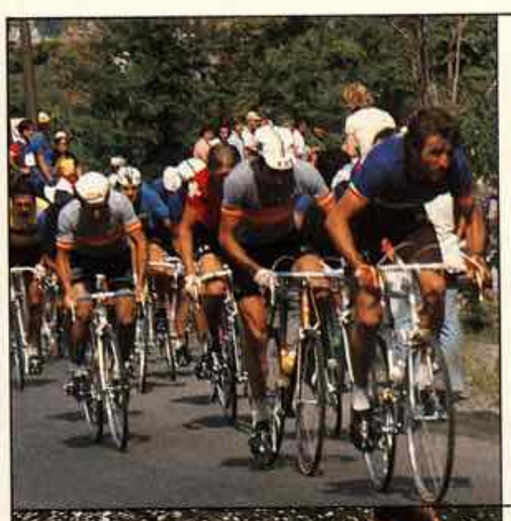
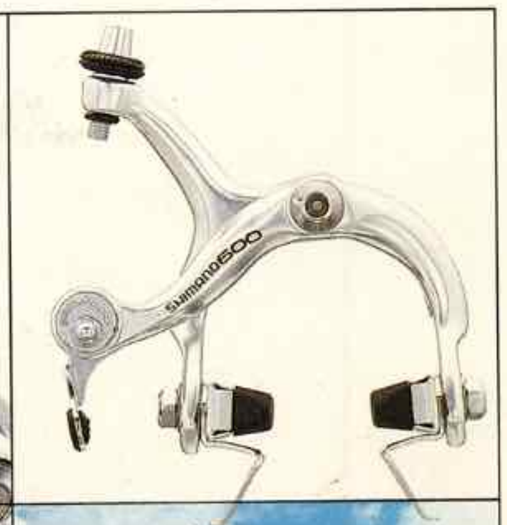
DEALER CATALOG

SHIMANO

BICYCLE SYSTEM COMPONENTS



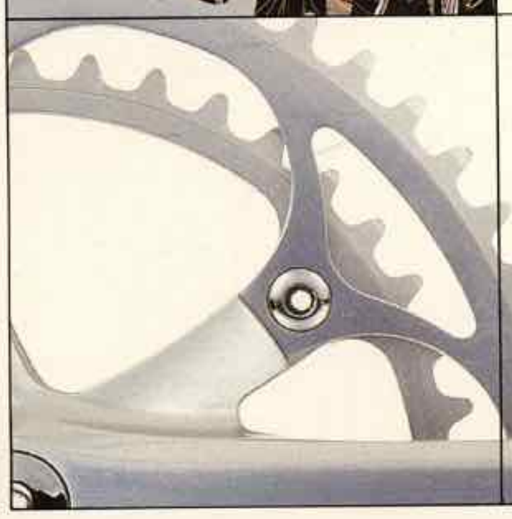


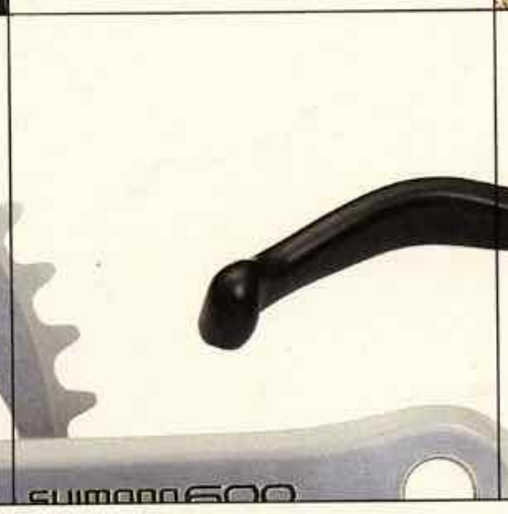














SHIMANO

Over the years SHIMANO has continually worked to improve and develop it's components to fill the needs of demanding bicycle manufactures, dealers and riders.

We have been producing parts catalogs and technical information to supply you with the information you need to service our components for many years. We hope this material has been valuable.

SHIMANO has felt it was necessary to supply up-to-date technical/parts information, in an easy to use system which could be up-dated with new service/parts bulletins as new products are introduced.

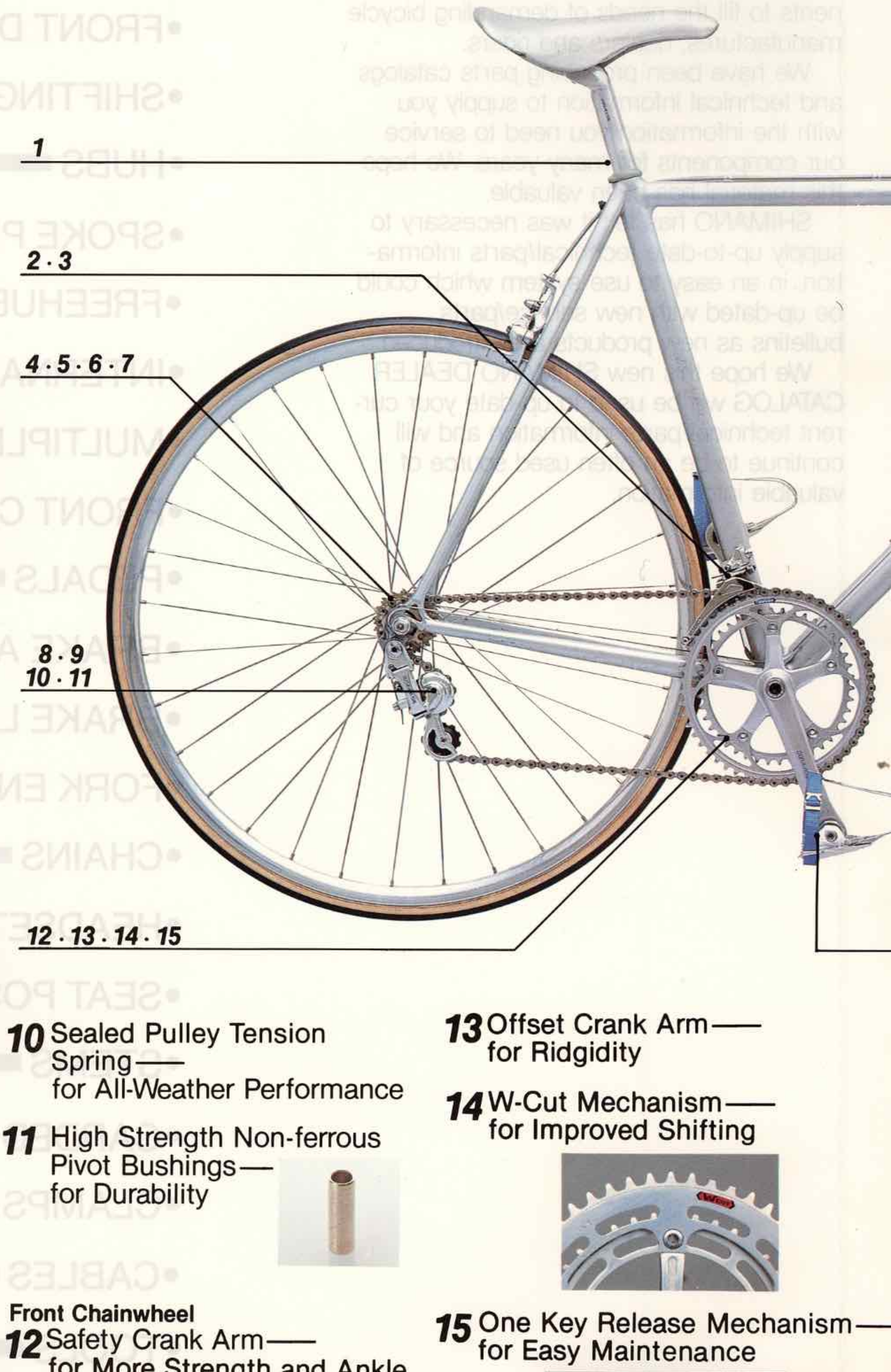
We hope this new SHIMANO DEALER CATALOG will be used to up-date your current technical/parts information and will continue to be an often used source of valuable information.

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- REAR DERAILLEURS — RD
- FRONT DERAILLEURS — FD
- SHIFTING LEVERS — SL
- HUBS — HB
- SPOKE PROTECTORS — CP
- FREEHUBS — FH
- INTERNAL HUBS — IH
- MULTIPLE FREEWHEELS — MF
- FRONT CHAINWHEELS — FC
- PEDALS — PD
- BRAKE ARCHES — BR
- BRAKE LEVERS — BL
- FORK ENDS — FE
- CHAINS — CN
- HEADSETS — HP
- SEAT POSTS — SP
- STEMS — HS
- CARDED PARTS
- CLAMPS
- CABLES
- TOOLS — TL

Dura-Ace AX/Aerodynamic Racing Components

Shimano's Dura-Ace AX Series of Racing Components reduced aerodynamic drag and brought the bicycle into a new era. With improved function, durability and lightness.



Seat Post

1 Full Aero Type—— for Aero Frame

Front Derailleur

2 Trap-Ease Mechanism—— for Sure Shifting



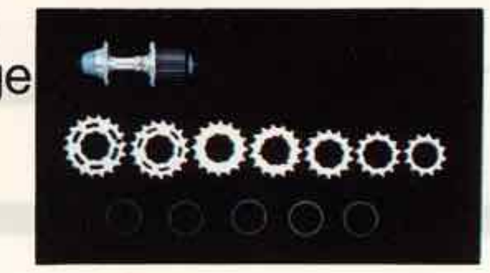
3 Brazed-on Type—— for Aero Tubing

Freehub

4 Direction-6 Mechanism—— for More Even Spoke Tension and Wheel Strength

5 Sealed Mechanism—— for All-weather Performance

6 Cassette Freehub—— for Easy to Change Gears



7 Super Shift Sprocket—— for No-Slip Shifting

Rear Derailleur

8 New Positive Mechanism—— for Precise Shifting Under Any Condition

9 Direct Cable Mechanism—— for Solid Shifting Feel



10 Sealed Pulley Tension Spring—— for All-Weather Performance

11 High Strength Non-ferrous Pivot Bushings—— for Durability

Front Chainwheel

12 Safety Crank Arm—— for More Strength and Ankle Clearance

13 Offset Crank Arm—— for Ridgidity

14 W-Cut Mechanism—— for Improved Shifting

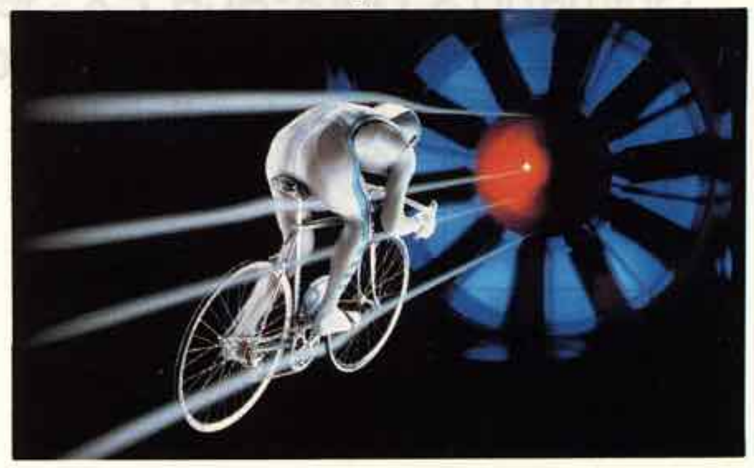
15 One Key Release Mechanism—— for Easy Maintenance





GENERAL FEATURES

Wind Tunnel Tested—— for Ultimate performance



Hexagon Release—— for Easy Assembly/ Adjustment with Hexagon Key



Shifting Lever

22 Sealed Mechanism (Brazed-on Type)—— for All-Weather Performance

23 Clutch Spring—— for Non-loosening

Stem

16 One-key Release—— Easy Removal and Adjustment

Brake Lever

17 Human Engineered Design—— for Comfort



18 Adjustable Lever Reach—— for Better Performance with Any Hand Size

Brake Arch

19 Para-Pull Mechanism—— for Powerful, Balanced Braking Performance

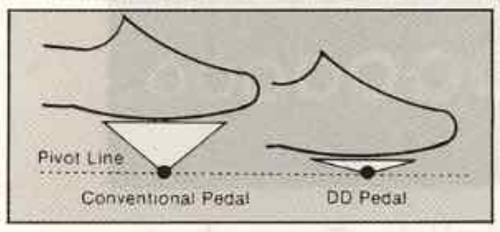


20 Quick Response Mechanism—— Eliminates Need for Quick Release

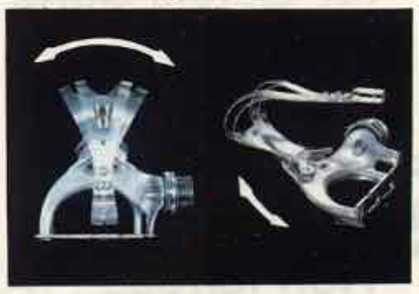
21 Sealed Return Springs—— for All-Weather Performance

Pedal

24 DD Mechanism—— for More Efficient Pedaling



25 Adjustable Toe Clip—— for Perfect Fit



26 Sealed Mechanism—— for All-Weather Performance

Dura-Ace EX/Road Racing Components

Shimano's Dura-Ace EX Series of Racing Components have captured the team prize in the grueling "Tour de France". Dura-Ace EX is the professional's choice for durability and reliability.



Freehub

1 Uni-Balance Mechanism—— for Stronger wheels with Less Dish

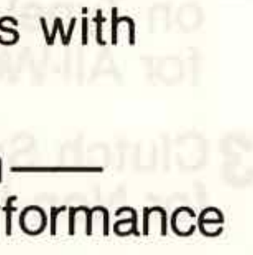
2 Sealed Mechanism—— for All-Weather Performance

3 Cassette Freehub—— for Easy to Change Gears

4 Uniglide Sprocket—— for Quick, Sure, Smooth Shifting

Rear Derailleur

5 High Strength Non-ferrous Pivot Bushings—— for Durability



6 Sealed Bracket and Pulley Body Springs—— for All-Weather Performance

7 Servo Panta Mechanism—— for Fast Shifting with Any Sprocket Combination

8 Hatch-Plate Mechanism—— for Easy Chain Removal



Front Derailleur

9 Trap-Ease Mechanism—— for Sure Shifiting





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GENENRAL FEATURES

Hexagon Release—— for Easy Assembly/ Adjustment with Hexagon Key



18 Pivot Bolt with Grease Lubricating Slot—— for Long Lasting, Smooth Braking

Shifting Lever

19 Sealed Mechanism (Brazed-on Type)—— for All-weather Performance

20 Clutch Spring—— for Non-loosening

Headsets

10 Sealed Mechanism—— for All-Weather Performance

11 All Alloy (Except Ball Race)—— for Light Weight

12 Posi-Torque Mechanism—— for Proper Tightening without Damage

Brake Lever

13 Drilled Out Lever Handle—— for All-weather Grip

14 One Step Cable Attachment—— for Easy Cable Replacement



Brake Arch

15 Triangle Arm Design—— for Positive Braking Performance

16 Quick Release/Tire Guides—— for Easy Wheel Removal

17 Front Centering Mechanism—— for Quick Adjustment

Front Chainwheel

21 W-Cut Mechanism—— for Improved Shifting



22 One Key Release Mechanism—— for Easy Maintenance



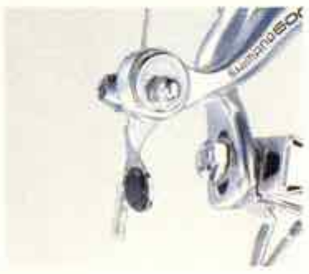
New Shimano 600 EX/ High Energy Cycling Components

The New Shimano 600 EX Series of Cycling Components were developed using computer aided design (CAD). Blending traditional form and function with high-technology in manufacturing and value creates a synergy of excitement.



Brake Arch

1 Quick Release/Tire Guides—— for Easy Wheel Removal



2 Front Centering Mechanism—— for Quick Adjustment

3 Grease Lubricating Slot—— for Long Lasting, Smooth Braking

Freehub

4 Sealed Mechanism—— for All-Weather Performance

5 Bolt-Secured Freewheel Body—— for Durability
(Freehub Only)



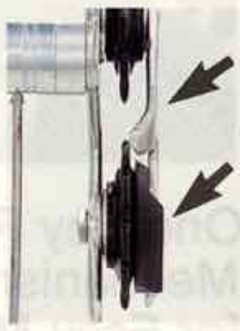
6 Polished Bearing Races—— for Smoother Rotation (Freewheel Only)

7 10mm Pawls—— for Strength (Freewheel Only)

8 Uniglide Teeth—— for Quick, Sure, Smooth Shifting

Rear Derailleur

9 Double Spoke Barrier—— for Wheel/ Derailleur Protection



10 High Strength Non-ferrous Pivot Bushings— for Durability



11 Sealed Bracket and Pulley Body Springs—— for All-Weather Performance

12 Twin Return Spring—— for Longer Life

Front Derailleur

13 Trap-Ease Mechanism—— for Sure Shifting

14 Spring Cover—— for Longer Life

15 Helicoil-Secured Wire Fixing Screw—— for Durability



16 Chain Release Dish-out—— for Sure Shifting



Front Chainwheel

17 Safety Crank Arm—— for Strength and Ankle Clearance

18 Sealed Mechanism B.B.—— for All-Weather Performance





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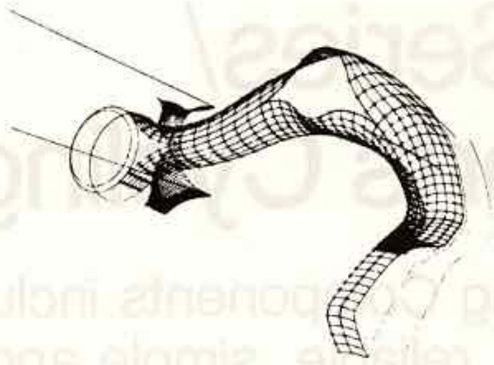
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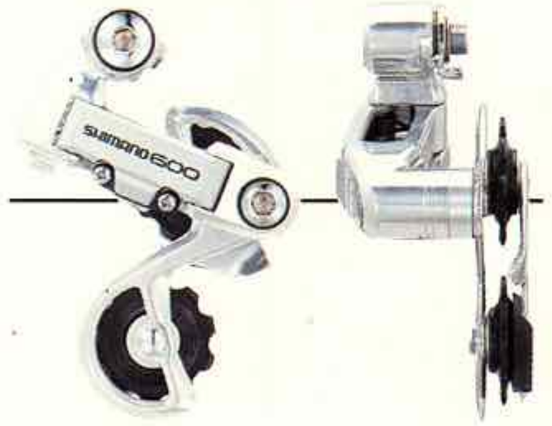
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GENERAL FEATURES



Computer Aided Design (CAD)——
for Good Style and Maximum Strength with Minimum Weight

High Polish Finish——
for Good Looks and Easy Cleaning



Hexagon Release——
for Easy Assembly and Adjustment with Hexagon Key

25 Sintered Alloy Insertion——
for Long Lasting Smooth Shifting

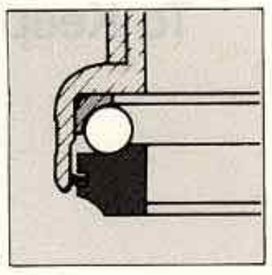


26 Spring Cap——
for Non-loosening

27 Sealed Mechanism——
for All-Weather Performance

Headsets

19 Sealed Mechanism——
for All-Weather Performance

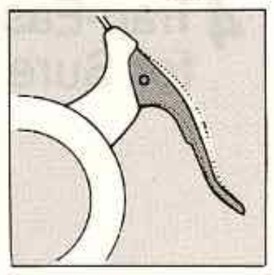


20 Posi-Torque Mechanism——
for Proper Tightening without Damage

Brake Lever

21 Cast Bracket Body——
for Comfortable Fit

22 Human Engineered Design——
for More Control When Braking from Top



23 Lined Cable Housing——
for Smoother Cable Travel

Shifting Lever

24 Human Engineered Design——
for Better Finger Fit



Hub

28 Sealed Mechanism——
for All-Weather Performance

Pedal

29 Aerodynamic Shape——
for Improved Cornering Angle



30 Adjustable Toe-Clip——
for Perfect Fit

31 Sealed Mechanism——
for All-Weather Performance

Shimano 105 Series/ Sports Cycling Components

Shimano's 105 Series Cycling Components include professional features at affordable prices. Functional, reliable, simple and engraved with the distinctive gold arrow, the mark of international speed and style.



Rear Derailleur

1 Hatch-Plate Mechanism—— for Easy Chain Removal (Short Cage)

2 Sealed Mechanism—— for All-Weather Performance

3 Spoke Barrier Cap—— for Wheel/Derailleur Protection

Front Derailleur

4 Trap-Ease Mechanism—— for Sure Shifting

5 Spring Cover—— for Longer Life

Front Chainwheel

6 Chainring Pin—— To Keep Chain from Jamming

7 Safety Crank Arm—— for Ankle Clearence

GENENRAL FEATURES

Golden Arrow Pattern——
Distinctive Signature Look

Hexagon Release——
for Easy Assembly/
Adjustment with Hexagon
Key



Headsets

8 Alloy Cups/Lock Nut—
for Light Weight

Brake Lever

9 Drilled Lever Handle——
for All-Weather Grip

10 Cast Bracket Body——
for Comfortable Fit

Brake Arch

11 Forged Non-Twisted
Design——
for Strength

12 Quick Release/Tire Guides——
for Easy Wheel Removal

13 Front Centering Mechanism——
for Quick
Adjustment



Shifting Lever

14 Human Engineered Design——
for Better Finger Fit

15 Teethed Washer ——
for Non-loosening

Hub

16 Quick Release——
for Easy Wheel
Removal



17 Oil Cap——
for Easy Maintaince

Deore XT/Off Road-Touring Cycling Components

Shimano's Deore XT Series of Cycling Components are designed for the rugged use of mountain bikers and touring cyclists. The lightweight, dependable and low maintenance features add up to excellent performance.



Brake Arch

1 Complete Position Adjustment—— for Toe-in, Pad Height and Rim Width

2 90° Cable/Arm Design—— for More Efficient Braking



3 Large, Keel Shaped Brake Pad— for All-Weather Braking

Front Derailleur

4 Large Capacity—— for Wide Range Gearing

Rear Derailleur

5 Double Spoke Barrier—— for Wheel/ Derailleur Protection



6 Large Capacity—— for Wide Range Gearing



GENERAL FEATURES

Sealed Mechanism—— for All-weather Performance

Hexagon Release—— for Easy Assembly/ Adjustment with Hexagon Key

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9 · 10

11

Shifting Lever

7 Human Engineered Design—— for Better Finger Fit

8 Adjustable Tension—— for Street or Off Road Use

Brake Lever

9 Cold Forged Lever—— for Strength

10 Easy to Grip Cable Adjuster—— for Quick Adjustment

Hub

11 Cr-Mo Axle—— for Strength

DX Series/BMX Racing Components

Shimano's DX Series Components are designed for performance under the toughest BMX racing conditions. Light alloys and Cro-Moly steel are used throughout for the utmost strength with least possible weight.

Multiple Freewheel

1 Cr-Mo Construction—— for Strength

2 Chromed Sprocket—— for Durability



Hub

3 Cr-Mo Axle—— for Strength

4 Sealed Mechanism—— for All-Weather Performance



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5·6

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Brake

5 Quick Release—— for Easy Wheel Removal



6 Front Centering Mechanism—— for Quick Adjustment

Brake Lever

7 Human Engineered Design—— for Better Finger Fit

8 Adjustable Lever Brake— to Fit Any Size Hand



Pedal

9 Parallelogram Profile—— for Positive Foot Placement



10 Concave Platform with Studs—— for Non-Slip Grip



11 Cr-Mo Axle—— for Strength

12 Sealed Mechanism—— for All-weather Performance

FF/PPS Components

FF System

- Shift Easy on Hills——
  Not Necessary to Time Shift

Moving the Freewheeling to the Front Chainwheel Bottom Bracket Allows Shifting Without Pedaling. This Makes Down-Shifting (When Coming to a Stop) and Well-Timed Uphill Shifting Possible for Even the Novice. This is Due to the Fact that the Chain is Always Moving, and Yet, If Any Object Gets Caught in the Chain, a Safety Mechanism in the Rear Gear Will Freewheel, Stopping the Chain's Movement.

PPS System

- Pre-Select Mechanism——
  Choose Gear While Coasting or Before Starting

Allows Pre-Selecting Gear While Coasting or Even When Stopped. When Pedaling is Resumed, the Derailleur Automatically Shifts. It Increases the Cable Life by Reducing Peak Tensions and Makes Gear Shifting Independent of Pedaling.

Shifting Lever

1 Positive Index Mechanism——
for Easy "Click" Shifting



Positive Indexing Mechanism



2 Push-Pull Mechanism——
Eliminates Cable Stretch and Constant Re-Adjustment



Rear Derailleur

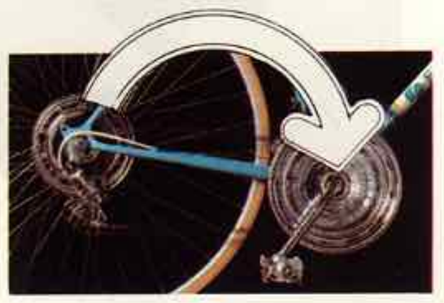
3 Pre-Select Mechanism——
Choose Gear While Coasting or Before Starting



Pre-Select Mechanism

Front Chainwheel

4 Front Freewheeling Mechanism——
for Shifting without Pedaling
Easy to Shift Even for Novice

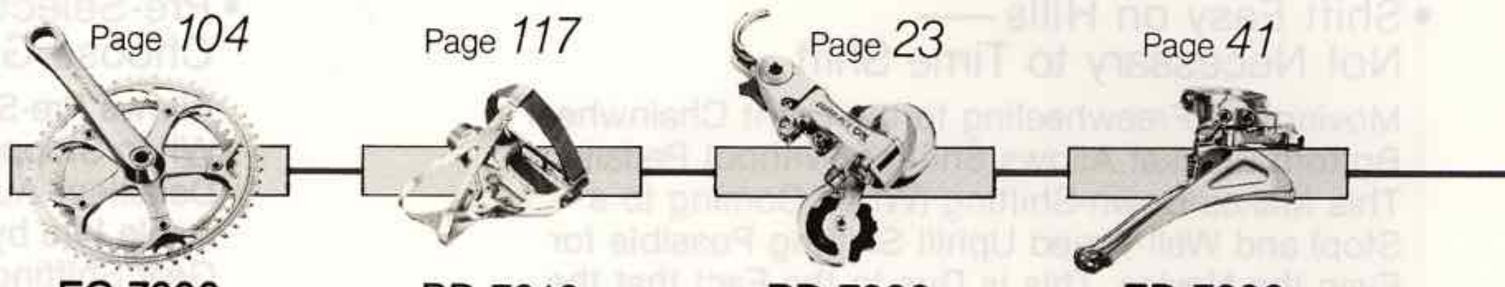


SYSTEM COMBINATION CHART

ROAD RACING MODEL

DURA-ACE EX

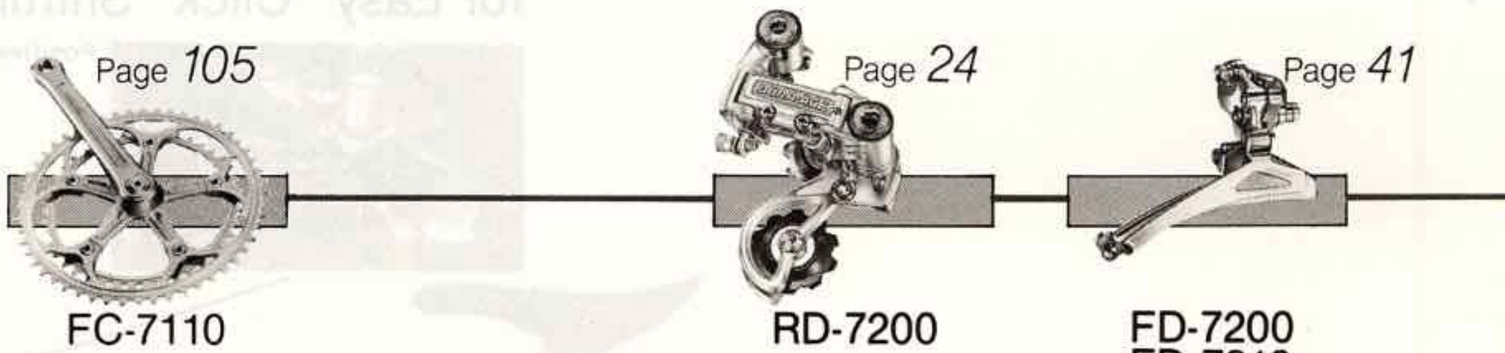
Aerodynamic Model



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FC-7300	PD-7310	RD-7300	FD-7300

DURA-ACE EX

Road Model



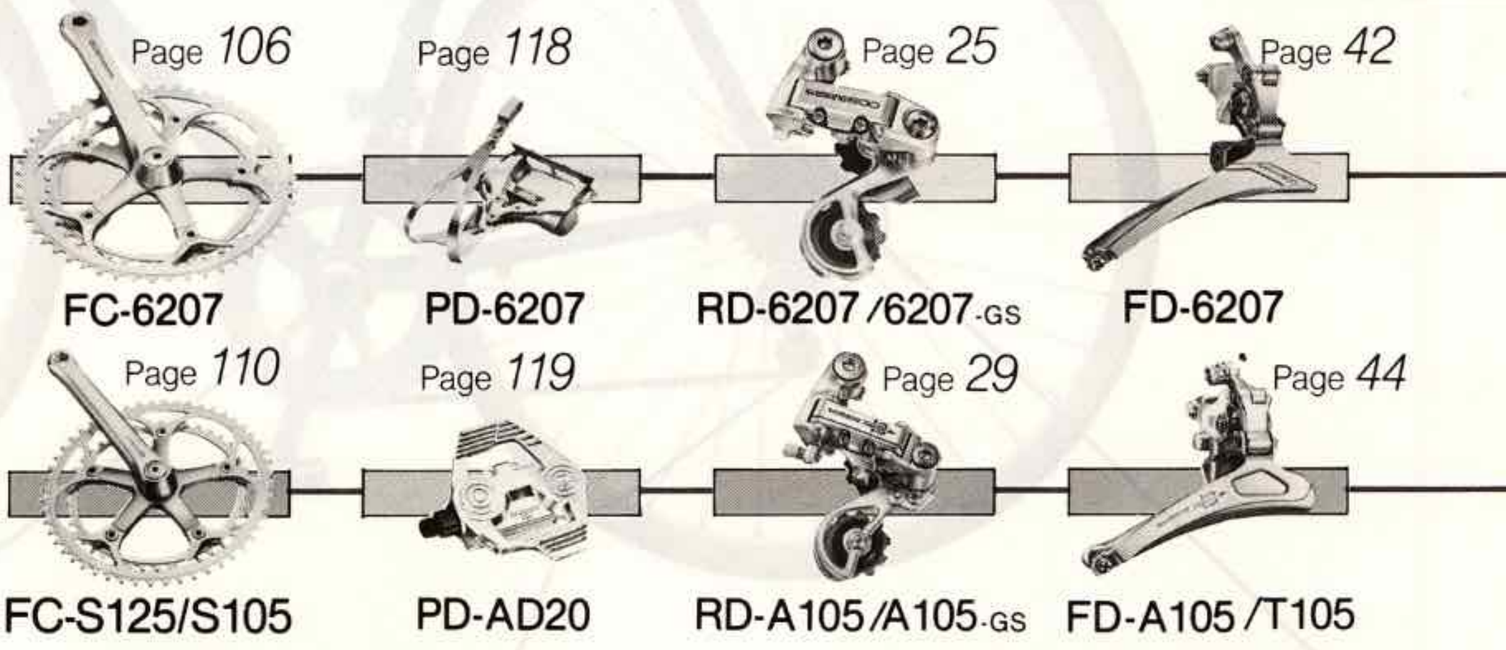
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FC-7110	RD-7200	FD-7200 FD-7210

HIGH ENERGY SPORTS COMPONENTS

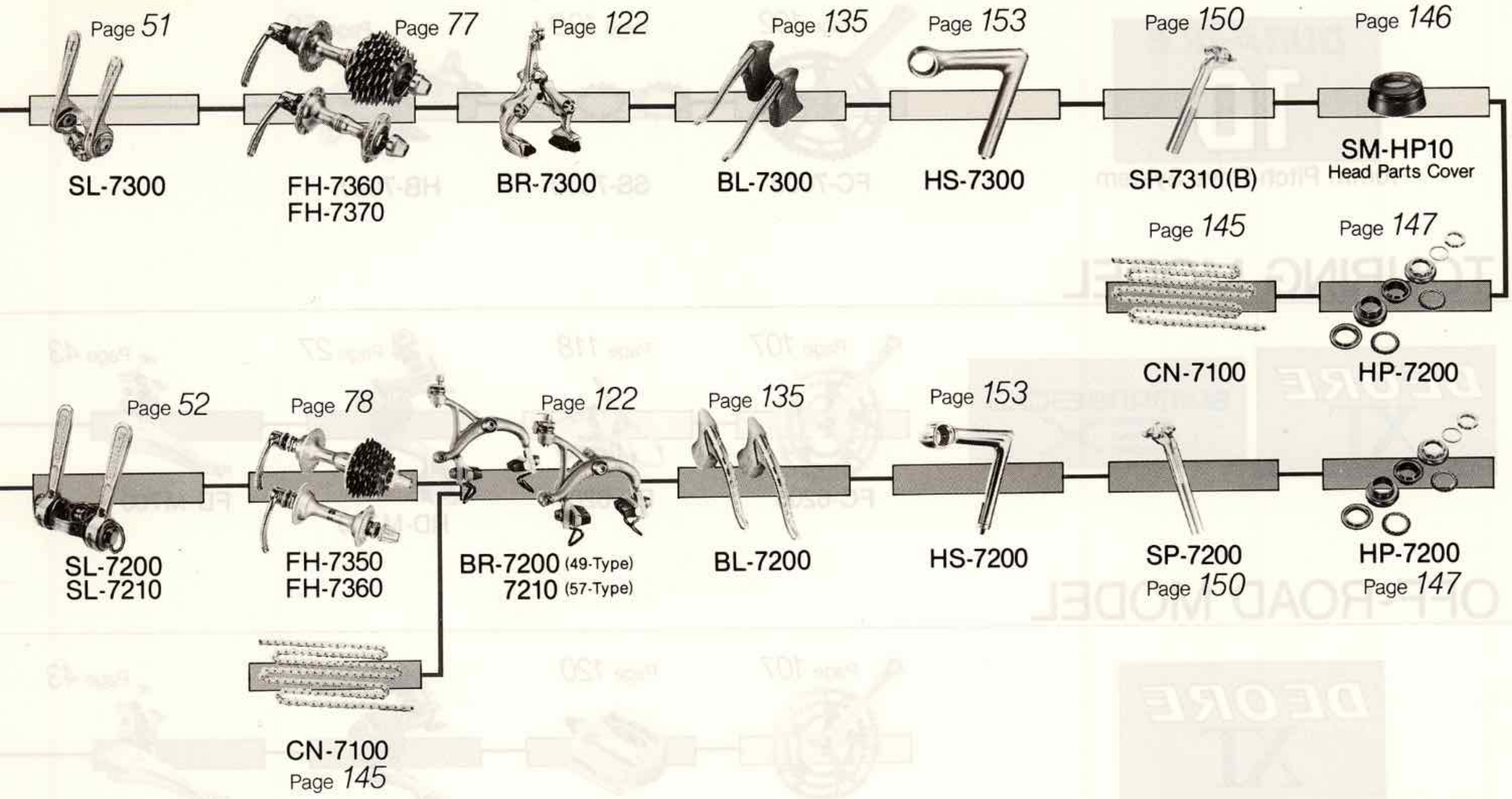
NEW SHIMANO 600 EX

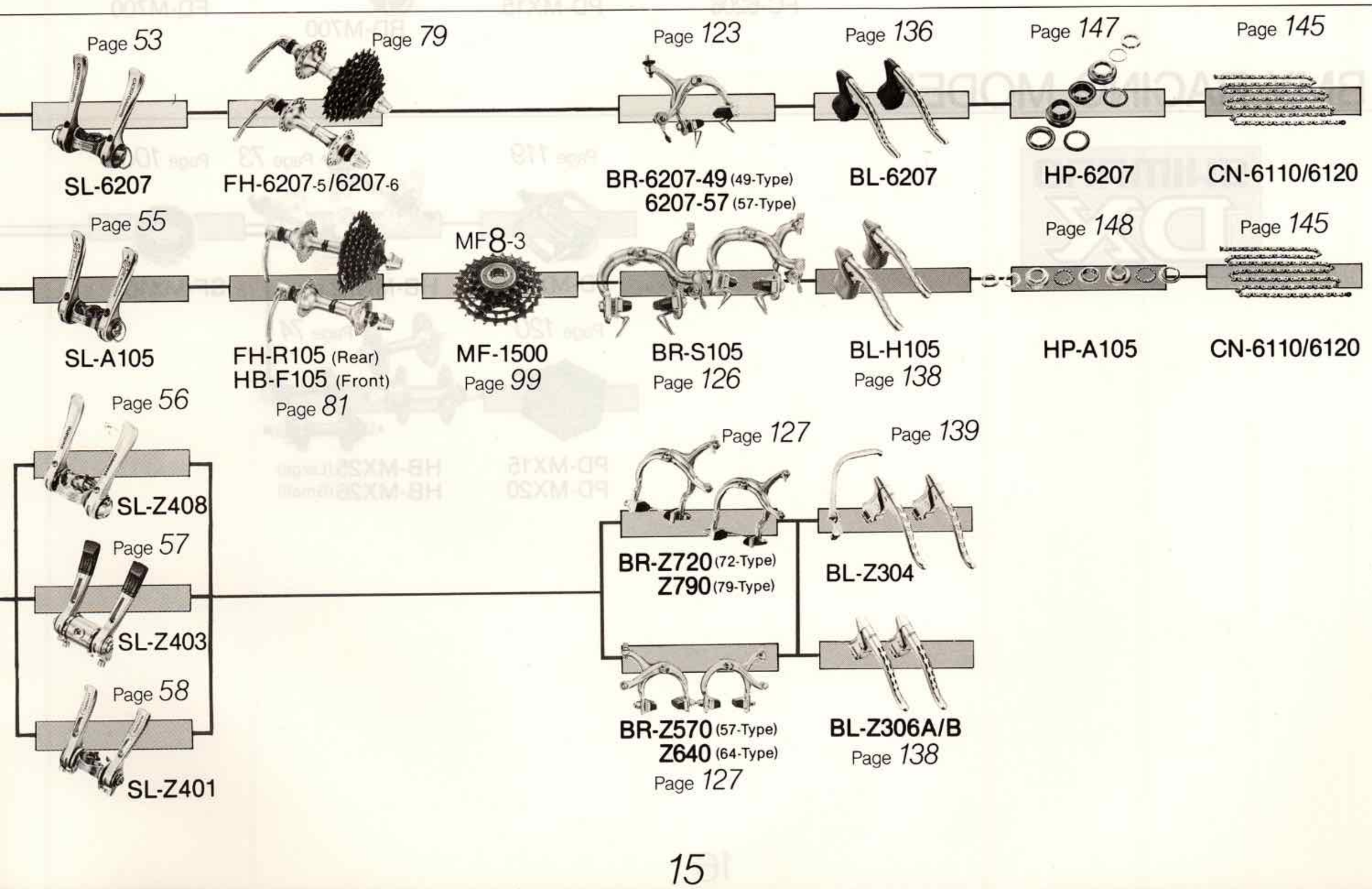
SHIMANO 105

SHIMANO Z COMPONENTS



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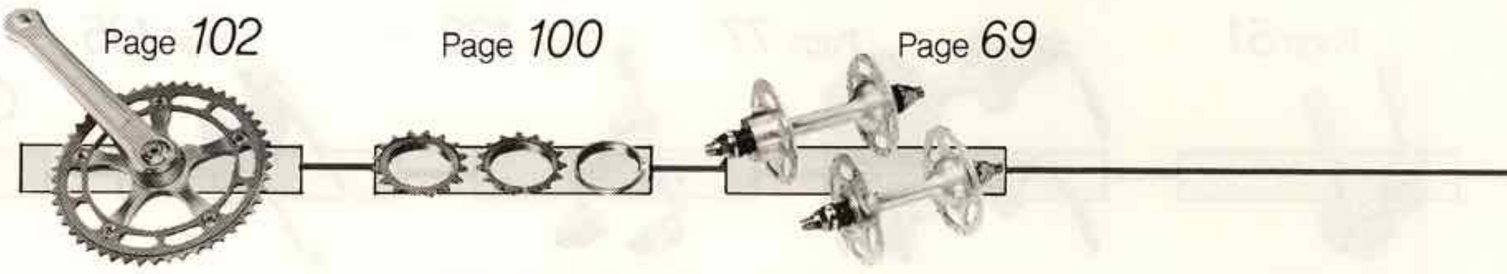

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SYSTEM COMBINATION CHART

TRACK RACING MODEL

DURA-ACE 10

10mm Pitch Drive System

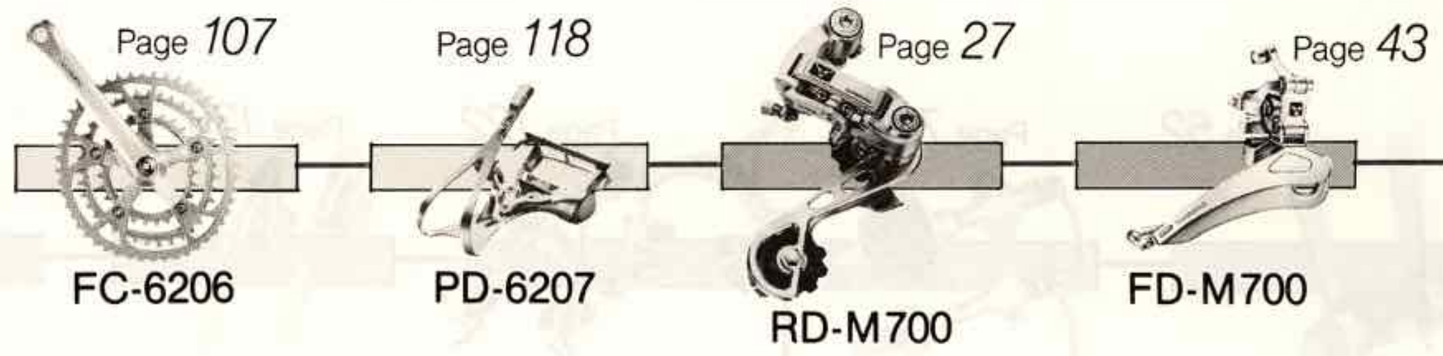


FC-7000 SS-7000 HB-7020

TOURING MODEL

DEORE XT

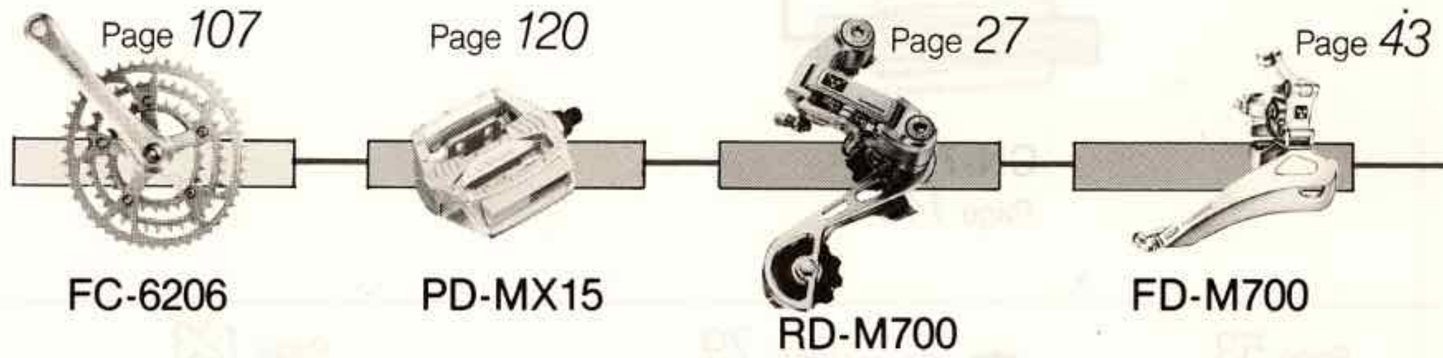
NEW SHIMANO 600 EX



FC-6206 PD-6207 RD-M700 FD-M700

OFF-ROAD MODEL

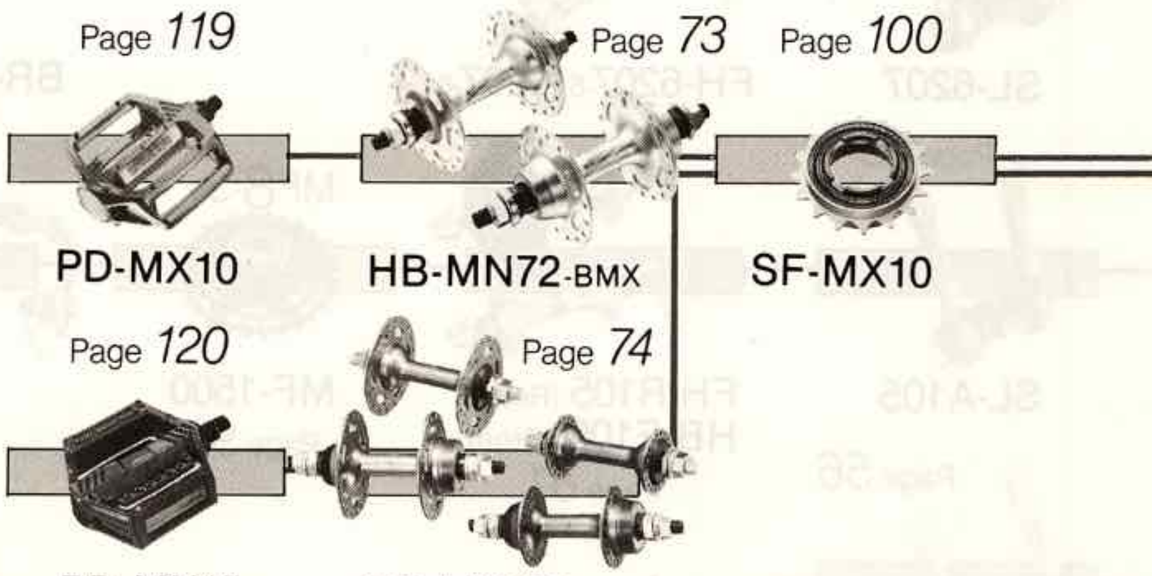
DEORE XT



FC-6206 PD-MX15 RD-M700 FD-M700

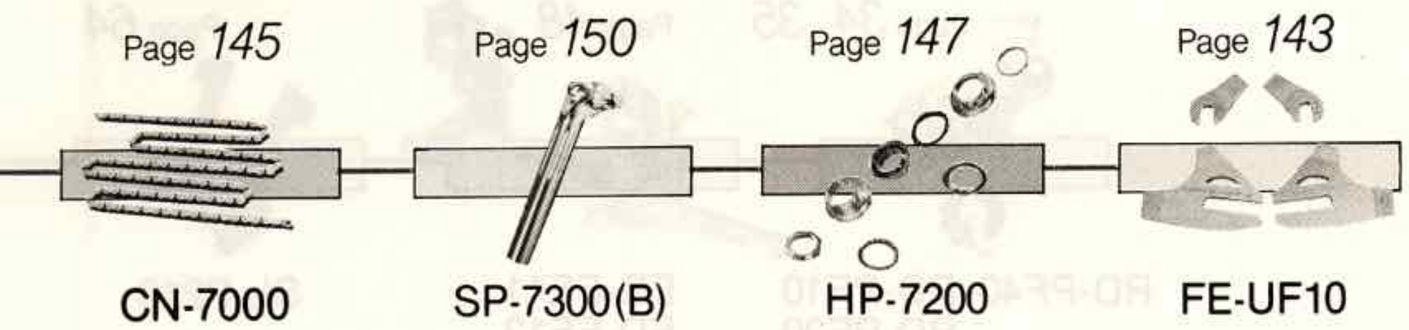
BMX RACING MODEL

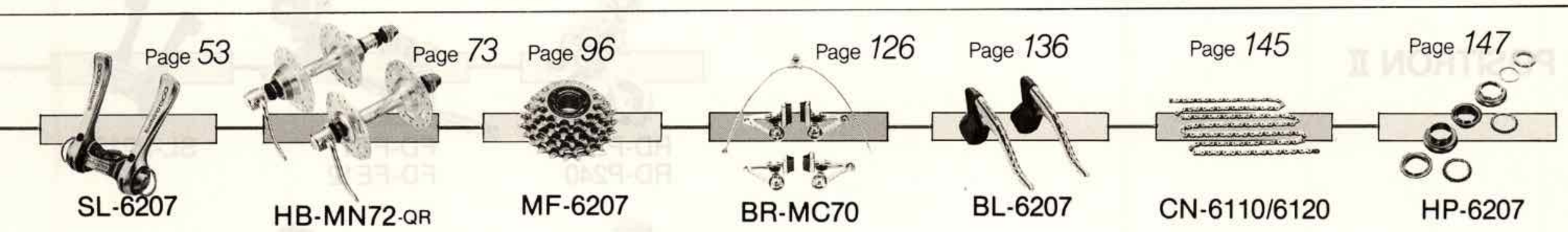
SHIMANO DX

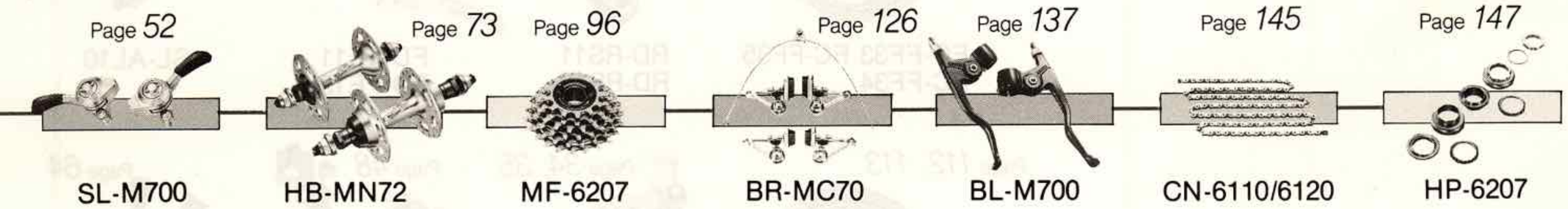


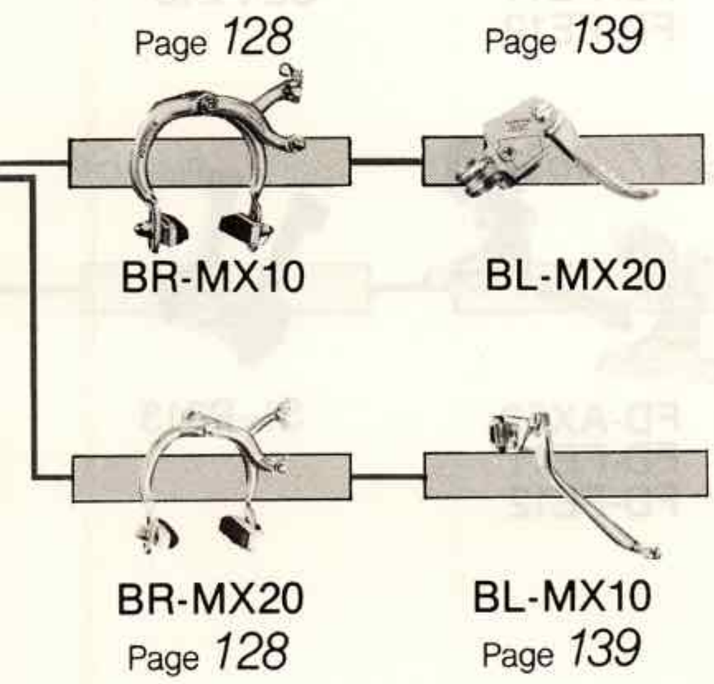
PD-MX10 HB-MN72-BMX SF-MX10

PD-MX15 HB-MX25 (Large)
PD-MX20 HB-MX26 (Small)


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CN-7000
SP-7300(B)
HP-7200
FE-UF10


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SL-6207
HB-MN72-QR
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BR-MC70
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SL-M700
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BL-M700
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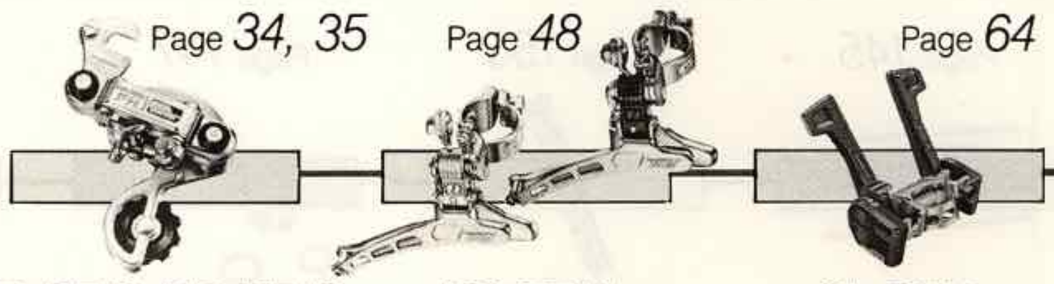

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SYSTEM COMBINATION CHART

FF/PPS SYSTEM

POSITRON-FH

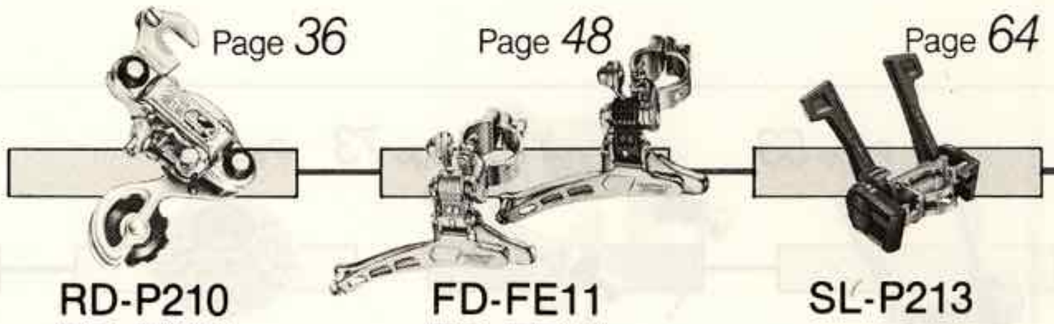
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RD-PF40 RD-PF10 RD-PF20 | FD-FE11 FD-FE12 | SL-P213

POSITRON Ⅱ

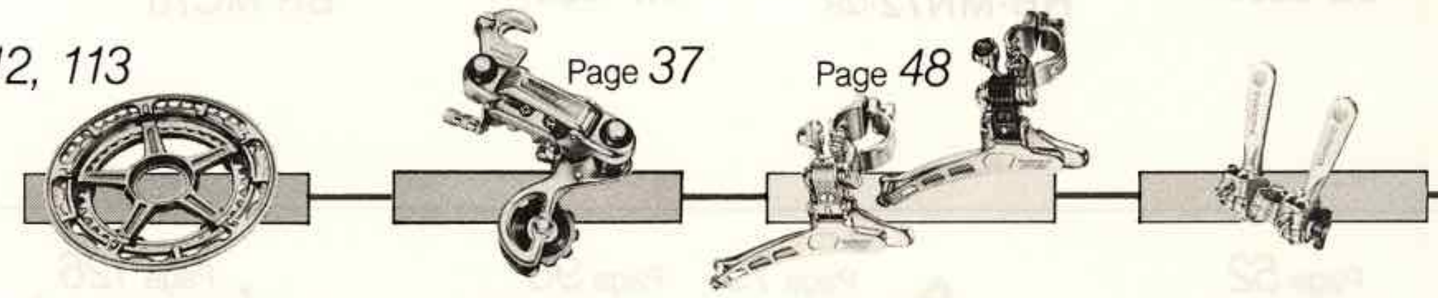
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RD-P210 RD-P240 | FD-FE11 FD-FE12 | SL-P213

FF SYSTEM

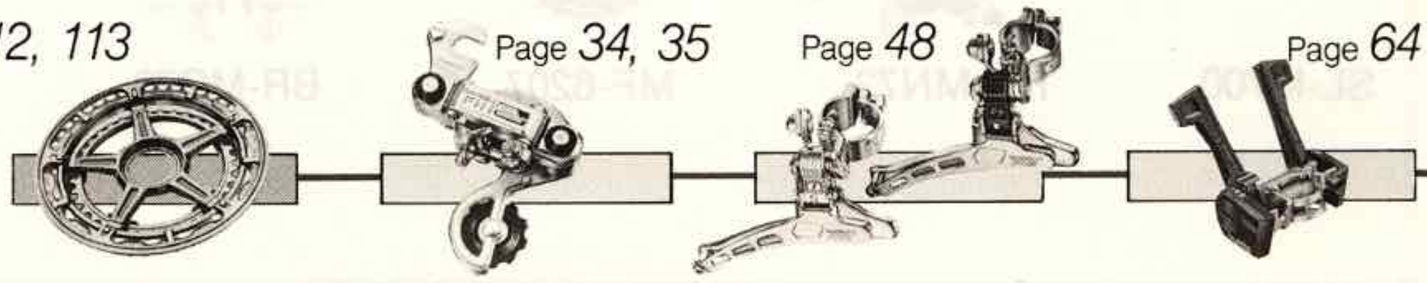
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FC-FF33 FC-FF35 FC-FF34 | RD-RS11 RD-RS12 | FD-FE11 FD-FE12 | SL-AL10

POSITRON-FH & FF SYSTEM

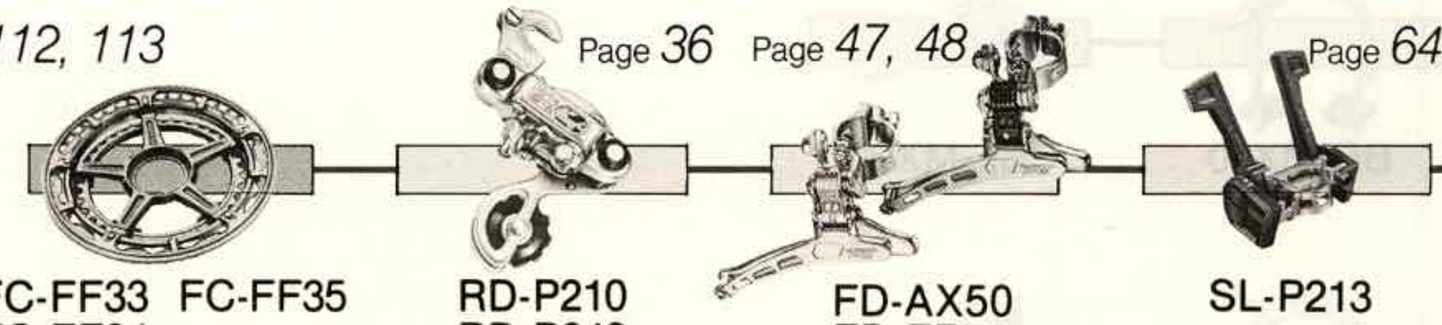
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FC-FF33 FC-FF35 FC-FF34 | RD-PF40 RD-PF10 RD-PF20 | FD-FE11 FD-FE12 | SL-P213

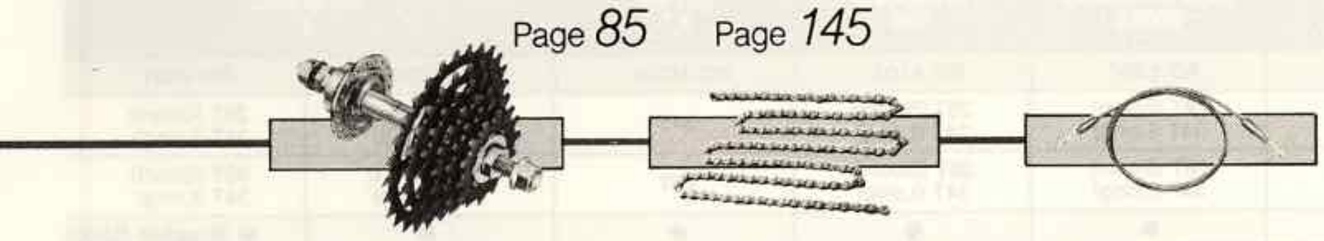
POSITRON Ⅱ & FF SYSTEM

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FC-FF33 FC-FF35 FC-FF34 | RD-P210 RD-P240 | FD-AX50 FD-FE11 FD-FE12 | SL-P213

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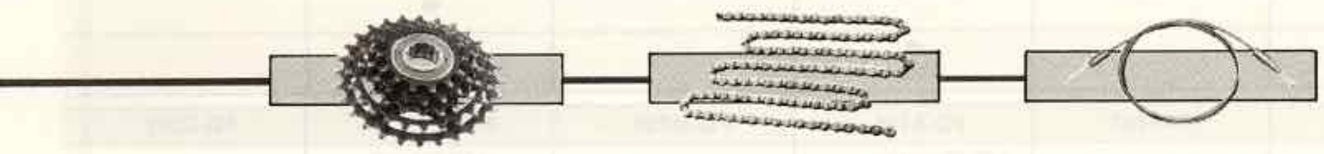


FH-5A10
FH-6A10

CN-UG20

CL-P210

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MF-1500
MF-1600

CN-UG20

CL-P210

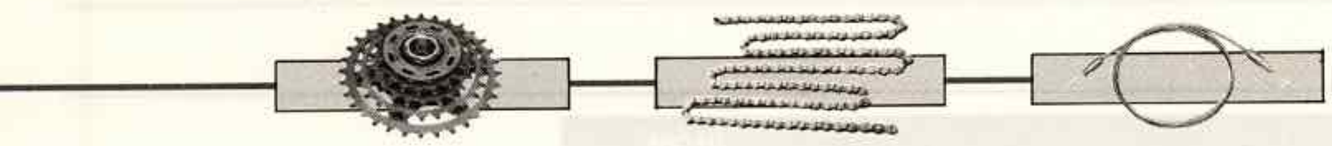
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MF-FF50

CN-UG20

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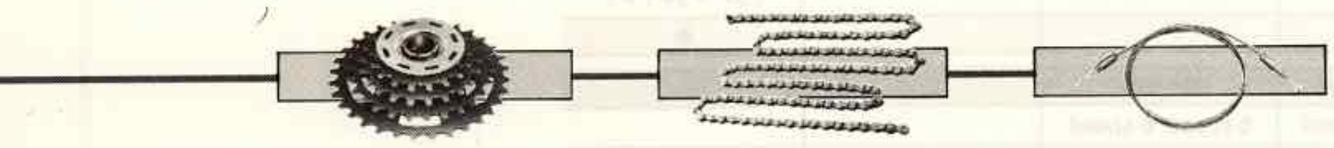


MF-FF51
MF-FF61

CN-UG20

CL-P210

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MF-FF50

CN-UG20

CL-P210

SPECIFICATIONS CHART

SHIFTING SYSTEM.

	Specifications \ Series	DURA-ACE AX	DURA-ACE EX	NEW SHIMANO 600EX	SHIMANO 105	DEORE XT	SHIMANO Z	
Rear Derailleur	Model	RD-7300	RD-7200	RD-6207	RD-A105	RD-M700	RD-Z505/503	RD-Z501
	Max. Rear Sprocket	24T	26T	28T (Short) 34T (Long)	28T (Short) 34T (Long)	34T	28T (Short) 34T (Long)	28T (Short) 34T (Long)
	Max. F&R Sprocket Difference	26T	26T	28T (Short) 34T (Long)	28T (Short) 34T (Long)	40T	30T (Short) 34T (Long)	30T (Short) 34T (Long)
	Sealed Mechanism	●	●	●	●	●	●	● (Bracket Body)
	Hexagon Release	●	●	●		●	●	
	Servo Panta		●	●	●	●	●	●
	Double Spoke Barrier			●	● Long	●	●	●
	Spoke Barrier Cap	●	●	●	●	●	●	●
	Twin Return Spring			●			●	
	Non-ferrous Pivot Bushings	●	●	●			●	
	Hatch Plate Mechanism		●		● Short			
Front Derailleur	Model	FD-7300	FD-7200	FD-6207	FD-A105	FD-M700	FD-Z206/204	FD-Z202
	Max.	14T	14T	18T	14T (Double) 20T (Triple)	22T	18T (Short) 27T (Long)	14T
	Clamp Diameter	1-1/8" (28.6mm) 18.5 × 29mm (E Type)	1-1/8" (28.6mm)	1-1/8" (28.6mm)	1-1/8" (28.6mm)	1-1/8" (28.6mm)	1-1/8" (28.6mm)	1-1/8" (28.6mm)
	Hexagon Release	●	●	●	●	●	● (Z206)	
	Trap-Ease Mechanism	●	●	●	●	●	●	●
	Chain Release Dish-out			●				
	Indent Guide Mechanism	●	●		●	●		
	Forged Right Link	●	●	●		●	● (Z206)	
	Sealed Cover			●	●	●	●	
Shifting Lever	Model	SL-7300	SL-7200	SL-6207	SL-A105	SL-M700	SL-Z408	SL-Z401
	Down Tube Diameter	1-1/8" (28.6mm) 18.5 × 29mm (E Type)	1-1/8" (28.6mm)	1-1/8" (28.6mm)	1-1/8" (28.6mm)	7/8" (22.2mm) (Handle Bar)	1-1/8" (28.6mm)	1-1/8" (28.6mm) 7/8" (22.2mm) (Stem Type)
	Hexagon Release	●	●					
	Non-loosening Mechanism	●	●	●	●	●	●	
	Sealed Mechanism	● Brazed-on	● Brazed-on	●	● Brazed-on	●	●	●
	Human Engineered Design			●	●	●	●	●

DRIVE TRAIN SYSTEM.

	Specifications \ Series					DEORE XT
Hub	Model					HB-MN72
	Over Lock Nut Dimensions * Nut Type Only					F: 100mm R: 126mm (5·6-speed) * 130mm (6-speed)
	Spoke Holes					36H
	Type					QR & Nut Type Large
	Thread					1.37" × 24 T.P.I.
	Sealed Mechanism					●
Freewheel	Model		MF-7150/7160	MF-6207		
	Speed		5-speed, 6-speed	5-speed, 6-speed		
	Thread		1.37" × 24 T.P.I.	1.37" × 24 T.P.I.		
	Uniglide Teeth			●		

	Specifications \ Series	DURA-ACE AX	DURA-ACE EX	Now SHIMANO 600EX	SHIMANO 105	
Freehub	Model	FH-7360/7370	FH-7250/7260	FH-6207	FH-R105	
	Over Lock Nut Dimensions	F: 100mm R: 126mm	F: 100mm R: 120mm (5, 6-speed) 126mm (6-speed)	F: 100mm R: 120mm, 126mm	F: 96mm, 100mm R: 126mm	
	Teeth — Threaded Sprocket	11~19T	11~19T	12~18T	13~16T	
	Teeth — Spline Sprocket	12~26T	12~28T	13~28T	14~34T	
	Spoke Holes	32H, 36H	28H, 32H, 36H	32H, 36H	36H	
	Speed	6-speed, 7-speed	5-speed, 6-speed	5-speed, 6-speed	6-speed	
	Sealed Mechanism	●	●	●		
	Uni-Balance	●	●	●	●	
	Cassette Freewheel	●	●	●	●	
	Uniglide Teeth	●	●	●	●	
	Bolt-Secured Freewheel Body		●	●		

Front Chainwheel	Specifications \ Series	DURA-ACE AX	DURA-ACE EX	NEW SHIMANO 600EX	SHIMANO 105	BIOPACE Chainwheel
	Model	FC-7300	FC-7110	FC-6207	FC-S105/125	FC-6206
	Teeth Inner	39T~45T	39T~45T	39T~45T	42T	28T
	Teeth Outer	48T~53T	48T~53T	48T~53T	52T	44/38T (Middle) 50/48T (Outer)
	Crank Length	165mm 170mm 172.5mm 175mm	165mm 167.5mm 170mm 172.5mm 175mm	165mm 167.5mm 170mm 172.5mm 175mm	170mm	165mm 170mm 175mm 180mm
	Crank Thread	BC 1" × 24 T.P.I.	English, French	English, French	English, French	English, French
	Cup Thread	English French Italian	English French Italian	English French Italian	English French Italian	English French Italian
	B.B. Size	68-W-107 70-W-109	68-W-112 70-W-113	68-W-116 70-W-119	68-W-116 70-W-119 68-W-119 70-W-122	68-T-121.5 70-T-124.5
	Forged One-Piece Crank	●	●	●	● (FC-S105)	●
	Sealed Mechanism (BB)			●		●
	CAD Design			●		●
	One Key Release	●	●			
	W-cut Mechanism	●	●			
	Safety Crank Arm	●		●	●	●

Pedal	Specifications \ Series	DURA-ACE		NEW SHIMANO 600EX		
	Model	PD-7310		PD-6207		
	Crank Thread	BC 1" × 24 T.P.I.		English, French		
	Use	DURA-ACE AX Front Chainwheel		—		
	DD Mechanism	●				
	Aerodynamic Design	●		●		
	Sealed Mechanism	●		●		

Chain	Specifications \ Series		DURA-ACE	SHIMANO 600		
	Model		CN-7100	CN-6110/6120		
	Finish Pin Link Plate		Nickel	Golden, SatinNickel		
	Finish Roller Link Plate		Nickel	Black		
	Uniglide Mechanism		●	●		
	Size		1/2" × 3/32"	1/2" × 3/32"		

BRAKE SYSTEM.

Brake	Specifications \ Series	DURA-ACE AX	DURA-ACE EX	NEW SHIMANO 600EX	SHIMANO 105	DEORE XT	SHIMANO Z	
	Model	BR-7300	BR-7200	BR-6207	BR-S105	BR-MC70	BR-Z720/790	BR-Z570/640
	Size	F: 39~51mm R: 42~54mm	39~49mm (49 Type) 47~57mm (57 Type)	39~49mm (49 Type) 47~57mm (57 Type)	43~57mm (57 Type)	—	54~72mm (72 Type) 61~79mm (79 Type)	43~57mm (57 Type) 49~64mm (64 Type)
	Type	New Para-Pull	Side-Pull	Side-Pull	Side-Pull	Cantilever Brake	Side-Pull	Side-Pull
	Hexagon Release	●	●	●		●		
	CAD Design Arch			●			●	●
	Easy Centering Mechanism		●	●	●		●	●
	One Piece Pivot Bolt		●	●	●		●	●
	New Para-Pull Mechanism	●						
	Sealed Mechanism					●		

Brake Lever	Specifications \ Series	DURA-ACE AX	DURA-ACE EX	NEW SHIMANO 600EX	SHIMANO 105	DEORE XT	SHIMANO Z	
	Model	BL-7300	BL-7200	BL-6207	BL-H105	BL-M700	BL-Z306	BL-Z304
	Clamp Diameter	23.8mm, 24.2mm	23.8mm, 24.2mm	23.8mm, 24.2mm	23.8mm, 24.2mm	22.2mm	23.8mm, 24.2mm	22.2, 23.8, 24.2mm
	Human Engineered Design			●	●	●	●	●
	One-Step Cable Attachment	●	●					
	Easy Cable Attachment			●				

HEAD PARTS/STEM/PILLAR.

	Specifications \ Series	DURA-ACE AX	DURA-ACE EX	NEW SHIMANO 600EX	SHIMANO 105	
Head Parts	Model		HP-7200	HP-6207	HP-A105	
	Cup Thread		BC 1" × 24 T.P.I. M25 × P1.0	BC 1" × 24 T.P.I. M25 × P1.0	BC 1" × 24 T.P.I. M25 × P1.0	
	Sealed Mechanism		●	●		
	Non-Slip Lock Ring		●	●		
Stem	Stem Diameter	22.2mm	22.2mm			
	Handle Bar Clamp Diameter	25.4mm 26.0mm	25.4mm 26.0mm			
	Extension	70, 80, 90, 100, 110 120, 130mm	70, 80, 90, 100, 110 120, 130mm			
Pillar	Outside Diameter	Round: 25.4, 26.0 26.2, 26.4, 26.6 26.8, 27.2, 27.4mm Oval: 18.5×29.0mm	25.4, 26.0, 26.2, 26.4 26.6, 26.8, 27.0 27.2mm			
	Hexagon Release	●	●			

REAR DERAILLEURS

FEATURE	BENEFIT
New Positive Mechanism—— for precise shifting under any condition Dura-Ace AX Shimano 600AX	Designed with the needs of the racer in mind. This mechanism positively indexes each gear reducing chain slip and making smooth and reliable gear changes possible at all times under the most severe racing conditions.
Direct Cable Mechanism—— for solid shifing feel Dura-Ace AX Shimano 600AX	Reduces shifting power loss and derailleur re-adjustment due to compression of rear outer cable casing.
Sealed Bracket and Pulley Body Springs—— for all-weather performance Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 600 AX Shimano ZComponents Shimano 105 Deore XT	Sealed mechanisms protect revolving and exposed parts from water, dust and foreign particles which cause premature wear.
High Strength Non-ferrous Pivot Bushings—— for durability Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano Z Components	Press fit between the rotating links, the pivot pins reduce play, wear. Increases shifting response and smoothness.
Servo Panta Mechanism—— for fast shifting with any sprocket combination Dura-Ace EX New Shimano 600 EX Shimano 600 EX Deore XT Shimano Z Components Shimano Altus-LT Shimano Altus-ST Deore PPS System Shimano-RS Shimano AL11	Accomplished by placing a spring in the bracket body. This enables the guide pulley to maintain the proper distance from the freewheel sprocket teeth, no matter what combination is used. The result is less effort in shifting every gear.
Hatch-Plate Mechanism—— for easy chain removal Dura-Ace EX Shimano 105 Shimano 600 EX Deore Shimano Altus-ST	The Hatch-Plate Mechanism allows easy removal of chain for more convenient maintenance.
Double Spoke Barrier—— for wheel/derailleur protection New Shimano 600 EX Deore XT Shimano Z Components Shimano AL11	An inner cage plate Spoke Barrier Guard is combined with an S.B. Cap to automatically prevent damage to the derailleur or rear wheel due to mis-adjustments or bent forkend.
Twin Return Spring—— for longer life New Shimano 600 EX Shimano Z Components	Two springs share the work of shifting, increasing durability and reliability.
Spoke Barrier Cap—— for wheel/derailleur protection Dura-Ace AX Dura-Ace EX Shimano 600 AX Shimano 600 EX Shimano 105 Deore Altus-LT Altus-ST PPS System Shimano-RS	Prevents lower pulley from "Biting" into the spoke if hanger is bent. Also acts as shield against water, dirt and mud.
Centeron Mechanism—— for quieter shifting Deore Shimano Altus-LT Shimano Altus-ST Shimano-RS	This mechanism produces quicker, quieter shifting and eliminates fine adjustment caused by over or under-shifting on the part of the rider. The chain's own tension is used to directly center the guide pulley under the sprocket.
Positive Mechanism—— for precise shifting for anyone PPS System	Allows anyone to shift gears easily, accurately and smoothly. The rear derailleur's positive indexing mechanism simplifies shifting, so that no special skill is needed.
Pre-Select Mechanism—— choose gear while coasting or before starting PPS System	Allows pre-selecting gear while coasting or even when stopped. When pedaling is resumed, the derailleur automatically shifts. It increases the cable life by reducing peak tensions and makes gear shifting independent of pedaling.

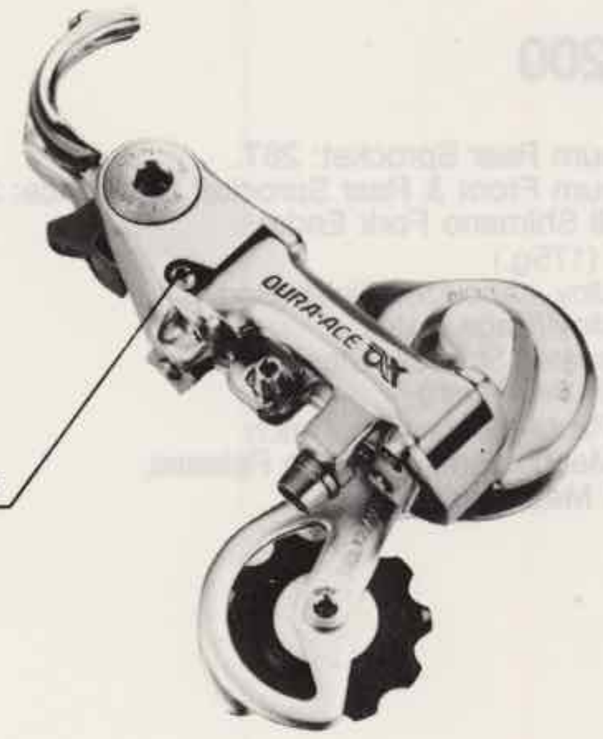
Model RD-7300

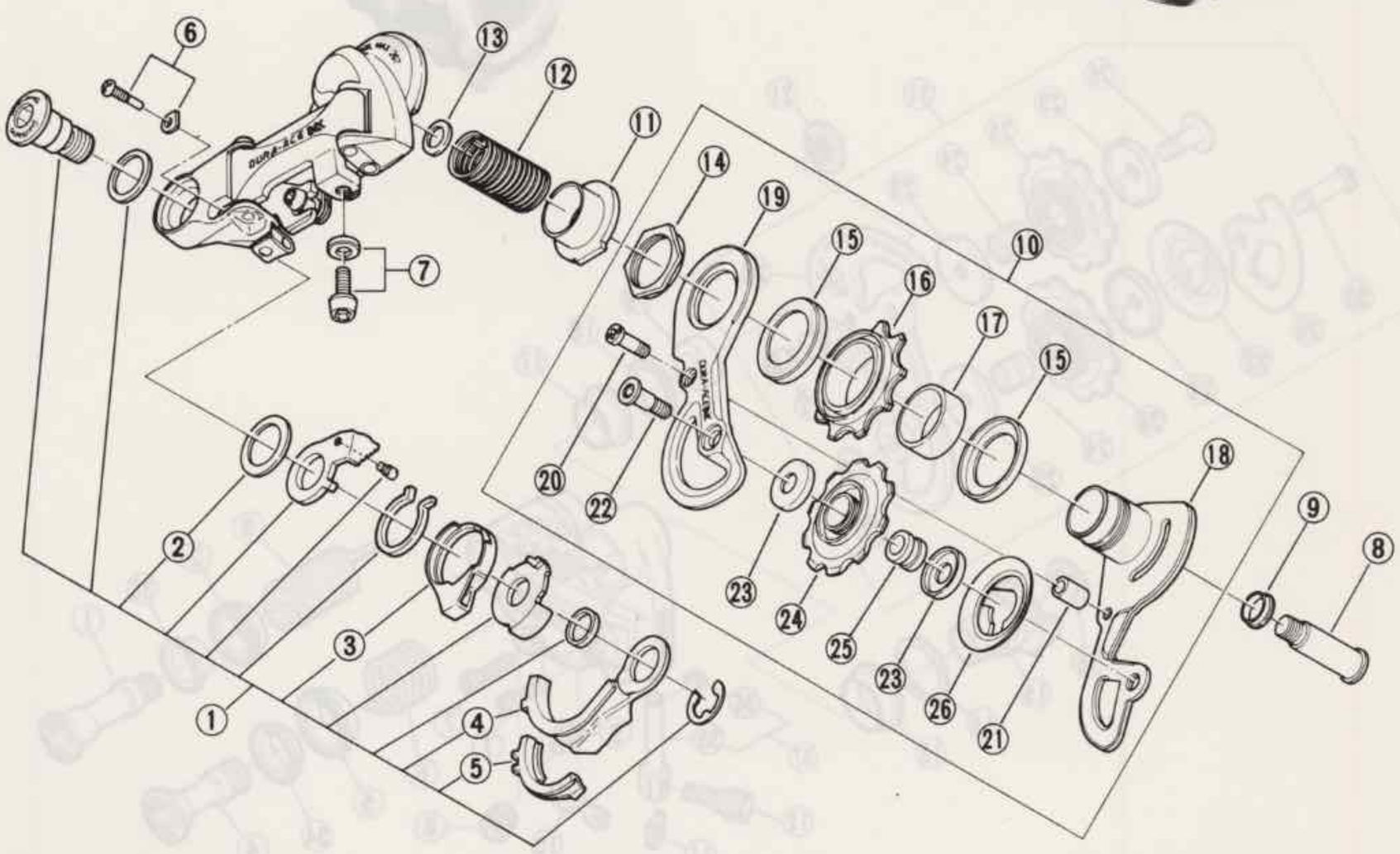
DURA-ACE

Model RD-7300

SPECIFICATIONS

Capacity • Maximum Rear Sprocket: 24T.
(Using EF Fork End)
Maximum Front & Rear Sprocket Difference: 26T.
(Using all Shimano Fork Ends)
Weight • 7.5 oz. (214g.)
Material • Light Alloy
Features • Aerodynamic Design/Built-in Pulley Tension Spring/ Direct Cable Mechanism/ Hexagon Release





ITEM NO.	PART NO.	DESCRIPTION
1	3-561 9001	Bracket Axle Assembly
2	564 4500	Bracket Sleeve A
3	564 4400	Stopper
4	561 0900	Inner Guide
5	561 4000	Guide Liner
6	3-561 9801	Select Screw & Plate
7	3-571 9004	Cable Fixing Bolt & Washer
8	561 1300	Plate Axle
9	561 1200	P-Axle Sleeve
10	3-561 9802	Pulley Plate Assembly
11	561 1800	P-Sleeve
12	561 2500	P-Tension Spring
13	561 1700	P-Axle Collar

ITEM NO.	PART NO.	DESCRIPTION
14	561 1900	Plate Fixing Nut
15	561 1500	Pulley Cap (Big)
16	561 1600-1	Guide Pulley
17	561 1400	Pulley Bushing E
18	3-561 9004	Inner Plate
19	561 2000	Outer Plate
20	561 3500	Roller Fixing Screw
21	561 3400	Roller
22	545 2600	Tension Pulley Fixing Bolt
23	545 2800	Pulley Cap (Small)
24	3-545 9003-1	Tension Pulley
25	545 2700	Pulley Bushing B
26	561 2900	S.B.Cap

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Model RD-7200

RD

DURA-ACE EX

Model RD-7200

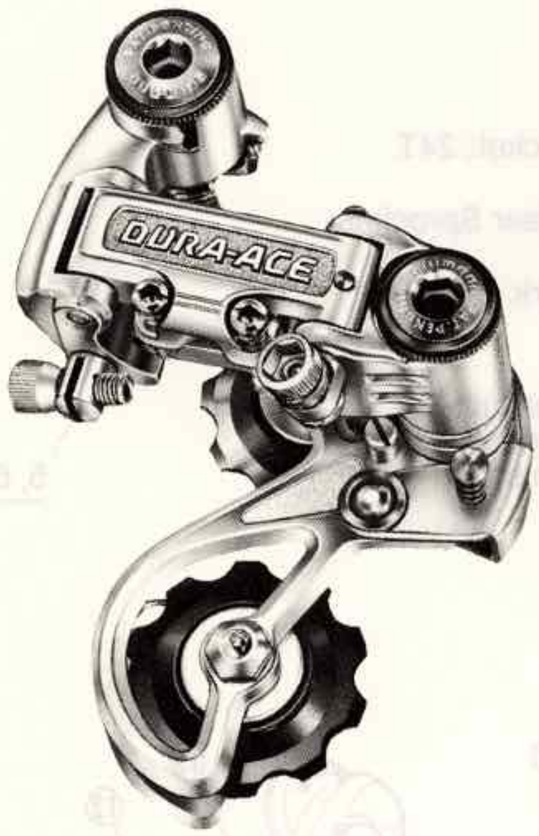
SPECIFICATIONS

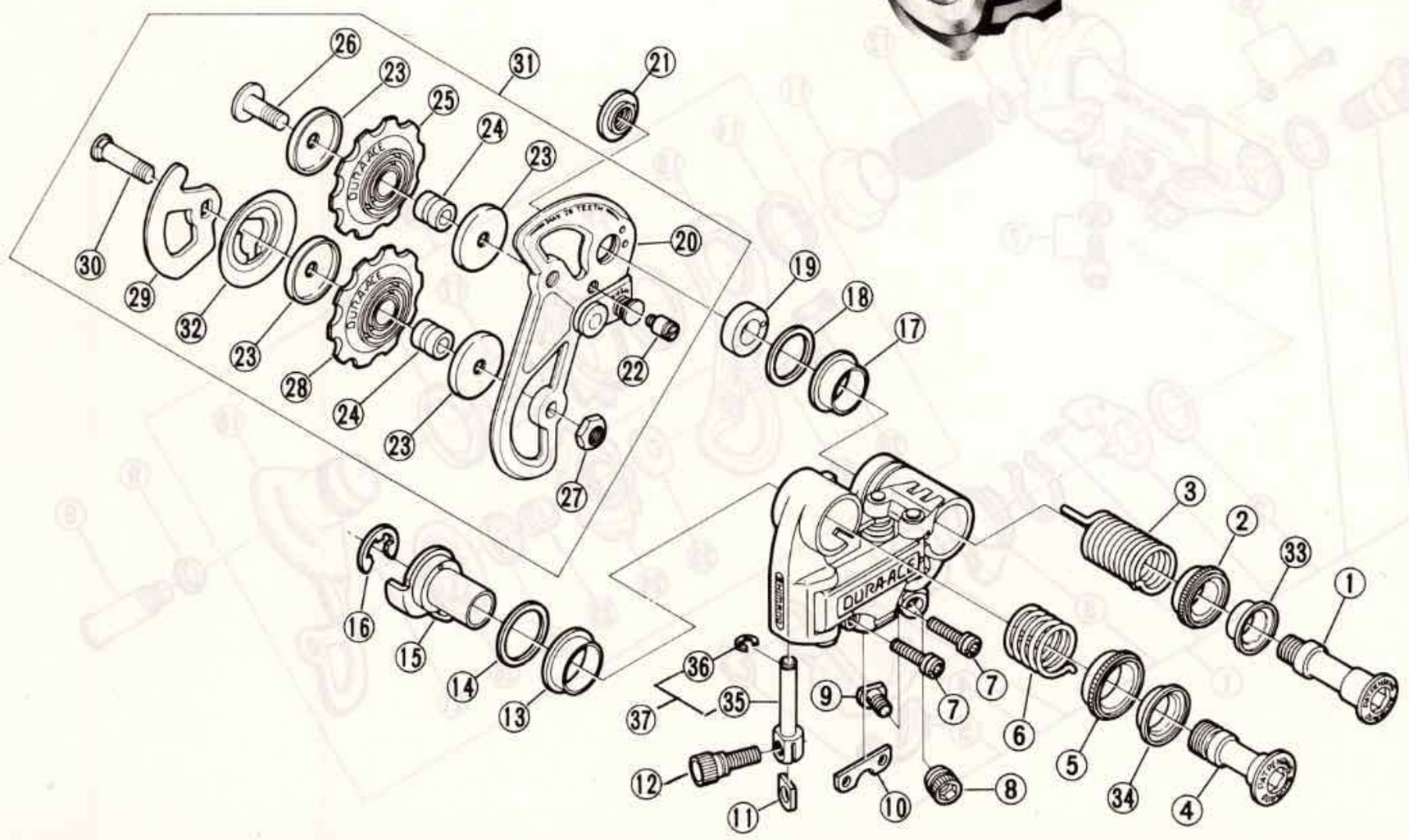
Capacity
- Maximum Rear Sprocket: 26T.
- Maximum Front & Rear Sprocket Difference: 26T. (Using all Shimano Fork Ends)

Weight
- 6.2 oz. (175g.)

Material
- Light Alloy • Anodized Finish (Body)
- Light Alloy (Cage Plate)
- Heat Treated Stainless Steel (Guide Pulley Teeth)

Type
- Servo Panta Mechanism, Hatch Plate Mechanism, Hexagon Release, Sealed Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	545 0600	Plate Mounting Bolt
2	545 0710	Plate Mounting Collar (B)
3	545 1100	P-Tension Spring
4	545 0500	Adapter Mounting Bolt
5	527 3001	Adapter Mounting Collar (A)
6	528 1100	B-Tension Spring
7	545 1700	Stroke Adjusting Screw
8	545 2100	Cable Fixing Nut
9	545 2000	Cable Fixing Bolt
10	545 3000	Stroke Adjusting Plate
11	545 1900	Cable Adjusting Plate
12	545 1800	Cable Adjusting Barrel
13	541 3501	Adapter Mounting Sleeve
14	545 3200	B-Seal Ring
15	3-545 9002	Adapter Bushing Assembly
16	528 1200	Stop Ring (ø7)
17	545 1000-1	Plate Mounting Sleeve
18	545 3100	P-Seal Ring
19	545 0900-1	Plate Bushing
20	3-545 9012-2	Outer Plate

ITEM NO.	PART NO.	DESCRIPTION
21	545 2900	Plate Mounting Nut
22	527 2801	Stopper Pin
23	545 2800	Pulley Cap
24	545 2700	Pulley Bushing
25	3-545 9013	Guide Pulley
26	545 5800	Guide Pulley Fixing Bolt
27	545 5400	Tension Pulley Fixing Nut
28	3-545 9003-1	Tension Pulley
29	545 5601	Inner Plate
30	534 2200	Tension Pulley Fixing Bolt
31	3-545 9014-2	Pulley Plate Assembly
32	561 2900	S.B. Cap
33	545 0720	Plate Mounting Collar (C)
34	527 3010	Adapter Mounting Collar (B)
35	545 1301	Cable Stopper Pin
36	584 2200	Stop Ring (ø3)
37	3-545 9902	Cable Stopper Pin & Stop Ring

8308-334D

U

Model RD-6207 Short Cage
Model RD-6207-GS Long Cage

NEW SHIMANO 600 EX

Model RD-6207 (Short Cage)
Model RD-6207-GS (Long Cage)

SPECIFICATIONS

Capacity
- Maximum Rear Sprocket/
  Short Cage Type: 28T
  Long Cage Type: 34T*
- Maximum Front & Rear Sprocket Difference
  Short Cage Type: 28T
  Long Cage Type: 34T
  (Using all Shimano Fork Ends)

Weight
- 6.8 oz. (195g.) (Short Cage Type)
- 7.6 oz. (217g.) (Long Cage Type)

Material
- Forged Light Alloy · Buff Finish (Bracket Body)
- Light Alloy · Buff Finish (Plate Body)
- Light Alloy (Cage Plate & Link)

Features
- Servo-Panta Mechanism, Sealed Mechanism, Twin Return Spring System, High Strength Non-ferrous Bushings in Link Pivots, Sintered Alloy in Guide Pulley

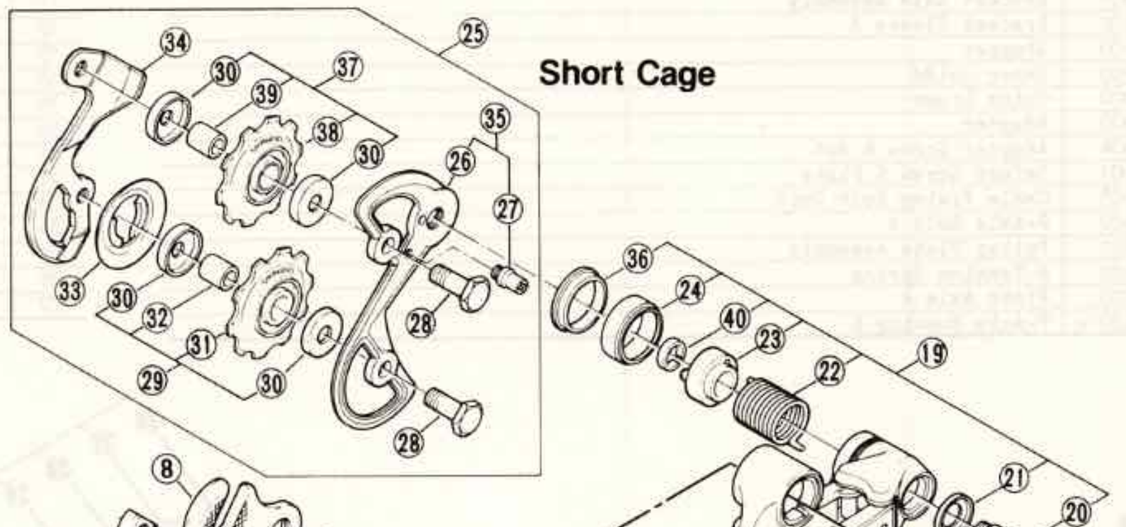
*(Using SFR & PR Fork Ends)



(Short Cage)



(Long Cage)



ITEM NO.	PART NO.	DESCRIPTION
1	3-546 9809	Bracket Axle Assembly (Short Cage)
	3-546 9801	Bracket Axle Assembly (Long Cage)
2	546 1600	Adapter Mounting Bolt
3	568 0500	Adapter Mounting Collar
4	568 2900	B-Tension Spring (Short Cage)
	554 0600	B-Tension Spring (Long Cage)
5	541 3500	Adapter Mounting Sleeve
6	3-541 9004-1	Adapter Bushing (Short Cage)
	3-546 9810	Adapter Bushing (Long Cage)
7	528 1200	Stop Ring (ø7)
8	541 2705	Adapter
9	3-525 9069	Adapter Screw & Nut
10	000 1104-1	Adapter Screw
11	511 3500-1	Adapter Nut
12	3-546 9802	Stroke Adjusting Screw & Plate
13	542 0500	Stroke Adjusting Screw
14	546 2000	Stroke Adjusting Plate
15	3-546 9803	Cable Fixing Bolt Unit
16	546 2200	Cable Fixing Nut
17	567 0700	Cable Fixing Plate
18	546 2100	Cable Fixing Bolt
19	3-546 9804	Plate Axle Assembly (Short Cage)
	3-546 9808	Plate Axle Assembly (Long Cage)
20	569 2500	Plate Mounting Bolt
21	569 2600	Plate Mounting Collar A

ITEM NO.	PART NO.	DESCRIPTION
22	546 2700	P-Tension Spring (Short Cage)
	554 5600	P-Tension Spring (Long Cage)
22	546 2700	P-Tension Spring
23	546 2400	Plate Mounting Bush
24	554 6000	Plate Mounting Cover
25	3-546 9805-1	Pulley Plate Assembly
26	546 1400	Outer Plate
27	546 2900	Plate Stopper Screw
28	569 0800	Pulley Bolt
29	3-546 9806	Tension Pulley Unit
30	511 2701	Pulley Cap
31	521 3100	Tension Pulley
32	511 2900	Pulley Bushing
33	534 2500-1	S.B. Cap
34	546 1500	Inner Plate
35	3-546 9807	Outer Plate & Plate Stopper Screw
36	546 2800	Plate Mounting Collar B
37	3-546 9812	Guide Pulley Unit
38	3-546 9811	Guide Pulley
39	511 2901	Pulley Bushing B
40	546 3000	Plate Mounting Sleeve
41	528 1800	Plate Mounting Nut for Long Cage
42	3-546 9813	Pulley Plate Assembly (Long Cage)
43	3-567 9853	Outer Plate & Plate Stopper Screw (Long Cage)
44	567 5201	Outer Plate (Long Cage)
45	567 2202	Inner Plate (Long Cage)

8403-E599C

Rear Derailleur

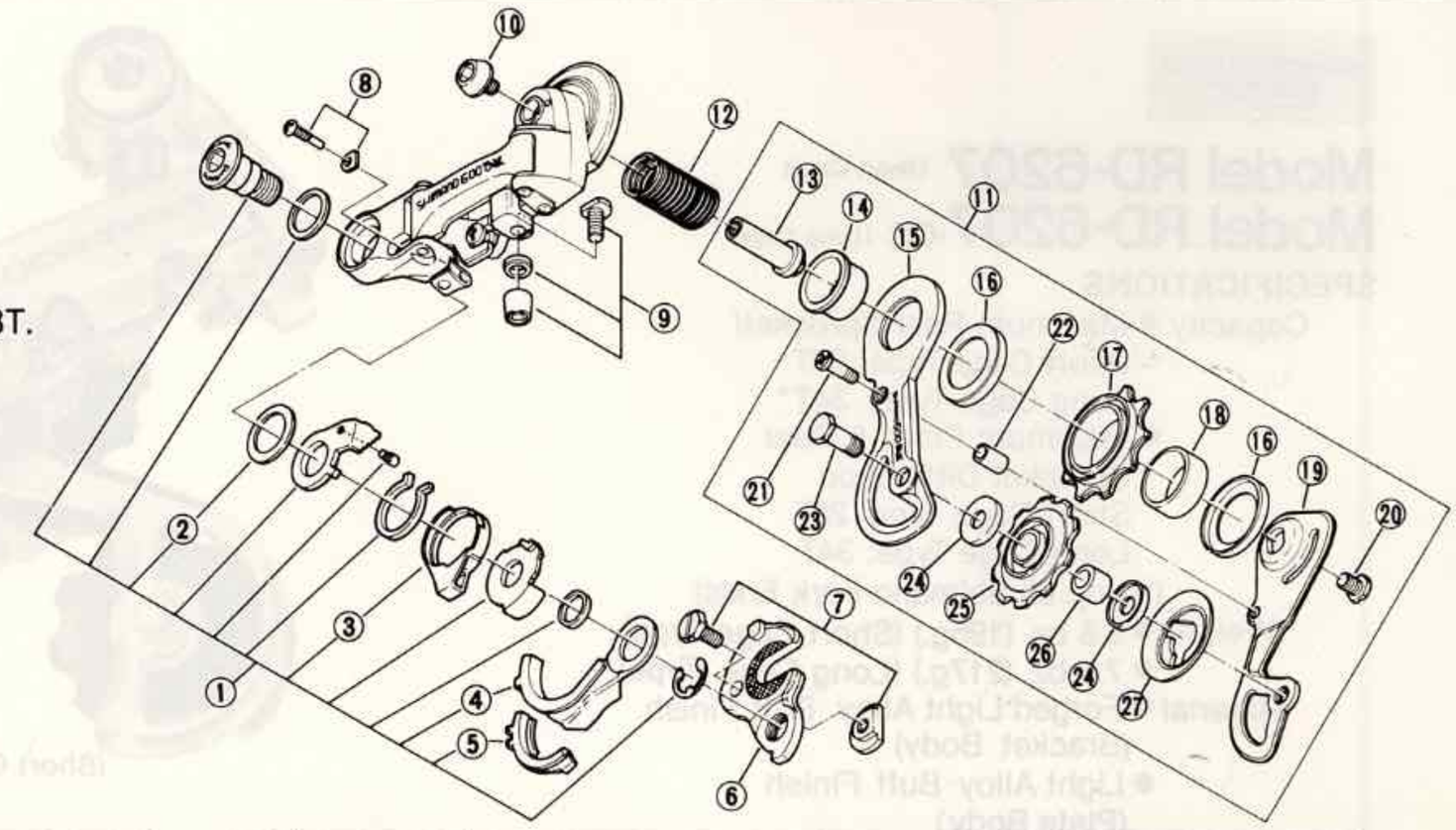
Model RD-6300
Model RD-6200 Short Cage
Model RD-6210 Long Cage

RD

Model RD-6300

SPECIFICATIONS

Capacity • Maximum Rear Sprocket: 28T.
Maximum Front & Rear Sprocket Difference: 28T.
Weight • 7.7 oz. (218g.),
Material • Light Alloy
Features • Aerodynamic Design/Built in Pulley Tension Spring/ Direct Cable Mechanism/ Light Weight/ Hexagon Release



ITEM NO.	PART NO.	DESCRIPTION
1	3-562 9001	Bracket Axle Assembly
2	564 4500	Bracket Sleeve A
3	564 4400	Stopper
4	561 0900	Inner Guide
5	561 4000	Guide Liner
6	562 1000	Adapter
7	3-562 9004	Adapter Screw & Nut
8	3-561 9801	Select Screw & Plate
9	3-562 9003	Cable Fixing Bolt Unit
10	562 2500	P-Axle Bolt A
11	3-562 9801	Pulley Plate Assembly
12	562 1400	P-Tension Spring
13	562 0700	Plate Axle A
14	562 0600	P-Axle Bushing B

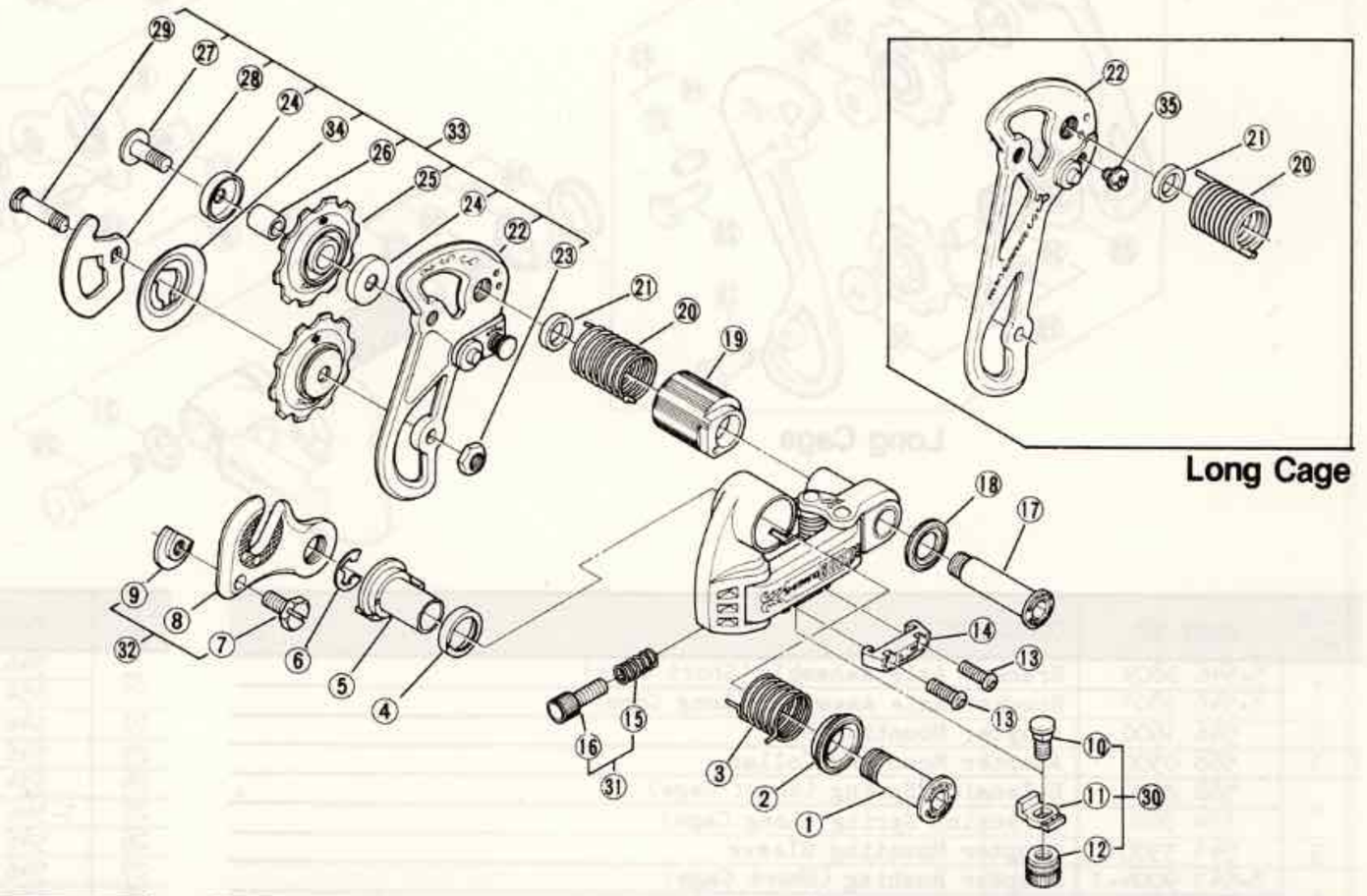
ITEM NO.	PART NO.	DESCRIPTION
15	562 1200	Outer Plate
16	561 1501	Pulley Cap (Big)
17	562 0801	Guide Pulley
18	561 1400	Pulley Bushing E
19	562 1301	Inner Plate
20	564 1201	P-Axle Screw B
21	561 3500	Roller Fixing Screw
22	562 2300	Roller
23	551 0401	Tension Pulley Fixing Bolt
24	562 2100	Pulley Cap (Small)
25	551 1000	Tension Pulley
26	551 1200	Pulley Bushing
27	534 2500	S.B.Cap

8305-474D

Model RD-6200 (Short Cage)
RD-6210 (Long Cage)

SPECIFICATIONS

Capacity • Maximum Rear Sprocket:
Short/28T., Long/34T.
Maximum Front & Rear Sprocket Difference:
Short/28T., Long/34T.
Weight • 6.7oz. (190g.)(Short Cage Type)
Material • Light Alloy • Anodized Finish (Body)
• Light Alloy (Cage Plate)
Type • Servo Panta Mechanism,
Hatch-Plate Mechanism,



Long Cage

ITEM NO.	PART NO.	DESCRIPTION
1	541 0700-1	Adapter Mounting Bolt
2	541 2201	Adapter Mounting Collar
3	528 1100	B-Tension Spring
4	541 3500	Sleeve
5	3-541 9004-1	Adapter Bushing
6	528 1200	Stop Ring (ø7mm)
7	000 1104-1	Adapter Screw
8	541 2701	Adapter
9	511 3500-1	Adapter Nut
10	541 2400	Cable Fixing Bolt
11	541 2300	Cable Fixing Washer
12	545 2100	Cable Fixing Nut
13	542 0500	Stroke Adjusting Screw
14	541 1901	Stroke Adjusting Plate
15	541 1100	Cable Adjusting Spring
16	541 1200	Cable Adjusting Barrel
17	541 0800-1	Plate Mounting Bolt
18	541 2101	Plate Mounting Collar

ITEM NO.	PART NO.	DESCRIPTION
19	541 2601	Spring Cover
20	541 0900	P-Tension Spring for Short Cage
	541 3000	P-Tension Spring for Long Cage
21	541 2500	Plate Mounting Bushing
22	3-542 9012-1	Inner Cage Plate for Short Cage
	3-542 9015	Inner Cage Plate
23	545 5400	Pulley Nut
24	511 2701	Pulley Cap
25	521 3100	Pulley
26	511 2900	Pulley Bushing
27	542 1900	Pulley Bolt A
28	542 1501	Outer Cage Plate
29	534 2200	Pulley Bolt E
30	3-542 9014	Cable Fixing Bolt Unit
31	3-541 9002	Cable Adjusting Barrel & Spring
32	3-525 9069	Adapter Screw & Nut
34	3-542 9013-1	Pulley Plate Assembly
33	534 2500	S.B. Cap
35	3-537 9003	Hatch Plate Fixing Screw

8112-326C

UE

Model RD-M700

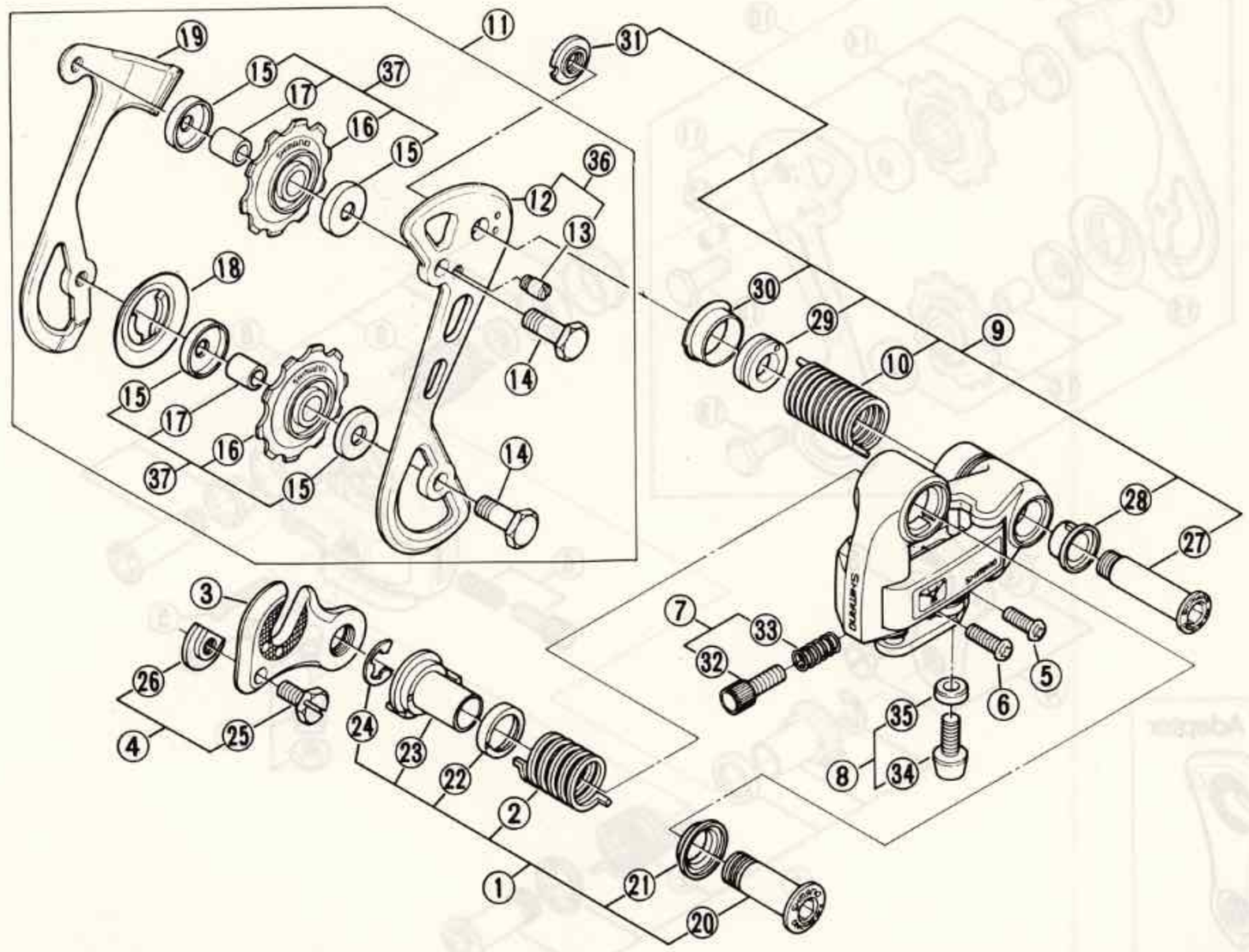
DEORE XT

Model RD-M700

SPECIFICATIONS

Capacity • Maximum Rear Sprocket: 34T.
(Using SFR & PR Fork Ends)
Maximum Front & Rear Sprocket Difference: 40T.
(Using all Shimano Fork Ends)
Weight • 8.3 oz. (236g.)
Material • Light Alloy
Features • Servo-Panta Mechanism,
Sealed Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	3-569 9806	Bracket Axle Assembly
2	569 0300	B-Tension Spring
3	541 2701	Adapter
4	3-525 9069	Adapter Screw & Nut
5	582 3001	Top-Side Stroke Adjusting Screw (M4x12)
6	542 0501	Low-Side Stroke Adjusting Screw (M4x16)
7	3-541 9002	Cable Adjusting Barrel & Spring
8	3-571 9004	Cable Fixing Plate & Bolt
9	3-569 9807	Plate Axle Assembly
10	554 5600	P-Tension Spring
11	3-569 9805	Pulley Plate Assembly
12	569 0200	Outer Plate
13	544 1700	Plate Stopper Screw
14	569 0800	Pulley Bolt
15	511 2700-1	Pulley Cap
16	521 3100	Pulley
17	511 2900	Pulley Bushing
18	534 2500-1	S.B. Cap
19	567 2202	Inner Plate

ITEM NO.	PART NO.	DESCRIPTION
20	541 0700-1	Adapter Mounting Bolt
21	568 0500	Adapter Mounting Collar
22	541 3500	Adapter Mounting Sleeve
23	3-569 9801	Adapter Bushing
24	528 1200	Stop Ring (ϕ7)
25	000 1104-1	Adapter Screw
26	511 3500-1	Adapter Nut
27	541 0800-1	Plate Mounting Bolt
28	568 2100	Plate Mounting Collar
29	544 1401	Plate Mounting Cap
30	544 1300	Plate Mounting Collar B
31	528 1801	Plate Mounting Nut
32	541 1200	Cable Adjusting Barrel
33	541 1100	Cable Adjusting Spring
34	571 1600	Cable Fixing Bolt
35	571 1700	Cable Fixing Plate
36	3-569 9810	Outer Plate & Plate Stopper Screw
37	3-554 9806	Pulley Unit

8402-E561A'

Model RD-AL11

RD

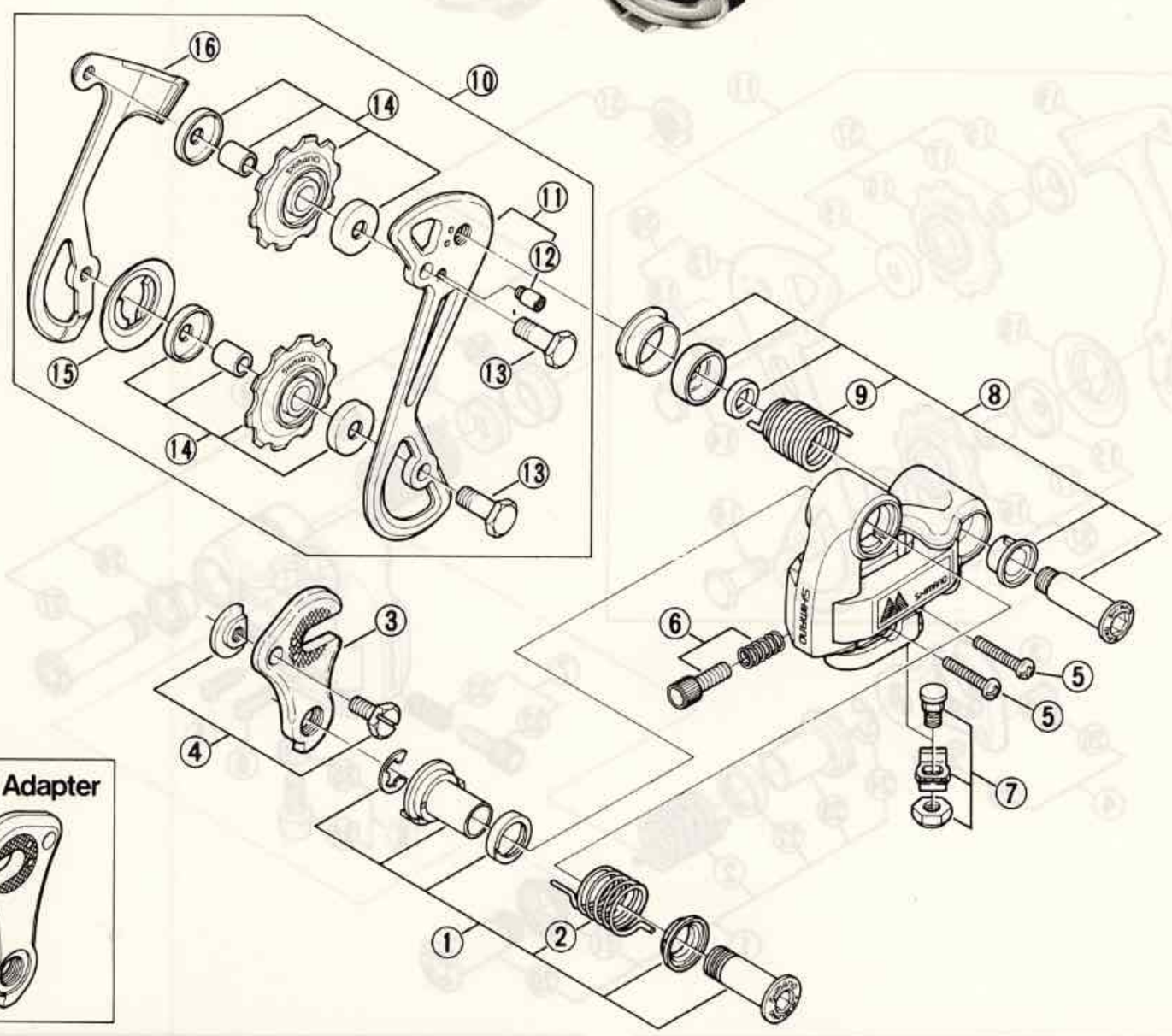
SHIMANO AL-11

Model RD-AL11

SPECIFICATIONS

Capacity • Maximum Rear Sprocket: 34T. (w/Bracket), 34T. (Direct Fit)
(Using SFR & PR Fork Ends)
Maximum Front & Rear Sprocket Difference: 40T.
(Using all Shimano Fork Ends)
Weight • 9.1 oz. (259 g.) W/O Bracket
Material • Body/Light Alloy
Pulley Plate/Steel
Feature • Servo Panta Mechanism





Reversed Adapter



ITEM NO.	PART NO.	DESCRIPTION
1	3-519 9804	Bracket Axle Assembly
2	568 2900	B-Tension Spring
3	541 2705	Adapter
	519 0600	Reversed Adapter
4	3-525 9069	Adapter Screw & Nut
5	000 1014	Stroke Adjusting Screw
6	3-541 9002	Cable Adjusting Barrel & Spring
7	3-566 9803	Cable Fixing Bolt Unit
8	3-567 9831	Plate Axle Assembly

ITEM NO.	PART NO.	DESCRIPTION
9	519 0400	P-Tension Spring
10	3-519 9802-1	Pulley Plate Assembly
11	3-519 9803-1	Outer Plate & Plate Stopper Screw
12	568 2600	Plate Stopper Screw
13	569 0800	Pulley Bolt
14	3-554 9806	Pulley Unit
15	534 2500-1	S.B. Cap
16	567 2201	Inner Plate

8403-562B

UE

Rear Derailleur

Model RD-A105 Short Cage
Model RD-A105-GS Long Cage

Model RD-A105 (Short Cage)
Model RD-A105-GS (Long Cage)

SPECIFICATIONS

Capacity • Maximum Rear Sprocket: Short/28T., Long/34T.*
Maximum Front & Rear Sprocket Difference: Short/28T., Long/34T. (Using all Shimano Fork Ends)
Weight • 8.2 oz., 233g. (Short Cage)
8.5 oz. 243g. (Long Cage)
Material • Light Alloy & Steel · Pearl Bright Finish
Type • Servo-Panta Mechanism, Hatch-Plate Mechanism, Golden Arrow Pattern
Double Spoke Barrier (Long Cage)

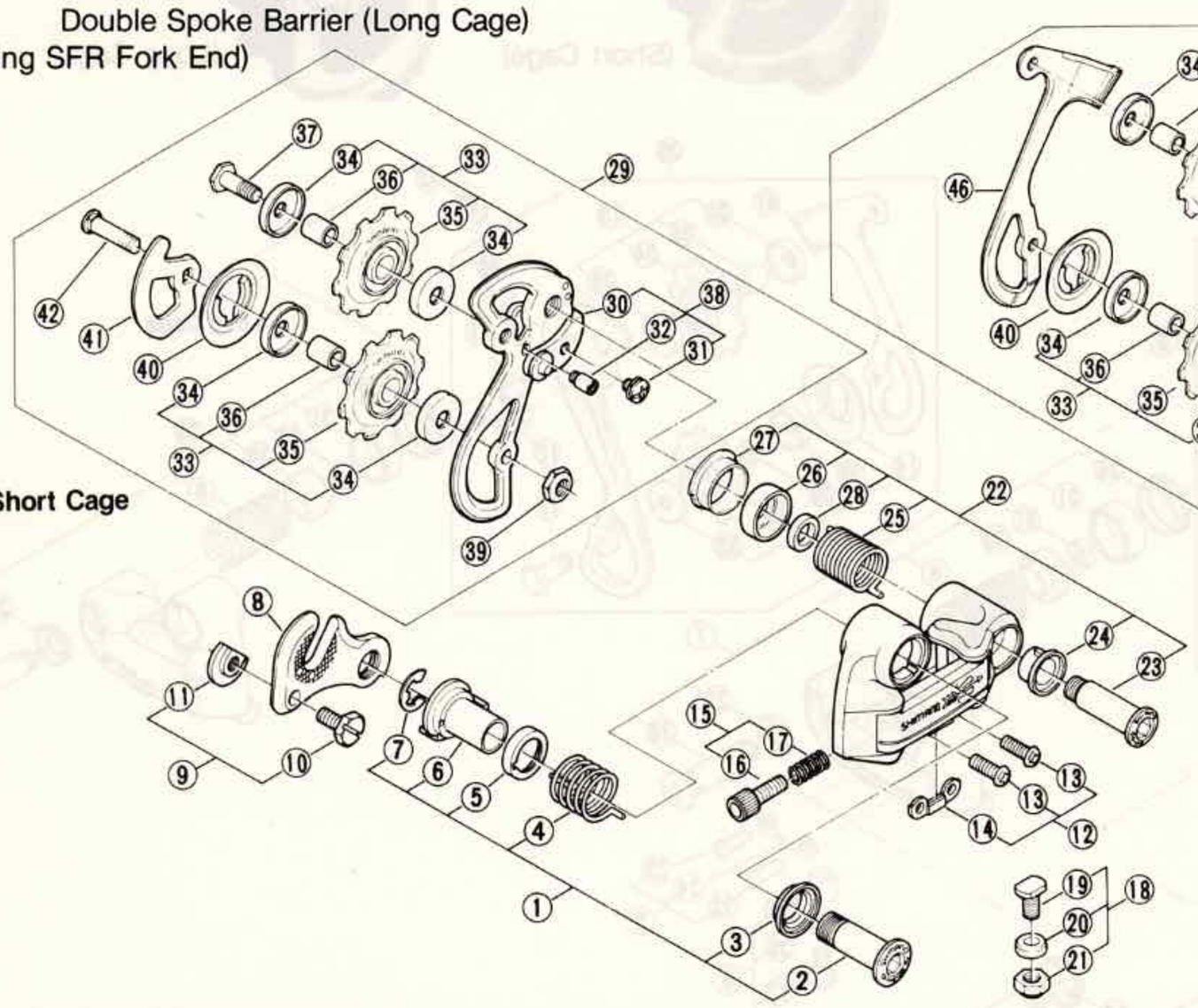
*(Using SFR Fork End)



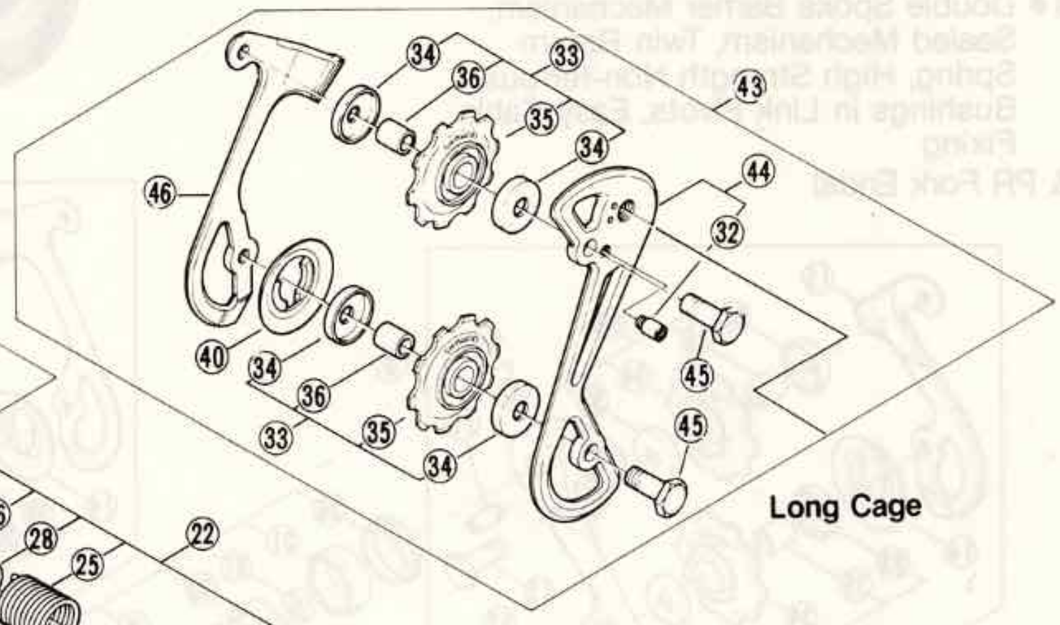
(Short Cage)



(Long Cage)



Short Cage



Long Cage

ITEM NO.	PART NO.	DESCRIPTION
1	3-567 9804	Bracket Axle Assembly
2	541 0700-1	Adapter Mounting Bolt
3	568 0500	Adapter Mounting Collar
4	568 2900	B-Tension Spring
5	541 3500	Adapter Mounting Sleeve
6	3-541 9004-1	Adapter Bushing
7	528 1200	Stop Ring (ø7)
8	541 2704	Adapter
9	3-525 9069	Adapter Screw & Nut
10	000 1104-1	Adapter Screw (M5x10)
11	511 3500-1	Adapter Nut
12	3-567 9805	Stroke Adjusting Screw & Plate
13	542 0500	Stroke Adjusting Screw
14	567 0600	Stroke Adjusting Plate
15	3-541 9002	Cable Adjusting Barrel & Spring
16	541 1200	Cable Adjusting Barrel
17	541 1100	Cable Adjusting Spring
18	3-567 9801	Cable Fixing Bolt Unit
19	562 2001	Cable Fixing Bolt
20	567 0700	Cable Fixing Plate
21	541 2400	Cable Fixing Nut
22	3-567 9806	Plate Axle Assembly
23	568 2000	Plate Mounting Bolt
24	568 2100	Plate Mounting Collar M

ITEM NO.	PART NO.	DESCRIPTION
25	568 2300	P-Tension Spring for Short Cage
	519 0400	P-Tension Spring for Long Cage
26	568 2200	Plate Mounting Cap
27	544 1300	Plate Mounting Collar B
28	541 2500	Plate Mounting Bush
29	3-567 9803	Pulley Plate Assembly
30	3-567 9802	Outer Plate
31	3-537 9003	Hatch Plate Fixing Screw
32	568 2600	Plate Stopper Screw
33	3-554 9806	Pulley Unit
34	511 2700-1	Pulley Cap A
35	521 3100	Pulley A
36	511 2900	Pulley Bushing A
37	537 1300	Guide Pulley Fixing Bolt
38	3-567 9809	Outer Plate Unit
39	545 5400	Tension Pulley Fixing Nut
40	534 2500-1	S.B. Cap
41	534 2403	Inner Plate
42	534 2200	Tension Pulley Fixing Bolt
43	3-567 9832	Pulley Plate Assembly
44	3-567 9835	Outer Plate & Plate Stopper Screw
45	569 0800	Pulley Bolt
46	567 2200	Inner Plate

8403-E538C

Rear Derailleur

Model RD-Z505 Short Cage
Model RD-Z505-GS Long Cage

RD

SHIMANO Z COMPONENTS

Model RD-Z505 (Short Cage)
RD-Z505-GS (Long Cage)

SPECIFICATIONS

Capacity • Maximum Rear Sprocket: Short Cage/28T., Long Cage/ 34T*
Maximum Front & Rear Sprocket Difference: Short Cage/30T.
Long Cage/34T.
(Using all Shimano Fork Ends)

Weight • 7.7 oz. (219g.) Short Cage,
8.0 oz. (226g.) Long Cage

Material • Light Alloy · Buff Finish (Bracker & Plate Body, Right Link),
Light Alloy (Right Pulley Plate),
Steel (Left Pulley Plate)

Features • Double Spoke Barrier Mechanism, Sealed Mechanism, Twin Return Spring, High Strength Non-ferrous Bushings in Link Pivots, Easy Cable Fixing

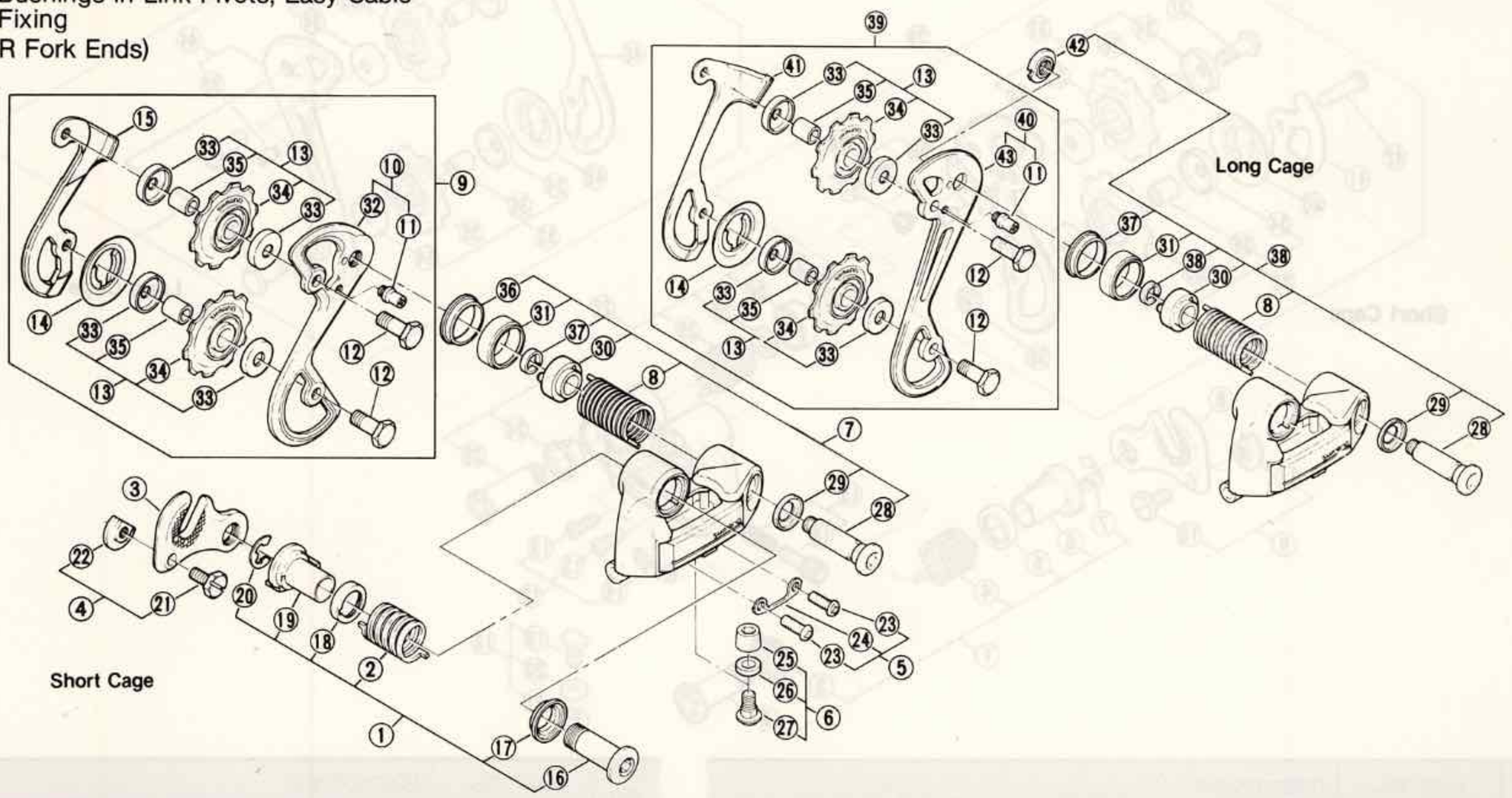
*(Using SFR & PR Fork Ends)



(Short Cage)



(Long Cage)



ITEM NO.	PART NO.	DESCRIPTION
1	3-546 9801	Bracket Axle Assembly
2	554 0600	B-Tension Spring
3	541 2705	Adapter
4	3-525 9069	Adapter Screw & Nut
5	3-546 9802	Stroke Adjusting Screw & Plate
6	3-546 9803	Cable Fixing Bolt Unit
7	3-554 9853	Plate Axle Assembly
8	554 5600	P-Tension Spring
9	3-567 9881	Pulley Plate Assembly
10	3-567 9872	Outer Plate & Plate Stopper Screw
11	546 2900	Plate Stopper Screw
12	569 0800	Pulley Bolt
13	3-554 9806	Pulley Unit
14	534 2500-1	S.B. Cap
15	554 0301	Inner Plate
16	546 1600	Adapter Mounting Bolt
17	568 0500	Adapter Mounting Collar
18	541 3500	Adapter Mounting Sleeve
19	3-546 9810	Adapter Bushing
20	528 1200	Stop Ring (φ7)
21	000 1104-1	Adapter Screw
22	511 3500-1	Adapter Nut

ITEM NO.	PART NO.	DESCRIPTION
23	542 0500	Stroke Adjusting Screw
24	546 2000	Stroke Adjusting Plate
25	546 2200	Cable Fixing Nut
26	567 0700	Cable Fixing Plate
27	546 2100	Cable Fixing Bolt
28	569 2500	Plate Mounting Bolt
29	569 2600	Plate Mounting Collar A
30	546 2400	Plate Mounting Bush
31	554 6000	Plate Mounting Cover
32	567 5200	Outer Plate
33	511 2700-1	Pulley Cap
34	521 3100	Pulley
35	511 2900	Pulley Bushing
36	546 2800	Plate Mounting Collar B
37	546 3000	Plate Mounting Sleeve
38	3-546 9808	Plate Axle Assembly
39	3-567 9882	Pulley Plate Assembly
40	3-567 9853	Outer Plate & Plate Stopper Screw
41	567 2202	Inner Plate
42	528 1800	Plate Mounting Nut
43	567 5201	Outer Plate

8403-E608B

UE

Model RD-Z503 Short Cage
Model RD-Z503-GS Long Cage

SHIMANO Z COMPONENTS

Model RD-Z503 (Short Cage)
RD-Z503-GS (Long Cage)

SPECIFICATIONS

Capacity • Maximum Rear Sprocket: Short Cage/28T., Long Cage/ 34T*
Maximum Front & Rear Sprocket Difference: Short Cage/30T., Long Cage/34T.
(Using all Shimano Fork Ends)

Weight • 9.0 oz. (256g.) Short Cage, 9.4 oz. (266g.) Long Cage

Material • Light Alloy (Bracket Body & Plate Body) Steel (Link & Pulley Plate)

Features • Double Spoke Barrier Mechanism, Sealed Mechanism, Twin Return Spring, High Strength Non-ferrous Bushings in Link Pivots

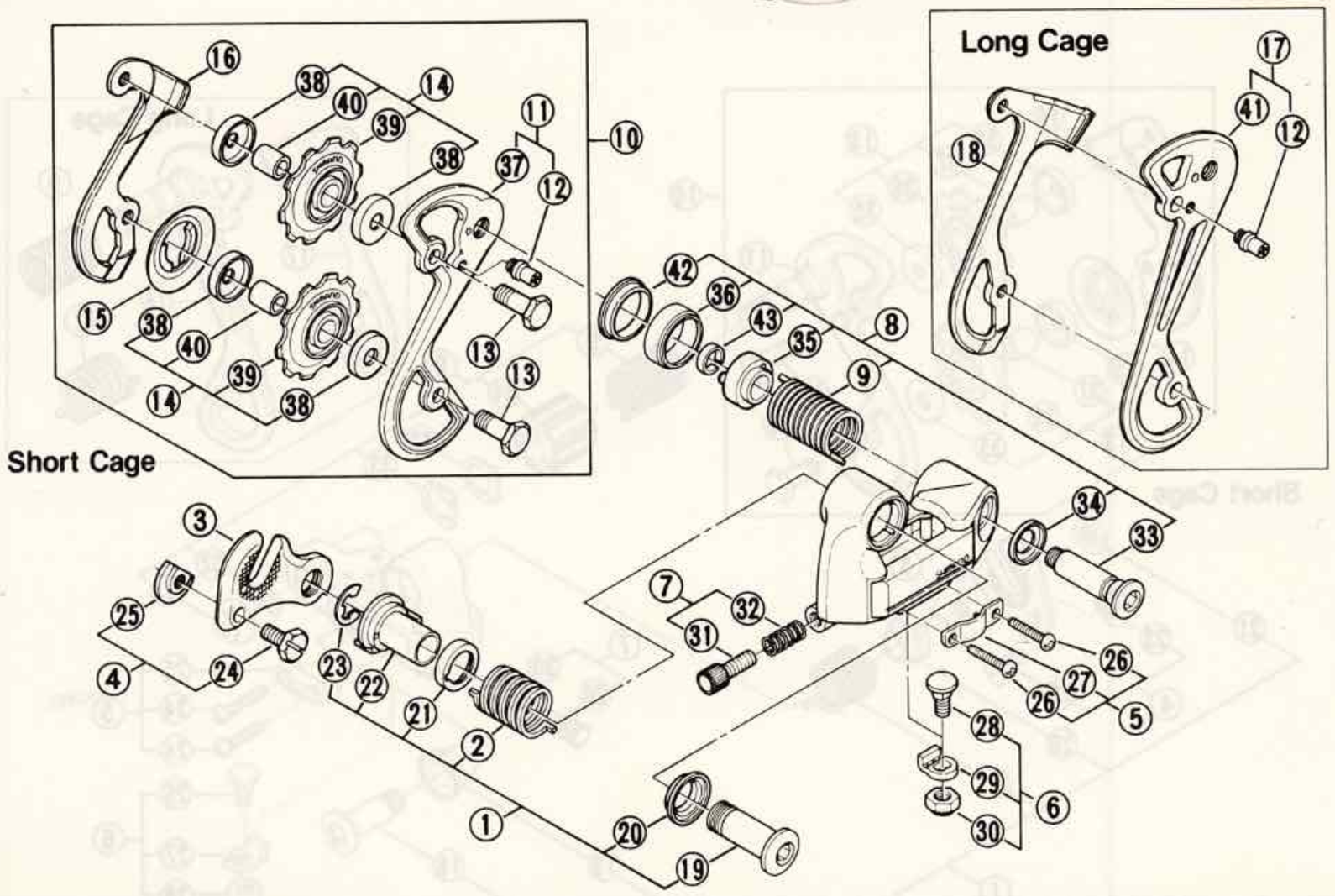
*(Using SFR & PR Fork Ends)



(Short Cage)



(Long Cage)



ITEM NO.	PART NO.	DESCRIPTION
1	3-546 9801	Bracket Axle Assembly
2	554 0600	B-Tension Spring
3	541 2706	Adapter
4	3-525 9069	Adapter Screw & Nut
5	3-554 9851	Stroke Adjusting Screw & Plate
6	3-554 9852	Cable Fixing Bolt Unit
7	3-555 9801	Cable Adjusting Barrel & Spring
8	3-554 9853	Plate Axle Assembly
9	554 5600	P-Tension Spring
10	3-554 9861	Pulley Plate Assembly for Short Cage
	3-554 9862	Pulley Plate Assembly for Long Cage
11	3-554 9854	Outer Plate (Short Cage) & Plate Stopper Screw
12	546 2900	Plate Stopper Screw
13	569 0800	Pulley Bolt
14	3-554 9806	Pulley Unit
15	534 2500-1	S.B. Cap
16	554 0300	Inner Plate (Short Cage)
17	3-554 9855	Outer Plate (Long Cage) & Plate Stopper Screw
18	567 2201	Inner Plate (Long Cage)
19	546 1600	Adapter Mounting Bolt
20	568 0500	Adapter Mounting Collar
21	541 3500	Adapter Mounting Sleeve

ITEM NO.	PART NO.	DESCRIPTION
22	3-546 9810	Adapter Bushing
23	528 1200	Stop Ring (φ7)
24	000 1104-1	Adapter Screw
25	511 3500-1	Adapter Nut
26	000 1003	Stroke Adjusting Screw
27	554 5900	Stroke Adjusting Plate
28	546 2100	Cable Fixing Bolt
29	583 2500-1	Cable Fixing Plate
30	541 2400	Cable Fixing Nut
31	522 2500	Cable Adjusting Barrel
32	541 1100	Cable Adjusting Spring
33	569 2500	Plate Mounting Bolt
34	569 2600	Plate Mounting Collar A
35	546 2400	Plate Mounting Bush
36	554 6000	Plate Mounting Cover
37	554 5500	Outer Plate (Short Cage)
38	511 2700-1	Pulley Cap
39	521 3100	Pulley
40	511 2900	Pulley Bushing
41	554 5501	Outer Plate (Long Cage)
42	546 2800	Plate Mounting Collar B
43	546 3000	Plate Mounting Sleeve

8403-E607C

Rear Derailleur

Model RD-Z501 Short Cage
Model RD-Z501-GS Long Cage

RD

Model RD-Z501 (Short Cage)
RD-Z501-GS (Long Cage)

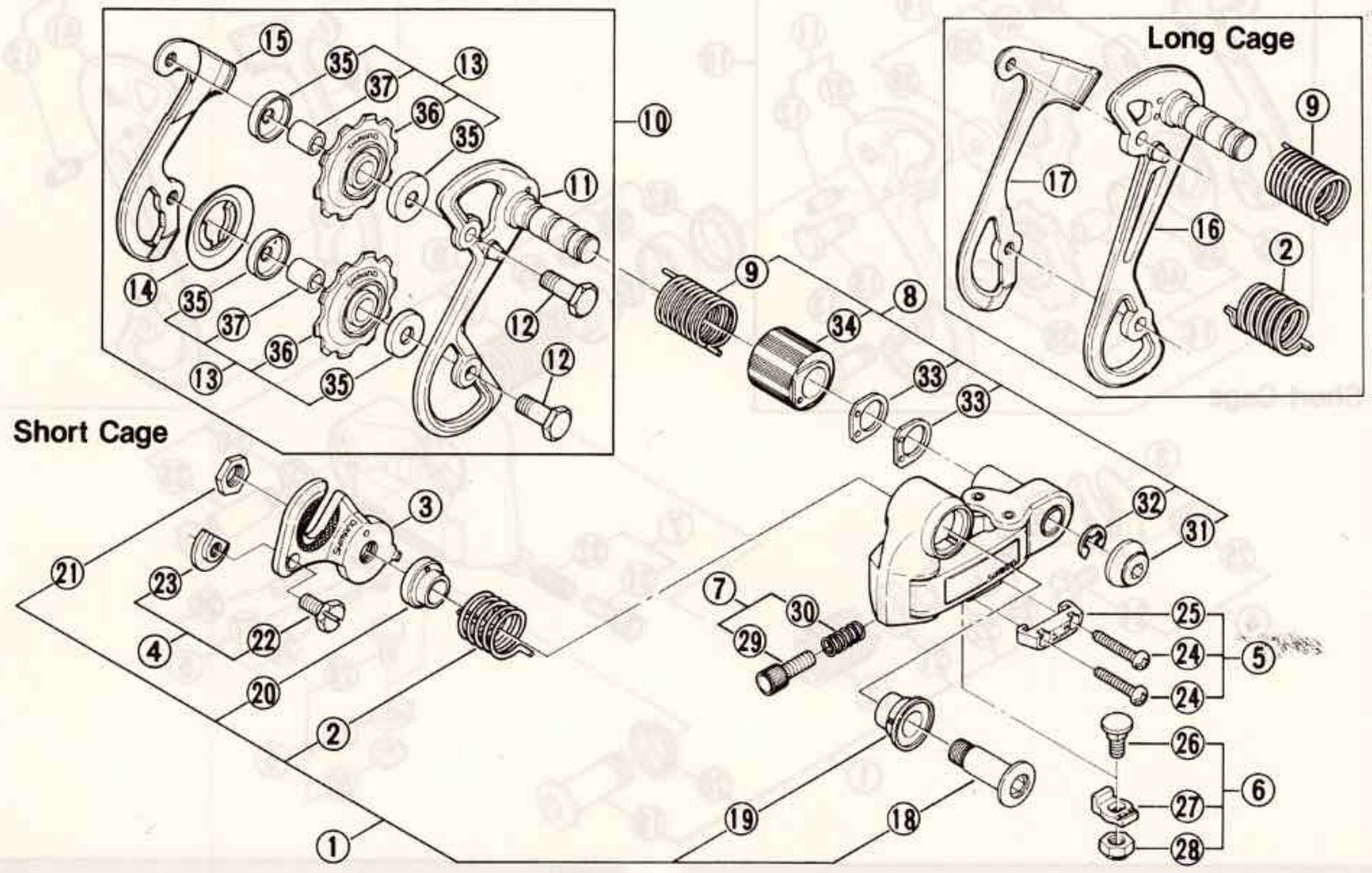
SPECIFICATIONS

Capacity • Maximum Rear Sprocket: Short Cage/28T., Long Cage/34T.*
Maximum Front & Rear Sprocket Difference: Short Cage/30T. Long Cage/34T.
(Using all Shimano Fork Ends)
Weight • 10.0 oz. (284g.) Short Cage, 10.8 oz. (305g.) Long Cage
Material • Light Alloy (Bracket Body) Steel (Plate Body, Pulley Plate)
Features • Double Spoke Barrier Mechanism, Sealed Mechanism (Bracket Body only)

*(Using SFR & PR Fork Ends)


(Short Cage)


(Long Cage)



ITEM NO.	PART NO.	DESCRIPTION
1	3-554 9809	Bracket Axle Assembly for Short Cage
	3-554 9801	Bracket Axle Assembly for Long Cage
2	568 2900	B-Tension Spring for Short Cage
	554 0600	B-Tension Spring for Long Cage
3	554 1310	Adapter for Short Cage
	554 1300	Adapter for Long Cage
4	3-525 9069	Adapter Screw & Nut
5	3-554 9802	Stroke Adjusting Screw & Plate
6	3-541 9001	Cable Fixing Bolt Unit
7	3-555 9801	Cable Adjusting Barrel & Spring
8	3-554 9810	Plate Axle Small Parts for Short Cage
	3-554 9803	Plate Axle Small Parts for Long Cage
9	554 0710	P-Tension Spring for Short Cage
	554 0700	P-Tension Spring for Long Cage
10	3-554 9804	Pulley Plate Assembly for Short Cage
	3-554 9807	Pulley Plate Assembly for Long Cage
11	3-554 9805	Outer Plate w/Mounting Shaft (Short Cage)
12	569 0800	Pulley Bolt
13	3-554 9806	Pulley Unit
14	534 2500-1	S.B. Cap
15	554 0300	Inner Plate (Short Cage)
16	3-554 9808	Outer Plate w/Mounting Shaft (Long Cage)

ITEM NO.	PART NO.	DESCRIPTION
17	567 2201	Inner Plate (Long Cage)
18	554 0400	Adapter Mounting Bolt
19	543 0600	Adapter Mounting Bush
20	554 0800	Adapter Mounting Collar
21	554 1600	Adapter Mounting Nut
22	000 1104-1	Adapter Screw
23	511 3500-1	Adapter Nut
24	000 1003	Stroke Adjusting Screw
25	541 1901	Stroke Adjusting Plate
26	541 3400	Cable Fixing Bolt
27	541 2300	Cable Fixing Plate
28	541 2400	Cable Fixing Nut
29	522 2500	Cable Adjusting Barrel
30	541 1100	Cable Adjusting Spring
31	554 0900	Cap
32	521 3001	Stop Ring (φ6mm)
33	554 1400	Plate
34	554 1000	Spring Cover
35	511 2700-1	Pulley Cap
36	521 3100	Pulley
37	511 2900	Pulley Bushing

8403-E600B

UE

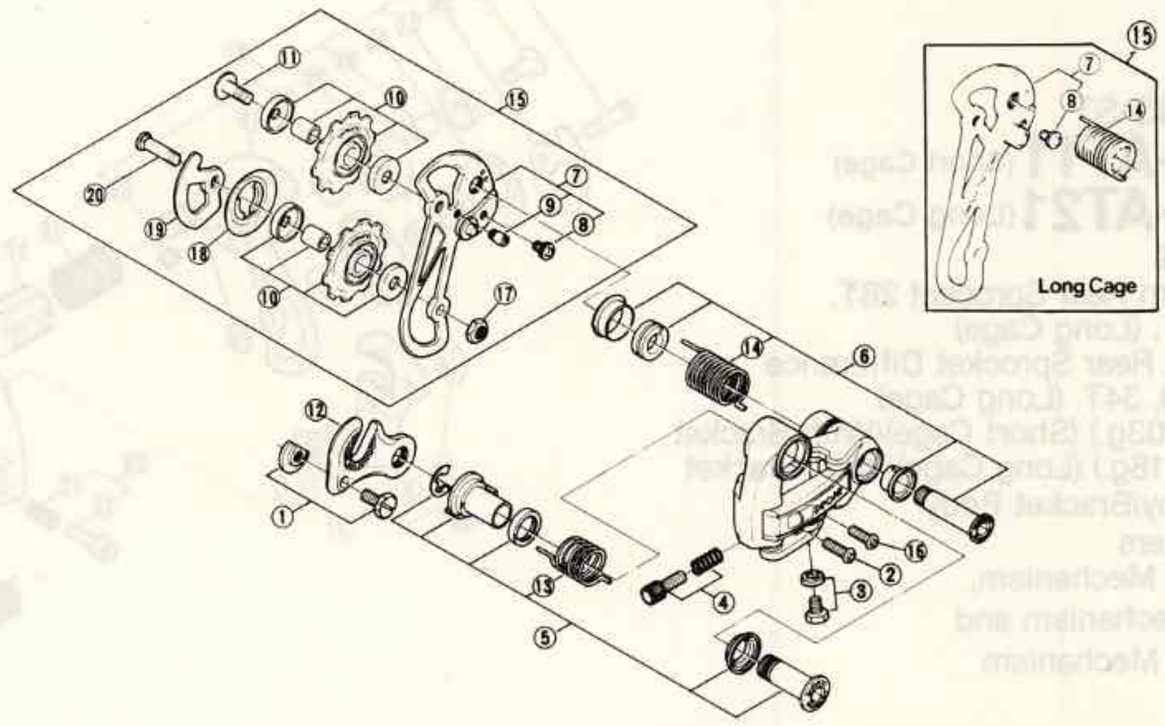
Model RD-DE10 Middle Cage
Model RD-DE20 Long Cage
Model RD-AT12 Short Cage
Model RD-AT22 Long Cage

SHIMANO DEORE SERIES

Model RD-DE10 (Middle Cage)
RD-DE20 (Long Cage)

SPECIFICATIONS

Capacity: Maximum Rear Sprocket:
Middel Cage/30T., Long Cage/34T.
Maximum Front & Rear Sprocket
Difference: Middle Cage/30T.,
Long Cage/34T.
Weight: 7.7oz. (218g.) Middle
9.30oz. (265g.) Long/Except Bracket
Material: Body/Light Alloy
: Cage Plate/Light Alloy (Middle)/Steel (Long)
Type: Servo Panta Mechanism, Centeron Mechanism, Hatch-Plate Mechanism, Sealed Mechanism



ITEM NO.	PART NO.	DESCRIPTION
1	3-525 9069	Adapter Screw & Nut
2	542 0501	Low-Side Stroke Adjusting Screw (M4x14.5)
3	3-544 9003	Cable Fixing Bolt & Plate
4	3-541 9002	Cable Adjusting Barrel & Spring
5	3-544 9004	Bracket Axle Assembly
6	3-544 9005	Plate Axle Assembly for Middle Cage
	3-544 9012	Plate Axle Assembly for Long Cage
7	3-544 9804	Outer Plate Unit for Middle Cage
	3-544 9805	Outer Plate Unit for Long Cage
8	3-537 9003	Hatch Plate Fixing Screw
9	544 1700	Plate Stopper Screw for Middle Cage
10	3-554 9806	Pulley Unit

ITEM NO.	PART NO.	DESCRIPTION
11	542 1900	Guide Pulley Fixing Bolt
12	541 2701	Adapter
13	544 0500	B-Tension Spring
14	544 0600	P-Tension Spring for Middle Cage
	544 0601	P-Tension Spring for Long Cage
15	3-544 9802	Pulley Plate Assembly for Middle Cage
	3-544 9803	Pulley Plate Assembly for Long Cage
16	582 3001	Top-Side Stroke Adjusting Screw (M4x12)
17	545 5400	Tension Pulley Fixing Nut
18	534 2500-1	S.B. Cap
19	542 1501	Inner Plate
20	534 2200	Tension Pulley Fixing Bolt

8309-415D

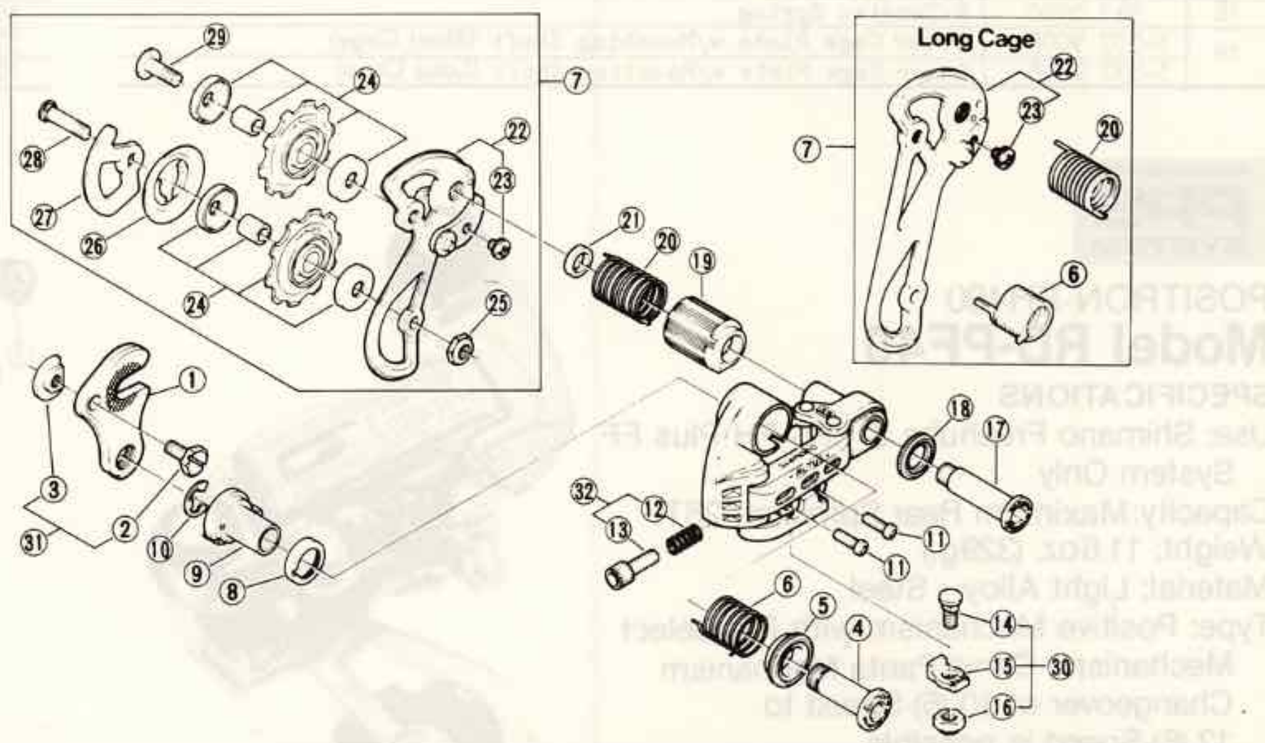
ALTUS SERIES SELECTA

SHIMANO ALTUS-LT

Model RD-AT12 (Short Cage)
Model RD-AT22 (Long Cage)

SPECIFICATIONS

Capacity: Maximum Rear Sprocket 28T. (Short Cage)
Maximum Front & Rear Sprocket Difference
28T. (Short Cage)
Maximum Rear Sprocket 34T. (Long Cage)
Maximum Front & Rear Sprocket Difference 34T. (Long Cage)
(*30T: Use Shimano Products Only)
Weight: 9.2 oz. (262 g.)/Except Bracket
9.8oz. (277g.)/Except Bracket
Material: Light Alloy/Bracket Body, Outer Link
: Steel/Others
Type: Servo Panta Mechanism, Centeron Mechanism,
Hatch-Plate Mechanism



ITEM NO.	PART NO.	DESCRIPTION
1	541 2705	Adapter
2	000 1104-1	Adapter Screw
3	511 3500-1	Adapter Nut
4	541 0700-1	Adapter Mounting Bolt
5	541 2201	Adapter Mounting Collar
6	528 1100	B-Tension Spring for Short Cage
	541 3100	B-Tension Spring for Long Cage
7	3-538 9004-1	Pulley Plate Assembly for Short Cage
	3-538 9009-1	Pulley Plate Assembly for Long Cage
8	541 3500	Sleeve
9	3-541 9004-1	Adapter Bushing
10	528 1200	Stop Ring (ø7mm)
11	000 1003	Stroke Adjusting Screw
12	541 1100	Cable Adjusting Spring
13	541 1200	Cable Adjusting Barrel
14	541 3400	Cable Fixing Bolt
15	541 2300	Cable Fixing Plate
16	541 2400	Cable Fixing Nut

ITEM NO.	PART NO.	DESCRIPTION
17	541 0800-1	Plate Mounting Bolt
18	541 2101	Plate Mounting Collar
19	541 2604	Spring Cover
20	541 0900	P-Tension Spring for Short Cage
	541 3000	P-Tension Spring for Long Cage
21	541 2500	Plate Mounting Bush
22	3-538 9802	Outer Plate Unit for Short Cage
	3-538 9801	Outer Plate Unit for Long Cage
23	3-537 9003	Hatch Plate Fixing Screw & Washer
24	3-554 9806	Pulley Unit
25	545 5400	Pulley Nut
26	534 2500-1	S.B. Cap
27	534 2403	Inner Plate
28	534 2200	Tension Pulley Fixing Bolt
29	537 1300	Guide Pulley Fixing Screw
30	3-541 9001	Cable Fixing Bolt Unit
31	3-525 9069	Adapter Screw & Nut
32	3-541 9002	Cable Adjusting Barrel & Spring

8311-344C

Rear Derailleur

Model RD-AT11 Short Cage
Model RD-AT21 Long Cage
Model RD-PF40

RD

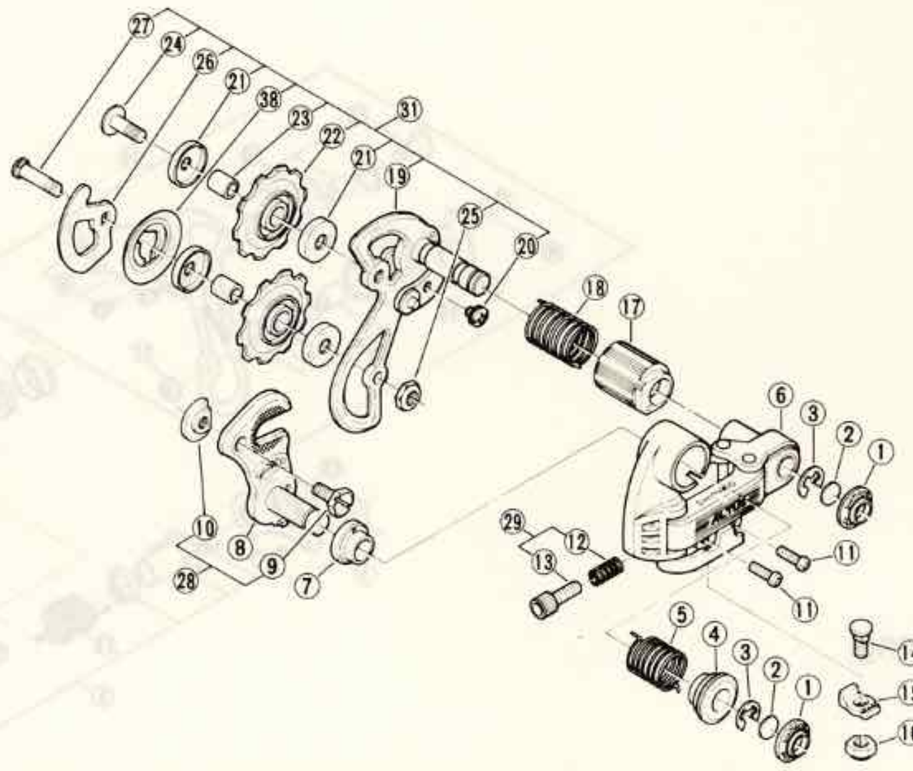
ALTUS SERIES SELECTA

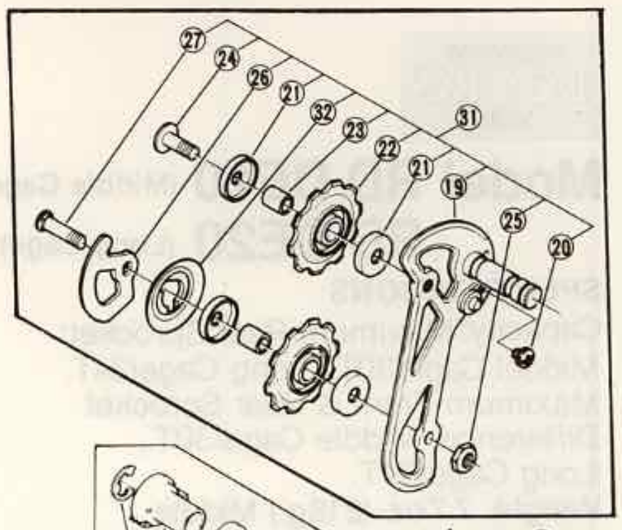
SHIMANO ALTUS-ST

Model RD-AT11 (Short Cage)
Model RD-AT21 (Long Cage)

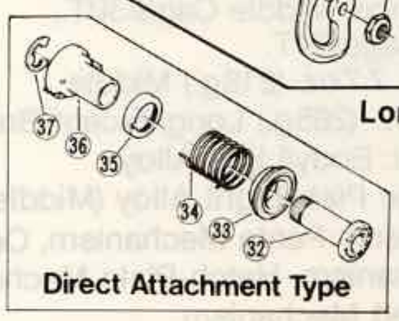
SPECIFICATIONS

Capacity: Maximum Rear Sprocket 28T. (Short Cage), 34T. (Long Cage)
Maximum Front & Rear Sprocket Difference 28T. (Short Cage), 34T. (Long Cage)
Weight: 10.7 oz. (303g.) (Short Cage)/With Bracket
11.2 oz. (318g.) (Long Cage)/With Bracket
Material: Light Alloy/Bracket Body
: Steel/Others
Type: Servo Panta Mechanism,
Centeron Mechanism and
Hatch Plate Mechanism





Long Cage



Direct Attachment Type

ITEM NO.	PART NO.	DESCRIPTION
1	543 0801	Cap
2	522 1900	Spin
3	521 3001	Stop Ring (ø6mm)
4	543 0700	Adapter Mounting Collar
5	543 0502	B-Tension Spring
6	3-537 9001	Mechanism Assembly
7	543 0600	Adapter Bushing
8	3-543 9004	Adapter w/Mounting Shaft
9	000 1104-1	Adapter Screw
10	511 3500-1	Adapter Nut
11	000 1003	Stroke Adjusting Screw
12	541 1100	Cable Adjusting Spring
13	541 1200	Cable Adjusting Barrel
14	541 3400	Cable Fixing Bolt
15	541 2300	Cable Fixing Plate
16	541 2400	Cable Fixing Nut
17	541 2601	Spring Cover
18	541 0900	P-Tension Spring
19	3-537 9002	Outer Cage Plate w/Mounting Shaft (Short Cage)
	3-537 9008	Outer Cage Plate w/Mounting Shaft (Long Cage)

ITEM NO.	PART NO.	DESCRIPTION
20	3-537 9003	Hatch Plate Fixing Bolt
21	511 2700-1	Pulley Cap
22	521 3100	Pulley
23	511 2900	Pulley Bushing
24	537 1300	Pulley Screw A
25	545 5400	Pulley Nut
26	534 2400	Inner Cage Plate
27	534 2200	Pulley Bolt E
28	3-525 9069	Adapter Screw & Nut
29	3-541 9002	Cable Adjusting Barrel & Spring
30	3-541 9001	Cable Fixing Bolt Unit
31	3-537 9004-1	Pulley Plate Assembly (Short Cage)
	3-537 9009-1	Pulley Plate Assembly (Long Cage)
32	541 0700-1	Adapter Mounting Bolt (Direct Attachment Type)
33	541 2201	Adapter Mounting Collar (Direct Attachment Type)
34	528 1100	B-Tension Spring (Direct Attachment Type)
35	541 3500	Sleeve (Direct Attachment Type)
36	3-541 9004-1	Adapter Bushing (Direct Attachment Type)
37	528 1200	Stop Ring ø7mm (Direct Attachment Type)
38	534 2500	S.B. Cap

8112-345C

NEW POSITRON PPS SYSTEM

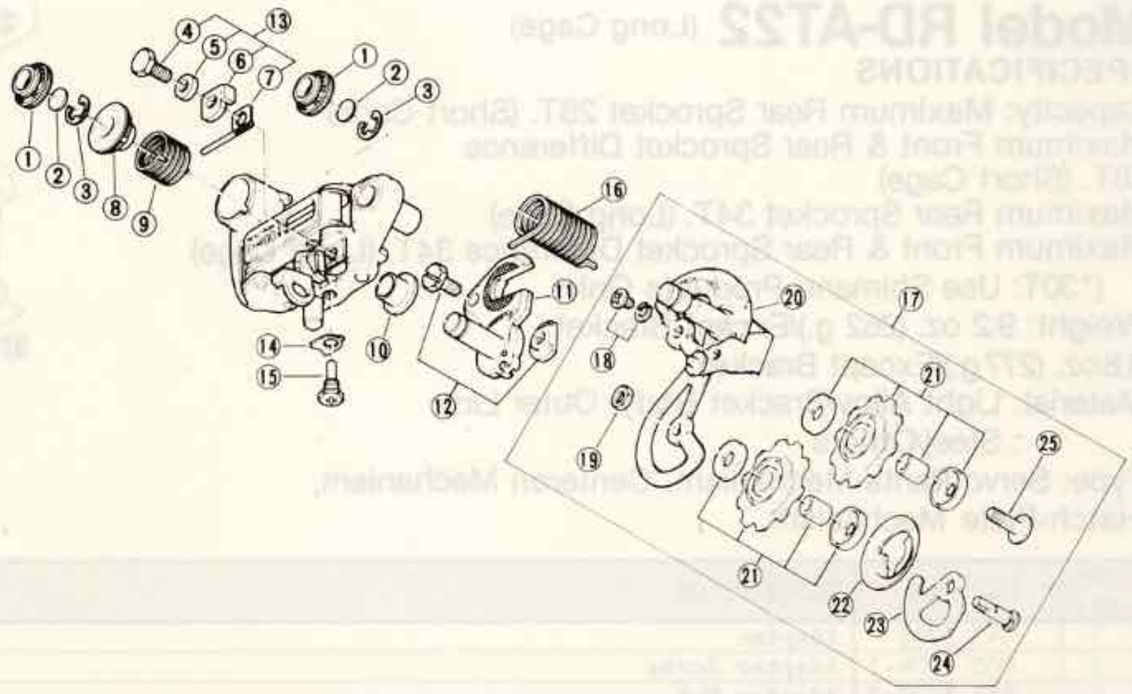
POSITRON-FH400

Model RD-PF40

SPECIFICATIONS

Use: Shimano Freehubs & PPS-FH Plus FF System Only
Capacity: Maximum Rear Sprocket: 28T.
Weight: 11.6oz. (329g.)
Material: Light Alloy • Steel
Type: Positive Mechanism with Pre-Select Mechanism, Servo Panta Mechanism
Changeover of 10 (5)-Speed to 12 (6)-Speed is possible





ITEM NO.	PART NO.	DESCRIPTION
1	543 0802	Cap
2	522 1900	Spin
3	521 3001	Stop Ring (ø6mm)
4	533 1300	Cable Fixing Bolt
5	533 2300	Cable Fixing Washer
6	533 1400	Cable Fixing Plate
7	533 1200-1	Inner Sleeve
8	543 0700	Adapter Mounting Collar
9	534 2100	B-Tension Spring
10	543 0600	Adapter Bushing
11	3-534 9013	Adapter w/Mounting Shaft
12	3-525 9069	Adapter Screw & Nut
13	3-533 9004	Cable Fixing Bolt Unit

ITEM NO.	PART NO.	DESCRIPTION
14	533 2400-2	Washer
15	533 1700-2	Stopper Pin
16	522 2802	P-Tension Spring
17	3-534 9012	Pulley Plate Assembly
18	3-537 9003	Hatch Plate Fixing Screw & Washer
19	545 5400	Pulley Nut
20	3-534 9014	Outer Plate w/Mounting Shaft
21	3-554 9806	Pulley Unit
22	534 2500-1	S.B. Cap
23	534 2400	Inner Plate
24	534 2200	Tension Pulley Fixing Bolt
25	542 1900	Guide Pulley Fixing Screw

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Rear Derailleur

Model RD-PF10 Short Cage
Model RD-PF20 Middle Cage

NEW POSITRON PPS SYSTEM

POSITRON-FH

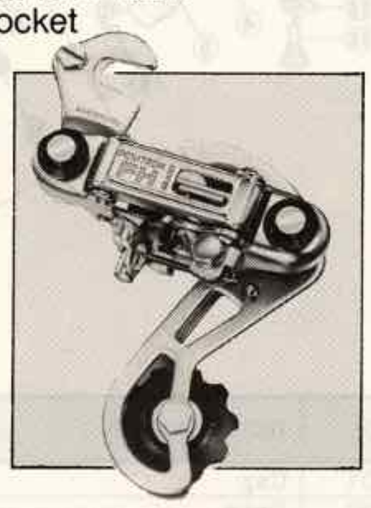
Model RD-PF10 (Short Cage)
RD-PF20 (Middle Cage)

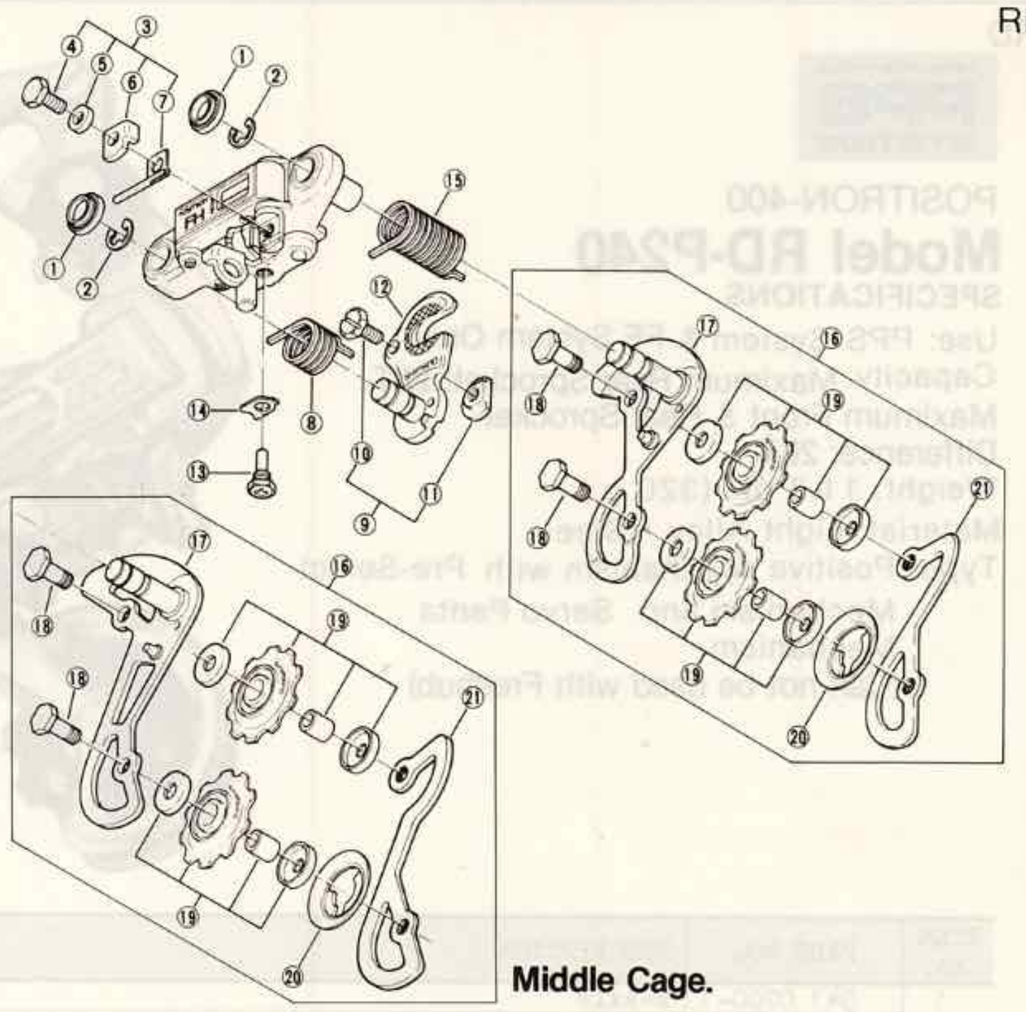
SPECIFICATIONS

Use: Shimano Freehubs & PPS-FH Plus FF System Only
Capacity: Double/Maximum Rear Sprocket:
Short Cage/13T.~28T., Middle Cage/13T.~32T.
Single/Maximum Front & Rear Sprocket Difference: Short Cage/13T.~32T.
Middle Cage/13T.~34T.
Weight: 11.1oz. (316g.)/Short Cage : 11.6oz. (328g.)/Middle Cage
Material: Steel
Type: Positive Mechanism with Pre-Select Mechanism, Servo Panta Mechanism
Changeover of 10 (5)-speed to 12 (6)-speed is possible



RD-PF10

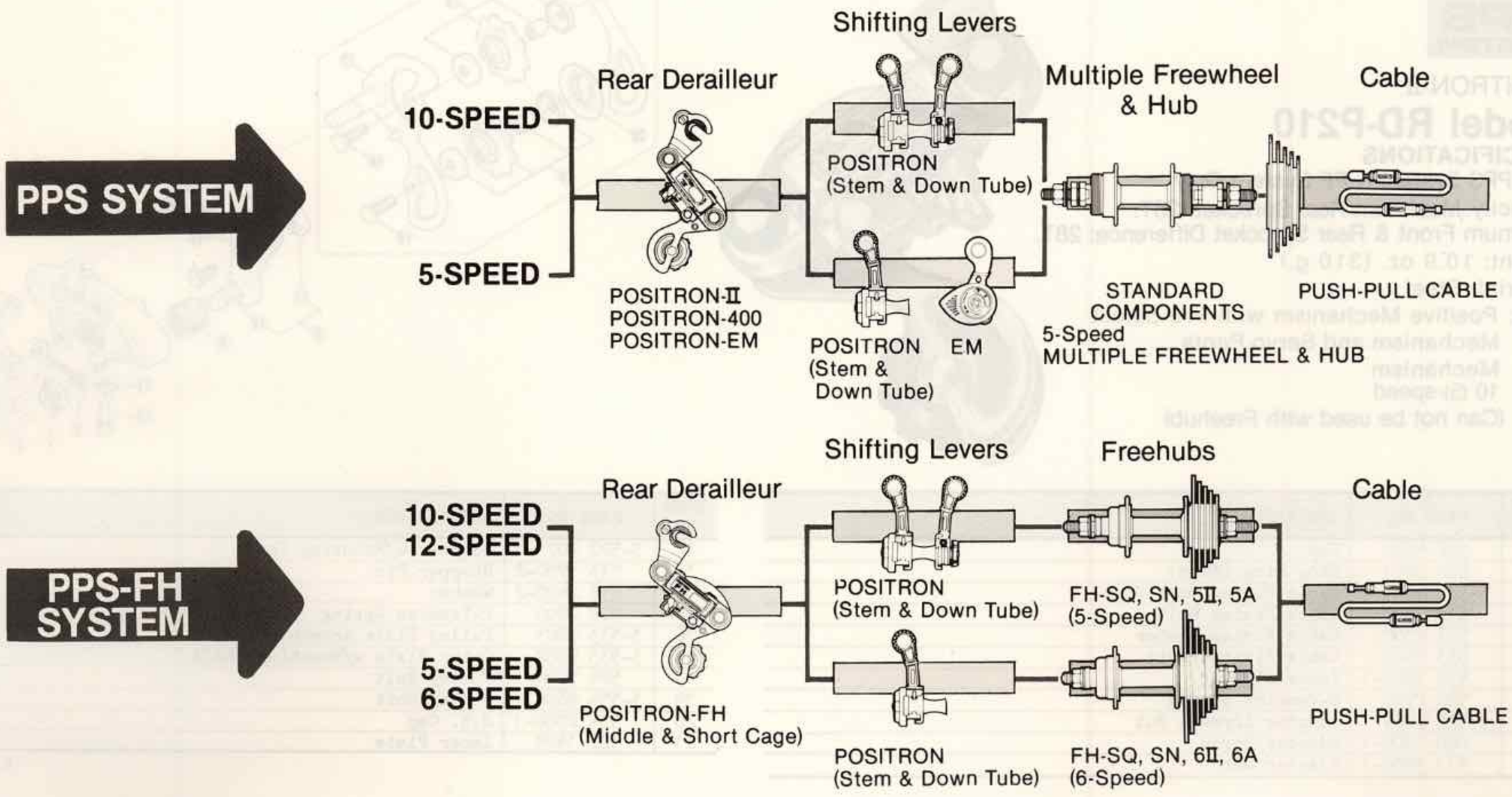

RD-PF20


Middle Cage.

ITEM NO.	PART NO.	DESCRIPTION
1	526 4500	Cap
2	521 3001	Stop Ring (φ6mm)
3	3-533 9004	Cable Fixing Bolt Unit
4	533 1300	Cable Fixing Bolt
5	533 2300	Cable Fixing Washer
6	533 1400	Cable Fixing Plate
7	533 1200-1	Inner Sleeve
8	522 2702	B-Tension Spring
9	3-525 9069	Adapter Screw & Nut
10	000 1104-1	Adapter Screw
11	511 3500-1	Adapter Nut
12	3-522 9071-1	Adapter w/Mounting Shaft
13	533 1700-2	Stopper Pin

ITEM NO.	PART NO.	DESCRIPTION
14	533 2400-2	Washer
15	522 2802	P-Tension Spring
16	3-539 9002	Pulley Plate Assembly (Short Cage)
	3-539 9007	Pulley Plate Assembly (Middle Cage)
17	3-539 9003	Outer Plate w/Mounting Shaft (Short Cage)
	3-539 9006	Outer Plate w/Mounting Shaft (Middle Cage)
18	539 1100	Pulley Bolt
19	3-551 9801	Pulley Unit
20	534 2500-1	S.B. Cap
21	551 0300	Inner Plate (Short Cage)
	539 1000	Inner Plate (Middle Cage)

8309-383C



Rear Derailleur

Model RD-P240
Model RD-P210

RD

NEW POSITRON PPS SYSTEM

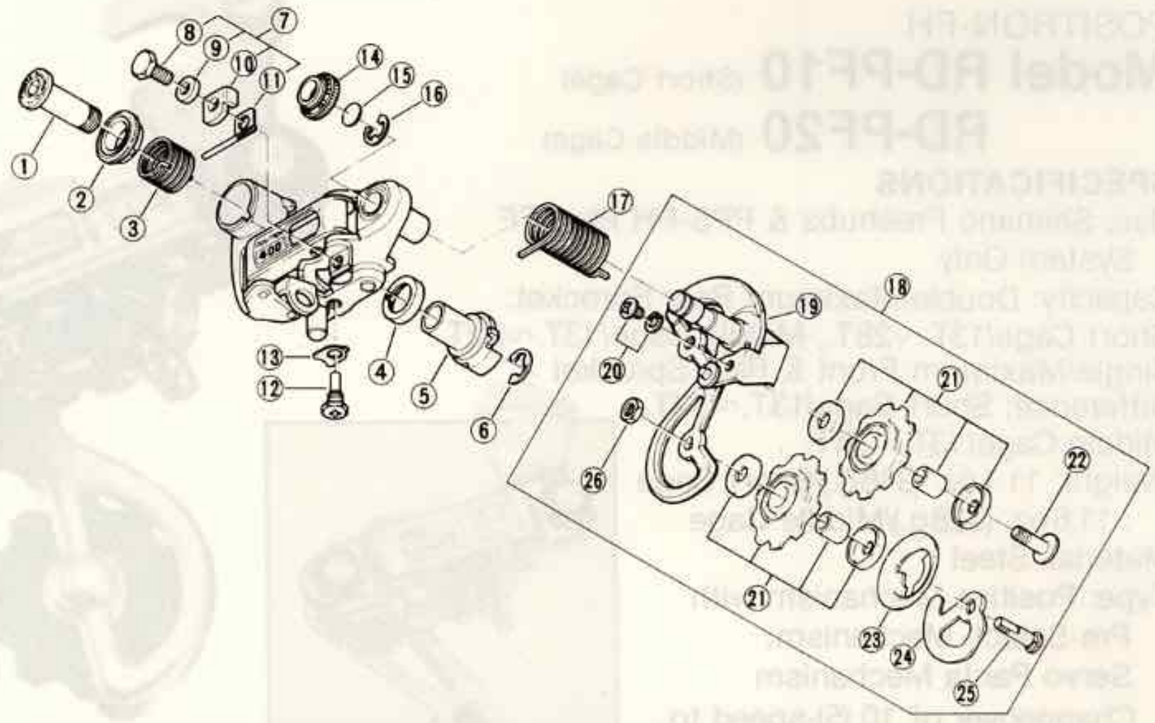
POSITRON-400

Model RD-P240

SPECIFICATIONS

Use: PPS System & FF System Only
Capacity: Maximum Rear Sprocket: 28T.
Maximum Front & Rear Sprocket Difference: 28T.
Weight: 11.3 oz. (320 g.)
Material: Light Alloy • Steel
Type: Positive Mechanism with Pre-Select Mechanism and Servo Panta Mechanism
(Can not be used with Freehub)





ITEM NO.	PART NO.	DESCRIPTION
1	541 0700-1	B-Axle
2	541 2201	B-Axle Mounting Collar
3	534 1300	B-Tension Spring
4	541 3500	B-Axle Sleeve
5	3-541 9004-1	B-Axle Bushing
6	528 1200	Stop Ring (ø7mm)
7	3-533 9004	Cable Fixing Bolt Unit
8	533 1300	Cable Fixing Bolt
9	533 2300	Cable Fixing Washer
10	533 1400	Cable Fixing Plate
11	533 1200-1	Inner Sleeve
12	533 1700-2	Stopper Pin
13	533 2400-2	Washer

ITEM NO.	PART NO.	DESCRIPTION
14	543 0801	Cap
15	522 1900	Spin
16	521 3001	Stop Ring (ø6mm)
17	533 2800	P-Tension Spring
18	3-534 9008	Pulley Plate Assembly
19	3-534 9007	Outer Plate w/Mounting Shaft
20	3-537 9003	Hatch Plate Fixing Screw & Washer
21	3-554 9806	Pulley Unit
22	542 1900	Guide Pulley Fixing Screw
23	534 2500-1	S.B. Cap
24	534 2400	Inner Plate
25	534 2200	Tension Pulley Fixing Bolt
26	545 5400	Pulley Nut

8309-642

NEW POSITRON PPS SYSTEM

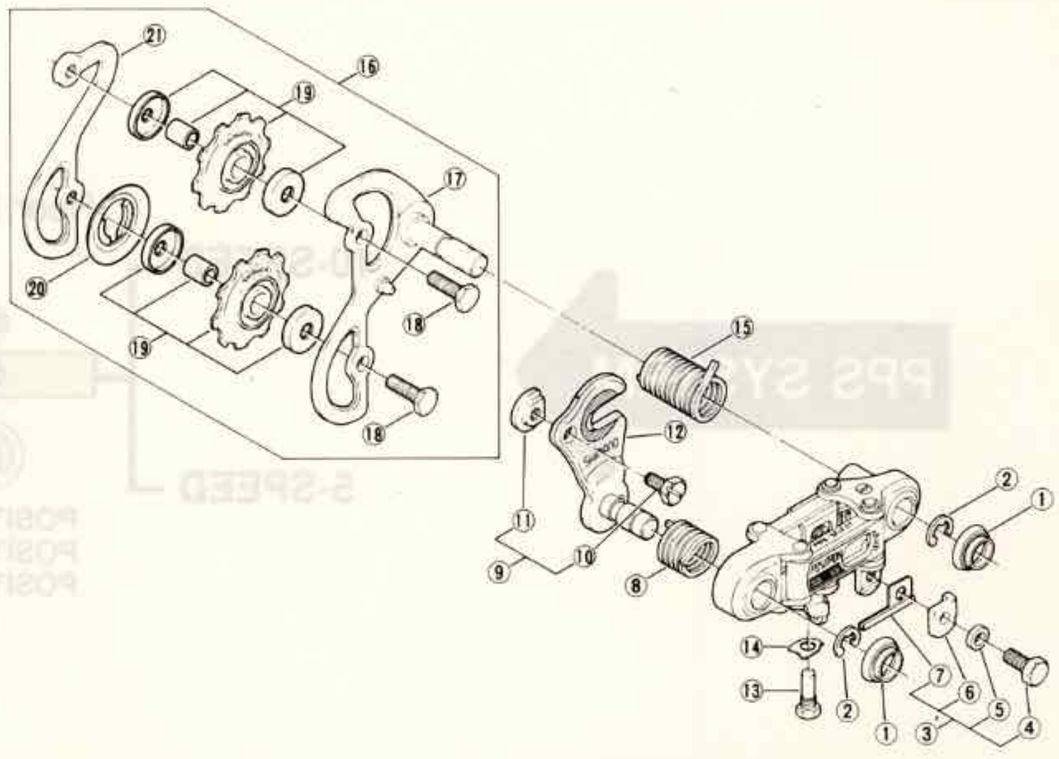
POSITRON-II

Model RD-P210

SPECIFICATIONS

Use: PPS System & FF System Only
Capacity: Maximum Rear Sprocket: 28T.
Maximum Front & Rear Sprocket Difference: 28T.
Weight: 10.9 oz. (310 g.)
Material: Steel
Type: Positive Mechanism with Pre-Select Mechanism and Servo Panta Mechanism
10 (5)-speed
(Can not be used with Freehub)





ITEM NO.	PART NO.	DESCRIPTION
1	526 4500	Cap
2	521 3001	Stop Ring (ø6mm)
3	3-533 9004	Cable Fixing Bolt Unit
4	533 1300	Cable Fixing Bolt
5	533 2300	Cable Fixing Washer
6	533 1400	Cable Fixing Plate
7	533 1200-1	Inner Sleeve
8	522 2700	B-Tension Spring
9	3-525 9069	Adapter Screw & Nut
10	000 1104-1	Adapter Screw
11	511 3500-1	Adapter Nut

ITEM NO.	PART NO.	DESCRIPTION
12	3-522 9071-1	Adapter w/Mounting Shaft
13	533 1700-2	Stopper Pin
14	533 2400-2	Washer
15	522 2800	P-Tension Spring
16	3-533 9003	Pulley Plate Assembly
17	3-533 9002	Outer Plate w/Mounting Shaft
18	524 7200	Pulley Bolt
19	3-554 9806	Pulley Unit
20	534 2500-1	S.B. Cap
21	522 1403	Inner Plate

8310-234C

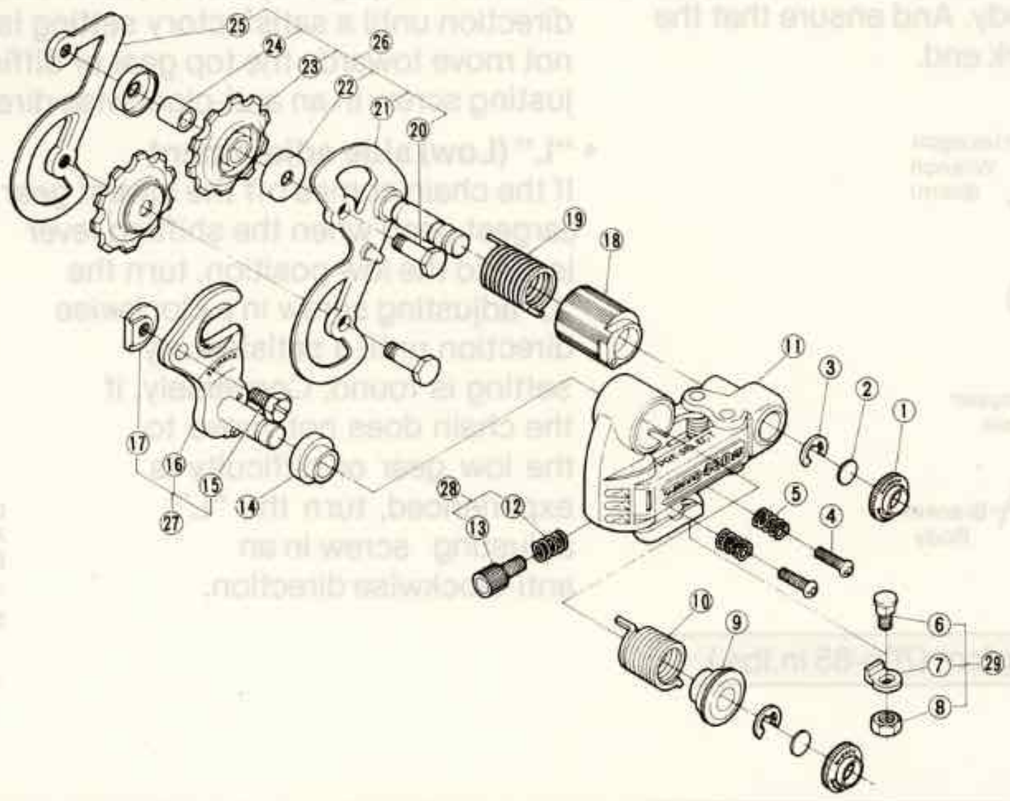
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Model RD-401F

Model RD-RS12 Chrome Finish
Model RD-RS11 Zinc Finish

SHIMANO-400FF
Model RD-401F

(Can not be used with Freehub)



ITEM NO.	PART NO.	DESCRIPTION
1	543 0800	Cap
2	522 1900	Spin
3	521 3001	Stop Ring
4	000 1003	Adjusting Screw
5	543 2900	Adjusting Spring
6	583 2300-2	Cable Fixing Bolt
7	583 2500-1	Cable Fixing Plate
8	541 2400	Cable Fixing Nut
9	543 0700	Adapter Mounting Collar
10	543 0501	B-Tension Spring
11	543 9011-1	Mechanism Assembly
12	541 1100	Cable Adjusting Spring
13	541 1200	Cable Adjusting Barrel
14	543 0600	Adapter Bushing
15	000 1104-1	Adapter Screw
16	543 9004	Adapter W/Mounting Shaft
17	511 3500-1	Adapter Nut
18	541 2603	Spring Cover
19	543 2700	P-Tension Spring
20	511 2600-1	Pulley Bolt
21	543 9012	Outer Cage Plate W/Mounting Shaft
22	511 2700-1	Pulley Cap
23	521 3100-1	Pulley
24	511 2900	Pulley Bushing
25	541 0600	Inner Cage Plate
26	543 9003	Pulley Plate Assembly
27	525 9069	Adapter Screw & Nut
28	541 9002	Cable Adjusting Barrel Set
29	586 9003	Cable Fixing Bolt Set

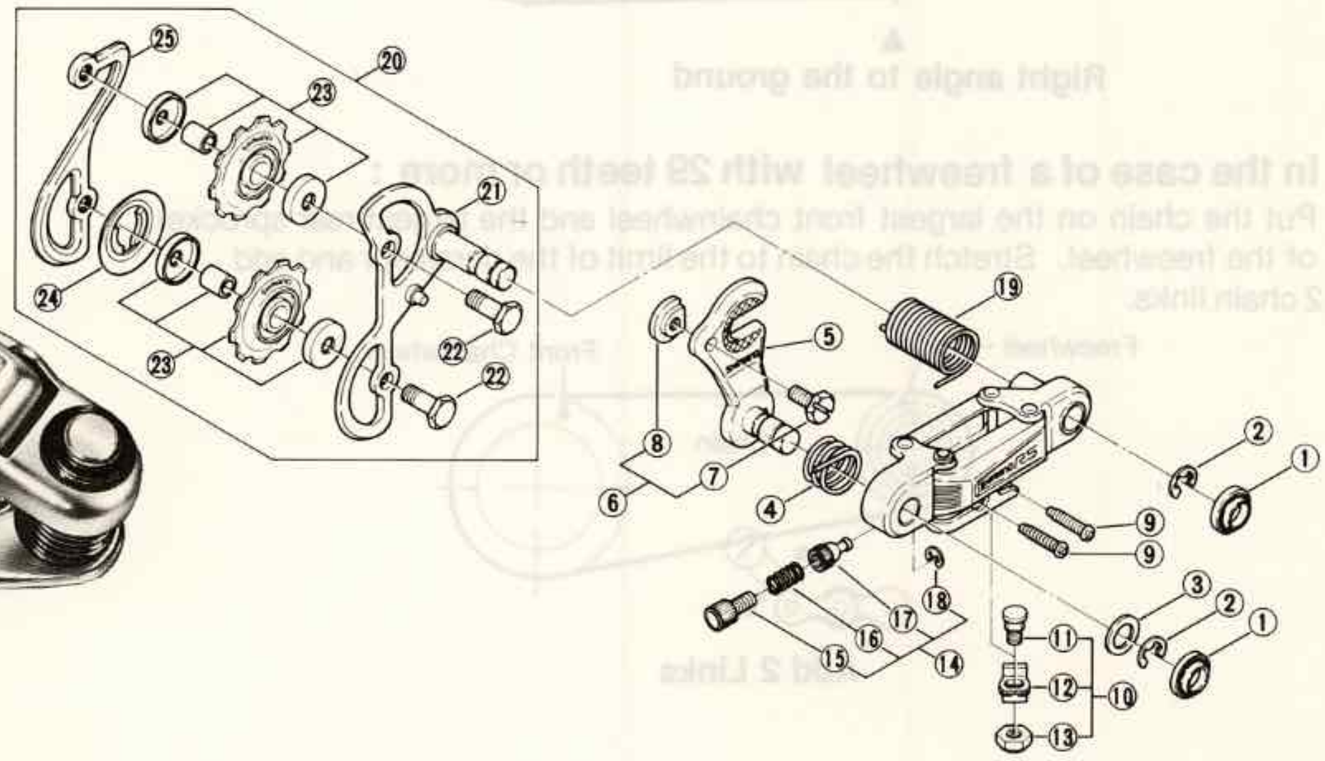
7611-247A

SHIMANO-RS
Model RD-RS12 (Chrome)
RD-RS11 (Zinc)

SPECIFICATIONS

Capacity: Maximum Rear Sprocket: 32T.
Maximum Front & Rear
Sprocket Difference: 30T.
Weight: 10.9oz. (308g.)
Material: Steel
Type: Servo Panta Mechanism,
Centeron Mechanism
Use: Uni Balance Freehub





ITEM NO.	PART NO.	DESCRIPTION
1	526 4500	Cap
2	521 3001	Stop Ring (φ6mm)
3	521 3500	Spacer
4	521 2601	B-Tension Spring
5	3-522 9071-1	Adapter w/Mounting Shaft
6	3-525 9069	Adapter Screw & Nut
7	000 1104-1	Adapter Screw
8	511 3500-1	Adapter Nut
9	000 1003	Stroke Adjusting Screw
10	3-522 9079	Cable Fixing Bolt Unit
11	541 3400	Cable Fixing Bolt
12	541 2300	Cable Fixing Plate
13	541 2401	Cable Fixing Nut
14	3-522 9076	Cable Adjusting Barrel Unit
15	522 2500	Cable Adjusting Barrel
16	532 2100	Cable Adjusting Spring
17	522 2900	Swivel Barrel
18	522 3000	Stop Ring (φ3mm)
19	521 1400-1	P-Tension Spring
20	3-551 9003	Pulley Plate Assembly
21	3-551 9002	Outer Plate w/Mounting Shaft
22	551 0400	Pulley Bolt
23	3-551 9801	Pulley Unit
24	534 2500-1	S.B. Cap
25	551 0300	Inner Plate

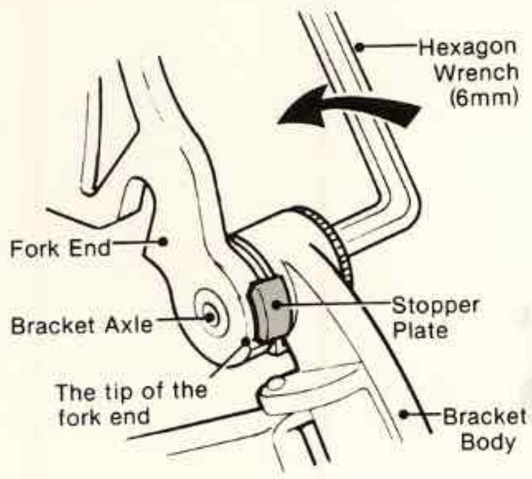
8310-U349A

Rear Derailleur Assembly Note & Tools.

RD

Frame Assembly

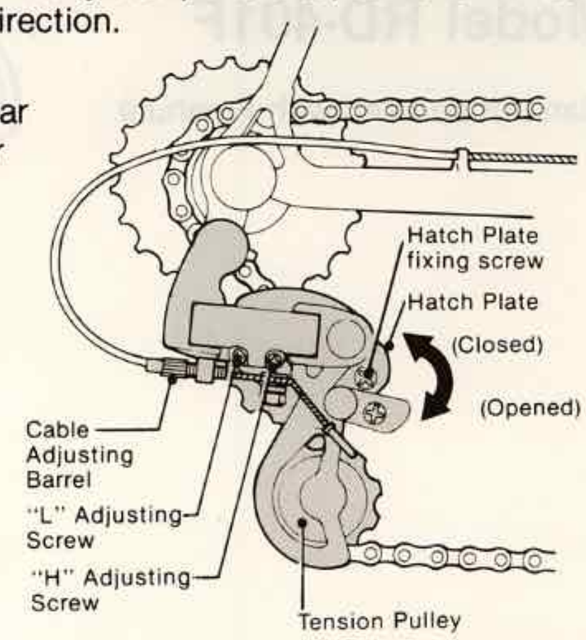
Assemble the rear derailleur bracket axle to the fork end by means of the hexagon wrench (6mm). Then tighten the bracket axle pushing the bracket body forward so that the stopper plate can be set to the tip of the fork end. When tightening is completed release the bracket body. And ensure that the stopper plate makes proper contact with the tip of fork end.



Tightening torque: 80~100kgfcm (70~85 in.lbs.)

Stroke Adjustment

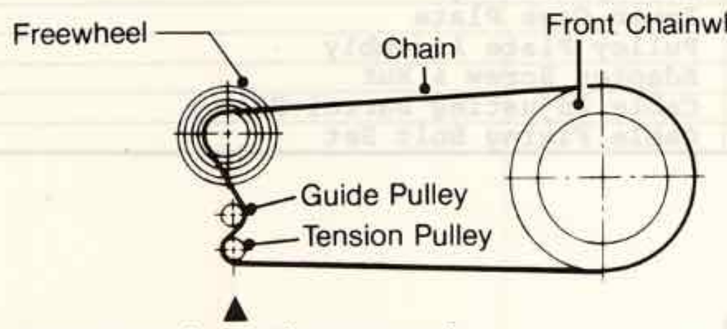
- **"H" (Top) side adjustment**
  If the chain comes off the top gear (smallest gear) when the shifting lever is set to the top gear position, turn the "H" adjusting screw in a clockwise direction until a satisfactory setting is found. Conversely, if the chain does not move towards the top gear or difficulty is experienced, turn the "H" adjusting screw in an anti-clockwise direction.
- **"L" (Low) side adjustment**
  If the chain comes off the lowest gear (largest gear) when the shifting lever is set to the low position, turn the "L" adjusting screw in a clockwise direction until a satisfactory setting is found. Conversely, if the chain does not move to the low gear or difficulty is experienced, turn the "L" adjusting screw in an anti-clockwise direction.



Precise Cable Adjustment

In the case of a freewheel with 28 teeth or less :

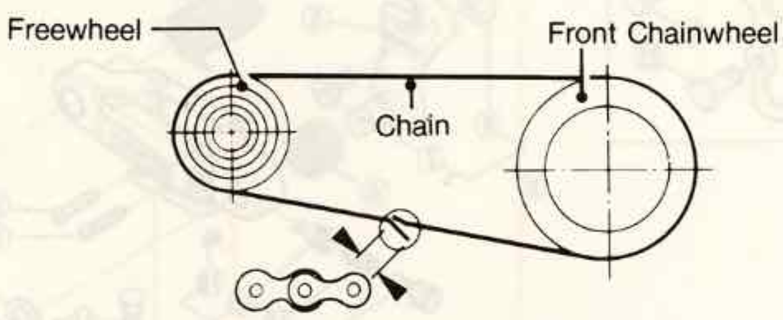
Put the chain on the smallest sprocket of the freewheel and on the largest sprocket of the front chainwheel. Adjust the length of the chain by checking that the center line connecting the rear derailleur guide pulley and the tension pulley is at right angles to the ground.



▲
Right angle to the ground

In the case of a freewheel with 29 teeth or more :

Put the chain on the largest front chainwheel and the largest rear sprocket of the freewheel. Stretch the chain to the limit of the derailleur and add 2 chain links.

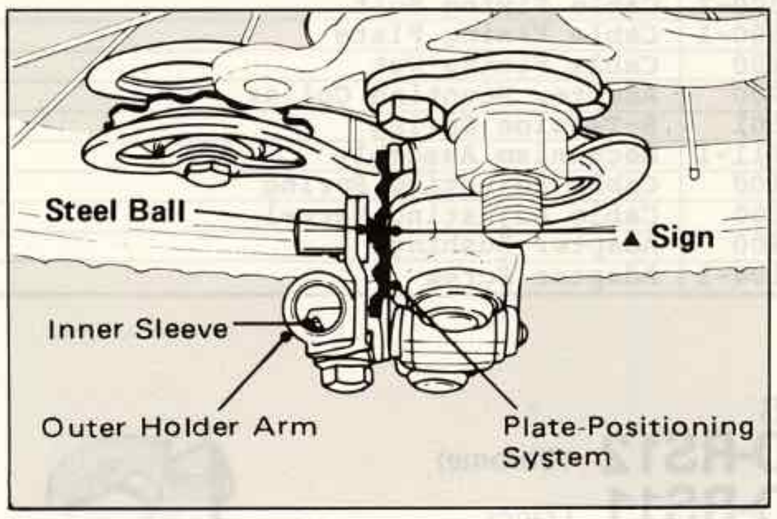


Add 2 Links

Note:
Where the total capacity is 40T, it may be impossible to establish the above setting due to the effect of the frame dimensions.
In such a case, either move back the hub axle or remove two links from the chain and reset the chain.

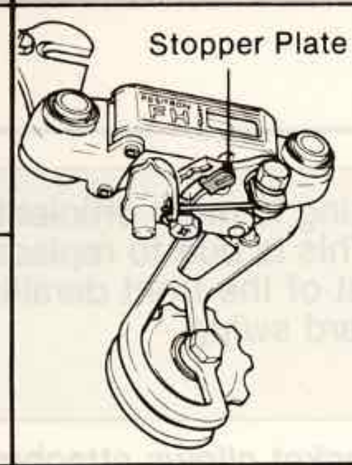
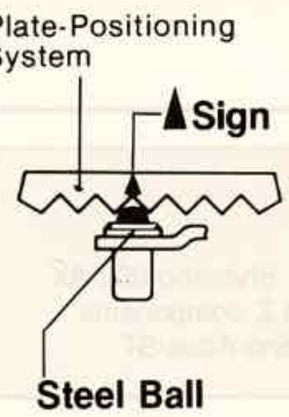
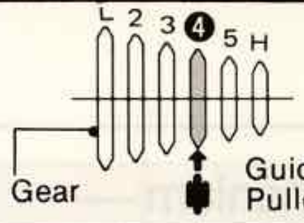
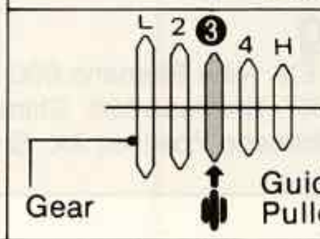
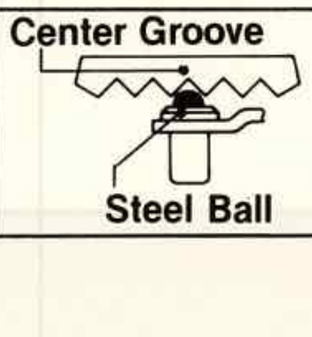
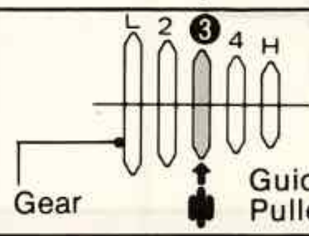
Rear Derailleur Assembly (PPS System)

(1) Fix the derailleur to the frame with the set bolt nut.
(2) Ensure that the steel balls align with the ▲ sign on the plate-positioning system by moving the rear derailleur.



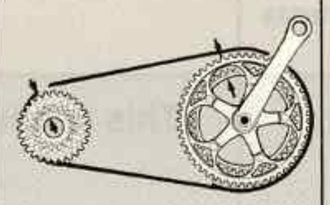
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■ PPS System Chart (Simplified Version) Rear derailleur Model RD-P210 does not possess indication mark (▲ sign).

	Stopper Plate Fixing Position		Steel Ball Position	Guide Pulley Position	Shifting Lever Position
Model RD-PF20 RD-PF10 PPS-FH System **For 6-Speed**					
Model RD-PF20 RD-PF10 PPS-FH System **For 5-Speed**					
Model RD-P210 PPS System **5-Speed Only**	**5-Speed Only**				

RD

■ Rear Derailleur Capacity Chart

	Fork End 	Distance from Hub Axle to Bracket Axle of Rear Derailleur 	Maximum Rear Sprocket 	Maximum F & R Sprocket Difference 	Maximum Front Sprocket Difference using maximum capacity 
Dura-Ace AX	EF Fork End FE-EF20	0.9″ (24mm)	24T	26T	13T
Dura Ace EX	EF Fork End FE-EF20	0.9″ (24mm)	26T	26T	13T
New 600 EX	EF Fork End FE-EF20	0.9″ (24mm)	28T	28T	13T
New 600 EX GS	SFR Fork End FE-SF22	1.2″ (30mm)	34T	34T	20T
Deore XT (AL-11)	SFR Fork End FE-SF22	1.2″ (30mm)	34T	40T	20T
Z505 (Z503 & Z501)	SF Fork End FE-SF20	1″ (26mm)	28T	30T	13T
Z505GS (Z503GS & Z501GS)	SFR Fork End FE-SF22	1.2″ (30mm)	34T	34T	20T
105	SF Fork End FE-SF20	1″ (26mm)	28T	28T	14T
105GS	SFR Fork End FE-SF22	1.2″ (30mm)	34T	34T	20T

R: Maximum Rear Sprocket
F: Maximum Front Sprocket Difference using maximum capacity

Model No.	Max. Rear Sprocket	Max. Front & Rear Sprocket Difference
RD-6300	28T	28T
RD-6200		
RD-PF40		
RD-P210		
RD-P240		
RD-AT11		
RD-AT12		
RD-PF10		32T
RD-DE10	30T	30T
RD-PF20	32T	34T
RD-PF30		32T
RD-RS11		30T
RD-RS12		
RD-SL10		
RD-AT21	34T	34T
RD-AT22		
RD-6210		
RD-DE20		

• Tools.

Model TL-WR36 6 mm.
PART No. 4-520 0901

Model TL-WR33 3 mm.
PART No. 4-520 0904

Hexagon Wrench Keys



FRONT DERAILLEURS

FEATURE	BENEFIT
Trap-Ease Mechanism—— for sure shifting Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 600 AX Shimano 600 EX Deore XT Shimano 105 Shimano Z components Shimano AL11 Deore Shimano Positron AX Shimano Altus-ST Shimano-FE	The low to high shifting is more efficient with less noise and slipping. This is due to replacement of the normally lateral thrust of the front derailleur cage with an upward and outward swing.
Brazed-on Type—— for Aero tubing Dura-Ace AX	Special brazed-on bracket allows attachment to Aerodynamic seat tube.
Spring Cover—— for longer life New Shimano 600 EX Shimano 105 Deore XT Shimano Z Components Deore	Shields return spring from water and dirt for longer life.
Spring Cover—— for longer life New Shimano 600 EX Shimano 105 Deore XT Shimano Z Components Deore	Cover shields dirt and mud from return spring.
Helicoil-Secured Wire Fixing Screw—— for durability New Shimano 600 EX	This keeps the cable fixing bolt holes from stripping.
Chain Release Dish-out—— for sure shifting New Shimano 600 EX	An indent in the outer cage plate eliminates overshifting during up-shifting.
Heat-Treated Chain Guides—— for sure shifting and durability Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 600 AX Shimano 105 Shimano Z Components Deore XT Deore Shimano AL11 Shimano Altus ST/LT Shimano FE	The specially treated chain guides improve shifting performance and durability by reducing friction.
Large Capacity—— for wide range gearing Deore XT Shimano AL11	Longer chain guides and increased stroke capacity on GS-Type make wide range triple chain wheel shifting easy.

FD

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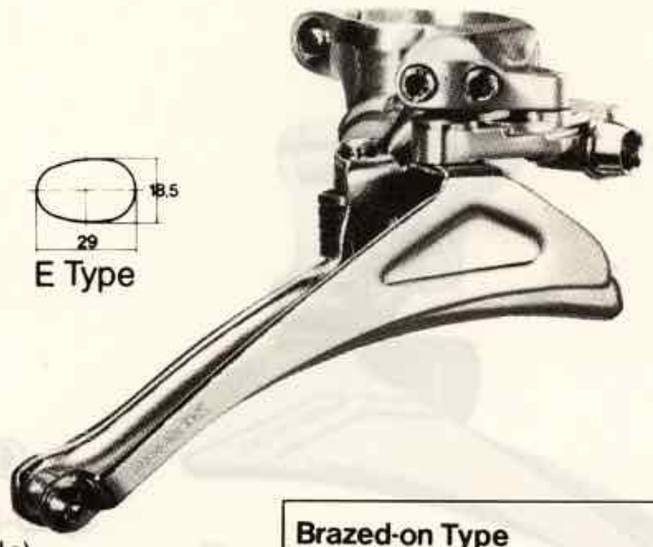
Front Derailleur

Model FD-7300 Band Type
Model FD-7310 Brazed-on Type
Model FD-7320 Brazed-on Type

Model FD-7200 Band Type
Model FD-7210 Brazed-on Type

DURA-ACE EX

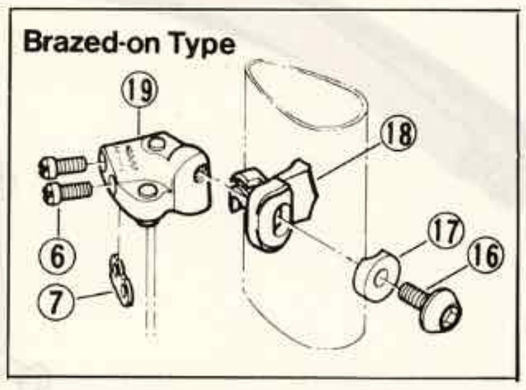
Model FD-7300 (Band Type)
FD-7310 (Brazed-on Type)
FD-7320 (Brazed-on Type for oval Tube E)

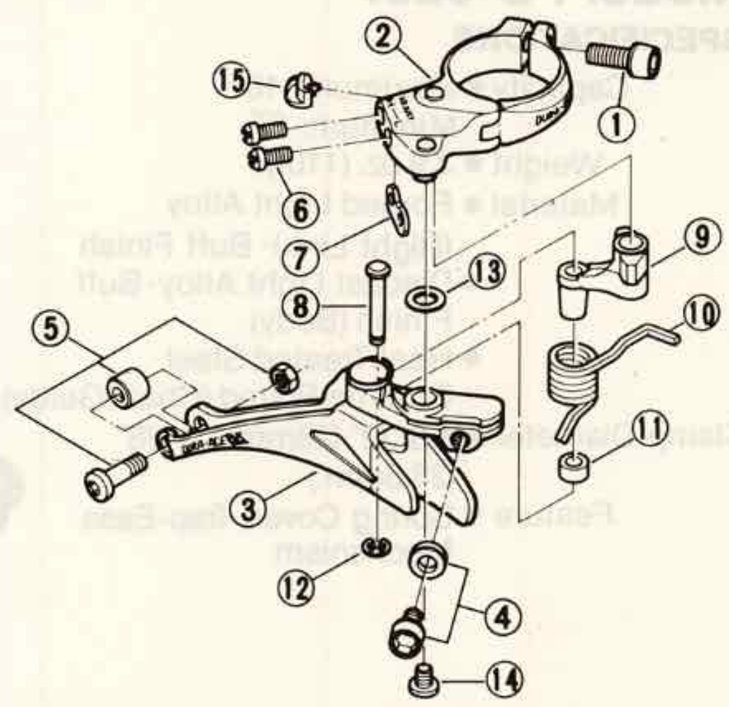


E Type

SPECIFICATIONS

Capacity • Maximum: 14T.
Weight • Band Type; 3.4 oz. (96g.)
Brazed-on Type; 3.1 oz. (88g.)
Brazed-on Parts; 0.5 oz. (13g.)
Material • Light Alloy • Anodized Finish (Body)
Steel • Chromium Finish (Chain Guide)
Inlet Diameter • Band Type/1-1/8″ (28.6mm.), 1-3/32″ (28.0mm.)
Brazed-on Type/1-1/8″ (28.6mm.)
Brazed-on Type (For Oval Tube)/ 18.5 × 29mm. (E Type)
Features • Aerodynamic Design/New Trap-Ease Mechanism/Indent·Guide Mechanism/Hexagon Release/ Inner End Guide





ITEM NO.	PART NO.	DESCRIPTION
1	571 0400	Clamp Bolt A (M5x11.5)
2	3-571 9001	Clamp Band (1-1/8")
	3-571 9002	Clamp Band (φ28.0mm)
3	3-571 9003	Chain Guide Assembly
4	3-571 9004	Cable Fixing Bolt (M5x8) & Plate
5	3-585 9104	Roller Fixing Screw Unit
6	571 0900	Stroke Adjusting Screw (M4x7.5)
7	585 4900	Adjusting Plate
8	571 1100	Axle C
9	571 0800	Inner Link
10	571 1200	Return Spring

ITEM NO.	PART NO.	DESCRIPTION
11	586 4000	Axle Bush
12	584 2200	Stop Ring (M3)
13	571 2200	Link Washer
14	585 4800	Link Fixing Screw
15	571 1901	Cable Guide
16	571 0401	Clamp Bolt B (M5x11) for Brazed-on Type
17	585 5800	Clamp Washer for Brazed-on Type
18	571 2100-1	Brazed-on Bracket for 1-1/8" Tube
	571 2102	Brazed-on Bracket for Oval Tube (Tange)
19	3-571 9006	Bracket Body for Brazed-on Type

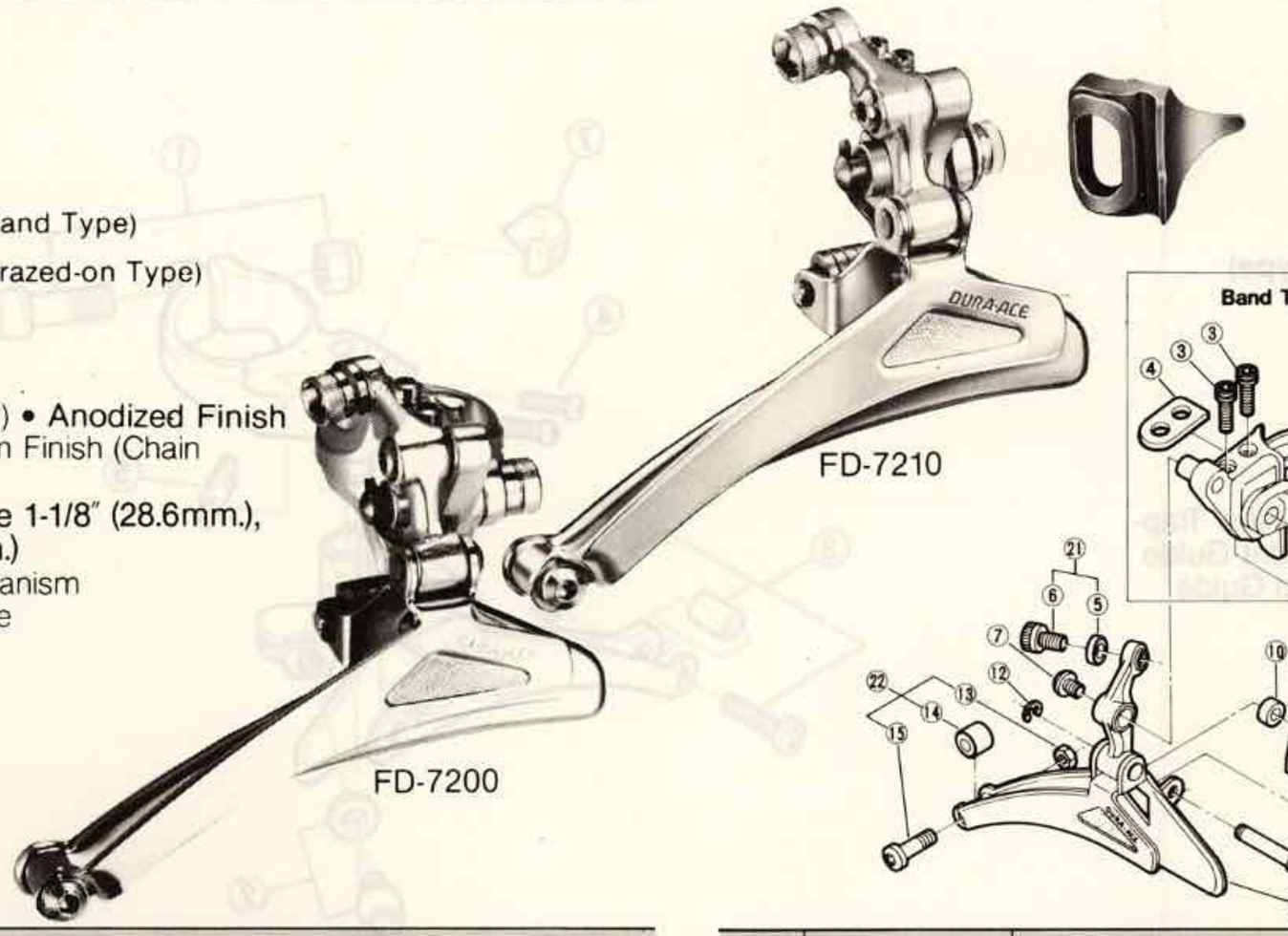
8305-441B

DURA-ACE EX

Model FD-7200 (Band Type)
FD-7210 (Brazed-on Type)

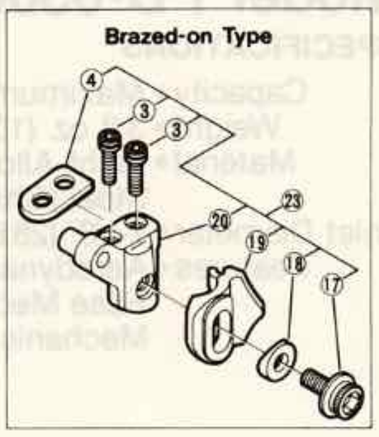
SPECIFICATIONS

Capacity • Maximum: 14T.
Weight • 3.6 oz. (102g.)
Material • Light Alloy (Body) • Anodized Finish
• Steel • Chromium Finish (Chain Guide)
Type • Lower Inlet Type 1-1/8″ (28.6mm.), 1-3/32″ (28.0mm.)
• Trap-Ease Mechanism
• Hexagon Release



FD-7210

FD-7200



ITEM NO.	PART NO.	DESCRIPTION
1	585 3301	Clamp Bolt
2	3-585 9101	Clamp Band
3	585 3500	Stroke Adjusting Screw
4	585 4900	Stroke Adjusting Plate
5	586 4200	Cable Fixing Plate
6	585 1601	Cable Fixing Bolt
7	585 4800	Link Fixing Bolt
8	585 4700	Inner Link
9	585 5000	Return Spring
10	586 4000	Axle Bush
11	585 4500	Link Fixing Axle
12	584 2200	Stop Ring

ITEM NO.	PART NO.	DESCRIPTION
13	581 2001	Roller Fixing Nut
14	585 0900	Roller
15	585 3000	Roller Fixing Bolt
16	3-585 9102	Chain Guide Assembly
17	585 5700	Clamp Bolt B for Brazed-on Type
18	585 5800	Radius Washer for Brazed-on Type
19	585 5600	Brazed-on Bracket
20	585 5500	Bracket Body for Brazed-on Type
21	3-585 9103	Cable Fixing Bolt & Plate
22	3-585 9104	Roller Fixing Bolt Unit
23	3-585 9105	Brazed-on Bracket Assembly

8310-341A

UE

Front Derailleur

Model FD-6207
Model FD-6300 Band Type

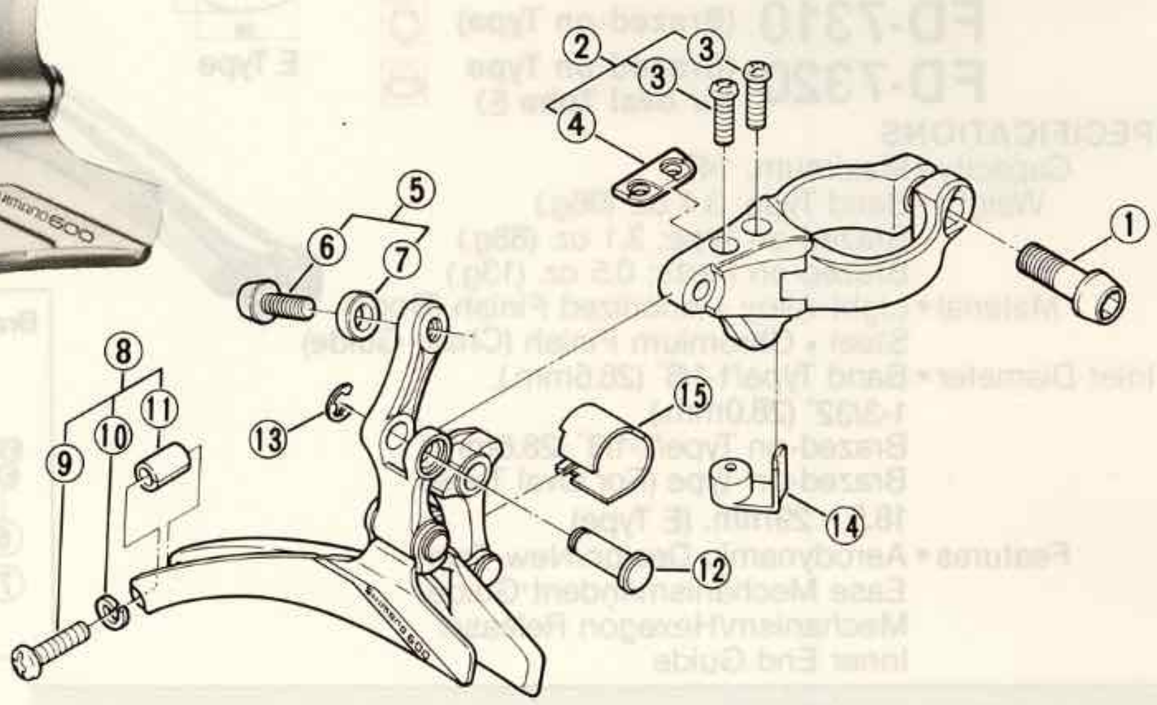
FD

Model FD-6207

SPECIFICATIONS

Capacity • Maximum: 18T
Minimum: 3T
Weight • 3.9 oz. (110g.)
Material • Forged Light Alloy (Right Link) · Buff Finish
• Diecast Light Alloy · Buff Finish (Body)
• Heat Treated Steel · Chrome-Plated (Chain Guide)
Clamp Diameter • 1-3/32″ (28mm.), 1-1/8″ (28.6mm.)
Feature • Spring Cover, Trap-Ease Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	000 1303	Clamp Bolt
2	3-590 9801	Stroke Adjusting Screw (M4x13) & Plate
3	590 0900	Stroke Adjusting Screw (M4x13)
4	586 4500	Stroke Adjusting Plate
5	3-571 9004	Cable Fixing Bolt (M5x8) & Plate
6	571 1600	Cable Fixing Bolt (M5x8)
7	571 1700	Cable Fixing Plate
8	3-578 9802	Roller Fixing Screw Unit

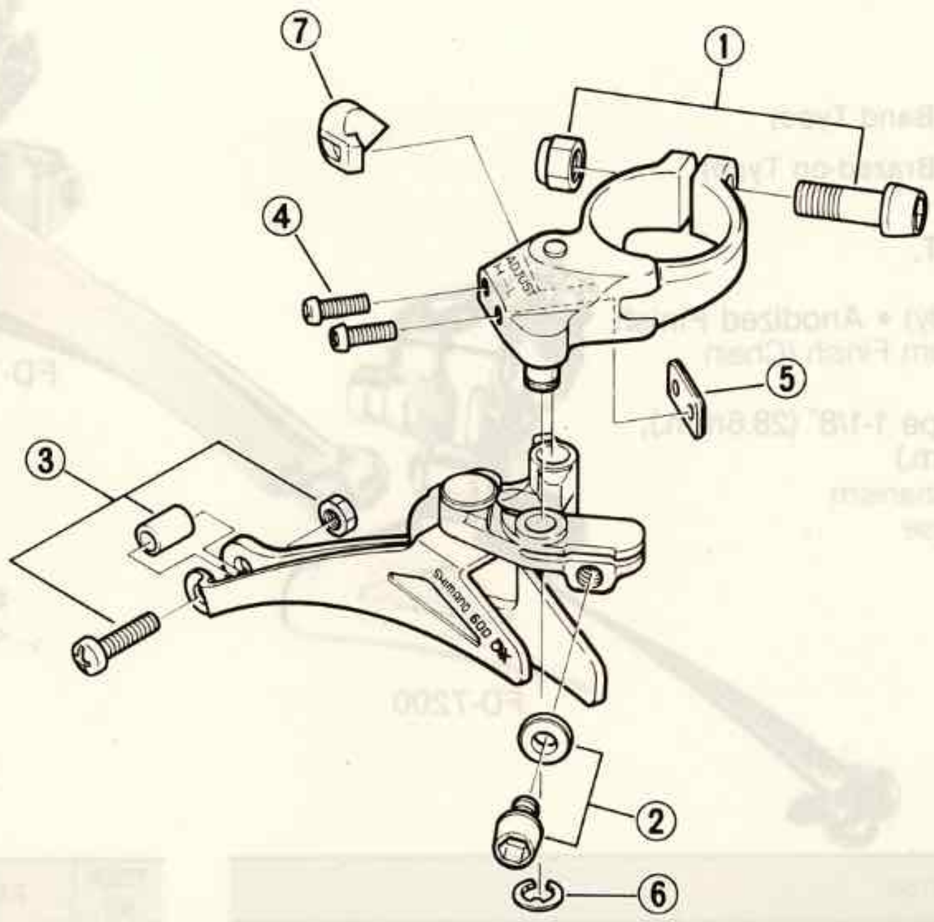
ITEM NO.	PART NO.	DESCRIPTION
9	000 1004	Roller Fixing Screw
10	578 0700	Spring Washer
11	586 4400	Roller
12	579 0800	Link Axle
13	582 3600	Stop Ring
14	579 0600	Cable Stopper
15	579 0700	Spring Cover

8310-594A

Model FD-6300 (Band Type)

SPECIFICATIONS

Capacity • Maximum: 14T.
Weight • 3.8 oz. (107g.)
Material • Light Alloy (Body)
Steel (Chain Guide)
Inlet Diameter • 1-1/8″ (28.6mm.)
Features • Aerodynamic Design/New Trap-Ease Mechanism/Indent Guide Mechanism/Inner End Guide



ITEM NO.	PART NO.	DESCRIPTION
1	3-574 9001	Clamp Bolt & Nut
2	3-571 9004	Cable Fixing Bolt Unit
3	3-586 9025	Roller Fixing Screw Unit
4	000 1012	Stroke Adjusting Screw (M4x10)
5	574 0700	Adjusting Plate
6	582 3600	Stop Ring (ø4mm)
7	574 0400	Cable Guide

8106-442A

UE

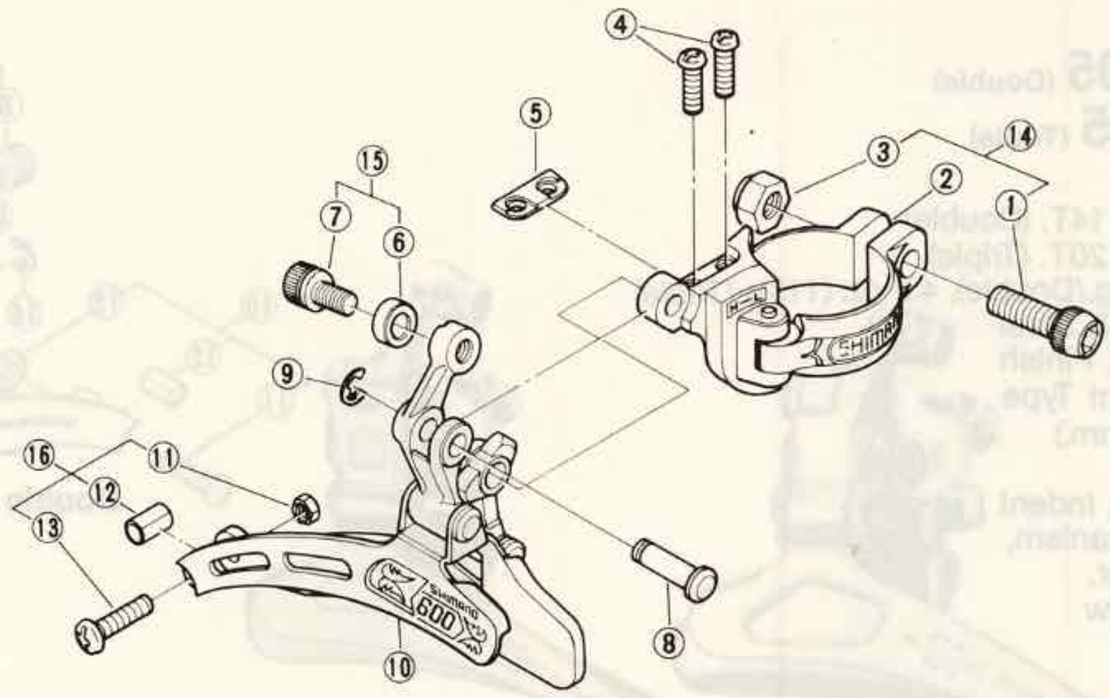
Model FD-6200
Model FD-M700

SHIMANO 600 EX

Model FD-6200

SPECIFICATIONS

Capacity ● Maximum: 14T.
Weight ● 3.95oz. (112g.)
Material ● Light Alloy (Body)
● Steel • Chromium Finish (Chain Guide)
Type ● Lower Inlet Type 1-1/8"
Trap-Ease Mechanism
Arabesque Pattern Design



ITEM NO.	PART NO.	DESCRIPTION
1	586 4300	Clamp Bolt
2	586 9021	Clamp Assembly (1-1/8")
3	525 1801	Clamp Nut
4	582 3001	Stroke Adjusting Screws
5	586 4500	Stroke Adjusting Plate
6	586 4200	Cable Fixing Plate
7	585 1601	Cable Fixing Bolt
8	586 3600	Link Fixing Rivet

ITEM NO.	PART NO.	DESCRIPTION
9	582 3600	Stop Ring
10	586 9022	Chain Guide Assembly
11	585 3600	Roller Fixing Nut
12	586 4400	Roller
13	000 1004	Roller Fixing Screw
14	586 9023	Clamp Bolt & Nut
15	3-585 9103	Cable Fixing Bolt Assembly
16	586 9025	Roller Fixing Screw Assembly

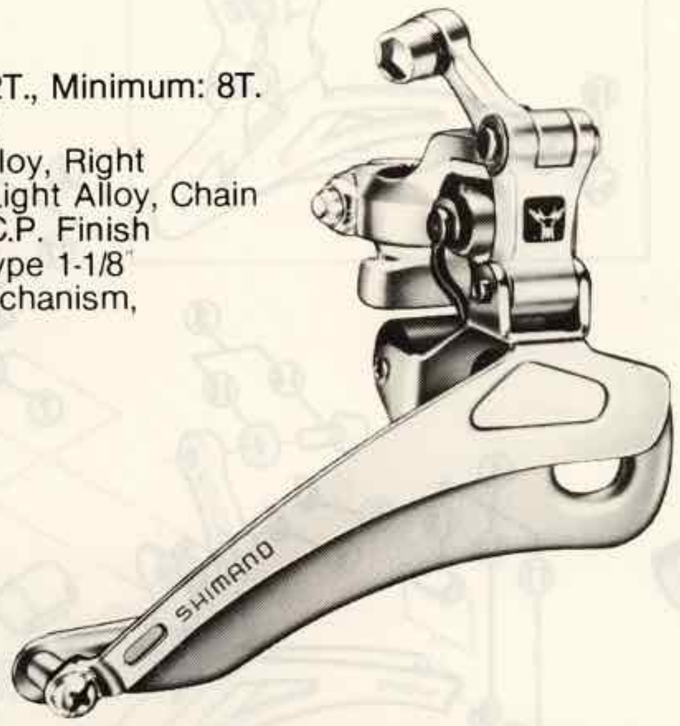
7806-325A

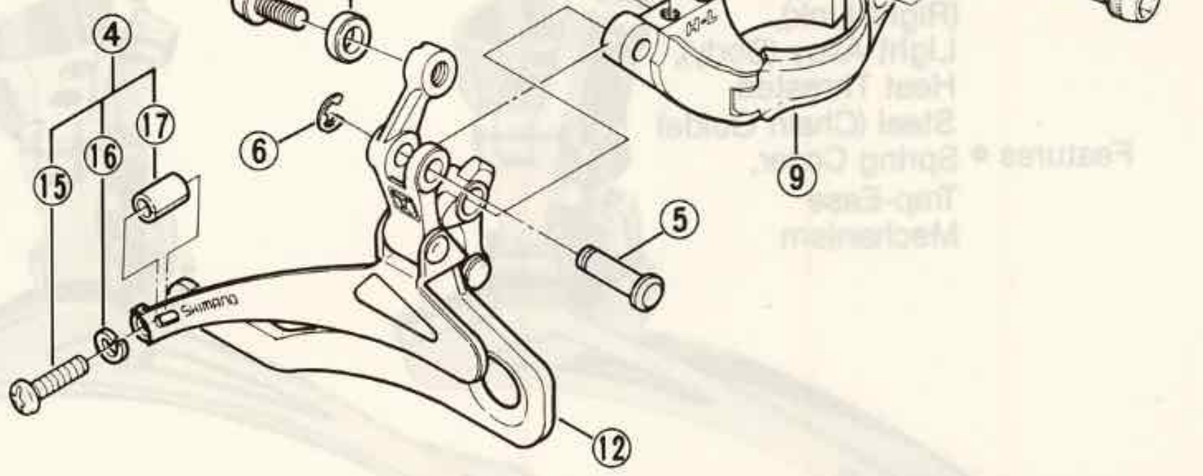
DEORE XT

Model FD-M700

SPECIFICATIONS

Capacity ● Maximum: 22T., Minimum: 8T.
Weight ● 4.3 oz. (120g.)
Material ● Body/Light Alloy, Right Link/Forged Light Alloy, Chain Guide/Steel · C.P. Finish
Type ● Lower Inlet Type 1-1/8"
Trap-Ease Mechanism,
Spring Cover





ITEM NO.	PART NO.	DESCRIPTION
1	3-586 9023	Clamp Bolt & Nut
2	3-590 9801	Stroke Adjusting Screw (M4x13) & Plate
3	3-571 9004	Cable Fixing Bolt (M5x8) & Plate
4	3-578 9802	Roller Fixing Screw Unit
5	586 3600	Link Axle
6	582 3600	Stop Ring
7	586 4300	Clamp Bolt
8	525 1801	Clamp Nut
9	3-578 9901	Clamp Assembly

ITEM NO.	PART NO.	DESCRIPTION
10	590 0900	Stroke Adjusting Screw (M4x13)
11	586 4500	Stroke Adjusting Plate
12	3-578 9911	Chain Guide Assembly
13	571 1600	Cable Fixing Bolt
14	571 1700	Cable Fixing Plate
15	000 1004	Roller Fixing Screw
16	578 0700	Spring Washer
17	586 4400	Roller

8306-S552'

Front Derailleur

Model FD-A105 Double Gear
Model FD-T105 Triple Gear
Model FD-Z206 Short Cage
Model FD-Z206-GS Long Cage

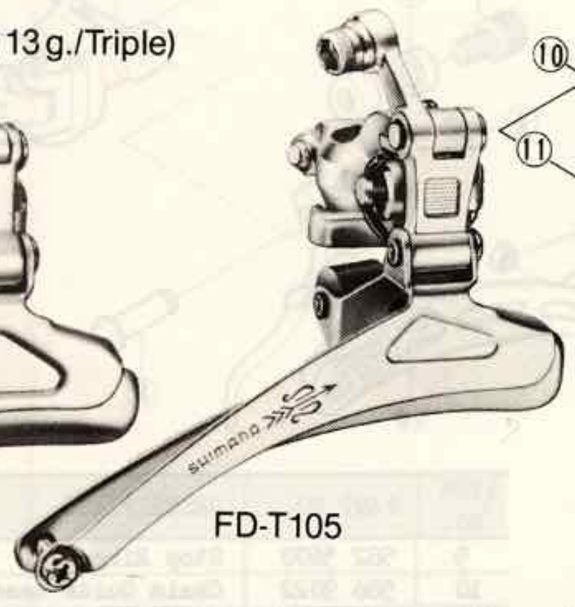
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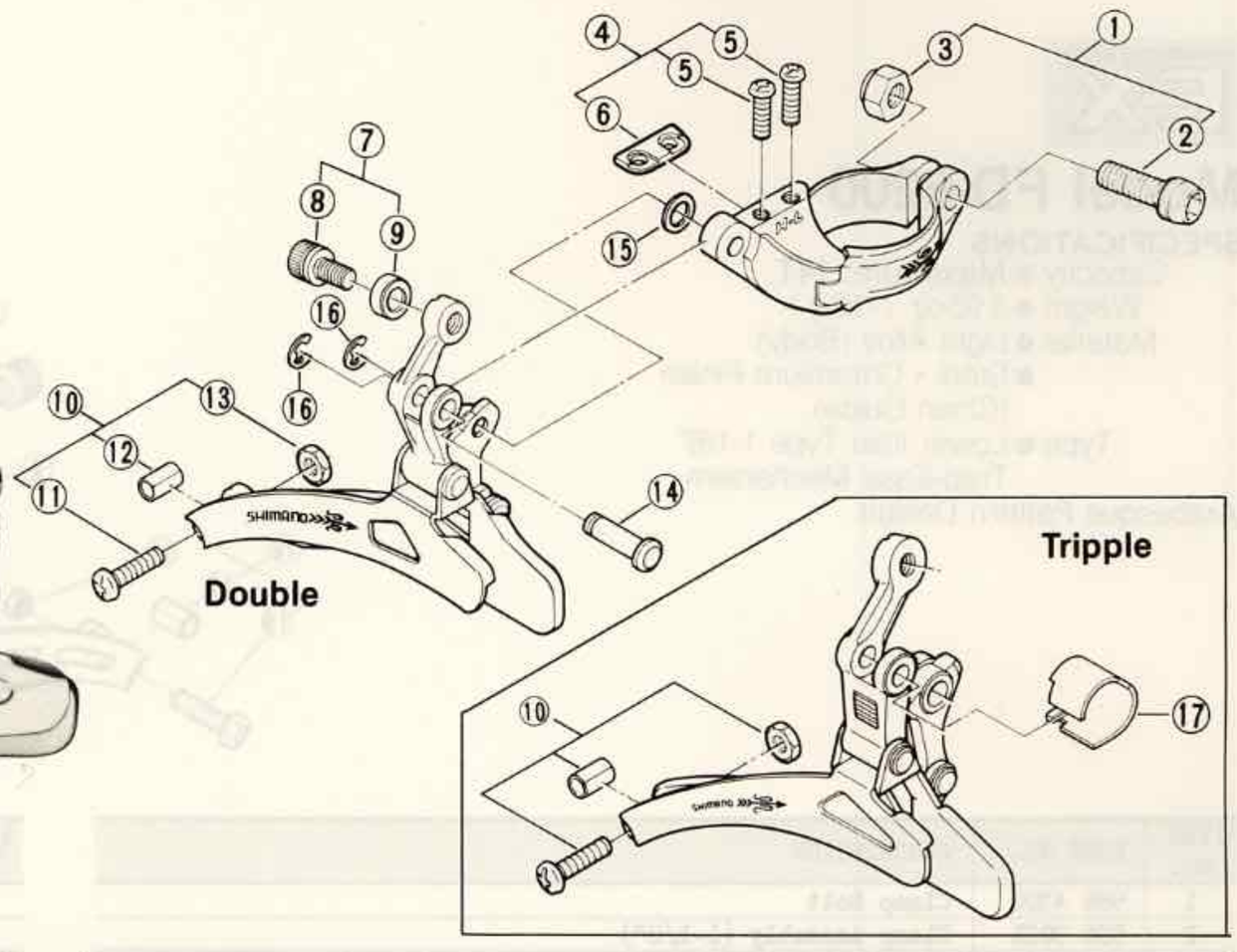
Model FD-A105 (Double)
Model FD-T105 (Triple)

SPECIFICATIONS

Capacity • Maximum: 14T. (Double)
Maximum: 20T. (Triple)
Weight • 4.1 oz. (115g./Double), 4.0 oz. (113g./Triple)
Material • Light Alloy & Steel · Pearl Bright Finish
Type • Lower Indent Type 1-1/8" (28.6mm.)
Feature • Trap-Ease Mechanism, Indent Guide Mechanism, Spring Cover, Golden Arrow Pattern







ITEM NO.	PART NO.	DESCRIPTION
1	3-586 9023	Clamp Bolt & Nut
2	586 4300	Clamp Bolt
3	525 1801	Clamp Nut
4	3-590 9801	Stroke Adjusting Screw (M4x13) & Plate
5	590 0900	Stroke Adjusting Screw (M4x13)
6	586 4500	Stroke Adjusting Plate
7	3-585 9103	Cable Fixing Bolt & Plate
8	585 1601	Cable Fixing Bolt
9	586 4200	Cable Fixing Plate

ITEM NO.	PART NO.	DESCRIPTION
10	3-586 9025	Roller Fixing Screw Unit
11	000 1004	Roller Fixing Screw
12	586 4400	Roller
13	581 2001	Roller Fixing Nut
14	586 3600	Link Axle
15	000 3601	Link Axle Spacer
16	582 3600	Stop Ring
17	579 0700	Spring Cover

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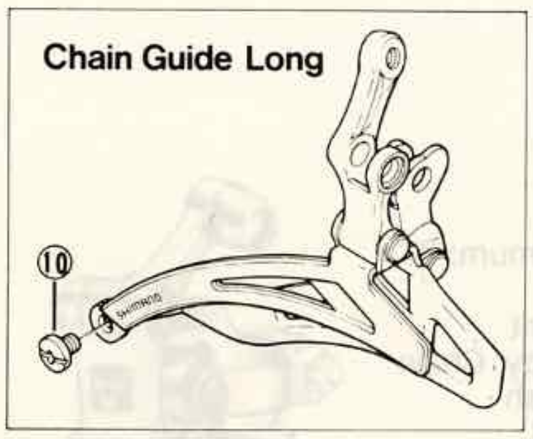
Model FD-Z206 (Short Cage)
FD-Z206-GS (Long Cage)

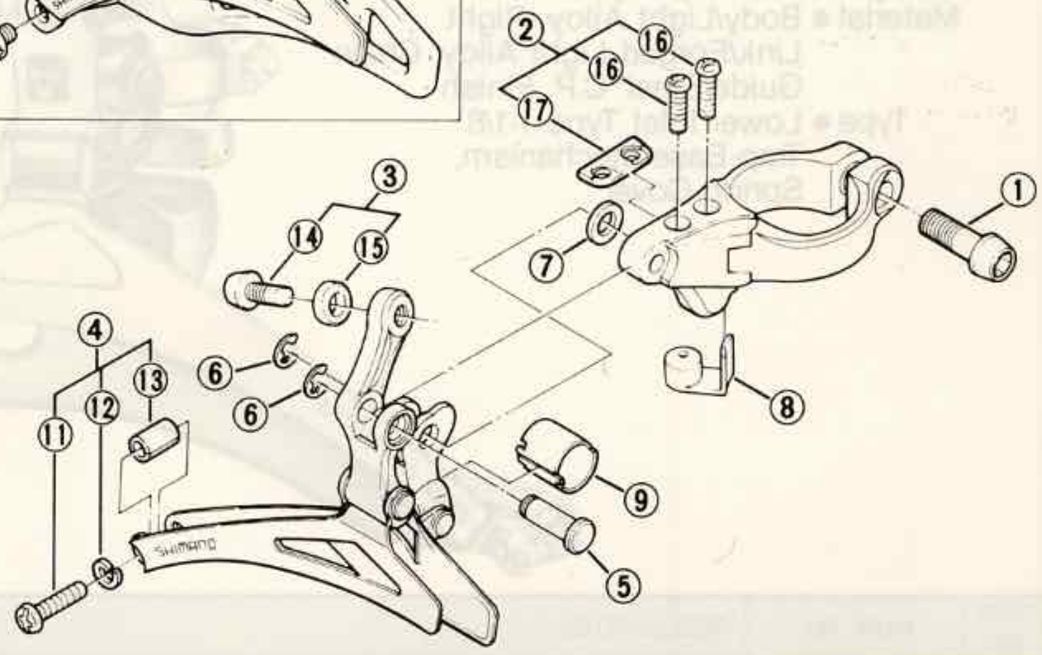
SPECIFICATIONS

Capacity • Maximum: Short Cage/18T., Long Cage/27T., Minimum: Long Cage/6T.
Weight • 3.9 oz. (110g.) (Short Cage), 4.2 oz. (120g.) (Long Cage)
Material • Forged Light Alloy (Right Link), Light Alloy (Body), Heat Threated Steel (Chain Guide)
Features • Spring Cover, Trap-Ease Mechanism









ITEM NO.	PART NO.	DESCRIPTION
1	000 1303	Clamp Bolt
2	3-590 9801	Stroke Adjusting Screw (M4x13) & Plate
3	3-571 9004	Cable Fixing Bolt (M5x8) & Plate
4	3-578 9802	Roller Fixing Screw Unit for Chain Guide Short
5	579 0800	Link Axle
6	582 3600	Stop Ring
7	000 3601	Link Axle Spacer
8	579 0600	Cable Stopper
9	577 5200	Spring Cover

ITEM NO.	PART NO.	DESCRIPTION
10	583 7100	Chain Guide Fixing Screw for Chain Guide Long
11	000 1004	Roller Fixing Screw
12	578 0700	Spring Washer
13	586 4400	Roller
14	571 1600	Cable Fixing Bolt (M5x8)
15	571 1700	Cable Fixing Plate
16	590 0900	Stroke Adjusting Screw (M4x13)
17	586 4500	Stroke Adjusting Plate

8310-E597B

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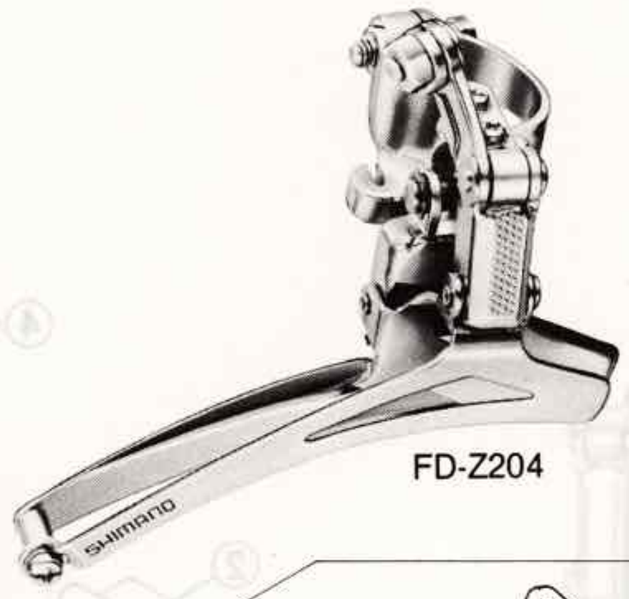
Model FD-Z204 Short Cage
Model FD-Z204-GS Long Cage

Model FD-Z202

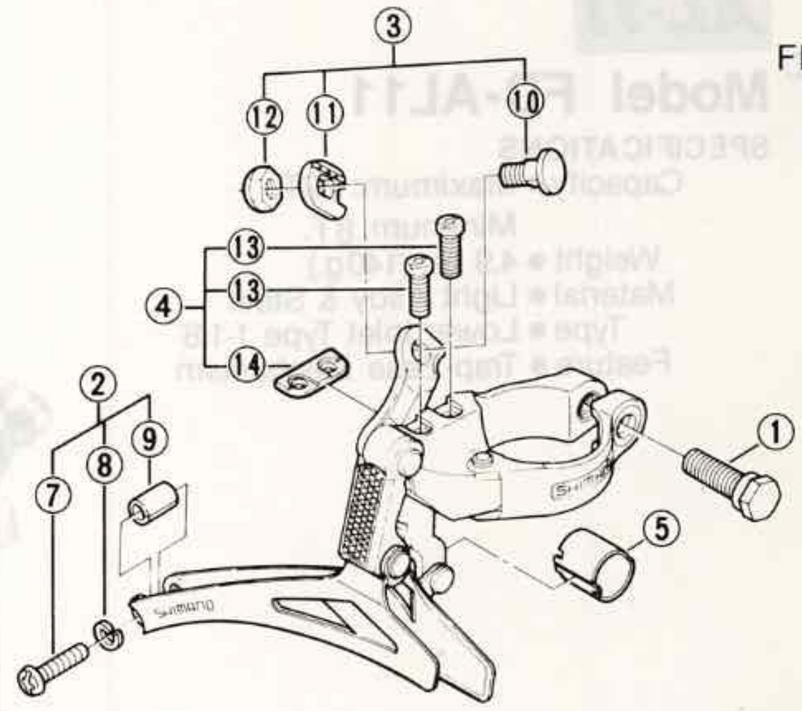
Model FD-Z204 (Short Cage)
FD-Z204-GS (Long Cage)

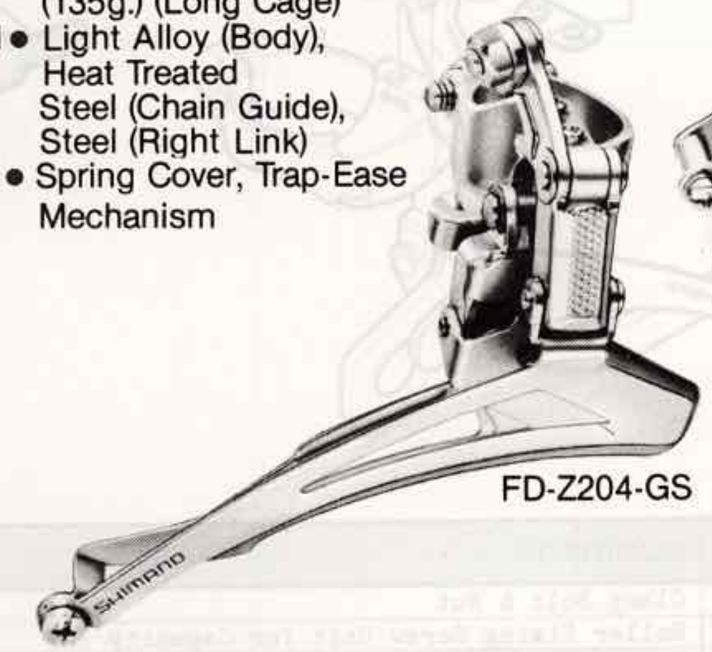
SPECIFICATIONS

Capacity ● Maximum: Short Cage/18T., Long Cage/27T., Minimum: Long Cage/6T.
Weight ● 4.4 oz. (125g.) (Short Cage), 4.8 oz. (135g.) (Long Cage)
Material ● Light Alloy (Body), Heat Treated Steel (Chain Guide), Steel (Right Link)
Features ● Spring Cover, Trap-Ease Mechanism

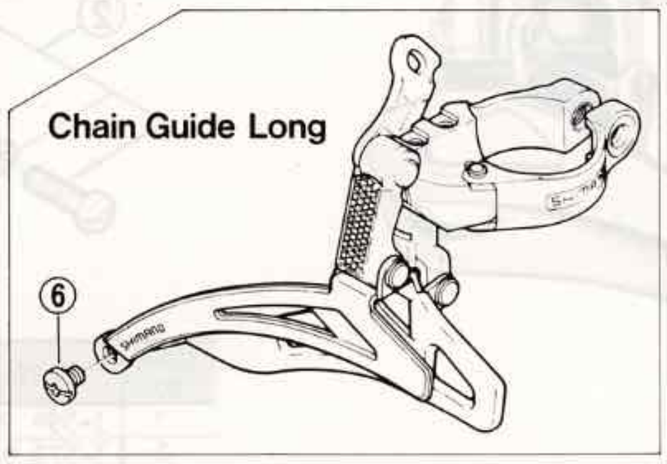


FD-Z204





FD-Z204-GS



ITEM NO.	PART NO.	DESCRIPTION
1	583 4050	Clamp Bolt
2	3-573 9801	Roller Fixing Screw Unit for Chain Guide Short
3	3-594 9801	Cable Fixing Bolt Unit
4	3-590 9801	Stroke Adjusting Screw (M4x13) & Plate
5	577 5200	Spring Cover
6	583 7100	Chain Guide Fixing Screw for Chain Guide Long
7	000 1001	Roller Fixing Screw

ITEM NO.	PART NO.	DESCRIPTION
8	578 0700	Spring Washer
9	582 1200-2	Roller
10	594 0900	Cable Fixing Bolt
11	598 0400	Cable Fixing Plate
12	541 2400	Cable Fixing Nut
13	590 0900	Stroke Adjusting Screw (M4x13)
14	586 4500	Stroke Adjusting Plate

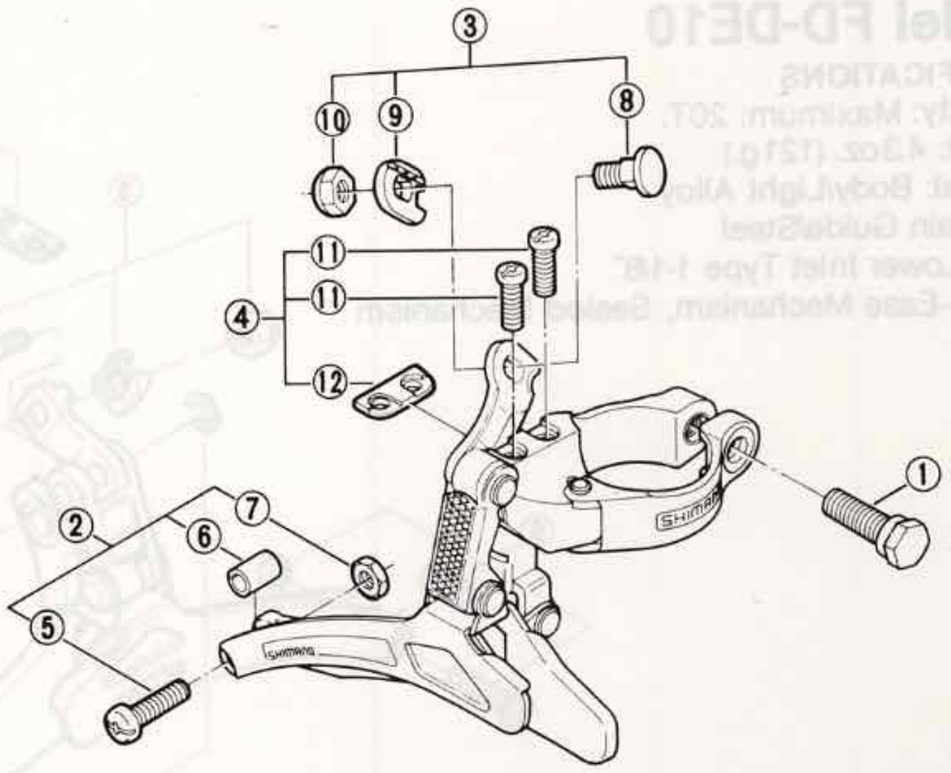
8310-E595B

Model FD-Z202

SPECIFICATIONS

Capacity ● Maximum: 14T.
Weight ● 4.9 oz. (140g.)
Material ● Light Alloy (Body), Heat Treated Steel (Chain Guide), Steel (Link)
Features ● Trap-Ease Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	583 4050	Clamp Bolt
2	3-594 9004	Roller Fixing Screw Unit
3	3-594 9801	Cable Fixing Bolt Unit
4	3-590 9801	Stroke Adjusting Screw (M4x13) & Plate
5	000 1001	Roller Fixing Screw
6	582 1200-2	Roller

ITEM NO.	PART NO.	DESCRIPTION
7	581 2000-1	Roller Fixing Nut
8	594 0900	Cable Fixing Bolt
9	598 0400	Cable Fixing Plate
10	541 2400	Cable Fixing Nut
11	590 0900	Stroke Adjusting Screw (M4x13)
12	586 4500	Stroke Adjusting Plate

8310-E580A

Model FD-AL11
Model FD-DE10

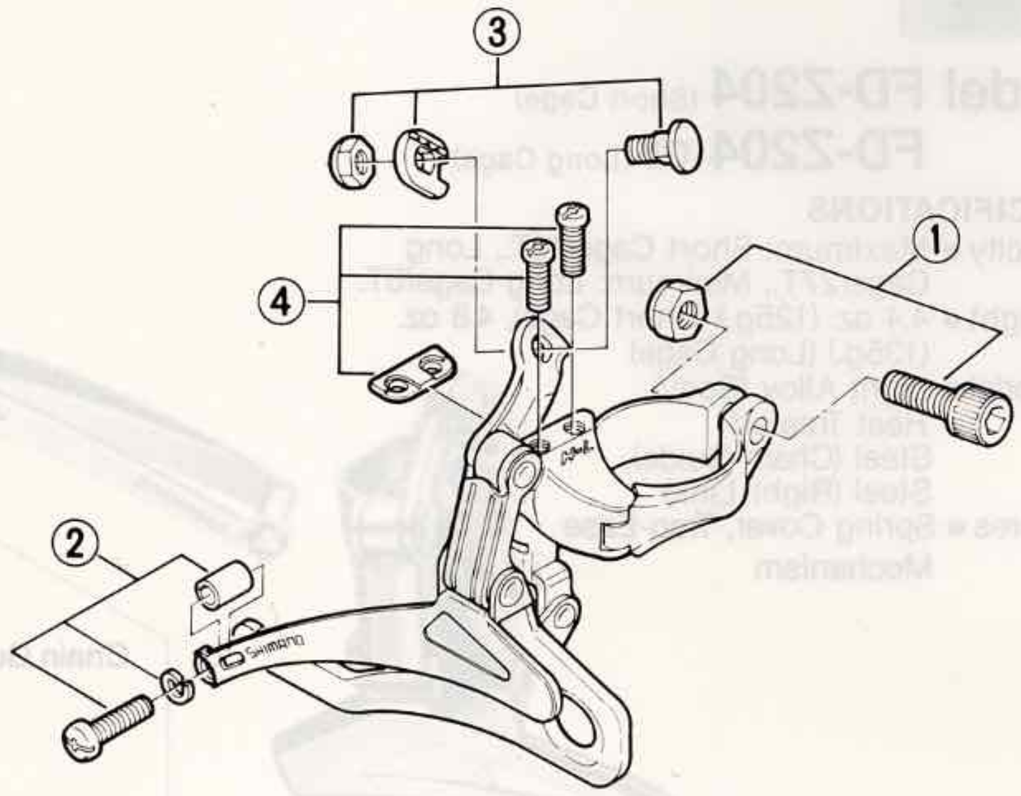
FD

Model FD-AL11

SPECIFICATIONS

Capacity • Maximum: 22T.
Minimum: 8T.
Weight • 4.9 oz. (140g.)
Material • Light Alloy & Steel
Type • Lower Inlet Type 1-1/8″
Feature • Trap-Ease Mechanism





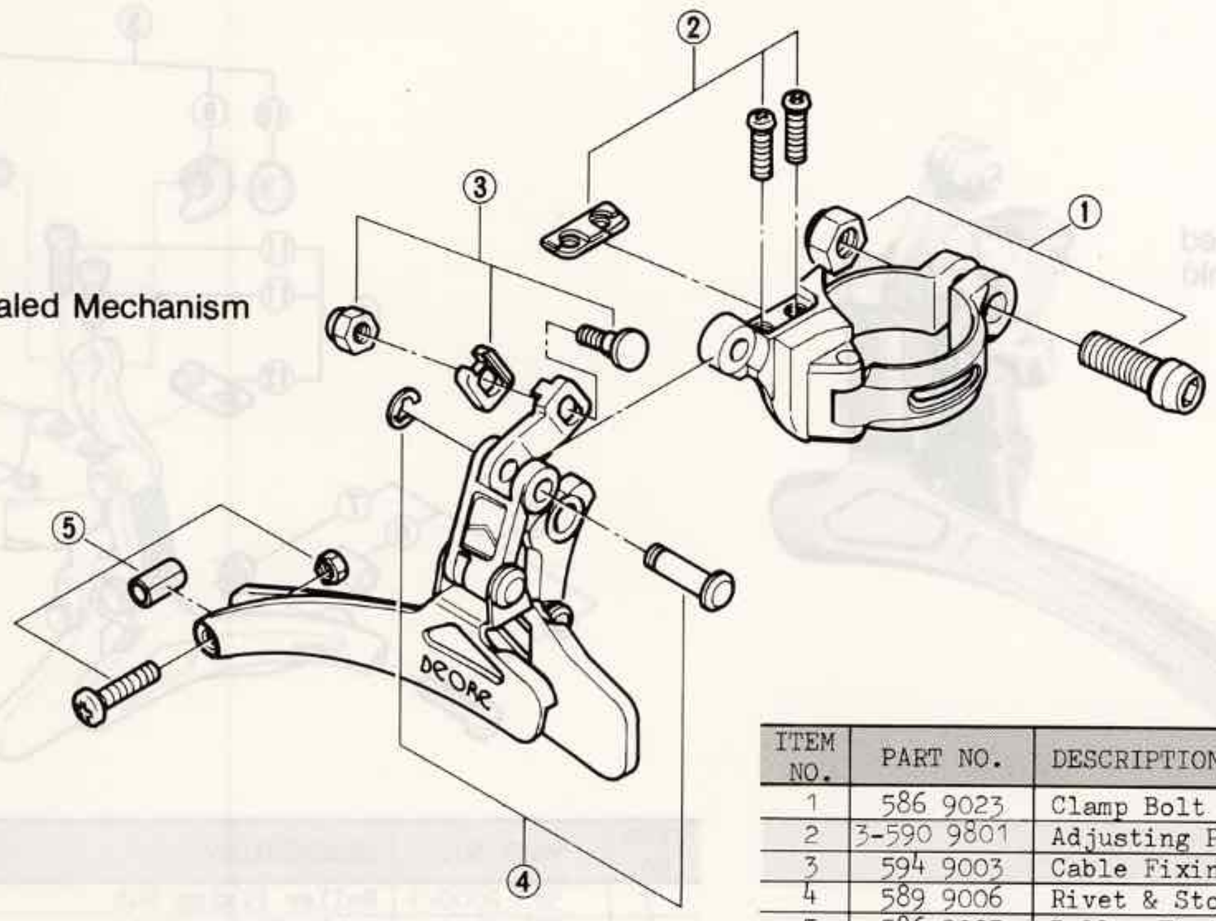
ITEM NO.	PART NO.	DESCRIPTION
1	3-594 9002	Clamp Bolt & Nut
2	3-573 9801	Roller Fixing Screw Unit for Capacity 22T
3	3-594 9801	Cable Fixing Bolt Unit
4	3-590 9801	Stroke Adjusting Screws (M4x13) & Plate

8312-551"

Model FD-DE10

SPECIFICATIONS

Capacity: Maximum: 20T.
Weight: 4.3oz. (121g.)
Material: Body/Light Alloy
: Chain Guide/Steel
Type: Lower Inlet Type 1-1/8″
Trap-Ease Mechanism, Sealed Mechanism



ITEM NO.	PART NO.	DESCRIPTION
1	586 9023	Clamp Bolt & Nut
2	3-590 9801	Adjusting Plate & Screws
3	594 9003	Cable Fixing Bolt Assembly
4	589 9006	Rivet & Stop Ring
5	586 9025	Roller Fixing Screws Assembly

8004-414

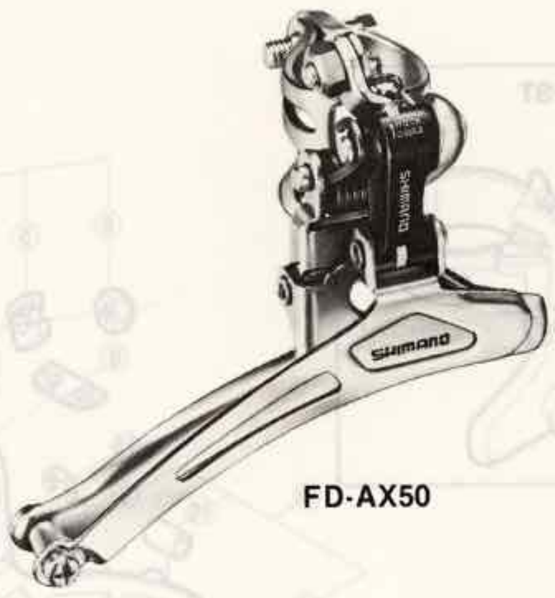
UE

Model FD-AX50 Chain Guide Short
Model FD-AX55 Chain Guide Long

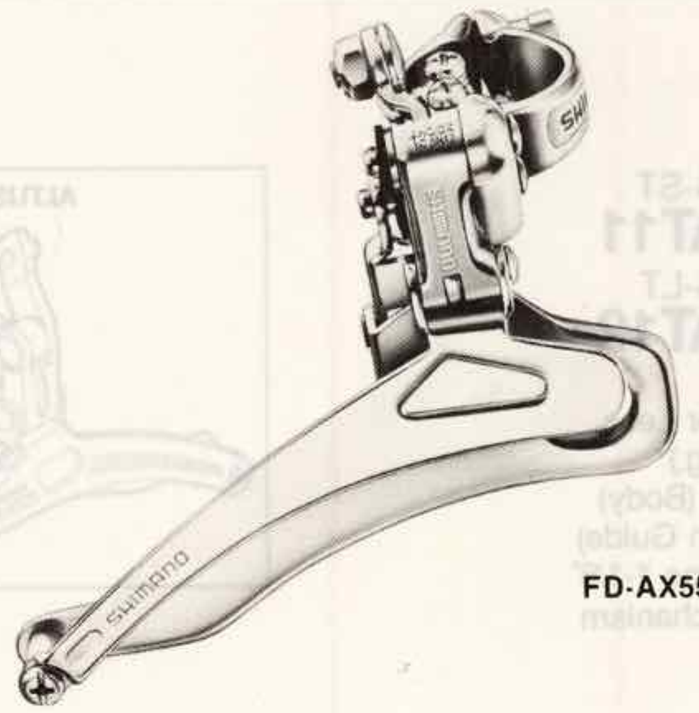
FD-AX50 (Short Cage)
FD-AX55 (Long Cage)

SPECIFICATIONS

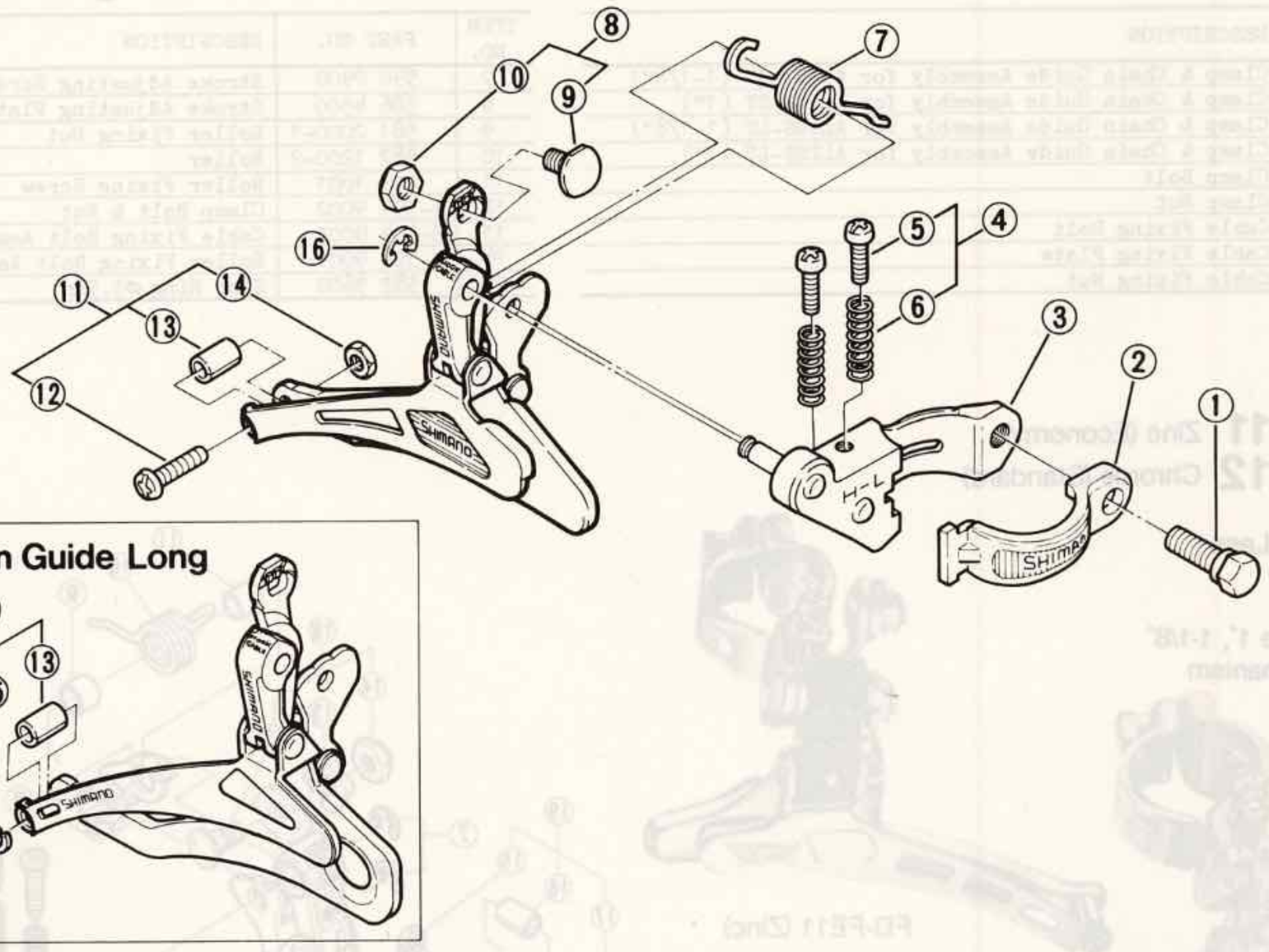
- Capacity: Maximum: Short/14T., Long/22T., Minimum: Long/8T.
- Weight: 5.2 oz. (149g.) (Short), 5.9 oz. (167g.) (Long)
- Material: Steel (Body & Chain Guide)
- Clamp Diameter: 1″ (25.4mm.), 1-1/8 (28.6mm.)
- Features: Trap-Ease Mechanism



FD-AX50



FD-AX55



ITEM NO.	PART NO.	DESCRIPTION
1	583 0303	Clamp Bolt
2	576 0100	Clamp (1") E.C.O. for Chain Guide Short
	576 0101	Clamp (1") S.T.D. for Chain Guide Short
	576 0102	Clamp (1-1/8") E.C.O. for Chain Guide Short
	576 0103	Clamp (1-1/8") S.T.D. for Chain Guide Short or Long
3	3-576 9805	Mounting Plate (1") E.C.O. for Chain Guide Short
	3-576 9804	Mounting Plate (1") S.T.D. for Chain Guide Short
	3-576 9807	Mounting Plate (1-1/8") E.C.O. for Chain Guide Short
	3-576 9806	Mounting Plate (1-1/8") S.T.D. for Chain Guide Short or Long
4	3-576 9801	Stroke Adjusting Screw & Spring
5	576 0800	Stroke Adjusting Screw
6	592 0700	Stroke Adjusting Spring

ITEM NO.	PART NO.	DESCRIPTION
7	576 0700	Guide Spring
8	3-576 9802	Cable Fixing Bolt & Nut
9	576 0900	Cable Fixing Bolt
10	541 2401	Cable Fixing Nut
11	3-591 9006	Roller Fixing Screw Unit for Chain Guide Short
	3-573 9801	Roller Fixing Screw Unit for Chain Guide Long
12	000 1001	Roller Fixing Screw
13	582 1200-2	Roller
14	581 2000-1	Roller Fixing Nut
15	578 0700	Spring Washer
16	582 3600	Stop Ring

8310-E532C

Front Derailleur

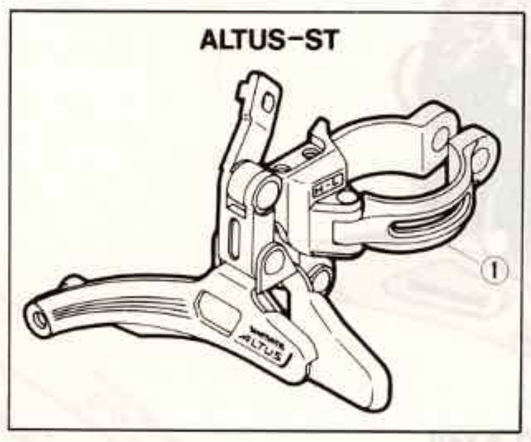
Model FD-AT11 ALTUS-ST
Model FD-AT12 ALTUS-LT
Model FD-FE11 Zinc Finish
Model FD-FE12 Chrome Finish

FD

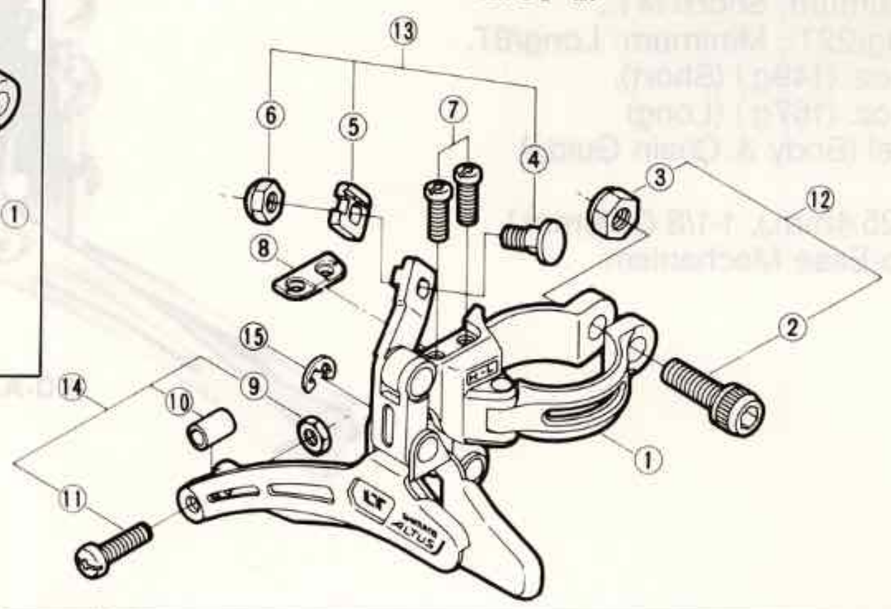
SHIMANO ALTUS-ST
Model FD-AT11
SHIMANO ALTUS-LT
Model FD-AT12

SPECIFICATIONS
Capacity: 14 Teeth or Less
Weight: 4.3 oz. (122 g.)
Material: Light Alloy (Body)
: Steel (Chain Guide)
Type: Lower Inlet Type 1-1/8"
Trap-Ease Mechanism

ALTUS-ST



ALTUS-LT



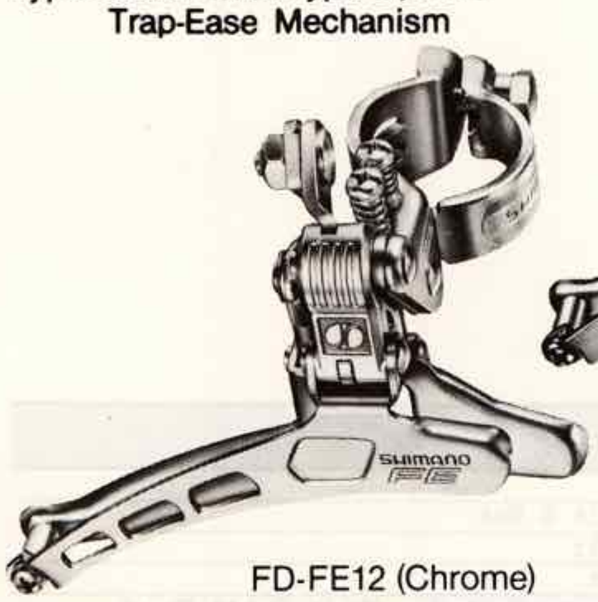
ITEM NO.	PART NO.	DESCRIPTION
1	3-594 9001	Clamp & Chain Guide Assembly for ALTUS-ST (1-1/8")
	3-594 9006	Clamp & Chain Guide Assembly for ALTUS-ST (1")
	3-595 9011	Clamp & Chain Guide Assembly for ALTUS-LT (1-1/8")
	3-595 9012	Clamp & Chain Guide Assembly for ALTUS-LT (1")
2	594 0400	Clamp Bolt
3	525 1801	Clamp Nut
4	594 0900	Cable Fixing Bolt
5	594 0800	Cable Fixing Plate
6	541 2401	Cable Fixing Nut

ITEM NO.	PART NO.	DESCRIPTION
7	590 0900	Stroke Adjusting Screws (M4x13)
8	586 4500	Stroke Adjusting Plate
9	581 2000-1	Roller Fixing Nut
10	582 1200-2	Roller
11	000 1001	Roller Fixing Screw
12	3-594 9002	Clamp Bolt & Nut
13	3-594 9003	Cable Fixing Bolt Assembly
14	3-594 9004	Roller Fixing Bolt Assembly
15	582 3600	Stop Ring ø3.5mm

8010-342B

SHIMANO-FE
Model FD-FE11 Zinc (Economy)
Model FD-FE12 Chrome (Standard)

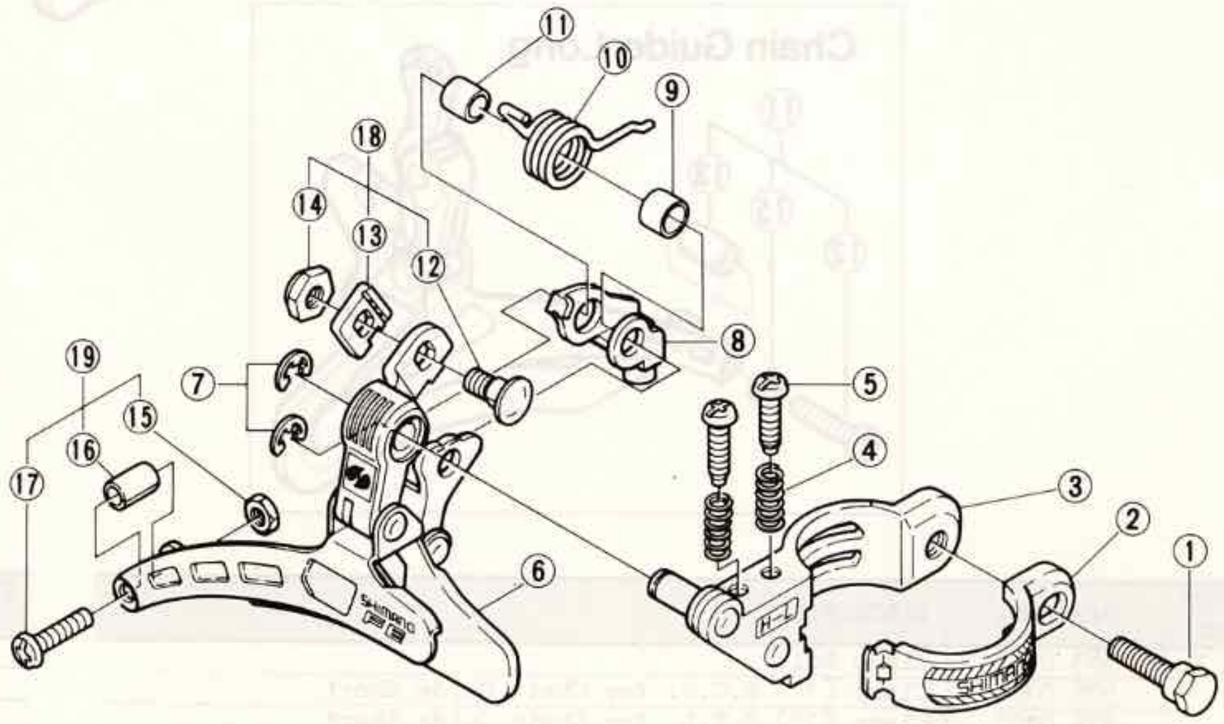
SPECIFICATIONS
Capacity: 14 Teeth or Less
Weight: 6.1oz. (173g.)
Material: Steel
Type: Lower Inlet Type 1", 1-1/8"
Trap-Ease Mechanism



FD-FE12 (Chrome)



FD-FE11 (Zinc)



ITEM NO.	PART NO.	DESCRIPTION
1	583 0302	Clamp Bolt
2	592 0101	Clamp (1") Standard Type
	592 0100	Clamp (1") Economy Type
	592 0103	Clamp (1-1/8") Standard Type
	592 0102	Clamp (1-1/8") Economy Type
3	592 9001	Mounting Plate (1") Standard Type
	593 9001	Mounting Plate (1") Economy Type
	592 9002	Mounting Plate (1-1/8") Standard Type
	593 9002	Mounting Plate (1-1/8") Economy Type
4	592 0700	Adjusting Spring
5	000 1201	Stroke Adjusting Bolt (M4x15mm)
6	592 9006	Chain Guide Assembly (Standard Type)
	593 9006	Chain Guide Assembly (Economy Type)

ITEM NO.	PART NO.	DESCRIPTION
7	582 3600	Stop Ring ø3.5mm
8	592 9004	Saver Plate
9	592 1100	Sleeve A
10	591 1500	Saver Spring
11	592 1200	Sleeve B
12	594 0900	Cable Fixing Bolt
13	591 1000	Cable Fixing Plate
14	541 2401	Cable Fixing Nut
15	581 2000-1	Roller Fixing Nut
16	582 1200-2	Roller
17	000 1001	Roller Fixing Bolt
18	592 9005	Cable Fixing Bolt Assembly
19	591 9006	Roller Assembly

7811-362

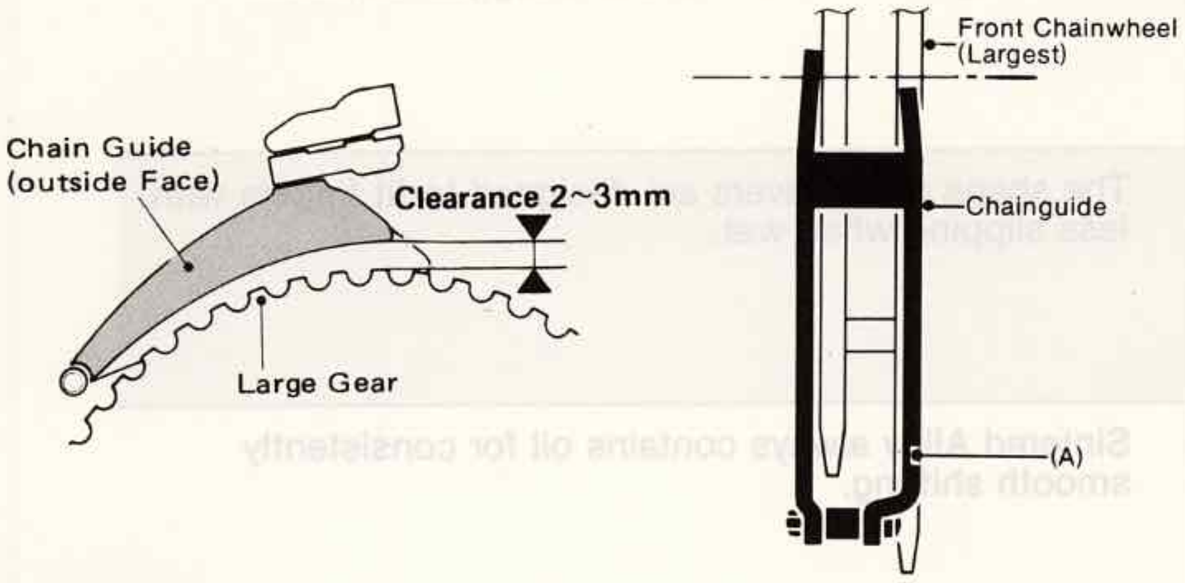
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Front Derailleur Assembly Note & Tools.

Assembly to Frame

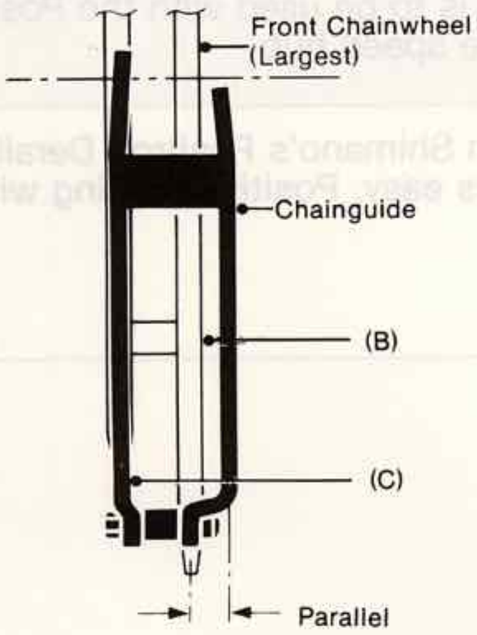
1. Fix the clamp band to the seat tube temporarily by tightening the clamp bolt by hand.
2. Then adjust the clearance between the chainguide outside plate, as viewed from the side, and the front largest chainwheel to 2~3mm.
3. Next, seen from above, adjust the chainguide position. Position the chainguide outside plate (A) exactly above the front largest chainwheel large gear.
4. Tighten the clamp bolt.

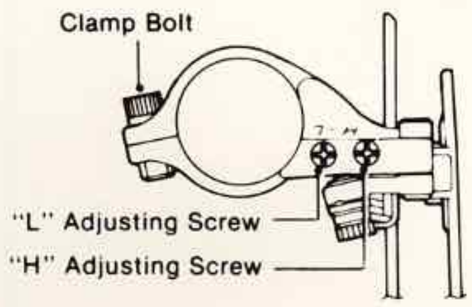
Tightening torque: 60kgfcm (53 in.lbs.)



Stroke Adjustment

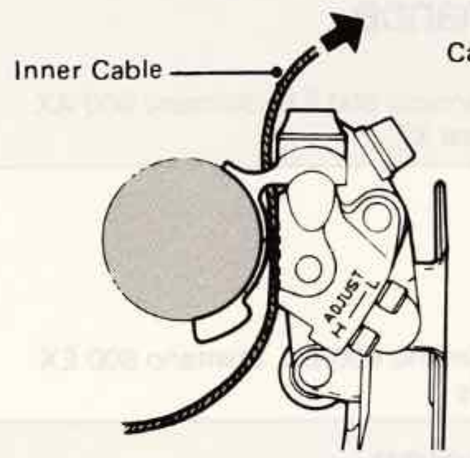
- **"H" (Top) side adjustment**
  Put the chain on the front largest chainwheel and on the smallest cog of the freewheel. Then adjust the clearance between the chain and the chainguide inside plate (B) to a minimum by turning the "H" stroke adjusting bolt, making sure there is no contact between the two. Turn the "H" stroke adjusting screw in a clockwise direction for the chainguide to move toward the smaller chainwheel.
- **"L" (Low) side adjustment**
  Put the chain on the smallest front chainwheel and the largest freewheel. Then adjust the clearance between the chain and the chainguide inside plate (C) to a minimum by turning the "L" adjusting bolt, making sure that there is no contact between the two. Turn the "L" stroke adjusting bolt in a clockwise direction for the chainguide to move toward the larger chainwheel.

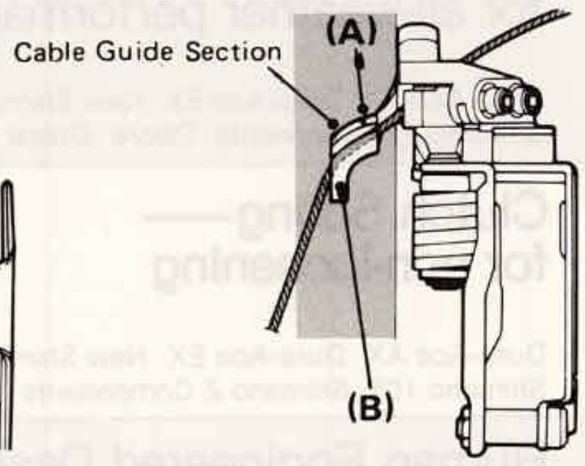




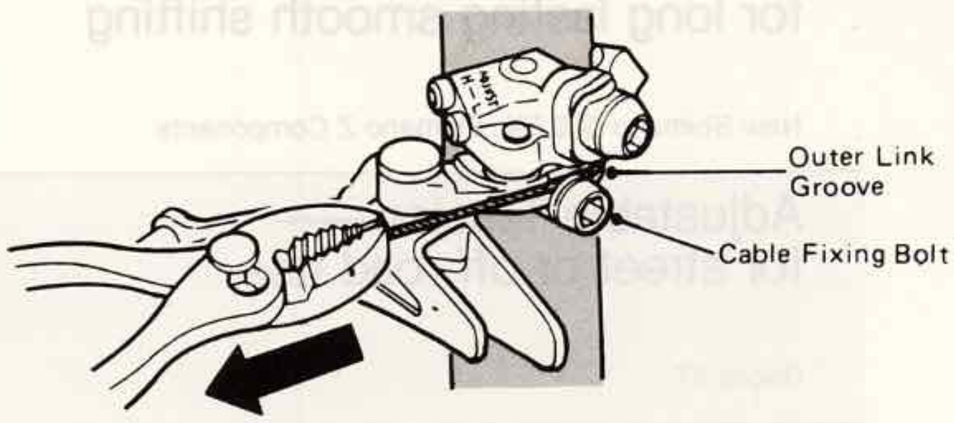
Cable Assembly (FD-7300)

(1) Insert the inner cable as shown in the diagram.
(2) Thread the inner cable from position (A) to position (B) on the cable guide section.

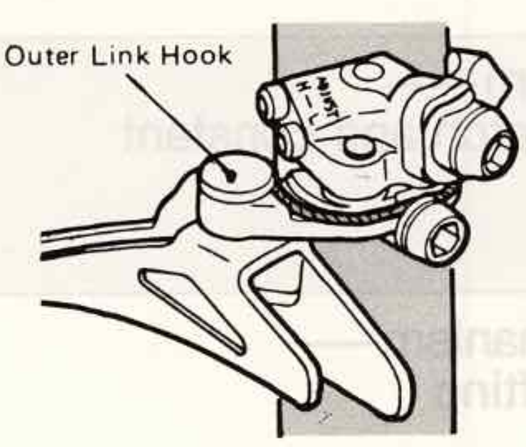


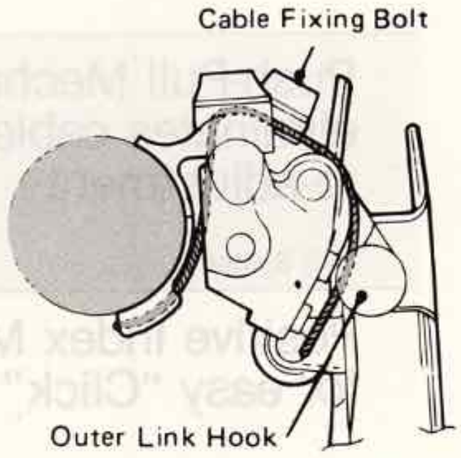


(3) Pass the inner cable along the outer link groove and set to the cable fixing bolt.
Next, pull the inner cable using a pliers to remove cable slack. In this position, fix the inner cable securely. Tightening torque should be around 50kg-cm.



(4) And then place the inner cable end onto the hook located on the outer link.





Model No.	Max. Capacity	Min. Capacity
FD-7300	14T	—
FD-7200		
FD-6300		
FD-6200		
FD-A105		
FD-Z202		
FD-AT11		
FD-AT12		
FD-FE11		
FD-FE12		
FD-AX50		

Model No.	Max. Capacity	Min. Capacity
FD-6207	18T	—
FD-Z206		
FD-Z204		
FD-T105	20T	—
FD-DE10		
FD-M700	22T	8T
FD-AL11		
FD-AX55		
FD-Z206-GS	27T	6T
FD-Z204-GS		

SHIFTING LEVERS

FEATURE	BENEFIT
Sealed Mechanism (Brazed-on Type)—— for all-weather performance Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 600 AX Shimano Z Components Deore Deore XT	Sealed Mechanisms protect revolving and exposed parts from water, dust and foreign particles which cause premature wear.
Clutch Spring—— for non-loosening Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 600 EX Shimano 105 Shimano Z Components	The carefully designed springs keep levers from loosening for a more stable shifting performance.
Human Engineered Design—— for better finger fit New Shimano 600 EX Shimano 105 Deore XT Shimano Z Components	The shape of the levers are designed to fit fingers with less slipping when wet.
Sintered Alloy Insertion—— for long lasting smooth shifting New Shimano 600 EX Shimano Z Components	Sintered Alloy always contains oil for consistently smooth shifting.
Adjustable Tension—— for street or off road use Deore XT	Adjustable tension screw to eliminate lever slip even during rugged offroad riding but allow adjustment for light, quick shifting on smooth roads.
Centeron Type—— for use with Centeron Rear Derailleur Deore Shimano Altus-LT Shimano LS Lever Shimano LE Lever	These shifters have free-play, which match the free-play in Centeron-Type Rear Derailleurs, self centering chains and eliminating fine lever adjustment.
Push-Pull Mechanism—— eliminates cable stretch and constant re-adjustment PPS System	Shimano's unique shifting lever/cable system uses solid wire and casing to provide Positive Shifting. It also eliminates adjustment due to cable stretch and housing compression. This is to be used with the Positron Rear Derailleur and three speed hub.
Positive Index Mechanism—— for easy "Click" shifting PPS System	Used together with Shimano's Positron Derailleur and 3-Speed hub allows easy, Positive Shifting without guessing.

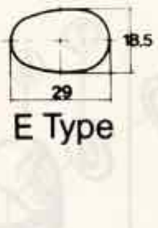
Shifting Lever

Model SL-7300 Band A Type
Model SL-7310 Brazed-on A Type
Model SL-7311 Brazed-on B Type
Model SL-7321 Brazed-on B Type for Oval Tube

SL

DURA-ACE EX

Model SL-7300 (Band A Type)
SL-7310 (Brazed-on A Type)
SL-7311 (Brazed-on B Type)
SL-7321 (Brazed-on B Type for Oval Tube E)

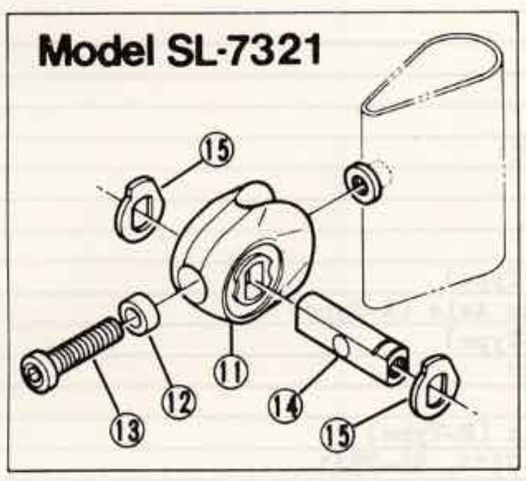


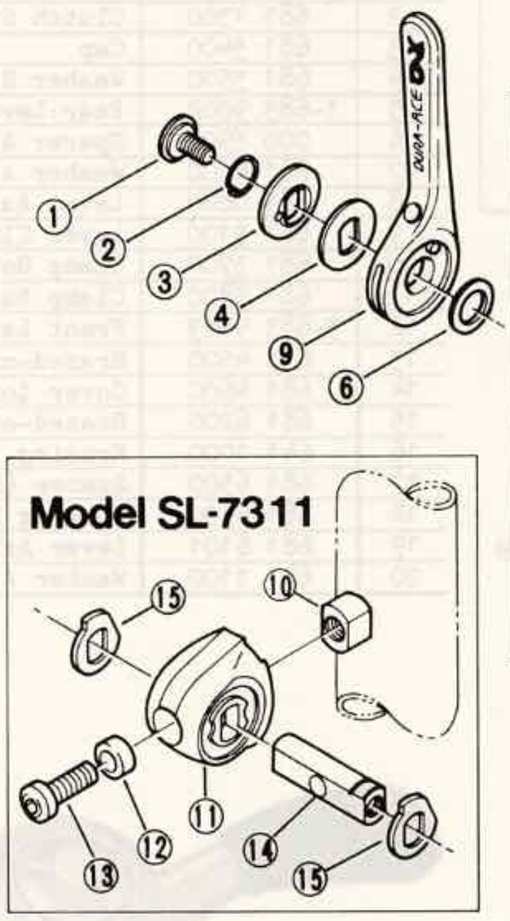
E Type

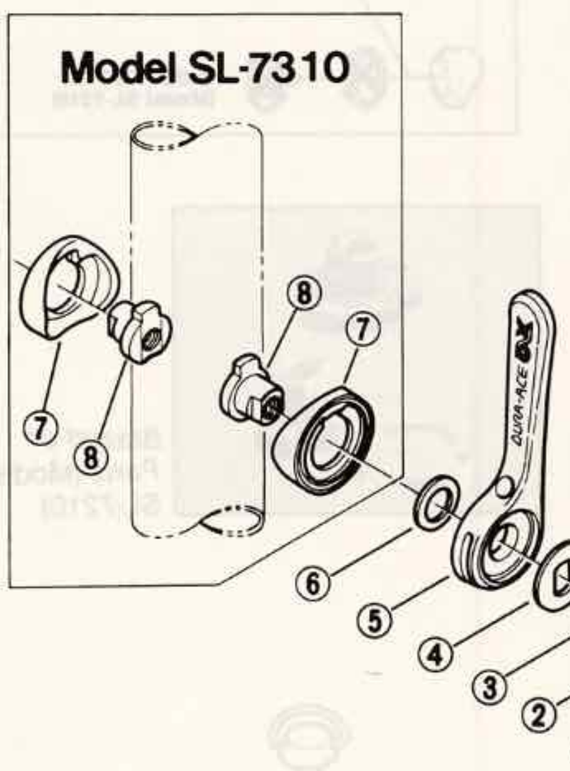
SPECIFICATIONS

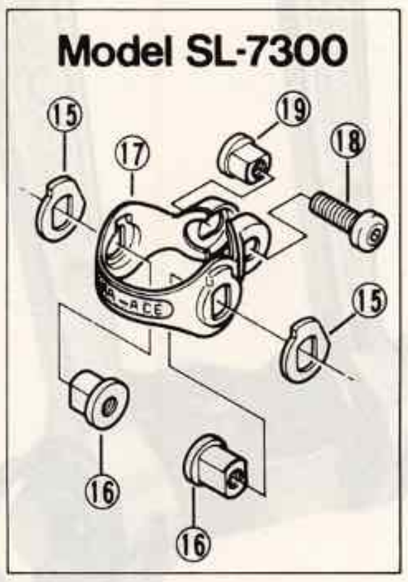
Weight • 2.2 oz. (61g.) (SL-7300)
2.4 oz. (69g.) (SL-7311)
2.4 oz. (69g.) (SL-7321)
Material • Light Alloy • Anodized Finish
Type • Friction Type
Attachment Position • Down Tube
Lever Clamp Diameter • SL-7311; 1-1/8" (28.6mm.)
SL-7321 E Type 18.5 × 29mm.
Features • Aerodynamic Design/Sealed Mechanism/Light Weight/With Fairing Cover/Hexagon Release


Model SL-7300
(Band A-Type)

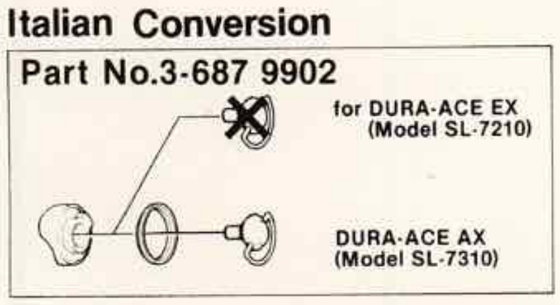








Italian Conversion



ITEM NO.	PART NO.	DESCRIPTION
1	641 0500	Lever Fixing Bolt
2	681 1300	Clutch Spring
3	641 0400	Cap
4	681 3500	Washer B
5	3-641 9010	Rear Lever
6	641 1200	Spacer A
7	641 0300	Dust Cap for SL-7310
8	681 4500	Brazed-on Axle for SL-7310
9	3-641 9011	Front Lever
10	681 6200	Brazed-on Axle for SL-7311
11	641 1000	Housing for SL-7311
	641 1001	Housing for SL-7321

ITEM NO.	PART NO.	DESCRIPTION
12	681 6300	Spacer for SL-7311, SL-7321
13	681 6400	Housing Fixing Bolt (M5x17) for SL-7311
	681 6401	Housing Fixing Bolt (M5x20) for SL-7321
14	681 6101	Lever Axle for SL-7311, SL-7321
15	641 1100	Washer A for SL-7300, SL-7311, SL-7321
16	681 0800	Lever Axle for SL-7300
17	681 3100	Lever Clamp (1-1/8") for SL-7300
18	681 3700	Clamp Bolt for SL-7300
19	681 3800	Clamp Nut for SL-7300

8309-443D

U E

Shifting Lever

Model SL-7200 Band Type
Model SL-7210 Brazed-on A Type
Model SL-7220 Brazed-on B Type

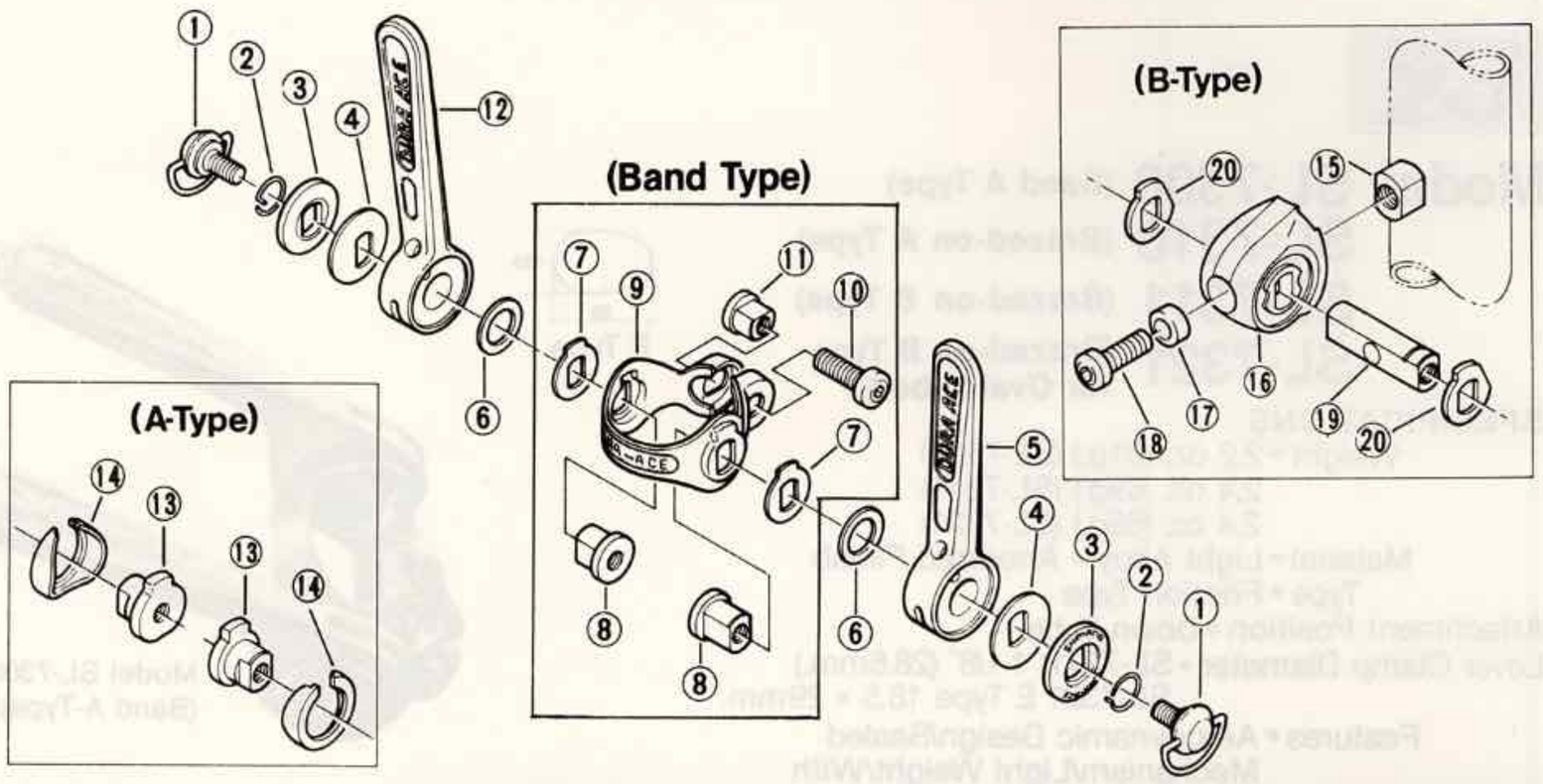
Model SL-M700

SL

Model SL-7200 (Band Type)
SL-7210 (Brazed-on A Type)
SL-7220 (Brazed-on B Type)

SPECIFICATIONS

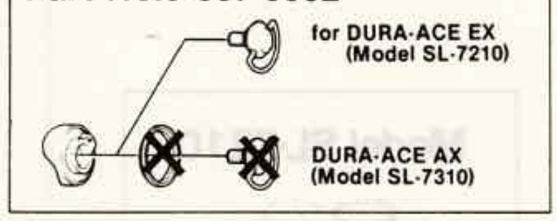
Weight ● 2.01 oz. (57 g.)
Material ● Light Alloy • Anodized Finish
Type ● Friction Type
Attachment Position
● Down Tube
Lever Clamp Diameter
● 1-1/8"
Option ● Brazed-on parts (w/Sealed Mechanism)
Lever Non-loosening Feature

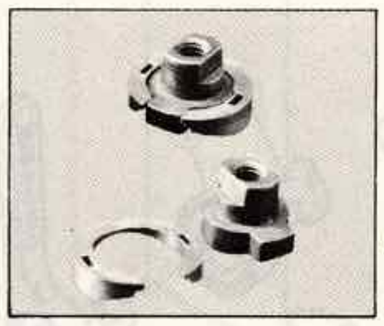




Italian Conversion

Part No.3-687 9902





Brazed-on Parts (Model SL-7210)

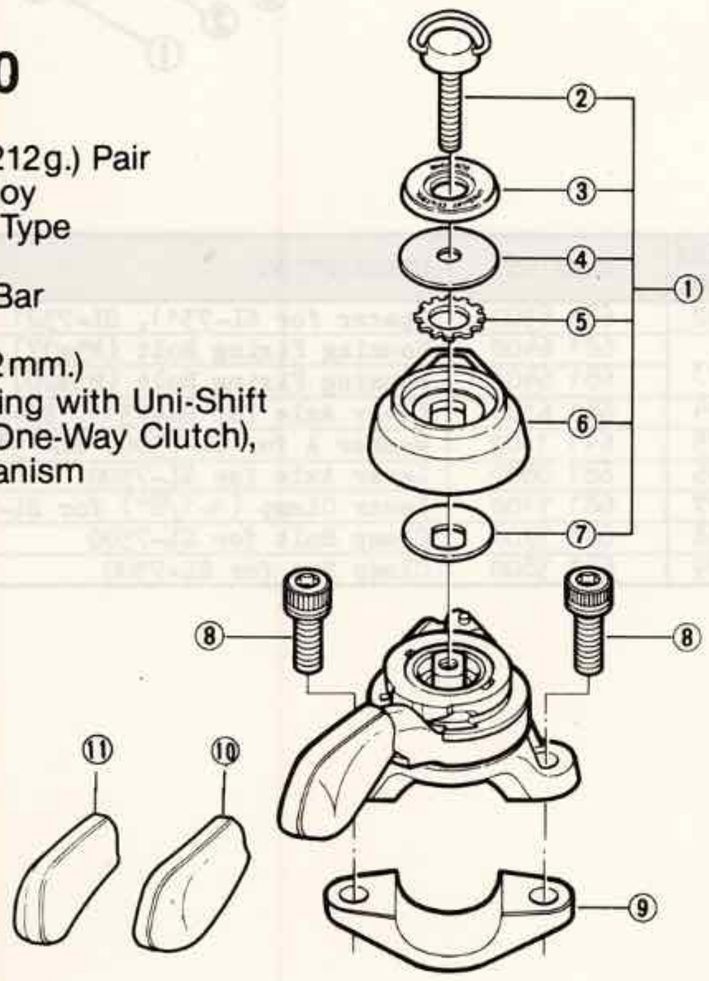
ITEM NO.	PART NO.	DESCRIPTION
1	3-683 9001-1	Lever Fixing Screw
2	681 1300	Clutch Spring
3	681 3400	Cap
4	681 3500	Washer B
5	3-683 9002	Rear Lever
6	000 3901	Spacer A
7	681 4100	Washer A
8	681 0800	Lever Axle
9	681 3100	Lever Clamp (1-1/8")
10	681 3700	Clamp Bolt
11	681 3800	Clamp Nut
12	3-683 9003	Front Lever
13	681 4500	Brazed-on Axle (A-Type)
14	681 4600	Cover for Brazed-on Axle (A-Type)
15	681 6200	Brazed-on Axle (B-Type)
16	641 1000	Housing for SL-7311
17	681 6300	Spacer (B-Type)
18	681 6400	Housing Fixing Bolt (B-Type)
19	681 6101	Lever Axle for SL-7311, SL-7321
20	641 1100	Washer A for SL-7300, SL-7311, SL-7321

8206-528

Model SL-M700

SPECIFICATIONS

Weight ● 7.5 oz. (212 g.) Pair
Material ● Light Alloy
Type ● Friction Type
Attachment Position
● Handle Bar
Lever Clamp Diameter
● 7/8" (22.2 mm.)
Feautures ● Smooth Shifting with Uni-Shift Mechanism (One-Way Clutch), Sealed Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	3-639 9802	Cover Unit
2	3-683 9001-1	Lever Fixing Bolt
3	639 0601	Cap
4	639 0700	Spacer
5	639 0800	Teethed Washer
6	639 0100	Cover
7	681 3500	Washer B
8	585 3301	Clamp Bolt
9	3-639 9803	Lever Band
10	639 0300	Lever Cap (Right)
11	639 0301	Lever Cap (Left)

8307-560B

U

Shifting Lever

Model SL-6207-BA Band A Type
Model SL-6207-BB Band B Type
Model SL-6207-FA Brazed-on A-Type
Model SL-6207-FB Brazed-on B Type
Model SL-6207-FC Italian Type

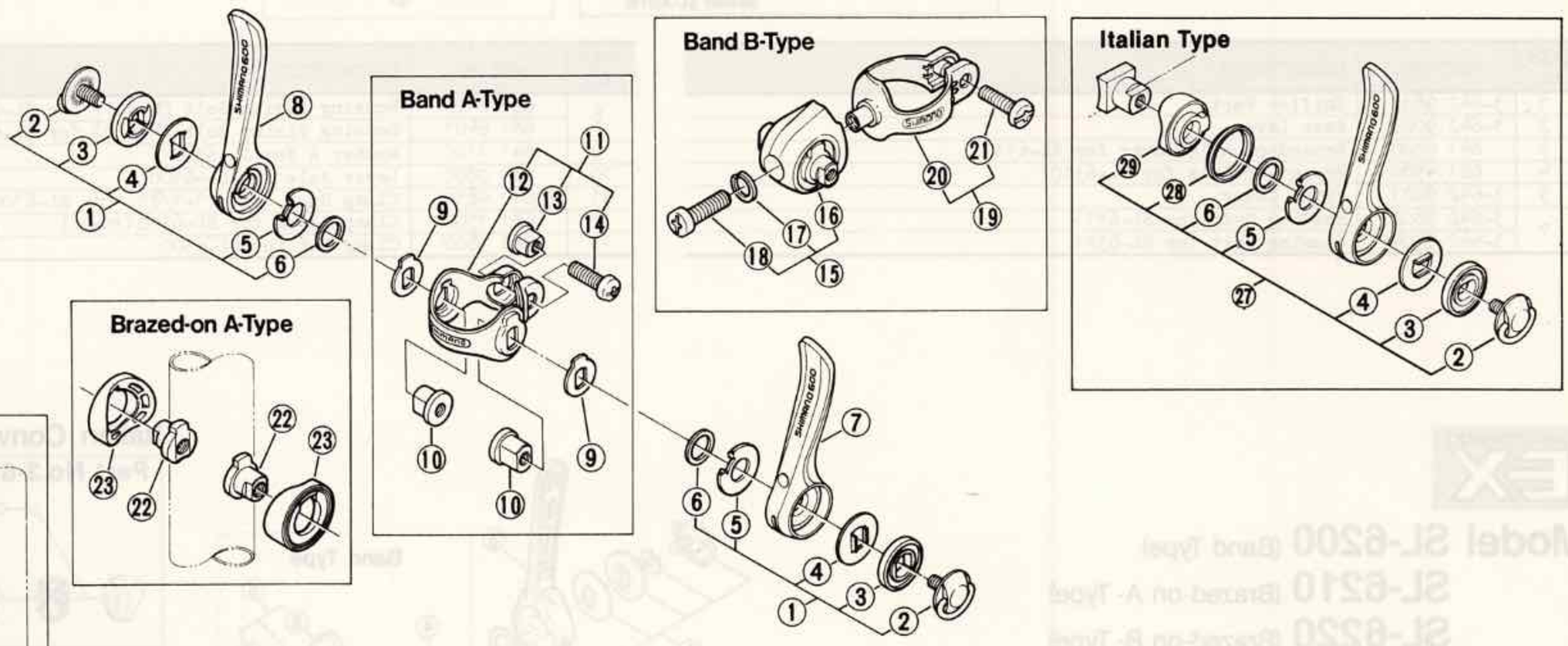
NEW SHIMANO 600 EX

Model SL-6207-BA (Band A-Type)
SL-6207-BB (Band B-Type)
SL-6207-FA (Brazed-on A-Type)
SL-6207-FB (Brazed-on B-Type)
SL-6207-FC (ItalianType)

SPECIFICATIONS

Weight ● SL-6207BA: 2.2 oz. (63g.)
Material ● Diecast Light Alloy (Lever) Buff Finish
Type ● Friction Type
Attachment Position ● Down Tube
Lever Clamp Diameter ● 1-1/8″ (28.6mm.)
Features ● Non-loosening Mechanism, Sealed Mechanism, Human Engineered Design





ITEM NO.	PART NO.	DESCRIPTION
1	3-640 9801	Shifter Parts
2	3-640 9831	Lever Fixing Bolt
	3-640 9832	Lever Fixing Bolt for Italian Type
3	640 1400	Cap
4	640 1300	Washer C
5	687 5500	Stopper Washer
6	640 1100	Spacer A
7	3-640 9802	Rear Lever
8	3-640 9803	Front Lever
9	681 4100	Washer A for Band A-Type
10	681 0800	Lever Axle for Band A-Type
11	3-640 9811	Clamp Band Unit for Band A-Type
12	681 3102	Clamp Band for Band A-Type
13	681 3800	Clamp Nut for Band A-Type
14	681 1500	Clamp Screw for Band A-Type

ITEM NO.	PART NO.	DESCRIPTION
15	3-640 9821	Housing Unit for Band B-Type
16	644 2103	Housing for B-Type
17	231 0700	Spring Washer for B-Type
18	690 0900	Housing Fixing Screw for Band B-Type
19	3-640 9812	Clamp Band Unit for Band B-Type
20	690 1000	Clamp Band for Band B-Type
21	681 1600	Clamp Screw for Band B-Type
22	681 4500	Brazed-on Axle for A-Type
23	644 2001	Brazed-on Axle Cover for A-Type
24	3-640 9822	Housing Unit for Brazed-on B-Type
25	681 6400	Housing Fixing Bolt for Brazed-on B-Type
26	681 6200	Brazed-on Axle for B-Type
27	3-640 9800	Shifter Parts
28	687 5400	Sleeve
29	687 5300	Cover

8307-596'''

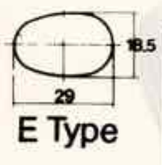
Shifting Lever

Model SL-6300 Band-on A-Type
Model SL-6310 Brazed-on A-Type
Model SL-6311 Brazed-on B-Type
Model SL-6321 Brazed-on B-Type

Model SL-6200 Band Type
Model SL-6210 Brazed-on A-Type
Model SL-6220 Brazed-on B-Type

SHIMANO 600 EX

Model SL-6300 (Band A Type)
SL-6310 (Brazed-on A Type)
SL-6311 (Brazed-on B Type)
SL-6321 (Brazed-on B Type for Oval Tube E)

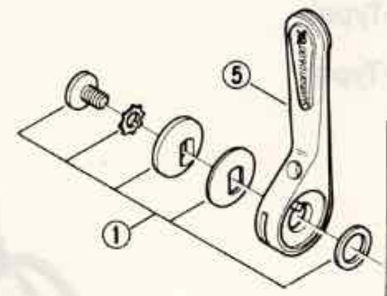


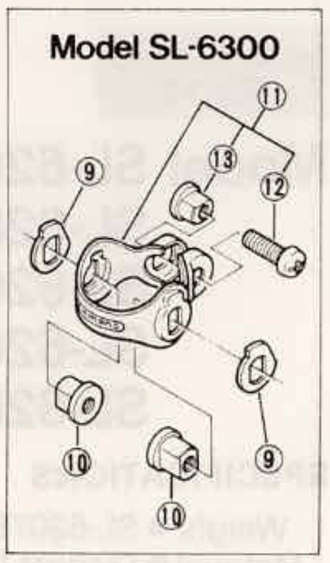
E Type

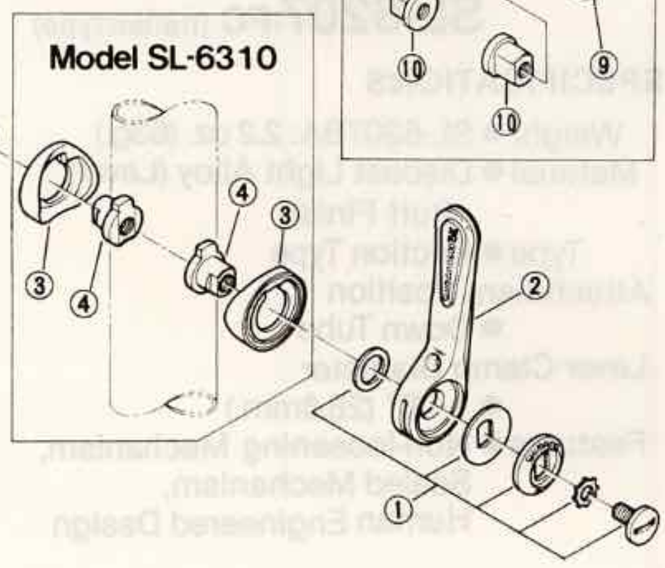
SPECIFICATIONS

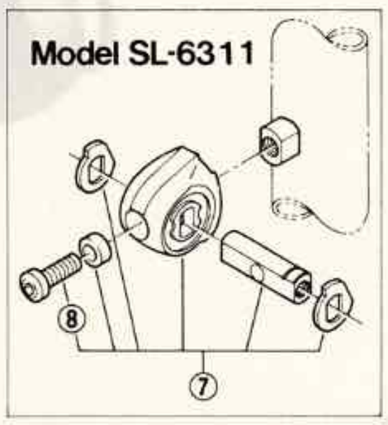
Weight • 1.8 oz. (50g.) (SL-6310)
2.3 oz. (64g.) (SL-6311)
2.2 oz. (63g.) (SL-6321)
Material • Light Alloy
Type • Friction Type
Attachment Position • Down Tube
Lever Clamp Diameter • SL-6310; 1-1/8" (28.6mm)
SL-6311; 1-1/8" (28.6mm)
Features • Aerodynamic Design/ With Fairing Cover/ Sealed Mechanism





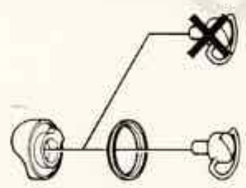






Italian Conversion

Part No.3-687 9901



for Shimano 600EX (Model SL-6210)

Shimano 600AX (Model SL-6310)
Shimano 105 (Model SL-A105FA)
ADAMAS AX (Model SL-AD15)

ITEM NO.	PART NO.	DESCRIPTION
1	3-642 9801	Shifter Parts
2	3-642 9020	Rear Lever
3	641 0300	Brazed-on Axle Cover for SL-6310
4	681 4500	Brazed-on Axle for SL-6310
5	3-642 9021	Front Lever
7	3-642 9802	Housing Unit for SL-6311
	3-642 9804	Housing Unit for SL-6321

ITEM NO.	PART NO.	DESCRIPTION
8	681 6400	Housing Fixing Bolt (M5x17) for SL-6311
	681 6401	Housing Fixing Bolt (M5x20) for SL-6321
9	641 1100	Washer A for SL-6300
10	681 0800	Lever Axle for SL-6300
11	3-640 9811	Clamp Band Unit (1-1/8") for SL-6300
12	681 1500	Clamp Screw for SL-6300 (M5x16)
13	681 3800	Clamp Nut for SL-6300

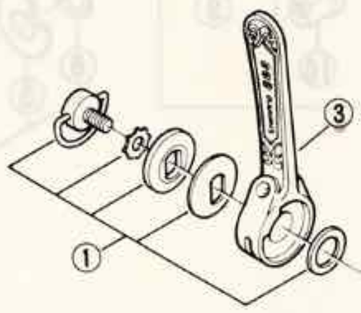
8309-455E

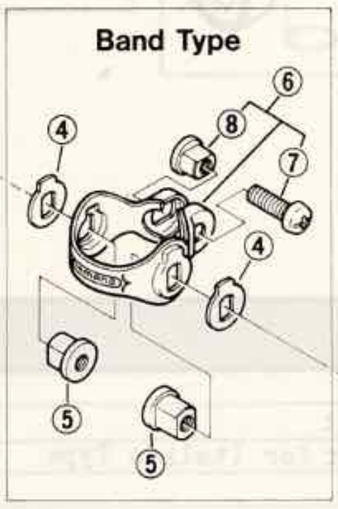
SHIMANO 600 EX

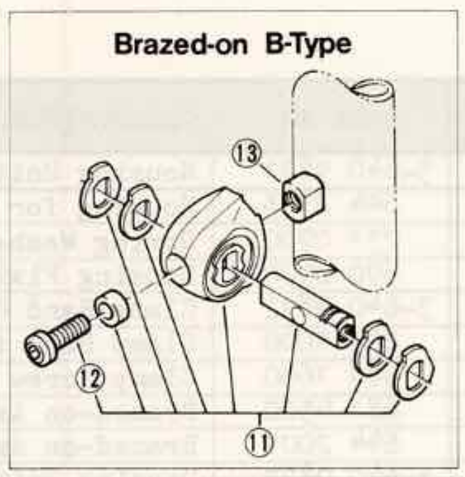
Model SL-6200 (Band Type)
SL-6210 (Brazed-on A- Type)
SL-6220 (Brazed-on B- Type)

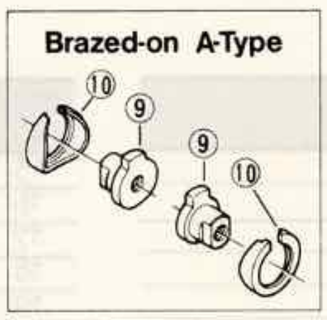
SPECIFICATIONS

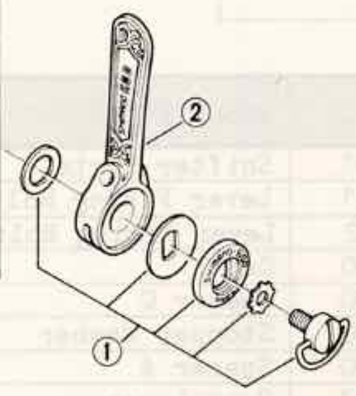
Weight • 2.05oz. (58g.)
Material • Light Alloy
Type • Friction Type
Attachment Position • Down Tube
Lever Clamp Diameter • 1-1/8"
Arabesque Pattern Design
Lever Non-loosening Feature





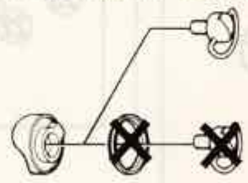






Italian Conversion

Part No.3-687 9901



for Shimano 600EX (Model SL-6210)

Shimano 600AX (Model SL-6310)
Shimano 105 (Model SL-A105FA)
ADAMAS AX (Model SL-AD15)

ITEM NO.	PART NO.	DESCRIPTION
1	3-682 9804	Shifter Parts
2	3-682 9002	Rear Lever
3	3-682 9003	Front Lever
4	681 4100	Washer A for Band Type
5	681 0800	Lever Axle for Band Type
6	3-681 9801	Clamp Band Unit for Band Type
7	681 1500	Clamp Screw for Band Type (M5x16)

ITEM NO.	PART NO.	DESCRIPTION
8	681 3800	Clamp Nut for Band Type
9	681 4500	Brazed-on Axle for A-Type
10	681 4600	Brazed-on Axle Cover for A-Type
11	3-681 9802	Housing Unit for Brazed-on B-Type
12	681 6400	Housing Fixing Bolt for Brazed-on B-Type
13	681 6200	Brazed-on Axle for B-Type

8402-322E

Shifting Lever

Model SL-A105-BA Band A Type
Model SL-A105-BB Band B Type
Model SL-A105-FA Brazed-on A-Type
Model SL-A105-FB Brazed-on B Type
Model SL-A105-FC Italian Type

Model SL-A105-BA (Band A Type)
SL-A105-BB (Band B Type)
SL-A105-FA (Brazed-on A Type)
SL-A105-FB (Brazed-on B Type)
SL-A105-FC (Italian Type)

SPECIFICATIONS

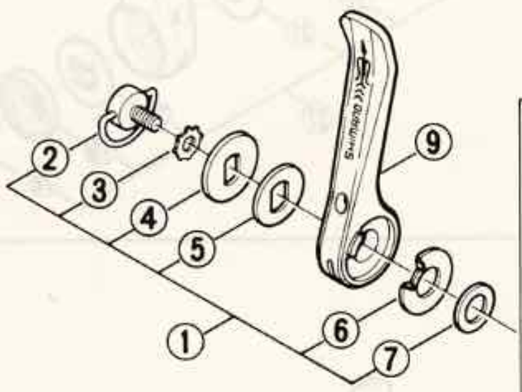
Weight • SL-A105BA/2.2 oz. (63g.)
SL-A105FA/1.9 oz. (53g.)
SL-A105BB/3.0 oz. (85g.)
SL-A105FB/2.6 oz. (73g.)
Material • Light Alloy · Pearl Bright Finish
Type • Friction Type
Attachment Position
• Down Tube
Lever Clamp Diameter
• 1-1/8″
Features • Lever Non-loosening
Golden Arrow Pattern

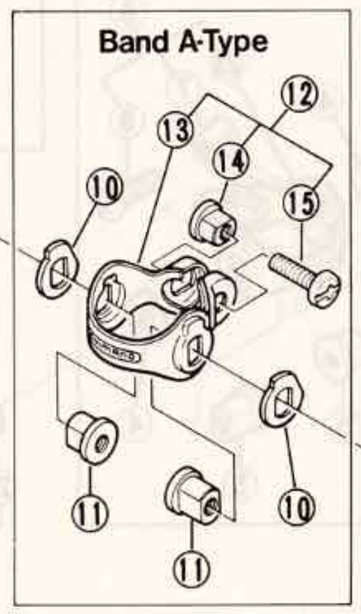


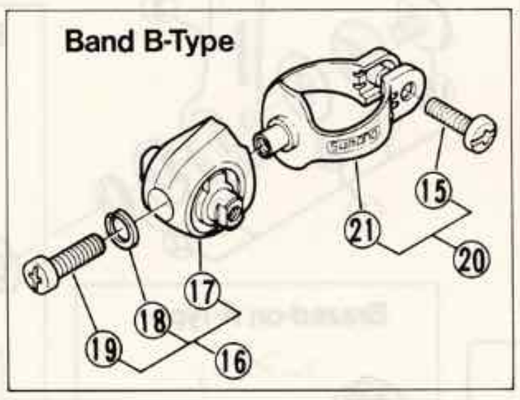
Band A Type
(SL-A105BA)

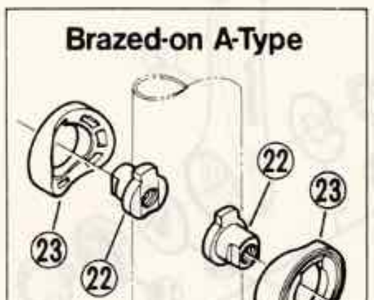


Band B Type
(SL-A105BB)

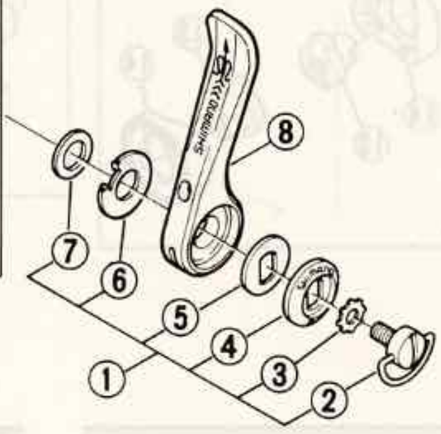






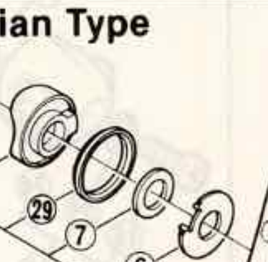






Italian Conversion

Part No.3-687 9901



for Shimano 600EX
(Model SL-6210)

Shimano 600AX
(Model SL-6310)
Shimano 105
(Model SL-A105FA)
ADAMAS AX
(Model SL-AD15)

ITEM NO.	PART NO.	DESCRIPTION
1	3-687 9803	Shifter Parts
2	3-682 9001	Lever Fixing Screw
3	623 7400	Teethed Washer
4	642 0500	Cap
5	681 3500	Washer B
6	687 5500	Stopper Washer
7	641 1200	Spacer A
8	687 5100	Rear Lever
9	687 5200	Front Lever
10	641 1100	Washer A (t=1) for Band A-Type
11	681 0801	Lever Axle for Band A-Type
12	3-687 9806	Clamp Band Unit for Band A-Type
13	681 3104	Clamp Band for Band A-Type
14	681 3801	Clamp Nut for Band A-Type
15	000 1111	Clamp Screw for Band Type

ITEM NO.	PART NO.	DESCRIPTION
16	3-687 9801	Housing Unit for Band B-Type
17	644 2102	Housing for B-Type
18	231 0700	Spring Washer for B-Type
19	690 0900	Housing Fixing Screw (M5x18) for Band B-Type
20	3-687 9802	Clamp Band Unit for Band B-Type
21	690 1001	Clamp Band for Band B-Type
22	681 4500	Brazed-on Axle for A-Type
23	644 2000	Brazed-on Axle Cover for A-Type
24	3-687 9805	Housing Unit for Brazed-on B-Type
25	681 6400	Housing Fixing Bolt (M5x17) for Brazed-on B-Type
26	681 6200	Brazed-on Axle for B-Type
27	3-687 9804	Shifter Parts
28	3-682 9801	Lever Fixing Screw
29	687 5400	Sleeve
30	687 5300	Cover

8310-E540B

Shifting Lever

Model SL-Z408-BA Band A Type
Model SL-Z408-BB Band B Type
Model SL-Z408-FA Brazed-on A Type
Model SL-Z408-FB Brazed-on B Type
Model SL-Z408-FC Italian Type

SL

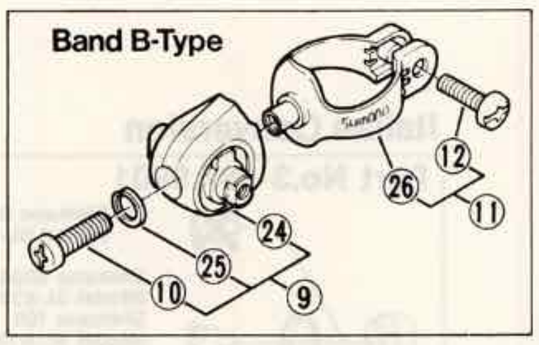
Model SL-Z408-BA (Band A Type)
SL-Z408-BB (Band B Type)
SL-Z408-FA (Brazed-on A Type)
SL-Z408-FB (Brazed-on B Type)
SL-Z408-FC (Italian Type)

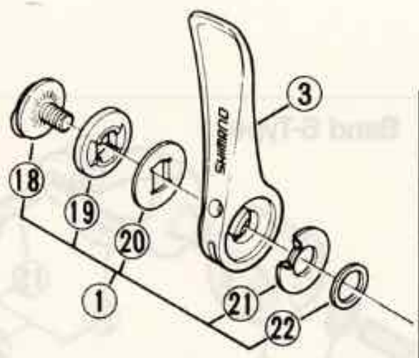
SPECIFICATIONS

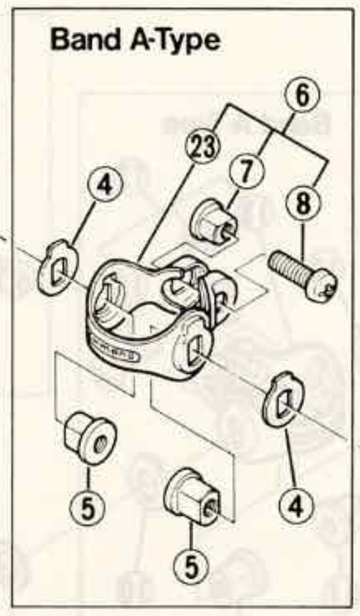
Weight • 2.2 oz. (63g.) (Band A Type)
Material • Light Alloy · Buff Finish
Type • Friction Type
Attachment Postion
• Down Tube
Lever Clamp Diameter
• 1-1/8"
Features • Non-loosening Mechanism, Sealed Mechanism, Human Engineered Design

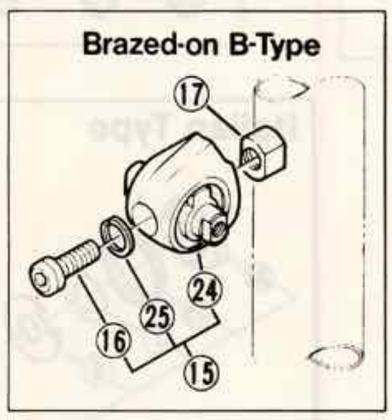


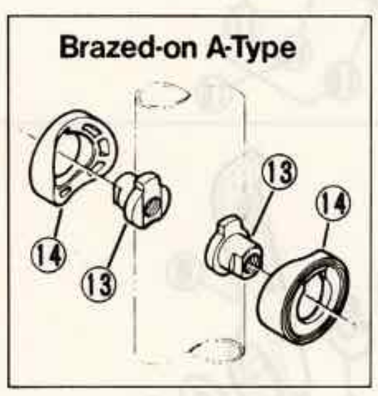
SL-Z408-BA

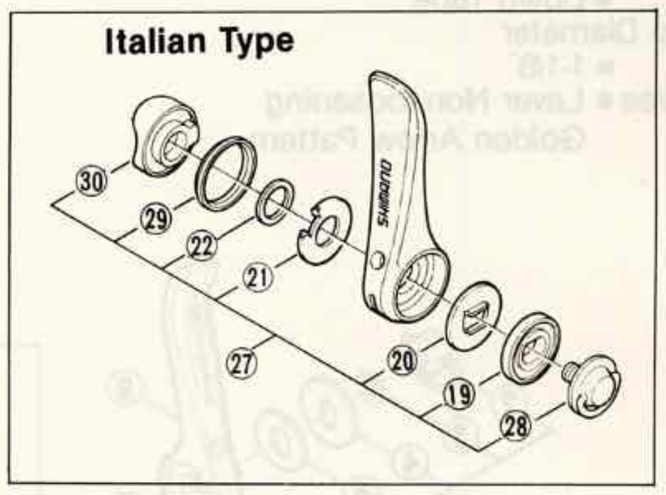


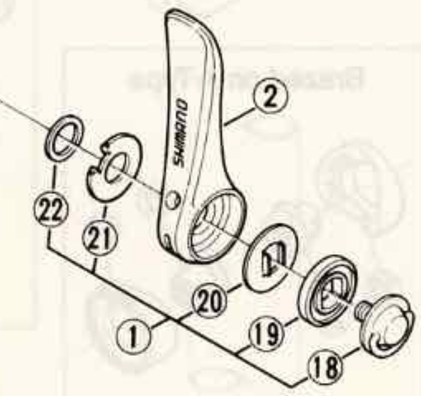












ITEM NO.	PART NO.	DESCRIPTION
1	3-636 9822	Shifter Parts
2	3-636 9801	Rear Lever
3	3-636 9811	Front Lever
4	681 4100	Washer A for Band A-Type
5	681 0801	Lever Axle for Band A-Type
6	3-644 9803	Clamp Band Unit for Band A-Type
7	681 3801	Clamp Nut for Band A-Type
8	000 1111	Clamp Screw for Band A-Type
9	3-690 9805	Housing Unit for Band B-Type
10	690 0900	Housing Fixing Screw for Band B-Type
11	3-640 9812	Clamp Band & Screw for Band B-Type
12	681 1600	Clamp Screw for Band B-Type
13	681 4500	Brazed-on Axle for A-Type
14	644 2000	Brazed-on Axle Cover for A-Type
15	3-690 9807	Housing Unit for Brazed-on B-Type

ITEM NO.	PART NO.	DESCRIPTION
16	681 6400	Housing Fixing Bolt for Brazed-on B-Type
17	681 6200	Brazed-on Axle for B-Type
18	3-640 9831	Lever Fixing Bolt
19	640 1400	Cap
20	640 1300	Washer C
21	687 5500	Stopper Washer
22	640 1100	Spacer A
23	681 3102	Clamp Band for Band A-Type
24	644 2100	Housing for B-Type
25	231 0700	Spring Washer for B-Type
26	690 1000	Clamp Band for Band B-Type
27	3-636 9823	Shifter Parts
28	3-640 9832	Lever Fixing Bolt
29	687 5400	Sleeve
30	687 5300	Cover

8312-E617A

UE

Shifting Lever

Model SL-Z401-BA Band A Type
Model SL-Z401-BB Band B Type
Model SL-Z401-FA Brazed-on A-Type
Model SL-Z401-FB Brazed-on B Type
Model SL-Z401-BX Stem Box Type
Model SL-Z401-S Stem Band Type

SL

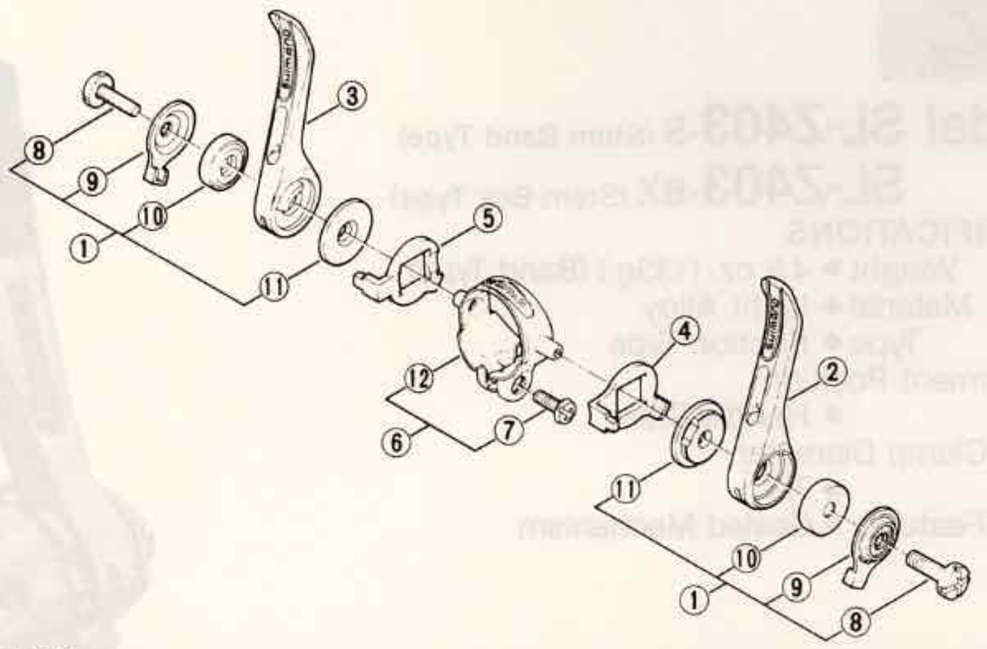
Model SL-Z401-BA (Band A Type)
SL-Z401-BB (Band B Type)
SL-Z401-FA (Brazed-on A Type)
SL-Z401-FB (Brazed-on B Type)
SL-Z401-S (Stem Band Type)
SL-Z401-BX (Stem Box Type)

SPECIFICATIONS

Weight • 2.2 oz. (63g.) (Band Type)
Material • Light Alloy
Type • Friction Type
Attachment Position
• Down Tube, Handle Stem
Lever Clamp Diameter
• 1-1/8″ (Down Tube)
7/8″ (Handle Stem)
Features • Sealed Mechanism



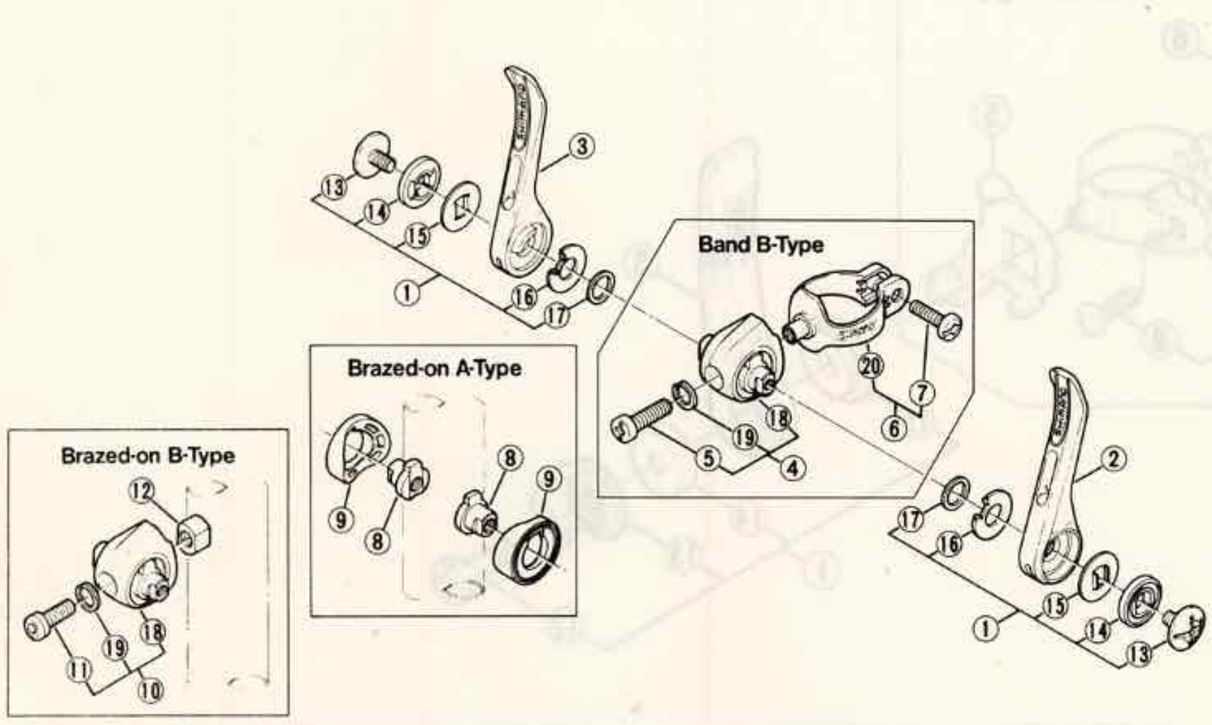
SL-Z401-BA



SL-Z401BA

ITEM NO.	PART NO.	DESCRIPTION
1	3-634 9801	Shifter Parts
2	634 0100	Rear Lever
3	634 0200	Front Lever
4	684 0402	Plate for Rear
5	684 0502	Plate for Front
6	3-634 9811	Clamp Band & Screw
7	000 1111	Clamp Screw
8	669 2800	Lever Fixing Bolt
9	634 1100	Pressure Plate
10	634 2200	Bushing P
11	634 2100	Bushing O
12	684 0201-1	Clamp Band

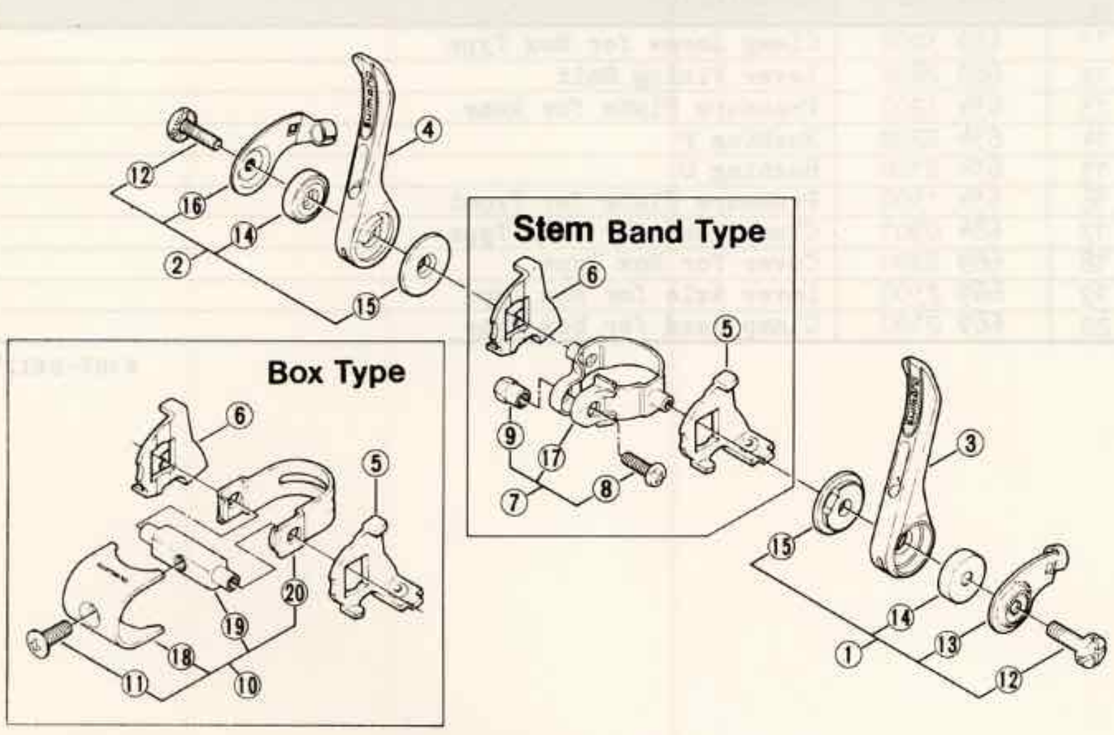
8307-S610'



SL-Z401BB/FA/FB

ITEM NO.	PART NO.	DESCRIPTION
1	3-634 9804	Shifter Parts
2	634 0100	Rear Lever
3	634 0200	Front Lever
4	3-690 9805	Housing Unit for Band Type
5	690 0900	Housing Fixing Screw
6	3-640 9812	Clamp Band & Screw for Band Type
7	681 1600	Clamp Screw for Band Type
8	681 4500	Brazed-on Axle for A-Type
9	644 2000	Brazed-on Axle Cover for A-Type
10	3-690 9807	Housing Unit for Brazed-on B-Type
11	681 6400	Housing Fixing Bolt for Brazed-on B-Type
12	681 6200	Brazed-on Axle for B-Type
13	634 2500	Lever Fixing Screw
14	640 1400	Cap
15	640 1300	Washer C
16	687 5500	Stopper Washer
17	640 1100	Spacer A
18	644 2100	Housing for B-Type
19	231 0700	Spring Washer for B-Type
20	690 1000	Clamp Band for Band B-Type

8307-S616



SL-Z401S/BX

ITEM NO.	PART NO.	DESCRIPTION
1	3-634 9802	Shifter Parts for Rear
2	3-634 9803	Shifter Parts for Front
3	634 0100	Rear Lever
4	634 0200	Front Lever
5	684 0405	Plate for Rear
6	684 0406	Plate for Front
7	3-634 9812	Clamp Band Unit for Band Type
8	333 0900	Clamp Screw for Band Type
9	622 0200-2	Clamp Nut for Band Type
10	3-669 9803	Clamp Band Unit for Box Type
11	669 3000	Clamp Screw for Box Type
12	669 2800	Lever Fixing Bolt
13	634 1200	Pressure Plate for Rear
14	634 2200	Bushing P
15	634 2100	Bushing O
16	634 1300	Pressure Plate for Front
17	684 0301	Clamp Band for Band Type
18	669 2200	Cover for Box Type
19	669 2300	Lever Axle for Box Type
20	669 2100	Clamp Band for Box Type

8307-S611'

UE

Shifting Lever

Model SL-MT50 FF EM-Lever for Front
Model SL-MT50 RF EM-Lever for Rear
Model SL-DE20 Band Type
Model SL-DE21 Brazed-on Type

SL

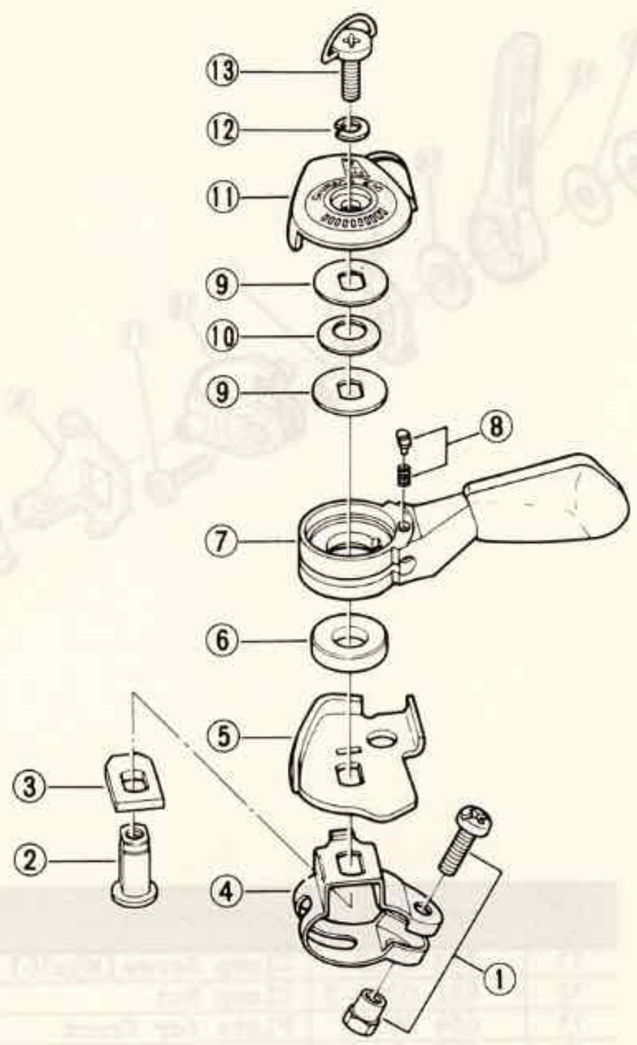
SHIMANO AL-11

Finger Shifter

Model SL-MT50 FF
Model SL-MT50 RF

SPECIFICATIONS

Weight • 5.3 oz. (150g.) Pair
Material • Resin & Steel
Type • Friction Type
Attachment Position
• Handle Bar
Lever Clamp Diameter
• 7/8″ (22.2mm.)





ITEM NO.	PART NO.	DESCRIPTION
1	3-622 9041	Clamp Screw (M5x16) & Nut
2	616 1200	Lever Axle
3	616 1300	Washer
4	616 0802	Clamp Band
5	616 0902	Plate 50 FF
	616 0901	Plate 50RF
6	616 5500	Bushing
7	3-616 9803	Rear Lever 50FF
	3-616 9804	Front Lever 50RF
8	3-616 9802	Pawl & Spring
9	672 2400	Washer B
10	662 1500	Friction Washer
11	3-616 9811	Cover 50FF
	3-616 9812	Cover 50RF
12	616 1400	Spring Washer
13	684 1200	Lever Fixing Screw

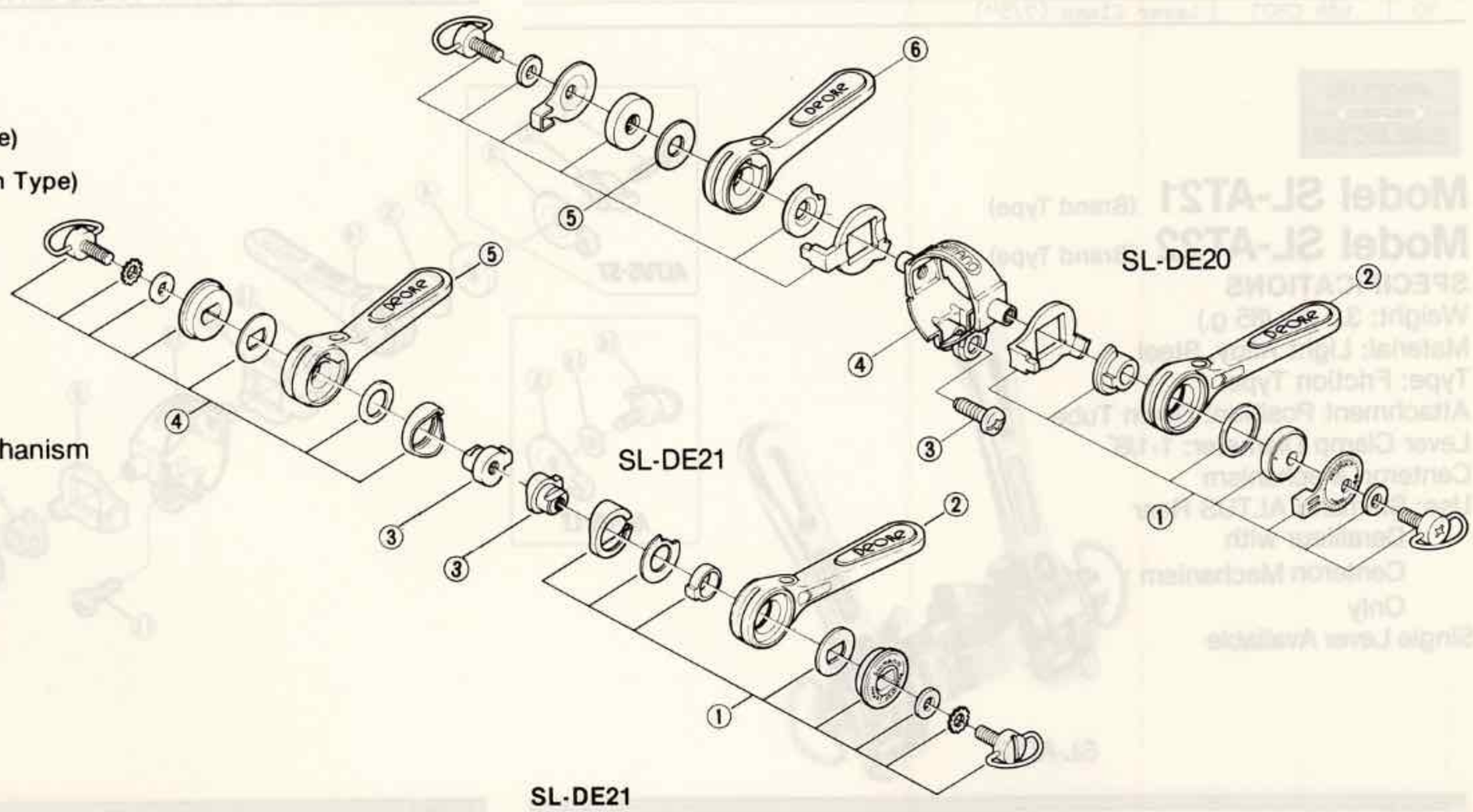
8301-556C

SHIMANO DEORE SERIES

Model SL-DE20 (Band Type)
SL-DE21 (Brazed-on Type)

SPECIFICATIONS

Weight: 1.4oz. (39g.)/Brazed-on Type
: 2.9oz. (82g.)/Band Type
Material: Light Alloy, (Lever)
Type: Friction Type
Attachment Position: Down Tube
Lever Clamp Diameter: 1-1/8″
Centeron Mechanism, Sealed Mechanism (Brazed-on Type Only)
Use: Rear Derailleur with Centeron Mechanism Only



SL-DE20

ITEM NO.	PART NO.	DESCRIPTION
1	626 9001	Shifter Parts for Rear
2	626 9003	Lever for Rear
3	681 1500	Clamp Screw (M5x16mm)
4	684 0201-1	Lever Clamp (1-1/8")
5	626 9004	Shifter Parts for Front
6	626 9006	Lever for Front

8002-412

SL-DE21

ITEM NO.	PART NO.	DESCRIPTION
1	626 9002	Shifter Parts for Rear
2	626 9003	Lever for Rear
3	681 4500	Lever Axle
4	626 9005	Shifter Parts for Front
5	626 9006	Lever for Front

8007-413

UE

Shifting Lever

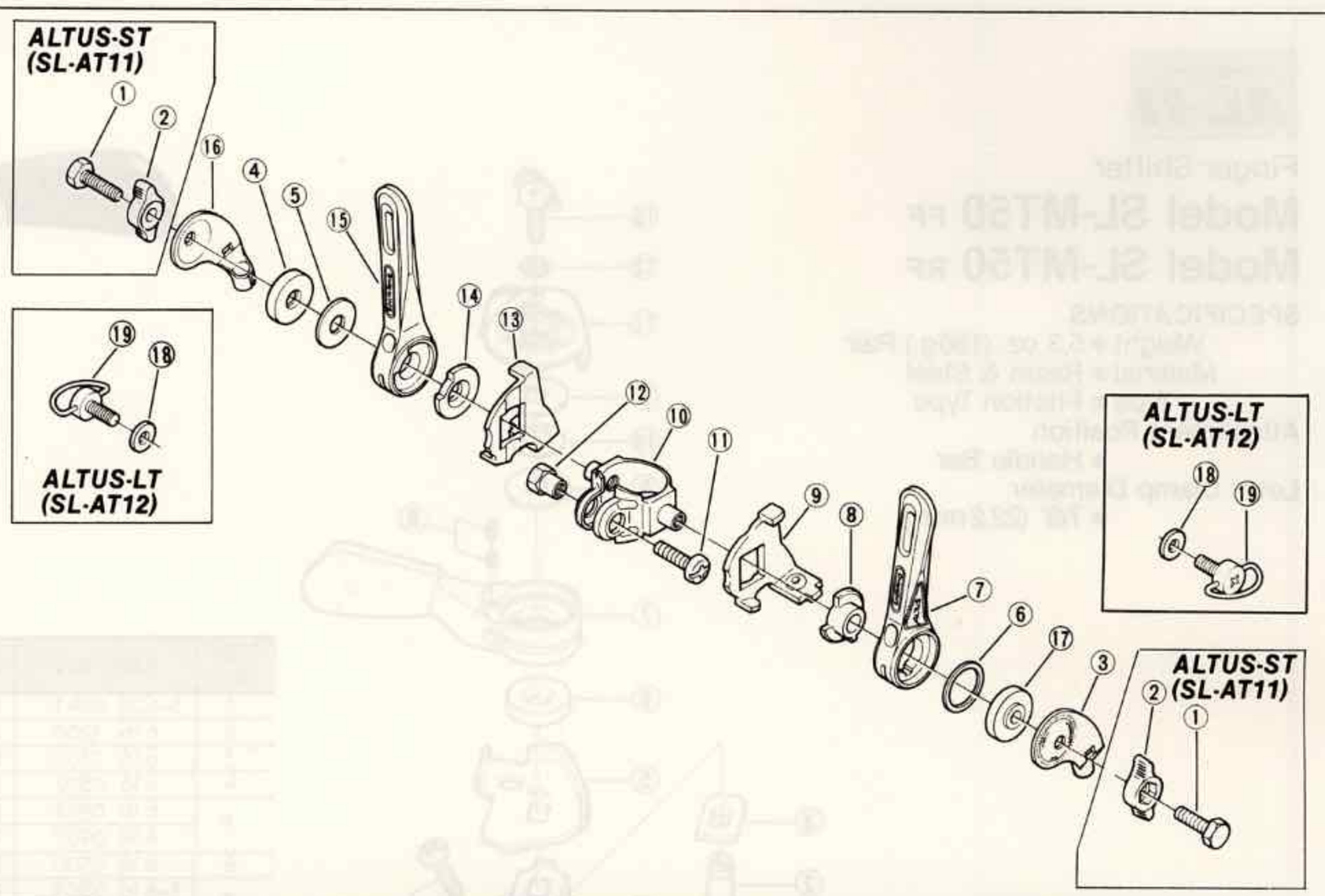
Model SL-AT11 Stem
Model SL-AT12 Stem
Model SL-AT21 Down Tube
Model SL-AT22 Down Tube

SL

Model SL-AT11
Model SL-AT12

SPECIFICATIONS

Weight: 3.3 oz. (94g.)/AT12, 3.3 oz. (93g.)/AT11
Material: Light Alloy, Steel
Type: Friction Type
Attachment Position: Handle Stem
Lever Clamp Diameter: 7/8"
Centeron Mechanism
Use: Shimano ALTUS Rear Derailleur with Centeron Mechanism Only
Single Lever Available



ITEM NO.	PART NO.	DESCRIPTION
1	684 0901	Lever Fixing Bolt
2	684 0800-1	Bolt Adapter
3	684 0602	Pressure Plate for Rear
4	688 0500	Cap A
5	000 3701	Washer A
6	000 3454	Adjusting Washer
7	688 0100	Lever for Rear
8	688 0300	Bushing
9	684 0405	Plate for Rear
10	684 0301	Lever Clamp (7/8")

ITEM NO.	PART NO.	DESCRIPTION
11	333 0900	Clamp Screw (M5x16)
12	622 0200-2	Clamp Nut
13	684 0406	Plate for Front
14	688 0400	Washer B
15	688 0200	Lever for Front
16	684 0701	Pressure Plate for Front
17	688 0501	Cap B
18	684 1700	Washer
19	684 1200	Lever Fixing Screw for ALTUS-LT

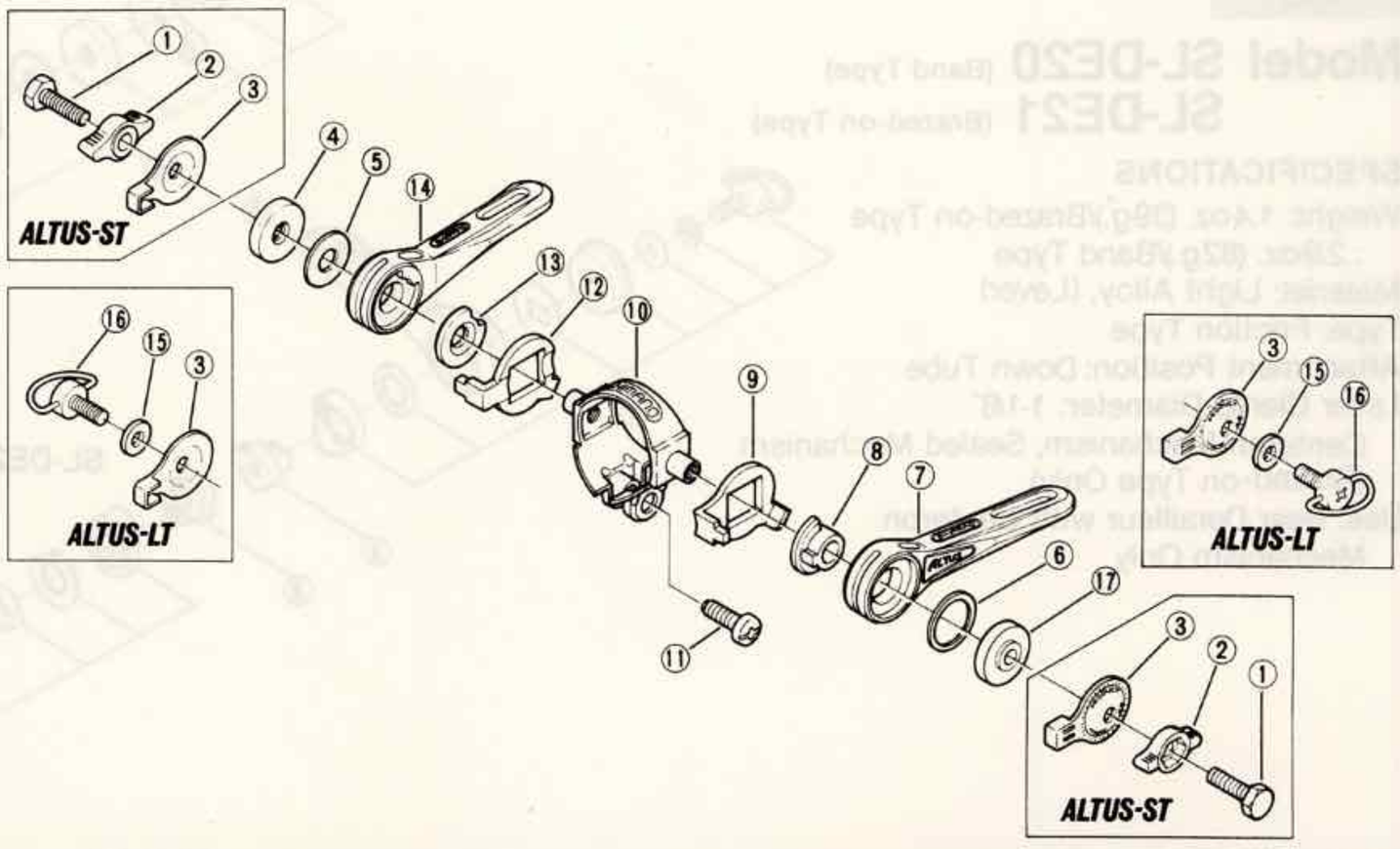
8111-339C

Model SL-AT21 (Brand Type)
Model SL-AT22 (Brand Type)

SPECIFICATIONS

Weight: 3.0 oz. (85 g.)
Material: Light Alloy, Steel
Type: Friction Type
Attachment Position: Down Tube
Lever Clamp Diameter: 1-1/8"
Centeron Mechanism
Use: Shimano ALTUS Rear Derailleur with Centeron Mechanism Only
Single Lever Available


SL-AT22



ITEM NO.	PART NO.	DESCRIPTION
1	684 0901	Lever Fixing Bolt for ALTUS-ST
2	684 0800-1	Bolt Adapter for ALTUS-ST
3	684 1502	Pressure Plate for ALTUS-ST
	684 1501	Pressure Plate for ALTUS-LT
4	688 0500	Cap A
5	000 3701	Washer A
6	000 3454	Adjusting Washer
7	688 0100	Lever for Rear
8	688 0600	Bushing

ITEM NO.	PART NO.	DESCRIPTION
9	684 0402	Plate for Rear
10	684 0201-1	Lever Clamp (1-1/8")
11	000 1111	Clamp Screw (M5x14)
12	684 0502	Plate for Front
13	688 0400	Washer B
14	688 0200	Lever for Front
15	684 1700	Washer
16	684 1200	Lever Fixing Screw for ALTUS-LT
17	688 0501	Cap B

8111-371A

UE

Model SL-LS10 Stem Tube
Model SL-QS10

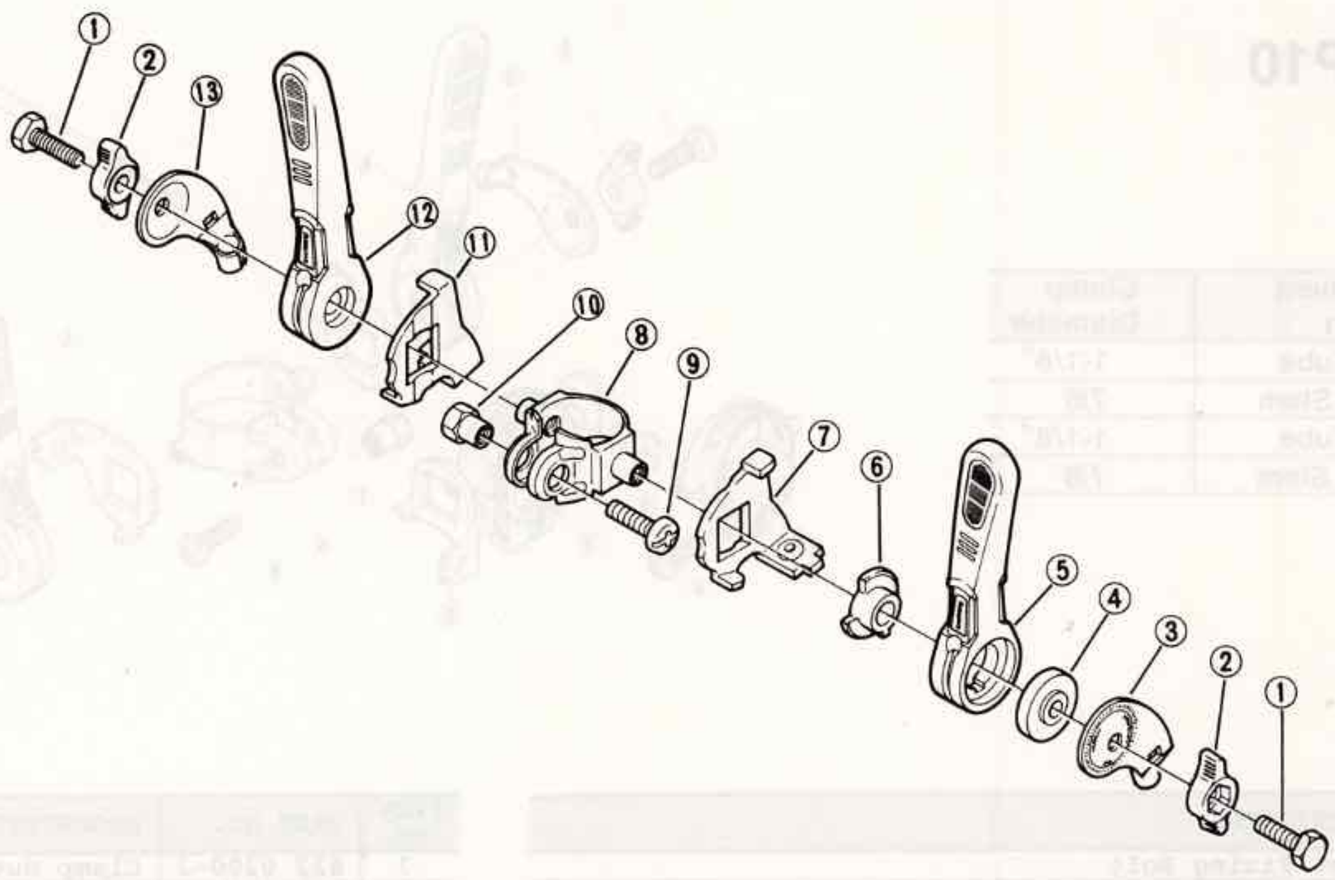
SHIMANO-LS LEVER

Model SL-LS10

SPECIFICATIONS

Weight: 2.9oz. (92g.)
Type: Friction Type
: Centeron Mechanism
Material: Resin
Use: Rear Derailleur with Centeron Mechanism Only

	Attachment Position	Clamp Diameter
Double Single	Down Tube	1-1/8"
	Handle Stem	7/8"



ITEM NO.	PART NO.	DESCRIPTION
1	684 0900	Lever Fixing Bolt
2	684 0800-1	Bolt Adapter
3	684 0602	Pressure Plate for Rear
4	632 0200-1	Cap
5	631 0100-1	Lever for Rear
6	688 0300	Bushing
7	684 0405	Plate for Rear

ITEM NO.	PART NO.	DESCRIPTION
8	684 0301	Lever Clamp (7/8")
9	333 0900	Clamp Screw(M5x16)
10	622 0200-2	Clamp Nut
11	684 0406	Plate for Front
12	684 0102	Lever for Front
13	684 0701	Pressure Plate for Front

8105-350B

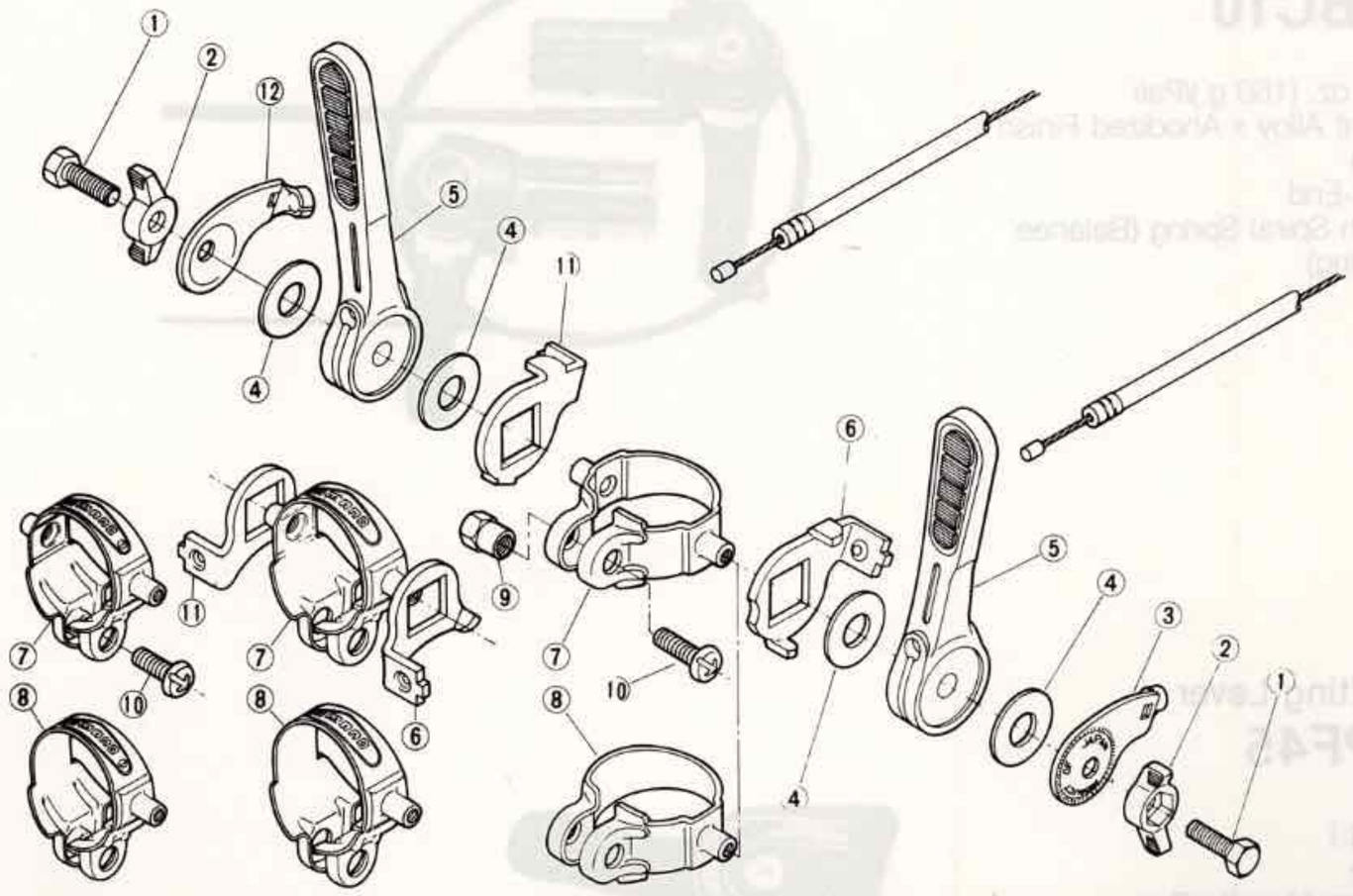
QS-LEVER

Model SL-QS10

SPECIFICATIONS

Weight: 3.4oz. (95g)
Type: Friction Type
Material: Light Alloy

	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8"
	Handle Stem	7/8"
Single Lever	Down Tube	1-1/8"
	Handle Stem	7/8"



ITEM NO.	PART NO.	DESCRIPTION
1	684 0900	Lever Fixing Bolt
2	684 0800-1	Bolt Adapter
3	684 0601	Pressure Plate A For Rear
4	684 1000	Spacer
5	684 0100	Lever
6	684 0401	Plate A For Rear (0.833".7/8")
	684 0400	Plate A For Rear (1-1/8".1")
7	684 0301	Lever Clamp For 10-Speed (0.833".7/8")
	684 0201	Lever Clamp For 10-Speed (1-1/8")
	684 1401	Lever Clamp For 10-Speed (1")

ITEM NO.	PART NO.	DESCRIPTION
8	684 0300	Lever Clamp For 5-Speed (0.833".7/8")
	684 0200	Lever Clamp For 5-Speed (1-1/8")
	684 1400	Lever Clamp For 5-Speed (1")
9	622 0200-2	Clamp Nut
10	333 0900	Clamp Bolt (M5x16)
	000 1103	Clamp Bolt For 1" Lever Clamp (M5x12)
11	684 0501	Plate B For Front (0.833".7/8")
	684 0500	Plate B For Front (1-1/8".1")
12	684 0701	Pressure Plate B For Front

7503-167A

Shifting Lever

Model SL-QP10
Model SL-BC10

Model SL-PF45 TRIGGER LEVER

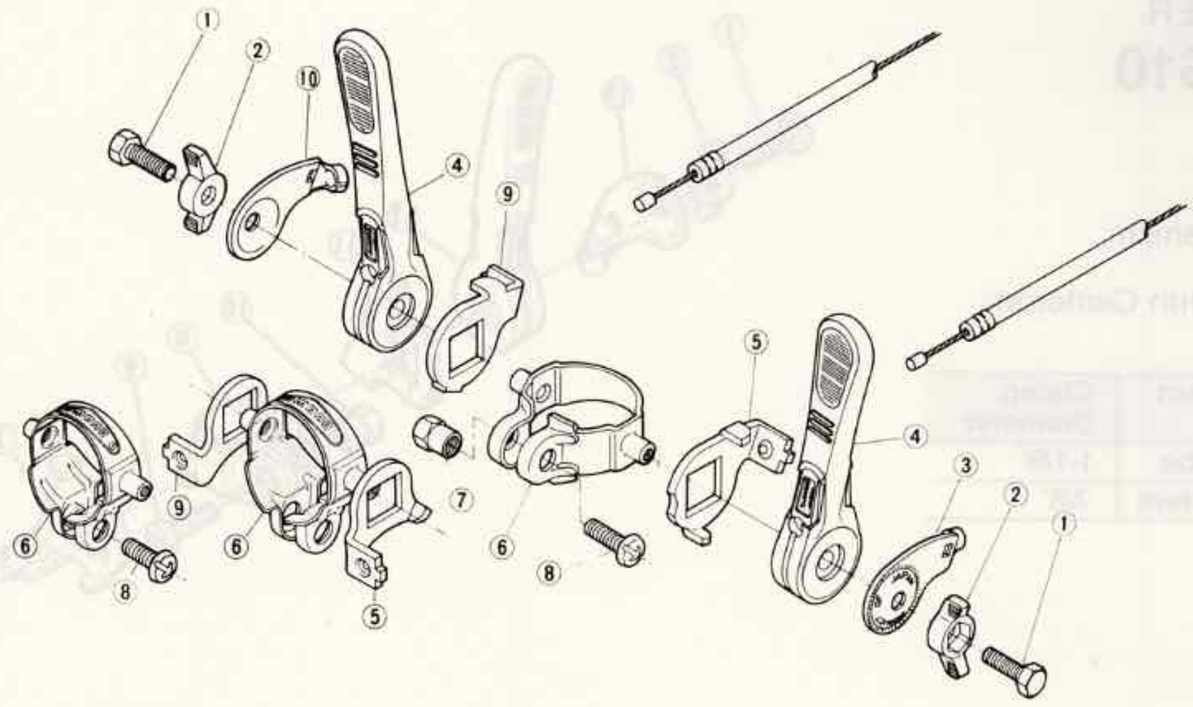
QP-LEVER

Model SL-QP10

SPECIFICATIONS

Weight: 3.0oz. (85g.)
Type: Friction Type
Material: Resin

	Attachment Position	Clamp Diameter
Double Lever	Down Tube	1-1/8″
	Handle Stem	7/8″
Single Lever	Down Tube	1-1/8″
	Handle Stem	7/8″



ITEM NO.	PART NO.	DESCRIPTION
1	684 0900	Lever Fixing Bolt
2	684 0800-1	Bolt Adapter
3	684 0601	Pressure Plate A For Rear
4	684 0102	Lever
5	684 0401	Plate A For Rear (0.833".7/8")
	684 0400	Plate A For Rear (1-1/8".1")
6	684 0301	Lever Clamp For 10-Speed (0.833".7/8")
	684 0201	Lever Clamp For 10-Speed (1-1/8")
	684 1401	Lever Clamp For 10-Speed (1")

ITEM NO.	PART NO.	DESCRIPTION
7	622 0200-2	Clamp Nut
8	333 0900	Clamp Bolt (M5x16)
	000 1103	Clamp Bolt For 1" Lever Clamp (M5x12)
9	684 0501	Plate B For Front (0.833".7/8")
	684 0500	Plate B For Front (1-1/8".1")
10	684 0701	Pressure Plate B For Front

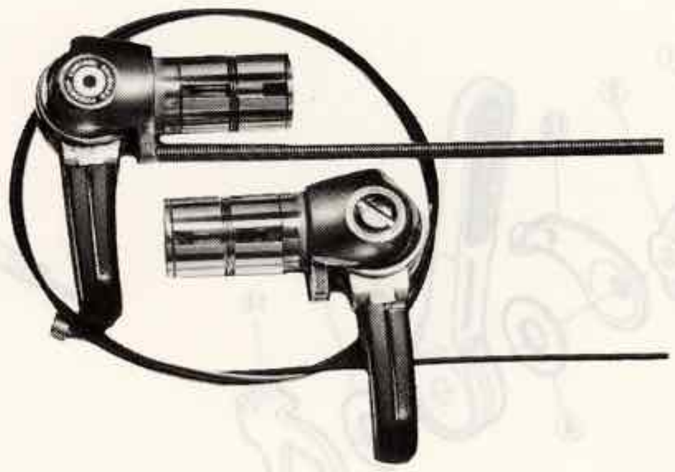
7503-181A

SHIMANO 600

Model SL-BC10

SPECIFICATIONS

Weight ● 5.6 oz. (160 g.)/Pair
Material ● Light Alloy • Anodized Finish
Attachment Position
● Bar-End
Type ● With Spiral Spring (Balance Spring)



NEW POSITRON PPS SYSTEM

PPS-FH EM Shifting Lever

Model SL-PF45

SPECIFICATIONS

Weight: 2.3oz. (66g.)
Type: Friction Type
Attachment Position: Handle Bar
Lever Clamp Diameter: 7/8″ (22.2mm.)



E

Shifting Lever

Model SL-PF13 12-Speed Model SL-P221
Model-PF211 10-Speed

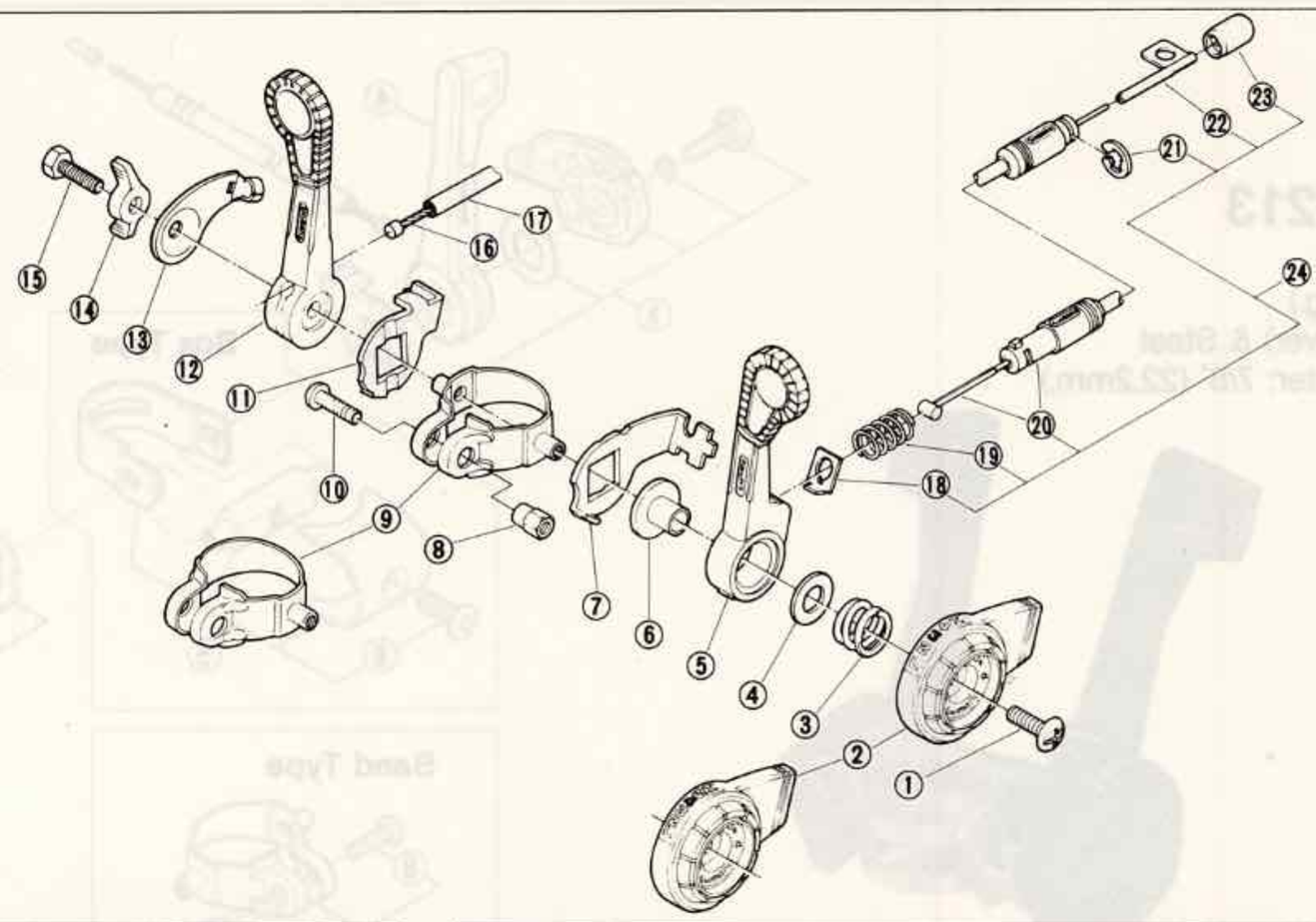
NEW POSITRON PPS SYSTEM

PPS-STEM Shifting Lever

Model SL-PF13 (12-Speed)
Model SL-P211 (10-speed)

SPECIFICATIONS

Weight: 3.0 oz. (85g.)
Material: Resin & Steel
Type: Friction Type
Attachment Position: Handle Stem
Lever Clamp Diameter: 7/8" (22.2mm.)
Use: Positron Rear Derailleur only
Single Lever available



ITEM NO.	PART NO.	DESCRIPTION
1	687 0800	Lever Fixing Screw for Rear
2	692 9009	Pressure Plate for Rear (5-Speed)
	692 9008	Pressure Plate for Rear (6-Speed)
3	692 0600	Spring
4	692 1900	Washer
5	692 0100	Lever for Rear
6	692 0500	Flanged Bushing
7	692 0300	Plate for Rear
8	622 0200-2	Clamp Nut
9	692 1300	Lever Clamp for Double Lever (0.833"•7/8")
	692 1301	Lever Clamp for Single Lever (0.833"•7/8")
10	333 0900	Clamp Screw (M5x16)
11	684 0501	Plate for Front
12	692 0200	Lever for Front

ITEM NO.	PART NO.	DESCRIPTION
13	684 0701	Pressure Plate for Front
14	684 0800-1	Bolt Adapter
15	684 0900	Lever Fixing Bolt for Front
16	———	Front Inner Cable
17	———	Front Outer Casing
18	692 0900-2	Casing Plate
19	692 1001	Casing Spring
20	608 3032	Rear Complete Cable 1450mmx1520mm
	608 3042	Rear Complete Cable 1550mmx1620mm
21	521 3001	Stop Ring
22	533 1200-1	Inner Sleeve
23	620 2030-1	Inner End Cap
24	692 9103	Rear Cable Assembly 1450mmx1520mm
	692 9104	Rear Cable Assembly 1550mmx1620mm

7909-255C

NEW POSITRON PPS SYSTEM

POSITRON DOWN TUBE

Model SL-P221

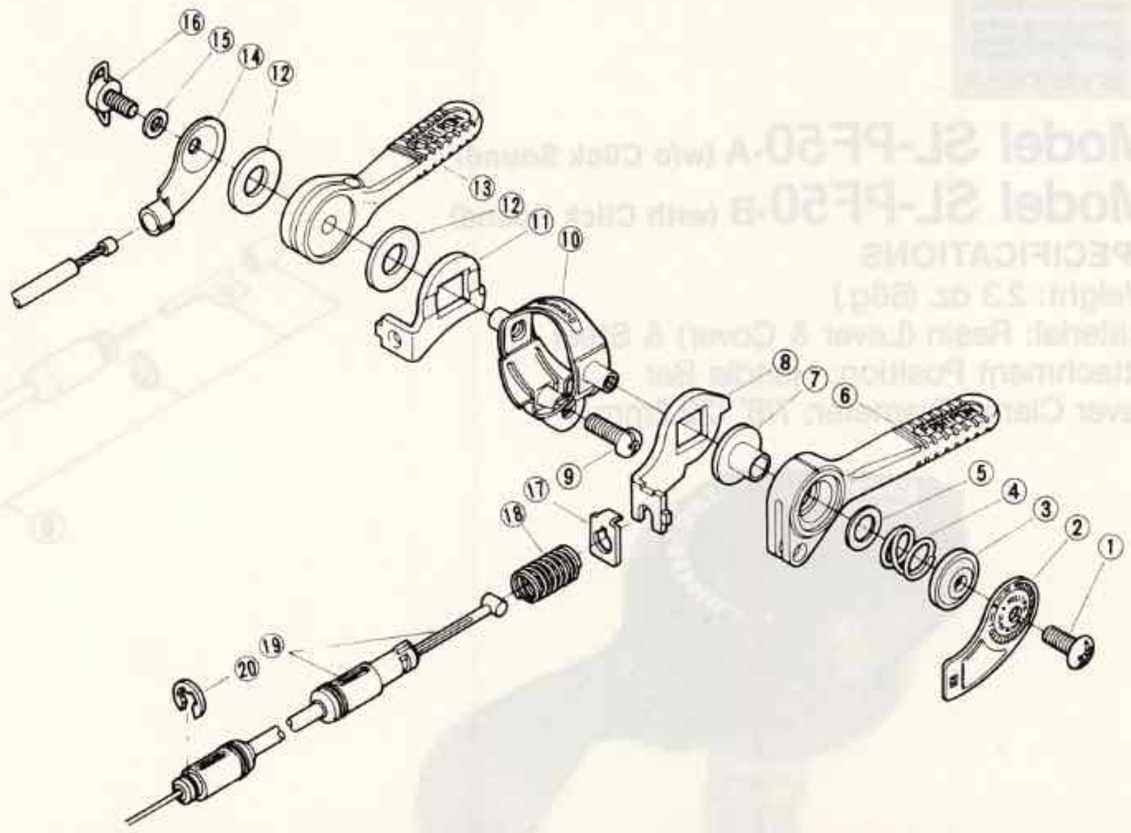
SPECIFICATIONS

Use: PPS System Only
Weight: 3.6oz. (102g.)
Type: Friction Type
Material: Light Alloy
Attachment Position: Down Tube
Lever Clamp Diameter: 1-1/8"



Single Lever





ITEM NO.	PART NO.	DESCRIPTION
1	687 0800	Lever Fixing Screw
2	692 5200	Pressure Plate for Rear
3	692 3800	Washer A
4	692 3700	Spring
5	692 1900	Adjusting Washer
6	692 3500	Lever for Rear
7	692 0500	Flanged Bushing
8	692 5300	Plate for Rear
9	000 1111	Clamp Bolt (M5x16)
10	684 0201-1	Lever Clamp for 10-Speed
11	684 0500	Plate for Front

ITEM NO.	PART NO.	DESCRIPTION
12	684 1000	Spacer
13	692 3600	Lever for Front
14	684 0701	Pressure Plate for Front
15	684 1700	Washer B
16	684 1200	Lever Fixing Bolt
17	692 0900-1	Casing Plate
18	692 1001	Casing Spring
19	608 3070	Rear Complete Cable 1100x1170
	608 3080	Rear Complete Cable 1200x1270
20	521 3001	Stop Ring

7709-263A

Shifting Lever

Model SL-P213 Stem Lever

Model SL-PF50-A Without Click Sound
Model SL-PF50-B With Click Sound

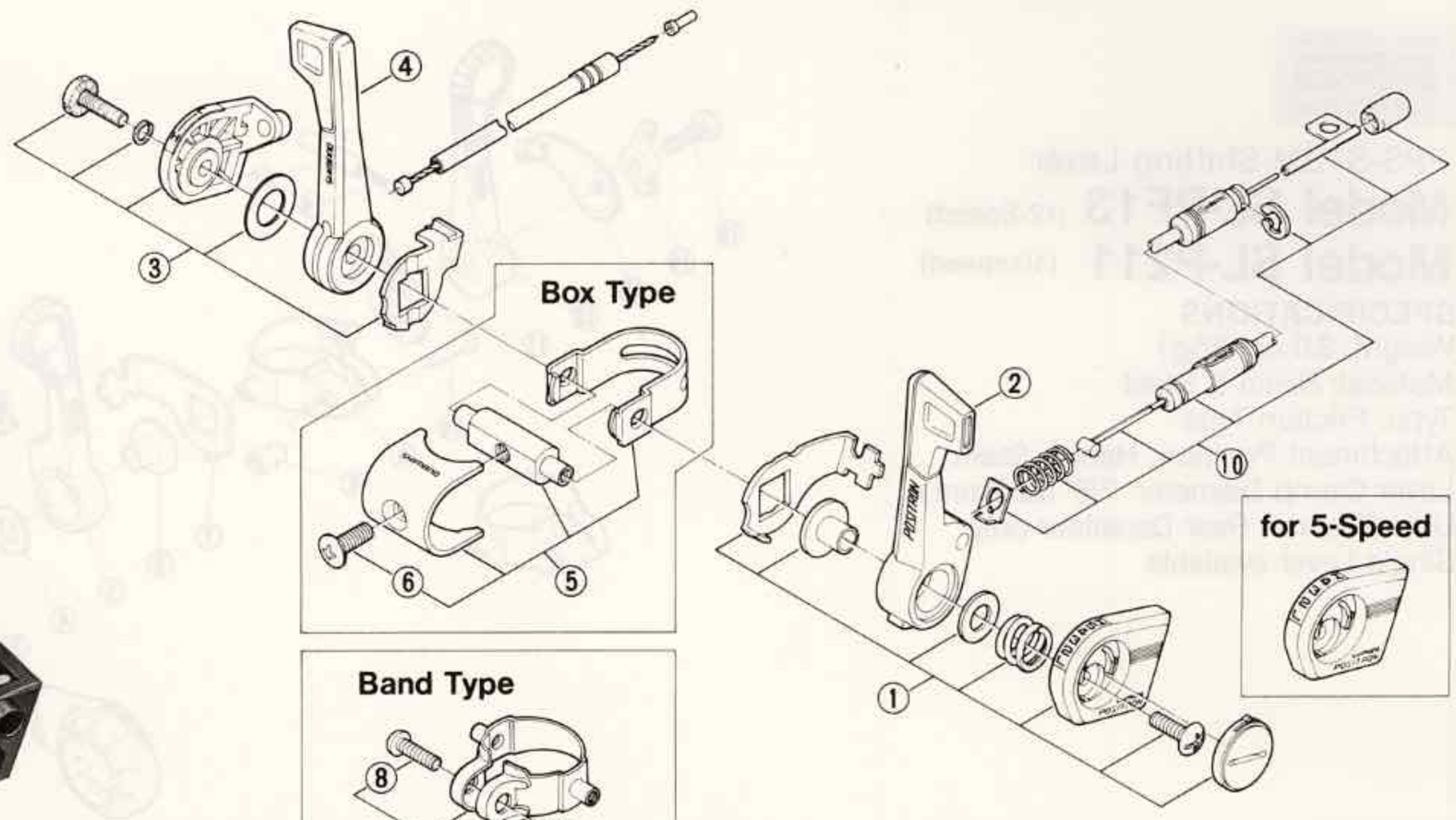
NEW POSITRON PPS SYSTEM

Model SL-P213

SPECIFICATIONS

SL Weight: 3.2 oz. (92g.)
Material: Resin (Lever) & Steel
Lever Clamp Diameter: 7/8″ (22.2mm.)





ITEM NO.	PART NO.	DESCRIPTION
1	3-669 9801	Shifter Parts for Rear (6-Speed)
	3-669 9801-1	Shifter Parts for Rear (5-Speed)
2	669 2400	Rear Lever
3	3-669 9802	Shifter Parts for Front
4	669 2500	Front Lever
5	3-669 9803	Clamp Band Unit for Box Type

ITEM NO.	PART NO.	DESCRIPTION
6	669 3000	Clamp Screw (M5x16) for Box Type
7	3-669 9804	Clamp Band Unit for Band Type
8	333 0900	Clamp Screw for Band Type
9	622 0200-2	Clamp Nut for Band Type
10	3-692 9103	Rear Cable Assembly (1450mmx1520mm) Black
	3-692 9104	Rear Cable Assembly (1550mmx1620mm) Black

8309-577A

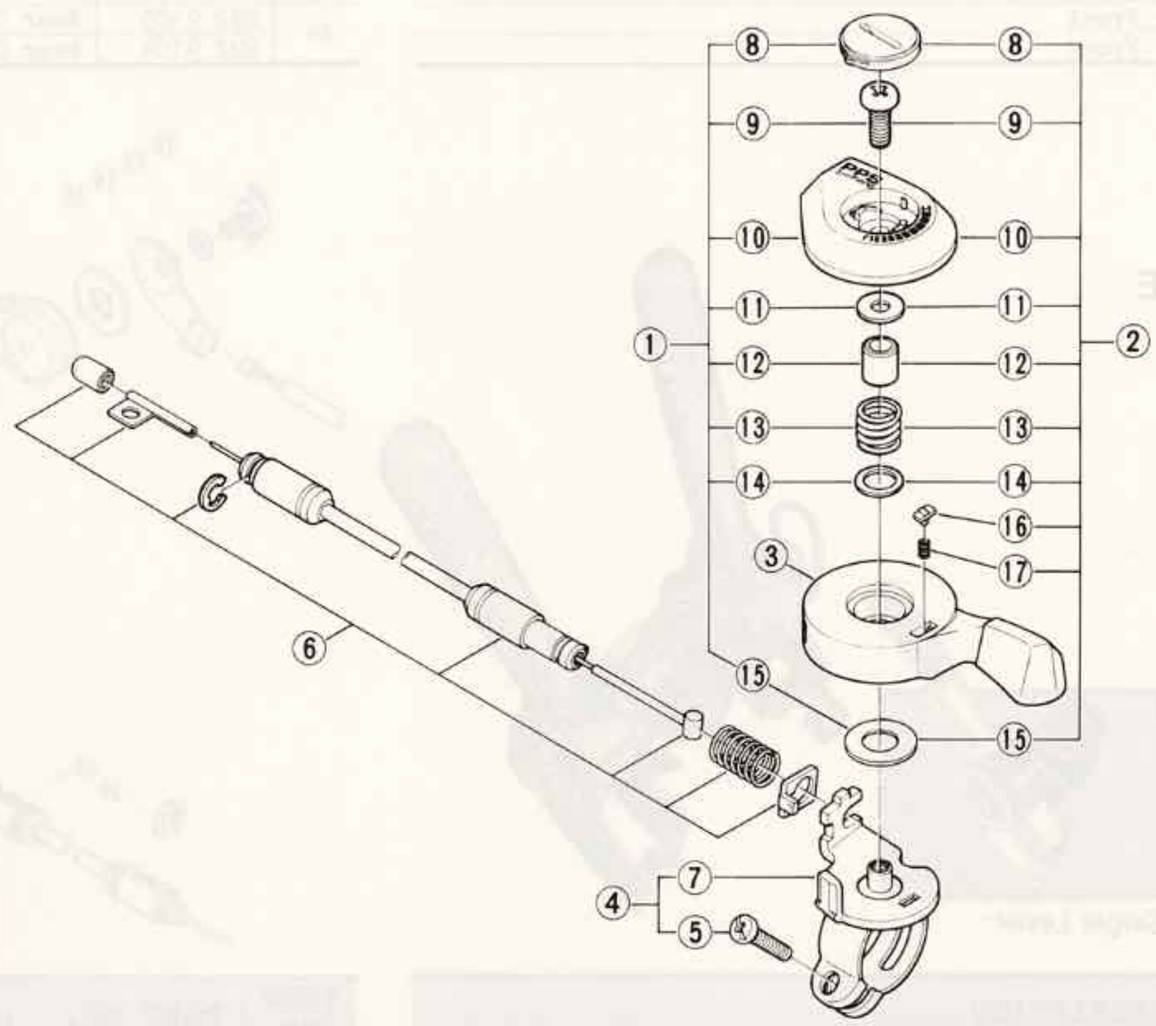
NEW POSITRON PPS SYSTEM

Model SL-PF50-A (w/o Click Sound)
Model SL-PF50-B (with Click Sound)

SPECIFICATIONS

Weight: 2.3 oz. (66g.)
Material: Resin (Lever & Cover) & Steel
Attachment Position: Handle Bar
Lever Clamp Diameter: 7/8″ (22.2mm.)





ITEM NO.	PART NO.	DESCRIPTION
1	3-691 9831	Cover Unit for SL-PF50-A
2	3-691 9832	Cover Unit for SL-PF50-B
3	691 3200	Rear Lever
4	3-691 9834	Clamp Band & Screw
5	000 1112	Clamp Screw
6	3-692 9135	Rear Cable Assembly (1700x1770mm) Black
	3-692 9136	Rear Cable Assembly (1800x1870mm) Black
7	3-691 9833	Clamp Band
8	669 2900	Cap

ITEM NO.	PART NO.	DESCRIPTION
9	000 1118	Lever Fixing Screw
10	691 3300	Cover
11	691 3400	Plate
12	617 0400	Lever Axle Collar
13	691 0600	Spring
14	692 1900	Washer
15	615 1200	Spacer
16	616 5300	Pawl
17	616 5400	Pawl Spring

8312-E636A

U E

Shifting Lever

Model SL-EM50-A Without Click Sound
Model SL-EM50-B With Click Sound

Model SL-2S21

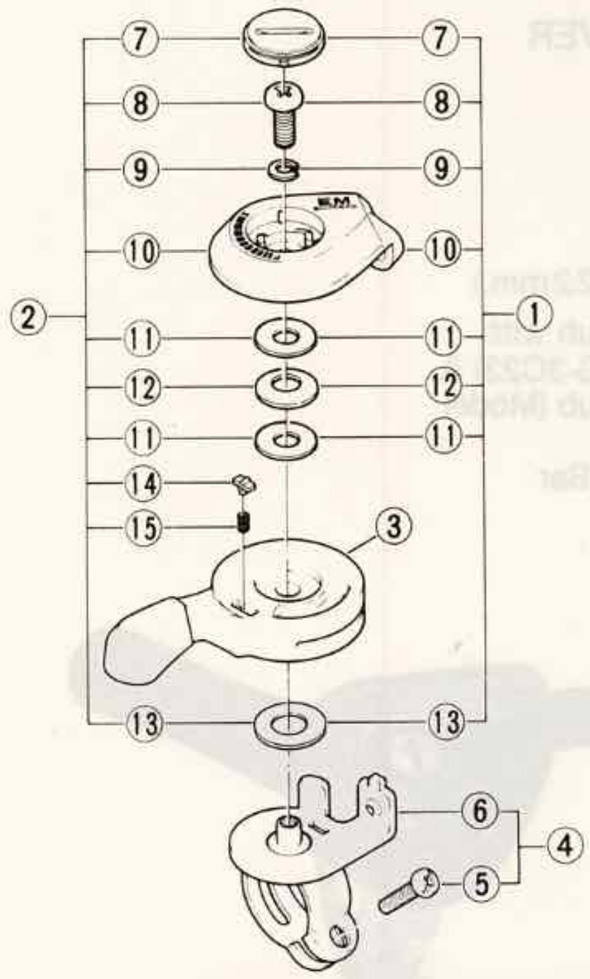
SL

Model SL-EM50-A (w/o Click Sound)
Model SL-EM50-B (with Click Sound)

SPECIFICATIONS

Weight: 2.3 oz. (66g.)
Material: Resin (Lever & Cover) & Steel
Attachment Position: Handle Bar
Lever Clamp Diameter: 7/8″ (22.2mm.)
Use: for Front Derailleur





ITEM NO.	PART NO.	DESCRIPTION
1	3-691 9851	Cover Unit for SL-EM50-A
2	3-691 9852	Cover Unit for SL-EM50-B
3	616 7200	Front Lever
4	3-691 9854	Clamp Band & Screw
5	000 1112	Clamp Screw
6	3-691 9853	Clamp Band
7	669 2900	Cap
8	000 1118	Lever Fixing Screw

ITEM NO.	PART NO.	DESCRIPTION
9	616 1400	Spring Washer
10	616 7300	Cover
11	000 3702	Washer
12	693 0900	Friction Washer
13	615 1200	Spacer
14	616 5300	Pawl for SL-EM50-B
15	616 5400	Pawl Spring for SL-EM50-B

8310-E635

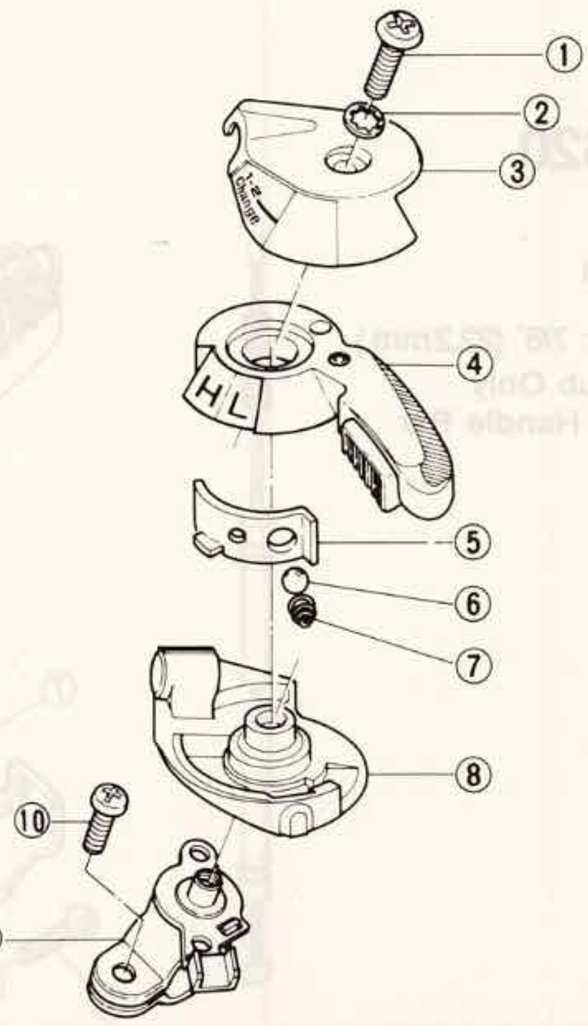
Shimano New 1 • 2 Change Trigger Lever

Model SL-2S21 (MX Look-alike)

SPECIFICATIONS

Use: 1 • 2 Change Rear Hub Only
Weight: 2.3oz. (64g.)
Material: Resin & Steel
Lever Clamp Diameter: 22.2mm.
Attachment Position: Handle Bar





ITEM NO.	PART NO.	DESCRIPTION
1	000 1114	Lever Fixing Screw (M5x16)
2	000 3423	Teethed Washer
3	614 9001	Cover
4	614 9002	Lever
5	614 1200	Stopper Plate

ITEM NO.	PART NO.	DESCRIPTION
6	000 1310	Steel Ball (1/4")
7	614 0800	Spring
8	614 0400	Lower Holder
9	614 9003	Lever Clamp
10	333 0900	Clamp Screw (M5x16)

7909-390

Shifting Lever

Model SL-3S45 1·2·3 Change
Model SL-3S20 TRIGGER LEVER for 3-Speed

SL

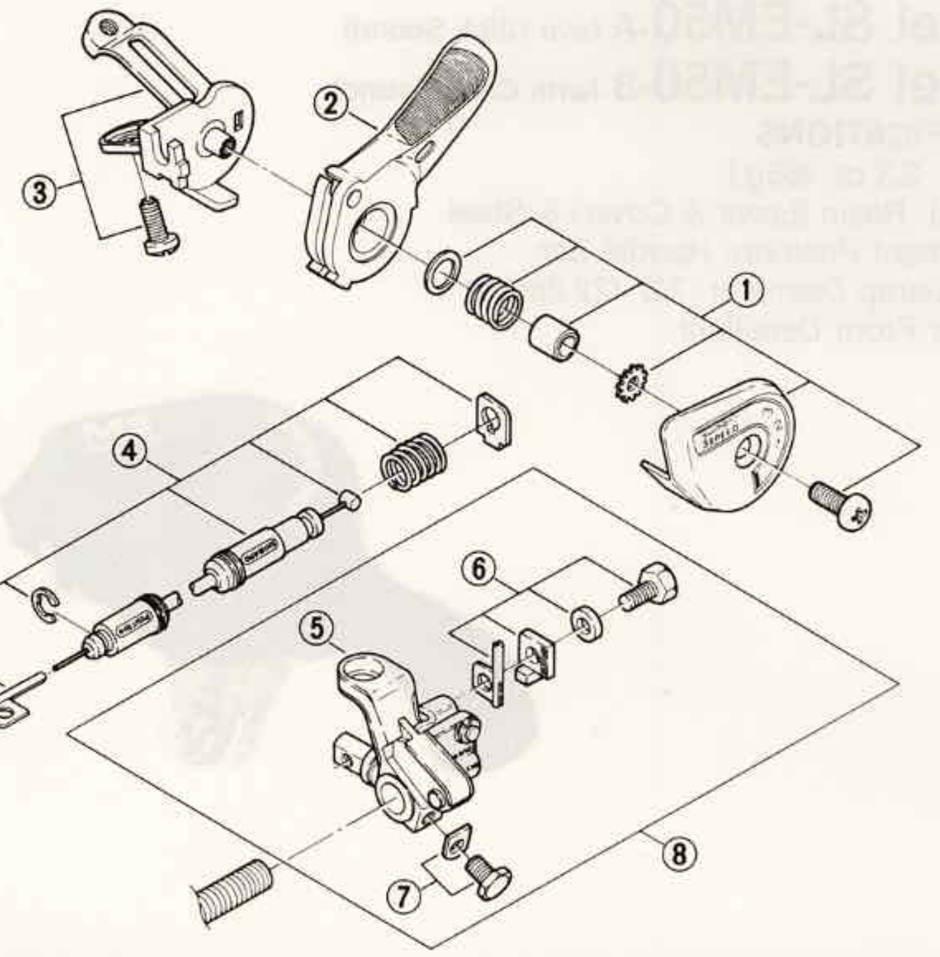
POSITRON TRIGGER LEVER

Model SL-3S45

SPECIFICATIONS

Weight: 2.3oz. (66g.)
Material: Resin & Steel
Type: Friction Type
Lever Clamp Diameter: 7/8" (22.2mm.)
Use: Positron Three Speed Hub with Coaster Brake (Model SG-3C23) & Positron Three Speed Hub (Model SG-3S23) Only
Attachment Position: Handle Bar





ITEM NO.	PART NO.	DESCRIPTION
1	3-617 9800	Cover Unit
2	617 0200	Lever
3	3-617 9802	Clamp Band
4	3-692 9135	Cable Assembly (1700x1770mm) Black
	3-692 9136	Cable Assembly (1800x1870mm) Black
5	3-331 9804	Complete Bell Crank
6	3-331 9801	Cable Fixing Bolt Unit
7	3-331 9802	Bell Crank Fixing Bolt Unit
8	3-331 9901	Bell Crank Assembly

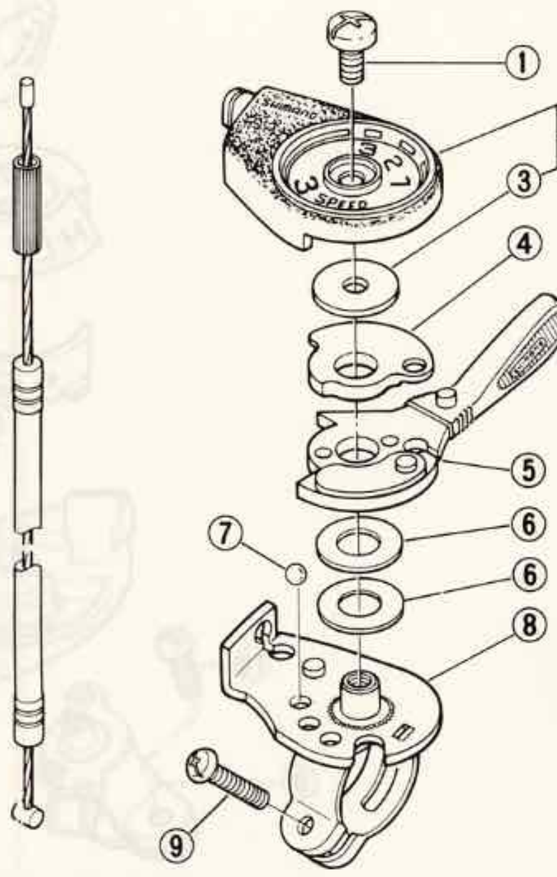
8205-488A

TRIGGER LEVER

Model SL-3S20

SPECIFICATIONS

Weight: 2.6oz. (73g.)
Material: Resin & Steel
Type: Clike
Lever Clamp Diameter: 7/8" (22.2mm.)
Use: Three Speed Hub Only
Attachment Position: Handle Bar





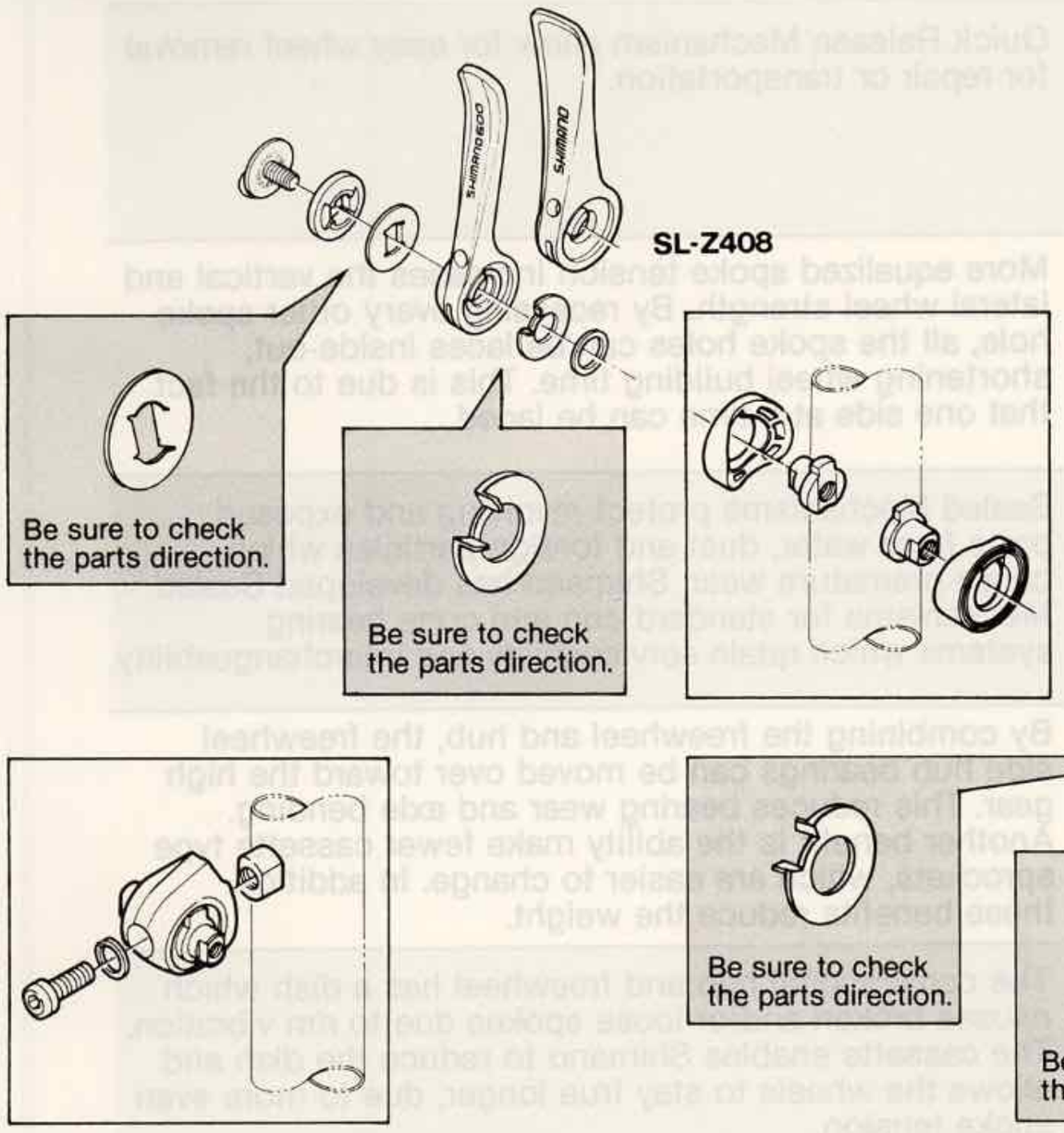
ITEM NO.	PART NO.	DESCRIPTION
1	615 0700	Lever Fixing Screw (M5x8)
2	3-615 9055	Cover
3	615 0600-1	Washer B
4	615 1300	Guide Plate
5	3-615 9054-1	Lever
6	615 1203-1	Spacer 0.3mm
	615 1200-1	Spacer 0.2mm
	615 1201-1	Spacer 0.1mm
	615 1202-1	Spacer 0.05mm
7	000 0121	Steel Ball (3/16")
8	3-615 9051-2	Clamp Band Assembly for 7/8" Tube
9	333 0900-1	Clamp Screw (M5x14)

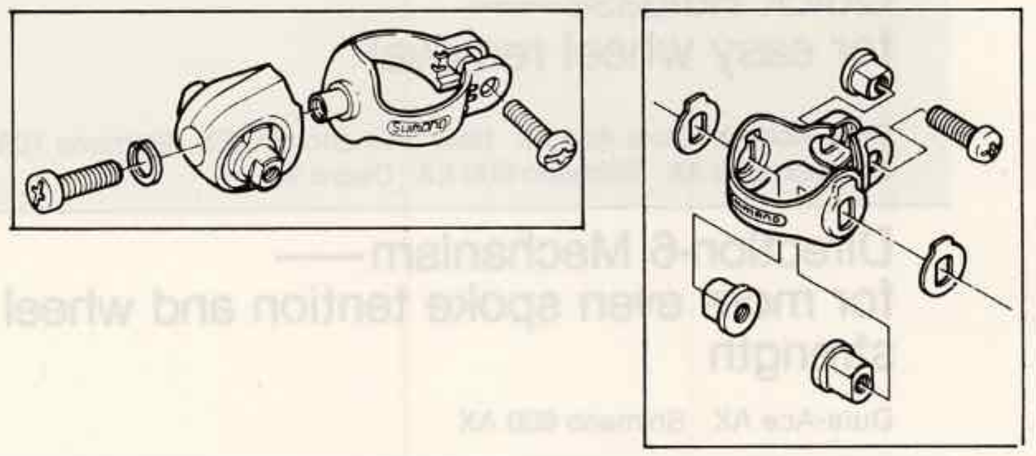
8301-166B

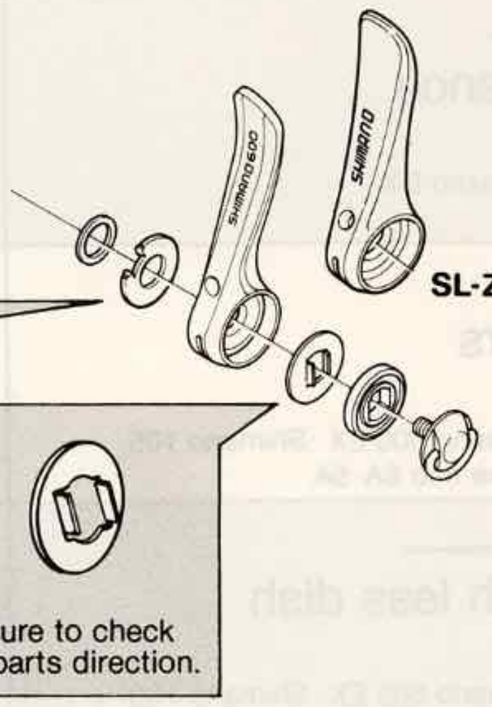
UE

Shifting Lever Assembly Note & Tools.

SL-6207
SL-Z408







• Tools.

Model TL-WR36 6 mm.
PART No. 4-520 0901

MOdel TL-WR33 3 mm.
PART No. 4-520 0904

Hexagon Wrench Key



HUBS

FEATURE	BENEFIT
Quick Release—— for easy wheel removal Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 105 Shimano 600 AX Shimano 600 EX Deore XT	Quick Release Mechanism allow for easy wheel removal for repair or transportation.
Direction-6 Mechanism—— for more even spoke tention and wheel strength Dura-Ace AX Shimano 600 AX	More equalized spoke tension increases the vertical and lateral wheel strength. By recessing every other spoke hole, all the spoke holes can be laces inside-out, shortening wheel building time. This is due to the fact that one side at a time can be laced.
Sealed Mechanism—— for all-weather performance New Shimano 600 EX Deore XT Shimano DX	Sealed Mechanisms protect revolving and exposed parts from water, dust and foreign particles which cause premature wear. Shimano has developed Sealed Mechanisms for standard cup and cone bearing systems which retain serviceability and interchangeability.
Cassette Freehub—— for easy to change gears Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 105 Shimano 600 AX Shimano 600 EX Free hub 6A·5A	By combining the freewheel and hub, the freewheel side hub bearings can be moved over toward the high gear. This reduces bearing wear and axle bending. Another benefit is the ability make fewer cassette type sprockets, which are easier to change. In addition, these benefits reduce the weight.
Uni-Blance Mechanism—— for stronger wheels with less dish Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 105 Shimano 600 AX Shimano 600 EX Freehub 6A·5A	The conventional hub and freewheel has a dish which causes broken and/or loose spokes due to rim vibration. The cassette enables Shimano to reduce the dish and allows the wheels to stay true longer, due to more even spoke tension.
Uniglide Sprocket—— for quick, sure, smooth shifting Dura-Ace AX Dura-Ace EX New Shimano 600 EX Shimano 105 Shimano 600 AX Shimano 600 EX Freehub 6A·5A	By angling the sprocket teeth to match the angle of the chain during shifting, faster and smoother shifting performance is obtained. Less noise when shifting means less wear to the freewheel. And to the chain.
Super Shift Sprocket—— for no-slip shifting Dura-Ace AX Shimano 600 AX	Special tooth design eliminates chain slip during shifting under load.
Cr-Mo Axle—— for strength Deore XT	Cr-Mo material is used to maximize strength of hub axles which support the rider and bicycle.

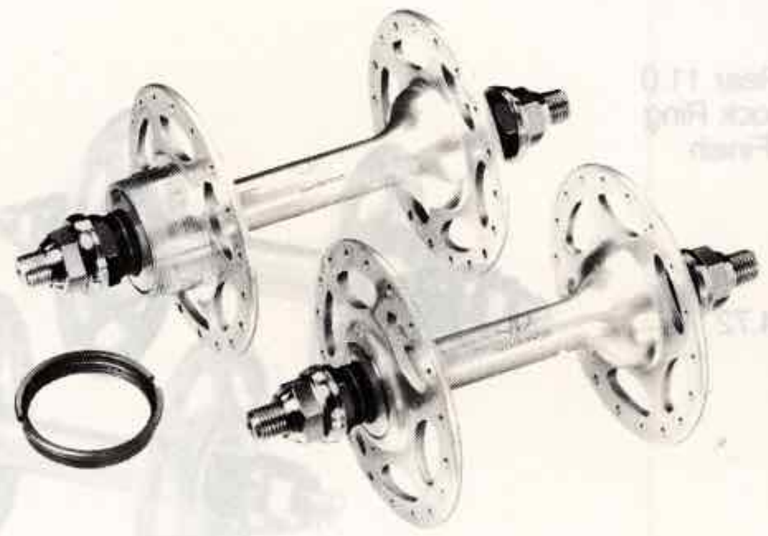
Model HB-7020

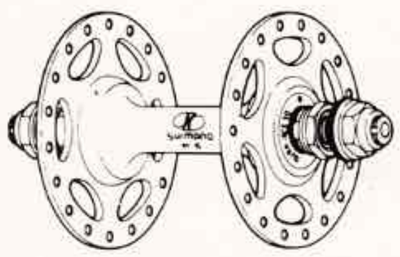
DURA-ACE 10

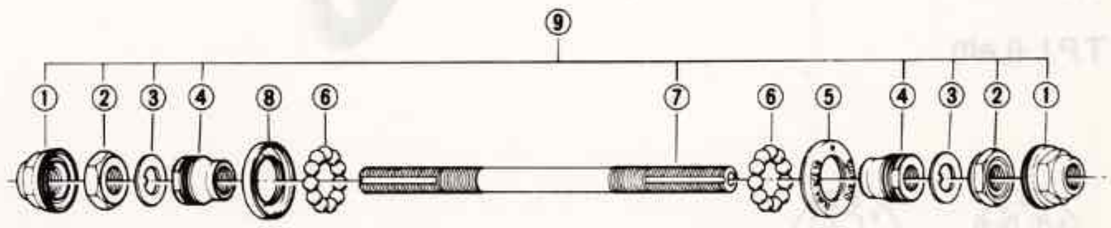
Model HB-7020

SPECIFICATIONS

Weight ● Front 7.9 oz. (225 g.) Rear 10.4 oz. (295 g.)/Including Lock Ring
Material ● Light Alloy • Anodized Finish
Over Lock Nut Dimensions
● Front 3.94" (100mm.)
Rear 4.33" (110mm.), 4.72" (120mm.)
Fork End Slot Width
● Front 0.35" (9mm.), 0.31" (8mm.)
Rear 0.39" (10mm.), 0.31" (8mm.)
Sprocket Thread
● **BC33 × 24 T.P.I. (English)**
Spoke Holes ● 28H, 32H, 36H
Lock Ring Thread
● BC32 x 24 T.P.I. (Left)
Super Polished Ball Race

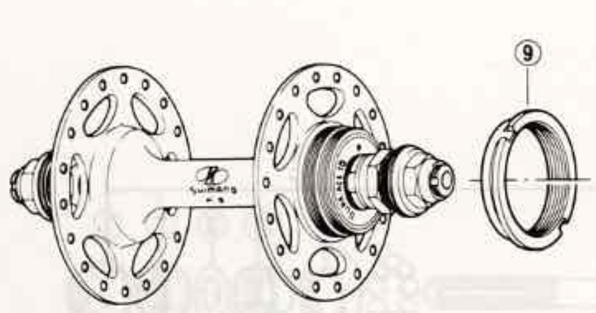


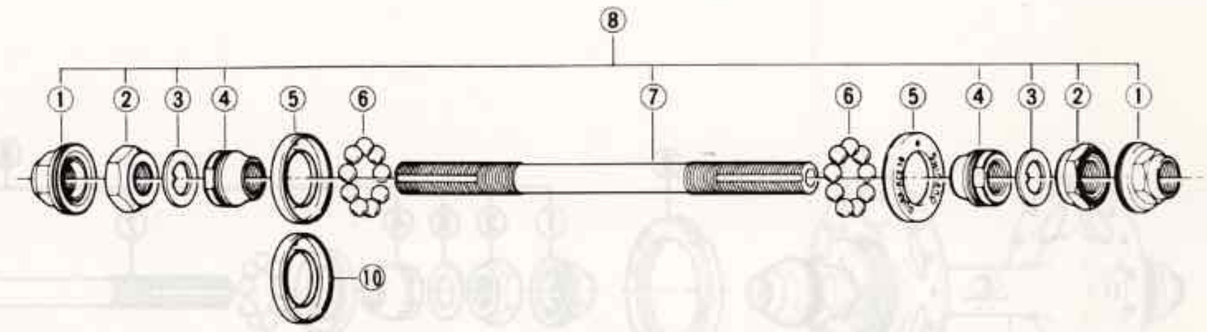




■ **Front Hub**

ITEM NO.	PART NO.	DESCRIPTION
1	237 9002	Hub Nut
2	237 0600	Lock Nut
3	233 1600	Non-Turn Washer
4	233 1501	Cone
5	237 0801	R.H. Dust Cap
6	000 0125	Steel Ball (3/16")
7	237 0302	Hub Axle
8	237 0802	L.H. Dust Cap
9	237 9101	Complete Axle Unite





■ **Rear Hub** (OVER LOCK NUT DIMENSION 110mm)

ITEM NO.	PART NO.	DESCRIPTION
1	247 9002	Hub Nut
2	247 0600	Lock Nut
3	243 1600	Non-Turn Washer
4	247 0401	Cone
5	247 0800	Dust Cap
6	000 0135	Steel Ball (1/4")
7	247 0302	Hub Axle
8	247 9101	Complete Axle Unite
9	277 1300	Lock Ring

■ **Rear Hub** (OVER LOCK NUT DIMENSION 120mm)

ITEM NO.	PART NO.	DESCRIPTION
1	247 9002	Hub Nut
2	247 0601	Lock Nut
3	243 1600	Non-Turn Washer
4	243 1501	Cone
5	243 1401	R.H. Dust Cap
6	000 0135	Steel Ball (1/4")
7	247 0312	Hub Axle
8	247 9102	Complete Axle Unite
9	277 1300	Lock Ring
10	243 1402	L.H. Dust Cap

7712-293A

Model HB-7520

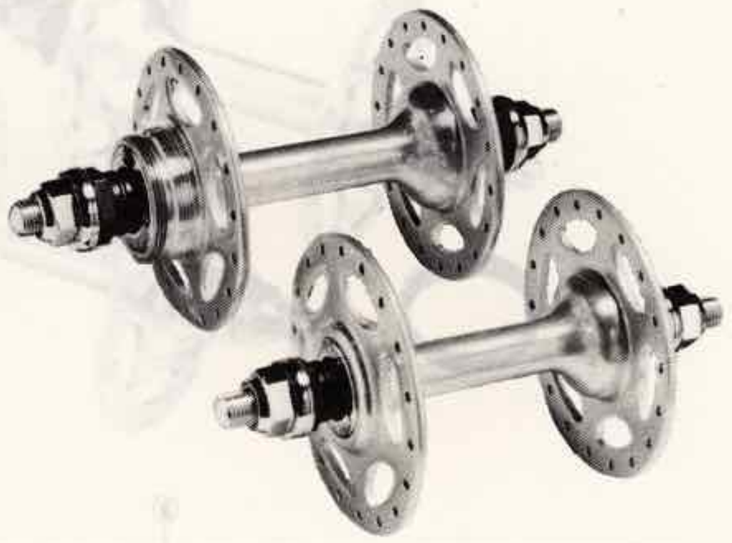
SHIMANO DURA-ACE

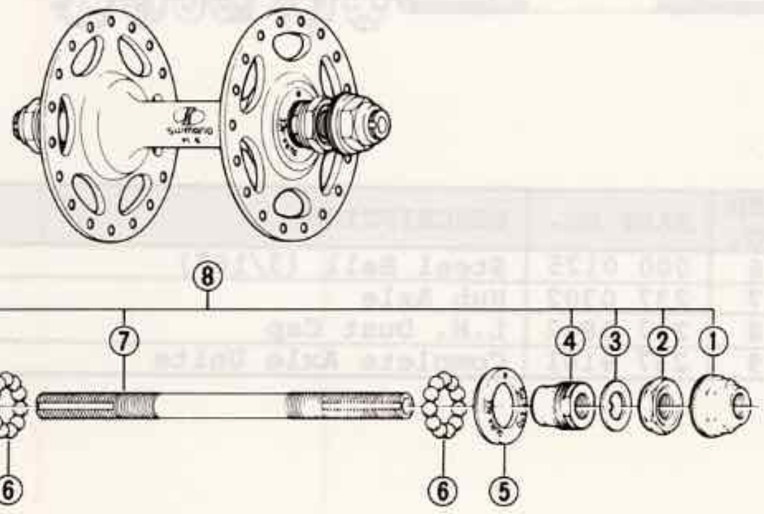
Front & Rear Hubs with Lock Ring

Model HB-7520

SPECIFICATIONS

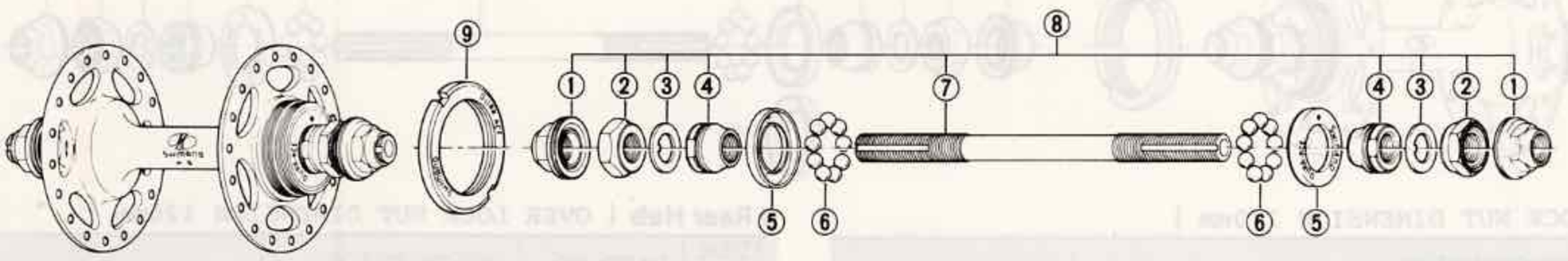
Weight ● Front 8.5 oz. (240 g.) Rear 11.0 oz. (313 g.)/Including Lock Ring
Material ● Light Alloy • Anodized Finish
Type ● Solid Axle
Thread ● 1.37" x 24 T.P.I.
Over Lock Nut Dimensions
● Front 3.94" (100mm.)
Rear 4.33" (110mm.), 4.72" (120mm.)
Fork End Slot Width
● Front 0.35" (9mm.), 0.31" (8mm.)
● Rear 0.39" (10mm.), 0.31" (8mm.)
Spoke Holes ● 28H, 32H, 36H
Lock Ring Thread
● 1.29" x 24 T.P.I. (Left)
Super Polished Ball Race





■ **FRONT HUB** Over Lock Nut Dimension: 100mm(3-15/16")

ITEM NO.	PART NO.	DESCRIPTION
1	3-237 9002	Hub Nut
2	237 0600	Lock Nut
3	233 1600	Key Washer
4	233 1500	Cone M9x15mm
5	233 1400	Dust Cap
6	000 0125	Steel Ball (3/16")
7	237 0300	Hub Axle M9x142mm(5-19/32")
8	3-237 9001	Complete Hub Axle M9x142mm(5-19/32")



■ **REAR HUB** Over Lock Nut Dimension: 110mm(4-11/32")

ITEM NO.	PART NO.	DESCRIPTION
1	3-247 9002	Hub Nut
2	247 0600	Lock Nut
3	243 1600	Key Washer
4	247 0400	Cone M10x13.5mm
5	247 0800	Dust Cap
6	000 0135	Steel Ball (1/4")
7	247 0300	Hub Axle M10x156mm(6-5/32")
8	3-247 9003	Complete Hub Axle M10x156mm(6-5/32")
9	247 1300	Lock Ring

■ **REAR HUB** Over Lock Nut Dimension: 120mm(4-23/32")

ITEM NO.	PART NO.	DESCRIPTION
1	3-247 9002	Hub Nut
2	247 0601	Lock Nut
3	243 1600	Key Washer
4	243 1500	Cone M10x15mm
5	243 1400	Dust Cap
6	000 0135	Steel Ball (1/4")
7	247 0310	Hub Axle M10x164mm(6-15/32")
8	3-247 9001	Complete Hub Axle M10x164mm(6-15/32")
9	247 1300	Lock Ring

8212-133B

Model HB-7110 Small
Model HB-7120 Large

SHIMANO DURA-ACE

Light Alloy Hub

Model HB-7110 (Small)

SPECIFICATIONS

Weight ● Front 7.8 oz. (220 g.)
Rear 10.8 oz. (305 g.)/5-speed
10.9 oz. (310 g.)/6-speed

Light Alloy Hub

Model HB-7120 (Large)

SPECIFICATIONS

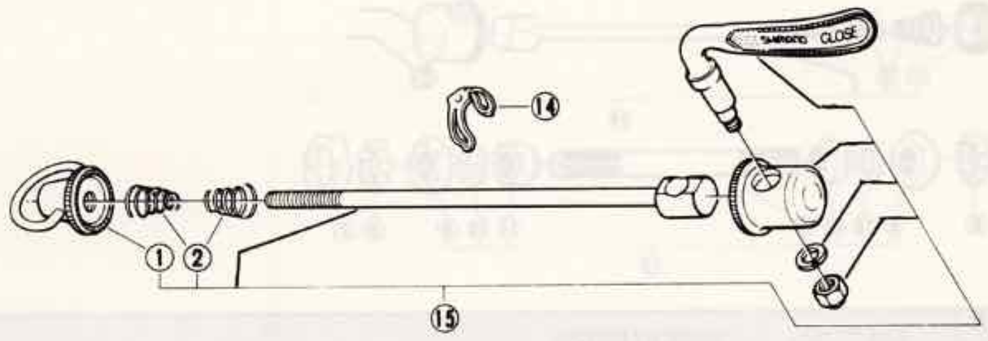
Weight ● Front 9.2 oz. (260 g.)
Rear 11.6 oz. (330 g.)/5-speed
11.8 oz. (335 g.)/6-speed
Material ● Light Alloy • Anodized Finish
Type ● Quick Release
Thread ● **BC 1.37 × 24 T.P. I. (English)**
Available by request 35 x 1.0 (French)
Over Lock Nut Dimensions
● Front 3.94" (100 mm.)
Rear/5-speed/4.72" (120 mm.)
Rear/6-speed/4.96" (126 mm.)
Spoke Holes ● 28H, 36H
Available by request 24H, 32H, 40H
Polished Ball Race

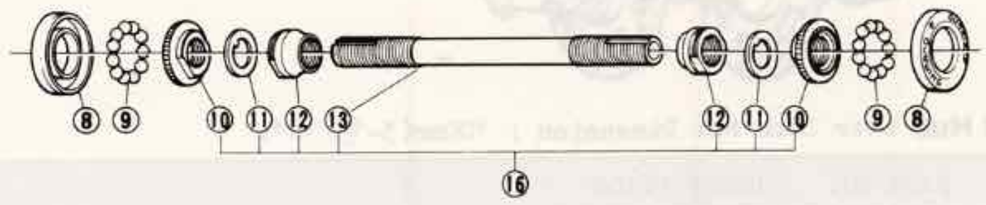


(Small Flange)



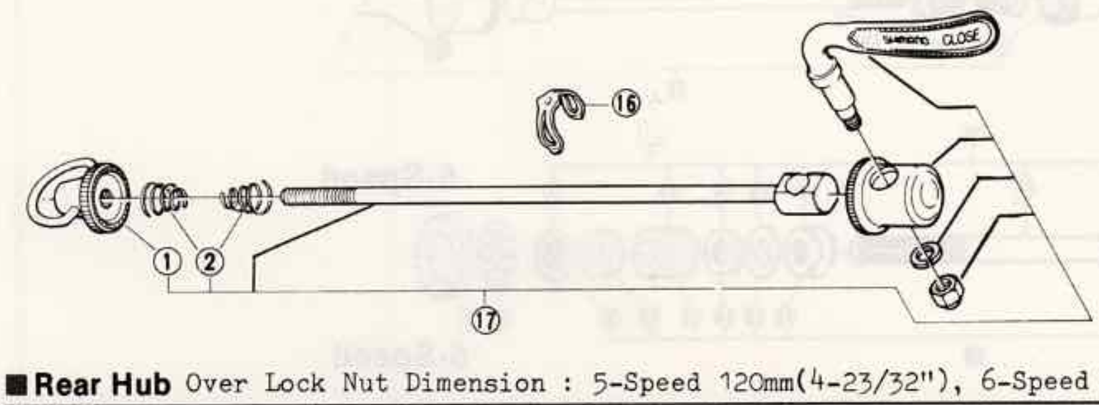
(Large Flange)

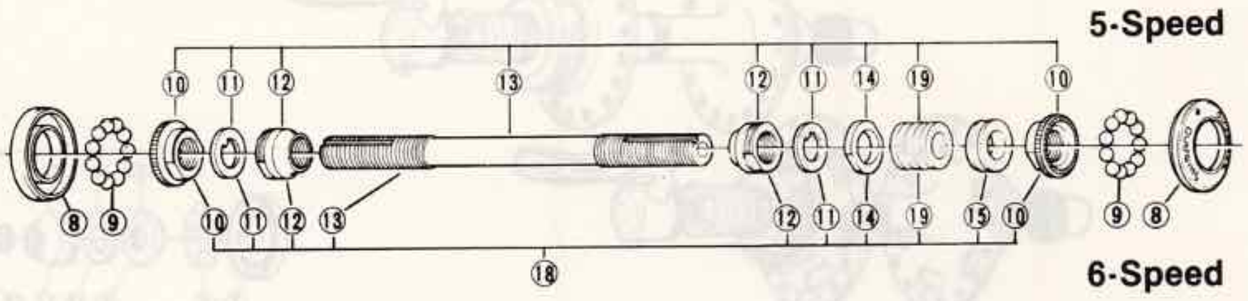




■ **Front Hub** Over Lock Nut Dimension : 100mm(3-15/16")

ITEM NO.	PART NO.	DESCRIPTION
1	3-356 9006	Nut for Skewer
2	233 2100	Volute Spring
8	237 0801	Right Hand Dust Cap
	237 0802	Left Hand Dust Cap
9	000 0125	Steel Ball (3/16")
10	233 1700	Lock Nut
11	233 1600	Key Washer
12	233 1500	Cone
13	233 1800	Hub Axle M9x108mm(M9x4-1/4")
14	233 1200	Oil Cap
15	3-233 9002-2	Complete Quick Release
16	3-233 9003	Complete Hub Axle





■ **Rear Hub** Over Lock Nut Dimension : 5-Speed 120mm(4-23/32"), 6-Speed 126mm(4-32/33")

ITEM NO.	PART NO.	DESCRIPTION
1	3-356 9006	Nut for Skewer
2	233 2100	Volute Spring
8	243 1401	Right Hand Dust Cap
	243 1402	Left Hand Dust Cap
9	000 0135	Steel Ball (1/4")
10	243 1700	Lock Nut
11	243 1600	Key Washer
12	243 1500	Cone
13	243 2000	Hub Axle for 5-Speed M10x131mm(M10x5-5/32")
	243 2001	Hub Axle for 6-Speed M10x137mm(M10x5-2/5")
14	243 1800	Lock Nut
15	243 1900	Spacer 4.5mm(3/16")
16	233 1200	Oil Cap
17	3-243 9002-1	Complete Quick Release for 5-Speed
	3-243 9003-1	Complete Quick Release for 6-Speed
18	3-243 9004	Complete Hub Axle for 5-Speed
	3-243 9005	Complete Hub Axle for 6-Speed
19	243 1901	Spacer 10.5mm(13/32")

7802-186A

Model HB-6120 Large
Model HB-6110 Small

SHIMANO 600

Light Alloy Hub

Model HB-6120 (Large)

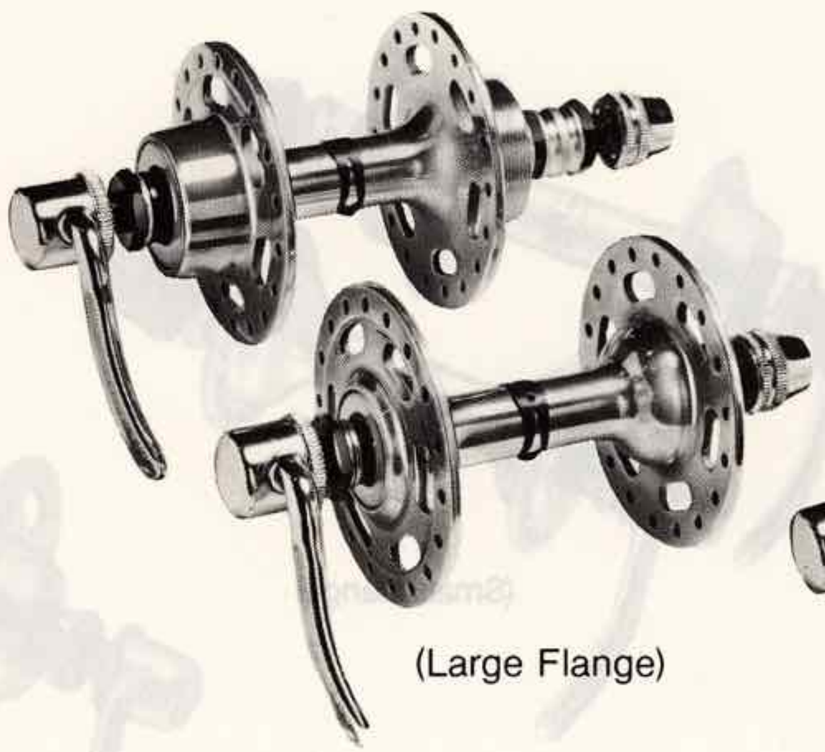
SPECIFICATIONS

Weight ●Front 9.7 oz. (275 g.)
●Rear 12.4 oz. (350 g.)/5-speed
12.5 oz. (355 g.)/6-speed

Model HB-6110 (Small)

SPECIFICATIONS

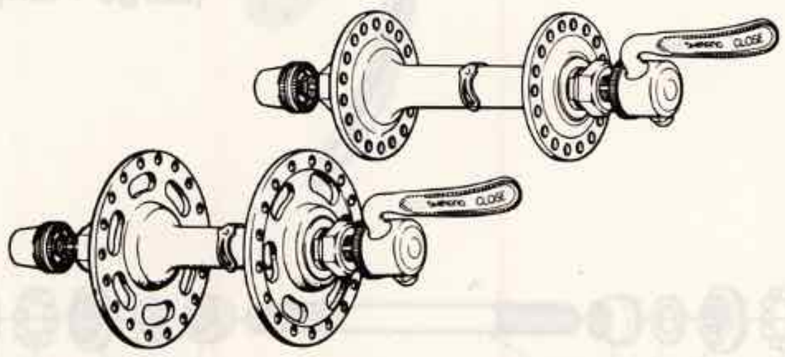
Weight ●Front 8.3 oz. (235 g.)
●Rear 12.0 oz. (340 g.)/5-speed
12.2 oz. (345 g.)/6-speed
Material ●Light Alloy
Type ●Quick Release
Thread ● BC1.37 × 24 T.P.I. (English)
Over Lock Nut Dimensions
●Front 3.94" (100mm.),
●Rear 4.72" (120mm.)/5-speed
4.96" (126mm.)/6-speed
Spoke Holes ●36H

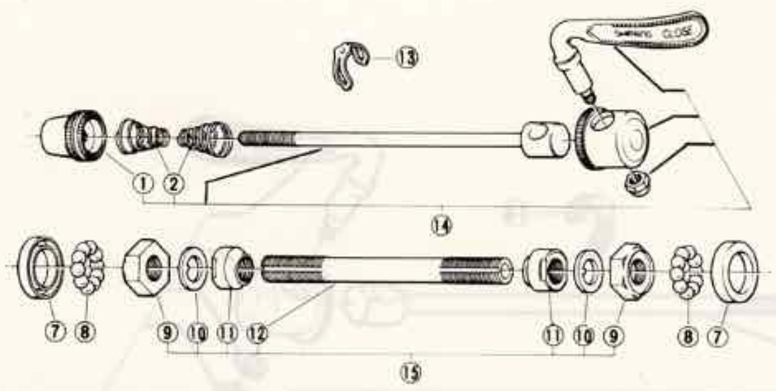


(Large Flange)



(Small Flange)

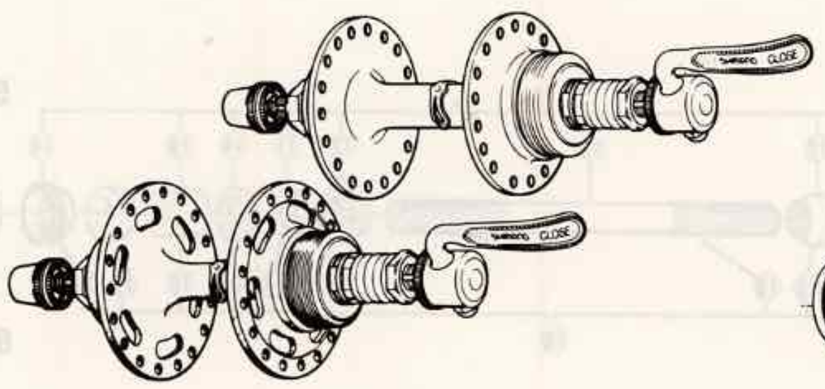


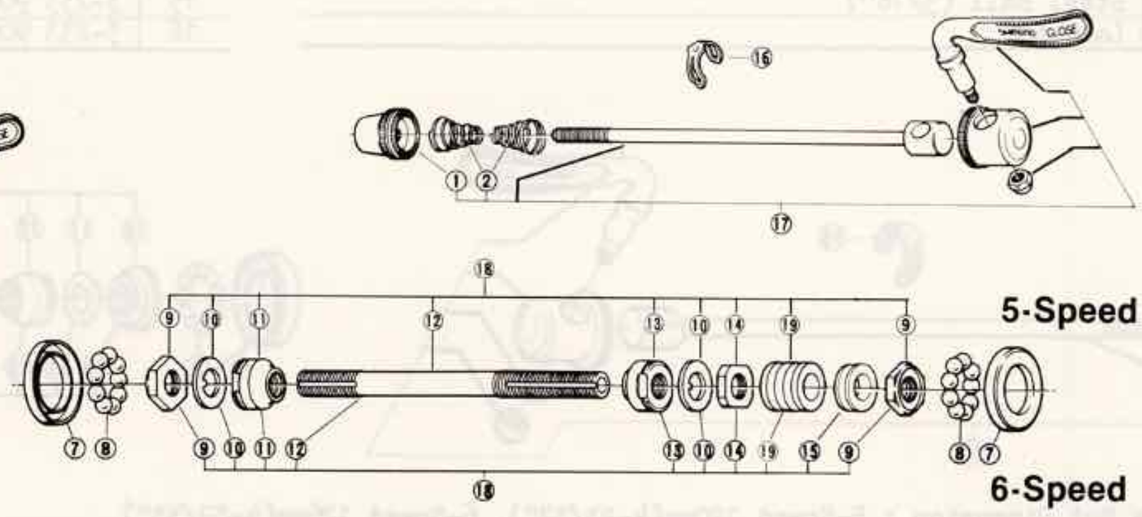


■ **Front Hub** Over Lock Nut Dimension : 100mm(3-15/16")

ITEM NO.	PART NO.	DESCRIPTION
1	3-231 9008	Nut for Skewer
2	231 1100	Volute Spring
7	231 1300	Dust Cap
8	000 0121	Steel Ball(3/16")
9	231 2302	Lock Nut
10	231 1500	Key Washer

ITEM NO.	PART NO.	DESCRIPTION
11	231 0401	Cone
12	233 1800	Hub Axle M9x108mm(M9x4-1/4")
13	217 0500	Oil Cap
14	3-217 9003	Complete Quick Release
15	3-217 9002	Complete Hub Axle





■ **Rear Hub** Over Lock Nut Dimension : 5-Speed 120mm(4-23/32"), 6-Speed 126mm(4-32/33")

ITEM NO.	PART NO.	DESCRIPTION
1	3-231 9008	Nut for Skewer
2	231 1100	Volute Spring
7	241 0600	Dust Cap
8	000 0131	Steel Ball (1/4")
9	220 0502	Lock Nut (3.5mm) for 5-Speed
	220 0501	Lock Nut (4.5mm) for 6-Speed
10	241 0700-1	Key Washer
11	220 0820-2	Left Hand Cone 15mm(19/32")
12	243 2000	Hub Axle for 5-Speed M10x131mm(M10x5-5/32")
	243 2001	Hub Axle for 6-Speed M10x137mm(M10x5-2/5")

ITEM NO.	PART NO.	DESCRIPTION
13	220 0800-2	Right Hand Cone 13mm(1/2")
14	200 0400-1	Lock Nut
15	243 1900	Spacer for 6-Speed
16	217 0500	Oil Cap
17	3-227 9003	Complete Quick Release for 5-Speed
	3-227 9006	Complete Quick Release for 6-Speed
18	3-227 9002	Complete Hub Axle for 5-Speed
	3-227 9007	Complete Hub Axle for 6-Speed
19	243 1901	Spacer 10.5mm(13/32")

7802-320

Model HB-MN72 Nut Type
Model HB-MN72-QR Quick Release Type

DEORE XT

Model HB-MN72 (Nut Type)
Model HB-MN72-QR (Quick Release Type)

SPECIFICATIONS

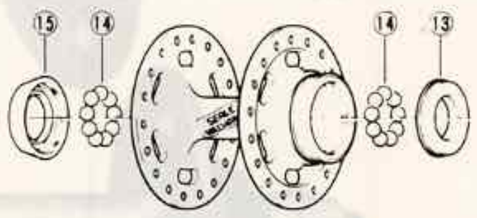
Weight • Front 8.7 oz. (248g.)/MN72,
9.2 oz. (260g.)/MN72-QR
Rear 11.8 oz. (335g.)/MN72,
12.3 oz. (348g.)/MN72-QR
Material • Light Alloy · Anodized Finish,
Cr-Mo Axle
Type • Nut Type & Quick Release Type
Thread • BC 1.37 × 24 T.P. I. (English)
Over Lock Nut Dimensions
• Front 100mm.
Rear 126mm./5 · 6-speed (MN72)
126mm./6-speed (MN72-QR)
130mm./6-speed (MN72)
Spoke Holes • 36H
Sporke Hole Diameter
• 14 Gauge

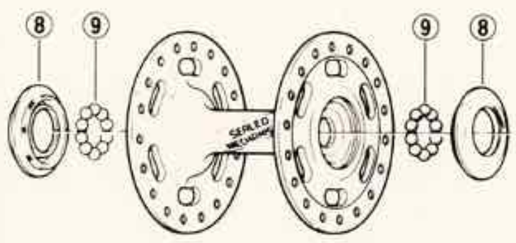


HB-MN72

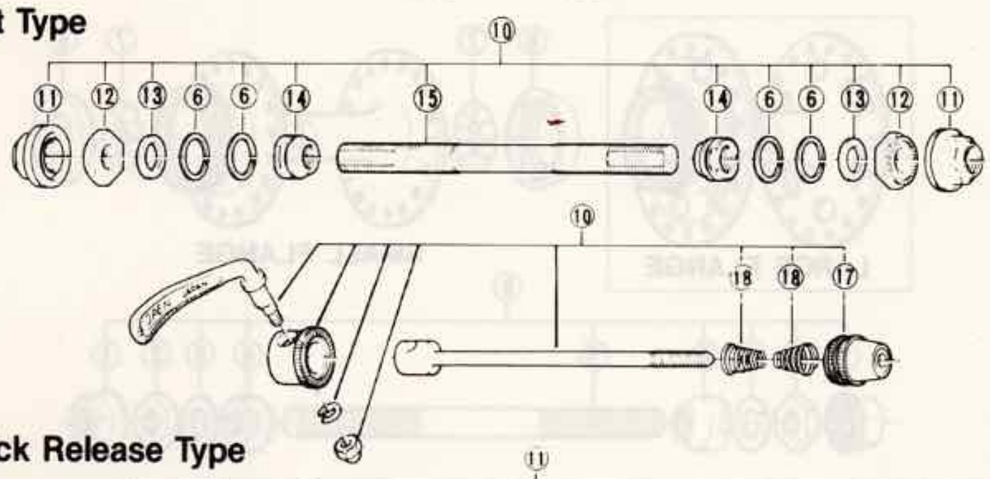


HB-MN72-QR
(for Touring Use)

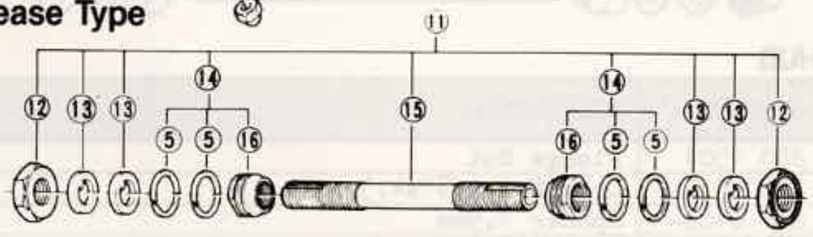




Nut Type



Quick Release Type

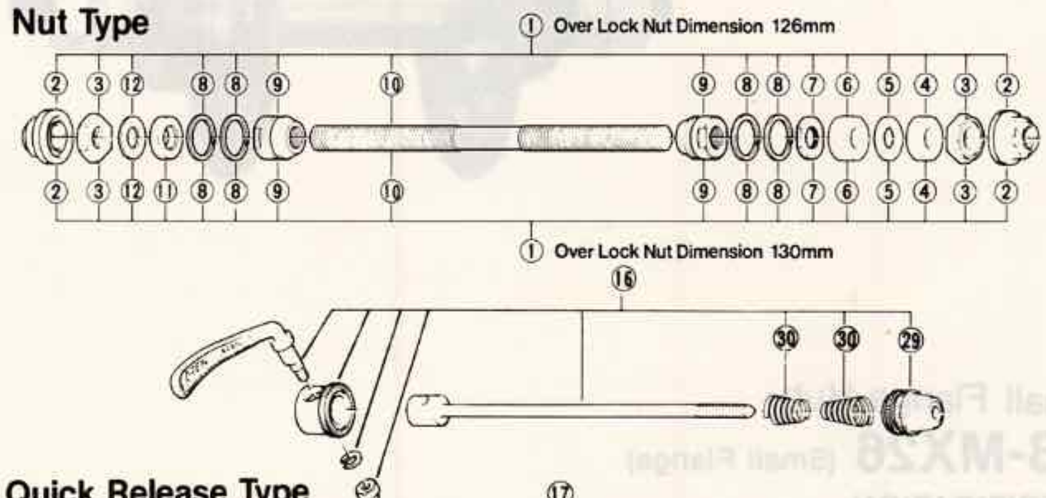


■ **FRONT HUB** Over Lock Nut Dimension: 100mm(3-15/16")

ITEM NO.	PART NO.	DESCRIPTION
1	3-236 9801	Complete Hub Axle 3/8"x143mm(5-10/16") O.L.: 100mm(3-15/16")
2	3-373 9002	Hub Nut
3	220 0500-1	Lock Nut 4.5mm
4	220 0451	Spacer 2mm
5	236 0300	Seal Ring
6	236 0400	Cone 10.4mm(13/32")
7	236 0200	Hub Axle 3/8"x143mm(5-10/16")
8	210 0908-1	Dust Cap (Nut Type)
	340 1000	Dust Cap (QR Type)
9	000 0121	Steel Ball (3/16")
10	3-238 9821	Complete Quick Release 129mm(5-3/32")
11	3-238 9801	Complete Hub Axle 108mm(4-1/4")
12	210 0821-1	Lock Nut 3.5mm
13	231 1500	Key Washer 1.5mm
14	3-215 9822	Cone M9x10.4mm & Seal Ring
15	233 1800	Hub Axle 108mm(4-1/4")
16	215 1000	Cone M9x10.4mm
17	3-231 9008	Nut for Skewer
18	231 1100	Volute Spring

8311-E653

Nut Type



Quick Release Type

■ **REAR HUB** Over Lock Nut Dimension: 126mm(4-31/32")

ITEM NO.	PART NO.	DESCRIPTION
1	3-299 9801	Complete Hub Axle 3/8"x174mm(6-27/32") O.L.: 126mm(4-31/32")
	3-299 9802	Complete Hub Axle 3/8"x174mm(6-27/32") O.L.: 130mm(5-1/8")
2	3-373 9002	Hub Nut
3	220 0500-1	Lock Nut 4.5mm
4	224 0601	Right Hand Spacer 5.5mm
5	224 0700	Right Hand Spacer 1mm
6	220 0411	Right Hand Spacer 8mm(5/16")
7	200 0402	Lock Nut (Small) 3mm
8	299 0500	Seal Ring
9	299 0300	Cone 15mm(19/32")
10	299 0200	Hub Axle 3/8"x174mm(6-27/32")
11	220 0460	Left Hand Spacer 4mm for O.L.: 130mm(5-1/8")
12	220 0430	Left Hand Adjusting Washer 0.5mm
13	299 0400	Right Hand Dust Cap
14	000 0131	Steel Ball (1/4")
15	220 0709-1	Left Hand Dust Cap(Nut Type)
	368 1000	Left Hand Dust Cap(QR Type)
16	3-295 9821	Complete Quick Release 159mm(6-1/4")
17	3-226 9811	Complete Hub Axle 137mm(5-13/32")
18	220 0501-1	Right Hand Lock Nut 4.5mm
19	243 1900	Axle Spacer 4.5mm
20	243 1901	Axle Spacer 10.5mm
21	200 0400-1	Right Hand Lock Nut
22	241 0700-1	Key Washer 1.5mm
23	3-226 9831	Right Hand Cone M10x13mm & Seal Ring
24	243 2001	Hub Axle 137mm(5-13/32")
25	3-226 9832	Left Hand Cone M10x15mm & Seal Ring
26	220 0502-1	Left Hand Lock Nut 3.5mm
27	359 1100	Right Hand Cone M10x13mm
28	359 1101	Left Hand Cone M10x15mm
29	3-231 9008	Nut for Skewer
30	231 1100	Volute Spring

8311-E654

Model HB-MX25 Large Flange
Model HB-MX26 Small Flange

HB

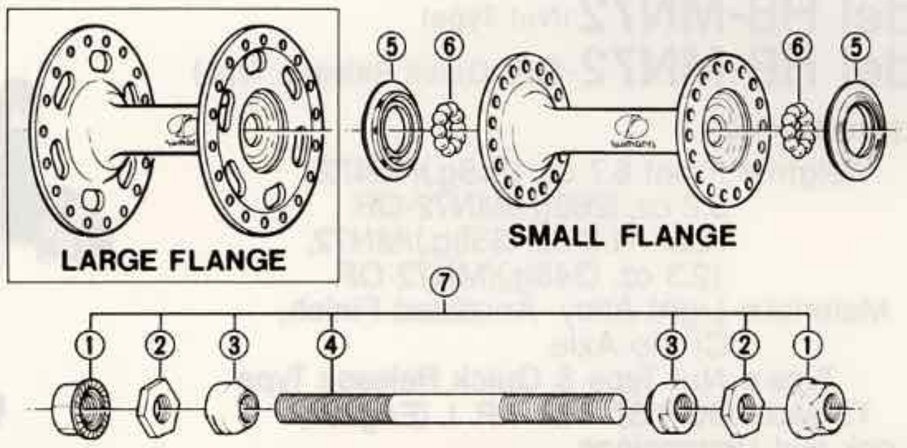
Large Flange Hub

HB-MX25

SPECIFICATIONS

Weight • Front 7.7 oz. (218g.)
Rear 10.6 oz. (300g.)
Material • Light Alloy · Anodized Finish
Color • Red, Blue, Gold, Silver or Black
Over Lock Nut Dimension
• Front 3.66″ (93mm.)
Rear 4.33″(110mm.)
Spoke Hole • 36H
Type • Solid Axle Type





■ **FRONT HUB**

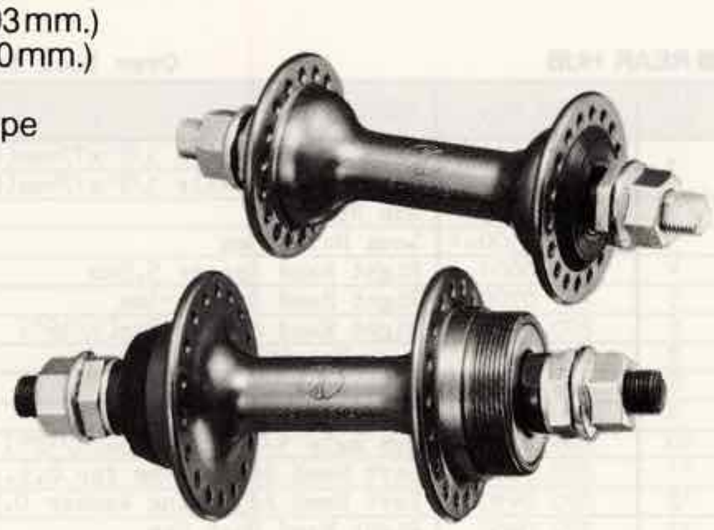
ITEM NO.	PART NO.	DESCRIPTION
1	220 1501	Flange Nut
2	321 3800	Lock Nut 3/8"x3mm
3	210 0403	Cone 3/8"x10.4mm(13/32")
4	210 0381	Hub Axle 3/8"x133mm(5-1/4")
5	210 0908	Dust Cap
6	000 0121	Steel Ball (3/16") 20pcs.
7	3-210 9804	Complete Hub Axle 3/8"x133mm(5-1/4")

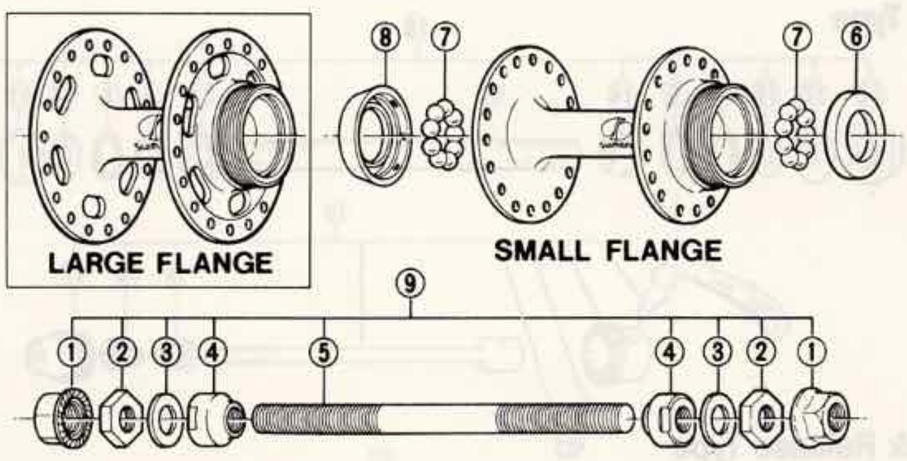
Small Flange Hub

HB-MX26 (Small Flange)

SPECIFICATION

Weight • Front 7.1 oz. (200g.)
Rear 9.9 oz. (282g.)
Material • Light Alloy · Anodized Finish
Color • Red, Blue, Gold, Silver or Black
Over Lock Nut Dimension
• Front 3.66″ (93mm.)
Rear 4.33″(110mm.)
Spoke Hole • 36H
Type • Solid Axle Type





■ **REAR HUB**

ITEM NO.	PART NO.	DESCRIPTION
1	220 1501	Flange Nut
2	220 0510-1	Lock Nut 3/8"x4.5mm
3	220 0400-1	Spacer 1.5mm
4	220 0820-5	Cone 3/8"x15mm
5	296 0401	Hub Axle 3/8"x148mm(5-13/16")
6	241 0600	Right Hand Dust Cap
7	000 0131	Steel Ball (1/4") 18pcs.
8	220 0709	Left Hand Dust Cap
9	3-389 9801	Complete Hub Axle 3/8"x148mm(5-13/16")

8209-543

Model HB-AQ11 Small Flange
Model HB-AQ21 Large Flange
Model HB-AN11 Small Flange
Model HB-AN21 Large Flange
Model HB-SN11 Small Flange
Model HB-SN31 Medium Flange

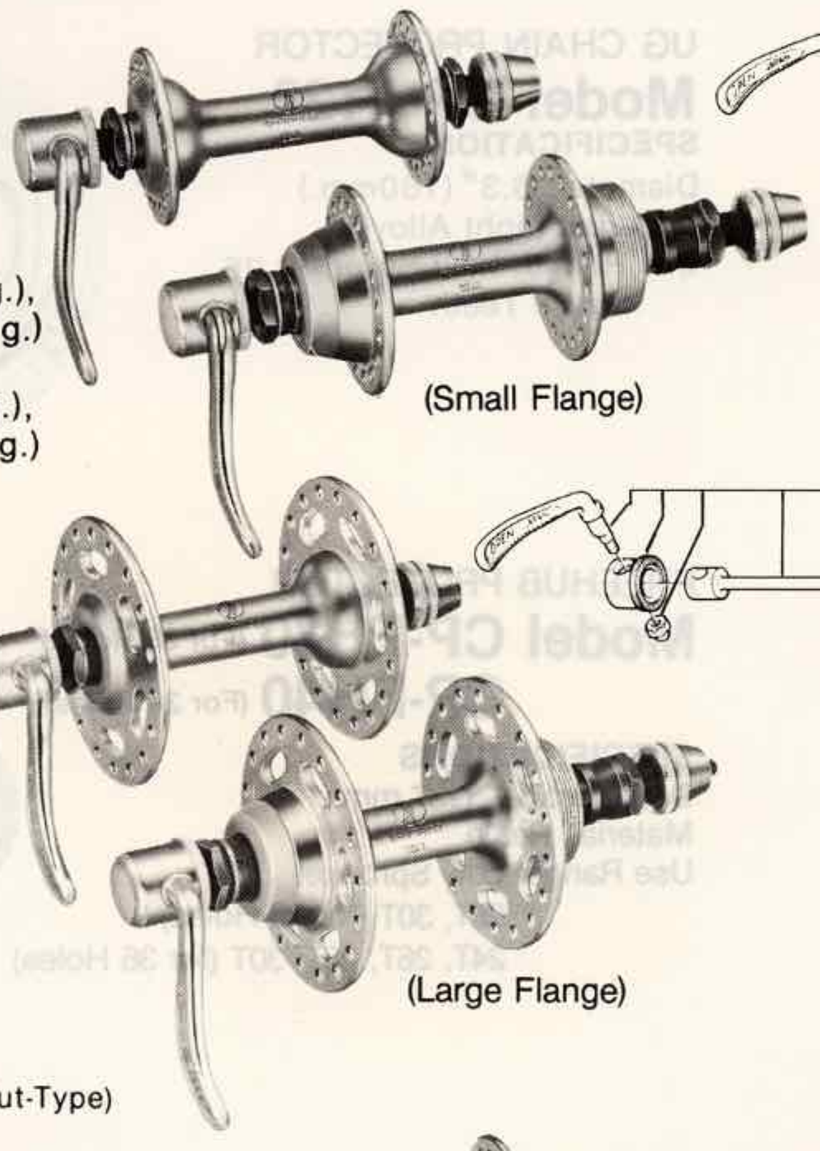
WITH QUICK RELEASE

Model HB-AQ11
Model HB-AQ21

SPECIFICATIONS

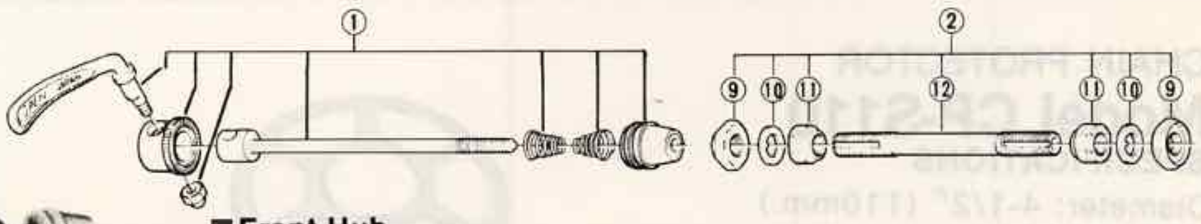
Weight AQ11
: Front 8.3 oz. (235 g.),
: Rear 12.3 oz. (350 g.)
AQ21
: Front 9.5 oz. (270 g.),
: Rear 12.7 oz. (360 g.)

Material: Light Alloy
Type: Quick Release
Thread: BC 1.37 × 24 T.P.I. (English)
Over Lock Nut Dimensions:
Front 3.78″(96mm.),
Rear 4.88″(124mm.)
Spoke Holes: 36H



(Small Flange)

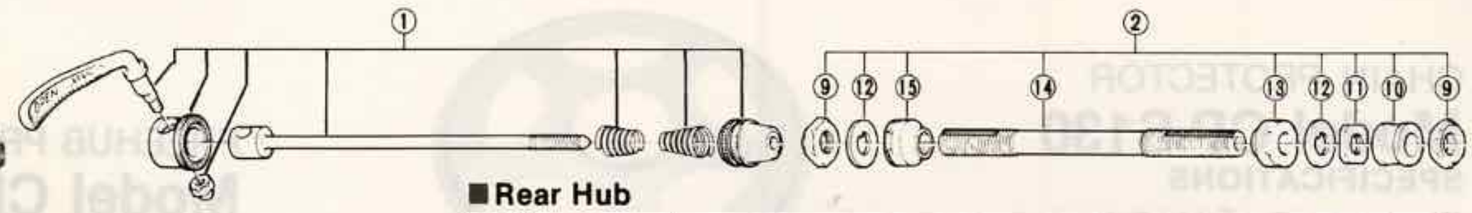
(Large Flange)



■ **Front Hub**

ITEM NO.	PART NO.	DESCRIPTION
1	3-231 9011-2	Complete Quick Release 125mm(4-29/32")
2	3-231 9003	Complete Hub Axle 104mm(4-3/32")
9	231 1400	Lock Nut
10	231 1500	Key Washer
11	231 0400	Cone M9x10.4mm
12	231 0700	Hub Axle 104mm(4-7/32")

8110-507



■ **Rear Hub**

ITEM NO.	PART NO.	DESCRIPTION
1	3-241 9011-2	Complete Quick Release 152mm(6-3/16")
9	220 0501	Lock Nut 4.5mm
10	241 0800	Axle Spacer 17mm
11	200 0400-1	Lock Nut
12	241 0700-1	Key Washer 1.5mm
13	220 0800-2	Right Hand Cone M10x13
14	241 0700-1	Hub Axle 136mm(5-11/32")
15	220 0830-2	Left Hand Cone M10x15

8110-508

SMALL FLANGE HUB

Model HB-AN11 (Nut-Type)

LARGE FLANGE HUB

Model HB-AN21 (Nut Type)

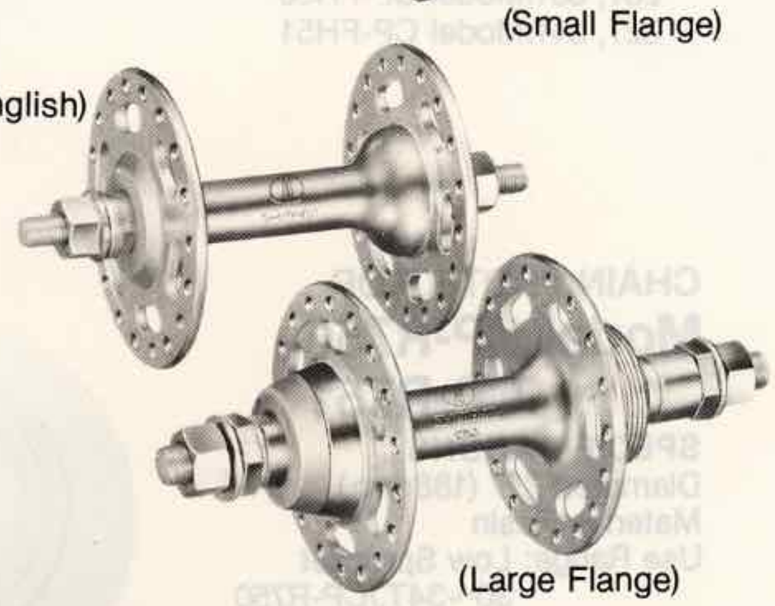
SPECIFICATIONS

Weight AN11
: Front 6.3 oz. (180 g.),
: Rear 10.9 oz.(310 g.)
AN21
: Front 7.4 oz. (210 g.)
: Rear 11.6 oz. (330 g.)

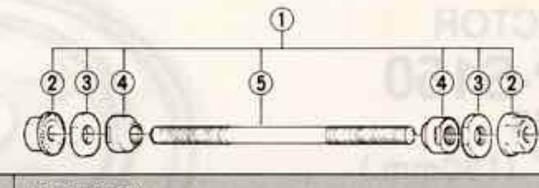
Material: Light Alloy
Type: Solid Axle Type with Hub Nut
Thread: BC 1.37 × 24 T.P.I. (English)
Over Lock Nut Dimensions:
Front 3.66″ (93mm.),
Rear 4.88″ (124mm.)
Spoke Holes: 36H



(Small Flange)



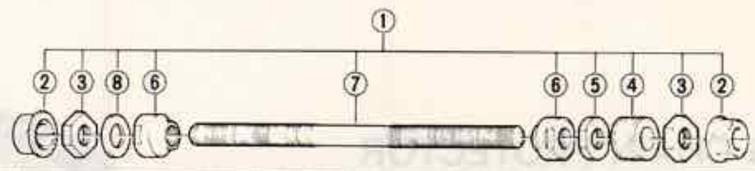
(Large Flange)



■ **Front Hub**

ITEM NO.	PART NO.	DESCRIPTION
1	3-232 9003	Complete Hub Axle 133mm(5-1/4")
2	210 1802	Flange Nut
3	210 0810	Lock Nut
4	210 0400-5	Cone B.C.5/16"x10.5mm
5	210 0310	Hub Axle 133mm(5-1/4")

8110-503



■ **Rear Hub**

ITEM NO.	PART NO.	DESCRIPTION
1	3-220 9802	Complete Hub Axle 170mm(6-11/16")
2	220 1501	Flange Nut
3	220 0510-1	Lock Nut 4.5mm
4	220 0420-2	Spacer 11.5mm
5	200 0401	Lock Nut
6	220 0800-5	Cone B.C.3/8"x13mm
7	220 0310	Hub Axle 170mm(6-11/16")
8	220 0400-1	Spacer 1.5mm

8110-504

SMALL FLANGE HUB

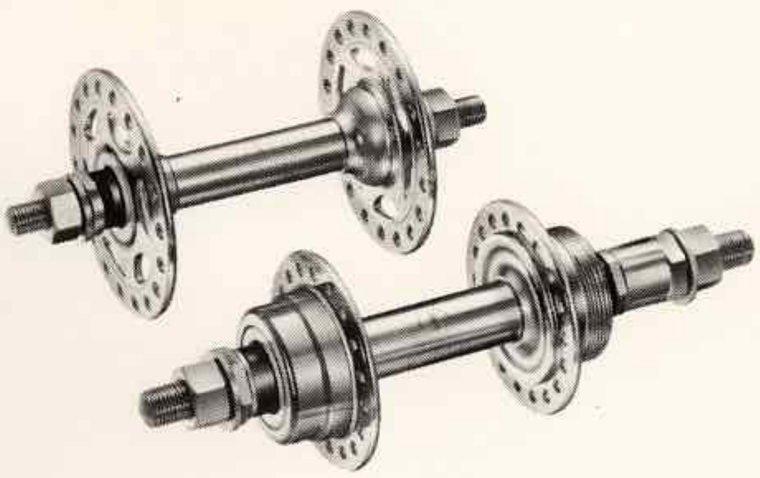
Model HB-SN11

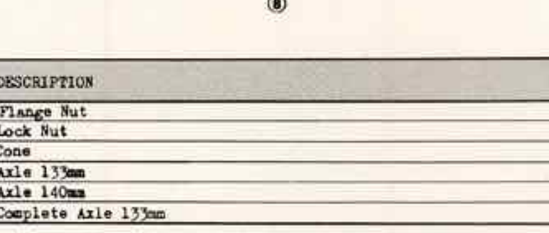
MEDIUM FLANGE HUB

Model HB-SN31

SPECIFICATIONS

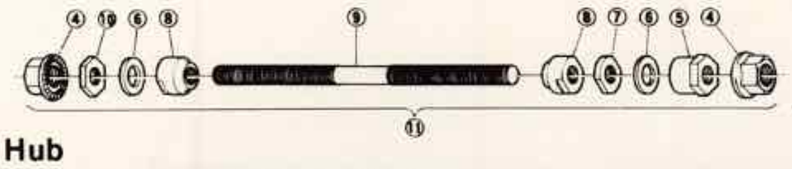
Weight: 25.0 oz. (710g.)/Pair
Material: Steel
Type: Solid Axle Type with Hub Nut
Over Lock Nut Dimensions:
Front 3.66″ (93mm.).
Rear 4.88″ (124mm.).
Spoke Holes: 28H, 36H





■ **Front Hub**

ITEM NO.	PART NO.	DESCRIPTION
4	210 1802	Flange Nut
5	210 0810	Lock Nut
6	210 0400-5	Cone
7	210 0310	Axle 133mm
	210 0320	Axle 140mm
8	3-232 9003	Complete Axle 133mm



■ **Rear Hub**

ITEM NO.	PART NO.	DESCRIPTION
4	220 1501	Flange Nut
5	220 1600	Long Nut
6	220 0400-1	Spacer B
7	200 0401	Lock Nut A
8	220 0800-5	Cone
9	220 0300	Axle 162mm
	220 0310	Axle 170mm
10	321 3800	Lock Nut C
11	3-220 9010-1	Complete Axle 170mm

7712-248B

Chain Protector

Model CP-S110
Model CP-S130
Model CP-S150
Model CP-A110
Model CP-FH30 For 36 Holes
Model CP-FH40 For 28 Holes
Model CP-FH50
Model CP-FH51
Model CP-R750
Model CP-R751

CHAIN PROTECTOR

Model CP-S110

SPECIFICATIONS

Diameter: 4-1/2″ (110mm.)
Material: Steel
Use Range: Low Sprocket 24 Teeth or Less



CHAIN PROTECTOR

Model CP-S130

SPECIFICATIONS

Diameter: 5.4″ (137mm.)
Material: Steel
Use Range: Low Sprocket 26 or 28 Teeth



CHAIN PROTECTOR

Model CP-S150

SPECIFICATIONS

Diameter: 7-1/2″ (190mm.)
Material: Steel
Use Range: Low Sprocket 26 or 28 Teeth

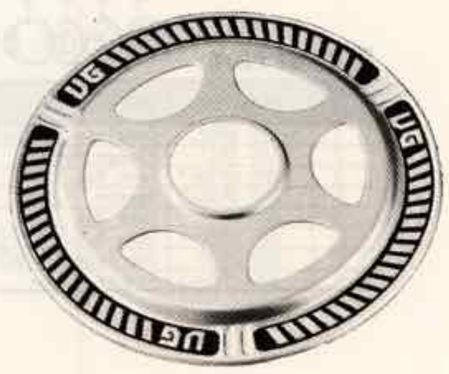


UG CHAIN PROTECTOR

Model CP-A110

SPECIFICATIONS

Diameter: 5.5″ (140mm.)
Material: Light Alloy
Use Range: Low Sprocket 22 or 24 Teeth



UG CHAIN PROTECTOR

Model CP-A120

SPECIFICATIONS

Diameter: 6.3″ (160mm.)
Material: Light Alloy
Use Range: Low Sprocket 26 or 28 Teeth



FREEHUB PROTECTOR

Model CP-FH30 (For 36 Holes)
CP-FH40 (For 28 Holes)

SPECIFICATIONS

Diameter: 5.4″ (137 mm.)
Material: Resin
Use Range: Low Sprocket
28T, 30T (for 28 Holes)
24T, 26T, 28T, 30T (for 36 Holes)



FREEHUB PROTECTOR

Model CP-FH50
CP-FH51

SPECIFICATIONS

Diameter: 7-1/2″ (190 mm.)
Material: Resin
Use Range: 36 Holes Only Low Sprocket
28T, 30T/Model CP-FH50
32T, 34T/Model CP-FH51



CHAIN PROTECTOR

Model CP-R750
CP-R751

SPECIFICATIONS

Diameter: 7.5″ (188mm.)
Material: Resin
Use Range: Low Sprocket
30~34T./CP-R750
26~30T./CP-R751



Model FH-7360 6-speed
Model FH-7370 7-speed

DURA-ACE

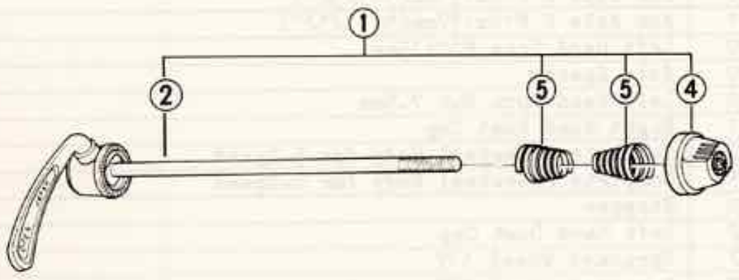
Model FH-7360 (Small/6-speed)
Model FH-7370 (Small/7-speed)

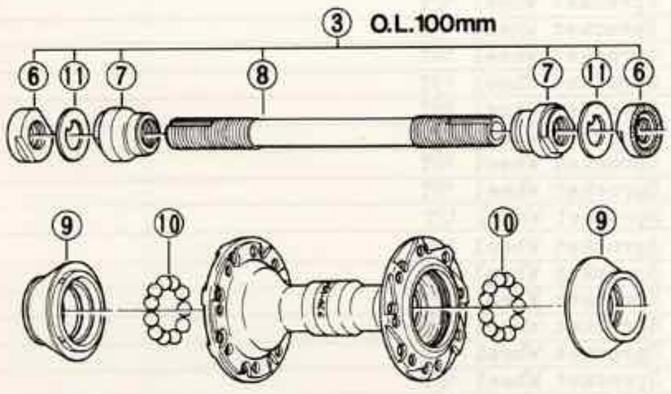
SPECIFICATIONS

Weight • Front 7.1 oz. (200g.)
Rear 14.0 oz. (398g.)
Over Lock Nut Dimensions
• Front 3-15/16″ (100mm.)
Rear 4-31/32″ (126mm.)
Amount of Dish • Rear 13/32″ (10.5mm.)
Material • Light Alloy Anodized Finish (W/Light Alloy Nut)
Sprocket • Golden Finish
Teeth • Threaded Sprocket: 11T. —19T.
Spline Sprocket: 12T. —28T.
Spoke Holes • 32H./36H.
Features • Aerodynamic Designed Sealed Cap/Super-Finish Treatment/ Super-Shift Sprocket / Aerodynamic Designed Quick Release Lever/Cassette Gear/ Sealed Mechanism/Light Weight/Direction-6 Hub
Super-Shift Sprocket 13T. —20T. available.



Available: 6-speed Type
(Model FH-7360)



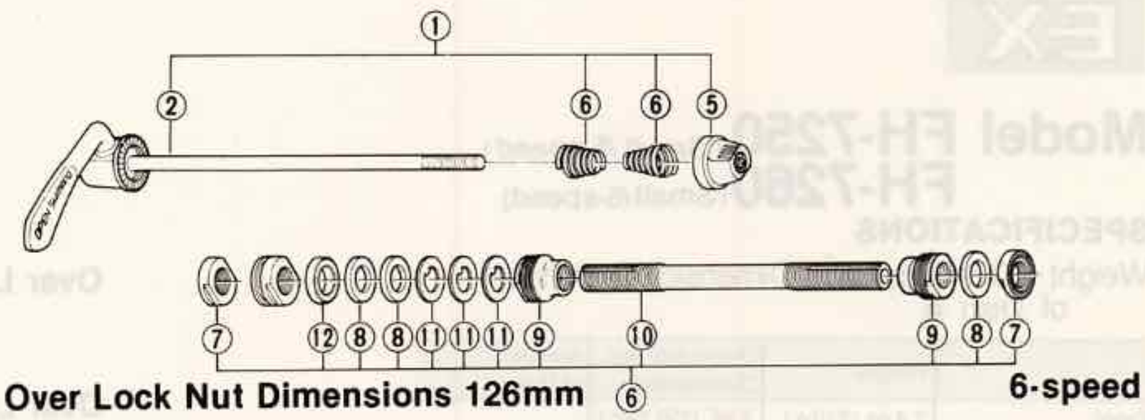


O.L.: Over Lock Nut Dimension

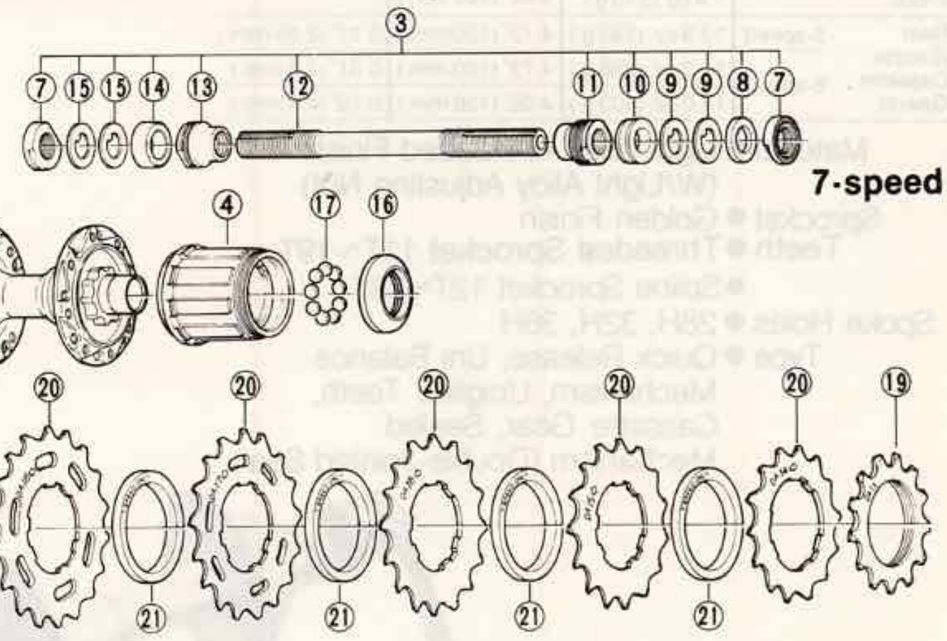
■ **Front Hub** Over Lock Nut Dimension: 100mm(3-15/16")

ITEM NO.	PART NO.	DESCRIPTION
1	3-262 9011	Complete Quick Release 129mm(5-3/32")
2	3-215 9831	Cam Lever Unit 129mm(5-3/32")
3	3-262 9021	Complete Hub Axle 108mm(4-1/4")
4	3-262 9001	Nut for Skewer
5	233 2100	Volute Spring
6	262 0701	Lock Nut 6mm(1/4")
7	262 0601	Cone (M9x15.7)
8	233 1800	Hub Axle 108mm(4-1/4")
9	263 0400	Dust Cap
10	000 0125	Steel Ball (3/16")
11	233 1600	Key Washer

8402-460B



Over Lock Nut Dimension 126mm **6-speed**



7-speed FH

■ **Rear Hub**

ITEM NO.	PART NO.	DESCRIPTION
1	3-262 9012	Complete Quick Release 157mm(6-3/16")
2	3-226 9821	Cam Lever Unit 157mm(6-3/16")
3	3-272 9803	Complete Hub Axle 137mm(5-13/32") for 6-Speed Over Lock Nut Dimension: 126mm(4-31/32")
	3-272 9801	Complete Hub Axle 137mm(5-13/32") for 7-Speed Over Lock Nut Dimension: 126mm(4-31/32")
4	3-271 9003	Complete Freewheel Body for 6-Speed
	3-272 9811	Complete Freewheel Body for 7-Speed
5	3-262 9001	Nut for Skewer
6	233 2100	Volute Spring
7	272 0500	Lock Nut
8	272 0700	Dust Washer
9	243 1600	Right Hand Key Washer 1.2mm
10	243 1900	Right Hand Axle Spacer 4.5mm(3/16")
11	243 1500	Right Hand Cone M10x15mm(19/32")
12	243 2001	Hub Axle 137mm(5-13/32")
13	247 0400	Left Hand Cone M10x13.5mm(17/32")
14	241 1100	Left Hand Axle Spacer 5.5mm(7/32")
15	356 6100	Left Hand Key Washer 1.5mm
16	272 0300	Right Hand Dust Cap
17	000 0135	Steel Ball (1/4")
18	272 0400	Left Hand Dust Cap
19	357 1117	Sprocket Wheel 11T
	357 1217	Sprocket Wheel 12T
	357 1317	Sprocket Wheel 13T
	357 1417	Sprocket Wheel 14T
	357 1517	Sprocket Wheel 15T
	357 1617	Sprocket Wheel 16T
	357 1717	Sprocket Wheel 17T
	357 1817	Sprocket Wheel 18T
	357 1917	Sprocket Wheel 19T
20	119 1302	Sprocket Wheel 13T (Super UG)
	119 1402	Sprocket Wheel 14T (Super UG)
	119 1502	Sprocket Wheel 15T (Super UG)
	119 1602	Sprocket Wheel 16T (Super UG)
	119 1702	Sprocket Wheel 17T (Super UG)
	119 1802	Sprocket Wheel 18T (Super UG)
	119 1902	Sprocket Wheel 19T (Super UG)
	119 2002	Sprocket Wheel 20T (Super UG)
	357 2137	Sprocket Wheel 21T
	357 2237	Sprocket Wheel 22T
	357 2337	Sprocket Wheel 23T
	357 2437	Sprocket Wheel 24T
	357 2537	Sprocket Wheel 25T
	357 2637	Sprocket Wheel 26T
	357 2837	Sprocket Wheel 28T
21	272 0900	Sprocket Spacer
22	356 6000	Left Hand Axle Spacer

8402-468C

Model FH-7250 5-Speed
Model FH-7260 6-Speed

DURA-ACE EX

Model FH-7250 (Small /5-speed)
FH-7260 (Small /6-speed)

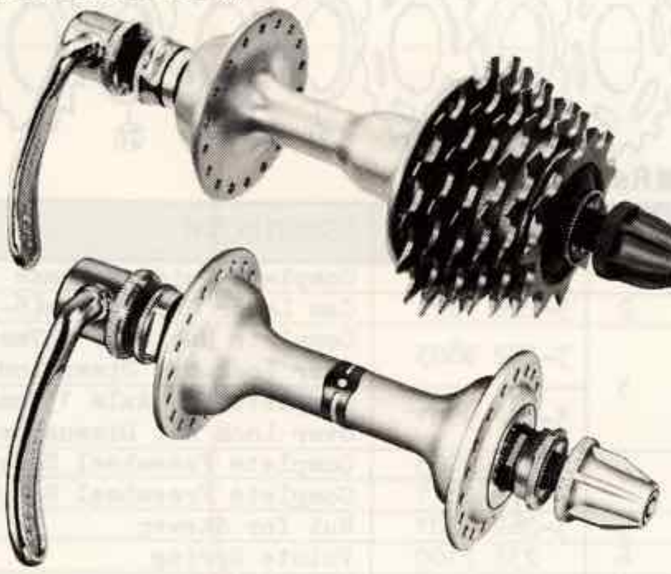
SPECIFICATIONS

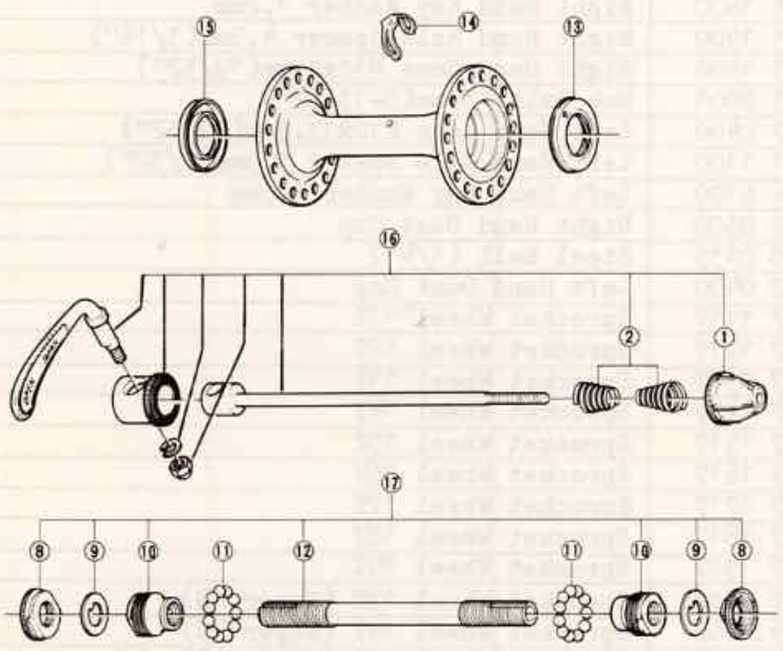
Weight • Over Lock Nut Dimensions • Amount of Dish ●

		Weight	Over Lock Nut Dimensions	Amount of Dish
Front		7.4 oz (210 g)	3.94" (100 mm)	-
Rear (Except Cassette Gears)	5-speed	13.9 oz (393 g)	4.72" (120 mm)	0.17" (2.95 mm)
	6-speed	14.0 oz (398 g)	4.72" (120 mm)	0.31" (7.8 mm)
		14.0 oz (403 g)	4.96" (126 mm)	0.19" (4.8 mm)

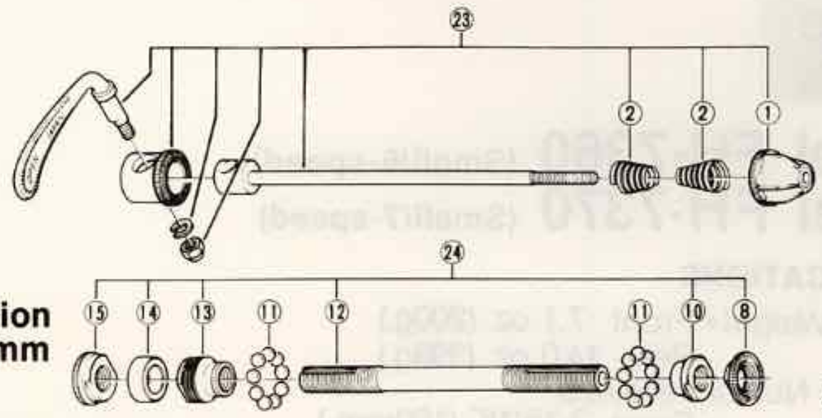
Material ● Light Alloy • Anodized Finish (W/Light Alloy Adjusting Nut)
Sprocket ● Golden Finish
Teeth ● Threaded Sprocket 11T~19T
● Spline Sprocket 12T~28T
Spoke Holes ● 28H, 32H, 36H
Type ● Quick Release, Uni Balance Mechanism, Uniglide Teeth, Cassette Gear, Sealed Mechanism (Double-Jointed Seal)

FH



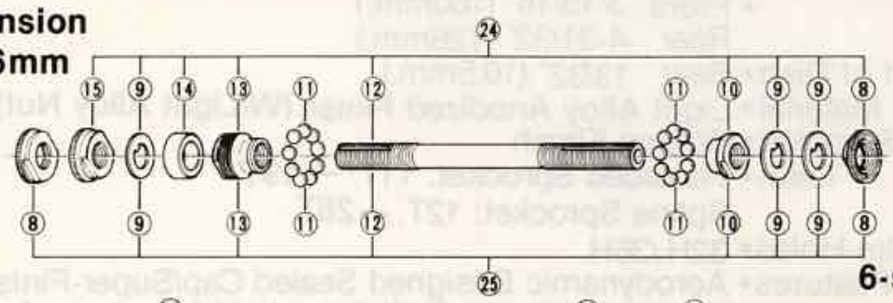


Over Lock Nut Dimension 120mm



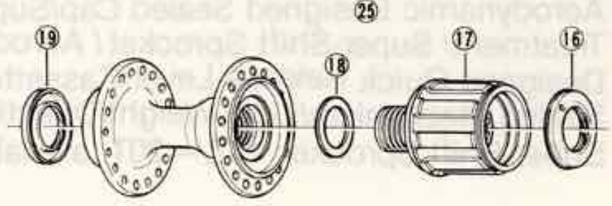
5-speed

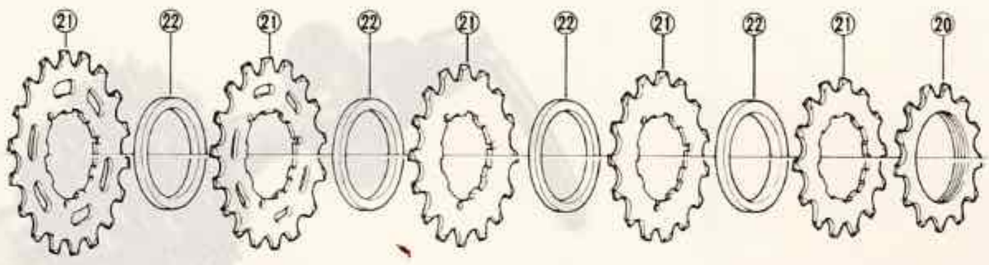
Over Lock Nut Dimension 126mm



Over Lock Nut Dimension 120mm

6-speed





■Front Hub

Over Lock Nut Dimension: 100mm

ITEM NO.	PART NO.	DESCRIPTION
1	356 9006	Nut for Skewer
2	233 2100	Volute Spring
8	233 1700	Lock Nut
9	233 1600	Key Washer
10	233 1500	Cone
11	000 0125	Steel Ball (3/16")
12	233 1800	Hub Axle M9x108mm
13	237 0801	Right Hand Dust Cap
14	233 1200	Oil Cap
15	237 0802	Left Hand Dust Cap
16	233 9006	Complete Quick Release
17	233 9003	Complete Axle

■Rear Hub

O.L.: Over Lock Nut Dimension

ITEM NO.	PART NO.	DESCRIPTION
1	3-356 9006	Nut for Skewer
2	233 2100	Volute Spring
8	356 5900	Lock Nut 4mm
9	356 6100	Key Washer
10	247 0402	Right Hand Cone M10x10mm for 5-Speed
	247 0400	Right Hand Cone M10x13.5mm for 6-Speed
11	000 0135	Steel Ball (1/4")
12	243 2000	Hub Axle A M10x131mm(5-5/32")
	243 2001	Hub Axle C M10x137mm(5-13/32")
13	243 1500	Left Hand Cone M10x15mm
14	356 6000	Axle Spacer
15	243 1700	Left Hand Lock Nut 7.5mm
16	243 1401	Right Hand Dust Cap
17	3-356 9002	Complete Freewheel Body for 5-Speed
	3-356 9003	Complete Freewheel Body for 6-Speed
18	356 5800	Stopper
19	243 1402	Left Hand Dust Cap
20	357 1117	Sprocket Wheel 11T
	357 1217	Sprocket Wheel 12T
	357 1317	Sprocket Wheel 13T
	357 1417	Sprocket Wheel 14T
	357 1517	Sprocket Wheel 15T
	357 1617	Sprocket Wheel 16T
	357 1717	Sprocket Wheel 17T
	357 1817	Sprocket Wheel 18T
	357 1917	Sprocket Wheel 19T
21	357 1237	Sprocket Wheel 12T
	119 1302	Sprocket Wheel 13T
	119 1402	Sprocket Wheel 14T
	119 1502	Sprocket Wheel 15T
	119 1602	Sprocket Wheel 16T
	119 1702	Sprocket Wheel 17T
	119 1802	Sprocket Wheel 18T
	119 1902	Sprocket Wheel 19T
	119 2002	Sprocket Wheel 20T
	357 2137	Sprocket Wheel 21T
	357 2237	Sprocket Wheel 22T
	357 2337	Sprocket Wheel 23T
	357 2437	Sprocket Wheel 24T
	357 2537	Sprocket Wheel 25T
	357 2637	Sprocket Wheel 26T
	357 2837	Sprocket Wheel 28T
22	356 6300	Sprocket Spacer
23	3-356 9004	Complete Quick Release A Skewer Length 153mm(6-1/32")
	3-356 9005	Complete Quick Release C Skewer Length 159mm(6-1/4")
24	3-356 9010	Complete Hub Axle A 131mm(5-5/32") for 5-Speed O.L. 120mm(4-23/32")
	3-356 9009	Complete Hub Axle C 137mm(5-13/32") for 6-Speed O.L. 126mm(4-31/32")
25	3-356 9008	Complete Hub Axle A 131mm(5-5/32") for 6-Speed O.L. 120mm(4-23/32")

7906-378

Printed in Japan 8212-335E

UE

Freehub

Model FH-6207-5 5-Speed
Model FH-6207-6 6-Speed

NEW SHIMANO 600 EX

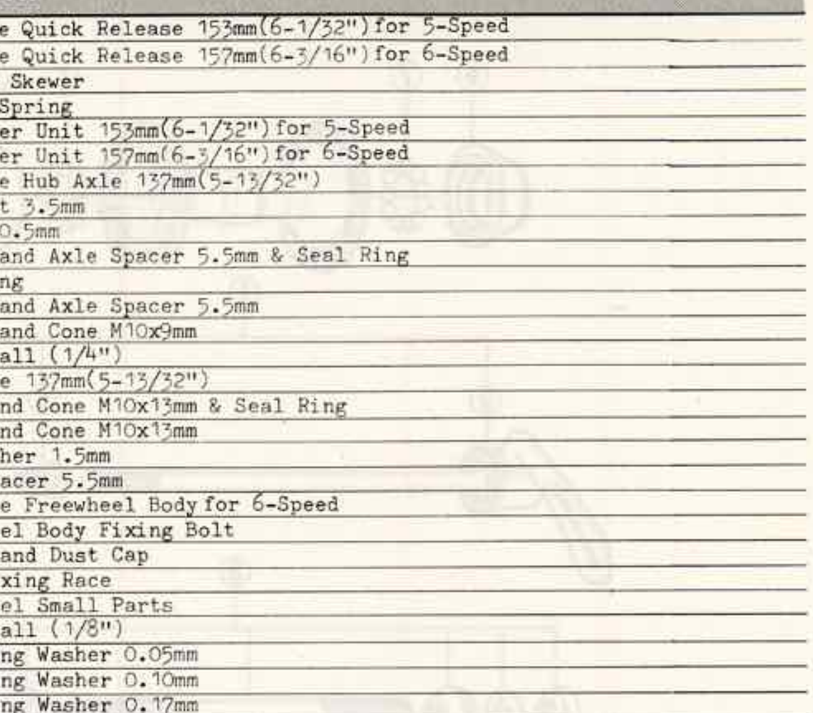
Model FH-6207-5 (5-Speed)
Model FH-6207-6 (6-Speed)

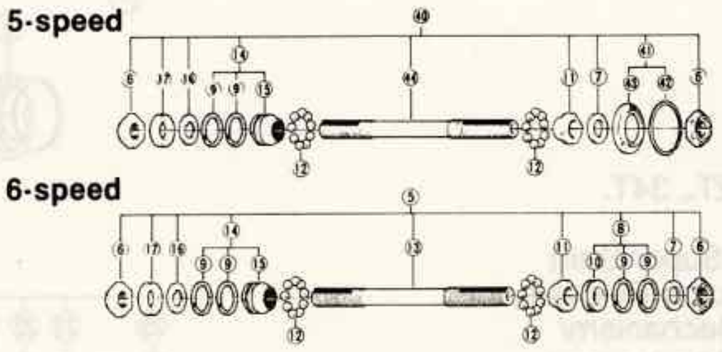
SPECIFICATIONS

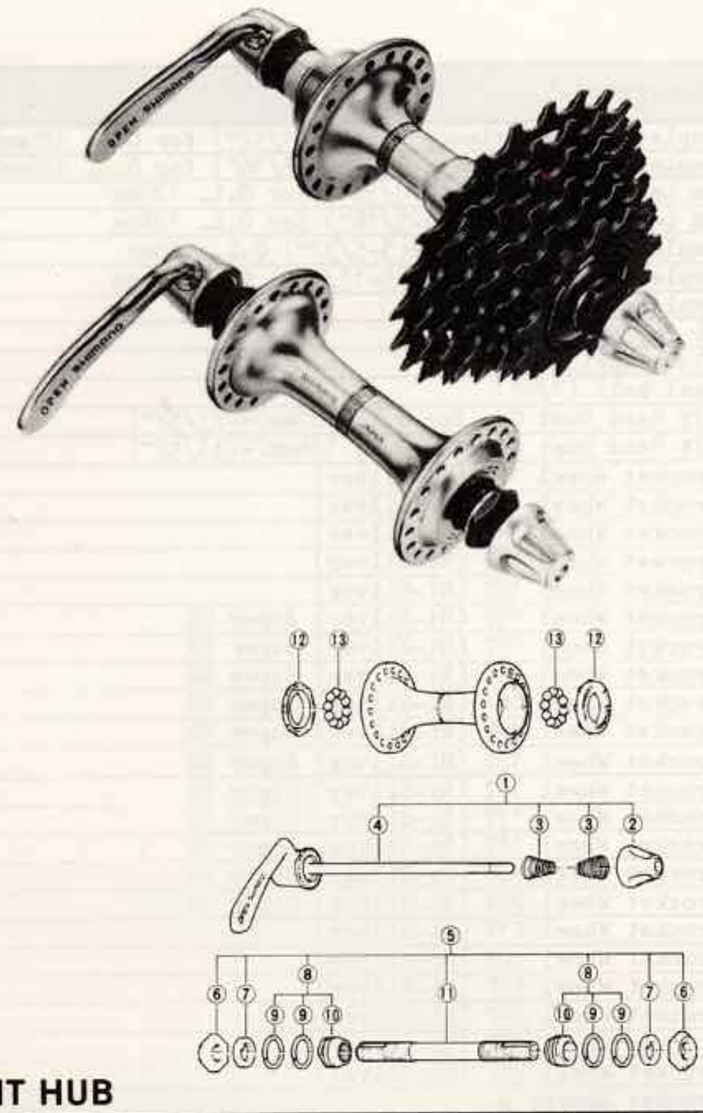
Weight ● 14.2 oz. (405g.) 6-speed, 126mm. (w/o Sprocket)
Material ● Light Alloy·Buff Finish
Type ● Quick Release
Over Lock Nut Dimensions·Amount of Dish ●

	Over Lock Nut Dimensions	Amount of Dish
Front	3.94"(100mm.)	—
Real (Except Cassette Gears)	4.72"(120mm.)	0.34"(8.75mm.)
	4.88"(124mm.)	0.28"(7mm.)
	4.94"((126mm.)	0.24"(6mm.)

Sprocket ● Black Finish, Silver Finish
Teeth ● Threaded Sprocket; 12T.~18T.
Spline Sprocket; 13T.~28T., 30T., 32T., 34T.
Spoke Holes ● 32H, 36H
Features ● Bolt-Secured Freewheel Body, Sealed Mechanism, Aerodynamically shaped quick release







■REAR HUB

ITEM NO.	PART NO.	DESCRIPTION
1	3-359 9801	Complete Quick Release 153mm(6-1/32") for 5-Speed
	3-226 9801	Complete Quick Release 157mm(6-3/16") for 6-Speed
2	3-215 9821	Nut for Skewer
3	231 1100	Volute Spring
4	3-359 9841	Cam Lever Unit 153mm(6-1/32") for 5-Speed
	3-226 9821	Cam Lever Unit 157mm(6-3/16") for 6-Speed
5	3-359 9812	Complete Hub Axle 137mm(5-13/32")
6	220 0502-1	Lock Nut 3.5mm
7	220 0430	Washer 0.5mm
8	3-359 9838	Right Hand Axle Spacer 5.5mm & Seal Ring
9	299 0500	Seal Ring
10	359 1000	Right Hand Axle Spacer 5.5mm
11	220 0850	Right Hand Cone M10x9mm
12	000 0131	Steel Ball (1/4")
13	243 2001	Hub Axle 137mm(5-13/32")
14	3-226 9831	Left Hand Cone M10x13mm & Seal Ring
15	359 1100	Left Hand Cone M10x13mm
16	241 0700-1	Key Washer 1.5mm
17	241 1100	Axle Spacer 5.5mm
18	3-359 9822	Complete Freewheel Body for 6-Speed
19	359 0400	Freewheel Body Fixing Bolt
20	359 0600	Right Hand Dust Cap
21	357 5301	Body Fixing Race
22	3-359 9831	Freewheel Small Parts
23	000 0111	Steel Ball (1/8")
24	357 5500	Adjusting Washer 0.05mm
	357 5501	Adjusting Washer 0.10mm
	357 5502	Adjusting Washer 0.17mm
	357 5503	Adjusting Washer 0.30mm
25	357 5400	Spacer 1.0mm
26	357 5600-1	Pawl Spring
27	256 0700	Pawl
28	359 0700	Inner Dust Cap
29	359 0900	Inner Seal Ring
30	359 0500	Freewheel Body Dust Cap
31	357 5203	Outer Body for 5-Speed
	357 5205	Outer Body for 6-Speed
32	359 0100	Inner Body
33	359 0800	Left Hand Dust Cap
34	357 1215	Sprocket Wheel 12T (Silver)
	357 1315	Sprocket Wheel 13T (Silver)
	357 1415	Sprocket Wheel 14T (Silver)
	357 1515	Sprocket Wheel 15T (Silver)
	357 1615	Sprocket Wheel 16T (Silver)
	357 1715	Sprocket Wheel 17T (Silver)
	357 1815	Sprocket Wheel 18T (Silver)
35	357 1325	Sprocket Wheel 13T (Silver)
	357 1425	Sprocket Wheel 14T (Silver)
	357 1525	Sprocket Wheel 15T (Silver)
	357 1625	Sprocket Wheel 16T (Silver)
	357 1725	Sprocket Wheel 17T (Silver)
36	357 1535	Sprocket Wheel 15T (Silver)
	357 1635	Sprocket Wheel 16T (Silver)
	357 1735	Sprocket Wheel 17T (Silver)
	357 1835	Sprocket Wheel 18T (Silver)
	357 1935	Sprocket Wheel 19T (Silver)
	357 2035	Sprocket Wheel 20T (Silver)
	357 2135	Sprocket Wheel 21T (Silver)
	357 2235	Sprocket Wheel 22T (Silver)
	357 2335	Sprocket Wheel 23T (Silver)
	357 2435	Sprocket Wheel 24T (Silver)
	357 2635	Sprocket Wheel 26T (Silver)
	357 2835	Sprocket Wheel 28T (Silver)
37	357 5800	Sprocket Spacer A
38	357 5900	Sprocket Spacer B
39	357 6000	Sprocket Fixing Bolt for 5-Speed
	357 6001	Sprocket Fixing Bolt for 6-Speed
40	3-359 9811	Complete Hub Axle 131mm(5-5/32")
41	3-359 9835	Right Hand Dust Cap & Seal Ring
42	359 0910	Right Hand Seal Ring
43	359 0601	Right Hand Dust Cap
44	243 2000	Hub Axle 131mm(5-5/32")
45	3-359 9821	Complete Freewheel Body

8307-605'

■FRONT HUB

ITEM NO.	PART NO.	DESCRIPTION
1	3-215 9811	Complete Quick Release 129mm(5-3/32")
2	3-215 9821	Nut for Skewer
3	231 1100	Volute Spring
4	3-215 9831	Cam Lever Unit 129mm(5-3/32")
5	3-215 9801	Complete Hub Axle 108mm(4-1/4")
6	210 0820-1	Lock Nut 3mm
7	231 1500	Key Washer 1.5mm
8	3-215 9822	Cone M9x10.4mm & Seal Ring
9	236 0300	Seal Ring
10	215 1000	Cone M9x10.4mm
11	233 1800	Hub Axle 108mm(4-1/4")
12	215 1100	Dust Cap
13	000 0121	Steel Ball (3/16")

8307-601'

FH

UE

Model FH-6361 6-Speed

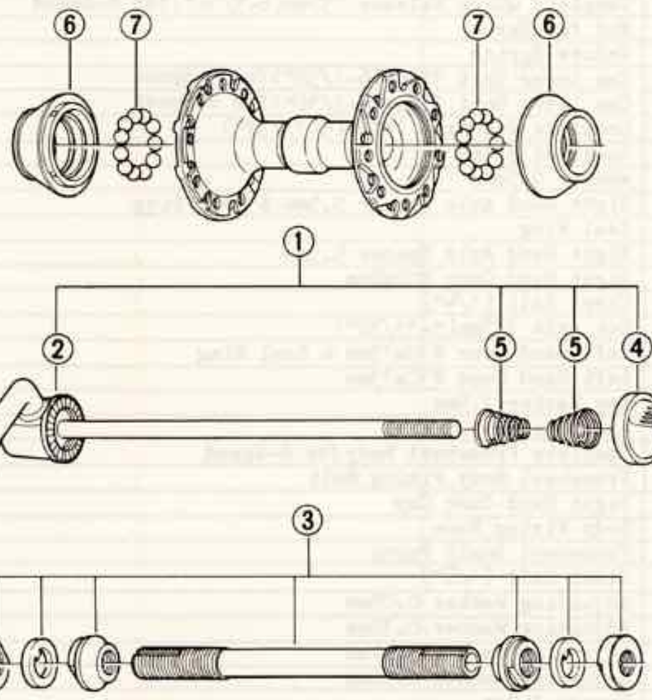
SHIMANO 600 EX

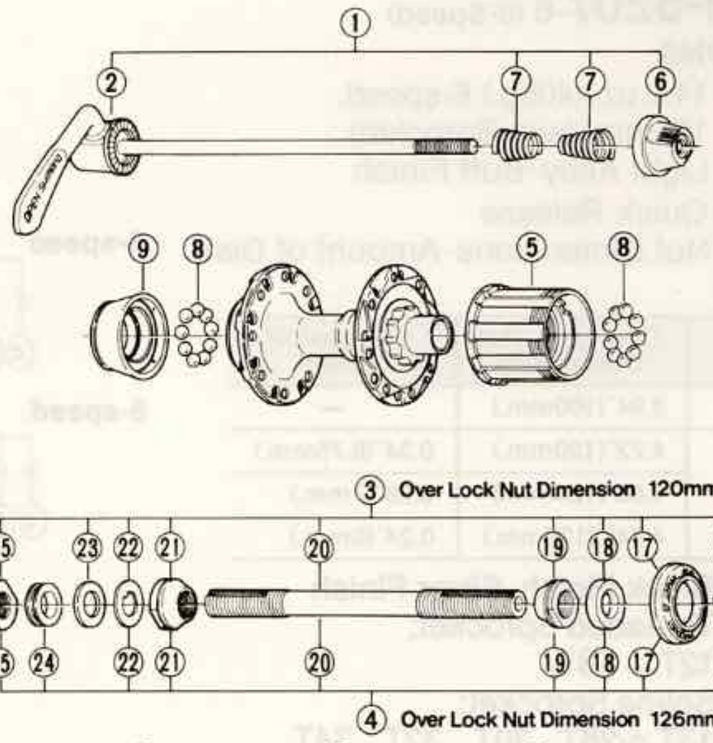
Model FH-6361 (Small/6 speed)

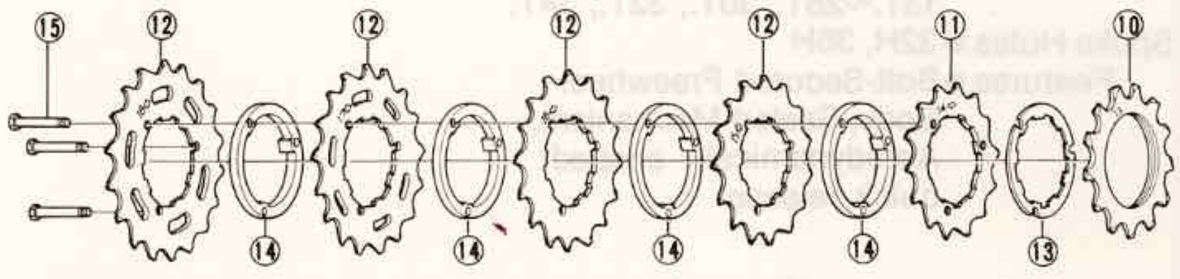
SPECIFICATIONS

Weight • Front 8.5 oz. (242g.)
Rear 13.9 oz. (394g.)
Over Lock Nut Dimensions
• Front 3-15/16″ (100mm.)
Rear 4.71″ (120mm.)
Rear 5″ (126mm.)
Amount of Dish • Rear. 7/32″ (5.9mm)
Material • Light Alloy
Sprocket • Nickel Finish
Teeth • Threaded Sprocket; 12T.—16T.
Spline Sprocket; 13T.—28T., 30T., 32T., 34T.
Spoke Holes • 32H./36H.
Features • Aerodynamic Designed Sealed Cap/Super-Shift Sprocket / Aerodynamic Designed Quick Release Lever/Direction-6 Hub/Uni Balance Mechanism/ Light Weight/Cassette Gear/ Sealed Mechanism

FH







■Front Hub

Over Lock Nut Dimension: 100mm(3-15/16")

ITEM NO.	PART NO.	DESCRIPTION
1	3-264 9021	Complete Quick Release 129mm(5-3/32")
2	3-215 9831	Cam Lever Unit 129mm(5-3/32")
3	3-263 9001	Complete Hub Axle 108mm(4-1/4")
4	3-264 9010	Nut for Skewer
5	231 1100	Volute Spring
6	263 0400	Dust Cap
7	000 0121	Steel Ball (3/16")

8402-461B

■Rear Hub

ITEM NO.	PART NO.	DESCRIPTION
1	3-264 9022	Complete Quick Release 153mm(6-1/32") for O.L. 120mm(4-23/32")
	3-264 9023	Complete Quick Release 157mm(6-3/16") for O.L. 126mm(4-31/32")
2	3-359 9841	Cam Lever Unit 153mm(6-1/32") for O.L. 120mm
	3-226 9821	Cam Lever Unit 157mm(6-3/16") for O.L. 126mm
3	3-273 9001	Complete Hub Axle 131mm(5-5/32") O.L. 120mm
4	3-273 9002	Complete Hub Axle 137mm(5-13/32") O.L. 126mm
5	3-357 9003	Complete Freewheel Body
6	3-264 9010	Nut for Skewer
7	231 1100	Volute Spring
8	000 0131	Steel Ball (1/4")
9	273 0400	Left Hand Dust Cap for O.L. 120mm(4-23/32")
	220 0707	Left Hand Dust Cap for O.L. 126mm(4-31/32")
10	357 1216	Sprocket Wheel 12T (Ni-Silver)
	357 1316	Sprocket Wheel 13T (Ni-Silver)
	357 1416	Sprocket Wheel 14T (Ni-Silver)
	357 1516	Sprocket Wheel 15T (Ni-Silver)
	357 1616	Sprocket Wheel 16T (Ni-Silver)
11	119 1321	Sprocket Wheel 13T (Ni-Silver) Super UG
	119 1421	Sprocket Wheel 14T (Ni-Silver) Super UG
	119 1521	Sprocket Wheel 15T (Ni-Silver) Super UG
	119 1621	Sprocket Wheel 16T (Ni-Silver) Super UG
	119 1721	Sprocket Wheel 17T (Ni-Silver) Super UG
12	119 1501	Sprocket Wheel 15T (Ni-Silver) Super UG
	119 1601	Sprocket Wheel 16T (Ni-Silver) Super UG
	119 1701	Sprocket Wheel 17T (Ni-Silver) Super UG
	119 1801	Sprocket Wheel 18T (Ni-Silver) Super UG
	119 1901	Sprocket Wheel 19T (Ni-Silver) Super UG
	119 2001	Sprocket Wheel 20T (Ni-Silver) Super UG
	357 2136	Sprocket Wheel 21T (Ni-Silver)
	357 2236	Sprocket Wheel 22T (Ni-Silver)
	357 2336	Sprocket Wheel 23T (Ni-Silver)
	357 2436	Sprocket Wheel 24T (Ni-Silver)
	357 2636	Sprocket Wheel 26T (Ni-Silver)
	357 2836	Sprocket Wheel 28T (Ni-Silver)
13	357 5800	Sprocket Spacer A
14	357 5900	Sprocket Spacer B
15	357 6001	Sprocket Fixing Bolt
16	220 0502	Right Hand Lock Nut
17	357 5703	Right Hand Dust Cap
18	241 1100	Axle Spacer 5.5mm
19	220 0850	Right Hand Cone M10x9mm
20	243 2000	Hub Axle 131mm(5-5/32") for O.L. 120mm
	243 2001	Hub Axle 137mm(5-13/32") for O.L. 126mm
21	220 0870	Left Hand Cone M10x10
22	241 0700-1	Key Washer 1.5mm
23	220 0430	Washer 0.5mm for O.L. 120mm
24	243 1900	Spacer 4.5mm for O.L. 126mm
25	220 0503	Left Hand Lock Nut

8402-469D

UE

Freehub

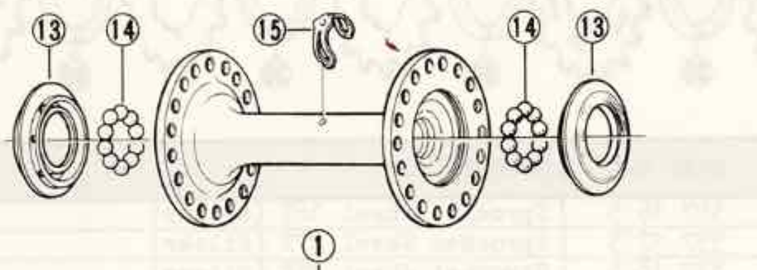
Model HB-F105
Model FH-R105 6-Speed

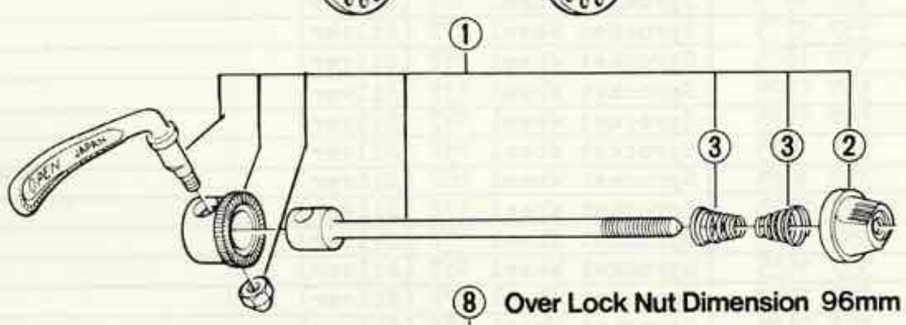
Model HB-F105 (Front Hub)
Model FH-R105 (Rear FH for 6-Speed)

SPECIFICATIONS

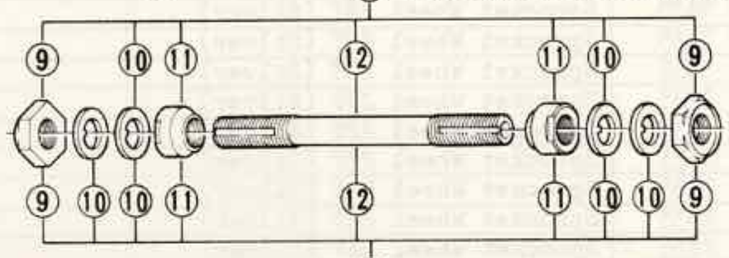
Weight • Front 8.3 oz. (235g.)
Rear 14.7 oz. (418g.) w/o sprocket
Material • Light Alloy
Over Lock Nut Dimensions
• Front 3.78″ (96mm.)
3.94″ (100mm.)
Rear 4.96″ (126mm.)
Sprocket • Black
Spoke Holes • 36H
Teeth • Threaded Sprocket; 13T.~16T.
2nd Sprocket; 14T.~17T.
Spline Sprocket; 15T.~34T.



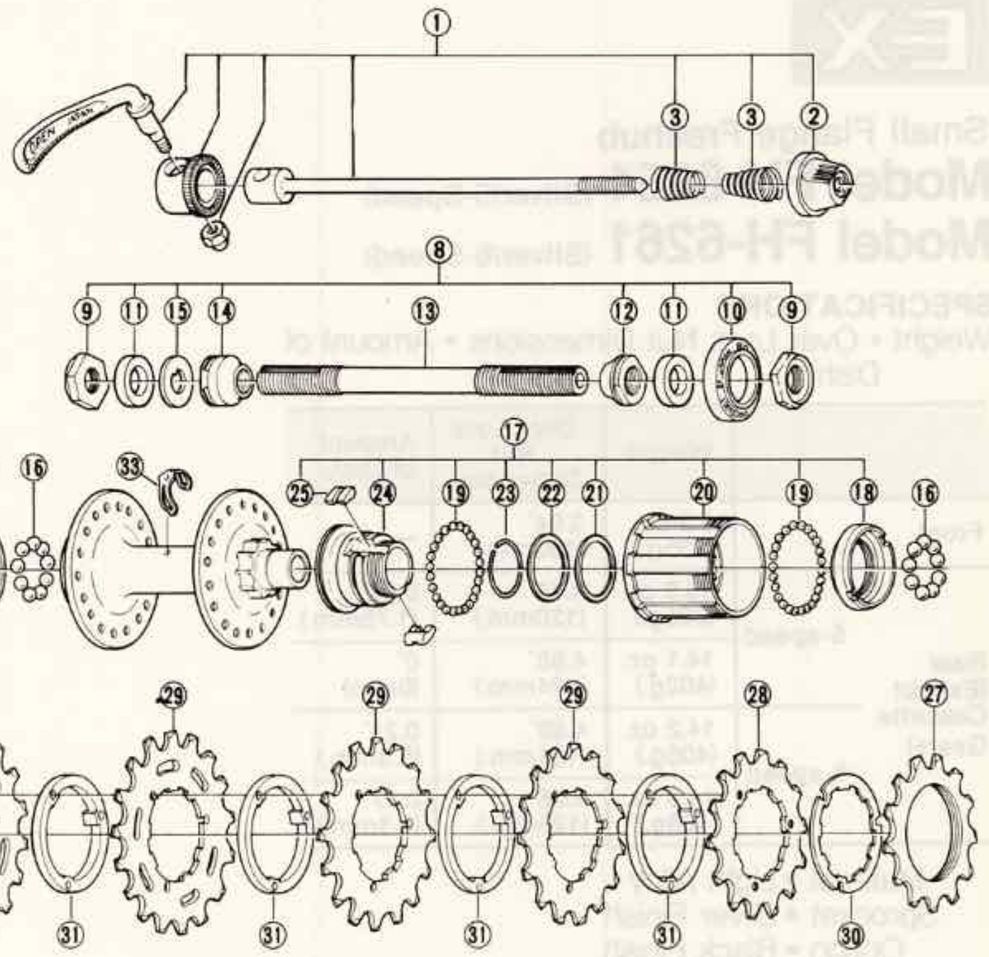




⑧ Over Lock Nut Dimension 96mm



⑧ Over Lock Nut Dimension 100mm



FH

■FRONT HUB

O.L.: Over Lock Nut Dimension

ITEM NO.	PART NO.	DESCRIPTION
1	3-340 9801	Complete Quick Release 125mm(4-29/32") for O.L. 96mm(3-25/32")
	3-340 9802	Complete Quick Release 129mm(5-3/32") for O.L. 100mm(3-15/16")
2	3-264 9010	Nut for Skewer
3	231 1100	Volute Spring
8	3-340 9803	Complete Hub Axle 104mm(4-3/32") O.L. 96mm(3-25/32")
	3-340 9804	Complete Hub Axle 108mm(4-1/4") O.L. 100mm(3-15/16")
9	210 0820	Lock Nut 3mm for O.L. 96mm(3-25/32")
	210 0821	Lock Nut 3.5mm for O.L. 100mm(3-15/16")
10	231 1500	Key Washer
11	231 0400	Cone M9x10.4mm
12	231 0300	Hub Axle 104mm(4-3/32") for O.L. 96mm(3-25/32")
	233 1800	Hub Axle 108mm(4-1/4") for O.L. 100mm(3-15/16")
13	340 1000	Dust Cap
14	000 0121	Steel Ball (3/16")
15	217 0500	Oil Cap

8209-563

■REAR HUB

Over Lock Nut Dimension: 126mm(4-31/32")

ITEM NO.	PART NO.	DESCRIPTION
1	3-241 9011-5	Complete Quick Release 159mm(6-1/4")
2	3-264 9010	Nut for Skewer
3	231 1100	Volute Spring
4	243 0811	Skewer 159mm(6-1/4")
8	3-368 9801	Complete Hub Axle 137mm(5-13/32")
9	220 0502	Lock Nut 3.5mm
10	357 5702	Right Hand Dust Cap (Gray)
11	241 1100	Axle Spacer 5.5mm
12	220 0851	Right Hand Cone M10x9mm
13	243 2001	Hub Axle 137mm(5-13/32")
14	220 0800-2	Left Hand Cone M10x13mm
15	241 0700-1	Key Washer 1.5mm
16	000 0131	Steel Ball (1/4")
17	3-353 9801	Complete Freewheel Body
18	357 5300	Body Fixing Race
19	000 0111	Steel Ball (1/8")
20	357 5201	Outer Body
21	357 5500	Adjusting Washer 0.05mm
	357 5501	Adjusting Washer 0.10mm
	357 5502	Adjusting Washer 0.17mm
	357 5503	Adjusting Washer 0.30mm
22	357 5400	Spacer 1.0mm
23	357 5600-1	Pawl Spring
24	361 0301	Inner Body
25	256 0700	Pawl
26	368 1000	Left Hand Dust Cap
27	357 1312	Sprocket Wheel 13T
	357 1412	Sprocket Wheel 14T
	357 1512	Sprocket Wheel 15T
	357 1612	Sprocket Wheel 16T
28	357 1422	Sprocket Wheel 14T
	357 1522	Sprocket Wheel 15T
	357 1622	Sprocket Wheel 16T
	357 1722	Sprocket Wheel 17T
29	357 1532	Sprocket Wheel 15T
	357 1632	Sprocket Wheel 16T
	357 1732	Sprocket Wheel 17T
	357 1832	Sprocket Wheel 18T
	357 1932	Sprocket Wheel 19T
	357 2032	Sprocket Wheel 20T
	357 2132-1	Sprocket Wheel 21T
	357 2232-1	Sprocket Wheel 22T
	357 2332-1	Sprocket Wheel 23T
	357 2432-1	Sprocket Wheel 24T
	357 2632-1	Sprocket Wheel 26T
	357 2832-1	Sprocket Wheel 28T
	357 3032-1	Sprocket Wheel 30T
	357 3232-1	Sprocket Wheel 32T
	357 3432-1	Sprocket Wheel 34T
30	357 5800	Sprocket Spacer A
31	357 5900	Sprocket Spacer B
32	357 6001	Sprocket Fixing Bolt
33	217 0501	Oil Cap

8402-565A

E

Freehub

Model FH-6251 Silver 5-Speed
Model FH-6261 Silver 6-Speed

SHIMANO 600 EX

Small Flange Freehub

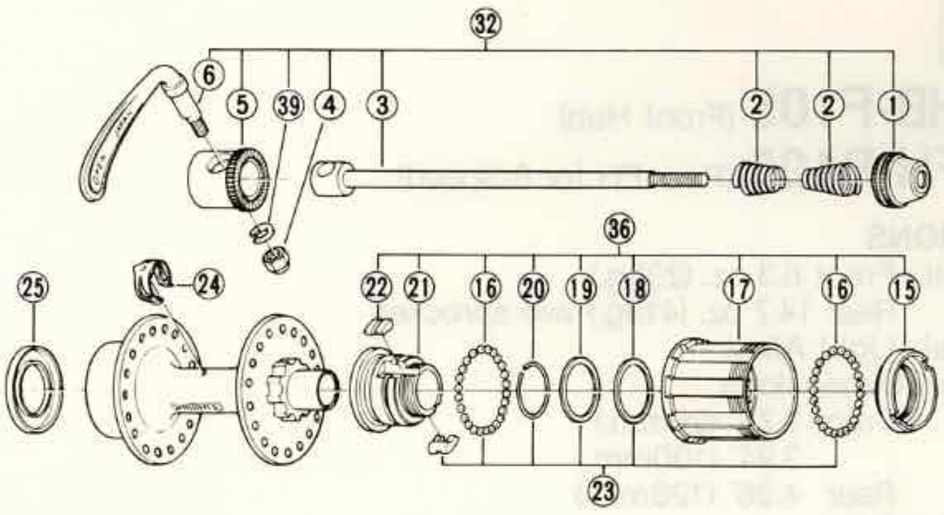
Model FH-6251 (Silver/5-Speed)
Model FH-6261 (Silver/6-Speed)

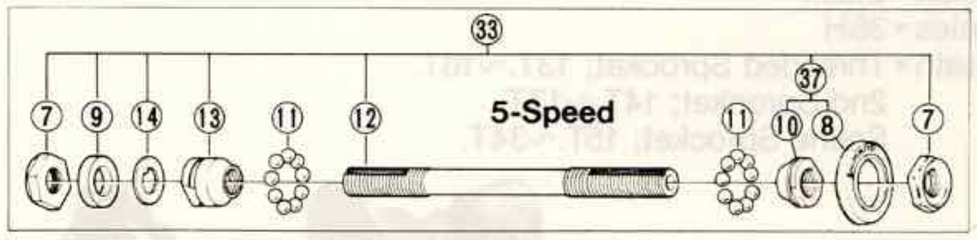
SPECIFICATIONS

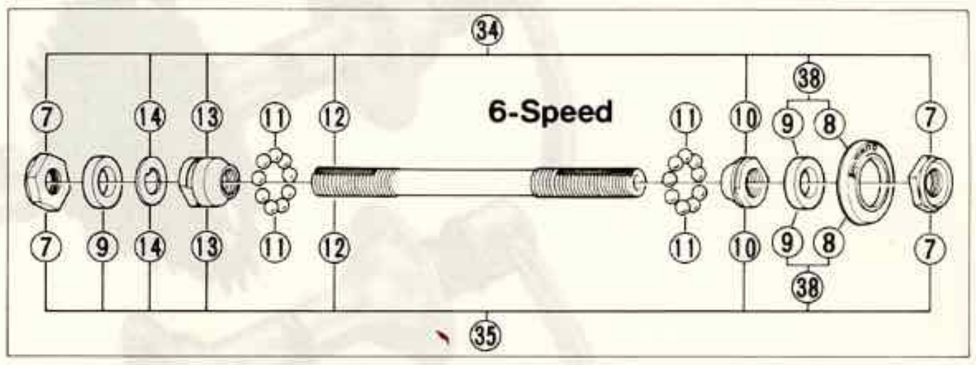
Weight • Over Lock Nut Dimensions • Amount of Dish •

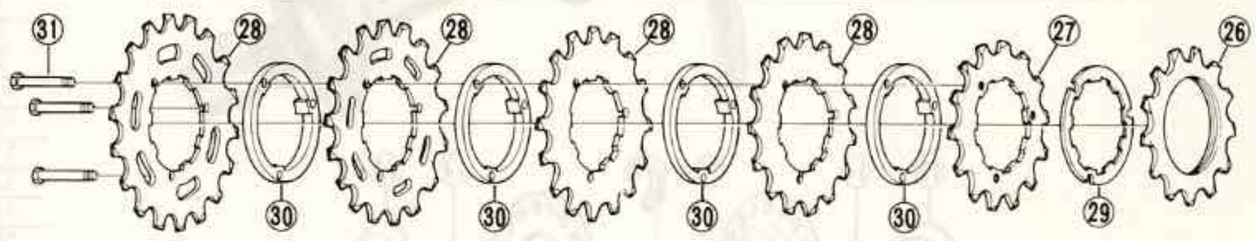
		Weight	Over Lock Nut Dimension	Amount of Dish
Front		8.3 oz. (235g.)	3.94" (100mm.)	—
Rear (Except Cassette Gears)	5-speed	13.9 oz. (395g.)	4.72" (120mm.)	0.07" (1.75mm.)
		14.1 oz. (402g.)	4.88" (124mm.)	0" (0mm)
	6-speed	14.2 oz. (405g.)	4.88" (124mm.)	0.21" (5.3mm.)
		14.3 oz. (408g.)	4.06" (126mm.)	0.17" (4.3mm.)

Material • Light Alloy
Sprocket • Silver Finish
Option • Black Finish
Teeth • Threaded Sprocket 12T.~18T.
Spline Sprocket 13T.~28T., 30T., 32T., 34T.
Spoke Holes • 36H
Type • Quick Release, Uni Balance Mechanism, Uniglide Teeth, Cassette Gear, Sealed Mechanism









ITEM NO.	PART NO.	DESCRIPTION
1	3-231 9008	Nut for Skewer
2	231 1100	Volute Spring
3	———	Skewer A 153mm(6-1/32")
	———	Skewer B 157mm(6-3/16")
	———	Skewer C 159mm(6-1/4")
4	———	Cap Nut
5	———	Body Cam Lever
6	———	Cam Lever
7	220 0502	Lock Nut
8	357 5700	Right Hand Dust Cap for 5-Speed
	357 5701	Right Hand Dust Cap for 6-Speed
9	241 1100	Axle Spacer 5.5mm(7/32")
10	220 0850	Right Hand Cone M10x9mm
11	000 0131	Steel Ball (1/4")
12	243 2000	Hub Axle A M10x131mm(5-5/32")
	241 0302	Hub Axle B M10x135.5mm(5-11/32")
	243 2001	Hub Axle C M10x137mm(5-13/32") for 6-Speed
13	220 0801-2	Left Hand Cone M10x13mm for A & C
	220 0821-2	Left Hand Cone M10x15mm for B
14	241 0700-1	Key Washer
15	357 5301	Body Fixing Race
16	000 0111	Steel Ball (1/8")
17	357 5203	Outer Body for 5-Speed
	357 5204	Outer Body for 6-Speed
18	357 5500	Adjusting Washer 0.05mm
	357 5501	Adjusting Washer 0.10mm
	357 5502	Adjusting Washer 0.17mm
	357 5503	Adjusting Washer 0.30mm
19	357 5400	Spacer 1.0mm
20	357 5600-1	Pawl Spring
21	357 5101	Inner Body
22	256 0700	Pawl
23	3-357 9806	Freewheel Repair Parts
24	217 0500	Oil Cap
25	241 0601	Left Hand Dust Cap
26	357 1215	Sprocket Wheel 12T (Silver)
	357 1315	Sprocket Wheel 13T (Silver)
	357 1415	Sprocket Wheel 14T (Silver)
	357 1515	Sprocket Wheel 15T (Silver)

ITEM NO.	PART NO.	DESCRIPTION
26	357 1615	Sprocket Wheel 16T (Silver)
	357 1715	Sprocket Wheel 17T (Silver)
	357 1815	Sprocket Wheel 18T (Silver)
27	357 1325	Sprocket Wheel 13T (Silver)
	357 1425	Sprocket Wheel 14T (Silver)
	357 1525	Sprocket Wheel 15T (Silver)
	357 1625	Sprocket Wheel 16T (Silver)
	357 1725	Sprocket Wheel 17T (Silver)
28	357 1535	Sprocket Wheel 15T (Silver)
	357 1635	Sprocket Wheel 16T (Silver)
	357 1735	Sprocket Wheel 17T (Silver)
	357 1835	Sprocket Wheel 18T (Silver)
	357 1935	Sprocket Wheel 19T (Silver)
	357 2035	Sprocket Wheel 20T (Silver)
	357 2135	Sprocket Wheel 21T (Silver)
	357 2235	Sprocket Wheel 22T (Silver)
	357 2335	Sprocket Wheel 23T (Silver)
	357 2435	Sprocket Wheel 24T (Silver)
	357 2635	Sprocket Wheel 26T (Silver)
	357 2835	Sprocket Wheel 28T (Silver)
29	357 5800	Sprocket Spacer A
30	357 5900	Sprocket Spacer B
31	357 6000	Sprocket Fixing Bolt for 5-Speed
	357 6001	Sprocket Fixing Bolt for 6-Speed
32	3-227 9003	Complete Quick Release A Skewer Length 153mm(6-1/32")
	3-227 9008	Complete Quick Release B Skewer Length 157mm(6-3/16")
	3-227 9006	Complete Quick Release C Skewer Length 159mm(6-1/4")
33	3-357 9007	Complete Hub Axle A 131mm(5-5/32") O.L. 120.5mm(4-3/4")
	3-357 9009	Complete Hub Axle B 135.5mm(5-11/32") O.L. 124mm(4-7/8")
34	3-357 9010	Complete Hub Axle A 131mm(5-5/32") O L. 120.5mm(4-3/4")
	3-357 9011	Complete Hub Axle B 135.5mm(5-11/32") O.L. 124mm(4-7/8")
35	3-357 9008	Complete Hub Axle C 137mm(5-13/32") O.L. 126mm(4-31/32")
36	3-357 9002	Complete Freewheel Body for 5-Speed
	3-357 9003	Complete Freewheel Body for 6-Speed
37	3-357 9004	Right Hand Cone w/Dust Cap for 5-Speed
38	3-357 9005	Axle Spacer w/Dust Cap for 6-Speed
39	———	Spring Washer

Front Hub: See page 72

8402-328G

Model FH-Q620 Small 6-speed

FREEHUB-SQ (FH-SQ)

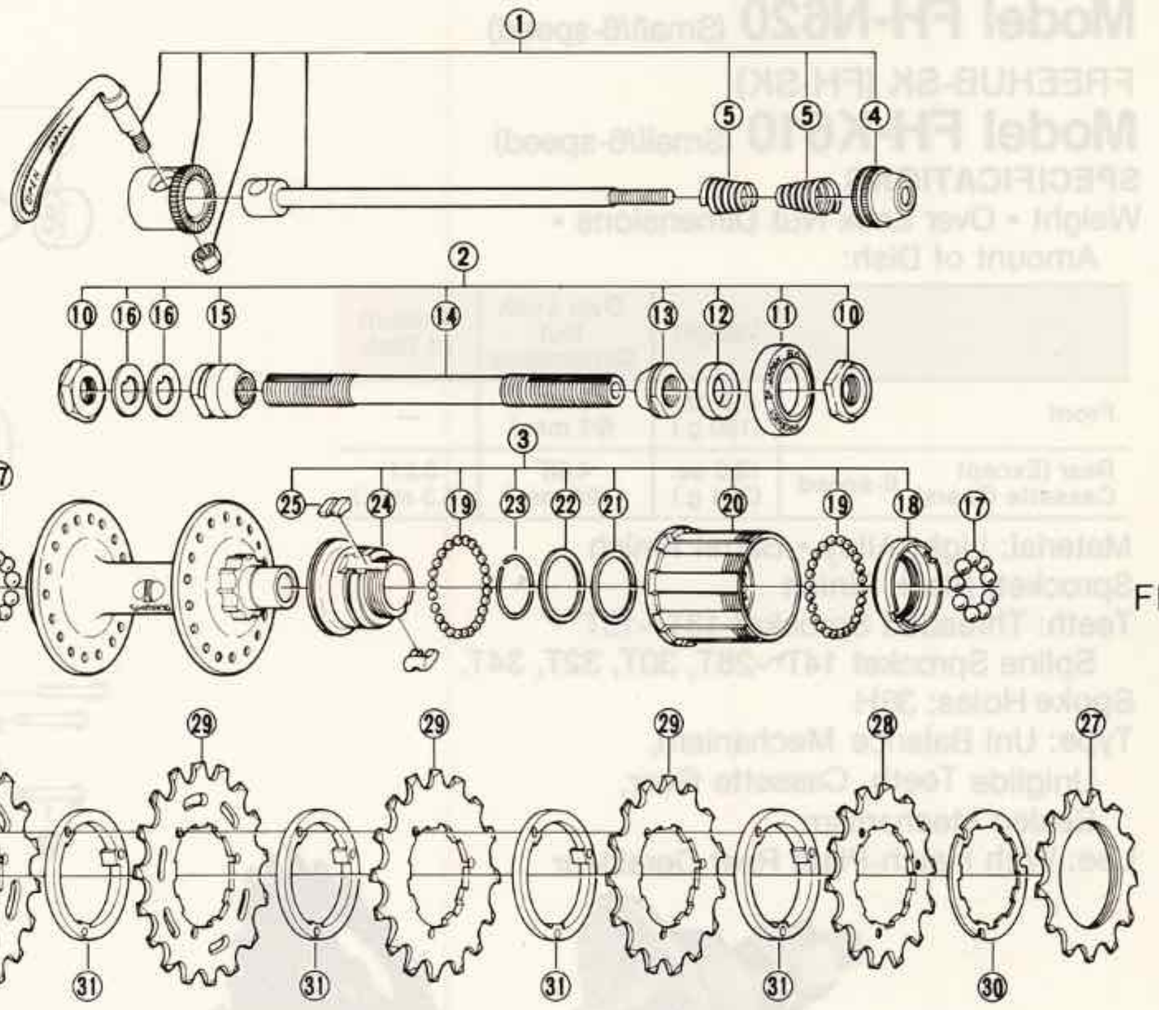
Model FH-Q620 (Small/6-speed)

SPECIFICATIONS

Weight • Over Lock Nut Dimensions • Amount of Dish:

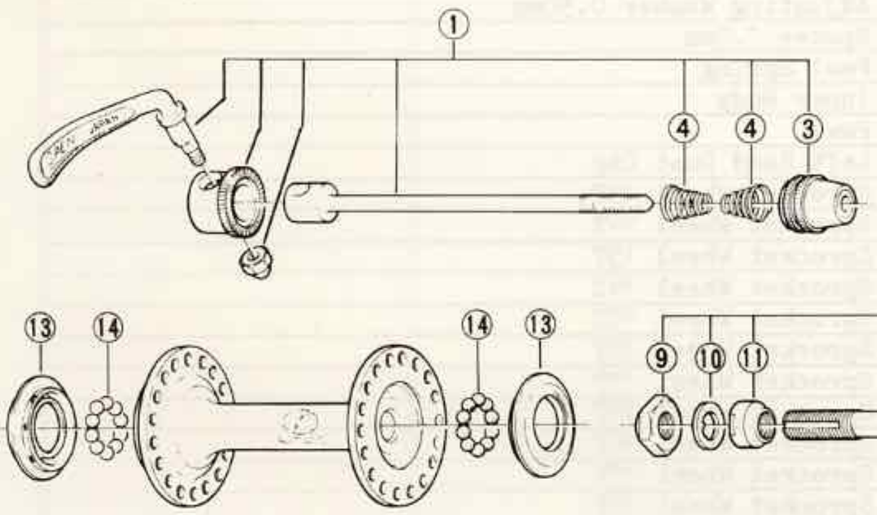
		Weight	Over Lock Nut Dimensions	Amount Dish
Front		8.6 oz. (245 g.)	3.78" (96 mm.)	—
Rear (Except Cassette Gears)	6-speed	14.6 oz. (413 g.)	4.72" (120 mm.)	0.28" (7.05 mm.)
		14.6 oz. (415 g.)	4.88" (124 mm.)	0.21" (5.3 mm.)

Material: Light Alloy
Sprocket: Black Finish
Teeth: Threaded Sprocket 13T~15T
Spline Sprocket 14T~28T, 30T, 32T, 34T.
Spoke Holes: 36H
Type: Quick Release, Uni Balance Mechanism, Uniglide Teeth, Cassette Gear
Use: With Hatch-Plate Rear Derailleur





Model FH-Q620



■REAR HUB

Over Lock Nut Dimension: 124mm(4-7/8")

ITEM NO.	PART NO.	DESCRIPTION
1	3-241 9001-2	Complete Quick Release 157mm(6-3/16")
2	3-220 9805	Complete Hub Axle 136mm(5-11/32")
3	3-353 9801	Complete Freewheel Body
4	3-231 9008	Nut for Skewer
9	231 0600-4	Cam Lever
10	220 0502	Lock Nut 3.5mm(1/8")
11	357 5702	Right Hand Dust Cap
12	241 1100	Axle Spacer 5.5mm(7/32")
13	220 0851	Right Hand Cone M10x9mm(11/32")
14	241 0300-1	Hub Axle 136mm(5-11/32")
15	220 0820-2	Left Hand Cone M10x15mm(19/32")
16	241 0700-1	Key Washer
17	000 0131	Steel Ball (1/4")
18	357 5300	Body Fixing Race
19	000 0111	Steel Ball (1/8")
20	357 5201	Outer Body
21	357 5500	Adjusting Washer 0.05mm
	357 5501	Adjusting Washer 0.10mm
	357 5502	Adjusting Washer 0.17mm
	357 5503	Adjusting Washer 0.30mm
22	357 5400	Spacer 1.0mm
23	357 5600-1	Pawl Spring
24	361 0301	Inner Body
25	256 0700	Pawl
26	220 0708	Left Hand Dust Cap
27	357 1312	Sprocket Wheel 13T
	357 1412	Sprocket Wheel 14T
	357 1512	Sprocket Wheel 15T
28	357 1422	Sprocket Wheel 14T
	357 1522	Sprocket Wheel 15T
	357 1622	Sprocket Wheel 16T
	357 1722	Sprocket Wheel 17T
29	357 1532	Sprocket Wheel 15T
	357 1632	Sprocket Wheel 16T
	357 1732	Sprocket Wheel 17T
	357 1832	Sprocket Wheel 18T
	357 1932	Sprocket Wheel 19T
	357 2032	Sprocket Wheel 20T
	357 2132-1	Sprocket Wheel 21T
	357 2232-1	Sprocket Wheel 22T
	357 2332-1	Sprocket Wheel 23T
	357 2432-1	Sprocket Wheel 24T
	357 2632-1	Sprocket Wheel 26T
	357 2832-1	Sprocket Wheel 28T
	357 3032-1	Sprocket Wheel 30T
	357 3232-1	Sprocket Wheel 32T
	357 3432-1	Sprocket Wheel 34T
30	357 5800	Sprocket Spacer A
31	357 5900	Sprocket Spacer B
32	357 6001	Sprocket Fixing Bolt

8402-506A

■FRONT HUB

Over Lock Nut Dimension: 96mm(3-25/32")

ITEM NO.	PART NO.	DESCRIPTION
1	3-231 9001-2	Complete Quick Release 125mm(4-29/32")
2	3-231 9003	Complete Hub Axle 104mm(4-3/32")
3	3-231 9008	Nut for Skewer
4	231 1100	Volute Spring
9	231 1400	Lock Nut
10	231 1500	Key Washer
11	231 0400	Cone M9x10.4mm
12	231 0300	Hub Axle 104mm(4-3/32")
13	210 0907	Dust Cap
14	000 0121	Steel Ball (3/16") 20pcs.

8110-505

Freehub

Model FH-N620 Small 6-speed
Model FH-K610 Small 6-speed

FREEHUB-SN (FH-SN)
Model FH-N620 (Small/6-speed)
FREEHUB-SK (FH-SK)
Model FH-K610 (Small/6-speed)

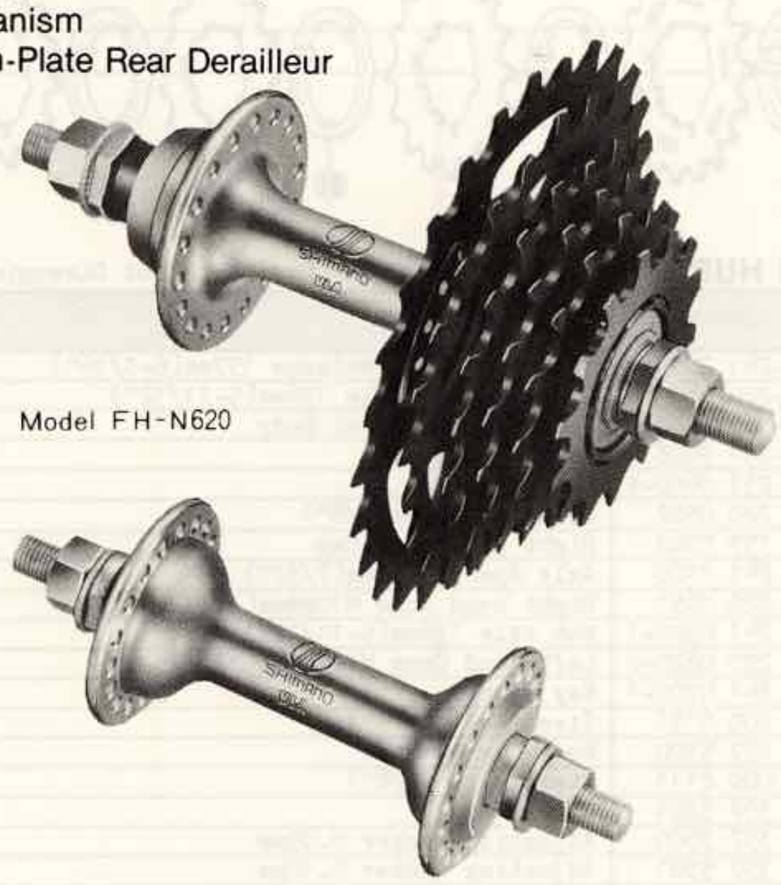
SPECIFICATIONS

Weight • Over Lock Nut Dimensions • Amount of Dish:

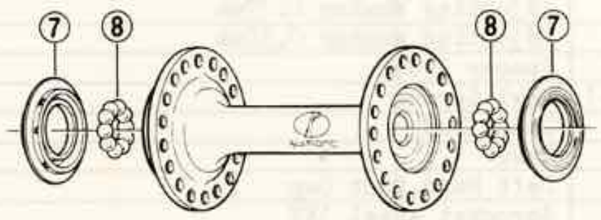
		Weight	Over Lock Nut Dimensions	Amount of Dish
Front		6.3 oz. (180 g.)	3.66" (93 mm.)	—
Rear (Except Cassette Gears)	6-speed	12.8 oz. (364 g.)	4.88" (124 mm.)	0.21" (5.3 mm.)

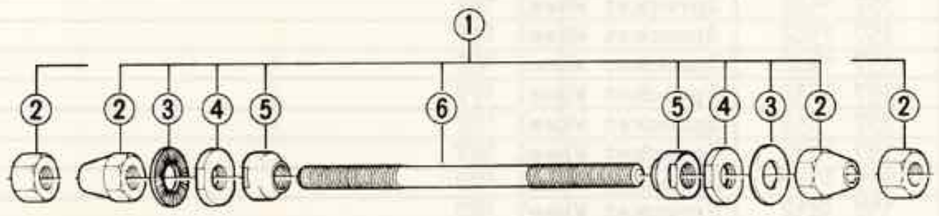
Material: Light Alloy • Barrel Finish
Sprocket: Black Finish
Teeth: Threaded Sprocket 13T~15T
Spline Sprocket 14T~28T, 30T, 32T, 34T.
Spoke Holes: 36H
Type: Uni Balance Mechanism, Uniglide Teeth, Cassette Gear, Sealed Mechanism
Use: With Hatch-Plate Rear Derailleur

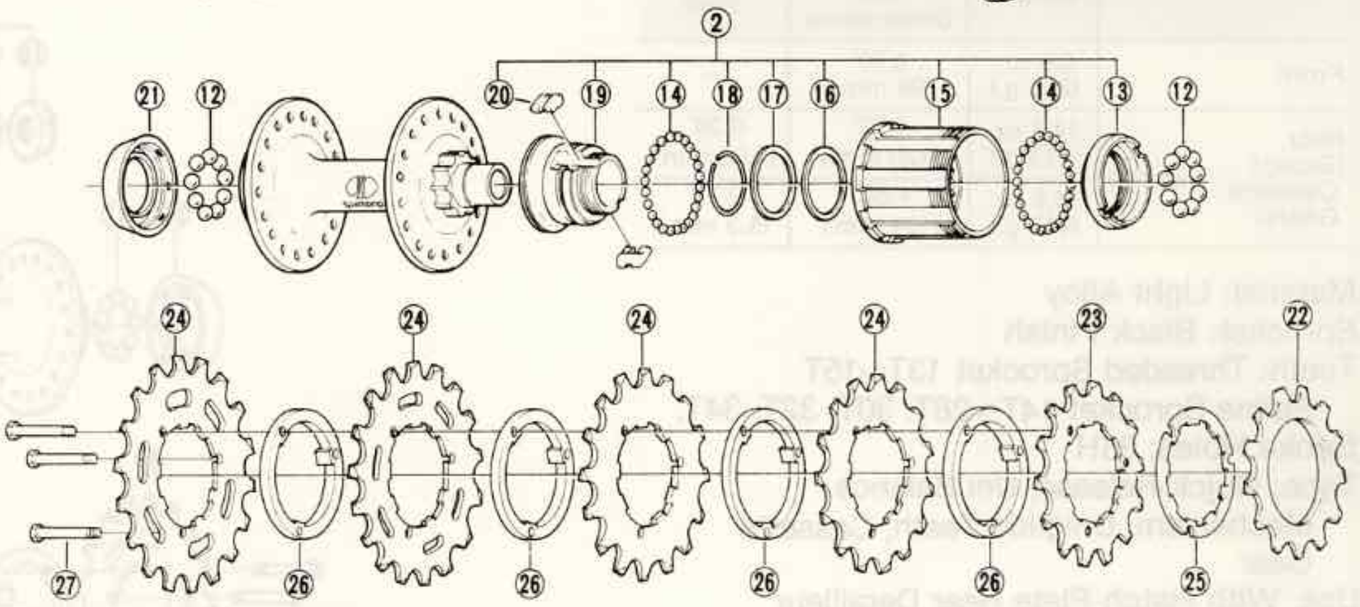
FH



Model FH-N620







■ FRONT HUB

Over Lock Nut Dimension: 93mm(3-21/32")

ITEM NO.	PART NO.	DESCRIPTION
1	3-210 9802	Complete Hub Axle 127mm(5") for SK-Type
	3-210 9801	Complete Hub Axle 133mm(5-1/4") for SN-Type
2	210 0530	Cap Nut w/Hexagonal Hole for SK-Type
	210 0500	Hub Nut for SN-Type
3	210 0700	Washer
4	210 0810	Lock Nut
5	210 0400-1	Cone B.C.5/16"x10.5mm
6	210 0300	Hub Axle 127mm(5") for SK-Type
	210 0310	Hub Axle 133mm(5-1/4") for SN-Type
7	210 0907	Dust Cap
8	000 0121	Steel Ball (3/16") 20pcs.

8110-509

■ REAR HUB

Over Lock Nut Dimension: 124mm(4-7/8")

ITEM NO.	PART NO.	DESCRIPTION
1	3-220 9804	Complete Hub Axle 160mm for FH-SK
	3-220 9803	Complete Hub Axle 170mm for FH-SN
2	3-353 9801	Complete Freewheel Body
3	200 0302	Cap Nut w/Hexagonal Hole for FH-SK
	200 0300	Hub Nut for FH-SN
4	220 0600	Washer 2mm
5	321 3800	Lock Nut 3mm
6	357 5702	Right Hand Dust Cap
7	351 1100	Axle Spacer 5.3mm
8	220 0860	Right Hand Cone B.C.3/8"x9mm
9	220 0390	Hub Axle 160mm(6-5/16") for FH-SK
	220 0310	Hub Axle 170mm(6-11/16") for FH-SN
10	220 0810-1	Left Hand Cone B.C.3/8"x16.5mm
11	220 0400-1	Axle Washer 1.5mm
12	000 0131	Steel Ball (1/4") 18pcs.
13	357 5300	Body Fixing Race
14	000 0111	Steel Ball (1/8") 50pcs.
15	357 5201	Outer Body
16	357 5500	Adjusting Washer 0.05mm
	357 5501	Adjusting Washer 0.10mm
	357 5502	Adjusting Washer 0.17mm
	357 5503	Adjusting Washer 0.30mm
17	357 5400	Spacer 1.0mm
18	357 5600-1	Pawl Spring
19	361 0301	Inner Body
20	256 0700	Pawl
21	220 0708	Left Hand Dust Cap
22	357 1312	Sprocket Wheel 13T
	357 1412	Sprocket Wheel 14T
	357 1512	Sprocket Wheel 15T
23	357 1422	Sprocket Wheel 14T
	357 1522	Sprocket Wheel 15T
	357 1622	Sprocket Wheel 16T
	357 1722	Sprocket Wheel 17T
24	357 1532	Sprocket Wheel 15T
	357 1632	Sprocket Wheel 16T
	357 1732	Sprocket Wheel 17T
	357 1832	Sprocket Wheel 18T
	357 1932	Sprocket Wheel 19T
	357 2032	Sprocket Wheel 20T
	357 2132-1	Sprocket Wheel 21T
	357 2232-1	Sprocket Wheel 22T
	357 2332-1	Sprocket Wheel 23T
	357 2432-1	Sprocket Wheel 24T
	357 2632-1	Sprocket Wheel 26T
	357 2832-1	Sprocket Wheel 28T
	357 3032-1	Sprocket Wheel 30T
	357 3232-1	Sprocket Wheel 32T
	357 3432-1	Sprocket Wheel 34T
25	357 5800	Sprocket Spacer A
26	357 5900	Sprocket Spacer B
27	357 6001	Sprocket Fixing Bolt

8110-510

E

Model FH-6A10 Small 6-Speed
Model FH-5A10 Small 5-Speed

FREEHUB-6A (FH-6A)
Model FH-6A10 (Small/6-speed)
FREEHUB-5A (FH-5A)
Model FH-5A10 (Small/5-speed)

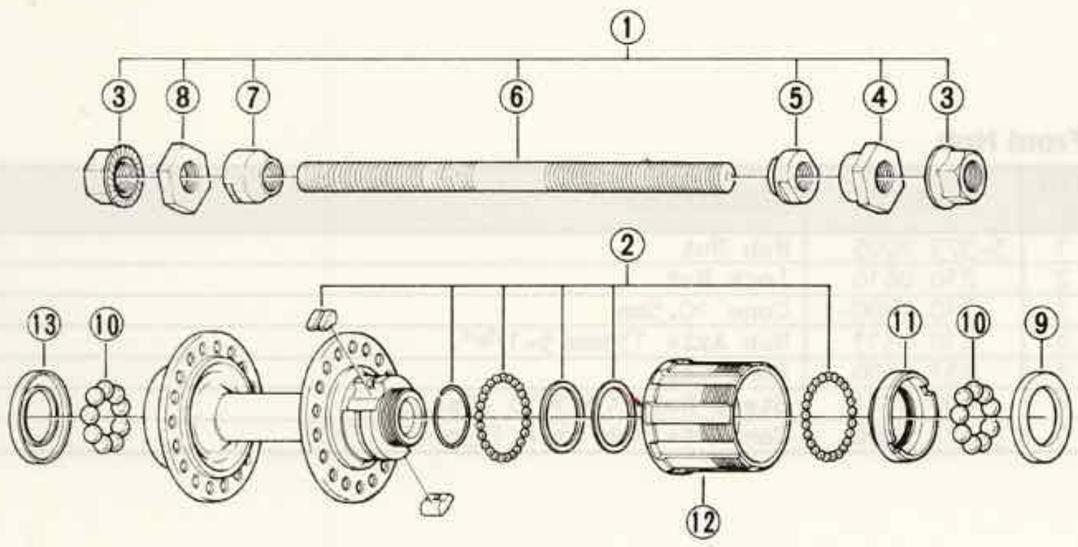
SPECIFICATIONS
Weight: 24.5 oz. (695g.) 13T.~28T.
23.8 oz. (674g.) 14T.~28T.
Material: Steel
Sprocket: Black Finish
Over Lock Nut Dimensions • Amount of Dish:

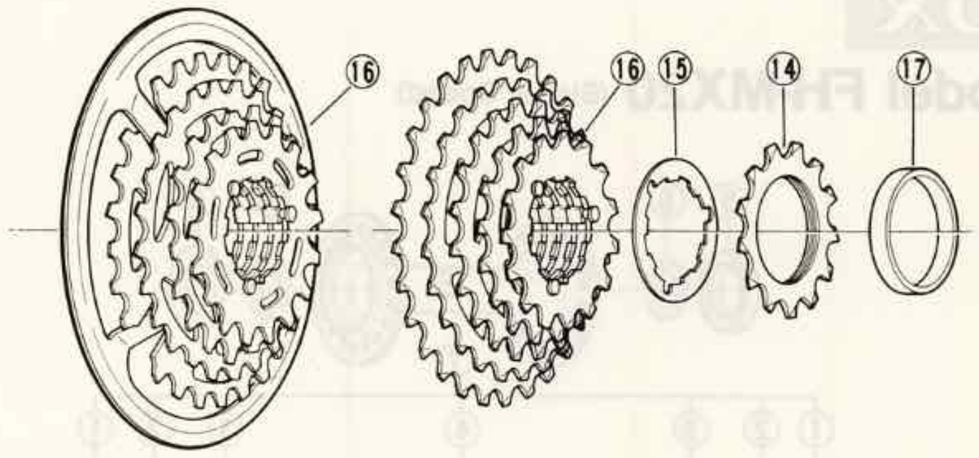
		Over Lock Nut Dimension	Amount of Dish
Front		3.66" (93 mm.)	
Rear (Except Cassette Gears)	6-speed	4.88" (124 mm)	0.21" (5.3 mm)
	5-speed	4.88" (124 mm)	0.21" (5.3 mm)

Thread Sprocket 13T.~18T.
Spline Sprocket 13T.~28T., 30T., 32T., 34T.
Spoke Holes: 28H, 36H
Type: Uni Balance Mechanism,
Uniglide Teeth



Model FH-6A10





ITEM NO.	PART NO.	DESCRIPTION
1	3-363 9009-1	Complete Hub Axle 170mm(6-11/16") Over Lock Nut Dimension: 124mm(4-7/8")
2	3-363 9201	Freewheel Small Parts (Pawl:Black)
3	220 1501	Flange Nut
4	220 1601	Long Nut 9.6mm(3/8")
5	256 0501	Right Hand Cone B.C.3/8"x9.3mm(3/8")
6	220 0310	Hub Axle 170mm(6-11/16")
7	220 0820-1	Left Hand Cone B.C.3/8"x15mm(19/32")
8	321 3800	Lock Nut 3mm(1/8")
9	363 1900	Right Hand Dust Cap
10	000 0131	Steel Ball (1/4") 18pcs.
11	363 1300	Body Fixing Race
12	363 1200	Outer Body
13	256 0600	Left Hand Dust Cap

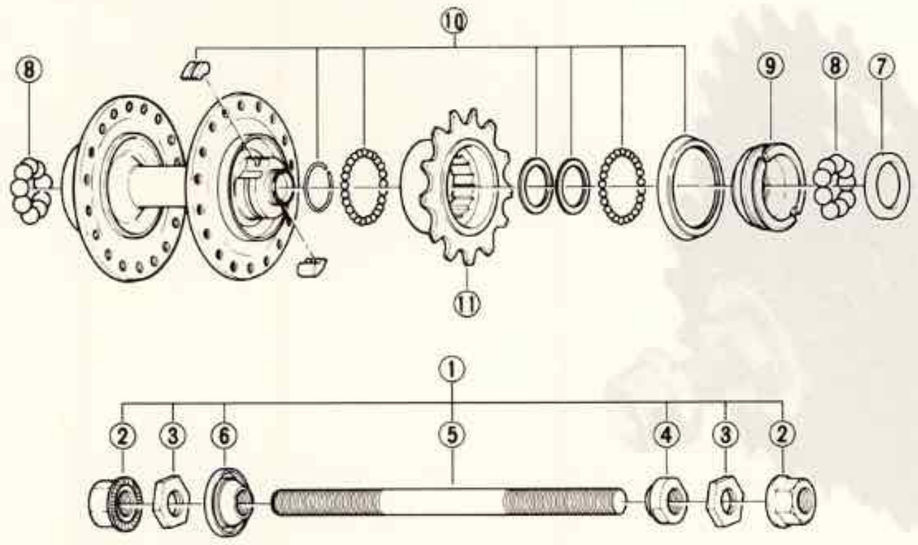
ITEM NO.	PART NO.	DESCRIPTION
14	357 1312	Sprocket Wheel 13T
	357 1412	Sprocket Wheel 14T
	357 1512	Sprocket Wheel 15T
	357 1612	Sprocket Wheel 16T
15	363 1700	Spacer
16	3-116 9501	Cassette Gear for 5-Speed (17-19-21-24T)
	3-116 9502	Cassette Gear for 5-Speed (17-20-24-28T)
	3-116 9503	Cassette Gear w/Protector for 5-Speed (17-20-24-28T)
	3-116 9601	Cassette Gear for 6-Speed (15-17-19-23-28T)
	3-116 9602	Cassette Gear for 6-Speed (15-18-21-25-30T)
	3-116 9603	Cassette Gear for 6-Speed (16-18-20-23-28T)
	3-116 9604	Cassette Gear for 6-Speed (16-18-20-25-30T)
17	363 1800	Cover (5-Speed Only)

8311-348D

Model FH-MX15 Semi-Large Flange
Model FH-MX20 Single Gear

SHIMANO SX

Model FH-MX15 (Semi-Large Flange)

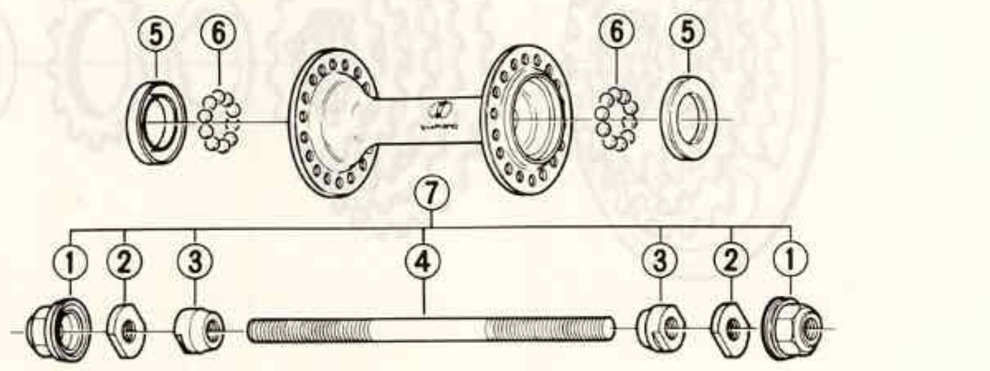


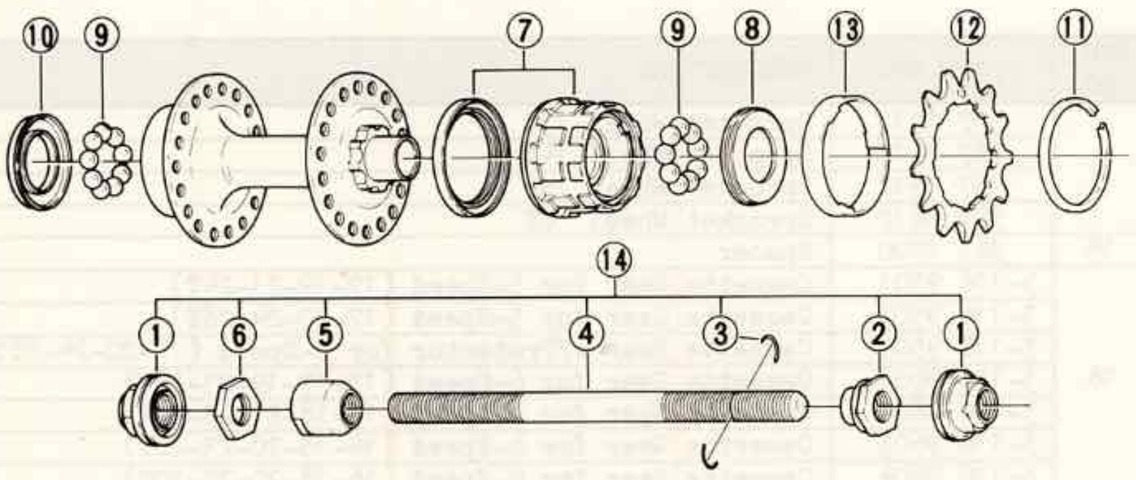
ITEM NO.	PART NO.	DESCRIPTION
1	3-374 9001	Complete Hub Axle 150mm(5-29/32")
2	220 1501	Flange Nut
3	321 3800	Lock Nut 3mm
4	256 0500	Right Hand Cone 3/8"x9.3mm
5	374 0700	Hub Axle 150mm(5-29/32")
6	3-256 9002	Left Hand Cone w/Dust Cap 3/8"x11.5mm
7	256 0600	Right Hand Dust Cap
8	000 0131	Steel Ball (1/4") 18pcs.
9	256 0400	Body Fixing Race
10	3-374 9003	Freewheel Repair Parts
11	374 3130	Outer Body w/13T Sprocket

8211-408A

SHIMANO DX

Model FH-MX20 (Single Speed)





■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION
1	3-373 9005	Hub Nut
2	210 0810	Lock Nut
3	210 0400-1	Cone 10.5mm
4	210 0313	Hub Axle 133mm(5-1/4")
5	231 1300	Dust Cap
6	000 0121	Steel Ball (3/16") 20pcs.
7	3-373 9006	Complete Hub Axle 133mm(5-1/4")

■ Rear Hub

ITEM NO.	PART NO.	DESCRIPTION
1	3-373 9002	Hub Nut
2	373 0700	Right Hand Cone 3/8"x11.3mm
3	296 0500	Lock Ring
4	373 1000	Hub Axle 154mm(6-3/32")
5	220 0810-3	Left Hand Cone 3/8"x16.5mm
6	220 0520	Lock Nut 3mm
7	3-373 9003	Complete Freewheel Body
8	373 0600	Right Hand Dust Cap
9	———	Steel Ball (1/4") 18pcs.
10	373 0500	Left Hand Dust Cap
11	373 1100	Snap Ring
12	119 1405	Sprocket Wheel 14T
	119 1505	Sprocket Wheel 15T
	119 1605	Sprocket Wheel 16T
	119 1705	Sprocket Wheel 17T
	119 1805	Sprocket Wheel 18T
13	373 1300	Sprocket Spacer B (Width: 7.2mm)
14	3-373 9001	Complate Hub Axle 154mm(6-3/32")

8109-410A

COASTER BRAKE D-Type

Model CB-D110

Three Speed Hub

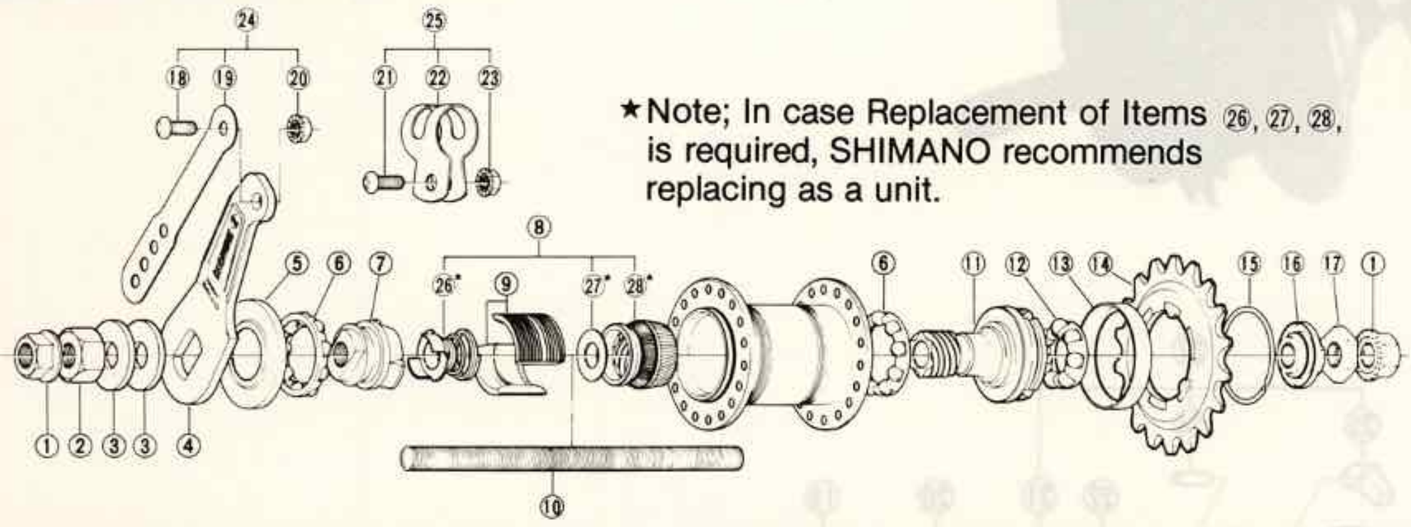
Model SG-3S20

COASTER BRAKE D-TYPE

Model CB-D110

SPECIFICATIONS

Weight: 30.0 oz. (850 g.)
Teeth: 14T, 15T, 16T, 18T, 19T, 20T
Over Lock Nut Dimension: 4.29″ (109mm.)
Chain Size: 1/2″ x 1/8″ Chain
Spoke Holes: 20H, 24H, 28H, 36H
Black Finish Available



★Note; In case Replacement of Items ㉖, ㉗, ㉘, is required, SHIMANO recommends replacing as a unit.



ITEM NO.	PART NO.	DESCRIPTION
1	282 3000	Flange Nut
2	283 0900-1	Arm Nut
3	283 1600-1	Arm Washer
4	283 1400-1	Brake Arm
5	283 1300-1	Left Hand Dust Cap
6	3-282 9005	Ball Retainer C
7	283 1100	Brake Cone
8	3-283 9801	Clutch Cone Unit
9	3-283 9901	Brake Shoe
10	283 0502	Hub Axle 150mm(5-29/32")
	283 0501	Hub Axle 163mm(6-13/32")
	283 0503	Hub Axle 170mm(6-11/16")
11	283 0700-1	Driver
12	3-321 9022	Ball Retainer A
13	282 2000	Right Hand Dust Cap
14	321 0300	Sprocket Wheel 14T
	321 0311	Sprocket Wheel 15T (Flat Gear)
	321 0320	Sprocket Wheel 16T
	321 0330	Sprocket Wheel 17T

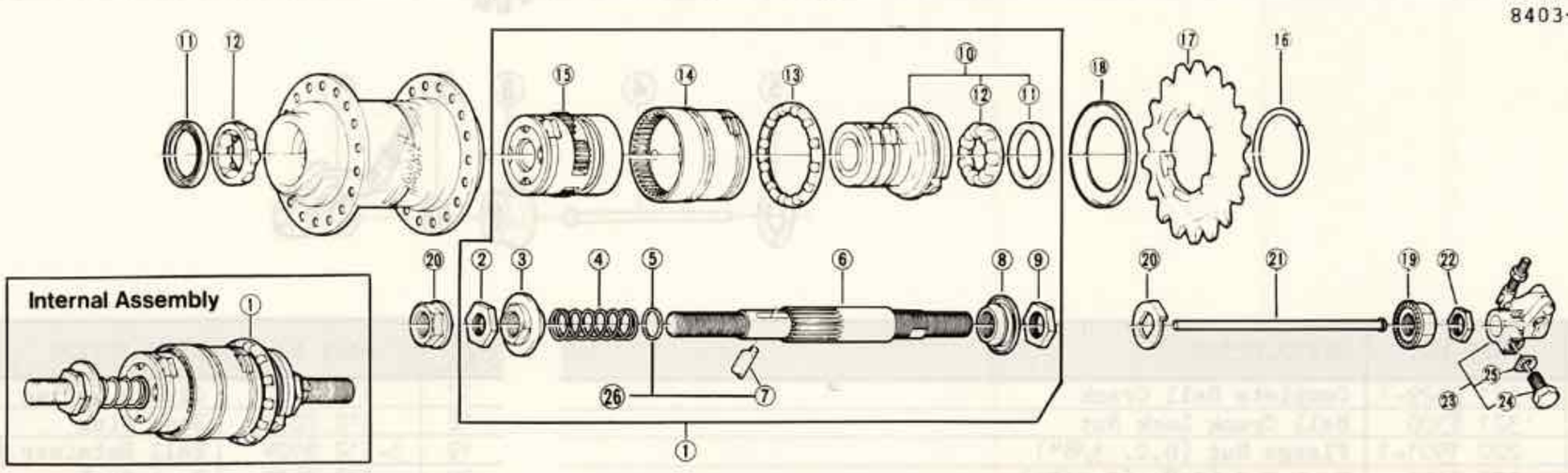
ITEM NO.	PART NO.	DESCRIPTION
14	322 0340	Sprocket Wheel 18T
	322 0350	Sprocket Wheel 19T
	322 0360	Sprocket Wheel 20T
15	321 2000	Snap Ring
16	3-281 9013	Cone w/Dust Cap
17	281 2100	Lock Nut
18	333 0900-1	Clip Screw M5x14mm(9/16")
19	282 2804-1	Brake Arm Clip (Flat Type)
20	282 2901	Clip Nut (M5)
21	333 0700-1	Clip Screw M6x14mm(9/16")
22	282 2810	Brake Arm Clip (Band Type) 16mm(5/8")
	282 2807	Brake Arm Clip (Band Type) 19mm(3/4")
23	282 2900	Clip Nut (M6)
24	3-283 9007	Brake Arm Clip Assembly (Flat Type)
25	3-283 9036	Brake Arm Clip Assembly (Band Type) 16mm(5/8")
	3-283 9009	Brake Arm Clip Assembly (Band Type) 19mm(3/4")
26	3-283 9033	Complete Clutch Spring
27	283 1500	Clutch Washer
28	283 1200	Clutch Cone

8403-361E

THREE SPEED HUB

Model SG-3S20

(Cartridge Type)



ITEM NO.	PART NO.	DESCRIPTION
1	3-322 9902	Internal Assembly for Axle Length 153mm(6-1/32")
2	220 0510-1	Lock Nut 4.5mm
3	3-322 9025-1	Left Hand Cone w/Dust Cap B
4	321 3000	Clutch Spring
5	333 3400	Washer for Clutch Spring
6	322 5200	Hub Axle 153mm(6-1/32")
7	321 2501	Sliding Key BR
8	3-321 9024-1	Right Hand Cone w/Dust Cap B
9	321 3900	Lock Nut B 3mm
10	3-322 9009-2	Complete Driver
11	321 2700	Dust Cap A
12	3-321 9022	Ball Retainer (1/4")
13	3-321 9081	Ball Retainer (3/16")
14	3-322 9014	Complete Ratchet A
15	3-322 9018	Complete Ratchet B
16	321 2000	Snap Ring C
17	321 0300	Sprocket Wheel 14T

ITEM NO.	PART NO.	DESCRIPTION
17	321 0310	Sprocket Wheel 15T
	322 0320	Sprocket Wheel 16T
	321 0330	Sprocket Wheel 17T
	322 0340	Sprocket Wheel 18T
	322 0350	Sprocket Wheel 19T
	322 0360	Sprocket Wheel 20T
	321 0370	Sprocket Wheel 21T
18	321 2900-1	Dust Cap
19	220 1501-1	Flange Nut
20	321 6400	Non-Tern Washer
21	321 7300-1	Push Rod 108.4mm(4-9/32") Black
22	321 8300	Bell Crank Lock Nut
23	3-321 9027	Bell Crank Assembly
24	000 1152	Bell Crank Fixing Bolt
25	334 5800	Non-Turn Washer
26	3-322 9801	Sliding Key BR & Clutch Spring Washer

8303-582

1.2 Change Hub

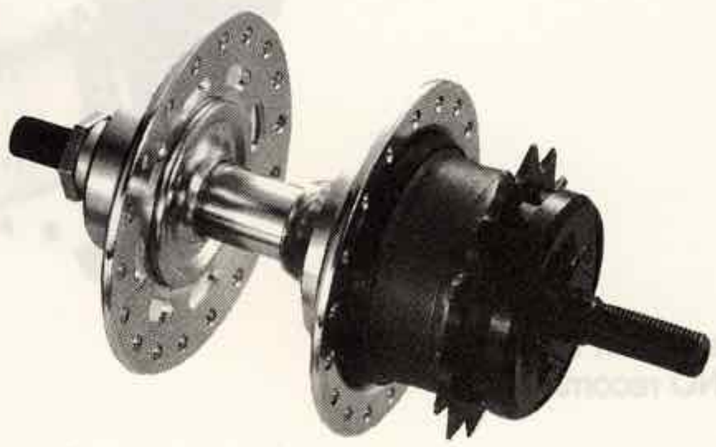
Model SG-2S10

Shimano 1 • 2 Change Hub

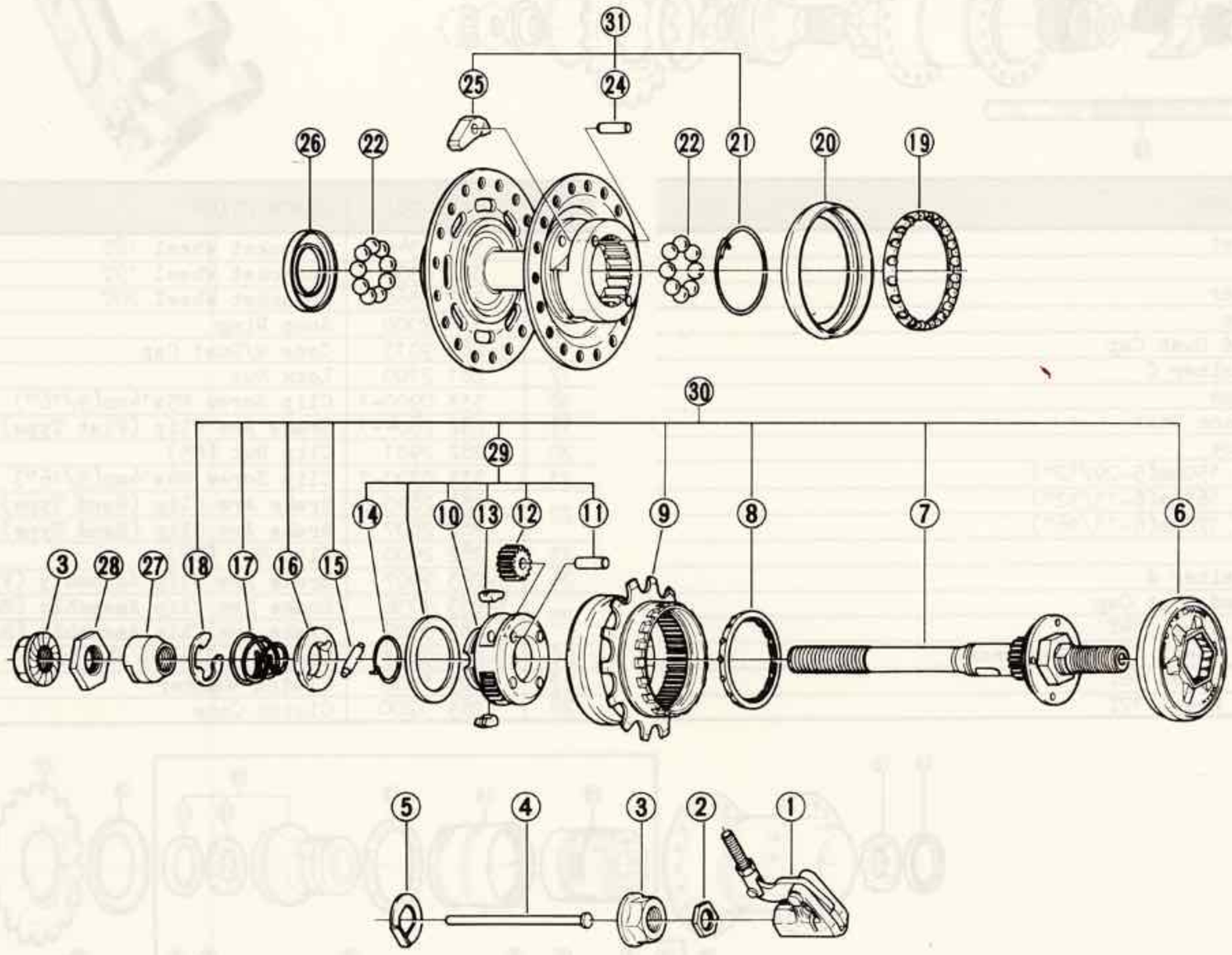
Model SG-2S10

SPECIFICATIONS

Weight: 26oz. (736g.)
Sprocket: 1/2" × 1/8" Chain
Spoke Holes: 28H, 36H
Spoke Size: #14 (2.6 mm.)
Spare Teeth: 14T, 15T
Gear Ratio: 1/0.727
Use: 1 • 2 Change Shifting Lever



IH



ITEM NO.	PART NO.	DESCRIPTION
1	3-321 9029-1	Complete Bell Crank
2	321 8300	Bell Crank Lock Nut
3	220 1501-1	Flange Nut (B.C. 3/8")
4	312 2101	Push Rod 63.8mm(2-1/2")
5	321 6400	Non-Turn Washer
6	312 0701	Cover
7	3-312 9017	Hub Axle 151.7mm(6") w/Right Hand Cone
8	3-312 9003	Ball Retainer B (5/32") 16pcs.
9	3-312 9018	Ring Gear w/14T Sprocket
10	312 0500	Pinion Frame
11	312 1500	Pinion Pin
12	312 1000	Planet Pinion
13	312 1200	Pawl H
14	312 1800	Pawl Spring H
15	312 1300	Sliding Key
16	312 0600	Clutch

ITEM NO.	PART NO.	DESCRIPTION
17	312 1400	Clutch Spring
18	312 2200	Stop Ring
19	3-312 9004	Ball Retainer A (5/32") 20pcs.
20	312 3400	Dust Seal
21	312 1700	Pawl Spring G
22	000 0131	Steel Ball (1/4")
24	312 1600	Pawl Pin
25	312 1100	Pawl G
26	256 0600	Left Hand Dust Cap
27	256 0900	Left Hand Cone (B.C. 3/8"x13)
28	321 3800	Left Hand Lock Nut
29	3-312 9010	Pinion Frame Assembly
30	3-312 9021	Driving Section Assembly
31	3-312 9020	Pawl G Unit

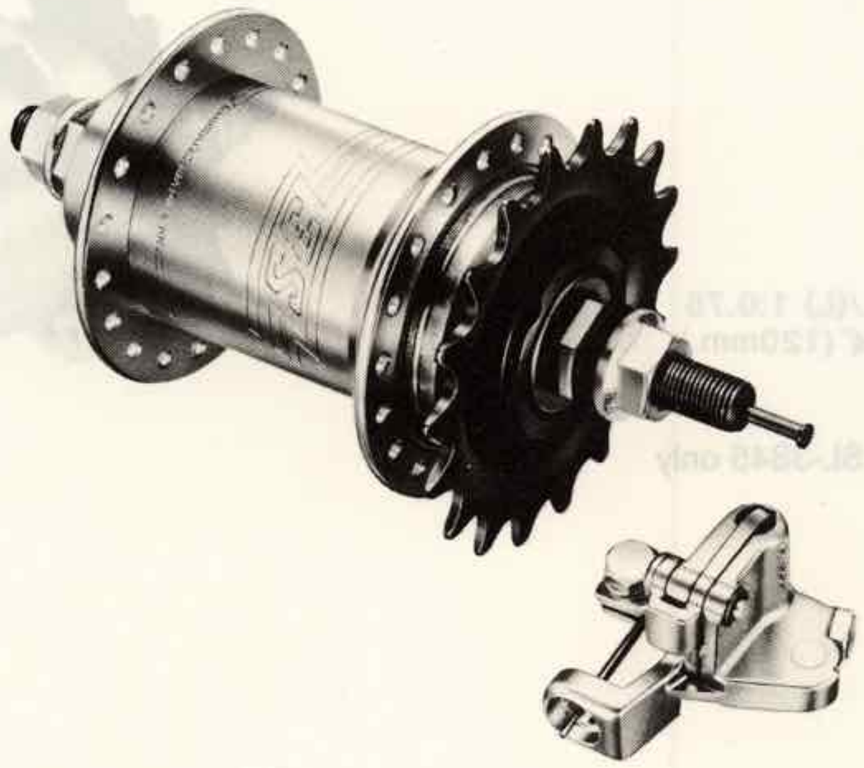
8010-401B

E

Model SG-3S23

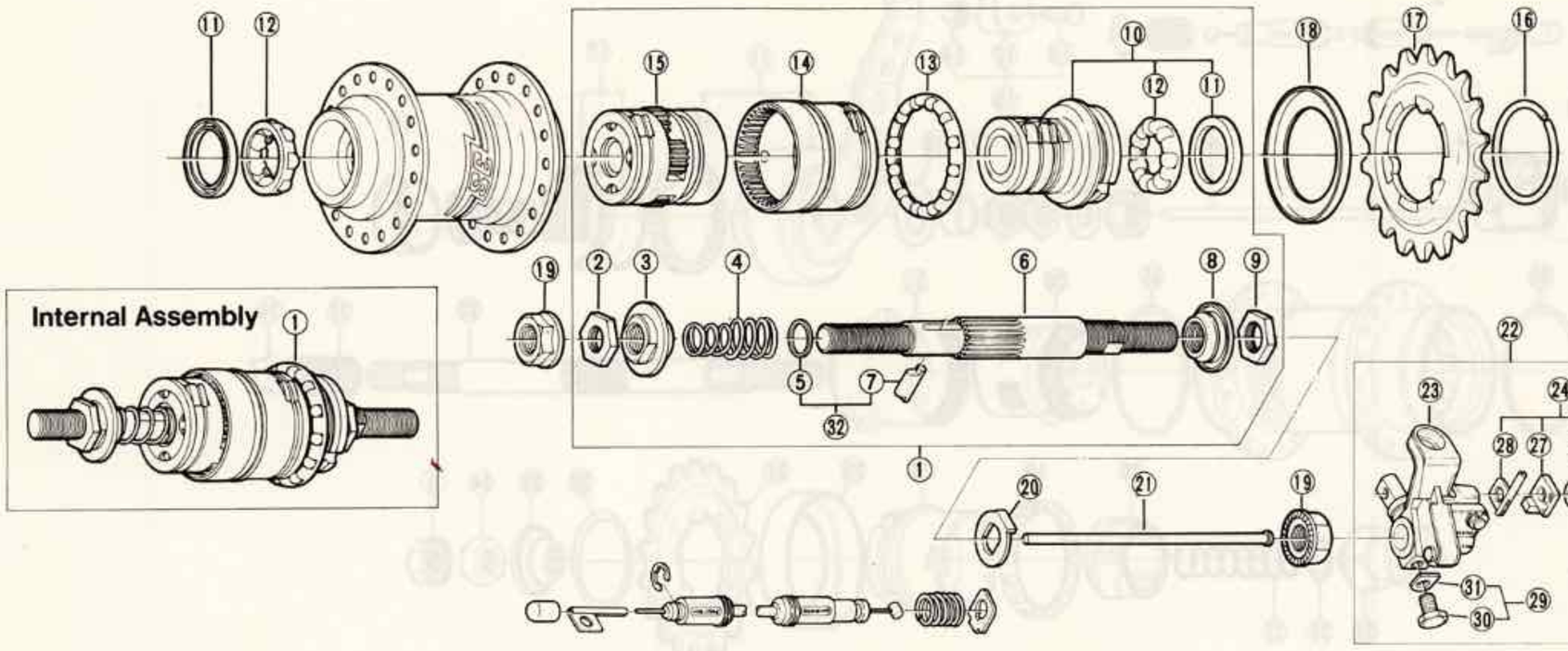
Three Speed Hub with Positron Bell Crank

Model SG-3S23



SPECIFICATIONS

Weight • 1,100g.
Axle Length • 6-1/32″ (153mm.)
6-13/16″ (173mm.)
Teeth • 14T. ~ 21T.
Gear Ratio • (H) 1:1.33/(N) 1:1/(L)1:0.75
Over Lock Nut Dimension
• 4-3/8″ (110.9mm.)
Sprocket • 1/2″ × 1/8″ Chain or 1/2″ × 3/32″ Chain
Spoke Holes • 28H, 36H
Use • With Shifting Lever Model SL-3S45 only



ITEM NO.	PART NO.	DESCRIPTION
1	3-322 9902	Internal Assembly for Axle Length 153mm(6-1/32")
	3-322 9922	Internal Assembly for Axle Length 173mm(6-13/16")
2	220 0510-1	Lock Nut 4.5mm
3	3-322 9025-1	Left Hand Cone w/Dust Cap B
4	321 3000	Clutch Spring
5	333 3400	Washer for Clutch Spring
6	322 5200	Hub Axle 153mm(6-1/32")
	322 5000	Hub Axle 173mm(6-13/16")
7	321 2501	Sliding Key BR
8	3-321 9024-1	Right Hand Cone w/Dust Cap B
9	321 3900	Lock Nut B 3mm
10	3-322 9009-2	Complete Driver
11	321 2700	Dust Cap A
12	3-321 9022	Ball Retainer (1/4")
13	3-321 9081	Ball Retainer (3/16")
14	3-322 9014	Complete Ratchet A
15	3-322 9018	Complete Ratchet B
16	321 2000	Snap Ring C
17	321 0300	Sprocket Wheel 14T (2.3mm)
	321 0310	Sprocket Wheel 15T (2.3mm)
	322 0320	Sprocket Wheel 16T (2.9mm)
	321 0330	Sprocket Wheel 17T (2.3mm)
	322 0340	Sprocket Wheel 18T (2.9mm)
	322 0350	Sprocket Wheel 19T (2.9mm)
	322 0360	Sprocket Wheel 20T (2.9mm)
	321 0370	Sprocket Wheel 21T (2.3mm)
18	321 2900	Dust Cap
19	220 1501-1	Flange Nut
20	321 6400	Non-Turn Washer
21	321 7300-1	Push Rod 108.4mm(4-9/32") for 153mm Axle
	321 7500-1	Push Rod 113.4mm(4-15/32") for 173mm Axle
22	3-331 9901	Bell Crank Assembly (Including Stop Ring)
23	3-331 9804	Bell Crank Body
24	3-331 9801	Cable Fixing Bolt Unit
25	533 1300	Cable Fixing Bolt
26	000 3460	Washer
27	333 5700	Cable Fixing Plate
28	533 1200-1	Inner Sleeve
29	3-331 9802	Bell Crank Fixing Bolt & Washer
30	000 1152	Bell Crank Fixing Bolt (M6x13)
31	334 5800	Non-Turn Washer for Bell Crank Fixing Bolt
32	3-322 9801	Sliding Key BR & Clutch Spring Washer

8306-584B

Three Speed Hub with Coaster Brake.

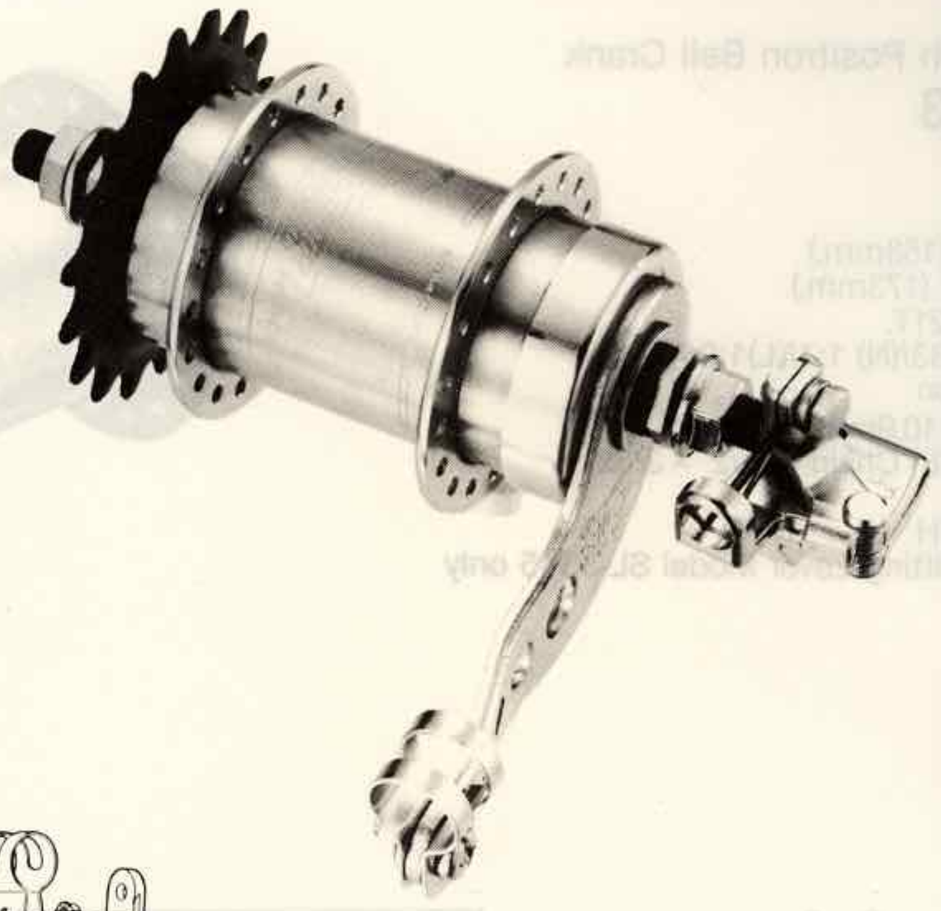
Model SG-3C23

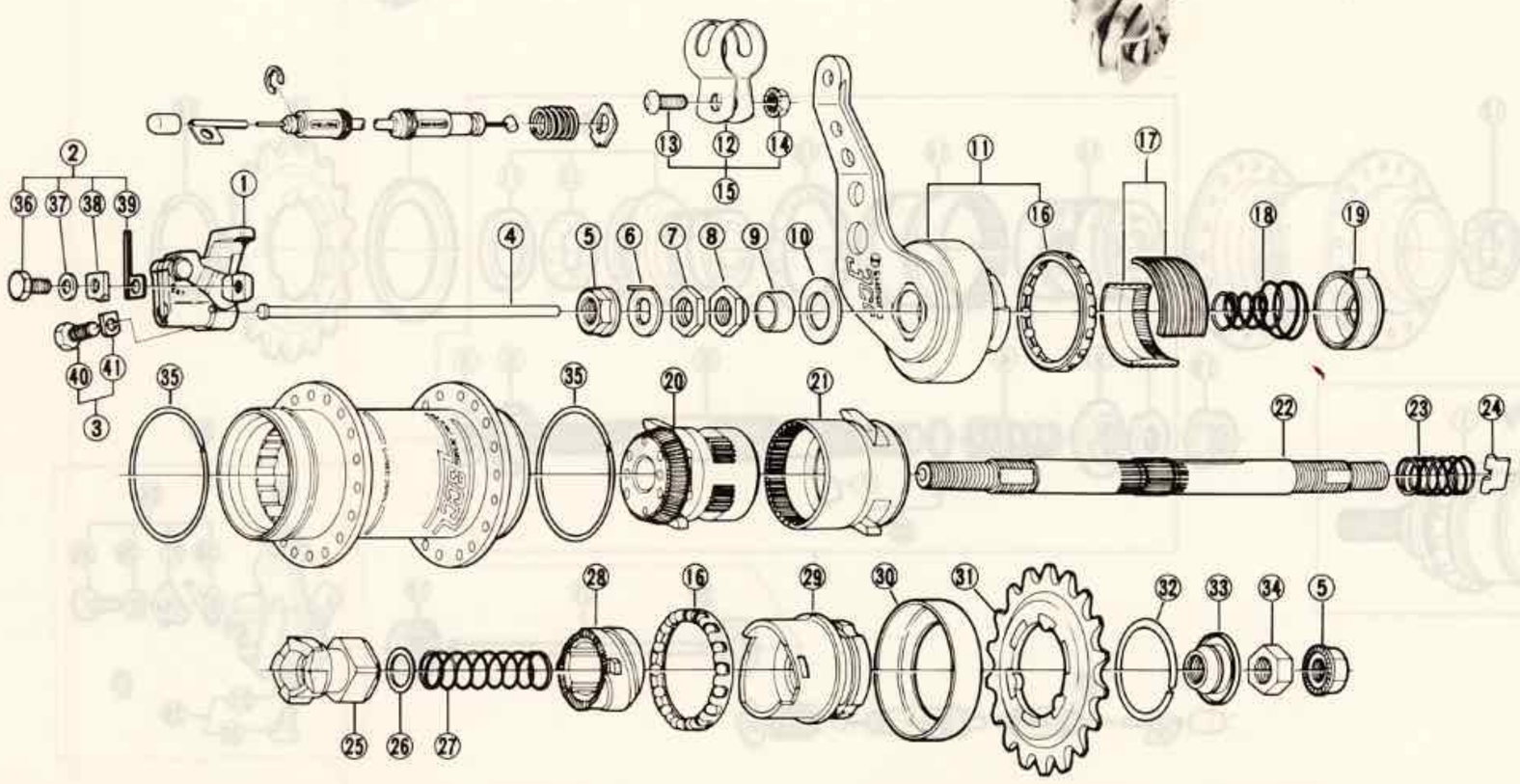
NEW POSITRON PPS SYSTEM

Model SG-3C23

SPECIFICATIONS

Weight: 44.2 oz. (1,253 g.)
Teeth: 14T.~21T.
Gear Ratio: (H) 1:1.33/(N) 1:1/(L) 1:0.75
Over Lock Nut Dimension: 4-3/4" (120mm.)
Sprocket: 1/2" x 1/8" Chain
Spoke Holes: 28H, 36H
Use: With Shifting Lever Model SL-3S45 only





ITEM NO.	PART NO.	DESCRIPTION
1	3-331 9804	Bell Crank Body
2	3-331 9801	Cable Fixing Bolt Unit
3	3-331 9802	Bell Crank Fixing Bolt & Washer
4	321 7300-1	Push Rod 108.4mm(4-9/32")
5	220 1501-1	Flange Nut
6	321 6400	Non-Turn Washer
7	321 3900	Lock Nut B
8	331 0100	Stop Nut
9	334 0400-1	Sleeve
10	334 1600	Brake Arm Washer
11	3-334 9007-1	Brake Arm Assembly
12	282 2810	Brake Arm Clip (Band Type) 16mm(5/8")
	282 2807	Brake Arm Clip (Band Type) 19mm(3/4")
13	333 0700-1	Clip Screw M6x14mm(9/16")
14	282 2900	Clip Nut (M6)
15	3-283 9036	Brake Arm Clip Assembly (Band Type) 16mm(5/8")
	3-283 9009	Brake Arm Clip Assembly (Band Type) 19mm(3/4")
16	3-321 9023	Ball Retainer B
17	3-334 9008	Brake Shoe Assembly
18	334 0800	Return Spring
19	3-333 9033	Spring Guide & Slide Spring
20	3-334 9009-1	Carrier Assembly
21	3-334 9010	Ring Gear Assembly
22	334 1500-1	Hub Axle 168mm(6-5/8")
23	332 3400	Clutch Spring B

ITEM NO.	PART NO.	DESCRIPTION
24	333 3300	Axle Key
25	334 1200-1	Sliding Clutch
26	333 3400	Clutch Washer
27	333 3500	Clutch Spring A
28	334 1300	Lead
29	3-334 9015	Driver w/Ball Retainer & Dust Cap
30	322 0400	Seal Cap
31	321 0300	Sprocket Wheel 14T (2.3mm)
	321 0310	Sprocket Wheel 15T (2.3mm)
	322 0320	Sprocket Wheel 16T (2.9mm)
	321 0330	Sprocket Wheel 17T (2.3mm)
	322 0340	Sprocket Wheel 18T (2.9mm)
	322 0350	Sprocket Wheel 19T (2.9mm)
	322 0360	Sprocket Wheel 20T (2.9mm)
	321 0370	Sprocket Wheel 21T (2.3mm)
32	321 2000	Snap Ring
33	3-321 9024	Right Hand Cone
34	321 4000	Right Hand Lock Nut
35	322 0410	Seal Spring
36	533 1300	Cable Fixing Bolt
37	000 3460	Washer
38	333 5700	Cable Fixing Plate
39	533 1200-1	Inner Sleeve
40	000 1151	Bell Crank Fixing Bolt
41	334 5800	Non-Turn Washer

8303-517B

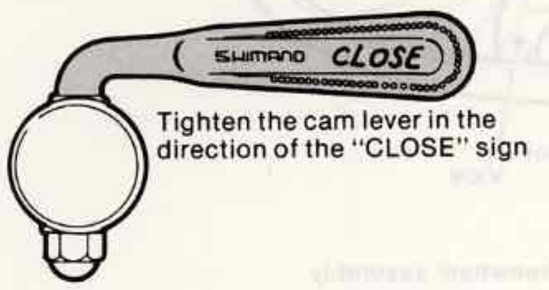
Hub Assembly Note & Tools.

Tightening the Quick Release Mechanism

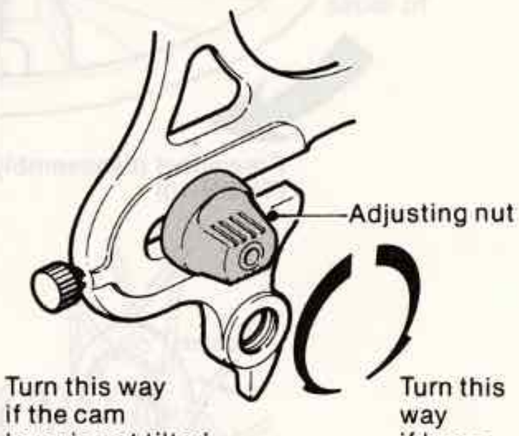
Adjust the adjusting nut and fix the wheel to the frame by tightening the cam lever in the direction of the "CLOSE" sign. Continue to tighten firmly until full limit is reached.

Tightening torque: 90~120kgfcm (80—105in. lbs.)

If the cam lever is considered to be insufficiently tightened, turn the adjusting nut clockwise and retighten the cam lever.
Conversely, if the cam lever is at an any due to excessive tightening, turn the adjusting nut counter-clockwise and retighten the cam lever.



Tighten the cam lever in the direction of the "CLOSE" sign

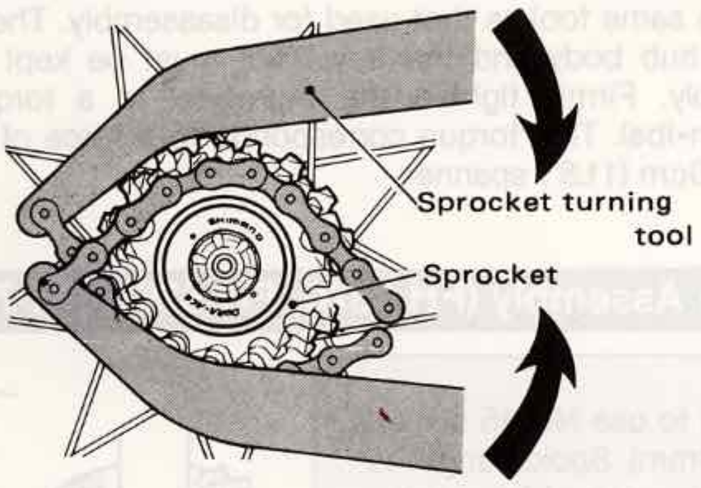


Turn this way if the cam lever is not tilted.

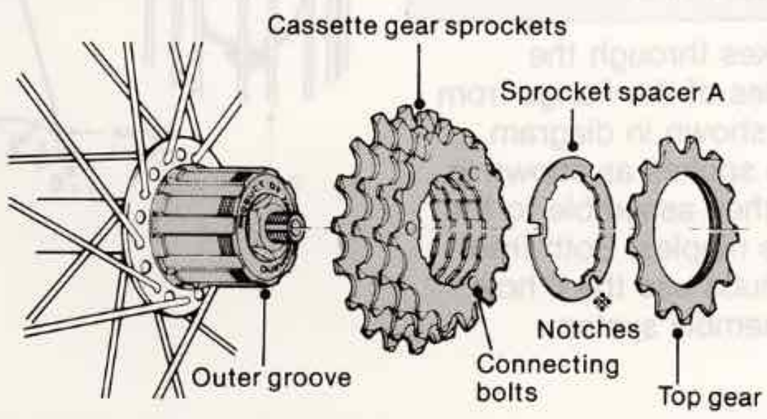
Turn this way if loose.

Replacing Freewheel Section

1. First, remove top gear by using two sprocket turning tools and then remove the other gears from the freewheel selection.



2. Assemble the cassette gear sprockets and align with the outer grooves. Next, position sprocket spacer A and then screw on the top gear (smallest sprocket).

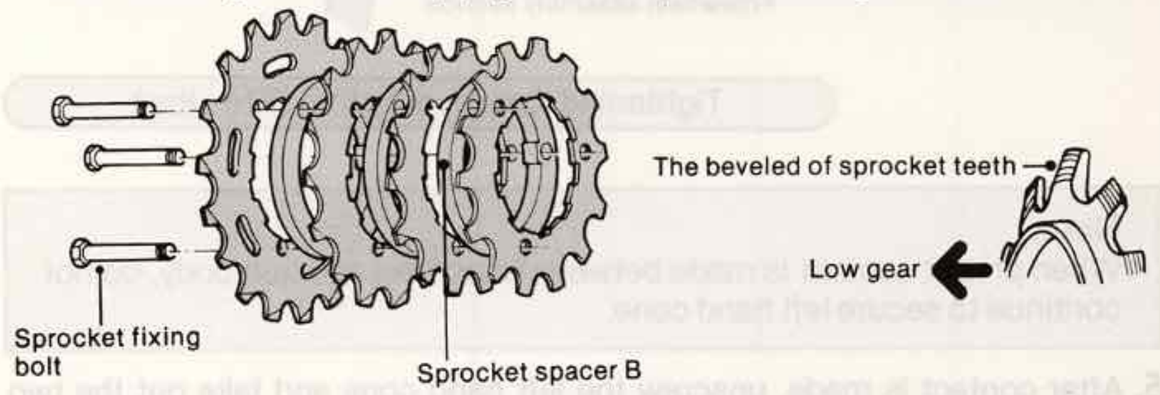


Note:
When assembling sprocket spacer A, the 3 notches should be aligned with the 3 sprocket fixing bolt holes.

3. Assemble the tire to the wheel rim and set the wheel to the center of the frame. Next step, fix the wheel to the frame by tightening the quick release cam lever.

Replacing Sprockets

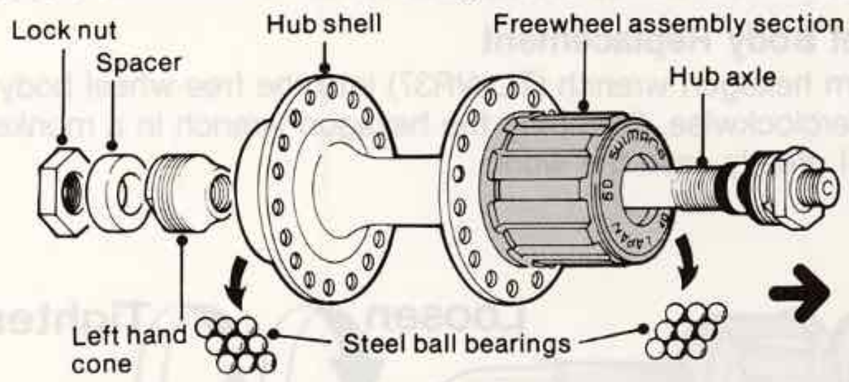
- To change the sprockets first remove the top gear (smallest sprocket) by means of the 2 sprocket turning tools. Then the other sprockets can be removed easily.
- To change the cassette sprocket combinations remove the 3 sprocket fixing bolts. By utilizing the outergrooves, sprocket changes will be easier. For correct positioning of sprockets, the bevel of sprocket teeth should face the low gear. Final step, tighten the sprocket fixing bolt with due care.



Freewheel Body Operation

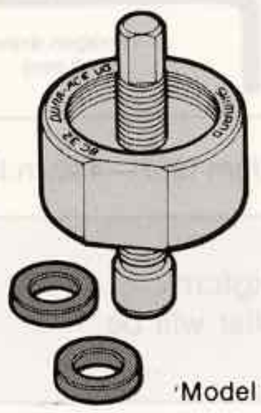
Removal

1. Remove the left side (opposite side to freewheel) lock nut and left hand cone. Then remove the hub axle from the freewheel side. At this time, take care not to lose the 9 steel ball bearings from each side of the axle.

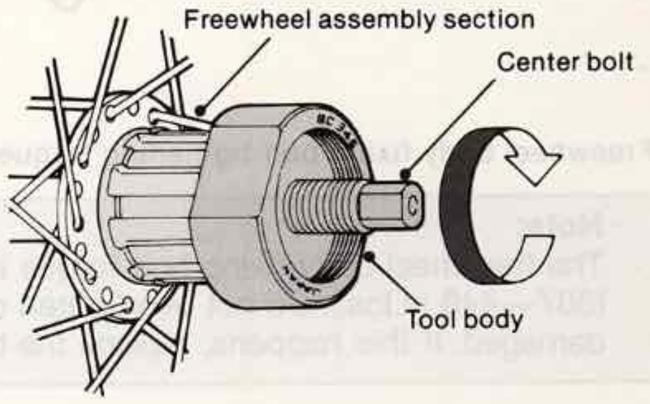


□In the case of all freehub except Dura-Ace EX & New Shimano 600 EX

2. Screw the tool onto the freewheel assembly section from the direction of the face stamped "B.C. 34.6". Then remove the freewheel assembly section by turning the tool's center bolt in a clockwise direction.

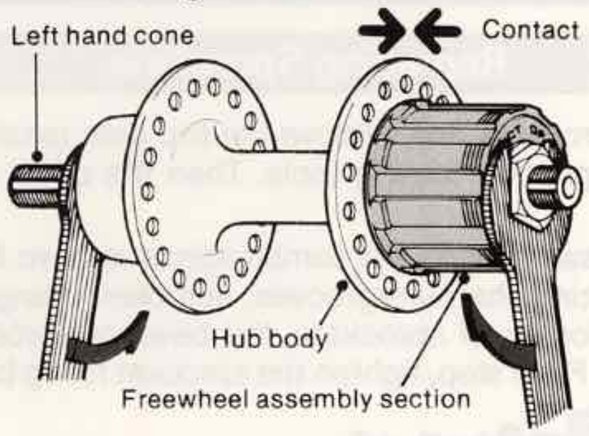


'Model TL-FH30



3. When reassembling, after changing the freewheel assembly section, insert the freewheel section to the hub by aligning the protrusions. Place the tool washer on the hub axle. And then thread the hub axle through the hub body from the freewheel side. Next, place the other tool washer on the hub axle and screw the left hand cone on to the hub axle.

4. Tighten the left hand cone until contact is made between freewheel and hub body as seen in the diagram.



Tightening torque: 80kgfcm (70 in. lbs.)

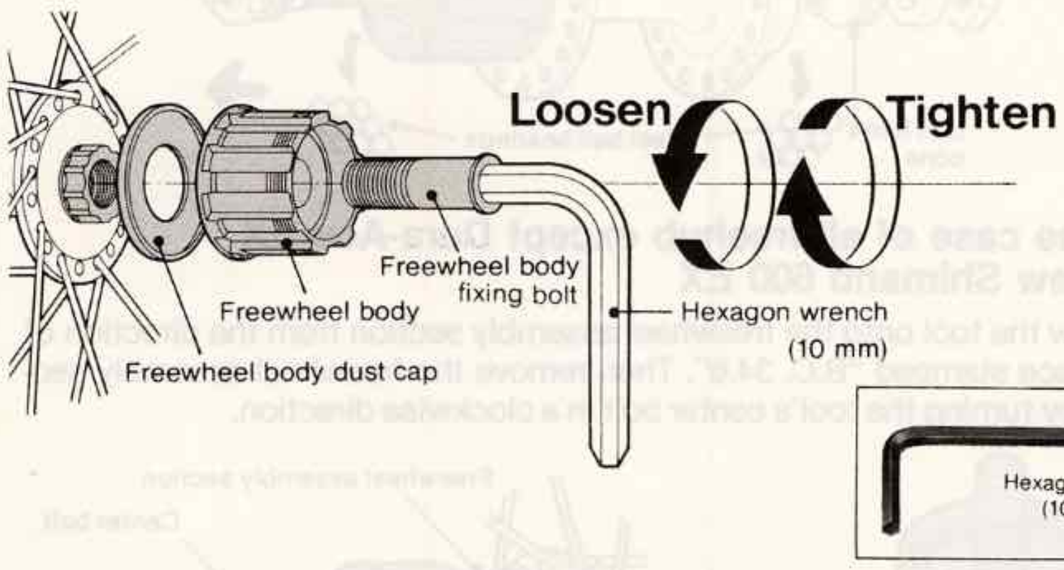
Note:
When proper contact is made between freewheel and hub body, do not continue to secure left hand cone.

5. After contact is made, unscrew the left hand cone and take out the two tool washers. And then assemble the hub axle. The assembly of the hub axle is the reverse of the disassembly procedure. The hub axle should be assembled so that there is no play on the hub body and smooth rotation is possible.

□In the case of NEW Shimano 600EX

Freewheel Body Replacement

Put a 10mm hexagon wrench (TL-WR37) into the free-wheel body, and turn counterclockwise. Clamping the hexagon wrench in a monkey wrench will greatly ease the work.

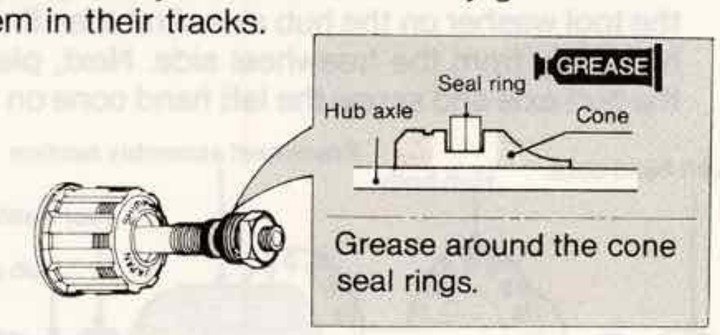


Freewheel body fixing bolt tightening torque: 350—500 kgfcm (307—440 in.lbs.)

Note:
The freewheel body fixing bolt torque is 350—500 kgfcm (307—440 in.lbs.). Do not overtighten or the bolt collar will be damaged. If this happens, replace the bolt.

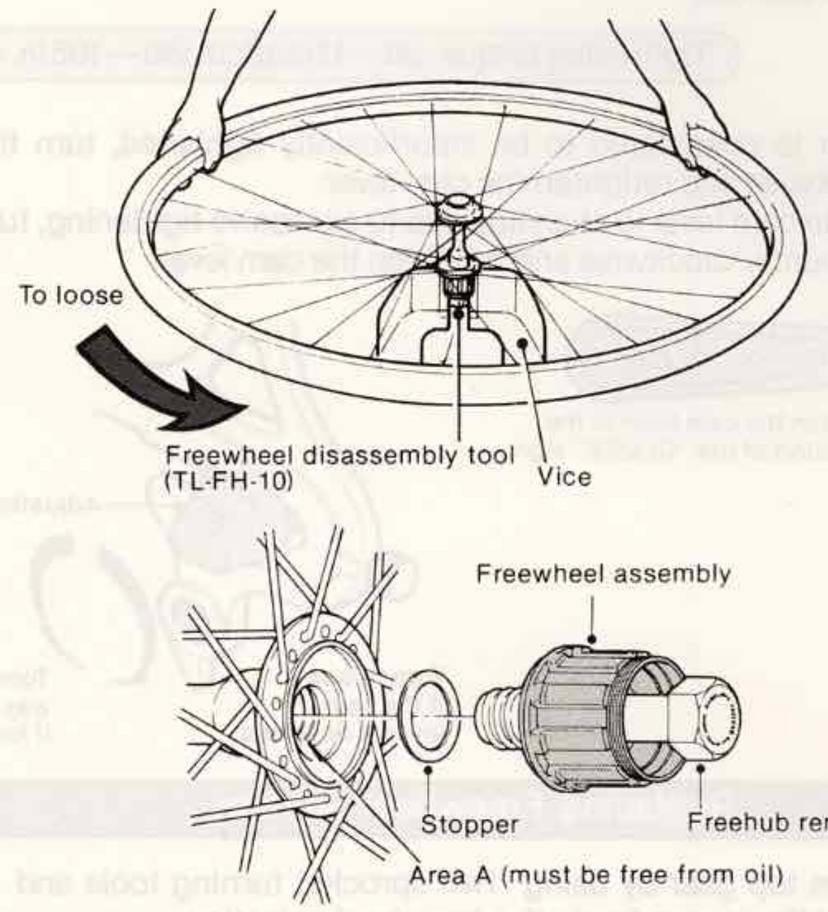
Freewheel Body and Hub Axle Assembly

Assembly is the reverse of disassembly. Be sure to liberally grease the ball bearings and replace them in their tracks.



□In the case of Dura-Ace EX

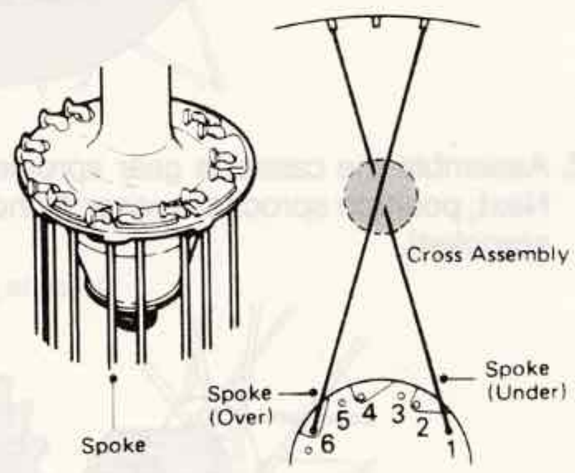
(1) Remove the freewheel from the hub body using the DURA-ACE EX freewheel disassembly tool (TL-FH10). Clamp the removal tool in a vice and insert the freewheel assembly of the rim-assembled freehub into the removal tool. Turn the rim counterclockwise to extract the free portion from the hub shell.



(2) Replace the free wheel and mount it on the hub body. For assembly, use the same tool as that used for disassembly. The threads of area A of the hub body and the freewheel must be kept free of oil during assembly. Firmly tighten the freewheel to a torque of 1500kgfcm (1300 in•lbs). This torque corresponds to a force of 50kg (110 lbs.) using a 30cm (11.8″) spanner.

Rim Assembly (FH-7370, FH-6361, FH-7250/7260)

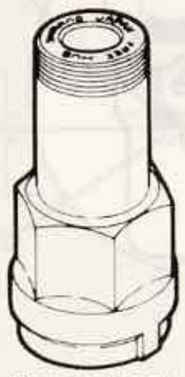
Note:
Be sure to use No. 15 spokes (Dia. 1.8mm). Spoke length is the same as used for a conventional small flanged hub. (Use the 302mm spoke for the 27″ × 32H rim)



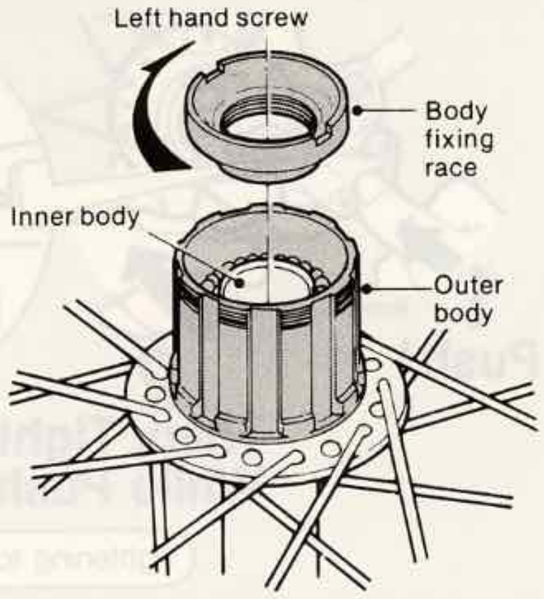
(1) Pass spokes through the spoke holes of the flange from inside as shown in diagram.
(2) Cross the spokes as shown in diagram, then assemble to the rim by the nipples. Both front and rear hubs use the 6 hole spoke assembly system.

Disassembly and Asembly of Freewheel Body

- When disassembling the freewheel, insert the inner body into the hub shell, set the removal tool (TL-FH40) at the notch of the body fixing race and turn clockwise to disassemble. When assembling, reverse the sequence of disassembling.



Removal tool
(TL-FH40)



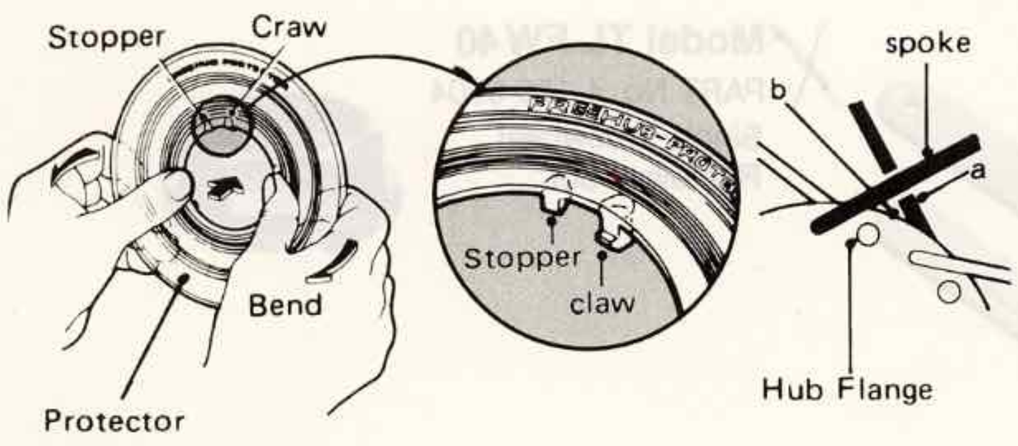
Tightening torque: 350~450kgfcm (300~390 in. lbs.)

Chain Protector Assembly

Protector (5.4″) for 28 Hole Hub

(1) Press the inner rim of the protector by thumbs to make the protector bend inwards as in diagram 1.
(2) Maintaining No. 1 position, push the "claw" portion onto the "a" section of the hub flange. At this time, the protruding "stopper" should be in the "b" position. (Diagram 2)
(3) Release the protector in order for it to return to its original shape. When removing the protector, bend it in the same way as No. 1.

Diagram 1 **Diagram 2**



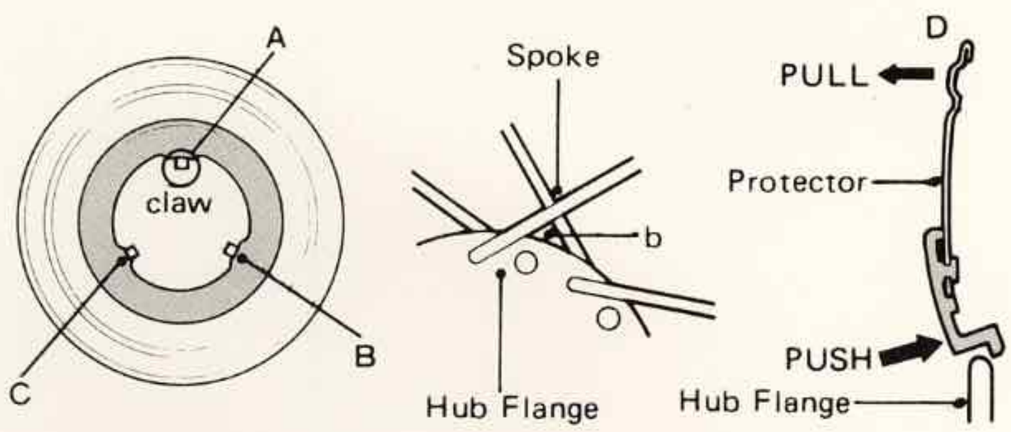
Protector (5.4″) for 36 Hole Hub

(1) Push the "A" section (with "claw") by thumb and then press it onto the hub flange. Follow in the same way with "B" and "C" sections, in that order. The "claw" should be pushed into "b" position. (Diagram 3, 4).
(2) When removing, push the "A" section and pull the protector's outer rim ("D" section) at the same time to release. (Diagram 5)

Protector (7-1/2″, 5.4″) for 36 Hole Hub

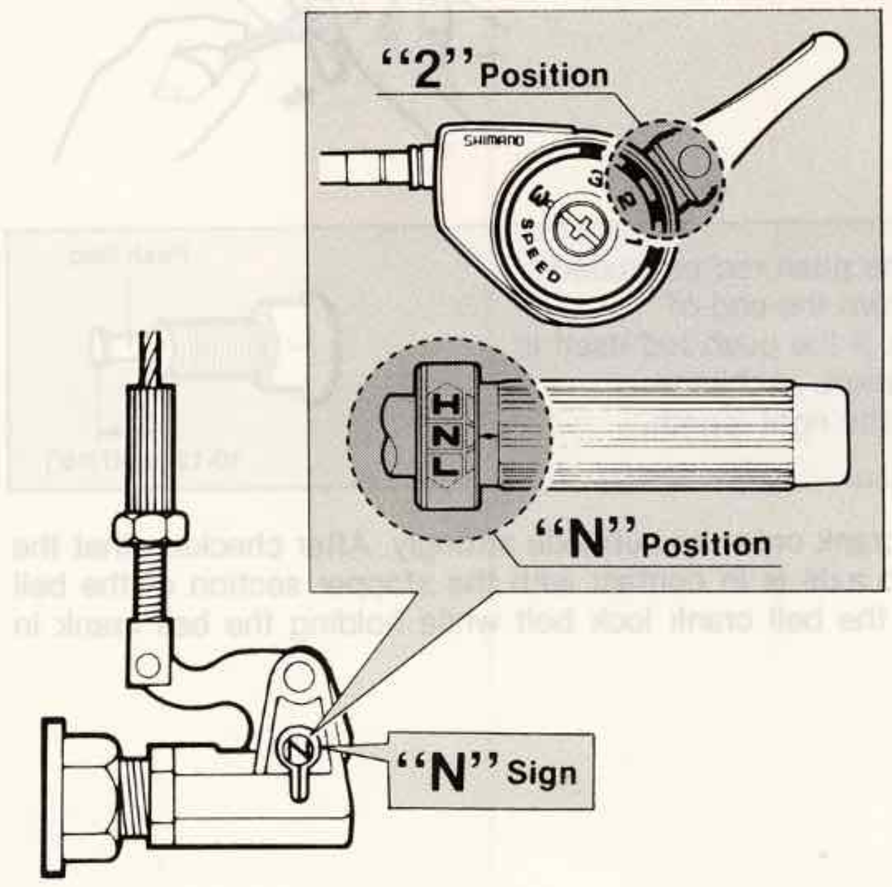
Claws should be positioned the same as 5″ method. And removal follows the 5.4″ method of the 28 hole hub.

Diagram 3 **Diagram 4** **Diagram 5**



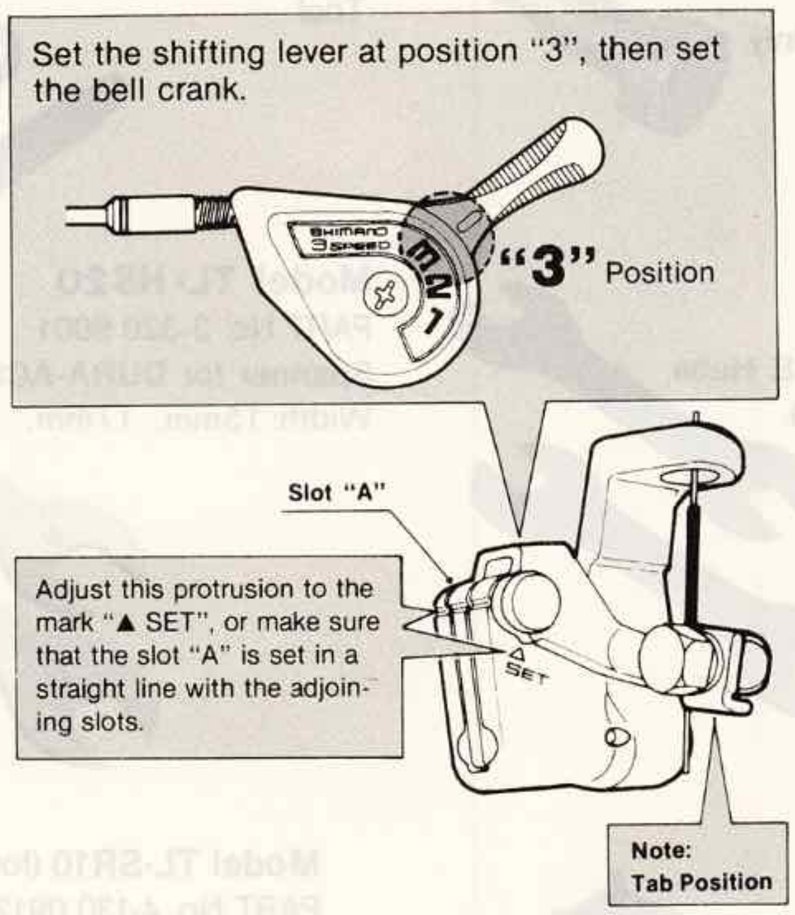
Cable Adjustment of Three Speed Hub & Three Speed Hub with Coaster

Set the shifting lever at position "2" or "N", then set the bell crank so that the "N" sign on the bell crank is positioned at the center of the



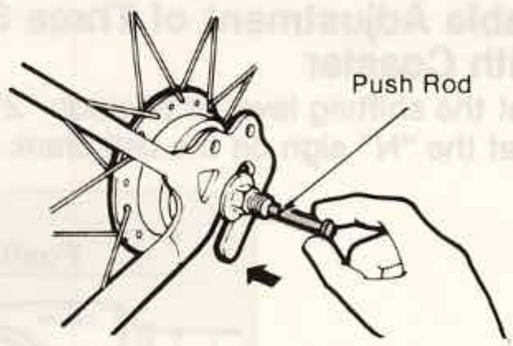
Cable Adjustment of Positron Three Speed Hub & Positron Three Speed Hub with Coaster

Set the shifting lever at posiiton "3", then set the bell crank.



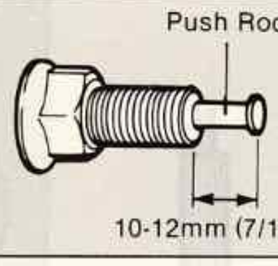
Bell Crank Assembly

(1) Insert the push rod into the hub axle.



NOTE:

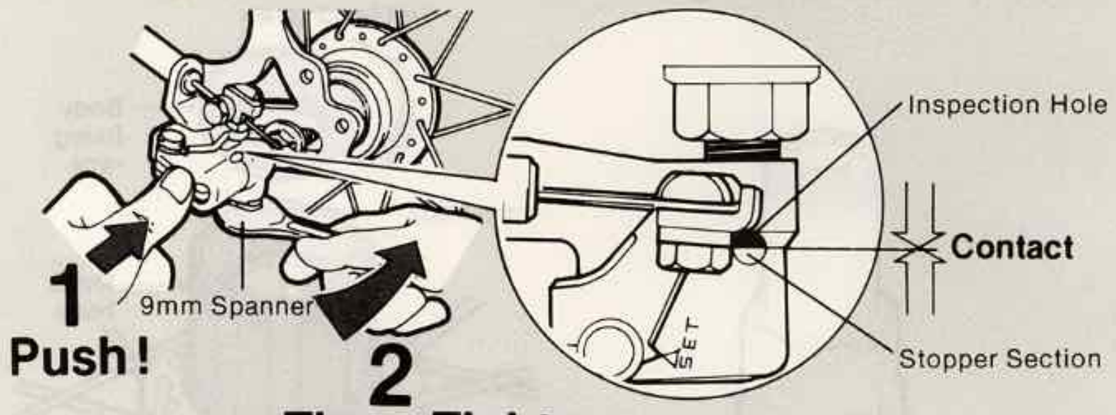
Make sure the push rod protruded 10~12mm from the end of the hub axle. If the push rod itself is too long or short, exchange it for one of the right length.



(2) Push the bell crank onto the hub axle strongly. After checking that the end of the hub axle is in contact with the stopper section of the bell crank, tighten the bell crank lock bolt while holding the bell crank in place.

NOTE:

Confirm that the end of the hub axle is in contact with the stopper section of the bell crank, by looking into the inspection hole on the bell crank.



Tightening torque: 30—50 kgfcm (25—40 in. lbs)

• Tools.

Model TL-FH10
PART No. 4-120 0907
Freehub Removal Tool for DURA-ACE EX (Model FH-7260, 7250) Series Only



Model TL-FH30
PART No. 3-120 9003
Freehub Removal Tool



Model TL-FH40
PART No. 4-120 0914
Freehub Removal Tool (For freewheel body fixing race)



Model TL-HS10
PART No. 3-230 9001
Spanner for DURA-ACE Hubs
Width: 13 mm. × 14 mm.



Model TL-HS20
PART No. 3-320 9001
Spanner for DURA-ACE Hubs
Width: 15mm. 17mm.



Model TL-FW40
PART No. 4-120 0904
Single Freewheel Removal Tool



Model TL-FC20
PART No. 4-130 0913
Screw Peg Spanner



Model TL-SR10 (for 10mm Chain)
PART No. 4-130 0912
Model TL-SR20 (for 1/2" chain)
PART No. 4-130 0915
Rear Sprocket Removal Tool



Model TL-WR37
PART No. 4-520 0905
Hexagon Wrench Key for New 600 EX Freehub. (10mm.)



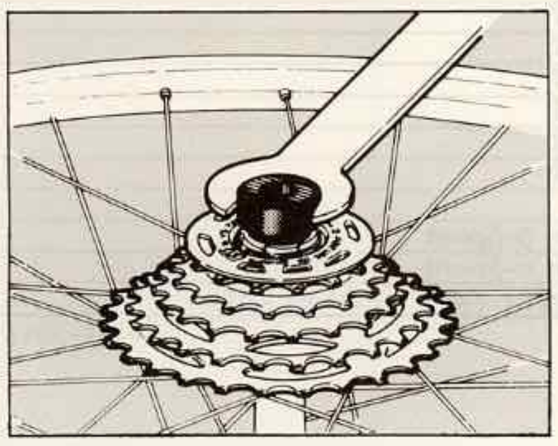
MULTIPLE FREEWHEELS

FEATURE	BENEFIT
Polished Bearing Races—— for smoother rotation New Shimano 600 EX	Polished bearing races mean less energy absorbing friction during freewheeling and closer tolerances for smoother rotation.
10mm Pawls—— for strength New Shimano 600 EX Shimano 600 UG Uniglide Freewheel	Larger freewheel pawls increase strength and provide more positive transmission of power to the rear hub.
Uniglide Teeth—— for quick, sure, smooth shifting New Shimano 600 EX Shimano 600 UG Friction Freewheel Uniglide Freewheel	By angling the sprocket teeth to match the angle of the chain, during shifting, faster and smoother shifting performance is obtained. Less noise when shifting means less wear to the freewheel. And to the chain.
Safe Riding—— "Fixed" rear gear has safety freewheel mechanism Friction Freewheel	Shimano's FF Freewheel will "Freewheel" if any object is caught in the chain. This is a "True" safety feature.
Cr-Mo Construction—— for strength New Shimano 600 EX Shimano 600 UG Shimano DX Single Freewheel	Cr-Mo materials are used to increase strength and efficiency of power transmission.

MF

Multiple Freewheel Assembly Note & Tools.

Replacing Friction Freewheel
Use Shimano's Freewheel Removal Tool (Model TL-FW20) for assembly and disassembly of the friction freewheel to the hub as with multiple freewheel usual method.



• Tools.

Model TL-FW10
PART No. 4-120 0903
Multiple Freewheel Removal Tool for Dura-Ace, New 600EX & Shimano 600



Model TL-FW20
PART No. 4-120 0901
Multiple Freewheel Removal Tool



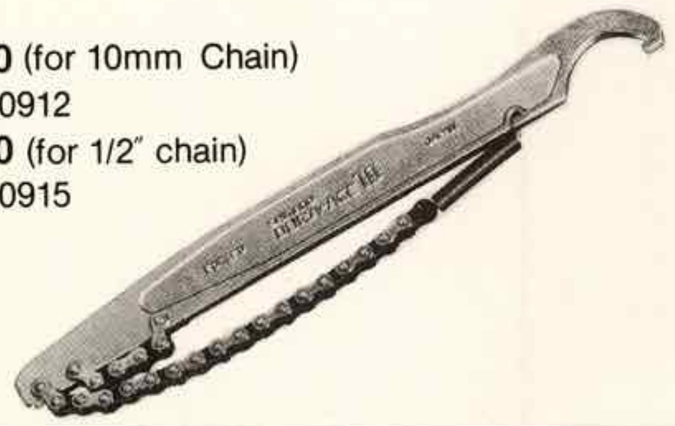
Model TL-FW30
PART No. 4-120 0905
Multiple Freewheel Removal Tool



Model TL-FW40
PART No. 4-120 0904
Single Freewheel Removal Tool



Model TL-SR10 (for 10mm Chain)
PART No. 4-130 0912
Model TL-SR20 (for 1/2" chain)
PART No. 4-130 0915
Rear Sprocket Removal Tool



UE

Model MF-6207-5 5-Speed
Model MF-6207-6 6-Speed

NEW SHIMANO 600 EX

Model MF-6207-5 (5-Speed)
Model MF-6207-6 (6-Speed)

SPECIFICATIONS

Weight ● 13 oz. (368g.)(5-speed)(13-21T.)
15 oz. (425g.)(6-speed)(13-23T.)
Sprocket ● Silver Finish
Chain Size ● 1/2″ × 3/32″ Chain
Thread ● BC1.37 × 24 T.P.I. (English)
Standard Sprocket Combinations

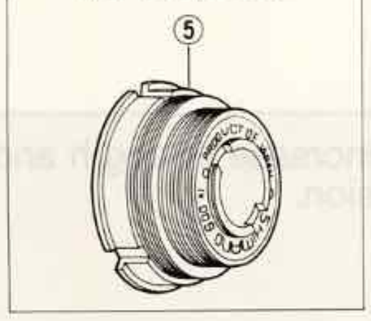
5-speed	13, 15, 17, 19, 21T. 14, 16, 18, 21, 24T.
6-speed	13, 14, 15, 16, 17, 18T. 13, 14, 15, 17, 19, 21T. 13, 15, 17, 19, 21, 23T.



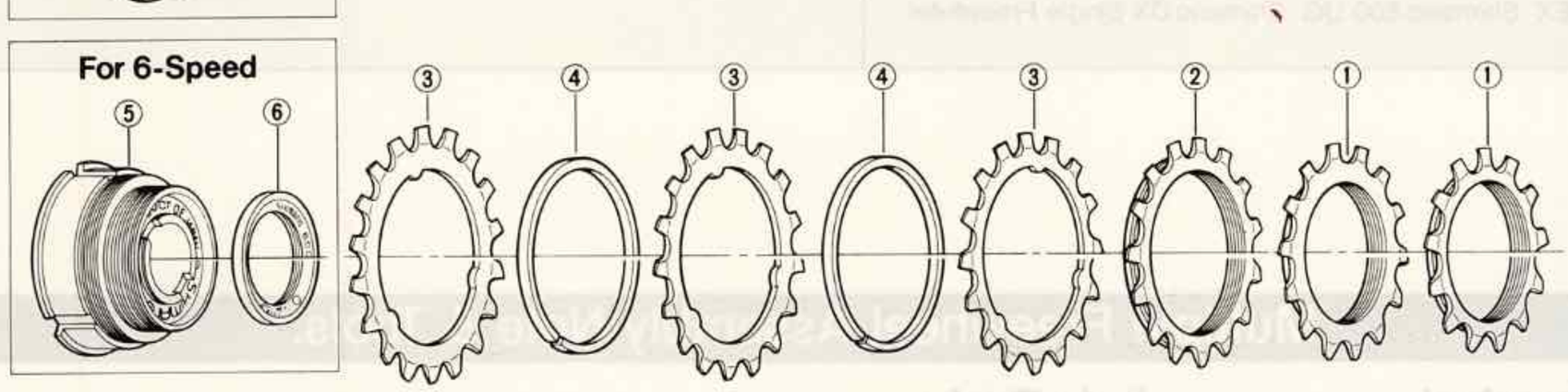
(6-speed)

MF

For 5-Speed



For 6-Speed



ITEM NO.	PART NO.	DESCRIPRION
1	124 1326	Sprocket Wheel 13T (B.C.40)
	124 1426	Sprocket Wheel 14T (B.C.40)
	124 1526	Sprocket Wheel 15T (B.C.40)
	124 1626	Sprocket Wheel 16T (B.C.40)
	124 1726	Sprocket Wheel 17T (B.C.40)
2	124 1529	Sprocket Wheel 15T (B.C.47)
	124 1629	Sprocket Wheel 16T (B.C.47)
	124 1729	Sprocket Wheel 17T (B.C.47)
	124 1829	Sprocket Wheel 18T (B.C.47)
	124 1929	Sprocket Wheel 19T (B.C.47)
	124 2029	Sprocket Wheel 20T (B.C.47)
3	124 1632	Sprocket Wheel 16T
	124 1732	Sprocket Wheel 17T
	124 1832	Sprocket Wheel 18T
	124 1932	Sprocket Wheel 19T
	124 2032	Sprocket Wheel 20T
	124 2132	Sprocket Wheel 21T
	124 2232	Sprocket Wheel 22T
	124 2332	Sprocket Wheel 23T
	124 2432	Sprocket Wheel 24T
	124 2532	Sprocket Wheel 25T
	124 2632	Sprocket Wheel 26T
	124 2832	Sprocket Wheel 28T
	124 3132	Sprocket Wheel 31T
	123 3023-4	Sprocket Wheel 30T
	123 3223-4	Sprocket Wheel 32T
	123 3423-4	Sprocket Wheel 34T
4	124 5902	Spacer
5	3-120 9802	Freewheel Body for 5-Speed
	3-120 9801	Freewheel Body for 6-Speed
6	120 2500	Cover for Body Fixing Race (6-Speed Only)

8309-591A

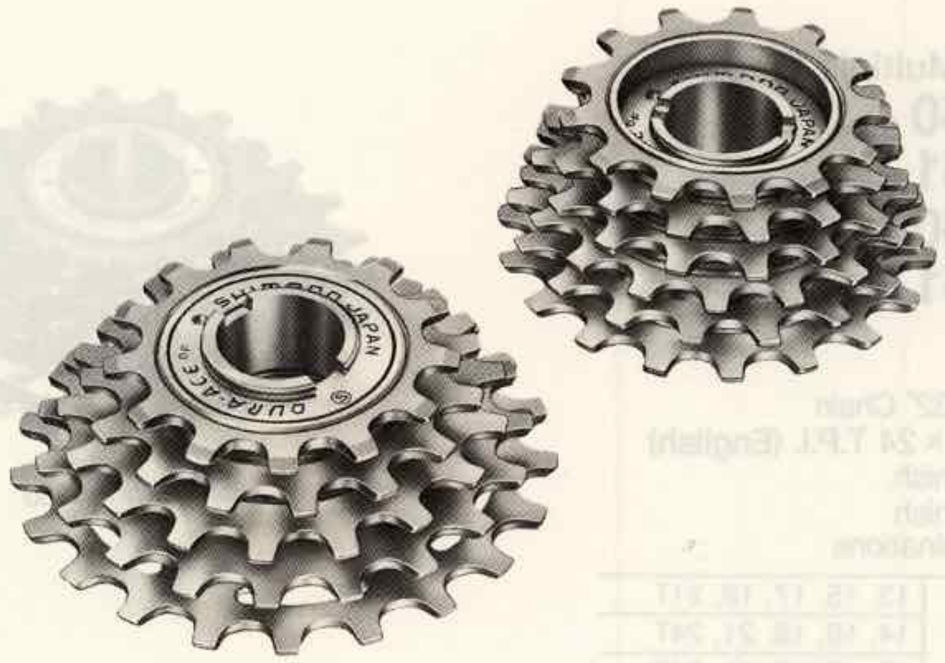
UE

Multiple Freewheel

Model MF-7150 5-Speed
Model MF-7160 6-Speed

SHIMANO DURA-ACE

Model MF-7150 (5-speed)
MF-7160 (6-speed)



SPECIFICATIONS

Standard Sprocket
- 1/2" x 3/32" Chain (2mm.)

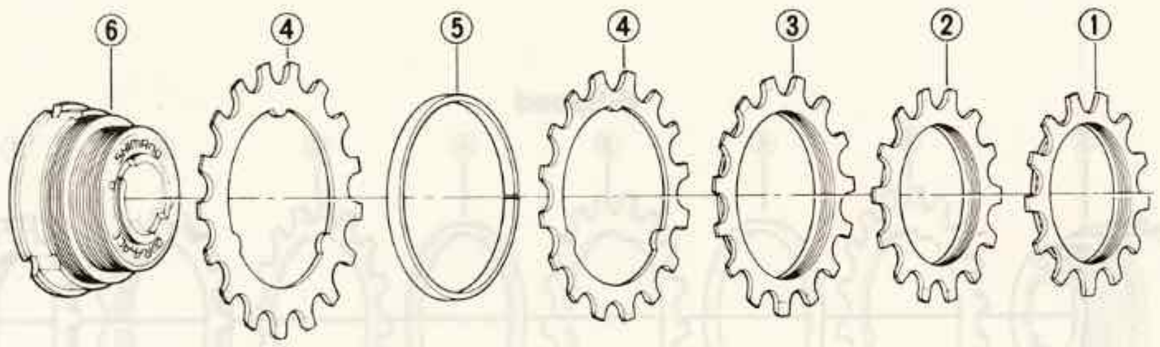
Thread
- BC 1.37 × 24 T.P.I. (English)
  Available by request 35 x 1.0 (French)

Sprocket
- Golden Finish

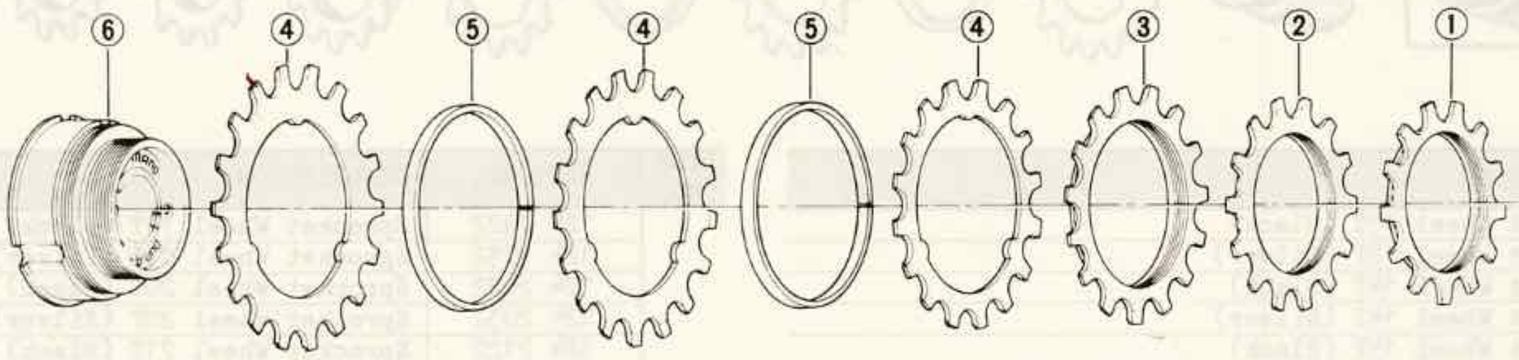
Polished Ball Race

Standard Sprocket Combinations

5-speed	13, 14, 15, 17, 19T
	13, 15, 17, 19, 21T
	14, 16, 18, 20, 22T
	15, 17, 19, 21, 24T
6-speed	13, 14, 15, 16, 17, 18T
	13, 15, 17, 19, 21, 23T



5-speed



6-speed

5-speed

ITEM NO.	PART NO.	DESCRIPTION
1	124 1311	Sprocket Wheel 13T (B.C.40)
	124 1413	Sprocket Wheel 14T (B.C.40)
	124 1513	Sprocket Wheel 15T (B.C.40)
	124 1613	Sprocket Wheel 16T (B.C.40)
	124 1713	Sprocket Wheel 17T (B.C.40)
2	124 1414	Sprocket Wheel 14T (B.C.40)
	124 1514	Sprocket Wheel 15T (B.C.40)
	124 1614	Sprocket Wheel 16T (B.C.40)
	124 1714	Sprocket Wheel 17T (B.C.40)
	124 1814	Sprocket Wheel 18T (B.C.40)
3	124 1517	Sprocket Wheel 15T (B.C.47)
	124 1617	Sprocket Wheel 16T (B.C.47)
	124 1717	Sprocket Wheel 17T (B.C.47)
	124 1817	Sprocket Wheel 18T (B.C.47)
	124 1917	Sprocket Wheel 19T (B.C.47)
	124 2017	Sprocket Wheel 20T (B.C.47)
4	124 1620	Sprocket Wheel 16T
	124 1720	Sprocket Wheel 17T
	124 1820	Sprocket Wheel 18T
	124 1920	Sprocket Wheel 19T
	124 2020	Sprocket Wheel 20T
	124 2120	Sprocket Wheel 21T
	124 2220	Sprocket Wheel 22T
	124 2320	Sprocket Wheel 23T
	124 2420	Sprocket Wheel 24T
	124 2520	Sprocket Wheel 25T
	124 2620	Sprocket Wheel 26T
	124 2823	Sprocket Wheel 28T
	124 3123	Sprocket Wheel 31T
5	124 5900	Spacer
6	3-124 9009	Freewheel Body (English Thread)
	3-124 9011	Freewheel Body (French Thread)

8308-134D

6-speed

ITEM NO.	PART NO.	DESCRIPTION
1	124 1311	Sprocket Wheel 13T (B.C.40)
	124 1413	Sprocket Wheel 14T (B.C.40)
	124 1513	Sprocket Wheel 15T (B.C.40)
	124 1613	Sprocket Wheel 16T (B.C.40)
	124 1713	Sprocket Wheel 17T (B.C.40)
2	124 1414	Sprocket Wheel 14T (B.C.40)
	124 1514	Sprocket Wheel 15T (B.C.40)
	124 1614	Sprocket Wheel 16T (B.C.40)
	124 1714	Sprocket Wheel 17T (B.C.40)
	124 1814	Sprocket Wheel 18T (B.C.40)
3	124 1517	Sprocket Wheel 15T (B.C.47)
	124 1617	Sprocket Wheel 16T (B.C.47)
	124 1717	Sprocket Wheel 17T (B.C.47)
	124 1817	Sprocket Wheel 18T (B.C.47)
	124 1917	Sprocket Wheel 19T (B.C.47)
	124 2017	Sprocket Wheel 20T (B.C.47)
4	124 1620	Sprocket Wheel 16T
	124 1720	Sprocket Wheel 17T
	124 1820	Sprocket Wheel 18T
	124 1920	Sprocket Wheel 19T
	124 2020	Sprocket Wheel 20T
	124 2120	Sprocket Wheel 21T
	124 2220	Sprocket Wheel 22T
	124 2320	Sprocket Wheel 23T
	124 2420	Sprocket Wheel 24T
	124 2520	Sprocket Wheel 25T
	124 2620	Sprocket Wheel 26T
	124 2823	Sprocket Wheel 28T
	124 3123	Sprocket Wheel 31T
5	124 5900	Spacer
6	3-124 9010	Freewheel Body (English Thread)
	3-124 9012	Freewheel Body (French Thread)

8308-135C

Multiple Freewheel

Model MF-6150 Black 5-speed Model MF-6160 Black 6-speed
Model MF-6151 Silver 5-speed Model MF-6161 Silver 6-speed

SHIMANO 600

SHIMANO-600 UG Multiple Freewheel

Model MF-6150 (Black/5-speed)
MF-6151 (Silver/5-speed)
MF-6160 (Black/6-speed)
MF-6161 (Silver/6-speed)

SPECIFICATIONS

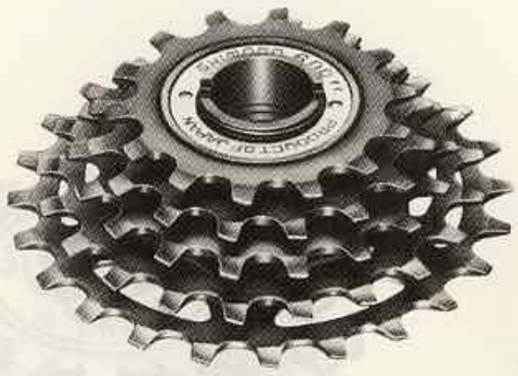
Standard Sprocket
- 1/2" x 3/32" Chain

Thread
- BC1.37 × 24 T.P.I. (English)

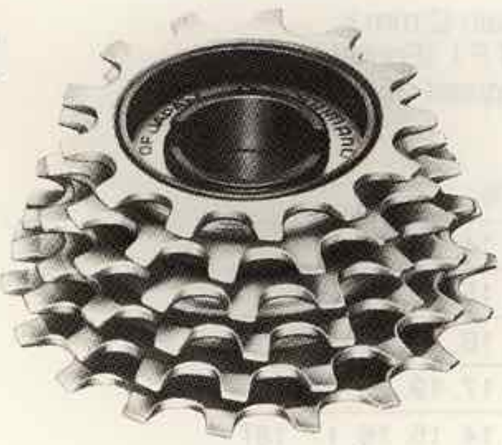
Sprocket
- Black Finish,
- Silver Finish

Standard Sprocket Combinations

5-speed	13, 15, 17, 19, 21T
	14, 16, 18, 21, 24T
	15, 17, 19, 21, 24T
6-speed	13, 14, 15, 16, 17, 18T
	13, 15, 17, 19, 21, 23T

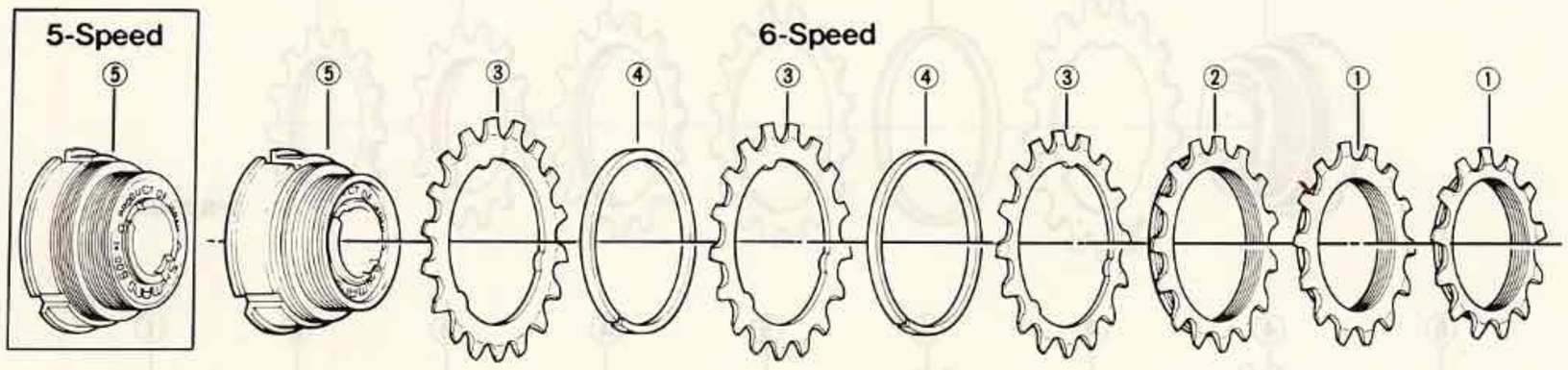


Model MF-6150



Model MF-6161

MF



ITEM NO.	PART NO.	DESCRIPTION
1	124 1316	Sprocket Wheel 13T (Black)
	124 1326	Sprocket Wheel 13T (Silver)
	124 1416	Sprocket Wheel 14T (Black)
	124 1426	Sprocket Wheel 14T (Silver)
	124 1516	Sprocket Wheel 15T (Black)
	124 1526	Sprocket Wheel 15T (Silver)
	124 1616	Sprocket Wheel 16T (Black)
	124 1626	Sprocket Wheel 16T (Silver)
	124 1716	Sprocket Wheel 17T (Black)
	124 1726	Sprocket Wheel 17T (Silver)
2	124 1519	Sprocket Wheel 15T (Black)
	124 1529	Sprocket Wheel 15T (Silver)
	124 1619	Sprocket Wheel 16T (Black)
	124 1629	Sprocket Wheel 16T (Silver)
	124 1719	Sprocket Wheel 17T (Black)
	124 1729	Sprocket Wheel 17T (Silver)
	124 1819	Sprocket Wheel 18T (Black)
	124 1829	Sprocket Wheel 18T (Silver)
	124 1919	Sprocket Wheel 19T (Black)
	124 1929	Sprocket Wheel 19T (Silver)
	124 2019	Sprocket Wheel 20T (Black)
	124 2029	Sprocket Wheel 20T (Silver)
3	124 1622	Sprocket Wheel 16T (Black)
	124 1632	Sprocket Wheel 16T (Silver)
	124 1722	Sprocket Wheel 17T (Black)
	124 1732	Sprocket Wheel 17T (Silver)
	124 1822	Sprocket Wheel 18T (Black)
	124 1832	Sprocket Wheel 18T (Silver)

ITEM NO.	PART NO.	DESCRIPTION
3	124 1922	Sprocket Wheel 19T (Black)
	124 1932	Sprocket Wheel 19T (Silver)
	124 2022	Sprocket Wheel 20T (Black)
	124 2032	Sprocket Wheel 20T (Silver)
	124 2122	Sprocket Wheel 21T (Black)
	124 2132	Sprocket Wheel 21T (Silver)
	124 2222	Sprocket Wheel 22T (Black)
	124 2232	Sprocket Wheel 22T (Silver)
	124 2322	Sprocket Wheel 23T (Black)
	123 2332	Sprocket Wheel 23T (Silver)
	124 2422	Sprocket Wheel 24T (Black)
	124 2432	Sprocket Wheel 24T (Silver)
	124 2522	Sprocket Wheel 25T (Black)
	124 2532	Sprocket Wheel 25T (Silver)
	124 2622	Sprocket Wheel 26T (Black)
	124 2632	Sprocket Wheel 26T (Silver)
	124 2822	Sprocket Wheel 28T (Black)
	124 2832	Sprocket Wheel 28T (Silver)
	124 3122	Sprocket Wheel 31T (Black)
	124 3132	Sprocket Wheel 31T (Silver)
	123 3261-2	Sprocket Wheel 32T (Black)
	123 3223-4	Sprocket Wheel 32T (Silver)
	123 3423-2	Sprocket Wheel 34T (Black)
	123 3423-4	Sprocket Wheel 34T (Silver)
4	124 5901	Spacer (Black)
	124 5902	Spacer (Silver)
5	3-120 9802	Freewheel Body for 5-Speed
	3-120 9801	Freewheel Body for 6-Speed

7803-327

E

Multiple Freewheel

Model MF-FF50
Model MF-FF51 5-speed
Model MF-FF61 6-speed

Model MF-1500 Black/5-speed
Model MF-1600 Black/6-speed

FRONT FREEWHEELING FF SYSTEM

Friction Freewheel

Model MF-FF50

SPECIFICATIONS

Use: FF System 5-speed Only
Weight: 16.4 oz. (465g.) 14T.-28T.
17.0 oz. (483g.) 14T.-32T.
Chain Size:1/2″ × 3/32″ Chain
Thread: BC1.37 × 24 T.P.I. (English)
Top Protector: White
Standard Sprocket Combinations:

14T, 17T, 20T, 24T, 28T
14T, 17T, 21T, 26T, 32T

Uniglide Sprockets



FRONT FREEWHEELING FF SYSTEM

Friction Freewheel (5-speed)

Model MF-FF51 (Narrow)

Top Protector: Black

Friction Freewheel (6-speed)

Model MF-FF61 (Narrow)

SPECIFICATIONS

Use: FF System Only
Weight: 16.9oz. (478g.) 14T-28T
16.2oz. (460g.) 13T-32T
16.1oz. (456g.) 13T-28T
Chain Size: 1/2″ × 3/32″ Chain
Thread: BC1.37 × 24 T.P.I. (English)

Type	Standard Sprocket Combinations
MF-FF51 (5-speed)	14T • 17T • 20T • 24T • 28T
MF-FF61 (6-speed)	13T • 15T • 17T • 21T • 26T • 32T
	13T • 15T • 17T • 20T • 24T • 28T

Uniglide Sprockets





Chain Protector for MF-FF61

UNIGLIDE FREEWHEEL

Model MF-1500 (Black/5-speed)
Model MF-1600 (Black/6-speed)

SPECIFICATIONS

Weight: 13.6 oz. (385g.) 14T.-28T.
Material : Steel
Surface Treatment: Black Finish
Chain Size: 1/2″ x 3/32″ Chain
Thread: BC1.37 × 24 T.P.I. (English)
• Standard Sprocket Combinations:

5-speed	14T, 16T, 18T, 20T, 22T
	14T, 16T, 18T, 21T, 24T
	14T, 17T, 20T, 24T, 28T
	14T, 17T, 21T, 26T, 32T
	15T, 17T, 19T, 21T, 24T
6-speed	14T, 15T, 17T, 19T, 21T, 24T
	14T, 16T, 18T, 20T, 24T, 28T
	14T, 17T, 20T, 24T, 28T, 32T





Cross Cut Teeth
The four shortened teeth, facing each other, have been designed to release the chain at the perfect point for engaging the next gear. A smoother gear change every time is the result!

Model SS-7000
Model SS-7500
Model SF-1100
Model SF-MX10

DURA-ACE 10

Sprocket for Track Hub

Model SS-7000

SPECIFICATIONS

Material ● Nickel Chromium Molybdenum Steel

Standard Sprocket
● 10mm. x 3mm.

Thread ● BC33 × 24 T.P.I. (English)

Teeth ● 14T, 15T, 16T

Weight ●

14T	0.8 oz. (22.0 g.)
15T	0.9 oz. (26.8 g.)
16T	1.1 oz. (30.8 g.)

Sprocket for Use with Standard Dura-Ace Track Hubs Only

Thread ● BC1.37 × 24 T.P.I. (English)

Teeth ● 15T, 16T

Weight ●

15T	0.9 oz. (26.0 g.)
16T	1.0 oz. (29.0 g.)



For Use with Standard Dura-Ace Track Hubs Only

SHIMANO DURA-ACE

MF Sprocket for Track Hub

Model SS-7500

SPECIFICATIONS

Material ● Chromium Molybdenum Steel/Light Alloy • Special Surface Treatment

Standard Sprocket
● 1/2″ x 1/8″ Chain

Thread ● BC1.37 × 24 T.P.I. (English)

Teeth ● 13T, 14T, 15T, 16T

Weight ●

	Light Alloy	Steel
13T	0.39 oz. (11.0 g.)	1.06 oz. (30.1 g.)
14T	0.48 oz. (13.5 g.)	1.34 oz. (38.0 g.)
15T	0.55 oz. (15.7 g.)	1.67 oz. (47.3 g.)
16T	0.63 oz. (18.0 g.)	1.89 oz. (53.5 g.)



Light Alloy

Steel

SINGLE FREEWHEEL

Model SF-1100

SPECIFICATIONS

Weight: 6.0oz. (170g.) 18T

Thread: BC1.37 × 24 T.P.I. (English)

Sprocket: 1/2″ × 1/8″ × 16 teeth
1/2″ × 1/8″ × 18 teeth
1/2″ × 1/8″ × 19 teeth
1/2″ × 1/8″ × 20 teeth



SHIMANO DX

SINGLE FREEWHEEL

Model SF-MX10

SPECIFICATIONS

Weight ● 5.7 oz. (161g.)/16T

Material ● Cr-Mo Steel (Sprocket, Pawl)

Thread ● BC1.37 × 24 T.P.I. (English)

Color ● C.P. or Black.

Teeth ● 16T, 17T, 18T

Usable with 1/8″ & 3/32″ Chains



UE

FRONT CHAINWHEELS

FEATURE	BENEFIT
Safety Crank Arm—— for more strength and ankle clearance Dura-Ace AX New Shimano 600 EX Shimano 600 AX Shimano 600 EX Shimano 105 Deore	By reshaping the crank arm and shortening the crank axle, strength is increased and it is less likely for the ankle to be struck.
Offest Crank Arm—— for ridgidity Dura-Ace AX Shimano 600 AX	By repositioning the crank arm in relation to the front chainwheel spide arms, the pedaling power is directly transformed into driving power.
W-Cut Mechanism—— for improved shifting Dura Ace AX Dura-Ace EX Shimano 600 AX Shimano 600 EX	By shortening two teeth behind the crankarm and opposite, the area where the least chain tension occurs, shifting effort required under load is reduced, improving shifting performance.
One Key Release Mechanism—— for easy maintainence Dura-Ace AX Dura-Ace EX Shimano 600 AX Shimano 600 EX Deore	By replacing the standard crank fixing bolt and dust cap, the One Key Release Mechanism allows easy removal of the crank arm with a 6mm. Allen key wrench.
Sealed Mechanism B.B.—— for all-weather performance New Shimano 600 EX Biopace	Sealed Mechanisms protect revolving and exposed parts from water, dust and foreign particles which cause premature wear. Shimano has developed Sealed Mechanism for standard cup and cone bearing systems which retain serviceability and interchangeability.
Chain Ring Pin—— to keep chain from jamming Dura Ace EX New Shimano 600 EX Biopace Shimano 600 EX	A pin on the outer chainwheel located opposite the crank arm keeps the chain from jamming if overshifted.
10mm Pitch—— for quicker acceleration Dura-Ace 10	The diameters of the front chainwheel and rear sprocket are reduced 21% in size, by reducing the chain pitch from 12.7mm to 10mm. The smaller size is lighter and more rapidly accellerated. The smaller front chainwheel spider arm and chain link is more efficient because of increased rigidity.
FF System **Shifts without Pedaling—— can shift while coasting or coming to a stop** **Auto-Shifting from Stop—— once gear is pre-selected shift happens automatically when starting** **Shift Easy on Hills—— not neccessary to time shift**	Moving the freewheeling to the front chainwheel bottom bracket allows shifting without pedaling. This makes down-shifting (when coming to a stop) and well-timed uphill shifting possible for even the novice. This is due to the fact that the chain is always moving, and yet, if any object gets caught in the chain, a safety mechanism in the rear gear will freewheel stopping the chain's movement.

Front Chainwheel

Model FC-7000
Model BB-7500 Bottom Bracket Assembly

DURA-ACE 10

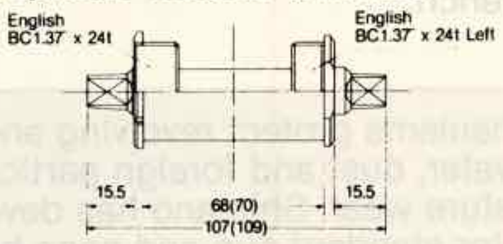
Model FC-7000
Model BB-7500 (B.B. Parts)

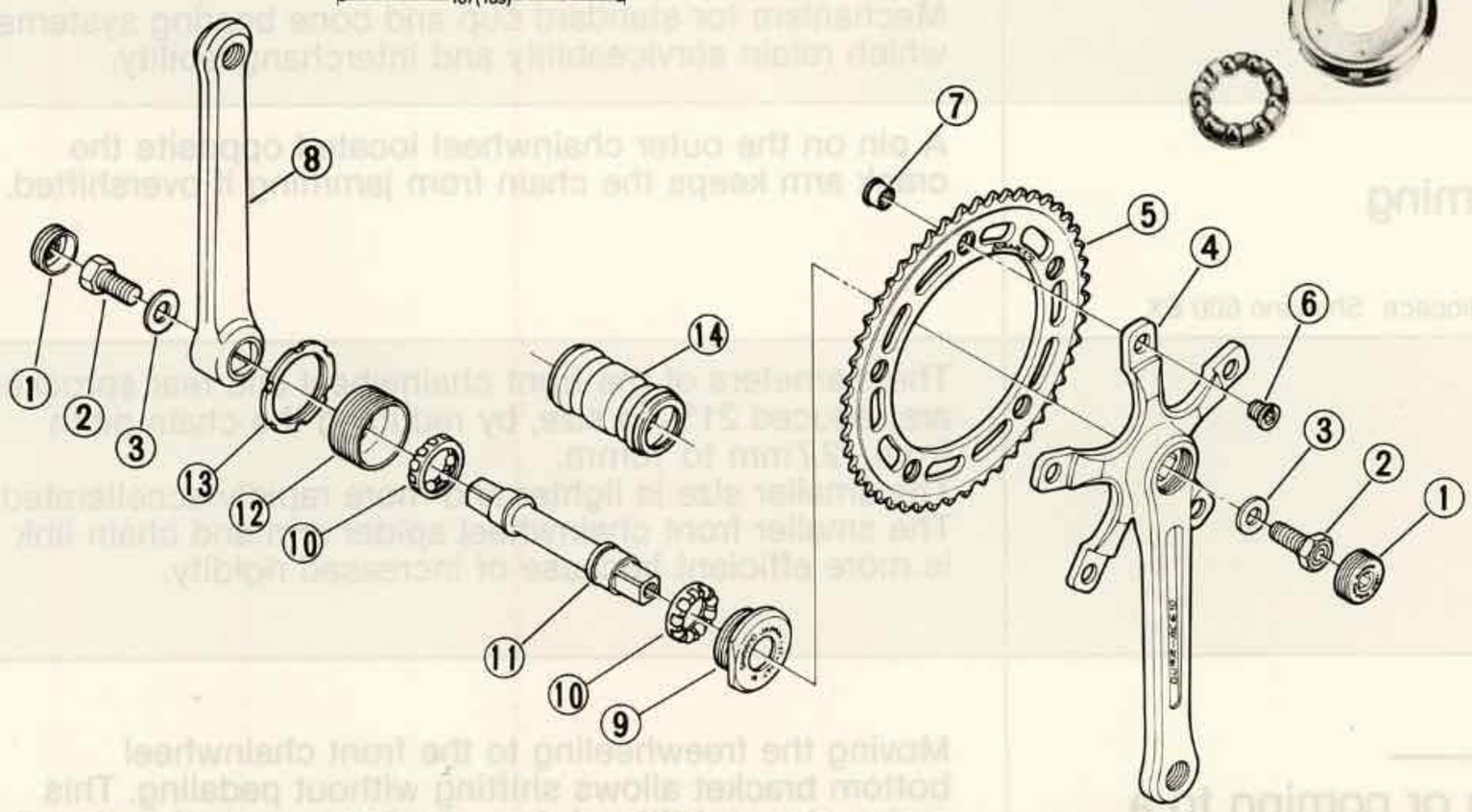
SPECIFICATIONS

Material ● Light Alloy • Special Surface Treatment
Type ● Cotterless
Chain Ring ● 10mm. x 3mm.
Teeth ● 46~53T
Crank Lengths
● 6-1/2" (165mm.), 6-3/4" (170mm.)
Available by request 6-19/32" (167.5mm.)
Crank Thread ● BC 9/16 × 20 T.P.I. (English)
Cup Thread ● BC 1.37 × 24 T.P.I. (English),
M35 × 1.0 (French),
M36 × 24 T.P.I. (Italian)
Super Polished Ball Race



Spindle Length: [Unit: mm.]





ITEM NO.	PART NO.	DESCRIPTION
1	134 0200	Crank Arm Cap
2	134 0300	Crank Arm Fixing Bolt
3	134 0400	Washer
4	135 0100	Right Crank Arm 165mm(6-1/2") English Thread
	135 0200	Right Crank Arm 167.5mm(6-19/32") English Thread
	135 0300	Right Crank Arm 170mm(6-11/16") English Thread
5	135 4600	Chainring 46T
	135 4700	Chainring 47T
	135 4800	Chainring 48T
	135 4900	Chainring 49T
	135 5000	Chainring 50T
	135 5100	Chainring 51T
	135 5200	Chainring 52T
	135 5300	Chainring 53T
6	135 0400	Chainring Fixing Bolt
7	135 0500	Chainring Fixing Nut
8	134 5161	Left Crank Arm 165mm(6-1/2") English Thread
	134 5162	Left Crank Arm 167.5mm(6-19/32") English Thread
	134 5163	Left Crank Arm 170mm(6-11/16") English Thread

ITEM NO.	PART NO.	DESCRIPTION
9	137 0200	Right Hand Fixed Cup (1.37"x24T) English Thread
	137 0210	Right Hand Fixed Cup (35xP1) French Thread
	137 0221	Right Hand Fixed Cup (36x24T) Italian Thread
10	3-137 9001	Ball Retainer
11	137 0110	Bottom Bracket Spindle 107mm(4-7/32") for Bottom Bracket Length 68mm(2-11/16")
	137 0111	Bottom Bracket Spindle 109mm(4-9/32") for Bottom Bracket Length 70mm(2-3/4")
12	137 0400	Left Hand Adjustable Cup (1.37"x24T) English Thread
	137 0410	Left Hand Adjustable Cup (35xP1) French Thread
	137 0421	Left Hand Adjustable Cup (36x24T)Italian Thread
13	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 0520	Lock Ring (36x24T) Italian Thread
14	137 0600	Dust Seal

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Model FC-7500
Model BB-7500 (Bottom Bracket Assembly)

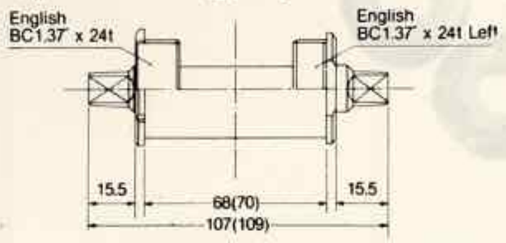
SHIMANO DURA-ACE

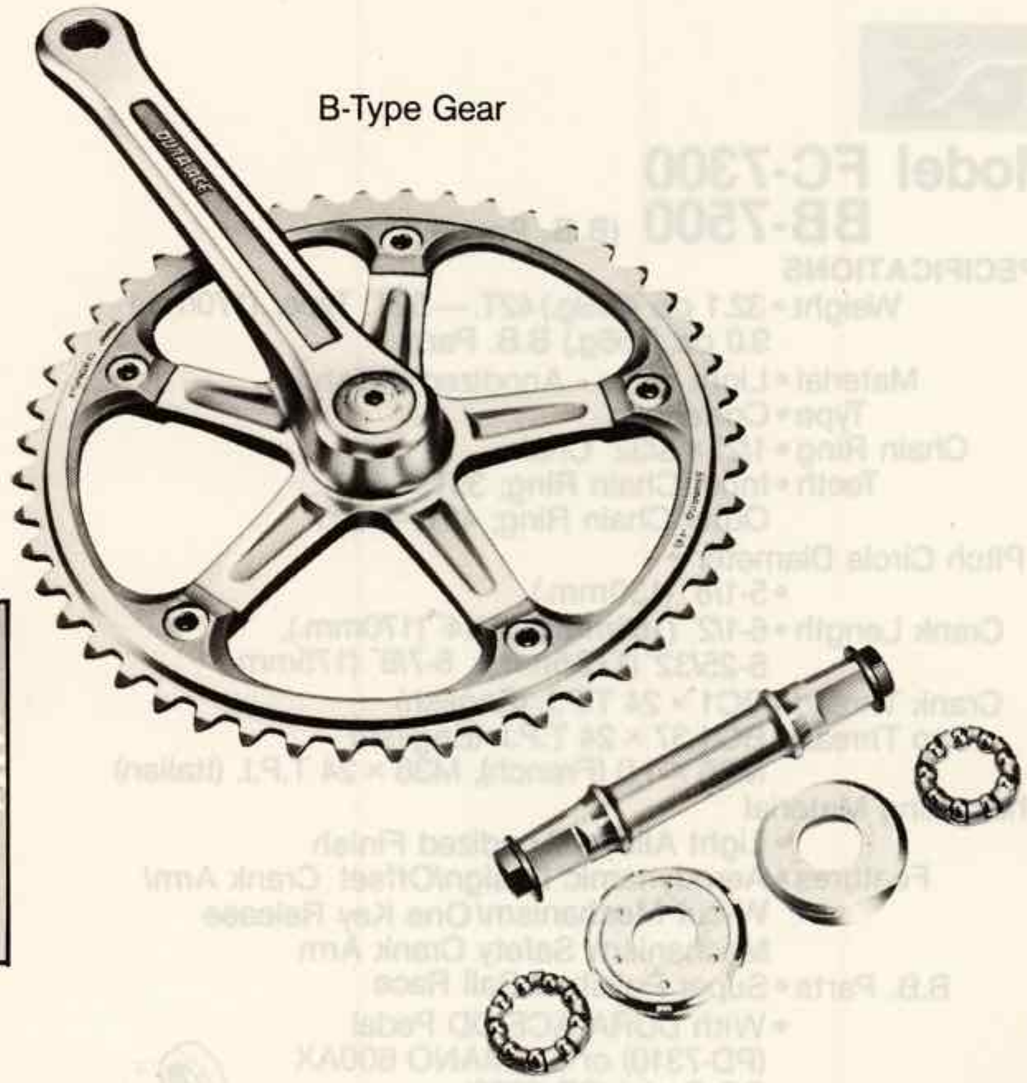
Model FC-7500
BB-7500

SPECIFICATIONS

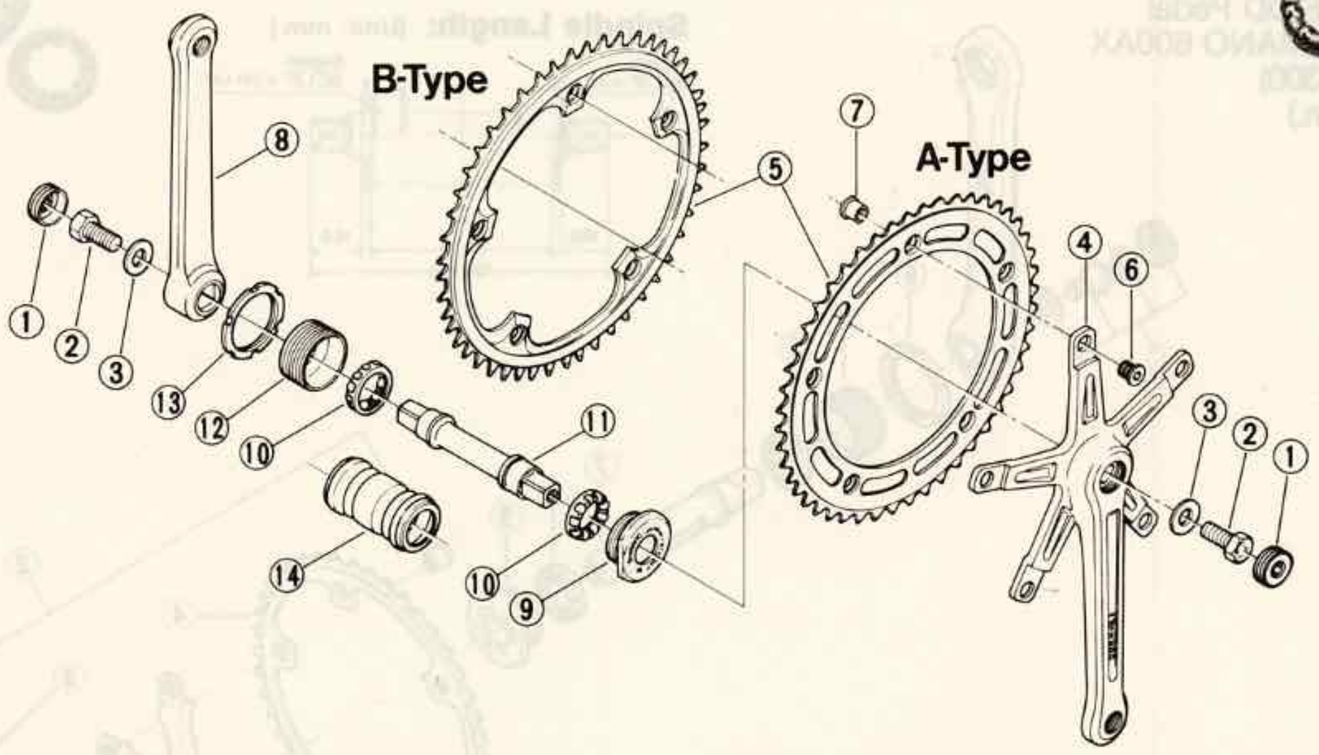
Material ● Light Alloy • Anodized Finish
Type ● Cotterless
Chain Ring ● 1/2" x 1/8" Chain
Teeth ● 44T ~ 55T (A-Type)
45T ~ 50T (B-Type)
Crank Lengths
● 6-1/2" (165mm.), 6-3/4" (170mm.), 6-7/8" (175mm.)
Available by request 6-19/32" (167.5mm.), 6-13/16" (172.5mm.)
Crank Thread ● BC 9/16" x 20 T.P.I.
Cup Thread ● BC 1.37 × 24 T.P.I. (English)
M35 × 1.0 (French)
M36 × 24 T.P.I. (Italian)
Option ● Super Polished Ball Race

Spindle Length: [Unit: mm.]




B-Type Gear


A-Type Gear



ITEM NO.	PART NO.	DESCRIPTION
1	134 0200	Crank Arm Dust Cap
2	134 0300	Crank Arm Fixing Bolt
3	134 0400	Spindle Washer
4	131 0100-1	Right Crank Arm 165mm(6-1/2")
	131 0200-1	Right Crank Arm 167.5mm(6-19/32")
	131 0300-1	Right Crank Arm 170mm(6-3/4")
	131 0301-1	Right Crank Arm 172.5mm(6-13/16")
	131 0302-1	Right Crank Arm 175mm(6-7/8")
5	131 4400	Chainring 44T (A-Type)
	131 4500	Chainring 45T (A-Type)
	131 4502	Chainring 45T (B-Type)
	131 4600	Chainring 46T (A-Type)
	131 4602	Chainring 46T (B-Type)
	131 4700	Chainring 47T (A-Type)
	131 4702	Chainring 47T (B-Type)
	131 4800	Chainring 48T (A-Type)
	131 4802	Chainring 48T (B-Type)
	131 4900	Chainring 49T (A-Type)
	131 4902	Chainring 49T (B-Type)
	131 5000	Chainring 50T (A-Type)
	131 5002	Chainring 50T (B-Type)
	131 5100-1	Chainring 51T (A-Type)
	131 5102	Chainring 51T (B-Type)
	131 5200-1	Chainring 52T (A-Type)
	131 5202	Chainring 52T (B-Type)
	131 5300	Chainring 53T (A-Type)

ITEM NO.	PART NO.	DESCRIPTION
5	131 5302	Chainring 53T (B-Type)
	131 5400	Chainring 54T (A-Type)
	131 5402	Chainring 54T (B-Type)
	131 5500	Chainring 55T (A-Type)
	131 5502	Chainring 55T (B-Type)
6	131 0500	Chainring Fixing Bolt
7	131 0600	Chainring Fixing Nut
8	134 0161-1	Left Crank Arm 165mm(6-1/2")
	134 0162-1	Left Crank Arm 167.5mm(6-19/32")
	134 0163-1	Left Crank Arm 170mm(6-3/4")
	134 0164-1	Left Crank Arm 172.5mm(6-13/16")
	134 0165-1	Left Crank Arm 175mm(6-7/8")
9	137 0200	Right Hand Fixed Cup (1.37"x24T) English Thread
	137 0210	Right Hand Fixed Cup (35xP1) French Thread
	137 0220	Right Hand Fixed Cup (36x24T) Italian Thread
10	3-137 9001	Ball Retainer
11	137 0110	Bottom Bracket Spindle 107mm(4-7/32")
	137 0111	Bottom Bracket Spindle 109mm(4-9/32")
12	137 0400	Left Hand Adjustable Cup (1.37"x24T) English Thread
	137 0410	Left Hand Adjustable Cup (35xP1) French Thread
	137 0420	Left Hand Adjustable Cup (36x24T) Italian Thread
13	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 0520	Lock Ring (36x24T) Italian Thread
14	137 0600	Dust Seal

8010-157B

Front Chainwheel

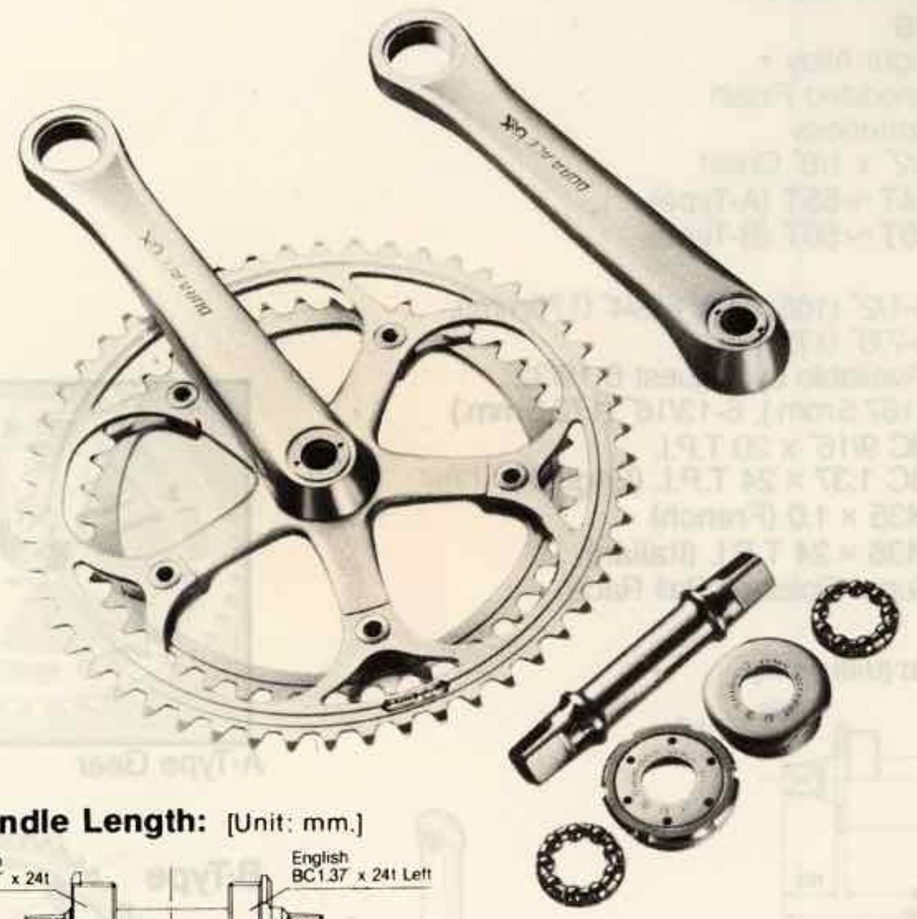
Model FC-7300
Model BB-7500 Bottom Bracket Assembly

DURA-ACE

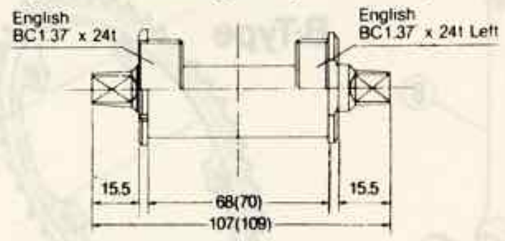
Model FC-7300
BB-7500 (B.B. Parts)

SPECIFICATIONS

Weight • 32.1 oz. (909g.) 42T. — 52T. Type, (170mm)
9.0 oz. (256g.) B.B. Parts
Material • Light Alloy • Anodized Finish
Type • Cotterless
Chain Ring • 1/2″ × 3/32″ Chain
Teeth • Inner Chain Ring; 39T. — 45T.
Outer Chain Ring; 48T. — 53T.
Pitch Circle Diameter
• 5-1/8″ (130mm.)
Crank Length • 6-1/2″ (165mm.), 6-3/4″ (170mm.),
6-25/32″ (172.5mm), 6-7/8″ (175mm.)
Crank Thread • BC1 × 24 T.P.I. (English)
Cup Thread • BC1.37 × 24 T.P.I. (English)
M35 × 1.0 (French), M36 × 24 T.P.I. (Italian)
Chain Ring Material
• Light Alloy • Anodized Finish
Features • Aerodynamic Design/Offset Crank Arm/
W-cut Mechanism/One Key Release
Mechanism/Safety Crank Arm
B.B. Parts • Super Polished Ball Race
• With DURA-ACE DD Pedal
(PD-7310) or SHIMANO 600AX
DD Pedal (PD-6300)
Chain Line • 1-23/32″ (43.5mm.)



Spindle Length: [Unit: mm.]



ITEM NO.	PART NO.	DESCRIPTION
1	3-148 9002	Crank Arm Fixing Bolt Unit
2	3-132 9015	Chainring Fixing Bolt & Nut (5pcs.)
3	133 4861	Chainring 48T
	133 4961	Chainring 49T
	133 5061	Chainring 50T
	133 5161	Chainring 51T
	133 5261	Chainring 52T
	133 5361	Chainring 53T
4	132 3970	Chainring 39T
	132 4070	Chainring 40T
	132 4170	Chainring 41T
	132 4270	Chainring 42T
	132 4370	Chainring 43T
	132 4470	Chainring 44T
	132 4570	Chainring 45T

ITEM NO.	PART NO.	DESCRIPTION
5	137 0201	Right Hand Fixed Cup (1.37"x24T) English Thread
	137 0211	Right Hand Fixed Cup (35xP1) French Thread
	137 0221	Right Hand Fixed Cup (36x24T) Italian Thread
6	3-137 9001	Ball Retainer
7	137 0110	Bottom Bracket Spindle 107mm(4-7/32") for Bottom Bracket Length 68mm(2-11/16")
	137 0111	Bottom Bracket Spindle 109mm(4-9/32") for Bottom Bracket Length 70mm(2-3/4")
8	137 0401	Left Hand Adjustable Cup (1.37x24T) English Thread
	137 0411	Left Hand Adjustable Cup (35xP1) French Thread
	137 0421	Left Hand Adjustable Cup (36x24T) Italian Thread
9	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 0520	Lock Ring (36x24T) Italian Thread

8106-454A

Front Chainwheel

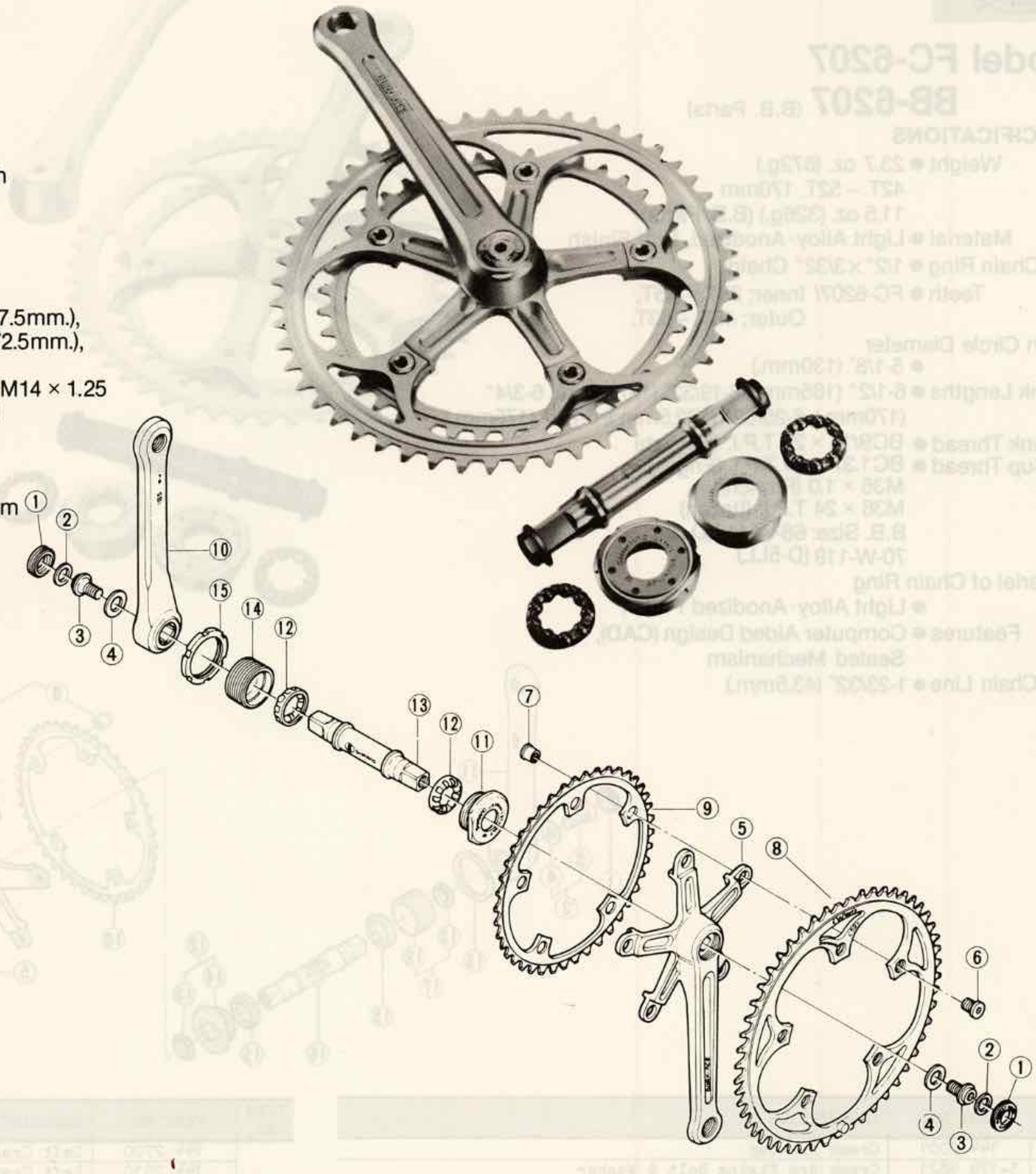
Model FC-7110
Model BB-7200 Bottom Bracket Assembly

DURA-ACE EX

Model FC-7110
BB-7200 (B.B. Parts)

SPECIFICATIONS

Material ● Light Alloy·Anodized Finish
Chain Ring ● 1/2″ × 3/32″ chain
Teeth ● Inner; 39T. ~ 45T.
Outer; 48T. ~ 53T.
Pitch Circle Diameter
● 5-1/8″ (130 mm.)
Crank Length ● 6-1/2″ (165mm.), 6-19/32″ (167.5mm.), 6-3/4″ (170mm.), 6-13/16″ (172.5mm.), 6-7/8″ (175mm.)
Crank Thread ● BC 9/16 × 20 T.P.I., French M14 × 1.25
Cup Thread ● BC 1.37 × 24 T.P.I. (English)
M35 × 1.0 (French)
M36 × 24 T.P.I. (Italian)
Features ● W Cut Mechanism,
One Key Release Mechanism
Chain Line ● 1-23/32″ (43.5mm.)



ITEM NO.	PART NO.	DESCRIPTION
1	148 0400	Crank Arm Cap
2	148 0500	Washer A
3	148 0600	Spindle Bolt
4	148 0700	Washer B
5	132 0101-1	Right Crank Arm 165mm(6-1/2") English Thread
	132 0103-1	Right Crank Arm 170mm(6-3/4") English Thread
	132 0104-1	Right Crank Arm 172.5mm(6-13/16") English Thread
	132 0105-1	Right Crank Arm 175mm(6-7/8") English Thread
6	132 0500	Chain Ring Fixing Bolt
7	132 0600	Chain Ring Fixing Nut
8	133 486	Chainring 48T
	133 4961	Chainring 49T
	133 5061	Chainring 50T
	133 5161	Chainring 51T
	133 5261	Chainring 52T
	133 5361	Chainring 53T
9	132 3970	Chain Ring 39T
	132 4070	Chain Ring 40T
	132 4170	Chain Ring 41T
	132 4270	Chain Ring 42T
	132 4370	Chain Ring 43T
	132 4470	Chain Ring 44T

ITEM NO.	PART NO.	DESCRIPTION
9	132 4570	Chain Ring 45T
10	134 0101-1	Left Crank Arm 165mm(6-1/2") English Thread
	134 0103-1	Left Crank Arm 170mm(6-3/4") English Thread
	134 0104-1	Left Crank Arm 172.5mm(6-13/16") English Thread
	134 0105-1	Left Crank Arm 175mm(6-7/8") English Thread
11	137 0201	Right Hand Fixed Cup (1.37"x24T) English Thread
	137 0211	Right Hand Fixed Cup (35xP1) French Thread
	137 0221	Right Hand Fixed Cup (36x24T) Italian Thread
12	137 9001	Ball Retainer
13	137 0100	Bottom Bracket Spindle 112mm(4-13/32") for Bottom Bracket Length 68mm
	137 0101	Bottom Bracket Spindle 113mm(4-7/16") for Bottom Bracket Length 70mm
14	137 0401	Left Hand Adjustable Cup (1.37"x24T) English Thread
	137 0411	Left Hand Adjustable Cup (35xP1) French Thread
	137 0421	Left Hand Adjustable Cup (36x24T) Italian Thread
15	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 0520	Lock Ring (36x24T) Italian Thread

7909-347B

Front Chainwheel

Model FC-6207
Model BB-6207 Bottom Bracket Assembly

NEW SHIMANO 600 EX

Model FC-6207
BB-6207 (B.B. Parts)

SPECIFICATIONS

Weight ● 23.7 oz. (672g.)
42T.~52T. 170mm
11.5 oz. (326g.) (B.B. Parts)

Material ● Light Alloy·Anodized, Buff Finish

Chain Ring ● 1/2″×3/32″ Chain

Teeth ● FC-6207/ Inner; 39T.~45T.
Outer; 48T.~53T.

Pitch Circle Diameter
● 5-1/8″ (130mm.)

Crank Lengths ● 6-1/2″ (165mm.), 6-19/32″ (167.5mm), 6-3/4″ (170mm.), 6-25/32″ (172.5mm.), 6-7/8″ (175mm.)

Crank Thread ● BC9/16 × 20 T.P.I. (English)

Cup Thread ● BC1.37 × 24 T.P.I. (English)
M35 × 1.0 (French),
M36 × 24 T.P.I. (Italian)
B.B. Size: 68-W-116(D-3L)
70-W-119 (D-5LL)

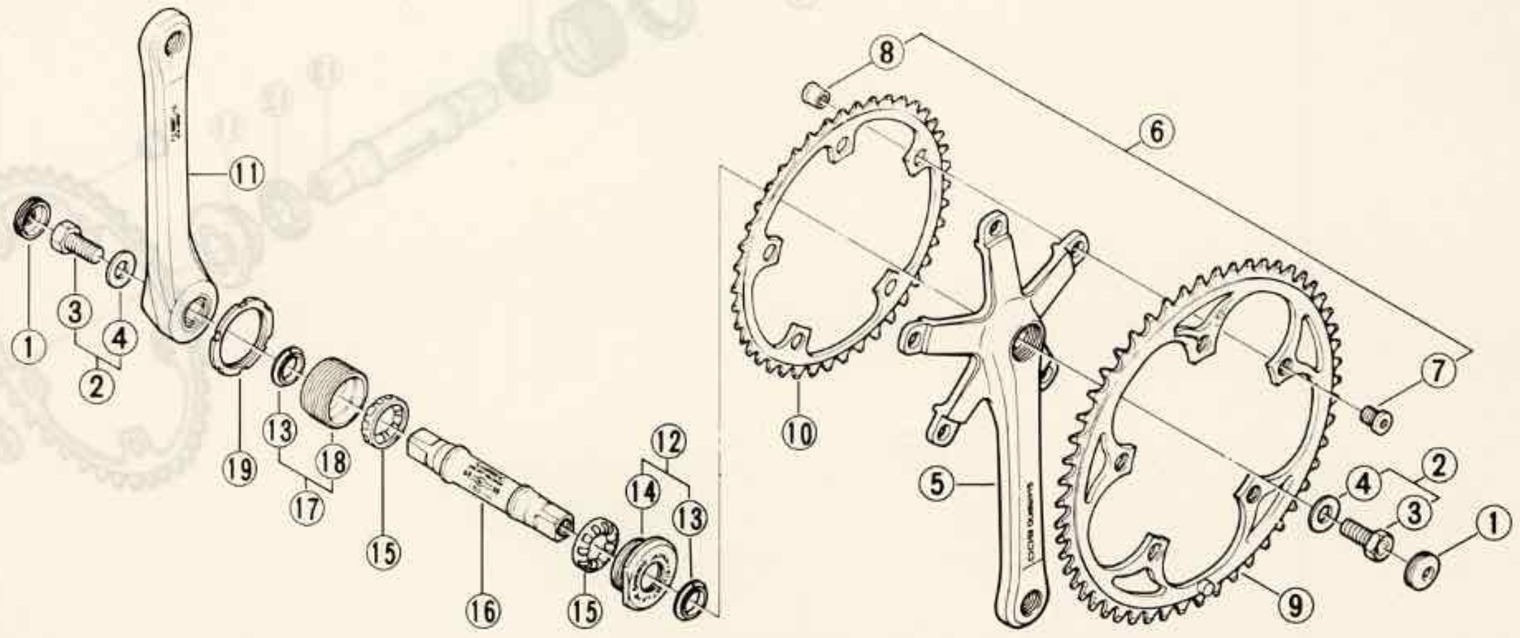
Material of Chain Ring
● Light Alloy·Anodized Finish

Features ● Computer Aided Design (CAD), Sealed Mechanism

Chain Line ● 1-23/32″ (43.5mm.)







ITEM NO.	PART NO.	DESCRIPTION
1	144 2001	Crank Arm Cap
2	3-179 9821	Crank Arm Fixing Bolt & Washer
3	134 0300	Crank Arm Fixing Bolt
4	134 0400	Crank Arm Fixing Washer
5	144 2100	Right Crank Arm 165mm(6-1/2")
	144 2200	Right Crank Arm 167.5mm(6-19/32")
	144 2300	Right Crank Arm 170mm(6-11/16")
	144 2110	Right Crank Arm 165mm(6-1/2") French Thread
	144 2210	Right Crank Arm 167.5mm(6-19/32") French Thread
	144 2310	Right Crank Arm 170mm(6-11/16") French Thread
6	3-132 9801	Chainring Fixing Bolt & Nut (5pcs.)
7	132 0502	Chainring Fixing Bolt
8	132 0600	Chainring Fixing Nut
9	144 4800	Chainring 48T
	144 4900	Chainring 49T
	144 5000	Chainring 50T
	144 5100	Chainring 51T
	144 5200	Chainring 52T
	144 5300	Chainring 53T
10	145 3910	Chainring 39T
	145 4010	Chainring 40T
	145 4110	Chainring 41T
	145 4210	Chainring 42T
	145 4310	Chainring 43T
	145 4410	Chainring 44T
	145 4510	Chainring 45T
11	144 2500	Left Crank Arm 165mm(6-1/2")
	144 2600	Left Crank Arm 167.5mm(6-19/32")

ITEM NO.	PART NO.	DESCRIPTION
11	144 2700	Left Crank Arm 170mm(6-11/16")
	144 2510	Left Crank Arm 165mm(6-1/2") French Thread
	144 2610	Left Crank Arm 167.5mm(6-19/32") French Thread
	144 2710	Left Crank Arm 170mm(6-11/16") French Thread
12	3-179 9801	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Cap
	3-179 9802	Right Hand Fixed Cup (35xP1) French Thread & Seal Cap
	3-179 9803	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Cap
13	179 0100	Seal Cap
14	179 0200	Right Hand Fixed Cup (1.37"x24T) English Thread
	179 0300	Right Hand Fixed Cup (35xP1) French Thread
	179 0500	Right Hand Fixed Cup (36x24T) Italian Thread
15	3-137 9001	Ball Retainer
16	148 0104	Spindle (D-3L) 116mm for Shell Width 68mm
	148 0113	Spindle (D-5LL) 119mm for Shell Width 70mm
17	3-179 9811	Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Cap
	3-179 9812	Left Hand Adjustable Cup (35xP1) French Thread & Seal Cap
	3-179 9813	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Cap
18	179 1100	Left Hand Adjustable Cup (1.37"x24T) English Thread
	179 1200	Left Hand Adjustable Cup (35xP1) French Thread
	179 1300	Left Hand Adjustable Cup (36x24T) Italian Thread
19	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 0520	Lock Ring (36x24T) Italian Thread

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FC

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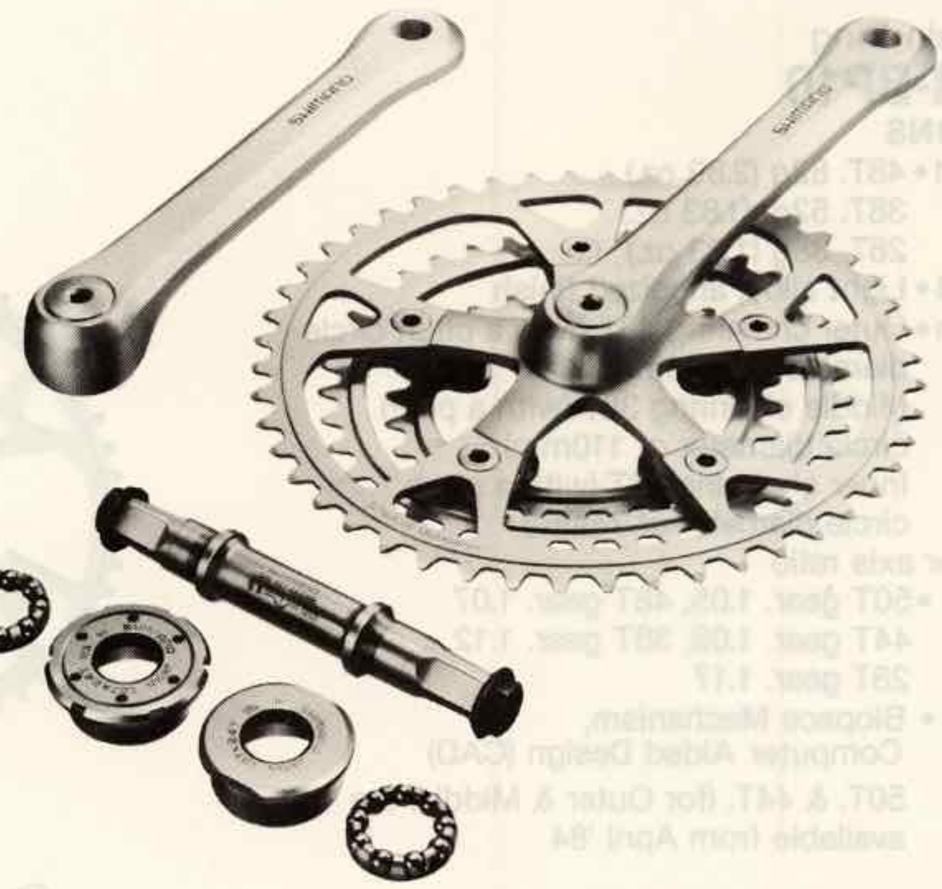
Model FC-6206 Biopace (Triple)
Model BB-6207 Bottom Bracket Assembly

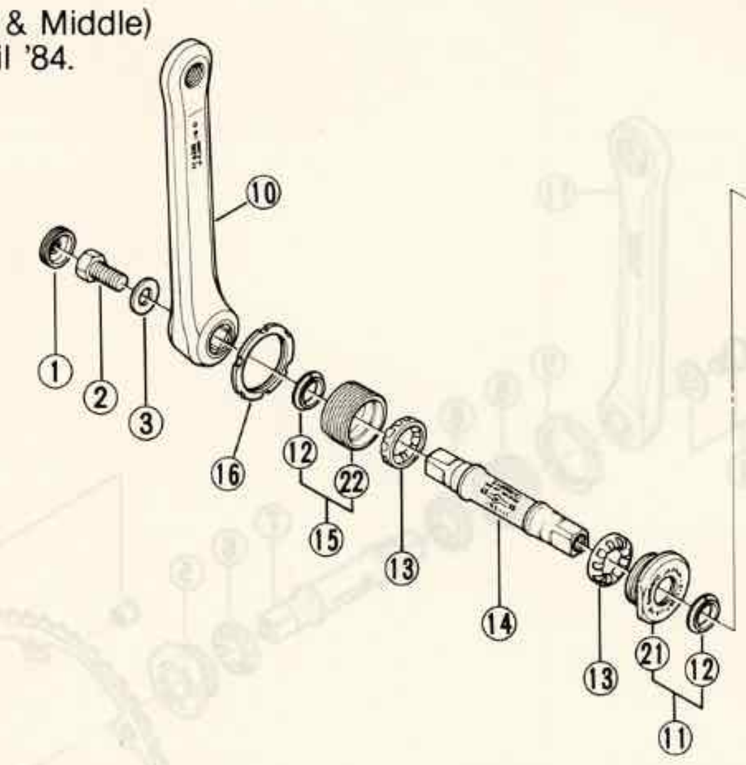
NEW SHIMANO 600 EX

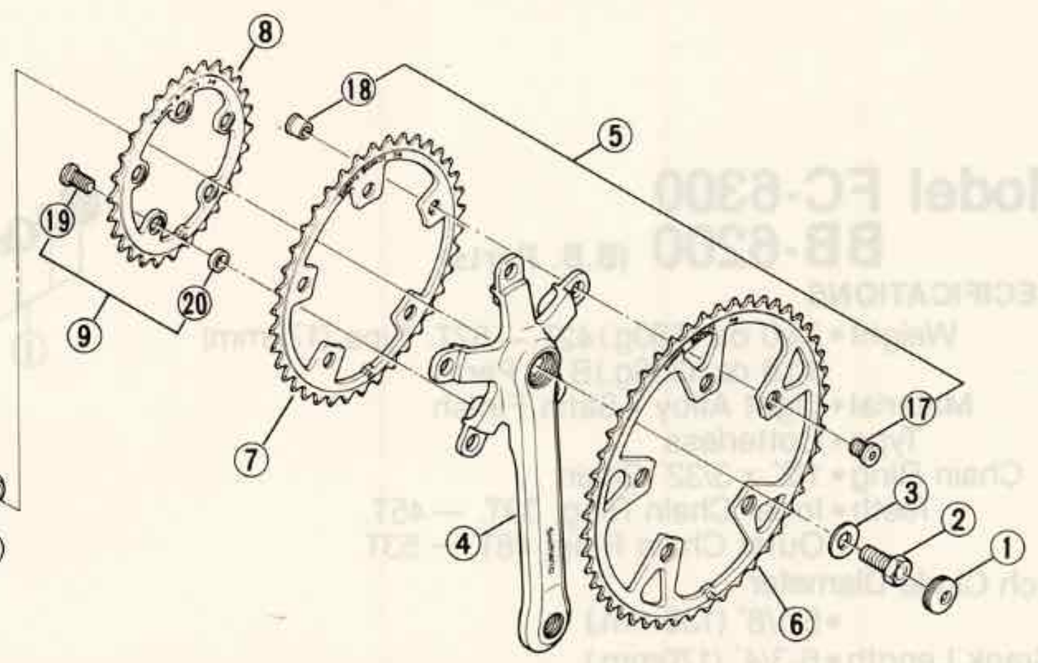
Model FC-6206 Biopace (Triple)
BB-6207 (B.B. Parts)

SPECIFICATIONS

- Weight • 24.7 oz. (700g.) (28-38-48T, 170mm.)
  11.6 oz. (330g.) (B.B. Parts)
- Material • Light Alloy · Anodized, Buff Finish
- Teeth • Inner; 28T.
  Middle; 38T. & 44T.
  Outer; 48T. & 50T.
- Crank Length • 6-1/2″ (165mm.), 6-3/4″ (170mm.), 6-7/8″ (175mm.) 7-1/12″ (180mm.)
- Crank Thread • BC9/16″ × 20 T.P.I., French M14 × 1.25
- Cup Thread • BC1.37 × 24 T.P.I. (English) M35 × 1.0 (French), M36 × 24 T.P.I. (Italian)
- B.B. Size • 68-T-121.5 (D-3SS), 70-T-124.5 (5S-B)
- Features • Computer Aided Design (CAD), Sealed Mechanism
- Chain Line • 1-25/32″ (45mm.) 50T. & 44T. (for Outer & Middle) are available from April '84.







ITEM NO.	PART NO.	DESCRIPTION
1	144 2001	Crank Arm Cap
2	134 0300	Crank Arm Fixing Bolt
3	134 0400	Crank Arm Fixing Washer
4	144 6100	Right Crank Arm 165mm(6-1/2")
	144 6300	Right Crank Arm 170mm(6-11/16")
	144 6410	Right Crank Arm 175mm(6-7/8")
	144 6430	Right Crank Arm 180mm(7-3/32")
	144 6110	Right Crank Arm 165mm(6-1/2") French Thread
	144 6310	Right Crank Arm 170mm(6-11/16") French Thread
	144 6411	Right Crank Arm 175mm(6-7/8") French Thread
	144 6431	Right Crank Arm 180mm(7-3/32") French Thread
5	3-132 9802	Chainring Fixing Bolt & Nut (5pcs.)
6	147 4800	Chainring 48T
	147 5000	Chainring 50T
7	147 3800	Chainring 38T
	147 4400	Chainring 44T
8	147 2800	Chainring 28T
9	3-143 9801	Triple Gear Fixing Bolt & Spacer (5pcs.)
10	144 6500	Left Crank Arm 165mm(6-1/2")
	144 6700	Left Crank Arm 170mm(6-11/16")
	144 6460	Left Crank Arm 175mm(6-7/8")
	144 6480	Left Crank Arm 180mm(7-3/32")
	144 6510	Left Crank Arm 165mm(6-1/2") French Thread
	144 6710	Left Crank Arm 170mm(6-11/16") French Thread
	144 6461	Left Crank Arm 175mm(6-7/8") French Thread
	144 6481	Left Crank Arm 180mm(7-3/32") French Thread
11	3-179 9801	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Cap
	3-179 9802	Right Hand Fixed Cup (35xP1) French Thread & Seal Cap
	3-179 9803	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Cap

ITEM NO.	PART NO.	DESCRIPTION
12	179 0100	Seal Cap
13	3-137 9001	Ball Retainer
14	148 0104	Spindle (D-3L) 116mm for Shell Width 68mm / Double Gear
	148 0113	Spindle (D-5LL) 119mm for Shell Width 70mm / Double Gear
	149 1301	Spindle (D-3SS) 121.5mm for Shell Width 68mm / Triple Gear
	149 1311	Spindle (5S-B) 124.5mm for Shell Width 70mm / Triple Gear
15	3-179 9811	Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Cap
	3-179 9812	Left Hand Adjustable Cup (35xP1) French Thread & Seal Cap
	3-179 9813	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Cap
16	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 0520	Lock Ring (36x24T) Italian Thread
17	132 0503	Chainring Fixing Bolt (5pcs.)
18	132 0600	Chainring Fixing Nut (5pcs.)
19	132 0503	Triple Gear Fixing Bolt (5pcs.)
20	144 7000	Spacer for Triple Gear (5pcs.)
21	179 0200	Right Hand Fixed Cup (1.37"x24T) English Thread
	179 0300	Right Hand Fixed Cup (35xP1) French Thread
	179 0500	Right Hand Fixed Cup (36x24T) Italian Thread
22	179 1100	Left Hand Adjustable Cup (1.37"x24T) English Thread
	179 1200	Left Hand Adjustable Cup (35xP1) French Thread
	179 1300	Left Hand Adjustable Cup (36x24T) Italian Thread

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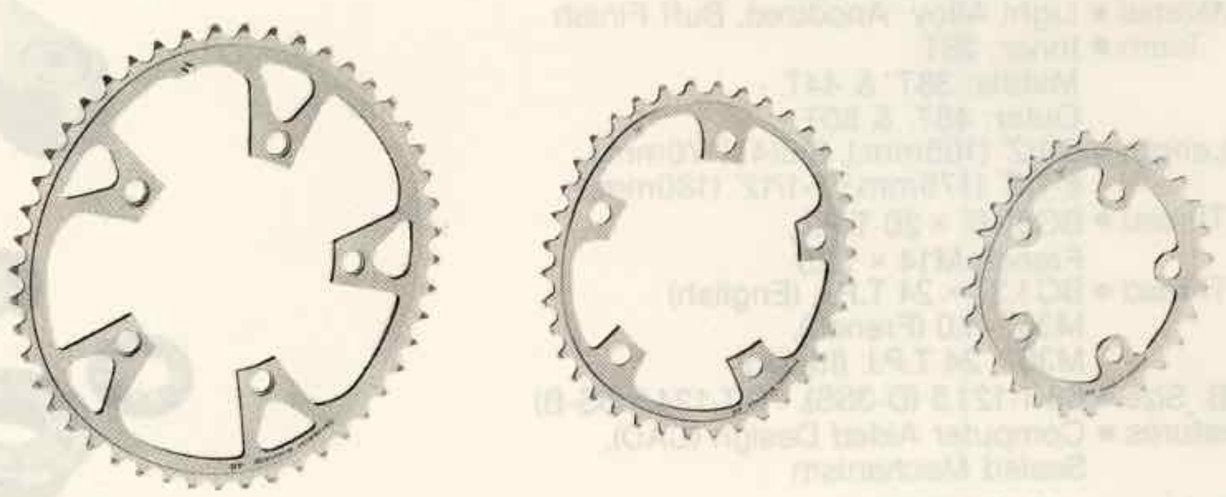
Front Chainwheel

Model CR-BP10 BIOPACE Chain Ring
Model FC-6300
Model BB-6200 Bottom Bracket Assembly

biopace

BIOPACE Chain Ring
Model CR-BP10
SPECIFICATIONS

Weight • 48T. 82g (2.89 oz.)
38T. 52g. (1.83 oz.)
28T. 35g (1.23 oz.)
Material • Light alloy, anodized finish
Number of teeth • Outer chainring 48T (with a pitch circle diameter of 110mm)
Middle chainring 38T (with a pitch circle diameter of 110mm)
Inner chainring 28T (with a pitch circle diameter of 74mm)
Major axis/minor axis ratio
• 50T gear. 1.05, 48T gear. 1.07
44T gear. 1.09, 38T gear. 1.12
28T gear. 1.17
Features • Biopace Mechanism, Computer Aided Design (CAD)
50T. & 44T. (for Outer & Middle) are available from April '84

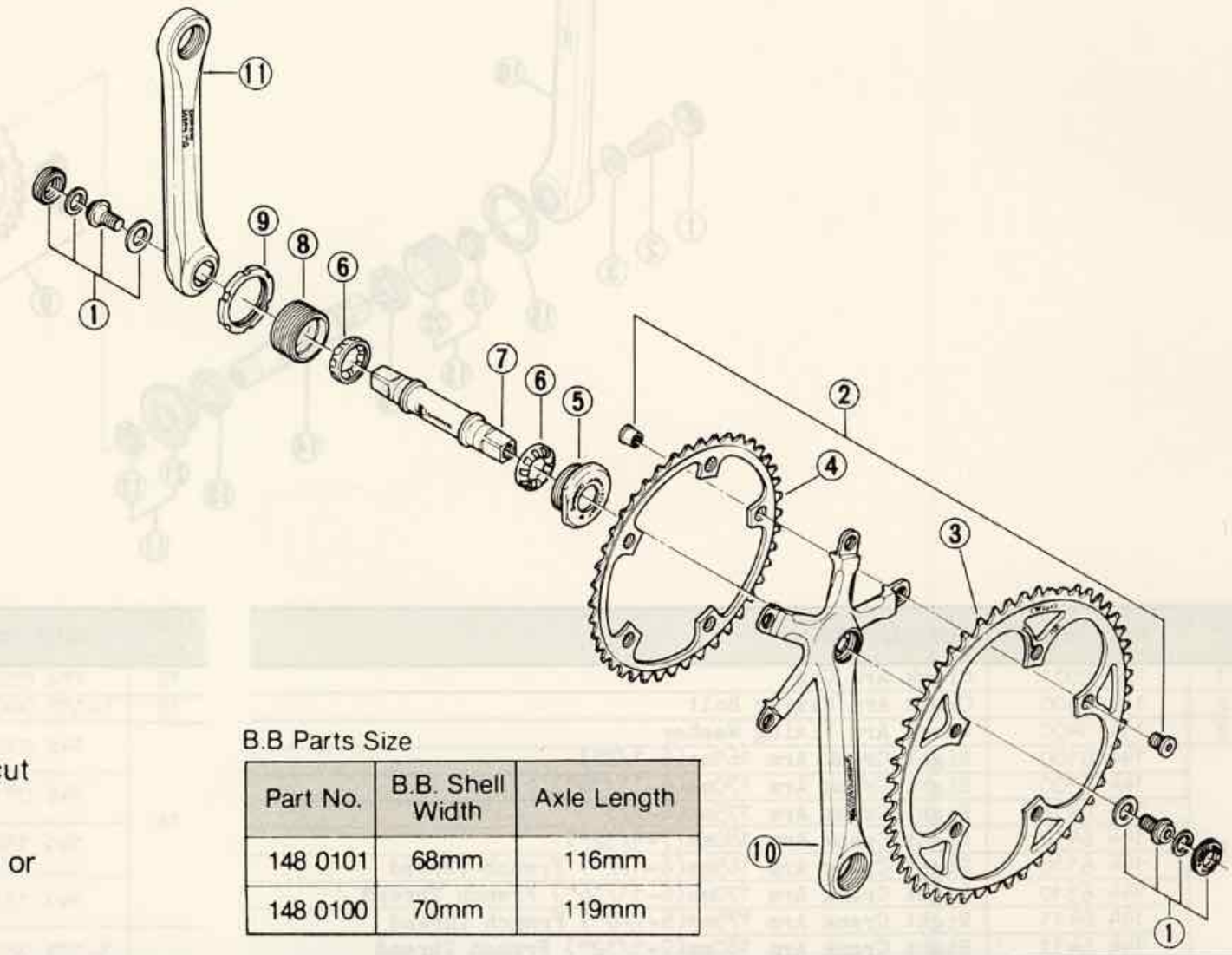


FC

Model FC-6300
BB-6200 (B.B. Parts)

SPECIFICATIONS

Weight • 24.0 oz. (680g.) 42T.—52T. Type, (170mm)
10.8 oz. (306g.) B.B. Parts
Material • Light Alloy • Satin Finish
Type • Cotterless
Chain Ring • 1/2″ × 3/32″ Chain
Teeth • Inner Chain Ring; 39T. —45T.
Outer Chain Ring; 48T. — 53T.
Pitch Circle Diameter
• 5-1/8″ (130mm.)
Crank Length • 6-3/4″ (170mm.)
Crank Thread • BC1 × 24 T.P.I. (English)
Cup Thread • BC1.37 × 24 T.P.I. (English)
M35 × 1.0 (French), M36 × 24 T.P.I. (Italian)
Chain Ring Material
• Light Alloy • Anodized Finish
Features • Aerodynamic Design/Offset Crank Arm/W-cut Mechanism/ One Key Release Mechanism/ Safety Crank Arm
Use • With SHIMANO 600AX DD Pedal (PD-6300) or DURA-ACE DD Pedal (PD-7310)
Chain Line • 1-23/32″ (43.5mm.)



B.B Parts Size

Part No.	B.B. Shell Width	Axle Length
148 0101	68mm	116mm
148 0100	70mm	119mm

ITEM NO.	PART NO.	DESCRIPTION
1	3-148 9002	Crank Arm Fixing Bolt Unit
2	3-132 9801	Chainring Fixing Bolt & Nut (5pcs.)
3	193 4801	Chainring 48T
	193 4901	Chainring 49T
	193 5001	Chainring 50T
	193 5101	Chainring 51T
	193 5201	Chainring 52T
	193 5301	Chainring 53T
4	145 3910	Chainring 39T
	145 4010	Chainring 40T
	145 4110	Chainring 41T
	145 4210	Chainring 42T
	145 4310	Chainring 43T
	145 4410	Chainring 44T
	145 4510	Chainring 45T
5	148 0200	Right Hand Fixed Cup (1.37x24T) English Thread
	148 0210	Right Hand Fixed Cup (35xP1) French Thread

ITEM NO.	PART NO.	DESCRIPTION
5	148 0220	Right Hand Fixed Cup (36x24T) Italian Thread
6	3-137 9001	Ball Retainer
7	148 0101	Bottom Bracket Spindle 116mm(4-9/16") for Shell Width 68mm(2-11/16")
	148 0110	Bottom Bracket Spindle 119mm(4-11/16") for Shell Width 70mm(2-3/4")
8	148 0300	Left Hand Adjustable Cup (1.37"x24T) English Thread
	148 0310	Left Hand Adjustable Cup (35xP1) French Thread
	148 0320	Left Hand Adjustable Cup (36x24T) Italian Thread
9	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 0520	Lock Ring (36x24T) Italian Thread
10	193 0100	Right Crank Arm 165mm(6-1/2")
	193 0110	Right Crank Arm 170mm(6-11/16")
11	194 0100	Left Crank Arm 165mm(6-1/2")
	194 0110	Left Crank Arm 170mm(6-11/16")

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UE

Front Chainwheel

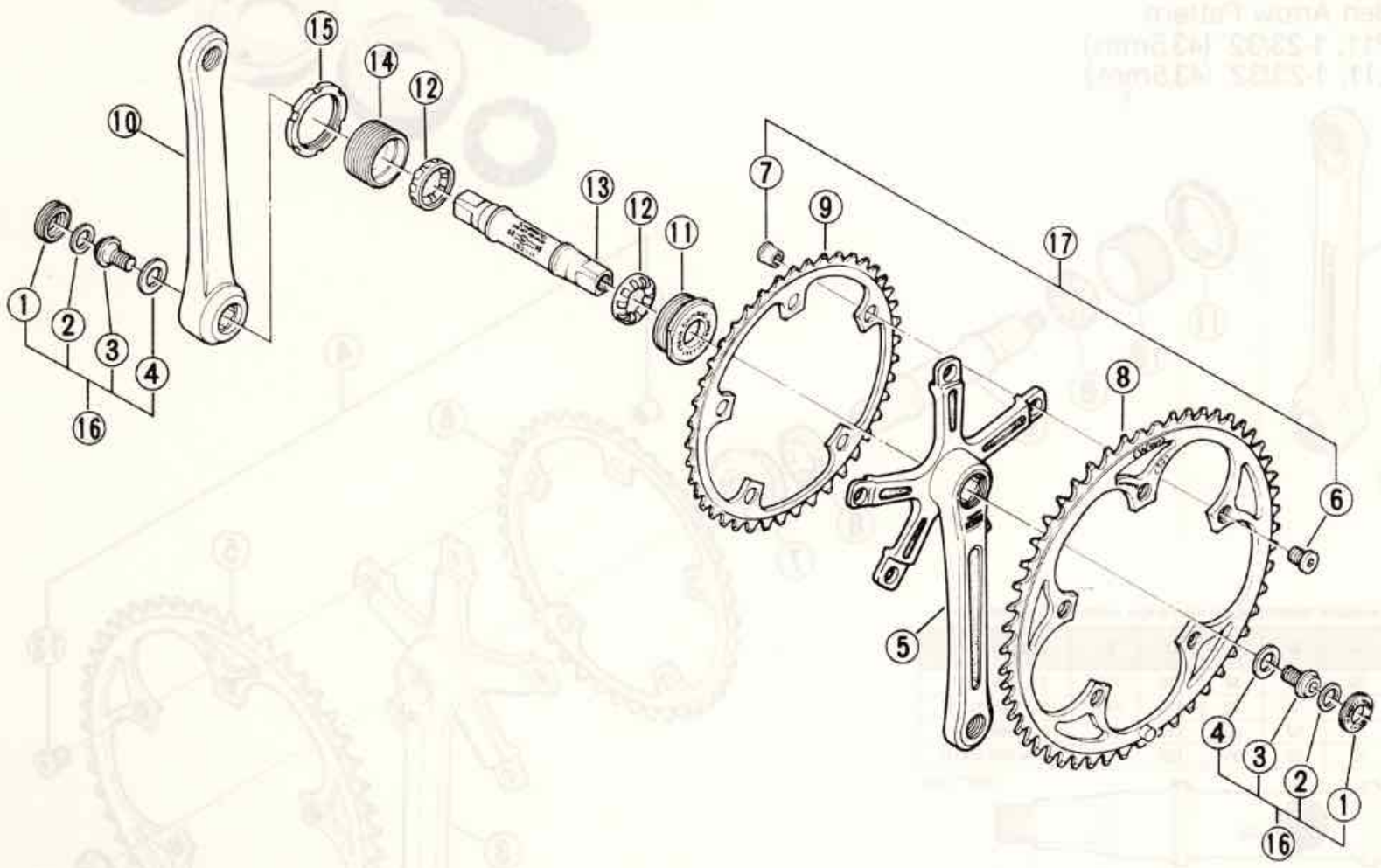
Model FC-6200
Model BB-6210 Bottom Bracket Assembly

SHIMANO 600 EX

Model FC-6200
BB-6210 (Spindle Length 119mm. for 165mm. Crank.)

SPECIFICATIONS

Material ● Light Alloy • Anodized Finish
Type ● Cotterless
Chain Ring ● 1/2" x 3/32" Chain
Teeth ● Inner 39T~45T
Outer 48T~53T
Pitch Circle Diameter
● 5-1/8" (130mm.)
Crank Lengths
● 6-3/4" (170mm.)
Crank Thread ● BC9/16 × 20 T.P.I., French M14 × 1.25
Cup Thread ● BC 1.37 × 24 T.P.I. (English),
M35 × 1.0 (French),
M36 × 24 T.P.I. (Italian)
Material of Chain Ring
● Light Alloy • Anodized Finish
W cut Mechanism, One Key Release Mechanism,
Safety Crank Arm and Arabesque Pattern Design
Chain Line ● 1-25/32" (43.5mm.)



ITEM NO.	PART NO.	DESCRIPTION
1	148 0400	Crank Arm Cap
2	148 0500	Washer A
3	148 0600	Crank Arm Fixing Bolt
4	148 0700	Washer B
5	3-145 9001	Right Crank Arm 165mm(6-1/2")
	145 0111	Right Crank Arm 170mm(6-3/4")
6	132 0502	Chainring Fixing Bolt (5pcs.)
7	132 0600	Chainring Fixing Nut (5pcs.)
8	145 4860	Chainring 48T
	145 4960	Chainring 49T
	145 5060	Chainring 50T
	145 5160	Chainring 51T
	145 5260	Chainring 52T
	145 5360	Chainring 53T
9	145 3910	Chainring 39T
	145 4010	Chainring 40T
	145 4110	Chainring 41T
	145 4210	Chainring 42T
	145 4310	Chainring 43T

ITEM NO.	PART NO.	DESCRIPTION
9	145 4410	Chainring 44T
	145 4510	Chainring 45T
10	146 0100	Left Crank Arm 165mm(6-1/2")
	146 0110	Left Crank Arm 170mm(6-3/4")
11	148 0200	Right Hand Fixed Cup (1.37"x24T)
12	3-137 9001	Ball Retainer
13	148 0101	Spindle 116mm(4-9/16") for Shell Width: 68mm(2-11/16")/Crank Length: 170mm(6-3/4")
	148 0110	Spindle 119mm(4-11/16") for Shell Width: 70mm(2-3/4")/Crank Length: 170mm(6-3/4")
	148 0100	Spindle 119mm(4-11/16") for Shell Width: 68mm(2-11/16")/Crank Length: 165mm(6-1/2")
	148 0111	Spindle 122mm(4-13/16") for Shell Width: 70mm(2-3/4")/Crank Length: 165mm(6-1/2")
14	148 0300	Left Hand Adjustable Cup (1.37"x24T)
15	137 0500	Lock Ring (1.37"x24T)
16	3-148 9002	Crank Arm Fixing Bolt Unit
17	3-132 9801	Chainring Fixing Bolt & Nut (5pcs.)

8401-329G

Front Chainwheel

Model FC-S125
Model BB-3L11 Bottom Bracket Assembly

Model FC-S105
Model BB-3P11 Bottom Bracket Assembly

SHIMANO 105

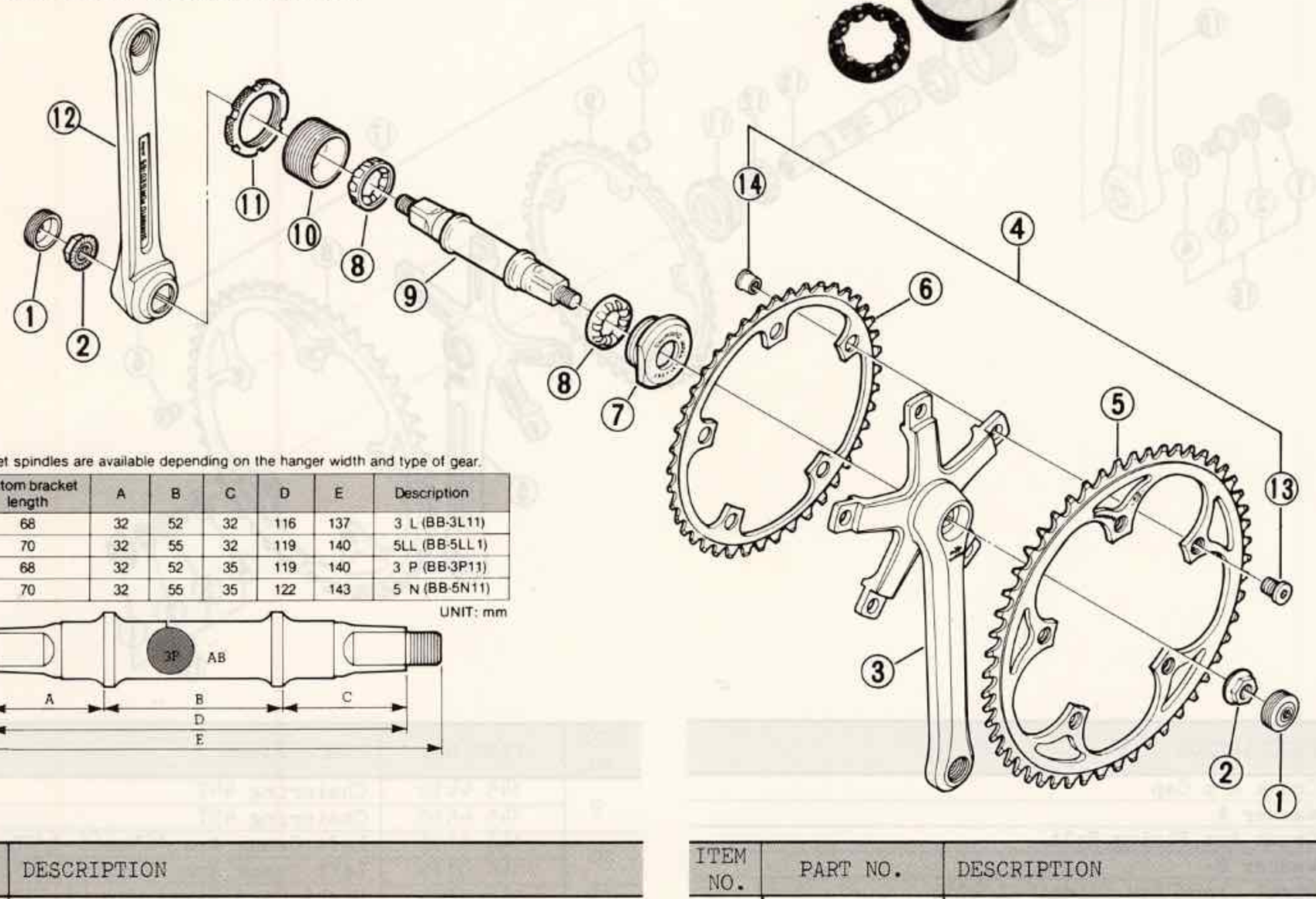
Model FC-S125 (Swaged Crank)
BB-3L11 (B.B. Parts)
Model FC-S105
BB-3P11 (B.B. Parts)

SPECIFICATIONS

Weight • 21.8 oz. (618g)/(Model FC-S125)
11.1 oz. (314g)/(Model BB-3P11)
Material • Light Alloy · Anodized Finish
Type • Cotterless
Chain Ring • 1/2″ × 3/32″ Chain
Teeth • FC-S125/42T–52T Type
FC-S105/42T–52T Type
Pitch Circle Diameter
• 5-1/8″ (130mm.)
Crank Lengths • 6-3/4″ (170mm.)
Crank Thread • BC9/16 × 20 T.P.I.,
French M14 × 1.25
Cup Thread • BC1.37 × 24 T.P.I. (English)
M35 × 1.0 (French),
M36 × 24 T.P.I. (Italian)
Cold Forged Crank, Golden Arrow Pattern
Chain Line • S125/3P11; 1-23/32″ (43.5mm.)
S105/3L11; 1-23/32″ (43.5mm.)



FC-S125



• Bottom bracket spindles are available depending on the hanger width and type of gear.

Front chainwheel Model No.	Bottom bracket length	A	B	C	D	E	Description
FC-S105	68	32	52	32	116	137	3 L (BB-3L11)
	70	32	55	32	119	140	5LL (BB-5LL1)
FC-S125	68	32	52	35	119	140	3 P (BB-3P11)
	70	32	55	35	122	143	5 N (BB-5N11)

UNIT: mm

ITEM NO.	PART NO.	DESCRIPTION
1	168 2000	Crank Arm Cap
2	148 0800	Crank Arm Fixing Nut
3	3-168 9801	Right Crank Arm 165mm(6-1/2")
	3-168 9802	Right Crank Arm 170mm(6-11/16")
4	3-132 9801	Chainring Fixing Bolt & Nut (5pcs.)
5	168 5200	Chainring 52T
6	168 4200	Chainring 42T
7	178 0101	Right Hand Fixed Cup (1.37"x24T)
	178 0102	Right Hand Fixed Cup (M35xP1)
8	3-188 9001	Ball Retainer (1/4")
9	178 0201	Bottom Bracket Spindle 119mm(4-11/16") for Shell Length 68mm(2-11/16")

ITEM NO.	PART NO.	DESCRIPTION
9	178 0203	Bottom Bracket Spindle 122mm(4-13/16") for Shell Length 70mm(2-3/4")
10	178 0301	Left Hand Adjustable Cup (1.37"x24T)
	178 0302	Left Hand Adjustable Cup (M35xP1)
11	178 0401	Lock Ring (1.37"x24T)
	178 0402	Lock Ring (M35xP1)
12	169 0500	Left Crank Arm 165mm(6-1/2")
	169 0600	Left Crank Arm 170mm(6-11/16")
13	132 0502	Chainring Fixing Bolt (5pcs.)
14	132 0600	Chainring Fixing Nut (5pcs.)

8401-559B

Front Chainwheel

Model FC-DE20 Double/LD Type.
Model BB-6210 Bottom Bracket Assembly

Model FC-DE31 Triple/LD Type
Model BB-DE30 Bottom Bracket Assembly

SHIMANO DEORE SERIES

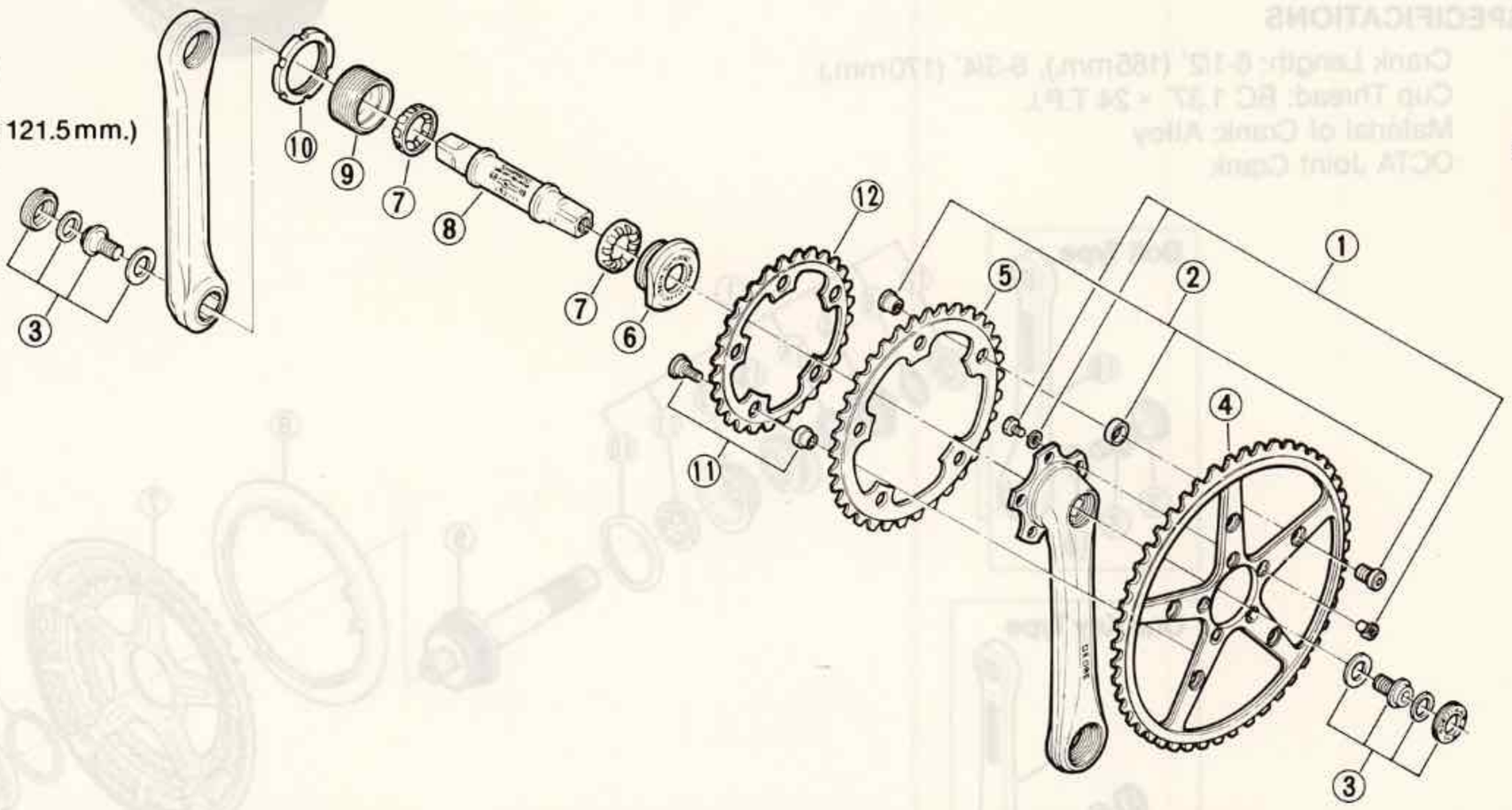
Model FC-DE20 (Double/LD Type)
BB-6210 (Spindle Length 119mm.)

SPECIFICATIONS

Material: Light Alloy (Top Sprocket/Forged)
Type: Cotterless 5-Pin Type
Chain Ring: 1/2″ × 3/32″ Chain
Teeth: LD Type/Inner Chain Ring 39T.~45T.
Outer Chain Ring 48T.~53T.
Pitch Circle Diameter: LD Type; 5-1/8″ (130mm.)
Crank Lengths: 6-3/4″ (170mm.)
Crank Thread: BC1 × 24 T.P.I. (English)
Cup Thread: BC1.37 × 24 T.P.I. (English),
M35 × 1.0 (French),
M36 × 24 T.P.I. (Italian)
Aerodynamic Design, One Key Release, Safety Crank Arm
Use: With DEORE DD Pedal (Model PD-DE10)
Chain Line: 1-23/32″ (43.5mm.)

Model FC-DE31 (Triple/LD Type)
BB-DE30 (Spindle Length 121.5mm.)

Teeth: LD Type/Inner Chain Ring 28T~33T
Middle Chain Ring 39T~45T
Outer Chain Ring 48T~53T
Pitch Circle Diameter:
Inner; 3-11/16″ (85mm.)
Chain Line; 1-3/4″ (44.5mm.)



ITEM NO.	PART NO.	DESCRIPTION
1	3-149 9001	Crank & Chainring Fixing Bolt Unit (5pcs.)
2	3-149 9002	Chainring Fixing Bolt Unit (5pcs.)
3	3-148 9002	Crank Arm Fixing Bolt Unit
4	149 4801	Chainring 48T (LD-Type)
	149 4901	Chainring 49T (LD-Type)
	149 5001	Chainring 50T (LD-Type)
	149 5101	Chainring 51T (LD-Type)
	149 5201	Chainring 52T (LD-Type)
	149 5301	Chainring 53T (LD-Type)
5	145 3910	Chainring 39T (LD-Type)
	145 4010	Chainring 40T (LD-Type)
	145 4110	Chainring 41T (LD-Type)
	145 4210	Chainring 42T (LD-Type)
	145 4310	Chainring 43T (LD-Type)
	145 4410	Chainring 44T (LD-Type)
	145 4510	Chainring 45T (LD-Type)
6	148 0200	Right Hand Fixed Cup (1.37"x24T) English Thread
	148 0210	Right Hand Fixed Cup (35xP1) French Thread
	148 0220	Right Hand Fixed Cup (36x24T) Italian Thread

ITEM NO.	PART NO.	DESCRIPTION
7	3-137 9001	Ball Retainer
8	148 0100	Bottom Bracket Spindle 119mm(4--11/16") for Double Gear
	149 1300	Bottom Bracket Spindle 121.5mm(4-25/32") for Triple Gear
9	148 0300	Left Hand Adjustable Cup (1.37"x24T) English Thread
	148 0310	Left Hand Adjustable Cup (35xP1) French Thread
	148 0320	Left Hand Adjustable Cup (36x24T) Italian Thread
10	137 0500	Lock Ring (1.37"x24T) English Thread
	137 0510	Lock Ring (35xP1) French Thread
	137 1520	Lock Ring (36x24T) Italian Thread
11	3-149 9003	Triple Gear Fixing Bolt & Spacer for spindle Length 121.5mm(4-25/32") 5pcs.
	3-149 9004	Triple Gear Fixing Bolt & Spacer for Spindle Length 119mm(4-11/16") 5pcs.
12	149 2810	Chainring 28T for Triple
	149 2910	Chainring 29T for Triple
	149 3010	Chainring 30T for Triple
	149 3110	Chainring 31T for Triple
	149 3210	Chainring 32T for Triple
	149 3310	Chainring 33T for triple

8309-422C

Front Chainwheel

Model FC-FF33
Model FC-FF34
Model BB-FF30 Bottom Bracket Assembly

FRONT FREEWHEELING FF SYSTEM

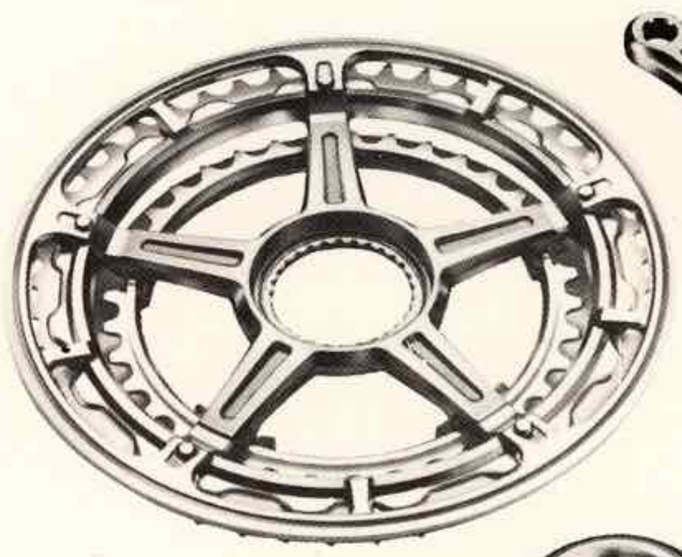
DOUBLE CHAINWHEEL
For Three-Piece Crank

Model FC-FF33
FC-FF34

SPECIFICATIONS

Weight: 13.9oz. (393g) 52T-42T
Type: Twin Gear Double Chainwheel
Material: Body/Light Alloy
Outer Chain Ring/Steel
Standard Sprocket Teeth: 48T-36T, 52T-42T
Chain Size: 1/2" × 3/32" Chain
With Resin Protector on Low Side,
Ornamental Cap.

*(Single Gear Available)







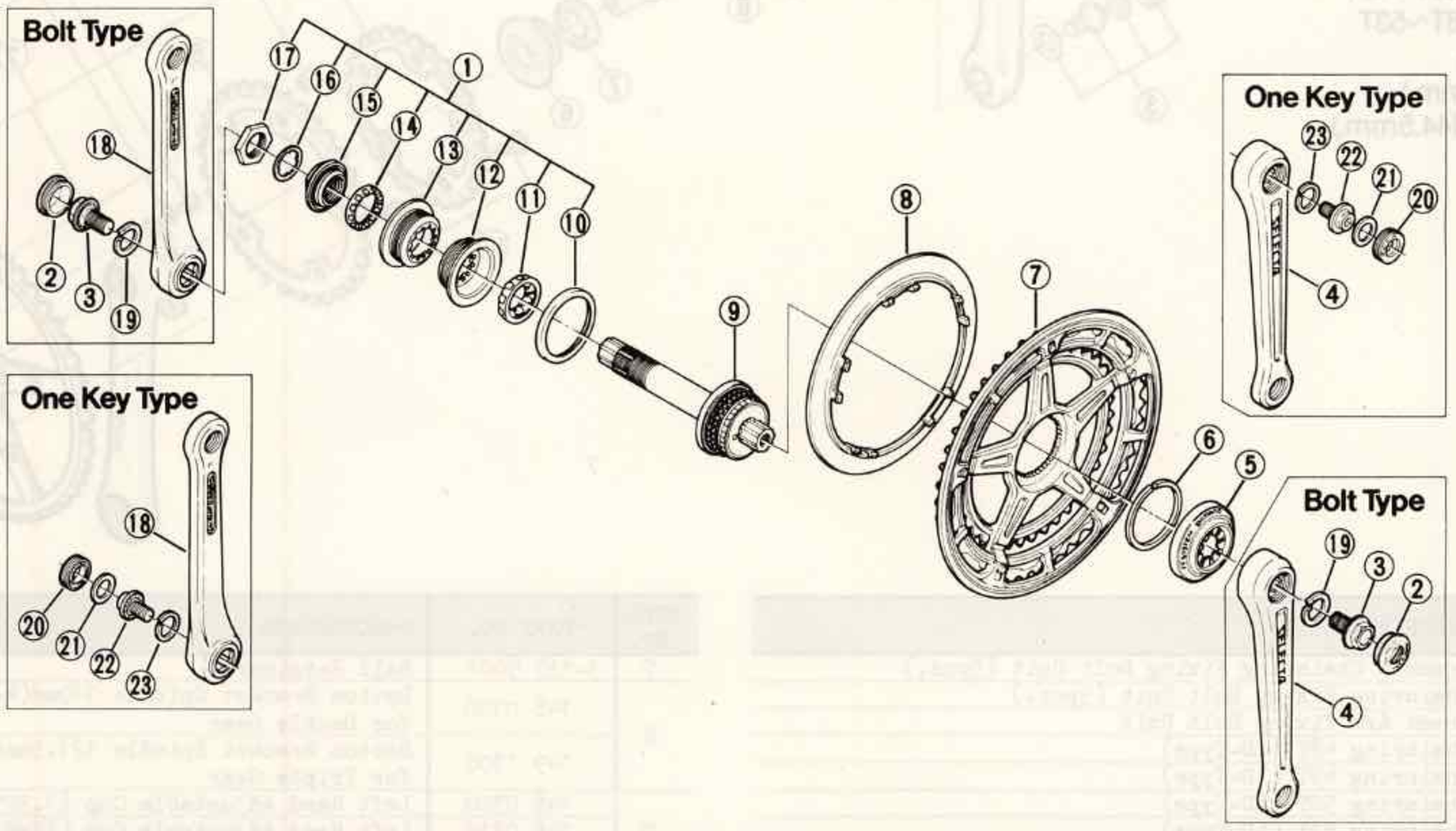


Bottom Bracket Set
& OCTA Joint Crank

Model BB-FF30

SPECIFICATIONS

Crank Length: 6-1/2" (165mm.), 6-3/4" (170mm.)
Cup Thread: BC 1.37" × 24 T.P.I.
Material of Crank: Alloy
OCTA Joint Crank



ITEM NO.	PART NO.	DESCRIPTION
1	3-187 9501	Ball Cup Assembly
2	155 0804	Crank Arm Cap (Blue) for Bolt Type
3	155 0701	Crank Arm Fixing Bolt for Bolt Type
4	165 0104-1	Right Crank Arm 165mm(6-1/2") for Bolt Type
	165 0102-1	Right Crank Arm 170mm(6-11/16") for Bolt Type
	165 0122	Right Crank Arm 165mm(6-1/2") for One Key Type
	165 0121	Right Crank Arm 170mm(6-11/16") for One Key Type
5	188 5501	Cap
6	188 2000-1	Snap Ring
7	3-182 9801	Double Chainring 48T-36T
	3-182 9802	Double Chainring 52T-42T
8	164 0300	Low Side Protector
9	3-188 9501	Bottom Bracket Assembly
10	188 2200	Seal
11	3-188 9001	Ball Retainer (1/4")

ITEM NO.	PART NO.	DESCRIPTION
12	188 0300-2	Right Hand Ball Cup
13	188 0400-2	Left Hand Ball Cup
14	3-188 9002	Ball Retainer (3/16")
15	3-188 9004-1	Cone w/Dust Cap
16	188 1401-1	Key Washer
17	188 0701	Left Hand Lock Nut
18	165 0504-1	Left Crank Arm 165mm(6-1/2") for Bolt Type
	165 0502-1	Left Crank Arm 170mm(6-11/16") for Bolt Type
	165 0522	Left Crank Arm 165mm(6-1/2") for One Key Type
	165 0521	Left Crank Arm 170mm(6-11/16") for One Key Type
19	155 0702	Spring Washer for Bolt Type
20	165 0600	Crank Arm Cap for One Key Type
21	165 0700	Washer for One Key Type
22	165 0801	Crank Arm Fixing Bolt for One Key Type
23	165 0802	Spring Washer for One Key Type

8202-418B

Model FC-FF35 Model FC-MX61 Single
Model BB-FF10 Model BB-MX60 Bottom Bracket Assembly

FRONT FREEWHEELING FF SYSTEM

SINGLE CHAINWHEEL
For Three-piece Crank

Model FC-FF35

SPECIFICATIONS

Weight: 19.6oz. (555g.) 46T
Material: Steel
Surface Treatment:
Chainwheel/Black Finish
Protector/Satin Nickel Finish (Silver)
Standard Sprocket Teeth: 44T, 46T
Chain Size: 1/2″ × 3/32″ Chain
With Chain Protector



Model BB-FF10

SPECIFICATIONS

Type: One-Piece Crank
Material: Steel

SHIMANO DX

Model FC-MX61 (Single)

SPECIFICATIONS

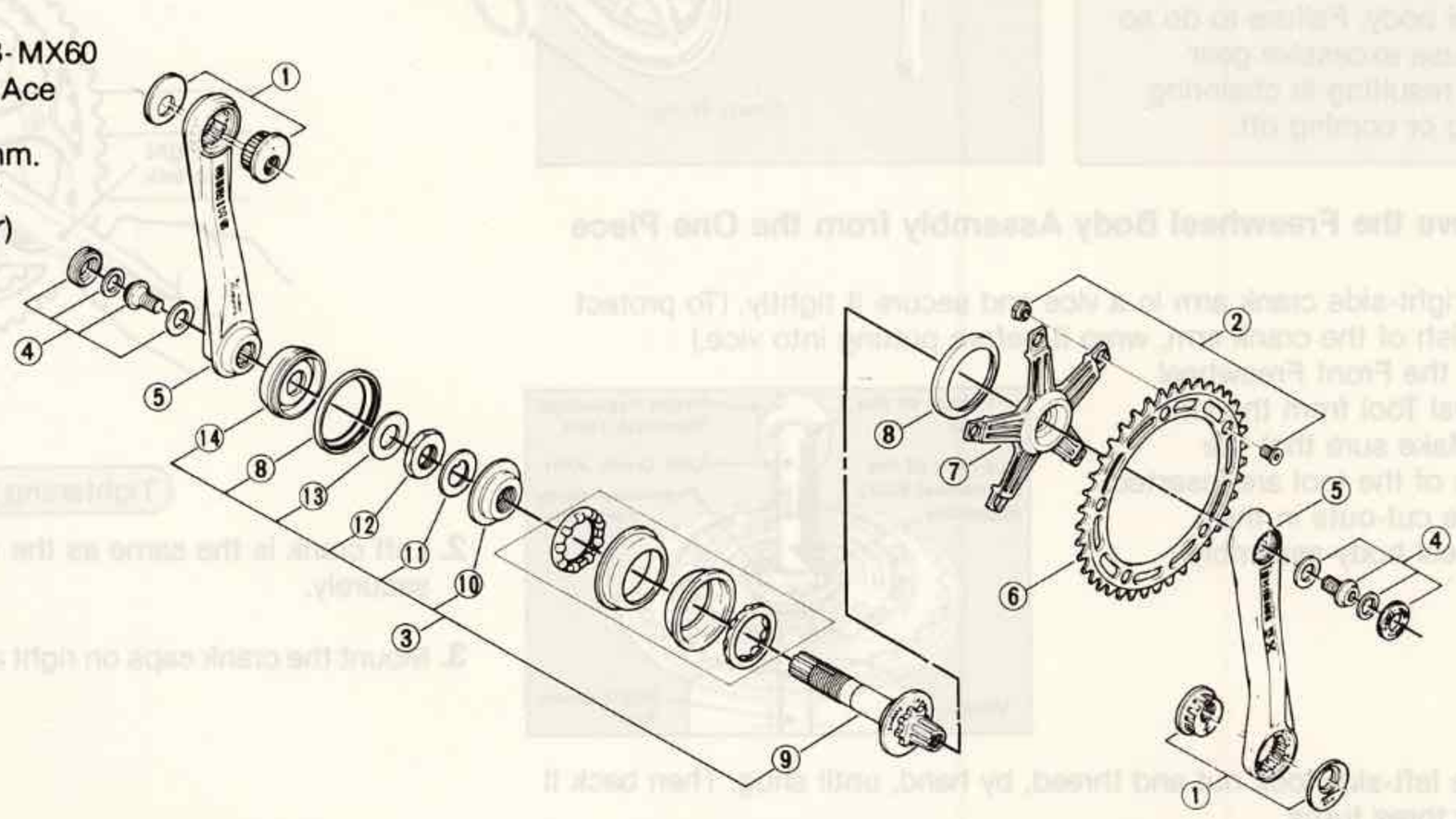
Material: Light Alloy
Type: Cotterless Type, Use with Model BB-MX60
Chain Ring: 39T∼44T (Use Shimano Dura-Ace Type Chain Ring)
Crank Length: 170, 172.5, 175, 177.5, 180mm.
Crank Arm can be altered to 5 different lengths (Color: Red, Blue, Gold or Silver)
Crank Thread: 9/16″ × 20T
Chain Line: 45.75mm.
Chain Size: 1/2″ × 3/32″
Mechanism: One Key Release and Z-Line Crank Arm

Conversion Axle Set

Model BB-MX60

SPECIFICATIONS

Material: Cr-Mo
Axle Length: 133mm.
Type: Octa Joint Type with Sealed Mechanism

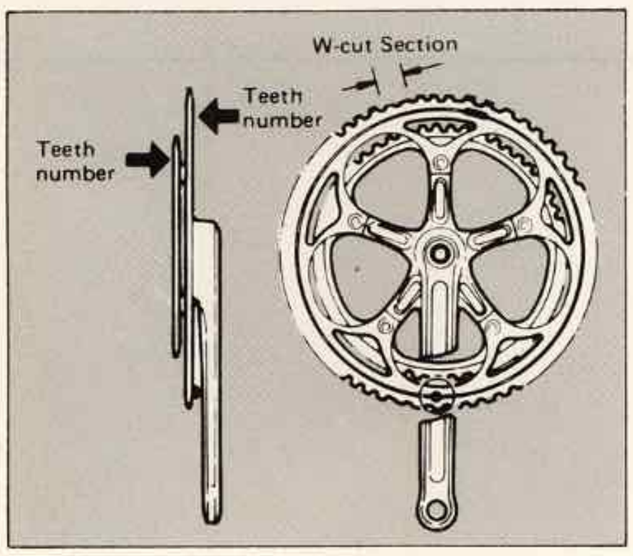


ITEM NO.	PART NO.	DESCRIPTION
1	3-175 9801	Right Pedal Adapter & Fixing Plate
	3-175 9802	Left Pedal Adapter & Fixing Plate
2	3-174 9001	Chainring Fixing Bolt & Nut
3	3-177 9801	Bottom Bracket Assembly (Red)
	3-177 9802	Bottom Bracket Assembly (Blue)
	3-177 9803	Bottom Bracket Assembly (Yellow)
4	3-148 9002	Crank Arm Fixing Bolt Unit
5	175 1100	Crank Arm (Silver) 170mm(6-11/16")
	175 1101	Crank Arm (Gold) 170mm(6-11/16")
	175 1102	Crank Arm (Blue) 170mm(6-11/16")
	175 1103	Crank Arm (Red) 170mm(6-11/16")
6	132 3900	Chainring 39T
	132 4000	Chainring 40T
	132 4100	Chainring 41T
	132 4200	Chainring 42T
	132 4300	Chainring 43T
6	132 4400	Chainring 44T
7	174 0100	Chainring Adapter (Silver)
	174 0101	Chainring Adapter (Gold)
	174 0102	Chainring Adapter (Blue)
	174 0103	Chainring Adapter (Red)
8	177 0701	Dust Cap (Red)
	177 0702	Dust Cap (Blue)
	177 0703	Dust Cap (Yellow)
9	3-177 9001	Bottom Bracket Spindle
10	177 0300	Left Hand Cone
11	177 0400	Key Washer
12	177 0500	Lock Nut
13	177 0800	Spindle Washer
14	177 0601	Left Hand Dust Cap (Red)
	177 0602	Left Hand Dust Cap (Blue)
	177 0603	Left Hand Dust Cap (Yellow)

8210-411C

Front Chainwheel Assembly Note & Tools.

(FC-7000, BB-7500, FC-7200, FC-7300, FC-6200, BB-6200, FC-7100, BB-7200)



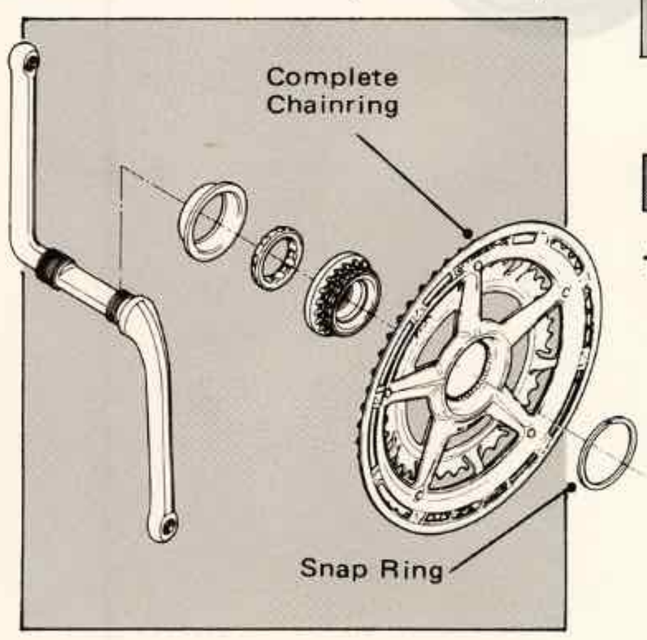
Assemble large gear and small gear so that teeth number signs are both facing out-wards. The large gear possesses W-cut teeth so assembly position should be aligned at a point just off center to the crank.

(FC-FF14)

Replacing Front Chainring

In order to remove the chainring from the one piece crank, it is not necessary to disassemble the bottom bracket.

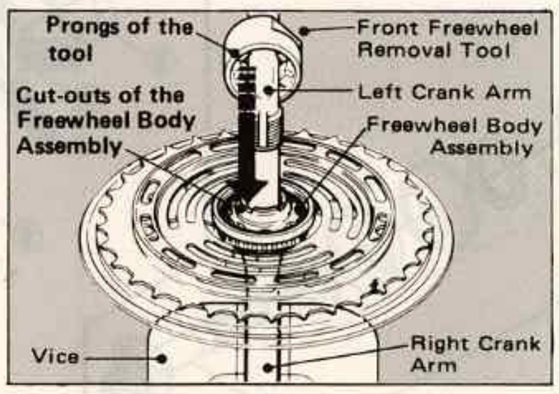
(1) Unscrew the pedal on the chainring side of the bike.
(2) Remove the snap ring from the front freewheel assembly with a snap ring removal tool.
(3) Remove chainring and slide it off the crank arm.
(4) After replacing the chainring, mount the chainring on the freewheel body and then fix the chainring securely with snap ring.



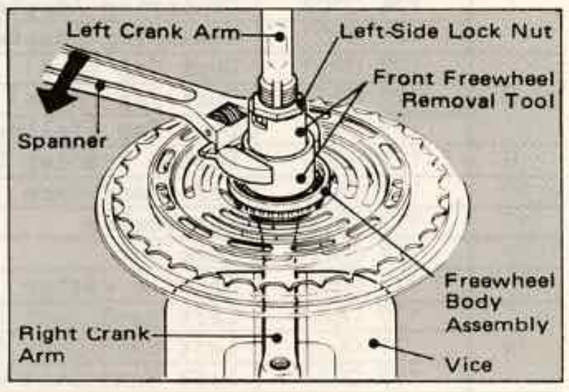
Note:
Ensure that the snap ring is securely fixed in the groove of the freewheel body. Failure to do so could cause excessive gear vibration resulting in chainring loosening or coming off.

To Remove the Freewheel Body Assembly from the One Piece Crank

A. Place right-side crank arm in a vice and secure it tightly. (To protect the finish of the crank arm, wrap it before putting into vice.)
B. Mount the Front Freewheel Removal Tool from the left side, Make sure that the prongs of the tool are inserted into the cut-outs in the freewheel body assembly.

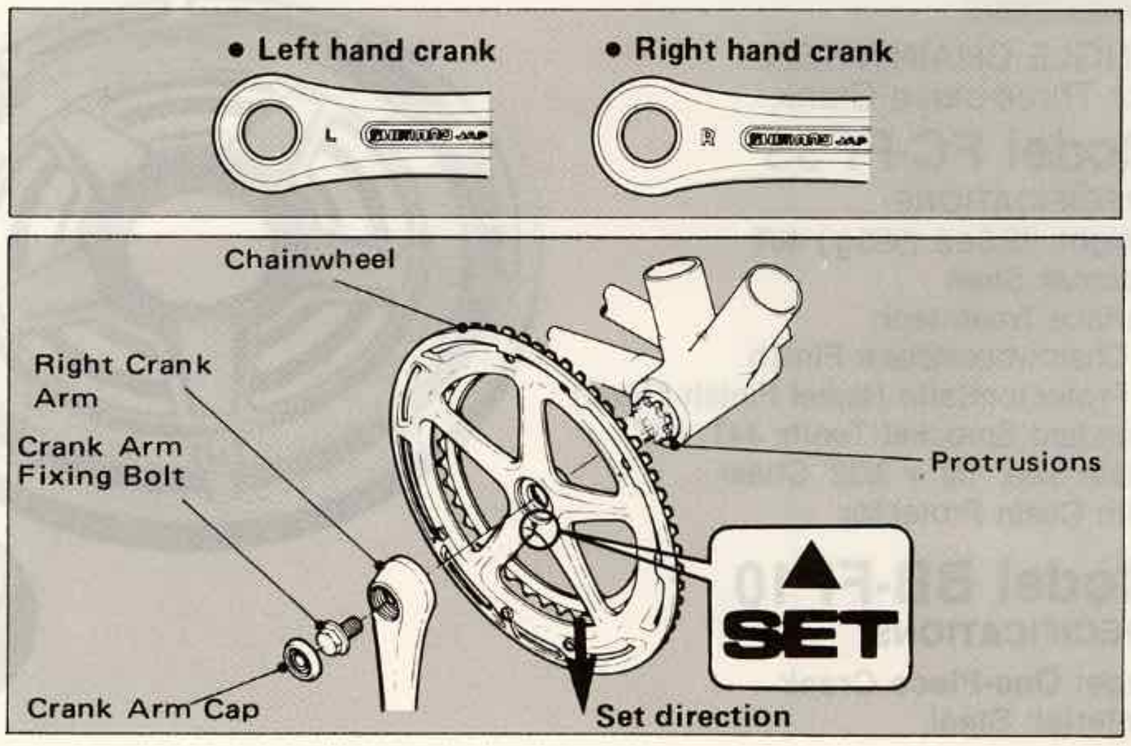


Mount the left-side lock nut and thread, by hand, until snug. Then back it off two or three turns.
Unscrew the freewheel body seembly approximately two turns with the Front Freewheel Removal Tool, using a 35mm (1-3/8″) wrench. Unscrew the lock nut two or three more turns. If the front freewheel can now be easily turned by hand, remove the left-side lock nut completely and unscrew the front freewheel body assmelby. The front freewheel body assembly may be somewhat difficult to remove from the one piece crank after it has been unscrewed. However, by utilizing the cut away portions of the freewheel body assembly, it can be remove by hand without excessive force.



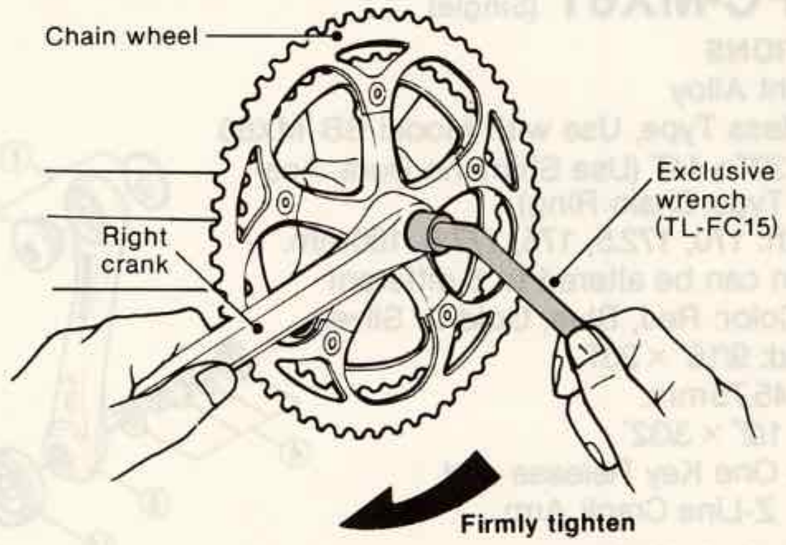
(FC-AD11/21)

When assembling the right and left hand cranks to the bottom bracket spindle, confirm that the "R" and "L" marks (behind the cranks) are correctly positioned to the right and left sides.
And also when assembling right crank be sure to align correctly with the indication mark (▼) of the chain wheel.



Crank Assembly

1. Set the right hand crank to the right side of the bottom bracket spindle. Then tighten the crank fixing nut to the bottom bracket spindle by means of the exclusive wrench (Model TL-FC15).



Tightening torque: 300~450kgfcm.(260~390 in.lbs.)

2. Left crank is the same as the right crank method and be sure to tighten securely.

3. Mount the crank caps on right and left sides.

• Tools.

Model TL-FF10
PART No. 4-180 0100
Front Chainwheel Removal Tool for FF System (One Piece Crank)



Model TL-FC10
PART No. 4-130 0901
Cotterless Crank Extractor



Model TL-PD10
PART No. 4-460 0901
DD Pedal Spanner



Model TL-WR35
PART No. 4-520 0902
Hexagon Wrench Key 5 mm.



Model TL-FF20
PART No. 4-120 0908
Cup Removal Tool for SELECTA & FF System Front Chainwheel



Model TL-FC20
PART No. 4-130 0913
Screw Peg Spanner



Model TL-3S10
PART No. 4-320 0901
Plier for Three Speed Hub Snap Ring Removal



Model TL-WR40
PART No. 3-520 9801
4-520 9001
Hexagon Wrench Key for One Key Release Mechanism (6mm. x 130mm.)
*Tighten the crank bolt handly.
Total Torque: 250~350kgfcm.



Model TL-FW20
PART No. 4-120 0901
Removal Tool for FF System Friction Freewheel (for Right & Left Cup of SELECTA Front Chainwheel)



Model TL-FC30
PART No. 3-130 9001
4-130 0910
Three Spanners Set for Spindle and Head Parts



PEDALS

FEATURE	BENEFIT
DD Mechanism—— for more efficient pedaling Dura-Ace AX Dura-Ace Shimano 600 AX Deore	More efficient pedalling is the result of lowering the foot to be better aligned with the pedal axle. This eliminates unwanted ankling at the top and bottom of the pedaling stroke for smoother pedaling.
Sealed Mechanism—— for all-weather performance Dura-Ace AX Dura-Ace New Shimano 600 EX Shimano 600 AX Deore Shimano SX Shimano DX	Sealed Mechanisms protect revolving and exposed parts from water, dust and foreign particles which cause premature wear. Shimano has developed Sealed Mechanism for standard cup and cone bearing systems which retain serviceability and interchangeability.
Aerodynamic Shape—— for improved cornering angle Dura-Ace AX Dura-Ace New Shimano 600 EX Shimano 600 AX Deore Shimano Adamas AX	Compact aerodynamic shape allows greater cornering clearence for faster, safer turning.
Parallelogram Profile—— for positive foot placement Shimano SX Shimano DX	The shape of the pedal cage is angled to eliminate pedal hang-up or slipping during the heat of BMX Competition. Also, while performing radical stunts.
Concave Platform with Studs—— for non-slip grip Shimano SX Shimano DX	The pedal platform is shaped to automatically position the foot in the proper position for efficient pedaling.
Cr-Mo Axle—— for strength Dura-Ace AX Dura-Ace New Shimano 600 EX Shimano 600 AX Shimano SX Shimano DX	Cr-Mo material is used to maximise strength and power transmission efficiency.
Full Fit Design—— for comfort and efficiency Shimano Adamas AX	For more efficient and comfortable pedaling with soft sole shoes, four balance/power points were identified and then a pedal was designed to provide more stability and less power loss.

Pedal

Model PD-7300 DD Pedal
Model PD-7310 DD Pedal

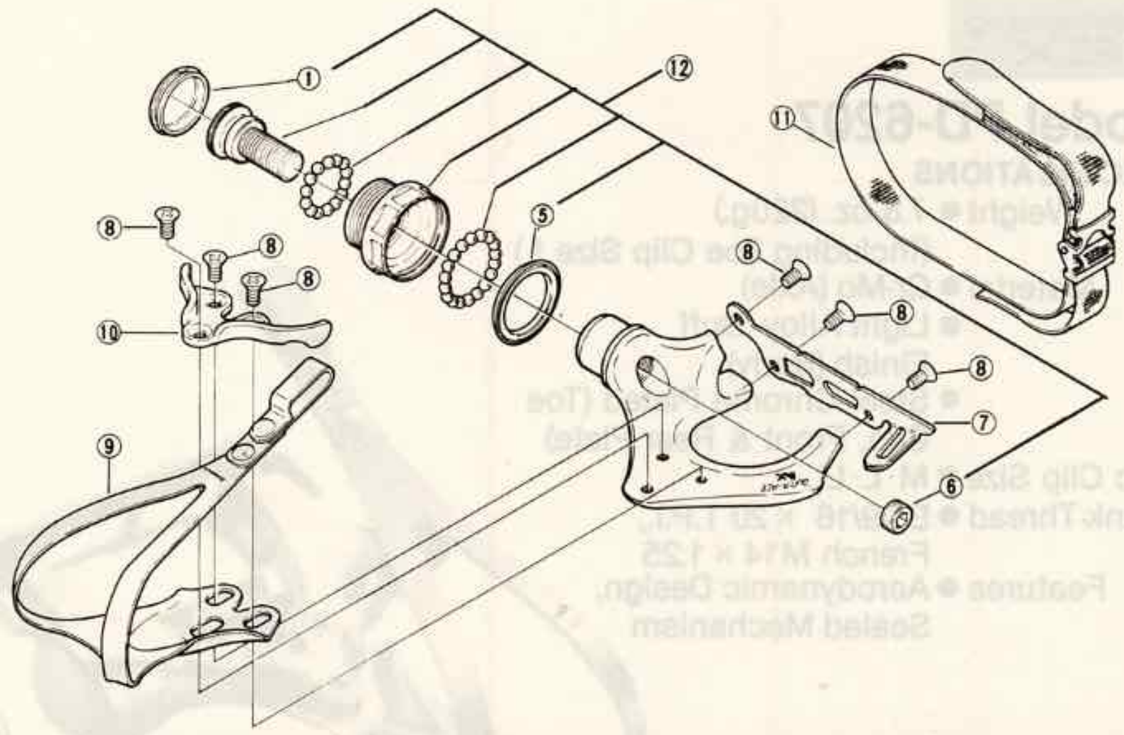
DURA-ACE AX

DD Pedal
Model PD-7300

SPECIFICATIONS

Weight • 7.5 oz. (214g.) (Including Toe Clip Size L & Toe Strap)
Material • Light Alloy • Anodized Finish (Body)
• Nickel Chromium Molybdenum Steel (Cup • Cone)
• Stainless Steel (Toe Clip)
Crank Thread • BC 1 × 24 T.P.I.
Features • Aerodynamic Design/DD Mechanism/Sealed Mechanism/ Light Weight/Adjustable Toe Clip
Use • With DURA-ACE AX Front Chainwheel (FC-7300)
Option • DD Pedal Reflector





ITEM NO.	PART NO.	DESCRIPTION
1	463 1100	Dust Cap
5	463 1200	Oil Seal
6	463 1300	Lock Bolt
7	463 0301	Right Side Rear Plate
	463 0401	Left Side Rear Plate
8	000 1902	Screw
9	3-461 9007	Toe-Clip M-Size
	3-461 9008	Toe-Clip L-Size
	3-461 9009	Toe-Clip LL-Size
10	463 0500	Right Side Front Plate
	463 0600	Left Side Front Plate
11	3-461 9006	Strap Assembly (Blue)
	3-461 9010	Strap Assembly (Red)
	3-461 9011	Strap Assembly (Black)
12	3-463 9903	Rebuild Kit Left Hand & Right Hand

8310-448D

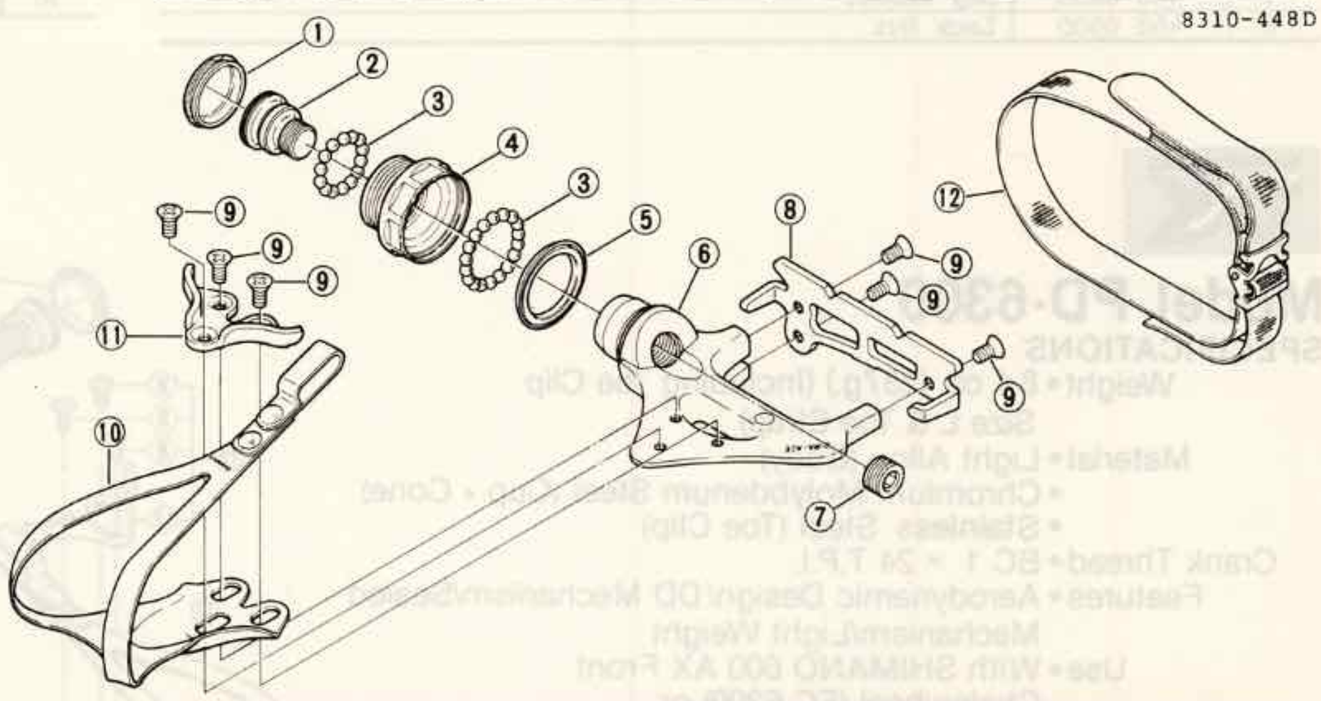
SHIMANO DURA-ACE

Model PD-7310

SPECIFICATIONS

Weight • 9.2 oz. (261g.) (Including Toe Clip Size L & Toe Strap)
Material • Light Alloy·Buff Finish (Body), Nickel Chromium Molybdenum Steel (Cup, Cone & Axle), Stainless Steel (Toe Clip, Rear Plate)
Crank Thread • BC1 × 24T.P.I.
Use • With Dura-Ace AX Front Chainwheel (FC-7300)
Features • Cr-Mo Steel Introduced into the Pedal Axle, Sealed Mechanism, Aerodynamic Design, DD Mechanism, Ajustable Toe Clip
Option • DD Pedal Reflector





ITEM NO.	PART NO.	DESCRIPTION
1	463 1100	Dust Cap
2	463 0902	Cone (M11x0.75)
3	000 0182	Steel Ball (5/32"x32)
4	463 0700	Right Side Housing (BC1x24TPI)
	463 0800	Left Side Housing (BC1x24TPI Left)
5	463 1200	Oil Seal
6	3-463 9801	Right Side Pedal Body
	3-463 9811	Left Side Pedal Body
7	463 1301	Lock Bolt (M11x0.75)
8	463 0302	Right Side Rear Plate
	463 0402	Left Side Rear Plate
9	000 1902	Plate Fixing Screw
10	3-461 9007	Toe-Clip M-Size
	3-461 9008	Toe-Clip L-Size
	3-461 9009	Toe-Clip LL-Size
11	464 1000	Front Plate
12	3-461 9006	Strap Assembly (Blue)
	3-461 9010	Strap Assembly (Red)
	3-461 9011	Strap Assembly (Black)

8402-590A

PD

UE

Pedal

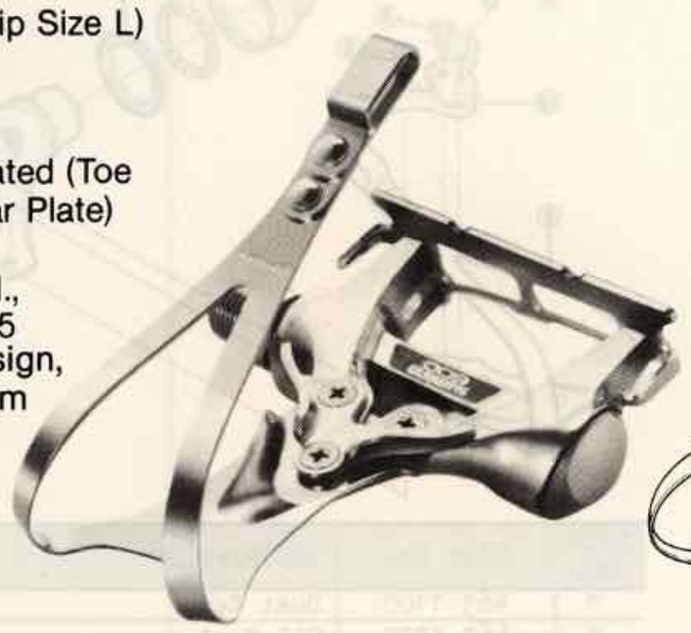
Model PD-6207
Model PD-6300 DD Pedal

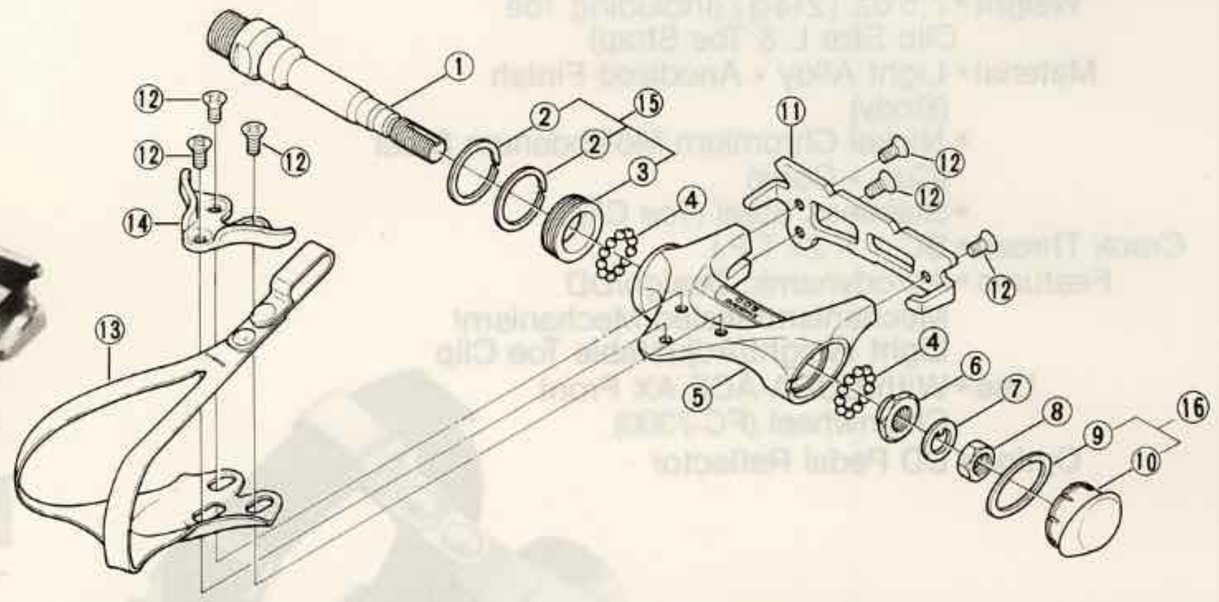
NEW SHIMANO 600 EX

Model PD-6207

SPECIFICATIONS

Weight • 7.8 oz. (220g.) (Including Toe Clip Size L)
Material • Cr-Mo (Axle)
• Light Alloy·Buff Finish (Body)
• Steel-Chrome Plated (Toe Clip, Front & Rear Plate)
Toc Clip Size • M·L·LL
Crank Thread • BC9/16 × 20 T.P.I., French M14 × 1.25
Features • Aerodynamic Design, Sealed Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	460 1300	Pedal Axle (Right)
	460 1310	Pedal Axle (Right) French Thread
	460 1400	Pedal Axle (Left)
	460 1410	Pedal Axle (Left) French Thread
2	460 1900	Seal Ring
3	460 1800	Dust Seal
4	000 0151	Steel Ball (5/32")
5	3-460 9801	Right Side Pedal Body
	3-460 9811	Left Side Pedal Body
6	460 1600	Cone
7	468 0800	Key Washer
8	468 0900	Lock Nut

ITEM NO.	PART NO.	DESCRIPTION
9	460 2100	Out Side Seal Ring
10	460 1700	Cap
11	463 0303	Right Side Rear Plate
	463 0403	Left Side Rear Plate
12	000 1902	Plate Fixing Screw
13	3-461 9801	Toe-Clip M-Size
	3-461 9802	Toe-Clip L-Size
	3-461 9803	Toe-Clip LL-Size
14	464 1000	Front Plate
15	3-460 9820	Dust Seal & Seal Ring
16	3-460 9823	Cap & Out Side Seal Ring

8402-E593A

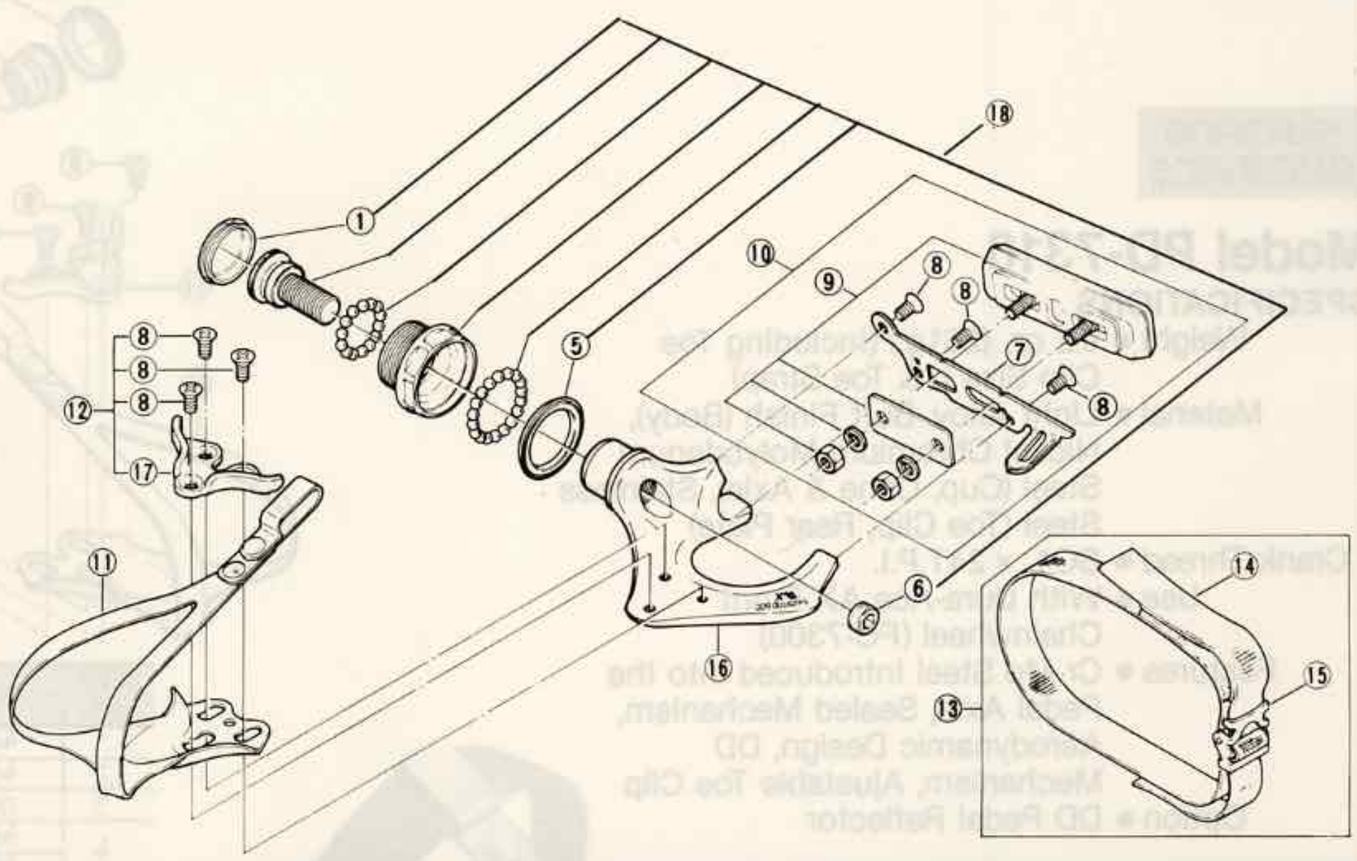
PD

SHIMANO 600 AX

Model PD-6300

SPECIFICATIONS

Weight • 8.4 oz. (237g.) (Including Toe Clip Size L & Toe Strap)
Material • Light Alloy (Body)
• Chromium Molybdenum Steel (Cup • Cone)
• Stainless Steel (Toe Clip)
Crank Thread • BC 1 × 24 T.P.I.
Features • Aerodynamic Design/DD Mechanism/Sealed Mechanism/Light Weight
Use • With SHIMANO 600 AX Front Chainwheel (FC-6300) or DURA-ACE AX Front Chainwheel (FC-7300)
Option • DD Pedal Reflector



ITEM NO.	PART NO.	DESCRIPTION
1	463 1100	Dust Cap
5	463 1200	Oil Seal
6	463 1300	Lock Bolt
7	464 0801	Right Side Rear Plate
	464 0901	Left Side Rear Plate
8	000 1902	Screw
9	3-462 9003-2	Reflector Unit for Right & Left Side
10	3-464 9807-2	Rear Plate & Reflector Unit for Right Side
	3-464 9808-2	Rear Plate & Reflector Unit for Left Side
11	3-461 9007	Toe-Clip M-Size
	3-461 9008	Toe-Clip L-Size
	3-461 9009	Toe-Clip LL-Size

ITEM NO.	PART NO.	DESCRIPTION
12	3-464 9801	Front Plate & Screw
13	3-461 9006	Strap Assembly (Blue)
	3-461 9010	Strap Assembly (Red)
	3-461 9011	Strap Assembly (Black)
14	461 1900	Strap Band (Blue)
	461 1901	Strap Band (Red)
	461 1902	Strap Band (Black)
15	3-461 9005	Strap Clip
16	3-464 9001	Right Side Pedal Body
	3-464 9002	Left Side Pedal Body
17	464 1000	Front Plate
18	3-463 9903	Rebuild Kit Left Hand & Right Hand

8312-E449F

UE

Model PD-DE10
Model PD-AD20 FullFit Pedal

Model PD-MX10 DISCONTINUED

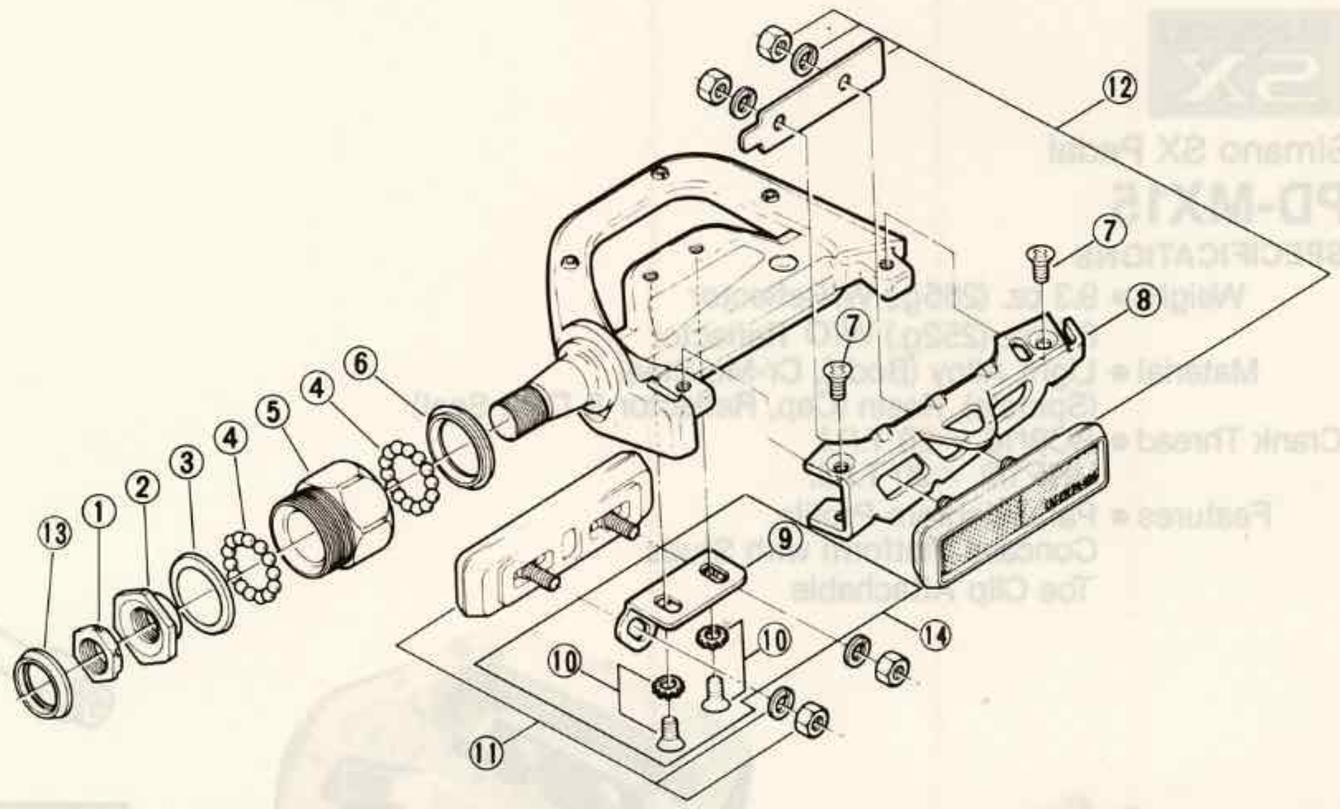
SHIMANO DEORE SERIES

DD Pedal

Model PD-DE10

SPECIFICATIONS

Weight: 9.7 oz. (275g.)
Material: Body/Light Alloy
: Cup Cone/Chromium Molybdenum Steel
Crank Thread: BC1 × 24T.P.I.
Right-handed Screw (Right Pedal) BC1 × 24T.P.I. Left-handed Screw (Left Pedal)
Type: DD Mechanism, Aerodynamic Design, Sealed Mechanism
Use: DEORE Front Chainwheel



ITEM NO.	PART NO.	DESCRIPTION
1	462 1700	Lock Nut
2	462 1600	Cone
3	462 1900	Dust Seal (Small)
4	000 0182	Steel Ball (5/32")
5	462 1400	Right Side Housing
	462 1500	Left Side Housing
6	462 1800	Dust Seal (Large)
7	000 1902	Plate Fixing Screw

ITEM NO.	PART NO.	DESCRIPTION
8	462 0300	Right Side Plate
	462 0400	Left Side Plate
9	462 0800	Toe-Clip Adapter
10	3-462 9001	Adapter Fixing Screw & Washer
11	3-462 9002	Reflector Unit for Front (Option)
12	3-462 9003	Reflector Unit for Rear (Option)
13	462 2000	Aero Cap
14	3-462 9005	Toe-Clip Adapter Assembly (1pair)

8402-416D PD

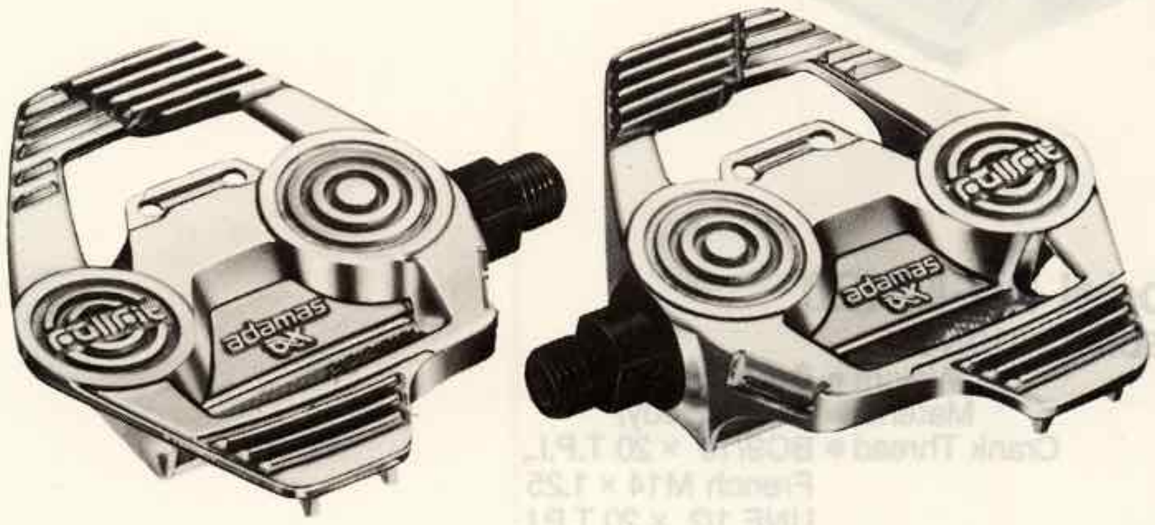
adamas AX

FullFit Pedal

Model PD-AD20

SPECIFICATIONS

Weight • 10 oz. (285g.)
Material • Light Alloy
Crank Thread • BC9/16 × 20 T.P.I., French M14 × 1.25
Features • Aerodynamic Design/Fit-well Mechanism/Increased Road Clearance/ Specially Wedged Design
Use • With SHIMANO ADAMAS AX Front Chainwheel (FC-AD11, AD21, AD22) or Conventional Chainwheel



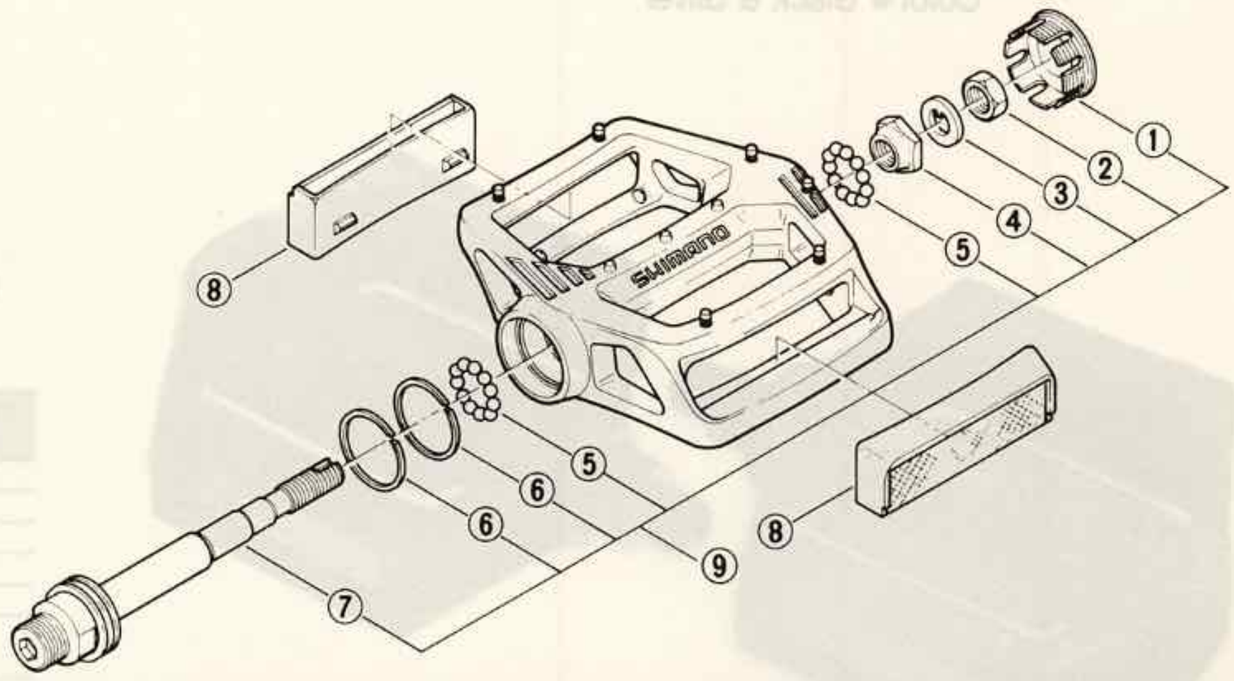
SHIMANO DX

Shimano-DX Pedal **DISCONTINUED**

Model PD-MX10 (W/ Reflector)

SPECIFICATIONS

Weight: 9.8 oz. (278g.) W/Reflector
9.4 oz. (267g.) W/O Reflector
Material: Light Alloy (Body), Cr-Mo Steel (Spindle), Resin (Cap, Reflector, Dust & Seal Ring)
Crank Thread: BC 9/16 × 20 T.P.I., UNF 1/2 × 20 T.P.I.
Color: Red, Blue, Gold, Silver or Black
Features: Parallelogram Profile, Concave Platform with Studs, Double Sealed Mechanism



ITEM NO.	PART NO.	DESCRIPTION
1	469 0300	Cap
2	469 1300	Lock Nut
3	469 1200	Key Washer
4	469 1100	Cone
5	000 0182	Steel Ball (5/32"x44)
6	469 1500	Seal Ring

ITEM NO.	PART NO.	DESCRIPTION
7	3-469 9001	Pedal Axle (Right) B.C.9/16"x20T.P.I.
	3-469 9002	Pedal Axle (Left) B.C.9/16"x20T.P.I.
8	3-469 9003	Reflector
9	3-469 9801	Pedal Axle Assembly (Right)
	3-469 9802	Pedal Axle Assembly (Left)

8010-446

Pedal

Model PD-MX15
Model PD-MX20

SHIMANO SX

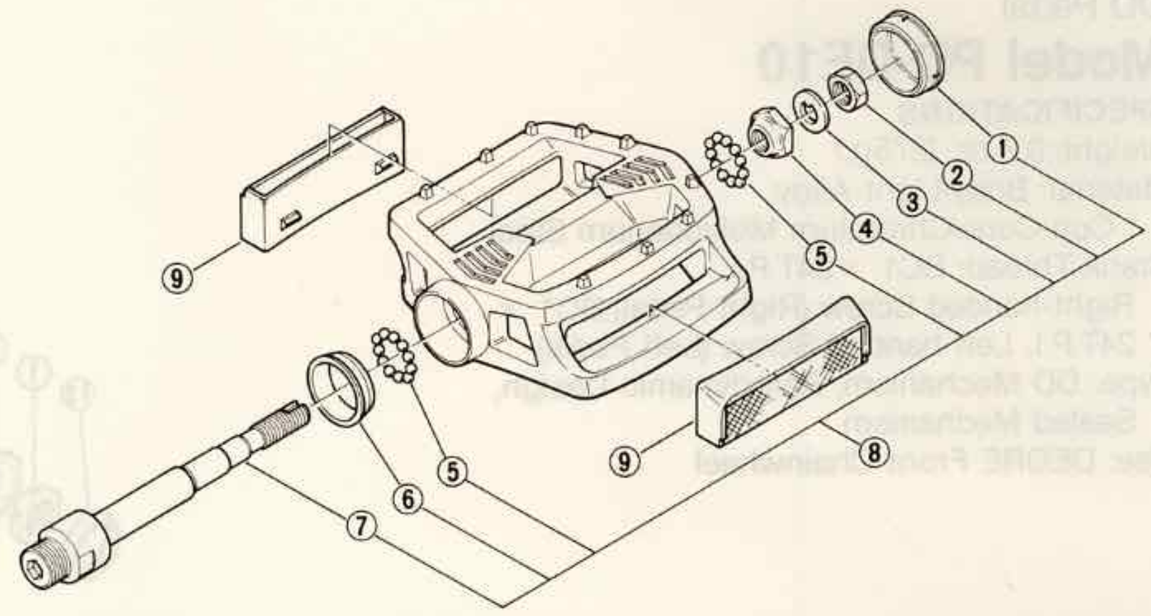
Simano SX Pedal

PD-MX15

SPECIFICATIONS

Weight ● 9.3 oz. (265g.) W/Reflector
8.9 oz. (252g.) W/O Reflector
Material ● Light Alloy (Body), Cr-Mo Steel (Spindle), Resin (Cap, Reflector & Dust Seal)
Crank Thread ● BC9/16 × 20 T.P.I.
UNF1/2 × 20 T.P.I.
Features ● Parallelogram Profile, Concave Platform with Studs
Toe Clip Attachable





ITEM NO.	PART NO.	DESCRIPTION
1	458 0300	Cap
2	468 0900	Lock Nut
3	468 0800	Key Washer
4	468 0700	Cone
5	000 0151	Steel Ball (5/32")
6	468 1100	Dust Seal
7	469 0700	Pedal Axle (Right) B.C.9/16"x20T.P.I.
	469 0800	Pedal Axle (Left) B.C.9/16"x20T.P.I.
8	3-458 9801	Pedal Axle Assembly (Right)
	3-458 9802	Pedal Axle Assembly (Left)
9	3-469 9003	Reflector

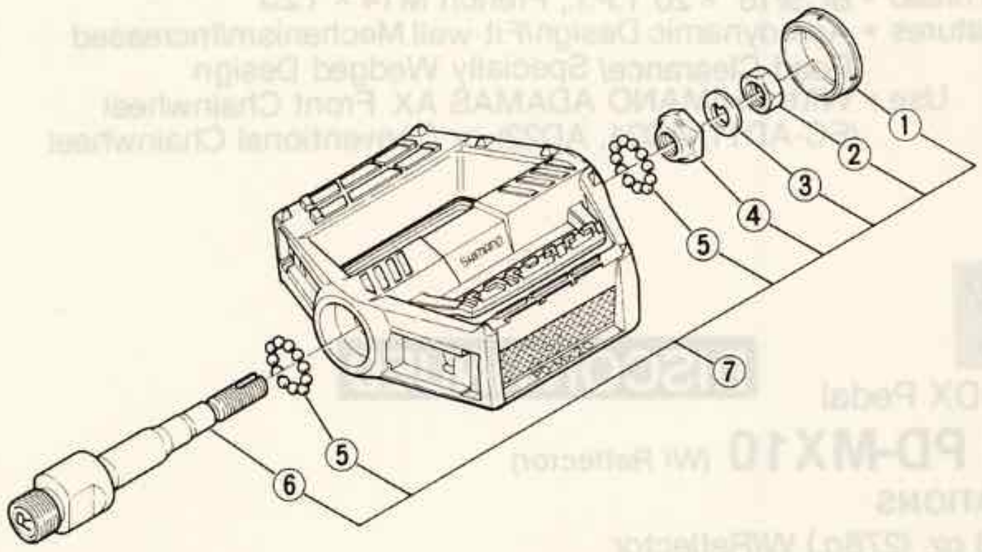
8211-570

Model PD-MX20

SPECIFICATIONS

Weight ● 8.3 oz. (197g)/Pair
Material ● Resin (Body)
Crank Thread ● BC9/16 × 20 T.P.I.,
French M14 × 1.25
UNF 1/2 × 20 T.P.I.
Color ● Black & Silver





ITEM NO.	PART NO.	DESCRIPTION
1	458 0303	Cap
2	468 0900	Lock Nut
3	468 0800	Key Washer
4	468 0700	Cone
5	000 0151	Steel Ball (5/32")
6	468 0300	Pedal Axle (Right)
	468 0400	Pedal Axle (Left)
7	3-454 9801	Pedal Axle Assembly (Right)
	3-454 9811	Pedal Axle Assembly (Left)

8310-E649

BRAKE ARCHES

FEATURE	BENEFIT
Para-Pull Mechanism—— for powerful, balanced braking performance Dura-Ace AX Shimano 600 AX	This Braking System is based on the parabolic movement of the brake arms caused by specially shaped triangular carrier. The special shape of the carrier eliminates the need for a separate quick release mechanism. Because there is quick initial response. The triangular shape provides a steadily increasing flow of braking power and any rim bias is immediately balanced by the special geometry and rigidity of the carrier and arms.
Quick Response Mechanism—— eliminates need for quick release Dura-Ace AX Shimano 600 AX	Special shape of the carrier on Shimano's Para-Pull Brake keeps brake pads spaced for easy wheel removal.
Sealed Return Springs—— for all-weather performance Dura-Ace AX Shimano 600 AX	Sealed Mechanisms protect return spring from water, mud which cause corrosion.
Triangle Arm Design—— for positive braking performance Dura-Ace EX Deore XT	Reinforced brake arms increase rigidity of brake.
Quick Release/Tire Guides—— for easy wheel removal Dura-Ace EX New Shimano 600 EX Shimano 105 Shimano 600 EX Shimano Z Components Shimano DX	Quick Release Mechanisms and Tire-Guides make wheel removal for repair or transportation easy.
Front Centering Mechanism—— for quick adjustment Dura-Ace EX New Shimano 600 EX Shimano 105 Shimano 600 EX Shimano Z Components	Easy centering of the brake is possible because of one piece center bolt design. No front nuts to loosen from vibration is safety feature of this design.
NBM Brake Shoe—— for better stopping Dura-Ace EX New Shimano 600 EX Shimano Z Components Shimano 105	The specially formulated NBM Brake Shoe material is balanced to provide good stopping performance and long wear. Benefits include less noise and rubber scrapings on the rim.
Pivot Bolt with Grease Lubricating Slot—— for long lasting, smooth braking Dura-Ace EX New Shimano 600 EX Shimano Z Components	Slots in brake pivot bolts hold grease for continuous lubrication.
Forged Non-Twisted Design—— for strength Shimano 105 Shimano Z Components	Forged design eliminates brake arch noise and allows 30% greater arch volume
Complete Position Adjustment—— for toe-in, pad height and rim width Deore XT	Shimano's Cantilever design allows custom adjustment of brake pads.
90° Cable/Arm Design—— for more efficient braking Deore XT	90° Angle of Cable produces maximum efficiency and reduces cable wear.
Large/Keel Shaped Braking Pad—— for all-weather braking Deore XT	Keel shape cuts through mud and water for betler off-road braking.
Link-Type Center-Pull—— for easy assembly Tourney	The easy one cable attachment of Shimano's Link-Type Center Pulls Brakes them hassle free and sure stopping additions to even 19 inch frames. Eliminates unequal braking due to carrier slip.
Synpul Side-Pull—— for syncronous Shimano SX Shimano DX Tourney Sidepull	"Synpul" design syncronizes the arms of Side Pull Brakes to distribute force equally. This eliminates re-adjustment due to pulling to one side.
All-Weather Brake Shoe—— for safer stopping Shimano Centerpull	All-Weather Brake Shoe enables safer stopping during wet conditions.

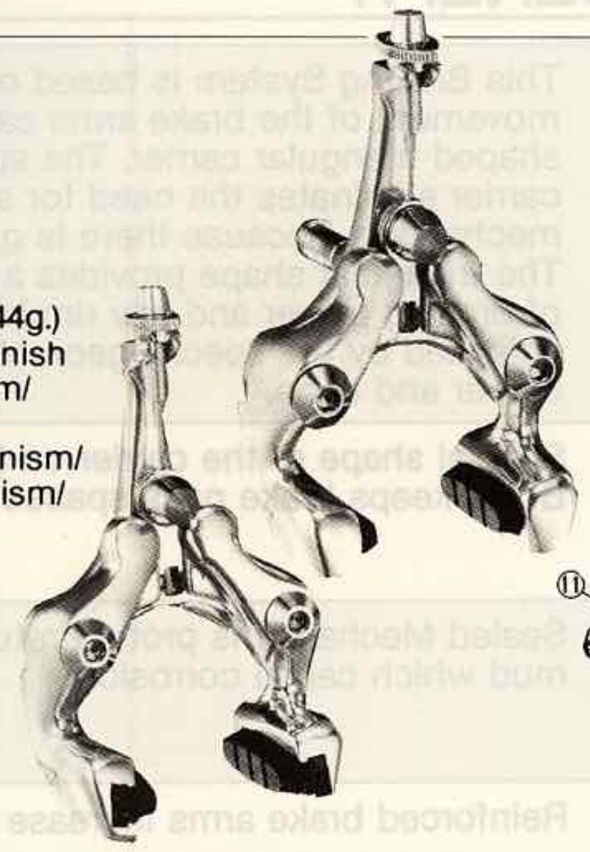
Model BR-7300
Model BR-7200 Side Pull 49-Type

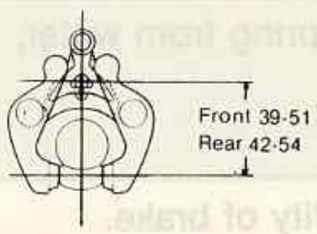
DURA-ACE EX

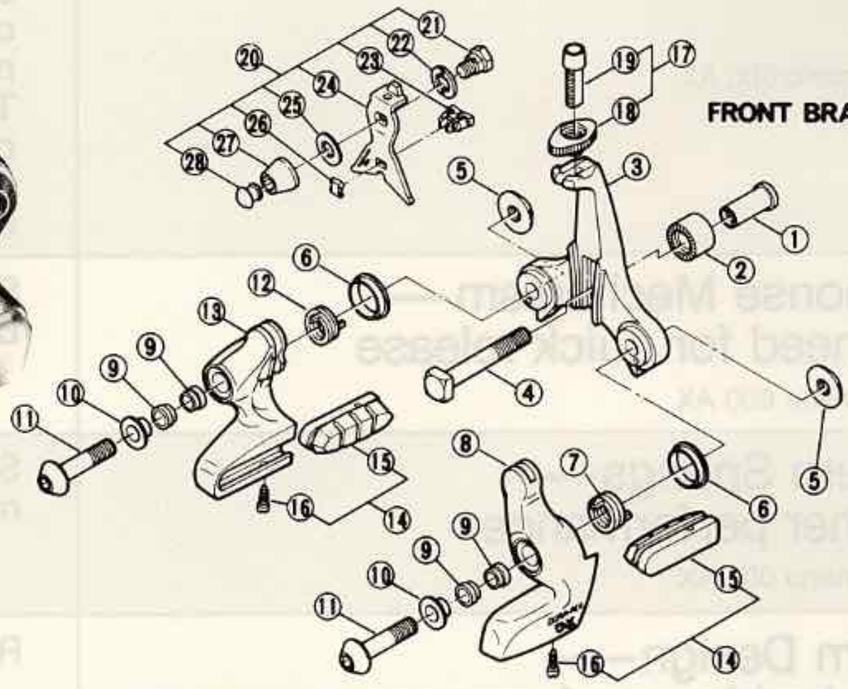
Model BR-7300

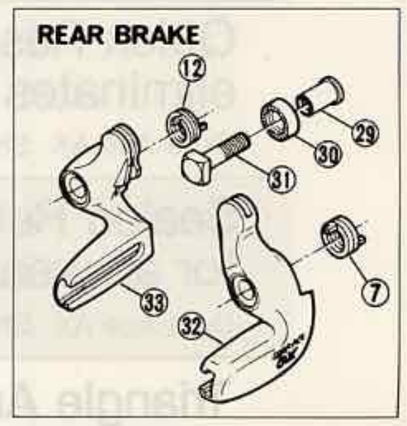
SPECIFICATIONS

Weight • Front & Rear; 12.1 oz. (344g.)
Material • Light Alloy • Anodized Finish
Features • New Para-Pull Mechanism/
Aerodynamic Design/
Balanced Braking Mechanism/
Quick Response Mechanism/









ITEM NO.	PART NO.	DESCRIPTION
1	855 7400	Center Nut for Front
2	814 1800	Spacer for Front (9mm)
3	814 0100	Gate
4	814 1600	Center Bolt for Front
5	814 0900	Pivot Nut
6	814 1000	Gate Bushing
7	814 1900	Arm Return Spring-M (Left Side for Front Brake or Right Side for Rear Brake)
8	3-814 9811	Arm-B
9	814 2900	Bushing for Pivot Bolt
10	814 1100	Arm Bushing
11	814 0800	Pivot Bolt
12	814 2000	Arm Return Spring-N (Right Side for Front Brake or Left Side for Rear Brake)
13	3-814 9812	Arm-A
14	3-815 9803	Brake Shoe & Shoe Fixing Screw
15	814 0601	Brake Shoe
16	814 0700	Shoe Fixing Screw

ITEM NO.	PART NO.	DESCRIPTION
17	3-814 9801	Cable Adjusting Bolt & Nut
18	814 2200	Cable Adjusting Nut
19	814 2100	Cable Adjusting Bolt
20	3-814 9005-1	Carrier Assembly
21	814 1300	Cable Fixing Bolt
22	814 1500	Cable Fixing Plate
23	814 2700	Guide Pin
24	814 1200-1	Carrier
25	814 2600	Washer (M5)
26	814 2800	Guide Pin Cap
27	814 1400	Cable Fixing Nut
28	814 2500	Cap
29	855 7500	Center Nut for Rear
30	814 1801	Spacer for Rear (4.5mm)
31	814 1700	Center Bolt for Rear
32	3-814 9813	Arm-D
33	3-814 9814	Arm-C

8304-447D

BR

DURA-ACE EX

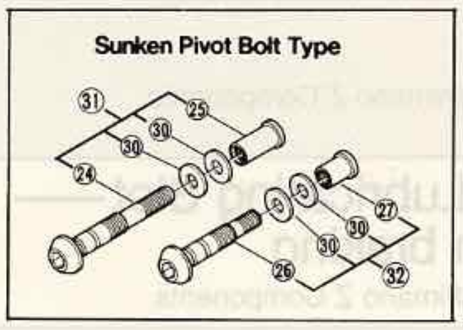
Caliper Brake

Model BR-7200 (CS-49 Type)

SPECIFICATIONS

Weight • Front 5.6 oz. (160 g.)
• Rear 5.6 oz. (158 g.)
Material • Light Alloy • Anodized Finish
Type • Side Pull with Quick Release and Tire Guide
• Pivot Bolt with Greace Lubricating Slot
• Hexagon Release, New NBM Brake Shoe
Option • Sunken Pivot Bolt System





CS-49 Type

ITEM NO.	PART NO.	DESCRIPTION
1	863 2700	Lock Nut (M6) for Pivot Bolt
2	855 1000	Washer A (M6)
3	855 2700	Radius Bushing for Front
4	3-857 9812	Lock Nut
5	855 6200	Pivot Nut
6	855 2801	Arm Return Spring (49-Type)
7	855 6100	Arm Washer 1.5mm
8	3-855 9105	Brake Arm "Y" Shape (49-Type)
9	855 0202	Brake Arm "C" Shape (49-Type)
10	855 0303	Pivot Bolt for Front
11	855 2401	Cable Adjusting Barrel
12	855 2502	Cable Adjusting Lock Nut
13	3-855 9101	Cam Lever Assembly
14	855 7100	Cable Fixing Bolt
15	855 6600	Cable Fixing Washer
16	855 6700	Cable Fixing Nut
17	855 6800	Shoe Fixing Bolt

ITEM NO.	PART NO.	DESCRIPTION
18	855 6900	Shoe Fixing Washer (M5)
19	855 1501	Tire Guide
20	3-855 9106-1	Brake Shoe
21	855 2600	Radius Bushing for Rear
22	855 0405	Pivot Bolt for Rear
23	3-855 9108-1	Brake Shoe Assembly
	3-855 9901	Brake Shoe Assembly (4pcs.)
24	855 7601	Sunken Pivot Bolt for Front (Option)
25	855 7400	Sunken Pivot Nut for Front (Option)
26	855 7600	Sunken Pivot Bolt for Rear (Option)
27	855 7500	Sunken Pivot Nut for Rear (Option)
28	811 6101	Teethed Washer
29	855 6101	Arm Washer 2mm
30	857 1500	Washer for Sunken Pivot Bolt
31	3-855 9801	Sunken Pivot Bolt Unit for Front
32	3-855 9802	Sunken Pivot Bolt Unit for Rear

8305-296F

UE

Brake

Model BR-6207-49 Side Pull 49-Type
Model BR-6207-57 Side Pull 57-Type

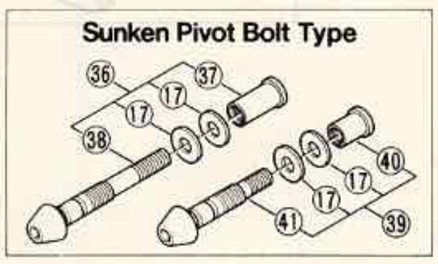
NEW SHIMANO 600 EX

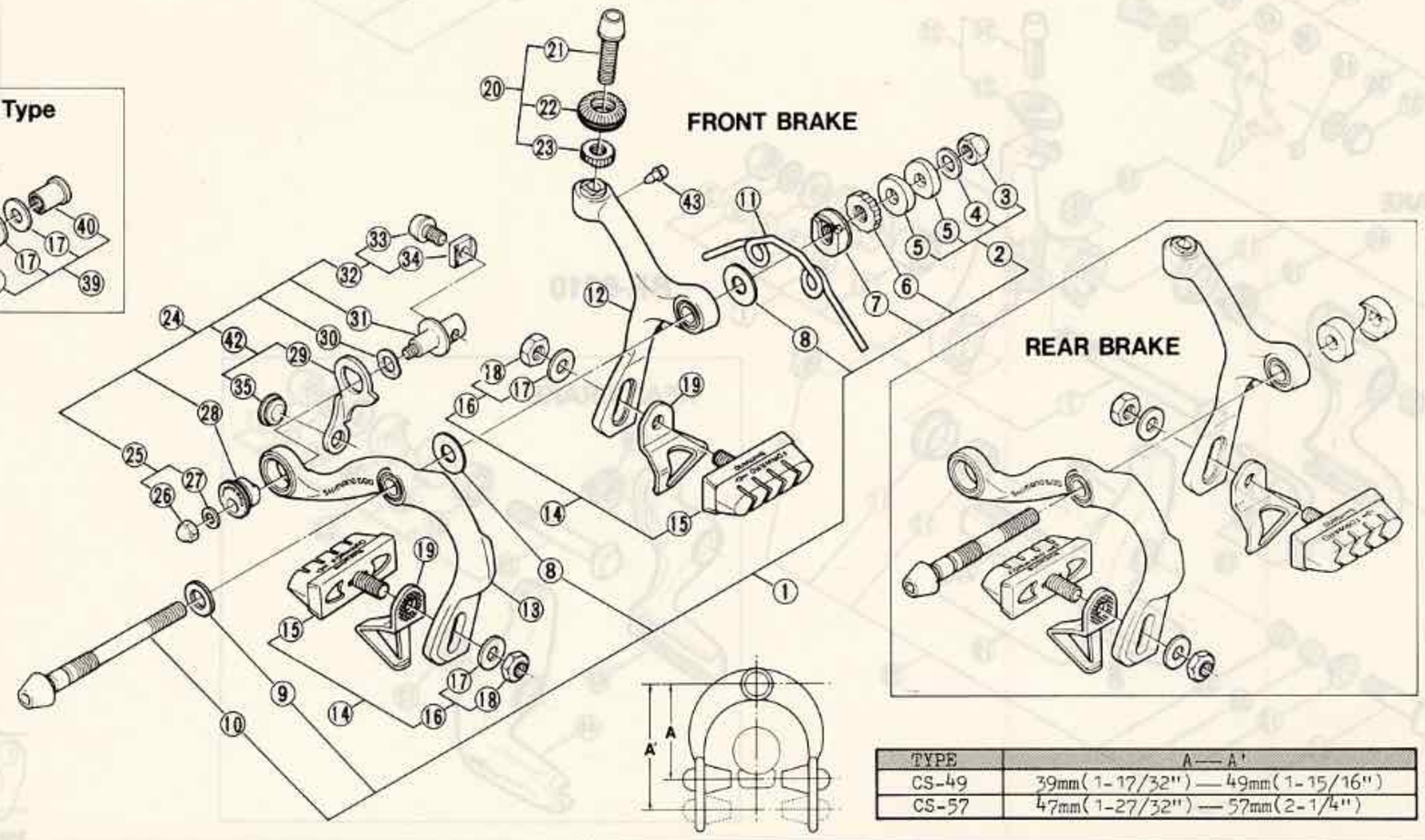
Model BR-6207-49 (Short-49 Type)
BR-6207-57 (Long-57 Type)



SPECIFICATIONS

- Weight ● 12.4 oz. (353g.) (Front & Rear, 57 Type)
- Material ● Light Alloy·Anodized Finish
- Type ● Rear Double Lock Side Pull Type
- ● With Tire Guide, Frame Protector & Eccentric Type Quick Release
- Features ● Computer Aided Design (CAD), Easy Centering Mechanism, New NBM Brake Shoe, Pivot Bolt with Grease Lubricating Slot, Sunken Pivot Bolt Standard on Short-49 Type.





TYPE	A — A'
CS-49	39mm(1-17/32") — 49mm(1-15/16")
CS-57	47mm(1-27/32") — 57mm(2-1/4")

ITEM NO.	PART NO.	DESCRIPTION
1	3-858 9821	Pivot Bolt Assembly for Front
	3-858 9825	Pivot Bolt Assembly for Rear
2	3-858 9804	Radius Bushing Unit for Front
	3-858 9805	Radius Bushing Unit for Rear
3	863 2701	Lock Nut (M6) for Pivot Bolt
4	855 1000	Spacer (M6)
5	855 2700	Radius Bushing for Front
	855 2600	Radius Bushing for Rear
6	3-857 9812	Lock Nut
7	858 3200	Pivot Nut
8	858 3100	Arm Washer 0.5mm
9	858 3000	Arm Washer 1mm
10	858 2100	Pivot Bolt for Front
	858 2500	Pivot Bolt for Rear
11	858 3300	Arm Return Spring
12	858 0100	Brake Arm "Y" Shape (49-Type)
	858 0200	Brake Arm "Y" Shape (57-Type)
13	858 1100	Brake Arm "C" Shape (49-Type)
	858 1200	Brake Arm "C" Shape (57-Type)
14	3-858 9802	Brake Shoe Assembly
	3-858 9901	Brake Shoe Assembly (4pcs.)
15	3-858 9800	Brake Shoe
16	3-858 9806	Shoe Fixing Nut (M6) & Washer
17	857 1500	Washer (t=1.0)
18	855 1100	Shoe Fixing Nut (M6)

ITEM NO.	PART NO.	DESCRIPTION
19	858 4800	Tire Guide
20	3-858 9801	Cable Adjusting Bolt Unit
21	858 4300	Cable Adjusting Barrel
22	858 4500	Cable Adjusting Nut Cover
23	858 4400	Cable Adjusting Nut
24	3-858 9803	Cable Fixing Bolt Assembly w/Quick Release
25	3-858 9807	Cap Nut & Washer
26	858 3900	Cap Nut (M4)
27	858 4000	Washer
28	858 3600	Flanged Bush
29	858 3700	Quick Lever
30	861 6300	Wave Washer
31	858 3800	Cable Fixing Axle
32	3-858 9808	Cable Fixing Bolt & Plate
33	858 4200	Cable Fixing Bolt
34	858 4100	Cable Fixing Plate
35	858 4900	Rubber Cover
36	3-858 9811	Sunken Pivot Bolt Unit for Front (Option)
37	855 7400	Sunken Pivot Nut for Front (Option)
38	858 2200	Sunken Pivot Bolt for Front (Option)
39	3-858 9815	Sunken Pivot Bolt Unit for Rear (Option)
40	855 7500	Sunken Pivot Nut for Rear (Option)
41	858 2600	Sunken Pivot Bolt for Rear (Option)
42	3-858 9809	Quick Lever & Rubber Cover
43	847 3800	Frame Protector

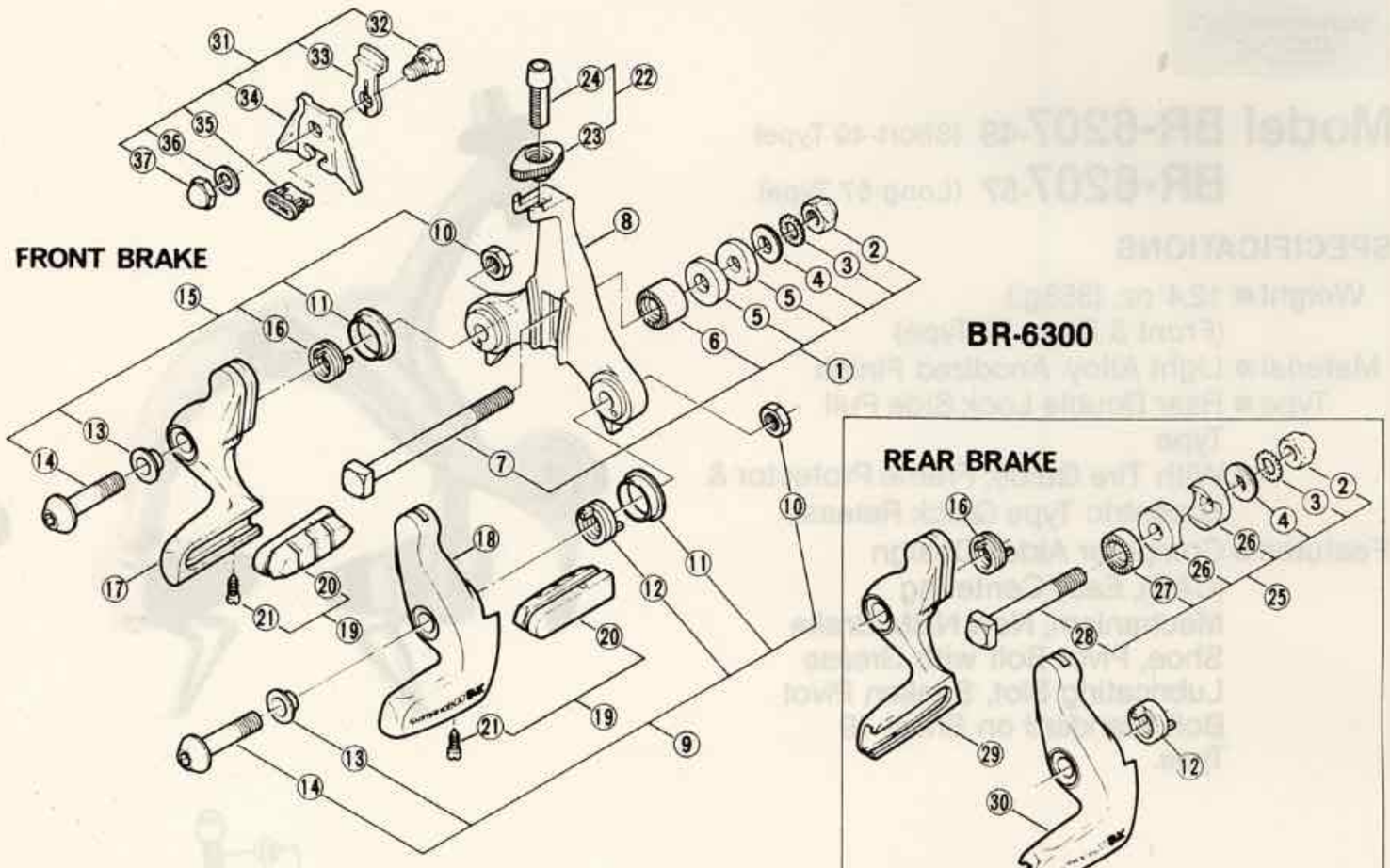
8309-604A

Model BR-6300 Long Cage Type
Model BR-6310 Short Cage Type

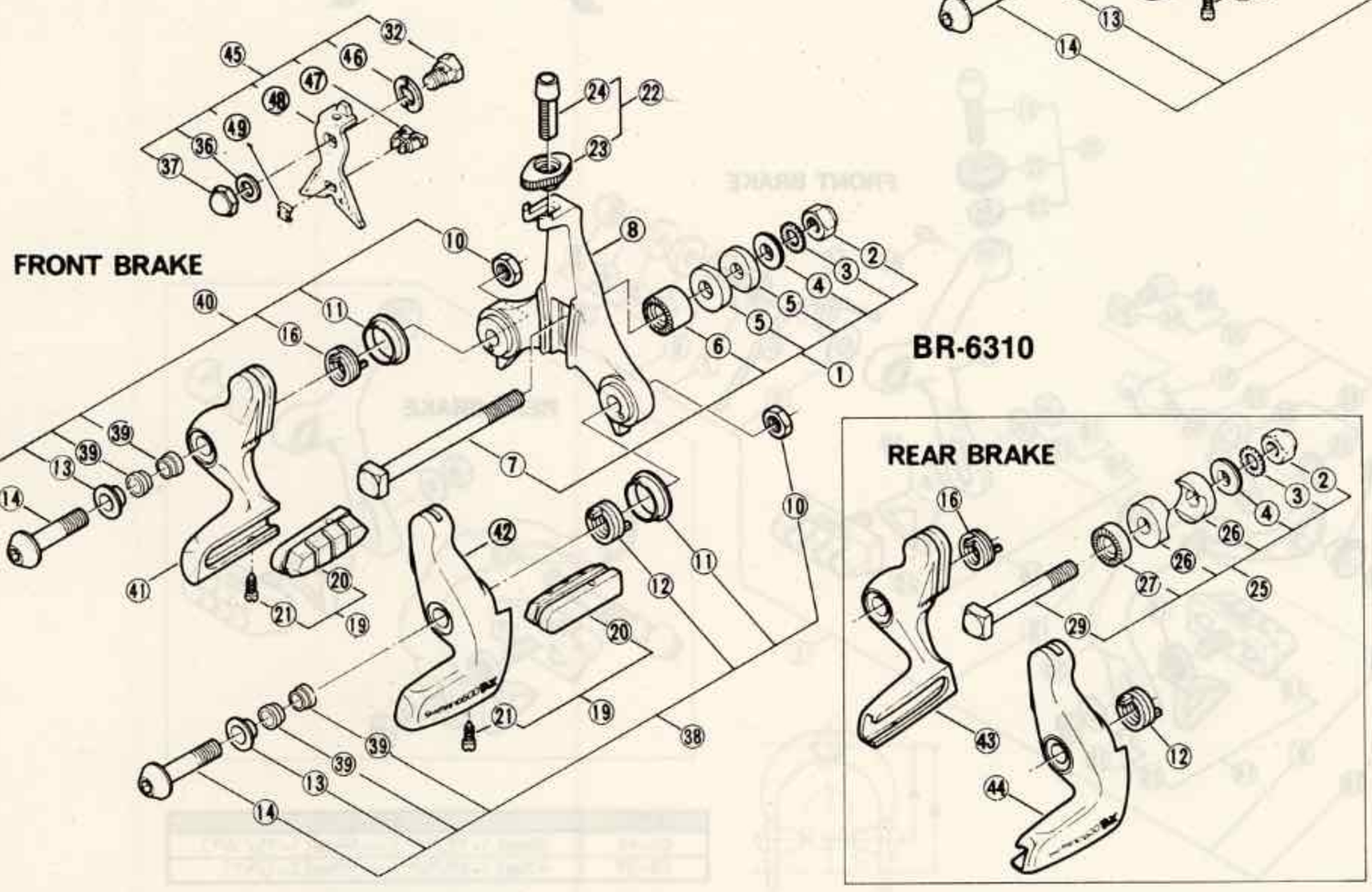
Model BR-6300 (Long Cage Type)
BR-6310 (Short Cage Type)

SPECIFICATIONS

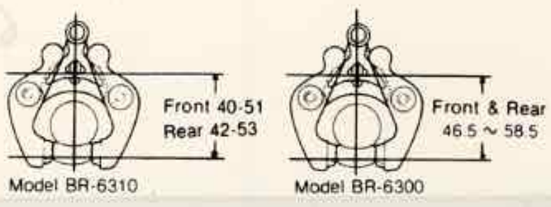
Weight • Front & Rear; 13.2 oz. (375g.)
Material • Light Alloy
Features • Aerodynamic Design/
New Para-Pull Mechanism/
Balanced Braking Mechanism/
Quick Response Mechanism/
Hexagon Release



BR-6300



BR-6310



Model BR-6310 Model BR-6300

ITEM NO.	PART NO.	DESCRIPTION
1	3-815 9801	Center Bolt Assembly for Front
2	863 2701	Lock Nut for Center Bolt (M6)
3	811 6101	Teethed Washer
4	855 1000	Washer (φ6)
5	855 2700	Radius Bushing for Front
6	814 1800	Spacer for Front 9mm
7	814 1611	Center Bolt for Front
8	815 0100	Gate
9	3-815 9811	Pivot Bolt Assembly-M (Left Side for Front Brake or Right Side for Rear Brake)
10	815 0600	Pivot Nut
11	814 1000	Gate Bushing
12	814 1900	Arm Return Spring-M (Left Side for Front Brake or Right Side for Rear Brake)
13	814 1100	Arm Bushing
14	814 0800	Pivot Bolt (M6x17.2)
15	3-815 9812	Pivot Bolt Assembly-N (Right Side for Front Brake or Left Side for Rear Brake)
16	814 2000	Arm Return Spring-N (Right Side for Front Brake or Left Side for Rear Brake)
17	3-815 9813	Arm-A
18	3-815 9814	Arm-B
19	3-815 9803	Brake Shoe & Shoe Fixing Screw
20	814 0601	Brake Shoe
21	814 0700	Shoe Fixing Screw
22	3-815 9806	Cable Adjusting Bolt & Nut
23	814 2200	Cable Adjusting Nut
24	814 2101	Cable Adjusting Bolt

ITEM NO.	PART NO.	DESCRIPTIPN
25	3-815 9802	Center Bolt Assembly for Rear
26	855 2600	Radius Bushing for Rear
27	814 1801	Spacer for Rear 4.5mm
28	814 1711	Center Bolt for Rear
29	3-815 9815	Arm-C
30	3-815 9816	Arm-D
31	3-815 9005-1	Carrier Assembly
32	814 1300	Cable Fixing Bolt
33	815 2000	Cable Fixing Plate
34	815 0700	Carrier
35	815 1400-1	Guide Pin Cap
36	815 1300	Washer (M5)
37	851 5201	Cable Fixing Nut
38	3-815 9961	Pivot Bolt Assembly-M (Left Side for Front Brake or Right Side for Rear Brake)
39	814 2900	Bushing for Pivot Bolt
40	3-815 9962	Pivot Bolt Assembly-N (Right Side for Front Brake or Left Side for Rear Brake)
41	3-815 9951	Arm-A
42	3-815 9953	Arm-B
43	3-815 9952	Arm-C
44	3-815 9954	Arm-D
45	3-815 9817	Carrier Assembly
46	814 1500	Cable Fixing Plate
47	814 2700	Guide Pin
48	815 5600	Carrier
49	814 2800	Guide Pin Cap

8309-S453D'

Brake

Model BR-6200 Side Pull 57-Type
Model BR-6210 Side Pull 49-Type

Model BR-6102

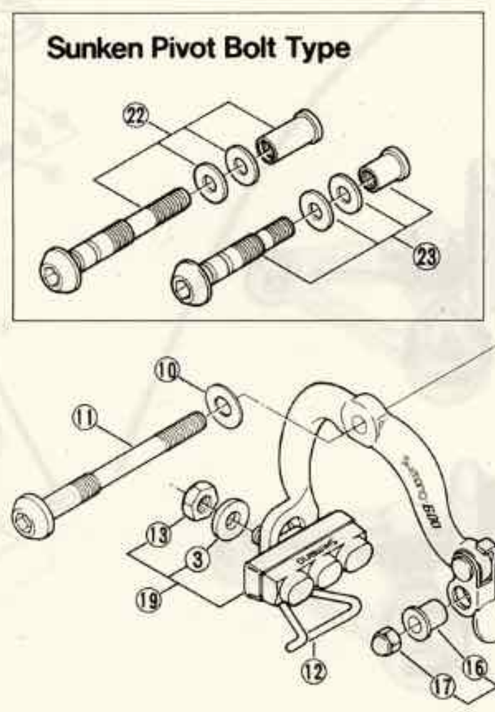
SHIMANO 600 EX

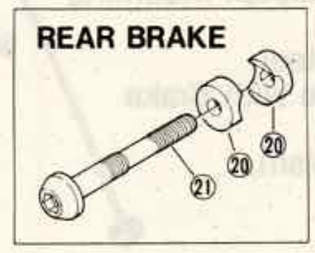
Caliper Brake

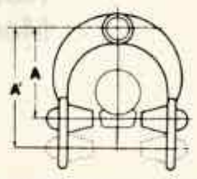
Model BR-6200 (CS-57 Type)
Model BR-6210 (CS-49 Type)

SPECIFICATIONS

Weight ● Front 5.6oz. (159g.)
Rear 5.5oz. (157g.)
Material ● Light Alloy • Anodized Finish
Type ● Side Pull with Quick Release and Tire Guide
New NBM Brake Shoe







TYPE	A — A'
CS-49	39mm(1-17/32") — 49mm(1-15/16")
CS-57	43mm(1-11/16") — 57mm(2-1/4")

ITEM NO.	PART NO.	DESCRIPTION
1	863 2701	Lock Nut (M6) for Pivot Bolt
2	811 6101	Teethed Washer
3	855 1000	Washer (M6)
4	855 2700	Radius Bushing (Front)
5	3-857 9812	Lock Nut for Sunken Pivot Bolt Type
6	857 0501	Pivot Nut
	857 0500	Pivot Nut for Sunken Pivot Bolt Type
7	857 0700	Arm Return Spring
8	857 0600	Arm Washer 1mm
9	3-831 9043	Cable Adjusting Barrel & Lock Nut
10	851 2101	Arm Spacer 0.3mm
11	857 0300	Pivot Bolt (Front)
12	857 1300	Tire Guide
13	855 1100	Shoe Fixing Nut (M6)

ITEM NO.	PART NO.	DESCRIPTION
14	857 1200	Cable Fixing Bolt
15	857 1101	Cable Fixing Washer (49-Type)
	857 1100	Cable Fixing Washer (57-Type)
16	857 1000	Bushing
17	851 5201	Cable Fixing Nut (M5)
18	3-857 9811	Cable Fixing Bolt Assembly (49-Type)
	3-857 9003	Cable Fixing Bolt Assembly (57-Type)
19	3-857 9005	Brake Shoe Assembly
	3-857 9901	Brake Shoe Assembly (4pcs.)
20	855 2600	Radius Bushing (Rear)
21	857 0400	Pivot Bolt (Rear)
22	3-855 9801	Sunken Pivot Bolt Unit 57mm(2-1/4") for Front (Option)
23	3-855 9802	Sunken Pivot Bolt Unit 40mm(1-9/16") for Rear (Option)

8305-319E BR

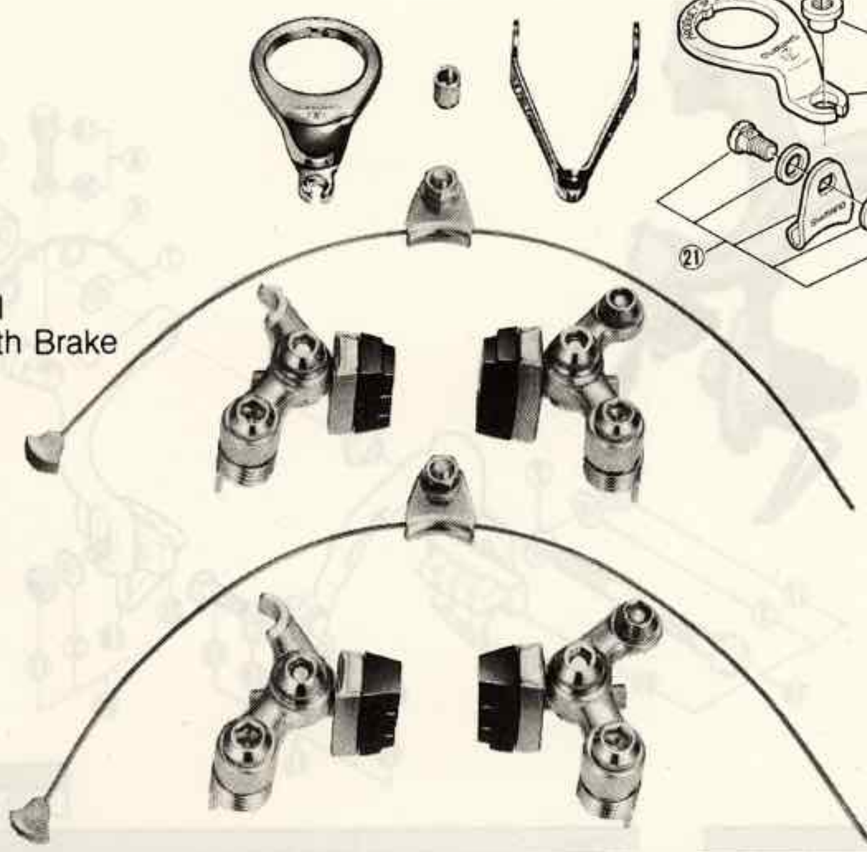
SHIMANO 600

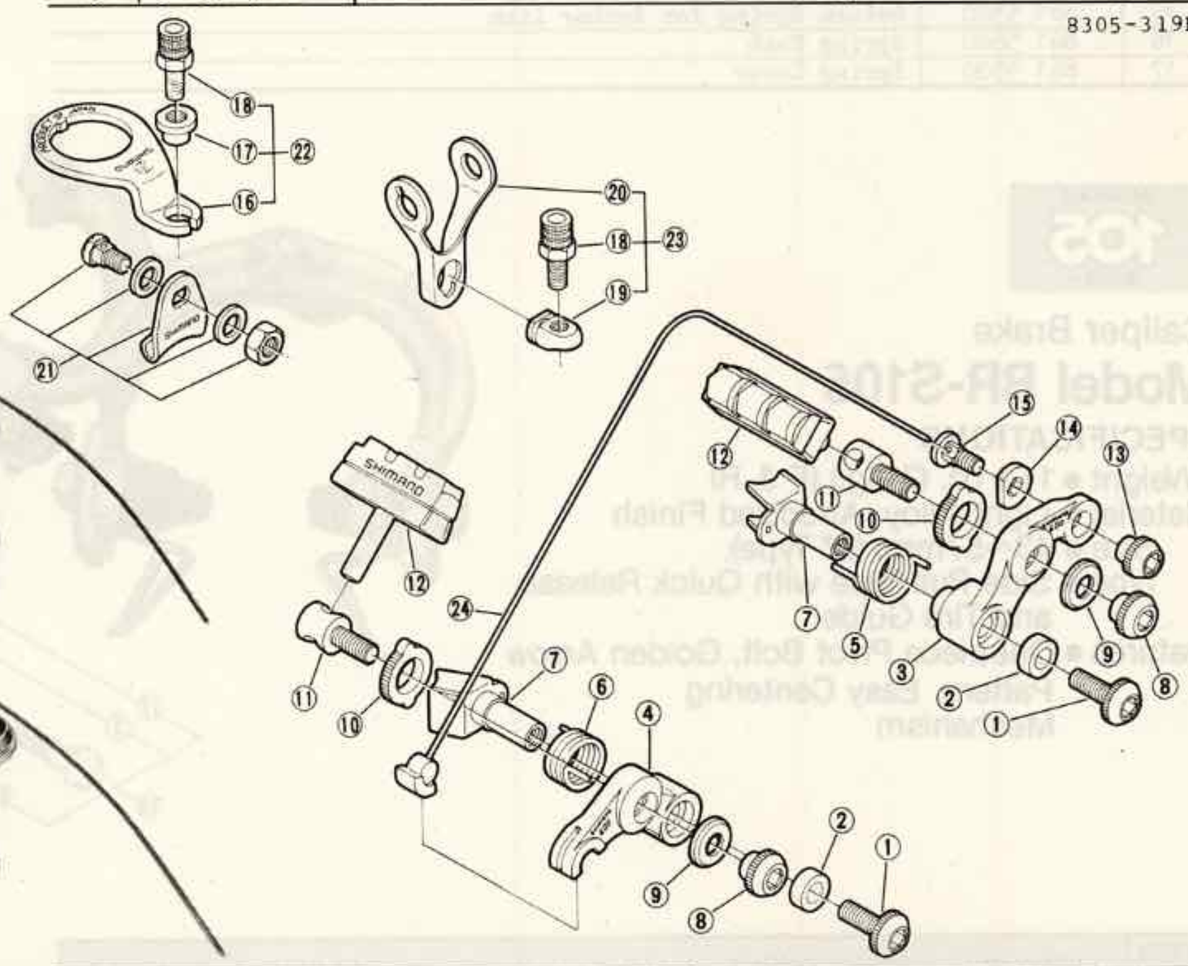
Cantilever Brake

Model BR-6102

SPECIFICATIONS

Weight ● 11.9oz. (338g.)
Material ● Light Alloy and Steel
Type ● Cantilever Brake With Brake Mounting Shaft
Option ● Cable Hanger





ITEM NO.	PART NO.	DESCRIPTION
1	862 0400	Link Fixing Bolt
2	862 0300	Spacer
3	3-862 9801	Anchor Link w/Bushing
4	3-862 9802	Hooking Link w/Bushing
5	862 0501	Return Spring for Anchor Link
6	862 0500	Return Spring for Hooking Link
7	862 1500	Front Mounting Shaft
	862 1600	Rear Mounting Shaft
8	862 0900	Brake Shoe Fixing Nut
9	862 0800	Dished Washer
10	862 0600	Brake Shoe Adjusting Washer
11	862 0700	Brake Shoe Fixing Bolt
12	3-861 9006	Brake Shoe

ITEM NO.	PART NO.	DESCRIPTION
13	862 1300	Wire Fixing Nut
14	831 8301	Wire Fixing Washer
15	851 5100	Wire Fixing Bolt
16	831 6121	Front Cable Hanger
17	831 8500	Barrel Supporter (Front)
18	3-831 9043	Cable Adjusting Barrel & Nut
19	831 6403	Barrel Supporter (Rear)
20	831 6521	Rear Cable Hanger
21	3-831 9010	Cable Carrier Assembly
22	3-831 9078	Front Cable Hanger Assembly
23	3-831 9079	Rear Cable Hanger Assembly
24	862 1400	Center Wire

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Model BR-MC70
Model BR-S105

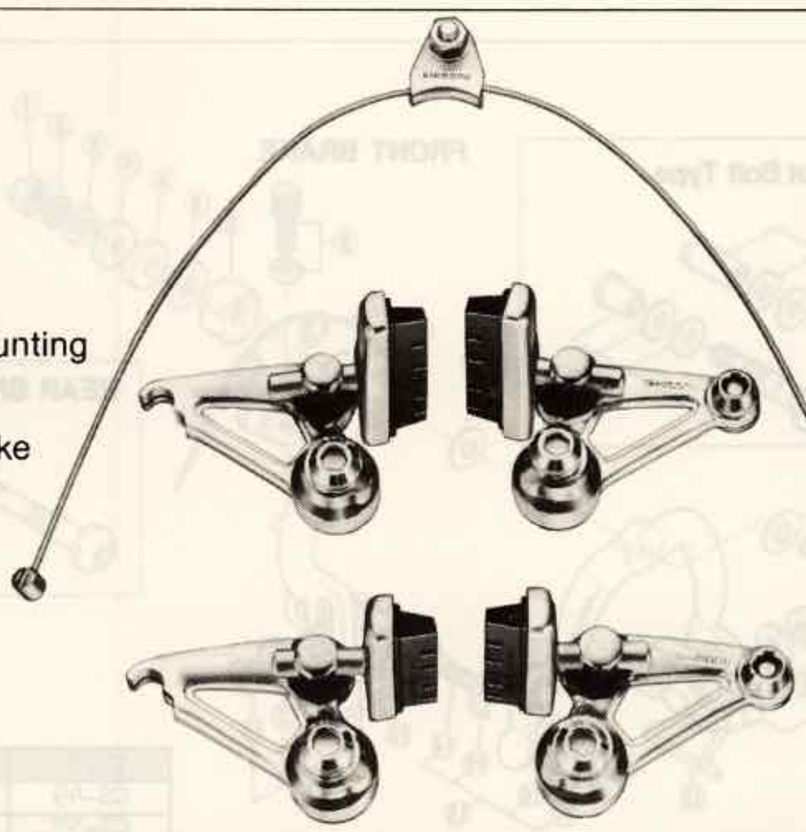
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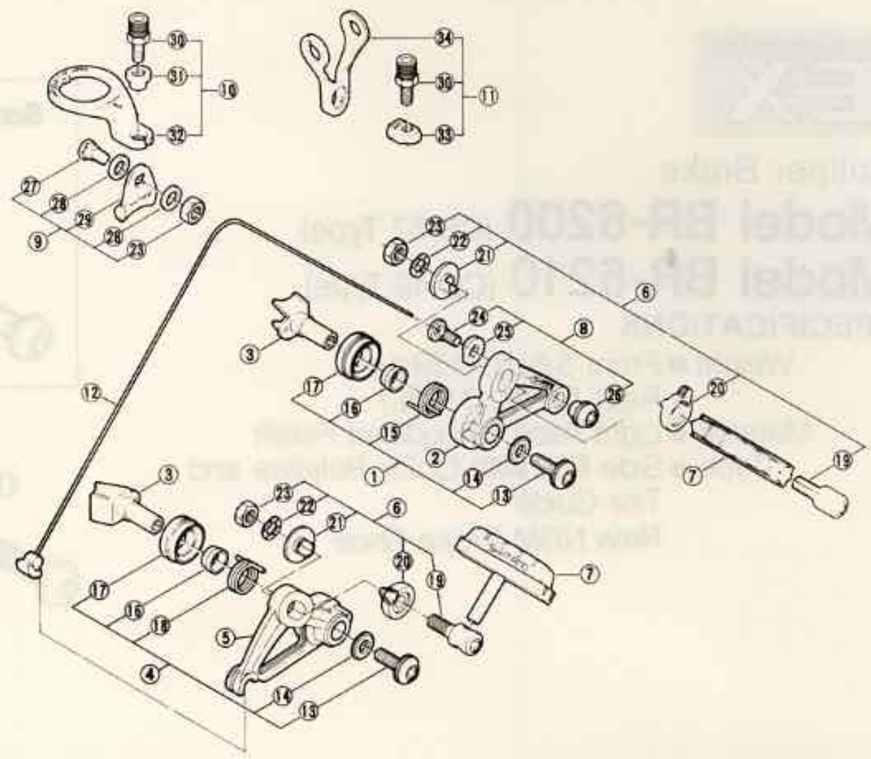
Cantilever Brake

Model BR-MC70

SPECIFICATIONS

Weight • 9.2 oz. (260g.) Except Mounting Shaft
Material • Light Alloy & Steel
Type • Cantilever Brake with Brake Mounting Shaft
Features • Sealed Mechanism, Non-Hitting Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	3-861 9801	Anchor Link Fixing Bolt Unit
2	3-861 9802	Anchor Link w/Bush
3	862 1500	Front Mounting Shaft
	862 1600	Rear Mounting Shaft
4	3-861 9803	Hooking Link Fixing Bolt Unit
5	3-861 9804	Hooking Link w/Bush
6	3-861 9901	Brake Shoe Fixing Bolt Unit
7	3-861 9806	Brake Shoe
8	3-861 9807	Wire Fixing Bolt Unit
9	3-831 9010	Cable Carrier Assembly
10	3-831 9078	Front Cable Hanger Assembly
11	3-831 9079	Rear Cable Hanger Assembly
12	862 1401	Center Wire
13	862 0400-1	Link Fixing Bolt
14	855 1000	Link Fixing Washer
15	861 5300	Return Spring for Anchor Link
16	861 5600	Spring Bush
17	861 5500	Spring Cover

ITEM NO.	PART NO.	DESCRIPTION
18	861 5400	Return Spring for Hooking Link
19	861 6100	Brake Shoe Fixing Bolt
20	861 6000	Adjusting Washer A
21	861 5700	Adjusting Washer B
22	861 6300	Wave Washer
23	831 0700	Brake Shoe Fixing Nut (M6)
24	851 5104	Wire Fixing Bolt
25	831 8302	Wire Fixing Plate
26	862 1300	Wire Fixing Nut
27	831 5300	Cable Fixing Bolt
28	831 5401	Cable Fixing Washer
29	831 5200	Cable Carrier
30	3-831 9043	Cable Adjusting Barrel & Nut
31	831 8500	Barrel Supporter (Front)
32	831 6121	Front Cable Hanger
33	831 6403	Barrel Supporter (Rear)
34	831 6521	Rear Cable Hanger

8402-E548A

BR

SHIMANO 105

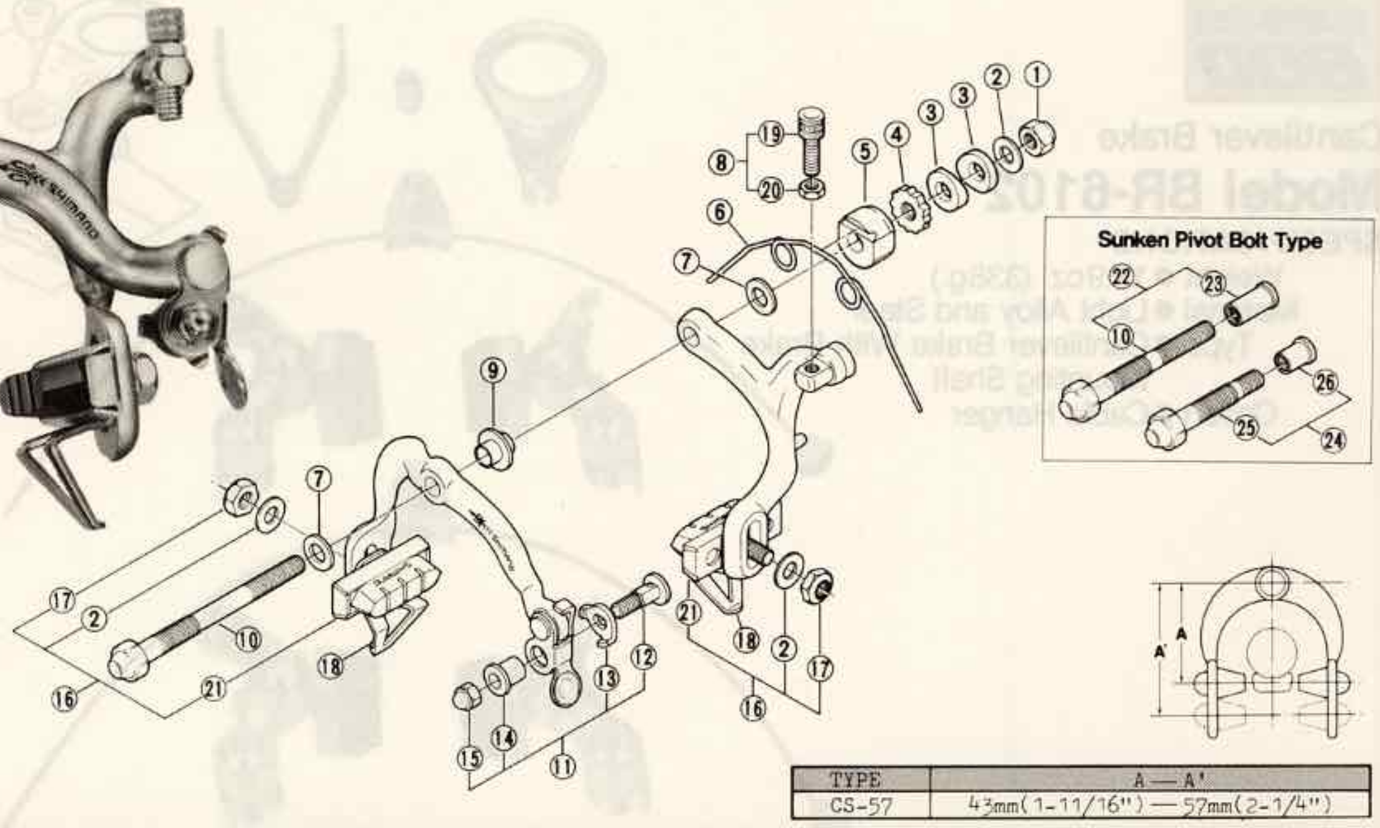
Caliper Brake

Model BR-S105

SPECIFICATIONS

Weight • 11.1 oz. (316g.) (F & R)
Material • Light Alloy · Anodized Finish
Size • 43~57mm. (57 Type).
Type • Side Pull Type with Quick Release and Tire Guide
Features • Onepiece Pivot Bolt, Golden Arrow Pattern, Easy Centering Mechanism





TYPE	A — A'
CS-57	43mm(1-11/16") — 57mm(2-1/4")

ITEM NO.	PART NO.	DESCRIPTION
1	863 2701	Lock Nut (M6) for Pivot Bolt
2	859 2500	Washer (M6) t=1.0mm
3	811 6030	Radius Bushing for Front
	811 6040	Radius Bushing for Rear
4	3-859 9802	Lock Nut
5	857 0500	Pivot
6	857 0700	Arm Return Spring
7	859 2100	Arm Washer t=1.2mm
8	3-831 9043	Cable Adjusting Barrel & Lock Nut
9	851 2202	Arm Spacer
10	851 3300-1	Pivot Bolt for Front
	851 3401-1	Pivot Bolt for Rear or Sunken Pivot Bolt for Front
11	3-857 9003	Cable Fixing Bolt Unit
12	857 1200	Cable Fixing Bolt

ITEM NO.	PART NO.	DESCRIPTION
13	857 1100	Cable Fixing Washer
14	857 1000	Bushing
15	851 5201	Cable Fixing Nut (M5)
16	3-859 9801	Brake Shoe Assembly
17	855 1100	Shoe Fixing Nut (M6)
18	859 2400	Tire Guide
19	851 6200-1	Cable Adjusting Barrel
20	831 6700	Cable Adjusting Nut
21	3-859 9001	Brake Shoe
22	3-859 9821	Sunken Pivot Bolt & Nut for Front (Option)
23	855 7400	Sunken Pivot Nut for Front (Option)
24	3-859 9811	Sunken Pivot Bolt & Nut for Rear (Option)
25	851 3404-1	Sunken Pivot Bolt for Rear (Option)
26	855 7500	Sunken Pivot Nut for Rear (Option)

8311-E567C

UE

Model BR-Z570 Side Pull 57-Type
Model BR-Z640 Side Pull 64-Type
Model BR-Z720 Side Pull 72-Type
Model BR-Z790 Side Pull 79-Type

SHIMANO Z COMPONENTS

Model BR-Z570 (Short-57 Type)
Model BR-Z640 (Long-64 Type)
Model BR-Z720 (Short-72 Type)
Model BR-Z790 (Long-79 Type)

SPECIFICATIONS

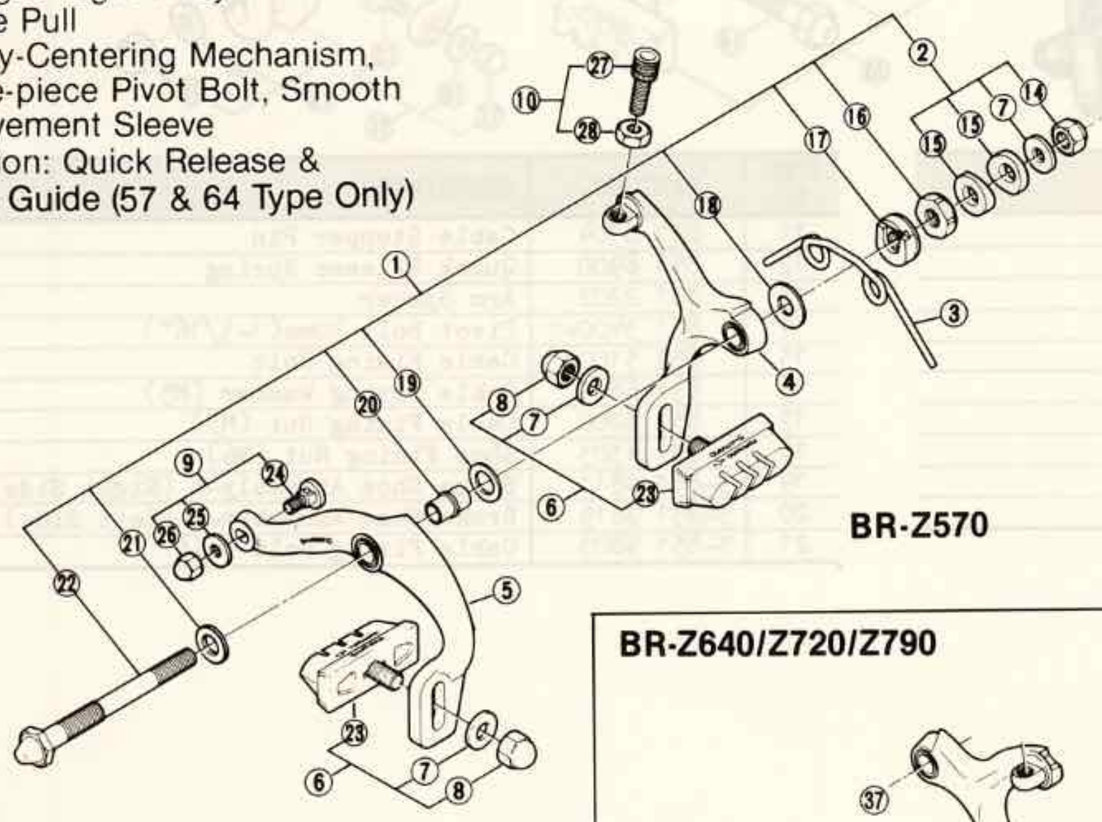
Weight ● Front: 5.5 oz. (157g.) 72 Type,
5.6 oz. (160g.) 79 Type,
5.4 oz. (152g.) 57 Type,
5.4 oz. (154g.) 64 Type
Rear: 5.4 oz. (154g.) 72 Type,
5.5 oz. (157g.) 79 Type,
5.3 oz. (149g.) 57 Type,
5.3 oz. (151g.) 64 Type
Material ● Forged Light Alloy
Type ● Side Pull
Features ● Easy-Centering Mechanism, One-piece Pivot Bolt, Smooth Movement Sleeve
● Option: Quick Release & Tire Guide (57 & 64 Type Only)

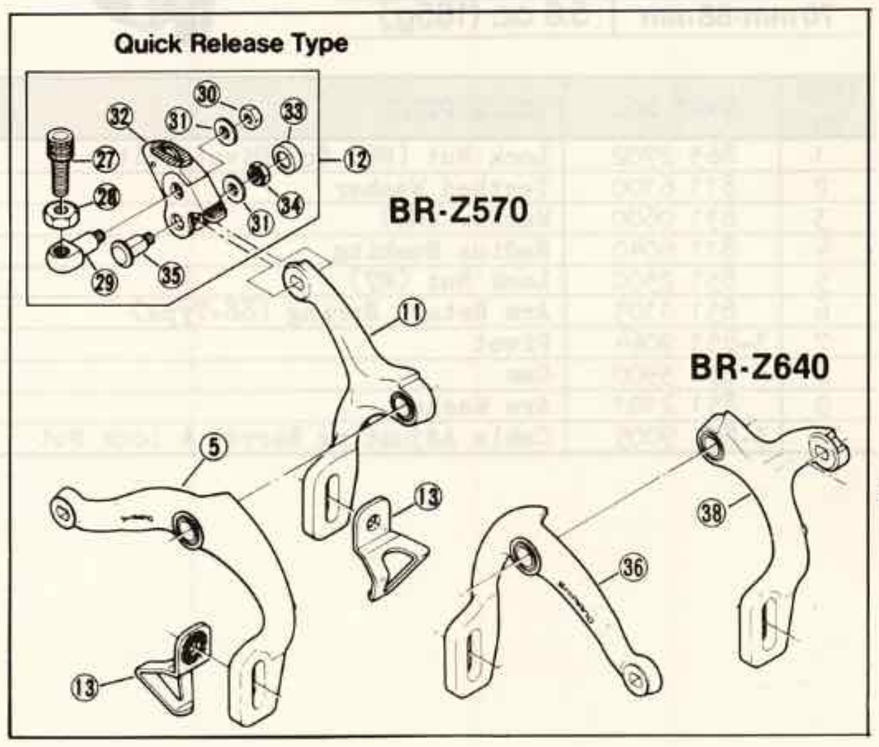


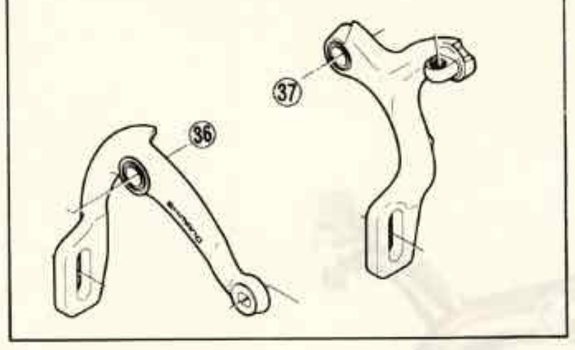
BR-Z570

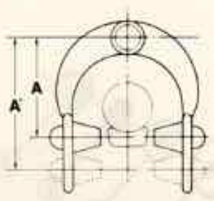


BR-Z640


BR-Z570







TYPE	A — A'
CS-57	43mm(1-11/16") — 57mm(2-1/4")
CS-64	49mm(1-17/32") — 64mm(2-1/2")
CS-72	54mm(2-1/8") — 72mm(2-27/32")
CS-79	61mm(2-13/32") — 79mm(3-1/8")

ITEM NO.	PART NO.	DESCRIPTION
1	3-853 9820	Pivot Bolt Assembly 73mm(2-7/8") for Front
	3-853 9821	Pivot Bolt Assembly 80mm(3-5/32") for Front
	3-853 9830	Pivot Bolt Assembly 55.2mm(2-3/16") for Rear
	3-853 9831	Pivot Bolt Assembly 59mm(2-5/16") for Rear
2	3-853 9812	Radius Bushing Unit for Front
	3-853 9813	Radius Bushing Unit for Rear
3	853 4000	Arm Return Spring(57 &64Type)
	853 4010	Arm Return Spring(72 & 79Type)
4	3-853 9840	Brake Arm "Y" Shape
5	853 0400	Brake Arm "C" Shape
6	3-853 9803	Brake Shoe Assembly
7	831 0600	Washer (M6)
8	831 4303	Shoe Fixing Nut (M6)
9	3-851 9803	Cable Fixing Bolt Unit
10	3-853 9811	Cable Adjusting Barrel & Lock Nut
11	853 0300	Brake Arm "Y" Shape for Quick Release Type
12	3-854 9843	Quick Release Unit
13	859 2400	Tire Guide for Quick Release Type
14	863 2702	Lock Nut (M6) for Pivot Bolt
15	811 6030	Radius Bushing for Front
	811 6040	Radius Bushing for Rear
16	3-853 9810	Lock Nut
17	858 3201	Pivot Nut
18	858 3100	Arm Washer 0.5mm
19	853 3410	Arm Spacer 1mm
20	853 3400	Arm Bushing

ITEM NO.	PART NO.	DESCRIPTION
21	858 3000	Arm Washer 1mm
22	853 1100	Pivot Bolt 73mm(2-7/8") for Front
	853 1110	Pivot Bolt 80mm(3-5/32") for Front
	853 1200	Pivot Bolt 55.2mm(2-3/16") for Rear
	853 1210	Pivot Bolt 59mm(2-5/16") for Rear
23	3-853 9808	Brake Shoe
24	851 5100	Cable Fixing Bolt
25	831 6800	Cable Fixing Washer
26	851 5200	Cable Fixing Nut
27	851 6200-1	Cable Adjusting Barrel
28	831 6701	Cable Adjusting Nut
29	854 1500	Cable Stopper Pin for Quick Release Type
30	581 2000-1	Nut (M4) for Quick Release Type
31	854 2200	Washer for Quick Release Type
32	3-854 9844	Quick Plate Unit
33	854 1800	Quick Nut Cap
34	854 1700	Quick Plate Fixing Nut
35	854 1600	Quick Plate Fixing Bolt
36	3-853 9841	Brake Arm "Y" Shape (64-Type)
	3-853 9842	Brake Arm "Y" Shape (72-Type)
	3-853 9843	Brake Arm "Y" Shape (79-Type)
37	853 0200	Brake Arm "C" Shape (64-Type)
	853 0600	Brake Arm "C" Shape (72-Type)
	853 0800	Brake Arm "C" Shape (79-Type)
38	853 0100	Brake Arm "Y" Shape for Quick Release Type

8404-E645A

Model BR-MX10 TOURNEY/Side Pull
Model BR-MX20 TOURNEY/Side Pull

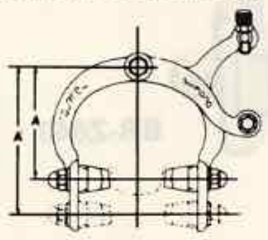
SHIMANO DX

TOURNEY Rear Sidepull Caliper Brake

Model BR-MX10

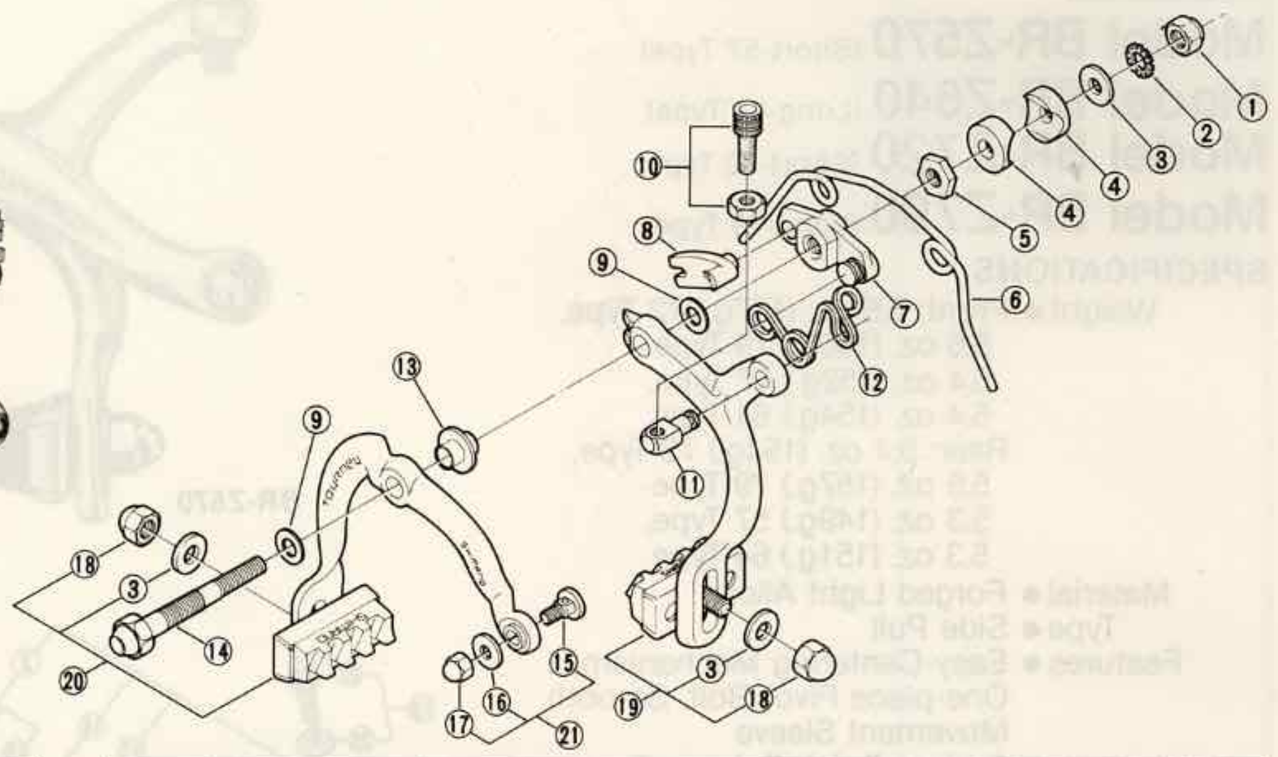
SPECIFICATIONS

Use: With Motocross Bicycle
Material: Light Alloy
Color: Red, Blue, Gold, Silver or Black
Type: Sidepull with Quick Release, Synpul Mechanism



A-A′	Weight (Rear)
70mm-88mm	5.8 oz. (165g.)





ITEM NO.	PART NO.	DESCRIPTION
1	863 2702	Lock Nut (M6) for Pivot Bolt
2	811 6100	Teethed Washer
3	831 0600	Washer (M6)
4	811 6040	Radius Bushing
5	851 2500	Lock Nut (M7)
6	851 1103	Arm Return Spring (88-Type)
7	3-851 9064	Pivot
8	851 3900	Cam
9	851 2101	Arm Washer
10	3-851 9005	Cable Adjusting Barrel & Lock Nut

ITEM NO.	PART NO.	DESCRIPTION
11	851 6104	Cable Stopper Pin
12	851 8900	Quick Release Spring
13	851 2202	Arm Spacer
14	851 3400-1	Pivot Bolt 30mm(1-3/16")
15	851 5100	Cable Fixing Bolt
16	831 6801	Cable Fixing Washer (M5)
17	851 5200	Cable Fixing Nut (M5)
18	831 4303	Shoe Fixing Nut (M6)
19	3-851 9811	Brake Shoe Assembly-A (Right Side)
20	3-851 9815	Brake Shoe Assembly-B (Left Side)
21	3-851 9803	Cable Fixing Bolt Unit

BR

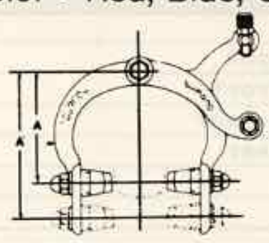
8304-364D

TOURNEY Rear Sidepull Caliper Brake

Model BR-MX20

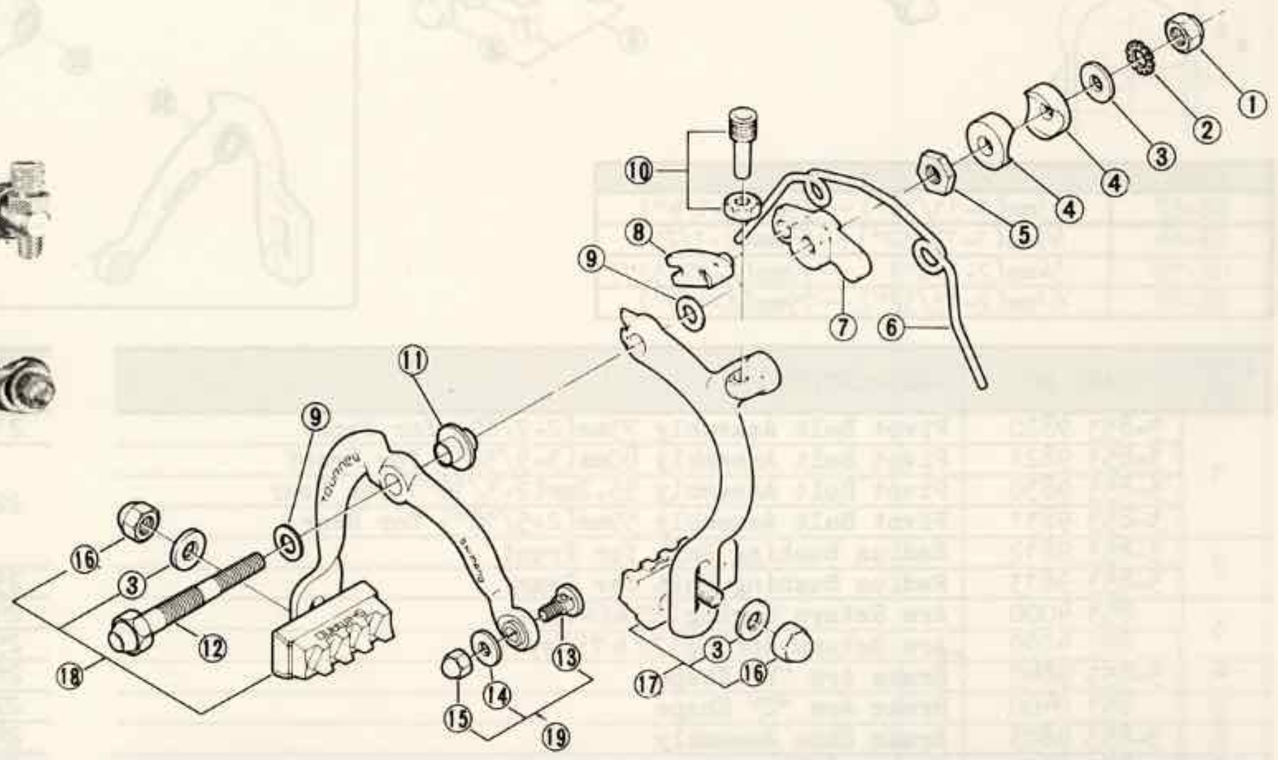
SPECIFICATIONS

Use ● With Motocross Bicycle
Material ● Light Alloy
Type ● Sidepull with Synpul Mechanism
Color ● Red, Blue, Gold, Silver or Black



A-A′	Weight (Rear)
70mm-88mm	5.6 oz. (160g.)





ITEM NO.	PART NO.	DESCRIPTION
1	863 2702	Lock Nut (M6) for Pivot Bolt
2	811 6100	Teethed Washer
3	831 0600	Washer (M6)
4	811 6040	Radius Bushing
5	851 2500	Lock Nut (M7)
6	851 1103	Arm Return Spring (88-Type)
7	851 3800	Pivot
8	851 3900	Cam
9	851 2101	Arm Washer
10	3-851 9005	Cable Adjusting Barrel & Lock Nut

ITEM NO.	PART NO.	DESCRIPTION
11	851 2202	Arm Spacer
12	851 3400-1	Pivot Bolt 30mm(1-3/16")
13	851 5100	Cable Fixing Bolt
14	831 6800	Cable Fixing Washer (M5)
15	851 5200	Cable Fixing Nut (M5)
16	831 4303	Shoe Fixing Nut (M6)
17	3-851 9811	Brake Shoe Assembly-A (Right Side)
18	3-851 9815	Brake Shoe Assembly-B (Left Side)
19	3-851 9803	Cable Fixing Bolt Unit

8304-364D

UE

Model BR-TS30 TOURNEY/Side Pull
Model BR-TS60 TOURNEY/Side Pull

Model BR-TS40 TOURNEY/Side Pull

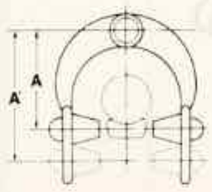
TOURNEY Sidepull Caliper

Model BR-TS30 (with Synpul & Quick Release)
Model BR-TS60 (with Quick Release)

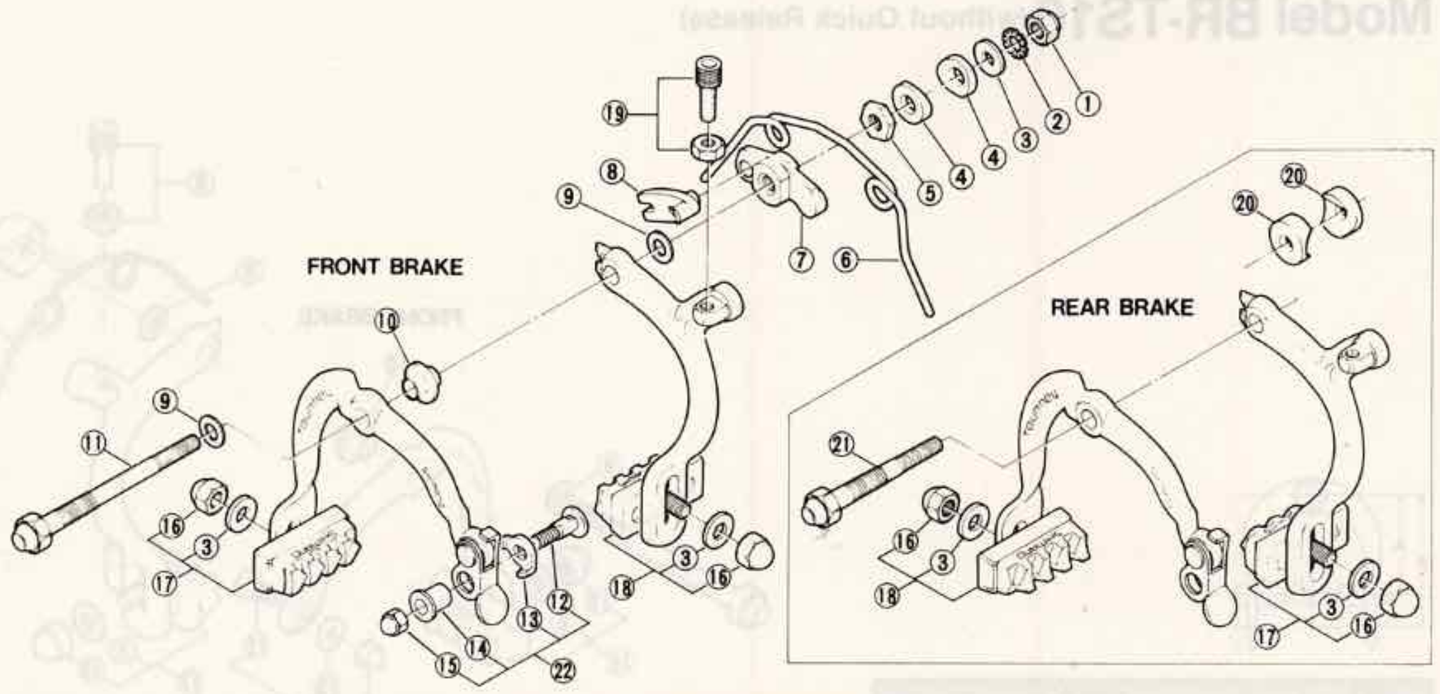
SPECIFICATIONS

Material: Light Alloy

Type: Side Pull with Synpul Mechanism
and Quick Release Mechanism



TYPE	A — A'
CS-S72	54mm(2-1/8") — 72mm(2-27/32")



ITEM NO.	PART NO.	DESCRIPTION
1	863 2702	Lock Nut (M6) for Pivot Bolt
2	811 6100	Teethed Washer
3	831 0600	Washer (M6)
4	811 6030	Radius Bushing (Front)
5	851 2500	Lock Nut (M7)
6	851 1104	Arm Return Spring (72-Type)
7	851 3800	Pivot
8	851 3900	Cam (TS-30 Only)
9	851 2101	Arm Washer
10	851 2202	Arm Spacer
11	851 3301-1	Pivot Bolt (Front) 47mm(1-27/32")
12	851 5101-1	Cable Fixing Bolt

ITEM NO.	PART NO.	DESCRIPTION
13	851 6000	Cable Fixing Washer
14	851 6800	Bushing
15	851 5200	Cable Fixing Nut
16	831 4303	Shoe Fixing Nut (M6)
17	3-851 9811	Brake Shoe Assembly-A (Right Side for Front Brake or Rear Brake)
18	3-851 9815	Brake Shoe Assembly-B (Left Side for Front Brake or Rear Brake)
19	3-831 9043	Cable Adjusting Barrel & Lock Nut
20	811 6040	Radius Bushing (Rear)
21	851 3400-1	Pivot Bolt (Rear) 30mm(1-3/16")
22	3-851 9804	Cable Fixing Bolt Unit

8305-496C

TOURNEY Sidepull Caliper

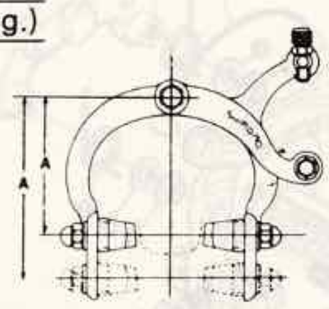
Model BR-TS40 (with Synpul)

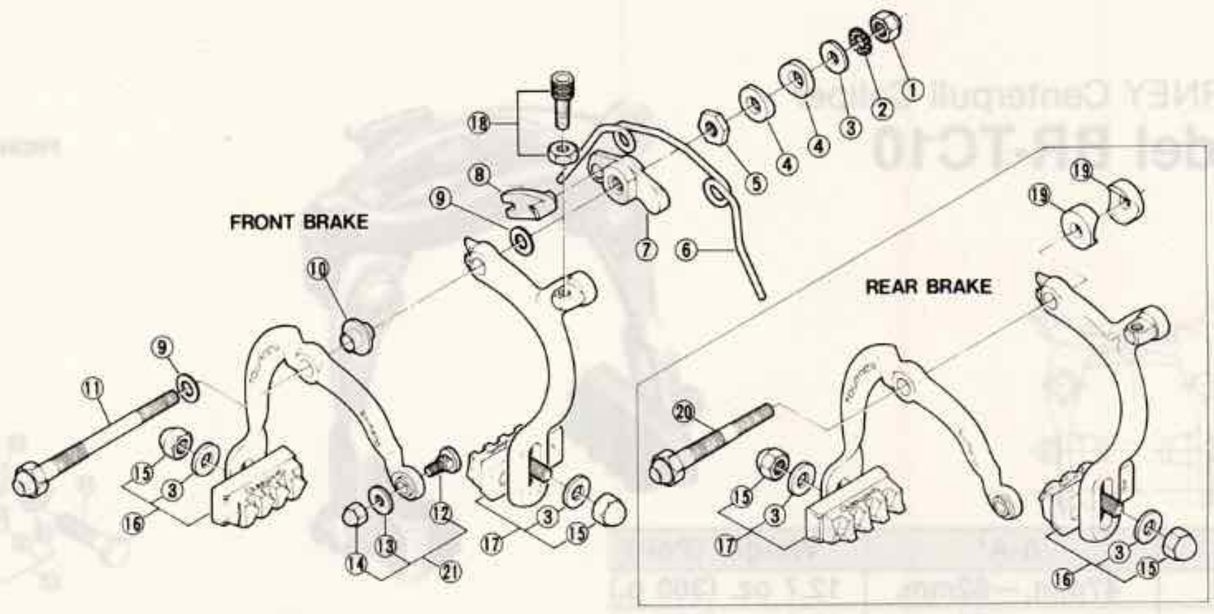
SPECIFICATIONS

Material: Light Alloy

Type: Side Pull with Synpul Mechanism

Type	A-A′	Weight (Pair)
CS-S72	54mm.—72mm.	10.6 oz. (301 g.)
CS-S79	61mm.—79mm.	11.0 oz. (311 g.)
CS-S88	70mm.—88mm.	11.5 oz. (325 g.)





ITEM NO.	PART NO.	DESCRIPTION
1	863 2702	Lock Nut (M6) for Pivot Bolt
2	811 6100	Teethed Washer
3	831 0600	Washer (M6)
4	811 6030	Radius Bushing (Front)
5	851 2500	Lock Nut (M7)
6	851 1104	Arm Return Spring (72-Type)
	851 1103	Arm Return Spring (79-Type)
7	851 3800	Pivot
8	851 3900	Cam
9	851 2101	Arm Washer
10	851 2202	Arm Spacer
11	851 3301-1	Pivot Bolt (Front) 47mm(1-27/32")

ITEM NO.	PART NO.	DESCRIPTION
12	851 5100	Cable Fixing Bolt
13	831 6800	Cable Fixing Washer (M5)
14	851 5200	Cable Fixing Nut
15	831 4303	Shoe Fixing Nut (M6)
16	3-851 9084	Brake Shoe Assembly-A (Right Side for Front Brake or Rear Brake)
17	3-851 9803	Brake Shoe Assembly-B (Left Side for Front Brake or Rear Brake)
18	3-851 9005	Cable Adjusting Barrel & Lock Nut
19	811 6040	Radius Bushing (Rear)
20	851 3400-1	Pivot Bolt (Rear) 30mm(1-3/16")
21	3-851 9803	Cable Fixing Bolt Unit

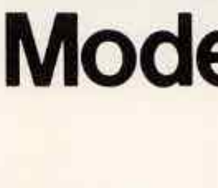
8304-259D

Brake

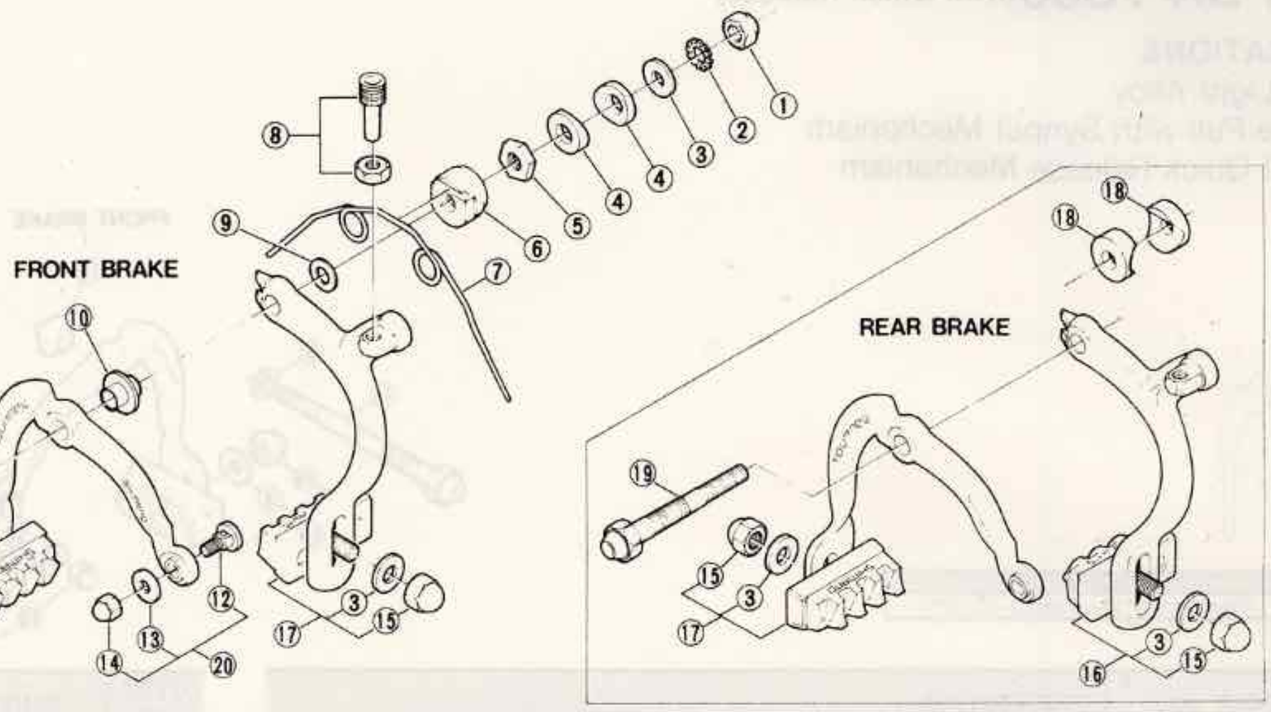
Model BR-TS10 TOURNEY/Side Pull
Model BR-TC10 TOURNEY Center Pull Type

TOURNEY Sidepull Caliper

Model BR-TS10 (without Quick Release)



TYPE	A — A'
CS-72	54mm(2-1/8") — 72mm(2-27/32")
CS-79	61mm(2-13/32") — 79mm(3-1/8")



ITEM NO.	PART NO.	DESCRIPTION
1	863 2702	Lock Nut (M6) for Pivot Bolt
2	811 6100	Teethed Washer
3	831 0600	Washer (M6)
4	811 6030	Radius Bushing (Front)
5	851 2500	Lock Nut (M7)
6	851 3501	Pivot
7	851 1101	Arm Return Spring (72-Type)
	851 1100	Arm Return Spring (79-Type)
8	3-851 9005	Cable Adjusting Barrel & Lock Nut
9	851 2101	Arm Washer
10	851 2202	Arm Spacer
11	851 3300-1	Pivot Bolt (Front) 54mm(2-1/8")
	851 3301-1	Pivot Bolt (Front) 47mm(1-27/32")

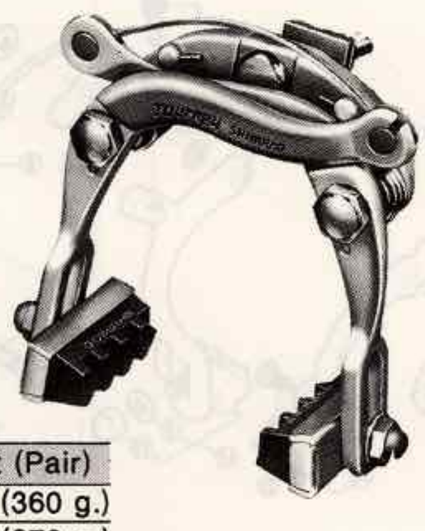
ITEM NO.	PART NO.	DESCRIPTION
12	851 5100	Cable Fixing Bolt
13	831 6800	Cable Fixing Washer (M5)
14	851 5200	Cable Fixing Nut
15	831 4303	Shoe Fixing Nut (M6)
16	3-851 9084	Brake Shoe Assembly-A (Right Side for Front Brake or Rear Brake)
17	3-851 9083	Brake Shoe Assembly-B (Right Side for Front Brake or Rear Brake)
18	811 6040	Radius Bushing (Rear)
19	851 3400-1	Pivot Bolt (Rear) 30mm(1-3/16")
20	3-851 9803	Cable Fixing Bolt Unit

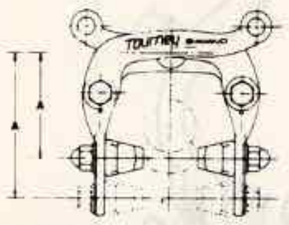
8304-363C

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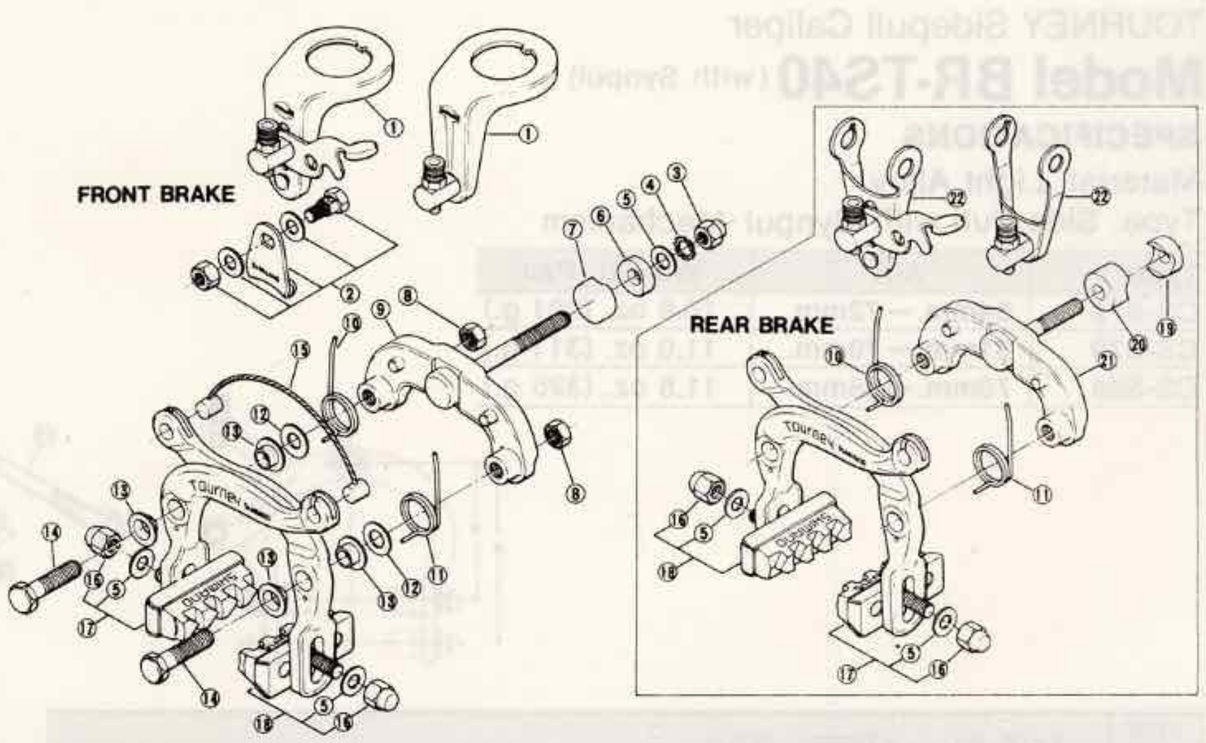
TOURNEY Centerpull Caliper

Model BR-TC10





Type	A-A'	Weight (Pair)
CC-62	47mm.—62mm.	12.7 oz. (360 g.)
CC-75	57mm.—75mm.	13.1 oz. (370 g.)



ITEM NO.	PART NO.	DESCRIPTION
1	3-831 9004-2	Front Cable Hanger Assembly w/Quick Release
	3-831 9005-1	Front Cable Hanger Assembly
2	3-831 9010	Cable Carrier Assembly
3	863 2702	Lock Nut for Center Bolt (M6)
4	811 6100	Teethed Washer
5	831 0600	Washer (M6) t=1.2mm
6	811 6030	Radius Bushing (Front)
7	831 3300-2	Center Spacer (Front)
8	831 0700	Lock Nut for Pivot Bolt
9	3-831 9051	Arm Bridge w/Center Bolt 63mm(2-1/2")
	3-831 9052	Arm Bridge w/Center Bolt 71mm(2-13/16")
10	831 2101-1	Arm Return Spring-N (Right Side for Front Brake or Left Side for Rear Brake)
11	831 2100-1	Arm Return Spring-M (Left Side for Front Brake or Right Side for Rear Brake)
12	831 0603	Washer (M6) t=1.8mm

ITEM NO.	PART NO.	DESCRIPTION
13	831 0500-1	Flanged Thrust Washer
14	831 0300-3	Pivot Bolt
15	831 5101	Center Wire 80mm(3-5/32")
16	831 4303	Shoe Fixing Nut
17	3-851 9084	Brake Shoe Assembly-A (Right Side for Front Brake or Rear Brake)
18	3-851 9083	Brake Shoe Assembly-B (Left Side for Front Brake or Rear Brake)
19	811 6040	Radius Bushing (Rear)
20	831 3400-3	Center Spacer (Rear)
21	3-831 9053	Arm Bridge w/Center Bolt 42mm(1-11/16")
22	3-831 9007-2	Rear Cable Hanger Assembly w/Quick Release 27mm(1-1/16")
	3-831 9008-1	Rear Cable Hanger Assembly 27mm(1-1/16")

8304-51F'

UE

Model BR-TC30

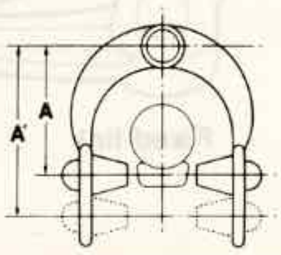
Model BR-C800 Caliper Brake CC80S (57—75)
Model BR-C801 Caliper Brake CC80L (70—88)

TOURNEY Centerpull Caliper

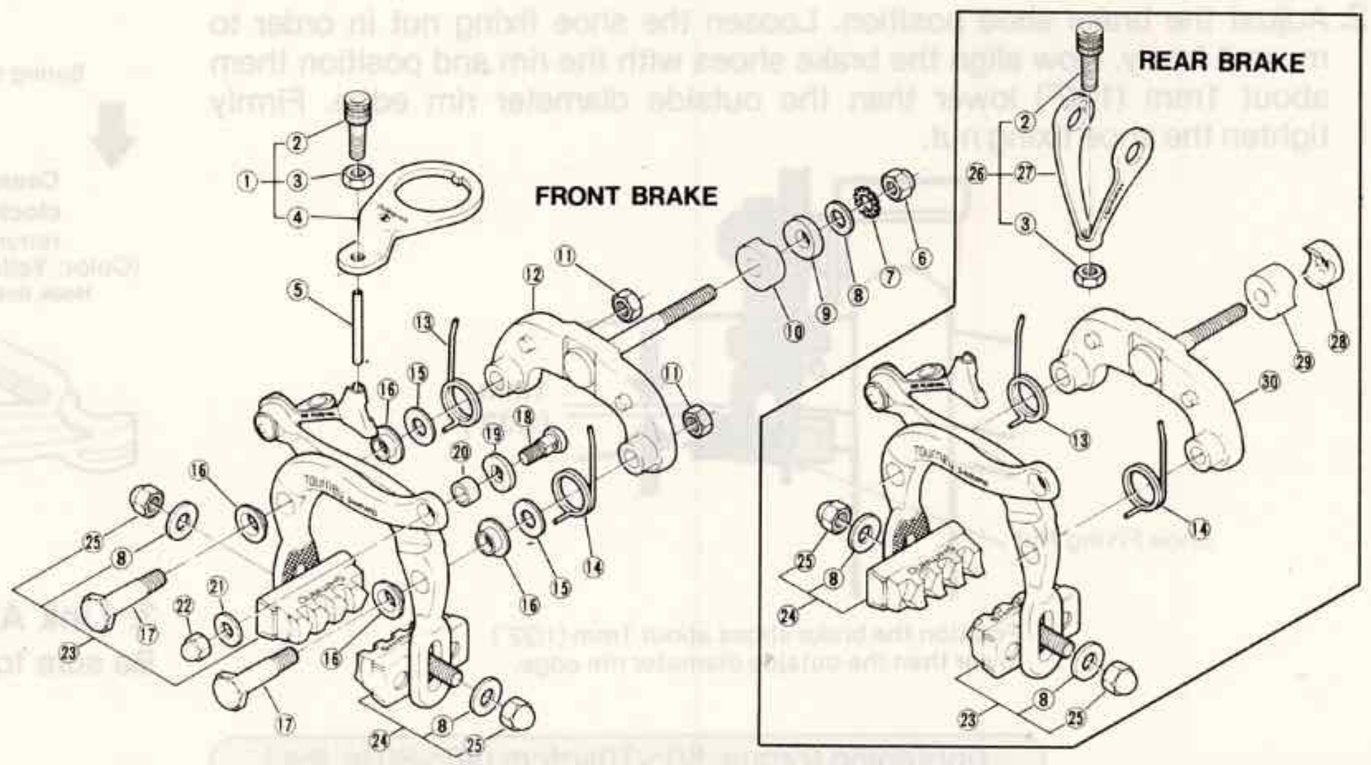
Model BR-TC30

SPECIFICATIONS

Material: Light Alloy
Type: Center Pull with Quick Release and Link Mechanism



TYPE	A — A'
CC-L62	47mm(1-27/32") — 62mm(2-7/16")
CC-L75	57mm(2-1/4") — 75mm(2-15/16")



ITEM NO.	PART NO.	DESCRIPTION
1	3-831 9092	Front Cable Hanger Assembly
2	851 6200-1	Cable Adjusting Barrel
3	831 6700	Cable Adjusting Nut (M6)
4	831 6131	Front Cable Hanger
5	831 1500	Protective Tube
6	863 2702	Lock Nut (M6) for Center Bolt
7	811 6100	Teethed Washer
8	831 0600	Washer (M6) t=1.2mm
9	811 6030	Radius Bushing (Front)
10	831 3300-2	Center Spacer (Front)
11	831 0700	Lock Nut for Pivot Bolt
12	3-831 9051	Arm Bridge w/Center Bolt 63mm(2-1/2")
	3-831 9052	Arm Bridge w/Center Bolt 71mm(2-13/16")
13	831 2101-1	Arm Return Spring-N (Right Side for Front Brake or Left Side for Rear Brake)
14	831 2100-1	Arm Return Spring-M (Left Side for Front Brake or Right Side for Rear Brake)
15	831 0603	Washer (M6) t=1.8mm

ITEM NO.	PART NO.	DESCRIPTION
16	831 0500-1	Flanged Thurust Washer
17	831 0300-3	Pivot Bolt
18	831 5302	Cable Fixing Bolt
19	831 8301	Non-Turn Washer
20	831 1400	Sleeve
21	831 6800	Cable Fixing Washer (M5)
22	851 5201	Cable Fixing Nut
23	3-851 9811	Brake Shoe Assembly-A (Right Side for Front Brake or Rear Brake)
24	3-851 9815	Brake Shoe Assembly-B (Left Side for Front Brake or Rear Brake)
25	831 4303	Shoe Fixing Nut
26	3-831 9093	Rear Cable Hanger Assembly
27	831 6531	Rear Cable Hanger
28	811 6040	Radius Bushing (Rear)
29	831 3400-3	Center Spacer (Rear)
30	3-831 9053	Arm Bridge w/Center Bolt 42mm(1-11/16")

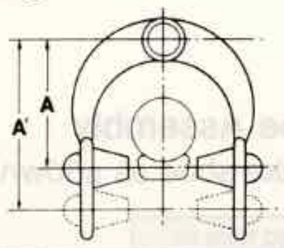
8305-251D

Centerpull Caliper Brake

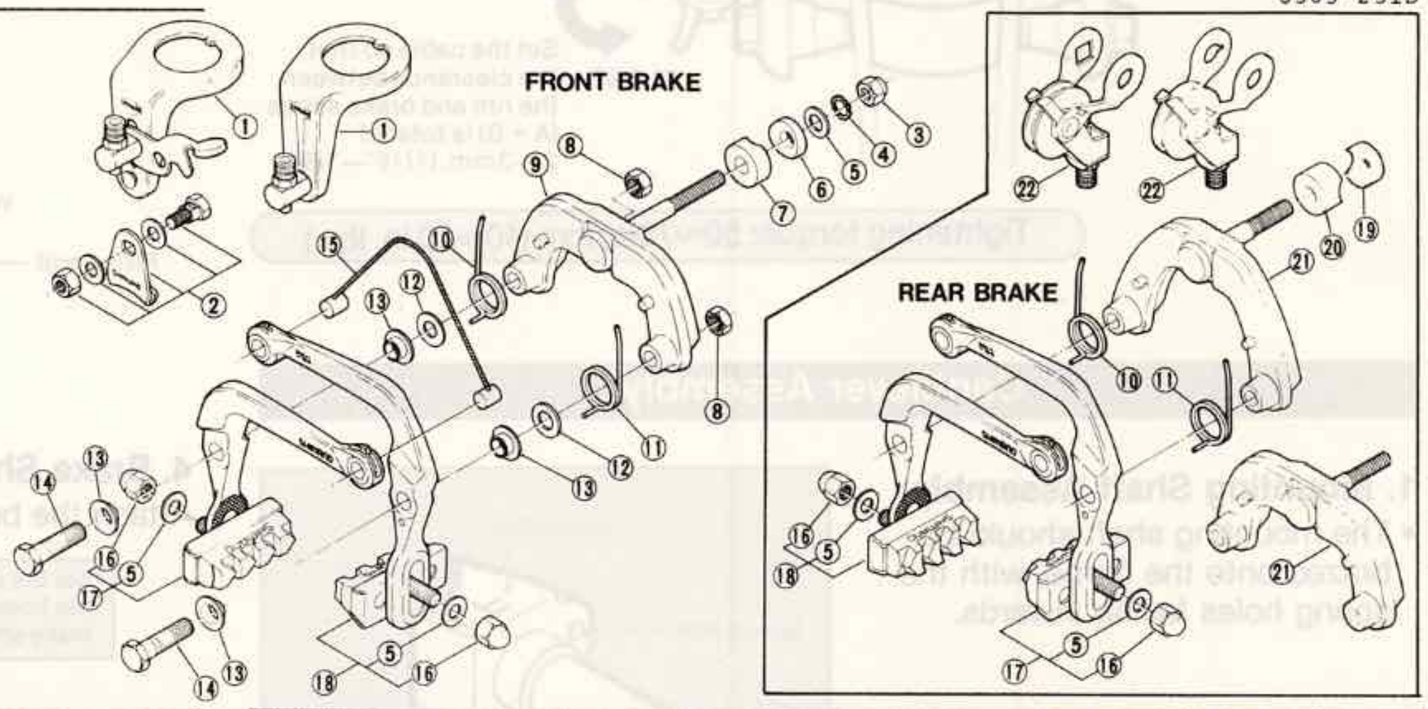
Model BR-C800 (Short)
BR-C801 (Long)

SPECIFICATIONS

Weight ● Front & Rear; 14 oz. (397g.) Long
Material ● Light Alloy
Type ● Centerpull
Feature ● All-Weather Brake Shoe



Model	A — A'
BR-C800	57mm(2-1/4") — 75mm(2-15/16")
BR-C801	70mm(2-3/4") — 88mm(3-15/32")



ITEM NO.	PART NO.	DESCRIPTION
1	3-831 9004-1	Front Cable Hanger Assembly w/Quick Release
	3-831 9005	Front Cable Hanger Assembly
2	3-831 9010	Cable Carrier Assembly
3	863 2702	Lock Nut for Center Bolt (M6)
4	811 6100	Teethed Washer
5	831 0600	Washer (M6) t=1.2mm
6	811 6030	Radius Bushing (Front)
7	831 3300-2	Center Spacer (Front)
8	831 0700	Lock Nut for Pivot Bolt
9	3-816 9821	Front Arm Bridge (Short) w/Center Bolt 63mm(2-1/2")
	3-816 9823	Front Arm Bridge (Short) w/Center Bolt 71mm(2-13/16")
10	831 2101-1	Arm Return Spring-N (Right Side for Front Brake or Left Side for Rear Brake)
11	831 2100-1	Arm Return Spring-M (Left Side for Front Brake or Right Side for Rear Brake)
12	831 0603	Washer (M6) t=1.8mm
13	831 0500-1	Flanged Thrust Washer
14	831 0300-3	Pivot Bolt

ITEM NO.	PART NO.	DESCRIPTION
15	831 5107	Center Wire 120mm(4-23/32")
16	831 4303	Shoe Fixing Nut
17	3-851 9811	Brake Shoe Assembly-A (Right Side for Front Brake or Rear Brake) Black
	3-851 9812	Brake Shoe Assembly-A (Right Side for Front Brake or Rear Brake) Gray
18	3-851 9815 811 6100	Brake Shoe Assembly-B (Left Side for Front Brake or Rear Brake) Black
	3-851 9816	Brake Shoe Assembly-B (Left Side for Front Brake or Rear Brake) Gray
19	811 6040	Radius Bushing (Rear)
20	831 3400-3	Center Spacer (Rear)
21	3-816 9825	Rear Arm Bridge (Short) w/Center Bolt 42mm(1-11/16")
	3-816 9826	Rear Arm Bridge (Long) w/Center Bolt 42mm(1-11/16")
22	3-816 9801	Rear Cable Hanger Assembly (Square Hole) Width:34mm(1-11/32")
	3-816 9803	Rear Cable Hanger Assembly (Key Hole) Width:25mm(1")

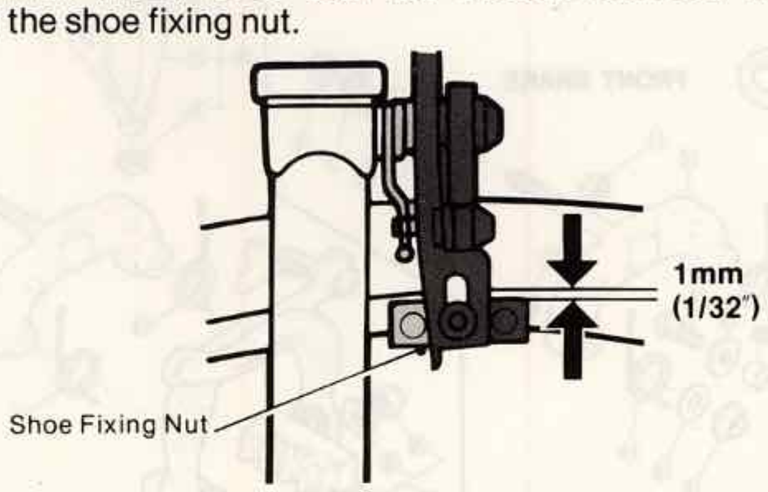
8304-531B'

Brake Assembly Note & Tools.

Caliper Brake Assembly

1. Assemble the brake to the frame in the usual way. Tighten the pivot bolt lock nut temporarily only.

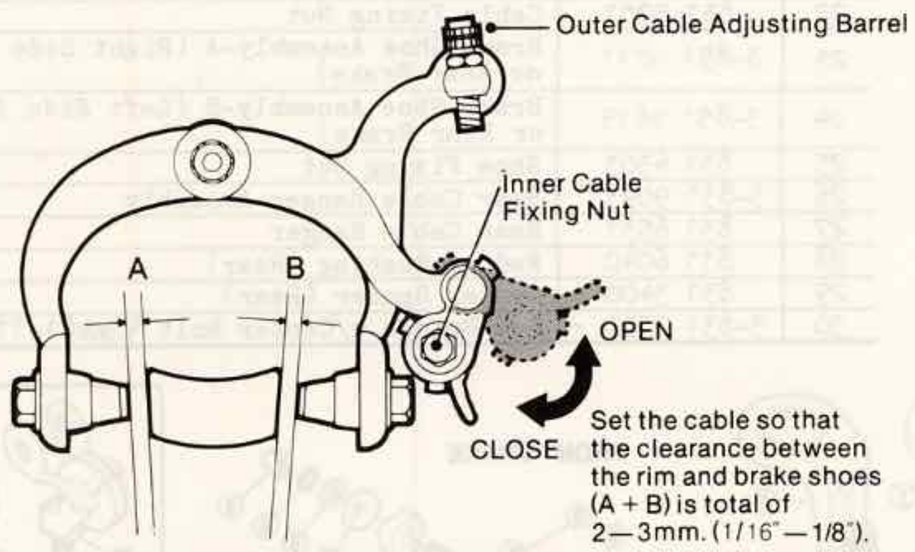
2. Adjust the brake shoe position. Loosen the shoe fixing nut in order to move it freely. Now align the brake shoes with the rim and position them about 1mm (1/32″) lower than the outside diameter rim edge. Firmly tighten the shoe fixing nut.



Position the brake shoes about 1mm (1/32″) lower than the outside diameter rim edge.

Tightening torque: 50~70kgfcm (40~60 in. lbs.)

3. To fix the brake cable, set the quick release lever to the "CLOSE" position. After assembling the cable to the brake lever, thread it through the adjusting barrel and cable fixing bolt and then secure by the cable fixing nut. At this time set the cable so that the clearance between the rim and brake shoes is a total of 2—3mm. (1/16″—1/8″) on both sides.

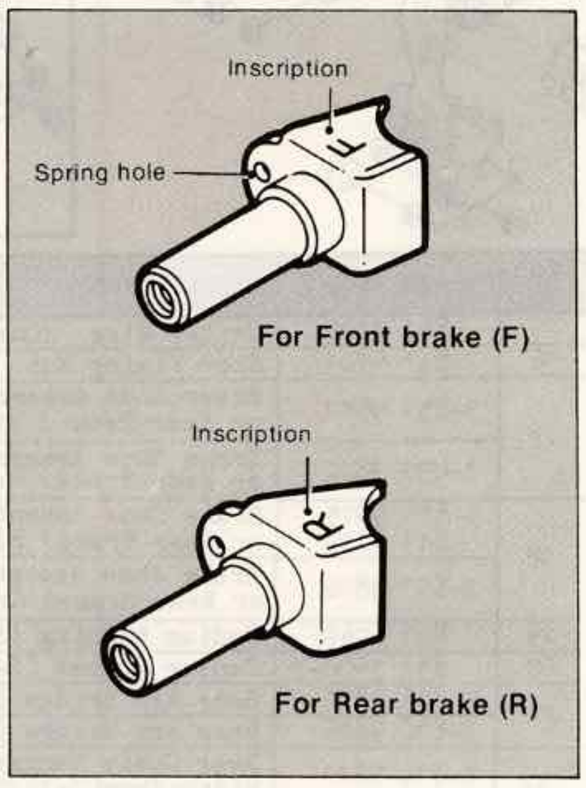


Tightening torque: 50~70kgfcm (40~60 in. lbs.)

Cantilever Assembly

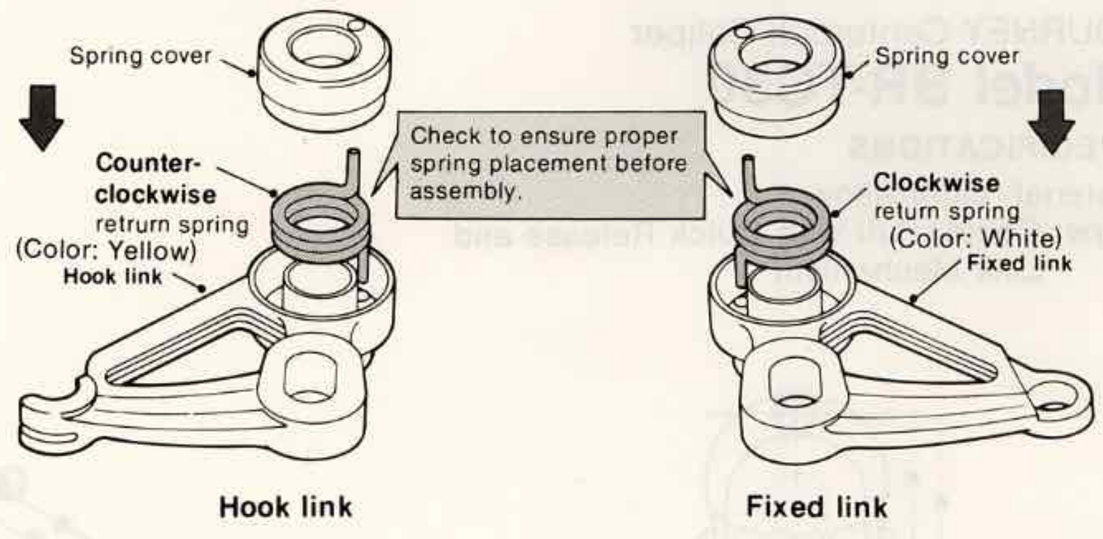
1. Mounting Shaft Assembly

- The mounting shaft should be brazed onto the frame, with the spring holes facing inwards.



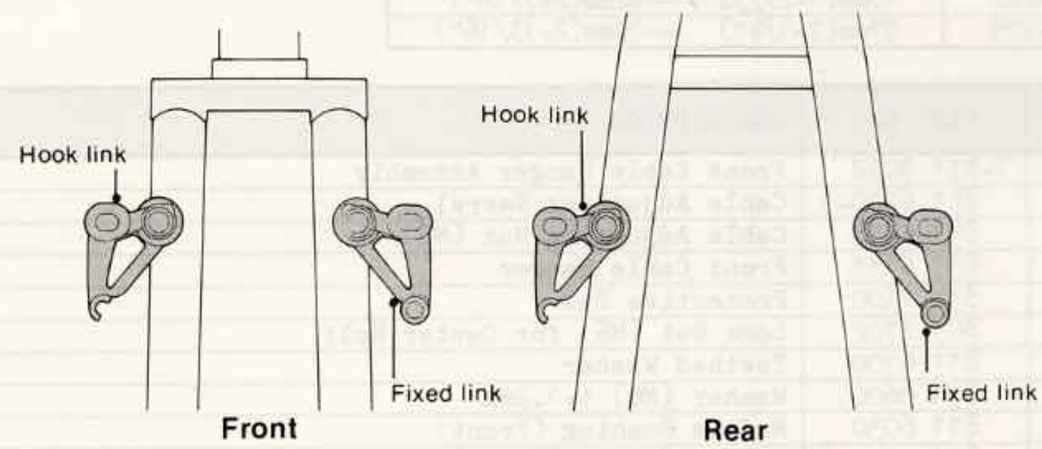
2. Return Spring Assembly

Insert the clockwise return spring into the fixed link and the counter-clockwise return spring into the hook link respectively.
Then install the spring covers.



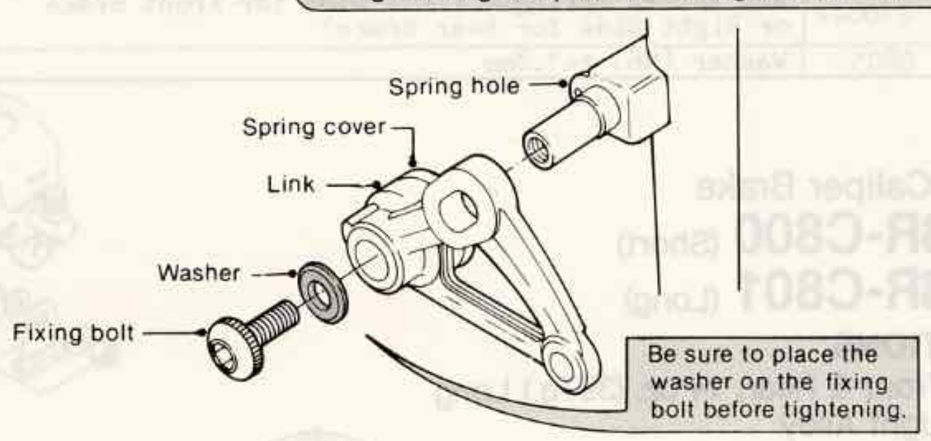
3. Link Assembly

Be sure to refer to the diagram for exact fitting.



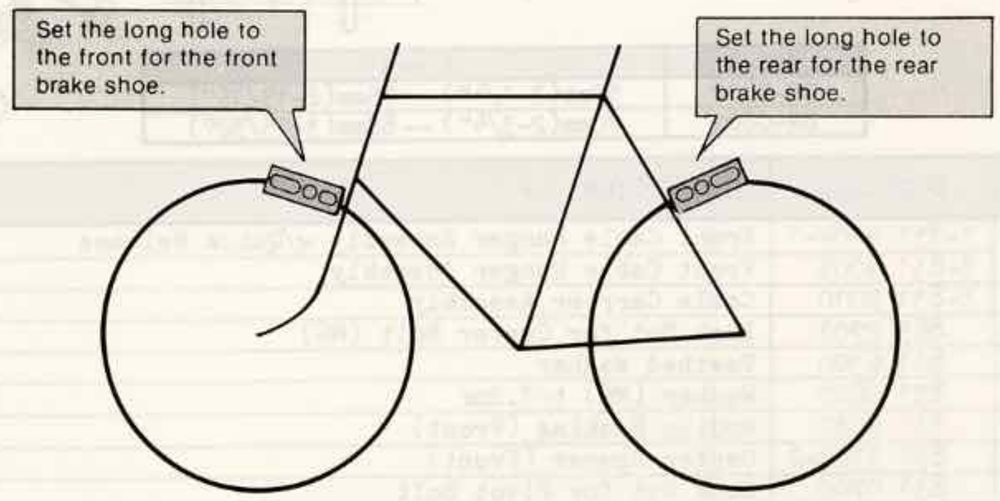
Insert the free end of the return spring into the spring hole of the mounting shaft. Then secure the link by tightening the fixing bolt.

Tightening torque; 50—70kgfcm (45—60 in. lbs.)

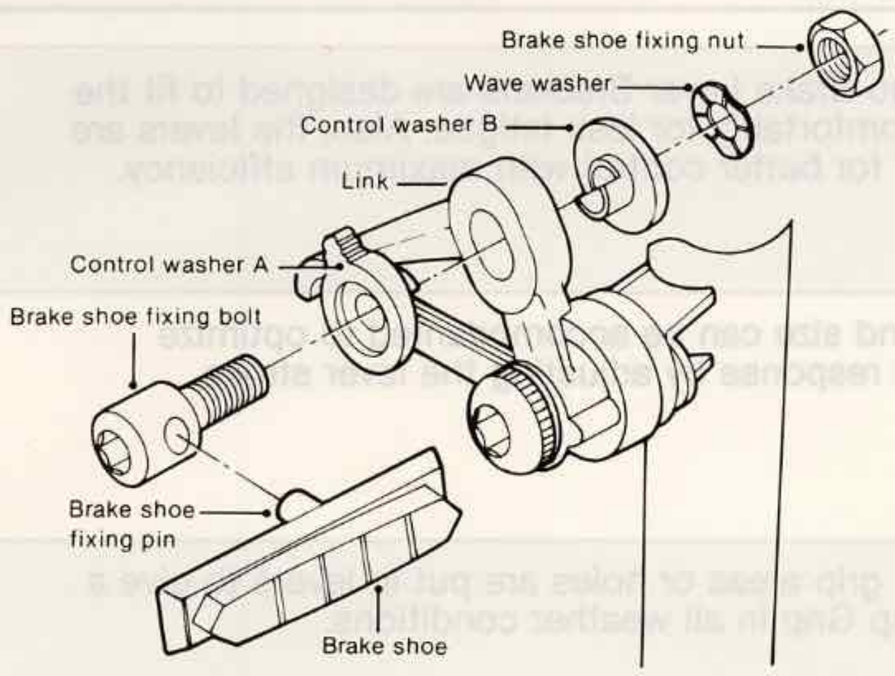


4. Brake Shoe Assembly

Attach the brake shoe as shown in the diagram.

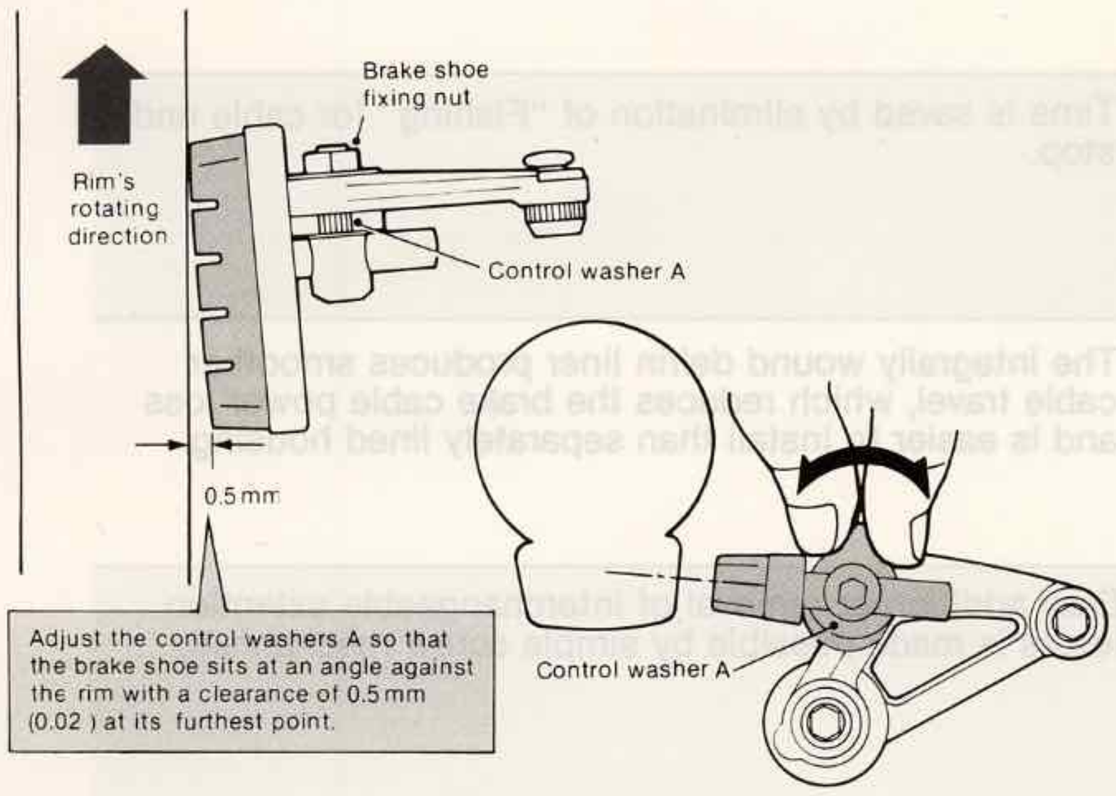


- Fit the brake shoe fixing pin into the brake shoe fixing bolt head. Fit the control washer A onto the brake shoe fixing bolt. Then fit the brake shoe fixing bolt into the link body. Next, fit the control washer B and wave washer onto the brake shoe fixing bolt. Finally, fit the brake shoe fixing nut onto the bolt and temporarily tighten it.



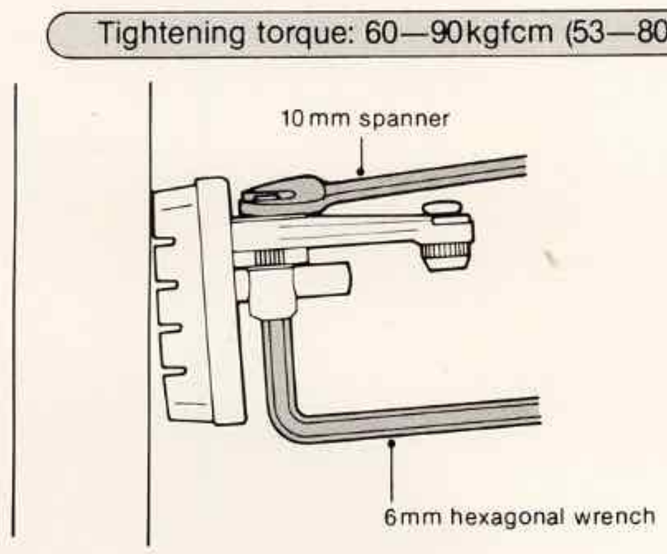
5. Brake Shoe Adjustment

Adjust the brake shoe so the rim face and brake shoe face are aligned. Next, adjust the control washer A to position the rim and brake shoe face as shown in the diagram.



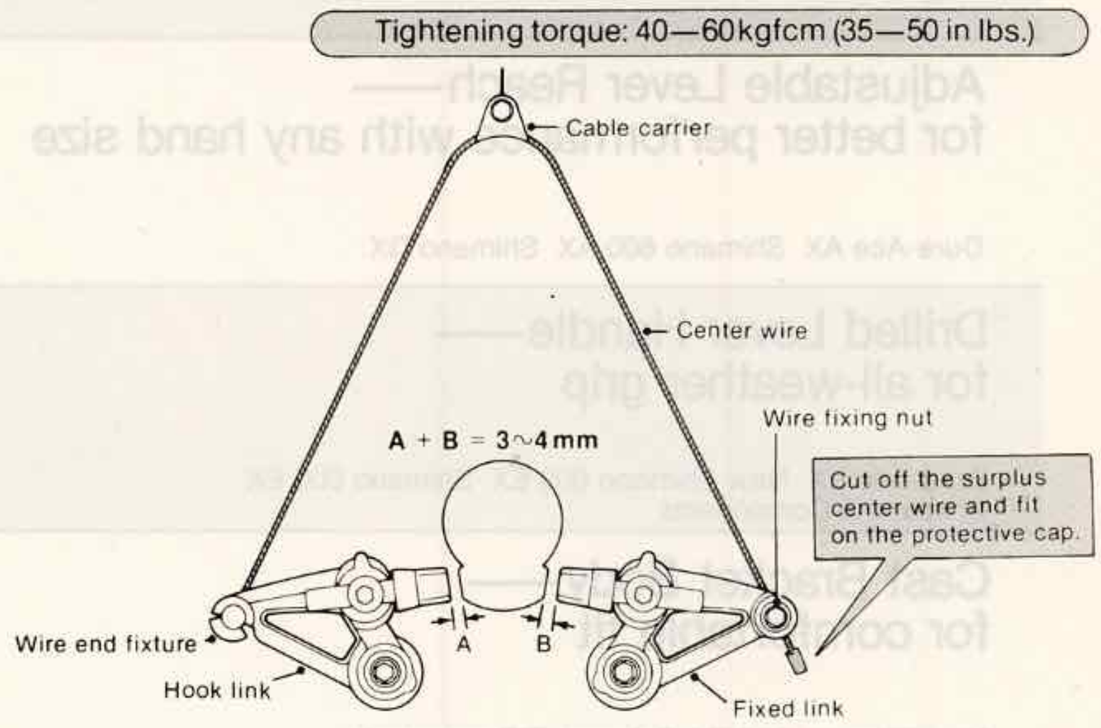
6. Brake Shoe Fixing

After adjustment, tighten the brake shoe fixing nut while supporting the brake shoe fixing bolt with a 6mm hexagonal wrench.



Center Wire Assembly

1. Fit the cable carrier onto the inner cable protruding from the cable hanger. Cut off the surplus cable and fit on the protective cap.
2. Set the wire end fixture into the hook link and hang the center wire on the cable carrier. Then, feed the free end through the wire fixing bolt hole of the fixed link.
3. Push bolt links toward the rim allowing a total clearance of 3—4mm (1/8″—5/32″) between the brake shoes and rim. Then, tighten the wire fixing nut.



Note:
If the clearance between the brake shoes and the rim is altered for any reason, such as cable wire stretching, adjust the outer cable adjusting bolt on the side of the brake lever until the proper clearance is achieved.

• Tools.

Model TL-WR36 6 mm.
PART No. 4-520 0901
Model TL-WR35 5 mm.
PART No. 4-520 0904
Hexagon Wrench Key



BR

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BRAKE LEVERS

FEATURE	BENEFIT
Human Engineered Design—— for more control when braking from top position Dura-Ace AX New Shimano 600 EX Deore XT Shimano Z Components	Shimano Brake Lever Brackets are designed to fit the hand comfortably for less fatigue. Also, the levers are shaped for better control with maximum efficiency.
Adjustable Lever Reach—— for better performance with any hand size Dura-Ace AX Shimano 600 AX Shimano DX	Any hand size can be accomodanted to optimize braking response by adjusting the lever stroke.
Drilled Lever Handle—— for all-weather grip Dura-Ace EX New Shimano 600 EX Shimano 600 EX Shimano Z Components	Special grip areas or holes are put in levers to give a Non-Slip Grip in all weather conditions.
Cast Bracket Body—— for comfortable fit New Shimano 600 EX Shimano, Z Components	Cast Bracket Body is stronger and easier to shape. So it is more comfortable.
Easy Cable Attachment—— for easy cable replacement Dura-Ace EX New Shimano 600 EX Shimano 600 EX	Time is saved by elimination of "Fishing" for cable end stop.
Lined Cable Housing—— for smoother cable travel All	The integrally wound delrin liner produces smoother cable travel, which reduces the brake cable power loss and is easier to install than separately lined housing.
Easy Addition of Extension Lever—— for user choice Shimano Z Components	Easy addition or removal of interchangeable extention levers is made possible by simple screw mechanism.

BL

UE

Brake Lever

Model BL-7300
Model BL-7200

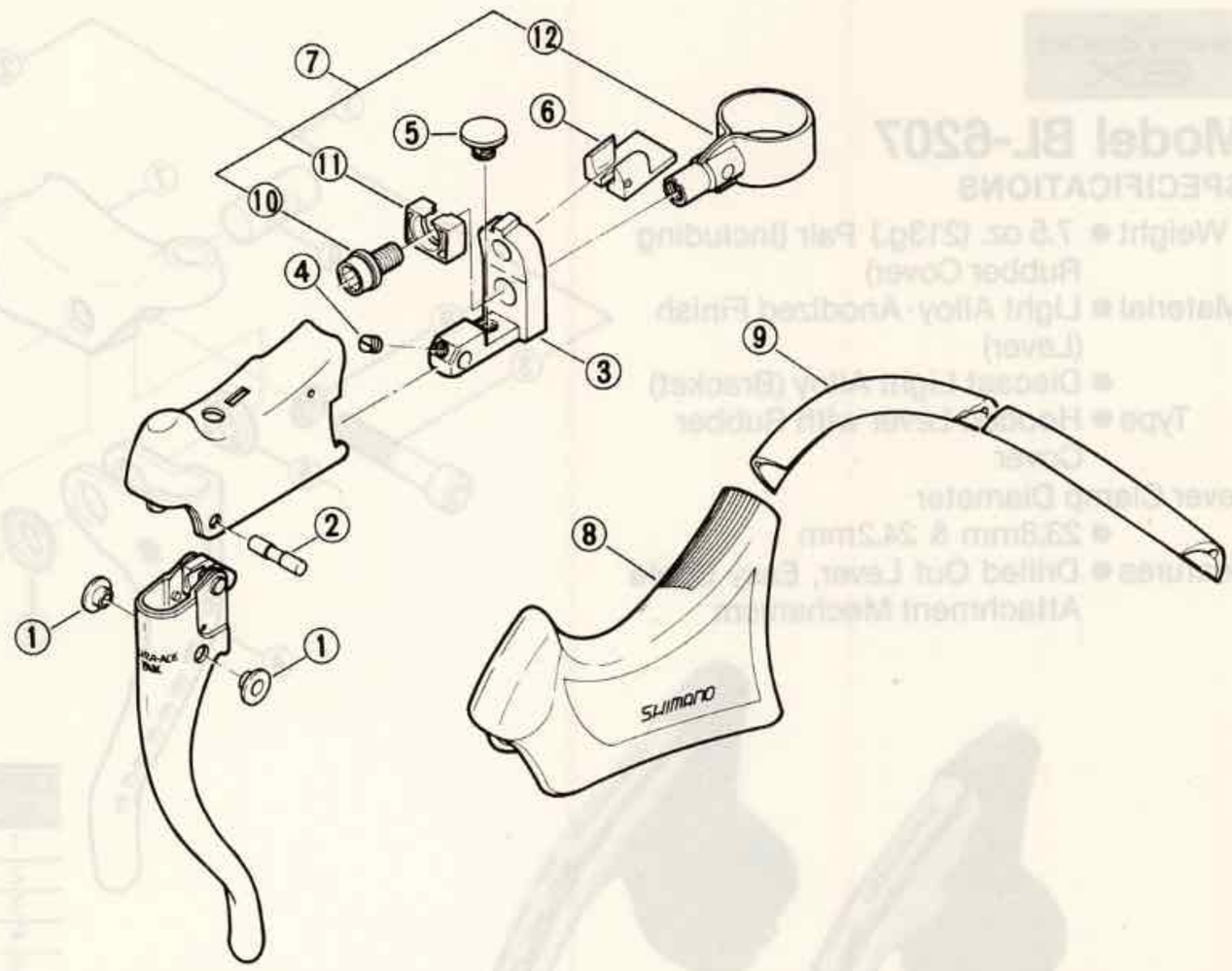
DURA-ACE

Model BL-7300

SPECIFICATIONS

Weight • 3.8 oz. (107g.) each (with Pad)
Material • Light Alloy • Anodized Finish
Features • Aerodynamic Design/Grip Stroke Adjustment (75—85mm.)/One-Step Cable Attachment
Lever Clamp Diameter • 24.2mm.





ITEM NO.	PART NO.	DESCRIPTION
1	882 0700	Bushing
2	882 0800	Lever Axle
3	882 0500	Pull-up Stud
4	000 1009	Lever Axle Fixing Screw
5	882 0600	Adjusting Bolt
6	882 1000	Cable Guide
7	3-882 9801	Clamp Band (ø23.8mm) Assembly
	3-882 9802	Clamp Band (ø24.2mm) Assembly
8	882 1201	Right Hand Bracket Cover

ITEM NO.	PART NO.	DESCRIPTION
8	882 1301	Left Hand Bracket Cover
	3-882 9920	Bracket Covers (Right & Left)
9	882 1402	Cable Pad 200mm(7-7/8")
	882 1401	Cable Pad 270mm(10-5/8")
	882 1400	Cable Pad 300mm(11-13/16")
10	843 1300	Clamp Bolt
11	882 1600	Bushing for Clamp Bolt
12	3-843 9102	Clamp Band (ø23.8mm)
	3-843 9104	Clamp Band (ø24.2mm)

8304-S436A

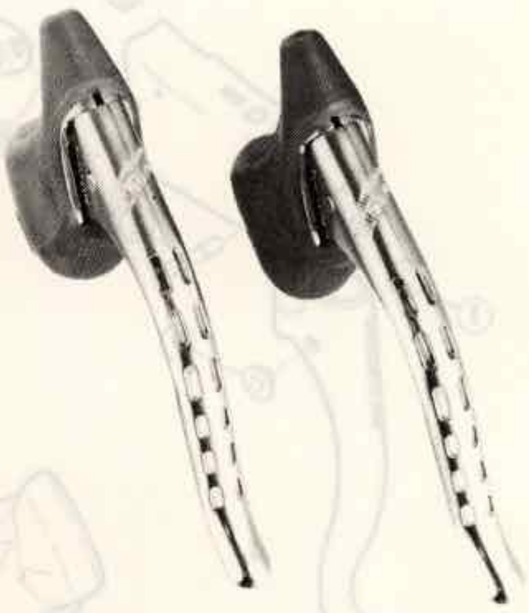
BL

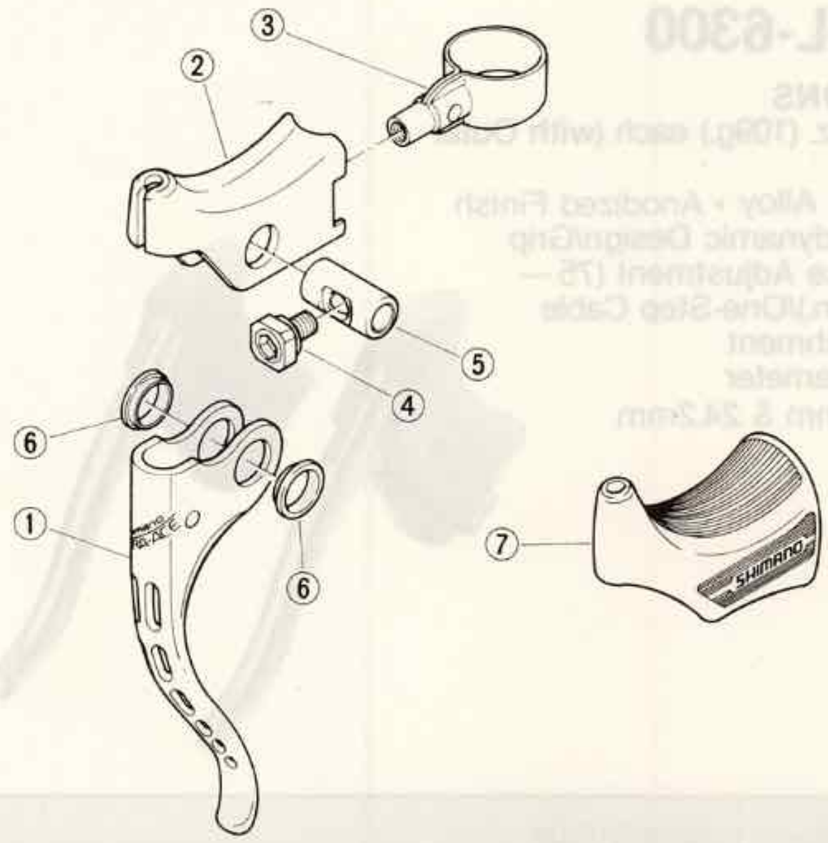
DURA-ACE EX

Model BL-7200

SPECIFICATIONS

Weight • 7.3oz. (206g.)/Pair (!ncluding Rubber Cover)
Material • Light Alloy • Anodized Finish
Lever Clamp Diameter • 24.2mm.
Type • Hooded Lever with Rubber Cover
Drilled Out-Finish
One-Step Cable Attachment Mechanism





ITEM NO.	PART NO.	DESCRIPTION
1	3-843 9101	Lever
2	843 0100-1	Lever Bracket
3	3-843 9104	Clamp Assembly
4	3-843 9103	Clamp Fixing Bolt Set

ITEM NO.	PART NO.	DESCRIPTION
5	843 0500-2	Pull-Up Stud
6	843 0400	Bushing
7	843 1000-1	Rubber Cover

7710-297

UE

Brake Lever

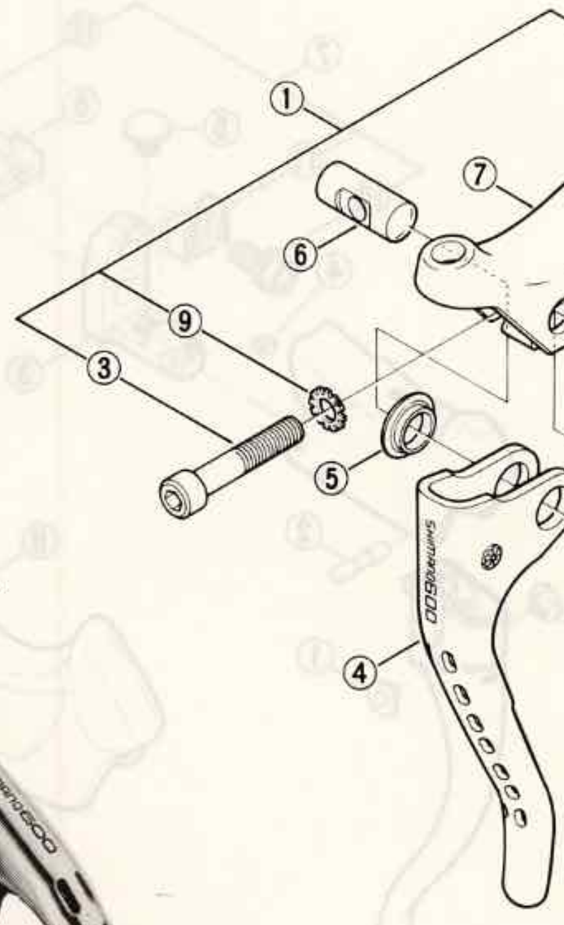
Model BL-6207
Model BL-6300

NEW SHIMANO 600 EX

Model BL-6207

SPECIFICATIONS

Weight ● 7.5 oz. (213g.) Pair (Including Rubber Cover)
Material ● Light Alloy · Anodized Finish (Lever)
● Diecast Light Alloy (Bracket)
Type ● Hooded Lever with Rubber Cover
Lever Clamp Diameter
● 23.8mm & 24.2mm
Features ● Drilled Out Lever, Easy Cable Attachment Mechanism







ITEM NO.	PART NO.	DESCRIPTION
1	3-847 9851	Clamp Band (ø23.8mm&ø24.2mm) Unit
2	3-883 9002	Clamp Band (ø23.8mm & ø24.2mm)
3	883 0100-1	Clamp Bolt
4	3-847 9852	Main Lever Assembly
5	847 3600	Bushing
6	847 3400	Pull-Up Stud
7	847 3100	Lever Bracket
8	847 3300	Bracket Cover
	847 3301	Bracket Cover (Black)
9	811 6100	Teethed Washer

8309-592A

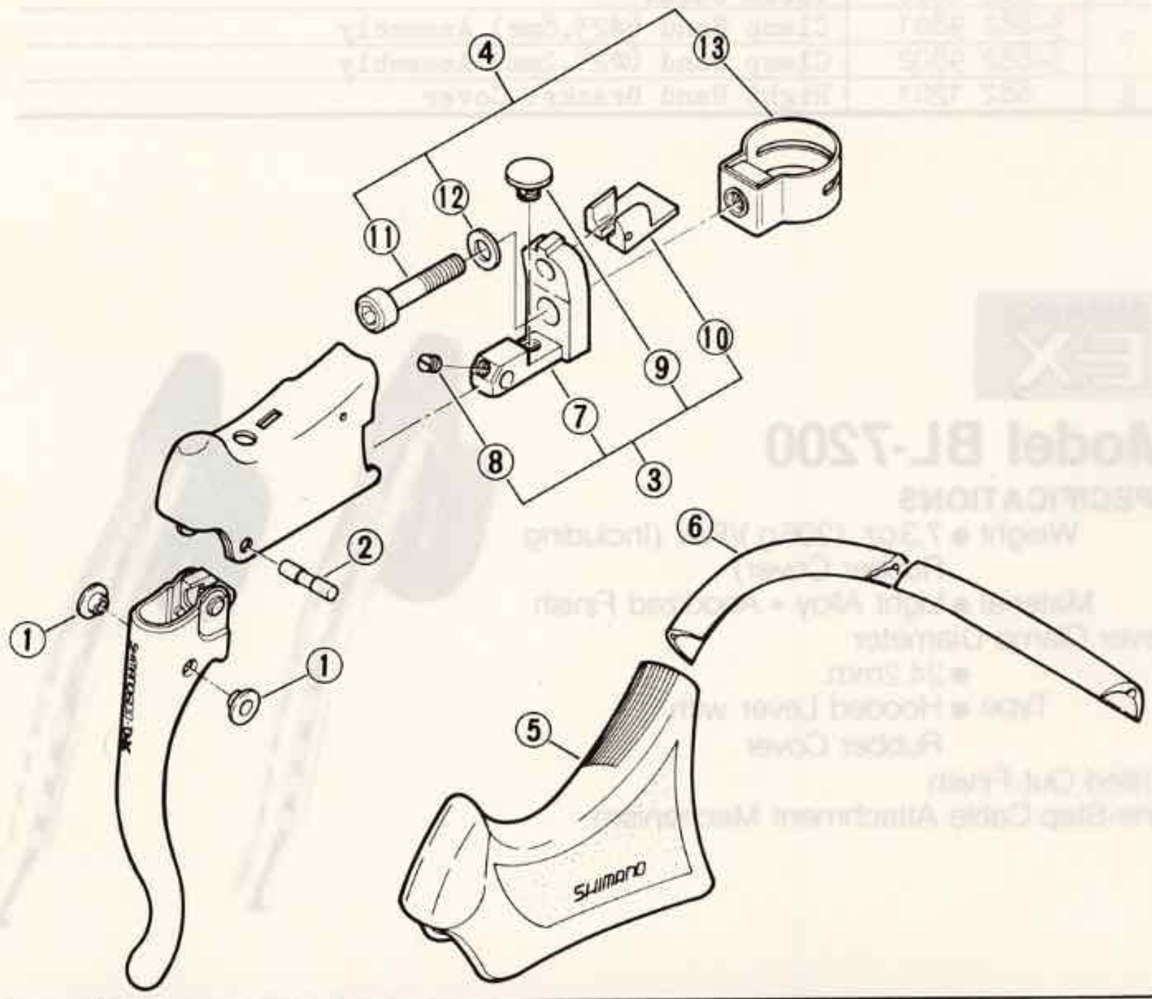
BL SHIMANO 600 EX

Model BL-6300

SPECIFICATIONS

Weight • 3.8 oz. (109g.) each (with Outer Pad)
Material • Light Alloy • Anodized Finish
Features • Aerodynamic Design/Grip Stroke Adjustment (75 — 85mm.)/One-Step Cable Attachment
Lever Clamp Diameter
• 23.8mm & 24.2mm





ITEM NO.	PART NO.	DESCRIPTION
1	882 0700	Bushing
2	882 0800	Lever Axle
3	3-883 9802	Pull-up Stud & Cable Stopper Assembly
4	3-883 9801	Clamp Band (ø23.8mm & ø24.2mm) Assembly
5	882 1201	Right Hand Bracket Cover
	882 1301	Left Hand Bracket Cover
	3-882 9902	Bracket Covers (Right & Left)
6	882 1402	Cable Pad 200mm(7-7/8")
	882 1401	Cable Pad 270mm(10-5/8")

ITEM NO.	PART NO.	DESCRIPTION
6	882 1400	Cable Pad 300mm(11-13/16")
7	882 0500	Pull-up Stud
8	000 1009	Lever Axle Fixing Screw
9	882 0600	Adjusting Bolt
10	882 1000	Cable Guide
11	883 0100-1	Clamp Bolt (M6x27.5mm)
12	883 0200	Spacer
13	3-883 9002	Clamp Band(ø23.8mm & ø24.2mm)

8304-S467A'

UE

Brake Lever

Model BL-6200
Model BL-M700

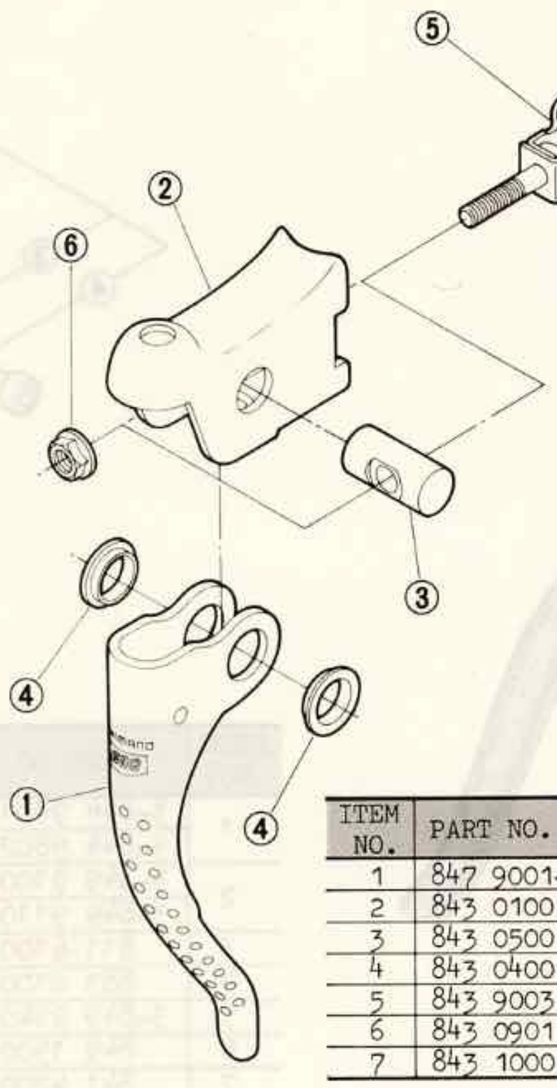
SHIMANO 600 EX

Model BL-6200

SPECIFICATIONS

Weight • 7.4 oz. (209 g.)/Pair (Including Rubber Cover)
Material • Light Alloy • Anodized Finish
Type • Hooded Lever with Rubber Cover
One-Step Cable Attachment
Drilled Out Finish
Lever Clamp Diameter
• 23.8 mm.







ITEM NO.	PART NO.	DESCRIPTION
1	847 9001-2	Lever
2	843 0100	Lever Bracket
3	843 0500	Pull-Up Stud
4	843 0400	Bushing
5	843 9003	Clamp Assembly
6	843 0901	Pull-Up Nut
7	843 1000	Rubber Cover

7909-367A

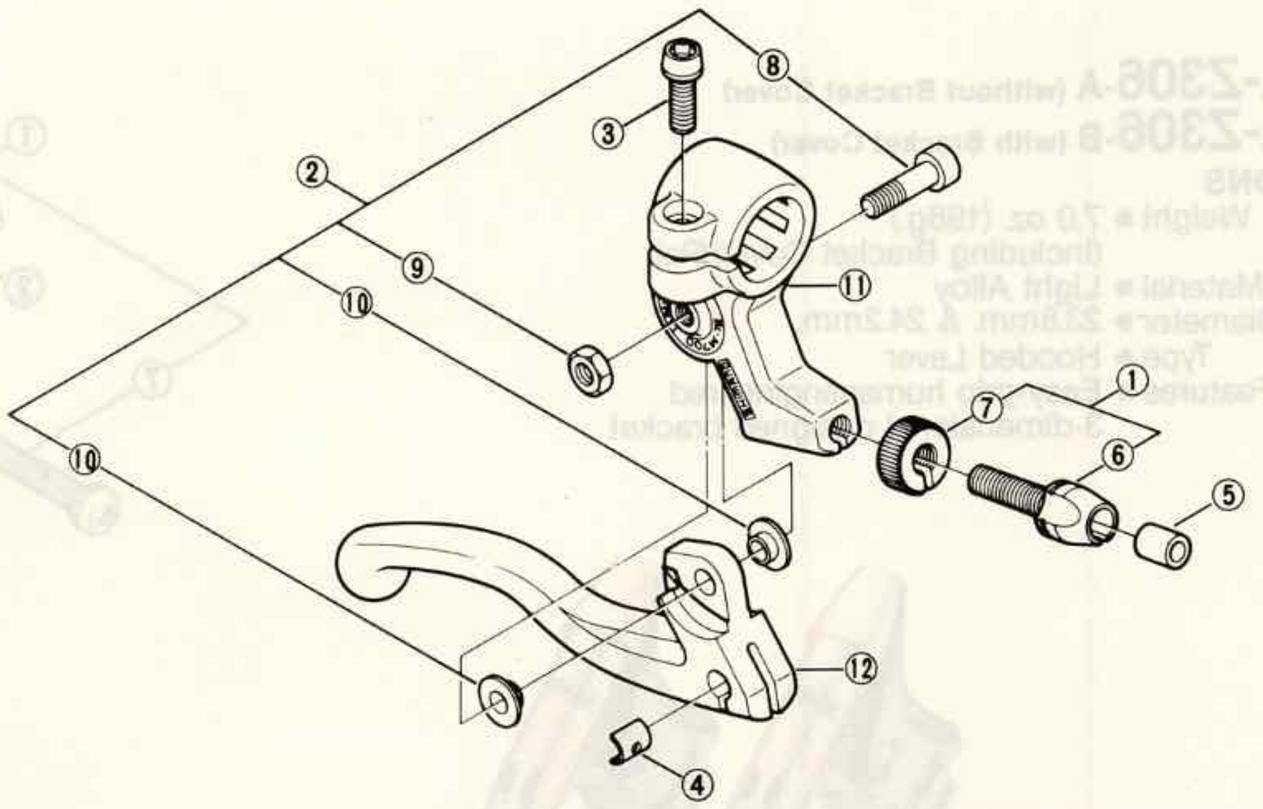
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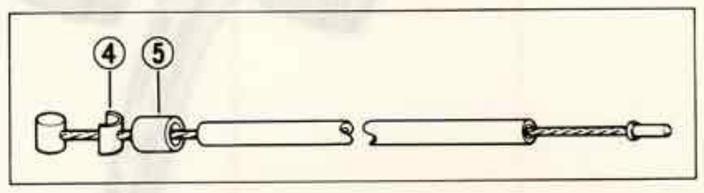
Model BL-M700

SPECIFICATIONS

Weight • 12.6 oz. (356 g.) Pair
Material • Light Alloy • Anodized Finish,
Lever Clamp Diameter
• 7/8" (22.2 mm.)
Feauture • Human-Engineered Design
A motor bike cable can also be used with the brake lever.







ITEM NO.	PART NO.	DESCRIPTION
1	3-893 9801-1	Cable Adjusting Bolt & Nut
2	3-893 9802	Lever Axle Bolt Unit
3	000 1303	Clamp Bolt (M6x17.5)
4	893 0900	Wire End Adapter
5	893 0800	Outer Cap
6	893 0500	Cable Adjusting Bolt
7	893 0600	Cable Adjusting Nut

ITEM NO.	PART NO.	DESCRIPTION
8	893 0700	Lever Axle Bolt
9	815 0600	Lever Axle Nut
10	831 0501	Bushing
11	893 0300	Lever Bracket (Right)
	893 0400	Lever Bracket (Left)
12	893 0100	Lever (Right)
	893 0200	Lever (Left)

8306-S546A

Brake Lever

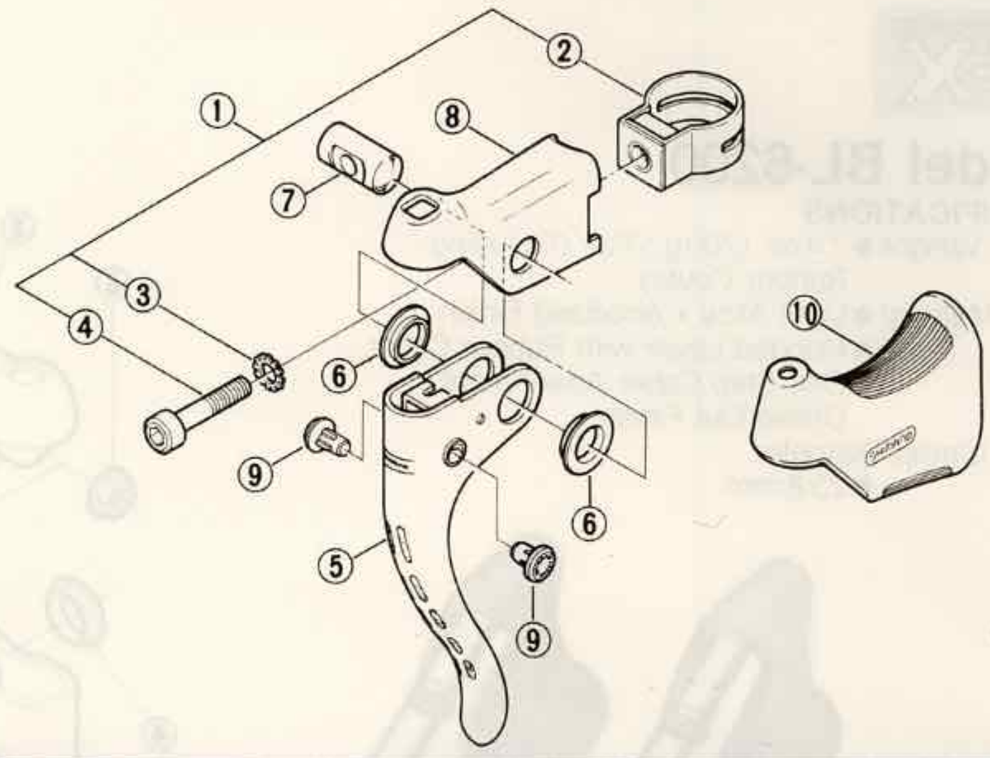
Model BL-H105
Model BL-Z306-A Without Bracket Cover
Model BL-Z306-B With Bracket Cover

Model BL-H105

SPECIFICATIONS

Weight • 8.5 oz. (240g.)/Pair
Material • Light Alloy
Lever Clamp Diameter
• 22.2mm., 23.8mm. & 24.2mm.
Type • Hooded Lever
(w/Rubber Cover)





ITEM NO.	PART NO.	DESCRIPTION
1	3-844 9801	Clamp Band (ø22.2mm) Unit
	3-844 9802	Clamp Band (ø23.8mm & ø24.2mm) Unit
2	3-849 9100-1	Clamp Band (ø22.2mm)
	3-849 9110-1	Clamp Band (ø23.8mm & ø24.2mm)
3	811 6100	Teethed Washer
4	883 0100	Clamp Bolt (M6)
5	3-849 9140	Main Lever Assembly (Light Alloy)
6	849 1500	Bushing
7	841 4200	Pull-Up Stud
8	849 1103	Lever Bracket
9	849 2500	Cap
10	844 5100	Bracket Cover

8212-547A

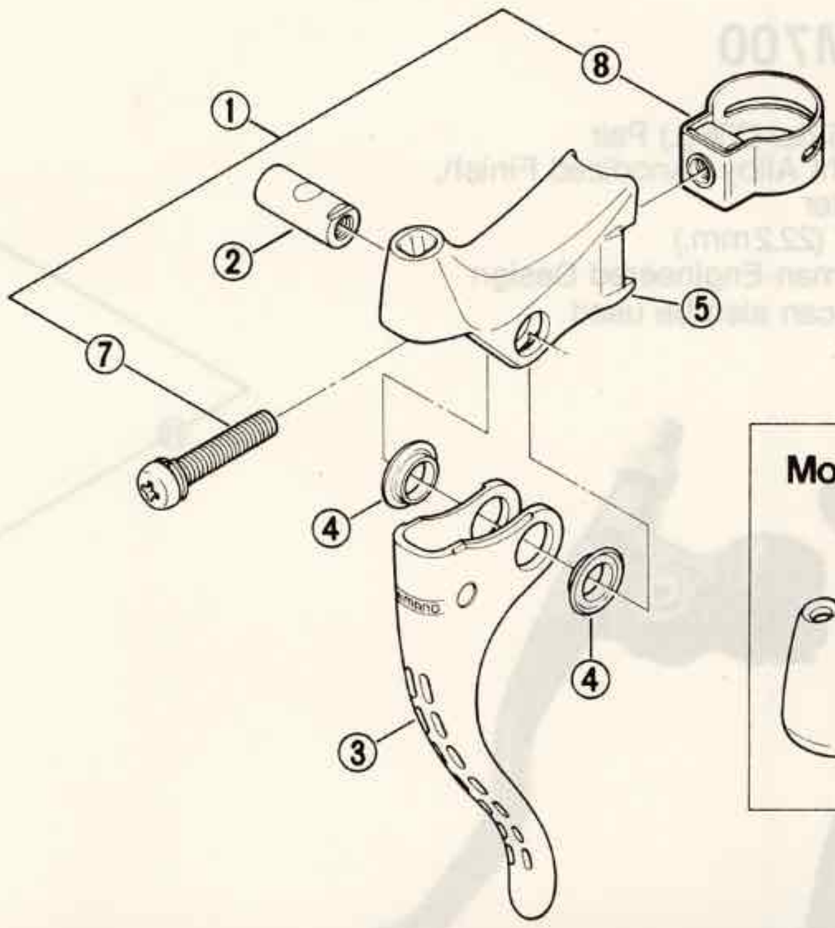
BL

Model BL-Z306-A (without Bracket Cover)
Model BL-Z306-B (with Bracket Cover)

SPECIFICATIONS

Weight • 7.0 oz. (198g.)
(Including Bracket Cover)/Pair
Material • Light Alloy
Lever Clamp Diameter • 23.8mm. & 24.2mm.
Type • Hooded Lever
Features • Easy-grip humanengineered
3-dimensional designed bracket







ITEM NO.	PART NO.	DESCRIPTION
1	3-894 9821	Clamp Band (ø23.8mm & ø24.2mm) & Screw
2	894 0600	Pull-Up Stud
3	3-898 9802	Main Lever Assembly
4	847 3600	Bushing A
5	894 0100	Lever Bracket
6	898 0200	Bracket Cover for BL-Z306-B
7	894 1200	Clamp Screw
8	3-849 9110-1	Clamp Band (ø23.8mm & ø24.2mm)

8309-S639

UE

Brake Lever

Model BL-Z304-A Without Bracket Cover
Model BL-Z304-B With Bracket Cover

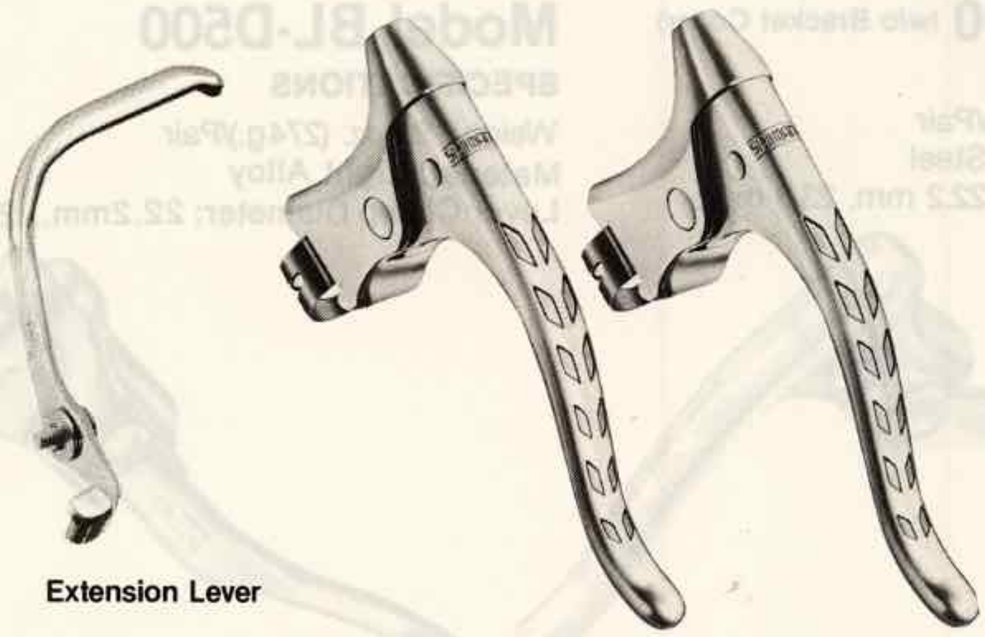
Model BL-MX10
Model BL-MX20

SHIMANO Z COMPONENTS

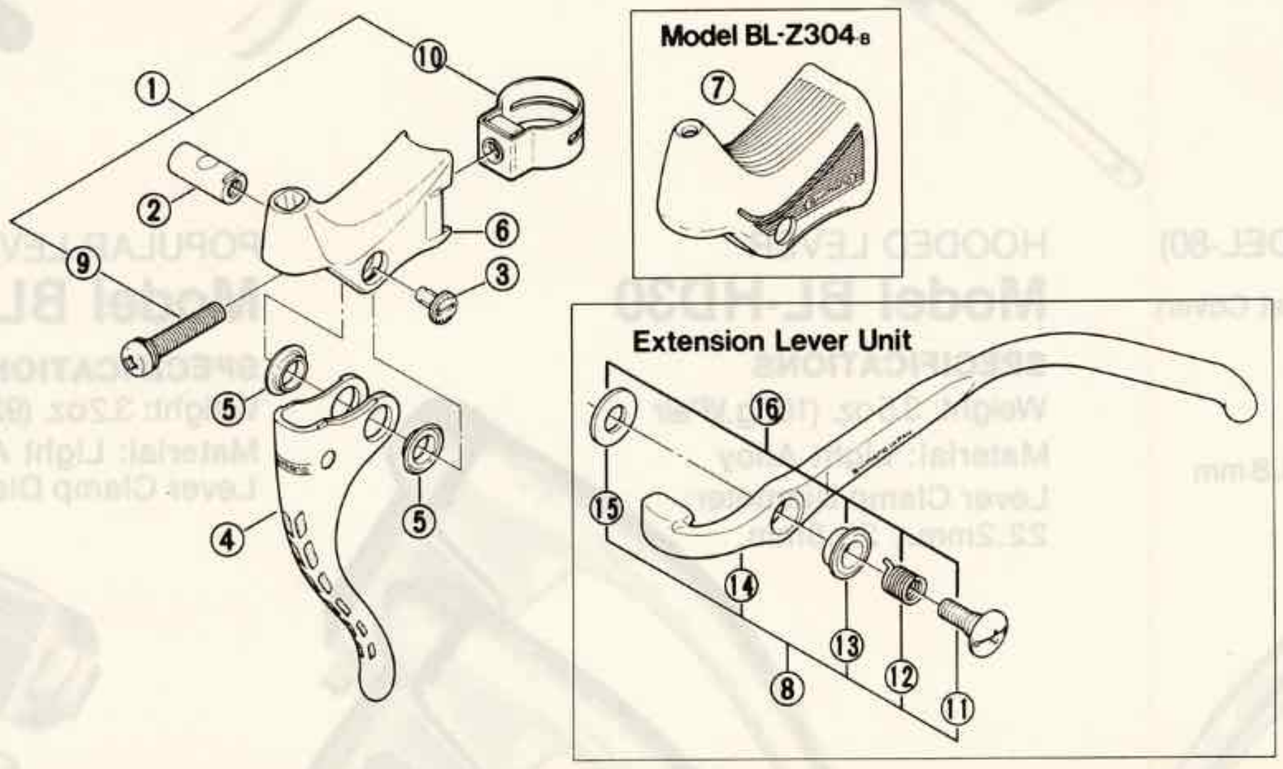
Model BL-Z304-A (without Bracket Cover)
Model BL-Z304-B (with Bracket Cover)

SPECIFICATIONS

Weight • 5.8 oz. (164g.)/Pair
Material • Light Alloy
Lever Clamp Diameter • 22.2mm., 23.8mm. & 24.2mm.
Type • Hooded Lever
Features • Easy-grip humanengineered 3-dimensional designed bracket



Extension Lever



ITEM NO.	PART NO.	DESCRIPTION
1	3-894 9822	Clamp Band (ø22.2mm) & Screw
	3-894 9821	Clamp Band (Φ23.8mm & Φ24.2mm) & Screw
2	894 0600	Pull-Up Stud for BL-Z304-A
	894 0601	Pull-Up Stud for BL-Z304-B
3	895 0100	LD Cap
4	3-896 9801	Main Lever Assembly
5	847 3600	Bushing A
6	894 0100	Lever Bracket
7	898 0210	Bracket Cover (Right) for BL-304-B
	898 0220	Bracket Cover (Left) for BL-304-B
8	3-894 9801	Right Extension Lever Unit

ITEM NO.	PART NO.	DESCRIPTION
8	3-894 9802	Left Extension Lever Unit
9	894 1200	Clamp Screw
10	3-849 9100-1	Clamp Band (ø22.2mm)
	3-849 9110-1	Clamp Band (Φ23.8mm & Φ24.2mm)
11	894 0900	Extension Lever Fixing Screw
12	894 1000	Coil Spring
13	894 0800	Bushing B
14	894 0400	Right Extension Lever
	894 0500	Left Extension Lever
15	894 0700	Washer
16	3-894 9803	Extension Lever Fixing Screw Unit

8309-S625

BL

Model BL-MX10

SPECIFICATIONS

Weight: 1.6oz. (46g.)Piece
Material: Light Alloy
Lever Clamp Diameter: 22.2mm.
Color. Red, Blue, Gold, Silver or Black



SHIMANO DX

Shimano-DX Brake Lever



Model BL-MX20

SPECIFICATIONS

Weight: 2.2oz. (63g.)
Material: Light Alloy (Lever), Steel (Bracket)
Bracket Color: Red, Blue, Gold, Silver or Black
Lever Clamp Diameter: 22.2mm.
Left Side Brake Lever Available

U E

Model BL-D800 Model BL-D500 Model BL-LM10
Model BL-D805 Model BL-HD30 Model BL-PL10
Model BL-HD85 Model BL-LF10

DUAL EXTENSION LEVER 80 (DEL-80)

Model BL-D800 (w/o Bracket Cover)

SPECIFICATIONS

Weight: 16.4 oz. (464 g.)/Pair
Material: Light Alloy & Steel
Lever Clamp Diameter: 22.2 mm. 23.8 mm.



DUAL EXTENSION LEVER

Model BL-D500

SPECIFICATIONS

Weight: 9.7oz. (274g.)/Pair
Material: Light Alloy
Lever Clamp Diameter: 22.2mm., 23.8mm.



SOFT LM LEVER

Model BL-LM10

SPECIFICATIONS

Weight: Brake Lever 4.5 oz. (128 g.)/Pair
Grip 4.4 oz. (124 g.)/Pair
Material: Brake Lever/Steel • Resin Grip/Resin
Lever Clamp Diameter: 22.2mm.



DUAL EXTENSION LEVER 80 (DEL-80)

Model BL-D805 (W/Bracket Cover)

SPECIFICATIONS

Material: Light Alloy & Steel
Weight: 17.1 oz. (484 g.)/Pair
Lever Clamp Diameter: 22.2mm, 23.8mm



HOODED LEVER

Model BL-HD30

SPECIFICATIONS

Weight: 3.5oz. (100g.)/Pair
Material: Light Alloy
Lever Clamp Diameter: 22.2mm., 23.8mm.



POPULAR LEVER

Model BL-PL10

SPECIFICATIONS

Weight: 3.2oz. (92g.)/Pair
Material: Light Alloy
Lever Clamp Diameter: 22.2mm.



BL

HOODED LEVER

Model BL-HD85 (w/Bracket Cover)

SPECIFICATIONS

Weight: 8.5oz. (240g.)/Pair
Material: Light Alloy & Steel
Lever Clamp Diameter: 22.2 mm., 23.8 mm.



SHIMANO-LF LEVER

Model BL-LF10

SPECIFICATIONS

Weight: 7.0oz. (200g.)/Pair
Material: Steel
Lever Clamp Diameter: 22.2 mm.

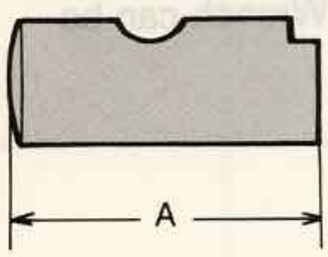


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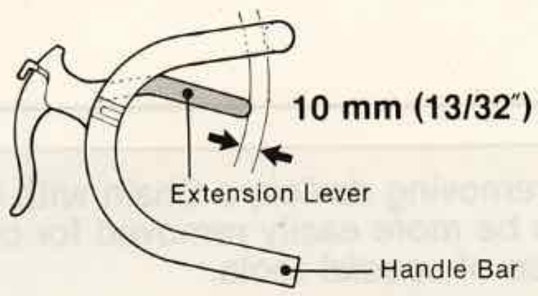
Brake Lever Assembly Note & Tools.

BL-Z303 BL-Z304 BL-Z306
Assembling the Extension Lever

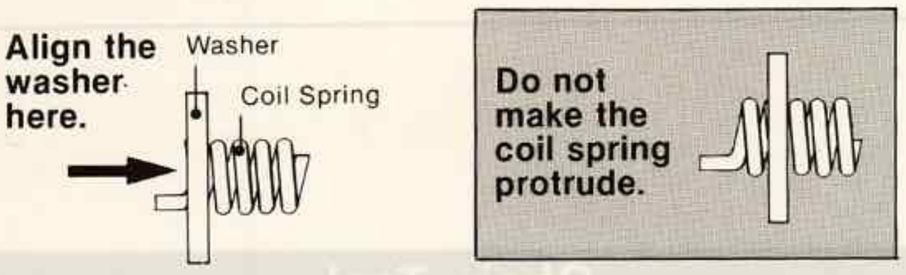
Note:
- Two types of lever axle are available: Lever Axle without rubber cover and Lever Axle with rubber cover.
  When fitting both the extension lever and the rubber cover, exchange the lever axle.
- Assembling position of the extension type brake lever should be where the clearance between the extension lever and handle bar is around 10mm (13/32″) as shown in the diagram.



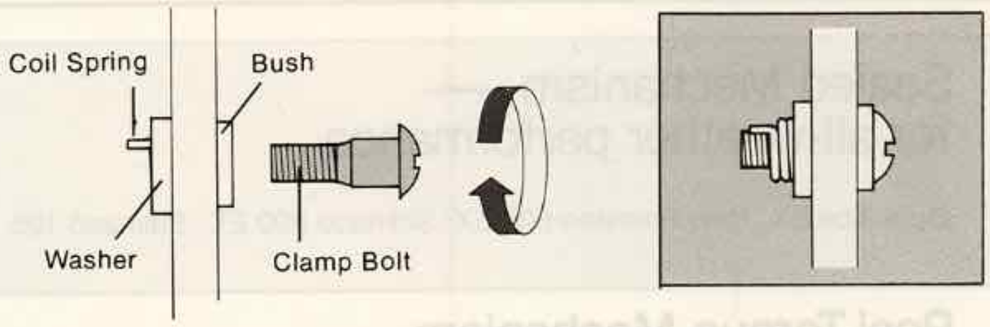
A	Use
22.6mm (57/64″)	Lever Axle without rubber cover
24.5mm (31/32″)	Lever Axle with rubber cover



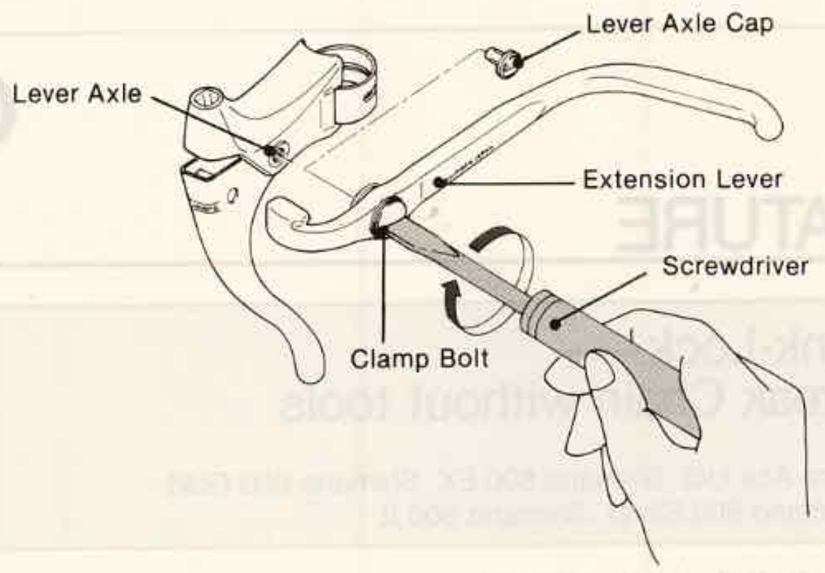
1. Screw the washer counter-clockwise onto the coil spring. Adjust the coil spring to align with the washer face.
2. Fit the bush to the extension lever. Then, fit the assembled coil spring to the extension lever.



3. Screw the clamp bolt clockwise into the bush, while holding the washer. Make sure to check that the coil spring does not protrude over the washer.



4. Remove the lever axle cap. Then screw the clamp bolt into the lever axle so that the end of the coil spring may fit to the notch on the lever axle.



Clamp bolt tightening torque: 15—25 kgfcm (13—22 in.lbs.)

• Tools.

Model TL-WR10
PART No. 4-520 0802
(5mm. Key x 8mm. Hole)
T-Type Wrench with Wrench key



BL

U

HEADSETS

FEATURE	BENEFIT
Sealed Mechanism—— for all-weather performance Dura-Ace EX New Shimano 600 EX Shimano 600 EX Shimano 105	Sealed Mechanisms protect revolving and exposed parts from water, dust and foreign particles which causes premature wear. Shimano has developed Sealed Mechanism for standard cup and cone bearing systems which retain serviceability and interchangeability.
Posi-Torque Mechanism—— for proper tightening without damage Dura-Ace EX New Shimano 600 EX Shimano 600 EX	Easy and secure alloy headset adjustment is possible because of the large contact area between the wrench and the lock nut/top cone. A 32mm. Wrench can be used carefully in an emergency.

CHAINS

FEATURE	BENEFIT
Link-Lock—— Break Chain without tools Dura-Ace UG Shimano 600 EX Shimano 600 Gold Shimano 600 Silver Shimano 600 II	Due to a Pin removing device, a Chain with Shimano's Link-Lock can be more easily removed for cleaning, without the use of special tools.
Uniglide Mechanism—— for quick shifting Dura-Ace UG Shimano 600 EX Shimano 600 Gold Shimano 600 Silver Shimano 600 II	The outer plates are widened to the width of the pins. This results in quicker shifting and less friction, so that the freewheel and chainwheel teeth last longer.

Headset Tools.

• Tools.

Model TL-FC30
PART No. 3-130 9001
4-130 0910
(Hanger Cup Hook Bolt)

Three Spanners Set for
Spindle and Head Parts



Model TL-HP10
PART No. 3-720 9001

Tool for EX Series
Head Parts



Chain Tool.

• Tool.

Model TL-CN20
PART No. 3-130 9002

Chain Cutter
(For Both UG Chain and Ordinary Chain)



Model FE-UF10
Model FE-UF20
Model FE-SF21
Model FE-SF22

SHIMANO-UFP Fork Ends

Model FE-UF10

SPECIFICATIONS

Material ● Steel
Fork End Slot Width
● Front 0.35" (9mm.), 0.31" (8mm.)
Rear 0.39" (10mm.), 0.31" (8mm.)
Specially Ground Hub Connection Face—on Both Sides
Fine Blanking Finish





SHIMANO-UF Fork Ends

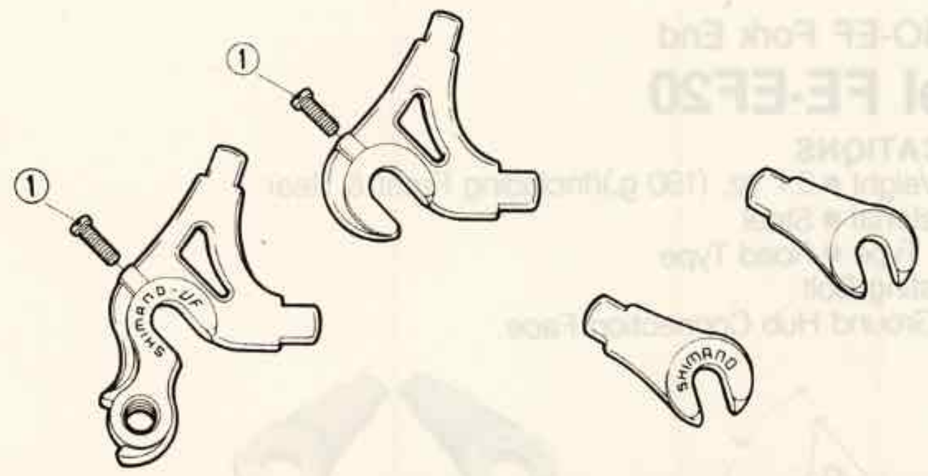
Model FE-UF20

SPECIFICATIONS

Weight ● 5.7 oz. (161 g.)/
Including Front & Rear
Material ● Steel
Type ● Road Type
With Adjusting Bolt (2mm.)
Specially Ground Hub Connection Face







ITEM NO.	PART NO.	DESCRIPTION
1	710 3300	Adjusting Bolt

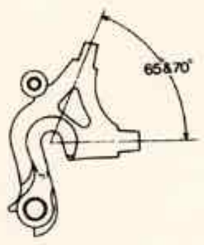
7704-268

SHIMANO-SFR Fork Ends

Model FE-SF21

SPECIFICATIONS

Weight ● 5.2 oz. (147 g.)/
Rear Only
Material ● Steel
Type ● Touring Type
Vertical Drop Out
Specially Ground Hub
Connection Face





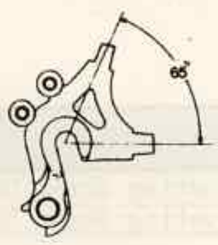
FE

SHIMANO-SF Fork Ends

Model FE-SF22

SPECIFICATIONS

Weight ● 7.1 oz. (203g.)/Including Front & Rear
Material ● Steel
Type ● Touring Type
Vertical Drop Type





UE

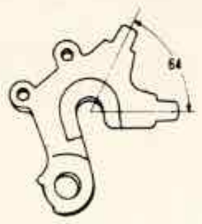
Model FE-PR20
Model FE-EF20
Model FE-SF20

SHIMANO-PR Fork Ends

Model FE-PR20

SPECIFICATIONS

Weight ● 4.4 oz. (127 g.)/Rear Only
Material ● Steel
Type ● Vertical Drop Out





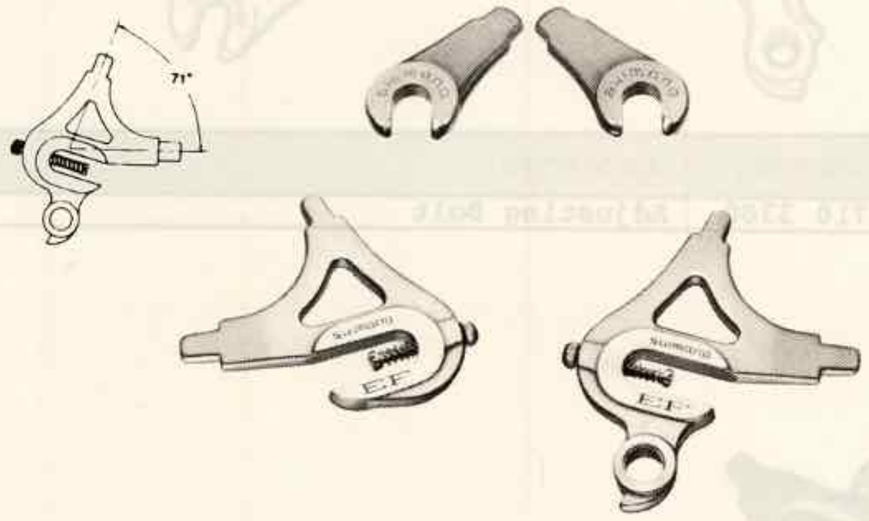
Adamas AX Type

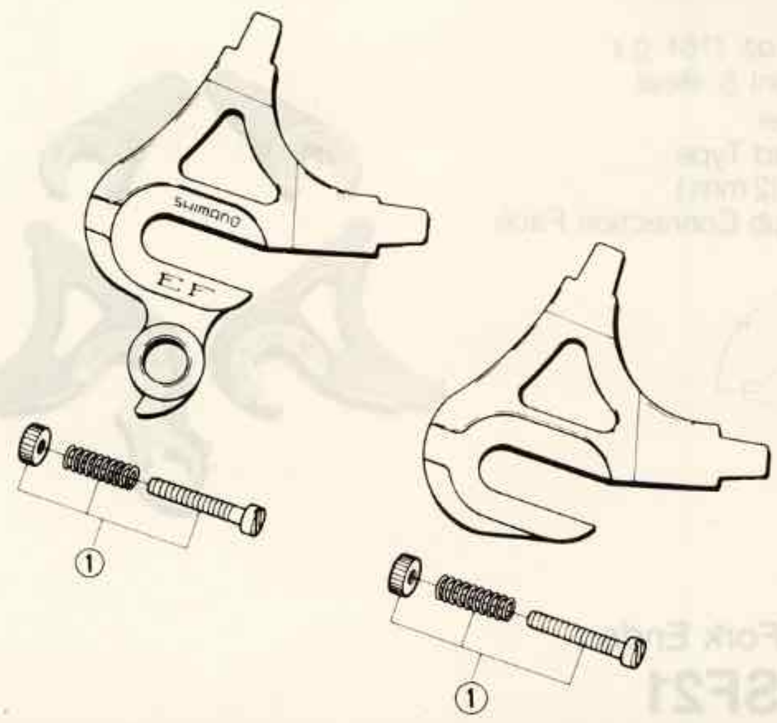
SHIMANO-EF Fork End

Model FE-EF20

SPECIFICATIONS

Weight ● 6.7 oz. (190 g.)/Including Front & Rear
Material ● Steel
Type ● Road Type
With Adjusting Bolt
Specially Ground Hub Connection Face





ITEM NO.	PART NO.	DESCRIPTION
1	3-710 9008	Adjusting Screw Assembly (−)
	3-710 9008-1	Adjusting Screw Assembly (+)

7910-391

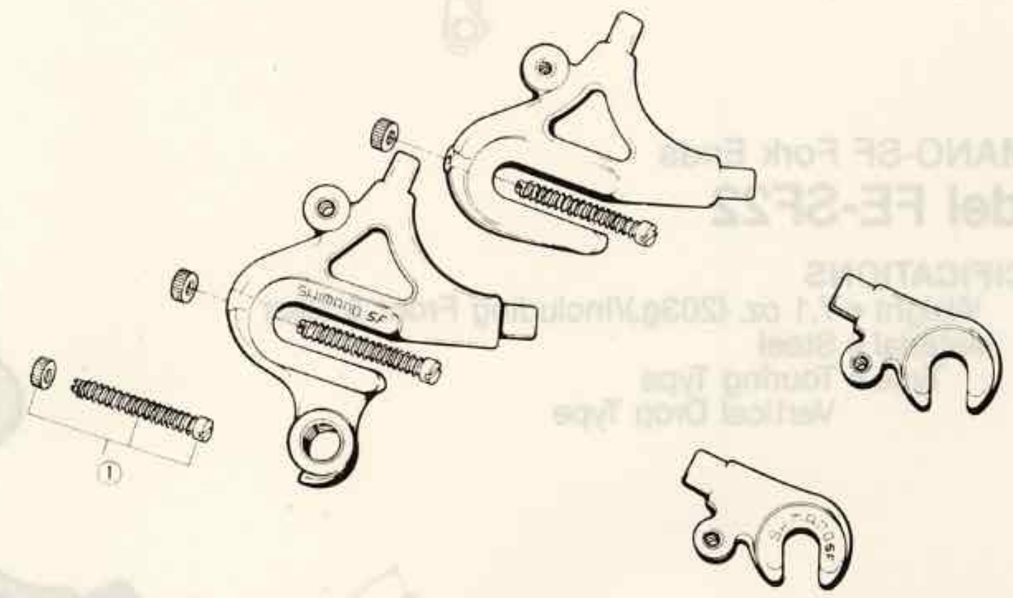
SHIMANO-SF Fork Ends

Model FE-SF20

SPECIFICATIONS

Weight ● 8.8 oz. (250 g)/
Including Front & Rear
Material ● Steel
Type ● Road Type
With Adjusting Bolt
Specially Ground Hub Connection Face





ITEM NO.	PART NO.	DESCRIPTION
1	3-710 9001	Adjusting Screw Unit (−)
	3-710 9001-1	Adjusting Screw Unit (+)

7209-80

Chain

Model CN-7000
Model CN-7100
Model CN-UG20

Model CN-6110 Gold
Model CN-6120 Silver
Model CN-6200 Silver

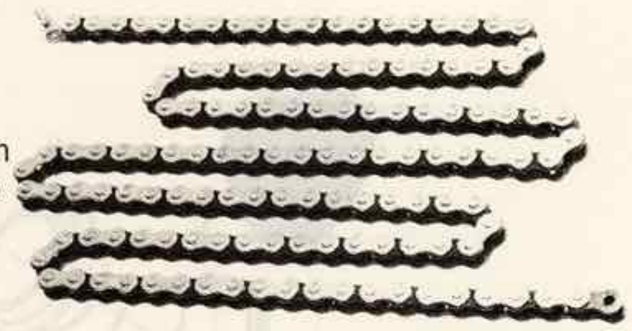
DURA-ACE 10

10 Chain

Model CN-7000

SPECIFICATIONS

Material ● Chromium Molybdenum Steel • Special Surface Treatment
Type ● Bushed Chain



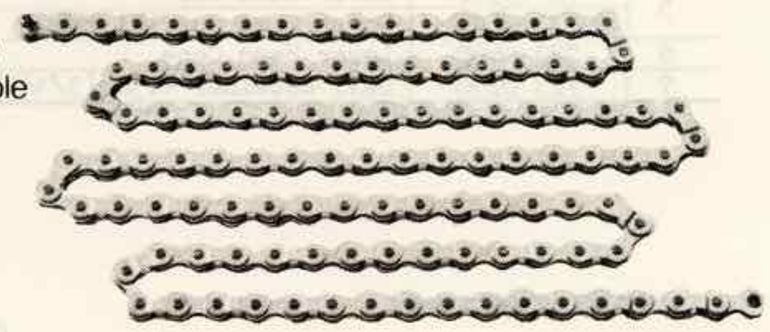
SHIMANO DURA-ACE

UG Chain

Model CN-7100

SPECIFICATIONS

Material ● Outer & Inner Plate/Steel. Link Pin/Bearing Steel • Special Surface Treatment, Bush/Chromium Molybdenum Steel
Size ● 1/2″ x 3/32″ Chain
Surface Treatment
● Roller Link Plate/Nickel Finish, Pin Link Plate/Nickel Finish
Type ● Roller Chain
Information ● Special Chain Cutter available for UG Chain

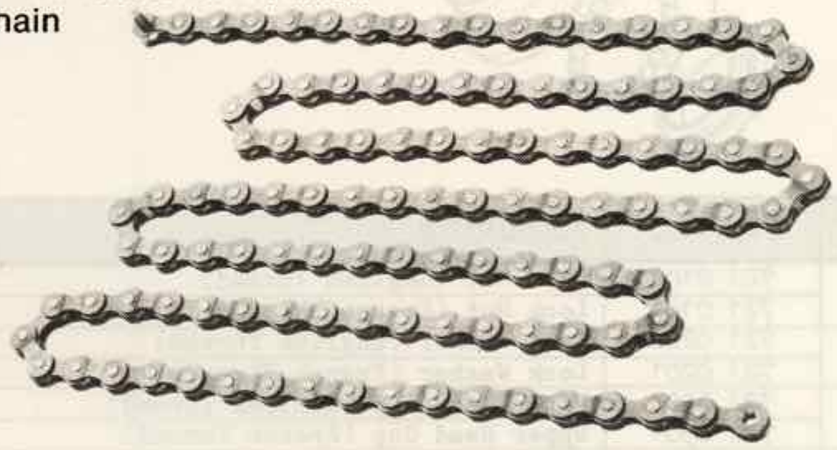


UNIGLIDE-Ⅱ (UG-Ⅱ)

Model CN-UG20

SPECIFICATIONS

Material: Steel
Surface Treatment: Roller Link Plate/Black Finish, Pin Link Plate/Brown Finish
Type: Roller Chain



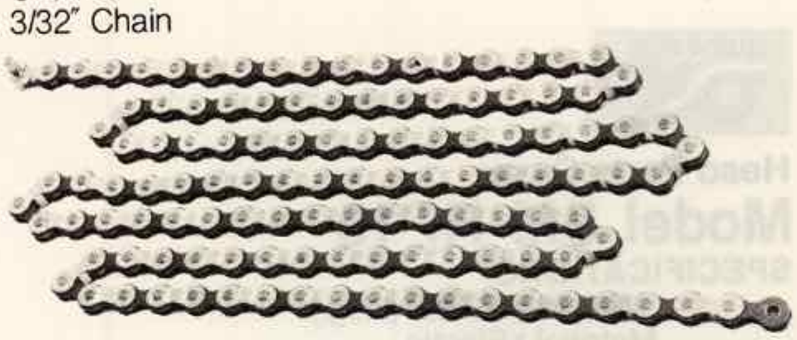
SHIMANO 600 EX

SHIMANO-600 EX UG Chain

Model CN-6200

SPECIFICATIONS

Material ● Steel
Surface Treatment
● Roller Link Plate/Black Finish
● Pin Link Plate/Satin Nickel Finish (Silver)
● Rivet Pin/Special Hardened Finish
Type ● Roller Chain
Size ● 1/2″ × 3/32″ Chain



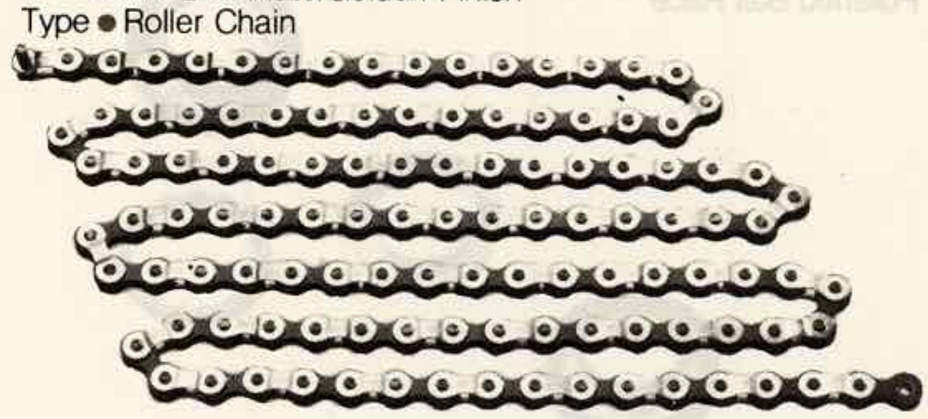
SHIMANO 600

UG Chain

Model CN-6110 (Gold)

SPECIFICATIONS

Material ● Steel
Surface Treatment ● Roller Link Plate/Black Finish
● Pin Link Plate/Golden Finish
Type ● Roller Chain



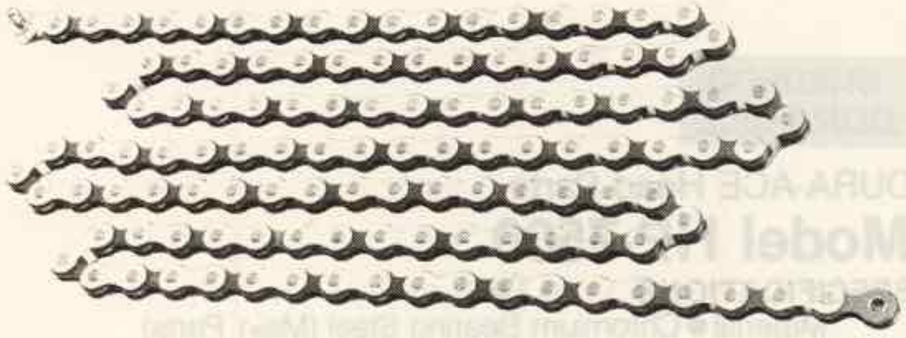
SHIMANO 600

UG Chain

Model CN-6120 (Silver)

SPECIFICATIONS

Material ● Steel
Surface Treatment Roller Link Plate/Black Finish
● Pin Link Plate/Satin Nickel Finish
Type ● Roller Chain



CN

U E

Model HP-7100
Model HP-7500
Model SM-HP10

SHIMANO DURA-ACE

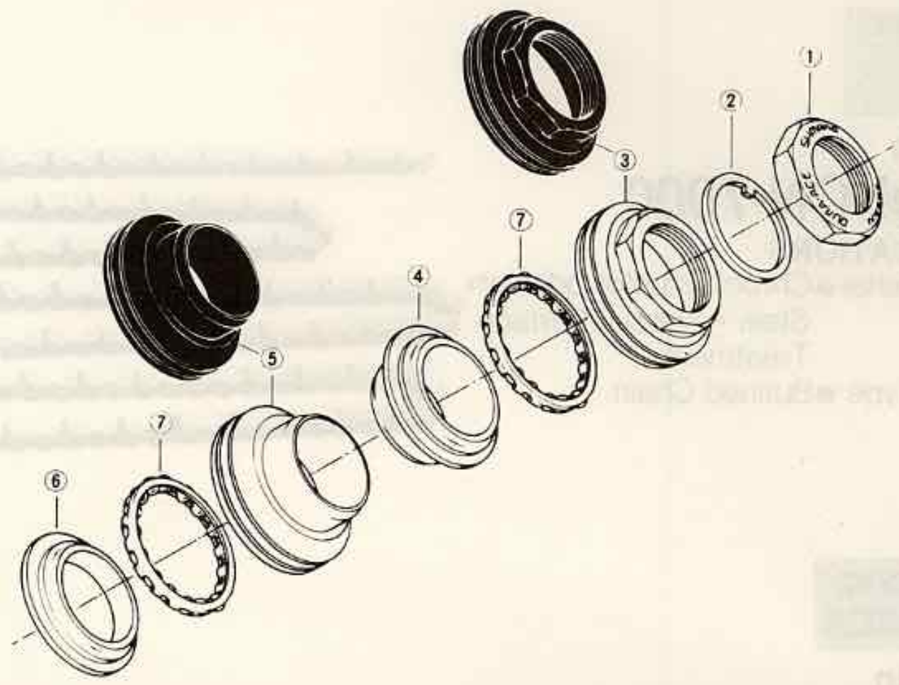
DURA-ACE Head Parts

Model HP-7100

SPECIFICATIONS

Material ● Chromium Bearing Steel (Main Parts)
Type ● Road Type
Polished Ball Race





ITEM NO.	PART NO.	DESCRIPTION
1	721 0100-1	Lock Nut (English Thread)
	721 0101	Lock Nut (French Thread)
2	721 0200	Lock Washer (English Thread)
	721 0201	Lock Washer (French Thread)
3	721 0300-1	Upper Head Cup (English Thread)
	721 0301	Upper Head Cup (French Thread)
	721 0310	Upper Head Cup (English Thread) Black
	721 0311	Upper Head Cup (French Thread) Black
4	721 0400	Upper Head Cone
5	721 0500-1	Lower Head Cup
	721 0510	Lower Head Cup (Black)
6	721 0600	Lower Head Cone
7	721 0700	Ball Retainer 4.5mm(3/16")

7502-191

SHIMANO DURA-ACE

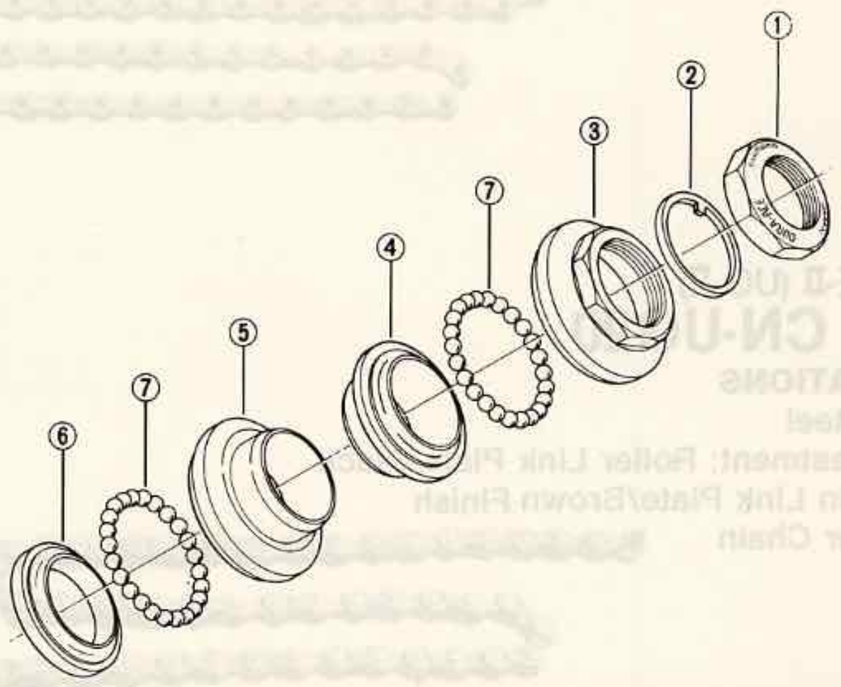
DURA-ACE Head Parts

Model HP-7500

SPECIFICATIONS

Material ● Chromium Bearing Steel (Main Parts)
Polished Ball Race





ITEM NO.	PART NO.	DESCRIPTION
1	721 0100-1	Lock Nut (English Thread)
	721 0101	Lock Nut (French Thread)
2	721 0200	Lock Washer (English Thread)
	721 0201	Lock Washer (French Thread)
3	722 0300	Upper Head Cup (English Thread)
	722 0301	Upper Head Cup (French Thread)
4	722 0400	Upper Head Cone
5	722 0500	Lower Head Cup
6	722 0600	Lower Head Cone
7	000 0181	Steel Ball (5/32")

8306-102B

DURA-ACE EX

Head Parts Cover

Model SM-HP10

SPECIFICATIONS

Weight • 0.2 oz. (6.6g.)
Material • Plastic
Colour • Clear Blue
Use • With DURA-ACE EX & SHIMANO 600 EX Head Parts



Model HP-7200
Model HP-6207

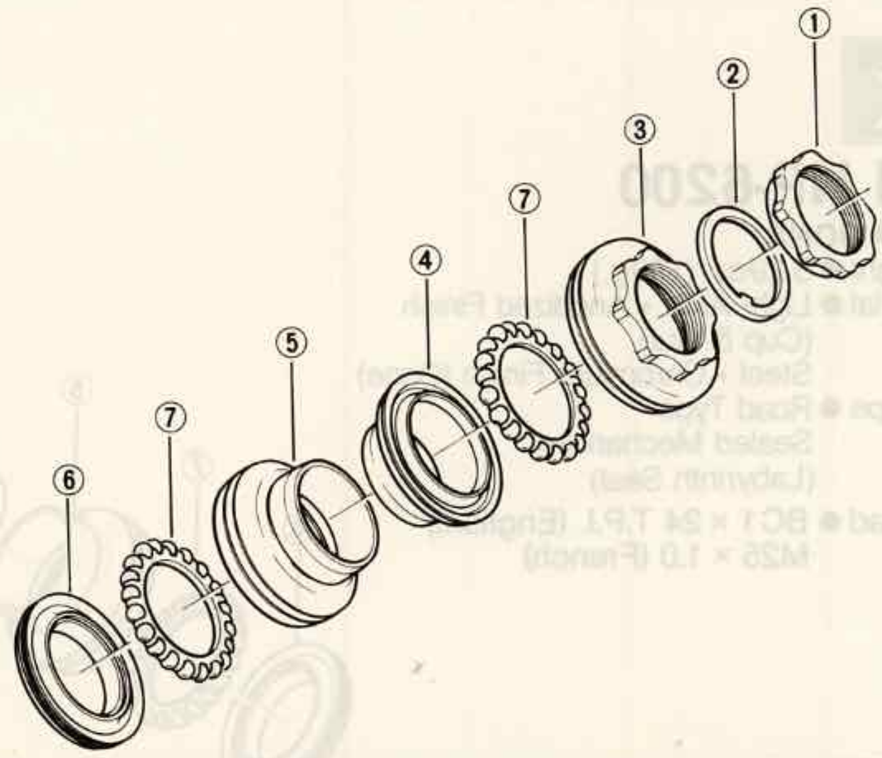
DURA-ACE EX

Model HP-7200

SPECIFICATIONS

Weight ● 3.7 oz. (106 g.)
Material ● Light Alloy • Anodized Finish (Body), Bearing Steel (Ball Race)
Type ● Road Type
Cup Thread ● BC1 × 24 T.P.I. (English) M25 × 1.0 (French)
Polished Ball Race
Sealed Mechanism (Labyrinth Seal)





ITEM NO.	PART NO.	DESCRIPTION
1	723 0100	Lock Nut B.C.1x24T.P.I (English Thread)
	723 0101	Lock Nut M25xP1.0 (French Thread)
2	723 0200	Lock Washer (English & JIS)
	723 0201	Lock Washer (French)
3	3-723 9001	Upper Head Cup B.C.1x24T.P.I (English Thread)
	3-723 9002	Upper Head Cup M25xP1.0 (French Thread)
4	3-723 9003	Upper Head Cone 30.0mm(1-5/32") JIS
	3-723 9004	Upper Head Cone 30.2mm(1-3/16")
5	3-723 9005	Lower Head Cup 30.0mm(1-5/32") JIS
	3-723 9006	Lower Head Cup 30.2mm(1-3/16")
6	3-723 9007	Lower Head Cone 27.0mm(1-1/16") JIS
	3-723 9008	Lower Head Cone 26.36mm(1-1/32")
7	3-723 9009	Ball Retainer (3/16")
8	723 2800	Cover

8012-466

NEW SHIMANO600 EX

Model HP-6207

SPECIFICATIONS

Weight ● 5.2 oz. (150g.)
Material ● Light Alloy · Anodized Finish (Cup & Nut) Steel · Chromium Finish (Cone)
Cup Thread ● BC 1 × 24 T.P.I. (English), M25 × 1.0 (French)
Type ● Road Type
Feature ● Sealed Mechanism



ITEM NO.	PART NO.	DESCRIPTION
1	723 5100	Lock Nut B.C.1x24T.P.I (English & JIS Thread)
	723 5110	Lock Nut M25xP1.0 (French Thread)
2	723 0200	Lock Washer (English & JIS)
	723 0201	Lock Washer (French)
3	3-723 9851	Upper Head Cup B.C.1x24T.P.I (English Thread)
	3-723 9852	Upper Head Cup M25xP1.0 (French Thread)
4	3-723 9009	Ball Retainer (3/16")
5	723 5600	Dust Seal
6	723 5300	Upper Head Cone 30.0mm (JIS)
	723 5310	Upper Head Cone 30.2mm
7	3-723 9853	Lower Head Cup 30.1mm (JIS)
	3-723 9854	Lower Head Cup 30.3mm
8	723 5500	Lower Head Cone 27.0mm (JIS)
	723 5510	Lower Head Cone 26.36mm
9	3-723 9861	Dust Seal & Upper Head Cone 30.0mm(JIS)
	3-723 9860	Dust Seal & Upper Head Cone 30.2mm
10	3-723 9863	Dust Seal & Lower Head Cone 27.0mm(JIS)
	3-723 9862	Dust Seal & Lower Head Cone 26.30mm

8306-598'

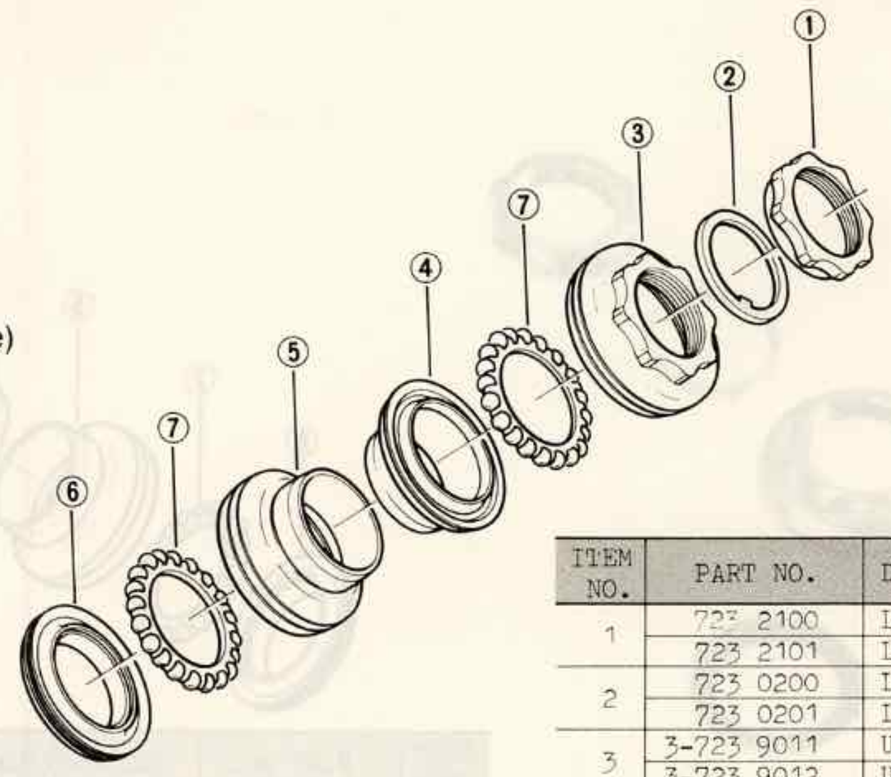
Model HP-6200
Model HP-A105

SHIMANO 600 EX

Model HP-6200

SPECIFICATIONS

Weight ● 5.29oz. (150g.)
Material ● Light Alloy • Anodized Finish (Cup & Nut)
Steel • Chromium Finish (Cone)
Type ● Road Type
Sealed Mechanism (Labyrinth Seal)
Cup Thread ● BC1 × 24 T.P.I. (English), M25 × 1.0 (French)



ITEM NO.	PART NO.	DESCRIPTION
1	723 2100	Lock Nut B.C. 1x24T.P.I. (English Thread)
	723 2101	Lock Nut M25xP1.0 (French Thread)
2	723 0200	Lock Washer (English)
	723 0201	Lock Washer (French)
3	3-723 9011	Upper Head Cup B.C. 1x24T.P.I. (English Thread)
	3-723 9012	Upper Head Cup M25xP1.0 (French Thread)
4	723 2401	Upper Head Cone 30.2mm(1-3/16")
5	3-723 9014	Lower Head Cup 30.2mm(1-3/16")
6	723 2701	Lower Head Cone 26.36mm(1-1/32")
7	3-723 9009	Ball Retainer (3/16")

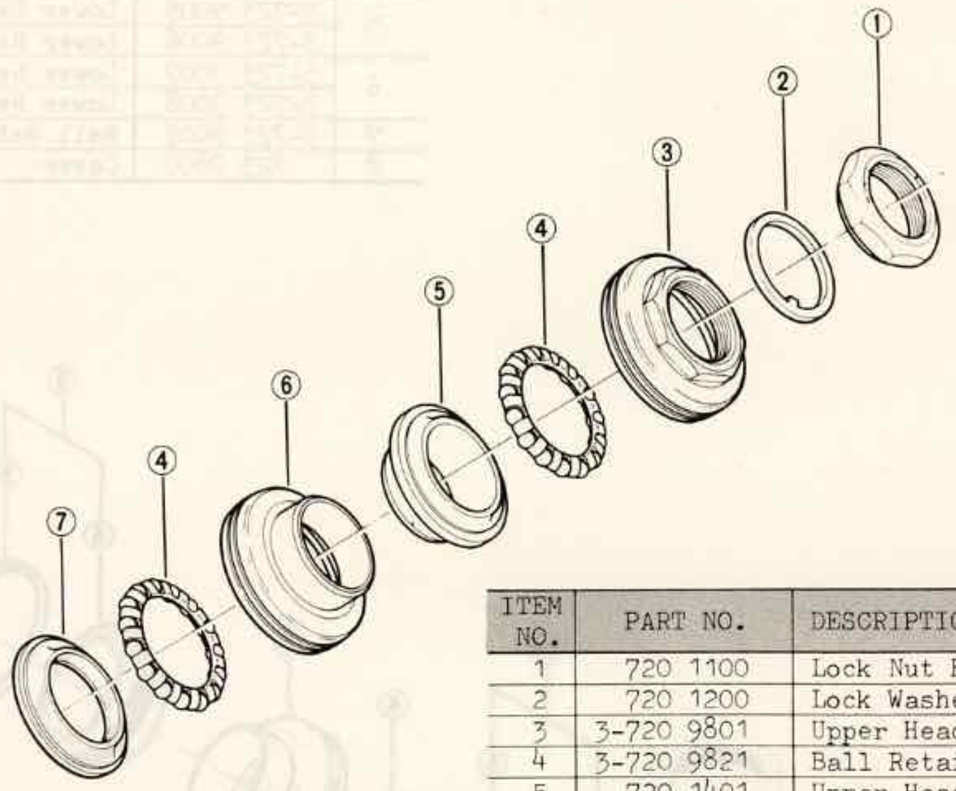
8012-466

SHIMANO 105

Model HP-A105

SPECIFICATIONS

Weight ● 5.5 oz. (155g.)
Material ● Light Alloy · Anodized Finish, Bearing Steel
Type ● Road Type
Cup thread ● BC1 × 24 T.P.I. (English), M25 × 1.0 (French)



ITEM NO.	PART NO.	DESCRIPTION
1	720 1100	Lock Nut B.C. 1x24T.P.I. (English Thread)
2	720 1200	Lock Washer (English)
3	3-720 9801	Upper Head Cup B.C. 1x24T.P.I. (English Thread)
4	3-720 9821	Ball Retainer (3/16")
5	720 1401	Upper Head Cone 30.2mm
6	3-720 9812	Lower Head Cup 30.2mm
7	720 1601	Lower Head Cone 26.36mm

8307-619



SEAT POSTS

FEATURE	BENEFIT
Full Aero Type—— for aero frame Dura-Ace AX	Special shape for Aerodynamic seat tube.
Adjustment Screw—— for positive, perfect adjustment Dura-Ace AX Dura-Ace EX Shimano 600 AX Shimano DX	Fine adjusting screw allows perfect saddle positioning and prevents saddle slip.

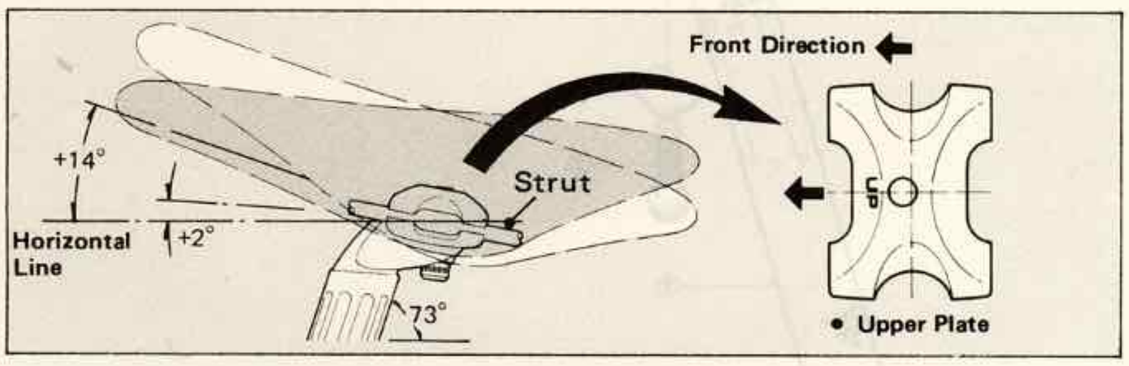
Seat Post Assembly Note & Tools.

How to use Upper Plate

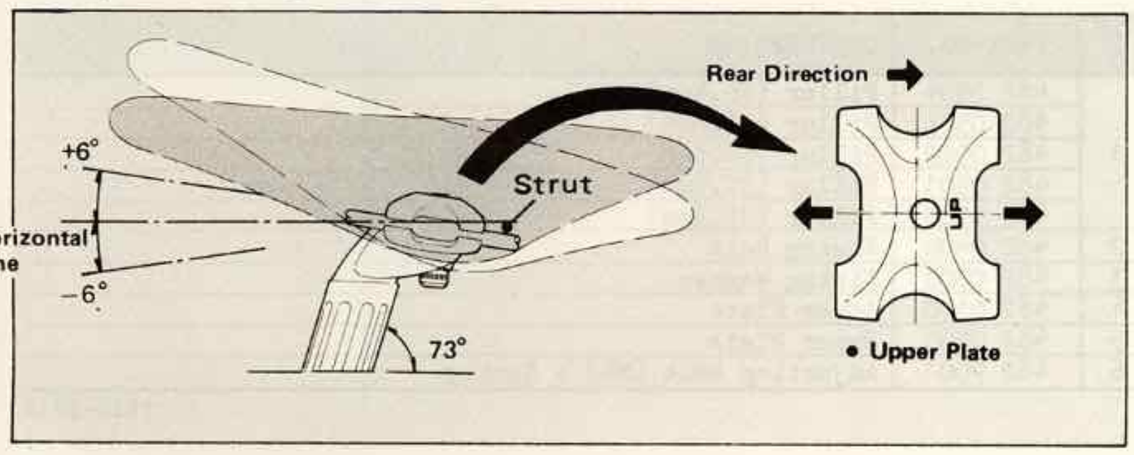
Shimano's Dura-Ace AX Seat Pillar upper plate is designed on the eccentric principle. This means a wide degree of angle adjustment is possible by simply changing the direction of the upper plate.

*Adjustment angle, regarding struts' angle, is calculated with seat pillar at an angle of 73°.

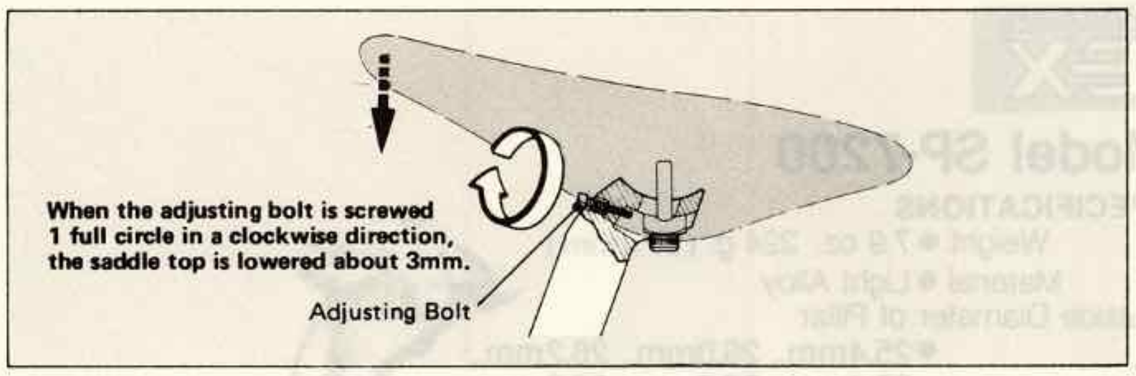
(1) Front upward direction (when the UP sign is facing the front). The saddle can be adjusted +2 ~ +14 degrees against a horizontal line. For normal use set the UP sign to the front.



(2) Front downward direction (when the UP sign is facing the rear). Adjustment angle is ±6 degrees.



(3) Adjust the saddle-angle and then tighten the fixing bolt temporarily in this position. Next, screw the adjusting bolt in a clockwise direction for fine-precision saddle angle adjustment.



• Tools.

Model TL-WR36 6 mm.
PART No. 4-520 0901

Model TL-WR33 3 mm.
PART No. 4-520 0904

Hexagon Wrench Keys



SP

U

Seat Post

Model SP-7300 AB Type
Model SP-7310 B Type
Model SP-7322 E Type

Model SP-7200

DURA-ACE

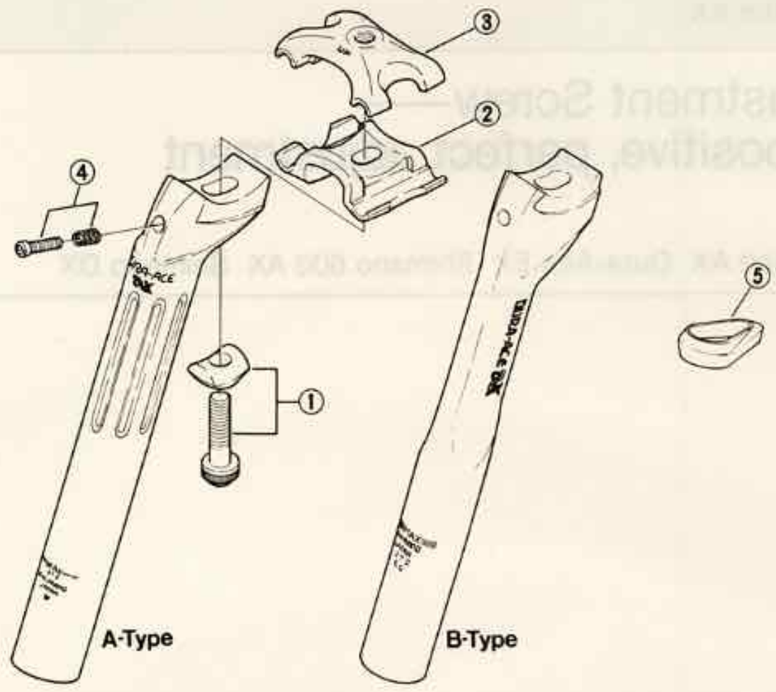
Model SP-7300 A-Type
SP-7310 (Semi Oval Tube) B-Type
SP-7322 (Oval Tube) E-Type

SPECIFICATIONS

Weight ● 7.9 oz. (224g.) (SP-7300; 26.8mm.)
8.6 oz. (244g.) (SP-7310; 26.8mm.)
Material ● Light Alloy Anodized Finish
Outside Diameter of Post
● SP-7300, 7310/25.4mm., 26.0mm., 26.2mm., 26.4mm., 26.6mm., 26.8mm., 27.0mm., 27.2mm., 27.4mm.
SP-7322 (Oval Tube)
Features ● Aerodynamic Design (SP-7310, 7322)/Hexagon Release/Light Weight



A Type B Type E Type E Type



ITEM NO.	PART NO.	DESCRIPTION
1	3-482 9801	Fixing Bolt & Washer
2	482 0100	Lower Plate
3	482 0200	Upper Plate
4	3-482 9001	Adjusting Bolt (M4) & Spring
5	482 1300	Rubber Cover

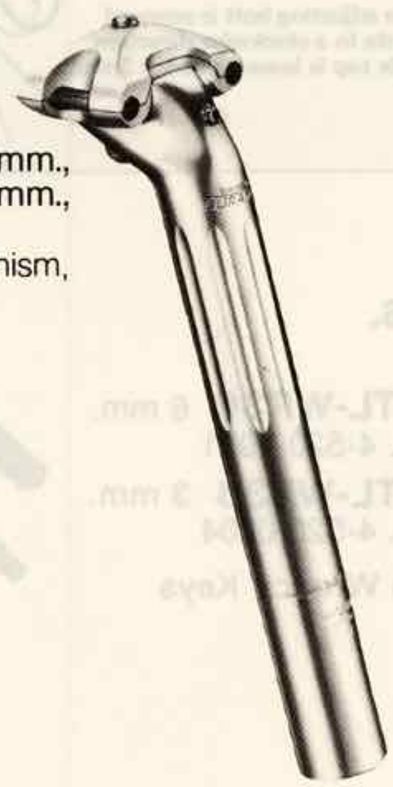
8109-451B

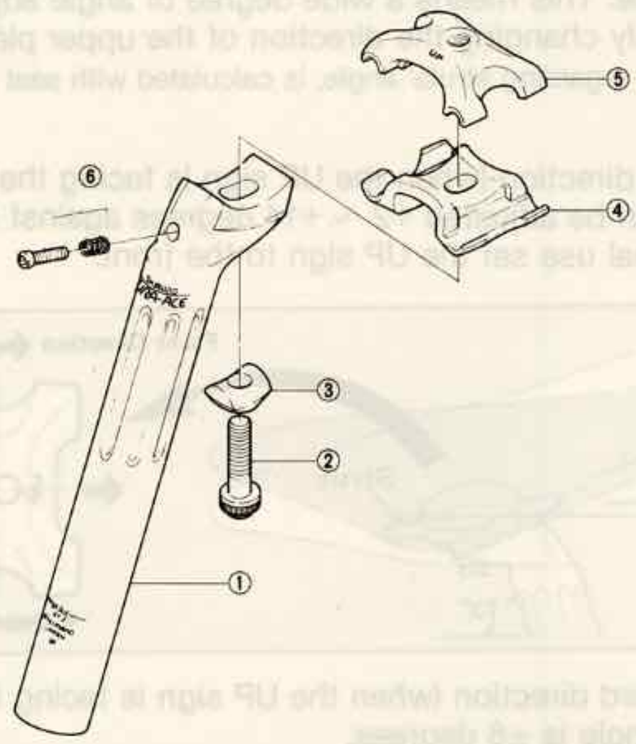
DURA-ACE EX

Model SP-7200

SPECIFICATIONS

Weight ● 7.9 oz. 224 g. (27.2mm.)
Material ● Light Alloy
Outside Diameter of Pillar
● 25.4mm., 26.0mm., 26.2mm., 26.4mm., 26.6mm., 26.8mm., 27.0mm., 27.2mm.
Type ● Hexagon Release Mechanism, Aerodynamic Design





ITEM NO.	PART NO.	DESCRIPTION
1	482 0504	Pillar (26.4mm)
	482 0503	Pillar (26.6mm)
	482 0502	Pillar (26.8mm)
	482 0501	Pillar (27.0mm)
	482 0500	Pillar (27.2mm)
2	482 0400	Fixing Bolt
3	482 0300	Fixing Washer
4	482 0100	Lower Plate
5	482 0200	Upper Plate
6	482 9001	Adjusting Bolt (M4) & Spring

7912-373B

SP

UE

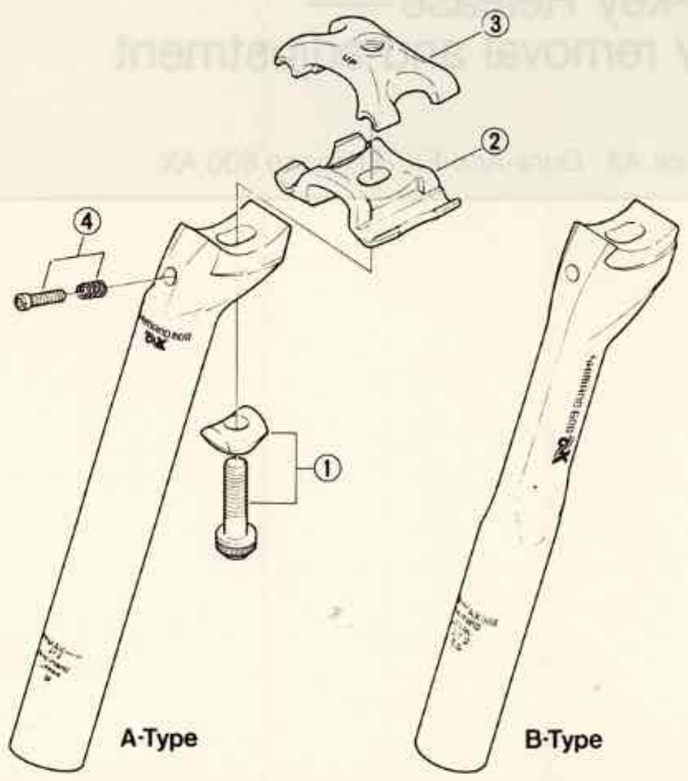
Model SP-6300 A Type
Model SP-6310 B Type

Model SP-6300 A-Type
SP-6310 (Semi Oval Tube) B-Type

SPECIFICATIONS

Weight • 9.5 oz. (268g.) (SP-6300; 26.8mm.)
9.5 oz. (270g.) (SP-6310; 26.8mm.)
Material • Light Alloy
Outside Diameter of Pillar
• 25.4mm., 26.0mm., 26.2mm., 26.4mm., 26.6mm., 26.8mm., 27.0mm., 27.2mm., 27.4mm.
Features • Aerodynamic Design (SP-6310) Hexagon Release





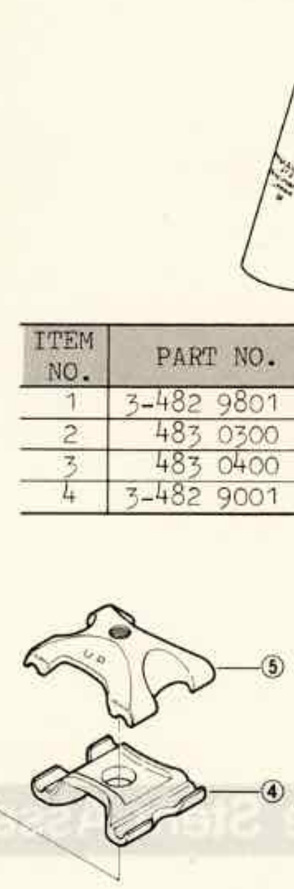
ITEM NO.	PART NO.	DESCRIPTION
1	3-482 9801	Fixing Bolt & Washer
2	483 0300	Lower Plate
3	483 0400	Upper Plate
4	3-482 9001	Adjusting Bolt (M4) & Spring

8106-452A

Model SP-MX20

SPECIFICATIONS

Weight: 13.2oz. (375g.)
Material: Light Alloy • Anodized Finish
Outside Diameter of Pillar: 0.87" (22.2mm.)
Length: 8.46" (215mm.)



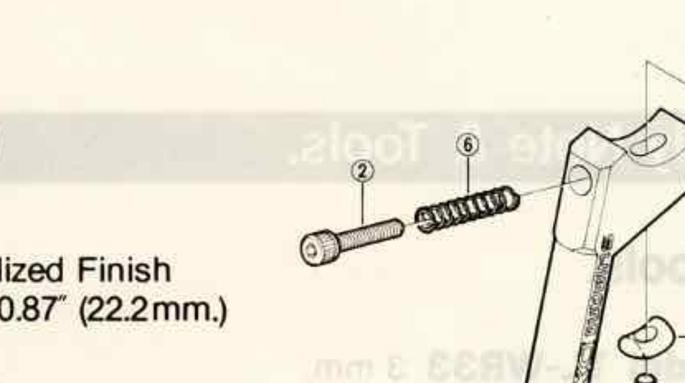
ITEM NO.	PART NO.	DESCRIPTION
1	484 0101	Pillar 22.2mm(7/8")
2	484 0200	Fixing Bolt (M8x34)
3	482 0300	Fixing Washer
4	482 0100	Lower Plate
5	482 0200	Upper Plate
6	484 0300	Adjusting Spring

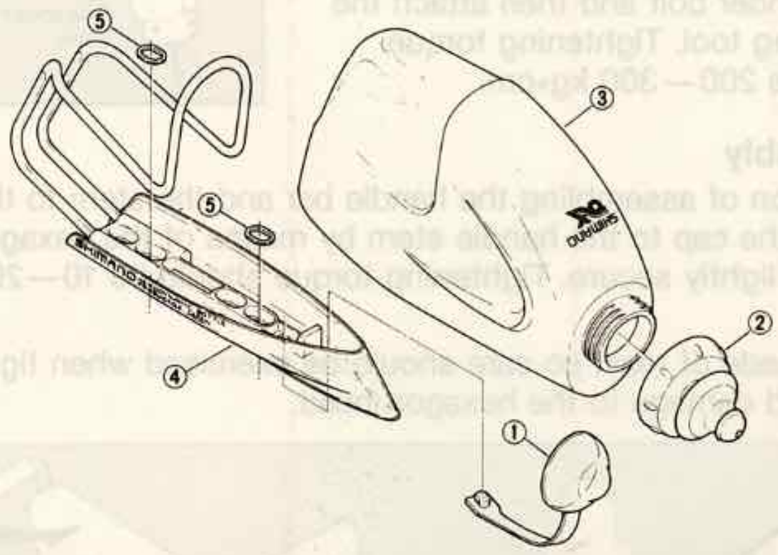
8009-433

SHIMANO Aero-Bottle
Model SM-BT10

SPECIFICATIONS

Weight • Bottle; 2.5 oz. (72g.)/Skirt & Cage; 2.1 oz. (60g.)
Material • Bottle; Polyethylene
Skirt; Plastic
Cage; Aluminum
Feature • Aerodynamic Design


Cage for Round Tube



ITEM NO.	PART NO.	DESCRIPTION
1	040 2009	Dust Cap
2	3-040 9002	Bottle Cap
3	040 2004	Bottle Body
4	3-040 9001	Bottle Cage for 1-1/8" Tube
	3-040 9003	Bottle Cage for Oval Tube
5	040 2007	Washer

8111-485A

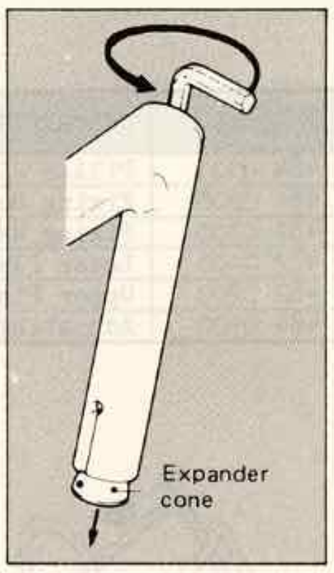
STEMS

FEATURE	BENEFIT
One-key Release—— Easy removal and adjustment Dura-Ace AX Dura-Ace EX Shimano 600 AX	Easy removal of the stem from the fork without damage is possible by using an Allen key, high handle bar tightening torque eliminates slipping.

Handle Stem Assembly Note & Tools.

Assembly to Frame

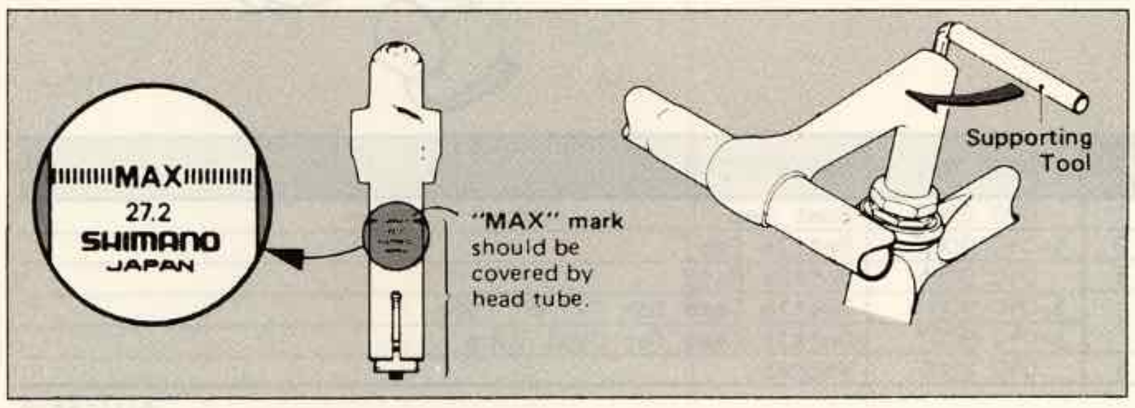
(1) Turn the expander bolt in an anti-clockwise direction by means of the hexagon spanner in order to move the expander cone so that the stem can be assembled to the head tube.
(2) Insert the stem into the head tube. At this time the "MAX" sign on the stem should be completely covered by the head tube before fixing securely. Next, insert the hexagon spanner into the expander bolt and then attach the supporting tool. Tightening torque should be 200—300 kg•cm.



Cap Assembly

HS On completion of assembling the handle bar and the stem to the head tube, screw the cap to the handle stem by means of the hexagon spanner and lightly secure. Tightening torque should be 10—20 kg•cm.

Note:
The cap is made of resin so care should be exercised when tightening in order to avoid damage to the hexagon head.



• Tools.

Model TL-WR33 3 mm.
PART No. 4-520 0904

Hexagon Wrench Keys



Model TL-WR40
PART No. 3-520 9801

Hexagon Wrench Key for One Key Release Mechanism
(6 mm. x 130 mm.)
*Tighten the crank bolt handly.
Total Torque: 250~350 kgfcm.



U

Handle Stem

Model HS-7300
Model HS-7200

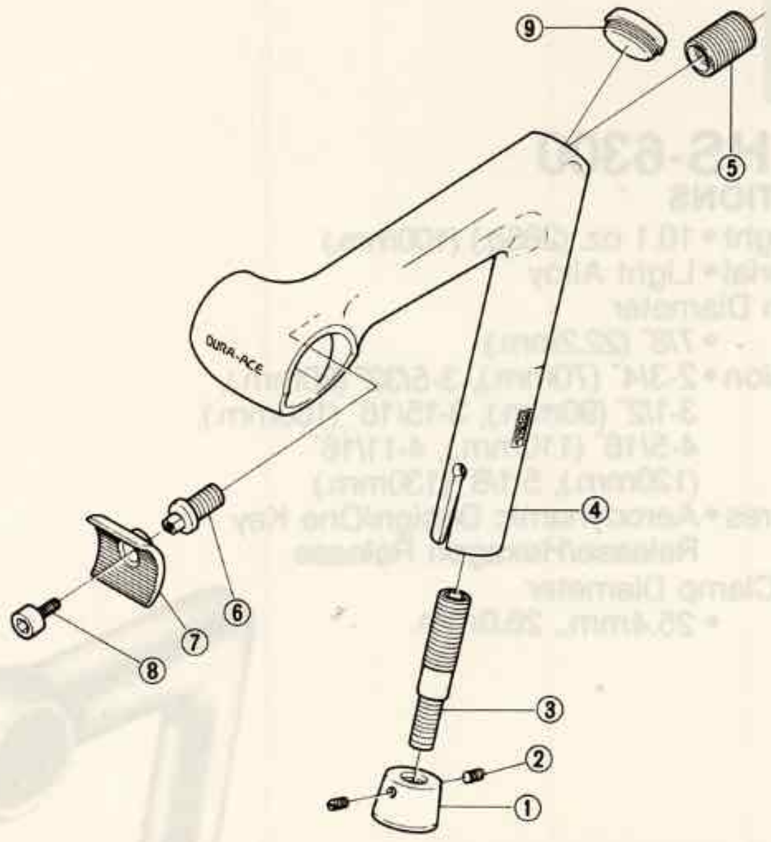
DURA-ACE AX

Model HS-7300

SPECIFICATIONS

Weight • 8.9 oz. 252g. (100mm.), 9.2 oz. 260g. (120mm.)
Material • Light Alloy • Anodized Finish
Handle Stem Diameter
• 7/8″ (22.2mm.)
Extension • 2-3/4″ (70mm.), 3-5/32″ (80mm), 3-1/2″(90mm.),3-15/16″(100mm.), 4-5/16″ (110mm.), 4-11/16″ (120mm.), 5-1/8″ (130mm.)
Features • Aerodynamic Design/One Key Release/Hexagon Release
Handle Bar Clamp Diameter
• 25.4mm., 26.0mm.





ITEM NO.	PART NO.	DESCRIPTION
1	451 0800	Expander Cone
2	451 0900	Non-Turn Screw (M3x5)
3	451 0700	Expander Bolt
4	451 1000	Extension Stem 120mm
	451 1001	Extension Stem 100mm
5	451 0500	Handle Bar Adjusting Bolt
6	451 0400	Handle Bar Fixing Bolt
7	451 0300	Handle Bar Fixing Plate
8	451 0200	Fixing Bolt
9	451 0101	Cap

7904-372

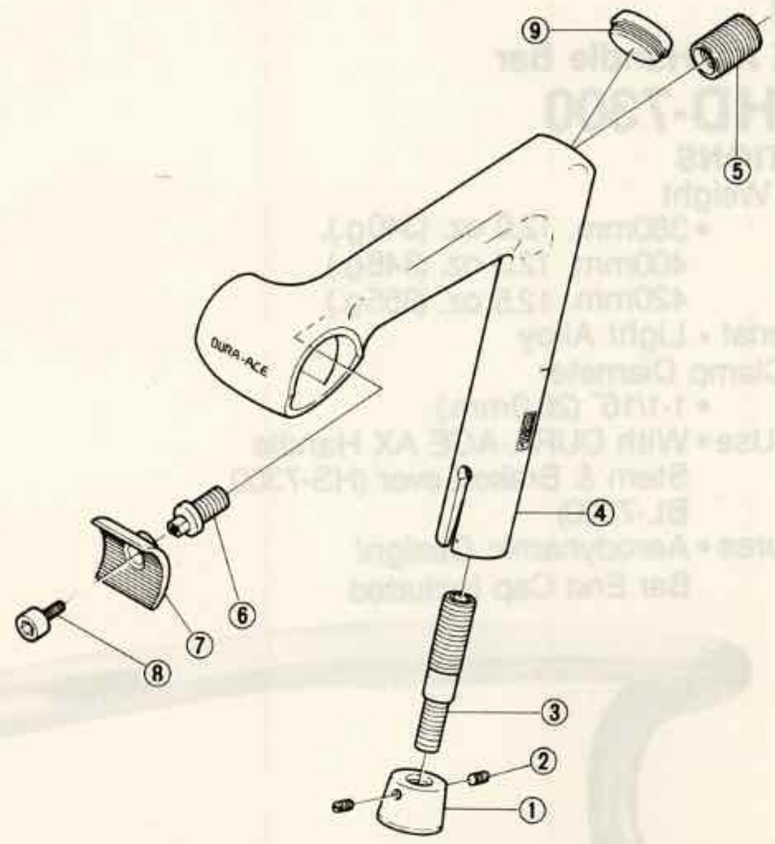
DURA-ACE EX

Model HS-7200

SPECIFICATIONS

Weight • 8.9 oz. (252 g.), 9.2 oz. (260 g.)
Material • Light Alloy
Handle Stem Diameter
• 22.2 mm.
Handle Bar Clamp Diameter
• **25.4mm. or 26.0mm.**
Extension • 80mm., 90mm., 100mm., 110mm., 120mm., 130mm.,
Type • Hexagon Release Mechanism, Aerodynamic Design





ITEM NO.	PART NO.	DESCRIPTION
1	451 0800	Expander Cone
2	451 0900	Non-Turn Screw (M3x5)
3	451 0700	Expander Bolt
4	451 1000	Extension Stem 120mm
	451 1001	Extension Stem 100mm
5	451 0500	Handle Bar Adjusting Bolt
6	451 0400	Handle Bar Fixing Bolt
7	451 0300	Handle Bar Fixing Plate
8	451 0200	Fixing Bolt
9	451 0100	Cap

7904-372

HS

UE

Handle Stem

Model HS-6300

Handle Bar

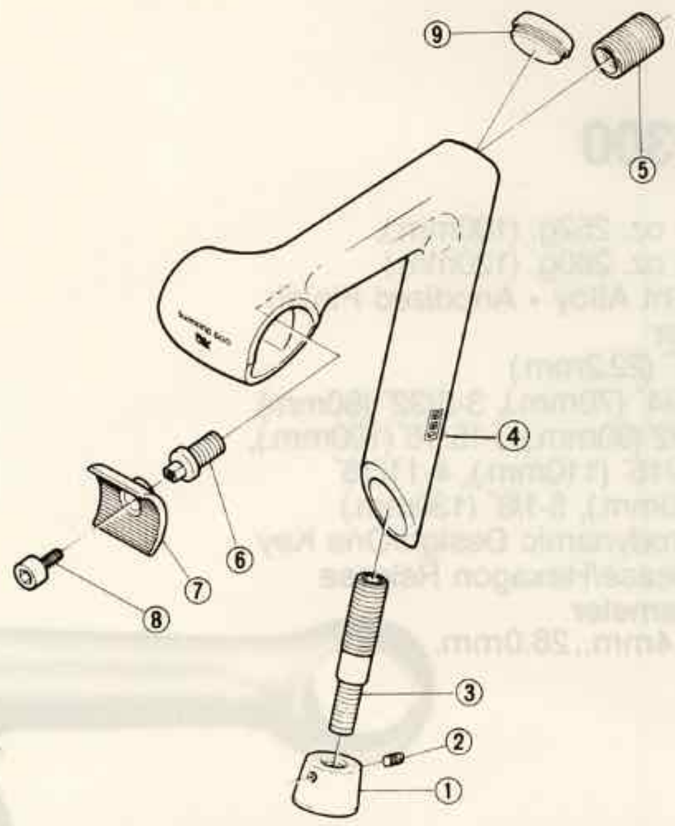
Model HD-7300

Model HS-6300

SPECIFICATIONS

Weight • 10.1 oz. (286g.) (100mm.)
Material • Light Alloy
Handle Stem Diameter
• 7/8" (22.2mm.)
Extension • 2-3/4" (70mm.), 3-5/32" (80mm.), 3-1/2" (90mm.), 3-15/16" (100mm.), 4-5/16" (110mm.), 4-11/16" (120mm.), 5-1/8" (130mm.)
Features • Aerodynamic Design/One Key Release/Hexagon Release
Handle Bar Clamp Diameter
• 25.4mm., 26.0mm.





ITEM NO.	PART NO.	DESCRIPTION
1	451 0800	Expander Cone
2	451 0900	Non-Turn Screw (M3x5)
3	451 0700	Expander Bolt
4	451 1000	Extension Stem 120mm
	451 1001	Extension Stem 100mm
5	451 0500	Handle Bar Adjusting Bolt
6	451 0400	Handle Bar Fixing Bolt
7	451 0300	Handle Bar Fixing Plate
8	451 0200	Fixing Bolt
9	451 0100	Cap

7904-372

DURA-ACE AX Handle Bar

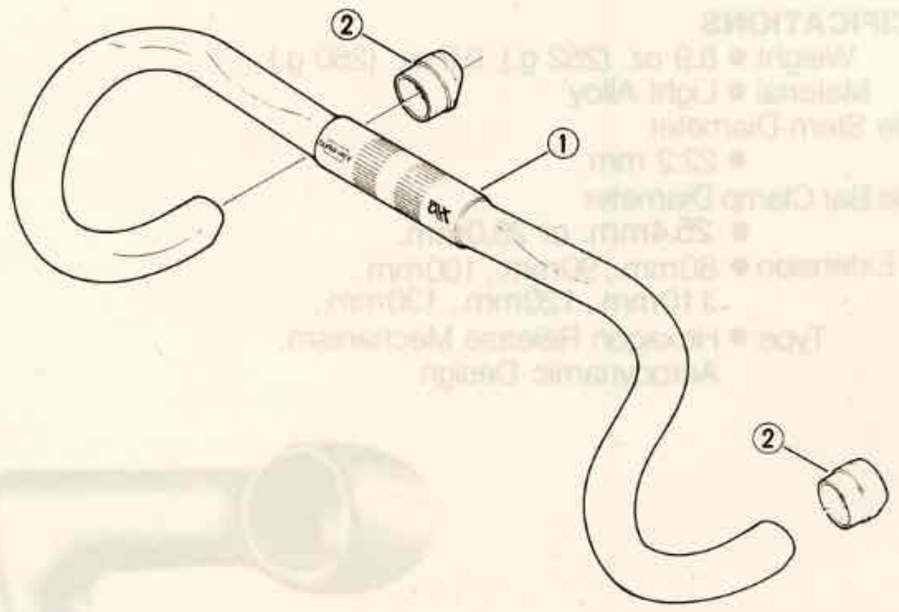
Model HD-7300

SPECIFICATIONS

Bar Width & Weight
• 380mm. 12.0 oz. (340g.), 400mm. 12.3 oz. (348g.), 420mm. 12.5 oz. (355g.)
Material • Light Alloy
Handle Bar Clamp Diameter
• 1-1/16" (26.0mm.)
Use • With DURA-ACE AX Handle Stem & Brake Lever (HS-7300, BL-7300)
Features • Aerodynamic Design/ Bar End Cap Included



Handle Bar End Cap



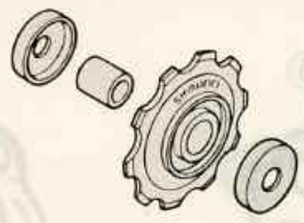
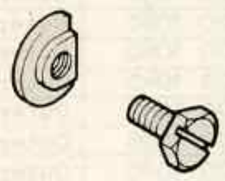
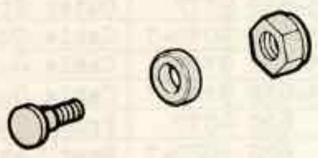
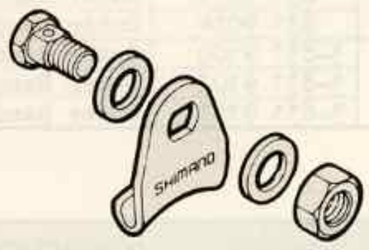
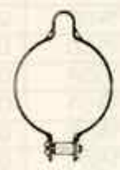
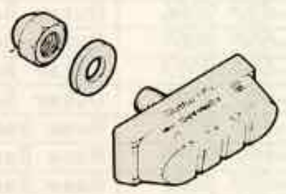
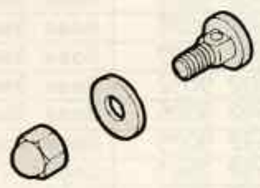
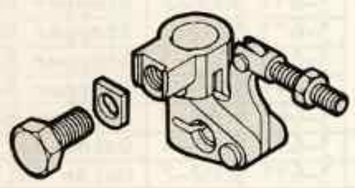
ITEM NO.	PART NO.	DESCRIPTION
1	471 0100	Handle Bar 380mm(14-31/32")
	471 0200	Handle Bar 400mm(15-3/4")
	471 0300	Handle Bar 420mm(16-9/16")
2	471 0401	Left Hand End Cap
	471 0402	Right Hand End Cap

8110-501

HS

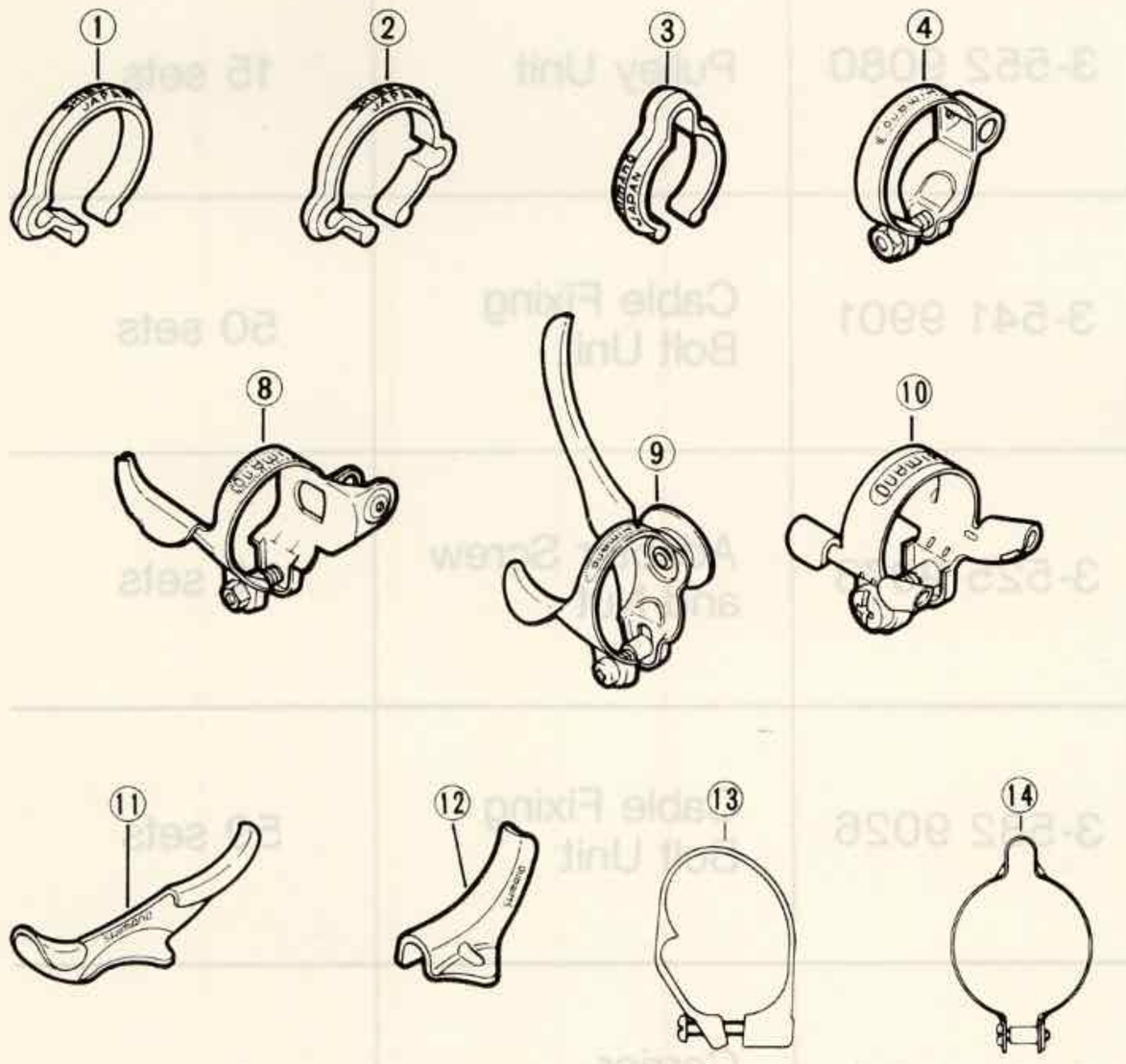
UE

CARDED PARTS

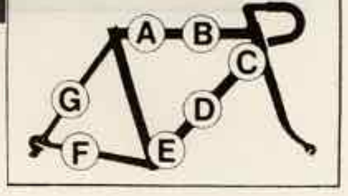
ITEM		PART NO.	DESCRIPTION	QUANTITY
Rear Derailleur		3-552 9080	Pulley Unit	15 sets
		3-541 9901	Cable Fixing Bolt Unit	50 sets
		3-525 9073	Adapter Screw and Nut	50 sets
Front Derailleur		3-582 9026	Cable Fixing Bolt Unit	50 sets
Brake Arch		3-831 9021	Carrier Assembly	50 sets
		3-831 9101	Outer Band (Steel) 1″ 1 set (3 pcs.)	20 sets
		3-620 9003	Outer Clip (Black) 1″ 1 set (3 pcs.)	20 sets
		3-853 9902	Brake Sheo Assembly 1 pair (2 pcs.)	10 pair
		3-851 9014	Cable Fixing Bolt Unit	50 sets
Three Speed Hub		3-321 9901	Bell Crank Assembly	10 sets

CLAMPS

for Shifting Lever



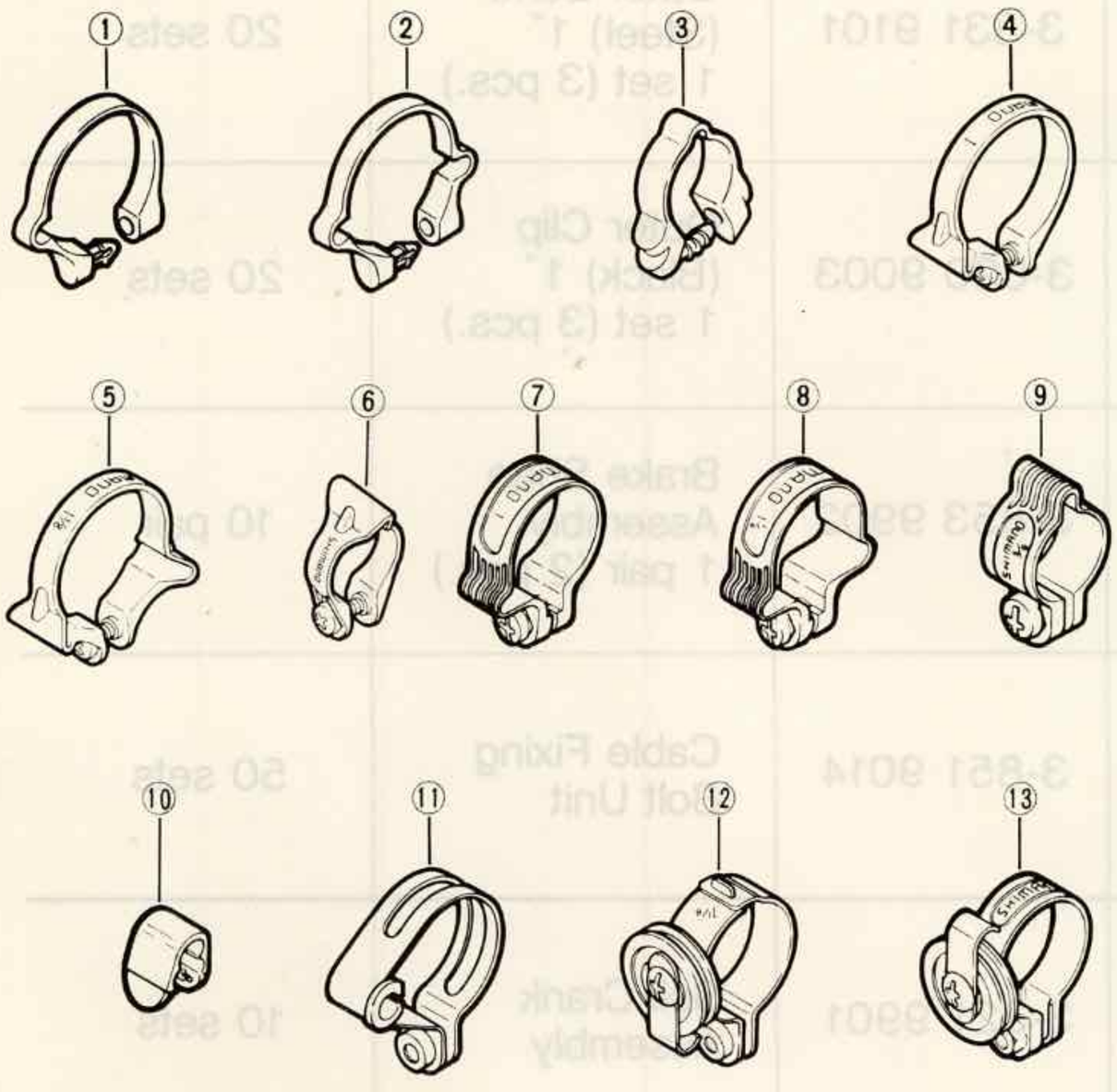
Fitting Position



ITEM NO.	PART NO.	DESCRIPTION	FITTING POSITION
1	620 1070	Outer Clip (White) 1-1/8" (Single)	B•D
	620 1050	Outer Clip (White) 1" (Single)	
2	620 1080	Outer Clip (White) 1-1/8" (Double)	B•D
	620 1060	Outer Clip (White) 1" (Double)	
3	620 1040	Outer Clip (White) 7/8" (Single)	F•G
	620 1030	Outer Clip (White) 3/4" (Single)	
	620 1020	Outer Clip (White) 5/8" (Single)	
	620 1010	Outer Clip (White) 1/2" (Single)	
4	3-622 9106-1	Outer Stopper 1-1/8" (Single)	E
5	3-622 9107-1	Outer Stopper 1-1/8" (Double)	E
6	3-622 9116	Outer Stopper 5/8" (Single)	F•G
	3-622 9117	Outer Stopper for DURA-ACE 5/8" (Single)	
7	3-622 9010-1	Cable Guide 1-1/8" (Single)	E
8	3-622 9110-1	Cable Guide 1-1/8" (Double)	E
9	3-622 9111-1	Cable Guide for DURA-ACE 1-1/8" (Double)	E
10	620 4010	Front Cable Guide for Brazed Axle	E
11	620 4020-1	Rear Cable Guide for Brazed Axle	E
12	620 5010-1	Outer Stopper for Brazed Axle	F
13	831 9031	Outer Band for Brake 24.4mm (1")	A•B
	831 9034	Outer Band for Brake (Black) 25.4mm (1")	
14	3-831 9100	Outer Band 25.4mm(1") 1pc.	A•B
	3-831 9102	Outer Band 25.4mm(1") 1set (3pcs./Pack)	
	3-831 9101	Outer Band 25.4mm(1") 1set/20Packs (Carded Parts)	

8208-525A

for PPS-System/Three Speed Hub

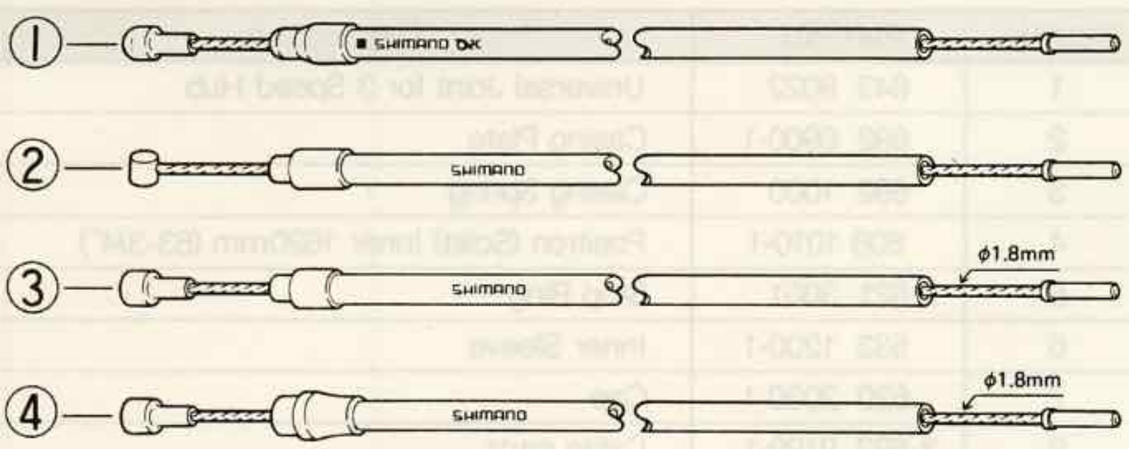


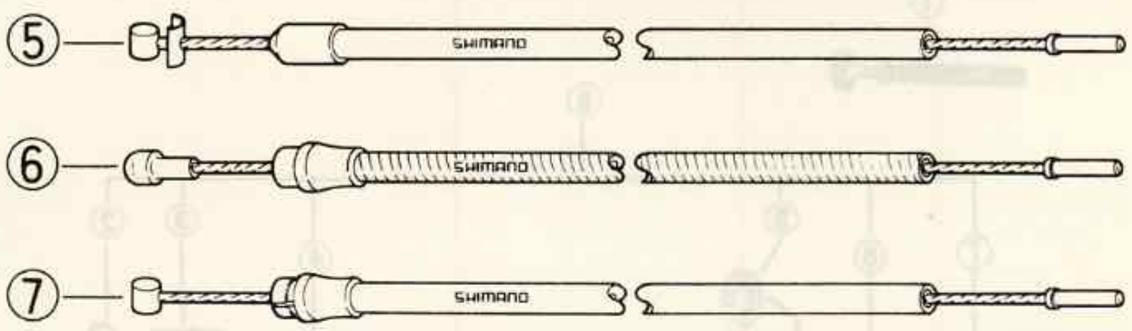
ITEM NO.	PART NO.	DESCRIPTION	FITTING POSITION
1	692 1400	Outer Band for PPS-System (White) 1-1/8" (Single)	B•D
	692 1402	Outer Band for PPS-System (Black) 1-1/8" (Single)	
	692 1500	Outer Band for PPS-System (White) 1" (Single)	
	692 1502	Outer Band for PPS-System (Black) 1" (Single)	
2	692 1401	Outer Band for PPS-System (White) 1-1/8" (Double)	B•D
	692 1403	Outer Band for PPS-System (Black) 1-1/8" (Double)	
	692 1501	Outer Band for PPS-System (White) 1" (Double)	
	692 1503	Outer Band for PPS-System (Black) 1" (Double)	
3	692 1700	Outer Band for PPS-System (White) 3/4"	F•G
	692 1701	Outer Band for PPS-System (Black) 3/4"	
	692 1600	Outer Band for PPS-System (White) 5/8"	
	692 1601	Outer Band for PPS-System (Black) 5/8"	
	692 1800	Outer Band for PPS-System (White) 1/2"	
	692 1801	Outer Band for PPS-System (Black) 1/2"	
	692 3900	Outer Band for PPS-System (White) 11/16"	
	692 3901	Outer Band for PPS-System (Black) 11/16"	
4	3-692 9071	Outer Band for PPS-System (Steel) 1-1/8" (Single)	B•D
	3-692 9065	Outer Band for PPS-System (Steel) 1" (Single)	
5	3-692 9070	Outer Band for PPS-System (Steel) 1-1/8" (Double)	B•D
	3-692 9066	Outer Band for PPS-System (Steel) 1" (Double)	
6	3-692 9064	Outer Band for PPS-System (Steel) 3/4"	F•G
	3-692 9072	Outer Band for PPS-System (Steel) 5/8"	
	3-692 9074	Outer Band for PPS-System (Steel) 1/2"	
7	3-692 9034	Hose Band for PPS-System (White) 1-1/8" (Single)	B•D
	3-692 9033	Hose Band for PPS-System (Black) 1-1/8" (Single)	
	3-692 9022	Hose Band for PPS-System (Black) 1" (Single)	
8	3-692 9020	Hose Band for PPS-System (White) 1-1/8" (Double)	B•D
	3-692 9021	Hose Band for PPS-System (Black) 1-1/8" (Double)	
	3-692 9029	Hose Band for PPS-System (Black) 1" (Double)	
9	3-692 9028	Hose Band for PPS-System (White) 3/4"	F•G
	3-692 9027	Hose Band for PPS-System (Black) 3/4"	
	3-692 9032	Hose Band for PPS-System (White) 5/8"	
	3-692 9026	Hose Band for PPS-System (Black) 5/8"	
	3-692 9025	Hose Band for PPS-System (Black) 1/2"	
10	692 2901	Cable Crip for PPS-System (White)	
	692 2900	Cable Crip for PPS-System (Black)	
11	3-611 9005-2	Stopper Band 1-1/8"	F•G
	3-611 9006-2	Stopper Band 1"	
	3-611 9010-1	Stopper Band 3/4"	
	3-611 9011-1	Stopper Band 11/16"	
	3-643 9044-1	Stopper Band 5/8"	
	3-643 9045-1	Stopper Band 1/2"	
12	3-611 9001-1	Guide Roller 1-1/8"	E
13	3-611 9002-2	Guide Roller 1"	A

8405-524B

CABLES

SPARE CABLE SET FOR BRAKE





* 1) Inner cable diameter is φ1.6mm, except ③ and ④.
2) For smoother braking all the outer casings have "LINER" inside. Except: ③ and ④

	Outer x Inner
①	Front: 670mm x 800mm Rear: 1250mm x 1400mm
②	Front: 670mm x 800mm Rear: 1250mm x 1400mm
③	Front: 670mm x 800mm Rear: 1250mm x 1400mm
④	Front: 800mm x 900mm Rear: 1400mm x 1500mm
⑤	Front: 670mm x 800mm Rear: 1250mm x 1400mm
⑥	Front: 550mm x 650mm Rear: 1040mm x 1160mm

ITEM NO.	PART NO.	DESCRIPTION
①	860 60154	DURA-ACE AX
	860 70154	& 600-AX
	3-800 91203	<Silver>
②	802 51524	ADAMAS-AX
	802 71654	<Silver>
	3-800 90503	
③	860 00104	DURA-ACE EX
	860 10104	<Silver>
	3-800 91003	
④	840 21104	600-EX
	850 15804	<Silver>
	3-800 91103	
⑤	802 90252	"MTB"
	803 00252	DEORE-XT
	3-800 90602	<Black>
⑥	804 00150	NEW 600-EX,
	804 20150	105 & Z
	3-800 90801	<Clear Silver>
	850 20704	–do–
	850 41002	<Silver>
	3-800 90203	

ITEM NO.	PART NO.	DESCRIPTION
⑥	804 00152	NEW 600-EX,
	804 20152	105 & Z
	3-800 90802	<Clear Black>
	850 20702	–do–
	850 41002	<Black>
	3-800 90202	
⑦	802 10454	BMX
	802 30154	<Silver>
	3-800 90403	
	802 10452	–do–
	802 30152	<Black>
	3-800 90402	
	802 10479	–do–
	802 30179	<Blue>
	3-800 90408	
	802 10482	–do–
	802 30182	<Red>
	3-800 90406	
	802 10477	–do–
	802 30177	<Yellow>
	3-800 90407	

SPARE CABLE (UNIVERSAL TYPE)

■ UNIVERSAL OUTER CASING



Package: One/Bag

PART NO.	DESCRIPTION		USE
601 76249	Silver	25 Feet (7620mm) Outer Casing with "LINER"	B · D
601 76259	Black		
601 76239	Blue		
601 76229	Red		
601 76289	Yellow		
601 76209	Light Blue		
601 76279	Brown		
601 76299	Green		
604 76219	Clear Silver		
604 76259	Clear Black		
604 76239	Clear Blue		
604 76229	Clear Red		
604 76289	Clear Gold		

B: Brake / D: Derailleur

■ UNIVERSAL INNER CABLE

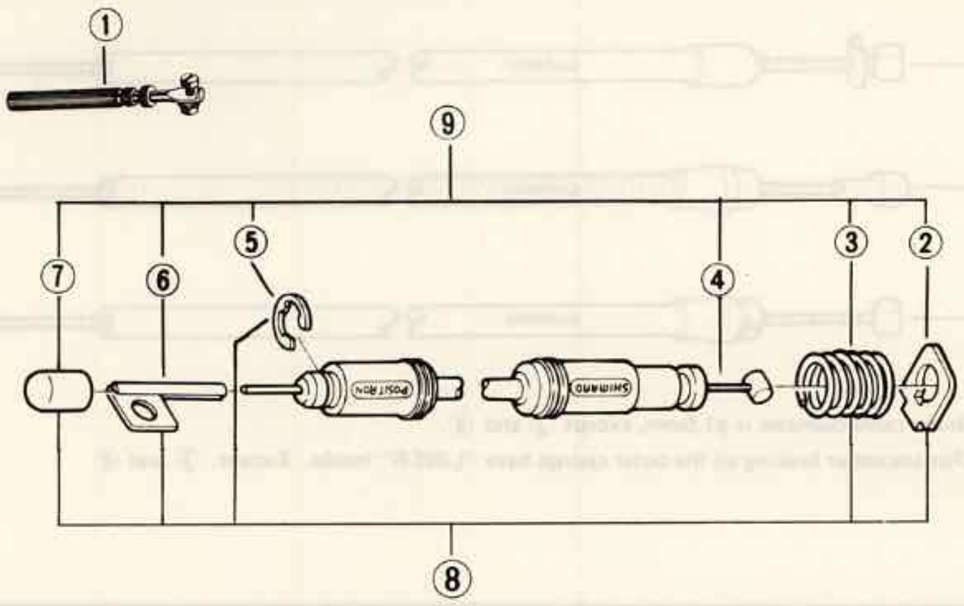


Package: Ten/Bag

PART NO.	DESCRIPTION			USE
600 13244	φ1.5mm	1320mm	Stainless, Double-Winding	D
600 16012	φ1.2mm	1600mm		
600 16011	φ1.2mm	1600mm		
600 18515	φ1.2mm	1850mm	"DU-C" Double Inner End	
800 16012	φ1.6mm	1600mm		B
800 16011	φ1.6mm	1600mm		
800 16519	φ1.6mm	1650mm	"BU-A" Double Inner End	

B: Brake / D: Derailleur

SPARE CABLES AND CABLE PARTS

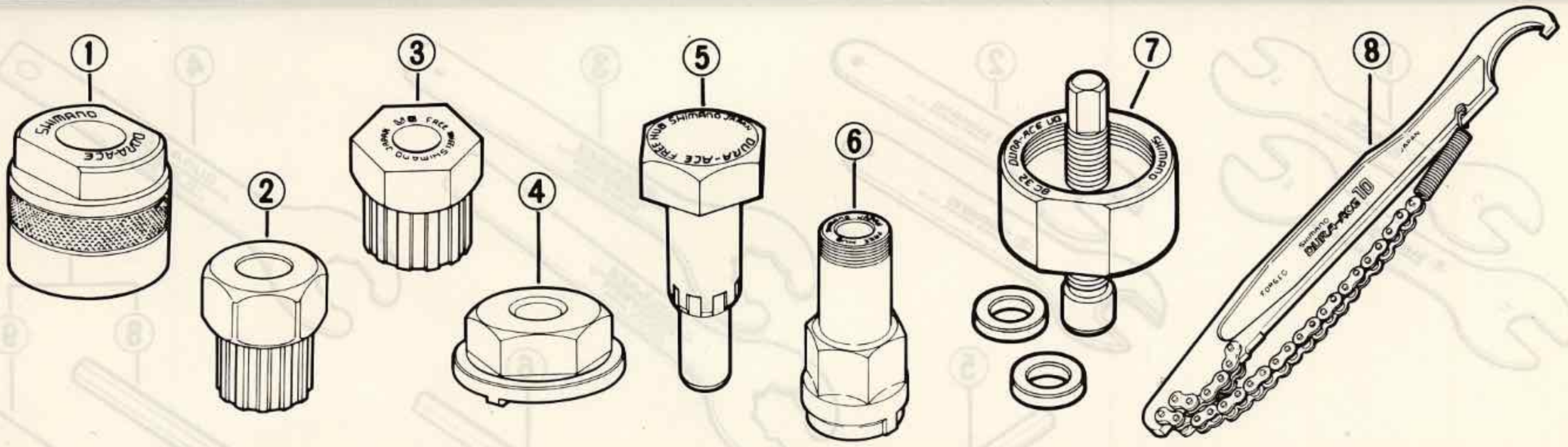


Item No.	Part No.	Description
1	643 9022	Universal Joint for 3 Speed Hub
2	692 0900-1	Casing Plate
3	692 1000	Casing Spring
4	608 1010-1	Positron (Solid) Inner 1620mm (63-3/4")
5	521 3001	Stop Ring
6	533 1200-1	Inner Sleeve
7	620 2030-1	Cap
8	3-692 9199-1	Cable parts
9	3-608 9909-7	Positron (Solid) Inner & Cable parts

POSITRON COMPLETE CABLE/CASING

Part No.	Description	
3-692 9137	800mm × 870mm (Black)	Positron Cable Assembly
3-692 9133	900mm × 970mm (Black)	
3-692 9101-1	950mm × 1020mm (Black)	
3-692 9102-1	1050mm × 1120mm (Black)	
3-692 9110	1100mm × 1170mm (Black)	
3-692 9143	1100mm × 1170mm (White)	
3-692 9131	1200mm × 1270mm (Black)	
3-692 9107	1350mm × 1420mm (Black)	
3-692 9103	1450mm × 1520mm (Black)	
3-692 9139	1450mm × 1520mm (White)	
3-692 9104	1550mm × 1620mm (Black)	
3-692 9134	1550mm × 1620mm (White)	
3-692 9144	1600mm × 1670mm (White)	
3-692 9140	1650mm × 1720mm (Black)	
3-692 9145	1650mm × 1720mm (White)	
3-692 9135	1700mm × 1770mm (Black)	
3-692 9105	1700mm × 1770mm (White)	
3-692 9136	1800mm × 1870mm (Black)	
3-692 9106	1800mm × 1870mm (White)	
3-692 9114	1900mm × 1970mm (White)	

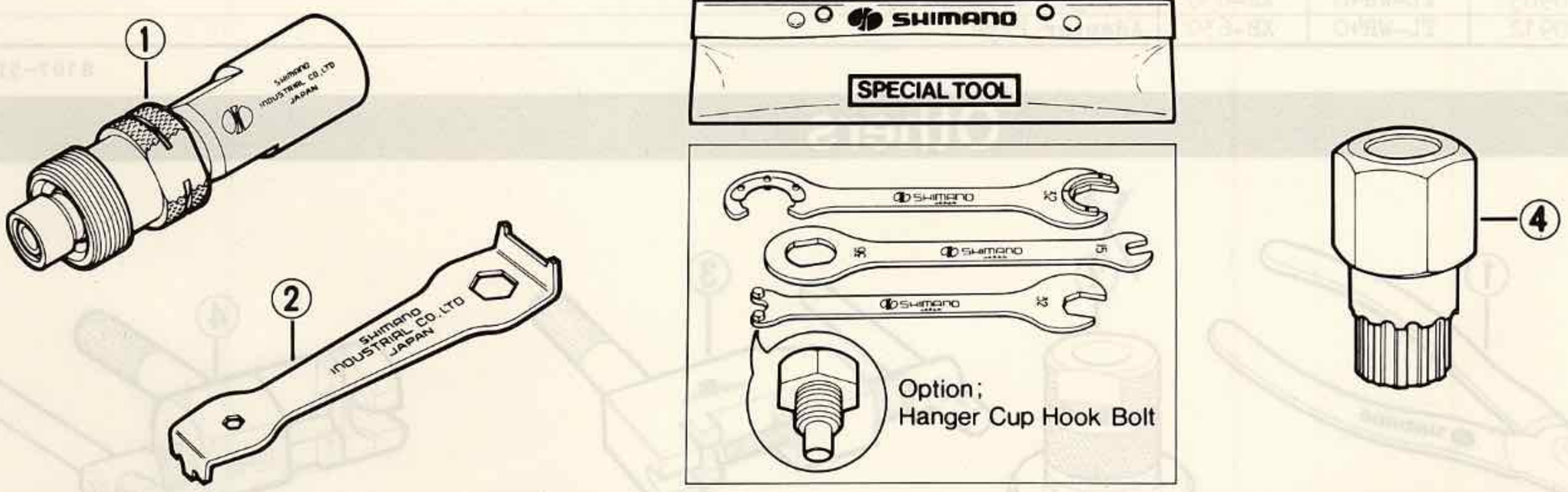
Freewheel Tool



ITEM NO.	PART NO.	NEW MODEL NO.	OLD MODEL NO.	DESCRIPTION
1	4-120 0903	TL-FW10	XA-100	Multiple Freewheel Removal Tool for DURA-ACE & SHIMANO 600
2	4-120 0901	TL-FW20	XB-200	Multiple Freewheel Removal Tool for 5BS & FF System Friction Freewheel (for Right & Left Cup of SELECTA Front Chainwheel)
3	4-120 0905	TL-FW30	XB-220	Multiple Freewheel Removal Tool for SD-Type
4	4-120 0904	TL-FW40	XB-600	Single Freewheel & Freehub-A Body Fixing Race Removal Tool
5	4-120 0907	TL-FH10	XA-200	Multiple Freehub Body Removal Tool for DURA-ACE EX Only
6	4-120 0914	TL-FH40	———	Multiple Freehub Body Fixing Race Removal Tool
7	3-120 9003	TL-FH30	———	Multiple Freehub Body Removal Tool
8	4-130 0912	TL-SR10	XA-180	Rear Sprocket Removal Tool for 10mm Pitch

8303-514C

Front Chainwheel Tool



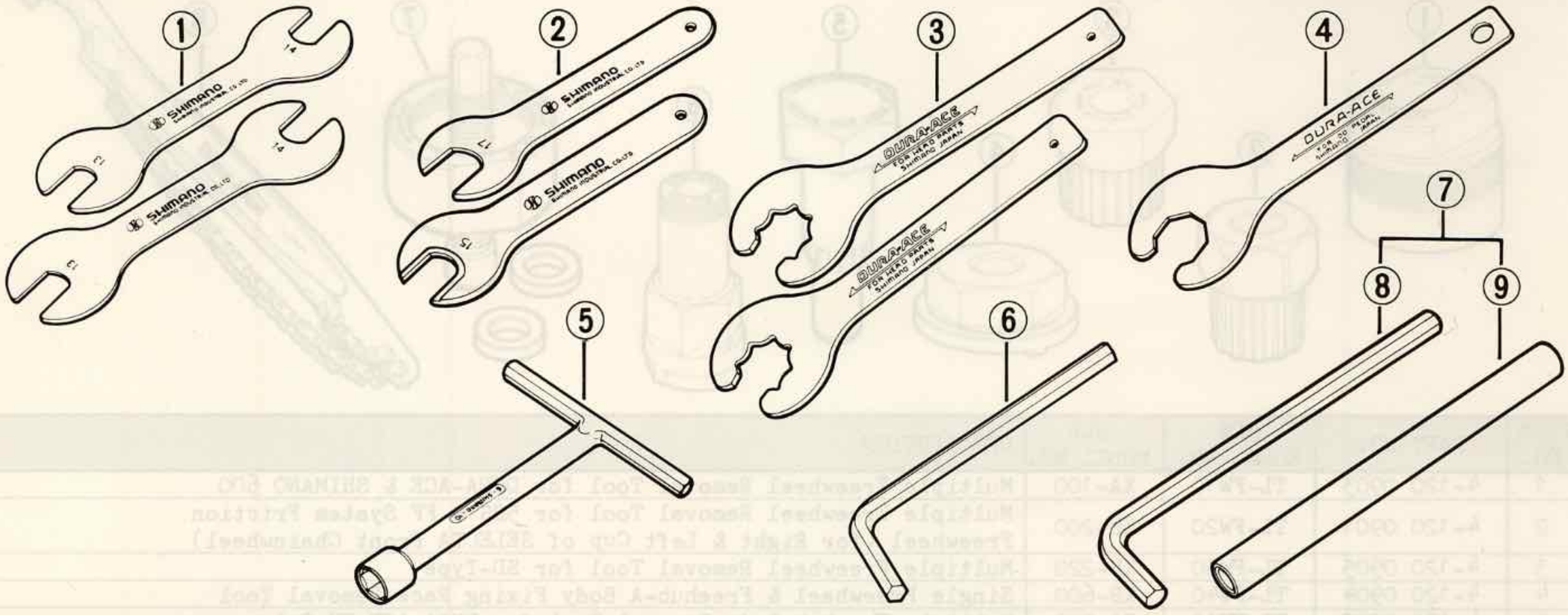
ITEM NO.	PART NO.	NEW MODEL NO.	OLD MODEL NO.	DESCRIPTION
1	4-130 0901	TL-FC10	XA-130	Cotterless Crank Extractor for Front Chainwheel
2	4-130 0913	TL-FC20	XB-620	Peg Spanner for Front Chainwheel,Freehub & Derailleur
3	3-130 9001	TL-FC30	XB-400	Three Spanners for front Chainwheel,Head Parts & Pedal
	4-130 0910			Hanger Cup Hook Bolt (Option)
4	4-120 0908	TL-FF20	XC-400	Ball Cup Removal Tool for SELECTA & FF System Front Chainwheel

8303-514C

TL

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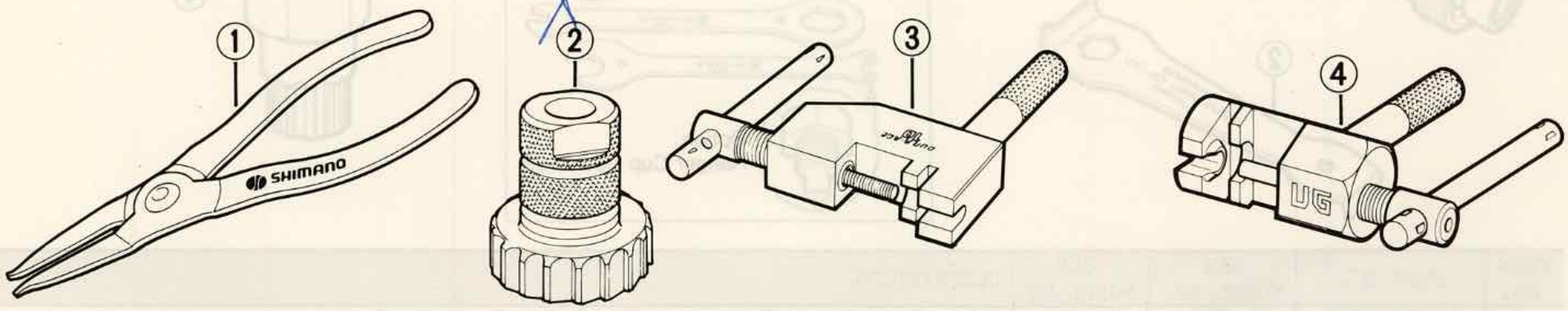
Spanners & Wrenches



ITEM NO.	PART NO.	NEW MODEL NO.	OLD MODEL NO.	DESCRIPTION
1	3-230 9001	TL-HS10	XA-110	Spanners for DURA-ACE Hub (13mmx14mm) 2pcs.
2	3-320 9001	TL-HS20	XB-300	Spanners for Three Speed Hub & Coaster Brake (15mm, 17mm) 2pcs.
3	3-720 9001	TL-HP10	XB-420	Head Parts Exclusive Tool for DURA-ACE AX,EX & SHIMANO 600AX,EX (2pcs.)
4	4-460 0901	TL-PD10	———	DD Pedal Spanner for DURA-ACE AX,EX & SHIMANO 600AX,EX (30mm)
5	4-520 0802	TL-WR10	XA-160	T-Type Wrench w/Hexagon Wrench Key (5mmx8mm)
	4-520 0801	TL-WR20	XA-170	T-Type Wrench w/Hexagon Wrench Key (6mmx10mm)
6	4-520 0904	TL-WR33	XB-110	Hexagon Wrench Key (3mm)
	4-520 0902	TL-WR35	XA-150	Hexagon Wrench Key (5mm)
	4-520 0901	TL-WR36	XB-100	Hexagon Wrench Key (6mm)
	4-520 0905	TL-WR37	———	Hexagon Wrench Key (10mm)
7	3-520 9801	TL-WR40	XB-630	Hexagon Wrench Key (6mmx130mm) w/Adapter Pipe
8	4-520 0903	TL-WR40	XB-630	Hexagon Wrench Key (6mmx130mm)
9	4-520 0912	TL-WR40	XB-630	Adapter Pipe

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Others



ITEM NO.	PART NO.	NEW MODEL NO.	OLD MODEL NO.	DESCRIPTION
1	4-320 0901	TL-3S10	XB-310	Snap Ring Removal Plier for Three Speed Hub & Coaster Brake
2	4-320 0903	TL-3S20	XB-320	Ball Cup Removal Tool for Three Speed Hub
3	3-130 9005	TL-CN10	———	Chain Cutter for DURA-ACE 10mm Pitch
4	3-130 9002	TL-CN20	XC-100	Chain Cutter for Both UG Chain & Ordinary Chain (1/2" Pitch)

8307-515B

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