English (GB)

'92
SHIMANO BICYCLE SYSTEM COMPONENT

DEALERS' PRODUCT MANUAL

SHIMANO

NEW PRODUCTS FOR 1992

New Component Groups...



Shimano XTR

The last word in a competitive mountain bike component group—super-light, strong, and compact, the new Shimano XTR component series offers Dura-Ace level performance for the racing mountain bike. Compact design realizes a more integrated bicycle look with the 8-speed HG freehub. Shimano XTR gives the off-road racer or mountain bike enthusiast the ultimate in state of the art off-road performance.



600 ULTEGRA WITH SHIMANO TOTAL INTEGRATION

Positioned between the Dura-Ace and Shimano 105, 600 Ultegra is a high quality component group aimed at the discriminating amateur racer. New for 1992, 600 Ultegra features the Shimano Total Integration Dual-Control Lever. Just like the latest Dura-Ace group, 600 Ultegra now lets you shift gears and brake from the same lever without removing hands from the bars. Also new is an 8-speed HG freehub.



Shimano 70GS

The all terrain bike is becoming increasingly popular around the world. Featuring easy operation and the latest Shimano functions, the 70GS series of all terrain bike components provides Shimano Total Integration performance at our most affordable price. Including a ratchet-action Rapidfire shifting system, the 70GS components spell real value and performance for the entry level ATB rider.

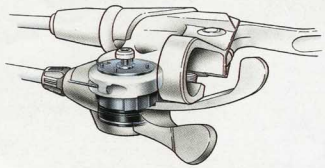


200CX/500CX COMPONENTS

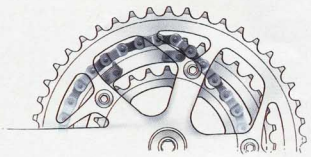
Hybrid bikes use wide section 700C tires, triple chainwheels, and flat bars. The result is the upright riding position and gear selection of a mountain bike with handling and response that's more like a lightweight road bike. The new 200CX and 500CX components were specifically designed for these hybrid bicycles.

New Functions...

RAPIDFIRE PLUS
Rapidfire Plus greatly reduces fatigue of the thumb during repeated shifting by allowing the rider to use the thumb for the main lever only, and use the index finger to operate the release lever. While the Rapidfire ratchet mechanism remains the same, the high-performance 2-finger brake lever features reduced weight and a new metal bushing for a smoother and more precise action.



SHIMANO HYPERDRIVE
Shimano Hyperdrive is just like an SIS system for the front derailleur. By using special pick up teeth on the middle chainring Hyperdrive makes the once difficult shift from the small to the middle chainring as light and easy as HG. The newly profiled front derailleur makes the middle to large chainring shifts fast and precise. A new sealed cartridge bottom bracket makes assembly easy, and there's no need to adjust bearings. The bottom bracket axle has been shortened to realize a more flat and rigid chainwheel. Crank arms fit into the bearing cups for a better seal.



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Shimano XTR signals a new level of refinement and performance for the competition off-road component group.

The "R" stands for "race." In the world of off-road bicycle racing, the difference between victory and defeat is often measured in fractions of a second. Shimano XTR was designed to give competitive off-road riders every possible advantage in their quest for victory. From the new 8-speed freehub to highly modulated SLR Plus braking, Shimano XTR was specifically developed to improve performance, reduce weight, and provide a higher level of durability and function than ever before. If you're not satisfied with second best, you need Shimano XTR.

●Rapidfire Plus Lever Set (ST-M900-8)

New Rapidfire Plus lever set allows both the thumb and index finger to be used to shift gears. Featuring 8-speed capability, four gears can be shifted in one stroke.



The brake lever utilizes servo-wave design for more sensitive and powerful braking.

●*Shimano HyperDrive*

SIS type chainwheel shifting has been realized through a special pickup front derailleur which insures that the chain takes the shortest path from the smaller to the larger chainwheel. Cartridge-type bottom bracket simplifies adjustment, reduces maintenanace and extends service life.



●Light Weight Design

All excess material has been carefully removed from the components in order to lighten weight without reducing strength. Hollow construction has also been used to reduce weight to meet design targets.



SIS

8-Speed SIS

New 8-speed SIS for the MTB now gives a wider gear selection with the simple push button shifting action of Rapidfire.
New Rapidfire Plus feature utilizes a thumb operated main lever and a index finger operated release lever to help reduce shifting fatigue.

SLR PLUS

SLR Plus

The servo-wave mechanism in the SLR brake lever provides maximum brake pad movement with minimal lever travel after which the power multiplication factor increases to provide strong, sure, controllable stops.

Shimano HyperDrive

Shimano HyperDrive

Shimano Hyper-Drive, a new crank, chainwheel, and front derailleur shifting system that finally takes the guesswork out of chainwheel shifting. Triple chainwheel shifts are especially fast, smooth, and error free.
A cartridge bottom bracket increases durability.

HG

8-Speed HG Sprockets

Shimano XTR's new 8-speed gear cassette features HG sprockets. HG sprockets realize fast and smooth shifts, regardless of pedal torque or cadence, and have become known as the state-of-the-art shifting system for the off-road bike. New spider-type boss reduces freewheel weight.

THE SHIMANO FREEHUB

8-Speed Freehub

Rear hub and freewheel are combined to form a stronger unit in the famous Shimano freehub design, now featuring an 8-sprocket cassette for the wider gear selection needed in competition.

SHIMANO XTR

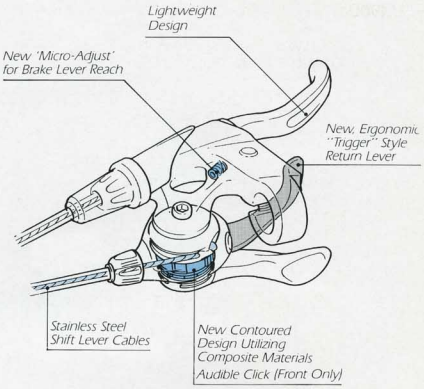
SHIMANO TOTAL INTEGRATION



Rapidfire Plus

ST-M900-8 (Servo-Wave, 2-Finger)

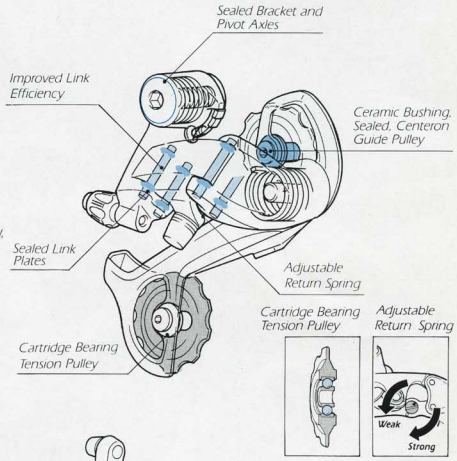
Weight	411g. (Pair)
Compatibility	Shimano Total Integration Compatible, SHD (Shimano Hyper Drive) Compatible, SLR (Shimano Linear Response) PLUS Compatible, 8-speed SIS Compatible
Features	Lightweight Design, New, Ergonomic "Trigger" Style Return Lever (RAPIDFIRE-PLUS), Handlebar Grip Thickness Limited to 5mm. or Less (RAPIDFIRE-PLUS), New Contoured Design Utilizing Composite Materials, Stainless Steel Shift Lever Cables, Audible Click (for Front Shifting Only), New 'Micro-Adjust' for Brake Lever Reach
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminum•Titanium Paint Finish (Bracket), Forged Aluminum•Anodized Finish (Lever)
Note	Use with SLR outer casing with liner (Brake Lever) and SIS-SP sealed outer casing with liner (Shifting Lever).



Rear Derailleur

RD-M900 (Middle Cage)

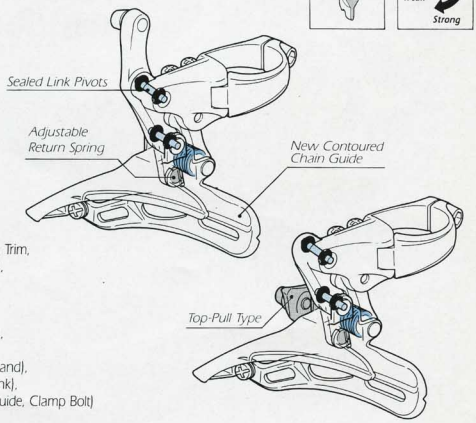
Weight	230g.
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible
Features	Lightweight Design, Sealed Link Plates, Cartridge Bearing Tension Pulley, Improved Link Efficiency, Ceramic Bushing, Sealed, Centeron Guide Pulley, Sealed Bracket and Pivot Axles, Double Spoke Barrier, Adjustable Return Spring, Chain Retainer
Capacity	Maximum Rear Sprocket: 32T. Minimum Rear Sprocket: 12T. Front Difference: 22T. Total Capacity: 33T.
Material & Finish	Aluminum•Anodized Finish



Front Derailleur

FD-M900 (Band Type)
FD-M901 (Top-Pull Type)

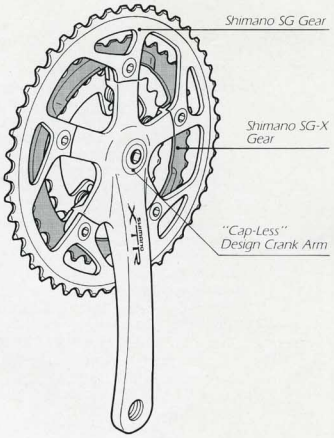
Weight	118g. (Band Type)
Compatibility	Shimano Total Integration Compatible, SHD (Shimano Hyper Drive) Compatible, Shimano SG Gear Compatible, Narrow Type Chain Compatible
Features	Trailing Action Pantagraph Mechanism , Adjustable Return Spring, Sealed Mechanism (Rubber Seals Utilized), New Contoured Chain Guide, (Eliminates the Need for Middle Chain Ring Trim, Easier to Assemble onto Frame and Adjust), New Trapease Mechanism, Sealed Link Pivots
Capacity	24T. (Biopace HP), 26T. (Round)
Clamp Diameter	Ø28.6mm., 31.8mm., 34.9mm. (Band Type), Ø31.8mm. (EC Type)
Material & Finish	Aluminum•Anodized Finish (Front & Rear Band), Aluminum•Anodized Finish (Right & Left Link), Heat-Treated Steel•Chrome-Plated (Chain Guide, Clamp Bolt)



Front Chainwheel

FC-M900 (SHD Triple, MD Type)

Weight	680g. (46T., 36T., 26T., 175mm.)
Compatibility	Shimano Total Integration Compatible, SHD (Shimano Hyper Drive) Compatible, Narrow Type Chain Compatible
Features	Shimano SG-X Gear (Middle), Shimano SG Gear (Top, Low), Super Low Profile Design, "Cap-Less" Design Crank Arm
Chain Size	1/2" × 3/32"
Teeth Combination	48T. × 36T. × 26T., 46T. × 36T. × 26T. (Round SG)
Crank Length	165mm., 170mm., 175mm., 180mm.
Crank Thread	English BC 1.37 × 24T.P.I., Italian M36 × 24T.P.I.
B.B.	BB-UN90 Only
Material & Finish	Cold Forged Aluminum•Titanium Color Anodized Finish (Crank), Aluminum•Anodized Finish (Chainring)



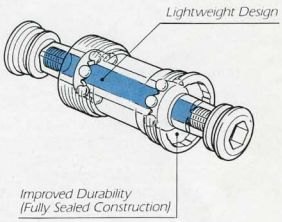
Sealed Cartridge Bottom Bracket

BB-UN90

Weight	255g.
Compatibility	SHD (Shimano Hyper Drive) Compatible
Features	"Easy Assembly" Construction, Improved Durability (Fully Sealed Construction), Maintenance Free Construction, Lightweight Design

Specifications

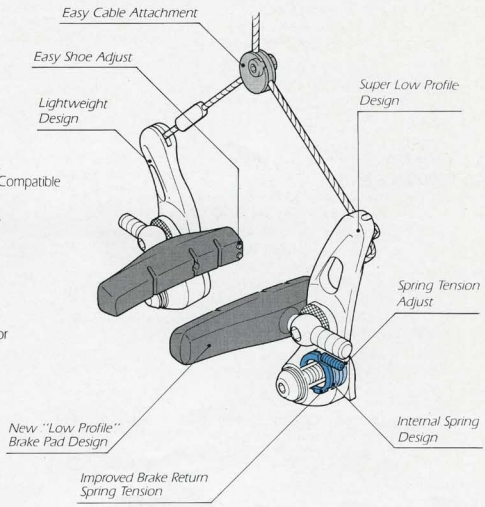
Chain Line	47.5mm.			50mm.	
Spindle Length	107mm.			113mm.	
Shell Width	68 (BC)	70 (M36)	73 (BC)	68 (BC)	70 (M36)
Spindle Marking	MM107			LL113	



Cantilever Brake

BR-M900-F/R

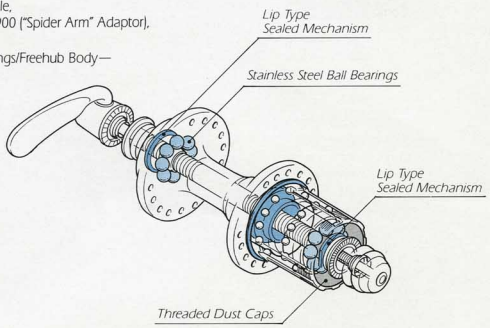
Weight	340g. (Pair)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) PLUS Compatible
Features	Lightweight Design, New "Low Profile" Brake Pad Design, Improved Brake Return Spring Tension, Super Low Profile Design, Easy Cable Attachment, Spring Tension Adjust, Easy Shoe Adjust, Internal Spring Design
Material & Finish	Cold Forged Aluminum•Titanium Color Anodized Finish
Note	BR-M900 must be used as a set with ST-M900 and the Shimano SLR outer cable.



Freehub

FH-M900 (8-speed)

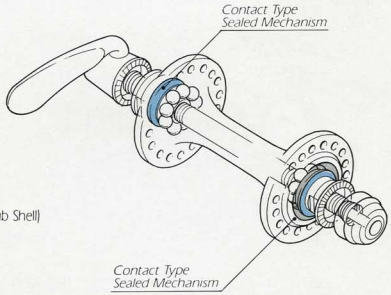
Weight	454g. (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible with CS-M900 ("Spider Arm" Adaptor), HG Gear Compatible
Features	Improved Seals (Left and Right Bearings/Freehub Body— Hub Shell Connection), Stainless Steel Ball Bearings, Lightweight Design, 6.55mm. Wheel Dish, Threaded Dust Caps
Over Lock Nut Dimensions	135mm.
Axle Length	146mm.
Axle Thread	10mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	45
Material & Finish	Aluminum•Titanium Color Anodized Finish (Hub Shell)



Front Hub

HB-M900-F

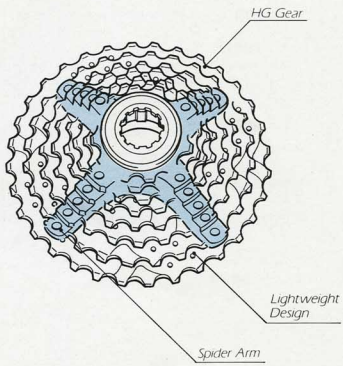
Weight	214g. (with Quick Release)
Features	Lightweight Design, Contact Type Sealed Mechanism, Stainless Steel Ball Bearings, Precision Machined and Polished Bearing Surfaces, Lightweight Quick Release Lever
Over Lock Nut Dimensions	100mm.
Axle Length	108mm.
Axle Thread	9mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	38
Material & Finish	Aluminum•Buff Anodized Finish (Hub Shell)



Cassette Sprockets

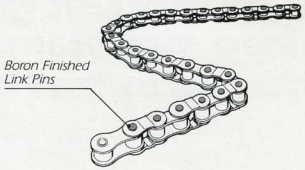
CS-M900-8 (8-speed)

Weight	332g. (Sprocket **P** Group & Spacer)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible
Features	8-speed HG, Lightweight 'Spider Arm' Design, Improved Gear Pitch Consistency
Chain Size	For 1/2" x 3/32" Chain (Narrow Type Chain)
Sprocket Combinations	**P** 12, 14, 16, 18, 21, 24, 28, 32T. **Q** 12, 13, 14, 16, 18, 21, 24, 28T.



HG Chain
CN-7401

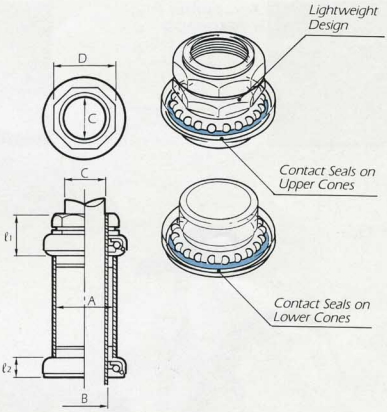
Weight	325g. (114 Link)
Compatibility	Shimano Total Integration Compatible
Features	Narrow Type HG Chain, Boron Finished Link Pins
Size	1/2" x 3/32"
Material & Finish	Nickel Finish (Roller Link Plate, Pin Link Plate)



Head Parts
HP-M900
HP-M901
HP-M902

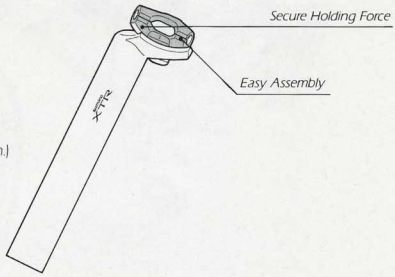
Weight	119g. (HP-M900)
Type	Off-Road Type
Features	Lightweight Design, Contact Seals on Both Upper and Lower Cones
Material & Finish	Aluminum (Locknut, Both Upper and Lower Cap)
Variation & Dimensions	

Type	HP-M900		HP-M901	HP-M902
Thread	BC 1" x 24T.	M25 x P1.0	BC 1-1/8" x 26T.	BC 1-1/4" x 26T.
A	30.2mm.	30.2mm.	34.0mm.	37.0mm.
B	26.4mm.	26.4mm.	30.0mm.	33.0mm.
C	22.1mm.		25.5mm.	28.7mm.
D	32.0mm.		36.0mm.	40.0mm.
ℓ1	22.8mm.		22.8mm.	27.3mm.
ℓ2	11.5mm.		11.5mm.	13.0mm.



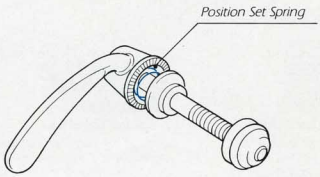
Seat Post
SP-M900

Weight	270g.
Features	High Strength Structure, Lightweight Design, Easy Assembly, Secure Holding Force
Outside Diameter	26.6mm., 26.8mm., 27.0mm., 27.2mm.
Length	280mm., 330mm., 360mm. (Only available in 27.2mm.)
Material	Cr-Mo Tubing



Seat Post Quick Release
SQ-M900

Weight	66g.
Features	Lightweight Design, Easy Operation, Position Set Spring
Shaft Adjustment Length	36—43mm., 26—33mm.
Shaft Diameter	Ø6mm., Ø8mm.
Material	Steel•Chrome Plated



The component group that originally defined mountain bike performance continues to lead the pack.

For years, Shimano XT has been the bench mark off-road component group. For 1992, Shimano XT offers refinements that secure its position as one of the best off-road component groups available that's number one in performance and quality. Rugged construction stands up to the worst off-road abuse, sealed mechanisms keep out water and mud, and rigid design increases power transfer efficiency. Refined control functions help realize the full performance potential of every rider. The overall result is a greater competitive edge for the Shimano XT rider.



●Rapidfire Plus (ST-M095)

Similar to the XTR lever set, the Deore XT Rapidfire Plus lever set allows shifting with both the thumb and first finger in a 7-speed SIS system. Multiple shifts of up to four gears can be executed with one lever stroke.



●Front Derailleur (FD-M736)

The Deore XT front derailleur is a new "top pull" type similar to the XTR derailleur. The top-pull design, for top tube cable routing, helps reduce the adverse affect of mud and dirt on derailleur operation.



7-Speed SIS

Shimano XT's 7-speed SIS gives a wide gear selection with the simple push button shifting action of Rapidfire. New Rapidfire Plus feature allows use of thumb and index finger to shift in order to help reduce shifting fatigue.

SLR Plus

The servo-wave mechanism in the SLR brake lever provides maximum brake pad movement with minimal lever travel after which the power multiplication factor increases to provide strong, sure, controllable stops.

Shimano SG

Shimano SG chainwheel features strategically positioned contours and cutouts that guide the chain smoothly and quickly from gear to gear.

7-Speed HG Sprockets

Shimano XT's 7-speed gear cassette features HG (Hyperglide), which realize fast and smooth shifts regardless of pedal torque or cadence. SIS with HG is now known as the state-of-the-art shifting system for the off-road bike.

7-Speed Freehub

Shimano XT combines the rear hub and freewheel into a stronger unit as a result of the famous Shimano freehub design. The freehub increases wheel strength, durability, and improves power transfer efficiency.

Biopace

The computer designed shape of Biopace creates a pedaling cadence that approximates the natural movement of the leg when walking. The result is less fatigue, more stamina, and a more natural pedaling feeling.

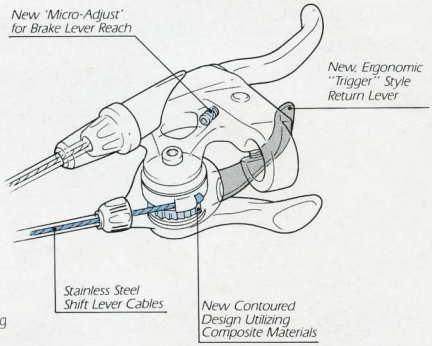
SHIMANO DEORE XT

SHIMANO TOTAL INTEGRATION



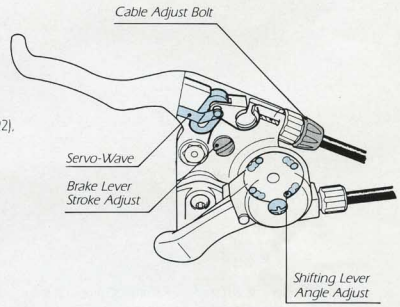
Rapidfire Plus
ST-M095 (Servo-Wave, 2-Finger)

Weight	411g. (Pair)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) PLUS Compatible, 7-speed SIS Compatible
Features	Lightweight Design, New, Ergonomic "Trigger" Style Return Lever (RAPIDFIRE-PLUS), Handlebar Grip Thickness Limited to 5mm. or Less (RAPIDFIRE-PLUS) New Contoured Design Utilizing Composite Materials, Stainless Steel Shift Lever Cables, New 'Micro-Adjust' for Brake Lever Reach
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminum•Black Anodized Finish (Bracket), Forged Light Alloy•Black Paint Finish (Lever)
Note	For SLR & SIS function, use for SLR outer casing with liner (Brake Lever) and SIS-SP sealed outer casing with liner (Shifting Lever).



Rapidfire
ST-M092 (Servo-Wave, 2-Finger)
ST-M090 (4-Finger)

Weight	550g. (ST-M092)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) PLUS Compatible (ST-M092), 7-speed SIS Compatible
Features	Dual Repeat Function, Brake Lever Stroke Adjust, Shifting Lever Angle Adjust, Light Action Lever
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminum•Anodized Finish (Bracket & Lever)
Note	For SLR & SIS function, use for SLR outer casing with liner (Brake Lever) and SIS-SP sealed outer casing with liner (Shifting Lever).



Shifting Lever
SL-M732

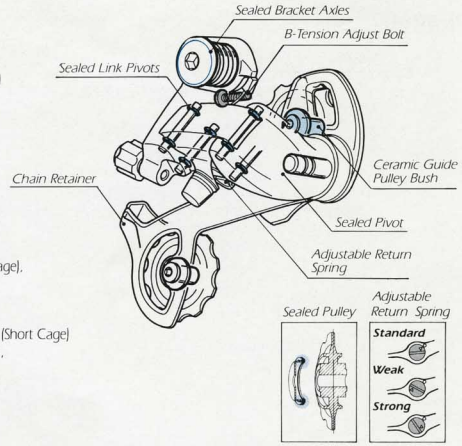
Weight	182g.
Features	7-speed SIS, SIS-Friction Mode Switch, Light Action Lever, Low Profile Design, 3-Step Lever Adjust, Digital Cable Adjust
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminum•Anodized Finish (Bracket), Aluminum•Buff Finish (Lever)
Attachment Position	Handlebar



Rear Derailleur

RD-M735-SGS (Super Long Cage)
RD-M735-SS (Short Cage)

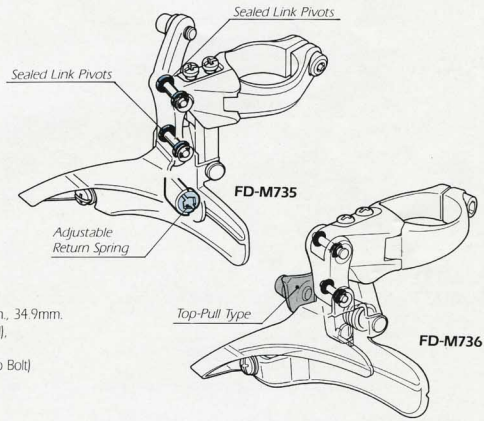
Weight	270g. (Super Long Cage), 250g. (Short Cage)
Compatibility	Shimano Total Integration Compatible, 6, 7-speed SIS Compatible
Features	Adjustable Return Spring, Sealed Link Pivots, Sealed Pulley, Sealed Pivot & Bracket Axles (O-Rings), Double Servo-Panta Mechanism, B-Tension Adjust Bolt, Double Spoke Barrier, Chain Retainer (Super Long Cage)
Capacity	Maximum Rear Sprocket: 32T. (Super Long Cage), 28T. (Short Cage) Minimum Rear Sprocket: 12T. Front Difference: 20T. (Super Long Cage) Total Capacity: 38T. (Super Long Cage), 28T. (Short Cage)
Material & Finish	Aluminum•Buff Finish (Bracket & Pulley Body), Aluminum•Anodized Finish (Right Link), Aluminum•Barrel Finish (Left Link)



Front Derailleur

FD-M735 (Normal Band Type)
FD-M736 (Top-Pull Type)

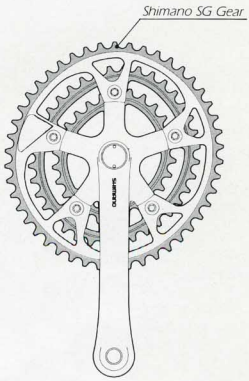
Weight	116g. (Normal Band Type)
Compatibility	Shimano Total Integration Compatible, Shimano SG Gear Compatible Narrow Type Chain Compatible
Features	Trailing Action Pantagraph Mechanism, Adjustable Return Spring, Rigid Chain Guide, New Trapease Mechanism, Sealed Link Pivots
Capacity	24T. (Biopace HP), 26T. (Round)
Clamp Diameter	∅28.0mm.—28.6mm., 30.0mm., 31.8mm., 34.9mm.
Material & Finish	Aluminum•Buff Finish (Front & Rear Band), Aluminum•Anodized Finish (Right Link), Steel•Chrome-Plated (Chain Guide, Clamp Bolt)



Front Chainwheel & Bottom Bracket Assembly

FC-M730-SG (Shimano SG Triple, MD Type)
BB-UN70 (B.B. Set)

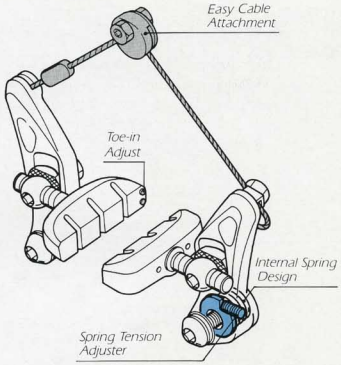
Weight	730g. (46T., 36T., 26T., 170mm.)
Compatibility	Shimano Total Integration Compatible, Narrow Type Chain Compatible
Features	Shimano SG Gear
Chain Size	1/2" x 3/32"
Teeth Combination	48T. x 38T. x 28T., 46T. x 36T. x 26T. (Biopace SG), 48T. x 38T. x 28T., 46T. x 36T. x 24T. (Round SG)
Crank Length	165mm., 170mm., 175mm., 180mm.
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminium•Anodized Finish (Crank, Chainring) Aluminium•Black Finish Available (Chainring)



Cantilever Brake

BR-M734

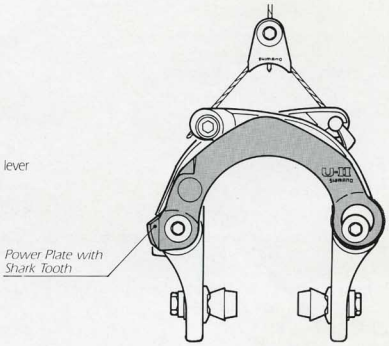
Weight	172g. (Pair)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) PLUS Compatible
Features	Super Low Profile Design, Easy Cable Attachment, Spring Tension Adjuster Easy Shoe Adjust, Internal Spring Design
Material & Finish	Aluminum•Buff Finish (Black Finish Available)
Note	BR-M734 must be used as a set with ST-M092 and the Shimano SLR outer cable. No other combination can be used.



U-II Brake

BR-M733

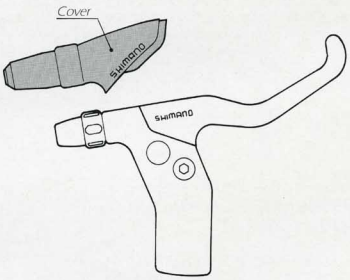
Weight	375g. (1 Unit)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
Feature	Power Plate with Shark Tooth
Material & Finish	Forged Aluminum•Anodized Finish
Note	For SLR system use with SLR compatible brake lever and Shimano SLR outer cable with liner.



Brake Lever

BL-M732 (4-Finger)
BL-M733 (2-Finger)

Weight	284g. (Pair, 2-Finger)
Compatibility	SLR (Shimano Linear Response) Compatible
Features	Return Spring, Digital Lever-Reach Adjustment (4-Positions)
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminum•Anodized Finish (Bracket & Lever)
Note	For SLR system use with SLR compatible brake and Shimano SLR outer cable with liner.



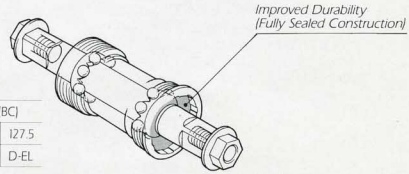
Sealed Cartridge Bottom Bracket

BB-UN70

Weight	287g. (122.5mm.)
Features	"Easy Assembly" Construction, Improved Durability (Fully Sealed Construction), Maintenance Free Construction, Lightweight Design

Specifications

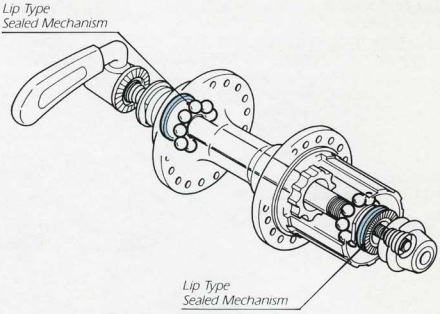
Shell Width	68 (BC)		70 (M36)		73 (BC)	
Spindle Length	122.5	127.5	122.5	127.5	122.5	127.5
Spindle Marking	D-NL	D-EL	D-NL	D-EL	D-NL	D-EL



Freehub

FH-M732 (7-speed)

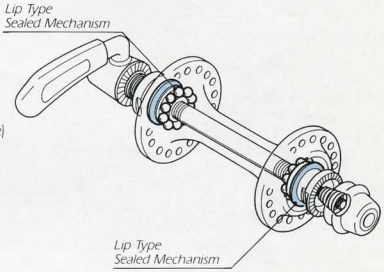
Weight	490g. (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 7-speed SIS Compatible
Features	Lip Type Sealed Mechanism, HG/UG Convertible Type, Uni-Balance System,
Over Lock Nut Dimensions	135mm., 130mm. (Quick Release Type), 135mm., 130mm. (Nut Type)
Axle Length	146mm., 141mm. (Quick Release Type), 185mm., 180mm. (Nut Type)
Axle Thread	10mm.
Spoke Holes	32H., 36H.
Hole PCD	45
Material & Finish	Aluminum•Buff Finish (Hub Shell)



Front Hub

HB-M730-F

Weight	213g. (with Quick Release)
Feature	Lip Type Sealed Mechanism
Over Lock Nut Dimensions	100mm.
Axle Length	108mm. (Quick Release Type), 142mm. (Nut Type)
Axle Thread	9mm.
Spoke Holes	32H., 36H.
Hole PCD	38
Material & Finish	Aluminum•Buff Finish (Hub Shell)

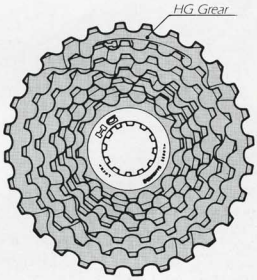


Cassette Sprockets

CS-HG90-7 (7-speed)

Weight	325g. (Sprocket **I** Group & Spacer)
Compatibility	Shimano Total Integration Compatible, 7-speed SIS Compatible
Feature	7-speed HG
Chain Size	1/2" x 3/32" (Narrow Type Chain)
Material & Finish	Steel•Chrome Plated
Sprocket Combinations	

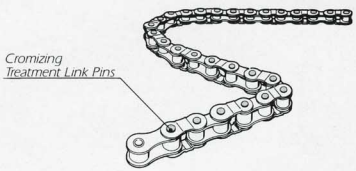
E	12, 14, 16, 18, 21, 24, 28T.
F	14, 16, 18, 21, 24, 28, 32T.
G	13, 15, 17, 20, 23, 26, 30T.
H	13, 15, 17, 19, 21, 23, 26T.
I	13, 14, 15, 17, 19, 21, 23T.
J	13, 14, 15, 16, 17, 19, 21T.
K	13, 15, 17, 20, 24, 29, 34T.
L	12, 13, 14, 15, 17, 19, 21T.
M	13, 15, 17, 19, 21, 24, 28T.



HG Chain

CN-HG90

Compatibility	Shimano Total Integration Compatible
Feature	Narrow Type HG Chain
Size	1/2" x 3/32"
Material & Finish	Black Finish (Roller Link Plate), Silver Finish (Pin Link Plate)



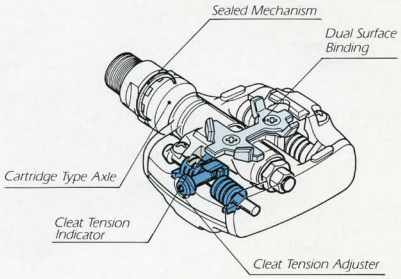
HG Chain

CN-HG91

Compatibility	Shimano Total Integration Compatible
Feature	Narrow Type HG Chain
Size	1/2" x 3/32"
Material & Finish	Silver Finish (Roller & Pin Link Plate)

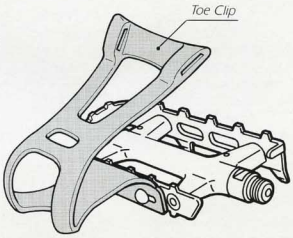
SPD Pedal
PD-M737

Weight	450g. (Pair)
Features	SPD (Shimano Pedaling Dynamics) Cleats System Cartridge Type Axle, Cleat Tension Indicator, Dual Surface Binding, Cleat Tension Adjuster, 31° Road Clearance, Sealed Mechanism
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminum•Black Finish (Body), Cr-Mo Steel (Axle)



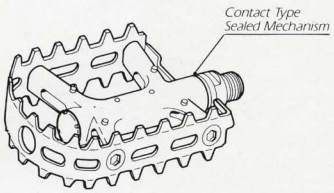
Pedal
PD-M735

Weight	295g. (Pair)
Features	32° Road Clearance, Super Low Profile Design, Parallelogram Shape, Contact Type Sealed Mechanism, Stainless Steel Grip Pin, Toe Clip/Reflector Attachable
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminium (Body), Aluminium•Anodized Finish (Plate), Resin (Toe Clip)



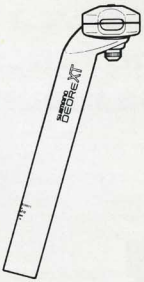
Pedal
PD-M730

Weight	412g. (Pair)
Features	26° Road Clearance, Low Profile Design, Parallelogram Shape, Contact Type Sealed Mechanism, Stainless Steel Grip Pin, Toe Clip/Reflector Attachable
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminium (Body), Aluminium•Anodized Finish (Plate)



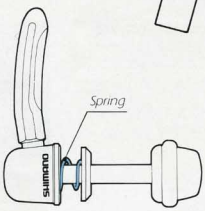
Seat Post
SP-M730

Weight	296g. (330mm.)
Features	High Strength Structure. Light Weight. Long Size
Outside Diameter	26.6mm., 26.8mm., 27.0mm., 27.2mm.
Length	280mm., 330mm.
Material	Cr-Mo Steel



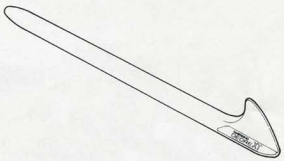
Seat Post Quick Release
SQ-M730

Weight	75g.
Features	Easy Operation. Position Set Spring
Shaft Adjustment Length	36—43mm., 26—33mm.
Shaft Diameter	Ø6mm., Ø8mm.
Material	Steel•Chrome-Plated Finish



Chain Deflector
DF-M730

Weight	9g.
Features	Keeps the Chain from jamming between the Tire & Chainstay
Material	Resin

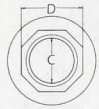


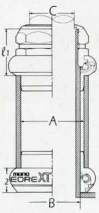
Head Parts
HP-M735
HP-M736
HP-M737

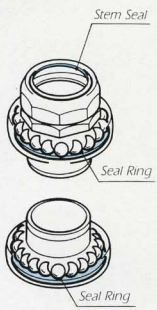
Weight	110g. (HP-M735), 149g. (HP-M736), 155g. (HP-M737)
Type	Off-Road Type
Feature	Sealed Mechanism
Material & Finish	Aluminum•Anodized Finish (Nut), Steel (Upper Cup), Stainless Steel •Black Finish (Lower Cup)

Variation & Dimensions

Type	HP-M735		HP-M736	HP-M737
Thread	BC1" × 24T.	M25 × P1.0	BC1-1/8" × 26T.	BC1-1/4" × 26T.
A	30.2mm.	30.2mm.	34.0mm.	37.0mm.
B	26.4mm.	26.4mm.	30.0mm.	33.0mm.
C	22.1mm.		25.5mm.	28.7mm.
D	32.0mm.		36.0mm.	40.0mm.
ℓ_1	22.0mm.		22.0mm.	27.3mm.
ℓ_2	11.5mm.		11.5mm.	13.0mm.







Quality plus a full range of advanced Shimano functions for the general-purpose mountain bike.

Everyone from casual off-road enthusiasts to aspiring racers will appreciate the rugged quality and performance of Shimano DX components. Shimano DX offers most of the functions of Shimano XT but in a more affordable package. And Shimano DX's unified black color treatment makes any mountain bike look as good as it goes.



●Seat Post (SP-M650)
A new seat pillar has been added to the popular Deore DX series to offer a more complete component system. The seat pillar features a natural silver finish.



●Front Derailleur (FD-M651)
New "top-pull" front derailleur design resists buildup of mud and dirt for a more reliable performance off the road.



SIS

7-Speed SIS
Shimano DX's 7-speed SIS gives you a wide gear selection. A simple push of the under-bar Rapidfire lever gets the gear you need without the need to change your grip on the bars.

SLR

SLR (Shimano Linear Response)
Shimano Linear Response technology reduces friction throughout the brake system to provide strong stops and a feeling of sensitive response at the lever. The result is upgraded braking control and a greater feeling of confidence.

SHIMANO SG

Shimano SG
The Shimano SG chainwheel features strategically positioned contours and cutouts that guide the chain smoothly and quickly from gear to gear.

HG

7-Speed HG Sprockets
Shimano DX's 7-speed gear cassette features HG sprockets. The special tooth contours of HG sprockets realize fast and smooth shifts regardless of pedal torque or cadence. It's the state-of-the-art shifting system for the off-road bike.

THE SHIMANO FREEHUB

7-Speed Freehub
Shimano DX combines the rear hub and freewheel into a single unit—the famous Shimano freehub. The result is increased wheel strength, upgraded durability, and improved power transfer efficiency.

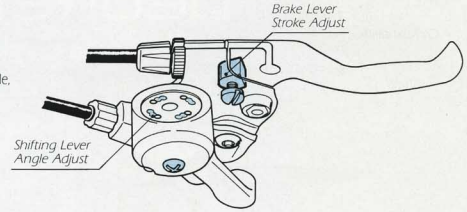
SHIMANO DEORE DX

SHIMANO TOTAL INTEGRATION



Rapidfire

ST-M071 (2-Finger)
ST-M070 (4-Finger)



Weight	535g. (ST-M071)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible, 7-speed SIS Compatible
Features	Dual Repeat Function, Brake Lever Stroke Adjust, Shifting Lever Angle Adjust, Light Action Lever
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminum•Anodized Finish (Bracket), Aluminum•Paint Finish (Lever)
Note	For SLR & SIS function, use for SLR outer casing with liner (Brake Lever) and SIS-SP sealed outer casing with liner (Shifting Lever).

Shifting Lever

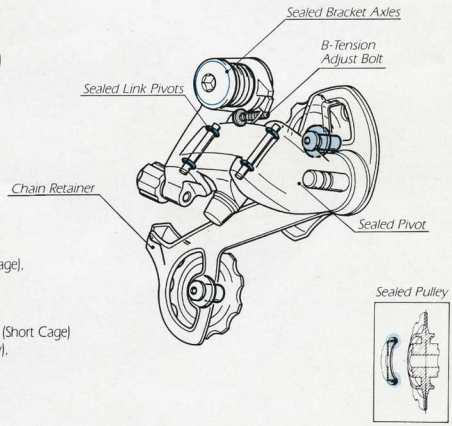
SL-MT62



Weight	232g.
Features	7-speed SIS, SIS-Friction Mode Switch, Light Action Lever, Low Profile Design, 3-Step Lever Adjust, Digital Cable Adjust
Lever Clamp Diameter	22.2m.
Material & Finish	Steel•Paint Finish (Bracket), Aluminum•Barrel Finish (Lever)
Attachment Position	Handlebar

Rear Derailleur

RD-M650-SGS (Super Long Cage)
RD-M650-SS (Short Cage)

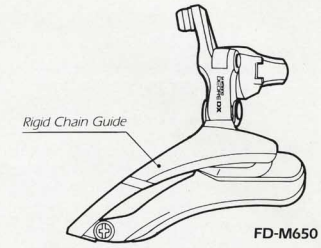


Weight	320g. (Super Long Cage), 257g. (Short Cage)
Compatibility	Shimano Total Integration Compatible, 6, 7-speed SIS Compatible
Features	Sealed Link Pivots, Sintered Alloy Guide Pulley, Centeron Guide Pulley, Sealed Tension Pulley, Sealed Pivot & Bracket Axles (O-Rings), Double Servo-Panta Mechanism, B-Tension Adjust Bolt, Double Spoke Barrier, Chain Retainer (Super Long Cage)
Capacity	Maximum Rear Sprocket: 32T. (Super Long Cage), 28T. (Short Cage) Minimum Rear Sprocket: 12T. Front Difference: 20T. Total Capacity: 38T. (Super Long Cage), 28T. (Short Cage)
Material & Finish	Aluminum•Barrel Finish (Bracket & Plate Body), Aluminum•Paint Finish (Right Link), Steel•Pearl Bright Finish (Left Link)

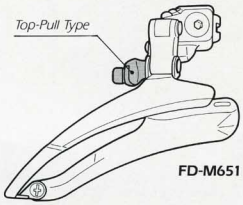
Front Chainwheel

FC-MT60-SG (Shimano SG Triple, MD Type)

Weight	740g. (48T., 38T., 28T., 170mm.)
Compatibility	Shimano Total Integration Compatible, Narrow Type Chain Compatible
Features	Shimano SG Gear
Chain Size	1/2"x3/32"
Teeth Combination	48T.x38T.x28T., 46T.x36T.x26T. (Biopace SG), 48T.x38T.x28T., 46T.x36T.x24T. (Round SG)
Crank Length	170mm., 175mm.
Crank Thread	English BC 9/16"x20T.P.I.
Material & Finish	Aluminium-Barrel Finish (Crank), Aluminium-Anodized Finish (Chainring)



FD-M650

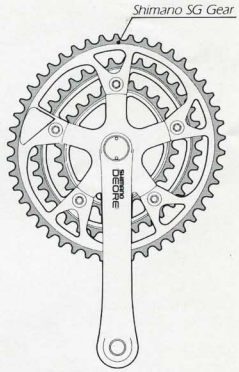


FD-M651

Front Chainwheel

FC-MT60-SG (Shimano SG Triple, MD Type)

Weight	740g. (48T., 38T., 28T., 170mm.)
Compatibility	Shimano Total Integration Compatible, Narrow Type Chain Compatible
Features	Shimano SG Gear,
Chain Size	1/2" x 3/32"
Teeth Combination	48T. x 38T. x 28T., 46T. x 36T. x 26T. (Biopace SG), 48T. x 38T. x 28T., 46T. x 36T. x 24T. (Round SG)
Crank Length	170mm., 175mm.
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminum-Barrel Finish (Crank), Aluminum-Anodized Finish (Chainring)



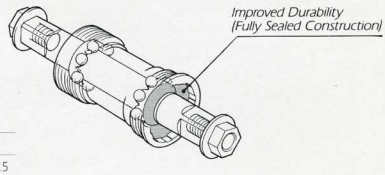
Sealed Cartridge Bottom Bracket

BB-UN70

Weight	287g. (122.5mm.)
Features	"Easy Assembly" Construction Improved Durability (Fully Sealed Construction) Maintenance Free Construction Lightweight Design

Specifications

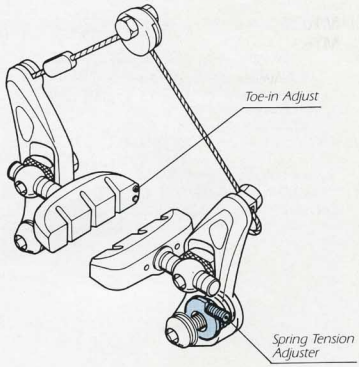
Shell Width	68 (BC)		70 (M36)		73 (BC)	
Spindle Length	122.5	127.5	122.5	127.5	122.5	127.5
Spindle Marking	D-NL	D-EL	D-NL	D-EL	D-NL	D-EL



Cantilever Brake

BR-M650

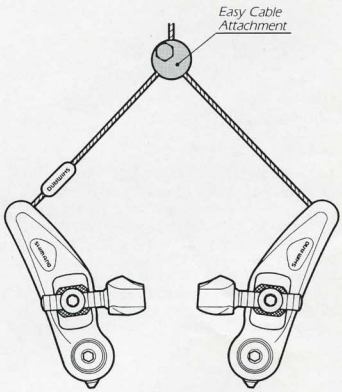
Weight	199g. (Pair)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
Features	Super Low Profile Design, Easy Cable Attachment, Spring Tension Adjuster
Material & Finish	Aluminum•Buff Finish (Black Finish Available)
Note	For SLR system use with SLR compatible brake lever and Shimano SLR outer cable with liner.



Cantilever Brake

BR-M651

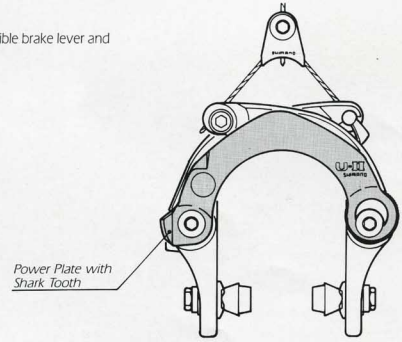
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
Features	Low Profile Design, Easy Cable Attachment, Spring Tension Adjuster
Material & Finish	Aluminum•Barrel Finish
Note	For SLR system use with SLR compatible brake lever and Shimano SLR outer cable with liner.



U-II Brake

BR-MT63

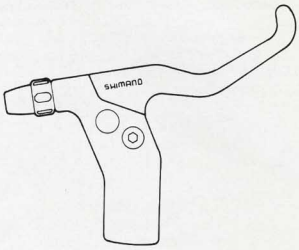
Weight	338g. (1 Unit)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
Features	Spring Tension Adjuster, Power Plate with Shark Tooth
Material & Finish	Forged Aluminium•Anodized Finish
Note	For SLR system use with SLR compatible brake lever and Shimano SLR outer cable with liner.



Brake Lever

BL-MT62 (4-Finger)
BL-MT63 (2-Finger)

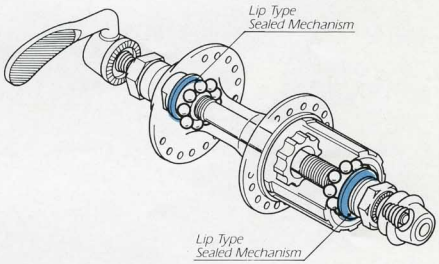
Weight	274g. (Pair, 2-Finger)
Compatibility	SLR (Shimano Linear Response) Compatible
Features	Return Spring, Safety Clamp Design, Digital Lever-Reach Adjustment (4-Positions)
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminium·Black Finish (Bracket), Aluminium·Anodized Finish (Lever)
Note	For SLR system use with SLR compatible brake and Shimano SLR outer cable with liner.



Freehub

FH-M650 (7-speed)

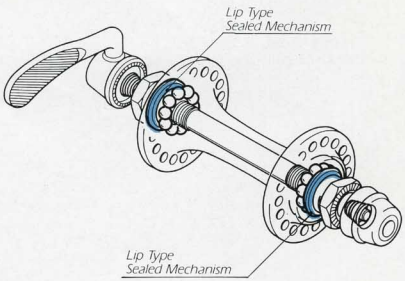
Weight	445g. (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 7-speed SIS Compatible, HG Gear Compatible
Features	Lip Type Sealed Mechanism, HG/UG Compatible Type, Uni-Balance System
Over Lock Nut Dimensions	135mm., 130mm. (Quick Release Type), 135mm., 130mm. (Nut Type)
Axle Length	146mm., 141mm. (Quick Release Type), 185mm., 180mm. (Nut Type)
Axle Thread	10mm.
Spoke Holes	32H, 36H
Hole PCD	45
Material & Finish	Aluminum·Anodized Finish (Hub Shell)



Front Hub

HB-M650-F

Weight	231g. (with Quick Release)
Feature	Lip Type Sealed Mechanism
Over Lock Nut Dimentions	100mm.
Axle Length	108mm. (Quick Release Type), 142mm. (Nut Type)
Axle Thread	9mm.
Spoke Holes	32H, 36H
Hole PCD	38
Material & Finish	Aluminum·Anodized Finish (Hub Shell)

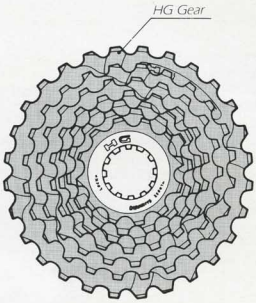


Cassette Sprockets

CS-HG70 (7-speed)

Weight	325g. (Sprocket **E** Group & Spacer)
Compatibility	Shimano Total Integration Compatible, 7-speed SIS Compatible
Feature	7-speed HG
Chain Size	1/2" × 3/32" (Narrow Type Chain)
Material & Finish	Steel•Silver Finish
Sprocket Combinations	

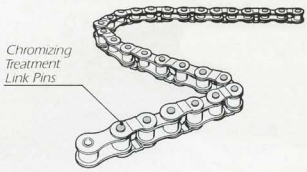
E	12, 14, 16, 18, 21, 24, 28T.
F	14, 16, 18, 21, 24, 28, 32T.
G	13, 15, 17, 20, 23, 26, 30T.
H	13, 15, 17, 19, 21, 23, 26T.
I	13, 14, 15, 17, 19, 21, 23T.
J	13, 14, 15, 16, 17, 19, 21T.
K	13, 15, 17, 20, 24, 29, 34T.
L	12, 13, 14, 15, 17, 19, 21T.
M	13, 15, 17, 19, 21, 24, 28T.



HG Chain

CN-HG70

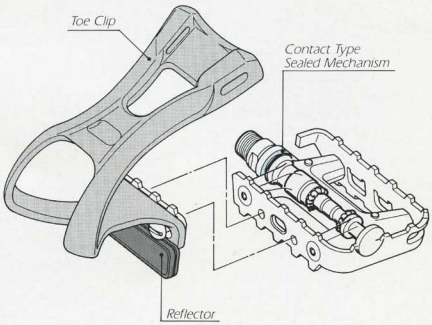
Weight	325g. (114 Link)
Compatibility	Shimano Total Integration Compatible
Features	Narrow Type HG Chain, Chromizing Treatment Link Pins
Size	1/2" × 3/32"
Material & Finish	Gray Finish (Roller Link Plate), Black Finish (Pin Link Plate)



Pedal

PD-M650

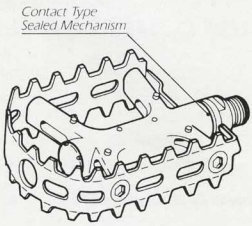
Weight	385g. (Pair)
Features	32° Road Clearance, Super Low Profile Design, Parallelogram Shape, Contact Type Sealed Mechanism, Steel Grip Pin, Toe Clip/Reflector Attachable
Crank Thread	English BC 9/16" x 20 T.P.I.
Material & Finish	Aluminium (Body), Steel•Anodized Finish (Plate), Resin (Toe Clip)



Pedal

PD-MT60

Weight	412g. (Pair)
Features	26° Road Clearance, Low Profile Design, Parallelogram Design, Contact Type Sealed Mechanism, Steel Grip Pin, Toe Clip/Reflector Attachable
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminium (Body), Steel•Anodized Finish (Plate)

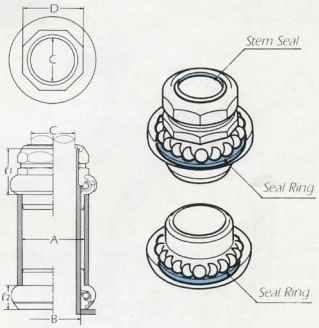


Head Parts

HP-M650
HP-M651

Weight	121g. (HP-M650), 149g. (HP-M651)
Type	Off-Road Type
Feature	Sealed Mechanism
Material & Finish	Steel•Black Finish
Variation & Dimensions	

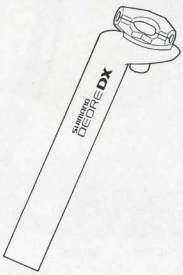
Type	HP-M650		HP-M651
Thread	BC1" x 24T.	M25 x P1.0	BC1-1/8" x 26T.
A	30.2mm.	30.2mm.	34.0mm.
B	26.4mm.	26.4mm.	30.0mm.
C	22.1mm.		25.5mm.
D	32.0mm.		36.0mm.
ℓ1	22.0mm.		22.0mm.
ℓ2	11.5mm.		11.5mm.



Seat Post

SP-M650

Weight	325g. (360mm.)
Features	High Strength Structure, Light Weight, Long Size
Outside Diameter	26.6mm., 26.8mm., 27.0mm., 27.2mm.
Length	280mm., 330mm., 360mm.
Material	Cr-Mo Steel•Pearl Bright Finish



The advanced performance of Shimano Total Integration in an all-purpose mountain bike component group.

Deore LX brings both quality and performance to the entry level mountain bike. The Deore LX components include a full range of advanced Shimano functions, including Rapidfire shifting, plus a feeling of easy control that enhances safety and performance.
New riders and experienced off-roaders alike will appreciate the full grip 3-finger brake levers, completely sealed mechanisms that keep out dirt and water, and Deore LX's other advanced features.

●Cantilever Brakes (BR-C510-B)
This new cantilever brake was designed as a hybrid bicycle brake when the Deore LX group is assembled to a hybrid bicycle. Featuring smaller cantilever arms than the standard MTB brakes, the BR-C510-B brakeset also utilizes a shorter bridge wire to cable stop length.



●SPD Pedal (PD-M525)
This is a more casual and economical version of the SPD pedal. It is double sided and uses the same cleat as the top of the line PD-M737. Reflectors are available as an option.



●Head Parts (HP-R501)
This new headset is an oversize (1-1/8") version of the HP-R500 model. Available in black only.



SIS

7-Speed SIS
Deore LX features 7-speed SIS that gives the same wide gear selection as the high end groups. The simple push-only action of the under-bar Rapidfire lever gets the gear you need without forcing you to release or change your grip on the bars.

SLR

SLR (Shimano Linear Response)
Shimano Linear Response technology reduces friction throughout the brake system to provide a feeling of sensitive response at the lever. The result is upgraded braking control and a greater feeling of confidence.

SHIMANO SG

Shimano SG
This is the new standard in chainwheel shifting. The Shimano SG chainwheel features strategically positioned contours and cutouts that guide the chain smoothly and quickly from chainwheel to chainwheel.

HG

7-Speed HG Sprockets
Deore LX's 7-speed gear cluster features HG sprockets. The special tooth contours of HG sprockets help provide fast and smooth shifts regardless of pedal torque. SIS with HG sprockets is the recognized state-of-the-art shifting system for the off-road bike.

THE SHIMANO FREEHUB

7-Speed Freehub
Deore LX combines the rear hub and freewheel into a single unit. The rigid freehub design results in increased wheel strength, upgraded durability, and improved power transfer efficiency.

biopace

Biopace
The computer designed shape of Biopace creates a pedaling cadence that approximates the natural movement of the leg when walking. The result is less fatigue, increased stamina, less knee strain, and a more natural pedaling feeling.

SHIMANO DEORE LX

SHIMANO TOTAL INTEGRATION



Pedal Set
PD-M550



Sealed Cartridge Bottom Bracket
BB-UN50



Cantilever Brake
BR-M651



Cassette Sprockets
CS-HG70



Chain
CN-HG70



Front Chainwheel
FC-M550-SG



Front Hub
HB-M550-F



Freehub
FH-M550



Rear Derailleur
RD-M550-SGS



SPD Pedal Set
PD-M525

Oversize Head Parts
HP-R501



Rear Derailleur
RD-M550-GS



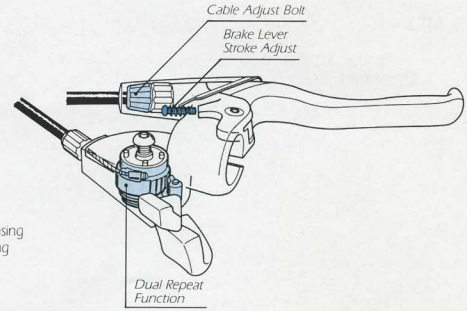
Rapidfire Lever Set
ST-M060-S



Front Derailleur
FD-M550

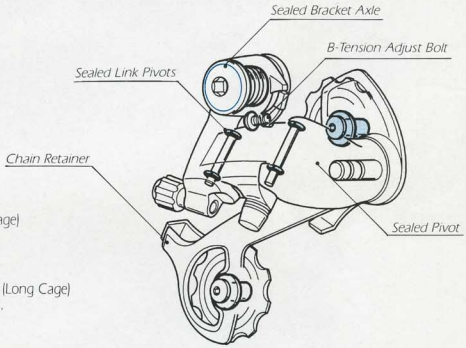
Rapidfire
ST-M060-S (3-Finger)

Weight	588g. (Pair)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible, 7-speed SIS Compatible
Features	Dual Repeat Function, Brake Lever Stroke Adjust, Light Action Lever
Lever Clamp Diameter	22.2mm.
Material & Finish	Aluminum•Paint Finish (Bracket), Steel•Zinc Plated & Resin•Molding (Lever)
Note	For SLR & SIS function, use with SLR outer casing with liner (Brake Lever) and SIS-SP outer casing with liner (Shifting Lever).



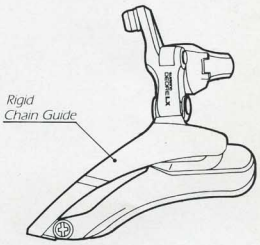
Rear Derailleur
RD-M550-SGS (Super Long Cage)
RD-M550-GS (Long Cage)

Weight	320g. (Super Long Cage),
Compatibility	Shimano Total Integration Compatible, 6, 7-speed SIS Compatible
Features	Sealed Link Pivots, Centeron Guide Pulley, Sealed Pivot & Bracket Axles, Double Servo-Panta Mechanism, B-Tension Adjust Bolt, Double Spoke Barrier, Chain Retainer (Super Long Cage)
Capacity	Maximum Rear Sprocket: 32T. (Super Long Cage) 30T. (Long Cage) Minimum Rear Sprocket: 12T. Front Difference: 20T. Total Capacity: 38T. (Super Long Cage), 36T. (Long Cage)
Material & Finish	Aluminum•Barrel Finish (Bracket & Plate Body), Aluminum•Paint Finish (Right Link), Steel•Pearl Bright Finish (Left Link)



Front Derailleur
FD-M550

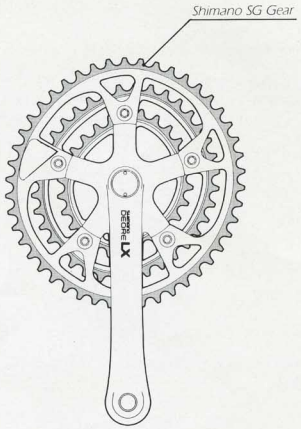
Weight	119g. (Normal Band Type)
Compatibility	Shimano Total Integration Compatible, Shimano SG Gear Compatible, Narrow Type Chain Compatible
Features	Trailing Action Pantagraph Mechanism, Top-Pull Type Available, Rigid Chain Guide, New Trapease Mechanism
Capacity	24T. (Biopace HP), 26T. (Round)
Clamp Diameter	Ø28.0mm.—28.6mm., 30.0mm., 31.8mm., 34.9mm.
Material & Finish	Aluminum•Barrel Finish (Front & Rear Band), Aluminum•Paint Finish (Right Link), Steel•Chrome-Plated (Chain Guide, Clamp Bolt)



Front Chainwheel

FC-M550-SG (Shimano SG Triple, MD Type)

Weight	752g. (28T., 38T., 48T., 170mm.)
Compatibility	Shimano Total Integration Compatible, Narrow Type Chain Compatible
Features	Shimano SG Gear
Chain Size	1/2"x3/32"
Teeth Combination	48T.x38T.x28T., 46T.x36T.x26T. (Biopace SG), 48T.x38T.x28T., 46T.x36T.x24T. (Round SG)
Crank Length	170mm., 175mm.
Crank Thread	English BC 9/16"x20T.P.I.
Material & Finish	Aluminium•Barrel Finish (Crank) Aluminium•Anodized Finish (Chainring)



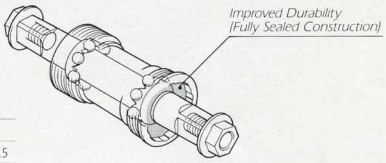
Sealed Cartridge Bottom Bracket

BB-UN50

Weight	323g. (122.5mm.)
Features	"Easy Assembly" Construction Improved Durability (Fully Sealed Construction) Maintenance Free Construction Lightweight Design

Specifications

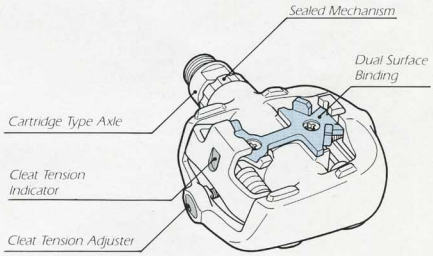
Shell Width	68 (BC)		70 (M36)		73 (BC)	
Spindle Length	122.5	127.5	122.5	127.5	122.5	127.5
Spindle Marking	D-NL	D-EL	D-NL	D-EL	D-NL	D-EL



SPD Pedal

PD-M525

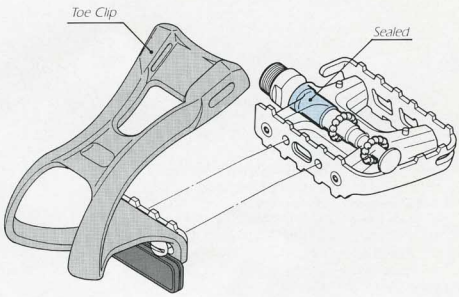
Weight	478g. (Pair)
Features	SPD (Shimano Pedaling Dynamics) Cleats System, Cartridge Type Axle, Cleat Tension Indicator, Dual Surface Binding, Cleat Tension Adjuster, 31° Road Clearance, Sealed Mechanism
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminum•Black Finish (Body), Cr-Mo Steel (Axle)



Pedal

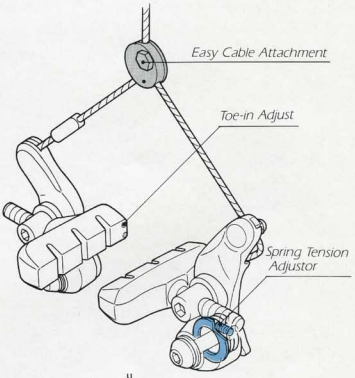
PD-M550

Weight	326g. (Pair)
Features	30° Road Clearance, Super Low Profile Design, Parallelogram Shape, Toe Clip/Reflector Attachable
Crank Thread	English BC 9/16"x20T.P.I.
Material & Finish	Resin (Body), Steel•Anodized Finish (Plate), Resin (Toe Clip)



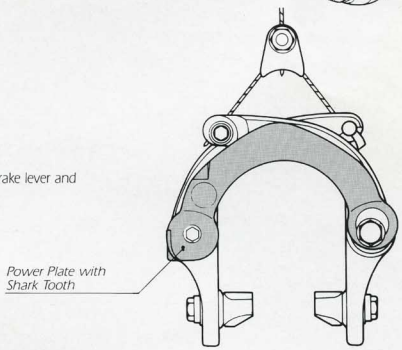
Cantilever Brake
BR-C510-B

Weight	202g. (Pair)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
Features	Super Low Profile Design, Easy Cable Attachment, Spring Tension Adjuster
Material & Finish	Aluminum•Paint Finish
Note	For SLR system use with SLR compatible brake lever and Shimano SLR outer casing with liner.



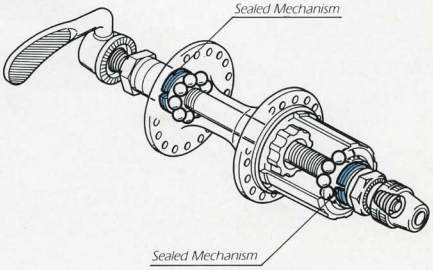
U-II Brake
BR-M453
BR-M452

Weight	368g. (1 Unit, BR-M453)
Compatibility	Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
Features	Spring Tension Adjuster, Power Plate with Shark Tooth
Material & Finish	Aluminum•Barrel Finish
Note	For SLR System use with SLR Compatible brake lever and Shimano SLR outer cable with liner.



Freehub
FH-M550 (7-speed)

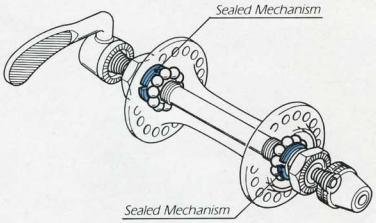
Weight	445g. (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 7-speed SIS Compatible
Features	Sealed Mechanism, HG/UG Compatible Type, Uni-Balance System
Over Lock Nut Dimensions	135mm., 130mm.
Axle Length	146mm., 141mm. (Quick Release Type), 185mm., 180mm. (Nut Type)
Axle Thread	10mm.
Spoke Holes	32H, 36H
Hole PCD	45
Material & Finish	Aluminum•Polish Finish (Hub Shell)



Front Hub

HB-M550-F

Weight	230g. (with Quick Release)
Feature	Sealed Mechanism
Over Lock Nut Dimensions	100mm.
Axle Length	108mm. (Quick Release Type), 140mm. (Nut Type)
Axle Thread	9mm.
Spoke Holes	32H, 36H
Hole PCD	38
Material & Finish	Aluminum•Polish Finish (Hub Shell)

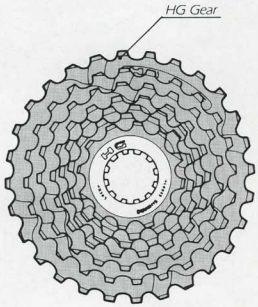


Cassette Sprockets

CS-HG70 (7-speed)

Weight	325g. (Sprocket **E** Group & Spacer)
Compatibility	7-speed SIS Compatible
Feature	7-speed HG
Chain Size	1/2" x 3/32" (Narrow Type Chain)
Material & Finish	Steel•Silver Finish
Sprocket Combinations	

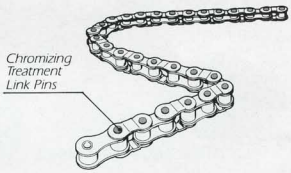
E	12, 14, 16, 18, 21, 24, 28T.
F	14, 16, 18, 21, 24, 28, 32T.
G	13, 15, 17, 20, 23, 26, 30T.
H	13, 15, 17, 19, 21, 23, 26T.
I	13, 14, 15, 17, 19, 21, 23T.
J	13, 14, 15, 16, 17, 19, 21T.
K	13, 15, 17, 20, 24, 29, 34T.
L	12, 13, 14, 15, 17, 19, 21T.
M	13, 15, 17, 19, 21, 24, 28T.



HG Chain

CN-HG70

Weight	325g (114 Link)
Compatibility	Shimano Total Integration Compatible
Features	Narrow Type HG Chain, Chromizing Treatment Link Pins
Size	1/2" x 3/32"
Material & Finish	Gray Finish (Roller Link Plate), Black Finish (Pin Link Plate)

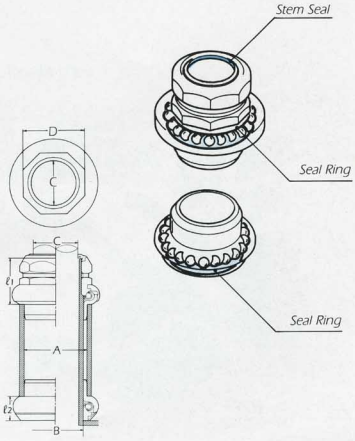


Head Parts

HP-R500
HP-R501

Weight	121g. (HP-R500)
Feature	Sealed Mechanism
Material	Steel (Lock Nut), Resin (Upper & Lower Cup)
Color	White, Silver, Black (HP-R500) Black (HP-R501)
Variation & Dimensions	

Type	HP-R500		HP-R501
Thread	BC1" x 24T.	M25 x P1.0	BC1-1/8" x 26T.
A	30.2mm.	30.2mm.	34.0mm.
B	26.4mm.	26.4mm.	30.0mm.
C	22.3mm.		25.5mm.
D	32.0mm.		36.0mm.
ℓ_1	22.0mm.		22.0mm.
ℓ_2	11.5mm.		11.5mm.



EXAGE LX

SHIMANO TOTAL INTEGRATION







Exage 500LX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-M500**-SGS (Super Long Cage) **RD-M500**-GS (Long Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 32T. (SGS), 30T. (GS) Min. Rear Sprocket: 12T. (SGS, GS) Front Difference: 20T. (SGS, GS) Total Capacity: 38T. (SGS), 36T. (GS) 329g. (SGS)	Cable Saver Arm Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing Chain Retainer	Bracket Body: Aluminum•Paint Finish Right Link: Steel•Paint Finish Left Link: Steel•Pearl Bright Finish Plate Body: Aluminum•Paint Finish	SIS Compatible Detachable Bracket Available
Front Derailleur **FD-M500-B** (Band Type) **FD-M500** (EC Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 24T. (Biopace HP) 26T. (Round) Band Diameter: φ28.0—φ28.6, φ30.0, φ31.8mm. (Band Type) φ28.0—φ28.6, φ30.0, φ31.8, φ34.9mm. (EC Type) 118g. (Band Type)	Trailing Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism	Front Band: Aluminum•Paint Finish Rear Band: Aluminum•Paint Finish Right Link: Aluminum•Paint Finish Chainguide: Chromic Plated	
Rapidfire **ST-M050-S** (3-finger)	7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm.	Dual Repeat Function Light Action Lever Anatomical Design Brake Lever Stroke Adjust Brake Lever Cable Adjust	Bracket: Aluminum•Paint Finish Lever: Steel•Zinc Plated Resin•Molding	Use with Shimano SIS-SP Cable with Liner
Cantilever Brake **BR-M501** (Middle Size) **BR-M502** (Large Size)	SLR (Shimano Linear Response) Compatible 204g. (BR-M501. Pair) 216g. (BR-M502. Pair)	Rigid Computer Designed Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tention Adjuster	Aluminum•Barrel Finish	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
U-II Brake **BR-M453** (with Booster)	SLR (Shimano Linear Response) Compatible 368g. (1 unit)	Pre-Road Spring Design Sealed Internal Spring Design Rigid Computer Designed Shape Spring Tention Adjuster	Aluminum•Barrel Finish	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-M500-SG** (Shimano SG Gear Triple MD Type) Bottom Bracket Assembly **BB-M550** Sealed Cartridge Bottom Bracket **BB-CS20**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm., 175mm. Teeth: Biopace SG / Round SG Top: 48T. / 48T. / 46T. Middle: 38T. / 38T. / 36T. Low: 28T. / 28T. / 24T. Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0 (BB-M550 Only) Italian M36 × 24T.P.I. 756g. (28T., 38T., 48T., 170mm.) 339g. (B.B. Set BB-M550)	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Aluminum•Anodised Finish	Spindle: BR-M550 Mark: D-5NL / D-3NL Width: 70 / 68 Length: 122.5 Spindle: BB-CS20 Mark: D-EL Width: 73 (BC) / 68 (BC) Length: 127.5 Mark: D-NL Width: 73 (BC) / 70 (36) / 68 (BC) Length: 122.5
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D.: 135 / 130 Axle Length: 146 / 141 Mounting Type: Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D.: 100 Axle Length: 108 Mounting Type: Quick Release Axle Thread: 9mm. 228g	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket **I** Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **F** 14, 16, 18, 21, 24, 28, 32T. **G** 13, 15, 17, 20, 23, 26, 30T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **K** 13, 15, 17, 20, 24, 29, 34T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" × 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-M450**	MTB Type Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Locking System: 2-screw 518g. (Pair)	30° Road Clearance Sealed Mechanism Low Profile Design Reflector (Option)	Body: Resin Plate: Steel•Paint Finish	
Head Parts **HP-R500** **HP-R501** (1-1/8")	See Page 28			

Exage 400LX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-M400-SGS** (Super Long Cage) **RD-M400-GS** (Long Cage) **RD-M400-SS** (Short Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 32T. (SGS), 30T. (GS) 28T. (SS) Min. Rear Sprocket: 12T. (SGS, GS, SS) Front Difference: 20T. (SGS, GS), 13T. (SS) Total Capacity: 38T. (SGS), 36T. (GS), 28T. (SS) 330g. (Super Long Cage)	Cable Saver Arm Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Pivot Axle Sealed Link Pivot Heat Treated Steel in Link Pivot Sintered Alloy Guide Pulley Bushing Chain Retainer (GS, SGS Type)	Bracket Body: Aluminum•Barrel Finish Right Link: Steel•Paint Finish Left Link: Steel•Zinc Plated Plate Body: Aluminum•Barrel Finish	Rivet Type Bracket Available SIS Compatible Detachable Bracket Available
Front Derailleur **FD-M400-B** (Band Type) **FD-M400** (EC Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 24T. (Biopace HP) 26T. (Round) Band Diameter: φ28.0—φ28.6, φ30.0, φ31.8mm. (Band Type) φ28.0—φ28.6, φ30.0, φ34.9mm. (EC Type) Stroke (CL=47.5): 35—55 132g. (Band Type)	Trailing Action Pantagraph Mechanism Rigid Chainguide Sealed Mechanism New Trapease Mechanism	Front Band: Steel•Pearl Bright Finish Rear Band: Aluminum•Barrel Finish Right Link: Aluminum•Paint Finish Chainguide: Chrome Plated	
Rapidfire **ST-M050-S** (3-finger)	7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm.	Dual Repeat Function Light Action Lever Anatomical Design Brake Lever Stroke Adjust Brake lever Cable Adjust	Bracket: Aluminum•Paint Finish Lever: Steel•Zinc Plated Resin•Molding	Use with Shimano SIS-SP Cable with Liner
Cantilever Brake **BR-M201** **BR-M352** (For Short Frame, Rear Only)	SLR (Simano Linear Response) Compatible	Rigid Computer Designed Shape Sealed Internal Spring Design Spring Tension Adjuster Low Profile Brake Shoe	Steel & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-M400-SG** (Shimano SG Gear, Triple MD Type) Bottom Bracket Assembly **BB-M550** Sealed Cartridge Bottom Bracket **BB-CS20**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm., 175mm. Teeth: Biopace SG Top 48T Middle 38T Low 28T Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0 (BB-M550 Only) Italian M36 × 24T.P.I. 763g. (28T., 38T., 48T., 170mm.) 339g. (B.B. Set BB-M550)	Computer Aided Design (Crank) Sealed Mechanism (B. B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Steel•Paint Finish	Spindle: BR-M550 Mark: D-5NL | D-3NL Width: 70 | 68 Length: 122.5 Spindle: BB-CS20 Mark: D-EL Width: 73 (BC) | 68 (BC) Length: 127.5 Mark: D-NL Width: 73 (BC) | 70 (36) | 68 (BC) Length: 122.5
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D. 135 | 130 Axle Length 146 | 141 Mounting Type: Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D. 100 Axle Length 108 Mounting Type: Quick Release Axle Thread: 9mm. 228g.	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket I Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **F** 14, 16, 18, 21, 24, 28, 32T. **G** 13, 15, 17, 20, 23, 26, 30T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **K** 13, 15, 17, 20, 24, 29, 34T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" × 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-M350**	MTB Type Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Locking System: 2-screw 445g. (Pair)	26° Road Clealance Sealed Mechanism Low Profile Design Reflector	Body: Resin•Paint Finish Plate: Steel•Paint Finish	
Head Parts **HP-R500** **HP-R501** (1-1/8")	See Page 28			

Exage 300LX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-M300-SGS** (Super Long Cage) **RD-M300-GS** (Long Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 32T (SGS), 30T (GS) Min. Rear Sprocket: 12T (SGS, GS) Front Difference: 20T (SGS, GS) Total Capacity: 38T (SGS), 36T (GS) 319g. (Super Long Cage)	Cable Saver Arm Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing Chain Retainer	Bracket Body: Aluminum•Barrel Finish Right Link: Steel•Zinc Plated Resin•Molding Left Link: Steel•Zinc Plated Plate Body: Resin•Molding	Rivet Type Bracket Available SIS Compatible Detachable Bracket Available
Front Derailleur **FD-M300-B** (Band Type) **FD-M300** (EC Type) **FD-M301** (Pull-Top Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 24T (Biopace HP) 26T (Round) Band Diameter: φ28.0—φ28.6, φ30.0, φ31.8mm. (Band Type) φ28.0—φ28.6, φ30.0, φ34.9mm. (EC Type) Stroke (CL=47.5): 35—55 135g. (Band Type)	Trailing Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism Pull-Top Type (FD-M301)	Front Band: Steel•Pearl Bright Finish Rear Band: Aluminum•Barrel Finish Right Link: Steel•Paint Finish Chainguide: Chrome Plated	
Rapidfire **ST-M050-S** (3-finger)	7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm.	Dual Repeat Function Light Action Lever Anatomical Design Brake Lever Stroke Adjust Brake Lever Cable Adjust	Bracket: Aluminum•Paint Finish Lever: Steel•Zinc Plated Resin•Molding	Use with Shimano SIS-SP Cable with Liner
Cantilever Brake **BR-M201**	SLR (Shimano Linear Response) Compatible	Rigid Computer Designed Shape Sealed Internal Spring Design Spring Tension Adjuster Low Profile Brake Shoe	Steel & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-M300-SG** (Shimano SG Gear, Triple MD Type) Bottom Bracket Assembly **BB-M550** Sealed Cartridge Bottom Bracket **BB-CS20**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm., 175mm. Teeth: Top 48T / Middle 38T / Low 28T Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0 (BB-M550 Only) Italian M36 × 24T.P.I. 756g. (28T., 38T., 48T., 170mm.) 339g. (B.B. Set BB-M550)	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Steel•Paint Finish	Spindle: BR-M550 Mark D-5NL D-3NL Width 70 68 Length 122.5 Spindle: BB-CS20 Mark D-EL Width 73 (BC) 68 (BC) Length 127.5 Mark D-NL Width 73 (BC) 70 (36) 68 (BC) Length 122.5
Freehub **FH-HG50**	7-speed SIS Compatible UG/HB Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D. 135 130 Axle Length 146 141 Mounting Type Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D. 100 Axle Length 108 Mounting Type Quick Release Axle Thread: 9mm. 228g.	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket I Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **F** 14, 16, 18, 21, 24, 28, 32T. **G** 13, 15, 17, 20, 23, 26, 30T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **K** 13, 15, 17, 20, 24, 29, 34T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" × 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-M350**	MTB Type Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Locking System: 2-screw 445g. (Pair)	26° Road Clealance Sealed Mechanism Low Profile Design Reflector	Body: Resin•Paint Finish Plate: Steel•Paint Finish	
Head Parts **HP-R500** **HP-R501** (1-1/8")	See Page 28			


HB-RM50-F
FC-M202-SG
BB-CS10
PD-M350
BR-M201
FH-HG50
BL-M201
BR-M200
CN-UG50
ST-M020
CS-HG50
FD-M201
HP-R500
RD-M200-SGS
RD-M200-GS
SHIMANO 200GS


FC-M102-SG
BB-CS10
PD-M350
BL-M101
FH-HG50
HB-RM50-F
CN-UG50
HP-R500
SL-M100
CS-HG50
FD-M100
BR-M100
ST-M010
SHIMANO 100GS


FC-TY70-SG
PD-M350
HP-R500
BL-TY70
BB-CS10
MF-HG20
CN-UG50
BR-TY70
SL-TY70
RD-TY70-GS
FD-TY70
ST-M007
SHIMANO 70GS

Shimano 200GS

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-M200-SGS** (Super Long Cage) **RD-M200-GS** (Long Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 32T. (SGS), 30T. (GS) Min. Rear Sprocket: 12T. (SGS, GS) Front Difference: 20T. (SGS, GS) Total Capacity: 38T. (SGS), 36T. (GS) 323g. (Super Long Cage)	Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing Chain Retainer	Bracket Body: Aluminum•Barrel Finish Right Link: Steel•Paint Finish Left Link: Steel•Zinc Plated Plate Body: Resin•Molding	Brazed-on Type Available Rivet Type Bracket Available SIS Compatible Detachable Bracket Available
Front Derailleur **FD-M201-B** (Band Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 24T. (Biopace HP) 26T. (Round) Band Diameter: φ28.0—φ28.6mm. Stroke (CL=47.5): 34—54	Rigid Chainguide Trapease Mechanism Sealed Mechanism	Front Band: Steel•Paint Finish Rear Band: Steel•Zinc Plated Resin•Modling Right Link: Steel•Zinc Plated Resin•Molding Chainguide: Chrome Plated	
Rapidfire **ST-M020**	7-speed SIS Compatible Lever Clamp Diameter: 22.2mm. 190g. (Pair)	Dual Repeat Function Digital Cable Adjust	Bracket: Steel•Paint Finish Lever: Steel•Zinc Plated Resin•Molding	Use with Shimano SIS-SP Cable with Liner Without Brake Lever
Shifting Lever **SL-M201** (7-speed)	7-speed SIS Compatible Lever Clamp Diameter: 22.2mm. 154g. (Pair)	Sealed Mechanism Anatomical Design	Bracket: Steel•Paint Finish Lever: Resin•Molding	Use with Shimano SIS-SP Cable with Liner
Cantilever Brake **BR-M200** (Standard Type) **BR-M201** (Low Profile Type)	SLR (Shimano Linear Response) Compatible 235g. (BR-M201)	Rigid Computer Designed Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tension Adjuster (BR-M201)	Steel & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Cantilever Brake **BR-C200-B** (Low Profile Type)	SLR (Shimano Linear Response) Compatible	Rigid Computer Designed Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tension Adjuster	Steel & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Brake Lever **BL-M200-S** (3-finger Type) **BL-M201** (3-finger Type)	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm. 265g (BL-M200-S)	Digital Cable Adjust Stroke Adjust	Bracket: Steel•Resin Covered & Resin Lever: Steel•Zinc Plated Resin•Molding	3-finger BL-M200-S Brake Lever must be used with SL-M200 or SL-M201 Shift Levers
Front Chainwheel **FC-M202-SG** (Shimano SG Gear, Triple Rivet Type) **FC-M202-CG** (w/Chain Guard) Bottom Bracket Assembly **BB-M200** Sealed Cartridge Bottom Bracket **BB-CS10**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm. Teeth: Biopace: Top 48T, Middle 38T, Low 28T Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0, Italian M36 × 24T.P.I. 756g. (28T., 38T., 48T., 170mm.)	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Steel•Resin Molding Chain Ring: Steel•Paint Finish	Spindle: BB-M200 Mark: D-5NL | D-3NL Width: 70 | 68 Length: 122.5 Spindle: BB-CS10 Mark: D-EL Width: 73 (BC) | 68 (BC) Length: 127.5 Mark: D-NL Width: 73 (BC) | 70 (36) | 68 (BC) Length: 122.5
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D: 135 | 130 Axle Length: 146 | 141 Mounting Type: Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Freehub **FH-HG20**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H. Hole PCD: 45 O.L.D: 135 | 130 | 135 | 130 Axle Length: 146 | 141 | 170 | 180 Mounting Type: Quick Release | Nut Axle Thread: M10 425g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F** Cassette Sprockets **CS-HG50** (7-speed) Chain **CN-UG50** Pedal **PD-M350**	See Page 32			
Head Parts **HP-R500** **HP-R501** (1-1/8")	See Page 28			

Shimano 100GS

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-M100-GS** (Long Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 30T. Min. Rear Sprocket: 12T. Front Difference: 20T. Total Capacity: 36T.	Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing Chain Retainer	Bracket Body: Steel•Zinc Plated Resin•Molding Right Link: Steel•Chrome Plated Left Link: Steel•Zinc Plated Plate Body: Resin•Molding	Brazed-on Type Available Rivet Type Bracket Available SIS Compatible Detachable Bracket Available
Front Derailleur **FD-M100-B** (Band Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 20T. (Biopace HP) 22T. (Round) Band Diameter: φ28.0—φ28.6mm. Stroke (CL=47.5): 34—54	Rigid Chainguide	Front Band: Steel•Zinc Plated Rear Band: Steel•Zinc Plated Resin•Modling Chainguide: Chrome Plated	
Rapidfire **ST-M010**	7-speed SIS Compatible Lever Clamp Diameter: 22.2mm.	Dual Repeat Function Digital Cable Adjust	Bracket: Steel•Paint Finish Lever: Steel•Zinc Plated Resin•Molding	Use with Shimano SIS-SP Cable with Liner Without Brake Lever
Shifting Lever **SL-M100** (7-speed)	7-speed SIS Compatible Lever Clamp Diameter: 22.2mm.	Anatomical Design	Bracket: Steel•Zinc Plated Lever: Resin•Molding	Use with Shimano SIS-SP Cable with Liner
Cantilever Brake **BR-M100** (Low Profile Type)	SLR (Shimano Linear Response) Compatible	Rigid Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tention Adjuster	Steel & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Brake Lever **BL-M101** (3-finger Type)	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm.	Digital Cable Adjust Stroke Adjust Anatomical Design	Bracket: Steel•Resin Covered & Resin Lever: Steel•Resin Corted & Resin	Use with Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-M102-SG** (Shimano SG Gear, Triple Rivet Type) **FC-M102-CG** (w/Chain Guard) Bottom Bracket Assembly **BB-M200** Sealed Cartridge Bottom Bracket **BB-CS10**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm. Teeth: Biopace Top 48T Middle 38T Low 28T Crank Thread: English BC 9/16" × 20TPI. Cup Thread: English BC 1.37 × 24TPI. French M35 × 1.0, Italian M36 × 24TPI. 756g. (28T., 38T., 48T., 170mm.)	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Steel/Resin Molded Chain Ring: Steel•Paint Finish	Spindle: BB-M200 Mark D-5NL. D-3NL. Width 70 68 Length 122.5 Spindle: BB-CS10 Mark D-EL Width 73 (BC) 68 (BC) Length 127.5 Mark D-NL Width 73 (BC) 70 (36) 68 (BC) Length 122.5
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D. 135 130 Axle Length 146 141 Mounting Type Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Freehub **FH-HG20**	7-speed SIS Compatible HG Compatible Type Spoke Holes: 36H. Hole PCD: 45 O.L.D. 135 130 135 130 Axle Length 146 141 185 180 Mounting Type Quick Release Nut Axle Thread: M10 425g. (7-speed w/Quick Release)	Uni-Balance System. Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D. 100 Axle Length 108 Mounting Type Quick Release Axle Thread: 9mm. 228g.	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket **I** Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **F** 14, 16, 18, 21, 24, 28, 32T. **G** 13, 15, 17, 20, 23, 26, 30T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **K** 13, 15, 17, 20, 24, 29, 34T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50** Pedal **PD-M350**	See Page 32			
Head Parts **HP-R500** **HP-R501** (1-1/8")	See Page 28			

Shimano 70GS

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-TY70-GS** (Long Cage) **RD-TY70-SS** (Short Cage)	6-speed SIS Compatible Long Cage: Max. Rear Sprocket: 28T. Min. Rear Sprocket: 14T. Front Difference: 20T. Total Capacity: 34T. Short Cage: Max. Rear Sprocket: 24—28T. Min. Rear Sprocket: 14T. Front Difference: 13T. Total Capacity: 28T.	Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing Chain Retainer	Bracket Body: Steel•Zinc Plated Right Link: Steel•Paint Finish Left Link: Steel•Zinc Plated Plate Body: Resin•Zinc Plated	Brazed-on Type Available Rivet Type Bracket Available
Front Derailleur **FD-TY70-B** (Band Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 20T. (Biopace HP) 22T. (Round) Band Diameter: ø28.0—ø28.6mm. Stroke (CL=47.5): 34—54	Rigid Chainguide	Front Band: Steel•Zinc Plated Rear Band: Steel•Zinc Plated Right Link: Steel•Zinc Plated Resin•Molding Chainguide: Chrome Plated	
Rapidfire **ST-M007**	7-speed SIS Compatible Use Triple Chainwheel Lever Clamp Diameter: 22.2mm.	Dual Repeat Function Digital Cable Adjust (Front Only)	Bracket: Steel•Paint Finish Lever: Steel•Zinc Plated Resin•Molding	Use with Shimano SIS Cable (Front Side) & SIS-SP Cable (Rear Side) with Liner Without Brake Lever
Shifting Lever **SL-TY70** (6-speed)	6-speed SIS Compatible Lever Clamp Diameter: 22.2mm. 240g.	Anatomical Design	Bracket: Steel•Zinc Plated Lever: Resin•Molding	Use with Shimano SIS & SIS-SP Cable with Liner
Cantilever Brake **BR-TY70** (Low Profile Type)	SLR (Shimano Linear Response) Compatible	Rigid Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tention Adjuster	Steel & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Brake Lever **BL-TY70** (3-finger Type)	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm. 237g.	Digital Cable Adjust Stroke Adjust Anatomical Design	Bracket: Steel•Resin Covered & Resin Lever: Steel•Resin Corted & Resin	Use with Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-TY70-SG** (Shimano SG Gear, Triple Rivet Type) **FC-TY70-CG** (w/Chain Guard) Sealed Cartridge Bottom Bracket **BB-CS10**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm. Teeth: (Biopace) Top 48T Middle 38T Low 28T Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0, Italian M36 × 24T.P.I.	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Steel•Resin Molding Chain Ring: Steel•Paint Finish	Spindle: BB-CS10 Mark: D-EL — Width: 73 (BC) | 68 (BC) — Length: 127.5 Mark: D-NL — Width: 73 (BC) | 70 (36) | 68 (BC) — Length: 122.5
Multiple Freewheel **MF-HG20** (6-speed)	6-speed SIS Compatible 6-speed HG 460g. (Sprocket **Y** Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Sprocket Combinations: **X** 14, 16, 18, 20, 22, 24T. **Y** 14, 16, 18, 21, 24, 28T. **Z** 14, 17, 20, 24, 28, 32T.
Chain **CN-UG50**	7-speed SIS Compatible Narrow Type Chain (1/2" x 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-M350**	MTB Type Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Locking System: 2-screw 445g. (Pair)	26° Road Clearance Sealed Mechanism Low Profile Design Reflector	Body: Resin•Paint Finish Plate: Steel•Paint Finish	
Head Parts **HP-R500** **HP-R501** (1-1/8")	Height: Upper Cone 22.0mm. Lower Cone 11.5mm. 121g. Variation: English/Italian: BC1 × 24T — Press Race Diameter: Upper Cone & Lower Cap 30.2mm., Lower Cone 26.4mm. French: M25 × P1.0 — Press Race Diameter: Upper Cone & Lower Cap 30.2mm., Lower Cone 26.4mm.	Sealed Mechanism	Lock Nut: Steel•Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	

The competitive advantage of Dura-Ace continues to grow.

Dura-Ace is Shimano's top line road racing component group. The refined functions of Dura-Ace provide a much needed competitive edge in the world of professional road racing where the difference between victory and defeat is often measured in fractions of a second. Now featuring Shimano Total Integration, Dura-Ace offers the racing cyclist the additional advantage of being able to steer, brake, and shift gears from the same hand position on the bars. When Dura-Ace is in the peloton, the others are just racing for second place.



8-Speed SIS

Eight-speed SIS gives a wider gear selection with Shimano Index System precision. Just a tap on the Dual-Control Lever (dual-purpose braking and shifting lever) delivers the desired gear without removing hands from the bars.

Super SLR

Side pull SLR caliper features offset pivot points that increase the power multiplication factor. The result is increased stopping power under highly modulated control.

Shimano SG

Chainwheels feature Shimano SG design. Cutouts and special contours guide the chain quickly and smoothly from one chainwheel to the next. It's the closest thing yet to SIS performance for the front derailleur.

8-Speed HG Sprockets

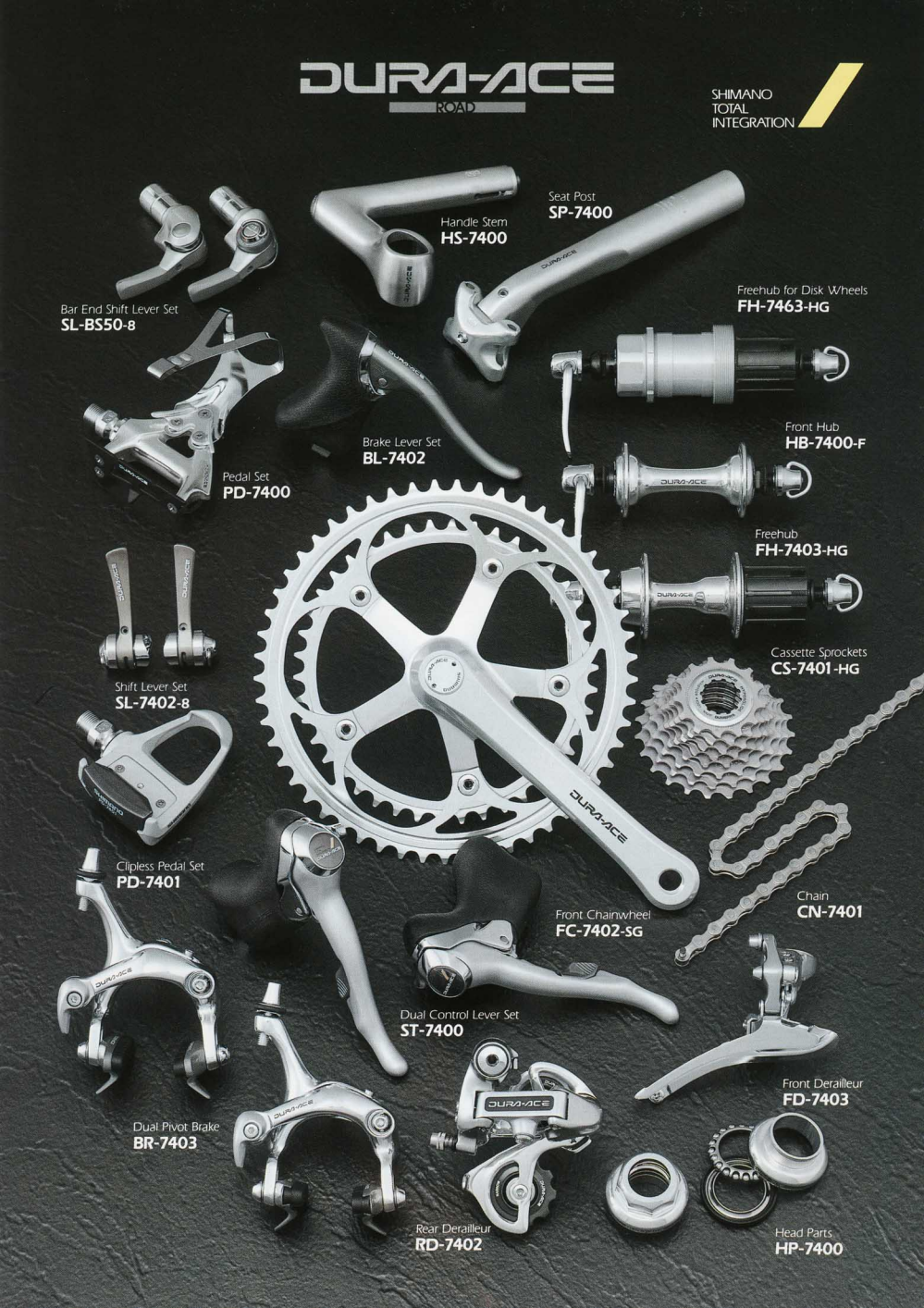
Dura-Ace's 8-speed gear cassette utilizes HG sprockets. Hyperglide means that the sprockets are computer-profiled and strategically positioned to provide fast, direct, and smooth chain transfer between cogs—regardless of pedal torque or cadence.

8-Speed Freehub

The rear hub and freewheel assembly are combined to form a rigid single piece unit called the freehub. The freehub provides for a stronger rear wheel, less spoke breakage, decreased rim offset, and increased power transfer efficiency.

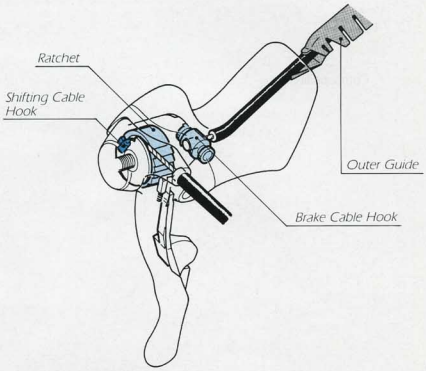
DURA-ACE
ROAD

SHIMANO
TOTAL
INTEGRATION



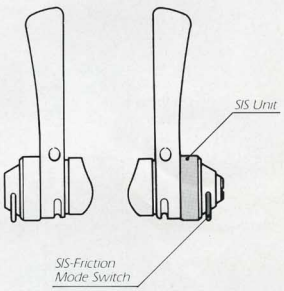
Dual Control Lever
ST-7400

Weight	560g. (Pair)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible, Super-SLR Compatible
Features	Light Action Lever, Sealed Mechanism, Aerodynamic Design, Anatomical Design
Lever Clamp Diameter	23.8mm.—24.2mm.
Material & Finish	Aluminum•Chrome Plated (Bracket), Forged Aluminum•Anodized Finish (Lever)
Note	For SIS Function, use for SIS-SP outer casing with liner (Lever Side) and SIS sealed outer casing with liner (Rear Side). ST-7400 must be used as a set with BR-7403 and the Shimano SLR outer casing with liner. No other combination can be used.



Shifting Lever
SL-7402-F*CAI (8-speed SIS, Brazed-on A Type)
*"C" Model Number means Italian Type (Fixing Bolt is 5mm. Diameter)

Weight	67g.
Features	8-speed SIS, SIS-Friction Mode Switch, Light Action Lever, Sealed Mechanism, Human Engineered Design, 30° Off-set of Lever Stopper, Sealed Outer Casing
Lever Clamp Diameter	28.6mm.
Material & Finish	Aluminum•Paint Finish (Lever), Resin•Chrome Plated (Top-mount Housing)
Attachment Position	Down Tube
Note	For SIS Function, use with Dura-Ace Rear Derailleur/Freehub/Cassette Sprockets/Shimano SIS outer casing with liner.

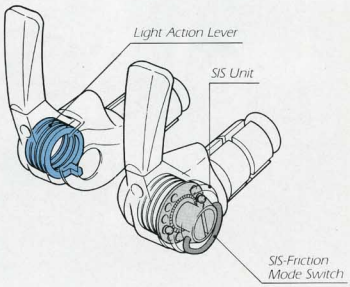


Shifting Lever
SL-7401-B*CAI (7-speed SIS, Band A Type)
SL-7401-FCAI (7-speed SIS, Brazed-on A Type)
SL-7401-FCBI (7-speed SIS, Brazed-on B Type)
*"C" Model Number means Italian Type (Fixing Bolt is 5mm. Diameter)

Weight	65g. (SL-7401-FCAI)
Features	7-speed SIS, SIS-Friction Mode Switch, Sealed Mechanism, Human Engineered Design, 30° Off-set Lever Stopper, Sealed Outer Casing
Lever Clamp Diameter	28.6mm.
Material & Finish	Aluminum•Paint Finish (Lever), Resin•Molding (Top-mount Housing)
Attachment Position	Down Tube
Note	For SIS Function, use with Dura-Ace Rear Derailleur/Freehub/Cassette Sprockets/Shimano SIS outer casing with liner.

Shifting Lever
SL-BS50-8

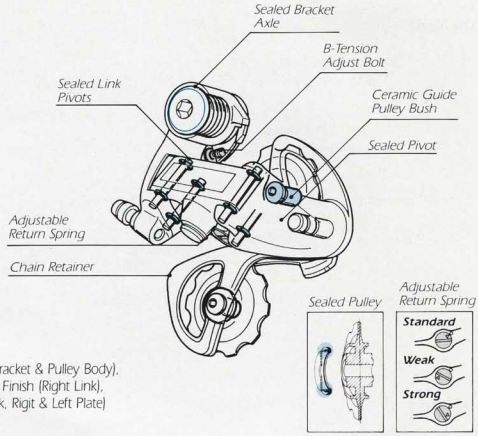
Weight	183g.
Features	8-speed SIS, SIS-Friction Mode Switch, Light Action Lever, Sealed Mechanism, Human Engineered Design, Sealed Outer Casing
Bar Inner Diameter	19.0mm.—22.0mm.
Material & Finish	Aluminum•Buff Finish (Lever)
Attachment Position	Bar End
Note	For SIS Function, use with Dura-Ace Rear Derailleur/Freehub/Cassette Sprockets/Shimano SIS-SP outer casing with liner.



Rear Derailleur

RD-7402

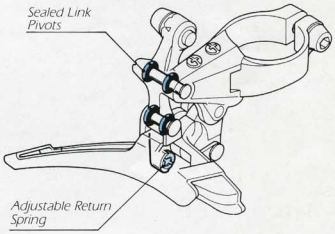
Weight	209g.
Compatibility	Shimano Total Integration Compatible, 6, 7 & 8-speed SIS Compatible
Features	Adjustable Return Spring, Sealed Link Pivots, Sealed Guide Pulley, Ceramic Guide Pulley Bush, Sealed Tension Pulley, Ceramic Tension Pulley Bush, Sealed Pivot & Bracket Axles (O-Rings), Double Servo-Panta Mechanism, B-Tention Adjust Bolt, Double Spoke Barrier, Chain Retainer
Capacity	Maximum Rear Sprocket: 26T. Minimum Rear Sprocket: 12T. Front Difference: 14T. Total Capacity: 26T.
Material & Finish	Forged Aluminum•Color Anodized Finish (Bracket & Pulley Body), Forged Aluminum•Inlied Epoxy & Anodized Finish (Right Link), Forged Aluminum•Anodized Finish (Left Link, Rigit & Left Plate)



Front Derailleur

FD-7403-B (Band Type)
FD-7403-F (Italian Brased-on A Type)

Weight	93g.(Band Type)
Compatibility	Shimano Total Integration Compatible, Shimano SG Gear Compatible, Narrow Type Chain Compatible
Features	Sealed Link Pivots, Rigid Chainguide, Adjustable Return Spring
Capacity	15T.
Clamp Diameter	28.0mm.—28.6mm.
Material & Finish	Forged Aluminum•Anodized Finish (Front & Rear Band), Forged Aluminum•Color Anodized (Right Link), Forged Aluminum (Left Link), Steel•Chrome-Plated (Chain Guide, Clamp Bolt)



Front Chainwheel & Bottom Bracket Assembly

FC-7402-SG (Shimano SG, Double, I.D Type)
BB-7400 (B.B. Set)

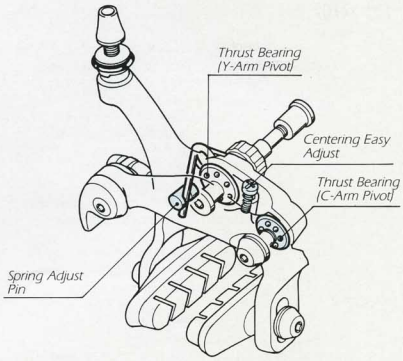
Weight	643g. (42T., 52T., 170mm.), 292g. (B.B. Set)
Compatibility	Shimano Total Integration Compatible, Narrow Type Chain Compatible
Features	Shimano SG Gear, Sealed Mechanism (B.B.)
Chain Size	1/2" × 3/32"
Teeth Combination	A-53 × 42, A-52 × 42, B-53 × 39 (Round SG)
Crank Length	165mm., 167.5mm., 170mm., 172.5mm., 175mm., 177.5mm., 180mm.
Crank Thread	English BC 9/16" × 20T.P.I.
Cut Thread	English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.
B.B. Size	70-W-113, 68-W-112
Material & Finish	Forged Aluminum•Anodized Finish (Crank, Chainring), Aluminum•Etched-Anodized Finish (Crank Arm Cap), Nickel Cr-Mo Axle



Dual Pivot Brake

BR-7403-49 (Short 49 Type)

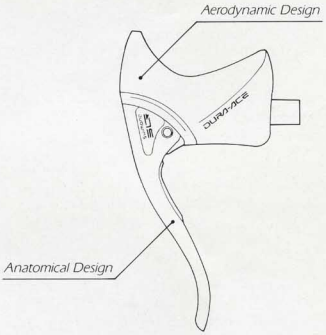
Weight	432g. (F & R)
Compatibility	Shimano Total Integration Compatible, Super SLR (Shimano Linear Response) Compatible
Features	Easy Adjust, Low Profile Brake Shoe, Spring Adjust Pin, Click & Eccentric Type Quick Release, Thrust Bearing & Coated Pivot Washer
Material & Finish	Forged Aluminum•Anodized Finish (Arch), Aluminum•Color Anodized Finish (Shoe Holder with Tire Guide)



Brake Lever

BL-7402 (Aero Type)

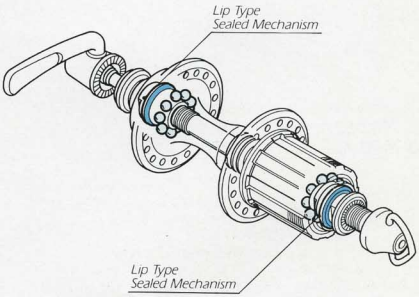
Weight	240g. (Pair)
Compatibility	SLR (Shimano Liner Response) Compatible
Features	Aerodynamic Design, Anatomical Design
Lever Clamp Diameter	23.8mm., 24.2mm.
Lever Stroke	88mm.
Material & Finish	Aluminum•Anodized Finish (Lever), Aluminum•Chrome-Plated (Bracket), Soft Resin (Cover)
Color (Bracket Cover)	Black, White
Note	For SLR system use with SLR compatible brake and Shimano SLR outer cable with liner.



Freehub

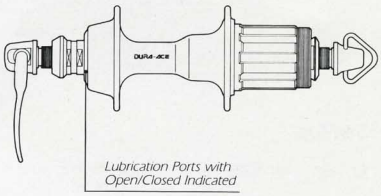
FH-7403-HG (8-speed)

Weight	439g. Rear (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible, HG Gear Compatible,
Features	Lip type Sealed Mechanism, Uni-Balance System, Lubrication Ports with Open/Closed Indicated, Stainless Steel Ball Bearings
Over Lock Nut Dimensions	130mm.
Axle Length	141mm.
Axle Thread	10mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	44
Chain Line	42.65mm.
Material & Finish	Forged Aluminum•Anodized Finish (Hub Shell)



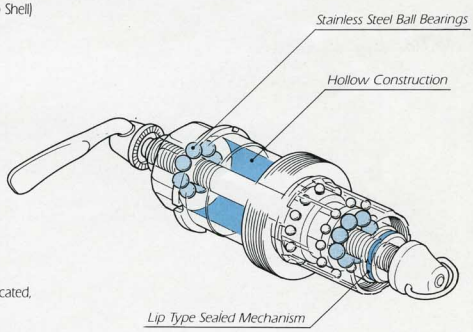
Freehub
FH-7402-8 (8-speed)

Weight	460g. Rear (with Quick Release)
Compatibility	8-speed SIS Compatible
Features	Lip type Sealed Mechanism, Uni-Balance System, Lubrication Ports with Open/Closed Indicated, Stainless Steel Ball Bearings
Over Lock Nut Dimensions	130mm.
Axle Length	141mm.
Axle Thread	10mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	44
Chain Line	42.65mm.
Material & Finish	Forged Aluminum•Anodized Finish (Hub Shell)



Freehub
FH-7400-7/6 (7/6-speed)

Weight	439g. Rear (with Quick Release)
Compatibility	7 & 6-speed SIS Compatible
Features	Lip Type Sealed Mechanism, Uni-Balance System, Lubrication Ports with Open/Closed Indicated, Stainless Steel Ball Bearings
Over Lock Nut Dimensions	126.5mm.
Axle Length	137mm.
Axle Thread	10mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	44
Chain Line	42.6mm. (7-speed), 42.95mm. (6-speed)
Material & Finish	Forged Aluminum•Anodized Finish (Hub Shell)

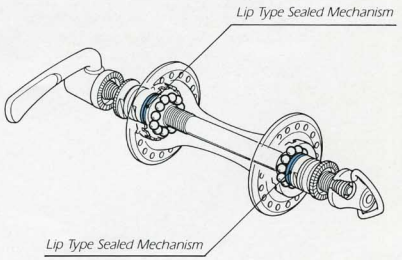


Freehub for Disk Wheels
FH-7463-HG (8-speed)

Weight	646g. (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible HG Gear Compatible
Features	Exclusively Designed for Disk Wheels, Lip Type Sealed Mechanism, Uni-Balance System, Lubrication Ports with Open/Closed Indicated, Stainless Steel Ball Bearings
Over Lock Nut Dimensions	130mm.
Axle Length	141mm.
Chain Line	42.65mm.
Material & Finish	Aluminum•Buff-Anodized Finish (Hub Shell)

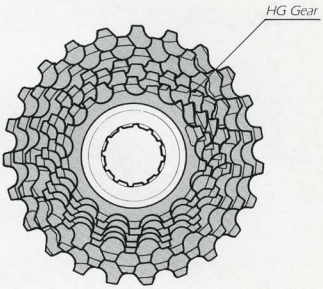
Front Hub
HB-7400-F

Weight	228g. (with Quick Release)
Features	Lip type Sealed Mechanism, Easy Installation, Stainless Steel Ball Bearings
Over Lock Nut Dimensions	100mm.
Axle Length	108mm.
Axle Thread	9mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	38
Material & Finish	Forged Aluminum•Anodized Finish (Hub Shell)



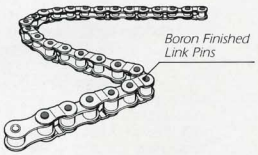
Cassette Sprockets
CS-7401-8 (8-speed HG)

Weight	255g. (Sprocket **S** Group & Spacer)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible, Narrow Type Chain Compatible
Feature	8-speed HG
Material & Finish	Steel•Champagne Gold Finish (Sprocket)
Sprocket Combinations	**S** 12, 13, 14, 15, 16, 17, 19, 21T. **T** 13, 14, 15, 16, 17, 19, 21, 23T. **U** 12, 13, 14, 15, 17, 19, 21, 23T. **V** 13, 14, 15, 17, 19, 21, 23, 26T. **W** 12, 13, 15, 17, 19, 21, 23, 25T.



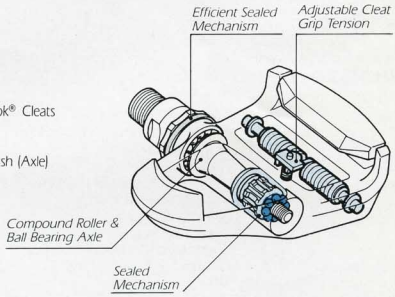
HG Chain
CN-7401

Compatibility	Shimano Total Integration Compatible
Features	Narrow Type HG Chain, Boron Finished Link Pins
Size	1/2" × 3/32"
Material & Finish	Nickel Finish (Roller Link Plate, Pin Link Plate)



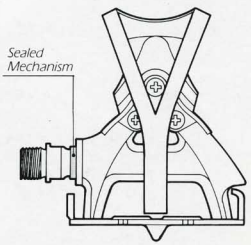
Clipless Pedal
PD-7401

Weight	416g. (Pedal, Pair), 92g. (Cleat & Hardwear)
Features	34° Road Clearance, Compound Roller & Ball Bearing Axle, Aerodynamic Dustcapless Design, Efficient Sealed Mechanism, Adjustable Cleat Grip Tension, Compatible Look® Cleats
Crank Thread	English BC 9/16" × 20T.P.I.
Material & Finish	Forged Aluminum•Paint Finish (Body), Nickel Cr-Mo Steel •Crome-Plated Polished Finish (Axle)



Pedal
PD-7400

Weight	372g. (Pair, Including Toe Clip Size L)
Features	34° Road Clearance, Compound Structure of Needle Bearing and Cup & Cone, Aerodynamic Design, Sealed Mechanism
Toe Clip Size	M, L, LL
Crank Thread	English BC 9/16" × 20T.P.I.
Material & Finish	Aluminum•Buff Finish (Body), Aluminum•Anodized Finish (Front Plate), Aluminum•Black Solid Anodized Finish (Rear Plate), Nickel Cr-Mo Steel•Crome-Plated/Polished Finish (Axle), Steel Chrome-Plated or Light Alloy•Anodized Finish (Toe Clip)



Head Parts

HP-7400

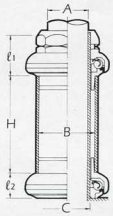
Weight 113g.
Type Road Type
Feature Sealed Mechanism
Height Upper Cone 22.8mm., Lower Cone 13.5mm.
Material & Finish Forged Aluminum•Anodized Finish (Nut, Cup, Upper Cone), Titanium-Plated (Lower Cone), Bearing Steel Insertion

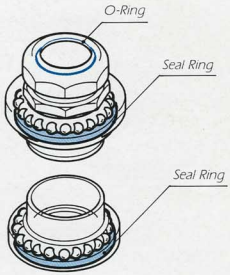
Variation

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 ×24T.	30.2mm.	26.4mm.
French	M25 × P1.0	30.2mm.	26.4mm.

Dimensions

ℓ_1	22.8mm.
ℓ_2	13.5mm.
H	Head Tube Length
A	22.3mm.
B	30.2mm./30.0mm. (JIS)
C	26.4mm./27.0mm. (JIS)
Thread	BC 1" ×24T. (English, Italian Thread)/ M25" × P1.0 (French Thread)

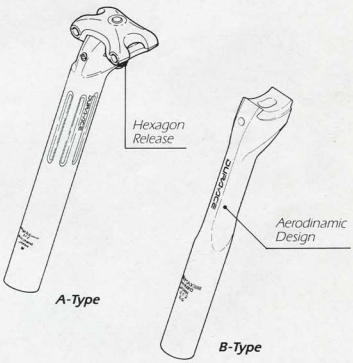




Seat Post

SP-7400-A (Round Tube, A Type)
SP-7400-B (Semi Oval Tube, B Type)

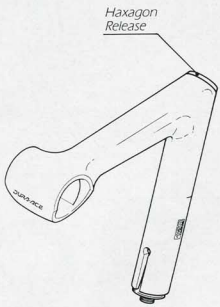
Weight 224g. (A Type), 244g. (B Type)
Features Aerodynamic Design, Hexagon Release
Outside Diameter 25.0mm., 26.0mm., 26.2mm., 26.4mm., 26.6mm., 26.8mm., 27.0mm., 27.2mm., 27.4mm.
Material & Finish Aluminum•Anodized Finish



Handle Stem

HS-7400

Weight 280g. (100mm.)
Features Aerodynamic Design, Hexagon Release
Extension 70mm., 80mm., 90mm., 100mm., 110mm., 120mm., 130mm.
Handle Stem Diameter 22.2mm.
Handlebar Clamp Diameter 26.0mm.
Material & Finish Aluminum•Anodized Finish



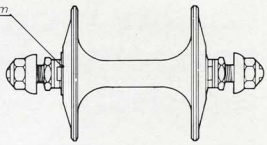
DURA-ACE
TRACK

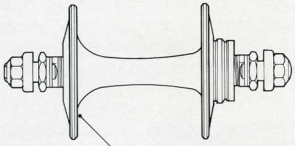
Like Dura-Ace road, Dura-Ace Track was designed to give the racer a fraction-of-a-second advantage that can spell the difference between victory and defeat in the highly competitive world of track racing. Besides offering great durability and rigidity, Dura-Ace Track features highly sophisticated mechanics, like diamond polished bearing races for example. As a result, the Dura-Ace Track racer is assured of the highest power transfer efficiency—the key to converting leg power into go power on the track.



Hub

HB-7600 (Large & Small Flange)





Weight	313g. (Rear Large Flange w/Lock Ring), 241g. (Front Large Flange)
Features	Precision Ground Cones, Diamond-Polished Mirror Finish (Cup & Cones), Sealed Mechanism, Composite-Type Design (Large Flange)
Over Lock Nut Dimensions	Front; 100mm., Rear; 120mm. (One-Side or Both-Side Threaded Type, Small Flange/Large Flange)
Spoke Holes	24H, 28H, 32H, 36H
Spoke Hole Diameter	Ø2.4mm.
Material & Finish	Forged Aluminum•Anodized Finish (Hub Body), Poly-Carbonate Resin Composit Hub Shell
Fork End Slot Width	Front; 9mm. (Hollow Axle), Rear; 10mm. (Hollow Axle)

Sprocket

SS-7600 (Hub Sprocket for Track Model)

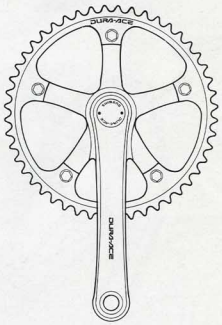


Thread	BC 1.37 × 24T.P.I. (English)
Standard Sprocket	1/2" × 1/8", 1/2" × 3/32"
Teeth	13T., 14T., 15T., 16T.
Material & Finish	Cr-Mo Steel
Weight	1/2" × 1/8" Sprocket:

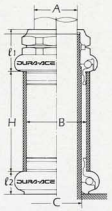
13T.	31g.
14T.	38g.
15T.	44g.
16T.	53g.

Front Chainwheel & Bottom Bracket Assembly

FC-7600
BB-7600 (B.B. Set)



Weight	605g. (48T., 170mm.), 305g. (B.B. Set)
Features	Exclusively Designed for Track, Computer Aided Design (Crank), Removable Sealed Mechanism (B.B.)
Use	For 1/8" & 3/32" Chain
Teeth	42T.—55T.
Crank Length	165mm., 167.5mm., 170mm., 172.5mm., 175mm.
Crank Thread	English BC 9/16" × 20T.P.I.
Cup Thread	English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.
B.B. Size	68-S-109, 70-S-109
B.B. Axle Length	109
Material & Finish	Aluminum•Anodized Finish (Crank, Crank Arm Cap), Aluminum•High-Tech Grey Anodized Finish (Chainring), Steel•Chrome-Plated (Fixing Bolt), Nickel Cr-Mo Axle



Head Parts

HP-7600

Weight	90g.
Type	Track Type
Features	Composit Structure, Sealed Mechanism, Super Light Weight
Height	Upper Cone 19.5mm., Lower Cone 11.5mm.
Material & Finish	Aluminum•Anodized Finish (Nut, Upper Cone), High Impact Resin (Upper Cone, Lower Cup Covers), Bearing Steel (Upper & Lower Cup), Die Steel•Titanium Plated (Upper & Lower Cone)
Variation	

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 ×24T.	30.2mm.	26.4mm.
French	M25 × P1.0	30.2mm.	26.4mm.

Dimensions

ℓ1	19.5mm.
ℓ2	11.5mm.
H	Head Tube Length
A	22.0mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" ×24T. (English, Italian Thread)/ M25" × P1.0 (French Thread)

Quality racing components for competition machines and the best sport bicycles.

Shimano 600 Ultegra offers the quality and high-style appearance that upgrades the value and performance of the quality entry level racing bicycle. Features include increased durability, an 8-speed freehub, polished bearing races, compact aerodynamic design, and a high-tech pearl grey color treatment. New for 600 Ultegra 1992 is Shimano Total Integration – the breakthrough control system that allows the cyclist to both shift gears and brake without releasing the handlebars.



● Dual-Control Lever (ST-6400)

This new Dual-Control lever brings the hands-on performance of Shimano Total Integration to the 600 Ultegra group. Featuring 8-speed and Super SLR compatibility, the 600 Ultegra Dual-Control Lever brings pro-performance to amateur racers.



●8-Speed SIS

The 8-speed SIS system is now available with 600 Ultegra. In addition to the ST-6400 Dual-Control lever, the system features the FH-6402-HG freehub, RD-6401 rear derailleur, and CN-HG91 chain and CS-HG90-8 cassette.



SIS

8-Speed SIS

Eight-speed SIS gives a wider gear selection with Shimano Index System precision. Just a tap on Ultegra's Dual-Control Lever (dual-purpose braking and shifting lever) delivers the desired gear without removing hands from the bars.

SUPER SLR

Super SLR

Side pull SLR caliper features offset pivot points that increase the power multiplication factor. The result is increased stopping power with highly sensitive control.

SHIMANO SG

Shimano SG

Ultegra's chainwheels feature Shimano SG design. Cutouts and special contours guide the chain quickly and smoothly from one chainwheel to the next. It's the closest thing yet to SIS performance for the front derailleur.

HG

8-Speed HG Sprockets

600 Ultegra's 8-speed gear cluster utilizes HG sprockets. HG means that the sprockets are computer-profiled and strategically positioned to provide fast, direct, and smooth chain transfer between cogs—regardless of pedal torque or cadence.

THE SHIMANO FREEHUB

8-Speed Freehub

600 Ultegra's rear hub and freewheel assembly are combined to form a rigid single piece unit called the freehub which results in a stronger rear wheel, less spoke breakage, decreased rim offset, and increased power transfer efficiency.

biopace

Biopace

The computer designed shape of Biopace creates a more natural pedaling cadence. The result is less fatigue, increased stamina, and a more natural pedaling feeling.

SHIMANO 600

ULTEGRA

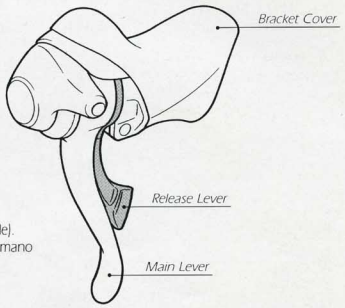
SHIMANO
TOTAL
INTEGRATION



Dual Control Lever

ST-6400

Weight	542g.
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible, Super-SLR Compatible
Features	Light Action Lever, Sealed Mechanism, Aerodynamic Design, Anatomical Design
Lever Clamp Diameter	23.8mm.—24.2mm.
Material & Finish	Aluminum•Barrel Finish (Bracket), Aluminum•Paint Finish (Lever)
Note	For SIS function, use for SIS-SP outer casing with liner (Lever Side) and SIS sealed outer casing with liner (Rear Side). ST-6400 must be used as a set with BR-6403 and the Shimano SLR outer casing with liner. No other combination can be used.

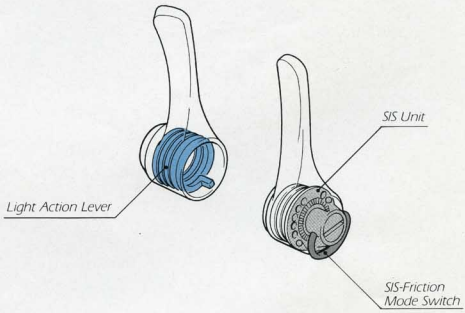


Shifting Lever

SL-6401-F*CAI (8-speed SIS, Brazed-on A Type)

*"C" of Model Number means Italian Type (Fixing Bolt is 5mm. Diameter)

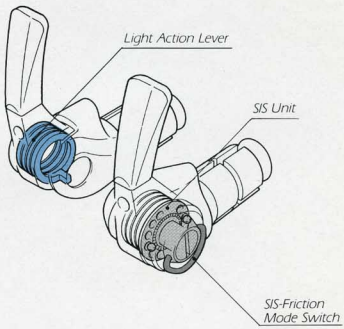
Weight	72.5g.
Features	8-speed SIS, SIS-Friction Mode Switch, Light Action Lever, Sealed Mechanism, Human Engineered Design, 30° Off-set of Lever Stopper, Sealed Outer Casing
Lever Clamp Diameter	28.6mm.
Material & Finish	Aluminum•Gray Paint Finish (Lever)
Attachment Position	Down Tube



Shifting Lever

SL-BS64-8

Weight	180g. (Pair)
Features	8-speed SIS, SIS-Friction Mode Switch, Light Action Lever, Sealed Mechanism, Human Engineered Design, Sealed Outer Casing
Bar Inner Diameter	19.0mm.—22.0mm.
Material & Finish	Aluminum•Gray Paint Finish (Lever)
Attachment Position	Bar End
Note	The SL-BS64-8 is exclusively designed for Shimano 600 Ultegra 8-speed system. Use in combination with the rear derailleur RD-6401.



Shifting Lever

SL-BS50

Weight	183g.
Compatibility	6 & 7-speed SIS Compatible.
Features	SIS-Friction Mode Switch, Light Action Lever, Sealed Mechanism, Human Engineered Design, Sealed Outer Casing
Bar Inner Diameter	19.0mm.—22.0mm.
Material & Finish	Aluminum•Buff Finish (Lever)
Attachment Position	Bar End

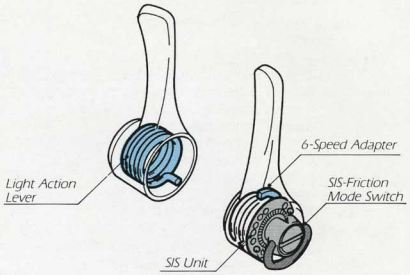
Shifting Lever

SL-6400-FCAI (6 & 7-speed SIS, Brazed-on A Type)

SL-6400-BCAI (6 & 7-speed SIS, Side Band A Type)

*"C" of Model Number means Italian Type (Fixing Bolt is 5mm. Diameter)

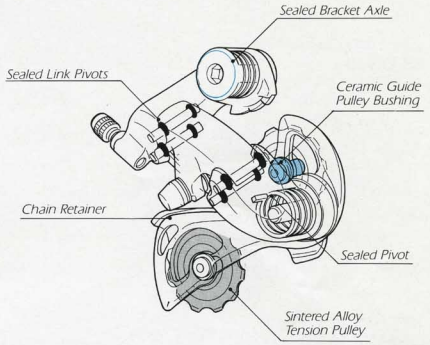
Weight	60g. (SL-6400-FCAI)
Features	Same Lever for 6 & 7-speed SIS, SIS-Friction Mode Switch, Sealed Mechanism, 30° Off-set of Lever Stopper (Front), Light Action Lever (Front), Lever Interchangeability, Human Engineered Design
Lever Clamp Diameter	28.6mm.
Material & Finish	Aluminum•Gray Paint Finish (Lever)
Attachment Position	Down Tube



Rear Derailleur

RD-6401

Weight	215g.
Compatibility	Shimano Total Integration Compatible, 6, 7 & 8-speed SIS Compatible
Features	Sealed Link Pivots, Sealed Guide Pulley, Ceramic Guide Pulley Bushing, Sealed Tension Pulley, Sintered Alloy Tension Pulley Bushing, Sealed Pivot & Bracket Axles, Double Servo-Panta Mechanism, Centeron Guide Pulley, B-Tension Adjust Bolt, Double Spoke Barrier, Chain Retainer
Capacity	Maximum Rear Sprocket: 28T. Minimum Rear Sprocket: 12T. Front Difference: 13T. Total Capacity: 28T.
Material & Finish	Aluminum•Dark Gray Paint Finish (Bracket & Plate Body), Aluminum•Silver Paint (Right Link), Aluminum•Barrel Finish (Pulley Plate & Left Link)

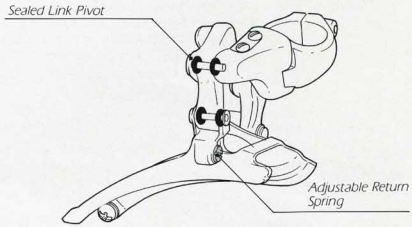


Front Derailleur

FD-6401-B (Band Type)

FD-6401-F (Italian Brazed-on A Type)

Weight	107g. (Band Type)
Compatibility	Shimano Total Integration Compatible, Shimano SG Gear Compatible, Narrow Type Chain Compatible
Features	Adjustable Return Spring, Leading Action Pantagraph Mechanism, Rigid Chain Guide, New Trapese Mechanism, Sealed Link Pin, Compact Design
Capacity	14T.
Clamp Diameter	28.6mm.
Material & Finish	Aluminum•Silver Paint Finish (Right Link), Aluminum•Dark Gray Paint Finish (Front & Rear Band), Steel•Chrome-Plated (Chain Guide, Clamp Bolt)



Front Chainwheel & Bottom Bracket Assembly

FC-6400-SG (Shimano SG Double, LD Type)

BB-6400 (B.B. Set)

Weight	650g. (42T., 52T., 170mm.), 293g. (B.B. Set)
Compatibility	Shimano Total Integration Compatible, Narrow Type Chain Compatible
Features	Shimano SG Gear, Sealed Mechanism (B.B)
Chain Size	1/2" × 3/32"
Teeth Combination	52 × 42 (Biopace SG), 53 × 42, 52 × 42 (Shimano SG)
Crank Length	165mm., 167.5mm., 170mm., 172.5mm., 175mm.
Crank Thread	English BC 9/16" × 20T.P.I.
Cup Thread	English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.
B.B. Size	70-W-115, 68-W-113
Material & Finish	Aluminum•Anodized Finish (Crank, Chainring), Nickel Cr-Mo Axle



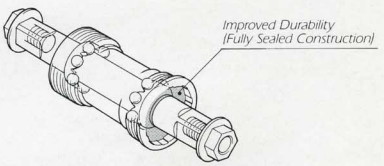
Sealed Cartridge Bottom Bracket

BB-UN70

Weight	287g. (122.5mm.)
Features	"Easy Assembly" Construction, Improved Durability (Fully Sealed Construction), Maintenance Free Construction, Lightweight Design

Specifications

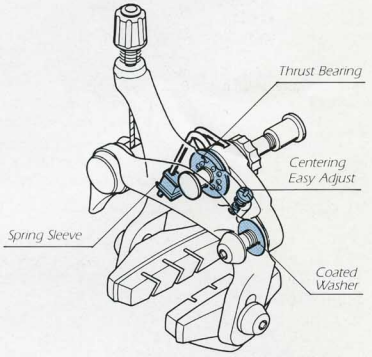
Shell Width	68 (BC)	70 (M36)
Spindle Length	115	115
Spindle Marking	D-H	D-H



Dual Pivot Brake

BR-6403-49 (Short 49 Type)

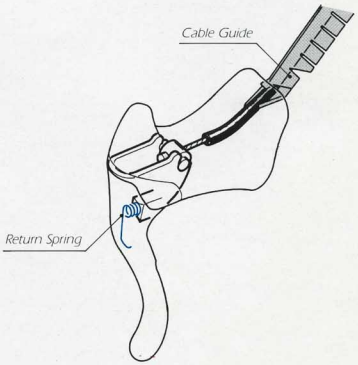
Weight	424g. (F&R, 49 Type)
Compatibility	Shimano Total Integration Compatible, Super SLR (Shimano Linear Response) Compatible
Features	Thrust Bearing (Y-Arm Pivot), Coated Washer (C-Arm Pivot), Spring Sleeve, Click & Eccentric Type Quick Release, Easy Adjust
Material & Finish	Forged Aluminum•Paint Finish (Arch), Steel•Chrome-Plated (Pivot Bolt, Quick Release)
Note	BR-6403 must be used as a set with ST-6400 or BL-6403 and the Shimano SLR outer cable with liner. No other combination can be used.



Brake Lever

BL-6403 (Aero Type)

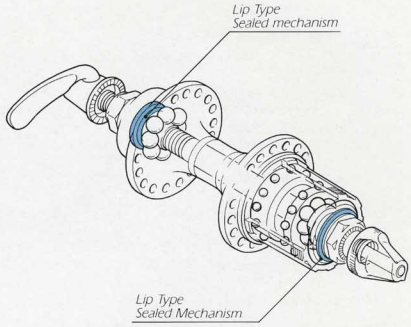
Weight	272g. (Pair)
Compatibility	Super SLR (Shimano Liner Response) Compatible
Features	Return Spring, Cable Guide, Aerodynamic Design, Anatomical Design
Lever Clamp Diameter	23.8mm.—24.2mm.
Lever Stroke	84mm.
Material & Finish	Aluminum•Paint Finish (Lever), Aluminum•Barrel Finish (Bracket), Soft Resin (Cover)
Bracket Cover	Black, White
Note	BL-6403 must be used as a set with BR-6403 and the Shimano SLR outer cable with liner. No other combination can be used.



Freehub

FH-6402-HG (8-speed)

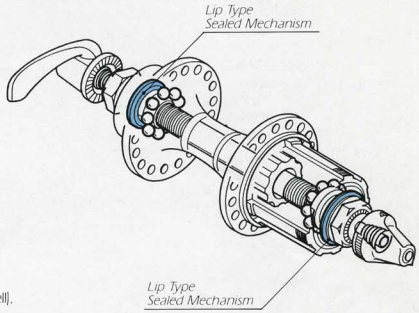
Weight	426g. Rear (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible, HG Gear Compatible
Features	Lip Type Sealed Mechanism, Uni-Balance System
Over Lock Nut Dimensions	130mm.
Axle Length	141mm.
Axle Thread	10mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	45
Chain Line	42.2mm.
Material & Finish	Aluminum•Buff & Anodized Finish (Hub Shell) Resin•Black Finish (Dust Cap), Steel•Chrome-Plated (Quick Release Housing)



Freehub

FH-6401-HG (7-speed)

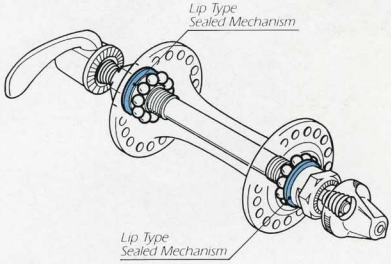
Weight	423g. (with Quick Release)
Compatibility	7-speed SIS Compatible, HG Gear Compatible
Features	UG/HG Convertible Type, Lip Type Sealed Mechanism, Uni-Balance System, One-Piece Forged Hub Body
Over Lock Nut Dimensions	126mm.
Axle Length	137mm.
Axle Thread	10mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	45
Chain Line	41.2mm.
Material & Finish	Forged Aluminum•Buff Anodized Finish (Hub Shell), Resin•Black Finish (Dust Cap), Steel•Chrome-Plated (Quick Release Housing)



Front Hub

HB-6400-F

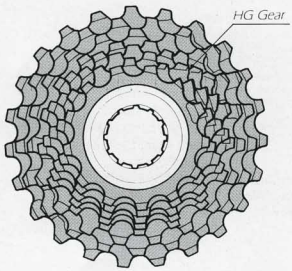
Weight	212g. (with Quick Release)
Features	Lip Type Sealed Mechanism, One-Piece Forged Hub Body
Over Lock Nut Dimensions	100mm.
Axle Length	108mm.
Axle Thread	9mm.
Spoke Holes	28H, 32H, 36H
Hole PCD	38
Material & Finish	Forged Aluminum•Anodized Finish (Hub Shell)



Cassette Sprockets

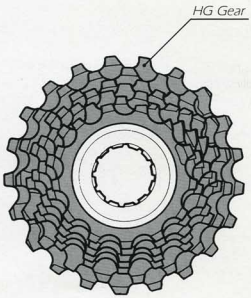
CS-HG90-8 (8-speed)

Weight	250g. (Sprocket **S** Group & Spacer)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible
Feature	8-speed HG
Use	For 1/2" × 3/32" Chain (Narrow Type Chain)
Material & Finish	Steel•Chrome Plated
Sprocket Combinations	**S** 12, 13, 14, 15, 16, 17, 19, 21T. **T** 13, 14, 15, 16, 17, 19, 21, 23T. **U** 12, 13, 14, 15, 17, 19, 21, 23T. **V** 13, 14, 15, 17, 19, 21, 23, 26T. **W** 12, 13, 15, 17, 19, 21, 23, 25T.



Cassette Sprockets

CS-HG90 (7-speed)



Weight	286g. (Sprocket **I** Group & Spacer)
Compatibility	7-speed SIS Compatible
Feature	7-speed HG
Chain Size	1/2" × 3/32" (Narrow Type Chain)
Material & Finish	Steel•Chrome Plated
Sprocket Combinations	

E	12, 14, 16, 18, 21, 24, 28T.
H	13, 15, 17, 19, 21, 23, 26T.
I	13, 14, 15, 17, 19, 21, 23T.
J	13, 14, 15, 16, 17, 19, 21T.
L	12, 13, 14, 15, 17, 19, 21T.
M	13, 15, 17, 19, 21, 24, 28T.

Cassette Sprockets

CS-6400-6/7

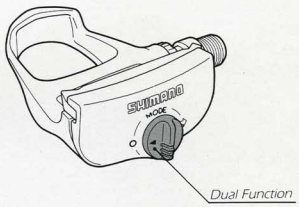
Weight	223g. (7-speed Sprocket 12—21T. & Spacer)
Compatibility	6 & 7-speed SIS Compatible
Feature	New Uniglide Teeth
Chain Size	1/2" × 3/32" Chain (Narrow Type Chain)
Material & Finish	Steel•Silver Finish (Sprocket)
Standard Sprocket Combinations	Teeth

6-speed	13, 14, 15, 16, 17, 18T. 13, 14, 15, 17, 19, 21T. 13, 14, 17, 19, 21, 23T. 13, 15, 17, 19, 21, 24T. 13, 15, 17, 20, 23, 26T. 13, 15, 17, 20, 24, 28T. 12, 14, 17, 20, 24, 28T. 13, 15, 17, 20, 25, 30T. 12, 14, 16, 19, 22, 26T. 12, 14, 17, 20, 25, 30T.
7-speed	12, 13, 14, 15, 16, 17, 19T. 12, 13, 14, 15, 17, 19, 21T. 13, 14, 15, 17, 19, 21, 24T. 13, 14, 15, 16, 17, 19, 21T. 13, 15, 17, 19, 21, 23, 26T. 13, 15, 17, 19, 21, 24, 28T. 15, 16, 17, 18, 19, 20, 21T.

	6-speed	7-speed
Threaded Sprockets	12—16T. (6S mark)	12—16T. (7S mark)
2nd Gear (Spline Type) w/Spacer	13T. (6S mark)	13T. (7S mark)
Spline Sprockets	14—26T./28T./30T./32T./34T.	
Spacer Width	3.65mm. (Light Gray)	2nd—3.30mm. (except 13T.) 3rd to low-3.15mm. (7S mark) (Dark Gray)

Clipless Pedal

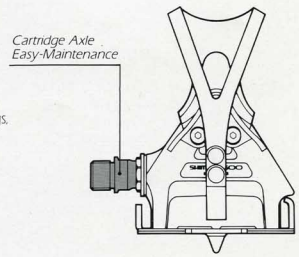
PD-6402



Weight	450g. (Pedal, Pair), 92g. (Cleat & Hardware)
Features	Dual Function, 34° Road Clearance, Easy Maintenance Cartridge Axle, Aerodynamic Dustcupless Design, Efficient Sealed Mechanism, Adjustable Cleat Grip Tension, Compatible Look® Cleats, Low-Profile Design
Crank Thread	English BC 9/16" × 20T.P.I.
Material & Finish	Aluminum (Body), Cr-Mo Steel (Axle),

Pedal

PD-6400

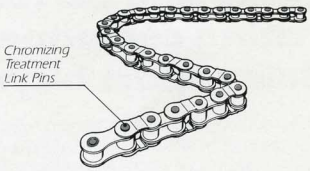


Weight	478g. (Pair, Including Toe Clip Size L)
Features	Positive Grip Shoe Creat, 34° Road Clearance, Easy-Maintenance Cartridge Axle, Compound Structure of Resin Bushing and Cup & Cone Bearings, Aerodynamic Design, Sealed Mechanism
Toe Clip Size	M, L, LL
Crank Thread	English BC 9/16" × 20T.P.I.
Material & Finish	Aluminum (Body), Aluminum•Anodized Finish (Front Plate), Cr-Mo Steel (Axle), Steel•Chrome-Plated or Aluminum•Anodized Finish (Toe Clip)

HG Chain

CN-HG90/-HG91

Weight	326g. (110 Link)
Compatibility	Shimano Total Integration Compatible
Features	Narrow Type HG Chain, Bussingless Design, Chrome Treatment Link Pins
Size	1/2" × 3/32"
Material & Finish	Silver Finish (Roller & Pin Link Plate)



Head Parts

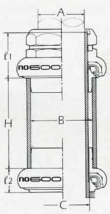
HP-6400

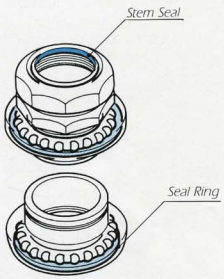
Weight	100g.
Features	Road Type Compact & Light Weight, Sealed Mechanism, Burnished & Polished Finish
Material & Finish	Aluminum (Upper & Lower Cup), Cr-Mo Steel (Races), Stainless Steel (Lower Cone)
Height Variation	Upper Cone: 22.0mm., Lower Cone: 11.5mm.

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 ×24T.	30.2mm.	26.4mm.
French	M25 × P1.0	30.2mm.	26.4mm.

Dimensions

ℓ_1	22.0mm.
ℓ_2	11.5mm.
H	Head Tube Length
A	22.3mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" ×24T. (English Thread)/ M25" × P1.0 (French Thread)

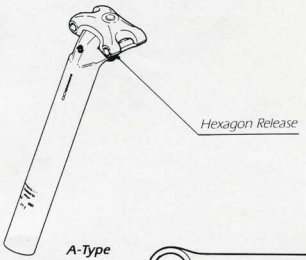




Seat Post

SP-6400-A (Round Tube, A Type)
SP-6400-B (Semi Oval Tube, B Type)

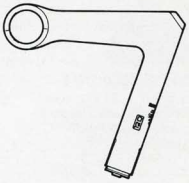
Weight	284g. (B Type, 27.2mm.)
Features	Aerodynamic Design, Hexagon Release
Shaft Adjustment Length	25.0mm.—27.2mm.
Material & Finish	Aluminum•Anodized Finish



Handle Stem

HS-6400

Weight	286g. (100mm.)
Features	Aerodynamic Design, Hexagon Release
Extension	80mm., 90mm., 100mm., 110mm., 120mm., 130mm.
Handle Stem Diameter	22.2mm.
Handlebar Clamp Diameter	25.4mm., 26.0mm.
Material & Finish	Aluminum•Anodized Finish



Beauty and performance combine in an exciting component group for the quality sport bicycle.

The Shimano 105SC components were developed to offer both performance and stylish appearance. Quality construction and a full range of advanced Shimano functions make 105SC a high-performance component group. Compact aerodynamic design and a striking color treatment make the 105SC-equipped bicycle a beautiful machine. Shimano 105SC offers the quality and appearance that appeals to beginners, triathletes, dedicated sportsmen – anyone who appreciates a quality performance-oriented bicycle.



7-Speed SIS

105SC features 7-speed SIS that gives a wider pro-type gear selection with Shimano Index System precision. Anybody can shift gears quickly and accurately thanks to the click-stop accuracy of SIS shifting.

Super SLR

105SC's side pull SLR calipers feature offset pivot points that increase the power multiplication factor. The result is increased stopping power with a feeling of highly modulated control.

Shimano SG

Chainwheels feature Shimano SG design. Tooth cutouts and special contours guide the chain quickly and smoothly from one chainwheel to the next. It's the closest thing yet to SIS performance for the front derailleur.

7-Speed HG Sprockets

105SC's 7-speed gear cassette uses HG sprockets. HG means that the sprockets are computer-profiled and strategically positioned to provide fast, direct, and smooth chain transfer between cogs—regardless of pedal torque or cadence.

7-Speed Freehub

The rear hub and freewheel assembly are combined in a rigid single piece freehub. The freehub creates a stronger rear wheel, reduces spoke stress, decreases rim offset, and increases power transfer efficiency.

Biopace

The computer designed shape of Biopace creates a more natural pedaling cadence. The result is less fatigue, increased stamina, and a more natural pedaling feeling.

SC



Pedal Set
PD-1055



Freehub
FH-1055-HG

Clipless Pedal Set
PD-1056



Front Hub
HB-1055-F





Cassette Sprockets
CS-HG70



Chain
CN-HG90





Sealed Cartridge Bottom Bracket
BB-UN70



Head Parts
HP-1055



Shift Lever Set
SL-1055





Rear Derailleur
RD-1055



Front Derailleur
FD-1055

Front Chainwheel
FC-1055-SG





Dual Pivot Brake
BR-1055



Brake Lever Set
BL-1055

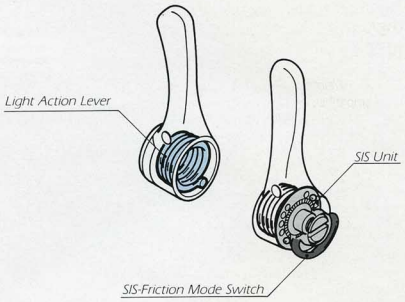
Shifting Lever

SL-1055-FCAI (7-speed SIS, Brazed-on A Type)

SL-1055-BCAI (7-speed SIS, Side Band A Type)

*"C" of Model Number means Italian Type (Fixing Bolt is 5mm. Diameter)

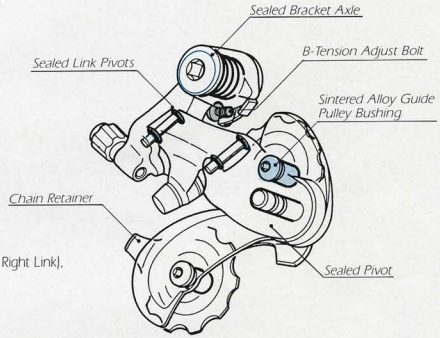
Weight	70g. (SL-1055-FCAI)
Features	7-speed SIS, SIS-Friction Mode Switch, 30° Off-set of Lever Stopper (Front), Light Action Lever (Front), Sealed Mechanism, Human Engineered Design
Lever Clamp Diameter	28.6mm.
Material & Finish	Aluminum•Enamel Finish (Lever)
Attachment Position	Down Tube



Rear Derailleur

RD-1055

Weight	247g.
Compatibility	6 & 7-speed SIS Compatible
Features	Sealed Link Pivots, Sintered Alloy Guide Pulley Bushing, Sealed Pivot & Bracket Axle, Double Servo-Panta Mechanism, B-Tension Adjust Bolt, Double Spoke Barrier, Chain Retainer
Capacity	Maximum Rear Sprocket: 28T. Minimum Rear Sprocket: 12T. Front Difference: 13T. Total Capacity: 28T.
Material & Finish	Aluminum•Enamel Finish (Bracket & Plate Body & Right Link), Steel•Pearl Bright Finish (Left Link)

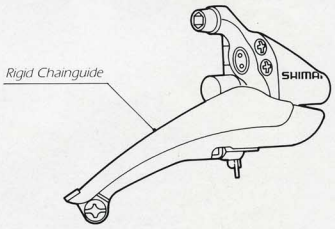


Front Derailleur

FD-1055-B (Band Type)

FD-1055-F (Italian Brazed-on A Type)

Weight	105g. (Band Type)
Compatibility	Shimano SG Compatible, Narrow Type Chain Compatible
Features	Leading Action Pantagraph Mechanism, Compact Design, Rigid Chainguide, Sealed Mechanism
Capacity	14T.
Clamp Diameter	28.0mm.—28.6mm.
Material & Finish	Aluminum•Enamel Finish (Right Link, Front & Rear Band), Steel•Pearl Bright Finish (Chain Guide)



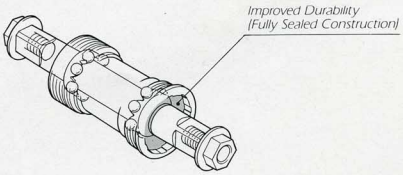
Sealed Cartridge Bottom Bracket

BB-UN70

Weight	287g. (122.5mm.)
Features	"Easy Assembly" Construction Improved Durability (Fully Sealed Construction) Maintenance Free Construction Lightweight Design

Specifications

Shell Width	68 (BC)	70 (M36)
Spindle Length	115	115
Spindle Marking	D-H	D-H

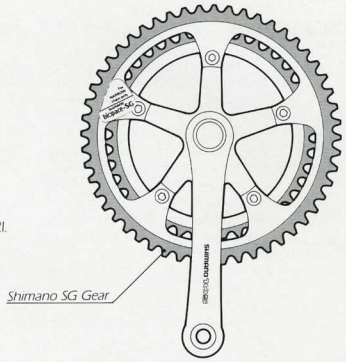


Front Chainwheel & Bottom Bracket Assembly

FC-1055-SG (Shimano SG Double, LD Type)

BB-1055 (B.B. Set)

Weight	710g. (42T., 52T., 170mm.), 340g. (B.B. Set)
Compatibility	Narrow Type Chain Compatible
Features	Shimano SG Gear, Sealed Mechanism (B.B.)
Chain Size	1/2" × 3/32"
Teeth Combination	52 × 42 (Biopace SG), 53 × 42, 52 × 42 (Shimano SG)
Crank Length	165mm., 167.5mm., 170mm., 172.5mm., 175mm.
Crank Thread	English BC 9/16" × 20T.P.I.
Cup Thread	English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.
B.B. Size	70-W-115, 68-W-113
Material & Finish	Aluminum•Enamel Finish (Crank), Aluminum•Anodized Finish (Chainring), Nickel Cr-Mo Axle

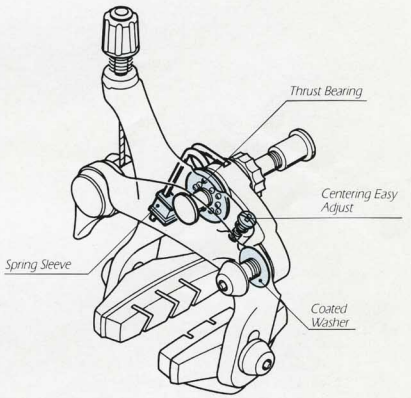


Dual Pivot Brake

BR-1055-49 (Short 49 Type)

BR-1055-57 (Long 57 Type)

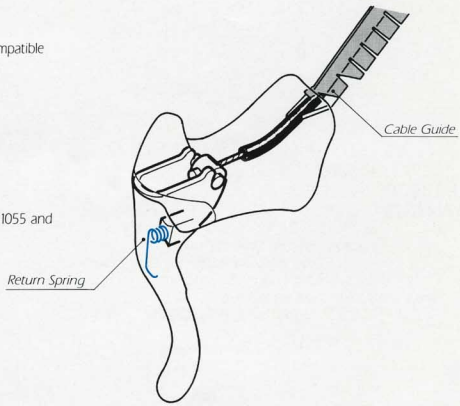
Weight	360g. (F & R, 49 Type)
Compatibility	Super SLR (Shimano Linear Response) Compatible
Features	Thrust Bearing (Y-Arm Pivot), Coated Washer (C-Arm Pivot), One-Piece & Low Profile Brake Shoe, Spring Sleeve, Click & Eccentric Type Quick Release, Easy Adjust
Material & Finish	Aluminum•Enamel Finish (Arch)
Note	BR-1055 must be used as a set with BL-1055 and the Shimano SLR outer cable with Liner. No other combination can be used.



Brake Lever

BL-1055 (Aero Type)

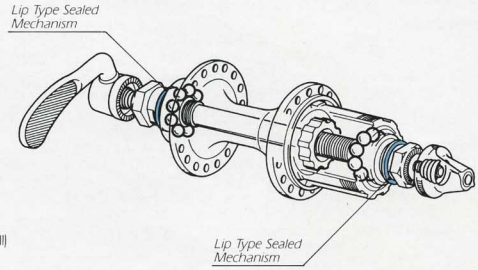
Weight	252g. (Pair)
Compatibility	Super-SLR (Shimano Liner Response) Compatible
Features	Return Spring, Human Engineerd Design, Aerodynamic Design
Lever Clamp Diameter	23.8mm.—24.2mm.
Lever Stroke	84mm.
Material & Finish	Aluminum•Enamel Finish (Lever), Aluminum•Barrel Finish (Bracket), Soft Resin (Cover)
Color (Bracket Cover)	Black, White
Note	BL-1055 must be used as a set with BR-1055 and the Shimano SLR outer cable with liner. No other combination can be used.



Freehub

FH-1055-HG (7-speed)

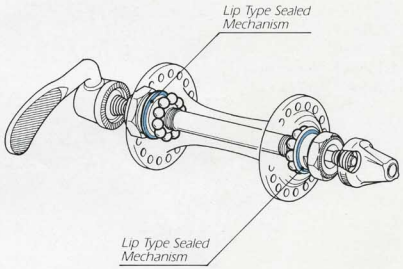
Weight	415g. (w/Quick Release)
Compatibility	7-speed SIS Compatible
Features	HG/UG Convertible Type, Lip Type Sealed Mechanism, Uni-Balance System, One-Piece Forged Hub Body
Over Lock Nut Dimensions	126mm.
Axle Length	137mm.
Axle Thread	10mm.
Spoke Holes	32H, 36H
Hole PCD	45
Chain Line	41.2mm.
Material & Finish	Aluminum•Anodized Finish (Hub Shell)



Front Hub

HB-1055-F

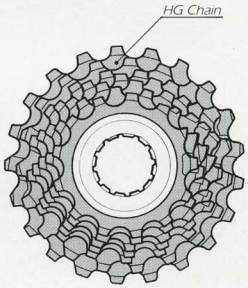
Weight	216g. (with Quick Release)
Features	Lip Type Sealed Mechanism, One-Piece Forged Hub Body
Over Lock Nut Dimensions	100mm., 96mm.
Axle Length	108mm., 104mm.
Axle Thread	9mm.
Spoke Holes	32H, 36H
Hole PCD	38
Material & Finish	Aluminum•Anodized Finish (Hub Shell)



Cassette Sprockets

CS-HG70 (7-speed)

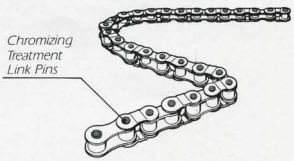
Weight	286g. (Sprocket **I** Group & Spacer)
Compatibility	7-speed SIS Compatible
Feature	7-speed HG
Chain Size	1/2" x 3/32" (Narrow Type Chain)
Material & Finish	Steel•Silver Finish
Sprocket Combinations	**E** 12, 14, 16, 18, 21, 24, 28T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.



HG Chain

CN-HG70

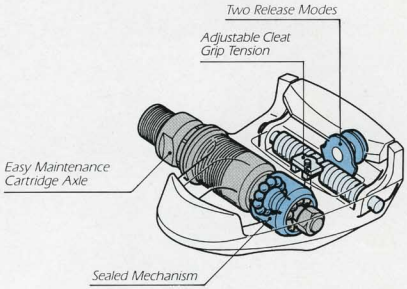
Features	Narrow Type HG Chain, Chromizing Treatment Link Pins
Size	1/2" x 3/32"
Material & Finish	Steel•Gray Finish (Roller Link Plate), Steel•Black Finish (Pin Link Plate)



Clipless Pedal

PD-1056

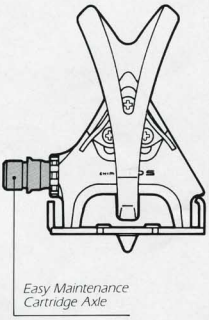
Weight	460g. (Pedal, Pair), 105g. (Cleat & Hardwear)
Features	34° Road Clearance, Two Release Modes, Easy Maintenance Cartridge Axle, Aerodynamic Dustcap-less Design, Adjustable Cleat Grip Tension, Sealed Mechanism, Low-Profile Design, Compatible Look® Cleats
Crank Thread	English BC 9/16" × 20T.P.I.
Material	Aluminum (Body), Cr-Mo Steel



Pedal

PD-1055

Weight	433g. (Pair, Including Toe Clip Size L)
Features	34° Road Clearance, Easy Maintenance Cartridge Axle, Aerodynamic Design, Sealed Mechanism
Toe Clip Size	M, L, LL
Crank Thread	English BC 9/16" × 20T.P.I.
Material & Finish	Aluminum (Body), Steel (Front Plate), Cr-Mo Steel (Axle), Resin•Dark Gray (Toe Clip)



Head Parts

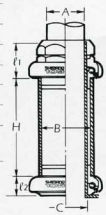
HP-1055

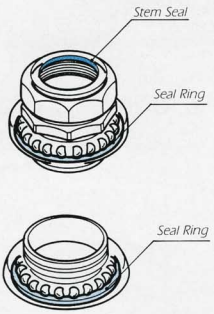
Weight	101g.
Type	Road Type
Features	Sealed Mechanism
Material & Finish	Aluminum•Silver Finish (Upper & Lower Cup), Cr-Mo Steel (Races), Stainless Steel (Lower Cone)
Height Variation	Upper Cone: 21.2mm., Lower Cone: 11.5mm.

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 ×24T.	30.2mm.	26.4mm.
French	M25 × P1.0	30.2mm.	26.4mm.

Dimensions

ℓ_1	21.2mm.
ℓ_2	11.5mm.
H	Head Tube Length
A	22.3mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" ×24T. (English Thread)/ M25" × P1.0 (French Thread)







Shimano RX100

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-A550-GS** (Long Cage) **RD-A550-SS** (Short Cage)	6 & 7-speed SIS Compatible Long Cage: Max. Rear Sprocket: 30T Min. Rear Sprocket: 12T Front Difference: 20T Total Capacity: 36T Short Cage: Max. Rear Sprocket: 28T Min. Rear Sprocket: 12T Front Difference: 13T Total Capacity: 28T 280g (Short Cage)	Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Pivot Axle Sealed Link Pivot Sintered Alloy Guide Pulley Bushing	Bracket Body: Aluminum•Barrel Finish Right Link: Aluminum•Barrel Finish Left Link: Steel•Pearl Bright Finish Plate Body: Aluminum•Barrel Finish	SIS Compatible Detachable Bracket Available
Front Derailleur **FD-A550-B** (Band Type) **FD-A550-F** (Italian Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 14T Band Diameter: ϕ28.0mm —ϕ28.6mm Stroke (w/ϕ28.6mm Band): 37—51 100g (Band Type)	Leading Action Pantagraph Mechanism Rigid Chainguide Compact Design	Front Band: Aluminum•Barrel Finish Rear Band: Aluminum•Barrel Finish Right Link: Aluminum•Barrel Finish Chain Guide: Steel•Pearl Bright Finish	Brazed-on Type Available
Front Derailleur **FD-A553-GS** (Band Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 24T (Biopace HP) 26T (Round) Band Diameter: ϕ28.0mm —ϕ28.6mm Stroke (w/ϕ28.6mm Band): 37—51 121g	Leading Action Pantagraph Mechanism Rigid Chainguide Compact Design	Front Band: Aluminum•Barrel Finish Rear Band: Aluminum•Barrel Finish Right Link: Aluminum•Barrel Finish Chain Guide: Chrome Plated	

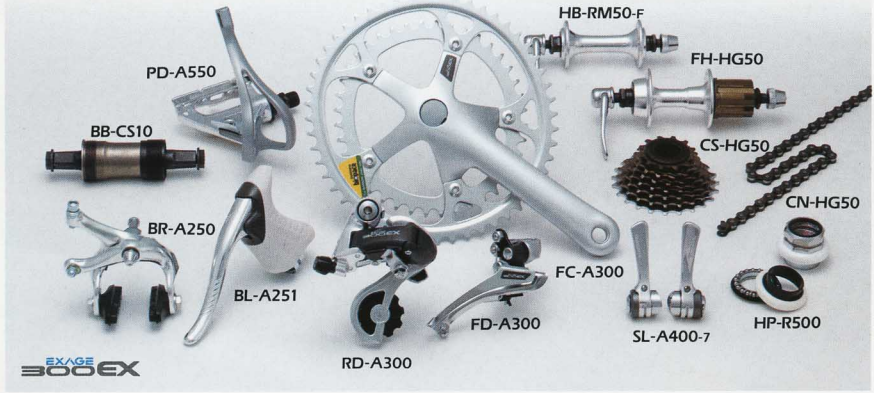
Shimano RX100

Model No.	Specifications	Features	Material•Finish	Note
Shifting Lever **SL-A550-FCAI** (Brazed-on A Type) **SL-A550-BCAI** (Side Band A Type) **SL-A550-T-FCAI** (Brazed-on A Type for Triple Chainwheel) **SL-A550-T-BCAI** (Side Band A Type for Triple Chainwheel)	7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. 72g. (SL-A550-FCAI)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism 30° Off set of Lever Stop (Except for SL-A550-T)	Aluminum•Paint Finish	(C) means Italian Type Fixing Bolt is 5mm. Diameter
Dual Pivot Brake **BR-A550-49** (Short 49 Type) **BR-A550-57** (Long 57 Type)	Super-SLR (Shimano Linear Response) Compatible Sunken Bolt Type: Front; 27.5mm. Rear; 12.8mm. Nut Type: Front; 47.0mm. Rear; 30.0mm. 348g. (F & R, 49 Type)	Easy Adjust With Synchronizer Spring Sleeve Coated Pivot Washer One Piece & Low Profile Brake Shoe	C-Arm: Aluminum•Anodized Finish Y-Arm: Aluminum•Anodized Finish Gate: Aluminum•Anodized Finish	BR-A550 must be used as a set with BL-A550 and the Shimano SLR Outer Cable. No other combination can be used.
Brake Lever **BL-A550** (Aero Type)	Super-SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 23.8mm.—24.2mm. Lever Stroke: 84 252g. (Pair)	Aerodynamic Design	Lever: Aluminum•Anodized Finish Bracket: Aluminum•Barrel Finish Cover: Soft Resin•Molding Black, White	BL-A550 must be used as a set with BR-A550 and the Shimano SLR Outer Cable No other combination can be used.
Front Chainwheel **FC-A550-SG** (Shimano SG Double, LD Type) **FC-A550-T** (Shimano SG Triple, LD Type) Bottom Bracket Assembly **BB-A550** Sealed Cartridge Bottom Bracket **BB-UN50**	Narrow Type Chain Compatible Crank Length: 165mm. (Double Only) 170mm. Teeth: FC-A550-SG: Biopace SG: Top 52T., Middle —, Low 42T.; Round SG: 53T., —, 42T. FC-A550-T: Round SG: 52T., 42T., 30T. Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0, Italian M36 × 24T.P.I. 700g. (42T., 52T., 170mm.) 327g. (BB-A550) 323g. (BB-UN50, 122.5mm.)	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Aluminum•Anodised Finish	Spindle: BB-A550 Mark: 3H / 5H Width: 70 / 68 Length: 115 / 113 Spindle: BB-UN50 Mark: D-H Width: 70 (36) / 68 (BC) Length: 115
Freehub **FH-A550**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D.: 126 Axle Length: 137 Mounting Type: Quick Release Axle Thread: 10mm. 420g.	Uni-Balance System Resin Sealed Mechanism One-Piece Forged Hub Body	Aluminum•Polish Finish	
Front Hub **HB-A550-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D.: 100 Axle Length: 108 Mounting Type: Quick Release Axle Thread: 9mm. 202g.	Resin Sealed Mechanism One-Piece Forged Hub Body	Aluminum•Polish Finish	
Cassette Sprockets **CS-HG70** (7-speed)	7-speed SIS Compatible 7-speed HG Gear Use Narrow Type Chain 286g. (Sprocket I Group)		Steel•Silver Finish	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG70**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" × 3/32") 325g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Gray Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-A550**	Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Size: M, L, LL Toe Clip Locking System: 3-screw 400g. (Pair, Including Toe Clip Size L)	32° Road Clearance Easy-Maintenance Cartridge Axle Sealed Mechanism Aero Dynamic Design Reflector (Option)	Body: Aluminum•Barrel Finish Toe Clip: Resin	
Head Parts **HP-R500**	Height: Upper Cone 22.0mm. Lower Cone 11.5mm. 121g. Variation: English/Italian: BC1 × 24T.; Press Race Diameter: Upper Cone & Lower Cap 30.2mm., Lower Cone 26.4mm. French: M25 × P1.0; Press Race Diameter: Upper Cone & Lower Cap 30.2mm., Lower Cone 26.4mm.	Sealed Mechanism	Lock Nut: Steel•Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	

EXAGE EX


FH-HG50
RD-A500
HB-RM50-F
BB-CS20
PD-A550
FC-A500
BL-A500
CN-HG50
CS-HG50
FD-A500
SL-A500
BR-A500
HP-R500
EXAGE 500EX


BB-CS10
BR-A350
HB-RM50-F
PD-A550
CS-HG50
BL-A351
FH-HG50
FC-A400
CN-HG50
HP-R500
RD-A400
FD-A400
SL-A400
EXAGE 400EX


HB-RM50-F
PD-A550
FH-HG50
BB-CS10
CS-HG50
CN-HG50
BR-A250
BL-A251
FC-A300
HP-R500
FD-A300
SL-A400-7
RD-A300
EXAGE 300EX

EXAGE 500EX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-A500**	6 & 7-speed SIS Compatible Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T. Front Difference: 13T. Total Capacity: 28T. 279g.	Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing	Bracket Body: Aluminum•Paint Finish Right Link: Aluminum•Paint Finish Left Link: Steel•Pearl Bright Finish Plate Body: Aluminum•Paint Finish	SIS Compatible Detachable Bracket
Front Derailleur **FD-A500-B** (Band Type) **FD-A500-F** (Italian Type)	Narrow Type Chain Compatible Total Capacity: 14T. Band Diameter: ø28.0mm.—ø28.6mm. Stroke (w/ø28.6mm. Band): 37—51 115g. (Band Type)	Leading Action Pantagraph Mechanism Rigid Chainguide Compact Design	Front Band: Steel•Paint Finish Rear Band: Aluminum•Paint Finish Right Link: Aluminum•Paint Finish Chainguide: Chrome Plated	Brazed-on Type Available.
Shifting Lever **SL-A500-FCAI** (Brazed-on A Type) **SL-A500-BCAI** (Side Band A Type)	7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. 76g. (SL-A500-FCAI)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism	Aluminum•Paint Finish	(C) means Italian Type Fixing Bolt is 5mm. Diameter
Dual Pivot Brake **BR-A500-49** (Short 49 Type) **BR-A500-57** (Long 57 Type)	Super-SLR (Shimano Linear Response) Compatible Sunken Bolt Type: Front; 27.5mm. Rear; 12.8mm. Nut Type: Front; 47.0mm. Rear; 30.0mm. 326g. (F & R, 49 Type)	Easy Adjust With Synchronizer Spring Sleeve Coated Pivot Washer One Piece & Low Profile Brake Shoe	C-Arm: Aluminum•Paint Finish Y-Arm: Aluminum•Paint Finish Gate: Aluminum•Barrel Finish	BR-A500 must be used as a set with BL-A500 and the Shimano SLR Outer Cable. No other combination can be used.
Brake Lever **BL-A500** (Aero Type)	Super-SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 23.8mm.—24.2mm. Lever Stroke: 84 258g. (BL-A500, Pair)	Aerodynamic Design	Lever: Aluminum•Anodized Finish Bracket: Aluminum•Barrel Finish Cover: Soft Resin•Molding Black, White	BL-A500 must be used as a set with BR-A500 and the Shimano SLR Outer Cable. No other combination can be used.
Front Chainwheel **FC-A500-BP** (Biopace Double, I.D Type) Bottom Bracket Assembly **BB-A200** Sealed Cartridge Bottom Bracket **BB-CS20**	Narrow Type Chain Compatible Crank Length: 165mm., 170mm. Cup Thread: English BC 1.37 × 24TPI. Teeth: Top 50T. 52T. 53T. Low 40T., 42T. Crank Thread: English BC 9/16" × 20TPI. French M35 × 1.0, (BB-A200 Only) Italian M36 × 24TPI. 720g. (42T., 52T., 170mm.) 333g. (B.B. Set BB-A550)	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Aluminum•Anodised Finish	Spindle: BB-A200 Mark: D-3H / D-5H Width: 70 / 68 Length: 115 / 113 Spindle: BB-CS20 Mark: D-H Width: 70 (3h) / 68 (BC) Length: 115
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D: 126 Axle Length: 137 Mounting Type: Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D: 100 Axle Length: 108 Mounting Type: Quick Release Axle Thread: 9mm 228g.	Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket I Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" × 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-A550**	Crank Thread: English BC 9/16" × 20TPI. Toe Clip Size: M, L, LL Toe Clip Locking System: 3-screw 407g. (Pair, Including Toe Clip Size L)	32° Road Clearance Easy-Maintenance Cartridge Axle Sealed Mechanism Aero Dynamic Design Reflector (Option)	Body: Aluminum•Barrel Finish Toe Clip: Resin	
Head Parts **HP-R500**	Lower Cone 11.5mm. 121g. Variation: Press Race Diameter: Upper Cone & Lower Cap / Lower Cone English/Italian: BC1 × 24T. — 30.2mm. / 26.4mm. French: M25 × P1.0 — 30.2mm. / 26.4mm.		Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	

Exage 400EX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-A400**	6 & 7-speed SIS Compatible Max. Rear Sprocket: 28T. Min. Rear-Sprocket: 12T. Front Difference: 13T. Total Capacity: 28T. 278g	Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing	Bracket Body: Aluminum•Barrel Finish Right Link: Steel•Paint Finish Left Link: Steel•Zinc Plated Plate Body: Aluminum•Barrel Finish	SIS Compatible Detachable Bracket
Front Derailleur **FD-A400-B** (Band Type) **FD-A400-F** (Italian Type)	Narrow Type Chain Compatible Total Capacity: 14T. Band Diameter: φ28.0mm.—φ28.6mm. Stroke (w/φ28.6mm. Band): 37—51 113g. (Band Type)	Leading Action Pantagraph Mechanism Rigid Chainguide Compact Design	Front Band: Steel•Pearl Bright Finish Rear Band: Aluminum•Barrel Finish Right Link: Aluminum•Paint Finish Chainguide: Chrome Plated	Brazed-on Type Available
Shifting Lever **SL-A400-FCAI** (Brazed-on A Type) **SL-A400-BCAI** (Side Band A Type)	7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. 71g. (SL-A400-FCAI)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism	Aluminum•Barrel Finish	(C) means Italian Type Fixing Bolt is 5mm. Diameter
Caliper Brake **BR-A350-49** (Short 49 Type) **BR-A350-57** (Long 57 Type)	SLR (Shimano Linear Response) Compatible Sunken Bolt Type: Front; 27.5mm. Rear; 12.8mm. Nut Type: Front; 47.0mm. Rear; 30.0mm. 310g. (F & R, 49 Type)	Spring Sleeve Coated Pivot Washer One Piece & Low Profile Brake Shoe	C-Arm: Aluminum•Paint Finish Y-Arm: Aluminum•Paint Finish	For SLR System use with SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Brake Lever **BL-A351** (Aero Type)	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 23.8mm.—24.2mm. Lever Stroke: 88 302g. (BL-A351, Pair)	With Quick Release Aerodynamic Design	Lever: Aluminum•Anodized Finish Bracket: Steel•Zinc Plated Cover: Soft Resin•Molding Black, White	For SLR System use with SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-A400-BP** (Biopace Double, LD Type) Bottom Bracket Assembly **BB-A200** Sealed Cartridge Bottom Bracket **BB-CS10**	Narrow Type Chain Compatible Crank Length: 165mm., 170mm. Teeth: Top 52T., Low 42T. Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0 (BB-A200 Only) Italian M36 × 24T.P.I. 720g. (42T., 52T., 170mm.) 333g. (B.B. Set BB-A200)	Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Steel•Paint Finish	Spindle: BB-A200 Mark: D-3H | D-5H Width: 70 | 68 Length: 115 | 113 Spindle: BB-CS10 Mark: D-H Width: 70 (36) | 68 (BC) Length: 115
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D.: 126 Axle Length: 137 Mounting Type: Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D.: 100 Axle Length: 108 Mounting Type: Quick Release Axle Thread: 9mm. 228g.	Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket I Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" × 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Brack Finish Pin Link Plate: Steel•Brack Finish	
Pedal **PD-A550**	Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Size: M, L, LL Toe Clip Locking System: 3-screw 407g. (Pair, Including Toe Clip Size L)	32° Road Clearance Easy-Maintenance Cartridge Axle Sealed Mechanism Aerodynamic Design Reflector (Option)	Body: Aluminum•Barrel Finish Toe Clip: Resin	
Head Parts **HP-R500**	Height: Upper Cone 22.0mm. Lower Cone 11.5mm. 121g. Variation: English/Italian: BC1 × 24T. — Press Race Diameter: Upper Cone & Lower Cap 30.2mm. — Lower Cone 26.4mm. French: M25 × P1.0 — Press Race Diameter: Upper Cone & Lower Cap 30.2mm. — Lower Cone 26.4mm.	Sealed Mechanism	Lock Nut: Steel•Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	

Exage 300EX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-A300**	6 & 7-speed SIS Compatible Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T. Front Difference: 13T. Total Capacity: 28T. 282g.	Cable Saver Arm Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjuster Sealed Mechanism Sintered Alloy Guide Pulley Bushing	Bracket Body: Aluminum•Barrel Finish Right Link: Aluminum•Paint Finish Left Link: Steel•Zinc Plated Plate Body: Resin•Molding	SIS Compatible Detachable Bracket
Front Derailleur **FD-A300-B** (Band Type) **FD-A300-F** (Italian Type)	Narrow Type Chain Compatible Total Capacity: 14T. Band Diameter: ø28.0mm —ø28.6mm. Stroke (w/ø28.6mm. Band): 37—51 123g. (Band Type)	Leading Action Pantagraph Mechanism Rigid Chainguide Compact Design Cable Stopper	Front Band: Steel•Pearl Bright Finish Rear Band: Steel•Pearl Bright Finish Right Link: Steel•Zinc Plated Resin•Molding Chainguide: Chrome Plated	
Shifting Lever **SL-A400-FCAI** (Brazed-on A Type) **SL-A400-BCAI** (Side Band A Type)	7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. 76g. (SL-A400-FCAI)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism	Aluminum•Barrel Finish	(C) means Italian Type Fixing Bolt is 5mm. Diameter
Caliper Brake **BR-A250-49** (Short 49 Type) **BR-A250-57** (Long 57 Type)	SLR (Shimano Linear Response) Compatible Sunken Bolt Type: Front: 27.5mm. Rear: 12.8mm. Nut Type: Front: 47.0mm. Rear: 30.0mm. 313g. (F & R, 49 Type)	Spring Sleeve Coated Pivot Washer One-Piece & Low Profile Brake Shoes	C-Arm: Aluminum•Paint Finish Y-Arm: Aluminum•Paint Finish	For SLR System use with SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Brake Lever **BL-A251** (Aero Type)	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 23.8mm.—24.2mm. Lever Stroke: 88 310g. (BL-A251, Pair)	With Quick Release Aerodynamic Design Extention Lever (Option)	Lever: Aluminum•Barrel Finish Bracket: Steel•Zinc Plated Cover: Soft Resin•Molding Black, White	For SLR System use with SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-A300-BP** (Biopace Double, LD Type) Bottom Bracket Assembly **BB-A200** Sealed Cartridge Bottom Brackert **BB-CS10**	Narrow Type Chain Compatible Crank Length: 165mm., 170mm. Teeth: Top 52T., Low 42T. Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I. French M35 × 1.0 (BB-A200 Only) Italian M36 × 24T.P.I. 720g. (42T., 52T., 170mm.) 333g. (BB. Set BB-A200)	Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Steel•Paint Finish	Spindle: BB-A200 Mark: D-3H | D-5H Width: 70 | 68 Length: 115 | 113 Spindle: BB-CS10 Mark: D-H Width: 70 (36) | 68 (BC) Length: 115
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D.: 126 Axle Length: 137 Mounting Type: Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D.: 100 | 96 Axle Length: 108 | 104 Mounting Type: Quick Release Axle Thread: 9mm. 228g.	Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket I Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Narrow Type Chain (1/2" × 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-A550**	Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Size: M, L, LL Toe Clip Locking System: 3-screw 407g. (Pair, Including Toe Clip Size L)	32° Road Clearance Easy-Maintenance Cartridge Axle Sealed Mechanism Aero Dynamic Design Reflector (Option)	Body: Aluminum•Barrel Finish Toe Clip: Resin	
Head Parts **HP-R500**	Height: Upper Cone 22.0mm. Lower Cone 11.5mm. 121g. Variation: Press Race Diameter: Upper Cone & Lower Cap / Lower Cone English/Italian: BC1 × 24T: 30.2mm. / 26.4mm. French: M25 × P1.0: 30.2mm. / 26.4mm.	Sealed Mechanism	Lock Nut: Steel•Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	

EXAGE 500CX

500CX—Flexibillity and quality for hybrid and city bicycles.



Exage 500CX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-M500-C-SGS** (Super Long Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. Front Difference: 20T. Total Capacity: 38T. 319g.	Cable Saver Arm Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjuster Sealed Mechanism Sintered Alloy Guide Pulley Bushing Chain Retainer	Bracket Body: Aluminum•Paint Finish Right Link: Steel•Paint Finish Left Link: Resin•Pearl Bright Finish Plate Body: Aluminum•Paint Finish	Brazed-on Type Available SIS Compatible Detachable Bracket Available
Front Derailleur **FD-M500-C** (Band Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 24T. (Biopace-HP) 26T. (Round) Band Diameter: φ28.0—φ28.6mm., φ31.8mm., φ34.9mm. 121g.	Trailing Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism	Front Band: Aluminum•Paint Finish Rear Band: Aluminum•Paint Finish Right Link: Aluminum•Paint Finish Chainguide: Chrome Plated	Chainstays Angle (63°—66°)
Rapidfire **ST-M050-C** (3-finger)	7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm. 582g. (Pair)	Dual Repeat Function Light Action Lever Anatomical Design Brake Lever Stroke Adjust Brake Lever Cable Adjust	Bracket: Aluminum•Paint Finish Lever: Steel•Paint Finish Resin•Molding	Use with Shimano SIS-SP Cable with Liner
Cantilever Brake **BR-C510** **BR-C510-B**	SLR (Shimano Linear Response) Compatible 202g. (BR-C510, Pair)	Rigid Computer Designed Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tention Aduster	BR-C510: Aluminum•CX Cosmetic Paint Finish BR-C510-B: Aluminum•Barrel Finish	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-M500-C-SG** (Shimano SG Gear, Triple MD Type) Sealed Cartridge Bottom Bracket **BB-UN50** **BB-CS20**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm., 175mm. Teeth: Round SG Top 50T. Middle 40T. Low 30T. Crank Thread: English BC 9/16" x 20TP.I. Cup Thread: English BC 1.37 x 24T.P.I. Italian M36 x 24T.P.I. 784g. (170mm.) 323g. (BB-UN50, 122.5mm.)	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Aluminum•Anodised Finish	Spindle: BB-UN50/BB-CS20 Mark D-EL Width 73 (BC) | 68 (BC) Length 127.5 Mark D-NL Width 73 (BC) | 70 (36) | 68 (BC) Length 122.5
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D. 135 | 130 Axle Length 146 | 141 Mounting Type Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D. 100 | 96 Axle Length 108 | 104 Mounting Type Quick Release Axle Thread: 9mm. 228g.	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket **I** Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **F** 14, 16, 18, 21, 24, 28, 32T. **G** 13, 15, 17, 20, 23, 26, 30T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **K** 13, 15, 17, 20, 24, 29, 34T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" x 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-M450**	ATB Type Crank Thread: English BC 9/16" x 20TP.I. Toe Clip Locking System: 2-screw 518g. (Pair)	30° Road Clearance Sealed Mechanism Low Profile Design Reflector (Option)	Body: Resin Plate: Steel•Paint Finish	
Head Parts **HP-R500**	Height: Upper Cone 22.0mm. Lower Cone 11.5mm. 121g. Variation: Press Race Diameter: Upper Cone & Lower Cap / Lower Cone English/Italian BC1 x 24T. 30.2mm. 26.4mm. French M25 x P1.0 30.2mm. 26.4mm.	Sealed Mechanism	Lock Nut: Steel•Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	

SHIMANO 200CX

200CX—A great cost-performance value component group for the casual bicycle.



Shimano 200CX

Model No.	Specifications	Features	Material•Finish	Note
Rear Derailleur **RD-M200-C-SGS** (Super Long Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. Front Difference: 20T. Total Capacity: 38T. 310g.	Double Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing Chain Retainer	Bracket Body: Aluminum•Barrel Finish Right Link: Steel•Paint Finish Left Link: Steel•Zinc Plated Plate Body: Resin•Molding	Brazed-on Type Available Rivet Type Bracket Available SIS Compatible Detachable Bracket
Front Derailleur **FD-M202-C** (Band Type)	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 24T. (Biopace HP) 26T. (Round) Band Diameter: ø28.0mm.—ø28.6mm. Stroke (CL = 47.5): 35—55 144g.	Rigid Chainguide Trapease Mechanism Sealed Mechanism	Front Band: Steel•Pearl Bright Finish Rear Band: Aluminum•Barrel Finish Right Link: Steel•Paint Finish Chainguide: Chrome Plated	Chainstays Angle (63°—66°)
Rapidfire **ST-M020-C**	7-speed SIS Compatible Lever Clamp Diameter: 22.2mm.	Dual Repeat Function Digital Cable Adjust	Bracket: Steel•Paint Finish Lever: Steel•Zinc Plated Resin•Molding	Use with Shimano SIS-SP Cable with Liner Without Brake Lever
Cantilever Brake **BR-C200** **BR-C200-B**	SLR (Shimano Linear Response) Compatible	Rigid Computer Designed Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tention Adjuster	BR-C200: Steel & Resin•CX Cosmetic Paint Finish BR-C200-B: Steel & Resin•Black Finish	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Brake Lever **BL-M201-C** (3-finger Type)	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm.	Digital Cable Adjust Stroke Adjust	Bracket: Steel•Resin Covered & Resin Lever: Steel•Resin Covered & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Front Chainwheel **FC-M202-C** (Shimano SG Gear, Triple Rivet Type) Sealed Cartridge Bottom Bracket **BB-CS10**	Shimano SG Gear Narrow Type Chain Compatible Crank Length: 170mm. Teeth: Biopace Top 48T. Middle 38T. Low 28T. Crank Thread: English BC 9/16" x 20TPI Cup Thread: English BC 1.37 x 24TPI. Italian M36 x 24TPI.	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Paint Finish Chain Ring: Steel•Paint Finish	Spindle: Mark D-EL Width 73 (BC) | 68 (BC) Length 127.5 Mark D-NL Width 73 (BC) | 70 (36) | 68 (BC) Length 127.5
Freehub **FH-HG50**	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 O.L.D. 135 | 130 Axle Length 146 | 141 Mounting Type Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Freehub **FH-HG20**	7-speed SIS Compatible HG Compatible Type Spoke Holes: 36H. Hole PCD: 45 O.L.D. 135 | 130 | 126 | 130 Axle Length 146 | 141 | 137 | 180 Mounting Type Quick Release | Nut Axle Thread: M10 425g. (7-speed w/Quick Release)	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Front Hub **HB-RM50-F**	Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D. 100 | 96 Axle Length 108 | 104 Mounting Type Quick Release Axle Thread: 9mm. 228g.	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish	
Cassette Sprockets **CS-HG50** (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket I Group)		Steel•Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: **E** 12, 14, 16, 18, 21, 24, 28T. **F** 14, 16, 18, 21, 24, 28, 32T. **G** 13, 15, 17, 20, 23, 26, 30T. **H** 13, 15, 17, 19, 21, 23, 26T. **I** 13, 14, 15, 17, 19, 21, 23T. **J** 13, 14, 15, 16, 17, 19, 21T. **K** 13, 15, 17, 20, 24, 29, 34T. **L** 12, 13, 14, 15, 17, 19, 21T. **M** 13, 15, 17, 19, 21, 24, 28T.
Chain **CN-HG50**	7-speed SIS Compatible 7-speed HG Compatible Narrow Type Chain (1/2" x 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish	
Pedal **PD-M350**	ATB Type Crank Thread: English BC 9/16" x 20TPI. Toe Clip Locking System: 2-screw 445g. (Pair)	26° Road Clearance Sealed Mechanism Low Profile Design Reflector	Body: Resin•Paint Finish Plate: Steel•Paint Finish	
Head Parts **HP-R500**	See Page 68			

YOUTH PACKAGE COMPONENTS

Advanced Shimano functions make cycling more enjoyable and safer for young cyclists.



Pedal Set
PD-M350



Sealed Cartridge Bottom Bracket
BB-CS20



Multiple Freewheel
MF-HG20



Head Parts
HP-R500





Chain
CN-UG50



Rear Derailleur
RD-TY70-SS



Brake Lever Set
BL-TY70-S



Front Chainwheel
FC-M100-W

Cantilever Brake
BR-TY70





Rapidfire Shift Lever Set
ST-M007-W



Front Derailleur
FD-TY20-S

YOUTH PACKAGE

Model No.	Specifications	Features	Material·Finish	Note
Rear Derailleur **RD-TY70-SS** (Short Cage)	6-speed SIS Compatible Max. Rear Sprocket: 24 – 28T Min. Rear Sprocket: 14T Front Difference: 13T Total Capacity: 28T	Double Servo-Panta Mechanism Centerom Guide Pulley Double Spoke Barrier B-Tension Adjust Bolt Sealed Mechanism Sintered Alloy Guide Pulley Bushing	Bracket Body: Steel·Zinc Plated Right Link: Steel·Paint Finish Left Link: Steel·Zinc Plated Plate Body: Zinc Plated	Rivet Type Bracket Available SIS Compatible Detachable Bracket
Front Derailleur **FD-TY20-S** For children's bicycle only.	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 14T (Round) Band Diameter: ø 28.0mm – ø 28.6mm. Stroke (CL = 43.5): 34 – 54	Rigid Chainguide Cable Stopper	Front Band: Steel·Zinc Plated Rear Band: Steel·Zinc Plated Right Link: Steel·Paint Finish Resin·Molding Chainguide: Chrome Plated	Double Chainwheel Use
Rapidfire **ST-M007-W**	Double Chainwheel Use Lever Clamp Diameter: 22.2mm.	Dual Repeat Function Digital Cable Adjust (Front Only)	Bracket: Steel·Paint Finish Lever: Steel·Zinc Plated Resin·Molding	Use with Shimano SIS Cable with Liner Without Brake Lever Left Lever Only
Cantilever Brake **BR-TY70** (Low Profil Type)	SLR (Shimano Linear Response) Compatible	Rigid Shape Sealed Internal Spring Design Easy Cable Attachment Sprint Tention Adjuster	Steel & Resin	For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner
Brake Lever **BL-TY70-S** (3-finger Type) For children's bicycle only.	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm. 237g.	Digital Cable Adjust Stroke Adjust Anatomical Design	Bracket: Steel·Resin Covered & Resin Lever: Steel·Resin Covered & Resin	Use with Shimano SLR Cable with Liner
Front Chainwheel **FC-M100-W** (Shimano SG Gear, Double Rivet Type) Sealed Cartridge Bottom Bracket **BB-CS20** **BB-CS10**	Shimano SG Gear Compatible Narrow Type Chain Compatible Crank Length: 150mm. Teeth: Biopace SG Top 44T Low 32T Crank Thread: English BC 9/16" x 20 T.P.I. Cup Thread: English BC 1.37 x 24 T.P.I. Italian M36 x 24 T.P.I.	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Steel·Resin Molding Chain Ring: Steel·Paint Finish	Spindle: Mark D-H Width 70 (36) | 68 (BC) Length 115
Multiple Freewheel **MF-HG20** (6-speed)	6-speed SIS Compatible 6-speed HG 460g. (Sprocket **Y** Group)		Steel·Brown Finish & Silver Finish (Low Gear)	Sprocket Combinations: **X** 14, 16, 18, 20, 22, 24T **Y** 14, 16, 18, 21, 24, 28T **Z** 14, 17, 20, 24, 28, 32T
Chain **CN-UG50**	Narrow Type Chain (1/2" x 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingless Design	Roller Link Plate: Steel·Black Finish Pin Link Plate: Steel·Black Finish	
Pedal **PD-M350**	MTB Type Crank Thread: English BC 9/16" x 20 T.P.I. Toe Clip Locking System: 2-screw 445g. (Pair)	26° Road Clearance Sealed Mechanism Low Profile Design Reflector	Body: Resin·Paint Finish Plate: Steel·Paint Finish	
Head Parts **HP-R500** **HP-R501** (1-1/8")	Height: Upper Cone 22.0mm. Lower Cone 11.5mm. 121g. Variation: Press Race Diameter: Upper Cone & Lower Cap / Lower Cone English/Italian BC1 x 24T: 30.2mm. / 26.4mm. English/Italian BC1-1/8" x 26T: 34.0mm. / 30.0mm. French M25 x P1.0: 30.2mm. / 26.4mm.	Sealed Mechanism	Lock Nut: Steel·Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: HP-R500; White, Silver, Black HP-R501; Black	

Getting Closer to the Cyclist

Shimano is bringing the bicycle closer to the cyclist. We are continually refining the bicycle in ways that significantly improve our ability to move faster, farther, and with greater ease under our own power. Shimano continues to pursue advanced concepts in human engineering in order to better interface the cyclist and the bicycle.

At the heart of the Shimano design philosophy lies Shimano Total Integration and Shimano Pedaling Dynamics. These two concepts have integrated the bicycle's control functions and created a more natural and versatile interface between the man and the machine. A wide range of advanced Shimano innovations have been incorporated under these themes, features like the Shimano Index System (SIS) which allows anybody to shift gears skillfully, Shimano Linear Response brakes (SLR) that upgrade braking power and control, Biopace chainwheels which provide a more natural and comfortable pedaling cadence, and HG sprockets which enhance SIS shifting, especially for off-road bicycles. And these are just a few.

Shimano bicycle components increase the safety, efficiency, and performance of the bicycle—benefits appreciated by all cyclists, from casual weekend riders to professional racers.

This is how Shimano is bringing the bicycle closer to the cyclists. It's the result of a design philosophy based on creating the most ergonomically efficient relationship between the man and the machine.

Now you can steer, brake, and shift gears without ever taking your hands off of the handlebars.

Traditionally, racing bicycles and many lightweight sport bikes used downtube shift levers that force you to let go of the handlebar in order to shift. This makes it difficult to shift while braking, cornering, or climbing without losing speed and balance. But there are times when being able to shift gears during these maneuvers can result in a real advantage – whether riding in competition or not.

The conventional off-road bicycle has its shift levers mounted on top of the handlebars a position which forces the rider to change or loosen the grip on the bar in order to shift. This results in a certain amount of instability, loss of speed, and diverted attention when shifting.

Shimano took on the challenge of developing a more "rider friendly" bicycle control system that would allow the cyclist to freely apply the brakes and shift gears during any cycling maneuver.

That system is Shimano Total Integration. Shimano Total Integration combines the advanced functions of SIS, HG sprockets, Shimano SG chainrings, and SLR brakes. The result is a dramatic improvement in bicycle control from being able to shift and brake from one hand position. This means you can shift while cornering, climbing, and even while sprinting out of the saddle – without losing speed, balance, or concentration.





SHIMANO
TOTAL
INTEGRATION

SIS
GEAR SHIFTING

SLR
BRAKING SYSTEM

RAPIDFIRE

Rapidfire and Rapidfire Plus set the new standard in off-road shifting performance.

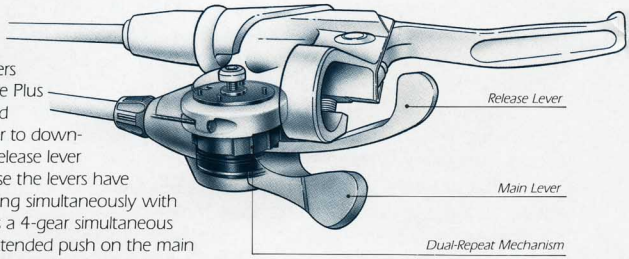
●Just what is Rapidfire and Rapidfire Plus?

Rapidfire and Rapidfire plus are Shimano's off-road shifting systems that place the shift levers under the handlebar. This allows cyclists to shift gears without changing hand position or releasing their grip on the handlebars. The Dual-Repeat ratchet action means that the levers always return to the same position. So up-shifting and down-shifting are executed with the movement always with the lever in the same position. Rapidfire Plus uses the index finger too!

XTR	DEORE XT	DEORE DX	DEORE LX
500LX	400LX	300LX	—
200GS	100GS	70GS	—
DURA-ACE	600 ULTEGRA	105SC	RX100
500EX	400EX	300EX	—

●How it Works?

Rapidfire and Rapidfire Plus use a main lever and release lever. The Rapidfire levers are shifted with the thumb (the Rapidfire Plus lever is shifted with both the thumb and index finger.) Simply push the main lever to down-shift (to a larger sprocket), or push the release lever to upshift (to a smaller sprocket). Because the levers have a 90° stroke, up to 6 gears can be shifting simultaneously with one extended push (XTR version allows a 4-gear simultaneous shift). For the front derailleur, a single extended push on the main lever will downshift the chain from the large chainring to the middle, another push will downshift to the small chainring. The lever is always in the same position, right under your thumb, as a result of the dual-repeat mechanism.



RAPIDFIRE PLUS

●Advantages

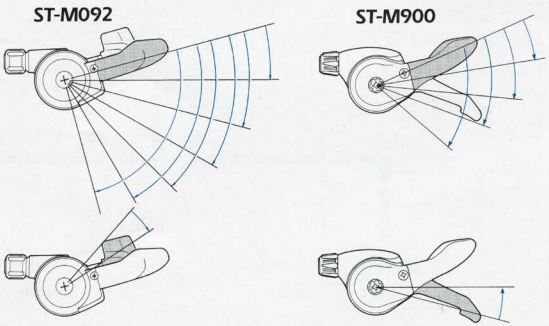
Thanks to the under-bar lever position and the Dual-Repeat mechanism, cyclists can shift Rapidfire without releasing or loosening their grip on the handlebars. This gives them the added flexibility to shift anytime—while traversing rough terrain, on downhills, uphills, or in extreme maneuvers where they can't afford to release their grip or change hand position. The result is upgraded safety, performance, and flexibility in bicycle control.

XTR	DEORE XT	DEORE DX	DEORE LX
500LX	400LX	300LX	—
200GS	100GS	70GS	—
DURA-ACE	600 ULTEGRA	105SC	RX100
500EX	400EX	300EX	—

Downshifting

Downshifting can be done up to 6 gears at a time (4 gears with XTR lever) depending on the length of the lever stroke.

Upshifting

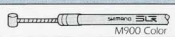
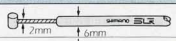
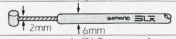
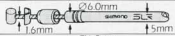
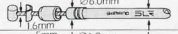
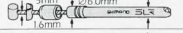
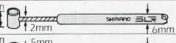
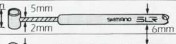
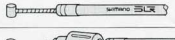
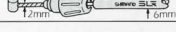


Some tips on Rapidfire applications...

Rapidfire Combination Chart

	Brake	Rapidfire (Rapidfire Plus)	Rear Derailleur	Front Derailleur
〈8-speed〉 SHIMANO XTR	BR-M900	ST-M900-8 (Rapidfire Plus)	RD-M900	FD-M900 FD-M901
〈7-speed〉 SHIMANO DEORE XT	BR-M734	ST-M095 (Rapidfire Plus) ST-M092 ST-M091 ST-M090	RD-M735	FD-M735 FD-M736
SHIMANO DEORE DX	BR-M650 BR-M651	ST-M071 ST-M070	RD-M650	FD-M650 FD-M651
SHIMANO DEORE LX	BR-M501 BR-M502	ST-M060	RD-M550	FD-M550
EXAGE LX EXAGE CX	BR-M201 BR-C510/C510-B	ST-M050 ST-M050-C	RD-M500 RD-M400 RD-M300	FD-M500 FD-M400 FD-M300
SHIMANO GS SHIMANO CX	BR-M201 BR-C200/C200-B BR-M100	BL-M201 ST-M020 ST-M020-C BL-M101 ST-M010 ST-A050	RD-M200 RD-M100	FD-M201 FD-M100
〈6-speed〉	BR-TY70	BL-TY70 ST-M007	RD-TY70	FD-TY70

Brake Cables for Use with Rapidfire Levers

Rapidfire	Inner	Outer	Inner End/Outer Cap	Option
ST-M900	Ø1.6mm	Ø5.0mm	 M900 Color	 2mm 6mm
ST-M095	Ø1.6mm	Ø5.0mm		 2mm 6mm
ST-M092	Ø2.0mm	Ø6.0mm		 1.6mm Ø6.0mm 5mm
ST-M091	Ø2.0mm	Ø6.0mm		 1.6mm Ø6.0mm 5mm
ST-M090	Ø2.0mm	Ø6.0mm		 1.6mm 5mm Ø6.0mm 5mm
ST-M071	Ø1.6mm	Ø5.0mm		 10mm 2mm 6mm
ST-M070	Ø1.6mm	Ø5.0mm		 10mm 5mm 2mm 6mm
ST-M060	Ø1.6mm	Ø5.0mm		 2mm 6mm
ST-M050	Ø1.6mm	Ø5.0mm		 2mm 6mm

Dual Control Lever

Shimano Total Integration redefines the racing bicycle.

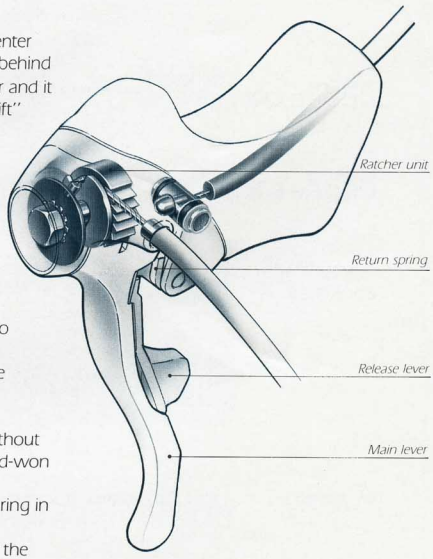
XTR	DEORE XT	DEORE DX	DEORE LX
500LX	400LX	300LX	—
200GS	100GS	70GS	—
DURA-ACE	600 ULTEGRA	105SC	RX100
500EX	400EX	300EX	—

●Just what is the "Dual Control Lever"?

The Shimano Dual Control Lever is used on road bikes in order to combine the braking and shifting functions. The brake lever (called the main lever) actually has two functions – it now shifts the derailleur as well as applying the brakes. You brake in the conventional way, but when you push the main lever toward the center of the bicycle, you shift the rear derailleur to a larger sprocket, or shift the front derailleur to the large chainring.

●How does the Dual Control Lever work?

Just push the Dual Control Lever sideways, toward the center of the bike, to downshift one gear. There's a smaller lever behind it called the "release lever." Push the right side release lever and it "releases" the shift cable, allowing the derailleur to "upshift" to the next higher gear. Push the left side release lever to downshift the front derailleur to the small chainring. Furthermore, the main lever upshifts with a ratchet action, so it always returns to the same position for the next shift.



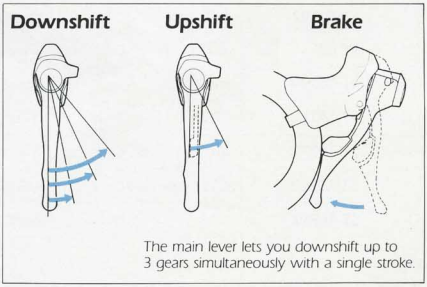
●What are the benefits for the rider?

The ability to shift quickly and accurately has always been an important factor in bicycle racing. Being in the wrong gear at the wrong time has caused many a rider to lose a race or finish poorly. Shimano Total Integration has eliminated the adverse effect that shifting can have on the performance of a competitive cyclist.

With Shimano Total Integration you can...

- ...shift fast and precisely under maximum pedal loads without letting go of the handlebar and without giving up hard-won speed.
- ...shift into in the best gear to exit a turn while still cornering in order to save valuable seconds. acceleration.
- ...instantly get the best gear when climbing, in or out of the saddle, without releasing the bars and without letting up on pedal speed.
- ...quickly shift into the best gear without letting go of the bars when riding on bad roads.

For the first time, Shimano Total Integration gives the racing cyclist total freedom in gear selection regardless of maneuver, road or race conditions. Furthermore, it reduces rider indecision, lessens fatigue, and provides a significant competitive advantage for the racing cyclist.

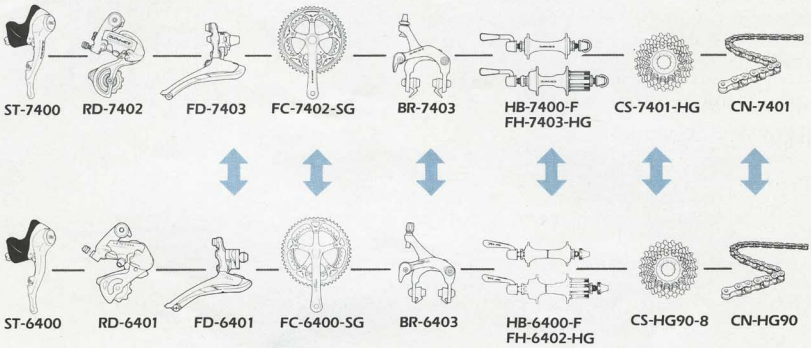


The main lever lets you downshift up to 3 gears simultaneously with a single stroke.

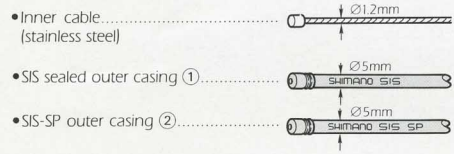
Some tips on dual control lever applications...

Component Combinations and Interchangeability

DURA-ACE 8-Speed



Applicable Shifting Cables

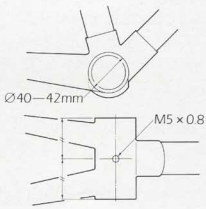




Recommended Small Parts

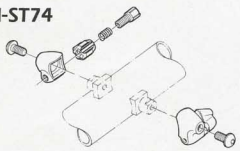
Cable Guides: **SM-SP55**
SM-SP25
SM-SP15
SM-SP16





Cable guides are made of a special material in order to repel mud, water, sand, grit etc. The use of a cable guide is recommended to promote smooth cable movement and precise shifting operation.

Outer Stopper: **SM-ST74**



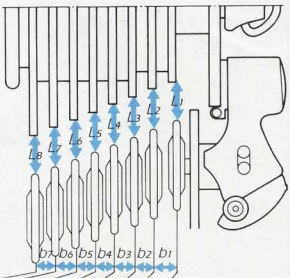
Installing an Outer Stopper allows the derailleur cable tension to be easily adjusted at a location away from the rear derailleur cable adjusting barrel. Cable tension can also be adjusted while riding.

SHIMANO INDEX SYSTEM

The indexed shifting system that continues to define the state of the art.

●Just what is the Shimano Index System?

The Shimano Index System takes the guesswork out of derailleur shifting by using a shift lever that guides you to the next gear with a built-in index action. Once the shift lever is moved by the rider, it automatically falls into the next indexed position to complete the shift. There is no need to "adjust" or "trim" the derailleur. SIS does it all for you.

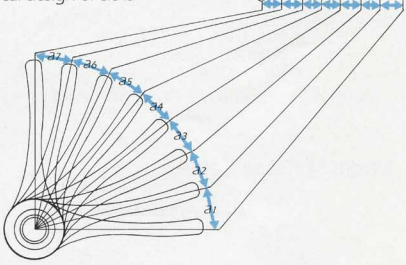


●How does SIS work?

SIS utilizes a ratchet action indexing unit installed inside the lever body. One index movement of the shift lever moves the cable a specified amount and operates the derailleur to shift the chain to the next sprocket. While simple in concept, the mechanical design of SIS is more complex.

For example, the cable must travel a different amount for each shift due to the changing relationship between lever angle (a1 ~a7), guide pulley position (b1 ~b7), and sprocket position (L1 ~L8).

Cable travel is not constant due to the pivotal action of the dual-pivot parallelogram derailleur which convents a diminishing arc into constant linear intervals. Further complicating the matter are different sprocket sizes and the need to keep the guide pulley as close as possible to each sprocket as it traverses the cluster. The heart of SIS is the indexing unit in the shift lever which must compensate for the changing geometry of the rear derailleur at each shift point.

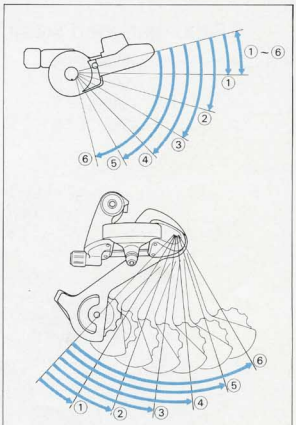


●What are the benefits to the rider?

With SIS, shifting performance no longer depends on the skill of the rider to manipulate the shift lever. SIS makes derailleur shifting just like using pushbuttons to select a pre-programmed station on the radio. Compare this to conventional shifting systems which are like tuning that same radio using a rotating tuning knob.

SIS is a significant advantage for competitive cyclists because it frees you to shift without diverting attention from the race and without slowing you down.

While SIS is a great performance aid for racing cyclists, it also helps all cyclists. Freed from the inconvenience of searching for gears and adjusting the derailleur, casual and sport cyclists alike find that SIS makes cycling a lot safer and more enjoyable.

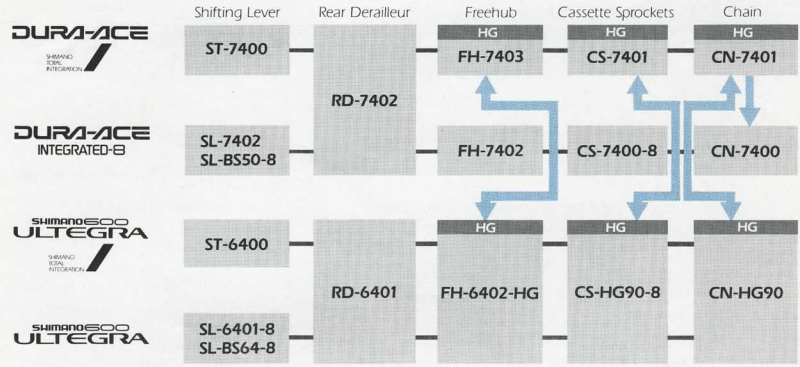


Rapidfire also utilizes SIS. The Rapidfire SIS unit determines the precise positioning of the rear derailleur for maximum shifting performance.

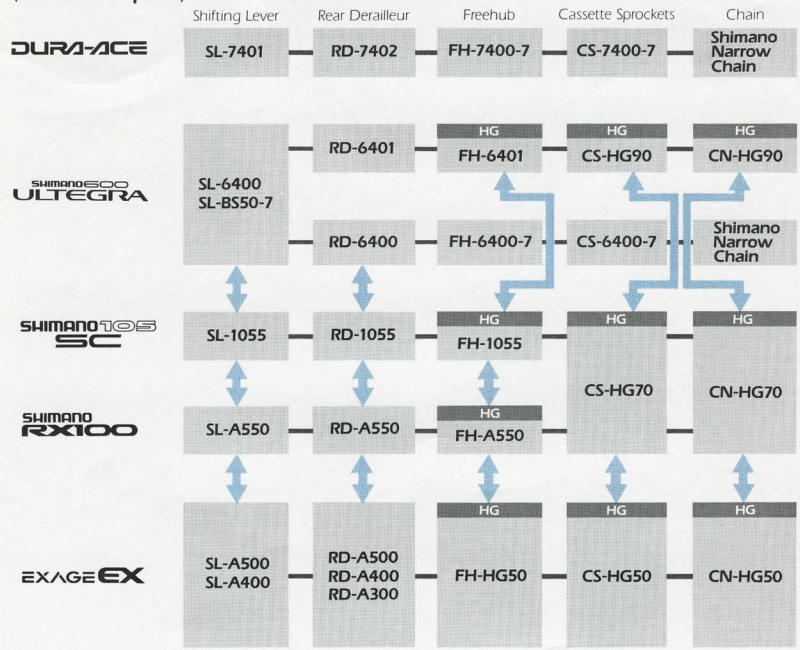
Some Tips on SIS applications...

■Combination & Interchangeability

〈On-Road 8-speed〉



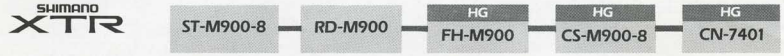
〈On-Road 7-speed〉



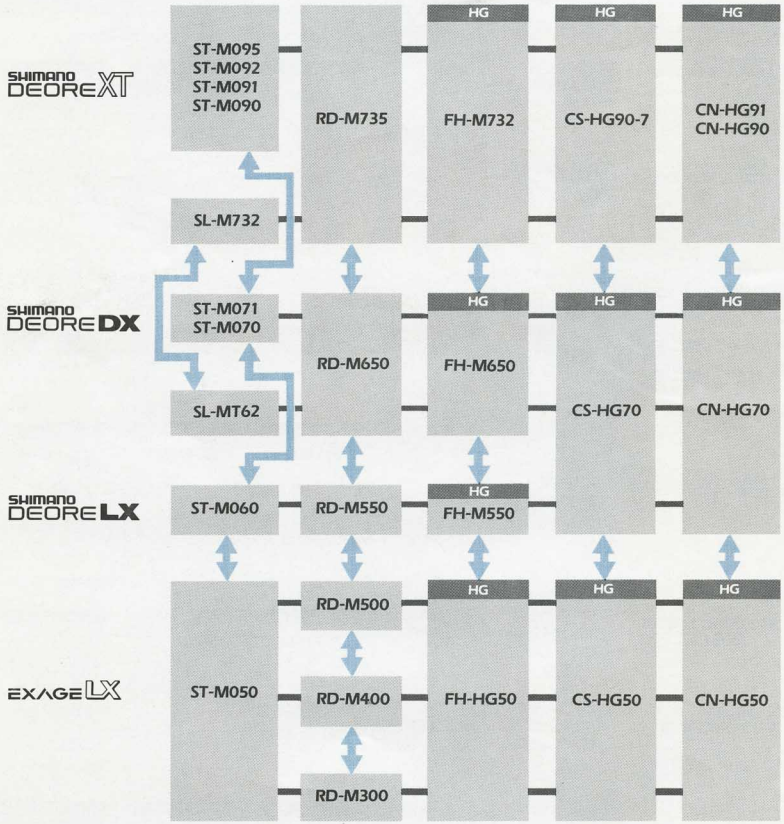
Some Tips on SIS applications...

Combination & Interchangeability

〈MTB 8-speed〉



〈MTB 7-speed〉



THE SHIMANO **FREEHUB**

A significant improvement of rear hub design.

●Just what is the freehub?

The freehub integrates the rear hub and freewheel mechanism into a single unit design. Cassette sprockets slip on and off the splined freehub for fast and easy gear changes.

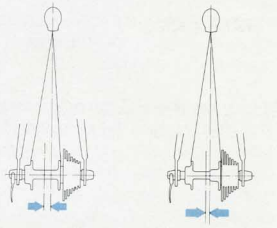
●How does the freehub work?

Besides integrating the hub body and freewheel into a single unit, the freehub features "unibalance" design which helps to reduce rim offset, often called "rear wheel dish". With reduced dish, spoke tensioning can be more uniform to make a stronger wheel. In addition, freehub design allows the right side hub bearing to be positioned closer to the right dropout where the axle is supported. This greatly reduces the load on the axle and just about eliminates bent axles.

●What are the benefits to the rider?

The freehub is the heart of a stronger and better performing rear wheel which contributes to cycling performance and safety. A freehub wheel also results in extended spoke life, greater stiffness, and increased power transmission efficiency. Furthermore, Shimano offers an 8-speed freehub which does not increase the amount of dish over 7-speed types.

Compare the Difference In Rim Offset



Rim offset with conventional rear hub.

Reduced rim offset with Shimano freehub.

Some tips on Freehub applications...

■Greater Interchangeability Among the Freehubs

Series	DURA-ACE/Champagne			600 ULTEGRA/Silver	600EX/Silver	Standard/Black
Model No.	CS-7400-8	CS-7400-7	CS-7400-6	CS-6400-7	CS-6400-6	CS-1000
	For 8-speed	For 7-speed	For 6-speed	For 7-speed	For 6-speed	For 6-speed
Top Gear (threaded gear)	7-8S ★ 12—14T		6S ★ 12—18T	7S 12—16T	12—16T	13—16T
Built-In Spacer Type Second Gear	13 INDEX 7-8S ★ 13—15T		13 INDEX 6S ★ 13T	13 INDEX 7S 13T	13 INDEX 6S ★ 13T	
Other Spline Gears (including flat type second gear)	18 INDEX 14—26, 28T			18 INDEX ★2 14—26, 28, 30, 32, 34T		18 INDEX ★1 ★2 14-26, 28, 30, 32, 34T
Sprocket Spacer A	No Need★3	No Need★3	No Need	Resin: Dark gray 3.3mm 7S For second gear *Sprocket spacer A is unnecessary if a 13-teeth sprocket is used	Steel *Sprocket spacer A is unnecessary if a 12-teeth sprocket is used	For top gear
Sprocket Spacer B	Aluminum Silver 3.0mm 8S	Steel: Silver 3.1mm	Steel: Gray 3.65mm	Resin: Dark gray 3.15mm 7S For third gear-low gear	Resin: Light gray 3.7mm For second gear-low gear *Sprocket spacer B is unnecessary if a 13-teeth sprocket is used	3.7mm For second gear-low gear
Sprocket Fixing Bolt	No Need			21.5mm		23.2mm

⟷ Denotes interchangeability.
➡ Denotes interchangeability if used without sprocket cassette through-bolt.

★Some 6-speed gears do not have the 6S mark. Some 7-speed and 8-speed gears have only the 7S mark.
★**1:** Standard spline sprockets are interchangeable with Dura-Ace but do not have the high-performance tooth profile.
★**2:** Sprockets used as a 2nd gear on a 6-speed freehub, or a 3rd gear on a 7-speed freehub, must have cassette-type through-bolt holes if cassette mounting is desired.
★**3:** Spacer unnecessary because the 2nd gear is a built-in spacer type.

Smoother shifting under any pedaling condition.

●Just what are HG sprockets?

HG sprockets have been computer-designed to upgrade SIS shifting performance through smoother, faster, and more positive chain transfer on the freewheel. Strategic sprocket positioning and special profiles guide the chain directly from cog to cog with minimal override and no slipping. For 1992, HG sprockets are available in a new "spider" design. The five largest cogs are mounted to a cone-shaped spider which allows a higher level of precision in sprocket spacing, reduces weight, and increases rigidity and power transfer efficiency.

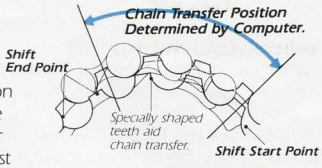
●How do the HG sprockets work?

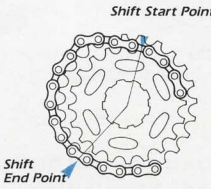
When shifting gears with conventional sprockets, the chain rides on top of the sprocket teeth and sometimes slides over the teeth before fully engaging. This slows down chain transfer between the sprockets and results in sloppy, inprecise shifts.

HG gears use specially shaped teeth and indexed sprocket positioning determined by computer. This allows the chain to move directly from one cog to the next without override and without slipping. Specified chain release and pickup points on the sprockets assure that the chain shifts quickly from one sprocket to the next only at the designated shift points.

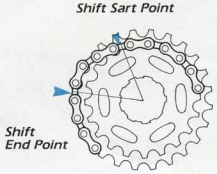
●What are the benefits for the rider?

The main advantage of HG sprockets is quick and precise shifting under any pedaling load or cadence. In other words, gears can be changed quickly and accurately anytime without letting up on pedal pressure. HG sprockets realize faster, smoother, and more crisp shifts that are not affected by chain tension.





Conventional Sprockets:
Chain rides on top of larger gear teeth before engaging teeth.



HG Sprockets:
Chain directly engages teeth on larger sprocket.

Some tips on HG sprocket applications...

Sprocket Interchangeability

CS-7401/CS-HG90-8

S	12	13	14	15	16	17	19	21			
T		13	14	15	16	17	19	21	23		
U	12	13	14	15		17	19	21	23		
V		13	14	15		17	19	21	23	26	
W	12	13		15		17	19	21	23	25	

CS-HG90/CS-HG70/CS-HG50

E	12		14		16		18		21		24		28		
F			14		16		18		21		24		28		32
G		13		15		17		20		23		26		30	
K		13		15		17		20			24		29		34
M		13		15		17	19		21		24		28		
H		13		15		17	19		21	23		26			
L	12	13	14	15		17		19	21						
I		13	14	15		17		19	21	23					
J		13	14	15	16	17		19	21						

Cautionary Points:

- HG gears should always be used in complete sets.
- Sprockets enclosed in boxes are interchangeable (when cassette binder bolts are not utilized).
- Some sprockets which are compatible with multiple sprocket groups are marked with letters denoting those groups.



HG spider sprockets reduce weight, improve sprocket spacing precision, increase rigidity, and increase durability.

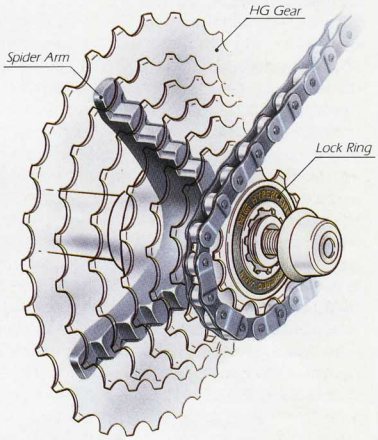
XTR	DEORE XT	DEORE DX	DEORE LX
500LX	400LX	300LX	—
200GS	100GS	70GS	—
DURA-ACE	600 ULTEGRA	105SC	RX100
500EX	400EX	300EX	—

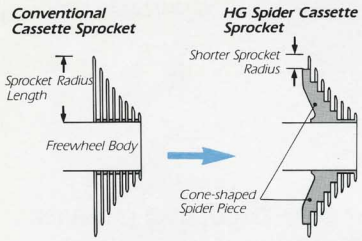
●Just what is the HG spider sprocket?

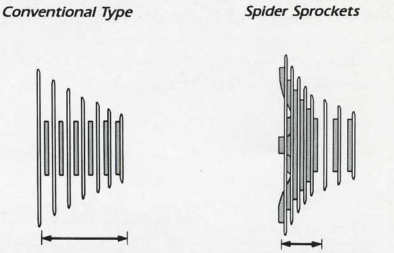
Conventional sprockets are separate pieces mounted on the freewheel boss one at a time. The largest five gears of the spider sprocket are integrated to a cone-shaped boss which slides on the freewheel body. Weight is reduced while rigidity and durability are increased. A further benefit is that sprocket spacing precision is improved.

●How does it work?

- The HG spider sprocket reduces the distance from the sprocket mounting point to the tip of the sprocket's teeth. This shorter distance acts to reduce sprocket flex, distortion, and bending.
- Conventional spline-type freewheels use separate sprockets which must be spaced evenly on the freewheel boss. Because the sprockets are compressed on the boss, the total thickness can vary. The spider sprocket eliminates this problem by securing the five largest sprockets to the cone-shaped spider. The result is a more precise sprocket pack thickness when mounted on the freewheel boss.
- Durability is also significantly enhanced with the spider sprockets. For example, when the chain is on the seventh gear of a conventional 7-speed cassette, the remaining six sprockets are completely unloaded, and as a result, allow the seventh sprocket to carry the full load through a single point. With the spider sprocket, the same pedaling load is distributed through the five spider sprockets, so all the gears share the load. Furthermore, weight is significantly reduced—from 415 to 333 grams.







6 or 7 separate gears sandwiched on a freewheel boss often result in a varying cluster thickness dimension.

The fixed and highly precise dimension of the five spider sprockets upgrade freewheel spacing precision and improve shifting performance.

●What are the benefits of HG spider to the rider?

The spider sprocket upgrades the precision positioning of the HG sprockets to promote faster and crisper shifting for competitive and serious sport cyclists. Because the spider sprocket makes for a stronger cassette unit, the performance of the entire rear wheel is upgraded. Furthermore, the significant reduction in weight is a real advantage in competition and it is especially appreciated by racing cyclists.

SHIMANO LINEAR RESPONSE

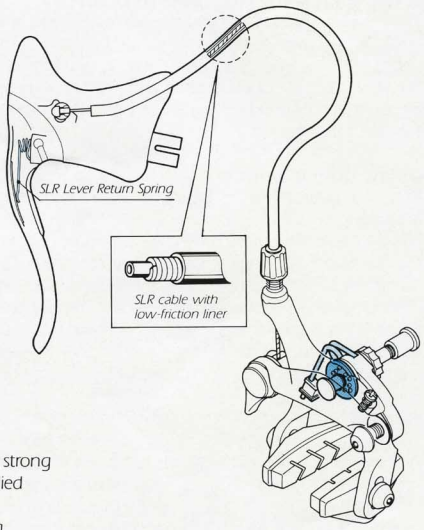
Increased braking power with a more sensitive feeling of control.

●Just what is the "Shimano Linear Response"?

SLR utilizes special designs which eliminate a significant amount of friction from the levers, cables, and calipers of the brake system. The result is upgraded braking performance through a highly responsive lever feeling and strong, easily modulate stopping power.

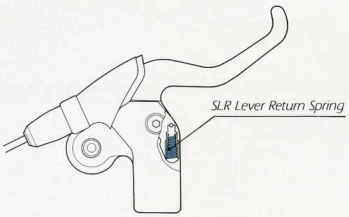
●How does SLR work?

SLR uses a return helper spring in the brake lever itself. Because the return movement of the lever action is not completely dependent on the strength of the spring at the caliper, a weaker caliper spring can be used. A thrust bearing and coated washer are used between the caliper arms, and a brake cable with a low-friction liner are also utilized to further reduce friction in the system. The result is a lighter and lively lever feeling and a more balanced system. Braking power is more efficiently transmitted to the wheel with greater feedback returned to the lever.



●What are the benefits of SLR to the rider?

Balanced braking performance means a lot more than just strong braking power. If braking power cannot be effectively applied with optimum control, the brake system is inefficient and potentially dangerous. SLR delivers a higher level of braking control through a highly sensitive "linear response" feeling at the lever. Power input at the lever is efficiently converted into bike stopping power. You get improved stopping performance and a greater feeling of confidence in your ability to control the brakes. Racing cyclists use SLR to dive deeper into turns before braking and to finely control descending speeds. Sport and casual cyclists ride with more confidence and enjoyment knowing that the brakes will always respond predictably.

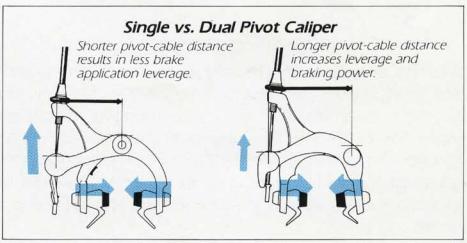


SUPER SLR
SHIMANO LINEAR RESPONSE

Super SLR enhances the braking power of Shimano Linear Response.

●Just what is Super SLR?

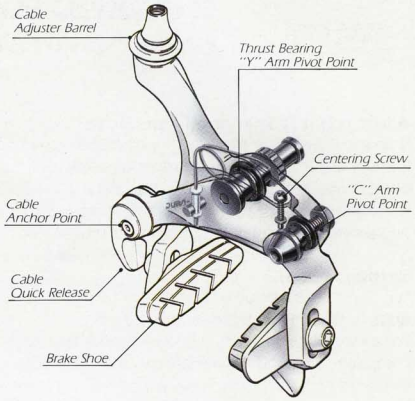
Super SLR is a new type of sidepull brake caliper and lever. What makes the Super SLR caliper different is that it has an individual pivot point for each caliper arm. These separate pivot points increase the power multiplication factor which results in more braking power.



●How does Super SLR work?

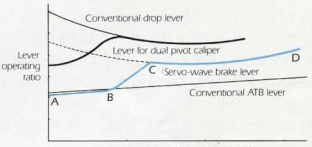
The main parts of the sidepull caliper are the "Y" arm and the "C" arm (named for their basic shape). With conventional brakes, both arms pivot on the same point. The Super SLR caliper, however, gives the "C" arm its own pivot point that's separate from the "Y" arm in order to increase leverage. The result is that the pressure applied to the rim increases in relation to the pressure applied at the lever. Furthermore, the increase in braking leverage at the "C" arm is transferred to the "Y" arm so that the increased leverage is applied equally between the two caliper arms.

The increased power multiplication factor causes the shoes to move a shorter distance in relation to lever travel. To compensate for this shortened caliper movement, the Super SLR brake lever has been designed to provide a 2-phase action. The 1st phase quickly brings the brake shoes into contact with the rim, while the 2nd phase applies increased leverage to enhance braking power.



●What are the benefits for the rider?

The benefit of Super SLR is that it provides the cyclist with greater braking power without the need to squeeze the lever harder. Coupled with the highly sensitive SLR mechanism, Super SLR provides even more braking power that can be easily modulated at the lever with a secure feeling of control. Super SLR is a significant improvement in overall braking performance.



SLR PLUS
SHIMANO LINEAR RESPONSE

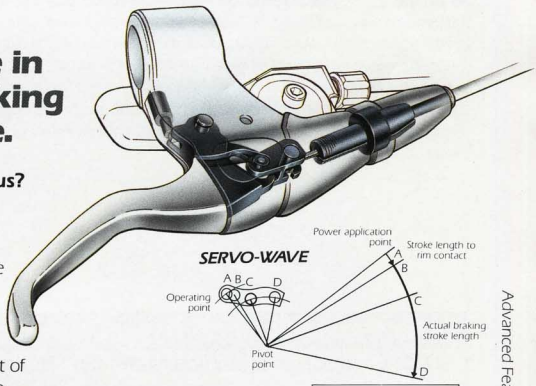
The ultimate in off-road braking performance.

●Just what is Shimano Linear Response Plus?

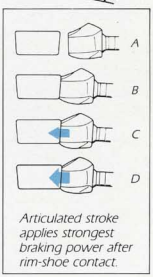
SLR Plus is a new high performance braking system for the off-road bicycle. The heart of the system is the "servo-wave" brake lever which actually increases the power multiplication advantage as the lever is pulled.

●How does the SLR Plus work?

SLR Plus utilizes a unique cam-type cable holder and servo-wave link. As the lever is pulled, the pivot point of the servo-wave link changes its position in relation to the cable holder. This results in a faster shoe-rim contact time and an increase in lever output when it's really needed—after the brake shoes come into contact with the rim.



A-B stroke brings shoes quickly into contact with rim. B-C stroke slows cable take-up. C-D stroke increases power multiplication factor for super-strong but easily modulated braking power.



Articulated stroke applies strongest braking power after rim-shoe contact.

●What are the benefits to the rider?

In off-road riding, there are many times when you've got to keep a firm grip on the bars while braking hard. Yet this makes it difficult to steer and use the brakes simultaneously when going over rough terrain. SLR Plus helps reduce fatigue and increase control with a soft modulated lever action. More lever travel is provided in the range where the brakes are in actual contact with the rim. The end result is that it becomes easier to maintain braking power and control, especially over rough terrain.

SHIMANO HYPERDRIVE

●Just what is Shimano HyperDrive?

Shimano HyperDrive consists of upgraded designs for the crankset, front derailleur, bottom bracket, and left-side Rapidfire shift lever which now features an SIS-type click-stop shifting action. Shimano HD improves chainwheel shifting smoothness, speed, and responsiveness. These four components must always be used together in order to realize the full benefits of the HyperDrive function.

XTR	DEORE XT	DEORE DX	DEORE LX
500LX	400LX	300LX	—
200GS	100GS	70GS	—
DURA-ACE	600 ULTEGRA	105SC	RX100
500EX	400EX	300EX	—

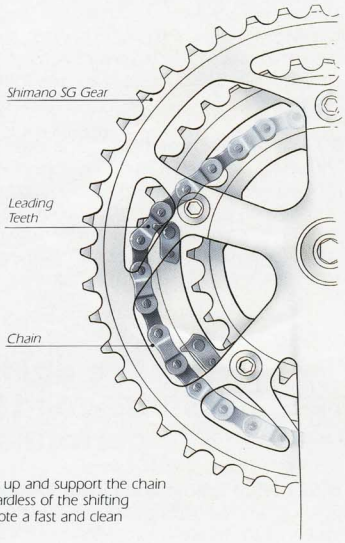
●How does HyperDrive work?

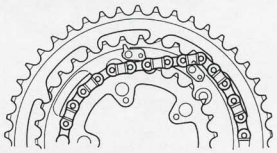
Shimano SG chainwheels, introduced previously, were designed by computer to pick up and release the chain at specific points on the chainring in order to make chainwheel shifting faster and more precise. HyperDrive was designed especially for triple chainwheels in order to provide clean and crisp shifts, especially from the small chainring to the middle chainring. HyperDrive utilizes "leading teeth," lateral projections positioned below the middle chainring teeth at the shifting location. These leading teeth help to pick up and guide the chain to the middle chainring. HyperDrive uses an index detent (along with an audible click) in the Rapidfire shifting lever to provide a front chainwheel shifting action which is much like SIS.

●What are the benefits of HyperDrive to the cyclist?

HyperDrive allows the cyclist to execute the traditionally difficult low-middle chainwheel shift without the need to overshift, feel the gear into place, or adjust the derailleur to prevent rubbing after the shift is made. Just like SIS, HyperDrive now makes possible front chainwheel shifting that's fast, accurate, and foolproof. Racers will especially appreciate the speed and accuracy of HyperDrive shifting.

• Leading teeth on the side of the middle chainring help guide the chain to the pick up teeth.





• Leading teeth pick up and support the chain between links regardless of the shifting condition to promote a fast and clean chainwheel shift.

Some tips on Shimano HyperDrive applications...

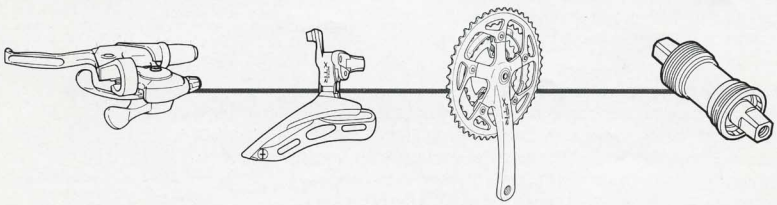
The Components Which Make Up Shimano HyperDrive

ST-M900
Left Rapidfire lever set

FD-M900/M901
Front derailleurs

FC-M900
Front chainwheel

BB-UN90
Sealed cartridge bottom bracket



Single piece Bottom Bracket completely eliminates parts assembly and difficult adjustment procedures.

●Just what is the cartridge bottom bracket?

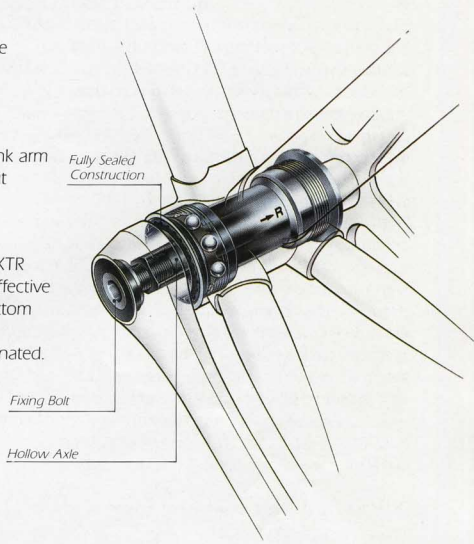
The separate ball bearings, cups, water seal, and axle of the conventional bottom bracket have been combined in a single integrated cartridge-type unit which eliminates the need for bearing adjustment and makes installation simple.

●How does it work?

The XTR cassette bottom bracket is designed so that the crank arm actually extends into the bottom bracket shell to help seal out water, mud, and dirt.

●What are the benefits for the cyclist?

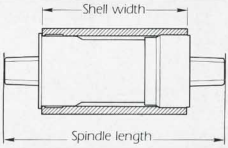
Because the crank arm extends into the bearing cup of the XTR cartridge bottom bracket, it forms an additional and highly effective seal against the invasion of water, mud, and dirt into the bottom bracket bearings. Furthermore, bottom bracket installation is simplified and the need to adjust bearings is completely eliminated. Durability is also significantly upgraded.



Some tips on Sealed Cartridge Bottom Bracket applications...

■Product specifications

Note: Please make sure to use the BB-UN90 together with the front chainwheel (FC-M900) as a set. Other combinations are not possible.



Model No.	Type	Chain line	Spindle length	Shell width	Bottom bracket cup thread dimensions	Stamped marking
BB-UN90	Triple	47.5	107	68	BC 1.37 × 24T	MM107
				70	M36 × 24T	MM107
				73	BC 1.37 × 24T	MM107
		50	113	68	BC 1.37 × 24T	LL113
				73	BC 1.37 × 24T	LL113
BB-UN70 BB-UN50 BB-CS20 BB-CS10	Double	43.5	115	68	BC 1.37 × 24T	D-H
				70	M36 × 24T	D-H
	Road Triple	45	122.5	68	BC 1.37 × 24T	D-NL
	MTB Triple	47.5		70	M36 × 24T	D-NL
				73	BC 1.37 × 24T	D-NL
		50	127.5	68	BC 1.37 × 24T	D-EL
				73	BC 1.37 × 24T	D-EL

Notice: Please check the size of each screw prior to assembly. (mm)

SHIMANO SG

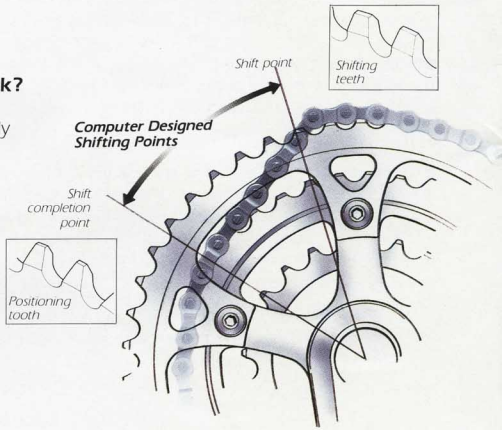
A new standard in chainwheel shifting performance.

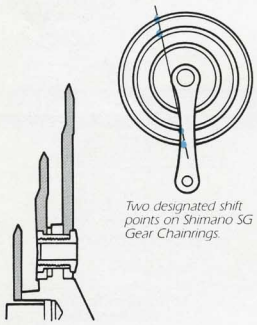
●Just what is the Shimano SG Chainwheels?

The Shimano SG Chainwheels utilizes a special design which has evolved from the computer-designed HG sprockets. The Shimano SG Chainwheel was developed to reduce shifting shocks and makes chainwheel shifting smoother and more reliable than ever before.

●How does the Shimano SG Chainwheel work?

Shifting from the large chainring to a smaller one under a heavy pedal load creates a shock as the chain suddenly releases. This shock and often results in a thrown chain or a messy grinding shift onto the small chainring.
The Shimano SG Chainwheel solves this problem by using special chain release and pickup teeth at the two points on the chainwheel where pedal pressure is lightest. This helps the chain to transfer smoothly and positively without any abrupt shocks and without flying off of the chainwheel.
The Shimano SG Chainwheel works equally well on Biopace and normal round chainrings by promoting fast and smooth shifts because the chain transfers quickly and directly without riding on top of the gear teeth.





Two designated shift points on Shimano SG Gear Chainrings.

Special gear profiles upgrade chain control.

●What are the benefits for the rider?

Because the pickup and release points on the chainwheels are carefully positioned in relation to each other, the chain moves quickly and directly from one chainwheel to the other. Dropped chains, grinding, and late engagement are all but eliminated. The result is a great improvement in shifting speed and reliability.
For example, racing cyclists can shift without letting up on pedal pressures. Off-road cyclists can shift with more confidence knowing that they're not going to throw a chain or miss a shift. All cyclists will find riding the bike more fun due to the greater feeling of shifting control that the Shimano SG Chainwheel offers.

	Model	Biopace SG	Round SG
RACING	**FC-7402-SG**	—	*A-53 × 42 *A-52 × 42 *B-53 × 39
	FC-6400-SG **FC-1055** **FC-A550**	52 × 42	53 × 42 52 × 42
MTB	**FC-M900** Shimano Hyperdrive	—	48 × 36 × 26 46 × 36 × 26 w/SG-X Middle Gear
	FC-M730-SG	48 × 38 × 28 46 × 36 × 26	48 × 38 × 28 46 × 36 × 24
	FC-MT60-SG **FC-M550** **FC-M500**	48 × 38 × 28 46 × 36 × 26	48 × 38 × 28 46 × 36 × 24
	FC-M400 **FC-M300**	48 × 38 × 28	50 × 40 × 30
	FC-M200 **FC-M202-SG** **FC-M100** **FC-M102-SG** **FC-TY70-SG**	48 × 38 × 28	—
CROSS	**FC-M500-C**	—	50 × 40 × 30
	FC-A550-T	—	52 × 42 × 30
	FC-M202-C	48 × 38 × 28	—
	FC-M100-W	—	44 × 32

*If the inner is 42, A-53 or A-52 should be used for the outer; if the inner is 39, B-53 should be used for the outer.

biopace
Computer-Designed Drive System

Creating a more rider-friendly pedaling action.

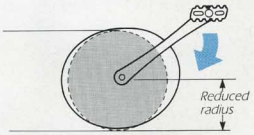
●Just what is Biopace?

Traditional round chainrings force the leg to maintain an constant pedaling cadence. This actually fights the leg's natural tendency to change speed during the pedaling motion. Biopace is a non-round chainwheel which has been ergonomically designed to create a more natural pedaling cadence that takes into account the normal changes of the leg when pedaling.

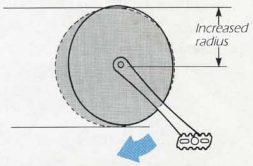
●How does Biopace work?

The Biopace concept was born when Shimano used a computer to analyze the pedaling motion with a round chainring. Computer analysis demonstrated that leg power was not being efficiently utilized. With the computer's help, Shimano found that a round chainring forces the leg to conform to a constant rotational speed. This fights the natural tendency of the leg to slow down at the top and bottom of the pedal stroke as it does when walking or running. It became apparent that a variable-speed pedaling cadence in harmony with the natural speed changes of the leg would be a more efficient way to pedal.

Biopace does exactly this. The special shape of the Biopace chainring increases the chainwheel radius to slow down the leg at the top and bottom of the pedal stroke. The radius is decreased and the down and upstroke phases of the pedaling cycle to help the leg move faster. In this way, Biopace creates a more natural pedaling movement.



Chainwheel Radius is Reduced During the Downstroke.



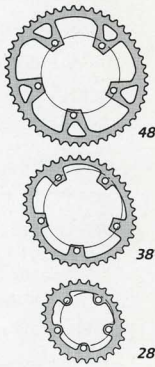
Chainwheel Radius is Increased During the Upstroke.

●What are the benefits for the rider?

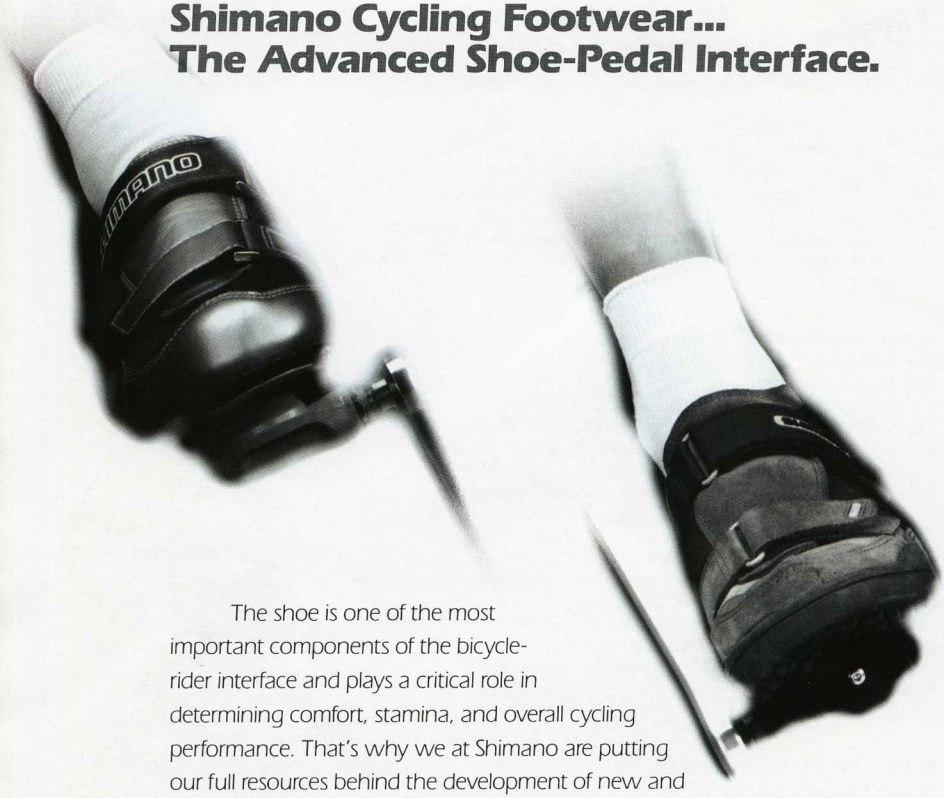
Because the Biopace chainwheel uses energy more efficiently, you can ride farther with less fatigue. Computer calculations disclosed that a Biopace chainring can actually reduce energy demands up to 3 percent for a given distance.

Besides saving energy and increasing stamina. Biopace reduces stress on the knees and makes for a more comfortable pedaling feeling. Biopace chainrings are also available in performance versions designed for the faster pedaling cadences of performance oriented cyclists.

Individual Designed Chainrings According to Function



Shimano Cycling Footwear... The Advanced Shoe-Pedal Interface.



The shoe is one of the most important components of the bicycle-rider interface and plays a critical role in determining comfort, stamina, and overall cycling performance. That's why we at Shimano are putting our full resources behind the development of new and better cycling footwear.

For example, the SH-R200 professional racing shoe takes advantage of the latest in new materials technology to provide maximum strength and rigidity at minimum weight. The SH-R110 and SH-T110 racing shoes offer excellent cost-performance value for racers and sport cyclists alike. The SPD (Shimano Pedaling Dynamics) system allows mountain bike riders and touring cyclists to get clipless pedaling performance from a shoe that's safe and comfortable to walk in. The SH-A100 shoe combines SPD's on/off bike capability with a lightweight racing-type design that gives off-roaders, sport and fitness cyclists alike more freedom to walk in their cycling shoes.

This is the Shimano cycling footwear line-up—advanced cycling technology that enhances the performance and enjoyment of cycling for anyone who rides a bike.

The "Bike-it or Hike-it" Shoe-Pedal Interface.

SPD
SHIMANO PEDALING DYNAMICS

Shimano Pedaling Dynamics is a new type of cycling shoe and pedal system which creates a more versatile foot-pedal interface between the cyclist and bicycle. This is because SPD is the first cycling shoe system that works both on and off the bike.

On the bike, SPD gives you the pedaling stability and power transfer efficiency of a high performance clipless cycling shoe. Off the bike, SPD becomes a comfortable sure-footed hiking shoe that gives excellent traction on any surface thanks to its treaded rubber sole recessed cleat.

The original line of SPD shoes was designed primarily for off-road cyclists. SPD now includes a new lightweight racing-style shoe that brings SPD versatility to on-road cyclists as well.





A versatile application shoe-pedal interface with special benefits for the off-road cyclist.

●Just what is Shimano Pedaling Dynamics?

Shimano Pedaling Dynamics (SPD) is a new type of cycling footwear which really does two jobs. It's a high-performance clipless pedaling system, yet the SPD shoe lets you walk securely and comfortably off of the bike, on any surface, because there's no cleat interference with the ground.

●How does SPD work?

All SPD shoes feature a unique design. The cleat is recessed into the outer sole so it doesn't protrude and interfere with walking. When you get on your bike, the cleat secures into the SPD pedal to provide a stable clipless pedaling interface and highly efficient pedaling action. Off-road SPD shoes feature an outer sole with an aggressive tread pattern that makes them excellent hiking shoes as well. The new lightweight SPD racing/fitness shoe uses the same recessed cleat design but with a smoother textured outer sole. Any SPD shoe provides clipless pedaling performance and the ability to walk safely and comfortably on any type of surface.

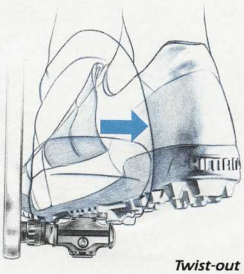
Just step onto the pedal to engage the cleat locking mechanism. Release is through a simple twist-out movement. The open architecture design prevents mud buildup and the cleat binding mechanism is incorporated on both sides of the pedal for easy entry without pedal flipping.

●What are the benefits for the rider?

The main benefit to the rider is that SPD provides more versatility without sacrificing performance. On the bike, you get the same power transfer efficiency as if you were wearing a clipless racing shoe. Yet off the bike you can walk safely and comfortably just like you would wearing hiking shoes.

This is a real advantage in off-road riding, and especially off-road competition, when you often have to get off the bike to take on really rugged terrain on foot. But SPD also gives you the freedom to get off the bike to rest, explore, or walk a bit. While SPD is the best shoe-pedal system for off-road competition, it's also great for touring and sport cycling.

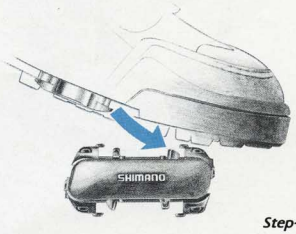
SPD gives you competition-level clipless pedaling efficiency on the bike. SPD also gives you the freedom to get off the bike and walk comfortably and safely. This versatility is the real advantage of SPD.



Twist-out



Recessed cleat



Step-in

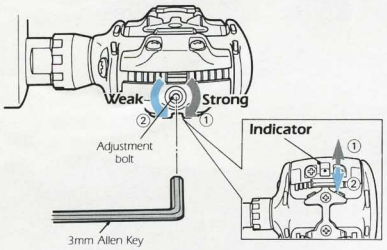
Some tips on SPD applications... (PD-M737/PD-M525)

Cautions during use

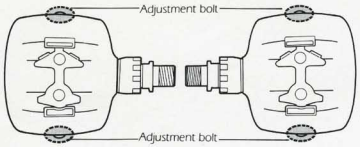
- Place one foot on the ground, practice engaging and disengaging from the pedal a number of times until you get used to it and then start to ride.
- First ride on the level ground and go to off-road riding only when you are used to engaging and disengaging from the pedal.
- First adjust the retention force of the pedal to suit yourself and then begin cycling.
- Use a lesser retention force when cycling in adverse conditions.
- Keep the cleat area and pedal clear of foreign matter to ensure proper engagement/disengagement.

Adjusting plate spring tension

The tension of the spring is adjusted for each pedal (top & bottom) with the adjustment bolt in the rear. It gets stronger when turned clockwise and weaker when turned counterclockwise.
At this time, the indicator positioned below the adjustment bolt displays spring tension.

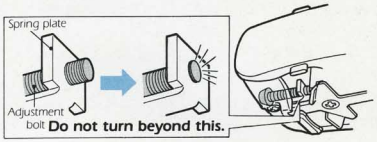


There are adjustment bolts in four places for each pair of pedals. Check the position of the indicator and the number of turns of the adjustment bolt so the spring tension is the same in all four positions.

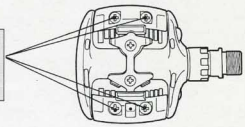


There may be unexpected trouble due to the different feeling when engaging and disengaging on the right & left and top & bottom if there is a difference in the spring tension.

The spring tension changes in 3 steps with one turn of the adjustment bolt. The adjustment bolt turns nine complete turns. When it is turned all the way in the strong direction it suddenly becomes hard to turn. Do not turn it beyond that point. When turning in the weak direction, do not turn it any further when the end of the adjustment bolt comes to the spring plate position.



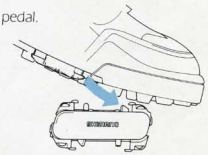
Be sure not to loosen these bolts.



Use

- **Engaging**

Press the cleat into the pedal.

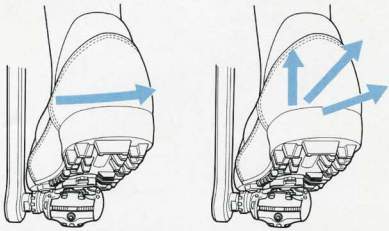


- **Disengagement**

If a certain type of cleat is set, the disengagement mode can be selected.
Make sure about the marking or color of the cleat.

SM-SH50 (black):
single release mode.
Remove by twisting your heel to the outside.

SM-SH55 (silver):
multiple release mode.
Remove by twisting your heel to any direction.



Place one foot on the ground and practice engaging and disengaging a number of times.
Give yourself enough time to get used to it.

Racing Footwear

SH-R200

The ultimate lightweight racing shoe for all-out competition and the most discriminating fitness and sport riders.

Weight	430g. (pair/size 39)
Materials	Upper: Vectran/synthetic leather
	Sockliner: Cambrelle/EVA
	Out-sole: Carbon graphite fiber
Size	39—47 in 1/2 sizes, 48 (18 sizes)
Color	Silver



Racing/Performance Footwear

SH-R110

NEW

A lightweight racing-type shoe with a professional look—great for all levels of road racing as well as performance-minded sport cyclists.

Weight	643g. (pair/size 43-1/2 with cleat)
Material	Upper: Non-stretch synthetic leather
	Sockliner: Cambrelle/EVA
	Out-sole: High-impact resin
Size	36–48 (no half sizes)
Color	Bright Silver



Racing/Performance Footwear

SH-T110

NEW

A lightweight racing-type shoe that lends itself well to a wide range of competitive cycling styles—from real racing to fitness cycling and casual competition.

Weight	657g. (pair/size 43-1/2 with cleat)
Material	Upper: Polyurethane split leather and breathable nylon mesh
	Sockliner: Cambrelle/EVA
	Out-sole: High-impact resin
Size	36–48 (no half sizes)
Color	Black w/bright silver straps



SH-R200

The racing shoe for those who take their on-bike performance seriously.

If you're serious about performance cycling, this shoe could be the most valuable component on your bike. The SH-R200 was designed with one goal in mind—to win. No expense was spared to make it Shimano's top footwear performer. Non-stretch Vectran mesh, rigid lightweight carbon fiber sole, outer sole air intake vents, and other advanced features give the SH-R200 a real competitive advantage.



FEATURES	BENEFITS
1. Air intake vents	1. Front air vents provide flow-thru ventilation for cooling and comfort.
2. 3-point skid pads	2. Provide a non-slip walking surface when off the bike.
3. Adjustable cleat mount	3. 7mm of cleat adjustment assure desired positioning for rider.
4. Full carbon graphite fiber sole	4. Great strength and high rigidity with minimum weight for more efficient pedaling.
5. Rubber protector pads	5. Protects carbon fiber sole when walking off the bike.
6. Water repellant leather treatment	6. Special treatment protects from water to significantly extend service life.
7. "Bullet-proof" Vectran mesh	7. Super-strong non-stretch Vectran nylon mesh will not distort under high pedaling pressures.
8. Double hook and loop type straps	8. Distributes stress over wide area of foot to lessen fatigue while providing a comfortable foot-hugging fit.
9. Cambrelle & EVA inner sole	9. Provides a strong yet comfortable and breathable cradle for the foot. Helps wick away moisture and lessen fatigue.
10. Reflectors	10. Generous reflector treatment enhances safety through greater night visibility.

SPD Footwear

SH-M200

NEW



Designed to withstand high pedaling loads and take all the punishment of off-road competition, this is the SPD shoe for top level off-road competition as well as all serious ATB riding.

Weight	804g. (pair/size 43 w/o cleat)
Material	Upper: Non-stretch synthetic leather and Cordura nylon
	Sockliner: Cambrelle/EVA
	Out-sole: Rubber (treaded)
Size	36–48 (no half sizes)
Color	Black, Blue & Orange

SPD Footwear

SH-M100



The high-performance SPD shoe for off-road racing, heavy-duty dirt riding, touring, and other serious cycling styles.

Weight	680g. (pair with cleat/size 39)
Material	Upper: Nylon/leather/cambrelle
	Sockliner: Cambrelle/EVA
	Midsole: Glass fiber/nylon
	Out-sole: Rubber
	Heel counter: EVA
Size	36, 37–47 in 1/2 sizes, 48 (23 sizes)
Color	Gray

SPD Footwear

SH-M050



The general-purpose SPD shoe for everything from off-road riding to touring and general fitness cycling.

Weight	820g. (pair without cleat/size 39)
Material	Upper: Nylon/leather
	Sockliner: Cambrelle/EVA
	Midsole: Glass fiber/nylon
	Out-sole: Rubber
Size	36, 37–47 in 1/2 sizes, 48 (23 sizes)
Color	Gray & blue
	Violet & green
	Pink & gray

SPD Footwear

SH-M030

NEW



An economical off-road and touring shoe that brings SPD performance within the reach of just about everybody. Slightly more flexible midsole makes the SH-M030 a very comfortable shoe to walk in.

Weight	810g. (pair/size 43 w/o cleat)
Material	Upper: Split leather & breathable nylon mesh
	Out-sole: Rubber (hiking tread design)
Size	36–48 (no half sizes)
Color	Light Gray

SH-M200

The SH-M200 is the top-of-the-line SPD shoe for all-out off-road competition and all serious ATD riders who insist on the best. Not limited to off-road competition, the SH-M200 is also a great shoe for touring.



FEATURES	BENEFITS
1. High-traction low-cut tread pattern	1. Provides excellent grip on all standard pedals and ground surfaces.
2. Recessed cleat	2. Locks into SPD pedal for more pedaling power yet doesn't interfere with walking. Can be adjusted 20mm front-rear and 5mm side to side (cleat included with pedal set).
3. Glass fiber/nylon midsole	3. Creates rigid platform for high pedaling efficiency and prevents foreign objects from penetrating through to the foot.
4. EVA heel counter	4. Protects heel from shocks and foreign objects.
5. 3-dimensionally formed nylon mesh upper panels	5. Allows shoe to fit more naturally to foot contours for increased pedaling efficiency, comfort, and stamina.
6. Double hook and loop type straps	6. Use of two hook and loop type straps and laces better makes for a snug fit for enhanced pedaling efficiency on the upstroke.
7. Cambrelle & EVA sockliner	7. Helps wick away moisture and absorb shocks and vibration to reduce fatigue.
8. Ankle pad	8. Protects ankle while helping shoe conform to ankle contours.
9. Reflective tab	9. Helps cyclists be seen at night for greater safety.





SPD Footwear

SH-A100

NEW



SPD versatility in a new lightweight sport riding shoe.

Weight	780g. (pair/size 43 w/o cleat)
Material	Upper: Breathable nylon mesh Out-sole: Rubber
Size	36–48 (no half sizes)

SPD Pedal

PD-A525

NEW



Weight	390g. (pedal only)
Materials	Body: Aluminum• White/Purple Paint Finish
	Binding mechanism: Steel/Aluminum
	Axle: Cro-moly
	Cleat: Steel
Crank Thread	BC 9/16" × 20T.P.I.



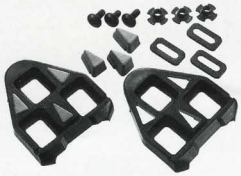
SH-A100

"Hike-it or bike-it" versatility in a reasonably priced light-weight cycling shoe that's also part of the SPD system. The SH-A100 offers lightweight, racing-type styling, and on/off bike versatility for a wide range of cyclists including off-roaders, tourists, fitness, and sport riders alike.

FEATURES	BENEFITS
1. Extra long double-strap binding	1. Provides a foot-hugging fit that is more efficient and comfortable.
2. Split leather nylon mesh upper	2. Split leather nylon upper breathes yet resists stretching. Ventilates foot while providing good upstroke pedaling efficiency.
3. Rubber sole	3. Textured rubber sole for safe and secure walking.
4. Contoured insole	4. Contoured insole follows natural shape of foot for a more comfortable fit on and off the bike.
5. Reflectorized heel and side panels	5. Provide greater visibility and safety for night cycling.
6. Recessed cleat nuts	6. Recessed cleat nuts don't protrude from sole—maintain walkability with or without cleats mounted.

FOOTWEAR ACCESSORY ITEMS

Small Parts
SM-SH24
Shimano Design—Look
Compatible Cleat w/Hardware
Code No. 40B9811



Small Parts
SM-SH50 (black)
SPD Cleat w/Hardware
Single release mode
Code No. 4249801
SM-SH55 (silver)
Multiple release mode
Code No. 4249805



Shimano CYCLING FOOTWEAR
INSOLE
SIZE
36—38-1/2
39—40-1/2
41—42-1/2
43—44-1/2
45—46-1/2
47—48



Reflector
SM-PD20
(for PD-M737, PD-M525)





Reflector
SM-PD30 (for PD-A525)





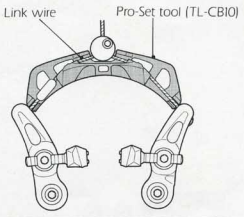
SMALL PARTS & TOOLS

Tool

TL-CB10

Pro-Set Tool for Cantilever Brakes.

This Pro-Set tool is for the correct and quick installation of the cantilever brake.



■Combinations

The Pro-Set tool and link wire are different for each cantilever brake model. Combine the parts correctly.

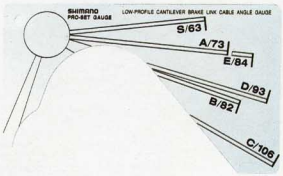
Type	Pro-Set Tool (TL-CB10)	Link Wire	Cantilever Brake
A	Color: Blue 		**BR-M734** Front **BR-M650** Front
			**BR-M900** **BR-M201** **BR-M651** **BR-C200** **BR-M501** **BR-C200-B** **BR-M502** **BR-M100** **BR-C510** **BR-TY70** **BR-C510-B** **BR-M352** Rear
B	Color: Violet 		**BR-M734** Rear **BR-M650** Rear
			**BR-M501** Rear
C	Color: Yellow 		**BR-M651** **BR-M502** **BR-M201** **BR-M100** **BR-TY70**
D	Color: Orange 		**BR-M651** **BR-M502** **BR-M201** **BR-M100** **BR-TY70**
E	Color: Green 		**BR-M352** Rear
S	Color: Pink 		**BR-C510** Rear **BR-C510-B** Rear **BR-C200** Rear **BR-C200-B** Rear

Tool

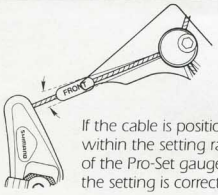
TL-CB15

Pro-Set Gauge for Cantilever Brakes.

The Pro-Set gauge is provided for checking a correct cable setting without difficulty.



3



If the cable is positioned within the setting range of the Pro-Set gauge, the setting is correct.

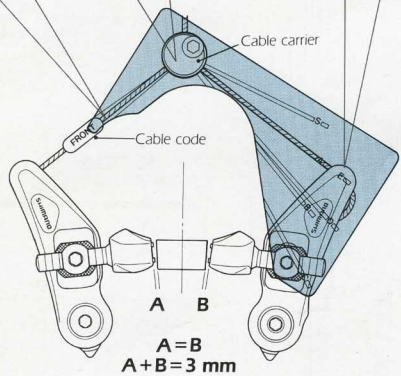
1

Set the circle of the Pro-Set gauge on the cable carrier, and align the cable with the line marked with the corresponding cable code.

2

If the brake unit is aligned with the end mark of the line, the inner cable length has been set correctly.



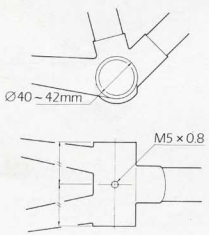


A=B
A+B=3 mm

Small Parts

SM-SP55 SM-MT55
SM-SP25 SM-MT25
SM-SP15 SM-MT15

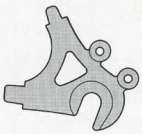


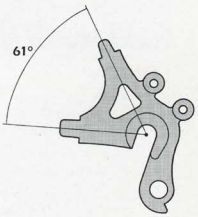


Small Parts

FE-SF25

MTB Type Fork Ends
8-Speed Compatible

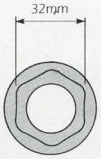




SMALL PARTS & TOOLS

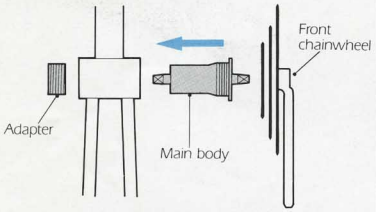
Tool
TL-UN52
Bottom Bracket Installation Tool for BB-UN90, BB-UN70, BB-UN50, BB-CS20 and BB-CS10.



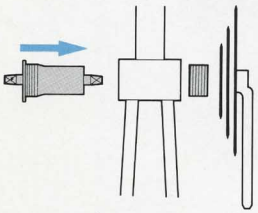


Tightening torque:
300—400kgfcm (260—350 in.lbs.)

Install by using the special tool TL-UN52. First install the main body, then the adapter.
Note: Direction of insertion depends on the model.



BB-UN90/UN70/UN50



BB-CS20/CS10

The frame, main unit, adapter and screws should not be greased for assembly.

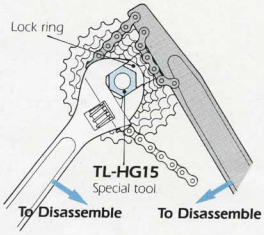
Tool
TL-HG15
Lock Ring Tool for HG Sprockets



- For installation of the HG sprocket, use the special tool (TL-HG15) to tighten the lock ring.

Tightening torque:
300 ~ 500 kgfcm
(260—430 in.lbs.)

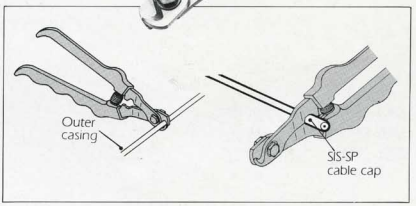
- To replace the HG sprocket, use the special tool (TL-HG15) and the rear sprocket removal tool to remove the lock ring.



Tool
TL-CT10
Cable Cutter

Used to cut outer casings, inner cables, and to hold the cable cap.





Tool

TL-CN21

Chain Cutter

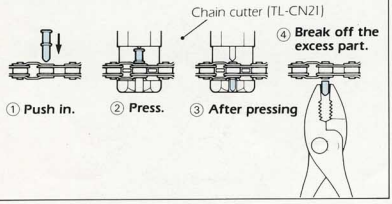
HG chain must use this chain cutter.



*Reinforced Special Pin for HG compatible chain



■How to use the reinforced special pin



Tool

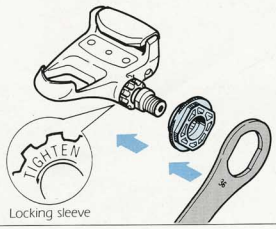
TL-PD40

Pedal Axle Unit Removal Tool

for PD-1056, PD-1055, PD-A550 and SPD Pedal.



Attach the special tool (TL-PD40) to the locking sleeve, and then use the wrench (TL-FC30) to remove.
The direction to turn the locking sleeve (to tighten) is indicated on each locking sleeve. To remove the axle unit, turn the locking sleeve in the opposite direction.

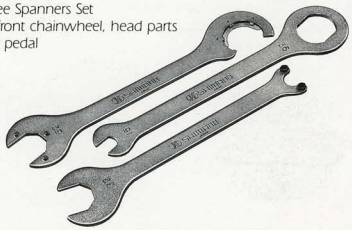


Tool

TL-FC30

Three Spanners Set

for front chainwheel, head parts and pedal



Tool

TL-FC10

Cotterless Crank Extractor



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