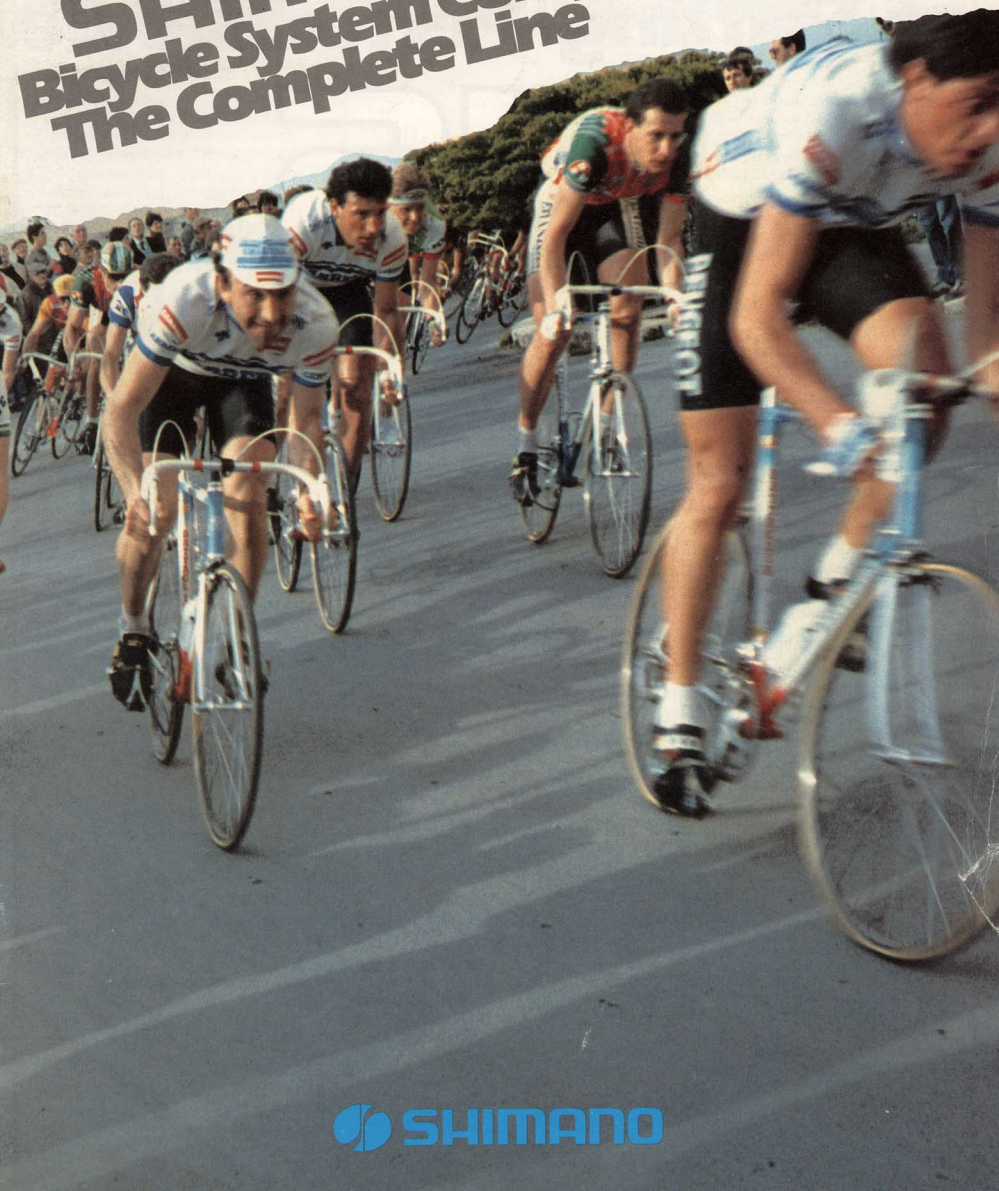
English (E)

SHIMANO
Bicycle System Components
The Complete Line



SHIMANO

A Whole New World of Shifting Performance

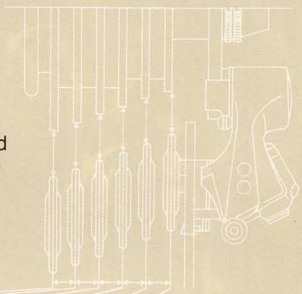
SIS

SHIMANO INDEX SYSTEM

The Shimano Index System, popularly known as SIS, has made shifting of the derailleur-equipped bicycle faster and easier than ever before. With SIS, shifting accuracy is no longer a matter of the rider's skill, but instead has become a new precision function that's built into the component system.

SIS utilizes an indexed shift lever that's synchronized with rear derailleur movement. You shift each gear into perfect alignment with a positive "click" that you can hear and feel at the lever. The result is fast, positive, adjustment-free shifting.

First developed for the high-performance Dura-Ace racing component group, SIS reduces shifting time to an absolute minimum





so racers can ride faster, freed from the bother of searching for gears in the heat of competition. The advantages of SIS are now available in the 600EX and Shimano 105 component groups to benefit a wider range of cycling styles. The Shimano Index System incorporated into 600EX and Shimano 105 are a redesigned version of the Dura-Ace type and provides a more comfortable feel for easier shifting plus the advantage of easier servicing. Now all cyclists can ride with more enjoyment and confidence knowing that the next gear is just a "click" away.

Dura-Ace SIS:
A super function that gives racers the winning advantage.
- Eliminates miss-shifts in the heat of competition.
- Eliminates the need to "fine-tune" shifts.
- Faster shifting translates into faster riding.
- Riders can concentrate on racing—not shifting.
- More precise shifting even under full power on hills and during sprints.
- D-Ring switch allows the flexible choice of SIS or friction mode shifting.

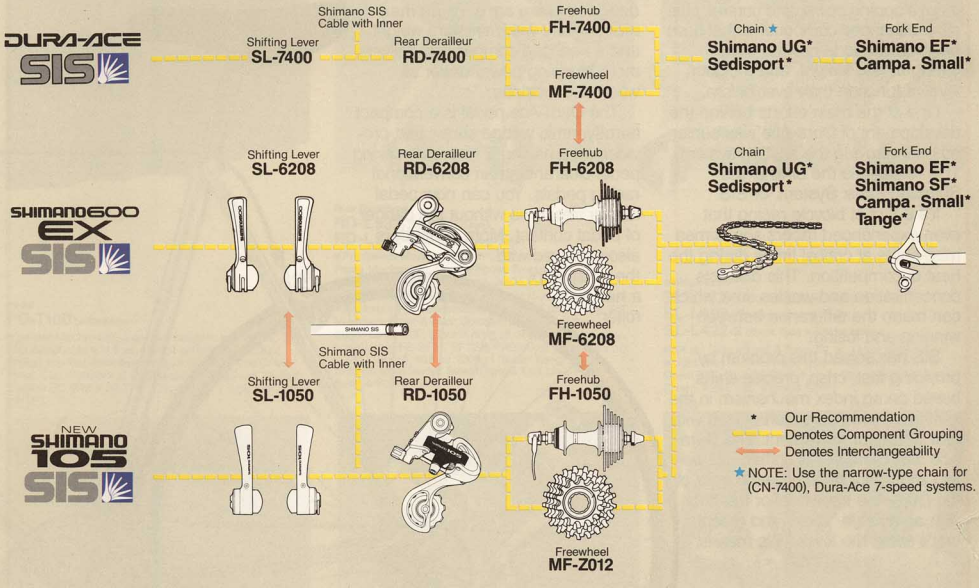
600EX/Shimano 105 SIS:
A super function that lets all cyclists shift gears precisely with more confidence and enjoyment.
- Fast, precise shifting doesn't detract from rider concentration.
- Bothersome and often difficult "searching" for gears is completely eliminated.
- Uphill shifting is greatly improved.
- Less shifting effort means safer riding.
- D-Ring switch allows the flexible choice of SIS or friction mode shifting.



SIS Combination Chart

Notes on interchangeability:
Because of the differences in the shift lever stroke, SIS-related components of the 600EX/Shimano-105 group and the Dura-Ace group are not interchangeable.

- If the derailleurs from 600EX/Shimano105 are interchanged with Dura-Ace, the SIS function will be lost. However, the friction mode can be used with this combination.
- Shimano Z, 600EX (6208) and Dura-Ace (7400) freewheels and freehubs all have the same uniform sprocket spacing necessary for SIS function. If a different class of sprocket is used though, a slight change in performance will result due to differences in sprocket tooth shape. Shimano recommends that corresponding classes of freewheel and freehub sprockets be used for each class of SIS.
- All components can be freely interchanged if operation is planned for the friction mode only.



General Notes on SIS Operation

- There is a chance SIS will not function properly if used with frames running the shift cable inside the frame tubes. Excess friction resulting from the internal cable guides may impair free movement of the cable.
- Always use a Shimano designated SIS outer cable casing (liner type) to avoid potential SIS shifting problems. Other types of cable casings may induce friction and/or excess play that will prevent proper cable movement.
- To realize optimum SIS performance, we recommend using a Shimano UG or Sedisport chain.
- Setup and adjustment procedures are the same for all SIS component groups.
- Of course an SIS compatible rear derailleur is essential to realize the SIS function. But an SIS-type rear derailleur (double servo-panta type) will also provide superior performance in the friction shifting mode or when used with non-Shimano friction shifting levers.

Racing Components

The Unlimited Challenge—Dura-Ace Lets You Aim for the Top.

The performance of your bicycle components has a direct bearing on your performance in competition.

Helping you reach your ultimate goal, winning, is the prime consideration behind Dura-Ace. We re-evaluated all parameters affecting the racing bicycle in order to design a state-of-the-art component system that provides a real advantage in competition.

Dura-Ace features revolutionary shifting performance, brakes offering more stopping power and control, plus other advanced components that have been designed to provide more strength, less weight, and a higher level of function than ever before.

One of the main efforts behind the development of Dura-Ace was centered on improving the shifting system. This resulted is the birth of the Shimano Index System, or SIS.

It's a fact of bicycle racing that even experienced racers sometimes miss shifts at critical times during the heat of competition. This distracts concentration and wastes time which can mean the difference between winning and losing.

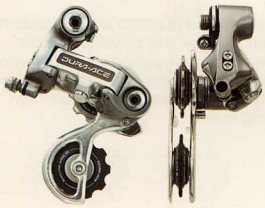
SIS has solved this problem by providing fast, crisp, precise shifts based on an index mechanism in the shift lever which is synchronized with rear derailleur movement. The Dura-Ace rear derailleur is shifted into perfect alignment beneath each gear of the Dura-Ace freewheel or freehub with an audible "click" and indent that's felt at the lever. This means no more missed shifts, no more fine tuning, and less time spent shifting.

The Dura-Ace side-pull brakes and levers provide smoother operation and more stopping power with fine control feedback that lets you dive deeper into turns with more confidence. The high efficiency of Dura-Ace brakes provide more output power with less input than other brakes. This means you have reserve stopping power even when braking from the top of the levers. Computer-designed brake arms insure maximum rigidity with minimum weight, and a new pad composition delivers more stopping power under all weather conditions.

The Dura-Ace pedal is a compact aerodynamic wedge shape that provides an amazing 5° more cornering pedal clearance than conventional racing pedals. You can now pedal farther into turns without the danger of pedal contact. More strength is also achieved with the addition of a needle roller bearing between two sets of ball bearings.

The other components in the Dura-Ace group have all been designed with the same close attention to providing superior performance.

First take a look, then take a ride and discover how Dura-Ace offers a higher level of component function that you can actually feel. Take the unlimited challenge. Dura-Ace can give you the winning advantage.

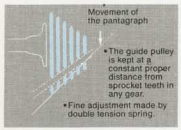






Rear Derailleur

- Faster, more accurate SIS shifting, but also a superior shifting derailleur in the friction mode.
- Double Servo-Panta mechanism closely follows gear profile.
- More durability from brass bushings, titanium coatings, & sealed mechanisms.
- Double spoke barrier protects against spoke jams.
- Easy SIS adjustment with the barrel cable adjuster.



DURA-ACE SIS Compatible

Shift Levers

- Quick, precise SIS shifting.
- D-ring quick change from SIS to friction mode.

DURA-ACE SIS Compatible



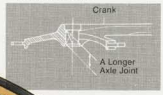
Front Derailleur

- New chain guide shape & more rigid design for better shifting.
- Heli-Coil insert at cable anchor prevents thread stripping.
- Durability increased from a sealed mechanism around the return spring.



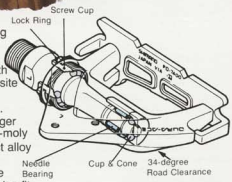
Front Chainwheel

- Longer bottom bracket axle mating surfaces for more strength & rigidity.
- High manufacturing precision for a more accurate chainring/spider fit.
- Decreased maintenance with the sealed mechanism bottom bracket.



Pedal

- Faster cornering from 34° road clearance.
- Greater strength from its composite needle & ball bearing design.
- Lighter & stronger from nickel/cro-moly axle & compact alloy body.
- Fully adjustable toe clip for precise fit.

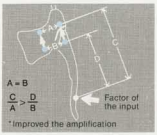


Side-Pull Brakes

- CAD design for maximum rigidity & minimum weight.
- Reduced friction for smooth action and fine control.
- Better wet and dry braking from new pad composition.

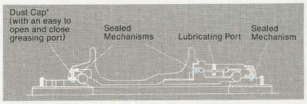
Brake Lever

- Higher power output from improved mechanical leverage design.
- Easy assembly with "one-touch" cable attachment & easy lever positioning.
- More hand comfort from ergonomic lever design.



Freehub

- Cassette system provides quick & easy gear changes.
- Easy maintenance from body & dust cap lube ports.
- Sealed mechanisms increase durability.
- Better shifting from UG gear design.
- Smoother running from precision ground races.
- Redesigned spoke hole taper for stronger, more durable wheel.
- Less weight than standard Hub/Freewheel combinations.
- Less wheel dish and better axle support.

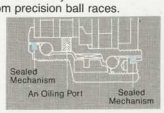


Hubs

- Easy maintenance from dust cap lube ports.
- Smooth rotation from precision machined ball races.
- Sealed mechanisms upgrade durability.
- Improved spoke hole radiusing for a stronger, more durable wheel.

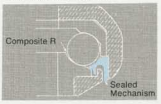
Multiple Freewheel

- Sealed mechanism improves durability.
- Smooth & true running from precision ball races.
- Better shifting from UG tooth configuration.
- Quick gear changes from two-step splined body design.
- Easy maintenance from lube ports on body.



Headset

- Upgraded durability from titanium plated composite radius ball race, & sealed mechanism.
- Integral lock washer & double-etch anodizing for a compact, simple design.
- Reduced weight from high strength alloy.



DURA-ACE

Rear Derailleur
RD-7401 NEW

●SIS Compatible ●Double Servo-Panta Mechanism, Centeron Guide Pulley, Sealed Mechanism, Sintered Alloy Guide Pulley Teeth, Titanium-Coated Pulley Bushings, Brass Bushings & Stainless Steel Pins in Link Pivots, Double Spoke Barrier ●Minimum Rear Sprocket: 12T. ●Maximum Rear Sprocket: 26T. ●Maximum Front & Rear Sprocket Difference: 26T. ●7.2 oz. (205g.) ●Light Alloy•Color Anodized (Bracket & Plate Body), Light Alloy•Inlaid Epoxy Finish (Right Link), Light Alloy•Anodized Finish (Left Link, Right & Left Plate)

DURA-ACE SIS Compatible



Shifting Lever
SL-7400

SL-7400 BCAI (SIS, Side-Band A Type)
SL-7400 FCAI (SIS, Side-Brazed-on A Type)
SL-7400 FCBI (SIS, Mount-Brazed-on B Type)
SL-7400 FAI (SIS, Brazed-on A Type M4.5)
*"C" of Model Number means Italian Type
(Fixing Bolt is 5mm diameter)

●SIS Compatible ●Shimano Index System (SIS), Sealed Mechanism, Non-loosening Mechanism, Human Engineered Design ●SL-7400 BCAI: 2.5 oz. (72g.) ●Light Alloy•Buff Finish (Lever), Steel•Chrome-Plated (Fixing Bolt, Clamp), Zinc•Chrome-Plated (Top-mount Housing) ●Shimano Index System with One-touch Switch for SIS or Friction Mode ●Down Tube Lever ●Lever Clamp Diameter: 1-1/8" (28.6mm.) ●Use SIS with Dura-Ace 6-speed Rear Derailleur/Freehub/Freewheel/Shimano SIS Casing with Lever

DURA-ACE SIS Compatible



Front Derailleur
FD-7400-B (Band Type)
FD-7400-F (Italian Brazed-on Type)

●Sealed Mechanism, Chain Release Dish-out, Helicoil-Secured Cable Fixing Screw, Heat Treated Cable Fixing Bolt ●Maximum: 15T. ●3.2 oz. (93g.) Band Type ●Light Alloy•Anodized Finish (Front & Rear Band), Light Alloy•Color Anodized (Right Link), Light Alloy (Left Link), Heat Treated Steel•Chrome-Plated (Chain Guide, Clamp Bolt) ●Clamp Diameter: 1-1/8" (28.6mm.)



Front Chainwheel & Bottom Bracket Assembly
FC-7400 (Double)
BB-7400 (B.B. Parts)

●Computer Aided Design (Crank), Sealed Mechanism (B.B.) ●22.5 oz. (637g.) (42T., 52T., 170mm.) 11.1 oz. (314g.) (B.B. Set) ●Light Alloy•Anodized Finish (Crank, Chainring), Light Alloy•Etched-Anodized Finish (Crank Arm Cap), Steel•Chrome-Plated (Fixing Bolt) ●Nickel Cr-Mo Axle ●For 1/2" x 3/32" Chain ●Teeth: Inner; 39T. ~ 46T., Outer; 48T. ~ 54T. ●Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm. ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25 ●Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I. ●B.B. Size: 68-W-112, 70-W-113



Pedal
PD-7400

●Compound Structure of Needle bearing and Cup & Cone, Aerodynamic Design, Sealed Mechanism ●Light Alloy: 13.1 oz. (372g.) Pair, (Including Toe Clip, L-size) ●Light Alloy•Buff Finish (Body), Light Alloy•Anodized Finish (Front Plate), Light Alloy Black Solid Anodized Finish or Steel•Chrome-Plated (Rear Plate), Nickel Cr-Mo Steel•Chrome-Plated/Polished Finish (Axle), Steel•Chrome-Plated or Light Alloy•Anodized Finish (Toe Clip) ●Toe-Clip Size: M L, LL ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25

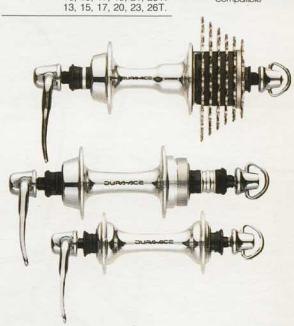
Freehub
FH-7400-6 (Rear/6-speed)
HB-7400-F (Front Hub)

●SIS Compatible ●Sealed Mechanism, New Uniglide Teeth, Cassette Freehub, Uni-Balance System, Lubricating Ports with Open/Close ●15.4 oz. (438g.) Rear 6-speed, 126mm. (w/o Sprocket), 8.0 oz. (228g.) Front, 7.3 oz. (208g.) Sprocket (13 ~ 21T.) & Spacer ●Forged Light Alloy•Anodized Finish (Hub Shell), Resin•Black Finish (Dust Cap), Steel•Chrome-Plated (Quick Release Housing & Nut) ●Champagne Gold Finish (Sprocket) ●Teeth: Threaded Sprocket; 12T. ~ 16T., Spline Sprocket; 13T. ~ 28T. ●Front 100mm. O.L., Rear 126mm. O.L. ●Spoke Holes: 28H, 32H, 36H

●Standard Sprocket Combinations:

6-speed	12, 13, 14, 15, 16, 17T. 13, 14, 15, 16, 17, 18T. 13, 14, 15, 17, 19, 21T. 13, 15, 17, 19, 21, 23T. 13, 15, 17, 20, 23, 26T.

DURA-ACE SIS Compatible



Multiple Freewheel
MF-7400-6 (6-speed)

●SIS Compatible ●Sealed Mechanism, New Uniglide Teeth, Lubricating Port on Freewheel body ●12.7 oz. (360g.) (13, 14, 15, 17, 19, 21T.) ●Steel•Champagne Gold Finish ●For 1/2" x 3/32" Chain

●Standard Sprocket Combinations:

6-speed	13, 14, 15, 16, 17, 18T. 13, 14, 15, 17, 19, 21T. 13, 15, 17, 19, 21, 23T. 13, 15, 17, 20, 23, 26T.

DURA-ACE SIS Compatible



Brake

BR-7400-49 (Short 49 Type)

●Low Profile Brake Shoe, Eccentric Type Quick Release ●Computer Aided Design (CAD) ●13.5 oz. (382g.) (F & R, 49 Type) ●Forged Light Alloy·Anodized Finish (Arch), Steel·Chrome-Plated (Pivot Bolt, Quick Release), Light Alloy·Color Anodized Finish (Shoe Holder with Tire Guide) ●Front Double Lock Nut Type (Pivot Bolt)



Head Parts

HP-7400

●Road Type ●Sealed Mechanism ●4.0 oz. (113g.) ●Light Alloy·Anodized Finish (Nut, Cup), Light Alloy·Anodized Finish (Cone, Bearing Steel Insertion), Titanium-Plated (Lower Cone) ●Variations:

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



Brake Lever

BL-7400

●Anatomical Design ●7.7 oz. (216g.) Pair ●Light Alloy·Anodized Finish (Lever, Bracket), Stainless Steel (Lever Axle) ●Bracket Cover: Black or Brown ●Lever Clamp Diameter: 24.2mm. or 23.8mm.



Brake Lever

BL-7401 NEW

●Aerodynamic Design, Anatomical Design, One-Step Cable Attachment ●Lever Clamp Diameter: 24.2mm or 23.8mm ●9.0 oz. (254g.) ●Light Alloy Anodized Finish







UG Chain (DURA-ACE)

CN-7400

●Narrow Type Uniglide Chain, Bushingless Design, Boron Finished Link Pins ●Size: 1/2" x 3/32" Chain ●Roller Link Plate; Nickel Finish, Pin Link Plate; Nickel Finish

Seat Pillar

SP-7400 (Round Tube) A-Type
SP-7410 (Semi Oval Tube) B-Type

●Aerodynamic Design, Hexagon Release ●7.9 oz. (224g.) (SP-7400; 26.8mm.), 8.6 oz. (244g.) (SP-7410; 26.8mm.) ●Light Alloy·Anodized Finish ●Outside Diameter: SP-7400; 26.4mm., 26.6mm., 26.8mm., 27.0mm., 27.2mm., 27.4mm. SP-7410; 25.0mm., 27.0mm., 27.2mm.

Front Chainwheel & Bottom Bracket Assembly

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

●Aerodynamic Design, Offset Crank Arm, W-cut Mechanism, One Key Release Mechanism, Safety Crank Arm ●Use: With DURA-ACE AX DD Pedal (PD-7300) ●Super Polished Ball Race ●32.1 oz. (658g.) (42T., 52T. Type 170mm.), 9.0 oz. (256g.) B.B. Parts ●Light Alloy·Anodized Finish ●Cotterless Type ●For 1/2" x 3/32" Chain ●Teeth: Inner; 39T. ~ 45T., Outer; 48T. ~ 53T. ●Crank Length: 165mm., 167.5mm., 170mm., 172.5mm.,175mm. ●Crank Thread: English BC1 x 24 T.P.I. ●Cup Thread: English BC 1.37 x 24T., French M35 x 1.0. Italian M36 x 24T.P.I.

DD Pedal

PD-7300

●Aerodynamic Design, DD Mechanism, Sealed Mechanism, Light Weight, Adjustable Toe Clip ●Use: With DURA-ACE AX Front Chainwheel (FC-7300) ●15 oz. (428g.) (Including Toe Clip & Toe Strap) Pair ●Light Alloy·Anodized Finish (Body), Cr-Mo Steel (Cup·Cone), Stainless Steel (Toe Clip) ●Crank Thread: English BC 1 x 24 T.P.I.

Handle Stem

HS-7400

●Aerodynamic Design, Hexagon Release ●8.9 oz. (252g.) (100mm.) 9.2 oz. (260g.) (120mm.) ●Light Alloy·Anodized Finish ●Extension: 80mm., 90mm., 100mm., 110mm., 120mm., 130mm. ●Handle Stem Diameter: 22.2mm. ●Handle Bar Clamp Diameter: 26.0mm. or 25.4mm.



7-SPEED SIS

Shimano Index System

Freehub
FH-7400-7 (Rear/7-speed)
HB-7400-F (Front) NEW

●7-speed SIS Compatible ●Sealed Mechanism, New Uniglide Teeth, Cassette Freehub, Uni-Balance System, Lubricating Ports with Open/ Close ●15.4 oz. (439g.) Rear 7-speed, 126mm. (w/o sprocket), 8.0 oz. (228g.) Front, 7.8 oz. (221g.) Sprocket (12 – 21T.) & Spacer ●Forged Light Alloy•Anodized Finish (Hub Shell) Resin• Black Finish (Dust Cap), Steel•Chrome-Plated (Quick Release Housing & Nut) ●Steel•Champagne Gold Finish (Sprocket) ●Teeth: Threaded Sprocket; 12T. – 16T., Spline Sprocket; 13T. – 28T. ●Front 100mm. O.L., Rear 126mm. O.L. ●Spoke Holes: 28H, 32H, 36H ●Standard Sprocket Combinations

7-speed	12, 13, 14, 15, 16, 17, 18T. 12, 13, 14, 15, 17, 19, 21T. 13, 14, 15, 16, 17, 19, 21T. 13, 14, 15, 17, 19, 21, 24T. 13, 15, 17, 19, 21, 23, 26T.

DURA-ACE SIS Compatible



Rear Derailleur
RD-7401 NEW

●6-speed and 7-speed SIS Compatible ●Double Servo-Panta Mechanism (SIS Compatible), Centeron Guide Pulley, Sealed Mechanism, Sintered Alloy Guide Pulley Teeth, Ceramic Pulley Bushings, Brass Bushings & Stainless Steel Pins in Link Pivots, Double Spoke Barrier ●Minimum Rear Sprocket: 12T. ●Maximum Rear Sprocket: 26T. ●Maximum Front & Rear Sprocket Difference: 26T. ●7.2 oz. (205g.) ●Light Alloy•Color Anodized (Bracket & Plate Body), Light Alloy•Inlaid Epoxy Finish (Right Link), Light Alloy•Anodized Finish (Left Link, Right & Left Plate)

DURA-ACE SIS Compatible



Shifting Lever NEW
SL-7401-FAI (7-speed SIS, Brazed-on A Type M4.5)
SL-7401-BCAI (7-speed SIS, Band A Type)
SL-7401-FCAI (7-speed SIS, Brazed-on A Type)
SL-7401-FCBI (7-speed SIS, Mount-Brazed-on B Type)
* "C" of Model Number means Italian Type
(Fixing Bolt is 5mm. diameter)

●7-speed SIS Compatible ●Shimano Index System (SIS), Sealed Mechanism, Non-loosening Mechanism, Human Engineered Design ●SL-7401 FCAI: 2.3 oz. (65g.) ●Light Alloy•Buff Finish (Lever), Steel•Chrome-Plated (Fixing Bolt, Clamp) Zinc•Chrome-Plated (Top-mount Housing) ●Shimano Index System with One-touch Switch for SIS or Friction Mode ●Down Tube Lever ●Lever Clamp Diameter: 1-1/8″ (28.6mm.) ●Use SIS with New Dura-Ace 7-speed Rear Derailleur/Freehub/ Freewheel/Shimano SIS Casing with Liner



Hub
HB-7400 (7-speed Compatible)
HB-7400-F

●Sealed Mechanism, Lubricating Ports with Open/Close ●11.1 oz. (316g.) Rear, 8.0 oz. (228g.) Front ●Forged Light Alloy•Anodized Finish (Hub Shell), Resin•Black Finish (Dust Cap), Steel•Chrome-Plated (Quick Release Housing & Nut) ●Quick Release, One-Piece Front & Rear Hub ●Front: 100mm. O.L., Rear 6-speed, 126mm. O.L. ●Spoke Holes: 28H, 32H, 36H

Multiple Freewheel
MF-7400-7 (7-speed) NEW

●7-speed SIS Compatible ●Sealed Mechanism, New Uniglide Teeth, Lubricating Port on Freewheel-body ●12.9 oz. (367g.) (12, 13, 14, 15, 17, 19, 21T.), ●Steel•Champagne Gold Finish ●For 1/2″ x 3/32″ Chain ●Standard Sprocket Combinations:

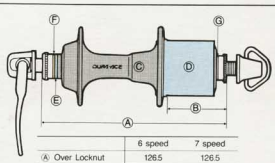
7-speed	12, 13, 14, 15, 16, 17, 18T. 12, 13, 14, 15, 17, 19, 21T. 13, 14, 15, 16, 17, 19, 21T. 13, 14, 15, 17, 19, 21, 24T. 13, 15, 17, 19, 21, 23, 26T.

DURA-ACE SIS Compatible



Index Unit

DURA-ACE SIS Compatible



	6 speed	7 speed
A Over Locknut	126.5	126.5
B Dimension	34.8	36.4
C Hub Body	Same for 6 & 7 Speed	
D Freewheel Body	Same for 6 & 7 Speed	
E Toothed Washer	2.9	2.9
F Toothed Washer	1.6	Not Used
G Toothed Washer	Not Used	1.6

NEW
DURA-ACE
7400

Hub
HB-7600 (Large & Small Flange)

●Precision Ground Cones, Diamond-Polished Mirror Finish (Cup & Cone), Sealed Mechanism, Composite-Type Design (Large Flange) ●11.0 oz. (313g.) Rear Large w/Lock Ring, 8.5 oz. (241g.) Front Large ●Forged Light Alloy•Anodized Finish (Hub Body), Poly-carbonate Resin Composite Hub Flange ●Front: 3.94″ (100mm.), Rear: 4.72″ (120mm.) (One-Side or Both-Side Threaded Type) (Small Flange/Large Flange) ●Sprocket Thread: BC 1.37 x 24T.P.I. (English) ●Lock Ring Thread: BC 1.29 x 24T.P.I. (Left) ●Spoke Holes: 28H, 32H, 36H (Option: 24H) ●Spoke Hole Diameter: ⌀2.4 mm ●Fork End Slot Width: Front; 9mm. (Hollow Axle), Rear; 10mm. (Hollow Axle)

Front Chainwheel & Bottom Bracket Assembly
FC-7600
BB-7600 (B.B. Parts)

●Exclusively Designed for the Track, Computer Aided Design (Crank), Removable Sealed Mechanism (B.B.) ●21.3 oz. (605g.) (48T., 170mm), 10.8 oz. (305g.) (B.B. Set) ●Light Alloy•Anodized Finish (Crank, Crank Arm Cap), Light Alloy•Hard Color Anodized Finish (High-tech Gray), Steel•Chrome-Plated (Fixing Bolt & Nut) ●Nickel Cr-Mo Axle ●Teeth: 46T. ~ 52T. (Option; 42T. ~ 45T., 53•54T.) 1/8″ and 3/32″ available ●Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm. ●Crank Thread: English BC 9/16 x 20T.P.I., ●Cup Thread: English BC 1.37 x 24T.P.I., French M35 x 1.0, Italian M36 x 24T.P.I. ●B.B. Size: 68-S-109mm., 70-S-109mm.

Head Parts
HP-7600

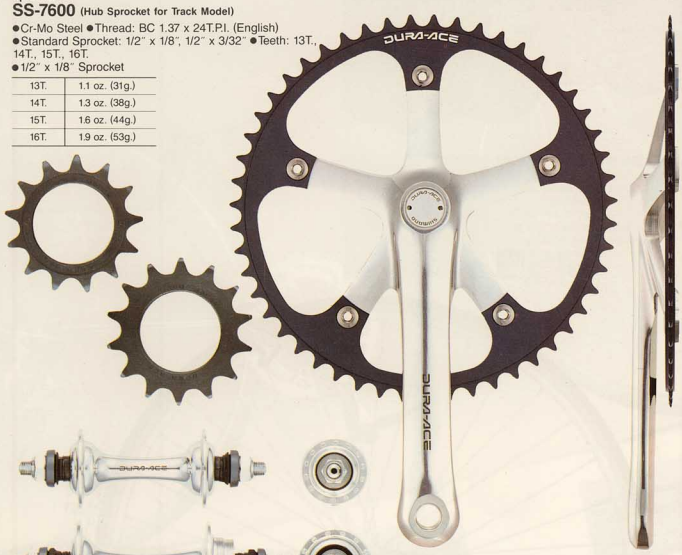
●Composite Structure, Sealed Mechanism, Super-Light Weight ●3.2 oz. (90g.) ●Light Alloy•Anodized Finish (Lock Nut/Upper Cone Nut), High Impact Resin (Upper Cone/Lower Cup Covers), Bearing Steel (Upper & Lower Cup), Die Steel•CVD Finish* (Upper & Lower Cone)
*Titanium Plated
●Variations:

Type	Thread	Press Race Diameter	
		Upper & Lower Cup	Lower Cone
English/ Italian	BC 1 x 24T.	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.

Sprocket
SS-7600 (Hub Sprocket for Track Model)

●Cr-Mo Steel ●Thread: BC 1.37 x 24T.P.I. (English) ●Standard Sprocket: 1/2″ x 1/8″, 1/2″ x 3/32″ ●Teeth: 13T., 14T., 15T., 16T.
●1/2″ x 1/8″ Sprocket

13T.	1.1 oz. (31g.)
14T.	1.3 oz. (38g.)
15T.	1.6 oz. (44g.)
16T.	1.9 oz. (53g.)











•With its compact aerodynamic shape, excellent road clearance, and unique bearing configuration, the Dura-Ace Road pedal (PD-7400) lends itself extremely well to track use.
The 34° of road clearance provided by the Dura-Ace Road pedal gives an ample safety margin on banked tracks where pedal contact problems often lead to accidents. The center needle bearing construction is very suitable for withstanding the severe loads imposed upon track pedals during competition.

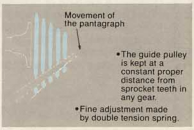
The High Energy Cycling



SIS Rear Derailleur RD-6208

- Double Servo-Panta design for precise SIS shifting.
- Sealing of the bracket and body springs, and hinge pins provides all-weather performance.
- Brass pivot bushings and stainless steel link pins increase durability.
- Double spoke barrier keeps derailleur out of spokes.
- Polycarbonate resin finish for a high-tech look.

SIS Compatible



The best cycling components deliver real value and performance through refined functions. That's the Shimano 600EX series of high energy cycling components.

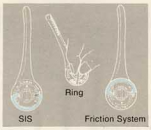
Now incorporating the Shimano Index System (SIS) and improved brakes, 600EX delivers fast, precise index shifting and more braking power and control. Shimano 600EX with SIS gives you that feeling of high-performance precision that makes you want to push a little harder.

Put Shimano 600EX SIS on your bike and find out for yourself what high energy excitement is all about.

SIS Shift Lever SL-6208

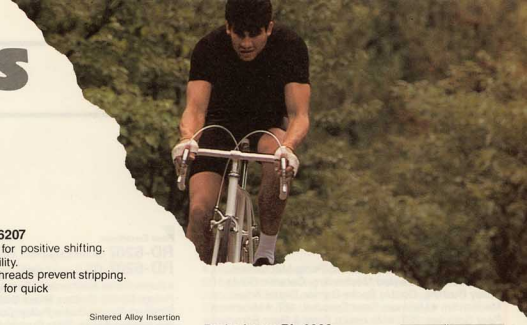
- Precise SIS shifting.
- Wide compatibility with different boss types.
- D-Ring Switch allows the flexible choice of SIS or friction mode shifting.

SIS Compatible





Components

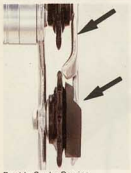


General Features

- Polished finish for easy cleaning and a high-tech look.
- Computer Aided Design for maximum function with minimum weight.
- SIS compatible components.



Internal cable anchor bolt (hexagon release)



Double Spoke Barrier

Rear Derailleur RD-6207

- Double spoke barrier keeps derailleur out of the spokes.
- Sealed bracket and pulley body springs for all-weather performance.
- Brass pivot bushings for improved durability.
- Twin return springs for positive action and long life.

Front Derailleur FD-6207

- Trap-Ease mechanism for positive shifting.
- Spring cover for durability.
- Helicoil cable anchor threads prevent stripping.
- Chain release dish-out for quick shifting.

Shift Lever SL-6207

- Finger-form shape aids shifting and comfort.
- Sintered alloy insert for smooth operation and long life.
- Self locking spring cap.
- Sealed mechanism for all-weather performance.

Sintered Alloy Insertion



Caliper Brakes BR-6208

- Larger one-piece shoe/holder for greater stopping power.
- New shoe composition for better wet and dry braking.
- Cable quick release & tire guides for fast wheel changes.
- Lube slot for easy maintenance and greater durability.
- Spring sleeve and Coated pivot washer for smooth controlled braking.



One-Piece Brake Shoe & Black Anodized Tire Guide

Brake Lever BL-6208

- Anatomic design for more comfort and control.
- Cast bracket body for greater strength.



Hand Fitting Design

Front Chainwheel FC-6207

- Safety crank arm for greater strength and ankle clearance.
- High-strength one-piece forged arm and spider.
- Smooth, elegant design.
- Sealed bottom bracket for all-weather performance.



Seal Ring



Computer Aided Design

Pedal PD-6207

- Compact aerodynamic wedge shape for more cornering clearance.
- 2-way adjustable toe clip for a perfect fit.
- Sealed mechanism for all- weather performance.

Multiple Freewheel MF-6208

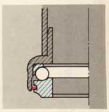
- SIS compatible.
- Polished bearing races for smooth rotation.
- Enlarged pawls for greater strength.
- New Uniglide tooth pattern for quick, sure shifting.
- Sealed mechanism for all-weather performance.



Smart Designed Dust Cap

Head Parts HP-6207

- Sealed mechanism for smooth operation and durability.
- Posi-torque mechanism for positive tightening.



Seal Ring

SHIMANO600 EX

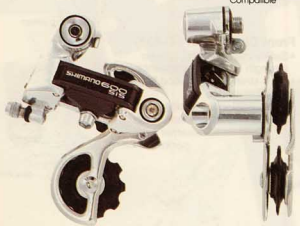
THE HIGH ENERGY CYCLING COMPONENTS

Rear Derailleur

RD-6208

●SIS Compatible ●Double Servo Panta Mechanism, Centeron Pulley, Sealed Mechanism, Ceramic Guide Pulley Bushing, Double Spoke Barrier, Digital Adjust Mechanism ●Minimum Rear Sprocket: 12T. ●Maximum Rear Sprocket: 28T. ●Maximum Front & Rear Sprocket Difference: 28T. ●7.2 oz. (204g.) ●Light Alloy·Barrel & Buff Finish (Bracket & Plate Body, Left Link), Light Alloy·Resin (Right Link), Light Alloy (Right & Left Plate)

SIS Compatible



Shifting Lever

SL-6208-FAI (SIS, Brazed-on A Type M4.5)
SL-6208-FCAI (SIS, Brazed-on A Type)
SL-6208-FCBI (SIS, Brazed-on B Type)
SL-6208-BCAI (SIS, Band A Type)

•"C" of Model Number means Italian Type
(Fixing Bolt is 5mm diameter)

●SIS Compatible ●Shimano Index System (SIS), SIS/Friction Mode, Mild Shifting, Interchangeable Lever Axle, Human Engineered Design, Sealed Mechanism ●SL-6208 FCAI: 2.4 oz. (69g.) ●Light Alloy·Buff finish (Lever), Steel·Chrome-Plate (Fixing Bolt, Clamp) Zinc·Chrome-Plated (Top-mount Housing) ●Down Tube Lever ●Lever Clamp Diameter: 28.6mm. ●Use SIS with RD-6208, RD-L525 Rear Derailleur/MF-6208 Freewheel/Shimano SIS Casing with Liner

SIS Compatible



Rear Derailleur

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

●Servo-Panta Mechanism, Sealed Mechanism, Twin Return Spring System, Brass Bushings in Link Pivots, Sintered Alloy in Guide Pulley, Double Spoke Barrier Mechanism ●Max. Rear Sprocket/Short: 28T., Long: 34T., Max. F & R Difference/Short: 28T., Long: 34T ●6.8 oz. (195g.) (Short), 7.6 oz. (217g.) (Long) ●Forged Light Alloy (Bracket Body) Light Alloy·Buff Finish (Plate Body & Link), Light Alloy (Cage Plate)



Shifting Lever

SL-6207-BA (Band A Type)
SL-6207-FC (Brazed-on C Type)

●Non-loosening Mechanism, Sealed Mechanism, Human Engineered Design ●SL-6207BA: 2.2 oz. (63g.) ●Light Alloy (Lever) ●Friction Type ●Down Tube Lever ●Lever Clamp Diameter: 1-1/8˝ (28.6mm.)



Front Derailleur

FD-6207-B (Band Type)
FD-6207-F (Italian Brazed-on Type)

●Trap-Ease Mechanism ●Maximum: 18T. Minimum: 3T. ●3.9 oz. (110g.) ●Forged Light Alloy (Right Link), Diecast Light Alloy Buff Finish (Body), Heat Treated Steel·Chrome-Plated (Chain Guide) ●Clamp Diameter: 1-1/8˝(28.6mm.)



Front Chainwheel & Bottom Bracket Assembly

FC-6207 (Double, LD Type)
BB-6207 (B.B. Parts)

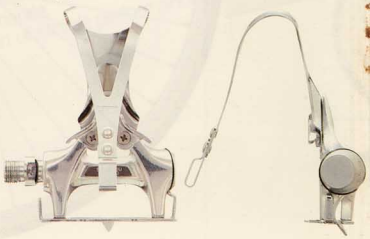
●Computer Ajded Design (CAD), Sealed Mechanism ●23.7 oz. (672g.) (42T., 52T., 170mm.), 11.5 oz. (326g.) (B.B. set) ●Light Alloy·Anodized, Buff Finish ●For 1/2˝ x 3/32˝ Chain ●Teeth: Inner; 39T. – 45T., Outer; 48T. – 53T. ●Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm. ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25 ●Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24T. ●B.B. Size: 63-W-116 (D-3L), 70-W-119 (D-5LL)



Pedal

PD-6207

●Aerodynamic Design, Sealed Mechanism ●15.5 oz. (440g.), Pair (Including Toe Clip Size: L) ●Cr-Mo Axle ●Light Alloy·Buff Finish (Body) ●Steel·Chrome-Plated (Toe Clip, Frong & Rear Plate) ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25 ●Toe Clip Size: M, L, LL



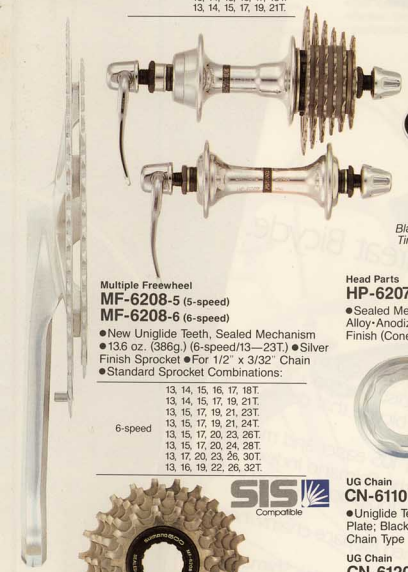
Freehub

FH-6208-R (Rear Hub)
HB-6207-F (Front Hub)

●SIS Compatible ●Sealed Mechanism, Bolt-Secured Freewheel, Quick Release ●Rear: 14.2 oz. (405g.), 6-speed, 126mm. (w/o sprocket), Front: 7.7 oz. (219g.) ●Light Alloy·Buff Finish ●Teeth: Threaded Sprocket; 12 – 26T., Spline Sprocket; 28T., 30T., 32T., 34T. ●Spoke Holes: 32H, 36H ●Standard Sprocket Combinations:

SIS Compatible

6-speed	12, 13, 14, 15, 16, 17T. 12, 13, 15, 17, 19, 21T. 13, 14, 15, 16, 17, 18T. 13, 14, 15, 17, 19, 21T.



Brake

BR-6208-49 (Short-49 Type)
BR-6208-57 (Long-57 Type)

●Teflon Coated Pivot Washer, Spring Sleeve, Pivot Bolt Cap, One-Piece Brake Shoe, Computer Aided Design (CAD), Aerodynamic Design, Large Shoe ●11.7 oz. (332g.) (F & R, 57 Type) ●Light Alloy·Anodized Finish ●Rear Double-Lock Side Pull Type ●Light Alloy·Black Anodized Tire Guide, Frame Protector & Eccentric Type Quick Release



Brake Lever

BL-6208

●Anatomical Design, Frictionless Bushings ●7.5 oz. (214g.), Pair (Including Rubber Cover) ●Light Alloy·Anodized Finish (Lever), Light Alloy·Barrel Finish (Bracket) ●Hooded Lever with Rubber Cover ●Lever Clamp Diameter: 23.8mm. & 24.2mm. ●Drilled Out Lever



Brake Lever

BL-6209 NEW

●Aerodynamic Design, Anatomical Design, One-Step Cable Attachment ●8.4 oz. (238g.) Pair ●Light Alloy·Anodized Finish (Lever), Diecast Light Alloy (Bracket) ●Hooded Lever with Rubber Cover ●Lever Clamp Diameter: 23.8mm. & 24.2mm.



Multiple Freewheel

MF-6208-5 (5-speed)
MF-6208-6 (6-speed)

●New Uniglide Teeth, Sealed Mechanism ●13.6 oz. (386g.) (6-speed/13—23T.) ●Silver Finish Sprocket ●For 1/2" x 3/32" Chain ●Standard Sprocket Combinations:

6-speed	13, 14, 15, 16, 17, 18T. 13, 14, 15, 17, 19, 21T. 13, 15, 17, 19, 21, 23T. 13, 15, 17, 19, 21, 24T. 13, 15, 17, 20, 23, 26T. 13, 15, 17, 20, 24, 28T. 13, 17, 20, 23, 26, 30T. 13, 16, 19, 22, 26, 32T.

SIS Compatible

Head Parts

HP-6207

●Sealed Mechanism ●5.2 oz. (150g.) ●Light Alloy·Anodized Finish (Cups & Nut), Steel-Chromium Finish (Cones) ●Road Type



UG Chain

CN-6110 (Gold)

●Uniglide Teeth ●Steel ●Surface Treatment: Roller Link Plate; Black Finish, Pin Link Plate; Golden Finish ●Roller Chain Type

UG Chain

CN-6120 (Silver)

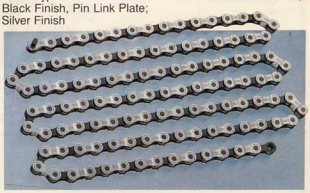
●Uniglide Teeth ●Steel ●Surface Treatment: Roller Link Plate; Black Finish, Pin Link Plate Silver Finish ●Roller Chain Type



UG Chain

CN-6208 (Silver)

●Narrow Type Uniglide Chain, Bushingless Design, Roller Chain Type ●Steel ●Surface Treatment: Roller Link Plate; Black Finish, Pin Link Plate; Silver Finish



The New Generation of Performance

NEW SHIMANO 105

A Great Component System Means a Great Bicycle.



This is the revolutionary component group that brings the Shimano system component concept to the casual sport cyclist. Shimano 105 components signal the creation of a new class of bicycle that delivers a new generation of cycling performance.

Advanced new features make riding with 105 easier and more enjoyable than ever for everybody. Features like the Shimano Index System that provides light, precise shifting with a foolproof clickstop index mechanism.

Shimano 105 includes computer-designed Biopace chainwheels that make pedaling easier with greater efficiency.

Braking control has been greatly upgraded with the Shimano Linear Response system. The result is better modulated stopping power with a new lighter feeling at the lever.

All the components in the 105 group offer the same high level of quality, balanced functions, and superior performance.

Feel the difference of the new generation of bicycle performance from Shimano 105 system components.

Shimano 105 Component Series includes these new advanced functions



SIS
SHIMANO INDEX SYSTEM

1 Fast, Precise S.I.S. Shifting

Your next gear is just a clickstop away with the Shimano Index System.

biopace
COMPUTER DESIGNED DRIVE SYSTEM

2 Greater Pedaling Efficiency

Computer-designed Biopace chainwheels make pedaling easier through optimum use of leg power.

SLR
SHIMANO LINEAR RESPONSE

3 Improved Braking Control

Shimano Linear Response (SLR) provides better modulated braking control with a new light lever feel.

The New Generation of Performance

Rear Derailleur NEW
RD-1050
•SIS Compatible •Double Servo Panta Mechanism, Centeron Guide Pulley, Sealed Mechanism, Sintered Alloy Guide Pulley Bushing, Double Spoke Barrier, Digital Cable Adjust Mechanism •Minimum Rear Sprocket: 12T •Maximum Rear Sprocket: 28T •Maximum Front & Rear Sprocket Difference: 28T •257g •Light Alloy (Bracket & Plate Body), Light Alloy•Dark Gray Metallic Finish (Right Link)

SIS Compatible



Shifting Lever NEW
SL-1050-BCAI (SIS, Brand A Type)
SL-1050-BCBI (SIS, Band B Type)
SL-1050-FCAI (SIS, Brazed-on A Type)
SL-1050-FCBI (SIS, Brazed-on B Type)
SL-1050-FAI (SIS, Brazed-on A Type M4.5)
"C" of Model Number means Italian Type (Fixing Bolt is 5mm diameter)
•SIS Compatible •Shimano Index System (SIS), SIS/Friction Mode, Clutch Spring for Light Action Shifting, Interchangeable Lever Axle, Human Engineered Design, Sealed Mechanism •SL-1050-FCAI: 68g •Light Alloy (Lever) •Down Tube Lever •Lever Clamp Diameter: 28.6mm •Use SIS with RD-1050 Rear Derailleur/FH-1050 Freehub or MF-Z012 Freewheel/Shimano UG Chain/Shimano SIS Casing with Liner

SIS Compatible



Front Derailleur NEW
FD-1050-B (Band Type)
FD-1050-F (Italian Brazed-on Type)
•Top Swing Pantagraph Mechanism, Upgraded Chain Guide Rigidity •Maximum: 14T •Band Type: 98g •Light Alloy (Clamp Band), Light Alloy•Dark Gray Metallic Finish (Right Link), Heat Treated Steel•Chrome-Plated (Chain Guide) •Clamp Diameter: 28.0 – 28.6mm



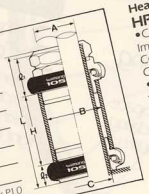
Pedal NEW
PD-1050
•Aerodynamic Design, 34° Road Clearance, Compound Structure of Resin Bushing and Cup & Cone Bearings •280g (Pair), 46g (Pair of Toe Clip L Size), •Light Alloy (Body), Cr-Mo Steel (Axle), Resin•Dark Gray Metallic Finish •Crank Thread: BC 9/16 × 20T.P.I., French M14 × 1.25 •Toe Clip Size: M, L, LL

Head Parts NEW
HP-1050
•Composite Structure, Sealed Mechanism •129g •High Impact Resin•Dark Gray Metallic Finish (Upper & Lower Cup Cover), Steel (Nut/Upper & Lower Cup/Upper & Lower Cone), Resin (Seal Ring)
•Variations:

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

•Dimensions

ℓ1	21.2mm
ℓ2	11.5mm
H	Head tube Length
L	H + 34.5mm
A	22.4mm
B	30.2mm
C	26.4mm
Thread	BC 1" × 24T/M25 × P1.0





NEW SHIMANO 105

Front Chainwheel & Bottom Bracket Assembly
FC-1050 (Double, LD Type)
BB-1050 (B.B. Set)
•Low Profile & Aerodynamic Design, Biopace Mechanism •664g (42, 52T., 170mm), 327g (B.B. Set) •Light Alloy (Crank/Chain Ring) •For 1/2" × 3/32" Chain •Teeth: Inner; 39T. – 45T., Inner (Biopace): 40T., 42T., Outer: 48T. – 53T., Outer (Biopace): 52T. •Crank Length: 162.5mm, 165mm, 167.5mm, 170mm, 172.5mm, 175mm •Cup Thread: BC 9/16 × 20TPI., French M14 × 1.25 •Cup Thread: English 1.37 × 24TPI., French M35 × 1.0, Italian M36 × 24TPI •B.B. Size: 68-W-113, 70-W-115

NEW

Brake Lever
BL-1050 (Standard Type)
BL-1051 (Aero Type)
•SLR (Shimano Linear Response) System, Anatomical Design, Outer Guide for easy cable change (Aero Type) •202g (BL-1050, Pair), 252g (BL-1051, Pair) Including Rubber Cover •Light Alloy •Hooded Lever with Rubber Cover •Lever Clamp Diameter: 23.8 – 24.2mm •Bracket Cover: Brown, Black, White

NEW

SLR

BL-1050

Brake
BR-1050-49 (Short 49 Type)
BR-1050-57 (Long 57 Type)
•SLR (Shimano Linear Response) System, Thrust Bearing & Teflon Coated Pivot Washer, Spring Sleeve, One-Piece & Low Profile Brake Shoe •335g (F. & R. 49 Type) •Light Alloy *For SLR system use BR-1050, BL-1050/BL-1051, and Shimano outer cable with liner.

NEW

SLR

BL-1051

Freehub
FH-1050-6 (Rear/6-speed)
HB-1050-F (Front Hub)
•SIS Compatible •Sealed Mechanism, New Uniglide Teeth, Bolt-Secured Cassette Freewheel, Unibalance System •415g (Rear w/o Sprocket), 218g (Front), 221g (Sprocket 13T – 24T. & Spacer) •Light Alloy (Hub Shell), Resin•Dark Gray Metallic Finish (Dust Cap), Steel•Black Finish (Sprocket) •Teeth: Threaded Sprocket: 13T – 15T., Spline Sprocket: 14T – 26T., 28T., 30T., 32T., 34T. •Over Lock Nut Dimensions: Front: 100mm, Rear 126mm •Spoke Holes: 32H, 36H •Spoke Hole Diameter: Ø2.6mm •For 1/2" × 3/32" Chain •Standard Sprocket combination:

6-speed	13, 14, 15, 17, 19, 21T.
	13, 15, 17, 19, 21, 24T.
	13, 15, 17, 20, 24, 28T.

SIS Compatible

Off-Road Components

Performance with Proven Durability

The thrills and excitement of off-road biking. Now to be enjoyed to the fullest with Shimano quality components.
Having thoroughly researched the functions and features of the moutain bike, Shimano has applied the same technology that went into its thoroughbred racing components.

The result? Components that are tough, able to stand up to the roughest riding conditions. For better control on those rugged roads. Better balance. And with the strictest sealing to keep mud and water out. All for a new kind of ride—in the mountains, across fields or even in town.





Features of DEORE XT Series

- Sealed Mechanism—For all-weather performance.
- Hexagon Release—For easy assembly/adjustment with Allen key.

Hub
- Cr-Mo Axle—For strength.



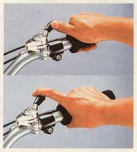
Rear Derailleur
- Double Spoke Barrier—For wheel/derailleur protection.
- Large Capacity—For wide range gearing.

Brake Lever
- Cold Forged Lever—For strength.
- Easy Grip Cable Adjuster— For quick adjustment.

Front Derailleur
- Large Capacity—For wide range gearing.

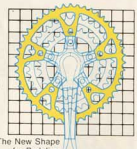


Shifting Lever
- Human Engineered Design—For better finger fit.
- Adjustable Tension—For street of off road use.



Human Engineered Design

biopace
- Triple Front Chainwheel
- Biopace Chainring—For pedaling efficiency.
- Computer Aided Design (CAD)—For better biomechanics, style, and maximum strength with minimum weight.



The New Shape for Pedaling Efficiency

Brake
- Complete Position Adjustment—For toe-in, pad height, rim width.
- 90° Cable/Arm Design—For more efficient braking.
- Large keel Shaped Brake Shoe—For all-weather braking.



90° Cable/Arm Design



DEORE XT

Built To Withstand The Demands of Off Road Riding And The Rigors of Touring

DEORE XT

Rear Derailleur
RD-M700
●Servo-Panta Mechanism, Sealed Mechanism, Double Spoke Barrier Mechanism, Brass Bushings in Link Pivots ●Max. Front Difference: 22T., Max. Rear Sprocket: 34T. (PR & SFR Fork End), Max. F & R Difference: 40T. ●7.8 oz. (222g.) ●Light Alloy

Front Derailleur
FD-M700
FD-M700-GS
●Trap-Ease Mechanism; Sealed Mechanism ●FD-M700/22 Teeth or Less (Top & Middle Sprocket Difference/8 Teeth or More), FD-M700-GS/27 Teeth or Less ●4.3 oz. (120g.) FD-M700, 4.0 oz. (112g.) FD-M700-GS ●Body/Light Alloy, Right Link/Forged Light Alloy, Chain Guide/Steel•C.P. Finish ●Lower Inlet Type 1-1/8"

Finger Shifter
SL-M700
●Uni-Shift Mechanism (One-Way Clutch), Sealed Mechanism, Smooth Shifting with Ratchet ●Anodized or Black Finish ●7.5 oz. (212g.) Pair ●Light Alloy ●Friction Type ●Attachment Position: Handle Bar ●Lever Clamp Diameter: 7/8" (22.2mm.)



Rear Derailleur
RD-M700-SP
●Superplate system, Sealed Mechanism, Double Spoke Barrier Mechanism, Brass Bushings in Link Pivots ●Maximum Rear Sprocket: 34T. (Using all Shimano Fork Ends.) Total capacity (front difference plus rear difference) differs according to types of Fork End ●10.1 oz. (285g.) ●Forged Light Alloy (Bracket Body)

Types of Fork End	Total Capacity (front difference plus rear difference)
FE-SF21, FE-SF22	42T. or less
FE-SF20, FE-EF20	42T. or less
FE-UF20	40T. or less



Rear Derailleur Guard
SM-DG11
SM-DG16 (For SFR & PR Fork Ends)
●3.1 oz. (89g.) (SM-DG11), 3.2 oz. (92g.) (SM-DG16)





Freehub
FH-7400-ATB (Rear/6-speed) HB-7400-ATB (Front Hub)
●Sealed Mechanism, New Uniglide Teeth, Cassette Uni- Balance System, Lubricating Ports with Open/Close ●15.0 oz. (425g.) Rear 6-speed, 130mm. (w/o Sprocket) 7.9 oz. (225g.) Front ●Forged Light Alloy•Anodized Finish (Hub Shell), Resin•Black Finish (Dust Cap) ●Champagne Gold Finish (Sprocket) ●Teeth: Threaded Sprocket; 12T. ~ 16T., Spline Sprocket; 13T. ~ 28T. ●Front 3-5/16" (100mm.), Rear 5" (130mm.) ●Spoke Holes: 36H

Pedal
PD-GX10 (w/Reflector)
●Sealed Mechanism, Parallelogram Profile, Concave Platform with Studs, Toe Clip Attachable ●18.6 oz. (526g.) w/Reflector ●Body/Light Alloy, Spindle/Cr-Mo Steel, Cap, Reflector & Dust Seal/Resin ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25, UNC 1/2 x 20 T.P.I. ●Color: Black or White



Pedal
PD-MX15
●Weight: 18.6 oz. (530g.)/Pair (W/Reflector) ●Material: Light Alloy (Body), Cr-Mo Steel (Spindle), Resin (Cap & Reflector) ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25, UNC 1/2 x 20 T.P.I. ●Color: Red, Blue, Silver, Black or C.P. ●Toe Clip Attachable



AT 50 series

Cantilever Brake
BR-AT50
●11.9 oz. (336g.) Front & Rear ●Light Alloy ●Cantilever Brake ●Option: 6mm Hexagon Fixing Bolt

Brake Lever
BL-AT50
●9.2 oz. (262g.) Pair ●Light Alloy ●Lever Clamp Diameter 7/8" (22.2mm.) ●Two Step adjustable lever reach

Finger Shifter
SL-AT50
●5.0 oz. (143g.) Pair ●Light Alloy ●Friction Type ●Attachment Position: Handle Bar ●Lever Clamp Diameter: 7/8" (22.2mm.)

Cantilever Brake
BR-MC70
●Sealed Mechanism, Non-Hitting Wheel Mechanism ●Anodized or Black Finish ●9.2 oz. (260g.) Except Mounting Shaft ●Light Alloy & Steel ●Cantilever Brake with Brake Mounting Shaft

Brake Lever
BL-M700
●Human-Engineered Design ●12.6 oz. (356g.) Pair ●Light Alloy•Anodized Finish ●Lever Clamp Diameter: 7/8" (22.2mm.)



Large Flange Hub
HB-MN72
●Sealed Mechanism ●Anodized or Black Finish ●F: 8.7 oz. (248g.), R: 11.8 oz. (335g.) ●Light Alloy•Anodized Finish, Cr-Mo Axle ●Nut Type ●Thread: 1.37" x 24 T.P.I. (English) ●Over Lock Nut Dimensions: Front; 100mm., Rear; 130mm. ●Spoke Holes: 36H. ●Spoke Diameter: 5/64" (2.6mm.)

Large Flange Hub
HB-MN72-QR
●Sealed Mechanism ●F: 9.2 oz. (260g.), R: 12.3 oz. (348g.) ●Light Alloy•Anodized Finish, Cr-Mo Axle ●Quick Release Type ●Thread: 1.37" x 24 T.P.I. ●Over Lock Nut Dimensions: Front; 100mm., Rear; 126mm., 6-speed ●Spoke Holes: 36H





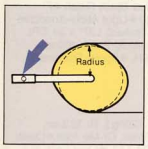
The New Shape for Pedaling Efficiency— A Computer-Designed Chainring for Better Biomechanics.

biopace
Computer-Designed Drive System

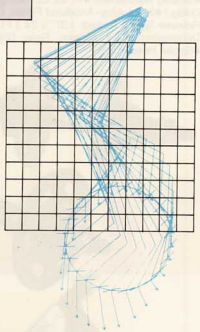
Human leg movement—the power behind any bicycle. Shimano thoroughly analyzed the biomechanics of human pedaling, and finally came up with the efficient connection in the human/bicycle power train: the Shimano Biopace Chainring. Applying computer analysis to the biomechanics of human pedaling, we succeeded in discovering the ideal chainring shape, for greatly rationalized use of the legs' muscle power and improved pedaling efficiency.

1 Lighter, More Rhythmical Pedaling

When the crank reaches the horizontal position, the legs turn out the greatest power. With the crank nearly aligned with the major axis of the chainring, the turning radius is smallest when the crank is nearly horizontal. The chainring picks up speed and the burden on the legs is lightened. Because of the lighter load, a better balanced counterforce is given to the body, which means that it sways less. The result is lighter pedaling action and a more rhythmical motion.



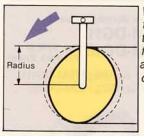
With the crank arm at the horizontal position, leg thrust is at peak power. Turning radius of the chainring is minimal, for assured light and quick pedaling.



Computer Analysis— Leg motion vs. pedalling power.

2 More Efficient Use of Power

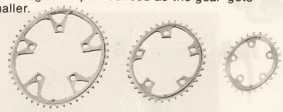
When the crank reaches the vertical position, where one leg is bent at the knee and the other is fully extended, the turning radius of the Biopace Chainring is greatest. This reduces rotational speed. The slowed rotational speed, in turn, allows the legs to apply power smoothly to the downward thrust of the pedals, instead of merely keeping up with turning movement. The result is more efficient use of the leg muscles and more efficient application of power.



When the crank arm reaches the vertical position, the turning radius is greatest for slower pedaling action and more efficient application of leg power.

3 Individually Designed Chainrings According to Function

Each of the chainrings has a distinctive function of its own. The outer one is for level and downhill riding. The middle one is for unpaved roads and gentle inclines. And the inner one is for taking on those steep uphills. To get optimum results, shapes differ gear to gear, with the Biopace shape becoming more pronounced as the gear gets smaller.



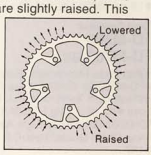


Shimano 600EX
Triple Front Chainwheel
FC-6206 (Biopace Triple, MD Type)
BB-6207 (B.B. Parts)

●Computer Aided Design (CAD), Sealed Mechanism ●24.7 oz. (700g.) (28T./38T./48T., 170mm.), 11.6 oz. (330g.) (B.B. Parts) ●Light Alloy•Anodized, Buff Finish (Crank), Buff Finish or Color Anodized/Gun-Metallic Gray Finish (Chainring) ●Crank Length: 165mm., 170mm., 175mm., 180mm. ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25 ●Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I. ●B.B. Size: 68-T-121.5 (D-3SS), 70-T-124.5 (5S-B) ●Outer 50T., 48T., Middle 44T., 38T., Inner 28T. ●Bolt Circle Diameter: (Outer & Middle): 110mm. MD Type, (Inner): 74mm.

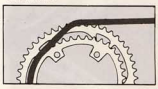
4 Tooth Height Design for Smoother Shifting

On the outer ring of the Biopace Chainring, the height of the teeth along the major axis is lowered, while along the minor axis they are slightly raised. This minimizes the difference between the chainwheel and the front derailleur, thereby keeping the chain firmly in position and preventing accidental release.



5 Tooth Alignment Feature for Improved Shifting Performance

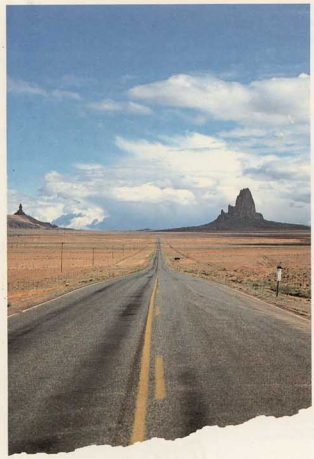
The outer, middle and inner gears of the Biopace Chainring have been carefully positioned so as to afford smooth and effortless derailling from one gear to the other. The two points affording the smoothest shift are those where chain tension is minimum.





Shimano 600EX
Double Front Chainwheel
FC-6207-BP (Biopace Double, LD Type)
BB-6207 (B.B. Parts)

●Computer Aided Design (CAD), Sealed Mechanism ●23.7 oz. (667g.) (42T., 52T., 170mm.), 11.5 oz. (326g.) (B.B. Set) ●Light Alloy•Anodized Buff Finish (Crank), Buff Finish or Color Anodized/Gun-Metallic Gray Finish (Chainring) ●For 1/2˝ x 3/32˝ Chain ●Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm. ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25 ●Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I. ●B.B. Size: 68-W-116 (D-3L), 70-W-119 (D-5LL) ●Outer: 52T., 53T. (NEW), Inner: 42T. ●Bolt Circle Diameter: 130mm. LD Type

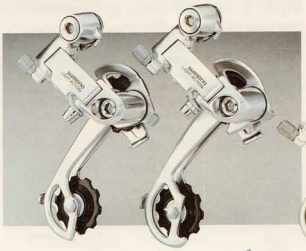


Rear Derailleur

RD-L525-GS (Long Cage)

RD-L525-SGS (Super Long Cage)

●Pre-Select Mechanism with Light Action, Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Steel Bushing in Link Pivots, Centeron Guide Pulley, 6mm. Hexagon Fixing Bolt, Chain Retainer ●Maximum Rear Sprocket/Long: 34T., Super Long: 34T., Maximum Front & Rear Sprocket Difference/ Long: 34T., Super Long: 40T. (Using FE-SF21, SF22 & PR20 Fork Ends) ●10.0 oz. (284g.) (Long), 10.4 oz. (294g.) (Super Long) ●Light Alloy (Bracket & Plate Body, Right Link), Steel•Pearl Bright Finish (Pulley Plate & Left Link), Steel (Left Plate)



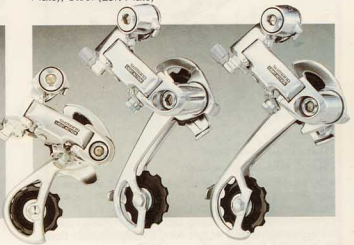
Rear Derailleur

RD-L523-SS (Short Cage)

RD-L523-GS (Long Cage)

RD-L523-SGS (Super Long Cage)

●Pre-Select Mechanism with Light Action, Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Steel Bushing in Link Pivots, Chain Retainer (Long Cage, Super Long Cage) ●Maximum Rear Sprocket/Short: 28T., Long: 34T., Super Long: 34T., Maximum Front & Rear Sprocket Difference/Short: 28T., Long: 34T., Super Long: 40T., (Short/Using all Shimano Fork Ends, Long & Super Long/Using FE-SF21, SF22 & PR22 Fork Ends) ●9.7 oz. (274g.) (Short), 10.3 oz. (293g.) (Long), 10.6 oz. (300g.) (Super Long) ●Light Alloy (Bracket & Plate Body), Steel•Pearl Bright Finish (Right Link, Pulley Plate), Steel (Left Plate)



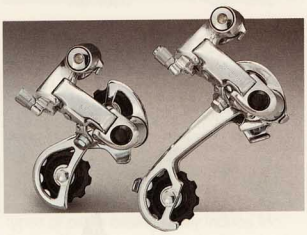
Rear Derailleur

RD-L532-SS (Short Cage)

RD-L532-SGS (Supe Long Cage)

NEW

●Pre-Select Mechanism with Light Action, Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Centeron Guide Pulley, 6mm. Hexagon Fixing Bolt, Chain Retainer (Super Long Cage) ●Maximum Rear Sprocket/Short: 28T., Super Long: 34T., Maximum Front & Rear Sprocket Difference/Short: 28T., Super Long: 40T., (Short/Using all Shimano Fork Ends, Long/Using FE-SF21, SF22 & PR20 Fork Ends) ●9.6 oz. (272g.) (Short), 10.8 oz. (306g.) (Super Long) ●Light Alloy (Bracket Body), Steel (Right & Left Link, Plate Body & Pulley Plate)



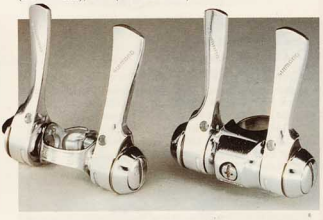
Shifting Lever

SL-L422-BA (Band A Type for Down Tube)

SL-L422-FA (Brazed-on A Type)

SL-L422-S (Band Type for Stem Mount)

●3.4 oz. (95g.)/Band A Type, 5.1 oz. (145g.)/Stem Type ●Light Alloy ●Light Action Type ●Attachment Position: Down Tube, Handle Stem ●Lever Clamp Diameter: 1-1/8" (Down Tube), 7/8" (Handle Stem)



Pedal

PD-T100 (w/Reflector)

●Sealed Mechanism, Concave Platform with Studs, Toe Clip Attachable ●14.6 oz. (414g.) w/Reflector, 12.3 oz. (362g.) w/o Reflector ●Body/Light Alloy, Spindle/Cr-Mo Steel, Cap, Reflector & Dust Seal/Resin ●Crank Thread: English BC 9/16 x 20 T.P.I., French M14 x 1.25, UNC 1/2 x 20 T.P.I.





UNIGLIDE-II (UG-II)

CN-UG20

●Steel ●Surface Treatment: Roller Link Plate/Black Finish, Pin Link Plate/Brown Finish ●Roller Chain Type

Chain Link Lock

CN-6130

●Steel•Silver Finish ●Use: 1/2" x 1/8" Chain, 1/2" x 3/32" Chain



Chain Cutter

TL-CN20

●For Both UG Chain and Ordinary Chain



Rear Derailleur

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

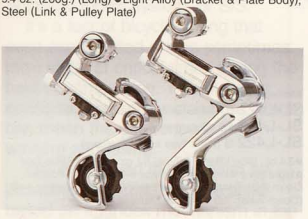
●Double Spoke Barrier Mechanism, Sealed Mechanism, Twin Return Spring, Brass Bushings in Link Pivots ●Max. Rear Sprocket/Short: 28T., Long: 34T. Max. F & R Difference/Short: 30T., Long: 34T. ●7.7 oz. (219g.) (Short), 8.0 oz. (226g.) (Long) ●Light Alloy·Buff Finish (Bracket & Plate Body, Right Link), Light Alloy (Right Pully Plate) Steel (Left Pulley Plate)



Rear Derailleur

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

●Double Spoke Barrier Mechanism, Sealed Mechanism, Twin Return Spring, Brass Bushings in Link Pivots ●Max. Rear Sprocket/Short: 28T., Long: 34T. Max. F & R Difference/Short: 30T., Long 34T. ●9.0 oz. (256g.) (Short) 9.4 oz. (266g.) (Long) ●Light Alloy (Bracket & Plate Body), Steel (Link & Pulley Plate)



Rear Derailleur

RD-Z501 (Short Cage)
RD-Z501-GS (Long Cage)
RD-Z501-SGS (Super Long Cage)

●Double Spoke Barrier Mechanism, Sealed Mechanism (Bracket Body only) ●Max. Rear Sprocket/Short: 28T., Long: 34T.*, Max. F & R Sprocket Difference/Short: 30T., Long: 34T. (Using all Shimano Fork Ends) ●10.0 oz. (284g.) (Short) 10.8 oz. (305g.) (Long) ●Light Alloy (Bracket Body) Steel (Plate Body, Pulley Plate) *(Using SFR Fork End)



Front Derailleur

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

●Spring Cover, Trap-Ease Mechanism ●Max./Short 18T., Long: 27T. Min./Long: 6T. ●3.9 oz. (110g.) (Short), 4.2 oz. (120g.) (Long) ●Forged Light Alloy (Right Link), Light Alloy (Body), Heat Treated Steel (Chain Guide)



Front Derailleur

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

●Spring Cover, Trap-Ease Mechanism ●Max./Short: 18T., Long: 27T. Min./Long: 6T. ●4.4 oz. (125g.) (Short), 4.8 oz. (135g.) (Long) ●Light Alloy (Body), Heat Treated Steel (Chain Guide), Steel (Link)



Front Derailleur

FD-Z202

●Trap-Ease Mechanism ●Max./14T. ●4.9 oz. (140g.) ●Light Alloy (Body), Heat Treated Steel (Chain Guide), Steel (Link)



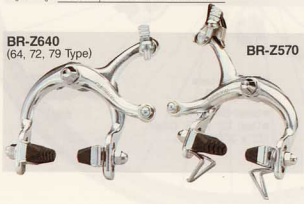
Brake

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

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



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



Shifting Lever

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

●Non-loosening Mechanism, Sealed Mechanism Human Engineered Design ●SL-Z408 BA: 2.2 oz. (63g.) ●Light Alloy ●Friction Type ●Down Tube Lever ●Lever Clamp Diameter: 1-1/8" (28.6mm.)



Shifting Lever

SL-Z401-BA (Band A Type)
SL-Z401-FA (Brazed-on A Type)
SL-Z401-S (Stem Band Type)

●SL-Z401BA: 2.2 oz. (63g.) ●Light Alloy ●Friction Type ●Down Tube Lever, Handle Stem ●Lever Clamp Diameter: 1-1/8" (28.6mm.) (Down Tube), 7/8" (22.2mm.) (Handle Stem)



Multiple Freewheel

MF-Z012

SIS Compatible

●15.9 oz. (451g.) ●Brown or Silver Finish ●Chain Size: 1/2" x 3/32" Chain ●Thread: BC 1.37 x 24 T.P.I. (English) ●Threaded Sprocket for 1st Position: 13T. – 16T. Spline Sprocket for 2nd-3rd gear: 14T. – 20T. Spline Sprocket for 4th-6th gear: 17T. ~ 24T., 26T., 28T., 30T., 32T., 34T.



Brake Lever

BL-Z325-AQ (w/o Bracket Cover, w/Quick Release)
-A (w/o Bracket Cover)
-BQ (w/Bracket Cover, w/Quick Release)
-B (w/Bracket Cover)

BL-Z326-A (w/o Bracket Cover)
-B (w/Bracket Cover)

●Easy-grip Human Engineered 3-dimensional Designed Bracket ●7.0 oz. (198g.) (Including Bracket Cover) Pair ●Light Alloy ●Lever Clamp Diameter: 22.2mm. or 23.8mm./24.2mm. ●Option: Dual Extension Lever (BL-Z32) 7.9 oz. (224g.)

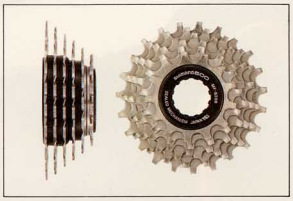


New Shimano Freewheel System

Shimano's New Multiple Freewheel

Features/Benefits:

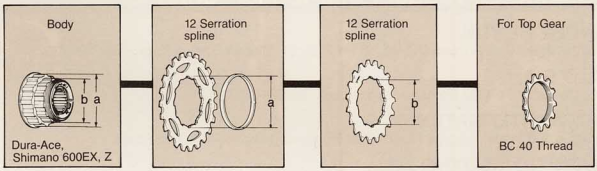
1. Splined Design—By making only the top sprocket threaded and the rest splined you can easily/quickly change sprockets.
2. UG Sprocket Teeth—Recognized as the smoothest/quickest shifting sprockets availabe.
3. Sealed Mechanisms—Sliding O-ring seals are incorporated in the Dura-Ace/ Shimano 600EX freewheels for all-weather durability.



4. Oil Port—The Dura-Ace and 600EX (MF-6208) freewheel bodies have an oil port to facilitate freewheel maintenance.
5. Evenly spaced sprockets—Give predictable shifting feel and performance.

Interchangeability

All sprockets are interchangeable between different models (MF-7400, MF-6208, MF-Z012), freewheel combinations possible from 13 ~ 18T. to 16 ~ 34T. are possible with only 28 sprockets and 3 different spacers.—Simple system design means maximum versatility with minimum inventory.

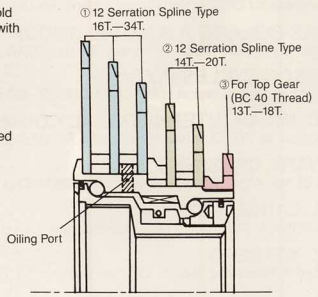


●Interchangeability with older model sprockets:

A) All 3-spline sprockets from following old model freewheels can be used in 4-6th positions (1):
- MF-1500, 1600 UG B-Type
- MF-6150, 6151, 6160, 6161 Shimano 600UG
- MF-6207 Shimano 600EX
- MF-7150, 7160 Dura-Ace

B) Top threaded sprockets from following old model freewheels are interchangeable with the new freewheels:
- MF-6150, 6151, 6160, 6161 Shimano 600UG
- MF-6207 Shimano 600EX
- MF-7150, 7160 Dura-Ace

*Note: New sprockets/spacers must be used for SIS function.



Specifications:

	Dura-Ace MF-7400	Shimano 600EX MF-6208	Shimano-Z MF-Z012
Body	Splined Type Design		
	Internal Spline Removal Tool		
	Sealed Mechanism	Sealed Mechanism	—
	Oil Port	Oil Port	—
Sprockets (6-speed)	Champagne Gold	Silver	Brown or Silver
1st Position (Threaded, BC40T)	13, 14, 15, 16, 17, 18T.	13, 14, 15, 16, 17, 18T.	13, 14, 15, 16T.
2nd-3rd Position (12 Serration Spline)	14, 15, 16, 17, 18, 19, 20T.	14, 15, 16, 17, 18, 19, 20T.	14, 15, 16, 17, 18, 19, 20T.
4th-6th Position (12 Serration Spline)	16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28T.	16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30, 32, 34T.	17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 30, 32, 34T.

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