

'92

SHIMANO BICYCLE
SYSTEM COMPONENT

DEALERS' PRODUCT MANUAL

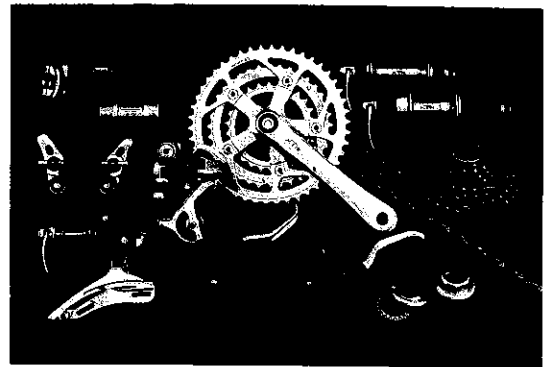
SHIMANO

NEW PRODUCTS FOR 1992

New Component Groups...

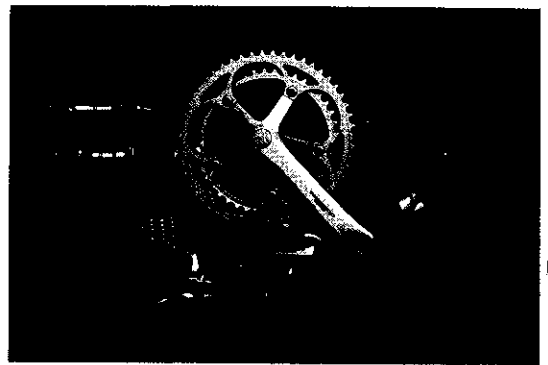
Shimano XTR

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.



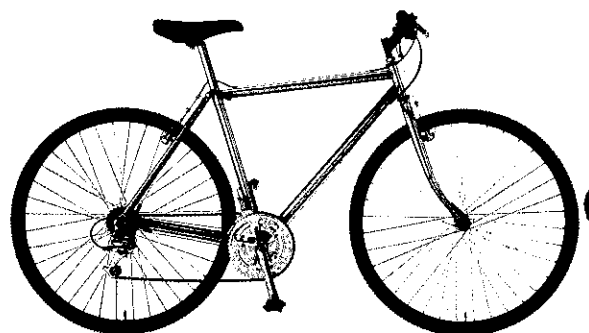
Shimano 70GS

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

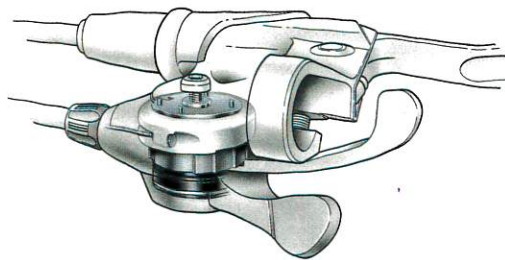
Hybrid bikes use wide section 700C tires, triple chainwheels, and flat bars. The result is the upright riding position and gear selection of a mountain bike with handling and response that's more like a lightweight road bike. The new 200CX and 500CX components were specifically designed for these hybrid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



New Functions...

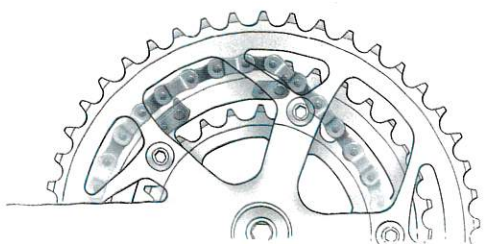
RAPIDFIRE PLUS

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.



SHD — 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 the competitive off-road rider 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 maintenance 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.

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

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

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.

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.

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



Seat Post
SP-M900



Sealed Cartridge Bottom Bracket
BB-UN90



Front Hub
HB-M900-F



Seat Post Quick Release
SQ-M900



Cantilever Brakes
BR-M900



Freehub
FH-M900



Front Derailleur
FD-M900



Rear Derailleur
RD-M900

Front Chainwheel
FC-M900



Spider Gear
Cassette Sprockets
CS-M900-8



Chain
CN-7401



Rapidfire Plus Lever Set
ST-M900-8

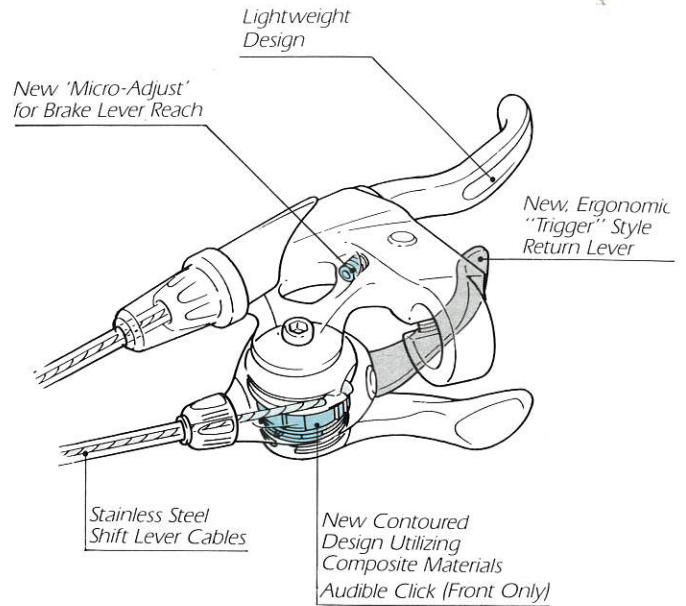


Head Parts
HP-M900

Rapidfireplus

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

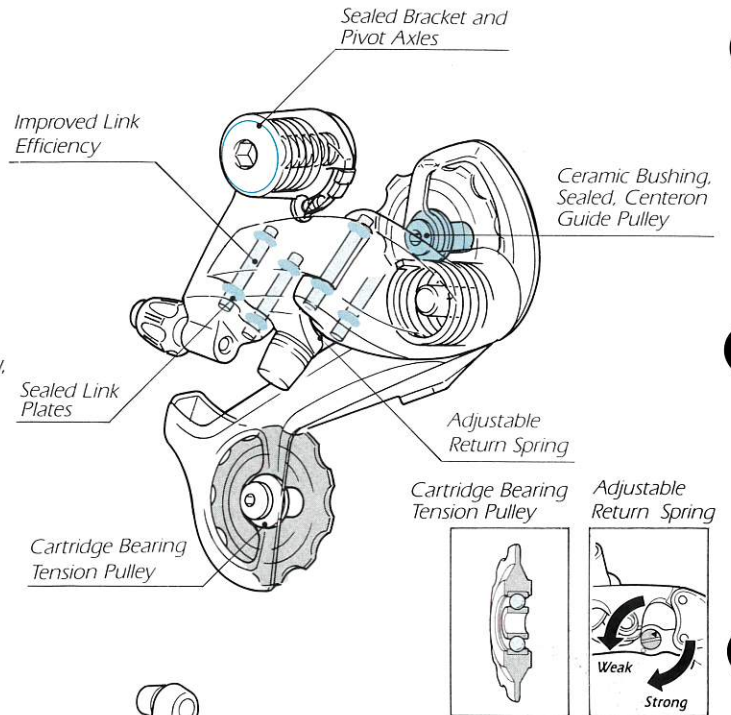
- Weight** 411 g. (Pair)
- Compatibility** Shimano Total Integration Compatible, SHD (Shimano Hyper Drive) Compatible, SLR (Shimano Linear Response) PLUS Compatible, 8-speed SIS Compatible
- Features** Lightweight Design, New, Ergonomic "Trigger" Style Return Lever (RAPIDFIRE-PLUS), Handlebar Grip Thickness 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

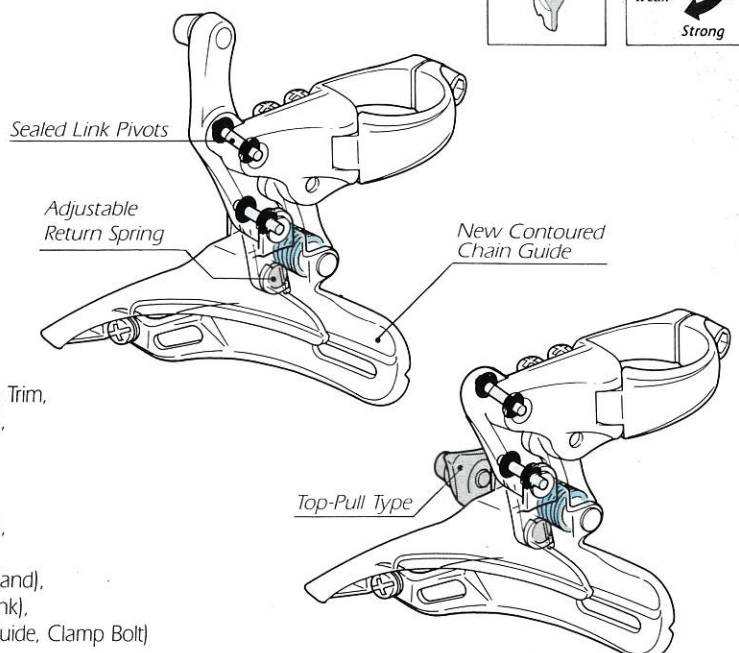


Front Derailleur

FD-M900 (Band Type)

FD-M901 (Top-Pull Type)

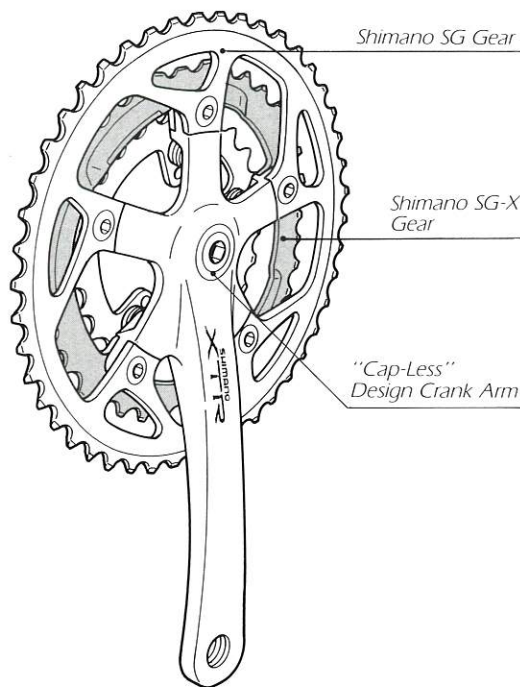
- Weight** 118g. (Band Type)
- Compatibility** Shimano Total Integration Compatible, SHD (Shimano Hyper Drive) Compatible, Shimano SG Gear Compatible, Narrow Type Chain Compatible
- Features** Trailing Action Pantagraph Mechanism, Adjustable Return Spring, Sealed Mechanism (Rubber Seals Utilized), New 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" x 3/32"
- Teeth Combination 48T. x 36T. x 26T., 46T. x 36T. x 26T. (Round SG)
- Crank Length 165mm., 170mm., 175mm., 180mm.
- Crank Thread English BC 1.37 x 24T.P.I., Italian M36 x 24T.P.I.
- B.B. BB-UN90 Only
- Material & Finish Cold Forged Aluminum•Titanium Color Anodized Finish (Crank), Aluminum•Anodized Finish (Chainring)

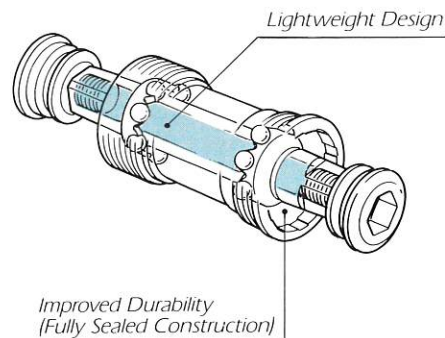


Sealed Cartridge Bottom Bracket

BB-UN90

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

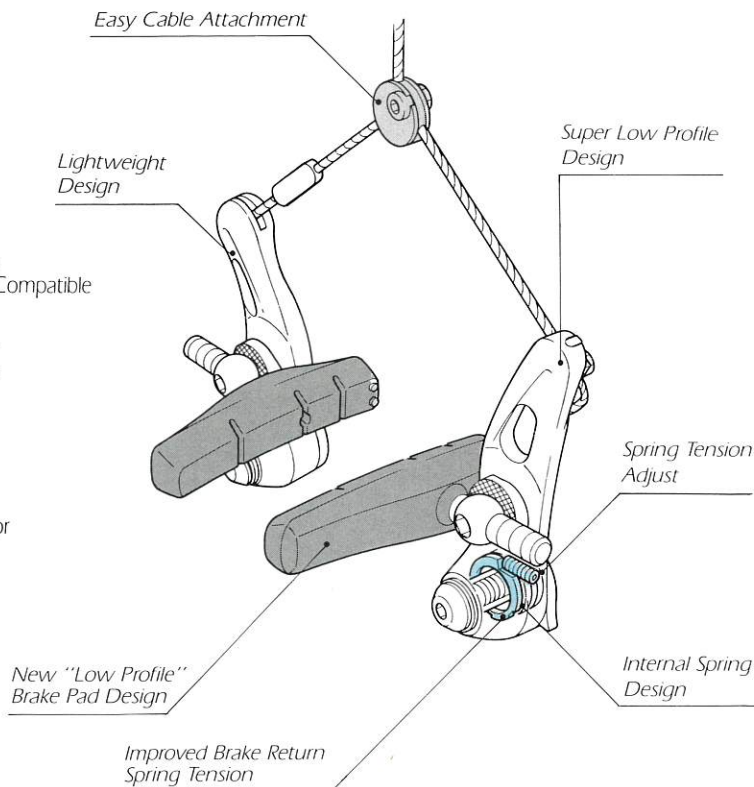
Specifications					
Chain Line	47.5mm.			50mm.	
Spindle Length	107mm.			113mm.	
Shell Width	68 (BC)	70 (M36)	73 (BC)	68 (BC)	70 (M36)
Spindle Marking	MM107			LL113	



Cantilever Brake

BR-M900-F/R

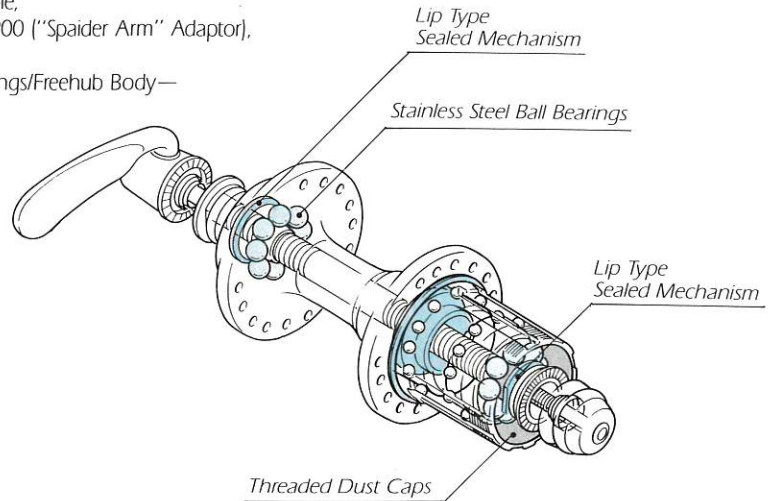
- Weight 340g. (F & R Set)
- Compatibility Shimano Total Integration Compatible, SLR (Shimano Linear Response) PLUS Compatible
- Features Lightweight Design, New "Low Profile" Brake Pad Design, Improved Brake Return Spring Tension, Super Low Profile Design, Easy Cable Attachment, Spring Tension Adjust, 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)

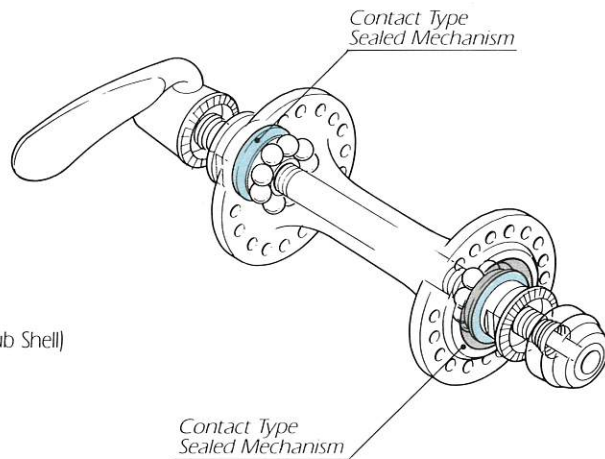
Weight	454g. (with Quick Release)
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible with CS-M900 ("Spider Arm" Adaptor), HG Gear Compatible
Features	Improved Seals (Left and Right Bearings/Freehub Body— Hub Shell Connection), Stainless Steel Ball Bearings, Lightweight Design, 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

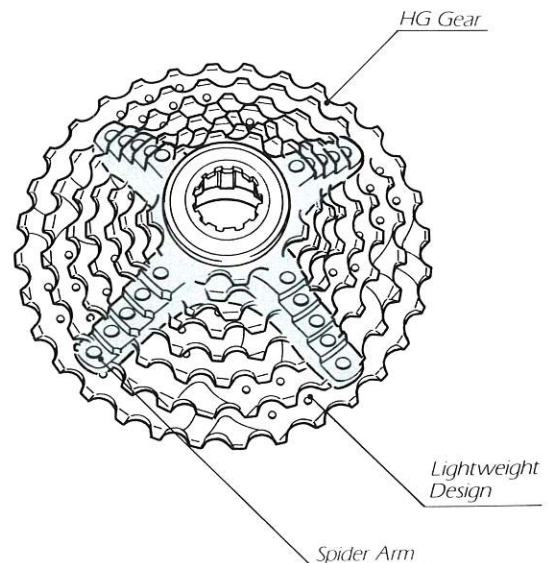
Weight	214g. (with Quick Release)
Features	Lightweight Design, Contact Type Sealed Mechanism, Stainless Steel Ball Bearings, Precision Machined and Polished Bearing Surfaces, Lightweight Quick Release Lever
Over Lock Nut Dimensions	100mm.
Axle Length	108mm.
Axle Thread	9mm.
Spoke Holes	28H, 32H, 36H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



Cassette Sprockets

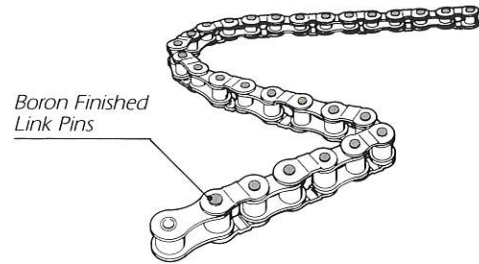
CS-M900-8 (8-speed)

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 For 1/2" x 3/32" Chain (Narrow Type Chain)
Chain Size	
Sprocket Combinations	P 12, 14, 16, 18, 21, 24, 28, 32T. Q 12, 13, 14, 16, 18, 21, 24, 28T.



HG Chain
CN-7401

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)

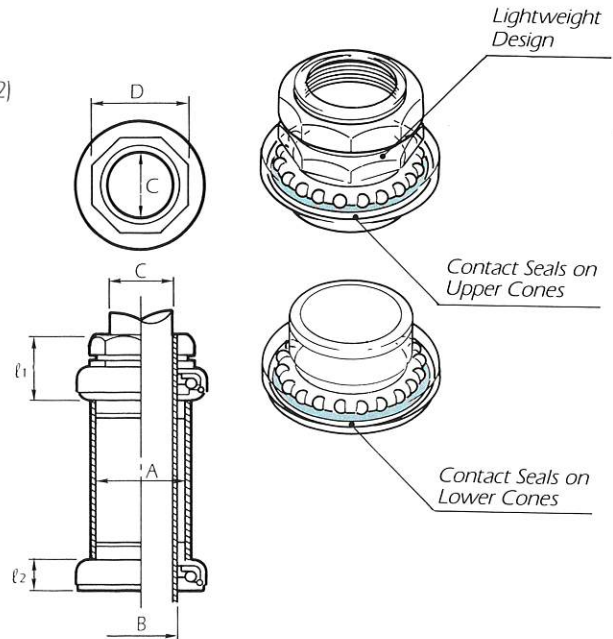


Head Parts
HP-M900
HP-M901
HP-M902

Weight 119g. (HP-M900), 136g. (HP-M901), 167g. (HP-M902)
 Type Off-Road Type
 Features Lightweight Design,
 Contact Seals on Both Upper and Lower Cones
 Material & Finish Aluminum (Locknut, Both Upper and Lower Cap)

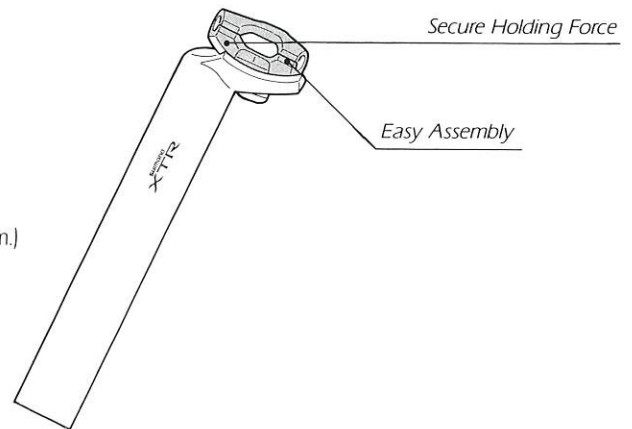
Variation & Dimensions

Type	HP-M900		HP-M901	HP-M902
Thread	BC1" 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.
ℓ ₁	22.8mm.		22.8mm.	27.3mm.
ℓ ₂	11.5mm.		11.5mm.	13.0mm.



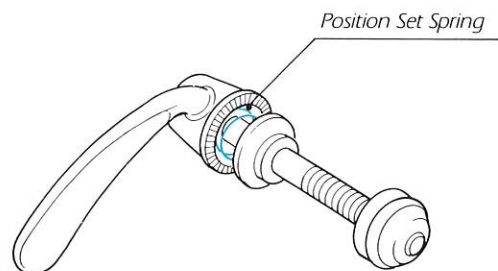
Seat Post
SP-M900

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.

Shimano Deore XT

7

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 effect 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 initially, 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



Pedal Sets
PD-M735



Seat Post
SP-M730



Chain Deflector
DF-M730

Cassette Sprockets
CS-HG90-7



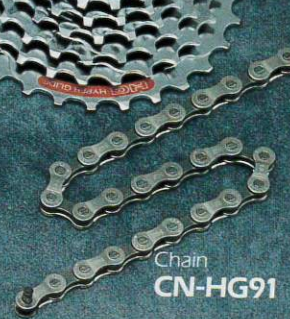
Rapidfire Lever Set
ST-M092



Freehub
FH-M732



Front Hub
HB-M730-F



Chain
CN-HG91



Rapidfire Plus
Lever Set
ST-M095



Sealed Cartridge Bottom Bracket
BB-UN70



Seat Post
Quick Release
SO-M730



Cantilever Brake
BR-M734

Front Derailleur
FD-M735



Rear Derailleur
RD-M735



Oversize Head Parts
HP-M736



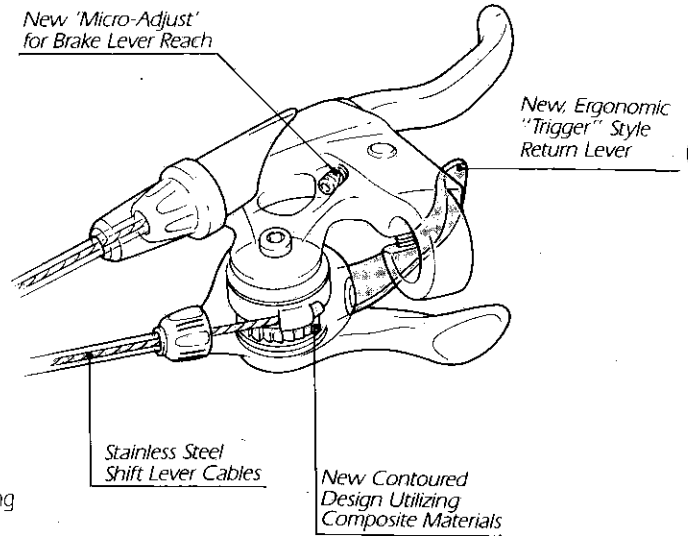
Front Chainwheel
FC-M730-SG

SPD Pedal Set
PD-M737



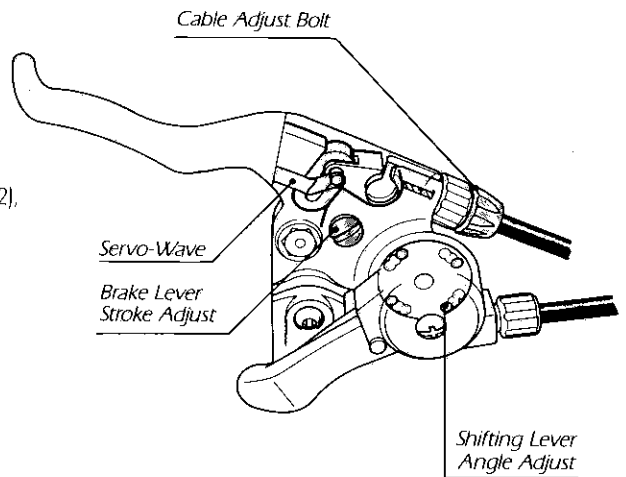
Rapidfireplus
ST-M095 (Servo-Wave, 2-Finger)

- Weight** 421g. (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).



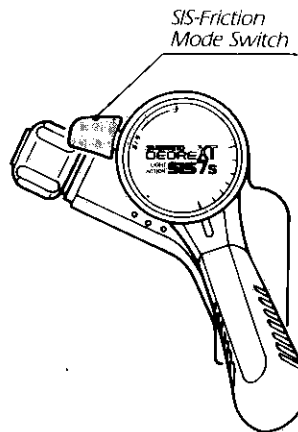
Rapidfire
ST-M092 (Servo-Wave, 2-Finger)
ST-M090 (4-Finger)

- 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

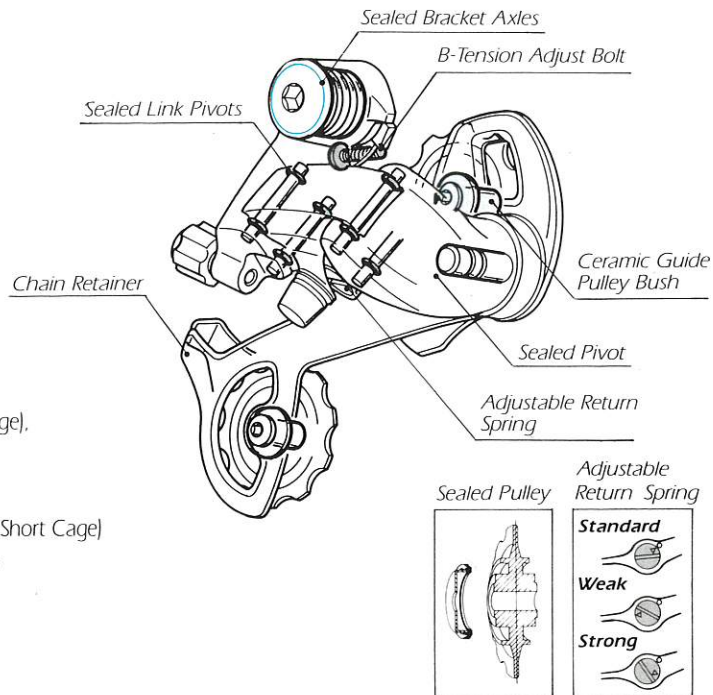


Rear Derailleur

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.
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)

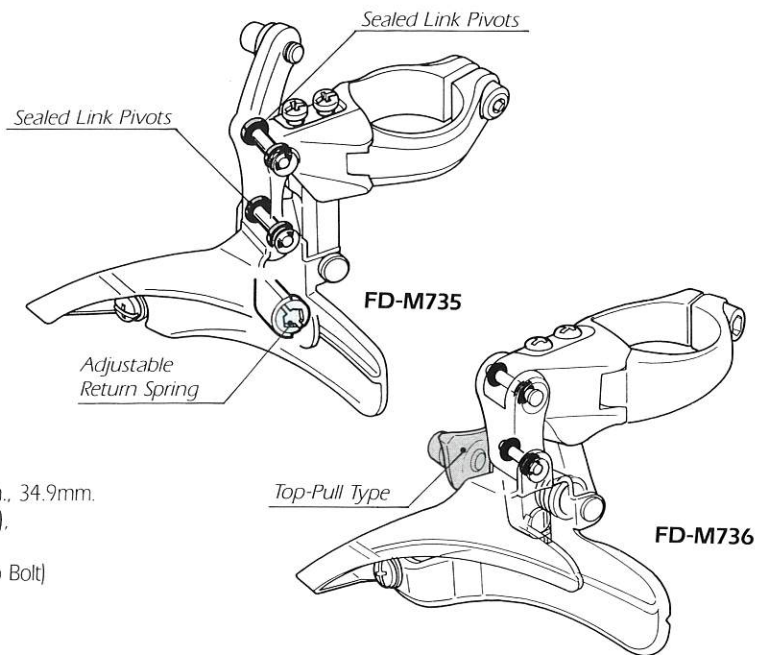


Front Derailleur

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** \varnothing 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)

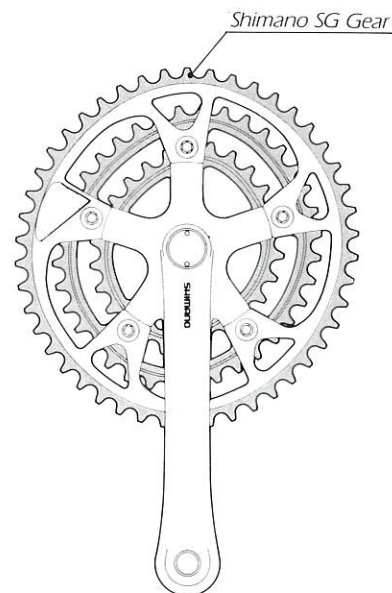


Front Chainwheel & Bottom Bracket Assembly

FC-M730-SG (Shimano SG Triple, MD Type)

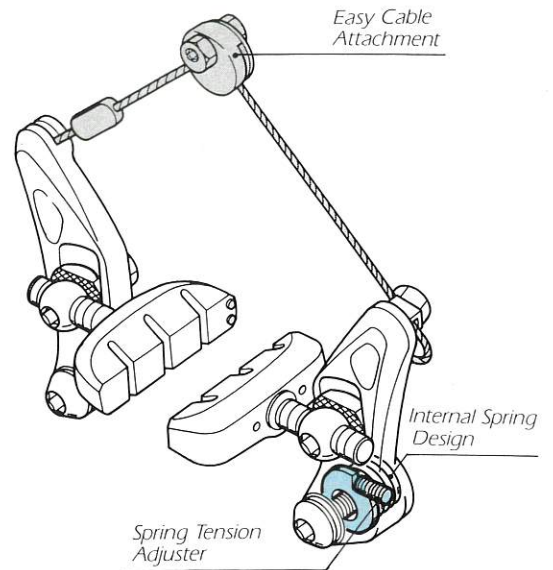
BB-M730 (B.B. Set)

- Weight** 730g. (46T., 36T., 26T., 170mm.), 295g. (B.B. Set)
- Compatibility** Shimano Total Integration Compatible, Narrow Type Chain Compatible
- Features** Shimano SG Gear, Sealed Mechanism (B.B.)
- 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.
- Cup Thread** English BC 1.37 x 24T.P.I., French M35 x 1.0, Italian M36 x 24T.P.I.
- B.B. Size** 70-T-122.5, 68-T-122.5, 73-T-121.5, 68-T-127.5
- Material & Finish** Aluminum•Anodized Finish (Crank, Chainring), Aluminum•Black Finish Available (Chainring)



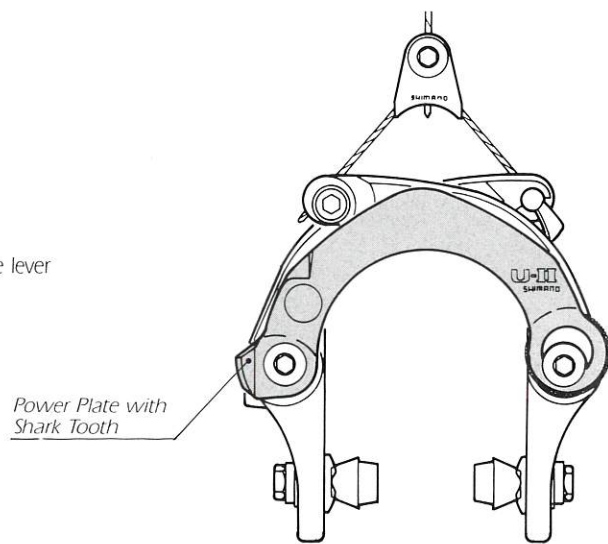
Cantilever Brake
BR-M734

Weight 344g. (F & R Set)
 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)



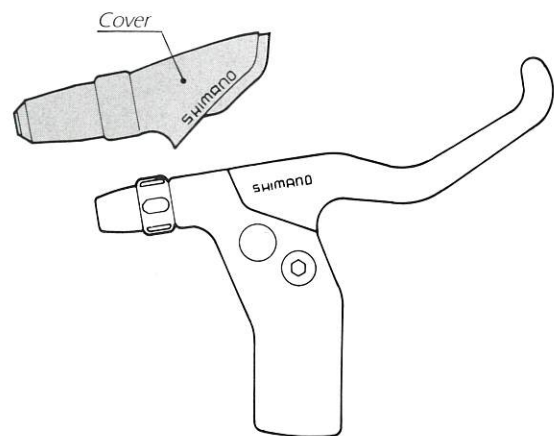
U-II Brake
BR-M733

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) 22.2mm.
 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.

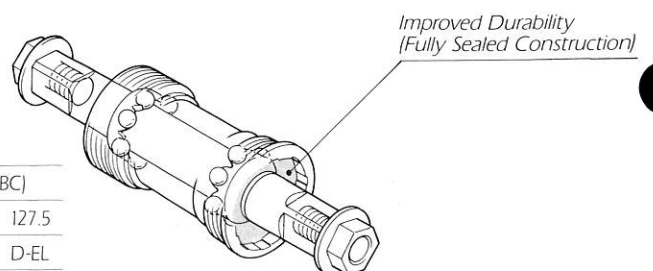


Sealed Cartridge Bottom Bracket
BB-UN70

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

Specifications

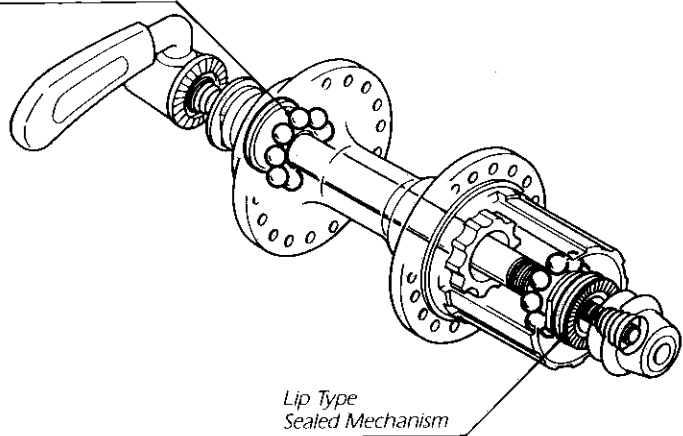
Shell Width	68 (BC)		70 (M36)		73 (BC)	
Spindle Length	122.5	127.5	122.5	127.5	122.5	127.5
Spindle Marking	D-NL	D-EL	D-NL	D-EL	D-NL	D-EL



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)

Lip Type Sealed Mechanism

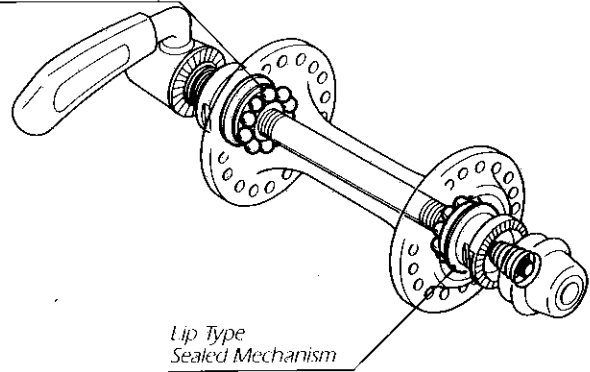


Lip Type Sealed Mechanism

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)

Lip Type Sealed Mechanism



Lip Type Sealed Mechanism

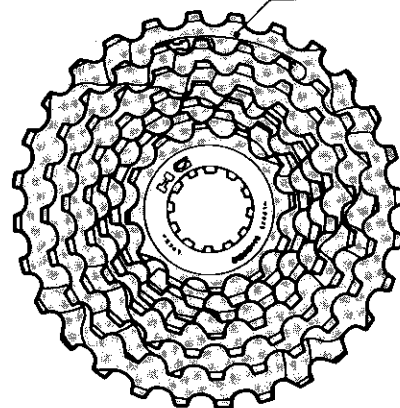
Cassette Sprockets
CS-HG90-7 (7-speed)

- 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.

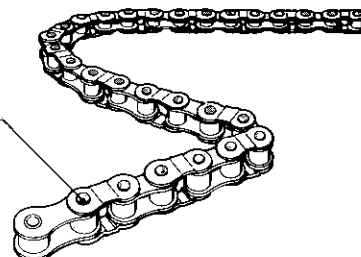
HG Gear



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)

Cromizing Treatment Link Pins



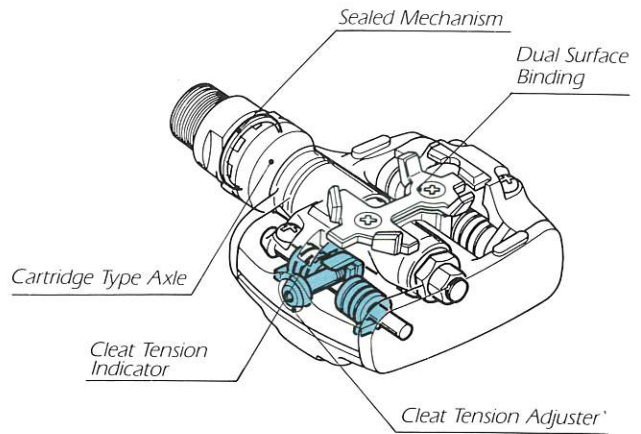
HG Chain
CN-HG91

- 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

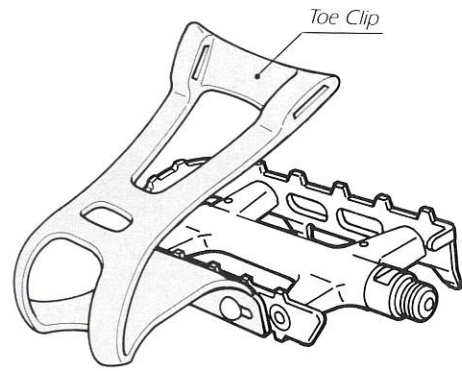
Weight	447g. (Pair)
Features	SPD (Shimano Pedaling Dynamics) Cleats System Cartridge Type Axle, Cleat Tension Indicator, Dual Surface Binding, Cleat Tension Adjuster, 31° Road Clearance, Sealed Mechanism
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminum•Black Finish (Body), Cr-Mo Steel (Axle)



Pedal

PD-M735

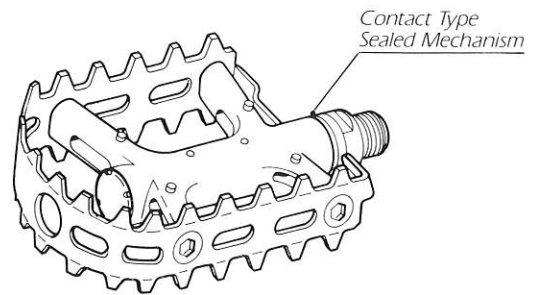
Weight	295g. (Pair)
Features	32° Road Clearance, Super Low Profile Design, Parallelogram Shape, Contact Type Sealed Mechanism, Stainless Steel Grip Pin, Toe Clip/Reflector Attachable
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Aluminum (Body), Aluminum•Anodized Finish (Plate), Resin (Toe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



Pedal

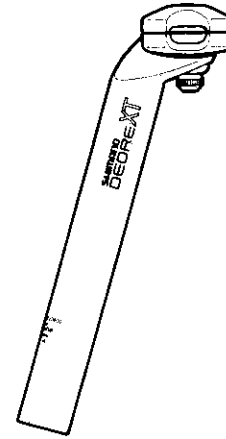
PD-M730

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	Aluminum (Body), Aluminum•Anodized Finish (Plate),



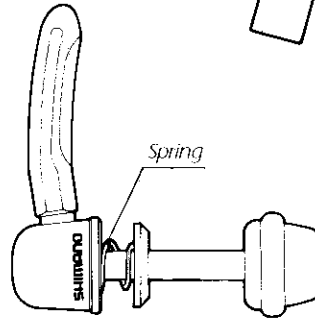
Seat Post
SP-M730

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



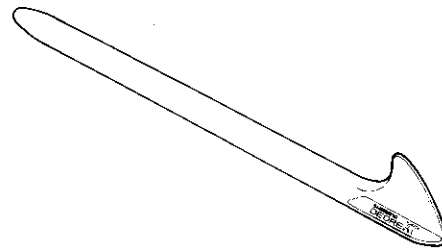
Seat Post Quick Release
SQ-M730

Weight 75g.
 Features Easy Operation,
 Position Set Spring
 Shaft Adjustment Length 36—43mm., 26—33mm.
 Shaft Diameter \varnothing 6mm., \varnothing 8mm.
 Material Steel+Chrome-Plated Finish



Chain Deflector
DF-M730

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

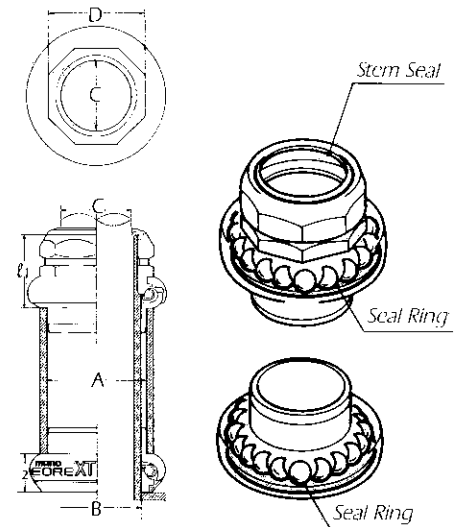


Head Parts
HP-M735
HP-M736
HP-M737

Weight 150g. (HP-M735), 179g. (HP-M736), 170g. (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" 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.	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.



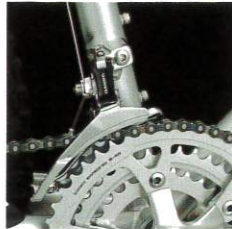
Quality plus a full range of advanced Shimano functions for the general-purpose mountain bike.

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 more reliable performance off the road.



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.



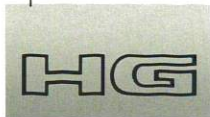
SLR (Shimano Linear Response)

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

The 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 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.



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



Front Chainwheel
FC-MT60-SG



Sealed Cartridge
Bottom Bracket
BB-UN70



Pedal Sets
PD-M650



Seat Post
SP-M650



Low-Profile
Cantilever Brake
BR-M650



Rapidfire Lever Set
ST-M071



Front Derailleur
FD-M650



Rear Derailleur
RD-M650



Top Pull
Front Derailleur
FD-M651



Cassette Sprockets
CS-HG70



Head Parts
HP-M650



Front Hub
HB-M650-F



Freehub
FH-M650



Chain
CN-HG70



Rapidfire

ST-M071 (2-Finger)

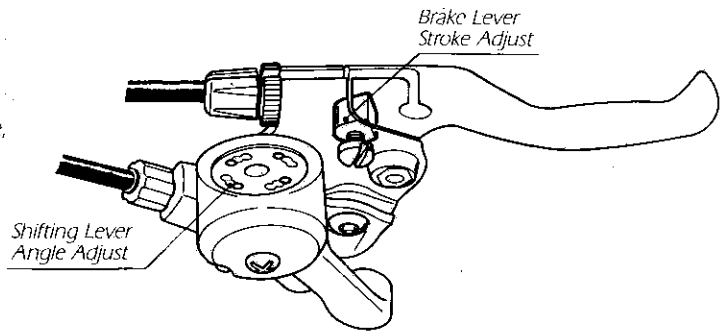
ST-M070 (4-Finger)

- 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

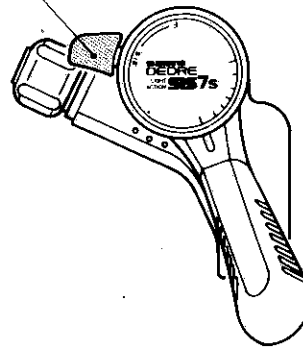
- Weight** 232g.
- Features** 7-speed SIS, SIS-Friction Mode Switch, Light Action Lever, Low Profile Design, 3-Step Lever Adjust, Digital Cable Adjust

Lever Clamp Diameter 22.2m.

Material & Finish Steel•Paint Finish (Bracket), Aluminum•Barrel Finish (Lever)

Attachment Position Handlebar

SIS-Friction Mode Switch



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)

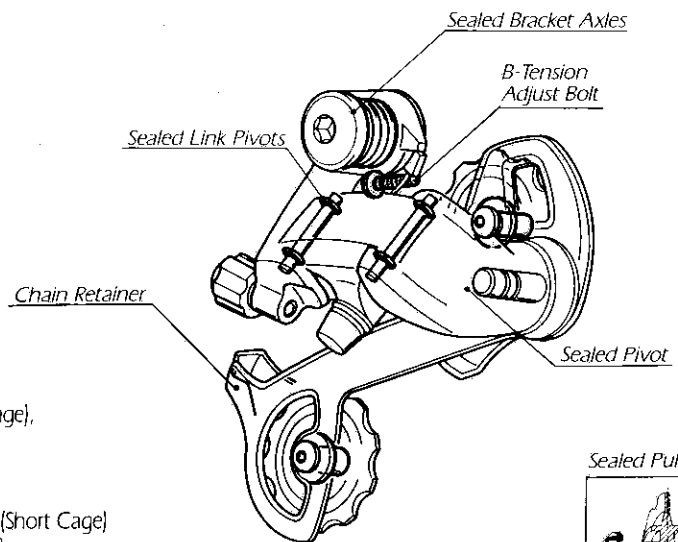
Capacity Maximum Rear Sprocket: 32T. (Super Long Cage), 28T. (Short Cage)

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)



Sealed Pulley

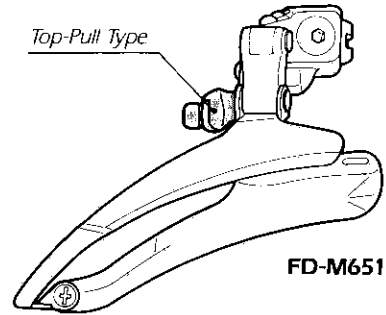
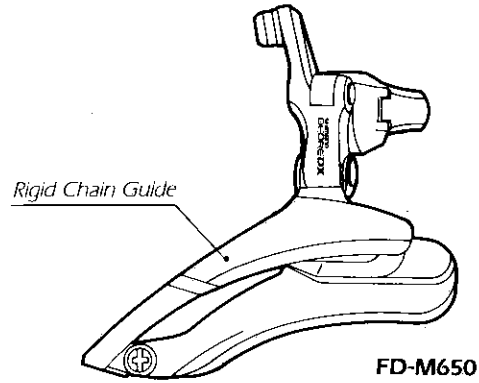


Front Derailleur

FD-M650 (Normal Band Type)

FD-M651 (Top-Pull Type)

- Weight** 117g. (Normal Band Type)
- Compatibility** Shimano Total Integration Compatible, Shimano SG Gear Compatible, Narrow Type Chain Compatible
- Features** Trailing Action Pantograph Mechanism, Sealed Mechanism, Rigid Chain Guide, New Trapease Mechanism
- Capacity** 24T. (Biopace HP), 26T. (Round)
- Clamp Diameter** \varnothing 28.0mm—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)

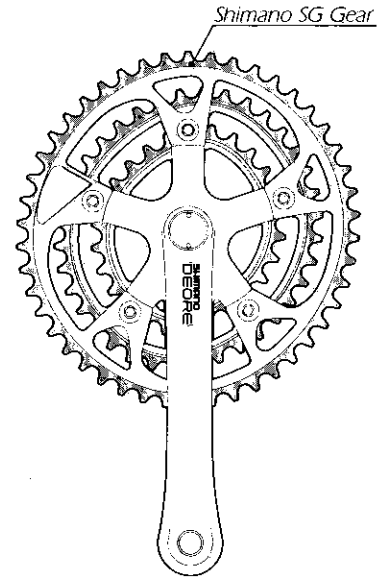


Front Chainwheel & Bottom Bracket Assembly

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

BB-MT60 (B.B. Set)

- Weight** 740g. (48T., 38T., 28T., 170mm.), 320g. (B.B. Set)
- Compatibility** Shimano Total Integration Compatible, Narrow Type Chain Compatible
- Features** Shimano SG Gear, Sealed Mechanism (B.B.)
- 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.
- Cup Thread** English BC 1.37 x 24T.P.I., French M35 x 1.0, Italian M36 x 24T.P.I.
- B.B. Size** 70-T-122.5, 68-T-122.5, 73-T-121.5, 68-T-127.5
- Material & Finish** Aluminum-Barrel Finish (Crank), Aluminum-Anodized Finish (Chainring)



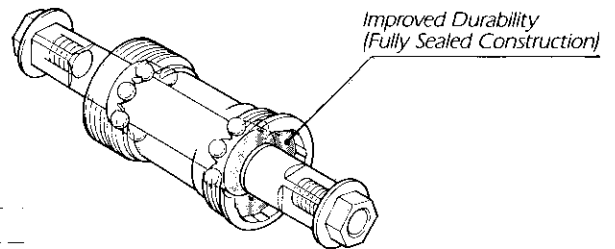
Sealed Cartridge Bottom Bracket

BB-UN70

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

Specifications

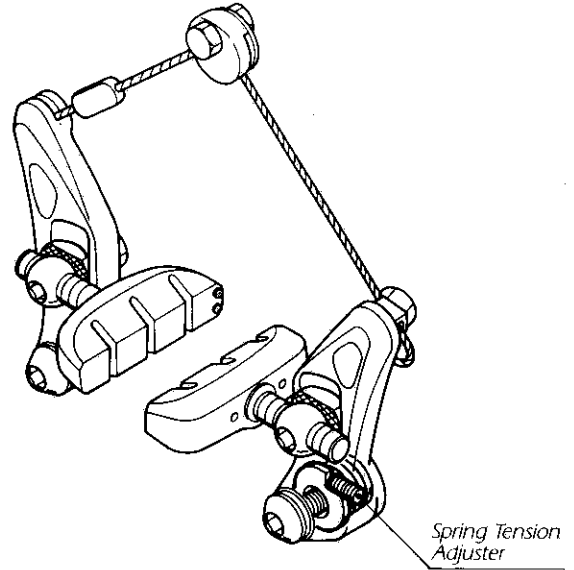
Shell Width	68 (BC)		70 (M36)		73 (BC)	
Spindle Length	122.5	127.5	122.5	127.5	122.5	127.5
Spindle Marking	D-NL	D-EL	D-NL	D-EL	D-NL	D-EL



Cantilever Brake

BR-M650

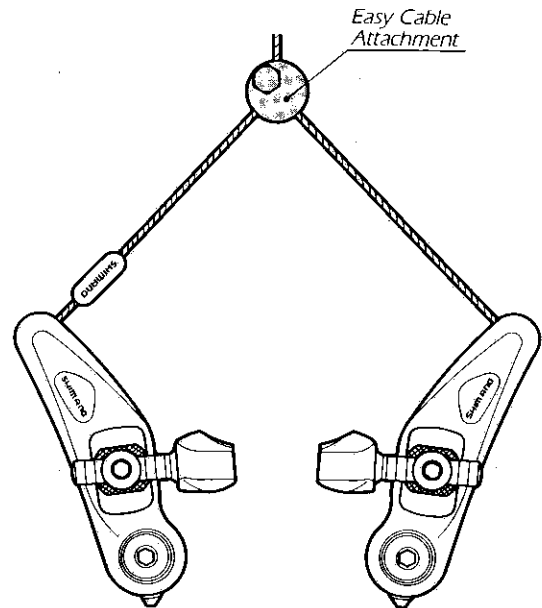
- Weight** 398g. (F & R Set)
- Compatibility** Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
- Features** Super Low Profile Design, Easy Cable Attachment, Spring Tension Adjuster
- Material & Finish** Aluminum•Buff Finish (Black Finish Available)
- Note** For SLR system use with SLR compatible brake lever and Shimano SLR outer cable with liner.



Cantilever Brake

BR-M651 (Longer brake arm for use with fenders)

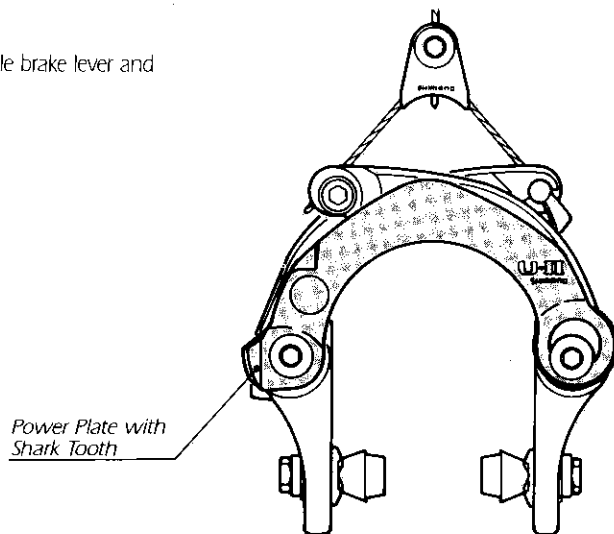
- Compatibility** Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
- Features** Low Profile Design, Easy Cable Attachment, Spring Tension Adjuster
- Material & Finish** Aluminum•Barrel Finish
- Note** For SLR system use with SLR compatible brake lever and Shimano SLR outer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

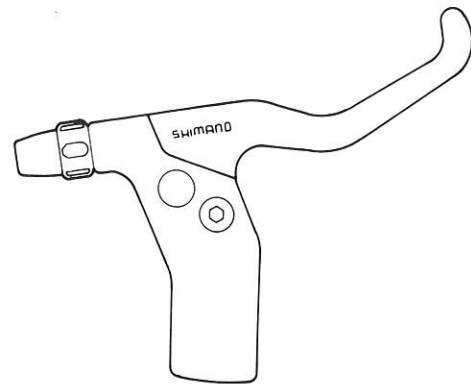
BL-MT63 (2-Finger)

Weight 274g. (Pair, 2-Finger)
 Compatibility SLR (Shimano Linear Response) Compatible
 Features Return Spring,
 Safety Clamp Design,
 Digital Lever-Leach Adjustment (4-Positions)

Lever Clamp Diameter 22.2mm.

Material & Finish Aluminum•Black Finish (Bracket),
 Aluminum•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

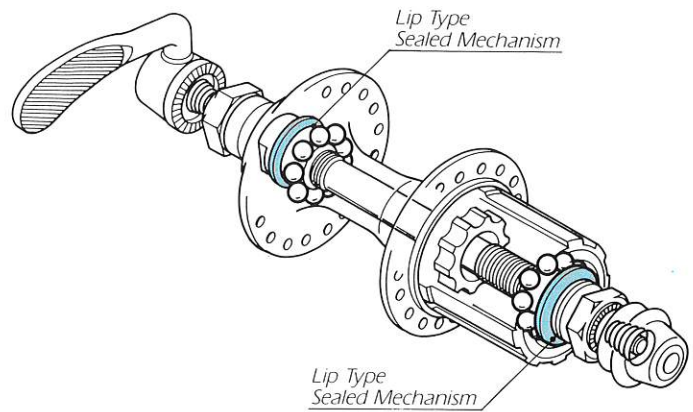
Features Lip Type Sealed Mechanism,
 HG/UG Compatible Type,
 Uni-Balance System

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

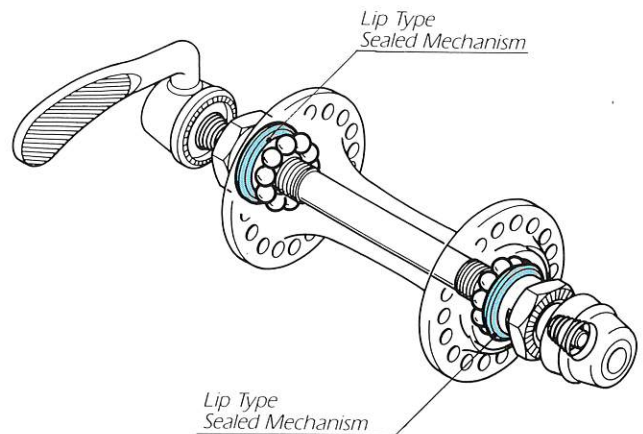
HB-M650-F

Weight 231g. (with Quick Release)
 Feature Lip Type Sealed Mechanism

Over Lock Nut Dimensions 100mm.
 Axle Length 108mm. (Quick Release Type), 142mm. (Nut Type)

Axle Thread 9mm.
 Spoke Holes 32H, 36H

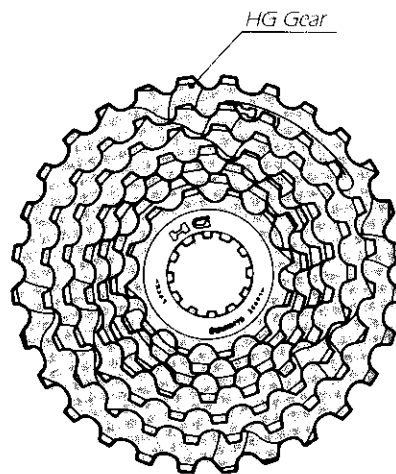
Hole PCD 38
 Material & Finish Aluminum•Anodized Finish (Hub Shell)



Cassette Sprockets
CS-HG70 (7-speed)

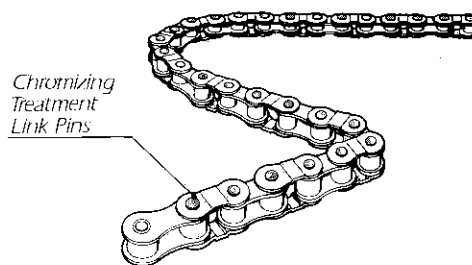
Weight 325g. (Sprocket **E** Group & Spacer)
 Compatibility Shimano Total Integration Compatible,
 7-speed SIS Compatible
 Feature 7-speed HG
 Chain Size 1/2" x 3/32" (Narrow Type Chain)
 Material & Finish Steel-Silver Finish
 Sprocket Combinations

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.



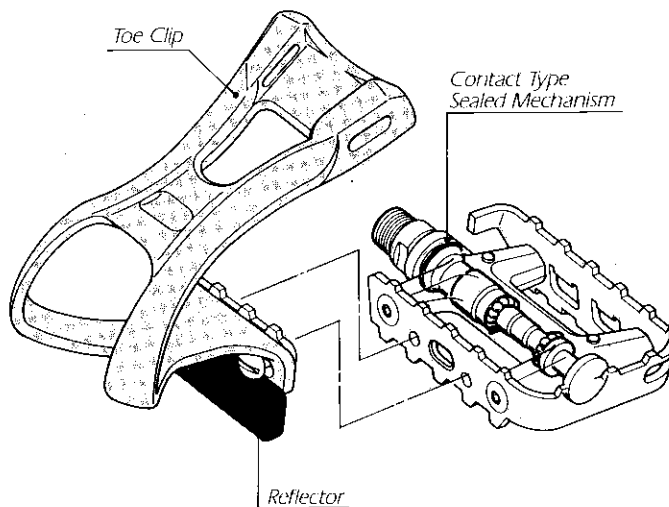
HG Chain
CN-HG70

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)



Pedal
PD-M650

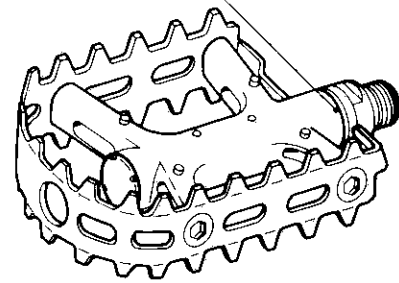
Weight 385g. (Pair)
 Features 32° Road Clearance,
 Super Low Profile Design,
 Parallelogram Shape,
 Contact Type Sealed Mechanism,
 Steel Grip Pin,
 Toe Clip/Reflector Attachable
 Crank Thread English BC 9/16" x 20T.P.I.
 Material & Finish Aluminum (Body),
 Steel-Anodized Finish (Plate),
 Resin (Toe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

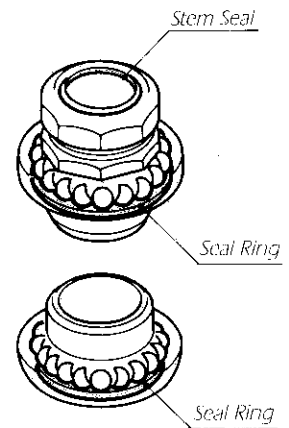
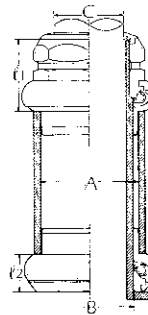
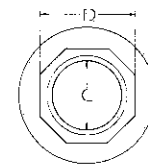
Contact Type
 Sealed Mechanism



Head Parts
HP-M650
HP-M651

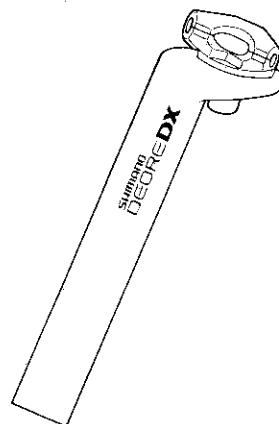
Weight 168g. (HP-M650), 199g. (HP-M651)
 Type Off-Road Type
 Feature Sealed Mechanism
 Material & Finish Steel-Black Finish
 Variation & Dimensions

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.
ℓ ₁	22.0mm.		22.0mm.
ℓ ₂	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 mounting 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



SPD Pedal Set
PD-M525



Rear Derailleur
RD-M550-SGS



Oversize
Head Parts
HP-R501



Rapidfire Lever Set
ST-M060-S



Rear Derailleur
RD-M550-GS

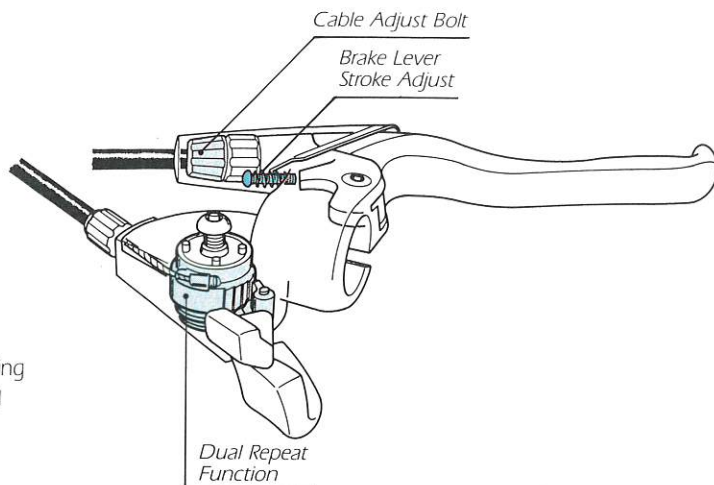


Front Derailleur
FD-M550

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).

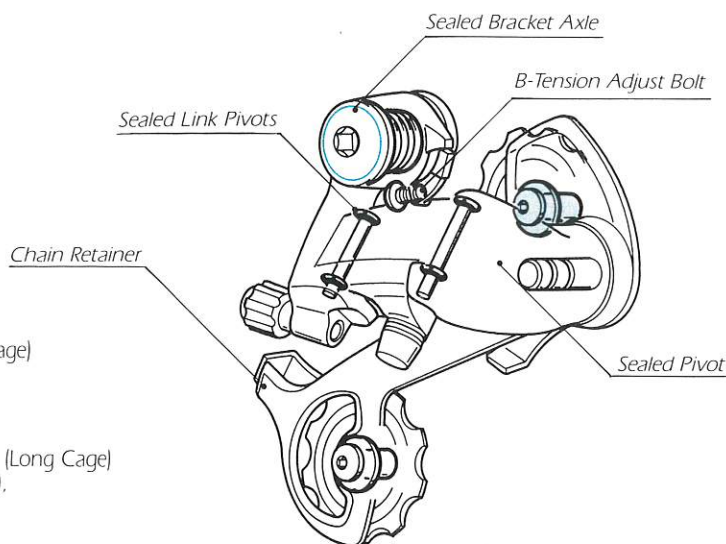


Rear Derailleur

RD-M550-SGS (Super Long Cage)

RD-M550-GS (Long Cage)

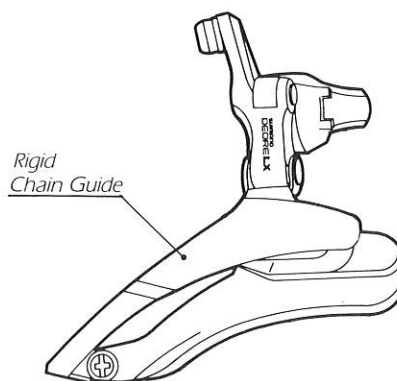
- Weight** 320g. (Super Long Cage)
- Compatibility** Shimano Total Integration Compatible, 6, 7-speed SIS Compatible
- Features** Sealed Link Pivots, Centeron Guide Pulley, Sealed Pivot & Bracket Axles, Double Servo-Panta Mechanism, B-Tension Adjust Bolt, Double Spoke Barrier, Chain Retainer (Super Long 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)

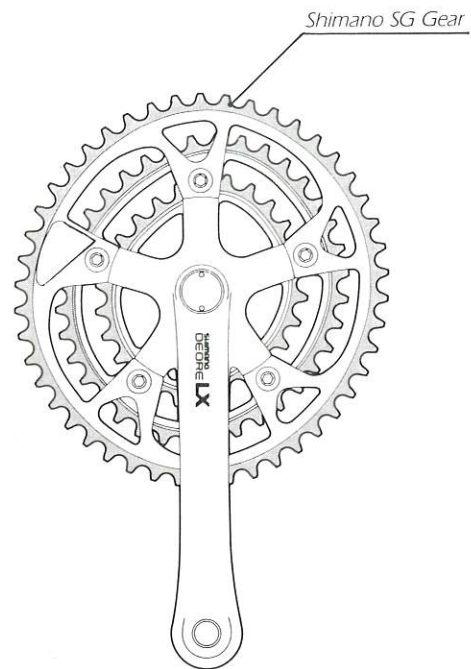


Front Chainwheel & Bottom Bracket Assembly

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

BB-M550 (B.B. Set)

- Weight** 752g. (28T., 38T., 48T., 170mm.), 339g. (B.B. Set)
- Compatibility** Shimano Total Integration Compatible,
Narrow Type Chain Compatible
- Features** Shimano SG Gear,
Sealed mechanism (B.B.)
- 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.
- Cup Thread** English BC 1.37 x 24T.P.I., French M35 x 1.0,
Italian M36 x 24T.P.I.
- B.B. Size** 70-T-122.5, 68-T-122.5
- Material & Finish** Aluminum•Barrel Finish (Crank),
Aluminum•Anodized Finish (Chainring)



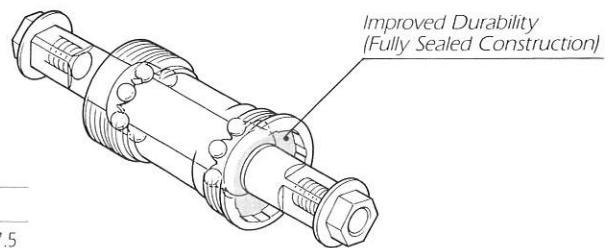
Sealed Cartridge Bottom Bracket

BB-UN50

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

Specifications

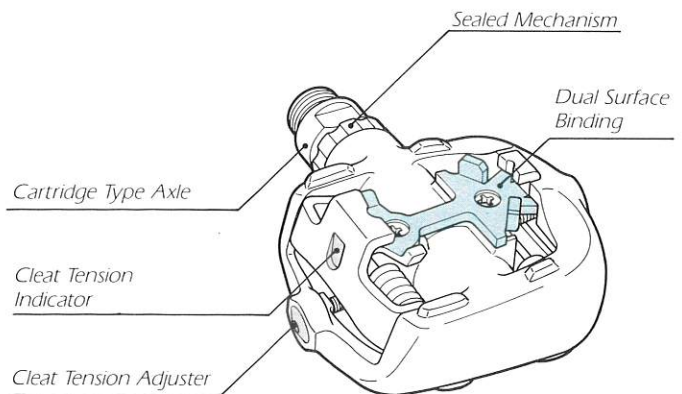
Shell Width	68 (BC)		70 (M36)		73 (BC)	
	122.5	127.5	122.5	127.5	122.5	127.5
Spindle Length	D-NL	D-EL	D-NL	D-EL	D-NL	D-EL
Spindle Marking						



SPD Pedal

PD-M525

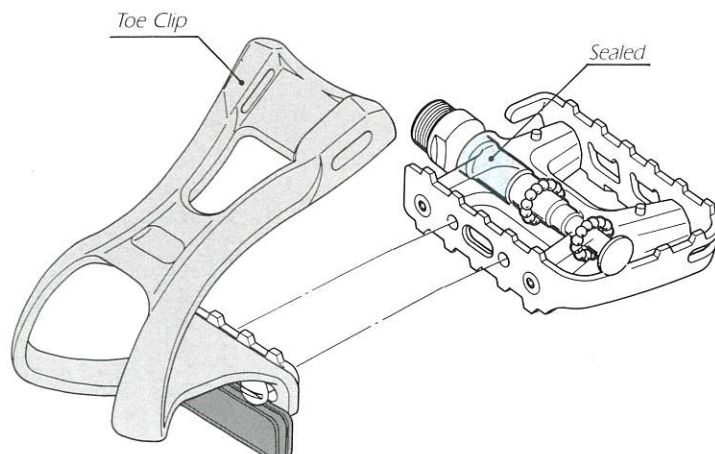
- Weight** 478g. (Pair)
- Features** SPD (Shimano Pedaling Dynamics) Cleats System,
Cartridge Type Axle,
Cleat Tension Indicator,
Dual Surface Binding,
Cleat Tension Adjuster,
31° Road Clearance,
Sealed Mechanism
- Crank Thread** English BC 9/16" x 20T.P.I.
- Material & Finish** Aluminum•Black Finish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



Pedal

PD-M550

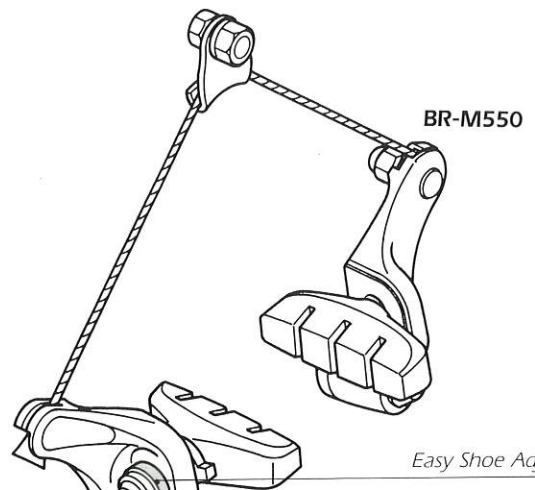
- Weight** 326g. (Pair)
- Features** 30° Road Clearance,
Super Low Profile Design,
Parallelogram Shape,
Toe Clip/Reflector Attachable
- Crank Thread** English BC 9/16" x 20T.P.I.
- Material & Finish** Resin (Body),
Steel•Anodized Finish (Plate),
Resin (Toe Clip)



Cantilever Brake

BR-M650

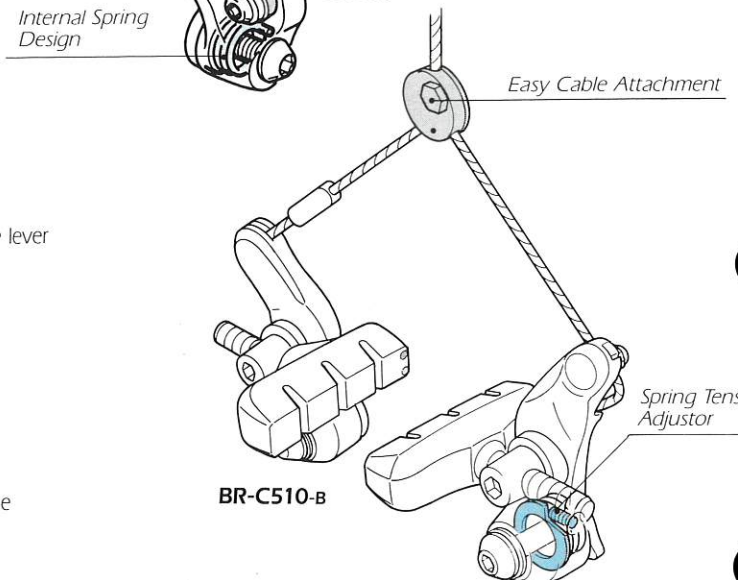
- Weight 398g. (F & R Set)
- Compatibility Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
- Features Super Low Profile Design, Easy Cable Attachment, Spring Tension Adjuster
- Material & Finish Aluminum•Buff Finish (Black Finish Available)
- Note For SLR system use with SLR compatible brake lever and Shimano SLR outer cable with liner.



Cantilever Brake

BR-M550

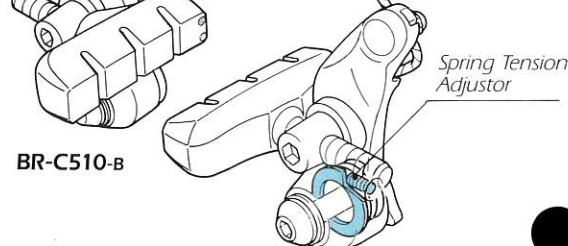
- Weight 432g. (F & R Set)
- Compatibility Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
- Features Easy Shoe Adjust, Internal Spring Design, Spring Tension Adjuster
- Material & Finish Aluminum•Barrel Finish
- Note For SLR System use with SLR Compatible brake lever and Shimano SLR outer cable with liner.



Cantilever Brake

BR-C510-B

- Weight 202g. (Rear)
- 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.

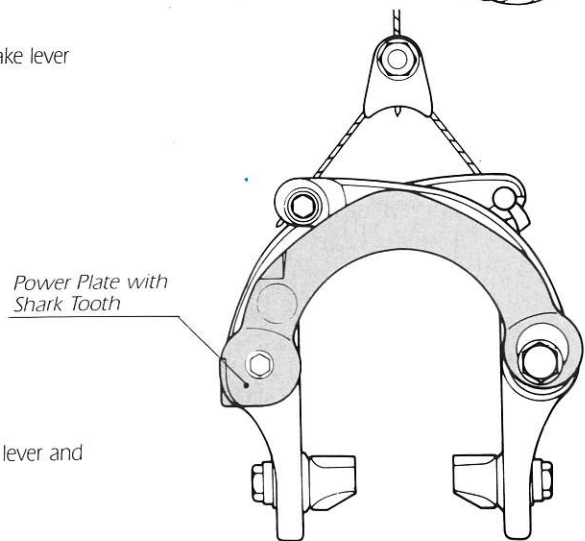


U-11 Brake

BR-M453

BR-M452

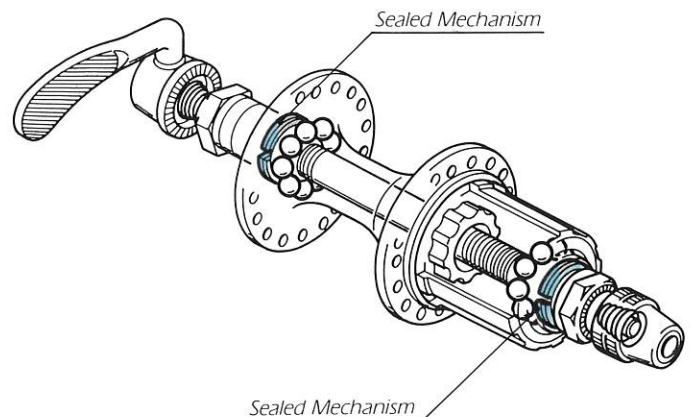
- Weight 368g. (1 Unit, BR-M453)
- Compatibility Shimano Total Integration Compatible, SLR (Shimano Linear Response) Compatible
- Features Spring Tension Adjuster, Power Plate with Shark Tooth
- Material & Finish Aluminum•Barrel Finish
- Note For SLR System use with SLR Compatible brake lever and Shimano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



Freehub

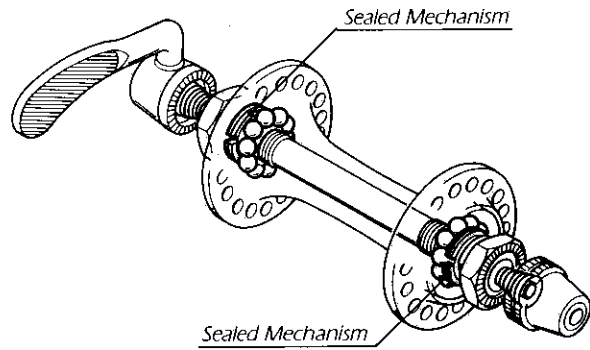
FH-M550 (7-speed)

- 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

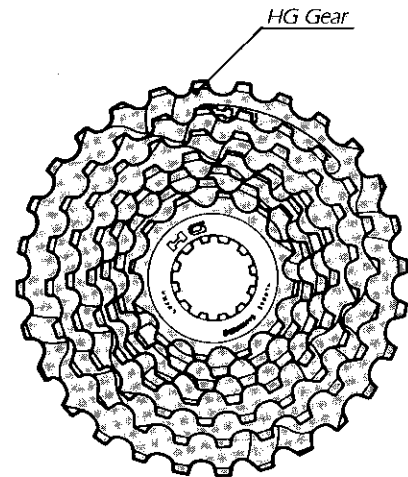
Weight 230g. (with Quick Release)
 Feature Sealed Mechanism
 Over Lock Nut Dimensions 100mm.
 Axle Length 108mm. (Quick Release Type),
 140mm. (Nut Type)
 Axle Thread 9mm.
 Spoke Holes 32H, 36H
 Hole PCD 38
 Material & Finish Aluminum•Polish Finish (Hub Shell)



Cassette Sprockets
CS-HG70 (7-speed)

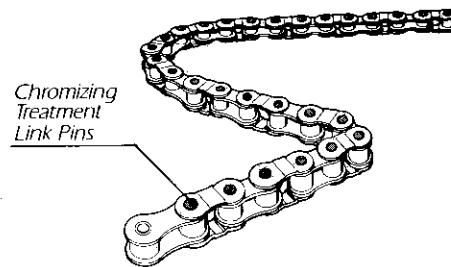
Weight 325g. (Sprocket E Group & Spacer)
 Compatibility 7-speed SIS Compatible
 Feature 7-speed HG
 Chain Size 1/2" x 3/32" (Narrow Type Chain)
 Material & Finish Steel•Silver Finish
 Sprocket Combinations

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)

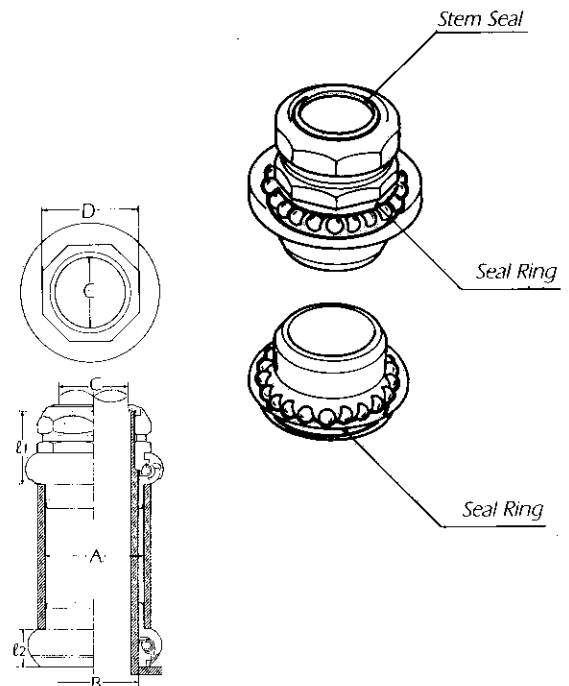


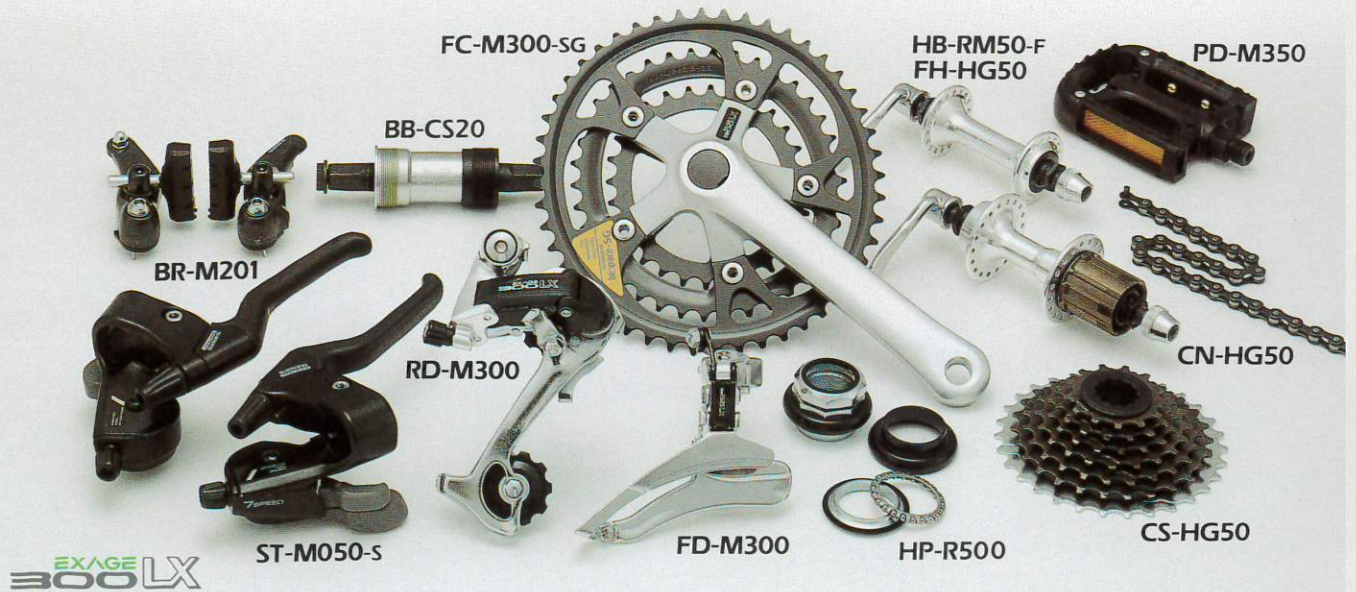
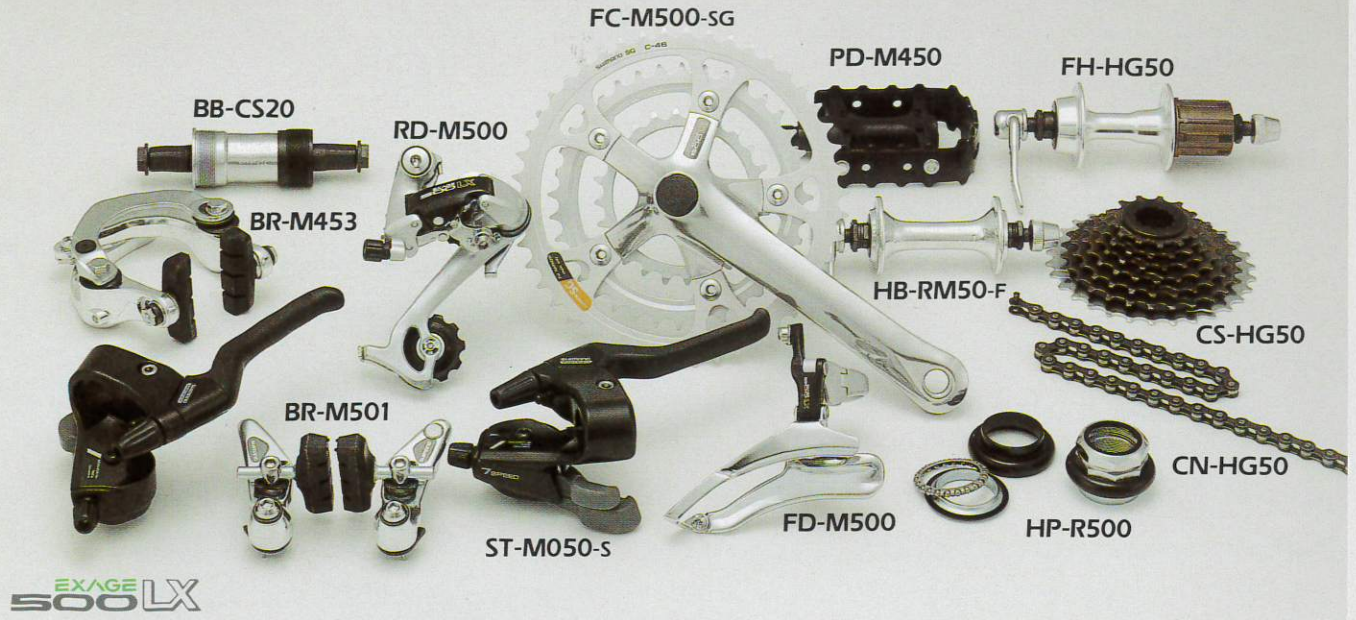
Head Parts
HP-R500
HP-R501

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 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 Centerion Guide Pulley Double Spoke Barrier B-Tension Adjust Bc 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 Pantograph Mechanism Rigid Chainguide New Trapease Mechanism	Front Band: Aluminum•Paint Finish Rear Band: Aluminum•Paint Finish Right Link: Aluminum•Paint Finish Chainguide: Chrome Plated																																		
Rapidfire ST-M050 (4-finger) ST-M050-s (3-finger)	7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm. 305g. (4-finger type)	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, Front or Rear) 216g. (BR-M502, Front or Rear)	Rigid Computer Designed Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tension Adjuster	Aluminum•Barrel Finish	For SLR System, use Rapidfire or SLR Compatible Brake Lever and Shimano SLR Outer Cable with Liner																																	
U-11 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 Tension 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: <table border="1" style="margin-left: 20px;"> <tr> <td></td> <td>Biopace SG</td> <td>Round SG</td> </tr> <tr> <td>Top</td> <td>48T</td> <td>46T</td> </tr> <tr> <td>Middle</td> <td>38T</td> <td>36T</td> </tr> <tr> <td>Low</td> <td>28T</td> <td>24T</td> </tr> </table> Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 13/7 × 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)		Biopace SG	Round SG	Top	48T	46T	Middle	38T	36T	Low	28T	24T	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Aluminum•Anodised Finish	Spindle: BB-M550 <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td>D-5NL</td> <td>D-3NL</td> </tr> <tr> <td>Width</td> <td>70</td> <td>68</td> </tr> <tr> <td>Length</td> <td colspan="2">122.5</td> </tr> </table> Spindle: BB-CS20 <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td>D-EE</td> </tr> <tr> <td>Width</td> <td>73 (BC) 68 (BC)</td> </tr> <tr> <td>Length</td> <td>127.5</td> </tr> </table> <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td>O-NL</td> </tr> <tr> <td>Width</td> <td>73 (BC) 70 (36) 68 (BC)</td> </tr> <tr> <td>Length</td> <td>122.5</td> </tr> </table>	Mark	D-5NL	D-3NL	Width	70	68	Length	122.5		Mark	D-EE	Width	73 (BC) 68 (BC)	Length	127.5	Mark	O-NL	Width	73 (BC) 70 (36) 68 (BC)	Length	122.5
	Biopace SG	Round SG																																			
Top	48T	46T																																			
Middle	38T	36T																																			
Low	28T	24T																																			
Mark	D-5NL	D-3NL																																			
Width	70	68																																			
Length	122.5																																				
Mark	D-EE																																				
Width	73 (BC) 68 (BC)																																				
Length	127.5																																				
Mark	O-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 <table border="1" style="margin-left: 20px;"> <tr> <td>Ø I.D.</td> <td>135</td> <td>130</td> </tr> <tr> <td>Axle Length</td> <td>146</td> <td>141</td> </tr> <tr> <td>Mounting Type</td> <td colspan="2">Quick Release/Nut</td> </tr> </table> Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Ø I.D.	135	130	Axle Length	146	141	Mounting Type	Quick Release/Nut		Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish																									
Ø I.D.	135	130																																			
Axle Length	146	141																																			
Mounting Type	Quick Release/Nut																																				
Front Hub HB-RM50-F	Spoke Holes: 36H., 32H. Hole PCD: 38 <table border="1" style="margin-left: 20px;"> <tr> <td>Ø I.D.</td> <td>100</td> </tr> <tr> <td>Axle Length</td> <td>108</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release</td> </tr> </table> Axle Thread: 9mm. 228g.	Ø I.D.	100	Axle Length	108	Mounting Type	Quick Release	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish																												
Ø I.D.	100																																				
Axle Length	108																																				
Mounting Type	Quick Release																																				
Cassette Sprockets CS-HG50 (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket 1 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 Bushings 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")																																					

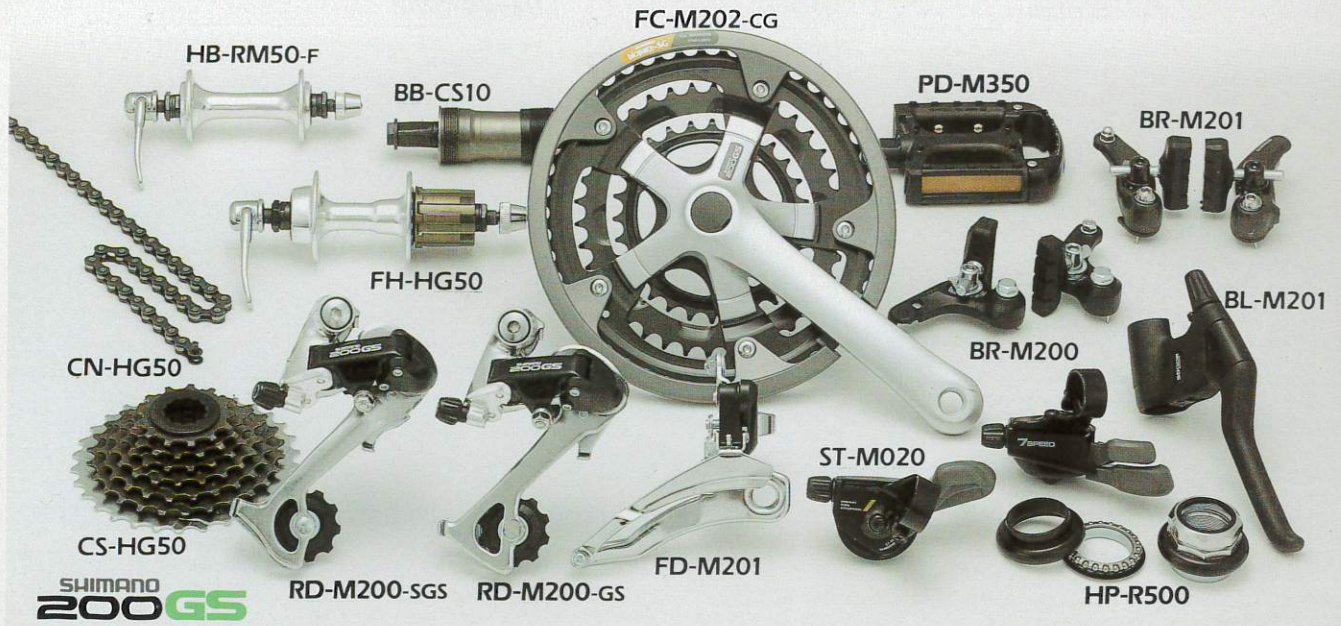
See Page 28

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-Pantla 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 Chanin 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, φ31.9mm. (EC Type) Stroke (CL=47.5): 35—55 132g. (Band Type)	Trailing Action-Pantagraph Mechanism Rigid Chain Guide Sealed Mechanism New Trapeze Mechanism	Front Band: Steel-Pearl Bright Finish Rear Band: Aluminum-Barrel Finish Right Link: Aluminum-Paint Finish Chain Guide: Chrome Plated																														
Rapidfire ST-M050 (4-finger) ST-M050-s (3-finger)	7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm. 305g. (4-finger Type)	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 (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-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: <table border="1" style="margin-left: 20px;"> <tr> <td></td> <td>Biopace SG</td> </tr> <tr> <td>Top</td> <td>48T</td> </tr> <tr> <td>Middle</td> <td>38T</td> </tr> <tr> <td>Low</td> <td>28T</td> </tr> </table> 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. (BB. Set BB-M550)		Biopace SG	Top	48T	Middle	38T	Low	28T	Computer Aided Design (Crank) Sealed Mechanism (B. B.)	Crank Arm: Aluminum-Black Finish Chain Ring: Steel-Paint Finish	Spindle: BB-M550 <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td>D-5NL</td> <td>D-3NL</td> </tr> <tr> <td>Width</td> <td>70</td> <td>68</td> </tr> <tr> <td>Length</td> <td colspan="2">122.5</td> </tr> </table> Spindle: BB-CS20 <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td>D-EL</td> </tr> <tr> <td>Width</td> <td>73 (BC) 68 (BC)</td> </tr> <tr> <td>Length</td> <td>127.5</td> </tr> </table> <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td>D-NL</td> </tr> <tr> <td>Width</td> <td>73 (BC) 70 (36) 68 (BC)</td> </tr> <tr> <td>Length</td> <td>122.5</td> </tr> </table>	Mark	D-5NL	D-3NL	Width	70	68	Length	122.5		Mark	D-EL	Width	73 (BC) 68 (BC)	Length	127.5	Mark	D-NL	Width	73 (BC) 70 (36) 68 (BC)	Length	122.5
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Freehub FH-HG50	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H, 32H. Hole PCD: 45° <table border="1" style="margin-left: 20px;"> <tr> <td>OLD</td> <td>135</td> <td>130</td> </tr> <tr> <td>Axle Length</td> <td>146</td> <td>141</td> </tr> </table> Mounting Type: Quick Release/Nut Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	OLD	135	130	Axle Length	146	141	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum-Dia-Cut Finish																								
OLD	135	130																															
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Front Hub HB-RM50-F	Spoke Holes: 36H, 32H. Hole PCD: 38° <table border="1" style="margin-left: 20px;"> <tr> <td>OLD</td> <td>100</td> </tr> <tr> <td>Axle Length</td> <td>108</td> </tr> </table> Mounting Type: Quick Release Axle Thread: 9mm. 228g.	OLD	100	Axle Length	108	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum-Dia-Cut Finish																										
OLD	100																																
Axle Length	108																																
Cassette Sprockets CS-HG50 (7-speed)	7-speed SIS Compatible 7-speed HG Use Narrow Type Chain 268g. (Sprocket 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, 16, 17, 19, 21T 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 Clearance Sealed Mechanism Low Profile Design Reflector	Body: Resin-Paint Finish Plates: Steel-Paint Finish																														
Head Parts HP-R500 HP-R501 (1-1/8")																																	

Exage 300LX

Model No.	Specifications	Features	Material•Finish	Note																																		
Rear Derailleur RD-M300-Gs (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 Trapeze 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 (4-finger) ST-M050-s (3-finger)	7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm. 305g. (4-finger Type)	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: <table border="1" style="margin-left: 20px;"> <tr> <td></td> <td>Biopace SG</td> </tr> <tr> <td>Top</td> <td>48T</td> </tr> <tr> <td>Middle</td> <td>38T</td> </tr> <tr> <td>Low</td> <td>28T</td> </tr> </table> <p>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. (BB. Set BB-M550)</p>		Biopace SG	Top	48T	Middle	38T	Low	28T	Computer Aided Design (Crank) Sealed Mechanism (BB.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Steel•Paint Finish	Spindle: BB-M550 <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td>D-5NL</td> <td>D-3NL</td> </tr> <tr> <td>Width</td> <td>70</td> <td>68</td> </tr> <tr> <td>Length</td> <td colspan="2">122.5</td> </tr> </table> <p>Spindle: BB-CS20 <table border="1" style="margin-left: 20px;"> <tr> <td>Mark</td> <td colspan="2">D-EL</td> </tr> <tr> <td>Width</td> <td>73 (BC)</td> <td>68 (BC)</td> </tr> <tr> <td>Length</td> <td colspan="2">127.5</td> </tr> </table> <p>Mark: D-NL <table border="1" style="margin-left: 20px;"> <tr> <td>Width</td> <td>73 (BC)</td> <td>70 (36)</td> <td>68 (BC)</td> </tr> <tr> <td>Length</td> <td colspan="3">122.5</td> </tr> </table></p></p>	Mark	D-5NL	D-3NL	Width	70	68	Length	122.5		Mark	D-EL		Width	73 (BC)	68 (BC)	Length	127.5		Width	73 (BC)	70 (36)	68 (BC)	Length	122.5		
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Freehub FH-HG50	7-speed SIS Compatible UG/HB Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 <table border="1" style="margin-left: 20px;"> <tr> <td>OLD.</td> <td>135</td> <td>130</td> </tr> <tr> <td>Axle Length</td> <td>146</td> <td>141</td> </tr> <tr> <td>Mounting Type</td> <td colspan="2">Quick Release/Nut</td> </tr> </table> <p>Axle Thread: 10mm. 435g. (7-speed w/Quick Release)</p>	OLD.	135	130	Axle Length	146	141	Mounting Type	Quick Release/Nut		Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish																										
OLD.	135	130																																				
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Front Hub HB-RM50-F	Spoke Holes: 36H., 32H. Hole PCD: 38 <table border="1" style="margin-left: 20px;"> <tr> <td>OLD.</td> <td>100</td> </tr> <tr> <td>Axle Length</td> <td>108</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release</td> </tr> </table> <p>Axle Thread: 9mm. 228g.</p>	OLD.	100	Axle Length	108	Mounting Type	Quick Release	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish																													
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Axle Length	108																																					
Mounting Type	Quick Release																																					
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 (11/2" × 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingsless 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")	See Page 28																																					



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: ϕ 28.0— ϕ 28.6mm Stroke (CL): 47.5, 34—54	Rigid Chainguide Trapezoid Mechanism Sealed Mechanism	Front Band: Steel-Paint Finish Rear Band: Steel-Zinc Plated Resin-Molding Right Link: Steel-Zinc Plated Resin-Molding Chainguide: Chrome Plated																																						
Rapidfire ST-M202	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: <table border="1" style="margin-left: 20px;"> <tr><td colspan="2">Biopace</td></tr> <tr><td>Top</td><td>48T</td></tr> <tr><td>Middle</td><td>38T</td></tr> <tr><td>Low</td><td>28T</td></tr> </table> Crank Thread: English BC 9/16" x 24TPI Cup Thread: English BC 1.37 x 24TPI French M35 x 1.0, Italian M36 x 24TPI 756g. (28T, 38T, 48T, 170mm)	Biopace		Top	48T	Middle	38T	Low	28T	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Aluminum-Paint Finish Chain Ring: Steel-Paint Finish	Spindle: BB-M200 <table border="1" style="margin-left: 20px;"> <tr><td>Mark</td><td>D-5NL</td><td>D-3NL</td></tr> <tr><td>Width</td><td>70</td><td>68</td></tr> <tr><td>Length</td><td colspan="2">122.5</td></tr> </table> Spindle: BB-CS10 <table border="1" style="margin-left: 20px;"> <tr><td>Mark</td><td>D-EL</td><td></td></tr> <tr><td>Width</td><td>73 (BC)</td><td>68 (BC)</td></tr> <tr><td>Length</td><td colspan="2">127.5</td></tr> </table> <table border="1" style="margin-left: 20px;"> <tr><td>Mark</td><td>D-NL</td><td></td></tr> <tr><td>Width</td><td>73 (BC)</td><td>70 (36)</td><td>68 (BC)</td></tr> <tr><td>Length</td><td colspan="3">122.5</td></tr> </table>	Mark	D-5NL	D-3NL	Width	70	68	Length	122.5		Mark	D-EL		Width	73 (BC)	68 (BC)	Length	127.5		Mark	D-NL		Width	73 (BC)	70 (36)	68 (BC)	Length	122.5		
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Freehub FH-HG50	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H, 32H. Hole PCD: 45 <table border="1" style="margin-left: 20px;"> <tr><td>Q.L.D.</td><td>135</td><td>130</td></tr> <tr><td>Axle Length</td><td>146</td><td>141</td></tr> <tr><td>Mounting Type</td><td colspan="2">Quick Release/Nut</td></tr> </table> Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Q.L.D.	135	130	Axle Length	146	141	Mounting Type	Quick Release/Nut		Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum-Dia-Cut Finish																													
Q.L.D.	135	130																																							
Axle Length	146	141																																							
Mounting Type	Quick Release/Nut																																								
Freehub FH-HG20	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H Hole PCD: 45 <table border="1" style="margin-left: 20px;"> <tr><td>Q.L.D.</td><td>135</td><td>130</td><td>135</td><td>130</td></tr> <tr><td>Axle Length</td><td>146</td><td>141</td><td>170</td><td>180</td></tr> <tr><td>Mounting Type</td><td colspan="4">Quick Release Nut</td></tr> </table> Axle Thread: M10. 425g. (7-speed w/Quick Release)	Q.L.D.	135	130	135	130	Axle Length	146	141	170	180	Mounting Type	Quick Release Nut				Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum-Dia-Cut Finish																							
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Front Hub HB-RM50-F Cassette Sprockets CS-HG50 (7-speed) Chain CN-HG50 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: $\phi 28.0$ — $\phi 28.6$ mm. Stroke (CL=47.5): 34—54	Rigid Chainguide	Front Band: Steel•Zinc Plated Rear Band: Steel•Zinc Plated Resin•Molding Chainguide: Chrome Plated																																							
Rapidfire ST-MO10	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: <table border="1" style="margin-left: 20px;"> <tr><td></td><td>Biopace</td></tr> <tr><td>Top</td><td>48T</td></tr> <tr><td>Middle</td><td>38T</td></tr> <tr><td>Low</td><td>28T</td></tr> </table> 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. 756g. (28T, 38T, 48T, 170mm.)		Biopace	Top	48T	Middle	38T	Low	28T	Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Steel/Resin Molded Chain Ring: Steel•Paint Finish	Spindle: BB-M200 <table border="1" style="margin-left: 20px;"> <tr><td>Mark</td><td>D-5NL</td><td>D-3NL</td></tr> <tr><td>Width</td><td>70</td><td>68</td></tr> <tr><td>Length</td><td colspan="2">122.5</td></tr> </table> Spindle: BB-CS10 <table border="1" style="margin-left: 20px;"> <tr><td>Mark</td><td colspan="2">D-EL</td></tr> <tr><td>Width</td><td>73 (BC)</td><td>68 (BC)</td></tr> <tr><td>Length</td><td colspan="2">127.5</td></tr> </table> <table border="1" style="margin-left: 20px;"> <tr><td>Mark</td><td colspan="3">D-NL</td></tr> <tr><td>Width</td><td>73 (BC)</td><td>70 (36)</td><td>68 (BC)</td></tr> <tr><td>Length</td><td colspan="3">122.5</td></tr> </table>	Mark	D-5NL	D-3NL	Width	70	68	Length	122.5		Mark	D-EL		Width	73 (BC)	68 (BC)	Length	127.5		Mark	D-NL			Width	73 (BC)	70 (36)	68 (BC)	Length	122.5		
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Length	122.5																																									
Freehub FH-HG50	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 <table border="1" style="margin-left: 20px;"> <tr><td>OLD</td><td>135</td><td>130</td></tr> <tr><td>Axle Length</td><td>146</td><td>141</td></tr> <tr><td>Mounting Type</td><td colspan="2">Quick Release/Nut</td></tr> </table> Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	OLD	135	130	Axle Length	146	141	Mounting Type	Quick Release/Nut		Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish																														
OLD	135	130																																								
Axle Length	146	141																																								
Mounting Type	Quick Release/Nut																																									
Freehub FH-HG20	7-speed SIS Compatible HG Compatible Type Spoke Holes: 36H. Hole PCD: 45 <table border="1" style="margin-left: 20px;"> <tr><td>OLD</td><td>135</td><td>130</td><td>135</td><td>130</td></tr> <tr><td>Axle Length</td><td>146</td><td>141</td><td>185</td><td>180</td></tr> <tr><td>Mounting Type</td><td>Quick Release</td><td colspan="3">Nut</td></tr> </table> Axle Thread: M10 425g. (7-speed w/Quick Release)	OLD	135	130	135	130	Axle Length	146	141	185	180	Mounting Type	Quick Release	Nut			Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish																								
OLD	135	130	135	130																																						
Axle Length	146	141	185	180																																						
Mounting Type	Quick Release	Nut																																								
Front Hub HB-RM50-F	Spoke Holes: 36H., 32H. Hole PCD: 38 <table border="1" style="margin-left: 20px;"> <tr><td>OLD</td><td>100</td></tr> <tr><td>Axle Length</td><td>108</td></tr> <tr><td>Mounting Type</td><td>Quick Release</td></tr> </table> Axle Thread: 9mm. 228g.	OLD	100	Axle Length	108	Mounting Type	Quick Release	Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish																																	
OLD	100																																									
Axle Length	108																																									
Mounting Type	Quick Release																																									
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.	Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier 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 (Discace 4P) 27T (Round) Band Diameter: 26.6—42.0 (mm) Spoke (C): 17.5 34—36	Rigid Chain Guide	Front Band: Steel-Zinc Plated Rear Band: Steel-Zinc Plated Right C.P.: Steel-Zinc Plated Left C.P.: Steel-Zinc Plated Front Link: Steel-Black Rear Link: Steel-Black																						
Rapidfire ST-M007	6-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 24g																								
Cantilever Brake BR-TY70 (Low Profile Type)	SLR (Shimano Linear Response) Compatible	Rigid 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-TY70 (3-finger Type)	SLR (Shimano Linear Response) Compatible Lever Clamp Diameter: 22.2mm 23.7g	Rigid Shape Sealed Internal Spring Design Easy Cable Attachment Spring Tension Adjuster	Steel-Black Resin-Molding																						
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 13.7 × 24T.P.I. French M25 × 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 450g (Sprocket 7 Group)		Top Pin: Steel-Black Silver Finish Lower Gear	Sprocket: Steel-Black Steel-Black Steel-Black																					
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-M350	MTB Type Crank Thread: English BC 9/16" × 20T.P.I. Pedal Locking System: 2-speed 495g (Pair)	2-Speed Cartridge Sealed Mechanism Shimano Profile Chain 16mm	Upper Cup: Steel-Black Lower Cup: Steel-Black																						
Head Parts HP-R500 HP-R501 (1-1/8")	Height: Upper Cone 22.0mm, Lower Cone 11.5mm. 121g. Variation: <table border="1"> <thead> <tr> <th rowspan="2">Model No.</th> <th rowspan="2">Type</th> <th rowspan="2">Thread</th> <th colspan="2">Press Race Diameter</th> </tr> <tr> <th>Upper Cone & Lower Cap</th> <th>Lower Cone</th> </tr> </thead> <tbody> <tr> <td rowspan="2">HP-R500</td> <td>English/Italian</td> <td>BC 1" × 24T</td> <td>30.2mm</td> <td>26.4mm</td> </tr> <tr> <td>French</td> <td>M25 × P1.0</td> <td>30.2mm</td> <td>26.4mm</td> </tr> <tr> <td>HP-R501</td> <td>English/Italian</td> <td>BC 1-1/8" × 26T</td> <td>34.0mm</td> <td>30.0mm</td> </tr> </tbody> </table>	Model No.	Type	Thread	Press Race Diameter		Upper Cone & Lower Cap	Lower Cone	HP-R500	English/Italian	BC 1" × 24T	30.2mm	26.4mm	French	M25 × P1.0	30.2mm	26.4mm	HP-R501	English/Italian	BC 1-1/8" × 26T	34.0mm	30.0mm	Sealed Mechanism	Lock Nut: Steel-Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	
Model No.	Type				Thread	Press Race Diameter																			
		Upper Cone & Lower Cap	Lower Cone																						
HP-R500	English/Italian	BC 1" × 24T	30.2mm	26.4mm																					
	French	M25 × P1.0	30.2mm	26.4mm																					
HP-R501	English/Italian	BC 1-1/8" × 26T	34.0mm	30.0mm																					

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



Bar End Shift Lever Set
SL-BS50-8



Handle Stem
HS-7400



Seat Post
SP-7400



Freehub for Disk Wheels
FH-7463-HG



Brake Lever Set
BL-7402



Front Hub
HB-7400-F



Pedal Set
PD-7400



Freehub
FH-7403-HG



Shift Lever Set
SL-7402-8



Cassette Sprockets
CS-7401-HG



Clipless Pedal Set
PD-7401



Front Chainwheel
FC-7402-SG



Chain
CN-7401



Dual Control Lever Set
ST-7400



Front Derailleur
FD-7403



Dual Pivot Brake
BR-7403



Rear Derailleur
RD-7402



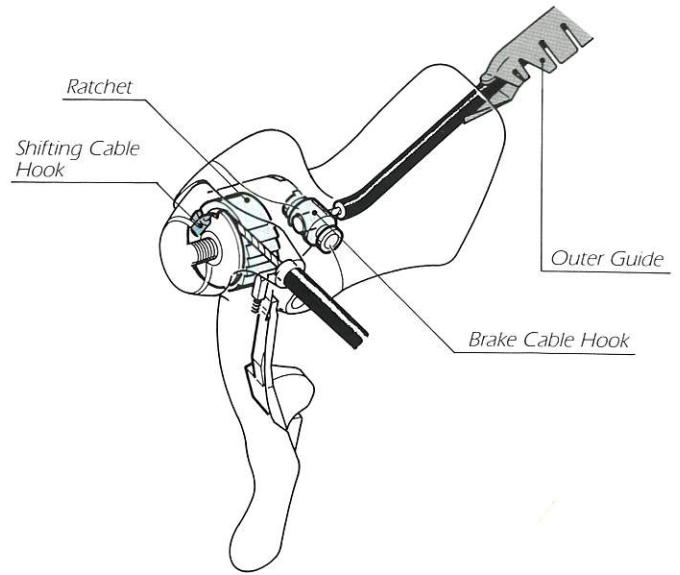
Head Parts
HP-7400



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 outer combination can be used.

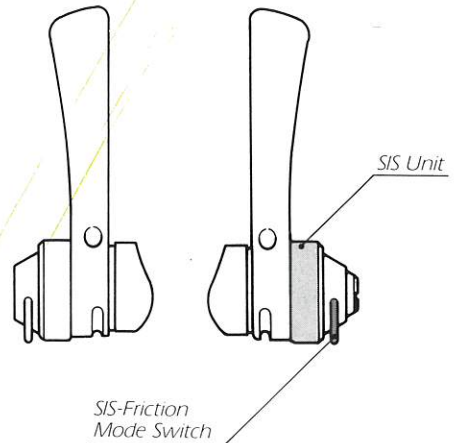


Shifting Lever

SL-7402-FCAI (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 Cramp 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-BCAI (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)

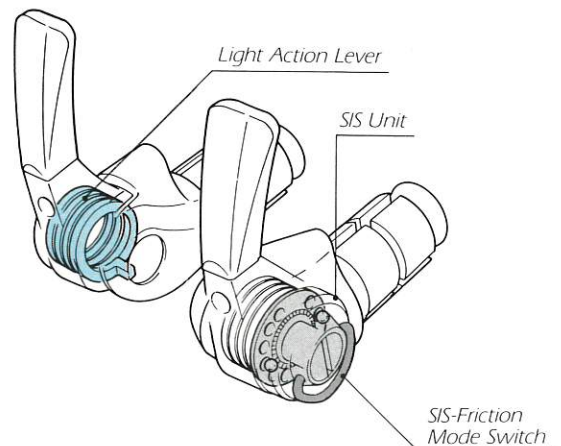
***C** Model Number means Italian Type (Fixing Bolt is 5mm. Diameter)

- 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 Cramp 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

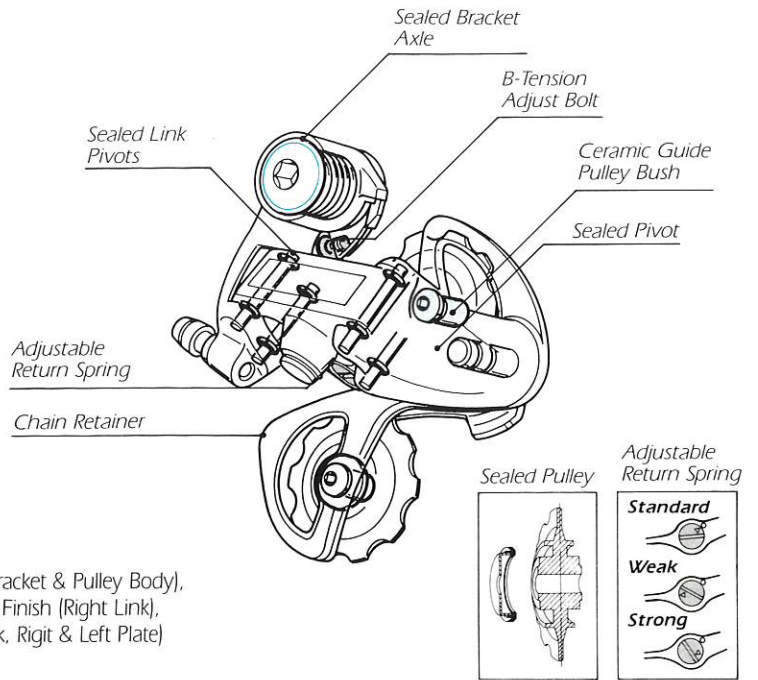
SL-BS50-8

- 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.



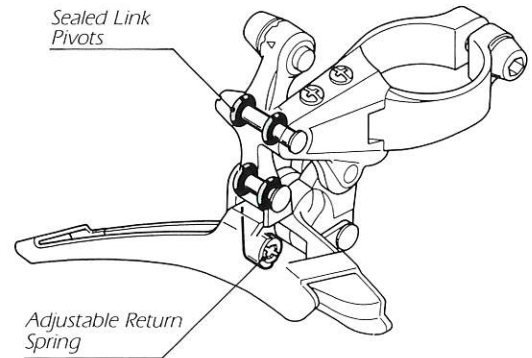
Rear Derailleur
RD-7402

- 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)



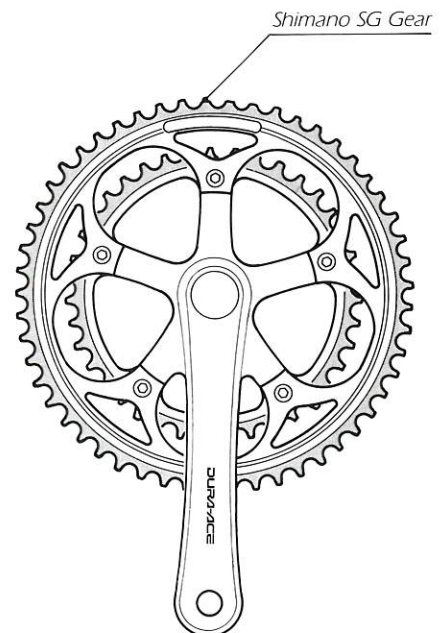
Front Derailleur
FD-7403-B (Band Type)
FD-7403-F (Italian Brased-on A Type)

- 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.
- Cramp 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)



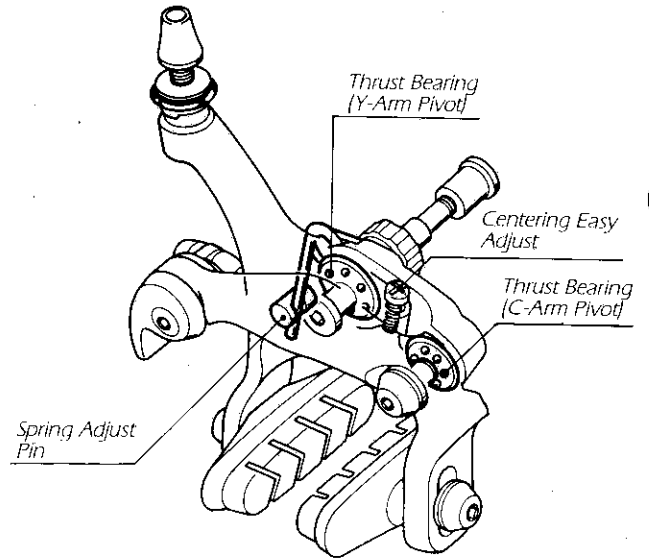
Front Chainwheel & Bottom Bracket Assembly
FC-7402-SG (Shimano SG, Double, LD Type)
BB-7400 (B.B. Set)

- 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" x 3/32"
- Teeth Combination** A-53 x 42, A-52 x 42, B-53 x 39 (Round SG)
- Crank Length** 165mm., 167.5mm., 170mm., 172.5mm., 175mm., 177.5mm., 180mm.
- Crank Thread** English BC 9/16" x 20T.P.I.
- Cut Thread** English BC 1.37 x 24T.P.I., French M35 x 1.0, Italian M36 x 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



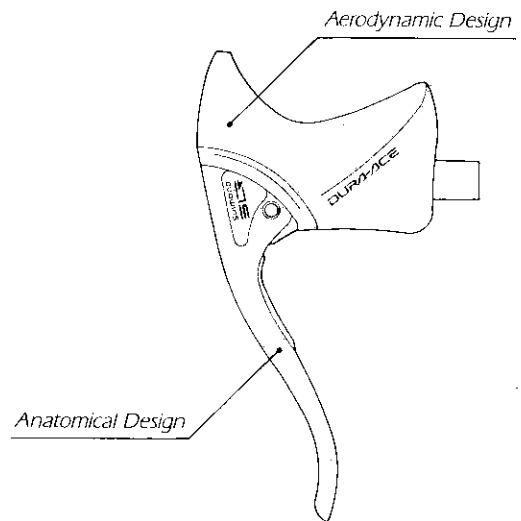
Dual Pivot Brake
BR-7403-49 (Short 49 Type)

- 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)



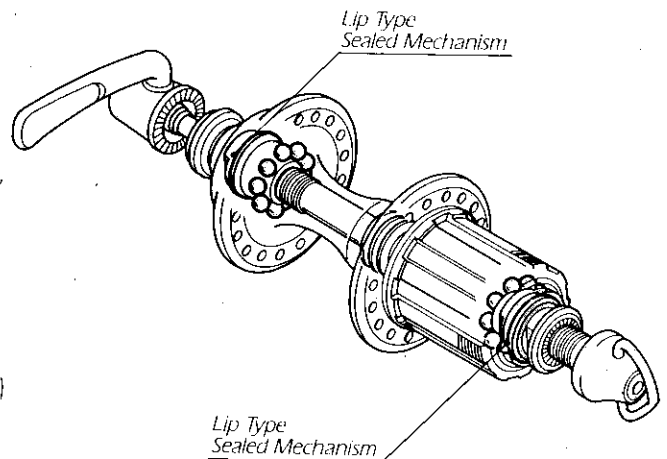
Brake Lever
BL-7402 (Aero Type)

- Weight** 240g. (Pair)
- Compatibility** SLR (Shimano Linear 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

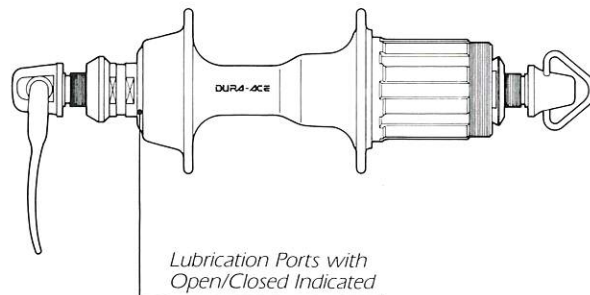
FH-7402-8 (8-speed)

- 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)

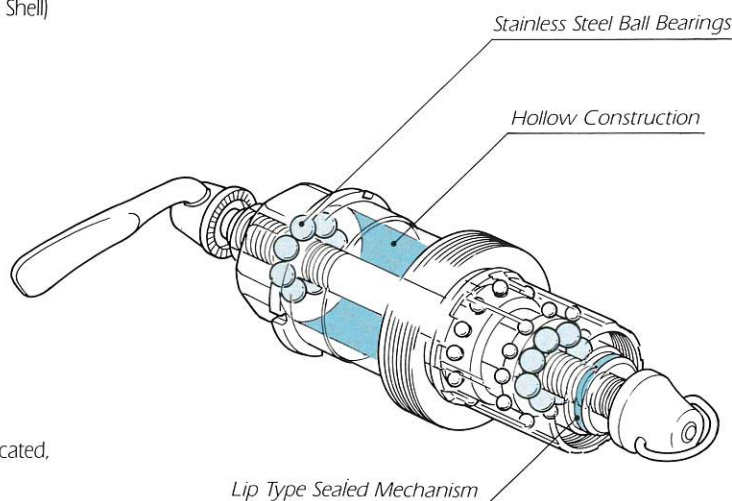
- Weight 439g. Rear (with Quick Release)
- Compatibility 7 & 6-speed SIS Compatible
- Features Lip Type Sealed Mechanism, Uni-Balance System, Lubrication Ports with Open/Closed Indicated, Stainless Steel Ball Bearings
- Over Lock Nut Dimensions 126.5mm.
- Axle Length 137mm.
- Axle Thread 10mm.
- Spoke 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)

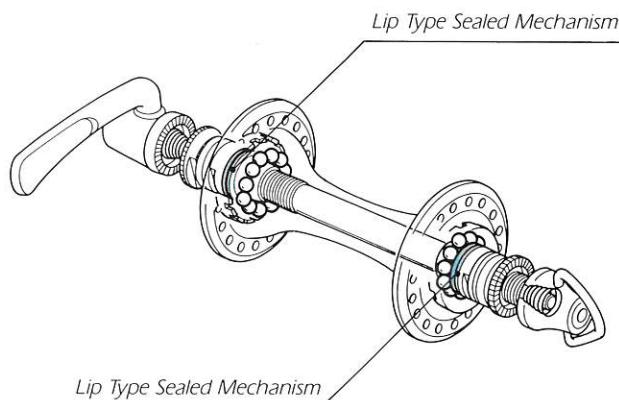
- Weight 646g. (with Quick Release)
- Compatibility Shimano Total Integration Compatible, 8-speed SIS Compatible, HG Gear Compatible
- Features Exclusively Designed for Disk Wheels, Lip Type Sealed Mechanism, Uni-Balance System, Lubrication Ports with Open/Closed Indicated, Stainless Steel Ball Bearings
- 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

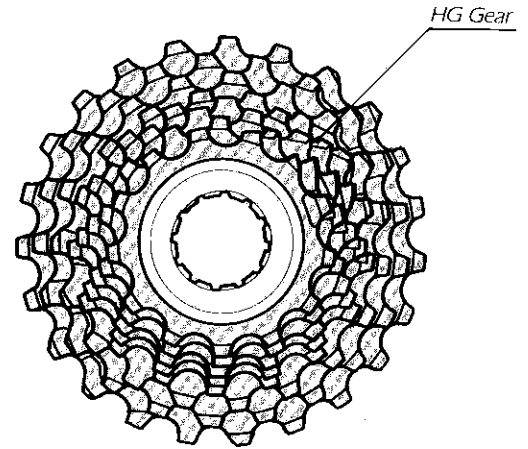
- Weight 228g. (with Quick Release)
- Features Lip type Sealed Mechanism, Easy Installation, Stainless Steel Ball Bearings
- Over Lock Nut Dimensions 100mm.
- Axle Length 108mm.
- Axle Thread 9mm.
- Spoke Holes 28H, 32H, 36H
- Hole PCD 38
- Material & Finish Forged Aluminum•Anodized Finish (Hub Shell)



Cassette Sprockets

CS-7401-8 (8-speed HG)

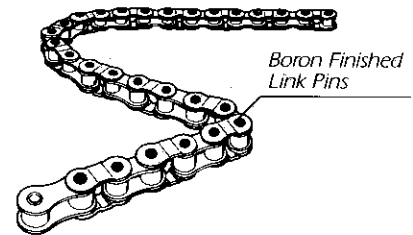
Weight	255g. (Sprocket S Group & Spacer)										
Compatibility	Shimano Total Integration Compatible, 8-speed SIS Compatible, Narrow Type Chain Compatible										
Feature	8-speed HG										
Material & Finish	Steel-Champagne Gold Finish (Sprocket)										
Sprocket Combinations	<table border="0"> <tr> <td>S</td> <td>12, 13, 14, 15, 16, 17, 19, 21T.</td> </tr> <tr> <td>T</td> <td>13, 14, 15, 16, 17, 19, 21, 23T.</td> </tr> <tr> <td>U</td> <td>12, 13, 14, 15, 17, 19, 21, 23T.</td> </tr> <tr> <td>V</td> <td>13, 14, 15, 17, 19, 21, 23, 26T.</td> </tr> <tr> <td>W</td> <td>12, 13, 15, 17, 19, 21, 23, 25T.</td> </tr> </table>	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.
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" x 3/32"
Material & Finish	Nickel Finish (Roller Link Plate, Pin Link Plate)



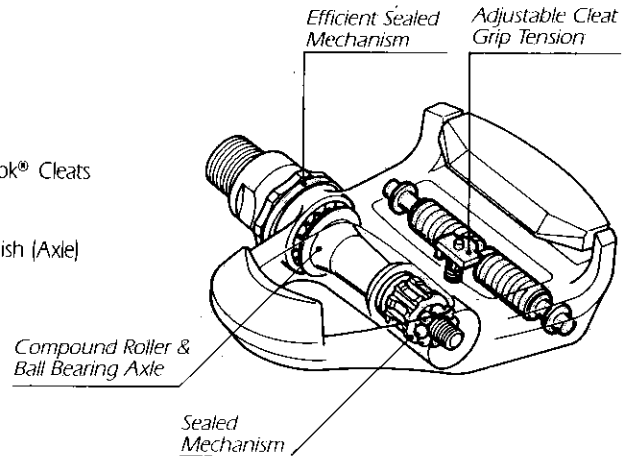
DURA-ACE

43

Clipless Pedal

PD-7401

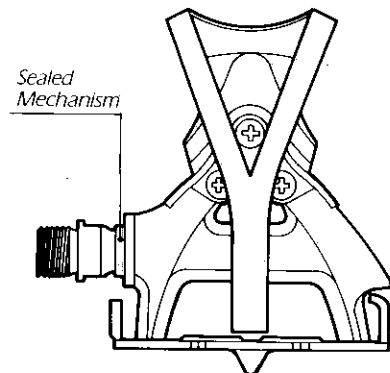
Weight	416g. (Pedal, Pair), 92g. (Cleat & Hardwear)
Features	34° Road Clearance, Compound Roller & Ball Bearing Axle, Aerodynamic Dustcapless Design, Efficient Sealed Mechanism, Adjustable Cleat Grip Tension, Compatible Look® Cleats
Crank Thread	English BC 9/16" x 20T.P.I.
Material & Finish	Forged Aluminum-Paint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

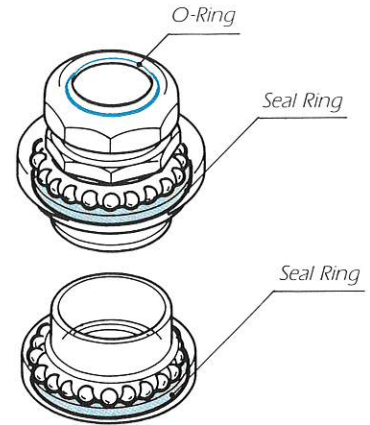
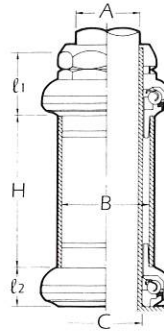


Head Parts
HP-7400

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

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.

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" x 24T. (English, Italian Thread)/ M25" x P1.0 (French Thread)

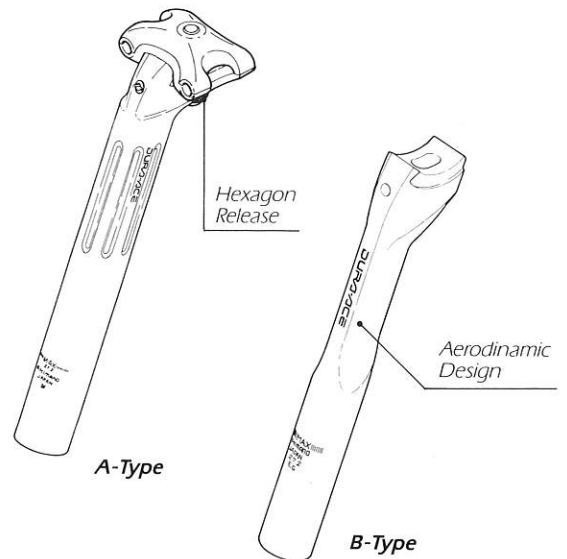


Seat Post

SP-7400-A (Round Tube, A Type)

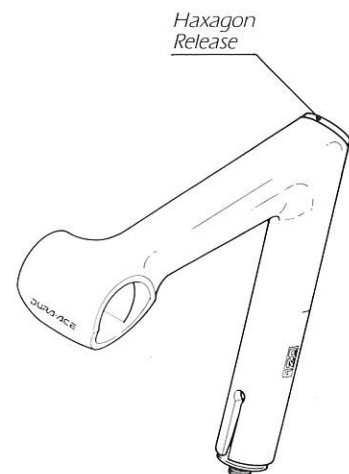
SP-7400-B (Semi Oval Tube, B Type)

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

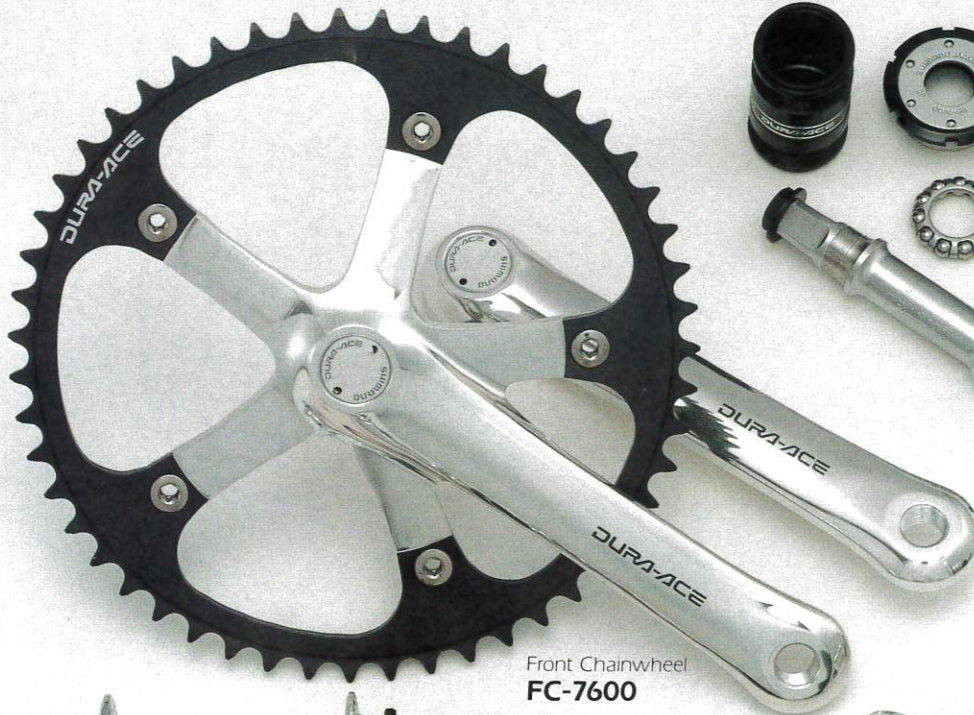


DURA-ACE

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.

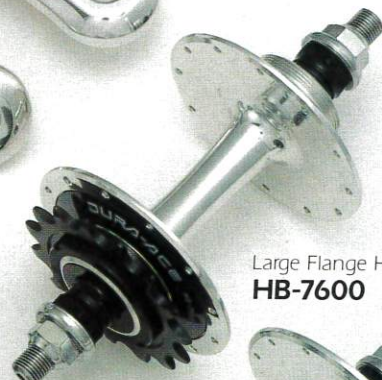
Bottom Bracket Set
BB-7600



Front Chainwheel
FC-7600



Small Flange Hub
HB-7600



Large Flange Hub
HB-7600



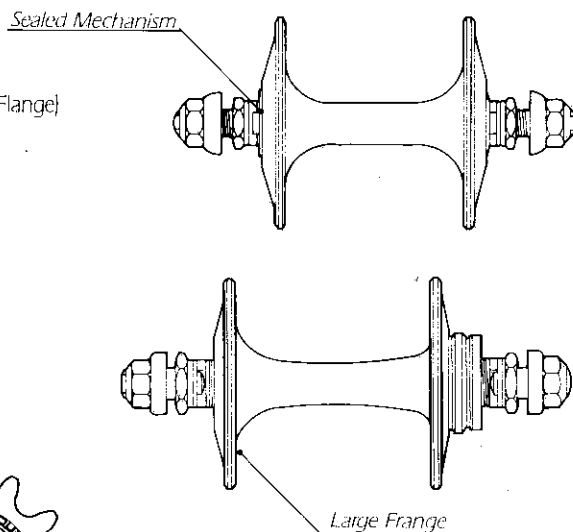
Sprockets
SS-7600



Head Parts
HP-7600

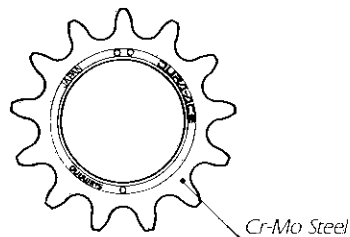
Hub
HB-7600 (Large & Small Flange)

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

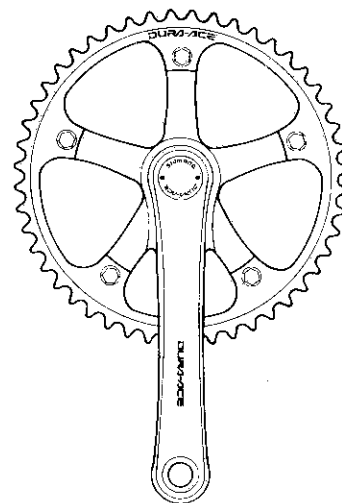


Weight	1/2" x 1/8" Sprocket:
13T.	31g.
14T.	38g.
15T.	44g.
16T.	53g.

Front Chainwheel & Bottom Bracket Assembly

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

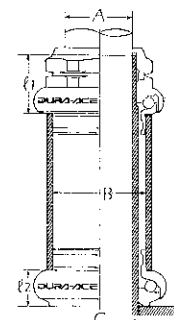
- Weight** 605g. (48T., 170mm.), 305g. (B.B. Set)
Features Exclusively Designed for Track,
 Computer Aided Design (Crank),
 Removable Sealed Mechanism (BB.)
Use For 1/8" & 3/32" Chain
Teeth 42T.—55T.
Crank Length 165mm., 167.5mm., 170mm., 172.5mm., 175mm.
Crank Thread English BC 9/16" x 20T.P.I.
Cup 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-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 x 24T.	30.2mm.	26.4mm.
	French	M25 x P1.0	30.2mm.	26.4mm.



Dimensions	
ε ₁	19.5mm.
ε ₂	11.5mm.
H	Head Tube Length
A	22.0mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" x 24T. (English, Italian Thread)/ M25" x P1.0 (French Thread)

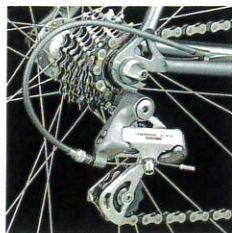
Quality racing components for competition machines and the best sport bicycles.

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 derailleurs, and CN-HG90 or CN-HG91 chain and CS-HG90-8 cassette.



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

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

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 derailleurs.



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.



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

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



Pedal Set
PD-6400



Clipless Pedal Set
PD-6402



Freehub
FH-6402-HG



Chain
CN-HG90



Sealed Cartridge
Bottom Bracket
BB-UN70



Head Parts
HP-6400



Front Chainwheel
FC-6400-SG

Front Hub
HB-6400-F



Cassette Sprockers
CS-HG90-8

Rear Derailleur
RD-6401



Front Derailleur
FD-6401



Handle Stem
HS-6400



Seat Post
SP-6400



Brake Lever Set
BL-6403



Dual-Pivot Brake
BR-6403

Dual Control Lever Set
ST-6400



Bar End Shift Lever Set
SL-BS64-8

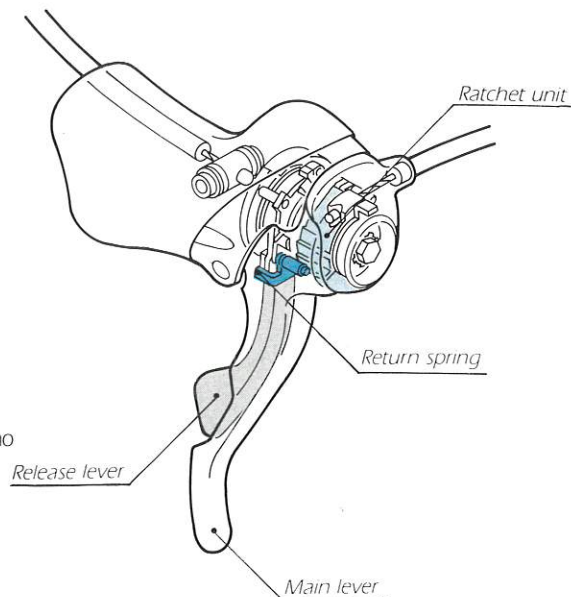


Shift Lever Set
SL-6401-8



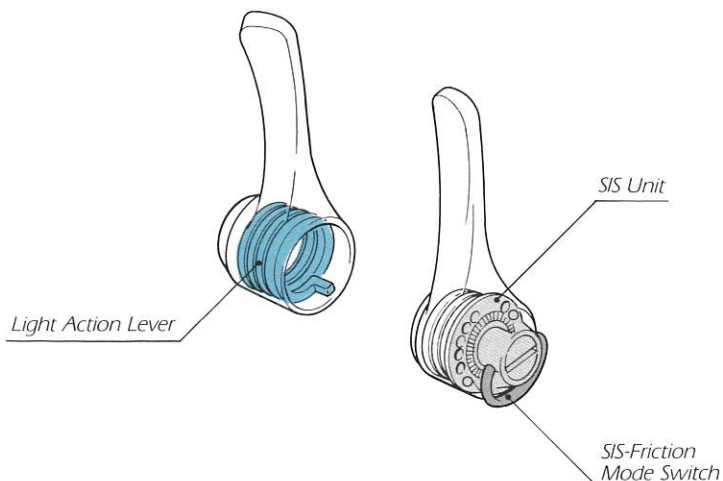
Dual Control Lever
ST-6400

- 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.



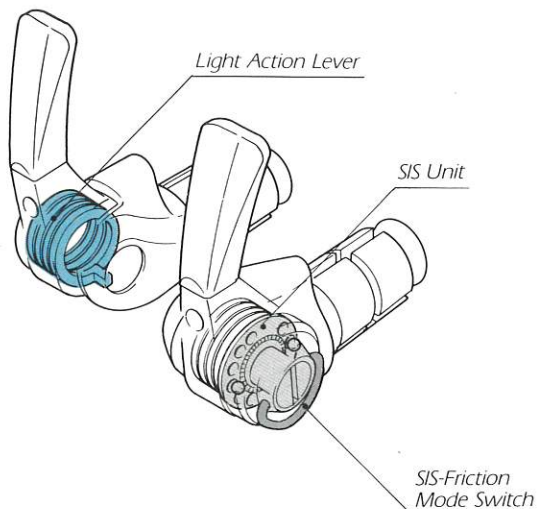
Shifting Lever
SL-6401-FC*AI (8-speed SIS, Brazed-on A Type)
*“C” of Model Number means Italian Type (Fixing Bolt is 5mm. Diameter)

- 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

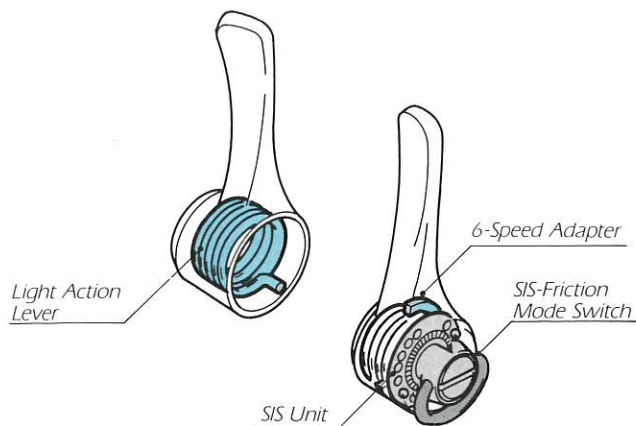
SL-6400-FCAI (6 & 7-speed SIS, Brazed-on A Type)

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



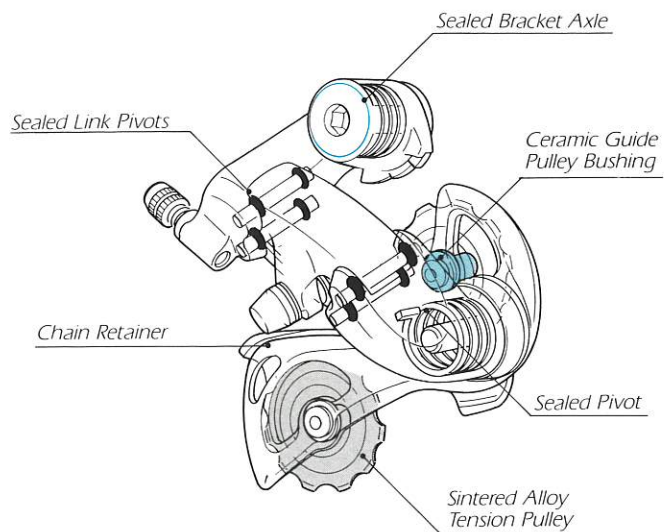
Rear Derailleur

RD-6401

- Weight 215g.
- Compatibility Shimano Total Intergration 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)



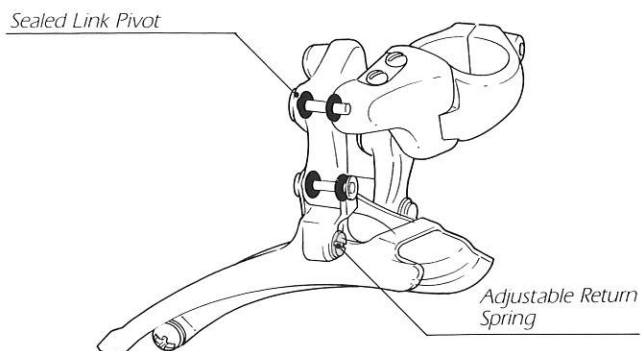
Front Derailleur

FD-6401-B (Band Type)

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

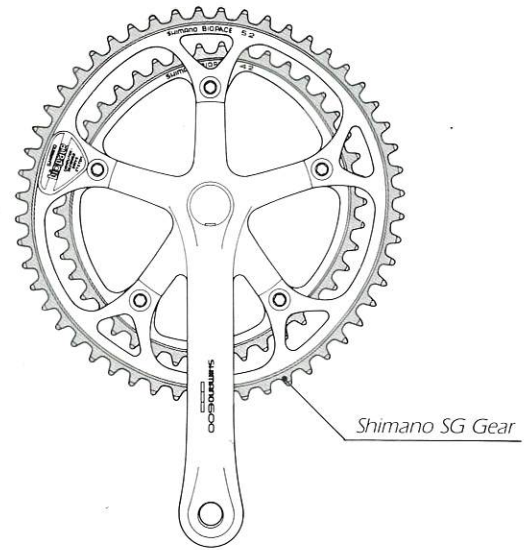
- Weight 107g. (Band Type)
- Compatibility Shimano Total Integration Compatible, Shimano SG Gear Compatible, Narrow Type Chain Compatible
- Features Adjustable Return Spring, Rigid Chain Guide, New Trapese Mechanism, Sealed Link Pin, Compact Design

- 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)

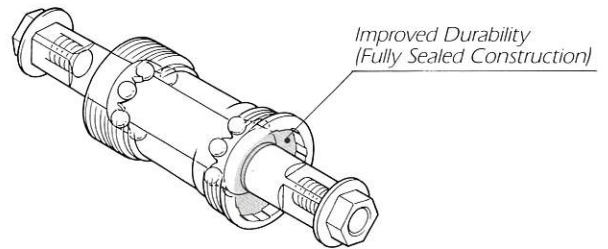
- Weight 650g. (42T., 52T., 170mm.), 293g. (B.B. Set)
- Compatibility Shimano Total Integration Compatible, Narrow Type Chain Compatible
- Features Shimano SG Gear, Sealed Mechanism (B.B.)
- Chain Size 1/2" x 3/32"
- Teeth Combination 52 x 42 (Biopace SG), 53 x 42, 52 x 42 (Shimano SG)
- Crank Length 165mm., 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 70-W-115, 68-W-113
- Material & Finish Aluminum•Anodized Finish (Crank, Chainring), Nickel Cr-Mo Axle



Sealed Cartridge Bottom Bracket
BB-UN70

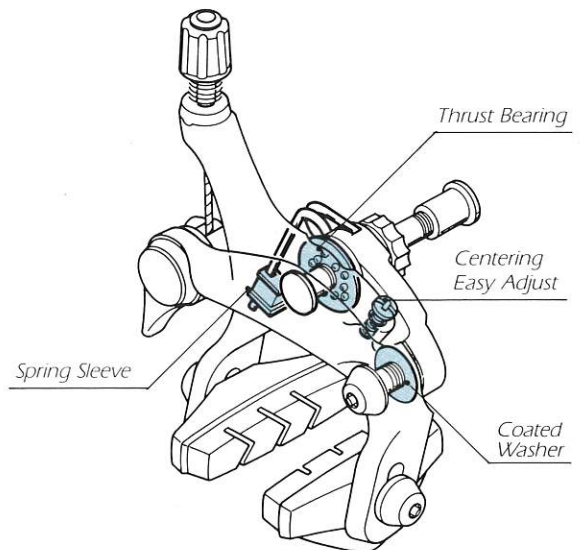
- Weight 287g. (122.5mm.)
- Features "Easy Assembly" Construction, Improved Durability (Fully Sealed Construction), Maintenance Free Construction, Lightweight Design

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



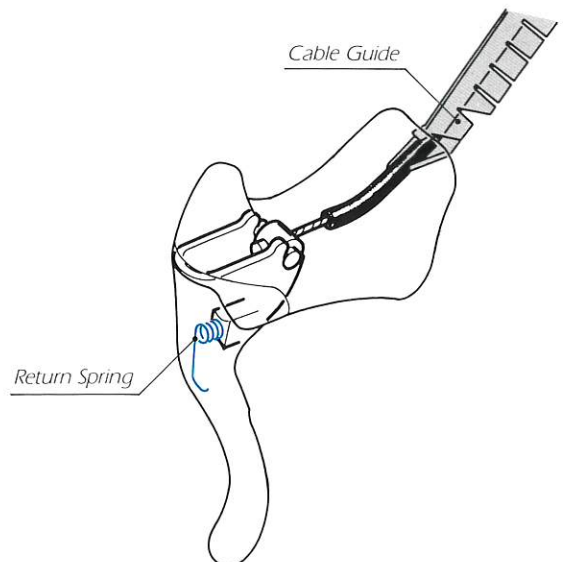
Dual Pivot Brake
BR-6403-49 (Short 49 Type)

- Weight 405g. (F & R, 49 Type)
- Compatibility Super 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

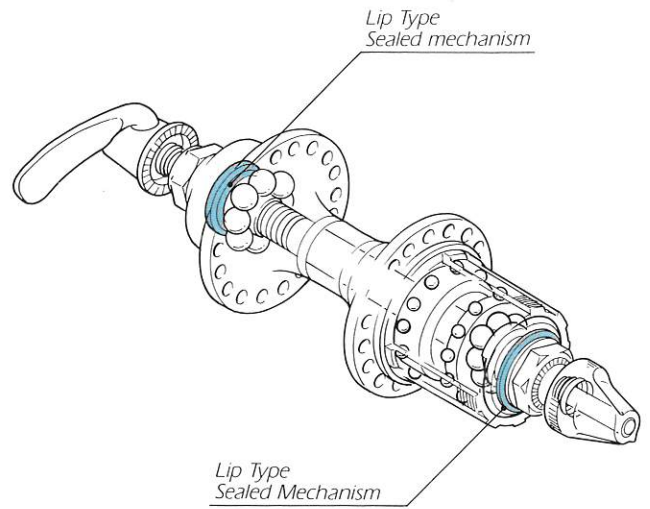
FH-6402-HG (8-speed)

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

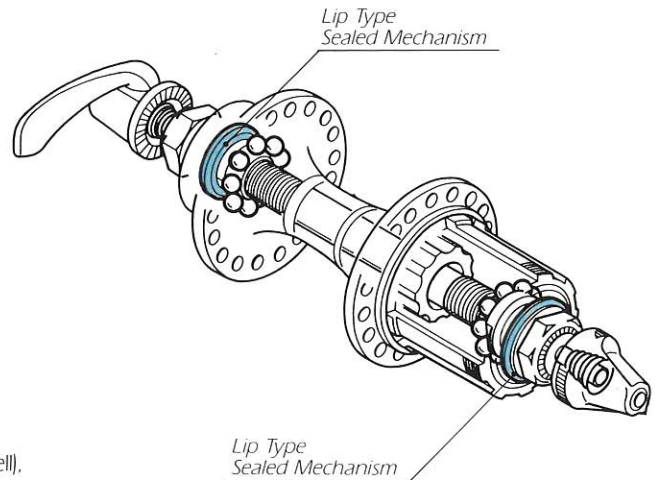
FH-6401-HG (7-speed)

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)



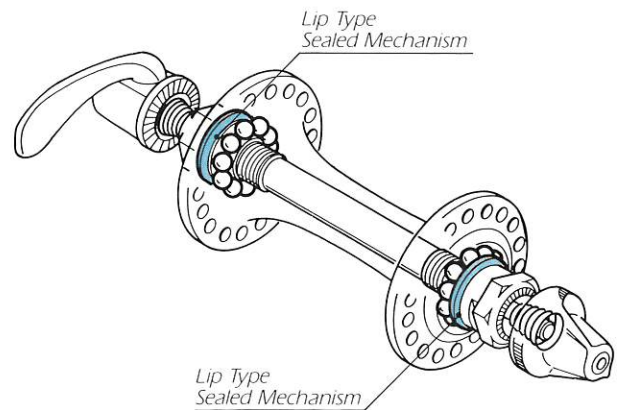
Front Hub

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

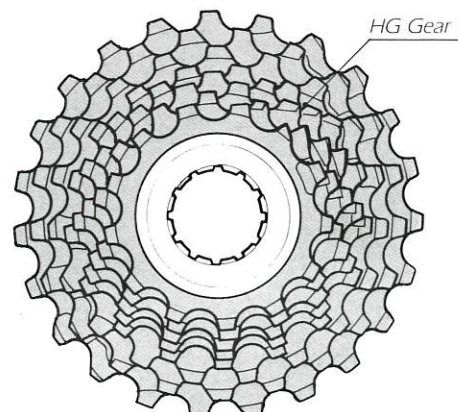
CS-HG90-8 (8-speed)

Weight 250g. (Sprocket S Group & Spacer)
Compatibility Shimano Total Integration Compatible,
8-speed SIS Compatible

Feature 8-speed HG
Use For 1/2" x 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.

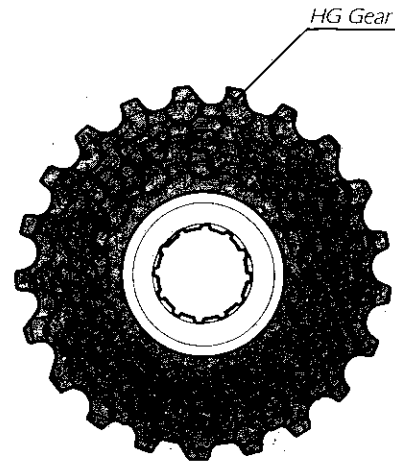


Cassette Sprockets
CS-HG90-7 (7-speed)

Weight 286g. (Sprocket I Group & Spacer)
 Compatibility 7-speed SIS Compatible
 Features 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.
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" x 3/32" Chain (Narrow Type Chain)
 Material & Finish Steel•Silver Finish (Sprocket)

Standard Sprocket Combinations

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.

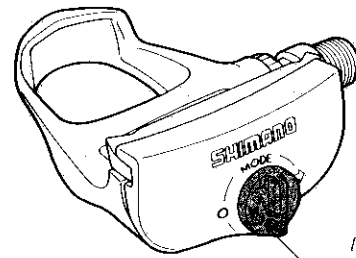
Teeth

	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" x 20T.P.I.
 Material & Finish Aluminum (Body),
 Cr-Mo Steel (Axle),



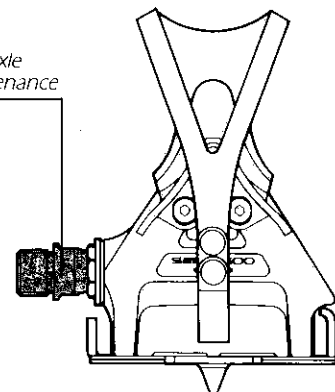
Dual Function Allows Fixed or Self-Aligning Cleat Retention

Pedal
PD-6400

Weight 478g. (Pair, Including Toe Clip Size L)
 Features Positive Grip Shoe Cleat,
 34° Road Clearance,
 Easy-Maintenance Cartridge Axle,
 Compound Structure of Resin Bushing and Cup & Cone Bearings,
 Aerodynamic Design,
 Sealed Mechanism

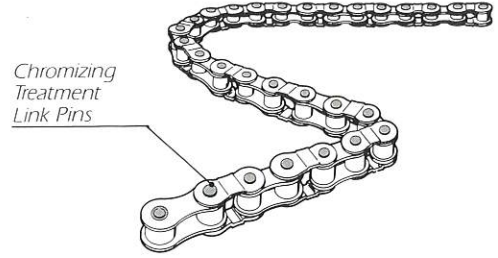
Toe Clip Size M, L, LL
 Crank Thread English BC 9/16" x 20T.P.I.
 Material & Finish Aluminum (Body),
 Aluminum•Anodized Finish (Front Plate),
 Cr-Mo Steel (Axle),
 Steel•Chrome-Plated or Aluminum•Anodized Finish (Toe Clip)

Cartridge Axle Easy-Maintenance



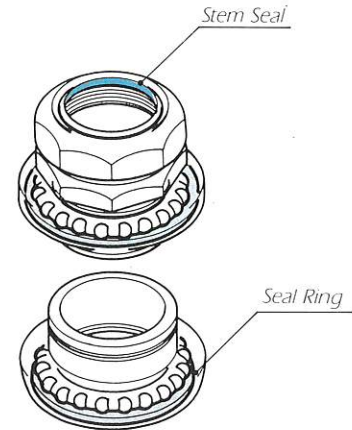
HG Chain
CN-HG91

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



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)

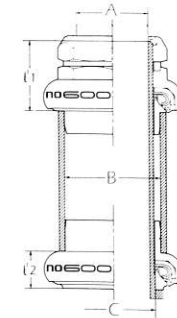


Head Parts
HP-6400

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.

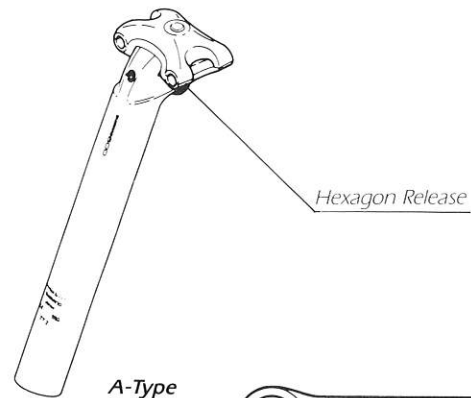
Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 x 24T.	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.

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" x 24T. (English Thread)/ M25" x P1.0 (French Thread)



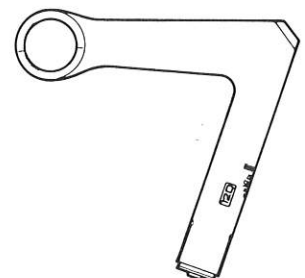
Seat Post
SP-6400-A (Round Tube, A Type)
SP-6400-B (Semi Oval Tube, B Type)

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 beginning racer, triathletes, dedicated sport-fitness riders—anyone who appreciates a quality performance-oriented bicycle.

Shimano 105SC

55



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.

SHIMANO 105 SC



Pedal Set
PD-1055



Clipless Pedal Set
PD-1056



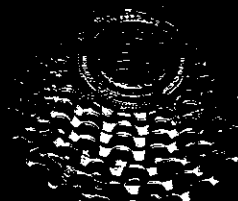
Sealed Cartridge Bottom Bracket
BB-UN70



Freehub
FH-1055-HG



Front Hub
HB-1055-F



Cassette Sprockets
CS-HG70



Chain
CN-HG70



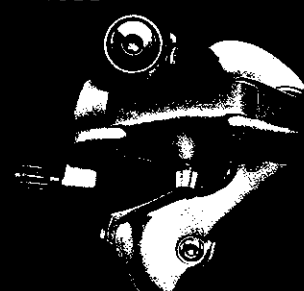
Front Chainwheel
FC-1055-SG



Head Parts
HP-1055



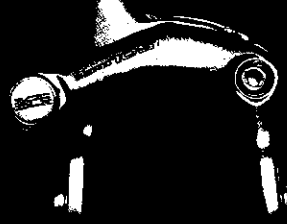
Shift Lever Set
SL-1055



Rear Derailleur
RD-1055



Front Derailleur
FD-1055



Dual Pivot Brake
BR-1055



Brake Lever Set
BL-1055



Front Derailleur
FD-1055

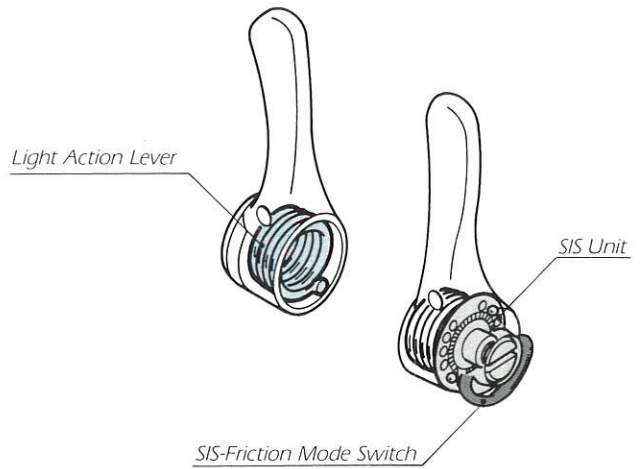
Shifting Lever

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)

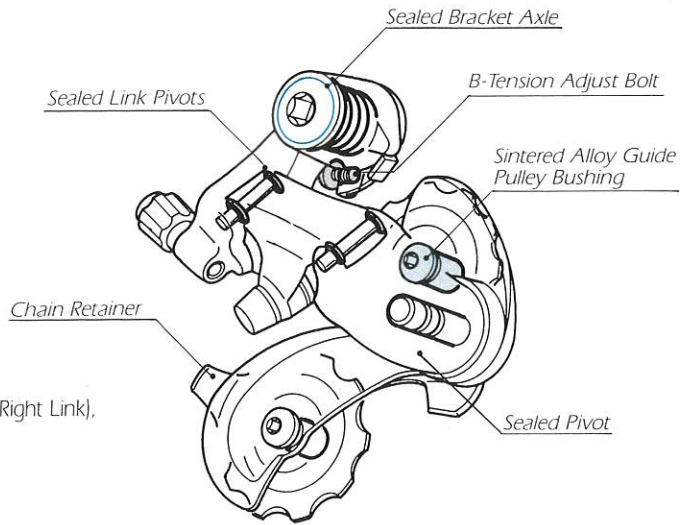
- Weight 70g. (SL-1055-FCAI)
- Features 7-speed SIS,
SIS-Friction Mode Switch,
30° Off-set of Lever Stopper (Front),
Light Action Lever (Front),
Sealed Mechanism,
Human Engineered Design
- Lever Clamp Diameter 28.6mm.
- Material & Finish Aluminum•Enamel Finish (Lever)
- Attachment Position Down Tube



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-Tention Adjust Bolt,
Double Spork 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)

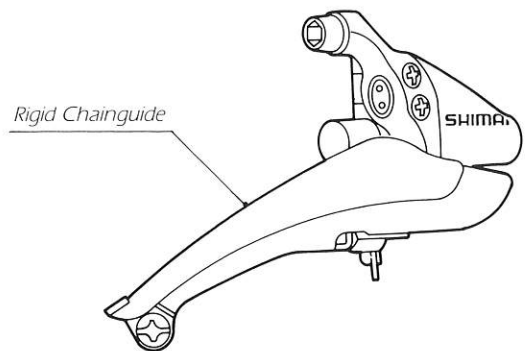


Front Derailleur

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)



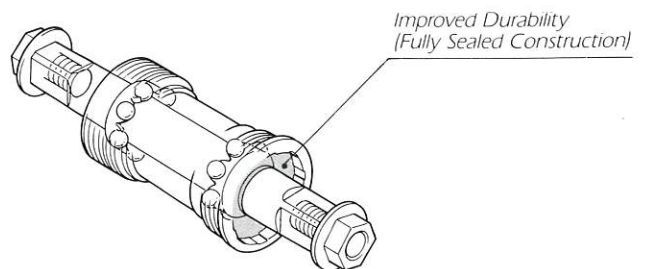
Sealed Cartridge Bottom Bracket

BB-UN70

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

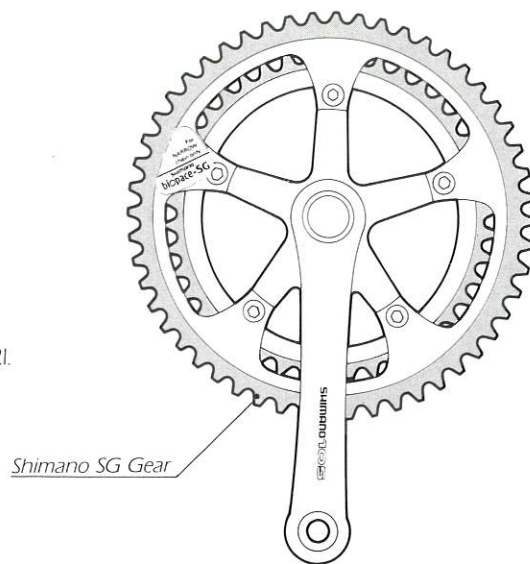
Specifications

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



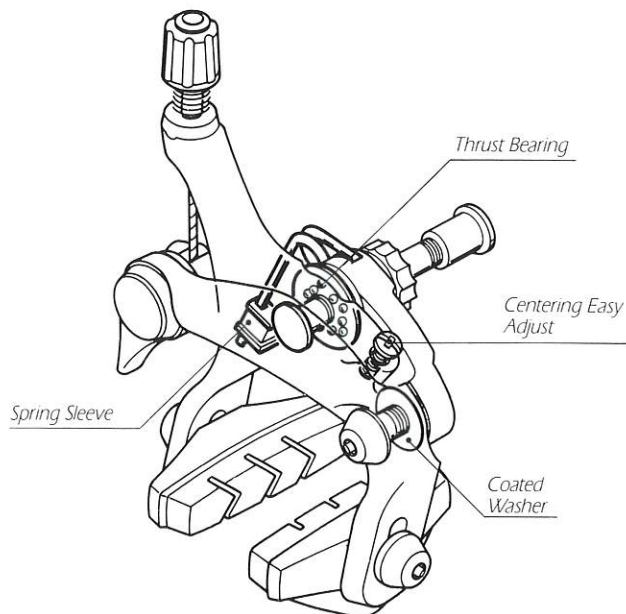
Front Chainwheel & Bottom Bracket Assembly
FC-1055-SG (Shimano SG Double, LD Type)
BB-1055 (B.B. Set)

- 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" x 3/32"
- Teeth Combination 52 x 42 (Biopace SG), 53 x 42, 52 x 42 (Shimano SG)
- 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 70-W-115, 68-W-113
- Material & Finish Aluminum•Enamel Finish (Crank),
Aluminum•Anodized Finish (Chainring),
Nickel Cr-Mo Axle



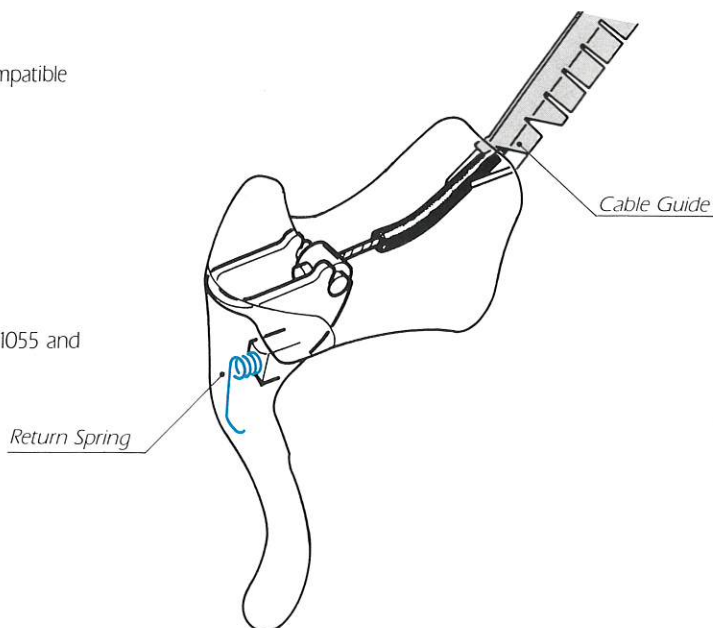
Dual Pivot Brake
BR-1055-49 (Short 49 Type)
BR-1055-57 (Long 57 Type)

- 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 Linear Response) Compatible
- Features Return Spring,
Human Engineered 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.



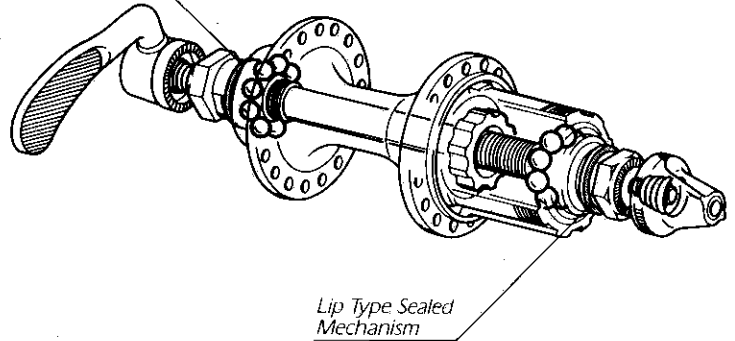
Freehub

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)

Lip Type Sealed Mechanism



Lip Type Sealed Mechanism

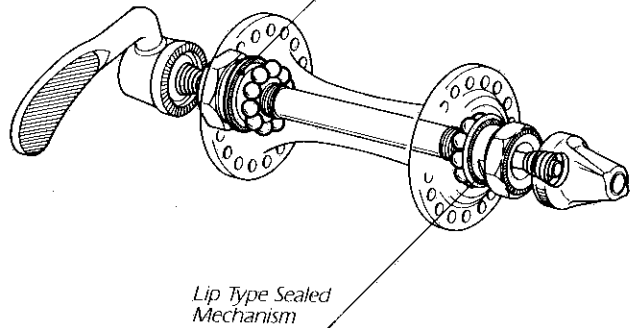
Front Hub

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)

Lip Type Sealed Mechanism



Lip Type Sealed Mechanism

Cassette Sprockets

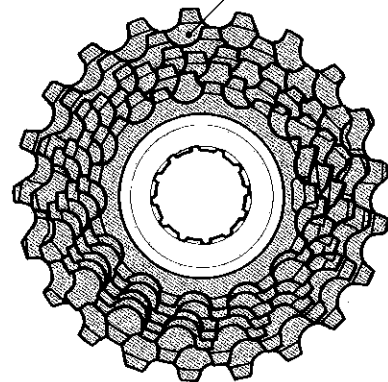
CS-HG70 (7-speed)

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



HG Chain

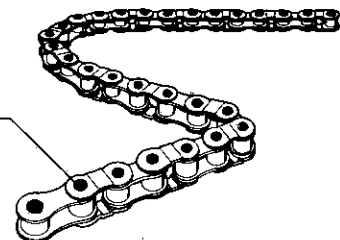
CN-HG70

Features Narrow Type HG Chain,
 Chromizing Treatment Link Pins

Size 1/2" x 3/32"

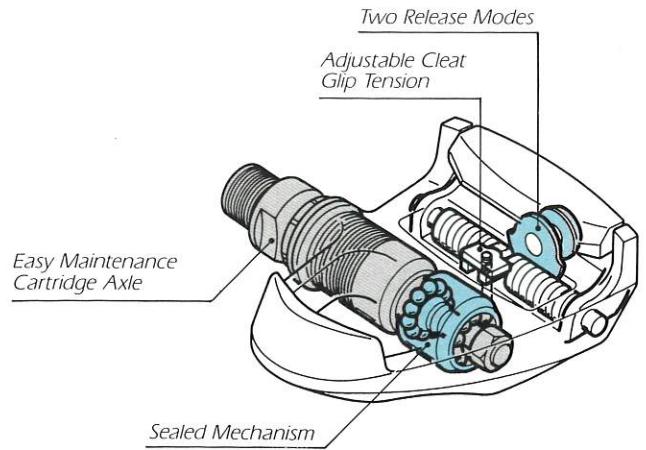
Material & Finish Steel-Gray Finish (Roller Link Plate),
 Steel-Black Finish (Pin Link Plate)

Chromizing Treatment Link Pins



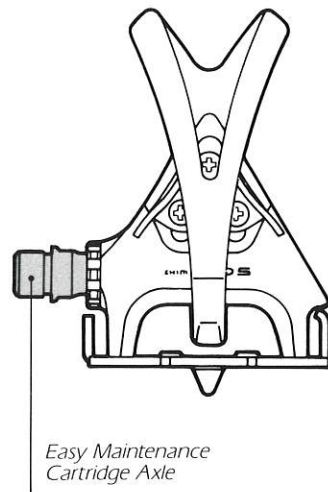
Clipless Pedal
PD-1056

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)



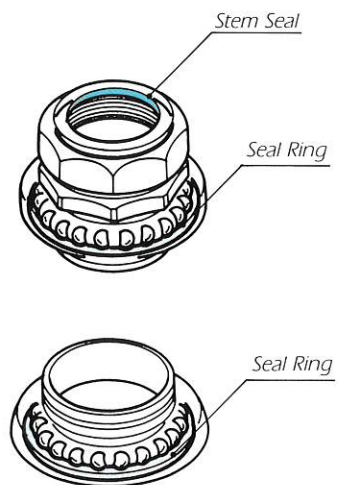
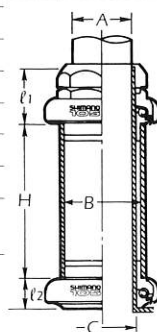
Head Parts
HP-1055

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.

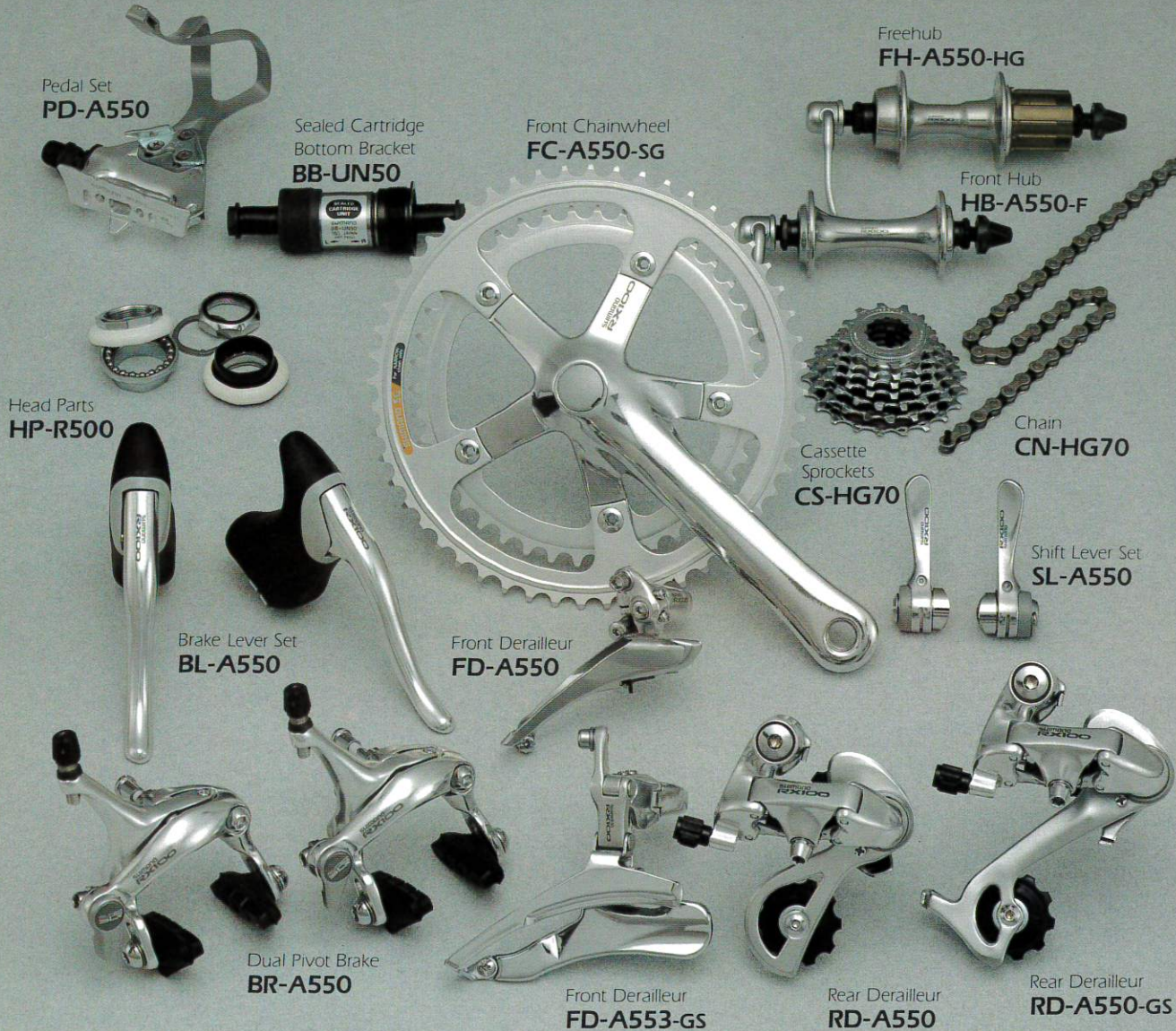
Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 × 24T.	30.2mm.	26.4mm.
French	M25 × P1.0	30.2mm.	26.4mm.

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



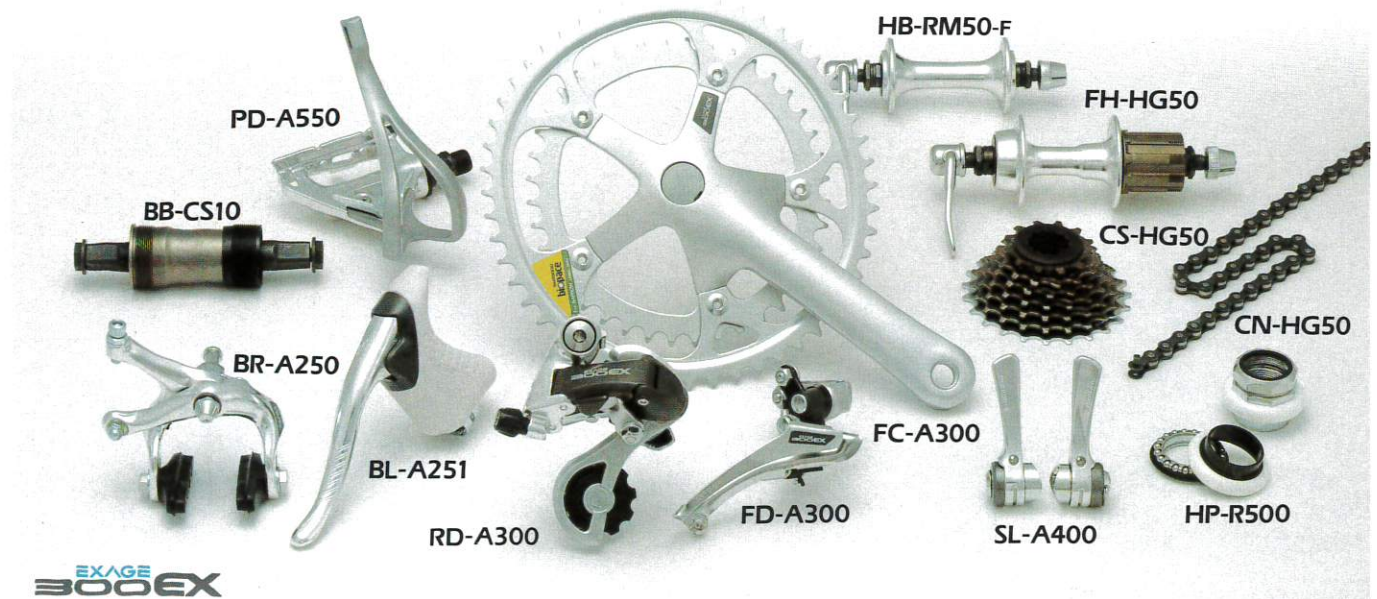
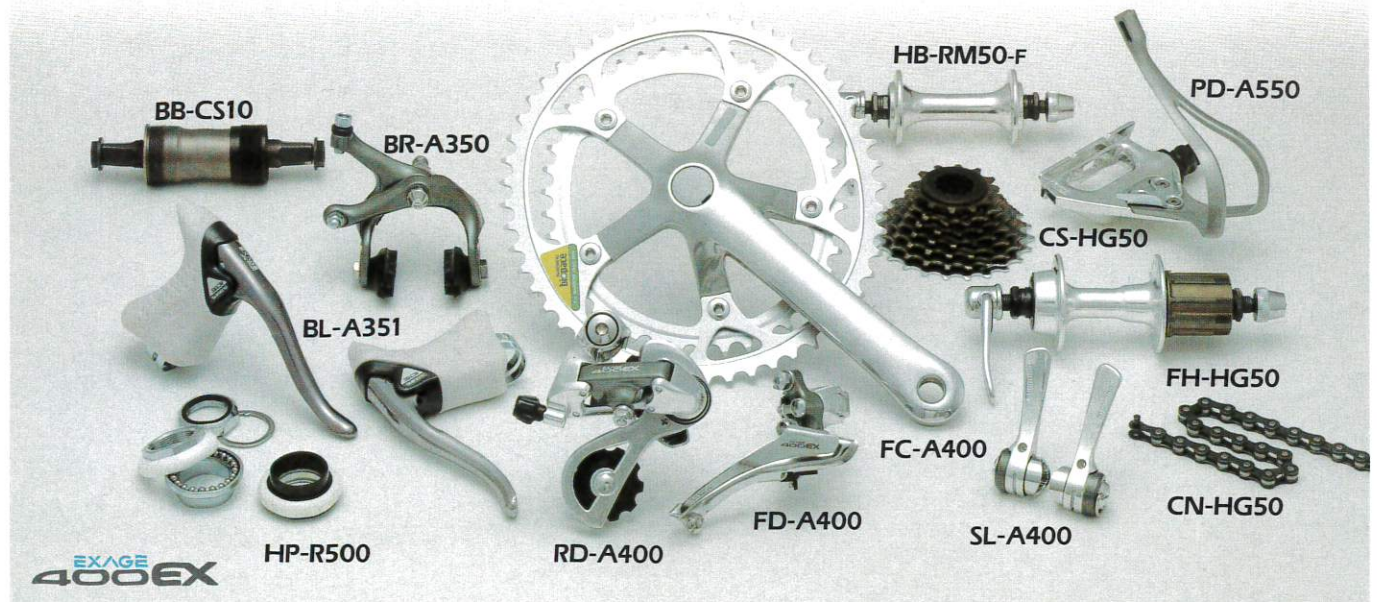
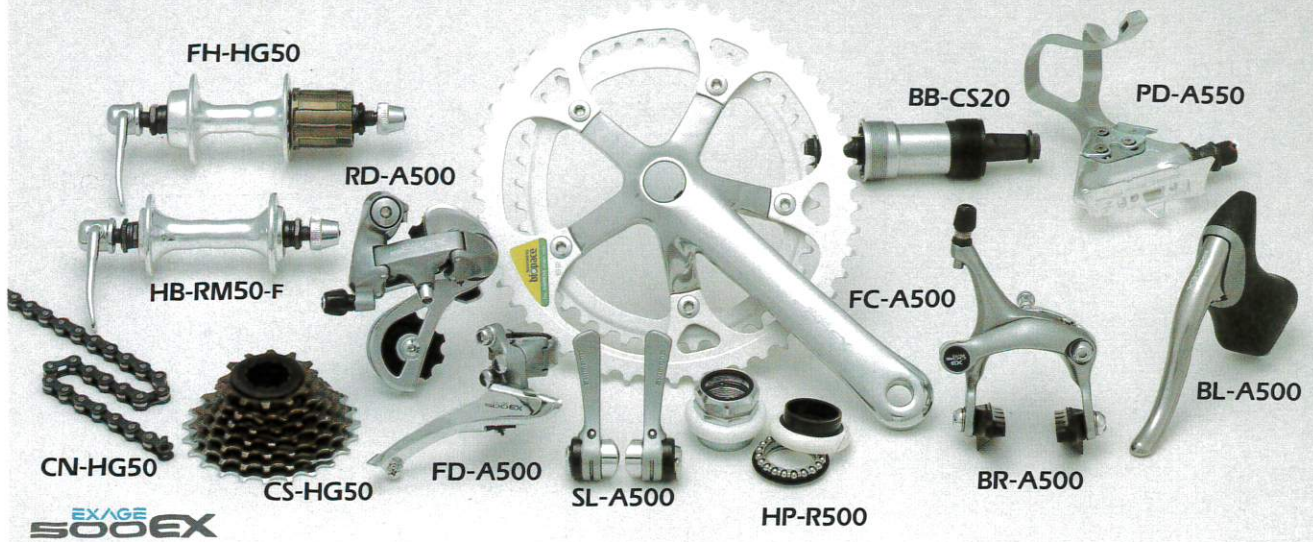
Shimano RX100

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: $\phi 28.0\text{mm}$ — $\phi 28.6\text{mm}$. Stroke (w/ $\phi 28.6\text{mm}$ 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: $\phi 28.0\text{mm}$ — $\phi 28.6\text{mm}$. Stroke (w/ $\phi 28.6\text{mm}$ 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 (Braze-on A Type) SL-A550-BCAI (Side Band A Type) SL-A550-T-FCAI (Braze-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+Anodised Finish Y-Arm: Aluminum+Anodised Finish Gate: Aluminum+Anodised 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 <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">FC-A550-SG</th> <th colspan="2">FC-A550-T</th> </tr> <tr> <th>Biopace SG</th> <th>Round SG</th> <th>Round SG</th> <th>Round SG</th> </tr> </thead> <tbody> <tr> <td>Top</td> <td>52T</td> <td>53T</td> <td>52T</td> <td>52T</td> </tr> <tr> <td>Middle</td> <td>—</td> <td>—</td> <td>—</td> <td>42T</td> </tr> <tr> <td>Low</td> <td>42T</td> <td>42T</td> <td>42T</td> <td>30T</td> </tr> </tbody> </table> Crank Thread: English BC 9/16" x 20TPI Cup Thread: English BC 1.37 x 24TPI French M35 x 1.0. Italian M36 x 24TPI 700g. (42T, 52T, 170mm) 327g. (BB-A550) 323g. (BB-UN50, 122.5mm)		FC-A550-SG		FC-A550-T		Biopace SG	Round SG	Round SG	Round SG	Top	52T	53T	52T	52T	Middle	—	—	—	42T	Low	42T	42T	42T	30T	Computer Aided Design (Crank) Sealed Mechanism (BB)	Crank Arm: Aluminum+Barrel Finish Chain Ring: Aluminum+Anodised Finish	Spindle: BB-A550 <table border="1"> <tr> <td>Mark</td> <td>3H</td> <td>5H</td> </tr> <tr> <td>Width</td> <td>70</td> <td>68</td> </tr> <tr> <td>Length</td> <td>115</td> <td>113</td> </tr> </table> Spindle: BB-UN50 <table border="1"> <tr> <td>Mark</td> <td colspan="2">D.H.</td> </tr> <tr> <td>Width</td> <td>70 (36)</td> <td>68 (BC)</td> </tr> <tr> <td>Length</td> <td colspan="2">115</td> </tr> </table>	Mark	3H	5H	Width	70	68	Length	115	113	Mark	D.H.		Width	70 (36)	68 (BC)	Length	115	
	FC-A550-SG		FC-A550-T																																											
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Freehub FH-A550	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H, 32H. Hole PCD: 45 <table border="1"> <tr> <td>O.L.D.</td> <td>126</td> </tr> <tr> <td>Axle Length</td> <td>137</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release</td> </tr> </table> Axle Thread: 10mm. 420g.	O.L.D.	126	Axle Length	137	Mounting Type	Quick Release	Uni-Balance System Resin Sealed Mechanism One-Piece Forged Hub Body	Aluminum+Polish Finish																																					
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Front Hub HB-A550-F	Spoke Holes: 36H, 32H. Hole PCD: 38 <table border="1"> <tr> <td>O.L.D.</td> <td>100</td> </tr> <tr> <td>Axle Length</td> <td>108</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release</td> </tr> </table> Axle Thread: 9mm. 202g.	O.L.D.	100	Axle Length	108	Mounting Type	Quick Release	Resin Sealed Mechanism One-Piece Forged Hub Body	Aluminum+Polish Finish																																					
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Cassette Sprockets CS-HG70 (7-speed)	7-speed SIS Compatible 7-speed HG Gear Use Narrow Type Chain 286g. (Sprocket 1 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 (117" x 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" x 20TPI. 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: <table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2"></th> <th colspan="2">Press Race Diameter</th> </tr> <tr> <th>Upper Cone & Lower Cap</th> <th>Lower Cone</th> </tr> </thead> <tbody> <tr> <td>English/Italian</td> <td>BC I x 24T</td> <td>30.2mm</td> <td>26.4mm</td> </tr> <tr> <td>French</td> <td>M25 x P10</td> <td>30.2mm</td> <td>26.4mm</td> </tr> </tbody> </table>			Press Race Diameter		Upper Cone & Lower Cap	Lower Cone	English/Italian	BC I x 24T	30.2mm	26.4mm	French	M25 x P10	30.2mm	26.4mm	Sealed Mechanism	Lock Nut: Steel+Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black																													
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English/Italian	BC I x 24T	30.2mm	26.4mm																																											
French	M25 x P10	30.2mm	26.4mm																																											

EXAGE EX



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: ϕ 28.0mm. — ϕ 28.6mm. Stroke (w/ ϕ 28.6mm. 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, LD 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 x 24T.P.I. Teeth: Top 50T., 52T., 53T. Low 40T., 42T. Crank Thread: English BC 9/16" x 20T.P.I. French M35 x 1.0 (BB-A200 Only) Italian M36 x 24T.P.I. 720g. (42T., 52T., 170mm.) 333g. (BB. Set BB-A200)	Computer Aided Design (Crank) Sealed Mechanism (BB)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Aluminum•Anodized Finish	Spindle: BB-A200 <table border="1"> <tr><td>Mark</td><td>D-3H</td><td>D-5H</td></tr> <tr><td>Width</td><td>70</td><td>68</td></tr> <tr><td>Length</td><td>115</td><td>113</td></tr> </table> Spindle: BB-CS20 <table border="1"> <tr><td>Mark</td><td>D-H</td></tr> <tr><td>Width</td><td>70 (36) 68 (BC)</td></tr> <tr><td>Length</td><td>115</td></tr> </table>	Mark	D-3H	D-5H	Width	70	68	Length	115	113	Mark	D-H	Width	70 (36) 68 (BC)	Length	115
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Freehub FH-HG50	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 <table border="1"> <tr><td>OLD.</td><td>126</td></tr> <tr><td>Axle Length</td><td>137</td></tr> <tr><td>Mounting Type</td><td>Quick Release/Nut</td></tr> </table> Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	OLD.	126	Axle Length	137	Mounting Type	Quick Release/Nut	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish										
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OLD.	100																		
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Mounting Type	Quick Release																		
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 1/2" x 3/32") 335g. (114 Link)	Chromizing Treatment Link Pin Connecting Pin Bushingsless Design	Roller Link Plate: Steel•Black Finish Pin Link Plate: Steel•Black Finish																
Pedal PD-A550	Crank Thread: English BC 9/16" x 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	Lower Cone 11.5mm. 121g. Variation: <table border="1"> <tr><td></td><td></td><td colspan="2">Press Race Diameter</td></tr> <tr><td></td><td></td><td>Upper Cone & Lower Cap</td><td>Lower Cone</td></tr> <tr><td>English/Italian</td><td>BC1 x 24T.</td><td>30.2mm.</td><td>26.4mm.</td></tr> <tr><td>French</td><td>M25 x P1.0</td><td>30.2mm.</td><td>26.4mm.</td></tr> </table>			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.	Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black	
		Press Race Diameter																	
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English/Italian	BC1 x 24T.	30.2mm.	26.4mm.																
French	M25 x P1.0	30.2mm.	26.4mm.																

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: $\phi 28.0\text{mm}$ — $\phi 28.6\text{mm}$. Stroke (w/ $\phi 28.6\text{mm}$ 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																
Calliper 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" x 20T.P.I. Cup Thread: English BC 1.37 x 24T.P.I. French M35 x 1.0 (BB-A200 Only) Italian M36 x 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 <table border="1"> <tr> <td>Mark</td> <td>D-3H</td> <td>D-5H</td> </tr> <tr> <td>Width</td> <td>70</td> <td>68</td> </tr> <tr> <td>Length</td> <td>115</td> <td>113</td> </tr> </table> Spindle: BB-CS10 <table border="1"> <tr> <td>Mark</td> <td>D-H</td> </tr> <tr> <td>Width</td> <td>70 (36) 68 (BC)</td> </tr> <tr> <td>Length</td> <td>115</td> </tr> </table>	Mark	D-3H	D-5H	Width	70	68	Length	115	113	Mark	D-H	Width	70 (36) 68 (BC)	Length	115	
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Freehub FH-HG50	7-speed SIS Compatible UG/HG Compatible Type Spoke Holes: 36H., 32H. Hole PCD: 45 <table border="1"> <tr> <td>Q.L.D.</td> <td>126</td> </tr> <tr> <td>Axle Length</td> <td>137</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release/Nut</td> </tr> </table> Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Q.L.D.	126	Axle Length	137	Mounting Type	Quick Release/Nut	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish											
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Front Hub HB-RM50-F	Spoke Holes: 36H., 32H. Hole PCD: 38 <table border="1"> <tr> <td>Q.L.D.</td> <td>100</td> </tr> <tr> <td>Axle Length</td> <td>108</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release</td> </tr> </table> Axle Thread: 9mm. 228g.	Q.L.D.	100	Axle Length	108	Mounting Type	Quick Release	Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish											
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Axle Length	108																			
Mounting Type	Quick Release																			
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" 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-A550	Crank Thread: English BC 9/16" x 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: <table border="1"> <tr> <td colspan="2"></td> <td colspan="2">Press Race Diameter</td> </tr> <tr> <td colspan="2"></td> <td>Upper Cone & Lower Cap</td> <td>Lower Cone</td> </tr> <tr> <td>English/Italian</td> <td>BC1 x 24T.</td> <td>30.2mm.</td> <td>26.4mm.</td> </tr> <tr> <td>French</td> <td>M25 x P1.0</td> <td>30.2mm.</td> <td>26.4mm.</td> </tr> </table>			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	
		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.																	

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 Adjust Bolt 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: ϕ 28.0mm.— ϕ 28.6mm. Stroke (w/ ϕ 28.6mm 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 (Braze-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 Extension 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 Bracket BB-CS10	Narrow Type Chain Compatible Crank Length: 165mm., 170mm. Teeth: Top 52T., Low 42T. Crank Thread: English BC 9/16" \times 20T.P.I. Cup Thread: English BC 1.37 \times 24T.P.I. French M35 \times 1.0 (BB-A200 Only) Italian M36 \times 24T.P.I. 720g. (42T., 52T., 170mm.) 333g. (BB, Set BB-A200)	Sealed Mechanism (BB.)	Crank Arm: Aluminum•Barrel Finish Chain Ring: Steel•Paint Finish	Spindle: BB-A200 <table border="1"> <tr> <td>Mark</td> <td>D-3H</td> <td>D-5H</td> </tr> <tr> <td>Width</td> <td>70</td> <td>68</td> </tr> <tr> <td>Length</td> <td>115</td> <td>113</td> </tr> </table> Spindle: BB-CS10 <table border="1"> <tr> <td>Mark</td> <td colspan="2">D-H</td> </tr> <tr> <td>Width</td> <td>70 (36)</td> <td>68 (BC)</td> </tr> <tr> <td>Length</td> <td colspan="2">115</td> </tr> </table>	Mark	D-3H	D-5H	Width	70	68	Length	115	113	Mark	D-H		Width	70 (36)	68 (BC)	Length	115	
Mark	D-3H	D-5H																				
Width	70	68																				
Length	115	113																				
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 <table border="1"> <tr> <td>Q.L.D.</td> <td>126</td> </tr> <tr> <td>Axle Length</td> <td>137</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release/Nut</td> </tr> </table> Axle Thread: 10mm. 435g. (7-speed w/Quick Release)	Q.L.D.	126	Axle Length	137	Mounting Type	Quick Release/Nut	Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish													
Q.L.D.	126																					
Axle Length	137																					
Mounting Type	Quick Release/Nut																					
Front Hub HB-RM50-F	Spoke Holes: 36H., 32H. Hole PCD: 38 <table border="1"> <tr> <td>Q.L.D.</td> <td>100</td> <td>96</td> </tr> <tr> <td>Axle Length</td> <td>108</td> <td>104</td> </tr> <tr> <td>Mounting Type</td> <td colspan="2">Quick Release</td> </tr> </table> Axle Thread: 9mm. 228g.	Q.L.D.	100	96	Axle Length	108	104	Mounting Type	Quick Release		Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum•Dia-Cut Finish										
Q.L.D.	100	96																				
Axle Length	108	104																				
Mounting Type	Quick Release																					
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" \times 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" \times 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: <table border="1"> <tr> <td colspan="2"></td> <td colspan="2">Press Race Diameter</td> </tr> <tr> <td colspan="2"></td> <td>Upper Cone & Lower Cap</td> <td>Lower Cone</td> </tr> <tr> <td>English/Italian</td> <td>BC1 \times 24T.</td> <td>30.2mm.</td> <td>26.4mm.</td> </tr> <tr> <td>French</td> <td>M25 \times P10</td> <td>30.2mm.</td> <td>26.4mm.</td> </tr> </table>			Press Race Diameter				Upper Cone & Lower Cap	Lower Cone	English/Italian	BC1 \times 24T.	30.2mm.	26.4mm.	French	M25 \times P10	30.2mm.	26.4mm.	Sealed Mechanism	Lock Nut: Steel•Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: White, Silver, Black			
		Press Race Diameter																				
		Upper Cone & Lower Cap	Lower Cone																			
English/Italian	BC1 \times 24T.	30.2mm.	26.4mm.																			
French	M25 \times P10	30.2mm.	26.4mm.																			

EXAGE 500CX

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

Front Hub
HB-RM50-F



Freehub
FH-HG50



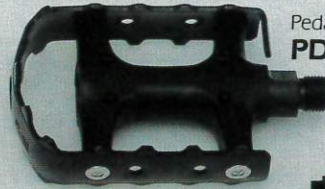
Cassette Sprockets
CS-HG50



Chain
CN-HG50



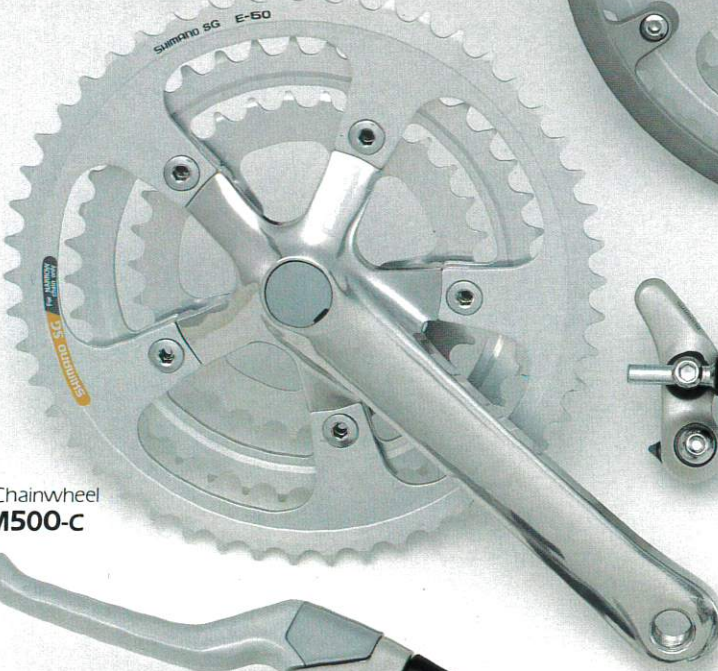
Pedal Sets
PD-M450



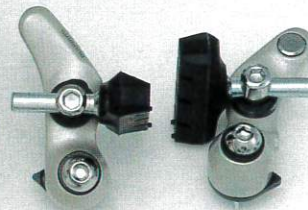
Sealed Cartridge Bottom Bracket
BB-UN50



Front Chainwheel
with Chain Guard
FC-M500-C



Front Chainwheel
FC-M500-C



Cantilever Brake
BR-C510



Head Parts
HP-R500



Rapidfire Lever Set
ST-M050-C

Rear Derailleur
RD-M500-C



Front Derailleur
FD-M500-C

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-Pants Mechanism Centering 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: 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. (Biospace HP) 26T. (Round) Band Diameter: φ28.0→φ28.6mm, φ31.8mm, φ34.9mm 121g.	Trailing Action Pantograph Mechanism Rigid Chainguide New Trapase Mechanism	Front Band: Aluminum•Paint Finish Rear Band: Aluminum•Paint Finish Right Link: Aluminum•Paint Finish Chainguide: Chrome Plated	Chainstay 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 Tension Adjuster	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 20T.P.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•Anodized 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 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, 16, 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 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	Height: Upper Cone 22.0mm. Lower Cone 11.5mm. 121g. Variation: Press Race Diameter Upper Cone & Lower Cap Lower Cone English/Italian BCI 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.

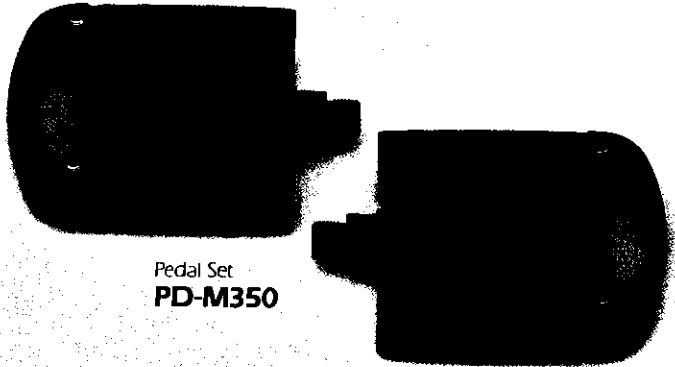


Shimano 200CX

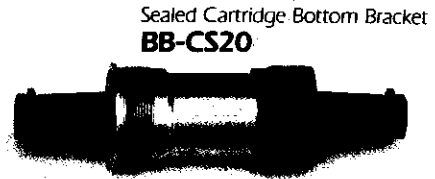
Model No.	Specifications	Features	Material/Finish	Note																			
Rear Derailleur RD-M200-C-SGS (Super Long Cage)	6 & 7-speed SIS Compatible Max. Rear Sprocket: 32T Min. Rear Sprocket: 12T Front Difference: 20T Total Capacity: 38T 310g.	Double Servo-Pantaflex Mechanism Centerton Guide Pulley 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: $\phi 28.0\text{mm}$ \rightarrow $\phi 28.6\text{mm}$ Stroke (CL) = 47.5J: 35-55 144g.	Rigid Chainguide Trapezoid 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-Tension 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: <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>Biopace SG</td></tr> <tr><td>Top</td><td>48T</td></tr> <tr><td>Middle</td><td>38T</td></tr> <tr><td>Low</td><td>28T</td></tr> </table> Crank Thread: English BC 9/16" x 20TPI Cup/Thread: English BC 1.37x 24TPI Italian M36x 24TPI	Biopace SG	Top	48T	Middle	38T	Low	28T	Computer Aided Design (Crank) Sealed Mechanism (BB)	Crank Arm: Aluminum-Paint Finish Chain Ring: Steel-Paint Finish	Spindle: <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>Mark</td><td>D-EL</td></tr> <tr><td>Width</td><td>73 (BC) 68 (BC)</td></tr> <tr><td>Length</td><td>127.5"</td></tr> </table> <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>Mark</td><td>D-NL</td></tr> <tr><td>Width</td><td>73 (BC) 70 (36) 68 (BC)</td></tr> <tr><td>Length</td><td>127.5"</td></tr> </table>	Mark	D-EL	Width	73 (BC) 68 (BC)	Length	127.5"	Mark	D-NL	Width	73 (BC) 70 (36) 68 (BC)	Length	127.5"
Biopace SG																							
Top	48T																						
Middle	38T																						
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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 <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>Q.L.D.</td><td>135</td><td>130</td></tr> <tr><td>Axle Length</td><td>146</td><td>141</td></tr> <tr><td>Mounting Type</td><td>Quick Release/Nut</td><td></td></tr> </table> Axle Thread: 10mm 435g. (7-speed w/Quick Release)	Q.L.D.	135	130	Axle Length	146	141	Mounting Type	Quick Release/Nut		Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum-Dia-Cut Finish											
Q.L.D.	135	130																					
Axle Length	146	141																					
Mounting Type	Quick Release/Nut																						
Freehub FH-HG20	7-speed SIS Compatible HG Compatible Type Spoke Holes: 36H Hole PCD: 45 <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>Q.L.D.</td><td>135</td><td>130</td><td>126</td><td>130</td></tr> <tr><td>Axle Length</td><td>146</td><td>141</td><td>137</td><td>130</td></tr> <tr><td>Mounting Type</td><td>Quick Release</td><td>Nut</td><td></td><td></td></tr> </table> Axle Thread: M10 425g. (7-speed w/Quick Release)	Q.L.D.	135	130	126	130	Axle Length	146	141	137	130	Mounting Type	Quick Release	Nut			Uni-Balance System Resin Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum-Dia-Cut Finish					
Q.L.D.	135	130	126	130																			
Axle Length	146	141	137	130																			
Mounting Type	Quick Release	Nut																					
Front Hub HB-RM50-F	Spoke Holes: 36H, 32H Hole PCD: 38 <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>Q.L.D.</td><td>100</td><td>96</td></tr> <tr><td>Axle Length</td><td>108</td><td>104</td></tr> <tr><td>Mounting Type</td><td>Quick Release</td><td></td></tr> </table> Axle Thread: 9mm 228g.	Q.L.D.	100	96	Axle Length	108	104	Mounting Type	Quick Release		Sealed Mechanism (Choice) One-Piece Forged Hub Body	Aluminum-Dia-Cut Finish											
Q.L.D.	100	96																					
Axle Length	108	104																					
Mounting Type	Quick Release																						
Cassette Sprockets CS-HG50 (7-speed)	7-speed SIS Compatible 7-speed HG Compatible Type Use Narrow Type Chain 268g. (Sprocket 1 Group)		Steel-Brown Finish & Silver Finish (Low Gear)	Cassette Sprocket Combinations: <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>E</td><td>12, 14, 16, 18, 21, 24, 28T</td></tr> <tr><td>F</td><td>14, 16, 18, 21, 24, 28, 32T</td></tr> <tr><td>G</td><td>13, 15, 17, 20, 23, 26, 30T</td></tr> <tr><td>H</td><td>13, 15, 17, 19, 21, 23, 26T</td></tr> <tr><td>I</td><td>13, 14, 15, 17, 19, 21, 23T</td></tr> <tr><td>J</td><td>13, 14, 15, 16, 17, 19, 21T</td></tr> <tr><td>K</td><td>13, 15, 17, 20, 24, 29, 34T</td></tr> <tr><td>L</td><td>12, 13, 14, 15, 17, 19, 21T</td></tr> <tr><td>M</td><td>13, 15, 17, 19, 21, 24, 28T</td></tr> </table>	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	
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 Bushings 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

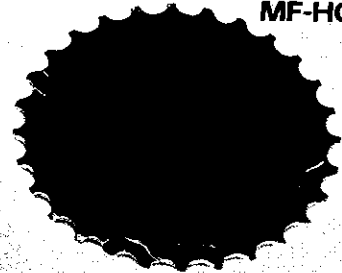
Advanced Shimano functions make cycling more enjoyable and safer for young cyclists.



Pedal Set
PD-M350

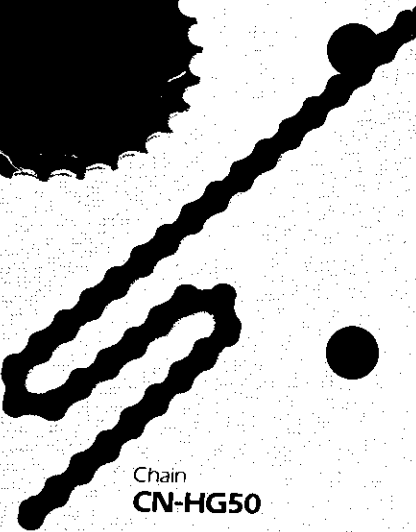
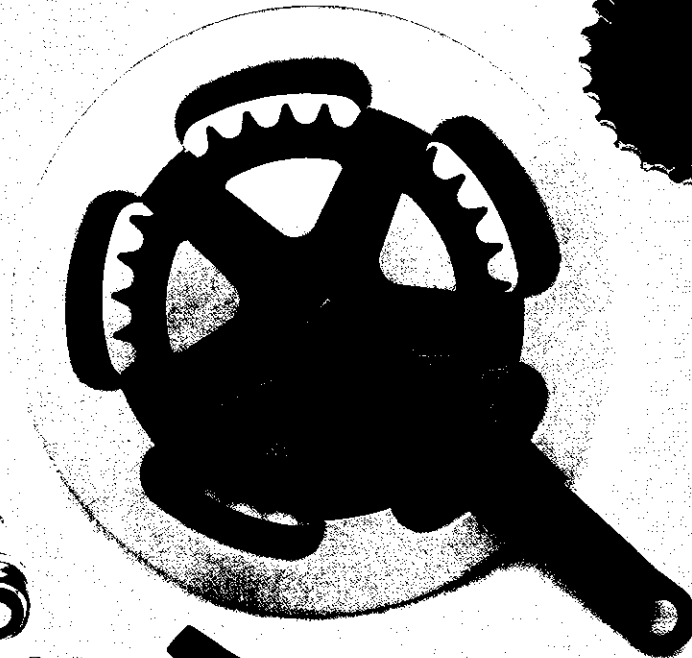
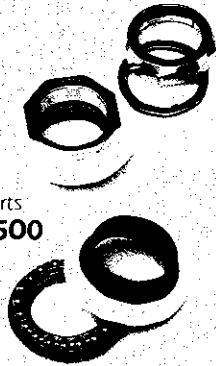


Sealed Cartridge Bottom Bracket
BB-CS20



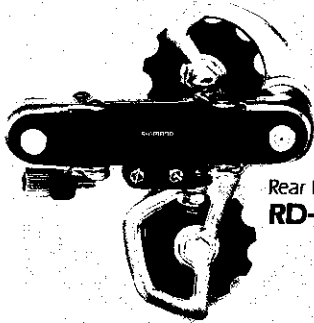
Multiple Freewheel
MF-HG20

Head Parts
HP-R500

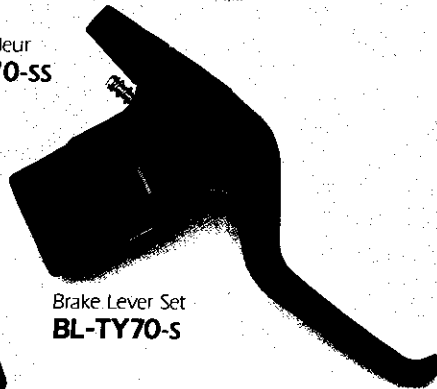


Chain
CN-HG50

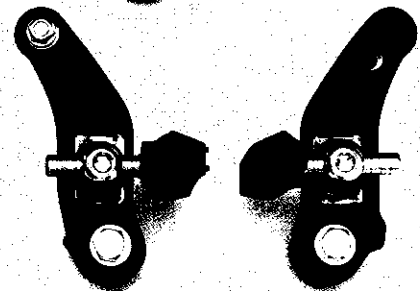
Front Chainwheel
FC-M100-w



Rear Derailleur
RD-TY70-ss



Brake Lever Set
BL-TY70-s



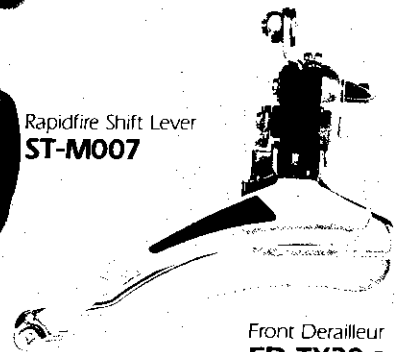
Cantilever Brake
BR-TY70



Rapidfire Shift Lever
ST-M007-w



Rapidfire Shift Lever
ST-M007



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.	Servo-Panta Mechanism Centeron Guide Pulley Double Spoke Barrier	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	Shimano SG Gear Compatible Narrow Type Chain Compatible Total Capacity: 14T (Round) Band Diameter: ϕ 28.0mm — ϕ 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 (for Front) ST-M007 (for Rear)	Double Chainwheel Use Lever Cramp Diameter: 22.2mm 6-speed SIS Compatible	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																			
Cantilever Brake BR-TY70 (Low Profile Type)	SLR (Shimano Linear Response) Compatible	Rigid 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-TY70-s (3-finger Type)	SLR (Shimano Linear Response) Compatible Lever Cramp 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: <table border="1" style="margin-left: 20px;"> <tr> <td></td> <td>Biopace SG</td> </tr> <tr> <td>Top</td> <td>44T</td> </tr> <tr> <td>Low</td> <td>32T</td> </tr> </table> Crank Thread: English BC 9/16" x 20TPI Cup Thread: English BC 137 x 24TPI Italian M36 x 24TPI		Biopace SG	Top	44T	Low	32T	Computer Aided Design (Crank Sealed Mechanism, BB)	Crank Arm: Steel+Resin Molding Chain Ring: Steel+Paint Finish	Spindle <table border="1" style="margin-left: 20px;"> <tr> <td>Material</td> <td>D-H</td> </tr> <tr> <td>Width</td> <td>70, 136, 68 (BC)</td> </tr> <tr> <td>Length</td> <td>115</td> </tr> </table>	Material	D-H	Width	70, 136, 68 (BC)	Length	115							
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Top	44T																						
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Material	D-H																						
Width	70, 136, 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, 15, 18, 20, 22, 24T. Y 14, 16, 18, 21, 24, 28T. Z 14, 17, 20, 24, 28, 32T.																			
Chain CN-HG50	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	MTB 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 HP-R501 (1-1/8")	Height: Upper Cone 22.0mm Lower Cone 11.5mm 121g Variation <table border="1" style="margin-left: 20px;"> <tr> <th>Model No.</th> <th>Type</th> <th>Thread</th> <th>Upper Cone & Lower Cap</th> <th>Lower Cone</th> </tr> <tr> <td rowspan="2">HP-R500</td> <td>English/Italian</td> <td>BC 1" x 24T</td> <td>30.2mm</td> <td>26.4mm</td> </tr> <tr> <td>French</td> <td>M25 x P10</td> <td>30.2mm</td> <td>26.4mm</td> </tr> <tr> <td>HP-R501</td> <td>English/Italian</td> <td>BC 1-1/8" x 26T</td> <td>34.0mm</td> <td>30.0mm</td> </tr> </table>	Model No.	Type	Thread	Upper Cone & Lower Cap	Lower Cone	HP-R500	English/Italian	BC 1" x 24T	30.2mm	26.4mm	French	M25 x P10	30.2mm	26.4mm	HP-R501	English/Italian	BC 1-1/8" x 26T	34.0mm	30.0mm	Sealed Mechanism Press Race Diameter.	Lock Nut: Steel+Pearl Bright Finish Upper Cup: Resin Lower Cup: Resin Color: HP-R500: White, Silver, Black HP-R501: Black	
Model No.	Type	Thread	Upper Cone & Lower Cap	Lower Cone																			
HP-R500	English/Italian	BC 1" x 24T	30.2mm	26.4mm																			
	French	M25 x P10	30.2mm	26.4mm																			
HP-R501	English/Italian	BC 1-1/8" x 26T	34.0mm	30.0mm																			

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 light weight 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.

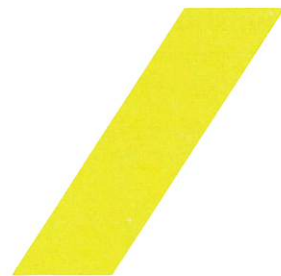
The conventional off-road bicycle has its shift lever mounted on top of the handlebar a position which forces the rider to change or loosen the grip on the bar in order to shift. This results in a certain amount of instability, loss of speed, and diverted attention when shifting.

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



RAPIDFIRE

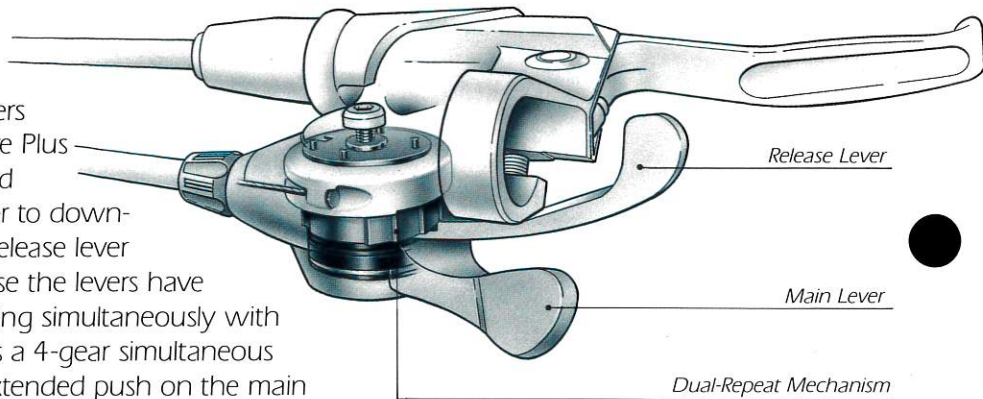
Rapidfire and Rapidfire Plus set the new standard in off-road shifting performance.

● 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 index finger too!

● 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, an 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.



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

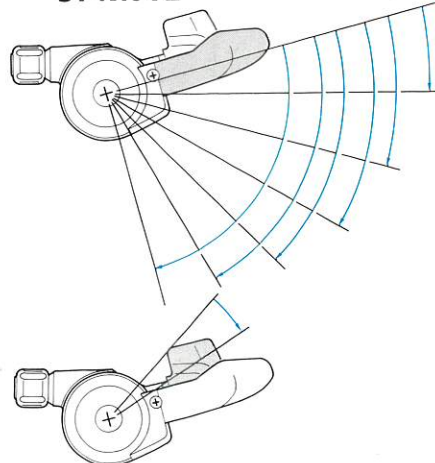
● Advantages

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, uphill, 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.

RAPIDFIRE PLUS

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

ST-M092

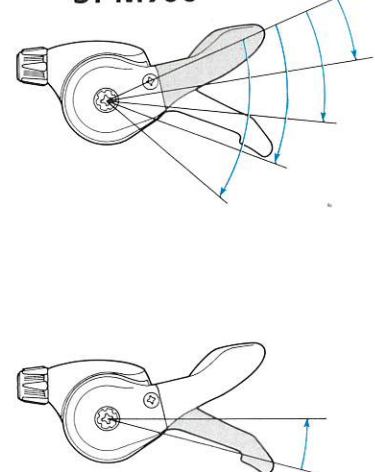


Downshifting

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

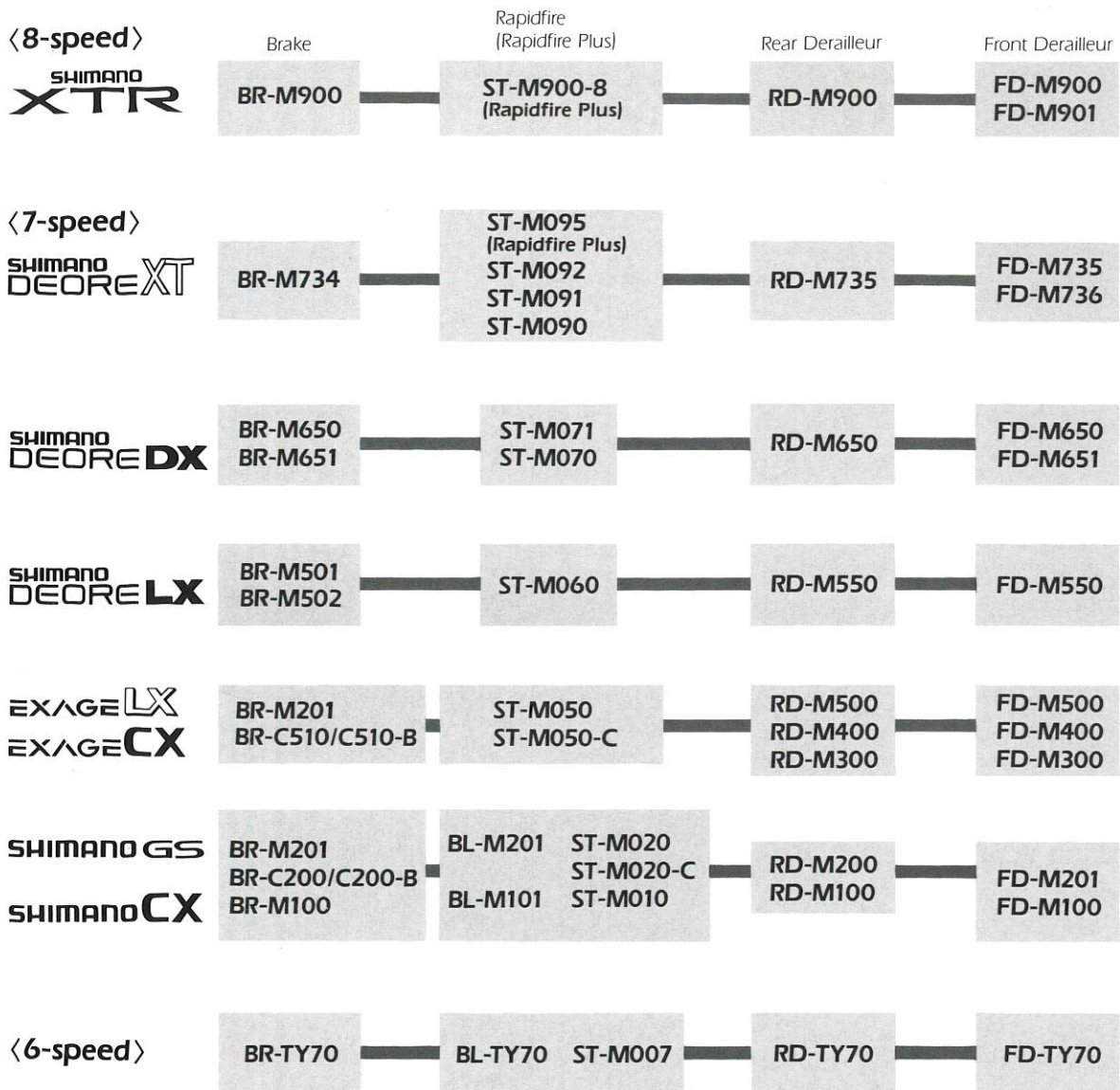
Upshifting

ST-M900



Some tips on Rapidfire applications...

Rapidfire Combination Chart



Brake Cables for Use with Rapidfire Levers

Rapidfire	Inner	Outer	Inner End/Outer Cap	Option
ST-M900	∅1.6mm	∅5.0mm		
ST-M095	∅1.6mm	∅5.0mm		
ST-M092	∅2.0mm	∅6.0mm		
ST-M091	∅2.0mm	∅6.0mm		
ST-M090	∅2.0mm	∅6.0mm		
ST-M071	∅1.6mm	∅5.0mm		
ST-M070	∅1.6mm	∅5.0mm		
ST-M060	∅1.6mm	∅5.0mm		
ST-M050	∅1.6mm	∅5.0mm		

Dual Control Lever

Shimano Total Integration redefines the racing bicycle.

● 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?

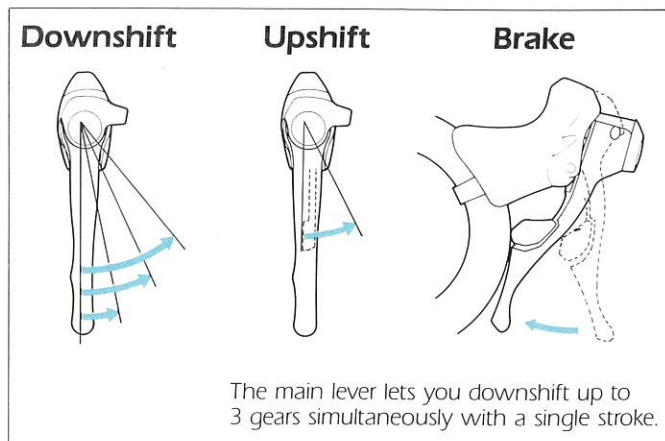
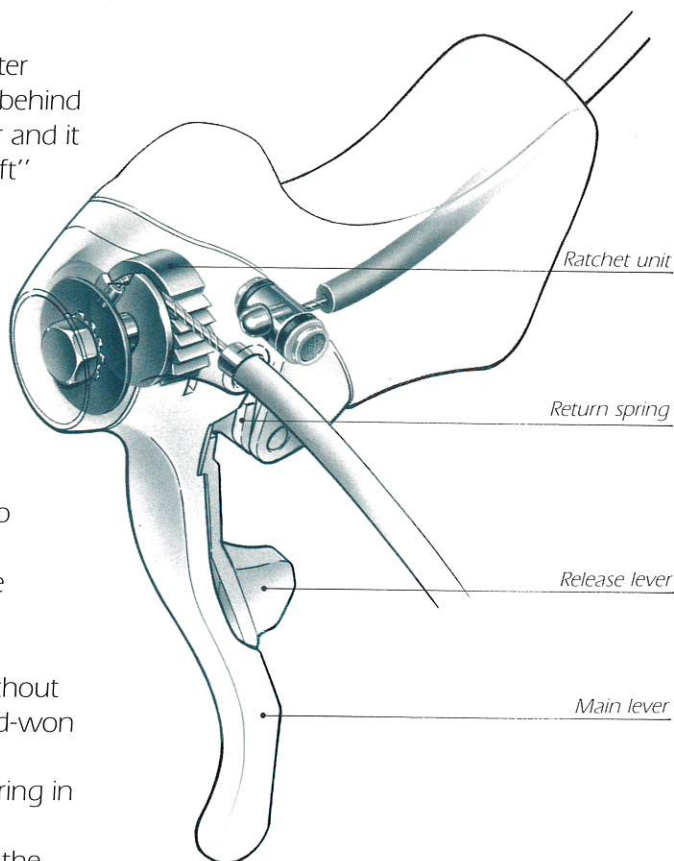
The ability to shift quickly and accurately has always been an important factor in bicycle racing. Being in the wrong gear at the wrong time has caused many a rider to lose a race or finish poorly. Shimano Total Integration has eliminated the adverse effect that shifting can have on the performance of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

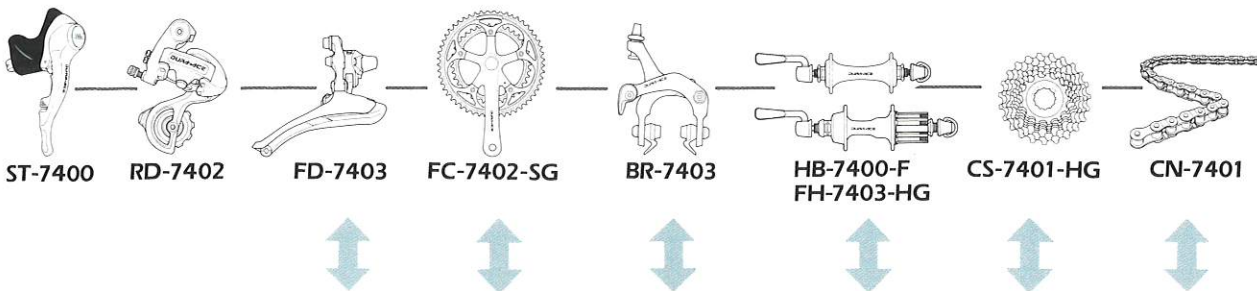
XTR	DEORE XT	DEORE DX	DEORE LX
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DURA-ACE	600 ULTEGRA	105SC	RX100
500EX	400EX	300EX	—



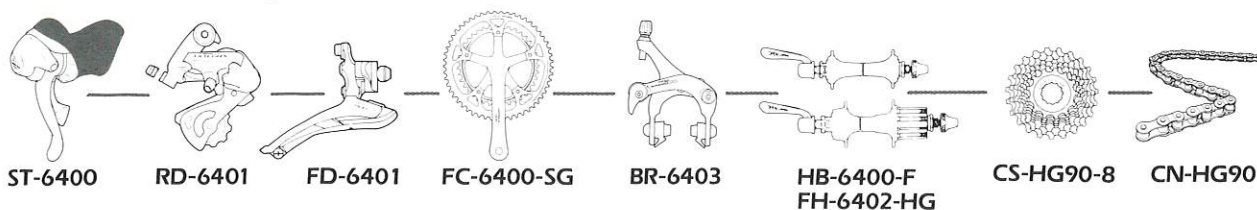
Some tips on dual control lever applications...

Component Combinations and Interchangeability

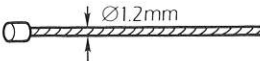


DURA-ACE 8-Speed

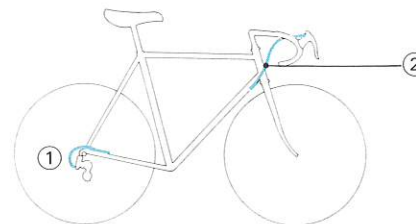


600 ULTEGRA 8-Speed



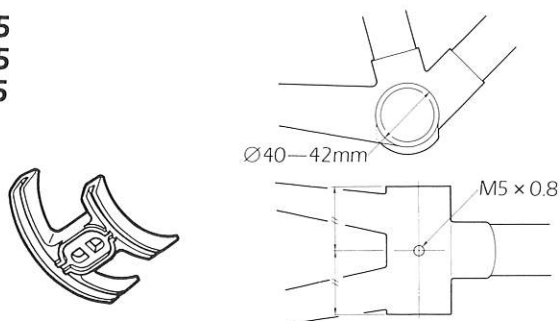
Applicable Shifting Cables

- Inner cable.....  Ø1.2mm
- SIS sealed outer casing ①.....  SHIMANO SIS SEALED Ø5mm
- SIS-SP outer casing ②.....  SHIMANO SIS SP Ø5mm



Recommended Small Parts

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



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.



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

●Just what is the Shimano Index System?

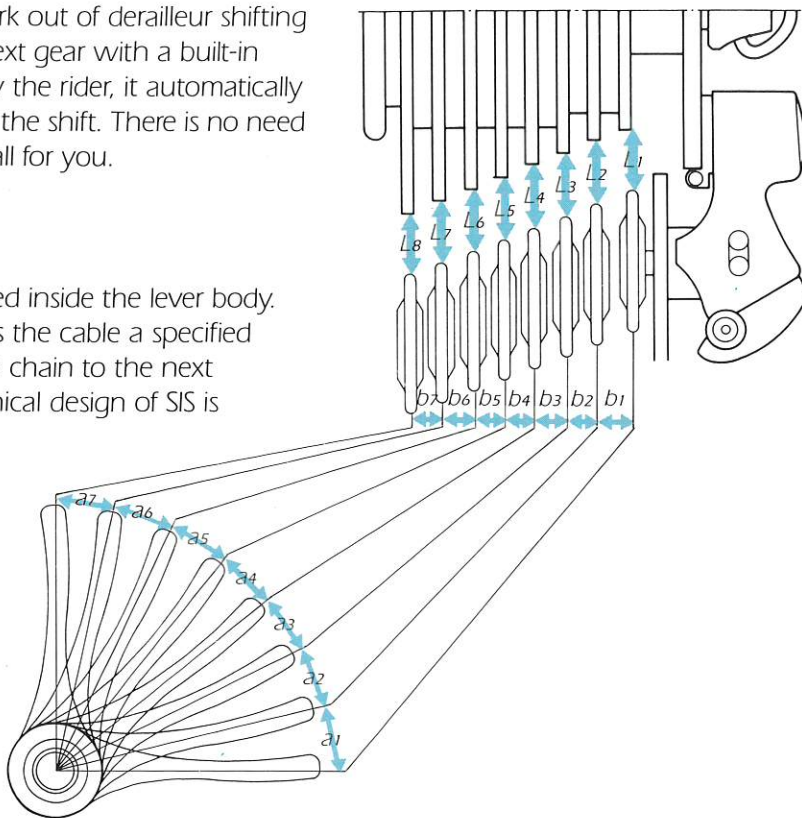
The Shimano Index System takes the guesswork out of derailleur shifting by using a shift lever that guides you to the next gear with a built-in indent action. Once the shift lever is moved by the rider, it automatically falls into the next indexed position to complete the shift. There is no need to "adjust" 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 indent 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 ($a_1 \sim a_7$), guide pulley position ($b_1 \sim b_7$), and sprocket position ($L_1 \sim L_8$).

Cable travel is not constant due to the pivotal action of the dual-pivot parallelogram derailleur which converts 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.

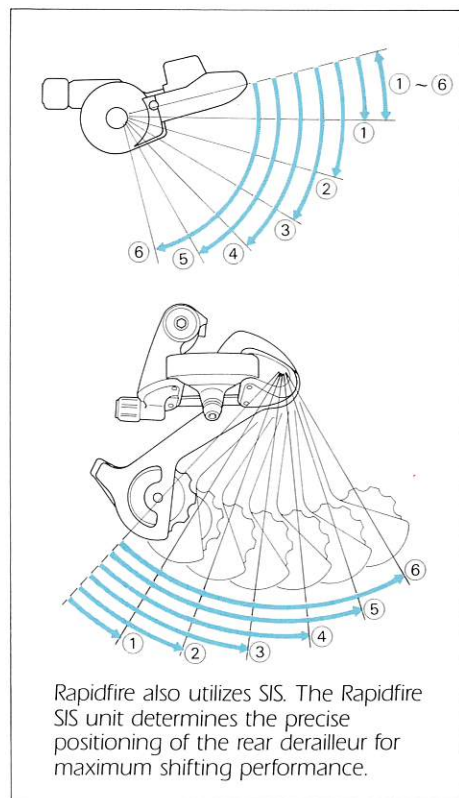


●What are the benefits to the rider?

With SIS, shifting performance no longer depends on the skill of the rider to manipulating 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.

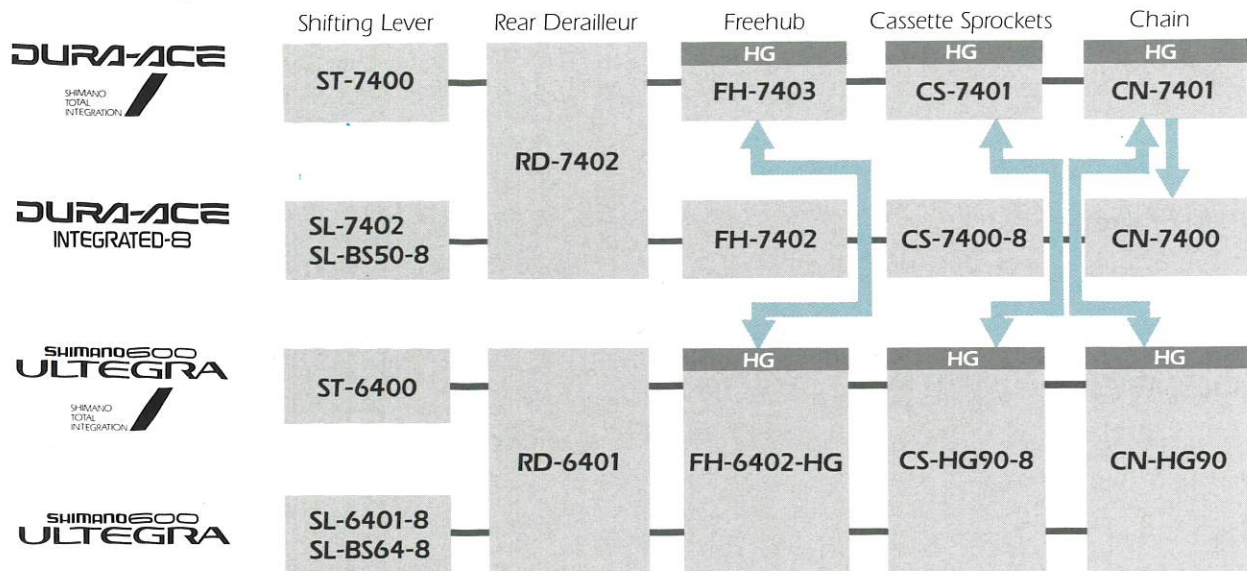
While SIS is a great performance aid for racing cyclists, it also helps all cyclists. Freed from the inconvenience of searching for gears and adjusting the derailleur, casual and sport cyclists alike find that SIS makes cycling a lot safer and more enjoyable.



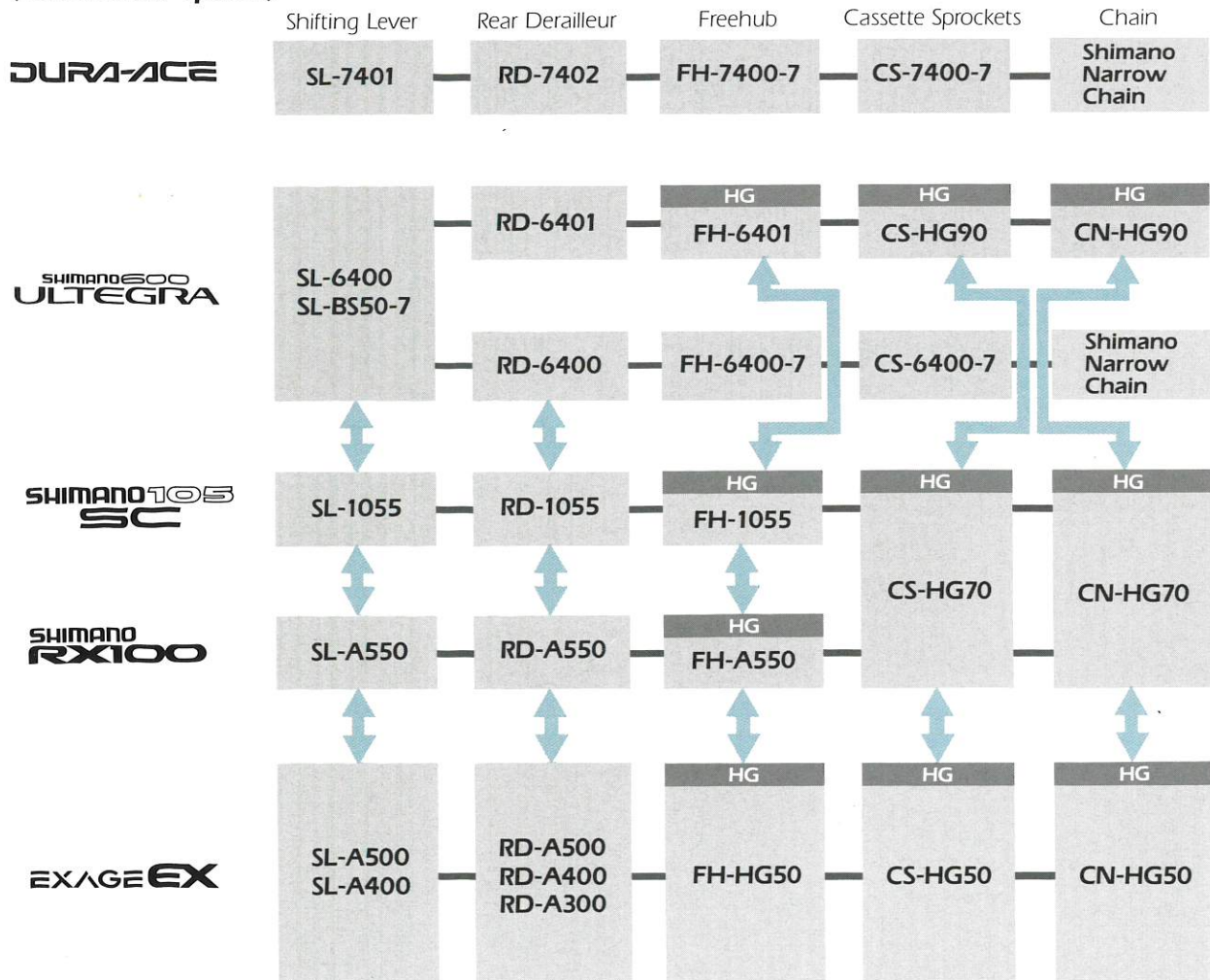
Some Tips on SIS applications...

■ Combination & Interchangeability

<On-Road 8-speed>



<On-Road 7-speed>



Some Tips on SIS applications...

■ Combination & Interchangeability

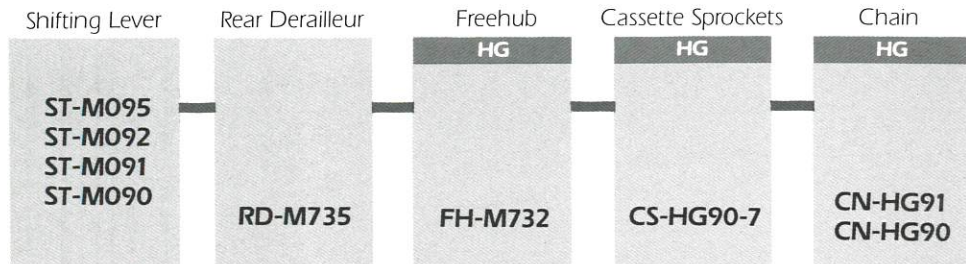
<MTB 8-speed>

SHIMANO
XTR

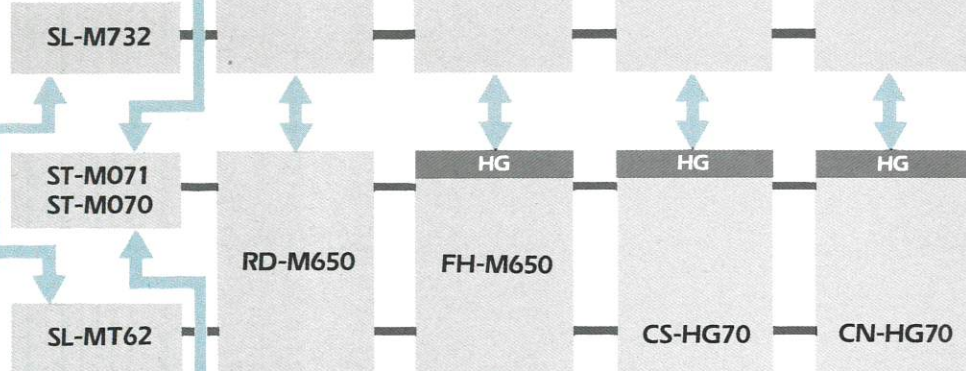


<MTB 7-speed>

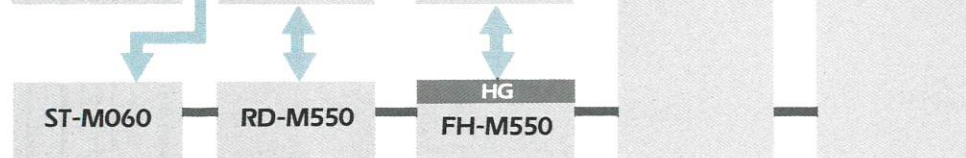
SHIMANO
DEORE XT



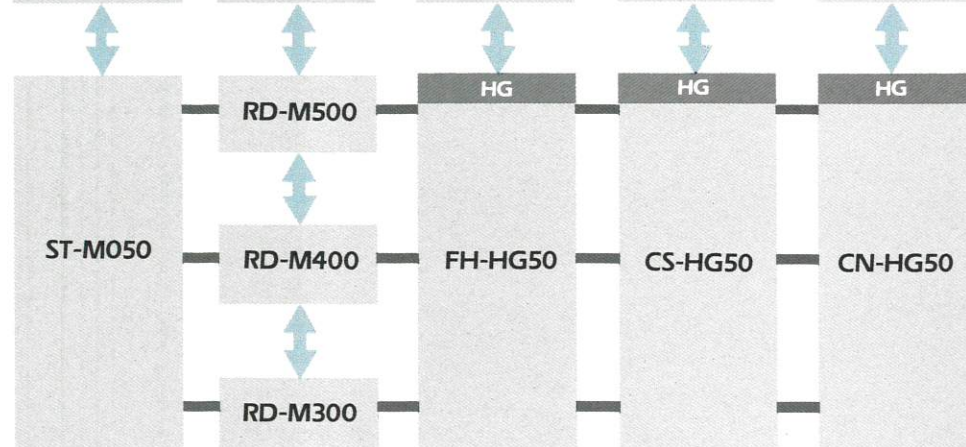
SHIMANO
DEORE DX



SHIMANO
DEORE LX



EXAGE
LX



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.

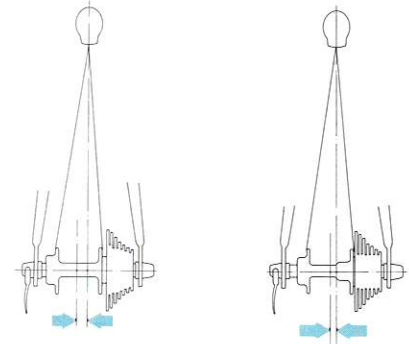
● How does the freehub work?

Besides integrating the hub body and freewheel into a single unit, the freehub features "unbalance" 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.

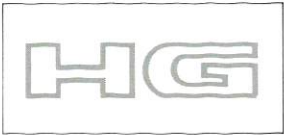
Some tips on Freehub applications...

■ 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)						
Built-In Spacer Type Second Gear						
Other Spline Gears (including flat type second gear)						
Sprocket Spacer A	No Need *3	No Need *3	No Need	Resin: Dark gray 3.3mm For second gear *Sprocket spacer A is unnecessary if a 12-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 	Steel: Silver 3.1mm 	Steel: Gray 3.65mm 	Resin: Dark gray 3.15mm 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.	For second gear-low gear
Sprocket Fixing Bolt		No Need				

← 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.

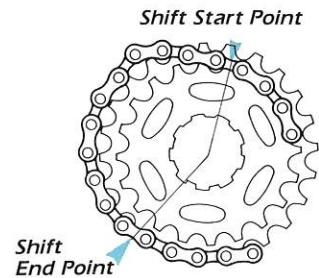
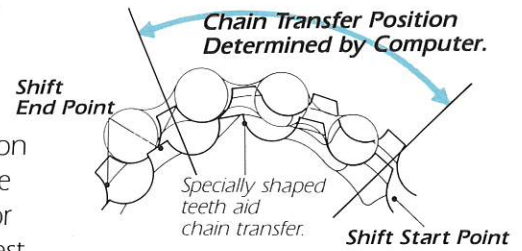
●How do the HG sprockets work?

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, imprecise shifts.

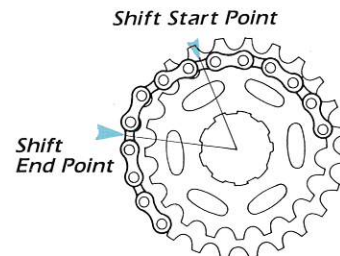
HG gears use specially shaped teeth and indexed sprocket positioning determined by computer. This allows the chain to move directly from one cog to the next without override and without slipping. Specified chain release and pickup points on the sprockets assure that the chain shifts quickly from one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

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.



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	23	26		
I		13	14	15	17	19	21	23			
J		13	14	15	16	17	19	21			

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

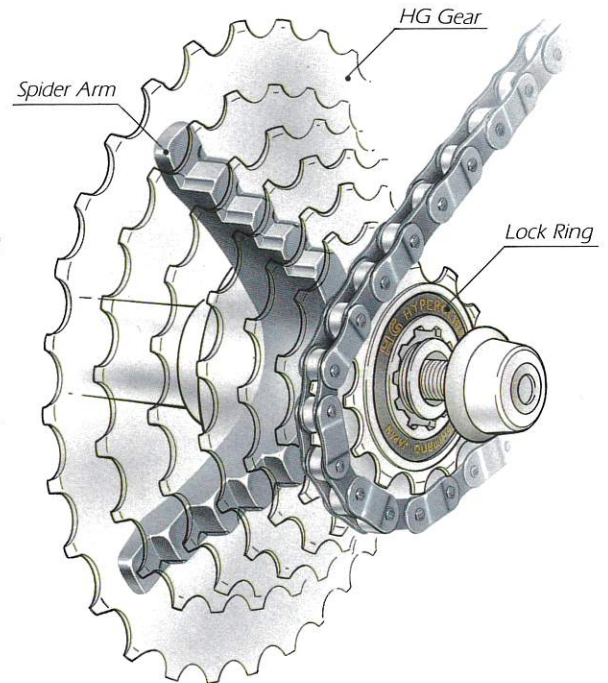
● Just what is the HG spider sprocket?

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.

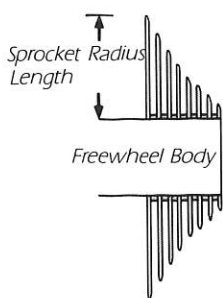
XTR	DEORE XT	DEORE DX	DEORE LX
500LX	400LX	300LX	—
200GS	100GS	70GS	—
DURA-ACE	600 ULTEGRA	105SC	RX100
500EX	400EX	300EX	—

● How it Works?

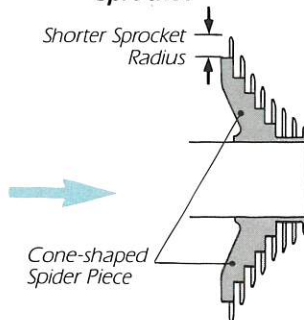
- The HG spider sprocket reduces the distance from the sprocket mounting point to the tip of the sprocket's teeth. This shorter distance acts to reduce sprocket flex, distortion, and bending.
- Conventional spline-type freewheels use separate sprockets which must be spaced evenly on the freewheel boss. 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.



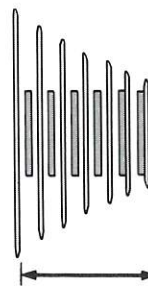
Conventional Cassette Sprocket



HG Spider Cassette Sprocket

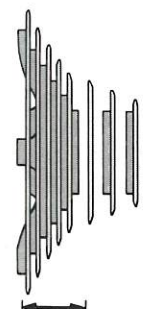


Conventional Type



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

Spider Sprockets



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.



Increased braking power with a more sensitive feeling of control.

●Just what is the "Shimano Linear Response"?

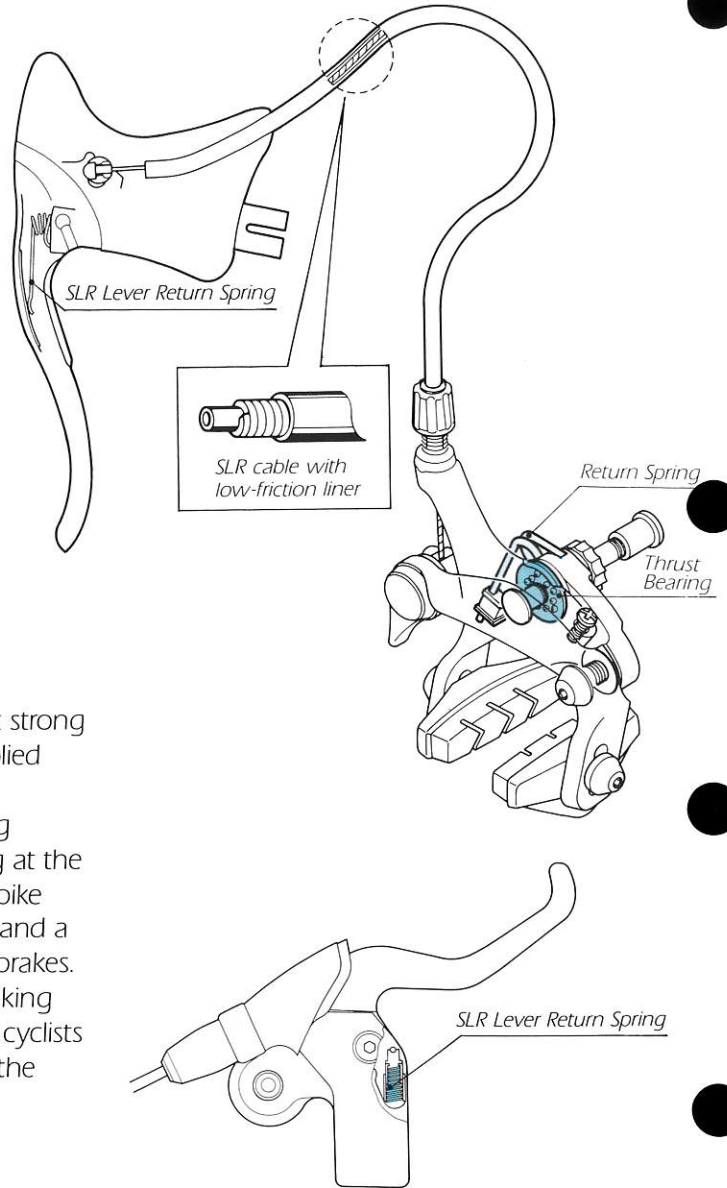
SLR utilizes special designs which eliminate a significant amount of friction from the levers, cables, and calipers of the brake system. The result is upgraded braking performance through a highly responsive lever feeling and strong, easily modulate stopping power.

●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?

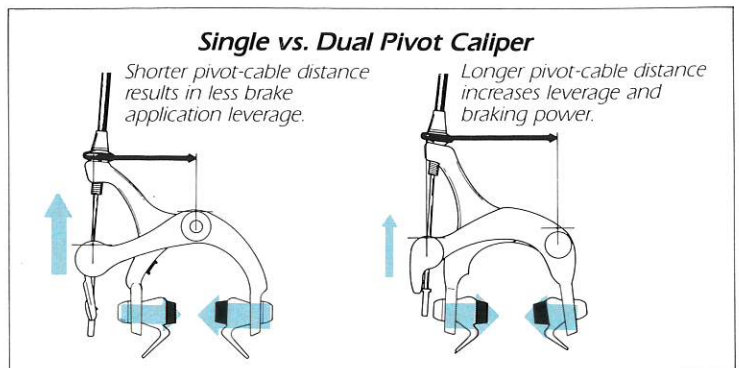
Balanced braking performance means a lot more than just strong braking power. If braking power cannot be effectively applied with optimum control, the brake system is inefficient and potentially dangerous. SLR delivers a higher level of braking control through a highly sensitive "linear response" feeling 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 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.



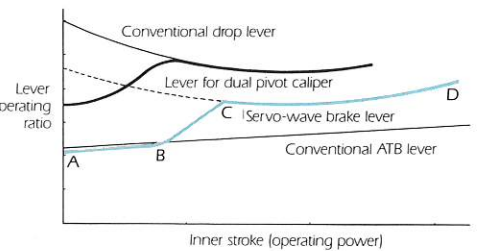
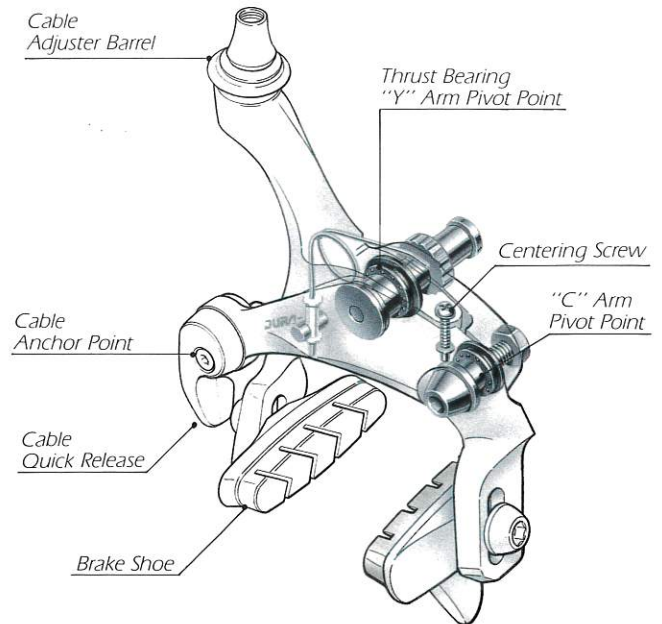
●How does Super SLR work?

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.



The ultimate in off-road braking performance.

●Just what is Shimano Linear Response Plus?

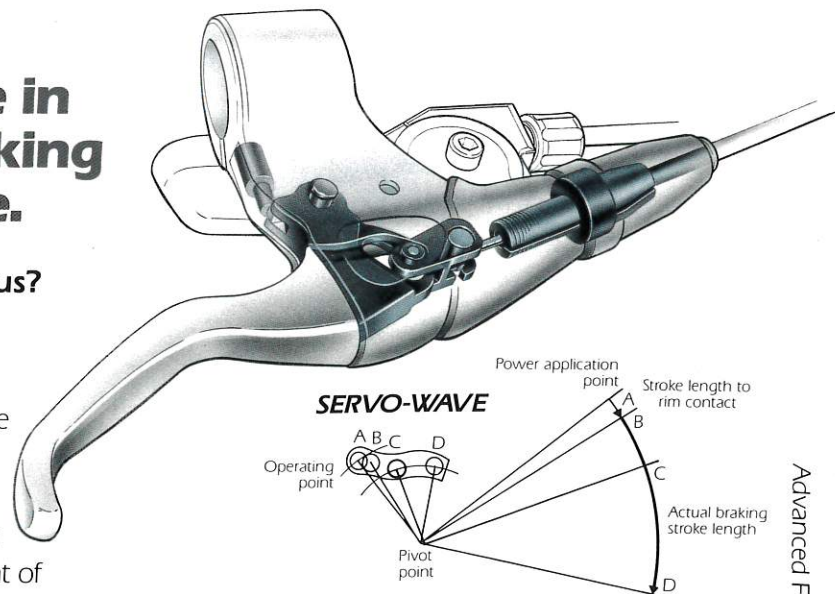
SLR Plus is a new high performance braking system for the off-road bicycle. The heart of the system is the "servo-wave" brake lever which actually increases the power multiplication advantage as the lever is pulled.

●How does the SLR Plus work?

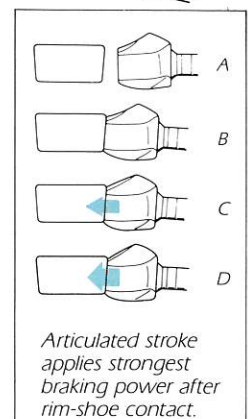
SLR Plus utilizes a unique cam-type cable holder and servo-wave link. As the lever is pulled, the pivot point of the servo-wave link changes its position in relation to the cable holder. This results in a faster shoe-rim contact time and an increase in lever output when it's really needed—after the brake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

●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.



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.



SHIMANO HYPERDRIVE

SHIMANO HYPERDRIVE

● Just what is Shimano HyperDrive?

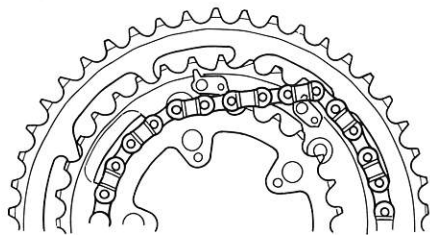
Shimano HyperDrive consists of upgraded designs for the crankset, front derailleur, bottom bracket, and left-side Rapidfire shift lever which now features an SIS-type click-stop shifting action. Shimano HD improves chainwheel shifting smoothness, speed, and responsiveness. These four components must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

● 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?

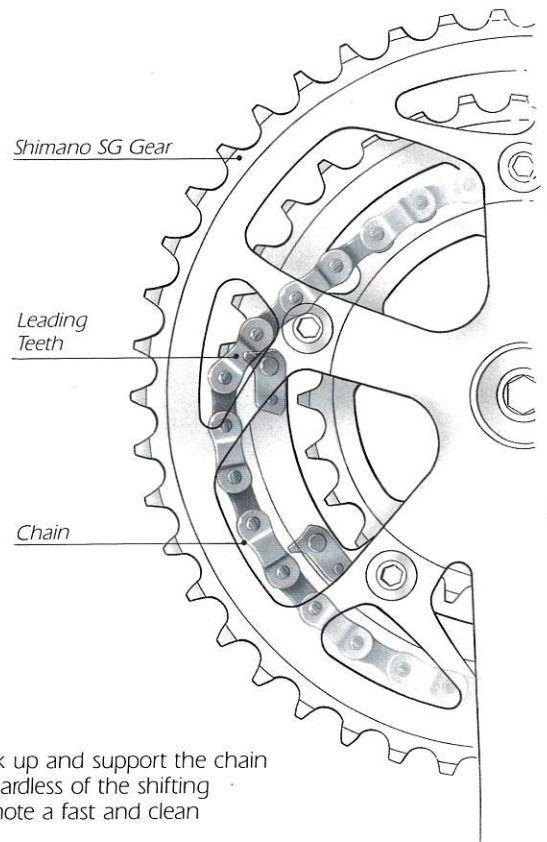
HyperDrive allows the cyclist to execute the traditionally difficult low-middle chainwheel shift without the need to overshift, feel the gear into place, or adjust the derailleur to prevent rubbing after the shift is made. Just like SIS, HyperDrive now makes possible front chainwheel shifting that's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



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

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

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



Some tips on Shimano HyperDrive applications...

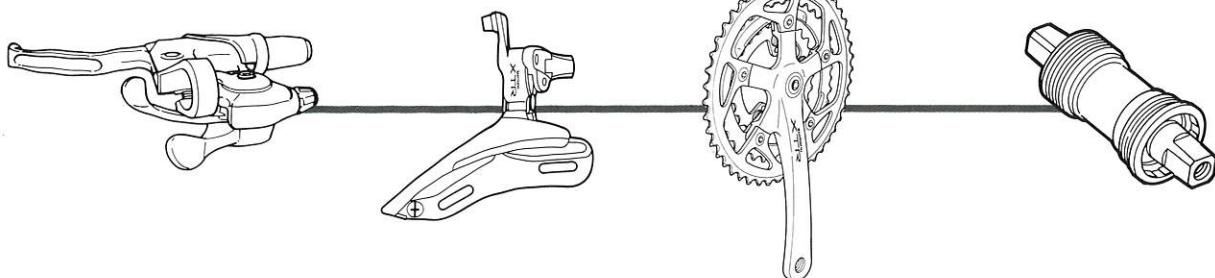
The Components Which Make Up Shimano HyperDrive

ST-M900
Left Rapidfire Plus 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?

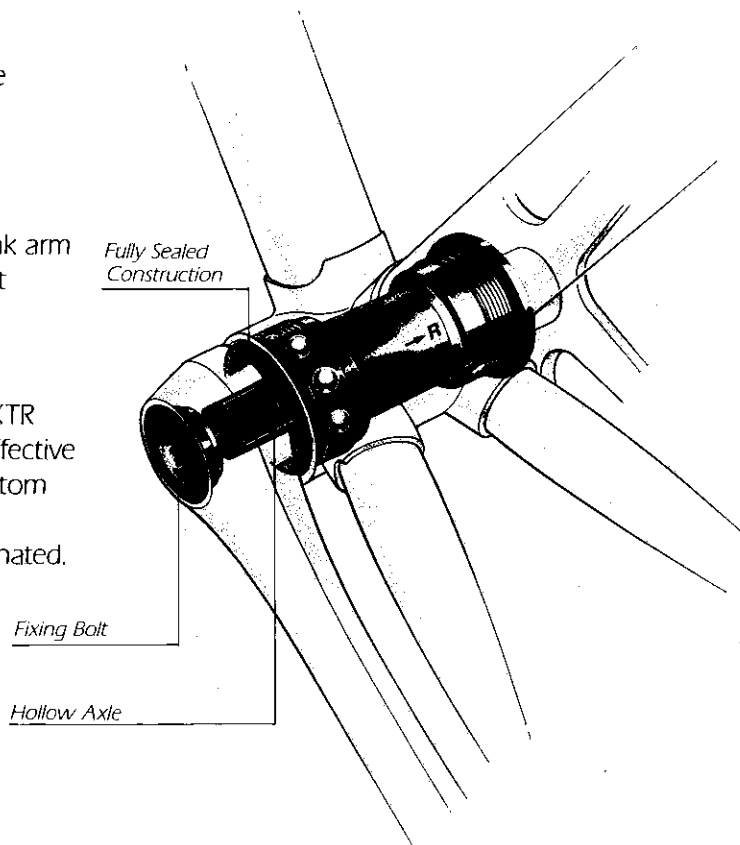
The separate ball bearings, cups, water seal, and axle of the conventional bottom bracket have been combined in a single integrated cartridge-type unit which eliminates the need for bearing adjustment and makes installation simple.

● 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?

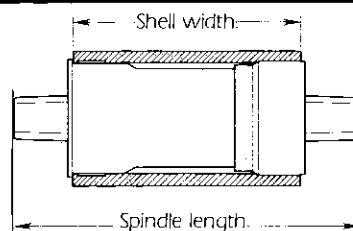
Because the crank arm extends into the bearing cup of the XTR cartridge bottom bracket, it forms an additional and highly effective seal against the invasion of water, mud, and dirt into the bottom bracket bearings. Furthermore, bottom bracket installation is simplified and the need to adjust bearings 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 x 24T	MM107
				70	M36 x 24T	MM107
		50	113	68	BC 1.37 x 24T	LL113
				73	BC 1.37 x 24T	LL113
BB-UN70 BB-UN50 BB-CS20 BB-CS10	Double	43.5	115	68	BC 1.37 x 24T	D-H
				70	M36 x 24T	D-H
	Road Triple	45	122.5	68	BC 1.37 x 24T	D-NL
				70	M36 x 24T	D-NL
	MTB Triple	47.5	127.5	73	BC 1.37 x 24T	D-NL
				68	BC 1.37 x 24T	D-EL
	50	127.5	73	BC 1.37 x 24T	D-EL	

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

(mm)

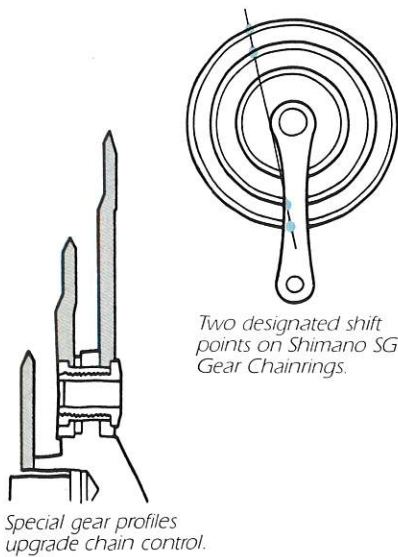
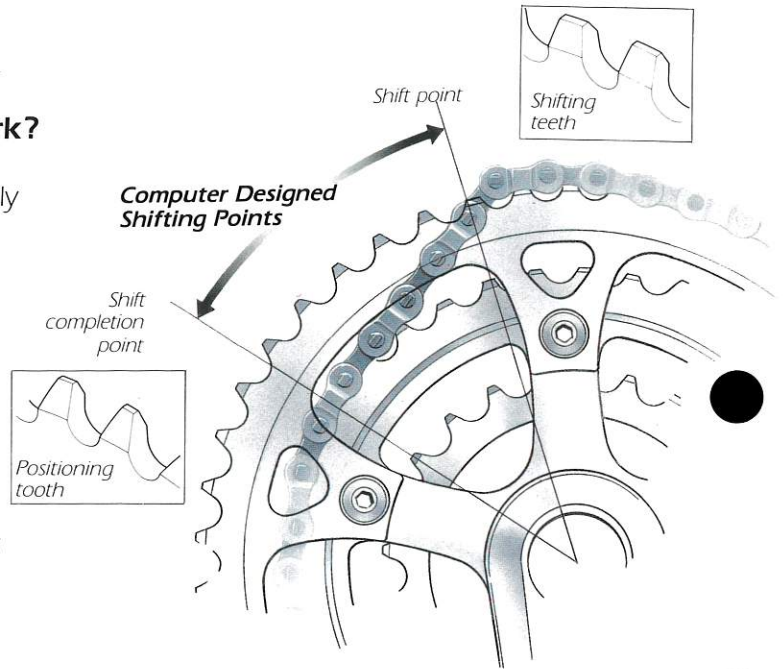
A new standard in chainwheel shifting performance.

●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.



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

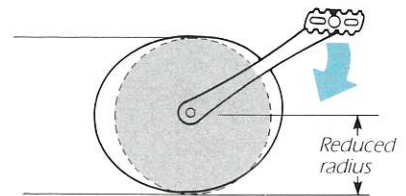
The Biopace concept was born when Shimano used a computer to analyze the pedaling motion with a round chainring. Computer analysis demonstrated that leg power was not being efficiently utilized. With the computer's help, Shimano found that a round chainring forces the leg to conform to a constant rotational 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.

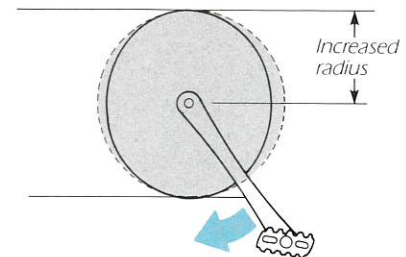
● What are the benefits for the rider?

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.

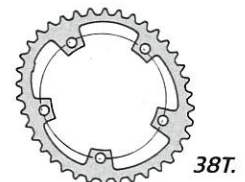
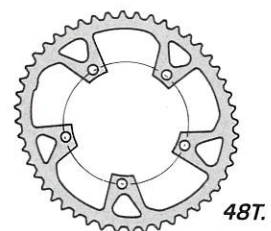


Chainwheel Radius is Reduced During the Downstroke.



Chainwheel Radius is Increased During the Upstroke.

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 versatility 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.

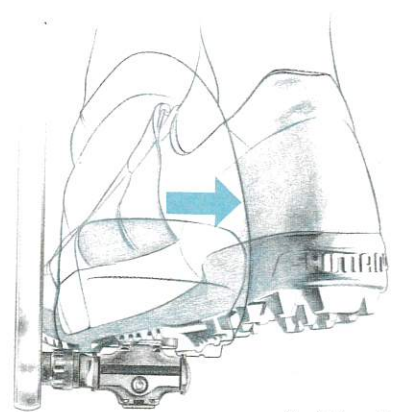
Just step onto the pedal to engage the cleat locking mechanism. Release is through a simple twist-out movement. The open architecture design prevents mud buildup and the cleat binding mechanism is incorporated on both sides of the pedal for easy entry without pedal flipping.

●What are the benefits for the rider?

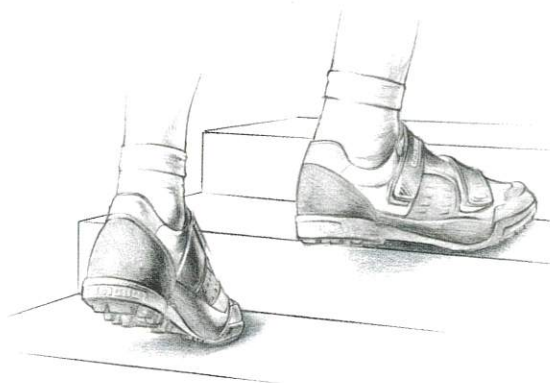
The main benefit to the rider is that SPD provides more versatility without sacrificing performance. On the bike, you get the same power transfer efficiency as if you were wearing a clipless racing shoe. Yet off the bike you can walk safely and comfortably just like you would wearing hiking shoes.

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.

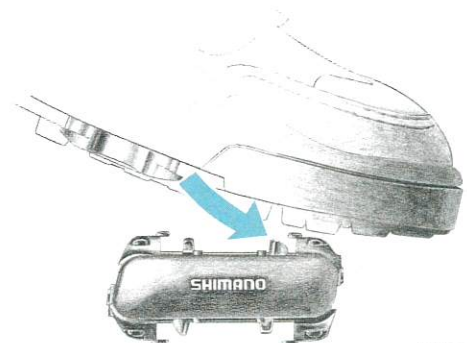
SPD gives you competition-level clipless pedaling efficiency on the bike. SPD also gives you the freedom to get off the bike and walk comfortably and safely. This versatility is the real advantage of SPD.



Twist-out



Recessed cleat



Step-in

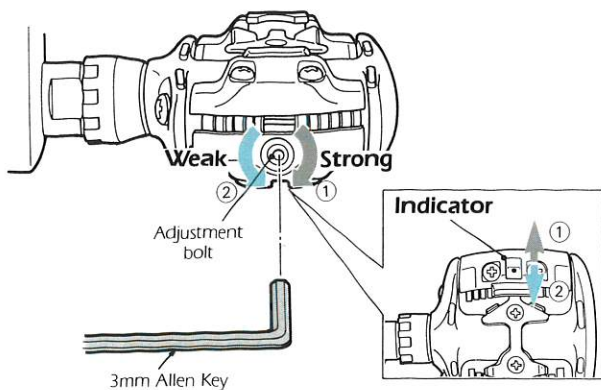
Some tips on SPD applications... (PD-M737/PD-M525)

■ Cautions during use

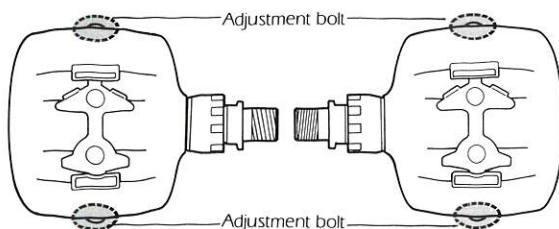
- Place one foot on the ground, practice engaging and disengaging from the pedal a number of times until you get used to it and then start to ride.
- First ride on the level ground and go to off-road riding only when you are used to engaging and disengaging from the pedal.
- First adjust the retention 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 or 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.

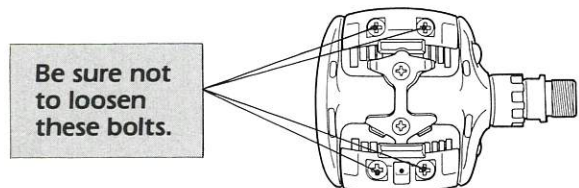
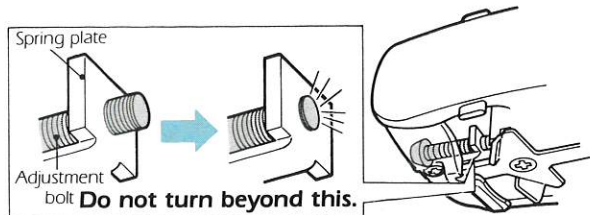


There are adjustment bolts in four places for each pair of pedals. Check the position of the indicator and the number of turns of the adjustment bolt so the spring tension is the same in all four positions.



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.

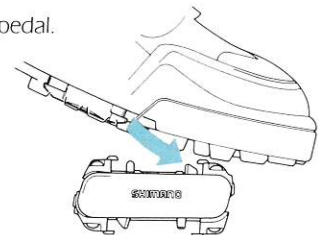
The spring tension changes in 3 steps with one turn of the adjustment bolt. The adjustment bolt turns nine complete turns. When it is turned all the way in the strong direction it suddenly becomes hard to turn. Do not turn it beyond that point. When turning in the weak direction, do not turn it any further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



■ Use

• Engaging

Press the cleat into the pedal.

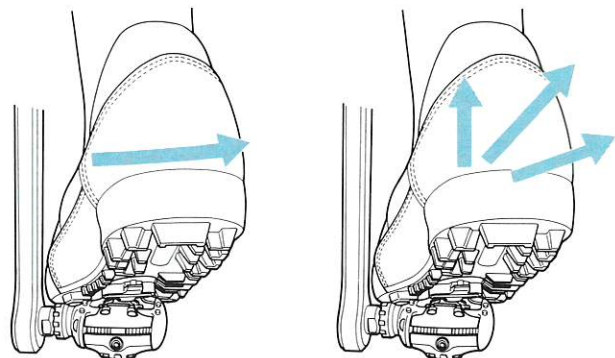


• Disengagement

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

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)
- Materials Upper: Non-stretch synthetic leather
Sockliner: Cambrelle/EVA
Out-sole: High-impact resin
- Size 36, 37—47 in 1/2 sizes, 48 (23 sizes)
- Color Bright Silver



Racing/Performance Footwear
SH-T110

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.

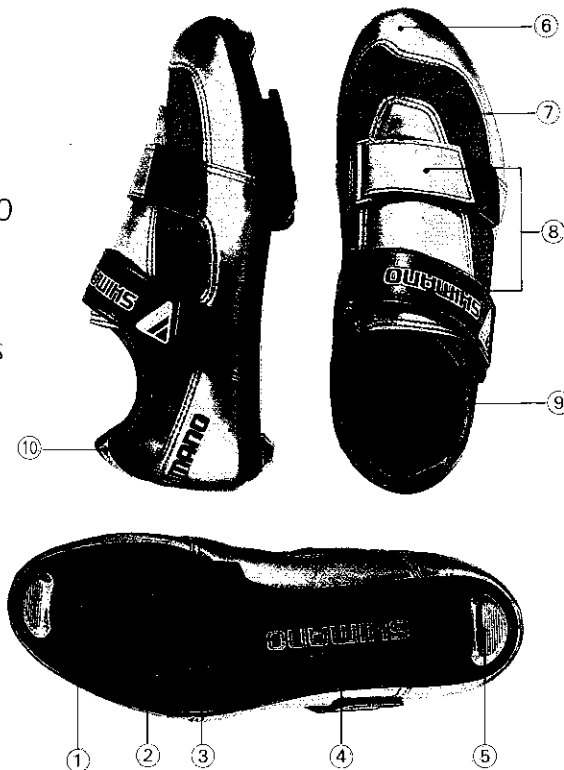
- Weight 657g. (pair/size 43-1/2 with cleat)
- Materials Upper: Polyurethane split leather and breathable nylon mesh
Sockliner: Cambrelle/EVA
Out-sole: High-impact resin
- Size 36, 37—47 in 1/2 sizes, 48 (23 sizes)
- Color Black w/bright silver straps



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 repellent 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

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)
- Materials Upper: Non-stretch synthetic leather and Cordura nylon
Sockliner: Cambrelle/EVA
Out-sole: Rubber (treaded)
- Size 36, 37—47 in 1/2 sizes, 48 (23 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)
- Materials 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)
- Materials 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



SPD Footwear
SH-M030

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-M050 a very comfortable shoe to walk in.

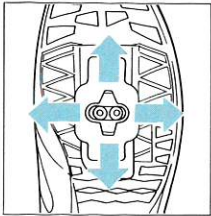
- Weight 810g. (pair/size 43 w/o cleat)
- Materials Upper: Split leather & breathable nylon mesh
Out-sole: Rubber (hiking tread design)
- Size 36—48 (no half sizes)
- Color Light Gray



SH-M200

The SH-M200 is the top-of-the-line SPD shoe for all-out off-road competition and all serious MTB 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.  Secures 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

SPD versatility in a new lightweight sport and fitness riding shoe.

- Weight 780g. (pair/size 43 w/o cleat)
- Materials Upper: Breathable nylon mesh
 Out-sole: Rubber
- Size 36, 37—47 (in 1/2 sizes), 48

NEW



SPD Pedal
PD-A525

- 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" x 20T.P.I.

NEW



SH-A100

"Hike-it or bike-it" versatility in a reasonably priced lightweight 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

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

FOOTWEAR ACCESSORY ITEMS

Small Parts

SM-SH24

Shimano Design—Look
Compatible Cleat w/Hardware
Code No. 40B9811



Small Parts

SM-SH30

Shimano Design—Standard
Pedal Cleat w/Hardware
Code No. 40B9801



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



Small Parts

SM-SH50 (black)

SPD Cleat w/Hardware
Single release mode
Code No. 4249801

SM-SH55 (silver)

Multiple release mode
Code No. 4249805



Reflector

SM-PD20

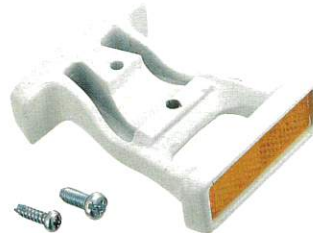
(for PD-M737, PD-M525)
Code No. 41A9804



Reflector

SM-PD30 (for PD-A525)

Code No. 4259801



SMALL PARTS & TOOLS

Tool

TL-CB10

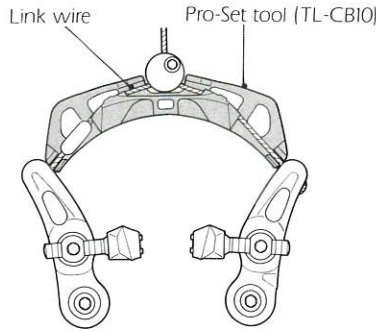
Pro-Set Tool for Cantilever Brakes.



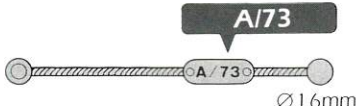

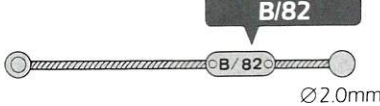
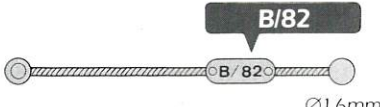



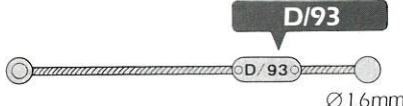




Code No. 3-8209801 (6 pcs.)

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.

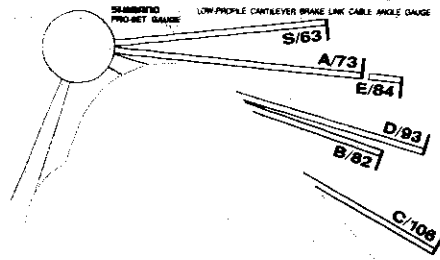


Type	Pro-Set Tool (TL-CB10)	Link Wire	Cantilever Brake
A	Color: Blue 		BR-M734 Front BR-M650 Front
			BR-M900 BR-M201 BR-M651 BR-C200 BR-M501 BR-C200-B BR-M502 BR-M100 BR-C510 BR-TY70 BR-C510-B BR-M352 Rear
B	Color: Violet 		BR-M734 Rear BR-M650 Rear
			BR-M501 Rear
C	Color: Yellow 		BR-M651 BR-M502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



How to Use

3

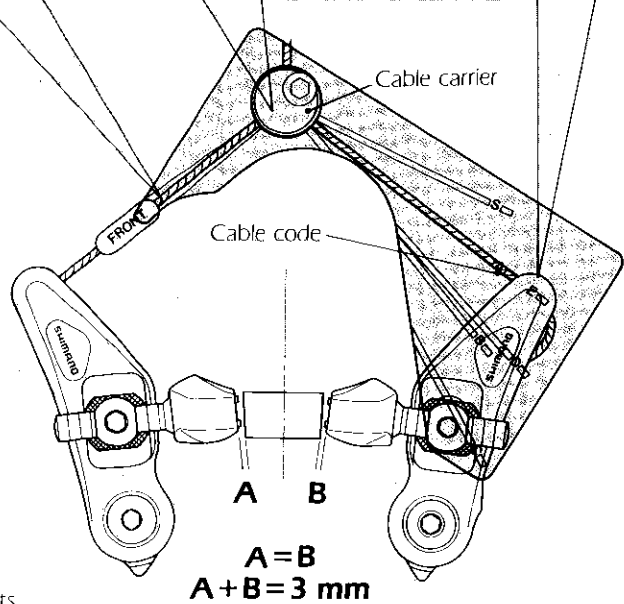
If the cable is positioned within the setting range of the Pro-Set gauge, the setting is correct.

1

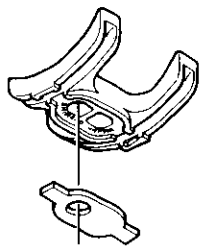
Set the circle of the Pro-Set gauge on the cable carrier, and align the cable with the line marked with the corresponding cable code.

2

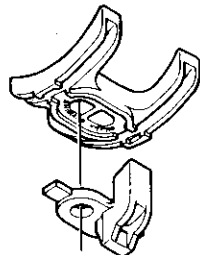
If the brake unit is aligned with the end mark of the line, the inner cable length has been set correctly.



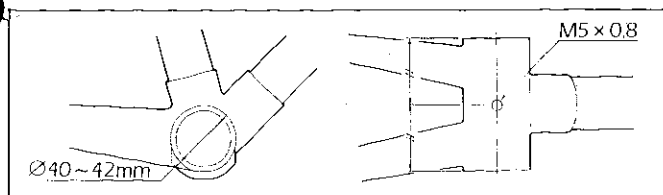
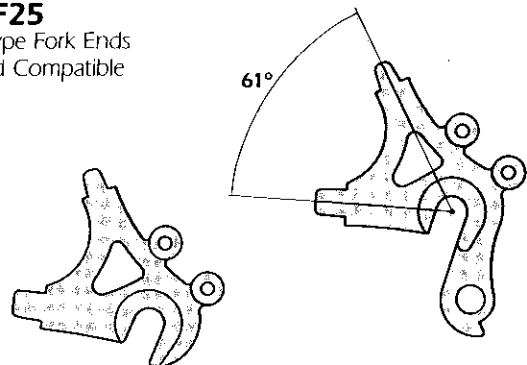
Small Parts
SM-SP55
Cable Guide



Small Parts
SM-MT55
Cable Guide (For U-Brake)



Small Parts
FE-SF25
MTB Type Fork Ends
8-Speed Compatible



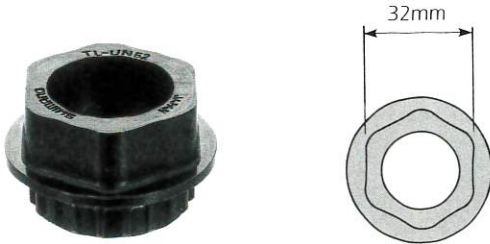
SMALL PARTS & TOOLS

Tool

TL-UN52

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

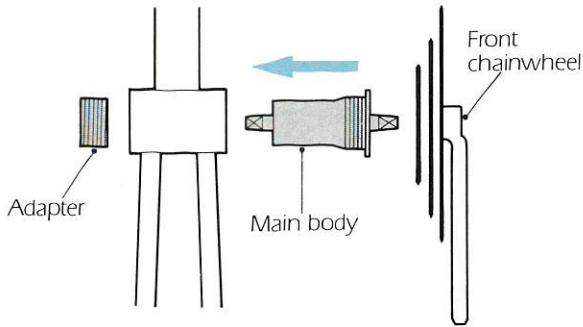
Code No. 13009063



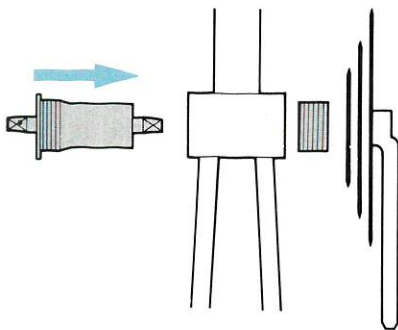
Tightening torque:
300 – 400kgfcm (260 – 350 in.lbs.)

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

Tool

TL-HG15

Lock Ring Tool for HG Sprockets

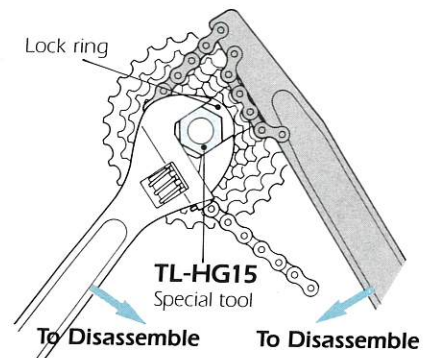
Code No. 1200918



- 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.



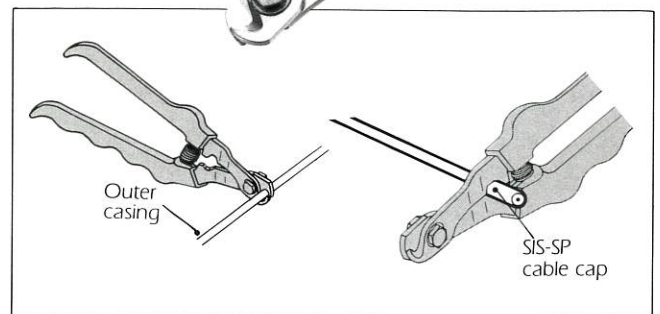
Tool

TL-CT10

Cable Cutter

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

Code No. 0980001



Tool
TL-CN21

Chain Cutter

HG chain must use this chain cutter.

Code No. 1309020

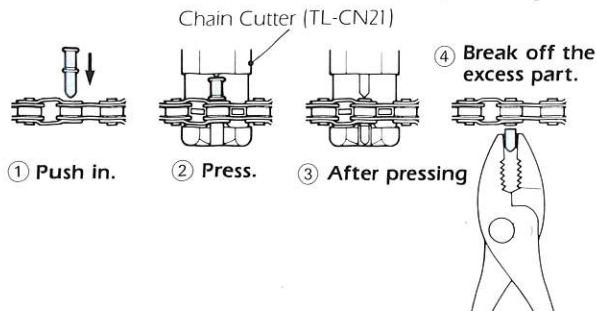


Reinforced Special Pin
for HG compatible chain.



Code No. 0459801 (3-piece) Code No. 0459802 (50-piece)

How to use the reinforced special pin



Tool
TL-FC30

Three Spanners Set
for front chainwheel, head parts
and pedal

Code No. 1309001



Tool
TL-FC10

Cotterless Crank Extractor
Code No. 1300901



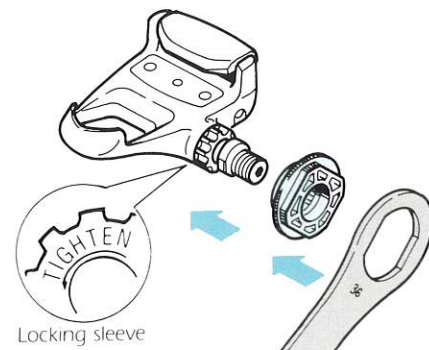
Tool
TL-PD40

Pedal Axle Unit Removal Tool
for PD-1056, PD-1055, PD-A550
and SPD Pedal.

Code No. 42A0900



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.



Shimano Limited Warranty

Shimano American Corporation and Shimano Canada Ltd. ("Shimano") warrants to the original retail purchaser purchasing in the United States or Canada that the Shimano product for which they received this warranty is free from defects in material and workmanship for a period of one year from the date of original retail purchase.

Limits of the Warranty

Shimano's sole obligation under this warranty is to repair or replace the product, at Shimano's option.

Limitations of Implied Warranties

The duration of any implied warranty or condition, of merchantability, fitness for a particular purpose, or otherwise, on this product shall be limited to the duration of the express warranty set forth above. In no event shall Shimano be liable for any loss, inconvenience or damage, whether direct, incidental, consequential or otherwise, resulting from breach of any express or implied warranty or condition, of merchantability, fitness for a particular purpose, or otherwise with respect to this product, except as set forth herein, some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

To obtain service under this warranty, you must send your Shimano product, together with the retail seller's original bill, your charge or credit receipt, or other satisfactory proof of the date of purchase of the product in the United States or Canada to Shimano American Corporation, One Shimano Drive P.O. Box 19615 Irvine, CA. 92713-9615. Any postage, insurance or shipping costs incurred in sending your Shimano product for service are your responsibility.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Warranty Explanation

This warranty in no way replaces or is an extension of a complete bicycle manufacturer's warranty. Retailers and wholesale outlets for Shimano products are not authorized to modify this warranty in any way.

It is the consumer's responsibility to regularly examine the product to determine the need for normal service or replacement.

This warranty does **not** cover the following:

1. Shimano products that have been modified, neglected or poorly maintained, used in competition or for commercial purposes, misused or abused or involved in accidents.
2. Damage occurring during shipment of the products (such claims must be presented directly to the carrier).
3. Damage to products resulting from improper assembly or repair.
4. Damage resulting from causes other than defects in materials and workmanship, including but not limited to, lack of technical skill, competence, or experience of the user.
5. Damage or deterioration to the surface finish, aesthetics or appearance of the product.
6. The labor required to remove and/or re-fit and re-adjust the product within the bicycle assembly.
7. Normal wear to the product.

Shimano American Corporation
One Shimano Drive P.O. Box 19615
Irvine, CA. 92718

For countries other than the United States or Canada please contact your distributor or agent.

SHIMANO

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One Shimano Drive, PO Box 19615, Irvine, California USA 92713-9615 Tel. (714) 951-5003

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