

SHIMANO

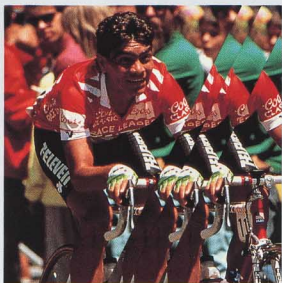
Bicycle System Components The Complete Line



A Whole New World of Shifting Performance

SIS

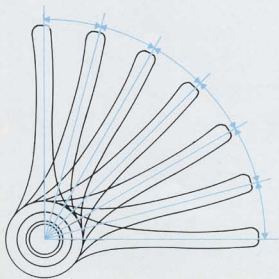
SHIMANO INDEX SYSTEM



The Shimano Index System finally takes the guesswork out of derailleur shifting. With SIS, shifting enters the digital age. One quick move of the click-stop SIS lever instantly gives you the gear you want without mis-shifts, chain grinding, or the need for further lever adjustments.

All cyclists, from beginners to pros, are now realizing the greater performance, convenience, and safety that SIS makes possible.

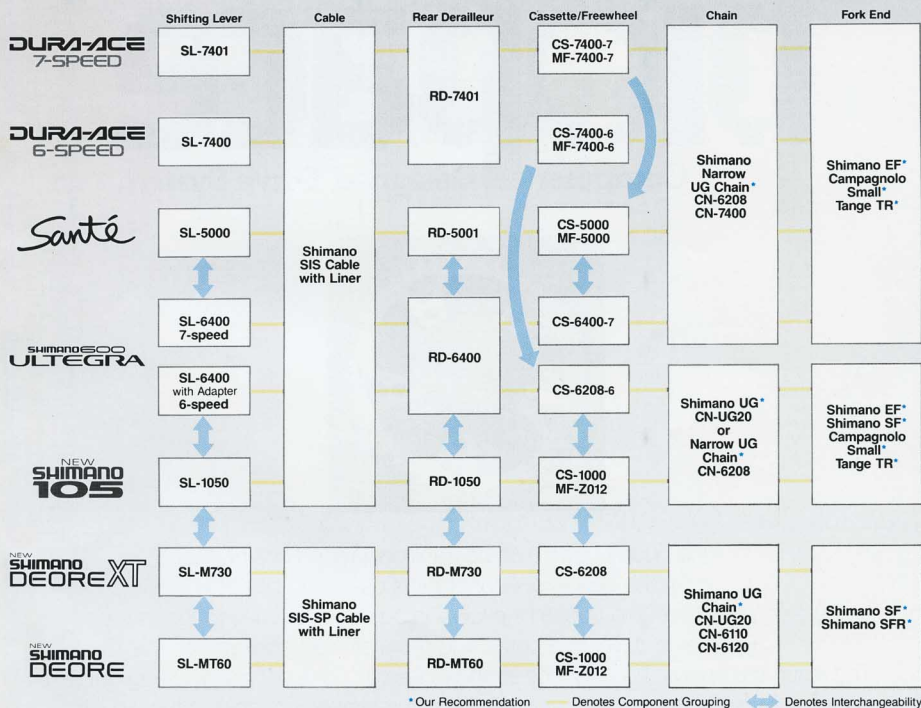
SIS is now standard equipment on all Shimano system component groups. It's a whole new world of shifting performance.



General Notes on SIS:

- SIS may not function properly if used with frames that route the shift cable inside the frame tubes. Excess friction and/or cable slack may impair free movement of the cable.
- Always use a Shimano designated SIS outer cable casing (liner type). Other types of cable casings may induce excess friction and/or casing compression that will impair cable movement and SIS performance.
- For optimum SIS performance, we recommend a Shimano UG type chain. Narrow types must be used for 7-speed SIS.
- Setup and adjustment procedures are essentially the same for all SIS component groups.
- An SIS-compatible rear derailleur with its Double Servo-Pantograph design will also provide superior friction shifting performance when used in friction mode or with non-Shimano levers.

SIS Combination Chart



Notes on SIS Interchangeability:

- Because of the differences in the shift lever stroke, SIS components of the Shimano 600 ULTEGRA, Shimano 105, and Santé groups are not interchangeable with Dura-Ace SIS components.
- SIS rear derailleurs from Shimano 600 ULTEGRA, Shimano 105, or Santé can be used with Dura-Ace levers (or vice versa), but the SIS function will be lost.
- All 6-speed SIS freewheels and freehubs have the same sprocket spacing. However, slight differences in sprocket design may affect shifting performance if components are mixed. For this reason we recommend using the designated freewheel of freehub for the group.
- The Deore XT rear derailleur will provide SIS shifting with all downtube type SIS shift levers excluding Dura-Ace and Santé.
- SIS components can be freely mixed if operation is planned only for normal friction shifting.

Greater Pedaling Efficiency

biopace

Computer-Designed Drive System



It's long been known that the traditional round chainwheel is not the best shape for efficient use of leg power.

Realizing this, Shimano applied the latest in computer simulation techniques in order to develop a better and more efficient chainwheel.

The result is Biopace. The Biopace shape (called a "point symmetrical egg curve") creates a cadence that closely matches the natural speed changes in the leg when pedaling. Compared to round chainwheels, Biopace actually saves energy.

Biopace lets you ride farther and more comfortably with less fatigue.

And you can climb hills easier too.

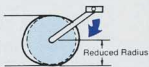
That's why we call Biopace the new shape of pedaling efficiency.

How it Works

Although there are more complex factors involved, here's basically how Biopace works. Chainwheel radius is decreased as the crank enters the downward power stroke. This allows the leg to push faster, much as it does naturally when walking or running. As the leg makes the transition from the power stroke to the return stroke at the bottom of its travel, chainwheel radius increases. This momentarily slows rotational speed and helps the leg to make better use of momentum gained on the power stroke, again a more natural movement. This area also reduces the energy-wasting "bump" effect felt at the bottom of the crank stroke with round chainwheels. Instead of forcing the leg to conform to a purely mechanical movement, Biopace adjusts crank speed to more closely match the natural movement of the leg as it rotates. This smoothes out the transition between muscle groups and creates a more efficient pedaling motion.

Power Stroke

Reduced Radius =
Increased Rotational
Speed



Transition Point

Increased Radius =
Decreased Rotational
Speed



Excellent Shifting Performance

Tooth profiles are longer where the chainwheel radius is smallest, and shorter where the radius is greatest. This means Biopace has an almost round shape at its outermost circumference. Smooth positive chain transfer is also aided at the points where the circumferences of the two chainwheels come closest. The result is shifting performance that's better than normal round chainwheels.

Improved Braking Control

SLR

SHIMANO LINEAR RESPONSE



Many cyclists, even some of the most experienced, still lack confidence in their ability to use the brakes safely and effectively. This is because conventional brake systems have offered little feedback at the lever.

The Shimano Linear Response System solves this problem with a dramatic improvement in braking performance. SLR incorporates new designs which significantly reduce friction in the lever, cable, and caliper unit.

The result is a lively and sensitive "linear response" lever feeling that allows a higher level of braking control.

SLR makes everybody a better, and safer, cyclist.



How SLR works...

1. The Caliper

The SLR caliper unit uses a special ball plate washer and two coated washers to reduce friction. (Some models have coated washers only.) Friction is further reduced through the use of resin block bearings at spring contact points.

2. The Cable

The SLR cable incorporates a special low-friction liner sleeve that assures smooth cable movement even under strong braking pressures.

3. The Lever

The SLR brake lever uses a low-friction pivot pin and lever return "helper" spring that contribute greatly to the sensitive linear-response feeling.

An Improved Rear Hub Design

THE SHIMANO FREEHUB



Shimano has solved the problems of the conventional rear hub with an advanced design that integrates the hub body and freewheel into a single unit called a freehub.

The freehub offers significant advantages.

For example, hub flanges can be positioned to reduce wheel dish.

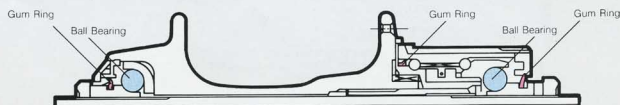
This allows more even spoke tensioning and lessens the chance of spoke breakage while increasing the wheel's strength against lateral loads.

Bearings can be positioned closer to the frame dropouts (where the wheel attaches to the frame) to form a wider and more rigid hub support.

This design eliminates the problem of bent axles.

Another refinement is that only the freehub's top gear is threaded.

The remaining sprockets utilize a common spline design for quick and easy slide-off/slide-on replacement. The Shimano freehub makes a significantly stronger rear wheel with greater hub/axle rigidity and improved power transfer efficiency. That's a real plus for all cyclists.



Get the Dura-Ace Advantage on the Track.

Front Chainwheel & Bottom Bracket Assembly

FC-7600

BB-7600 (B.B. Set)

- Exclusively Designed for the Track, Computer Aided Design (Crank), Removable Sealed Mechanism (B.B.)
- 21.3 oz. (605g.) (48T, 170mm.), 10.8 oz. (305g.) B.B. Set
- Light Alloy-Anodized Finish (Crank, Crank Arm Cap), Light Alloy-Hard Color Anodized Finish (High-tech Gray), Steel-Chrome-Plated (Fixing Bolt & Nut)
- Nickel Cr-Mo Axle ● Teeth: 46T ~ 52T (Option): 42T ~ 45T, 53-55T) 1/8" and 3/32" available ● Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm. ● Crank Thread: English BC 9/16 x 20 T.P.I.
- Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I. ● B.B. Size: 68-S-109mm., 70-S-109mm.

Hub

HB-7600 (Large & Small Flange)

- Precision Ground Cones, Diamond-Polished Mirror Finish (Cup & Cone), Sealed Mechanism, Composite-Type Design (Large Flange) ● 11.0 oz. (313g.) Rear Large w/ Lock Ring, 8.5 oz. (241g.) Front Large
- Forged Light Alloy-Anodized Finish (Hub Body), Polycarbonate Resin Composite Hub Flange ● Front: 394" (100mm.), Rear: 472" (120mm.) (One-Side or Both-Side Threaded Type) (Small Flange/Large Flange)
- Sprocket Thread: BC 1.37 x 24 T.P.I. (English) ● Lock Ring Thread: BC 1.29 x 24 T.P.I. (Left) ● Spoke Holes: 24H, 28H, 30H ● Spoke Hole Diameter: ϕ 2.2mm
- Fork End Slot Width: Front: 9mm. (Hollow Axle), Rear: 10mm. (Hollow Axle)

Sprocket

SS-7600 (Hub Sprocket for Track Model)

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

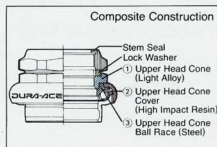
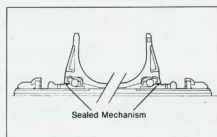
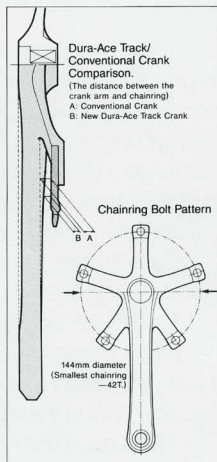
13T	1.1 oz. (31g.)
14T	1.3 oz. (38g.)
15T	1.6 oz. (44g.)
16T	1.9 oz. (53g.)

Head Parts

HP-7600

- Composite Structure, Sealed Mechanism, Super-Light Weight ● 3.2 oz. (90g.) ● Light Alloy-Anodized Finish (Lock Nut/Upper Cone Nut), High Impact Resin (Upper Cone/Lower Cup Covers), Bearing Steel (Upper & Lower Cup), Die Steel-CVD Finish* (Upper & Lower Cone) ● Height: Lower Sprocket 115mm., Total Stack 300mm.
- * Titanium Plated
- Variations:

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



DURA-ACE
ROAD

Dura-Ace Lets You Aim for the Top.

Dura-Ace was designed with only one purpose in mind—to give the racing cyclist a winning advantage in competition. In short, it's the most refined professional racing component system available today.

It starts with the Shimano Index System. Fast, precise, and error-free, the 7-speed SIS shifting function lets you concentrate on winning, not shifting.

Dura-Ace brakes provide strong yet sensitive stopping power which means you can dive deeper into turns and come out faster.

The advanced Dura-Ace freehub heightens power transfer efficiency through reduced axle flex and less rim offset in the rear wheel.

And it goes on. All the components in the Dura-Ace group have been designed with the same close attention to superior quality and maximum performance with minimum weight.

The result is a superior level of function that actually makes a difference in competition.

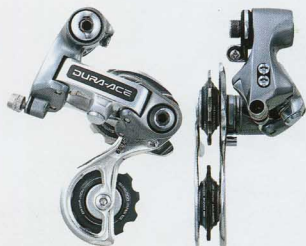
It's the winning advantage of Dura-Ace.



The Un



limited Challenge



Rear Derailleur RD-7401

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



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, Mount Brazed-on B Type)

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

- 7-speed SIS (Shimano Index System) • Sealed Mechanism, Non-loosening Mechanism, Human Engineered Design • SL-7401-FCBI: 2.3 oz. (65g.)
- Light Alloy-Buff Finish (Lever), Steel-Chrome-Plated (Fixing Bolt, Clamp) Zinc-Chrome-Plated (Top-mount Housing) • Down Tube Lever • Lever Clamp Diameter: 1-1/8" (28.6mm) • Use SIS with Dura-Ace 7-speed Rear Derailleur/Freehub/Freeheel/ Shimano SIS Outer Casing with Liner

* Conversion parts available for other mounting types.



Shifting Lever

SL-7400-BCAI (SIS, Side-Band A Type)

SL-7400-FCAI (SIS, Side-Brazed-on A Type)

SL-7400-FCBI (SIS, Brazed-on A Type M4.5)

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

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

* Conversion parts available for other mounting types.



Front Derailleur

FD-7400-B (Band Type)

FD-7400-F (Italian Brazed-on Type)

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

Front Chainwheel & Bottom Bracket Assembly

FC-7400 (Double)

BB-7400 (B.B. Set)

- Computer Aided Design (Crank), Sealed Mechanism (B.B.) • 22.5 oz. (637g.) (42T, 52T, 170mm.) 11.1 oz. (314g.) B.B. Set • Light Alloy-Anodized Finish (Crank, Chaining), Light Alloy-Etched-Anodized Finish (Crank Arm Cap), Steel-Chrome-Plated (Fixing Bolt) • Nickel Cr-Mo Axle • For 1/2" x 3/32" Chain Teeth: Inner: 39T - 46T, Outer: 48T - 54T • Crank Length: 165mm., 170mm., 172.5mm., 175mm. • Crank Thread: English BC 9/16" x 20 T.P.I. • Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I. • B.B. Size: 68-W-112, 70-W-113 • Bolt Circle Diameter: 130mm. (LD Type)



7-speed



6-speed



7-speed



6-speed



Hub

HB-7400-R (Rear Hub)

HB-7400-F (Front Hub)

- Sealed Mechanism, Lubricating Ports with Open/Close • 11.1 oz. (315g.) Rear, 8.0 oz. (228g.) Front
- Forged Light Alloy-Anodized Finish (Hub Shell)
- Resin-Black Finish (Dust Cap) • Steel-Chrome Plated (Quick Release Housing & Nut) • Quick Release, One-Piece Front & Rear Hub • Front: 100mm. O.L., Rear 6-speed, 126mm. O.L., • Spoke Holes: 28H, 32H, 36H

Freewheel

FH-7400-6/7 (Rear, 6-speed/7-speed)

CS-7400 (Cassette Sprockets)

HB-7400-F (Front Hub)

- 6 and 7-speed SIS Compatible • Sealed Mechanism, New Uniglide Teeth, Cassette Freehub, Uni-Balance System, Lubrication Ports with Open/Close
- 15.4 oz. (439g.) Rear 6 and 7-speed, 126mm. (w/o Sprocket), 8.0 oz. (228g.) Front, 7.3 oz. (208g.) Sprocket (6-speed 13-21T) & Spacer, 7.8 oz. (221g.) Sprocket (7-speed 12-21T) & Spacer • Forged Light Alloy-Anodized Finish (Hub Shell), Resin-Black Finish (Dust Cap), Steel-Chrome-Plated (Quick Release Housing & Nut) • Champagne Gold Finish (Sprocket)
- Teeth: Threaded Sprocket; 12T. - 16T, Spline Sprocket; 13T. - 28T, • Front 100mm. O.L., Rear 126mm., 130mm. O.L. • Spoke Holes: 28H, 32H, 36H (24H Available in Summer '88)
- Standard Sprocket Combinations:

6-speed	12, 13, 14, 15, 16, 17T	12, 13, 14, 15, 16, 17, 19T
	13, 14, 15, 16, 17, 18T	12, 13, 14, 15, 17, 19, 21T
	13, 14, 15, 17, 19, 21T	13, 14, 15, 16, 17, 19, 21T
	13, 15, 17, 19, 21, 23T	13, 14, 15, 17, 19, 21, 24T
	13, 15, 17, 20, 23, 26T	13, 15, 17, 19, 21, 23, 26T



Multiple Freewheel

MF-7400-6 (6-speed)

MF-7400-7 (7-speed)

- 6 or 7-speed SIS Compatible • Sealed Mechanism, New Uniglide Teeth, Lubricating Port on Freewheel body • 12.7 oz. (360g.) (6-speed 13, 14, 15, 17, 19, 21T), 12.9 oz. (367g.) (7-speed 12, 13, 14, 15, 17, 19, 21T)
- Steel-Champagne Gold Finish • For 1/2" x 3/32" Chain
- Standard Sprocket Combinations:

6-speed	13, 14, 15, 16, 17, 18T	12, 13, 14, 15, 16, 17, 19T
	13, 14, 15, 17, 19, 21T	12, 13, 14, 15, 17, 19, 21T
	13, 15, 17, 19, 21, 23T	13, 14, 15, 16, 17, 19, 21T
	13, 15, 17, 20, 23, 26T	13, 14, 15, 17, 19, 21, 24T
		13, 15, 17, 19, 21, 23, 26T



Seat Pillar

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

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

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

Handle Stem

HS-7400

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

UG Chain (DURA-ACE)

CN-7400

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



Brake

BR-7400-49 (Shin 49 Type)

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

Brake Lever

BL-7400 (Standard Type)

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

Brake Lever

BL-7401 (Aero Type)

- Aerodynamic Design, Anatomical Design, One-Step Cable Attachment • Lever Clamp Diameter: 24.2mm • 9.0 oz. (254g.) • High Tech Gray Anodized Finish (Lever)

Head Parts

HP-7400

- Road Type • Sealed Mechanism • 4.0 oz. (113g.) • Light Alloy-Anodized Finish (Nut, Cup), Light Alloy-Anodized Finish (Cone, Bearing Seal Insertion), Titanium-Plated (Lower Cone) • Height: Lower Stack 13.0mm., Total Stack 36.3mm.
- Variations:

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

Pedal

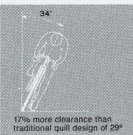
PD-7400

- 34° Road Clearance, Compound Structure of Needle bearing and Cup & Cone, Aerodynamic Design, Sealed Mechanism • Light Alloy: 13.1 oz. (372g.) pair (Including Toe Clip, L-size) • Light Alloy-Buff Finish (Body), Light Alloy-Anodized Finish (Front Plate), Light Alloy Black Solid Anodized Finish, Nickel Cr-Mo Steel-Chrome-Plated/Polished Finish (Axle), Steel-Chrome-Plated or Light Alloy-Anodized Finish (Toe Clip) • Toe-Clip Size: M, L, LL • Crank Thread: English BC 9/16 x 20 T.P.I.

Cleiss Pedal

PD-7401

- 34° Road Clearance, Precision Manufactured, Compound Roller and Ball Bearing Axle, Aerodynamic Dustcap less Design, Efficient Sealed Mechanism, Adjustable Cleat Grip Tension, Compatible with Look® Cleats • Weight: Pedal (Pair) 14.5 oz. (410g.)/Cleat & Hardware 3.0 oz. (85g.) • Light Alloy (Body), Nickel Cr-Mo Chrome Plated Axle with Precision Ground and Polished Surfaces • Crank Thread: English BC 9/16 x 20 T.P.I.



NEW

Santé
by SHIMANO

Perfor



formance by Design

A New Look for the Quality Bicycle

The high-tech design of the Santé component group creates a new sophisticated image for the performance bicycle.

But the real beauty of Santé lies beneath its elegant form where traditional Shimano quality and advanced functions come into play.

For example, Santé offers click-stop 7-speed SIS shifting, linear feedback SLR brake system, and energy-saving Biopace chainwheels. Crank strength is increased through a smooth aero design with dead-bottom pedal bores. Stainless steel derailleur pivots ride in brass bushings. And the list goes on.

This design integrity, combined with Santé's high-tech look of pure precision, results in the highest level of form and function ever offered in a quality component group.

So if you like to ride fast with style, consider Santé. It's performance by design.



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



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



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

Santé

by SHIMANO



Rear Derailleur

RD-5001 (Short Cage)

RD-5001-LS (Middle Cage)

● 6 & 7-speed SIS Compatible, Double Servo-Panta Mechanism, Centerton Guide Pulley, Sealed Mechanism, Ceramic Pulley Bushings, Bronze Pivot Bushings, Stainless Steel Pivot Pins, Double Spoke Barrier, Bracket Tension Adjustment Screw ● Maximum Rear Sprocket: 24T. (Short Cage), 23T. - 28T. (Middle Cage), Minimum Rear Sprocket: 12T., Maximum Front & Rear Sprocket Difference: 24T. (Short Cage), 28T. (Middle Cage) ● 6.7 oz. (191g.) (Short Cage) ● Light Alloy-Silver Paint (Bracket & Plate), Light Alloy-Pearl White Paint (Right Link), Light Alloy-High-Tech Gray Paint (Right Pulley Cage), Light Alloy-High-Tech Gray Anodized Finish (Left Link & Left Pulley Cage)

7-SPEED

SIS
Compatible



Shifting Lever

SL-5000-FCAl (7-speed SIS, Brazed-on A Type)

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

● 7-speed SIS (Shimano Index System) ● SIS/Friction Changeover, Integral "Light Action" Assist Spring, Sealed Mechanism, Human Engineered Design, Cable End Cover ● SL-5000-FCAl: 2.5 oz. (70g.) ● Light Alloy Pearl White Paint ● Down Tube Lever ● Lever Clamp Diameter: 28.6mm. ● SIS Application: For Use with 600 ULTEGRA (RD-6400) or Santé (RD-5001) Rear Derailleur

*Compatible parts available for other mounting types.

7-SPEED
SIS
Compatible



Front Chainwheel & Bottom Bracket Assembly

FC-5000 (Biopace Double, LD Type)

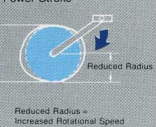
BB-5000 (a.b. Set)

● Chainwheel: Low Profile, Flush Surface Design, Biopace Chainrings, Available in 160mm. Crank Length ● B.B. Set: Compact Design, Sealed mechanism, Reduced Friction ● 24.3 oz. (689g.) (42.52T., 170mm.), 10.4 oz. (295g.) B.B. Set ● Forged Light Alloy-Pearl White Paint (Crank), Light Alloy-Silver Brown Anodized Finish-Pattern Etching (Chainrings), Resin-Chrome Plated (Crank Cap), Nickel Cr-Mo Steel-Black Anodized Finish (B.B. Axle) ● 1/2" x 3/32" Chain ● Teeth: 42T, 52T, 53T. (Biopace) ● Crank Length: 160mm., 165mm., 170mm., 172.5mm. ● Crank Thread: English BC 9/16" x 20 T.P.I., Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I. ● B.B. Size: 68-W-108, 70-W-108 ● Bolt Circle Diameter: 130mm. (LD Type)

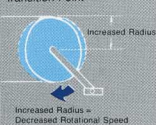
NEW



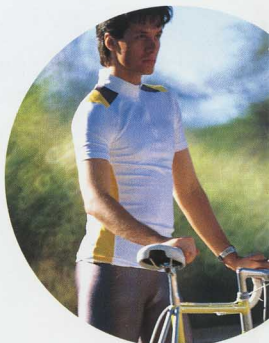
Power Stroke



Transition Point



biopace
Computer Designed Drive System



Front Derailleur

FD-5000-B (Band Type)

FD-5000-F (Italian, Brazed-on Type)

●Leading Action Pantograph Mechanism, Rigid Chain Guide, Sealed Mechanism ●Maximum: 14T ●Band Type: 3.5 oz. (100g) ●Light Alloy-Silver Paint (Clamp Band), Light Alloy-Pearl White Paint (Right Link) Light Alloy-High Tech Gray Anodized Finish (Left Link), Heat-Treated Steel-Chrome Plated (Chain Guide) ●Clamp Diameter: 28.6mm.

Leading action movement.



Freehub

FH-5000 (Rear, 7-speed)

CS-5000 (Cassette Sprockets)

HB-5000 (Front Hub)

●7-speed SIS Compatible ●Flush Surface Design, Human-Engineered QR Lever, Wider Bearing Placement, Sealed Mechanism, Gum Covered QR Nut, Uniglide Sprockets ●15.2 oz. (430g.) (Rear w/o Sprockets), 8.2 oz. (232g.) (Front), 7.9 oz. (223g.) (Sprockets 12T - 21T & Spacer) ●Forged Light Alloy-Pearl Silver Anodized Finish (Hub Shell), Steel-Chrome Plated (Sprockets) ●Teeth: Threaded Sprocket: 12T - 14T, Spine Sprocket: 13T - 28T ●Over Lock Nut Dimensions: Front: 100mm, Rear: 126mm. ●Spoke Holes: 28H, 32H, 36H ●Maximum Spoke Diameter: 2.6mm.

●Standard Sprocket Combination:

	12, 13, 14, 15, 16, 17, 19T
7-speed	13, 14, 15, 17, 19, 21, 23T.
	13, 14, 15, 16, 17, 19, 21T.
	13, 14, 15, 17, 19, 21, 24T.
	13, 15, 17, 19, 21, 23, 26T.
	13, 15, 17, 19, 21, 24, 28T.



Multiple Freewheel

MF-5000

●7-speed SIS Compatible ●Compatible with Dura-Ace 7-speed SIS ●Narrow 7-speed SIS Spacing ●Sealed Mechanism, New Uniglide Teeth, Lubricating Port on Freewheel-body ●14.5 oz. (410g.) (12, 13, 15, 17, 19, 21, 23T) ●Steel-Nickel-Chrome Plate (Sprocket) ●For 1/2" x 3/32" Chain

●Standard Sprocket Combinations:

	12, 13, 14, 15, 16, 17, 19T
7-speed	12, 13, 15, 17, 19, 21, 23T.
	13, 14, 15, 16, 17, 19, 21T.
	13, 14, 15, 17, 19, 21, 24T.
	13, 15, 17, 19, 21, 23, 26T.
	13, 15, 17, 19, 21, 24, 28T.



Brake

BR-5000-49 (Short 49 Type)

●SLR (Shimano Linear Response) System, CAD Developed, One-Piece Brake Shoe with Integral Tire Guide, Aerodynamic Form ●10.9 oz. (310g.) (F & R, Sunken Pivot Bolt Type) ●Forged Light Alloy-Silver Paint (Caliper Arms) ●Sunken Pivot Bolt Types ●Caliper Reach: 39—49mm. ●For SLR system use BR-5000 with SLR-type brake lever and Shimano Outer Cable with Liner

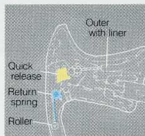


Brake Lever

BL-5001 (Aero Type)

BL-5002 (Aero Type, Short Reach)

●SLR (Shimano Linear Response) System, One-Touch Quick Release, Smooth Contours, Human Engineered Design, ●9.4 oz. (266g.) (BL-5001, Pair) ●Light Alloy: Pearl White Paint (Lever), Light Alloy (Body) ●Lever Clamp Diameter: 23.8 or 24.2mm. ●Reach: 97.5mm. (BL-5001), 87.5mm. (BL-5002) ●Bracket Cover: White, Gray



Head Parts

HP-5000

●Sealed Mechanism, Compact Design, Composite Materials, Non-Loosening Mechanism ●3.5 oz. (100g.) ●Light Alloy-Anodized Finish (Nut), Stainless Steel-Pearl White Paint (Upper & Lower Cups), Stainless Steel (Upper & Lower Cone) ●Stack Height: 32.5mm. ●Variations:

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



SHIMANO 600
ULTEGRA



Upgraded Performance Through Human Engineering

To get the most out of your racing bike, you need to get the most out of its components.

Meet 600 Ultegra. The new racing component system that incorporates the latest advances in Shimano human-engineering technology.

600 Ultegra forms a better man-machine interface while offering a higher level of quality, value, and performance than anything else in its class.

Among its many advanced features, 600 Ultegra offers precise 7-speed SIS shifting which includes a rugged freehub for increased rear wheel and axle strength. The SLR brake system provides highly responsive stopping power, and the positive-grip cleat and pedal allow greater power transfer efficiency and foot stability. The front derailleur shift lever has even been offset to allow faster chainwheel shifting!

This is the design integrity that stands behind the leading edge capability of 600 Ultegra.

That's why we call it Pure Performance.

ure Performance



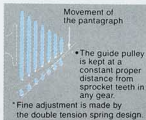


**Rear Derailleur
RD-6400**

● 6 & 7-Speed SIS Compatible ● Improved Double Servo-Pantia Mechanism, Centeron Guide Pulley, Sealed Mechanism, Ceramic Guide Pulley bushings, Double Spoke Barrier, Digital Cable Adjust Mechanism ● Minimum Rear Sprocket: 12T ● Maximum Rear Sprocket: 28T ● Maximum Front & Rear Sprocket Difference: 28T ● 78 oz. (216g.) ● Light Alloy-Dark Gray Paint (Bracket & Plate Body), Light Alloy-Silver Paint (Right Link), Light Alloy (Pulley Plates & Left Link)



NEW



Shifting Lever

SL-6400-BCAI (SIS, Side-Band A Type)

SL-6400-FCAI (SIS, Mount-Brazed-on A Type)

"C" of Model Number means Italian Type

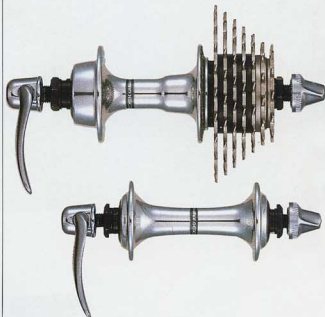
(Fixing Bolt is 5mm. diameter)

● Same Lever for 6 & 7-Speed SIS (Shimano Index System), SIS/Friction Changeover, Light Action Mechanism, Lever Interchangeability, Human Engineered Design, Sealed Mechanism ● SL-6400-FCAI: 2.1 oz (60g.) ● Light Alloy-Gray Paint ● Down Tube Lever ● Lever Clamp Diameter: 28.6mm ● Use SIS with RD-6400 Rear Derailleur/FH-6400 Freehub/Shimano UG Chain/Shimano SIS Outer Casing with Liner

* Conversion parts available for other mounting types.



NEW



Front Chainwheel & Bottom Bracket Assembly

FC-6400-BP (Biopace Double, LD Type)

BB-6400 (B.B. Set)

● Low Profile Design, Forged Arm & Spider, Sealed Mechanism, Aerodynamic profile, Biopace Chainrings (FC-6400-BP) ● 22.9 oz. (650g.) (42, 52T., 170mm.), 109 oz. (308g.) B.B. Set ● Light Alloy (Crank & Chainrings) ● For 1/2" x 3/32" Chain ● Teeth: Inner (Biopace): 42T., Outer (Biopace): 52, 53T. ● Crank Length: 165mm., 170mm., 172.5mm., 175mm. ● Crank Thread: English BC 9/16" x 20 T.P.I. ● Cup Thread: English 1 1/8" x 24 T.P.I., Italian M36 x 24 T.P.I. ● B.B. Size: 68-W-113, 70-W-115 ● Bolt Circle Diameter: 130mm. (LD Type)



NEW



Front Derailleur

FD-6400-B (Band Type)

FD-6400-F (Italian, Brazed-on Type)

● Leading Action Pantograph Mechanism, Compact Design, Rigid Chainguide ● Maximum: 14T. ● Band Type: 3.7 oz. (104g.) ● Light Alloy-Dark Gray Paint (Clamp Band), Light Alloy-Silver Paint (Right Link), Heat Treated Steel-Chrome Plated (Chain Guide)

Freewheel

FH-6400-6/7 (Rear, 6-speed/7-speed)

CS-6400 (Cassette Sprockets)

HB-6400-F (Front Hub)

● 6 & 7-speed SIS Compatible ● Compatible with 6 & 7-speed clusters, Bolt-on Type Freewheel Mechanism, Sealed Mechanisms, Burnished Bearing Races, New Uniglide Tooth Design, Unbalance System ● 14.9 oz. (423g.) (Rear w/o Sprockets), 75 oz. (212g.) (Front), 79 oz. (233g.) (7-speed Sprockets; 12T - 21T & Spacer) ● Light Alloy-Anodized Finish (Hub Shell), Resin-Dark Gray Metallic Finish (Dust Cap), Steel-Silver Finish (Sprockets) ● Over Lock Nut Dimensions: Front: 100mm., Rear: 126mm. ● Spoke Holes: 28H, 32H, 36H (Front), 32H, 36H (Rear) ● Spoke Hole Diameter: $\varnothing 2.6\text{mm.}$ ● For $1/2" \times 3/32"$ Chain (Narrow Type for 7-speed) ● Standard Sprocket Combination:

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

Teeth:

	6-speed	7-speed
Threaded Sprockets	12—16T. (6S mark)	12—16T. (7S mark)
2nd Gear (spine type) w/spacer	13T. (6S mark)	13T. (7S mark)
Spined Sprockets	14—26T./28T./30T./32T./34T.	
	2nd—3.30mm (except 13T.)	
Spacer Width	3.65mm (Light gray)	3rd to low—3.7mm (7S mark) (Dark gray)

7-SPEED
SIS
Compatible

Head Parts

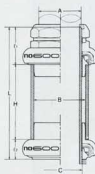
HP-6400

● Compact & Light Weight. New Improved Sealed Mechanism, Burnished & Polished Finish ● 3.5 oz. (100g.) ● Light Alloy (Upper & Lower Cup), Cr-Mo Steel (Races), Stainless Steel (Lower Cone)
● Variations:

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

Dimensions

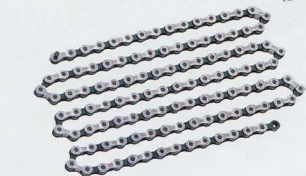
$\bar{E}_1$	22.0mm
$\bar{E}_2$	11.5mm
H	Head Tube Length
L	H + 33.5mm
A	22.3mm
B	30.2mm
C	26.4mm
Thread	BC1 × 24T



NEW



NEW



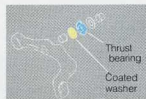
Brake

BR-6400-49 (Short 49 Type)

BR-6400-57 (Long 57 Type)

● SLR (Shimano Linear Response) System, Thrust Bearing & Coated Pivot Washer, Spring Sleeve, One-Piece & Low Profile Brake Shoe ● 12.7 oz. (360g.) (F & R, 49 Type) ● Light Alloy
● Outer Cable with Liner.

SLR
SHIMANO LINEAR RESPONSE



Brake Lever

BL-6400 (Standard Type)

BL-6401 (Aero Type)

BL-6402 (Aero Type, Short Reach)

● SLR (Shimano Linear Response) System, Human Engineered Design, Aero Cable Guides ● 9.2 oz. (328g.) (BL-6401, Pair) Including Rubber Cover ● Light Alloy ● Hooded Lever with Rubber Cover ● Lever Clamp Diameter: 23.8mm. ~ 24.2mm. ● Bracket Cover: Black, White

SLR
SHIMANO LINEAR RESPONSE



Pedal

PD-6400

● Positive Grip Shoe Cleat, Same Road Clearance as Dura-Ace, Aerodynamic Design, Sealed Mechanism, Easy-Maintenance Cartridge Axle, Compound Structure of Resin Bushing and Cup & Cone Bearings ● 14.5 oz. (410g.) (Pair, Toe Clip L Size) ● Light Alloy (Body), Cr-Mo Steel (Axle) ● Crank Thread: BC 9/16 × 20T.P.I.
● Toe Clip Size: M, L, LL



Seat Pillar

SP-6400-A (Round Tube) A-Type

SP-6400-B (Semi Oval Tube) B-Type

● Aerodynamic Design, Hexagon Release ● 10.0 oz. (284g.) (SP-6400-B; 27.2mm.) ● Light Alloy-Anodized Finish ● Outside Diameter: 25.0mm., 27.2mm.

Handle Stem

HS-6400

● Aerodynamic Type, Hexagon Release ● 10.0 oz. (286g.) (100mm.) ● Light-Alloy Anodized Finish ● Extension: 80mm., 90mm., 100mm., 110mm., 120mm., 130mm., ● Handle Stem Diameter: 22.2mm. ● Handle Bar Clamp Diameter: 25.4mm., 26.0mm.

UG Chain

CN-6208 (Silver)

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

NEW

NEW

NEW

NEW

NEW

**SHIMANO
105**

The System Component Group for the Sport Cyclist.

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

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

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

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

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

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



The



1 Fast, Precise S.I.S. Shifting

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



2 Greater Pedaling Efficiency

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



3 Improved Braking Control

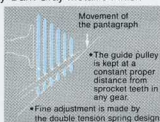
Shimano Linear Response (SLR) provides better modulated braking control with a new light lever feel.

New Generation of Performance



Rear Derailleur RD-1050

- 6-speed SIS Compatible • Double Servo Panta Mechanism, Centron Guide Pulley, Sealed Mechanism, Sintered Alloy Guide Pulley Bushing, Double Spoke Barrier, Digital Cable Adjust Mechanism
- Minimum Rear Sprocket: 12T • Maximum Rear Sprocket: 28T • Maximum Front & Rear Sprocket Difference: 28T • 90 oz. (257g) • Light Alloy (Bracket & Plate Body), Light Alloy-Dark Gray Metallic Finish (Right Link)



Shifting Lever

SL-1050-BCA (SIS, Side-Band A Type)

SL-1050-FCAL (SIS, Mount-Braced-on A type)

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

- 6-speed SIS (Shimano Index System) • SIS/Friction Changeover, Clutch Spring for Light Action Shifting, Human Engineered Design, Sealed Mechanism
- SL-1050-FCAL: 2.4 oz. (68g) • Light Alloy (Lever)
- Down Tube Lever • Lever Clamp Diameter: 28.6mm
- Use SIS with 6-speed SIS Rear Derailleur/6-speed SIS Spaced Freewheel/Shimano UG Chain/Shimano SIS Casing with Liner
- * Conversion parts available for other mounting types.

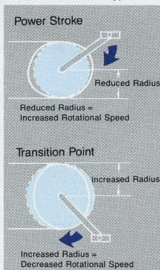


Front Chainwheel & Bottom Bracket Assembly

FC-1050-BP (Biopace Double, LD Type)

BB-1050 (B.B. Set)

- Low Profile & Aerodynamic Design, Biopace Chaining • 2.3 oz. (66g.) (42, 52T, 170mm), 11.5 oz. (327g.) B.B. Set • Light Alloy (Crank/Chain Ring) • For 1/2" x 3/32" Chain • Chainwheel: Inner, 42T, Outer, 52T • Crank Length: 162.5mm, 165mm, 170mm, 172.5mm, 175mm • Crank Thread: BC 9/16 x 20 T.P.I.
- Cup Thread: English BC 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I. • B.B. Size: 68-W-113, 70-W-115 • Bolt Circle Diameter: 130mm (LD Type)



Front Derailleur

FD-1050-B (Band Type)

FD-1050-F (Italian, Brazed-on Type)

●Leading Action Pantograph Mechanism, Upgraded

Chain Guide Rigidity

●Maximum: 14T, ●Band

Type: 3.5 oz. (98g.)

●Light Alloy (Clamp

Band), Light Alloy-Dark

Gray Metallic Finish

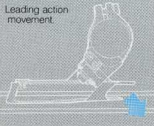
(Right Link), Heat

Treated Steel-Chrome-

Plated (Chain Guide)

●Clamp Diameter:

28.0 - 28.6mm



Freehub

FH-1050-6 (Rear, 6-speed)

CS-1000 (Cassette Sprockets)

HB-1050-F (Front Hub)

●6-speed SIS Compatible ●Sealed Mechanism, New

Uniglide Teeth, Bolt-Secured Cassette Freewheel,

Unbalance System ●14.6 oz. (415g.) (Rear w/o

Sprocket), 7.7 oz. (218g.) (Front), 7.8 oz. (221g.)

(Sprocket 13T - 24T & Spacer) ●Light Alloy (Hub

Shell), Resin-Dark Gray Metallic Finish (Dust Cap),

Steel-Black Finish (Sprocket) ●Teeth: Threaded

Sprocket; 13T - 15T, Spline Sprocket; 14T - 26T, 28T,

30T, 32T, 34T, ●Over Lock Nut Dimensions: Front;

100mm, Rear 126mm ●Sprocket Holes: 32H, 36H

●Sprocket Hole Diameter: $\varnothing 2.6\text{mm}$ ●For 1/2" - 3/32"

Chain

●Standard Sprocket Combination:

	13, 14, 15, 17, 19, 21T
6-speed	13, 15, 17, 19, 21, 24T
	13, 15, 17, 20, 23, 26T
	13, 15, 17, 20, 24, 28T
	13, 15, 18, 21, 25, 30T
	13, 15, 18, 22, 26, 32T



Rear Hub

HB-1050-6 (Rear/6-speed)

●Sealed Mechanism ●11.5 oz. (327g.) ●Light Alloy

(Hub Shell), Resin-Dark Gray Metallic Finish (Dust

Cap) ●Over Lock Nut Dimensions: 126mm ●Sprocket

Holes: 32H, 36H ●Sprocket Hole Diameter: $\varnothing 2.6\text{mm}$.

Head Parts

HP-1050

●Composite Structure, Sealed Mechanism ●4.6 oz.

(129g.) ●High Impact Resin-Dark Gray Metallic Finish

(Upper & Lower Cup Covers), Steel (Nut/Upper &

Lower Cup/Upper & Lower Cone), Resin (Seal Ring)

●Variations:

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 x 24 T.P.I.	30.2mm	26.4mm

■ Dimensions

ℓ_1	21.2mm
ℓ_2	11.5mm
H	Head Tube Length
L	H+34.5mm
A	22.4mm
B	30.2mm
C	26.4mm
Thread	BC1" x 24T



Brake

BR-1050-49 (Short 49 Type)

BR-1050-57 (Long 57 Type)

●SLR (Shimano Linear Response) System, Thrust Bearing & Coated Pivot Washer, Spring Sleeve, One-Piece & Low Profile Brake Shoes ●11.8 oz. (335g.)

(F & R, 49 Type) ●Light Alloy

*For SLR system use BR-1050, BL-1050/BL-1051, and Shimano

Outer cable with Liner.



Brake Lever

BL-1050 (Standard Type)

BL-1051 (Aero Type)

BL-1052 (Aero Type, Short Reach)

●SLR (Shimano Linear Response) System, Anatomical

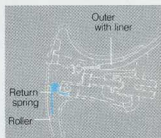
Design, Outer Guide for easy cable change (Aero Type)

●7.1 oz. (202g.) (BL-1050, Pair), 8.9 oz. (252g.) (BL-1051,

Pair) Including Rubber Cover ●Light Alloy ●Hooded

Lever with Rubber Cover ●Lever Clamp Diameter:

23.8 - 24.2mm ●Bracket Cover: Black, White



Pedal

PD-1050

●Aerodynamic Design, Same Road Clearance as

Dura-Ace, Compound Structure of Resin Bushing and

Cup & Cone Bearings ●9.9 oz. (280g.) (Pair), 1.6 oz.

(46g.) (Pair of Toe Clip L Size) ●Light Alloy (Body),

Cr-Mo Steel (Axle), Resin-Dark Gray Metallic Finish

●Crank Thread: English BC 9/16 x 20 T.P.I. ●Toe Clip

Size: M, L, LL



SHIMANO
DEORE XT

The Tot



**SIS Shifting Precision
Goes Off-Road!**



The shifting benefits of SIS are now available to the off-road rider. Smooth and precise, light action thumb lever SIS shifting is now possible even with rear cogs as large as 32 teeth!

**Better Shifting Performance
With Second Generation
Biopace II**



Efficient energy-saving Biopace II chainwheels also provide better shifting for triple cranksets through newly developed tooth profiles and plateau sections.

**Powerful Braking
Through a new Design**



Chain stay mounted rear U-Brake delivers powerful braking performance plus great durability in the mud and grit of off-road riding.

tal Control System

Advanced Shimano functions go off-road with Deore XT.

Take on the challenge of off-road cycling with Total Control.

A result of the Shimano system approach to component design, New Deore XT has established a new level of performance for the off-road bicycle.

The advanced functions of SIS shifting, Biopace II chainwheels, and U-Brake/cantilever brake system help you experience the excitement of off-road cycling with greater safety and confidence.

And the New Deore XT freehub eliminates the problem of bent axles once and for all through the rugged freehub design which reduces rim offset and places the bearings closer to the dropouts.

This is why New Deore XT is the world standard in ATB components.





Rear Derailleur

RD-M730-GS (Long Cage) **NEW**

RD-M730-SGS (Super Long Cage)

- 6-speed SIS Compatible ● Double Servo-Panta Mechanism, Centron Guide Pulley, Ceramic Guide Pulley Bushing, Sealed Mechanism, Digital Adjust Mechanism, B-tension Adjustment Bolt, Brass Bushings & Stainless Steel Pins in Link Pivots, Double Spoke Barrier, Chain Retainer ● Maximum Rear Sprocket: Long: 26T - 30T, Super Long: 26T - 32T. (Using SFR, SF Fork End)
- Minimum Rear Sprocket: 12T ● Maximum Front & Rear Sprocket Difference: Long: 36T, Super Long: 38T ● Super Long: 9.3 oz. (265g.) ● Light Alloy



Shifting Lever

SL-M730

- 6-speed SIS (Shimano Index System) ● SIS/Friction Changeover Light Action Mechanism, Low Profile Design, 3-Step Lever Adjustment, Digital Adjustment Mechanism ● 6.7 oz. (191g) ● Light Alloy ● Handlebar Use ● Lever Clamp Diameter: 7/8" (22.2mm) ● For SIS

Function, use with RD-M730 Rear Derailleur/FH-M730 Freehub/Shimano SIS-SP Outer Casing with Liner



Front Chainwheel & Bottom Bracket Assembly

FC-M730 (Biopace II Triple, MD Type)

BB-M730 (B.B. Set)

- Biopace II Chainrings, Low Profile Design, Computer Aided Design, Sealed Mechanism ● 25.0 oz. (707g), (26T, 36T, 46T, 170mm) ● 11.0 oz. (310g), B.B. Set ● Light Alloy-Anodized Finish ● For 1/2" x 3/32" Chain ● Outer 46T, 48T, 50T, Middle 36T, 38T, 44T, Inner 26T, 28T ● Crank Length: 165mm, 170mm, 175mm, 180mm ● Crank Thread: English BC 9/16" x 20 T.P.I., ● Cup Thread: English 1.37 x 24 T.P.I., Italian M36 x 24 T.P.I. ● B.B. Size: 68-T-117.5 (D-3A), 68-T-122.5 (D-3NL), 70-T-117.5 (D-5A) ● Bolt Circle Diameter: Inner: 74mm, Outer & Middle: 110mm (MD Type)

3 tooth profiles for easy shifting

Chain protection guards for easy re-mounting of thrown chains (inner)

Plateau section: Inner chainwheel projections



PD-M730



PD-M731



Freehub

FH-M730-NT (6-speed Nut Type)

FH-M730-OR (6-speed Quick Release Type)

HB-M730-F (Front Hub)

● 6-speed SIS Compatible ● Bolt-Secured Freewheel, Contact Type Sealed Mechanism, Superior Hub Axle Support, High Strength Freewheel Body, Lubricating Ports with Open/Close ● Front: 73 oz. (206g) (Nut Type), 8.1 oz. (231g) (Quick Release Type) Rear (Except Sprockets): 14.9 oz. (422g) (Nut Type) 16.0 oz. (451g) (Quick Release Type), Cassette Sprockets: 9.5 oz. (270g) (12, 14, 17, 20, 24, 28T) ● Light Alloy-Buff Finish (Black Finish Available) ● Over Lock Nut Dimensions: Front: 100mm, Rear: 126mm, 130mm ● 36H, 32H, ● Teeth: 12T ~ 16T, Top (Threaded), 13T ~ 26T, 28T, 30T, 32T (Spline) ● For 1/2" x 3/32" Chain ● Standard Sprocket Combinations:



6-speed

12, 14, 16, 19, 22, 26T.
13, 15, 17, 20, 23, 26T.
12, 14, 17, 20, 24, 28T.
13, 15, 17, 21, 24, 28T.
12, 14, 17, 20, 25, 30T.
13, 15, 16, 22, 26, 32T.

Front Derailleur

FD-M730

● Trailing Action Paritograph Mechanism, Rigid Chainguide ● 4.0 oz. (112g) (Normal Band Type) ● Forged Light Alloy (Right Link), Light Alloy (Clamp Band), Heat Treated Steel-Chrome Plated (Chain Guide)



Capacity (Front gear difference)	FD-M730-AL (Alpine)	Round gear	 8T ~ 26T
	FD-M730-HS (Half-step)	Biopace gear (CR-BP10)	 8T ~ 22T
Band diameter	Band type	Round gear	 5T ~ 26T
	EC-type (End-less clamp type)	Biopace gear (CR-BP10)	 5T ~ 22T
			 28.0 ~ 28.6mm (1-3/32" ~ 1-1/8")
			 31.8mm (1-1/4")

Pedal

PD-M730

PD-M731 (Comp Type)

● Low Profile Design, Parallelogram Shape (PD-M730), Contact-Type Sealed Mechanism, Stainless Steel Grip Pins, Toe Clip/Reflector Attachable ● 14.5 oz. (412g) (PD-M730 Pair), 12.8 oz. (363g.) (PD-M731 Pair) ● Light Alloy (Body & Plate), Cr-Mo Steel (Axle) ● Crank Thread: English BC 9/16" x 20 T.P.I.



Head Parts

HP-M730

● Off-Road Type ● Sealed Mechanism, Inside Vapor Corrosion, Inhibitor Seal Tape for Head Tube, Stainless Steel Lower Cup & Cone ● 3.9 oz. (110g) ● Light Alloy-Black Anodized Finish (Lock Nut), Steel & Rubber-Black Finish (Upper Cup), Stainless-Black Finish (Lower Cup), Stainless Steel (Lower Cone), ● Height: Lower Slack 11.5mm, Total Slack 33.0mm ● Variations:

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



Seat Post Quick-Release

SQ-M730

● Easy Operation, Position-Set Spring ● 2.6 oz. (73g) ● Steel ● Shaft Adjustment Length: 36 ~ 43mm, 26 ~ 33mm ● Shaft Diameter: 26mm or 28mm

Chain Deflector

DF-M730

● Keeps the chain from jamming between the tire and chainstay ● 0.3 oz. (9g) ● Resin

Brake Lever

BL-M730

● Full-Fit Design, Safety Clamp Design, Digital Lever-Reach Adjustment (4 Positions), 2mm. Diameter Inner Cable Available ● 11.2 oz. (317g.) Pair ● Forged Light Alloy ● Lever Clamp Diameter: 7/8" (22.2mm.)



U-Brake

BR-M731

● Rigid Computer Designed Shape, Chainstay Mounting Position, Spring Tension Adjuster, Internal and Sealed Spring Design, Low-Profile Brake Shoe, Shark Tooth ● 10.0 oz. (286g.) 1 unit ● Light Alloy



Cantilever Brake

BR-M730

● Rigid Computer Designed Shape, Sealed Internal Spring Design, Spring Tension Adjuster, Low-Profile Brake Shoe, Easy Cable Attachment ● 6.7 oz. (190g.)/Pair ● Light Alloy ● Buff Finish (Brack Finish Available)



NEW

NEW

NEW

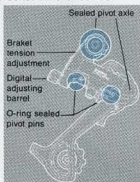


SHIMANO DEORE

Rear Derailleur RD-MT60

- 6-speed SIS Compatible • Double Servo Panta Mechanism, Centeron Guide Pulley, Sealed Mechanism, Digital Adjust Mechanism, B-Tension Adjustment Bolt, Brass Pivot Bushings & Heat Treated Steel Pins in Link Pivots, Double Spoke Barrier, Chain Retainer
- Maximum Rear Sprockets: (28T - 32T) (Using SFR, SF Fork Ends)
- Minimum Rear Sprockets: 13T
- Maximum Front & Rear Sprocket Difference: 38T
- 11.0oz. (311g) • Light Alloy

SIS
Compatible



Shifting Lever SL-MT60

- 6-speed SIS (Shimano Index System) • SIS/Friction Changeover, Light Action Mechanism, Digital Adjustment Mechanism • 7.4 oz. (210g) • Light Alloy
- Handlebar Use • Lever Clamp Diameter: 78" (22.2mm)
- For SIS Function, use with RD-MT60, RD-M730 Rear Derailleur/FH-M730, FH-MT60 Freehub/Shimano SIS Outer Casing with Liner

SIS
Compatible

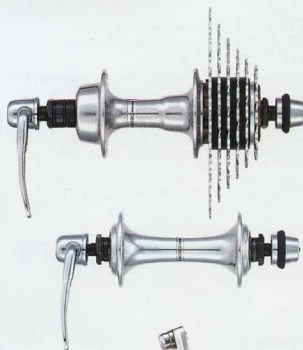


Front Chainwheel & Bottom Bracket Assembly FC-MT60 (Biopace Triple, MD Type) BB-MT60 (B.B. Set)

NEW

- Biopace Chaining, Low Profile Design, One-Piece Forged Crank, Computer Aided Design, Sealed Mechanism (B.B. Set) • 26.6 oz. (752g) (28T, 38T, 48T, 170mm.) 11.3 oz. (320g) (B.B. Set) • Light Alloy-Anodized Finish (Crank & Chain Ring), Cr-Mo Steel-Black Finish (Axle) • For 1/2" x 3/32" Chain
- Teeth: Inner; 28T, Middle; 38T, 44T, Outer; 48T, 50T • Crank Length: 170mm., 175mm. • Crank Thread: BC 9/16" x 20 T.P.I. • Cup Thread: English BC 1.37 x 24 T.P.I. • B.B. Size: 68-T-1175 (D-3A), 68-T-1225 (D-3NL)
- Bolt Circle Diameter: Inner; 74mm., Outer & Middle; 110mm. (MD Type)

biopace
Computer Designed Drive System



Freehub

FH-MT60-NT (6-speed, Nut Type)

FH-MT60-QR (6-speed, Quick Release Type)

HB-MT60-F (Front Hub)

- 6-speed SIS Compatible ● Bolt-Secured Freewheel, Contact type Sealed Mechanism, High Strength Freehub Body ● Front: 73 oz. (206g.) (Nut Type), 81 oz. (231g.) (Quick Release Type), Rear (Except Sprocket): 14.9 oz. (422g.) (Nut Type), 16.0 oz. (451g.) (Quick Release Type), Sprocket (6-speed 13T ~ 30T) & Spacer: 9.5 oz. (270g.) ● Light Alloy (Hub Shell), Cr-Mo Steel-Black Finish (Axle), Steel-Silver Finish (Sprocket)
- Teeth: Threaded Sprocket (Top): 13T ~ 16T, Spline Sprocket: 14T ~ 26T, 28T, 30T, 32T, 34T ● Over Lock Nut Dimensions: Front: 100mm., Rear: 126mm., 130mm.
- Spoke Holes: 36H ● Spoke Hole Diameter: $\varnothing 2.6$ mm.
- For 1/2" x 3/32" Chain



NEW

Front Derailleur

FD-MT60

- Trailing Action Pantograph Mechanism, Rigid Chainguide ● 4.0 oz. (113g.) (Normal Band Type) ● Light Alloy (Body & Clamp Band), Heat Treated Steel-Chrome Plated (Chainguide)

Capacity (Front gear difference)	FD-MT60 AL (Alpine)	Round gear.....8T ~ 26T. Biopace gear (CR-BP10).....8T ~ 22T.
	FD-MT60 HS (Half- step)	Round gear.....5T ~ 26T. Biopace gear (CR-BP10).....5T ~ 22T.
Band diameter	Band type	
	 $\varnothing 28.0$ ~ 28.6 mm (1-3/32" ~ 1-1/8") EC-type (End-less clamp type) $\varnothing 31.8$ mm (1-1/4")	

NEW



Pedal

PD-MT60

- Low Profile Design, Parallelogram Shape, Contact Type Sealed Mechanism, Toe-Clip/Reflector Attachable ● 175 oz. (495g.) (Pair) ● Light Alloy (Body), Steel-Black Finish (Cage), Cr-Mo Steel-Black Finish (Axle) ● Crank Thread: BC 9/16" x 20 T.P.I.

NEW

Head Parts

HP-MT60

- Off-Road Type ● Sealed Mechanism, Inside Vapor Corrosion Inhibitor Seal Tape for Head Tube, Stainless Steel Lower Cone ● 4.3 oz. (121g.) ● Steel (Lock Nut), Steel & Rubber-Black Finish (Upper Cup), Steel-Black Finish (Lower Cup), Stainless Steel (Lower Cone).
- Height: Lower Stack 11.5mm, Total Stack 33.5mm
- Variations:

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

NEW

Tool

TL-RD10

- Rear Dropout Centering and Dropout Hanger Alignment Tool



Tool

TL-FW30

- Multiple Freewheel Removal Tool (for MF-7400, MF-7012)

Tool

TL-CT10

- Cable Cutter (for SIS-SP cable and normal cables, outer casings.)

Tool

TL-CN20

- Chain Cutter (for both UG chain and ordinary chain.)



Brake Lever

BL-MT60

- Full-Fit Design, Safety Clamp Design, Digital Lever-Reach Adjustment (4 Positions), 2mm. Diameter Inner Cable Available ● 11.0 oz. (310g.) Pair ● Light Alloy
- Lever Clamp Diameter: 7/8" (22.2mm.)



Coin adjustable

U-Brake

BR-MT61

- Rigid Computer Designed Shape, Chainstay Mounting Position, Spring Tension Adjuster, Internal and Sealed Spring Design, Low-Profile Brake Shoe, Shark Tooth ● 9.9 oz. (280g.) 1 unit ● Light Alloy



Greater power multiplication with cantilever rigidity

Cantilever Brake

BR-MT60

- Rigid Computer Designed Shape, Sealed Internal Spring Design, Spring Tension Adjuster, Low-Profile Brake Shoe, Easy Cable Attachment ● 5.9 oz. (166g.) Pair ● Light Alloy

Dura-Ace Grease

- Special grease water resistant



Dura-Ace Brake

Shoe Set

(2 shoes)

Shimano 600

ULTEGRA

Brake Shoe Set

(4 shoes)

High Performance

Brake Shoe Set

(4 shoes)

Low-Profile

Cantilever Brake

Shoe Set

- (2 shoes for BR-M730, BR-MT60 and most other Cantilever Brakes)

Low-Profile

U-Brake Shoe Set

(2 shoes for BR-M731, BR-MT61)

Deore XT Shark Tooth



EXAGE

The System Component Group for the Recreational Cyclist.

Exage is the smart new 3-group component system from Shimano for derailleur-equipped sport, all-terrain, and city-type bicycles.

Exage realizes more style while creating a new standard of cost-performance value for these bicycles ridden by recreational cyclists.

In addition to precise rear derailleur SIS shifting, energy-efficient Biopace chainwheels, and the linear-response SLR brake system, Exage takes the SIS advantage one step further with a new SIS front chainwheel shifting function.

Exage brings the advantages of the Shimano system component concept and its advanced functions to a wider range of cyclists and cycling styles.

EXAGE
sport

All Components
Finished in Striking
Cosmos Blue Metallic



EXAGE
mountain

All Components
Finished in
Graphite Gray Metallic

The Shimano Components



Rear Derailleur

RD-M531-GS (Long Cage)

- SIS Compatible • Pre-Select Mechanism with Light Action, Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Steel Bushing in Link Pivots, Centeron Guide Pulley, 6mm Hexagon Fixing Bolt, Chain Retainer • Maximum Rear Sprocket: 30T • Maximum Front & Rear Sprocket Difference 36T. (Using FE-SF21, SF22 & PR20 Fork Ends) • 10.4 oz. (294g) • Light Alloy (Bracket Body & Plate Body), Steel (Right & Left Link, Pulley Plate)



Rear Derailleur

RD-L541-SS (Short Cage)

RD-L541-GS (Long Cage)

RD-L541-SGS (Super Long Cage)

- SIS Compatible • Pre-Select Mechanism with Light Action, Double Servo-Panta Mechanism, Centeron Guide Pulley, 6mm Hexagon Fixing Bolt, Chain Retainer (Long Cage, Super Long Cage) • Maximum Rear Sprocket: Short 28T, Long 26T, ~30T, Super Long 28T, ~32T • Maximum Front & Rear Sprocket Difference: Short 28T, Long 36T, Super Long 38T. • 11.1 oz. (314g) Short, 12.1 oz. (342g) Long, 12.2 oz. (345g) Super Long • Light Alloy (Bracket Body), Steel/Silver Finish (Plate Body), Steel (Right & Left Link, Pulley Plate)



NEW



Rear Derailleur

RD-L532-SS (Short Cage) SIS Compatible

RD-L532-GS (Long Cage)

RD-L532-SGS (Super Long Cage)

- SIS Compatible (Short Cage only) • Pre-Select Mechanism with Light Action, Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Steel Bushing in Link Pivots, Centeron Guide Pulley, 6mm Hexagon Fixing Bolt, Chain Retainer (Long Cage, Super Long Cage) • Maximum Rear Sprocket: Short 28T, Long-Super Long 34T. • Maximum Front & Rear Sprocket Difference: Short 28T. (Using All Shimano Fork Ends), Long 34T, Super Long 40T. (Using FE-SF21, SF22 & PR22 Fork Ends) • 9.6 oz. (272g) Short, 10.3 oz. (293g) Long, 10.8 oz. (306g) Super Long • Light Alloy (Bracket Body), Steel (Right & Left Link, Plate Body & Pulley Plate)



Rear Derailleur

RD-Z501 (Short Cage)

RD-Z501-GS (Long Cage)

RD-Z501-SGS (Super Long Cage)

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

* (Using SFR Fork End)

The Shimano



Shifting Lever

SL-S434-BCAI (SIS, Band A Type)

SL-S434-FCAI (SIS, Brazed-on A Type)

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

●SIS (Shimano Index System) ●SIS/Friction Changeover, Light Action Lever ●SL-S434-FCAI: 2.5 oz. (72g.) ●Attachment Position: Down Tube ●Lever Clamp Diameter: 1-1/8" ●Use SIS with RD-6400, RD-1050, RD-L532-SS, RD-M531, RD-L541 Rear Derailleur/MF-Z012 Freewheel/FH-6400, FH-1050 Freehub/Shimano SIS Outer Casing with Liner

*Conversion parts available for other mounting types



Shifting Lever

SL-S441

●SIS (Shimano Index System) ●SIS/Friction Mode Switch, Light Action Shifting ●4.9 oz. (141g.)

●Light Alloy, Resin, Steel ●Attachment Position: Handlebar ●Lever Clamp Diameter: 7/8" (22.2mm)

●Use SIS with RD-L523-SS, RD-M531, RD-L541 Rear Derailleur/MF-Z012 Freewheel/Shimano SIS-SP Outer Casing with Liner



Shifting Lever

SL-MS55

●SIS (Shimano Index System) ●SIS/Friction Mode Switch ●7.2 oz. (203g., Pair) ●Light Alloy and Resin ●Handlebar Use ●Lever Clamp Diameter: 7/8" (22.2mm)

●Use SIS with RD-M531, RD-L541 RD-M730, RD-MT60 Rear Derailleur/MF-Z012 Freewheel/FH-1050, FH-M730, FH-MT60 Freehub/Shimano SIS-SP Outer Casing with Liner



Shifting Lever

SL-MS41

●SIS (Shimano Index System) ●6.4 oz. (182g., Pair)

●Light Alloy, Resin and Steel ●Handlebar Use ●Use SIS with RD-M531, RD-L541 Rear Derailleur/MF-Z012 Freewheel/FH-1050, FH-M730, FH-MT60 Freehub/Shimano SIS-SP Outer Casing with Liner



Shifting Lever

SL-Z401-BA (Band A Type)

SL-Z401-FA (Brazed-on A Type)

SL-Z401-S (Stem Band Type)

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

NEW



BL-L330

BL-L331



BR-Z570
(57 Type)

BR-Z640
(64, 72, 79 Type)

BL-Z32

BL-Z325-80

BL-Z326

BL-Z325-B

Shimano Components

Brake

BL-L490-49 (Short-49 Type)

BR-L570-57 (Long-57 Type) **NEW**

•SLR (Shimano Linear Response) System •Coated Pivot Washer, Spring Sleeves, One-Piece & Low Profile Brake shoe •355g. (Front & Rear 49 Type) •Light Alloy
•For SLR system use BL-L490, L570 with SLR-type brake lever and Shimano Outer Cable with Liner



Brake Lever

BL-L330 (Standard Type)

BL-L331 (Aero Type)

•SLR (Shimano Linear Response) System •Anatomical Design, Outer Guide for Easy Cable Change (Aero Type) •7.1 oz. (202g) (BL-L330, Pair), 9.0 oz. (254g) (BL-L331, Pair) Including Rubber Cover
•Light Alloy •Hooded Lever with Rubber Cover •Lever Clamp Diameter: 23.8 – 24.2mm



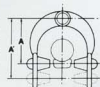
Brake

BR-L570 (57 Type) **BR-Z720** (72 Type)

BR-Z640 (64 Type) **BR-Z790** (79 Type)

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

TYPE	A—A
CS-57	43mm (1-11/16")—57mm (2-1/4")
CS-64	49mm (1-17/32")—64mm (2-1/2")
CS-72	54mm (2-1/8")—72mm (2-7/8")
CS-79	61mm (2-3/8")—79mm (3-1/8")



Brake Lever

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

•A (w/o Bracket Cover)

•BQ (w/Bracket Cover, w/Quick Release)

•B (w/Bracket Cover)

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

•A (w/Bracket Cover)

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



Front Derailleur

FD-Z204 (Short Cage)

FD-Z204-GS (Long Cage)

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

Front Derailleur

FD-Z202

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

Multiple Freewheel

MF-Z012

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



Pedal

PD-T100

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

"Ask Your Dealer About These and Other Accessory Items with the Shimano Logo."

Water Bottle

•500ml

Cycling Cap

•High Quality Cotton Cycling Cap

Head Band

•High Quality 100% Cotton with Elastic

Shop Apron

•Durable 100% cotton shop apron. Perfect for home or shop mechanics. Large pocket and heavy-duty cord tie.

Racing Wheel Covers

•Nylon lined inside surface with water resistant rubberized outer skin.

Shimano Freehub System

Features:

1. Splined Design—All of the uniglide type SIS sprockets slide on and off the same size spline for quick and easy replacement.
(Only the top gear is threaded)

2. Uniglide Tooth Profile—All sprockets incorporate precise-shifting SIS type uniglide twist-tooth profiles.

3. Advantages of Freehub Design—

- Unibalance design reduces wheel dish to make a stronger wheel.
- Bearings are placed closer to the frame dropout for better hub support, less axle flex, and increased power transfer efficiency.

Great Interchangeability Among the Freehubs

Series	DURA-ACE		Santé/600 ULTEGRA/Silver	600EX/Silver	Standard/Black
Model No.	CS-7400-7 For 7-speed	CS-7400-6 For 6-speed	CS-5000 CS-6400-7 For 7-speed	CS-6208-6 For 6-speed	CS-1000 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	Plastic: dark gray 3.3mm For second gear • Sprocket spacer A is unnecessary if a 13-teeth sprocket is used.	Steel • Sprocket spacer A is unnecessary if a 12-teeth sprocket is used.	 For top gear
Sprocket Spacer B	Steel: Silver 3.1mm 	Steel: Gray 3.65mm 	Plastic: dark gray 3.15mm For third gear-low gear	Plastic: 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	No Need	 21.5mm	 23.2mm	 23.2mm

↔ Denotes Interchangeability.

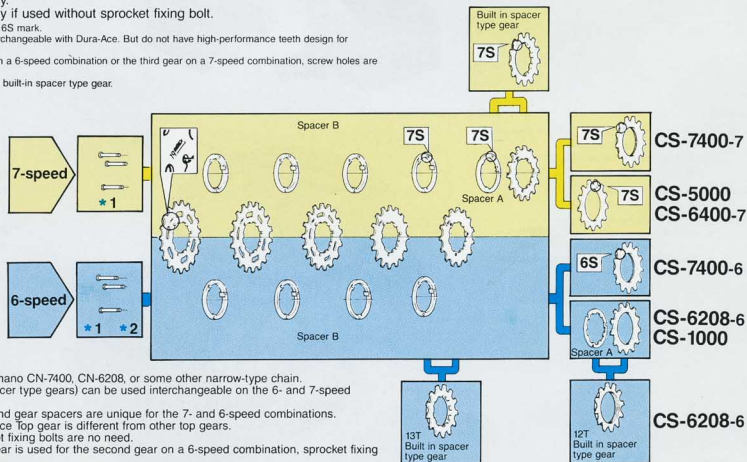
→ Denotes Interchangeability if used without sprocket fixing bolt.

★ Some 6-speed gears do not have the 6S mark.

★ 1: Standard spline sprockets are interchangeable with Dura-Ace. But do not have high-performance teeth design for Dura-Ace.

★ 2: When using for the second gear on a 6-speed combination or the third gear on a 7-speed combination, screw holes are necessary.

★ 3: Because the second gear must be built-in spacer type gear.



Notes:

• For 7-speed be sure to use Shimano CN-7400, CN-6208, or some other narrow-type chain.

• Spline gears (except built-in spacer type gears) can be used interchangeable on the 6- and 7-speed combinations.

• Top gears, built-in-type gears, and gear spacers are unique for the 7- and 6-speed combinations.

• The thread dimension of Dura-Ace Top gear is different from other top gears.

★ 1: In case of Dura-Ace, sprocket fixing bolts are not need.

★ 2: When built-in spacer type gear is used for the second gear on a 6-speed combination, sprocket fixing bolts are not need.

7-speed

Large Spine/16T.—26T.
 Small Spine/14T.—22T.
 2nd Gear/13T.—15T.
 Female Thread (BC 40T)
 Top Gear/2T.—14T.
 Male Thread (BC 36T)

Lube Port

6-speed

Large Spine/16T.—34T.
 Small Spine/14T.—22T.
 Top Gear/13T.—16T.
 (BC 40T)

Lube Port

A Creative Synthesis of Man, his Tools, and his Resources.



Shimano Industrial Co., Ltd. is composed of the bicycle component, fishing tackle, and cold forging divisions whose products are marketed throughout a world-wide sales, marketing & service network.

Incorporating innovative design and advanced functions, Shimano products continue to establish new standards of quality and performance in their respective fields.



Shimano bicycle components are extremely popular world-wide. This is the direct result of Shimano's commitment to advancing the state of the cycling art through constant research and development.

Dramatic improvements in cycling performance have been realized from system component groups like Dura-Ace, Santé, 600 Ultegra, Shimano 105, and New Deore XT.

These advanced components have been supported by technical breakthroughs such as Biopace chainrings, SIS shifting, and the state-of-the-art SLR brake system. These products have excited the industry and provided continued growth for the company.

Newer to the company is the fishing tackle division which was established in 1970. This division produces a wide line of distinctive fishing rods, reels, and other related products that



fishermen throughout the world have come to know and trust.

The Shimano cold forging division plays the most important role of all by providing leading edge cold forging technology that is the heart of Shimano quality.

This is Shimano—a creative synthesis of man, his tools, and his resources.



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