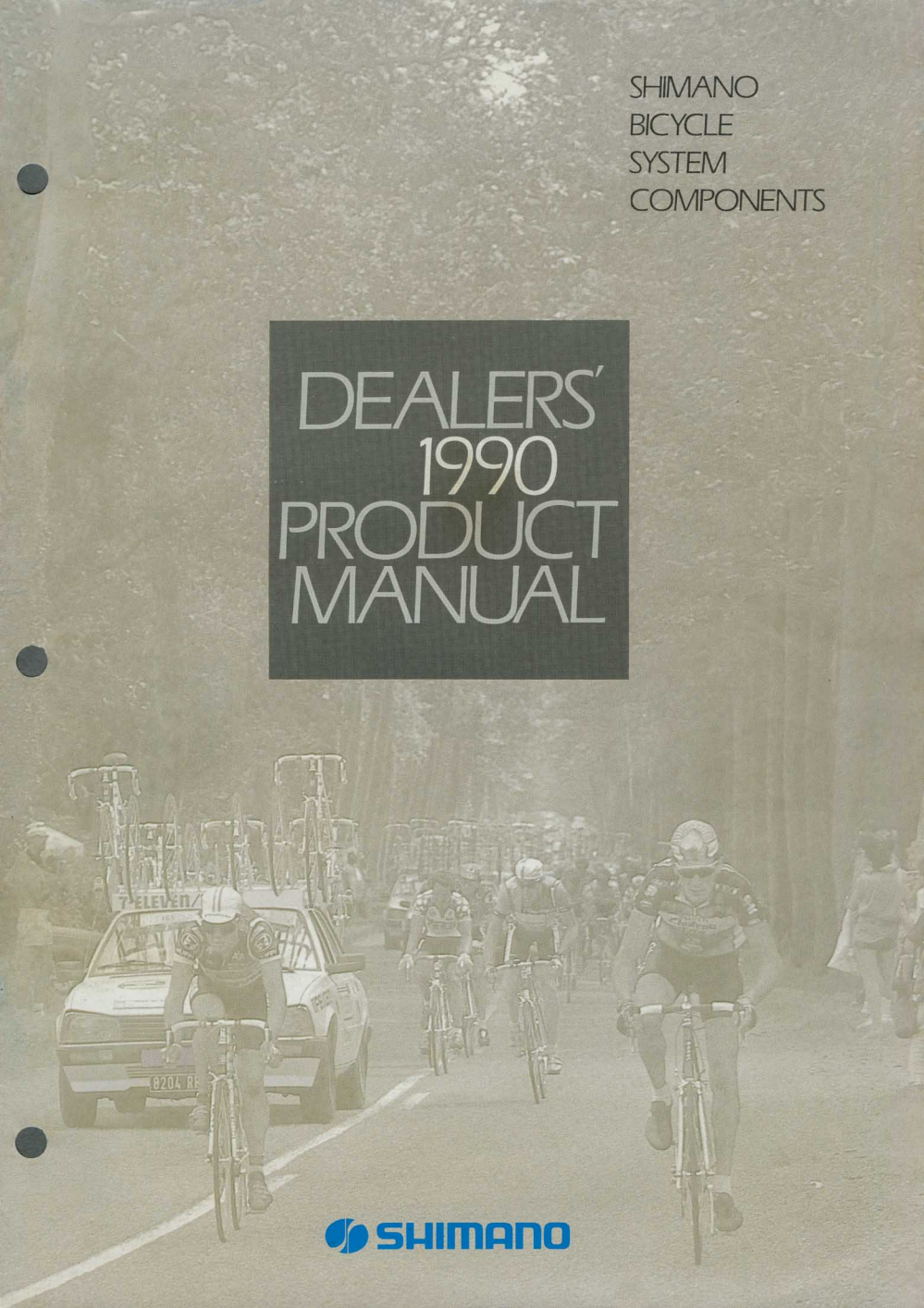
SHIMANO
BICYCLE
SYSTEM
COMPONENTS

DEALERS' 1990 PRODUCT MANUAL



SHIMANO

Getting Closer to the Cyclist

It's no overstatement to say that man's dream of traveling faster, to move swiftly through the environment, was one of the impulses behind the invention of the bicycle. As we approach the 21st century, the bicycle is being refined in a way that significantly improves its ability to move us faster, farther, and with greater ease and enjoyment.

Shimano is one of the leading forces in the advancement of cycling technology which is making the bicycle a more enjoyable and efficient vehicle than ever before.

For example, Shimano pioneered the "system component" concept which integrates the functions of all the bicycle's components to form a higher-performing synergistic whole. Shimano biomechanical engineering assures that the human element and the machine are joined in the most efficient manner. And aerodynamic design contributes to greater energy savings.

One example of the way, Shimano has applied the science of biomechanics is Biopace, a computer-designed chainring that improves pedalling efficiency and enjoyment.

The Shimano Index System (SIS) allows virtually anybody to shift the bicycle's derailleur quickly and accurately without experience or practice.







Hyperglide sprockets and Superglide chainrings enhance SIS shifting with faster and more positive chain movement from gear to gear.

Shimano Linear Response brake systems (SLR) make braking safer and more effective by eliminating friction and providing a more sensitive feeling of control at the lever.

These advanced functions have played a key role in the development of Shimano Total Integration (STI), a breakthrough design concept which places all of the bicycle's control functions under the cyclist's hands on the handlebars.

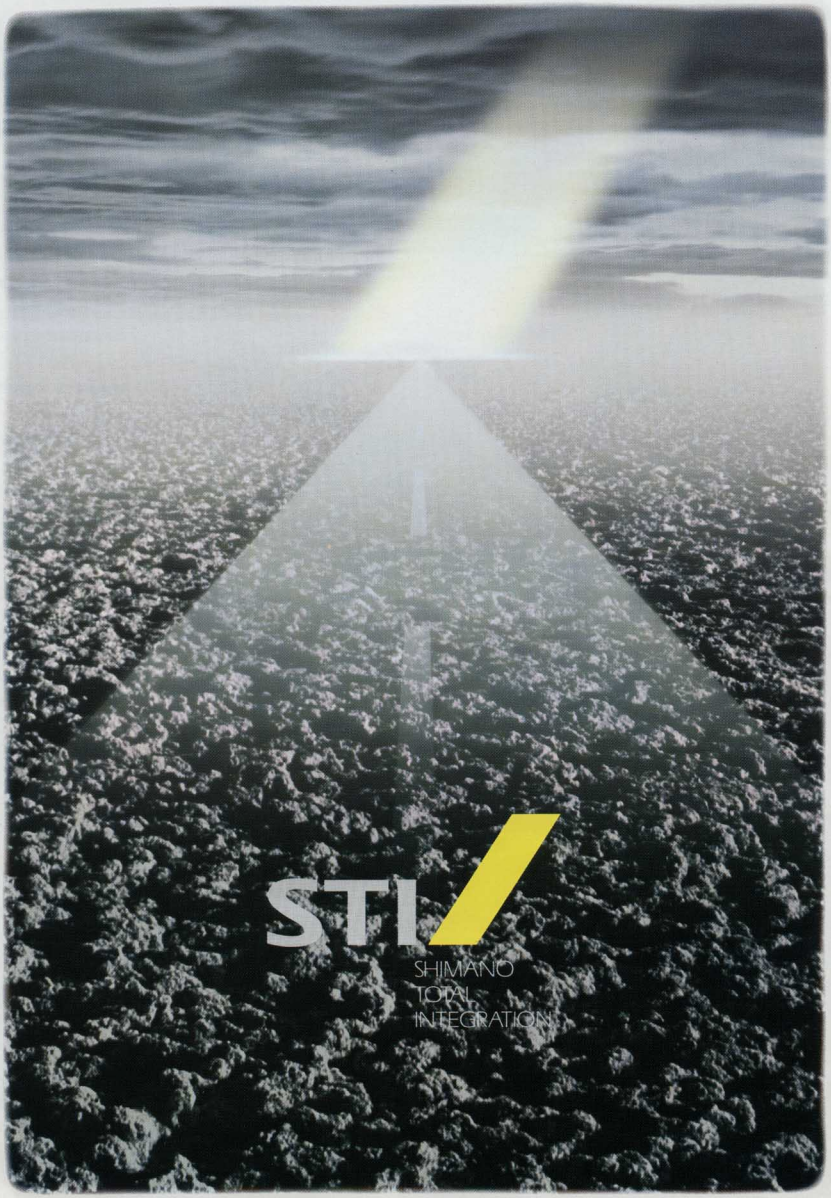
These are the ways in which Shimano is adapting the bicycle to the cyclist. It's the result of a development policy stressing the creation of a more comfortable and efficient relationship between the man and the machine.

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STI DEVELOPMENT CONCEPT



Shimano Total Integration...

A new relationship between the cyclist and the bicycle

Shimano Total Integration, STI, means that the main control functions of steering, braking and shifting gears can now be executed without ever removing hands from the handlebars. It's a breakthrough in bicycle component technology which promises a whole new generation of riding convenience and performance, for all cyclists.

STI is not a development which stands alone. It's the cumulative result of years of research and development. SIS for example. SIS's click-stop shifting action makes derailleur shifting fast, accurate and foolproof. SIS also increased overall cycling performance for racing cyclists, sport riding enthusiasts, and casual cyclists alike.

SIS has been further refined with Hyperglide sprockets and Superglide chainwheels which help to speed up and smooth out chain movement during shifting.

Yet with all the advantages SIS offers, there is still a problem in shifting gears. On-road bicycles place the shifting lever on the frame's downtube. This means that you must let go of the handlebar in order to shift. Of course, there are many times when you need to shift but can't afford to release the handlebars. Speed, concentration, and balance are often sacrificed in order to shift the derailleur.

The same problem exists for off-road bicycles which use a thumb shifter mounted on top of the bars. Your grip must be released in order to operate the thumb shifter to change gears. Needless to say, this can make the bike difficult to control when you need to shift while riding through rough and changing terrain.

Shimano has solved this final impediment to total bicycle control with the STI concept. STI places all of the bicycle's control functions, for both on- and off-road bicycles, directly under the cyclist's hands while the rider continues to grip handlebars. With STI you can steer, brake, and shift gears—always keeping a firm grip on the bars. STI is a great leap forward in cycling convenience and performance.

SIS, SLR, Hyperglide, Superglide...

Advanced component technology supporting STI

STI has been made possible through the high level of refinement offered by its supporting functions of SIS, Hyperglide sprockets, Superglide chainrings, and SLR brake technology.

Through the careful integration of these advanced functions, STI finally realizes a complete bicycle control system in which any desired control function can be executed instantly and directly without affecting other areas of control. In other words, STI lets you shift gears, brake, and steer the bicycle without any sacrifice in stability or concentration.

STI even lets you shift gears during extreme maneuvers, while cornering or braking for example a significant advantage for the racing and performance-oriented cyclist. This new level of cycling control has been made possible by the continuing evolution of Shimano's advanced component functions.

STI is a standard feature on all Shimano off-road component groups for 1990 and will be available on road component groups in the near future.

This is how Shimano is bringing the bicycle closer to the real needs of the cyclist.



A Whole New World of Cycling Control from Shimano Total Integration.



Cycling enjoyment and performance have a great deal to do with control. The less energy and concentration expended controlling the bicycle, the more enjoyable and safer the cycling experience becomes. And there's also the additional benefit of increased performance.

Control. That's what Shimano Total Integration is all about. We think that shifting gears shouldn't be part of the challenge of off-road riding.

The new STI system significantly upgrades control by letting you shift gears with a quick one-punch action through levers conveniently mounted under the bars. This means you never have to change hand position or release the bars to shift.

The benefits of STI are really significant. You get the gear you need exactly when you need it, in any terrain. You don't have to slow down, lose concentration, or adjust your hand position on the bars. STI is a total advance in safety, convenience and performance.

STI gives you greater confidence in your ability to control the bicycle plus a cycling experience that's more fun than ever.







OFF-ROAD STI

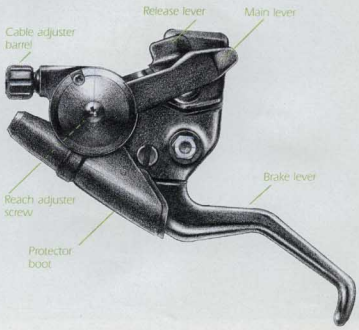
RAPIDFIRE

DUAL REPEAT FUNCTION



Keep your grip while you shift. Off-road STI Rapidfire lever uses two ratchet-action push levers mounted conveniently under the bar in front of the thumb. Shift one gear at a time, or shift down the entire gear block with a full stroke push. (ST-M090, ST-M091, ST-M070, ST-M071) Release (upshift) lever lets you shift up the sprocket cluster with the same capability.

Shift triple front chainwheels with the same precise STI action, 1 or 2 gears at a time. Trimming adjustment eliminates chain rub.



Enhanced Control and Safety for the All-terrain Bicycle

The current design of the off-road shifting system utilizes a thumb-type shifter placed on top of the bars near the grip. While the shift lever is located near the hand position, the hand must still be released from the grip in order to shift gears. Of course, this results in a certain loss of control and balance, and makes shifting almost impossible when traversing rough and changing terrain.

Shimano tackled the problem and found that there was a much better place to put the off-road shift lever—under the bar, directly in front of the thumb when the hand is in the normal bar-gripping position.

But that's not all. A new type of dual repeat function lever was developed in which only a simple "punching" movement of the thumb is needed to both downshift and upshift. The result is a significantly easier and faster shifting action which allows the rider to maintain a firm grip on the bars at all times.

Off-road STI frees the rider to shift instantly whenever the situation demands—something which is especially important for the off-road riding style. STI not only improves performance, but gives the off-road rider a refreshing new feeling of confidence and control.

Off-road STI has been made possible by continuing refinements in SIS shifting technology, Hyperglide sprockets, Superglide chainrings, and sensitive SLR braking performance.

Off-road STI will be introduced as standard equipment on all Shimano off-road component systems for 1990, from the top line Deore XT-II group to the versatile Exage family. STI also signals a new era in off-road cycling.

1 **Let your thumb shift while you keep your grip...**
The biomechanical design of STI's Rapid Fire levers, placed under the bar, lets you keep your grip while shifting with a fast repeat-action movement of the thumb only.

2 **Get the gear you need exactly when you need it...**
With STI there's no need to reach for the shift lever—it's always there, right under your thumb. This means you can instantly punch in the gear you want exactly when you need it, without changing hand position or diverting attention from the trail ahead.

3 **A "thumb only" one-punch shifting action...**
STI's dual-action lever gives you one lever for upshifting and one for down shifting. Both levers work with the same positive repeat action. One punch of your thumb gives you either a higher or lower gear—shifting can't be any easier.





THESE ARE THE ADVANCED FUNCTIONS THAT MADE STI A REALITY...

HG
HYPERGLIDE

Fast and smooth shifting, even under high chain loads.

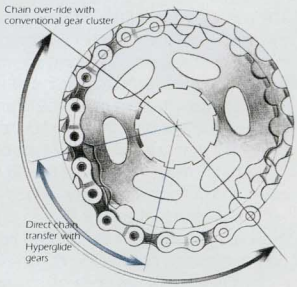
When shifting with conventional sprockets, the chain can occasionally slip over the gear teeth or ride on top of the teeth before completing the shift. This problem is made even worse when a shift is attempted under high chain loads.

Hyperglide sprockets were developed in order to solve these long standing shifting problems.

Shimano made extensive use of the computer in the development of Hyperglide. Hyperglide works by controlling chain movement between sprockets so that the chain moves quickly and directly from one sprocket to the next. It's done through special tooth profiles designed to positively release and pickup the chain, and the strategic indexing of the sprockets in relation to each other.

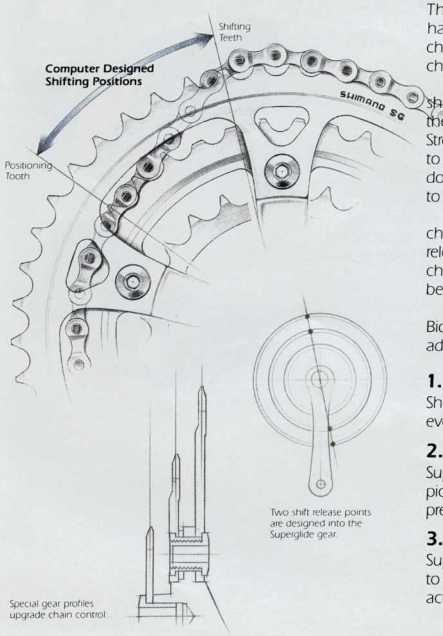
The result is significantly upgraded shifting performance that helps make STI a reality. Hyperglide shifts are fast and clean, even when there's high torque applied to the chain as when climbing or sprinting.

Hyperglide sprockets are standard equipment on all Shimano component groups for 1990.



SG
SUPERGLIDE

Significantly improved chainwheel shifting



The same technology applied to the Hyperglide sprocket has been applied in the development of the Superglide chainring in order to solve the problems inherent in chainwheel shifting.

The main chainwheel shifting problem occurs when shifting to the inner chainring while applying pressure to the pedals, such as when trying to shift when climbing. Strong pressure on the chain makes it difficult for the chain to separate from the large chainring. And when the chain does shift, many times it misses the inner chainring or fails to engage quickly.

The unique computer-aided design of the Superglide chainring features a special tooth profile that lets the chain release only at the two points of lowest pressure on the chainring. Shifting shock is eliminated. Chainwheel shifting becomes smoother, faster, and much more precise.

Superglide chainrings are available in both round and Biopace types. They make a significant contribution to the advanced performance of the STI system.

1. Chain shifting shock eliminated

Shifting shock and hesitation are completely eliminated, even during high pedal loads.

2. Chain throwing eliminated

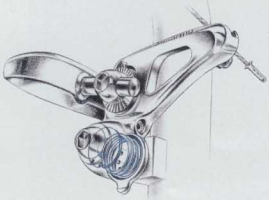
Superglide's specifically designated chain release and pickup points enhance chain control to realize much more precise chainwheel shifting.

3. Smoother chain movement

Superglide's controlled chain movement prevents damage to chainwheels while providing a much smoother shifting action.

SHIMANO LINEAR RESPONSE

Improved braking power with more sensitive lever control



At its introduction, Shimano Linear Response (SLR) finally reconciled the two opposing factors of bicycle braking performance—stopping power and control sensitivity.

The SLR design eliminates friction in the brake system by utilizing a special helper spring in the lever, low-friction pivot bearings in the caliper, and other mechanisms which result in strong braking power being delivered with sensitive and responsive fingertip control.

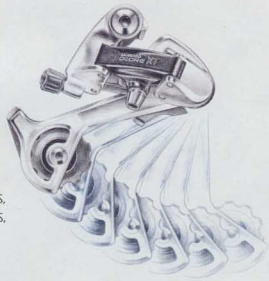
SUPER SLR SHIMANO LINEAR RESPONSE

Super SLR is the latest refinement of the system in which the sidepull caliper utilizes a new dual-pivot design that acts to boost braking power in relation to lever input.

Super SLR is standard equipment on Shimano 105SC, and the Exage 500EX component groups for 1990.

SIS SHIMANO INDEX SYSTEM

Shimano indexed shifting continues to be refined.



There are many indexed shifting systems available today, but only one SIS. Shimano Index Shifting is the original indexed shifting system that continues to define the world standard in derailleur shifting performance.

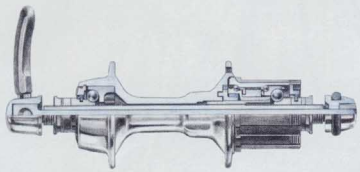
SIS delivers fast, positive, and error-free gear shifting that doesn't take practice or skill. With SIS, anyone can shift like a pro, right from the start.

SIS continues to improve. Progressing from six to seven to 8-speed systems, SIS performance is being upgraded through the use of new light-action SIS units, Hyperglide sprockets, and Superglide chainrings.

SIS is still the leader in indexed shifting.

THE SHIMANO FREEHUB

New Hyperglide Freehub System



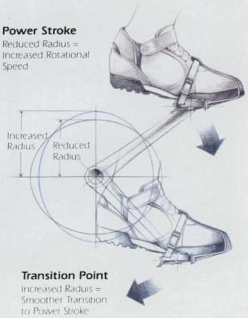
The Shimano freehub combines the rear hub and freewheel mechanism into a stronger one-piece unit. The advantages of freehub design are more advantageous placement of spoke flanges, placement of the hub bearings closer to the dropouts, and a stronger rear frame triangle to enhance power transfer efficiency.

The freehub has also contributed to the development of 7- and 8-speed gearing.

Another advantage of the freehub is that it helped make possible the Hyperglide sprocket. An asymmetrical spline on the freewheel body allows precision Hyperglide sprocket indexing.

biopace Computer-Designed Drive System

Greater pedalling efficiency with Superglide shifting



The optimum pedalling motion should copy the natural movement of the human leg when it's walking or running.

That's exactly what Biopace does. Biopace is a computer-designed chainring whose non-round shape produces a pedalling cadence that more closely matches the natural speed changes in the human leg when walking or running.

The result is that pedalling with Biopace feels lighter and livelier, hills are easier to climb, and stamina is also increased.

Now Biopace incorporates the Superglide function which means that it shifts better than ever. It's another Shimano function that brings the bicycle closer to the rider.


TVM
Saxon
TOSHIBA
TOSHIBA

A Revolution in Gear Shifting Heightens the Dura-Ace Advantage.

The latest in advanced Shimano functions has enhanced the winning advantage of Dura-Ace. These functions help realize the fraction-of-a-second advantage that often makes the difference between winning and losing in professional cycling.

Starting with a 6-speed version, Dura-Ace's SIS has been refined and upgraded to include 7-speed and now the Integrated 8-speed version that finally responds to the real needs of the racing cyclists. The result is higher performance proven by the increasing number of racers winning with Dura-Ace.

And now Hyperglide sprockets and Superglide chainwheels have been incorporated into Dura-Ace. Made possible by advanced computer design techniques, Hyperglide and Superglide make SIS shifting faster and smoother than ever before. It's all part of Dura-Ace's winning advantage.



Dura-Ace...
The ultimate racing machine.



HG SG SLR INTEGRATED-8 DURA-ACE SIS THE SHIMANO FREEHUB biopace

HYPERGLIDE

Integrated-8 and Hyperglide... An Unbeatable Combination.

Integrated-8 SIS was developed to respond to the racer's demand for more gearing. Integrated-8, Shimano Freehub, and Hyperglide sprockets form Dura-Ace's new winning combination. This is gear shifting performance at the forefront of racing bicycle technology.

Freehub design allows bearing placement nearer the dropouts to reduce rear axle flex and provide greater power transfer efficiency. The Freehub also allows the use of an 8-speed sprocket cluster with no more rim dish than standard 7-speed systems. The result? The advantage of 16-speed SIS shifting with absolutely no sacrifice in rear wheel strength.

Add Hyperglide sprockets to the Freehub and you've got the most advanced 8-speed competition shifting system available today. That's because Hyperglide sprockets make the chain shift faster and smoother, even under the highest pedal loads such as flat-out sprinting, chasing, and climbing.

Integrated-8 with Hyperglide. It's the beginning of a new winning tradition.



Some questions about DURA-ACE and how to answer them.

Q.1:

Can Hyperglide sprockets be installed on the current Dura-Ace freehub? And will I be able to use normal Dura-Ace sprockets on a Hyperglide Freehub?

A.1:

Yes! Hyperglide sprockets can be installed on current 8-speed Dura-Ace freehub!

For the Integrated-8 Freehub (FH-7402), installation of the separately available freewheel body (with dust cap) for the FH-7403 freehub will allow installation of a Hyperglide 8-speed sprocket cluster.

Also, the right-hand side lock nut must be replaced with a FH-7403 right-hand side lock nut.

Conversely, non-Hyperglide sprockets simply slide on the Hyperglide type spline with no modification necessary except that you have to use the CS-6400 or CS-1000 top gear for 7-speed clusters.

Of course, the Hyperglide shifting advantage won't be realized unless Hyperglide sprockets are installed on the Hyperglide-compatible Freehub.

SG
SUPERGLIDE

Superglide...The New Concept in Chainwheel Shifting Performance.



The Dura-Ace Superglide chainwheel uses the same technology applied to the Hyperglide sprocket in order to improve front derailleur shifting performance.

How does Superglide do it? It incorporates special release teeth at two points on the chainwheel which allow the chain to separate cleanly at the point of lowest torque. So, no matter how hard you're pedalling, you always get fast, smooth, and crisp shifts from the chainwheels.

The chain moves cleanly and smoothly from the outer chainwheel to the inner without and any shock, slap, or hesitation. With Superglide, there's absolutely no need to let off of pedal pressure or slow down your cadence in order to pull a clean chainwheel shift.

And what's more, the new Dura-Ace FD-7403 front derailleur has a 2-position spring tension adjustment feature which lets you set it to your own preference.

Most of all, Superglide gives the racer complete confidence that the front derailleur will shift fast and dependably during the stress of competition.

Some questions about DURA-ACE and how to answer them.

Q.1:

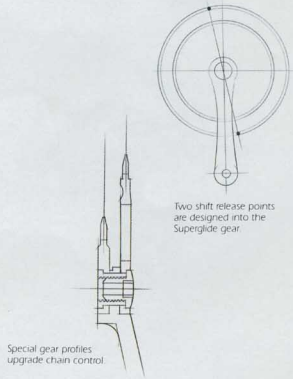
Can I just install the Superglide chainrings on my Dura-Ace crankset and get the full Superglide advantage?

A.1:

Just install Superglide chainrings to your crank for upgraded shifting performance.

Install the Superglide chainrings like any conventional chainring, just be careful to align the indexing marks as indicated. That's all it takes to get upgraded front chainwheel shifting from the advanced Superglide design.

Remember that Superglide chainrings must be installed in pairs and are available in 52T × 42T, 53T × 42T, and 53T × 39T sets.




DURA-ACE
SG
HG
FC-7402-SG
FH-7403
CS-7401



Model No.	Specifications	Compatibility	Finish	Other Information
Rear Derailleur **RD-7402**	209g. Front Difference: 14T. Total Capacity: 26T. Max. Rear Sprocket: 26T. Min. Rear Sprocket: 12T.	6.7 & 8-speed SIS Compatible Centeron Guide Pulley Sealed Pulley Sealed Link Pivots B-Tension Adjuster Chain Retainer	Bracket Body: Light Alloy•Anodized Finish Plate Body: Light Alloy•Anodized Finish Right Link: Light Alloy•Anodized Finish Left Link: Light Alloy•Anodized Finish	
Front Derailleur **FD-7403-B** (Band Type) **FD-7403-F** (Italian Brazed-on Type)	93g. (Band Type) Band Diameter: Ø28.0mm. ~ Ø28.6mm. Capacity: 15T. Stroke (w/Ø28.6mm. Band): 37 ~ 51	SG Gear Compatible Narrow Type Chain Compatible Chain Release Dish-Out Helicoil-Secured Cable Fixing Bolt	Right Link: Light Alloy•Anodized Finish Front Band: Light Alloy•Anodized Finish Chain Guide: Chrome Plated	
Shifting Lever **SL-7402-F*CAI** (8-speed SIS. Blazed-on A Type)	67g. 8-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism Human Engineered Design 30° Offset of Lever Stopper Sealed Outer Casing	Light Alloy•Paint Finish	
Shifting Lever **SL-7401-B*CAI** (7-speed SIS. Band A Type) **SL-7401-FCAI** (7-speed SIS. Blazed-on A Type)	65g. 7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch 30° Offset of Lever Stopper Light Action Lever Sealed Mechanism Human Engineered Design Sealed Outer Casing	Light Alloy•Paint Finish	
Shifting Lever **SL-7400-B*CAI** (6-speed SIS. Band A Type) **SL-7400-FCAI** (6-speed SIS. Blazed-on A Type)	72g. 6-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch Sealed Mechanism Human Engineered Design Sealed Outer Casing	Light Alloy•Buff Finish	
Caliper Brake **BR-7402-49** (Short 49 Type)	376g. (F & R. 49 Type) *For SLR System use with SLR Compatible Brake Lever and Shimano Outer Cable with Liner.	SLR (Shimano Linear Response) System Spring Sleeve Thrust Bearing & Coated Pivot Washer Low Profile Brake Shoe Click & Eccentric Type Quick Release	Light Alloy•Anodized Finish	
Brake Lever **BL-7402** (Aero Type)	240g. Pair Lever Clamp Diameter: 24.2mm., 23.8mm. Lever Stroke: 88 *For SLR System use with SLR Compatible Brake Lever and Shimano Outer Cable with Liner.	SLR (Shimano Linear Response) System Aerodynamic Design	Lever: Light Alloy•Anodized Finish Bracket: Light Alloy•Chrome Plated Cover: Soft Resin•Molding	

Model No.	Specifications	Compatibility	Finish
Front Chainwheel **FC-7402-SG** (SG Gear Double, LD Type) **FC-7402** (Double, LD Type) **Bottom Bracket Assembly** **BB-7400** (B.B. Set)	643g. (42T., 52T., 170mm.) 292g. (B.B. Set) Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm., 177.5mm., 180mm. B.B. Axle Length: 112 (113) Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20TPI. Cup Thread: English BC 1.37 × 24TPI., French M35 × 1.0, Italian M36 × 24TPI.	SG Gear (FC-7402-SG) Narrow Type Chain Compatible. Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Anodized Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-7403** (Rear, 8-speed)	439g. (w/Quick Release) Spoke Holes: 36H., 32H., 28H. Hole PCD: 44 O.L.D.: 130mm. Axle Thread: 10mm. Axle Length: 141mm. Mounting Type: Quick Release	8-speed SIS Compatible UG/HG Compatible Type Lip Type Sealed Mechanism	Light Alloy•Anodized Finish
Freehub **FH-7402-8** (Rear, 8-speed) **FH-7400-6/7** (Rear, 6- & 7-speed)	439g. (6 & 7-speed w/Quick Release) Spoke Holes: 36H., 32H., 28H. Hole PCD: 44 Axle Thread: 10mm.	8-speed SIS Compatible (7402-8) 6&7-speed SIS Compatible (7400) Lip Type Sealed Mechanism (7402-8)	Light Alloy•Anodized Finish
Front Hub **HB-7400**	228g. Spoke Holes: 36H., 32H., 28H. Hole PCD: 38 O.L.D.: 100mm. Axle Thread: 9mm. Axle Length: 108mm. Mounting Type: Quick Release	Lubrication Ports with Open/Close Indicater Lip Type Sealed Mechanism	Light Alloy•Anodized Finish
Cassette Sprockets **CS-7401** (8-speed HG)	255g. (Sprocket **S** Group & Spacer)	8-speed SIS Compatible 8-speed Hyperglide Use Narrow Type Chain	Steel•Champagne Gold Finish
Cassette Sprockets **CS-7400-8** (8-speed)	255g. (8-speed; Sprocket 12T. ~ 21T. & Spacer) Teeth: Threaded Sprocket; 12T. ~ 14T. Built-In Spacer Type Sprocket; 13T. ~ 15T. Spline Sprocket; 14T. ~ 26T., 28T.	8-speed SIS Compatible Narrow Type Chain New Uniglide Teeth	Steel•Champagne Gold Finish
Cassette Sprockets **CS-7400-6/7** (6-speed/7-speed)	208g. (6-speed; Sprocket 13T. ~ 21T. & Spacer) 221g. (7-speed; Sprocket 12T. ~ 21T. & Spacer) Teeth: Threaded Sprocket; 12T. ~ 14T., Built-In Spacer Type Sprocket; 13T. ~ 15T. Spline Sprocket; 14T. ~ 26T., 28T.	6 & 7-speed SIS Compatible Narrow Type Chain (7-speed) New Uniglide Teeth	Steel•Champagne Gold Finish
HG Chain **CN-7401**	Size: 1/2" × 3/32" Chain	Narrow Type Hyperglide Chain	Roller Link Plate: Silver Finish Pin Link Plate: Silver Finish
Head Parts **HP-7400**	113g. Height: Upper Cone 22.8mm. Lower Cone 13.5mm.	Road Type Sealed Mechanism	Lock Nut: Anodized Upper Cup: Anodized Lower Cup: Anodized
Clipless Pedal **PD-7401**	416g. (Pedal, Pair) 92g. (Cleat & Hard Wear) Crank Thread: English BC 9/16" × 20TPI.	34° Road Clearance Compound Roller & Ball Bearing Axle Aerodynamic Dustcap-less Design Adjustable Cleat Grip Tension Compatible Look® Cleat	Body: Light Alloy
Pedal **PD-7400**	372g. (Pair, Including Toe Clip Size L) Toe Clip Size: M, L, LL Toe Clip Locking System: 3-Screw Crank Thread: English BC 9/16" × 20TPI.	34° Road Clearance. Compound Structure of Needle Bearing and Cup & Cone Aerodynamic Design Sealed Mechanism	Body: Light Alloy•Boff Finish Plate: Steel or Anodized Toe Clip: Steel or Anodized
Seat Pillar **SP-7400-A** (Round Tube, A-Type) **SP-7400-B** (Semi Oval Tube, B-Type)	224g. (A-Type), 244g. (B-Type) Shaft Adjustment Length: 25.0mm., 26.0mm., 26.2mm., 26.4mm., 26.6mm., 26.8mm., 27.0mm., 27.2mm., 27.4mm. Shaft Diameter: Ø26mm. or Ø28mm.	Aerodynamic Design Hexagon Release	Light Alloy•Anodized Finish
Handle Stem **HS-7400**	252g. (100mm.), 269g. (120mm.) Extention: 70mm., 80mm., 90mm., 100mm., 110mm., 120mm., 130mm. Handle Stem Diameter: 22.2mm. Handle Bar Clamp Diameter: 26.0mm.	Aerodynamic Design Hexagon Release	Light Alloy•Anodized Finish

Other Information

FC-7402-SG
Teeth:

	Round	
Top	52T.	53T.	53T.
Low	42T.	42T.	39T.

FC-7402
Teeth:

	Biopace	Round
Top	53T.	56 ~ 48T.
Low	42 (HP)	45 ~ 39T.

FH-7402/7400

	7402-8	7400-6/7
O.L.D.	130	126.5
Axle Length	141	137
Chain Line	42.65	42.6 (6S) 42.95 (7S)
Mounting Type	Quick Release	

CS-7401
Cassette Sprocket Combinations:

8-speed	**S**	12, 13, 14, 15, 16, 17, 19, 21T.
	T	13, 14, 15, 16, 17, 19, 21, 23T.

CS-7400-8
Standard Sprocket Combinations:

8-speed	12, 13, 14, 15, 16, 17, 18, 19T. 12, 13, 14, 15, 16, 17, 19, 21T. 13, 14, 15, 16, 18, 20, 22, 24T. 13, 14, 15, 16, 17, 18, 19, 21T. 13, 14, 16, 18, 20, 22, 24, 26T.

CS-7400-6/7
Standard Sprocket Combinations:

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

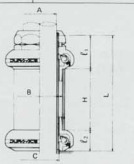
HP-7400
Variations:

English/Italian Type		
Thread		BC1 × 24T
Press Race Diameter	Upper Cone & Lower Cup	30.2mm., 30.0mm. (JIS)
	Lower Cone	26.4mm., 27.0mm. (JIS)

French Type		
Thread		M25 × P1.0
Press Race Diameter	Upper Cone & Lower Cup	30.2mm., 30.0mm. (JIS)
	Lower Cone	26.4mm., 27.0mm. (JIS)

Dimensions:

ℓ_1	22.8mm
ℓ_2	13.5mm
H	Head Tube Length
L	H + 36.3mm.
A	22.3mm.
B	30.2mm./30.0mm. (JIS)
C	26.4mm./27.0mm. (JIS)
Thread	BC 1" × 24T. (English, Italian Thread)/ M25" × P1.0 (French Thread)



DURA-ACE
TRACK



Model No.	Specifications	Compatibility	Finish
Hub **HB-7600** (Large & Small Flange)	313g. (Rear Large Flange w/Lock Ring) 241g. (Front Large Flange w/Lock Ring) Axle Thread: 10mm. (One-Side or Both-Side Threaded Type) Spoke Holes: 24H, 28H, 32H, 36H Spoke Hole Diameter: Ø2.4mm.	Precision Ground Cones Diamond-Polished Mirror Finish (Cup & Cones) Sealed Mechanism Composite-Type Design (Large Flange)	Forged Alloy•Anodized Finish
Sprocket **SS-7600** (Hub Sprocket for Track Model)	Thread: BC 1.37 × 24T.P.I. (English) Standard Sprocket: 1/2" × 1/8",: 1/2" × 3/32" Teeth: 13T., 14T., 15T., 16T. 1/2" × 1/8" Sprocket:		Cr-Mo Steel
Front Chainwheel **FC-7600** **Bottom Bracket Assembly** **BB-7600** (B.B. Set)	605g. (48T., 170mm.) 305g. (B.B. Set) Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm. Teeth: 42T.~55T. B.B. Axle Length: 109 Chain: 1/8" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	Exclusively Designed for Track Computer Aided Design (Crank) Removable Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Anodized Finish Chain Ring: Light Alloy•Anodized Finish
Head Parts **HP-7600**	90g. Height: Upper Cone 19.5mm. Lower Cone 11.5mm.	Track Type Sealed Mechanism Composite Structure Super Light Weight	Lock Nut: Light Alloy•Anodized Upper Cup: Bearing Stainless Steel Lower Cup: Bearing Stainless Steel Upper & Lower Cone: Stainless Steel

	Rear	Front
O.L.D.	120	100
Fork End Slot Width	10mm.	9mm.

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

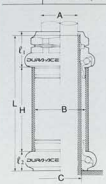
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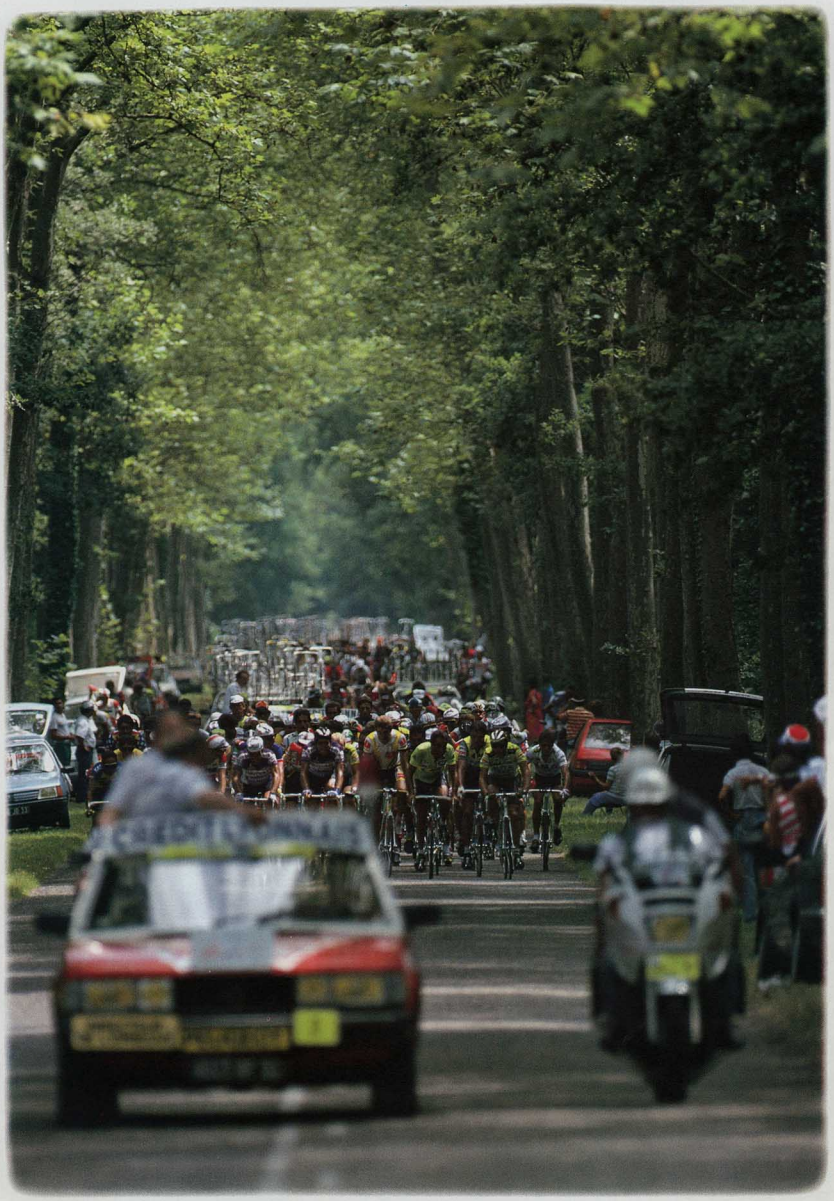
HP-7600
Variation:

English/Italian Type		
Thread		BC1 × 24T
Press Race Diameter	Upper Cone & Lower Cup	30.2mm., 30.0mm. (JIS)
	Lower Cone	26.4mm., 27.0mm. (JIS)
French		
Thread		M25 × P1.0
Press Race Diameter	Upper Cone & Lower Cup	30.2mm., 30.0mm. (JIS)
	Lower Cone	26.4mm., 27.0mm. (JIS)

Dimensions:

ℓ_1	19.5mm.
ℓ_2	11.5mm.
H	Head Tube Length
L	H + 31.0mm.
A	22.0mm.
B	30.2mm./30.0mm. (JIS)
C	26.4mm./27.0mm. (JIS)
Thread	BC 1" × 24T. (English, Italian Thread)/ M25" × P1.0 (French Thread)





The "high-response" racing components.

Good racing components are not limited only to those used in the highest reaches of professional competition. Shimano 600 ULTEGRA is a real racing component group for the quality racing-style bicycle.

600 ULTEGRA is a unique blend of quality, high-performance functions, and visual appeal that responds perfectly to today's demand for a high-quality competition-oriented sport bike. 600 ULTEGRA delivers high-performance with a friendly feeling of control backed up by the advanced Shimano functions of 7-speed SIS shifting, Hyperglide sprockets, sensitive SLR braking, and a unique Positive Grip Cleat & pedal design. 600 ULTEGRA has been further refined with polished bearing races and strengthening of all vital parts.

Seamless compact design, coordinated 2-tone coloring, and a high-tech image make 600 ULTEGRA reflect the contemporary cycling style with the quality and performance of advanced Shimano functions to back it up.



The 600 Ultegra equipped bicycle is a high-style high-tech machine.



HG SLR SIS THE SHIMANO FREEHUB biopace

SHIMANO 600
ULTEGRA



Model No.	Specifications	Compatibility	Finish
Rear Derailleur **RD-6400**	216g. Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	6&7-speed SIS Compatible Double Servo-Panta Mechanism Ceramic Guide Pulley Bushings B-Tension Adjuster Double Spoke Barrier	Bracket & Plate Body, Right Link: Light Alloy•Enamel Finish Left Link: Light Alloy•Barrel Finish
Front Derailleur **FD-6400-B** (Band Type) **FD-6400-F** (Italian Type)	104g. (Band Type) Band Diameter: Ø28.0mm.~Ø28.6mm. Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37 ~ 51	Leading Action Pantagraph Mechanism Compact Design Rigid Chainguide	Right Link, Front & Rear Band: Light Alloy•Enamel Finish Chain Guide: Chrome Plated
Shifting Lever **SL-6400-FCAI** (6&7-speed SIS, Brazed-on A Type) **SL-6400-BCAI** (6&7-speed SIS, Side Band A Type)	60g. (SL-6400-FCAI) Same Lever for 6&7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism Lever Interchangeability 30° Off-set of Lever Stopper Human Engineered Design	Light Alloy•Enamel Finish
Caliper Brake **BR-6400-49** (Short 49 Type) **BR-6400-57** (Long 57 Type)	360g. (F & R, 49 Type) *For SLR System use with SLR Compatible Brake Lever and Shimano Outer Cable with Liner.	SLR (Shimano Linear Response) Compatible Spring Sleeve Thrust Bearing & Coated Pivot Washer One Piece & Low Profile Brake Shoe Click & Eccentric Type Quick Release	Light Alloy•Enamel Finish
Brake Lever **BL-6402** (Aero Type, Short Reach) **BL-6401** (Aero Type) **BL-6400** (Standard Type)	260g. (BL-6401, Pair) Lever Clamp Diameter: 23.8mm~24.2mm. Lever Stroke: 79 (6402), 88 (6401, 6400) Bracket Cover: Black, White *For SLR System use with SLR Compatible Brake and Shimano Outer Cable with Liner.	SLR (Shimano Linear Response) Compatible Aerodynamic Design	Lever: Light Alloy• Enamel Finish Bracket: Light Alloy•Barrel Finish Cover: Soft Resin•Molding
Front Chainwheel **FC-6400-BP** (Biopace Double, LD Type) **FC-6400** (Round Chainring, LD Type) ***Option**	650g. (42T., 52T., 170mm.) 308g. (B.B. Set) Crank Length: 165mm., 167.5mm., 170mm., 172.5mm., 175mm. Teeth: Top 50T., 52T., 53T. Low 40T. (HP), 42T. (HP) B.B. width: 113 (115) Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.) Low Profile Design Design Forged Arm & Spider	Crank Arm: Light Alloy•Anodized Finish Chain Ring: Light Alloy•Anodized Finish
Bottom Bracket Assembly **BB-6400**			
Freehub **FH-6401** (Rear, 7-speed) **FH-6400-6/7** (Rear, 6&7-speed)	423g. (6&7-speed w/Quick Release) Spoke Holes: 36H., 32H., 28H. O.L.D.: 126mm Axle Length: 137mm Mounting Type: Quick Release	7-speed SIS Compatible (6401) 6&7-speed SIS Compatible (6400-6/7) UG/HG Compatible Type (6401) One-Piece Forged Hub Body Lip Type Sealed Mechanism Uni-Balance System	Light Alloy•Anodized Finish
Front Hub **HB-6400-F**	212g. Spoke Holes: 36H., 32H., 28H. O.L.D.: 100mm Axle Length: 108mm Mounting Type: Quick Release	One-Piece Forged Hub Body Lip Type Sealed Mechanism	Light Alloy•Anodized Finish
Cassette Sprockets **CS-6400-6/7**	223g. (7-speed Sprocket 12~21T. & Spacer) For 1/2" × 3/32" Chain Narrow Type Chain (for 7-speed)	6&7-speed SIS Compatible	Steel•Silver Finish
Cassette Sprockets **CS-HG90** (7-speed HG)	286g. (Sprocket I Group & Spacer) For 1/2" × 3/32" Chain Use Narrow Type Chain	7-speed SIS Compatible 7-speed Hyperglide	Steel•Chrome Plated
HG Chain **CN-HG90**	326g. (110 Link) Size: 1/2" × 3/32" Chain	Narrow Type Hyperglide Chain Chromed Finish Link Pins	Roller Link Plate: Black Finish Pin Link Plate: Silver Finish
Head Parts **HP-6400**	100g. Hight: Upper Cone 22.0mm. Lower Cone 11.5mm.	Road Type Sealed Mechanism	Lock Nut: Anodized Upper Cup: Anodized Lower Cup: Anodized
Clipless Pedal **PD-6401**	450g. (Pedal, Pair) 92g. (Cleat & Hard Wear) Crank Thread: English BC 9/16" × 20T.P.I.	34° Road Clearance Precision Manufacture Easy-Maintenance Cartridge Axle Adjustable Cleat Grip Tension Efficient Sealed Mechanism Compatible LOOK® Cleats	Body: Light Alloy
Pedal **PD-6400**	478g. (Pair, Including Toe Clip Size L) Toe Clip Size: M, L, LL Toe Clip Locking System: 3-Screw Crank Thread: English BC 9/16" × 20T.P.I.	34° Road Clearance Easy-Maintenance Cartridge Axle Aerodynamic Design Sealed Mechanism	Body: Light Alloy•Buff Finish Plate: Steel Toe Clip: Steel
Seat Pillar **SP-6400-A** (Round Tube, A-Type) **SP-6400-B** (Semi Oval Tube, B-Type)	284g. (B Type, 27.2mm.) Shaft Adjustment Length: 25.0mm. ~ 27.2mm. Shaft Diameter: Ø26mm. or Ø 8mm.	Aerodynamic Design Hexagon Release	Light Alloy•Anodized Finish
Handle Stem **HS-6400**	286g. (100mm.) Extension: 80mm., 90mm., 100mm., 110mm.,120mm., 130mm. Handle Stem Diameter: 22.2mm. Handle Bar Clamp Diameter: 25.4mm., 26.0mm.	Aerodynamic Design Hexagon Release	Light Alloy•Anodized Finish

Other Information

CS-6400
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	
Threaded Sprockets	12—16T. (6S mark)
2nd Gear (Spline Type) w/spacer	13T. (6S mark)
Splined Sprocket	14—26T./28T./30T./32T./34T.
Spacer Width	3.65mm. (Light gray)
7-speed	
Threaded Sprockets	12—16T. (7S mark)
2nd Gear (Spline Type) w/spacer	13T. (7S mark)
Splined Sprocket	14—26T./28T./30T./32T./34T.
Spacer Width	2nd - 3 .30mm. (Except 13T.) 3rd to low-3.15mm. (7S mark) (Dark Gray)

CS-HG90
Cassette Sprocket Combinations:

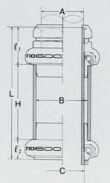
7-speed	**J**	13, 14, 15, 16, 17, 19, 21T.
	I	13, 14, 15, 17, 19, 21, 23T.
	H	13, 15, 17, 19, 21, 23, 26T.
	E	12, 14, 16, 18, 21, 24, 28T.

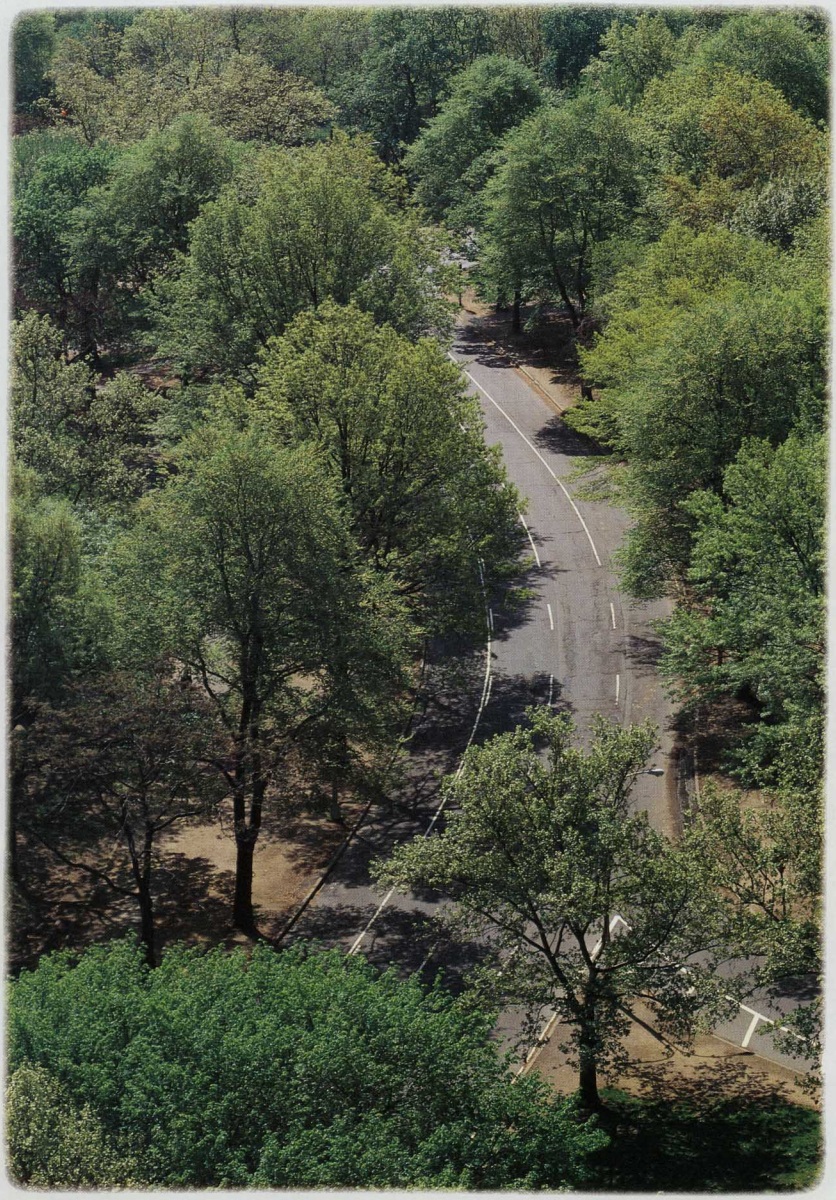
HP-6400
Variation:

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

Dimensions:

ℓ_1	22.0mm.
ℓ_2	11.5mm.
H	Head Tube Length
L	H + 33.5mm.
A	22.3mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" × 24T. (English Thread)





A refinement of the basic racing-style component group.

Shimano 105 was developed to provides high-performance cycling capability together with a distinct and pleasing appearance reflecting the new age of performance-oriented sport cycling.

Shimano 105 SC is a refinement of that concept in a component group that delivers more performance than ever in a stunning new visual style. 105 SC now incorporates high-performance Hyperglide 7-speed SIS shifting, easy pedalling Biopace chainrings, and a Super SLR dual-pivot caliper that delivers stronger braking power than ever. The PD-1056 clipless pedal offers two release settings to allow easier cleat release for first-time users.

From casual sport riders to budding triathletes to dedicated competition enthusiasts, Shimano 105 SC delivers the looks and performance that's sure to satisfy everyone who loves to ride.



105 SC...High performance components for everybody who loves to ride fast.



HG SG SUPER SLR SIS THE SHIMANO FREEHUB biopace

SHIMANO 105 SC



Model No.	Specifications	Compatibility	Finish
Rear Derailleur **RD-1055**	247g. Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	6 & 7-speed SIS Compatible Sintered Alloy Guide Pulley Bushing Adjustable Return Spring Sealed Link Pivots B-Tension Adjuster	Bracket & Plate Body: Right Link: Light Alloy•Enamel Finish Left Link: Steel•Pearl Bright Finish
Front Derailleur **FD-1055-B** (Band Type) **FD-1055-F** (Italian Type)	105g. (Band Type) Band Diameter: Ø28.0mm. ~ Ø28.6mm. Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37 ~ 51	Leading Action Pantagraph Mechanism Compact Design Rigid Chainguide	Right Link, Front & Rear Band: Light Alloy•Enamel Finish Chain Guide: Pearl Bright Finish
Shifting Lever **SL-1055-FCAI** (7-speed SIS, Brazed-on A Type) **SL-1055-BCAI** (7-speed SIS, Side Band A Type)	70g. (SL-1055-FCAI) 7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism Lever Interchangeability Human Engineered Design	Light Alloy•Enamel Finish
Dual Pivot Brake **BR-1055-49** (Short 49 Type) **BR-1055-57** (Long 57 Type)	360g. (F & R, 49 Type) *BR-1055 must be used as a set with the BL-1055 and the Shimano SLR outer Cable. No other combination can be used.	Super-SLR (Shimano Linear Response) Compatible Thrust Bearing & Coated Pivot Washer One Piece & Low Profile Brake Shoe Spring Sleeve Click & Eccentric Type Quick Release	C-Arm: Enamel Finish Y-Arm: Enamel Finish Gate: Anodized
Brake Lever **BL-1055** (Aero Type)	252g. (Pair) Lever Clamp Diameter: 23.8mm. ~ 24.2mm. Lever Stroke: 84 Bracket Cover: Black, White, Gray *BL-1055 must be used as a set with the BR-1055 and the Shimano SLR outer cable. No other combination can be used.	Super-SLR (Shimano Linear Response) Compatible Aerodynamic Design	Lever: Light Alloy•Enamel Finish Bracket: Light Alloy•Barrel Finish Cover: Soft Resin•Molding
Front Chainwheel **FC-1055** (SG Gear Double, LD Type) **Bottom Bracket Assembly** **BB-1055**	710g. (42T, 52T, 170mm.) 340g. (BB Set) Crank Length: 165mm., 170mm., 172.5mm., 175mm. BB Axle Length: 113 (115) Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	SG Gear Narrow Type Chain Compatible. Computer Aided Design (Crank) Sealed Mechanism (BB)	Crank Arm: Light Alloy•Enamel Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-1055** (Rear, 7-speed)	415g. (7-speed w/Quick Release) Spoke Holes: 36H., 32H. O.L.D: 126mm. Axle Length: 137mm. Mounting Type: Quick Release	7-speed SIS Compatible UG/HG Compatible Type Lip Type Sealed Mechanism Uni-Balance System One-Piece Forged Hub Body	Light Alloy•Anodized Finish
Front Hub **HB-1055-F**	216g. (w/Quick Release) Spoke Holes: 36H., 32H.	Lip Type Sealed Mechanism One-Piece Forged Hub Body	Light Alloy•Anodized Finish
Cassette Sprockets **CS-HG70** (7-speed)	286g. (Sprocket **1** Group & Spacer) Use Narrow Type Chain	7-speed SIS Compatible 7-speed Hyperglide	Steel•Silver Finish
HG Chain **CN-HG70**	Size: 1/2" × 3/32" Chain	Narrow Type Hyperglide Chain Bushingless Design Chromed Finish Link Pins	Roller Link Plate: Gray Finish Pin Link Plate: Black Finish
Head Parts **HP-1055**	101g. Height: Upper Cone 21.2mm. Lower Cone 11.5mm	Road Type Sealed Mechanism	Lock Nut: Anodized Upper Cup: Resin Lower Cup: Resin
Clipless Pedal **PD-1056**	460g. (Pedal, Pair) 105g. (Cleat & Hard Ware) Crank Thread: English BC 9/16" × 20T.P.I.	34° Road Clearance Two Release Modes Easy-Maintenance Cartridge Axle Aerodynamic Dustcap-less Design Adjustable Cleat Grip Tension	Body: Light Alloy•Paint Finish
Pedal **PD-1055**	433g. (Pair, Including Toe Clip Size L) Toe Clip Size: M, L, LL Toe Clip Locking System: 3-Screw Crank Thread: English BC 9/16" × 20T.P.I.	34° Road Clearance, Easy-Maintenance Cartridge Axle Aerodynamic Design Sealed Mechanism	Body: Light Alloy•Paint Finish Plate: Steel Toe Clip: Resin

Other Information

FC-1055
Teeth:

	Biopace	Round
Top	52T.	53, 52T.
Low	42T.	42T.

CS-HG70
Cassette Sprocket Combinations:

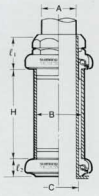
7-speed	**J**	13, 14, 15, 16, 17, 19, 21T.
	I	13, 14, 15, 17, 19, 21, 23T.
	H	13, 15, 17, 19, 21, 23, 26T.
	E	12, 14, 16, 18, 21, 24, 28T.

HP-1055
Variation:

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

Dimensions:

ℓ_1	21.2mm.
ℓ_2	11.5mm.
H	Head Tube Length
L	H + 32.7mm.
A	22.3mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" ×24T. (English Thread)



Some questions about SHIMANO 105 SC and how to answer them.

Q.1:

How does the current SLR caliper brake differ from the new Super SLR caliper?

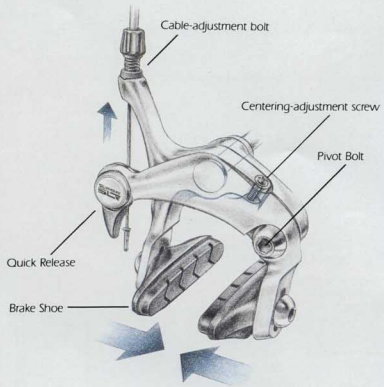
A.1:

More braking power from less lever input.

The new Super SLR caliper utilizes a dual-pivot design which gives each caliper arm its own pivot point. What this does is place the caliper arm pivot closer to the brake shoe in order to increase the caliper's power multiplication factor.

As a result, you get more braking power at the rim with the same amount of input at the lever. This is especially beneficial in a low-friction SLR brake system because the extra braking power can be easily controlled through sensitive lever response.

The Super SLR caliper also offers an adjuster screw which makes centering the caliper over the rim a fast and simple operation.



Q.2:

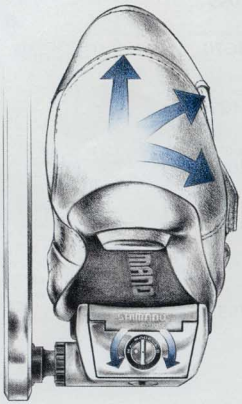
Why is there a switch marked "S" and "M" on the 105 SC clipless pedal?

A.2:

To Allow you to choose the cleat release tension that's comfortable for you.

The PD-1056 clipless pedal lets you choose the cleat release mode that feels best for you. For example, set the changeover switch to the "S" (Single-Release) mode for normal cleat release tension, the same amount of tension as used in the our PD-7401 and PD-6401 pedal system.

The "M"(Multiple-Release) mode provides less tension so your foot can be removed easier from the pedal. This is especially useful for first-time users of clipless pedals who feel more confident if they can remove their feet easily from the pedals.



SHIMANO
RX100



High-performance sport components with an appearance to match.

More and more different types of sport bicycles are being offered in a wider range of prices. The Shimano RX100 component group can bring advanced Shimano quality, function, and contemporary styling to a very reasonable priced lightweight sport bike.

Yet there's no sacrifice in performance with RX100. You get light-action 7-speed SIS shifting with Hyperglide sprockets plus dual-pivot Super SLR brakes and SG Gear. There's an aerodynamic pedal too.

RX100 also offers the quality component look of pure brushed aluminum which can enhance any bicycle.

Shimano RX100 is the stylish new way to high-performance cycling that won't strain the budget.

RX100—A stylish and economical way to high-performance sport cycling.



HG SG SUPER SLR SIS THE SHIMANO FREEHUB biopace

SHIMANO
RX100



Model No.	Specifications	Compatibility	Finish
Rear Derailleur **RD-A550**	280g. Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	6 & 7-speed SIS Compatible Sintered Alloy Guide Pulley bushing Centeron Guide Pulley Adjustable Return Spring B-Tension Adjuster	Bracket Body: Light Alloy•Barrel Finish Plate Body: Light Alloy•Barrel Finish Right Link: Light Alloy•Barrel Finish Left Link: Steel•Pearl Bright Finish
Front Derailleur **FD-A550-B** (Band Type) **FD-A550-F** (Italian Type)	100g. (Band Type) Band Diameter: Ø28.0mm. ~ Ø28.6mm. Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37 ~ 51	Leading Action Pantagraph Mechanism Compact Design Rigid Chainguide	Right Link: Light Alloy•Barrel Finish Front Band: Light Alloy•Barrel Finish Rear Band: Light Alloy•Barrel Finish Chain Guide: Pearl Bright Finish
Shifting Lever **SL-A550-FCAI** (7-speed SIS, Brazed on A Type) **SL-A550-BCAI** (7-speed SIS, Side Band A Type)	72g. (SL-A550-FCAI) 7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism Lever Interchangeability Human Engineered Design	Light Alloy•Barrel Finish
Dual Pivot Brake **BR-A550-49** (Short 49 Type) **BR-A550-57** (Long 57 Type)	348g. (F & R, 49 Type) *BR-A550 must be used as a set with BL-A550 and the Shimano SLR outer cable. No other combination can be used.	Super SLR (Shimano Linear Response) Compatible Coated Pivot washer Easy Adjust One-Piece & Low Profile Brake Shoe Spring Sleeve	C-Arm: Light Alloy•Anodized Finish Y-Arm: Light Alloy•Anodized Finish Gate: Light Alloy•Anodized Finish
Brake Lever **BL-A550** (Aero Type)	252g. (Pair) Lever Clamp Diameter: 23.8mm. ~ 24.2mm. Lever Stroke: 84 Bracket Cover: 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.	Super SLR (Shimano Linear Response) Compatible Aerodynamic Design	Lever: Light Alloy•Anodized Finish Bracket: Light Alloy•Barrel Finish Cover: Soft Resin•Molding
Front Chainwheel **FC-A550** (SG Gear Double, LD Type) **Bottom Bracket Assembly** **BB-A550**	700g. (42T., 52T., 170mm.) 327g. (BB. Set) Crank Length: 165mm., 170mm. B.B. Axle Length: 113 Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC. 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	SG Gear Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Barrel Finish/ Paint Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-A550** (Rear, 7-speed)	420g. (7-speed w/Quick Release) Spoke Holes: 36H., 32H. O.L.D.: 126mm. Axle Length: 137mm. Mounting Type: Quick Release	7-speed SIS Compatible UG/HG Compatible Type Sealed Mechanism Uni-Balance System One-Piece Forged Hub Body	Light Alloy•Polish Finish
Front Hub **HB-A550-F**	202g. Spoke Holes: 36H., 32H. O.L.D.: 100mm., 96mm. Axle Length: 108mm., 104mm. Mounting Type: Quick Release	One-Piece Forged Hub Body Sealed Mechanism	Light Alloy•Polish Finish
Cassette Sprockets **CS-HG70** (7-speed)	325g. (Sprocket 1 Group & Spacer) Use Narrow Type Chain	7-speed SIS Compatible 7-speed Hyperglide	Steel•Silver Finish
HG Chain **CN-HG70**	337g. (114 Link) Size: 1/2" × 3/32" Chain	Narrow Type Hyperglide Chain Bushingless Design Chrome Finish Link Pins	Roller Link Plate: Gray Finish Pin Link Plate: Black Finish
Pedal **PD-A550**	400g. (Pair, Including Toe Clip Size: L) Toe Clip Size: M, L, LL Toe Clip Locking System: 3-Screw Crank Thread: English BC 9/16"20T.P.I.	34° Road Clearance, Easy-Maintenance Cartridge Axle Aerodynamic Design Sealed Mechanism	Body: Light Alloy•Barrel Finish Plate: Steel Toe Clip: Resin
Head Parts **HP-R500**	121g. Height: Upper Cone 22.0mm. Lower Cone 11.5mm. Color: White, Silver, Black	Road Type Sealed Mechanism	Lock Nut: Steel Upper Cup: Resin Lower Cup: Resin

Other Information

FC-A550
Teeth:

	Biopace	Round
Top	52T.	52, 53T.
Low	42T.	42T.

CS-HG50
Cassette Sprocket Combinations:

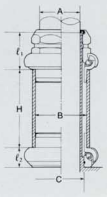
7-speed	**J**	13, 14, 15, 16, 17, 19, 21T.
	I	13, 14, 15, 17, 19, 21, 23T.
	H	13, 15, 17, 19, 21, 23, 26T.
	E	12, 14, 16, 18, 21, 24, 28T.

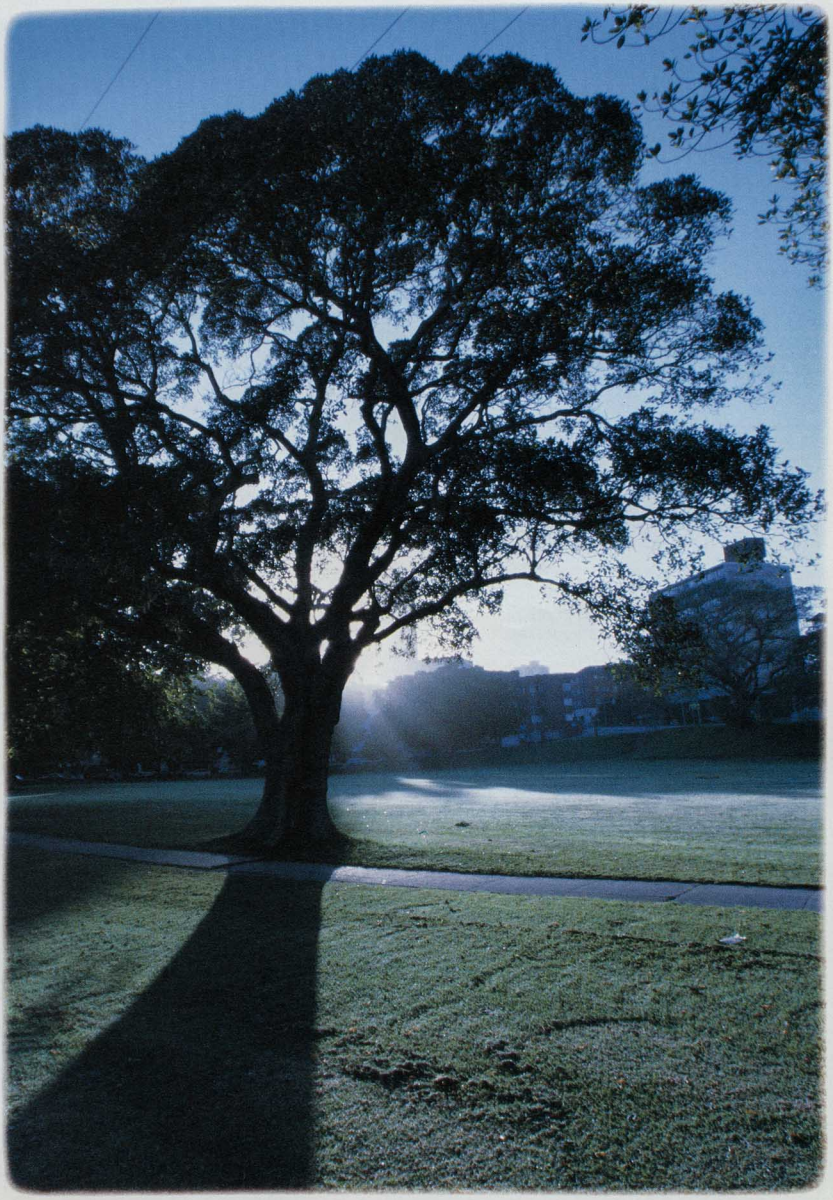
HP-R500
Variation:

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

Dimensions:

ℓ_1	21.2mm.
ℓ_2	11.5mm.
H	Head Tube Length
L	H + 32.7mm.
A	22.3mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" × 24T. (English Thread)





The new leader in sporty performance.

Exage EX delivers looks and performance that are way ahead of its class. Only Shimano can put this kind of quality, functionality, and fresh contemporary appearance into a component system for the budget-priced lightweight sport bicycle.

The Exage EX system consists of three separate on-road component sets—Exage 500EX, 400EX, and 300EX. Exage EX delivers the latest in Shimano cycling technology with advanced features like Biopace chainwheels, smooth shifting Hyperglide sprockets, and 7-speed SIS gear shifting. Exage 500EX even offers a Super SLR brake system. The Shimano freehub is also an integral part of Exage EX. The Exage EX components make advanced Shimano functions and performance available to a wider range of sport bikes...and a wider range of cyclists who desire Shimano quality and performance.







Some questions about EXAGE EX and how to answer them.

Q.1:

How are the Exage 500EX, 400EX, and 300EX components different than the old Exage components?

A.1:

7-speed Hyperglide shifting across the board.

Exage EX line has been upgraded with a new 7-speed SIS Hyperglide shifting system across the board. The old Exage groups of Sport, Action, and Motion correspond to the new Exage groups of 500EX, 400EX and 300EX respectively. In addition, Exage 500EX offers the new Super SLR system with a dual-pivot brake caliper.

EXAGE 500EX



Model No.	Specifications	Compatibility	Finish
Rear Derailleur **RD-A500**	279g. Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Sintered Alloy Guide Pulley Bushing Sealed Link Pivots B-Tension Adjuster	Bracket Body: Light Alloy•Paint Finish Plate Body: Light Alloy•Paint Finish Right Link: Light Alloy•Paint Finish Left Link: Steel•Pearl Bright Finish
Front Derailleur **FD-A500-B** (Band Type) **FD-A500-F** (Italian Type)	115g. (Band Type) Band Diameter: Ø28.0mm. ~ 28.6mm. Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37 ~ 51	Leading Action Pantagraph Mechanism Compact Design Rigid Chainguide	Right Link: Light Alloy•Paint Finish Front Band: Steel•Paint Finish Rear Band: Light Alloy•Paint Finish Chain Guide: Chrome Plated
Shifting Lever **SL-A500-F*CAI** (7-speed SIS, Brazed on A Type) **SL-A500-BCAI** (7-speed SIS, Side Band A Type) *"C" means Italian Type *(Fixing Bolt is 5mm. Diameter)*	76g. (SL-A500-FCAI) 7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm.	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism, Human Engineered Design	Light Alloy•Barrel Finish
Dual Pivot Brake **BR-A500-49** (Short 49 Type) **BR-A500-57** (Long 57 Type) *BR-A500 must be used as a set with BL-A500 and the Shimano outer cable. No other combination can be used.	326g. (F & R, 49 Type)	Super-SLR (Shimano Linear Response) Compatible Easy Adjust Spring Sleeve Coated Pivot Washer One-Piece & Low Profile Brake Shoe	C-Arm: Light Alloy•Paint Finish Y-Arm: Light Alloy•Paint Finish Gate: Light Alloy•Barrel Finish
Brake Lever **BL-A500** (Aero Type) *BL-A500 must be used as a set with BR-A500 and the Shimano outer cable. No other combination can be used.	258g. (Pair) Lever Clamp Diameter: 23.8mm. ~ 24.2mm. Lever Stroke: 84 Bracket Cover: Black, White	Super-SLR (Shimano Linear Response) Compatible Aerodynamic Design	Lever: Light Alloy•Anodized Finish Bracket: Light Alloy•Barrel Finish Cover: Resin•Molding
Front Chainwheel **FC-A500** (Biopace Double, LD Type) **Bottom Bracket Assembly** **BB-A450**	720g. (42T., 52T., 170mm.) 333g. (B.B. Set) Crank Length: 165mm., 170mm. Teeth: Top 50., 52T., 53T. Low 40T., 42T. B.B. Axle Length: 113 Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Barrel Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-HG50** (Rear, 7-speed)	436g. (7-speed w/Quick Release) Spoke Holes: 36H., 32H. Hole PCD: 45 Axle Thread: 10mm.	7-speed SIS Compatible UG/HG Compatible Type Sealed Mechanism Uni-Balance System One-Piece Forged Hub Body	Light Alloy•Dia-Cut Finish
Front Hub **HB-RM50-F**	228g. Spoke Holes: 36H., 32H. Hole PCD: 38 O.L.D.: 100mm., 96mm. Axle Length: 108mm., 104mm. Mounting Type: Quick Release Axle Thread: 9mm.	One-Piece Forged Hub Body Sealed Mechanism (Choice)	Light Alloy•Dia-Cut Finish
Cassette Sprockets **CS-HG50** (7-speed)	268g. (Sprocket I Group & Spacer) Use Narrow Type Chain	7-speed SIS Compatible 7-speed Hyperglide	Steel•Brown Finish and Silver Finish (Low Gear)
HG Chain **CN-HG50**	337g. (114 Link) Size: 1/2" × 3/32" Chain	Narrow Type Hyperglide Chain Bushingless Design Chromed Finish Link Pins	Roller Link Plate: Black Finish Pin Link Plate: Black Finish
Pedal **PD-A550**	407g. (Pair, Including Toe Clip Size L) Toe Clip Size: M, L, LL Toe Clip Locking System: 3-Screw Crank Thread: English BC 9/16" × 20T.P.I.	34° Road Clearance, Easy-Maintenance Cartridge Axle Aerodynamic Design Sealed Mechanism	Body: light Alloy•Barrel Finish Plate: Steel Toe Clip: Resin
Head Parts **HP-R500**	121g. Height: Upper Cone 22.0mm. Lower Cone 11.5mm. Color: White, Silver, Black	Road Type Sealed Mechanism	Lock Nut: Steel Upper Cup: Resin Lower Cup: Resin

Other Information

FH-HG50

O.L.D.	135	140	126
Axle Length	146	141	137
Mounting Type	Quick Release		

CS-HG50

Cassette Sprocket Combinations:

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

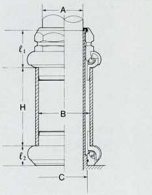
HP-R500

Variation:

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

Dimensions:

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



EXAGE 400EX



Model No.	Specifications	Compatibility	Finish	Other Information
Rear Derailleur **RD-A400**	278g. Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Sintered Alloy Guide Pulley Bushing Centeron Guide Pulley B-Tension Adjuster Double Spoke Barrier	Bracket Body: Light Alloy•Barrel Finish Plate Body: Light Alloy•Barrel Finish Right Link: Steel•Paint Finish Left Link: Steel•Zinc Plated	The Exage 400EX component group uses certain components in common with the 500EX group which include the FH-HG50 freehub, HB-RM50 front hub, CS-HG50 cassette sprockets, CN-HG50 chain, PD-A550 pedals, and HP-R500 headset. See the 500EX component listing for more information on these components.
Front Derailleur **FD-A400-B** (Band Type) **FD-A400-F** (Italian Type)	113g. (Band Type) Band Diameter: Ø28.0mm.~Ø28.6mm. Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37~51	Leading Action Pantagraph Mechanism Compact Design Rigid Chainguide	Right Link: Light Alloy•Paint Finish Front Band: Steel•Pearl Bright Finish Rear Band: Light Alloy•Barrel Finish Chain Guide: Chrome Plated	
Shifting Lever **SL-A400-FCAI** (7-speed SIS, Brazed-on A Type) **SL-A400-BCAI** (7-speed SIS, Side Band A Type)	71g. (SL-A400-FCAI) 7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism Human Engineered Design	Light Alloy•Barrel Finish	
Front Chainwheel **FC-A400** (Biopace Double, LD Type) **Bottom Bracket Assembly** **BB-A450**	920g. (42T., 52T., 170mm.) 333.3g. (B.B. Set) Crank Length: 165mm., 170mm. Teeth: Top 52T., Low 42T. B.B. Axle Length: 113 Chain 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 13.7 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B)	Crank Arm: Light Alloy•Barrel Finish Chain Ring: Steel•Paint Finish	
Caliper Brake **BR-A350-49** (Short 49 Type) **BR-A350-57** (Long 57 Type)	310g. (F & R, 49 Type) *For SLR System use with SLR Compatible Brake Lever and Shimano Outer Cable with Liner.	SLR (Shimano Linear Response) Compatible Click & Eccentric Type Quick Release Coated Pivot Washer Easy Adjust One Piece & Low Profile Brake Shoe Spring Sleeve Computer Aided Design (CAD)	Light Alloy•Paint Finish	
Brake Lever **BL-A351** (Aero Type)	302g. (Pair) Lever Clamp Diameter: 23.8~24.2mm. Lever Stroke: 88 Bracket Cover: Black, White *For SLR System use with SLR Compatible Brake and Shimano Outer Cable with Liner.	SLR (Shimano Linear Response) Compatible Aerodynamic Design	Lever: Light Alloy•Anodized Finish Bracket: Steel•Zinc Plated Cover: Soft Resin•Molding	

EXAGE 300EX



Model No.	Specifications	Compatibility	Finish	Other Information
Rear Derailleur **RD-A300**	282g. Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Sintered Alloy Guide Pulley Bushing Cable Saver Arm B-Tension Adjuster	Bracket Body: Light Alloy•Barrel Finish Plate Body: Resin•Molding Right Link: Steel•Zinc Plated Resin•Molding Left Link: Steel•Zinc Plated	The Exage 300EX component group uses certain components in common with the 500EX group which include the FH-HG50 freehub, HB-RM50 front hub, CS-HG50 cassette sprockets, CN-HG50 chain, PD-A550 pedals, and HP-R500 headset. See the 500EX component listing for more information on these components.
Front Derailleur **FD-A300-B** (Band Type) **FD-A300-A** (w/Cable Stopper)	123g. (Band Type) Band Diameter: Ø28.0mm. ~ Ø28.6mm. Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37 ~ 51	Leading Action Pantagraph Mechanism Compact Design Rigid Chainguide	Right Link: Steel•Zinc Plated Resin•Molding Front Band: Steel•Pearl Bright Finish Rear Band: Steel Pearl Bright Finish Chain Guide: Pearl Bright Finish	
Front Chainwheel **FC-A300** (Biopace Double, LD Type) **Bottom Bracket Assembly** **BB-A450**	860g. (42T., 52T., 170mm.) 333.3g. (B.B. Set) Crank Length: 165mm., 170mm. Teeth: Top 52T., Low 42T. B.B. Axle Length: 113 Chain 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 13.7 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Paint Finish Chain Ring: Steel•Pearl Bright Finish	
Shifting Lever **SL-A400-FCAI** (7-speed SIS, Brazed-on A Type) **SL-A400-BCAI** (7-speed SIS, Side Band A Type)	71g. (SL-A400-FCAI) 7-speed SIS Down Tube Lever Lever Clamp Diameter: 28.6mm. *"C" means Italian Type (Fixing Bolt is 5mm. Diameter)	SIS-Friction Mode Switch Light Action Lever Sealed Mechanism, Human Engineered Design	Light Alloy•Barrel Finish	
Caliper Brake **BR-A250-49** (Short 49 Type) **BR-A250-57** (Long 57 Type)	313g. (F & R, 49 Type) *For SLR System use with SLR Compatible Brake Lever and Shimano Outer Cable with Liner.	SLR (Shimao Linear Response) Compatible Click & Eccentric Type Quick Release Coated Pivot Washer Easy Adjust One Piece & Low Profile Brake Shoe Spring Sleeve Computer Aided Design (CAD)	Light Alloy•Barrel Finish	
Brake Lever **BL-A251** (Aero Type)	310g. (Pair) Lever Clamp Diameter: 23.8~24.2mm. Lever Stroke: 88 Bracket Cover: Black, White *For SLR System use with SLR Compatible Brake and Shimano Outer Cable with Liner.	SLR (Shimano Linear Response) Compatible Aerodynamic Design	Lever: Light Alloy•Barrel Finish Bracket: Steel•Zinc Plated Cover: Soft Resin•Molding	



STI delivers total performance off the road.

Off-road cycling is a challenge that demands a high level of skill. It's the job of the ATB's components to provide the rider with the highest level of control possible to help meet that challenge.

Now equipped with STI, Deore XT components provide a higher level of off-road control than ever before. Deore XT features the new under-bar "Rapidfire" STI shift levers that let you shift "on the fly" without releasing the grip on the bars. Deore XT's STI lets you brake and shift without ever changing your grip.

This hands-on control capability is supported by the most advanced off-road derailleur shifting system available today—7-speed SIS with Hyperglide sprockets and Superglide chainrings. Deore XT's SLR U-Brake, cantilever, and highly responsive "two finger" lever deliver incredibly strong braking power with precise fingertip control. There's also a new headset for large diameter head tubes and a new cone.

The advanced control functions of Deore XT with STI offer improved performance with a greater margin of safety.



STI
SHIMANO
TOTAL
INTEGRATION

Keep your grip while you shift with the STI/Deore XT off-road group.



HG SG SLR SIS THE SHIMANO FREEHUB biopace


SHIMANO
STI
Deore XT

Model No.	Specifications	Compatibility	Finish
Rapidfire **ST-M090** (4-Finger Type) **ST-M091** (2-Finger Type)	550g. (2-Finger Type) Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	STI (Shimao Total Integration) Compatible 7-speed SIS Compatible SLR Compatible Dual Repeat Function BL/SL Angle Adjust	Bracket: Light Alloy Shifting & Brake Lever: Steel•Resin Molding
Rear Derailleur **RD-M735-SGS** (Super Long Cage) **RD-M735-SS** (Short Cage)	270g. (Super Long Cage) Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. 250g. (Short Cage) Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	STI (Shimano Total Integration) Compatible 6 & 7-speed SIS Compatible Sealed Pulley Ceramic Guide Pulley Bushing Adjustable Return Spring B-Tension Adjuster Chain Retainer (Super Long Cage)	Bracket Body: Light Alloy•Buff Finish Plate Body: Light Alloy•Buff Finish Right Link: Light Alloy•Anodized Finish Left Link: Light Alloy•Barrel Finish
Front Derailleur **FD-M735**	116g. (Normal Band Type) Band Diameter: Ø28.0 ~ Ø28.6mm. (Band Type) Ø31.8, Ø34.9mm. (EC-Type) Capacity: 24T. (Biopace HP) 26T. (Round) Stroke (w/Ø28.6mm. Band): 34 ~ 54	STI (Shimano Total Integration) Compatible SG Gear Compatible Narrow Type Chain Compatible Trailling Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism	Right Link: Light Alloy•Anodized Finish Front Band: Light Alloy•Buff Finish Rear Band: Light Alloy•Buff Finish Chain Guide: Chrome Plated
U-II Brake **BR-M733**	375g. (1 unit) **For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Power Plate with Shark Tooth	Light Alloy•Anodized Finish
Cantilever Brake **BR-M732**	185g. (Pair) **For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Easy Cable Attachment	Light Alloy•Buff Finish (Black Finish Available)
Front Chainwheel **FC-M730-SG** (SG Gear Triple, MD Type) **Bottom Bracket Assembly** **BB-M730** (B.B. Set)	730g. (26T., 36T., 46T., 170mm.) 295g. (B.B. Set, 68-T-122.5, D-3NL) Crank Length: 165mm., 170mm., 175mm., 180mm. B.B. Axle Length: 122.5 Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	STI (Shimano Total Integration) Compatible SG Gear Narrow Type Chain Compatible. Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Anodized Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-M732** (Rear, 7-speed)	490g. (w/Quick Release) Spoke Holes: 36H., 32H. Hole PCD: 45 Axle Thread: 10mm.	STI (Shimao Total Integration) Compatible 7-speed SIS Compatible Hyperglide Compatible UG/HG Compatible Type	Light Alloy•Buff Finish
Front Hub **HB-M730-F**	213g. Spoke Holes: 36H., 32H. Hole PCD: 38 Axle Thread: 9mm.	Lip-Type Sealed Mechanism Cr-Mo Hub Axle Support	Light Alloy•Buff Finish
Cassette Sprockets **CS-HG90** (7-speed)	325g. (Sprocket **E** Group & Spacer) Use Narrow Type Chain	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible 7-speed Hyperglide	Steel•Chrome Plated
HG Chain **CN-HG90**	326g. (110 Link) Size: 1/2" × 3/32" Chain	STI (Shimao Total Integration) Compatible Narrow Type Hyperglide Chain Chromed Finish Link Pins	Roller Link Plate: Black Finish Pin Link Plate: Silver Finish

Other Information

FC-M730-SG
Teeth:

	Biopace		Round	
Top	48T	46T	48T	46T
Middle	38T	36T	38T	36T
Low	28T	26T	28T	24T

FH-M732

O.L.D	135	130	135	130
Axle Length	146	141	185	180
Chain Line	46	43.5	46	43.5
Mounting Type	Quick Release		Nut	

HB-M730-F

O.L.D	100	
Axle Length	108	142
Mounting Type	Quick Release	Nut

CS-HG90
Cassette Sprocket Combinations:

7-speed	**J**	13, 14, 15, 16, 17, 19, 21T
	I	13, 14, 15, 17, 19, 21, 23T
	H	13, 15, 17, 19, 21, 23, 26T
	E	12, 14, 16, 18, 21, 24, 28T
	G	13, 15, 17, 20, 23, 26, 30T
	F	14, 16, 18, 21, 24, 28, 32T
	K	13, 15, 17, 20, 24, 29, 34T



Model No.	Specifications	Compatibility	Finish
Head Parts **HP-M735** **HP-M736** **HP-M737**	110g. (HP-M735) 149g. (HP-M736) 155g. (HP-M737)	Off-Road Type Sealed Mechanism	Black Finish
Pedal **PD-M730**	412. (Pair) Crank Thread: English BC 9/16" × 20T.P.I.	Low Profile Design Parallelogram Shape Contact Type Sealed Mechanism Stainless Steel Grip Pin Toe Clip/Reflector Attachable	Body: Light Alloy Plate: Light Alloy
Pedal **PD-M735**	295g. (Pair) Toe Clip Locking System: 2-Screw Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Size: M, L, LL	Super Low Profile Design 32° Road Clearance Parallelogram Shape Contact Type Sealed Mechanism Stainless Steel Grip Pin Toe Clip/Reflector Attachable	Body: Light Alloy Plate: Light Alloy•Anodized Finish Toe Clip: Resin
Seat Pillar **Quick-Release** **SQ-M730**	75g. Shaft Adjustment Length: 36 ~ 43mm., 26 ~ 33mm. Shaft Diameter: Ø6mm. or Ø8mm.	Easy Operation Position-Set Spring	Steel
Chain Deflector **DF-M730**	9g.	Keeps the Chain from Jamming Between the Tire & Chainstay	Resin
Seat Pillar **SP-M730**	296g. (330mm.) Outside Diameter: 26.6mm., 26.8mm., 27.0mm. Length: 280mm., 330mm.	High Strength Structure Light Weight Long Size	Cr-Mo Steel

Other Information

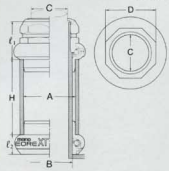
HP-M735/M736/M737
Variation & Dimensions:

	HP-M735		
Thread	BC1" × 24T		M25 × P1.0
A	30.0 (JIS)	30.2	30.2
B	27.0 (JIS)	26.4 27.0	26.4
C	22.1		
D	32.0		
ℓ_1	22.0		
ℓ_2	11.5		

Unit: mm

	HP-M736	HP-M737
Thread	BC1-1/8" × 26T	BC1-1/4" × 26T
A	34.0	37.0
B	30.0	33.0
C	25.5	28.7
D	36.0	40.0
ℓ_1	22.0	27.3
ℓ_2	11.5	13.0

Unit: mm



Some questions about DEORE XT and how to answer them.

Q.1:

I've already got a bike with a Deore XT component group. What can I do if I want the STI function?

A.1:

Upgrade with a new STI retrofit kit!

Shimano makes an upgrade kit available in order to convert current Deore XT bikes so they can use the STI capability.

1) The upgrade kit contains the following components:

- **ST-M090/M091**
  Rapidfire Control Lever Set
- **FD-M735**
  Front Derailleur
- **FC-M730-SG**
  Superglide Chainring
- **CN-HG90**
  Hyperglide Chain

2) For people who have a 6-speed Deore XT system, the following components are needed in order to upgrade to STI:

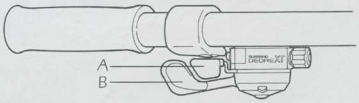
- **ST-M090/M091**
  Rapidfire Control Lever Set
- **FD-M735**
  Front Derailleur
- **FC-M730-SG**
  Superglide Chainring
- **CN-HG90**
  Hyperglide Chain
- **FH-M732**
  Freehub
- **CS-HG90**
  7-speed Hyperglide Cassette Sprockets

Q.2:

With STI, what should you do if the chain hits the front derailleur after you've just shifted the rear derailleur?

A.2:

A simple solution to chain rub.



If you tap the [A] lever lightly, the front derailleur will move to the inside. If you do the same to the [B] lever, the front derailleur will move to the outside.

You push the [A] lever lightly to shift from the outer chainring to the middle chainring. You push the [A] lever harder to shift from the middle chainring to the small inner chainring.

The front STI levers incorporate a special mechanism that automatically compensates for the amount of overshift needed to move the chain.

Q.3:

What difference does the Superglide chainring make?

A.3:

Smoother shifting from designated shift points.

Computer development resulted in special configuration chain release teeth positioned at two points on the chainring in order to allow the chain to smoothly separate at the point of weakest chain tension.

Furthermore, because the chainrings are indexed in relation to each other, the chain is positively controlled as it moves smoothly and directly from chainring to chainring without sudden shocks, slipping, or riding up onto the gear teeth.



Take on the challenge of riding in the rough.

Take on the challenge of off-road cycling with the help of Deore DX. Discover new adventure in the wild with components that always get you there and back.

Deore DX is a full performance off-road component group. In fact, Deore DX offers the same "hands-on" integrated STI control capability as found on Deore XT. STI means there's no special technique needed to be able to shift and brake while keeping a tight grip on the bars. Deore DX's STI capability lets you steer, brake, and shift with new confidence—no matter the terrain—no matter how fast or how hard you're riding.

It's all here—Shimano quality and precision with 7-speed SIS, Hyperglide sprockets, Superglide chainrings, Biopace crankset, SLR braking system, Powerplate U-II Brake and cantilever, and a whole lot more.

Deore DX is the component system that's serious about performance in the rough.



STI
SHIMANO
TOTAL
INTEGRATION

Deore DX... Off-road components that get you there and back.



HG SG SLR SIS THE SHIMANO FREEHUB biopace

SHIMANO DEORE DX



STI
SHIMANO TOTAL INTEGRATION

Model No.	Specifications	Compatibility	Finish
Rapidfire **ST-M070** (4-Finger Type) **ST-M071** (2-Finger Type)	535g. (2-Finger Type) Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR Compatible Dual Repeat Function BL/SL Angle Adjust	Bracket: Light Alloy•Anodized Finish Shifting & Brake Lever: Light Alloy•Paint Finish
Rear Derailleur **RD-M650-SGS** (Super Long Cage) **RD-M650-SS** (Short Cage)	320g. (Super Long Cage) Front Difference: 20T. Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. 257g. (Short Cage) Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	STI (Shimao Total Integration) Compatible 6 & 7-speed SIS Compatible B-Tension Adjuster Chain Retainer	Bracket Body: Light Alloy•Barrel Finish Plate Body: Light Alloy•Barrel Finish Right Link: Light Alloy•Paint Finish Left Link: Steel•Pearl Bright Finish
Front Derailleur **FD-M650**	117g. (Normal Band Type) Band Diameter: Ø28.0 ~ 28.6mm. (Band Type) Capacity: 24T. (Biopace HP) 26T. (Round) Stroke (w/Ø28.6mm. Band): 34 ~ 54	STI (Shimano Total Integration) Compatible SG Gear Compatible Narrow Type Chain Compatible Trailing Action Pantagraph Mechanism New Trapease Mechanism	Right Link: Light Alloy•Paint Finish Front Band: Light Alloy•Paint Finish Rear Band: Light Alloy•Paint Finish Chain Guide: Chrome Plated
U-II Brake **BR-MT63**	338g. (1 unit) **For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Power Plate with Shark Tooth	Light Alloy•Anodized Finish
Cantilever Brake **BR-MT62**	190g. (Pair) **For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible	Light Alloy•Barrel Finish (Black Finish Available)
Front Chainwheel **FC-MT60-SG** (SG Gear Triple, MD Type) **Bottom Bracket Assembly** **BB-MT60** (B.B. Set)	740g. (28T., 38T., 48T., 170mm.) 320g. (B.B. Set, 68-T-122.5, D-3NL) Crank Length: 170mm., 175mm. B.B. Axle Length: 122.5 Chain 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37 × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	STI (Shimano Total Integration) Compatible SG Gear Narrow Type Chain Compatible, Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Barrel Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-M650** (Rear, 7-speed)	445g. (w/Quick Release) Spoke Holes: 36H., 32H. Hole PCD: 45 Axle Thread: 10mm.	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible Hyperglide Compatible UG/HG Compatible Type	Light Alloy•Anodized Finish
Front Hub **HB-M650-F**	231g. (w/Quick Release) Spoke Holes: 36H., 32H Hole PCD: 38 Axle Thread: 9mm.	One-Piece Forged Hub Body Lip-Type Sealed Mechanism Cr-Mo Axle	Light Alloy•Anodized Finish
Cassette Sprockets **CS-HG70** (7-speed)	325g. (Sprocket **E** group & Spacer) Use Narrow Type Chain	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible 7-speed Hyperglide	Steel•Silver Finish
HG Chain **CN-HG70**	325g. (114 Link) Size: 1/2" × 3/32" Chain	STI (Shimano Total Integration) Compatible Narrow Type Hyperglide Chain Chromed Finish Link Pins	Roller Link Plate: Gray Finish Pin Link Plate: Black Finish
Head Parts **HP-M650** **HP-M651**	121g. (HP-M650) 149g. (HP-M651)	Off-Road Type Sealed Mechanism	Black Finish
Pedal **PD-MT60**	412g. (Pair) Crank Thread: English BC 9/16" × 20T.P.I.	Low Profile Design Parallelogram Shape Contact Type Sealed Mechanism	Body: Light Alloy Plate: Steel
Pedal **PD-M650**	385g. (Pair w/Toe Clip) Top Clip Locking System: 2-Screw Crank Thread: English BC 9/16" × 20T.P.I. Toe Clip Size: M, L, LL	Super Low Profile Design 32° Road Clearance Contact Type Sealed Machanism Toe Clip/Reflector Attachable	Body: Light Alloy Plate: Steel Toe Clip: Resin

Other Information

FC-MT60-SG
Teeth:

	Biopace		Round	
Top	48T.	46T.	48T.	46T.
Middle	38T.	36T.	38T.	36T.
Low	28T.	26T.	28T.	24T.

FH-M650

O.L.D.	135	130	135	130
Axle Length	146	141	185	180
Chain Line	45.7	43.2	45.7	43.2
Mounting Type	Quick Release		Nut	

HB-M650-F

O.L.D.	100	
Axle Length	108	142
Mounting Type	Quick Release	Nut

CS-HG70
Cassette Sprocket Combinations:

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

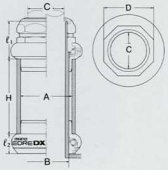
HP-M650/M651
Variation & Dimensions:

	HP-M650		
Thread	BC1" × 24T		M25 × P1.0
A	30.0 (JIS)	30.2	30.2
B	27.0 (JIS)	26.4 27.0	26.4
C	22.1		
D	32.0		
ℓ_1	22.0		
ℓ_2	11.5		

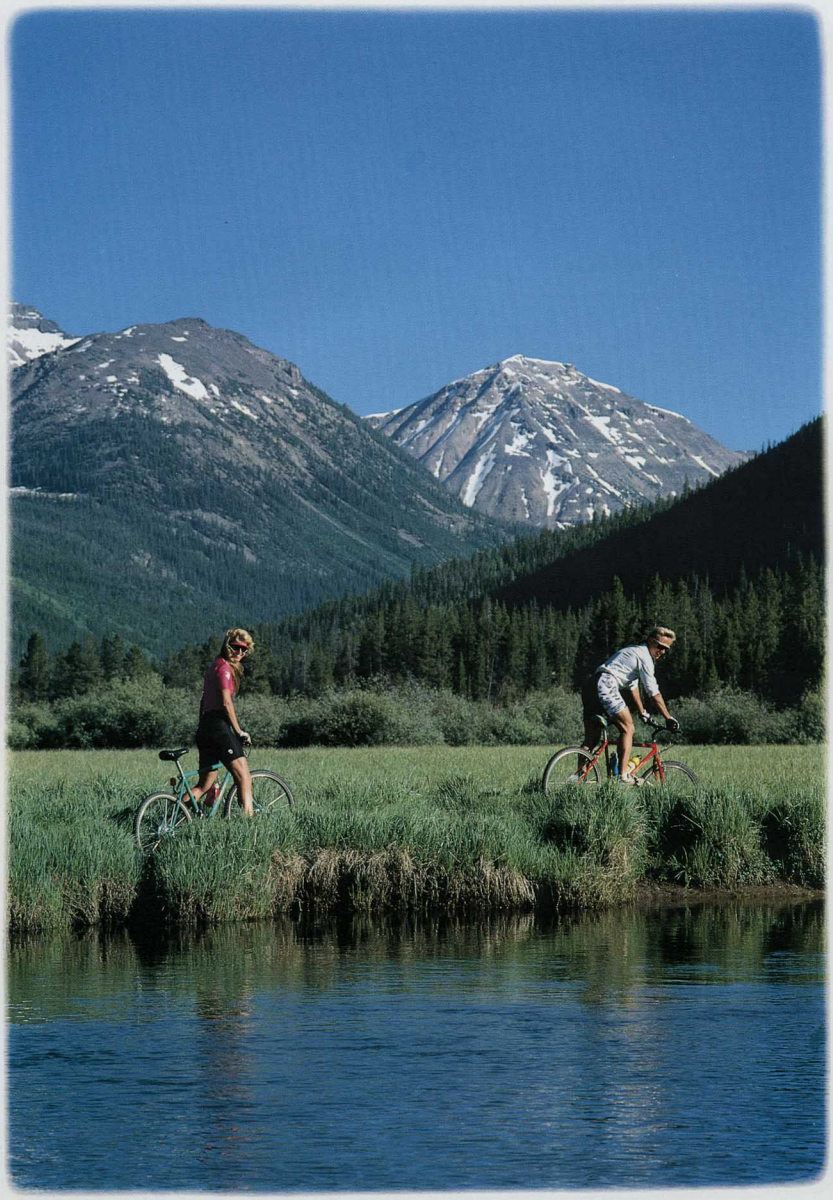
Unit: mm

	HP-M651
Thread	BC1-1/8" × 26T
A	34.0
B	30.0
C	25.5
D	36.0
ℓ_1	22.0
ℓ_2	11.5

Unit: mm



SHIMANO DEORE LX



The high-value off-road component group with STI

There isn't a better value in off-road components than Deore LX. Whether it's a leisurely exploration of a new trail or an all-out run over open field, Deore LX components deliver a feeling of total control that makes off-road riding that much more enjoyable.

There are no cutbacks in advanced Shimano functions with Deore LX. Full STI capability means you can shift on the run with just a flick of the thumb—and never change your grip on the bars.

STI lets you shift with even more precision thanks to refined SIS and Hyperglide sprockets. Superglide chainrings significantly upgrade chainwheel shifting too.

The full SLR treatment with U-Brake and cantilever means great stopping power with a sensitive lever feeling. And of course, Biopace chainwheels make pedalling that much easier and efficient.

On or off the road, Deore LX delivers performance, value, and enjoyment.



STI
SHIMANO
TOTAL
INTEGRATION

Deore LX... No greater valve in off-road components today.



HG SG SLR SIS FREEHUB biopace

SHIMANO DEORE LX



STI
SHIMANO TOTAL INTEGRATION

Model No.	Specifications	Compatibility	Finish
Rapidfire **ST-M060** (4-Finger Type)	326g. (4-Finger Type Rear) Lever Clamp Diameter: 22.2m **Use with Shimano SIS-SP Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible SLR (Shimano Linear Response) Compatible Dual Repeat Function Light Action Lever	Bracket: Light Alloy•Paint Finish Shifting & Brake Lever: Steel•Zinc Plated Resin•Molded
Rear Derailleur **RD-M550-SGS** (Super Long Cage) **RD-M550-GS** (Long Cage)	320g. (Super Long Cage) Front Difference: 20T. Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocker: 12T. (Long Cage) Front Difference: 20T. Total Capacity: 36T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 12T.	STI (Shimano Total Integration) Compatible 6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Centeron Guide Pulley Sealed Pivot Axle Sintered Alloy Guide Pulley Bushing Adjustable Return Spring B-Tension Adjuster Chain Retainer	Bracket Body: Light Alloy•Barrel Finish Plate Body: Light Alloy•Barrel Finish Right Link: Light Alloy•Paint Finish Left Link: Steel•Pearl Bright Finish
Front Derailleur **FD-M550**	119g. (Normal Band Type) Band Diameter: ϕ28.0 ~ ϕ28.6mm. (Band Type) ϕ31.8, ϕ34.9mm. (EC-Type) Capacity: 24T. (Bicpace HP) 26T. (Round) Stroke (w/ϕ28.6mm. Band): 34 ~ 54	STI (Shimano Total Integration) Compatible SG Gear Compatible Narrow Type Chain Compatible Trailing Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism	Right Link: Light Alloy•Paint Finish Front Band: Light Alloy•Barrel Finish Rear Band: Light Alloy•Barrel Finish Chain Guide: Chrome Plated
U-II Brake **BR-M453**	368g. (1 unit) **For SLR & System use Rapid Fire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Pre-Road Spring Design Sealed Internal Spring Design Power Plate with Shark Tooth	Light Alloy•Barrel Finish
Cantilever Brake **BR-M550**	216g. (Pair) **For SLR & System use Rapid Fire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Rigid Computer Designed Shape Sealed Internal Spring Design Spring Tension Adjuster	Light Alloy•Barrel Finish
Front Chainwheel **FC-M550** (SG Gear Triple, MD Type) **Bottom Bracket Assembly** **BB-M500** (B.B. Set)	752g. (28T., 38T., 48T., 170mm) 339g (B.B. Set) Crank Length: 170mm., 175mm. B.B. Axle Length: 121.1 Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37" × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	STI (Shimano Total Integration) Compatible SG Gear Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Barrel Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-M550** (Rear, 7-speed)	445g. (w/Quick Release) Spoke Holes: 36H., 32H Hole PCD: 45 Axle Thread: 10mm.	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible Hyperglide Compatible UG/HG Compatible Type One-Piece Forged Hub Body Bolt-Secured Freewheel Sealed Mechanism	Light Alloy•Polish Finish
Front Hub **HB-M550-F**	230g. (w/Quick Release) Spoke Holes: 36H., 32H Hole PCD: 38 Axle Thread: 9mm.	One-Piece Forged Hub Body Sealed Mechanism	Light Alloy•Polish Finish
Pedal **PD-M550**	326g. (Pair) Toe Clip Locking System: 2-Screw Toe Clip Size: M, L, LL	Super Low Profile Design 31° Road Clearance Parallelogram Shape Toe Clip/Reflector Attachable	Body: Resin Plate: Steel Toe Clip: Resin
Cassette Sprockets **CS-HG70** (7-speed)	325g. (Sprocket **E** group & Spacer) Use Narrow Type Chain	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible 7-speed Hyperglide	Steel•Silver Finish
HG Chain **CN-HG70**	323g. (114 Link) Size: 1/2" × 3/32" Chain	STI (Shimano Total Integration) Compatible Narrow Type Hyperglide Chain Bushingless Design Chrome Finish Link Pins	Roller Link Plate: Gray Finish Pin Link Plate: Black Finish
Head Parts **HP-R500**	121g. Height: Upper Cone 22.0mm. Lower Cone 11.5mm. Color: White, Silver, Black	Road Type Sealed Mechanism	Lock Nut: Steel Upper Cup: Resin Lower Cup: Resin

Other Information

FC-M550
Teeth:

	Bicpace		Round	
Top	48T.	46T.	48T.	46T.
Middle	38T.	36T.	38T.	36T.
Low	28T.	26T.	28T.	24T.

FH-M550

O.L.D.	135	130	135	130
Axle Length	146	141	185	180
Chain Line	45.7	43.2	45.7	43.2
Mounting Type	Quick Release		Nut	

CS-HG70
Cassette Sprocket Combinations:

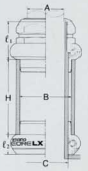
7-speed	**J**	13, 14, 15, 16, 17, 19, 21T.
	I	13, 14, 15, 17, 19, 21, 23T.
	H	13, 15, 17, 19, 21, 23, 25T.
	E	12, 14, 16, 18, 21, 24, 28T.
	G	13, 15, 17, 20, 23, 26, 30T.
	F	14, 16, 18, 21, 24, 28, 32T.
	K	13, 15, 17, 20, 24, 29, 34T.

HP-R500
Variation:

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

Dimensions:

t_1	22.0mm.
t_2	11.5mm.
H	Head Tube Length
A	22.3mm.
B	30.2mm.
C	26.4mm.
Thread	BC 1" × 24T. (English Thread)





Advanced STI performance for the fat tire bike.

Exage LX is the affordable family of Shimano off-road components featuring STI. This is a value-added component system that clearly out-performs anything else in its class.

Exage LX (500LX, 400 LX, 300LX) components make possible a wide variety of affordable all-terrain and fat tire bikes that can offer the new STI capability—all the performance, convenience, and fun that STI makes possible.

Exage LX delivers more than just the "keep our grip while you shift" convenience of STI. You also get smooth-shifting Biopace SG chainwheels, easy-to-control SLR braking, and a new 7-speed SIS with Hyperglide enhanced performance.

The charm of Exage LX is that it can deliver great performance and rugged quality in a very reasonably priced bike with a real Shimano component system. If that isn't value, we don't know what is.



HG SG SLR SIS FREEHUB biopace



HG SG SLR SIS FREEHUB biopace



HG SG SLR SIS FREEHUB biopace



STI
SHIMANO
TOTAL
INTEGRATION

EXAGE 500 LX



STI
SHIMANO TOTAL INTEGRATION

Model No.	Specifications	Compatibility	Finish
Rapidfire **ST-M050** (4-Finger Type) **Brake Lever** **BL-M050** (Use Front Single)	305g. (4-Finger Type Rear) Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible SLR Compatible Dual Repeat Function Light Action Lever Anatomical Design	Bracket: Light Alloy•Paint Finish Shifting and Brake Lever: Steel•Zink Plated Resin•Molding
Rear Derailleur **RD-M500-SGS** (Super Long Cage) **RD-M500-GS** (Long Cage)	329g. (Super Long Cage) Front Difference: 20T. Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. (Long Cage) Front Difference: 20T. Total Capacity: 36T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 12T.	STI (Shimano Total Integration) Compatible 6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Centeron Guide Pulley Sealed Pivot Axle Sintered Alloy Guide Pulley Bushing Cable Saver Arm B-Tension Adjuster Chain Retainer	Bracket Body: Light Alloy•Paint Finish Plate Body: Light Alloy•Paint Finish Right Link: Steel•Paint Finish Left Link: Steel•Pearl Bright
Front Derailleur **FD-M500**	118g. (Normal Band Type) Band Diameter: ϕ28.0 ~ ϕ28.6mm. (Band Type, EC-Type) ϕ31.8, ϕ34.9mm. (EC-Type) Capacity: 24T. (Biopace HP) 26T. (Round) Stroke (w/ϕ28.6mm. Band): 34 – 54	STI (Shimano Total Integration) Compatible SG Gear Compatible Narrow Type Chain Compatible Trailling Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism Sealed Mechanism	Right Link: Light Alloy•Paint Finish Front Band: Light Alloy•Paint Finish Rear Band: Light Alloy•Paint Finish Chain Guide: Chrome Plated
U-II Brake **BR-M453**	368g. (1 unit) **For SLR System use Rapid Fire or Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Pre-Road Spring Design Sealed Internal Spring Design Rigid Computer Designed Shape Spring Tension Adjuster Power Plate with shark Tooth	Light Alloy•Barrel Finish
Cantilever Brake **BR-M454**	216g. (Pair) **For SLR System use Rapid Fire or Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Rigid Computer Designed Shape Sealed Internal Spring Design	Light Alloy•Barrel Finish
Front Chainwheel **FC-M500** (SG Gear Triple, MD Type) **Bottom Bracket Assembly** **BB-M500**	756g. (28T., 38T., 48T., 170mm.) 339g (B.B. Set) Crank Length: 170mm., 175mm. B.B. Axle Length: 121 Teeth: Top 48T. Middle 38T. Low 28T. Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37" × 24T.P.I. French M35 × 1.0, Italian M36 × 24T.P.I.	STI (Shimano Total Integration) Compatible SG Gear Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.) Biopace Chainring	Crank Arm: Light Alloy•Barrel Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-HG50** (Rear, 7-speed)	435g. (w/Quick Release) Spoke Holes: 36H., 32H Hole PCD: 45 Axle Thread: 10mm.	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible Hyperglide Compatible UG/HG Compatible Type One-Piece Forged Hub Body Bolt-Secured Freewheel Sealed Mechanism	Light Alloy•Dia-cut Finish
Front Hub **HB-RM50-F**	228g. (w/Quick Release) Spoke Holes: 36H., 32H Hole PCD: 38 Axle Thread: 9mm.	One-Piece Forged Hub Body Sealed Mechanism (Choice)	Light Alloy•Dia-cut Finish
Cassette Sprockets **CS-HG50** (7-Speed)	325g. (Sprocket **E** Group & Spacer) Use Narrow Type Chain	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible 7-speed Hyperglide	Brown Finish and Silver Finish (Low Gear)
HG Chain **CN-HG50**	335g. (114 Link) Size: 1/2" × 3/32" Chain	STI (Shimano Total Integration) Compatible Narrow Type Hyperglide Chain Bushingless Design Chrome Finish Link Pins	Roller Link Plate: Black Finish Pin Link Plate: Black Finish
Pedal **PD-M450**	518g. (Pair)	Low Profile Design Toe Clip/Reflector Attachable	Body: Resin Plate: Steel

Other Information

FH-HG50

O.L.D.	135	130	126
Axle Length	146	141	137
Chain Line	45.7	43.2	41.2
Mounting Type	Quick Release		Nut

HB-RM50-F

O.L.D.	100	96
Axle Length	108	104
Mounting Type	Quick Release	

CS-HG50
Cassette Sprocket Combinations:

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

EXAGE 400LX

STI
SHIMANO TOTAL INTEGRATION



Model No.	Specifications	Compatibility	Finish
Rear Derailleur **RD-M400-SGS** (Super Long Cage) **RD-M400-GS** (Long Cage) **RD-M400-SS** (Short Cage)	330g. (Super Long Cage) Front Difference: 20T. Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. 318g. (Long Cage) Front Difference: 20T Total Capacity: 36T. Max. Rear Sprocket: 30T Min. Rear Sprocket: 12T. (Short Cage) Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T. **GS & SS Front Single Available*	STI (Shimano Total Integration) Compatible 6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Centeron Guide Pulley Sealed Pivot Axle Sintered Alloy Guide Pulley Bushing Cable Saver Arm Sealed Link Pivots B-Tension Adjuster Heat Treated Steel in Link Pivot Double Spoke Barrier Chain Retainer (GS Type, SGS Type)	Bracket Body: Light Alloy-Barrel Finish Plate Body: Light Alloy-Barrel Finish Right Link: Steel-Paint Finish Left Link: Steel-Zinc Plated **GS & SS White Finish Available*
Front Derailleur **FD-M400**	132g. (Normal Band Type) Band Diameter: φ28.0 ~ φ28.6mm. (Band Type, EC-Type) φ31.8, φ34.9mm. (EC-Type) Capacity: 24T. (Biopace HP) 26T. (Round) Stroke (w/φ28.6mm. Band): 34 ~ 54	STI (Shimano Total Integration) Compatible SG Gear Compatible Narrow Type Chain Compatible Trailing Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism Sealed Mechanism	Right Link: Light Alloy-Paint Finish Front Body: Light Alloy-Paint Finish Rear Band: Light Alloy-Paint Finish Chain Guide: Chrome Plated
Cantilever Brake **BR-M351**	227g. (Pair) **For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Rigid Computer Designed Shape Sealed Internal Spring Design Spring Tension Adjuster Low Profile Brake Shoe	Steel & Resin
Front Chainwheel **FC-M400** (SG Gear Triple, MD Type) **Bottom Bracket Assembly** **BB-M500**	763g. (28T., 38T., 48T., 170mm.) 339g. (B.B. Set) Teeth: Top 48T., Middle 38T., Low 28T. Crank Length: 170mm., 175mm. B.B. Axle Length: 121.1 Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37" × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	STI (Shimano Total Integration) Compatible SG Gear Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy-Barrel Finish Chain Ring: Steel-Paint Finish
Pedal **PD-M350**	445g. (Pair)	Low Profile Design Toe Clip/Reflector Attachable	Body: Resin Plate: Steel

Other Information

The Exage 400LX component group uses certain components in common wiht the 500LX group which include the FH-HG50 freehub, HB-RM50 front hub, CS-HG50 cassette sprockets, CN-HG50 chain, and HP-R500 headset. See the 500LX component listing for information on these components.

EXAGE 300LX

STI
SHIMANO TOTAL INTEGRATION



Model No.	Specifications	Compatibility	Finish
Rear Derailleur **RD-M300-SGS** (Super Long Cage) **RD-M300-GS** (Long Cage)	319g. (Super Long Cage) Front Difference: 20T. Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. (Long Cage) Front Difference: 20T. Total Capacity: 36T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 12T.	STI (Shimano Total Integration) Compatible 6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Centeron Guide Pulley Sealed Pivot Axle Sintered Alloy Guide Pulley Bushing Cable Saver Arm B-Tension Adjuster Double Spoke Barrier Chain Retainer	Bracket Body: Light Alloy•Barrel Finish Plate Body: Resin•Molding Right Link: Steel & Resin•Zinc Plated Left Link: Steel•Zinc Plated
Front Derailleur **FD-M300**	135g. (Normal Band Type) Band Diameter: φ28.0 ~ φ28.6mm. (Band Type) φ31.8, φ34.9mm. (EC-Type) Capacity: 24T. (Biopace HP) 26T. (Round) Stroke (w/φ28.6mm. Band): 34 ~ 54	STI (Shimano Total Integration) Compatible SG Gear Compatible Narrow Type Chain Compatible Trailling Action Pantagraph Mechanism Rigid Chainguide New Trapease Mechanism Sealed Mechanism	Right Link: Light Alloy•Paint Finish Front Band: Steel•Pearl Bright Finish Rear Band: Light Alloy•Barrel Finish Chain Guide: Chrome Plated
Cantilever Brake **BR-M250**	235g. (Pair)	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Rigid Computer Designed Shape Low Profile Brake Shoe	Steel & Resin
Front Chainwheel **FC-M300** (Triple, MD Type) **Bottom Bracket Assembly** **BB-M500**	756g. (28T., 38T., 48T., 170mm.) 339g. (B.B. Set) Teeth: Top 48T., Middle 38T., Low 28T. Crank Length: 170mm., 175mm. B.B. Axle Length: 121 Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I. Cup Thread: English BC 1.37" × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	STI (Shimano Total Integration) Compatible SG Gear Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B.)	Crank Arm: Light Alloy•Barrel Finish Chain Ring: Light Alloy•Anodized Finish
Pedal **PD-M350**	445g. (Pair)	Low Profile Design w/Reflector Toe Clip/Reflector Attachable	Body: Resin Plate: Steel

Other Information

The Exage 300LX component group uses certain components in common with the 500LX group which include the FH-HG50 freehub, HB-RM50 front hub, CS-HG50 cassette sprockets, CN-HG50 chain, and HP-R500 headset. See the 500LX component listing for informantion on these components.

SHIMANO 200GS



ST-M020

STI
SHIMANO TOTAL INTEGRATION

Model No.	Specifications	Compatibility	Finish
Rapidfire **ST-M020**	190g. (4-Finger Type Rear) Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Linear.*	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible Dual Repeat Function Anatomical Design	Bracket: Light Alloy•Paint Finish Shifting Lever: Steel•Zinik Plated Resin•Molding
Rear Derailleur **RD-M200-SGS** (Super Long Cage) **RD-M200-GS** (Long Cage)	323g. (Super Long Cage) Front Difference: 20T. Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. (Long Cage) Front Difference: 20T. Total Capacity: 36T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 12T.	STI (Shimano Total Integration) Compatible 6 & 7-speed SIS Compatible Double Servo-Panta Mechanism Centeron Guide Pulley Sealed Pivot Axle Sintered Alloy Guide Pulley Bushing B-Tension Adjuster Double Spoke Barrier Chain Retainer	Bracket Body: Light Alloy•Barrel Finish Plate Body: Resin•Molding Right Link: Steel•Paint Finish Left Link: Steel•Zinc Plated
Front Derailleur **FD-M200**	169g. (Normal Band Type) Band Diameter: ø28.0 ~ 28.6mm. (Band Type) Capacity: 20T. (Biopace-HP) 22T. (Round) Stroke (w/ø28.6mm. Band): 36 ~ 54	Narrow Type Chain Compatible Rigid Chainguide Trapease Mechanism w/Cable Stopper	Right Link: Steel•Paint Finish Resin Molding Front Band: Steel•Chrome Plated Rear Band: Steel•Zinc Plated Chain Guide: Chrome Plated
Front Derailleur **FD-M201**	170g. (Normal Band Type) Band Diameter: ø28.0 ~ ø28.6mm. (Band Type) ø31.8mm. (EC-Type) Capacity: 24T. (Biopace-HP) 26T. (Round) Stroke (w/ø28.6mm. Band): 36 ~ 54	STI (Shimano Total Integration) Compatible SG Gear Compatible Narrow Type Chain Compatible Rigid Chainguide Trapease Mechanism w/Cable Stopper	Right Link: Steel•Paint Finish Front Band: Steel•Paint Finish Rear Band: Light Alloy•Barrel Finish Chain Guide: Chrome Plated
Shifting Lever **SL-M200** (6-speed) **SL-M201** (7-speed)	154g. (SL-M201) Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	6-speed SIS Compatible (SL-M200) 7-speed SIS Compatible (SL-M201) Sealed Mechanism Chainring Triple Compatible	Bracket: Steel•Paint Finish Lever: Resin•Molding
Cantilever Brake **BR-M200**	226g. (Pair) **Use with Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible Rigid Computer Designed Shape	Steel & Resin
Brake Lever **BL-M200**	265g. Lever Clamp Diameter: 22.2mm. ** Use with Shimano Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible SLR (Shimano Linear Response) Compatible	Bracket: Steel•Zinc Plated Lever: Steel•Zinc Plated Resin•Molding
Front Chainwheel **FC-M200** (SG Gear Triple, MD Type) **Bottom Bracket Assembly** **BB-M500**	1,350g. (28T., 38T., 48T., 170mm.) 339g. (B.B. Set) Teeth: Top 48T., Middle 38T., Low 28T. Crank Length: 170mm. B.B Axle Length: 121. Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20T.P.I., Cup Thread: English BC 1.37" × 24T.P.I., French M35 × 1.0, Italian M36 × 24T.P.I.	SG Gear Biopace Chainring Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B)	Crank Arm: Steel•Zinc Plated Resin•Molding Chain Ring: Steel•Pearl Bright Finish
Front Chainwheel **FC-M201** (SG Gear Triple, MD Type) **Bottom Bracket Assembly** **BB-M500**	756g. (28T., 38T., 48T., 170mm.) 339g. (B.B. Set) Teeth: Top 48T., Middle 38T., Low 28T. Crank Length: 170mm., 175mm. B.B. Axle Length: 121 Chain: 1/2" × 3/32" Crank Thread: English BC 9/16" × 20 T.P.I. Cup Thread: English BC 1.37" × 24T.P.I., French M35 x 1.0, Italian M36 x 24T.P.I.	STI (Shimano Total Integration) Compatible SG Gear Biopace Chainring Narrow Type Chain Compatible Computer Aided Design (Crank) Sealed Mechanism (B.B)	Crank Arm: Ligh Alloy•Barrel Finish Chain Ring: Light Alloy•Anodized Finish
Freehub **FH-HG20-Q/N** (Rear, 7-speed)	425g. (w/Quick Release) Spoke Holes: 36H. Hole PCD: 45 Axle Thread: 10mm.	STI (Shimano Total Integration) Compatible Hyperglide Compatible 7-speed SIS Compatible	Light Alloy•Dia-Cut Finish
Cassette Sprockets **CS-HG20** (7-Speed)	325g. (Sprocket **E** group & Spacer) Use Narrow Type Chain	STI (Shimano Total Integration) Compatible 7-speed SIS Compatible 7-speed Hyperglide	Brown Finish and Silver Finish (Low Gear)
Rear Hub **HB-RA50-R** (Rear 6-speed) **Front Hub** **HB-RA50-F**	Type: Quick Release/Nut Type (Small Flange) Spoke Holes: 36H Hole PCD: 45	Sealed Mechanism One-Piece Forged Hub Body	Light Alloy
Multiple Freewheel **MF-HG20** (6-Speed)	460g. (14-28T.) Use Narrow Type Chain	STI (Shimano Total Integration) Compatible 6-speed SIS Compatible 6-speed Hyperglide	Brown Finish and Chrome Plated Finish (Low Gear)

Other Information

The Shimano 200GS component group uses certain components in common with the 500LX group which include the CN-HG50 chain and HP-R500 headset. See the 500LX component listing for information on these components.

FH-HG20

O.L.D.	130	126
Axle Length	140	137
Chain Line	43.2	41.2
Mounting Type	Quick Release	

CS-HG20

Cassette Sprocket Combinations:

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

MF-HG20

Sprocket Combinations:

6-speed	14, 16, 18, 20, 22, 24T.
	14, 16, 18, 21, 24, 28T.
	14, 17, 20, 24, 28, 32T.

INDIVIDUAL COMPONENTS

RD-L554-SGS



RD-L554-GS



RD-L554-SS



RD-R552-GS



RD-R552-SS



RD-TY20-GS



RD-TY20-SS



FD-TY20



FD-TY25



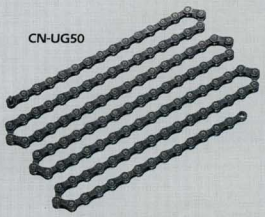
FD-Z260-A



FD-Z261-A



CN-UG50



FD-Z254



FD-Z255



Model No.	Specifications	Compatibility	Finish
Rear Derailleur **RD-L554-SGS** (Super Long Cage) **RD-L554-GS** (Long Cage) **RD-L554-SS** (Short Cage)	330g. (Super Long Cage) Front Difference: 20T. Total Capacity: 38T. Max. Rear Sprocket: 32T. Min. Rear Sprocket: 12T. 315g. (Long Cage) Front Difference: 20T. Total Capacity: 36T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 12T. 290g. (Short Cage) Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	6 & 7-speed SIS Compatible UG/HG Compatible Double Servo-Panta Mechanism Centeron Guide Pulley Sealed Pivot Axle Sintered Alloy Guide Pulley Bushing Cable Saver Arm B-Tension Adjuster Double Spoke Barrier Chain Retainer (GS Type, SGS Type)	Bracket Body: Light Alloy•Barrel Finish Plate Body: Light Alloy•Barrel Finish Right Link: Steel•Chrome Plated Left Link: Steel•Zinc Plated
Rear Derailleur **RD-R552-GS** (Long Cage) **RD-R552-SS** (Short Cage)	315g. (Long Cage) Front Difference: 20T. Total Capacity: 36T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 12T. 290g. (Short Cage) Front Difference: 13T. Total Capacity: 28T. Max. Rear Sprocket: 28T. Min. Rear Sprocket: 12T.	5, 6 & 7-speed SIS Compatible UG/HG Compatible Sintered Alloy Guide Pulley Bushing B-Tension Adjuster Chain Retainer (GS Type)	Bracket Body: Light Alloy•Barrel Finish Plate Body: Resin•Molding Right Link: Steel•Chrome Plated Left Link: Steel•Zinc Plated
Rear Derailleur **RD-TY20-GS** (Long Cage) **RD-TY20-SS** (Short Cage)	341g. (Long Cage) Front Difference: 20T. Total Capacity: 34T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 14T. **w/Bracket Only* 317g. (Short Cage) Front Difference: 13T. Total Capacity: 28T. Max Rear Sprocket: 24T.~28T. Min Rear Sprocket: 14T. **Front Single Available*	6-speed SIS Compatible HG Gear Compatible Sintered Alloy Guide Pulley Bushing Chain Retainer (GS Type) w/Pre-Strech Saver (SS Type)	Bracket Body: Steel•Zink Plated Plated Body: Steel•Zinc Plated Right Link: Steel•Chrome Plated Left Link: Steel•Zinc Plated
Rear Derailleur **RD-TY10-GS** (Long Cage) **RD-TY10-SS** (Short Cage)	315g. (Long Cage) Front Difference: 20T. Total Capacity: 34T. Max. Rear Sprocket: 34T. Min. Rear Sprocket: 13T. **w/Bracket Only* 290g. (Short Cage) Front Difference: 13T. Total Capacity: 30T. Max. Rear Sprocket: 30T. Min. Rear Sprocket: 13T.	UG Gear Compatible Centeron Guide Pulley Sintered Alloy guide Pulley Bushing Chain Retainer (GS Type) w/PreStrech Saver (SS Type)	Bracket Body: Steel•Zink Plated Plate Body: Steel•Zinc Plated Right Link: Steel•Chrome Plated Left Link: Steel•Zinc Plated
Front Derailleur **FD-TY20**	154g. (Normal Band Type) Band Diameter: Ø28.0mm.~28.6mm. (Band Type) Capacity: 14T. Stoke (w/Ø28.6mm. Band): 35~54	Narrow Type Chain Compatible Rigid Chainguide Trapease Mechanism	Right Link: Steel•Zink Plated Front Band: Steel•Pearl Bright Finish Rear Band: Steel•Zinc Plated
Front Derailleur **FD-TY25**	161g. (Normal Band Type) Band Diameter: Ø28.0~28.6mm. (Band Type) Capacity: 20T. (Biopace-HP), 22T. (Round) Stoke (w/Ø28.6mm. Band): 36~54	Narrow Type Chain Compatible Rigid Chainguide Trapease Mechanism w/Cable Stopper	Right Link: Steel•Paint Finish Resin•Molding Front Band: Steel•Zinc Plated Rear Band: Steel•Zinc Plated
Front Derailleur **FD-Z260-A**	132g. (Normal Band Type) Band Diameter: Ø28.0~28.6mm. (Band Type) Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37~51	Narrow Type Chain Compatible Rigid Chainguide New Trapease Mechanism	Right Link: Steel & Resin Front Band: Steel•Pearl Bright Finish Rear Band: Steel•Pearl Bright Finish
Front Derailleur **FD-Z261-A**	146g. (Normal Band Type) Band Diameter: Ø28.0~28.6mm.(Band Type) Capacity: 24T. (Biopace-HP), 26T. (Round) Stroke (w/Ø28.6mm. Band): 34~54	Trailling Action Pantagraph Mechanism Narrow Type Chain Compatible Rigid Chainguide New Trapease Mechanism w/Cable Stopper (Detachable)	Right Link: Steel•Paint Finish Front Band: Steel•Pearl Bright Finish Rear Band: Light Alloy•Barrel Finish Chain Guide: Chrome Plated
Front Derailleur **FD-AX50**	125g. (Normal Band Type) Band Diameter: Ø28.0~28.6mm. (Band Type) Capacity: 14T. Stroke (w/Ø28.6mm. Band): 35~54	Wide Type Chain Compatible w/Cable Stopper	Right Link: Steel & Resin•Zinc Plated Front Band: Steel•Zinc Plated/Chrome Plated Rear Band: Steel•Zinc Plated/Chrome Plated
Front Derailleur **FD-AX55**	127g. (Normal Band Type) Band Diameter: Ø28.0~28.6mm. (Band Type) Capacity: 20T. (Biopace-HP), 22T. (Round) Stroke (w/Ø28.6mm. Band): 34~54	Wide Type Chain Compatible w/Cable Stopper	Right Link: Steel & Resin•Zinc Plated Front Band: Steel•Zinc Plated/Chrome Plated Rear Band: Steel•Zinc Plated/Chrome Plated
Front Derailleur **FD-Z254**	125g. (Normal Band Type) Band Diameter: Ø28.0~28.6mm. (Band Type) Capacity: 14T. Stroke (w/Ø28.6mm. Band): 37~51	Wide Type Chain Compatible Leading Action Pantagraph Mechanism Light Action Mechanism	Right Lihk: Aluminum•Barrel Finish Front Band: Steel•Pearl Bright Finish Rear Band: Aluminum•Barrel Finish
Front Derailleur **FD-Z255**	130g. (Normal Band Type) Band Diameter: Ø28.0~28.6mm. (Band Type) Capacity: 24T. (Biopace-HP), 26T. (Round) Stroke (w/Ø28.6mm. Band): 34~54	Trailling Action Pantagraph Mechanism Wide Type Chain Compatible Rigid Chainguide New Trapease Mechanism	Right Link: Aluminum•Barrel Finish Front Band: Steel•Pearl Bright Finish Rear Band: Steel•Barrel Finish
UG Chain **CN-UG50**	Size: 1/2" × 3/32" Chain Speed: 5, 6, 7, 8-speed HG/UG Compatible	STI (Shimano Total Integration) Compatible Narrow Type Uniglide Chain	Black Finish
UG Chain **CN-6130** **UG Chain** **CN-UG30**	Size: 1/2" × 3/32" Chain Speed: 5, 6-speed UG Compatible	Wide Type Uniglide Chain Front SIS Compatible	Gold & Black Finish

INDIVIDUAL COMPONENTS



SL-BS50



SL-MS41



SL-MS52



SL-MS55



SL-MY20



SL-S434



SL-S452



SL-S441



SL-SY20
(Stem Type)



SL-SY20
(Band Type)

Model No.	Specifications	Compatibility	Finish
Shifting Lever **SL-BS50-8** (8-speed) **SL-BS50** (6 & 7-speed)	183g. Installation Position: Bar End Diameter: 19 ~ 22mm. (BS50). Combination:	8-speed SIS Compatible (SL-BS50-8) 6 & 7-speed SIS Compatible (SL-BS50) SIS/Friction Changeover	Lever: Light Alloy

	SL-BS50		SL-BS50-8
	6-speed	7-speed	8-speed
Shifting Lever	SL-BS500 (with the 6-speed adaptor)	SL-BS50	SL-BS50-8
Rear Derailleur	RD-6400/RD-1050	RD-6400/RD-1051	RD-7402
Freehub/ Cassette Sprockets	FH-6400-6/FH-1051-6 CS-6400-6	FH-6400-7/FH-1051-7 CS-6400-7	FH-7402/FH-7403 CS-7400-8/CS-7401
Chain	UG Chain	UG Chain (narrow type)	UG Chain (narrow type)
Outer Cable	Shimano SIS-SP Cable		Shimano SIS-SP Cable

★1: The SL-BS50-8 cannot be used for the Dura-Ace 6-speed 7-speed rear derailleur.
★2: The SL-BS50 cannot be used in combination with the RD-7401 rear derailleur.

Rapid Fire **ST-M020**	270g. Lever Clamp diameter:22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	STI (Shimano Total Integration) Compatible (w/BL-200) 7-speed SIS Compatible Dual Repeat Function	Bracket: Ligh Alloy•Paint Finish Shifting Lever: Steel•Zink Plated Resin•Molded
Shifting Lever **SL-M301**	154g. Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner*	7-speed SIS Compatible Chainring Triple Compatible Integrated w/Brake Lever	Bracket: Steel•Paint Finish Lever: Resin•Molding
Shifting Lever **SL-MS41**	182g. Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	6-speed SIS Compatible Light Action Lever (Front) Sealed Mechanism	Bracket: Steel•Paint Finish Lever: Resin•Molding
Shifting Lever **SL-MS52** (5-speed) **SL-MS52-6** (6-speed)	120g. Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	5-speed SIS Compatible (SL-MS52) 6-speed SIS Compatible (SL-MS52-6) Sealed Mechanism	Bracket: Steel•Zinc Plated Lever: Resin•Molding
Shifting Lever **SL-MS55**	203g. Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS-SP Outer Cable with Liner.*	6-speed SIS Compatible Light Action Lever (Front) Sealed Mechanism	Bracket: Steel•Zinc Plated Lever: Resin•Molding
Shifting Lever **SL-MY20**	63g. Lever Clamp Diameter: 22.2mm. **Use with Shimano SIS Outer Cable with Liner.*	6-speed SIS Compatible Sealed Mechanism	Bracket: Steel•Zinc Plated Lever: Resin•Molding
Shifting Lever **SL-S434-7** (7-speed) **SL-S434-6** (6-speed)	85g. (7-speed) Lever Clamp Diameter: 28.6mm. Down Tube Lever Combination with RD-R552 **Use with Shimano SIS Outer Cable with Liner.*	7-speed SIS Compatible (SL-S434-7) 6-speed SIS Compatible (SL-S434-6) Light Action Lever (Front) Sealed Mechanism	Lever: Light Alloy•Barrel Finish
Shifting Lever **SL-S452-7** (7-speed) **SL-S452-6** (6-speed) **SL-S452-5** (5-speed)	85g. (7-speed) Lever Clamp Diameter: 22.2mm Stem Type Combination with RD-R552 **Use with Shimano SIS-SP Outer Cable with Liner.*	7-speed SIS Compatible (SL-S452-7) 6-speed SIS Compatible (SL-S452-6) 5-speed SIS Compatible (SL-S452-5) Light Action Lever (Front) Sealed Mechanism	Lever: Resin
Shifting Lever **SL-S460**	203 g. Lever Clamp Diameter: 22.2mm. Bar Mount-Type **Use with Shimano SIS Outer Cable with Liner.*	6-speed SIS Compatible Light Action Lever (Front) Sealed Mechanism	Lever: Resin
Shifting Lever **SL-S441**	141 g. Lever Clamp Diameter: 22.2mm. Stem Type **Use with Shimano SIS Outer Cable with Liner.*	6-speed SIS Compatible Light Action Lever (Front) Sealed Mechanism	Lever: Resin
Shifting Lever **SL-SY20-FCAI** (6-speed SIS Blazed-on A Type) **SL-SY20-BCAI** (6-speed SIS Side Band A Type) **SL-SY20** (Stem Type)	91g. (SL-SY20-BCAI) Lever Clamp Diameter: 28.6mm. (Down Tube Lever) 22.2mm. (Stem Type) **Use with Shimano SIS Outer Cable with Liner.*	6-speed SIS Compatible Light Action Lever (Front) Sealed Mechanism	Lever: Resin

TOOLS

Tool
TL-HG15
- Lock Ring Tool for Hyperglide Sprockets.



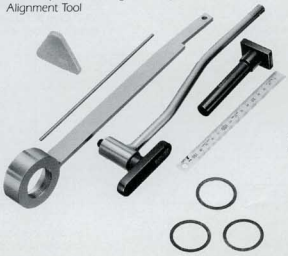
Tool
TL-FW30
- Multiple Freewheel Removal Tool (for MF-7400, MF-6208, MF-2012)



Tool
TL-CT10
- Cable Cutter (for SIS-SP cable and normal cables, outer casings.)



Tool
TL-RD10
- Rear Dropout Centering and Dropout Hanger Alignment Tool



Tool
TL-CN20
- Chain Cutter (for both UG chain and ordinary chain.)



Reinforced Special Pin
- for HG compatible chain



Tool
TL-PD40
- PD-1056, PD-1055, PD-A550 axle unit removal tool



Tool
TL-FC10
- Cotterless Crank Extractor for Front Chainwheel



Tool
TL-FC30
- Three Spanners for Front Chainwheel, Head Parts, Pedal





Water Bottle
- 20.9 oz.

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 resistent rubberized outer skin.

STI COMBINATION CHART

	Rapid Fire	Brake	Rear Derailleur	Front Derailleur	Front Chainwheel	Freehub	Cassette Sprocket	Chain
SHIMANO DEORE XT	ST-M090 ST-M091	BR-M732 BR-M733	RD-M735	FD-M735	FC-M730-SG	FH-M732	CS-HG90	CN-HG90
SHIMANO DEORE DX	ST-M070 ST-M071	BR-MT62 BR-MT63	RD-M650	FD-M650	FC-MT60-SG	FH-M650	CS-HG70	CN-HG70
SHIMANO DEORE LX	ST-M060	BR-M550 BR-M454 BR-M453	RD-M550	FD-M550	FC-M550	FH-M550		
SHIMANO EXAGE 500 LX	ST-M050	BR-M454 BR-M452 BR-M453	RD-M500	FD-M500	FC-M500	FH-HG50	CS-HG50	CN-HG50
SHIMANO EXAGE 400 LX		BR-M351 BR-M452 BR-M453	RD-M400	FD-M400	FC-M400			
SHIMANO EXAGE 300 LX		BR-M250 BR-M452 BR-M453	RD-M300	FD-M300	FC-M300			
SHIMANO 200 GS	ST-M020	BR-M200 BL-M200	RD-M200	FD-M201	FC-M200 FC-M201	FH-HG20		

THE 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.

Greater Interchangeability Among the Freehubs

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

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

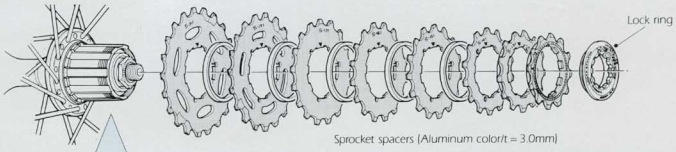
*Some 6-speed gears do not have the 6S mark. Some 7-speed and 8-speed gears have only the 7S mark.
*1: Standard spline sprockets are interchangeable with Dura-Ace but do not have the high-performance tooth profile.
*2: Sprockets used as a 2nd gear on a 6-speed freehub, or a 3rd gear on a 7-speed freehub,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

Notes:

- For 7-speed or 8-speed a narrow type chain is required. Shimano CN-7400 or CN-6208 is recommended for best performance.
- Splined gears (except the built-in spacer type gears) can be used interchangeably on the 6-, 7-, and 8-speed combinations.
- Top gears, built-in spacer type gears, and sprocket spacers are unique for the 6-, 7-, and 8-speed combinations and are not interchangeable.
- The thread dimensions of the Dura-Ace top gear (screw-on type) are different from other top gear sprockets.
- Due to their as symmetrical spline, Hyperglide sprockets are not interchangeable with non-Hyperglide freehubs. Use designated chain with Hyperglide cassette.

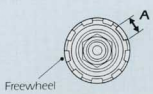
HYPERGLIDE CASSETTE SPROCKET SYSTEM

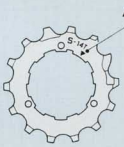
CS-7401



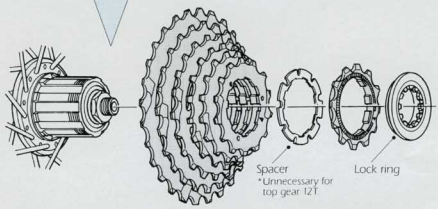
For each sprocket, the surface that has the group mark should face outward and positioned so that the triangle (▲) mark on each sprocket and the A part (where the groove width is wide) of the freewheel are aligned.

The groove width is wide at one place only.





CS-HG90
CS-HG70
CS-HG50

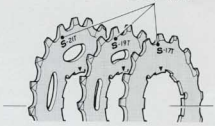


Model No.	Group mark	Combination
CS-7401	S	12, 13, 14, 15, 16, 17, 19, 21T.
	T	13, 14, 15, 16, 17, 19, 21, 23T.
CS-HG90	E	12, 14, 16, 18, 21, 24, 28T.
	F	14, 16, 18, 21, 24, 28, 32T.
CS-HG70	G	13, 15, 17, 20, 23, 26, 30T.
	H	13, 15, 17, 19, 21, 23, 26T.
CS-HG50	I	13, 14, 15, 17, 19, 21, 23T.
	J	13, 14, 15, 16, 17, 19, 21T.
	K	13, 15, 17, 20, 24, 29, 34T.

■Notes

- Always be sure to use the HG (Hyperglide) sprocket set bearing the same group marking.
  Never use in combination with a sprocket bearing a different group marking.

Group marks



THE SHIMANO FREEWHEEL SYSTEM

Features:

1. Splined Design—All 6-speed freewheels use a thread mounted top gear. The 2nd through 6th gears simply slide on and off for fast and easy replacement.
For 7-speed freewheels, the top two sprockets are thread mounted. The 3rd through 7th sprockets are the spline type.

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

3. Sealed Mechanisms—Dura-Ace, Santé, and 600 ULTEGRA freewheels incorporate efficient O-ring sealing for all-weather durability and a long service life.

4. Easy Maintenance—Dura-Ace, Santé, and 600 ULTEGRA freewheels have an oil port on the body that allows internal lubrication of bearings and pawls simply by removing the sprockets (use oil only).

5. SIS Precision—All 6-speed freewheels use the same precise SIS-type sprocket spacing. 7-speed freewheels (Dura-Ace & Santé) utilize the same narrow-type SIS sprocket spacing.

■Hyperglide Freewheel

(MF-HG20)

Sprocket Combinations:

14—24	14, 16, 18, 20, 22, 24T.
14—28	14, 16, 18, 21, 24, 28T.
14—32	14, 17, 20, 24, 28, 32T.

Note: Be sure to use Hyperglide Compatible Narrow Chain CN-HG70, CN-HG50.



SHIMANO

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