



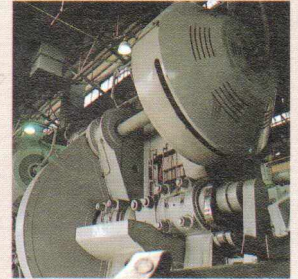
1990  
SHIMANO  
BICYCLE SYSTEM  
COMPONENT  
OFF-ROAD  
GROUPS

## SHIMANO BACKGROUND

# Shimano Breaking Away

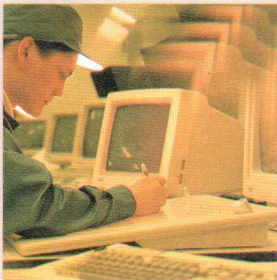
Shimano continues to work toward the creation of a better bio-mechanical interface between the cyclist and the bicycle.

It starts with the Shimano "system approach." Each component is designed from the start to be a balanced and integrated member of a complete and unified group. The result is a higher level of synergy. A performance whole greater than the sum of its parts.



The resources of our extensive R&D program supplement and enhance the system approach. Here is where human-engineering research, advanced computer simulation techniques, and new materials technologies are implemented into Shimano components.

This work has led to leading edge functions like the Shimano Index System, Dura-Ace Integrated-8, and SLR brake system; and advanced components like the Biopace chainring, rear Freehub, and Hyperglide sprockets. This expertise has laid the foundation for Shimano Total Integration, a revolutionary bicycle control system in which steering, braking, and shifting can be done while keeping the hands safely on the handlebars.



Shimano has broken away from the pack. What was once an art has evolved in a modern science. The result is a new world of performance capabilities for today's cyclist.



## SHIMANO PHILOSOPHY

# Shimano Off-The Road

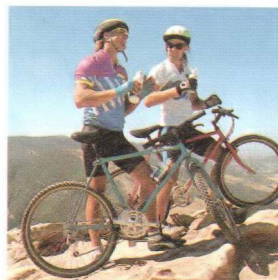
Off-road riding poses new challenges, and new rewards, to cycling enthusiasts. Born in the United States, off-road cycling has become a boom sport and is quickly gaining popularity in Europe, Japan, and around the world.

The dangers of riding in the rough make it more important than ever to have as much control as possible over the bicycle. This means that ATB components must deliver a higher level of response and bio-mechanical interaction between the rider and the bicycle.

The Shimano Philosophy is based on improving the off-road bicycle in this way. Our pioneering work in developing the first specialized component groups for the ATB has helped to define the high level of performance that today's quality all-terrain bicycle is capable of.

Shimano off-road components, featuring advanced functions like SIS, SLR brakes, Biopace chainwheels, and Hyperglide sprockets, are raising performance standards. Now, Shimano Total Integration (STI) promises a new age of complete "hands-on" control for the off-road rider.

Shimano all-terrain component groups are helping off-road cyclists to more fully realize their individual performance potential with more safety, confidence, and fun than ever before.



STI DEVELOPMENT CONCEPT



STI /

SHIMANO  
TOTAL  
INTEGRATION

## 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 off-road bicycles, directly under the cyclist's hands while the hands are gripping the 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

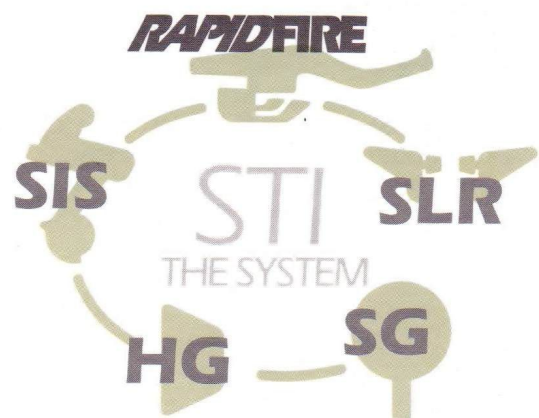
STI has been made possible through the high level of refinement offered by its supporting functions of SIS, Hyperglide sprockets, Superglide chainrings, and SLR brake technology.

Through the careful integration of these advanced functions, STI finally realizes a complete bicycle control system in which any desired control input 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.

The first STI system will be introduced as a standard feature of all Shimano off-road component systems for 1990.

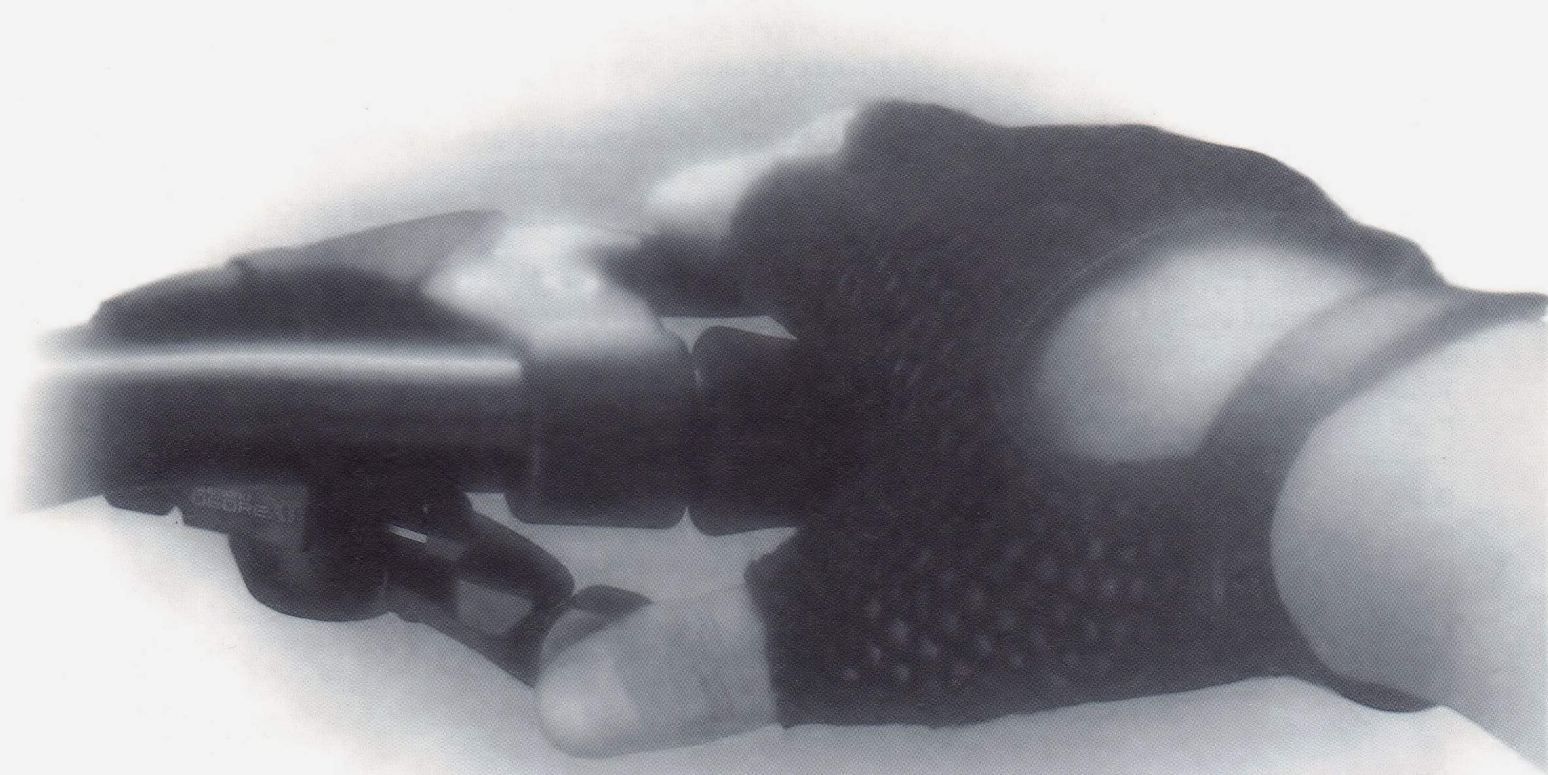
This is how Shimano is bringing the bicycle closer to the real needs of the cyclist.



OFF-ROAD STI

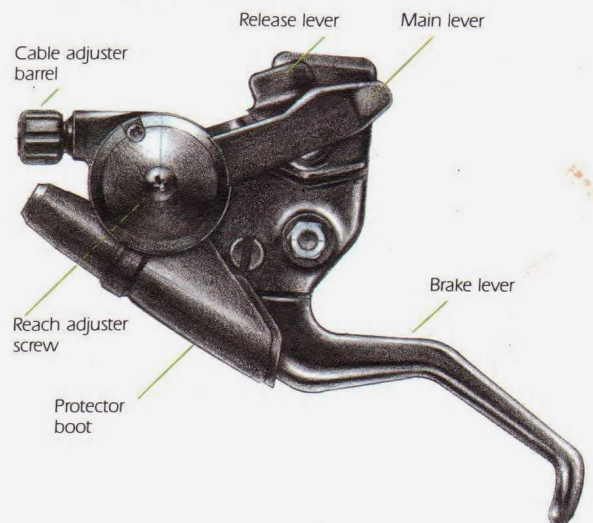
# RAPIDFIRE

## 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...



### Fast and smooth shifting, even under high chain loads.

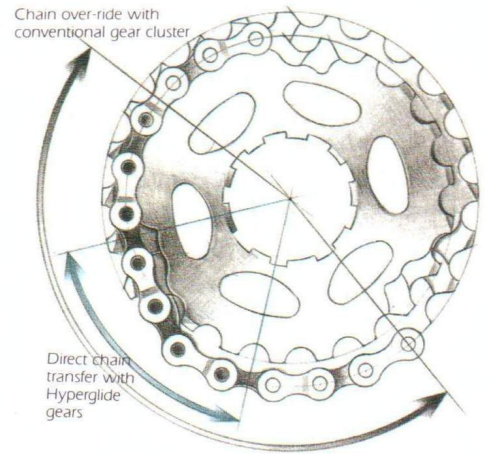
When shifting with conventional sprockets, the chain can occasionally slip over the gear teeth or ride on top of the teeth before completing the shift. This problem is made even worse when a shift is attempted under high chain loads.

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

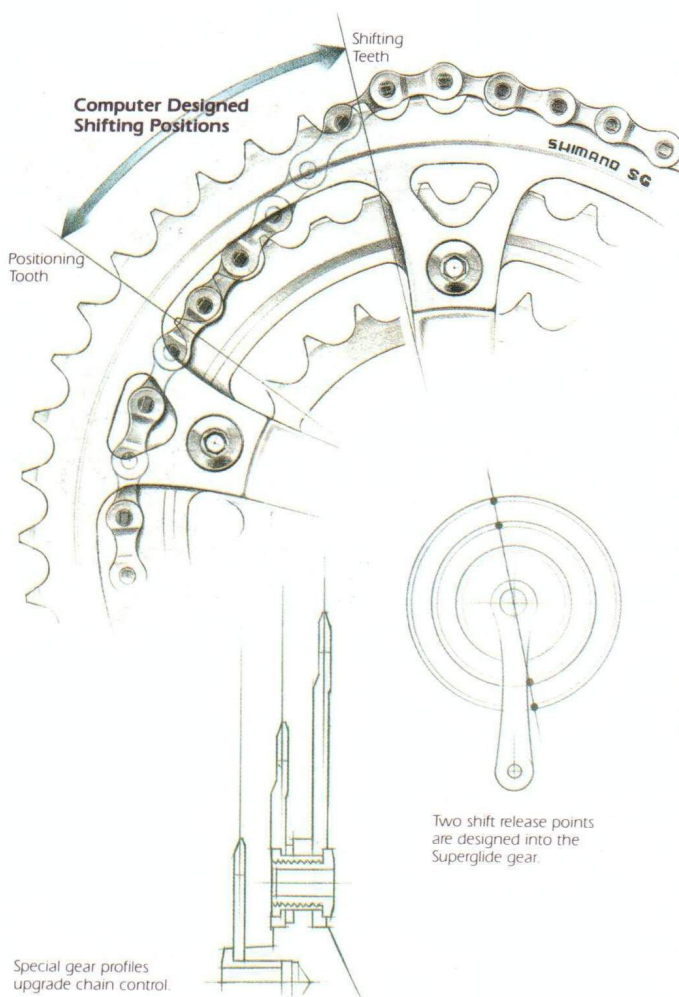
Shimano made extensive use of the computer in the development of Hyperglide. Hyperglide works by controlling chain movement between sprockets so that the chain moves quickly and directly from one sprocket to the next. It's done through special tooth profiles designed to positively release and pickup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



### 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

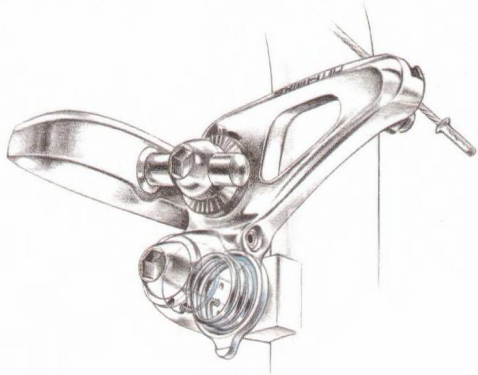
Superglide's controlled chain movement prevents damage to chainwheels while providing a much smoother shifting action.

Special gear profiles upgrade chain control.





## 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.



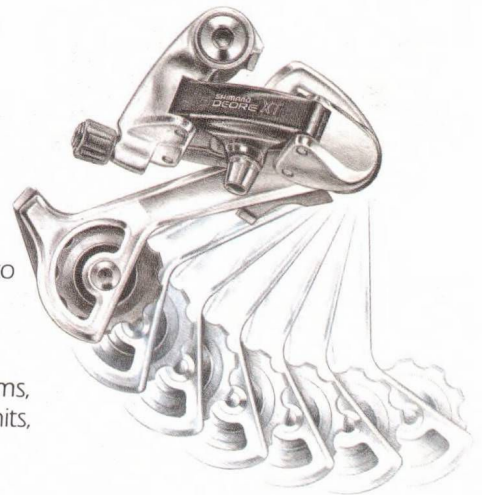
## Shimano indexed shifting continues to be refined.

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 7-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.

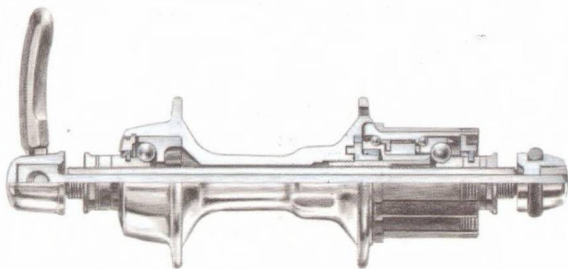


## New Hyperglide Freehub System

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.



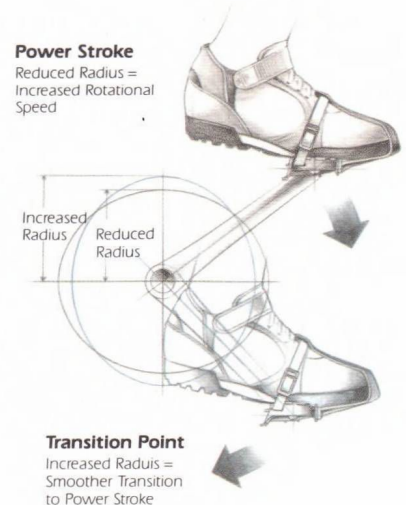
## Greater pedalling efficiency with Superglide shifting

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

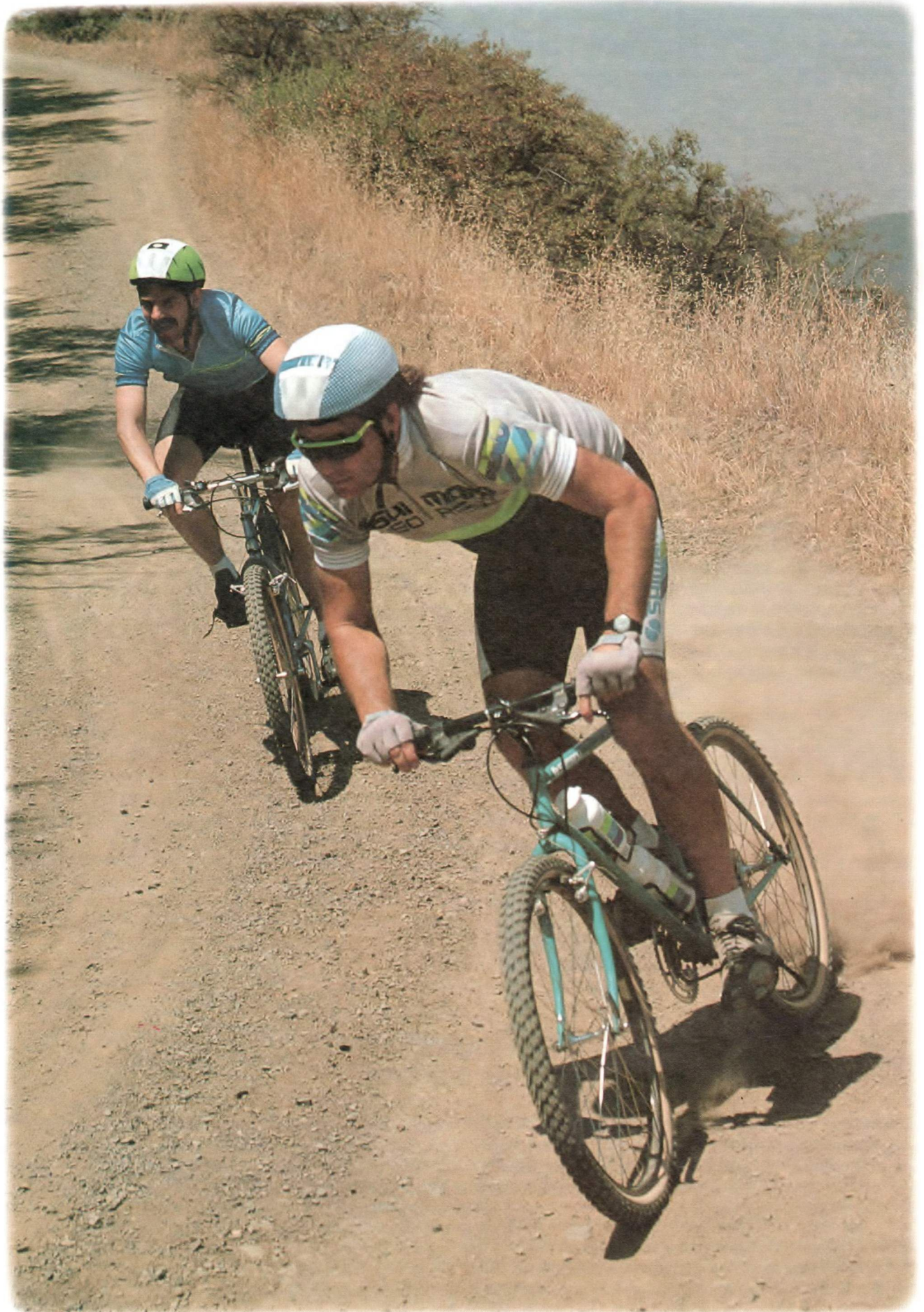
That's exactly what Biopace does. Biopace is a computer-designed chainring whose non-round shape produces a pedalling cadence that more closely matches the natural speed changes in the human leg when walking or running.

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.



# SHIMANO DEORE XT



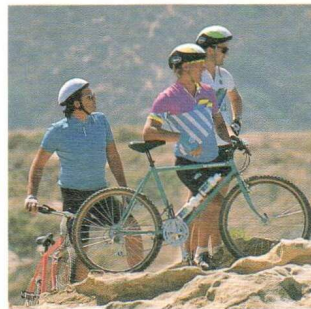
# STI delivers total performance off the road.

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.





## Model No.

## Specifications

## Compatibility

## Finish

## Other Information

**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 (Shimano Total Integration)  
 Compatible  
 7-speed SIS Compatible  
 SLR Compatible  
 Dual Repeat Function

Bracket: Light Alloy  
 Shifting & Brake Lever:  
 Steel-Resin Molding

**RD-M735**  
 Capacity:

|                    | SS   | SGS  |
|--------------------|------|------|
| Total Capacity     | 28T. | 38T. |
| Max. Rear Sprocket | 28T. | 32T. |
| Min. Rear Sprocket | 12T. | 12T. |

**Rear Derailleur**  
**RD-M735-SGS**  
 (Super Long Cage)  
**RD-M735-SS**  
 (Short Cage)

270g. (Super Long Cage)  
 250g. (Short Cage)

STI (Shimano Total Integration)  
 Compatible  
 6 & 7-speed SIS Compatible  
 Sealed Pulley  
 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

**FC-M730-SG**  
 Teeth:

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

**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  
 Trailing Action Pantograph Mechanism  
 Rigid Chainguide  
 New Trapeze Mechanism

Right Link: Light Alloy-**Anodized** Finish  
 Front Band: Light Alloy-**Buff** Finish  
 Rear Band: Light Alloy-**Buff** Finish  
 Chain Guide: Chrome Plated

Thread:

| 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.      |

**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 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 Compatible  
 Easy Cable Attachment

Light Alloy-**Buff** Finish  
 (Black Finish Available)

**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  |     |      |

**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"

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

**HB-M730-F**

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

**Freehub**  
**FH-M732**  
 (Rear, 7-speed)

490g. (w/Quick Release)  
 Spoke Holes: 36H., 32H.  
 Axle Thread: 10mm.

STI (Shimano Total Integration)  
 Compatible  
 7-speed SIS Compatible  
 Hyperglide Compatible

Light Alloy-**Buff** Finish

**Front Hub**  
**HB-M730-F**

213g.  
 Spoke Holes: 36H., 32H.  
 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

**CS-HG90**  
 Cassette Sprocket Combinations:

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

**HG Chain**  
**CN-HG90**

326g. (110 Link)  
 Size: 1/2" × 3/32" Chain

STI (Shimano Total Integration)  
 Compatible  
 Narrow Type Hyperglide Chain

Roller Link Plate: **Black** Finish  
 Pin Link Plate: **Silver** Finish  
 Link Pin: **Chrome** Finish

**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  
 Toe Clip/Reflector Attachable

Body: Light Alloy  
 Plate: Light Alloy-**Anodized** Finish  
 Toe Clip: Resin

**Pedal**  
**PD-M730**

412g. (Pair)  
 Crank Thread:  
 English BC 9/16" × 20T.P.I.

Low Profile Design  
 Parallelogram Shape  
 Toe Clip/Reflector Attachable

Body: Light Alloy  
 Plate: Light Alloy

**Head Parts**  
**HP-M735**  
**HP-M736**  
**HP-M737**

110g. (HP-M735)  
 149g. (HP-M736)  
 155g. (HP-M737)

Off-Road Type  
 Sealed Mechanism

Black Finish

**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

**HP-M735/M736/M737**

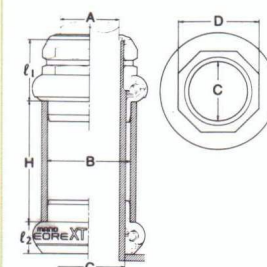
Variation & Dimensions:

|                | HP-M735     |            |      |
|----------------|-------------|------------|------|
| Thread         | BC1" × 24T. | M25 × P1.0 |      |
| A              | 30.0 (JIS)  | 30.2       | 30.2 |
| B              | 27.0 (JIS)  | 26.4       | 26.4 |
| C              | 22.1        |            |      |
| D              | 32.0        |            |      |
| ℓ <sub>1</sub> | 22.0        |            |      |
| ℓ <sub>2</sub> | 11.5        |            |      |

|                | 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 <sub>1</sub> | 22.0            | 27.3            |
| ℓ <sub>2</sub> | 11.5            | 13.0            |

Unit: mm.



# SHIMANO DEORE DX



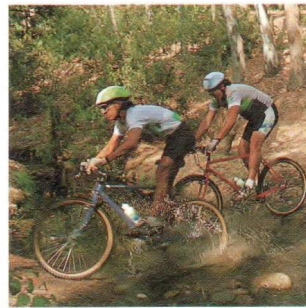
# Take on the challenge of riding in the rough.

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.



# SHIMANO DEORE DX





**Model No.**

**Specifications**

**Compatibility**

**Finish**

**Other Information**

**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 (Shimano 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 Pantograph 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" x 3/32"  
Crank Thread: English BC 9/16" x 20T.P.I.  
Cup Thread: English BC 1.37 x 24T.P.I.,  
French M35 x 1.0, Italian M36 x 24T.P.I.

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" x 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" x 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" x 20T.P.I.  
Toe Clip Size: M, L, LL

Super Low Profile Design  
32° Road Clearance  
Contact Type Sealed Mechanism  
Toe Clip/Reflector Attachable

Body: Light Alloy  
Plate: Steel  
Toe Clip: Resin

**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**

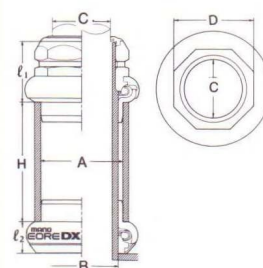
Variation & Dimensions:

| Thread         | HP-M650       |              |      |
|----------------|---------------|--------------|------|
|                | BC1" x 24T    | M25 x P1.0   |      |
| A              | 30.0<br>[JIS] | 30.2         | 30.2 |
| B              | 27.0<br>[JIS] | 26.4<br>27.0 | 26.4 |
| C              | 22.1          |              |      |
| D              | 32.0          |              |      |
| ℓ <sub>1</sub> | 22.0          |              |      |
| ℓ <sub>2</sub> | 11.5          |              |      |

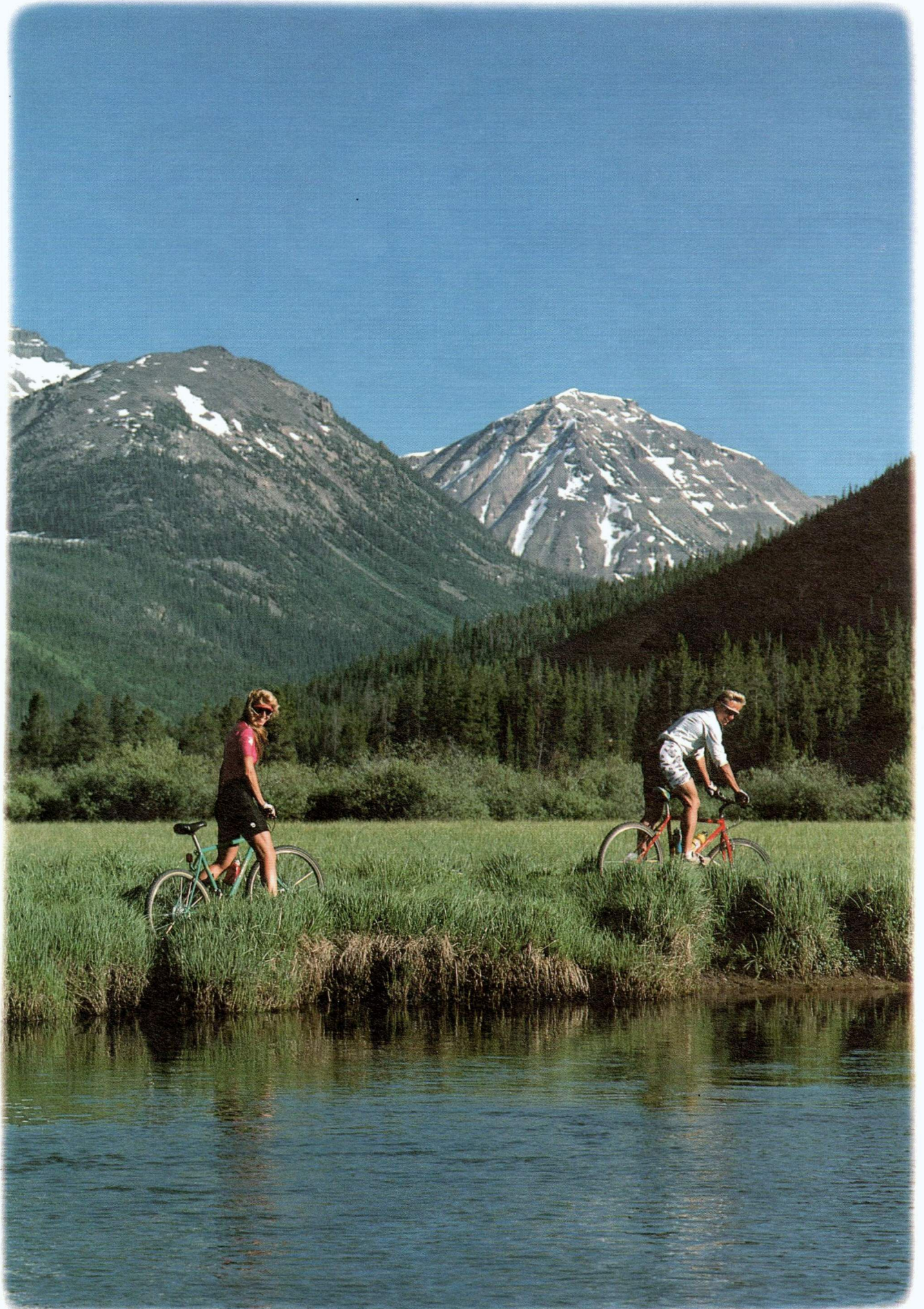
Unit: mm

| Thread         | HP-M651        |  |
|----------------|----------------|--|
|                | BC1-1/8" x 26T |  |
| A              | 34.0           |  |
| B              | 30.0           |  |
| C              | 25.5           |  |
| D              | 36.0           |  |
| ℓ <sub>1</sub> | 22.0           |  |
| ℓ <sub>2</sub> | 11.5           |  |

Unit: mm



# SHIMANO DEORE LX



# The high-value off-road component group with STI

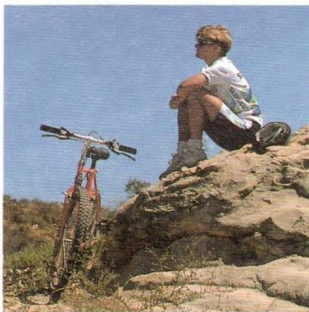
There isn't a better value in off-road components than Deore LX. Whether it's a leisurely exploration of a new trail or an all-out run over open field, Deore LX components deliver a feeling of total control that makes off-road riding that much more enjoyable.

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.



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

**STI**   
SHIMANO  
TOTAL  
INTEGRATION



# SHIMANO DEORE LX



## Model No.

## Specifications

## Compatibility

## Finish

## Other Information

**Rapidfire**  
**ST-M060** (4-Finger Type)

326g. (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 (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 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  
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. (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

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" x 3/32"  
Crank Thread: English BC 9/16" x 20T.P.I.  
Cup Thread: English BC 1.37" x 24T.P.I.,  
French M35 x 1.0, Italian M36 x 24T.P.I.

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" x 3/32" Chain

STI (Shimano Total Integration)  
Compatible  
Narrow Type Hyperglide Chain  
Bushings 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

### FC-M550

Teeth:

|        | Biopace |      | 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:

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

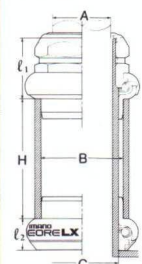
### HP-R500

Variation:

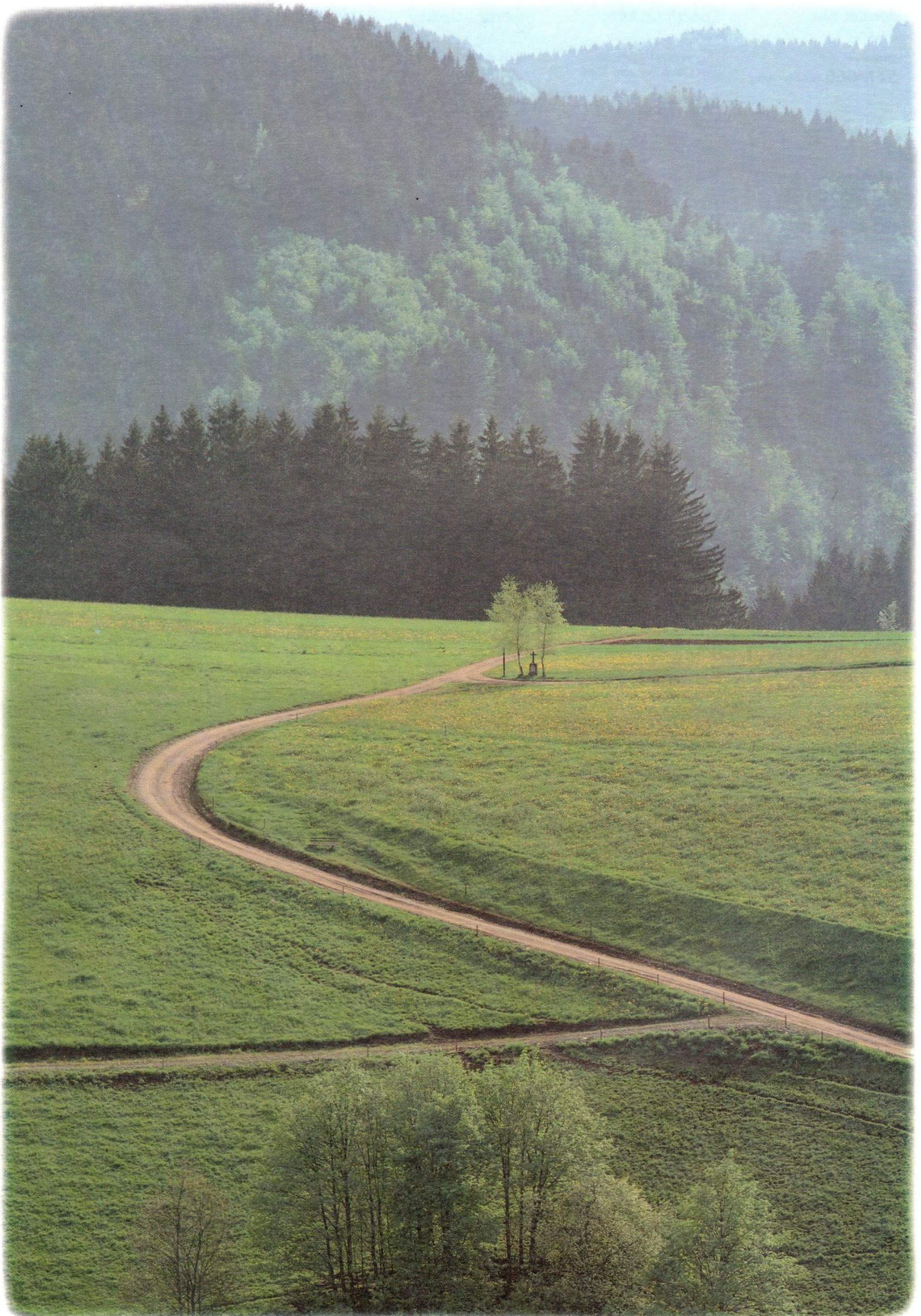
| English/Italian Type |                        |           |
|----------------------|------------------------|-----------|
| Thread               |                        | BC1 x 24T |
| Press Race Diameter  | Upper Cone & Lower Cup | 30.2mm.   |
|                      | Lower Cone             | 26.4mm.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

Dimensions:

|                |                               |
|----------------|-------------------------------|
| t <sub>1</sub> | 22.0mm                        |
| t <sub>2</sub> | 11.5mm.                       |
| H              | Head Tube Length              |
| A              | 22.3mm.                       |
| B              | 30.2mm.                       |
| C              | 26.4mm.                       |
| Thread         | BC 1" x 24T. (English Thread) |



# EXAGE LX



# A versatile and wide-ranging off-road component family with STI.

Offering Shimano Total Integration, Exage LX is a versatile new high-performance family of off-road components for both on and off-road "fat tire" bicycles.

Exage LX realizes a wider range of affordable on- and off-road fat tire bikes offering the new level of control, riding ease, and safety that STI makes possible.

Yet Exage LX delivers a lot more than just the convenient "keep our grip while you shift" control function of STI. You also get precision-shifting Biopace SG chainwheels, sensitive SLR braking, and a new 7-speed SIS with fast-shifting Hyperglide sprockets. And don't forget the Shimano freehub.

Two new Exage City groups bring all the advantages of the latest Shimano off-road component functions, including STI, to the increasingly popular "fat tire" urban bicycle. Exage "Comfortable City" offers the excellent all-weather braking performance of the Hub Roller Brake with the added benefit of Hyperglide sprockets.

Exage LX realizes great performance, rugged construction, and famed Shimano quality in a wide range of fat-tire bicycles that express the leading edge in component technology at a reasonable price. What else could you ask for?







| Model No.  | Specifications  | Compatibility   | Finish  | Other Information  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
|--|---|---|---|--|---------|----------|------------------------------|-------------|------------------------------|----------|------------------------------|---------------|------------------------------|----------|------------------------------|----------|------------------------------|---------------|------------------------------|--|
| <b>Rapidfire</b><br><b>ST-M050</b> (4-Finger Type)<br><b>Brake Lever</b><br><b>BL-M050</b><br>(Use Front Single)           | 329g. (4-Finger Type Rear)<br>Lever Clamp Diameter: 22.2mm.<br>*Use with Shimano SIS-SP<br>Outer Cable with Liner.  | STI (Shimano Total Integration)<br>Compatible<br>7-speed SIS Compatible<br>SLR Compatible<br>Dual Repeat Function<br>Light Action Lever<br>Anatomical Design  | Bracket: Light Alloy+Paint Finish<br>Shifting and Brake Lever:<br>Steel-Zinc Plated<br>Resin-Molding  |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Rear Derailleur</b><br><b>RD-M500-SGS</b><br>(Super Long Cage)<br><b>RD-M500-GS</b><br>(Long Cage)                      | 329g. (Super Long Cage)<br>Front Difference: 20T.<br>Total Capacity: 38T.<br>Max. Rear Sprocket: 32T.<br>Min. Rear Sprocket: 12T.<br>(Long Cage)<br>Front Difference: 20T.<br>Total Capacity: 36T.<br>Max. Rear Sprocket: 30T.<br>Min. Rear Sprocket: 12T.  | STI (Shimano Total Integration)<br>Compatible<br>6 & 7-speed SIS Compatible<br>Double Servo-Panta Mechanism<br>Centeron Guide Pulley<br>Sealed Pivot Axle<br>Sintered Alloy Guide Pulley Bushing<br>Cable Saver Arm<br>B-Tension Adjuster<br>Chain Retainer | Bracket Body:<br>Light Alloy+Paint Finish<br>Plate Body:<br>Light Alloy+Paint Finish<br>Right Link:<br>Steel+Paint Finish<br>Left Link:<br>Steel+Pearl Bright |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Front Derailleur</b><br><b>FD-M500</b>  | 118g. (Normal Band Type)<br>Band Diameter:<br>φ28.0 ~ φ28.6mm. (Band Type, EC-Type)<br>φ31.8, φ34.9mm. (EC-Type)<br>Capacity: 24T. (Biopace HP)<br>26T. (Round)<br>Stroke (w/φ28.6mm. Band): 34 ~ 54  | STI (Shimano Total Integration)<br>Compatible<br>SG Gear Compatible<br>Narrow Type Chain Compatible<br>Trailing Action Pantagraph Mechanism<br>Rigid Chainguide<br>New Trapease Mechanism<br>Sealed Mechanism   | Right Link:<br>Light Alloy+Paint Finish<br>Front Band:<br>Light Alloy+Paint Finish<br>Rear Band:<br>Light Alloy+Paint Finish<br>Chain Guide:<br>Chrome Plated |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>U-II Brake</b><br><b>BR-M453</b>  | 368g. (1 unit)<br>*For SLR System use Rapid Fire or<br>Compatible Brake Lever and<br>Shimano Outer Cable with Liner.  | STI (Shimano Total Integration)<br>Compatible<br>SLR (Shimano Linear Response)<br>Compatible<br>Pre-Road Spring Design<br>Sealed Internal Spring Design<br>Rigid Computer Designed Shape<br>Spring Tension Adjuster<br>Power Plate with shark Tooth         | Light Alloy+Barrel Finish   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Cantilever Brake</b><br><b>BR-M454</b>  | 216g. (Pair)<br>*For SLR System use Rapid Fire or<br>Compatible Brake Lever and<br>Shimano Outer Cable with Liner.  | STI (Shimano Total Integration)<br>Compatible<br>SLR (Shimano Linear Response)<br>Compatible<br>Rigid Computer Designed Shape<br>Sealed Internal Spring Design  | Light Alloy+Barrel Finish   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Front Chainwheel</b><br><b>FC-M500</b><br>(SG Gear Triple, MD Type)<br><b>Bottom Bracket Assembly</b><br><b>BB-M500</b> | 756g. (28T., 38T., 48T., 170mm.)<br>339g. (B.B. Set)<br>Crank Length: 170mm., 175mm.<br>BB Axle Length: 121<br>Teeth: Top 48T, Middle 38T, Low 28T.<br>Chain: 1/2" x 3/32"<br>Crank Thread: English BC 9/16" x 20T.P.I.<br>Cup Thread: English BC 1.37" x 24T.P.I.,<br>French M35 x 1.0, Italian M36 x 24T.P.I. | STI (Shimano Total Integration)<br>Compatible<br>SG Gear<br>Narrow Type Chain Compatible<br>Computer Aided Design (Crank)<br>Sealed Mechanism (B.B.)<br>Biopace Chaining  | Crank Arm:<br>Light Alloy+Barrel Finish<br>Chain Ring:<br>Light Alloy+Anodized Finish   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Freehub</b><br><b>FH-HG50</b><br>(Rear, 7-speed)  | 435g. (w/Quick Release)<br>Spoke Holes: 36H., 32H<br>Hole PCD: 45<br>Axle Thread: 10mm.   | STI (Shimano Total Integration)<br>Compatible<br>7-speed SIS Compatible<br>Hyperglide Compatible<br>UG/HG Compatible Type<br>One-Piece Forged Hub Body<br>Bolt-Secured Freewheel<br>Sealed Mechanism  | Light Alloy+Dia-cut Finish  | <b>FH-HG50</b><br><table border="1"> <tr> <td>O.L.D.</td> <td>135</td> <td>130</td> <td>126</td> </tr> <tr> <td>Axle Length</td> <td>146</td> <td>141</td> <td>137.</td> </tr> <tr> <td>Chain Line</td> <td>45.7</td> <td>43.2</td> <td>41.2</td> </tr> <tr> <td>Mounting Type</td> <td>Quick Release</td> <td colspan="2">Nut</td> </tr> </table>   | O.L.D.  | 135      | 130                          | 126         | Axle Length                  | 146      | 141                          | 137.          | Chain Line                   | 45.7     | 43.2                         | 41.2     | Mounting Type                | Quick Release | Nut                          |  |
| O.L.D.   | 135   | 130   | 126   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| Axle Length  | 146   | 141   | 137.  |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| Chain Line   | 45.7  | 43.2  | 41.2  |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| Mounting Type  | Quick Release   | Nut   |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Front Hub</b><br><b>HB-RM50-F</b>   | 228g. (w/Quick Release)<br>Spoke Holes: 36H., 32H<br>Hole PCD: 38<br>Axle Thread: 9mm.  | One-Piece Forged Hub Body<br>Sealed Mechanism (Choice)  | Light Alloy+Dia-cut Finish  | <b>HB-RM50-F</b><br><table border="1"> <tr> <td>O.L.D.</td> <td>100</td> <td>96</td> </tr> <tr> <td>Axle Length</td> <td>108</td> <td>104</td> </tr> <tr> <td>Mounting Type</td> <td colspan="2">Quick Release</td> </tr> </table>   | O.L.D.  | 100      | 96                           | Axle Length | 108                          | 104      | Mounting Type                | Quick Release |                              |          |                              |          |                              |               |                              |  |
| O.L.D.   | 100   | 96  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| Axle Length  | 108   | 104   |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| Mounting Type  | Quick Release   |   |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Cassette Sprockets</b><br><b>CS-HG50</b> (7-Speed)  | 325g<br>(Sprocket E Group & Spacer)<br>Use Narrow Type Chain  | STI (Shimano Total Integration)<br>Compatible<br>7-speed SIS Compatible<br>7-speed Hyperglide   | Brown Finish and<br>Silver Finish (Low Gear)  |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>HG Chain</b><br><b>CN-HG50</b>  | 335g. (114 Link)<br>Size: 1/2" x 3/32" Chain  | STI (Shimano Total Integration)<br>Compatible<br>Narrow Type Hyperglide Chain<br>Bushingless Design<br>Chrome Finish Link Pins  | Roller Link Plate: Black Finish<br>Pin Link Plate: Black Finish   | <b>CS-HG50</b><br>Cassette Sprocket Combinations:<br><table border="1"> <tr> <td rowspan="7">7-speed</td> <td><b>J</b></td> <td>13, 14, 15, 16, 17, 19, 21T.</td> </tr> <tr> <td><b>I</b></td> <td>13, 14, 15, 17, 19, 21, 23T.</td> </tr> <tr> <td><b>H</b></td> <td>13, 15, 17, 19, 21, 23, 26T.</td> </tr> <tr> <td><b>E</b></td> <td>12, 14, 16, 18, 21, 24, 28T.</td> </tr> <tr> <td><b>G</b></td> <td>13, 15, 17, 20, 23, 26, 30T.</td> </tr> <tr> <td><b>F</b></td> <td>14, 16, 18, 21, 24, 28, 32T.</td> </tr> <tr> <td><b>K</b></td> <td>13, 15, 17, 20, 24, 29, 34T.</td> </tr> </table> | 7-speed | <b>J</b> | 13, 14, 15, 16, 17, 19, 21T. | <b>I</b>    | 13, 14, 15, 17, 19, 21, 23T. | <b>H</b> | 13, 15, 17, 19, 21, 23, 26T. | <b>E</b>      | 12, 14, 16, 18, 21, 24, 28T. | <b>G</b> | 13, 15, 17, 20, 23, 26, 30T. | <b>F</b> | 14, 16, 18, 21, 24, 28, 32T. | <b>K</b>      | 13, 15, 17, 20, 24, 29, 34T. |  |
| 7-speed  | <b>J</b>  | 13, 14, 15, 16, 17, 19, 21T.  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
|  | <b>I</b>  | 13, 14, 15, 17, 19, 21, 23T.  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
|  | <b>H</b>  | 13, 15, 17, 19, 21, 23, 26T.  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
|  | <b>E</b>  | 12, 14, 16, 18, 21, 24, 28T.  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
|  | <b>G</b>  | 13, 15, 17, 20, 23, 26, 30T.  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
|  | <b>F</b>  | 14, 16, 18, 21, 24, 28, 32T.  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
|  | <b>K</b>  | 13, 15, 17, 20, 24, 29, 34T.  |   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |
| <b>Pedal</b><br><b>PD-M450</b>   | 518g. (Pair)  | Low Profile Design<br>Toe Clip/Reflector Attachable   | Body: Resin<br>Plate: Steel   |  |         |          |                              |             |                              |          |                              |               |                              |          |                              |          |                              |               |                              |  |

# EXAGE 400LX



| Model No.  | Specifications   | Compatibility   | Finish  | Other Information   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
|--|--|---|---|---|--------------|---------|---------------------|------------|----------------|---------------------|--------|-----------|--------------------|----------------|------|------|--------------------|------|------|------|------------------|------|------|------|
| <b>Rear Derailleur</b><br><b>RD-M400-SGS</b><br>(Super Long Cage)<br><b>RD-M400-GS</b><br>(Long Cage)<br><b>RD-M400-SS</b><br>(Short Cage) | 330g. (Super Long Cage)<br>318g. (Long Cage)<br>*GS & SS Front Single Available  | STI (Shimano Total Integration)<br>Compatible<br>6 & 7-speed SIS Compatible<br>Centeron Guide Pulley<br>Cable Saver Arm<br>B-Tension Adjuster<br>Chain Retainer (GS Type, SGS Type)                           | Bracket Body: Light Alloy•Barrel Finish<br>Plate Body: Light Alloy•Barrel Finish<br>Right Link: Steel•Paint Finish<br>Left Link: Steel•Zinc Plated<br>*GS & SS White Finish Available | <b>RD-M400</b><br>Capacity: <table border="1"> <tr> <td></td> <td>SS</td> <td>GS</td> <td>SGS</td> </tr> <tr> <td>Total Capacity</td> <td>28T.</td> <td>36T.</td> <td>38T.</td> </tr> <tr> <td>Max. Rear Sprocket</td> <td>28T.</td> <td>30T.</td> <td>32T.</td> </tr> <tr> <td>Min. Rear Sprocket</td> <td>12T.</td> <td>12T.</td> <td>12T.</td> </tr> <tr> <td>Front Difference</td> <td>13T.</td> <td>20T.</td> <td>20T.</td> </tr> </table> |              | SS      | GS                  | SGS        | Total Capacity | 28T.                | 36T.   | 38T.      | Max. Rear Sprocket | 28T.           | 30T. | 32T. | Min. Rear Sprocket | 12T. | 12T. | 12T. | Front Difference | 13T. | 20T. | 20T. |
|  | SS   | GS  | SGS   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| Total Capacity   | 28T.   | 36T.  | 38T.  |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| Max. Rear Sprocket   | 28T.   | 30T.  | 32T.  |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| Min. Rear Sprocket   | 12T.   | 12T.  | 12T.  |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| Front Difference   | 13T.   | 20T.  | 20T.  |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| <b>Front Derailleur</b><br><b>FD-M400</b>  | 132g. (Normal Band Type)<br>Band Diameter:<br>Ø28.0~Ø28.6mm. (Band Type, EC-Type)<br>Ø31.8, Ø34.9mm. (EC-Type)<br>Capacity: 24T. (Biopace HP)<br>26T. (Round)<br>Stroke (w/Ø28.6mm. Band): 34~54 | STI (Shimano Total Integration)<br>Compatible<br>SG Gear Compatible<br>Narrow Type Chain Compatible<br>Trailing Action Pantagraph Mechanism<br>Rigid Chainguide<br>New Trapease Mechanism<br>Sealed Mechanism | Right Link: Light Alloy•Paint Finish<br>Front Body: Light Alloy•Paint Finish<br>Rear Band: Light Alloy•Paint Finish<br>Chain Guide: Chrome Plated                                     | <b>FC-M400</b><br>Thread: <table border="1"> <tr> <td>Crank Thread</td> <td>English</td> <td>BC 9/16" × 20T.P.I.</td> </tr> <tr> <td rowspan="3">Cup Thread</td> <td>English</td> <td>BC 1.37" × 24T.P.I.</td> </tr> <tr> <td>French</td> <td>M35 × 1.0</td> </tr> <tr> <td>Italian</td> <td>M36 × 24T.P.I.</td> </tr> </table>   | Crank Thread | English | BC 9/16" × 20T.P.I. | Cup Thread | English        | BC 1.37" × 24T.P.I. | French | M35 × 1.0 | Italian            | M36 × 24T.P.I. |      |      |                    |      |      |      |                  |      |      |      |
| Crank Thread   | English  | BC 9/16" × 20T.P.I.   |   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| Cup Thread   | English  | BC 1.37" × 24T.P.I.   |   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
|  | French   | M35 × 1.0   |   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
|  | Italian  | M36 × 24T.P.I.  |   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| <b>Cantilever Brake</b><br><b>BR-M351</b>  | 227g. (Pair)<br>*For SLR System use Rapidfire or SLR Compatible Brake Lever and Shimano Outer Cable with Liner.  | STI (Shimano Total Integration)<br>Compatible<br>SLR Compatible<br>Sealed Internal Spring Design<br>Spring Tension Adjuster<br>Low Profile Brake Shoe   | Steel & Resin   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| <b>Front Chainwheel</b><br><b>FC-M400</b><br>(SG Gear Triple, MD Type)   | 763g. (28T., 38T., 48T., 170mm.)<br>339g. (B.B. Set)<br>Teeth: Top 48T., Middle 38T., Low 28T.<br>Crank Length: 170mm., 175mm.<br>B.B. Axle Length: 121.1<br>Chain: 1/2" × 3/32"                 | STI (Shimano Total Integration)<br>Compatible<br>SG Gear<br>Biopace Chaining<br>Narrow Type Chain Compatible<br>Computer Aided Design (Crank)<br>Sealed Mechanism (B.B.)                                      | Crank Arm: Light Alloy•Barrel Finish<br>Chain Ring: Steel•Paint Finish  |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| <b>Bottom Bracket Assembly</b><br><b>BB-M500</b>   |  |   |   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |
| <b>Pedal</b><br><b>PD-M350</b>   | 445g. (Pair)   | Low Profile Design<br>Toe Clip/Reflector Attachable   | Body: Resin<br>Plate: Steel   |   |              |         |                     |            |                |                     |        |           |                    |                |      |      |                    |      |      |      |                  |      |      |      |

The Exage 400LX component group uses certain components in common with the 500LX group which include the ST-M050 Rapidfire, 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



| Model No.   | Specifications  | Compatibility   | Finish  | Other Information   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
|---|---|---|---|---|--------------|---------|---------------------|----------------|---------|---------------------|--------------------|-----------|---------|--------------------|------|------|------------------|------|------|
| <b>Rear Derailleur</b><br><b>RD-M300-SGS</b><br>(Super Long Cage)<br><b>RD-M300-GS</b><br>(Long Cage) | 319g. (Super Long Cage)   | STI (Shimano Total Integration)<br>Compatible<br>6 & 7-speed SIS Compatible<br>Cable Saver Arm<br>B-Tension Adjuster<br>Chain Retainer  | Bracket Body: Light Alloy•Barrel Finish<br>Plate Body: Resin•Molding<br>Right Link: Steel & Resin•Zinc Plated<br>Left Link: Steel•Zinc Plated       | <b>RD-M300</b><br>Capacity: <table border="1"> <tr> <td></td> <td>GS</td> <td>SGS</td> </tr> <tr> <td>Total Capacity</td> <td>36T.</td> <td>38T.</td> </tr> <tr> <td>Max. Rear Sprocket</td> <td>30T.</td> <td>32T.</td> </tr> <tr> <td>Min. Rear Sprocket</td> <td>12T.</td> <td>12T.</td> </tr> <tr> <td>Front Difference</td> <td>20T.</td> <td>20T.</td> </tr> </table> |              | GS      | SGS                 | Total Capacity | 36T.    | 38T.                | Max. Rear Sprocket | 30T.      | 32T.    | Min. Rear Sprocket | 12T. | 12T. | Front Difference | 20T. | 20T. |
|   | GS  | SGS   |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| Total Capacity  | 36T.  | 38T.  |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| Max. Rear Sprocket  | 30T.  | 32T.  |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| Min. Rear Sprocket  | 12T.  | 12T.  |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| Front Difference  | 20T.  | 20T.  |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| <b>Front Derailleur</b><br><b>FD-M300</b>   | 135g. (Normal Band Type)<br>Band Diameter:<br>Ø28.0~Ø28.6mm. (Band Type)<br>Ø31.8, Ø34.9mm. (EC-Type)<br>Capacity: 24T. (Biopace HP)<br>26T. (Round)<br>Stroke (w/Ø28.6mm. Band): 34~54 | STI (Shimano Total Integration)<br>Compatible<br>SG Gear Compatible<br>Narrow Type Chain Compatible<br>Trailing Action Pantagraph Mechanism<br>Rigid Chainguide<br>New Trapease Mechanism<br>Sealed Mechanism | Right Link: Light Alloy•Paint Finish<br>Front Band: Steel•Pearl Bright Finish<br>Rear Band: Light Alloy•Barrel Finish<br>Chain Guide: Chrome Plated | <b>FC-M300</b><br>Thread: <table border="1"> <tr> <td>Crank Thread</td> <td>English</td> <td>BC 9/16" × 20T.P.I.</td> </tr> <tr> <td rowspan="3">Cup Thread</td> <td>English</td> <td>BC 1.37" × 24T.P.I.</td> </tr> <tr> <td>French</td> <td>M35 × 1.0</td> </tr> <tr> <td>Italian</td> <td>M36 × 24T.P.I.</td> </tr> </table>   | Crank Thread | English | BC 9/16" × 20T.P.I. | Cup Thread     | English | BC 1.37" × 24T.P.I. | French             | M35 × 1.0 | Italian | M36 × 24T.P.I.     |      |      |                  |      |      |
| Crank Thread  | English   | BC 9/16" × 20T.P.I.   |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| Cup Thread  | English   | BC 1.37" × 24T.P.I.   |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
|   | French  | M35 × 1.0   |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
|   | Italian   | M36 × 24T.P.I.  |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| <b>Cantilever Brake</b><br><b>BR-M250</b>   | 235g. (Pair)  | STI (Shimano Total Integration)<br>Compatible<br>SLR Compatible<br>Rigid Computer Designed Shape<br>Low Profile Brake Shoe  | Steel & Resin   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| <b>Front Chainwheel</b><br><b>FC-M300</b><br>(SG Gear Triple, MD Type)                                | 756g. (28T., 38T., 48T., 170mm.)<br>339g. (B.B. Set)<br>Teeth: Top 48T., Middle 38T., Low 28T.<br>Crank Length: 170mm., 175mm.<br>B.B. Axle Length: 121<br>Chain: 1/2" × 3/32"          | STI (Shimano Total Integration)<br>Compatible<br>SG Gear<br>Biopace Chaining<br>Narrow Type Chain Compatible<br>Computer Aided Design (Crank)<br>Sealed Mechanism (B.B.)                                      | Crank Arm: Light Alloy•Barrel Finish<br>Chain Ring:<br>Light Alloy•Anodized Finish  |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| <b>Bottom Bracket Assembly</b><br><b>BB-M500</b>  |   |   |   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |
| <b>Pedal</b><br><b>PD-M350</b>  | 445g. (Pair)  | Low Profile Design w/Reflector<br>Toe Clip/Reflector Attachable   | Body: Resin<br>Plate: Steel   |   |              |         |                     |                |         |                     |                    |           |         |                    |      |      |                  |      |      |

The Exage 300LX component group uses certain components in common with the 500LX group which include the ST-M050 Rapidfire, 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.



| Model No.   | Specifications   | Compatibility   | Finish   | Other Information   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|---|--|---|--|---|---------|---------------------------------|-----------------------------|----------------|----------------------------------|----------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------|------------------------|-----------------------------|----------|-----------------------------|
| <b>Rapidfire<br/>ST-M020</b>  | 190g. (4-Finger Type Rear)<br>Lever Clamp Diameter: 22.2mm.<br><i>*Use with Shimano SIS-SP Outer Cable with Liner.</i> | STI (Shimano Total Integration) Compatible<br>7-speed SIS Compatible<br>Dual Repeat Function                            | Bracket: Light Alloy•Paint Finish<br>Shifting Lever: Steel•Zinc Plated Resin•Molding   | <b>RD-M200</b><br>Capacity:   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Rear Derailleur<br/>RD-M200-SGS<br/>(Super Long Cage)<br/>RD-M200-GS<br/>(Long Cage)</b>           | 323g. (Super Long Cage)  | STI (Shimano Total Integration) Compatible<br>6 & 7-speed SIS Compatible<br>B-Tension Adjuster<br>Chain Retainer        | Bracket Body:<br>Light Alloy•Barrel Finish<br>Plate Body: Resin•Molding<br>Right Link: Steel•Paint Finish<br>Left Link: Steel•Zinc Plated        | <table border="1"> <thead> <tr> <th></th> <th>GS</th> <th>SGS</th> </tr> </thead> <tbody> <tr> <td>Total Capacity</td> <td>36T</td> <td>38T</td> </tr> <tr> <td>Max. Rear Sprocket</td> <td>30T</td> <td>32T</td> </tr> <tr> <td>Min. Rear Sprocket</td> <td>12T</td> <td>12T</td> </tr> <tr> <td>Front Difference</td> <td>20T</td> <td>20T</td> </tr> </tbody> </table>   |         | GS                              | SGS                         | Total Capacity | 36T                              | 38T                              | Max. Rear Sprocket          | 30T                         | 32T                         | Min. Rear Sprocket         | 12T                         | 12T                    | Front Difference            | 20T      | 20T                         |
|   | GS   | SGS   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Total Capacity  | 36T  | 38T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Max. Rear Sprocket  | 30T  | 32T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Min. Rear Sprocket  | 12T  | 12T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Front Difference  | 20T  | 20T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Front Derailleur<br/>FD-M200</b>   | 169g. (Normal Band Type)<br>Band Diameter:<br>Ø28.0~Ø28.6mm. (Band Type)   | Narrow Type Chain Compatible<br>Rigid Chainguide<br>Trapeze Mechanism<br>w/Cable Stopper                                | Right Link: Steel•Paint Finish<br>Resin Molding<br>Front Band: Steel•Chrome Plated<br>Rear Band: Steel•Zinc Plated<br>Chain Guide: Chrome Plated | <b>FD-M200/M201</b>   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Front Derailleur<br/>FD-M201</b>   | 170g. (Normal Band Type)<br>Band Diameter:<br>Ø28.0~Ø28.6mm. (Band Type)<br>Ø31.8mm. (EC Type)                         | STI (Shimano Total Integration) Compatible<br>SG Gear Compatible<br>Narrow Type Chain Compatible<br>w/Cable Stopper     | Right Link: Steel•Paint Finish<br>Front Band: Steel•Paint Finish<br>Rear Band: Light Alloy•Barrel Finish<br>Chain Guide: Chrome Plated           | <table border="1"> <thead> <tr> <th></th> <th>FD-M200</th> <th>FD-M201</th> </tr> </thead> <tbody> <tr> <td>Capacity</td> <td>20T (Biopace HP)<br/>22T. (Round)</td> <td>24T (Biopace HP)<br/>26T. (Round)</td> </tr> <tr> <td>Stroke (w/Ø28.6mm. Band)</td> <td colspan="2">36~54</td> </tr> </tbody> </table>   |         | FD-M200                         | FD-M201                     | Capacity       | 20T (Biopace HP)<br>22T. (Round) | 24T (Biopace HP)<br>26T. (Round) | Stroke (w/Ø28.6mm. Band)    | 36~54                       |                             |                            |                             |                        |                             |          |                             |
|   | FD-M200  | FD-M201   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Capacity  | 20T (Biopace HP)<br>22T. (Round)   | 24T (Biopace HP)<br>26T. (Round)  |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Stroke (w/Ø28.6mm. Band)  | 36~54  |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Shifting Lever<br/>SL-M200 (6-speed)<br/>SL-M201 (7-speed)</b>                                     | 154g. (SL-M201)<br>Lever Clamp Diameter: 22.2mm.<br><i>*Use with Shimano SIS-SP Outer Cable with Liner.</i>            | 6-speed SIS Compatible (SL-M200)<br>7-speed SIS Compatible (SL-M201)<br>Sealed Mechanism<br>Chaining Triple Compatible  | Bracket: Steel•Paint Finish<br>Lever: Resin•Molding  | <b>FC-M200/M201</b>   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Cantilever Brake<br/>BR-M200</b>   | 226g. (Pair)<br><i>*Use with Shimano Outer Cable with Liner.</i>   | STI (Shimano Total Integration) Compatible<br>SLR Compatible<br>Rigid Computer Designed Shape                           | Steel & Resin  | <table border="1"> <thead> <tr> <th>Teeth</th> <th>Top 48T., Middle 38T., Low 28T.</th> </tr> </thead> <tbody> <tr> <td>BB Axle Length</td> <td>121</td> </tr> <tr> <td>Chain</td> <td>1/2" x 3/32"</td> </tr> <tr> <td>Crank Thread</td> <td>English BC 9/16" x 20T.P.I.</td> </tr> <tr> <td rowspan="3">Cup Thread</td> <td>English BC 1.37 x 24T.P.I.</td> </tr> <tr> <td>French M35 x 1.0</td> </tr> <tr> <td>Italian M36 x 24T.P.I.</td> </tr> </tbody> </table>   | Teeth   | Top 48T., Middle 38T., Low 28T. | BB Axle Length              | 121            | Chain                            | 1/2" x 3/32"                     | Crank Thread                | English BC 9/16" x 20T.P.I. | Cup Thread                  | English BC 1.37 x 24T.P.I. | French M35 x 1.0            | Italian M36 x 24T.P.I. |                             |          |                             |
| Teeth   | Top 48T., Middle 38T., Low 28T.  |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| BB Axle Length  | 121  |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Chain   | 1/2" x 3/32"   |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Crank Thread  | English BC 9/16" x 20T.P.I.  |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Cup Thread  | English BC 1.37 x 24T.P.I.   |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | French M35 x 1.0   |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | Italian M36 x 24T.P.I.   |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Brake Lever<br/>BL-M200</b>  | 265g.<br>Lever Clamp Diameter: 22.2mm.<br><i>*Use with Shimano Outer Cable with Liner.</i>                             | STI (Shimano Total Integration) Compatible<br>SLR Compatible  | Bracket: Steel•Zinc Plated<br>Lever: Steel•Zinc Plated Resin•Molding   | <b>FH-HG20</b>  |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Front Chainwheel<br/>FC-M200 (SG Gear Triple, MD Type)<br/>Bottom Bracket Assembly<br/>BB-M500</b> | 1,350g. (28T., 38T., 48T., 170mm.)<br>339g. (B.B. Set)<br>Crank Length: 170mm.   | SG Gear<br>Biopace Chaining<br>Narrow Type Chain Compatible<br>Computer Aided Design (Crank)<br>Sealed Mechanism (B.B.) | Crank Arm: Steel•Zinc Plated Resin•Molding<br>Chain Ring: Steel•Pearl Bright Finish  | <table border="1"> <thead> <tr> <th>OLD</th> <th>130</th> <th>126</th> </tr> </thead> <tbody> <tr> <td>Axle Length</td> <td>140</td> <td>137</td> </tr> <tr> <td>Chain Line</td> <td>43.2</td> <td>41.2</td> </tr> <tr> <td>Mounting Type</td> <td colspan="2">Quick Release</td> </tr> </tbody> </table>   | OLD     | 130                             | 126                         | Axle Length    | 140                              | 137                              | Chain Line                  | 43.2                        | 41.2                        | Mounting Type              | Quick Release               |                        |                             |          |                             |
| OLD   | 130  | 126   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Axle Length   | 140  | 137   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Chain Line  | 43.2   | 41.2  |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| Mounting Type   | Quick Release  |   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Front Chainwheel<br/>FC-M201 (SG Gear Triple, MD Type)<br/>Bottom Bracket Assembly<br/>BB-M500</b> | 756g. (28T., 38T., 48T., 170mm.)<br>339g. (B.B. Set)<br>Crank Length: 170mm., 175mm.                                   | STI (Shimano Total Integration) Compatible<br>SG Gear<br>Biopace Chaining<br>Narrow Type Chain Compatible               | Crank Arm: Light Alloy•Barrel Finish<br>Chain Ring: Light Alloy•Anodized Finish  | <b>CS-HG20</b><br>Cassette Sprocket Combinations:   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Freehub<br/>FH-HG20 (Rear, 7-speed)</b>  | 425g. (w/Quick Release)<br>Spoke Holes: 36H.<br>Axle Thread: 10mm.   | STI (Shimano Total Integration) Compatible<br>Hyperglide Compatible<br>7-speed SIS Compatible                           | Light Alloy•Dia-Cut Finish   | <table border="1"> <tbody> <tr> <td rowspan="7">7-speed</td> <td><b>J</b></td> <td>13, 14, 15, 16, 17, 19, 21T</td> </tr> <tr> <td><b>I</b></td> <td>13, 14, 15, 17, 19, 21, 23T</td> </tr> <tr> <td><b>H</b></td> <td>13, 15, 17, 19, 21, 23, 26T</td> </tr> <tr> <td><b>E</b></td> <td>12, 14, 16, 18, 21, 24, 28T</td> </tr> <tr> <td><b>G</b></td> <td>13, 15, 17, 20, 23, 26, 30T</td> </tr> <tr> <td><b>F</b></td> <td>14, 16, 18, 21, 24, 28, 32T</td> </tr> <tr> <td><b>K</b></td> <td>13, 15, 17, 20, 24, 29, 34T</td> </tr> </tbody> </table> | 7-speed | <b>J</b>                        | 13, 14, 15, 16, 17, 19, 21T | <b>I</b>       | 13, 14, 15, 17, 19, 21, 23T      | <b>H</b>                         | 13, 15, 17, 19, 21, 23, 26T | <b>E</b>                    | 12, 14, 16, 18, 21, 24, 28T | <b>G</b>                   | 13, 15, 17, 20, 23, 26, 30T | <b>F</b>               | 14, 16, 18, 21, 24, 28, 32T | <b>K</b> | 13, 15, 17, 20, 24, 29, 34T |
| 7-speed   | <b>J</b>   | 13, 14, 15, 16, 17, 19, 21T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | <b>I</b>   | 13, 14, 15, 17, 19, 21, 23T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | <b>H</b>   | 13, 15, 17, 19, 21, 23, 26T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | <b>E</b>   | 12, 14, 16, 18, 21, 24, 28T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | <b>G</b>   | 13, 15, 17, 20, 23, 26, 30T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | <b>F</b>   | 14, 16, 18, 21, 24, 28, 32T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
|   | <b>K</b>   | 13, 15, 17, 20, 24, 29, 34T   |  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Front Hub<br/>HB-RA50-F</b>  | Type: Quick Release/Nut Type (Small Flange)<br>Spoke Holes: 36H.   | Sealed Mechanism<br>One-Piece Forged Hub Body   | Light Alloy  |   |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |
| <b>Cassette Sprockets<br/>CS-HG20 (7-speed)</b>   | 325g.<br>(Sprocket E Group & Spacer)<br>Use Narrow Type Chain  | STI (Shimano Total Integration) Compatible<br>7-speed SIS Compatible<br>7-speed Hyperglide                              | Brown Finish and Silver Finish (Low Gear)  | 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.  |         |                                 |                             |                |                                  |                                  |                             |                             |                             |                            |                             |                        |                             |          |                             |

# STI COMBINATION CHART

|                         | Rapidfire                            | Rear Derailleur | Front Derailleur | Front Chainwheel   | Brake                | Freehub            | Cassette Sprockets | Chain   |
|-------------------------|--------------------------------------|-----------------|------------------|--------------------|----------------------|--------------------|--------------------|---------|
| <b>SHIMANO DEORE XT</b> | ST-M090<br>ST-M091                   | RD-M735         | FD-M735          | FC-M730-SG         | BR-M732<br>BR-M733   | FH-M732-HG         | CS-HG90            | CN-HG90 |
| <b>SHIMANO DEORE DX</b> | ST-M070<br>ST-M071                   | RD-M650         | FD-M650          | FC-MT60-SG         | BR-MT62<br>BR-MT63   | FH-M650            | CS-HG70            | CN-HG70 |
| <b>SHIMANO DEORE LX</b> | ST-M060                              | RD-M550         | FD-M550          | FC-M550            | BR-M454<br>BR-M453   | FH-M550            |                    |         |
| <b>EXAGE 500 LX</b>     |                                      | RD-M500         | FD-M500          | FC-M500            | BR-M454<br>BR-M453   |                    |                    |         |
| <b>EXAGE 400 LX</b>     | ST-M050                              | RD-M400         | FD-M400          | FC-M400            | BR-M351<br>BR-M350-U | FH-HG50            |                    |         |
| <b>EXAGE 300 LX</b>     |                                      | RD-M300         | FD-M300          | FC-M300            | BR-M250              |                    | CS-HG50            | CN-HG50 |
|                         | ST-M050-EC<br>w/Indicator<br>BL-M050 |                 |                  | FC-M400-s          |                      | FH-R700<br>FH-R500 |                    |         |
| <b>SHIMANO 200GS</b>    | ST-M020                              | RD-M200         | FD-M201          | FC-M200<br>FC-M201 | BR-M200<br>BL-M200   | FH-HG20<br>FH-HG50 |                    |         |

## SHIMANO INFORMATION SERVICE



**Paul Lange & Co.**  
Nordbahnhofstr. 31, 7000 Stuttgart 10  
Tel: 0711/25880 Fax: 0711/2588-104



**ETS Bertin**  
Rue Georges Clemenceau  
62052 St-Laurent-Blangy-Cedex  
Tel: 21.73.25.25 Fax: 21.55.84.27



**MIC Milan International Commerce**  
Via Piscane 3, 20027 Rescaldina (MI)  
Tel: 0331-464626 Fax: 0331-464606



**Cilo S.A.**  
Ch. du Raffort 1, 1032 Romanel  
Tel: 021-361371 Fax: 021-381536



**Citra International B.V.**  
Industrieweg 24, 8071 CT Nunspeet  
Tel: 03412-51884 Fax: 03412-58691



**Madison Cycles PLC**  
4 Horseshoe Close London NW2 7JJ  
Tel: 01-4525401 Fax: 01-2082106



**Thalinger GmbH**  
Bahnhofstr. 46, 4600 Wels  
Tel: 07242-4970 Fax: 07242-4973



**Everton Trading AS**  
Tarupvej 63-65, 5210 Odense  
Tel: 66-164411 Fax: 66-164436



**Hallman Distribution AB**  
Box 2055, 750 02 Uppsala  
Tel: (0) 1811485 Fax: (0) 18132426

**Sjöstrand Bike Company**  
Bultgatan 17, 442 40 Kungälv  
Tel: 0303-94090 Fax: 0303-92865



**Helkama Bica OY**  
Helkama Pyörä, 10960 Hanko  
Tel: 358-11-86471 Fax: 358-11-83102



**Øglaend DBS A.S.**  
P.O. Box 385, 4301 Sandnes  
Tel: 04-605000 Fax: 04-605337



**Casa Masferrer, S.A.**  
Calle Barcelona 98, Granollers  
Tel: 8708051 Fax: 8708214

**Macario Llorente, S.A.**  
Capitán Blanco Argibay, 137, 28029 Madrid  
Tel: 3157600 Fax: 7330617

**Velimsa Velez Import S.A.**  
Panamá 3, 01012 Vitoria  
Tel: 279133/88 Fax: 279133



**IBA, LDA**  
Avenida Columbano Bardalo Pinheiro, 59,  
1000 Lisboa  
Tel: 01-7261698 Fax: 01-7261809



**SHIMANO (EUROPA) GmbH.**  
Kleinhülsen 1-3, 4010 Hilden, West Germany Tel: 02103-5005-0

**SHIMANO INDUSTRIAL CO., LTD**  
3-77 Oimatsucho, Sakai, Osaka, Japan Tel: 0722-23-3243