English (U)

'97 SHIMANO BICYCLE SYSTEM COMPONENTS

Shimano Systems Engineering

Dealer Sales & Support Manual



SHIMANO



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Giving cyclists a better ride

At Shimano, we are committed to making components that offer a higher level of function, value, and quality. We stay in touch with the needs of cyclists by talking with you the dealer, listening to distributors and OEM's, attending consumer events, testing products in the real world, and by supporting amateur and professional racing.

By staying involved, we can stay in touch with the ever diversifying needs of the sport and the increasing number of new and innovative bicycle designs. Every bike equipped with Shimano components, whether used for competition, fitness, or recreation, provides the ultimate in control, efficiency, and fun.

Shimano Systems Engineering

Like the individual parts of a high quality automobile, Shimano components when used together result in the best overall performance. We look at a group of components to see how they work together. How they combine to make a bike work and how we can help them work together better. After that we make each individual part the best part for it's intended user - from the pro racer to recreational cyclists. Our Systems Engineering philosophy results in a better ride.

PERFORMANCE WITHOUT COMPROMISE

New Dura-Ace® ...
The strategic weapon in the racer's arsenal.

The strategic weapon in the pro road racer's arsenal is now more powerful than ever. New Dura-Ace, the first full re-design of the group since 1984, sets a higher level of quality and performance than ever before. More titanium and high-grade alloys have been integrated into new lightweight designs that result in more than 500 grams of weight savings while actually increasing strength and durability. Upgraded operating precision helps reduce stress by allowing the racer to concentrate more energy on racing and less on controlling the bicycle.

From the new 9-speed freehub® to the smooth and powerful Super SLR® brake system, every component has been painstakingly developed to make more efficient use of energy - the key to winning. New Dura-Ace continues to be the international standard by which racing components are judged.




ROCK SHOX
MICHELIN
GRUND
2
DIESEL
ROCK SHOX

Components that deliver higher standards of precision and function for every type of mountain bike.

Shimano mountain bike components were designed with one goal in mind ... to help cyclists enjoy the ride. Riding off-road makes it even more important to be able to brake and shift gears easily without compromising control.

For example, Shimano Digital Shifting. Ergonomically designed Rapidfire SL™ and EZ-Fire Plus™ shifters with precision ratchet mechanisms, Optical Gear displays, and digital "push-pull" shifting action lets riders shift quickly, accurately, and see what gear they're in - all without compromising their grip.



Other advanced Shimano MTB component designs, such as V-brakes with Servo Wave® Action, IG™ drive train and Light Action systems, and Top Swing™ front derailleurs, have improved braking and shifting performance to a level undreamed of just a few short years ago.

From the incredible performance of XTR™ to the light and easy feeling of Acera-X®, Shimano component groups enhance both fun and performance of all types of mountain bikes.





The Continuing Evolution of Shimano Component Functions

Shimano is continually working to make riding easier for all types of cyclists though component groups that offer sevaral functions. To make using this catalog easier, we have developed icons that represent Shimano's unique functions. These icons are used on the component explanation pages to give you a quick reference to the functions available with each group.



Shimano Digital Shifting

Precision ratchet mechanism, OGD, and intuitive push-pull shifting.



Rapidfire SL™

Low-friction short-stroke shift levers.



EZ-Fire Plus™

Low-effort shifting action for Acera-X and Altus.



Optical Gear Display

Gear position indicator on shift lever sets.



Advanced Light Action

Low-friction designed front and rear derailleurs.



Dual Control Lever

Shifting and braking functions from the same lever set (road groups).



Rear SIS®

Indexed shifting for Rear derailleur.



9-Speed HG™

HG sprocket cluster with nine gears.



HG™ Sprockets

Computer-designed sprockets for improved down shifting.



Shimano IG® System

Integrated drivetrain design for improved up and down shifting.



Aluminum Alloy Sprocket Carrier Unit

Aluminum alloy sprocket support reduces weight.



Freehub®

Freewheel mechanism integrated into rear hub.



Roller Clutch Freehub®

Ramp-and-roller clutch improves freewheel performance.



Parallax® Hub

Oversize hub body and heavy-duty spoke flanges.



Dual SIS®

Indexed shifting for front and rear derailleurs.



Top-Swing™ Front Derailleur

Low friction design reduces shifting effort.



HyperDrive™

Integrated design of chainring and front derailleur.



HyperDrive-C™

Compact chainrings and sprockets (MTB groups).



4-Arm Chainring Crankset

Reduced weight with increased rigidity.



Cartridge Bottom Bracket

One-piece cartridge bearing bottom bracket.



V-Brake™

High-performance MTB cantilever brake design.



Servo-Wave® Action

Allows for adjustable braking power.



Low Flex Cantilever

Improved cantilever brake reduces stress on frame.



M-System™

Effective braking in wet or dry conditions.



Anti-Vibration M-System™

All-weather braking with squeal suppressing design.



Super SLR®

Low-friction dual-pivot brake caliper.



SPD®

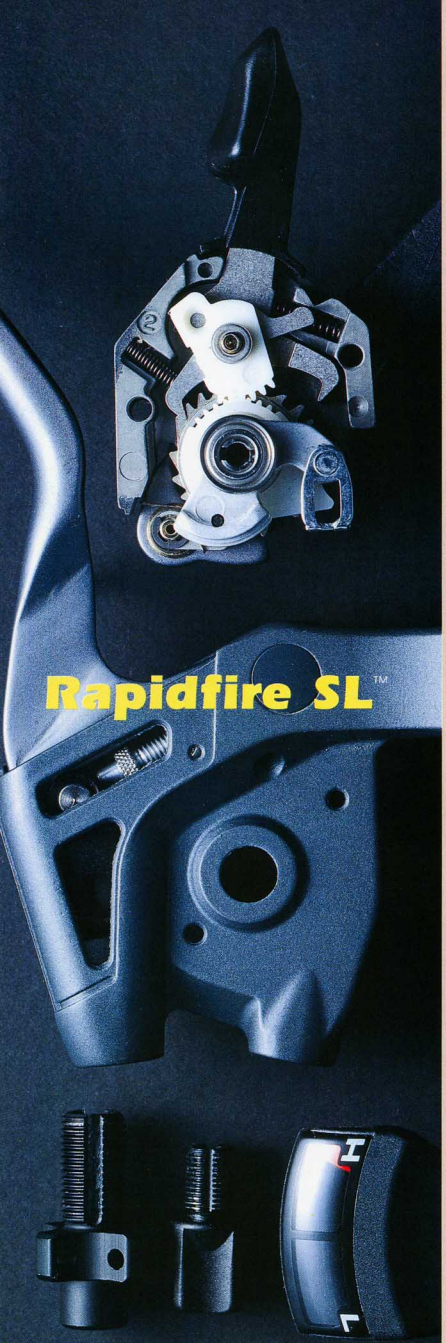
Shimano Pedaling Dynamics shoe and pedal system.



Cartridge Headset

Cartridge bearings for simplified headset installation.

® indicates registration of this tradenark in the U.S. Patent and Trademark Office.



XTR™ Deore XT® Deore LX®
STX-RC™ STX™ ALIVIO™
Acera-X® Altus™

Shimano Digital Shifting

Precision ratchet mechanism, OGD, and intuitive push-pull shifting

XTR™ Deore XT® Deore LX®
STX-RC™ STX™ ALIVIO™

Rapidfire SL™

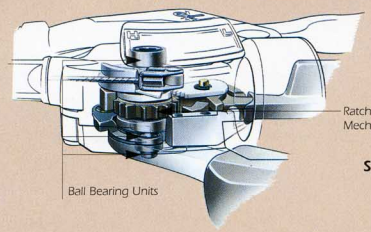
Shorter stroke delivers a faster and more precise shifting action.

- **Shorter lever stroke and easier action make changing gears faster and easier.**
- **Dual-action levers let you shift without twising your wrist or compromising your grip.**
- **Faster, more precise shifting action improves competitive performance.**

The Rapidfire SL lever set is lighter, more compact, and features improved ergonomic design over previous Rapidfire® types. The short-stroke low-friction lever action reduces effort and accelerates shifting speed. Rapidfire SL gives you more control and stability by allowing you to shift faster without twisting your wrist or changing your hand position on the grip. Convenient cable access door allows for quick and easy replacement and protection from the weather.

The Rapidfire line-up is now available with more options. Along with our STI™ shift/brake levers, separate mount shift levers are optional from XTR™ to Alivio™.





ST-M950

- **Compact ratchet shift mechanism results in quick accurate shifts.**
- **Digital optional gear display (available on some models) lets you know what gear your in.**
- **Push-pull finger shifting is intuitive and quick.**

Acera-X® Altus™

EZ-Fire Plus™ Shift Lever

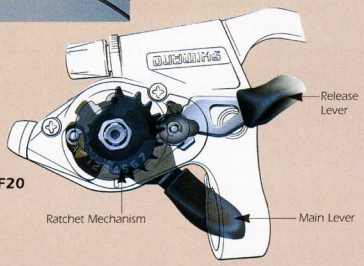
Precision low-effort shifting for entry-level mountain bikes.

- **Low-effort action lets you shift easily, even with fingers on the brake lever.**
- **Linear Optical Gear Display allows quick gear verification at a glance.**
- **Precise indent-action gives new cyclists more confidence.**

Recreational and novice cyclists often ride with their fingers on the levers, so they can brake at any time. The EZ-Fire Plus™ shift lever was specifically designed for these cyclists by placing the release lever on top within easy reach from the brake lever. This Advanced Light Action index shifting will give riders confidence to shift more. The result - easier shifting, easier braking, and more control for a fun ride.

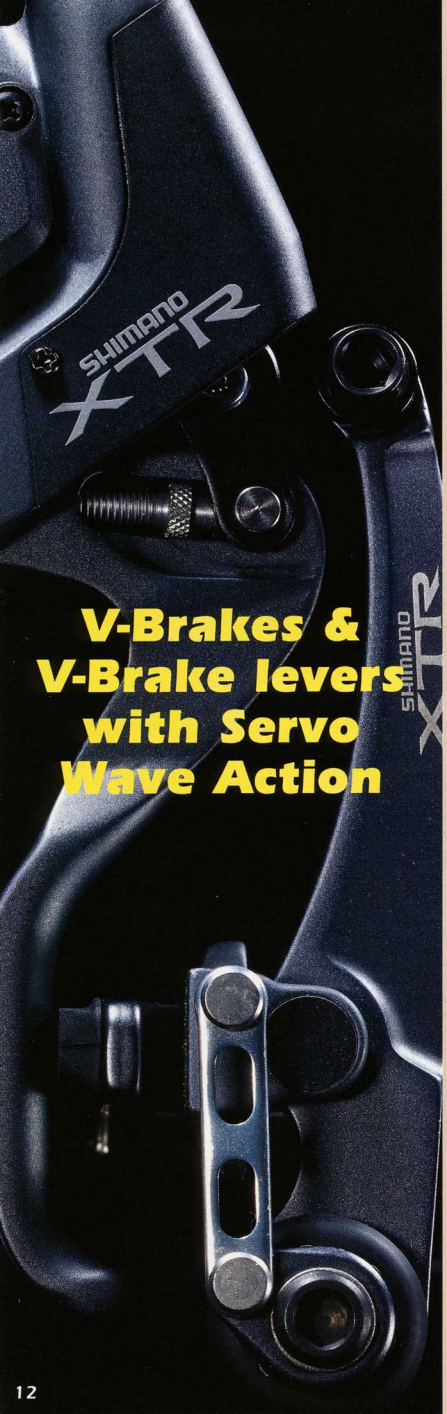


EZ-Fire Plus positions the shift levers so they can be more easily used with fingers resting on the brake lever.



ST-EF20





V-Brakes & V-Brake levers with Servo Wave Action

XTR™ Deore XT®
Deore LX® STX-RC™

V-Brakes™ & V-Brake™ Levers with Servo-Wave® Action

The best of both worlds ... awesome stopping power with "one-finger" control.

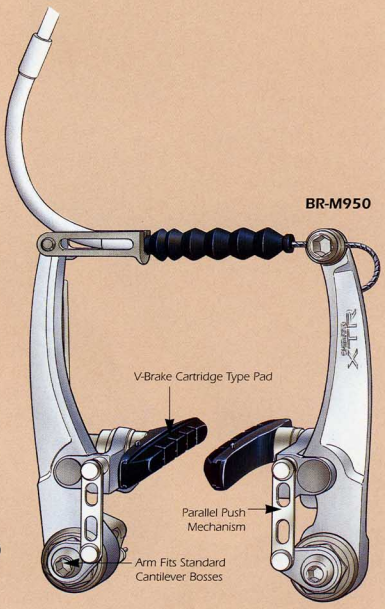
- **Longer cantilever arms deliver greater stopping power.**
- **Adjustable Servo-Wave Action lets the rider customize braking power modulation.**
- **Parallel-Push linkage enhances braking power and extends pad life.**
- **Low-flex design reduces vibration and squealing.**

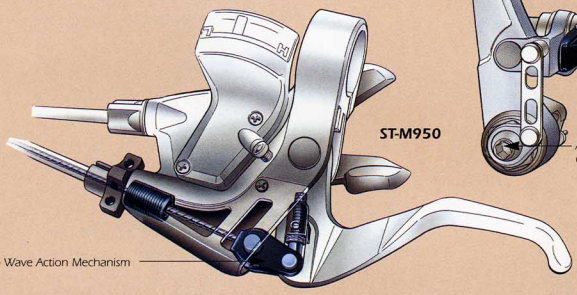
An Integrated Braking System

V-Brakes aren't a single component, but a braking system in which both the calipers and brake levers play equally important roles.

- V-Brake calipers are designed with 3mm of pad-to-rim clearance to allow for wobbly rims. Servo-Wave Action V-brake levers are designed to pull more cable initlally to get the pads on the rim quickly (approx, 23 to 26mm vs. conventional levers 10 to 20mm).
- After the pads reach the rim, Servo-Wave Action's mechanical leverage ratio increases as the lever is pulled closer to the handlebar.
- Shimano Servo-Wave Action brake levers' power can be adjusted by the rider. The end result is more controllable effortless two finger, or even one finger stopping power.

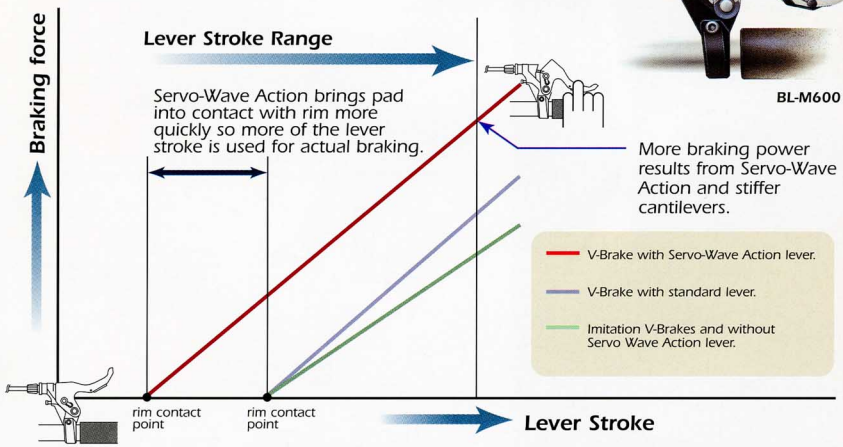
The V-Brake's longer arms, vertically positioned to maintain a narrower profile than conventional cantilevers, provide a greater power application ratio that results in more braking power. The "lead pipe" direct cable routing results in greater efficiency and eliminates the need for braze-on cable stops. The XTR™ and Deore XT® V-Brakes feature a parallel-push linkage that keeps the face of the pad parallel to the rim. The brake pads are positioned between the frame and the cantilever arm to reduce frame flex at the brake bosses. This and the Parallel-Push mechanism improves pad wear and braking power.



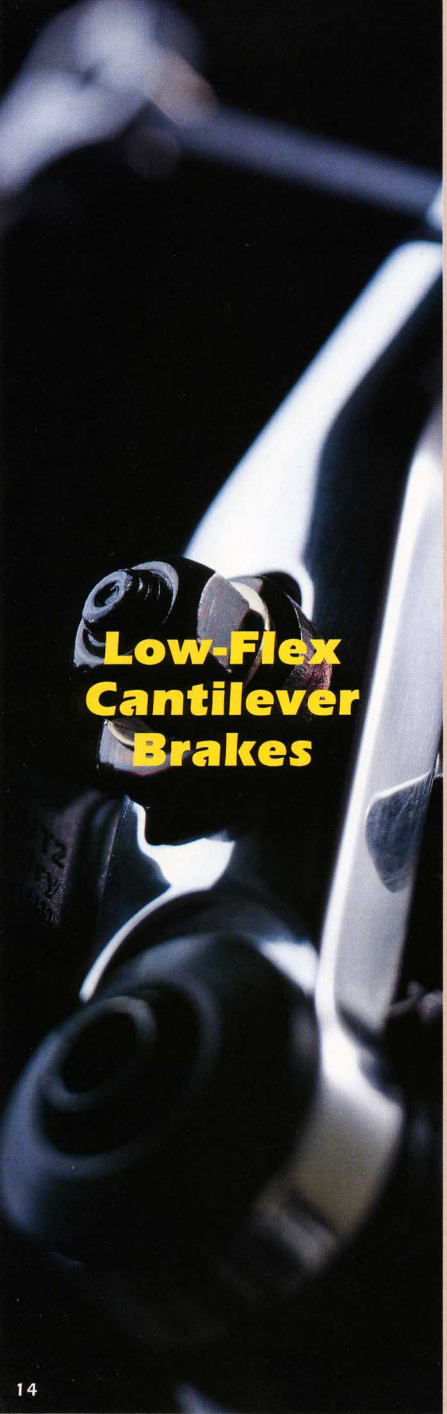


Servo-Wave® Action effect





Note: V-Brake performance is not the result of the Servo-Wave Action lever only. Highly rigid cantilever arm and pad design and placement are also important factors.



Alivio™

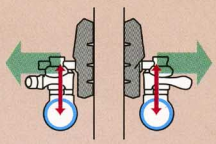
Low-Flex Cantilever Brakes

An improved cantilever design that reduces frame flex.

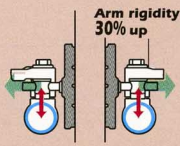
- **Designed to reduce frame flex which increase braking power.**
- **Flex resistant design improves braking power on suspension forks.**
- **Ideal brakes for unconventional frame designs and rear suspension.**

More and more innovative frame designs are appearing, many with front and rear suspensions. The low-flex cantilever brake is perfect for these types of frames because they reduce the effects of frame flex on braking performance. By mounting the pads between the cantilever arm and the frame, the leverage force of the rotating wheel is reduced. The result is more efficient braking power, a more solid lever feel, and improved braking response. Also, The brake pads are made from a new long-wearing compound that allows them to be made thinner. Besides allowing the pads to be positioned between the frame and the rim, this increases pad rigidity which futher reduces vibrations and improves performance. Other benefits of the low-flex system are that they are easy to set up (no toe in required), and the brakes geometry results in more clearance for use on smaller frames where cable stop positioning is a problem.

Low-flex cantilever design places the pad between the canti arm and frame to reduce braking force leverage.



Conventional pad is mounted on the outside of the cantilever arm. Frame-pad distance is longer (more flex).



Low-flex design mounts the pad on the frame side of the canti. Frame-pad distance is reduced (Reduced flex).



Deore LX® STX-RC™
STX™ Alivio™

Roller Clutch Freehub®

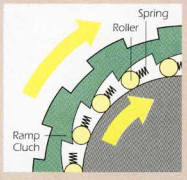
Faster engagement plus completely silent freewheeling.

- **A more durable freewheel design.**
- **Quick engagement reduces pedal shock.**
- **Silent coasting.**
- **Improved pedaling stability on bumpy surfaces.**

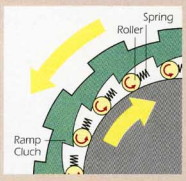
The roller clutch freehub uses a clutch mechanism consisting of inclined ramps and rollers, instead of a conventional ratchet gear and pawls. The clutch mechanism's extra-wide rollers provide a larger contact area than conventional pawls. Pedaling loads are dispersed over a wider contact area which results in a stronger and more durable freewheel.

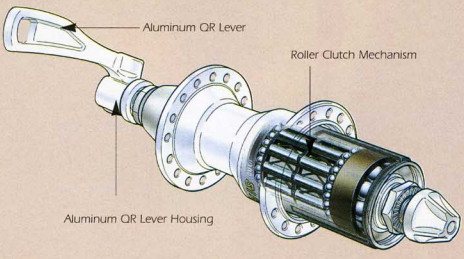
The roller clutch design also engages quicker, which reduces pedaling shock, and improves the riders balance and traction on bumpy trails. An added benefit of the design, is a completely silent freewheel which lets a rider listen to the natural sounds around them instead of their bike.

Rollers engage ramp when pedaling pressure is applied.



Rollers disengage from ramp when pedaling pressure is released.






9-Speed HG

DURA-ACE®

9-Speed HG™

New 9-speed HG™ cassette sprockets enhance the winning advantage of Dura-Ace.

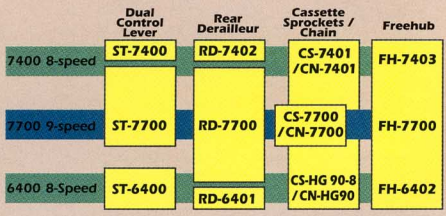
- **The right gear for the right terrain equals more endurance.**
- **Wider gear range without sacrificing mid-range performance.**
- **Overall cassette width is the same as 8-speed cassettes.**
- **Aluminum alloy sprocket carrier unit increases cassette rigidity and reduces weight.**

To save energy and improve endurance, racing cyclists need as many gears as possible to control their cadence. The easiest way would be to simply add another cog and increase the over locknut dimension. But this would not only increase rim offset and reduce wheel strength, but lead to chain interference problems in top gear.
New Dura-Ace 9-speed solves these problems by using the same overall cassette width as 8-speed cassettes. To accomplish this, individual cog width remains the same, but spacing between them is slightly narrower. To compensate for the narrower spacing, the chain outer plate width has been reduced from 7.30mm to 6.60mm. This allows the 9-speed cassette and freehub to fit standard 130mm rear dropouts.

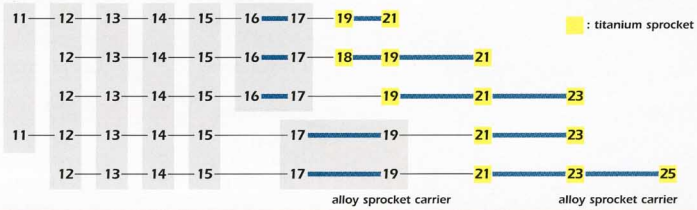
The use titanium (for the largest two or three cogs depending on cluster type) and the aluminum alloy sprocket carrier has actually made the 9-speed cluster lighter than the previous 8-speed type. Not only is there a wider choice of gearing and more sprocket interchangeability, but the 12-tooth cog can be used in either the first or second gear position.

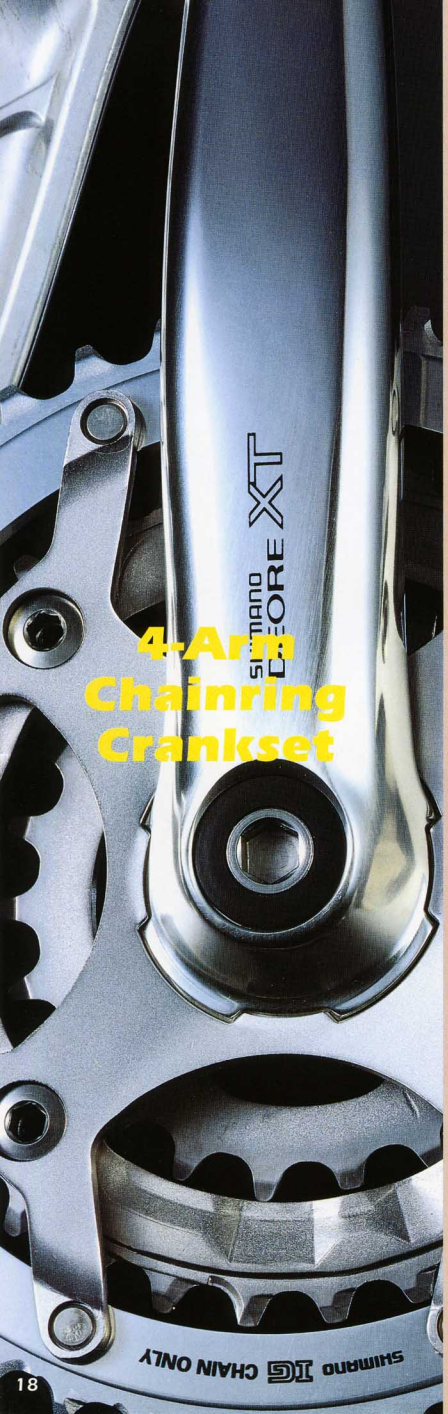


Compatibility of 9-speed Dura-Ace 7700 Series



9-Speed Cassette Sprocket Combinations





XTR™ Deore XT®
Deore LX®

4-Arm Chainring Crankset

Symmetrical design lightens weight and increases rigidity.

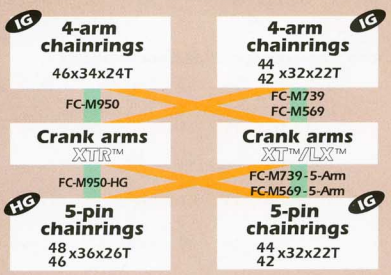
- **Separate 4-arm spider design helps reduce crankset weight.**
- **Hollow, truss, or channel forged crank arms are light and stiff.**
- **Symmetrical 4-arm design increases chainring rigidity and shifting performance.**

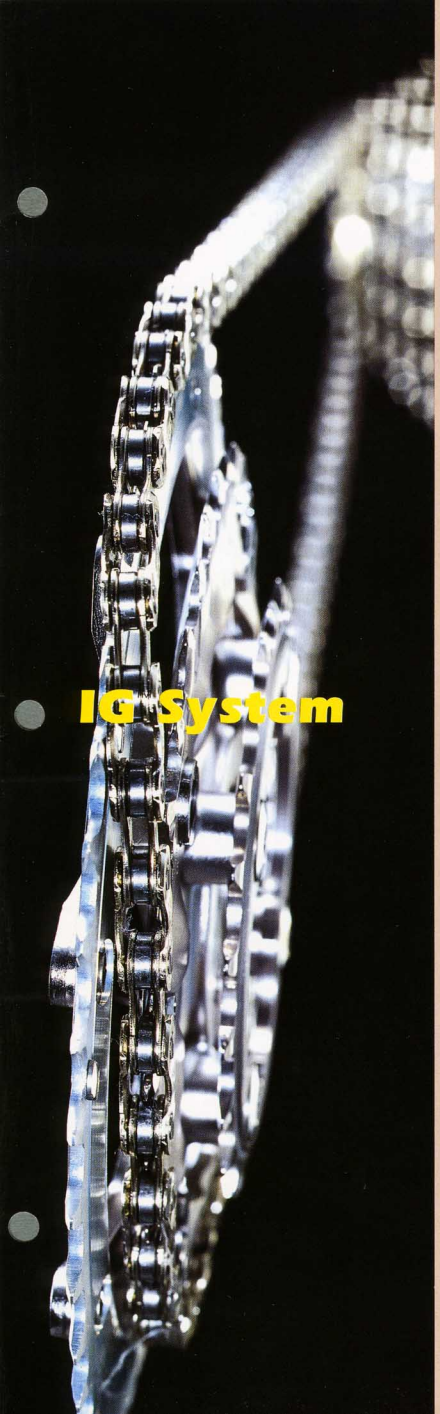
Stiffness and light weight. That's what makes a good crank. But, not just in the arms themselves, but in the chainrings too. To accomplish this we made the 4-arm chainring crankset.

For perfect shifting performance, chainrings must be rigid in two directions; along the chain line axis and along the bottom bracket spindle axis to transmit pedaling power efficiently. The 4-arm design provides eight equally spaced chainring support points. This results in symmetrical support at the points where pedaling torque and side loads from the derailleur are greatest.

Cold forging is the best way to make a crank arm light and stiff. To make a cold forged crank even lighter, we separated the spider from the crank arm. This makes it easier to cold forge tubular arms (XTR™), truss arms (Deore XT®), and channel crank arms (Deore LX®) that are light and stiff. Specially forged crank arms with the 4-arm spider design result in a stronger and lighter crankset offering great Shimano performance.

Chainrings and adapters are now interchangeable between XTR, Deore XT, and Deore LX.





XTR™ Deore XT®
Deore LX® STX-RC™
STX™ Alivio™

The IG™ System

Reduced shifting shock and improved chain control.

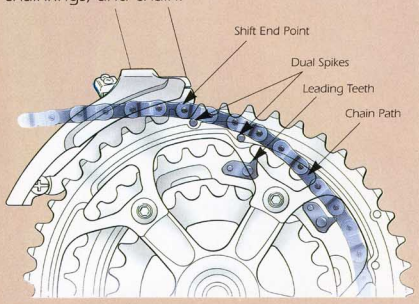
- **Integrated drivetrain design improves shifting performance.**
- **Shifting speed and precision are enhanced while shocks are eliminated.**

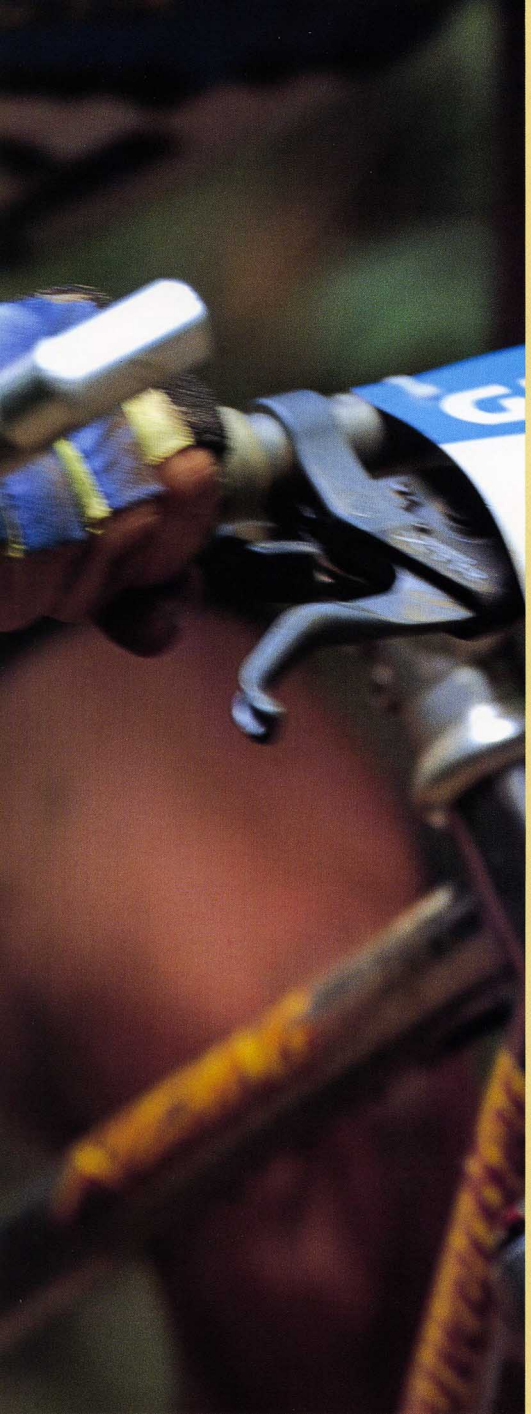
Using our Systems Engineering philosophy, the derailleurs, crankset, chain, and sprockets are disigned to work together to give cyclists the fastest, smoothest, and most precise shifting performance possible. It's called the IG System.

The primary benefit of the IG System is that it prevents the chain from separating from the chainring at points other than the designated release points and results in smooth rear shifts under load. Special tooth profiles, pickup teeth, ramps, and relational positioning make indexed front derailleur shifting faster and more precise than ever before. Special ramps on both sides of the cassette cogs and special tooth profiles guide the chain from one cog to the next in the smoothest and most direct path possible.

The IG System results in smoother, quieter, and quicker shifts and helps eliminate chain drop and shifting shock.

The XTR™, Deore XT®, Deore LX® and STX-RC™ groups use IG chain and chainrings only. The STX™ and Alivio™ groups use IG sprockets, chainrings, and chain.





More off-road Control.

1997 Shimano off-road components deliver more functions and performance for a great ride.

SHIMANO XTR®



Pro Racer

SHIMANO DEORE XT®



Hard Core Cyclist

SHIMANO DEORE LX®



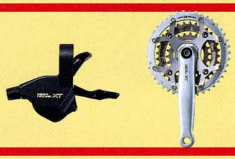
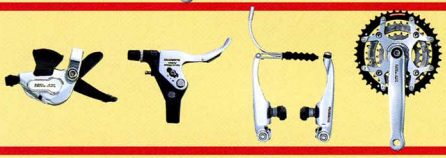
Enthusiast Cyclist

SHIMANO STX RC™



Advanced Recreational Cyclist

'97 New Products Line-Up.

	Separate Rapidfire SL™	V-Brake™ System	Cassette Type	Aluminum Alloy Sprocket Carrier	Roller Clutch Freehub®	Differential Plate FD	4-Arm Chainring Crank	
	○	○	8-Speed	○		○	○	page 22
	○	○	8-Speed	○			○	page 24
	○	○	8-Speed		○		○	page 26
	○	○	8-Speed		○			page 28

SHIMANO DX

page 35


SP-M910
FD-M950-E
CN-IG90
SQ-M900
FD-M950
ST-M950
HP-M900
FC-M950
RD-M950
BL-M950
SL-M950
BB-M950
HB-M950
BR-M950
FH-M950
CS-M950

ST-M950
Rapidfire SL™ Shift-Brake Lever Set
SL-M950
Rapidfire SL™ Shift Lever Set
BL-M950 V-Brake™ Lever Set

●ST-M950 is 90g lighter than original XTR lever set. ●Downshifts up to four sprockets with one lever stroke. ●Four ball bearings deliver a light, smooth, and precise shift. ●Servo-Wave Action stepless thumbscrew allows infinite adjustment of the cable fulcrum to control power modulation. ●Separate brake levers to give riders more choices. ● SL-M950 shift lever set (without brake lever) now available.

BR-M950 V-Brake™

●Inspires confidence by delivering incredible stopping power with one finger. ●Parallel-Push linkage keeps pad braking surface parallel with the rim to realize maximum braking force and enhanced control. Brake pads wear longer and more evenly too. ●Extra long cartridge brake pads for easy replacement. ●Standard pads are for aluminum rims. Optional pads available for ceramic rims. ●Low-flex design reduces both frame and cantilever flex by placing the pad closer to the frame. Control and response are improved. ●Lighter than original XTR cantilever. ●Mounts to standard cantilever brake bosses and pivots on self-contained ball bearings.

■ **V-Brake pads have a wear indicator line. Replace the pads at that line.**

Important Note:
V-Brake cantilevers and Servo-Wave Action brake levers are designed to be used together for the best braking performance. Using V-Brakes with non-Servo-Wave Action brake levers may adversely affect braking performance.



CS-M950 Cassette Sprockets

●Forged aluminum alloy sprocket carrier significantly reduces weight. ●P-group (12-32T) and ak-group (11-30T) available; 3 largest sprockets made from titanium. ●8-speed HG cogs provide quicker shifts while climbing.

RD-M950 Rear Derailleur

●Parts have been sculpted and cold forged of aluminium for strength, reliability and lightweight. ●Advanced Light Action coil parallelogram spring for even lever pressure across the entire gear range. ●Adjustable parallelogram spring and pulley tension allows fine tuning of shifting performance for different frames. ●Four Teflon™ coated link bushings reduce shifting friction. ●Self-centering upper pulley and lower tension pulley use reliable sealed bearings to reduce chain friction. ●Titanium pivot bolt, hollow steel bolts, and aluminum bolts are used to reduce weight. Teflon is a registered trademark of The Dupont Corporation.

FD-M950/FD-M950-E
Front Derailleur

●Top-swing differential plate design uses separate inner and outer chain cage plates that move with an independent action to increase shifting speed and improve response. ●Inner guide was designed to contact the chain at optimum point to reduce shifting friction. ●Chain cage plates are nickel plated light alloy to reduce weight and wear. ●FD-M950-E derailleur mounts directly to bottom bracket through a carbon fiber plate.

■ **Brazed-on seat tube boss or clamp adapter required (FD-M950-E).**

FC-M950 Crankset

●4-arm IG chainrings provide stiffness, and incredibly quick and smooth shifting. ●Hollow forged crank arms are stiff and light. ●Oversize crank bolt for increased strength and rigidity. ●Crank arms available in seven lengths from 165 to 180mm. ●Crank arm is also compatible with the new Deore XT and LX 4-arm chainrings and 5-arm adapters.

■ **FC-M950-HG model uses the 5-arm spider adapter, so conventional chainrings can be used.**

BB-M950 Bottom Bracket

●Oversize 22mm chrome-moly pipe billet spindle. ●Splined crank arm mountings. ●Ball and needle bearings provide better axle support which reduces flex for increased power output.

PD-M747 SPD® Pedal

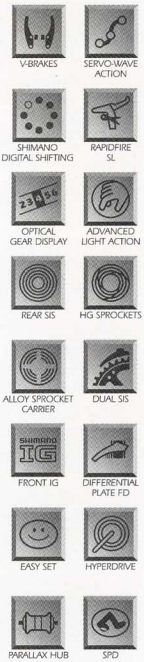
(See page 24.)

PD-M636 SPD® Pedal

(See pages 24 and 35 for more information.)

SHIMANO XTR®

Total Performance Without Compromise.



Specifications and features of XTR group are listed from pages 30 to 34.


SP-M730
ST-M738
BR-M737
SQ-M730
DF-M730
SM-SP18
HP-M741
FD-M738
FC-M739-5arm
BB-UN72
FC-M739-4arm
HB-M738
HB-M737
CN-IG90
Brake
Cable
(W-Type)
FH-M737
BL-M739
SL-M739
ST-M739
CS-M737-1
BR-M739
FD-M739
FD-M739-E
RD-M739

ST-M739
Rapidfire SL™ Shift-Brake Lever Set
SL-M739
Rapidfire SL™ Shift Lever Set
BL-M739 V-Brake™ Lever Set

●ST-M739 is 40g lighter than previous ST-M738 model. ●Downshifts up to three sprockets with one lever stroke (rear). ●Three position Servo-Wave Action allows adjustment of the cable fulcrum to control power moduration. ●Separate brake levers to give riders more choices. ●SL-M739 shift lever set (without brake lever) now available.

BR-M739 V-Brake™

●Inspires confidence by delivering incredible stopping power with one finger. ●Parallel-Push linkage keeps pad contact surface parallel with rim to realize maximum braking force and enhanced control. Brake pads wear longer and more evenly too. ●Extra long cartridge brake pads for easy replacement. ●Standard pads are for aluminum rims. Optional pads available for ceramic rims. ●Low-flex design reduces both frame and cantilever flex by placing the pad closer to the frame. Control and response are improved. ●Mounts to standard cantilever brake bosses and pivots on self-contained bushings.

■ **V-Brake pads have a wear indicator line. Replace the pads at that line.**

Important Note:
V-Brake cantilevers and Servo-Wave Action brake levers are designed to be used together for the best braking performance. Using V-Brakes with non-Servo-Wave Action brake levers may adversely affect braking performance.



FD-M739/FD-M739-E
Front Derailleur

●Top-swing design reduces friction for an easier and smoother shift. ●FD-M739-E derailleur mounts directly to the bottom bracket through a light alloy plate.

■ **Brazed-on seat tube boss or clamp adapter required (FD-M739-E).**

FC-M739 Crankset (4-arm type)

●4-arm IG chainrings, with 8 symmetrical support points, provides improved stiffness and incredibly quick and smooth shifting. ●Crank arms use a channel cold forged design for stiffness and light weight. ●Available in seven lengths from 165 to 180mm. ●Crank arm is compatible with XTR and new Deore LX 4-arm chainrings and 5-arm adapters.

■ **FC-M739 5-arm crankset available for use with conventional 5-pin chainrings.**

	FC-M739-4arm		FC-M739-5arm	FC-M737-I
Chainguard	∅(44T)	○(42T)	○	○

RD-M739 Rear Derailleur

●Cold forged aluminum for strength, reliability and lightweight. ●Advanced Light Action coil parallelogram spring for even lever pressure across the entire gear range. ●Adjustable pulley tension allows fine tuning of shifting performance for different frames. ●Four Teflon™ coated link bushings reduce shifting friction. ●Self-centering sealed ceramic upper guide pulley. ●Tension™ pulley uses a self-lubricating oil impregnated sintered bushing.

Teflon is a registered trademark of The Dupont Corporation.

CS-M738-I Cassette Sprockets

●Forged aluminium alloy sprocket carrier significantly reduces weight ●R-group (11-28T) or ak-group (11-30T) sprocket clusters available. ●8-speed chrome plated HG cogs provide quicker shifts while climbing.

PD-M747 SPD® Pedal

●Off-road SPD racing pedal features easy step-in dual sided mechanism. ●Open design and special cleat plate resists mud build-up. ●Smooth precision seald cartridge bearing unit.



PD-M636 SPD® Pedal

●Designed for BMX, dual slalom, and downhill racing. ●Dual sided pop-up SPD unit tilts up in the front for easy and quick engagement. ●Oversized cage shape provides a larger shoe contact area when not clipped in. (See page 35 for more information.)

SHIMANO DEORE XT®

The hard-core performance components.



Specifications and features of DEORE XT group are listed from pages 30 to 34.


SP-M650
BR-M565
FH-M565
HP-M563
FD-M566
SM-SP18
BB-UN52
HB-M564
Brake Cable (T-Type)
HB-M563
CN-IG70
FC-M569 5arm
FC-M569 4arm
FH-R080
BL-M600
SL-M569
ST-M567
CS-HG70-I
BR-M600
FD-M567
FD-M567-E
RD-M567

SHIMANO DEORE LX®

Hard-working components for hard off-road riding.



BL-M600 V-Brake™ Lever

●Three-position Servo-Wave Action lets riders adjust braking power modulation to personal preference.●A hex key wrench is used to set the screw at one of the three positions.



BR-M600 V-Brake™

●Designed for competition and hard off-road riding. ●Simple design and longer cantilever arms deliver strong stopping power with only one finger. ●Low-flex design reduces both frame and cantilever flex by placing the pad closer to the frame. Control and response are improved. ●Extra long M-System brake pads for all weather braking performance. ●Mounts to standard cantilever bosses.

■ **V-Brake pads have a wear indicator line. Replace the pads at that line.**

Important Note:
V-Brake cantilevers and Servo-Wave Action brake levers are designed to be used together for the best braking performance. Using V-Brakes with non-Servo-Wave Action brake levers may adversely affect braking performance.



SL-M569
Rapidfire SL™ Shift Lever Set

●New separate shift lever unit for Deore LX. ●Faster response to sudden terrain changes through single stroke shifts spanning up to three gears (rear). ●Includes Optical Gear Display for quick gear verification.

FD-M567/FD-M567-E
Front Derailleur

●Top-swing design reduces friction for a smoother and more precise shift. ●FD-M567-E type mounts directly to bottom bracket through a light alloy plate.

■ **Brazed-on seat tube boss or clamp adapter required (FD-M567-E).**

FC-M569 Crankset (4-arm)

●4-arm IG chainrings, with 8 symmetrical support points, provides improved stiffness and incredibly quick and smooth shifting. ●Crank arms are channel forged for stiffness and light weight.●Crank arm is completely compatible with XTR and new Deore XT 4-arm chainrings and 5-arm adapters.

■ **FC-M569 5-arm crankset available for use with conventional 5-pin chainrings.**

	FC-M569-4arm	FC-M569-5arm	FC-M563-I
Chainguard	○	○	○

RD-M567 Rear Derailleur

●Advanced Light Action coil parallelogram spring for even lever pressure across the entire gear range. ●Adjustable pulley tension allows fine tuning of shifting performance for different frames. ●Two Teflon™ coated link bushings reduce shifting friction. ●Self-centering upper guide and tension™ pulley chromized steel bushings are smooth and durable.

Teflon is a registered trademark of The Dupont Corporation.

CS-HG70-I Cassette Sprockets

●8-speed HG cogs provide quicker shifts while climbing. ●Available in an-group (11-30T) or ah-group (11-28T).

FH-R080 Roller Clutch Freehub®

●New 8-speed roller clutch freehub. ●Clutch mechanism uses inclined ramps and rollers for durability and quick engagement. ●Reduces pedaling shock, and improves balance and traction on bumpy trails. ●Completely silent freewheel allows riders to listen the natural sounds around them instead of their bike.

PD-M535 SPD® Pedal

●Off-road SPD pedal features easy step-in dual sided mechanism. ●Open design and special cleat plate resists mud build-up. ●Cup & cone bearings are easy to clean and adjust.



PD-M636 SPD® Pedal

(See pages 24 and 35 for more information.)

Specifications and features of DEORE LX group are listed from pages 30 to 34.


SL-MC37
BR-MC33
FH-MC33
CS-IG60
FH-R050
BB-UN52
SM-SP18
HP-MC30
HB-MC33
RD-MC36
FH-MC38
FD-MC33
FH-R080-S
Brake
Cable
(T-Type)
FC-MC36-S
CS-HG60-I
BL-M600
SL-MC38
ST-MC36
CN-IG51
BR-M600
FD-MC36
FD-MC36-E
RD-MC38

Advanced Recreational Cyclist

SHIMANO STX RC™

A performance-oriented component group for every cycling style.

V-BRAKES
SERVO-WAVE ACTION
8-SPEED HG
ROLLER CLUTCH FREEHUB
SHIMANO DIGITAL SHIFTING
RAPIDFIRE SL
OPTICAL GEAR DISPLAY
ADVANCED LIGHT ACTION
DUAL SIS
FRONT IG
TOP SWING FD
EASY SET
HYPERDRIVE-C
CARTRIDGE BOTTOM BRACKET
PARALLAX HUB
CARTRIDGE HEADSET
SPD

SL-MC38 Rapidfire SL™ Shift Lever Set

●New separate shift lever unit for STX-RC. ●For 8-speed rear and 3-speed front drivetrains. ●Faster response to sudden terrain changes through single stroke shifts spanning up to three gears (rear).



RD-MC38 Rear Derailleur

●Advanced Light Action coil parallelogram spring for even lever pressure across the entire gear range. ●Adjustable pulley tension allows fine tuning of shifting performance for different frames. ●Two Teflon™ coated link bushings reduce shifting friction. ●Self centering upper guide and tension pulley chromized steel bushings are smooth and durable.

Teflon is a registered trademark of The Dupont Corporation.

CS-HG60-8-I Cassette Sprockets

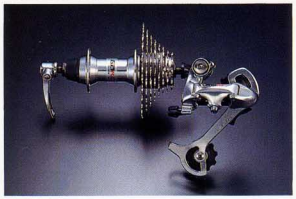
●New 8-speed HG cassette sprocket cluster for STX-RC. ●Available in an-group (11-30T) or ah-group (11-28T).

■ **7-speed CS-IG60 cassette sprocket cluster still available.**

FH-MC38 Freehub®

●New 8-speed freehub for STX-RC. ●Parallax design increases wheel strength with oversize hub shell and heavy-duty spoke flanges. ●Rubber cap contact seals protect against dirt and water.

■ **New FH-R080-s 8-speed roller clutch freehub available for STX-RC.**



FD-MC36/FD-MC36-E Front Derailleur

●Top-swing design reduces friction for a smoother and more precise shift. ●FD-MC36-E type mounts to bottom bracket through a light alloy plate.

■ **Brazed-on seat tube boss or clamp adapter required (FD-MC36-E).**

FC-MC36 Crankset

●Cold forged low-profile crank design. ●Light alloy IG-compatible large chainring.

■ **FC-MC36-S type available with satin finish.**

	FC-MC36-S	FC-MC36
Chainguard	○	○

BL-M600 V-Brake™ Lever

●Three-position Servo-Wave Action lets riders adjust braking power modulation to personal preference. ●A hex key wrench is used to set the screw at one of the three positions.

BR-M600 V-Brake™

●Designed for competition and hard off-road riding. ●Simple design and longer cantilever arms deliver strong stopping power with only one finger. ●Low-flex design reduces both frame and cantilever flex by placing the pad closer to the frame. Control and response are improved. ●Extra long M-System brake pads for all weather braking performance. ●Mounts to standard cantilever bosses.

■ **V-Brake pads have a wear indicator line. Replace the pads at that line.**

Important Note:
V-Brake cantilevers and Servo-Wave Action brake levers are designed to be used together for the best braking performance. Using V-Brakes with non-Servo-Wave Action brake levers may adversely affect braking performance.

PD-M323 SPD® Pedal

●A versatile pedal with SPD binding mechanism on one side and standard cage on the other.



PD-M636 SPD® Pedal

(See pages 24 and 35 for more information.)

Specifications and features of STX-RC group are listed from pages 30 to 34.

■ HIGH-END MTB COMPONENTS - FEATURES & SPECIFICATIONS

Specification \ Series		XTR		DEORE XT			DEORE LX			STX-RC		
Rear Derailleur	Model No.	RD-M950-GS	RD-M950-SGS	RD-M739-GS	RD-M739-SGS		RD-M567			RD-MC38	RD-MC36	
	Advanced Light Action	○	○	○	○		○			○	○	
	IG Compatibility	Ø	Ø	Ø	Ø		Ø			Ø	○	
	Speeds	8-speed	8-speed	8-speed	8-speed		8-speed			8-speed	7-speed	
	Max. Sprocket	32T	32T	32T	32T		32T			32T	30T	
	Min. Sprocket	11T	11T	11T	11T		11T			11T	11T	
	Front Difference	22T max.	22T max.	22T max.	20T max.		20T max.			20T max.	20T max.	
	Total Capacity	33T	38T	33T	39T		39T			39T	39T	
	Parallelogram Spring Adjuster	○	○	Ø	Ø		Ø			Ø	Ø	
	Guide Pulley Pivot	sealed ball bearing		sealed ceramic bushing			chromized steel bushing			sintered steel bushing		
	Tension Pulley Pivot	sealed ball bearing		sintered aluminum bushing			chromized steel bushing			—	sintered steel bushing	
	Pulley Bolts	stainless steel/hollow		stainless steel			stainless steel			stainless steel		
	Hanger Bracket	cold forged aluminum/color anodized		aluminum/polished & clear coated			aluminum/electrostatic painted			aluminum/polished		
	Hanger Bracket Pivot Bolt	titanium		steel			steel			stainless steel	steel	
	Hanger Bracket Pivot Seal	double O-rings		double O-rings			single O-ring			Ø		
	Pulley Cage Bracket	cold forged aluminum/color anodized		aluminum/polished & clear coated			aluminum/electrostatic painted			aluminum/polished		
	Pulley Cage Pivot Bolt	aluminum		steel			steel			steel		
	Pulley Cage Pivot Seal	double O-rings		single O-ring			Ø			Ø		
	Outer Link	cold forged aluminum/color anodized		aluminum/painted			aluminum/painted			aluminum/polished		
	Inner Link	cold forged aluminum/color anodized		aluminum/painted			steel			steel		
	Link Pin Bushing	Teflon™ coating (4)		Teflon™ coating (4)			Teflon™ coating (2)			Teflon™ coating (2)		
	Outer Pulley Cage	aluminum/color anodized	aluminum/color anodized	aluminum/anodized	aluminum/anodized		steel/chrome plated			steel/pearl bright plated	steel/chromica® plated	
	Inner Pulley Cage	aluminum/color anodized	aluminum/color anodized	aluminum/anodized	steel/chrome plated		steel/chrome plated			steel/black painted	steel/black painted	
	Weight	207 g					285g				293g	
***Front Derailleur**	Model No.	FD-M950	FD-M950-E	FD-M739	FD-M739-E	FD-M738	FD-M567	FD-M567-E	FD-M566	FD-MC36	FD-MC36-E	FD-MC33
	Advanced Light Action	○	○	○	○	○	○	○	○	○	○	○
	Dual SIS	○	○	○	○	○	○	○	○	○	○	○
	Top-swing Action	○	○	○	○	Ø	○	○	Ø	○	○	Ø
	Differential Plate Mechanism	○	○	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
	Rear Compatibility	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	7-speed
	Top-low Max. Capacity	22T	22T	22T	22T	22T	20T	20T	20T	20T	20T	22T
	Top-middle Min. Capacity	12T	12T	10T	10T	10T	10T	10T	10T	10T	10T	10T
	Large Chainring	46/48T	46/48T	42/44T	42/44T	42/44T	42T	42T	42T	42T	42T	42T
	Cable Routing	top & bottom route types available		top & bottom route types available			top & bottom route types available			top & bottom route types available		
	Chain Stay Angle	66 – 69°		66 – 69°			63 – 66°/66 – 69°			63 – 66°/66 – 69°		
	Mount Type: Seat Tube Band Mount	28.0 – 28.6/ 31.8/34.9mm	—	28.0 – 28.6/ 31.8/34.9mm	—	28.0 – 28.6/ 31.8/34.9mm	28.0 – 28.6/ 31.8/34.9mm	—	28.0 – 28.6/ 31.8/34.9mm	28.0 – 28.6/ 31.8/34.9mm	—	28.0 – 28.6/ 31.8/34.9mm
	Mount Type: Band Material	forged aluminum	—	aluminum	—	aluminum	aluminum	—	aluminum	aluminum	—	aluminum
	Mount Type: B.B. Mounting Plate	—	○	—	○	—	—	○	—	—	○	—
	Mount Type: Plate Material	—	carbon fiber	—	aluminum	—	—	aluminum	—	—	aluminum	—
	Outer Link	forged aluminum/color anodized		aluminum		aluminum	aluminum		aluminum	aluminum		aluminum
	Inner Link	aluminum/color anodized		aluminum		aluminum	aluminum		aluminum	aluminum		aluminum
	Link Pin Bush	outer & inner		outer & inner			inner		outer & inner	inner		outer
	Cable Anchor Nut	insert helicoil		insert helicoil			standard			standard		
	Clamp Bolt & Cable Anchor Bolt	titanium (option)		stainless steel			stainless steel			stainless steel		
	Adjustment Bolts	stainless steel		stainless steel			stainless steel			stainless steel		
	Chain Cage	aluminum/nickel plated		steel/chrome plated		steel/ chrome plated	steel/chrome plated		steel/ chrome plated	steel/chromica		steel/ chromica
	Weight	110g	127g	128g			128g			135g		
V-Brake Lever	Model No.	BL-M950		BL-M739			BL-M600					
	For V-Brake Only	○		○			○					
	Power Adjuster	step-less		3-step			3-step					
	Lightweight Lever	○		○			○					
	Reach Adjuster	○		○			○					
	Lever Pivot Bushing	low friction		low friction			low friction					
	Dust Cover	Ø		Ø			Ø					
	Brake Cable Casing	M-system		M-system			M-system					
	Brake Cable	stainless steel (option)		stainless steel (option)			stainless steel (option)					
	Clamp Bolt	stainless steel		stainless steel			stainless steel					
	Weight			159g (pair)								

*Front derailleur chain stay angle is marked on the back of the chain guide. Component specifications are marked on the box.

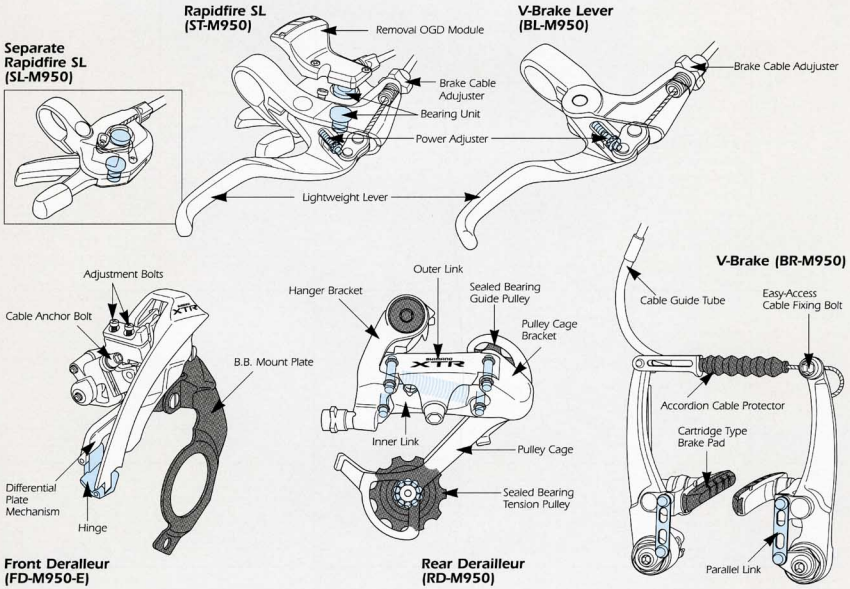
model no. FD-M739-DS6
cable routing (D=down, T=top)
clamp band size (S=small, M=medium, L=large)
chain stay angle (6=66-69°, 3=63-66°)

**The E-type front derailleur mounts to the bottom bracket through a support plate and also requires a special boss or clamp adapter on the seat tube.

○ = yes Ø = no

Specification		Series	XTR			DEORE XT			DEORE LX		STX-RC	
Rapidfire SL Lever Set	Model No.		ST-M950	SL-M950	ST-M910	ST-M739	SL-M739	ST-M738	ST-M567	SL-M569	ST-MC36	SL-MC38
	Shift Lever Specs	Types	combined shift & brake lever set	shift lever set only	combined shift & brake lever set	combined shift & brake lever set	shift lever set only	combined shift & brake lever set	combined shift & brake lever set	shift lever set only	combined shift & brake lever set	shift lever set only
		Advanced Light Action	○	○	○	○	○	○	○	○	○	○
		Rear	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	8-speed	7-speed	8-speed
		Front	triple	triple	triple	triple	triple	triple	triple	triple	triple	triple
		Optical Gear Display	○	Ø	○	○	Ø	○	○	○	○	Ø
		Removable OGD Module	○	Ø	○	○	Ø	○	○	Ø	○	Ø
		Shift Cable Casing	sealed SIS-SP40			sealed SIS-SP40			sealed SIS-SP40		sealed SIS-SP40	
		Shift Cable	stainless steel			stainless steel			stainless steel		stainless steel (option)	stainless steel (option)
	Brake Lever Specs	For V-Brake Only	○	—	Ø	○	—	Ø	Ø	—	Ø	—
		Power Adjuster	step-less	—	Ø	3-step	—	Ø	Ø	—	Ø	—
		Lightweight Lever	○	—	○	○	—	○	○	—	○	—
		Reach Adjuster	○	—	○	○	—	○	○	—	○	—
		Lever Pivot Bushing	low friction	—	low friction	low friction	—	low friction	low friction	—	resin	—
		Dust Cover	Ø	—	○	Ø	—	Ø	Ø	—	Ø	—
		Barke Cable Casing	M-system	—	M-system	M-system	—	M-system	M-system	—	M-system	—
		Brake Cable	stainless steel (option)	—	stainless steel (option)	stainless steel (option)	—	stainless steel (option)	stainless steel (option)	—	stainless steel (option)	—
	Clamp Bolt		stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
	Weight (pair)		327g			358g		398g	335g		335g	

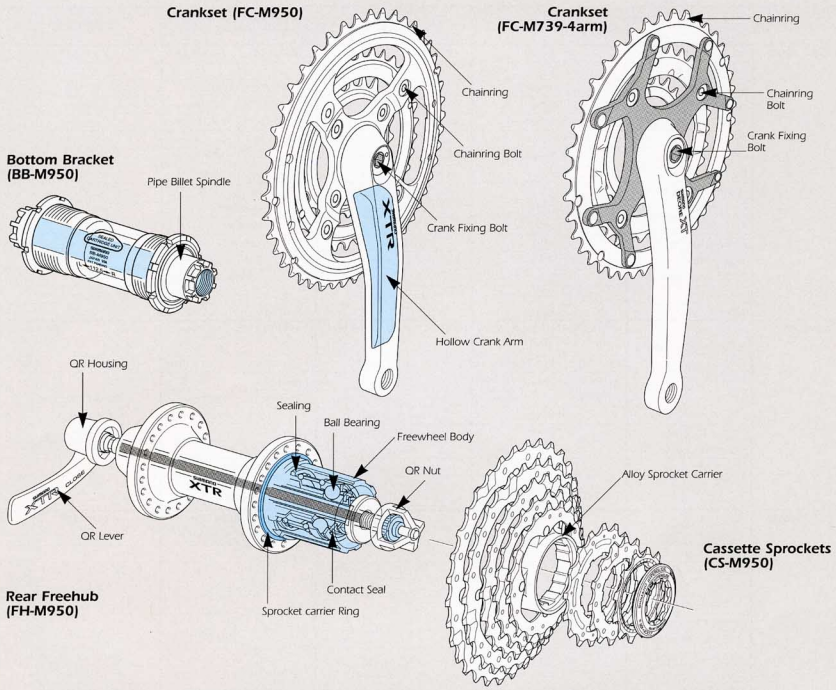
V-Brake/ Cantilever Brake	Model No.	BR-M950	BR-M900-C	BR-M739	BR-M737	BR-M565-E	BR-M600	BR-MC33-E
	V-Brake System	○	Ø	○	Ø	Ø	○	Ø
	M-System	○	○	○	○	○	○	○
	Parallel Link	○	Ø	○	Ø	Ø	Ø	Ø
	Brake Pad Types	M-70R2	M-70R	M-70R2	M-70R	M-65T	M-70T2	M-65T
	Arm Length	—	M	—	M	M	—	M, L
	Link Types	—	dynamic Y-type	—	dynamic Y-type	dynamic Y-type	—	dynamic Y-type
	Enclosed Pivot Sleeves	○	○	○	○	○	○	Ø
	Bushings	bearing, DU type	DU type	hard brass	hard brass	hard brass	hard brass	steel
	Spring Tension Adjuster	○	○	○	○	○	○	○
	Fixing Bolt	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
	Easy-access Cable Fixing Bolt	○	○	○	○	○	○	○
	Weight	375g		383g	364g	370g		366g



■ HIGH-END MTB COMPONENTS - FEATURES & SPECIFICATIONS

	Series	XTR		DEORE XT			DEORE LX			STX-RC	
*Crankset	Model No.	FC-M950	FC-M950-HG	FC-M739	FC-M739-5arm	FC-M737-I	FC-M569	FC-M569-5arm	FC-M563-I	FC-MC36-S	FC-MC36
	HyperDrive-C	Hyper Drive	Hyper Drive	○	○	○	○	○	○	○	○
	Dual SIS	○	○	○	○	○	○	○	○	○	○
	4-Arm Chainring	○	∅	○	∅	∅	○	∅	∅	∅	∅
	Chainring Types	IG chainring	HG chainring	IG chainring	IG chainring	IG chainring	IG chainring	IG chainring	IG chainring	IG chainring	IG chainring
	Chain Types	IG chain	HG chain	IG chain	IG chain	IG chain	IG chain	IG chain	IG chain	IG chain	IG chain
	Number of Teeth	46-34-24T	48/46-36-26T	44/42-32-22T	44/42-32-22T	42-32-22T	42-32-22T	42-32-22T	42-32-22T	42-32-22T	42-32-22T
	Bolt Circle Diameter	112/68mm	110/74mm	104/64mm	94/58mm	94/58mm	104/64mm	94/58mm	94/58mm	94/58mm	94/58mm
	Crank Arm Length	165/167.5/170/172.5/175/177.5/180mm		165/167.5/170/172.5/175/177.5/180mm		165/167.5/170/172.5/175/177.5/180mm	170/175mm		170/175mm	170/175mm	170/175mm
	Crank Arms	forged ultra duralumin/hollow type		aluminum		semi-forged aluminum	aluminum		aluminum	aluminum	aluminum
	Crank Bolts	M15 (mm) aluminum		stainless steel		chrome-moly steel	stainless steel		chrome-moly steel	stainless steel	stainless steel
	Outer Chainring	7075 aluminum	7075 aluminum	aluminum	aluminum	7075 aluminum	aluminum	aluminum	aluminum	aluminum	aluminum
	Middle Chainring	7075 aluminum	7075 aluminum	aluminum	aluminum	7075 aluminum	aluminum	aluminum	7075 aluminum	steel	steel
	Inner Chainring	7075 aluminum	7075 aluminum	aluminum	steel	steel	aluminum	steel	steel	steel	steel
	Chainring Bolts & Nuts	7075 aluminum	7075 aluminum	7075 aluminum	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
	Chainguard	∅	∅	Ø(44T) | ○(42T)		○	○	○	○	○	○
	Weight					694g (175mm)			681g (170mm)	759g (170mm)	759g (170mm)
**Bottom Bracket	Model No.	BB-M950		BB-UN72		BB-UN72-E	BB-UN52		BB-UN52-E	BB-UN52	BB-UN52-E
	Chain Line Stabilizer	○		○		○	○		○	○	○
	Marking	112	116	MM107	LL113	MM110	LL113	MM107	MM110	LL113	MM110	LL113	MM107	MM110	LL113	MM110	LL113
	Chain Line	47.5mm	50mm	47.5mm	50.0mm	47.5mm	50.0mm	47.5mm	47.5mm	50.0mm	47.5mm	50.0mm	47.5mm	47.5mm	50.0mm	47.5mm	50.0mm
	B.B. Shell Width	73/68mm	73/68mm	73/70/68mm	73/70/68mm	68mm	70/73mm	70/68mm	73/70/68mm	73/70/68mm	68mm	70/73mm	70/68mm	73/70/68mm	73/70/68mm	68mm	70/73mm
	Spindle Length	112.5mm	116mm	107mm	113mm	110.5mm	113mm	107mm	110.5mm	113mm	110.5mm	113mm	107mm	110.5mm	113mm	110.5mm	113mm
	Spindle	M15mm chrome-moly steel/hollow type		chrome-moly steel/hollow type		chrome-moly steel/hollow type	chrome-moly steel		chrome-moly steel	chrome-moly steel	chrome-moly steel
	Adapter	aluminum		aluminum		aluminum	steel		steel	steel	steel
	Weight	175g		242g							
Rear Freehub	Model No.	FH-M950		FH-M737			FH-M565		FH-R080	FH-MC38	FH-MC33
	Sprockets	8-speed		8-speed			8-speed		8-speed	8-speed	7-speed
	11T Small Sprocket	○		○			○		○	○	○
	Roller Clutch	∅		∅			∅		○	∅	∅
	Parallax Design	○		○			○		○	○	○
	Over Locknut	135mm		135mm			135mm		135mm	135mm	135/130mm
	Axle Length	146mm		146mm			146mm		146mm	146mm	146/141mm
	Axle Diameter & Material	10mm titanium		10mm steel			10mm steel		10mm	10mm	10mm steel
	QR Lever	aluminum		aluminum			aluminum		aluminum	aluminum	aluminum
	QR Housing	aluminum		aluminum			aluminum		aluminum	aluminum	aluminum
	QR Nut	aluminum		aluminum			aluminum		aluminum	aluminum	aluminum
	Stainless Steel Ball Bearings	○		∅			∅		∅	∅	∅
	Cone Races	Borozon***		Borozon***			Borozon***		Borozon***	Borozon***	Borozon***
	Cup Races	Borozon***		polished			polished		barrel polished	barrel polished	barrel polished
	Contact Sealing	double		double			double		double	single	single
	Spoke Holes	36/32/28 holes		36/32 holes			36/32 holes		36/32 holes	36/32 holes	36/32 holes
	Spoke Hole Circle	45mm		45mm			45mm		45mm	45mm	45mm
	Sprocket carrier Ring	aluminum		aluminum			steel		steel	∅	∅
	Hub Shell	aluminum/anodized		aluminum/anodized			aluminum/anodized		aluminum/anodized	aluminum/anodized	aluminum/anodized
	Weight	371g		452g			442g				432g
Cassette Sprocket	Model No.	CS-M950	CS-M900-I	CS-M737-I			CS-HG70-I			CS-HG60-8-I	
	Sprocket Carrier	forged aluminum	semi forged aluminum	aluminum			∅			∅	
	Number of Sprockets	8-speed HG	8-speed HG	8-speed HG			8-speed HG			8-speed HG	
	Group Identification	P, ak	P, O	R, ak			an, ah			an, ah	
	Sprocket	titanium and steel	steel	steel			steel			steel	
	Sprocket finish	champagne gold & titanium silver	champagne gold	chrome plated			silver			chromica plated	
	Chain Compatibility	IG chain	IG chain	IG chain			IG chain			IG chain	
	11T Small Sprocket	∅ (P) | ○ (ak)	∅	○			○			○	
	Weight	232g (P-group)	316g (P-group)	256g (R-group)			326g (ah-group)				
Chain	Model No.	CN-IG90					CN-IG70			CN-IG51	
	Type	IG narrow type					IG narrow chain			IG narrow chain	
	Inner Link Finish	nickel plated					barrel polished			barrel polished	
	Outer Link Finish	nickel plated					nickel plated			nickel plated	
	Link Pins	chromized/polished pin end					chromized/polished pin end			chromized	
	Weight										

*FC-M950-HG crankset with conventional 5-arm spider is also available.
**E-type bottom bracket is for use with bottom bracket mount front derailleurs.
***The Borozon polishing process provides an ultra-smooth and precise bearing race surface.



Cassette Sprockets Availability Chart

Model No.	Chain Compatibility	Group Identification	Gear Combination	Compatible Freehubs
CS-M950	IG chain	8-speed P-group	12, 14, 16, 18, 21, 24, 28, 32	FH-M950/FH-M910/FH-M900/ FH-M737/FH-M565/FH-R080
		8-speed ak-group	11, 13, 15, 17, 20, 23, 26, 30	
CS-M900-I	IG chain	8-speed P-group	12, 14, 16, 18, 21, 24, 28, 32	FH-M950/FH-M910/FH-M900/ FH-M737/FH-M565/FH-R080
		8-speed Q-group	12, 13, 14, 16, 18, 21, 24, 28	
CS-M737-I	IG chain	8-speed R-group	11, 12, 14, 16, 18, 21, 24, 28	FH-M950/FH-M910/FH-M900/ FH-M737/FH-M565/FH-R080
		8-speed ak-group	11, 13, 15, 17, 20, 23, 26, 30	
CS-HG70-I	IG chain	8-speed an-group	11, 13, 15, 17, 20, 23, 26, 30	FH-M950/FH-M910/FH-M900/ FH-M737/FH-M565/FH-R080
		8-speed ah-group	11, 12, 14, 16, 18, 21, 24, 28	
CS-HG60-8-I	IG chain	8-speed an-group	11, 13, 15, 17, 20, 23, 26, 30	FH-M950/FH-M910/FH-M900/ FH-M737/FH-M565/FH-R080
		8-speed ah-group	11, 12, 14, 16, 18, 21, 24, 28	
CS-HG70-C	HG chain	7-speed ac-group	11, 13, 15, 18, 21, 24, 28	11-tooth top gear compatible freehub
CS-HG50-C				
CS-IG60	IG chain	7-speed ag-group	11, 13, 15, 18, 21, 24, 28	for use with IG system only
CS-IG50		7-speed am-group	11, 13, 15, 18, 21, 24, 30	

Compatibility between IG and HG chains and cassette sprockets.

	IG		HG	
	IG Cassette Sprockets CS-IG60/ CS-IG50	**IG Chainwheels** FC-M950/FC-M739/FC-M737-IG/ FC-M569/FC-M563-IG/FC-MC36/ FC-MC34/FC-MC33/FC-MC32/ FC-MC16/FC-MC14/FC-MC12	**HG Cassette Sprockets** CS-M950/CS-M900-1/ CS-M737-I/CS-HG70-I/ CS-HG60-8-I/ CS-HG50/CS-HG30	**HG Chainwheels** FC-M900/FC-M737/ FC-M563/FC-M291/ FC-M290/FC-CT92/ FC-CT91/FC-CT90
New IG Chains CN-IG90/CN-IG70/ CN-IG51/CN-IG31	compatible	compatible	compatible*	**not compatible****
HG Chains CN-HG91/CN-HG90/ CN-HG70/CN-HG50/ CN-UG50	**not compatible****	**not compatible*****	compatible	compatible

Important Information on IG and HG Compatibility

Mixing IG and HG-type drive train components may affect performance, and in some cases cause operational problems. If you cannot avoid mixing these components, please be aware of the information in the table above. The IG chain was improved for 1996, and as a result offers widened compatibility with HG sprockets.

* The new IG chains (CN-IG90, CN-IG70, CN-IG51, and CN-IG31) have a width of 7.1mm and are compatible with HG sprockets. Because the old IG chains (CN-IG50 and CN-HG30) have a width of 7.3mm, they should not be used with HG sprockets. If you use a new IG chain with old 8-speed HG cassette sprockets (CS-M737 and CS-HG70-8), the adjustment becomes more critical, so special care must be taken when adjusting the cable.

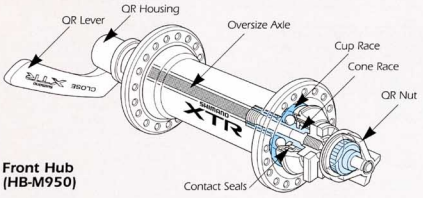
** This combination should not be used because poor shifting performance will result.

*** This combination is potentially dangerous due to the possibility of accidents caused by the chain being thrown from the chainwheels.

○ = yes ∅ = no

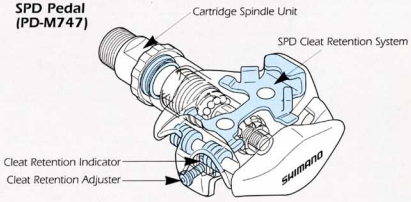
	Series	XTR			DEORE XT			DEORE LX		STX-RC	
Front Hub	Model No.	HB-M950			HB-M738		HB-M737	HB-M564	HB-M563	HB-MC33	
	Parallax Design	○			○		○	○	○	○	
	Over Locknut	100mm			100mm		100mm	100mm	100mm	100mm	
	Axle Length	108mm			108mm		108mm	108mm	108mm	108mm	
	Axle Diameter & Material	11mm aluminum			11mm aluminum		9mm steel	10mm steel	9mm steel	9mm steel	
	QR Lever	aluminum			aluminum		aluminum	aluminum	aluminum	aluminum	
	QR Housing	aluminum			aluminum		aluminum	aluminum	aluminum	aluminum	
	QR Nut	aluminum			aluminum		aluminum	aluminum	aluminum	aluminum	
	Stainless Steel Ball Bearings	○			○		∅	∅	∅	∅	
	Cone Races	Borozon*			Borozon*			Borozon*		Borozon*	
	Cup Races	Borozon*			polished			polished		∅	
	Contact Sealing	double			double			double		single	
	Spoke Holes	36/32/28 holes			36/32 holes			36/32 holes		36/32 holes	
	Spoke Hole Circle	38mm			38mm			38mm		38mm	
	Hub Shell	aluminum/anodized			aluminum/anodized			aluminum/anodized		aluminum/anodized	
	Weight	190g			206g		202g	218g	205g	212g	
Headset	Model No.	HP-M900	HP-M901	HP-M902	HP-M740	HP-M741	HP-M742	HP-M563	HP-M564	HP-MC30	HP-MC31
	Sealed Cartridge Bearings	∅	∅	∅	○	○	○	○	○	○	○
	Thread	BC1" x 24TPI	BC1-1/8" x 24TPI	BC1-1/8" x 24TPI	BC1" x 24TPI	BC1-1/8" x 24TPI	BC1-1/8" x 24TPI	BC1" x 24TPI	BC1-1/8" x 24TPI	BC1" x 24TPI	BC1-1/8" x 24TPI
	Stack Height	34.3mm	34.3mm	40.3mm	37.6mm	37.6mm	39.9mm	37.6mm	37.6mm	37.6mm	37.6mm
	Locknut	aluminum w/O-ring seal			aluminum w/rubber seals			aluminum w/rubber seals		steel w/resin seals	
	Lock Washer	stainless steel			stainless steel			stainless steel		stainless steel	
	Upper Stem Cone	aluminum			aluminum			aluminum		steel	
	Upper Head Tube Cup	aluminum			aluminum			steel		steel	
	Lower Stem Cone	aluminum			aluminum			steel		steel	
	Cartridge Bearing Unit Sealing	rubber seals			rubber seals			resin seals		resin seals	
	Weight	119g	136g	167g	116g	127g	143g	146g	161g	170g	190g
SPD Pedal	Model No.	PD-M747			PD-M636			PD-M535		PD-M323	
	SPD Cleat Surfaces	both pedal surfaces			both pedal surfaces			both pedal surfaces		one surface	
	Floating Cage	∅			○			∅		∅	
	Spindle Thread	BC 9/16" x 20TPI			BC 9/16" x 20TPI			BC 9/16" x 20TPI		BC 9/16" x 20TPI	
	Spindle	chrome-moly			chrome-moly			chrome-moly		chrome-moly	
	Cartridge Bearing Spindle	○			∅			∅		∅	
	Cleat Retention Indicator	○			○			○		○	
	Cleat Retention Adjuster	○			○			○		○	
	Easy Step-in Feature	○			○			○		∅	
	Body	aluminum			aluminum			aluminum/black anodized		aluminum	
	Binding Plate	steel/chrome plated			steel/chrome plated			steel/chrome plated		steel/chrome plated	
	Weight	393g (pair)			640g (pair)			410g (pair)		520g (pair)	
Seat Post	Model No.	SP-M910	SP-M900		SP-M730			SP-M650			
	One-bolt Clamp	○	○		○			○			
	Easy Adjust Feature	○	○		○			○			
	Special Easton Tubing	○	○		∅			∅			
	Outer Diameter	26.8/27/27.2mm	26.6/26.8/27/27.2mm		26.4/26.6/26.8/27.0/27.2mm			26.4/26.6/26.8/27.0/27.2mm			
	Length	330mm	280/330/360mm		280/330/360**mm			280/330/360**mm			
	Material	aluminum	chrome moly steel		chrome moly steel			chrome moly steel			
	Weight	215g	270g (330mm)		296g (330mm)			325g (360mm)			
Seat Quick Release	Model No.	SQ-M900			SQ-M730						
	Position Hold Spring	∅			○						
	Shaft Length	36 – 43mm/26 – 33mm			36 – 43mm/26 – 33mm						
	Shaft Diameter	6mm/8mm			6mm/8mm						
	Material & Finish	steel/chrome plated			steel/chrome plated						
	Weight	66g			75g						
Chain Deflector	Model No.	DF-M730									
	Material	plastic resin									
	Weight	9g									

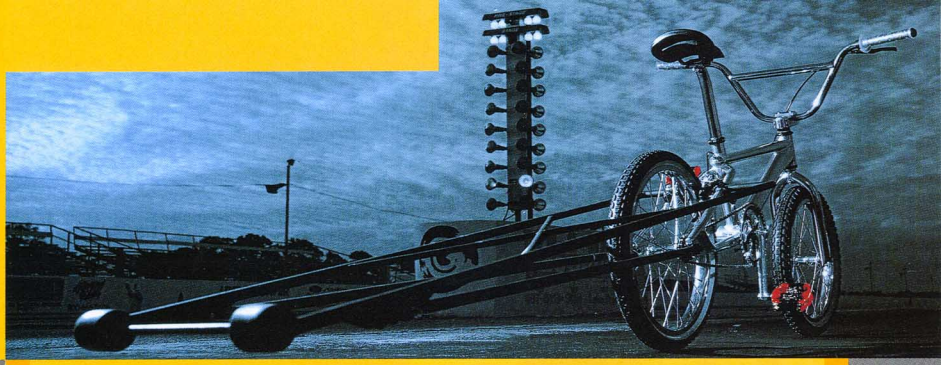
*The Borozon polishing process provides an ultra-smooth and precise bearing race surface.
**360mm length is available in 27.2mm diameter only.



Front Hub (HB-M950)

SPD Pedal (PD-M747)



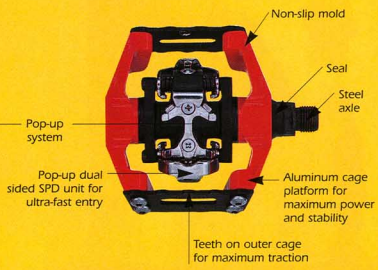


HOT NEW EQUIPMENT FOR BMX RIDERS.

PD-M636 SPD Pedal

Designed from the ground up for BMX.







SH-MX70 BMX Shoe

If it was any tougher, it'd have a pierced tongue.

It's one rock-solid, stump-jumping, hang-timing, anti-gravity boot. It's the new SH-MX70. Sort of a hybrid mutation of looks and brains. A blend of race proven Shimano hi-tech, beefed up for the foot-dragging, pedal-pounding tortures of BMX. All wrapped up in one _____ (adjective) looking package. (Hey, we're not gonna tell you, but admit it, the word cool did come to mind.) And with its stiffer midsole, pedal-sticking outsole and anti-shred rubber toe, it's perfect for mashing down on the accelerator, or making the occasional mosh pit stop.

BL-M600-MX

BMX V-Brake Lever (rear only)

BR-M600-MX

BMX V-Brake Cantilever (right lever only)

V-Brake stopping power for BMX.

A high-performance V-Brake set for the BMX bike. Brake pad slide range is 5mm longer than BR-M600 to fit BMX frames. Lever features 3-step servo wave action adjustment. Red and black color scheme matches PD-M636 pedal.



- High-power low-profile V-Brake cantilever
- Long 20mm brake pad slide range
- Shimano DX red logotype



- 1.5 finger short reach lever
- 3-step servo-wave adjustment
- Oversize cable adjuster barrel
- Shimano DX red logotype



Many mountain bike riders don't go off-road, but they still want a rugged and dependable bicycle that's easy and fun to ride for fitness, recreation, commuting, and an occasional off-road ride. The STX®, Alivio®, Acera-X®, Altus®, Tourney, and youth-oriented MJ-II groups were developed with these cyclists in mind. These groups deliver the same feeling of quality, responsiveness, and precise control found in the higher-priced groups, but in a bike that's affordable to more people.

SHIMANO STX®



Intermediate Recreational Cyclist

SHIMANO A



Novice Recreational Cyclist

SHIMANO ACERA X®



Entry Level Cyclist

SHIMANO ALTUS®



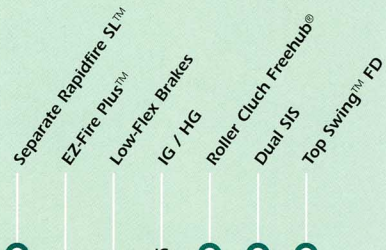
Entry Level Cyclist

SHIMANO MJII



Kids

More performance and value for all kinds of recreational mountain bikes.



On or off road, high-end quality and performance in a moderately priced MTB group. The accent is on performance.

IG ○ ○ ○

page 40

Completely re-designed for 1997 with an all new tough, but elegant look. Striking new crankset design highlights the group.

○ ○ IG ○ ○ ○

page 38

Great performance and advanced functions with the accent on value. Acera-X makes possible the high-performance entry level mountain bike.

○ HG ○

page 41

A great cost-performance value in a component group that brings the quality mountain bike within the reach of everyone.

○ HG ○ ○

page 42

MJ-II lets the kids can ride mountain bikes just like their parents. A quality MTB group with smaller levers and shorter crank arms specifically designed for kid's bicycle.

○ HG ○ ○

page 43

SHIMANO TOURNEY

05/15/22/30 SERIES

Tourney delivers Shimano quality and function at a remarkably reasonable price. Tourney 05 components are new for 1997. (Functions shown at right are for Tourney 30 only.)

○ HG ○

page 46


FH-R050
BB-LP26
FH-MC12
ST-MC15-C
SM-SP18
HB-MC12
BR-MC12
CS-IG50
FC-MC16
SL-MC37
CN-IG51
BL-MC16
Brake Cable
(T-Type)
RD-MC16
FD-MC14-B
BR-MC16

Novice
Recreational Cyclist

All new for 1997, Alivio offers a tough high-tech, but elegant look that enhances a bikes appearance. Simple, sleek design combined with a full range of advanced Shimano functions makes Alivio a great performer ... and a great value.

SL-MC37
Rapidfire SL™ Shift Lever Set

- New separate design allows shift levers to be positioned independently of brake lever.
- Rapidfire SL shifters deliver an intuitive, smooth, and light shift.
- Downshifts up to three sprockets with one lever stroke.

RD-MC16 Rear Derailleur

- Advanced Light Action design maintains uniform spring tension at every gear position.
- Parallelogram spring rides on Teflon™-coated pins for a smooth low-friction action. Teflon is a registered trademark of The Dupont Corporation.

FD-MC14-B Front Derailleur

- Top swing design reduces lever effort to make front shifting amazingly easy.
- Compatible with 42T large chainrings.

BL-MC16 Brake Lever

- 2.5-finger brake lever delivers a smooth and positive action for beginning cyclists.
- Brake lever reach can be adjusted for smaller hands.

BR-MC16 Cantilever Brakes

- Low-flex design increases rigidity and braking power.
- Pad is positioned on frame side of cantilever to reduce stress on both frame and cantilever.
- Low-profile short-stroke design fits a wider variety of frame types.



FC-MC16 Crankset

- Spider-disk crank arm enhances bicycle appearance.
- IG SGX-II chainrings deliver smooth shifting.
- Standard 42-34-24T chainrings with light alloy large chainring.
- 170 and 175mm arm lengths.
- BB-LP26 bottom bracket features chainline stabilizer for precise crank positioning.

	FC-MC16	FC-MC14
Chainguard	○	○

FH-R050 Roller Cluch Freehub®

- Roller clutch mechanism replaces conventional ratchet pawls.
- Super-quick engagement reduces pedaling shock, and improves balance and traction on bumpy trails.
- Silent freewheeling eliminates ratchet noise when coasting.

FH-IM40/BR-IM41 Freehub®/Roller Brake

- 7-speed freehub that can be used with Inter-M roller brake.
- Powerful Inter-M hub brake eliminates the need for frame mounted cantilevers.
- Excellent durability with noise-suppressing design.

CS-IG50 Cassette Sprockets

- IG cassette sprockets available in two types:

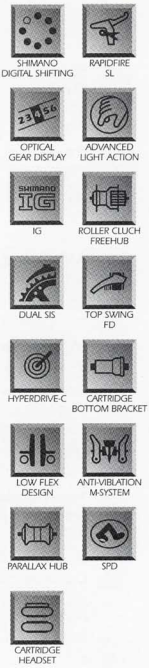
ag group	11-13-15-18-21-24-28T
am group	11-13-15-18-21-24-30T

PD-M323 SPD® Pedal (See page 29.)

Specifications and features of ALIVIO group are listed from pages 44.

SHIMANO™

Alivio offers an all-new look of "toughness and elegance"



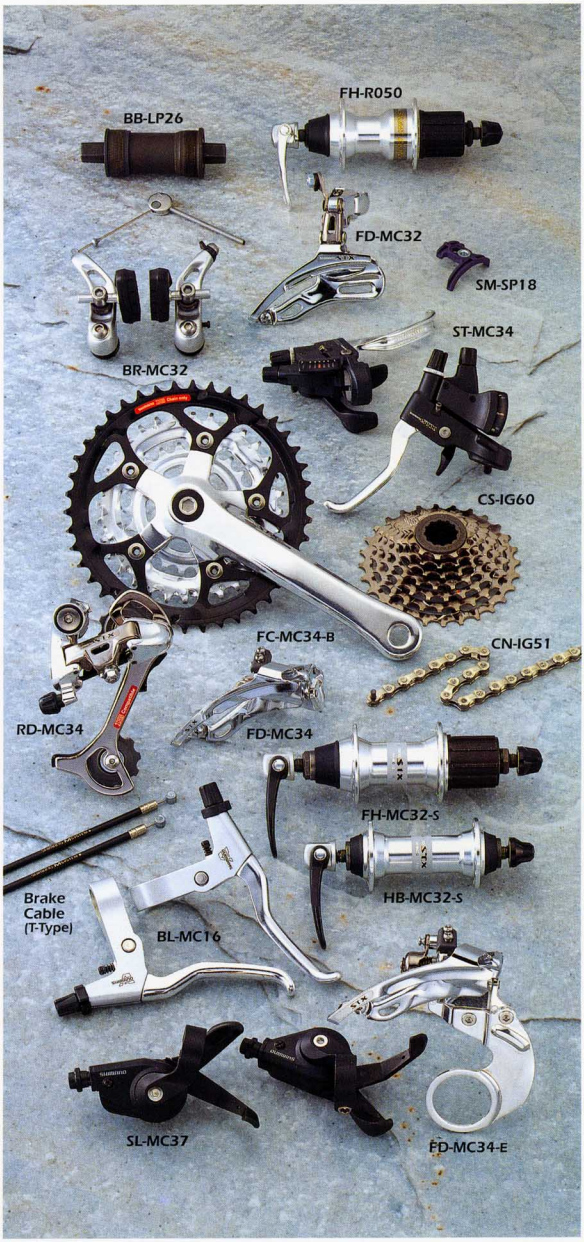


Intermediate
Recreational Cyclist

SHIMANO STX®

An all-purpose MTB group offering the optimum balance of quality, performance, and value.

- **Shimano Digital Shifting** Gear changing that's so precise it feels digital.
- **Rapidfire SL**™ Low-effort short-stroke action.
- **Optical Gear Display** Instant gear position verification.
- **Advanced Light Action** Low-friction derailleurs.
- **Rear SIS**® Indexed shifting for rear derailleur.
- **IG**™ **Drivetrain** Provides the best SIS shifting ever.
- **Roller Clutch Freehub**® Engages quicker, eliminates freewheel noise.
- **Dual SIS**® Precise indexed shifting front and rear.
- **Top-Swing**™ **Front Derailleur** Reduced front shifting effort.
- **Easy-Set Front Derailleur** Bottom bracket mounting plate sets derailleur position.
- **HyperDrive-C**™ Reduced weight from smaller sprockets and chainrings.
- **Cartridge Bottom Bracket** Easy installation without adjustment.
- **Anti-Vibration M-System**™ All weather braking without the brake squeal.
- **Aluminum QR** Reduces weight. Eliminates corrosion.
- **Parallax**® **Hub** Oversized hub design for stronger wheels.



STX specifications are listed on page 44.

●FC-MC34 and FC-MC34-B cranksets are available with chainguard.
●Brazed on seat tube boss or clamp adapter required (FD-MC34-E).



●FC-M291 crankset is avalable with chainguard.

SHIMANO
ACERA X

A performance-packed group at an amazingly low cost.

Shimano Digital Shifting Gear changing that's so precise it feels digital.

EZ-Fire Plus™ Easy, low-effort shifting for both derailleurs.

Optical Gear Display Instant gear position verification.

Advanced Light Action Low-friction derailleurs.

Rear SIS® Indexed shifting for rear derailleur.

HG™ **Sprockets** Smoother and faster rear shifting.

Dual SIS® Precise indexed shifting front and rear.

Top-Swing™ **Front Derailleur** Reduced front shifting effort.

HyperDrive-C™ Reduced weight from smaller sprockets and chainrings.

Cartridge Bottom Bracket Easy installation without adjustment.

M-System™ Dependable all weather braking.

Parallax® **Hub** Oversized hub design for stronger wheels.

ACERA-X specifications are listed on page 45.

SHIMANO ALTUS®

Real mountain bike performance for the entry-level MTB-style bicycle.



- **Shimano Digital Shifting** Gear changing that's so precise it feels digital.
- **EZ-Fire Plus™** Easy, low-effort shifting for both derailleurs.
- **Optical Gear Display** Instant gear position verification.
- **Advanced Light Action** Low-friction derailleurs.
- **Rear SIS®** Indexed shifting for rear derailleur.
- **HG™ Sprockets** Smoother and faster rear shifting.
- **Dual SIS®** Precise indexed shifting front and rear.
- **Top-Swing™ Front Derailleur** Reduced front shifting effort.
- **Easy-Set Front Derailleur** Bottom bracket mounting plate sets derailleur position.
- **HyperDrive-C™** Reduced weight from smaller sprockets and chainrings.
- **Cartridge Bottom Bracket** Easy installation without adjustment.
- **Parallax® Hub** Oversized hub design for stronger wheels.

ALTUS specifications are listed on page 45.

●FC-CT91 and FC-CT92 cranksets are available with chainguard.



SHIMANO MJII

Designed especially for kid's bikes.

Rear Derailleur	Front Derailleur	Rapidfire
RD-MJ05-GS/RD-MJ05-SS • 6-speed SIS • Max. Sprocket: 34T (GS) / 28T (SS) • Min. Sprocket: 11T • Total Capacity: 34T (GS) / 28T (SS) • Front Difference: 20T (GS) / 13T (SS)	**FD-MJ07-E** • Top-Swing Action • For Triple Chainrings • 14T Capacity • 38T Large Chainring **FD-MJ06** • For Double Chainrings • 10T Capacity • 38T Large Chainring	**ST-MJ05** • Rear 6-Speeds **ST-MJ05-T** • Front Triple **ST-MJ05-D** • Front Double **Clamp Diameter=19.1mm**
Shift/Brake Lever	**Cantilever Brake**	**Crankset**
SB-MJ05 • Rear 6-Speed **SB-MJ05-T** • Front Triple **SB-MJ05-D** • Front Double **BL-MJ05/BL-MJ05** • For Smaller Hands **Clamp Diameter=19.1mm**	**BR-MJ05-E** • M-System Compatible (Option)	**FC-MJ05-T** • Dual SIS Compatible • 38-32-24T Chainrings • Crank Arm Length: 130/145/160mm **FC-MJ05-D** • Dual SIS Compatible • 38-28T Chainrings • Crank Arm Length: 130/145/160mm
Sealed Cartridge Bottom Bracket	**Freehub & Front Hub**	**Cassette Sprocket & Chain**
BB-CT91 • Easy Set Design **For Triple Chainrings** • 116mm Spindle / 47.5mm Chainline (YL116) • 121mm Spindle / 50.0mm Chainline (ZL121) **For Double Chainrings** • 116mm Spindle / 43.5mm Chainline (YL116)	**FH-MJ05** • For 6-Speed HG-C Sprockets • 36 or 32 Spoke Holes • 130 or 126 mm O.L.D. **HB-MJ05** • 36 or 32 Spoke Holes • 100 mm O.L.D.	**CS-HG30-6** • 6-speed HG Sprockets • af-group (11-13-15-18-21-24T) **CN-UG50** • Dual SIS Compatible • UniGlide Design

Rapidfire® Easy operation for smaller hands.

Optical Gear Display Instant gear position verification.

Advanced Light Action Low-friction derailleurs.

Rear SIS® Indexed shifting for rear derailleur.

HG™ Sprockets Smoother and fastener rear shifting.

Top-Swing™ Front Derailleur Reduced front shifting effort.

HyperDrive-C™ Reduced weight from smaller sprockets and chainrings.

Cartridge Bottom Bracket Easy installation without adjustment.

Easy-Set Front Derailleur Bottom bracket mounting plate sets derailleur position.

M-System™ Brakes Dependable all weather braking.

Parallax® Hub Oversized hub design for stronger wheels.

Specifications \ Series		SHIMANO STX				SHIMANO ALIVIO	
Rear Derailleur	Model No.	RD-MC34				RD-MC16	RD-MC14
	Speeds	7-speed				7-speed	7-speed
	Max. Sprocket	30T				30T	30T
	Min. Sprocket	11T				11T	11T
	F/Difference	20T max.				18T max.	18T max.
	Total Capacity	29T				37T	37T
	Advanced Light Action	○				○	○
	IG/HG/UG Chain Compatibility	IG compatible				IG compatible	IG compatible
	Note	stainless steel fasteners					
***Front Derailleur**	Model No.	FD-MC34/FD-MC34-E		FD-MC32		FD-MC14/FD-MC14-B	
	Top-Low Max. Capacity	20T		22T		18T	
	Top-Middle Min. Capacity	10T		10T		8T	
	Top Gear Teeth	42T		42T		42T	
	Clamp Diameter	28.0 – 28.6/31.8/34.9mm		28.0 – 28.6/31.8/34.9mm		28.0 – 28.6/31.8/34.9mm	
	Chain Stay Angle	63 – 66°, 66 – 69°		63 – 66°, 66 – 69°		63 – 66°, 66 – 69°	
	Advanced Light Action	○		○		○	
	Top-Swing Action	○		Ø		○	
	Note	stainless steel fasteners		stainless steel fasteners		stainless steel fasteners	
Rapidfire/ EZ-Fire Plus	Model No.	ST-MC34		ST-MC35		SL-MC37	ST-MC12-C	ST-MC15-C
	Dual SIS Rear	7-speed		7-speed		7-speed	7-speed	7-speed
	Dual SIS Front	triple		triple		triple	triple	triple
	Lever Length	2-finger		3-finger		—	2.5-finger	3-finger
	Optical Gear Display	sliding type (above bar)		sliding type (below bar)		Ø	sliding type (below bar)	sliding type (below bar)
	Note	Rapidfire SL type		Rapidfire Plus type/ bent handlebar available		Rapidfire SL type/ shift lever set only	Rapidfire Plus type	Rapidfire Plus type/ bent handlebar available
EZ-Fire/ Shift/Brake Lever	Model No.	not available				BL-MC16	
	Speeds					–	
	Lever Length					2.5-finger	
	Optical Gear Display					–	
	Note						
Cantilever Brake	Model No.	BR-MC32-E				BR-MC16	BR-MC12-E
	Arm Length	M, L				M	M, L
	Brake Pad Type	M65T				M70T2	M65T
	M-System/Anti-Vibration M-System	Anti-Vibration M-system				Anti-Vibration M-system	Anti-Vibration M-system
	Low-Flex Design	Ø				○	Ø
Crankset	Model No.	FC-MC34/FC-MC34-B				FC-MC16	FC-MC14
	Gearing	42-32-22T				42-34-24T	42-34-24T
	Bolt Circle Diameter	94/58mm				67mm	67mm
	Crank Length	170/175mm				170/175mm	170/175mm
	IG Compatible	○				○	○
	HyperDrive-C	w/SGX-II				w/SGX-II	w/SGX-II
Sealed Cartridge Bottom Bracket	Model No.	BB-UN52/**BB-UN52-E		**BB-LP26-E		BB-LP26	
	Marking/Spindle Length	MM110/110.5mm	LL113/113mm	MM110/110.5mm	LL113/113mm	MM110/110.5mm	LL113/113mm
	Chain Line	47.5mm	50.0mm	47.5mm	50.0mm	47.5mm	50.0mm
	Shell Width	68/70mm	68/70/73mm	68/70mm	68/70/73mm	68/70mm	68/70/73mm
Rear Freehub	Model No.	FH-MC32-S		FH-R050/Roller Clutch Freehub		FH-MC12-P	
	Speeds	7-speed		7-speed		7-speed	
	Over Lock Nut Dimension	130/135mm		130/135mm		130/135mm	
	Spoke Holes	36/32H		36/32H		36/32H	
	QR Lever	aluminum		aluminum		aluminum	
Front Hub	Model No.	HB-MC32-S				HB-MC12-P	
	Over Lock Nut Dimension	100mm				100mm	
	Spoke Holes	36/32H				36/32H	
	QR Lever	aluminum				aluminum	
Cassette Sprocket/ Freewheel	Model No.	CS-IG60				CS-IG50	
	Speeds	7-speed				7-speed	
	IG/HG/UG	IG				IG	
	Group Identification	aj (11-28T), am (11-30T)				aj (11-28T), am (11-30T)	
	Color	chromica				nickel plated	
Chain	Model No.	CN-IG51					CN-IG31
	Type	IG narrow					IG narrow
	Inner Link Finish	barrel polished					dark brown
	Outer Link Finish	nickel plated					barrel polished
	Link Pin	chromizing treatment					standard
Headset	Model No.	HP-MC30		HP-MC31			
	Thread	BC1" × 24T.P.I.		BC1-1/8" × 26T.P.I.			
	Stack Height	37.6mm		37.6mm			

*The E-type front derailleur mounts to the bottom bracket through a support plate and also requires a special boss or clamp adapter on the seat tube.
**E-type bottom bracket is for use with bottom bracket mount front derailleurs.

SHIMANO ACERA-X				SHIMANO ALTUS				Series / Specifications	
RD-M291				RD-CT92		RD-CT91		Model No.	**Rear Derailleur**
7-speed				7 or 6-speed		7 or 6-speed		Speeds	
28T				28T		28T		Max. Sprocket	
11T				11T		11T		Min. Sprocket	
18T max.				18T max.		14T max.		F/Difference	
35T				35T		31T		Total Capacity	
○				○		○		Advanced Light Action	
HG compatible				HG compatible		HG compatible		IG/HG/UG Chain Compatibility	
								Note	
FD-M291				FD-CT92-E		FD-CT90-E		Model No.	**Front Derailleur**
18T				18T		14T		Top-Low Max. Capacity	
8T				8T		6T		Top-Middle Min. Capacity	
42T				42T		38T		Top Gear Teeth	
28.0 – 28.6/31.8mm				28.0 – 28.6/31.8mm		28.0 – 28.6/31.8mm		Clamp Diameter	
63 – 66°, 66 – 69°				63 – 66°, 66 – 69°		63 – 66°, 66 – 69°		Chain Stay Angle	
○				○		○		Advanced Light Action	
○				○		○		Top-Swing Action	
								Note	
ST-M290	ST-M295	ST-EF20	ST-EF25	ST-CT90-7	ST-CT95-7	ST-CT90-6		Model No.	**Rapidfire/ EZ-Fire Plus**
7-speed	7-speed	7-speed		7-speed	7-speed	6-speed	Rear	Dual SIS	
triple	triple	triple		triple	triple	triple	Front		
2.5-finger	3-finger	2.5-finger	short reach	2.5-finger	3-finger	2.5-finger		Lever Length	
digital type	digital type	dial type		dial type	dial type	dial type		Optical Gear Display	
	bent handlebar available	EZ-Fire Plus			bent handlebar available			Note	
SB-M290	SB-M295	SB-CT91	SB-CT95	SB-CT90				Model No.	**EZ-Fire/ Shift/Brake Lever**
rear 7-speed, front triple	rear 7-speed, front triple	rear 7-speed, front triple	rear 7-speed, front triple	rear 7-speed and 6-speed front triple				Speeds	
2.5-finger	3-finger	2.5-finger	3-finger	2.5-finger				Lever Length	
sliding type (below bar)	sliding type (below bar)	sliding type (below bar)	sliding type (below bar)	dial type				Optical Gear Display	
EZ-Fire	EZ-Fire, bent handlebar available	EZ-Fire	EZ-Fire, bent handlebar available					Note	
BR-M290-E		BR-CT91-E		BR-CT90-E				Model No.	**Cantilever Brake**
M, L		M		M, L				Arm Length	
M55T		standard		standard				Brake Pad Type	
M-system		M-system (option)		M-system (option)				M-System/Anti-Vibration M-System	
Ø		Ø		Ø				Low-Flex Design	
FC-M291		FC-CT92		FC-CT91				Model No.	**Crankset**
42-34-24T		42-34-24T		38-32-24T				Gearing	
riveted		riveted		riveted				Bolt Circle Diameter	
170/175mm		170mm		170mm				Crank Length	
Ø		Ø		Ø				IG Compatible	
w/SGX-II		w/SGX-II		w/SGX-II				HyperDrive-C	
BB-LP26		BB-CT91						Model No.	**Sealed Cartridge Bottom Bracket**
MM110/110.5mm	LL113/113mm	YL116/116mm		ZL121/121mm				Marking/Spindle Length	
47.5mm	50.0mm	47.5mm		50.0mm				Chain Line	
68/70mm	68/70/73mm	68/70mm		73mm				Shell Width	
FH-M290		FH-CT90		FH-RM40				Model No.	**Rear Freehub**
7-speed		7-speed		7-speed				Speeds	
130/135mm		130/135mm		130/135mm				Over Lock Nut Dimension	
36/32H		36H		36H				Spoke Holes	
steel		steel		steel				QR Lever	
HB-M290		HB-CT90		HB-RM40				Model No.	**Front Hub**
100mm		100mm		100mm				Over Lock Nut Dimension	
36H		36H		36H				Spoke Holes	
steel		steel		steel				QR Lever	
CS-HG50		CS-HG30-7		CS-HG30-6				Model No.	**Cassette Sprocket/ Freewheel**
7-speed		7-speed		6-speed				Speeds	
HG		HG		HG				IG/HG/UG	
ac (11-28T)		ac (11-28T)		af (11-24T)				Group Identification	
silver		black/silver		black/silver				Color	
CN-HG50				CN-UG50				Model No.	**Chain**
HG narrow				UG				Type	
black				black				Inner Link Finish	
black				black				Outer Link Finish	
chromizing treatment				chromizing treatment				Link Pin	
not available		not available						Model No.	**Headset**
								Thread	
								Stack Height	

TY30-SERIES



TY22-SERIES





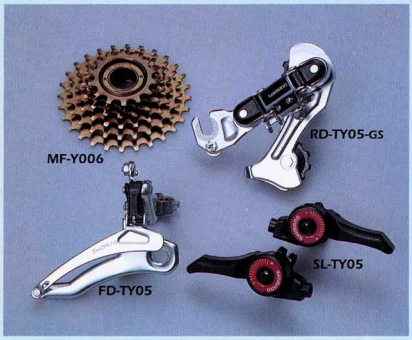


Series	Rear Derailleur	Front Derailleur	Shift Lever
Tourney30	**RD-TY30-7/RD-TY30** ● 7-speed SIS/6-speed SIS ● Max. Sprocket : 28T ● Min. Sprocket : 14T ● Total Capacity : 34T ● Front Difference : 20T	**FD-TY32** ● For Triple Chainrings ● 22T Capacity ● 48T Large Chainring	**ST-EF20/ST-EF25** ● See page 45. **SL-TY37** ● Rear 7-speed, Front 3-speed SIS **SL-TY31** ● Rear 6-speed, Front 3-speed SIS
Tourney22	**RD-TY22-7/RD-TY22-GS/RD-TY22-SS** ● 7-speed SIS/6-speed SIS(GS & SS) ● Max. Sprocket : 28T ● Min. Sprocket : 14T ● Total Capacity : 34T(GS)/28T(SS) ● Front Difference : 20T(GS)/13T(SS)	**FD-TY22-GS/FD-TY22-SS** ● For Triple Chainrings(FD-TY22-GS) ● For Double Chainrings(FD-TY22-SS) ● 22T Capacity(FD-TY22-GS) ● 14T Capacity(FD-TY22-GS) ● 48T Large Chainring	**SL-TY37-R/SL-TY30-L** ● Rear 7-speed, Front 3-speed SIS **SL-TY22** ● Rear 6-speed SIS, Front Friction
Tourney15	**RD-TY15-GS/RD-TY15-SS** ● 5-speed SIS ● Max. Sprocket : 28T ● Min. Sprocket : 14T ● Total Capacity : 34T(GS)/28T(SS) ● Front Difference : 20T(GS)/13T(SS)	**FD-TY15-GS/FD-TY15-SS** ● For Triple Chainrings(FD-TY15-GS) ● For Double Chainrings(FD-TY15-SS) ● 22T Capacity(FD-TY15-GS) ● 14T Capacity(FD-TY15-SS) ● 48T Large Chainring	**SL-TY15** ● Rear 5-speed SIS, Front Friction
Tourney05	**RD-TY05** ● 6-speed ● Max. Sprocket : 28T ● Min. Sprocket : 14T ● Total Capacity : 34T ● Front Difference : 20T	**FD-TY05** ● For Triple Chainrings ● 22T Capacity(FD-TY15-GS)	**SL-TY05** ● Friction

TY15-SERIES



TY05-SERIES



SHIMANO TOURNEY®

New 7-speed systems for Tourney 22 and 30.

- **EZ-Fire Plus**™ Easy, low-effort shifting for both derailleurs.*
- **Optical Gear Display** Instant gear position verification.
- **Advanced Light Action** Low-friction derailleurs.**
- **Rear SIS**® Indexed shifting for rear derailleur.****
- **HG**™ **Sprockets** Smoother and faster rear shifting.**
- **Dual SIS**® Precise indexed shifting front and rear.*
- **Top-Swing**™ **Front Derailleur** Reduced front shifting effort.***
- **Cartridge Bottom Bracket** Easy installation without adjustment.
- **M-system**™ **Brakes** Dependable all weather braking.*
- **Parallax**® **Hub** Oversized hub design for stronger wheels.*

*TY-30 series only
**TY-22/30 series only
***TY-22 series only
****TY-15/22/30 series only

Series	Cantilever Brake	Crankset		Freewheel
Tourney30	BR-TY23/BR-TY22 ● M-System Compatible	FC-TY21/FC-TS21 ● Dual SIS Compatible ● Plastic Spider Cover ● Integral Chain Guard ● 48-38-28T Chainrings BB-CS12 ● Marking : D-NL 122.5mm D-EL 127.5mm ● Chain Line : 47.5mm ● Shell Width : 68/70/73mm (D-NL) 68/73mm (D-EL)	CN-UG50 ● Uni Glide Design	MF-HG37 ● 7-speed HG Sprockets ● 36-group(14-16-18-20-22-24-28T) MF-HG22 ● 6-speed HG Sprockets ● Sprocket Combinations : X-group (14-16-18-20-22-24T) Y-group (14-16-18-21-24-28T) Z-group (14-17-20-24-28-32T)
Tourney22				MF-HG22 ● 6-speed HG Sprockets ● Sprocket Combinations : X-group (14-16-18-20-22-24T) Y-group (14-16-18-21-24-28T) Z-group (14-17-20-24-28-32T)
Tourney15				MF-Z015 ● 5-speed UG Sprockets ● Sprocket Combinations : Two Groups Available (14-17-19-21-24T/14-17-20-24-28T)
Tourney05				MF-Y006 ● 6-speed UG Sprockets ● Sprocket Combination : 14-15-17-20-24-28T


COPPI
EPINERGY

Developed for the Competitive Edge.

The all new Dura-Ace component system leads the 1997 Shimano road group line-up. Dura-Ace is ligter and more powerful than ever with a 9-speed cassette and sculpted alloy components with light weight titanium hardware. Shimano road groups are still at the head of the peloton.

		Dual Control Lever	Cassette Type	Chainwheel	Dual SIS®	Aluminum Alloy Sprocket Carrier	Brakes	
DURA-ACE	 Pro Racer	○	9-speed	double	○	○	Super SLR	page 50
SHIMANO600 ULTEGRA	 Hard Core Cyclist	○	8-speed	double			Super SLR	page 54
SHIMANO105 SC	 Enthusiast Cyclist	○	8-speed	Triple or double	○		Super SLR	page 56
SHIMANO RX100	 Advanced Recreational Cyclist	○	8-speed	Triple or double	○		Super SLR	page 57
SHIMANO RSX	 Intermediate Recreational Cyclist	○	7-speed	Triple or double	○		M-System	page 58
EXAGE 300EX	 Novice Recreational Cyclist		7-speed	double			SLR	page 58


DURA-ACE
DURA-ACE



DURA-ACE®

The New Dura-Ace system has been completely re-designed to provide even greater strength and durability. Not only that, the group weighs over 500 grams less than before– that's the equivalent of a full water bottle. New Dura-Ace's 9-speed drivetrain provides more mid-range gearing that improves cadence control and reduces stress. Every component has been painstakingly developed to deliver a higher level of operating precision.

New Dura-Ace– it's the strategic weapon in the racer's arsenal.

ST-7700
Dual Control Lever

- New 9-speed compatible Dual Control Lever.
- Precision main lever bearing provides a smoother action and reduced shifting effort.
- Anatomically designed bracket relieves stress.
- Levers are positioned closer to the bar, release lever is longer for easier operation.
- In-line cylindrical Optical Gear Display
- Engineering plastics in bracket and non-visible areas reduce weight by 100g (pair).
- Low-mass aluminum alloy lever and mechanisms reduce weight.

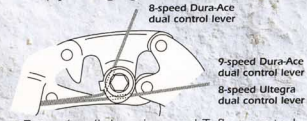




■ **Down tube shift levers (SL-7700) and bar end shifters (SL-BS77) also available.**

RD-7700
Rear Derailleur

- High-precision action for 9-speed system.
- Can be used with 8-speed freehubs by simply changing cable mount position.



- Extension link spring and Teflon coated pivots provide a lighter shifting action.
- 11-tooth pulleys wear more evenly and run quieter.
- Zytel plastic reduces pulley weight and chain noise.
- New lightweight designs used throughout.



CS-7700
Cassette Sprockets

- Reduced cog spacing makes 9-speed sprocket cluster same width as 8-speed type.
- HG sprockets with new chamfering patterns improve shifting performance.
- Aluminum alloy sprocket carrier reduces weight while increasing rigidity and precision.
- Titanium lower sprockets and low-mass sprocket configuration reduce overall weight.
- Cassette cluster weighs 98.5g less than previous 8-speed type (12-23T).
- 11 through 15-teeth sprockets are combined with sprocket carrier types to reduce sprocket variations.



CN-7700
Chain

- New narrow design specifically for 9-speed system.
- External chain width has been reduced 0.7mm with minimal effect on inner link spacing.
- Tighter tolerances improve 9-speed shifting performance.



SL-7700



SL-BS77



BL-7402

Pro Racer

DURA-ACE

The strategic weapon in the racer's arsenal

DUAL CONTROL LEVER
OPTICAL GEAR DISPLAY
ADVANCED LIGHT ACTION
REAR SIS
9-SPEED HG
HG SPROCKETS
ALLOY SPROCKET CARRIER
FREEHUB
DUAL SIS
SUPER SLR
CARTRIDGE HEADSET
SPD

FD-7700
Front Derailleur

- Nickel plated aluminum alloy chain cage reduces weight.
- Widened chain cage mounting points increase rigidity for more precise shifting.
- Chain cage designed specifically for use with SG-X chainrings.



FC-7700
Crankset

BB-7700
Bottom Bracket



- Hollow crank arms and pipe billet B.B. spindle reduce weight by 64g over previous crankset.
- Use of both ball and needle bearings increases spindle rigidity, splined crank arm mount increases joint strength.
- High-strength Super Duraluminum crank arms.
- Nickel plating extends chainring service life.
- Large chainring has new spike design for use with 9-speed chain.
- 53-42T, 53-39T, and 52-39T SG-X chainrings available.
- Crank arm length from 165 to 180mm in 2.5mm increments.
- Reinforcing ribs allow a narrower crank spider.



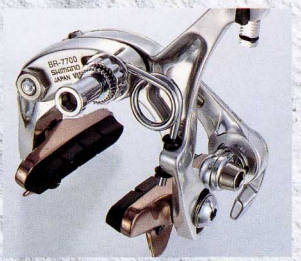
FH-7700
Freehub®

HB-7700
Front Hub

- High-precision tolerances, low friction contact sealing, and improved grease formula reduce rolling resistance.
- Stainless steel balls and Borozon polished provide a smoother action.
- Bearings are protected by contact and labyrinth seals.
- Titanium freewheel body and aluminum alloy QR reduce weight.
  - Aluminum alloy axle in front hub.
  - New QR cam makes operation easier.

■ **Aero-type hubs also available.**

BR-7700
Dual Pivot Brake Caliper



- Compact caliper arms and pads increase rigidity for more braking power and better response.
- Large coil caliper spring provides a lighter lever action.
- Stronger, more dependable braking from new compound, pads last up to 3 times longer.
- Low-mass design reduces caliper weight by 112.5g.
- Tapered pad holder makes pad changing easier.



Specifications for Dura-Ace are listed from pages 60 to 65.



PD-7410



SP-7410



HP-7410

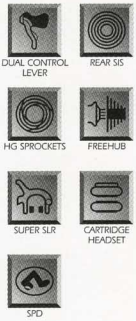


HS-7400


SP-6400
HP-6500
BB-UN72
FH-6402
BL-6403
HB-6400
FC-6400
SL-BS64-8
CS-HG90-8
SL-6401
CN-HG90
SM-SP17
PD-6500
RD-6401
FD-6401
BR-6403
ST-6400

SHIMANO600 ULTEGRA®

Proven racing components in a stylish package.



ST-6400
Dual Control Lever

- 8-speed, double chainwheel compatible.
- High-performance shifting and braking from the same lever.
- Shift both derailleurs with hands on bars.

RD-6401
Rear Derailleur

- 8-speed rear derailleur with aluminum alloy parallelogram links and pulley cage for reduced weight.
- Ceramic bushing guide pulley, sealed sintered alloy bushing in tension pulley reduce friction.
- O-ring sealing at hanger and pulley cage brackets extends service life.

CS-HG90-8
Cassette Sprockets

- Fast-shifting HG cassette sprockets.
- Five sprocket groupings available (S,T,U,V,W).



FH-6402
Freehub®

- 8-speed freehub reduces rim offset and axle flex.
- Double contact sealing extends service life.

FD-6402
Front Derailleur

- Double chainwheel type front derailleur.
- Lightweight design - inner and outer links of aluminum alloy.
- Adjustable spring for setting shifting tension.

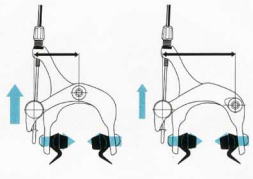
FC-6400
Crankset

- 53-42T and 52-42T round SG-type chainrings available.
- Crank arm lengths from 165 to 175mm in 2.5mm increments.
- BB-UN72 cassette bottom bracket features chain line stabilizer for accurate crank alignment.

BR-6403
Dual Pivot Caliper Brake

- Strong stopping power from Super SLR Dual Pivot caliper.
- Coated pivot washer on Y-arm and thrust bearing on C-arm provide smooth low friction caliper action.

Single vs. Dual Pivot Caliper



Shorter pivot-cable distance results in less brake application leverage.

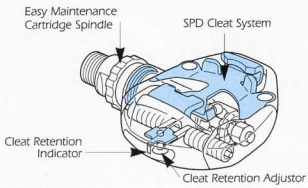
Longer pivot-cable distance increases leverage and braking power.

HP-6400
Headset

- Permanently greased cassette bearings and rubber O-ring sealing extend service life.
- Cassette unit design makes installation fast and easy.
- Self aligning design compensates for fluctuations in head tube facings.

PD-6500
SPD® Pedal

- Compact sport-competition pedal with 34° of road clearance.
- Similar performance to PD-7410 pedal at reduced cost.
- Adjustable cleat binding tension with indicator.
- Choose between fixed or self aligning cleats.



Specifications for ULTEGRA are listed from pages 60 to 65.


HB-1055
BB-UN52
BL-1055
FH-1056
PD-A525
CS-HG70-8
FC-1056
SM-SP17
HP-1055
CN-HG70
SL-1056-8
RD-1056
FD-1056
BR-1055
ST-1055

Enthusiast Cyclist

SHIMANO 105® SC

High-performance road groups for sport, fitness, and recreation.

DUAL CONTROL LEVER
REAR SIS
HG SPROCKETS
FREEHUB
DUAL SIS
SUPER SLR
SPD

ST-1055/ST-A550
Dual Control Lever

- Hands-on-bars shifting and braking from the same lever.
- 8-speed rear, double front chainwheel compatible.
- ST-1055-T model available for triple chainwheels.



RD-1056 / RD-A551
Rear Derailleur

- 7 or 8-speed compatible rear derailleur.
- Outer link of aluminum alloy reduces weight.
- Pulleys feature sintered alloy bushings for smooth-low-friction chain running.

CS-HG70-8
Cassette Sprockets

- Smooth-shifting HG cassette sprockets available in both 7- and 8-speed groupings.
- Five 8-speed groupings (S,T,U,V,W) and six 7-speed groupings (E,H,I,J,L,M) available.



FH-1056/FH-A551
Freehub®

- 8-speed freehubs - FH-1055 and FH-A550 types also available for use with 7-speed cassette sprockets.
- Efficient single contact sealing keeps out dust and dirt.

FD-1056/FD-A551
Front Derailleur

- Double-chainwheel front derailleurs - FD-1057 and FD-A553 available for triple chainwheels.
- Dual SIS indexed chainwheel shifting.
- Aluminum alloy outer link reduces weight.

FC-1056/FC-A551
Crankset

- Three double SG-X chainwheel types (53-42T, 53-39T, 52-42T) with FC-1057 and FC-A550 triples (52-42-30T) also available.
- FC-1056 crank arm available in lengths from 165 to 175mm in 2.5mm increments, FC-A551 crank arm in 165, 170, and 175mm lengths (triple cranks in 170 or 175mm lengths).
- BB-UN52 cassette bottom bracket features chain line stabilizer for accurate crank alignment.



BR-1055/BR-A550
Dual Pivot Caliper Brake

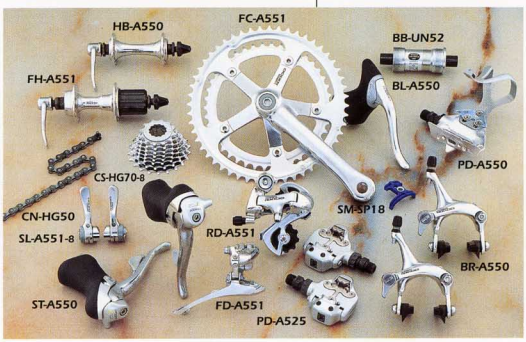
- Strong stopping power from Dual Pivot Super SLR design.
- Coated pivot washer on Y-arm and thrust bearing on C-arm provide smooth low friction caliper action.

PD-A525
SPD® Pedal

- Compact sport-recreation pedal with 31° of road clearance.
- Adjustable cleat binding tension with indicator.

Advanced Recreational Cyclist

SHIMANO RX100



Specifications for 105 SC / RX100 are listed from pages 60 to 65.



Novice
Recreational Cyclist

EXAGE
300EX



SHIMANO RSX®

Racing-type components that offer great performance and value

DUAL CONTROL LEVER
OPTICAL GEAR DISPLAY
ADVANCED LIGHT ACTION
REAR SIS
HG SPROCKET
FREEHUB
DUAL SIS
TOP SWING FD
HYPERDRIVE
M-SYSYTEM BRAKES

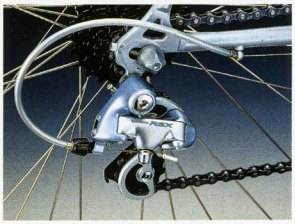
ST-A410
Dual Control Lever

- Keep your hands on the bars by shifting and braking from the same lever.
- 7-speed rear, double or triple chainwheel compatible.
- Optional optical gear display unit available.



RD-A410
Rear Derailleur

- 7-speed SIS rear derailleur.
- Sintered alloy pulley bushings provide smooth, low-friction chain running.



CS-HG70-7
Cassette Sprockets

- Smooth shifting 7-speed HG sprockets.
- Six different sprocket groupings available (E,H,I,J,L,M).

FH-A410
Freehub®

- 7-speed freehub for a stronger rear wheel.
- Single contact sealing keeps out dust and dirt.

FD-A410
Front Derailleur

- Compatible with double or triple chainwheels.
- Dual SIS indexed shifting.
- Top-swing design for easier shifting. action.



FC-A410
Crankset

- Sport ratio type 46-36T SG-X double crankset, triple FC-A413 SG-X model also available (46-36-26T).
- Crank lengths available in 170 or 175mm.
- BB-UN52 cassette bottom bracket features chain line stabilizer for accurate crank alignment.

BR-A410
Dual Pivot Caliper Brake

- Dual Pivot design for stronger stopping power.
- M-System pads for all-weather dependability.



Specifications for RSX / 300EX are listed from pages 60 to 65.

■ ROAD COMPONENTS - FEATURES & SPECIFICATIONS

Specifications \ Series		DURA-ACE		600 ULTEGRA		SHIMANO 105-SC		
Rear Derailleur	Model No.	RD-7700		RD-6401		RD-1056-SS		RD-1056-GS
	Advanced Light Action	○		Ø		Ø		Ø
	No. of Sprockets	9-speed or 8-speed		8-speed		8-speed		8-speed
	Max. Sprocket	26T		28T		28T		28T
	Min. Sprocket	11T		12T		12T		11T
	Front Difference	14T max.		13T max.		13T max.		22T max.
	Total Capacity	26T		28T		28T		36T
	Parallelogram Spring Adjuster	Ø		○		○		○
	Guide Pulley Pivot	bearing		ceramic (sealed)		sintered aluminum		sintered aluminum
	Tension Pulley Pivot	bearing		sintered aluminum (sealed)		sintered aluminum		sintered aluminum
	11T Pulley	○		Ø		Ø		Ø
	Hanger Bracket	cold forged aluminum/anodized		aluminum/dark gray painted		aluminum/painted		aluminum/painted
	Hanger Bracket Pivot Seal	double O-ring		double O-ring		Ø		Ø
	Pulley Cage Bracket	cold forged aluminum/anodized		aluminum/dark gray painted		aluminum/painted		aluminum/painted
	Pulley Cage Pivot Seal	double O-ring		O-ring		Ø		Ø
	Outer Link	cold forged aluminum/anodized		aluminum/silver painted		aluminum/painted		aluminum/painted
	Inner Link	cold forged aluminum/anodized		aluminum/painted		steel/pearl bright finish		steel/pearl bright finish
	Sealed Link Pins	stainless steel (4-sealed)		stainless steel (4-sealed)		outer link (2-sealed)		outer link (2-sealed)
	Link Pin Bushings	Teflon™ coating (4)		hard brass (4)		hard brass (3)		hard brass (3)
	Outer Pulley Cage	cold forged aluminum/anodized		aluminum/anodized		aluminum/polished		aluminum/polished
	Inner Pulley Cage	aluminum/anodized		aluminum/polished		steel/pearl bright finish		steel/pearl bright finish
	Weight	192.5g		215g		247g		
Front Derailleur	Model No.	FD-7700-B	FD-7700-F	FD-6401-B	FD-6401-F	FD-1056-B	FD-1056-F	FD-1057
	Advanced Light Action	Ø	Ø	Ø	Ø	Ø	Ø	Ø
	Dual SIS	○	○	Ø	Ø	○	○	○
	Top-Swing Action	Ø	Ø	Ø	Ø	Ø	Ø	Ø
	Replaceable Chain Cage	○	○	Ø	Ø	Ø	Ø	Ø
	Adjustable Return Spring	Ø	Ø	○	○	Ø	Ø	Ø
	Capacity	15T	15T	14T	14T	15T	15T	22T (triple use)
	Link Bushing	upper & lower AB-pins	upper & lower AB-pins	lower A-pin	lower A-pin	lower A-pin	lower A-pin	lower A-pin
	O-ring Seals	○	○	Ø	Ø	Ø	Ø	Ø
	Spring Cover	○	○	○	○	Ø	Ø	Ø
	Chain Stay Angle	61 – 66°	61 – 66°	61 – 66°	61 – 66°	61 – 66°	61 – 66°	63 – 66°
	Mounting	band	brazed-on	band	brazed-on	band	brazed-on	band
	Band Diameter	28.0 - 28.6mm	—	28.0 – 28.6mm	—	28.0 – 28.6mm	—	28.0 – 28.6/31.8mm
	Band/Brazed-On Clamp	forged aluminum/anodized		aluminum/gray painted	aluminum/gray painted	aluminum/painted	aluminum/painted	aluminum/painted
	Outer Link	forged aluminum/anodized		aluminum/silver painted	aluminum/silver painted	aluminum/painted	aluminum/painted	aluminum/painted
	Inner Link	forged aluminum/anodized		aluminum	aluminum	die cast zinc	die cast zinc	die cast zinc
	Chain Cage	aluminum/nickel plated	aluminum/nickel plated	steel/chrome plated	steel/chrome plated	steel/chrome plated	steel/chrome plated	steel/chrome plated
	Weight		72.5g	107g		105g		
Dual Control Lever	Model No.	ST-7700		ST-6400		ST-1055		ST-1055-T
	Optical Gear Display	○ (rear)		Ø		Ø		Ø
	Rear	9-speed		8-speed		8-speed		—
	Front	double		double		double		triple
	Max. Single-Stroke Shifts	3 (rear)		3 (rear)		3 (rear)		—
	Handle Bar Dia.	23.8 – 24.2mm		23.8 – 24.2mm		23.8 – 24.2mm		23.8 – 24.2mm
	Bracket	engineering plastic		aluminum/polished		aluminum/painted		aluminum/painted
	Levers	aluminum/anodized		aluminum/painted		aluminum/painted		aluminum/painted
	Shift Cable Casing	SIS-SP40		SIS-SP40		SIS-SP40		SIS-SP40
	Shift Cable	stainless steel		stainless steel		stainless steel		stainless steel
	Brake Cable Casing	SLR outer		SLR outer		SLR outer		SLR outer
	Brake Cable	stainless steel		stainless steel		stainless steel		stainless steel
	Weight	380g (pair)		542g (pair)		495g (pair)		
Shift Lever	Model No.	SL-7700	SL-BS77	SL-6401	SL-BS64-8	SL-1056-8	SL-1055-7	SL-BS50-7
	Light Action Lever (F)	○	○	○	○	○	○	○
	No. of Speeds	9-speed	9-speed	8-speed	8-speed	8-speed	7-speed	7-speed
	Mount Position	down tube	bar end	down tube	bar end	down tube	down tube	bar end
	Tube Diameter	brazed-on	—	brazed-on	—	brazed-on	brazed-on	19.0 – 22.0mm (inside)
	Material	aluminum/polished	aluminum/polished	aluminum/gray painted	aluminum/gray painted	aluminum/painted	aluminum/painted	aluminum/painted
	Shift Cable Casing	SIS-SP40	SIS-SP40	SIS sealed	SIS-SP sealed	SIS sealed	SIS sealed	SIS-SP
	Weight			67g	180g	70g	70g	183g

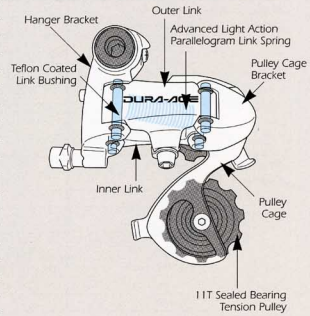
SHIMANO RX-100			SHIMANO RSX		SHIMANO 300EX
RD-A551	**RD-A550-GS**		**RD-A410-SS**	**RD-A410-GS**	**RD-A300**
Ø	Ø		○	○	Ø
8-speed	7-speed		7-speed	7-speed	7-speed
28T	30T		28T	28T	28T
12T	12T		11T	11T	12T
13T max.	20T max.		13T max.	20T max.	13T max.
28T	36T		28T	36T	28T
○	○		Ø	Ø	Ø
sintered aluminum	sintered aluminum		sintered aluminum	sintered aluminum	sintered aluminum
sintered aluminum	sintered aluminum		sintered aluminum	sintered aluminum	sintered aluminum
Ø	Ø		Ø	Ø	Ø
aluminum/polished	aluminum/polished		aluminum/painted	aluminum/painted	aluminum
Ø	Ø		Ø	Ø	Ø
aluminum/polished	aluminum/polished		aluminum/painted	aluminum/painted	aluminum & resin
Ø	Ø		Ø	Ø	Ø
aluminum/polished	aluminum/polished		steel/polished	steel/polished	steel/painted
steel/pearl bright finish	steel/pearl bright finish		steel/painted	steel/brack	steel/painted
outer link (2-sealed)	outer link (2-sealed)		Ø	Ø	Ø
hard brass (3)	hard brass (3)		Ø	Ø	Ø
steel/pearl bright finish	steel/pearl bright finish		steel/pearl bright finish	steel/pearl bright finish	steel/zinc plated
steel/pearl bright finish	steel/pearl bright finish		steel	steel/brack	steel
302g					282g

FD-A551-B	FD-A551-F	FD-A513	FD-A410	FD-A300-B
Ø	Ø	Ø	○	Ø
○	○	○	○	Ø
Ø	Ø	Ø	○	Ø
Ø	Ø	Ø	Ø	Ø
Ø	Ø	Ø	Ø	Ø
15T	15T	26T (triple use)	20T (double & triple use)	14T
lower A-pin	lower A-pin	lower A-pin	Ø	Ø
Ø	Ø	Ø	Ø	Ø
Ø	Ø	Ø	Ø	Ø
61 – 66°	61 – 66°	63 – 66°	61 – 66° (double)/63 – 66° (triple)	61 – 66°
band	brazed-on	band	band	band
28.0 – 28.6mm	—	28.0 – 28.6mm	28.0 – 28.6/31.8mm	28.0 – 28.6mm
aluminum/polished	aluminum/polished	aluminum/polished	aluminum/painted	steel/pearl bright finish
aluminum/polished	aluminum/polished	aluminum/polished	aluminum/polished	steel/zinc plated
die cast zinc	die cast zinc	die cast zinc	steel	steel
steel/chrome plated	steel/chrome plated	steel/chrome plated	steel/chrome plated	steel/chrome plated
105g		121g		

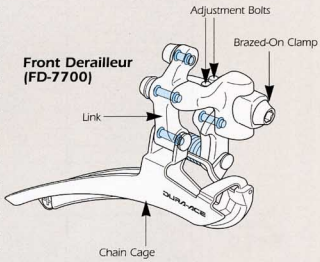
ST-A550	ST-A410	not available
Ø	○ (optional)	
8-speed	7-speed	
double	double/triple	
3 (rear)	3 (rear)	
23.8 – 24.2mm	23.8 – 24.2mm	
aluminum/polished	aluminum/polished	
aluminum/polished	aluminum/violet-silver painted	
SIS-SP40	SIS-SP40	
steel	steel	
SLR outer	M-system outer	
steel	steel	
495g (pair)		

SL-A551-FCAI	SL-A550-FCAI	SL-A550-T	SL-A410	SL-A400
○	○	○	○	○
8-speed	7-speed	7-speed/triple	7-speed	7-speed
down tube	down tube	down tube	down tube	down tube
brazed-on	brazed-on	brazed-on	brazed-on	28.6mm or brazed-on
aluminum/polished	aluminum/polished	aluminum/polished	aluminum/pearl bright finish	aluminum/barrel finish
SIS	SIS	SIS	SIS	SIS
70g				76g

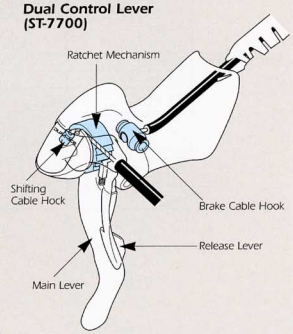
Rear Derailleur (RD-7700)



Front Derailleur (FD-7700)



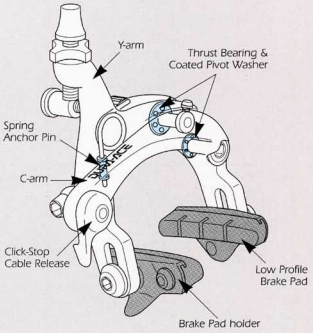
Dual Control Lever (ST-7700)



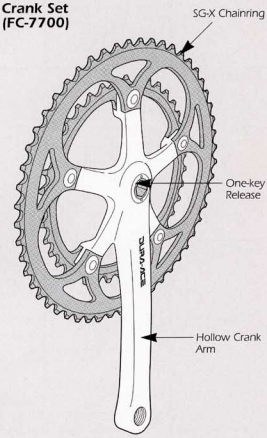
Specifications \ Series		DURA-ACE	600 ULTEGRA	SHIMANO 105-SC	
Aero Brake Lever	Model No.	**BL-7402**	**BL-6403**	**BL-1055**	
	Return Spring (SLR)	○	○	○	
	Bar Diameter	23.8 – 24.2mm	23.8 – 24.2mm	23.8 – 24.2mm	
	Lever Stroke	88mm	84mm	84mm	
	Brake Cable Casing	SLR outer	SLR outer	SLR outer	
	Lever	aluminum/anodized	aluminum/painted	aluminum/painted	
	Bracket	aluminum/chrome plated	aluminum	aluminum	
	Bracket Cover	black or white	black or white	black, white, or gray	
	Weight	240g (pair)	272g (pair)	252g (pair)	
Brake Caliper	Model No.	**BR-7700**	**BR-6403**	**BR-1056**	
	Type	Super SLR dual pivot	Super SLR dual pivot	Super SLR dual pivot	
	Reach	49mm	49mm	49mm	57mm
	Pads	low profile/w holder	low-profile w/holder	one-piece	
	Detatchable Pads	○	○	Ø	
	Caliper	cold forged aluminum/anodized	forged aluminum/painted	forged aluminum/painted	
	C-Arm Pivot	coated pivot washer & thrust bearing	coated pivot washer	coated pivot washer & thrust bearing	
	Y-Arm Pivot	coated pivot washer & thrust bearing	thrust bearing	Ø	
	Weight	307.5g	423g (F&R)	360g (F&R)	
Crankset	Model No.	**FC-7700**	**FC-6400**	**FC-1056**	**FC-1057**
	HyperDrive	○	Ø	○	○
	Dual SIS	○	Ø	○	○
	CN-7700 Compatible	○	Ø	Ø	Ø
	Hollow Crank Arm	○	Ø	Ø	Ø
	One-Key Release	○	Ø	Ø	Ø
	Reinforced Spider	○	Ø	Ø	Ø
	Number of Teeth	53-42T/53-39T/52-39T	53-42T/52-42T (SG)	53-42T/53-39T/52-42T	52-42-30T
	Bolt Circle Diameter	130mm	130mm	130mm	130/74mm
	Crank Arm Length	165/167.5/170/172.5/175/177.5/180mm	165/167.5/170/172.5/175mm	165/167.5/170/172.5/175mm	170/175mm
	Crank Arms	forged aluminum/anodized	aluminum/anodized	aluminum/painted	aluminum/painted
	Crank Fixing Bolts	stainless steel	chrome-moly steel	chrome-moly steel	stainless steel
	Chainrings	aluminum/nickel plated	aluminum/anodized	aluminum/anodized	aluminum/anodized
	Weight	579g (175mm/53-39T)	650g (170mm/52-42T)	686g (170mm/52-42T)	
Bottom Bracket	Model No.	**BB-7700**	**BB-UN72**	**BB-UN52**	
	Crankset	FC-7700	FC-6410	FC-1056	FC-1057
	Pipe Billet Spindle/Serration Mounting	○	Ø	Ø	Ø
	Chainline Stabilizer	○	○	○	○
	Chainline	43.5mm	43.5mm	43.5mm	45mm
	B.B. Shell Width	68/70mm	68/70mm	68/70mm	68/70mm
	Marking	—	D-H	MM108	XL118
	Spindle Length	109.5mm	115mm	107mm	118mm
	Spindle Material	chrome-moly steel	hollow chrome-moly steel	chrome-moly steel	chrome-moly steel
	Adaptor	aluminum	aluminum	steel	steel
	Weight	173g (B.B.shell width 68mm)	272g	427g	415g
Front Hub	Model No.	**HB-7700**	**HB-6400**	**HB-1055**	
	Over Locknut	100mm	100mm	100mm	
	Axle Length	108mm	108mm	108mm	
	Spoke Holes	36/32/28/24 | 32/28/24/18/16/12 (aero type)	36/32/28	36/32	
	Spoke Hole Circle	38mm	38mm	38mm	
	Sealings	labyrinth and contact seals	double contact seals	single contact seal	
	Stainless Steel Balls	○	Ø	Ø	
	Hub Shell	cold forged aluminum/anodized	forged aluminum	forged aluminum/anodized	
	Weight	177.5g	212g	228g	

SHIMANO RX-100		SHIMANO RSX		SHIMANO 300EX
BL-A550		**BL-A410**		**BL-A251**
○		○		○
23.8 – 24.2mm		23.8 – 24.2mm		23.8 – 24.2mm
84mm		84mm		88mm
SLR outer		M-system outer		SLR outer
aluminum/anodized		aluminum/polished		aluminum/polished
aluminum		aluminum		steel/zinc plated
black or white		black		black or white
252g				310g
BR-A551		**BR-A410**		**BR-A250**
Super SLR dual pivot		M-system dual pivot		SLR single pivot side pull
49mm or 57mm		49mm		49mm or 57mm
one-piece		one-piece		one-piece
Ø		Ø		Ø
forged aluminum/anodized		forged aluminum/polished		forged aluminum/polished
coated pivot washer & thrust bearing		Ø		Ø
Ø		Ø		Ø
348g (F&R)				
FC-A551	**FC-A550-T**	**FC-A410**	**FC-A413**	**FC-A300**
○	Ø	○	○	Ø
○	Ø	○	○	Ø
Ø	Ø	Ø	Ø	Ø
Ø	Ø	Ø	Ø	Ø
Ø	Ø	Ø	Ø	Ø
Ø	Ø	Ø	Ø	Ø
53-42T/53-39T/52-42T	52-42-30T	46-36T	46-36-26T	52-42T
130mm	130/74mm	110/74mm	110/74mm	130mm
165/170/175mm	170/175mm	170/74mm	170/74mm	170/175mm
aluminum/mirror polished	aluminum/mirror polished	aluminum/mirror polished	aluminum/mirror polished	aluminum/polished
chrome-moly steel	chrome-moly steel	stainless steel	stainless steel	steel
aluminum & steel	aluminum & steel	aluminum & steel	aluminum & steel	steel/painted
686g (170mm/52-42T)		690g (170mm)	788g (170mm)	
BB-UN52		**BB-LP26**		**BB-CS12**
FC-A551	FC-A550-T	FC-A410	FC-A413	FC-A300
Ø	Ø	Ø	Ø	Ø
○	○	○	○	Ø
43.5mm	45mm	43.5mm	45.0mm	43.5mm
68/70mm	68/70mm	68/70/73mm	68/70/73mm	68/70mm
MM107	D-NL	MM110	XL118	D-H
107mm	122.5mm	110.5mm	118mm	115mm
chrome-moly steel	chrome-moly steel	chrome-moly steel	chrome-moly steel	chrome-moly steel
steel	steel	resin	resin	resin
427g	415g			
HB-A550		**HB-A410**		**HB-RM50**
100mm		100mm		100mm
108mm		108mm		108mm
36/32		36/32		36/32
38mm		38mm		38mm
single contact seal		single contact seal		single contact seal
Ø		Ø		Ø
aluminum/mirror polished		aluminum/dia cut		aluminum/dia cut
202g		199g		235g

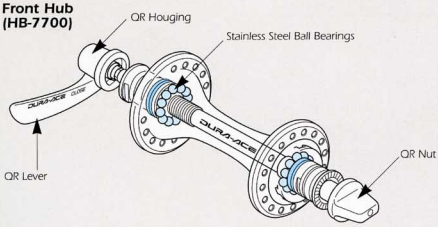
Dual Pivot Brake Caliper (BR-7700)



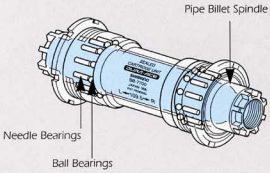
Crank Set (FC-7700)



Front Hub (HB-7700)



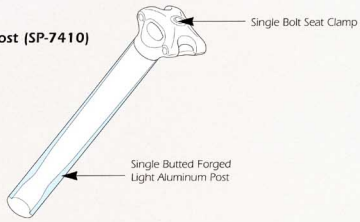
Bottom Bracket (BB-7700)



Specifications \ Series		DURA-ACE			600 ULTEGRA		SHIMANO 105-SC	
Rear Freehub	Model No.	**FH-7700**			**FH-6402**		**FH-1056**	**FH-1055**
	No. of Sprockets	9-speed & 8-speed			8-speed		8-speed	7-speed
	Over Locknut	130mm			130mm		130mm	126mm
	Axle Length	141mm			141mm		141mm	137mm
	Spoke Holes	36/32/28/24	28/24/16/12 (aero type)		36/32/28		36/32	36/32
	Spoke Hole Circle	44mm			45mm		45mm	45mm
	Sealings	labyrinth and contact seals			double contact seals		single contact seal	single contact seal
	Stainless Steel Balls	○			Ø		Ø	Ø
	Hub Shell	cold forged aluminum/anodized			forged aluminum/anodized		forged aluminum/anodized	forged aluminum/anodized
	Weight	375g			428g		427g	415g
Cassette Sprockets	Model No.	**CS-7700**			**CS-HG90-8**		**CS-HG70-8**	**CS-HG70-7**
	Speeds	9-speed			8-speed		8-speed	7-speed
	Group Identification	—			S, T, U, V, W		S, T, U, V, W	E, H, I, J, L, M
	Color	champagne gold & Ti-silver			chrome plated		silver	silver
	Weight	159.5g (12-23T)			250g		278g (U group)	
Chain	Model No.	**CN-7700**			**CN-HG91**	**CN-HG90**	**CN-HG70**	
	Type	HG narrow			HG narrow	HG narrow	HG narrow	
	Inner Link Color	nickel plated			gray	black	gray	
	Outer Link Color	nickel plated			silver	silver	black	
	Weight	304g (116 links)			335g (114 links)	335g (114 links)	335g (114 links)	
Headset	Model No.	**HP-7410**			**HP-6500**		**HP-1055**	
	Sealed Cartridge Bearings	○			○		Ø	
	Thread	BC 1" × 24 T.P.I.			BC 1" × 24 T.P.I.		BC 1" × 24 T.P.I.	
	Stack Height	37.6mm			37.6mm		32.7mm	
	Locknut	aluminum			aluminum		aluminum w/stem seal	
	Upper/Lower Cups	aluminum			aluminum		composite	
	Upper Stem Cone	aluminum			aluminum		composite	
	Stem Cone	aluminum			steel		steel	
	Weight	101g			109g		101g	
Pedal	Model No.	**PD-7410***			**PD-6500***		**PD-A525**	
	Type	SPD			SPD		SPD	
	Road Clearance	36°			34°		31°	
	Cartridge Bearing Spindle	○			○		○	
	Cleat Retention Indicator	○			○		○	
	Cleat Retention Adjuster	○			○		○	
	Spindle Thread	BC 9/16" × 20 T.P.I.			BC 9/16" × 20 T.P.I.		BC 9/16" × 20 T.P.I.	
	Spindle	nickel chrome-moly steel			chrome-moly steel		chrome-moly steel	
	Body	aluminum/anodized			aluminum/polished		aluminum/white or silver painted	
	Weight	317g			348g		390g	
Seat Post	Model No.	**SP-7410**	**SP-7400-A**	**SP-7400-B**	**SP-6400-A**	**SP-6400-B**		
	Post Type	round	round	oval	round	oval		
	Easton Tubing	○	Ø	Ø	Ø	Ø		
	Outer Dia. (mm)	26.8/27.0/27.2	25.0/25.8/26.4/26.6/26.8/27.0/27.2/27.4	25.0/25.8/26.0/26.2/26.4/26.6/26.8/27.0/27.2/27.4	25.0/25.8/26.0/26.6/26.8/27.0/27.2	25.0/25.8/26.0/26.6/26.8/27.0/27.2		
	Length	270mm	205mm	205mm	205mm	205mm		
	Material	thin wall aluminum	aluminum	aluminum	aluminum	aluminum		
	Weight	195g	224g	224g		286g		
Handle Bar Stem	Model No.	**HS-7400**			**HS-6400**			
	Stem Dia.	22.2mm			22.2mm			
	Bar Clamp Dia.	25.4/26.0mm			25.4/26.0mm			
	Extension	70/80/90/100/110/120/130mm			70/80/90/100/110/120/130mm			
	Weight	280g (100mm ext.)			286g (100mm)			

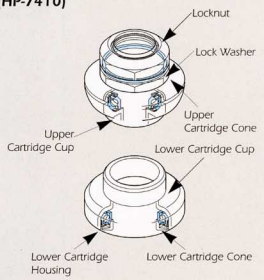
*The PD-7410 and PD-6500 SPD pedals feature fixed or self aligning cleat retention. Choose the appropriate type cleat for the desired retention mode.

Seat Post (SP-7410)

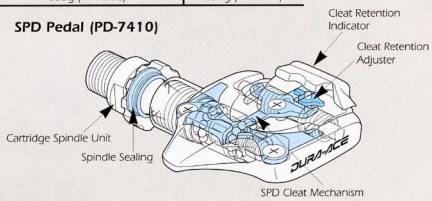


SHIMANO RX-100		SHIMANO RSX		SHIMANO 300EX
FH-A551-HG	**FH-A550**	**FH-A410**		**FH-HG50**
8-speed	7-speed	7-speed		7-speed
130mm	126mm	130mm	126mm	126mm
141mm	137mm	141mm	137mm	137mm
36/32	36/32	36/32		36/32
45mm	45mm	45mm		45mm
single contact seal	single contact seal	single contact seal		Ø
Ø	Ø	Ø		Ø
aluminum/mirror polished	aluminum/mirror polished	aluminum/dia cut		aluminum/dia cut
427g	420g			
CS-HG70-8	**CS-HG70-7**	**CS-HG70-7**		**CS-HG50-7**
8-speed	7-speed	7-speed		7-speed
S, T, U, V, W	E, H, I, J, L, M	ai (11-12-14-16-18-21-24)		E, H, I, J, L, M
silver	silver	black		brown/silver low gear
278g (U group)				
CN-HG70		**CN-HG50**		**CN-HG50**
HG narrow		HG narrow		HG narrow
gray		black		black
black		black		black
335g (114 links)		335g (114 links)		335g (114 links)
HP-1055				
Ø				
BC 1" x 24 T.PI.				
32.7mm				
aluminum w/stem seal				
composite				
composite				
steel				
101g				
PD-A525	**PD-A550**			
SPD	toe clip			
31°	32°			
○	○			
○	—			
○	—			
BC 9/16" x 20 T.PI.	BC 9/16" x 20 T.PI.			
chrome-moly steel	chrome-moly steel			
aluminum/white or silver painted	aluminum			
390g	407g			

Cartridge Headset (HP-7410)



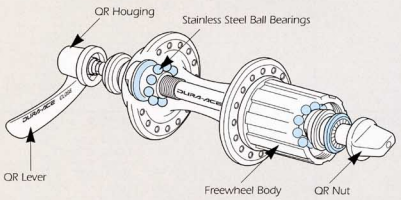
SPD Pedal (PD-7410)

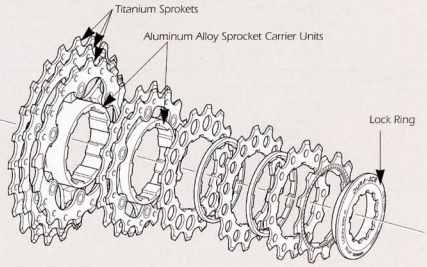


Cassette Sprockets Combinations

Model No.	Speeds	Group Letter	Gearing
CS-7700	9	–	11, 12, 13, 14, 15, 16, 17, 19, 21
		–	12, 13, 14, 15, 16, 17, 18, 19, 21
		–	12, 13, 14, 15, 16, 17, 19, 21, 23
		–	11, 12, 13, 14, 15, 17, 19, 21, 23
		–	12, 13, 14, 15, 17, 19, 21, 23, 25
CS-7401 CS-HG90-8 CS-HG70-8	8	S	12, 13, 14, 15, 16, 17, 19, 21
		T	13, 14, 15, 16, 17, 19, 21, 23
		U	12, 13, 14, 15, 17, 19, 21, 23
		V	13, 14, 15, 17, 19, 21, 23, 26
		W	12, 13, 15, 17, 19, 21, 23, 25
CS-HG70-7 CS-HG50-7	7	E	12, 14, 16, 18, 21, 24, 28
		H	13, 15, 17, 19, 21, 23, 26
		I	13, 14, 15, 17, 19, 21, 23
		J	13, 14, 15, 16, 17, 19, 21
		L	12, 13, 14, 15, 17, 19, 21
		M	13, 15, 17, 19, 21, 24, 28

Rear Freehub (FH-7700)





Cassette Sprockets (CS-7700)

DURA-ACE TRACK

The fraction of a second advantage.



Hubs	Model No.	**HB-7600**
	Weight	313g (rear LF w/lock ring) 241g (front LF)
	Over Locknut	100mm (front), 120mm (rear)
	Holes	28H, 32H, 36H
	Hole Diameter	2.4mm
	Drop Width	9mm (front), 10mm (rear)
	Material/Finish	Hub Body: forged aluminum/anodized Hub Shell: composite poly carbonated resin
Sprocket	Model No.	**SS-7600**
	Weight	(1/2"x1/8" sprocket) 31g (13T), 38g (14T) 44g (15T), 53g (16T)
	Chain Size	1/2" x 1/8", 1/2" x 3/32"
	Teeth	13T, 14T, 15T, 16T
	Material/Finish	Chrome-moly steel
	Thread	BC 1.37 x 24T.P.I.

Crankset	Model No.	**FC-7600**
	Weight	605g (48T, 170mm)
	Chain Size	1/2" x 1/8", 1/2" x 3/32"
	Teeth	44T - 55T
	Crank Length	165mm, 167.5mm, 170mm, 172.5mm, 175mm
	Pedal Thread	BC 9/16" x 20T.P.I.
	Material/Finish	Crank: forged aluminum/anodized Chainring: aluminum/high-tech grey anodized Fixing bolt: steel/chrome plated
Bottom Bracket	Model No.	**BB-7610**
	Weight	307g (NJS type) 221g (Standard type)
	Cup Thread	BC 1.37x24T.P.I., M35x1.0T.P.I., M36x24T.P.I.
	Axle Length	68 - S - 109, 70 - S - 109
	Material/Finish (Axle)	nickel crome-moly steel
Headset	Model No.	**HP-7600**
	Weight	90g
	Type	Exclusively designed for track
	Material/Finish	Nut, Upper Cone: aluminum/anodized Top Cone, Lower Cup Covers: high impact resin Upper & Lower Cups: steel bearing races

Separate Components

FD-C500
Front Derailleur

Note: Top route and bottom route both types available.



Model No.	SIS	Top-Swing Action	Pro-Set Gauge & Block	Chain Line	Top-Low Max. Capacity	Top-Middle Min.Capacity	Top Gear Teeth
FD-C500	○	○	○	47.5mm	20T	10T	48T

Clamp Diameter	Chain Stay Angle	Outer LinK	Front Clamp Band	Rear Clamp Band	Chain Cage
28.0 - 28.6/ 31.8mm	63 - 66°	steel/painted	steel/chrome plated	aluminum/ barrel finish	steel/chrome plated

FC-C500
Cranckset



Model No.	Number of Teeth	Bolt Circle Diameter
FC-C500	48 - 38 - 28T	riveted

Crank Arm Length	Crank Arm	Chainrings
170/175mm	aluminum/ polished	steel/painted



Mud Flap
SM-MF10

Keeps mud out of the front derailleur linkage to assure top shifting performance in any environment.

Applicable derailleurs:
All top-swing types - FD-M950-E / FD-M739-E / FD-M739 / FD-M567-E / FD-M567 / FD-MC36-E / FD-MC36 / FD-MC34-E / FD-MC34 / FD-MC14-B / FD-M291 / FD-CT92 / FD-TY22



HB-HF07
Front hub for tandem bike



HB-HF05
Front hub for tandem bike

Model No.	Spoke Holes	Spoke Hole Circle	Over Locknut Diameter	Axle Length	Axle Diameter	Hub Seal	Parallax Hub	Hub Shell	Hub Axle	QR Lever
HB-HF07	48/40	62.5mm	100mm	108mm	ø 9mm	○	○	aluminum/anodized	steel	aluminum/anodized
HB-HF05	48/40	62.5mm	100mm	108mm	ø 9mm	○	○	aluminum/anodized	steel	aluminum/barrel finish



FH-HF07
Freehub for tandem bike



FH-HF05
Freehub for tandem bike

Model No.	Sprockets	Spoke Holes	Spoke Hole Circle	Over Locknut Diameter	Axle Length	Axle Diameter	Hub Seal	Freewheel Seal	Parallax Hub	Free-wheel	Hub Shell	Hub Axle	QR Lever
FH-HF07	8-speed	48/40	62.5mm	160/145/140mm	171/156/151mm	ø 10mm	○	○	○	steel	aluminum/anodized	steel	aluminum/anodized
FH-HF05	7-speed	48/40	62.5mm	145/140mm	156/151mm	ø 10mm	○	○	○	steel	aluminum/anodized	steel	aluminum/barrel finish



CS-UG70
8-speed pearl bright finish

14 - 15 - 16 - 17 - 18 - 19 - 20 - 21T
14 - 15 - 16 - 17 - 18 - 19 - 21 - 23T
15 - 16 - 17 - 18 - 19 - 20 - 21 - 23T
16 - 17 - 18 - 19 - 20 - 21 - 22 - 23T
16 - 17 - 18 - 19 - 20 - 21 - 22 - 24T

CS-UG70
7-speed pearl bright finish

14 - 15 - 16 - 17 - 18 - 19 - 21T
14 - 15 - 16 - 17 - 19 - 21 - 23T
16 - 17 - 18 - 19 - 20 - 21 - 22T
18 - 19 - 20 - 21 - 22 - 23 - 24T

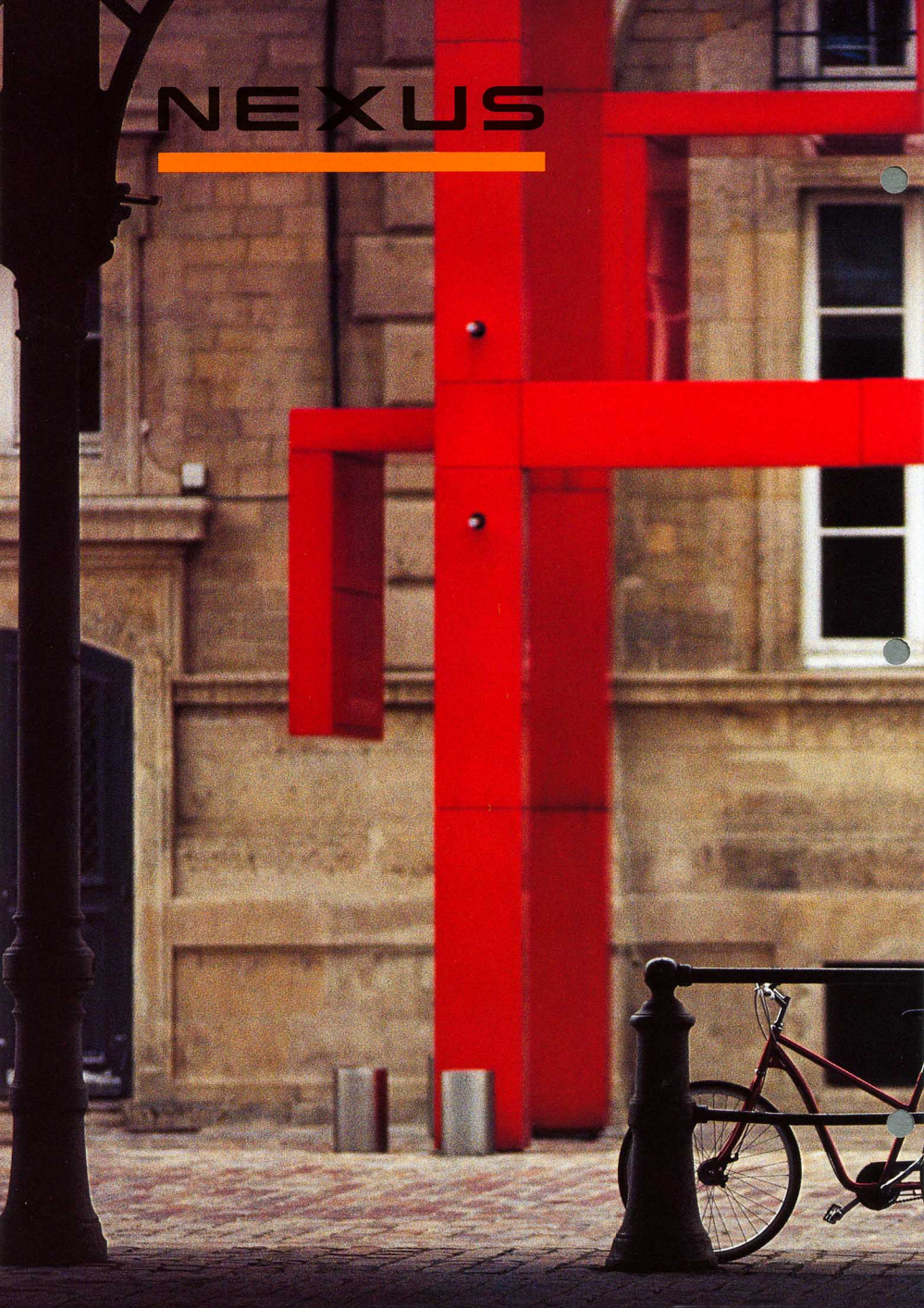
CS-UG70-7J
7-speed

15 - 16 - 17 - 18 - 19 - 21 - 23T
16 - 17 - 18 - 19 - 20 - 21 - 23T



CB-E110
Coaster brake

Spoke Holes	16	20	20	20	20	24	24	28	28	28	28	28	36	36	36	36	36	36
Over Locknut Diameter (mm)	106	106	109	109	109	109	117	106	109	109	109	117	109	109	109	117	117	124
Axle length (mm)	158	158	145	158	165	158	158	158	145	158	165	158	145	158	165	158	165	165


NEXUS



A unique component collection for new cycling possibilities.

Nexus® is a collection of components whose design concept can be summed up in one simple phrase, "Everything's inside." For example, Nexus eliminates the need for derailleurs by putting the gear shifting mechanism inside of the rear hub. Powerful Nexus hub mounted roller brakes eliminate the need for externally mounted brake calipers. There are fewer exposed mechanisms. The bike looks simpler, it's less intimidating, and requires less maintenance. Furthermore, many "rider-friendly" innovations make the Nexus equipped bike easier, more comfortable, and more fun to ride.

Nexus components are unique in that they are not limited to a specific type of bike. This is because there's no limit to the types of bicycles that can benefit from the advantages that Nexus offers. Freedom from the constraints imposed by derailleurs, brake calipers, and cantilevers, bicycle manufacturers can more easily incorporate Nexus components into new and innovative designs for utility, recreational and sport bicycles.

Not only is Nexus widening the design possibilities for existing types of bicycles, it is stimulating development of new bikes that are breaking through conventional design barriers. That's what's great about Nexus ... simplicity, dependability, and unlimited possibilities.

7-speed





NEXUS®

4-speed

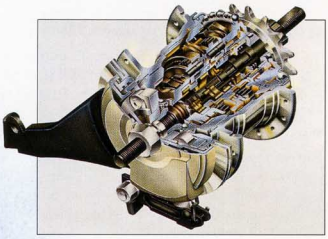


SHIMANO INTER•4™ SHIMANO INTER•7®

Multi-Speed cycling without a derailleur.

INTER-4 / INTER-7 Internal Gear Rear Hubs

SG-7R40 Inter-7 Rear Hub (with cable-activated roller brake)
SG-7C21 Inter-7 Rear Hub (with pedal-activated coaster brake)
SG-4R31 Inter-4 Rear Hub (with cable-activated roller brake)
SG-4C30 Inter-4 Rear Hub (with pedal-activated coaster brake)



- Inter-4 and Inter-7 shifts gears quickly and easily whether you're pedaling or not.
- Shift modulator mechanism reduces shock and smoothes out the shift when changing gears under high pedal loads.
- Silent clutch freewheel (4-speed hubs) eliminates ratchet noise when coasting.

The Inter-7 and Inter-4 internal gear hubs provide just the right gear for climbing hills, cruising, or just rambling around town. Inter-7 delivers wide-range touring-type gearing with seven evenly spaced gear ratios that correspond to a 13-15-17-20-24-27-32 freewheel. Both hubs are available with cable-activated Inter-M roller brake or pedal-activated coaster brake. Shift modulator mechanism smoothes out shifting under high pedal loads by reducing shock. Two permanently lubricated heavy-duty planetary gear sets and step-up gearing provide years of trouble-free service.

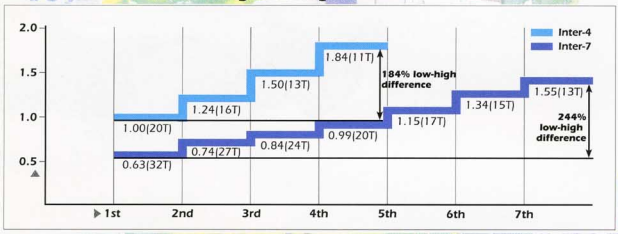


SG-7R40



SG-4R31

Inter-7 and Inter-4 Wide-Range Gearing



The table above shows the gear ratios for the Inter-7 and Inter-4 hubs when used with a 20T sprocket. The numbers in parentheses show the sprocket size each gear ratio corresponds to in a derailleur system.



Searching for new bicycle possibilities...

In order to promote the cycling lifestyle, Shimano has sponsored the European Bicycle Design Contest for the past four years. The 1996 contest was held in Brussels, Belgium and served as a venue through which bicycle makers could exhibit their latest bicycle designs.⇨



SHIMANO

INTER·S™

Take your choice of Push-Button or Rapidfire-L Inter-S

INTER-S Shifters

ST-7S60/ST-4S50 Push Button Shifters

- Dual-action mechanism features thumb lever for up-shifting with "push-button" down-shifting.
- Available in 4-speed (ST-4S50) and 7-speed (ST-7S60) versions
- Gear position indicator shows selected gear.

The new Inter-S Push Button Shifter uses Rapidfire technology with a new casual flair. Push Button Shifter has an extra-long lever for easy up-shifting, and a easy to push bottom on top for down-shifting. Perfect for casual cycling around town, at a beach, or on the bike path.



ST-7S60



ST-4S50

ST-7S20/ST-4S20 Rapidfire-L Lever Sets

- Rapidfire-L lever provides a rocker-type shifting that's extremely easy to use.
- Both 4- and 7-speed types feature large dial-type Optical Gear Display for quick gear verification at a glance.

Rapidfire technology has been applied to Nexus. Available in 4- and 7 speed versions, the Rapidfire-L lever sets use an L-shaped rocker action lever that makes shifting the Nexus rear hub fast and easy without releasing your grip on the handle bar. Push the lever down for a higher gear, or to the left for a lower one. It couldn't be easier.



ST-7S20

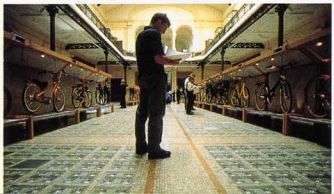


ST-4S20



The Design Video Forum, held as part of the European Bicycle Design Contest, was moderated by Mr. Richard Seymour from the U.K., and Mr. Hans Muth of Germany.

The bicycle offers a means of alleviating the congestion, parking, and air pollution problems facing our cities. Shimano believes part of the solution to these problems lies in an easy-to-ride maintenance-free bicycle.⇨



A jury members assess the bicycle designs lined up along the walls of the hall.



Jury member David Collins (U.K.) discusses the entries with Richard Seymour, a designer from the U.K.

SHIMANO

INTER-M®

Strong, easily controllable all weather braking.

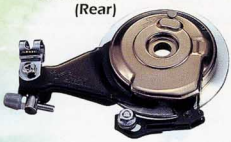
INTER-M Rear Brakes

BR-IM41 Inter-M Roller Brake (for Inter-7 rear hub)
BR-IM31 Inter-M Roller Brake (for Inter-4 rear hub)

- Inter-M roller brakes mount directly to the hub and eliminate the need for external brake cantilevers.
- Cam-and-roller design delivers strong and highly controllable braking power.
- Silent operation eliminates annoying brake squeal.
- Sealed mechanism means braking action is unaffected by weather.

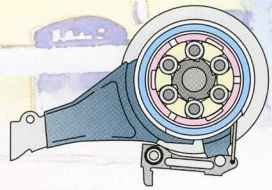
Here's the safest and surest way to stop without the need for external brake calipers. The Inter-M rear hub brakes use a precision cam-and-roller design that delivers strong yet easily controllable braking power. Large disk-type radial cooling fins keep temperatures down, eliminate fade, and extend the service life of the lubricant. Sealing channels keep out dirt and water to assure safe and dependable braking performance in wet or dry conditions.

BR-IM41-R
(Rear)



BR-IM31







Cam and roller rotate when brake is applied.

Brake shoe moves up to drum while roller is rotating.

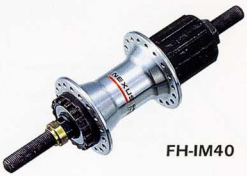
Brake shoe contacts drum to begin braking.

NEXUS® Freehub®

FH-IM40 Freehub

- 7-speed freehub specifically designed to work with the Inter-M hub mounted roller brakes.

Nexus provides even more design freedom with a conventional 7 speed freehub that can be used together with the Inter-M roller brake. Great for bicycle designs that use derailleurs but not external caliper or cantilever brakes.



FH-IM40



The 1996 European Bicycle Design Contest was host to 49 companies who submitted new bicycle designs equipped with Shimano Nexus components. Puky GmbH of Germany won the Children Concept category (left). Villiger AG of Switzerland won the City Bicycle / Multi-Functional category (center), and Centurion Renner KG of Germany took the Bicycle for Recreational / Sportive Use category (right). EBDC



SHIMANO

INTER•M®

Integrated braking power modulator helps prevent front wheel lock-up.

Inter-M Front Brake

HB-IM40 Front Hub
HB-IM30 Front Hub for Youth Bicycles
BR-IM41-F Inter-M Roller Brake

- Roller brake mounts to front hub for powerful all-weather braking performance.
- To avoid front wheel lock-up, a power modulator controls the front braking power when applied suddenly.
- Anti-squeal design suppresses annoying brake noise.
- Rubber sealing cups keep out dirt, mud, and water.

The Inter-M front hub incorporates a multi-plate friction clutch that helps modulate sudden braking forces. The clutch mechanism is inside the hub between the brake mounting boss and the hub body. This mechanism allows a small amount of slippage between the brake and hub when high braking loads are applied. For example, the hub will not let the front wheel lock up when the brakes are applied strongly on a downhill. (Note: A braze-on stopper plate is needed on the inside of the fork leg in order to mount the brake.)

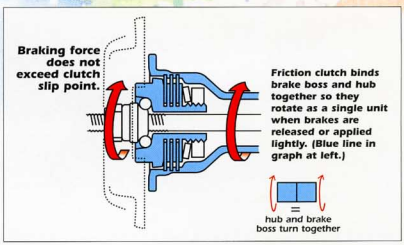


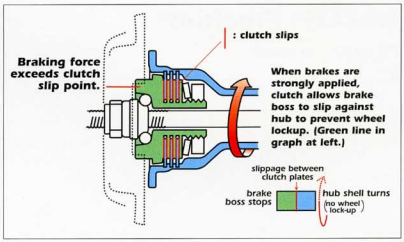
HB-IM40

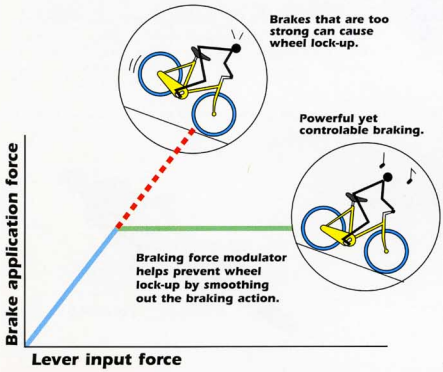




BR-IM41-F
(Front)

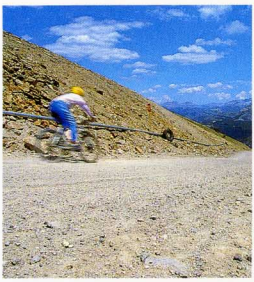






New Directions in Bike Design

Nexus components continue to find new applications for all types of bikes. For example, the Skunk Development Project Team put together a mountain bike equipped with Nexus Inter-M brakes. The bike is currently being tested to see just how far the Nexus system can go when applied to performance cycling. Look for Nexus components to appear on more bikes in the future.



SHIMANO

INTER·L™

A high-power hub dynamo for cycling at night.

INTER-L Hub Dynamo

HB-NX10 Inter-L Hub Dynamo
SW-NX10 Switch

- Highly efficient power generator delivers brightness at low RPM.
- Electric power modurator extends bulb life by controling current output.
- Will prevent the operating bulb from being overloaded if one burns out in a two-bulb system.
- Convenient handlebar-mounted switch allows dynamo to be turned on or off while riding.
- Rotates with less resistance than conventional dynamos.

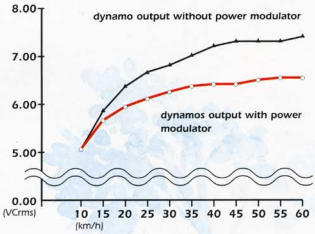
Highly efficient Inter-L hub dynamo provides illumination for cycling without the need for batteries. The dynamo reaches maximum output at low RPM so you get plenty of illumination even when riding slowly or starting off. The power modulator stabilizes electric current to extend bulb life. In multiple bulb systems, the current output will adjust automatically if one lamp burns out in order to protect other bulbs. Convenient handlebar-mounted switch lets you turn the dynamo on or off while you're riding. (SW-NX10 handlebar switch is supplied with dynamo.)



HB-NX10

SW-NX10

If one bulb burns out in a two-bulb system, Inter-L will not overload the remaining bulb.





Conventional type

Inter-L

Low friction design means Inter-L has half of the friction of standard dynamo.

SHIMANO

INTER·C™

Stylish design plus elastomer cushioning to reduce pedaling shocks.

INTER-C Cranksets

FC-NX70 Crankset (with power modulator)
FC-NX40 Crankset (without power modulator)

- Stylish solid disc design goes well with any bicycle design.
- Chainwheel specifically designed to accommodate chain guard.
- Elastomer power modulator reduces pedaling and coaster brake application shocks (FC-NX70 only).



FC-NX70

NEXUS® Headset

- Rotating ring locks fork to stabilize parked bicycle.
- Enhances the "system" look of the Nexus components.

Model No.	HP-NX10
A	ø29.85 - 30 mm or ø30.01 - 30.2 mm
B	30.5 to 31.5 mm
Front Fork Stem Thread Size	BC1" x 24T.P.I.
C	ø38 mm (max.)
Head Tube Material	steel



HP-NX10

INTER-7 / INTER-4 INTERNALLY GEARED HUBS

Model No.		SG-7R40	SG-7C21	SG-4R31	SG-4C30
Speed		7-Speed	7-Speed	4-Speed	4-Speed
Silent Clutch		—	—	○	—
Shifting Power Modulator		○	○	○	○
Shifting Lever		ST-7S20, SB-7S40		SB-4S30, ST-4S20	
Internal Brake	Coaster	—	○	—	○
	Inter M Brake	BR-IM41-R	—	BR-IM31-R	
Corrosion Resist Coating		○	○	Option	Option
Gear Ratio	Total	244%	244%	184%	184%
	1	0.632	0.632	1.000	1.000
	2	0.741	0.741	1.244	1.244
	3	0.843	0.843	1.500	1.500
	4	0.989	0.989	1.843	1.843
	5	1.145	1.145	—	—
	6	1.335	1.335	—	—
	7	1.545	1.545	—	—
Axle Length		192 / 176mm	169.5mm	185.5 / 169.5mm	165.6mm
Over Lock-nut Dimension		130mm	127mm	123.5 / 127mm	123.5mm
Spoke Hole		36H	36H	36H	36H
Spoke Size		#14		#13, #14	
Sprocket Teeth		14T, 16T, 18T, 19T, 20T, 21T, 22T	16T, 18T, 19T, 20T, 21T, 22T		
Chain-Line	14T	45.8mm	—	—	—
	16T	45.3mm	46.5mm	44mm O.L.D. 123.5mm 42.75mm O.L.D. 127mm	44mm O.L.D. 123.5mm
	18T - 22T	40.3 / 45.3mm	41.5 / 46.5mm	39 / 44mm O.L.D. 123.5mm 38.75 / 42.75mm O.L.D. 127mm	39.44mm O.L.D. 123.5mm
Weight	With Brake		1780g	—	1680g
	Without Brake	1520g	—	1330g	—

INTER-C CRANKSETS

Model No.		FC-NX70	FC-NX40
Pedalling Power Modulator		○	—
Integrated Chain Guard		○	○
Chain Ring Teeth		33T	
Chain Ring	Material	Steel	Steel
	Finish	Black	Black
Crank Length		170mm	170mm
Crank Arm	Material	Aluminum	Aluminum
	Finish	Super Finishing	Barrel Finishing
Chain Line		45mm	45mm
B.B.		BB-CT91	BB-CT91
Power Modulator Label		○	—

INTER-M BRAKES

Model No.		BR-IM41-F	BR-IM41-R	BR-IM31
		Front	Rear	Rear
Inter-7 Recommended		○	○	—
Inter-4 Recommended		—	—	○
Cooling Disk	With	○	○	○
	Without	—	—	○
Brake Lever Recommended	Right	—	SB-7S40	SB-4S30
	Left	BL-IM40	—	BL-IM30/ BL-TY21
Sealing Cap Finish		Chromica	Chromica	Chrome
Inner Cable Hooking Type		○	○	○

INTER-S SHIFTERS

Model No.	ST-7S20	ST-7S60	ST-4S20	ST-4S50
Speed	7-Speed	7-Speed	4-Speed	4-Speed
Type of Shift Lever	Rapidfire-L	Push Button Shifter	Rapidfire-L	Push Button Shifter
Optical Gear Display	Dial-Type	Go-round	Dial-Type	Go-round
Stainless Steel SL Inner Cable	○	○	—	○
Max. Number of Shifts with a Single Stroke	1	1	1	1
Brake Lever Integrated	—	—	—	—
Brake Lever Size	—	—	—	—
Left Hand Brake Lever	—	—	BL-TY21	—
Cassette Joint	CJ-7S20 / CJ-7S40		CJ-7S20 / CJ-7S40 / CJ-4S30	

FRONT HUB & FREEHUBS

Model No.	Front Hub			Freehub
	HB-NX40	HB-IM40	HB-NX10	FH-IM40
Over Lock-nut Dimension	100mm	100mm	100mm	130mm
Axle Length (Cap Nut)	140mm	140mm	140mm	—
Spoke Hole	36H	36H	36H	36H
Spoke Size	#14	#14	#14	#14
Parallax Hub	○	—	—	○
Brake Power Modulator	—	○	—	—
Inter M compatible	—	○	—	○

SPD®
SHIMANO PEDALING DYNAMICS

The shoe and pedal system that widens the cycling experience.

SPD® stands for Shimano Pedaling Dynamics, an integrated shoe and pedal system that gives you the performance of a cleated cycling shoe plus the ability to walk safely and comfortably off the bike.

There are more SPD products than ever for 1997. There's an SPD shoe and pedal system for every riding style, from all kinds of off-road racing and performance mountain biking to touring and recreational cycling. Get into a pair of SPD shoes and pedals widen your cycling experience.

These icons allow easy identification of each shoes recommend use.



There's an SPD® shoe for every cycling style.

SH-M300 *NEW*

A high-performance lightweight cross-country shoe with new shank plate and X-O Skeleton™ wrap-around upper construction. Velcro and buckle closures.



NEW SH-M211

A high-performance MTB cross-country shoe featuring the new SPD shank plate and X-O Skeleton wrap-around construction. Velcro strap closures.



SH-D100 *NEW*

High-cut design makes this a great cold weather all-purpose MTB shoe. It's also great for downhill racing and dual slalom.

(Available in October, 1996)



NEW SH-MX70

This is the shoe for the on-again off-again BMX riding style. Plenty of pedal grip even when the cleat isn't engaged.

(See page 35 for more information.)





SH-M210
Light weight and rugged MTB racing shoe.



SH-M110
A versatile, high-performance SPD shoe for racing, off-road cycling, and touring.



SH-M090
SPD mountain bike performance shoe with unique Z-strap closure system.





SH-M031
SPD flexibility and performance at an entry-level price.
New Color

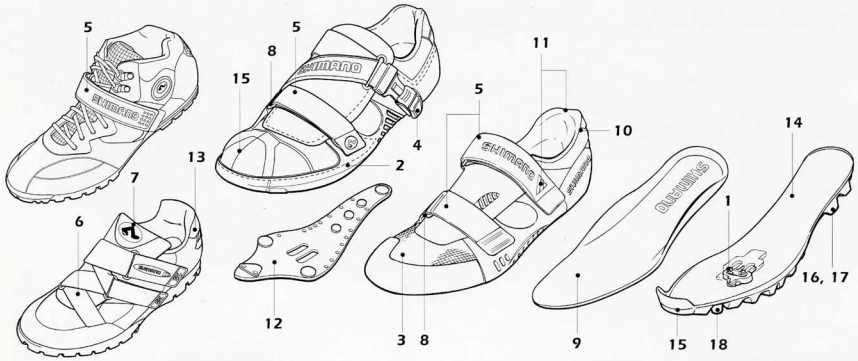


SH-M055
Supportive high-cut upper with dual strap-and-lace closure. Hiking tread pattern on rubber sole.

SPD® MOUNTAIN BIKE SHOE SPECIFICATIONS

Model	Weight (pair-w/o cleats)	Compatible SPD Pedal	Upper	Closures	Inner Sole	Mid Sole	Outer Sole	Color	Size
SH-M300	910g (size 44)	PD-M747 PD-M636 PD-M535 PD-M323 PD-A525	X-O Skeleton molded elastomer, polyester mesh	buckle, extra-long strap	cup molded Cambrelle w/EVA backing	X-O Skeleton fiberglass-reinforced nylon	race tread pattern	yellow	37 to 47 in half size, 48
SH-M211	876g (size 44)		X-O Skeleton molded elastomer, polyester mesh	double extra-long straps	cup molded Cambrelle w/EVA backing	X-O Skeleton fiberglass-reinforced nylon	race tread pattern	black w/night lights	37 to 47 in half size, 48
SH-M210	770g (size 44)		Hytrel plastic, synthetic leather, polyester mesh	double extra-long straps	cup molded Cambrelle w/EVA backing	fiberglass-reinforced nylon	aggressive knobby racing tread pattern w/spike option	black w/night lights	36, 37 to 47 in half size, 48
SH-M110	795g (size 43)		nylon mesh, Polyurethane coated split leather, synthetic leather	triple extra-long straps	cup molded Cambrelle w/EVA backing	fiberglass-reinforced nylon	aggressive knobby racing tread pattern	black/ yellow	36, 37 to 47 in half size, 48
SH-M090	866g (size 40)		split leather, Cordura, nylon cloth	criss-cross Z-strap	cup molded Cambrelle w/EVA backing	fiberglass-reinforced nylon	high-profile hiking tread pattern	brown/ green	36-48 in whole sizes
SH-M055	928g (size 43)		split leather, Cordura, nylon cloth	extra-long straps, laces	Cambrelle w/EVA backing	fiberglass-reinforced nylon	low-profile hiking tread pattern	dark brown/ blue	36-48 in whole sizes
SH-M031	710g (size 41)		Cordura nylon, split leather, PVC	laces	Cambrelle w/EVA backing	super tough nylon	low-profile hiking tread pattern	brown	36-48 in whole sizes
SH-D100	986g (size 44)		Polyurethane coated split leather, Hytrel plastic, neoprene	double extra-long straps	cup molded Cambrelle w/EVA backing	fiberglass-reinforced nylon	Non-snag tread pattern	red	36 to 48 in whole size

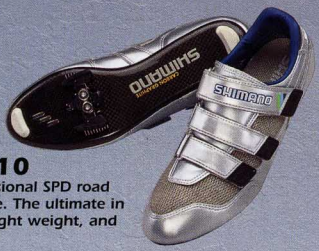
NOTE: See page 35 for more information on the SH-MX70 shoe.



SPD® MOUNTAIN BIKE SHOE FEATURES

Feature	Benefit	SH-M300	SH-M211	SH-M210	SH-M110	SH-M090	SH-M055	SH-M031
1. SPD sole patch	Use as a cleated or non-cleated shoe. Sole patch removes easily for SPD cleat mounting.	●	●	●	●	●	●	●
2. X-O Skeleton Wrap Around Upper Construction	New smooth one-piece wrap around upper construcsion for increased comfort and a better fit.	●	●					
3. Nylon mesh & polyurethane coated split leather upper	High-strength upper panels. Nylon mesh breathes for ventilation. Split leather is super-strong and keeps shape when wet.				●			
4. Buckle Closure	New adjustable buckle-type closure tightens fast to assure a secure non-loosening fit.	●						
5. Strap closure	Extra-long straps provide a snug, foot-hugging fit. Extention on strap offers flexibility to have longer or shorter strap with extra security.		●	●	●		●	
6. Criss-Cross Z-Strap	Z-strap closure system helps shoe conform better to the shape of the foot. Extention on strap offers flexibility to have longer or shorter strap with extra security.					●		
7. Padded tongue	Padded tongue for extra comfort.					●		
8. Alloy strap rings	Alloy strap rings reduce weight and eliminate corrosion.	●	●	●	●	●		
9. Cup molded inner sole	Provides a natural cradle for the foot and a smoother transition between sole and upper.	●	●	●	●	●		
10. Natural fit heel	Anatomically designed heel panels and reinforcing strap help support heel and prevent heel lift.	●	●	●	●	●	●	
11. Strap & heel reflectors	Safety. Helps cyclist to be seen at night.	●	●	●	●	●		
12. New Shank Plate	New shank plate in the midsole provides a hard pedaling platform yet flexes for comfortable walking. Special insert reinforces the pedal contact area while shank tip is flexible rubber to enhance walking comfort.	●	●					
13. Heel reflector	Safety. Helps cyclist to be seen from behind at night.						●	●
14. Nylon-fiberglass mid-sole	Also, each mid sole's rigidity is designed to match intended use of shoe.			●	●	●	●	
15. Hard toe block	Protects against front impacts to the foot.	●	●	●	●			
16. High-traction outer sole	Aggressive rubber tread pattern provides an excellent grip on all kinds of surfaces, especially loose dirt.			●	●			
17. Sport sole	Low-profile rubber sole makes comfortable for waking					●	●	●
18. Spike mounting	Attaching spikes to outer sole increases traction in mud, sand, and loose dirt (Spikes are optional for SH-M211 and SH-M210 shoes only).	●	●	●				

NOTE: All of the shoes shown on this page are pre-drilled for mounting Shimano clipless cleats.



SH-R210

The professional SPD road racing shoe. The ultimate in strength, light weight, and rigidity.



SH-T120

Lightweight, comfortable pedaling efficiency for fitness cycling, sport riding, and fast-touring.



SH-R111

Sport-racing shoe with adjustable triple strap closure and figerglass-reinforced nylon sole.



SH-R070

Comfortable pedaling efficiency from lightweight materials and Z-strap closure.

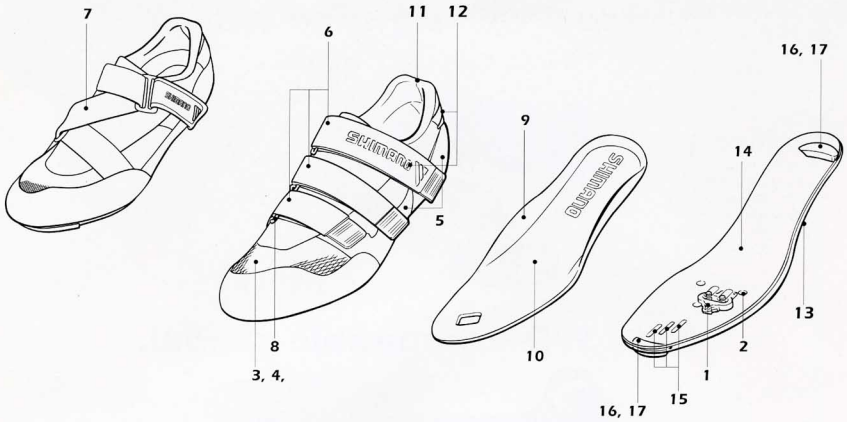
SPD® shoes for road racing, performance cycling, and fast touring.

SPD® ROAD RACING & LIGHTWEIGHT PERFORMANCE SHOE SPECIFICATIONS

Model	Weight (pair-w/o cleats)	Compatible SPD Pedal	Upper	Closures	Inner Sole	Mid Sole	Outer Sole	Color	Size
SH-R210	580g (size 43)	PD-7410 PD-6500	Vectran mesh, synthetic leather	triple extra-long straps	cup molded Cambrelle w/EVA backing	Texon	Carbon graphite	silver	39-47 in half sizes, 48
SH-R111	760g (size 44)	PD-7410 PD-6500	plastic resin Polyurethane coated split leather, nylon mesh	triple extra-long straps	cup molded Cambrelle w/EVA backing	fiberglass-reinforced nylon	fiberglass reinforced nylon	black/ red	36-48 in whole sizes
SH-T120	630g (size 43)	PD-7410 PD-6500	nylon mesh, Polyurethane coated split leather	double straps	Cambrelle w/EVA backing	fiberglass-reinforced nylon	fiberglass reinforced nylon	black/ grey	36-48 in whole sizes
SH-R070	700g (size 43)	PD-7410 PD-6500	nylon mesh, Polyurethane coated split leather	criss-cross Z-strap	Cambrelle w/EVA backing	fiberglass-reinforced nylon	fiberglass reinforced nylon	grey/ black/ teal	36-48 in whole sizes

NOTE: All of the shoes shown on this page are pre-drilled for mounting Shimano clipless cleats and Look®-type cleats as well as SPD cleats.

Look® is a registered trade mark of LOOK S.A.



SPD® ROAD RACING SHOE FEATURES

Feature	Benefit	SH-RZ10	SH-R111	SH-T120	SH-R070
1. Adjustable SPD cleat mount	15mm fore-aft, and 5mm lateral positioning of SPD cleat position.	●	●	●	●
2. SPD/Shimano clipless pedal (Look® type) compatibility	Pre-drilled to mount your choice of SPD or Look® cleats.	●	●	●	●
3. Vectran mesh & synthetic leather upper panels	Super strong Vectran mesh ventilates but will not stretch. Synthetic leather is pliable, waterproof, and stretch-resistant.	●			
4. Nylon mesh & polyurethane coated split leather upper panels	Nylon mesh breathes for ventilation. Polyurethane coated split leather panels resist stretching and keep their shape.		●	●	●
5. Plastic resin upper panels	Improves rigidity without sacrificing a comfortable fit.		●		
6. Triple strap closures	Extra-long triple straps help shoe conform better to the shape of the foot.	●	●	2-straps	
7. Criss-cross Z-strap closure	Criss-cross straps provide 4 closure points with one strap.				●
8. Alloy strap rings	Alloy strap rings reduce weight and prevent corrosion.	●			
9. Cup molded inner sole	Cupped sole cradles the foot to provide a more comfortable fit.	●	●		
10. Cambrelle & EVA inner sole	EVA cushions and soft Cambrelle absorbs moisture to help keep foot dry.	●	●	●	●
11. Natural fit heel	Anatomic design holds heel better to reduce squirm and increase pedaling efficiency.	●	●	●	●
12. Strap & heel reflectors	Increased safety – makes cyclist more visible at night.	●	●	●	●
13. Carbon graphite outer sole	Light weight and excellent rigidity for maximum power transfer efficiency.	●			
14. Nylon-fiberglass outer sole	Also, each mid sole's rigidity is designed to match intended use of shoe.		●	●	●
15. Air vents	Air vents on front sole help keep feet dry and fresh.	●	●	●	●
16. Polyurethane cleat protectors	Hard polyurethane cleat protectors prevent cleat from being damaged when walking.	●			
17. Rubber cleat protectors	Rubber cleat protectors prevent cleat from being damaged and provide a non-slip walking surface.		●	●	●

A casual cycling shoe with a road racing style.



SH-A070 *NEW*
Great for fitness riding, touring, "spinning" classes, or just cycling around town.

New SPD®-compatible sandal.



SH-SD50
The cool comfort of a sandal with SPD pedaling efficiency.

SPD® SPORT SHOE SPECIFICATIONS

Model	Weight (pair-w/o cleats)	Compatible SPD Pedal	Upper	Closures	Inner Sole	Mid Sole	Outer Sole	Color	Size
SH-A070	700g (size 42)	PD-M747 PD-M636 PD-M535 PD-M323 PD-A525	nylon mesh, polyurethane coated split leather, PVC	criss-cross Z-strap	Cambrelle, EVA backing	fibergrass reinforced nylon	rubber	gray	36 to 48 in whole sizes
SH-SD50	860g (size 44)		plastic resin (polyurethane), Neoprene, PVC	double strap closure	polyurethane	fibergrass reinforced nylon	rubber	black	39-40, 41-42, 43-44, 45-46, 47-48 (5sizes)

SPD® cleat application table

The table below shows the recommended cleats for each SPD pedal. Cleats listed under "usable cleat" can be substituted for the recommended cleat, but with certain restrictions as listed.

Pedal / Shoe	PD-7410/PD-6500		PD-A525/PD-M323		PD-M747/PD-M636 PD-M535	
	recomended cleat	usable cleat	recomended cleat	usable cleat	recomended cleat	usable cleat
SH-M300/SH-M211 SH-M210/SH-M110 SH-M090/SH-M055 SH-M031/SH-D100 SH-MX70			**SM-SH51 SM-SH55**	SM-SH71*	**SM-SH51**	SM-SH55 SM-SH70* SM-SH71*
SH-R210/SH-R111 SH-R070/SH-T120	**SM-SH70 SM-SH71**					
SH-A070/SH-SD50			**SM-SH51 SM-SH55**	SM-SH71*	**SM-SH51**	SM-SH55 SM-SH70* SM-SH71*

*SM-SH70/71 road cleats can be used with non-road SPD shoes but without cleat protector pontoons.

SPD® pedal & cleat sets: 1. PD-7410 and PD-6500 pedal packages include both SM-SH70 and SM-SH71 cleat sets.
2. SM-SH51 cleat set is included with PD-M747, PD-M636, PD-M535, PD-M323 and PD-A525 pedal packages.

SPD® SPORT SHOE FEATURES

Feature	Benefit	SH-A070	SH-SD50
1. **SPD sole patch**	Use as a cleated or non-cleated shoe. Sole patch removes easily for SPD cleat mounting.	●	●
2. **Nylon mesh, polyurethane coated split leather, PVC upper**	Breathable nylon mesh helps ventilate foot. Polyurethane coatedsplit leather and PVC are durable and resistant to stretching and water.	●	
3. **Plastic resin (polyurethane), Neoprene, and PVC upper**	Upper materials are resistant to water and stretching.		●
4. **Criss-cross Z-strap closure**	Multiple closure points from a convenient single strap.	●	
5. **Double strap closure**	Two straps are convenient to use and provide a foot hugging fit.		●
6. **Reflectorized panels**	Increases safety by making cyclist easier to see at night.	●	●
7. **Reflectorized logos**	Increases safety by making cyclist easier to see at night.	●	
8. **Cambrelle & EVA inner sole**	Cambrelle & EVA help wick away moisture while providing a soft cushion for the foot.	●	
9. **Polyurethane inner sole**	Provides lightweight stiffness.		●
10. **Fiberglass reinforced nylon mid-sole**	Also, each mid sole's rigidity is designed to match intended use of the shoe.	●	●
11. **Sleek rubber sole**	Smooth rubber road-type sole provides for comfortable walking.	●	
12. **Rubber sole**	Good traction and comfortable walking.		●

USA and Europe sizecomparison chart

US	4	5	5 1/2	6 1/2	7	8	8 1/2
European	36	37	38	39	40	41	42
US	9	10	11	11 1/2	12	13	
European	43	44	45	46	47	48	

Shimano SPD® Pedals



PD-M747
Off-Road Racing Pedal
SPD system / chrome-moly spindle /
lightweight compact body /
precision cartridge bearings / easy step-in / dual front
and rear cleat retention adjustment / mud-resistant
cleat plate / weight: 393g (pair).



PD-7410
Road Racing Pedal
compact low-profile design
high-grade chrome-moly spindle
precision sealed cartridge bearing unit
weight: 313g (pair)



PD-M636
Off-Road Racing Pedal
SPD system / chrome-moly spindle /
cup and cone bearings / easy step-in /
dual SPD pop-up bindings /
front & rear retention adjustment /
weight : 639g (pair)



PD-6500
Road Racing Sport-Competition Pedal
compact low-profile design chrome-moly spindle
sealed cartridge bearing unit adjustable
cleat tension / weight: 348g (pair)



PD-M535
Off-Road Sport-Performance Pedal
SPD system / chrome-moly spindle /
lightweight compact body /
traditional cup and cone bearings /
easy step-in / mud-resistant cleat plate /
dual front and rear cleat retention adjustment /
weight: 410g (pair))



PD-A525
Sport Pedal
SPD system / chrome-moly spindle /
sealed cartridge bearings /
cleat retention indicator /
available in silver or white-violet /
weight: 390g (pair)



PD-M323
Multi-Purpose Pedal
SPD and standard pedal surface /
usable with non-SPD shoes /
adjustable cleat tension / weight: 520g (pair)
(SPD cleats not included
with PD-M323 pedals.)

FOOTWEAR ACCESSORIES AND REPLACEMENT PARTS



SM-SH51

SPD Cleat Sets

SM-SH51 for single direction release,and for "Easy step-in"feature when used with PD-M747, PD-M636 and PD-M535.



SM-PD51

Reflector Set

For use with PD-7410 and PD-6500 pedals.



SM-SH55

SPD Cleat Sets

SM-SH55 for multi-directional release.



SM-PD30

Reflector Set

For PD-A525 pedals.



SM-SH70/SM-SH71

SPD Cleat Sets

SPD road racing shoe cleat sets for R-series shoes and SH-T120. SM-SH70 is fixed retention type; SM-SH71 is rotational retention type.

SM-PD21

Reflector Set

For PD-M747 and PD-M535 pedals.



SM-PD20

Reflector Set

For PD-M737 and PD-M525 pedals.



Spikes

Removable sole spikes for SH-M300, SH-M211 and SH-M210 shoes.



SM-SH74

Cleat Adapter Set

Allows mounting of SPD cleats to SH-R200, SH-R110, and SH-T110 shoes.



Shoe Insoles

Available in sizes to fit all Shimano shoes.



SPD socks

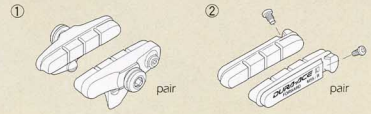
Available in S, M, L and XL.

Shimano Original Equipment Brake Shoes

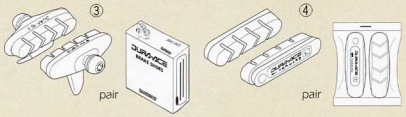
Always use Shimano brake pads to assure top performance from your Shimano brake system.

Shoes for Caliper Brakes

①② Fits : BR-7700

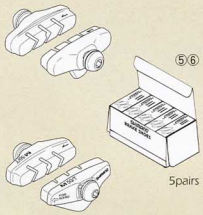


③④ Fits : BR-7403



⑤ Fits :
BR-6403 / BR-1055 /
BR-A550

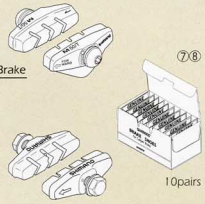
⑥ Fits :
BR-1055 / BR-A550



⑦ Fits :
BR-1055 / BR-A550 /
BR-A410

For M-System Brake

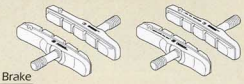
⑧ Fits :
BR-A500 / BR-A450 /
BR-A350 / BR-A250



	PART NO.	DESCRIPTION
1	8FA 9801	BR-7700 Cartridge-Type Brake Shoe Set (pair)
2	8FA 9802	BR-7700 Brake Shoe Block & Fixing Screw (pair)
3	84B 9801	BR-7403 Cartridge-Type Brake Shoe Set (pair)
4	84B 9802	BR-7403 Brake Shoe Block (pair)
5	83G 9801	BR-6403 Brake Shoe Set (5 pairs)
6	82A 9901	BR-1050 Brake Shoe Set (5 pairs)
7	88C 9810	M50/T Brake Shoe Set (10 pairs)
8	81G 9810	BR-A250 Brake Shoes (10 pairs)

Shoes for Cantilever Brakes

①② Fits : BR-M950 / BR-M739

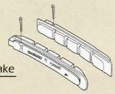


For V-Brake
M-System Brake



③④ Fits :
BR-M950 / BR-M739
(For Ceramic Rims)

⑤ Fits :
BR-M950 / BR-M739
for use with M70/R2
brake holder

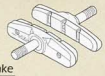


For V-Brake
M-System Brake



⑥ Fits :
BR-M950 / BR-M739
(For Ceramic Rims)
for use with M70/R2
brake holder

⑦ Fits :
BR-M600

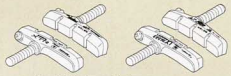


For V-Brake
M-System Brake

★ V-Brake pad can be used right down to the edge of the pad holder.

⑧ Fits :
BR-M900-C / BR-M900

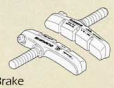
⑨ Fits :
BR-M737



For M-System Brake



⑩ Fits :
BR-M900-C / BR-M900
BR-M737 / BR-M565-E
(For Ceramic Rims)



For M-System Brake

⑪ Fits :
BR-M900-C / BR-M900
BR-M737 / BR-M565-E
for use with M70/R
brake holder



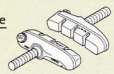
For M-System Brake



⑫ Fits :
BR-M900-C / BR-M900
BR-M737 / BR-M565-E
(For Ceramic Rims)
for use with M70/R
brake holder

⑬ Fits :
BR-M565 / BR-M565-E
BR-MC33 / BR-MC33-E

For M-System Brake



⑬

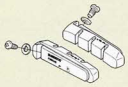


2pair

⑭ Fits :

for use with M65/T
brake holder

For M-System Brake



⑭



2pair

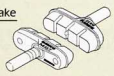
⑮ Fits :
BR-MC16

For M-System Brake

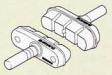


⑯ Fits :
BR-M290 / BR-M290-E
BR-CT90 / BR-CT90-E
BR-CT50 / BR-CT51
BR-CT20 / BR-CT21
BR-TY22 / BR-TY23
BR-TY20 / BR-TY21
BR-MJ05 / BR-MJ05-E
BR-MJ10

For M-System Brake



⑰ Fits :
BR-CT90 / BR-CT90-E
BR-CT91 / BR-CT50
BR-CT51 / BR-CT20
BR-CT21 / BR-TY22
BR-TY23 / BR-TY20
BR-TY21 / BR-MJ05
BR-MJ05-E / BR-MJ10



⑮⑯⑰

10pairs



⑱ Fits :
BR-M560 / BR-M561
BR-MC32 / BR-MC32-E
BR-MC30-CH / MC31-CH
BR-MC30 / MC31
BR-MC12 / BR-MC12-E
BR-MC10 / BR-MC11
BR-MC15 / BR-M290
BR-M290-E / BR-CT50
BR-CT51 / BR-TY22
BR-TY23

For M-System Brake



⑲ Fits :
BR-M550 / BR-M454
BR-M450 / BR-M350
BR-M351 / BR-M250



⑱⑲



5pairs

	PART NO.	DESCRIPTION
1	8AB 9801	M70/R2 BR-M950 Brake Shoe Set (pair)
2	8AA 9801	M70/R2 BR-M739 Brake Shoe Set (pair)
3	8AA 9803	M70/R2 BR-M950 Brake Shoe Set (pair) for Ceramic Rims
4	8AA 9810	M70/R2 BR-M739 Brake Shoe Set (pair) for Ceramic Rims
5	8AA 9802	M70/R2 BR-M950 / M739 Brake Shoe Block & Fixing Pin (pair) for use with M70/R2 brake holder
6	8AA 9804	M70/R2 BR-M950 / M739 Brake Shoe Block & Fixing Pin (pair) for Ceramic Rims for use with M70/R2 brake holder
7	8BM 9810	M70/T2 BR-M600 Brake Shoe Set (pair)
8	83P 9810	M70/R BR-M900-C Brake Shoe Set (4 pcs.)
9	83X 9801	M70/R BR-M737 Brake Shoe Set (4 pcs.)
10	8BG 9810	M70/R Brake Shoe Set (4 pcs.) for Ceramic Rims
11	83X 9802	M70/R Brake Shoe Block & Fixing Screw (2 pairs) for use with M70/R brake holder
12	83X 9807	M70/R Brake Shoe Block & Fixing Screw (2 pairs) for Ceramic Rims for use with M70/R brake holder
13	8BA 9801	M65/T Brake Shoe Set (4 pcs.)
14	8BA 9802	M65/T Brake Shoe Block & Fixing Pin (2 pairs) for use with M65/T brake holder
15	8CF 9810	M70/T2 BR-MC16 Brake Shoe Set (2 pairs)
16	81X 9810	M55/T Brake Shoe Set (10 pairs)
17	8GK 9810	BR-CT91 Brake Shoe Set (10 pairs)
18	84F 9810	M65/T Brake Shoe Set (5 pairs)
19	81C 9802	BR-M450 Brake Shoe Set (5 pairs)

Shimano Original Cables & Cable Casings

We strongly recommend the use of the Shimano products shown on these pages in order to maintain top performance of IG drivetrains, Advanced Light Action mechanisms, Dual SIS, and M-System brakes.

Inner Cable File Box



PART NO.	DESCRIPTION	PCS.PER BOX
600 9851	For Shifting Lever ø1.2mm x 2000mm (Stainless steel)	100
600 9852	For Shifting Lever ø1.2mm x 2100mm	100
800 9855	For ATB Brake Lever ø1.6mm x 1700mm (Stainless steel)	100
800 9852	For ATB Brake Lever ø1.6mm x 1700mm	100
800 9856	For Racing Brake Lever ø1.6mm x 1700mm (Stainless steel)	100
800 9853	For Racing Brake Lever ø1.6mm x 1700mm	100

Die-Extruded & Coated Inner Cable



for Shift Levers

PART NO.	DESCRIPTION
600 9860	ø1.2mm x 2100mm (stainless steel)

Inner Cable Cap



PART NO.	DESCRIPTION	QTY.
620 9803	Inner Cable Cap (ø1.2mm)	100
620 9804	Inner Cable Cap (ø1.6mm)	100

Seald Cap with Tongue & Rubber Shield



for Shift cables

PART NO.	DESCRIPTION	QTY.
6AM 9808	Seald Cap with Tongue & Rubber Shield	3 pieces

M-System Brake Outer Casing File Box (ø5mmx30m/98.5ft.)



Use for 1.6mm diameter brake inner cables.

PART NO.	DESCRIPTION
80Y 0021	ø5mm x 30m/Red (#107)
80Y 0021-2	ø5mm x 30m/Pink (#127)
80Y 0022	ø5mm x 30m/Blue (#207)
80Y 0022-1	ø5mm x 30m/Transparent Blue (#217)
80Y 0022-4	ø5mm x 30m/Pastel Green (#247)
80Y 0024	ø5mm x 30m/Yellow (#407)
80Y 0024-1	ø5mm x 30m/Transparent Yellow (#417)
80Y 0025	ø5mm x 30m/White (#507)
80Y 0025-1	ø5mm x 30m/Transparent Silver (#517)
80Y 0025-2	ø5mm x 30m/Silver (#527)
80Y 0025-3	ø5mm x 30m/Metallic Silver (#537)
80Y 0026	ø5mm x 30m/Black (#607)
80Y 0026-4	ø5mm x 30m/Gray (#647)

SIS-SP40 Shift Outer Casing



Use for 1.2mm diameter shift inner cables. (10m)

PART NO.	COLOR
6Z2 9810	ø4mm x 10m/Black (#607)
6Z2 9811	ø4mm x 10m/High Tech Gray (#637)

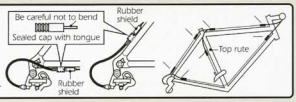
Outer Casing Cap



PART NO.	DESCRIPTION	QTY.
872 9810	Outer Cap For BR-M950, BR-M739/Silver	1
872 9811	Outer Cap For BR-M950, BR-M739/Black	1
60B 0001	Sealed Outer Cap (ø6mm)	1
60B 9801	Outer Caps (ø6mm)	100
6Z2 9003	SIS-SP40 Seald Outer Cap (ø4mm)	1
6Z2 9801	SIS-SP40 Seald Outer Caps (ø6mm)	100
6ZA 9801	SIS-SP40 Outer Caps (ø6mm)	100

Note; regarding the sealed cap with tongue and rubber shield

The sealed cap with tongue and the rubber shield should be installed to the outer casing stopper of the frame.



Shimano Original Tools

Cotterless Crank Extractor
TL-FC10

Code No.
130 0901



Three Spanners Set
TL-FC30

For removing and installing bottom brakets, headsets, and pedals.

Code No.
130 9001



Cone Adjusting Tool Set
TL-PD63

For SPD Pedal.

Code No.
460 9863



Front Chain Wheel / Bottom Bracket Installation Tool
TL-UN96

For FC-M950 / FC-M739 / BB-M950

Code No.
130 9809



Bottom Bracket Installation Tool
TL-UN74
For BB-7700, BB-7410, BB-UN91/90, BB-UN72/71/70, BB-UN72-E, BB-UN52/51/50, BB-UN52-E, BB-CS21/20, BB-CS11/10, BB-LP30/26/25/20 BB-LP26-E and BB-CT91/90

Code No. 130 0906-7



Bottom Bracket Installation Tool
(Mounts to ratcheting socket wrench handle.)
TL-UN70
For removing and installing bottom brakets, headsets, and pedals.

Code No. 130 0906-4



Lock Ring Tool for HG/IG Sprockets
TL-HG15

Code No. 120 0918



Lock Ring Tool for HG/IG Sprockets
(Mounts to ratcheting socket wrench handle.)
TL-HG10

Code No. 120 0917



Sprocket Holding Tool
(Holds sprockets when removing lock rings.)
TL-SR20

Code No. 130 0915



Cable Cutter
TL-CT10
Use to cut outer casings, cables, and pinch end caps.

Code No. 098 0001



Multiple Freewheel Removal Tool
TL-FW30
For MF-7400 / 6208 / Z102 / Z015 / 1600 / HG20 / HG22

Code No. 120 0905



Chain Connecting Tools
TL-CN22
For IG/HG/UG Chains

Code No. 130 9060



Chain Connecting Tools
TL-CN31
For IG/HG Chains
2 spare pins included in grip.

Code No. 130 9070



Hub Cone Wrenches
TL-HS10
13/14mm, 2 wrenches

Code No. 230 900



Hub Cone Wrenches
TL-HS20
15/17mm

Code No. 320 9001



Peg Spanner
TL-FC20

Code No. 130 0913



Shimano Recommended Service Parts

Shift Inner Cables
w/inner end cap
1.2mm diameter, 2,100mm, 10-pack

Code No.600 9810



SIS Outer Casing Set
ø4mm
BLACK
2 x 600mm, 280mm

Code No.600 9820



ATB/CTB
Universal Brake Cable and Casing
High-tech gray, 1.6mm diameter, front and rear
800-900mm / 1,400-1,500mm

Code No.8YC 9801



Rear Derailleur Pulley Sets
(10 pairs)

Code No.563 9810



Inter-7 Inter-4 Inter-M (Roller Brakes)
Special Grease
100g Tube Type

Code No.041 2020



Dura-Ace Grease
50g can

Code No.041 1000





Shimano goes for the gold.

Shimano congratulates the cyclists who participated in the 1996 Olympic games in Atlanta. We're proud that we could play a part in their winning performances.

Pascal Richard (Switzerland)
Gold Medal - Men's Road Race
Group: New Dura-Ace

Rolf Sorensen (Denmark)
Silver Medal - Men's Road Race
Group: New Dura-Ace

Max Sciandri (Great Britain)
Bronze Medal - Men's Road Race
Group: New Dura-Ace

Jeannie Longo-Ciprelli (France)
Gold Medal - Women's Road Race
Group: Dura-Ace drivetrain and hubs

Imelda Chiappa (Italy)
Silver Medal - Women's Road Race
Group: New Dura-Ace rear derailleur and levers

Clara Hughes (Canada)
Bronze Medal - Women's Road Race
Group: New Dura-Ace

Thomas Frischknecht (Switzerland)
Silver Medal - Men's MTB Cross Country
Group: XTR levers, derailleurs, hubs

Paola Pezzo (Italy)
Gold Medal - Women's MTB Cross Country
Group: XTR



We're here to Help!



With Shimano Multi-Service you've got Toll-free phone access to Shimano. (Dealers only: 1-800-423-2420) Shimano experts are ready to answer all your technical questions, fill your small part orders, footwear orders, pedal orders and warranty service. Or, through our toll-free FAX number (1-800-206-0010) you can send your orders in at any time, 24 hours a day.

Multi-Service vehicles provide at your door support with training, seminars and product support across the nation, and more!



For fast info about Order Status, Available Credit, Inventory Availability, use our "Touchtone Service" All you need is your 6-digit Customer Number.

SHIMANO MULTI SERVICE

In the United States:
Phone **800-423-2420 (Dealers only)** 7:00 a.m. to 5:00 p.m. (pst) Mon.-fri.
(714) 951-5003 (Consumers) 7:00 a.m. to 5:00 p.m. (pst) Mon.-fri.
Fax: 800-206-0010 spare parts, footwear, pedal orders, 24hrs.
In Canada:
Phone 800-361-6215
Fax 800-619-9067

For fast warranty service....

Try one of our Authorized Warranty Centers. They're all across the United States, ready to help you with your warranty claims and small part orders, even your SPD shoe and pedal orders.

Authorized Warranty Centers

Quality Bicycle Prod.	Bloomington, MN	800-346-0004
Quentin Dist.	Carol Stream, IL	800-323-1741
Riteway Central	St. Louis, MO	800-366-3966
Riteway East	Buffalo, NY	800-487-2453
Riteway West	Santa Ana, CA	800-869-9866
Trek	CA/NJ/WI	800-879-8735
United Bicycle Parts	Ashland, OR	800-482-1984
Merry Sales Co.	San Francisco, CA	800-245-9959

Shimano's Closet







You're already familiar with Shimano's goal....Developing and manufacturing components that offer cyclists more quality, function, and value. On or off the bike, Shimano's closet, "Components for you body", offer the same quality, value and function as they contribute to your overall enjoyment of the sport. After all, cycling is a true enthusiasts' sport and nothing displays your enthusiasm more than the latest fashions.



Shimano, in the spirit of quality, function, and value, has brought together, researched, created, and refined clothing and accessories that not only function, but also proudly proclaim you commitment to cycling, and the superlative attitude that makes you a fan of Shimano cycling components.





Shimano's CLoset features the very best in both fashionable, and technical clothing and accessories. Stylish embroidered logo caps, and the water resistant Outback hat keep you cool or dry depending on the prevailing weather, while the Shimano Sludge Apron, and the Shimano Racing Vest keep you clean in the shop, and fleecy warm. Racing jerseys, t-shirts, stickers, cycling socks, are all in Shimano's closet.



Components for your Body





Shimano's Workshop

Liquids for the Soul

Good lubricants can extend the life and performance of you bicycle components. Obviously, Shimano's Workshop lubricants meet the rigorous specifications called for by Shimano component specifications. They also come in some rather interesting packages. CFC free aerosols, a giant-handful pump, even a put-it-where-you-need-it hypodermic-like applicator, each designed to make maintenance a dream and not a chore.

Although they are designed to keep you from getting full of it, it's a given; bikes, grease, oil,.....you're gonna get dirty. There's no point in fighting it.



So Shimano's workshop also has a way to get clean that's equally innovative. Like a foaming hand cleaner that turns dirt into boogers? Just rub it on and dirty snot falls away.

Just check out the Workshop!







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

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

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

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

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

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

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

Shimano American Corporation
One Shimano Drive P.O. Box 19615
Irvine, CA. 92713-9615

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

SHIMANO®

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