



2009

SHIMANO

**MOUNTAINBIKE
COMPONENTS SYSTEMS**

English (GB)

Great performance and great fun on or off the road

When you're flying down a back woods trail you can't afford to worry about how your bike's going to respond. We design our mountain bike components so they do what you want them to - instantly. Shimano components create a more efficient bicycle-to-rider interface that demands less of your energy. We do it through low-effort and precise shifting systems and through V-BRAKES and disc brakes that deliver superior power and modulation. By using components that work for you, you can focus more on the task at hand - riding your bicycle. New Saint has been designed to maximize control and free you to find your flow.

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The new Shadow rear derailleur drastically reduces problems caused by obstacles. Dual diameter 4 piston calipers combined with Servo Wave levers deliver 50% more stopping power and excellent modulation. The previous DEORE LX was separated and inherited into two groups, SLX group for MTB and the new DEORE LX group for Trekking. Shimano SLX is especially developed for All Mountain riding. HB-M978 (XTR) and HB-M778/M758 (DEORE XT) 15mm thru-axle hubs for disc brake have been added to the range. Shimano MTB components support a wider range of riding styles for riders' fun.

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Find Your Flow

Gravity riding has evolved — bikes are lighter, trails are faster and smoother.

Whether you ride DH, Slope style, Aggressive, All-mountain or North Shore style freeride.

New Saint has been designed to maximize control and free you to find your flow.

Find your flow.

SAINT



Classification of MTB riding styles

When we at Shimano develop MTB components, we take into consideration such factors as strength, durability, compatibility and cost-performance based on the classification of MTB riding styles. SLX, for instance, is developed as "All Mountain" and "Cross Country" component. So its strength and durability are quite different from those of SAINT. Therefore, every component of SLX cannot be used as a replacement of SAINT component or as a component for "Freeride". We sincerely ask our dealers to strongly recommend that users should make intended use clear and use products appropriate to it.

Product combination is also important.

Product combination as well as product category is very important for safe and comfortable riding.

We at Shimano design every product giving careful consideration to the dynamics of related products to achieve a high level of performance. So, you may not get satisfactory performance out of the combination with the products of different categories even if they are all Shimano products.



WARNING

Don't use a bike equipped with casual MTB/CTB components on aggressive off-road trail.

ALIVIO, ACERA and ALTUS components are not developed for the serious MTB riding, while making a clear distinction with the high-end MTB components such as DEORE and SAINT groups in terms of purpose of use.

For instance, the use of a bike equipped with ALIVIO or ACERA components for aggressive riding may cause damage and possible injury. Also, TOURNEY components are the MTB-look product group for casual city riding on paved roads. We will appreciate that you understand the product level and intended use of each component group and please give guidance to users on safe riding.

**MTB
Cross Country
Racing**



**MTB
Cross Country**



**MTB
All Mountain**



**MTB
Freeride
Downhill**



**MTB
Trekking**



























Casual MTB



City Bike



Riding style	Cross country racing, marathon racing				
Trail	All type of terrain, minimal jumps and drops.				
Bike style	Most hard tails and short travel full suspension (*less than 100mm travel).				
Riding style	Cross country, marathon				
Trail	All type of terrain, minimal jumps and drops.				
Bike style	Most hard tails and short travel full suspension (*less than 130mm travel).				
Riding style	Enduro, expedition				
Trail	All type of terrain, with small jumps and drops.				
Bike style	Full suspension (*less than 150mm travel).				
Riding style	Extreme, North Shore, dirt jump, downhill racing, street				
Trail	Downhill, moderate or larger jumps and drops, technical descents.				
Bike style	Long travel full suspension (*more than 150mm travel, Strong frame and parts).				
Riding style	Trekking, cycling				
Trail	On-road				
Bike style	Trekking bike, light				
Riding style	Casual, sports riding				
Trail	Smooth off-road				
Bike style	Short-travel suspension, Non-suspension				
Riding style	Casual, city riding				
Trail	City paved road				
Bike style	MTB look-alike				

SHIMANO XTR



Engineered for the way you ride.

XTR pursues strength and durability like a fine sharpened edge of the sword while challenging maximum lightweight.

RD-M972-GS/SGS Shimano Shadow RD

- **Low profile and top normal design intended for more aggressive riding.**
- **Low profile and single tension construction**
- **Low profile design**
- **Direct routing reduces the risk of snagging.**
- **Stronger return spring for more crisp shifting feeling**
- **Capacity :** GS 35T, SGS 45T
- **Weight :** GS 180g, SGS 182g

RD-M970-GS/SGS Low Normal Rear Derailleur

RD-M971-GS/SGS Top Normal Rear Derailleur

- **Super Wide Link for higher rigidity**
- **Capacity :** GS 35T, SGS 43T
- **Weight :**
RD-M970-GS 197g, RD-M970-SGS 199g
RD-M971-GS 196g, RD-M971-SGS 197g

ST-M970 Dual Control Lever for V-BRAKE

ST-M975 Dual Control Lever for Disc Brake

- **Instant release for quicker shifts**
- **Multi-release allows two-gear shifts**
- **Weight :** ST-M975 442g

SL-M970A RAPIDFIRE Plus Shift Lever

- **Instant release for quicker shifts**
- **Multi-release allows two-gear shifts**
- **2-way release for different riding styles or shifting from various riding positions**
- **Weight :** 215g

FC-M970 HOLLOWTECH II Crankset

SM-BB90 Standard Bottom Bracket

Press fit BB (SM-BB91-41A/42A) also available

- **Titanium/ carbon composite middle chainring design for improved durability**
- **Left crank arm fixation**
- **Gearings :** 44-32-22T, 44-32-24T
- **Weight :** 770g (44-32-22T, 175mm)

BL-M975A Hydraulic Disc Brake Lever

BL-M970 V-BRAKE Lever

- **Perfect transmission which leads to top speed without shifting loss (M975A).**
- **Reach adjustment for a custom lever feeling**
- **Weight :** BL-M975A 194g, BL-M970 166g

BR-M975

Hydraulic Disc Brake Caliper for International A-type

BR-M975P

Hydraulic Disc Brake Caliper for Post-Mount type

SM-RT97 Center Lock Disc Rotor

SM-BH59 Brake Hose

- **Single forged mono-body construction**
- **Rotor variations :** SM-RT97SS*(140mm), RT97(160mm), RT97M(180mm), RT97L(203mm)
*For rear only
- **Weight :** BR-M975 217g, BR-M975P 221g
SM-RT97 135g, SM-BH59 55.2g

BR-M970 V-BRAKE

- **Proven performance of Shimano's Super Linear Response system**
- **Weight :** 400g

FD-M970 TOP SWING Front Derailleur

FD-M970-E

TOP SWING Front Derailleur (BB mount)

FD-M971 DOWN SWING Front Derailleur

- **Adjustment screws positioning for easier reach**
- **Weight :** FD-M970 125g, FD-M970-E 142g, FD-M971 148g

CS-M970 Cassette Sprockets

- **3-piece alloy carrier increases stiffness**
- **Gearings :** 11-32T, 11-34T, 12-34T
- **Weight :** 226.5g (11-32T)

HB/FH-M975 Hub set for Disc Brake

HB-M976 20mm Thru-axle Hub for Disc Brake

HB/FH-M970 Hub set for V-BRAKE

- **Angular contact bearings and oversize alloy axles**
- **Weight :** HB-M975 145g, FH-M975 270g
HB-M976 230g
HB-M970 140g, FH-M970 270g
QR(F) 56g, QR(R) 62g

HB-M978 15mm Thru-axle Hub for Disc Brake (NEW)

- **E-Thru system / Toolless type thru axle skewer system optimizes rigidity and weight balance and enables easy operation with reliable internal cam mechanism and new fixing structure.**
- **Center Lock rotor mount system**
- **Almost same stiffness as HB-M976**
- **Lighter than 20mm thru**
- **Weight :** 165g (w/o locking, locking : 10.5g)

PD-M970 SPD Pedal

- **Our lightest MTB SPD pedal ever**
- **Weight :** 325g (w/o cleats)

WH-M975 Wheelset for Disc Brake

WH-M970 Wheelset for Rim Brake

- **Super light wheelset**
- **Scandium alloy rim**
- **Tubeless & tube tire compatible**
- **Weight :** WH-M975 1538g pair (front : 705g, rear : 833g)
WH-M970 1536g pair (front : 690g, rear : 846g)

Dual Control
Lever

RAPIDFIRE
Plus



3X9-speed

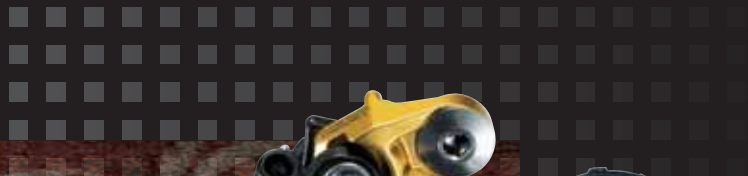


WH-M975

Find your flow.

SAINTE

NEW



SHIMANO SHADOW RD

RD-M810-SS

Find your flow

Gravity riding has evolved — bikes are lighter, trails are faster and smoother. Whether you ride DH, Slope style, Aggressive, All-mountain or North Shore style freeride. New Saint has been designed to maximize control and free you to find your flow.

RD-M810-SS/GS Top Normal Rear Derailleur

- Low profile Shadow technology
- Super wide inner link for awesome rigidity
- Skid plate design for more durability
- Mode converter for dual CS compatibility design concept
- DH mode :**
Close ratio setting for Downhill (23T-28T low).
- AM mode :**
Wide ratio setting for Freeride/ All-Mountain (28-34T low).
- 100g lighter than original M800.
- **Capacity :** SS 17T/ 23T*, GS 31T/37T*
*Mode converter
- **Weight :** SS 240g, GS 250g

SL-M810 RAPIDFIRE Plus Shifter

- Gravity oriented shift lever optimized for 1-finger braking and crisp shift feeling
- Ergonomic main lever shape
- Short release lever stroke for minimal effort of thumb
- 2-way release for quick action with 1 finger only
- Instant release for quick response
- In/ out board position bracket
- **Weight :** 237g

BL-M810 Hydraulic Disc Brake Lever

- Ergonomic lever shape
- Servo Wave for quicker contact and higher output
- Tool-free reach adjust
- Beefy lever blade
- Free stroke adjust
- **Weight :** 266g

FC-M810

HOLLOWTECH II Crankset for 68/ 73mm BB shell width

FC-M815

HOLLOWTECH II Crankset for 83mm BB shell width

SM-BB80 Standard Bottom Bracket

- All-Mountain compact drive
- 90g lighter and stronger than original M800
- Extreme duty spider arm and spindle
- Honeycomb designed bash guard absorbs impact
- Various choice of single gearing :
34/ 36/ 38/ 40/ 42T
- Wide range 36-22T gearing
- **Weight :**
FC-M810-1 1059g (170mm, 36T, w/ bash guard)
FC-M810-2 1090g (170mm)

CS-HG80-9 9-speed HG Cassette Sprocket

- 75g lighter than CS-M580 (11-34T)
- Alloy carrier for 3 large sprockets
- **Gearings :** 11-28T, 11-32T, 11-34T



FD-M815

TOP SWING Front Derailleur for 83mm BB shell width

FD-M817

DOWN SWING Front Derailleur for 83mm BB shell width

- Best tuned shifting performance for 36-22T
- Double only construction increases plate stiffness
- Short & wide chain guide for wider tire clearance
- Wide link chain guide for rigid & strong (M815)
- Compact inner link for lighter & crisp shifting feeling (M817)
- For 65-71 degree frame
- **Weight :** FD-M815 147g
FD-M817 170g

BR-M810 Hydraulic Disc Brake Caliper

SM-RT79 Center Lock Disc Rotor

SM-BH80-SB Brake Hose

- Dual diameter 4-piston caliper combined with Servo Wave lever/ Delivers 50% more stopping power and excellent modulation (compared to M800). Even pad wear and consistent performance.
- High volume caliper/ Improved oil flow and easy bleeding
- Rigid design
- **Rotor variations :** SM-RT79 (160mm), RT79M(180mm), RT79L (203mm)
- New stiffer hose by Vinylon
- **Weight :** BR-M810 324g
(metal pad, w/o adapter)
SM-RT79 134g

HB-M810 20mm Thru-axle Hub for Disc Brake

- Lightweight
- Center Lock rotor mount system
- High quality seal
- Fully adjustable and easy service bearing
- Rigid and strong
- **Weight :** 225g

FH-M810

Rear Freehub for 135mm O.L.D. (10/12mm axle)

FH-M815

Rear Freehub for 150mm O.L.D. (12mm axle)

- One piece axle for lightweight and stronger
- Center Lock rotor mount system
- Hybrid labyrinth seals improves durability (400%)
- Quicker engagement (10 degree)
- **Weight :** FH-M810 355g (12mm, w/o axle)
375g (10mm, w/o axle)
FH-M815 367g (w/o axle)

RAPIDFIRE Plus



2/1 X 9-speed

The Shimano Deore XT logo is displayed in the bottom right corner. It features the word "SHIMANO" in a bold, sans-serif font, followed by "Deore" in a smaller, italicized font, and "XT" in a large, bold, italicized font.

Engineered for the way you ride

Shimano Deore XT addresses the various needs of today's riders. The rear derailleur "Shimano Shadow RD", was specially designed for more aggressive all mountain riding. Together with double servo-panta mechanism derailleurs, you have the right choice for your riding style.

RD-M772 Shimano Shadow RD

- **Low profile and top normal design intended for more aggressive riding.**
- **Low profile and single tension construction**
- **Direct routing reduces the risk of snagging.**
- **Stronger return spring**
- **Capacity : GS 35T, SGS 45T**

RD-M770 Low Normal Rear Derailleur

RD-M771 Top Normal Rear Derailleur

- **Double servo-panta mechanism**
- **Capacity : GS 35T, SGS 45T**

ST-M775 Dual Control Lever for Disc Brake

ST-M770 Dual Control Lever for V-BRAKE

- **Compact design, and ergonomic shaped brake lever**
- **Multi-release allows shifts of two gears.**
- **Instant release for quick shifts**

SL-M770 RAPIDFIRE Plus Shifter

- **2-way release**
- **Instant release for quick shifts**
- **Choice of inboard and outboard position**
- **Removable Optical Gear Display**

FC-M770 HOLLOWTECH II Crankset

SM-BB70 Standard Bottom Bracket

Press fit BB (SM-BB91-41A) also available

- **Steel/carbon composite construction and middle gear double durability**
- **Thicker and stiffer 44T ring**
- **Gearing : 44-32-22T**

FD-M770 TOP SWING Front Derailleur

FD-M770-E TOP SWING Front Derailleur

FD-M771 DOWN SWING Front Derailleur

FD-M771-D DOWN SWING Front Derailleur NEW

- **Angled adjustment screws for easy access with a screw driver.**
- **Increased tire clearance through modified cage tail shape**
- **BB mount type (M770-E)**
- **Direct mount type (M771-D)**

BL-M775 Disc Brake Lever

ST-M775 Dual Control Lever

- **Servo Wave for quicker engagement, 20% more stopping power**
- **Reach adjustment for personal preference**
- **Free stroke adjustment**

BR-M775 Hydraulic Disc Brake Caliper

SM-RT79 Center Lock Disc Rotor NEW

SM-BH59 Brake Hose

- **Stiffer mono-block caliper body**
- **New designed rotor for better pad life**
- **Rotor variations : SM-RT79(160mm), RT79M(180mm), RT79L(203m)**

HB/FH-M775 Hub set for Disc Brake

HB/FH-M770 Hub set for V-BRAKE

HB-M776 20mm Thru-axle for Disc Brake

- **Quicker engagement freehub body (10 degrees)**
- **Center Lock rotor mount (HB/ FH-M775, HB-M776)**

HB-M778/M758 NEW

15mm Thru-axle Hub for Disc Brake

- **E-Thru system**
- **Almost same stiffness as current 20mm model**
- **Lighter than 20mm thru**
- **Center Lock rotor mount (M778)**
- **6-bolt type rotor mount (M758)**

BL-M770 V-BRAKE Lever (1.5-finger)

BR-M770 Cassette Sprockets

- **Super lightweight**

CS-M770

- **Alloy carrier for 5 large sprockets (11-32T) and 6 large sprockets (11-34T)**
- **Gearings : 11-32T, 11-34T**

Dual Control
Lever



RAPIDFIRE
Plus



2-WAY
RELEASE



PD-M770 SPD Pedal

- **Easy step-in/out**
- **Mud shedding interface**

WH-M775 XC Disc Brake Wheelset

WH-M770 XC Rim Brake Wheelset

WH-M776 All-Mountain/Enduro Wheelset

WH-M778 All-Mountain Wheelset NEW

- **Ultra thin wall extrusion reinforced at spoke hole**
- **Straight and 2-across spoke laced**
- **Center Lock rotor mount system (M775/ M776/ M778)**
- **20mm thru axle (M776)**
- **15mm thru axle: E-Thru (M778)**
- **Weight :**
WH-M775 1731g pair (front: 785g, rear: 946g)
WH-M770 1668g pair (front: 731g, rear: 937g)
WH-M776 2035g pair (front: 967g, rear: 1068g)
WH-M778 1744g pair (front: 798g, M775 rear: 946g)

3 X 9-speed



WH-M778

Tough, Aggressive, Light. For updated off road riding.

"Shimano SLX" has a high image and covers All-Mountain. Many functions of SLX are different than XT and Deore. That means SLX has several distinctive features including a front double chainwheel as an option, which XT or Deore doesn't have.

RD-M662-GS/SGS Top Normal Rear Derailleur

- **Low profile shadow technology**/ Straight cable design. Crisp and accurate shifting. No chain stay contact. Stronger guide spring.
- **45g lighter than RD-M581**

SL-M660 RAPIDFIRE Plus Shifter

- 2-way release
- Crisp index feeling and accurate shifting
- In/ out board 2-position bracket
- Removable Optical Gear Display

BL-M665 Hydraulic Disc Brake Lever

- Optimized for 20% higher stopping power (than BR-M585) by servo wave
- Tool-free reach adjust
- More ergonomic. Direct cable routing.

FC-M660/M665 HOLLOWTECH II Crankset

SM-BB70 Standard Bottom Bracket

Press fit BB (SM-BB91-41A) also available

- Composite middle chainring offer double service life, improved shifting and smoother pedaling (M660).
- 2 tone colored crank arm
- High rigidity crank arm
- Accurate chainline construction by 2-piece structure
- Reinforced construction for extreme riding style (M665)
- Increased ground clearance (M665)
- Honeycomb designed bash guard absorbs impact (M665)
- FC-M660: 44-32-22T, 48-36-26T
- FC-M665: 36-22T w/ bash guard



RD-M662



NEW

SLX

RAPIDFIRE
Plus

3-WAY
RELEASE

MECA
DRIVE TRAIN

CENTER LOCK

HOLLOWTECH

HYPERDRIVE

3/2 X 9-speed

FD-M660/M660-E

TOP SWING Front Derailleur

FD-M661/M661-D

DOWN SWING Front Derailleur

- For triple crankset FC-M660
- Wide link design
- Improved clearance
- Lighter than the previous model
- Fit for latest full suspension MTB
- BB mount type (M660-E)
- Direct mount type (M661-D)

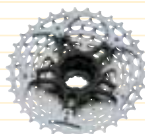
FD-M665 TOP SWING Front Derailleur

FD-M667 DOWN SWING Front Derailleur

- For double crankset FC-M665
- Compact cage design
- Exclusive design for All-Mountain compact drive
- Matched radius reduces chain drop
- Wider chain stay angle improved suspension compatibility (65-71 degree)
- Improved clearances

CS-HG80-9 9-speed HG Cassette Sprocket

- 75g lighter than CS-M580 (11-34T)
- Alloy carrier for 3 large sprockets
- Gearings : 11-32T, 11-34T



BR-M665 Hydraulic Disc Brake

SM-RT64 Center Lock Disc Rotor

SM-BH59 Brake Hose

- Optimized for 20% higher stopping power (than BR-M585) by servo wave
- Opposed 2-piston system
- New designed rotor
- Rotor variations: SM-RT64(160mm), RT64M(180mm), RT64L(203mm)

HB/FH-M665 Hub Set for Disc Brake

HB-M667 20mm Thru-axle Front Hub

- Micro ratchet mechanism freehub/ Quicker engagement (11.25 degree). Faster acceleration.
- High performance seal mechanism
- Cup & cone adjustable bearing system
- Center Lock disc mount
- Long durability

High-performance components for serious cycling fun

DEORE is designed to appeal to a wide range of cycling fans. DEORE design concept blends “Smart & Sharp” forms intended to complement bikes for trekking as well as MTB’s.

ST-M530/M535 Dual Control Lever

- **Dual Control Lever/** Allows lever operation from multiple hand positions.
- **Compact shifting mechanism**
- **Optical Gear Indicator**
- **SIS-SP41 outer casing**
- **ST-M530** : for V-BRAKE
- **ST-M535** : for hydraulic disc brake
- **Color options** : Black, silver

RD-M531-SGS Top Normal Rear Derailleur

RD-M530-SGS Low Normal Rear Derailleur

- **Wide link design/** Increases rigidity and service life
- **Capacity** : 45T
- **Color options** : Black, silver

FD-M530/M531 Front Derailleur

- **Wide link design**
- **Hyperdrive compatible**
- **TOP SWING** front derailleur (M530)
- **Dual Pull**
- **Multi Clamp**
- **Compatible with 44T and 48T top**
- **Total capacity** : 22T
- **Top-middle capacity (min)** : 12T
- **Variations** :
FD-M530-3 : TOP SWING FD (63-66")
FD-M530-6 : TOP SWING FD (66-69")
FD-M531-3 : DOWN SWING FD (63-66")
FD-M531-6 : DOWN SWING FD (66-69")

FC-M532/M533-K Crankset

SM-BB50 Standard Bottom Bracket

Press fit BB(SM-BB91-41A) also available

- **9-speed HG chain compatible**
- **2-piece construction**
- **Outboard bearing system**
- **FC-M532** : 44-32-22T, 48-36-26T
- **FC-M533-K** : 44-32-22T, 48-36-26T chaincase compatible
- **Color options** : Black, silver

CS-HG61-9 9-speed Cassette Sprockets (NEW)

- **Hyperglide sprocket design**
- **52g lighter than CS-HG50-9 (11-34T)**
- **Gearings** : 11-32T, 11-34T



BR-M535 Hydraulic Disc Brake

SM-RT62 Disc Rotor

SM-BH59 Brake Hose

- **Opposed 2-piston design**
- **Easy and fast set-up**
- **Center Lock system**
- **Resin and metal pads are available**
- **Compatible with International and Post-type mounts**

SL-M530 RAPIDFIRE Plus Shifter

- **2-way release for faster shifts during various riding conditions and situations**
- **SIS-SP41 outer casing**

BL-M535 Hydraulic Disc Brake Lever

- **Lever reach adjustment**

BR-M530 V-BRAKE

- **Longer arms for better mud guard clearance (107mm)**
- **Color options** : Black, silver

BL-M511 V-BRAKE Lever

- **Adjustment lever reach**
- **Color options** : Black, silver

HB/FH-M530 Hub set for V-BRAKE

HB/FH-M535 Hub set for Disc Brake

- **Center Lock system compatible (M535)**
- **Improved sealing system/** O-rings of front hub and internal grease sleeve of rear freehub
- **Cup & Cone bearing**
- **Smooth rolling**
- **Rubber cap available for Center Lock mount**
- **Color options** : Black, silver
- **32H/ 36H**



A DEORE low normal rear derailleur and Dual Control Lever are also available.

SHIMANO *Deore*



**Dual Control
Lever**

**RAPIDFIRE
Plus**



3X9-speed

High performance, best value MTB components



CATALINK

HYPERDRIVE

**RAPIDFIRE
Plus**

EZ FIRE-Plus

3X8-speed

ST-M410 RAPIDFIRE Plus Shift/Brake Lever Set

ST-M405 EZ FIRE Plus Shift/Brake Lever Set

SL-M410 RAPIDFIRE Plus Shift Lever

- **8-speed shifting**
- **Wide Optical Gear Display**
- **Lever reach adjustment**
- **Color options** : Black, silver (ST-M410)

RD-M410-SGS Rear Derailleur

- **Compatible with 8/7-speed HG sprocket**
- **Advanced Light Action design**
- **13-tooth pulleys**
- **Low-friction link pivot bushings**
- **SIS rear index shifting**
- **Capacity** : 43T
- **Color options** : Black, silver

FD-M412 TOP SWING Front Derailleur

FD-M410-E

TOP SWING Front Derailleur (BB mount)

FD-M413 DOWN SWING Front Derailleur

- **7/8-speed compatible**
- **Hyperdrive compatible**
- **Wide link design**
- **Dual pull**
- **Multi clamp**
- **Compatible with both 47.5/50 mm chainline (M412/M413).**
- **Modified chain guide tail shape for more tire clearance (M412/M413)**
- **Inner link position change for more mud guard clearance (M413)**
- **Capacity** : 20T
- **Variations** : FD-M412-3 (63-66")
FD-M412-6 (66-69")
FD-M410-E (66-69")
FD-M413-3 (63-66")
FD-M413-6 (66-69")

CS-HG50-8I 8-speed HG Cassette Sprockets

- **HG sprockets/** Compatible with HG/IG chains, HG sprockets deliver faster, quieter down-shifts and smoother up-shifts
- **Gearings** : 11-28T, 11-32T, 11-30T

FC-M410-8 OCTALINK Crankset

FC-M410 Crankset

FC-M411 Crankset (chaincase compatible)

- **8-speed HG chain compatible**
- **Hyperdrive SG-X chainrings**
- **DUAL SIS compatible**
- **Chainguard type available**
- **Replaceable steel chainrings**
- **FC-M410/ M410-8** : 42T-32T-22T
FC-M411 : 42T-32T-22T, 48-38-28T
- **Color options** : Black, silver

BB-ES25 OCTALINK Bottom Bracket

BB-UN26 Cartridge Bottom Bracket

- **Smooth rotation**

BL-M421 V-BRAKE Lever 

- **Updated brake lever shape**
- **Strong braking power with excellent braking control**
- **Color options** : Black, silver



SHIMANO
ALIVIO

Perfect command Acera

Acera component group is characterized by three keywords: accurate, precise and stylish. This group provides accurate shifting with less pedaling power loss, strong braking power and excellent braking efficiency for precise speed control, and an exciting stylish design and slim profile.

ST-M360 ^(NEW)

8-Speed RAPIDFIRE Plus Shift/ Brake Lever Set

SL-M360 RAPIDFIRE Plus Shifter ^(NEW)

- 2/4-finger for lever size (ST-M360)
- Lightweight
- Easy to read Optical Gear Display
- Color options : Black, silver (ST-M360)

ST-EF60-8R/L

8-Speed EZ FIRE Plus Shift/Brake Lever Set

- Large Optical Gear Display compared to ST-EF50
- Right side cable adjusting barrel
- Color options : Black, silver

ST-EF50-8R/L

8-Speed EZ FIRE Plus Shift/Brake Lever Set

- Lever reach adjustment
- Color options : Black, silver

RD-M360 ^(NEW) /M310

Rear Derailleur

- Wide link design increases durability and precise shifting .
- Advanced light action
- 13T/ 13T pulley (M360)
- MegaPulley (M310)
- Capacity : 43T
- Color options : Black, silver

FC-M361 ^(NEW) /M311 Crankset (BB-UN26)

FC-M361-8 ^(NEW) /M311-8

OCTALINK Crankset (BB-ES25)

- Hyperdrive SG-X chainrings
- Chainguard integrated design
- Replaceable chainring (M361/M361-8)
- Chaincase compatible
- FC-M361/M311 : 42-32-22T, 48-38-28T
- FC-M361-8/M311-8 : 42-32-22T
- Color options : Black, silver

BB-UN26 Bottom Bracket

BB-ES25 OCTALINK Bottom Bracket

- Smooth rotation
- Oversized BB spindle (BB-ES25)

FD-M360 TOP SWING Front Derailleur ^(NEW)

FD-M310 TOP SWING Front Derailleur

FD-M311 DOWN SWING Front Derailleur

- 7, 8-speed compatible
- Hyperdrive compatible
- DUAL SIS front index shifting
- Wide link design for great shifting performance
- 47.5/50mm chainline compatible
- Better clearance with mud guard/tire
- Variations : FD-M360-3 (63-66°)
FD-M360-6 (66-69°)
FD-M310-3 (63-66°)
FD-M310-6 (66-69°)
FD-M311-3 (63-66°)
FD-M311-6 (66-69°)

FC-M191 Crankset

- 8,7,6-speed
- Gears : 42-34-24T, 48-38-28T
- Chainline : 47.5mm
- Chainguard option available
- Color options : Black, silver (Many color options)

FD-M190 TOP SWING Front Derailleur

- 7, 8-speed compatible
- DUAL SIS front index shifting
- Compatible with 42-34-24T
- Designed for chainline 47.5/50mm

CS-HG50-8I/HG40-8I/HG30-8I

8-speed HG Cassette Sprockets

- **HG sprockets** / Compatible with HG&IG chains, HG sprockets deliver faster, quieter down-shifts and smoother up-shifts
- **CS-HG50-8I** : 11-28T/ 11-30T/ 11-32T
- **CS-HG40-8I/ HG30-8I** : 11-30T/ 11-32T/ 11-34T

BR-M432/M422 V-BRAKE ^(NEW)

- 107mm arch/
Better clearance with mud guard
- **Strong braking power with excellent braking control**
- Cartridge shoe holder (M432)
- Color options : Black, silver

FH-RM60-8 Rear Freehub (8-speed)

HB-RM60 Front Hub

- **Wide bearing placement and reduced spoke offset strengthen the rear wheel.**

* 7-speed system is also available.

SHIMANO *Acera* SHIMANO *ALTUS*



STALINK



HYPERDRIVE

**RAPIDFIRE
Plus**

EZ FIRE-Plus

MEGARANGE

3×8-speed

Shimano DXR-bringing top-level design and engineering to BMX racing.

Designed to meet the demands of professional BMX racing. Ideal for use at the local race track.



FC-MX70 HOLLOWTECH II Crankset

SM-CR80 Chainring

- Conceived for strength based on proven SAINT HOLLOWTECH II design
- Chainring options : 34/ 38/ 41/ 42/ 43/ 44/ 46T
- Reinforced pedal/crank interface (T-nut style steel threaded bushing)
- Optical Gear Display
- Crank arms length variations : 165mm, 170mm, 175mm, 180mm
- 9-speed HG chain compatible
- Chainline 44mm
- 68mm BB shell compatible

BL-MX70 V-BRAKE Lever

- Right and Left hand levers available
- Proven performance of Shimano's Super Linear Response system
- 2-finger Deore-type lever/ The preferred choice of top professionals

BR-MX70 V-BRAKE

- Rear brake only
- Cold forged brake arm
- Cartridge shoe

HB-MX70 Front Hub

FH-MX70 Rear Freehub

- Super smooth angular contact bearings
- Durable, quicker engagement freehub based on XTR
- 32H/ 36H

CS-MX66 Sprocket

- Single sprocket : 14/15/16/18T



SHIMANO
DXR

Non-series components



Crankset for 9-speed

FC-M545 2-piece solid Crankset NEW

SM-BB50* Standard Bottom Bracket

- All-Mountain compact drive
- Gearing : 36-22T with bash guard

FC-M542/FC-M543-K 2-piece solid Crankset

SM-BB50* Standard Bottom Bracket

- Outboard bearing system
- Color options : Black, silver
- Gearings : FC-M542 : 44-32-22T
FC-M543-K : 44-32-22T, 48-36-26T
chaincase compatible

* FC-M545/M542 : Press fit BB(SM-BB91-41A)
also available

FC-M521-L/S HOLLOWTECH Crankset

BB-ES25-AK/E OCTALINK Bottom Bracket

- OCTALINK construction
- Color options : Black, silver
- Gearings : 44-32-22T, 48-36-26T
chaincase compatible

SHIMANO XTR

Mountainbike wheel systems

Systems engineering at its best!

The Shimano Wheel System is the wheel that is suitable for every riding situation without compromise. It's a lightweight, strong, durable and efficient wheel with an amazing smooth ride. XTR WH-M975, super light disc wheel set for cross country.

WH-M975

- Disc brakes compatible only
- 24 Balanced spoke pattern for increased lateral stiffness
- Light but tough Scandium alloy rims
- Tubeless & tube tire compatible allows for a wider choice of tires
- Quicker engagement 4-pawl freehub body engages faster than previous generations for a feeling of instant power transfer
- Top-notch, premium laser cut logo QR levers
- Center Lock rotor mounts to the hub quickly and effectively
- Weight: 1538g pair



WH-M970

- Rim brakes compatible only
- Balanced spoke pattern for increased lateral stiffness
- 20 spoke front, 24 spoke rear spokes
- Light but tough Scandium alloy rims
- Tubeless & tube tire compatible
- Quicker engagement 4-pawl freehub body
- Top-notch, premium laser cut logo QR levers
- Weight: 1536g pair



WH-M775

- Disc brakes compatible only
- Ultra thin wall extrusion reinforced at spoke hole
- 24 balanced spoke pattern for increased lateral stiffness
- Center Lock rotor mounts to the hub quickly and effectively
- Straight spokes and 2-cross lace for increased torsional rigidity and spoke life
- Tubeless & tube tire compatible allows for a wider choice of tires
- Quicker engagement 4-pawl freehub body
- Weight : 1731g pair



WH-M776

- Disc brakes compatible only
- Ultra thin wall extrusion reinforced at spoke hole
- 24 balanced spoke pattern
- Center Lock rotor mounts to the hub quickly and effectively
- Straight spokes and 2-cross lace
- Tubeless & tube tire compatible
- Quicker engagement 4-pawl freehub body
- 20mm thru-axle
- Weight : 2035g pair



20mm thru-axle

WH-M778 (NEW)

- Disc brakes compatible only
- Ultra thin wall extrusion reinforced at spoke hole
- 24 balanced spoke pattern
- Center Lock rotor mounts to the hub quickly and effectively
- Straight spokes and 2-cross lace
- Tubeless & tube tire compatible
- Quicker engagement 4-pawl freehub body
- 15mm thru-axle : E-Thru system
- Weight : 1744g pair



15mm thru-axle

WH-M770

- Rim brakes compatibility only
- Ultra thin wall extrusion reinforced at spoke hole
- Balanced spoke pattern
- 20 spoke front, 24 spoke rear spokes
- Straight spokes and 2-cross lace
- Tubeless & tube tire compatible
- Quicker engagement 4-pawl freehub body
- Weight : 1668g pair



SHIMANO *Deore* XT

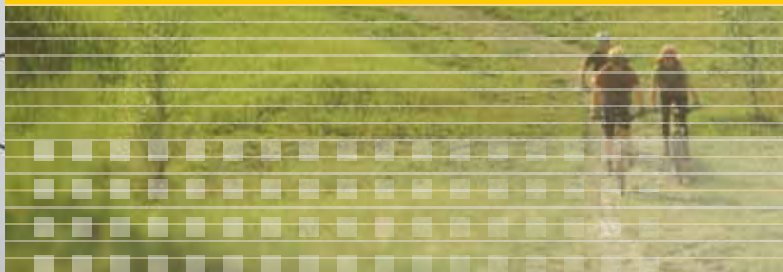


WH-MT75 ^{NEW}

- 29er wheelset
- Disc brakes compatible only
- **Balanced 24 spoke design** : stainless, double butted, high tension, straight pull.
- **23.3mm wide (622x19C ETRTO) rim**
- **Center Lock rotor inter face** (optional 6-bolt adaptor available)
- **Angular contact bearings ensure long life and maximum efficiency.**
- **Tubeless & tube tire compatible**
- **Weight** : 1863g pair



Center Lock adapter
for 6-bolt rotor
(SM-RTAD10) 29g/ wheel



WH-M505

- Shimano quality replacement wheelset
- Both disc and rim brake compatible
- Center Lock rotor mounts to the hub quickly and effectively
- Angular contact bearing assemblies and dependable Shimano freehub
- 28 spokes front and rear
- **Weight** : 2126g pair



WH-M505-disc

- Shimano quality replacement wheelset
- Disc brakes compatible only
- Center Lock rotor mounts to the hub quickly and effectively
- Angular contact bearing assemblies and dependable Shimano freehub
- 28 spokes front and rear
- **Weight** : 2141g pair



Disc brake performance

M01/ M03/ M06 : Longer pad-life, good for anti-fade, good consistency either dry/ wet.
May cause noise while braking.

M02/ M04/ M05/ M07/ M07S : Same level performance as metal pad. Shorter pad-life than metal.

M06Ti : Longer pad-life, good for anti-fade, good constancy either dry/ wet. May cause noise while braking. Titanium plate, light weight.

M07Ti : Longer pad-life on long descend. Titanium plate, light weight.

A01S/ B01S : Same performance of metal pad. Longer pad-life on long descends.

M08 : Do not use M08 brake pads in combination with the BR-M51S/ BR-M51S-LA brake systems. If M08 brake pads are used, the brake arm and caliper will touch before the pad wear indicator is noticed and a noise indicating that the pads need to be replaced is heard, and this will result in a gradual reduction in braking performance until ultimately the brakes stop working.

Weight unit; gram

Model	XTR M975	SAINT M810	Deore XT M775	SLX M665	M575	T605	DEORE M535	M486	M495	M416	R505
Caliper	opposed two-piston	opposed four-piston	opposed two-piston	opposed two-piston	opposed two-piston	opposed two-piston	opposed two-piston	opposed two-piston	single piston	single piston	single piston
Pad	M07Ti: resin option/ M06Ti:metal	D02: metal	A01S : resin option/ M06 : metal	A01S : resin option/ M06 : metal	B01S : resin option/ E01S : metal	A01S : resin option/ M06 : metal	M07 : resin option/ M06 : metal	B01S : resin	M08 : resin	M08 : resin	M06 : metal
Caliper (front)	106.5 g BR-M975	162 g BR-M810	125.5 g BR-M775	150 g BR-M665	153 g BR-M575	150 g BR-T605	163 g BR-M535	155 g BR-M486			
Lever (front)	98 g BL-M975A	133.4 g BL-M810	128 g BL-M775	132 g BL-M665	117 g BL-M575	140 g BL-T605	125 g BL-M535	127 g BL-M486			
① Subtotal (BR+BL)	204.5 g	295.4 g	253.5 g	282 g	270 g	290 g	288 g	282 g			
Hub (front)	145 g HB-M975	229 g HB-M810	161 g HB-M775	188 g HB-M665	190 g HB-M535	190 g HB-R505	190 g HB-M535	185 g HB-M495A			
QR	56 g		56 g	59 g	59 g	59 g	59 g	81 g			
Rotor	135 g RT97 160mm	203 g RT79 203mm	134 g RT79 160mm	153 g RT64 160mm	153 g RT64 160mm	153 g RT64 160mm	165 g RT62 160mm	165 g RT62 160mm			
② Subtotal (HB+QR+Rotor)	336 g	432 g	351 g	400 g	402 g	402 g	414 g	431 g			
①+② (Total)	540.5 g	727.4 g	604.5 g	682 g	672 g	692 g	702 g	713 g			

Note: • Always use genuine Shimano mineral oil with Shimano disc brakes.
• Both international A-type and Post-Mount type are available.
• Brake pad number is on the backside of the pad.

Weight: • Post mount including 2 bolts • Resin pad (M810: metal pad)
• Rotor include lockring • HB-M810: Thru-axle

Disc brake system

Hydraulic Disc Brake System

BR-M575/M486 ^{NEW}

Hydraulic Disc Brake (Shimano logo)

BL-M575/M486 ^{NEW}

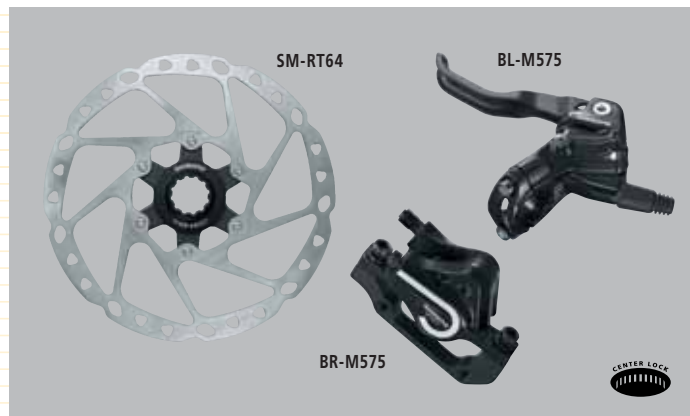
Hydraulic Disc Brake Lever (Shimano logo)

SM-RT64 ^{NEW} /RT53

Center Lock Compatible Disc Rotor

SM-RT51 6-bolts Type Disc Rotor

- Flip flop lever design (M575)
- Resin pad only (M486)
- Center Lock rotor mount (SM-RT64/RT53)



Mechanical Disc Brake System

BR-M495/M416 ^{NEW} Mechanical Disc Brake

SM-RT53 Center Lock Compatible Disc Rotor

SM-RT61/RT51 6-bolts Type Disc Rotor

- Affordably priced cable disc caliper
- Pad clearance adjustability from both sides (BR-M495)
- Easy set-up and adjustment
- Barrel adjuster
- Compact caliper body design
- Strong braking power with excellent braking control
- Resin pad only
- Color options : Black, silver (BR-M416)

HB/FH-M495A Hub Set

- Center Lock system compatible
- Cup & Cone bearing
- High sealing performance and the internal grease sleeve for improved durability
- Color options : Black, silver

HB/FH-M475 Hub Set

- Cup & Cone bearing
- Color options : Black, silver





Shimano Original Functions

Thanks to the constant challenge to the evolution of bicycle and its functions, the bicycle has become faster, safer, and more comfortable. At Shimano, we have continued to pursue basic performances and advanced functions of bicycle components from the viewpoint of understanding the bicycle as an integrated system. Sometimes we have developed unique functions that were way beyond the bounds of common sense. At other times we have created new functions by analyzing the psychology of cyclists including the professional racers under stress. And now we are working on the further futuristic development themes such as originating products that are easy and more comfortable for everyone and also good for the ecology. The development themes are "Best Shifting Performance" and "Best Braking Performance". We have created all of Shimano original functions introduced here in search of better relationship between bicycles and people.

Best Shifting Performance

SHIMANO SHADOW RD (XTR/ SAINT/ DEORE XT/ SLX)

New mechanism rear derailleur, SHIMANO SHADOW is intended for more aggressive riding. Its super low profile design carries many benefits. Because of its low profile and single tension construction, the derailleur doesn't hit the chain stay in rough riding conditions. The result is smooth and silent performance.



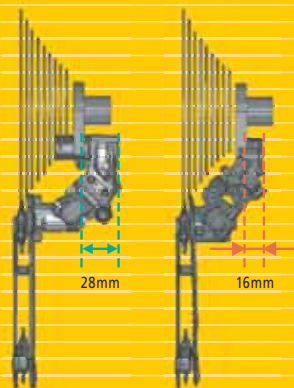
Deep SHADOW Rear Derailleur (SAINT)

In addition, SAINT RD-M810 rear derailleur is designed to be more compact than XTR or XT. The new rear derailleur tucks in to the dropout area to escape contact with obstacles and prevents chain troubles for matching up with the extreme riding such as downhill and freeride.

<Low profile design (XTR/ XT/ SLX) >

Conventional

Shadow RD

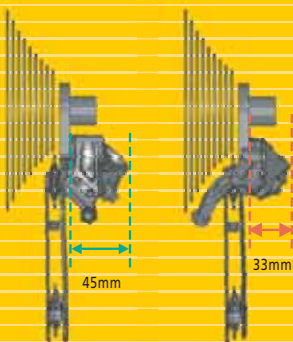


Low gear position

-12mm

Conventional

Shadow RD



Top gear position

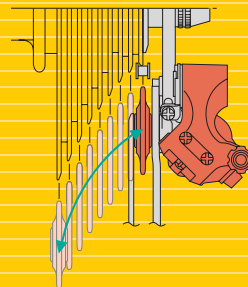
-12mm



RD-M810

Double Servo-Panta Mechanism

Shimano's Double Servo-Panta Mechanism enables the rear derailleur to move in an optimum path. The guide pulley tracks the cogs closely while moving front to back, optimizing each shift. Perfect tracking contributes to the most accurate SIS shifting.

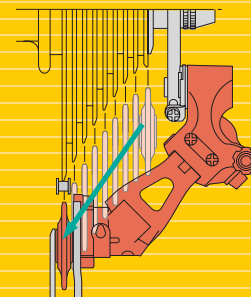


Keeps rear derailleur guide pulley at an optimum distance from each sprocket.

Top Normal Derailleur System

(Recommended in combination with RAPIDFIRE Plus Shift Levers)

Top normal rear derailleurs are traditional spring derailleurs. RAPIDFIRE Plus users tend to prefer the increased reaction time of top normal rear derailleurs because they downshift more gears faster. Riders who have prioritized the need to react quickly further appreciate the ability to make inward shifts with the thumb, the strongest of all fingers.

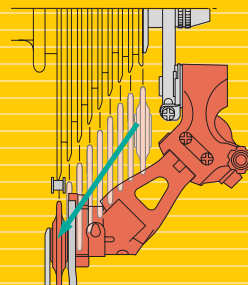


Quick shifting :
Inward shifting with thumb.
Shifting can be completed swiftly.

Low Normal Derailleur System

(Recommended in combination with Dual Control Levers)

With the advent of the low normal rear derailleur, Shimano has taken downshifting to a new level by using spring force to execute shifts to a lower gear. Inward shifting is further enhanced by the ability to pre-select gears, or activate shifts without pedaling. Pre-selecting gears gives you a unique advantage by allowing you to anticipate a shift before it happens.



By spring return force :
Spring force makes entrance
into the shifting gate smooth.

RAPIDFIRE Plus Shift Lever

(Recommended in combination with a top normal rear derailleur)

Mountain bikers have used RAPIDFIRE Plus since 1985. RAPIDFIRE Plus is still a winning choice from a wide range of riders from XC racers to freeriders. RAPIDFIRE Plus is suited to urgent shifting, giving riders with top normal rear derailleurs the ability to downshift three gears in one stroke. RAPIDFIRE Plus shifters from DEORE to XTR all feature 2-way release, which means release shifts by pull of the index finger or push of the thumb. With XTR you also get Instant Release and Multi-Release.

Wide Link Front and Rear Derailleur

The wide pivot link design boosts strength and rigidity. Flex is suppressed, creating sharp, precise shifts that are faster and smoother, even from low to high gears, off the saddle.



FD-M771



RD-M772

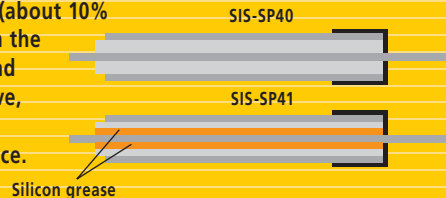


SL-M970
RAPIDFIRE Plus shift levers

RD-M972
Top Normal
Shimano Shadow
Rear Derailleur

SIS-SP41

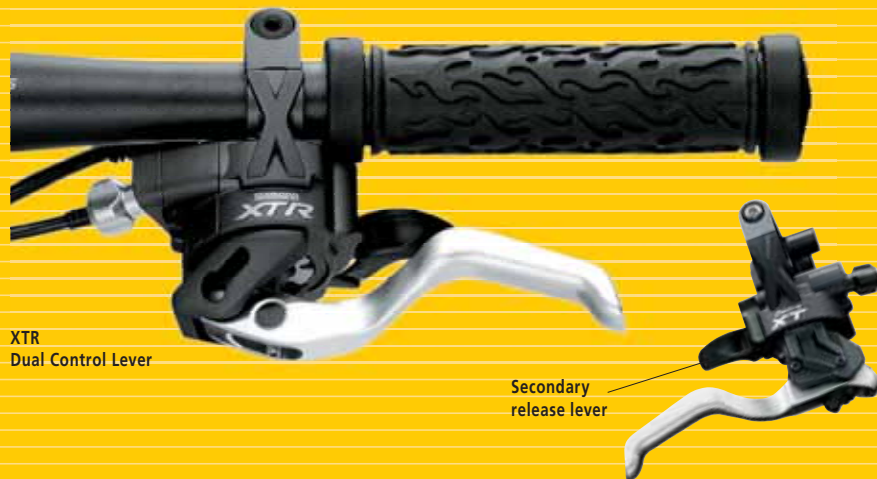
The SIS-SP41, being pre-lubricated with the special silicon grease inside of the outer casing, decreases the resistance inside the outer cable significantly (about 10% in comparison with the previous model) and achieves an intuitive, quick and precise shifting performance.



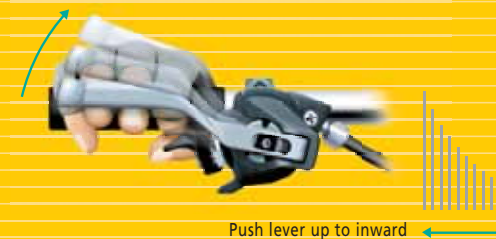
Dual Control Lever

(Best paired with a Low Normal RD)

The Dual Control Lever sets a standard for shifting ease and swiftness. It lets you shift gears up or down, regardless of your hand position on the handle bar. The secondary release lever provides another shifting option that is a great “transitional” feature as you become accustomed to Dual Control shifting and can be removed if desired for the ultimate “clean” set-up. Internally, shifting is executed by the tried and true high precision indexing system found in the M950 series XTR, featuring three sets of ball bearings that result in more precise shifts, a shorter lever stroke and decreased shifting effort.

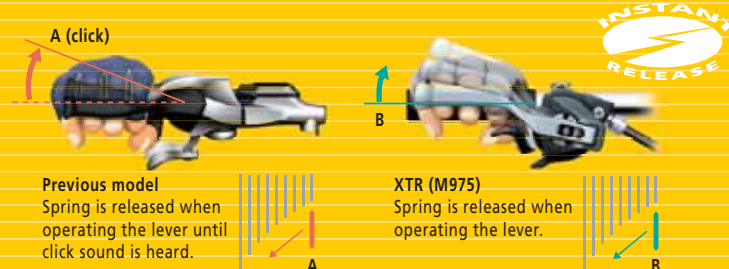


Braking



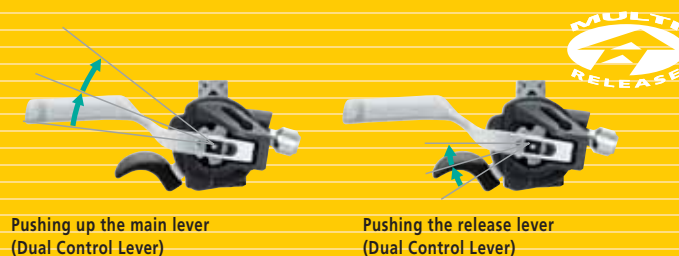
Instant Release (XTR/ SAINT/ DEORE XT)

Since the left and right Dual Control Lever operate in the same way with the low normal rear derailleur, intuitive and accurate operation is possible. In addition, accurate inward shifting through one touch operation is realized since spring tension supports changing to a lower gear. There is no need to push the chain to the gear by force. Therefore noise is reduced and the gears have longer durability.



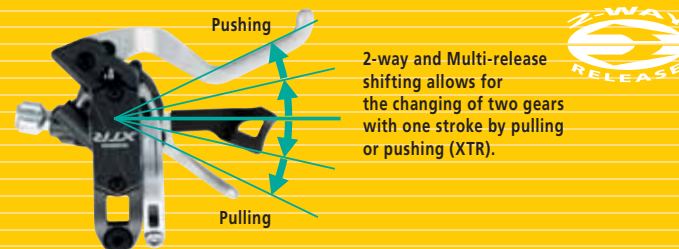
Multi-Release (DCL : XTR/ DEORE XT, RAPIDFIRE : XTR)

Previous shifting systems shifted faster in one direction then the other. Choosing top normal or low normal always meant sacrificing shifting speed in one direction. Now with Multi-Release you can release shift two gears in one stroke. The result - the fastest possible shifting in both directions regarding of rear derailleur choice.



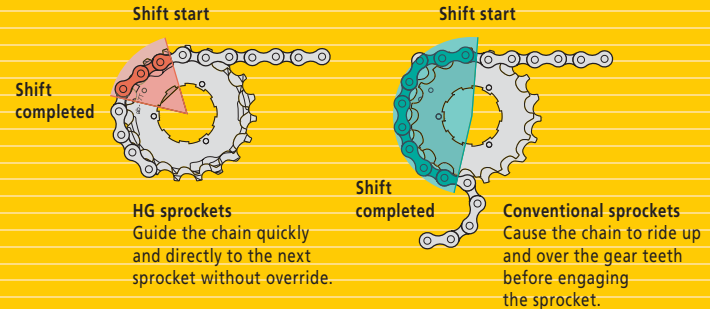
2-Way Release (XTR/ SAINT/ DEORE XT/ SLX/ DEORE)

The release lever a RAPIDFIRE Plus shifter is commonly called trigger because it is operated like a pistol, by pulling toward the grip. The release lever of RAPIDFIRE Plus shifters from DEORE to XTR can be operated in this same manner but adds the ability to activate a release shift by pushing with the thumb. 2-way release matches your riding style and encourages you to learn others. See here how 2-way release is demonstrated in conjunction with Multi-Release.



HG Sprockets (All MTB group)

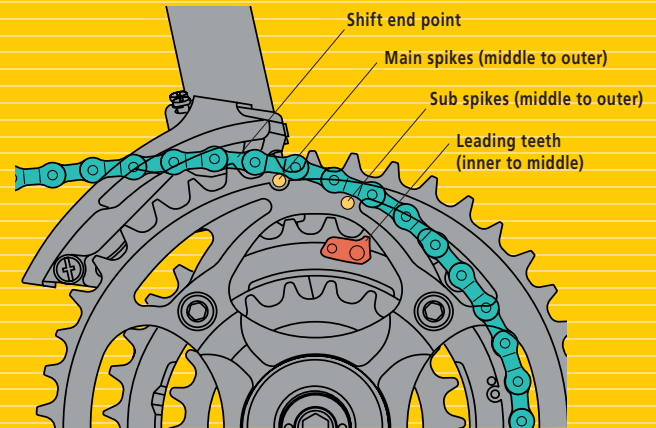
Special designed HYPERGLIDE sprockets incorporate specifically positioned shift ramps and tooth profiles for improved chain control during shifting. Fast and responsive indexed shifting is the result.



Hyperdrive Front Drive System

(XTR/ SAINT/ DEORE XT/ SLX/ DEORE/ ALIVIO/ ACERA/ ALTUS)

With Hyperglide, Shimano pioneered the use of a variety of gear profiles and shift ramps to improve shifting performance. Front drivetrain components are engineered as a system, working together towards a single goal: Provide quiet, easy and trouble free shifting. The leading teeth, the spike pins of the SG-X chainrings, the super rigid Wide-link front derailleur and the special profiles of the HYPERGLIDE chain links are combined to create a smooth, quiet and precise shifting system, even under load.



Optical Gear Display

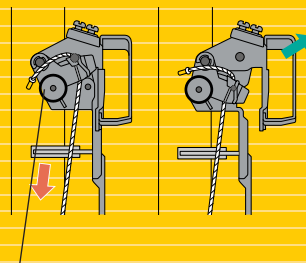
The Optical Gear Display tells you which gear position is selected while riding your bike. You can see how many gears you can select either on low side or top side, which makes shifting control easier.



SL-M770

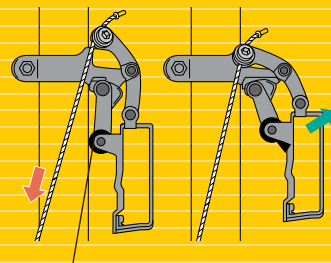
TOP SWING Front Derailleur

TOP SWING front derailleur



Spring

Down swing front derailleur



Spring

Because the moving pivot section is set at a higher position and combined with a shorter link, the rigidity is higher while quick and light shifting is possible.

DUAL SIS Front and Rear Index Shifting

The SIS Rear Index Shifting System, which has been noted for its accurate, precise and smooth shifting system, was adopted to the front. The front with the index system makes shifting operation easier and more comfortable.

Advanced Light Action Rear Derailleur

Low-friction link pivots and the use of a low-tension extension spring significantly lower the effort needed to shift the derailleur regardless of gear position.

Best Pedaling Performance

HOLLOWTECH II Crankset (XTR/ SAINT/ DEORE XT/ SLX)

The cranksets of XTR, SAINT, DEORE XT and SLX have adopted the "2-piece crankset with integrated BB design " as well as "race-proven hollow forged crankarm" that was created by Shimano's original technology. Those HOLLOWTECH II cranksets realized the high-level balance between lightweight and rigidity.



2-Piece Crankset Construction (DEORE)

Our 2-piece crankset construction with the integrated bottom bracket. Weight is reduced. Rigidity and power transfer are radically increased. In addition, outboard bearings provide more effective load distribution, while increasing rigidity and stability.



E-Thru Axle Hub System (XTR/ DEORE XT)

Tool less type thru axle skewer system optimizes rigidity and weight balance and enables easy operation with reliable internal cam mechanism and new fixing structure.

New size 15mm thru axle system are 15% stiffer torsionally and 25% stiffer in transverse shear than a traditional 9mm QR front axle system.

HB-M978



HB-M778



HB-M758



TL-HB15

Tool for maintenance



WH-M778



Honeycomb Designed Bash Guard

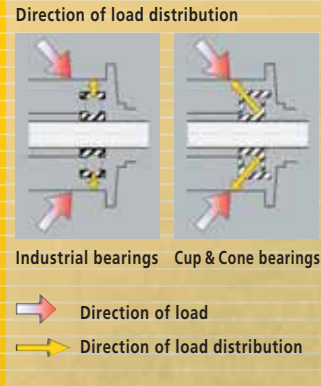
SAINT and SLX cranksets are provided with honeycomb designed bash guards. The conventional bash guard receives impact directly under severe conditions of extreme riding such as freeride and all mountain resulting in serious damage on the crankset. The shock-absorbing honeycomb designed bash guard has a great impact resistance allowing more aggressive riding.



New bash guard with honeycomb construction

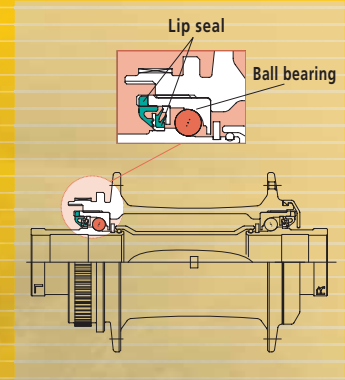
Cup & Cone Bearing Hubs

Cup & Cone bearings offer greater strength than sealed cartridge industrial bearings due to their ability to displace lateral and vertical loads more effectively for super smooth rotation and longer durability. Cup & Cone bearings also allow easier maintenance, adjustability and serviceability.



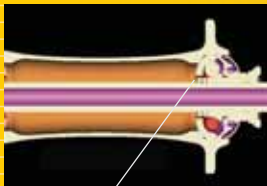
Labyrinth and Contact Sealing

Specifically designed seals inside the hub shutout mud, dust, dirt and moisture and protects the bearing mechanisms, realizing low maintenance as well as longer service life. This maintains the original performance for a longer period of time under unfavorable environmental conditions.

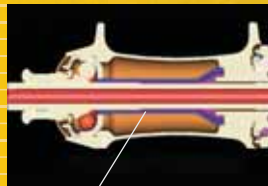


Internal Grease Sealing

DEORE XT, SLX and DEORE freehubs feature internal o-rings and a grease sleeve that helps to maintain grease levels and increase service life.



O-ring

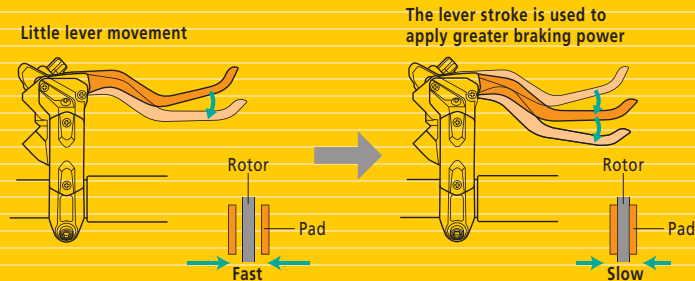


Internal grease sleeve

Best Braking Performance

SERVO WAVE Action for Disc Brake (SAINT/ DEORE XT/ SLX)

When you pull a SERVO WAVE brake lever, initial pad travel is fast, so little lever movement is needed to bring the pads into contact with the rotor. The power multiplication factor then increases rapidly at the pad-to-rim contact so more of the lever stroke is used to apply greater braking power with improved control.

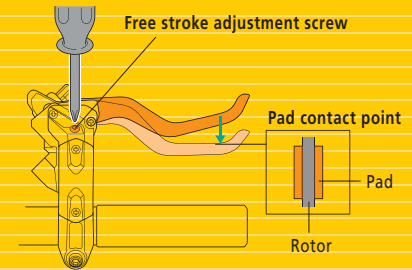


Reach Adjust of Dual Control Lever/Brake Lever (XTR /SAINT/ DEORE XT/ SLX/ DEORE)

Both brake levers and DCL are equipped with a reach adjust mechanism. The distance from handlebar grip to lever can be adjusted to suit any hand size, type of riding and individual rider preferences.

Free Stroke Adjustment (SAINT/ DEORE XT)

Brake control feeling varies delicately with riders. DEORE XT adopted Servo Wave Action to provide quicker engagement and 20% more stopping power along with Free Stroke Adjustment mechanism. This mechanism gives a much better braking response to meet rider's need. Custom setting through the reach adjust and Free Stroke Adjustment allows for the best possible brake feel for a variety of riders.



Disc Brake Linear Response Braking

One of the most important things that a disc brake needs for severe off-road conditions is a highly modulated feeling of control. The brake must be able to provide a balance of speed control as well as strong stopping power when quick deceleration or stops are needed. Our engineer's development and effort is in creating and improving modulation control. This is the strongest point of all Shimano disc brakes.

Disc brakes for XTR and XT provide the benefits of disc brakes at a weight that will be embraced by all MTB enthusiasts. The opposed dual piston caliper is a forged one-piece "mono-body" design that eliminates the need for caliper assembly bolts. In addition to reduced weight, the caliper is more rigid. The rotor mounts to the hub quickly through a spline and lock ring mechanism. This feature is sure to be popular with riders, when packing and traveling with their bikes and with mechanics that won't be dealing with stripped-out or broken mounting bolts. Brake pad options include a fade resistant, longer wear metallic compound or a low noise, smooth feeling resin compound.



XTR
XC Competition / All Mountain

Center Lock System

The Center Lock system makes an easy rotor installation possible with spline mount and a lock ring. The lock ring mounting system reduces the total hours of work by shortening the amount of time of both installation and de-installation. In addition, the secure fixing by the spline mount enhances precision and rigidity while improving braking efficiency.



4 Piston Caliper (SAINT)

The SAINT disc brake system has a dual diameter opposed-piston caliper design. The new Saint disc brake system has differently sized pistons in front and in the rear. The new system adopted a new power transfer system in which the rotor is pressed by the smaller size piston at the entrance of the rotor intake and also by the more powerful larger size piston at the back. This disturbs the wobbling motion of the rotor and reduces noises significantly.

Also, the 4 piston caliper allows a wider contact area for the rotor while keeping the size compact, and the efficient location of pads is adjusted as necessary to stabilize the pressure. Plus, the combination use with the Servo-Wave lever provides an incredible 50% more stopping power than the previous model. The advanced Saint disc brake system, which adjusts to accommodate different braking styles, offers stable braking power and excellent modulation.



Braking Performance for All Types of Cycling — Shimano's Braking System Concept

Select the appropriate braking system for your intended use and skill level

Shimano offers several Braking Systems to suit your intended use and skill level. Shimano recommends that you consult your bicycle retailer or dealer in the selection of an appropriate Shimano Braking System. It is important for your cycling enjoyment and safety that you select a Shimano Braking System suited for your skill level and intended use. Shimano has worked to achieve the highest level of braking performance to provide you with the appropriate braking system suited for a variety of cycling uses, from road and MTB racing to casual recreational riding. The braking performance may vary according to rider's weight and hand size.

Shimano's development of braking systems

Shimano has developed its braking systems targeted to the skill level of experienced road and MTB racers which provide a strong and responsive braking force. At the same time, Shimano offers a braking system more suited for less experienced riders and general cycling enjoyment which features ease in application for recreational use. It is important to consult your bicycle dealer which Shimano Braking System is appropriate for your intended use.



V-BRAKE



Hydraulic disc brake



POWER MODULATOR
unit (SM-PM40) and
V-BRAKE



Roller brake with
POWER MODULATOR
system

Sport braking system for experienced cyclists

Shimano has developed a linear response braking system which provides the experienced cyclist with a stronger braking force. This feature can be found in the braking systems for MTB, Shimano M SYSTEM, as adopted in the Shimano V-BRAKE, which features a stronger braking force. This linear response disc brake system is incorporated into Shimano's hydraulic disc brake which features a strong, yet controlled and stable braking force.

Shimano's easy-to-use brake system for less experienced and recreational riders

For beginning cyclists, less experienced and recreational riders, Shimano offers an Easy-to-Use braking system, incorporating a POWER MODULATOR into its front brakes. This system features the easy to use four-finger brake lever and V-BRAKE, Cable Disc Brake and Roller Brake. The POWER MODULATOR offers an easy and comfortable brake control by moderating excessive lever input force.

Different brake performances appropriate for different biking

Consult with your local bicycle dealer in the selection of a Shimano Braking System appropriate for your intended use and bicycle skill level. Safe operation of your bicycle is the operator's responsibility, which includes the appropriate strength and capabilities of your braking system.

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When participating in the sports depicted in this brochure, Shimano recommends that you use the proper safety protection for that sport. The riders seen in these pictures are experienced experts or professionals, and Shimano requests that you do not attempt to duplicate any of the actions shown in this brochure that are beyond the capabilities of your equipment or your own abilities.

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