

**ARCHIVE**

This information was updated on February 20, 2006. Shimano makes no warranty with respect to this information, including without limitation any warranty on the accuracy of measures, specifications and compatibility of the current products. Regarding any modification and new product information after February 20, 2006, please refer to the Shimano Business Customer Web Site or directly contact the sales person of our company.

# SHIMANO

**2006-2007**

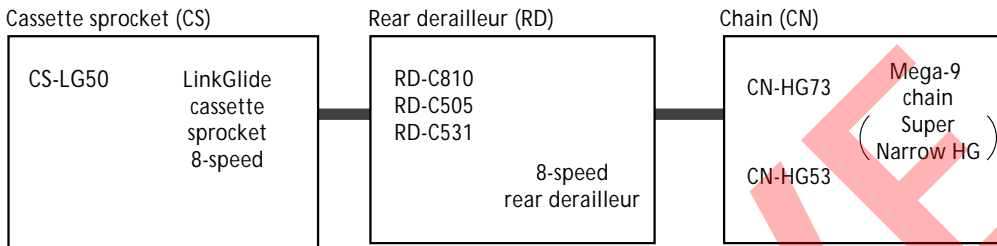
**Products compatibility information**

# Drivetrain Interchangeability

## Rear drivetrain for Comfort & MTB Components

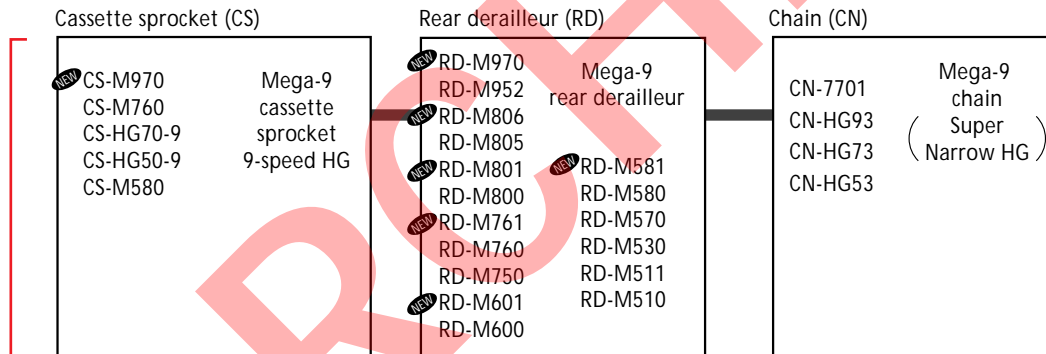
When using components of different series together, be aware of the points given below. "New" is shown if it is a new product and "MC" is given if only minor changes have been made.

### 8-Speed LinkGlide

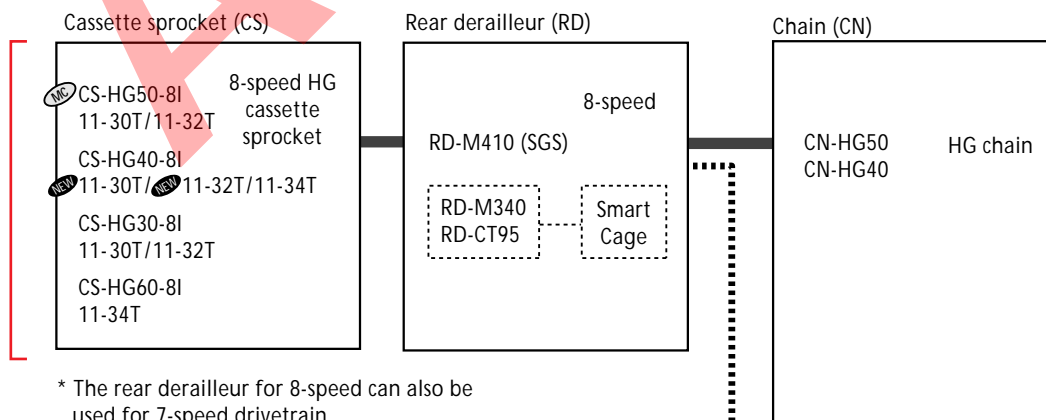


The full performance of LinkGlide will not be realized in combinations other than these. Also, HG performance will be reduced if RD-C505, C531 and C810 are used with HG gears other than LinkGlide gears. LinkGlide shifting performance is achieved when combined with ST-C503-A(R) as the shifting lever. (RD-C505/C531)

### Mega-9 Drivetrain (9-speed HG)

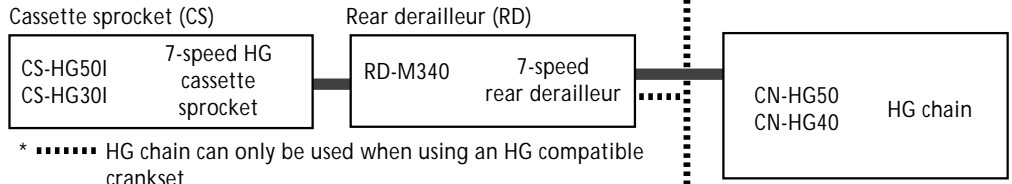


### 8-Speed HG

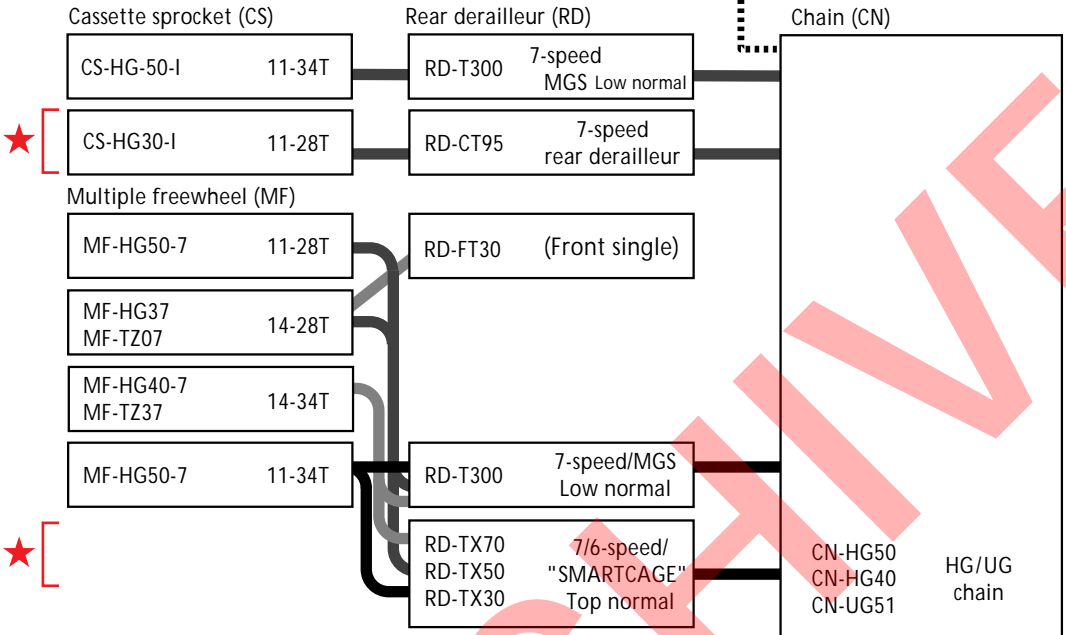


\* The rear derailleur for 8-speed can also be used for 7-speed drivetrain.

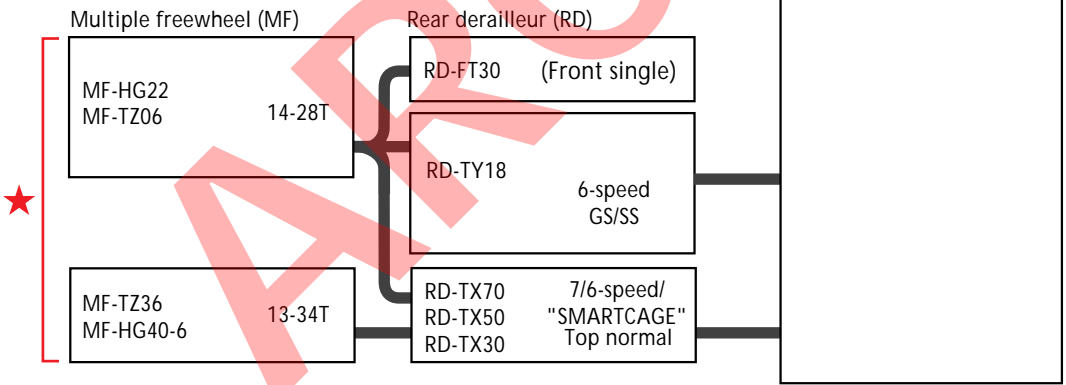
**7-speed HG**



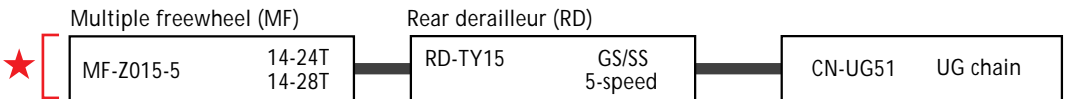
**7-speed HG/ZH**



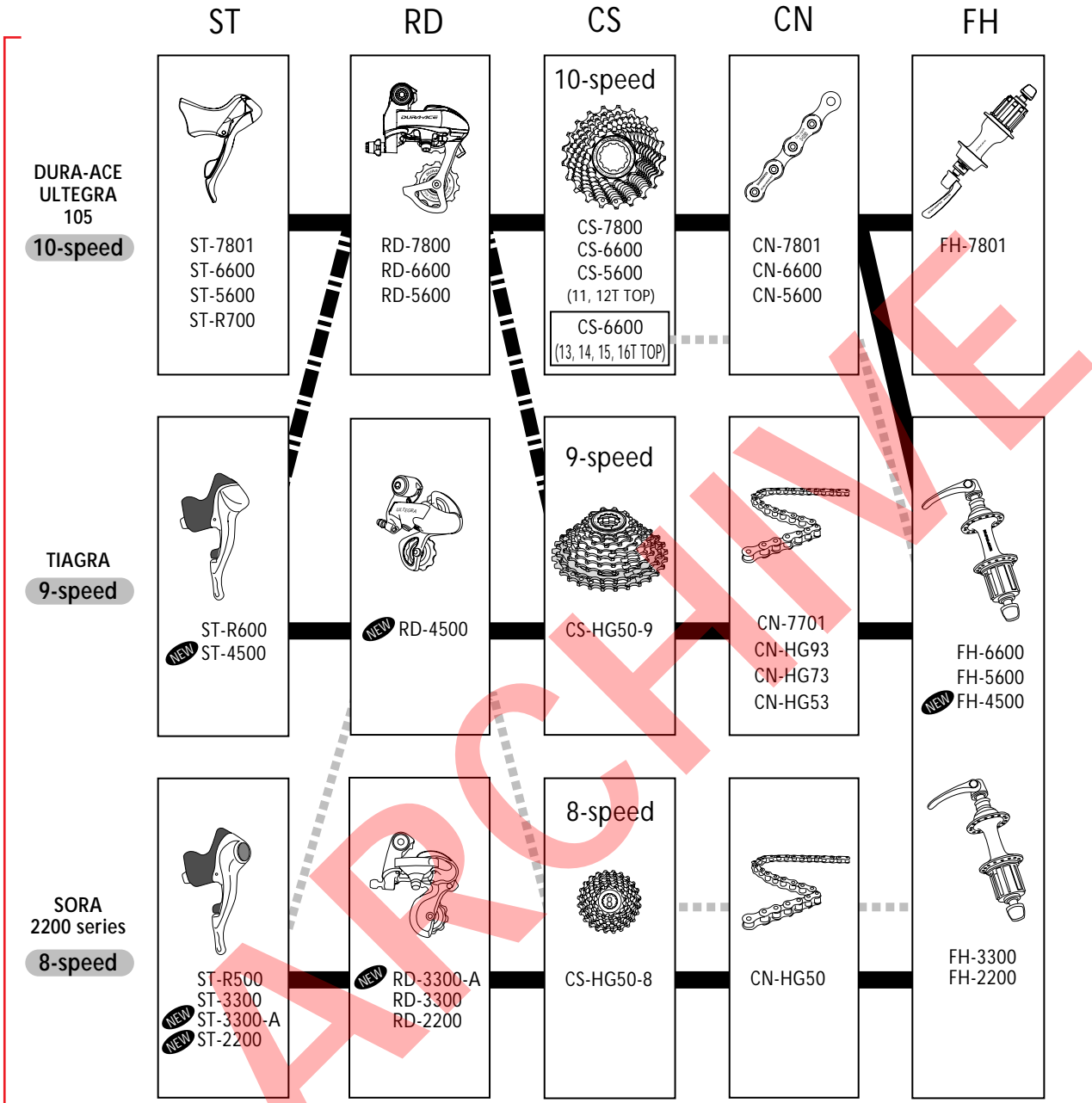
**6-speed HG/ZH**



**5-speed UG**



# Rear drivetrain for Road bike components



Note: CS-6600: Do not use front triple chainwheel with 14, 15, 16 top sprockets combination.

# Interchangeability for flat handlebar

## Rear system

	ST	RD	CS	CN	FH
DURA-ACE ULTEGRA 105 10-Speed	SL-R770	RD-7800 RD-6600 RD-5600	CS-7800 CS-6600 CS-5600	CN-7801 CN-6600 CN-5600	FH-7801
DURA-ACE ULTEGRA 105 TIAGRA 9-Speed	SL-R660 SL-R440	RD-7800 RD-6600 RD-5600 <b>NEW</b> RD-4500	CS-7700 CS-6500 CS-HG70-9 CS-HG50-9	CN-HG93 CN-HG73 CN-HG53	FH-6600 FH-5600 <b>NEW</b> FH-4500 FH-3300 FH-2200 <b>NEW</b> FH-R505
SORA 2200 8-Speed	SL-R440-8 <b>NEW</b> ST-R221	<b>NEW</b> RD-3300-A RD-3300 RD-2200	CS-HG50-8	CN-HG50 CN-HG40	

Note: CS-6600; Do not use front triple chainwheel with 14, 15, 16 top sprockets combination.

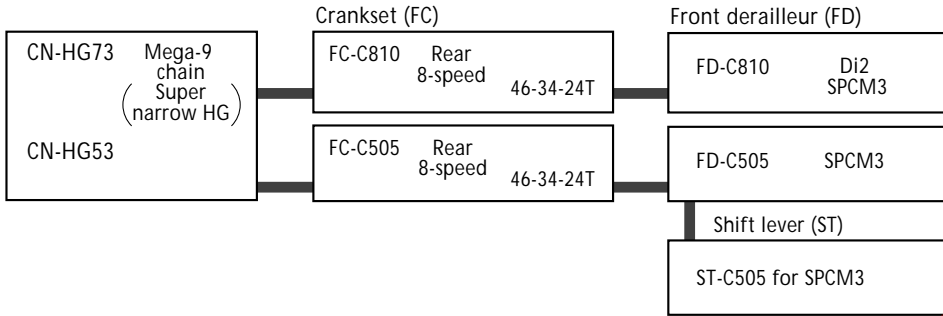
Note: FH-R505 O.L.D. 135 mm for disc brake frame.

## Front system

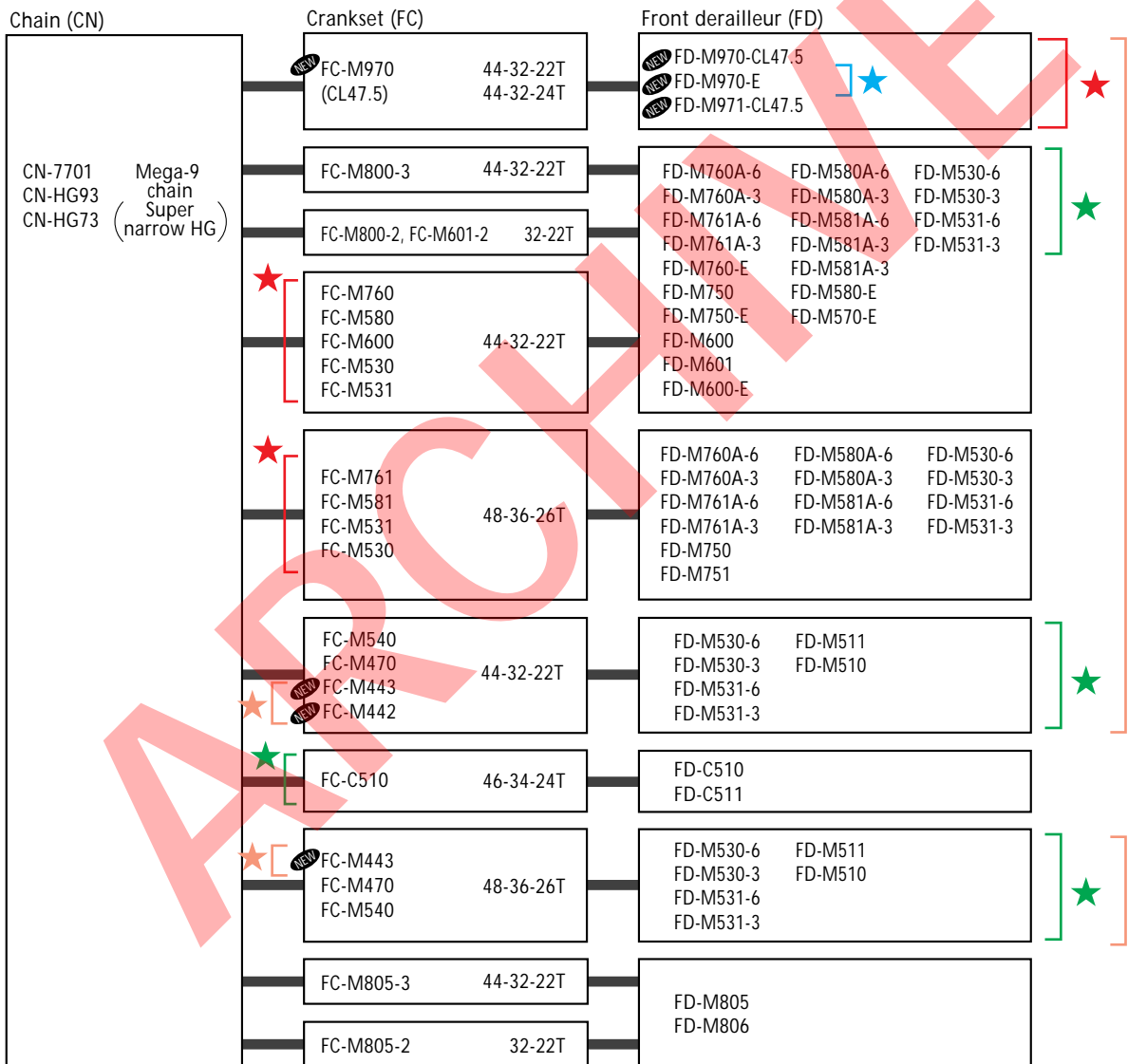
	ST	FD	FC	BB	CN
DURA-ACE ULTEGRA 105 10-Speed	SL-R770	FD-R770	FC-7800 FC-6600 FC-5600 <b>NEW</b> FC-R700 FC-R600	SM-FC7800 SM-FC6600 SM-FC5600	CN-7801 CN-6600 CN-5600
DURA-ACE ULTEGRA 105 TIAGRA 9-Speed	SL-R660 SL-R440	FD-R773-2	FC-7803 FC-6603	SM-FC7800 SM-FC6600	CN-HG93 CN-HG73 CN-HG53
		FD-R773-0	FC-5603	SM-FC5600	
		FD-R440	FC-4401 FC-4400 <b>NEW</b> FC-4500 <b>NEW</b> FC-4550	BB-ES51/30/25 BB-UN73/53/26 <b>NEW</b> SM-FC4500	
SORA 2200 8-Speed	SL-R440 <b>NEW</b> ST-R221 <b>NEW</b> ST-R225	FD-R443	FC-4404 FC-4403	BB-ES51/30/25 BB-UN73/53/26	CN-HG50
		<b>NEW</b> FD-R453	<b>NEW</b> FC-4503	<b>NEW</b> SM-FC4500	
		FD-R440A	FC-3301/3301-A FC-3300 FC-2200	BB-UN40 BB-UN26	
		FD-R443A	<b>NEW</b> FC-3304-A FC-3303 FC-2203	BB-ES51/30/25 BB-UN40 BB-UN26	

# Front drivetrain interchangeability (MTB front SIS)

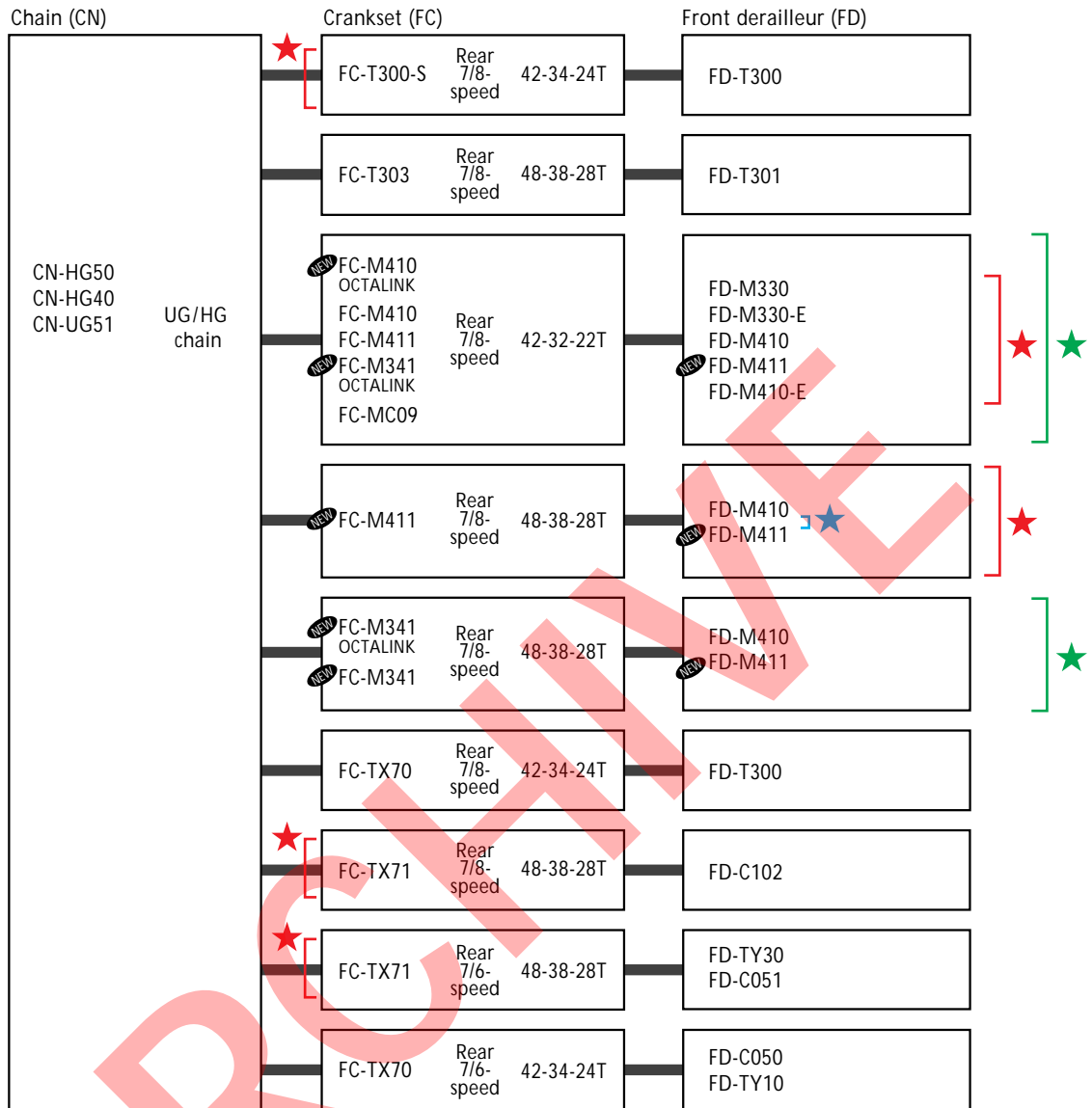
## SPCM (TRIPLE)



## Mega-9 drivetrain (9-speed HG) / LinkGlide (8-speed)

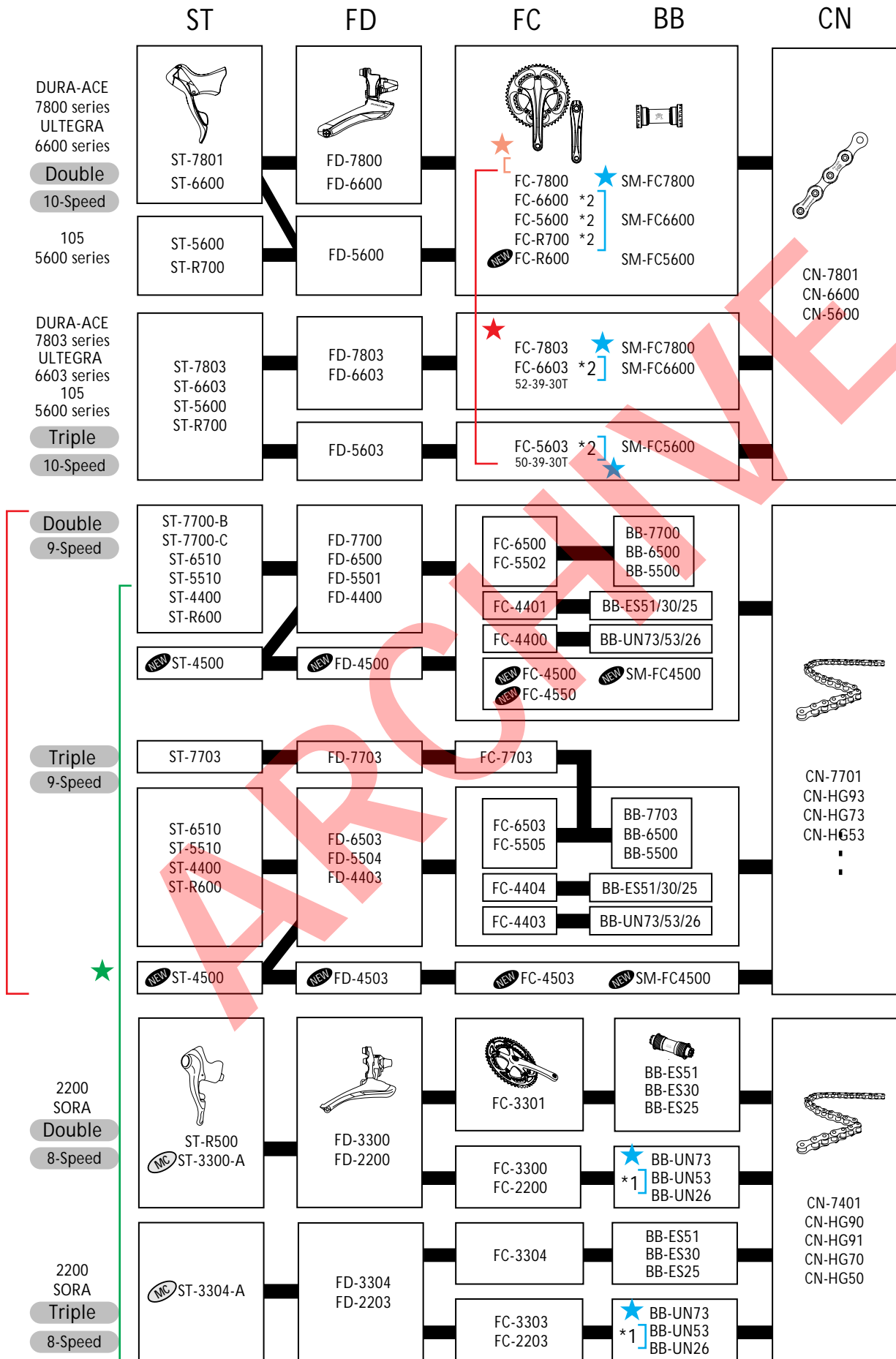


HG triple (8 and 7-speed)



\* When using the front derailleur designed for a 7-speed system on an 8-speed system, the front derailleur plate may interfere with the chain even if it's installed correctly.

# Front drivetrain interchangeability (Road bike components)



★ Note 1: Axle length is different  
 ★ Note 2: Adapters are shipped with FC refer spec. handbook.



## Front derailleur and Crankset

The allowable combinations of front derailleurs and rear derailleurs depend on the difference in the number of teeth of the gears and the shape of the front derailleur plate.

If the conditions given below are not satisfied, then the desired shiftability may not be obtained.

FC (top gear) - (low gear)  $\cong$  FD (top and low capacity)

FC (top gear) - (middle gear)  $\cong$  FD (minimum difference in teeth number between top and middle)

Front derailleurs and the number of teeth for corresponding cranksets are given in the chart below.

### Front derailleur specifications (TRIPLE)

	Mega-9 drivetrain						SPCM (Triple) FD-C810 FD-C505	FD-M410-6 FD-M410-3 FD-M411-6 FD-M411-3	FD-T301 FD-C102 8/7S	FD-T300 FD-T300-E FD-C101-E 8/7S	FD-TY30
	NEW FD-M970 NEW FD-M970-E NEW FD-M971 FD-M760-E FD-M600 FD-M601 FD-M600-E FD-M580-E	FD-M805 FD-M806	FD-M760A-6 FD-M760A-3 FD-M761A-6 FD-M761A-3 FD-M580A-6 FD-M580A-3 FD-M581A-6 FD-M581A-3	FD-M530-3 FD-M530-6 FD-M531-3 FD-M531-6 FD-M510 FD-M511 FD-C510	FD-M750-E FD-M570-E	FD-M750 FD-M751		NEW FD-M410-E* FD-MC21*	FD-TZ31 FD-C051 7/6S	FD-C050 FD-TY10 FD-CT92-E FD-TZ30 FD-TY10 7/6S	
Top gear teeth number	44T	44-32-22 32-22	44/48T	48/44T	44/46T	44/48T	SPCM (46/34/24T)	42/48T	48T	42T	48T
Top-Middle min. teeth difference	12T		12T	12T	12T	12T		10T	10T	8T	10T
Capacity	22T	22T	22T	22T	22T	22T	20T	20T	18T	22T	

\* For top gear 42T

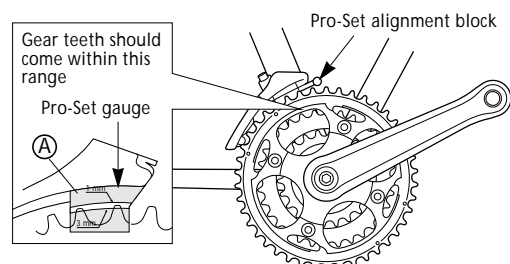
### Crankset specifications

	For Super Narrow chain						For HG Chain			
	NEW FC-M970 (44-32-24) *option FC-M805-3 FC-M800-3 FC-M760 FC-M600-3 FC-M580 FC-M540 FC-M530 FC-M531 FC-M470 FC-M443 NEW FC-M442	FC-M761 FC-M581 FC-M470 FC-M540 FC-M530 FC-M531 FC-M443	FC-C810 FC-C505	FC-C600	FC-M805-2 FC-M800-2 FC-M601-2	FC-M805-1 FC-M800-1	FC-C530	FC-M410-8 FC-M410 FC-M411 FC-MC09 FC-M341-8 FC-M341	FC-T300S FC-TY40 FC-TX70	FC-T303 FC-TY33 FC-TX71 FC-M411 FC-M341
Top gear	44T	48T	SPCM 46/34/24T	SPCM 46/34T	Bash Guard	34/38/42/46	38/33T	42T	42T	48T
Middle gear	32T	36T		(-)	32T	(-)	(-)	32T	34T	38T
Low gear	22T	26T	(-)	22T	(-)	(-)	22T	24T	28T	

NOTE: When using the front derailleur designed for a 7-speed system on an 8-speed system, the front derailleur plate may interfere with the chain even if its installed correctly.

How to set position for FC with bigger top gear chain ring in the same series.

- 1) set A
- 2) Check if outer plate and bigger chainring have clearance
- 3) Reposition height of FD in case problem at process (2)



## Front derailleur and Chain line

The Shimano line-up for front derailleurs and the chainlines they support are given in the chart below.

### Front derailleur and chain line (MTB)

		Ø 28.6 (S)	Ø 31.8 (M)	Ø 34.9 (L)
XTR	NEW FD-M970 NEW FD-M971	50 mm		
	NEW FD-M970-E	50 mm ]★		
SAINT	FD-M805, FD-M806	57.5 mm (shell width of 83 mm)		
DEORE XT	FD-M750/M751 FD-M750-E	47.5/50 mm ]★		
	FD-M760A-6/M760A-3 FD-M761A-6/M761A-3 FD-M760-E	50 mm		
DEORE LX	FD-M580A-6/M580A-3 FD-M581A-6/M581A-3 FD-M580-E	50 mm		
HONE	FD-M600, FD-M600-E FD-M601	50 mm		
DEORE	FD-M530-6/M530-3 FD-M531-6/M531-3	50 mm		
ALIVIO	NEW FD-M411-6/M411-3 FD-M410-6/M410-3/M410-E	50 mm		
DEORE	FD-M511/M510 ]★	47.5/50 mm For the E-type (BB mounting front derailleur): 47.5 mm (shell width of 68 mm) 50 mm (shell width of 73 mm)		
Non-Series	FD-MC21	When using the FD-MC18SE with a seat tube of diameter 34.9 mm (L) the chainstay angle should be between 66 and 69		
ACERA	FD-M330	47.5/50 mm		_____
	FD-M330-E	For the E-type (BB mounting front derailleur): 47.5 mm (shell width of 68 mm) 50 mm (shell width of 73 mm)		the chainstay angle should be between 66 and 69
NEXAVE	FD-C600	52.5 mm (shell width of 68 mm)		
	FD-C810, FD-C505	50 mm (shell width of 68 mm)		
	FD-T300, FD-T301	47.5 mm (shell width 68 mm), 50 mm (shell width 73 mm)		_____ ]★
C-series	FD-C101-E FD-C102 FD-C050	With seat tube of diameter 34.9 mm (L), the chainstay angle should be between 66 and 69 For the E-type (BB mounting front derailleur): 47.5 mm (shell width of 68 mm) 50 mm (shell width of 73 mm)		
	FD-C102	For the E-type (BB mounting front derailleur): 47.5 mm (shell width of 68 mm) 50 mm (shell width of 73 mm)		73 mm shell width/66 and 69 ]★

Shimano front derailleurs, with the exception of some of the C-series and the Tourney class, support chain lines of 47.5 and 50 mm. The Tourney front derailleurs and corresponding chain lines are given in the chart below.

### Front derailleur and chain line (Tourney)

		Ø 28.6 (S)	Ø 31.8 (M)	Ø 34.9 (L)
TOURNEY 30	FD-TY18 FD-TY30	47.5/50 mm (down pull only)		
TOURNEY 22	FD-TY22GS	45/47.5 mm		_____
	FD-TY22SS	43.5/45 mm (down pull only)		
TOURNEY 15	FD-TY15GS	47.5/50 mm (down pull only)		
	FD-TY15SS	43.5/45 mm (down pull only)		
TOURNEY 10	FD-TY10	47.5/50 mm		
TZ	FD-TZ30 FD-TZ31	47.5/50 mm		

## Crankset, Bottom bracket, and Chain line

In order to use SIS to its full extent, the required correct chain line, along with the crankset and bottom bracket required to obtain that, are given in the chart below.

### ■ Comfort bike and MTB Components

Series	Crankset				Bottom Bracket	Chainline & Axle mark			
	Model NO.	Type of Crank				Model NO.	47.5mm	50.0mm	52.5mm
		Spline	Square	Chaincase					
XTR	FC-M970	X			include	Chainline: 50 mm			
SAINT	FC-M805-1 FC-M805-2 FC-M805-3	X			include	Chainline: 57.5 mm FC-M805-1 65 mm/57.5 mm *1			
	FC-M800-1 FC-M800-2 FC-M800-3	X			include	Chainline: 50 mm FC-M800-1 57.5 mm/50 mm *1			
Deore XT	FC-M760	X			include	Chainline: 50 mm			
	FC-M761	X		X***	include				
Deore LX	FC-M580	X			include				
	FC-M581	X		X***	include				
HONE	FC-M601-2 FC-M600	X			include				
Deore	FC-M530	X			BB-ES51/30/25	-	113	-	-
	FC-M531	X		X***	BB-ES51/30/25-AK	-	121AK	-	-
	FC-M540	X			BB-ES51/30/25(-E)	113	118	-	-
	FC-M540-K	X		X	BB-ES51/30-K/25	121	126	-	121K
	FC-M470 (44T)	X		X	BB-ES51/30(-K)/25	121	126	-	121K
	FC-M470 (48T)	X		X	BB-ES51/30(-K)/25	121	126	-	121K
	FC-M443-8	X		X	BB-ES30/25-AK	121	126	-	121AK
	FC-M443		X	X	BB-UN26/LP28(-K)	117.5	LL123	-	117.5K
	FC-M442-8	X			BB-ES30/25(-E)	113	118	-	-
	FC-M442		X		BB-UN26/LP28(-E)	MM110	LL113	-	-
NEXAVE	FC-C810		X	X***	BB-UN26	-	130	-	-
	FC-C505		X	X***		-	130	-	-
	FC-C600		X	X	BB-UN26-K	-	-	117.5	-
	FC-C530		X	X	BB-TS30/UN26-K	****	****	****	****
	FC-C510**		X	X***	BB-UN26	-	123SP	-	-
	FC-T410		X	X	BB-UN26-K	-	-	-	117.5
	FC-T300-S		X	X	BB-UN26(-E)	YL117	ZL122	-	-
	FC-T303		X	X				-	-
Alivio	FC-M411 (48T)		X	X	BB-UN26/LP28(-K)	-	LL123	-	-
	FC-M410-8	X			BB-ES30/25(-E)	-	118	-	-
	FC-M411		X	X***	BB-UN26(-K)	-	LL123	-	-
Non-Series	FC-M341 (48T)		X	X	BB-UN26/LP28(-K)	-	LL123	-	-
	FC-M341-8 (42T)	X		X	BB-ES30/25(-E)	-	126	-	-
	FC-M341 (42T)		X	X***	BB-UN26/LP28(-K)	-	LL123	-	-
	FC-MC09		X	X***	BB-UN26(-K)	-	LL123	-	-
Tourney	FC-TX70/TX71		X	X	BB-UN26(-K)	D-NL(122.5)	-	-	D-NL(122.5)

Note: If using a chain case, select a BB-OOOO(-K)/-K bottom bracket.

If using an E-type front derailleur, select a BB-OOOO(-E) bottom bracket.

X: Yes

\* without chaincase stay

\*\* BB-UN25 bottom brackets parts for FC-C510 includes 1.8 mm and 0.7 mm thickness spacers.

In case of without chain case, use both spacers between hanger and right hand BB adaptor.

In case of with chain case, use 0.7 mm thickness spacer only. Put chain case stay with 0.7 mm thickness spacer between hanger and right hand BB adaptor.

\*\*\* Chain case stay thickness should be 1.5 mm to 2.1 mm.

\*\*\*\* YL117: Chainline 44+t D-NL: Chainline 47+t

117.5: Chainline 46+t D-EL: Chainline 49.5+t

\*1: Refer frame requirement session of ATB crankset dimension X.

## ■ Capreo series components

The combinations of the front chainwheel and the bottom bracket to obtain proper chain line, which are necessary for the SIS (= Shimano Indexed System) to function well, are presented in the following chart.

Series	Model No.	FC			BB Model No.	Chain Line & Axle mark			
		type of Crank				46.0 mm	48.5 mm	50.0 mm	52.5+t mm
		Spline	Square	Chaincase					
Capreo	FC-F700		X	X	BB-UN40	MM110	LL113	-	-
		BB-UN40-K			-	-	-	*117.5	
		BB-UN26			MM110	LL113	YL117	-	
		BB-UN26-K			-	-	-	*117.5	

\* This specification can be used without the chain case as 52.5 mm chain line. In that case, a space is to be left between the shell and the adapter on the left side of the BB, but there is no problem in actual use.

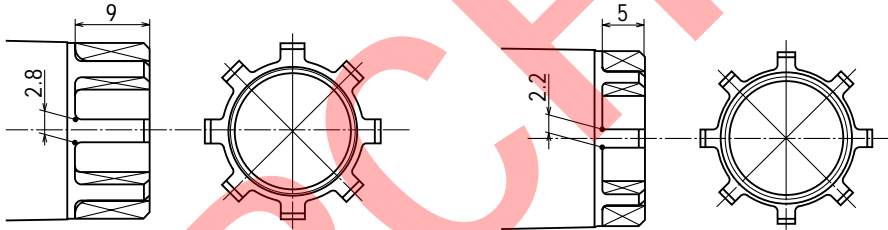
X: Yes

## Octalink Bottom Bracket

The dimensions of the eight serrations on the BB are shown below.  
 The dimensions for BB-ES71/51/30 are different from those for BB-M952/7700/7703/7710/6500/5500.  
 Be aware that these models are not compatible.


BB-ES71  
 BB-ES51  
 BB-ES30  
 BB-C900  
 BB-ES25

BB-M952  
 BB-7700  
 BB-7703  
 BB-7710  
 BB-6500  
 BB-5500



## Chain, Chainring and Cassette sprocket

The allowable combinations for the Shimano chain (CN), chainrings (FC), and cassette sprockets (CS) are given in the chart below. These chains are available in order to match the type of drivetrain. Select the combination you desire after checking the chart below.

		Mega-9		LG		HG	
		Cassette sprocket	Crankset	Cassette sprocket	Crankset	Cassette sprocket	Crankset
FC/CS		<b>NEW</b> CS-M970 CS-M960 CS-M760 CS-M580 CS-HG70-9 CS-HG50-9	<b>NEW</b> FC-M970 FC-M805 FC-M800 FC-M760 FC-M761 FC-M600 FC-M601 FC-M581 FC-M580 FC-M540 FC-M530 FC-M531 FC-M470 <b>NEW</b> FC-M443 <b>NEW</b> FC-M442 FC-C600	 CS-LG50	FC-C810 FC-C505 FC-C530 FC-C510	CS-HG40-8I CS-HG60-I CS-HG50-8I CS-HG50-I CS-HG30-I CS-HG30-8I	FC-M410 FC-M411 FC-M341 FC-MC09 FC-T300-S FC-T303 FC-TX70 FC-TX71
Chain	Mega-9 Super Narrow chain CN-7701 CN-HG93 CN-HG73 CN-HG53	Good	Good	Good	Good	Not good	Not good
	HG Chain CN-HG50 CN-HG40	Not good	Not good	Not good	Not good	Good	Good



# Spoke protector

Select the spoke protector after checking the chart below.  
It is decided by hole number of hub and number of the gear teeth.

Hub	Protector	21T	25T	26T	28T	30T	32T	34T
for 28H hub	5.4"				CP-FH40			
for 32H hub	7.5"						CP-FH56*	CP-FH75*
								CP-FH76**
	6.3"						CP-IF52***	
	5.4"			CP-FH35				
	ø109	CP-FH02						
for 10 speed 32H hub	ø109	CP-FH05						
for 36H hub					CP-FH50		CP-FH53	CP-FH75*
								CP-FH76**
	7.5"						CP-IF53***	
	6.3"							
	5.4"		For 8 speed CP-FH30-8 (24T - 26T)	CP-FH31 (26T - 28T)				
	ø109	CP-FH01						
for 10 speed 36H hub	ø109	CP-FH06						
for Shimano Wheel	CP-WH71	for WH-7701/R540						
	CP-WH10/11	*** for WH-M965/M765/M565/M540/T565/T560						
	CP-WH12/13	*** for WH-M505						
	CP-WH14/15	*** for WH-M975/M970						
	CP-WH20-A	for WH-7801-carbon50/7801-carbon/7801-SL/7801/7800/6600/5600/R601/R600/R561/R560/R550						
	CP-FH02/35	for WH-R500-A/R500						
for Center Lock Shimano Disc Brake Hub	CP-FH75*	for FH-M800/M805/M801/M806						
	CP-FH76**	for FH-M800/M805/M801/M806						
for (6-bolts) Shimano Disc Brake Hub	CP-FH75*	for FH-M755/M756/M525/M475						
	CP-FH76**	for FH-M755/M756/M525/M475						
for IF-C530 INTEGO 36H Freehub	CP-IF53***							
for IF-C530 INTEGO 32H Freehub	CP-IF52***							

\* Using with light alloy sprocket carrier    \*\* Using with standard cassette sprocket

\*\*\* Compatible cassette sprocket

- CP-WH11/WH13/WH15: for CS-M750/M760/M960 (11-32T)
- CP-WH10/WH12/WH14: for CS-M970 (11-32T/11-34T/12-34T)
- CS-M750/M760/M960 (12-34T/11-34T)
- CS-M953 (12-34T)
- CS-HG70-9 (11-32T/11-34T)
- CS-HG50-9 (11-32T)

Note: A spoke protector is included with the cassette sprocket CS-LG50.

## Spoke protector for Capreo

Choose an appropriate spoke protector in the chart below.

FH		Spoke Protector
FH-F700	24H	CP-FH35/FH31
	32H	CP-FH35
	36H	CP-FH31

# Cassette sprocket, Rear freehub and Wheel (10-speed)

Cassette sprocket compatibility will differ depending on the freehub (FH) and wheel (WH) used.

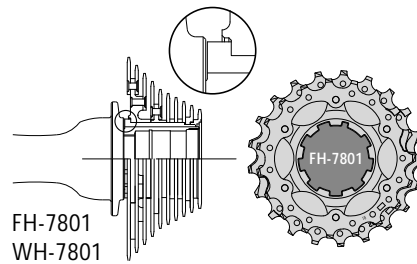
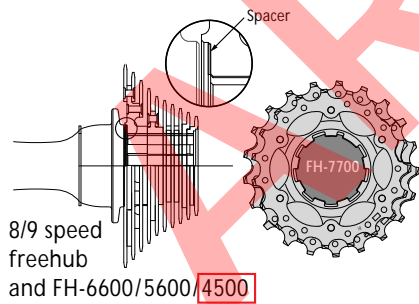
Type	Model No.	Tooth	NEW WH-7801- Carbon50 WH-7801- Carbon WH-7801-SL WH-7801 FH-7801 FH-7800 WH-7800	FH-6600/ FH-5600/ NEW FH-4500/ 8/9 speed freehub	NEW WH-6600 NEW WH-R601 WH-R600	NEW WH-5600 NEW WH-R561 WH-R560 WH-R550	WH-R500	WH-7701	WH-R540	WH-7700	WH-6500	WH-R535
10 speed standard	CS-7800	11 - 21	X	X	X	X	X	X	—	—	—	—
		12 - 21	X	X	X	X	X	X	X	—	—	—
	CS-7800 CS-6600	11 - 23	X	X	X	X	X	X	X	—	—	—
		12 - 23	X	X	X	X	X	X	X	—	—	—
		12 - 25	X	X	X	X	X	X	X	X	X	—
		12 - 27	X	X	X	X	X	X	X	X	X	—
	CS-5600	11 - 23	X	X	X	X	X	X	X	X	X	—
		NEW 11 - 25	X	X	X	X	X	X	X	X	X	—
12 - 25		X	X	X	X	X	X	X	X	X	—	
10 speed JUNIOR	CS-6600	13 - 25	—	X	—	X	X	X	X	X	X	—
		14 - 25	—	X	—	X	X	X	X	X	X	—
		15 - 25	—	X	—	X	X	X	X	X	X	—
		16 - 27	—	X	—	X	X	X	X	X	X	—

X = Yes — = No

Be aware that freehub (FH) and wheel (WH) compatibility with CS-6600 might differ depending on the tooth combination.

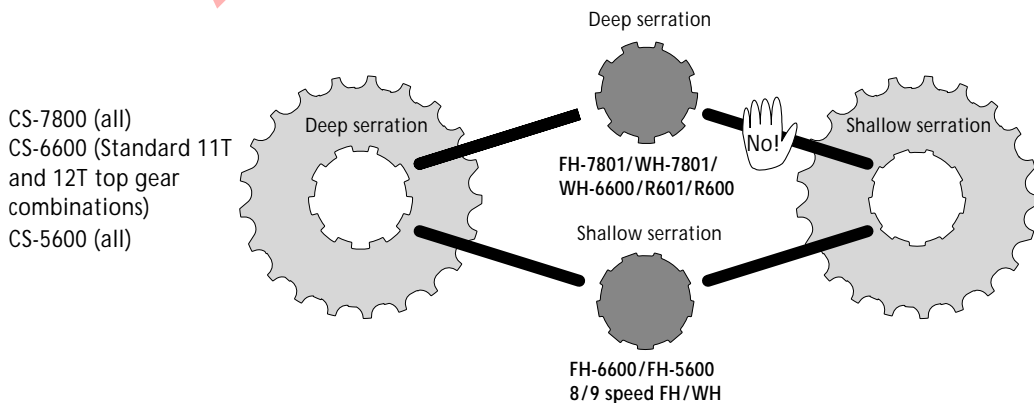
\*The tooth combination for CS-6600 JUNIOR type cannot be installed on FH/WH-7801.

A 1 mm spacer is required when combining CS-7800 and CS-6600 (except junior types) with a 8/9 speed freehub (FH) and FH-6600.



CS-7800 and CS-6600 (standard 11 tooth and 12-tooth top gear tooth combination)

\*The tooth combination for JUNIOR type cannot be installed on FH/WH-7801.



CS-6600 (13, 14, 15, 16 top gear combinations for JUNIOR type)

\*The serration depth is the same as for the 8 and 9 speed cassette sprocket.

Note: CS-6600 (14 - 25, 15 - 25, 16 - 27) cannot work with tripple front drive system. If combine, bad shifting performance could be happend.

# Disc brake

## Combination Chart (Hydraulic Disc)

### Shimano Hydraulic Disc Brake combination chart

In order to realize the best performance, we recommend that the following combination be used.

Series	Caliper	Mount type	Brake Lever	Rotor	PAD (option)	Hose	Remarks
XTR	NEW BR-M975	International standard	NEW ST-M975	NEW SM-RT97L NEW SM-RT97M	M07Ti Resin (M06Ti Metal)	SM-BH59	—
	NEW BR-M975P	Post mount	NEW BL-M975	NEW SM-RT97 NEW SM-RT97SS *3			
SAINT	BR-M800	*1	ST-M800 BL-M800	SM-RT80 SM-RT80S SM-RT75-DH	M06 Metal (M07-S resin)	SM-BH63	*1 Front: Boxxer, Post (Manitou) & International standard available. Rear: International standard
Deore XT	BR-M765	*2	ST-M766 BL-M765	SM-RT77	M07-S resin (M06 Metal)	SM-BH63	*2 Front mount: International standard / Post mount Rear mount: International standard
Deore LX	BR-M585	*2	ST-M585 BL-M585	SM-RT63 SM-RT62-M	M07-S resin (M06 Metal)	SM-BH59	*2 Front mount: International standard / Post mount Rear mount: International standard
HONE	BR-M601		ST-M600 BL-M525	SM-RT62-L	M06 Metal (M07-S resin)		
Deore	BR-M535	*2	ST-M535 BL-M535	SM-RT63 SM-RT62-M SM-RT62-L	M07-S Resin (M06 Metal)	SM-BH59	*2 Front mount: International standard / Post mount Rear mount: International standard
	BR-M525	*2	ST-M535 BL-M525	SM-RT61	M08 Resin	SM-BH59	*2 Front mount: International standard / Post mount Rear mount: International standard
NEXAVE	BR-C901	International standard	BL-C901		C01 Metal	SM-BH60/61	—
ALFINE	NEW BR-S500	*2	NEW BL-S500	SM-RT63	M07-S Resin	SM-BH59	*2 Front mount: International standard / Post mount Rear mount: International standard

### Rotor Specification

Series	Model No.	Outside Diameter	CENTERLOCK System	Oversized CENTERLOCK System	PCD 44 mm
XTR	NEW SM-RT97L	203 mm	X	—	—
	NEW SM-RT97M	180 mm	X	—	—
	NEW SM-RT97	160 mm	X	—	—
	NEW SM-RT97SS *3	140 mm	X	—	—
	SM-RT96	160 mm	X	—	—
SAINT	SM-RT80	203 mm	—	X	—
	SM-RT80S	160 mm	—	X	—
	SM-RT75-DH	203 mm	—	—	X
Deore XT	SM-RT77L	203 mm	X	—	—
	SM-RT77	160 mm	X	—	—
	SM-RT75S	160 mm	—	—	X
	SM-RT75M	170 mm	—	—	X
	NEW SM-RT75MA	180 mm	—	—	X
Deore LX HONE Deore	SM-RT63	160 mm	X	—	—
	SM-RT62	160 mm	X	—	—
	SM-RT62M	180 mm	X	—	—
	SM-RT62L	203 mm	X	—	—
Deore/NEXAVE	SM-RT61	160 mm	—	—	X

\*3: Rear only

X: Yes



## ■ Hose material & length

Series	Model No.	Compatible brake lever & caliper	Material	Hose length (mm)		
				for Front	for Rear	
XTR	SM-BH96	ST-M965/BR-M965,M966	Resin	900, 1300, 1700 mm		Cutable
SAINT Deore XT Deore	SM-BH63	ST-M766, ST-M800 BL-M765, BL-M800 BR-M765, BR-M800		900, 1300, 1700 mm		Cutable
XTR Deore LX HONE	SM-BH59	<b>NEW</b> ST-M975/BR-M975 <b>NEW</b> BL-M975 ST-M585/BR-M585 BL-M585 ST-M600/BR-M601 BL-M525 <b>NEW</b> BL-S500/BR-S500		1000, 1400, 1800 mm		Cutable
Deore / NEXAVE	SM-BH61 SM-BH60	BL/BR-C901		500-1000 (every 50mm)	1200-1700 (every 50mm)	
	SM-BH59	ST-M535/BR-M535 BL-M535 BL/BR-M525		900, 1300, 1700 mm		Cutable

## Combination Chart (Mechanical Disc)

### ■ Shimano Mechanical Disc Brake combination chart

In order to realize the best performance, we recommend that the following combination be used.

Series	Caliper	Mount type	Brake Lever	Rotor	PAD
NEXAVE Non-series	BR-M495	*	V-brake BL (1.5-2.5 finger)	<b>NEW</b> SM-RT53 For resin pad only	M08 Resin
	BR-M465	*			
	<b>NEW</b> BR-M415	*		SM-RT63/RT62M/RT62L	M06 Metal
	<b>NEW</b> BR-M545	*			
	<b>NEW</b> BR-R505	**	Road lever	SM-RT63	

\* Front mount: International standard/Post mount Rear mount: International standard

\*\* Front & Rear mount: International standard

### ■ Mechanical Disc brake and Brake lever interchangeability

Model NO.	BL type			
	2 finger	4 finger	4 finger w/modulator	
			BL-C900/C600 type or w/SM-PM40	
BR-M495	Good	Not good	Not good	Good
BR-M465	Good	Not good	Not good	Good
<b>NEW</b> BR-M545	Good	Not good	Not good	Good
<b>NEW</b> BR-M415	Good	Not good	Not good	Good

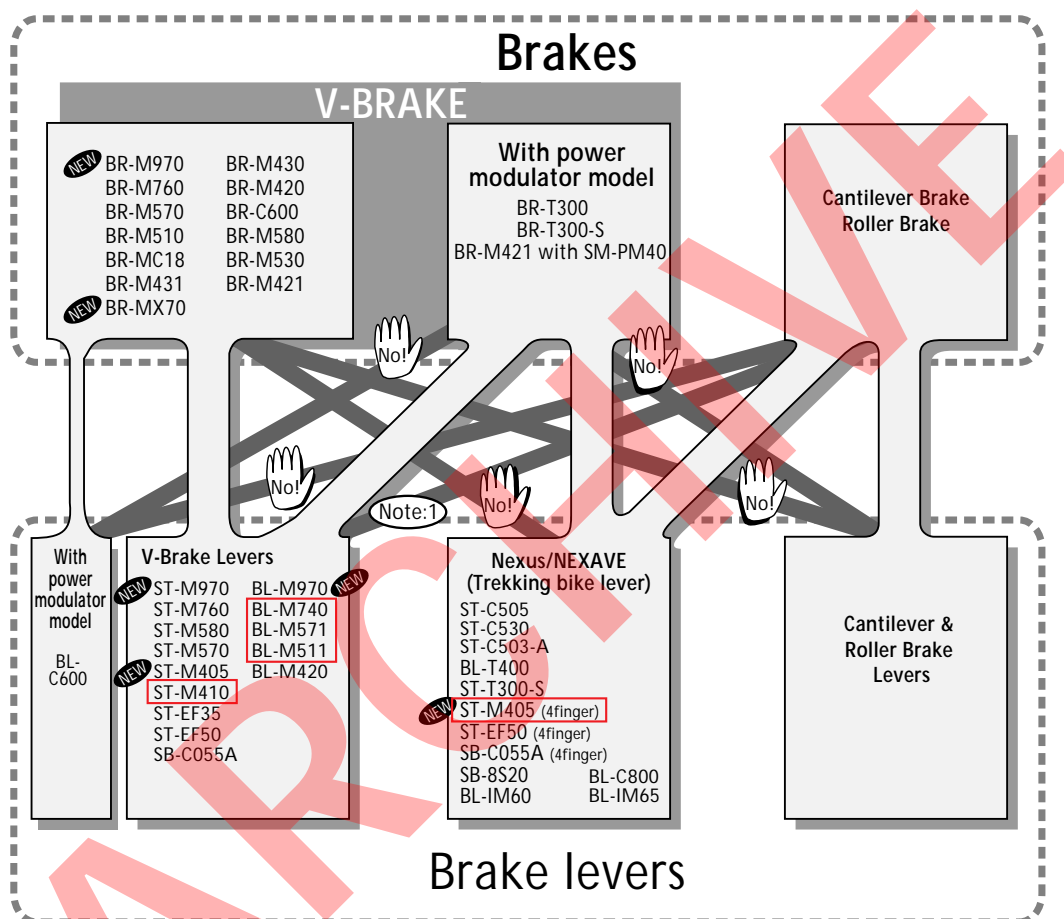
Model NO.	BL type
<b>NEW</b> BR-R505	Road ST/BL-R770/BL-R550/ST-R221/ST-R225

# V-BRAKE and Canti-brake

## Interchangeability between brake systems

Depending on the brake and brake lever combination to be used, the relationship between the input at the brake lever and the actual braking force output at the wheels is very easily affected.

Be very careful when combining a brake and brake lever. Incorrect combinations can cause accidents or insufficient braking forces due to improper cable strokes. Be sure to carefully consult the chart below and select the brake and the matching brake lever.



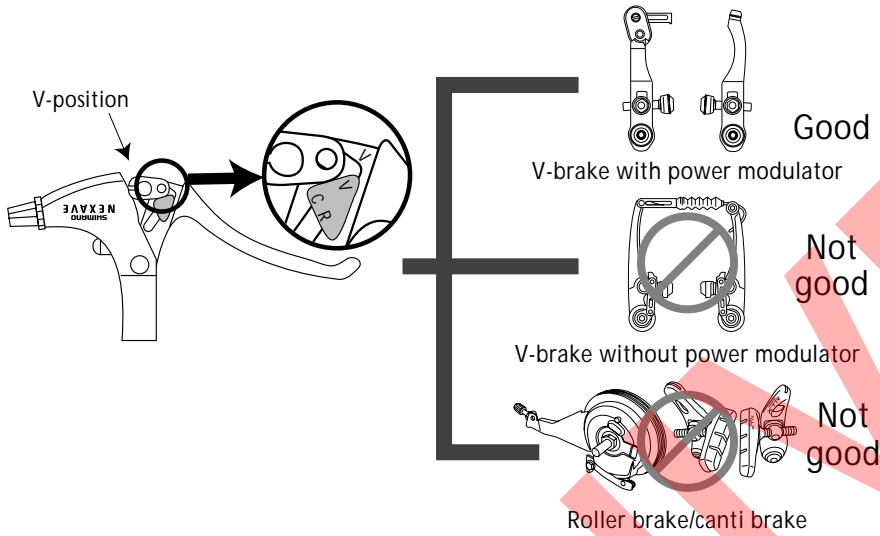
The "NO!" symbols indicate combinations that should not be used under any circumstances.

Note 1: This combination will not provide the sufficient amount of braking force.

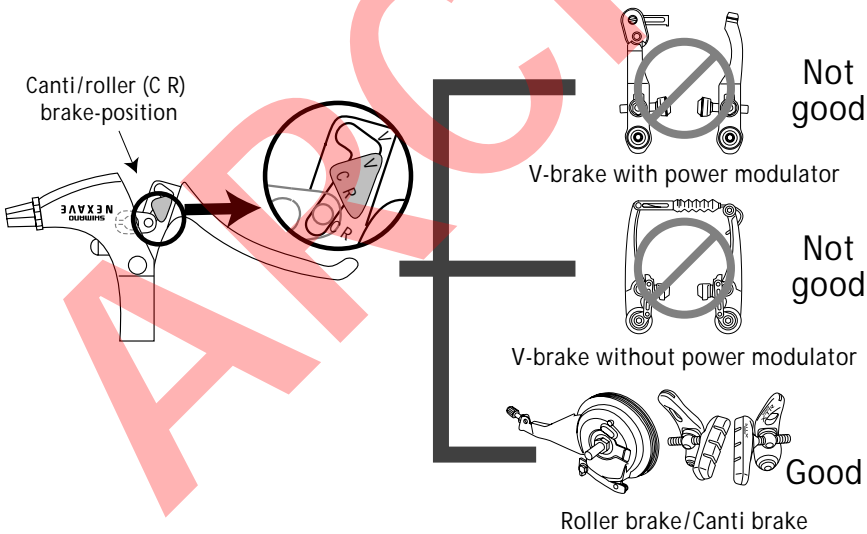
## Brake component interchangeability

Four finger brake levers such as ST-T400/BL-T400/ST-T300/ST-EF29/SB-C055A/SB-7S45/BL-IM45 brake levers are equipped with a switch to change between the V-brake with modulator mode (BR-T300 and BR-M420 with SM-PM40) and the cantilever or roller brake mode.

### ■ For V-brake (with power modulator) mode



### ■ For Canti/Roller-brake.

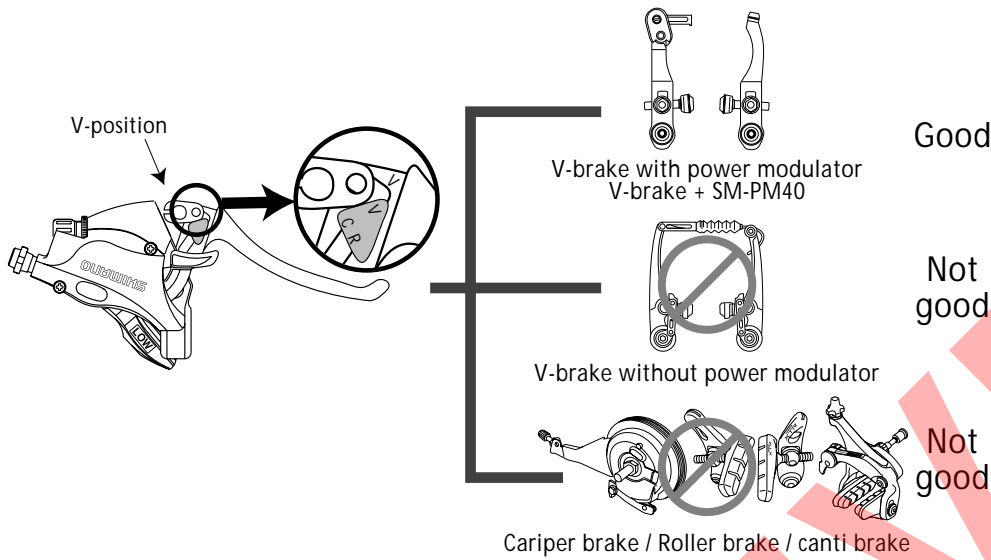


### WARNING:

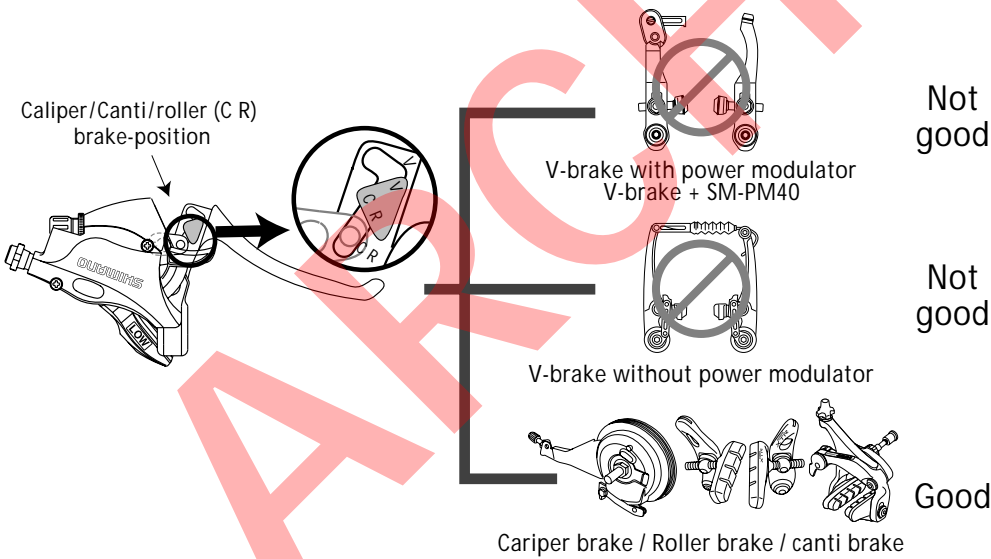
If the mode is not matched to the type of brake being used, this could result in inadequate or excessive braking power. Please proceed with caution when selecting the correct mode for the corresponding brake.

★ Four finger brake levers such as ST-R221/R225/R223 brake levers are equipped with a switch to change between the V-brake with modulator mode and the caliper brake, canti brake or roller brake mode. ★

■ For V-brake (with power modulator) mode



■ For Caliper/Canti/Roller-brake.



**WARNING:**

If the mode is not matched to the type of brake being used, this could result in inadequate or excessive braking power. Please proceed with caution when selecting the correct mode for the corresponding brake.

# Hub roller brake

## Interchangeability between hub and roller brake

### ■ Hub roller brake and Front hub w/modulator

Model NO.	Modulator Level	type	BR-IM75-F	BR-IM70-F	BR-IM50-F	BR-IM41-F	BR-C050-IM-F
HB-IM70	Hyper	QR	⊙	⊙	not good	not good	not good
HB-IM50	Normal	QR	○	○	⊙	⊙	not good
HB-IM45	Normal	NUT	○	○	⊙	⊙	○
HB-IM40	Normal	NUT	○	○	⊙	⊙	○
HB-C052-IM	Hyper	NUT	⊙	⊙	not good	not good	⊙
HB-IM20-E	Hyper	NUT	⊙	⊙	not good	not good	⊙

⊙: Recommended combination

○: Usable

### ■ Hub roller brake and Front hub w/modulator For 20" to 24" bike ( for Children )

Model NO.	Modulator Level	type	BR-IM75-F	BR-IM70-F	BR-IM50-F	BR-IM41-F	BR-C050-IM-F	
HB-IM30	20-24inches	NUT	good					
HB-IM20-EC	20-24inches	NUT						
HB-C052C-IM	20-24inches	NUT						

### ■ Hub roller brake and Hub Dynamo w/modulator

Model NO.	Modulator Level	type	BR-IM75-F	BR-IM70-F	BR-IM50-F	BR-IM41-F	BR-C050-IM-F
DH-3R40	Hyper	QR	⊙	⊙	not good	not good	not good
		NUT	⊙	⊙	not good	not good	⊙
DH-2R40	Hyper	NUT	⊙	⊙	not good	not good	⊙
HB-NX50	Normal	QR	○	○	⊙	not good	not good
		NUT	○	○	⊙	⊙	○
HB-NX60	Normal	NUT	○	○	⊙	⊙	○
HB-C051-DR	Hyper	NUT	⊙	⊙	not good	not good	⊙
HB-C050-DR	Hyper	NUT	⊙	⊙	not good	not good	⊙

⊙: Recommended combination

○: Usable

### ■ Hub roller brake and Hub Dynamo w/modulator For 20" to 24" bike ( for Children )

Model NO.	Modulator Level	type	BR-IM75-F	BR-IM70-F	BR-IM50-F	BR-IM41-F	BR-C050-IM-F	
HB-C051-DRC	20-24inches	NUT	good					
HB-C050-DRC	20-24inches	NUT						

# Brake shoe

## Brake shoe (for V-brake and Canti-brake)

### ■ Brake/Shoe line-up

	M70R2	M70R2 (Severe Condition shoe)	Ceramic	M70T3	M70T4	M70CT4 (Severe Condition shoe)	M70W	M65T3	M65T4	S70C	S70C (Severe Condition shoe)	S70T	S65T
★ [NEW] BR-M970	Standard	—	Option	—	—	—	—	—	—	—	—	—	—
BR-M960	Standard	—	Option	—	—	—	—	—	—	—	—	—	—
BR-M760	Option	—	Option	Low noise	Option	—	—	—	—	Standard	—	—	—
BR-M580	—	—	—	Option	Option	—	—	—	—	Standard	—	—	—
BR-M530	—	—	—	Option	Option	—	—	—	—	—	—	Standard	—
BR-M431	Option	—	—	—	—	—	—	—	—	Standard	—	—	—
BR-M421	—	—	—	—	—	—	—	Option	Option	—	—	—	Standard
★ [NEW] BR-MX70	—	—	—	Option	Option	—	—	—	—	—	Standard	—	—
BR-T300	—	—	—	Option	Option	—	—	—	—	—	—	Standard	—
BR-R550	—	Option	—	—	—	Option	—	—	—	—	Standard	—	—

### ■ Shoe characteristics

	Cartridge shoe	M-system	Length	Threaded shoe post	Brake shoe characteristics
M70R2	X	X	70 mm	X	A race shoe that performs well in dry and wet conditions, and is also highly resistant to wear. may give off noise.
M70R2 (Severe Condition shoe)	X	X	70 mm	X	+1mm thicker shoe with M70R2
Ceramic	X	—	70 mm	X	Specific shoe for ceramic rims.
M70T3	—	X	70 mm	X	Performs especially well in wet conditions and may pass DIN standards. Gives off less noise, but the pad is heavier, faster rim wear, and tends to fade.
M65T3	—	X	65 mm	X	
M70T4	—	X	70 mm	X	Only for side wall machined rims. Performs especially well in wet conditions and may pass DIN standard. Tend to be low noise, low rim wear and fade.
M65T4	—	X	65 mm	X	
M70CT4 (Severe Condition shoe)	X	X	70 mm	X	Cartridge shoe with M70T4
S70C	X	—	70 mm	X	Performs well in dry conditions and tends to be low noise. Wears in muddy conditions.
S70T	—	—	70 mm	X	
S65T	—	—	65 mm	X	
S70C (Severe Condition shoe)	X	—	70 mm	X	+1mm thicker shoe with S70C

X: Yes

## Brake shoe (Capreo)

### < Shoe characteristics >

Shoe	Cartridge shoe	M-system	Length	Thread Shoe Post	Brake Shoe Charectristic
R55C (for F700)	X	X	55 mm	X	Performs well in wet conditions and may pass DIN standards. Tends to be low noise. But faster rim wear.

X: Yes

## Brake shoe (for road bikes)

### < Brake/Shoe line-up >

		R55C2	R55C +1	R55C	R55C for Carbon rim	R55C for Ceramic rim	M50T	R50T	R50T2
DURA-ACE	BR-7800	Standard	★ [ —	—	Option	Option	—	—	—
ULTEGRA	BR-6600	Standard	—	—	Option	Option	—	—	—
105	BR-5600	Standard	—	—	Option	Option	—	—	—
non-series	BR-R600	—	Standard	—	Option	Option	—	—	—
TIAGRA	<b>NEW</b> BR-4500	—	—	—	—	—	—	—	Standard
SORA	BR-3300	—	—	—	—	—	Option	Standard	—
non-series	BR-A550-57	—	—	—	—	—	Option	Standard	—

### < Shoe characteristics >

	Cartridge shoe	M-system	Length	Brake shoe characteristics
R55C2	X	—	55 mm	Performs well in dry conditions and tends to be low noise. Highly resistant to wear in rainy conditions.
R55C +1	X	—	55 mm	* 1 mm thicker shoe with R55C
R55C	X	—	55 mm	Performs well in dry conditions and tends to be low noise. Wear in rainy conditions.
R55C for Carbon rim	X	—	55 mm	For Carbon rim
R55C for Ceramic rim	X	X	55 mm	For Ceramic rim only
M50T	—	X	50 mm	Performs well in wet conditions. But faster rim wear.
R50T	—	—	50 mm	Performs well in dry conditions and tends to be low noise. Wears in rainy conditions.
R50T2	—	—	50 mm	Performs well in dry conditions and tends to be low noise. Wears in rainy conditions. Toe-in adjust design. ]★

X: Yes



# Brake pad

## Brake pad line-up (for disc brake)

		M01	M02	M03	M04	M05	M06Ti	M06	M07Ti	M07	M07-S	M08	C01
Model NO.	type	Sintered Metal	Resin	Sintered Metal	Resin	Resin	Sintered Metal	Sintered Metal	Resin	Resin	Resin	Resin	Sintered Metal
★ [NEW] BR-M975 BR-M975P	Hydraulic						option		Standard				
BR-M800	Hydraulic							Standard			option		
BR-M765	Hydraulic							option			Standard		
BR-M601	Hydraulic							Standard			option		
BR-M585	Hydraulic							option			Standard		
BR-M535	Hydraulic							option			Standard		
BR-M525	Hydraulic											Standard	
★ [NEW] BR-S500	Hydraulic						★ [				Standard		
★ [NEW] BR-M545	Mechanical							Standard					
★ [NEW] BR-M415	Mechanical											Standard	
BR-M495	Mechanical											Standard	
BR-M465	Mechanical											Standard	
BR-C901	Hydraulic												Standard
★ [NEW] BR-R505	Mechanical							Standard					

- ★ M01/M03/M06: Longer pad-life, good for anti-fade, good constancy either dry/wet. May cause noise while braking.
- ★ M02/M04/M05/M07/M07-S: Same level performance as metal pad. Shorter pad-life than metal.
- [ M06Ti/M07Ti: Titanium plate
- [ C01: Easy, controllable metal pad, good for trekking use.

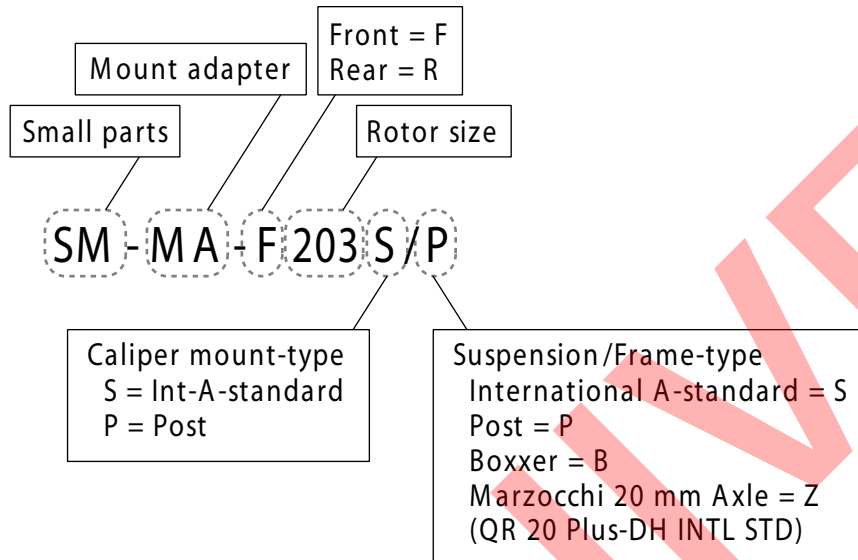
ARCHIVE



# Disc brake mount adapter

## Disc brake mount adapter application

### ■ How to read Model NO.



Mount adapter / Model NO.
SM-MA-F203S/S
SM-MA-F203S/P
SM-MA-F203S/B
SM-MA-F203S/Z
SM-MA-F203P/S
SM-MA-F203P/P
SM-MA-F203P/B
SM-MA-F203P/Z
SM-MA-F180S/S
SM-MA-F180S/P
SM-MA-F180P/S
SM-MA-F180P/P
SM-MA-F170S/P
SM-MA-F160P/S
SM-MA-F160P/Z
SM-MA-R203S/S
SM-MA-R203P/S
SM-MA-R180S/S
SM-MA-R180P/S
SM-MA-R160P/S

## ■ BR-M975/M975P Disc brake mount adapter application table

Please note we have 3 kinds of Calipers and refer following chart for adapter combination.

	Mount type	Original specification without mount adapter
Caliper A	A-Standard	For Front 160 mm and for rear 140 mm Rotor use
Caliper B	A-Standard	For Rear 160 mm Rotor use

BR-M975P for Post mount use, We have only one kind.

### < For front >

CALIPER	Mount type	Model	Mount way	ROTOR		
				SM-RT97 ∅ 160 mm	SM-RT97M ∅ 180 mm	SM-RT97M ∅ 203 mm
CALIPER	A-Standard	NEW BR-M975 Caliper A	for A-standara mount	Direct attachment	SM-MA-F180S/S	SM-MA-F203S/S
			for POST mount	————	SM-MA-F180S/P	SM-MA-F203S/P
	Post-Mount	NEW BR-M975P	for A-standara mount	————	SM-MA-F180P/S	SM-MA-F203P/S
			for POST mount	Direct attachment	SM-MA-F180P/P	SM-MA-F203P/P

CALIPER	Mount type	Caliper Model	Fork model	ROTOR		
				SM-RT97 ∅ 160 mm	SM-RT97M ∅ 180 mm	SM-RT97M ∅ 203 mm
CALIPER	A-Standard	NEW BR-M975 Caliper A	Marzocchi 20 mm axle	————	————	SM-MA-F203S/Z
			Boxxer-type	————	————	SM-MA-F203S/B
	Post-Mount	NEW BR-M975P	Marzocchi 20 mm axle	SM-MA-F160P/Z	————	SM-MA-F203P/Z
			Boxxer-type	————	————	SM-MA-F203P/B

### < For rear >

CALIPER	Mount type	Model	ROTOR			
			SM-RT97 ∅ 140 mm	SM-RT97 ∅ 160 mm	SM-RT97M ∅ 180 mm	SM-RT97M ∅ 203 mm
CALIPER	A-Standard	NEW BR-M975 Caliper B	————	Direct attachment	SM-MA-R180S/S	SM-MA-R203S/S
	A-Standard	NEW BR-M975 Caliper A	Direct attachment	————	————	————
	Post-Mount	NEW BR-M975P	SM-MA-F160P/S	SM-MA-R160P/S	SM-MA-R180P/S	SM-MA-R203P/S

## ■ Shimano hydraulic disc brake mount adapter application table

### < For front >

Model	Rotor diameter	Mount-type			
		A-standard	MARZOCCHI 20 mm Axle (QR 20 Plus-DH INTL STD)	BOXXER-type	POST-type
BR-M800	∅ 203	SM-MA-F203P/S	SM-MA-F203P/Z	SM-MA-F203P/B	SM-MA-F203P/P
	∅ 180	SM-MA-F180P/S	————	————	SM-MA-F180P/P
	∅ 160	SM-MA-F160P/S	SM-MA-F160P/Z	————	Direct attach
BR-M765 BR-M601 BR-M585 BR-M535	∅ 203	SM-MA-F203P/S	SM-MA-F203P/Z	SM-MA-F203P/B	SM-MA-F203P/P
	∅ 180	SM-MA-F180P/S	————	————	SM-MA-F180P/P
	∅ 160	SM-MA-F160P/S	SM-MA-F160P/Z	————	Direct attach
BR-M525	∅ 203	SM-MA-F203P/S	SM-MA-F203P/Z	SM-MA-F203P/B	SM-MA-F203P/P
	∅ 180	SM-MA-F180P/S	————	————	SM-MA-F180P/P
	∅ 160	SM-MA-F160P/S	SM-MA-F160P/Z	————	Direct attach

< For rear >

Model	Rotor diameter	A-standard
BR-M800	∅ 203	SM-MA-R203P/S
	∅ 180	SM-MA-R180P/S
	∅ 160	SM-MA-R160P/S
BR-M765 BR-M601 BR-M585 BR-M535	∅ 203	SM-MA-R203P/S
	∅ 180	SM-MA-R180P/S
	∅ 160	SM-MA-R160P/S
	∅ 160	SM-MA-R160P/S
BR-M525	∅ 203	SM-MA-R203P/S
	∅ 180	SM-MA-R180P/S
	∅ 160	SM-MA-R160P/S

■ Shimano mechanical disc brake mount adapter application table

< For front >

Model	Rotor diameter	Mount-type			
		A-standard	MARZOCCHI 20 mm Axle (QR 20 Plus-DH INTL STD)	BOXXER-type	POST-type
BR-M465 BR-M415	∅ 203	SM-MA-F203P/S	SM-MA-F203P/Z	SM-MA-F203P/B	SM-MA-F203P/P
	∅ 180	SM-MA-F180P/S	_____	_____	SM-MA-F180P/P
	∅ 160	SM-MA-F160P/S	SM-MA-F160P/Z	_____	Direct attach
BR-R505	∅ 160	SM-MA-F160P/S	_____	_____	_____

< For rear >

Model	Rotor diameter	A-standard
BR-M465 BR-M415	∅ 203	SM-MA-R203P/S
	∅ 180	SM-MA-R180P/S
	∅ 160	M475 Adapter ( R )
BR-R505	∅ 160	M475 Adapter ( R )