

**ARCHIVE**

This information was updated on November 9, 2012. 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 November 9, 2012, please refer to the Shimano Business Customer Web Site or directly contact the sales person of our company.

# SHIMANO

**2012-2013**

**Products compatibility information**

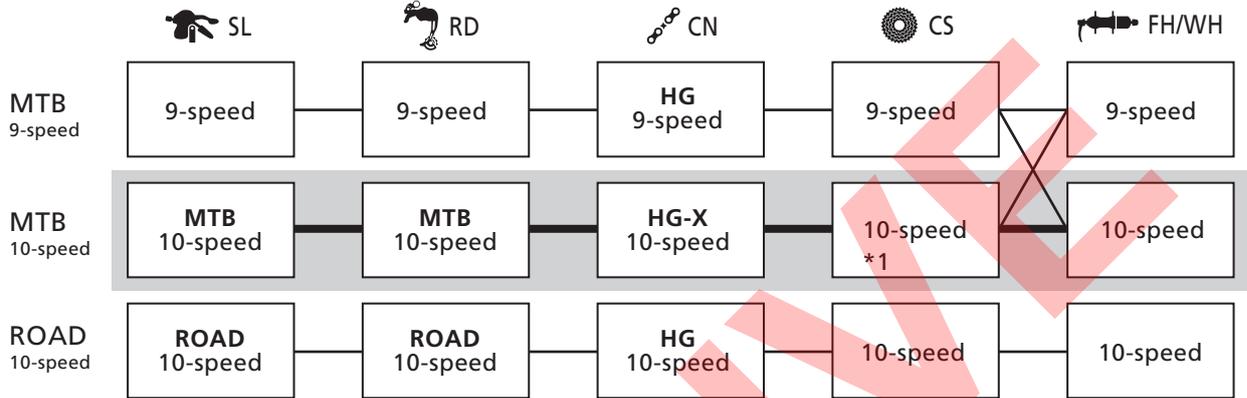
# MTB & ROAD components

## Drivetrain for MTB components

When using components of different series together, be aware of the points given below.

### 1. Rear drivetrain interchangeability

#### 1-1. 10-speed/9-speed rear drivetrain compatibility



\*1 : CS-6700 (11-28)

#### 1-2. 10-speed rear drivetrain

	SL	RD	CS	CN	FH/WH
10-speed	NEW SL-M980-A-R	NEW RD-M981	CS-M980 (11-36/11-34)		FH-M985 FH-M988 WH-M985-R WH-M988-R WH-M988-R12 FH-M785 FH-M788 WH-M785-R WH-M788-R WH-M788-R12 WH-MT75-R
	NEW SL-M820-R	NEW RD-M986	CS-HG81-10 (11-36/11-34/11-32)		NEW FH-M675 NEW FH-M678 NEW WH-MT66-R NEW WH-MT68-R12 NEW WH-MT68-R
	SL-M780-R	NEW RD-M820	CS-M771-10 (11-36/11-34/11-32)	CN-M980	NEW WH-MT66-R12 NEW WH-MT68-R
	NEW SL-T780-R	NEW RD-M781	CS-HG62-10 (11-36/11-34)	CN-HG94	NEW WH-MT66-R12 NEW WH-MT66-R12-29 NEW WH-MT66-R12-29
	NEW SL-M670-R	RD-T780	CS-6700 (11-28) for RD-T780 RD-T670	CN-HG74	WH-MT55-R WH-MT55-R-29 WH-MT15-R FH-M595
	NEW SL-T670-R	NEW RD-T670 (28T≤Low gear≤34T)	For RD-M820, RD-M640 Please refer to page 64	CN-HG54	Other current FH for MTB 9s drivetrain
	NEW SL-M640-R	NEW RD-M786			NOTE: FH-M629 and M529 are required for 36T CS in case of front 22T
	SL-M591	NEW RD-M670			
		NEW RD-M675			
		NEW RD-M640			
		RD-M593			

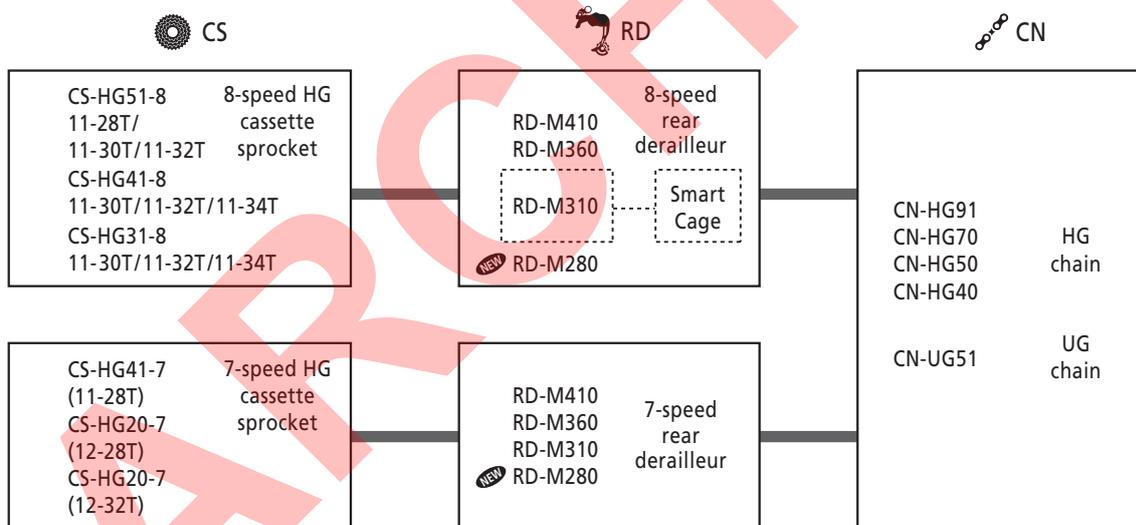
### 1-3. 9-speed rear drivetrain

CS		Shadow RD		W-servo RD			CN
		RD-M772 RD-M662 RD-M592	RD-M810-A	RD-M771 RD-M770	RD-T661	RD-M591 RD-M430 RD-M390	CN-7701 CN-HG93 CN-HG73 CN-HG53
CS-HG61-9 bh	12 – 36T	X	X	–	–	–	X
CS-M770 as CS-HG80-9 au CS-HG61-9 au CS-HG50-9 au CS-HG30-9 au CS-HG20-9 bn	11 – 34T	X	X	X	–	X	X
CS-M770 aq CS-HG80-9 ar CS-HG61-9 ar CS-HG50-9 ar CS-HG30-9 ar CS-HG20-9 bo	11 – 32T	X	X	X	X	X	X
CS-HG80-9 bg CS-HG61-9 bg	11 – 28T	–	X*	X	X	X	X
CS-6500 –	11–23 T 12–25 T	–	X*	–	–	–	X

\*: Close ratio setting

X: Yes

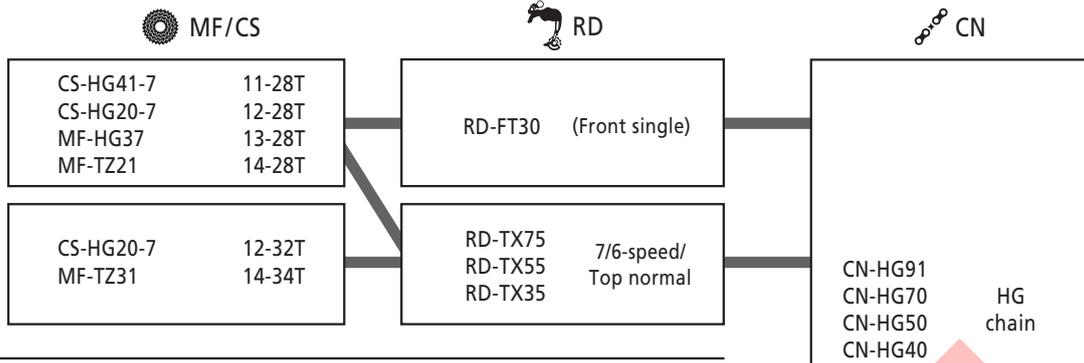
### 1-4. 8-speed and 7-speed HG/UG



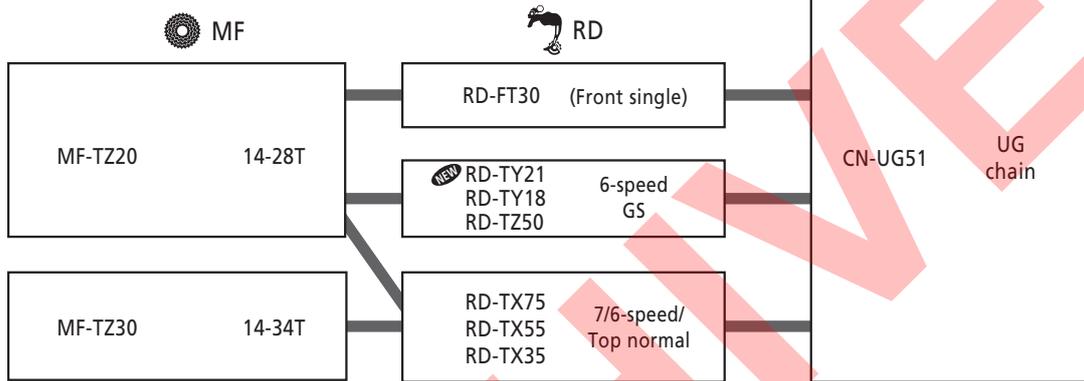
\* The rear derailleur for 8-speed can also be used for 7-speed drivetrain.

## 1-5. 7-speed HG/ZH and 6-speed ZH

### < 7-speed HG/ZH >

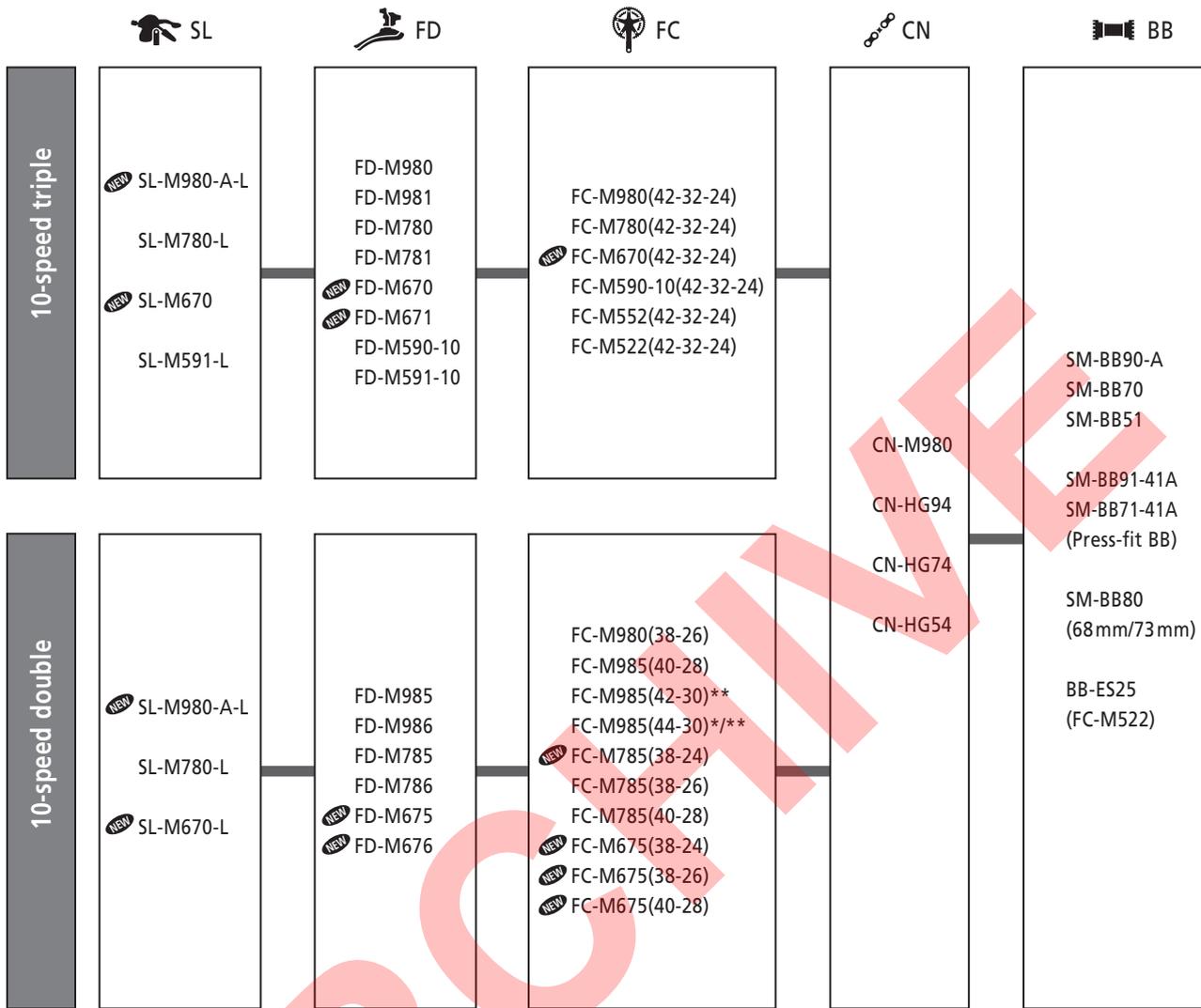


### < 6-speed ZH >



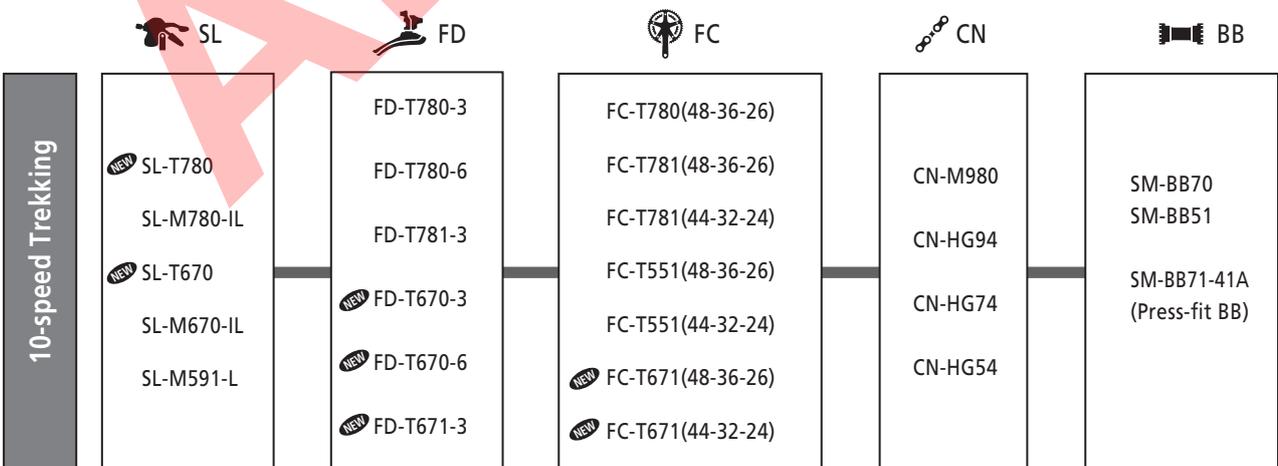
## 2. Front drivetrain interchangeability

### 2-1. 10-speed front drivetrain



\* : Please refer to page 30 for mount position requirement.

\*\* : Not compatible with E2 type front derailleur.



## 2-2. 10-speed FC-FD compatibility

FC Model No.	Gear combination	Top swing					
		For triple			For double		
		FD-M980 FD-M780 NEW FD-M670 FD-M590-10	FD-M980-E FD-M780-E NEW FD-M670-E	FD-T780-3 FD-T780-6 NEW FD-T670-3 NEW FD-T670-6	FD-M985 FD-M785 NEW FD-M675	FD-M985-E	FD-M985-E2 FD-M785-E2 NEW FD-M675-E2 (w/o BB Plate only)
FC-M980 FC-M780 NEW FC-M670 FC-M590-10 FC-M552 FC-M522 (BB-ES25 113mm)	42-32-24	X	X	-	-	-	-
FC-T780	48-36-26	-	-	X	-	-	-
FC-T781 NEW FC-T671 FC-T551	48-36-26	-	-	X	-	-	-
	44-32-24	-	-	X	-	-	-
FC-M985	44-30	-	-	-	X	X	-
	42-30	-	-	-	X	X	-
	40-28	-	-	-	X	X	X
FC-M980	38-26	-	-	-	X	-	X
FC-M785	40-28	-	-	-	X	X	X
	38-26	-	-	-	X	-	X
	NEW 38-24	-	-	-	X	-	X
NEW FC-M675	40-28	-	-	-	X	X	X
	38-26	-	-	-	X	-	X
	38-24	-	-	-	X	-	X

FC Model No.	Gear combination	Down swing				
		For triple			For double	
		FD-M981 FD-M781 NEW FD-M671 FD-M591-10	FD-M981-D FD-M781-D NEW FD-M671-D	FD-T781-3 NEW FD-T671-3	FD-M986 FD-M786 NEW FD-M676	FD-M986-D FD-M786-D NEW FD-M676-D
FC-M980 FC-M780 NEW FC-M670 FC-M590-10 FC-M552 FC-M522 (BB-ES25 113mm)	42-32-24	X	X	-	-	-
FC-T780	48-36-26	-	-	X	-	-
FC-T781 NEW FC-T671 FC-T551	48-36-26	-	-	X	-	-
	44-32-24	-	-	X	-	-
FC-M985	44-30	-	-	-	X	X*
	42-30	-	-	-	X	X
	40-28	-	-	-	X	X
FC-M980	38-26	-	-	-	X	X
FC-M785	40-28	-	-	-	X	X
	38-26	-	-	-	X	X
	NEW 38-24	-	-	-	X	X
NEW FC-M675	40-28	-	-	-	X	X
	38-26	-	-	-	X	X
	38-24	-	-	-	X	X

\* : Please refer to page 30 for mount position requirement.

X: Yes

## 2-3. 9-speed triple FC-FD compatibility

FC \ FD		Speed		9-speed			
		Chain line		50 mm			
		Chain stay angle		66° - 69°			63° - 66°
		Top swing FD		FD-M770-E	FD-M770 FD-M590-6 FD-M430-6 FD-M390-6	FD-M772A FD-T660A-3 FD-M590-3 FD-M430-3 FD-M390-3	
Chain line	BB Model / structure	Down swing FD		FD-M771 FD-M771D FD-M661D	FD-M591-6 FD-M431-6	FD-M773 FD-T661-3 FD-M591-3 FD-M431-3	
		FC model No.					
50 mm	2pc type FC	FC-M770 FC-M542 FC-M543K FC-M590 FC-M591	44-32-22	X	X	X	X
		FC-M771K FC-M543K FC-M590 FC-M591	48-36-26	-	-	X	X
	BB-ES25 (please refer chart as below for detailed combination)	FC-M521	44-32-22	X	-	X	X
	BB-ES25 126 (-K)	FC-M431-8 FC-M391-8					
	BB-UN26 LL123 (-K)	FC-M431 FC-M391 <small>NEW</small> FC-M371					
	BB-ES25 118 (-E)	FC-M430-8	44-32-22	X	X	X	X
	BB-UN26 LL113 (-E)	FC-M430					
	BB-ES25 (please refer chart as below for detailed combination)	FC-M521	48-36-26	-	-	X	X
	BB-ES25 126 (-K)	FC-M431-8 FC-M391-8					
	BB-UN26 LL123 (-K)	FC-M431 FC-M391 <small>NEW</small> FC-M371					

X: Yes

### < FC-M521/BB-ES25 combination >

		MTB (without chain case)	Trekking (with chain case)	E-type
BB shell width	68 mm	ABBES25AKB21W (use with 1.8mm spacer) / ABBES25B21	ABBES25AKB21W (use without 1.8mm spacer) / ABBES25AKB21	ABBES25EB21
	73 mm	ABBES25C21	-	ABBES25EC21

## 2-4. 9-speed double FC-FD compatibility

Chainline	BB model No. / structure	FC No.	Chain line	54.3 mm	46.8 mm
			Top swing FD	FD-M665-E	FD-M665 FD-M665-E
			Down swing FD	-	FD-M667
46.8 mm	HOLLOWTECH II	FC-M665	36-22	-	X

X: Yes

## 2-5. 8/7/6-speed triple FC-FD compatibility

		Speed		8/7-speed					
		Chain line		50 mm		47.5/50 mm		47.5/50 mm	
		Chain stay angle		66° - 69°	63° - 66°	66° - 69°	63° - 66°	66° - 69°	63° - 66°
		Top swing FD		FD-M410-E	FD-M410-E	FD-M412-6 FD-M360-6 FD-M310-6	FD-M412-3 FD-M360-3 FD-M310-3	FD-M190A-6	FD-M190-3
Chain line	BB Model / structure	Down swing FD							
		FC model No.							
50mm	BB-ES25 (-E) 118 (-E)	FC-M410-8	42-32-22	X	X	X	X	-	-
	BB-UN26 (-E) LL113 (-E)	FC-M410		-	-	X	X	-	-
	BB-ES25 (-K) 126 (K)	FC-M361-8		-	-	X	X	-	-
		FC-M311-8		-	-	X	X	-	-
	BB-UN26 (-K) LL123 (-K)	FC-M411 FC-M361 FC-M311	42-32-22	-	-	X	X	-	-
FC-M411 FC-M361 FC-M311		48-38-28	-	-	X	X	-	-	
47.5mm	BB-UN26 D-NL	FC-M171 FC-M131	42-34-24	-	-	-	-	X	X
			48-38-28	-	-	X	X	-	-
47.5 + t mm	BB-UN26-K D-NL K		42-34-24	-	-	-	-	X	X
			48-38-28	-	-	X	X	-	-

		Speed		8/7-speed		7/6-speed			
		Chain line		47.5/50 mm		47.5/50 mm			
		Chain stay angle		66° - 69°	63° - 66°	66° - 69°	63° - 66°	66° - 69°	63° - 66°
		Top swing FD		FD-M191-6	FD-M191-3	FD-TX50-6 FD-TY10*	FD-TX50-3	FD-TX51-6	FD-TX51-3
Chain line	BB Model / structure	Down swing FD							
		FC model No.							
50mm	BB-ES25 (-E) 118 (-E)	FC-M410-8	42-32-22	-	-	-	-	-	-
	BB-UN26 (-E) LL113 (-E)	FC-M410		-	-	-	-	-	-
	BB-ES25 (-K) 126 (K)	FC-M361-8		-	-	-	-	-	-
		FC-M311-8		-	-	-	-	-	-
	BB-UN26 (-K) LL123 (-K)	FC-M411 FC-M361 FC-M311	42-32-22	-	-	-	-	-	-
FC-M411 FC-M361 FC-M311		48-38-28	X	X	-	-	X	X	
47.5mm	BB-UN26 D-NL	FC-M171 FC-M131	42-34-24	-	-	X	X	-	-
			48-38-28	X	X	-	-	X	X
47.5 + t mm	BB-UN26-K D-NL K		42-34-24	-	-	X	X	-	-
			48-38-28	X	X	-	-	X	X

\* FD-TY10 L size is designed for 50 mm chain line.

X: Yes

### NOTE:

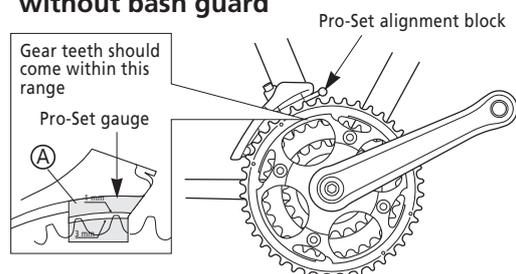
When using the front derailleur designed for a 7-speed system on an 8-speed system, the front derailleur plate may interfere with the chain even if its installed correctly.

How to set position for FC with bigger top gear chain ring or bash guard 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)

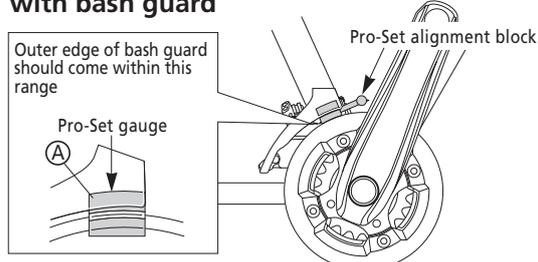
#### < 9-speed triple FC-FD >

##### without bash guard



#### < 9-speed double FC-FD >

##### with bash guard

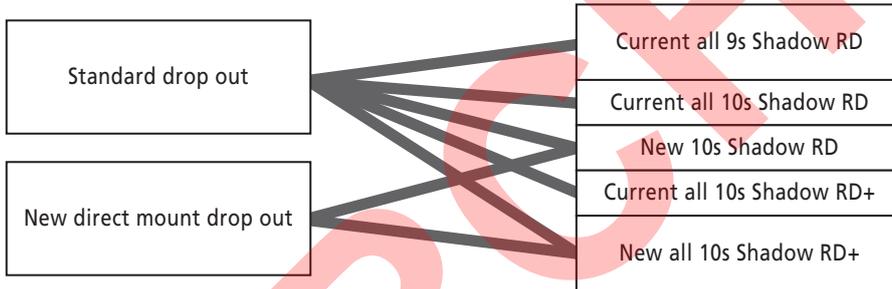


# 3. Dropout and Rear derailleur

## Compatibility

Standard drop out	New direct mount drop out	RD type	XTR	SAINT	DEORE XT	SLX	DEORE LX	DEORE	ZEE
X	-	Current all 9s Shadow RD	RD-M972	RD-M810	RD-M772	RD-M662	-	RD-M592	-
X	-	Current all 10s Shadow RD	RD-M980	-	RD-M780	RD-M663	-	RD-M593	-
X	X (without bracket)	New 10s Shadow RD	<b>NEW</b> RD-M981	-	<b>NEW</b> RD-M781	<b>NEW</b> RD-M670	-	-	-
X	-	Current all 10s Shadow RD+	RD-M985	-	-	-	-	-	-
X	X (without bracket)	New all 10s Shadow RD+	<b>NEW</b> RD-M986	<b>NEW</b> RD-M820	<b>NEW</b> RD-M786	<b>NEW</b> RD-M675	-	-	<b>NEW</b> RD-M640
X	-	Current all 9s W-servo RD	-	-	RD-M770/ M771	-	RD-T660	RD-M591	-
X	-	Current all 10s W-servo RD	-	-	RD-T780	-	-	-	-
X	-	New all 10s W-servo RD	-	-	-	-	<b>NEW</b> RD-T670	-	-

X: Yes



Note 1: With use bracket mount, new Shadow RD and Shadow RD+ can install to standard drop out.

Note 2: Without bracket mount, new Shadow RD and Shadow RD+ can install to new direct mount drop out.

Note 3: New direct mount drop out for RD-M820 DH mode, RD-M640 DH spec require difference dimension, please refer to page 15, 64.

## 4. Front derailleur and Crankset

The allowable combinations of front 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.

$$\begin{aligned} \text{FC (top gear) - (low gear)} &\leq \text{FD (top and low capacity)} \\ \text{FC (top gear) - (middle gear)} &\leq \text{FD (allowance of difference in teeth number between top and middle)} \end{aligned}$$

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

## 5. Front derailleur and Chain line (Tourney)

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

		ø 28.6 (S) (mm)	ø 31.8 (M) (mm)	ø 34.9 (L) (mm)
Chain Line (mm)	FD-TY10	47.5		50
	FD-TZ31 FD-TZ30	47.5		-

## 6. 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.

### 6-1. MTB Components (Separate type FC/BB)

Speed	Series	Crankset				Bottom Bracket	Chain line & Axle mark			
		Model No.	Type of Crank				Model No.	47.5mm	50.0mm	52.5mm
			OCTALINK	Square	Chaincase					
10	Non-Series	FC-M522	X	-	-	BB-ES25	-	LL113	-	-
		FC-M521	X	-	X*	BB-ES25-AK	-	**	-	-
9	Alivio	FC-M431-8	X	-	X	BB-ES25(-K)	-	126(-K)	-	-
		FC-M431	-	X	X	BB-UN26(-K)	-	LL123(-K)	-	-
		FC-M430-8	X	-	-	BB-ES25(-E)	-	118(-E)	-	-
		FC-M430	-	X	-	BB-UN26(-E)	-	LL113(-E)	-	-
	Acerca	FC-M391-8	X	-	X	BB-ES25(-K)	-	126(-K)	-	-
		FC-M391	-	X	X	BB-UN26(-K)	-	LL123(-K)	-	-
8/7	Non-Series	<b>NEW</b> FC-M371	-	X	X	BB-UN26(-K)	-	LL123(-K)	-	-
		FC-M411 (48T)	-	X	X*	BB-UN26(-K)	-	LL123(-K)	-	-
	Alivio	FC-M410-8	X	-	-	BB-ES25(-E)	-	118(-E)	-	-
		FC-M411	-	X	X*	BB-UN26(-K)	-	LL123(-K)	-	-
		FC-M410	-	X	-	BB-UN26(-E)	-	LL113(-E)	-	-
		FC-M361-8 (42T)	X	-	X	BB-ES25(-E)	-	126	-	-
	Acerca Altus	FC-M361 (42T)	-	-	-	-	-	-	-	-
		FC-M361 (48T)	-	X	X*	BB-UN26(-K)	-	LL123(-K)	-	-
		FC-M311 (42T)	-	X	X*	BB-UN26(-K)	-	LL123(-K)	-	-
		FC-M311 (48T)	-	X	X*	BB-UN26(-K)	-	LL123(-K)	-	-
8/7/6	Non-Series	FC-M131	-	X	X	BB-UN26(-K)	D-NL(122.5)	-	-	D-NL(122.5)
		FC-M171	-	X	X	BB-UN26(-K)	D-NL(122.5)	-	-	D-NL(122.5)

X: Yes

#### Note:

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

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

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

\*\* : Please refer to page 126 for detailed combination.

#### Note:

FC-M521: Use 121AK with 1.8 mm spacer if no chain case used.

## 6-2. 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.	Crankset			Bottom Bracket	Chain line & Axle mark			
		Type of Crank				Model No.	47.5mm	50.0mm	52.5mm
Capreo	FC-F800	OCTALINK	Square	Chaincase	BB-UN26				
		-	X	X	BB-UN26-K	-	-	-	*117.5

X: Yes

### Note:

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.

## 7. Chain, Chainring and Cassette sprocket

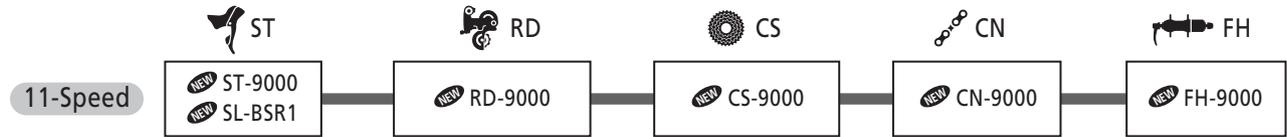
The allowable combinations for the Shimano chain (CN), chainrings (FC), and cassette sprockets (CS) are given in the chart below. These chains are available in order to match the type of drivetrain. Select the combination you desire after checking the chart below.

		9-speed		7/8-speed	
		CS	FC	CS	FC
	FC/CS	CS-M770 CS-HG80-9 CS-HG61-9 CS-HG50-9 CS-HG30-9 CS-HG20-9	FC-M770 FC-M771-K FC-M665 FC-M591 FC-M590 FC-M543-K FC-M542 FC-M521 FC-M431 FC-M430 FC-M391 FC-M371	CS-HG51-8 CS-HG41-8 CS-HG31-8 CS-HG41-7 CS-HG20-7	FC-M410 FC-M411 FC-M361 FC-M311 FC-M171 FC-M131
CN	9-speed CN-7701 CN-HG93 CN-HG73 CN-HG53	X	X	-	-
	CN-HG50 CN-HG40 CN-UG51	-	-	X	X

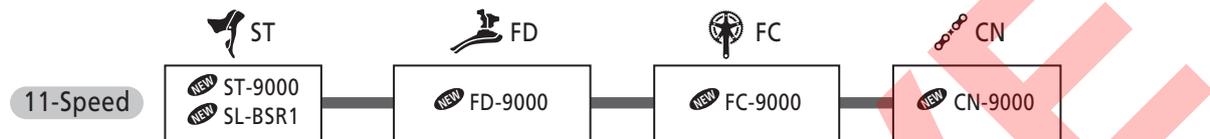
# Drivetrain for road bike components

## 1. DURA-ACE

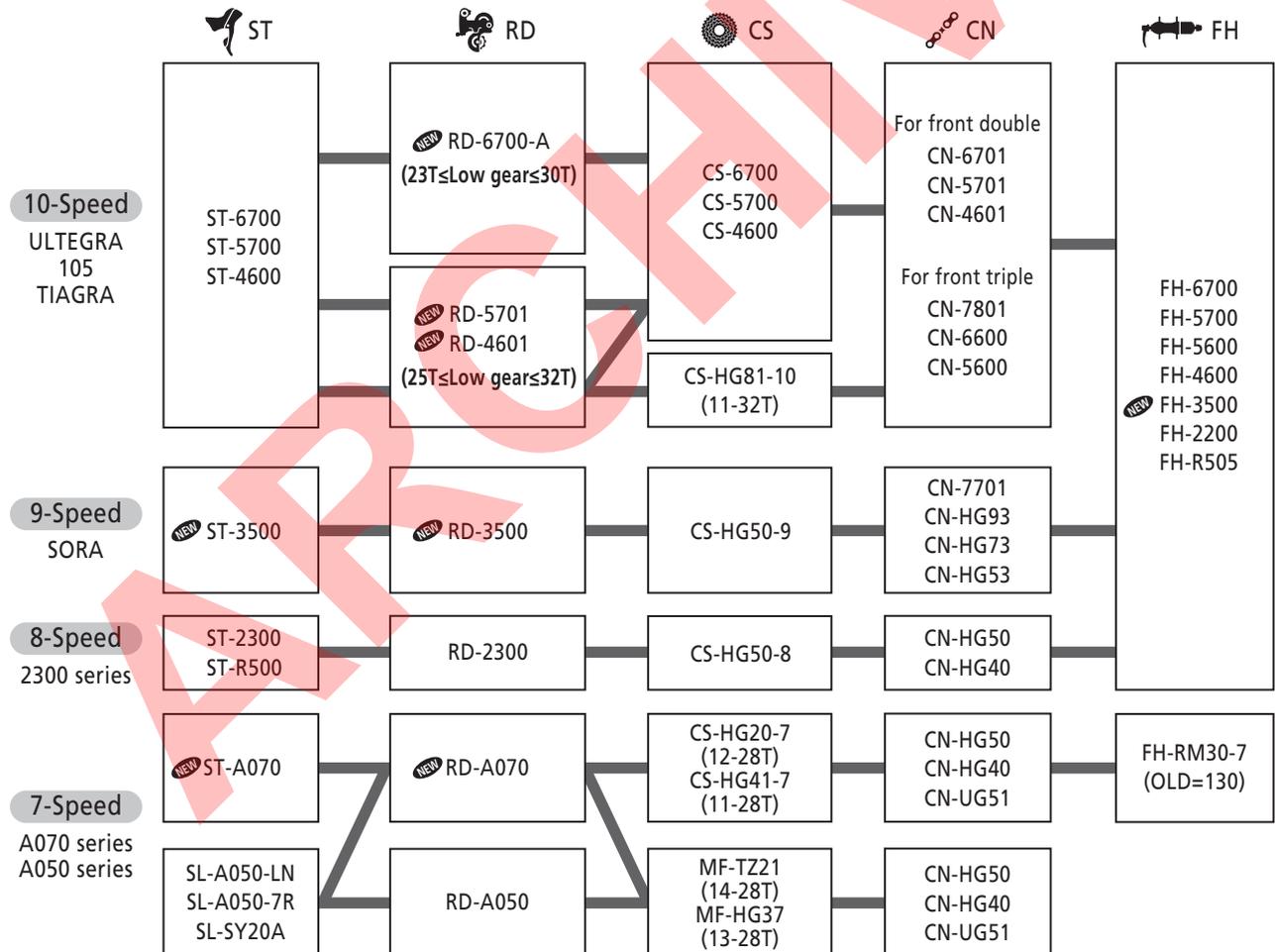
### 1-1. Rear drivetrain interchangeability



### 1-2. Front drivetrain interchangeability



## 2. Rear drivetrain interchangeability



\*1 : In case of front single, or using with 7801/6600/5600 series crankset.

## 2-1. Interchangeability between RD and CS gear teeth

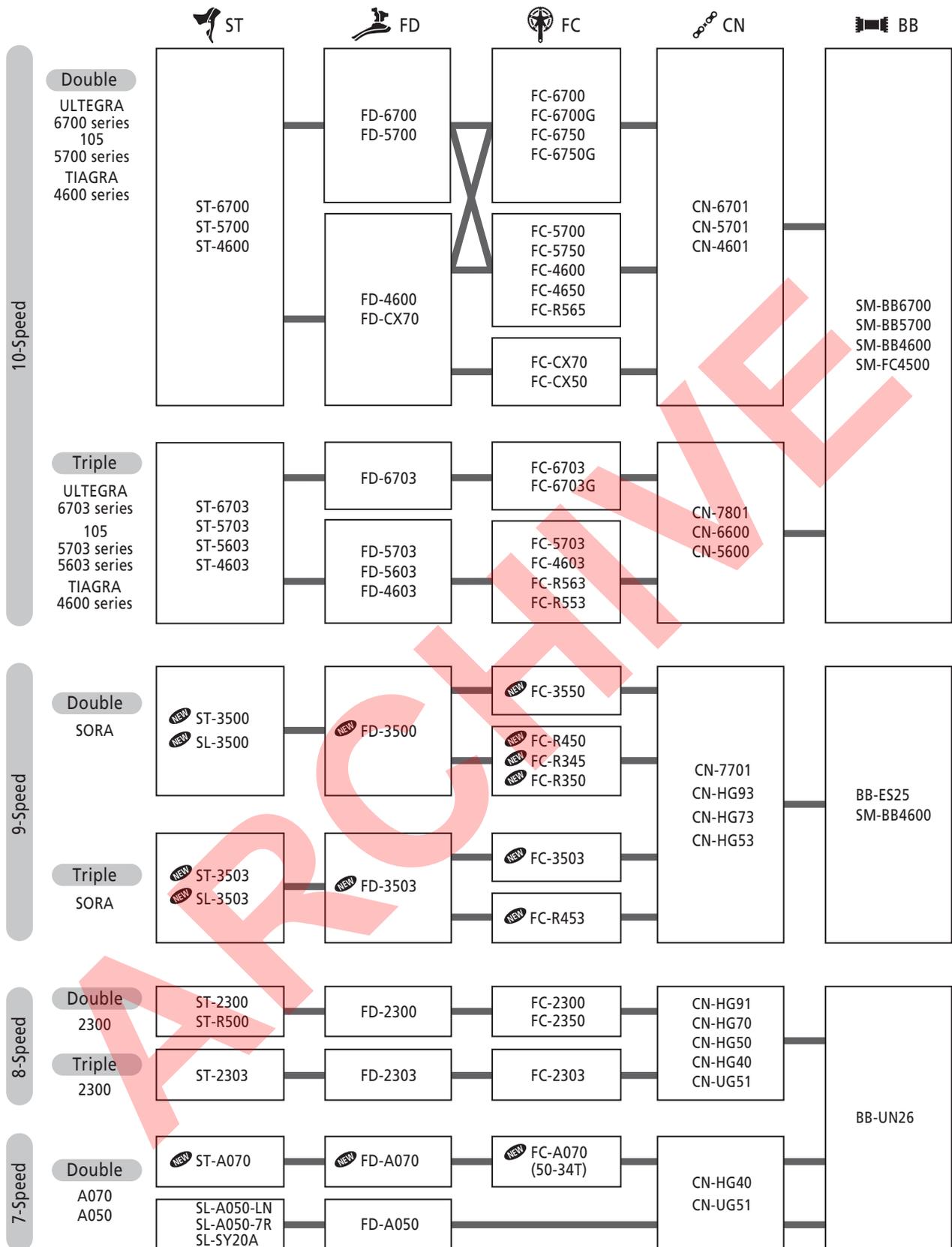
GEAR	10-speed								
	RD-6770	NEW RD-6700-A		NEW RD-5701			NEW RD-4601		
	SS	SS	GS	SS	GS Front Double	GS Front Triple	SS	GS Front Double	GS Front Triple
11-21T	-	-	-	-	-	-	-	-	-
11-23T	X	X	X	-	-	-	-	-	-
12-23T	X	X	X	-	-	-	-	-	-
11-25T	X	X	X	X	-	X	X	-	X
12-25T	X	X	X	X	-	X	X	-	X
11-27T	X	X	X	X	X	X	X	X	X
11-28T									
12-27T									
12-28T									
12-30T	-	X	X	X	X	X	X	X	X
11-32T	-	-	-	-	X	-	-	X	-
13-25T	-	X	X	X	-	X	X	-	X
14-25T	-	X	X	X	-	X	X	-	X
15-25T	-	X	-	-	-	-	-	-	-
16-27T	-	-	-	-	-	-	-	-	-

GEAR	9-speed	
	NEW RD-3500	
	SS	GS
11-21T	-	-
11-23T	-	-
12-23T	-	-
11-25T	X	X
12-25T	X	X
12-27T	X	X
11-27T	-	-
11-28T	-	-
12-28T	-	-
12-30T	-	-
11-30T	X	X
11-32T	X	X
13-25T	X	X
14-25T	X	X
15-25T	-	-
16-27T	-	-

GEAR	8-speed
	RD-2300
	SMARTCAGE
11-21T	-
12-21T	X
11-23T	-
12-23T	X
11-25T	X
12-25T	-
13-26T	X
12-27T	-
11-27T	-
11-28T	-
12-28T	-
12-30T	-
11-30T	-
11-32T	-
13-25T	X
13-28T	-
14-25T	-
14-28T	-
15-25T	-
16-27T	-

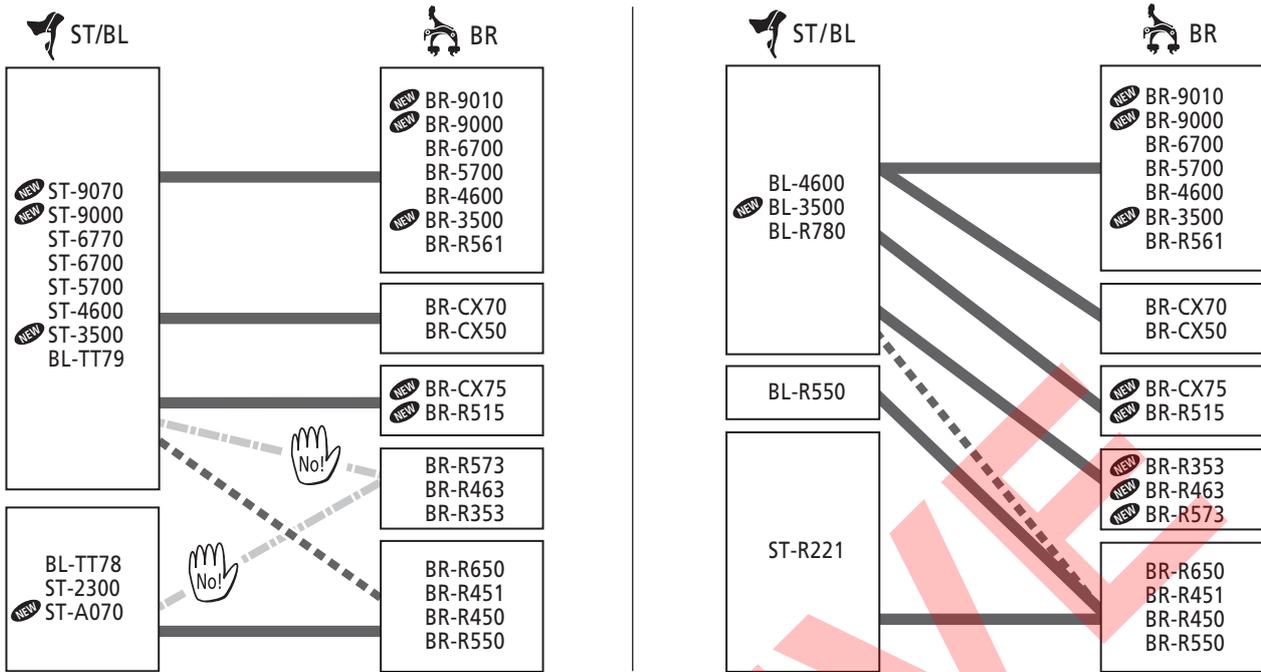
GEAR	7-speed	
	NEW RD-A070	RD-A050
	SMARTCAGE	
11-21T	-	-
11-23T	-	-
12-23T	-	-
11-25T	-	-
12-25T	-	-
12-27T	-	-
11-27T	-	-
11-28T	X	-
12-28T	X	-
12-30T	-	-
11-30T	-	-
11-32T	-	-
13-25T	-	-
13-28T	X	X
14-25T	-	-
14-28T	X	X
15-25T	-	-
16-27T	-	-

### 3. Front drivetrain interchangeability



# 4. Brake systems interchangeability

Interchangeability



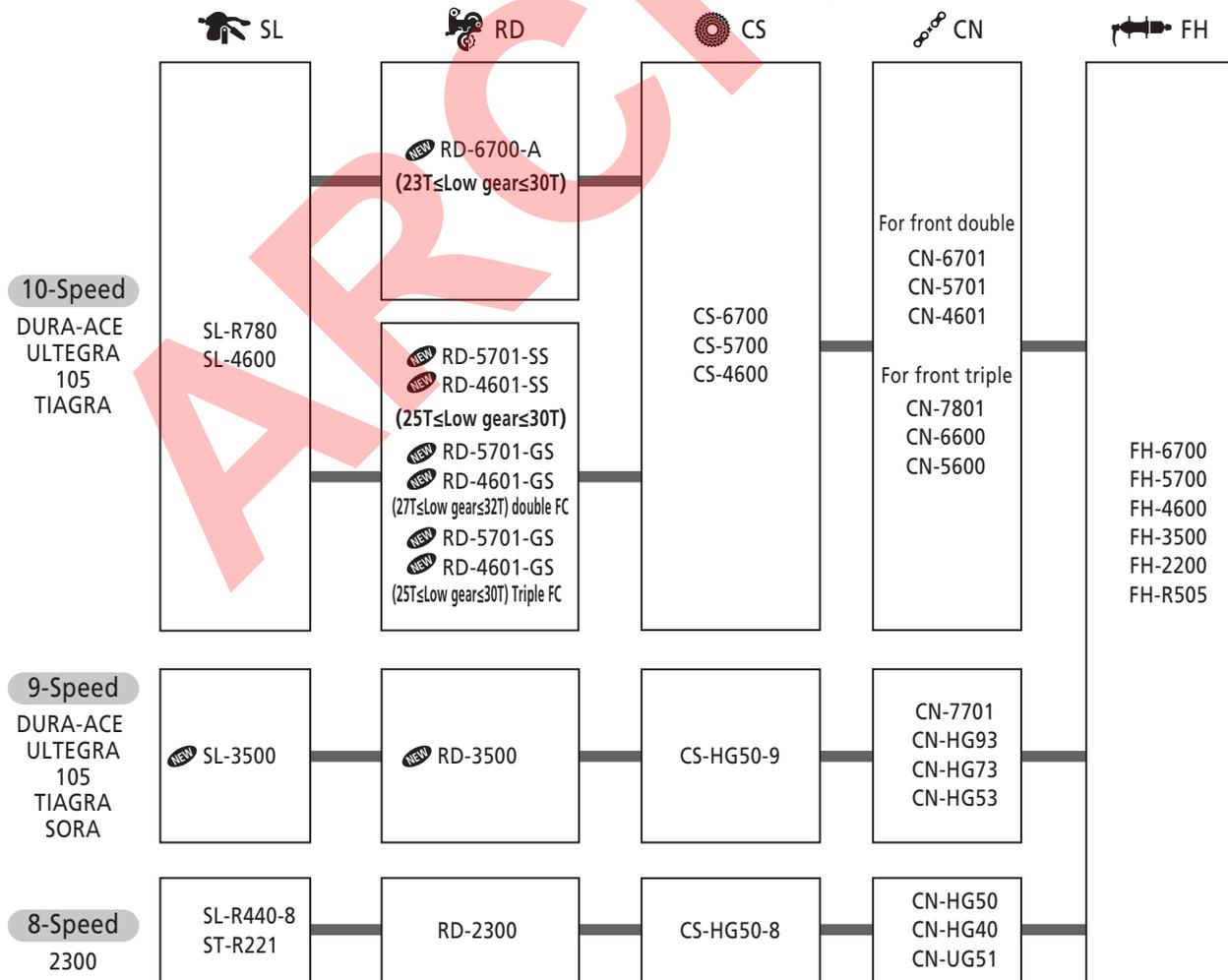
----- : Braking power is slightly less than standard combination.



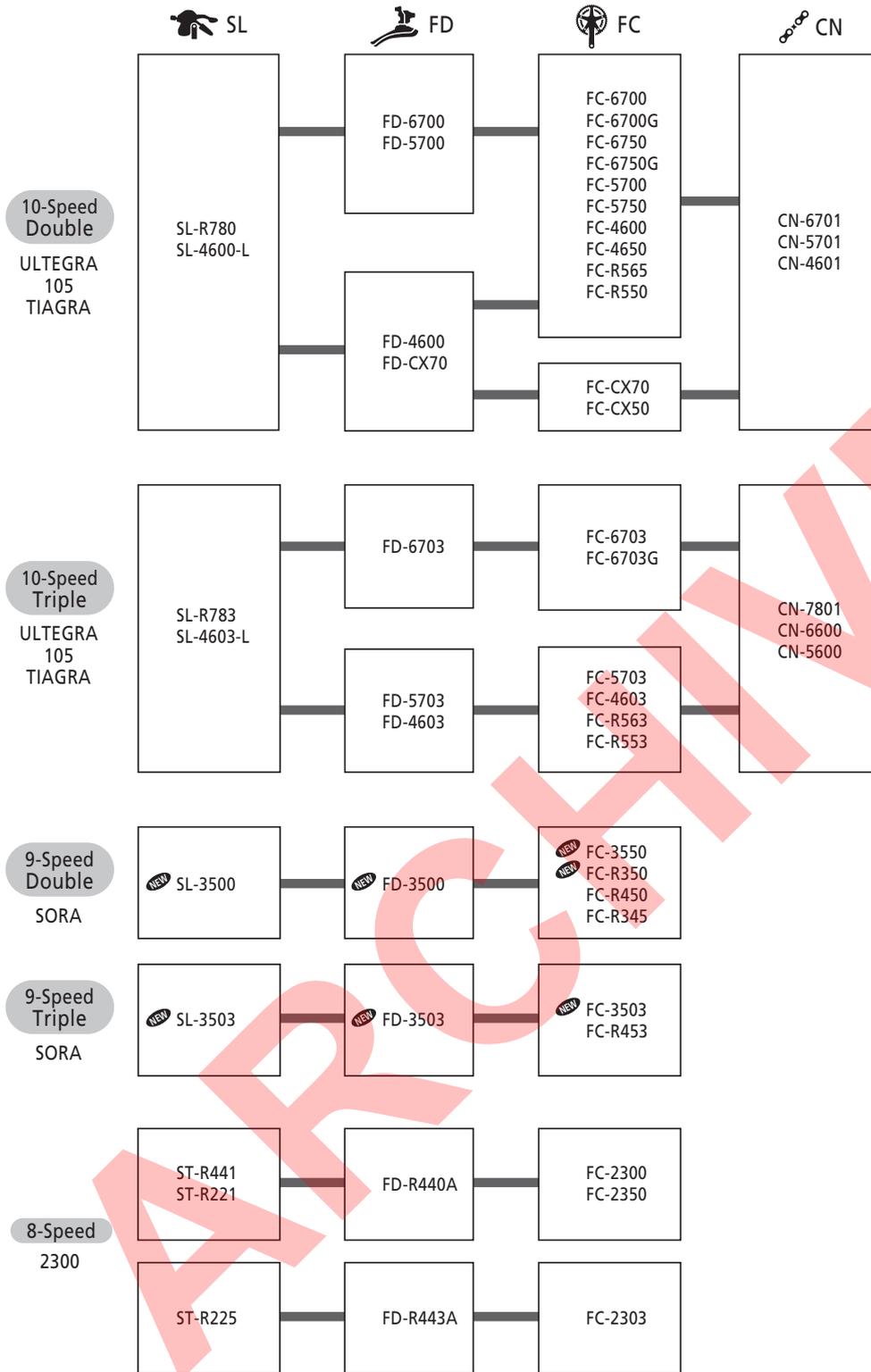
: The "NO!" symbols indicate combinations that should not be used under any circumstances.

# 5. Interchangeability for flat handlebar

## 5-1. Rear system



## 5-2. Front system



# Wheels & Cassette sprocket

## 1. Wheels & Cassette sprocket interchangeability

		CS				
		11speed	10speed	9speed	8speed	7speed
WH/FH	11speed	X	X (w/1.85mm and 1mm spacer)	-	-	-
	10 speed	-	X (w/1mm spacer)	X	X	X

WH CS interchangeability chart including the Model number

			CS								
			CS-9000	CS-7900	CS-6700	CS-5700	CS-4600	CS-HG81-10	CS-HG50-9	CS-HG50-8	CS-HG-37
			11speed	10speed				9speed	8speed	7speed	
WH/FH	WH-9000 Series	11speed	X	X (w/1.85mm spacer and 1mm spacer)	X (w/1.85mm spacer)	X (w/1.85mm spacer and 1mm spacer)	-	-	-		
	WH-RS61										
	WH-RS21										
	FH-9000										
	FH-CX75										
	WH-7900 Series	10 speed	-	X (w/1mm spacer)	X	X (w/1mm spacer)	X	X	X		
	WH-RS80 Series										
	WH-6700										
	WH-RS30										
	WH-RS20										
	WH-RS10										
	WH-R501 Series										
	FH-7900										
	FH-6700										
	FH-5700										
	FH-4600										
	FH-R505										
	FH-3500									9 speed	
	FH-2200									8 speed	

## 2. 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, other than multiple freewheel.

Righthand flange diameter	Speeds	CS model	Cassette low gear number					Spoke hole number			
			28T	30T	32T	34T	36T	28H	32H	36H	
53.8mm	10	CS-M980	-	-	-	X	X	-	CP-FH56	CP-FH53	
		CS-HG81-10	-	-	-	X	X	-	CP-FH56	CP-FH53	
		CS-M771-10	-	-	-	X	X	-	CP-FH56	CP-FH53	
		CS-HG62-10	-	-	-	X	X	-	CP-FH56	CP-FH53	
	9	CS-M770	-	-	X	X	-	CP-WH13	CP-32H2	CP-36H2	
		CS-HG80-9	-	-	X	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG80-9	X	-	-	-	-	-	CP-FH35	CP-FH50	
		CS-HG61-9	-	-	-	-	X	-	CP-FH56	CP-FH53	
		CS-HG61-9	-	-	X	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG61-9	X	-	-	-	-	-	CP-FH35	CP-FH50	
		CS-HG50-9	-	-	X	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG30-9	-	-	X	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG20-9	-	-	X	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-ROAD	X	-	-	-	-	CP-FH08	CP-FH35	CP-FH31	
	8	CS-HG60-8I	-	-	-	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG51-8	X	X	-	-	-	CP-FH40	CP-FH35	CP-FH50	
		CS-HG51-8	-	-	X	-	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG41-8	-	X	-	-	-	CP-FH40	CP-FH35	CP-FH50	
		CS-HG41-8	-	-	X	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG31-8	-	X	-	-	-	CP-FH40	CP-FH35	CP-FH50	
	7	CS-HG31-8	-	-	X	X	-	CP-WH12	CP-FH56	CP-FH53	
		CS-HG50-1	-	-	-	X	-	-	CP-FH56	CP-FH53	
		MF-HG40-7	X	-	-	-	-	-	CP-FH56	CP-FH53	
		CS-HG41-7	X	-	-	-	-	CP-FH40	CP-FH35	CP-FH50	
CS-HG20-7		-	-	X	-	-	-	CP-FH56	CP-FH53		
70.6mm	10	CS-HG20-7	X	-	-	-	-	-	CP-FH35	CP-FH50	
		CS-M980	-	-	-	X	X	-	CP-FH76	CP-FH76	
		CS-HG81-10	-	-	-	X	X	-	CP-FH76	CP-FH76	
		CS-HG62-10	-	-	-	X	X	-	CP-FH76	CP-FH76	
	9	CS-M770	-	-	X	X	-	-	CP-FH75	CP-FH75	
		CS-HG80-9	-	-	X	X	-	-	CP-FH76	CP-FH76	
		CS-HG61-9	X	-	-	-	-	-	-	-	
		CS-HG61-9	-	-	X	X	-	-	CP-FH76	CP-FH76	
		CS-HG61-9	-	-	-	-	X	-	CP-FH76	CP-FH76	
		CS-HG50-9	-	-	X	X	-	-	CP-FH76	CP-FH76	
		CS-HG30-9	-	-	X	X	-	-	CP-FH76	CP-FH76	
		CS-HG20-9	-	-	X	X	-	-	CP-FH76	CP-FH76	
		CS-HG80-9	X	-	-	-	-	-	-	-	
		CS-ROAD	X	-	-	-	-	-	-	-	
	8	CS-HG60-8I	-	-	-	X	-	-	CP-FH76	CP-FH76	
		CS-HG51-8	X	X	-	-	-	-	-	-	
		CS-HG51-8	-	-	X	-	-	-	CP-FH76	CP-FH76	
		CS-HG41-8	-	X	-	-	-	-	-	-	
		CS-HG41-8	-	-	X	X	-	-	CP-FH76	CP-FH76	
		CS-HG31-8	-	X	-	-	-	-	-	-	
		CS-HG31-8	-	-	X	X	-	-	CP-FH76	CP-FH76	
		7	CS-HG41-7	X	-	-	-	-	-	-	-
			CS-HG20-7	-	-	X	-	-	-	CP-FH76	CP-FH76

WH model	CS model	Cassette low gear number			
		28T	32T	34T	36T
WH-M985-R WH-M988-R WH-M785-R WH-M788-R	CS-M980	-	-	CP-WH14A	CP-WH14A
	CS-HG81-10	-	CP-WH14A	CP-WH14A	CP-WH14A
	CS-M770	-	CP-WH15	CP-WH15	-
	CS-HG80-9	CP-WH14A	CP-WH14A	CP-WH14A	-
	CS-HG50-9	-	CP-WH14A	CP-WH14A	-
WH-M988-R12 WH-M788-R12 WH-MT68-R12	CS-M980	-	-	CP-WH14A	CP-WH14A
	CS-M771-10	-	CP-WH14A	CP-WH14A	CP-WH14A
	CS-HG81-10	-	CP-WH14A	CP-WH14A	CP-WH14A
	CS-M970	-	CP-WH14A	CP-WH14A	-
	CS-M770	-	CP-WH15	CP-WH15	-
	CS-HG80-9	CP-WH14A	CP-WH14A	CP-WH14A	-
WH-MT75-R WH-MT68-R WH-MT66-R WH-MT55-R WH-MT55-R-29	CS-M980	-	-	CP-WH14A	CP-WH14A
	CS-M771-10	-	CP-WH14A	CP-WH14A	CP-WH14A
	CS-HG81-10	-	CP-WH14A	CP-WH14A	CP-WH14A
	CS-M970	-	CP-WH14A	CP-WH14A	-
	CS-M770	-	CP-WH15	CP-WH15	-
	CS-HG80-9	CP-WH14A	CP-WH14A	CP-WH14A	-
	CS-HG50-9	-	CP-WH14A	CP-WH14A	-
WH-MT66-R-29 WH-MT66-RD12-29	CS-M980	-	CP-WH16	CP-WH16	CP-WH16
	CS-M771-10	-	CP-WH16	CP-WH16	CP-WH16
	CS-HG81-10	-	CP-WH16	CP-WH16	CP-WH16
	CS-M970	-	CP-WH16	CP-WH16	CP-WH16
	CS-M770	-	CP-WH16	CP-WH16	CP-WH16
	CS-HG80-9	-	CP-WH16	CP-WH16	CP-WH16
	CS-HG50-9	-	CP-WH16	CP-WH16	CP-WH16
WH-MT15-R	CS-M980	-	-	CP-WH12	CP-WH12
	CS-M771-10	-	CP-WH12	CP-WH12	CP-WH12
	CS-HG81-10	-	CP-WH12	CP-WH12	CP-WH12
	CS-M970	-	CP-WH12	CP-WH12	-
	CS-M770	-	CP-WH13	CP-WH13	-
	CS-HG80-9	CP-FH08	CP-WH12	CP-WH12	-
	CS-HG50-9	-	CP-WH12	CP-WH12	-

WH model	CS model	Cassette low gear number							
		21T	23T	25T	26T	27T	28T	30T	32T*
WH-9000-C24	CS-9000	-	CP-WH23	CP-WH23	-	-	CP-WH23	-	-
	10s CS	-	CP-W020	CP-W020	-	CP-W020	CP-W020	CP-W020	CP-W020
WH-9000-C35/C50/C75	CS-9000	-	CP-W184	CP-W184	-	-	CP-W184	-	-
	10s CS	-	CP-W024	CP-W024	-	CP-W024	CP-W024	CP-W024	CP-W024
WH-RS61 WH-RS21	CS-9000	-	CP-WH23	CP-WH23	-	-	CP-WH23	-	-
	10s CS	-	CP-W020	CP-W020	-	CP-W020	CP-W020	CP-W020	CP-W020
WH-RS80 WH-6700 WH-RS30-A WH-RS20-A WH-RS10-A	CS-6700	-	CP-WH23	CP-WH23	-	CP-WH23	CP-WH23	CP-WH23	-
	CS-5700	-	-	CP-WH23	-	CP-WH23	CP-WH23	-	-
	CS-4600	-	-	CP-WH23	-	-	CP-WH23	CP-WH23	-
	CS-HG50-9	-	CP-WH23	CP-WH23	-	CP-WH23	-	-	-
	CS-HG50-8	CP-WH23	CP-WH23	CP-WH23	CP-WH23	-	-	-	-
WH-R501-30 WH-R501-A WH-R501	CS-6700	-	CP-FH06	CP-FH06	-	CP-FH31	CP-FH31	CP-FH46	-
	CS-5700	-	-	CP-FH06	-	CP-FH31	CP-FH31	-	-
	CS-4600	-	-	CP-FH06	-	-	CP-FH31	CP-FH46	-
	CS-HG50-9	-	CP-FH06	CP-FH06	-	CP-FH31	-	-	-

\* For compact crank set

## 2-1. 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

## 2-2. Spoke protector for Road

speeds	Model No.	Cassette low Gear number										Spoke holes number			
		21T	23T	24T	25T	26T	27T	28T	30T	32T	24H	28H	32H	36H	
8/9/10	Road	X	X	-	X	-	-	-	-	-	-	CP-FH06	CP-FH08	CP-FH05	CP-FH06
		-	-	-	-	X	-	-	-	-	CP-FH31	CP-FH08	CP-FH35	CP-FH31	
		-	-	-	-	-	X	X	-	-	CP-FH31	CP-FH08	CP-FH35	CP-FH31	
		-	-	-	-	-	-	-	X	-	-	-	CP-FH45	CP-FH46	
7	CS-HG20-7	-	-	-	-	-	-	X	-	-	-	-	CP-FH35	CP-FH50	
	MF-TZ21	-	-	-	-	-	-	X	-	-	-	-	-	CP-HG22/ MF-TZ21-CP	

Spoke protector can not use for 11-speed FH.

## 3. Recommendation of the Rim Tape Sizes for Shimano Wheels

Rim Sizes	Applicable Wheel Models	Recommended Rim Tape Size
622 X 15C	<b>NEW</b> WH-9000-C35-CL/ <b>NEW</b> C24-CL WH-RS80-C24-CL/ C50-CL WH-RS30-A/ <b>NEW</b> RS21/ RS10-A WH-R501-30/ R501-A/ R501	18-622
622 X 17C	WH-S501/ S500/ <b>NEW</b> 9000-C50-CL	18-622
622 X 19C	WH-S501-V/ S500/ <b>NEW</b> MT55-29 WH-T560/ <b>NEW</b> MT66-29	20-622
559 X 19C	WH-MT55 WH-MT15	20-559
Road Tubeless	<b>NEW</b> WH-9000-C24-TL WH6700 <b>NEW</b> WH-RS61	Never use rim tapes
MTB UST	WH-M985 / M988 WH-M785 / M788 WH-M778 / M776 / M775 / M770 / M765 WH-MT75 / MT65	Never use rim tapes
MTB UST	<b>NEW</b> WH-MT66 / <b>NEW</b> MT68	Sealing Tape Tubless System

# Disc brake

## 1. Hydraulic Disc Brake hose specification

Series	Hose Model No.	Connection	Rigidity	Compatible brake lever & caliper
XTR	SM-BH90-SB	Straight - Banjo	High power	BL-M985 / BR-M985
				BL-M988 / BR-M985
SAINT	SM-BH90-SBLS *1	Straight - Banjo	High power	BL-M820 /  BR-M820
ZEE	SM-BH90-SBS *2	Straight - Banjo	High power	BL-M640 /  BR-M640
DEORE XT SLX	SM-BH90-SB *3	Straight - Banjo	High power	BL-M785 / BR-M785
				BL-T785 / BR-M785
				BL-M675 /  BR-M675
DEORE	SM-BH90-SS	Straight - Straight	High power	BL-M596 / BR-M596
DEORE LX				BL-T675 /  BR-T675
Alfine				BL-S700 /  BR-S700
Non-series	SM-BH59	Straight - Straight	Standard	BL-M505 / BR-M446
				BL-M445 / BR-M446
				BL-T445 / BR-M446
Non-series	SM-BH59-A	Straight - Straight		BL-M395 /  BR-M395

- \*1 : Longer banjo, Short bolt  
 \*2 : Normal banjo, Short bolt  
 \*3 : Normal banjo, Normal bolt

## 2. Disc brake caliper and Rotor compatibility

Caliper	Pad material	Rotor size (mm)				
		ø140	ø160	ø180	ø203	
BR-M985 BR-M785 BR-M675	Metal/Resin	SM-RT98-SS Narrow Type	SM-RT98-S SM-RT86-S SM-RT81-S SM-RT67-S SM-RT76-S SM-RT64-S SM-RT66-S Narrow Type	SM-RT98-M SM-RT86-M SM-RT81-M SM-RT79-M SM-RT67-M SM-RT76-M SM-RT64-M SM-RT66-M Narrow Type	SM-RT98-L SM-RT86-L SM-RT81-L SM-RT67-L SM-RT76-L SM-RT64-L SM-RT66-L Narrow Type	
	BR-M820 BR-M640					Metal/Resin
	BR-S501					Resin
BR-M575	Metal					
BR-M596	Metal/Resin	-	SM-RT64-S SM-RT66-S Narrow Type	SM-RT64-M SM-RT66-M Narrow Type	SM-RT64-L SM-RT66-L Narrow Type	
BR-T675 BR-M575 BR-M495 BR-M446 BR-M416-A BR-M395 BR-M375	Resin	-	SM-RT30-S SM-RT54-S SM-RT56-S Wide Type	SM-RT30-M SM-RT54-M SM-RT56-M Wide Type	-	
BR-CX75 BR-R515	Metal/Resin	SM-RT98-SS Narrow Type	SM-RT98-S SM-RT86-S SM-RT81-S SM-RT79-S SM-RT67-S SM-RT76-S SM-RT75-S SM-RT64-S SM-RT66-S Narrow Type	-	-	

**NOTE:**

1. suitable mount adapter is necessary according to your frame mount style.
2. SM-RT56/RT54/RT30 are compatible with Resin pad caliper specification only. If use with metal pads, rotor will be easily damaged.
3. when using 140mm rotor, braking power is less than 160mm, please confirm the power is enough for your purpose. 140mm rotor is recommended for rear use only.
4. durability of B/E type pad become shorter when the pad is used with narrow type rotor.
5. Narrow type 2piece rotor are not compatible to caliper for Wide type rotor because of interference.

**Interference between brake caliper and adapter of rotor**

Do not use these combinations for a reason of interference between brake caliper and adapter of rotor.

Caliper	Rotor			
	ø140	ø160	ø180	ø203
NEW BR-T675 BR-M485 BR-M446 NEW BR-M395	SM-RT98	SM-RT98 SM-RT86 SM-RT81 SM-RT79 SM-RT76	SM-RT98	SM-RT99 SM-RT98 SM-RT86 SM-RT81 SM-RT79 SM-RT76

### 3. Combination Chart (Mechanical Disc)

#### 3-1. 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
Non-series	BR-M495	*	V-BRAKE BL (1.5-2.5 finger)	SM-RT54 / SM-RT56 SM-RT30 for resin pad only	B01S Resin
	BR-M416-A BR-M375	*			
	BR-R515	*	Road Lever**	SM-RT64/66	G01S Resin/ G03S Metal
	BR-CX75	*	Road Lever**	SM-RT81/86	G01A Resin/ G03Ti Metal

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

\*\* For BL-R780/ 4600, ST-6700/ 5700/ 4600

#### 3-2. Mechanical Disc brake and Brake lever interchangeability

Model No.	Brake lever type		
	2 finger	4 finger	4 finger w/ modulator
			w/ SM-PM50
BR-M495	X	-	X
BR-M416-A	X	-	X
BR-M375	X	-	X

Model No.	Brake lever type
NEW BR-R515	ST-3500/ 4600/ 5700/ 6700/ 6770 BL-4600/ 3500/ R780
NEW BR-CX75	ST-3500/ 4600/ 5700/ 6700/ 6770 BL-4600/ 3500/ R780

# V-BRAKE and Hub roller brake

## 1. 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.

Brakes	V-BRAKE		Roller Brake
	BR-T780 BR-M590 BR-M432 BR-M422 BR-MX70	With power modulator model BR-T780 with SM-PM70 BR-M590 with SM-PM70 BR-M422 with SM-PM40 BR-R353 with SM-PM40 BR-R463 with SM-PM40 BR-R573 with SM-PM70 BR-T670 with SM-PM70	
<b>Brake levers</b>	BR-R353 BR-R463 BR-R573 BR-T670		
<b>V-BRAKE Levers</b> ST-M770      BL-M740 ST-M430      BL-M590 ST-M410      BL-M571 ST-M390      BL-M421 ST-M360 (2-finger)      BL-MX70 ST-M310 (2-finger) ST-EF65 (2-finger) ST-EF51 (2-finger) NEW ST-EF51-A (2-finger) ST-EF40	X	X	Note
<b>V-BRAKE Levers</b> ST-M590      BL-T780 NEW BL-T670 BL-M591		X	
<b>V-BRAKE Levers with switch</b> BL-4600 BL-R780 NEW BL-3500	X	X	
<b>Brake lever with switch</b> ST-T300-S      BL-C800 ST-M360 (4-finger)      BL-T400 ST-M310 (4-finger)      BL-IM65 ST-EF65 (4-finger)      BL-IM60 ST-EF51 (4-finger) NEW ST-EF51-A (4-finger) SB-8S20 ST-8S20		X	X
<b>Levers for Roller Brake</b>			X

X: Yes



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

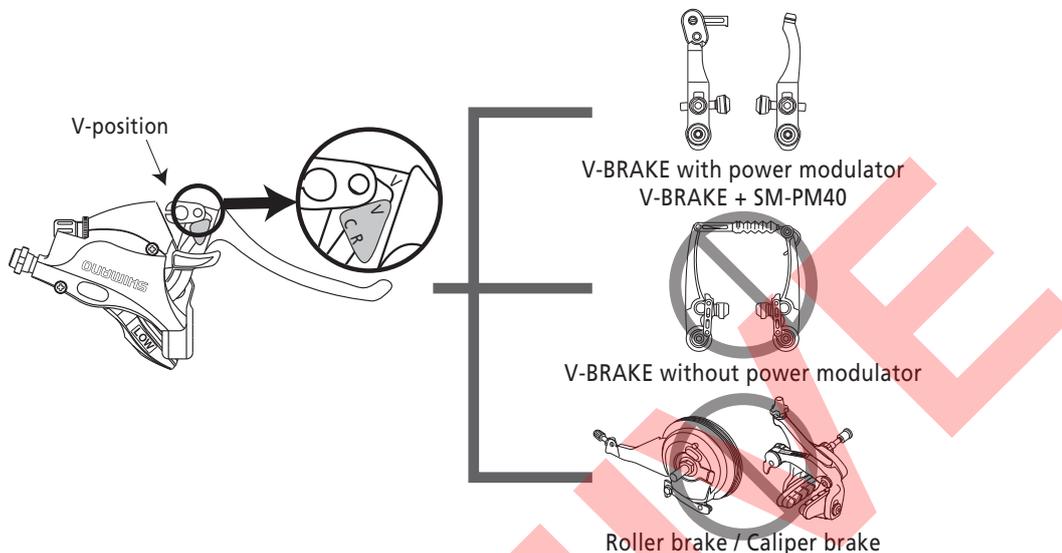
**Note:**

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

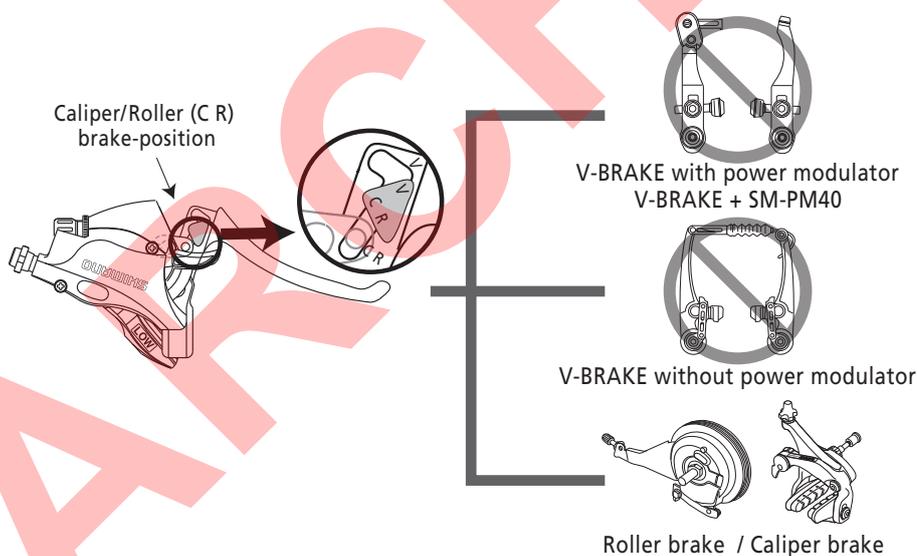
## 2. Brake lever with switch interchangeability

Four finger brake levers such as brake levers are equipped with a switch to change between the V-BRAKE with modulator mode (for example BR-M422 with SM-PM40) and the caliper brake or roller brake mode.

### 2-1. For V-BRAKE (with power modulator) mode



### 2-2. For Caliper brake/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.

## 3. Brake shoe for V-BRAKE/Cantilever brake

### 3-1. Brake/Shoe line-up

	Brake Shoe											
	M70R2	M70R2 (Severe Condition shoe)	Ceramic	M70T3	M70T4	M70CT4 (Severe Condition shoe)	M65T3	M65T4	S70C	S70C (Severe Condition shoe)	S70T	S65T
BR-T780	—	—	—	—	—	Standard	—	—	Option	—	—	—
<b>NEW</b> BR-T670	—	—	—	Option	—	Standard	—	—	Option	—	—	—
BR-M590	—	—	—	Option	Option	—	—	—	Standard	—	Option	—
BR-M432	Option	—	—	—	—	—	—	—	Standard	—	—	—
BR-M422	—	—	—	—	—	—	Option	Option	—	—	—	Standard
BR-MX70	—	—	—	Option	Option	—	—	—	—	Standard	—	—
BR-R550	—	Option	—	—	—	Option	—	—	—	Standard	—	—
<b>NEW</b> BR-R573	—	Standard	—	—	—	Option	—	—	Option	—	—	—
<b>NEW</b> BR-R463	—	—	—	—	—	Option	—	—	—	Standard	—	—
<b>NEW</b> BR-R353	—	—	—	—	Option	—	—	—	—	—	Standard	—

### 3-2. Shoe characteristics

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

X: Yes

\*: M-system maintenance its strong braking power and controllability even in wet environments.

## 4. Brake shoe for Capreo

### 4-1. Shoe characteristics

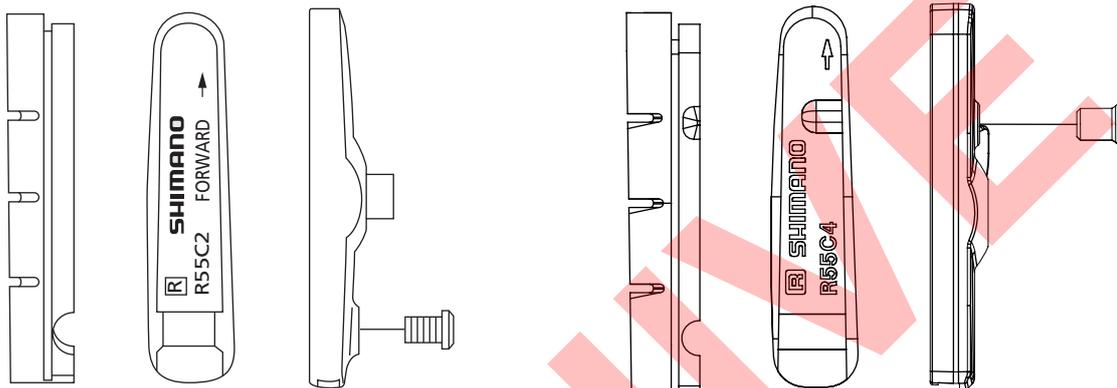
	Cartridge shoe	M-system	Length (mm)	Threaded shoe post	Brake Shoe Charectistic
R55C (for F800/F700)	X	X	55	X	Performs well in wet conditions and may pass EN standards. Tends to be low noise. But faster rim wear.

X: Yes

# Caliper brake (for road bikes)

## 1. Brake pad compatibility

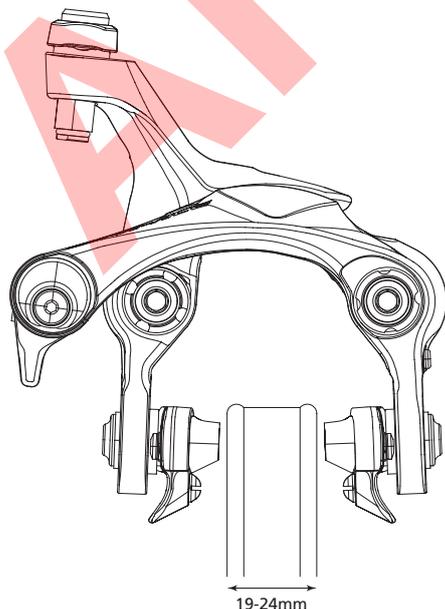
		Brake caliper	
		BR-9000/BR-6700/ BR-5700/BR-CX70/ BR650/BR-R561	BR-9010
Brake shoe type	R55C4/ R55C4 for Carbon rim	X	X
	R55C3/ R55C3 for Carbon rim	X	-



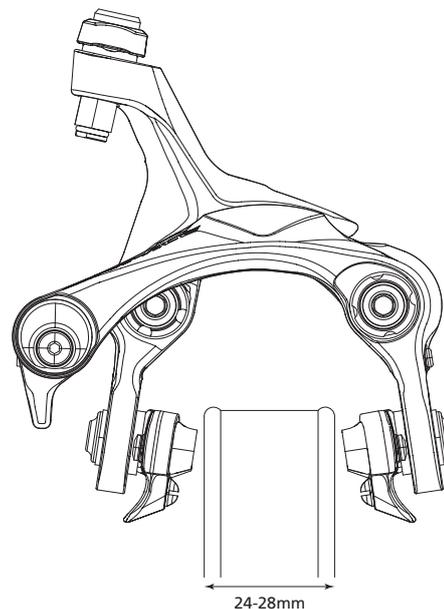
\*Brake shoe recommendation to rim width

		Rim width
Brake shoe type	R55C4/ R55C4 for Carbon rim	19-24mm
	R55C3/ R55C3 for Carbon rim	
	55C4-1/ R55C4-1 for Carbon rim	24-28mm

< for 19-24mm >



< for 24-28mm >



## 2. Brake/Shoe line-up

Series	Model No.	<b>NEW</b> R55C4	R55C3	<b>NEW</b> R55C4 for Carbon rim	<b>NEW</b> R55C 4-1 for Carbon rim	R55C for Carbon rim	R55C2	R55C for Ceramic rim	R55C + 1	M50T	R50T	R50T2
DURA-ACE	<b>NEW</b> BR-9000 <b>NEW</b> BR-9010	Standard	–	Option	Option	–	–	–	–	–	–	–
ULTEGRA	BR-6700G	–	Standard	Option	–	–	–	–	–	–	–	–
	BR-6700	–	Standard	Option	–	Option	–	–	–	–	–	–
105	BR-5700	–	Standard	Option	–	–	–	–	–	–	–	–
TIAGRA	BR-4600	–	–	–	–	–	–	–	–	–	–	Standard
SORA	<b>NEW</b> BR-3500	–	–	–	–	–	–	–	–	–	–	Standard
CYCLOCROSS	BR-CX70	–	Option	Option	–	–	–	–	Standard	–	–	–
	BR-CX50	–	–	–	–	–	–	–	–	–	–	Standard
Non-series	BR-R650	–	–	–	–	–	Standard	Option	–	–	–	–
	BR-R561	–	Standard	–	–	–	–	Option	–	–	–	–
	BR-R451	–	–	–	–	–	–	–	–	–	–	Standard

## 3. Shoe characteristics

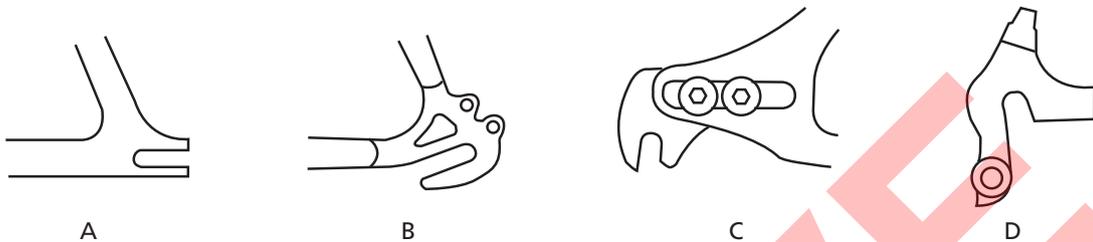
	Cartridge shoe	M-system	Length (mm)	Brake shoe characteristics
<b>NEW</b> R55C4	X	–	55	Performs well in wet conditions. Compatible with BR-9010 cartridge
<b>NEW</b> R55C4 for Carbon rim	X	–	55	For Carbon rim (21mm-24mm) Compatible with BR-9010 cartridge
<b>NEW</b> R55C4-1 for Carbon rim	X	–	55	For Carbon wide width rim (24mm-28mm) Compatible with BR-9010 cartridge
R55C3	X	–	55	Performs well in dry and wet conditions.
R55C3 for Carbon rim	X	–	55	For Carbon rim
R55C2	X	–	55	Performs well in dry conditions and tends to be low noise. Highly resistant to wear in rainy conditions.
R55C for Carbon rim	X	–	55	For Carbon rim
R55C for Ceramic rim	X	X	55	For Ceramic rim only
R55C + 1	X	–	55	For BR-CX70
M50T	–	X	50	Performs well in wet conditions. But faster rim wear.
R50T	–	–	50	Performs well in dry conditions and tends to be low noise. Wears in rainy conditions.
R50T2	–	–	50	Performs well in dry conditions and tends to be low noise. Wears in rainy conditions. Toe-in adjust design.

X: Yes

# Comfort components

## Interchangeability for comfort bike components

### 1. Combinations of the rear gear, cassette sprocket, and crankset for designing the frame



Dropout design	Compatibility	FC	CN
<A>: Reversed (Track end, w/o RD mount) <B>: Standard ( w/o RD mount ) <C>: Adjustable Disc brake mount / Eccentric BB <D>: Vertical dropout ( Road bike type, w/RD mount )	NR : Not recommend	<E>: FC-NX75 <F>: FC-S500/S400 : Double guard spec <G>: FC-S500/S400 : Single guard spec	<H>: CN-NX10(1/2"x1/8") or HG 8S(1/2"x3/32") <I>: Super Narrow HG 9S <J>: HG 8S(1/2"x3/32")

Series	Speed	Brake type	Dropout design	Compatibility	CT use	CS/SM-GEAR	FC	CN	additional condition
Alfine	11S/8S	Disc use	<A>	NR	-	-	-	-	*1
			<B>	NR	-	-	-	-	
			<C>	OK	-	SM-GEAR	<G>	<J>	
			<D>	OK	CT-S500	CS-S500	<F>	<I>	
		V-BR use	<A>	OK	-	SM-GEAR	<G>	<J>	
			<B>	OK	-	SM-GEAR	<G>	<J>	
			<C>	OK	-	SM-GEAR	<G>	<J>	
			<D>	OK	CT-S500	CS-S500	<F>	<I>	
NEXUS	8S/7S/3S (except 3D)	HRB / V-BR	<A>	OK	-	SM-GEAR	<E>	<H>	
			<B>	OK	-	SM-GEAR	<E>	<H>	
			<C>	OK	-	SM-GEAR	<E>	<H>	
			<D>	NR	CT-S500	CS-S500	<F>	<I>	*2
		Coaster	<A>	OK	-	SM-GEAR	<E>	<H>	
			<B>	OK	-	SM-GEAR	<E>	<H>	
			<C>	OK	-	SM-GEAR	<E>	<H>	
			<D>	NR	CT-S500	-	-	-	*3
	3D	Disc use	<A>	NR	-	-	-	-	*1
			<B>	NR	-	-	-	-	
			<C>	OK	-	SM-GEAR	<G>	<J>	
			<D>	OK	CT-S500	CS-S500	<F>	<I>	
		V-BR use	<A>	OK	-	SM-GEAR	<G>	<J>	
			<B>	OK	-	SM-GEAR	<G>	<J>	
			<C>	OK	-	SM-GEAR	<G>	<J>	
			<D>	OK	CT-S500	CS-S500	<F>	<I>	
			<D>	OK	CT-S510	SM-GEAR	<G>	<J>	

\*1: Special disc brake mount design is needed.

\*2: without chain guard for hub gear side.

\*3: Structure of CT-S500 can't transfer chain tension by back pedalling.

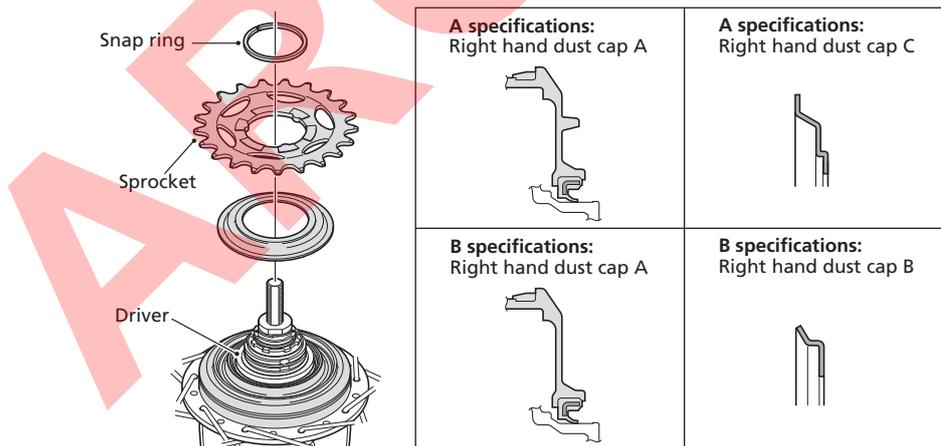
\*4: Not enough force of fixation against back pedalling power.

## 2. Dustcap information and sprocket interchangeability

Series	Speeds	Model No.	Hub Body (Dust Cap XX)	Right hand dust cap Variation	SM-GEAR																		CS-S500				Sealing performance		
					Inward assembly									Outward assembly									Inward		Outward				
					14	15	16	17	18	19	20	21	22	23	14	15	16	17	18	19	20	21	22	23	18	20		18	20
Alfine	11	<b>NEW</b> SG-S705	Right hand dust cap A w/Seal for SGS700	Right hand dust cap D	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	X*	-	-	2.9	
	11	SG-S700	Right hand dust cap A w/Seal for SGS700	Right hand dust cap D	-	-	-	-	-	X	X	X	X	-	-	-	-	X	X	X	X	X	X	X	X	X	-	-	2.9
	8	<b>NEW</b> SG-S505	Right hand dust cap A w/Seal for SGS501	Right hand dust cap B for INTER-8	-	-	-	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	X*	X*	-	-	1	
	8	SG-S501	Right hand dust cap A w/Seal for SGS501	Right hand dust cap B for INTER-8	-	-	-	-	X	X	X	X	X	-	-	X	-	X	X	X	X	X	X	X	X	X	-	-	1
NEXUS	8	Standard Spec SG-8R31 SG-8R36 SG-8C31	Right hand dust cap A (Y-37G 98080)	Right hand dust cap C for INTER-8	-	-	-	-	-	X	X	X	X	-	-	X	-	X	X	X	X	X	X	-	-	-	-	2.9	
		w/8R20TYPE R.H. DUST CAP A SG-8R31 SG-8R36 SG-8C31	Right hand dust cap A (Y-34R 98110)	Right hand dust cap B for INTER-8	-	-	X	-	X	X	X	X	X	-	-	X	-	X	X	X	X	X	X	X	-	-	-	-	1
	7	SG-7R50	Right hand dust cap B for INTER-7 roller brake spec	Right hand dust cap C for INTER-7	-	-	-	-	X	X	X	X	X	-	-	X	-	X	X	X	X	X	X	-	-	-	-	2.9	
		SG-7C30	Right hand dust cap B for INTER-7 coaster brake spec		-	-	-	-	X	X	X	X	X	-	-	X	-	X	X	X	X	X	X	-	-	-	-	2.9	
	5	<b>NEW</b> SG-5R35 <b>NEW</b> SG-5R30	Right hand dust cap A	Right hand dust cap D	-	-	X	-	X	X	X	X	X	-	-	X	-	X	X	X	X	X	X	-	-	-	-	2.9	
	3 (Export)	SG-3D55	Right hand dust cap A for INTER-3 Disc brake spec	Right hand dust cap B for INTER-3	-	-	-	-	X	X	X	X	X	-	-	X	X	-	X	X	X	X	X	X	X	X	-	-	1
SG-3R40 SG-3C41			-		-	-	-	X	X	X	X	X	X	-	-	X	X	-	X	X	X	X	X	-	-	-	-	1	
3 (JPN)	SG-3R42 SG-3R40 SG-3S42 SG-3S40	Right hand dust cap A for INTER-3 roller/coaster brake		-	-	-	-	X	X	X	X	X	X	-	-	X	X	X	X	X	X	X	-	-	-	-	1		
3 (JPN, Assist)	SG-3R75	Right hand dust cap B for INTER-7 roller brake spec	Right hand dust cap C for INTER-7	-	-	-	-	-	X	X	X	X	-	-	X	X	X	X	X	X	X	X	-	-	-	-	2.9		

X : Yes  
\*: Only spec without guard can be used

### In case of INTER-8, 2 variations available



### 3. Interchangeability between hubs and roller brakes

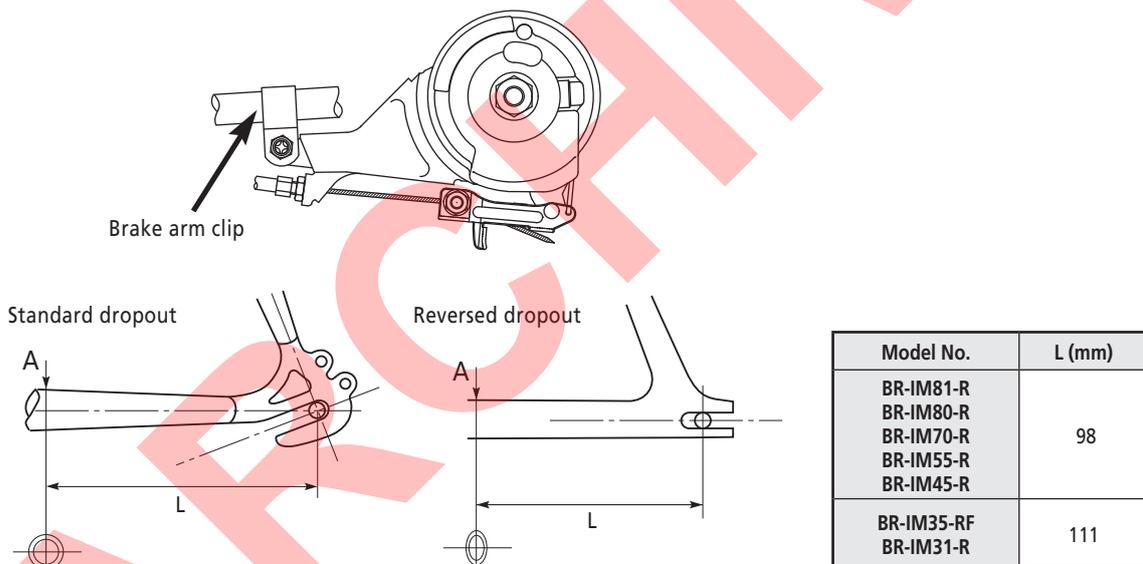
Sales Area	Model No.	Hub		Hub Dynamo						
		HB-IM70	HB-IM40	DH-3R35				DH-2R35E		DH-2R30J
		Hyper	Normal	Hyper		Normal		Hyper	Normal	Normal
Hub type	QR	NUT	QR	NUT	QR	NUT	NUT		NUT	
All	BR-IM86-F BR-IM85-F BR-IM81-F BR-IM80-F	◎	○	◎	◎	○	○	◎	○	○
	BR-IM55-F BR-IM50-F	not good	◎	not good	not good	◎	◎	not good	◎	◎
	BR-IM45-F BR-IM41-F	not good	◎	not good	not good	◎	◎	not good	◎	◎
JPN	BR-IM31-F	not good	◎	-						◎
	BR-IM35-F	not good	◎	-						◎

◎ : Recommended combination

○ : Usable

### 4. Chainstay dimensions for securing rear brake arm clip

The positions of the rear brake arm clip for the INTER-M Brake and the chain stay sizes which are compatible with the brake arm clip are shown below.



The following are the available sizes and variations for the brake arm clip at position A.

SIZE	Standard	Coating spec.	Stainless spec.	Black Coating spec.
ø3/4	X	X	X	-
ø5/8	X	X	X	X
ø11/16	-	X	X	X
ø15mm	-	X	X	-
ø19mm	X	-	-	-
ø22mm	X	X	X	X
Small	X	-	-	-
Large	X	-	-	-
Oval	X	-	-	-

X: Yes