



**2018-2019**

## **Products compatibility Information**

Compatibilities are subject to change without prior

**Visit SHIMANO PRODUCT WEBSITE for the latest information.**

# Word definitions

<b>Line D</b>	Line D goes thru bottom bracket center and FREEHUB center. In case of rear suspension type, line D should be determined by riding height such as 1G sag.		
<b>BB</b>	Bottom bracket	<b>HP</b>	Head parts
<b>BC</b>	Brake cable	<b>HRB</b>	Hub roller brake
<b>BCC</b>	Battery cable	<b>I-SPEC</b>	Integration mounting system of brake and shifting lever
<b>BCR</b>	Battery charger		
<b>BH</b>	Disc brake hose	<b>ID</b>	CI-DECK
<b>BL</b>	Brake lever	<b>JC</b>	Junction
<b>BM</b>	Battery mount	<b>LP</b>	Light
<b>BR</b>	Brake caliper	<b>MF</b>	Multiple freewheel
<b>BTC</b>	Battery case	<b>MU</b>	Motor unit
<b>BTH</b>	Battery holder	<b>O.L.D.</b>	Over Locknut Dimension
<b>BTR</b>	Battery	<b>OT</b>	Outer casing
<b>CB</b>	Coaster brake	<b>P.C.D.</b>	Pitch Circle Diameter
<b>CD</b>	Chain device	<b>PCE</b>	PC Linkage device
<b>CG</b>	Chain guard	<b>PD</b>	Pedal
<b>CJ</b>	Cassette joint	<b>PM</b>	POWER MODULATOR
<b>CN</b>	Chain	<b>QR</b>	Quick release
<b>CP</b>	Spoke protector	<b>RD</b>	Rear derailleur
<b>CR</b>	Chainring	<b>RT</b>	Disc brake rotor
<b>CS</b>	Cassette sprocket	<b>RTAD</b>	Disc brake rotor adapter
<b>CT</b>	Chain tensioner	<b>SB</b>	REVOSHIFT shifter integrated with brake lever
<b>DH</b>	Hub dynamo		
<b>DU</b>	Drive unit	<b>SC</b>	Cycle computer System information display
<b>EC</b>	Battery charger		
<b>EW</b>	Electric wire	<b>SF</b>	Single freewheel
<b>EWC</b>	Cord cover	<b>SG</b>	Internal geared hub
<b>EWEX</b>	DI2 adapter	<b>SL</b>	Shifting lever
<b>EWV</b>	Wireless unit	<b>SPD</b>	SHIMANO PEDALING DYNAMICS
<b>FC</b>	Front chainwheel Crankarm	<b>SPD-SL</b>	SHIMANO PEDALING DYNAMICS-SL
		<b>ST</b>	DUAL CONTROL LEVER / shifting lever integrated with brake lever
<b>FD</b>	Front derailleur	<b>SW</b>	Switch unit
<b>FH</b>	FREEHUB		
<b>GM</b>	Grommet	<b>WH</b>	Wheel
<b>HB</b>	Front hub		

# Compatibility

## Drivetrain for MTB components C-432

Rear drivetrain compatibility [MTB] C-433 C-434 C-558 C-435 C-436 C-437 C-438 C-439 C-546

Front drivetrain compatibility [MTB] C-440 C-559 C-441 C-442 C-445 C-446

Front derailleur and front chainwheel C-447

Front derailleur and chain line (TOURNEY) C-448

Front chainwheel, bottom bracket and chain line [MTB] C-449 C-450

## Drivetrain for ROAD bike / URBAN SPORT components C-453

Rear drivetrain compatibility [ROAD, URBAN SPORT] C-454

Front drivetrain compatibility [ROAD, URBAN SPORT] C-455

Brake systems compatibility [ROAD] C-456

Hydraulic systems compatibility [ROAD] C-499

Hydraulic systems compatibility [URBAN SPORT] C-500

## I-SPEC C-156

Compatibility of I-SPEC shifter and brake lever C-157

## Disc brake C-460

Disc brake caliper and Rotor compatibility C-461

Combination chart (Mechanical Disc) C-462 C-463 C-464

Compatibility between hydraulic disc brake hose C-186

Disc brake mount adapter C-193 C-194 C-195

## V-BRAKE and Hub roller brake C-465

Compatibility between brake systems C-466

Brake lever with switch compatibility C-467 C-468 C-469

## Cassette Sprocket C-544

12-speed FREEHUB and 11-speed FREEHUB (MICRO SPLINE) compatibility

C-560

11-speed FREEHUB dimension

C-253

Compatibility between rear derailleur and cassette sprocket gear teeth [ROAD, URBAN SPORT]

C-254

C-255

C-256

C-257

C-258

C-259

## Comfort components C-470

Available combinations of the rear dropout, cassette sprocket/single gear and front chainwheel for designing the frame

C-471

## Spoke protector C-298

Spoke protector

C-491

MTB

C-299

ROAD, URBAN SPORT

C-300

Spoke protector for Road

C-302

## E-BIKE compatibility chart C-431

E-BIKE system (with E-TUBE PROJECT ver.3.4)

C-525

Drivetrain compatibility

C-488

Battery and battery mount compatibility

C-511

Speed sensor and drive unit compatibility

C-549

Battery and battery charger compatibility

C-562

## Electronic Product Information C-472

E-TUBE compatibility chart with E-TUBE PROJECT ver.3.4

C-473

## CI-DECK C-547

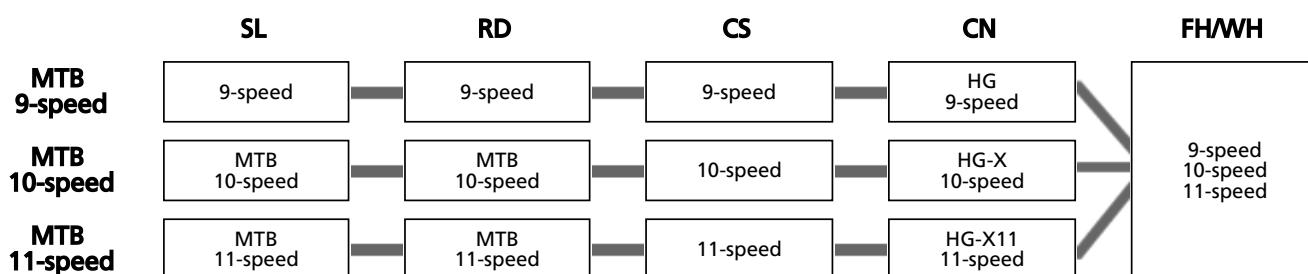
Compatibility between Bracket and ID/SC

C-548

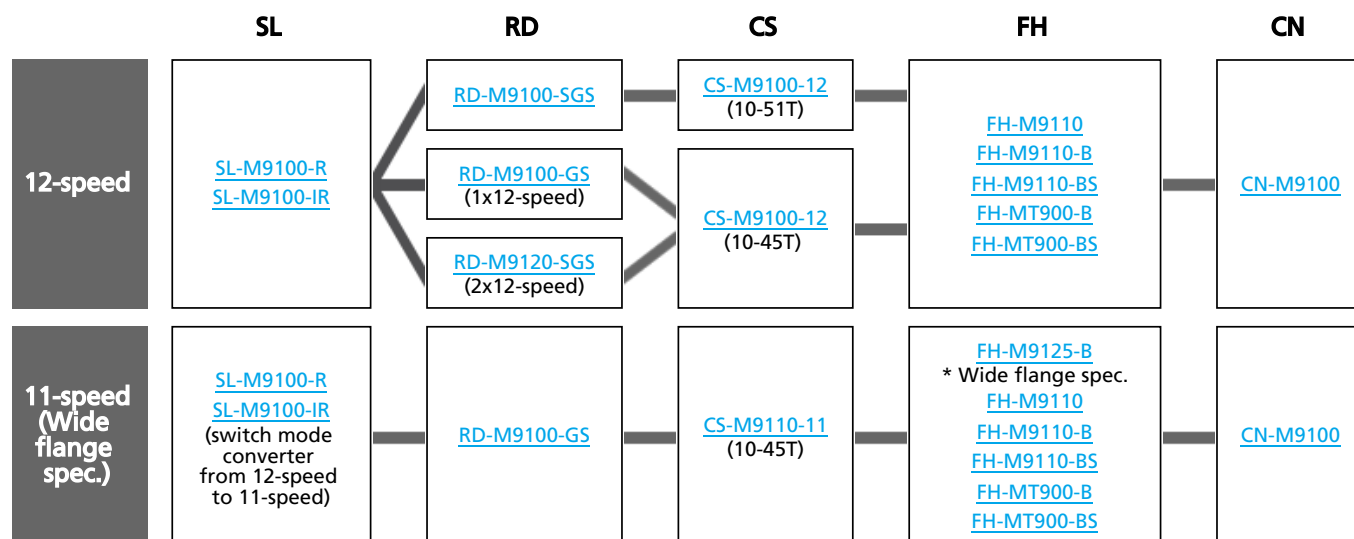
## Rear drivetrain compatibility [MTB]

C-433

### 9,10,11-speed rear drivetrain compatibility C-434

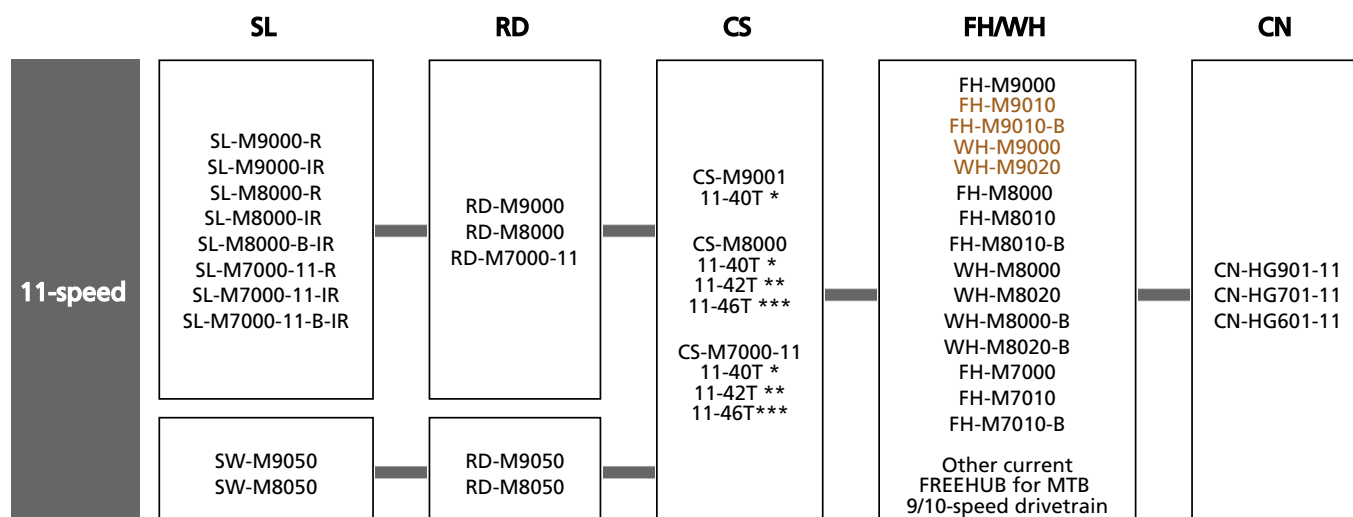


### 12-speed and 11-speed rear drivetrain (MICRO SPLINE) [MTB] C-558



## 11-speed rear drivetrain [MTB] C-435

XTR M9000 / DEORE XT M8000 / SLX M7000 Series

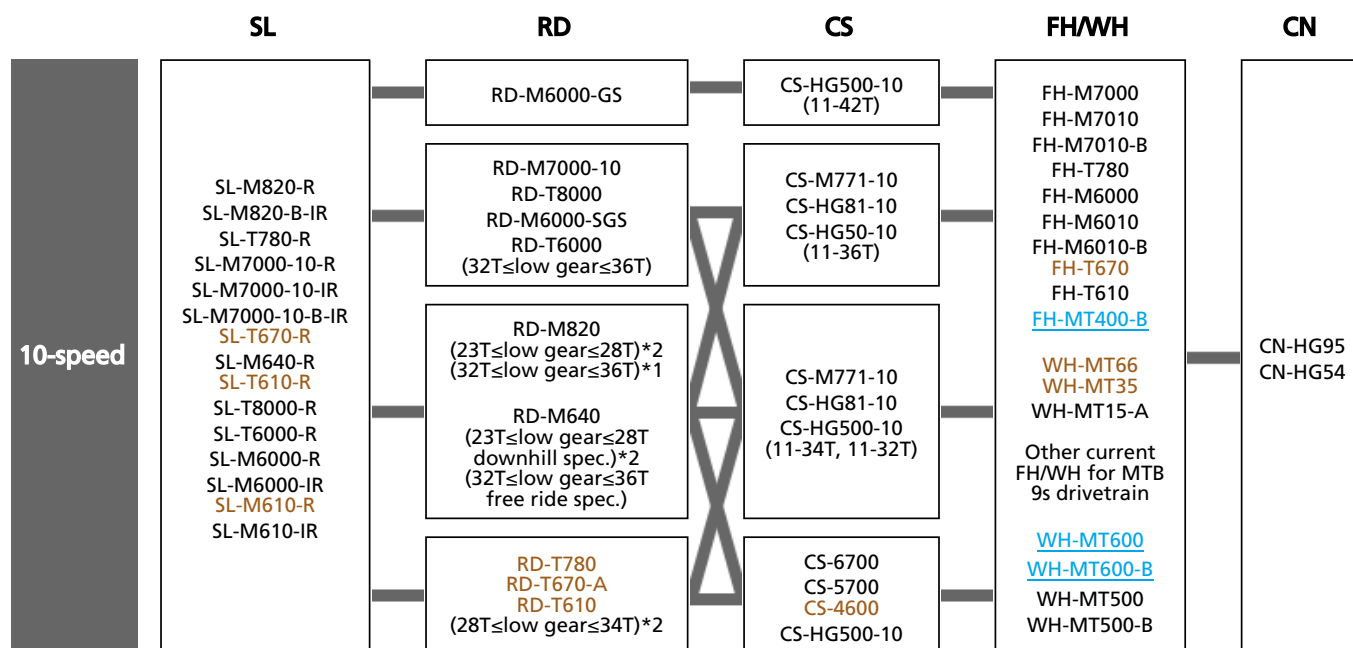


\* 3/2/1x11-speed drive train

\*\* 2/1x11-speed drive train

\*\*\* Only for 1x11-speed drivetrain

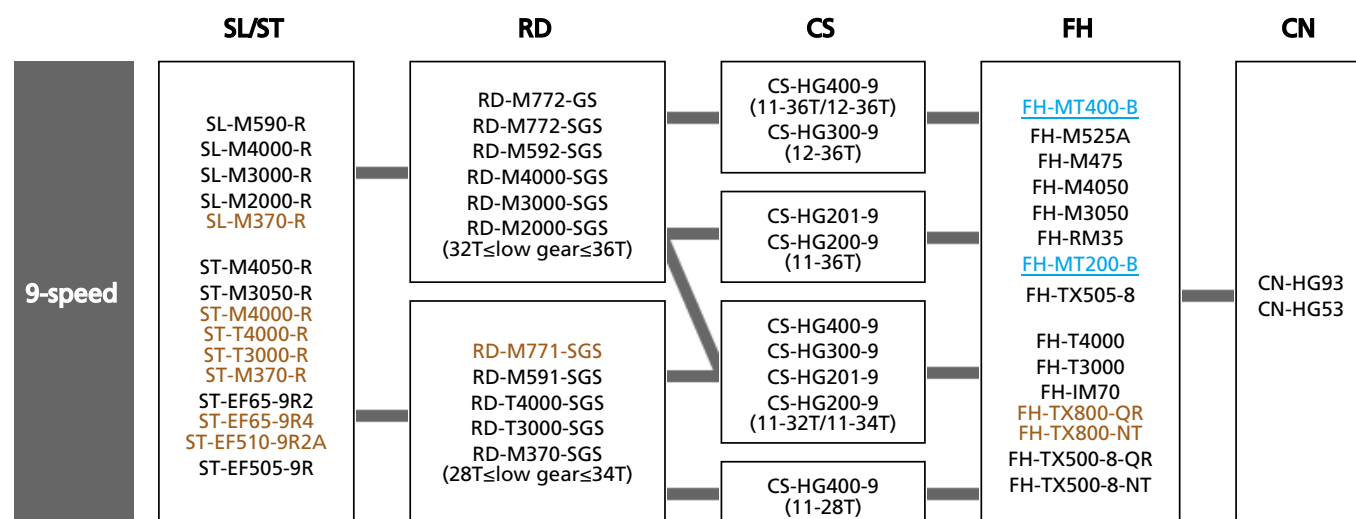
## 10-speed rear drivetrain [MTB] C-436



\*1 Mode converter

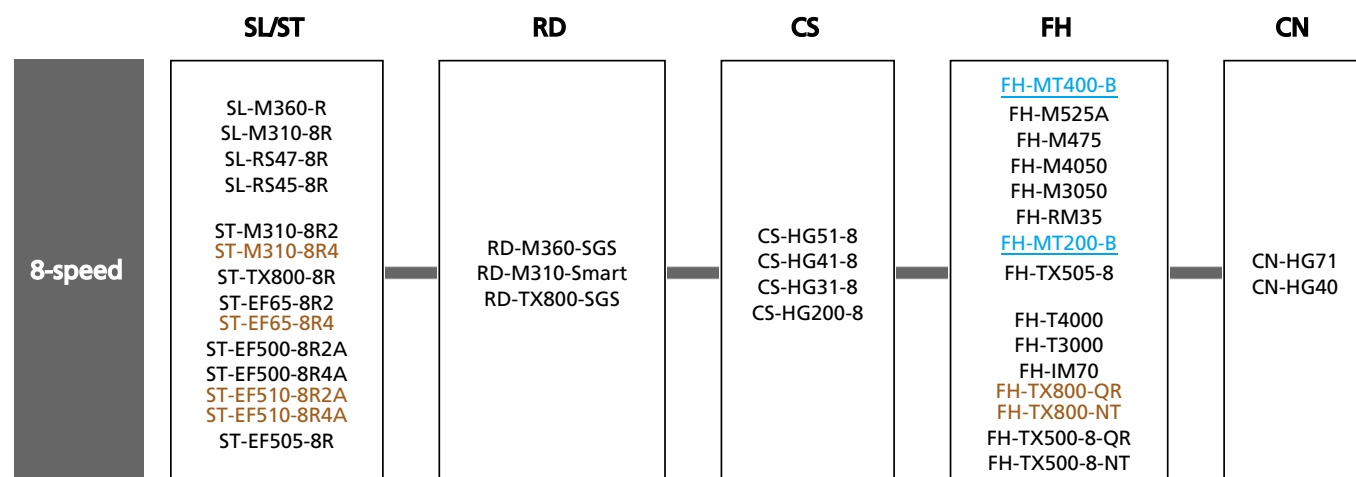
\*2 Compatible with road Cassette sprocket

## 9-speed rear drivetrain [MTB] C-437

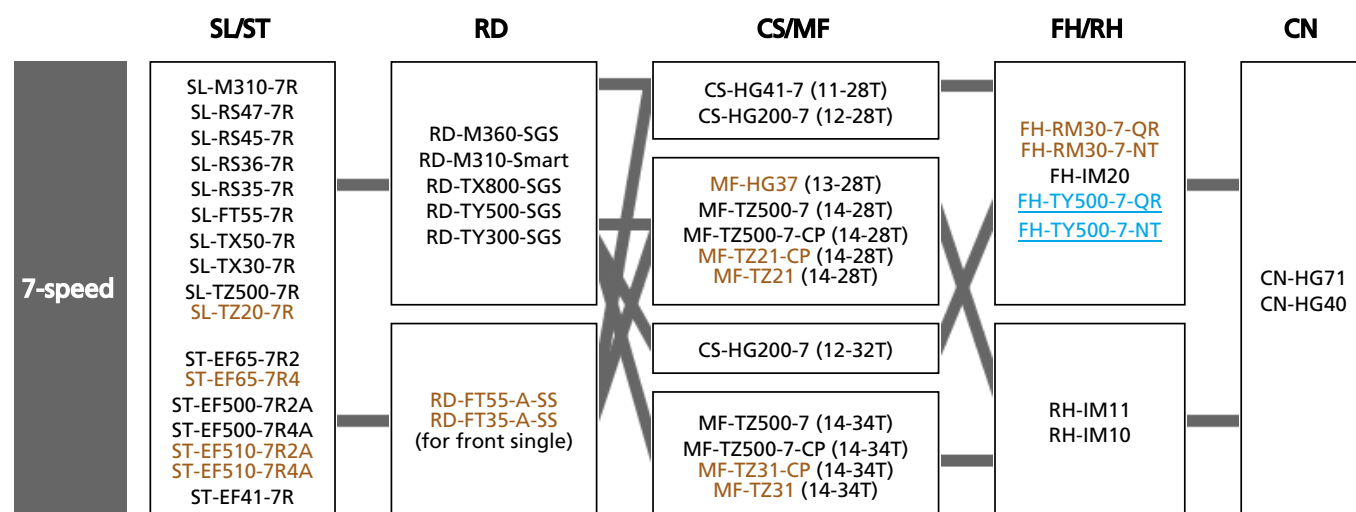


## 8-speed HG [MTB] C-438

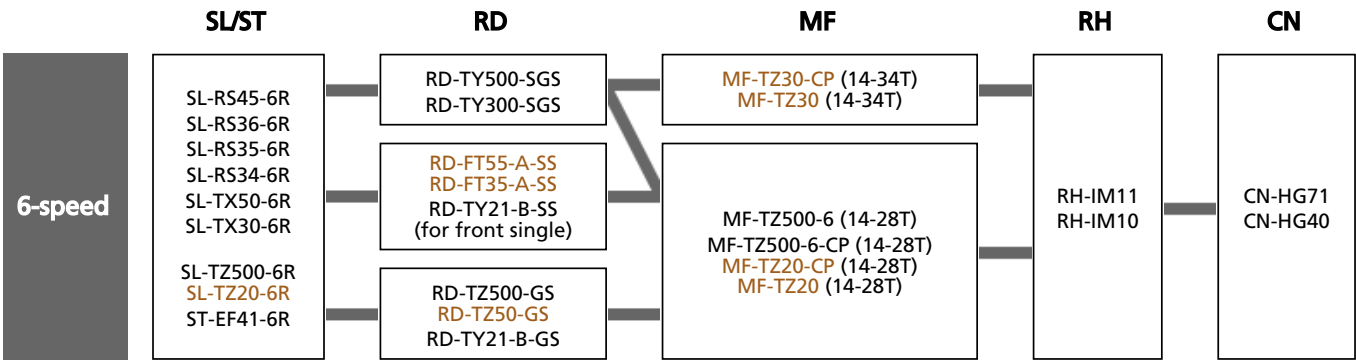
The rear derailleur for 8-speed can also be used for 7-speed drivetrain.



## 7-speed HG [MTB] C-439

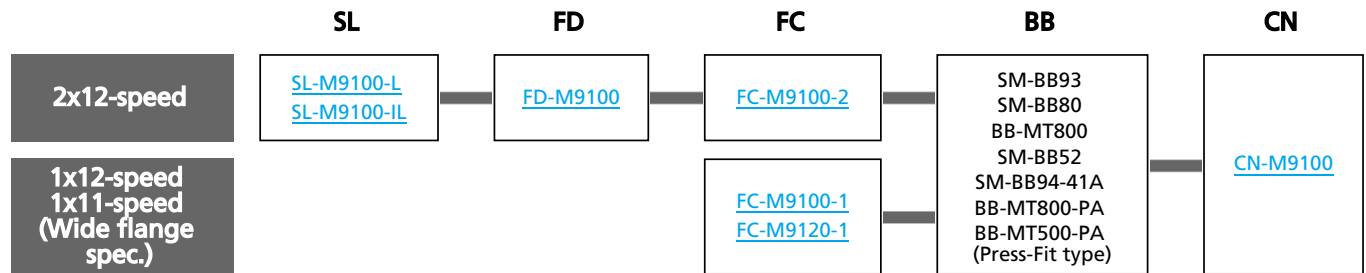


6-speed HG and 6-speed [MTB] C-546

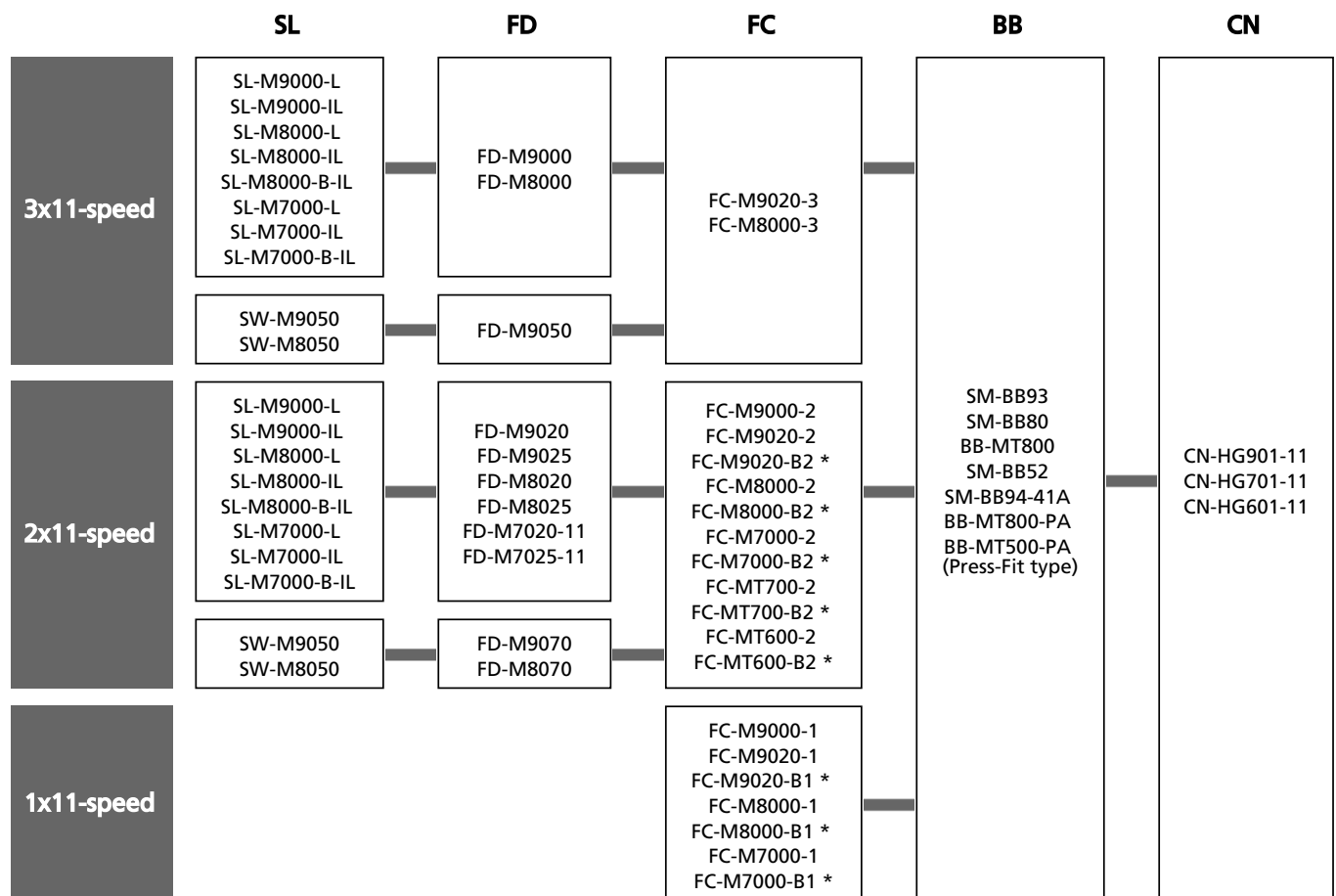




## 12-speed front drivetrain C-559



## 11-speed front drivetrain C-441



### NOTE

\*It also requires new dimension of frame which cassette position is 3mm outboard

# 10-speed front drivetrain [MTB] C-442

	SL	FD	FC	BB	CN
3x10-speed	SL-M7000-L SL-M7000-IL SL-M7000-B-IL SL-M6000-L SL-M6000-IL <b>SL-M610-L</b> SL-M610-IL	FD-M7000-10 FD-M7005-10 FD-M611 FD-M610 FD-M6000	<b>FC-M552(42-32-24T)</b>  FC-M7000-10(40-30-22T) <b>FC-M622(40-30-22T)</b> <b>FC-M523(40-30-22T)</b> FC-MT500-3(40-30-22T) FC-M6000-3	SM-BB93 SM-BB80 BB-MT800 SM-BB52	
2x10-speed	SL-M7000-L SL-M7000-IL SL-M7000-B-IL SL-M6000-L SL-M6000-IL <b>SL-M610-L</b> SL-M610-IL	FD-M617 FD-M618  FD-M6020 FD-M6025	FC-M627 (38-24T) FC-M627 (36-22T) FC-M627-B (36-22T) FC-M617 (38-24T) FC-M617 (36-22T) FC-M617-B2 (36-22T)  FC-M6000-2 FC-M6000-B2 FC-MT500-2 FC-MT500-B2	SM-BB94-41A BB-MT800-PA BB-MT500-PA  BB-ES300 <b>(FC-M522)</b> <b>(FC-M523)</b> (OCTALINK)	CN-HG95 CN-HG54

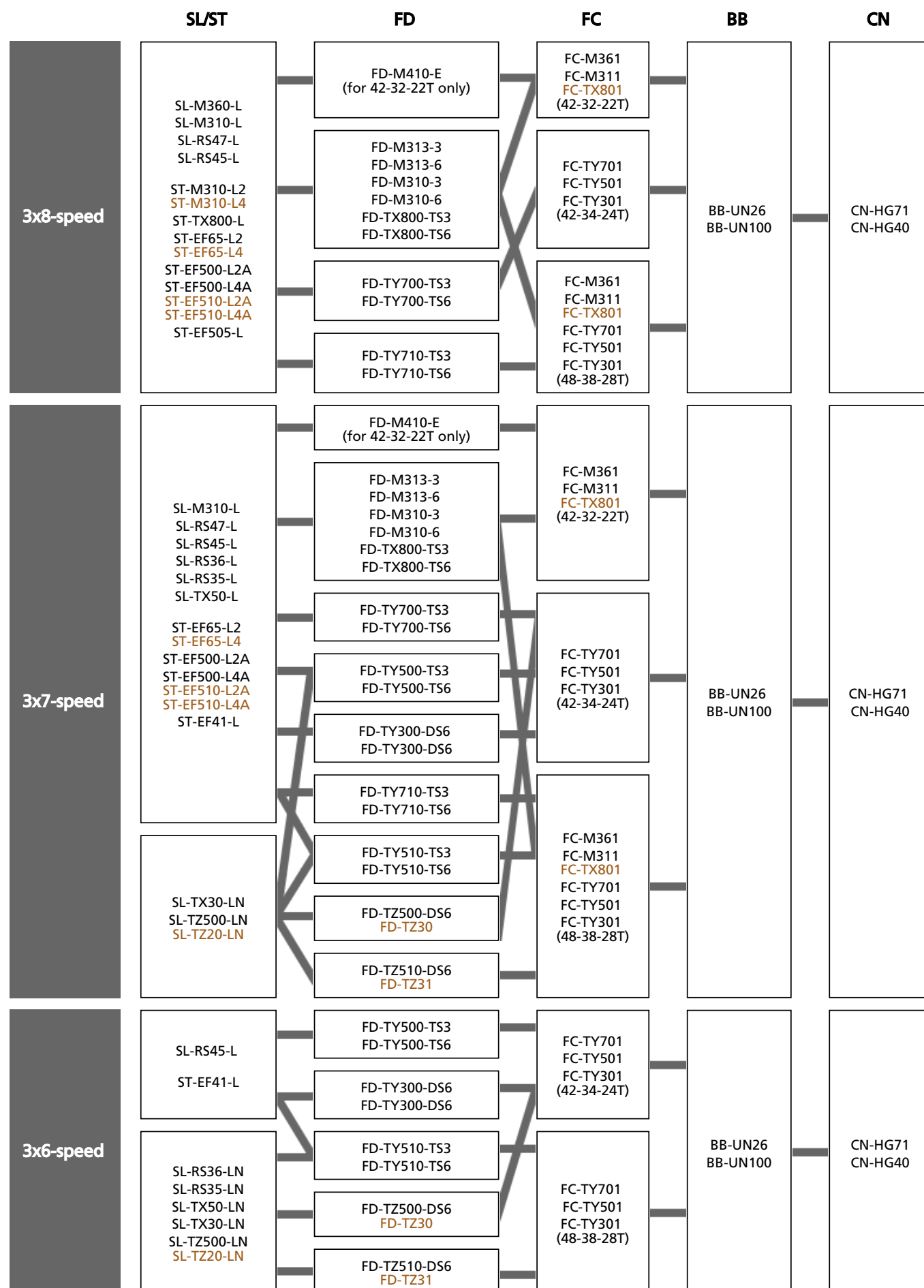
\*: Not compatible with E2 type front derailleur.

	SL	FD	FC	BB	CN
3x10-speed Trekking	SL-T8000-L <b>SL-T780-L</b> SL-M780-L SL-M780-B-IL SL-T670-L <b>SL-M670-L</b> SL-M670-B-IL SL-T610-L SL-M610-L SL-M610-IL <b>SL-M591-L</b> SL-T6000-L	FD-T8000-3 FD-T8000-6 FD-T780-3 FD-T780-6 FD-T781-3 FD-T670-3 FD-T670-6 FD-T671-3 FD-T610-3 FD-T610-6 FD-T611-3 FD-T6000-3 FD-T6000-6	FC-T8000(48-36-26T) <b>FC-T780(48-36-26T)</b> <b>FC-T781(48-36-26T)</b> <b>FC-T781(44-32-24T)</b> <b>FC-T671(48-36-26T)</b> <b>FC-T671(44-32-24T)</b> <b>FC-M610(48-36-26T)</b> <b>FC-M670(48-36-26T)</b> <b>FC-T611(48-36-26T)</b> <b>FC-T611(44-32-24T)</b> FC-T6010(48-36-26T) FC-T6010(44-32-24T) FC-T551(48-36-26T) FC-T551(44-32-24T) FC-T521(48-36-26T) FC-T521(44-32-24T)	SM-BB93 BB-MT800 SM-BB52 SM-BB94-41A BB-MT800-PA BB-MT500-PA BB-E300 (FC-T521) (Square type)	<b>CN-M981</b> <b>CN-M980</b> CN-HG95 <b>CN-HG94</b> <b>CN-HG75</b> <b>CN-HG74</b> CN-HG54

# 9-speed FC-FD compatibility [MTB] C-445

	SL/ST	FD	FC	BB	CN
3x9-speed	SL-M590-L SL-M4000-L SL-M3000-L SL-M2000-L SL-M370-L  ST-M4050-L ST-M3050-L ST-M4000-L ST-T4000-L ST-T3000-L ST-M370-L ST-EF65-L2 ST-EF65-L4 ST-EF510-L2A ST-EF500-L2A ST-EF500-L4A ST-EF505-L	FD-M660-E FD-M661-D (for 44-32-22T only)	<a href="#">FC-MT300</a> <a href="#">FC-MT210</a> (44-32-22T only) <a href="#">FC-M590</a> <a href="#">FC-M591</a> FC-T4060 (44-32-22T / 48-36-26T) FC-M4060 (48-36-26T only)	<a href="#">BB-MT500</a> SM-BB52 BB-MT500-PA	CN-HG93 CN-HG53
		FD-T4000-TS3 FD-T4000-TS6 FD-T4000-DS3 FD-T3000-TS3 FD-T3000-TS6 FD-M370-3 FD-M370-6 FD-M371-3 FD-M371-6	FC-T4010 <a href="#">FC-T3010-8</a> (44-32-22T / 48-36-26T)  FC-T3010 FC-M371 (44-32-22T / 48-36-26T) <a href="#">FC-MT101</a> (44-32-22T only) <a href="#">FC-M351</a> (44-32-22T only)	BB-ES300	
		<a href="#">FD-M4000-TS3</a> FD-M4000-TS6 FD-M4000-DS3 FD-M4000-DS6 <a href="#">FD-M4000-M</a> <a href="#">FD-M3000-TS3</a> FD-M3000-TS6 FD-M2000-TS3 FD-M2000-TS6 FD-M2000-DS3 FD-M2000-DS6	<a href="#">FC-M4050</a> <a href="#">FC-MT300</a> <a href="#">FC-MT210</a> (40-30-22T)	BB-UN55 BB-UN26 BB-UN100	
			<a href="#">FC-M4000</a> <a href="#">FC-M3000-8</a> (40-30-22T)		
			FC-M3000 (40-30-22T)	BB-UN55 BB-UN26	
			FC-M2000 FC-MT100 (40-30-22T)		
2x9-speed	SL-M4010-L SL-M3010-L	<a href="#">FD-M4020-D</a> <a href="#">FD-M4020-E</a> <a href="#">FD-M4020-M</a>	<a href="#">FC-MT210-2</a>	SM-BB52 BB-MT500-PA	
		<a href="#">FD-M4020-D</a> <a href="#">FD-M4020-E</a> <a href="#">FD-M4020-M-B</a>	FC-M4050-B2 <a href="#">FC-MT210-B2</a>		
			<a href="#">FC-M3000-B2</a> <a href="#">FC-MT200-B</a>	BB-UN55 BB-UN26	

# 8,7,6-speed triple FC-FD compatibility [MTB] C-446



## Front derailleur and front chainwheel

C-447

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.

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

Each front derailleurs and the number of teeth of corresponding front chainwheels are given in the compatibility chart.

## Front derailleur and chain line (TOURNEY)

C-448

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

		28.6 mm (S)	31.8 mm (M)	34.9 mm (L)
Chain line (mm)	FD-TY300	47.5		50.0
	FD-TZ510-DS6	47.5		-
	FD-TZ500-DS6			
	FD-TZ31 FD-TZ30			

# Front chainwheel, bottom bracket and chain line [MTB]

C-449

In order to use SIS (SHIMANO INDEX SYSTEM) to its full extent, the required correct chain line, along with the front chainwheel and bottom bracket required to obtain that, are given in the chart below.

## Separate type FC-BB compatibility [MTB] C-450

Speed	Series	Front Chainwheel				Bottom bracket	Chain line and axle mark				
		Model No.	Type of crank				Model No.	47.5 mm	50.0 mm	52.5 mm	47.5+t mm
			OCTALINK	Square	Chain case						
10	SHIMANO	FC-M523	X	—	—	BB-ES300	—	118	—	—	
		FC-M522	X	—	—	BB-ES300	—	113	—	—	
9	SHIMANO	FC-M521	X	—	X*	BB-ES300-AK	—	**	—	—	
	ALIVIO	FC-M4000	X	—	—	BB-ES300	—	118	—	—	
		FC-T4010	X	—	X*	BB-ES300(-K)	—	126(-K)	—	—	
		FC-M430-8	X	—	—	BB-ES300(-E)	—	118(-E)	—	—	
		FC-M430	—	X	—	BB-UN26(-E)	—	LL113(-E)	—	—	
	ACERA	FC-M3000-8	X	—	—	BB-ES300	—	118	—	—	
		FC-M3000	—	X	—	BB-UN26	—	LL113	—	—	
		FC-M3000-B2	—	—	—	BB-UN26	—	LL113	—	—	
		FC-T3010-8	X	-	X*	BB-ES300(-K)	—	126(-K)	—	—	
	FC-T3010	—	X	X*	BB-UN26(-K)	—	LL123(-K)	—	—		
		ALTUS	FC-M2000	—	X	—	BB-UN26 BB-UN100	—	LL123(-K)	—	—
	SHIMANO	FC-MT100	—	X	—	BB-UN26 BB-UN100	—	LL123	—	—	
		FC-M371	—	X	X*	BB-UN26(-K)	—	LL123(-K)	—	—	
		FC-M351									
8, 7	ACERA ALTUS	FC-M361 FC-M311	—	X	X*	BB-UN26(-K)	—	LL123(-K)	—	—	
	TOURNEY	FC-TX801	—	X	X*	BB-UN26(-K) BB-UN100(-K)	—	LL123(-K)	—	—	
8, 7, 6	SHIMANO	FC-TY701 FC-TY501 FC-TY301	—	X	X	BB-UN26(-K) BB-UN100(-K)	D-NL (122.5)	BB-UN26(-K) D-EL(-K)	—	D-NL-K (122.5)	

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

\*\*: Please refer to [C-445](#) for detailed combination.

X: Yes

### NOTE

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

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

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

**C-453**

**C-454**

Ver. 2.7, Jun. 1, 2018, SHIMANO INC.

## 2x10-speed

**ULTEGRA**  
6700 series

**105**  
5700 series

**TIAGRA**  
4700 series  
4600 series

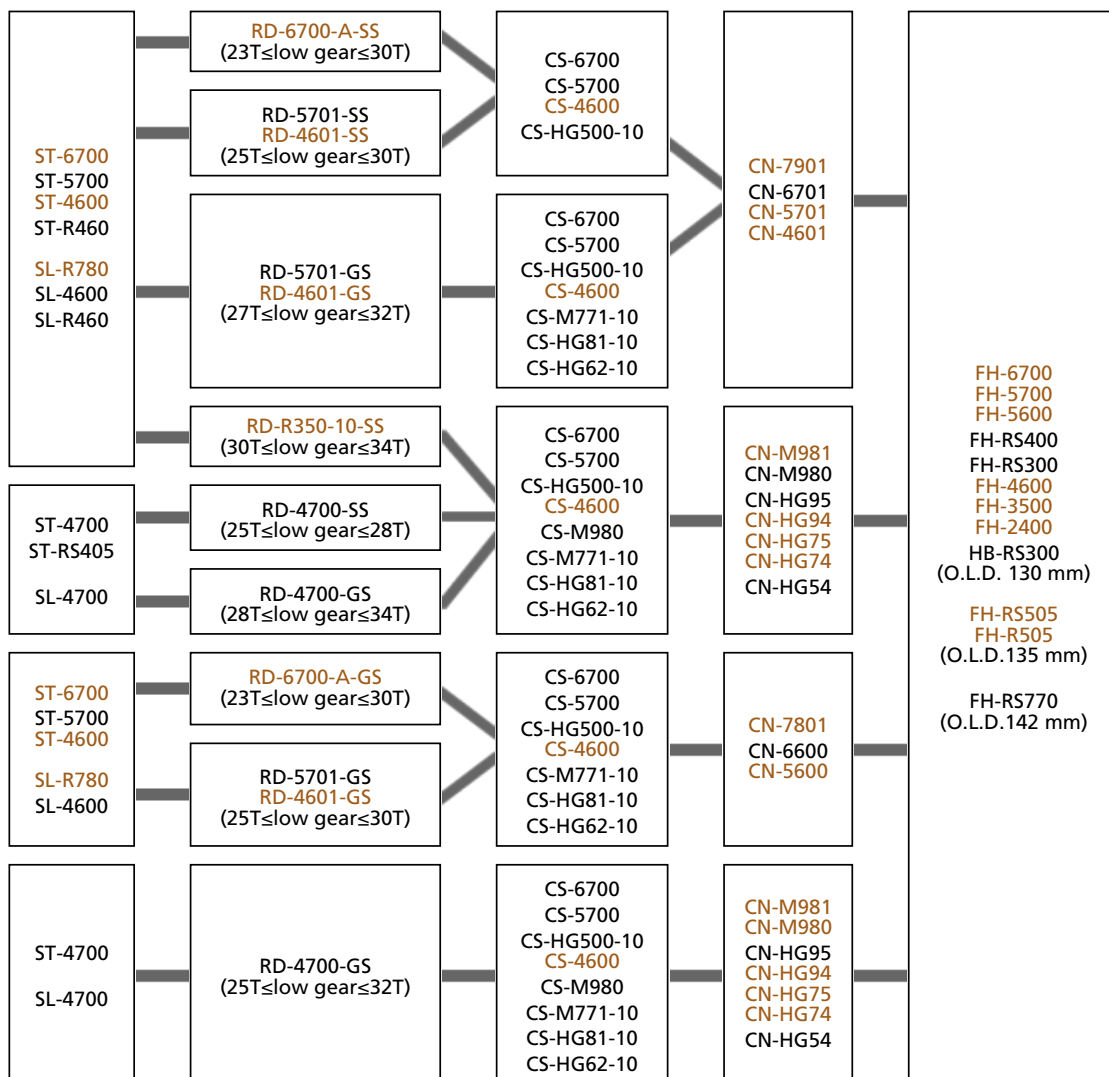
**ST/SL**

**RD**

**CS**

**CN**

**FH**



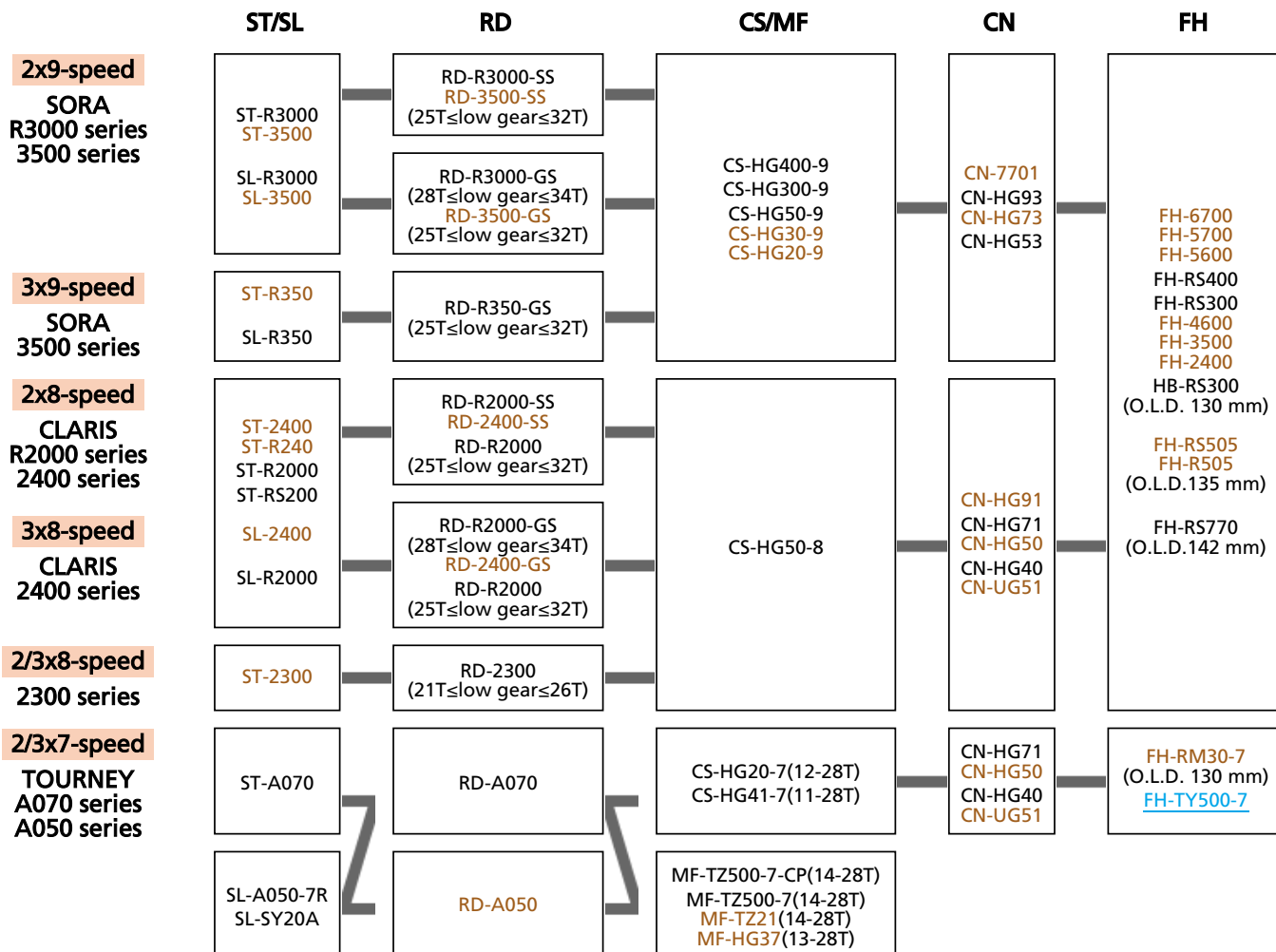
## 3x10-speed

**ULTEGRA**  
6700 series

**105**  
5700 series

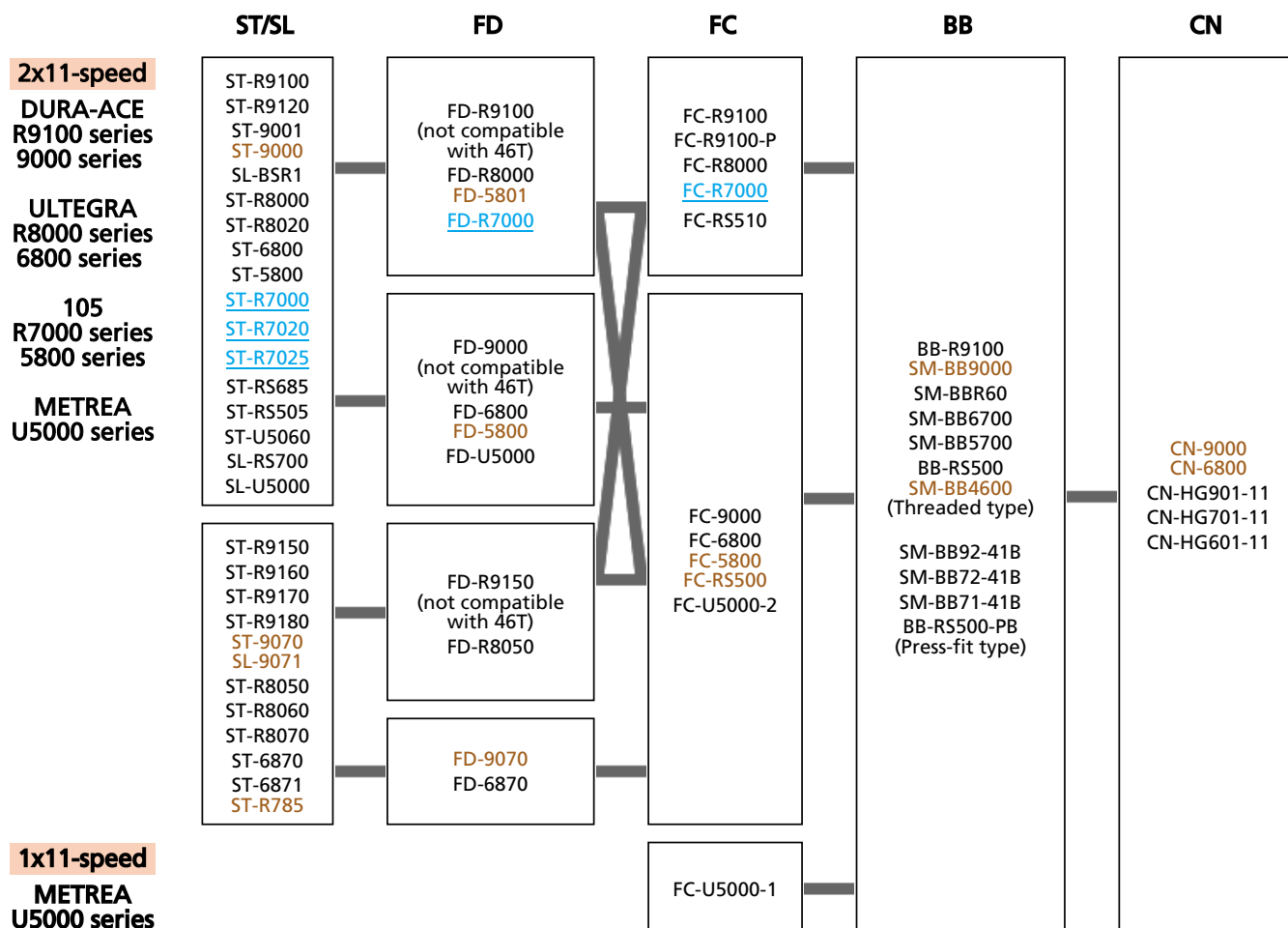
**TIAGRA**  
4700 series  
4600 series

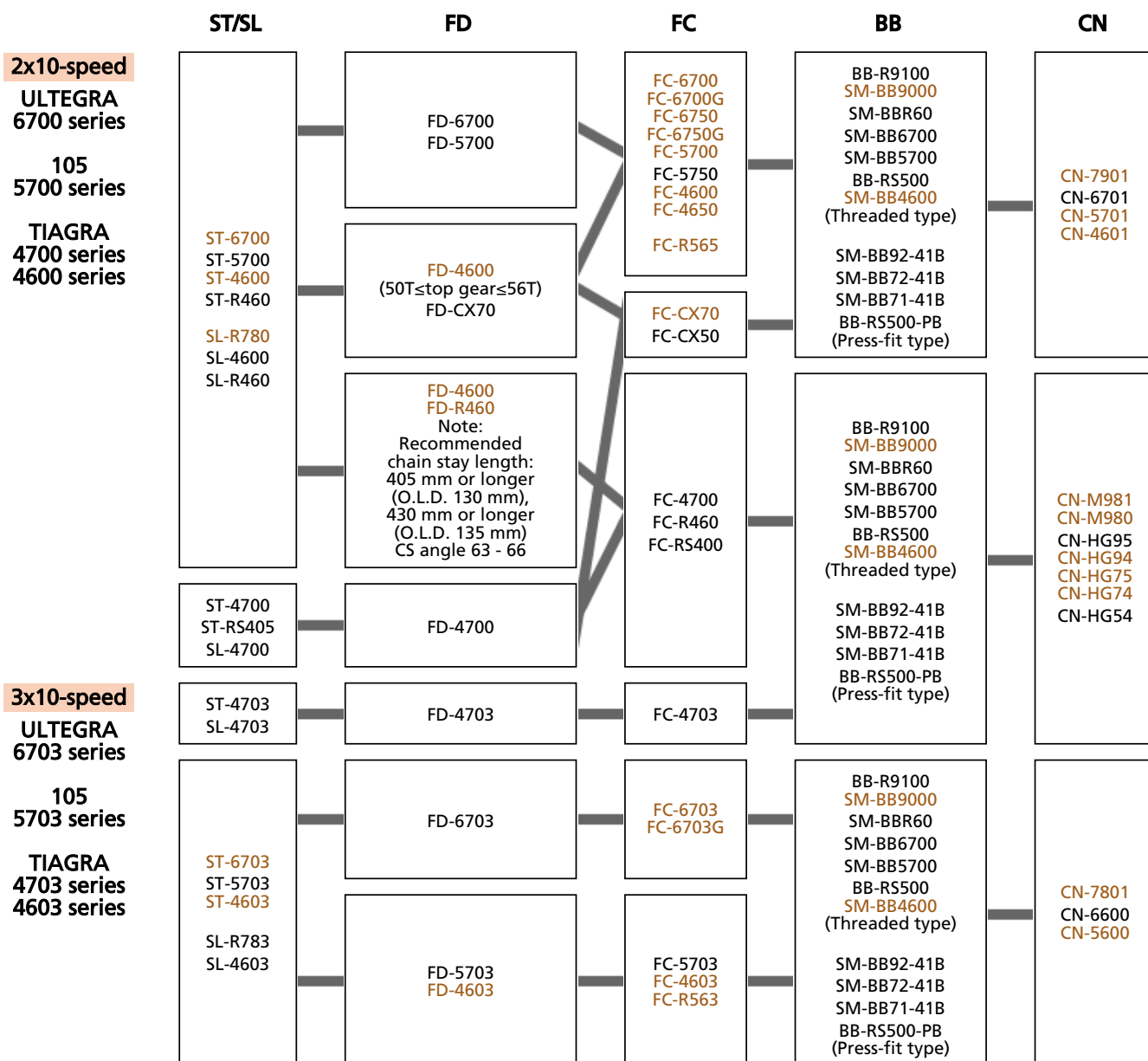


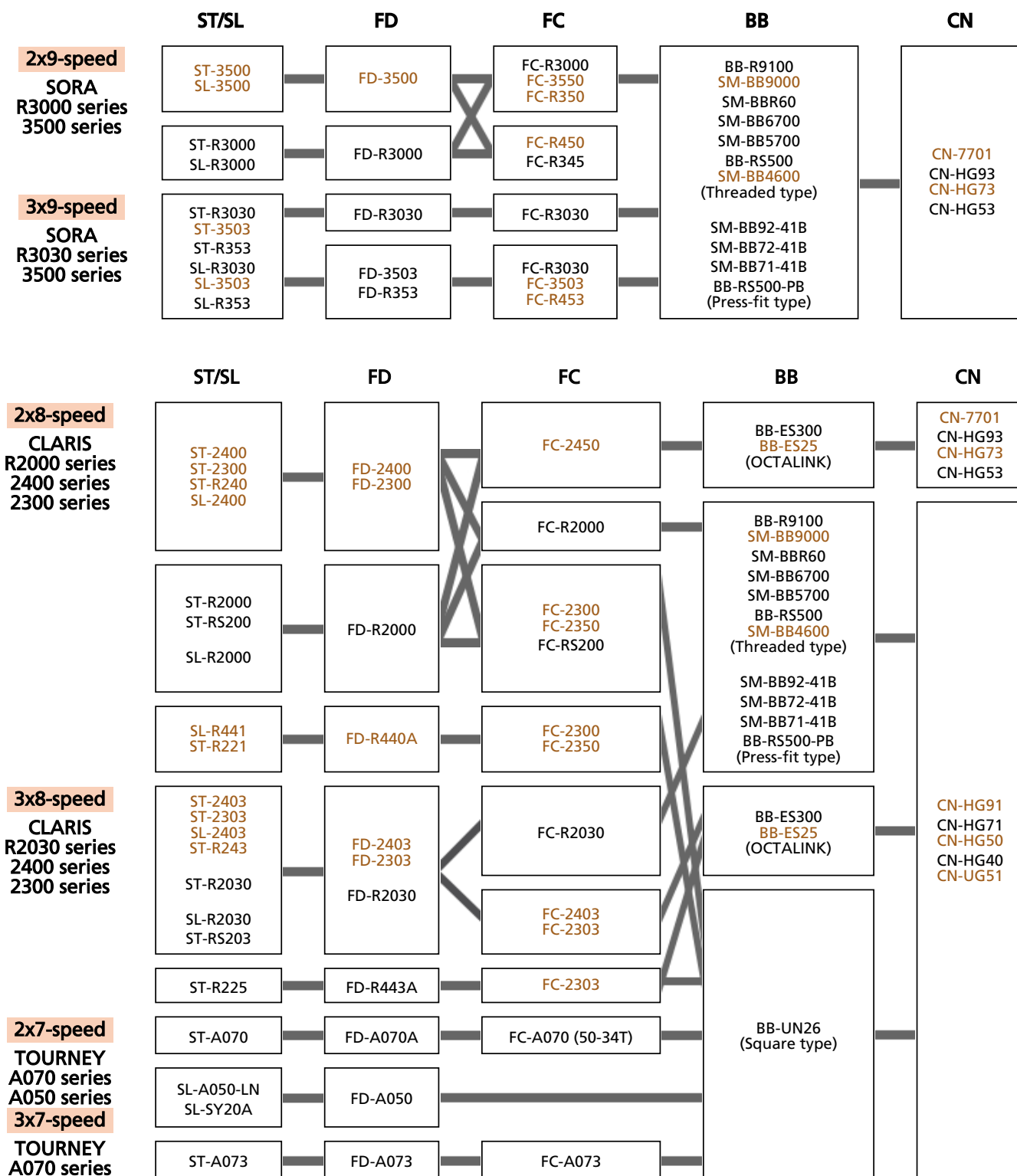


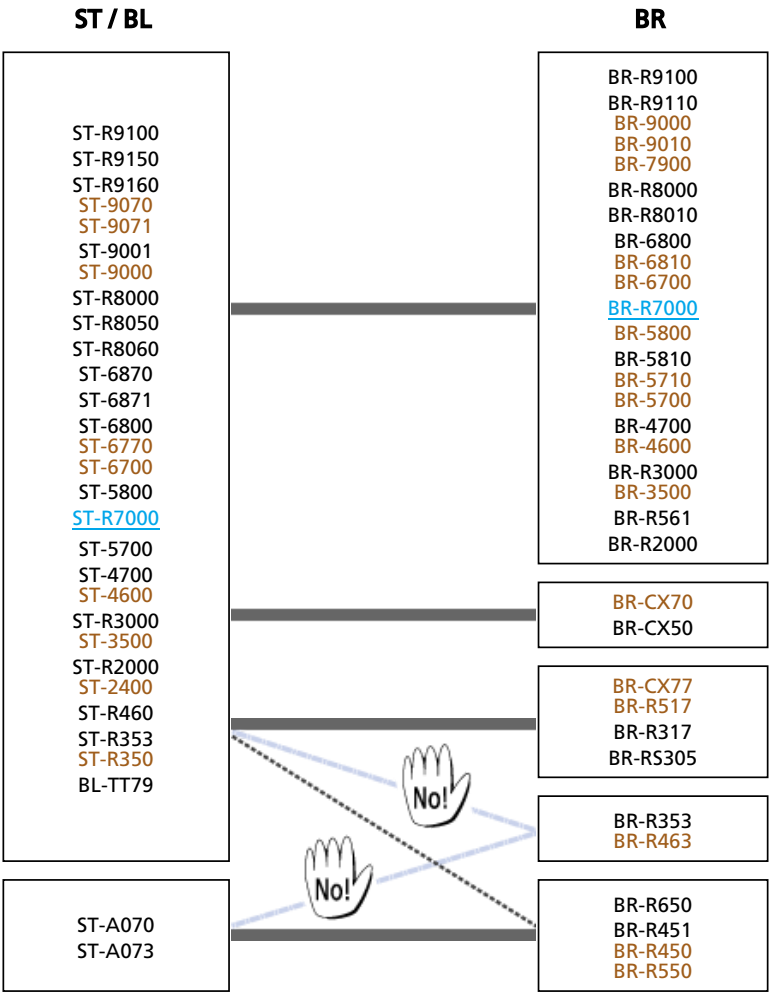
# Front drivetrain compatibility [ROAD, URBAN SPORT]

C-455




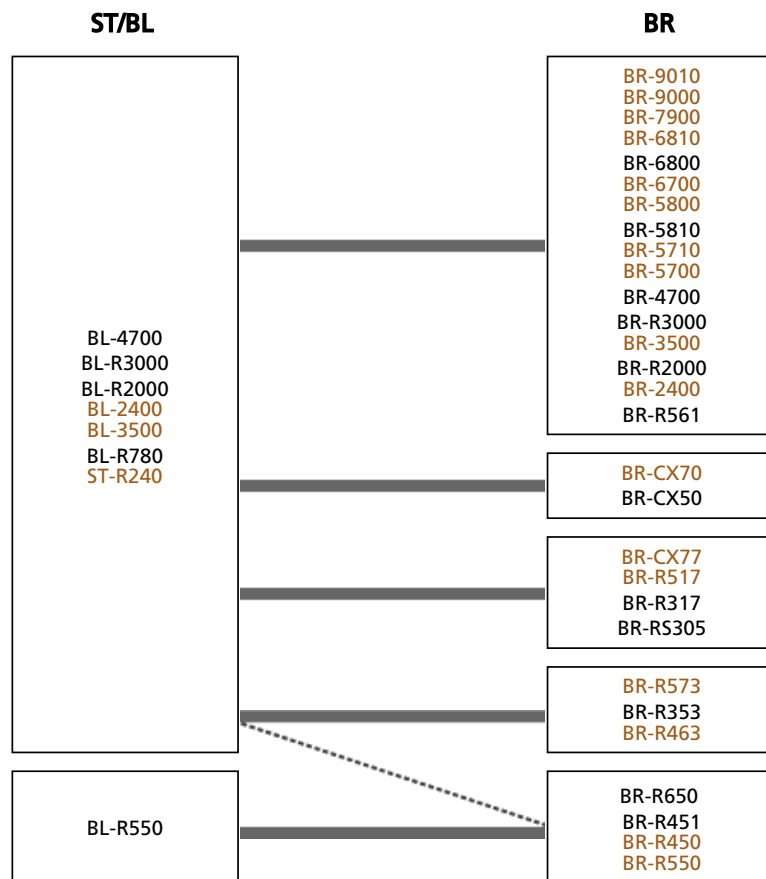






.....: Braking power is slightly less than standard combination.

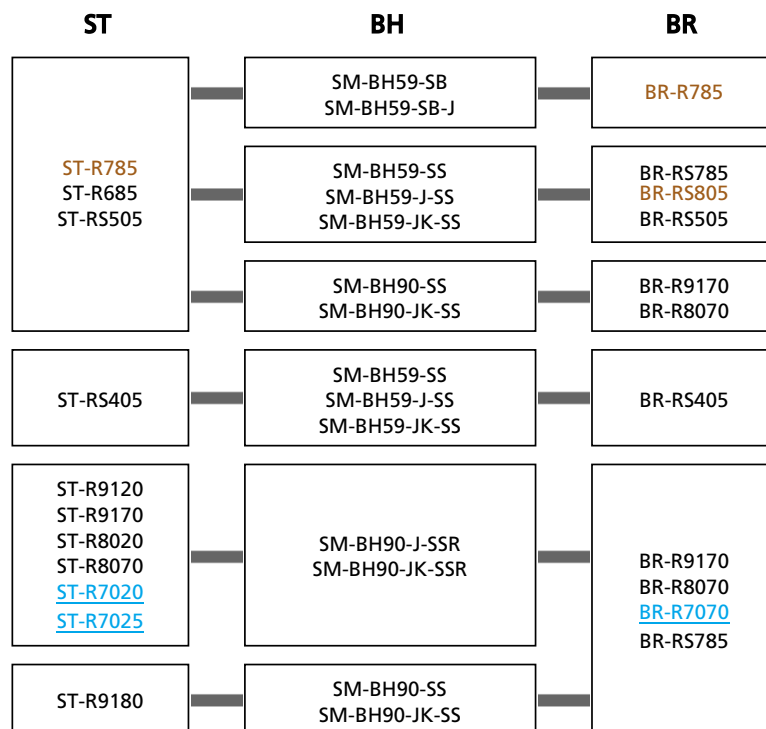
 : The "NO!" symbols indicate combinations that should not be used under any circumstances.



\*\*\*\*\*: Braking power is slightly less than standard combination.

## Hydraulic systems compatibility [ROAD]

C-499





## Compatibility of I-SPEC shifter and brake lever

C-157

Clamp band type shifter can be compatible as I-SPEC when you change upper body with integration unit.

	Model No.	I-SPEC EV shifter	DI2 shifter		I-SPEC II shifter					I-SPEC B shifter		
		<a href="#">SL-M9100-I</a>	SW-M9050	SW-M8050	SL-M9000-I	SL-M8000-I	SL-M7000-11-I / SL-M7000-10-I	SL-U5000	SL-M6000-I	SL-M8000-B-I	SL-M7000-11 / SL-M7000-10-B-I	SL-M820-B-I, SL-M820 (with SM-SL82-B)
I-SPEC EV	<a href="#">BL-M9100</a>	X	-	-	-	-	-	-	-	-	-	-
	<a href="#">BL-M9120</a>	X	-	-	-	-	-	-	-	-	-	-
I-SPEC II	BL-M9000	-	-	-	X	X	X	X	X	-	-	-
	BL-M9020	-	-	-	X	X	X	X	X	-	-	-
	BL-M8000	-	-	-	X	X	X	X	X	-	-	-
	BL-T8000	-	-	-	X	X	X	X	X	-	-	-
	BL-M7000	-	-	-	X	X	X	X	X	-	-	-
	BL-M6000	-	-	-	X	X	X	X	X	-	-	-
	BL-T6000	-	-	-	X	X	X	X	X	-	-	-
	BL-RS600	-	-	-	X	X	X	X	X	-	-	-
	BL-MT500	-	-	-	X	X	X	X	X	-	-	-
	<a href="#">BL-MT501</a>	-	-	-	X	X	X	X	X	-	-	-
I-SPEC B	BL-U5000	-	-	-	X	X	X	X	X	-	-	-
	BL-M987	-	-	-	-	-	-	-	-	X	X	X
	BL-M988-B	-	-	-	-	-	-	-	-	X	X	X
	BL-M820-B	-	-	-	-	-	-	-	-	X	X	X
	BL-M640-B	-	-	-	-	-	-	-	-	X	X	X
	BL-T780-B	-	-	-	-	-	-	-	-	X	X	X
	BL-T675-B	-	-	-	-	-	-	-	-	X	X	X
	<a href="#">BL-T670-B</a>	-	-	-	-	-	-	-	-	X	X	X
	BL-T610	-	-	-	-	-	-	-	-	X	X	X
	<a href="#">BL-M506</a>	-	-	-	-	-	-	-	-	X	X	X
	BL-S700-B	-	-	-	-	-	-	-	-	X	X	X

### Compatibility of [SL-MT800](#) (SL for dropper seat post) and brake lever

	Model No.	I-SPEC EV shifter
		<a href="#">SL-MT800</a>
I-SPEC EV	<a href="#">BL-M9100</a>	X
	<a href="#">BL-M9120</a>	X
I-SPEC II	BL-M9000	-
	BL-M9020	-
	BL-M8000	-
	BL-T8000	-
	BL-M7000	-
	BL-M6000	-
	BL-T6000	-
	BL-RS600	-
	BL-MT500	-
	<a href="#">BL-MT501</a>	-
I-SPEC B	BL-U5000	-
	BL-M987	-
	BL-M988-B	-
	BL-M820-B	-
	BL-M640-B	-
	BL-T780-B	-
	BL-T675-B	-
	<a href="#">BL-T670-B</a>	-
	BL-T610	-
	<a href="#">BL-M506</a>	-
	BL-S700-B	-



## Disc brake caliper and Rotor compatibility

C-461

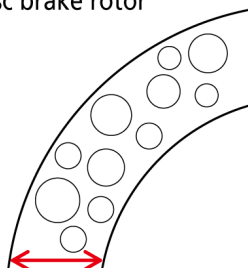
Brake caliper	Brake pad material	Pad type	Disc brake rotor			
			203 mm (L)	180 mm (M)	160 mm (S)	140 mm (SS)
<a href="#">BR-M9100</a> <a href="#">BR-M9120</a> BR-M9000 BR-M9020 BR-M8000 <a href="#">BR-M8020</a> BR-M7000 BR-M6000 <a href="#">BR-MT520</a>	Metal / Resin	Narrow	<a href="#">RT-MT900-L</a> SM-RT99-L SM-RT86-L SM-RT81-L RT-EM900-L* SM-RT76-L SM-RT70-L SM-RT66-L SM-RT64-L	<a href="#">RT-MT900-M</a> SM-RT99-M SM-RT86-M SM-RT81-M RT-EM900-M* RT-EM800-M* SM-RT76-M SM-RT70-M SM-RT66-M SM-RT64-M	<a href="#">RT-MT900-S</a> SM-RT900-S SM-RT800-S SM-RT99-S SM-RT86-S SM-RT81-S RT-EM900-S* RT-EM800-S* SM-RT76-S SM-RT70-S SM-RT66-S SM-RT64-S	<a href="#">RT-MT900-SS</a> SM-RT900-SS SM-RT800-SS SM-RT99-SS SM-RT99-A-SS SM-RT81-SS
BR-M820 BR-M640	Metal / Resin					
BR-S700	Resin					
<a href="#">BR-T675</a> <a href="#">BR-T615</a> <a href="#">BR-M4050</a> BR-MT500 BR-M446 <a href="#">BR-MT400</a> <a href="#">BR-M3050</a> <a href="#">BR-M395</a> BR-M375 <a href="#">BR-MT200</a> BR-M365 BR-M315 BR-TX805	Resin	Wide	-	SM-RT56-M SM-RT54-M SM-RT30-M SM-RT26-M SM-RT10-M	SM-RT56-S SM-RT54-S SM-RT30-S SM-RT26-S SM-RT10-S	-
<a href="#">BR-UR300</a>	Resin	Wide	-	-	SM-RT56-S SM-RT54-S SM-RT30-S SM-RT26-S SM-RT10-S	-
BR-R9170 BR-R8070 <a href="#">BR-R7070</a> <a href="#">BR-R5805</a> <a href="#">BR-R785</a> BR-R5785 BR-R5505 BR-R5405	Metal / Resin	Narrow	-	-	SM-RT900-S SM-RT800-S SM-RT99-S SM-RT86-S SM-RT81-S SM-RT70-S	SM-RT900-SS SM-RT800-SS SM-RT99-SS SM-RT99-A-SS SM-RT81-SS
<a href="#">BR-CX77</a> <a href="#">BR-R517</a> BR-R317 BR-RS305	Metal / Resin	Narrow	-	-	SM-RT99-S SM-RT86-S SM-RT81-S SM-RT76-S SM-RT70-S SM-RT66-S SM-RT64-S	SM-RT99-SS SM-RT99-A-SS SM-RT81-SS
BR-U5000	Metal / Resin	Narrow	-	-	SM-RT99-S SM-RT86-S SM-RT81-S SM-RT76-S SM-RT70-S SM-RT66-S SM-RT64-S	SM-RT500-SS SM-RT99-SS SM-RT99-A-SS SM-RT81-SS

\* Disc brake rotor for speed sensor SM-DUE11, rear only.

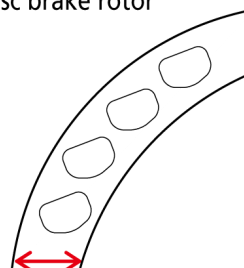
## NOTE

- SM-RT56 / SM-RT54 / SM-RT30 / SM-RT26 / SM-RT10 are compatible with Resin pad caliper specification only. If use with metal pads, rotor will be easily damaged.
- When using 140mm rotor, braking power is less than 160 mm, please confirm the power is enough for your purpose. 140 mm rotor is recommended for rear use only.
- Durability of B-type pad become shorter when the pad is used with narrow type rotor.
- Narrow type 2 piece rotor are not compatible to caliper for Wide type rotor because of interference.
- [BR-UR300](#) doesn't need front mount bracket and rear adapter.

Wide type disc brake rotor



Narrow type disc brake rotor



## Interference between brake caliper and adapter of rotor

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

Brake caliper	Disc brake rotor			
	203 mm (L)	180 mm (M)	160 mm (S)	140 mm (SS)
BR-T675 BR-T615 BR-M4050 BR-MT500 BR-M446 BR-MT400 BR-M3050 BR-M395 BR-MT200 BR-M365 BR-M315	SM-RT99 SM-RT86 SM-RT81 SM-RT76 SM-RT70	SM-RT99 SM-RT70	SM-RT900 SM-RT99 SM-RT86 SM-RT81 SM-RT76 SM-RT70	SM-RT900 SM-RT500 SM-RT99 SM-RT99-A SM-RT81

## Combination chart (Mechanical Disc)

C-462

### Mechanical Disc Brake combination chart C-463

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

Model No.	Mount type	Brake lever
BR-M375 BR-TX805	*	V-BRAKE BL (2 finger)
BR-R517	*	Road lever**
BR-R317	*	Road lever**
BR-CX77	*	Road lever**
BR-RS305	FLAT MOUNT	Road lever**

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

\*\* For BL-R780 / 4600 / 5700 / 4600

### Mechanical Disc brake and Brake lever compatibility C-464

Model No.	Brake lever type		
	2 finger	3,4 finger	3,4 finger w / POWER MODULATOR*
			w / SM-PM50
BR-M375	X	-	X
BR-TX805	X	-	X

\* POWER MODULATOR must be used for front brake

# Compatibility between hydraulic disc brake hose

C-186

		SM-BH90-JK-SSR	SM-BH90-SBM *4	SM-BH90-SBLS *1	SM-BH90-SBS *2	SM-BH90-SB *3	SM-BH90-SS
Connection		Straight - Straight	Straight - Banjo	Straight - Banjo	Straight - Banjo	Straight - Banjo	Straight - Straight
Rigidity		High power	High power	High power	High power	High power	High power
<a href="#">BL-M9100</a>	<a href="#">BR-M9100</a>	—	—	—	—	—	X
<a href="#">BL-M9120</a>	<a href="#">BR-M9120</a>	—	X	—	—	—	—
BL-M9000	BR-M9000	—	X	—	—	—	—
BL-M9020	BR-M9020	—	X	—	—	X	—
BL-M820	BR-M820	—	—	X	—	—	—
BL-M8000	BR-M8000	—	X	—	—	X	—
BL-M8000	<a href="#">BR-M8020</a>	—	—	X	—	—	—
BL-T8000	BR-M8000	—	X	—	—	X	—
BL-M7000	BR-M7000	—	X	—	—	X	—
<a href="#">BL-T675</a>	<a href="#">BR-T675</a>	—	—	—	—	—	X
BL-M640	BR-M640	—	—	X	X	—	—
BL-M6000	BR-M6000	—	—	—	—	—	X
BL-T6000	BR-M6000	—	—	—	—	—	—
BL-RS600	BR-RS405	—	—	—	—	—	—
<a href="#">BL-MT501</a>	<a href="#">BR-MT520</a>	—	—	—	—	—	X
BL-MT500	BR-MT500	—	—	—	—	—	—
ST-M4050	<a href="#">BR-M4050</a>	—	—	—	—	—	—
ST-M3050	<a href="#">BR-M3050</a>	—	—	—	—	—	—
BL-MT500	BR-MT500	—	—	—	—	—	—
BL-T445	BR-M446	—	—	—	—	—	—
<a href="#">BL-MT400</a>	<a href="#">BR-MT400</a>	—	—	—	—	—	—
<a href="#">BL-M425</a> <a href="#">BL-M396</a>	<a href="#">BR-M395</a>	—	—	—	—	—	—
<a href="#">BL-MT201</a>	<a href="#">BR-MT200</a>	—	—	—	—	—	—
<a href="#">BL-MT200</a>	<a href="#">BR-MT200</a>	—	—	—	—	—	—
<a href="#">BL-MT201</a>	<a href="#">BR-UR300</a>	—	—	—	—	—	—
<a href="#">BL-MT200</a>	<a href="#">BR-UR300</a>	—	—	—	—	—	—
<a href="#">BL-M365</a>	<a href="#">BR-M365</a>	—	—	—	—	—	—
<a href="#">BL-M315</a>	<a href="#">BR-M315</a>	—	—	—	—	—	—
ST-EF505	<a href="#">BR-M315</a>	—	—	—	—	—	—
BL-S700	BR-S700	—	X	—	—	X	—
ST-R9120 ST-R9170	BR-R9170	X	—	—	—	—	—
ST-R9180	BR-R9170	X	—	—	—	—	—
ST-R8020 ST-R8070	BR-R8070	X	—	—	—	—	—
<a href="#">ST-R7020</a>	<a href="#">BR-R7070</a>	X	—	—	—	—	—
<a href="#">ST-R7025</a>	<a href="#">BR-R7070</a>	X	—	—	—	—	—
<a href="#">ST-R785</a>	<a href="#">BR-RS805</a>	—	—	—	—	—	—
<a href="#">ST-R785</a>	BR-RS785	—	—	—	—	—	—
<a href="#">ST-R785</a>	<a href="#">BR-R785</a>	—	—	—	—	—	—
ST-RS685	<a href="#">BR-RS805</a>	—	—	—	—	—	—
ST-RS685	BR-RS785	—	—	—	—	—	—
ST-RS685	<a href="#">BR-R785</a>	—	—	—	—	—	—
ST-RS505	BR-RS785	—	—	—	—	—	—
ST-RS505	BR-RS505	—	—	—	—	—	—
ST-RS405	BR-RS785	—	—	—	—	—	—
ST-RS405	BR-RS505	—	—	—	—	—	—
ST-RS405	BR-RS405	—	—	—	—	—	—
BL-U5000	BR-U5000	—	—	—	—	—	—
BL-U5010		—	—	—	—	—	—
ST-U5060		—	—	—	—	—	—

		SM-BH59-J-SS	SM-BH59-JK-SS (MTB)	SM-BH59-JK-SS (Road)	SM-BH59-SB *3	SM-BH59-SB-J *3
Connection		Straight - Straight	Straight - Straight	Straight - Straight	Straight - Banjo	Straight - Banjo
Rigidity		Standard	Standard	Standard	Standard	Standard
<a href="#">BL-M9100</a>	<a href="#">BR-M9100</a>	—	—	—	—	—
<a href="#">BL-M9120</a>	<a href="#">BR-M9120</a>	—	—	—	—	—
BL-M9000	BR-M9000	—	—	—	—	—
BL-M9020	BR-M9020	—	—	—	—	—
BL-M820	BR-M820	—	—	—	—	—
BL-M8000	BR-M8000	—	—	—	—	—
BL-M8000	<a href="#">BR-M8020</a>	—	—	—	—	—
BL-T8000	BR-M8000	—	—	—	—	—
BL-M7000	BR-M7000	—	—	—	—	—
<a href="#">BL-T675</a>	<a href="#">BR-T675</a>	—	—	—	—	—
BL-M640	BR-M640	—	—	—	—	—
BL-M6000	BR-M6000	—	—	—	—	—
BL-T6000	BR-M6000	—	X	—	—	—
BL-RS600	BR-RS405	—	X	—	—	—
<a href="#">BL-MT501</a>	<a href="#">BR-MT520</a>	—	—	—	—	—
BL-MT500	BR-MT500	—	—	—	—	—
ST-M4050	<a href="#">BR-M4050</a>	—	X	—	—	—
ST-M3050	<a href="#">BR-M3050</a>	—	X	—	—	—
BL-MT500	BR-MT500	—	X	—	—	—
BL-T445	BR-M446	—	X	—	—	—
<a href="#">BL-MT400</a>	<a href="#">BR-MT400</a>	—	X	—	—	—
<a href="#">BL-M425</a> <a href="#">BL-M396</a>	<a href="#">BR-M395</a>	—	X	—	—	—
<a href="#">BL-MT201</a>	<a href="#">BR-MT200</a>	—	X	—	—	—
<a href="#">BL-MT200</a>	<a href="#">BR-MT200</a>	—	X	—	—	—
<a href="#">BL-MT201</a>	<a href="#">BR-UR300</a>	—	X	—	—	—
<a href="#">BL-MT200</a>	<a href="#">BR-UR300</a>	—	X	—	—	—
<a href="#">BL-M365</a>	<a href="#">BR-M365</a>	—	X	—	—	—
<a href="#">BL-M315</a>	<a href="#">BR-M315</a>	—	X	—	—	—
ST-EF505	<a href="#">BR-M315</a>	—	X	—	—	—
BL-S700	BR-S700	—	—	—	—	—
ST-R9120 ST-R9170	BR-R9170	—	—	—	—	—
ST-R9180	BR-R9170	—	—	—	—	—
ST-R8020 ST-R8070	BR-R8070	—	—	—	—	—
<a href="#">ST-R7020</a>	<a href="#">BR-R7070</a>	—	—	—	—	—
<a href="#">ST-R7025</a>	<a href="#">BR-R7070</a>	—	—	—	—	—
<a href="#">ST-R785</a>	<a href="#">BR-RS805</a>	X	—	—	—	—
<a href="#">ST-R785</a>	BR-RS785	X	—	—	—	—
<a href="#">ST-R785</a>	<a href="#">BR-R785</a>	—	—	—	X	X
ST-RS685	<a href="#">BR-RS805</a>	X	—	X	—	—
ST-RS685	BR-RS785	X	—	X	—	—
ST-RS685	<a href="#">BR-R785</a>	—	—	—	X	X
ST-RS505	BR-RS785	X	—	X	—	—
ST-RS505	BR-RS505	X	—	X	—	—
ST-RS405	BR-RS785	—	—	X	—	—
ST-RS405	BR-RS505	—	—	X	—	—
ST-RS405	BR-RS405	—	—	X	—	—
BL-U5000	BR-U5000	—	—	X	—	—
BL-U5010		—	—	X	—	—
ST-U5060		—	—	X	—	—

Level of compatibility

X: Compatible

\*: Refer Service Instruction of SM-BH80, SM-BH59 (brake hose 10 m coil) for assembling / disassembling banjo unit

-: Impossible to use

\*1: Banjo (long), Banjo bolt (short)

\*2: Banjo (normal), Banjo bolt (short)

\*3: Banjo (normal), Banjo bolt (normal)

\*4: Banjo (special), Banjo bolt (special)

## How to read Model No. C-194

(1) (2) (3) (4) (5) (6)  
**SM-MA-F203S/P**

(1)	Small parts
(2)	Mount adapter
(3)	F = Front and Rear * R = Rear
(4)	Rotor size **
(5)	Caliper mount type S = International A-standard P = Post D = Flat mount
(6)	Suspension / Frame type S = International A-standard P = Post D = Flat mount

### NOTE

\* This part may be used in the rear.

In this case, the rotor size description is also different. Refer to the table below.

\*\* The rotor size description is 160 mm. Direct post mount/International A-standard forks and frames are supported. Refer to the table below for other mount types.

## Application table for adapter C-195

### For post mount brake caliper

Fork and frame mount type			Rotor size			
			140 mm (SS)	160 mm (S)	180 mm (M)	203 mm (L)
Post mount	Front	140 mm direct	Direct mount	SM-MA90-F180P / P SM-MA-F180P / P2 (for R785)	-	-
		160 mm direct	-	Direct mount	SM-MA90-F180P / P SM-MA-F180P / P2	SM-MA-F203P / P
		180 mm direct	-	-	Direct mount	SM-MA90-F203P / PM SM-MA-F203P / PM
		203 mm direct	-	-	-	Direct mount
	Rear	140 mm direct	Direct mount	SM-MA90-F180P / P SM-MA-F180P / P2	-	-
		160 mm direct	-	Direct mount	SM-MA90-F180P / P SM-MA-F180P / P2	SM-MA-F203P / P
		180 mm direct	-	-	Direct mount	SM-MA90-F203P / PM SM-MA-F203P / PM
		203 mm direct	-	-	-	Direct mount
International A-standard	Front	-	SM-MA90-F160P / S SM-MA-F160P / S	SM-MA-F180P / S	SM-MA-F203P / S	
	Rear	SM-MA90-R140P / S	SM-MA90-R160P / S SM-MA-R160P / S	SM-MA90-R180P / S SM-MA-R180P / S	SM-MA-R203P / S	
Flat mount	Front	SM-MA-F140P / D	SM-MA-F160P / D	-	-	
	Rear	SM-MA-R140P / D	SM-MA-R160P / D	-	-	

### For flat mount brake caliper

Fork and frame mount type		Rotor size	
		140 mm (SS)	160 mm (S)
Flat mount	Front	(with product / Y8N298010)	(with product / Y8N298010)
	Rear	Direct mount	SM-MA-R160D / D

### NOTE





[BR-UR300](#) is compatible only with 160mm (S) without adapter. (Direct mount)

## Compatibility between brake systems

C-466

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.

		V-BRAKE		Roller Brake
		BR-T780 BR-MX70 BR-R573 BR-R463 BR-R353 BR-T670 BR-T610 BR-T4010 BR-T4000	With POWER MODULATOR* model BR-T780 with SM-PM70 BR-T670 with SM-PM70 BR-T610 with SM-PM70 BR-T4010 with SM-PM40 BR-T4000 with SM-PM40 BR-R573 with SM-PM70 BR-R463 with SM-PM40 BR-R353 with SM-PM70	<a href="#">BR-C6060-F</a> BR-C6000 BR-C3010 BR-C3000
V-BRAKE Levers (2-finger)				
ST-M4000 ST-EF41 ST-TX800 ST-M370 ST-M310 ST-EF510 ST-EF500 ST-EF65 ST-EF51	BL-T610 BL-M571 BL-T4000 BL-MX70	X	X	NOTE
V-BRAKE Levers (3-finger)				
ST-T4000 ST-T3000	BL-T780 BL-T611 BL-T670 BL-T780-B BL-T4010 BL-T670-B		X	
Brake Levers with switch				
ST-R240	BL-4600 BL-R780 BL-4700 BL-R3000 BL-R2000 BL-2400	X	X	
V-BRAKE lever with switch				
ST-M310 (4-finger) SB-C6000-8 SB-C3000-7 ST-EF65 (4-finger) ST-EF51 (4-finger) ST-EF510 (4-finger) ST-EF500 (4-finger)	BL-C6010 BL-C6000		X	X

X: Yes

\* POWER MODULATOR must be used for front brake



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

### NOTE

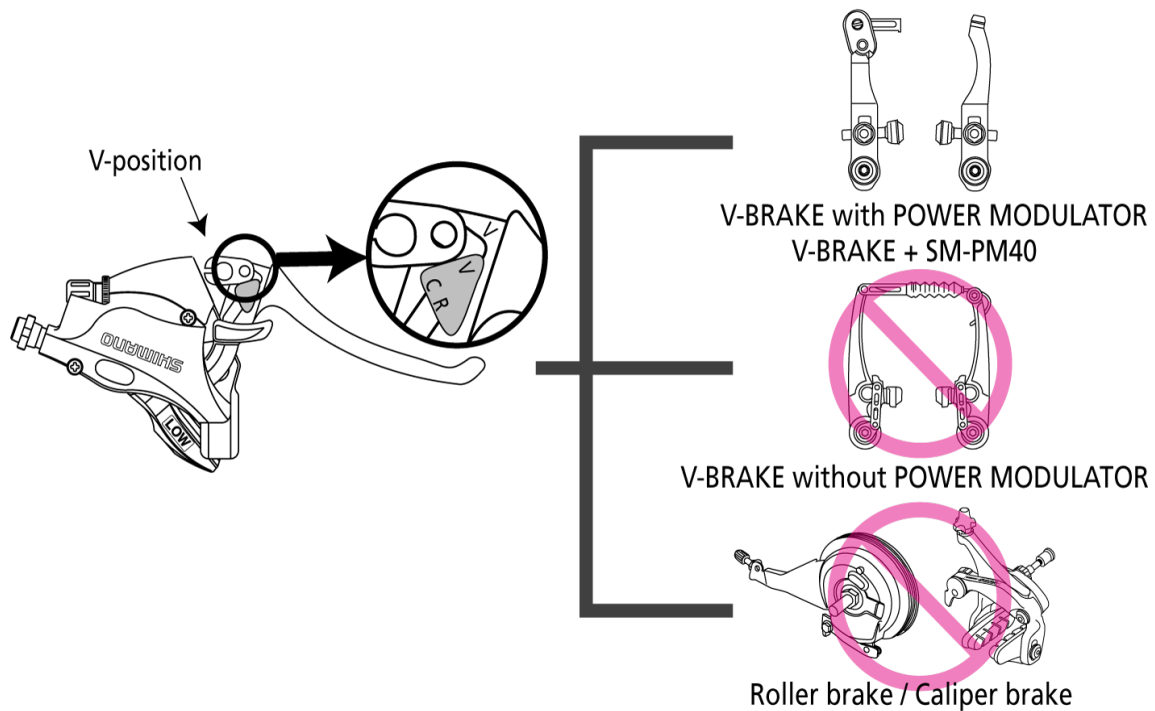
This combination will not provide the sufficient amount of braking force.

## Brake lever with switch compatibility

C-467

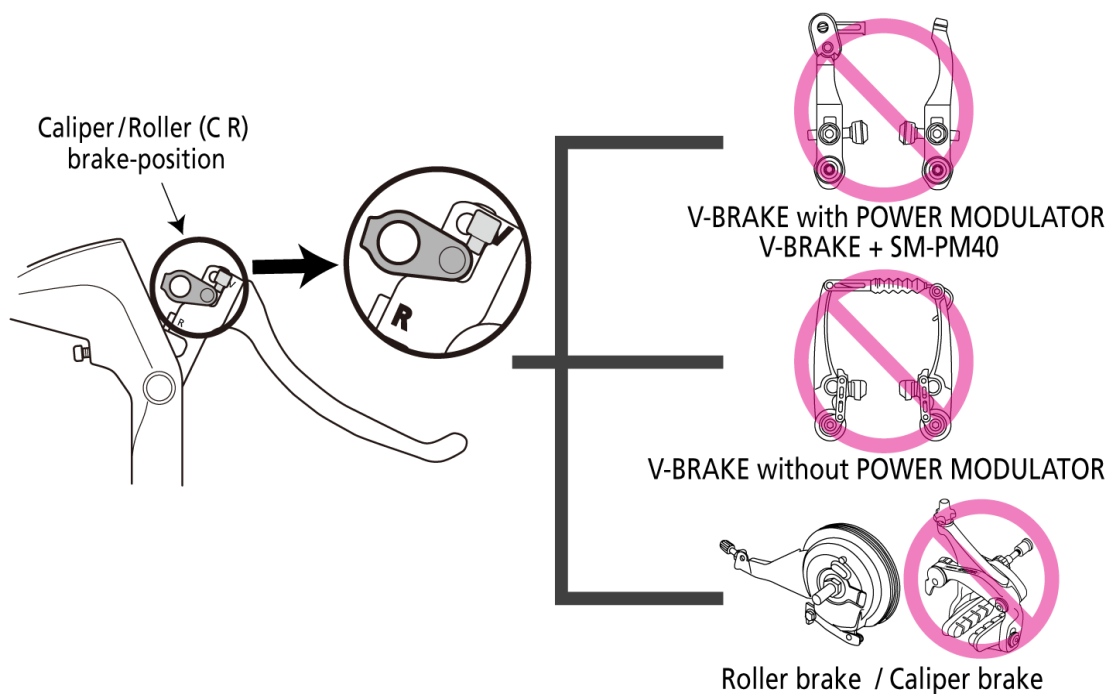
Four finger brake levers such as brake levers are equipped with a switch to change between the V-BRAKE with modulator mode (for example with SM-PM40) and the caliper brake or roller brake mode.

### For V-BRAKE (with POWER MODULATOR) mode C-468



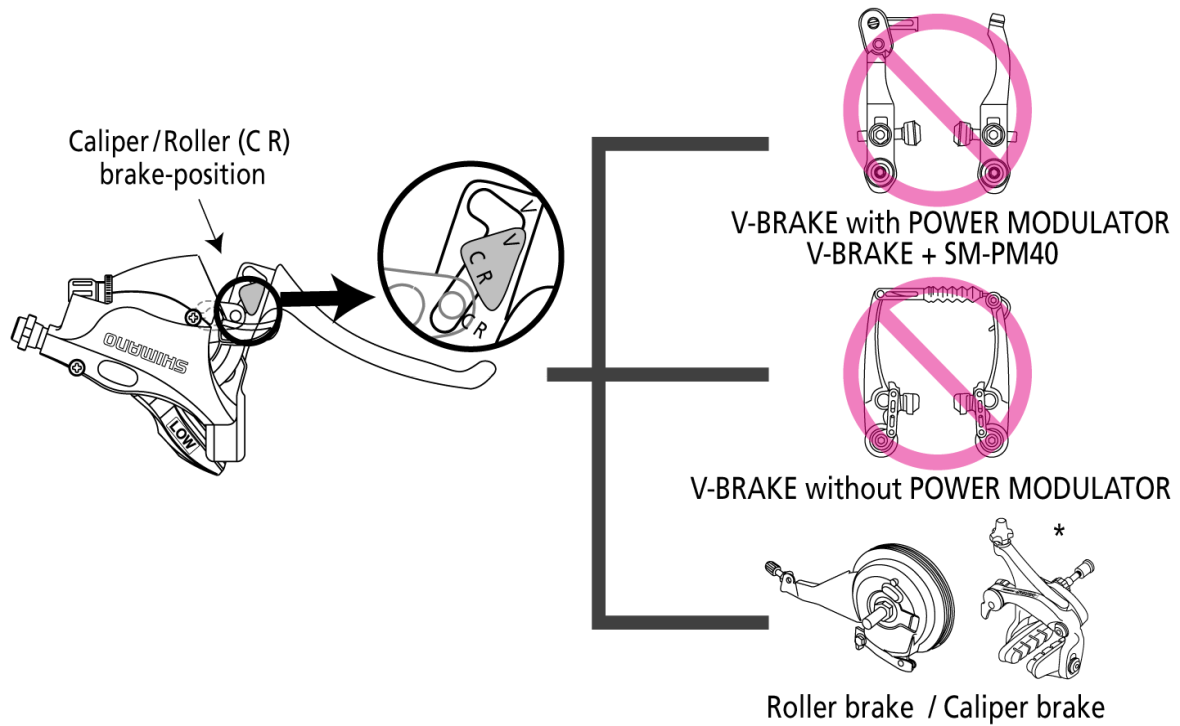
### For Caliper brake / Roller brake C-469

BL-C6010





## Other models



\* 3 types of caliper brake is available (SLR EV / NEW SUPER SLR / SUPER SLR)

Please refer spec hand book for caliper brake compatibility.

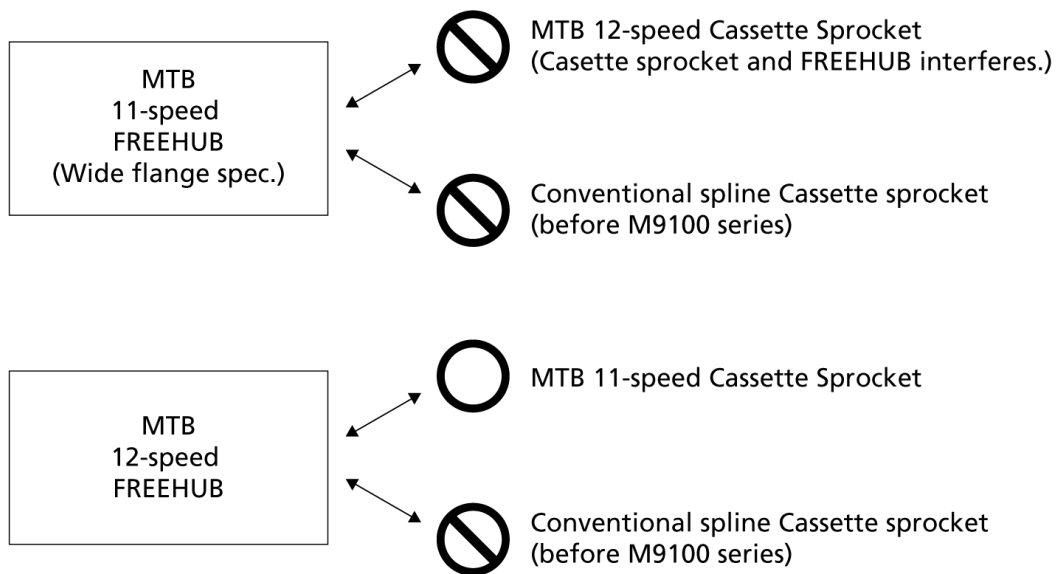
Some models can't be used with roller brake, please refer to [C-466](#) for more information.

### **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.

## 12-speed FREEHUB and 11-speed FREEHUB (MICRO SPLINE) compatibility

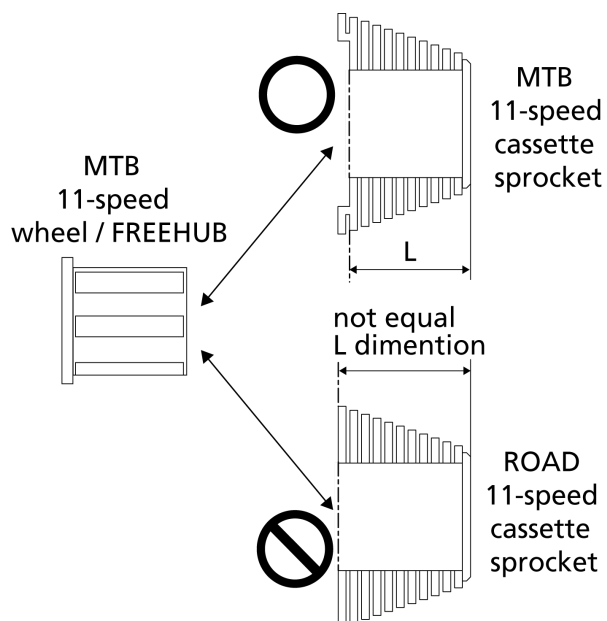
C-560



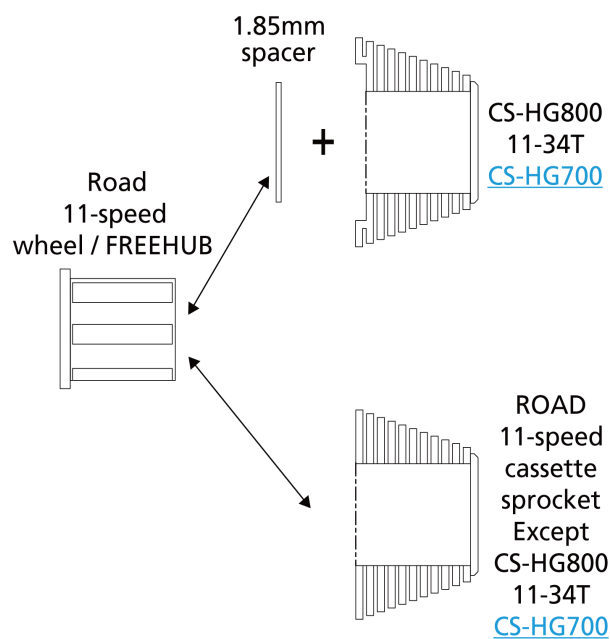
# 11-speed FREEHUB dimension

C-253

MTB 11speed wheel and FREEHUB have same serration with 10, 9-speed FREEHUB.



## CS-HG800



# Compatibility between rear derailleur and cassette sprocket gear teeth [ROAD, URBAN SPORT]

C-254

## 11-speed C-255

	11-speed							
Gear	RD-R9150 / RD-R9100	RD-9000	RD-R8050 / RD-R8000		RD-RX800 / RD-RX805		RD-6870	
	-	SS	SS	GS Front double	GS Front double		SS	GS Front double
11-23T	-	X	-	-	-	-	X	-
11-25T	X	X	X	-	-	-	X	-
11-28T	X	X	X	X	X	X	X	X
11-30T	X	-	X	X	X	X	-	X
11-32T	-	-	-	X	X	X	-	X
11-34T			-	X	X	X		
12-25T	X	X	X	-	-	-	X	-
12-28T	X	X	X	X	-	-	X	X
14-28T	X	X	X	-	-	-	X	-

Gear	11-speed				
	RD-R7000		RD-6800 / RD-5800		RD-U5000-SS
	SS	GS Front double	SS	GS Front double	SS
11-23T	-	-	X	-	-
11-25T	-	-	X	-	-
11-28T	X	X	X	X	X
11-30T	X	X	-	X	-
11-32T	-	X	-	X	X
11-34T	-	X	-	-	-
12-25T	X	-	X	-	-
12-28T	-	X	X	X	-
14-28T	X	-	X	-	-

## 10-speed C-256

Gear	10-speed					
	RD-4700			RD-4601		
	SS	GS Front double	GS Front triple	SS	GS Front double	GS Front triple
11-25T	X	-	X	X	-	X
11-27T	X	-	X	X	X	X
11-28T	-	X	X	X	X	X
11-32T	-	X	X	-	X	-
11-34T	-	X	-	-	-	-
12-25T	X	-	X	X	-	X
12-27T	X	-	X	X	X	X
12-28T	X	X	X	X	X	X
12-30T	-	X	X	X	X	X
13-25T	X	-	-	X	-	X
14-25T	X	-	-	X	-	X

## 9-speed C-257

Gear	9-speed		
	RD-R3000		
	SS	GS Front double	GS Front Triple
11-25T	X	-	-
11-28T	X	X	X
11-30T	X	X	X
11-32T	X	X	X
11-34T	-	X	-
12-25T	X	-	-
12-27T	X	-	-
13-25T	X	-	-
14-25T	X	-	-

## 8-speed C-258



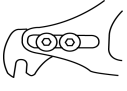

Gear	8-speed		
	RD-R2000		
	SS	GS Front double	GS Front Triple
11-28T	X	X	X
11-30T	X	X	X
11-32T	X	X	X
11-34T	-	X	-
12-25T	X	-	X
13-26T	X	-	-

## 7-speed C-259

Gear	7-speed	
	RD-A070	
	SMART CAGE	
11-28T	X	
12-28T	X	
13-28T	X	
14-28T	X	

## Available combinations of the rear dropout, cassette sprocket/single gear and front chainwheel for designing the frame

C-471

Rear dropout design	A	Reversed (BMX) type, without derailleur hanger	
	B	Standard type, without derailleur hanger	
	C	Adjustable Disc brake mount / Eccentric BB	
	D	Vertical type, with derailleur hanger	
Compatibility	NR: Not recommend		
FC	E	E: FC-NX75	
	F	FC-S501 : Double guard spec	
	G	FC-S501 : Single guard spec	
CN	H	H: CN-NX10(1/2 x 1/8 inch) or HG 85(1/2 x 3/32 inch)	
	I	Super Narrow HG 95	
	J	HG 85(1/2 x 3/32 inch)	

Series	Speed	Brake type	Rear dropout design	Compatibility	CT use	CS / SM-GEAR	FC	CN	additional condition
ALFINE	11S / 8S	Disc brake	A	NR	-	-	-	-	*1
			B	NR	-	-	-	-	
			C	OK	-	SM-GEAR	G	J	
			D	OK	CT-S500	CS-S500	F	I	
		V-BRAKE		Ok	CT-S510	SM-GEAR	G	J	
			A	OK	-	SM-GEAR	G	J	
			B	OK	-	SM-GEAR	G	J	
			C	OK	-	SM-GEAR	G	J	
NEXUS	8S / 7S / 5S for E-BIKE	Disc brake	D	OK	CT-S500	CS-S500	F	I	
				Ok	CT-S510	SM-GEAR	G	J	
		Hub roller brake V-BRAKE	A	OK	-	SM-GEAR	E	H	
							G	J	
			B	OK	-	SM-GEAR	E	H	
							G	J	
			C	OK	-	SM-GEAR	E	H	
							G	J	
			D	NR	CT-S500	CS-S500	F	I	*2
				OK	CT-S510	SM-GEAR	G	J	
	8S / 7S / 3S (except 3D) / 5S for E-BIKE	Coaster brake	A	OK	-	SM-GEAR	E	H	
							G	J	
			B	OK	-	SM-GEAR	E	H	
							G	J	
			C	OK	-	SM-GEAR	E	H	
							G	J	
			D	NR	CT-S500	-	-	-	*3
				NR	CT-S510	-	-	-	*4
	3D	Disc brake	A	NR	-	-	-	-	*1
			B	NR	-	-	-	-	
			C	OK	-	SM-GEAR	G	J	
			D	OK	CT-S500	CS-S500	F	I	
		V-BRAKE		OK	CT-S510	SM-GEAR	G	J	
			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	
				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.

## Spoke protector

C-491

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.

Cassette sprocket												Spoke protector model					
												Flange diameter of rear hub (FH side)					
												53.8 mm			70.6 mm		
Speed	Model No.	Cassette sprocket low gear No.										Spoke hole No.			Spoke hole No.		
		28T	30T	32T	34T	36T	40T	42T	45T	46T	51T	28H	32H	36H	28H	32H	36H
12-speed	<a href="#">CS-M9100</a>	-	-	-	-	-	-	-	X	-	X	-	-	-	-	-	-
11-speed	<a href="#">CS-M9110</a>	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
	CS-M9001	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
	CS-M8000	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-
	CS-M7000	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-
	CS-M771-10	-	-	-	X	X	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
10-speed	CS-HG81-10	-	-	-	X	X	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
	CS-HG500-10	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
	CS-HG50-10	-	-	-	-	X	-	-	-	-	-	-	CP-FH56	CP-FH53	-	-	-
	CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9	-	-	-	-	X	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
9-speed	CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9	-	-	X	X	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
	CS-HG400-9 / CS-HG300-9	X	-	-	-	-	-	-	-	-	-	-	CP-FH35	CP-FH50	-	CP-FH76	CP-FH76
	CS-ROAD	X	-	-	-	-	-	-	-	-	-	CP-FH08	CP-FH35	CP-FH31	-	-	-
	CS-HG60-81	-	-	-	X	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
8-speed	CS-HG51-8	X	X	-	-	-	-	-	-	-	-	CP-FH40	CP-FH35	CP-FH50	-	-	-
	CS-HG51-8	-	-	-	X	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
	CS-HG41-8 CS-HG31-8	-	X	-	-	-	-	-	-	-	-	CP-FH40	CP-FH35	CP-FH50	-	-	-
	CS-HG41-8 CS-HG31-8	-	-	X	X	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
	CS-HG200-8	-	-	X	-	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
	CS-HG41-7	X	-	-	-	-	-	-	-	-	-	CP-FH40	CP-FH35	CP-FH50	-	-	-
7-speed	CS-HG200-7	-	-	X	-	-	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76	CP-FH76
	CS-HG200-7	X	-	-	-	-	-	-	-	-	-	-	CP-FH35	CP-FH50	-	-	-



Cassette sprocket												Spoke protector model
Speed	Model No.	Cassette sprocket low gear No.										
		28T	30T	32T	34T	36T	40T	42T	45T	46T	51T	
												WH-M9000 WH-M9020 WH-M8000 WH-M8020 WH-M8000-B WH-M8020-B
12-speed	<a href="#">CS-M9100</a>	-	-	-	-	-	-	-	X	-	X	-
11-speed	<a href="#">CS-M9110</a>	-	-	-	-	-	-	-	X	-	-	-
	CS-M9001	-	-	-	-	-	X	-	-	-	-	CP-WH17-A
	CS-M8000	-	-	-	-	-	X	X	-	X	-	CP-WH17-A
	CS-M7000	-	-	-	-	-	X	X	-	X	-	CP-WH17-A
10-speed	CS-M771-10	-	-	-	X	X	-	-	-	-	-	-
	CS-HG81-10	-	-	-	X	X	-	-	-	-	-	-
	CS-HG500-10	-	-	-	-	-	-	X	-	-	-	-
	CS-HG50-10	-	-	-	-	X	-	-	-	-	-	-
9-speed	CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9	-	-	X	X	X	-	-	-	-	-	-
	CS-HG400-9 / CS-HG300-9	X	-	-	-	-	-	-	-	-	-	-

Cassette sprocket												Spoke protector model	
Speed	Model No.	Cassette sprocket low gear No.										WH-MT66-29	WH-MT35 WH-MT35-275 WH-MT35-29 WH-MT15-A-275 WH-MT15-A-29
		28T	30T	32T	34T	36T	40T	42T	45T	46T	51T		
12-speed	<a href="#">CS-M9100</a>	-	-	-	-	-	-	-	X	-	X	-	-
11-speed	<a href="#">CS-M9110</a>	-	-	-	-	-	-	-	X	-	-	-	-
	CS-M9001	-	-	-	-	-	X	-	-	-	-	-	-
	CS-M8000	-	-	-	-	-	X	X	-	X	-	-	-
	CS-M7000	-	-	-	-	-	X	X	-	X	-	-	-
10-speed	CS-M771-10	-	-	-	X	X	-	-	-	-	-	CP-WH16	CP-WH12
	CS-HG81-10	-	-	-	X	X	-	-	-	-	-	CP-WH16	CP-WH12
	CS-HG500-10	-	-	-	-	-	-	X	-	-	-	-	CP-WH19
	CS-HG50-10	-	-	-	-	X	-	-	-	-	-	CP-WH16	CP-WH12
9-speed	CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9	-	-	X	X	X	-	-	-	-	-	CP-WH16	CP-WH12
	CS-HG400-9 / CS-HG300-9	X	-	-	-	-	-	-	-	-	-	CP-WH16	CP-WH08

Cassette sprocket												Spoke protector model	
Speed	Model No.	Cassette sprocket low gear No.										WH-MT500	<a href="#">WH-MT600</a>
		28T	30T	32T	34T	36T	40T	42T	45T	46T	51T		
12-speed	<a href="#">CS-M9100</a>	-	-	-	-	-	-	-	X	-	X	-	-
11-speed	<a href="#">CS-M9110</a>	-	-	-	-	-	-	-	X	-	-	-	-
	CS-M9001	-	-	-	-	-	X	-	-	-	-	-	CP-WH26
	CS-M8000	-	-	-	-	-	X	X	-	X	-	-	CP-WH26
	CS-M7000	-	-	-	-	-	X	X	-	X	-	-	CP-WH26
10-speed	CS-M771-10	-	-	-	X	X	-	-	-	-	-	CP-WH21	CP-WH16
	CS-HG81-10	-	-	-	X	X	-	-	-	-	-	CP-WH21	CP-WH16
	CS-HG500-10	-	-	-	-	-	-	X	-	-	-	CP-WH21	-
	CS-HG50-10	-	-	-	-	X	-	-	-	-	-	CP-WH21	CP-WH16
9-speed	CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9	-	-	X	X	X	-	-	-	-	-	-	-
	CS-HG400-9 / CS-HG300-9	X	-	-	-	-	-	-	-	-	-	-	-

Model No.	Cassette Sprocket total gear No.			Cassette Sprocket low gear No.						
	9-speed	10-speed	11-speed**	23T	25T	27T	28T	30T	32T*	34T
WH-R9170-C60	-	-	X	-	CP-W1460					-
WH-R9170-C40	-	X	-	-	CP-W1460					-
WH-R9100-C60	-	-	X	-	CP-W124					-
WH-R9100-C40	-	X	-	-	CP-W124					-
WH-R9100-C24	-	-	X	CP-WH23	CP-W120					-
	-	X	-	CP-W020					-	
WH-RS770-C30	-	-	X	-	CP-W1460					CP-W1460
	-	X	-	-	CP-W1460					-
WH-RS700-C30	-	-	X	-	CP-W124					CP-W124
	-	X	-	-	CP-W124					-
WH-RS500 <a href="#">WH-RS300</a> <a href="#">WH-RS11</a>	-	-	X	CP-WH23				-	CP-W120	-
<a href="#">WH-RS11</a>	-	X	-	CP-W020					-	
WH-9000-C24-TU	-	-	X	CP-W184				-	CP-W124	-
WH-RS330-CL	-	X	-	CP-W024					-	
<a href="#">WH-RX830</a>	-	X	X	-	CP-W1220					CP-WH14 CP-WH14A
<a href="#">WH-RS100</a>	-	X	X	-	CP-WH24					CP-FH53
<a href="#">WH-RS010-CL</a>	-	X	X	-	CP-WH24					CP-FH53
WH-R501 WH-R501-A	X	X	-	CP-FH06		CP-FH31		CP-FH46	CP-WH24	-
WH-RS170	-	-	X	CP-FH08				-	CP-WH12	-
	-	X	-	CP-FH40 CP-FH41				CP-FH40 CP-FH41	CP-WH12	CP-WH12
WH-RX010-CL	-	-	X	CP-FH08				-	CP-WH12	-
	-	X	-	CP-FH40 CP-FH41				CP-FH40 CP-FH41	CP-WH12	CP-WH12
WH-RX010	X	X	-	CP-FH08				CP-FH40 CP-FH41	CP-WH12	-
WH-U5000	-	X	X	-	CP-W122					
<a href="#">WH-RS370</a>	-	X	X	CP-FH08 CP-WH41				CP-WH41	CP-WH12	-

\* For compact crank set

\*\* 11-speed : CS-R9100 / CS-6800 / [CS-5800](#)

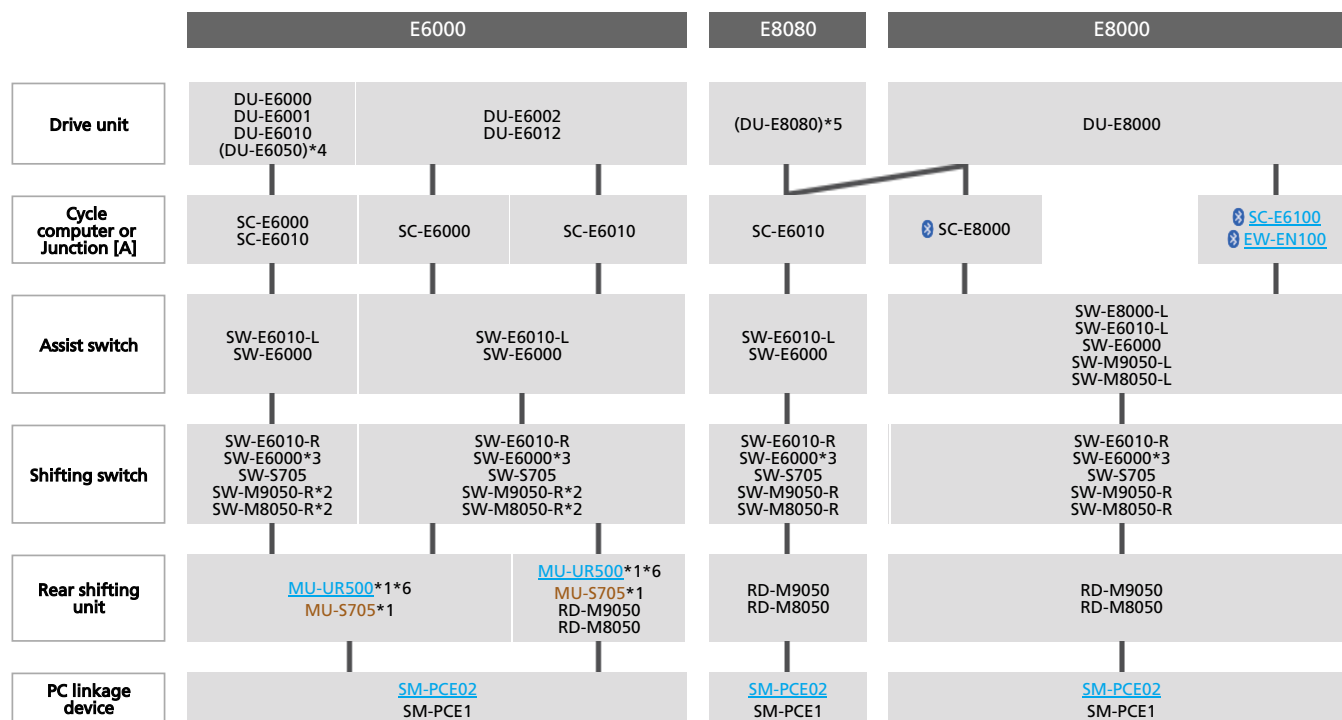
## Spoke protector for Road

Speed	Model No.	Cassette sprocket low gear No.										Spoke holes No.			
		21T	23T	24T	25T	26T	27T	28T	30T	32T	34T	24H	28H	32H	36H
8, 9, 10-speed	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-speed	CS-HG200-7	-	-	-	-	-	-	X	-	-	-	-	-	CP-FH35	CP-FH50
	MF-TZ500-7 <a href="#">MF-TZ21</a>	-	-	-	-	-	-	X	-	-	-	-	-	-	CP-HG22/ MF-TZ500-7-CP/ <a href="#">MF-TZ21-CP</a>

Spoke protector is not available for Road 11-speed FREEHUB.

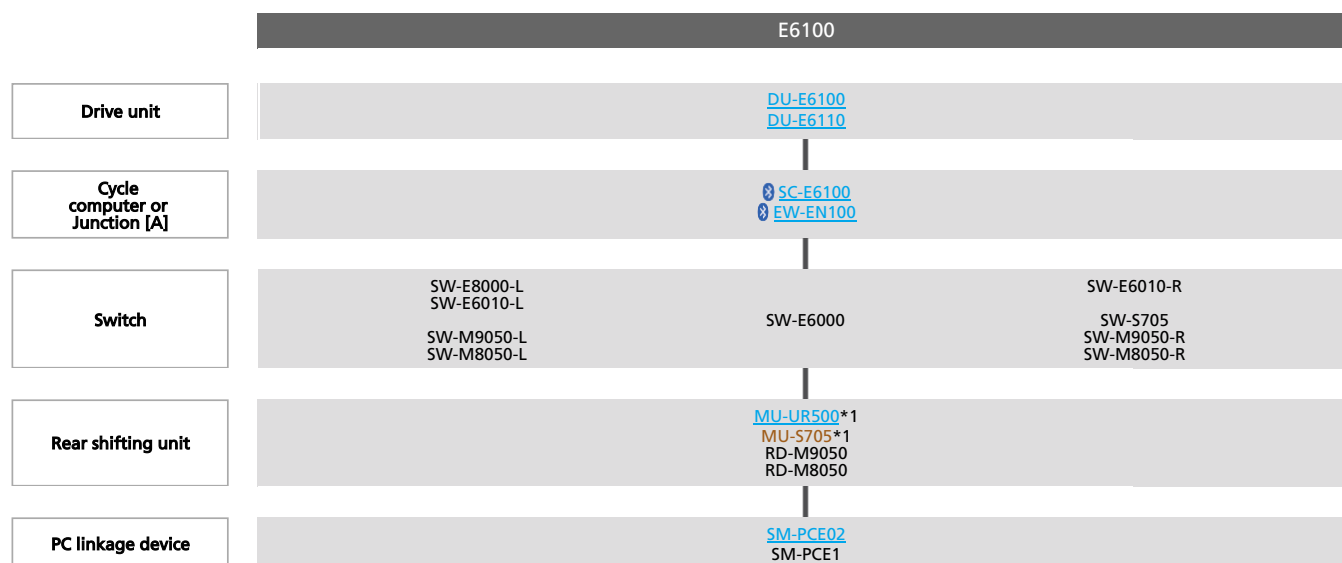
## E-BIKE system (with E-TUBE PROJECT ver.3.4)

C-525



### Limitation of function

- \*1 Full automatic shift is available only with 8 speed internal gear hub system (Not available with Rear Derailleur).
- \*2 Not support full automatic shift.
- \*3 Need to change Switch setting by E-TUBE PROJECT.
- \*4 North American market only.
- \*5 Japanese market only.
- \*6 Compatible with 8 speed and 11 speed internal geared hub system only.



### Limitation of function

- \*1 Full automatic shift is available only with 8 speed and 5 speed internal gear hub system (Not available with Rear Derailleur)

## SHIMANO STEPS front drive train compatibility

		Chainring				Chain device		Crank arm					
		SM-CRE60	<a href="#">SM-CRE61</a>	SM-CRE80	SM-CRE80-B	SM-CDE80 (Frame mount)	SM-CDE80	FC-E6000	FC-E6010	<a href="#">FC-E6100</a>	FC-E8000	FC-E8050	<a href="#">FC-M8050</a>
Drive Unit	DU-E8000 DU-E8080	-	-	X	X	X	X*2	-	-	X	X	X	X
	<a href="#">DU-E6100</a> <a href="#">DU-E6110</a>	-	X*1	X	X	-	-	-	-	X	X	X	X
	DU-E6002 DU-E6012	X	-	-	-	-	-	X	X	-	-	-	-

X: Yes

\*1 Arm cover packed in 38T w/o CG is designed only for FC-E6100

\*2 Only for 53 mm chainline

## E8000 series

Shifting system	Speed	Chainring	Chain guard	Chain device	CT use	Rear sprocket	Chain
Rear derailleur system	11-speed	SM-CRE80	-	with chain device (option)	-	MTB 11-speed CS	CN-HG901-11 CN-HG701-11 CN-HG601-11 <a href="#">CN-E8000-11</a>
		SM-CRE80 44T	Double	-	-		
	10-speed	SM-CRE80	-	with chain device (option)	-	MTB 10-speed CS	CN-E6090-10
		SM-CRE80 44T	Double	-	-		

## E6000 series

Shifting system	Speed	Chainring	Chain guard	Chain device	CT use	Rear sprocket	Chain
DI2 Internal geared hub	11-speed 8-speed	SM-CRE60	Single / w/o	-	-	SM-GEAR	8-speed
			Double	-	CT-S500	CS-S500	9/10-speed
			Single / w/o	-	CT-S510	SM-GEAR	8-speed
Mechanical Internal geared hub	ALFINE 11-speed 8-speed	SM-CRE60	Single / w/o	-	-	SM-GEAR	8-speed
			Double	-	CT-S500	CS-S500	9/10-speed
			Single / w/o	-	CT-S510	SM-GEAR	8-speed
	NEXUS 8-speed	SM-CRE60	Single	-	-	SM-GEAR	8-speed
			w/o	-			CN-NX10
			Double	-	CT-S500	CS-S500	9/10-speed
			Single / w/o	-	CT-S510	SM-GEAR	8-speed
Rear derailleur system	11-speed	SM-CRE60	Double	-	-	MTB 11-speed CS	CN-HG901-11 CN-HG701-11 CN-HG601-11 <a href="#">CN-E8000-11</a>
	10-speed	SM-CRE60	Double	-	-	MTB 10-speed CS	CN-E6090-10
	9-speed	SM-CRE60	Double	-	-	MTB 9-speed CS	CN-E6070-9
	8-speed	NA					

## E6100 series

Shifting system	Speed	Chainring	Chain guard	Chain device	CT use	Rear sprocket	Chain
DI2 Internal geared hub	11-speed 8-speed	<a href="#">SM-CRE61</a>	Single / w/o	-	-	SM-GEAR	8-speed
			Double	-	CT-S500	CS-S500	9/10-speed
			Single / w/o	-	CT-S510	SM-GEAR	8-speed
Mechanical Internal geared hub	ALFINE 11-speed 8-speed	<a href="#">SM-CRE61</a>	Single / w/o	-	-	SM-GEAR	8-speed
			Double	-	CT-S500	CS-S500	9/10-speed
			Single / w/o	-	CT-S510	SM-GEAR	8-speed
	NEXUS 8-speed	<a href="#">SM-CRE61</a>	Single	-	-	SM-GEAR	8-speed
			w/o	-			CN-NX10
			Double	-	CT-S500	CS-S500	9/10-speed
			Single / w/o	-	CT-S510	SM-GEAR	8-speed
Rear derailleur system	11-speed	<a href="#">SM-CRE61</a>	Double	-	-	MTB 11-speed CS	CN-HG901-11 CN-HG701-11 CN-HG601-11
	10-speed	<a href="#">SM-CRE61</a>	Double	-	-	MTB 10-speed CS	CN-E6090-10
	9-speed	<a href="#">SM-CRE61</a>	Double	-	-	MTB 9-speed CS	CN-E6070-9
	8-speed	NA					

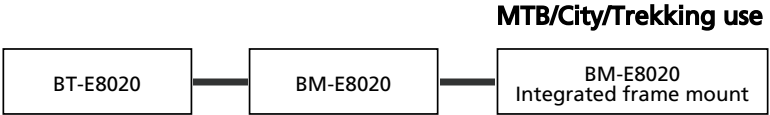
## Battery

Drive unit	Battery mount	Battery
DU-E6001 DU-E6010 DU-E6050	BM-E6000-A BM-E6000-B SM-BME60-A SM-BME60-B	BT-E6000
		BT-E6001
	BM-E6010 SM-BME61	BT-E6010
		BT-E8010
	BM-E8010	<a href="#">BT-E8014</a>
DU-E6002 DU-E6012 <a href="#">DU-E6100</a> <a href="#">DU-E6110</a>	BM-E6000	BT-E6000
		BT-E6001
	BM-E6010	BT-E6010
		BT-E8010
	BM-E8010	<a href="#">BT-E8014</a>
DU-E8000	BM-E8020	BT-E8020
	Other company's battery system	
	BM-E6010	BT-E6010
	BM-E8010	BT-E8010
		<a href="#">BT-E8014</a>
DU-E8080	BM-E8020	BT-E8020
	Other company's battery system	
	BM-E6010	BT-E6010
	BM-E8010	BT-E8010
		<a href="#">BT-E8014</a>
	Other company's battery system	

External frame mount type

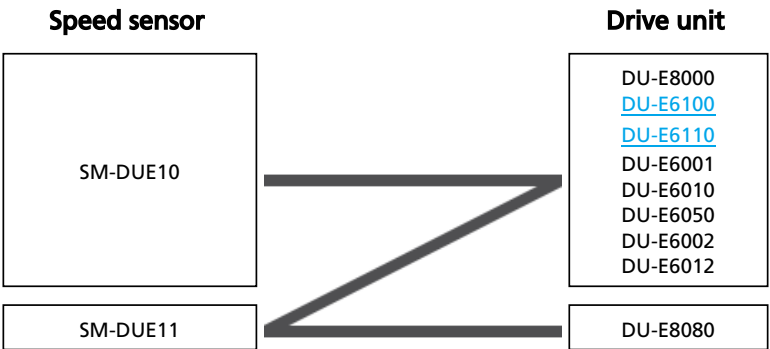


Integrated frame mount type



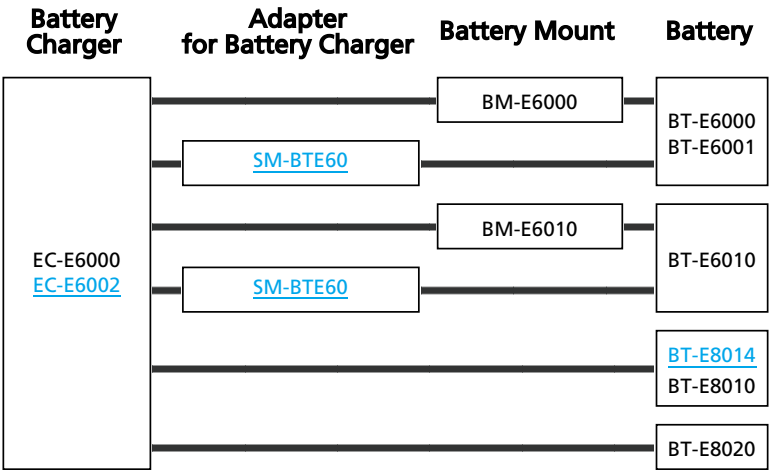
Speed sensor and drive unit compatibility

C-549



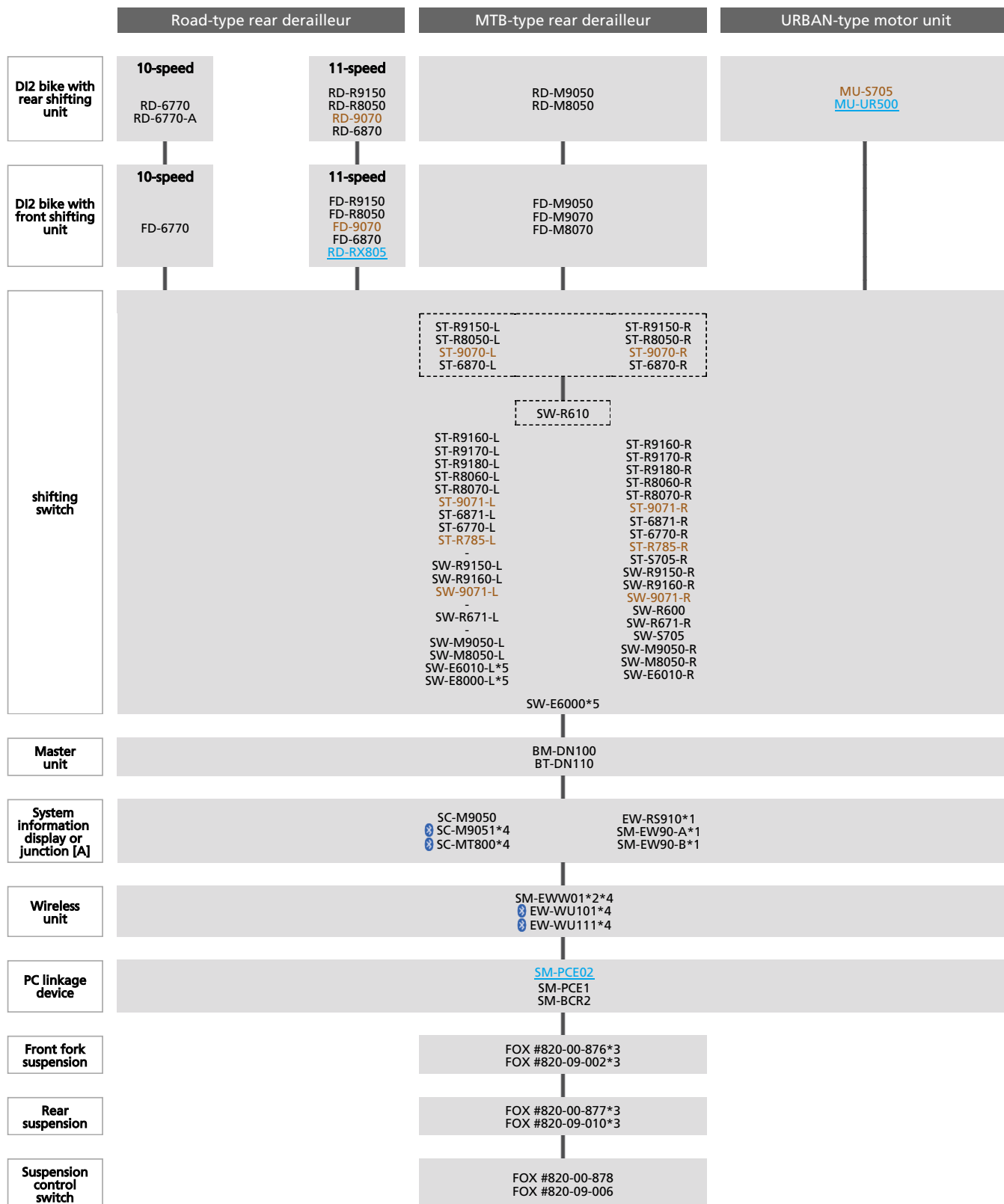
Battery and battery charger compatibility

C-562



## E-TUBE compatibility chart with E-TUBE PROJECT ver.3.4

C-473

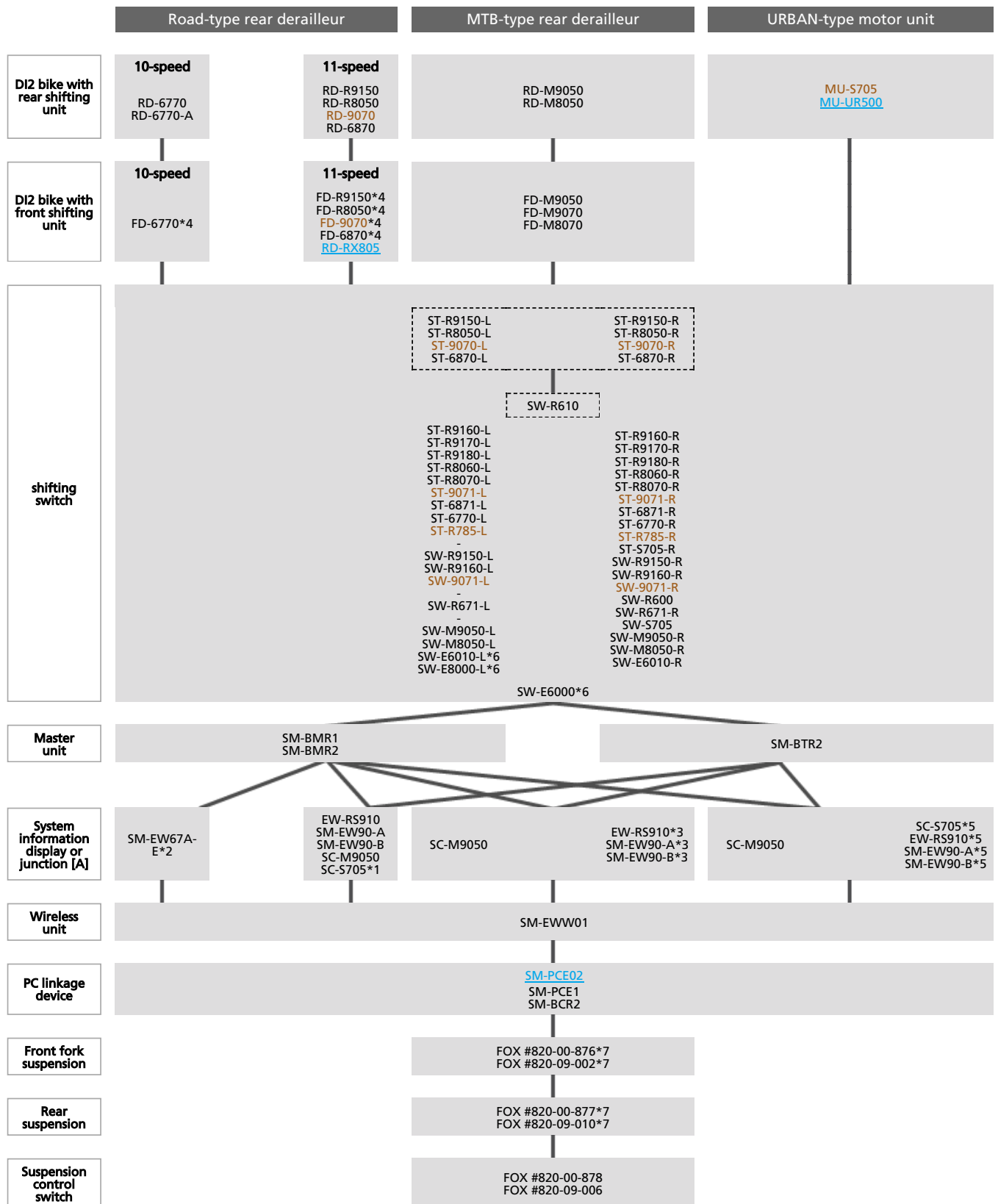
DI2 with BM-DN100 / BT-DN110 / [BT-DN110-A](#)



#### **Limitation of function with BM-DN100 / BT-DN110 / [BT-DN110-A](#)**

- \*1 Shifting adjustment mode for **MU-S705** is not supported (need E-TUBE PROJECT to adjust).
- \*2 Not possible to connect to E-TUBE PROJECT for tablet/smartphone, as no support for Bluetooth®LE.
- \*3 A designated control switch and/or the combination SW-M9050/M8050-L with SC-M9050/SC-M9051/SC-MT800 is required to operate.
- \*4 The system accepts just 1 unit with wireless chip (doesn't work if plural units with wireless chip are connected).
- \*5 Need to change Switch setting by E-TUBE PROJECT.
- \*6 SC-M9050, SC-M9051 or SC-MT800 is required for SYNCHRONIZED SHIFT in MTB category.

## DI2 with SM-BMR1 / SM-BMR2 / SM-BTR2



## **Limitation of function with SM-BMR1 / SM-BMR2 / SM-BTR2**

### **\*1 SC-S705**

- Front derailleur position will not appear on display.
- Recovery from Rear derailleur protection function is not available.
- Front / Rear derailleur adjustment mode is not available. Use E-TUBE PROJECT software.
- SC-S705 has only 1 E-TUBE port for ST / SW.
- SC-S705 may not turn on the display by front shifting switch.

### **\*2 SM-BCR2 requires any device which has charging connector.**

SM-EW67-A-E (Junction [A]) is not compatible with SM-BCR2 and SM-BTR2.

### **\*3 SC-M9050 is required for SYNCHRONIZED SHIFT in case with MTB-type Rear Derailleur.**

### **\*4 SYNCHRONIZED SHIFT is not available with Road-type Rear Derailleur.**

### **\*5 Shifting adjustment mode for MU-S705 is not supported (need E-TUBE PROJECT to adjust).**

### **\*6 Need to change Switch setting by E-TUBE PROJECT.**

### **\*7 A designated control switch is needed to operate the suspension system.**

## Compatibility between Bracket and ID/SC

C-548

