



2021-2022

Products compatibility Information

Compatibilities are subject to change without prior

Visit SHIMANO PRODUCT WEBSITE for the latest information.

Word definitions

BB	Bottom bracket	HP	Head parts
BC	Brake cable	HRB	Hub roller brake
BCC	Charger cord	I-SPEC	Integration mounting system of brake and shift lever
BCR	Battery charger		
BH	Disc brake hose	ID	CI-DECK
BL	Brake lever	JC	Junction
BM	Battery mount	LP	Light
BR	Brake caliper	MF	Multiple freewheel
BTC	Battery case	MU	Motor unit
BTH	Battery holder	O.L.D.	Over Locknut Dimension
BTR	Battery	OT	Outer casing
CB	Coaster brake	P.C.D.	Pitch Circle Diameter
CD	Chain device	PCE	PC Linkage device
CG	Chain guard	PD	Pedal
CJ	Cassette joint	PM	POWER MODULATOR
CN	Chain	QR	Quick release
CP	Spoke protector	RD	Rear derailleur
CR	Chainring	RT	Disc brake rotor
CS	Cassette sprocket	RTAD	Disc brake rotor adapter
CT	Chain tensioner	SB	REVOSHIFT shifter integrated with brake lever
DH	Hub dynamo		
DU	Drive unit	SC	Cycle computer System information display
EC	Battery charger		
EW	Electric wire	SF	Single freewheel
EWC	Cord cover	SG	Internal geared hub
EWEX	Di2 adapter	SL	Shift lever
EWV	Wireless unit	SPD	SHIMANO PEDALING DYNAMICS
FC	Crankset Crank arm	SPD-SL	SHIMANO PEDALING DYNAMICS-SL
		ST	DUAL CONTROL LEVER : Shift lever integrated with brake lever
FD	Front derailleur		
FH	FREEHUB	SW	Switch unit
GM	Grommet	WH	Wheel
HB	Front hub		

Compatibility

Drivetrain for MTB components C-432

Rear drivetrain compatibility [MTB]

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C-546

Front drivetrain compatibility [MTB]

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Front derailleur and crankset

C-447

Front derailleur and chain line (TOURNEY)

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Crankset, bottom bracket and chain line [MTB]

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Drivetrain for ROAD, Gravel/Adventure, URBAN components C-453

Rear drivetrain compatibility

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Front drivetrain compatibility

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Brake systems compatibility [ROAD]

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Hydraulic systems compatibility [ROAD, Gravel/Adventure]

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Hydraulic systems compatibility [URBAN]

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Compatibility of I-SPEC shifter and brake lever

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Cable System C-605

Polymer-coated brake cable (BC-9000 / BC-R680) compatible chart

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Compatibility between brake systems

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Brake lever with switch compatibility

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Cassette Sprocket C-544

ROAD 12/11-speed FREEHUB compatibility

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MTB 11-speed FREEHUB compatibility

C-253

Compatibility between rear derailleur and cassette sprocket gear teeth
[ROAD, Gravel/Adventure, URBAN (METREA)]

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LINKGLIDE cassette sprocket and FREEHUB compatibility

C-649

URBAN (ALFINE, NEXUS) components C-470

Available combinations of the dropout, cassette sprocket/single gear and crankset for
designing the frame

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Mechanical internal geared hub / SM (CJ) COMPATIBILITY CHART

C-647

Single gear and chain combination

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Compatibility for DIN 79010:2020-02

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Spoke protector C-298

Spoke protector

C-491

MTB

C-299

ROAD, URBAN (METREA)

C-300

Spoke protector for Road

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E-BIKE compatibility chart C-431

E-BIKE system compatibility chart

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Switch unit / cycle computer and brake lever compatibility

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Battery and battery mount compatibility

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System on/off function compatibility

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Speed sensor and drive unit compatibility

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Battery and battery charger compatibility

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Electronic Product Information C-472

E-TUBE compatibility chart

C-473

Compatibility chart of CAN adapter for Di2

C-429

CI-DECK C-547

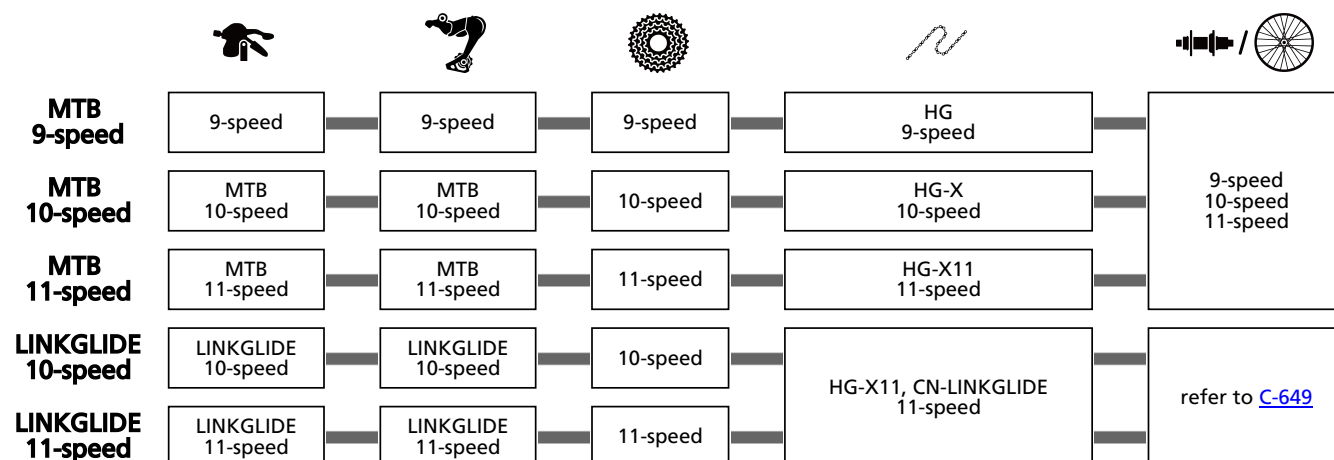
Compatibility between Bracket and ID/SC

C-548

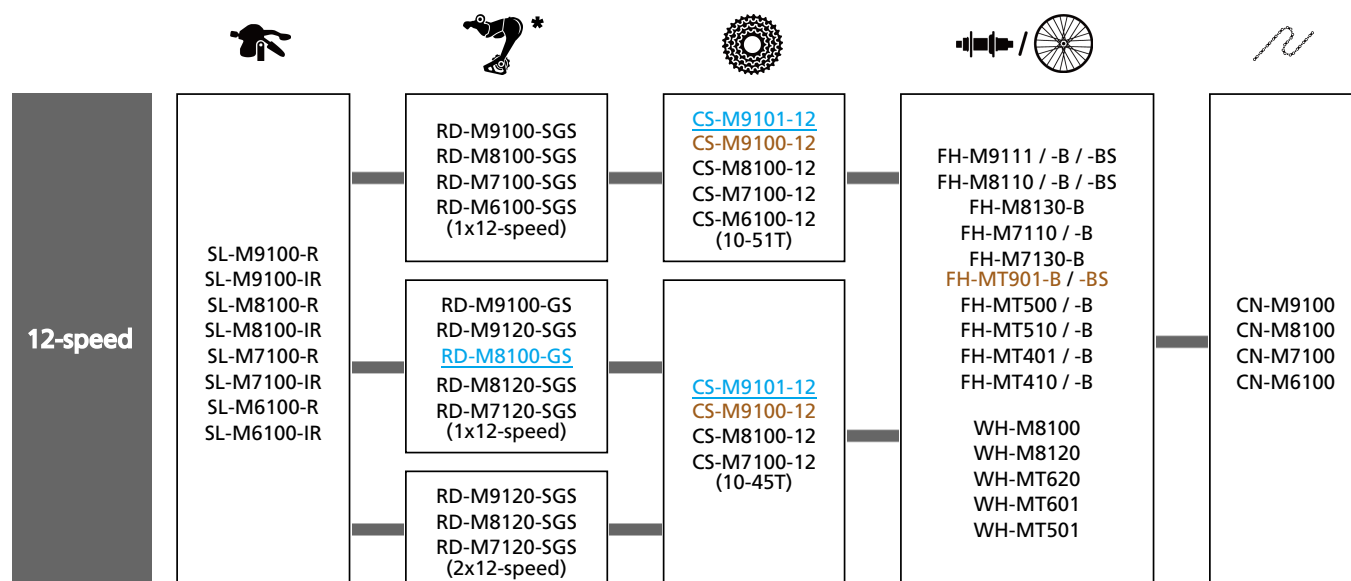
Rear drivetrain compatibility [MTB]

C-433

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

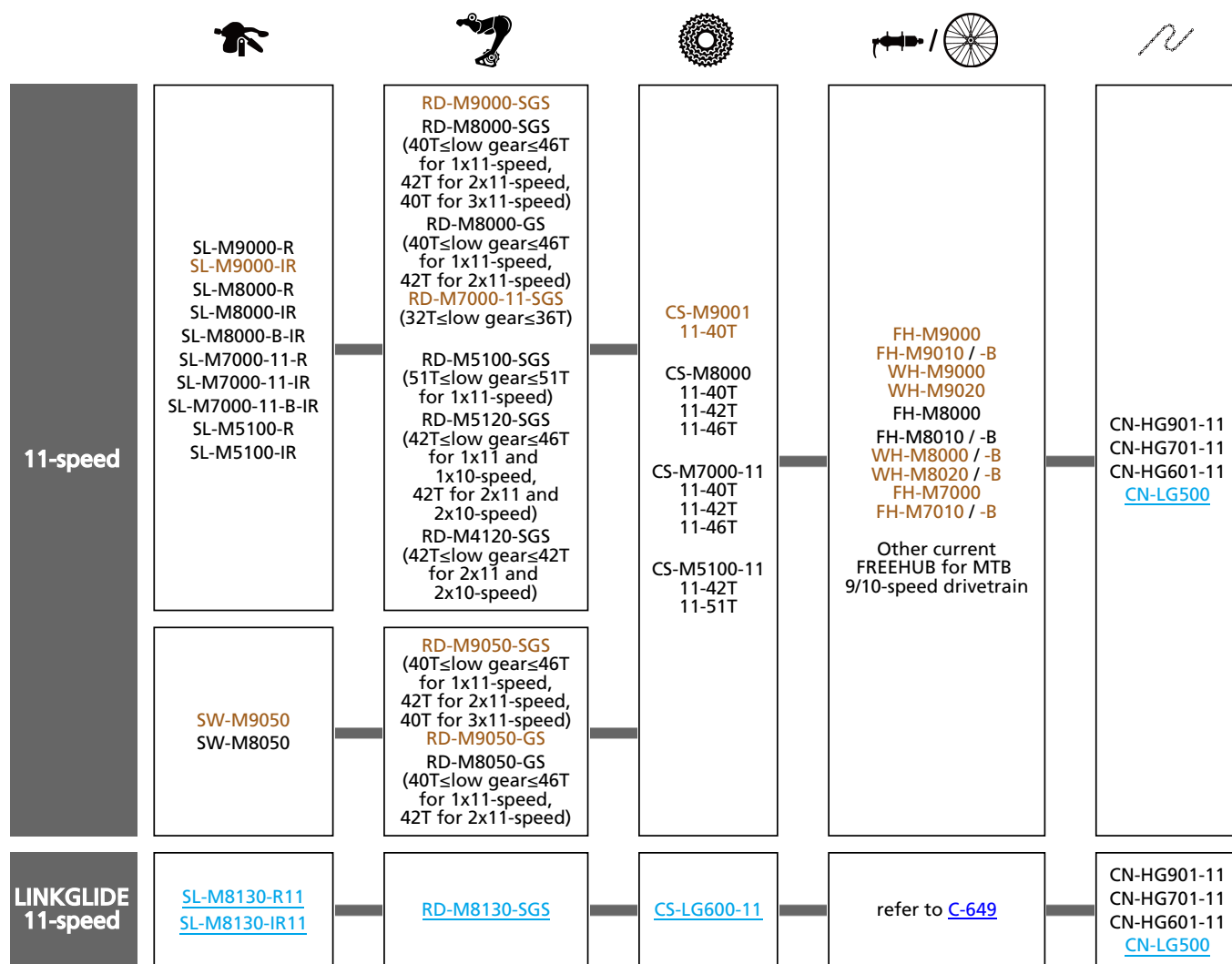


12-speed rear drivetrain (MICRO SPLINE) [MTB] C-558

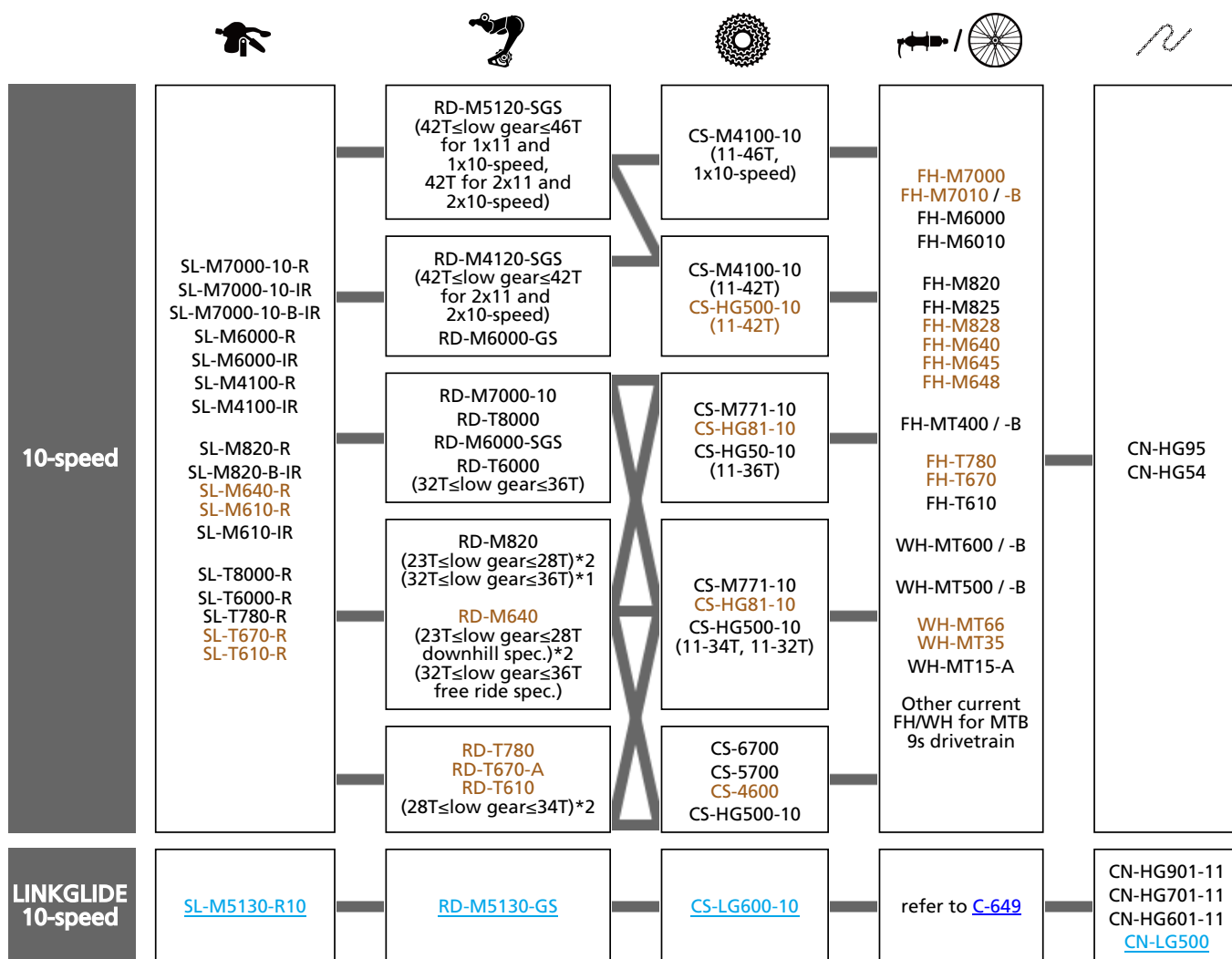


* Method to adjust the end adjustment screw is different from conventional rear derailleurs. For details, refer to dealer's manual.

11-speed rear drivetrain [MTB] C-435



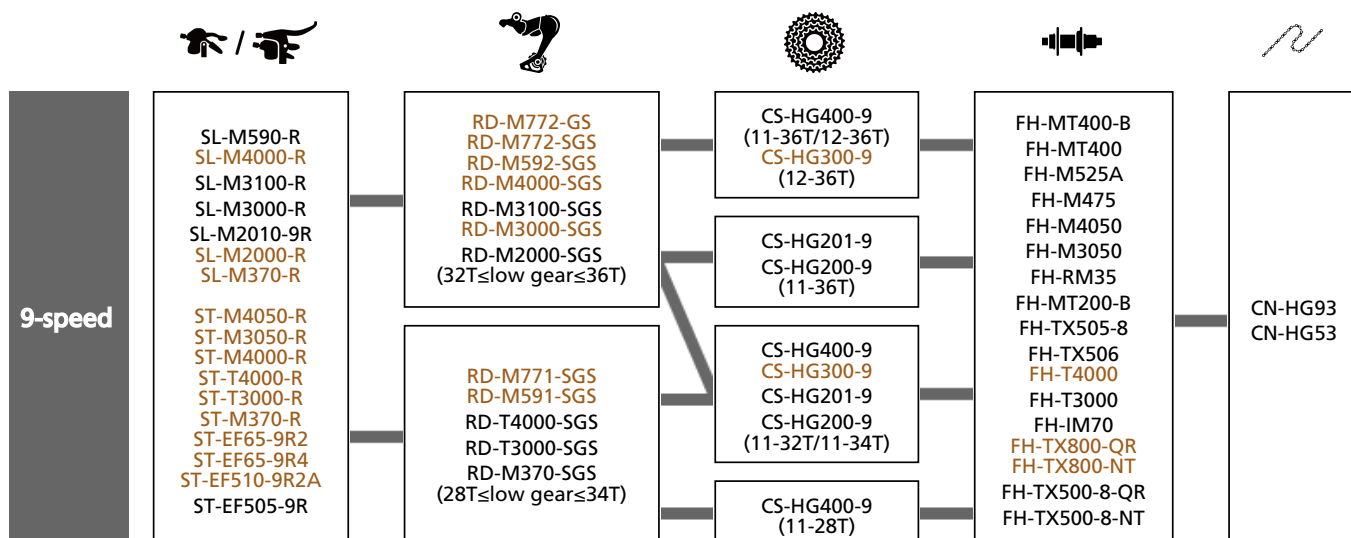
10-speed rear drivetrain [MTB] C-436



*1 Mode converter

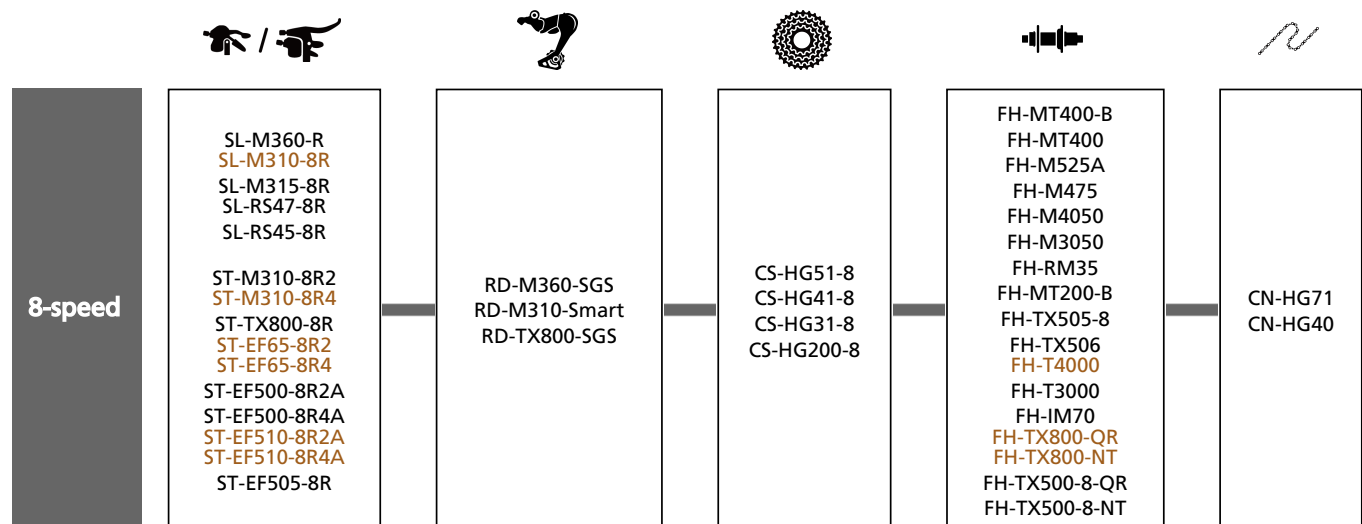
*2 Compatible with road Cassette sprocket

9-speed rear drivetrain [MTB] C-437

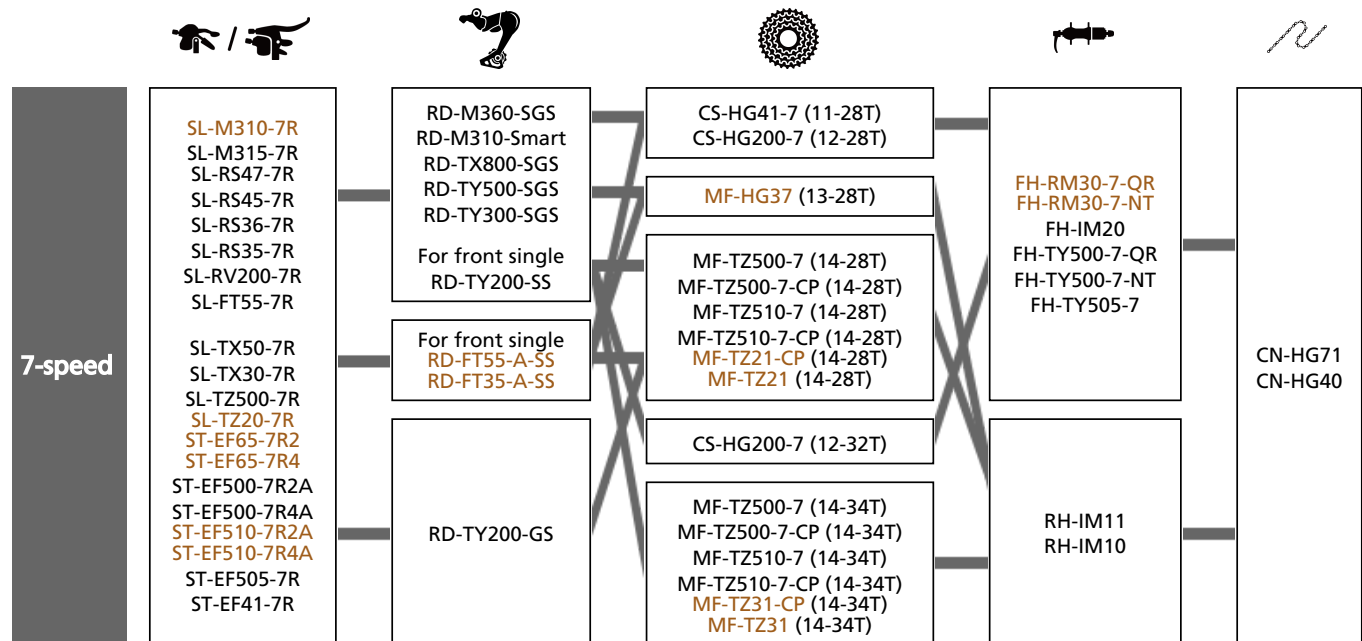


8-speed HG [MTB] C-438

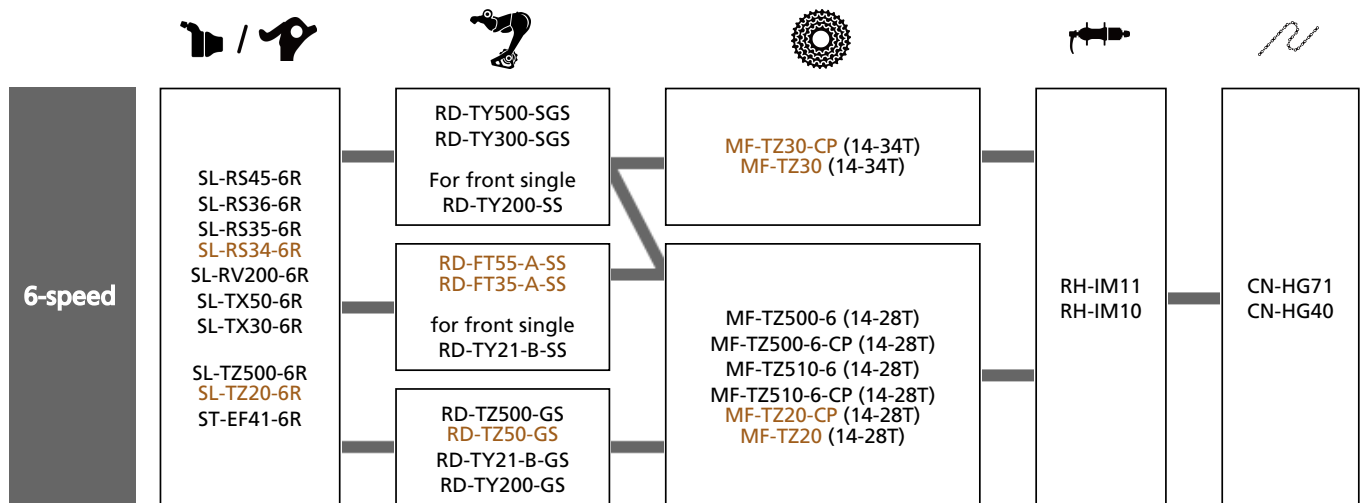
The rear derailleur for 8-speed can also be used for 7-speed drivetrain.



7-speed HG [MTB] C-439

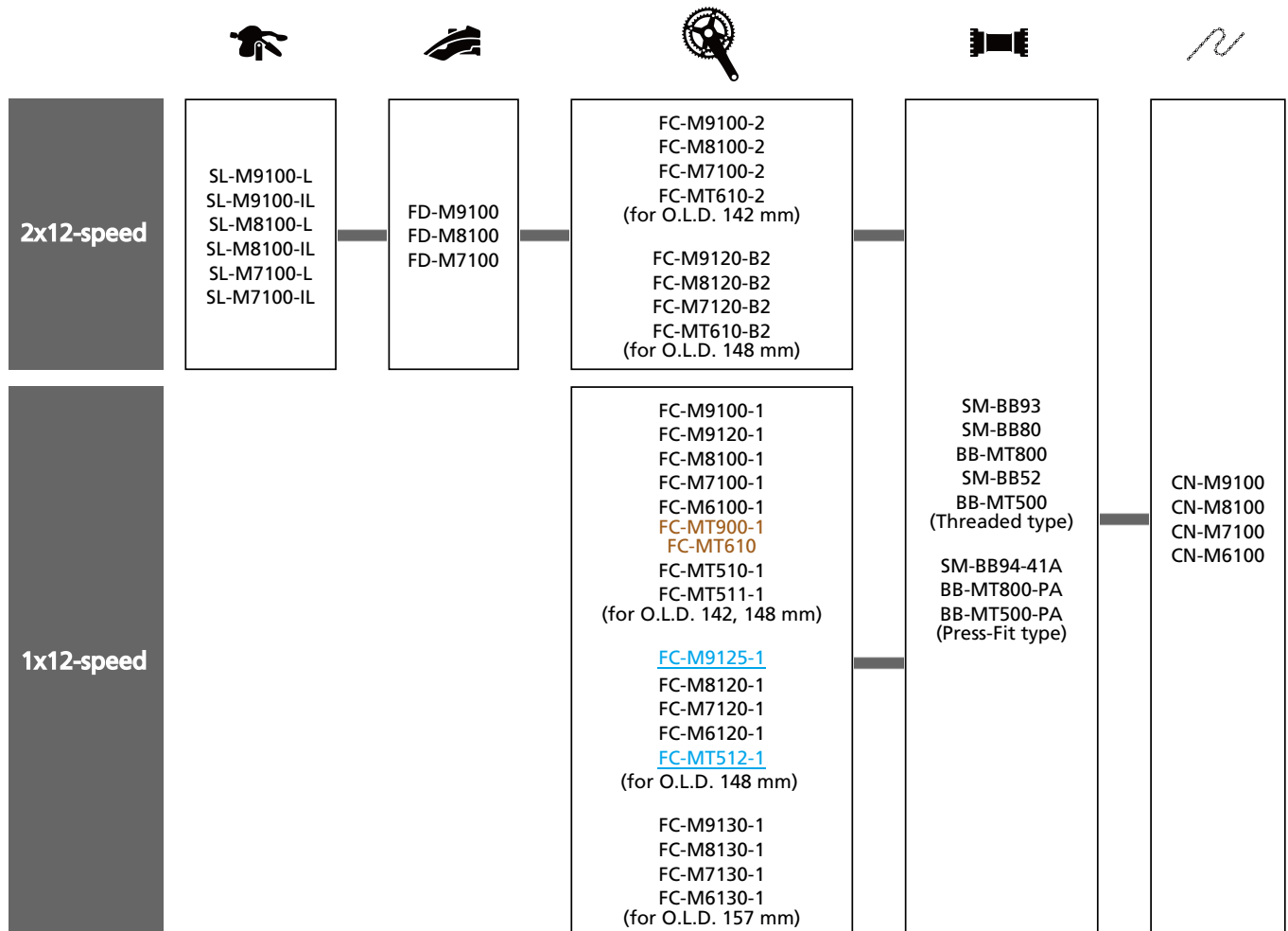


6-speed HG and 6-speed [MTB] C-546

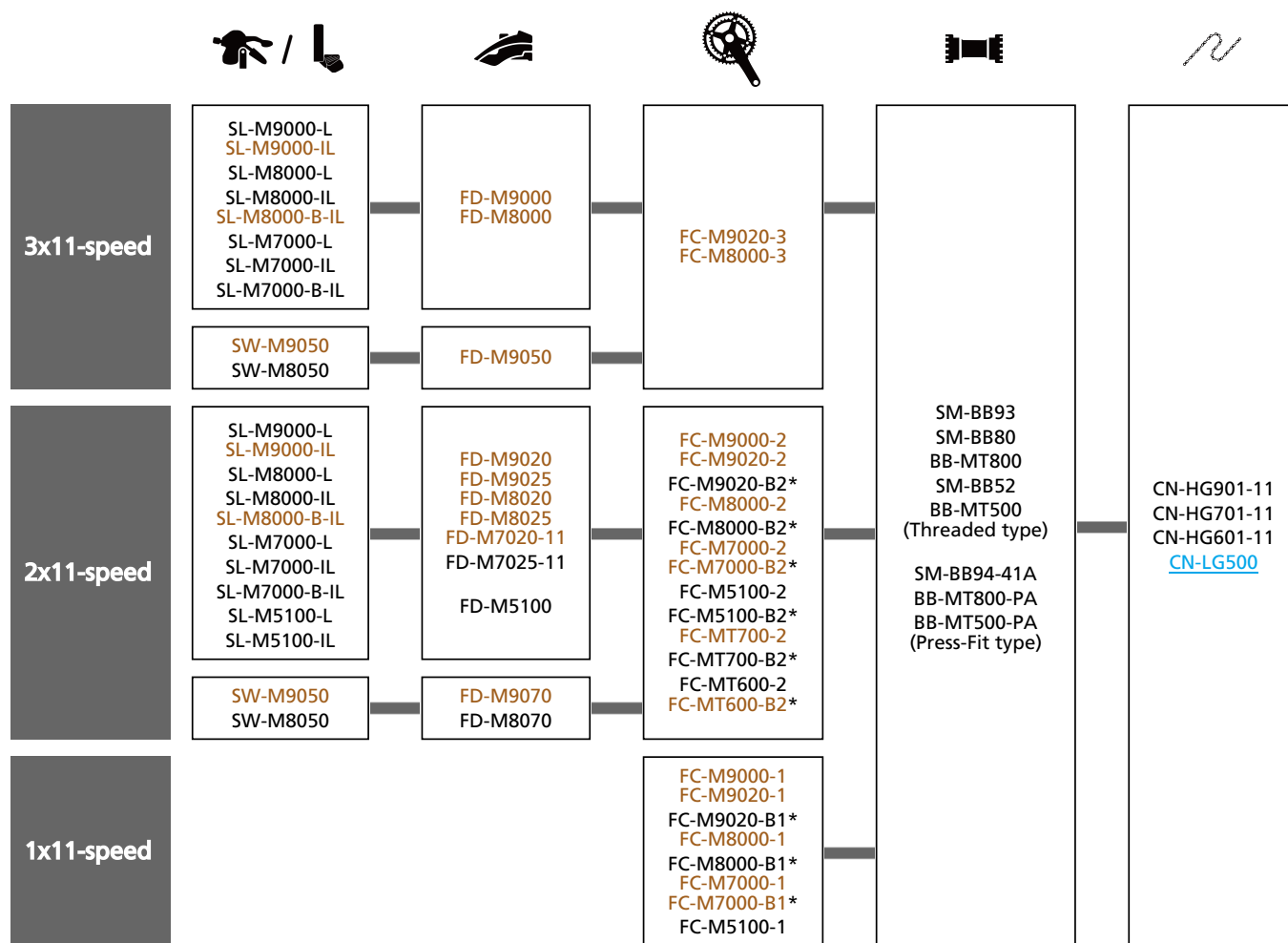


Front drivetrain compatibility [MTB] C-440

12-speed front drivetrain C-559



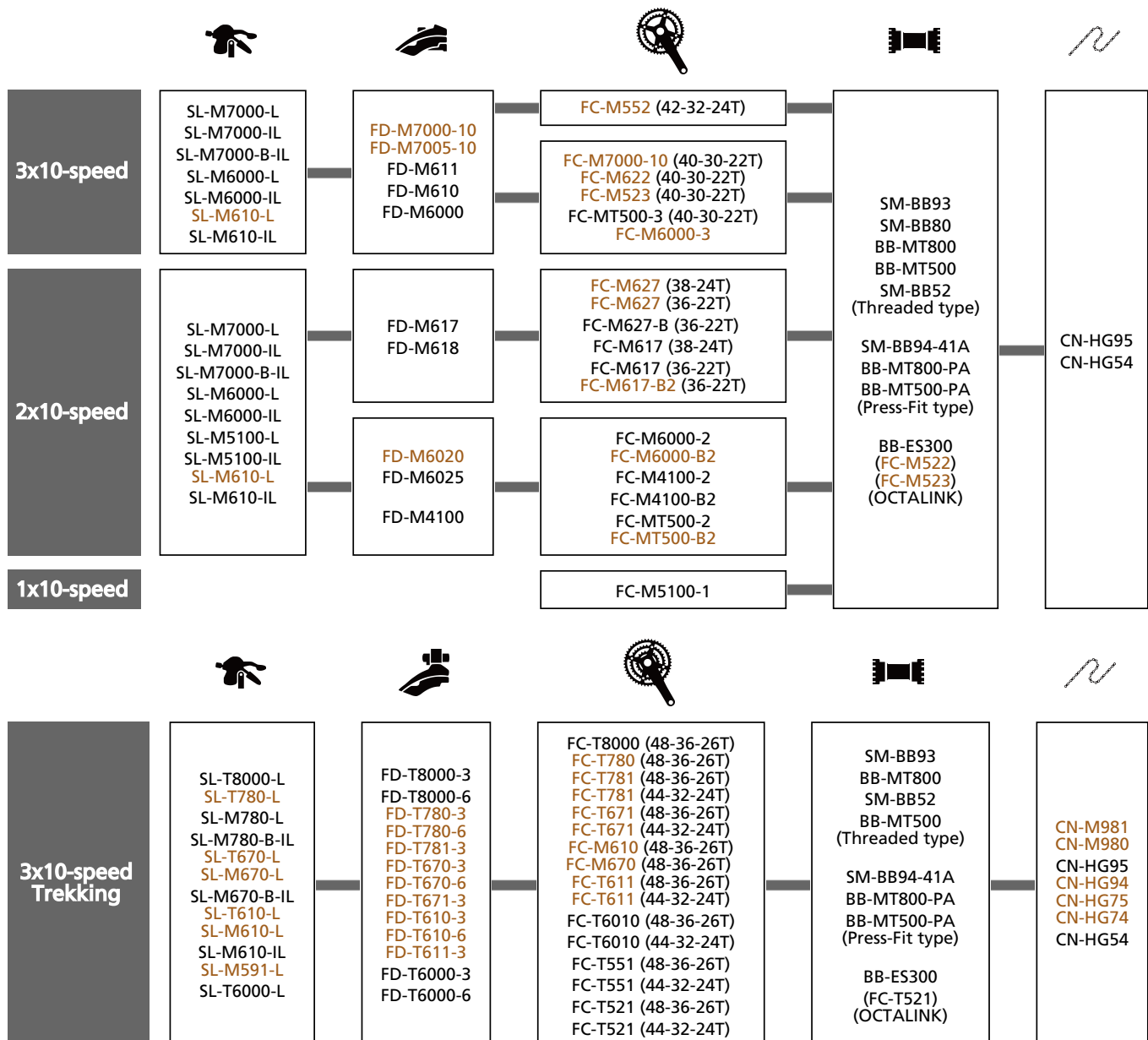
11-speed front drivetrain C-441



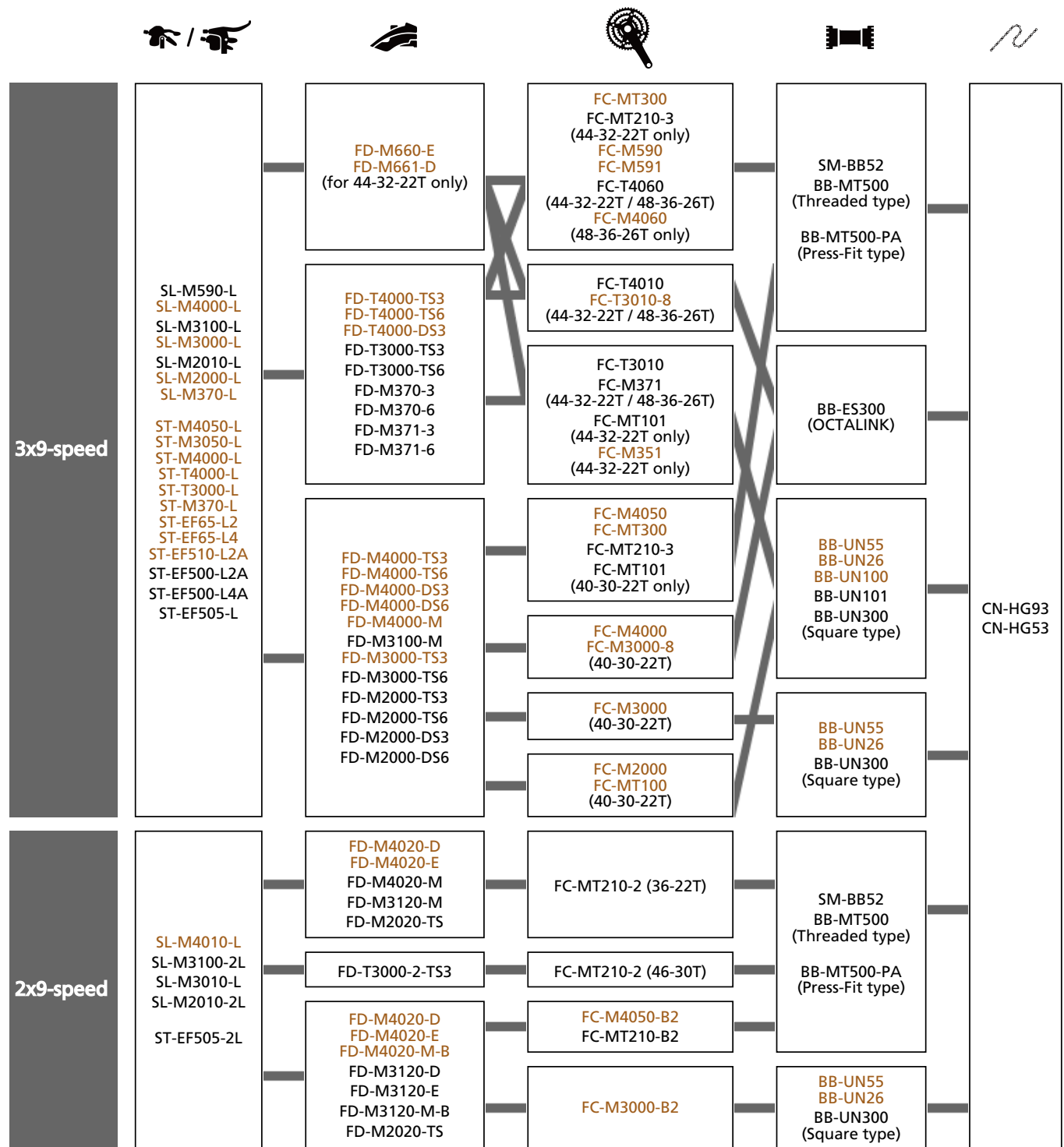
NOTE

* Requires new dimension of frame which cassette position is 3 mm outboard

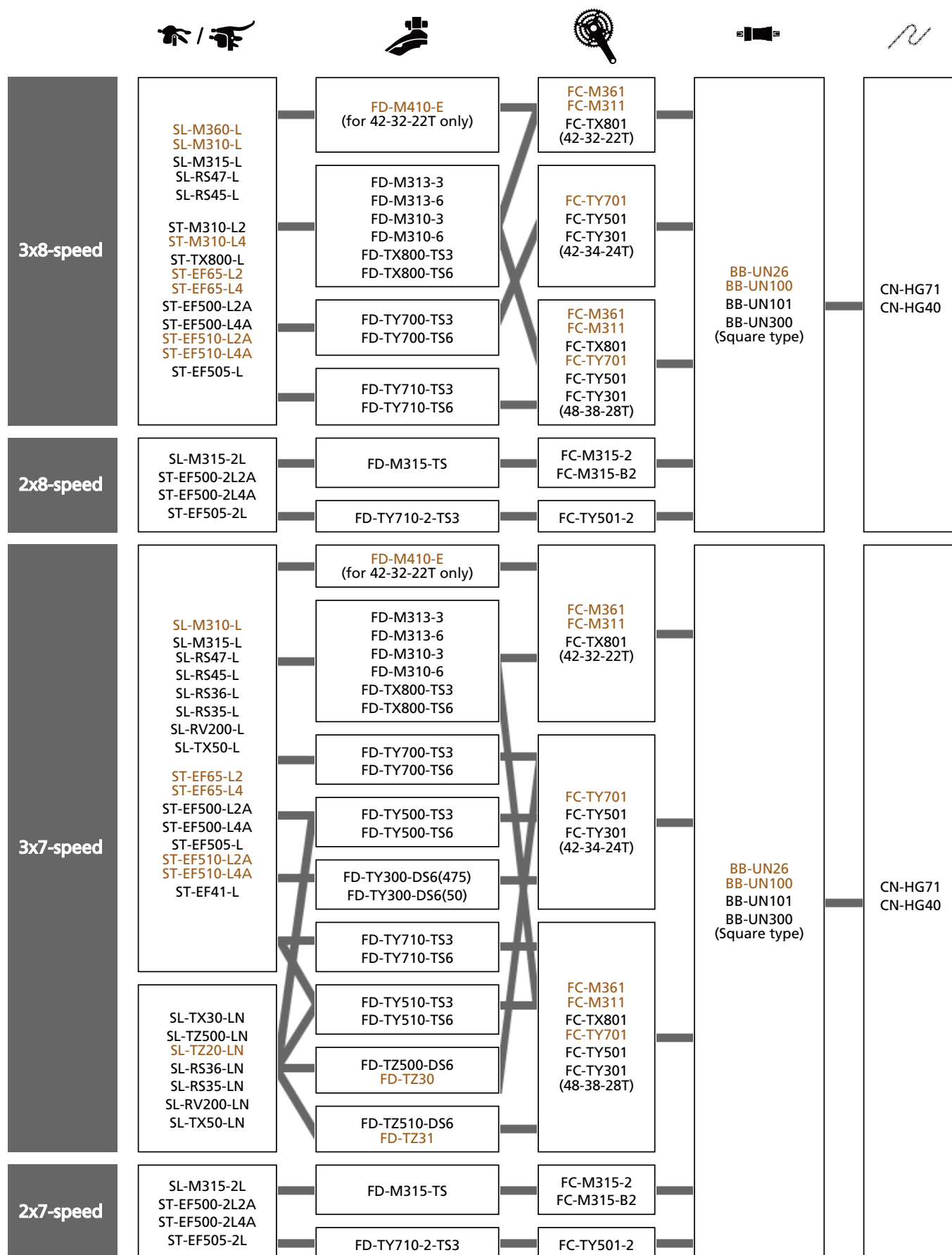
10-speed front drivetrain [MTB] C-442

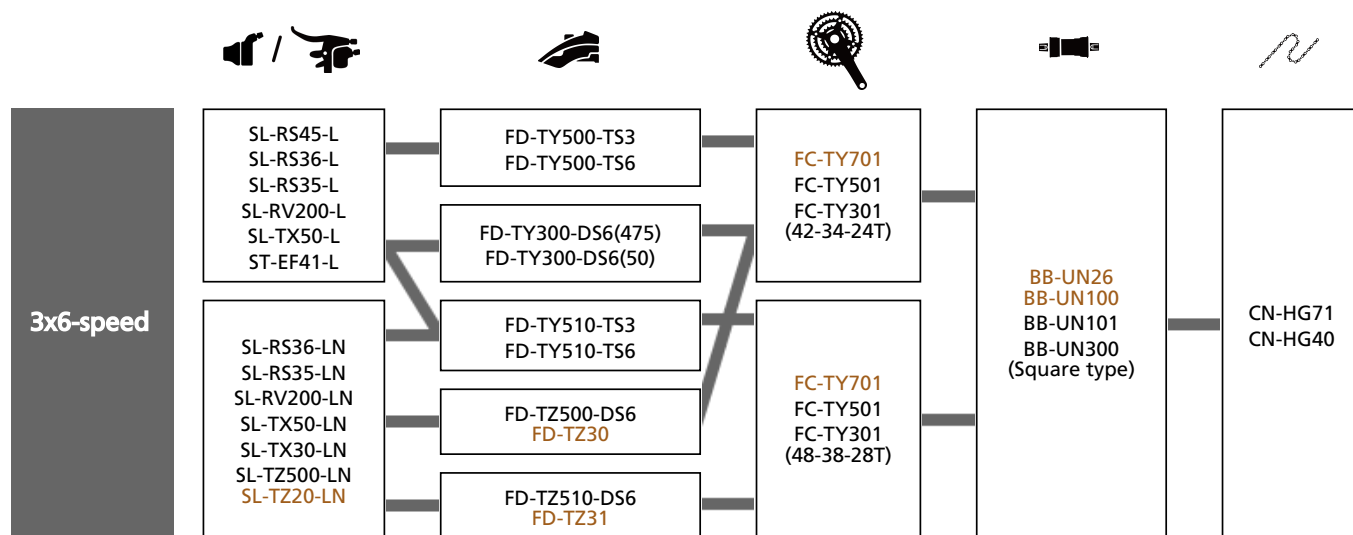


9-speed FC-FD compatibility [MTB] C-445



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





Front derailleur and crankset

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 cranksets 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-DS6(475)	47.5	-	-
	FD-TY300-DS6(50)	-	-	50.0
	FD-TZ510-DS6 FD-TZ500-DS6	47.5	-	-
	FD-TZ31 FD-TZ30	-	-	-

Crankset, 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 crankset and bottom bracket required to obtain that, are given in the chart below.

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

Speed	Series	Crankset				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	48.8 mm	51.8 mm
			OCTALINK	Square	Chain case								
10	SHIMANO	FC-M523	✓	—	—	BB-ES300	—	118	—	—	—	—	
		FC-M522	✓	—	—	BB-ES300	—	113	—	—	—	—	
9	SHIMANO	FC-M521	✓	—	✓*	BB-ES300-AK	—	**	—	—	—	—	
	ALIVIO	FC-M4000	✓	—	—	BB-ES300	—	118	—	—	—	—	
		FC-T4010	✓	—	✓*	BB-ES300(-K)	—	126(-K)	—	—	—	—	
		FC-M430-8	✓	—	—	BB-ES300(-E)	—	118(-E)	—	—	—	—	
		FC-M430	—	✓	—	BB-UN26(-E) BB-UN300(-E)	—	LL113(-E)	—	—	—	—	
	ACERA	FC-M3000-8	✓	—	—	BB-ES300	—	118	—	—	—	—	
		FC-M3000	—	✓	—	BB-UN26 BB-UN300	—	LL113	—	—	—	—	
		FC-M3000-B2	—	✓	—	BB-UN300	—	LL113	—	—	—	—	
		FC-T3010-8	✓	-	✓*	BB-ES300(-K)	—	126(-K)	—	—	—	—	
	FC-T3010	—	✓	✓*	BB-UN26(-K) BB-UN300(-K)	—	LL123(-K)	—	—	—	—	—	
		ALTUS	FC-M2000	—	✓	—	BB-UN26 BB-UN300 BB-UN100 BB-UN101	—	LL123(-K)	—	—	—	—
	SHIMANO	FC-MT100 FC-MT101	—	✓	—	BB-UN26 BB-UN300 BB-UN100 BB-UN101	—	LL123	—	—	—	—	
		FC-M371	—	✓	✓*	BB-UN26(-K) BB-UN300(-K)	—	LL123(-K)	—	—	—	—	
		FC-M351	—	✓	✓*	BB-UN26(-K) BB-UN300(-K)	—	LL123(-K)	—	—	—	—	
8, 7	ACERA ALTUS	FC-M361 FC-M311	—	✓	✓*	BB-UN26(-K) BB-UN300(-K)	—	LL123(-K)	—	—	—	—	
	TOURNEY	FC-TX801	—	✓	✓*	BB-UN26(-K) BB-UN300(-K) BB-UN100(-K) BB-UN101(-K)	—	LL123(-K)	—	—	—	—	
	SHIMANO	FC-M315-2	—	✓	—	BB-UN26 BB-UN300 BB-UN100 BB-UN101	—	—	—	—	LL123	—	
		FC-M315-B2	—	✓	—	BB-UN26 BB-UN300 BB-UN100 BB-UN101	—	—	—	—	—	LL123	
		FC-TY501-2	—	✓	—	BB-UN26 BB-UN300 BB-UN100 BB-UN101	—	—	—	—	LL123	—	
	SHIMANO	FC-TY701 FC-TY501 FC-TY301	—	✓	✓	BB-UN26(-K) BB-UN300(-K) BB-UN100(-K) BB-UN101(-K)	D-NL (122.5)	BB-UN26(-K) BB-UN300(-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.

NOTE

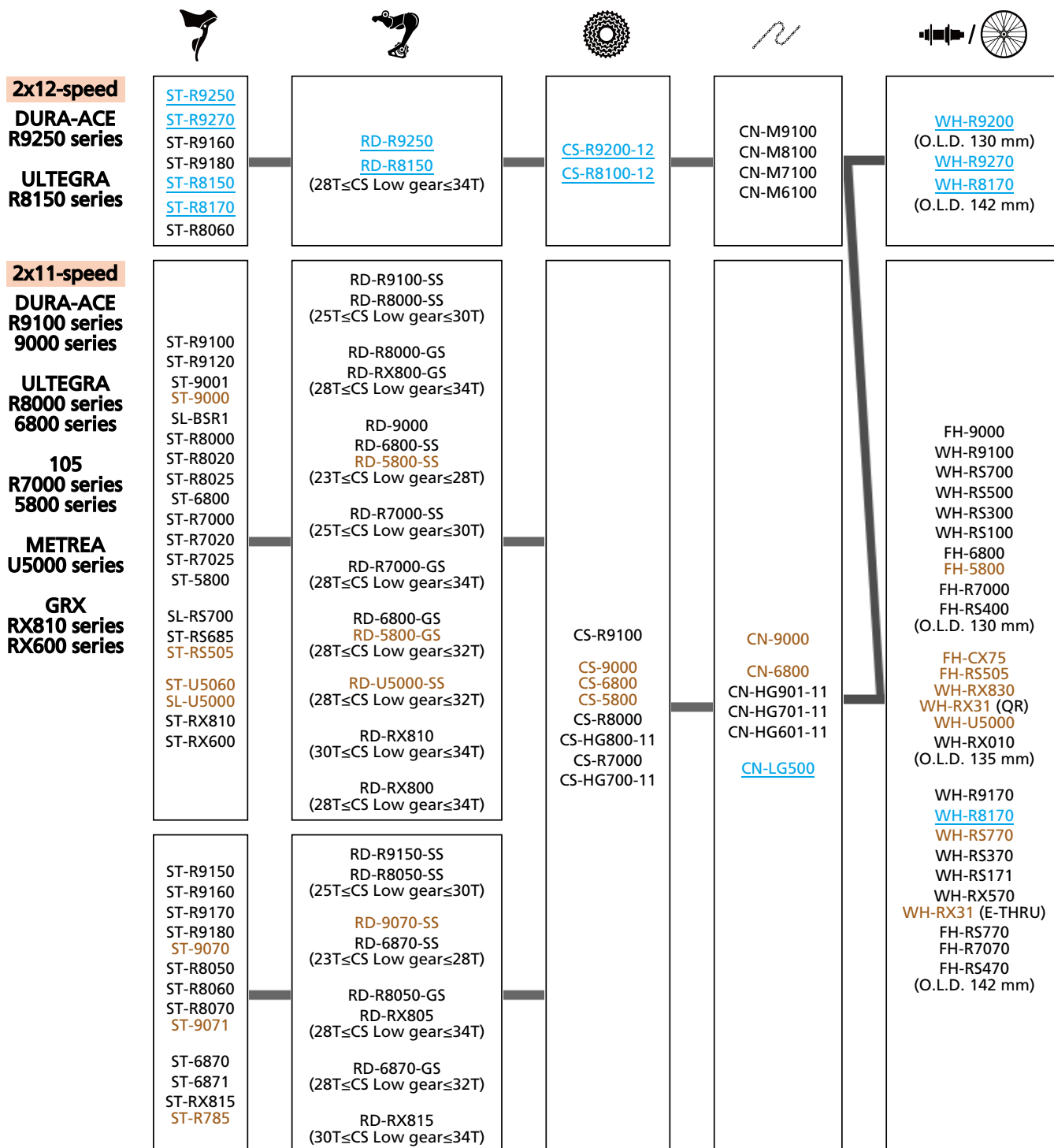
- If using a chain case, select a BB-xxxx (-K) / -K bottom bracket.
- If using an E-type front derailleur, select a BB-xxxx (-E) bottom bracket.
- **FC-M521**: Use 121AK with 1.8 mm spacer if no chain case used.

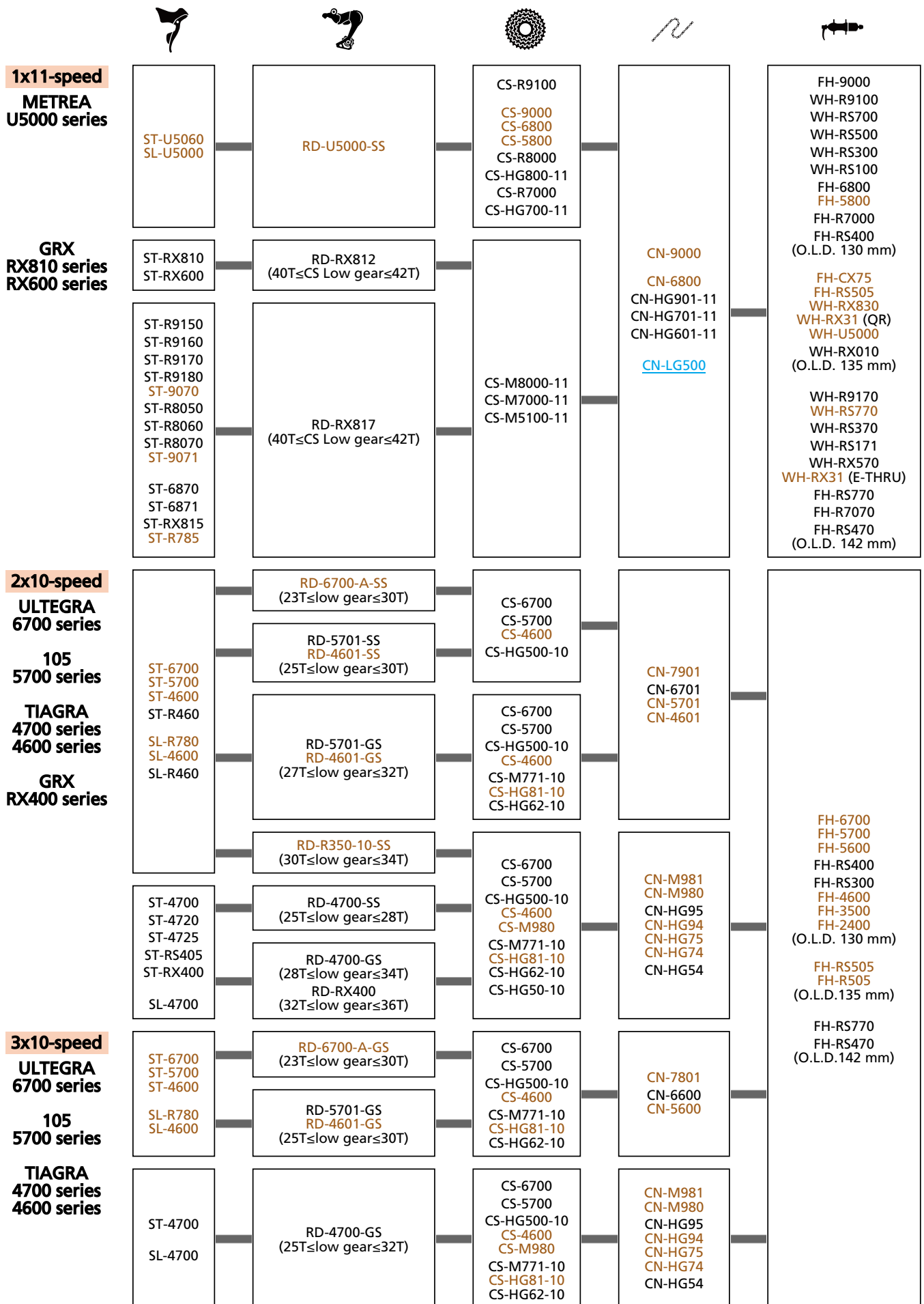
Drivetrain for ROAD, Gravel/Adventure, URBAN components

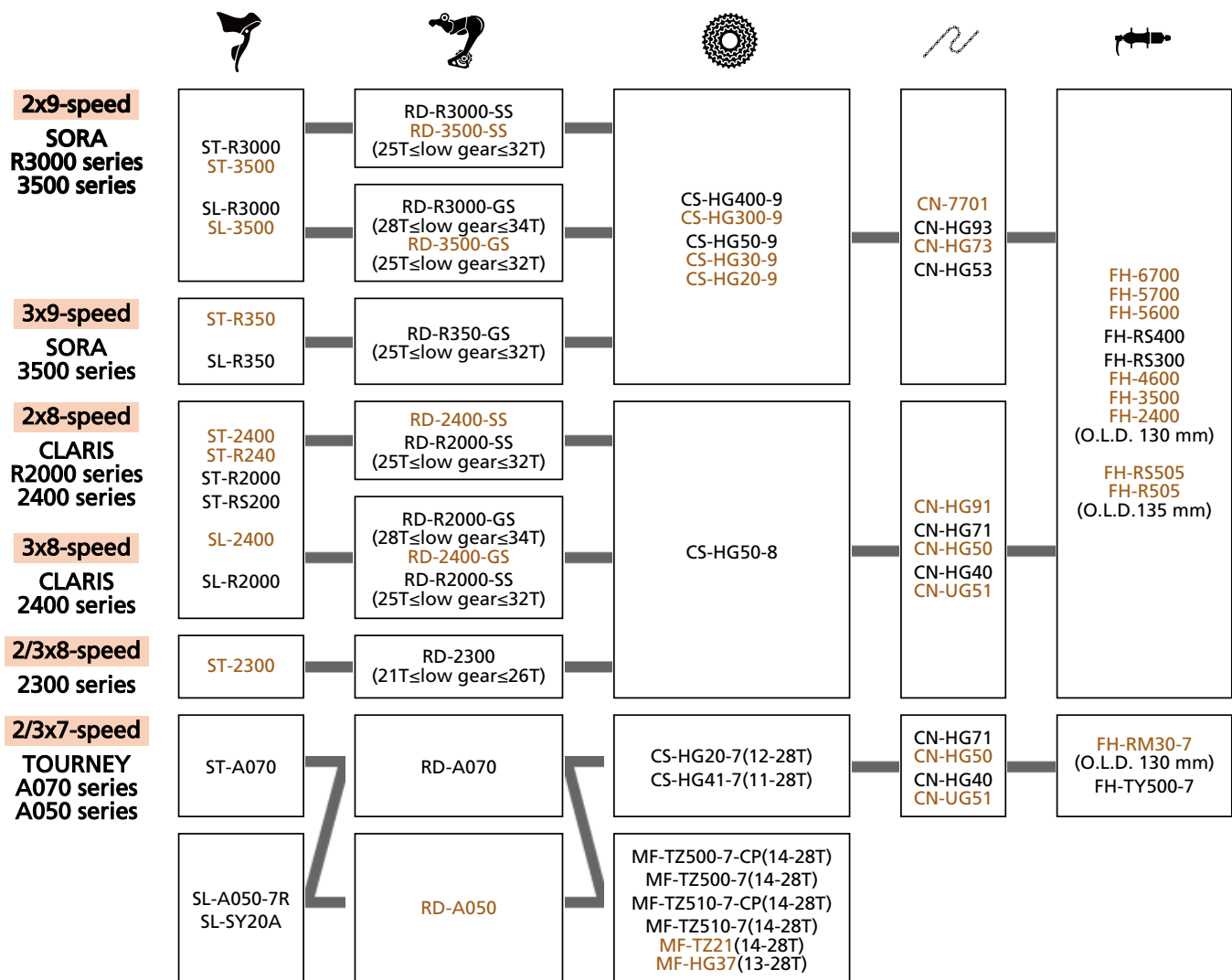
C-453

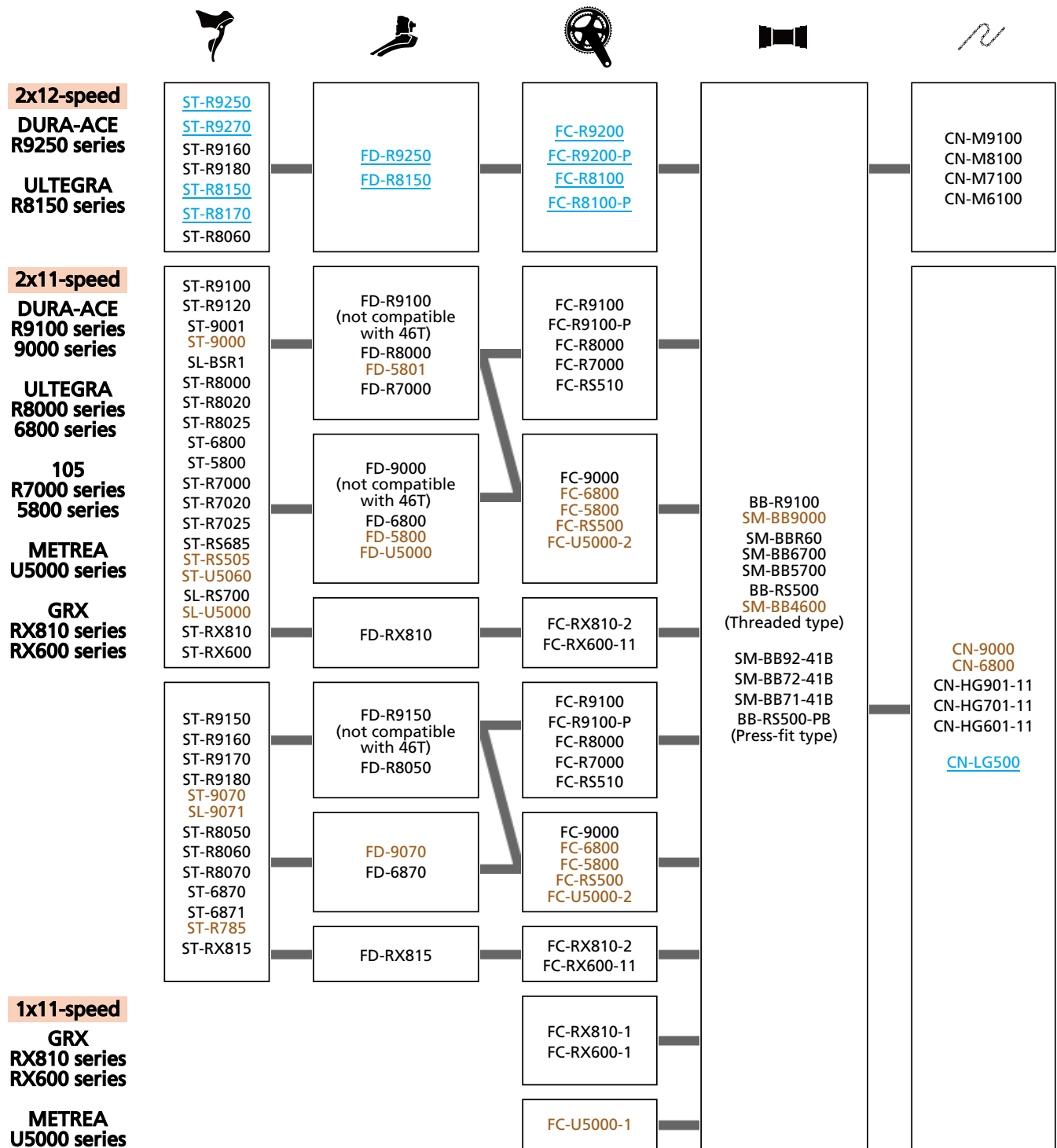
Rear drivetrain compatibility

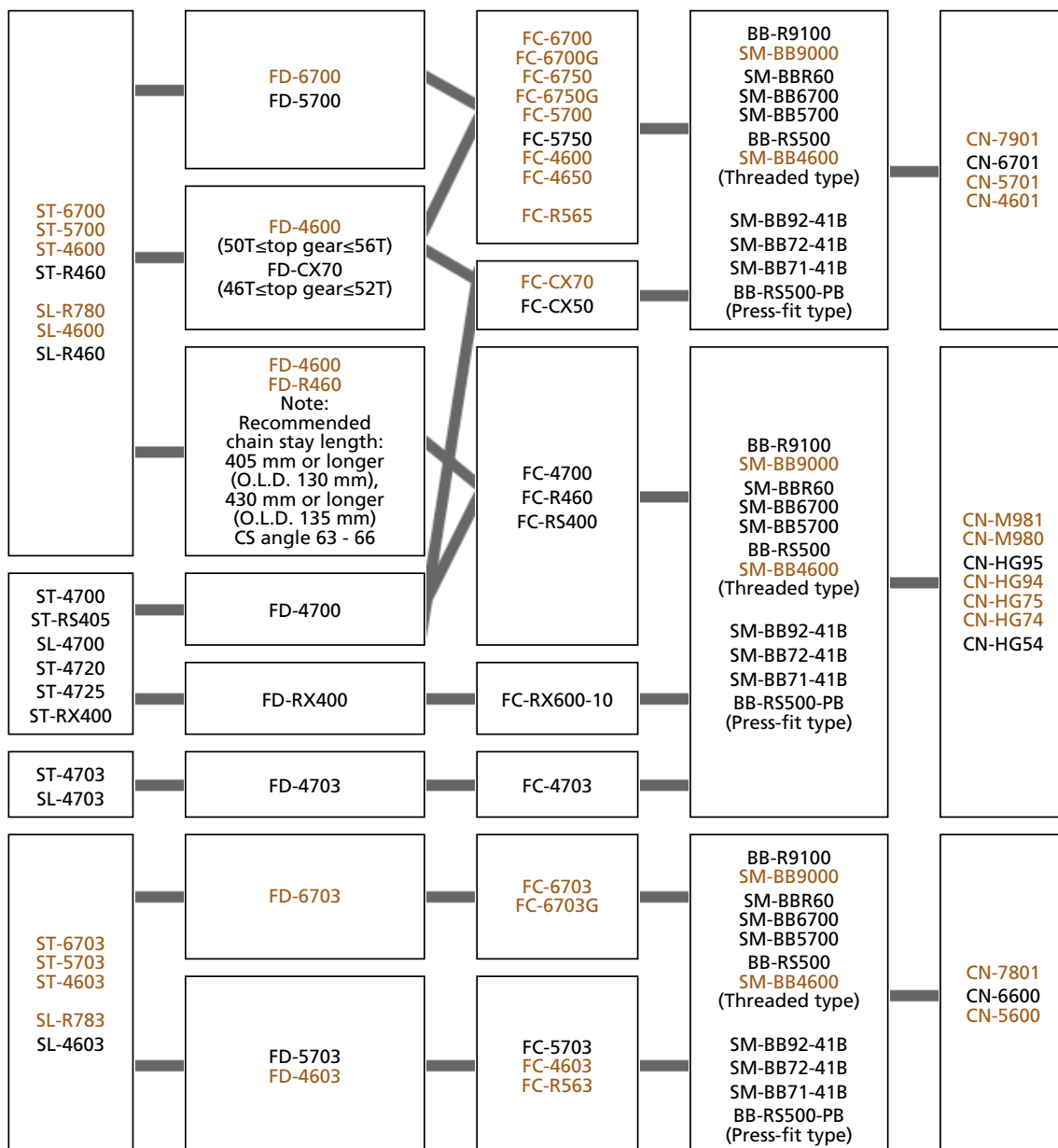
C-454

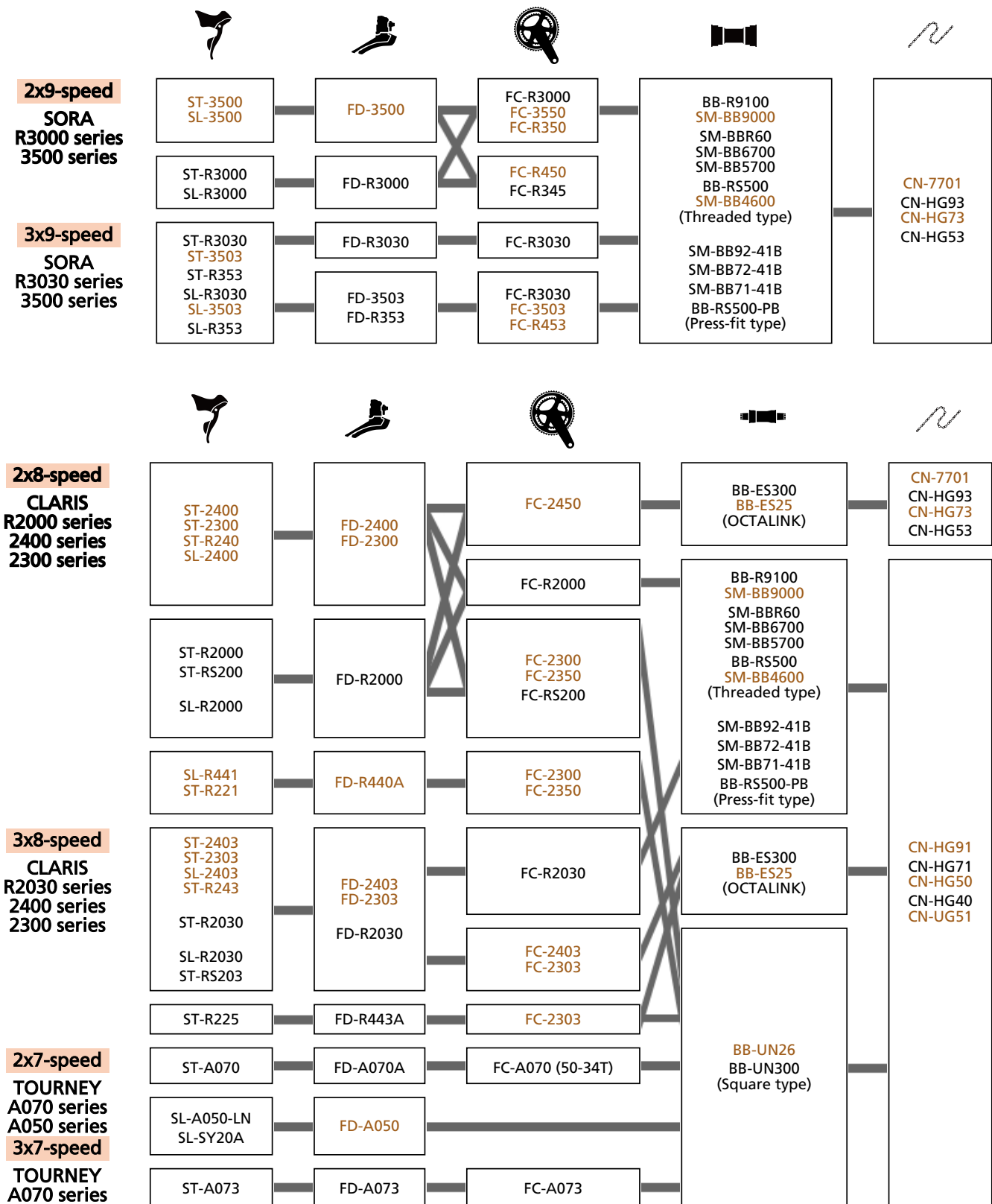


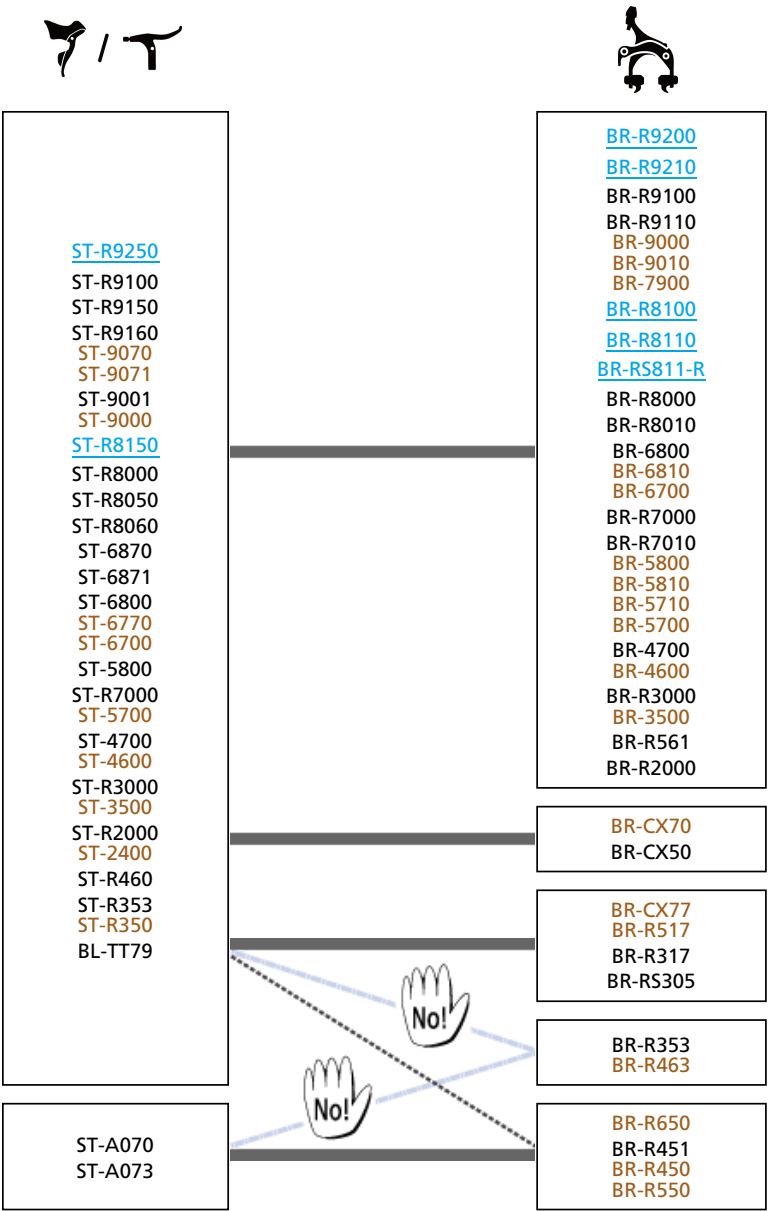






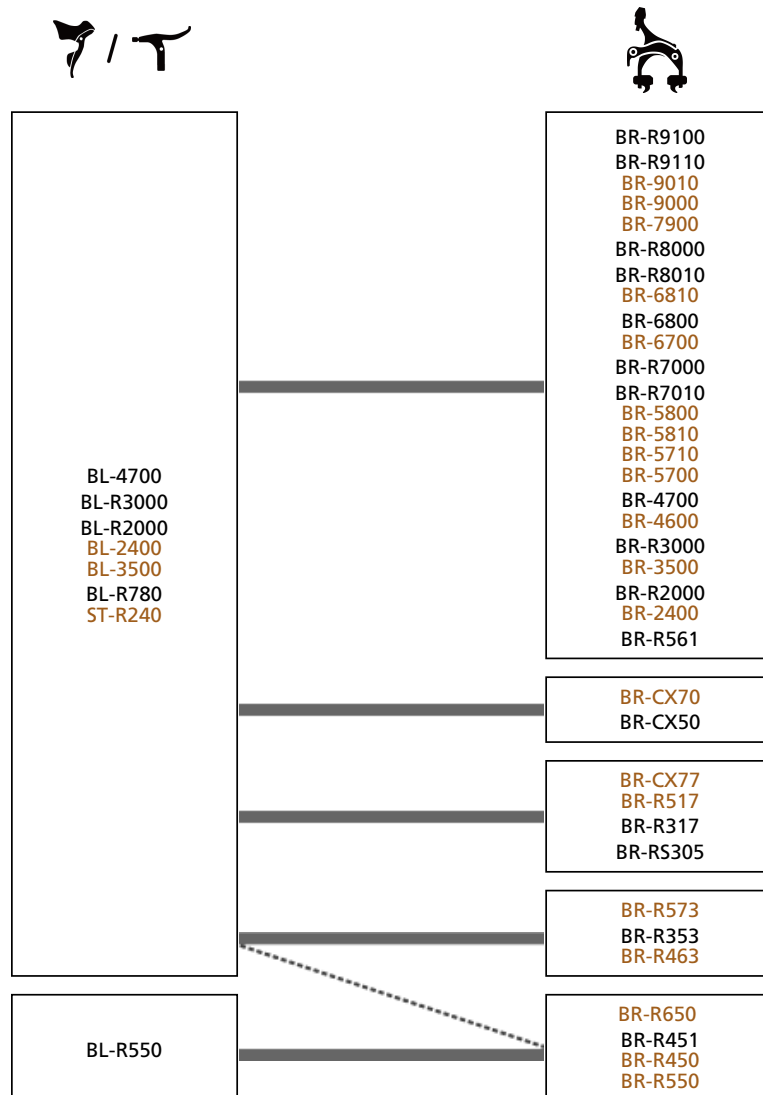
**2x10-speed****ULTEGRA
6700 series****105
5700 series****TIAGRA
4700 series
4600 series****GRX
RX400 series****3x10-speed****ULTEGRA
6703 series****105
5703 series****TIAGRA
4703 series
4603 series**



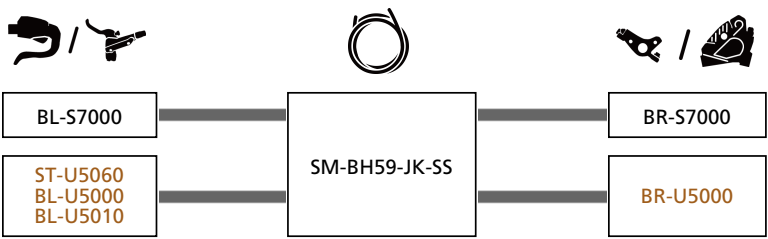
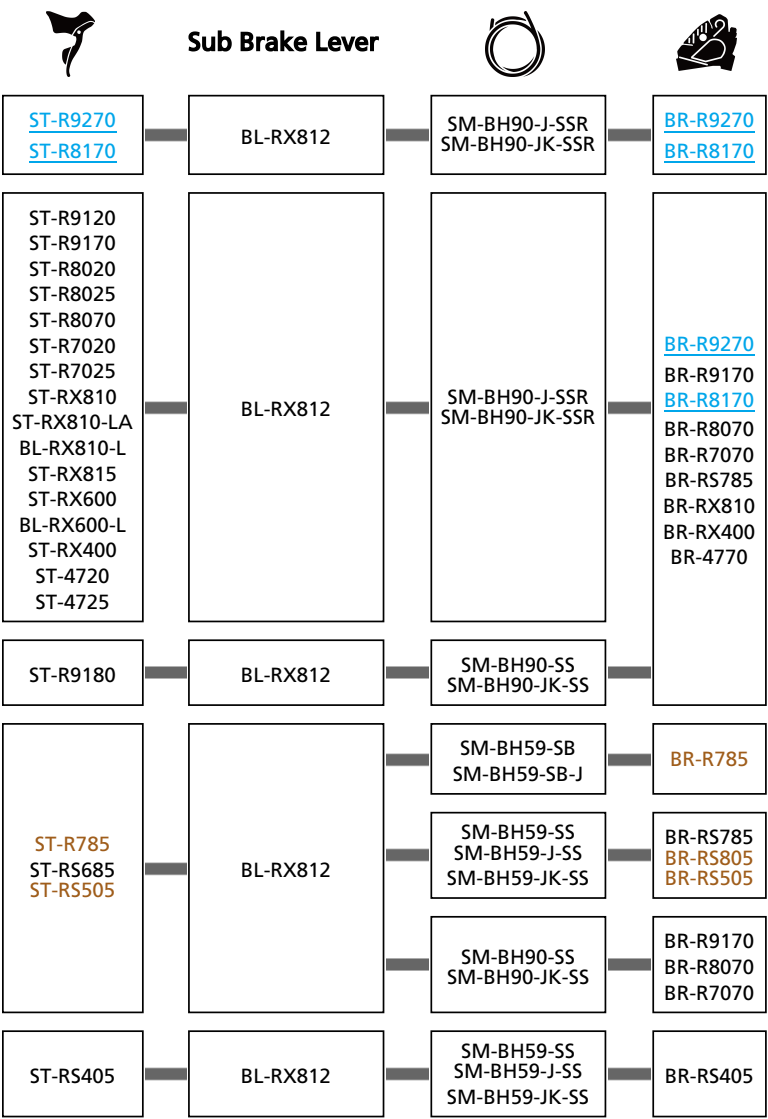


*****: Braking power is slightly less than standard combination.

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



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



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.
(Exclude RAPIDFIRE PLUS MONO shift lever)

I-SPEC EV shift lever

	Model No.	SL-M9100-I	SL-M8100-I	SL-M7100-I	SL-M6100-I	SL-M5100-I	SL-M4100-I	SL-M8130-I
I-SPEC EV	BL-M9100	✓	✓	✓	✓	✓	✓	✓
	BL-M9120	✓	✓	✓	✓	✓	✓	✓
	BL-M8100	✓	✓	✓	✓	✓	✓	✓
	BL-M7100	✓	✓	✓	✓	✓	✓	✓
	BL-M6100	✓	✓	✓	✓	✓	✓	✓
	BL-M4100	✓	✓	✓	✓	✓	✓	✓
I-SPEC II	BL-M9000	-	-	-	-	-	-	-
	BL-M9020	-	-	-	-	-	-	-
	BL-M8000	-	-	-	-	-	-	-
	BL-T8100	-	-	-	-	-	-	-
	BL-T8000	-	-	-	-	-	-	-
	BL-M7000	-	-	-	-	-	-	-
	BL-M6000	-	-	-	-	-	-	-
	BL-T6000	-	-	-	-	-	-	-
	BL-RS600	-	-	-	-	-	-	-
	BL-MT500	-	-	-	-	-	-	-
	BL-MT501	-	-	-	-	-	-	-
I-SPEC B	BL-U5000	-	-	-	-	-	-	-
	BL-M987	-	-	-	-	-	-	-
	BL-M988-B	-	-	-	-	-	-	-
	BL-M820-B	-	-	-	-	-	-	-
	BL-M640-B	-	-	-	-	-	-	-
	BL-T780-B	-	-	-	-	-	-	-
	BL-T675-B	-	-	-	-	-	-	-
	BL-T670-B	-	-	-	-	-	-	-
	BL-T610	-	-	-	-	-	-	-
	BL-M506	-	-	-	-	-	-	-
	BL-S700-B	-	-	-	-	-	-	-

I-SPEC II shift lever

	Model No.	SL-M9000-I	SL-M8000-I	SL-M7000-11-I SL-M7000-10-I	SL-U5000	SL-M6000-I	SL-RS700-I
I-SPEC EV	BL-M9100	-	-	-	-	-	-
	BL-M9120	-	-	-	-	-	-
	BL-M8100	-	-	-	-	-	-
	BL-M7100	-	-	-	-	-	-
	BL-M6100	-	-	-	-	-	-
	BL-M4100	-	-	-	-	-	-
I-SPEC II	BL-M9000	✓	✓	✓	✓	✓	✓
	BL-M9020	✓	✓	✓	✓	✓	✓
	BL-M8000	✓	✓	✓	✓	✓	✓
	BL-T8100	✓	✓	✓	✓	✓	✓
	BL-T8000	✓	✓	✓	✓	✓	✓
	BL-M7000	✓	✓	✓	✓	✓	✓
	BL-M6000	✓	✓	✓	✓	✓	✓
	BL-T6000	✓	✓	✓	✓	✓	✓
	BL-RS600	✓	✓	✓	✓	✓	✓
	BL-MT500	✓	✓	✓	✓	✓	✓
	BL-MT501	✓	✓	✓	✓	✓	✓
I-SPEC B	BL-U5000	✓	✓	✓	✓	✓	✓
	BL-M987	-	-	-	-	-	-
	BL-M988-B	-	-	-	-	-	-
	BL-M820-B	-	-	-	-	-	-
	BL-M640-B	-	-	-	-	-	-
	BL-T780-B	-	-	-	-	-	-
	BL-T675-B	-	-	-	-	-	-
	BL-T670-B	-	-	-	-	-	-
	BL-T610	-	-	-	-	-	-
	BL-M506	-	-	-	-	-	-
	BL-S700-B	-	-	-	-	-	-

I-SPEC B shift lever

	Model No.	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	BL-M9100	-	-	-
	BL-M9120	-	-	-
	BL-M8100	-	-	-
	BL-M7100	-	-	-
	BL-M6100	-	-	-
	BL-M4100	-	-	-
I-SPEC II	BL-M9000	-	-	-
	BL-M9020	-	-	-
	BL-M8000	-	-	-
	BL-T8100	-	-	-
	BL-T8000	-	-	-
	BL-M7000	-	-	-
	BL-M6000	-	-	-
	BL-T6000	-	-	-
	BL-RS600	-	-	-
	BL-MT500	-	-	-
	BL-MT501	-	-	-
	BL-U5000	-	-	-
I-SPEC B	BL-M987	✓	✓	✓
	BL-M988-B	✓	✓	✓
	BL-M820-B	✓	✓	✓
	BL-M640-B	✓	✓	✓
	BL-T780-B	✓	✓	✓
	BL-T675-B	✓	✓	✓
	BL-T670-B	✓	✓	✓
	BL-T610	✓	✓	✓
	BL-M506	✓	✓	✓
	BL-S700-B	✓	✓	✓

Compatibility of seat post lever and brake lever

	Model No.	I-SPEC EV shift lever	
		SL-MT800	SL-MT500-I
I-SPEC EV	BL-M9100	✓	✓
	BL-M9120	✓	✓
	BL-M8100	✓	✓
	BL-M7100	✓	✓
	BL-M6100	✓	✓
	BL-M4100	✓	✓
I-SPEC II	BL-M9000	-	-
	BL-M9020	-	-
	BL-M8000	-	-
	BL-T8100	-	-
	BL-T8000	-	-
	BL-M7000	-	-
	BL-M6000	-	-
	BL-T6000	-	-
	BL-RS600	-	-
	BL-MT500	-	-
	BL-MT501	-	-
	BL-U5000	-	-
I-SPEC B	BL-M987	-	-
	BL-M988-B	-	-
	BL-M820-B	-	-
	BL-M640-B	-	-
	BL-T780-B	-	-
	BL-T675-B	-	-
	BL-T670-B	-	-
	BL-T610	-	-
	BL-M506	-	-
	BL-S700-B	-	-

Disc brake caliper and disc brake rotor compatibility

C-461

Brake caliper	Brake pad material	Pad type	Disc brake rotor				
			220 mm (LL)	203 mm (L)	180 mm (M)	160 mm (S)	140 mm (SS)
BR-M9100*4 BR-M9110*5 BR-M9120 BR-M8100 BR-M8110*6 BR-M8120 BR-M8000 BR-M8020 BR-M7100 BR-M7110*6 BR-M7120 BR-M6100 BR-M6120 BR-MT520 BR-MT420 BR-M820	Metal / Resin	Narrow	SM-RT66-LL SM-RT64-LL	RT-MT905-L RT-MT900-L SM-RT99-L RT-MT800-L SM-RT86-L SM-RT81-L SM-RT76-L SM-RT70-L SM-RT66-M SM-RT64-M SM-RT56-M*2 SM-RT54-M*2 SM-RT30-M*2 SM-RT26-M*2 SM-RT10-M*2 RT-EM910-L*1 RT-EM900-L*1 RT-EM810-L*1 RT-EM600-L*1 RT-EM300-L*1*2	RT-MT905-M RT-MT900-M SM-RT99-M RT-MT800-M SM-RT86-M SM-RT81-M SM-RT76-M SM-RT70-M SM-RT66-M SM-RT64-M SM-RT56-M*2 SM-RT54-M*2 SM-RT30-M*2 SM-RT26-M*2 SM-RT10-M*2 RT-EM910-M*1 RT-EM900-M*1 RT-EM810-M*1 RT-EM800-M*1 RT-EM600-M*1 RT-EM300-M*1*2	RT-MT900-S SM-RT900-S SM-RT800-S SM-RT99-S RT-MT800-S SM-RT86-S SM-RT81-S SM-RT76-S SM-RT70-S SM-RT66-S SM-RT64-S SM-RT60 SM-RT56-S*2 SM-RT54-S*2 SM-RT30-S*2 SM-RT26-S*2 SM-RT10-S*2 RT-EM910-M*1 RT-EM900-S*1 RT-EM810-M*1 RT-EM800-S*1 RT-EM600-S*1 RT-EM300-S*1*2	RT-MT900-SS SM-RT900-SS SM-RT99-SS SM-RT99-A-SS RT-MT800-SS SM-RT800-SS SM-RT81-SS SM-RT70-SS
BR-S700 BR-S7000	Resin	-					
BR-MT410	Resin	Wide	-	SM-RT30-L RT-EM300-L*1			
BR-T675 BR-T615 BR-M4050 BR-MT500 BR-M446 BR-MT400 BR-M3050 BR-M395 BR-M375 BR-MT200 BR-M365 BR-M315 BR-TX805 BR-UR300	Resin	Wide	-	-	SM-RT56-M SM-RT54-M SM-RT30-M SM-RT26-M SM-RT10-M RT-EM300-M*1	SM-RT56-S SM-RT54-S SM-RT30-S SM-RT26-S SM-RT10-S RT-EM300-S*1	-
BR-R9270 *7 BR-R9170*3 BR-R8170 BR-R8070 BR-R7070 BR-4770 BR-RS805 BR-R785 BR-RS785 BR-RS505 BR-RS405 BR-RX810 BR-RX400	Metal / Resin	Narrow	-	-	RT-MT905-M RT-MT900-M RT-MT800-M SM-RT99-M SM-RT86-M SM-RT81-M SM-RT76-M SM-RT70-M SM-RT66-M SM-RT64-M SM-RT56-M*2 SM-RT54-M*2 SM-RT30-M*2 SM-RT26-M*2 SM-RT10-M*2 RT-EM910-M*1 RT-EM900-M*1 RT-EM810-M*1 RT-EM800-M*1 RT-EM600-M*1 RT-EM300-M*1*2	RT-MT900-S SM-RT900-S RT-MT800-S SM-RT800-S SM-RT99-S SM-RT86-S SM-RT81-S SM-RT76-S SM-RT70-S SM-RT66-S SM-RT64-S SM-RT56-S*2 SM-RT54-S*2 SM-RT30-S*2 SM-RT26-S*2 SM-RT10-S*2 RT-EM910-S*1 RT-EM900-S*1 RT-EM810-S*1 RT-EM800-S*1 RT-EM600-S*1 RT-EM300-S*1*2	RT-MT900-SS SM-RT900-SS RT-MT800-SS SM-RT800-SS SM-RT99-SS SM-RT99-A-SS SM-RT81-SS SM-RT70-SS
BR-CX77 BR-R517 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 *3	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

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

*2 Resin pad only

*3 Not compatible with rear 180 mm (M) disc brake rotors

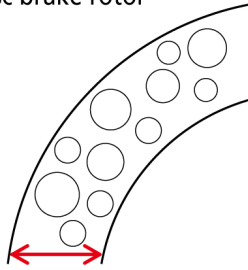
*4 Not compatible with 220mm (LL) and 203 mm (L) disc brake rotors

*5 For rear only. Not compatible with 220mm (LL), 203 mm (L) and 180 mm (M) disc brake rotors.

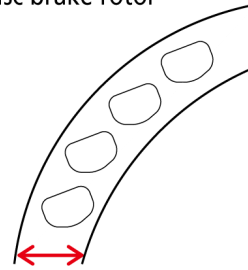
*6 For rear only. Not compatible 220mm (LL) and with 203 mm (L) disc brake rotors.

*7 Not compatible with 180 mm (M) disc brake rotors.

Wide type disc brake rotor



Narrow type disc brake rotor



NOTE

- SM-RT56 / SM-RT54 / SM-RT30 / SM-RT26 / SM-RT10 / RT-EM300 are compatible with Resin pad caliper specification only. If use with metal pads, disc brake rotor will be easily damaged.
- When using 140 mm disc brake rotor, braking power is less than 160 mm, please confirm the power is enough for your purpose. 140 mm disc brake rotor is recommended for rear use only.
- Narrow type 2 piece disc brake rotors are not compatible to brake caliper for Wide type disc brake rotor because of interference.
- BR-UR300 doesn't need front mount bracket and rear adapter.

Compatibility of lock ring with hubs

C-612

Front hub (Disc Brake)

Type	Fixing type of lock ring		
	Internal spline	both Internal & external spline	External spline
QR type	✓	✓	✓
12 mm E-THRU type	✓	✓*	✓
15 mm E-THRU type	-	✓*	✓
20 mm thru axle type	-	✓*	✓

* For E-THRU hub, "Internal & external spline" type lock ring can not be install by TL-LR11. Please Tighten with TL-FC36.

FREEHUB (Disc Brake)

Model No.	Fixing type of lock ring		
	Internal spline	Internal & external spline	External spline
FH-M9111 FH-M9111-B FH-M9111-BS FH-M9000 FH-M9010 FH-M9010-B FH-MT901-B FH-MT901-BS	-	-	✓
Other models (MTB, Trekking, ROAD, URBAN)	✓	✓	✓

Compatibility between brake systems (MT400 series)

C-606

	BR-MT400	BR-MT420
BL-MT400	✓	-
BL-MT402-3A	✓	✓
BL-MT401-3A	✓	-
BL-MT401	✓	✓

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

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	✓	-	✓
BR-TX805	✓	-	✓

* POWER MODULATOR must be used for front brake

Compatibility between hydraulic disc brake hose

C-186

Connection		SM-BH90-JK-SSR	SM-BH90-SBM	SM-BH90-SBLS	SM-BH90-SBS	SM-BH90-SB	SM-BH90-SS
Rigidity		Straight - Straight High power	Straight - Banjo High power	Straight - Banjo High power	Straight - Banjo High power	Straight - Banjo High power	Straight - Straight High power
BL-M9100	BR-M9100	—	—	—	—	—	✓
BL-M9100	BR-M9110	—	—	—	—	—	✓
BL-M9120	BR-M9120	—	✓	—	—	—	—
BL-M9000	BR-M9000	—	✓	—	—	—	—
BL-M9020	BR-M9020	—	✓	—	—	✓	—
BL-M820	BR-M820	—	—	✓	—	—	—
BL-M8100	BR-M8100	—	✓	—	—	—	—
BL-M8100	BR-M8110	—	—	—	—	—	✓
BL-M8100	BR-M8120	—	✓	—	—	—	—
BL-M8000	BR-M8000	—	✓	—	—	✓	—
BL-M8000	BR-M8020	—	—	✓	—	—	—
BL-T8100	BR-M8100	—	✓	—	—	—	—
BL-T8100	BR-M8120	—	✓	—	—	—	—
BL-M7100	BR-M7100	—	✓	—	—	—	—
BL-M7100	BR-M7110	—	—	—	—	—	✓
BL-M7100	BR-M7120	—	✓	—	—	—	—
BL-M7000	BR-M7000	—	✓	—	—	✓	—
BL-M6100	BR-M6100	—	—	—	—	—	✓
BL-M6100	BR-M6120	—	—	—	—	—	✓
BL-T675	BR-T675	—	—	—	—	—	✓
BL-M640	BR-M640	—	—	✓	✓	—	—
BL-M6000	BR-M6000	—	—	—	—	—	✓
BL-M4100	BR-MT410	—	—	—	—	—	—
BL-M4100	BR-MT420	—	—	—	—	—	✓
BL-T6000	BR-M6000	—	—	—	—	—	—
BL-S7000	BR-S7000	—	—	—	—	—	—
BL-RS600	BR-RS405	—	—	—	—	—	—
BL-MT501	BR-MT520	—	—	—	—	—	✓
BL-MT501	BR-MT500	—	—	—	—	—	—
BL-MT500	BR-MT500	—	—	—	—	—	—
ST-M4050	BR-M4050	—	—	—	—	—	—
ST-M3050	BR-M3050	—	—	—	—	—	—
BL-T445	BR-M446	—	—	—	—	—	—
BL-MT400	BR-MT400	—	—	—	—	—	—
BL-MT401	BR-MT400	—	—	—	—	—	—
BL-MT401	BR-MT420	—	—	—	—	—	✓
BL-MT401-3A	BR-MT400	—	—	—	—	—	—
BL-MT402-3A	BR-MT400	—	—	—	—	—	—
BL-MT402-3A	BR-MT420	—	—	—	—	—	✓
BL-M425 BL-M396	BR-M395	—	—	—	—	—	—
BL-MT201	BR-MT200	—	—	—	—	—	—
BL-MT200	BR-MT200	—	—	—	—	—	—
BL-MT201	BR-UR300	—	—	—	—	—	—
BL-MT200	BR-UR300	—	—	—	—	—	—
BL-M365	BR-M365	—	—	—	—	—	—
BL-M315	BR-M315	—	—	—	—	—	—
ST-EF505	BR-M315	—	—	—	—	—	—
ST-EF505	BR-MT200	—	—	—	—	—	—
BL-S700	BR-S700	—	✓	—	—	✓	—
ST-R9270	BR-R9270	✓	—	—	—	—	—
ST-R9120 ST-R9170	BR-R9170	✓	—	—	—	—	—
ST-R9180	BR-R9170	✓	—	—	—	—	—
ST-R8170	BR-R8170	✓	—	—	—	—	—
ST-R8020 ST-R8070	BR-R8070	✓	—	—	—	—	—
ST-R7020	BR-R7070	✓	—	—	—	—	—
ST-R7025	BR-R7070	✓	—	—	—	—	—
ST-R785	BR-RS805	—	—	—	—	—	—
ST-R785	BR-RS785	—	—	—	—	—	—
ST-R785	BR-R785	—	—	—	—	—	—
ST-RS685	BR-RS805	—	—	—	—	—	—
ST-RS685	BR-RS785	—	—	—	—	—	—
ST-RS685	BR-R785	—	—	—	—	—	—
ST-RS505	BR-RS785	—	—	—	—	—	—
ST-RS505	BR-RS505	—	—	—	—	—	—
ST-RS405	BR-RS405	—	—	—	—	—	—
ST-RX815	BR-RX810	✓	—	—	—	—	—
ST-RX810	BR-RX810	✓	—	—	—	—	—
BL-RX810	BR-RX810	✓	—	—	—	—	—
ST-RX600	BR-RX400	✓	—	—	—	—	—
BL-RX600	BR-RX400	✓	—	—	—	—	—
ST-RX400	BR-RX400	✓	—	—	—	—	—
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	SM-BH59-SB-J
Connection		Straight - Straight	Straight - Straight	Straight - Straight	Straight - Banjo	Straight - Banjo
Rigidity		Standard	Standard	Standard	Standard	Standard
BL-M9100	BR-M9100	—	—	—	—	—
BL-M9100	BR-M9110	—	—	—	—	—
BL-M9120	BR-M9120	—	—	—	—	—
BL-M9000	BR-M9000	—	—	—	—	—
BL-M9020	BR-M9020	—	—	—	—	—
BL-M820	BR-M820	—	—	—	—	—
BL-M8100	BR-M8100	—	—	—	—	—
BL-M8100	BR-M8110	—	—	—	—	—
BL-M8100	BR-M8120	—	—	—	—	—
BL-M8000	BR-M8000	—	—	—	—	—
BL-M8000	BR-M8020	—	—	—	—	—
BL-T8100	BR-M8100	—	—	—	—	—
BL-T8100	BR-M8120	—	—	—	—	—
BL-M7100	BR-M7100	—	—	—	—	—
BL-M7100	BR-M7110	—	—	—	—	—
BL-M7100	BR-M7120	—	—	—	—	—
BL-M7000	BR-M7000	—	—	—	—	—
BL-M6100	BR-M6100	—	—	—	—	—
BL-M6100	BR-M6120	—	—	—	—	—
BL-T675	BR-T675	—	—	—	—	—
BL-M640	BR-M640	—	—	—	—	—
BL-M6000	BR-M6000	—	—	—	—	—
BL-M4100	BR-MT410	—	✓	—	—	—
BL-M4100	BR-MT420	—	—	—	—	—
BL-T6000	BR-M6000	—	✓	—	—	—
BL-S7000	BR-S7000	—	✓	—	—	—
BL-RS600	BR-RS405	—	✓	—	—	—
BL-MT501	BR-MT520	—	—	—	—	—
BL-MT501	BR-MT500	—	✓	—	—	—
BL-MT500	BR-MT500	—	✓	—	—	—
ST-M4050	BR-M4050	—	✓	—	—	—
ST-M3050	BR-M3050	—	✓	—	—	—
BL-T445	BR-M446	—	✓	—	—	—
BL-MT400	BR-MT400	—	✓	—	—	—
BL-MT401	BR-MT400	—	✓	—	—	—
BL-MT401	BR-MT420	—	—	—	—	—
BL-MT401-3A	BR-MT400	—	✓	—	—	—
BL-MT402-3A	BR-MT400	—	✓	—	—	—
BL-MT402-3A	BR-MT420	—	—	—	—	—
BL-M425 BL-M396	BR-M395	—	✓	—	—	—
BL-MT201	BR-MT200	—	✓	—	—	—
BL-MT200	BR-MT200	—	✓	—	—	—
BL-MT201	BR-UR300	—	✓	—	—	—
BL-MT200	BR-UR300	—	✓	—	—	—
BL-M365	BR-M365	—	✓	—	—	—
BL-M315	BR-M315	—	✓	—	—	—
ST-EF505	BR-M315	—	✓	—	—	—
ST-EF505	BR-MT200	—	✓	—	—	—
BL-S700	BR-S700	—	—	—	—	—
ST-R9270	BR-R9270	—	—	—	—	—
ST-R9120 ST-R9170	BR-R9170	—	—	—	—	—
ST-R9180	BR-R9170	—	—	—	—	—
ST-R8170	BR-R8170	—	—	—	—	—
ST-R8020 ST-R8070	BR-R8070	—	—	—	—	—
ST-R7020	BR-R7070	—	—	—	—	—
ST-R7025	BR-R7070	—	—	—	—	—
ST-R785	BR-RS805	✓	—	—	—	—
ST-R785	BR-RS785	✓	—	—	—	—
ST-R785	BR-R785	—	—	—	✓	✓
ST-RS685	BR-RS805	✓	—	✓	—	—
ST-RS685	BR-RS785	✓	—	✓	—	—
ST-RS685	BR-R785	—	—	—	✓	✓
ST-RS505	BR-RS785	✓	—	✓	—	—
ST-RS505	BR-RS505	✓	—	✓	—	—
ST-RS405	BR-RS405	—	—	✓	—	—
ST-RX815	BR-RX810	—	—	—	—	—
ST-RX810	BR-RX810	—	—	—	—	—
BL-RX810	BR-RX810	—	—	—	—	—
ST-RX600	BR-RX400	—	—	—	—	—
BL-RX600	BR-RX400	—	—	—	—	—
ST-RX400	BR-RX400	—	—	—	—	—
BL-U5000	BR-U5000	—	—	✓	—	—
BL-U5010		—	—	✓	—	—
ST-U5060		—	—	✓	—	—

Level of compatibility

✓: Compatible

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

-: Impossible to use

Compatibility between banjo screw

C-625

Banjo screw	Special	Normal	Short	BR-M9120 SPEC.	BR-M8100 SPEC.
BR-M9120	–	–	–	✓	–
BR-M9000	✓	–	–	–	–
BR-M9020	✓	✓	–	–	–
BR-M820	–	–	✓	–	✓
BR-M8100	–	–	–	–	✓
BR-M8120	–	–	–	✓	–
BR-M8000	✓	✓	–	–	–
BR-M8020	–	–	✓	–	–
BR-M7100	–	–	–	–	✓
BR-M7120	–	–	–	✓	–
BR-M7000	✓	✓	–	–	–
BR-M640	–	–	✓	–	✓
BR-S700	✓	✓	–	–	–
BR-R785	✓	✓	–	–	–

NOTE

See [C-188](#) for shape of banjo screws.

Brake pad line-up

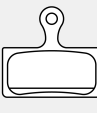
C-192

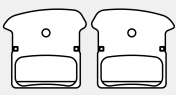
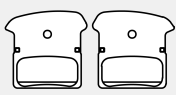
Brake pad for hydraulic disc brake (4-piston) C-652

Pad Shape Type							
		D-type		H-type		N-type	
		Narrow type		Narrow type		Narrow type	
Type		D03S	D02S	H03A	H03C	N03A	N04C
		Resin	Metal	Resin	Metal	Resin	Metal
Characteristics	Modulation	★★★★★	★★★★☆	★★★★★	★★★★☆	★★★★★	★★★★☆
	Power	★★★★☆	★★★★★	★★★★☆	★★★★★	★★★★☆	★★★★★
	Durability	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Anti-fading	★★★☆☆	★★★★★	★★★★☆	★★★★★	★★★★☆	★★★★★
	Silence	★★★★★	★★★☆☆	★★★★★	★★★★☆	★★★★★	★★★★☆
Pad Radiator fin		–	–	✓	✓	✓	✓
High heat insulation		–	–	–	–	–	–
Pad Back plate	Titanium	–	–	–	–	–	–
	Aluminum	–	–	✓	–	✓	–
	Stainless steel/ Aluminum	–	–	–	✓	–	✓
	Stainless steel	✓	✓	–	–	–	–
BR-M9120		Hydraulic	–	–	–	Standard	Standard
BR-M8120		Hydraulic	Option	Option	–	Standard	Standard
BR-M7120		Hydraulic	Standard	Option	–	Standard	Option
BR-M6120		Hydraulic	Standard	Option	–	–	–
BR-MT520		Hydraulic	Standard	Standard	–	–	–
BR-MT420		Hydraulic	Standard	Standard	–	–	–
BR-M8020		Hydraulic	Option	–	Standard	Option	–
BR-M820		Hydraulic	–	–	Standard	Standard	–

Brake pad for hydraulic disc brake (2-piston) and mechanical disc brake

C-653

Pad Shape Type						
		B-type	G-type			
		Wide type	Narrow type			
Type		B03S	G03A	G03S	G04S	G04Ti
		Resin	Resin	Resin	Metal	Metal
Characteristics	Modulation	★★★★★	★★★★★	★★★★★	★★★★☆	★★★★☆
	Power	★★★★☆	★★★★☆	★★★★☆	★★★★★	★★★★★
	Durability	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Anti-fading	★★★☆☆	★★★☆☆	★★★☆☆	★★★★★	★★★★★
	Silence	★★★★★	★★★★★	★★★★★	★★★☆☆	★★★☆☆
Pad Radiator fin		—	—	—	—	—
High heat insulation		—	✓	✓	—	—
Pad Back plate	Titanium	—	—	—	—	✓
	Aluminum	—	✓	—	—	—
	Stainless steel/ Aluminum	—	—	—	—	—
	Stainless steel	✓	—	✓	✓	—
BR-M9100	Hydraulic	—	—	—	—	—
BR-M9110	Hydraulic	—	—	—	—	—
BR-M8100	Hydraulic	—	Standard	—	Standard	—
BR-M8110	Hydraulic	—	—	—	—	—
BR-M7100	Hydraulic	—	—	Standard	Standard	—
BR-M7110	Hydraulic	—	—	—	—	—
BR-M8000	Hydraulic	—	Standard	—	Option	—
BR-M6100	Hydraulic	—	—	Standard	Option	—
BR-M6000	Hydraulic	—	—	Standard	Option	—
BR-MT500	Hydraulic	Standard	—	—	—	—
BR-MT400	Hydraulic	Standard	—	—	—	—
BR-MT410	Hydraulic	Standard	—	—	—	—
BR-MT200	Hydraulic	Standard	—	—	—	—
BR-M375	Mechanical	Standard	—	—	—	—
BR-TX805	Mechanical	Standard	—	—	—	—
BR-R9270	Hydraulic	—	—	—	—	—
BR-R9170	Hydraulic	—	—	—	—	—
BR-R8170	Hydraulic	—	—	—	—	—
BR-R8070	Hydraulic	—	—	—	—	—
BR-R7070	Hydraulic	—	—	—	—	—
BR-4770	Hydraulic	—	—	—	—	—
BR-RS785	Hydraulic	—	Option	—	—	—
BR-RS405	Hydraulic	—	—	—	—	—
BR-RX810	Hydraulic	—	—	—	—	—
BR-RX400	Hydraulic	—	—	—	—	—
BR-UR300	Hydraulic	Standard	—	—	—	—
BR-S7000	Hydraulic	—	—	Standard	—	—
BR-RS305	Mechanical	—	—	—	—	—
BR-R317	Mechanical	—	—	Standard	—	—

Pad Shape Type									
		K-type				F-type		L-type	
		Narrow type				Narrow type		Narrow type	
Type		K03S	K03Ti	K04S	K04Ti	J03A	J04C	L03A	L04C
		Resin	Resin	Metal	Metal	Resin	Metal	Resin	Metal
Characteristics	Modulation	★★★★★	★★★★★	★★★★☆	★★★★☆	★★★★★	★★★★☆	★★★★★	★★★★☆
	Power	★★★★☆	★★★★☆	★★★★★	★★★★★	★★★★☆	★★★★★	★★★★☆	★★★★★
	Durability	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Anti-fading	★★★★☆	★★★★☆	★★★★★	★★★★★	★★★★☆	★★★★★	★★★★☆	★★★★★
	Silence	★★★★★	★★★★★	★★★★☆	★★★★☆	★★★★★	★★★★☆	★★★★★	★★★★☆
Pad Radiator fin		—	—	—	—	✓	✓	✓	✓
High heat insulation		✓	✓	—	—	✓	—	✓	—
Pad Back plate	Titanium	—	✓	—	✓	—	—	—	—
	Aluminum	—	—	—	—	✓	—	✓	—
	Stainless steel/ Aluminum	—	—	—	—	—	✓	—	✓
	Stainless steel	✓	—	✓	—	—	—	—	—
BR-M9100	Hydraulic	—	Standard	—	Standard	—	—	—	—
BR-M9110	Hydraulic	—	Standard	—	Standard	—	—	—	—
BR-M8100	Hydraulic	—	—	—	—	Option	Option	—	—
BR-M8110	Hydraulic	Standard	—	Standard	—	—	—	Option	Option
BR-M7100	Hydraulic	—	—	—	—	Option	Option	—	—
BR-M7110	Hydraulic	Standard	—	Standard	—	—	—	Option	Option
BR-M8000	Hydraulic	—	—	—	—	Standard	Option	—	—
BR-M6100	Hydraulic	—	—	—	—	Standard	—	—	—
BR-M6000	Hydraulic	—	—	—	—	Standard	—	—	—
BR-MT500	Hydraulic	—	—	—	—	—	—	—	—
BR-MT400	Hydraulic	—	—	—	—	—	—	—	—
BR-MT410	Hydraulic	—	—	—	—	—	—	—	—
BR-MT200	Hydraulic	—	—	—	—	—	—	—	—
BR-M375	Mechanical	—	—	—	—	—	—	—	—
BR-TX805	Mechanical	—	—	—	—	—	—	—	—
BR-R9270	Hydraulic	—	Standard	—	Option	—	—	Standard	—
BR-R9170	Hydraulic	—	Standard	—	Option	—	—	Standard	Option
BR-R8170	Hydraulic	Standard	—	—	—	—	—	Standard	Option
BR-R8070	Hydraulic	Standard	—	Option	—	—	—	Standard	Option
BR-R7070	Hydraulic	Standard	—	Option	—	—	—	Standard	Option
BR-4770	Hydraulic	Standard	—	Standard	—	—	—	—	—
BR-RS785	Hydraulic	—	—	—	—	Standard	Standard	—	—
BR-RS405	Hydraulic	Standard	—	—	—	—	—	Option	—
BR-RX810	Hydraulic	Standard	—	Option	—	—	—	—	—
BR-RX400	Hydraulic	Standard	—	Option	—	—	—	—	—
BR-UR300	Hydraulic	—	—	—	—	—	—	—	—
BR-S7000	Hydraulic	—	—	—	—	—	—	—	—
BR-RS305	Mechanical	Standard	—	—	—	—	—	Option	—
BR-R317	Mechanical	—	—	—	—	—	—	—	—

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)	Disc brake 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 disc brake rotor size description is also different. Refer to the table below.

** The disc brake 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			Disc brake rotor size				
			140 mm (SS)	160 mm (S)	180 mm (M)	203 mm (L)	220 mm (LL)
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	SM-MA-F220P/PM
		200 mm direct	-	-	-	SM-MA-F203P/PL2	SM-MA-F220P/PL2
		203 mm direct	-	-	-	Direct mount	SM-MA-F220P/PL
	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	SM-MA-F220P/PM
		200 mm direct	-	-	-	SM-MA-F203P/PL2	SM-MA-F220P/PL2
		203 mm direct	-	-	-	Direct mount	SM-MA-F220P/PL
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 ø140/160	Front	-	SM-MA-F140P/D	SM-MA-F160P/D	-	-	-
	Rear	-	SM-MA-R140P/D	SM-MA-R160P/D	-	-	-
Flat mount ø160/180	Front	-	-	-	-	-	-
	Rear	-	-	-	-	-	-

For flat mount brake caliper

Fork and frame mount type			Disc brake rotor size		
			140 mm (SS)	160 mm (S)	180 mm (M)
Flat mount	ø140/160	Front	With Y8N230000* on product	With Y8N230000* on product	-
		Rear	Direct mount	SM-MA-R160D/D	-
	ø160/180	Front	-	With Y8N230000* on product	With Y8N230000* on product
		Rear	-	Direct mount	SM-MA-R160D/D
Flat mount BR-UR300	ø140/160	Front	-	Direct mount	-
		Rear	-	Direct mount	-
	ø160/180	Front	-	-	Direct mount
		Rear	-	-	Direct mount

* SHIMANO easy flip-flop bracket system which allow 1 bracket to be compatible with 2 rotor size.

Polymer-coated brake cable (BC-9000 / BC-R680) compatible chart

Series	Brake with New cable	
DURA-ACE	BR-R9200	✓
	BR-R9210	
	BR-R9100	
	BR-R9110	
ULTEGRA	BR-R8100	✓
	BR-R8110	
	BR-R5811-R	
	BR-R8000	
	BR-R8010	
SHIMANO 105	BR-R7000	✓
	BR-R7010	
	BR-5810	
	BR-5700	
TIAGRA	BR-4700	✓
SORA	BR-R3000	✓
CLARIS	BR-R2000	✓
Others		-

C-306

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	BR-C6060-F BR-C6050-F 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	✓	✓	
V-BRAKE Levers (3-finger)				
ST-T4000 ST-T3000	BL-T780 BL-T611 BL-T670 BL-T780-B BL-T4010 BL-T670-B		✓	
Brake Levers with switch				
ST-R240	BL-4600 BL-R780 BL-4700 BL-R3000 BL-R2000 BL-2400	✓	✓	NOTE
V-BRAKE lever with switch				
ST-M310 (4-finger) ST-EF65 (4-finger) ST-EF510 (4-finger) ST-EF500 (4-finger) BL-C6000			✓	NOTE
BL-C6010 SB-C6000-8 SB-C3000-7				✓

* POWER MODULATOR must be used for front brake



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

NOTE

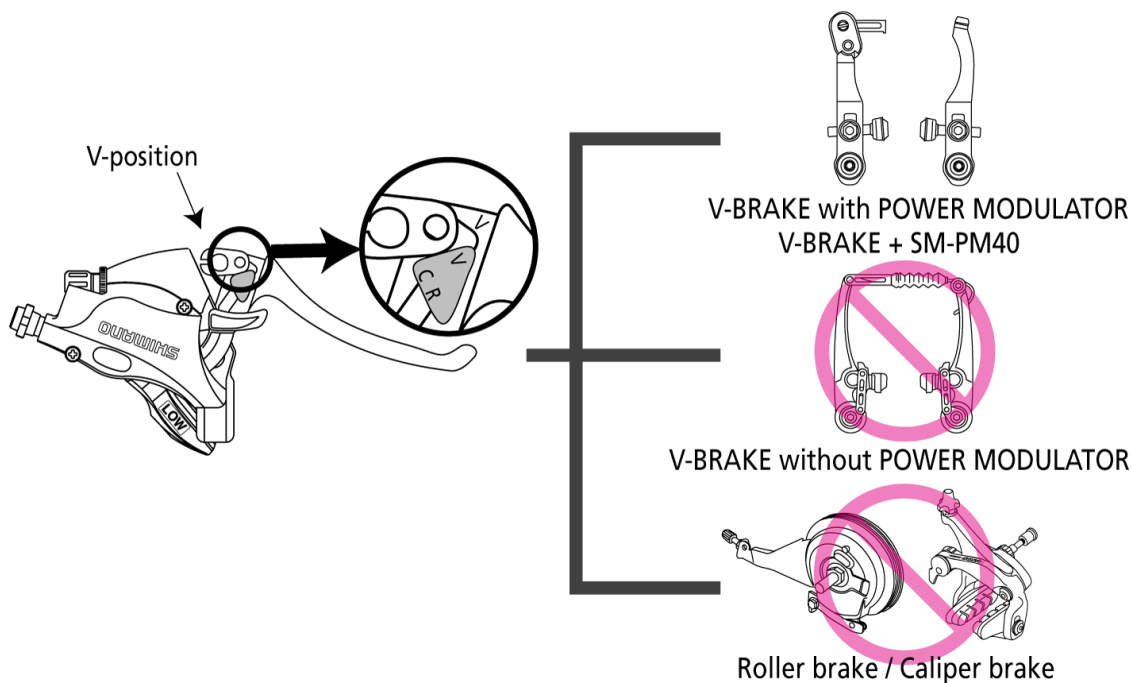
This combination will not provide the sufficient amount of braking force.

Brake lever with switch compatibility

C-467

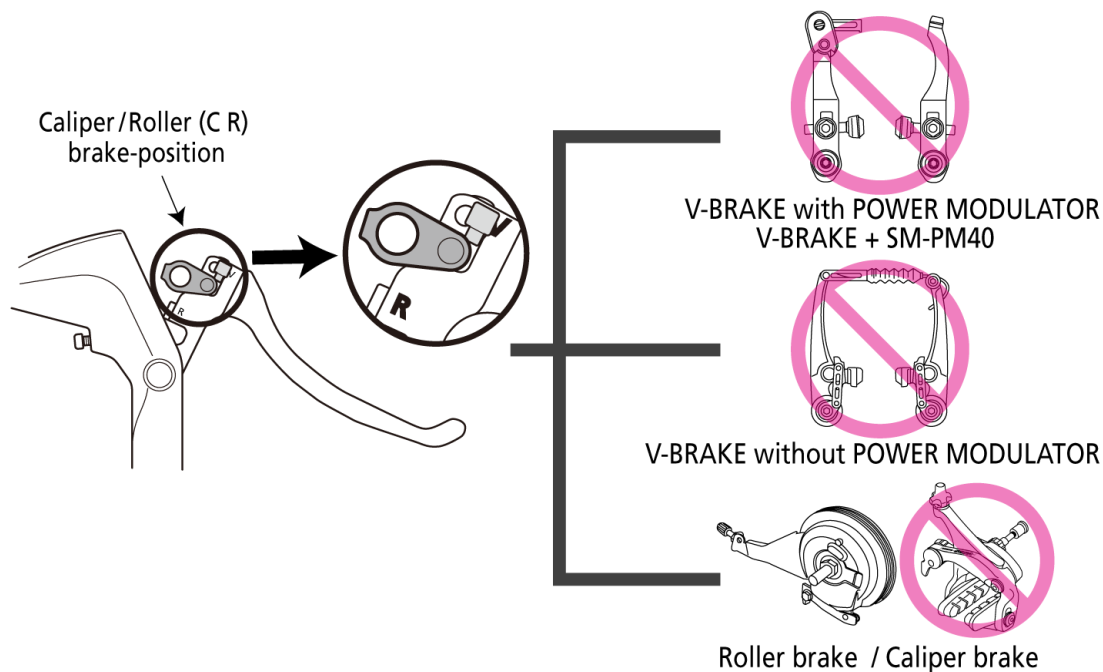
Four finger brake levers such as brake levers are equipped with a switch to change between the V-BRAKE with modulator mode (for example with SM-PM40) and the caliper brake or roller brake mode.

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

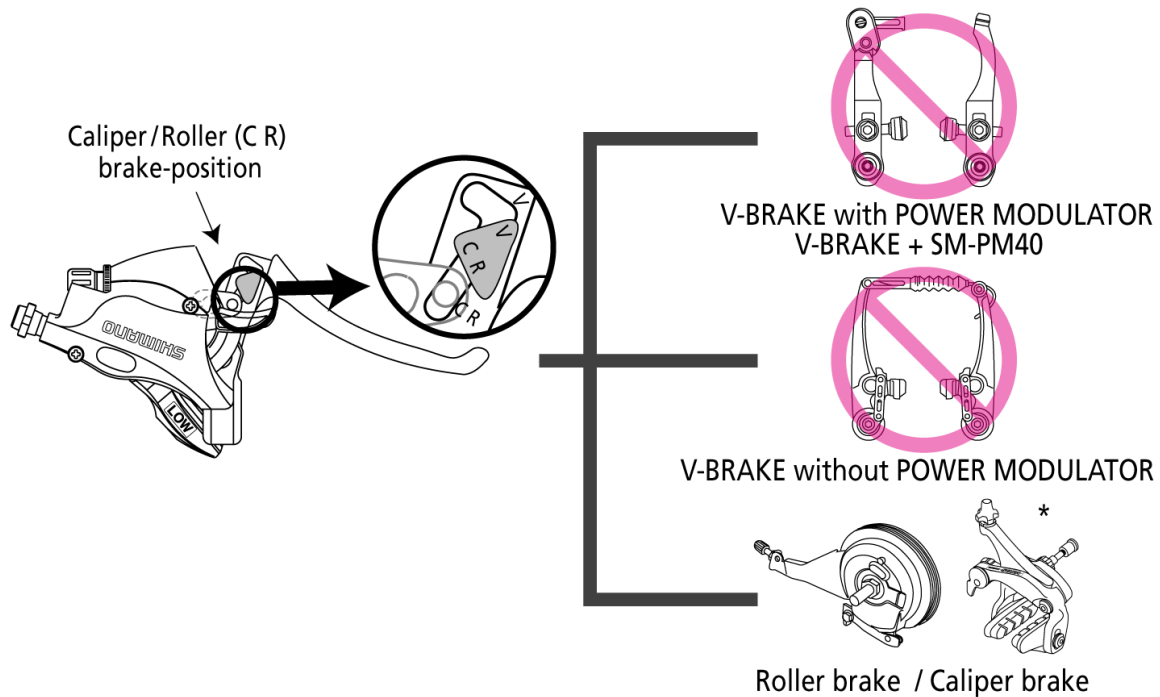


For Caliper brake / Roller brake C-469

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.

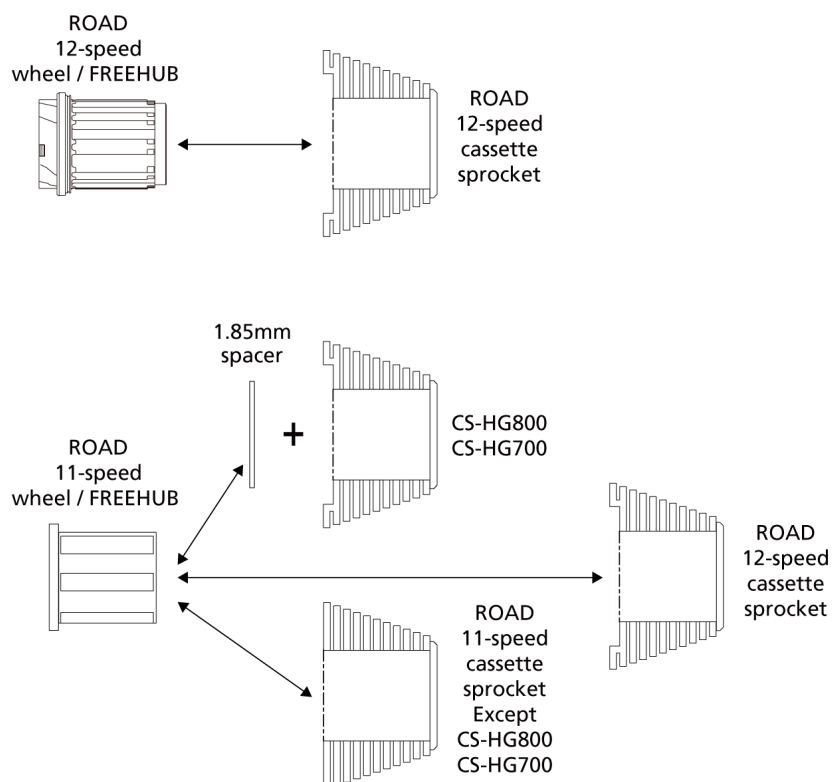
Some models can't be used with roller brake, please refer to [C-466](#) for more information.

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.

ROAD 12/11-speed FREEHUB compatibility

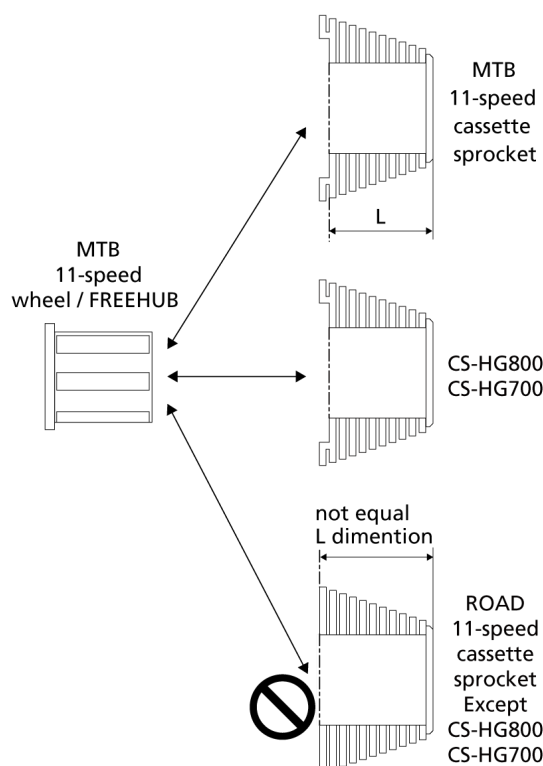
C-650



MTB 11-speed FREEHUB compatibility

C-253

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



Compatibility between rear derailleur and cassette sprocket gear teeth [ROAD, Gravel/Adventure, URBAN (METREA)]

C-254

12-speed C-648

Gear	RD-R9250	RD-R8150
	SS	SS
11-30T	✓	✓
11-34T	✓	✓

11-speed C-255

Gear	RD-R9100 RD-R9150	RD-R8000 RD-R8050		RD-R7000		RD-9000	RD-6800 RD-6870 RD-5800	
	-	SS	GS Front double	SS	GS Front double	SS	SS	GS Front double
11-23T	-	-	-	-	-	✓	✓	-
11-25T	✓	✓	-	-	-	✓	✓	-
11-28T	✓	✓	✓	✓	✓	✓	✓	✓
11-30T	✓	✓	✓	✓	✓	-	-	✓
11-32T	-	-	✓	-	✓	-	-	✓
11-34T	-	-	✓	-	✓	-	-	-
11-40T	-	-	-	-	-	-	-	-
11-42T	-	-	-	-	-	-	-	-
12-25T	✓	✓	-	✓	-	✓	✓	-
12-28T	✓	✓	✓	-	✓	✓	✓	✓
14-28T	✓	✓	-	✓	-	✓	✓	-

Gear	RD-RX800 RD-RX805	RD-RX810 RD-RX815	RD-RX812 RD-RX817	RD-U5000-SS
	GS Front double	Closer Front double	Wider Front Single	SS
11-23T	-	-	-	-
11-25T	-	-	-	-
11-28T	✓	-	-	✓
11-30T	✓	✓	-	✓
11-32T	✓	✓	-	✓
11-34T	✓	✓	-	-
11-40T	-	-	✓	-
11-42T	-	-	✓	-
12-25T	-	-	-	-
12-28T	-	-	-	-
14-28T	-	-	-	-

10-speed C-256

Gear	RD-4700			RD-4601			RD-RX400
	SS	GS Front double	GS Front triple	SS	GS Front double	GS Front triple	Closer Front double
11-25T	✓	-	✓	✓	-	✓	-
11-27T	✓	-	✓	✓	✓	✓	-
11-28T	-	✓	✓	✓	✓	✓	-
11-32T	-	✓	✓	-	✓	-	✓
11-34T	-	✓	-	-	-	-	✓
11-36T	-	-	-	-	-	-	✓
12-25T	✓	-	✓	✓	-	✓	-
12-27T	✓	-	✓	✓	✓	✓	-
12-28T	✓	✓	✓	✓	✓	✓	-
12-30T	-	✓	✓	✓	✓	✓	-
13-25T	✓	-	-	✓	-	✓	-
14-25T	✓	-	-	✓	-	✓	-

9-speed C-257

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

8-speed C-258

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

7-speed C-259

Gear	RD-A070	
	SMART CAGE	
11-28T	✓	
12-28T	✓	
13-28T	✓	
14-28T	✓	

LINKGLIDE cassette sprocket and FREEHUB compatibility

C-649

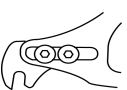
LINKGLIDE cassette sprockets are not compatible with MICRO SPLINE FREEHUB.

FREEHUB spec.	Freewheel body type	Model No.	CS-LG600-11	CS-LG600-10
O.L.D. 148 mm, Disc Brake, E-THRU type	HG 8-10 speed MTB 11-speed	FH-M8010-B	✓	✓
		FH-M6010-B		
		FH-MT400-B		
O.L.D. 142 mm, Disc Brake, E-THRU type	HG 11-speed (ROAD)	FH-R7070	✓ *1	✓ *1
		FH-RS470		
	HG 8-10 speed MTB 11-speed	FH-M8010	-	✓
		FH-M6010		
		FH-MT400		
O.L.D. 141 mm, Disc Brake, Quick release	Conventional 10-speed	FH-MT200-B	✓	✓
O.L.D. 135 mm, Disc Brake, Quick release	HG 11-speed (ROAD)	FH-UR600	✓ *1	✓ *1
	HG 8-10 speed MTB 11-speed	FH-M9000	-	✓
		FH-M8000		
		FH-M6000		
		FH-M4050		
		FH-M3050		
		FH-M756-A		
		FH-M525		
	HG 8-10 speed	FH-M475	-	✓
		FH-TX505		
		FH-RM35		

*1 Need low spacer (1.85 mm.)

Available combinations of the dropout, cassette sprocket/single gear and crankset for designing the frame

C-471

Dropout design	A	Reversed (BMX) type, without derailleur hanger	
	B	Standard type, without derailleur hanger	
	C	Adjustable disc brake mount / Eccentric bottom bracket	
	D	Vertical type, with derailleur hanger	
Compatibility	NR: Not recommend		-
Crankset	E	FC-C6000	-
	F	FC-S501: Double guard spec	-
	G	FC-S501: Single guard spec	-
	K	SM-CRE61 / SM-CRE50	-
CN	H	CN-NX10 (1/2 x 1/8 inch) or HG 8S (1/2 x 3/32 inch)	-
	I	Super Narrow HG 9S	-
	J	HG 8S (1/2 x 3/32 inch)	-

Series	Speed	Brake type	Dropout design	Compatibility	CT use *5	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	Disc brake	D	OK	CT-S500	CS-S500	F	I	-
				OK	CT-S510	SM-GEAR	G	J	-
			A	NR	-	-	-	-	*1
			B	NR	-	-	-	-	
	8S / 7S / 3S (except 3D)	Hub roller brake V-BRAKE	C	OK	-	SM-GEAR	G	J	-
			D	OK	CT-S500	CS-S500	F	I	-
				OK	CT-S510	SM-GEAR	G	J	-
			A	OK	-	SM-GEAR	E	H	-
							G	J	-
			B	OK	-	SM-GEAR	E	H	-
							G	J	-
			C	OK	-	SM-GEAR	E	H	-
							G	J	-
		Coaster brake	D	NR	CT-S500 (except 3s)	CS-S500	F	I	*2
				OK	CT-S510 (except 3s)	SM-GEAR	G	J	-
			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	-	-	-	-	*3
				NR	-	-	-	-	*4
	3D	Disc brake	A	NR	-	-	-	-	*1
			B	NR	-	-	-	-	
			C	OK	-	SM-GEAR	G	J	-
			D	OK	-	CS-S500	F	I	-
		V-BRAKE		OK	-	SM-GEAR	G	J	-
			A	OK	-	SM-GEAR	G	J	-
			B	OK	-	SM-GEAR	G	J	-
			C	OK	-	SM-GEAR	G	J	-
5S for E-BIKE	5S for E-BIKE	Disc brake	D	OK	-	CS-S500	F	I	-
				OK	-	SM-GEAR	G	J	-
			A	NR	-	-	-	-	*1
			B	NR	-	-	-	-	
		Hub roller brake V-BRAKE	C	OK	-	CS-C7000	K	J	-
			D	NR	-	-	-	-	-
			A	OK	-	CS-C7000	K	J	-
			B	OK	-	CS-C7000	K	J	-
	5S for E-BIKE	Coaster brake	C	OK	-	CS-C7000	K	J	-
			D	NR	-	-	-	-	-
			A	OK	-	CS-C7000	K	J	-
			B	OK	-	CS-C7000	K	J	-
		Coaster brake	C	OK	-	CS-C7000	K	J	-
			D	NR	-	-	-	-	-
			A	OK	-	CS-C7000	K	J	-
			B	OK	-	CS-C7000	K	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.

*5 Chain tensioners are not compatible with [MU-UR510](#).

Mechanical internal geared hub / SM (CJ) COMPATIBILITY CHART

C-647

Internal Geared Hub (SG)		Spec.	Small Parts Set (SM)	Cassette Joint (CJ) * CJ is included in SM parts set
ALFINE-11	SG-S7001-11	11s, Disc brake, Premium	SM-S700 SM-S700-BD *1	CJ-S700 CJ-S700-BD *1
ALFINE-8	SG-S7001-8	8s, Disc brake, Premium	SM-S7000-8 SM-S7000-8BD *1	CJ-S7000-8 CJ-S7000-8BD *1
INTER-8	SG-C6011-8R	8s, Roller brake, Premium	SM-8S31 SM-8S31BD *1	CJ-8S20 / CJ-8S40 CJ-8S20BD *1
	SG-C6011-8V	8s, V-BRAKE, Premium		
	SG-C6001-8R	8s, Roller brake		
	SG-C6001-8V	8s, V-BRAKE		
	SG-C6001-8C	8s, Coaster brake		
	SG-C6001-8D	8s, Disc brake		
INTER-7	SG-C6001-8CD	8s, Coaster brake & Disc brake	SM-7R45 SM-7C25 *1	CJ-NX10 / CJ-NX40 CJ-NX10 / CJ-NX40
	SG-C3001-7R	7s, Roller brake		
	SG-C3001-7V	7s, V-BRAKE		
	SG-C3001-7C	7s, Coaster brake		
INTER-5E	SG-C3001-7D	7s, Disc brake	SM-7R45 SM-7C25 *1	CJ-NX10 / CJ-NX40
	SG-C7000-5R	5s, Roller brake, Premium	SM-C7000-5 SM-C7000-5BD *1	CJ-C7000-5 CJ-C7000-5BD *1
	SG-C7000-5V	5s, V-BRAKE, Premium		
	SG-C7000-5C	5s, Coaster brake, Premium		
	SG-C7000-5D	5s, Disc brake, Premium		
	SG-C7002-5CD	5s, Coaster brake & Disc brake		
INTER-5	SG-5R30 (Japan Only)	5s, Roller brake, Japan only	SM-5S30	CJ-8S20 / CJ-8S40
	SG-5R30-VS (Japan Only)	5s, V-BRAKE, Japan only		
	SG-5R35 (Japan Only)	5s, Roller brake, Alloy body, Japan only		
	SG-5R35-VS (Japan Only)	5s, V-BRAKE, Alloy body, Japan only		
INTER-3	SG-3R42 (Japan Only)	3s, Roller brake, Japan only	SM-3R40	-
	SG-3R40 (Japan Only)	-		
	SG-3R40	3s, Roller brake	SM-3R40	SM-BC03 SM-BC06
	SG-3C41	3s, Coaster brake	SM-3R41	-
	SG-3D55	3s, Disc brake	SM-3D55	SM-BC03 SM-BC06
	SG-3R75	3s, Roller brake, Premium	SM-3S70	CJ-NX10 / CJ-NX40

*1 : Dedicated specs for belt drive system

Single gear and chain combination

C-608

Series	Single gear		Chain
	Model No.	Gear thickness (mm)	Model No.
ALFINE	CS-S500	2.0	CN-E6070 CN-HG93 CN-HG53
NEXUS	SM-GEAR (2.3 mm) CS-C7000	2.3	CN-HG71 CN-HG40
	SM-GEAR (3.0 mm)	3.0	CN-NX10

Compatibility for DIN 79010:2020-02

C-672

DIN 79010:2020-02

Fahrräder - Transport- und Lastenfahrrad - Anforderungen und Prüfverfahren für ein- und mehrspurige Fahrräder

(Cycles - Transportation bikes and cargo bikes - Requirements and test methods for single- and multi-track cycles)

Products		Model No.	DIN 79010:2020-02 (Type 1: Single Track) conformance
BRAKE (BR, RT)	Group #1	BR-M9120 / BR-M8120 / BR-M7120 + RT-MT900-L / RT-EM910-L	YES with conditions (*1)
	Group #2	BR-M9120 / BR-M8120 / BR-M7120 + RT-MT800-L / RT-EM810-L	
	Group #3	BR-M9120 / BR-M8120 / BR-M7120 + SM-RT86-L	
	Group #4	BR-M6120 + SM-RT30-L / RT-EM300-L / SM-RT66-L	
	Group #5	BR-MT520 / BR-MT420 + SM-RT30-L / RT-EM300-L / SM-RT66-L	
HUB (HB, FH, SG)	FH	FH-M**** / MT*** / TX*** / RS*** / UR*** series	YES (*SHIMANO can't guarantee assembled wheel performance. Please confirm wheel performance by bike manufacturer.)
	SG	SG-C7000-5D / SG-C7050-5D / SG-C6001-8D / SG-C6061-8D SG-C3001-7D	
	HB	HB-M**** / MT*** / TX*** / RS*** series	
	DH	All	NO
OTHERS	All not mentioned above (DU, CS, CN, RD, FC, etc.)	All	YES No special requirement if compare with ISO/EN4210-2 2015

(*1) conditions

Product Spec requirements

	Brake pad	Hose length (*Please consider Brake Lever reach adjustment)	RT size
Group #1,2,3	Resin pad w/ radiator fin	2200 mm or less (Tire outer diameter = 660 mm or less) 2400 mm or less (Tire outer diameter = 559 mm or less) 2700 mm or less (Tire outer diameter = 406 mm or less)	203 mm (L size)
Group #4	Resin pad w/o radiator fin		
Group #5	Resin pad w/o radiator fin	3000 mm or less (Tire outer diameter = 660 mm or less)	

Limitation & adjustment

	DIN 79010:2020-02 5.5.2.2.2 Weight factor "c" (*2)	Tire outer diameter	Brake lever adjustment
Group #1	c = 1.5	Follow above table	Brake lever reach adjustment might be required to follow Minimum braking force value of 5.5.1.3
Group #2	c = 1.4		
Group #3	c = 1.3		
Group #4,5	c = 1.1		

(*2) Refer to DIN 79010:2020-02 5.5.2.2.2 about "c" value.

c: weight factor which is defined by bike design. $c = (AL: \text{axle load}) / (M: 100 \text{ kgf as basic value})$.For example, Axle load is allowed till 150 kgf if $c = 1.5$.

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.	
		25T	28T	30T	32T	34T	36T	40T	42T	45T	46T	51T	28H	32H	36H	28H	36H
12-speed	CS-M9101	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-
	CS-M9100	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-
	CS-M8100	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-
	CS-M7100	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-
	CS-M6100	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-
11-speed	CS-M9001	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-
	CS-M8000	-	-	-	-	-	-	✓	✓	-	✓	-	-	-	-	-	-
	CS-M7000	-	-	-	-	-	-	✓	✓	-	✓	-	-	-	-	-	-
	CS-M5100	-	-	-	-	-	-	-	✓	-	-	✓	-	-	-	-	-
10-speed	CS-M4100	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-
	CS-M771-10	-	-	-	✓	✓	✓	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG81-10	-	-	-	-	✓	✓	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG500-10	✓	✓	-	✓	✓	-	-	✓	-	-	-	-	-	-	-	-
	CS-HG50-10	-	-	-	-	-	✓	-	-	-	-	-	-	CP-FH56	CP-FH53	-	-
9-speed	CS-HG400-9	-	-	-	-	-	✓	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG300-9	-	-	-	-	-	✓	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG201-9	-	-	-	✓	✓	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG200-9	-	-	-	✓	✓	-	-	-	-	-	-	-	CP-FH35	CP-FH50	-	CP-FH76
	CS-HG400-9	-	✓	-	-	-	-	-	-	-	-	-	-	CP-FH35	CP-FH50	-	CP-FH76
	CS-HG300-9	-	✓	-	-	-	-	-	-	-	-	-	CP-FH08	CP-FH35	CP-FH31	-	-
8-speed	CS-HG60-81	-	-	-	-	✓	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG51-8	-	✓	✓	-	-	-	-	-	-	-	-	CP-FH40	CP-FH35	CP-FH50	-	-
	CS-HG51-8	-	-	-	-	✓	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG41-8	-	-	✓	-	-	-	-	-	-	-	-	CP-FH40	CP-FH35	CP-FH50	-	-
	CS-HG31-8	-	-	-	✓	✓	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG200-8	-	-	-	✓	-	-	-	-	-	-	-	CP-WH12	CP-FH56	CP-FH53	-	CP-FH76
7-speed	CS-HG41-7	-	✓	-	-	-	-	-	-	-	-	-	CP-FH40	CP-FH35	CP-FH50	-	-
	CS-HG200-7	-	-	-	✓	-	-	-	-	-	-	-	-	CP-FH56	CP-FH53	-	CP-FH76
	CS-HG200-7	-	✓	-	-	-	-	-	-	-	-	-	-	CP-FH35	CP-FH50	-	-

		Cassette sprocket													Spoke protector model			
Speed	Model No.	Cassette sprocket low gear No.																
		28T	30T	32T	34T	36T	40T	42T	43T	45T	46T	50T	51T	WH-M8100	WH-M8120	WH-MT620	WH-MT601	
12-speed	CS-M9101	-	-	-	-	-	-	-	-	✓	-	-	✓	CP-WH28	CP-WH29 (for 10-51T) CP-WH32 (for 10-45T)	CP-WH27 (for 10-51T) CP-WH31 (for 10-45T)	CP-WH27 (for 10-51T) CP-WH31 (for 10-45T)	
	CS-M9100	-	-	-	-	-	-	-	-	✓	-	-	✓					
	CS-M8100	-	-	-	-	-	-	-	-	✓	-	-	✓					
	CS-M7100	-	-	-	-	-	-	-	-	✓	-	-	✓					
		CS-M6100	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-
11-speed	CS-M9001	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	
	CS-M8000	-	-	-	-	-	✓	✓	-	-	✓	-	-	-	-	-	-	
	CS-M7000	-	-	-	-	-	✓	✓	-	-	✓	-	-	-	-	-	-	
	CS-M5100	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	
	CS-LG600-11	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	
10-speed	CS-M4100	-	-	-	-	-	-	✓	-	-	✓	-	-	-	-	-	-	
	CS-M771-10	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	
	CS-HG81-10	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	
	CS-HG500-10	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	
	CS-HG50-10	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	
	CS-LG600-10	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	
9-speed	CS-HG400-9 CS-HG300-9 CS-HG201-9 CS-HG200-9	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	
	CS-HG400-9 CS-HG300-9	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

		Cassette sprocket												Spoke protector model		
Speed	Model No.	Cassette sprocket low gear No.												WH-MT501	WH-M9000 WH-M9020 WH-M8000 WH-M8020 WH-M8000-B WH-M8020-B	WH-MT600
		28T	30T	32T	34T	36T	40T	42T	43T	45T	46T	50T	51T			
12-speed	CS-M9101	-	-	-	-	-	-	-	-	✓	-	-	✓	CP-WH27 (for 10-51T) CP-WH31 (for 10-45T)	-	-
	CS-M9100	-	-	-	-	-	-	-	-	✓	-	-	✓		-	-
	CS-M8100	-	-	-	-	-	-	-	-	✓	-	-	✓		-	-
	CS-M7100	-	-	-	-	-	-	-	-	✓	-	-	✓		-	-
	CS-M6100	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	
11-speed	CS-M9001	-	-	-	-	-	✓	-	-	-	-	-	-	-	CP-WH17-A	CP-WH26
	CS-M8000	-	-	-	-	-	✓	✓	-	-	✓	-	-	-	CP-WH17-A	CP-WH26
	CS-M7000	-	-	-	-	-	✓	✓	-	-	✓	-	-	-	CP-WH17-A	CP-WH26
	CS-M5100	-	-	-	-	-	-	✓	-	-	-	-	✓	-	CP-WH17-A (for 42T)	CP-WH26 (for 42T)
	CS-LG600-11	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-
10-speed	CS-M4100	-	-	-	-	-	-	✓	-	-	✓	-	-	-	-	-
	CS-M771-10	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	CP-WH16
	CS-HG81-10	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	CP-WH16
	CS-HG500-10	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-
	CS-HG50-10	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	CP-WH16
9-speed	CS-LG600-10	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	CP-WH26
	CS-HG400-9 CS-HG300-9 CS-HG201-9 CS-HG200-9	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	-
	CS-HG400-9 CS-HG300-9	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		Cassette sprocket												Spoke protector model		
Speed	Model No.	Cassette sprocket low gear No.														
		28T	30T	32T	34T	36T	40T	42T	43T	45T	46T	50T	51T	WH-MT500	WH-MT66-29	WH-MT35 WH-MT35-275 WH-MT35-29 WH-MT15-A-275 WH-MT15-A-29
12-speed	CS-M9101	-	-	-	-	-	-	-	-	✓	-	-	✓	-	-	-
	CS-M9100	-	-	-	-	-	-	-	-	✓	-	-	✓	-	-	-
	CS-M8100	-	-	-	-	-	-	-	-	✓	-	-	✓	-	-	-
	CS-M7100	-	-	-	-	-	-	-	-	✓	-	-	✓	-	-	-
	CS-M6100	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
11-speed	CS-M9001	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-
	CS-M8000	-	-	-	-	-	✓	✓	-	-	✓	-	-	-	-	-
	CS-M7000	-	-	-	-	-	✓	✓	-	-	✓	-	-	-	-	-
	CS-M5100	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-
	CS-LG600-11	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-
10-speed	CS-M4100	-	-	-	-	-	-	✓	-	-	✓	-	-	-	-	-
	CS-M771-10	-	-	✓	✓	✓	-	-	-	-	-	-	-	CP-WH21	CP-WH16	CP-WH12
	CS-HG81-10	-	-	-	✓	✓	-	-	-	-	-	-	-	CP-WH21	CP-WH16	CP-WH12
	CS-HG500-10	-	-	-	-	-	-	✓	-	-	-	-	-	CP-WH21	-	CP-WH19
	CS-HG50-10	-	-	-	-	✓	-	-	-	-	-	-	-	CP-WH21	CP-WH16	CP-WH12
	CS-LG600-10	-	-	-	-	-	-	-	✓	-	-	-	-	CP-WH21	-	-
9-speed	CS-HG400-9															
	CS-HG300-9	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	CP-WH16	CP-WH12
	CS-HG201-9															
	CS-HG200-9															
	CS-HG400-9	✓	-	-	-	-	-	-	-	-	-	-	-	-	CP-WH16	CP-WH08
	CS-HG300-9															

Model No.	Cassette Sprocket total gear No.				Cassette Sprocket low gear No.						
	9-speed	10-speed	11-speed**	12-speed	23T	25T	27T	28T	30T	32T*	34T
WH-R9270-C60	-	-	-	✓	-	-	-			CP-WR92C	
WH-R9270-C50 WH-R9270-C36	-	-	-	✓	-	-	-			CP-WR92A	
WH-R9200-C60 WH-R9200-C50 WH-R9200-C36	-	-	-	✓	-	-	-			CP-W124	
WH-R8170-C60 WH-R8170-C50 WH-R8170-C36	-	-	✓***	✓	-	-	-			CP-WR81A	
WH-R9170-C60 WH-R9170-C40	-	✓	✓	-	-				CP-W1460		-
WH-R9100-C60 WH-R9100-C40	-	✓	✓	-	-				CP-W124		-
WH-R9100-C24	-	-	✓	-	CP-WH23				CP-W120		-
	-	✓	-	-					CP-W020		-
WH-RS770-C30	-	-	✓	-	-				CP-W1460		CP-W1460
	-	✓	-	-	-				CP-W1460		-
WH-RS700-C30	-	-	✓	-	-				CP-W124		CP-W124
	-	✓	-	-	-				CP-W124		-
WH-RS500 WH-RS300 WH-RS11	-	-	✓	-	CP-WH23			-		CP-W120	-
WH-RS11	-	✓	-	-					CP-W020		-
WH-9000-C24-TU WH-RS300-CL	-	-	✓	-	CP-W184			-		CP-W124	-
	-	✓	-	-					CP-W024		-
WH-RX830	-	✓	✓	-	-				CP-W1220		CP-WH14 CP-WH14A
WH-RX31	-	✓	✓	-	-				CP-W122		
WH-RS100	-	✓	✓	-	-				CP-WH24		CP-FH53
WH-RS010-CL	-	✓	✓	-	-				CP-WH24		CP-FH53
WH-R501 WH-R501-A	✓	✓	-	-	CP-FH06		CP-FH31	CP-FH46	CP-WH24		-
WH-RS170	-	-	✓	-	CP-FH08			-		CP-WH12	-
	-	✓	-	-	CP-FH40 CP-FH41			CP-FH40 CP-FH41	CP-WH12		CP-WH12
WH-RS171	-	-	✓	-	CP-FH08			-		CP-WH12	-
	-	✓	-	-	CP-FH40 CP-FH41			CP-FH40 CP-FH41	CP-WH12		CP-WH12
WH-RX010-CL	-	-	✓	-	CP-FH08			-		CP-WH12	-
	-	✓	-	-	CP-FH40 CP-FH41			CP-FH40 CP-FH41	CP-WH12		CP-WH12
WH-RX010	✓	✓	-	-	CP-FH08			CP-FH40 CP-FH41	CP-WH12		-
WH-U5000	-	✓	✓	-	-				CP-W122		
WH-RS370	-	✓	✓	-	-				CP-WH12		
	-	✓	-	-	CP-WH41				CP-WH12		-
WH-RX570	-	✓	✓	-	-				CP-WH30		
	-	✓	-	-	CP-WH41				CP-WH12		-

* For compact crank set

** 11-speed : CS-R9100 / CS-R8000 / CS-R7000 / [CS-6800](#) / [CS-5800](#)

*** 11-speed HG spline (conventional)

Spoke protector for Road

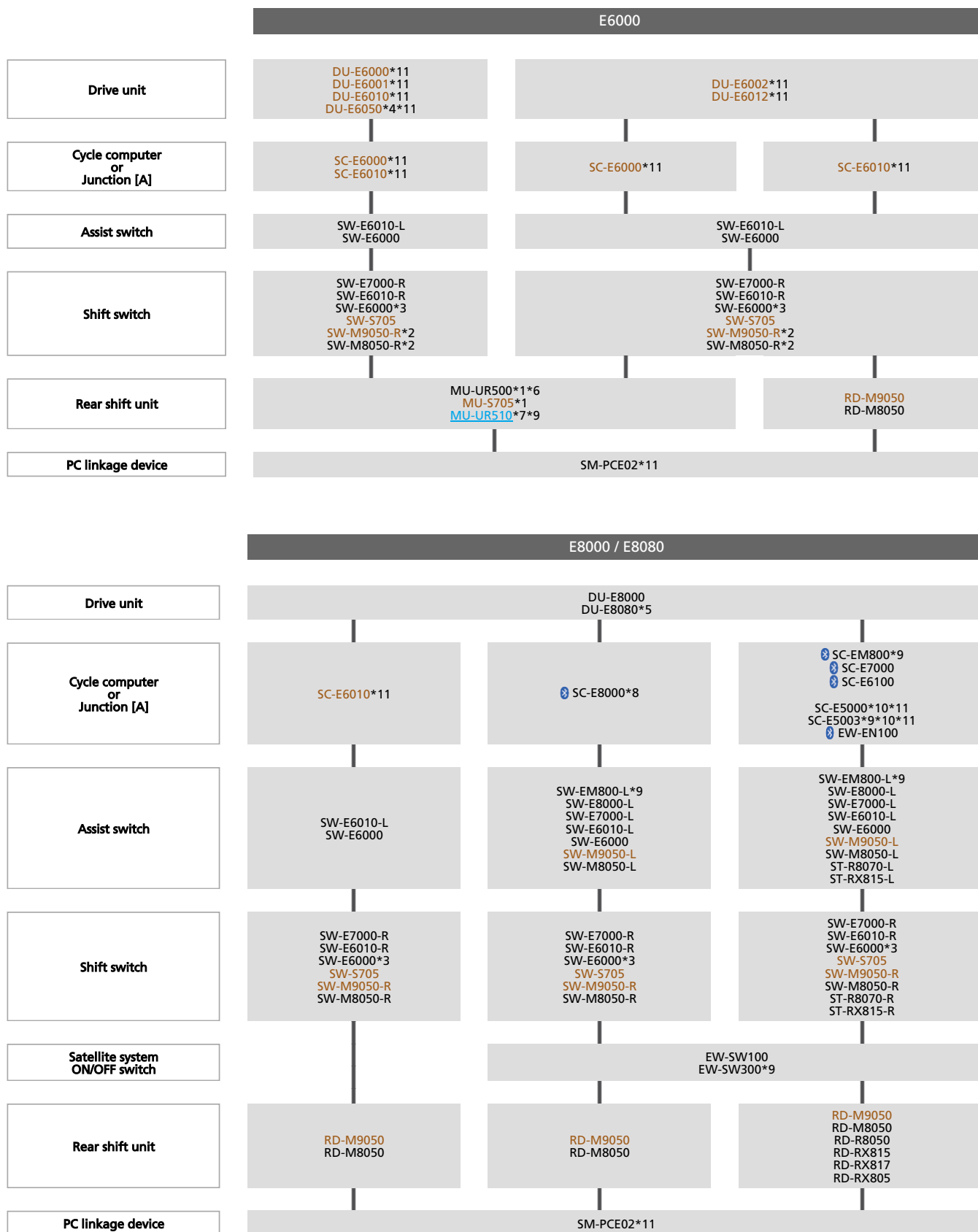
Speed	Model No.	Cassette sprocket low gear No.										Spoke holes No.			
		21T	23T	24T	25T	26T	27T	28T	30T	32T	34T	24H	28H	32H	36H
8, 9, 10-speed	Road	✓	✓	-	✓	-	-	-	-	-	-	CP-FH06	CP-FH08	CP-FH05	CP-FH06
		-	-	-	-	✓	-	-	-	-	-	CP-FH31	CP-FH08	CP-FH35	CP-FH31
		-	-	-	-	-	✓	✓	-	-	-	CP-FH31	CP-FH08	CP-FH35	CP-FH31
		-	-	-	-	-	-	-	✓	-	-	-	-	CP-FH45	CP-FH46
7-speed	CS-HG200-7	-	-	-	-	-	-	✓	-	-	-	-	-	CP-FH35	CP-FH50
	MF-TZ500-7 MF-TZ510-7 MF-TZ21	-	-	-	-	-	-	✓	-	-	-	-	-	-	CP-HG22/ MF-TZ500-7-CP/ MF-TZ21-CP
		-	-	-	-	-	-	-	-	-	-	-	-	-	-

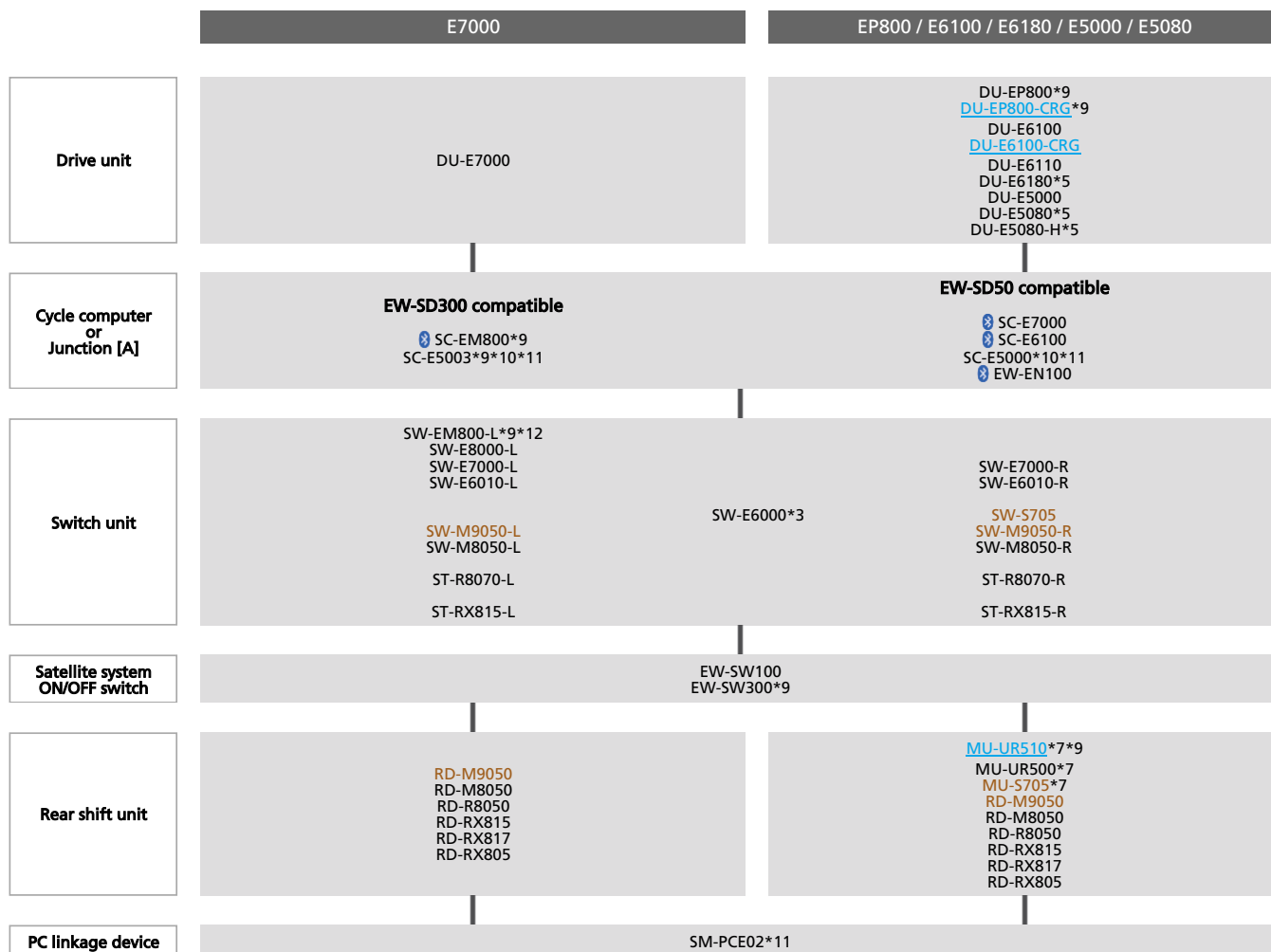
Spoke protector is not available for Road 11-speed FREEHUB.

E-BIKE system compatibility chart

C-525

Compatibility chart of E-TUBE PROJECT Cyclist/Professional v5.0.0



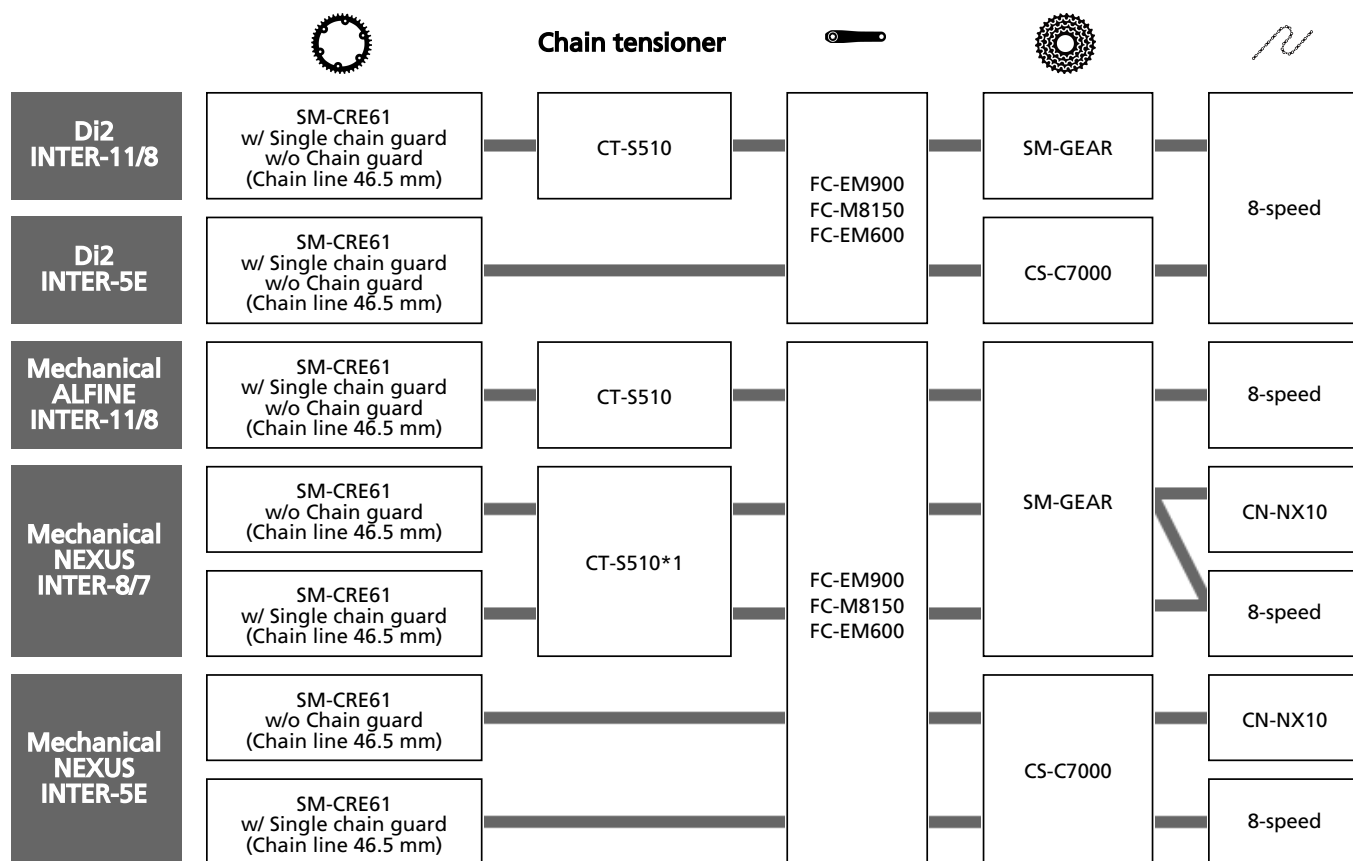


Limitation of function

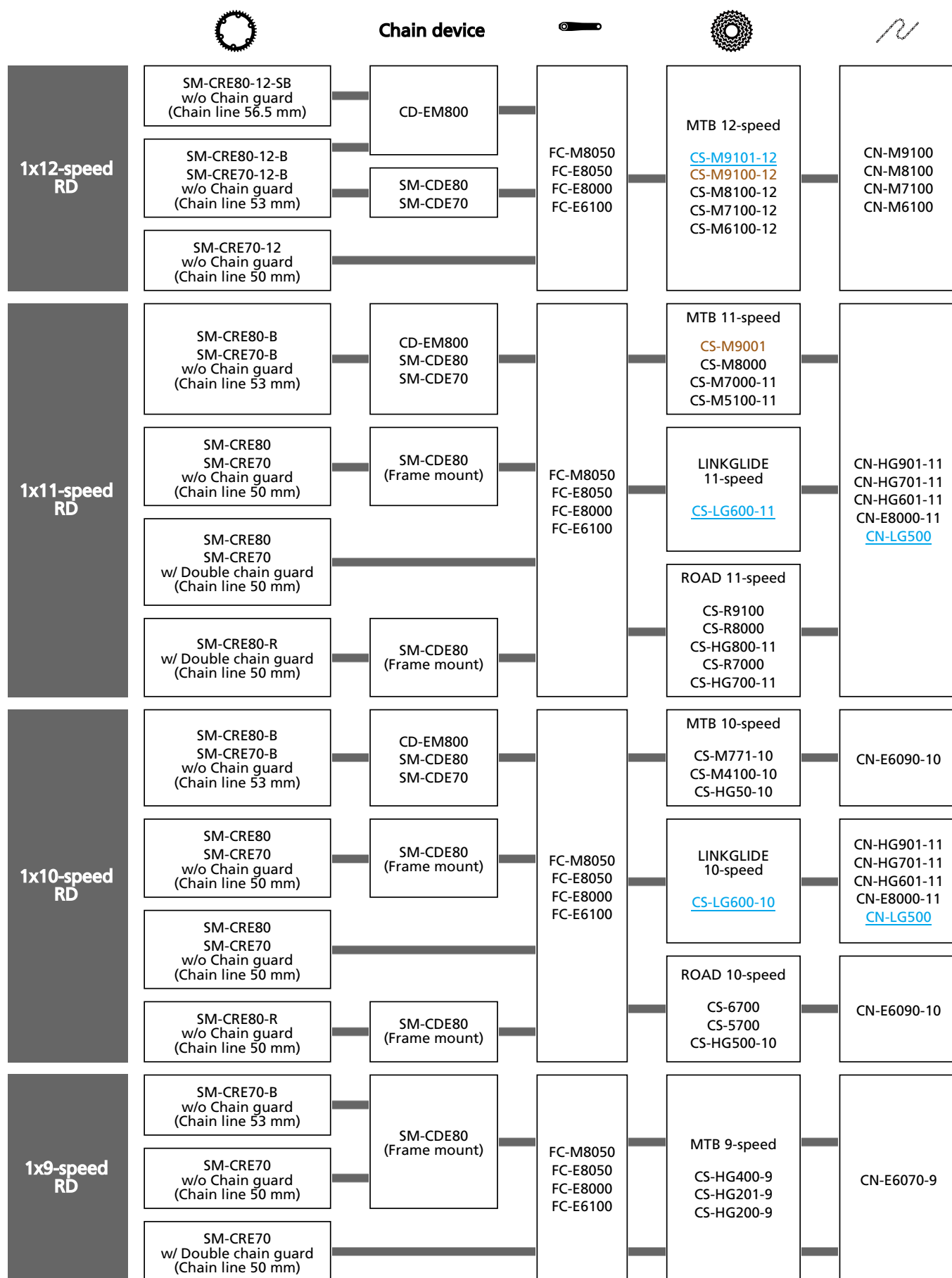
- *1 Full automatic shift is available only with 8-speed internal geared hub system (Not available with Rear Derailleur)
- *2 Not support full automatic shift
- *3 Need to change Switch setting by E-TUBE PROJECT
- *4 North American market only
- *5 Japanese market only
- *6 Compatible with 11-speed and 8-speed internal geared hub system only
- *7 Full automatic shift is available only with 8 speed and 5 speed internal geared hub system (Not available with Rear Derailleur)
- *8 Not available in Japan market
- *9 This unit has SD300 port, and needs EW-AD305 for connection with SD50 port unit
- *10 Only for ø22.2 handlebar. Drop handle bar is unavailable
- *11 Not supported by E-TUBE PROJECT Cyclist
- *12 Need to change switch setting by E-TUBE PROJECT to use as shift switch

EP8 series C-655

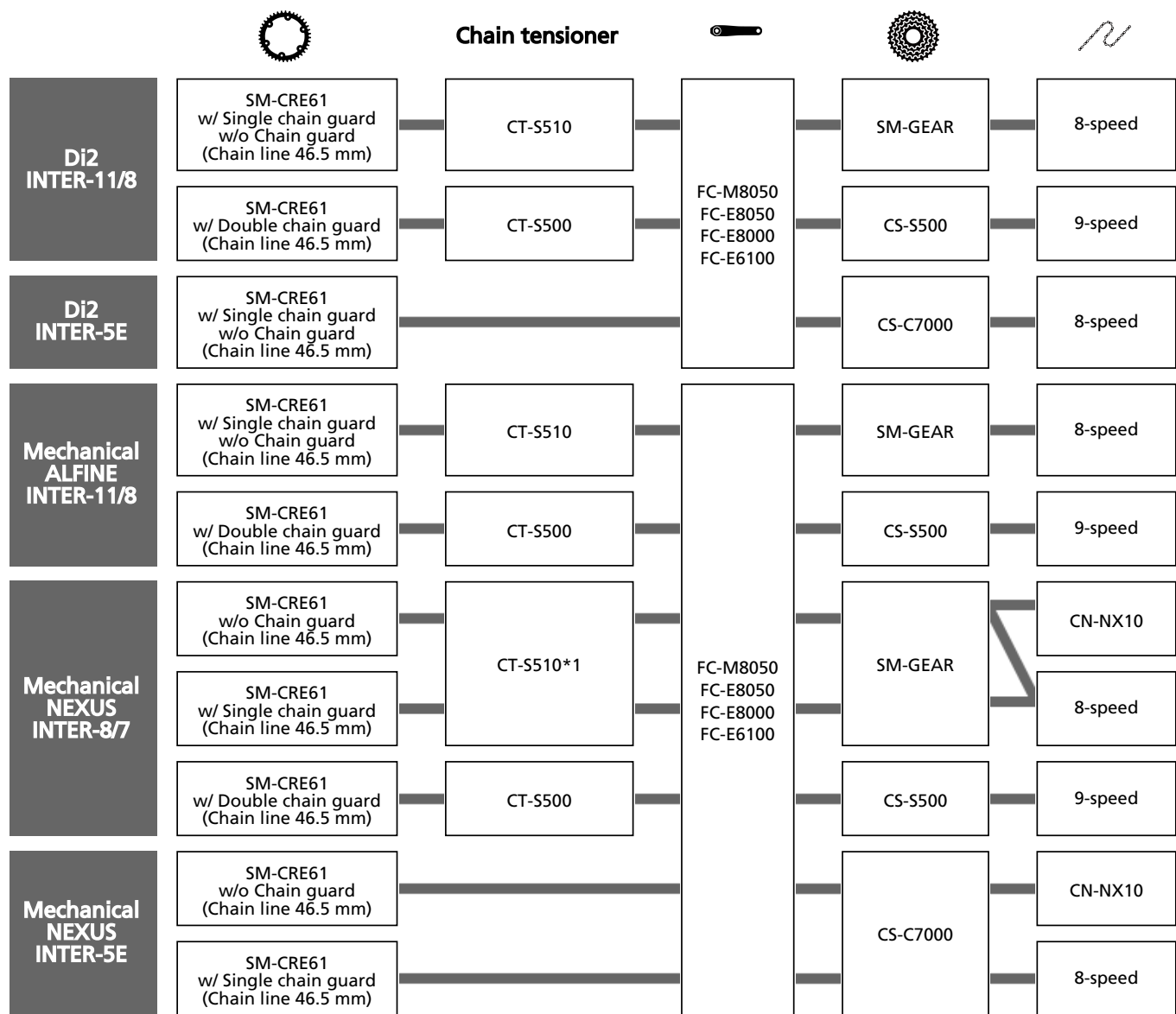
		Chain device			
1x12-speed RD	SM-CRE80-12-SB w/o Chain guard (Chain line 56.5 mm)	CD-EM800	FC-EM900 FC-M8150 FC-EM600	MTB 12-speed CS-M9101-12 CS-M9100-12 CS-M8100-12 CS-M7100-12 CS-M6100-12	CN-M9100 CN-M8100 CN-M7100 CN-M6100
	SM-CRE80-12-B SM-CRE70-12-B w/o Chain guard (Chain line 53 mm)	SM-CDE80 SM-CDE70			
	SM-CRE70-12 w/ Double chain guard (Chain line 50 mm)				
1x11-speed RD	SM-CRE80-B SM-CRE70-B w/o Chain guard (Chain line 53 mm)	CD-EM800 SM-CDE80 SM-CDE70	FC-EM900 FC-M8150 FC-EM600	MTB 11-speed CS-M9001 CS-M8000 CS-M7000-11 CS-M5100-11	CN-HG901-11 CN-HG701-11 CN-HG601-11 CN-E8000-11 CN-LG500
	SM-CRE80 SM-CRE70 w/o Chain guard (Chain line 50 mm)	SM-CDE80 (Frame mount)		LINKGLIDE 11-speed CS-LG600-11	
	SM-CRE80 SM-CRE70 w/ Double chain guard (Chain line 50 mm)			ROAD 11-speed CS-R9100 CS-R8000 CS-HG800-11 CS-R7000 CS-HG700-11	
	SM-CRE80-R w/o Chain guard (Chain line 50 mm)	SM-CDE80 (Frame mount)			
1x10-speed RD	SM-CRE80-B SM-CRE70-B w/o Chain guard (Chain line 53 mm)	CD-EM800 SM-CDE80 SM-CDE70	FC-EM900 FC-M8150 FC-EM600	MTB 10-speed CS-M771-10 CS-M4100-10 CS-HG50-10	CN-E6090-10 CN-HG901-11 CN-HG701-11 CN-HG601-11 CN-E8000-11 CN-LG500
	SM-CRE80 SM-CRE70 w/o Chain guard (Chain line 50 mm)	SM-CDE80 (Frame mount)		LINKGLIDE 10-speed CS-LG600-10	
	SM-CRE80 SM-CRE70 w/ Double chain guard (Chain line 50 mm)			ROAD 10-speed CS-6700 CS-5700 CS-HG500-10	
	SM-CRE80-R w/o Chain guard (Chain line 50 mm)	SM-CDE80 (Frame mount)			
1x9-speed RD	SM-CRE70-B w/o Chain guard (Chain line 53 mm)	SM-CDE80 (Frame mount)	FC-EM900 FC-M8150 FC-EM600	MTB 9-speed CS-HG400-9 CS-HG201-9 CS-HG200-9	CN-E6070-9
	SM-CRE70 w/o Chain guard (Chain line 50 mm)				
	SM-CRE70 w/ Double chain guard (Chain line 50 mm)				

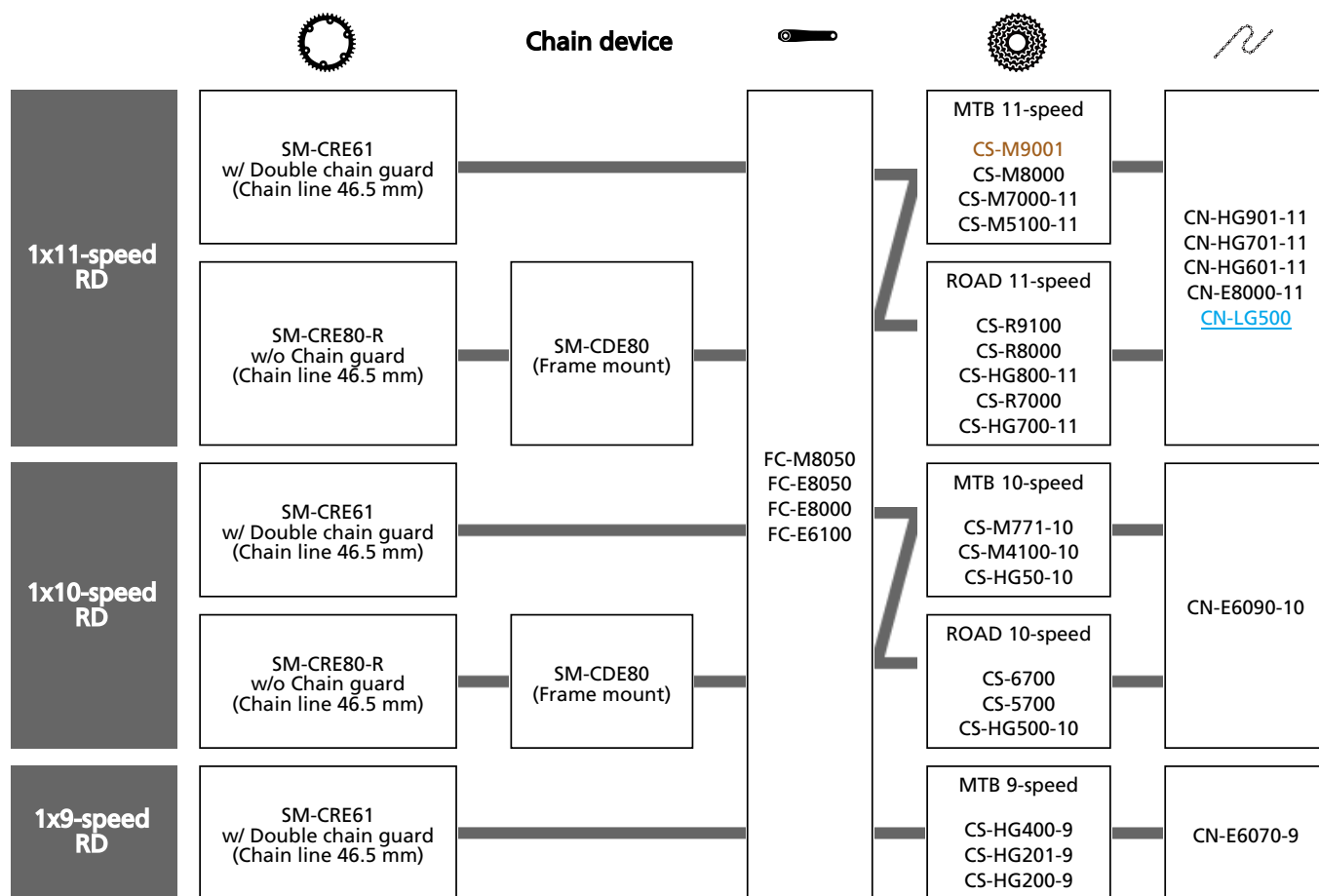


*1 Not compatible with CN-NX10



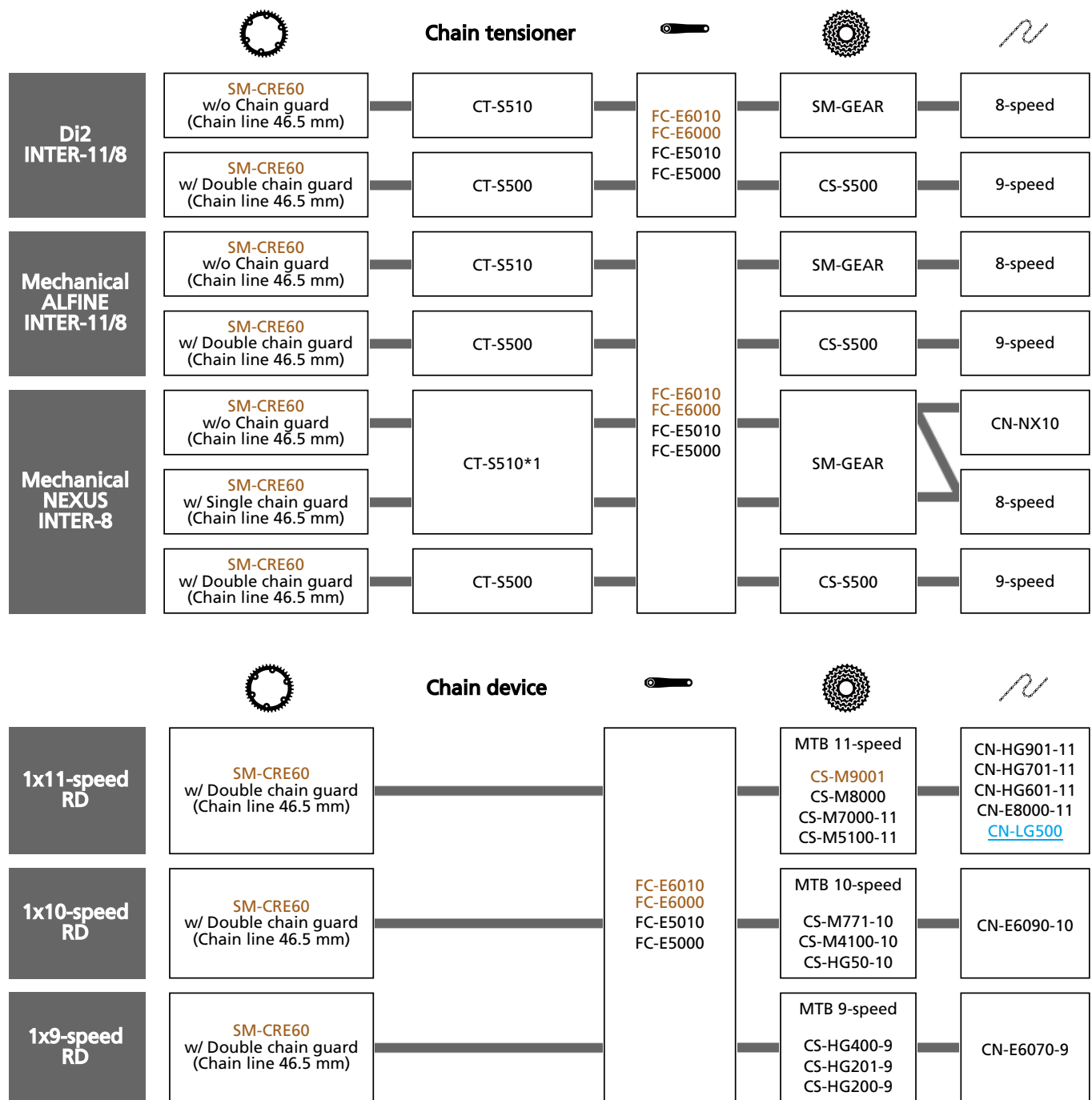
E6100 / E6180 series C-657



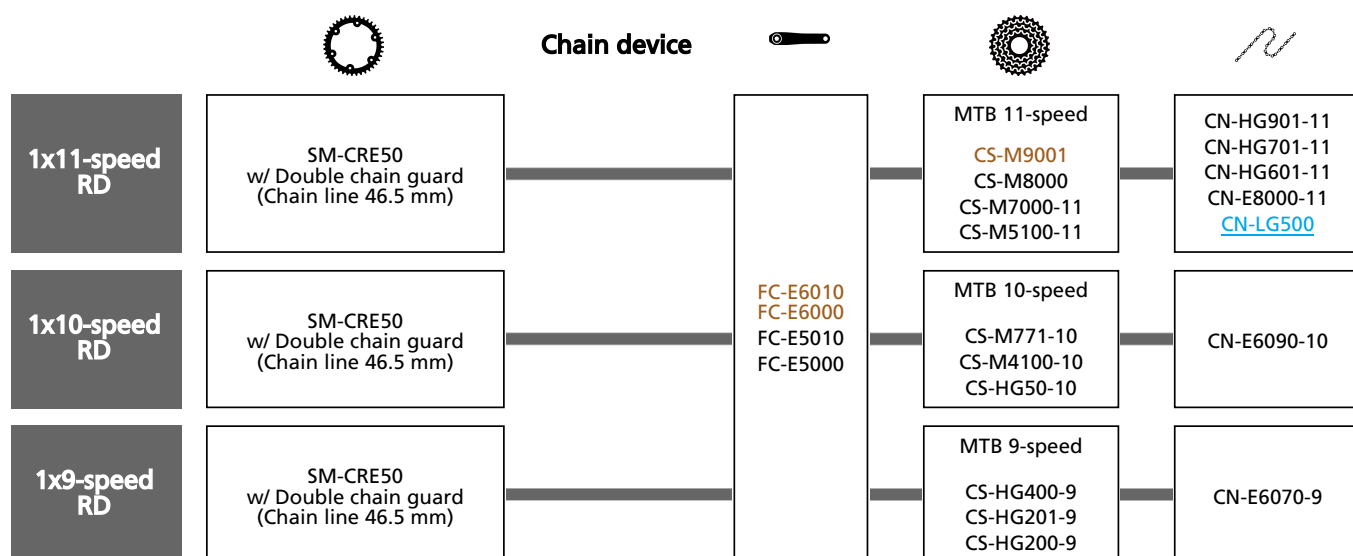
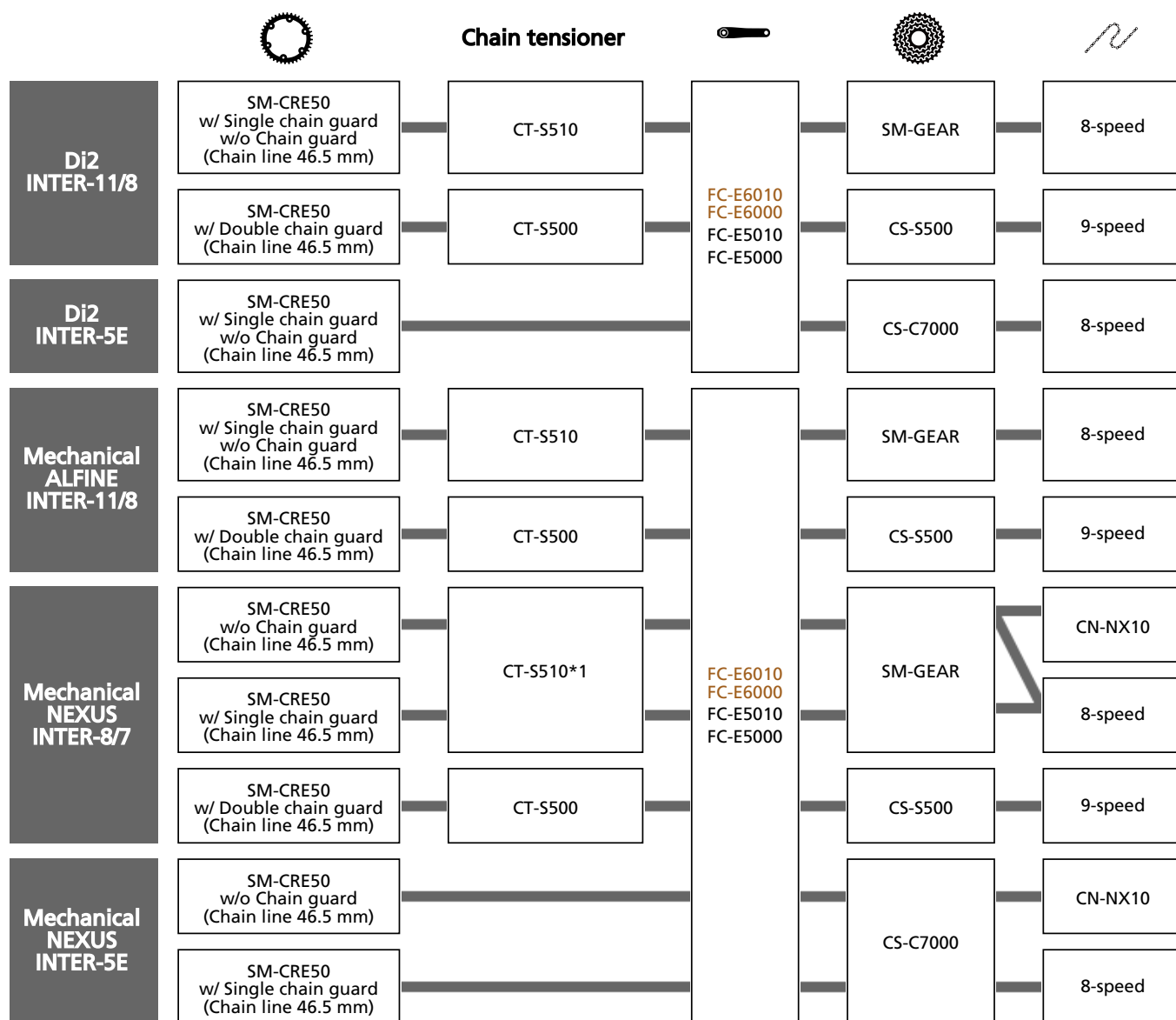


*1 Not compatible with CN-NX10

E6000 series C-658



*1 Not compatible with CN-NX10



*1 Not compatible with CN-NX10

For Hydraulic Disc brake

I-SPEC EV type brake lever

Model No.	Di2 shift switch		SHIMANO STEPS switch unit and cycle computer						
	SW-M9050	SW-M8050	SW-EM800-L	SW-E8000-L	SW-E7000	SW-E6010	SW-E6000	SC-E5000 *1	SC-E5003 *1
BL-M9100	-	-	✓	-	✓	✓	✓	✓	✓
BL-M9120	-	-	✓	-	✓	✓	✓	✓	✓
BL-M8100	-	-	✓	-	✓	✓	✓	✓	✓
BL-M7100	-	-	✓	-	✓	✓	✓	✓	✓
BL-M6100	-	-	✓	-	✓	✓	✓	✓	✓
BL-M4100	-	-	✓	-	✓	✓	✓	✓	✓

*1: I-SPEC EV compatible spec only

I-SPEC II type brake lever

Model No.	Di2 shift switch		SHIMANO STEPS switch unit and cycle computer						
	SW-M9050	SW-M8050	SW-EM800-L	SW-E8000-L	SW-E7000	SW-E6010	SW-E6000	SC-E5000	SC-E5003
BL-M9000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-M9020	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-M8000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-T8100	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-T8000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-M7000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-M6000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-T6000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-RS600	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-MT500	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-MT501	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-U5000	-	-	✓	-	✓	✓	✓	✓	✓
BL-S7000	✓	✓	✓	✓	✓	✓	✓	✓	✓

Other clamp band type brake lever

Model No.	Di2 shift switch		SHIMANO STEPS switch unit and cycle computer						
	SW-M9050	SW-M8050	SW-EM800-L	SW-E8000-L	SW-E7000	SW-E6010	SW-E6000	SC-E5000	SC-E5003
BL-MT402-3A	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-MT401	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-MT400	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-MT201	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-MT200	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-T445	✓	✓	✓	✓	✓	✓	✓	✓	✓

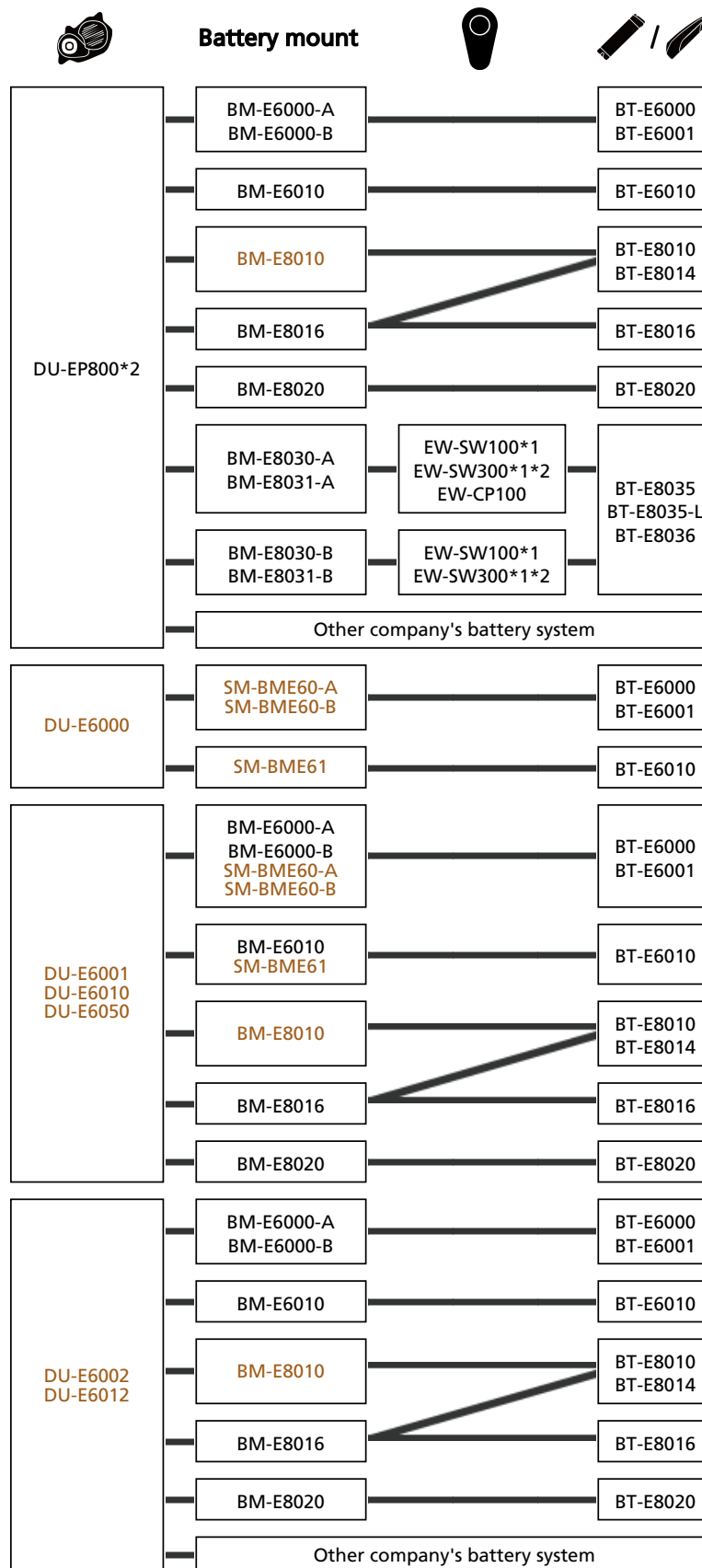
Brake lever for mechanical brake (Mechanical disc brake / V-BRAKE / Caliper brake / Cantilever brake)

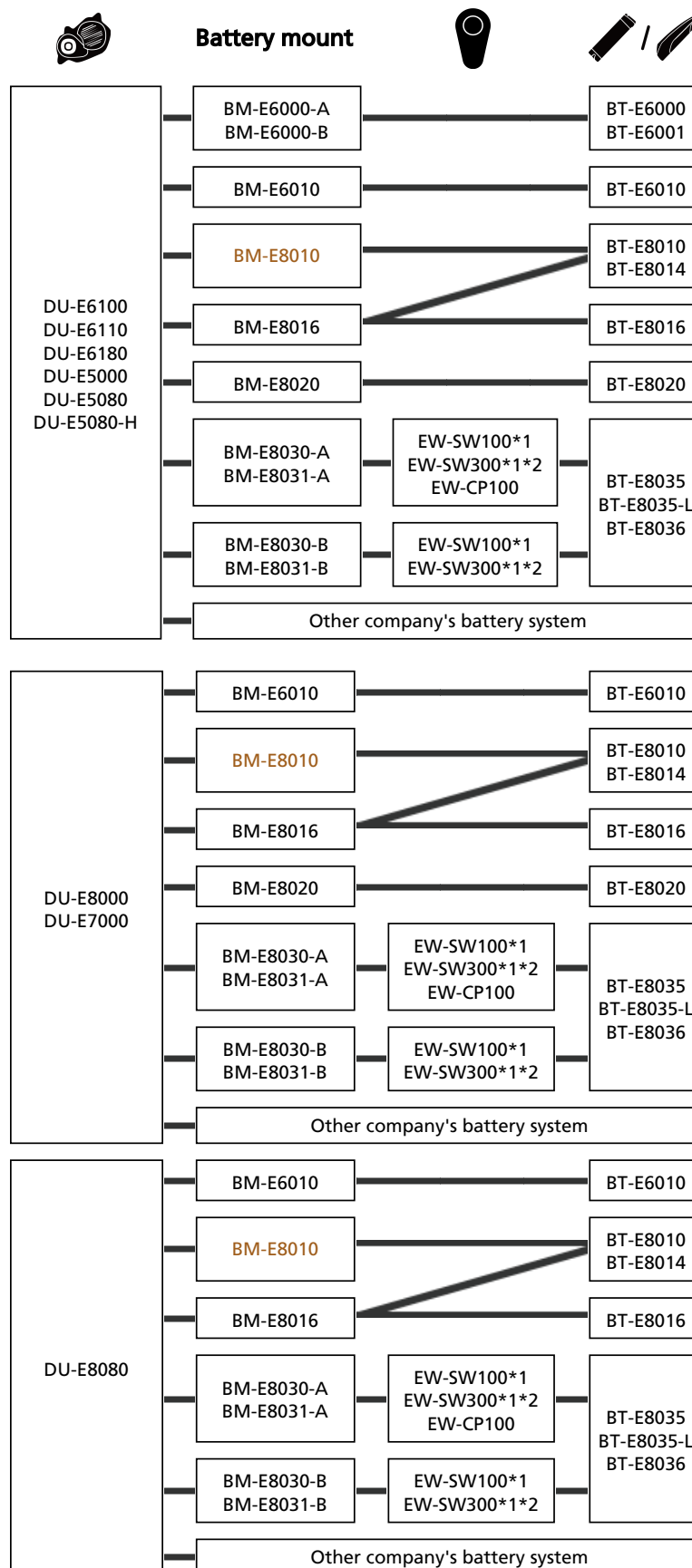
Refer to SPEC HANDBOOK for compatible brake type.

Model No.	Di2 shift switch		SHIMANO STEPS switch unit and cycle computer						
	SW-M9050	SW-M8050	SW-EM800-L	SW-E8000-L	SW-E7000	SW-E6010	SW-E6000	SC-E5000	SC-E5003
BL-T610	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-T611	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-T4000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-T4010	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-C6010	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-4700	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-R3000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-R2000	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-R780	✓	✓	✓	✓	✓	✓	✓	✓	✓
BL-R550	✓	✓	✓	✓	✓	✓	✓	✓	✓

Battery

Batteries shipped in the country / region are different.



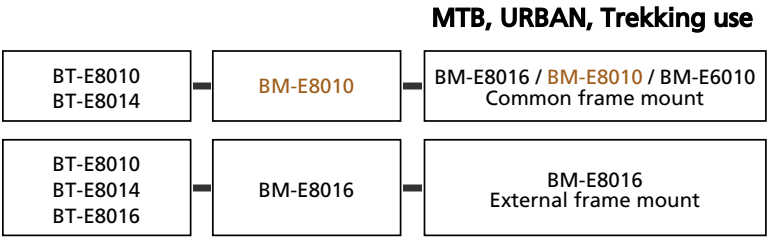


Limitation of function

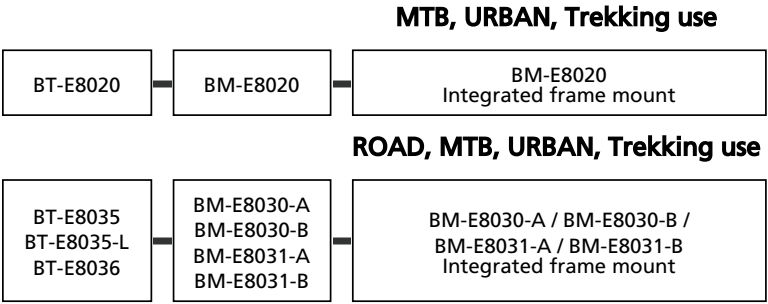
*1: Can't use with SC-E6010

*2: This unit has SD300 port, and needs EW-AD305 for connection to SD50 port unit.

External frame mount type

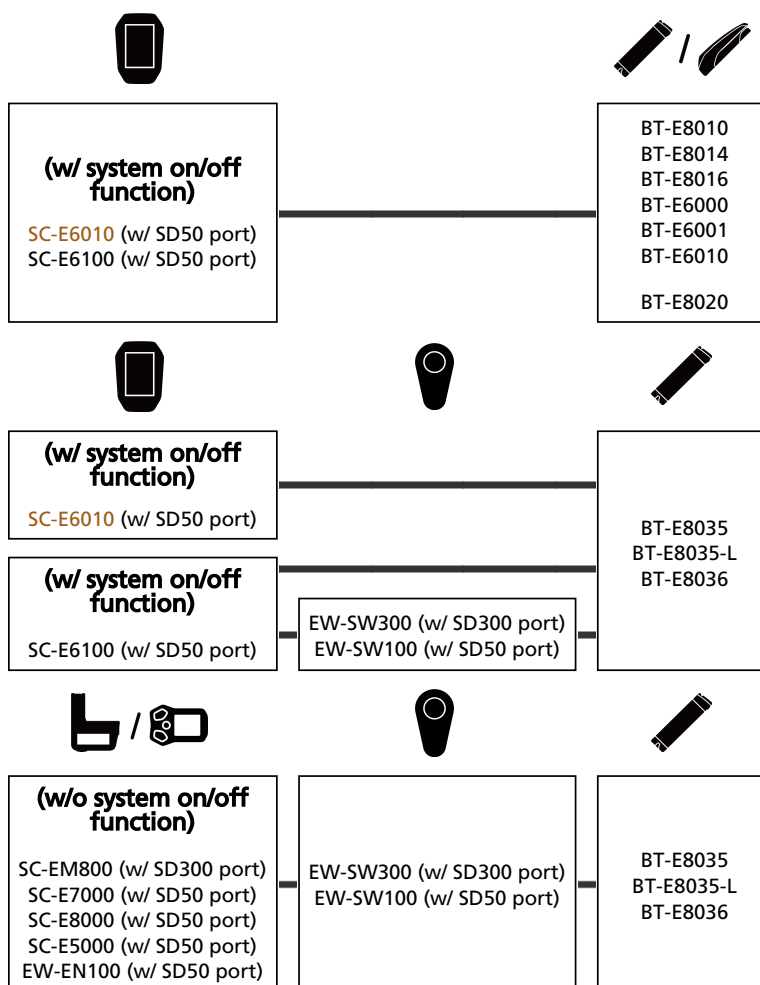


Integrated frame mount type



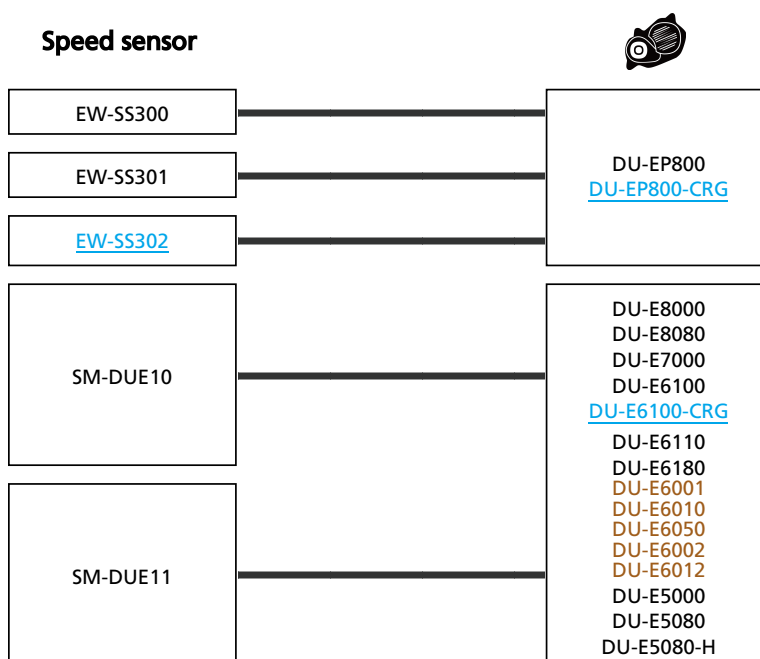
System on/off function compatibility

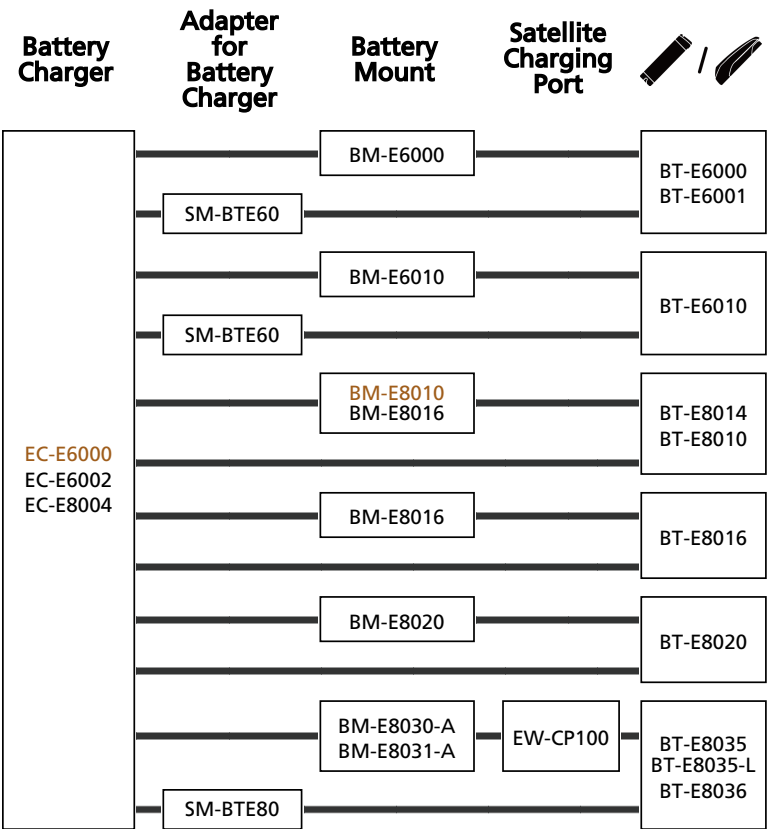
C-629



Speed sensor and drive unit compatibility

C-549

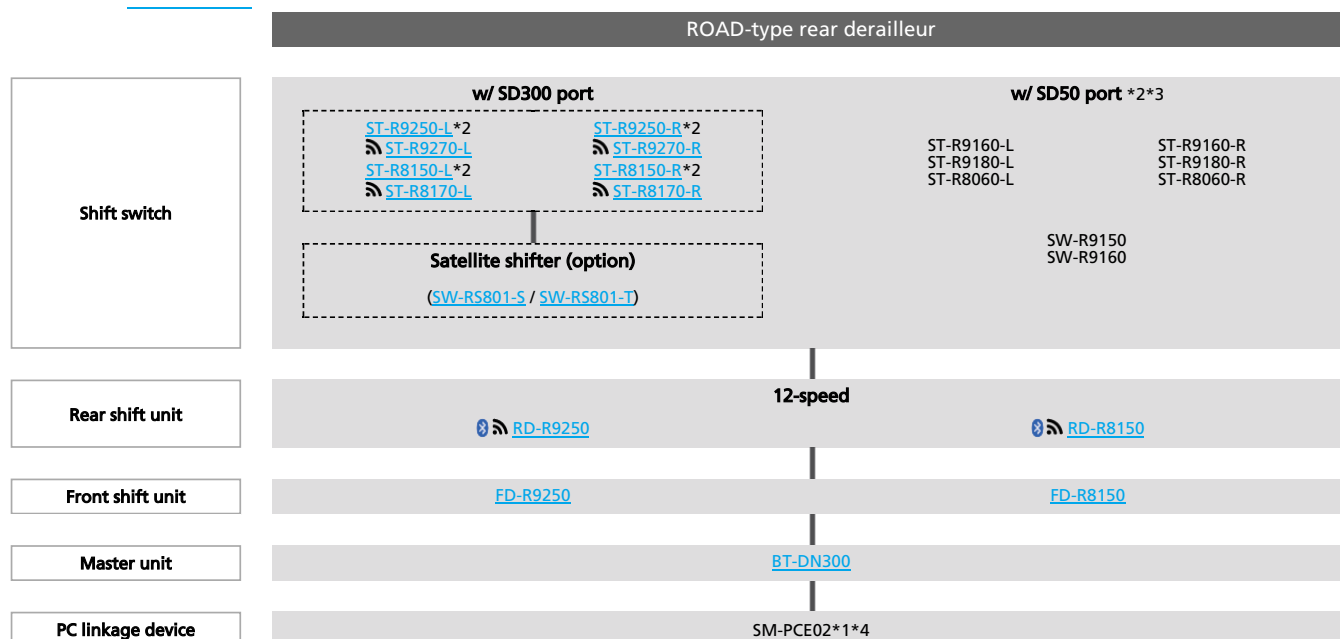




E-TUBE compatibility chart

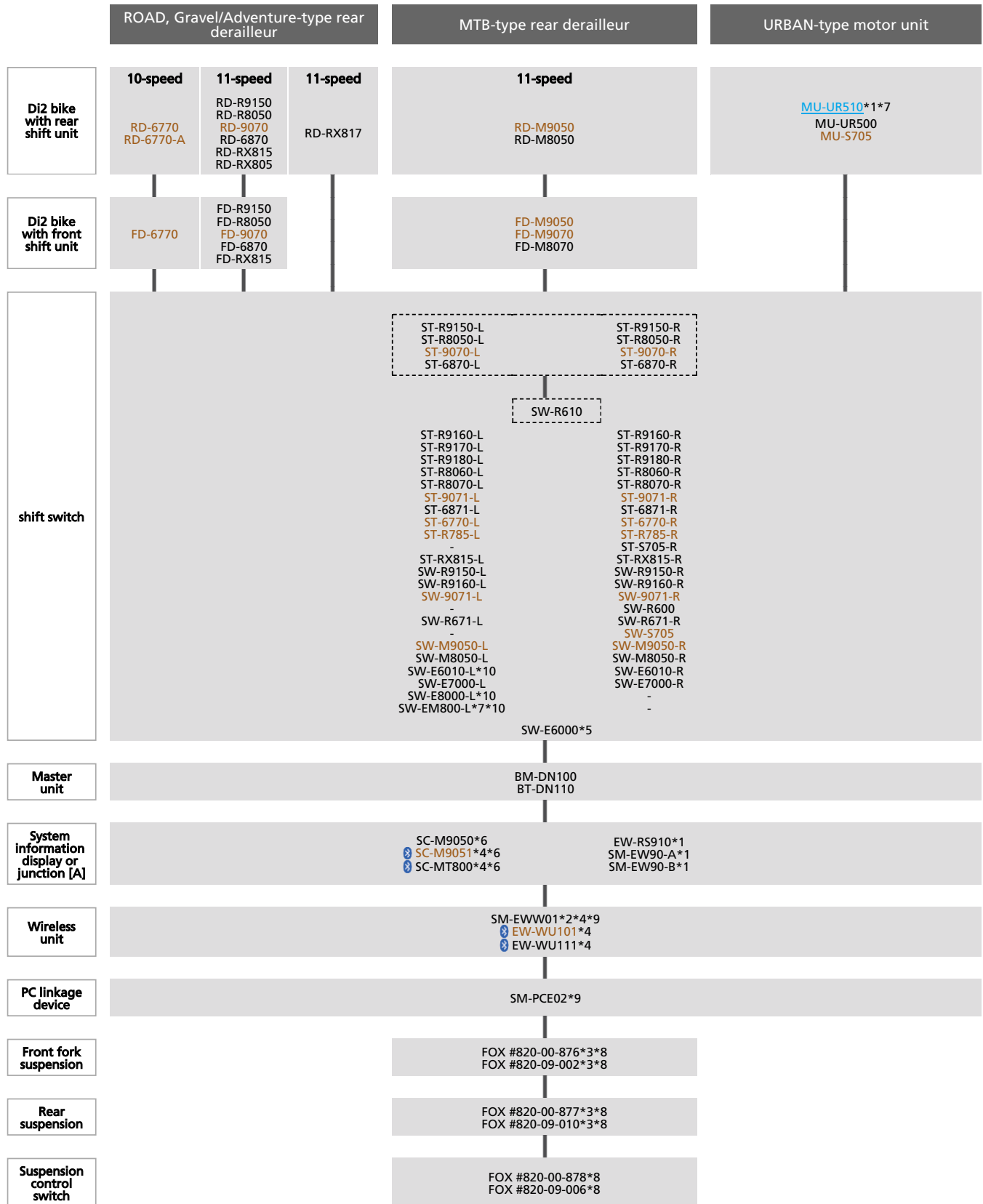
C-473

Compatibility chart of E-TUBE PROJECT Cyclist/Professional v5.0.0

Di2 with [BT-DN300](#)Limitation of function with [BT-DN300](#)

- *1 To connect SM-PCE02, EW-AD305 is needed
- *2 Wired connection to [BT-DN300](#) only
- *3 EW-AD305 is needed
- *4 Not supported by E-TUBE PROJECT Cyclist

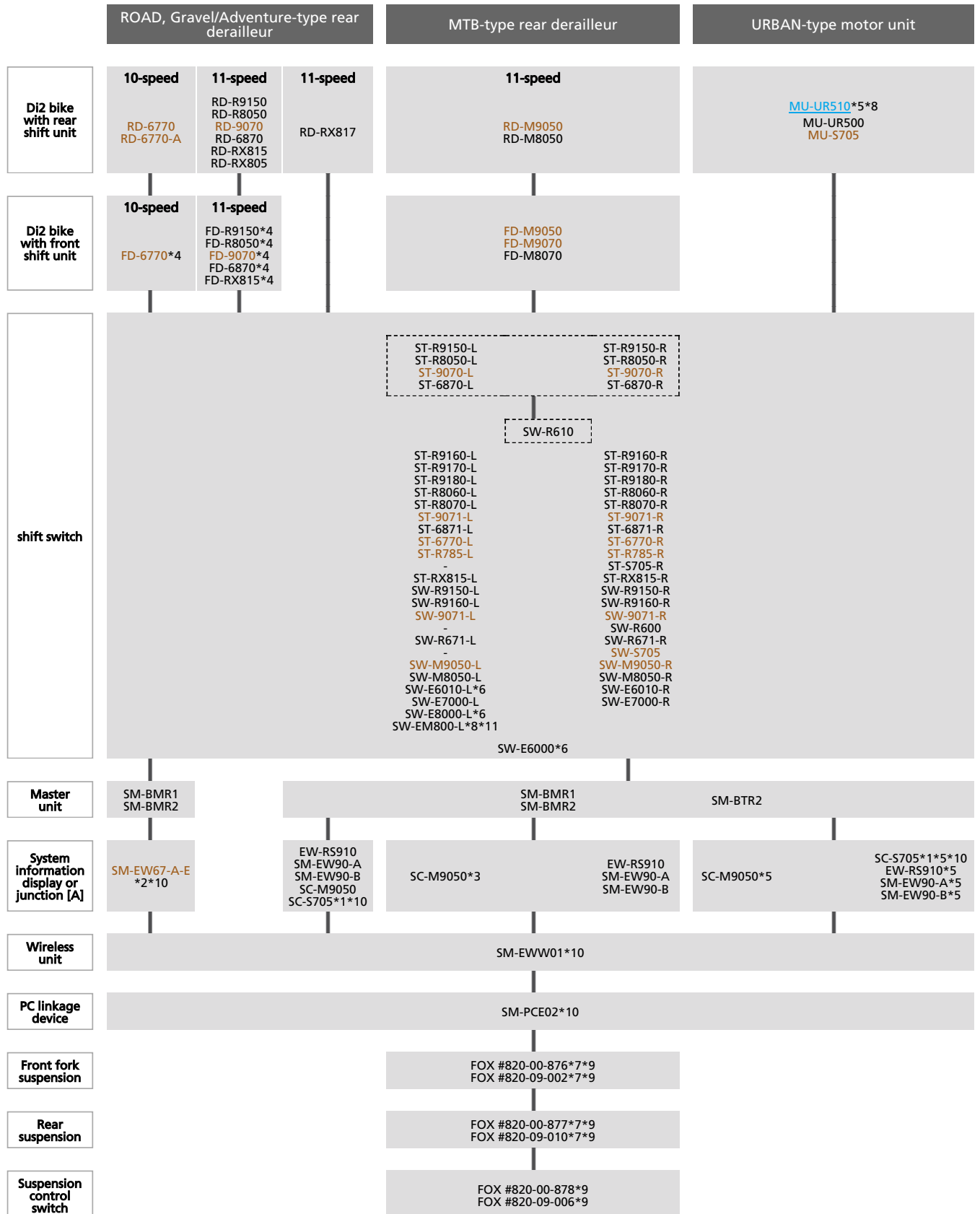
Di2 with BM-DN100 / BT-DN110



Limitation of function with BM-DN100 / BT-DN110

- *1 Shifting adjustment mode for **MU-S705**, MU-UR500 and [MU-UR510](#) 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**/SW-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
- *7 This unit has SD300 port, and needs EW-AD305 for connection
- *8 Only supported by E-TUBE PROJECT Cyclist
- *9 Not supported by E-TUBE PROJECT Cyclist
- *10 Need to change switch setting by E-TUBE PROJECT to use as shift switch

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 SD50 port for ST / SW
- SC-S705 may not turn on the display by front shift switch

*2 SM-BCR2 requires any device which has charging port

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, MU-UR500 and MU-UR510 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

*8 This unit has SD300 port, and needs EW-AD305 for connection

*9 Only supported by E-TUBE PROJECT Cyclist

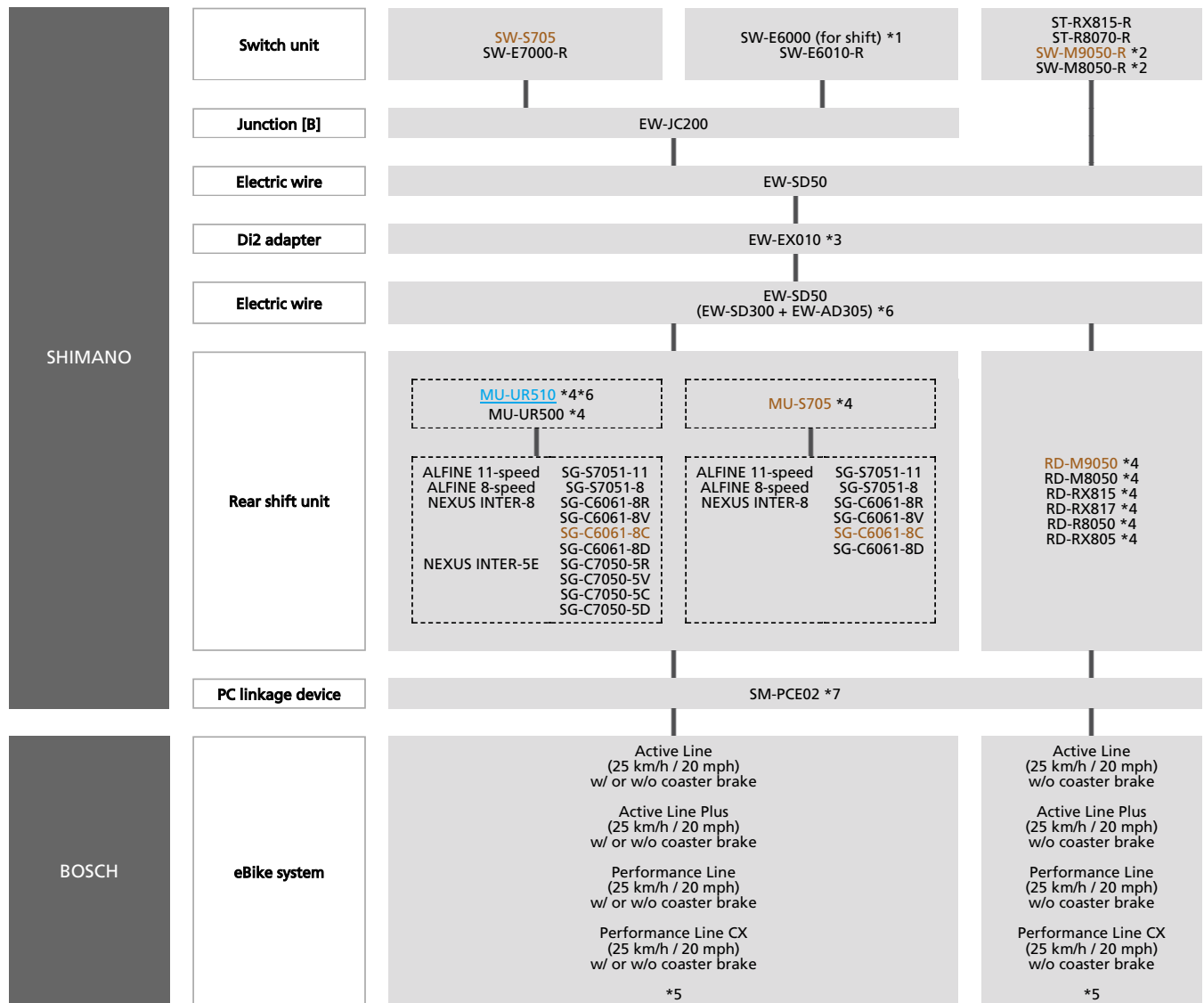
*10 Not supported by E-TUBE PROJECT Cyclist

*11 Need to change switch setting by E-TUBE PROJECT to use as shift switch

Compatibility chart of CAN adapter for Di2

C-429

Compatibility chart of E-TUBE PROJECT Professional v5.0.0



Limitation of function

- *1: Need to change switch setting by E-TUBE PROJECT
- *2: Not support full automatic shift
- *3: EW-EX010 and BOSCH eBike system are connected by Y-harness which is provided by BOSCH
- *4: Full automatic shift is available only with internal geared hub by [MU-UR510](#) / MU-UR500 / MU-S705 (Not available with rear derailleur)
- *5: No compatibility with "Classic+ Line" and "Performance Line (45 km/h)"
- *6: [MU-UR510](#) has SD300 port, and needs EW-AD305 for connection with SD50 port unit
- *7: Not supported by E-TUBE PROJECT Cyclist

Compatibility between Bracket and ID/SC

C-548

