



Ogura Racing Clutch **TECHNICAL CATALOG**

Vol 15 - North America

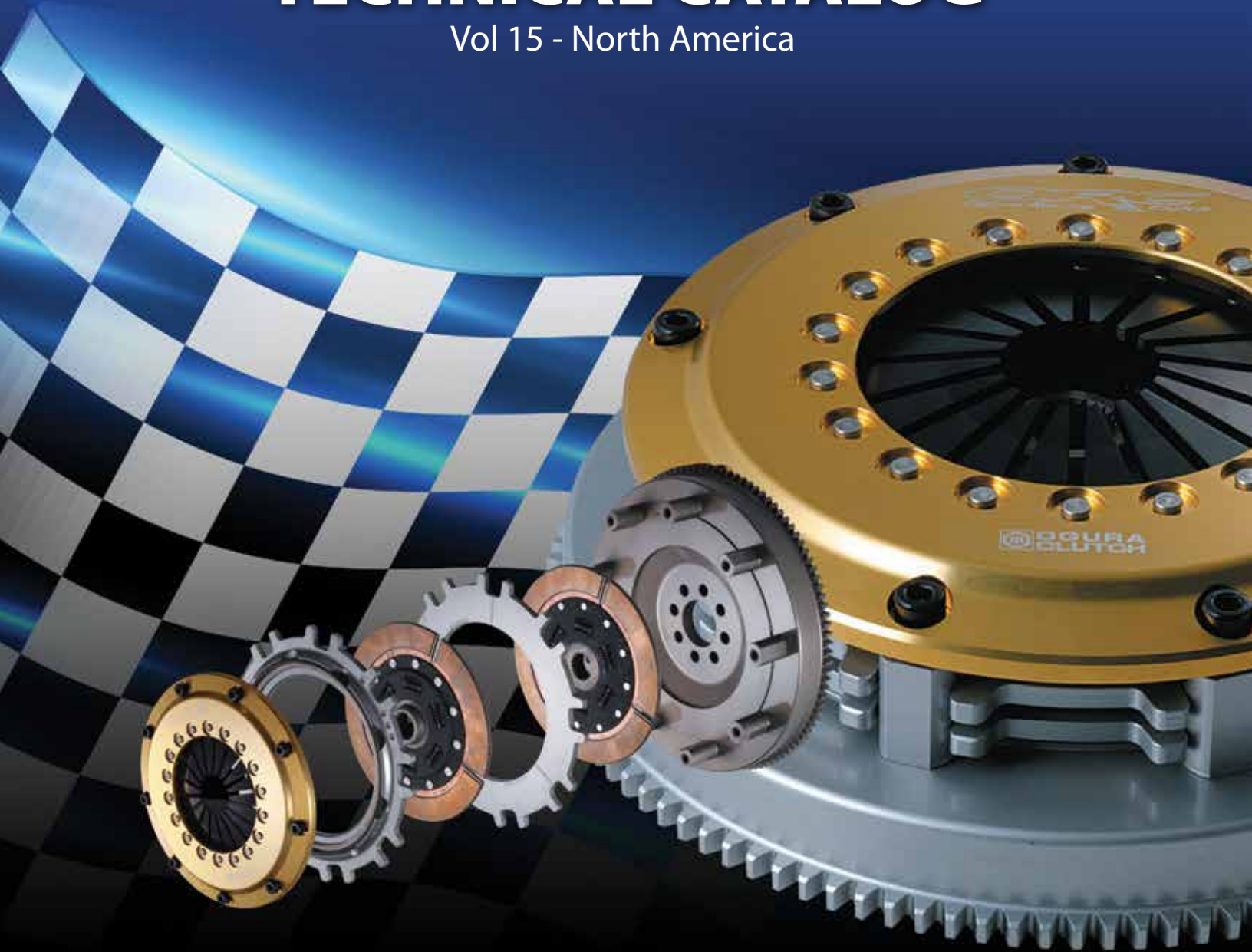




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ORC Clutch Series Overview

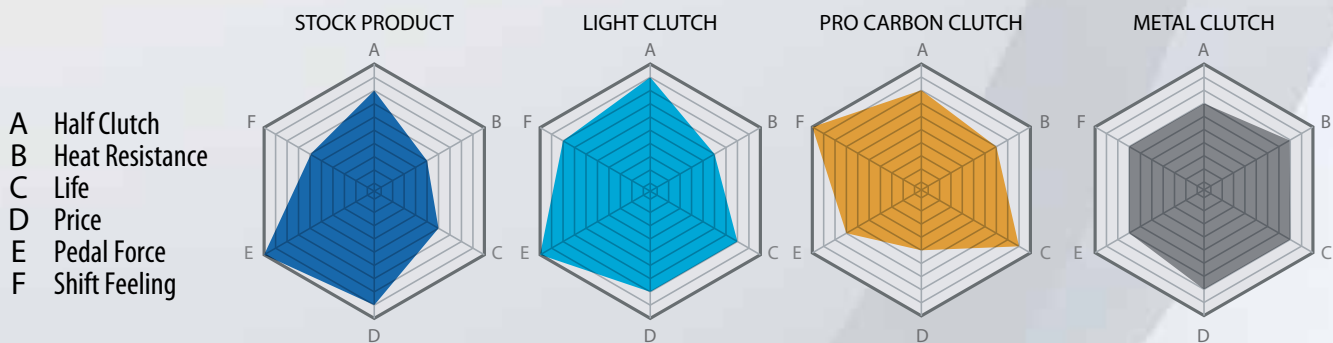
Clutch Type Compatibility

Best	★★★★★
Excellent	★★★★
Good	★★★
Acceptable for Light Use	★★
Not Recommended	★
Do Not Use	○

Clutch Series	Clutch Model	lb-ft / Nm	Sports Racing	Drift Racing	Circuit Racing	Drag Racing
	250L-STD	181 / 245	★★★★	★★	★★	○
	250L-HP	231 / 313	★★★★	★★	★★	○
	400L-LP	221 / 300	★★★★	★★	★★	○
	400L-STD	288 / 390	★★★★	★★	★★	○
	400L-HP	361 / 490	★★★★	★★	★★	○
		559CC	472 / 640	★★★★★	○	★★
	150	116 / 157	★★★	★★★★	★★★★	★★★
	209	144 / 195	★★★	★★★★	★★★★	★★★
	309	251 / 340	★★★	★★★★	★★★★	★★★
	409	310 / 420	★★★	★★★★	★★★★	★★★
	559	472 / 640	★★★	★★★★	★★★★	★★★
	659	542 / 735	★★★	★★★	★★★★	★★★
	1000F	723 / 980	★	★	★★★★	★★★★★
	1000F-SPL	797 / 1080	★	★	★★★★	★★★★★

The clutch data listed above is based on our internal data. The clutch selection will vary depending on actual conditions of use. For more information, contact your local tuning shop or our company.

Clutch Performance Radar Chart



* The life values in the product specification radar chart above is based on sports driving.

MANUFACTURER	VEHICLE	ENGINE	LIGHT		PRO CARBON
			250 L Organic Single (Disc diam. φ200mm)	400 L Organic Single (Disc diam. φ225mm)	559CC Carbon Twin (Disc diam. φ200mm)
NISSAN	R32, R33, R34 (Excluding GT-R)	RB25DE(T), RB20DE(T)	-	● Excluding R34	●
	ER34	RB25DET	-	● *1	● *1
	R32, R33 (GT-R)	RB26DETT	-	-	●
	BNR34 (GETRAG 6M/T)	RB26DETT	-	-	● *1
	HOLINGER (6M/T), HKS (6M/T)	RB26DETT	-	-	-
	S15 (6M/T)	SR20DET	-	●	●
	S15 (5M/T), S14, (R)PS13	SR20DET	-	●	●
	S13	CA18DET	-	-	-
	Z32	VG30DETT	-	-	-
	Z33,V35	VQ35DE	-	●	●
	Z33	VQ35HR	-	-	-
	Z34, V36	VQ37VHR	-	-	-
	RZ34	VR30DDTT	-	-	-
	S30, S130, C10, C110	L20, L,24, L28	-	●	●
	B110, B210, B310	A12, A14, A15	-	-	-
	K13 Tuned, E12 Tuned	HR15DE, HR16DE	-	-	-
PGC10, KPGC10, KPGC110, PS30	S20	●	-	-	
TOYOTA	JZA80 (6M/T)	2JZ-GTE	-	-	●
	JZX90, JZX100	1JZ-GTE	-	●	●
	JZX110, JZZ30, JZA70	1JZ-GTE	-	●	●
	SW20, ST185, ST205	3S-GTE	-	●	-
	SXE10	3S-GE	●	-	●
	ZN6, ZN8 (86,GR86)	FA20, FA24	-	●	-
	AE86	4A-G	●	-	-
	AE92, AE101, AE111	4A-G	●	-	-
	ZZW30	1ZZ	●	-	-
	EP82, EP91	4E	●	-	-
	ZZT231	2ZZ	●	-	-
	NCP13, NCP91, NCP131	1NZ	●	-	-
	NCP131	2ZR-FE	-	-	-
	MXPA10	M15A-FKS	●	-	-
	GXPA16	G16E-TS	-	-	-
	MAZDA	FC3S	13BT	-	●
FD3S		13B-REW	-	● *1	● *1
SE3P (6M/T)		13M-MSP	●	-	-
NA, NB		B6, BP	●	-	-
NC (5M/T, 6M/T)		LF-VE	●	-	-
ND5RC		P5-VP	●	-	-
RF(Early model)		SKYACTV-G2.0	●	-	-
RF(Late model)		SKYACTV-G2.0	●	-	-
MITSUBISHI	CN9A, CP9A, CT9A	4G63T	-	● Excluding EV09	● *1
	CZ4A	4B11T	-	-	●
SUBARU	GC8, BG5, BH5	EJ20T	-	● *1	● *1
	GDB, GRB, GVB, VAB	EJ20T	-	● *1	● *1
	ZC6, ZD8 (BRZ)	FA20, FA24	-	●	-
HONDA	JW5	SO7A	-	-	-
	EK4, EK9, DC2	B16A, B16B, B18C	●	-	-
	EG6	B16A	●	-	-
	DC5, EP3, FD2(6M/T), FN2(6M/T)	K20A	●	-	-
	AP1, AP2	F20C, F22C	-	-	-
	ZF1 (CR-Z)	LEA	●	-	-
	GE8(6M/T), GK5(5M/T)	L15A, L15Z	-	-	-
	GK5(6M/T)	L15B	-	-	-
	FK8, FL5	K20C	-	-	-
SUZUKI	HA36S	RO6A	-	-	-
	JB23W	K6A	-	-	-
	JB64W	RO6A	-	-	-
	ZC31S	M16A	● *5	-	-
	ZC32S	M16A	● *5	-	-
	ZC33S	K14C	-	● *5	-
DAIHATSU	LA400K	KF	-	-	-
	L880K	JB-DET	-	-	-

*1 Pull type only *2 High μ type only *3 SE Clutch Series only *4 With SE mechanism as standard

*5 Due to the custom design, specifications such as torque may vary slightly depending on the vehicle model

150D, 209D, 309D Metal Single (Disc diam. φ 170mm/φ200mm)		409D Metal Single (Disc diam. φ225mm)	METAL			1000F Metal Triple (Disc diam. φ200mm)	1000F-SPL Metal Triple (Disc diam. φ200mm)	RACING CONCEPT	SE MECHANISM ○ With SE Mechanism △ Some w/o SE Mechanism — Without SE Mechanism
			559D Metal Twin (Disc diam. φ200mm)	659D Metal Twin (Disc diam. φ200mm)					
-	-	●	●	●	●	-	-	▲	
-	-	● *1	● *1	● *1	● *1	-	-	●	
-	-	-	●	●	●	●	-	▲	
-	-	-	● *1	● *1	● *1	-	-	●	
-	-	-	-	-	-	●	-	-	
-	-	●	●	●	-	-	●	▲	
-	-	●	●	●	●	-	-	▲	
-	-	-	●	-	-	-	-	-	
-	-	● *2	●	-	●	●	-	▲	
-	-	●	●	-	-	-	-	●	
-	-	● *4	● *4	-	-	-	-	●	
-	-	-	●	-	-	-	-	●	
● *4	-	-	● *4	-	-	-	● *4	●	
● *3 *5	-	-	-	-	-	-	● *3	●	
● *5	-	-	-	-	-	-	-	●	
-	-	-	-	-	-	-	-	-	
-	-	-	●	●	●	●	-	▲	
-	-	●	●	●	●	●	-	▲	
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●	-	-	●	-	-	-	-	▲	
● *3	● *3	● *3	● *3	-	-	-	● *3	●	
●	-	-	-	-	-	-	●	-	
●	-	-	-	-	-	-	-	-	
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●	-	-	-	-	-	-	-	-	
●	-	-	-	-	-	-	-	-	
● *5	-	-	-	-	-	-	-	●	
●	-	-	-	-	-	-	-	●	
-	-	-	●	-	-	-	-	●	
-	● *1	● *1	● *1	● *1	● *1	-	● *1	●	
●	-	-	-	-	-	-	-	-	
●	-	-	-	-	-	-	●	-	
● *3	-	-	-	-	-	-	● *3	●	
● *3	-	-	-	-	-	-	● *3	●	
● *3	-	-	-	-	-	-	● *3	●	
● *3	-	-	-	-	-	-	● *3	●	
-	● *1 Excluding EV09	● *1	● *1	● *1	-	-	● *1	●	
-	-	● *1	● *1	● *1	-	-	● *1	●	
-	● *1 Excluding GRB GVB VAB	● *1	● *1	● *1	-	-	● *1	●	
● *3	● *3	● *3	● *3	-	-	-	● *3	●	
●	-	-	-	-	-	-	-	●	
●	-	-	-	-	-	-	●	▲	
●	-	-	-	-	-	-	-	▲	
● *1	-	-	-	-	-	-	-	●	
●	-	-	-	-	-	-	-	-	
● *5	-	-	-	-	-	-	-	-	
● *5	-	-	-	-	-	-	-	-	
-	● *3 *5	● *3 *5	-	-	-	-	-	●	
●	-	-	-	-	-	-	-	●	
●	-	-	-	-	-	-	-	●	
●	-	-	-	-	-	-	-	●	
● *5	-	-	-	-	-	-	-	●	
-	-	-	-	-	-	-	-	-	
● *3 *5	-	-	-	-	-	-	-	●	
●	-	-	-	-	-	-	-	●	
●	-	-	-	-	-	-	-	●	



250L

	Pedal Force lbf (kgf)	Reference HP* NA / Supercharged
STD	24.3-33.1 (11-15)	250HP (184kW) / 230HP
HP	28.7-39.7 (13-18)	320HP (235kW) / 270HP

400L

	Pedal Force lbf (kgf)	Reference HP*
STD	24.3-33.1 (12-15)	330HP (240kW)
HP	37.5-41.9 (17-19)	420HP (308kW)

STD - Standard Cover.
HP - High Pressure Cover.

*Reference Only - ORC rates clutches based on torque, not HP. Check the torque capacity. Two engines with the same HP can have wildly different torque curves, which is what matters for clutch capacity.

CHANGES THE GAME FOR HIGH PERFORMANCE CLUTCHES

Excellent shift-change and half clutch control, combining performance with comfort and fun. Ideal for high performance street driving, and can be used for drift and circuit racing as well. It defies the myth that racing clutches are difficult to operate. With a refined half-clutch feel, this clutch truly enhances driving fun. Affordable overhauls made possible through pressure-plate-only replacement. Shorter and sporty half-clutch range.

The pedal force of other ORC series models is equivalent to the pedal force between that of STD and HP. Typical reinforced clutches from other companies have the same pedal force as when using ORC high-pressure covers.

Noise reduction design: Strap drive system does not make a backlash sound when the clutch is disengaged. *Depending on the vehicle, noise may occur from the drivetrain.

ORC 250L LIGHT

Organic Single
(Disc diam. φ 200mm)



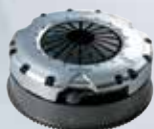
MAKE	VEHICLE	ENGINE	ACTUATING MECHANISM	CLUTCH COVER	MODEL	
NISSAN	PGC10, KPGC10, KPGC110, PS30	S20	PUSH TYPE	STD (STANDARD TYPE)	ORC-250LD-NS0516	
	TOYOTA	SXE10 *1	3S-GE	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-TT0305
AE86		4A-G	PUSH TYPE	STD (STANDARD TYPE)	ORC-250L-TT0406	
AE86		4A-G	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-TT0406	
AE92, AE101, AE111		4A-G	PUSH TYPE	STD (STANDARD TYPE)	ORC-250L-TT0407	
AE92, AE101, AE111		4A-G	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-TT0407	
EP82, EP91		4E-FT	PUSH TYPE	STD (STANDARD TYPE)	ORC-250L-TT0608	
EP82, EP91		4E-FT	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250C-HP-TT0608	
ZZT231		2ZZ	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-TT0809	
ZZW30 (Excluding SMT)		1ZZ	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-TT0710	
NCP13, NCP91, NCP131		1NZ	PUSH TYPE	STD (STANDARD TYPE)	ORC-250L-HP-HD0708	
MXPA10 (Yaris)		M15A-FKS	PUSH TYPE	STD (STANDARD TYPE)	ORC-250L-TT2227	
HONDA		EG6, EK4, EK9, DC2, DB8 *3	B16A, B16B, B18C	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-HD0101
		DC5, FD2 (only for 6M/T), EP3, FN2	K20A	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-HD0505
		ZF1 (CR-Z)	LEA	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-HD0708
MAZDA		NA, NB	B6, BP	PUSH TYPE	STD (STANDARD TYPE)	ORC-250L-MZ0204
		NC (5M/T)	LF-VE	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-MZ0405
	NC (6M/T)	LF-VE	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-MZ0407	
	ND5RC (6M/T)	P5-VP	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-MZ0608	
	RF (Early model)	SKYACTIV-G 2.0	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-MZ0810	
	RF (Late model)	SKYACTIV-G 2.0	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-MZ0811	
	SE3P (6M/T) *2	13B-MSP	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-250L-HP-MZ0303	
SUZUKI	ZC31S	M16A	PUSH TYPE	STD (STANDARD TYPE) *4	ORC-250L-SZ0101	
	ZC32S	M16A	PUSH TYPE	STD (STANDARD TYPE) *4	ORC-250L-SZ0102	

INSTALLATION NOTES

*1 For TOYOTA ALTEZZA (SXE10), 8 stock flywheel bolts (product ID: 90105-12312) are required. *2 MAZDA stock counterweight (N322-11-52X) and 6 mounting bolts (8051-27-235) are required. *3 The thickness of the flywheel mounting section of the 250L clutch for EG6, EK4, EK9, and DC2 differs from that of the stock flywheel. When replacing to a Light Clutch, replace the following flywheel mounting bolts: 8 flywheel mounting bolts for HONDA (90011-PM0-000).

ORC 400L LIGHT

Organic Single
(Disc diam. φ 225mm)



MAKE	VEHICLE	ENGINE	ACTUATING MECHANISM	CLUTCH COVER	MODEL (WITHOUT DAMPERS)
NISSAN	R32, R33	RB25DE(T), RB20DE(T)	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-NS0101
	R32, R33	RB25DE(T), RB20DE(T)	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-400L-HP-NS0101
	ER34	RB25DET	PULL TYPE	HP (HIGH PRESSURE TYPE)	ORC-P400L-HP-NS0101
	(R)PS13, S14, S15 (5M/T)	SR20DE(T) *5	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-NS0207
	(R)PS13, S14, S15 (5M/T)	SR20DE(T) *5	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-400L-HP-NS0207
	S15 (6M/T)	SR20DET	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-NS0210
	S15 (6M/T)	SR20DET	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-400L-HP-NS0210
	Z33, V35	VQ35DE	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-NS0613
	Z33, V35	VQ35DE	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-400L-HP-NS0613
	S30, S130, C10, C110	L20, L24, L28	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-NS0911
	TOYOTA	JZX90, JZX100, JZX110, JZZ30, JZA70	1JZ-GTE	PUSH TYPE	HP (HIGH PRESSURE TYPE)
JZX90, JZX100, JZX110, JZZ30, JZA70		1JZ-GTE	PULL TYPE	HP (HIGH PRESSURE TYPE)	ORC-P400L-HP-TT0202
SW20, ST185, ST205		3S-GTE	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-TT0303
SW20, ST185, ST205		3S-GTE	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-400L-HP-TT0303
ZN6, ZN8 (86, GR86)		FA20, FA24	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-TT1213
MAZDA		FC3S *4	13BT	PUSH TYPE	STD (STANDARD TYPE)
	FC3S *4	13BT	PUSH TYPE	HP (HIGH PRESSURE TYPE)	ORC-400L-HP-MZ0101
	FD3S *4	13B-REW	PULL TYPE	HP (HIGH PRESSURE TYPE)	ORC-P400L-HP-MZ0102
	MITSUBISHI SUBARU	CN9A, CP9A, CT9A	4G63T	PULL TYPE	HP (HIGH PRESSURE TYPE)
GC8, BH5, BG5		EJ20T	PULL TYPE	HP (HIGH PRESSURE TYPE)	ORC-P400L-HP-SB0101
GDB, GRB, GVB, VAB		EJ20T	PULL TYPE	HP (HIGH PRESSURE TYPE)	ORC-P400L-HP-SB0102
SUZUKI	ZC6, ZD8 (BRZ)	FA20, FA24	PUSH TYPE	STD (STANDARD TYPE)	ORC-400L-TT1213
	ZC33S *6	K14C	PUSH TYPE	LP (LOW PRESSURE TYPE)	ORC-400L-LP-SZ0304

INSTALLATION NOTES

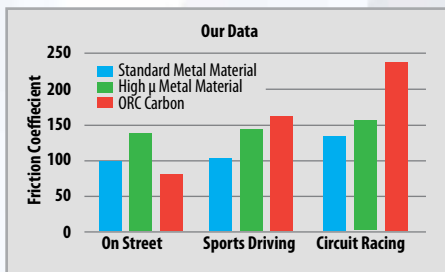
*4 MAZDA stock counterweight (FC3S Early model: N3Y8-11-52X, FC3S Late model: N3Y6-11-52X, FD3S: N3Y2-11-52X) and 6 mounting bolts (8051-27-235) are required. *6 Features vary slightly due to custom design. Compatible torque : 221 lb-ft / 300Nm.

PRO CARBON

CARBON CLUTCH WITH NEWLY TUNED PARTS DEVELOPED BASED ON THE TWIN DISC METAL CLUTCH

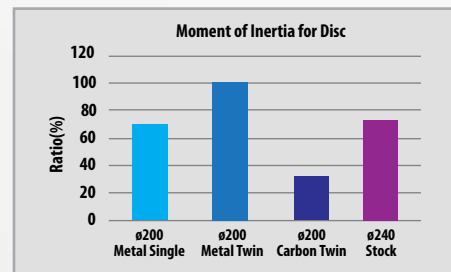
Drastic weight reduction of the clutch disc enables a quick shift change. The material is durable and keeps the transmission torque reliable even at high temperatures, providing excellent stability.

OUTSTANDING TORQUE CHARACTERISTIC



The coefficient of friction of carbon discs changes as the temperature is increased. Under high-temperature conditions such as circuit racing, the discs transmit torque while responding firmly to the pedals at high temperatures. When driving on normal roads or on the street, the discs become milder and easier to handle.

ENABLES QUICK GEAR SHIFTING



Carbon discs are lightweight, so the moment of inertia is small, and carbon twin discs could be half the inertia of a standard single disc. Quick gear shifting enables a true racing feeling.

**ORC
559CC
CARBON**

Carbon Twin
Disc Diam.
ø200mm)



MAKE	VEHICLE	ENGINE	ACTUATING MECHANISM	MODEL
NISSAN	R32, R33	RB25DE(T), RB20DE(T)	PUSH TYPE	ORC-559CC-NS0101
	ER34	RB25DET	PULL TYPE	ORC-P559CC-NS0101
	BNR32 (Early Model)	RB26DETT	PUSH TYPE	ORC-559CC-NS0101
	BNR32 (Late Model), BCNR33	RB26DETT	PULL TYPE	ORC-P559CC-NS0101
	BNR34	RB26DETT	PULL TYPE	ORC-P559CC-NS0104
	(R)PS13, S14, S15(5M/T)	SR20DE(T) ¹ ₃	PUSH TYPE	ORC-559CC-NS0207
	S15 (6M/T)	SR20DET	PUSH TYPE	ORC-559CC-NS0210
	Z33, V35	VQ35DE	PUSH TYPE	ORC-559CC-NS0613
	S30, S130, C10, C110	L20, L24, L28	PUSH TYPE	ORC-559CC-NS0911
TOYOTA	JZA80 (6M/T)	2JZ-GTE	PUSH TYPE	ORC-559CC-TT0101
	JZA80 (6M/T)	2JZ-GTE	PULL TYPE	ORC-P559CC-TT0101
	JZX90, JZX100, JZX110, JZZ30, JZA70	1JZ-GTE	PUSH TYPE	ORC-559CC-TT0202
	JZX90, JZX100, JZX110, JZZ30, JZA70	1JZ-GTE	PULL TYPE	ORC-P559CC-TT0202
	SXE10	3S-GE	PUSH TYPE	ORC-559CC-05T
MAZDA	FC3S ²	13BT	PUSH TYPE	ORC-559CC-MZ0101
	FD3S ²	13B-REW	PULL TYPE	ORC-P559CC-MZ0102
MITSUBISHI	CN9A, CP9A, CT9A	4G63T	PULL TYPE	ORC-P559CC-MB0101
	CZ4A (Evo10)	4B11T	PULL TYPE	ORC-P559CC-MB0204
SUBARU	GCB, BH5, BG5	EJ20T	PULL TYPE	ORC-P559CC-SB0101
	GDB, GRB, GVB, VAB	EJ20T	PULL TYPE	ORC-P559CC-SB0102

INSTALLATION NOTES

- ORC-559CC series takes 10-15 business days to manufacture. Please contact us for current availability.
- MAZDA stock counter weight: FC3S early model (N3Y8-11-52X) / FC3S late model (N3Y6-11-52X) / FD3S (N3Y2-11-52X) is required. Mounting bolts are included.
- SR20DET (turbo) stock parts (clutch operating cylinder assembly, clutch hose connector, clutch hose assembly and fittings to attach these parts) are required for SR20DE (NA).

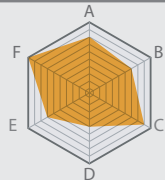


RECOMMENDED DRIVING

SPORT	★★★★★
DRIFT	☆☆☆☆☆
CIRCUIT	★★☆☆☆
DRAG	☆☆☆☆☆

RADAR PERFORMANCE CHART

- A Half Clutch
- B Heat Resistance
- C Life
- D Price
- E Pedal Force
- F Shift Feeling



CORRESPONDING TORQUE TABLE

Model	Torque lb-ft (Nm)
559CC	465 (630)

SE MECHANISM	ACCESSORIES MOUNTING BOLTS FOR FLYWHEEL	CLUTCH RELEASE BEARING	PILOT BEARING	SPECIFIED CONVERSION KIT
•	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)		
•	STOCK BOLTS REQUIRED	STOCK PRODUCT REQUIRED		
•	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)		
•	STOCK BOLTS REQUIRED	STOCK PRODUCT REQUIRED		
•	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED		
•	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)		
•	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)		
•	STOCK BOLTS REQUIRED	TYPE-B (SPECIFIED SLEEVE INCLUDED)		
•	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)		
•	SPECIFIED BOLTS INCLUDED	TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
•	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED		
•	SPECIFIED BOLTS INCLUDED	TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
•	SPECIFIED BOLTS INCLUDED	STOCK (SPECIFIED SLEEVE INCLUDED)		
•	SPECIFIED BOLTS INCLUDED	TYPE-A (SPECIFIED SLEEVE INCLUDED)		
•	SPECIFIED BOLTS INCLUDED	TYPE-A (SPECIFIED SLEEVE INCLUDED)		
•	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED		
•	STOCK BOLTS REQUIRED	STOCK PRODUCT REQUIRED		
•	STOCK BOLTS REQUIRED	STOCK PRODUCT REQUIRED		
•	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	
•	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	

METAL Clutch

Compatible for Drag Use with New Floating Hub

In our triple disc clutches, the floating hub mechanism is an evolution of the drive hub system, which is well known for its durability and ease of operation. It reduces changes in engagement position, improving competitiveness. The clutch also has excellent cutoff, achieving the rigorous clutch engagement required for drag racing.

Slitting that Achieves Stable Torque Transmission

The cooling effect of these slits on the friction surfaces and the uniform contact enabled by the segmentation have resulted in more stable torque transmission.

Noise Reduction Model for Less Backlash Sound

A silent option is available to suppress the backlash sound (rattling) that occurs when the clutch is released, which is unique to lug drive type clutches. By installing a coil spring, the pressure plate is pressed down and vibration is reduced. The spring also makes it easier for the pressure plate to return to the cover side improving the disengagement of the clutch.

SE MECHANISM ACHIEVES SMOOTH HALF-CLUTCH OPERATION

By incorporating a cushioning mechanism into the pressure plate, the half-clutch range has been significantly expanded. This eliminates the typical difficulty associated with reinforced clutches, enabling smooth half-clutch operation.

PROTECTION OF THE DRIVETRAIN THROUGH SHOCK LOAD REDUCTION

By increasing the half-clutch range, Metal Clutch has reduced the shock load during clutch engagement when shifting gears. Impact torque is reduced by 40%, compared to our previous models, per in-house comparison. This reduces the shock load on the transmission, differential gear, and driveshaft, protecting the drivetrain.



**ORC
150
209
309
METAL**
Metal Single
(Disc diam.
φ170/200mm)



MAKE	VEHICLE	ENGINE	ACTUATING Mechanism	MODEL (with SE Mechanism)	MODEL (without SE Mechanism)
NISSAN	S30, S130, C10, C110	L20, L24, L28	PUSH TYPE	ORC-309D-NS0911	
	B110, B210, B310 *4	A12, A14, A15	PUSH TYPE	ORC-209D-NS1012-SE	
	K13 Nismo, E12 Nismo	HR15DE, HR16DE	PUSH TYPE	ORC-209D-NS1217-SE	
TOYOTA	SXE10	3S-GE	PUSH TYPE	ORC-309D-TT0305-SE *1	ORC-309D-05T *1
	ZZT231	2ZZ	PUSH TYPE		ORC-309D-08T *1
	AE92	4A-G	PUSH TYPE		ORC-309D-09T1 *1
	AE101, AE111	4A-G	PUSH TYPE		ORC-309D-09T2 *1
	AE86	4A-G	PUSH TYPE		ORC-309D-13T *1
	EP82, EP91	4E-FT	PUSH TYPE		ORC-309D-14T *1
	ZZW30 (Excluding SMT)	1ZZ	PUSH TYPE		ORC-309D-15T *1
	ZN6, ZN8 (86, GR86)	FA20, FA24 Standard Model	PUSH TYPE	ORC-309D-TT1213-SE *1	
		FA20, FA24 Light Weight Model	PUSH TYPE	ORC-309D-TT1213A-SE	
	NCP13, NCP91, NCP131 *4	1N2	PUSH TYPE	ORC-309D-TT0911-SE	ORC-309D-TT0911
	NSP131	2ZR-FE	PUSH TYPE	ORC-309D-TT1414-SE	
MXPA10 (YARIS)	M15-FKS	PUSH TYPE	ORC-309D-TT2227-SE		
HONDA	JW5 (S660)	S07A	PUSH TYPE	ORC-150D-HD1011-SE	
	EK4, EK9, DC2, DB8	B16A, B16B, B18C	PUSH TYPE	ORC-309D-HD0101-SE *1	ORC-309D-01H *1
	EG6	B16A	PUSH TYPE		ORC-309D-01H1 *1
	AP1, AP2	F20C, F22C	PULL TYPE	ORC-P309D-HD0202	
	DC5, EP3, FD2 (6M/T), FN2 (6M/T)	K20A	PUSH TYPE	ORC-309D-HD0505-SE *1	ORC-309D-05H *1
	ZF1(CR-Z)	LEA	PUSH TYPE		ORC-309D-HD0708
	GE8 (6M/T), GK5 (5M/T) *4	L15A, L15Z	PUSH TYPE		ORC-209D-HD0606
	GK5 (6M/T) *4	L15B	PUSH TYPE		ORC-209D-HD0809
MAZDA	NA, NB	B6, BP	PUSH TYPE		ORC-309D-02Z *1
	NC (5M/T)	LF-VE	PUSH TYPE	ORC-309D-MZ0405-SE *1	
	NC (6M/T)	LF-VE	PUSH TYPE	ORC-309D-MZ0407-SE *1	
	ND5RC	P5-VP	PUSH TYPE	ORC-309D-MZ0608-SE *1	
	RF (Early Model)	SKYACTIV-G 2.0	PUSH TYPE	ORC-309D-MZ0810-SE *1	
	RF (Late Model)	SKYACTIV-G 2.0	PUSH TYPE	ORC-309D-MZ0811-SE *1	
	SE3P (6M/T) *2	13B-MSP	PUSH TYPE		ORC-309D-05Z *1
SUBARU	ZC6, ZD8 (BRZ)	FA20, FA24 Standard Model	PUSH TYPE	ORC-309D-TT1213-SE *1	
		FA20, FA24 Light Weight Model	PUSH TYPE	ORC-309D-TT1213A-SE	
SUZUKI	HA36S (only 5M/T, excluding 5AGS) *5	R06A	PUSH TYPE	ORC-150D-SZ0203-SE	
	JB23W (Vehicle #400001+)	K6A	PUSH TYPE	ORC-150D-SZ0405-SE	
	JB64W	R06A	PUSH TYPE	ORC-150D-SZ0206-SE	
	ZC31S *4	M16A	PUSH TYPE		ORC-209D-SZ0101
	ZC33S *4	K14C	PUSH TYPE	ORC-309D-SZ0304-SE	
DAIHATSU	LA400K, L235S	KF	PUSH TYPE	ORC-150D-DH0101-SE	
	L880K	JB-DET	PUSH TYPE	ORC-150D-DH0202-SE	

INSTALLATION NOTES

*1 The noise reduction model is available as an optional feature. Manufacturing takes approximately 10 business days. Please contact us for more details.

*3 Nissan stock sleeve (30501-H8560) is required.

*5 Can be installed on both Front-Wheel and 4WD models.

**ORC
409
METAL**
Metal Single
(Disc diam.
φ225mm)

MAKE	VEHICLE	ENGINE	ACTUATING Mechanism	MODEL (with SE Mechanism)	MODEL (without SE Mechanism)
NISSAN	R32, R33	RB25DE(T), RB20 DE(T)	PUSH TYPE	ORC-409D-NS0101-SE	ORC-409D-01N *1 *4
	ER34	RB25DET	PULL TYPE	ORC-P409D-HP-NS0101 *1	
	(R)PS13, S14, S15(5M/T)	SR20DET, SR20DE	PUSH TYPE	ORC-409D-NS0207-SE	ORC-409D-02N *1 *4
	S15(6M/T)	SR20DET	PUSH TYPE	ORC-409D-NS0210-SE	ORC-409D-02N5 *1 *4
	S13 *3	CA18DET	PUSH TYPE		ORC-409D-03N
	Z33 (Early/Mid Model), V35	VQ35DE	PUSH TYPE	ORC-409D-NS0613-SE	ORC-409D-06N *1
	Z33 (Late Model), Z34, V36	VQ35HR, VQ37VHR	PUSH TYPE	ORC-409D-NS0714 *1	

INSTALLATION NOTES

*1 The noise reduction model is available as an optional feature. Manufacturing takes approximately 10 business days. Please contact us for more details.

*2 Mazda stock counter weight: For FC35 early model (N3Y8-11-52X) / FC35 late model (N3Y6-11-52X) / FD35 (N3Y2-11-52X) is required. For FC35, 6 pieces of mounting bolts (8051-27-235) are required.

*3 Please contact us when placing an order of this item.

ORC 409 METAL

Metal Single
(Disc diam. φ 225mm)



MAKE	VEHICLE	ENGINE	ACTUATING MECHANISM	MODEL WITH SE MECHANISM	MODEL
TOYOTA	JZX90, JZX100, JZX110, JZZ30, JZA70	1JZ-GTE	PUSH TYPE	ORC-409D-TT0202-SE *4	ORC-409D-TT0202 *4
	JZX90, JZX100, JZX110, JZZ30, JZA70	1JZ-GTE	PULL TYPE	ORC-P409D-TT0202 *1	
	SW20, ST185, ST205	3S-GTE	PUSH TYPE		ORC-409D-03T *1
	ZN6, ZN8 (86, GR86)	FA20, FA24	PUSH TYPE	ORC-409D-TT1213A-SE	
HONDA	FK8, FL5 *5	K20C	PUSH TYPE	ORC-409D-HD0910-SE	
	FC3S *2	13BT	PUSH TYPE		ORC-409D-01Z *1
MAZDA	FD3S *2	13B-REW	PULL TYPE	ORC-P409D-MZ0102 *1	
MITSUBISHI	CN9A, CP9A, CT9A	4G63T	PULL TYPE	ORC-P409D-MB0101 *1	
SUBARU	GC8, BH5, BG5	EJ20T	PULL TYPE	ORC-P409D-SB0101 *1	
	GDB	EJ20T	PULL TYPE	ORC-P409D-SB0102 *1	
	ZC6, ZD8 (BRZ)	FA20, FA24	PUSH TYPE	ORC-409D-TT1213A-SE	

INSTALLATION NOTES

*1 The noise reduction model is available as an optional feature. Manufacturing takes approximately 10 business days. Please contact us for more details.

*3 Please contact us when placing an order for this item.

ORC 559 METAL

Metal Twin
(Disc diam. φ 200mm)



NISSAN	R32, R33	RB25DE(T), RB20DE(T)	PUSH TYPE	ORC-559D-NS0101-SE	ORC-559D-01N
	ER34	RB25DET	PULL TYPE	ORC-P559D-NS0101	
	BNR32 (Early Model)	RB26DETT	PUSH TYPE	ORC-559D-NS0101-SE	ORC-559D-01N
	BNR32 (Late Model), BCNR33	RB26DETT	PULL TYPE	ORC-P559D-NS0101	
	BNR34 (GETRAG 6M/T)	RB26DETT	PULL TYPE	ORC-P559D-NS0104	
	S14, (R)PS13, S15 (5M/T)	SR20DE(T) *4	PUSH TYPE	ORC-559D-NS0207-SE	ORC-559D-02N
	S15 (6M/T)	SR20DET	PUSH TYPE	ORC-559D-NS0210-SE	ORC-559D-02N5
	Z32 *3	VG30DETT	PUSH TYPE		ORC-559D-04N
	Z33 (Early/Mid Model), V35	VQ35DE	PUSH TYPE	ORC-559D-NS0613-SE	ORC-559D-06N
	Z33 (Late Model), Z34, V36	VQ35HR, VQ37VHR	PUSH TYPE	ORC-559D-NS0714	
	S30, S130, C10, C110	L20, L24, L28	PUSH TYPE	ORC-559D-NS0911	
	RZ34	VR30DDTT	PUSH TYPE	ORC-559D-NS1319-SE	
TOYOTA	JZA80 (6M/T)	2JZ-GTE	PUSH TYPE	ORC-559D-TT0101-SE	ORC-559D-01T
	JZA80 (6M/T)	2JZ-GTE	PULL TYPE	ORC-P559D-TT0101	
	JZX90/100/110, JZZ30, JZA70	1JZ-GTE	PUSH TYPE	ORC-559D-TT0202-SE	ORC-559D-02T
	JZX90/100/110, JZZ30, JZA70	1JZ-GTE	PULL TYPE	ORC-P559D-TT0202	
	SXE10	3S-GE	PUSH TYPE		ORC-559D-05T
	ZN6, ZN8 (86, GR86)	FA20, FA24 Standard	PUSH TYPE	ORC-559D-TT1213-SE	
		FA20, FA24 Light Weight	PUSH TYPE	ORC-559D-TT1213A-SE	
	GXPA16 *8	G16E-GTS	PUSH TYPE	ORC-559D-TT1885-SE	
HONDA	FK8, FL5 *7	K20C	PUSH TYPE	ORC-559D-HD0910-SE	
MAZDA	FC3S *1	13BT	PUSH TYPE		ORC-559D-01Z
	FD3S *1	13B-REW	PULL TYPE	ORC-P559D-MZ0102	
MITSUBISHI	CN9A, CP9A, CT9A	4G63T	PULL TYPE	ORC-P559D-MB0101	
	CZ4A	4B11T	PULL TYPE	ORC-P559D-MB0204	
SUBARU	GC8, BH5, BG5	EJ20T	PULL TYPE	ORC-P559D-SB0101	
	GDB, GRB, GVB, VAB	EJ20T	PULL TYPE	ORC-P559D-SB0102	
	ZC6, ZD8 (BRZ)	FA20, FA24 Standard	PUSH TYPE	ORC-559D-TT1213-SE	
		FA20, FA24 Light Weight	PUSH TYPE	ORC-559D-TT1213A-SE	

ORC 659 METAL

Metal Twin
(Disc diam. φ 200mm)



NISSAN	R32, R33	RB25DE(T), RB20DE(T)	PUSH TYPE		ORC-659D-NS0101
	ER34	RB25DET	PULL TYPE	ORC-P659D-NS0101	
	BNR32 (Early Model)	RB26DETT	PUSH TYPE		ORC-659D-NS0101
	BNR32 (Late Model), BCNR33	RB26DETT	PULL TYPE	ORC-P659D-NS0101	
	BNR34 (GETRAG 6M/T)	RB26DETT	PULL TYPE	ORC-P659D-NS0104	
	S14, (R)PS13, S15 (5M/T)	SR20DE(T) *4	PUSH TYPE		ORC-659D-NS0207
TOYOTA	JZA80 (6M/T)	2JZ-GTE	PUSH TYPE		ORC-659D-TT0101
	JZA80 (6M/T)	2JZ-GTE	PULL TYPE	ORC-P659D-TT0101	
	JZX90/100/110, JZZ30, JZA70	1JZ-GTE	PUSH TYPE		ORC-659D-TT0202
	JZX90/100/110, JZZ30, JZA70	1JZ-GTE	PULL TYPE	ORC-P659D-TT0202	
MITSUBISHI	CN9A, CP9A, CT9A	4G63T	PULL TYPE	ORC-P659D-MB0101	
	CZ4A	4B11T	PULL TYPE	ORC-P659D-MB0204	
SUBARU	GC8, BH5, BG5	EJ20T	PULL TYPE	ORC-P659D-SB0101	
	GDB, GRB, GVB, VAB	EJ20T	PULL TYPE	ORC-P659D-SB0102	

ORC 1000F METAL

Metal Triple
(Disc diam. φ 200mm)



NISSAN	BNR32 (Early Model)	RB26DETT	PUSH TYPE	ORC-1000F-NS0101-SE	ORC-1000F-NS0101
	BNR32 (Late Model), BCNR33	RB26DETT	PULL TYPE	ORC-P1000F-NS0101	
	Holinger (6M/T), HKS (6M/T)	RB26DETT	PUSH TYPE		ORC-1000F-NS0102
	BNR34 (GETRAG 6M/T)	RB26DETT	PULL TYPE	ORC-P1000F-NS0104	
	S14, (R)PS13, S15 (5M/T)	SR20DET	PUSH TYPE		ORC-1000F-NS0207
	Z33 (Early/Mid Model), V35	VQ35DE	PUSH TYPE		ORC-1000F-NS0613
TOYOTA	JZA80 (6M/T)	2JZ-GTE	PUSH TYPE	ORC-1000F-TT0101-SE	ORC-1000F-01T
	JZA80 (6M/T)	2JZ-GTE	PULL TYPE	ORC-P1000F-TT0101	
	JZX90/100/110, JZZ30, JZA70	1JZ-GTE	PUSH TYPE	ORC-1000F-TT0202-SE	ORC-1000F-02T
	JZX90/100/110, JZZ30, JZA70	1JZ-GTE	PULL TYPE	ORC-P1000F-TT0202	
MAZDA	FC3S *2	13BT	PUSH TYPE		ORC-1000F-01Z
	FD3S *1	13B-REW	PULL TYPE	ORC-P1000F-MZ0102	

ORC 1000F SPL METAL

Metal Triple
Drag Special
(Disc diam. φ 200mm)



NISSAN	BNR32 (Early Model)	RB26DETT	PUSH TYPE		ORC-1000F-SPL-NS0101
	HOLLINGER (6M/T), HKS (6M/T)	RB26DETT	PUSH TYPE		ORC-1000F-SPL-NS0102
	Z33 (Early/Mid Model), V35	VQ35DE	PUSH TYPE		ORC-1000F-SPL-NS0613
TOYOTA	JZA80 (6M/T)	2JZ-GTE	PUSH TYPE		ORC-1000F-SPL-TT0101
	JZX90/100/110, JZZ30, JZA70	1JZ-GTE	PUSH TYPE		ORC-1000F-SPL-TT0202

INSTALLATION NOTES

*1 Mazda stock counter weight: For FC3S early model (N3Y8-11-52X) / FC3S late model (N3Y6-11-52X) / FD3S (N3Y2-11-52X) is required. Mounting bolts are included.

*3 Please contact us when placing an order for this item.

*5 Release bearing can be Type-A (SE Mechanism) — slightly weaker clutch disengagement but better half-clutch — or Type-B — better clutch disengagement but slightly weaker half-clutch.

*7 For Honda Civic (FK8), stock flywheel bolts 8 pieces (product ID: 90011-PCX-B01) are required.

ACCESSORIES MOUNTING BOLTS FOR FLYWHEEL		CLUTCH RELEASE BEARING	PILOT BEARING	SPECIFIED CONVERSION KIT
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
SPECIFIED BOLTS INCLUDED		STOCK (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		ATTACHED	STOCK PRODUCT REQUIRED	
SPECIFIED BOLTS *2		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED	
*2 Mazda stock counter weight: For FC3S early model (N3Y8-11-52X) / FC3S late model (N3Y6-11-52X) / FD3S (N3Y2-11-52X) is required. For FC3S, 6 pieces of mounting bolts (8051-27-235) are required.				
*4 High pressure cover is available as an option. Please contact us for more details.				
*5 Due to its special design, the compatible torque may vary slightly depending on the vehicle model.				
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	ATTACHED	
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		STOCK (BEARING ADAPTER INCLUDED)		
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
SPECIFIED BOLTS INCLUDED		STOCK (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	ATTACHED	
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
SPECIFIED BOLT *7		INCLUDED	STOCK PRODUCT REQUIRED	
SPECIFIED BOLTS INCLUDED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		TYPE-A (SPECIFIED SLEEVE INCLUDED)		INCLUDED
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		INCLUDED
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		STOCK (SPECIFIED SLEEVE INCLUDED)		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED	
STOCK BOLTS REQUIRED		TYPE-A OR B (SPECIFIED SLEEVE INCLUDED) *5		
STOCK BOLTS REQUIRED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		TYPE-A OR B (SPECIFIED SLEEVE INCLUDED) *5		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		TYPE-A OR B (SPECIFIED SLEEVE INCLUDED) *5		
STOCK BOLTS REQUIRED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		STOCK PRODUCT REQUIRED		
STOCK BOLTS REQUIRED		PURCHASE SEPARATELY *6		
STOCK BOLTS REQUIRED		PURCHASE SEPARATELY *6		
STOCK BOLTS REQUIRED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED
SPECIFIED BOLTS INCLUDED		TYPE-B (SPECIFIED SLEEVE INCLUDED)		INCLUDED

*2 Mazda stock counter weight: For FC3S early model (N3Y8-11-52X) / FC3S late model (N3Y6-11-52X) and 6 pieces of mounting bolts (8051-27-235) are required.

*4 SR20DET (turbo) stock parts (clutch operating cylinder assembly, clutch hose connector, clutch hose assembly and fittings to attach these parts) are required for SR20DE (NA).

*6 Please purchase sleeve and bearing separately. For 1000F-SPL for Nissan, *5 shown above applies except for the SE Mechanism comment.

*8 This product is for the enhanced transmission only. Do not use in combination with the stock transmission.

Racing Concept



Lighter and More Direct Feeling

Exists Only for Victory

Pure Racing Clutch

Engine response that no one ever experienced before

Ultra lightweight clutch enables ultra-aggressive driving

ULTRA-LIGHTWEIGHT FLYWHEEL!

Using FEM analysis technology, we have incorporated an ultra-lightweight flywheel design that is as light as possible, providing unprecedented engine pick-up and a new level of acceleration.

THE ENTIRE CLUTCH IS LIGHTER!

By using a special ultra-lightweight clutch cover and reducing the weight of the entire clutch, the weight is 60-70% of the original clutch (depending on the vehicle model).

QUICK GEAR SHIFTING!

The twin disc clutch eliminates the damper mechanism on the clutch disc, making the clutch disc lighter and enabling quicker shifting.

It also provides a direct connection, minimizing driving losses during shift changes.

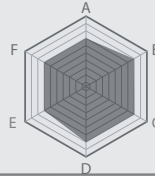


RECOMMENDED DRIVING

SPORT ★★☆☆☆
 DRIFT ★★★★★
 CIRCUIT ★★★★★☆
 DRAG ★★☆☆☆

RADAR PERFORMANCE CHART

A Half Clutch
 B Heat Resistance
 C Life
 D Price
 E Pedal Force
 F Shift Feeling



CORRESPONDING TORQUE TABLE

Model	Torque lb-ft (Nm)
209	144 (195)
309	251 (340)
409	310 (420)
559	465 (630)
659	542 (735)

MAKE	VEHICLE	MODEL	TYPE	DAMPER	SE	ACCESSORIES MOUNTING BOLTS FOR FLYWHEEL	RELEASE BEARING	PILOT BEARING
NISSAN	(R)PS13, S14, S15 (5M/T)	ORC-559-NS0207-RC	Twin	Without		STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
	S15 (6M/T)	ORC-559-NS0210-RC	Twin	Without		STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	ATTACHED
	S30, S130, C10, C110	ORC-559-NS0911-RC	Twin	Without	●	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
	B110, B210, B310	ORC-209D-NS1012-RC	Single	With	●	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE) *2	
TOYOTA	AE86	ORC-309D-TT0406-RC	Single	With		STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
	ZN6, ZN8 (86, GR86)	ORC-309D-TT1213-RC	Single	With	●	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED
HONDA	EK4, EK9, DC2, DB8	ORC-309D-HD0101-RC	Single	With		STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED
	DC5, FD2 (6M/T), EP3, FN2	ORC-309D-HD0505-RC	Single	With		STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
MAZDA	FD3S *1	ORC-P659-MZ0102-RC	Twin	Without	●	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED	
	FD3S *1	ORC-P659D-MZ0102-RC	Twin	With	●	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED	
	NA, NB	ORC-309D-MZ0204-RC	Single	With		STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED
	NC (5M/T)	ORC-309D-MZ0405-RC	Single	With	●	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
	NC (6M/T)	ORC-309D-MZ0407-RC	Single	With	●	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
	ND5RC	ORC-309D-MZ0608-RC	Single	With	●	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
	RF (Early Model)	ORC-309D-MZ0810-RC	Single	With	●	STOCK BOLTS REQUIRED	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
	RF (Late Model)	ORC-309D-MZ0811-RC	Single	With	●	STOCK BOLTS REQUIRED *3	TYPE-A (SPECIFIED SLEEVE INCLUDED)	
MITSUBISHI	CN9A, CP9A, CT9A (Evo4-9)	ORC-P659-MB0101-RC	Twin	Without	●	STOCK BOLTS REQUIRED	STOCK PRODUCT REQUIRED	
	CZ4A (Evo10)	ORC-P659-MB0204-RC	Twin	Without	●	STOCK BOLTS REQUIRED	STOCK PRODUCT REQUIRED	
SUBARU	GDB, GRB, GVB, VAB	ORC-P659-SB0102-RC	Twin	Without	●	SPECIFIED BOLTS INCLUDED	STOCK PRODUCT REQUIRED	STOCK PRODUCT REQUIRED
	ZC6, ZD8 (BRZ)	ORC-309D-TT1213-RC	Single	With	●	STOCK BOLTS REQUIRED	TYPE A (SPECIFIED SLEEVE INCLUDED)	STOCK PRODUCT REQUIRED

INSTALLATION NOTES

*1 Mazda stock counter weight: For FD3S (N3Y2-11-52X) is required.
 *2 Nissan stock sleeve (30501-H8560) are required.
 *3 Mazda stock mounting bolts 6 pieces (LF01-11-511) are required.

[CAUTION]

Since the weight of clutch is reduced for racing, idling might be unstable.
 This product is built-to-order and takes 15 business days after order to manufacture.

N1 CLUTCH



JAF N1-COMPLIANT RACING CLUTCH!

This kit complies with JAF N1 vehicle regulations for one-make races, track races, dirt trials, etc. It truly shines under regulations that prohibit flywheel replacement.

QUICK SHIFT FEEL WITH DEDICATED LIGHTWEIGHT METAL CLUTCH DISC

The three-piece metal friction material reduces clutch disc inertia, delivering a racing-inspired shift feel. The friction material uses high-quality metal for reliable torque transmission, minimizing loss during shift changes.

DIRECT CLUTCH FEEL PROVIDED BY THE HIGH-RIGIDITY ALUMINUM CLUTCH COVER

A lightweight, high-rigidity forged aluminum clutch cover is used to achieve a direct clutch feeling. By using a lightweight aluminum cover, the inertia that affects the acceleration has been significantly reduced.

MAKE	VEHICLE	ENGINE	TYPE	MODEL	DESCRIPTION
TOYOTA SUBARU	ZN6 ZC6	FA20	CLUTCH SET	ORC-040-TT1213	This is a set of the clutch cover (ORC-030-TT1213) and clutch disc (ORC-020-TT1213). Includes dedicated clutch cover bolts.
			CLUTCH COVER	ORC-030-TT1213	Use with the stock clutch disc (ORC-020-TT1213). Includes dedicated clutch cover bolts. Stock clutch discs cannot be used.
			CLUTCH DISC	ORC-020-TT1213	Use with the dedicated clutch cover (ORC-030-TT1213). Stock clutch discs cannot be used.
TOYOTA SUBARU	ZN8 ZD8	FA24	CLUTCH SET	ORC-040-TT1213	This is a set of the clutch cover (ORC-030-TT1213) and clutch disc (ORC-020-TT1213). Includes dedicated clutch cover bolts.
			CLUTCH COVER	ORC-030-TT1213	Use with the dedicated clutch disc (ORC-020-TT1213). Includes dedicated clutch cover bolts. Stock clutch discs cannot be used.
			CLUTCH DISC	ORC-020-TT1213	Use with the dedicated clutch cover (ORC-030-TT1213). Stock clutch discs cannot be used.
TOYOTA	GXPA16	G16E-GTS	CLUTCH SET	ORC-040-TT1818-SE-20	This is a set of the clutch cover (ORC-030-TT1818-SE-20) and clutch disc (ORC-020-TT1818-SE-10). Includes dedicated clutch cover bolts.
			CLUTCH COVER	ORC-030-TT1818-SE-20	Use with the stock clutch disc (ORC-020-TT1818-SE-10). Includes dedicated clutch cover bolts. Stock clutch discs cannot be used.
			CLUTCH DISC	ORC-020-TT1818-SE-10	Use with the dedicated clutch cover (ORC-030-TT1818-SE-20). Stock clutch discs cannot be used.

INSTALLATION NOTES

Please use the stock release bearing.

Due to the nature of the ORC clutch, which is designed to be lightweight and low-inertia, the gear engagement noise (rattling sound) from the transmission's neutral gear may be more noticeable compared to the stock parts. The noise is caused by the internal structure of the transmission and does not indicate any issues with the clutch's quality or performance.

ARUGOS®

Arugos is an ORC brand designed for non-Japanese vehicles. ORC entered the Japanese racing scene in 1998, quickly building a world-class reputation. Driven by the demand for excellence, the Arugos lineup combines advanced technology, experience, and passion to deliver exceptional performance and reliability to global markets. The Arugos ARS-559 and ARS-659 Metal Series twin disc clutches are the most popular options offered by ORC.

Arugos Light Clutch

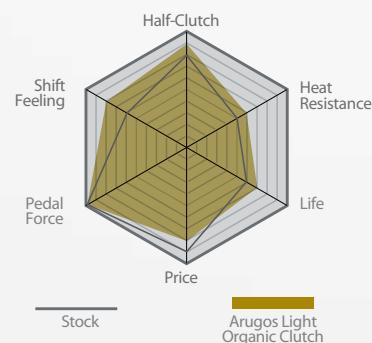


Series Lineup

- ARS-250L Light Clutch (Single Organic Disc)
- ARS-400L Light Clutch (Single Organic Disc)

High-Performance Sports Driving Clutch. Responsive shift control from street use to circuit applications.

The light weight clutch disc construction enables reduced rotational inertia, providing quick shift engagement and a precise half-clutch feel. Combined with the clutch's low-mass design, which enhances engine pickup characteristics, the system delivers high-fidelity torque response and improved driveline efficiency for advanced sports-driving performance.



Arugos Metal Clutch

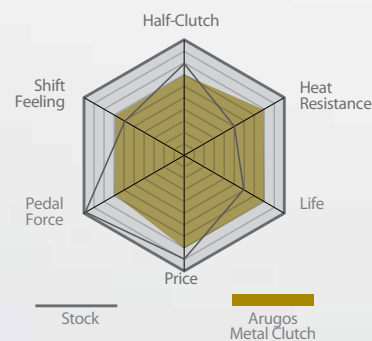


Series Lineup

- ARS-309 Metal Clutch (Single Disc)
- ARS-559/659 Metal Clutch (Twin Disc)
- ARS-1000F Metal Clutch (Triple Disc)

From sporty driving to serious circuit performance — a high-performance reinforced clutch that adapts to a wide range of driving scenarios.

Achieving smooth yet precise pedal feel and reliable torque transmission, this metal-type clutch series delivers excellent engagement characteristics and enhanced half-clutch controllability. Designed to perform across a broad range of situations, it responds faithfully to the driver's input and provides exceptional vehicle control, contributing to reduced lap times.



Arugos Carbon Clutch

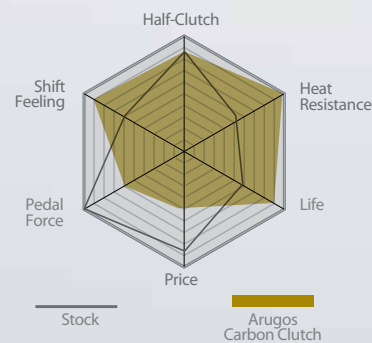


Series Lineup

- ARS-559CC Carbon Clutch (Twin Disc)

A carbon clutch with every component specially engineered, based on our metal twin disc clutch experience.

By significantly reducing the weight of the clutch discs, quicker and more responsive shifting becomes possible. Exceptional durability ensures stable torque transfer even under high-temperature conditions. This carbon clutch delivers outstanding consistency and performance.





Advanced Technology, Experience, and Passion

Improved clutch pedal feel: The feeling is both mild and sensitive.

Easy to drive: Two sets of specially designed torsion springs have been added to the disc for ease of driving.

Increased clutch capacity: Capacity has been greatly improved by increasing the friction area while maintaining a light pedal feel and stable half-clutch characteristics.

Highly durable: It is durable with operation improved by using a drive hub system.

Easy to install

Solid transfer of torque: The engine torque gets to your wheels solidly. Excellent heat management: All heat created by the clutch is 120% contained and controlled for maximum durability and reliability.

Arugos Lightweight Flywheel and Damper Disc System



Lightweight flywheel and damper disc.

Engineered to deliver performance beyond stock.

A flywheel optimized through moderate weight reduction enhances engine pick-up response. To reduce transmission noise that can occur when lightening the flywheel, a damper-equipped disc has also been specially configured.

Series Lineup

ARS-010

Lightweight Flywheel

ARS-020

Damper Disc



CLUTCH COVER: Specially designed clutch cover with aluminum + anodized aluminum treatment to ensure sufficient strength and durability through FEM (finite element method) analysis while being light weight. The reliable crimping force provided by the special diaphragm spring and the nine high-strength bolt connections coupled to the flywheel provide additional reliability.



PRESSURE PLATE: Thoroughly pursues durability and weight reduction. In order to achieve a cooling effect and segmentation of the friction surface, slits are provided on the friction surface to improve stability by making the contact uniform.



CLUTCH DISC: This high-friction metal disc, developed exclusively for competition, uses a damper-type design to balance improved torque transmission without sacrificing control. It offers excellent performance for both demanding circuit use and everyday driving on public roads. Additionally, hub-drive carbon discs are available for select vehicle models. Leveraging carbon's unique properties—where its friction coefficient varies with temperature—these discs deliver outstanding drivability and high torque transmission across a wide range of conditions.



MID PLATE: With a slit on the friction surface. The cooling effect and the segmentation of the friction surface achieve uniformity and contribute to stable torque transmission.



FLYWHEEL: Lightweight and made of chromoly steel for improved engine response. Coupled to the cover by nine mounting bolts, it distributes the load on the discs due to sudden changes in torque, suppresses deformation of each part, and improves stability.

ARUGOS 250L 400L LIGHT

Organic
Single
(Disc diam. \varnothing
200/225mm)



MAKE	SERIES	MODEL	CLUTCH MODEL	WEIGHT	TORQUE	SE	FLYWHEEL BOLTS	RELEASE BEARING
PORSCHE *9	911	964 *2	ARS-P400L-HP-PS0101	27.6 lb / 12.5 kg	412 lbft / 558 Nm	•	Stock bolts *12	Stock Bearing *13
	911	993 *10	ARS-P400L-HP-PS0101	27.6 lb / 12.5 kg	412 lbft / 558 Nm	•	Stock bolts *12	Stock Bearing *13
	911	996 *11	ARS-P400L-HP-PS0101	27.6 lb / 12.5 kg	412 lbft / 558 Nm	•	Stock bolts *12	Stock Bearing *13
	911	997 *5	ARS-P400L-HP-PS0101	27.6 lb / 12.5 kg	412 lbft / 558 Nm	•	Stock Bolt *12	Stock Bearing *13
ALFA ROMEO	147	GTA (V6, 3.2L, 6M/T)	ARS-P400L-AR0101	24.9 lb / 11.3 kg	288 lbft / 390 Nm		Stock Bolt	Stock Bearing
	156	GTA (V6, 3.2L, 6M/T)	ARS-P400L-AR0101	24.9 lb / 11.3 kg	288 lbft / 390 Nm		Stock Bolt	Stock Bearing
	156	GT (V6, 3.2L, 6M/T)	ARS-P400L-AR0101	24.9 lb / 11.3 kg	288 lbft / 390 Nm		Stock Bolt	Stock Bearing
	156	GTV (V6, 3.2L, 6M/T)	ARS-P400L-AR0101	24.9 lb / 11.3 kg	288 lbft / 390 Nm		Stock Bolt	Stock Bearing
BMW	318is	E36 (1.8L / 1.9L, 5M/T)	ARS-400L-BM0809	26.7 lb / 12.1 kg	288 lbft / 390 Nm		Included	B-Type Included
	M3	E36 (3.0L, 5M/T)	ARS-400L-BM0809	26.7 lb / 12.1 kg	288 lbft / 390 Nm		Included	B-Type Included
	M3	E36 (3.2L, 6M/T)	ARS-400L-BM0809	26.7 lb / 12.1 kg	288 lbft / 390 Nm		Included	B-Type Included
	MINI	R53 (Cooper S)	ARS-400L-MN0202	25.4 lb / 11.5 kg	288 lbft / 390 Nm		Included	B-Type Included
	MINI	R56 (Cooper S / JCW) *7	ARS-400L-MN0303-10	25.8 lb / 11.7 kg	288 lbft / 390 Nm		Stock Bolt	B-Type Included
	MINI	F56 (Cooper S / JCW)	ARS-400L-MN0404	26.9 lb / 12.2 kg	288 lbft / 390 Nm		Stock Bolt	B-Type Included
ABARTH	500		ARS-250L-HP-AT0101	19 lb / 8.6 kg	231 lbft / 313 Nm		Stock Bolt	Adapter Included
LOTUS	Elise	111 (Rover 18K Engine)	ARS-250L-HP-LT0101	19.6 lb / 8.9 kg	231 lbft / 313 Nm		Stock Bolt	A-Type Included
	Elise	111S Rover (18K Engine)	ARS-250L-HP-LT0101	19.6 lb / 8.9 kg	231 lbft / 313 Nm		Stock Bolt	A-Type Included
	Exige	Rover (18K Engine)	ARS-250L-HP-LT0101	19.6 lb / 8.9 kg	231 lbft / 313 Nm		Stock Bolt	A-Type Included
	340R	Rover (18K Engine)	ARS-250L-HP-LT0101	19.6 lb / 8.9 kg	231 lbft / 313 Nm		Stock Bolts	A-Type Included
LANCIA	Delta HF Integrate	L31 (16V, Evo, Evo2) *8	ARS-P400L-LC0101	22.3 lb / 10.1 kg	288 lbft / 390 Nm		Included	Stock Bearing

ARUGOS 309 METAL

Metal Single
(Disc diam. \varnothing 200mm)



MAKE	SERIES	MODEL	CLUTCH MODEL	WEIGHT	TORQUE	SE	FLYWHEEL BOLTS	RELEASE BEARING
LOTUS	Elise (Phase II Toyota Eng)	111R	ARS-309D-LT0303	18.5 lb / 8.4 kg	251 lbft / 340 Nm		Included	A-Type Included
		R	ARS-309D-LT0303	18.5 lb / 8.4 kg	251 lbft / 340 Nm		Included	A-Type Included
		SC	ARS-309D-LT0303	18.5 lb / 8.4 kg	251 lbft / 340 Nm		Included	A-Type Included
	Exige (MK-2 Toyota Eng)	S / S PP	ARS-309D-LT0303	18.5 lb / 8.4 kg	251 lbft / 340 Nm		Included	A-Type Included
		CUP 260	ARS-309D-LT0303	18.5 lb / 8.4 kg	251 lbft / 340 Nm		Included	A-Type Included

ARUGOS 559 659 METAL

Metal Twin
(Disc diam. \varnothing 200mm)



MAKE	SERIES	MODEL	CLUTCH MODEL	WEIGHT	TORQUE	SE	FLYWHEEL BOLTS	RELEASE BEARING
PORSCHE *1	911	964 *2	ARS-P659D-PS0101	27.3 lb / 12.4 kg	542 lbft / 735 Nm	•	Stock Bolts Required *12	Stock Bearing *14
	911	993 *3	ARS-P659D-PS0101	27.3 lb / 12.4 kg	542 lbft / 735 Nm	•	Stock Bolts Required *12	Stock Bearing *14
	911	996 *4	ARS-P659D-PS0101	27.3 lb / 12.4 kg	542 lbft / 735 Nm	•	Stock Bolts Required *12	Stock Bearing *14
	911	997 *5	ARS-P659D-PS0101	27.3 lb / 12.4 kg	542 lbft / 735 Nm	•	Stock Bolts Required *12	Stock Bearing *14
BMW	M2	F87 (S55 engine)	ARS-559D-BM0910-SE	33.3 lb / 15.9 kg	465 lbft / 630 Nm	•	Stock Bolts Required	B-Type Included
	M3	E36 (3.0L, 5M/T)	ARS-559D-BM0101	28 lb / 12.7 kg	472 lbft / 640 Nm	•	Included	B-Type Included
	M3	E36 (3.2L, 6M/T)	ARS-559D-BM0101	28 lb / 12.7 kg	472 lbft / 640 Nm	•	Included	B-Type Included
	M3	E46 (3.2L, 6M/T)	ARS-559D-BM0404	28 lb / 12.7 kg	472 lbft / 640 Nm	•	Included	B-Type Included
	M4	F82	ARS-559D-BM0910-SE	33.3 lb / 15.1 kg	465 lbft / 630 Nm	•	Stock Bolts Required	B-Type Included
	Z4 M	E85 Conv. (3.2L, 6M/T)	ARS-559D-BM0408	28 lb / 12.7 kg	472 lbft / 640 Nm	•	Included	B-Type Included
	Z4 M	E86 Coupe (3.2L, 6M/T)	ARS-559D-BM0408	28 lb / 12.7 kg	472 lbft / 640 Nm	•	Included	B-Type Included
	FERRARI	348	tb / ts *6	ARS-559D-FR0202	27.3 lb / 12.4 kg	472 lbft / 640 Nm		Ring Gear *15
348		Spider *6	ARS-559D-FR0202	27.3 lb / 12.4 kg	472 lbft / 640 Nm		Ring Gear *15	Stock Bearing
348		GTB / GTS *6	ARS-559D-FR0202	27.3 lb / 12.4 kg	472 lbft / 640 Nm		Ring Gear *15	Stock Bearing
F40			ARS-559D-FR0403	29.3 lb / 13.3 kg	472 lbft / 640 Nm		Stock Bolts Required	Stock Bearing
HYUNDAI	Genesis Coupe	2.0T	ARS-559D-HY0202	32 lb / 14.5 kg	472 lbft / 640 Nm	•	Stock Bolts Required	Stock Bearing
	Genesis Coupe	2.0T R-Spec	ARS-559D-HY0202	32 lb / 14.5 kg	472 lbft / 640 Nm	•	Stock Bolts Required	Stock Bearing
	Genesis Coupe	3.8L V6 (Early Model)	ARS-559D-HY0303	34.2 lb / 15.5 kg	472 lbft / 640 Nm	•	Stock Bolts Required	Stock Bearing
AUDI	S1	S1 / S1 Sportback	ARS-559D-AD0202-SE	26.5 lb / 12.0 kg	472 lbft / 640 Nm	•	Stock Bolts Required	Stock Bearing



Considerations for Arugos Clutch Selection

Light Clutch is a good match if your engine is relatively stock or lightly tuned and you want daily-drivable clutch behavior with improved shift feel.

Metal Clutch tends to be the most versatile if you want a balanced clutch for spirited driving or moderately tuned car, mixing street and occasional track driving.

Carbon Clutch is a good match if you're building a track-focused or high-power car, or want maximum performance and quick shift changes. It offers the best performance gains, at the cost of some comfort and drivability.

MAKE	SERIES	MODEL	CLUTCH MODEL	WEIGHT	TORQUE	SE	FLYWHEEL BOLTS	RELEASE BEARING
BMW	M2	F87 (S55 engine)	ARS-1000F-BM0910-SE	35 lb / 15.9 kg	723 lbft / 980 Nm	•	Stock Bolts Required	B-Type Included
	M4	F82	ARS-1000F-BM0910-SE	35 lb / 15.9 kg	723 lbft / 980 Nm	•	Stock Bolts Required	B-Type Included

ARUGOS 1000F METAL
Metal Triple
(Disc diam. ϕ 200mm)

MAKE	SERIES	MODEL	CLUTCH MODEL	WEIGHT	TORQUE	SE	FLYWHEEL BOLTS	RELEASE BEARING
FERRARI	348	tb / ts *6	ARS-559CC-FR0202	24 lb / 10.9 kg	472 lbft / 640 Nm		Ring Gear *15	Stock Product Required
	348	Spider *6	ARS-559CC-FR0202	24 lb / 10.9 kg	472 lbft / 640 Nm		Ring Gear *15	Stock Product Required
	348	GTB / GTS *6	ARS-559CC-FR0202	24 lb / 10.9 kg	472 lbft / 640 Nm		Ring Gear *15	Stock Product Required

ARUGOS 559CC CARBON
Carbon Twin
(Disc diam. ϕ 200mm)



MAKE	SERIES	MODEL	CLUTCH MODEL	WEIGHT	TORQUE	SE	FLYWHEEL BOLTS	RELEASE BEARING
BMW	Z3 Roadster	1.8	ARS-010-BM0707 (Flywheel)	13.2 lb / 6.0 kg				
	Z3 Roadster	1.9 (10/95-03/99)	ARS-010-BM0707 (Flywheel)	13.2 lb / 6.0 kg				
	MINI	R53 (Cooper S)	ARS-010-MN0202 (Flywheel) *16	14.6 lb / 6.6 kg				
	MINI	R53 (Cooper S)	ARS-020-MN0202 (Damper Disc) *17		221 lbft / 300 Nm			
LOTUS	Elise (Phase II Toyota Eng)	111R	ARS-010-LT0303 (Flywheel)	8.2 lb / 3.7 kg				
	Elise (Phase II Toyota Eng)	S (1ZZ Engine)	ARS-010-LT0202 (Flywheel)	8.2 lb / 3.7 kg				
	Elise (Phase II Toyota Eng)	R	ARS-010-LT0303 (Flywheel)	8.2 lb / 3.7 kg				
	Elise (Phase II Toyota Eng)	SC	ARS-010-LT0303 (Flywheel)	8.2 lb / 3.7 kg				
	Exige (MK-2 Toyota Eng)	S / S PP	ARS-010-LT0303 (Flywheel)	8.2 lb / 3.7 kg				
	Exige (MK-2 Toyota Eng)	CUP 260	ARS-010-LT0303 (Flywheel)	8.2 lb / 3.7 kg				

ARUGOS LIGHT WEIGHT FLYWHEEL & DAMPER DISC
(Disc diam. ϕ 200mm)



*1 Stock release bearings, guide tubes, and crank bolts (for one vehicle) are required separately.
• Release bearing: 950.116.080.08, • Guide tube: 950.116.813.06, • Crank bolts: 928.102.151.01
Using any parts other than the above may result in improper operation.

*2 Applicable Vehicles (964): • 3.6 Carrera, • 3.6 Carrera 4, • 3.6 Carrera RS

*3 Applicable Vehicles (993): • 3.6 Carrera, • 3.6 Carrera 4, • 3.6 Turbo GT2, • 3.6 Turbo GT2 4, • 3.8 Carrera RS, • 3.8 Carrera RS 4

*4 Applicable Vehicles (996): • 3.6 GT3, • 3.6 GT3 Clubsport, • 3.6 Turbo 4, • 3.6 GT2, • Turbo 4S

*5 Applicable Vehicles (997): • 3.6 GT3, • 3.6 GT3 RS

*6 Stock clutches can only be used on single clutch vehicle.

*7 Product renewed in July 2016.

*8 Not compatible with 8-valve models.

*9 Stock release bearings, guide tubes, and crank bolts (for one vehicle) are required separately.
Release bearing: 944.116.080.01, • Guide tube: 950.116.813.30, • Crank bolt: 928.102.151.01
Using any parts other than the above may result in improper operation.

*10 Applicable Vehicles (993): • 3.6 Carrera, • 3.6 Carrera 4, • 3.8 Carrera RS, • 3.8 Carrera RS 4

*11 Applicable Vehicles (996): • 3.6 GT3, • 3.6 GT3 Clubsport

*12 Stock bolts (928.102.151.01)

*13 Use stock bearing (944.116.080.01). Guide tube required separately (950.116.813.30)

*14 Use stock bearing (950.116.080.08). Guide tube required separately (950.116.813.06)

*15 Ring gear - attachment bolts nuts supplied (Stock damper wheel ring gears used)

*16 The weight of the stock double-mass flywheel is 27.1 lbs / 12.3 kg (-12.6 lbs / -5.7 kg).
Only supports stock clutch covers.

*17 The damper mechanism reduces transmission resonance caused by solidification of the flywheel. It cannot be used with stock flywheels. Only supports stock clutch covers.

When ordering parts, please provide the serial number of your clutch cover.

To improve the quality of Ogura Racing Clutch products, the specifications may change over time, even for the same clutch model. Therefore, when ordering parts, it is necessary to identify which components are compatible with your clutch.

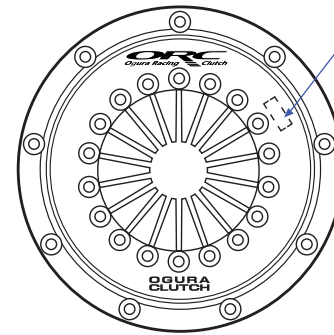
(If you order without specifying the serial number, the purchased part may not be compatible.)

The part compatible with your clutch can be identified using the serial number. Please order our part along with the serial number.

The serial number consists of letters and numbers and is printed on the surface of the clutch cover.

For example: ABC-123, DE-456

(For our products manufactured before 2008, the serial number is printed on the back side of the clutch cover.)



ABC-123

COMMON PARTS

Part Details

Release Bearing	Type-A (Bearing Only)	Size (Outer Diameter)=67.1mm
Release Bearing	Type-B (Bearing Only)	Size (Outer Diameter)=74.1mm
Release Bearing	Type-C (Bearing Only)	Size (Outer Diameter)=81.4mm

Sleeve & Bearing Assemblies are vehicle specific. When ordering, please specify your clutch and vehicle model.

CENTERING TOOL

Compatible Model

For MAZDA / MITSUBISHI	FC3S, FD3S, CN9A, CP9A, CT9A
For NISSAN	NISSAN 24 tooth spline (Excluding Type-A, March (K13 Modification), Note (E12 Modification))
For TOYOTA	1JZ, 3S-GTE, 3S-GE (SXE 10)

ADJUSTABLE PUSH ROD

Compatible Model

For NISSAN R32, R33, R34, PS13, S14 and S15

ORC CLUTCH GREASE

Net Weight: 10g

This grease is a blend of synthetic oil, solid lubricants and special composite agents. It reduces dependence on solid lubricants and increases dependence on oil lubrication. It is less volatile, has excellent lubrication properties, and prevents galling and wear caused by micro-vibrations, heavy loads, and impact loads.

PURPOSE - ORC clutch disc spline fitting, ORC conversion kit sliding surfaces, clutch operating component sliding surfaces, and all other sliding surfaces

NISSAN STOCK PARTS INFO

List of Nissan Stock OEM Part Numbers for Clutch Sleeves		Part Number Dimension	
Part Number	Dimension	Part Number	Dimension
30501-A3804	12mm	30501-S0164	22mm
30501-N1604	14mm	30501-K0404	24mm
30501-O2C74	16mm	30501-K0514	26mm
30501-S0284	18mm	30501-1C104	28mm
30501-B6064	20mm	30501-N8474	30mm

*This is the sleeve we used during our fitment check. Please use it as a reference. However, due to potential variations between individual vehicles, be sure to verify the dimensions on the actual vehicle.



PRODUCT NAME	For ER34, BCNR33, BNR32 (Late model), Pull-to-Push Conversion Parts	
	ER34, BCNR33, WGNC34	BCNR32 Late Model (After 02/93)
Clutch hose	1 46211-79910	1 30855-05U00
Clutch tube	1 30850-17U10	1 30850-04U00
Clutch hose/tube retaining bracket	1 30635-15U00	1 30635-01U00
Copper washer	1 46237-A4600	2 46237-A4600
Banjo bolt	1 46356-0E000	1 46356-0E000
Release fork	1 30531-01S00	1 30531-01S00
Dust cover	1 30542-31G10	1 30542-31G10
Transmission front cover assembly	1 32110-05U11	1 32110-05U11
Transmission front cover gasket	1 32112-05U12	1 32112-05U12
Spring (sleeve side)	1 30514-14600	1 30514-14600
Spring (release fork side)	1 30534-E9000	1 30534-E9000
Release cylinder assembly	1 30620-21U01	1 30620-21U01

* A tube fixing bracket is not required. Please be sure to install it properly.

* For ER34, please refer to instruction manual for installation and removal.

ORC 250L LIGHT SERIES

Single
(Disc diam ϕ 200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Clutch Disc Assembly	1
(3) Pressure Plate Assembly	1
(4) Clutch Cover Assembly (High Pressure Type)	1
(5) Torx Bolt	3
(6) Flat Washer	3
(7) Hex Nut	3
(8) Washer	6
(9) Cover Bolt (M8 x 16mm long)	6

*1 TT0305 (For SXE10) requires 8 stock flywheel bolts (90105-12312).

*2 250L clutch for the EG6, EK4, EK9, DC2 has a different thickness at the flywheel mounting point compared to the stock flywheel.

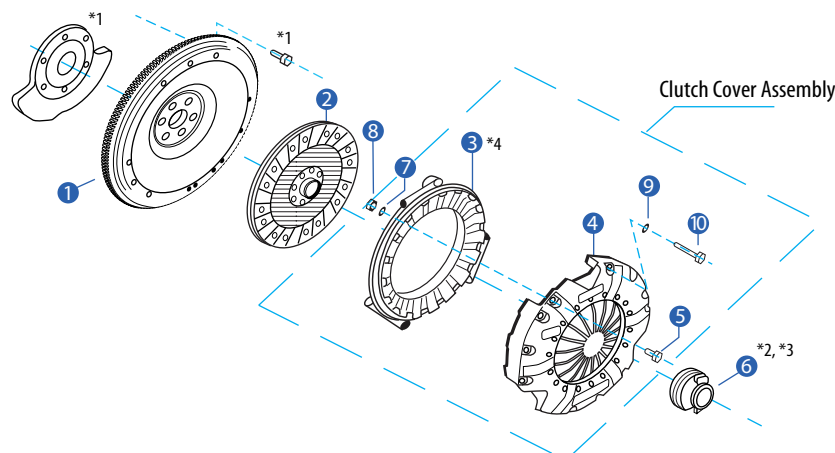
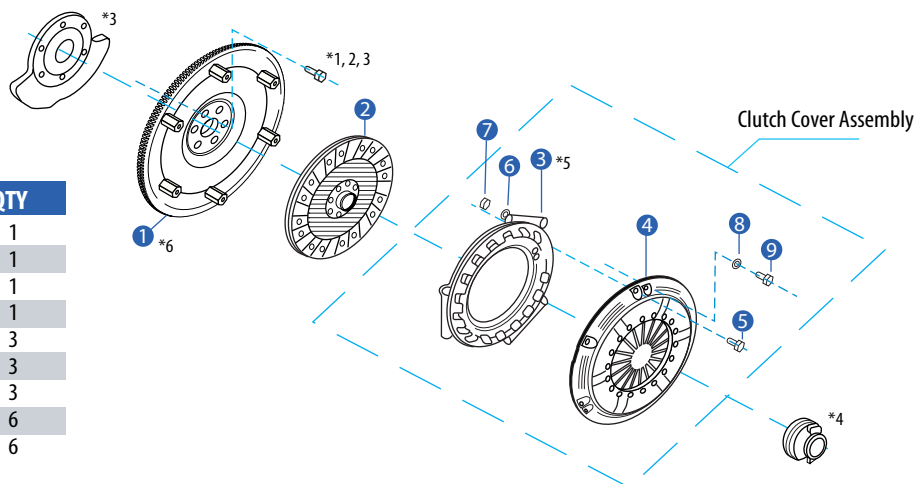
When replacing with a ORC Light clutch, replace with Honda-specific flywheel mounting bolts (90011-PM-000).

*3 MZ0303 requires the stock counterweight (N3Z2-11-52X) and 6 mounting bolts (8051-27-235).

*4 Please use stock sleeve bearings (not included with the ORC clutch).

*5 When replacing the pressure plate, you will need to retain your clutch cover assembly. Please contact us regarding costs.

*6 TT0305, HD0101 and MZ0204 require a stock pilot bearing sold separately.



ORC 400L LIGHT SERIES

Single
(Disc diam ϕ 225mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Clutch Disc Assembly	1
(3) Pressure Plate Assembly	1
(4) Clutch Cover Assembly (High Pressure Type)	1
(5) Torx Bolt	3
(6) Sleeve Bearing	1
(7) Flat Washer	3
(8) Hex Nut	3
(9) Washer	9
(10) Cover Bolt (M8 x 45mm long)	9

*1 MZ0101 requires the stock counterweight (for FC3S early model: N3Y8-11-52X, for FC3S late model: N3Y6-11-52X and 6 mounting bolts (8051-27-235).

*2 The sleeve bearing for TT0202 is included in the dedicated conversion kit. For other vehicles, please purchase the stock part separately.

*3 Please use stock sleeve bearings. (Not included with the ORC clutch).

*4 When replacing the pressure plate, a specialized tool is required, so you will need to retain your clutch cover assembly. Please contact us regarding costs.

ORC P400L LIGHT SERIES

Pull Type Single
(Disc diam ϕ 225mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Clutch Disc Assembly	1
(3) Pressure Plate Assembly	1
(4) Clutch Cover Assembly	1
(5) Torx Bolt	3
(6) Catcher	1
(7) Flat Washer	3
(8) Hex Nut	3
(9) Washer	9
(10) Cover Bolt (M8 x 45mm long)	9

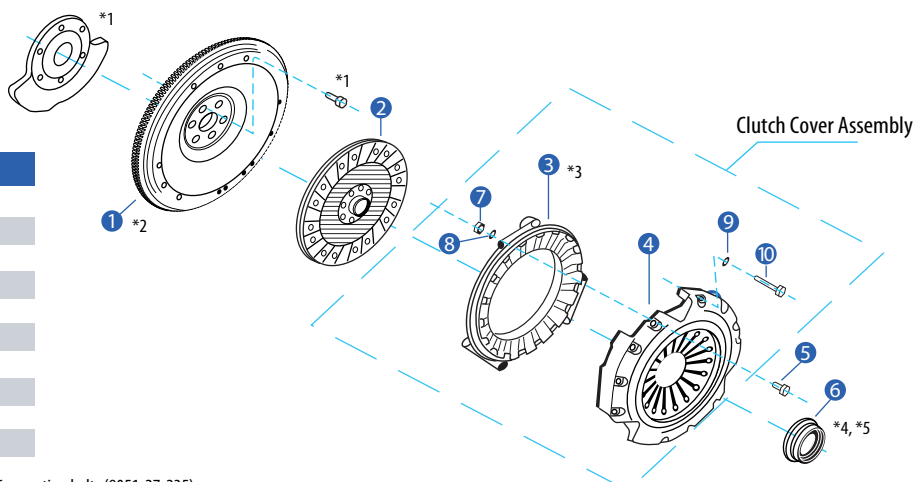
*1 MZ0102 requires the stock counterweight (For FD3S: N3Y2-11-52X) and 6 mounting bolts (8051-27-235).

*2 For SB0101 and SB0102, the stock pilot bearing is required separately.

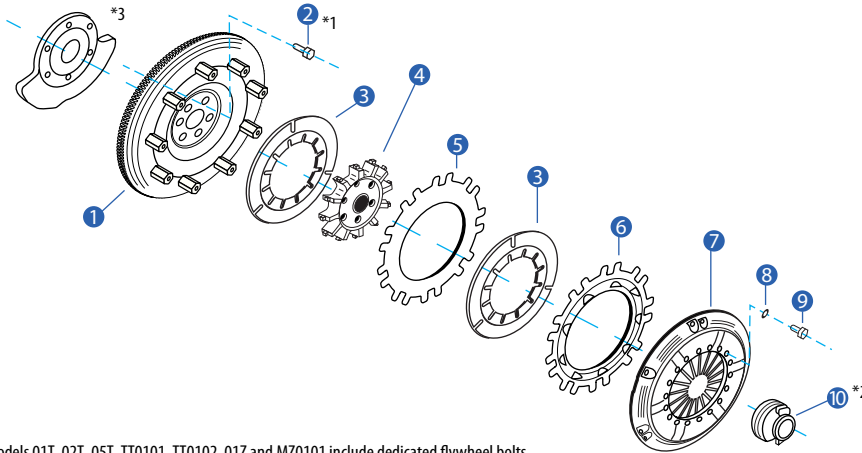
*3 When replacing the pressure plate, a specialized tool is required, so we will need to retain your clutch cover assembly. Please contact us regarding costs.

*4 Depending on the vehicle model, the length may vary.

*5 TT0202 includes a sleeve instead of a catcher.



**ORC
559CC
PRO CARBON SERIES**
Carbon Twin
(Disc diam \varnothing 200mm)



PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	1
(3) Carbon Clutch Disc	2
(4) Hub	1
(5) Mid Plate	1
(6) Pressure Plate	1
(7) Clutch Cover Assembly	1
(8) Washer	9
(9) Cover Bolt (M8 x 16mm long)	9
(10) Sleeve Assembly	1

*1 Models 01T, 02T, 05T, TT0101, TT0102, 01Z and MZ0101 include dedicated flywheel bolts.

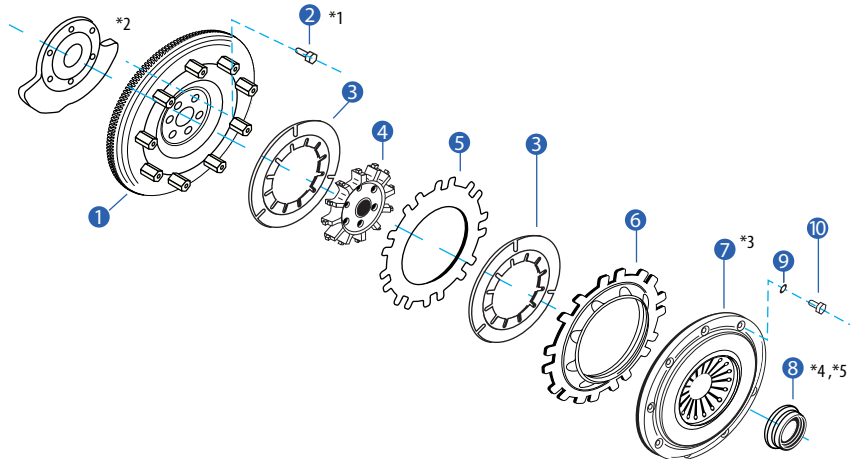
*2 The sleeve assembly for 01T, 02T, TT0101 and TT0202 is included in the dedicated conversion kit.

*3 01Z and MZ0101 require the MAZDA stock counterweight (For FC3S early model: N3Y8-11-52X), for FC3S late model: N3Y6-11-52X).

Note: There is no overhaul kit available for Carbon clutch.

**ORC
P559CC
PRO CARBON SERIES**
Pull Type Carbon Twin
(Disc diam \varnothing 200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Carbon Clutch Disc	2
(4) Hub	1
(5) Mid Plate	1
(6) Clutch Plate Assembly	1
(7) Clutch Cover Assembly	1
(8) Catcher	1
(9) Washer	9
(10) Cap Bolt (M8 x 16mm long)	9



*1 MZ0102, SB0101 and SB0102 include dedicated flywheel bolts.

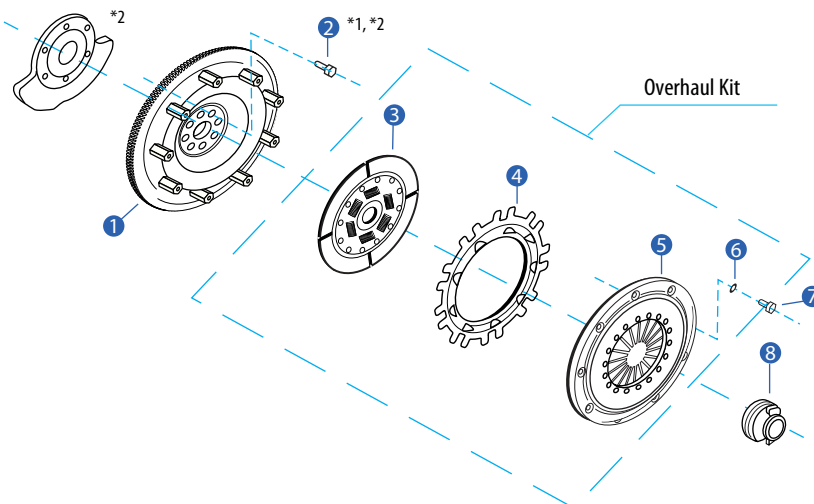
*2 MZ0102 requires the MAZDA stock counterweight (For FD3S early model and late model: N3Y2-11-52X).

*3 The old-type clutch cover assembly (diaphragm spring bend type) has a different component price. Please contact us for details.

*4 Depending on the vehicle model, the length may vary.

*5 TT0202 includes a sleeve instead of a catcher. Please use the stock sleeve for TT0101.

Note: There is no overhaul kit available for the Carbon clutch.



**ORC
209D/309D
METAL SERIES**
Metal Single
(Disc diam \varnothing 200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly (309D)	1
(4) Pressure Plate	1
(5) Clutch Cover Assembly	1
(6) Washer	9
(7) Cover Bolt (M8 x 16mm long)	9
(8) Sleeve Assembly	1

- Overhaul Kit (309D)

- Overhaul Kit (with SE Mechanism)

*1 05T, 08T, 09T1, 09T2, 13T, and 15T include dedicated flywheel bolts.

*2 05Z requires the stock counterweight (N3Z2-11-52X) and 6 mounting bolts (8051-27-235).

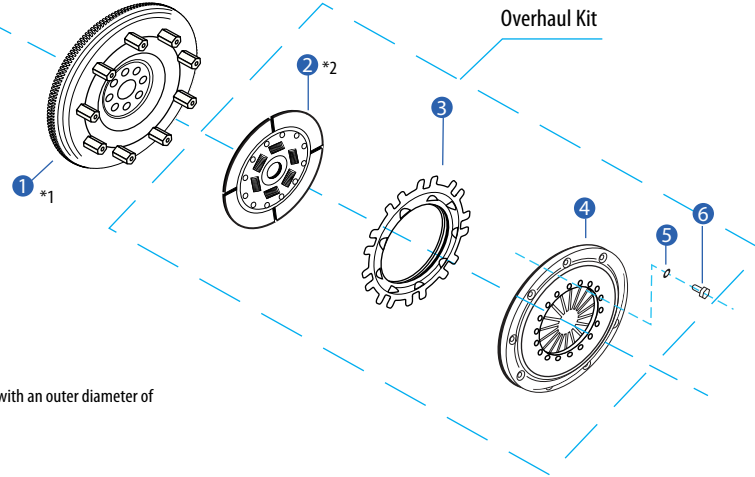
**ORC
P309D/HD0202
METAL SERIES**
Pull Type Metal Single
(Disc diam \varnothing 200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Clutch Disc Assembly	1
(3) Pressure Plate Assembly	1
(4) Clutch Cover Assembly	1
(5) Washer	9
(6) Cover Bolt (M8 x 16mm long)	9

Overhaul Kit (309DS) -

*1 HD0202 requires the stock pilot bearing separately. Do not use a circular plate with an outer diameter of approximately 88 mm that is secured together with the stock flywheel.

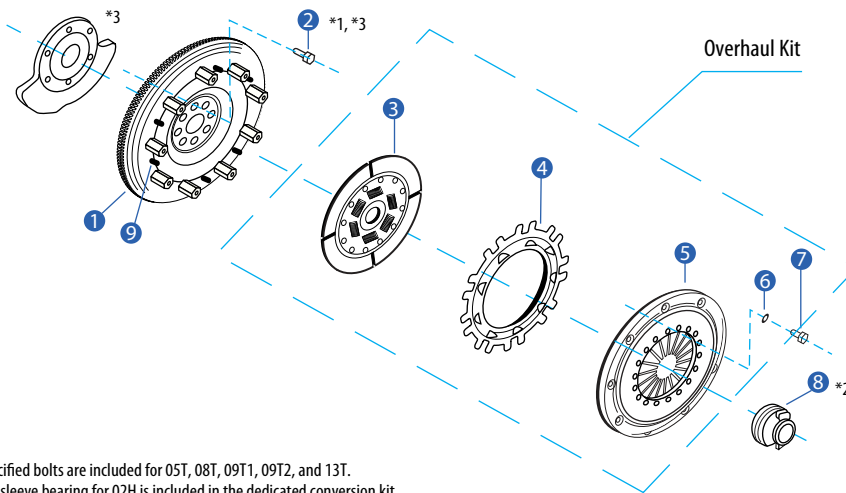
*2 Please pay attention to the orientation of the clutch disc.



**ORC
309DS
METAL SERIES**
Metal Single
(Disc diam \varnothing 200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly (Common with 309D)	1
(4) Pressure Plate	1
(5) Clutch Cover Assembly	1
(6) Washer	9
(7) Cover Bolt (M8 x 16mm long)	9
(8) Sleeve Assembly	1
(9) Silent Type Dedicated Spring	6

- Overhaul Kit (309DS) -



*1 Specified bolts are included for 05T, 08T, 09T1, 09T2, and 13T.

*2 The sleeve bearing for 02H is included in the dedicated conversion kit.

*3 05Z requires the stock counterweight (N3Z2-11-52X) and 6 mounting bolts (8051-27-235).

Note: The type of silent model varies depending on the purchase date. When purchasing clutch parts, always check and provide the serial number on the clutch cover.

**ORC
409D
METAL SERIES**
Metal Single
(Disc diam \varnothing 200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly (409D)	1
(4) Pressure Plate	1
(5) Clutch Cover Assembly	1
(6) Washer	9
(7) Cover Bolt (M8 x 16mm long)	9
(8) Sleeve Assembly	1

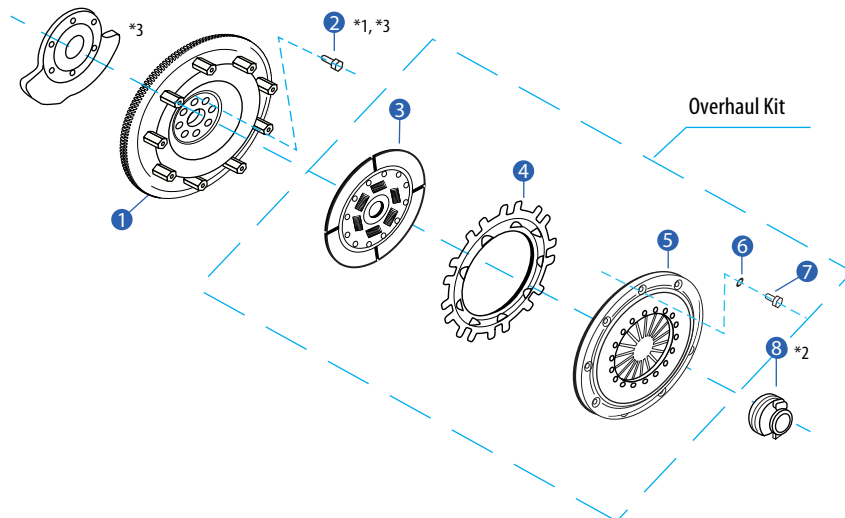
- Overhaul Kit (409D) -

- Overhaul Kit (with SE Mechanism) -

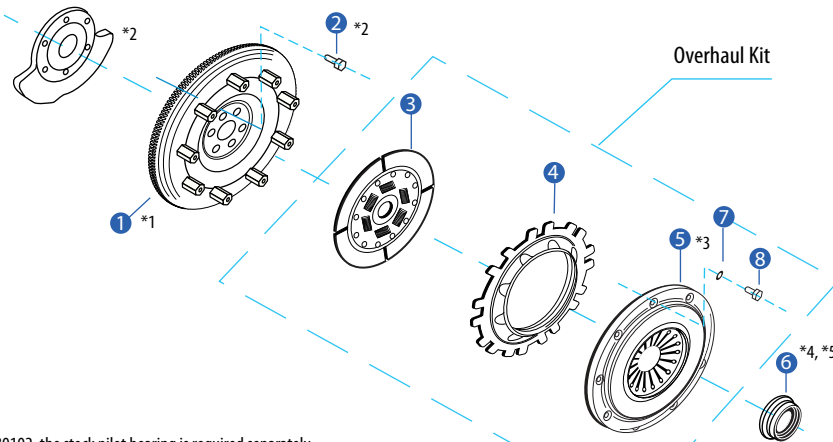
*1 02T and 03T include the dedicated bolts.

*2 The sleeve bearing for 02T is included in the dedicated conversion kit.

*3 01Z requires the stock counterweight (For FC3S early model: N3Y8-11-52X), for FC3S late model: N3Y6-11-52X) and 6 mounting bolts (8051-27-235).



**ORC
P409D
METAL SERIES**
Pull Type Metal Single
(Disc diam ϕ 225mm)



PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly (409D)	1
(4) Pressure Plate Assembly	1
(5) Clutch Cover Assembly	1
(6) Catcher	1
(7) Washer	9
(8) Cover Bolt (M8 x 16mm long)	9

- Overhaul Kit (P409D) -

*1 For SB0101 and SB0102, the stock pilot bearing is required separately.

*2 MZ0102 requires the stock counterweight (For FC3S: N3Y2-11-52X). Mounting bolts are included.

*3 The old-type clutch cover assembly (diaphragm spring bend type) has a different component price. Please contact us for details.

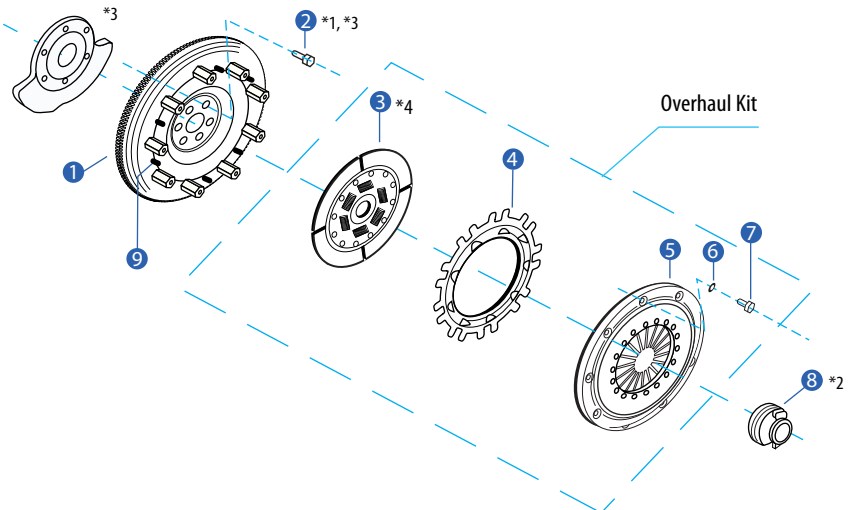
*4 Depending on the vehicle model, the length may vary.

*5 TT0202 includes a sleeve instead of a catcher.

**ORC
409DS
METAL SERIES**
Metal Single
(Disc diam ϕ 225mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly (409DS)	1
(4) Pressure Plate Assembly	1
(5) Clutch Cover Assembly	1
(6) Washer	9
(7) Cover Bolt (M8 x 16mm long)	9
(8) Sleeve Assembly	1
(9) Silent Type Dedicated Spring	6

- Overhaul Kit (P409DS) -



*1 02T and 03T include the dedicated bolts.

*2 The sleeve bearing for 02T is included in the dedicated conversion kit.

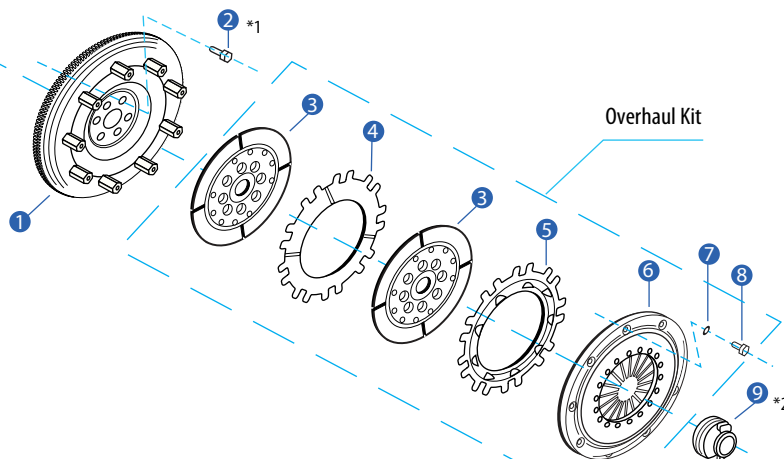
*3 01Z requires the stock counterweight (for FC3S early model: N3Y8-11-52X, for FC3S late model: N3Y6-11-52X and 6 mounting bolts (8051-27-235)).

*4 The type of silent model varies, depending on the purchase date. When purchasing clutch parts, always check the serial number on the clutch cover.

**ORC
559
METAL SERIES**
Metal Twin
(Disc diam ϕ 200mm)

**ORC
659
METAL SERIES**
Metal Twin
(Disc diam ϕ 200mm)

(Excluding 01Z, 04Z, 01M4, 01M5, 01S, 03S, MZ0102, SB0101 and SB0102)



PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly	2
(4) Mid Plate	1
(5) Pressure Plate	1
(6) Clutch Cover Assembly	1
(7) Washer	9
(8) Cover Bolt (M8 x 16mm Long)	9
(9) Sleeve Assembly	1

- Overhaul Kit (Common with 559 and 659) -

*1 01T, 02T, 05T, TT0101, and TT0202 include the dedicated bolts.

*2 The Sleeve Assembly for 01T, 02T, TT0101 and TT0202 is included in the dedicated conversion kit.

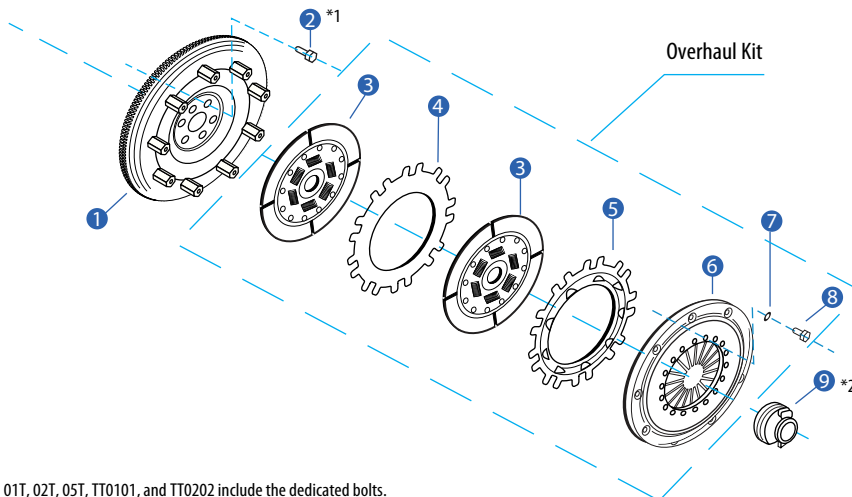
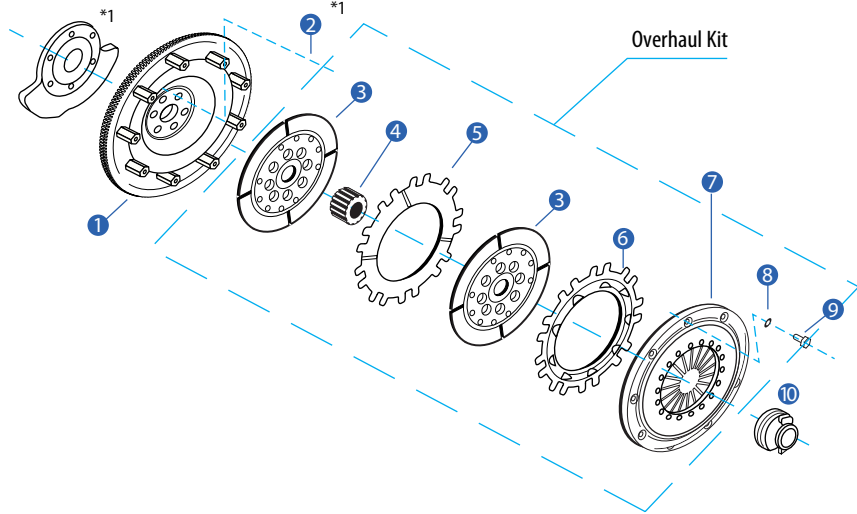
Note: 01Z requires the stock counterweight (For FC3S early model: N3Y8-11-52X), for FC3S late model: N3Y6-11-52X) and 6 mounting bolts (8051-27-235).

**ORC
559-01Z,
NS0714, NS0911
METAL SERIES
Metal Twin
(Disc diam ϕ 200mm)**

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	6
(3) Clutch Disc Assembly	2
(4) Center Boss	1
(5) Mid Plate	1
(6) Pressure Plate	1
(7) Clutch Cover Assembly	1
(8) Washer	9
(9) Cover Bolt (M8 x 16mm long)	9
(10) Sleeve Assembly	1

- Overhaul Kit

*1 01Z and MZ0101 requires the stock counterweight (For FC3S early model: N3Y8-11-52X), for FC3S late model: N3Y6-11-52X). Mounting bolts are included.



*1 01T, 02T, 05T, TT0101, and TT0202 include the dedicated bolts.

*2 The Sleeve Assembly for 01T, 02T, TT0101 and TT0202 is included in the dedicated conversion kit.

**ORC
559D
METAL SERIES
Metal Twin
(Disc diam ϕ 200mm)**

**ORC
659D
METAL SERIES
Metal Twin
(Disc diam ϕ 200mm)**

Excluding 01Z

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly	2
(4) Mid Plate	1
(5) Pressure Plate	1
(6) Clutch Cover Assembly	1
(7) Washer	9
(8) Cover Bolt (M8 x 16mm long)	9
(9) Sleeve Assembly	1

- Overhaul Kit (Common with 559D and 659D)

- Overhaul Kit (with SE Mechanism)

**ORC
P559D, NS0101,
NS0104, TT0101, TT0202
METAL SERIES
Pull Type Metal Twin
(Disc diam ϕ 200mm)**

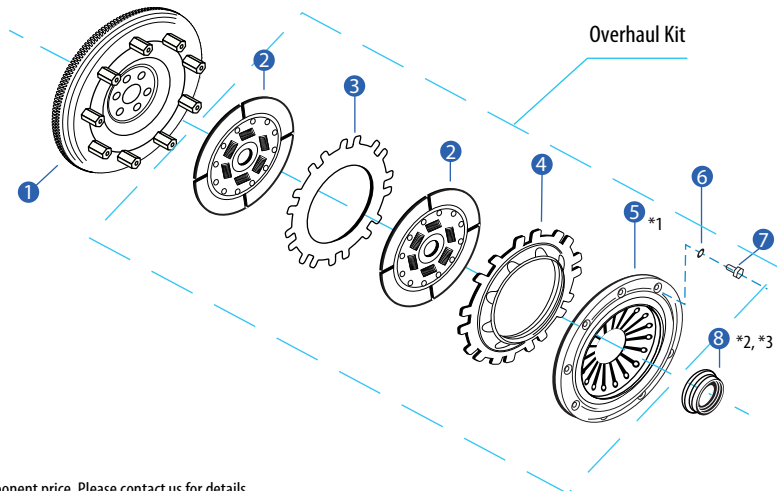
PART NAME	QTY
(1) Flywheel Assembly	1
(2) Clutch Disc Assembly	2
(3) Mid Plate	1
(4) Pressure Plate Assembly	1
(5) Clutch Cover Assembly	1
(6) Washer	9
(7) Cover Bolt (M8 x 16mm long)	9
(8) Catcher	1

- Overhaul Kit ((for P559D)

*1 The old-type clutch cover assembly (diaphragm spring bend type) has a different component price. Please contact us for details.

*2 Depending on the vehicle model, the length may vary.

*3 TT0202 includes a sleeve instead of a catcher. Please use the stock sleeve for TT0101.

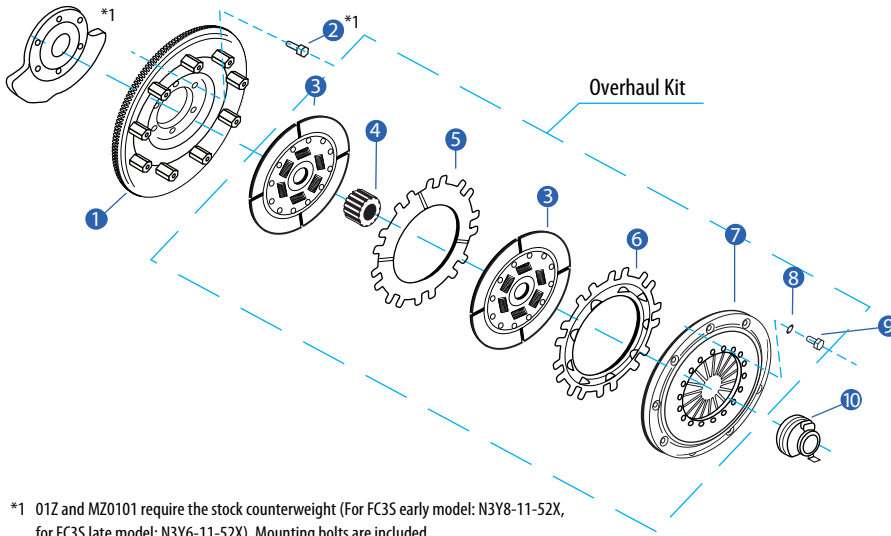


**ORC
559D-01Z,
NS0714, NS0911
METAL SERIES**

Metal Twin (Disc diam. φ200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	6
(3) Clutch Disc Assembly	2
(4) Spline Boss	1
(5) Mid Plate	1
(6) Pressure Plate	1
(7) Clutch Cover Assembly	1
(8) Washer	9
(9) Cover Bolt (M8 x 16mm long)	9
(10) Sleeve Assembly	1

- Overhaul Kit



*1 01Z and MZ0101 require the stock counterweight (For FC3S early model: N3Y8-11-52X, for FC3S late model: N3Y6-11-52X). Mounting bolts are included.

**ORC
P559D-MZ0102, SB0101,
SB0102, MB0101, MB0204
METAL SERIES**

Pull Type Metal Twin (Disc diam. φ200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc Assembly	2
(4) Spline Boss	1
(5) Mid Plate	1
(6) Pressure Plate	1
(7) Clutch Cover Assembly	1
(8) Washer	9
(9) Cover Bolt (M8 x 16mm long)	9
(10) Catcher	1

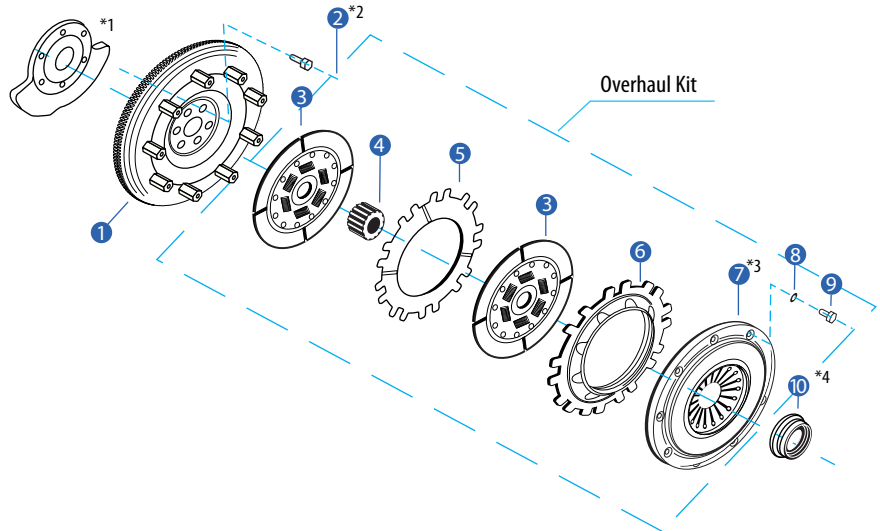
- Overhaul Kit

*1 MZ0102 requires the stock counterweight (For FD3S: N3Y2-11-52X).

*2 MZ0102, SB0101 and SB0102 include the dedicated bolts.

*3 The old-type clutch cover assembly (diaphragm spring bend type) has a different component price. Please contact us for details.

*4 Depending on the vehicle model, the length may vary.



**ORC
1000F
METAL SERIES**

Metal Triple (Disc diam. φ200mm)

**ORC
1000F-SPL
METAL SERIES**

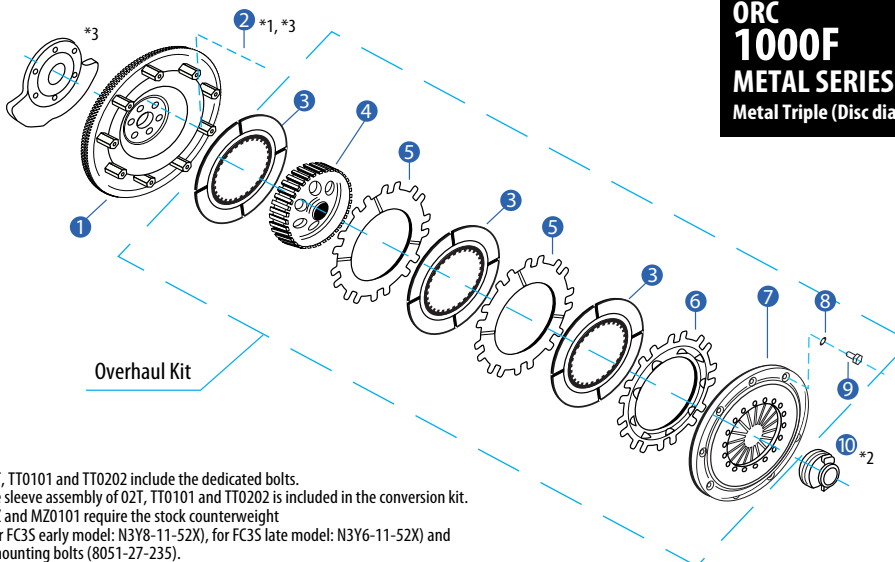
Metal Triple Special (Disc diam. φ200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc	3
(4) Hub	1
(5) Mid Plate	2
(6) Pressure Plate	1
(7) Clutch Cover Assembly	1
(8) Washer	9
(9) Cover Bolt (M8 x 16mm long)	9
(10) Sleeve Assembly	1

- Overhaul Kit (1000F)

- Overhaul Kit (1000F-SPL)

- Overhaul Kit (with SE mechanism)



*1 02T, TT0101 and TT0202 include the dedicated bolts.

*2 The sleeve assembly of 02T, TT0101 and TT0202 is included in the conversion kit.

*3 01Z and MZ0101 require the stock counterweight (For FC3S early model: N3Y8-11-52X), for FC3S late model: N3Y6-11-52X) and 6 mounting bolts (8051-27-235).

ORC P1000F, NS0714, NS0911

Pull Type Metal Triple
(Disc diam ϕ 200mm)

PART NAME	QTY
(1) Flywheel Assembly	1
(2) Flywheel Bolt	-
(3) Clutch Disc	3
(4) Hub	1
(5) Mid Plate	2
(6) Pressure Plate Assembly	1
(7) Clutch Cover Assembly	1
(8) Washer	9
(9) Cover Bolt (M8 x 16mm long)	9
(10) Catcher	1

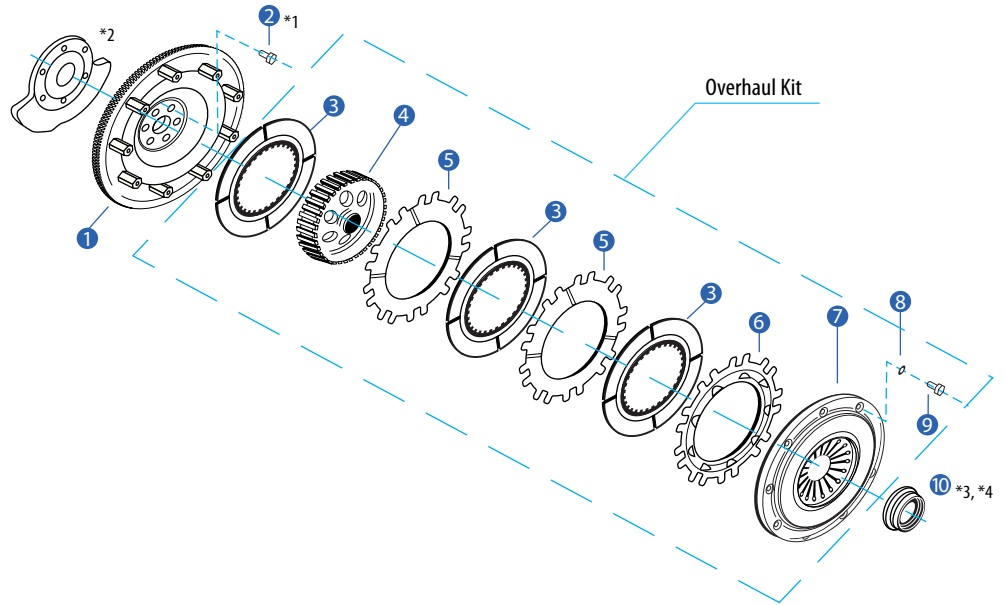
- Overhaul Kit (for P1000F) -

*1 MZ0102 include the dedicated bolts.

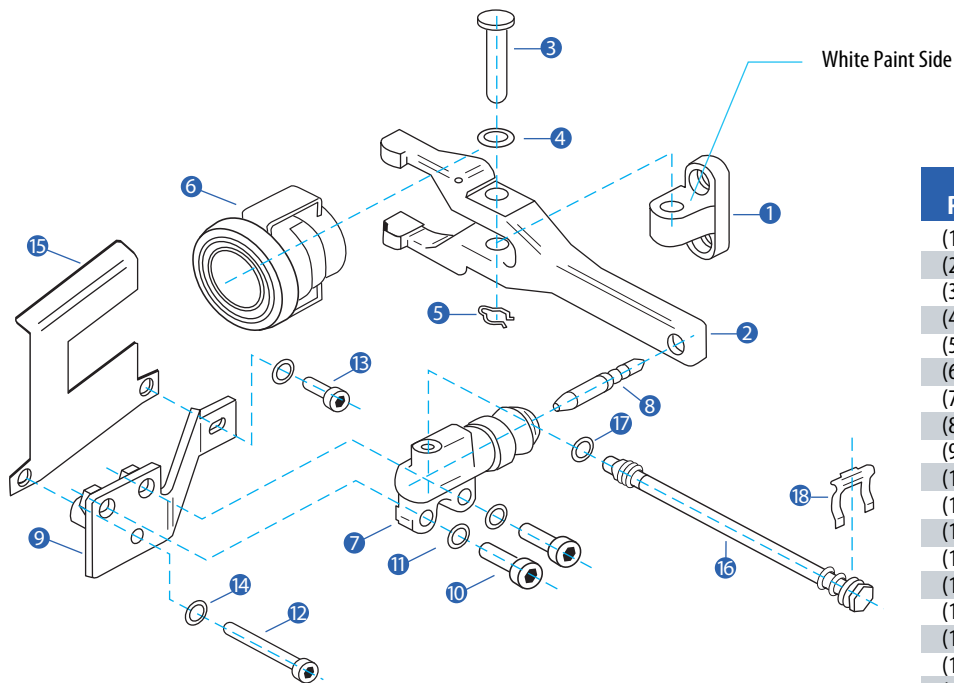
*2 MZ0102 requires the stock counterweight (For FD3S: N3Y2-11-52X).

*3 Depending on the vehicle model, the length may vary.

*4 Please use the stock sleeve for TT0101 and TT0202.



ORC For 01T, 02T, TT0101, TT0202



PART NAME	QTY
(1) Support	1
(2) Release Fork	1
(3) Hinge Pin	1
(4) Wave Washer	1
(5) Snap Ring	1
(6) Release Bearing Assembly	1
(7) Release Cylinder	1
(8) Adjustable Push Rod	1
(9) Cylinder Stay	1
(10) Hex Socket Head Cap Screw (M10 x 30mm long)	2
(11) Flat Washer for M10	2
(12) Hex Socket Head Cap Screw (M8 x 60mm long)	1
(13) Hex Socket Head Cap Screw (M8 x 20mm long)	1
(14) Flat Washer for M8	2
(15) Dust Cover	1
(16) Clutch Hose	1
(17) Copper Gasket	1
(18) Hose Clamp	1

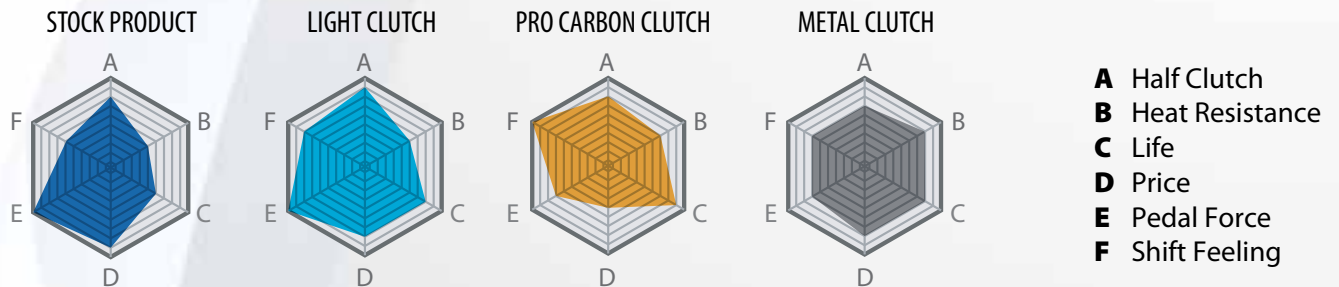
Ogura Racing Clutch (ORC) Frequently Asked Questions

Welcome to the Ogura Racing Clutch (ORC) FAQ section, where we address common questions related to our high-performance clutches. Whether you're a seasoned racer or an automotive enthusiast looking to enhance your vehicle's performance, this guide provides essential information about ORC's products, their benefits, and usage. From clutch selection to maintenance tips, we're here to help you make the most of your ORC experience and ensure optimal performance on the track or street.

Q What are the different series types of ORC reinforced clutch?

There are three main types: the METAL series, the LIGHT series, and the PRO CARBON series.

Clutch selection is typically based on a combination of half-clutch usage, heat resistance, life, price, pedal force, and shift feeling. Depending on the product series and options, internal components and construction will vary.



* The life values in the product specification radar chart above are based on sports driving

Q What are the main differences between single, twin, and triple disc clutches?

Each clutch has a different number of discs. The more discs, the greater the transmission torque. However, increasing the number of discs does not mean that durability will increase.

* Please select based on the engine power of the vehicle and the intended use.

	SPORT	DRIFT	CIRCUIT	DRAG
Light Clutch	★	●	★	▶
Pro Carbon Clutch	★	▶	★	▶
Metal Clutch Single & Twin Disc	●	★	★	●
Metal Clutch Triple Disc	▶	▶	★	★

★ Optimal Fit ● Good Fit ▶ Not Recommended

Note: The above clutch selection is based on our internal data. Clutch selection will also depend on the actual usage conditions. For more information, contact your local tuning shop or ORC.

Q What is the difference between models 309, 409, 559, 659, and 1000F?

The outer diameter and number of discs are the main difference. The model is a numerical value that represents the corresponding horsepower (for reference only).

MODEL	HORSE POWER	DISC OD
309	300	7.9 inches (200mm)
409	400	8.9 inches (225mm)
559	550	7.9 inches (200mm)
659	650	7.9 inches (200mm)
1000F	1000	7.9 inches (200mm)

* The smaller the outer diameter of the disc, the better the engine response, but the lower the transmission torque. Conversely, the larger the diameter of the disc, the greater the transmission torque, but the larger the inertia (moment of inertia), the clutch release is at a disadvantage.

Q What is the difference between a disc with a damper and without a damper?

The damper on the disc makes the half-clutch easy to use and absorbs vibrations from the transmission. On the other hand, if there is no damper, the weight of the disc alone will be lighter, which will improve the shift feeling (release, etc.), but the half-clutch will be difficult to use and the aggressiveness of the drive will increase.

Q What is the difference between 559 and 659?

The 659 is a high-pressure version of the 559. The clamping force of the clutch cover is different, so the corresponding torque is different. The 659 is rated for 650 HP vs 550 HP for the 559 (HP is provided for reference only). If the engine torque is 465 lbft. or more, we recommend the 659, but if you prefer an easy to drive clutch, we recommend the 559. The smaller the outer diameter of the reinforced clutch, the more advantageous it is in inertia and clutch release.

Q There are vehicles that come with conversion kits, but what is the difference from the car models that come with them?

Depending on the vehicle, there is a pull type clutch and a push type clutch. The main difference is between the pull type (pull-to-release clutch) and the push type (push-to-release clutch). In the case of ORC clutches, for some vehicles with normal pull type operation, a conversion kit is included to convert from pull to push.

Q What makes a silent clutch different?

In the case of ORC clutches, the METAL Series and PRO CARBON Series are all lug-drive type clutches. This is a method of transmitting torque by hooking the groove of the pressure plate onto the lug (meaning pillar). This is because when you step on the clutch, the plate is released and the pressure plate comes into contact with a component called the connect shaft, causing a backlash sound. The silent type also has a spring on the flywheel side to reduce this noise. Its construction does not generate backlash noise. There is a strap drive method used in the stock clutch. This is a white belt that secures the clutch cover and pressure plate via a steel strap (belt) to transmit torque.

Q What is the difference between high μ disc and standard type disc?

The high μ disc is only available in the 409B Series and it has a higher coefficient of friction than the standard discs, thus providing higher torque capacity. Half-clutching is more severe and the amount of wear is greater than with the standard discs, thus providing higher torque capacity. Because of the properties of the aggressive material, the chance of welding the surfaces increases in high temperature ranges. As it is an abrasive material made primarily for competition use, sufficient care must be taken when using it.

Q I will be using my clutch for drifting, what should I use?

It depends on the vehicle specifications, but if horsepower is less than 400 horsepower, we recommend the 409 Series. We recommend a twin clutch for over 400 horsepower, but please note that the transmission will be more aggressive.

Q What clutch is more durable?

Durability varies depending on usage and vehicle specifications. Please note that increasing the number of discs does not mean that the durability of the clutch will increase.

Q What is the disc wear limit?

Regarding the wear limit value of the disc, excluding some car models, if the total wear amount of parts inside the clutch exceeds 1mm, the pressing force will decrease by about 80%, so the usage limit value should be adjusted accordingly. For example:

For single disc

Flywheel wear limit >> 0.1mm
Pressure plate wear limit >> 0.1mm
Disc wear limit >> 1.2mm
Total wear limit >> 1.4mm

For twin disc

Flywheel wear limit >> 0.1mm
Pressure plate wear limit >> 0.1mm
Disc 1 wear limit >> 0.7mm
Mid plate wear limit >> 0.1mm
Disc 2 wear limit >> 0.6mm
Total wear limit >> 1.6mm

Measurement of the New Discs

METAL Single and Twin (ORC-150, 209, 309, 409, 559 and 659)	4.7mm
METAL Triple (ORC-1000F)	5.2mm
CARBON Twin (ORC-559CC)	5.0mm
LIGHT Organic Single (ORC-250L, 400L)	8.0mm When cushioning is compressed

Q I hear a noise coming from my transmission while driving. What is the cause?

The main cause of abnormal noise usually originates from the engine, particularly engines with highest torque at lower speeds. By installing a reinforced clutch, the ORC clutch is lighter in weight compared to a stock clutch, which may cause resonance noise from the transmission. Especially in the case of the high torque, low rpm engine, the noise may feel louder than usual in that torque range. As a recommended measure, using transmission oil with high viscosity can alleviate the resonance noise, but please note that due to mechanical issues, it is not possible to completely silence the sound.

Q My clutch is having trouble disengaging, what should I do?

The common cause of clutch disengagement failures is not due to the clutch alone, but due to insufficient pressure on the release. If you feel that the clutch is not releasing properly, we recommend measuring the release stroke and adjusting it before disassembling the clutch. Release cylinder stroke amount / adjustment value.

CAR MODEL	RELEASE BEARING		STROKE AMOUNT		
	Type	Outer Diam (mm)	Contact Diam (mm)	Recommendation (mm)	Upper Limit (mm)
R32, R33	Type A	ø67	ø44	15.2	15.7
R34	Pull Type	–	–	12.6	13.5
S13, S14, S15	Type A	ø67	ø44	15.2	15.7
Z32	Type A	ø67	ø44	15.2	15.7
Z33 (VQ35DE)	Type B	ø74	ø54	13.8	14.3
Z34 (VQ37HR)	–	–	ø48	7.5	7.8
C10, S30	Type A	ø67	ø44	15.2	15.7
B110, B310	Type A	ø67	ø44	26.9	27.9
JZA80	Type B	ø74	ø54	17.9	18.5
JZA80	Pull Type	–	–	10.5	11.0
JZA70 and others	Type B	ø74	ø54	17.9	18.5
JZA70 and others	Pull Type	–	–	12.0	12.5
SW20 and others	Type A	ø67	ø44	13.0	13.5
AE86	Type A	ø67	ø44	12.5	13.0
SXE10	Type A	ø67	ø44	13.0	13.5
EP82, EP91	Type A	ø67	ø44	13.7	14.2
ZZW30	Type A	ø67	ø44	12.9	13.3
ZZT231	Type A	ø67	ø44	12.9	13.3
AE92, AE101, AE111	Type A	ø67	ø44	12.9	13.3
ZN6, ZC6	Type A	ø67	ø44	13.1	13.6
EG6, EK4, EK9, DC2	Type A	ø67	ø44	12.3	12.8
GE8	Stock	–	–	14.0	14.5
GK5	Stock	–	–	11.5	12.0
AP1	Pull Type	–	–	10.4	11.1
DC5	Type A	ø67	ø44	13.0	13.4
FD3S	Pull Type	–	–	13.1	14.0
FC3S	Type A	ø67	ø44	15.4	16.0
NA, NB	Type A	ø67	ø44	14.3	14.8
NC	Type A	ø67	ø44	13.0	13.5
ND	Type A	ø67	ø44	–	–
SE3P	Type C	ø81	ø62	12.7	13.2
CN9A, CP9A, CT9A	Pull Type	–	–	11.7	12.5
CZ4A	Pull Type	–	–	13.5	14.5
GC8	Pull Type	–	–	12.0	12.8
GDB, GRB, VAB	Pull Type	–	–	11.9	12.8

Note: For FD3S models, measuring cylinder stroke is difficult. As an alternative verification method, adjust the system so that the clutch pedal free play is 10 mm or less.

MAKE	ENGINE MODEL	FLYWHEEL MOUNTING BOLTS Tightening Torque lbft / (Nm)
NISSAN	RB26DETT, RB25DE(T), RB20DE(T), CA18DE(T)	104.8–112.0 / (142.1–151.9)
	VQ30DE(TT), SR20DE(T), VQ35DE	61.4–68.7 / (83.3–93.1)
	VQ35HR, VQ37VHR	61.4–68.7 / (83.3–93.1)
	L20, L24	101.2–115.6 / (137.2–156.8)
TOYOTA	A12, A14, A15	57.8–65.1 / (78.4–88.2)
	1JZ-GE(GTE), 2JZ-GE(GTE)	86.7 / (117.6)
	3S-E(GTE)	79.5 / (107.8)
	4E-FTE	65.1 / (88.2)
	4A-GE, 1ZZ-FE, 2ZZ-GE	57.8 / (78.4)
HONDA	1NZ-FE	36.1 / (49) Tighten at 90 degrees after initial torque
	FA20	62.7 / (85)
	B16A, B16B, B16C	75.9 / (102.9)
MAZDA	K20A	90.4 / (122.5)
	F20C	93.7 / (127)
	13BT, 13B-REW, 13B-MSP	Flywheel mounting nut: 61.4–72.3 / (83.3–98.0) Counterweight bolts: 289–361 / (392–490)
MITSUBISHI	B6E-ZE, BP-ZE	70.9–75.9 / (96.1–102.9)
	4G63T	94.0–101.2 / (127.4–137.2)
SUBARU	4B11	First tightening: 29.5 / (40) Second tightening: 95.9 / (130)
	EJ20T	53.5 / (72.5)
SUZUKI	FA20	62.7 / (85)
	M16A	50.9 / (69)

CLUTCH MODELS	COVER BOLT TIGHTENING TORQUE TORQUE lbft / (Nm)
250L, 400L, 150, 209, 309, 409, 559, 659, 1000F	28.9 / (39.2)

ADJUSTING THE STROKE OF CLUTCH RELEASE CYLINDER

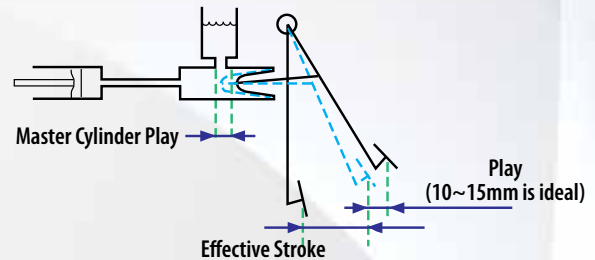
The position of clutch engagement and release depends on the stroke amount of the release cylinder. If clutch behaves abnormally, refer to the recommended release cylinder stroke amount to make adjustments to the clutch play and the clutch pedal stroke.

Release cylinder stroke is determined by the clutch pedal and the piston motion of the master cylinder

The clutch pedal has play. This corresponds to the position of the master cylinder piston being before the reservoir tank pipe. This is where the fluid escapes to the reservoir tank and the release cylinder does not move (no stroke region).

When the clutch pedal is pressed further, the reservoir tank pipe is blocked by the cylinder, and the release cylinder begins to move. From this point until the pedal cannot be pressed any further is the effective stroke region.

Adjusting release cylinder stroke means to adjust the play and the effective stroke amounts.



ADJUSTING FREE PLAY

For hydraulic clutch systems, "play" is essential. Upon clutch installation, an adequate amount of play must be present. If the release cylinder rod can be pushed back with hand, it should be adequate. The ideal amount of play in terms of the clutch pedal stroke is 10~15mm. Measure and adjust the clutch pedal stroke as the release cylinder piston starts to move.

Insufficient Play

With insufficient play, expanded fluid that has no place to go would move the release cylinder piston. This results in less crimping force and may lead to clutch slip and engagement/release position shift.

To remedy this, first check the amount of play. If it is small, adjust it by shortening the master cylinder rod.

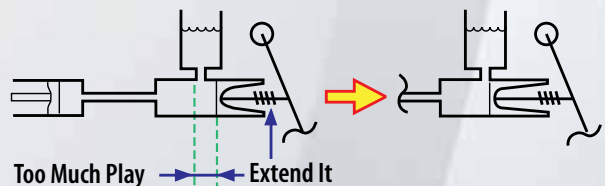
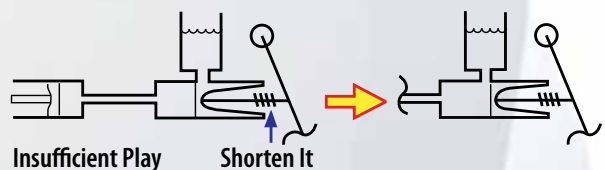
After the adjustment, check if the release cylinder rod can be pushed back with hand.

When Free Play is Excessive

Excess play would shorten the effective stroke. This may result in incomplete release and shift the engagement/release position shift toward the engine.

To remedy this, first check the amount of play. If it is excessive, adjust it by lengthening the master cylinder rod.

After the adjustment, check if the release cylinder rod can be pushed back with hand.

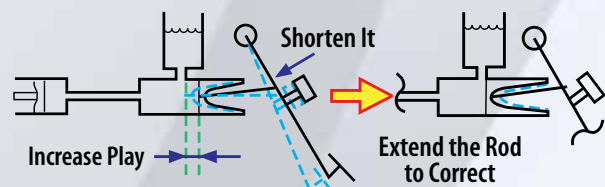


ADJUSTING CLUTCH PEDAL STROKE

Clutch pedal stroke differs from vehicle to vehicle. Make the adjustments to the pedal stroke by observing the release cylinder stroke.

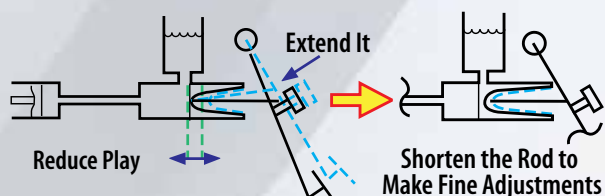
Incomplete release, engagement/release position closer to engine

First, play must be adjusted. If the problem persists, shorten the stopper and expand the overall pedal stroke. (It differs from vehicle to vehicle, but it should be 125~145mm.) This alone may result in excess play. To achieve the optimal play, master cylinder rod needs to be extended. This will increase the effective stroke and should remedy the problem. After the adjustment, check if the release cylinder rod can be pushed back with hand.



Incomplete release, engagement/release position away from engine

First, play must be adjusted. If the problem persists, extend the stopper and shorten the overall pedal stroke. This alone may result in insufficient play. To achieve the optimal play, master cylinder rod needs to be shortened. This will reduce the effective stroke and should remedy the problem. After the adjustment, check if the release cylinder rod can be pushed back with hand.





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