

Troubleshooting

Trouble symptom	Probable cause	Remedy
Displayed the warning lamp "E" (Driving is only possible with 1/ R gear)	Not performed DCT learning	Perform the DCT manual learning procedure.
Impossible to driving with odd gear	Clutch actuator (Clutch motor 1 or position sensor 1 failure)	Replace the clutch actuator assembly.
	Gear actuator (Shift motor 1 or position sensor 1 failure, select solenoid 1 or position sensor 1 failure)	Replace the gear actuator assembly.
	Input speed sensor 1 failure	Replace the input speed sensor.
	Faulty gears (1, 3, 5, 7)	Replace the gear.
	Faulty clutch 1	Replace the dual clutch assembly.
	Faulty engagement bearing 1	Replace the Engagement Bearing Assembly
Impossible to driving with even gear	Clutch actuator (Clutch motor 2 or position sensor 2 failure)	Replace the clutch actuator assembly.
	Gear actuator (Shift motor 2 or position sensor 2 failure, select solenoid 2 or position sensor 2 failure)	Replace the gear actuator assembly.
	Input speed sensor 2 failure	Replace the input speed sensor.
	Faulty gears (2, 4, 6, R)	Replace the gear.
	Faulty clutch 2	Replace the dual clutch assembly.
	Faulty engagement bearing 2	Replace the Engagement Bearing Assembly
Impossible to driving	TCM failure	Replace the TCM.
	Odd / even system simultaneous failure	Replace the dual clutch assembly or gear.

	Inhibitor switch / shift lever sensor simultaneous failure	Replace the inhibitor switch.
Impossible to manual mode	Inhibitor switch failure	Replace the inhibitor switch.
	Shift lever sensor failure	Replace the shift lever.
	Manual mod switch failure	Replace the manual mod switch housing.
noise	Oil level (Low)	Refill the oil with transmission after inspecting the parts (Oil seal, Drain plug, Filler plug).
	Oil (Wrong)	Replace the oil.
	Synchronizer ring (Worn or damaged)	Replace the synchronizer ring.
	Gear (Worn or damaged)	Replace the gear.
	Bearing (Worn or damaged)	Replace the bearing.
Oil leak	Oil level (High)	Inspect the oil level.
	Gasket (Damaged)	Replace the gasket.
	Oil seal (Worn or damaged)	Replace the oil seal.
Hard shifting or impossible to shift	Oil (Wrong)	Replace the oil.
	Shift fork (Worn)	Replace the shift fork.
	Synchronizer ring (Worn or damaged)	Replace the synchronizer ring.
	Gear (Worn or damaged)	Replace the gear.
	Hub sleeve (Worn or damaged)	Replace the hub sleeve.

Specifications

Dual clutch transmission

Item	Specification	
Transmission model	D7UF1-2 (7DCT)	
Engine model	Gasoline 1.6 T-GDI	
Clutch Type	Dry dual plate	
Gear ratio	1st	3.929
	2nd	2.318
	3rd	1.957
	4th	1.023
	5th	0.778
	6th	0.837
	7th	0.681
	Reverse	5.304
Final gear ratio	1st, 2nd, 4th, 5th	4.929
	3rd, 6th, 7th, R	3.632

Clutch actuator

Item	Specification
Rated voltage	12V
Initialize the rod length	79.0 - 80.0 mm (3.1102 - 3.1496 in.)
Wear adjustment amount	0.25 mm (0.0098 in.) @ 1 Click

Gear actuator

Item	Specification
Power supply	12V
Output type	CAN signals

Inhibitor Switch

Item	Specification
------	---------------

Power supply	12V
Output type	Combination of output signals

Input speed sensor

Item	Specification
Type	Hall effect sensor
Output signal	High: 11.8 - 16.8 mA
	Low: 5.9 - 8.4 mA

Tightening
Torques

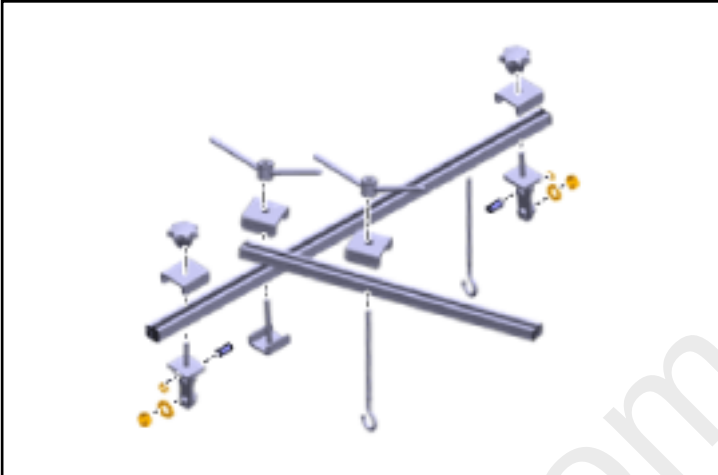
Item	N.m	kgf.m	lb-ft
Clutch engagement bearing	9.8 - 11.8	1.0 - 1.2	7.2 - 8.7
TCM mounting bolt	7.8 - 9.8	0.8 - 1.0	5.8 - 7.2
Clutch actuator & TCM assembly mounting bolt	19.6 - 26.5	2.0 - 2.7	14.5 - 19.5
Fork cover mounting bolt	3.9 - 5.9	0.4 - 0.6	2.9 - 4.3
Gear actuator mounting bolt	19.6 - 26.5	2.0 - 2.7	14.5 - 19.5
Input shaft speed sensor mounting bolt	9.8 - 11.8	1.0 - 1.2	7.2 - 8.7
Inhibitor swtich mounting bolt	9.8 - 11.8	1.0 - 1.2	7.2 - 8.7
Manual lever mounting nut	17.4 - 24.5	1.8 - 2.5	13.0 - 18.1
Oil drain plug	44.1 - 58.8	4.5 - 6.0	32.5 - 43.4
Oil filler plug	58.8 - 78.5	6.0 - 8.0	43.4 - 57.9
Shift cable bracket mounting bolt	19.6 - 26.5	2.0 - 2.7	14.5 - 19.5
Shift cable mounting nut	9.8 - 13.7	1.0 - 1.4	7.2 - 10.1
Shift cable retainer mounting nut	11.8 - 14.7	1.2 - 1.5	8.7 - 10.8
Shift lever assembly mounting bolt	8.8 - 13.7	0.9 - 1.4	6.5 - 10.1
Stater motor mounting bolt	49.0 - 63.7	5.0 - 6.5	36.2 - 47.0
Transmission support bracket mounting bolt	88.3 - 107.9	9.0 - 11.0	65.1 - 79.6
Transmission bracket mounting bolt	58.9 - 78.5	6.0 - 8.0	43.4 - 57.8

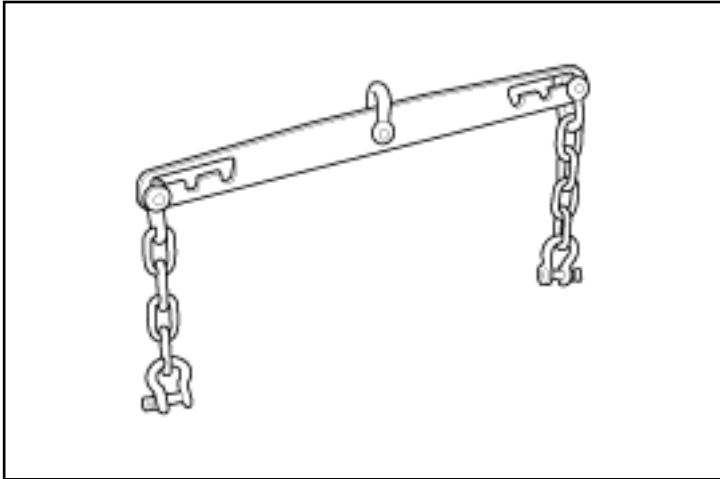
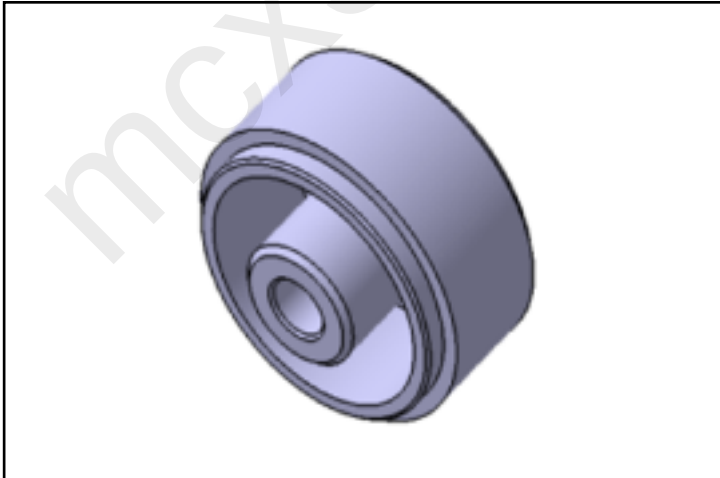
Transmission upper mounting bolt (Transmission=>Engine)	42.2 - 53.9	4.3 - 5.5	31.1 - 39.8
Transmission lower mounting bolt (Engine=>Transmission)	42.2 - 48.1	4.3 - 4.9	31.1 - 35.4
	42.2 - 53.9	4.3 - 5.5	31.1 - 39.8

Lubricants

Item	Specified lubricant	Quantity
Input shaft 1/2 spline	Extreme pressure grease for vehicle	0.15 - 0.25 g
Clutch Engagement Fork	Extreme pressure grease for vehicle	0.1 - 0.2 g
Transmission oil	SAE 70W, API GL-4 Recommended transmission oil - SK : HK D DCTF TGO-10 - H.K.SHELL : SPIRAX S6 GHDE 70W DCTF - S-OIL : 7 DCTF HKM	1.6 - 1.7 ℓ (0.42 - 0.45 U.S.gal., 1.69 - 1.80 U.S. qt., 1.41 - 1.50 Imp qt)

Special Service
Tools

Tool (Number and Name)	Illustration	Use
09200-3N000 Engine support fixture (Beam)		Removal and installation of the transmission. Use this beam (SST No. : 09200-3N000) with the supporter (SST No. : 09200-2S200).
09200-2S200 Engine support fixture (Supporter)		Removal and installation of the transaxle. with the beam (SST No. : 09200-38001/3N000).
09200-L1200 Engine support fixture (Front)		Removal and installation of the transaxle. with the beam (SST No. : 09200-38001/3N000).

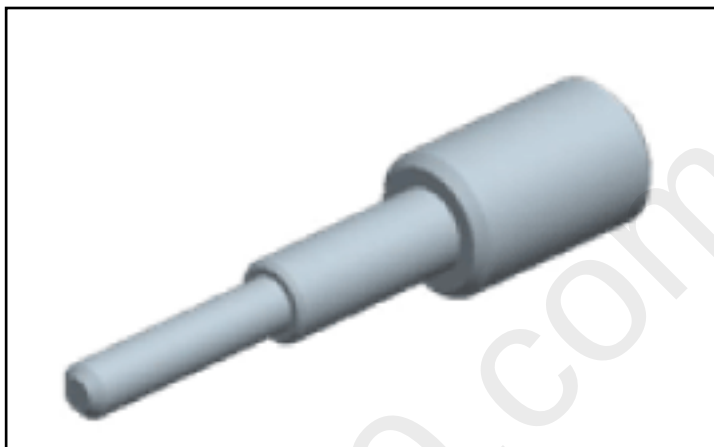
09200-4X000 Engine support fixture (Adapter)		Removal and installation of the transaxle. Use this beam (SST No. : 09200- 3N000)
Oil seal installer 09453-3L240		Used for installing differential oil seal Used with the handle (09231- H1100)
09473-D3500 Oil seal installer		Used for installing driven gear oil seal Used with the handle (09231- H1100) [4WD]

Handle
09231-H1100



Used for installing
differential oil seal
Used with the
installer (09453-
3L240)

Inhibitor
switch guide
pin
09480-A3800



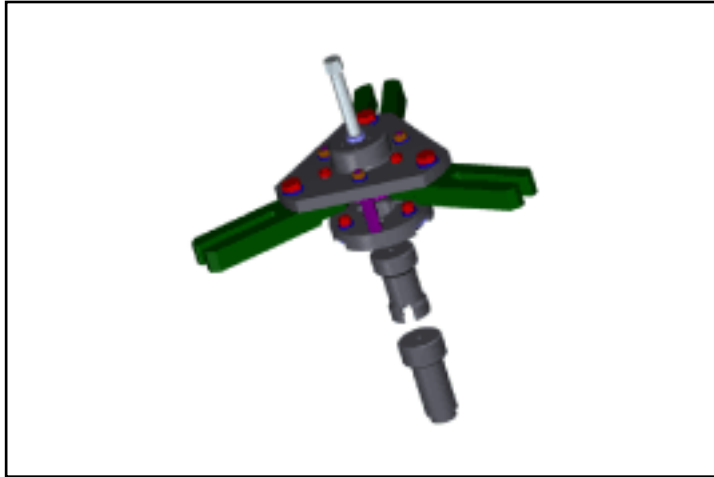
Used for fixing "N"
range when
installing inhibitor
switch

Dual clutch
remover
09430-C1180



Used for removing
dual clutch
assembly

Dual clutch
installer
09430-2A240



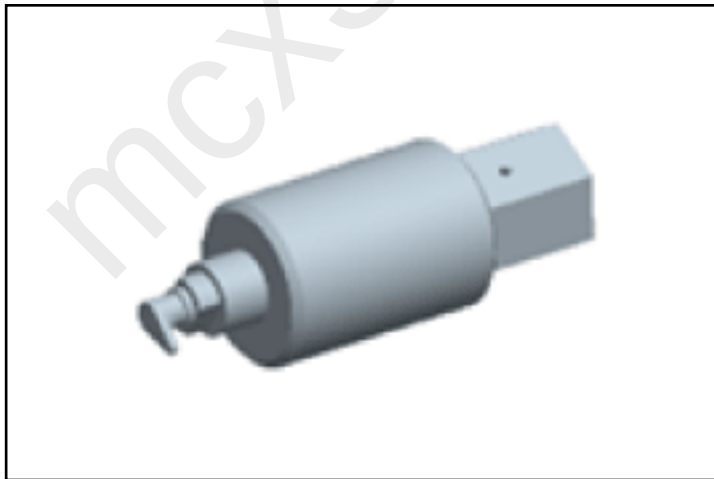
Used for installing
dual clutch
assembly

Clutch
actuator
remover &
installer
0K430-Q5100

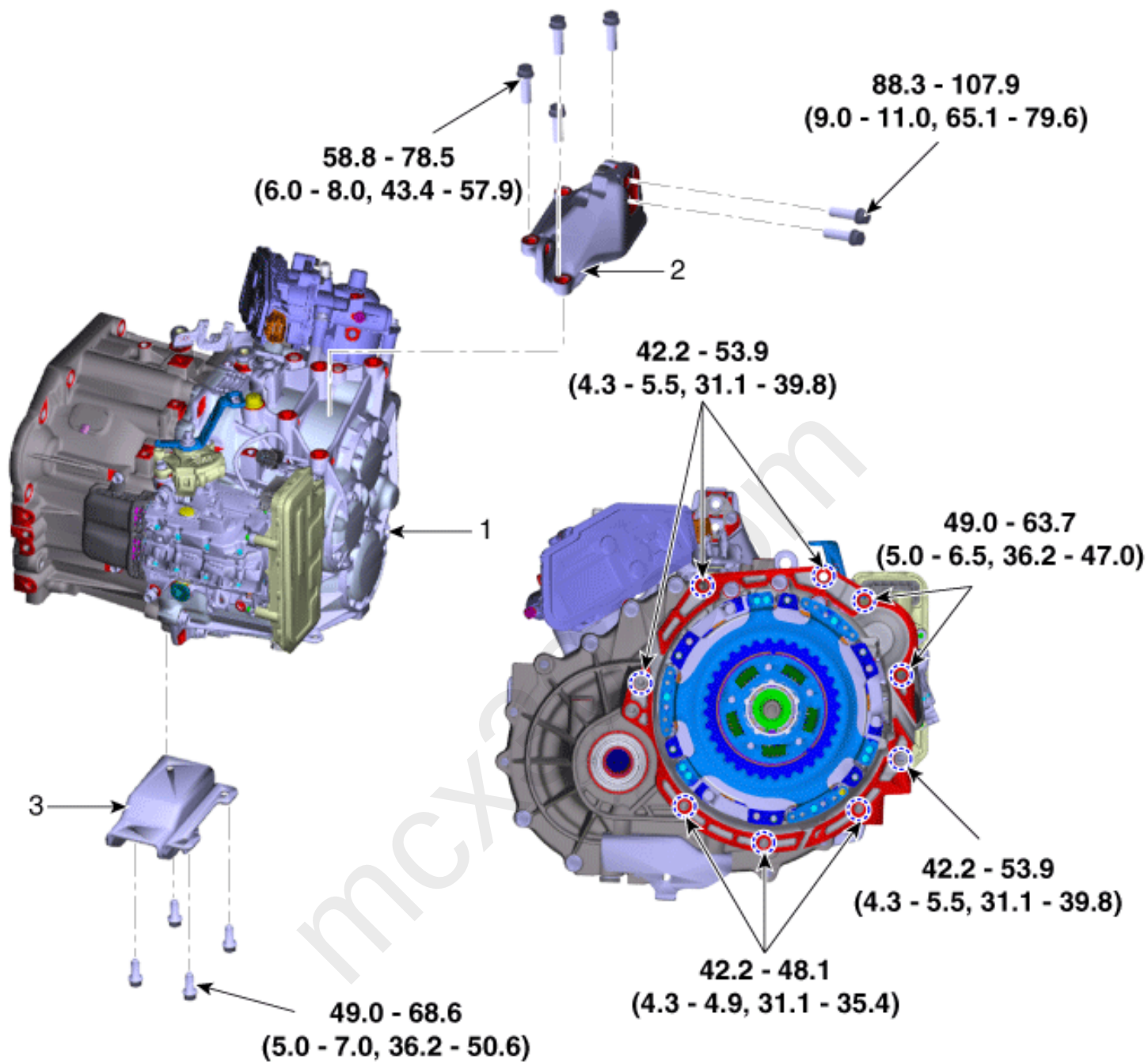


Removal and
installation of the
clutch actuator
assembly.

Clutch
actuator
adjuster
0K430-Q5300



Used for adjusting
clutch actuator



Tightening torque : N.m (kgf.m, lb-ft)

1. DCT (Dual Clutch Transmission) assembly
2. DCT support bracket

3. Roll rod support bracket