H150F MANUAL TRANSMISSION / TRANSAXLE MANUAL TRANSMISSION ASSEMBLY(for 1GR-FE) INSTALLATION

PROCEDURE

■ 1.INSTALL RELEASE FORK SUPPORT 31236B

Click hereDrivetrain>CLUTCH>CLUTCH UNIT(for 1GR-FE)>INSTALLATION

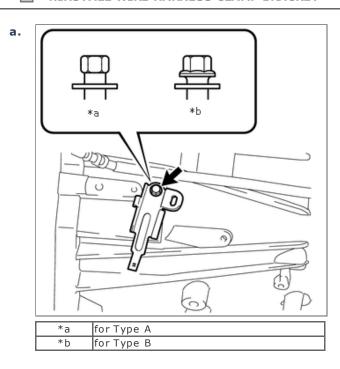
■ 2.INSTALL CLUTCH RELEASE FORK SUPPORT BOOT 31237

Click hereDrivetrain>CLUTCH>CLUTCH UNIT(for 1GR-FE)>INSTALLATION

3.INSTALL CLUTCH RELEASE FORK SUB-ASSEMBLY 31204

Click hereDrivetrain>CLUTCH>CLUTCH UNIT(for 1GR-FE)>INSTALLATION

4.INSTALL WIRE HARNESS CLAMP BRACKET

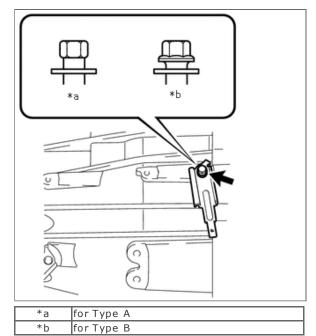


Install the air fuel ratio sensor bracket LH with the bolt.

Torque:

for Type A: 7.5 N*m (76 kgf*cm, 66 in.*lbf) for Type B: 12 N*m (122 kgf*cm, 9 ft.*lbf)



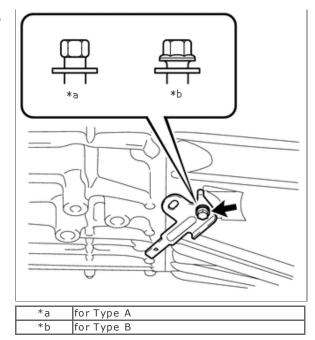


Install the air fuel ratio sensor bracket RH with the bolt.

Torque:

for Type A : 7.5 N*m (76 kgf*cm, 66 in.*lbf) for Type B : 12 N*m (122 kgf*cm, 9 ft.*lbf)

c.

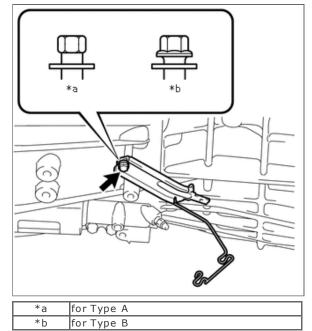


Install the heated oxygen sensor bracket RH with the bolt.

Torque:

for Type A : 7.5 N*m (76 kgf*cm, 66 in.*lbf) for Type B : 12 N*m (122 kgf*cm, 9 ft.*lbf)



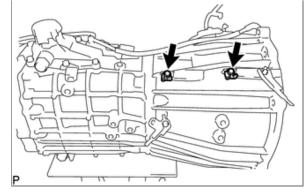


Install the heated oxygen sensor bracket LH with the bolt.

Torque:

for Type A : 7.5 N*m (76 kgf*cm, 66 in.*lbf) for Type B : 12 N*m (122 kgf*cm, 9 ft.*lbf)





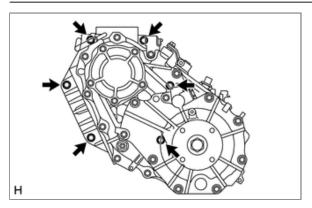
Install the 2 wire harness clamp brackets with the 2 bolts.

Torque:

8.0 N*m (82 kgf*cm, 71 in.*lbf)



5.INSTALL TRANSFER ASSEMBLY

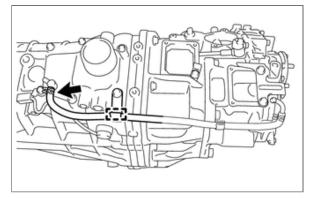


a. Install the transfer assembly to the manual transmission with the 6 bolts.

Torque:

6.CONNECT REAR NO. 1 TRANSFER CASE HOSE

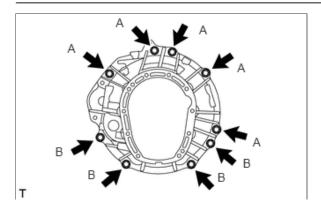
a.



Connect the rear No. 1 transfer case hose to the manual transmission and slide the clip to secure it.

b. Connect the clamp.

7.INSTALL MANUAL TRANSMISSION WITH TRANSFER



Install the manual transmission with transfer with the 9 bolts.

Torque:

for Bolt A: 71.6 N*m (730 kgf*cm, 53 ft.*lbf) for Bolt B: 37.3 N*m (380 kgf*cm, 28 ft.*lbf)

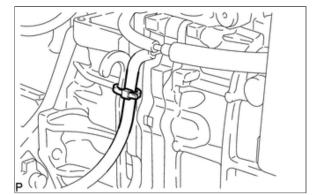
NOTICE:

Make sure that the knock pins are not loose, bent, damaged or scratched, and that the contact surfaces of the engine and manual transmission are flush when installing the manual transmission to the engine.

8.CONNECT WIRE HARNESS

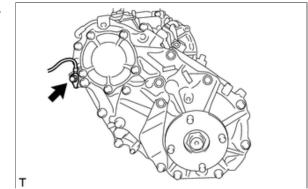
- **a.** Connect the connectors and clamps, and then connect the wire harness to the manual transmission.
- **b.** Tilt up the manual transmission with transfer.

c.



Install the clamp and connect the wire harness to the manual transmission with transfer.

d.



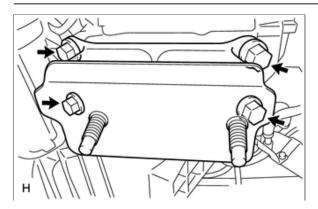
Connect the No. 2 cable bond with the bolt.

Torque:

12 N*m (122 kgf*cm, 9 ft.*lbf)

9.INSTALL REAR ENGINE MOUNTING INSULATOR

12371



Install the rear engine mounting insulator to the manual transmission with transfer with the 4 bolts.

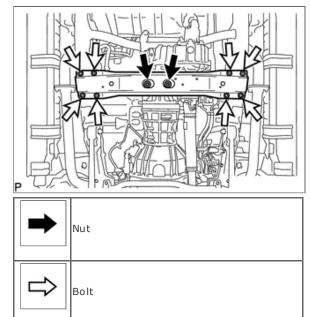
Torque:

59 N*m (602 kgf*cm, 44 ft.*lbf)

■ 10.INSTALL NO. 2 FRAME CROSSMEMBER SUB-ASSEMBLY

51203

a.



Install the No. 2 frame crossmember sub-assembly with the 2 nuts and 8 bolts.

Torque:

for Nut : 74 N*m (755 kgf*cm, 55 ft.*lbf) for Bolt : 46 N*m (469 kgf*cm, 34 ft.*lbf)

■ 11.INSTALL FRONT STABILIZER BRACKET LH

a. Install the front stabilizer bracket LH with the 2 bolts.

Torque:

29.7 N*m (303 kgf*cm, 22 ft.*lbf)

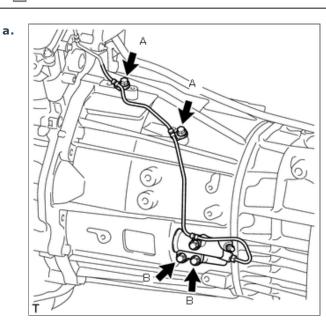
■ 12.INSTALL FRONT STABILIZER BRACKET RH

HINT:

Use the same procedure described for the LH side.

13.CONNECT CLUTCH RELEASE CYLINDER ASSEMBLY

31470



Connect the clutch release cylinder assembly with the 4 bolts.

Torque:

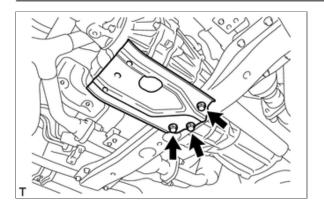
for Bolt A: 20 N*m (204 kgf*cm, 15 ft.*lbf) for Bolt B: 11.8 N*m (120 kgf*cm, 9 ft.*lbf)

14.INSTALL NO. 1 CLUTCH HOUSING COVER	31121	
Click hereDrivetrain>CLUTCH>CLUTCH RELEASE CYLINDER(for 1GR-FE)>INSTALLATION		
■ 15.INSTALL STARTER ASSEMBLY	28100	
Click hereEngine / Hybrid System>1GR-FE STARTING>STARTER>INSTALLATION		
■ 16.INSTALL REAR PROPELLER SHAFT ASSEMBLY	37110	
Click hereDrivetrain>DRIVE SHAFT / PROPELLER SHAFT>PROPELLER SHAFT ASSEMBLY>INSTALLATION		
■ 17.INSTALL FRONT PROPELLER SHAFT ASSEMBLY	37140	
Click hereDrivetrain>DRIVE SHAFT / PROPELLER SHAFT>FRONT PROPELLER SHAFT ASSEMBLY>INSTALLATION		
■ 18.INSTALL NO. 1 EXHAUST MANIFOLD STAY	17118	
Click hereEngine / Hybrid System>1GR-FE INTAKE / EXHAUST>EXHAUST MANIFOLD>INSTALLATION		
19.INSTALL NO. 2 MANIFOLD STAY	17119	
Click hereEngine / Hybrid System>1GR-FE INTAKE / EXHAUST>EXHAUST MANIFOLD>INSTALLATION		
20.INSTALL FRONT EXHAUST PIPE ASSEMBLY (for Model Code #J78, #J79 Series)	17410	
Click hereEngine / Hybrid System>1GR-FE INTAKE / EXHAUST>EXHAUST PIPE(for Model Code #J78, #J79 Series)>INSTALLATION)	
21.INSTALL FRONT EXHAUST PIPE ASSEMBLY (for Model Code #J71, #J76 Series)	17410	

Click hereEngine / Hybrid System>1GR-FE INTAKE / EXHAUST>EXHAUST PIPE(for Model Code #J71, #J76 Series)>INSTALLATION

22.INSTALL TRANSFER CASE PROTECTOR

51447C



a. Install the transfer case protector to the No. 2 frame crossmember sub-assembly with the 3 bolts.

Torque:

18 N*m (184 kgf*cm, 13 ft.*lbf)

23.ADD MANUAL TRANSMISSION OIL

■ 24.INSTALL AIR CLEANER CAP SUB-ASSEMBLY WITH NO. 1 AIR CLEANER HOSE
17705

Click hereEngine / Hybrid System>1GR-FE INTAKE / EXHAUST>INTAKE MANIFOLD>INSTALLATION
16711

Click hereEngine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION
16571C

click hereEngine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION
16571C

click hereEngine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION
36308

a. Connect the high and low shift rod sub-assembly with the washer and nut.

Torque:

11.76 N*m (120 kgf*cm, 9 ft.*lbf)

28.INSTALL TRANSFER SHIFT LEVER ASSEMBLY

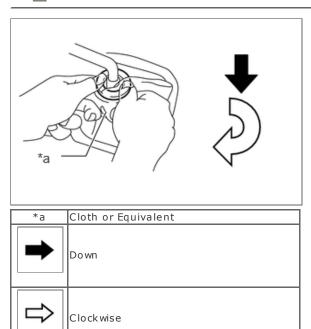
Click hereDrivetrain>HF1A TRANSFER / 4WD / AWD>TRANSFER SHIFT LEVER ASSEMBLY>INSTALLATION

29.INSPECT AND ADJUST TRANSFER SHIFT LEVER ASSEMBLY

Click hereDrivetrain>HF1A TRANSFER / 4WD / AWD>TRANSFER SHIFT LEVER ASSEMBLY>INSTALLATION

■ 30.INSTALL TRANSMISSION SHIFT LEVER ASSEMBLY

33530F



- a. Cover the transmission shift lever cap with a cloth or equivalent.
- **b.** While pressing down on the transmission shift lever cap, turn it clockwise to install the transmission shift lever.

■ 31.INSTALL NO. 1 SHIFT AND SELECT LEVER BOOT 58286

Click hereDrivetrain>HF1A TRANSFER / 4WD / AWD>TRANSFER SHIFT LEVER ASSEMBLY>INSTALLATION

■ 32.INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY 36303

	33.INSTALL DECELERATION SENSOR (w/ ABS)	89441A
Click h	ereBrake>BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS>DECELERATION SENSOR(w/ ABS)>IN	STALLATION
	34.INSTALL AIRBAG SENSOR ASSEMBLY WITH AIRBAG SENSOR BRACKET (w/ Airbag System)	89170
Click h	ereVehicle Interior>SUPPLEMENTAL RESTRAINT SYSTEMS>CENTER AIRBAG SENSOR ASSEMBLY>IN	ISTALLATION
	35.INSTALL AIRBAG SENSOR COVER	89179A
Click h	ereVehicle Interior>SUPPLEMENTAL RESTRAINT SYSTEMS>CENTER AIRBAG SENSOR ASSEMBLY>IN	ISTALLATION
	36.INSTALL CONSOLE BOX	58811B
Click h	ereVehicle Interior>INTERIOR PANELS / TRIM>INSTRUMENT PANEL SAFETY PAD>INSTALLATION	
	37.INSTALL FRONT FLOOR FOOTREST	58191
	0: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>FRONT FLOOR FOOTREST(for LHD)>INSTA D: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>FRONT FLOOR FOOTREST(for RHD)>INSTA	
	38.INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH	62112A
	oor: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING(for Single Cab)>INS oor: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING(for Double Cab)>IN	
	39.INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH	62111A
HINT: Use th	he same procedure described for the LH side.	
	40.INSTALL FRONT DOOR SCUFF PLATE LH	67914
	oor: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING(for Single Cab)>INS oor: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING(for Double Cab)>IN	
	41.INSTALL FRONT DOOR SCUFF PLATE RH	67913
HINT: Use t	he same procedure described for the LH side.	
	42.ADD ENGINE COOLANT	
Click h	ereEngine / Hybrid System>1VD-FTV COOLING>COOLANT>REPLACEMENT	
	43.CONNECT CABLE TO NEGATIVE BATTERY TERMINAL	
	44.PERFORM DIAGNOSTIC SYSTEM CHECK	
Click h	ereVehicle Interior>SUPPLEMENTAL RESTRAINT SYSTEMS>AIRBAG SYSTEM>DTC CHECK / CLEAR	
	45.CHECK SRS WARNING LIGHT	
Click h	ereVehicle Interior>SUPPLEMENTAL RESTRAINT SYSTEMS>AIRBAG SYSTEM>DIAGNOSIS SYSTEM	
	46.INSPECT FOR ENGINE COOLANT LEAK	
Click h	ereEngine / Hybrid System>1VD-FTV COOLING>COOLING SYSTEM>ON-VEHICLE INSPECTION	
	47.INSPECT FOR EXHAUST GAS LEAK	

Click hereEngine / Hybrid System>1GR-FE COOLING>RADIATOR>INSTALLATION

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