Exit

H150F MANUAL TRANSMISSION / TRANSAXLE MANUAL TRANSMISSION ASSEMBLY(for 1VD-FTV) REMOVAL

PROCEDURE

Print

■ 1. PRECAUTION

CAUTION:

Be sure to read precaution thoroughly before servicing.

Click hereVehicle Interior>SUPPLEMENTAL RESTRAINT SYSTEMS>AIRBAG SYSTEM>PRECAUTION

NOTICE

After turning the ignition switch off, waiting time may be required before disconnecting the cable from the negative (-) battery terminal. Therefore, make sure to read the disconnecting the cable from the negative (-) battery terminal notices before proceeding with work.

Click hereGeneral>INTRODUCTION>REPAIR INSTRUCTION>PRECAUTION

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

■ 3.REMOVE NO. 2 ENGINE UNDER COVER 51442

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>COOLANT>REPLACEMENT

4.DRAIN ENGINE COOLANT

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>COOLANT>REPLACEMENT

5.REMOVE NO. 1 RADIATOR HOSE 16571C

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

6.REMOVE NO. 1 AIR CLEANER HOSE 17881

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

7.REMOVE AIR CLEANER CAP SUB-ASSEMBLY 17705

 $\label{lem:click} \mbox{Click hereEngine / Hybrid System} > \mbox{1VD-FTV (INTAKE / EXHAUST)} > \mbox{EXHAUST MANIFOLD W/ TURBOCHARGER (w/oDPF)} > \mbox{REMOVAL}$

8.REMOVE AIR CLEANER CASE SUB-ASSEMBLY

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

9.REMOVE INTAKE AIR CONNECTOR SUB-ASSEMBLY 17805

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

■ 10.REMOVE INTAKE AIR CONNECTOR PIPE 17875

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

■ 11.REMOVE RADIATOR RESERVOIR ASSEMBLY 16470

Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

12,REMOVE FAN SHROUD 16711

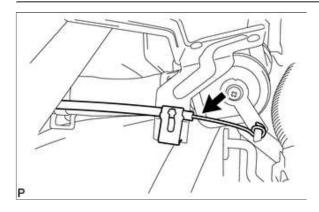
Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

□ 13.REMOVE FAN PULLEY 16371

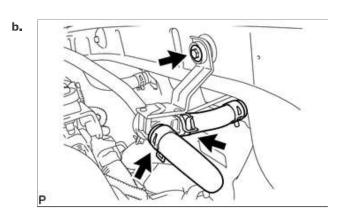
Click hereEngine / Hybrid System>1VD-FTV (COOLING)>RADIATOR>REMOVAL

14.REMOVE HEATER WATER VALVE ASSEMBLY

87240



a. Disconnect the cable from the heater water valve assembly.



Slide the 2 clamps and disconnect the 2 hoses from the heater water valve assembly.

c. Remove the bolt and heater water valve assembly from the vehicle.

■ 15.REMOVE FRONT DOOR SCUFF PLATE LH

67914

for 2 door: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING (for Single Cab)>REMOVAL) for 4 door: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING (for Double Cab)>REMOVAL)

■ 16.REMOVE FRONT DOOR SCUFF PLATE RH

67913

HINT:

Use the same procedure described for the LH side.

17.REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH

62112A

for 2 door: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING (for Single Cab)>REMOVAL) for 4 door: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>ROOF HEADLINING (for Double Cab)>REMOVAL)

■ 18.REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH

62111A

HINT:

Use the same procedure described for the LH side.

■ 19.REMOVE FRONT FLOOR FOOTREST

58191

for LHD: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>FRONT FLOOR FOOTREST(for LHD)>REMOVAL) for RHD: (Click hereVehicle Interior>INTERIOR PANELS / TRIM>FRONT FLOOR FOOTREST(for RHD)>REMOVAL)

■ 20.REMOVE CONSOLE BOX

58811B

Click hereVehicle Interior>INTERIOR PANELS / TRIM>INSTRUMENT PANEL SAFETY PAD>REMOVAL

21.REMOVE AIRBAG SENSOR COVER

89179A

Click hereVehicle Interior>SUPPLEMENTAL RESTRAINT SYSTEMS>CENTER AIRBAG SENSOR ASSEMBLY>REMOVAL

22.REMOVE AIRBAG SENSOR ASSEMBLY WITH AIRBAG SENSOR BRACKET (w/ Airbag System) 89170

Click hereVehicle Interior>SUPPLEMENTAL RESTRAINT SYSTEMS>CENTER AIRBAG SENSOR ASSEMBLY>REMOVAL

23.REMOVE DECELERATION SENSOR (w/ ABS)

89441A

Click hereBrake>BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS>DECELERATION SENSOR (w/ ABS)>REMOVAL

24, REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY

36303

Click hereDrivetrain>HF1A (TRANSFER / 4WD / AWD)>TRANSFER SHIFT LEVER ASSEMBLY>REMOVAL

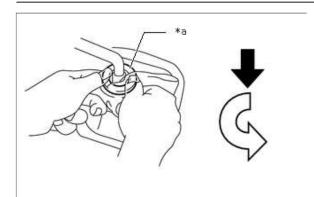
25.REMOVE NO. 1 SHIFT AND SELECT LEVER BOOT

58286

Click hereDrivetrain>HF1A (TRANSFER / 4WD / AWD)>TRANSFER SHIFT LEVER ASSEMBLY>REMOVAL

26.REMOVE TRANSMISSION SHIFT LEVER ASSEMBLY

33530F



*a	Cloth or Equivalent
→	Down
\Rightarrow	Counterclockwise

- a. Cover the transmission shift lever cap with a cloth or equivalent.
- **b.** While pressing down on the transmission shift lever cap, turn it counterclockwise to remove the transmission shift lever.
- c. Pull out the transmission shift lever assembly.

27.REMOVE TRANSFER SHIFT LEVER ASSEMBLY

Click hereDrivetrain>HF1A (TRANSFER / 4WD / AWD)>TRANSFER SHIFT LEVER ASSEMBLY>REMOVAL

■ 28.DISCONNECT HIGH AND LOW SHIFT ROD SUB-ASSEMBLY

36308

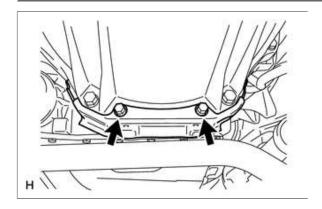
a. Remove the nut and washer, disconnect the high and low shift rod sub-assembly.

29.DRAIN MANUAL TRANSMISSION OIL

Click hereDrivetrain>H150F (MANUAL TRANSMISSION / TRANSAXLE)>MANUAL TRANSMISSION OIL>REPLACEMENT

■ 30.REMOVE OIL PAN COVER

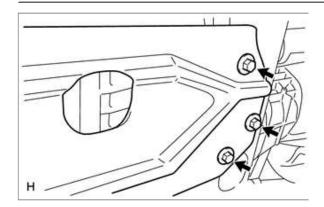
12140



a. Remove the 2 bolts and oil pan cover.

■ 31.REMOVE TRANSFER CASE PROTECTOR

51447C



a. Remove the 3 bolts and transfer case protector from the No. 2 frame crossmember sub-assembly.

32.REMOVE FRONT PROPELLER SHAFT ASSEMBLY

37140

Click hereDrivetrain>DRIVE SHAFT / PROPELLER SHAFT>FRONT PROPELLER SHAFT ASSEMBLY>REMOVAL

33.REMOVE REAR PROPELLER SHAFT ASSEMBLY

37110

Click hereDrivetrain>DRIVE SHAFT / PROPELLER SHAFT>PROPELLER SHAFT ASSEMBLY>REMOVAL

■ 34.REMOVE CENTER CONVERTER PROTECTOR STAY

18421C

Click hereEngine / Hybrid System>1VD-FTV (INTAKE / EXHAUST)>EXHAUST MANIFOLD W/ TURBOCHARGER (w/o DPF)>REMOVAL

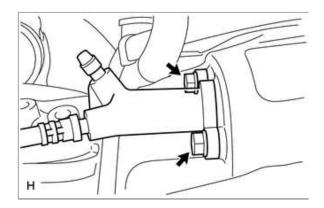
35, REMOVE MONOLITHIC CONVERTER ASSEMBLY

18450A

Click hereEngine / Hybrid System>1VD-FTV (INTAKE / EXHAUST)>EXHAUST MANIFOLD W/ TURBOCHARGER (w/o DPF)>REMOVAL

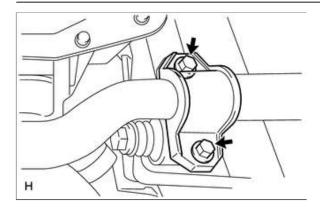
36.REMOVE CLUTCH RELEASE CYLINDER ASSEMBLY

31470



a. Remove the 2 bolts and clutch release cylinder assembly.

37.REMOVE FRONT STABILIZER BRACKET LH



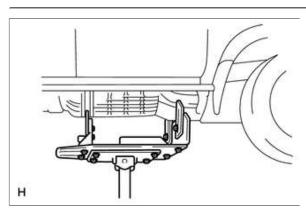
a. Remove the 2 bolts and front stabilizer bracket LH.

38.REMOVE FRONT STABILIZER BRACKET RH

HINT:

Use the same procedure described for the LH side.

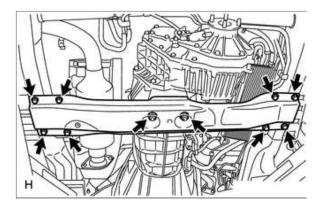
39.SUPPORT MANUAL TRANSMISSION WITH TRANSFER



a. Support the manual transmission with a transmission jack.

■ 40.REMOVE NO. 2 FRAME CROSSMEMBER SUB-ASSEMBLY

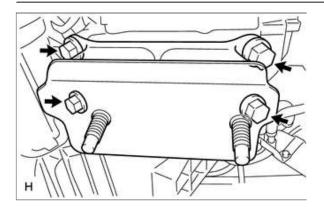
51203



- a. Remove the 8 bolts.
- **b.** Remove the 2 nuts and No. 2 frame crossmember sub-assembly.

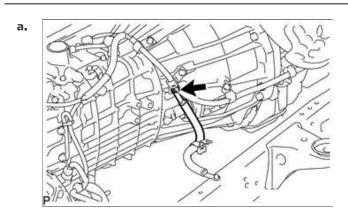
41.REMOVE REAR ENGINE MOUNTING INSULATOR

12371



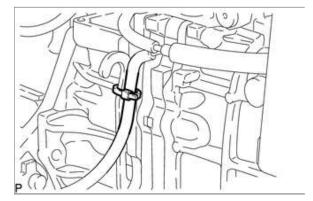
a. Remove the 4 bolts and rear engine mounting insulator from the manual transmission with transfer.

■ 42.DISCONNECT WIRE HARNESS



Remove the bolt and disconnect the ground cable.

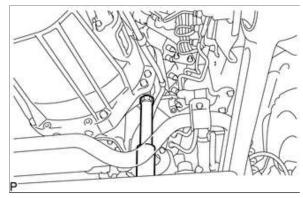




Remove the wire harness clamp and disconnect the wire harness from the manual transmission.

c. Tilt down the manual transmission.

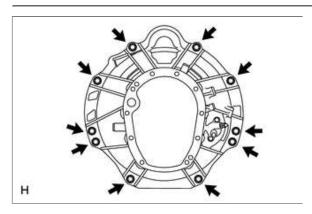




Support the engine assembly with the jack and engine lifter so that it is stable as shown in the illustration.

e. Disconnect the connectors and clamps, and then disconnect the wire harness from the manual transmission assembly.

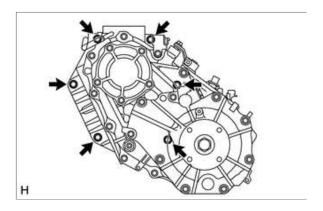
43.REMOVE MANUAL TRANSMISSION WITH TRANSFER



- a. Remove the 10 bolts.
- **b.** Separate and remove the manual transmission with transfer. **NOTICE:**

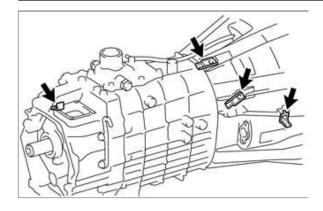
Do not use excess force to pry off the transmission assembly.

■ 44.REMOVE TRANSFER ASSEMBLY



a. Remove the 6 bolts and transfer assembly from the manual transmission.

45.REMOVE WIRE HARNESS CLAMP BRACKET



a. Remove the 4 bolts and 4 wire harness clamp brackets.

	46.REMOVE CLUTCH RELEASE FORK SUB-ASSEMBLY	31204	
Click hereDrivetrain>CLUTCH>CLUTCH UNIT (for 1VD-FTV)>REMOVAL			
	47.REMOVE CLUTCH RELEASE FORK SUPPORT BOOT	31237	
Click hereDrivetrain>CLUTCH>CLUTCH UNIT (for 1VD-FTV)>REMOVAL			
	48.REMOVE RELEASE FORK SUPPORT	31236B	

Click hereDrivetrain>CLUTCH>CLUTCH UNIT (for 1VD-FTV)>REMOVAL

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