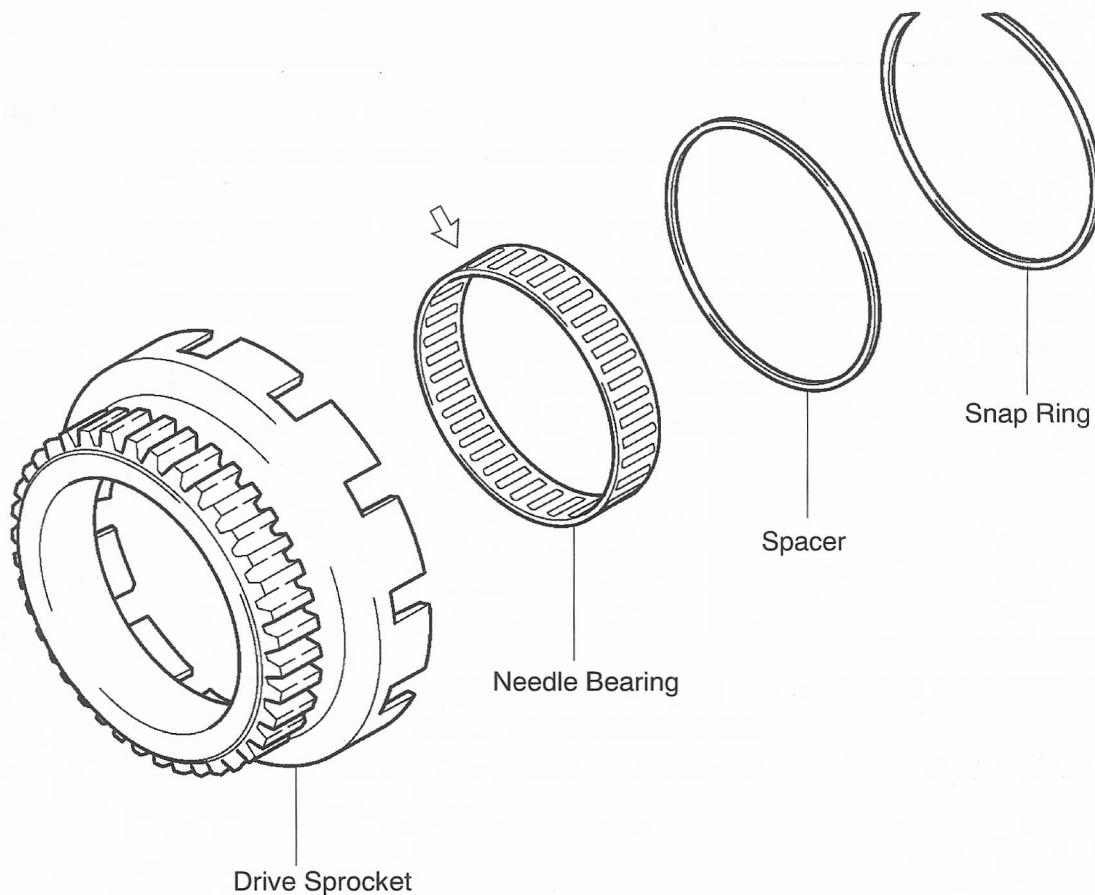
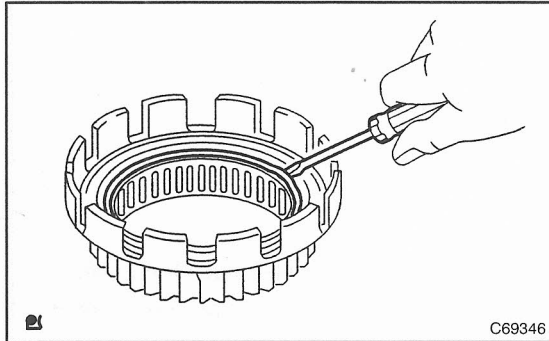


TRANSMISSION DRIVE SPROCKET SUB-ASSY COMPONENTS

2201C-01

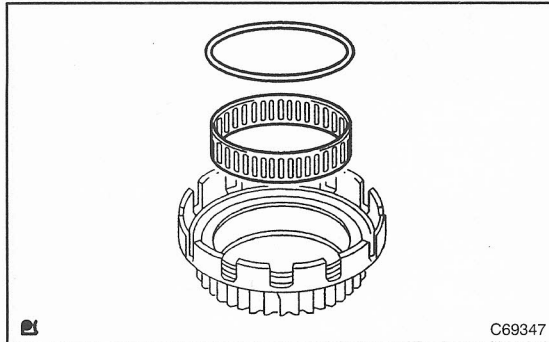


OVERHAUL

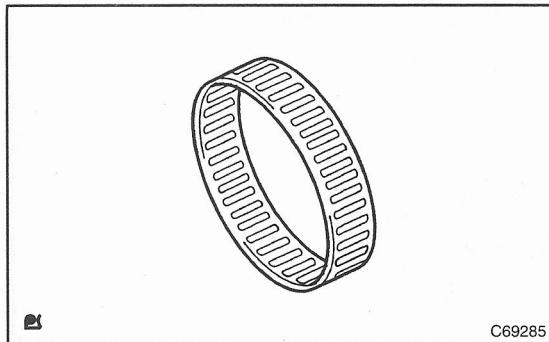


1. REMOVE TRANSMISSION DRIVE SPROCKET SUB-ASSY

- (a) Using a thin screwdriver, remove the snap ring from the transmission drive sprocket.



- (b) Remove the spacer and the needle roller bearing from the transmission drive sprocket.

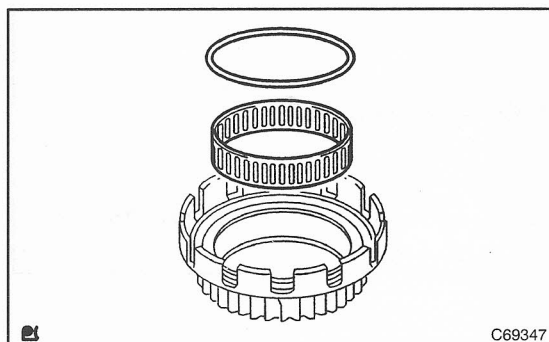


2. INSPECT DRIVE SPROCKET THRUST NEEDLE ROLLER NO.1 BEARING

- (a) Check the bearing for abnormal wear or color change.

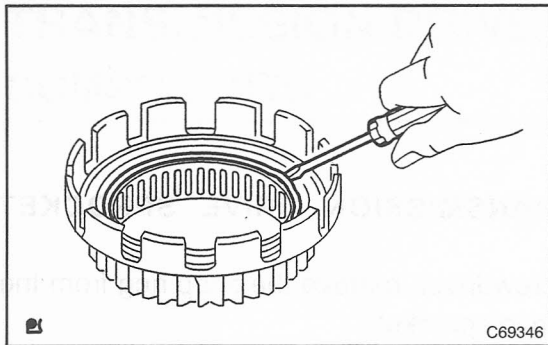
HINT:

Replace the needle roller bearing with a new one if abnormal wear or color change is observed.



3. INSTALL TRANSMISSION DRIVE SPROCKET SUB-ASSY

- (a) Apply ATF WS to the sliding surfaces of the bearing and install the needle roller bearing to the transmission drive sprocket.
- (b) Install the spacer to the transmission drive sprocket.

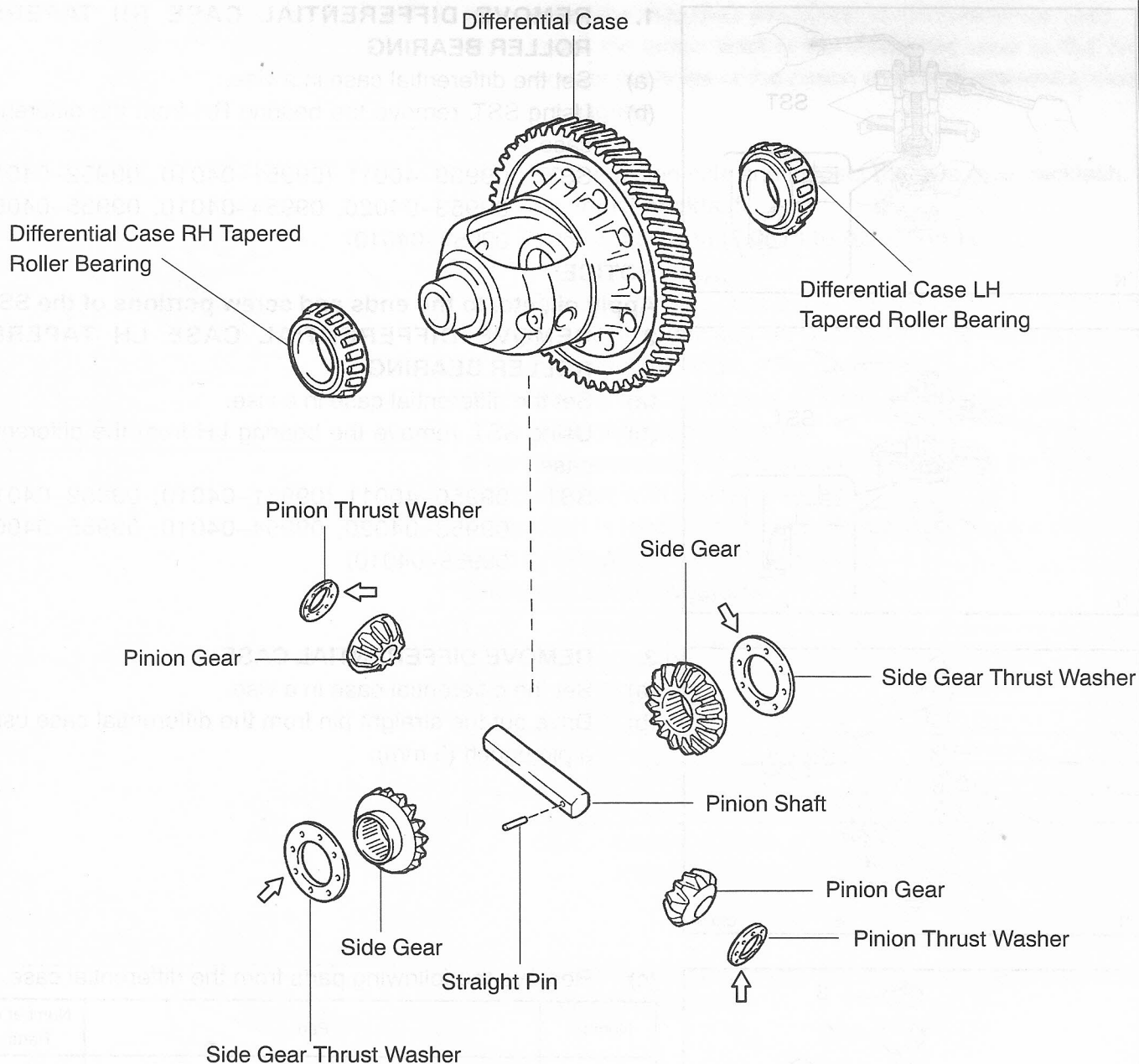


- (c) Using a thin screwdriver, install the snap ring to the transmission drive sprocket.

DIFFERENTIAL CASE ASSY

COMPONENTS

2201E-01

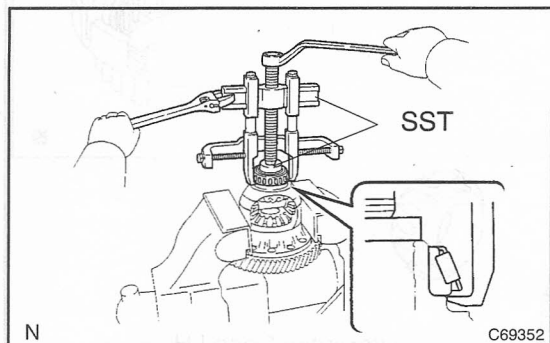


← ATF WS

N

D09776

OVERHAUL



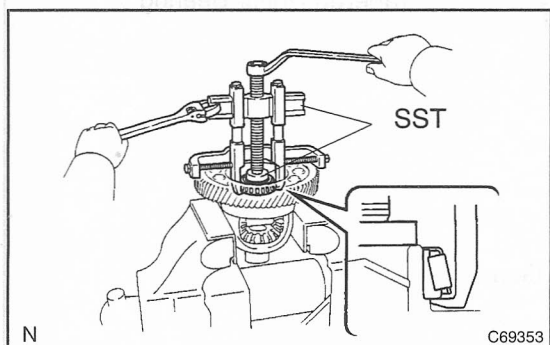
1. REMOVE DIFFERENTIAL CASE RH TAPERED ROLLER BEARING

- (a) Set the differential case in a vise.
- (b) Using SST, remove the bearing RH from the differential case.

SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09958-04010)

NOTICE:

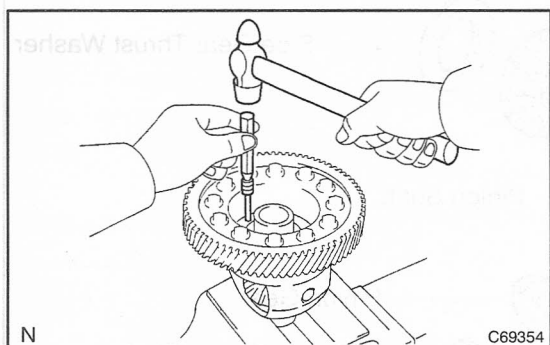
Apply oil, etc. to the ends and screw portions of the SST.



2. REMOVE DIFFERENTIAL CASE LH TAPERED ROLLER BEARING

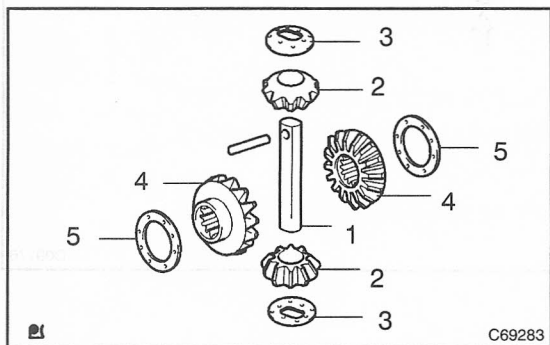
- (a) Set the differential case in a vise.
- (b) Using SST, remove the bearing LH from the differential case.

SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09958-04010)



3. REMOVE DIFFERENTIAL CASE

- (a) Set the differential case in a vise.
- (b) Drive out the straight pin from the differential case using a pin punch (5 mm).



- (c) Remove the following parts from the differential case.

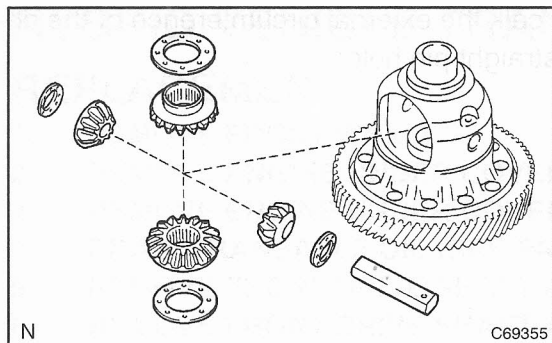
Number	Part	Number of Parts
1	Pinion shaft	1
2	Pinion	2
3	Pinion thrust washer	2
4	Side gear	2
5	Side gear thrust washer	2

4. INSPECT DIFFERENTIAL CASE TAPERED ROLLER BEARING

- (a) Check the bearing for abnormal wear or color change.

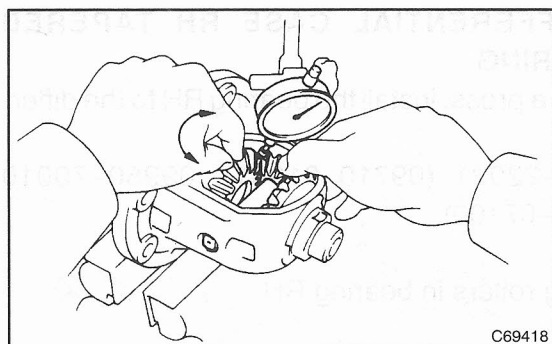
HINT:

Replace the bearing with a new one if abnormal wear or color change is observed.



5. INSTALL DIFFERENTIAL CASE

- Apply ATF WS to the side gear thrust washer and install to the side gear.
- Apply ATF WS to the side gear thrust washer and install to the pinion.
- Install the side gear and pinion to the differential case.
- Install the pinion shaft to the differential case so that the straight pin holes of the pinion shaft and differential case are aligned.



- Set the pinion side and inspect the side gear backlash.

Standard backlash:

0.05 to 0.20 mm (0.0020 to 0.0079 in.)

HINT:

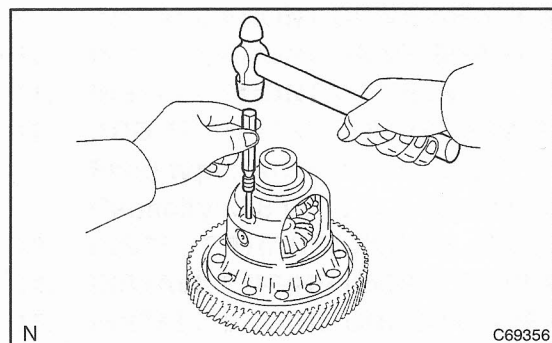
- Replace the side gear thrust washers with the same size for both the right and left side gears if the value is outside the specified range.
- Ensure that rotation is smooth if side gear backlash is within the specified range.

If backlash exceeds the specified range, replace the side gear thrust washer with thinner ones.

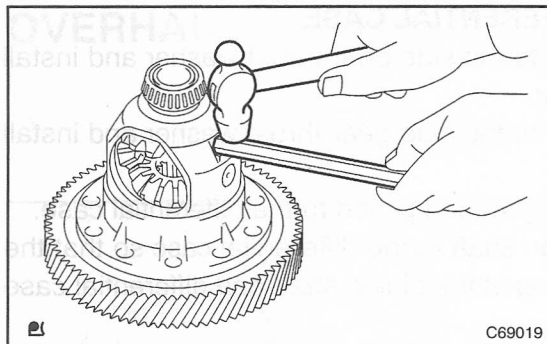
If backlash is less than the specified range, replace the side-gear thrust washer with thicker ones.

Side gear thrust washers

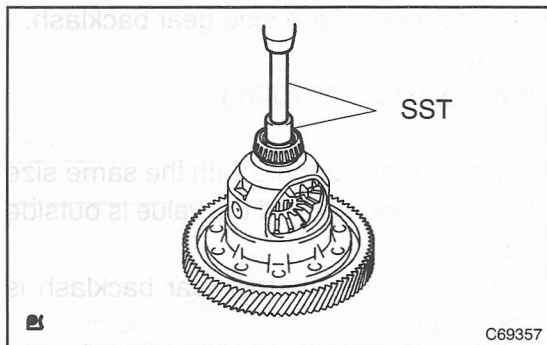
Parts number	Washer thickness mm (in.)
41361-22140	0.95 (0.0374 in.)
41361-22020	1.00 (0.0394 in.)
41361-22150	1.05 (0.0414 in.)
41361-22030	1.10 (0.0433 in.)
41361-22160	1.15 (0.0453 in.)
41361-22040	1.20 (0.0472 in.)



- Drive the straight pin into the differential case with a pin punch (5 mm).



- (g) Using a chisel, calk the external circumference of the differential case straight pin hole.



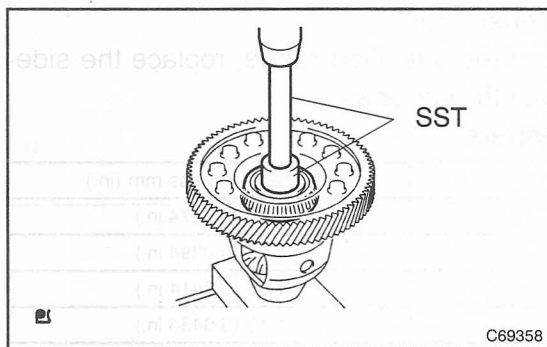
6. INSTALL DIFFERENTIAL CASE RH TAPERED ROLLER BEARING

- (a) Using SST and a press, install the bearing RH to the differential case.

SST 09710-22021 (09710-01031), 09950-70010
(09951-07100)

HINT:

There are 24 bearing rollers in bearing RH.



7. INSTALL DIFFERENTIAL CASE LH TAPERED ROLLER BEARING

- (a) Using SST and a press, install the bearing LH to the differential case.

SST 09710-22021 (09710-01031), 09950-70010
(09951-07100)

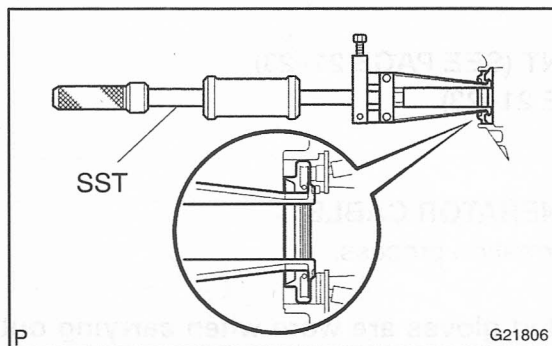
HINT:

There are 22 bearing rollers in bearing LH.

HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL REPLACEMENT

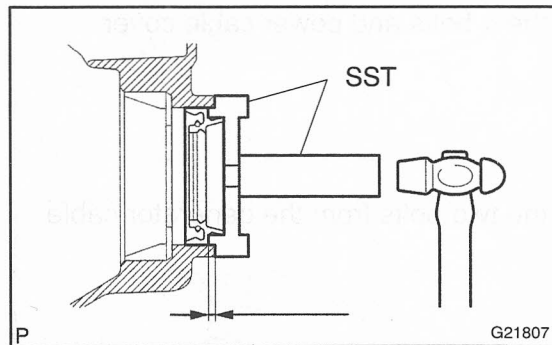
22010-01

1. REMOVE FRONT WHEELS
 2. REMOVE ENGINE UNDER COVER RH
 3. REMOVE ENGINE UNDER COVER LH
 4. DRAIN TRANSAXLE OIL (SEE PAGE 22-1)
 5. REMOVE FRONT DRIVE SHAFT ASSY LH (SEE PAGE 30-7)
 6. REMOVE FRONT DRIVE SHAFT ASSY RH (SEE PAGE 30-7)
- SST 09520-01010, 09520-24010 (09520-32040)



7. REMOVE HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL

- (a) Using SST, remove the oil seal.
SST 09308-00010



8. INSTALL HYBRID VEHICLE TRANSAXLE ASSY TYPE T OIL SEAL

- (a) Apply a small amount of MP grease No.2 to the oil seal lip.
- (b) Using SST, drive in a new oil seal to the standard depth.

Oil seal drive in depth:

2.7 ± 0.5 mm (0.106 ± 0.020 in.)

SST 09950-70010 (09951-07200), 09350-32014
(09351-32130, 09351-32150)

9. INSTALL FRONT DRIVE SHAFT ASSY LH (SEE PAGE 30-7)
10. INSTALL FRONT DRIVE SHAFT ASSY RH (SEE PAGE 30-7)
11. INSTALL FRONT WHEELS
12. ADD TRANSAXLE OIL (SEE PAGE 22-1)
Fluid type: AUTO FLUID WS
Capacity: 3.8 liters (4.0 US qts, 3.3 Imp. qts)
13. INSPECT TRANSAXLE OIL (SEE PAGE 22-1)
14. INSTALL ENGINE UNDER COVER RH
15. INSTALL ENGINE UNDER COVER LH
16. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (SEE PAGE 26-6)
17. DELETE TORQUE ZERO POINT (SEE PAGE 05-1210)

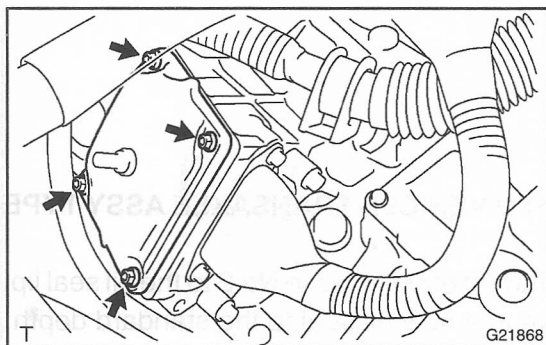
GENERATOR CABLE REPLACEMENT

22011-01

NOTICE:

- When working on the high voltage systems, always wear insulated gloves.
- After removing the service plug grip, do not operate the power switch as it may damage the hybrid vehicle control ECU.
- Keep the removed service plug in your pocket to prevent other technicians from reconnecting it while you are servicing the vehicle.
- After removing the service plug grip, do not touch the high voltage connectors and terminals for 5 minutes.

1. DISCONNECT BATTERY NEGATIVE TERMINAL
2. REMOVE SERVICE PLUG GRIP (SEE PAGE 01-5)
3. REMOVE ENGINE UNDER COVER LH
4. REMOVE ENGINE UNDER COVER RH
5. DRAIN COOLANT (SEE PAGE 22-4)
6. REMOVE COWL TOP PANEL SUB-ASSY OUTER FRONT (SEE PAGE 21-23)
7. REMOVE W/CONVERTER INVERTER ASSY (SEE PAGE 21-23)



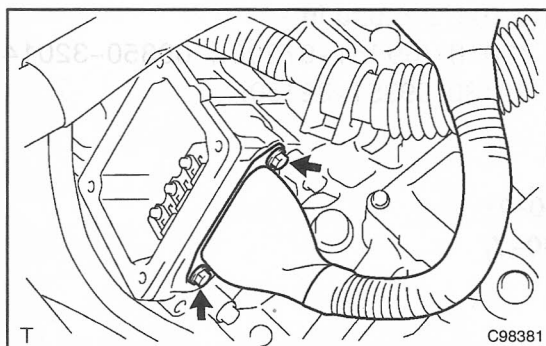
8. REMOVE GENERATOR CABLE

- (a) Zero bolt confirmation process.

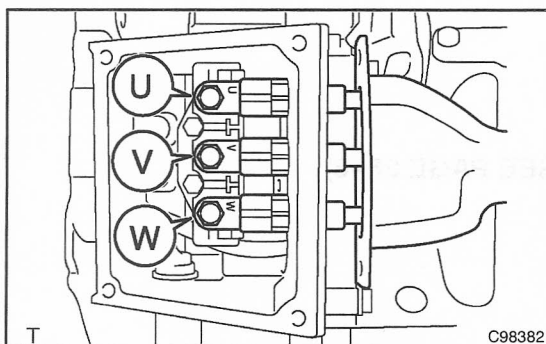
NOTICE:

Ensure that insulated gloves are worn when carrying out this procedure.

- (1) Remove the 4 bolts and power cable cover.



- (2) Remove the two bolts from the generator cable.

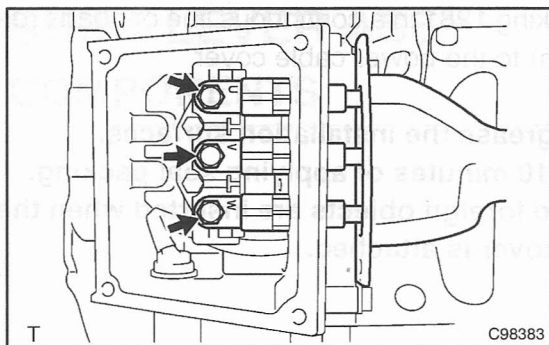


- (3) Inspect the voltage between each of the 3 phase AC terminals (U to V, V to W, U to W) and body earth using the Toyota electrical tester.

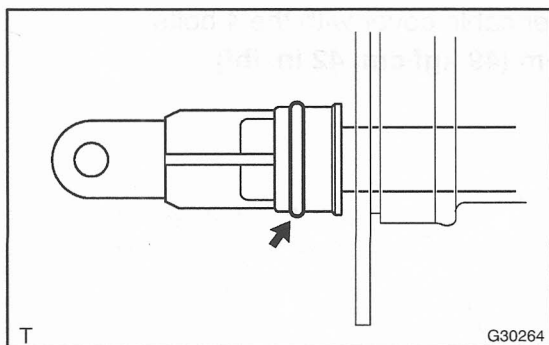
Standard value: 0 V

HINT:

Use the Toyota Electrical Tester on measured ranges of DC 400 volts or more.

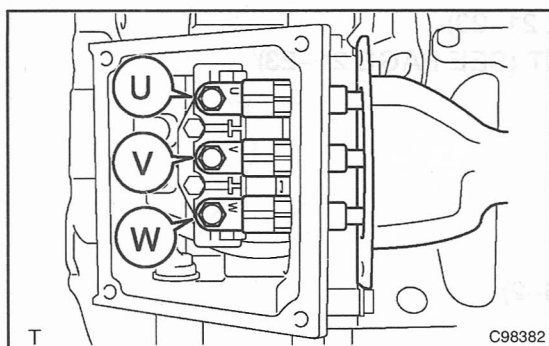


- (b) Remove the 3 bolts and generator cable.



9. INSTALL GENERATOR CABLE

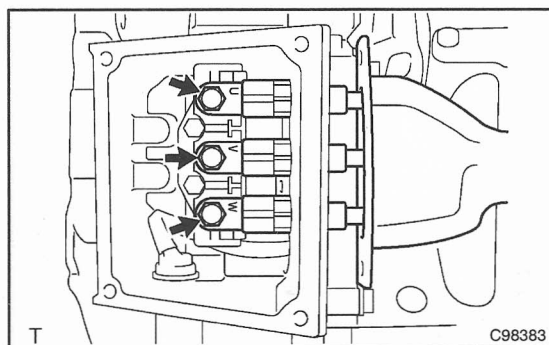
- (a) Apply a small amount of ATF WS to the generator cable O-ring.



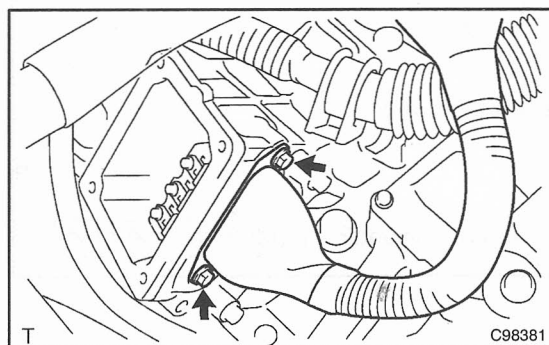
- (b) Connect the generator cable as shown in the illustration.

NOTICE:

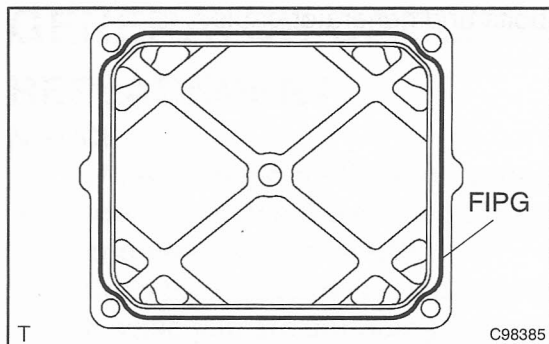
- Connect by aligning the letters U, V and W.
- Ensure that no foreign objects are attached to the O-ring when connecting the cables.



- (c) Install the generator cable (terminals) with the 3 bolts.
Torque: 8.5 N·m (87 kgf·cm, 71 in.·lbf)



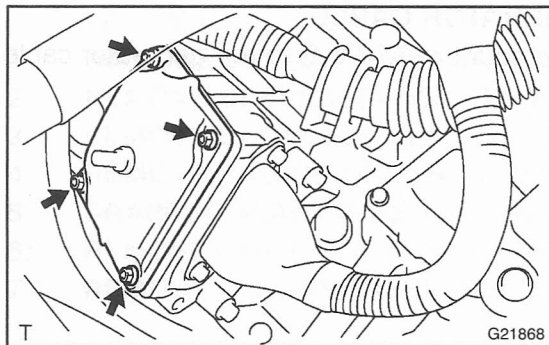
- (d) Install the generator cable with the 2 bolts.
Torque: 5.8 N·m (59 kgf·cm, 51 in.·lbf)



- (e) Apply seal packing 1281 in a continuous line of beads (diameter 1.5 mm) to the power cable cover.

NOTICE:

- **Clean and degrease the installation surfaces.**
- **Install within 10 minutes of applying seal packing.**
- **Ensure that no foreign objects are inserted when the power cable cover is attached.**



- (f) Install the power cable cover with the 4 bolts.
Torque: 4.8 N·m (49 kgf·cm, 42 in·lbf)

10. **INSTALL W/CONVERTER INVERTER ASSY (SEE PAGE 21-23)**
11. **INSTALL COWL TOP PANEL SUB-ASSY OUTER FRONT (SEE PAGE 21-23)**
12. **INSTALL ENGINE UNDER COVER RH**
13. **INSTALL ENGINE UNDER COVER LH**
14. **INSTALL SERVICE PLUG GRIP (SEE PAGE 01-5)**
15. **CONNECT BATTERY NEGATIVE TERMINAL**
16. **ADD COOLANT (SEE PAGE 22-4)**
17. **CHECK FOR ENGINE COOLANT LEAKS (SEE PAGE 16-2)**
18. **PERFORM INITIALIZATION (SEE PAGE 01-28)**