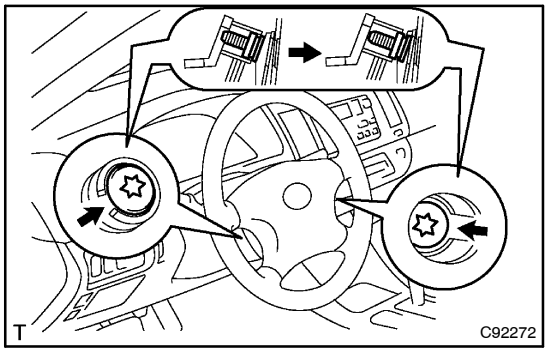
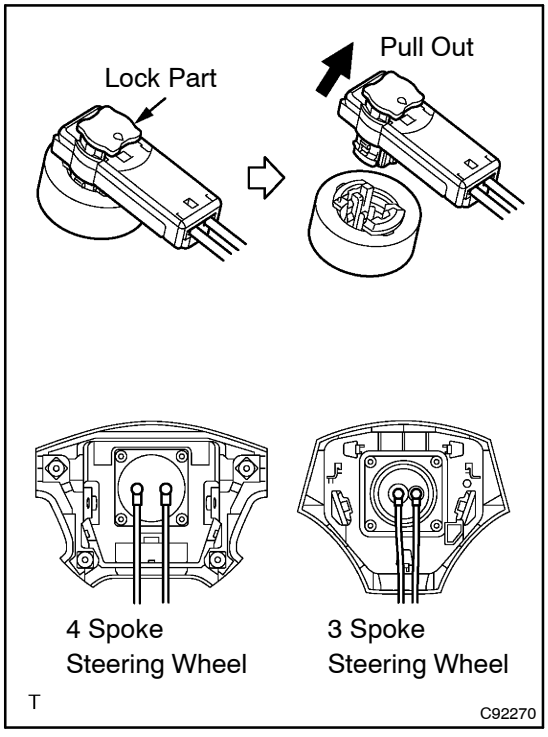
STEERING COLUMN ASSY

5002Y–01

OVERHAUL

1. PRECAUTION(See page 60–1)
2. DISCONNECT BATTERY NEGATIVE TERMINAL
3. REMOVE STEERING WHEEL COVER LOWER NO.2
   (See page 50–4)
4. REMOVE STEERING WHEEL COVER LOWER NO.3(W/O STEERING PAD SWITCH 4 SPOKE STEERING WHEEL)
   (See page 50–4)
5. REMOVE CONNECTOR COVER(W/ STEERING PAD SWITCH 4 SPOKE STEERING WHEEL)
   (See page 50–4)
6. REMOVE STEERING WHEEL COVER LOWER NO.3(3 SPOKE STEERING WHEEL ASSY)
   (See page 50–4)
7. INSPECT PLACE FRONT WHEELS FACING STRAIGHT AHEAD



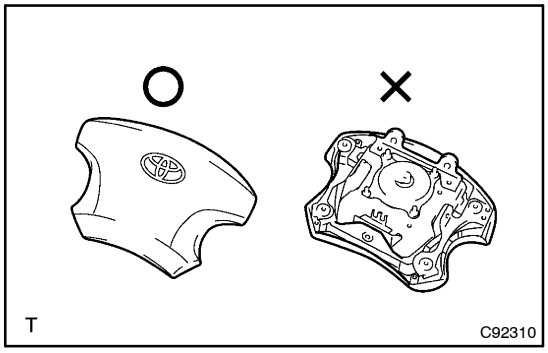


8. REMOVE HORN BUTTON ASSY

NOTICE:
If the airbag connector is disconnected with the ignition switch being at ON, DTCs will be recorded.

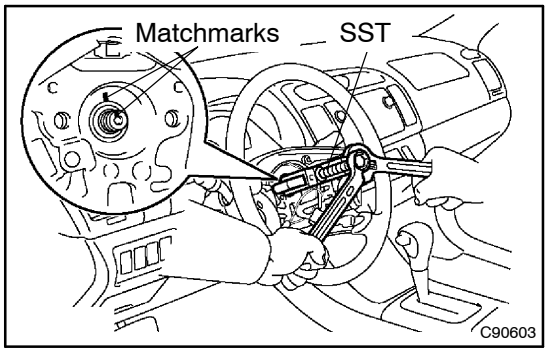
(a) Using a torx socket wrench, loosen the 2 torx screws until the groove along the screw circumference catches on the screw case.
(b) Pull out the horn button assy wheel pad from the steering wheel.
(c) Using a screwdriver, release the lock part of each airbag connector and disconnect the 2 airbag connectors.
(d) Disconnect the horn connector. (4 Spoke steering wheel)

NOTICE:
When removing the horn button assy, take care not to pull the airbag wire harness.



CAUTION:

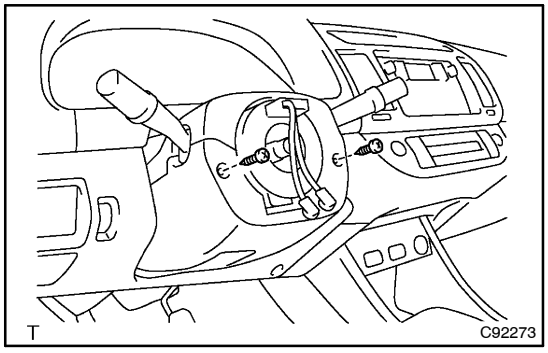
- **When storing the horn button assy, keep the upper surface of the horn button assy facing upward.**
- **Never disassemble the horn button assy.**



9. REMOVE STEERING WHEEL ASSY

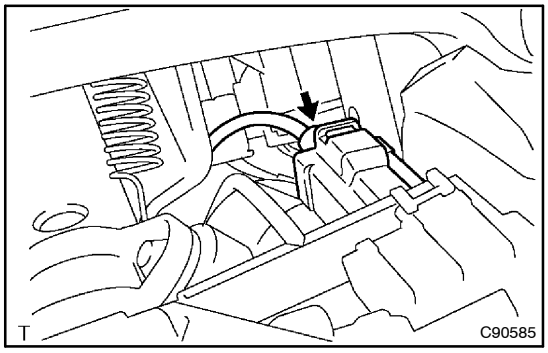
(a) Disconnect the connector.
(b) Remove the steering wheel assy set nut.
(c) Place matchmarks on the steering wheel assy and main shaft assy.
(d) Using SST, remove the steering wheel assy.
SST 09950–50013 (09951–05010, 09952–05010, 09953–05020, 09954–05021)

10. REMOVE INSTRUMENT CLUSTER FINISH PANEL



11. REMOVE STEERING COLUMN COVER

(a) Remove the 2 screws and steering column cover.



12. DISCONNECT FLOOR SHIFT PARKING LOCK CABLE ASSY

(a) Using a screwdriver, disconnect the floor shift parking lock cable from the upper bracket.

13. REMOVE SPIRAL CABLE SUB–ASSY

14. REMOVE HEADLAMP DIMMER SWITCH ASSY

(a) Disconnect the connector and remove the headlamp dimmer switch assy.

15. REMOVE WINDSHIELD WIPER SWITCH ASSY

(a) Disconnect the connector and remove the windshield wiper switch assy.

16. REMOVE FRONT DOOR SCUFF PLATE LH
(See page 71–10)

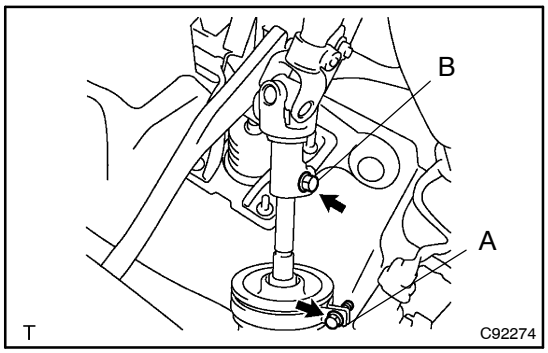
17. REMOVE COWL SIDE TRIM SUB–ASSY LH
(See page 71–10)

18. REMOVE INSTRUMENT PANEL COIN BOX SUB–ASSY
(See page 71–10)

19. REMOVE INSTRUMENT PANEL SUB–ASSY UPPER
(See page 71–10)

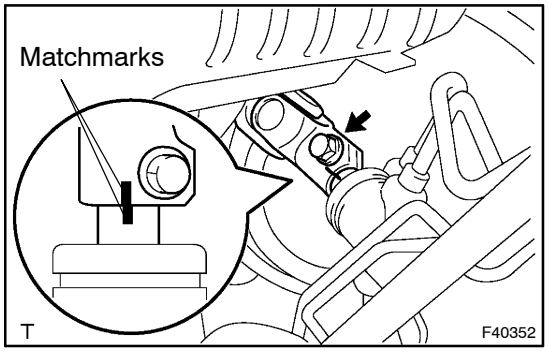
20. REMOVE INSTRUMENT PNL INSERT SUB–ASSY LWR LH
(See page 71–10)

21. HEATER TO FOOT DUCT NO.3
(See page 71–10)

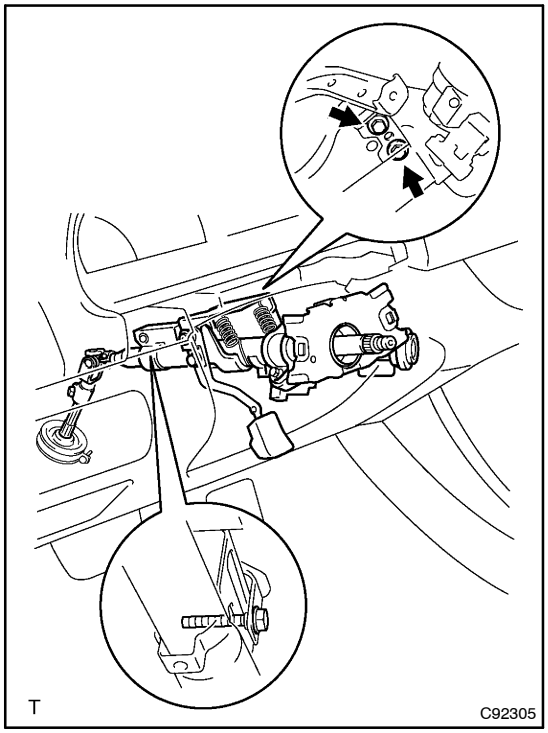


22. DISCONNECT STEERING INTERMEDIATE SHAFT SUB–ASSY

(a) Loosen the bolt A and remove the clamp from the steering column hole cover No.1.
(b) Separate the steering column hole cover No.2 from the steering column hole cover No.1.
(c) Loosen the bolt B.

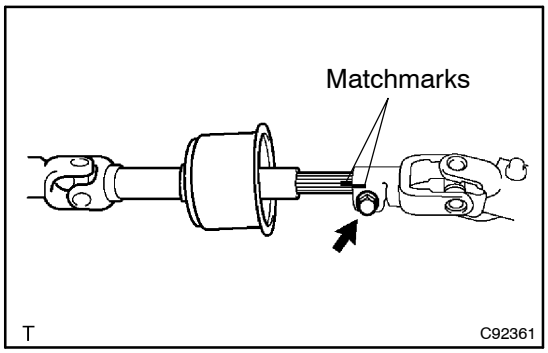


(d) Place matchmarks on the steering intermediate shaft sub–assy and steering gear assy.
(e) Remove the bolt and disconnect the steering intermediate shaft sub–assy.



23. REMOVE STEERING COLUMN ASSY

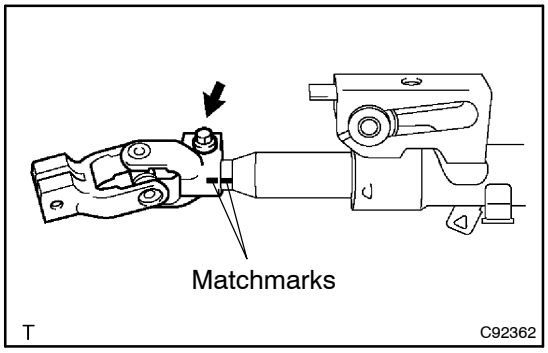
(a) Disconnect the connectors and wire harness clamps from the steering column assy.
(b) Remove the 3 bolts and steering column assy.



24. REMOVE STEERING INTERMEDIATE SHAFT SUB–ASSY

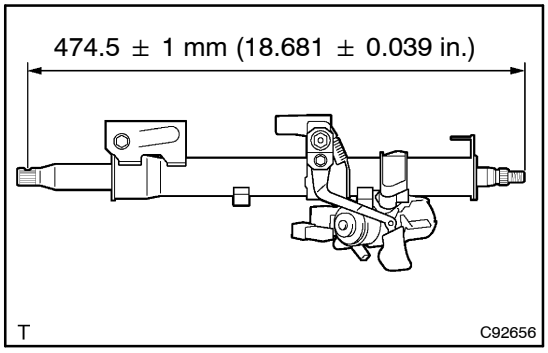
(a) Place matchmarks on the steering intermediate shaft sub–assy and steering sliding yoke sub–assy.
(b) Remove the bolt and steering intermediate shaft sub–assy.

25. REMOVE STEERING COLUMN HOLE COVER SUB–ASSY NO.2



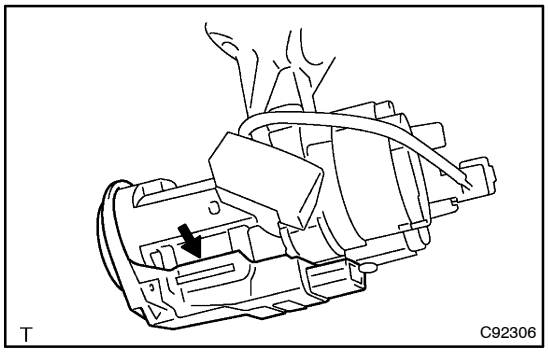
26. REMOVE STEERING SLIDING YOKE SUB–ASSY

(a) Place matchmarks on the steering sliding yoke sub–assy and steering main shaft assy.
(b) Remove the bolt and steering sliding yoke sub–assy from the steering main shaft assy.



27. INSPECT STEERING COLUMN ASSY

(a) Measure the length of steering main shaft.
Standard length: 474.5 ± 1 mm (18.681 ± 0.039 in.)

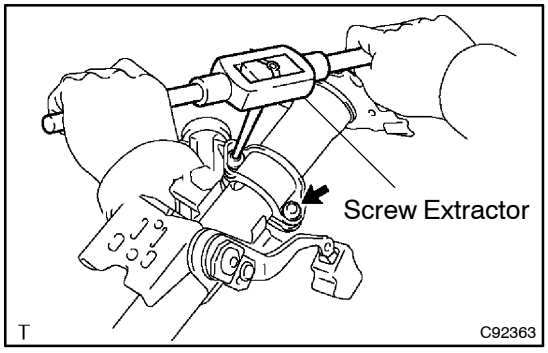


28. REMOVE TRANSPONDER KEY AMPLIFIER(W/ ENGINE IMMOBILISER SYSTEM)

(a) Disengage the claw hung on the upper bracket with a screwdriver.
(b) Pull the transponder key amplifier toward the rear of the vehicle with the claw open.

NOTICE:
Take care not to apply excessive force to prevent the case from being damaged.

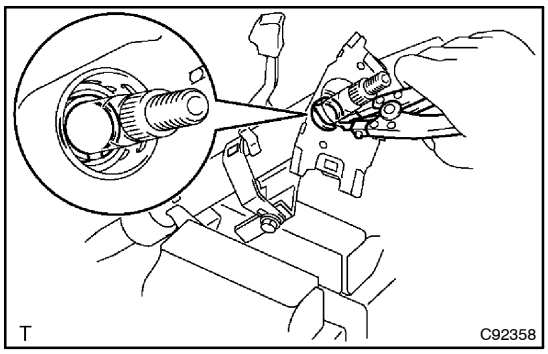
29. REMOVE KEY CYLINDER LAMP ASSY(W/ ILLUMINATED ENTRY SYSTEM)



30. REMOVE STEERING COLUMN UPPER W/SWITCH BRACKET ASSY

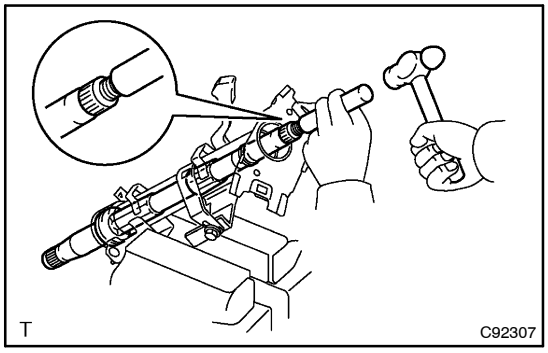
(a) Using a centering punch, mark the center of the 2 lapered–head bolts.
(b) Using a 3 – 4 mm (0.12 – 0.16 in.) drill, drill into the 2 bolts.
(c) Using a screw extractor, remove the 2 bolts and steering column upper w/ switch bracket assy.

31. REMOVE STEERING COLUMN CLAMP UPPER



32. REMOVE STEERING MAIN SHAFT ASSY

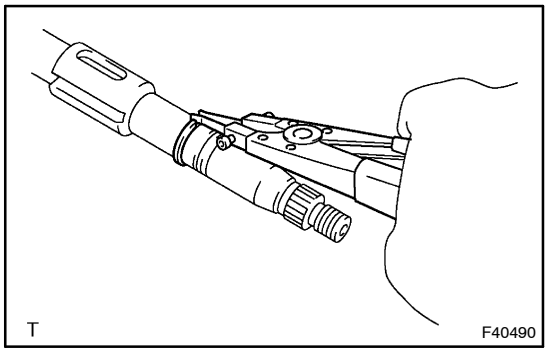
(a) Using a snap ring expander, remove the steering main shaft snap ring (outer side).



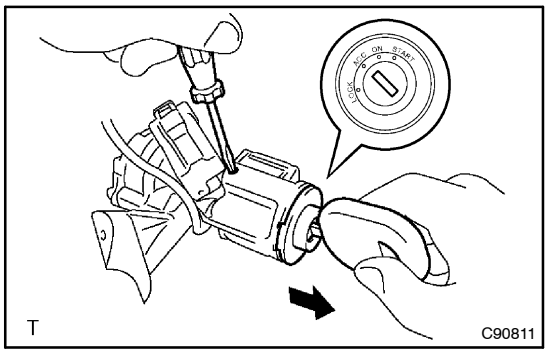
(b) Using a brass bar and a hammer, remove the steering main shaft assy and steering main shaft radial ball bearing.

NOTICE:

Be careful not to drop the steering main shaft assy.



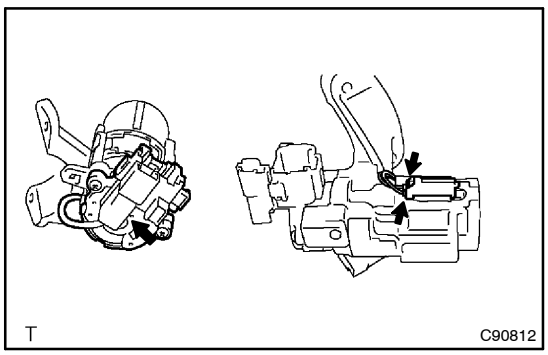
(c) Using a snap ring expander, remove the steering main shaft snap ring (inner side).



33. REMOVE IGNITION SWITCH LOCK CYLINDER ASSY

(a) Place the ignition switch lock cylinder assy at the ACC position.

(b) Push down the stop pin with a screwdriver, and pull out the cylinder assy.



34. REMOVE UN–LOCK WARNING SWITCH ASSY

(a) Disconnect the un–lock warning switch assy connector from the ignition or starter switch assy.

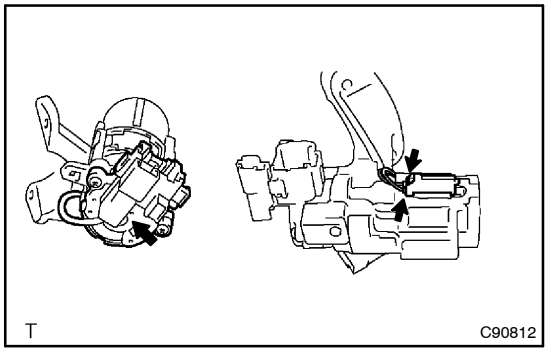
(b) Remove the un–lock warning switch assy.

35. REMOVE IGNITION OR STARTER SWITCH ASSY

(a) Remove the 2 screws and ignition or starter switch assy from the steering column bracket assy.

36. INSTALL IGNITION OR STARTER SWITCH ASSY

(a) Install the ignition or starter switch assy to the steering column bracket assy with the 2 screws.



37. INSTALL UN–LOCK WARNING SWITCH ASSY

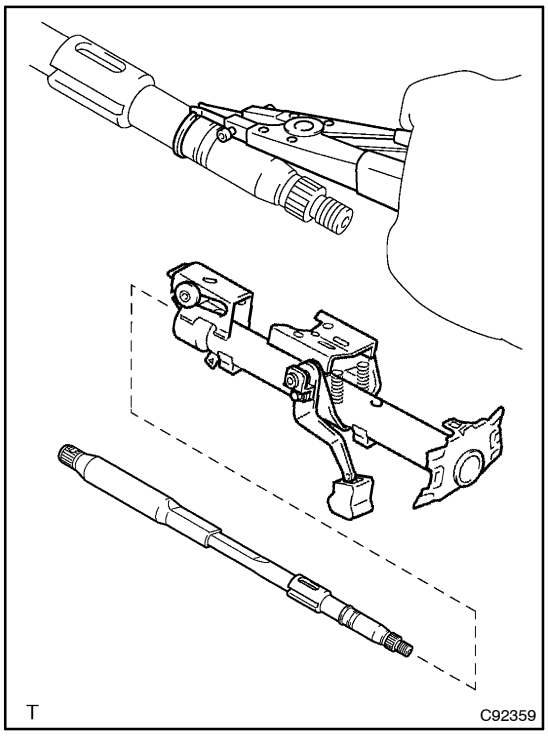
(a) Install the un–lock warning switch assy.
(b) Connect the un–lock warning switch assy connector to the ignition or starter switch assy.

38. INSTALL IGNITION SWITCH LOCK CYLINDER ASSY

(a) Make sure that the ignition switch lock cylinder assy is at the ACC position.
(b) Install the ignition switch lock cylinder assy.

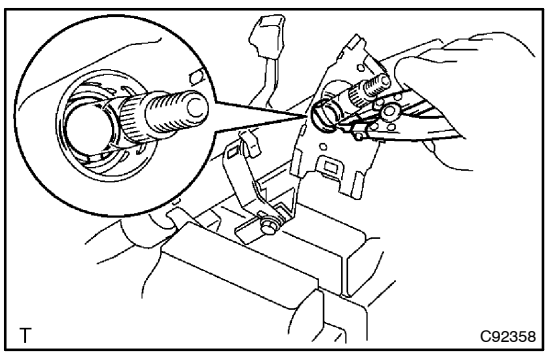
39. INSPECT STEERING LOCK OPERATION

(a) Check that the steering lock mechanism is activated when removing the key.
(b) Check that the steering lock mechanism is deactivated when inserting the key and turning it to ACC position.

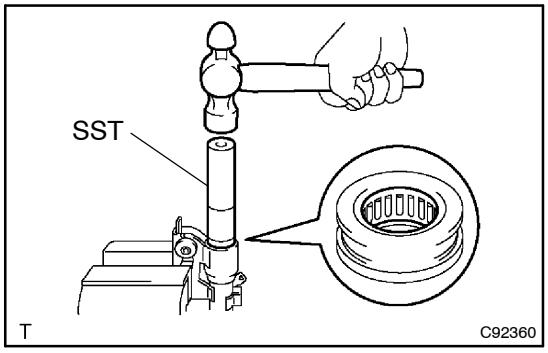


40. INSTALL STEERING MAIN SHAFT ASSY

(a) Using a snap ring expander, install a new steering main shaft snap ring (inner side) to the steering main shaft assy.
(b) Install the steering main shaft assy to the steering column tube.

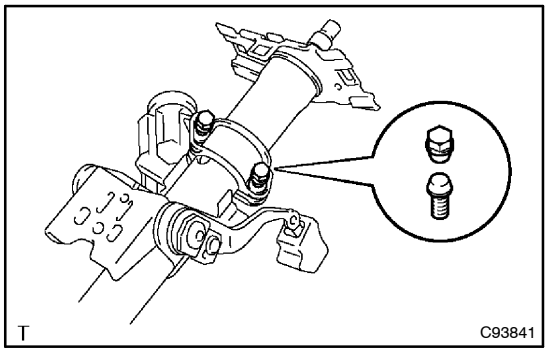


(c) Using a snap ring expander, install a new steering main shaft snap ring (outer side) to the steering main shaft assy.



41. INSTALL STEERING MAIN SHAFT RADIAL BALL BEARING

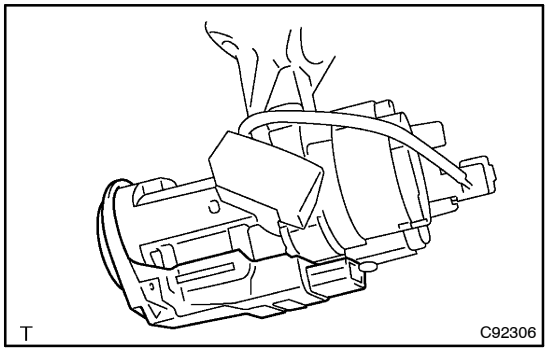
(a) Using SST and a hammer, install a new steering main radial ball bearing.
SST 09612–22011



42. INSTALL STEERING COLUMN UPPER W/SWITCH BRACKET ASSY

(a) Temporarily install the steering column upper w/switch bracket assy and steering column upper clamp with 2 new tapered–head bolts.
(b) Tighten the 2 tapered–head bolts until the bolt heads break off.

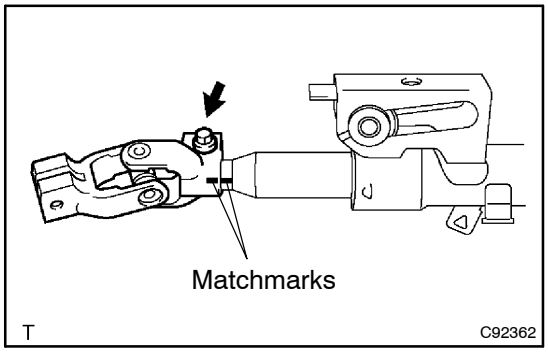
43. INSTALL KEY CYLINDER LAMP ASSY(W/ ILLUMINATED ENTRY SYSTEM)



44. INSTALL TRANSPONDER KEY AMPLIFIER(W/ ILLUMINATED ENTRY SYSTEM)

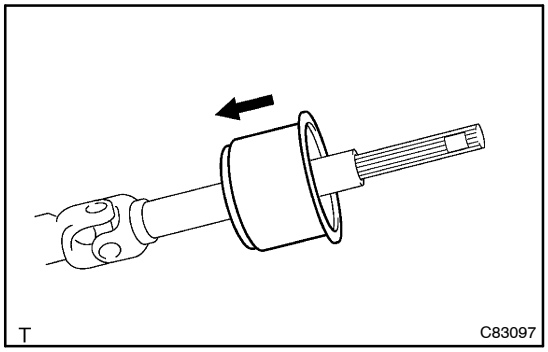
(a) Align the transponder key amplifier with the installation position of the upper bracket with the amplifier inclined.
(b) Push the trasponder key amplifier up and connect it to the upper bracket.

NOTICE:
Take care not to push the amplifier up with excessive force to prevent it from being damaged.



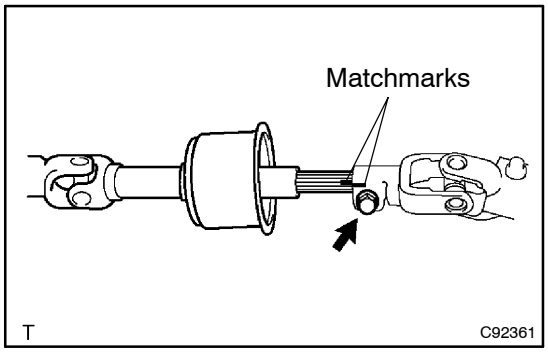
45. INSTALL STEERING SLIDING YOKE SUB–ASSY

(a) Align the matchmark with the one on the steering sliding yoke sub–assy and steering main shaft assy.
(b) Install the steering sliding yoke sub–assy with the bolt.
Torque: 35.3 N·m (360 kgf·cm, 26 ft·lbf)



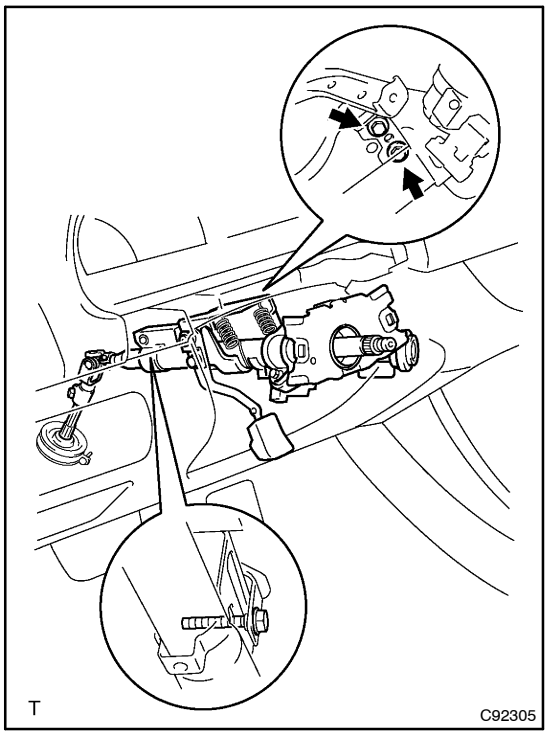
46. INSTALL STEERING COLUMN HOLE COVER SUB–ASSY NO.2

(a) Install the steering column hole cover sub–assy No.2 to the steering intermediate shaft sub–assy.



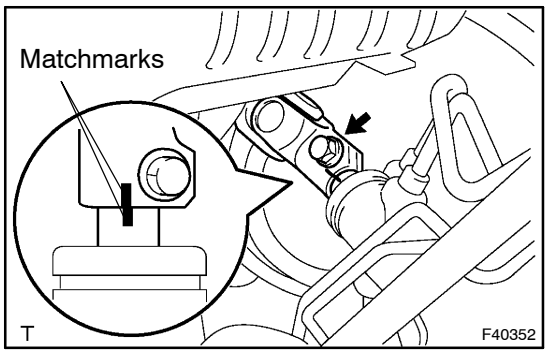
47. TEMPORARY TIGHTEN STEERING INTERMEDIATE SHAFT SUB–ASSY

(a) Align the matchmark with the one on the steering intermediate shaft sub–assy and steering main shaft assy.
(b) Temporarily install the steering intermediate shaft sub–assy with the bolt.



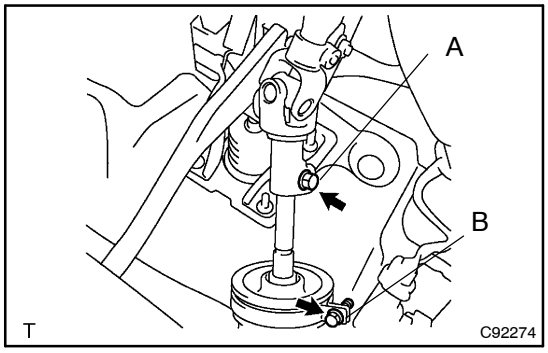
48. INSTALL STEERING COLUMN ASSY

(a) Install the steering column assy with the 3 bolts.
Torque: 20.6 N·m (210 kgf·cm, 15 ft·lbf)
(b) Connect the connectors and wire harness clamps.



49. CONNECT STEERING INTERMEDIATE SHAFT SUB–ASSY

(a) Align the matchmarks on the intermediate shaft sub–assy and steering gear assy.
(b) Install the steering intermediate shaft sub–assy with the bolt.
Torque: 35.3 N·m (360 kgf·cm, 26 ft·lbf)



(c) Tighten the bolt A.
Torque: 35.3 N·m (360 kgf·cm, 26 ft·lbf)
(d) Install the steering column hole cover No. 2 to the steering hole cover No.1.
(e) Connect the clamp to the steering column hole cover No.1 and tighten the bolt B.

50. INSTALL WINDSHIELD WIPER SWITCH ASSY

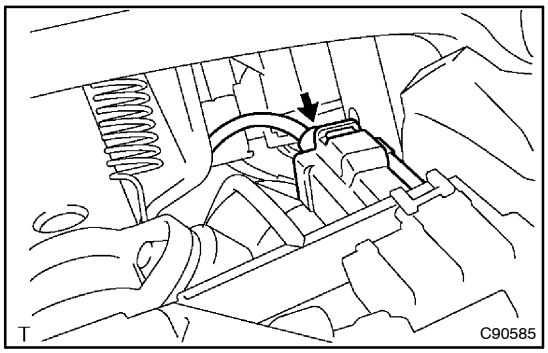
(a) Install the windshield wiper switch assy and connect the connector.

51. INSTALL HEADLAMP DIMMER SWITCH ASSY

(a) Install the headlamp dimmer switch assy and connect the connector.

52. PLACE FRONT WHEELS FACING STRAIGHT AHEAD

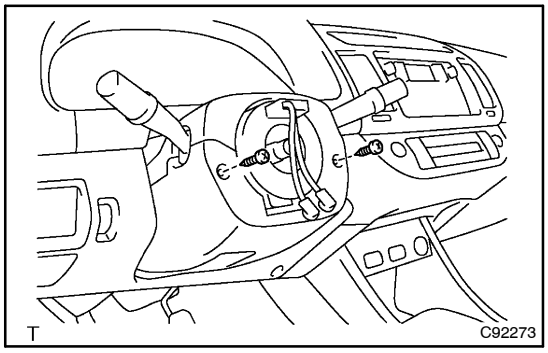
53. INSTALL SPIRAL CABLE SUB–ASSY
(See page 60–24)



54. CONNECT FLOOR SHIFT PARKING LOCK CABLE ASSY

(a) Turn the ignition switch to ACC or ON.
(b) Connect the cable to the upper bracket.

55. CONNECT CHECK KEY INTERLOCK OPERATION



56. INSTALL STEERING COLUMN COVER

(a) Install the steering column cover with the 2 screws.

57. INSTALL INSTRUMENT CLUSTER FINISH PANEL

58. INSTALL HEATER TO FOOT DUCT NO.3

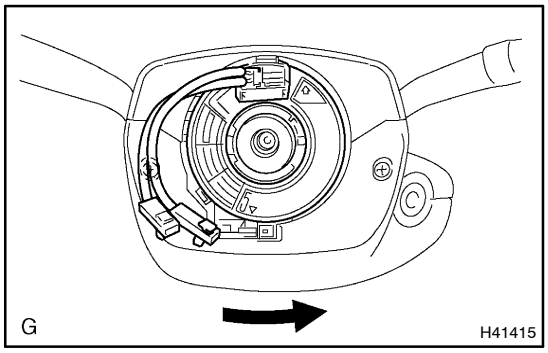
59. INSTALL INSTRUMENT PNL INSERT SUB–ASSY LWR LH

60. INSTALL INSTRUMENT PANEL SUB–ASSY UPPER

61. INSTALL INSTRUMENT PANEL COIN BOX SUB–ASSY

62. INSTALL COWL SIDE TRIM SUB–ASSY LH

63. INSTALL FRONT DOOR SCUFF PLATE LH



64. CENTER SPIRAL CABLE

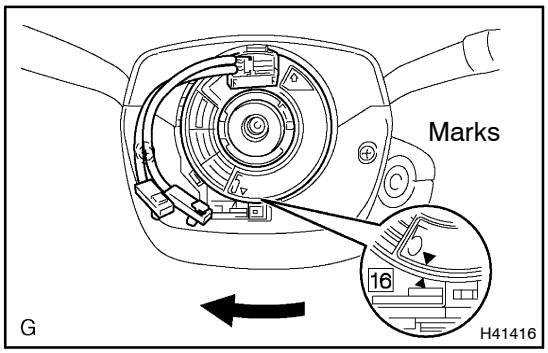
(a) Check that the ignition switch is at OFF.

(b) Check that the battery negative terminal is disconnected.

NOTICE:

Do not start the operation for 90 seconds after removing the terminal.

(c) Turn the cable counterclockwise by hand until it becomes harder to turn.



(d) Then rotate the cable clockwise about 2.5 turns to align the marks.

HINT:

The cable will rotate about 2.5 turns to both right and left of the center.

65. INSTALL STEERING WHEEL ASSY

(a) Align the matchmark with the one on the steering wheel assy and steering main shaft assy.

(b) Install the steering wheel assy with the set nut.

Torque: 50 N·m (510 kgf·cm, 37 ft·lbf)

(c) Connect the connector.

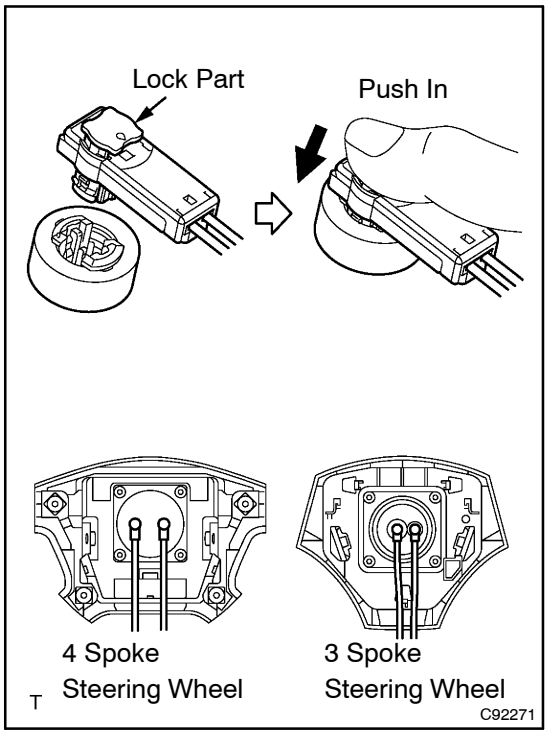
66. INSPECT HORN BUTTON ASSY

(See page 60–15)

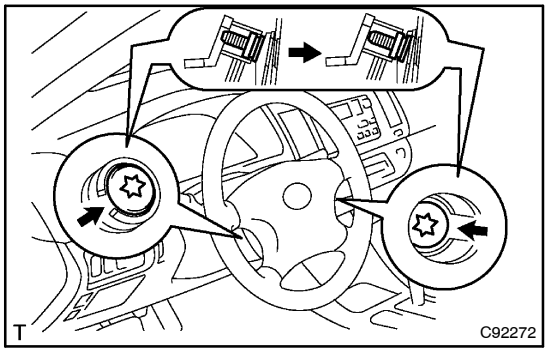
67. INSTALL HORN BUTTON ASSY

NOTICE:

- **Never use the airbag parts removed from another vehicle. When replacing parts, replace with new ones.**
- **Make sure that the horn button assy is installed with the specified torque.**
- **If the horn button assy has been dropped, or there are cracks, dents or other defects in the case or connector, replace the horn button assy with a new one.**
- **When installing the horn button assy, take care so that the wirings do not interfere with other parts and that they are not pinched between other parts.**



(a) Connect the 2 airbag connectors.
(b) Connect the horn connector. (4 Spoke steering wheel)



(c) Install the horn button assy after confirming that the circumference groove of the torx screws is caught on the screw case.
(d) Using a torx socket wrench, torque the 2 screws.
Torque: 8.8 N·m (90 kgf·cm, 78 in.·lbf)

68. INSTALL STEERING WHEEL COVER LOWER NO.2
(See page 50–4)

69. INSTALL STEERING WHEEL COVER LOWER NO.3(W/O STEERING PAD SWITCH 4 SPOKE STEERING WHEEL)
(See page 50–4)

70. INSTALL CONNECTOR COVER(W/ STEERING PAD SWITCH 4 SPOKE STEERING WHEEL) (See page 50–4)
71. INSTALL STEERING WHEEL COVER LOWER NO.3(3 SPOKE STEERING WHEEL ASSY) (See page 50–4)
72. STEERING WHEEL CENTER POINT
73. INSPECT SRS WARNING LIGHT(See page 05–758)