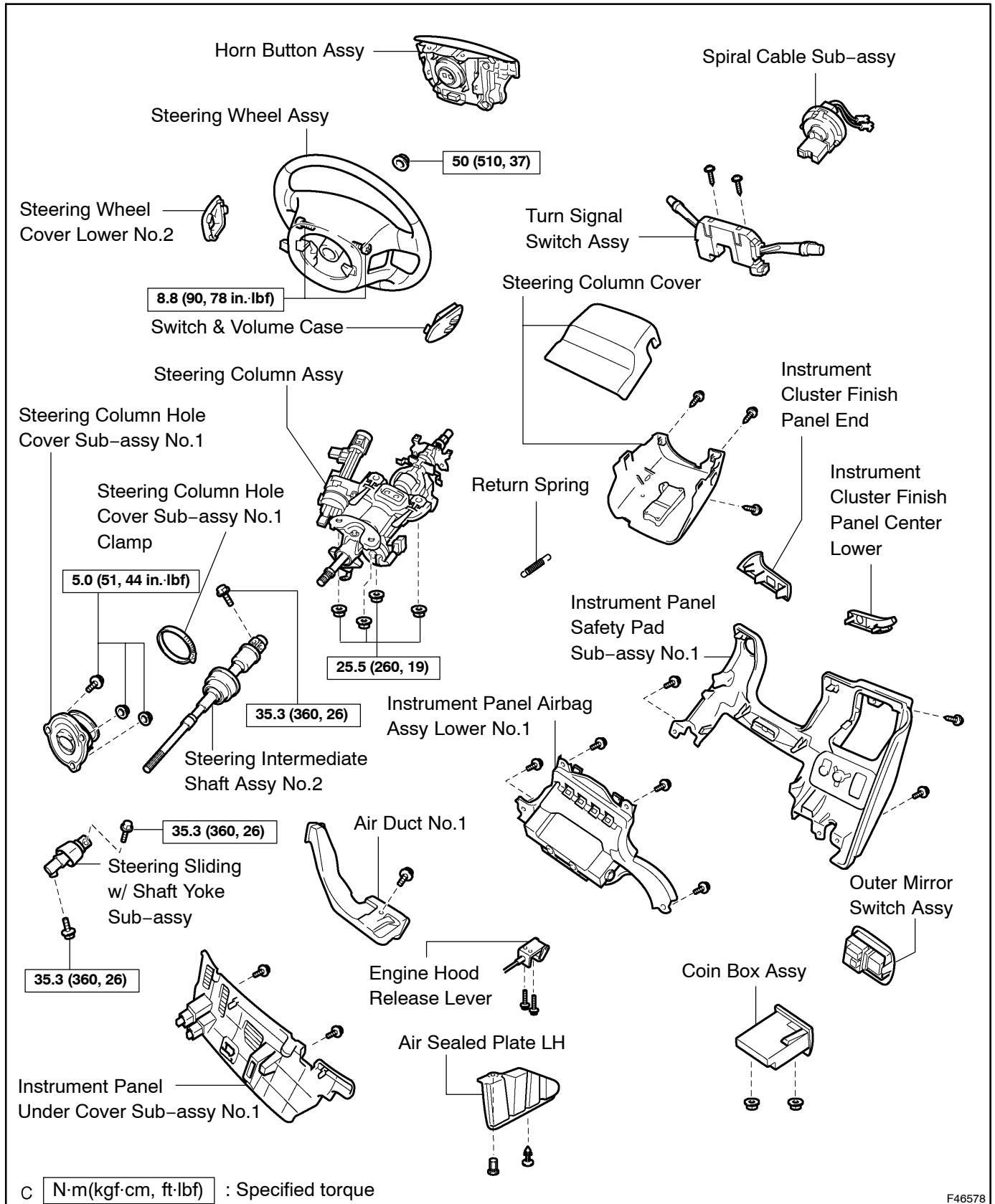
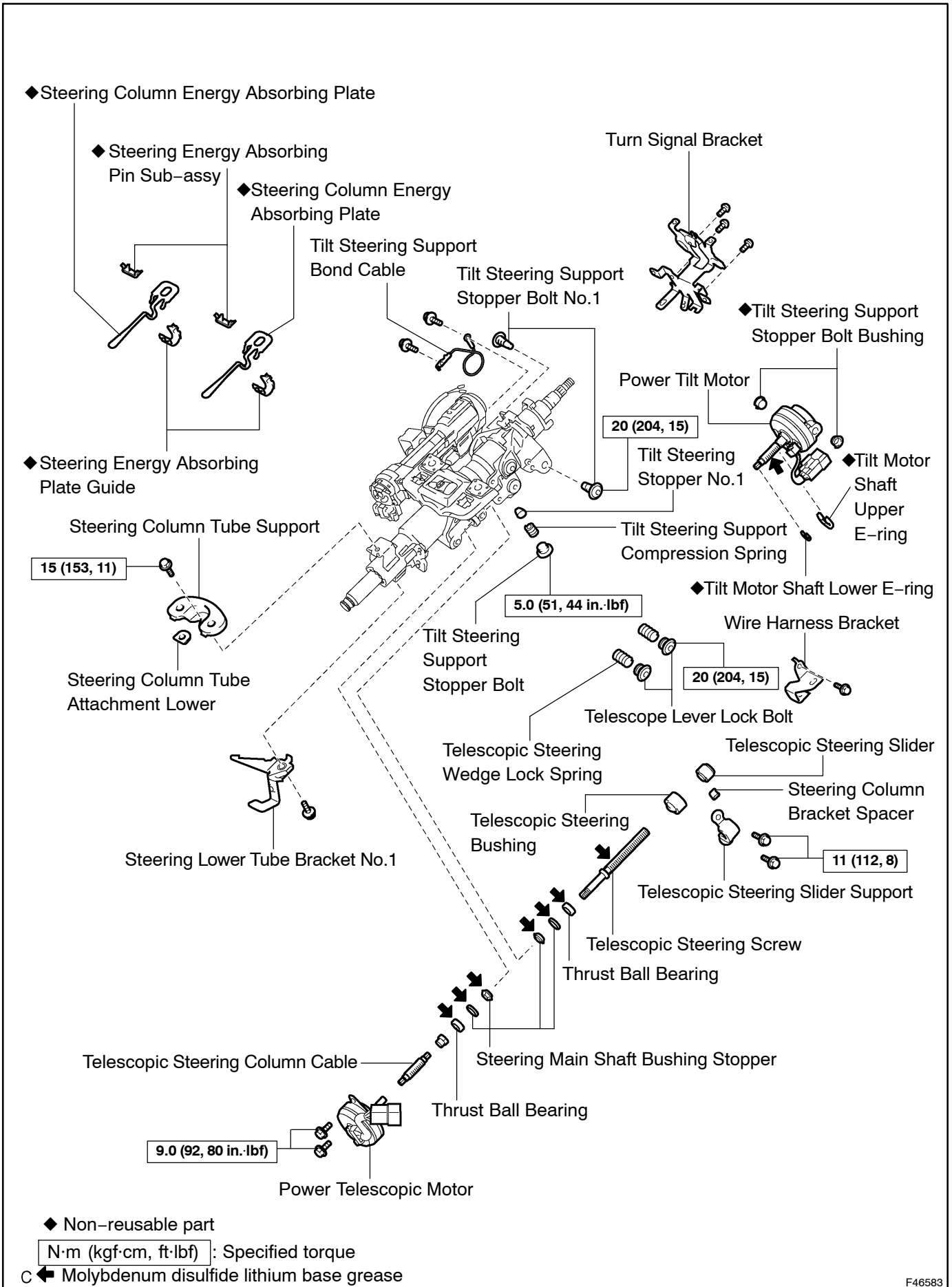


STEERING COLUMN ASSY COMPONENTS

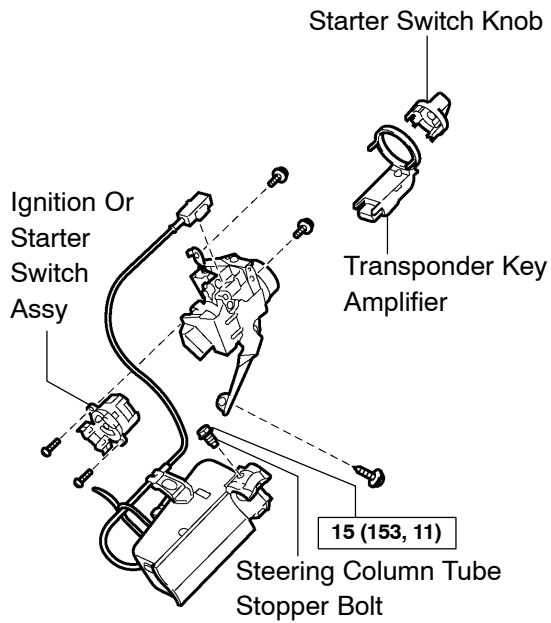
5008T-02



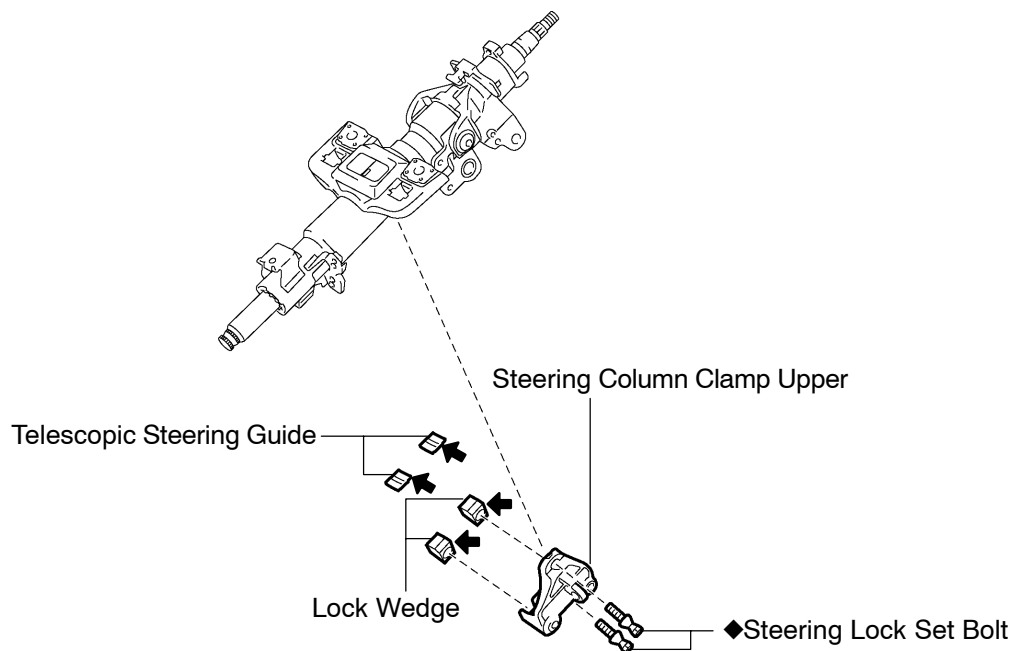
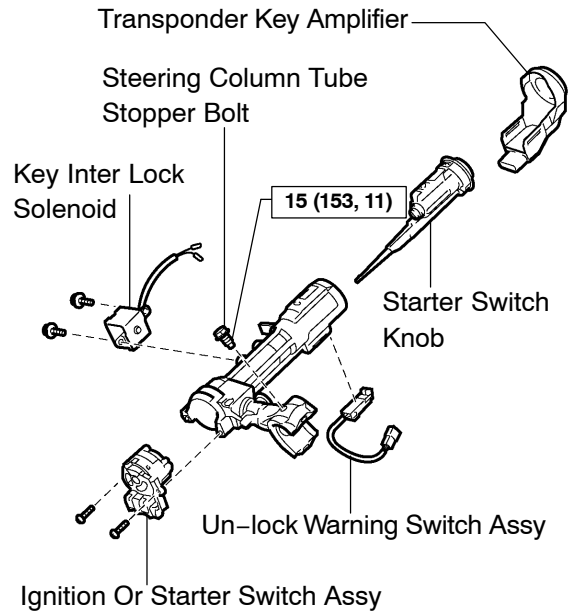
STEERING COLUMN - STEERING COLUMN ASSY



**W/ SMART KEY SYSTEM:
W/ STEERING LOCK ACTUATOR & SWITCH SET:**



**W/O SMART KEY SYSTEM:
W/ STEERING COLUMN UPPER W/ SWITCH BRACKET ASSY:**

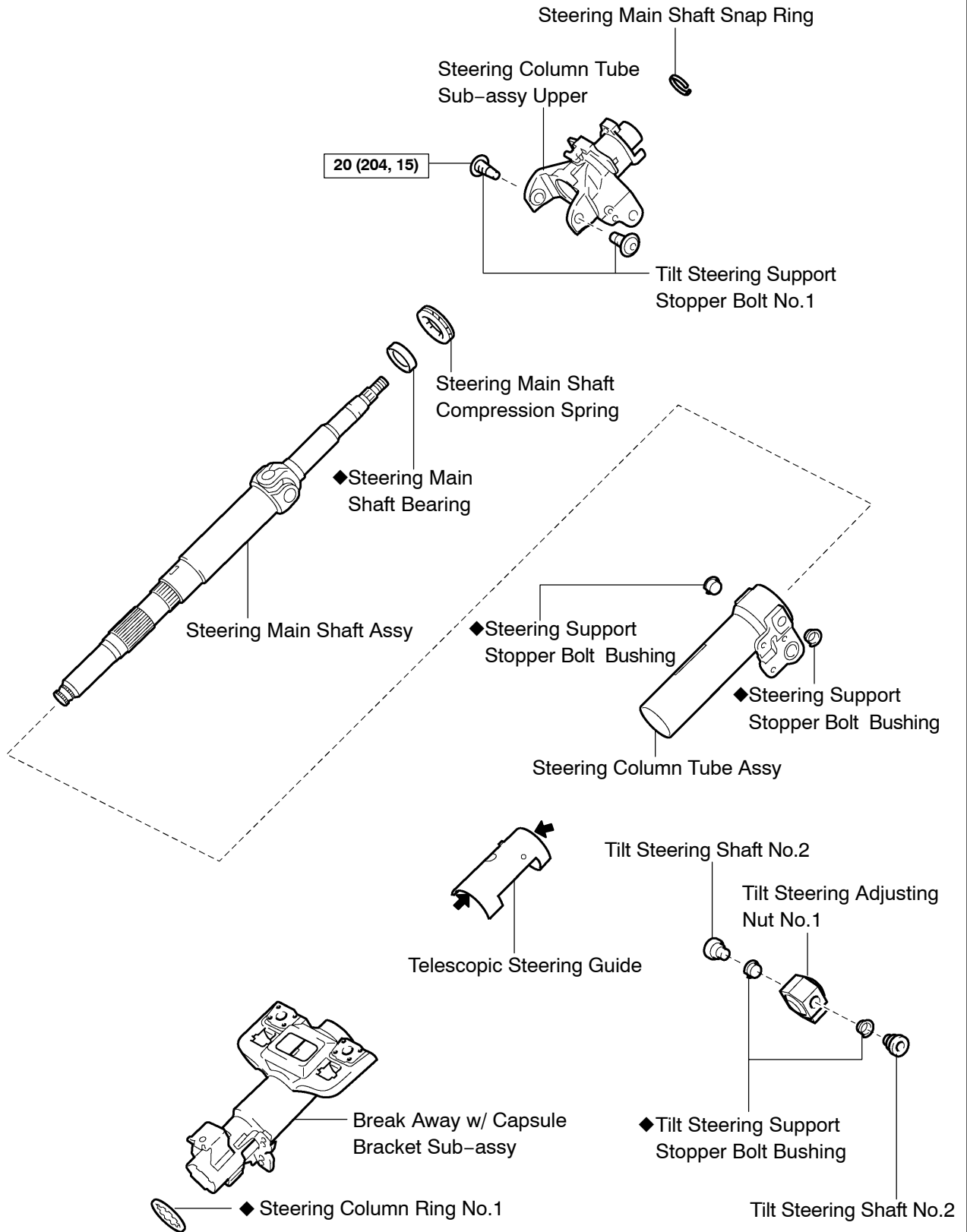


◆ Non-reusable part

N·m (kgf·cm, ft·lbf) : Specified torque

◀ Molybdenum disulfide lithium base grease

STEERING COLUMN - STEERING COLUMN ASSY



◆ Non-reusable part

N·m (kgf·cm, ft·lbf) : Specified torque

◀ Molybdenum disulfide lithium base grease

C

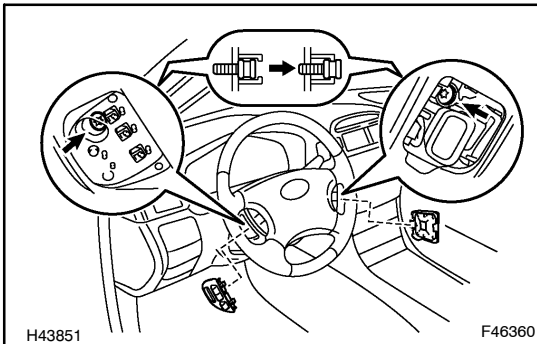
OVERHAUL

NOTICE:

- If the airbag connector is disconnected with the ignition switch in the ON position, DTCs will be recorded.
- When using a vise, do not overtighten it.
- Coat parts indicated by arrows with molybdenum disulfide lithium base grease (see page 50-6).

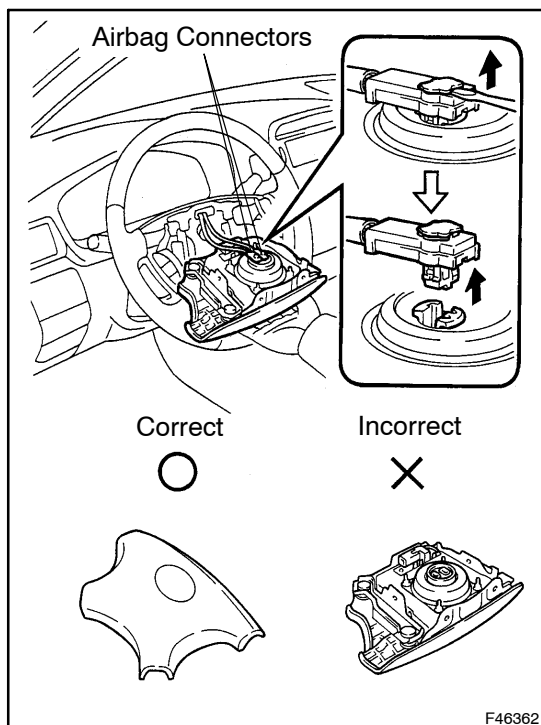
HINT:

- A bolt without a torque specification is shown in the standard bolt chart (see page 03-2).
1. **PRECAUTION (See Page 60-1)**
 2. **DISCONNECT BATTERY NEGATIVE TERMINAL (See Page 60-1)**
 3. **PLACE FRONT WHEELS FACING STRAIGHT AHEAD**
 4. **REMOVE SWITCH & VOLUME CASE**
 5. **REMOVE STEERING WHEEL COVER LOWER NO.2**



6. REMOVE HORN BUTTON ASSY

- (a) Using a torx socket wrench (T30), loosen the 2 torx® screws until the groove along the screw circumference is caught on the screw case.



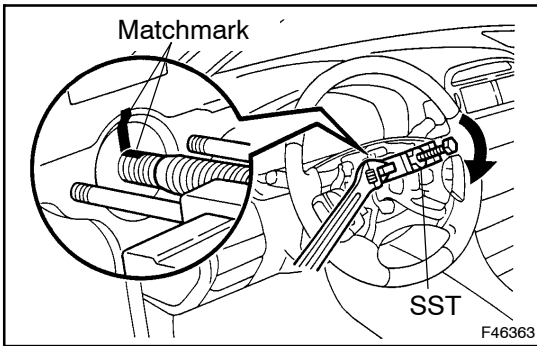
- (b) Pull out the horn button from the steering wheel and disconnect the airbag connectors.
- (c) Disconnect the terminal.

NOTICE:

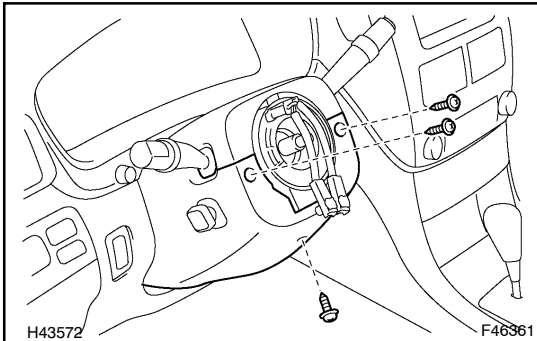
When removing the horn button assy, take care not to pull the airbag wire harness.

CAUTION:

- When placing the horn button down, keep the upper surface of the horn button facing upward.
- Never disassemble the horn button.

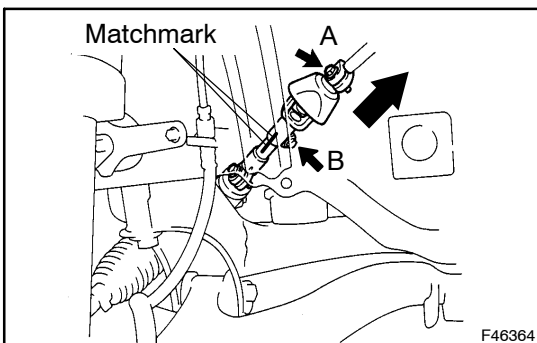
**7. REMOVE STEERING WHEEL ASSY**

- (a) Remove the steering wheel set nut.
- (b) Put matchmarks on the steering wheel and main shaft.
- (c) Using SST, remove the steering wheel.
SST 09950-50013 (09951-05010, 09952-05010, 09953-05020, 09954-05021)

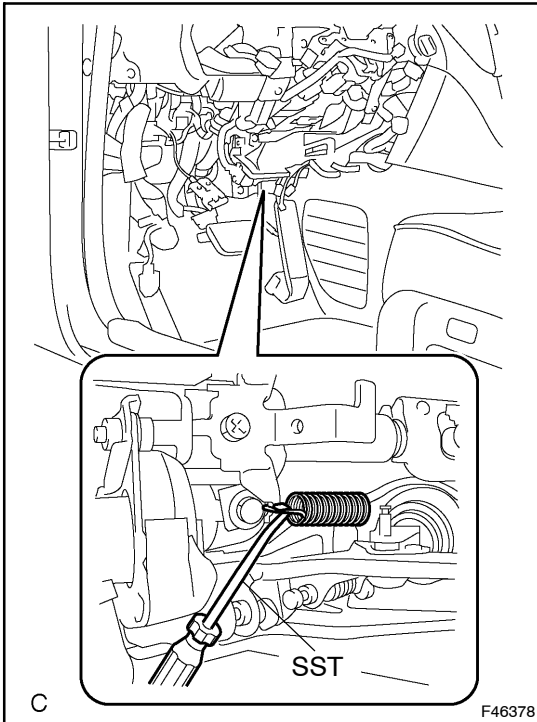
**8. REMOVE STEERING COLUMN COVER**

- (a) Remove the 3 screws and the steering column cover.

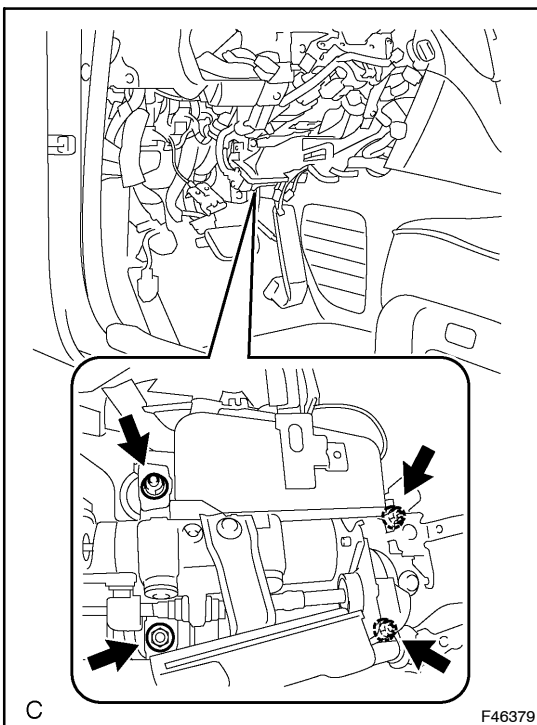
9. REMOVE SPIRAL CABLE SUB-ASSY (See Page 60-29)
10. REMOVE TURN SIGNAL SWITCH ASSY (See Page 65-23)
11. REMOVE INSTRUMENT CLUSTER FINISH PANEL CENTER LOWER (See Page 71-6)
12. REMOVE INSTRUMENT CLUSTER FINISH PANEL END (See Page 71-6)
13. REMOVE INSTRUMENT PANEL UNDER COVER SUB-ASSY NO.1 (See Page 71-6)
14. REMOVE COIN BOX ASSY (See Page 71-6)
15. REMOVE OUTER MIRROR SWITCH ASSY (See Page 71-6)
16. REMOVE INSTRUMENT PANEL SAFETY PAD SUB-ASSY NO.1 (See Page 71-6)
17. REMOVE INSTRUMENT PANEL AIR BAG ASSY LOWER NO.1 (See Page 71-6)
18. REMOVE AIR DUCT NO.1
 - (a) Remove the screw.
 - (b) Remove the air duct No.1.

**19. REMOVE AIR SEALED PLATE LH**

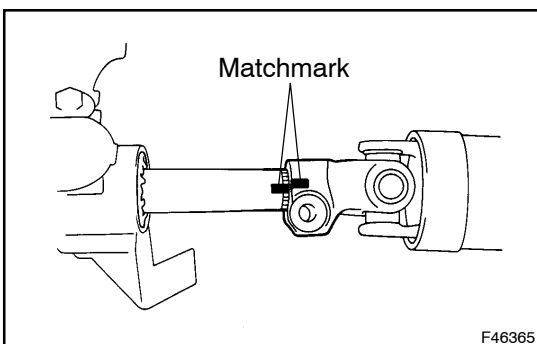
- (a) Remove the 2 clips and the air sealed plate LH.
- (b) Put matchmarks on the steering sliding w/ shaft yoke sub-assy and control valve shaft.
- (c) Loosen bolt A and remove bolt B.
- (d) Slide the steering sliding w/ shaft yoke in the direction shown by the arrow in the illustration and remove it.

**20. REMOVE STEERING COLUMN ASSY**

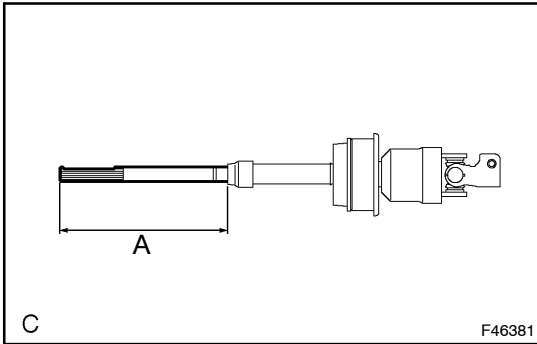
- (a) Disconnect the connectors.
- (b) Using SST, remove the return spring.
SST 09921-00010
- (c) w/ Smart key system:
Remove the bolt, 2 screws and the ignition switch.
- (d) Loosen the steering column hole cover sub-assy No.1 clamp.
- (e) Remove the bolt and 2 nuts to the steering column hole cover sub-assy No.1.



- (f) Remove the 4 nuts and steering column.

**21. REMOVE STEERING INTERMEDIATE SHAFT ASSY NO.2**

- (a) Put matchmarks on the intermediate shaft and steering main shaft.
- (b) Remove the bolt and steering intermediate shaft.



22. INSPECT STEERING INTERMEDIATE SHAFT ASSY NO.2

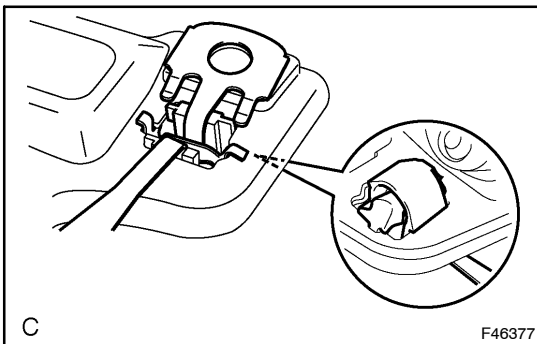
- (a) Measure dimension A of the steering intermediate shaft as shown in the illustration.

If dimension A is not within the specified range, replace the steering intermediate shaft with a new one.

Standard Value: 172 to 178 mm (6.77 to 7.01 in.)

23. REMOVE STEERING COLUMN HOLE COVER SUB-ASSY NO.1

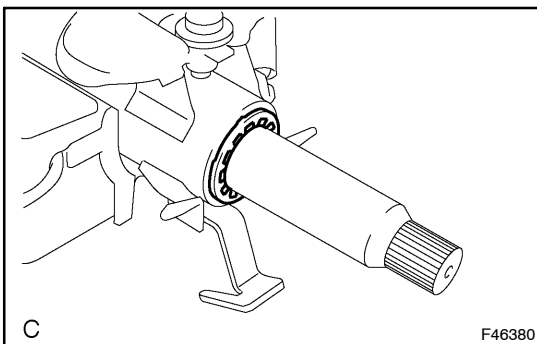
- (a) Remove the steering column hole cover.



24. INSPECT STEERING COLUMN ASSY

- (a) Check that the steering energy absorbing pin, steering column energy absorbing plate and steering energy absorbing plate guide are not damaged.

If the steering energy absorbing pin, steering column energy absorbing plate and/or steering energy absorbing plate guide are damaged, replace them with new ones.



- (b) Check that the claws of the steering column ring No.1 are completely engaged in the groove of the main shaft.

25. REMOVE WIRE HARNESS BRACKET

- (a) Using a screwdriver, remove the connector.

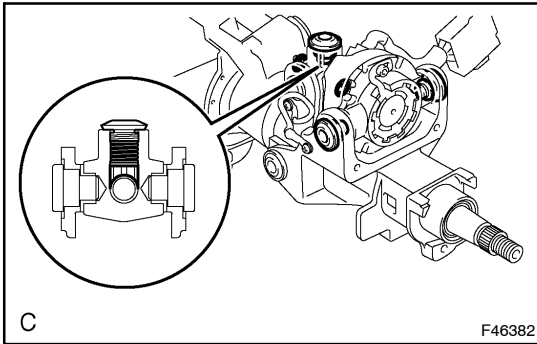
HINT:

Tape up the screwdriver tip before use.

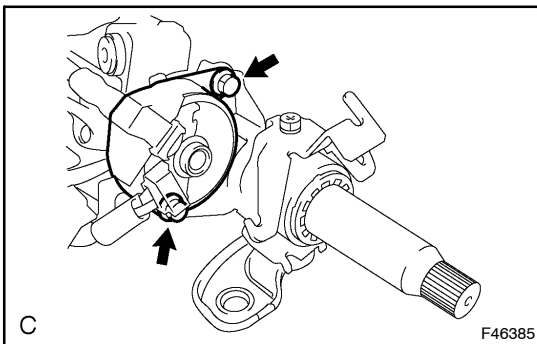
- (b) Remove the screw and the wire harness bracket.

26. REMOVE TURN SIGNAL BRACKET

- (a) Remove the 3 screws and the turn signal bracket.

**27. REMOVE POWER TILT MOTOR**

- (a) Using a hexagon wrench (4 mm), remove the tilt steering support stopper bolt.
- (b) Using a magnet handle, remove the tilt steering stopper No.1 and the tilt steering support compression spring.
- (c) Using a screwdriver, remove the tilt motor shaft lower E-ring and tilt motor shaft upper E-ring.
- (d) Using a hexagon wrench (6 mm), remove the 2 tilt steering support stopper bolts No.1 and power tilt motor.
- (e) Remove the 2 tilt steering support stopper bolt bushings from the power tilt motor.

**28. REMOVE POWER TELESCOPIC MOTOR**

- (a) Remove the 2 bolts and the power telescopic motor.

29. REMOVE TELESCOPIC STEERING COLUMN CABLE

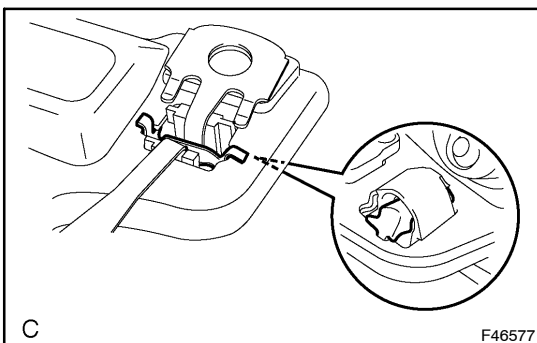
- (a) Remove the telescopic steering column cable.

30. REMOVE STEERING LOWER TUBE BRACKET NO.1

- (a) Remove the screw and steering lower tube bracket No.1.

31. REMOVE STEERING COLUMN TUBE SUPPORT

- (a) Remove the bolt and the steering column tube support together with the steering column tube attachment lower.
- (b) Remove the steering column tube attachment lower from the steering column tube support.

**32. REMOVE STEERING ENERGY ABSORBING PIN SUB-ASSY**

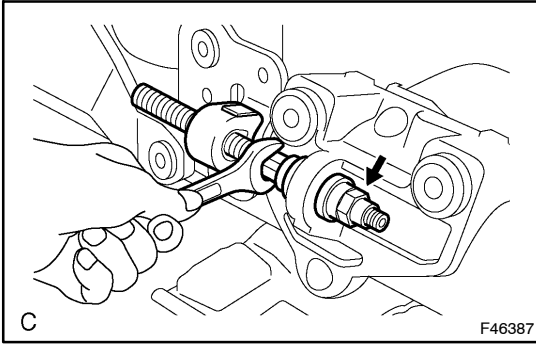
- (a) Using a screwdriver, remove the 2 steering energy absorbing pins.

HINT:

Tape up the screwdriver tip before use.

33. REMOVE STEERING COLUMN ENERGY ABSORBING PLATE**34. REMOVE STEERING ENERGY ABSORBING PLATE GUIDE****35. REMOVE TELESCOPIC STEERING SLIDER SUPPORT**

- (a) Remove the 2 bolts and the telescopic steering slider support.

**36. REMOVE TELESCOPIC STEERING SCREW**

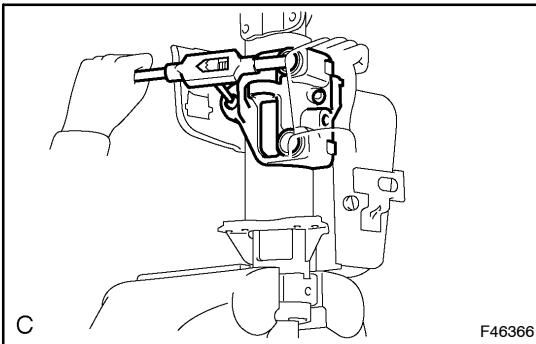
- (a) Using 2 wrenches, remove the nut, 4 steering main shaft bushing stoppers, 2 thrust ball bearings and the telescopic steering screw.
- (b) Remove the telescopic steering bushing and steering column bracket spacer from the telescopic steering slider.
- (c) Remove the telescopic steering slider from the telescopic steering screw.

37. REMOVE TELESCOPE LEVER LOCK BOLT

- (a) Using a hexagon wrench (6 mm), remove the 2 telescope lever lock bolts.
- (b) Remove the 2 telescopic steering wedge lock springs.

38. REMOVE TILT STEERING SUPPORT BOND CABLE

- (a) Remove the 2 screws and the tilt steering support bond cable.

**39. REMOVE STEERING LOCK ACTUATOR & SWITCH SET (W/ SMART KEY)**

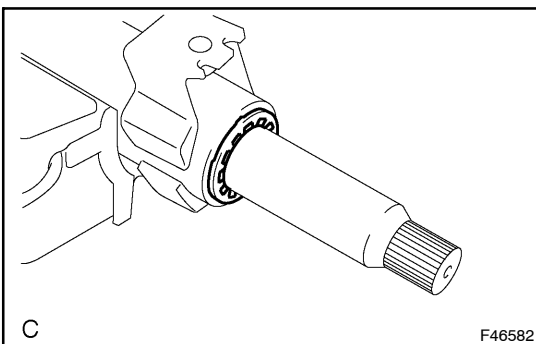
- (a) Using a centering punch, mark the center of the 2 steering lock set bolts.
- (b) Using a 3 to 4 mm (0.12 to 0.16 in.) drill, drill a hole in the 2 steering lock set bolt heads.
- (c) Remove the steering column tube stopper bolt, steering lock actuator & switch set and the steering column clamp upper.

40. REMOVE STEERING COLUMN UPPER W/ SWITCH BRACKET ASSY (W/O SMART KEY)

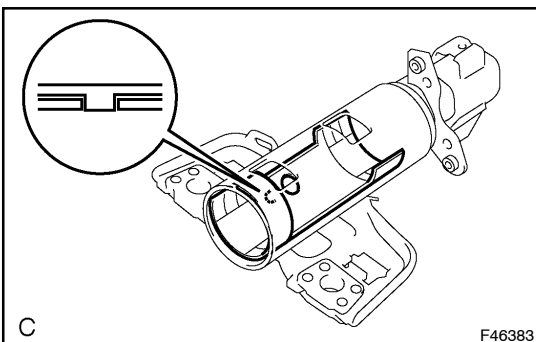
- (a) Use the same manner as for the steering lock actuator & switch set.

41. REMOVE LOCK WEDGE

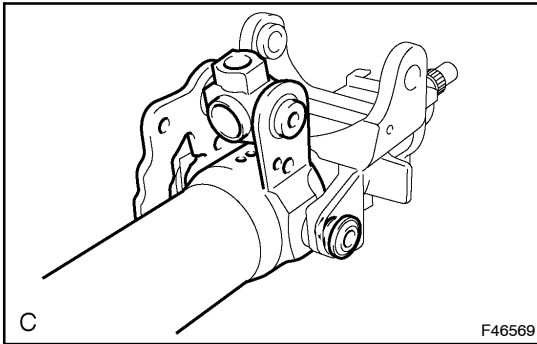
- (a) Remove the 2 lock wedges and the 2 telescopic steering guides from the steering column clamp upper.

**42. REMOVE BREAK AWAY W/CAPSULE BRACKET SUB-ASSY**

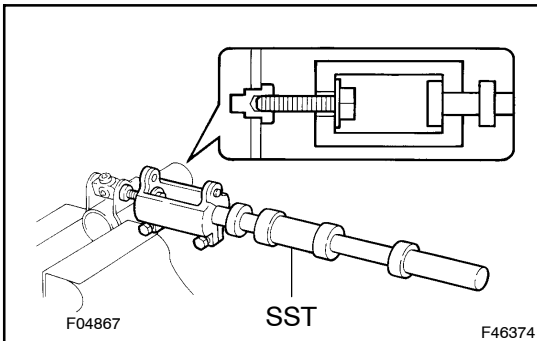
- (a) Using a screwdriver, remove the steering column ring No.1.
- (b) Remove the break away w/ capsule bracket.

**43. REMOVE TELESCOPIC STEERING GUIDE**

- (a) Remove the telescopic steering guide from the break away w/ capsule bracket.

**44. REMOVE STEERING COLUMN TUBE ASSY**

- (a) Using a hexagon wrench (6 mm), remove the 2 tilt steering bolts No.1 and the steering column tube together with the steering main shaft.
- (b) Remove the steering column tube from the steering main shaft.
- (c) Remove the 2 steering support stopper bolt bushings from the steering column tube.

**45. REMOVE TILT STEERING ADJUSTING NUT NO.1**

- (a) Set SST, a plate washer (36 mm outer diameter) and bolt (6 mm diameter, 1.0 mm pitch, 50 mm length), as shown in the illustration.

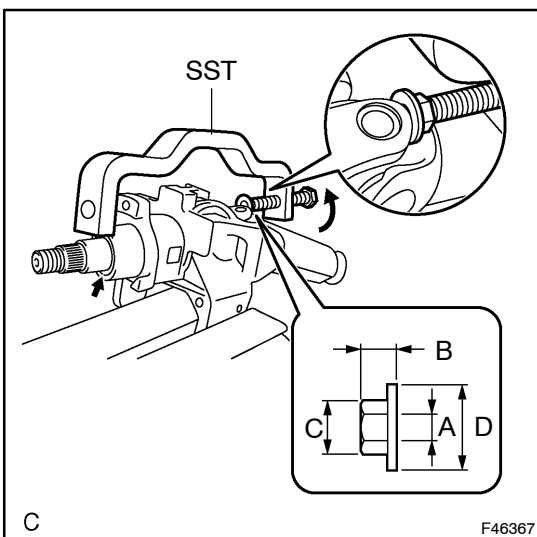
SST 09910-00015 (09911-00011, 09912-00010)

Reference:

Plate washer 90201-10201

Bolt 91111-51050

- (b) Remove the 2 tilt steering shafts No.2 by using SST (sliding hammer) from the tilt steering adjusting nut No.1.
- (c) Remove the 2 tilt steering support stopper bolt bushings from the tilt steering adjusting nut No.1.

**46. REMOVE STEERING MAIN SHAFT ASSY**

- (a) Using SST and a nut, compress the steering main shaft compression spring.

SST 09950-40011 (09958-04011)

Reference:

Nut 90179-06307

Details:

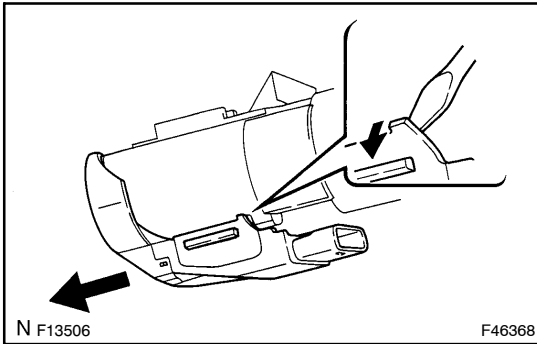
A 4.917 mm

B 6.6 mm

C 11.5 mm

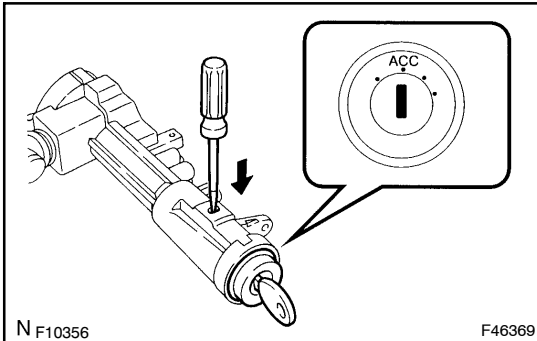
D 16 mm

- (b) Using an expander set, remove the steering main shaft snap ring.
- (c) Remove the steering main shaft from the steering column tube upper.
- (d) Remove the steering main shaft compression spring, steering main shaft bearing from the steering main shaft.



47. REMOVE TRANSPONDER KEY AMPLIFIER (W/O SMART KEY)

- (a) Widen the claw hanging onto the upper bracket by approximately 1.0 mm (0.039 in.) using a screwdriver.
- (b) Pull the transponder key amplifier with the claw open.



48. REMOVE IGNITION SWITCH LOCK CYLINDER (W/O SMART KEY)

- (a) Place the ignition key in the ACC position.
- (b) Using a screwdriver, push down the stop pin of the cylinder, and pull out the key cylinder.

HINT:

Make sure the key is in the ACC position.

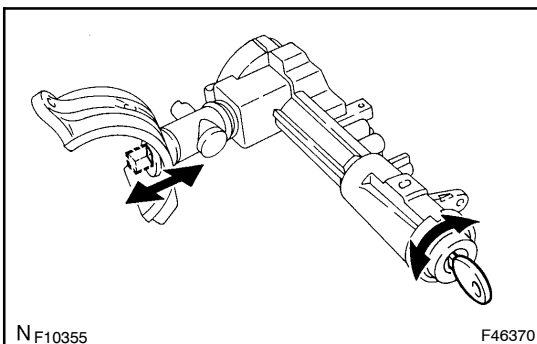
49. REMOVE UN-LOCK WARNING SWITCH ASSY (W/O SMART KEY)

50. REMOVE KEY INTER LOCK SOLENOID (W/O SMART KEY)

- (a) Remove the 2 screws and key inter lock solenoid.
- (b) Disconnect the connectors.

51. REMOVE IGNITION OR STARTER SWITCH ASSY (W/O SMART KEY)

- (a) Remove the 2 screws and ignition or starter switch.



52. INSPECT STEERING LOCK OPERATION (W/O SMART KEY)

- (a) Check that the steering lock mechanism operates properly.

53. INSTALL IGNITION OR STARTER SWITCH ASSY (W/O SMART KEY)

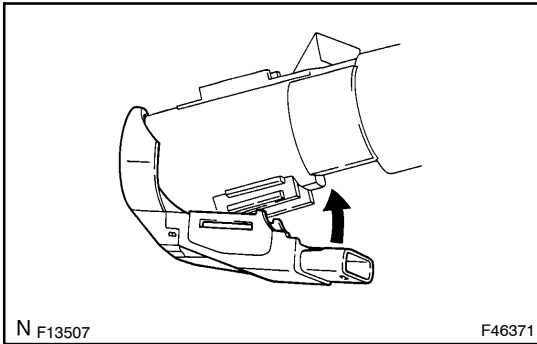
- (a) Install the ignition or starter switch with the 2 screws.

54. INSTALL KEY INTER LOCK SOLENOID (W/O SMART KEY)

- (a) Install the key inter lock solenoid with the 2 screws.
- (b) Connect the connectors.

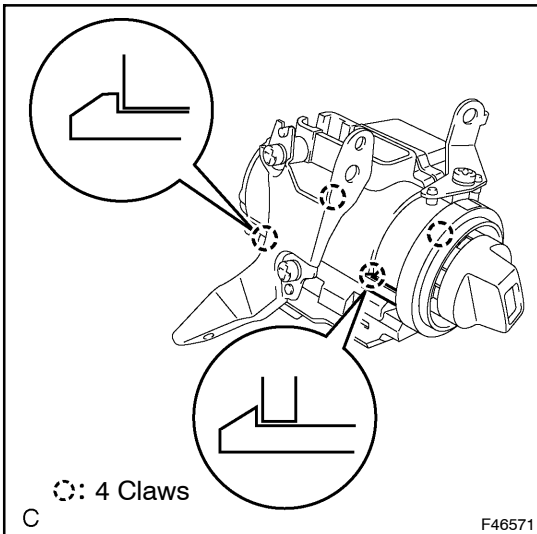
55. INSTALL UN-LOCK WARNING SWITCH ASSY (W/O SMART KEY)

56. INSTALL IGNITION SWITCH LOCK CYLINDER (W/O SMART KEY)



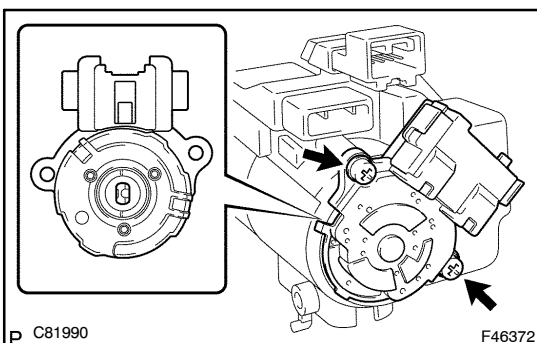
57. INSTALL TRANSPONDER KEY AMPLIFIER (W/O SMART KEY)

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



58. REMOVE TRANSPONDER KEY AMPLIFIER (W/ SMART KEY)

- (a) Disengage the 4 claws and remove the transponder key amplifier.



59. REMOVE IGNITION OR STARTER SWITCH ASSY (W/ SMART KEY)

- (a) Place the ignition key in the ACC position.
- (b) Remove the 2 screws and the ignition or starter switch.

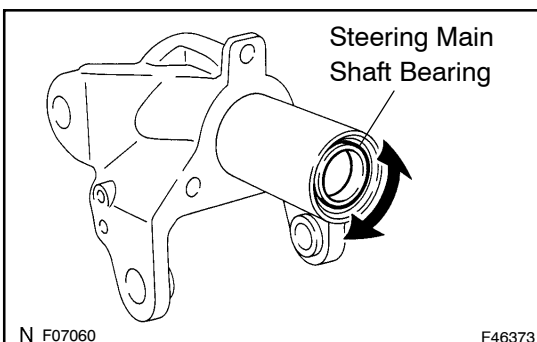
60. REMOVE STARTER SWITCH KNOB (W/ SMART KEY)

- (a) Using a screwdriver, remove the starter switch knob.

61. INSTALL STARTER SWITCH KNOB (W/ SMART KEY)

62. INSTALL IGNITION OR STARTER SWITCH ASSY (W/ SMART KEY)

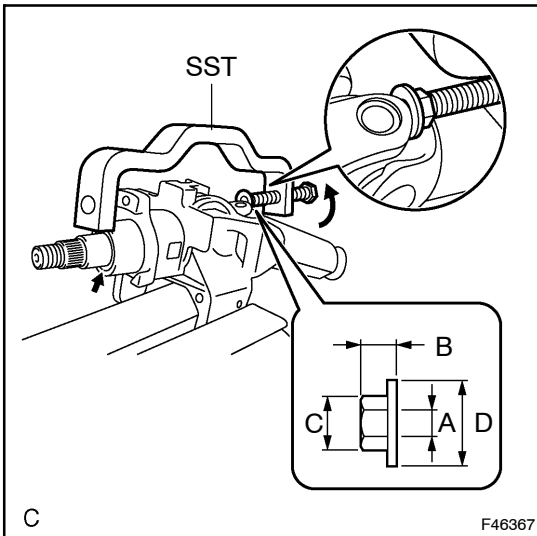
63. INSTALL TRANSPONDER KEY AMPLIFIER (W/ SMART KEY)



64. INSPECT STEERING MAIN SHAFT BEARING

- (a) Check the bearing rotation condition and check for abnormal noise.

If the steering main shaft bearing is worn or damaged, replace the steering column tube upper.

**65. INSTALL STEERING MAIN SHAFT ASSY**

- (a) Install the steering main shaft compression spring and a new steering main shaft bearing to the steering main shaft assy.
- (b) Install the steering main shaft assy to the steering column tube sub-assy upper.
- (c) Using SST and a nut, compress the steering main shaft compression spring.
SST 09950-40011 (09958-04011)

Reference:

Nut 90179-06307

Details:

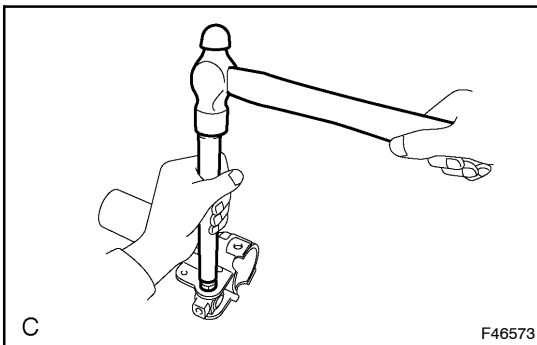
A 4.917 mm

B 6.6 mm

C 11.5 mm

D 16 mm

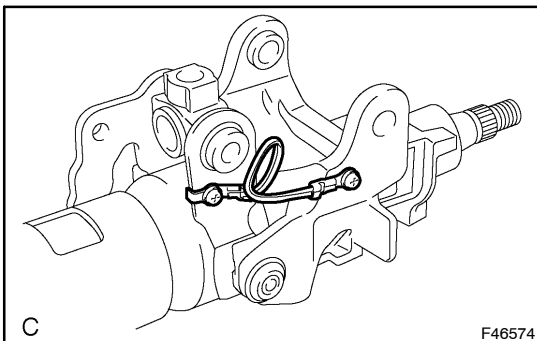
- (d) Using an expander set, install a new steering main shaft snap ring.

**66. INSTALL TILT STEERING ADJUSTING NUT NO.1**

- (a) Install 2 new tilt steering support stopper bolt bushings to the tilt steering adjusting nut No.1.
- (b) Using a brass bar and hammer, install the 2 tilt steering shafts No.2 and the tilt steering adjusting nut No.1 to the steering column tube.

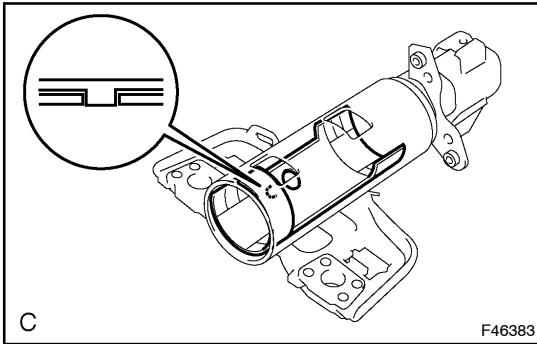
NOTICE:**Tap lightly when installing the two tilt steering shafts No.2.****67. INSTALL STEERING COLUMN TUBE ASSY**

- (a) Install 2 new steering support stopper bolt bushings to the tilt steering column tube.
- (b) Using a hexagon wrench (6 mm), install the 2 tilt steering support stopper bolts No.1 and the steering column tube together with the steering main shaft.

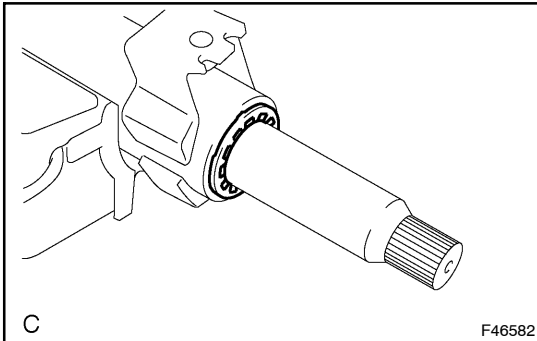
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)**68. INSTALL TILT STEERING SUPPORT BOND CABLE**

- (a) Install the steering support bond cable with the 2 screws as shown in the illustration.

NOTICE:**Be sure to install in the correct direction.**

**69. INSTALL TELESCOPIC STEERING GUIDE**

- (a) Install the telescopic steering guide to the break away w/ capsule bracket.

**70. INSTALL BREAK AWAY W/CAPSULE BRACKET SUB-ASSY**

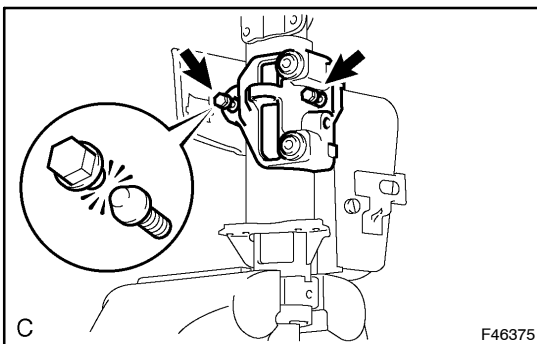
- (a) Install the break away w/ capsule bracket to the steering column tube.
 (b) Install a new steering column ring No.1.

NOTICE:

- Install the steering column No.1 to the main shaft so that the white markings are facing out.
- Securely install the snap ring in the groove on the main shaft.

71. INSTALL LOCK WEDGE

- (a) Install the lock wedge and the telescopic steering guide to the steering column clamp upper.

**72. INSTALL STEERING LOCK ACTUATOR & SWITCH SET (W/ SMART KEY)**

- (a) Engage 2 new steering lock set bolts to the steering lock actuator & switch set and steering column clamp upper.
 (b) Engage the steering column tube stopper bolt.
 (c) Tighten the 2 steering lock set bolts until the heads break off.
 (d) Tighten the steering column tube stopper bolt.

Torque: 15 N·m (153 kgf·cm, 11 ft·lbf)

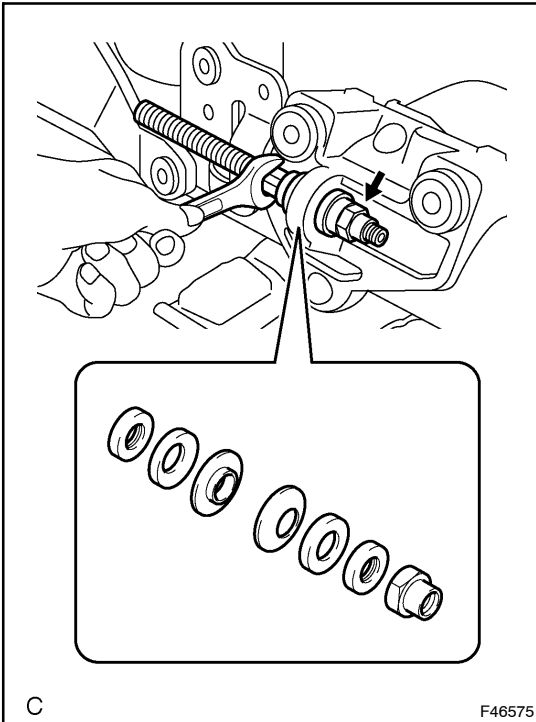
73. INSTALL STEERING COLUMN UPPER W/ SWITCH BRACKET ASSY (W/O SMART KEY)

- (a) Use the same manner as for the steering lock actuator & switch set (w/ smart key).

74. INSTALL TELESCOPE LEVER LOCK BOLT

- (a) Install the 2 telescopic steering wedge lock springs.
 (b) Using a hexagon wrench (6 mm), install the 2 telescope lever lock bolts.

Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)

**75. INSTALL TELESCOPIC STEERING SCREW**

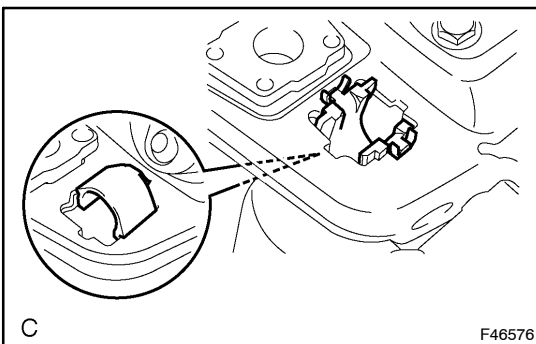
- (a) Install the telescopic steering slider.
- (b) Install the telescopic steering bushing and steering column bracket spacer to the telescopic steering slider.
- (c) Install the 4 steering main shaft bushing stoppers, 2 thrust ball bearings and the telescopic steering screws.
- (d) Using pliers and a wrench, install the nut.

NOTICE:

- Check that there is no looseness after installation.
- Install the telescopic steering screw securely (0.8 N·m or less).

76. INSTALL TELESCOPIC STEERING SLIDER SUPPORT

- (a) Install the telescopic steering slider support with the 2 bolts.
Torque: 11 N·m (112 kgf·cm, 8 ft·lbf)

**77. INSTALL STEERING ENERGY ABSORBING PLATE GUIDE**

- (a) Install 2 new steering energy absorbing plate guide.

NOTICE:

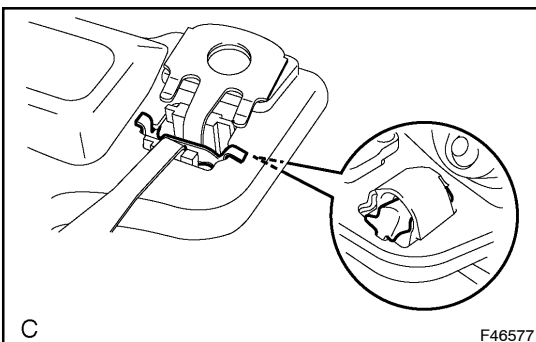
- Be sure to install in the correct direction.
- Securely install the steering energy absorbing plate guide.

78. INSTALL STEERING COLUMN ENERGY ABSORBING PLATE

- (a) Install 2 new steering column energy absorbing plate.

NOTICE:

Securely install the steering column energy absorbing plate.

**79. INSTALL STEERING ENERGY ABSORBING PIN SUB-ASSY**

- (a) Install 2 new steering energy absorbing pin.

NOTICE:

- Install the steering column energy absorbing pin.
- Check that there is not too much looseness after installation.

80. INSTALL STEERING COLUMN TUBE SUPPORT

- (a) Install the steering column tube attachment lower to the steering column tube support.
- (b) Install the steering column tube support with the bolt.

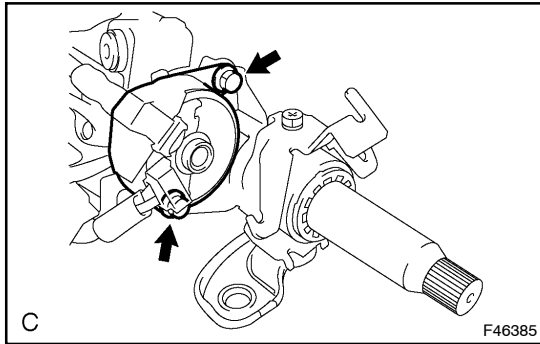
Torque: 15 N·m (153 kgf·cm, 11 ft·lbf)

81. INSTALL STEERING LOWER TUBE BRACKET NO.1

- (a) Install the steering lower tube bracket No.1 with the screw.

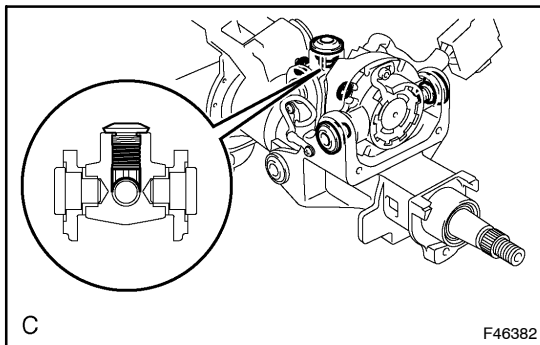
82. INSTALL TELESCOPIC STEERING COLUMN CABLE

- (a) Install the telescopic steering column cable.

**83. INSTALL POWER TELESCOPIC MOTOR**

- (a) Install the power telescopic motor with the 2 bolts.

Torque: 9.0 N·m (92 kgf·cm, 80 in·lbf)

**84. INSTALL POWER TILT MOTOR**

- (a) Install 2 new tilt steering support bolt bushings to the power tilt motor.
- (b) Install the power tilt motor.
- (c) Using a hexagon wrench (6 mm), install the 2 tilt steering support stopper bolts No.1.

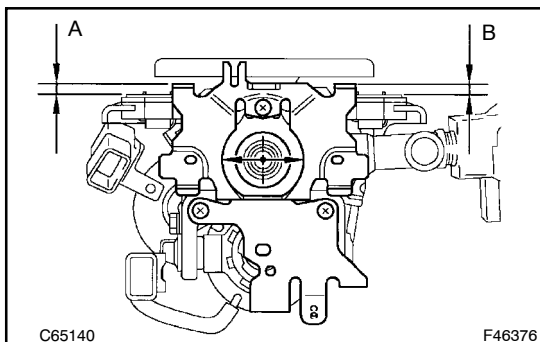
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)

- (d) Using needle nose pliers, install the tilt motor shaft lower E-ring and tilt motor shaft upper E-ring.
- (e) Install the tilt steering stopper No.1 and the tilt steering stopper compression spring.
- (f) Using a hexagon wrench (4 mm), install the tilt steering stopper bolt.

Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)

NOTICE:

Be sure to install in the correct direction.

**85. INSTALL TURN SIGNAL BRACKET**

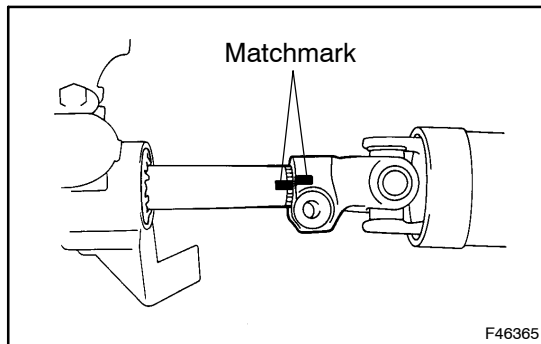
- (a) Install the turn signal bracket with the 3 screws.

NOTICE:

- Clearance between the turn signal bracket and the steering column tube should be the same.
- The connecting part of the turn signal switch and the break away bracket should be held horizontally so that they can be installed together properly. (Dimensions A and B should be equal.)

86. INSTALL WIRE HARNESS BRACKET

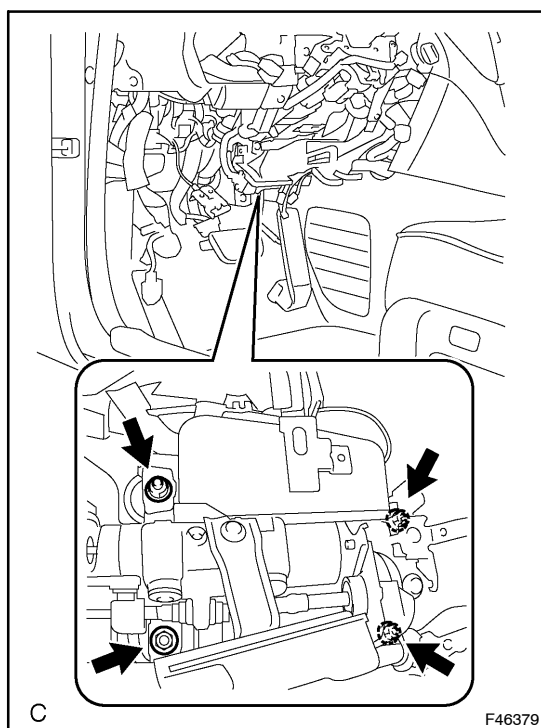
- (a) Install the wire harness bracket with the screw.
Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)
- (b) Connect the connector.

**87. INSTALL STEERING INTERMEDIATE SHAFT ASSY NO.2**

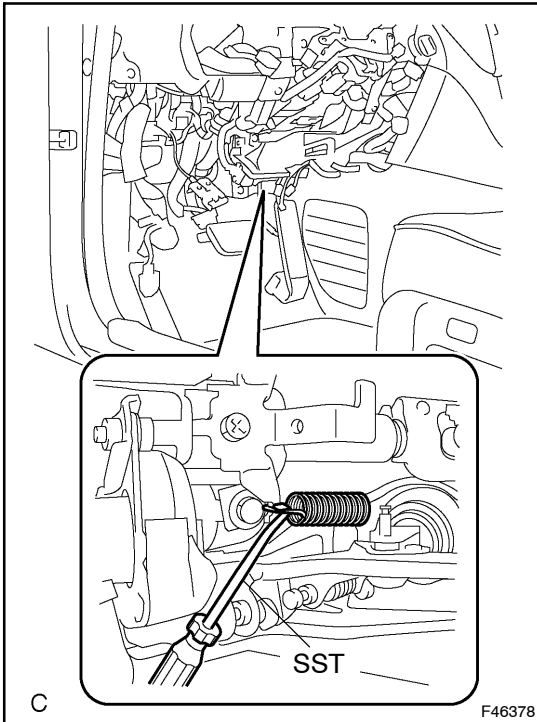
- (a) Align the matchmarks on the steering intermediate shaft assy No.2 and main shaft.
- (b) Install the bolt.
Torque: 35.3 N·m (360 kgf·cm, 26 ft·lbf)

88. INSTALL STEERING COLUMN HOLE COVER SUB-ASSY NO.1

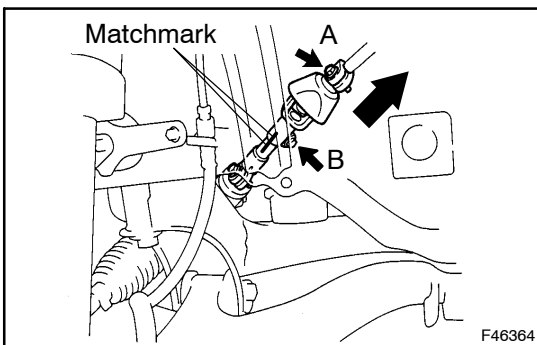
- (a) Install the steering column hole cover.

**89. INSTALL STEERING COLUMN ASSY**

- (a) Install the steering column with the 4 nuts.
Torque: 25.5 N·m (260 kgf·cm, 19 ft·lbf)
- (b) w/ smart key system:
Install the ignition switch assy with the bolt and 2 screws.
- (c) Install the steering column hole cover No.1 with the bolt and 2 nuts.
Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)



- (d) Using SST, Install the return spring.
SST 09921-00010
- (e) Connect the connectors.



90. INSTALL AIR SEALED PLATE LH

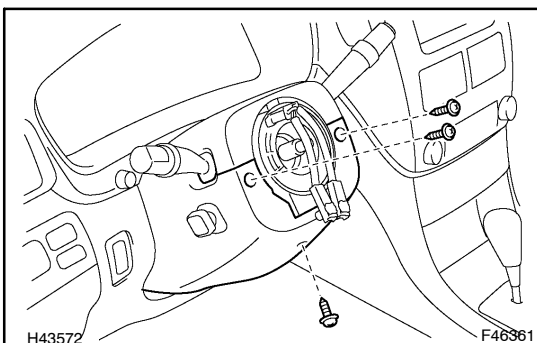
- (a) Align the matchmarks on the steering sliding w/ shaft yoke and control valve shaft.
- (b) Tighten bolts A and B.
Torque: 35.3 N·m (360 kgf·cm, 26 ft·lbf)
- (c) Install the air sealed plate LH with the 2 clips.

91. INSTALL AIR DUCT NO.1

- (a) Install the air duct No.1.
- (b) Install the screw.

92. INSTALL TURN SIGNAL SWITCH ASSY (See Page 65-23)

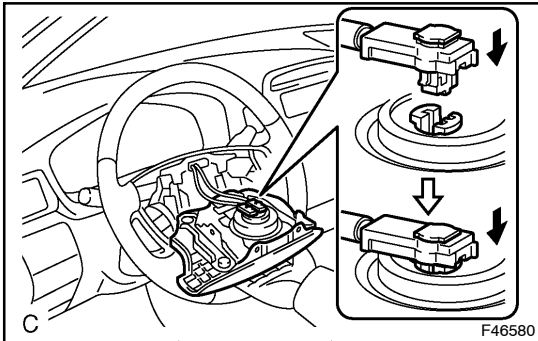
93. INSTALL SPIRAL CABLE SUB-ASSY (See Page 60-29)



94. INSTALL STEERING COLUMN COVER

- (a) Install the steering column cover with the 3 screws.

95. **INSTALL INSTRUMENT PANEL AIR BAG ASSY LOWER NO.1 (See Page 60-56)**
96. **INSTALL STEERING WHEEL ASSY**
- (a) Align the matchmarks on the steering wheel assy and steering main shaft.
- (b) Install the steering wheel set nut.
Torque: 50 N·m (510 kgf·cm, 37 ft·lbf)
97. **PLACE FRONT WHEELS FACING STRAIGHT AHEAD**



98. **INSTALL HORN BUTTON ASSY**

NOTICE:

- Never use airbag parts removed from another vehicle. When replacing parts, replace with new ones.
- Make sure the wheel pad is installed with the specified torque.
- If the wheel pad is dropped or there are cracks, dents or other defects on the case or connector, replace the wheel pad with a new one.
- When installing the wheel pad, take care so that the wiring does not interfere with other parts and that they are not pinched between other parts.

- (a) Connect the terminal.
- (b) Connect the connectors to the horn button.
- (c) Install the steering wheel pad after confirming that the circumference groove of the torx® screws is caught on the screw case.
- (d) Using a torx® socket wrench (T30), torque the 2 torx® screws.

Torque: 8.8 N·m (90 kgf·cm, 78 in·lbf)

99. **CONNECT BATTERY NEGATIVE TERMINAL**
100. **INSPECT HORN BUTTON ASSY (See Page 60-20)**
101. **SRS WARNING LIGHT (See Page 05-1032)**
102. **PERFORM INITIALIZATION (See Page 01-20)**