Hyundai Kona: Dual Clutch Transmission Control System / Inhibitor Switch Repair procedures

Inspection

Inspection Flow

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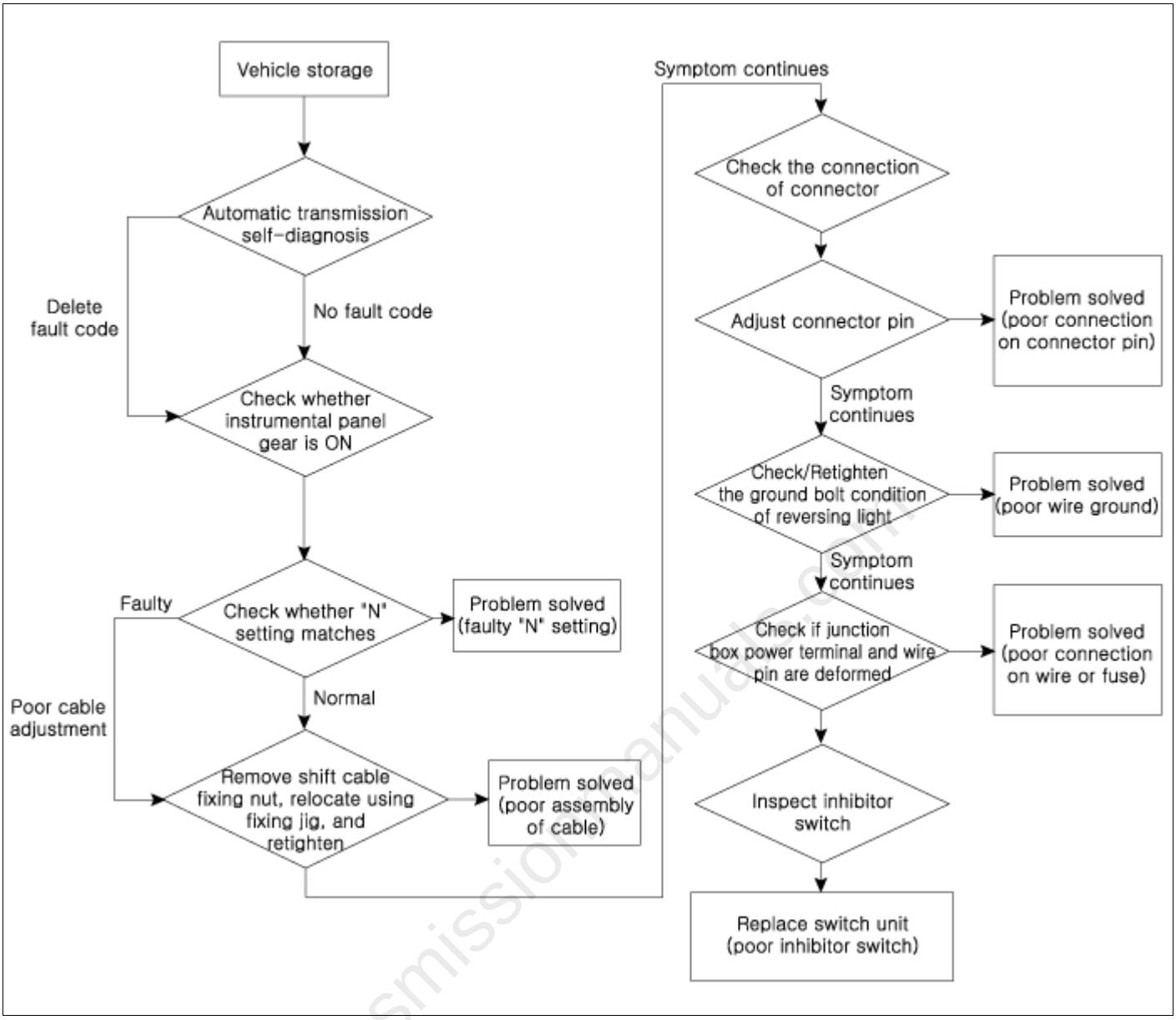

Items to check

1. Inspect DTC code.
2. Inspect whether N setting matches.
   – Adjust N setting (Refer to Dual Clutch Transmission Control System - "Inhibitor Switch").
3. Inspect shift cable separation.
   – Adjust shift cable separation (Refer to Dual Clutch Transmission Control System - "Inhibitor Switch").
4. Inspect whether connector is connected.
   – Inspect connector thoroughly for looseness, poor connection, bending, corrosion, contamination, deformation, or damage.
   – Turn ignition key "ON" and engine "OFF" and measure the power supplied to inhibitor switch circuit and voltage between ground.
   Specification : approx. 12V
   – Fix the pin wiring when connector pin wiring is faulty (Refer to ETM - "Wiring Repair").
5. Inspect ground condition on reversing light circuit.
   – Check the ground location of reversing light (Refer to ETM - "Harness Location Map").

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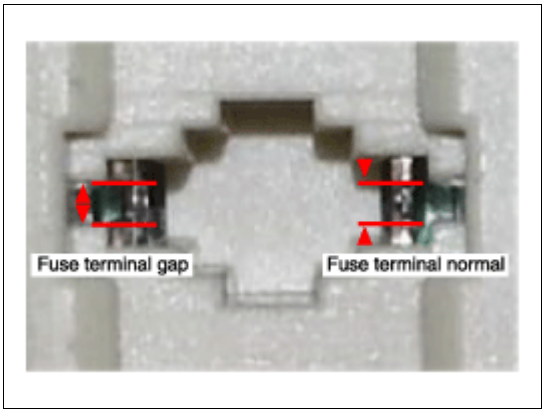
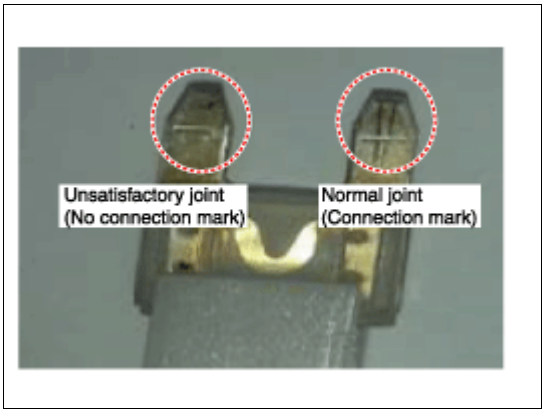
– Reattach reversing light if ground condition is faulty.

6. Inspect wiring connection on junction box power terminal and fuse lamp.
   – Check whether fuse holder is separated and holder is holding the fuse tight.



   – Attach tester fuse to check if it is connected appropriately.



   – Check whether fuse capacity is appropriate for each circuit.
   – Check if fuse is damaged.
   – Check pulling of fuse fixing wiring, inflow of foreign substance, and arrangement condition of terminal.
   – Relocate the terminal that has been pulled and inspect using the method explained above.
   – When problem is not solved, refer to the circuit diagram wiring repair instructions to fix or replace the terminal.

7. Inspect inhibitor switch signal.
   – Turn ignition key "ON" and engine "OFF".
   – Measure the voltage between each terminal and chassis ground when shifting lever to "P, R, N, D" range.
   Specified value: refer to specification "signal code" table

Removal

1. Make sure vehicle does not roll before setting shift lever to "N" position.
2. Disconnect the inhibitor switch connector (A).
3. Remove the shift cable mounting nut (B).

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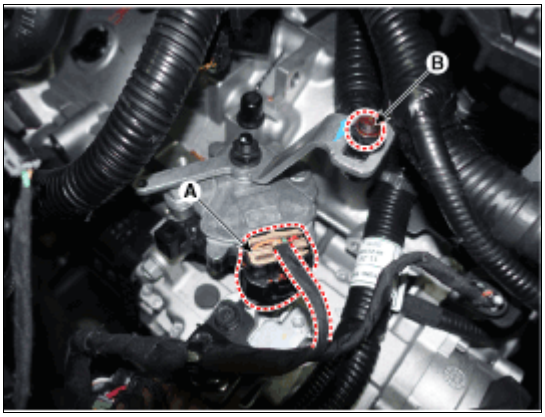
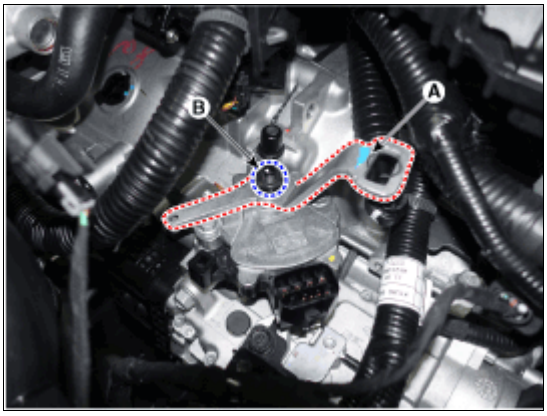
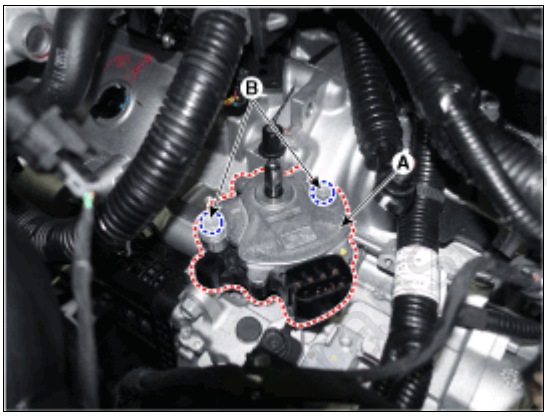


4. Remove the manual control lever (A) after loosening nuts (B)



5. Remove the inhibitor switch (A) after loosening bolts (B-2ea)



Installation

1. Check that the shift lever is placed in the "N" position.
2. Lightly tighten the inhibitor switch mounting bolts (B-2ea) after installing the inhibitor switch (A).

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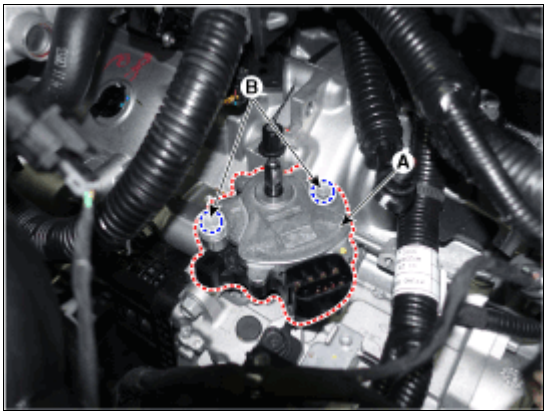
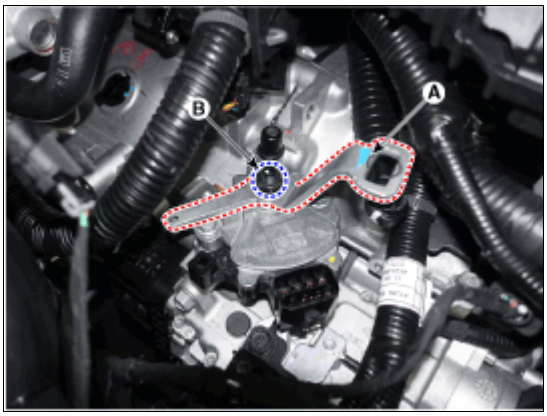


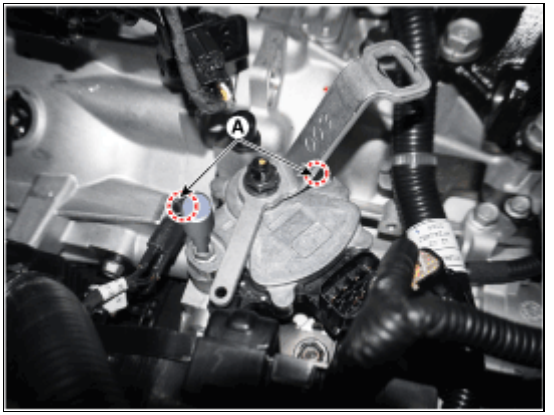
3. Tighten the manual control lever mounting nut (B) with the specified torque after installing the manual control lever (A).
   Tightening torque :
   (B) 17.4 - 24.5 N.m(1.8 - 2.5 kgf.m, 13.0 - 18.1 lb-ft)



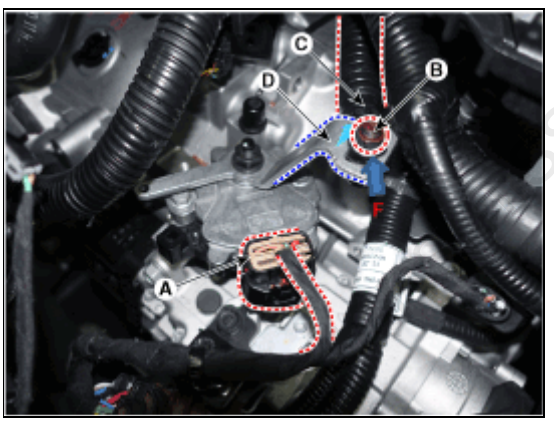
4. Align the hole (B) in the manual control lever with the "N" position hole (A) of the inhibitor switch and then insert the inhibitor switch guide pin (SST No.:09480 - A3800) in the matched hole.



5. Tighten the bolt (A) with the specified torque.
   Tightening torque :
   (A) 9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



6. Lightly tighten the nut (B) after connected the shift cable (C) in the manual control lever (D).
7. Push shift cable (C) lightly to "F" direction shown to eliminate free play of shift cable.
   Tighten the nut (B) with the specified torque.
   Tightening torque :
   9.8 - 13.7 N.m (1.0 - 1.4 kgf.m, 7.2 - 10.1 lb-ft)
8. Connect the inhibitor switch connector (A).



9. Remove the inhibitor switch guide pin (SST No.:09480-A3800) from the hole.
10. Install the air cleaner assembly and air duct.
    (Refer to Engine Mechanical System - "Air Cleaner")

⚠ CAUTION

- Check that operating surely at each range of the inhibitor switch corresponding to each position of shift lever.

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