SERVICE BULLETIN

NUMBER: 08-059-20

GROUP: 08 - Electrical

DATE: May 27, 2020

SUBJECT:
Engine Stop/Start (ESS) Inoperative

OVERVIEW:
This bulletin involves inspecting the Intelligent Battery (IBS) part number and/or replacing the starter motor and wire to the starter for a engine stop/start issue.

MODELS:

2017 - 2020	(MP)	Jeep Compass

NOTE: This bulletin applies to vehicles within the following markets/countries: EMEA.

NOTE: This bulletin applies to vehicles equipped with a 2.0L I4 Turbo Diesel W/ESS (Sales Code EBS) or 1.6L I4 B Eco Turbo Diesel W/ESS (Sales Code EJJ).

SYMPTOM/CONDITION:
Customers may experience the engine not shutting down automatically when in an ESS operation mode.

DIAGNOSIS:
If the customer describes the symptom/condition listed above, perform the Repair Procedure.

1. Check battery State of Charge (SoC). Refer to the detailed service procedure available in DealerCONNECT> Service Library under: 08 - Electrical / 8F - Engine Systems / Battery System / Battery / Diagnosis and Testing.

NOTE: In case of low SoC proceed to recharge battery, refer to the detailed service procedure available in DealerCONNECT> Service Library under: 08 - Electrical / 8F - Engine Systems / Battery System / Battery / Standard Procedure> Battery Charging.

2. Once the battery is fully charged, proceed to Step 3.
3. Check IBS part number, if IBS is P/N #68334529AB it must be changed to P/N #68334529AC.
4. Is the IBS part number 68334529AB?
   - YES>>> Proceed to Step 5.
   - NO>>> P/N is #68334529AC. Proceed to Step 1 of the Repair Procedure.
5. Replace the IBS. Refer to the detailed service procedure available in DealerCONNECT> Service Library under: 08 - Electrical / 8F - Engine Systems / Battery System / Sensor, Intelligent Battery (IBS) / Removal and Installation.

CAUTION! Wait for IBS re-calibration, This will take at least five hours in stand by mode.

6. After waiting at least five hours, perform road test to check the ESS function availability (recommended 20 minutes).
7. Does the ESS function properly?
   - YES>>> ESS is active, This bulletin has been completed, use IBS LOP (08-14-43-90). No further action required.
   - NO>>> ESS is not functioning properly. Proceed to Step 1 of the Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
1 (AR)	68355687AA	Motor, Starter 2.0L (EBS)
1 (AR)	68511241AA	Motor, Starter 1.6L (EJJ)
1 (AR)	68528402AA	Kit, Wiring
1 (AR)	68334529AC	Sensor - Battery

REPAIR PROCEDURE:

Starter Motor

1. Disconnect and insulate the negative battery cable. Refer to the detailed service procedure available in DealerCONNECT> Service Library under: 08 - Electrical / 8F - Engine Systems / Battery System / Standard Procedure>Battery Disconnection And Connection.

NOTE: If the vehicle is equipped with an intelligent battery sensor (IBS), disconnect the IBS connector before disconnecting the negative battery lead from the battery.

2. Replace the starter motor without reconnecting the electrical cables. Refer to the detailed service procedure available in DealerCONNECT> Service Library under: 08 - Electrical / 8F - Engine Systems / Starting / Starter / Removal and Installation.

NOTE: The new starter motor differs from the previous one in that the solenoid has ring terminal connections rather than a connector (Fig. 1) .

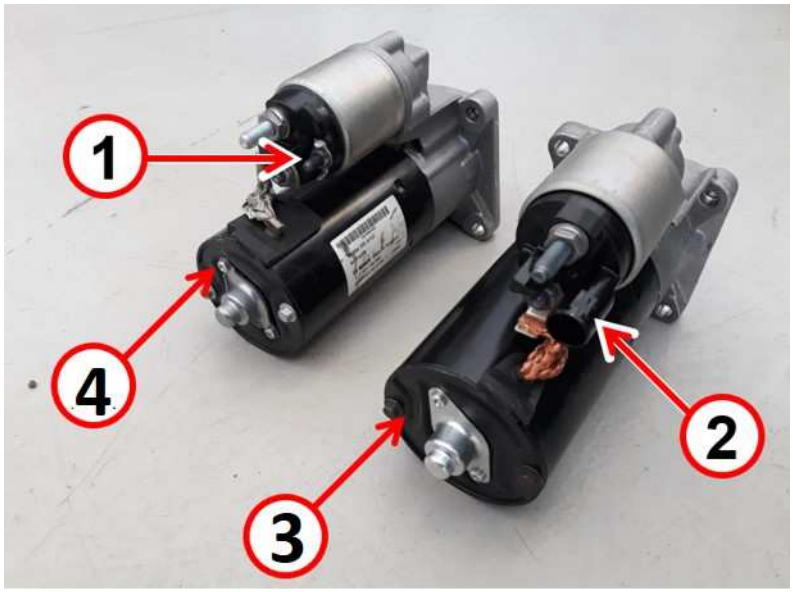

Fig. 1
Starter Motor Differences

1 - Ring Terminal Connector
2 - Connector
3 - Old Starter Motor
4 - New Starter Motor

Replacing the Solenoid Connection

1. Locate the power cable wiring for the starter motor solenoid from the fasteners on the engine (Fig. 2) and lay the wiring on the engine cover, after protecting it appropriately.

Fig. 2
Locating the Electrical Connector for Solenoid

1 - Solenoid Connector

2. Cut the wire at the connector base (Fig. 3) .

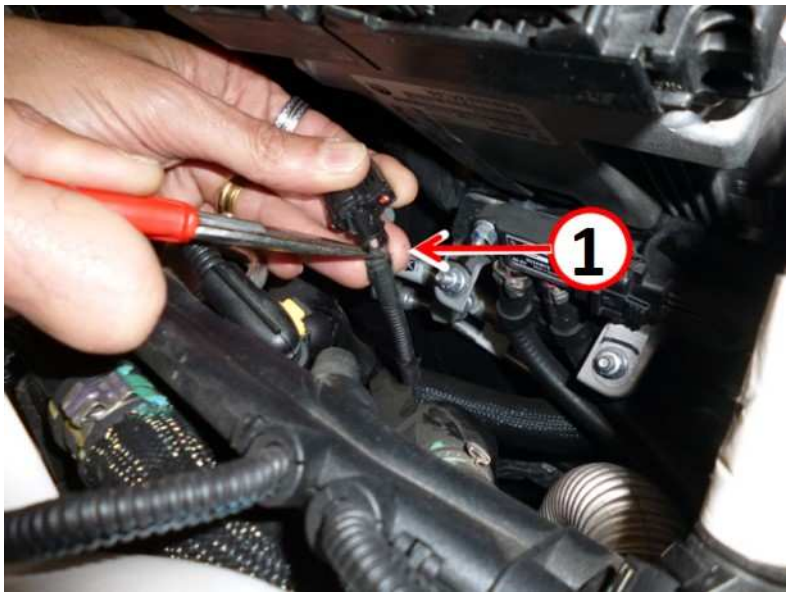

Fig. 3
Cutting the Solenoid Connector

1 - Location to Cut the Solenoid Connector

- Remove the wire for the solenoid connector from the corrugated sheath.
- Use the kit containing the following parts: (Fig. 4) .

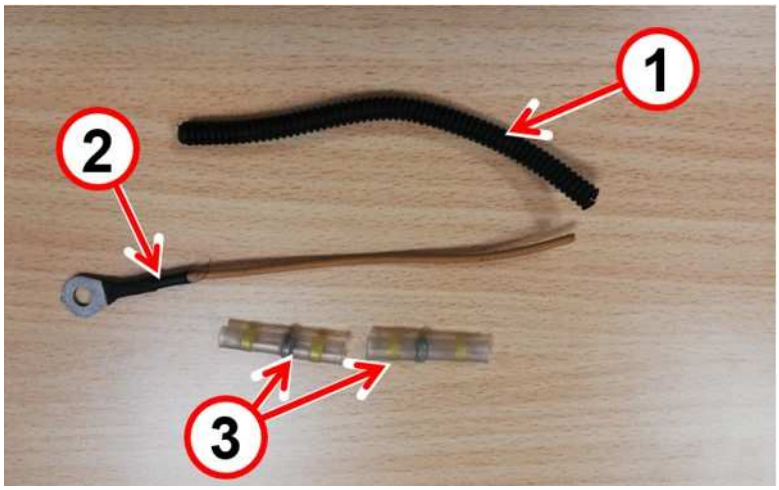

Fig. 4
Wiring Kit

1 - Corrugated Tube
2 - Wire with ring terminal
3 - Heat-shrink Solder Tubes

3. Proceed to use the components from the kit (Fig. 4) with the wire for the solenoid energizing connector removed from the wiring (Fig. 5) .

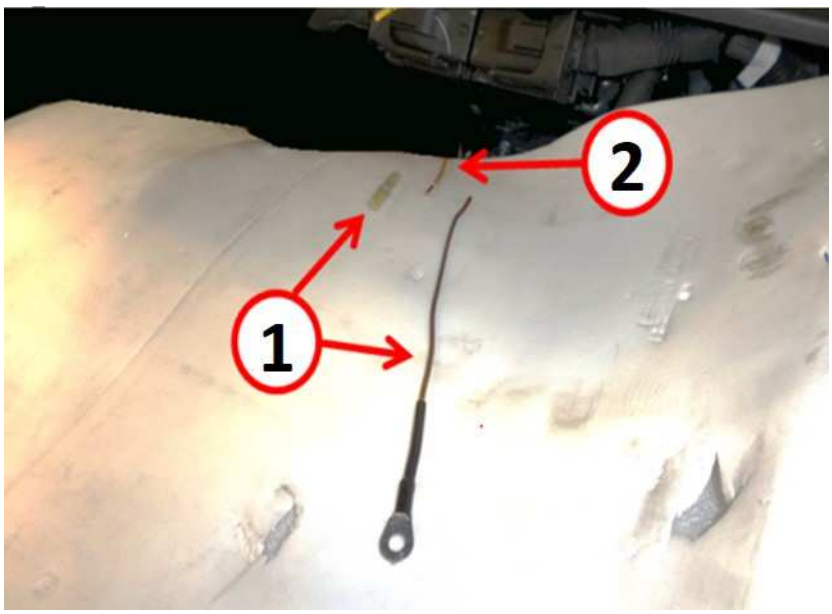

Fig. 5
Wiring Lay Out

1 - Wire and Heat-shrink Tube
2 - Solenoid Wire

4. Strip about 13 mm (1/2 in) of the new piece of wire with the ring terminal and the corresponding wire in the wiring, as shown in (Fig. 6) .

NOTE: To avoid cutting the strands and reducing the conductivity of the wire, it is advisable to strip the wires using the wire strippers (part # 2000027100).

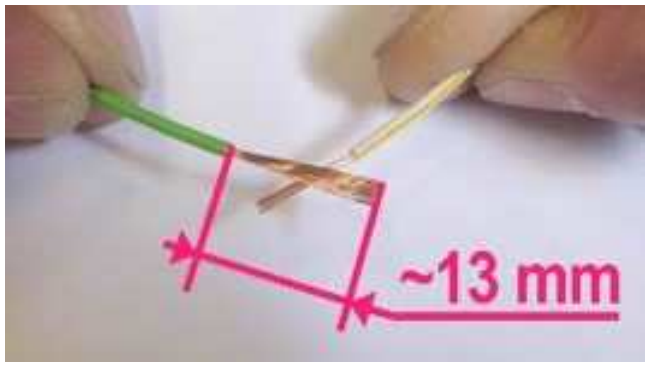

Fig. 6
Length of Wire to Strip

NOTE: Cut the wire of the new connection to match the wires in the wiring, taking care to add 15 mm (5/8 in) of overlap so that the correct harness length will be maintained when the strands are twisted (Fig. 7) .

5. Insert a heat-shrink solder tube from the Kit as shown in (Fig. 7) , and twist the wire strands.

NOTE: Make sure not to exceed the wire outer diameter, as shown in (Fig. 7) .

6. Position the sleeve placing the tin ring in the center line of the strands, as shown in (Fig. 7) .
7. Using a drier fitted with the heat shield tool #2000029200 heat the sleeve, as shown in .

NOTE: The hot air blower used in this procedure is available commercially while the heat screen is a tool with order number #2000029200.

WARNING! While heating the heat-shrink tube, the hot air blower and heat shield must not, under any circumstances, come into contact with any part of the body because of the high temperatures reached: risk of burns nor any part of the vehicle: fire risk.

8. The sleeve must be heated until the adhesive rings stick to the wire, for a perfect sealing and the tin ring melts, soldering the coupling, as shown in (Fig. 7) .

CAUTION! Heat the tube very carefully to avoid damage and loss of water tightness. WAIT UNTIL THE SLEEVE COOLS DOWN before handling the coupling.

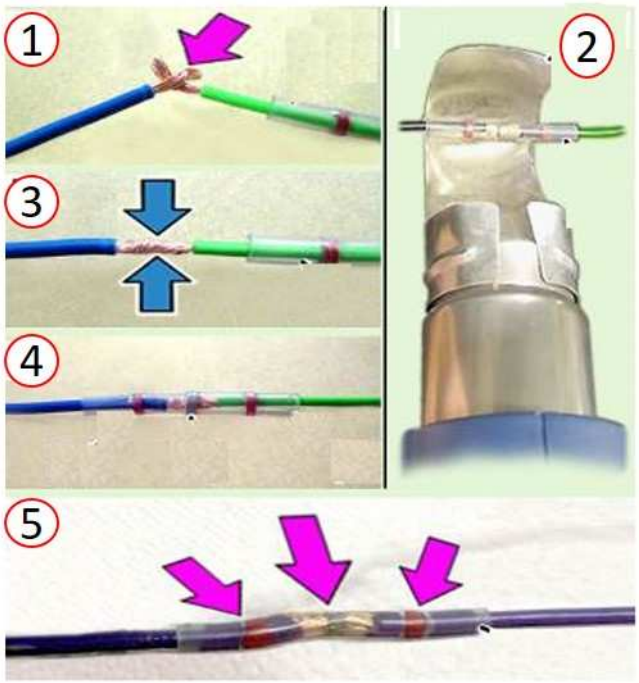

Fig. 7
Soldering the Wiring

1 - Twisting the Wire Strands
2 - Heat Shield - Tool #2000029200
3 - Not Exceeding the Outside Wire Diameter
4 - Wire Inserted into Heat-shrink Tube Corrugated Sheath
5 - Heat Shrinking Solder Sleeve

9. Insert the joined wire into the corrugated sheath from the kit (Fig. 8) , refit the wiring and secure it to the fasteners on the engine.

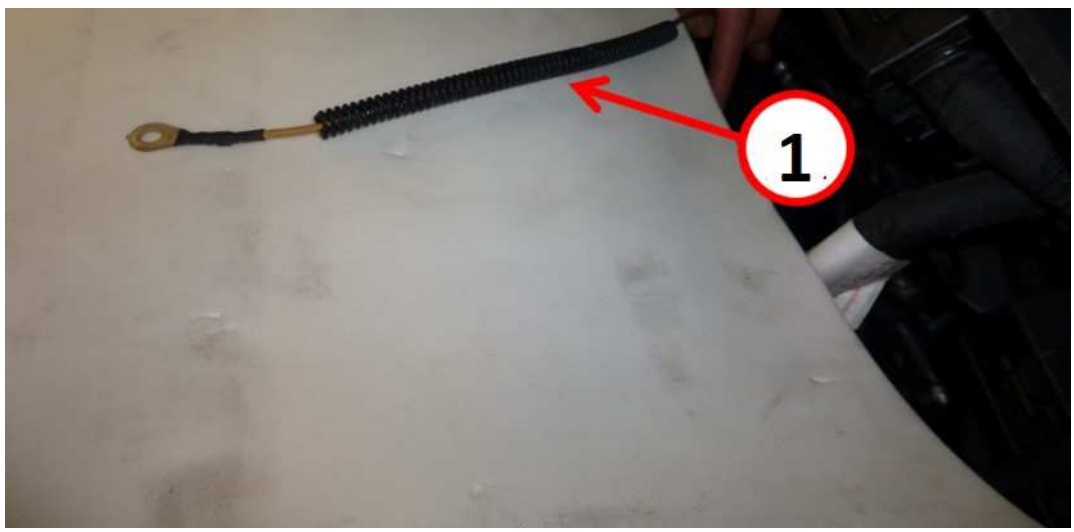

Fig. 8
Wire Inside Corrugated Sheath

1 - Wire Inserted into Corrugated Sheath

10. Connect the ring terminal to the solenoid and connect the starter motor power cable (Fig. 9) .

Fig. 9
Starter Wiring Installed

1 - Wiring Installed

11. Reconnect the negative battery cable. If the vehicle is equipped with an IBS, reconnect the IBS connector. Refer to the detailed service procedure available in DealerCONNECT> Service Library under: 08 - Electrical / 8F - Engine Systems / Battery System / Standard Procedure>Battery Disconnection And Connection.
12. Clear all DTCs that may have been set in any module due to this repair procedure.

POLICY:
Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
08-14-43-90	Intelligent Battery Sensor – Replace (1 - Semi-Skilled)	6 Electrical and Body Systems	0.3 Hrs.
08-75-01-96	Motor, Starter Replaced with Wiring Repair – 2.0L (1 - Semi-Skilled)	6 Electrical and Body Systems	1.4 Hrs.
08-75-01-97	Motor, Starter Replaced with Wiring Repair – 1.6L (1 - Semi-Skilled)	6 Electrical and Body Systems	1.1 Hrs.

FAILURE CODE:

ZZ	Service Action