



NUMBER: 08-131-21

GROUP: 08 - Electrical

DATE: August 5, 2021

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This Technical Service Bulletin (TSB) has also been released as a Rapid Response Transmittal (RRT) 21-112, date of issue August 05, 2021. All applicable Un-Sold RRT VINs have been loaded. To verify this RRT service action is applicable to the vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library. All repairs are reimbursable within the provisions of warranty. This RRT will expire 18 months after the date of issue.

SUBJECT:

Possible Water Intrusion at the P1 and P2 High Voltage (HV) Connectors

OVERVIEW:

This bulletin involves inspecting and if necessary replacement of the orange seal(s) for the P1 & P2 electrical connectors.

MODELS:

2021 (JL) Jeep Wrangler

NOTE: This bulletin applies to vehicles within the following markets/countries: North America, EMEA and APAC.

NOTE: This bulletin applies to vehicles built on or before June 08, 2021 (MDH 0608XX) equipped with the 2.0L I4 DOHC DI Turbo PHEV Engine (Sales Codes ECX).

SYMPTOM/CONDITION:

The customer states that vehicle will not start and has a check engine light on.

The following Diagnostic Trouble Codes (DTCs) may be present:

- P1D72-00 - Open High Voltage Cable.
- P0A0A-00 - High Voltage System Interlock Circuit A.
- P0AA6-00 - Hybrid Battery Voltage System Isolation Fault.

DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in DealerCONNECT/Service Library, verify all related systems are functioning as designed. If DTCs or symptom conditions, other than the ones listed above are present, record the issues on the repair order and repair as necessary before proceeding further with this bulletin.

If a customer's VIN is listed in VIP or your RRT VIN list, perform the Inspection Procedure. **This RRT only applies to vehicles on the RRT VIN list.**

1. Power down the high voltage system. Refer to the detailed service procedures available in DealerCONNECT> Service Library under: Service Info>08 - Electrical / Standard Procedure> High Voltage Power Down.
2. Raise and support the vehicle. Refer to the detailed service procedures available in DealerCONNECT> Service Library under: Service Info>04 - Vehicle Quick Reference / Hoisting / Standard Procedure.

3. Remove the skid plate located under the vehicle protecting the transfer case. Refer to the detailed service procedures available in DealerCONNECT> Service Library under: Service Info>13 - Frame and Bumpers / Under Body Protection / Plate, Skid / Removal and Installation>Transfer Case.
4. Remove the cross bar member (Fig. 1) .



Fig. 1

Cross Member Bar

5. Remove both P1 and P2 orange shrouds. Use long pick tool to break and remove the shroud (Fig. 2) .



Fig. 2

Shroud Tabs

- 6. Verify there is no pinched seal around both connectors and interface mating lines. Use a mirror and flashlight to ensure proper visual inspection (Fig. 3) .

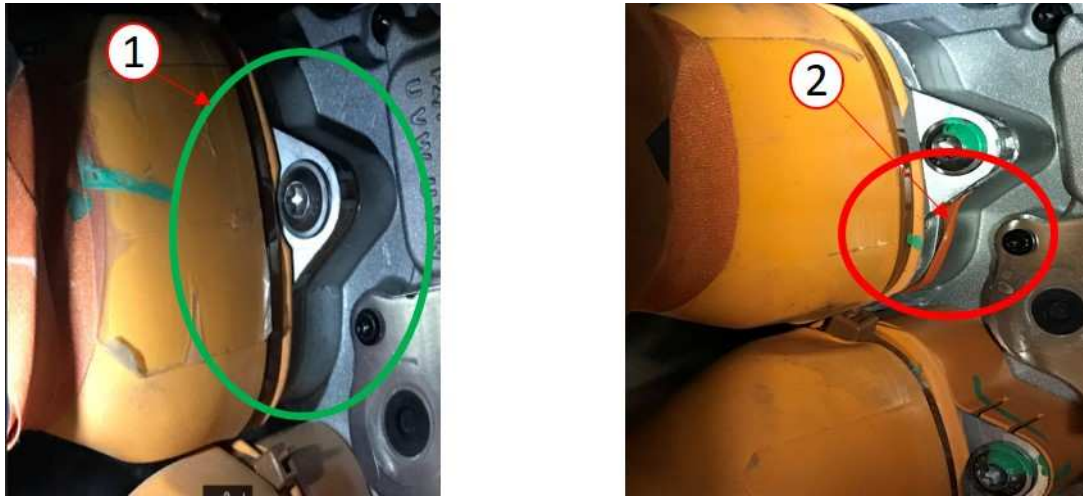


Fig. 3
Seal Location

- 1 - OK
- 2 - Not OK

CAUTION! Do not remove either the P1 or P2 connectors if the orange seal is not exposed in the visual inspection with the connectors connected.

- 7. Is the orange seal pinched or not properly seated on either the P1 or P2 connector (Fig. 3) ?
 - YES>>> Proceed to Step 1 of the Repair Procedure.
 - NO>>> Proceed to Step 8 of the Inspection Procedure.
- 8. Verify the connectors are fully seated and not on an angle.
- 9. Are the connectors not at an angle and fully seated with a torque of 9 N·m (80 in .lbs.) for both the P1 and P2 connectors?
 - YES>>> This bulletin has been completed, use inspect LOP (08-90-13-90) to close the active RRT. Proceed to Step 11 of the Repair Procedure.
 - NO>>> Proceed to Step 7 of the Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
2 (AR)	68584363AA	Seal, Orange

REPAIR PROCEDURE:

1. Remove the 10 mm nut securing the P1 and/or P2 bracket (Fig. 4) .



Fig. 4
P1 and P2 Bracket Nuts

- 1 - P2 Bracket Nut
2 - P1 Bracket Nut
-

2. If the P1 connector orange seal is showing, loosen the P1 connector bolt, disengage the connector, and pull the connector back (below super module skid plate) (Fig. 5) . Repeat this step if P2 connector orange seal is showing (Fig. 5) .

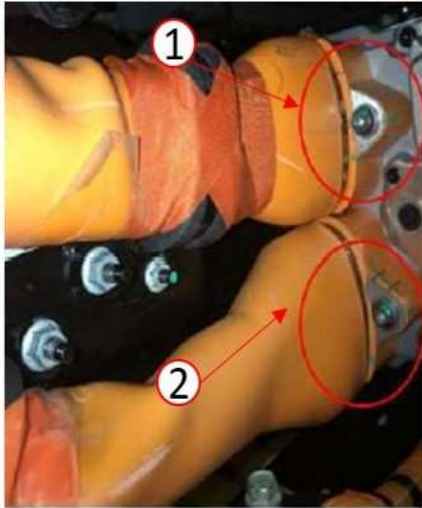


Fig. 5
Connector bolts

1 - P2 Connector
2 - P1 Connector

NOTE: If corrosion is present, the harness and/or Power Inverter Module (PIM) will require replacement, follow published service procedures as those components are not part of this RRT repair.

- If corrosion is present, use inspect LOP (08-90-13-90) to close the active RRT.
 - If no corrosion is present proceed to [Step 3](#) and continue with the repair.
3. Remove any moisture that may be present and has not cause any corrosion to the connectors.

4. Remove the connector orange seal (Fig. 6) .

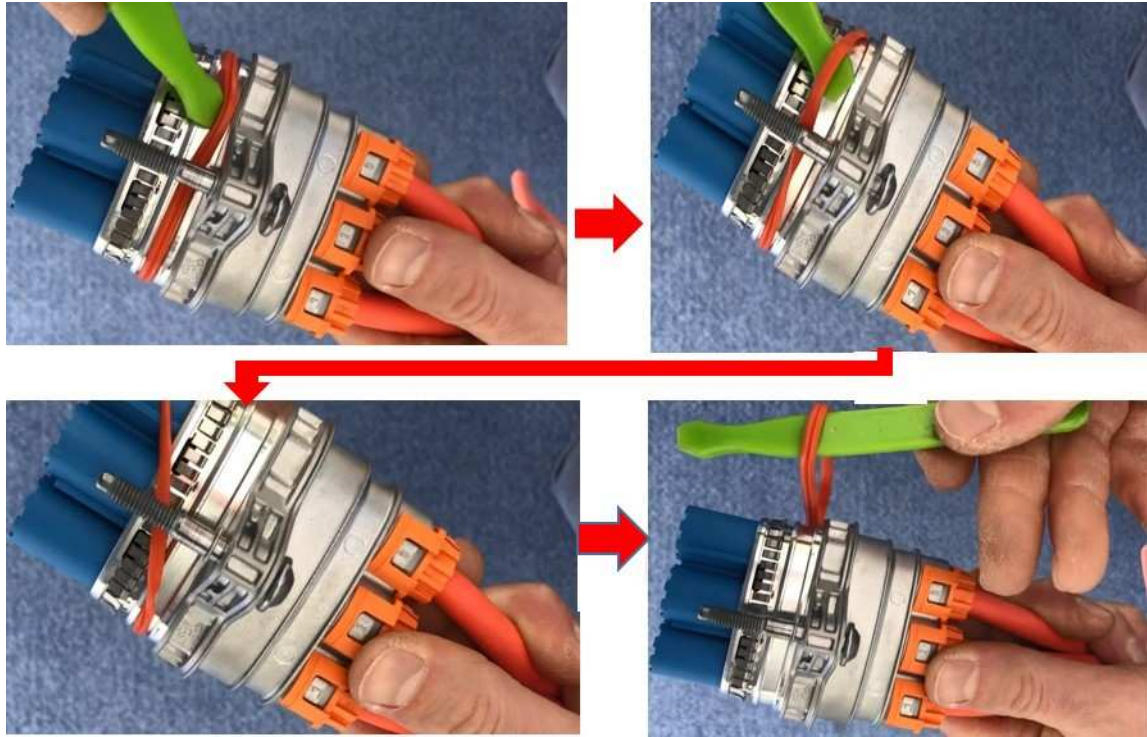


Fig. 6
Orange Seal Removal

5. Install a new orange seal (Fig. 7) .

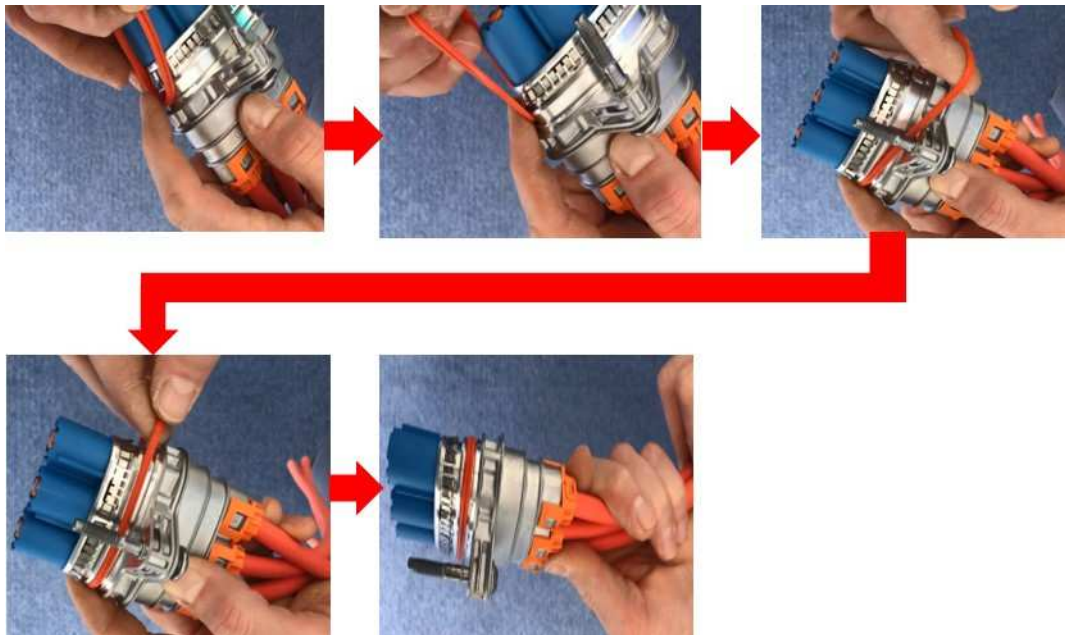


Fig. 7
Orange Seal Installation

NOTE: When connector seal is replaced assure connector metal housing is flush to PIM Mod metal casting after connector is reinstalled and tightened to specifications (Fig. 8) .



**Fig. 8
Mounted Flush**

6. Install the connector and fully pre-seat the P1 or P2 connector to the P1 or P2 PIM interface. Ensure the connector is square and aligned.
7. Install the connector P1 bolt into PIM (Fig. 5) . Tighten to 12 N·m (88 in .lbs.).
8. Install the connector P2 bolt into PIM (Fig. 5) . Tighten to 12 N·m (88 in .lbs.).
9. Install the connector P1 bracket 10 mm nut to skid plate stud. Tighten to 9 N·m (80 in .lbs.) (Fig. 4) .
10. Install connector: Tighten P2 bracket 10 mm nut to skid plate stud. Tighten to 9 N·m (80 in .lbs.) (Fig. 4) .
11. Install the cross bar member.

NOTE: When reinstalling cross bar member, assure plastic cap is installed over cross member stud (Fig. 9) .



**Fig. 9
Protective Cap**

12. Install the skid plate located under the vehicle protecting the transfer case. Refer to the detailed service procedures available in DealerCONNECT> Service Library under: Service Info>13 - Frame and Bumpers / Under Body Protection / Plate, Skid / Removal and Installation>Transfer Case.
13. Lower the vehicle.
14. Power up the high voltage system. Refer to the detailed service procedures available in DealerCONNECT> Service Library under: Service Info>08 - Electrical / Standard Procedure> High Voltage Power Up.
15. Clear all DTCs that may have been set.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
08-90-13-90	P1 and P2 Connectors - Orange Seal - Inspect (1 Semi-Skilled)	6 - Electrical and Body Systems	1.0 Hrs.
08-90-13-91	P1 or P2 Connectors - Orange Seal - Inspect and Replace Either one P1 or P2 Connectors (1 Semi-Skilled)	6 - Electrical and Body Systems	1.4 Hrs.
08-90-13-92	Both P1 and P2 Connectors - Orange Seal - Inspect and Replace (1 Semi-Skilled)	6 - Electrical and Body Systems	1.5 Hrs.

FAILURE CODE:

ZZ	Service Action
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