



**NUMBER:** 08-009-15

**GROUP:** Electrical

**DATE:** January 23, 2015

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**SUBJECT:**

Poor GPS Signal Reception

**OVERVIEW:**

This bulletin involves the replacement of the original GPS antenna with a roof mount antenna to improve the Navigation performances.

**MODELS:**

2011 - 2014 (JC) Dodge Journey (International only)

**NOTE: This bulletin applies to vehicles built with one of the following radios:**

- UConnect Touch 8.4N CD/DVD/MP3/NAV (sales code RB6)
- UConnect Touch 8.4N CD/DVD/MP3/NAV (sales code RB4)
- Media CTR 641N CD/DVD/MP3/NAV (China) (sales code RE9)
- Media CTR 641N CD/DVD/MP3/NAV (Japan) (sales code RE4)

**SYMPTOM/CONDITION:**

Customer may experience off route conditions due to degrading Navigation satellite signal available from GPS antenna placed in the I/P.

**DIAGNOSIS:**

If the customer describes the symptom, perform the Repair Procedure.

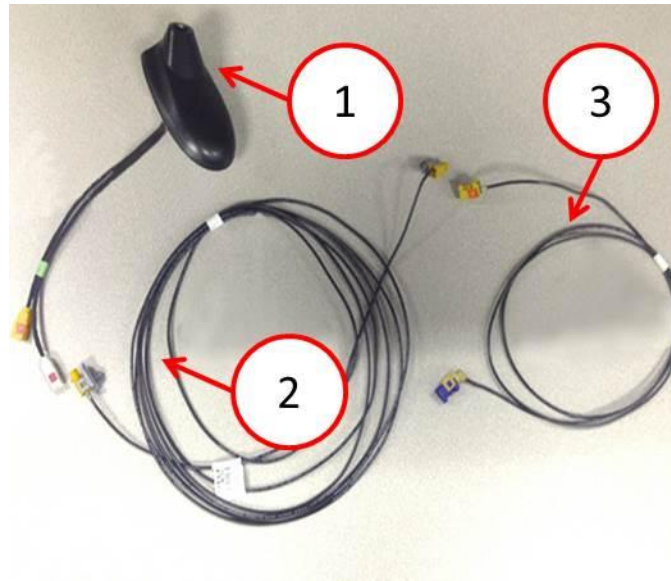
**PARTS REQUIRED:**

Qty.	Part No.	Description
1	05091031AA	Dual-Function Antenna
1	68248758AA	Kit, Overlay Wirings

**REPAIR PROCEDURE:**

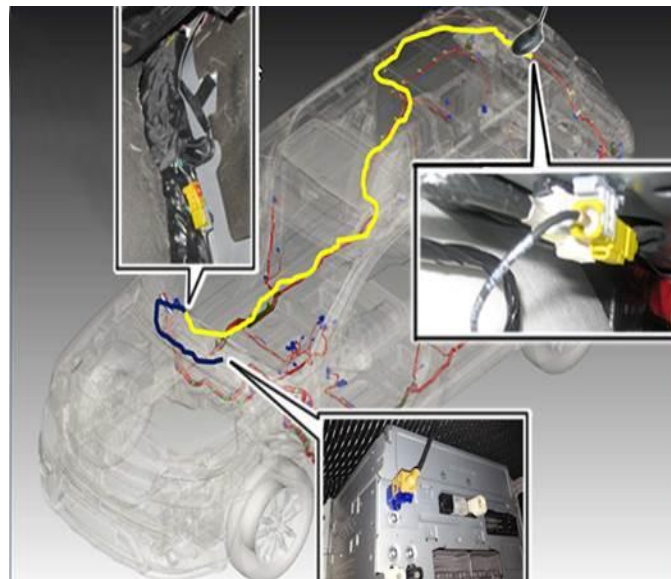
1. Check the radio software versions. Put the radio into dealer mode by pressing the drives Temp up and down and the front defrost all at the same time until the dealer mode screen is displayed. Press the “Navigation” button to read the Nav software version number and the “Radio Part Info” button to read the Head Unit software version number.
2. For 2011 Model Year vehicle, is the Head Unit software version the 13/48/18 or beyond and the NAV software version the 3.20 or beyond?.
  - a. Yes>>> The Radio is already up to date. Proceed to [Step #6](#).
  - b. No>>> The Radio software has to be updated. Refer to TSB 08-034-14 to update the unit. Proceed after the update to [Step #6](#).
3. For 2012 Model Year vehicle, is the Head Unit software version the 13/48/46 or beyond and the NAV software version the 4.14 or beyond?.
  - a. Yes>>> The Radio is already up to date. Proceed to [Step #6](#).
  - b. No>>> The Radio software has to be updated. Refer to TSB 08-034-14 to update the unit. Proceed after the update [Step #6](#).
4. For 2013 Model Year vehicle, is the Head Unit software version the 14/17/66 or beyond and the NAV software version the 4.30 or beyond?.
  - a. Yes>>> The Radio is already up to date. Proceed to [Step #6](#).
  - b. No>>> The Radio software has to be updated. Refer to TSB 08-034-14 to update the unit. Proceed after the update [Step #6](#).
5. For 2014 Model Year vehicle, is the Head Unit software version the 14/27/B5 or beyond and the NAV software version the 5.12 or beyond?.
  - a. Yes>>> The Radio is already up to date. Proceed to [Step #6](#).
  - b. No>>> The Radio software has to be updated. Refer to TSB 08-034-14 to update the unit. Proceed after the update [Step #6](#).

**NOTE: To complete the repair procedure it is necessary to get the parts shown in (Fig. 1) ordering the P/Ns 05091031AA and 68248758AA. (Fig. 2) shows the routing overview of the body and under-dashboard wiring and the connector connections.**



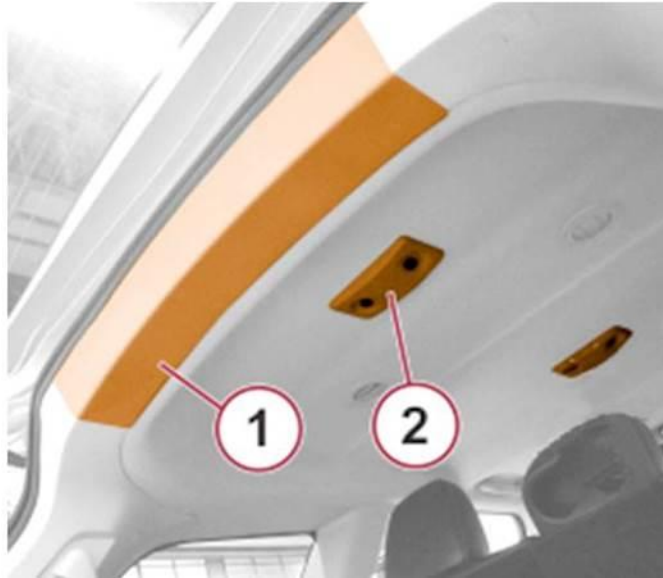
**Fig. 1 Rework Kit Description**

- 1 - Dual-Function Antenna.
  - 2 - Body Wiring (from dual-function aerial to coupling on A-post).
  - 3 - Wiring Under the Dashboard (from coupling on A-post to radio module).
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**Fig. 2 Wiring Routing**

- 6. Turn the ignition key to OFF position and disconnect the battery negative terminal.
- 7. Remove the rear crossmember trim panel by slightly pulling the trim to release the retaining devices. Using the suitable tool, release the rear roof light and move it to one side without disconnecting it (Fig. 3).



***Fig. 3 Rear Crossmember Trim Panel and Rear Roof Light Location***

1 - Rear Crossmember Trim Panel.

2 - Rear Roof Light.

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8. Remove the upper trims of right and left C-posts ([Fig. 4](#)).
  9. Remove the upper trims of right and left B-posts ([Fig. 4](#)).
  10. Lower the headliner until the lower part of the antenna can be accessed ([Fig. 4](#)).

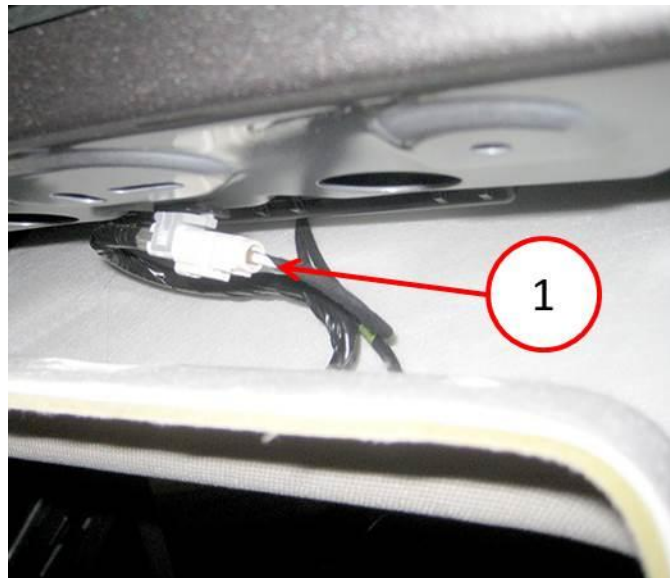


**Fig. 4 C and B Pillar Trims and Headliner removal**

- 1 - Trim of Left C-post.
- 2 - Trim of Right B-post.
- 3 - Headliner.

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11. Disconnect the antenna connector (Fig. 5).

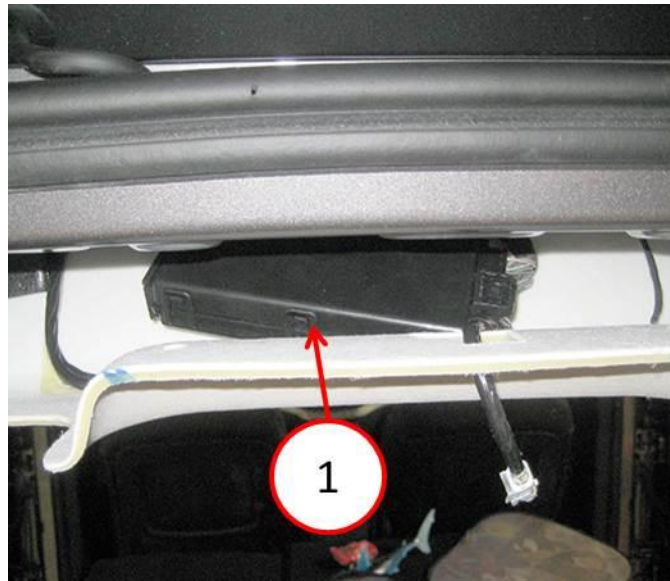


**Fig. 5 Antenna Connector**

- 1 - Antenna Connector.

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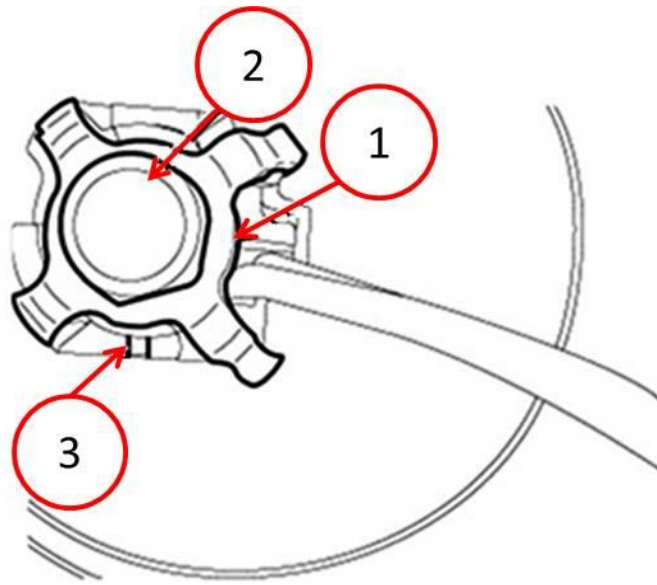
12. Undo the two fixing nuts and remove the radio-frequency module (RF-HUB) (Fig. 6).



**Fig. 6 RF-HUB module**

1 - RF-HUB Module.

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13. Slightly press on the back of the trim and remove the fixing nut and the retainer of the antenna. Working from inside the vehicle press one of the retaining tabs on the antenna using a flat-bladed tool. Press one side of the antenna connector through the roof. Press the other side of the connector and remove the antenna ([Fig. 7](#)).

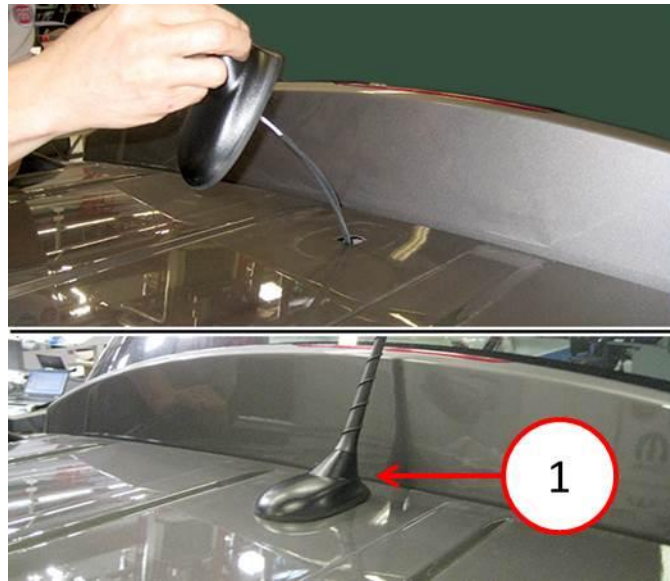


**Fig. 7 Antenna Retainer**

- 1 - Retainer.
- 2 - Nut.
- 3 - Retaining Tabs on the Antenna.

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14. Carefully clean the surface of the roof in the area where the antenna is to be placed.
  15. Take the new dual-function antenna P/N 05091031AA.
  16. Fit the two electrical connectors through the hole on the roof, then press the antenna (Fig. 8) in position until the retainer snaps-fit.
  17. Fit the antenna retainer and the nut, tightening to the torque of 90 Nm (Fig. 7).





**Fig. 8 New Dual-Function Antenna Location**

1 - Dual-Function Antenna.

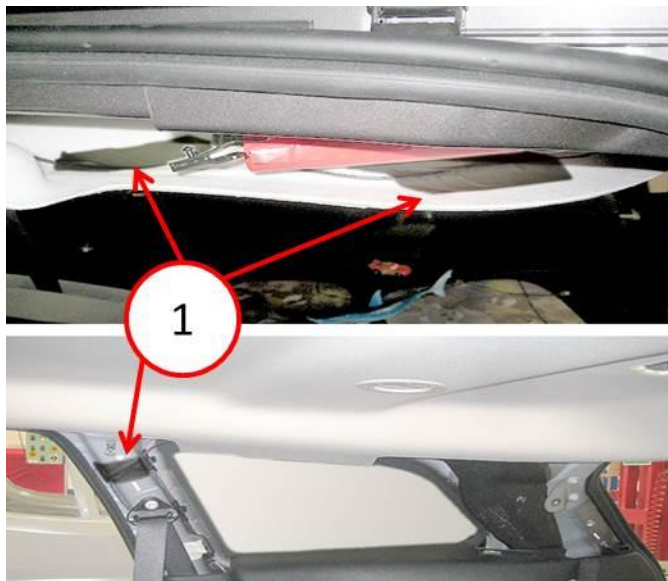
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18. Connect the white connector to the new dual-function antenna with the white connector of the available radio cable (Fig. 9).
  19. Connect the yellow connector of the new antenna to the yellow connector of the body wiring taken from the kit (Fig. 9).
  20. Fasten the connectors (white - white) and (yellow - yellow) in the suitable housings (Fig. 9) on the roof crossmember.
  21. Refit the radio-frequency module (RF-HUB) (1 - Fig. 6) tightening the two fixing nuts (Fig. 6).





**Fig. 9 Dual-Function Antenna Location Connectors**

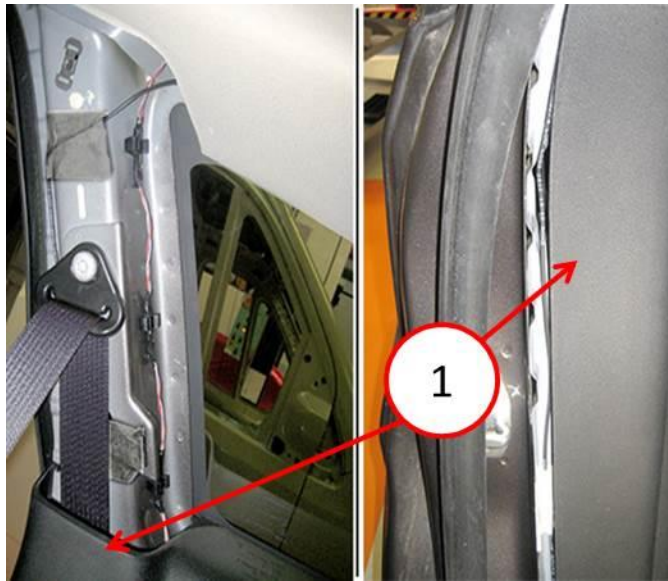
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22. Arrange the body wiring on the internal side of the roof trim, from the back side to the right B-post securing it with adhesive seal sections (Fig. 10).



**Fig. 10 Body Wiring Overlay Routing**

1 - Tape Application Points.

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23. Release the door weatherstrip and lay the body wiring along the right B-post. Secure applying tape above and below the seat belt attaching point (Fig. 11). Continue by routing the body wiring under the B-post lower trim (Fig. 11) that can be accessed with released weatherstrip.



**Fig. 11 Body Wiring Overlay Routing**

1 - B-Post Lower Trim

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24. Remove the kickplate from the right rear door compartment.
  25. Remove the kickplate from the right front door compartment.
  26. Remove the kickplate coupling for the front door.
  27. Lay the body wiring (2 - Fig. 12) along the right lower side of the vehicle until reaching the passenger feet area, under the post lower trim and secure it to the sill with adhesive seal sections. Follow the steps shown in the (Fig. 12) from the top to the bottom.



**Fig. 12 Body Wiring Overlay Routing**

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28. Remove the Radio-Navigator module.
29. Disconnect the GPS connector, wrap it with insulating tape and apply tape on the cables to lock them and prevent any noise (Fig. 13).



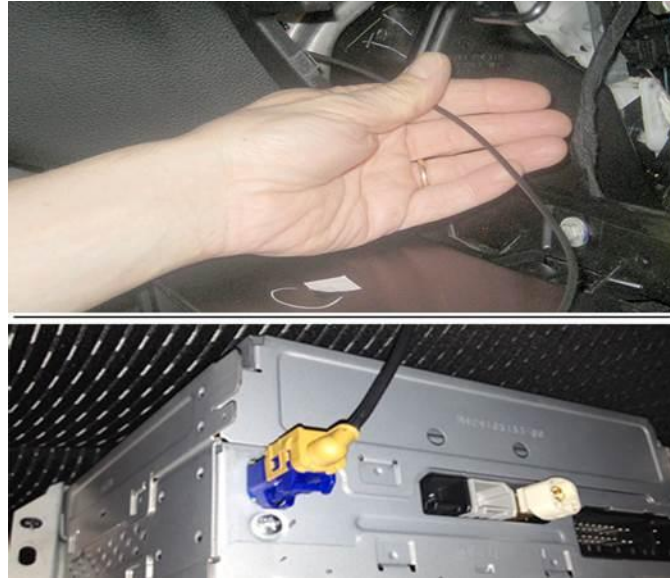
**Fig. 13 GPS Connector**

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30. Open the oddments compartment lid, release it from the retainers and flip it over as shown in (Fig. 14).



**Fig. 14 Oddments Compartment Lid**

31. Take the under dashboard wiring from the kit.
32. Make the yellow/blue connector from the area behind the oddments compartment, until it comes out from the Radio-Navigator housing as shown in (Fig. 15).
33. Connect the yellow/blue connector (Fig. 15) to the Radio-Navigator.



**Fig. 15 GPS Connector - Connection with the New IP Wiring**

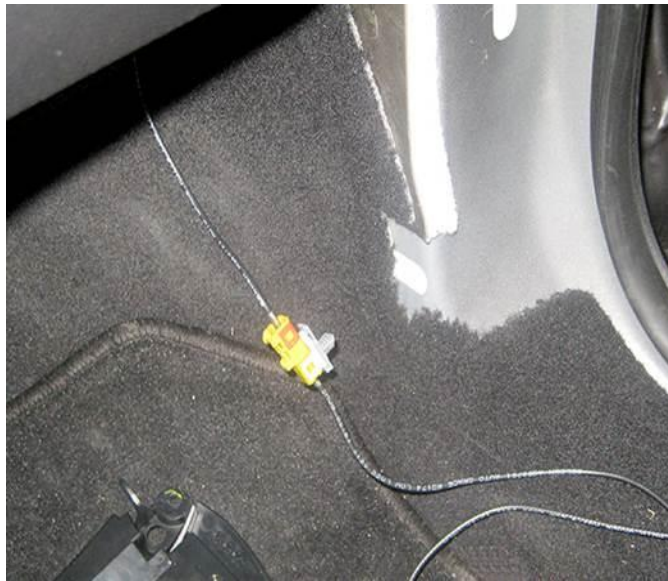
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34. Secure the wiring under the dashboard to the dashboard crossmember, using cable ties (Fig. 16).



**Fig. 16 IP Wiring Overlay Routing**

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35. Route the wiring out from under the dashboard (Fig. 17) on the lower right side of the dashboard.
36. Connect the yellow connector for the body wiring (coming from the back) to the yellow connector of the under dashboard wiring, coming from the Radio-Navigator (Fig. 17).





**Fig. 17 Connection Between the IP and the Body Wiring Overlay**

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37. Fasten the connector coupling to the A-post and secure the wiring under the dashboard and the body wiring with adhesive seal sections(Fig. 18).



**Fig. 18 Connector Coupling Location**

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38. Place any remaining wiring loom under the carpet as shown in(Fig. 19).



**Fig. 19 IP Wiring Overlay Routing**

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39. Refit all the previously disassembled components (oddments compartment, Radio-Navigator, trims and mouldings, etc.) proceeding in the reverse order.
  40. Operating outdoor, in a place free from obstacles, check the operation of the Radio-Navigator. From the home page of the Nav Menu, touch the left upper angle (Fig. 20).



**Fig. 20 GPS Information Access**

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41. Check that the number of receiving satellites and the intensity of the signal from each satellite (indicated through bars). Good GPS signal is shown in (Fig. 21).



**Fig. 21 GPS Menu**

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
08-20-04-94	Install Dual Function Antenna and Overlay Harness (2- Skilled)	6 - ELECTRICAL AND BODY SYSTEMS	1.6 Hrs.

**FAILURE CODE:**

ZZ	Service Action
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