

Application Note Contigo 6100 Wiring Harness

Prevention of Undue Stress on Wiring Harness

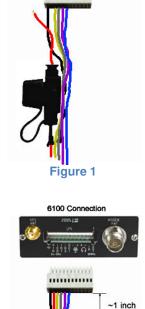
The Contigo 6100 Wiring Harness connects the 6100 GPS Beacon to a vehicle's power, ground and ignition systems. Additionally, the harness provides the ability to monitor or control vehicle systems using input and output connections.

It has been reported that, very infrequently, the red power wire may become separated from the wiring harness connector that attaches the harness to the beacon. See Figure 1.

Contigo has determined that this **does not represent a safety risk** to the vehicle or its occupants. However in such an event, the beacon will lose power and cease operation. Should this occur, the **wiring harness must be repaired or replaced**.

In order to prevent such occurrences in the future:

- 1. Contigo is updating the harness design to add a tie-wrap that gathers and secures the harness wires where they meet the connector as shown in Figure 2.
- 2. Contigo is modifying the harness design to reduce the gauge of the power lead wire.
- 3. Contigo recommends that any customer inventory of 6100 Wiring Harnesses be modified by the customer to include a tie-wrap that gathers and secures the wires approximately one (1) inch from the connector (see Figure 2).
- 4. Contigo recommends that installers take extra precautions to ensure that the normal installation of the wiring harness and beacon does not cause undue stress on the wires where they meet the connector (see Figure 3 and Figure 4 below).



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Figure 2

Tie Wrap





Ensure that the Beacon and Wiring Harness are installed without bending or flexing the wiring harness to cause undue stress on the wires as they enter the connector, as shown in Figure 3 below.

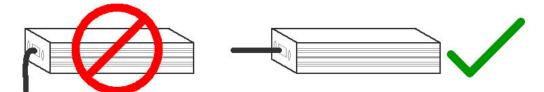


Figure 3

Ensure that the beacon and wiring harness are firmly mounted in the vehicle. Neither the wiring harness nor the beacon should be permitted to move or vibrate in isolation of the other, as this can cause undue stress on the wiring harness as shown in Figure 4 below.



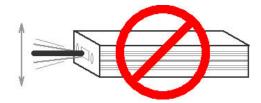


Figure 4

In order to conduct a field repair:

In the event that it is not possible to replace the harness in the field, it is possible to repair a harness in which the power wire has become separated from the connector. The connector is a pressure clamp connector, and therefore the red power wire may be reinserted into the connector using a thin screwdriver, pin or other strong, sharp tool.

- 1. Disconnect the red power wire from its vehicle power source.
- 2. Remove the wiring harness connector from the beacon.
- 3. Strip the separated red power lead to expose at least 1/4" (5-6mm) and ensure the wires are tightly bunched.
- 4. Locate the receptacle into which the red power wire must be inserted (PIN 11).
- 5. Insert a thin tool into the correct receptacle, as shown in Figure 5, and press down firmly on the tool to release the wire clamp. Ensure any debris or wire is removed from the wire receptacle.

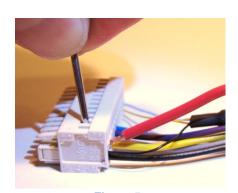


Figure 5

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- 6. Insert the red power wire into the receptacle and remove the tool. Ensure the wire is firmly seated within the connector.
- 7. Reconnect the red power wire to the vehicle power source.
- 8. Insert the wiring harness connector into the beacon, and test the beacon.
- 9. Carefully gather the wires together approximately 1 inch from the connector and add a tie-wrap that firmly bundles the harness and prevents the wires from moving independently of one another.

Please contact your Contigo support representative should you have any questions regarding this matter.

