

- ATTENTION:**
- GENERAL MANAGER
 - PARTS MANAGER
 - CLAIMS PERSONNEL
 - SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

© 2022 Subaru of America, Inc. All rights reserved.



QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2019-22MY Ascent

NUMBER: 12-240-22

SUBJECT: Repair Procedure / DTC B1610 Front Sub Sensor RH Failure

DATE: 08/02/22

INTRODUCTION:

This bulletin announces the repair procedures for the left and right-side horns to address DTC B1610 (Front Sub Sensor RH Failure) detected when the horns are operated shortly after engine start up. If the horns are continuously operated four to six seconds after the engine is started, vibrations from the right-side horn can potentially resonate and transmit to the right front sub sensor. This may result in DTC B1610 detected within the airbag control module. If this DTC is detected, the right-side (350 Hertz) horn must be exchanged with the left-side (420 Hertz) horn. This procedure will also require some retrofitting of the bulkhead harness.

PRODUCTION CHANGE INFORMATION:

The horn and harness changes have been incorporated into Ascent production starting VIN **N3434496**.

PART INFORMATION:

REMINDER: Always order the most up-to-date replacement parts based on the specific VIN being repaired.

Part Description	Part Number
REPAIR PARTS	81990XC00A

CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

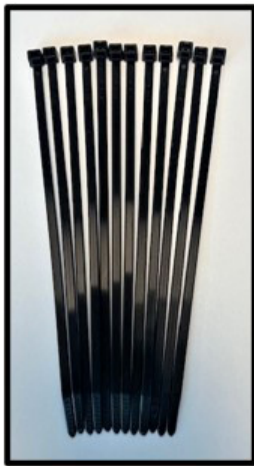
Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

Subaru of America, Inc. is ISO 14001 Compliant

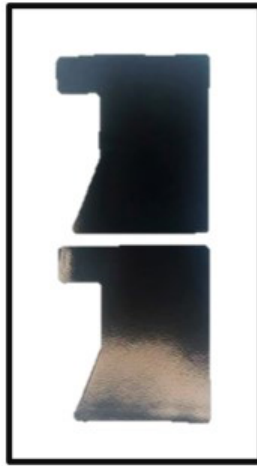
ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

Continued...

Repair Pats Kit Component Breakdown		
Side	Description	Quantity
Left	410mm Harness Jumper (Black)	1
	Butyl Rubber	1
	Wire Tie Strap	6
	Protective Tube	1
	Wire Crimping Joint	1 Plus 1 Spare
Right	350mm Harness Jumper (White)	1
	Butyl Rubber	1
	Wire Tie Strap	6
	Protective Tube	1
	Wire Crimping Joint	1 Plus 1 Spare



12 Wire Tie Straps



2 Butyl Rubber Pieces



2 Protective Tubes



410mm Left Repair Harness (Black Wire)



4 Wire Crimping Joint



350mm Right Repair Harness (White Wire)

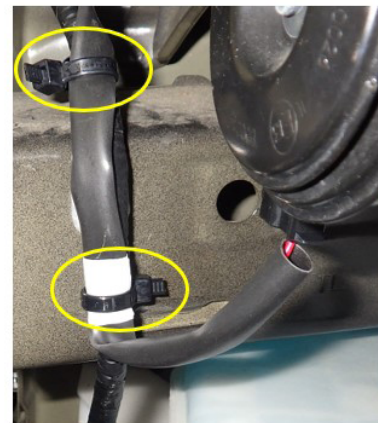
Continued...

Required Tools:

- Soldering Iron with solder – Example: [Snap-On® Industrial Soldering Kit](#)
- Wire Crimping Tool – Example: [Blue-Point® Crimping Tools](#)
- Wire Strippers – Example: [Blue-Point® Wire Stripper/Cutter](#)

SERVICE PROCEDURE / INFORMATION:

- STEP 1:** Record any stored seat position(s) before proceeding. Relearn any seat position memory after work is complete. If the power rear gate (PRG) height has been customized, that position must also be noted and relearned.
- STEP 2:** Carefully disconnect the ground terminal from the battery sensor.
- STEP 3:** Remove the front bumper.
- STEP 4:** Remove the left and right-side horns. Install the left horn onto the right side. Install the right horn onto the left side. Do not attempt to attach the connectors at this time. The horn mounting bolt torque is **18 N·m (1.8kgf-m, 13.3ft-lb)**.
- STEP 5:** Starting with the left side of the vehicle, plug the left side repair harness (410mm) from kit **81990XC00A** into the horn. Using the supplied wire ties, secure the repair harness to the bulkhead harness as shown below. Be sure to have the upper wire tie facing the front of the vehicle and the lower wire tie facing the rear of the vehicle. This will prevent any damage to the harnesses.

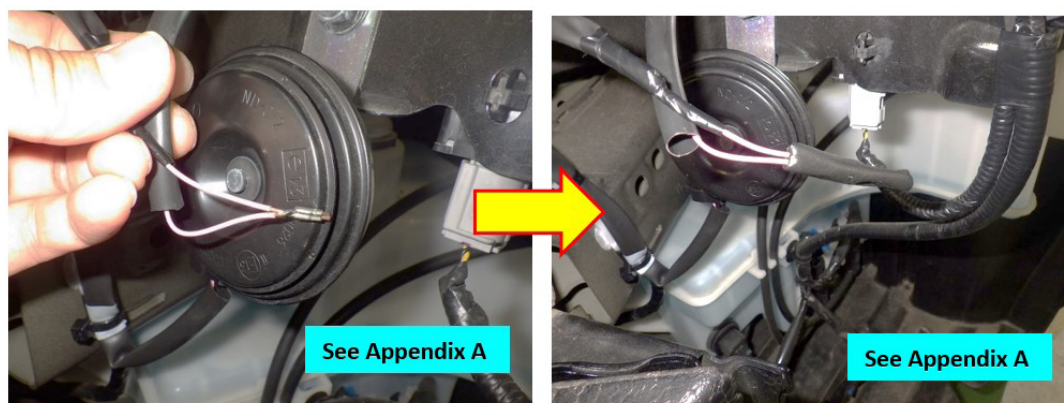


Continued...

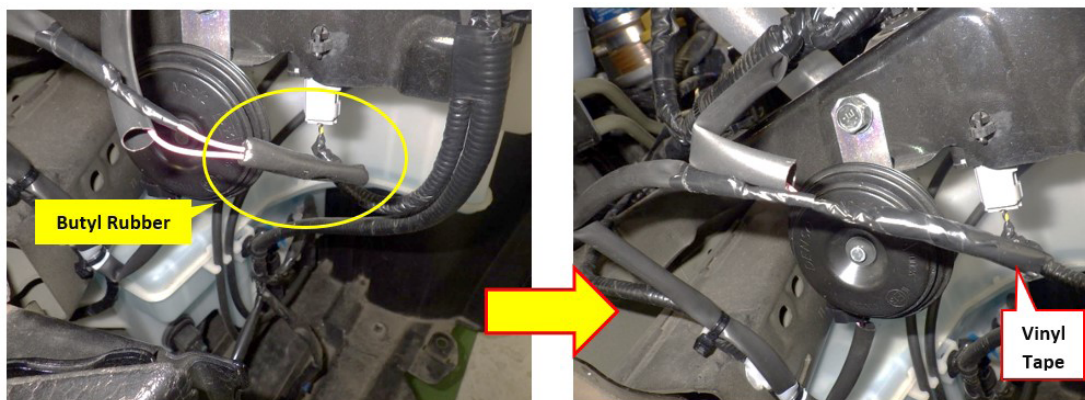
STEP 6: Locate the original horn harness connector and cut it off. Dispose of the connector. Measure 50mm from the end of the protection tube and CAREFULLY cut off the measured section using a suitable tool. Strip 15mm of insulation from the original horn harness and repair harness wiring. Use car and avoid damaging the wire.



STEP 7: Using the supplied wire crimping joint from kit **81990XC00A**, crimp the two wires together. Use the information provided in **Appendix A** (page 10) for details on the wire crimping procedure.

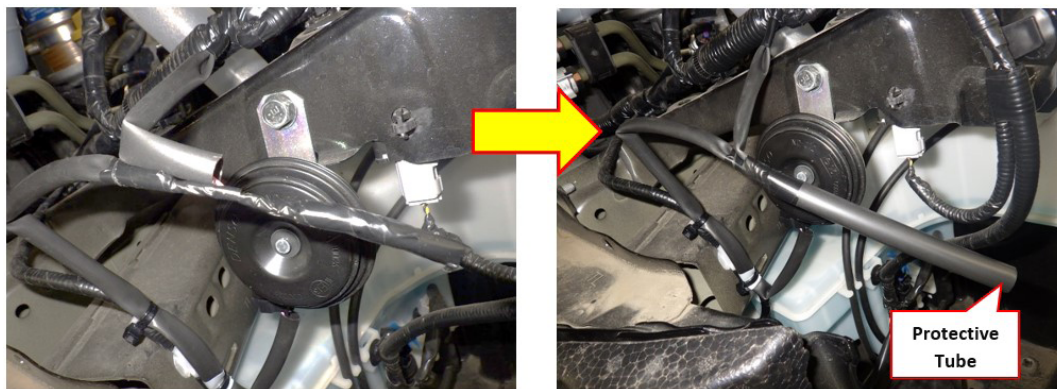


STEP 8: Using vinyl tape, wrap the butyl rubber section to add further protection.

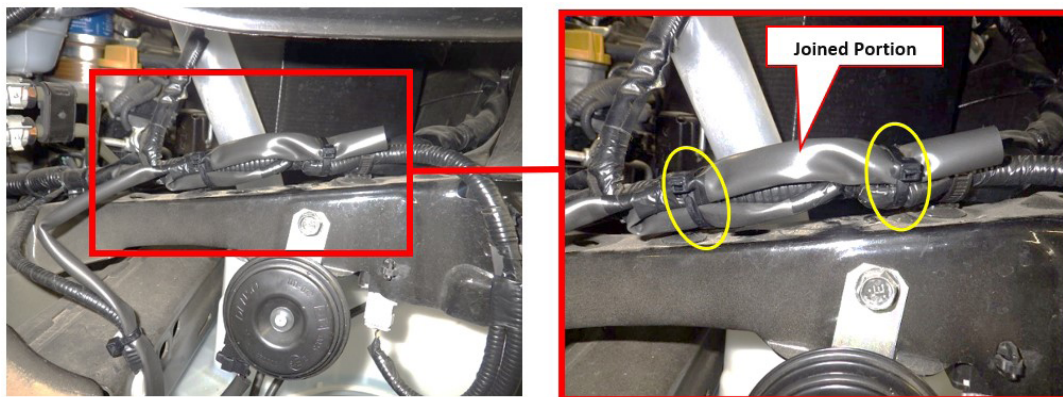


Continued...

STEP 9: Insert the wire joint into the provided protection tube. Position the wire joint in the center of the tube. Secure the protection tube to the harness with vinyl tape as shown below.



STEP 10: Using the two supplied wire ties, secure the protective tube to the bulkhead harness. Be careful not to use the straps over the joined portion.

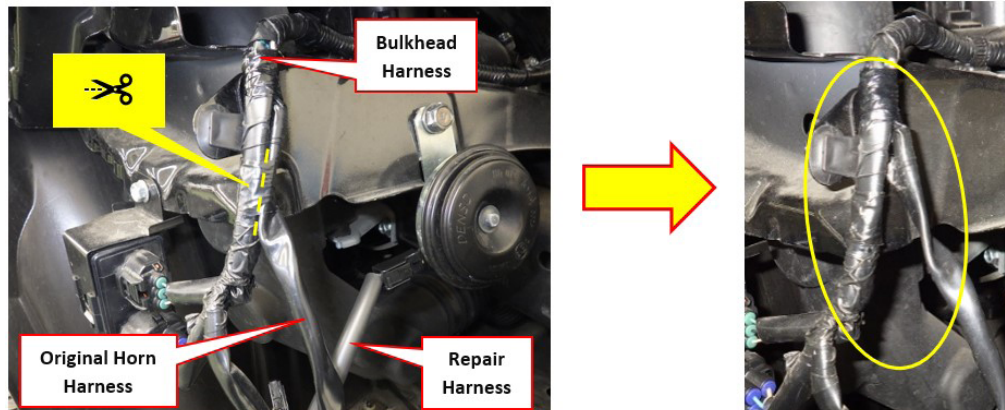


STEP 11: Using a supplied wire tie, secure the remaining loose section of the repair harness to the bulkhead harness. Be sure the repair harness does not interfere with the horn.

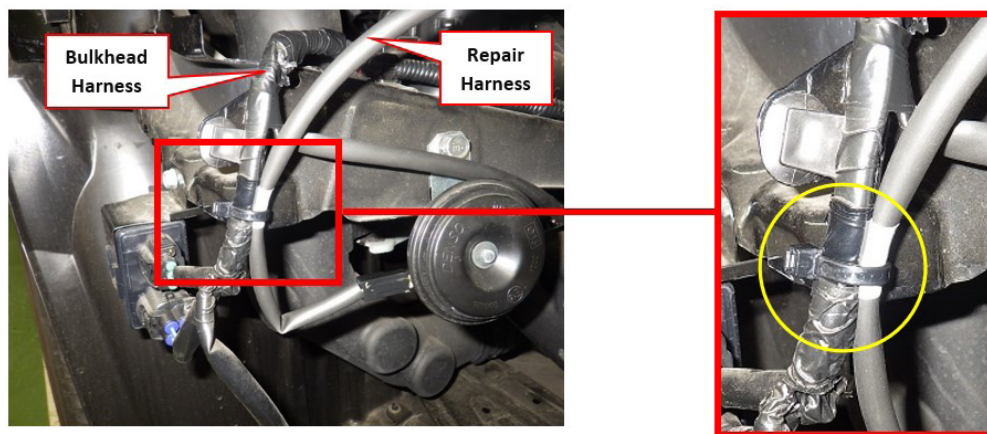


Continued...

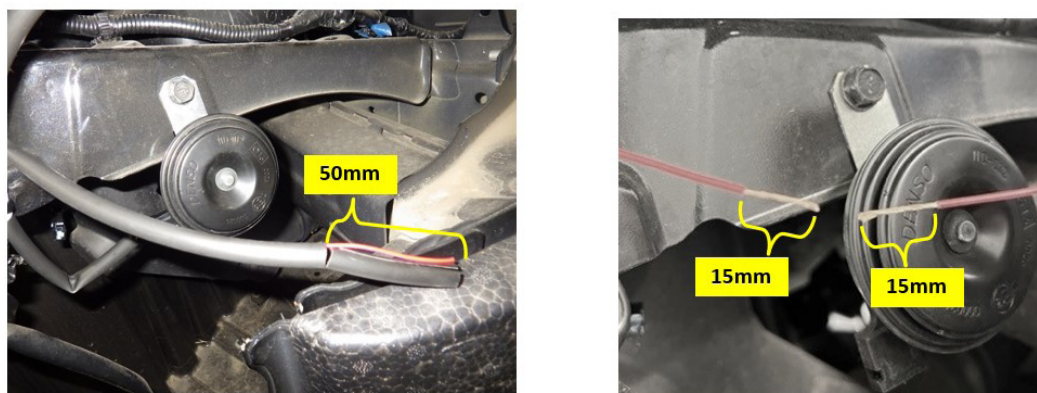
STEP 12: Proceed to the passenger side of the vehicle. Plug the right-side repair harness (350mm) from kit **81990XC00A** into the horn. **CAREFULLY** separate the original horn harness from the bulkhead harness by cutting the vinyl tape holding them together. Use care and avoid damaging the wire.



STEP 13: Using a supplied wire tie, secure the white taped portion of the repair harness to the bulkhead harness. This should be positioned slightly below the bulkhead harness/body holding clip. Be sure to position the wire tie facing the right side of vehicle to prevent any damage to the harness.



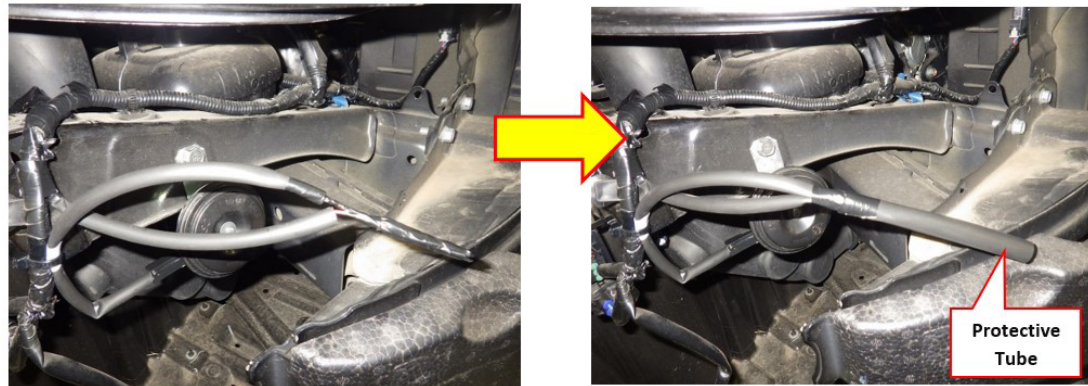
STEP 14: Locate the original horn harness and cut off the connector. Dispose of the connector. Measure 50mm from the end of the protection tube and cut off the measured section. Strip off 15mm of insulation from the original horn harness and the repair harness wiring.



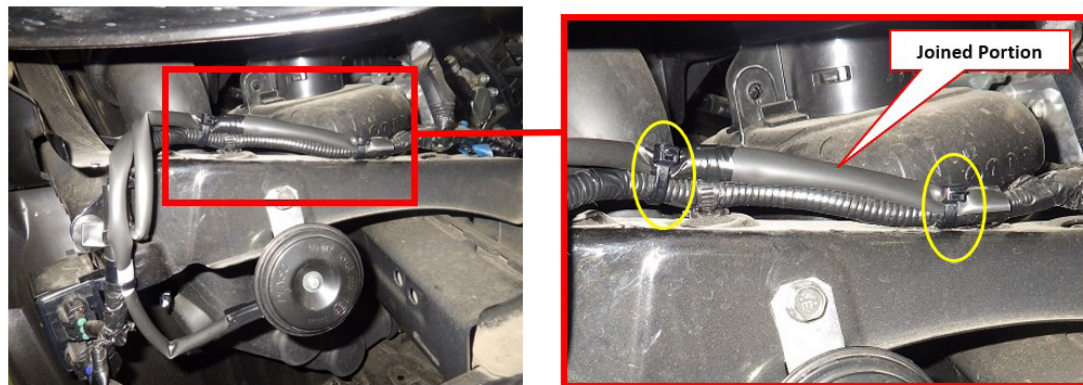
Continued...

STEP 15: Using the same procedure outlined in **STEP 7-8** and **Appendix A** (page 10), crimp the two wires together.

STEP 16: Wrap the jointed section with vinyl tape and insert the wire joint into the provided protection tube. Position the wire joint in the center of the tube. Secure the protection tube to the harness with vinyl tape as shown below.



STEP 17: Using the two supplied wire ties, secure the protective tube to the bulkhead harness. Be careful not to use the straps over the joined portion.



STEP 18: Using a supplied wire tie, secure the remaining loose section of the repair harness to the bulkhead harness. Be sure the repair harness does not interfere with the horn.



Continued...

STEP 19: Reinstall all parts in the reverse order of removal.

IMPORTANT NOTE: Whenever reconnecting the ground cable terminal to the battery sensor, torque to 7.5Nm (5.5ft.-lbs. or 66inch-lbs.) while supporting the sensor with the other hand as outlined in the applicable Service Manual under: STARTING/CHARGING SYSTSEMS > Battery Sensor.

STEP 20: Confirm the horns operate as expected. Confirm there are no DTCs stored.

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited Warranty period, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Labor Time	Fail Code
HORN SWAP & HARNESS RETROFIT	A860-108	0.8	UYI

Up to \$1.00 can be claimed in sublet for the solder used during this repair.

IMPORTANT REMINDERS:

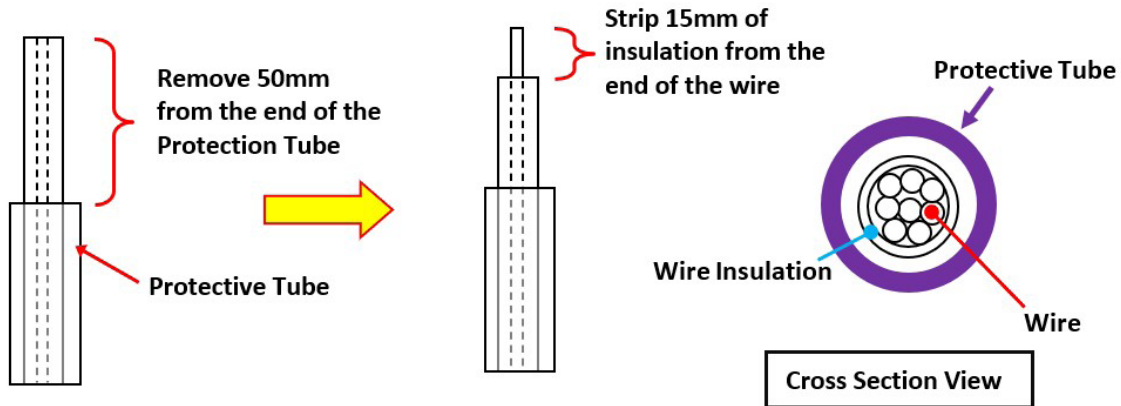
- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.

Continued...

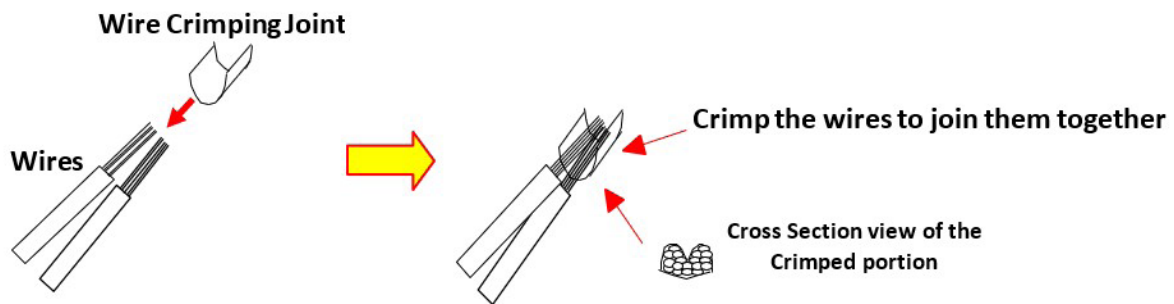
Appendix A

Wire Crimping & Soldering Procedure:

1. Confirm the wires (Bulkhead Harness side & Original Horn Harness side) are prepared as shown below.

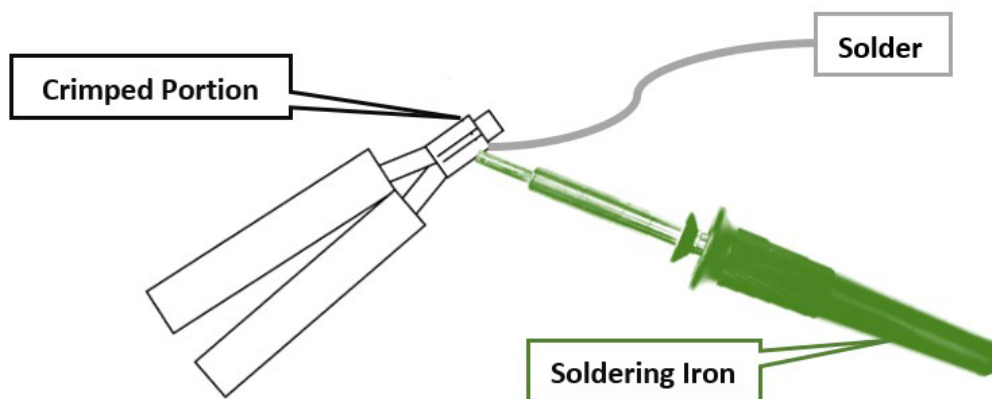


2. Using a suitable crimping tool, crimp two wires using the supplied Wire Crimping Joint that is included in the Repair Parts Kit (81990XC00A).



3. Once the wires are crimped together, the jointed portion will require a solder application. Pre-heat the crimped portion with soldering iron first and then apply solder.

CAUTION: If solder is applied without pre-heating, the solder may not penetrate sufficiently into crimped portion.



Continued...

4. After the solder has been applied and allowed the appropriate time to cool, wrap Butyl Rubber onto the jointed portion and press softly with fingers to eliminate gaps between the Butyl Rubber and the wires. The section can then be wrapped with vinyl tape over the Butyl Rubber. This will prevent the possibility of dirt and/or dust adhering to the jointed portion.

NOTE: Wrap the Butyl Rubber as shown below in order to cover the exposed wires completely for better isolation.

