

**ATTENTION:**

GENERAL MANAGER ☐ PARTS MANAGER ☐  
 CLAIMS PERSONNEL ☐ SERVICE MANAGER ☐

IMPORTANT - All Service Personnel Should Read and Initial

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# SUBARU

## SERVICE BULLETIN

**APPLICABILITY:** 2003~2004MY Forester Vehicles  
**SUBJECT:** Trouble Code 41 and 42 in the  
 Diagnostic System of the SRS  
 Side Air Bag System

**NUMBER:** 17-07-04  
**DATE:** 08/12/04

### GENERAL INFORMATION

This bulletin provides a repair procedure for trouble codes 41 or 42 caused by surface oxidation on the contacts of the connectors of the SRS Side Air Bag System under the front seats. Codes 41 / 42 may also be caused by conditions other than oxidation, which must be eliminated prior to proceeding with this repair procedure. It is therefore important to follow all the steps in the Inspection Procedure outlined below.

Codes 41 or 42 caused solely by oxidation of the contacts will not prevent the Side Air Bags from deploying during an event in which the system has judged deployment is needed. The SRS Side Air Bag Diagnostic System operates on very low current. A deployment signal is far greater than the diagnostic signal and will overcome any oxidation thereby allowing the Air Bags to deploy.

### AFFECTED VEHICLES

|                 |                                                   |
|-----------------|---------------------------------------------------|
| 2003MY FORESTER | Entire VIN range.                                 |
| 2004MY FORSTER  | From start of production through to VIN 4*737367. |

### INSPECTION

In the event that you encounter a applicable vehicle with a customer complaint of the SRS light coming on, perform the following for BOTH drivers and passengers seats:

- 1) Retrieve any diagnostic code(s) observing the proper service procedure and cautions as outlined in appropriate Subaru Service Manual. If you find that you have either code 41/42 please advance to step 2. If you find you have some other code, follow appropriate diagnostic procedure as outlined in Subaru Service Manual.
- 2) Remove the trim piece covering the hinge area nearest the center console and access the harness where routed underneath the seat cover. Thoroughly inspect the entire length of the harness. Pay particular attention to the areas around the seat tracks, hinge and lifter mechanism looking for any physical damage. This would include cut or frayed wire or insulation. If any of these conditions



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

Subaru Service Information is intended for use by professional technicians ONLY. The information is 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 perform procedures correctly and safely. If a condition is described, DO NOT assume that it applies to your vehicle, or that your vehicle will have that condition. You should have a possible condition verified by a trained automotive professional.

are found, the damaged components should be replaced. If no damage is found:

- Record radio stations.
- Disconnect the negative terminal of the battery and waiting at least 20 seconds, the connector for the side airbag (located under the seat) should then be disconnected and reconnected three times.
- Reconnect the negative terminal of the battery.

3) Turn the key to the “ON” position and check to see if the SRS light remains on for more than approximately 6 seconds. If the light remains **on** for more than approximately 6 seconds, retrieve the code. If the code is **not** 41/42, follow the appropriate procedure as outlined in the Subaru Service Manual. If the light does **not** remain on or the code **is** 41/42, continue to the Service Procedure below.

**Only after the above steps have been completed should you perform the following Service Procedure.**

## **PARTS INFORMATION**

Part Number: 98219SA500 (Harness Repair and Clip Kit)

Contents: (Qty 2 of each listed. Sufficient to repair BOTH drivers and passengers side connectors.)

- Airbag connector
- Airbag connector cover
- Connector support
- Connector anchor clip
- Wire tie (1 Spare Included)

## **SERVICE PROCEDURE**

### **Special Tools Required**

- 30 watt soldering iron with 1/8” - 5/32” (3-4 mm) tip
- 60/40 (lead/tin) Rosin core solder with diameter of approximately 0.040” (1 mm)
- Pin removal tool
- Heat sink (Radio Shack 276-1567 or equivalent)

### **Procedure**

The steps shown below are for the driver’s side, however, the same steps need to be performed on the passenger’s side as well.

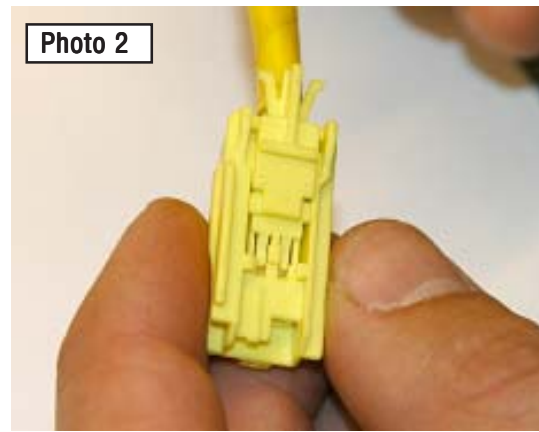
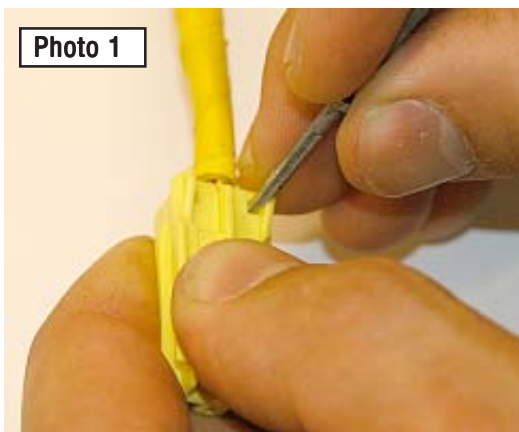
**NOTE:** *It is recommended that you familiarize yourself with the procedure, and practice soldering on a scrap harness to become accustomed to the specific solder and soldering iron in use.*

*If you have any questions about any part of the procedure, contact the Subaru Technical Assistance Helpline. Do not reuse any of the original parts from the connector. If you should need any additional parts, obtain a new kit.*

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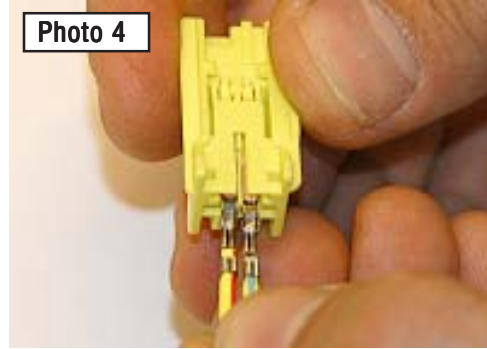
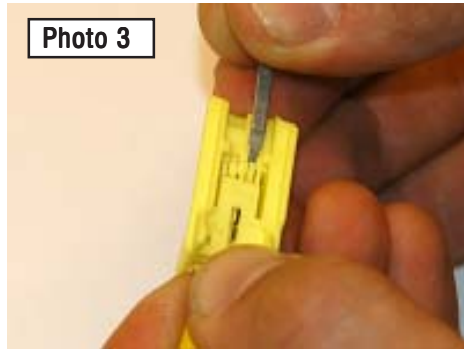
First, verify that the side airbag wiring harness is routed properly.

- 1) Know and follow all cautions, warnings, and working precautions in Subaru Service Manual related to the airbag system and electrical system prior to starting work.
- 2) Record all radio presets.
- 3) Disconnect the negative battery terminal and wait 20 seconds before proceeding.
- 4) Remove side airbag connector from bracket by unlatching clip anchor with pliers. A new clip is provided for reinstallation.
- 5) Disconnect side airbag connector, seat belt chime connector, and seat heater connector (as applicable).
- 6) Slide the seat as far back as possible, and pull the body harness with airbag connector forward.
- 7) Place adequate protection on the floor of vehicle to prevent possible damage from soldering process.
- 8) Using an appropriate pin removal tool, carefully depress both tabs of the airbag connector cover, and slide cover out of connector. *See photo 1 and photo 2.*



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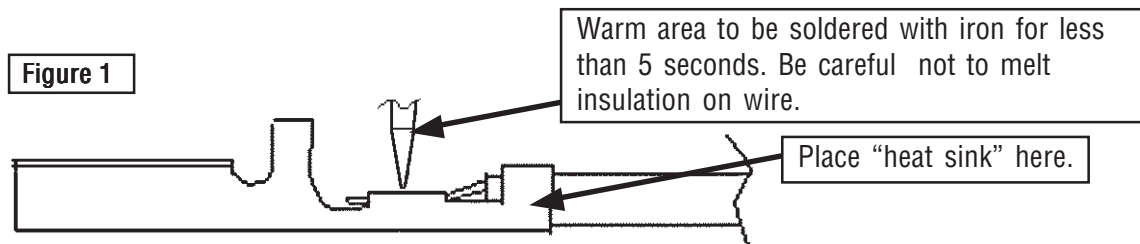
- 9) Gently push wires into connector, while holding wire in position, carefully pry up terminal retainers with pin removal tool and slide terminals out of connector. Make note of location that terminal came out of so it can be replaced in same location at reassembly. See *Photo 3* and *Photo 4, below*. If the terminals do not slide out freely, repeat step 8. **DO NOT PULL WIRES IN AN ATTEMPT FORCEABLY REMOVE TERMINALS, YOU WILL DAMAGE HARNESS.**



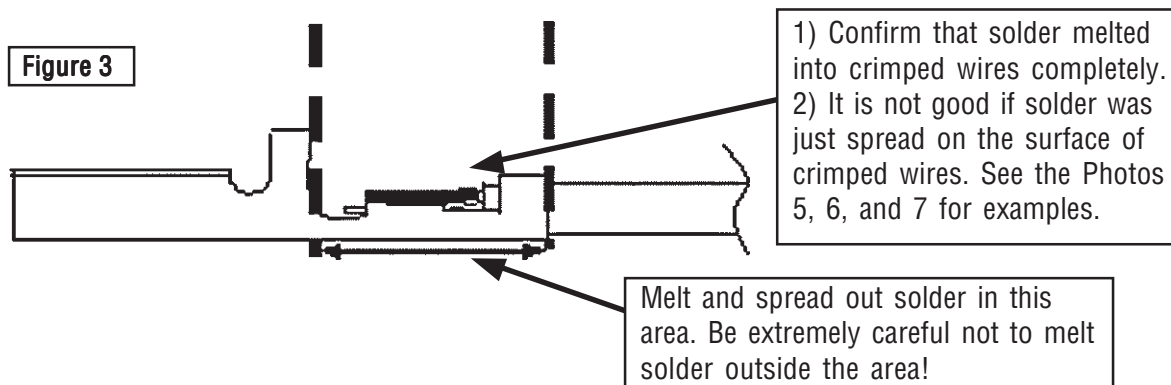
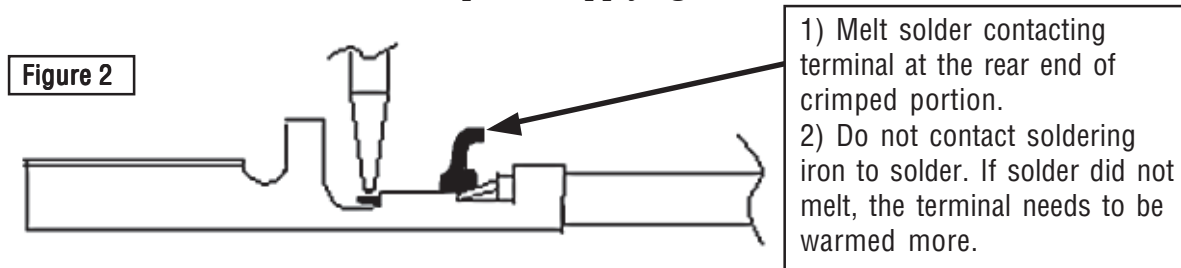
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- 10) With the wire and terminal now removed from connector, prepare to solder the terminal. Check that area in vehicle under where you will be soldering is covered to prevent damage to carpet etc. from soldering process. Prior to soldering, be sure to review Figures 1, 2, and 3 for how and where to apply solder, Photos 5 and 6 for proper use of heat sink, and Photos 7 to 9 for examples of proper and improper soldering. Failure to follow these guidelines may result in improper repair and/or damaged wiring that will require harness replacement.

**Recommended solder:** 60/40 (lead/tin) Rosin core, 1 mm in diameter, and 5-10 mm in length. **Be sure not to apply too much solder.**



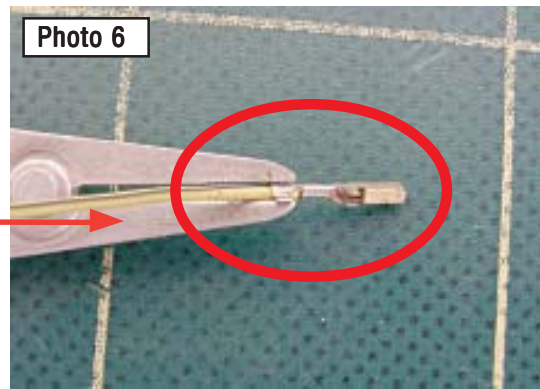
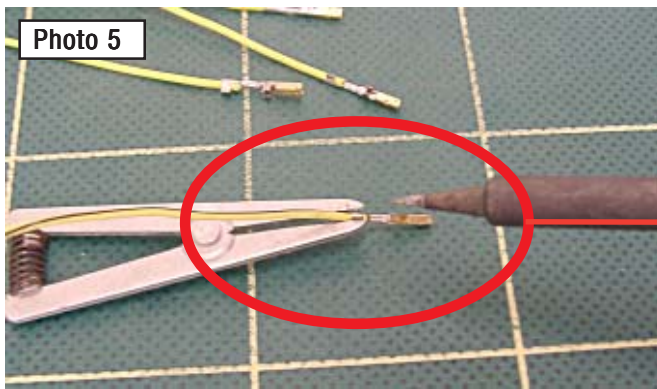
**Move iron in direction of arrow prior to applying solder.**



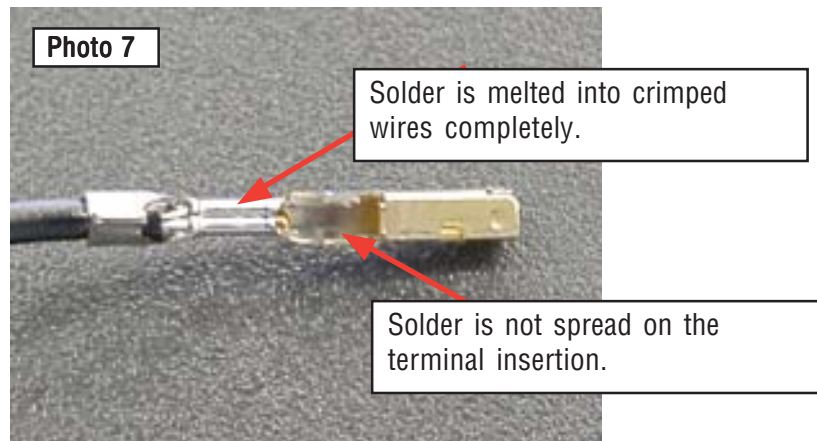
- Use care not to overheat the terminal to the point of melting insulation.
- Only use sufficient solder to solder area shown in Figure 3.
- Excessive solder may prevent terminal from properly locking into new connector.

**Caution:** If the solder has spread on to terminal outside of the area shown in the illustration above, the harness will need to be replaced.

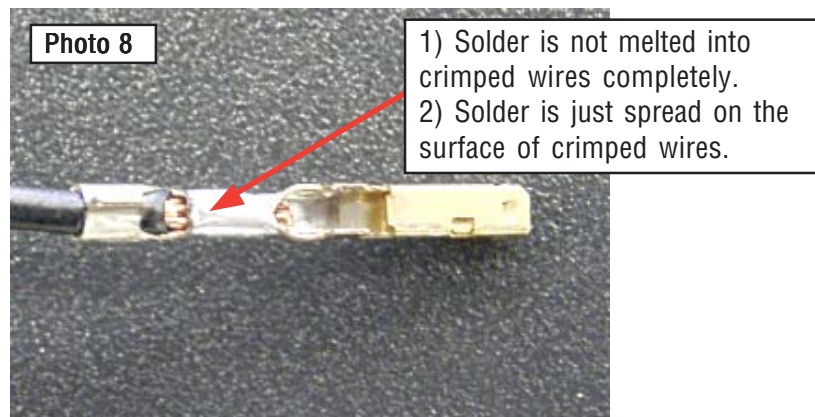
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Example of properly soldered terminal.

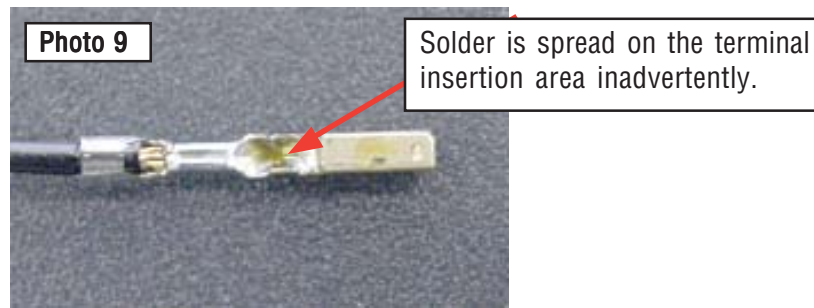


Example of improperly soldered terminal.



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Example of **improperly** soldered terminal.



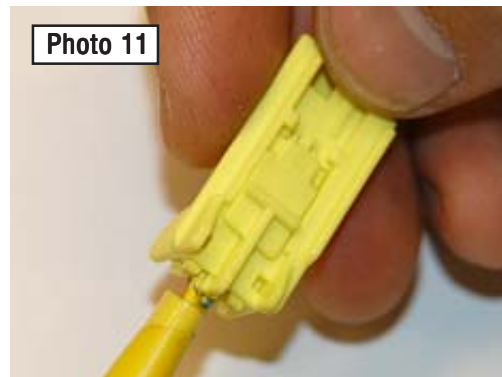
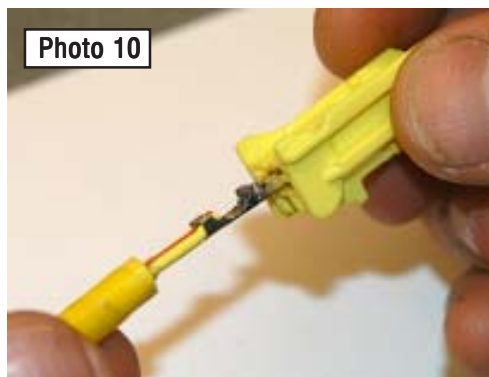
- 11) Using the tip of a fully warmed 30 watt soldering iron, heat one of the terminals at the crimped area as shown in *Figure 1*.

- Use care not to overheat the terminal to the point of melting insulation.

After heating the terminal, move the iron away from the wire end of the terminal as shown in *Figure 2*. Touch the 1 mm diameter rosin core wire solder to the terminal as shown in *Figure 2*. If the solder remains on the surface of the terminal crimp, continue to heat the terminal until the solder melts in.

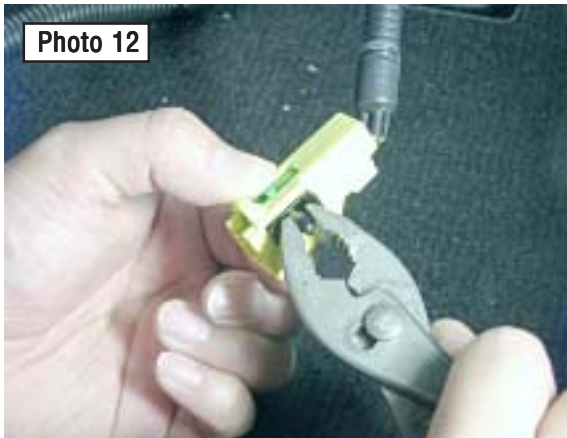
- Only use sufficient solder to solder area shown in Figure 3.
- Excessive solder may prevent terminal from properly locking into new connector.

- 12) Repeat step 10 for the remaining terminal.
- 13) Allow both terminals to cool completely before proceeding.
- 14) Using new connector provided in kit, insert both terminals into same side of connector that they came out of as shown in Photo 10. Be sure they are inserted fully and retainers engage. Gently tug on wires to confirm they are locked.
- 15) Slide new connector cover into place as shown in Photo 11. Confirm that cover and wires are tight.

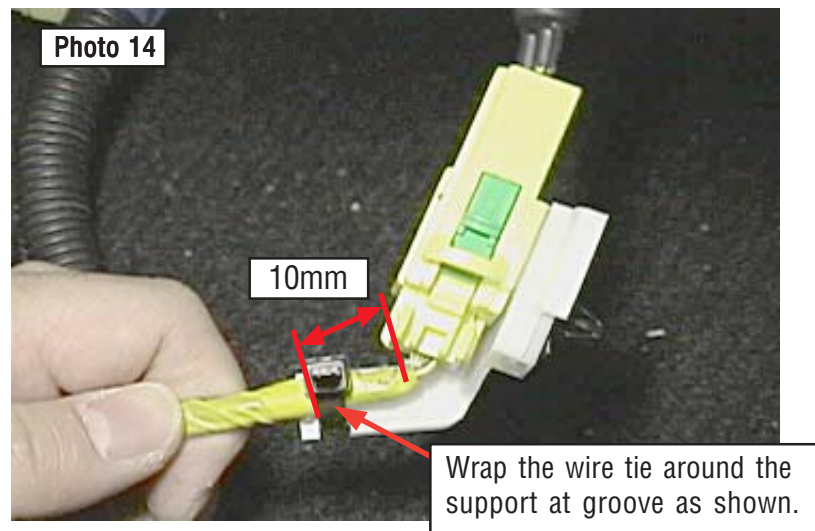


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- 16) Remove the connector anchor clip from the seat side connector. Slide the new connector anchor clip into the connector support, then the connector into the support. *See Photos 12 and 13.*



- 17) Re-connect airbag connectors and wrap wire tie around harness as shown in *Photo 14*.



- 18) Reinstall connector and support assembly into original position in bracket under seat and reconnect all connectors that were disconnected. Confirm that support and wiring do not contact carpeted portion of floor and that harness and connector do not move in support. If any of these conditions exist, remove wire tie and repeat step 16.
- 19) **Repeat** steps 4-18 to the connector on the passenger's side of the vehicle. **Perform procedure on both driver's and passenger's sides.**
- 20) Reconnect negative terminal of battery and clear any SRS codes. Start vehicle and insure that SRS light goes off after approximately 6 seconds. If it does not, retrieve code and diagnose according to Subaru Service Manual.

*continued...*

- 21) Be sure that all repair debris is removed, and work area is clean.
- 22) Check that radio stations are correct and set clock to correct time.

## **CLAIM INFORMATION**

Part Number: 98219SA500

Description: Harness Repair & Clip Kit

| <b>FAILURE CODE</b> | <b>OPERATION NUMBER</b> | <b>LABOR TIME</b> |
|---------------------|-------------------------|-------------------|
| ULM-48              | B 820-251               | 0.8               |