



WORKSHEET 2-14

Harness Repairs

Worksheet Objectives


In this worksheet, you will practice removing and replacing connector pins, soldering wiring splices, and using silicon tape and heat shrink insulation.

Tools and Equipment

For this exercise you will need the following:

- Connector repair kit
- Practice connectors
- Soldering iron
- Solder
- Wire
- Splice bars
- Silicon tape
- Heat shrink tubing
- Heat gun
- Wire stripper



Stop your work when you see the  sign. You will review your work with the instructor before continuing to the next section.

Exercise 1: Connector Repair

1. Obtain a practice connector and the connector repair kit.
2. Remove two or three terminal pins from the connector.
3. Select one terminal pin to replace. Locate a correct replacement terminal pin from the repair kit.
4. Remove and replace the terminal pin.
5. Reinsert the terminals in the connector.



Stop here after completing all the related activities and answering the questions. Inform your instructor that you are ready to review this section.

Exercise 2: Soldering

1. Cut six pieces of wire approximately 6" long.
2. Obtain several splice bars from your instructor.
3. Strip the wire ends using a wire stripper.
4. Join two of the wire pieces using a splice bar. Crimp the splice bar onto the wire ends using the noninsulated area of the wire stripper.
5. Solder the splice.
6. Repeat this for the remaining wire pieces to create three spliced wires.



Stop here after completing all the related activities and answering the questions. Inform your instructor that you are ready to review this section.

Exercise 3: Using Heat Shrink Tubing and Silicon Tape

1. Obtain a piece of heat shrink tubing from your instructor.
2. Use one of the wires from exercise 2 and place a piece of heat shrink tubing over the splice.
3. Use a heat gun to shrink the tubing over the splice.
4. Repeat for the other two wires.
5. Wrap silicon tape around each of the splice locations to completely cover the heat shrink tubing. This provides additional protection and insulation for the wire.
6. (Optional) Solder alligator clips to the end of each wire to make your own jumper leads.



Stop here after completing all the related activities and answering the questions. Inform your instructor that you are ready to review this section.

Harness Repairs

Name: _____ Date: _____

Review this sheet as you are doing the Harness Repairs worksheet. Check each category after viewing the instructor’s presentation and completing the worksheet. Ask the instructor if you have questions regarding the topics provided below. Additional space is provided under topic for you to list any other concerns that you would like you instructor to address. The comments section is provided for your personal comments, information, questions, etc.



Topic	Comment		
Repair a Connector			
Soldering			
Using Heat Shrink Tubing and Silicon Tape			



Notes