

AHWG TSB#8–DRV ‘R’ & SAGE™ BS Installation

Product: DRV40R BS, DRV80R BS

Technical Assessment Reference: N/A

Topic/Problem Replacement & Resolution: Installing the Recirculation (‘R’) Manifold & SAGE™ BS in the field

The following will explain the necessary parts and procedure to install and connect the recirculation (‘R’) piping manifold as well as the SAGE™ BS to the DRV40 or DRV80 upon ordering and receiving a DRV40R BS or DRV80R BS. You will receive a total of 3 separate boxes each including a different part of the complete assembly (explained below).

Below is a list of parts that are included with the DRV40R BS or DRV80R BS Assembly:

- DRV40 or DRV80 (*see Figure 1*)
- Recirculation Manifold (‘R’) (*see Figure 2*)
- SAGE™ BS (*see Figure 3*)



Figure 1: DRV40 or DRV80



Figure 2: Recirculation Manifold (‘R’)



Figure 3: SAGE™ BS

Tools Required:

- T Handle Hex Head Wrench; Size 4mm
- 1/8” Slotted Screwdriver & Phillips Screwdriver
- 11/16” drill bit
- Pliers

Replacement Process/Steps:

1. Ensure there is no power connected before beginning this procedure
2. Prior to the rest of this procedure the DRV40 or DRV80 shall be installed per the directions in the product [IOM](#)
 - a. The installing contractor is responsible for installing in-line strainers on all supply lines (hot, cold, recirculation) and also isolation valves on all supply/discharge lines
3. Mount the SAGE™ BS in the desired location (within 5’ of the DRV) and run the data communication cable provided with the SAGE™ BS from the SAGE™ BS to the DRV (*see Figure 3 item circled above*)
4. To connect the data communication cable to the DRV remove the two screws on the right side of the plastic electric enclosure with the #4mm T handle hex head wrench (*see Figure 4 below*)
5. Disconnect the two connectors and remove the clip on the top hinge pin and rotate the plastic electric enclosure away from the DRV valve body (*see Figure 5 below*)



Figure 4: Plastic Electric Enclosure Access



Figure 5: Plastic Electric Enclosure Rotated

6. With the electric housing removed, remove the 6 phillips head screws holding the cover on, disconnect the battery plug and drill an 11/16" hole at the bottom right of the cover to install the cord grip for the data communication cable (see Figure 6 & 7 below)
7. Secure the cord grip and connect the data communication cable to the 4 pin plug connector in the order of red, white, black, blank from top down (see Figure 8 & 10 below)



Figure 6: Cover Screws



Figure 7: Cover 11/16" Cord Grip Hole



OR



Figure 8: Data Cable Connection

8. Reverse steps 4-6 to put the electric enclosure back on the DRV
9. If the data communication cable had to be disconnected from the SAGE™ BS, feed the cable back through the existing hole and cord grip and connect to the SAGE™ BS board ST5 connector in the order of white, red, black from left to right as you look at the SAGE™ BS board (see Figure 9 below)



Figure 9: SAGE™ BS Board Connection

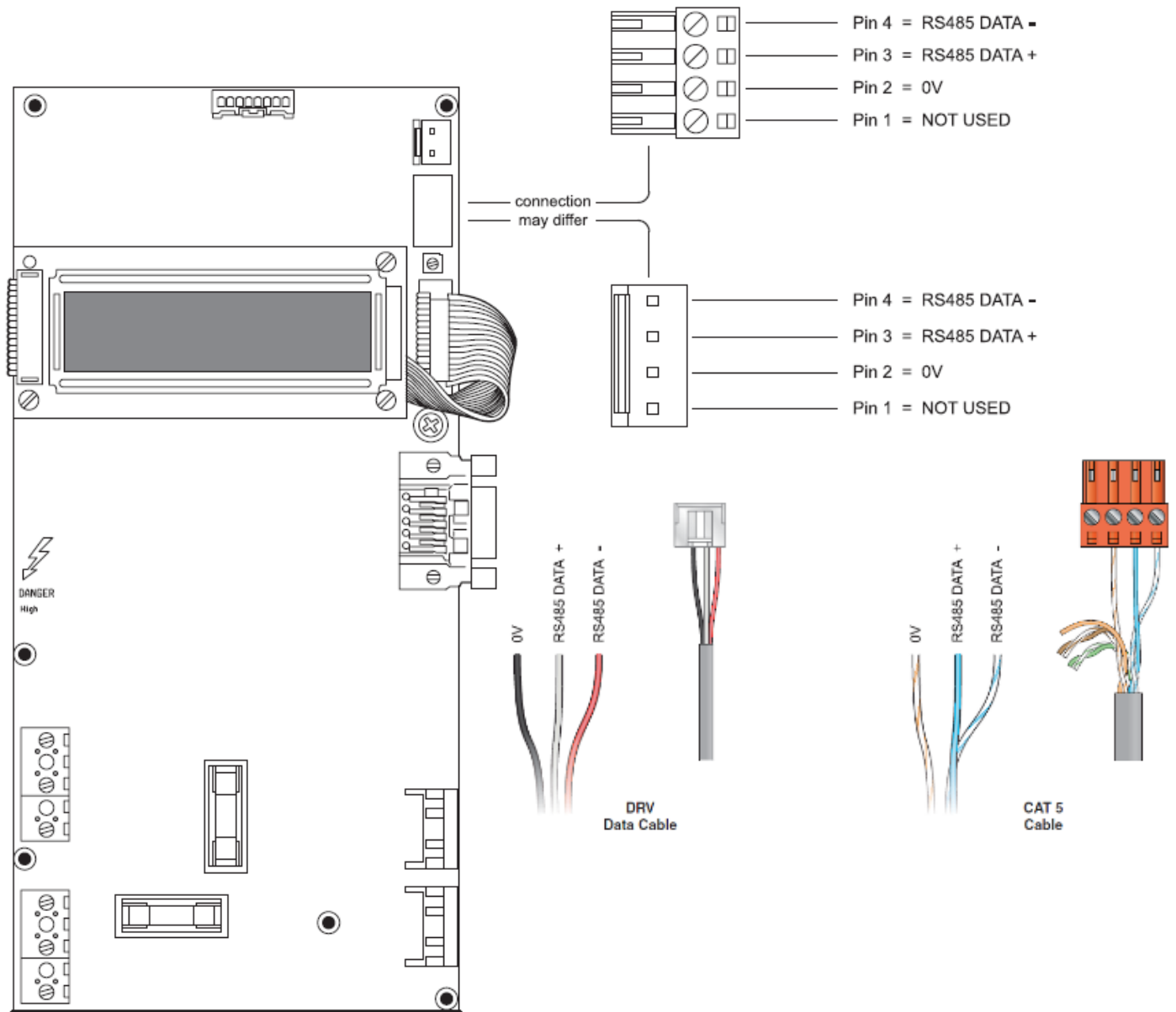


Figure 10: DRV Modbus/SAGE™ BS Board Connection