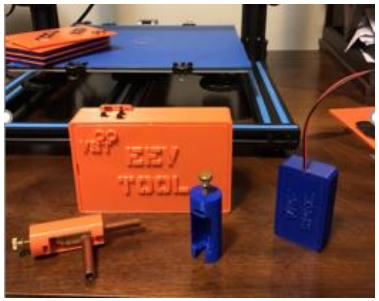


ST-02 Transducer Tool Directions:

The ST-02 Transducer Tool is used for LG 0-5 vdc pressure for the following purposes:

a-Uses 3 vdc to verify PCB pressure transducer readings.

b- On multi-chassis systems, enables a constant pressure reading to be inputted on a leaking ODU after it has been isolated from the system, allowing the system to operate.

Step 1: Remove the cover with a small pocket screw driver using the slot provided on one of the ends.

Step 2: Install 2ea AA batteries. Before proceeding, verify they are properly installed as reversing the positive and negative terminals may result in damage to ODU PCB. Using a good quality volt meter, measure the DC voltage on the tool's male connector. Depending on battery strength, the voltage should be approximately 3 VDC.

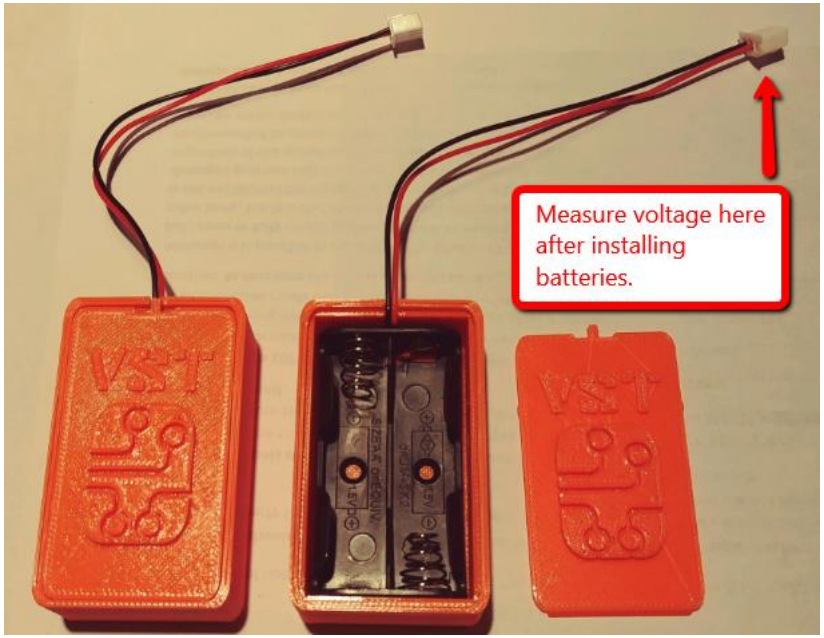
Step 3: Power off the ODU and unplug the HP and LP transducers. Verify the GND wire on the tool is in the same location as the GND wire on the ODU transducer wire harness and the positive wire, 3 VDC +/-, on the tool is in the same location as the signal wire on the ODU transducer wire harness.

Step 4: Plug in the transducer tools to the HP and LP connectors on the ODU PCB and power up the ODU.

Step 5: Use the signal voltage/pressure chart for the ODU to calculate the HP and LP for the measured voltage from step 2.

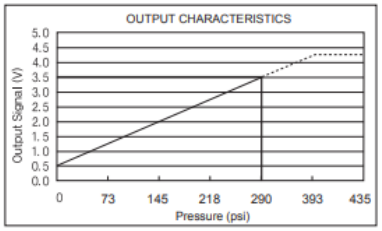
Step 6a: If the tools were installed to provide pressure on an ODU with a refrigerant leak, the ODU can now be isolated and placed in backup (non-operating) mode.

Step 6b: Compare the calculated voltage, with the voltage displaying on the service software program. Replace ODU transducer if pressure readings are significantly different and calculated voltage has been rechecked and verified. Keep in mind the same voltage input on HP and LP terminals, does not result in the same pressure readings.

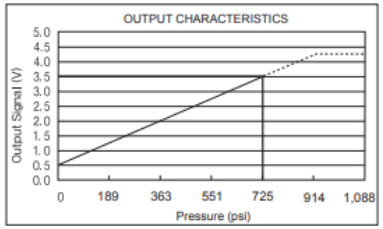


Typical signal voltage/pressure chart. Only use the chart for the specific ODU being repaired.

Low Pressure Sensor

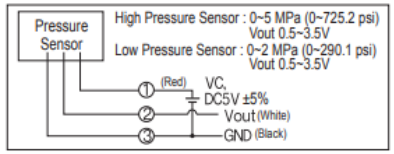


High Pressure Sensor



1. If the manifold gauge pressure reads 14.22 psi, it indicates the pressure dropped due to a refrigerant leak. Find the leak and repair it.
2. If the difference between the high and low pressure outputs is around 14.22 psi, the pressure sensor is normal.
3. If the difference between the high and low pressure outputs is >14.22 psi, the pressure sensor is damaged and needs to be replaced.

Figure 61: Pressure Sensor Schematic.



See the pressure sensor schematic at left. DC 5V will to be measured between red and black wires. DC voltage measured between white and Black wire corresponds to charts above.

ST-02 Transducer Tool notes:

*** This transducer tool should only be used by qualified technicians who have been properly trained for troubleshooting and repairing VRF equipment.**

VRF Specialty Tools assumes no liability for damage to the equipment, or the tool itself, as a result of improper use of the tool and/or failure to verify normal equipment operation after the tool has been used.

**** Make sure to keep the tool dry. Water or moisture will damage the tool causing it to fail and void warranty.**

.Limited Warranty:

Thank you for your purchase. All items sold by VRF Specialty Tools are warranted for 1 year from the date shipped. Warranty does not cover obvious physical damage from mishandling or exposure to water.

To obtain warranty please fill out the information below and email to bld529.vst@gmail.com.

Name_____

Address_____

City, State, Zip_____

Item #_____

Date Purchased_____

Issue_____

_____