

# Electronic Expansion Valve Testing

Make sure molex plug is tight and secure and that expansion valve power head is mounted properly and secure

Cycle power to the unit. A “clicking” or “Ratcheting” sound should be heard from each expansion valve, one at a time on multiple head units, at power up

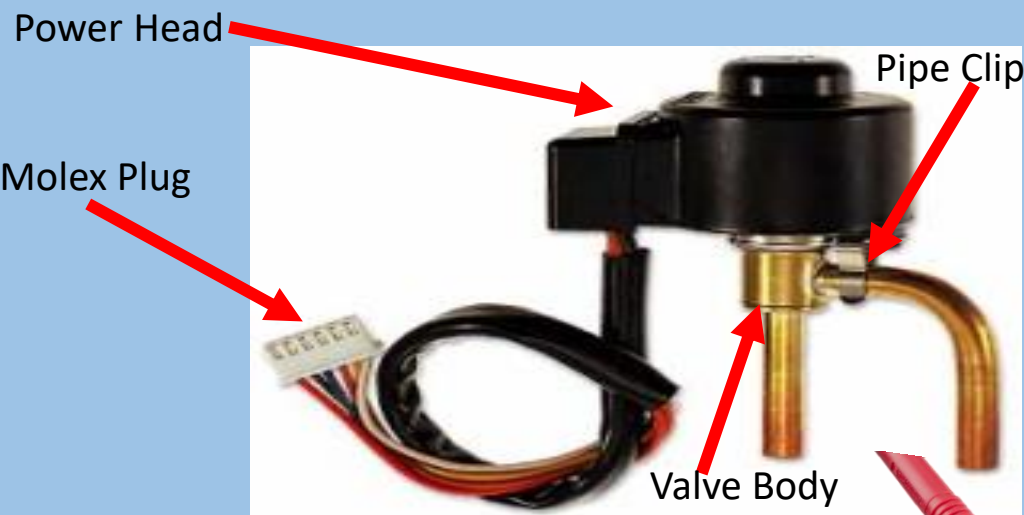
If the EEV on a single zone unit or any of the EEV’s on a multi-zone unit do not generate the ratcheting sound, disconnect the connector and ohm out with a multi-meter

There are 3 types of connectors, the 5 pin – 5 wire, the 6 pin – 5 wire and the 6 pin – 6 wire. All 4 ohms readings should show between (40-50 ohms) If any one of the 4 tests doesn’t show between 40-50 ohms, the expansion valve has failed

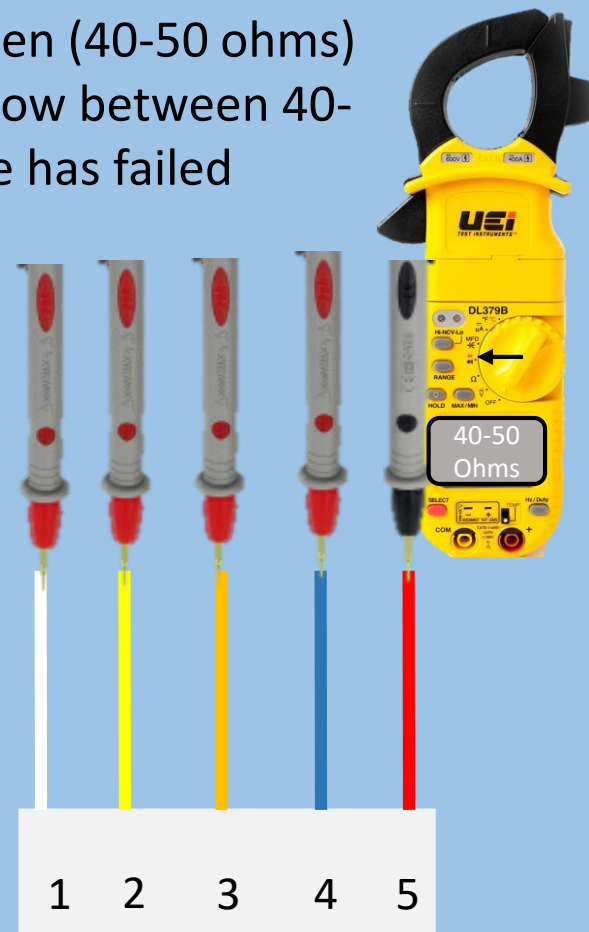
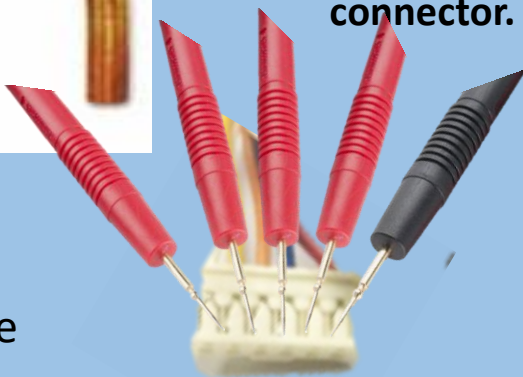
**Note: Not all connector wire testing patterns are the same. Please refer to the specific testing pattern for each connector.**

## Continuity Test 5 pin – 5 wire

1. White – 1 - 5
2. Yellow – 2 - 5
3. Orange – 3 - 5
4. Blue – 4 - 5
5. Red



A pair of Needle type probes will make your life a lot easier when testing these units



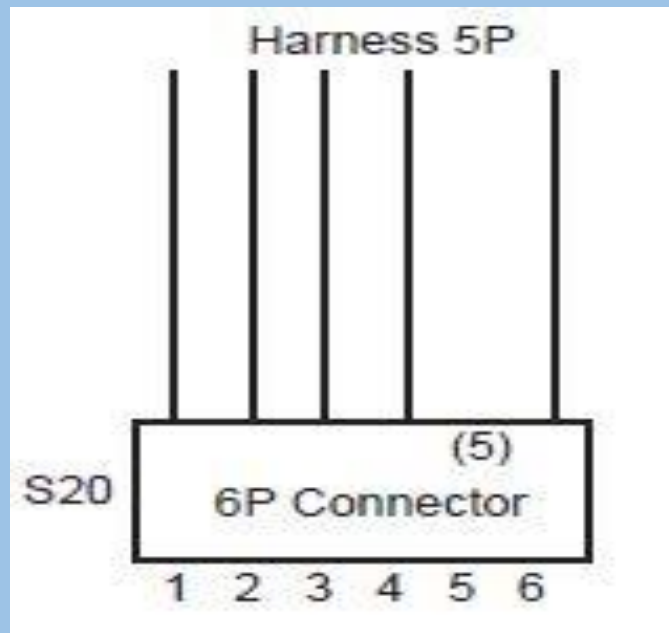
## Continuity Checks

- Pin 1 to 6
- Pin 2 to 6
- Pin 3 to 6
- Pin 4 to 6

Wire color patterns can be either column one or two depending on model:

- |            |            |
|------------|------------|
| 1 – Orange | 1 – White  |
| 2 – Red    | 2 – Yellow |
| 3 – Yellow | 3 – Orange |
| 4 – Black  | 4 – Blue   |
| 5 – Blank  | 5 – Blank  |
| 6 – Gray   | 6 – Red    |

### Single Port Systems 6 Pin – 5 Wire



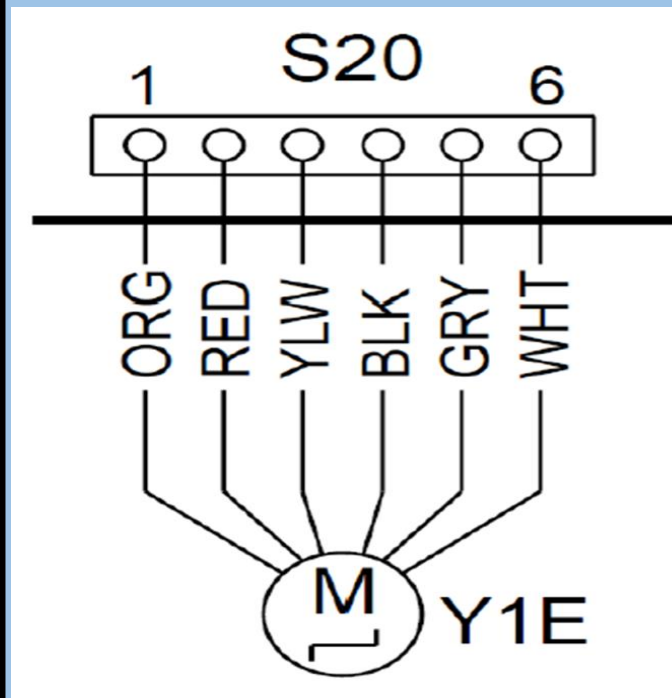
All 4 of these tests should show between (40-50 ohms)

If any of these 4 tests don't show between 40-50 ohms, the expansion valve motor has failed

Wire Color pattern may also be depending on model:

- 1 – White
- 2 – Yellow
- 3 – Orange
- 4 – Blue
- 5 – Brown
- 6 – Red

### Multi-Port Systems 6 Pin – 6 Wire



## Continuity Checks

- Pin 1 to 6
- Pin 3 to 6
- Pin 2 to 5
- Pin 4 to 5

All 4 of these tests should show between (40-50 ohms)

If any of these 4 tests don't show between 40-50 ohms the expansion valve has failed