

### Termination

BAPI recommends using twisted pair of at least 22AWG and sealant filled connectors for all wire connections. Larger gauge wire may be required for long runs. All wiring must comply with the National Electric Code (NEC) and local codes.

Do NOT run this device's wiring in the same conduit as AC power wiring of NEC class 1, NEC class 2, NEC class 3 or with wiring used to supply highly inductive loads such as motors, contactors and relays. BAPI's tests show that fluctuating and inaccurate signal levels are possible when AC power wiring is present in the same conduit as the signal lines. If you are experiencing any of these difficulties, please contact your BAPI representative



BAPI does not recommend wiring the sensor with power applied as accidental arcing may damage the product and will void the warranty

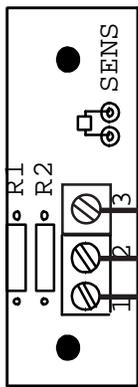


Fig 1

- 3 [Used for 3 Wire operation ONLY, Shorted to Pin #2] [Sensor, To Analog Input of Controller]
- 2 (**Resistive Output**) [Sensor, To Analog Input of Controller]
- 1 (**Resistive Output**) [Sensor, To Analog Input of Controller]

### Troubleshooting

#### Possible Problems:

Controller reports higher than actual temperature

#### Possible Solutions:

- Confirm the input is set up correctly in the front end software
- Verify that the sensor wires are not physically shorted
- Check wiring for proper termination
- Verify the "Sensor" output is correct

Controller reports lower than actual temperature

- Confirm the input is set up correctly in the front end software
- Verify that the sensor is not physically open
- Check wiring for proper termination
- Verify the "Sensor" output is correct

**NOTE: Sensor output tables are available on our website, [www.bapihvac.com](http://www.bapihvac.com), or from your BAPI Representative.**

\*Some items may not be CE compliant, call BAPI for additional information.

Specifications subject to change without notice.



### **Possible Problems:**

Unit will not operate

Humidity reading is maximum 10V or 100%

Humidity reading is minimum 0V or 0%

Humidity reading in software appears to be off more than specified accuracy

### **Possible Solutions:**

- Check power supply/controller voltage supply +15 to 24VDC
- Disconnect sensor and check power wires for +15 to 24VDC power to the sensor

- Make sure the sensor is installed properly, and is not shorted

- Verify that the humidity sensor is installed
- **QUICK CHECK:** Short the humidity sensor connections with a wire. Does the reading change? If so, the sensor may be faulty, if not contact *BAPI* technical support

- Check all software parameters
- If available, check the sensor against a calibrated control such as a hygrometer
- Use the 0 to 10V signal formula to calculate the output
- Determine if the sensor is exposed to an external source different from the measured environment

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**Mounting**

Fig. 2  
Delta Style Room  
Unit Junction Box  
installation

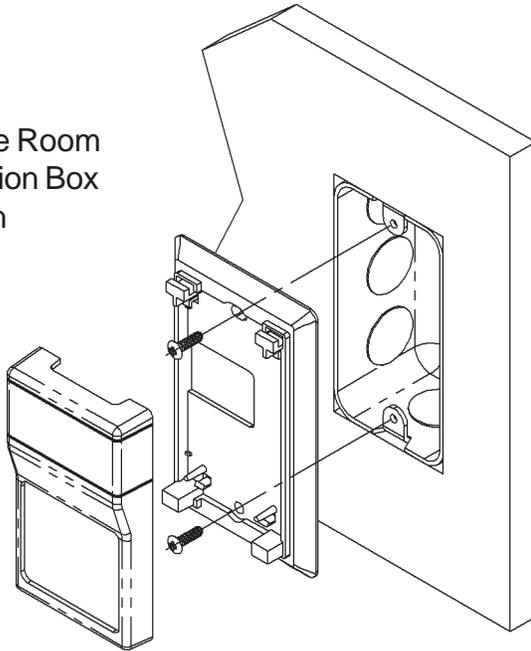
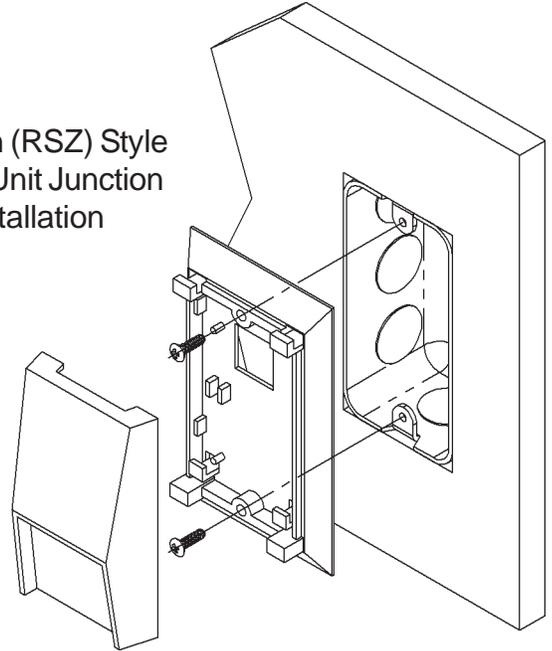


Fig. 3  
PreCon (RSZ) Style  
Room Unit Junction  
Box installation



Mounting hardware is provided for both junction box and drywall installation (junction box installation shown) for the Delta Style and PreCon Style room units. Mounting hardware is provided for only the drywall installation of the Powers style room unit. Junction Box installation of the Powers style room unit will require an adaptor plate. Order Part Number BA/ADP-525-7-Color Code.

**Junction Box**

1. Pull the wire through the wall and out of the junction box, leaving about six inches free.
2. Pull the wire through the hole in the base plate.
3. Secure the base to the box using the #6-32 x 1/2 inch mounting screw provided.
4. Terminate the unit according to the guidelines in **Termination** on page 1.
5. Attach Cover by latching it to the top of the base, rotating the cover down and snapping it into place.
6. For Delta and PreCon(RSZ) units, secure the cover by backing out the lock-down screws using a 1/16" allen wrench until they are flush with the bottom of the cover. for Powers(RSS) units, secure the cover by tightening the side security screws.

**NOTE**

*In a wall-mount application, the wall temperature and the temperature of the air within the wall cavity can cause erroneous readings. The mixing of room air and air from within the wall cavity can lead to condensation, erroneous readings and premature failure of the sensor.*

*To prevent these conditions, seal the conduit leading to the junction box and seal the hole in the drywall by using an adhesive backed, foam insulating pad(order part number BA/FOAMBACK).*

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**Drywall Mounting**

1. Place the base plate against the wall where you want to mount the sensor.
2. Using a pencil mark out the two mounting holes and the area where the wires will come through the wall.
3. Drill two 3/16" holes in the center of each marked mounting hole. Insert a drywall anchor into each hole.
4. Drill one 1/2" hole in the middle of the marked wiring area.
5. Pull the wire through the wall and out of the 1/2" hole, leaving about six inches free.
6. Pull the wire through the hole in the base plate.
7. Secure the base to the drywall anchors using the #6 x 1 inch mounting screws provided.
8. Terminate the unit according to the guidelines in **Termination** on page 1.
9. Attach Cover by latching it to the top of the base, rotating the cover down and snapping it into place.
10. For Delta and PreCon(RSZ) units, secure the cover by backing out the lock-down screws using a 1/16" allen wrench until they are flush with the bottom of the cover. For Powers(RSS) units, secure the cover by tightening the side security screws.

**NOTE**

*In a wall-mount application, the wall temperature and the temperature of the air within the wall cavity can cause erroneous readings. The mixing of room air and air from within the wall cavity can lead to condensation, erroneous readings and premature failure of the sensor.*

*To prevent these conditions, seal the conduit leading to the junction box and seal the hole in the drywall by using an adhesive backed, foam insulating pad (order part number BA/FOAMBACK).*

Fig. 4  
Powers (RSS) Style  
Room Unit

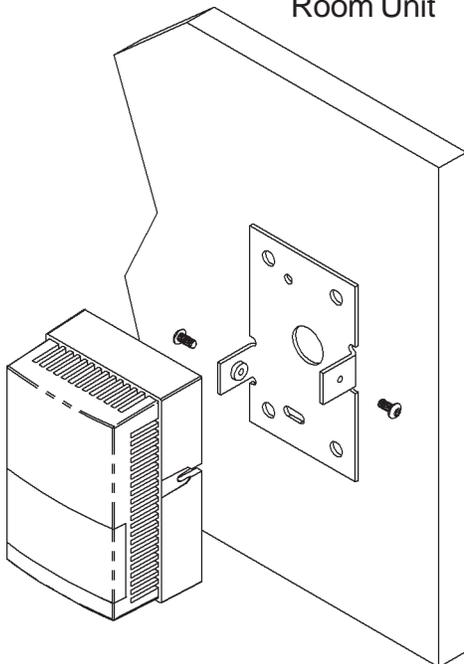
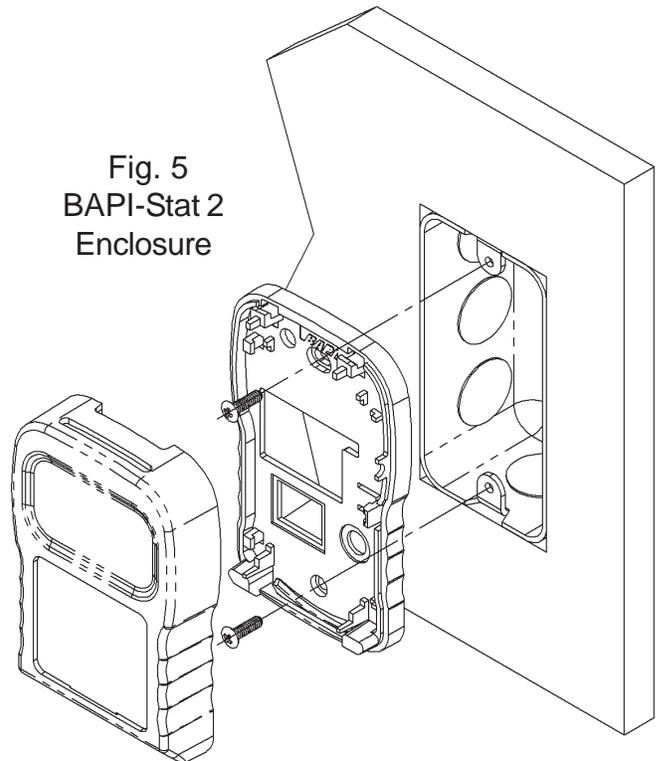


Fig. 5  
BAPI-Stat 2  
Enclosure



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