

**INSTALLATION INSTRUCTIONS FOR THE BC OUTDOOR TEMPERATURE SENSOR (59M05)  
 USED WITH BUILDING CONTROLLERS ON THE L CONNECTION NETWORK**

**Shipping and Packing List**

**Package 1 of 1 contains:**

- 1 - Sensor (A2) assembly
- 1 - Weathertight fitting
- 4 - Screws

**⚠ WARNING**

**Personal injury, loss of life, or damage to property!  
 Installation and service must be performed by a  
 qualified installer or service agency.  
 Improper installation, adjustment, alteration, ser-  
 vice or maintenance can cause personal injury, loss  
 of life, or damage to property.**

**Application**

This sensor provides outdoor temperature data to the Building Controller, which, based on over- or under-temperature conditions, may use the data to override NCP scheduled outputs and to set alarms.

The BC Building Controller, when used with the L Connection Network, controls lights, vent hoods, exhaust fans, sprinklers, security and fire systems, and other building equipment.

**Location**

Install sensor on unit side panel near low voltage entry or other outdoor location.

**Installation**

1. Route one twisted pair shielded cable from rooftop unit to Building Controller.

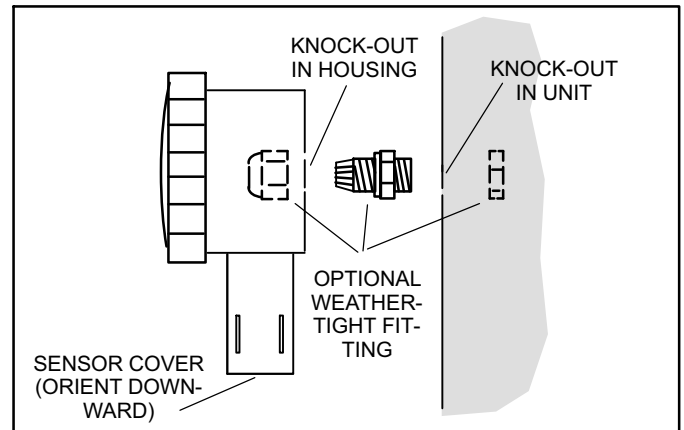
**CABLE TYPE:** Lennox P/N 94L63, Belden type 88761 or equivalent (22AWG stranded or twisted pair, 100% aluminum shield with drain wire, Teflon jacket).

2. Remove knock-out in back of sensor housing. Drill a hole in unit panel the same size as the knock-out on the back of the sensor housing.
3. Align knock-outs and install sensor using weathertight fitting as shown in figure 1 or screws provided in kit.

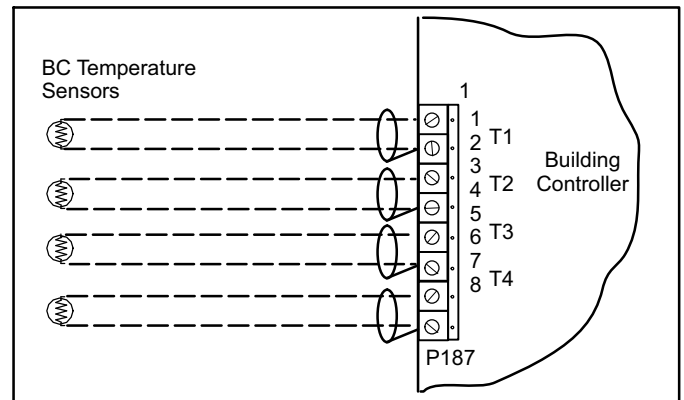
**NOTE - Make sure screws clear any components on the inside of the unit.**

4. Connect sensor to any available input (T1, T2, T3, T4) on P187 Building Controller terminal block. Connect the shield drain wire to the input common as shown in figure 2. Note which inputs are used and refer to Unit Controller (UC) Software manual to configure override outputs and alarms.

The temperature will be displayed on the NCP. Refer to the NCP Software manual to enter a description of the temperature input.



**Figure 1. Install Sensor Assembly**



**Figure 2. Wire Outdoor Sensor to P187 on BC1**

**Sensor Check**

Check the temperature displayed on the NCP. If the temperature is incorrect, disconnect the sensor from the BC and measure the resistance. The resistance should correspond to the temperature as follows:

**IMPORTANT: The sensor must be disconnected from the BC before measuring resistance.**

°F	Resistance	°F	Resistance	°F	Resistance
-40	335,671	40	26,106	90	7,332
-20	164,959	50	19,904	100	5,826
0	85,323	60	15,313	120	3,756
20	46,218	70	11,884	130	3,047
30	34,566	80	9,298		

All values are +/- 2%.

The operating range of each input is -40°F to 130°F (-40°C to 54°C).



