

# Installer's Guide

## BAYSEN01ATEMPA

### Outdoor Temperature Sensor

**ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES**

**IMPORTANT** — This Document is **customer property** and is to remain with the outdoor unit. Please return to service information pack upon completion of work.

The BAYSEN01ATEMPA is a 10K ohm thermistor sensor assembly used to sense outdoor temperature. Proper installation of this sensor is required for it to accurately sense outdoor temperature.

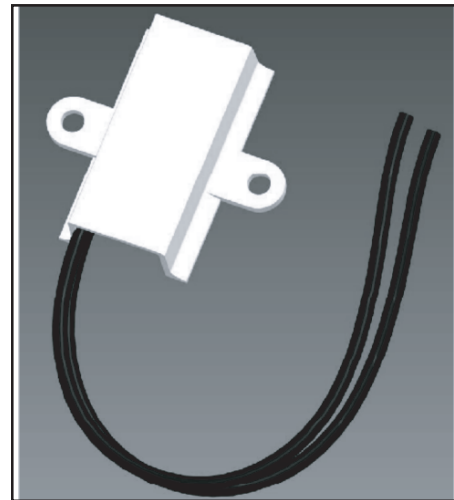
Read this entire installation instruction before beginning the installation.

#### **⚠ CAUTION**

Turn off all power to the heating and cooling equipment before attempting to connect control wiring to Comfort Control's subbase.

#### **⚠ WARNING**

This information is for use by individuals having adequate backgrounds of electrical and mechanical experience. Any attempt to repair a central air conditioning product may result in personal injury and/or property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.



### Installation- Location

Careful consideration of the following recommendations will help to insure that the outdoor sensor provides accurate readings:

1. Mount the outdoor sensor on the north facing side of the building in an area where it is exposed to freely circulating airflow and out of direct sunlight.
2. Do not allow hot air from the attic or drafts from inside exterior walls to bias the sensor's operation. Always seal the hole where sensor's wiring passes to the outside of the structure. Use non-hardening caulk, putty, or insulation.
3. Avoid locations such as near dryer vents or close to, or directly above, the outdoor unit where it would be exposed to hot discharge air from the condenser fan.
4. Install the sensor a minimum of 12 inches above normal expected snow accumulation.

### Wiring

- Maximum length of field wiring to sensor is 200 feet.
  - Minimum wire gauge is 18AWG.
1. Turn all power off to the indoor air handler or furnace.

2. Separate the control from the mounting base. Route sensor wires through the large hole in mounting base.
3. Adjust length and routing of the sensor wires to reach the proper terminals on the connector block on mounting base. Strip only 1/4-in. of insulation from each wire to prevent adjacent wires from shorting together when connected.
4. Connect the sensor's wires to the proper terminals on the connector block.
5. Push any excess wire back into the wall and **seal the hole to prevent air leaks**.

#### **Note:**

**Air leaks in the wall behind the control can cause improper operation.**

### Control setup and checkout

1. Reinstall the control on its mounting base.
2. Turn ON power to the furnace or air handler.
3. Enter the Comfort Control's Installer Setup mode and enable the Outdoor Temperature for display only or for display and control. See the control's installation/setup instructions for details.
4. After setup is complete, verify that the sensor and control are operating properly. The outdoor temperature should display with no service icon present.

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## Troubleshooting

Display shows two dashes when outdoor temperature button is pressed.	Sensor not connected properly, shorted or open wiring or sensor.
Control displays very high outdoor temperature.	Wires are touching (shorted together) or sensor is damaged.
Control displays very low temperature.	Improper wiring connection to sensor or sensor is damaged.

The sensor and the sensor field wiring can be checked by measuring the resistance at the control's subbase with the control removed. See Table 1 for proper values. **If the resistance value is within +/- 5 % of Table 1 values, the sensor is good.**

Table 1					
T deg F	RESISTANCE (OHMS X 1000) 10K THERMISTOR	T deg F	RESISTANCE (OHMS X 1000) 10K THERMISTOR	T deg F	RESISTANCE (OHMS X 1000) 10K THERMISTOR
-15	138.9	35	30.0	80	9.3
-10	117.7	40	26.1	85	8.3
-5	99.9	45	22.7	90	7.3
0	85.1	50	19.9	95	6.5
5	72.7	55	17.4	100	5.8
10	62.3	60	15.3	105	5.2
15	53.5	65	13.5	110	4.7
20	46.1	70	11.9	115	4.2
25	39.8	75	10.5	120	3.8
30	34.5				

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For more information contact  
your local dealer (distributor)

Since the manufacturer has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without notice.