Installation Instructions

The CRTEMPSN002A00 temperature sensor is used with the Economi$er IV (part numbers CRECOMZR008C00, 020A02, 021A03, 024A02, 025A02, 038A00, 039A00, 040A00, 041A00, 042A00, 046A00, 047A00, 050A00, 051A00, 052A00, 053A00, 054A00, 055A00, 056A00, 057A00, 062A00, 064A00) and is used on the following units:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>SIZE</th>
<th>UNIT</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>48HJ</td>
<td>004–028</td>
<td>542J</td>
<td>150, 180</td>
</tr>
<tr>
<td>50HJ</td>
<td>004–028</td>
<td>548F</td>
<td>036–120</td>
</tr>
<tr>
<td>50HJQ</td>
<td>004–016</td>
<td>549B</td>
<td>036–120</td>
</tr>
<tr>
<td>48PD</td>
<td>05–06</td>
<td>551A</td>
<td>155–300</td>
</tr>
<tr>
<td>50PD</td>
<td>05–06</td>
<td>551B</td>
<td>036–150</td>
</tr>
<tr>
<td>48PG</td>
<td>03–28</td>
<td>558F</td>
<td>036–300</td>
</tr>
<tr>
<td>50PG</td>
<td>03–28</td>
<td>558J</td>
<td>04–16</td>
</tr>
<tr>
<td>48PM</td>
<td>20–28</td>
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<td>180–300</td>
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<td>48TF</td>
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<td>50TFF</td>
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<tr>
<td>50TCQ</td>
<td>04–14</td>
<td>548J</td>
<td>04–14</td>
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<tr>
<td>48HC</td>
<td>04–14</td>
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<td>04–14</td>
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<td>50HQCQ</td>
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</tr>
<tr>
<td>48TM</td>
<td>004–028</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not applicable with units equipped with DDC controls options

The accessory temperature sensor can be used on all rooftop units with a factory-installed or accessory Economi$er IV.

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The accessory temperature sensor can be used on all rooftop units with a factory-installed or accessory Economi$er IV.

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<th>CONTENTS</th>
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<tr>
<td>2</td>
<td>6–20, 3/4 in. Sheet Metal Screw</td>
</tr>
<tr>
<td>1</td>
<td>Grommet</td>
</tr>
<tr>
<td>1</td>
<td>Black Wire</td>
</tr>
<tr>
<td>1</td>
<td>Red Wire</td>
</tr>
</tbody>
</table>

IMPORTANT: Read these instructions completely before attempting to install the accessory temperature sensor.
SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions of replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves. Have fire extinguishers available for all brazing operations.

Recognize safety information. This is the safety-alert symbol △. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies a hazard which could result in personal injury or death. CAUTION is used to identify unsafe practices which may result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

**WARNING**

**ELECTRICAL SHOCK HAZARD**

Failure to follow this warning could result in personal injury and/or death.

Disconnect power supply and install lockout tag before attempting to install accessory.

GENERAL

An outdoor air temperature sensor (HH57AC074) is standard and is provided with the accessory Economizer IV package. The 48/50PD, PG, PM, TC, TCQ, HC, HCQ, 558J, 580J, 548J, 581J, 551J and 549J units have a choice of dry-bulb or enthalpy sensor with the factory-installed Economizer IV. Units with factory-installed enthalpy sensor can be changed to outdoor dry bulb changeover control with a single accessory temperature sensor. Units with factory-installed enthalpy sensor can be changed to differential dry bulb control with two accessory temperature sensors. All other units come with the dry-bulb sensor as standard with the factory-installed Economizer IV. The sensor is used for outdoor temperature control. (See Table 1.) The accessory CRTEMPSN002A00 temperature sensor is required for differential dry bulb control.

Outdoor Dry Bulb Changeover Control

For this control mode, the outdoor temperature is compared to an adjustable set point selected on the control. If the outdoor-air temperature is above the set point, the Economizer IV will adjust the outdoor-air dampers to minimum position. If the outdoor-air temperature is below the set point, the position of the outdoor-air dampers will be controlled to provide free cooling using outdoor air.

Differential Dry Bulb Control

For differential dry bulb control, the standard outdoor dry bulb sensor is used in conjunction with an additional accessory return air sensor (part number CRTEMPSN002A00). In this mode of operation, the outdoor-air temperature is compared to the return-air temperature and the lower temperature airstream is used for cooling.
NOTE: The 48/50PD, PG, PM, TC, TCQ, HC, HCO, 558J, 580J, 581J, 581J, 558J, and 549J units have a choice of dry-bulb or enthalpy sensor with the factory-installed Economizer IV. All other units come with the dry-bulb sensor as standard with the factory-installed Economizer IV.

### Table 1 – Economizer IV Sensor Usage

<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>Economizer IV WITH OUTDOOR AIR DRY BULB SENSOR</th>
<th>Accessories Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor Air Dry Bulb</td>
<td>None. The outdoor air dry bulb sensor is factory installed.</td>
<td></td>
</tr>
<tr>
<td>Differential Dry Bulb</td>
<td>CRTEMPSN002A00* (C7650/C7660)</td>
<td></td>
</tr>
<tr>
<td>Single Enthalpy</td>
<td>HH57AC078</td>
<td></td>
</tr>
<tr>
<td>Differential Enthalpy</td>
<td>HH57AC078 and CRENTEF004A00*</td>
<td></td>
</tr>
<tr>
<td>CO₂ for DCV Control using a Wall-Mounted CO₂ Sensor</td>
<td>33ZCSENCO2 or CGCDXSEN004A00†</td>
<td></td>
</tr>
<tr>
<td>CO₂ for DCV Control using a Duct-Mounted CO₂ Sensor</td>
<td>33ZCSENCO2 or CGCDXSEN004A00† and 33ZCASP02 or CGCDXAS001A00**</td>
<td>OR</td>
</tr>
</tbody>
</table>

* CRENTDIF004A00 and CRTEMPSN002A00 accessories are used on many different base units. As such, these kits may contain parts that will not be needed for installation.
† 33ZCSENCO2 and CGCDXSEN004A00 are accessory CO₂ sensors.
** 33ZCASP02 and CGCDXAS001A00 are accessory aspirator boxes required for duct-mounted applications.
†† CRCBDIOX005A00 is an accessory that contains both 33ZCSENCO2 and 33ZCASP02 accessories.

Single Outdoor Air Temperature Sensor Installation for 48/50PD05-06 and 48/50PG03-16 Units Non-ComfortLink™ Controlled

If installing the temperature sensor on an accessory Economiser IV, it is easier to install the temperature sensor before installing the Economiser IV. If installing the sensor on a factory-installed Economiser IV, it is easier to install the temperature sensor before installing the Economiser IV hoods.

NOTE: For horizontal applications, it is easiest to install the temperature sensor before making duct connections.

1. Turn off power to unit and install Lockout Tag.
2. Remove the screws securing the Economiser IV hood to the unit. Save the screws for use in Step 7. On units with a factory-installed Economiser IV, the panel will be hinged and should not be removed from the unit. Open the hinged panel and secure it.
3. If there is a pre-existing single enthalpy sensor, remove the enthalpy sensor. Disconnect the pink and yellow wires from the enthalpy sensor and let them hang. The wires will be used to connect to the temperature sensor. Remove the enthalpy sensor and save the screws for use in Step 4.
4. Mount the temperature sensor to the top (outdoor air side) of the Economiser IV frame as shown in Fig. 1 and 2, using the two sheet metal screws (no. 8) from Step 3. There are two screw holes in the Economiser IV frame for ease of installation.
5. Locate the pink and yellow wires coming from the Economiser IV controller terminals “SO+” (pink) and “SO” (yellow). (See Fig. 4.) Connect the wires to the temperature sensor. Connect the yellow wire to the “−” terminal and the pink wire to the “+” terminal on the temperature sensor. (See Fig. 6.)
6. If the accessory differential temperature sensor is also being installed, skip to the Differential Temperature Sensor installation instructions on page 8.
7. Replace (or close if hinged panel) the Economiser IV panel. Secure the panel using the screws saved from Step 2.
8. Restore power to the unit and configure the Economiser IV controller. See the Configuration section.
Single Outdoor Air Temperature Sensor Installation for 48/50HJ020-028, 48/50PG, PM20-28 and 551A/581210-300 Units

1. Turn off power to unit and install Lockout Tag.
2. Remove the damper motor access panel at the back of the unit. (See Fig. 3.) Save the screws for use in Step 7.
3. If there is a pre-existing single enthalpy sensor, remove the enthalpy sensor. Disconnect the pink and yellow wires from the enthalpy sensor and let them hang. The wires will be used to connect to the temperature sensor. Remove the enthalpy sensor and save the screws for use in Step 7.
4. Mount the temperature sensor in the predrilled holes on the Economiser IV frame (where the enthalpy sensor was removed in Step 3). (See Fig. 7.) Use the screws removed in Step 3.
5. Locate the pink and yellow wires coming from the Economiser IV controller terminals “SO+” (pink) and “SO” (yellow). (See Fig. 4.) Connect the wires to the temperature sensor. Connect the yellow wire to the “-” terminal and the pink wire to the “+” terminal on the temperature sensor. (See Fig. 6.)

Fig. 3 - Back View — Damper Motor Access Panel Location

4. If the accessory differential temperature sensor is also being installed, skip to the Differential Temperature Sensor installation instructions on page 9.
7. Replace the damper motor access panel. Secure the panel using the screws saved from Step 2.
8. Restore power to the unit and configure the Economiser IV controller. See the Configuration section.
Single Outdoor Air Temperature Sensor Installation for 48/50TC04-16, 50TCQ04-14, 48/50HC04-14, 50HCQ04-12, 48/50HE, TF, TM003-014, 48/50HJ004-014, 50HJQ004-012, 50TFQ004-012, 558J/580J04-16, 548J04-14, 581/551J04-14, 549J04-12, 548F/549B,C036-120, 551B,C/558F/580F/581B,C024-150 Units

NOTE: This section assumes you are starting with an Economi$er IV installed in the rooftop and equipped with a single enthalpy sensor (p/n HH57AC078). If your Economi$er is already equipped with a dry bulb temperature sensor (p/n HH57AC074), STOP. You do not need to continue with this section.

1. Turn off power to the unit and install Lockout Tag.
2. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels —
      Remove the Economi$er hood from the base unit and save the screws for Step 9a.
   b. Units with factory-installed hinged panels —
      Open the hinged panel and secure it. Since the panel is hinged, do not remove it from the unit.
3. Disconnect the black and red wires from the pre-existing single enthalpy sensor (p/n HH57AC078) and let them hang. Remove the single enthalpy sensor and save the screws (no. 8) for use in Step 4. The wires will be used later to connect to the enthalpy sensor.
4. Use the two sheet metal screws (no. 8) from Step 3 to mount the enthalpy sensor on the front left of the Economi$er frame, as shown in Fig. 5. Use the two screw holes in the Economi$er frame.

Fig. 5 - Economi$er IV Component Locations — 48/50TC04-16, 50TCQ04-14, 48/50HC04-14, 50HCQ04-12, 48/50HE, TF, TM003-014, 48/50HJ004-014, 50HJQ004-012, 50TFQ004-012, 558J/580J04-16, 548J04-14, 581/551J04-14, 549J04-12, 548F/549B,C036-120, 551B,C/558F/580F/581B,C024-150 Units

Fig 5A – 48/50TC17-28 and 558J/580J15-28 Size Units and Location of Sensor
5. Ensure the black and red wires are connected on the Economi$er IV controller correctly. The red wire should be connected to the “SO” terminal and the black wire to the “SO+” terminal. If they are not connected this way, make the connections as described. The CRTEMP$N002A00 kit contains an extra red and black wire.

6. Pick up the black and red wires left hanging in Step 3 and connect them to the temperature sensor. Connect the red wire to the sensor’s “-” terminal and the black wire to the sensor’s “+” terminal. See Fig. 6 for details.

7. If installation of another dry bulb temperature sensor (for differential dry bulb temperature control) is also planned, skip to Step 3 of the Differential Temperature Sensor installation instructions on page 10.

8. Restore power to the unit and configure the Economi$er IV controller per the Configuration section of this manual.

9. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels —
      Re-install the Economi$er hood. Secure the hood using the screws saved from Step 2a.
   b. Units with factory-installed hinged panels —
      Close the hinged panel and latch it.

Fig. 6 - Temperature Sensor Specifications

NOTE: This section assumes you are starting with an Economi$er IV installed in the rooftop and equipped with a single enthalpy sensor (p/n HH57AC078). If your Economi$er is already equipped with a dry bulb temperature sensor (p/n HH57AC074), STOP. You do not need to continue with this section.

1. Turn off power to unit and install Lockout Tag.
2. Remove the Economi$er hood from the base unit and save the screws for Step 9.
3. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels —
      Access the Economi$er by removing the return–air filter access panel. Save the screws for Step 11a.
   b. Units with factory-installed hinged panels —
      Access the Economi$er IV controller by opening the hinged return–air filter access panel and securing it. Since the panel is hinged, do not remove it from the unit.

4. Disconnect the black and red wires from the pre-existing temperature sensor (p/n HH57AC074) and let them hang. Remove the air temperature sensor and save the screws (no. 8) for use in Step 5. The wires will be used later to connect to the enthalpy sensor.

5. Mount the enthalpy sensor to the front right of the Economi$er frame, as shown in Fig. 7. Use the two sheet metal screws (no. 8) from Step 4 and screw into the holes in the Economi$er frame.

6. Ensure the black and red wires are connected on the Economi$er IV controller correctly. The red wire should be connected to the “SO” terminal and the black wire to the “SO+” terminal. If they are not connected this way, make the connections as described. If you are using CREN$TDIF004A00, the kit contains an extra red and black wire.

7. Pick up the the black and red wires left hanging from Step 4 and connect them to the enthalpy sensor. Connect the red wire to the sensor’s “-” terminal and the black wire to the sensor’s “+” terminal. See Fig. 6 for details.
8. If installation of the accessory differential enthalpy sensor is also planned, skip to Step 3 of the Differential Enthalpy Sensor installations instructions on page 11.

9. Re-install the EconomySer hood using the screws from Step 2.

10. Restore power to the unit and configure the EconomySer IV controller per the Configuration section of this manual.

11. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels — Re-install the return-air filter access panel using the screws from Step 3a.
   b. Units with factory-installed hinged panels — Close the hinged panel and latch it.

Differential Temperature Sensor Installation for 48/50PD05-06 and 48/50PG03-16 Units

1. Turn off power to unit an install Lockout Tag.
2. Remove the EconomySer IV hood from the base unit and save the screws for use in Step 9. On units with a factory-installed EconomySer IV, the panel is hinged and should not be removed from the unit. Open the hinged panel and secure it.
3. Remove the plug button in the EconomySer IV deck and install the grommet supplied with the kit into the hole. (See Fig. 2.)
4. If there is a pre-existing differential enthalpy sensor, remove the sensor. To remove the sensor, disconnect the blue and orange wires from the differential enthalpy sensor and let them hang. They are used later to connect the differential temperature sensor.
5. Locate screw holes in the EconomySer IV deck partition. Mount the differential temperature sensor onto the backside of the deck, directly behind the single temperature sensor (already installed) as shown in Fig. 1 and 2. Use the screws provided.
6. Remove the 620-ohm resistor that connects “SR+” and “SR” on the EconomySer IV controller.
7. Route the control wires from the EconomySer IV controller to the differential temperature sensor. Connect the blue and orange wires to the EconomySer IV control board terminals labeled “SR+” (blue) and “SR” (orange). (See Fig. 4.) Route the wires through the grommet installed in Step 3. The grommet seals this hole air-tight while allowing the wires to pass through.
8. Connect the blue and orange wires to the differential temperature sensor. Connect the blue wire to the “+” terminal and the orange wire to the “−” terminal on the temperature sensor. (See Fig. 6.)
9. Reinstall the EconomySer IV hood and inlet screens using the screws saved from Step 2.
10. Restore power to the unit and configure the EconomySer IV controller. See the Configuration section.

If installing the differential temperature sensor on an accessory EconomySer IV, it is easier to install the differential temperature sensor before installing the EconomySer IV. If installing the sensor on a factory-installed EconomySer IV, it is easier to install the differential temperature sensor before installing the EconomySer IV hoods.

A single temperature sensor (CRTEMPN002A00) must be installed in addition to the differential temperature sensor (CRTEMPN002A00) to achieve differential temperature EconomySer IV control.

For horizontal applications, it is easiest to install the temperature sensor before making duct connections.
Differential Temperature Sensor Installation
for 48/50PG20-28, 48/50PM20-28,
48/50HJ020-028, and 551A/581A210-300
Units

1. Turn off power to unit and install Lockout Tag.
2. Remove the damper motor access panel at the back of the unit. (See Fig. 3.) Save the screws for later use.
3. Drill a 7/8 in. hole in the Economiser block-off panel, as shown in Fig. 9. Install the supplied grommet into the hole.
4. If there is a pre-existing differential enthalpy sensor, remove the sensor. To remove the sensor, disconnect the blue and orange wires from the differential enthalpy sensor and let them hang. They are used later to connect the differential temperature sensor.

5. Locate holes on the back (return air) side of the Economiser IV frame and mount the differential temperature sensor on the frame. Use the screws provided.

6. Remove the 620-ohm resistor that connects “SR+” and “SR” on the Economiser IV controller.
7. Route the control wires from the Economiser IV controller to the differential temperature sensor. Connect the blue and orange wires to the Economiser IV control board terminals labeled “SR+” (blue) and “SR” (orange). (See Fig. 4.) Route the wires through the grommet installed in Step 3. The grommet seals this hole air-tight while allowing the wires to pass through.
8. Connect the blue and orange wires to the differential temperature sensor. Connect the blue wire to the “+” terminal and the orange wire to the “-” terminal on the temperature sensor. (See Fig. 6.)
9. Replace the damper motor access panel. Secure panel with the screws saved from Step 2.
10. Restore power to the unit and configure the Economiser IV controller. See the Configuration section.
**Differential Temperature Sensor Installation**

for 48/50TC04-16, 50TCQ04-14, 48/50HC04-14, 50HCQ04-12, 48/50TF,TM004-014, 50HJQ004-012, 50TFQ004-012, 558J/580J04-16, 548J04-14, 581/551J04-14, 549J04-12, 548F/549B036-120, 551B/558F/580F/581B036-150 Units

**NOTE:** This section assumes you are starting with an Economiser IV installed in the rooftop and equipped with dry bulb temperature sensor (p/n HH57AC074) installed, regardless of whether the Economiser was purchased that way, or you have completed the installation of an accessory sensor. If you do not already have a dry bulb temperature sensor installed, first install the sensor as described earlier in this instruction.

1. Turn off power to unit and install Lockout Tag.
2. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels — Remove the Economiser hood from the base unit and save the screws for Step 9a.
   b. Units with factory-installed hinged panels — Open the hinged panel and secure it. Since the panel is hinged, do not remove it from the unit.
3. Using the screws provided in the CRTEMPSN002A00 kit, mount the differential enthalpy sensor in the return air duct as shown in Fig. 10.
4. Remove the 620-ohm resistor connected to the “SR+” and the “SR” terminals on the Economiser IV controller.
5. Route the red and black wires (provided in the CRTEMPSN002A00 kit) between the Economiser IV controller and the installed location of the differential temperature sensor.
6. Connect the red wire to the “S” terminal and the black wire to the “+” terminal on the sensor. (See Fig. 6.)
7. Connect the red wire to the “SR” terminal and the black wire to the “SR+” terminal on the Economiser IV controller. (See Fig. 4.)
8. Restore power to the unit and configure the Economiser IV controller per the configuration section of this manual.
9. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels — Re-install the Economiser hood. Secure the hood using the screws saved from Step 2a.
   b. Units with factory-installed hinged panels — Close the hinged panel and latch it.

NOTE: This section assumes you are starting with an Economiser IV installed in the rooftop, and equipped with a single dry-bulb temperature sensor (p/n HH57AC074) installed. If you do not already have a single dry-bulb temperature sensor installed, do so as described earlier in this instruction.

1. Turn off power to unit and install Lockout Tag.
2. Remove the Economiser hood from the base unit and save the screws for Step 9.
3. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels —
      Provide access to the Economiser by removing the return-air filter access panel. Save the screws for Step 11a.
   b. Units with factory-installed hinged panels —
      Provide access to the Economiser IV controller by opening the hinged return-air filter access panel and securing it. Since the panel is hinged, do not remove it from the unit.
4. Using the screws provided in the CRTEMPSN002A00 kit, mount the differential dry-bulb temperature sensor (p/n HH57AC074) to the Economiser IV frame. (See Fig. 11.)
5. Route the black and red control wires, provided in the CRTEMPSN002A00 kit, from the Economiser IV controller to the installed location of the differential dry-bulb sensor.
6. Remove the 620-ohm resistor connected to the “SR+” and the “SR” terminals on the Economiser IV controller.
7. Connect the red wire to the “SR” terminal and the black wire to the “SR+” terminal on the Economiser IV controller. (See Fig. 4.)
8. Connect the red wire to the sensor’s “S” terminal and the black wire to the sensor’s “+” terminal. (See Fig. 6.)
9. Re-install the Economiser hood, using the screws from Step 1.
10. Restore power to the unit and configure the Economiser IV controller per the Configuration section of this manual.
11. Depending on the type of panels the unit is equipped with:
   a. Units with standard panels —
      Re-install the return-air filter access panel, using the screws from Step 3a.
   b. Units with factory-installed hinged panels —
      Close the hinged panel and latch it.
C7660 Outdoor Air Sensors

These installation instructions center around the C7650 Honeywell OA sensor. Some kits may contain this older sensor version. The newer OA Sensor version is the Honeywell C7660 sensor and can be differentiated from the C7650 by the “dip switches” on the face of the control. This control is completely backwards compatible and interchangeable with the C7650.

C7650 Set Up

See Fig. 6.

Once the sensor has been installed and wired in the unit, the technician will set the Economizer IV using the “FREE COOLING/ENTHALPY CHANGEOVER SETPOINT” (Fig. 12) to the appropriate Outdoor Air changeover temperature via the A-B-C-D setting shown in Fig. 13.

C7660 Set Up

See Fig. 14.

When outdoor air temperature is below the changeover setpoint, the sensor will provide a 20 mA signal to the economizer which translates to OK to economize positioning the damper open on a call for cooling. When the outdoor air is above the changeover setpoint, the sensor provides a 4 mA signal to the economizer which translates to not OK to economize and the outdoor damper drives to minimum position.

The C7660 temperature sensors replace the control function of the temperature changeover in the economizer control.

The A-B-C-D potentiometer on the economizer does not control the changeover point when a C7660 sensor is used in place of an enthalpy sensor. For single dry bulb and differential enthalpy set the potentiometer to D.

The factory default switch setting is 63°F. The changeover temperature can be field set by changing the positions of the switches using Fig. 15.
CONFIGURATION

Outdoor Dry Bulb Changeover
For this control mode, the outdoor temperature is compared to an adjustable set point selected on the control. If the outdoor-air temperature is above the set point, the Economizer IV will adjust the outdoor-air dampers to minimum position. If the outdoor-air temperature is below the set point, the position of the outdoor-air dampers will be controlled to provide free cooling using outdoor air. When in this mode, the LED next to the free cooling set point potentiometer will be on.

Outdoor Air Sensor
The HHxxxxxx has three dip switches that are used to set the change over temperature to meet the application. The factory default setting is 63°F. There are two changeover strategies available: exclusive operation where you can have either mechanical cooling or economizer but not both simultaneously (Single Stage Thermostat) or integrated operation, where the economizer and mechanical cooling can operate simultaneously, requires the use of a two stage thermostat.

Fig. 15 lists the changeover switch set points. With the power off, set the switches to the appropriate temperature required for application.

Set the Free Cooling/Enthalpy Changeover Set Point potentiometer to “D” located on the face of the economizer control.

Differential Dry Bulb Control
In this mode of operation, the outdoor-air temperature is compared to the return-air temperature and the lower temperature airstream is used for cooling. When using this mode of changeover control, turn the free cooling/enthalpy changeover set point potentiometer fully clockwise to the D setting.