Installing Instructions for NTC Bypass Controller Kit (11W31; 100809-01)
Used with L Connection® Network

Shipping and Packing List

Package 1 of 1 contains:
- 1 - NTC Bypass Controller
- 1 - Wiring diagram

NOTE - A static pressure transducer is required for proper operation and must be ordered separately.

Check controller for shipping damage. Receiving party should contact last carrier immediately if shipping damage is found.

These instructions are intended as a general guide and do not supersede local codes in any way. Authorities having jurisdiction should be consulted before installation.

Application

The NTC Bypass Controller is used in bypass damper changeover zoning applications. The Bypass Controller is used on units controlled by a Network Thermostat Control (NTC). The Bypass Controller modulates bypass dampers based on readings from a supply duct static pressure sensor (ordered/shipped separately).

The bypass damper will modulate open as the duct static increases.

⚠️ WARNING

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

⚠️ CAUTION

Danger of sharp metallic edges. Can cause injury. Take care when servicing unit to avoid accidental contact with sharp edges.

Bypass Controller Setup

1. Locate the bypass controller DIP switches (figure 1) and set as shown in figure 2.
2. Locate the bypass controller jumpers (figure 1) and install as shown in figure 3.
**Installation**

1. Install the Bypass Controller in the unit or on the side of the supply duct two-thirds of the way down the longest duct (near the pressure sensor). See figure 4.

![Figure 4. NTC Bypass Controller (A153)](image)

2. Install the static pressure sensor (A30) on the side of the supply duct two-thirds of the way down the longest duct (see figure 5). Secure with two #8 self-tapping screws.

![Figure 5. Install Static Pressure Sensor (A30)](image)

**Wiring**

1. Connect wiring as shown in figures 6 and 7.
2. Affix wiring diagram to inside unit panel near other diagrams.

![Figure 6. Wiring](image)
Figure 7. T-Class/3rd Party Unit Low Voltage Wiring for CAV Bypass Zoning
Static Pressure Sensor Setup

Remove cover from pressure sensor and remove the 0-10Vdc jumper and set the output range as shown figure 8.

Figure 8. Pressure Sensor Jumper Settings
Use the following steps to adjust the range:
1. Apply power to unit.
2. Set Zone Link SW1 MAX DMP DIP switch on to open all zone dampers and bring on the unit blower. See figure 9.

Figure 9. Zone Link SW1 DIP Switch
3. Connect a voltmeter (use DC volt setting) between the "0" and "-" terminals of the pressure transducer (see figure 10).

4. Make sure Bypass Controller knob is set to 100%.

Figure 10. Connect Voltmeter
5. Measure pressure transducer Vdc output. If less than 2.50 Vdc, select next lower static pressure range (move jumper to 0-2.5" w.c., figure 8).
6. Measure pressure transducer Vdc output with new range selected.
7. If 2.5 Vdc or greater, find percentage in table 1. This will be the bypass controller setpoint.

Table 1. Pressure Transducer Outputs

<table>
<thead>
<tr>
<th>Vdc Output (%)</th>
<th>Output Voltage</th>
<th>Static Pressure Range Setting (in. w.c.)</th>
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<tbody>
<tr>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
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<td>5.00</td>
<td>2.50</td>
</tr>
</tbody>
</table>

Example: If the pressure transducer voltage output is 3.5 Vdc, then the corresponding percentage is 70%; rotate knob to 70%. If fine tuning is required, use the following procedure:
- rotate knob slightly clockwise (higher setting) to maintain a higher operating static pressure control point.
- rotate knob counter-clockwise (lower setting) to maintain a lower operating static pressure control point.