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

IMPORTANT — This Document is customer property and is to remain with this unit.

These instructions do not cover all variations in systems or provide for every possible contingency to be met in connection with the installation. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser’s purposes, the matter should be referred to your installing dealer or local distributor.

Section 1. Safety

**WARNING**

This information is intended for use by individuals possessing 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.

**WARNING**

LIVE ELECTRICAL COMPONENTS!
During installation, testing, servicing, and troubleshooting of this product, it may be necessary to work with live electrical components. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Table of Contents

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Section 2. General Information ......................2
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Section 6. LED Indicators .................................11
Section 7. Troubleshooting ..........................12

Installation Guide

Other Installation Guides may be necessary, based on system configuration. A list of other system components is shown below.

| 1 | Control (required) *ZONE950AC52ZA |
| 2 | Relay Panel                      |
| 3 | Zone Panel (optional)            |
| 4 | Zone Sensor with Display (optional) |
| 5 | Zone Sensor (optional)            |
| 6 | Zone Dampers (optional)           |

* A or T
Section 2. General Information

2.1 Overview

The Relay Panel is a wall mounted low voltage panel that enables the communicating *ZONE950 control to operate with 24 VAC HVAC equipment. Only three wires are required from the control to the Relay Panel.

This Relay Panel controls the operation of heating, cooling, heat pump and dual fuel systems.

For specific wiring applications, see Field Wiring Diagrams.

*A or T

2.2 Contents in Box

The following parts are included in product model BAY24VRPAC52DB:

1 - Relay Panel cover
1 - Relay Panel base
4 - Mounting screws/anchors
4 - Wire ties
1 - Installation Guide

2.3 Optional Accessories

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZZSENSAL0400AA</td>
<td>Indoor Temperature Sensor</td>
</tr>
<tr>
<td>BAYSEN01ATEMPA</td>
<td>Outdoor Temperature Sensor</td>
</tr>
</tbody>
</table>

2.4 Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Model:</td>
<td>BAY24VRPAC52DB</td>
</tr>
<tr>
<td>Product:</td>
<td>Relay Panel for use with 24V indoor systems</td>
</tr>
<tr>
<td>Size:</td>
<td>8.0” width x 9.3” height x 1.9” depth</td>
</tr>
<tr>
<td>Storage Temperature:</td>
<td>-40° to 175°F, 5% - 95% RH non-condensing</td>
</tr>
<tr>
<td>Operating Temperature:</td>
<td>-40° to 150°F, 5% - 95% RH non-condensing</td>
</tr>
<tr>
<td>Input Power:</td>
<td>24 VAC from HVAC System (Range: 18-32 VAC)</td>
</tr>
<tr>
<td>Power Consumption:</td>
<td>4VA* (See the following table for system transformer sizing guidelines.)</td>
</tr>
<tr>
<td>Wire usage:</td>
<td>Minimum 18 gauge NEC approved control wiring</td>
</tr>
<tr>
<td>HVAC System Type Compatible:</td>
<td>Standard (gas/electric), Heat Pump, Dual Fuel</td>
</tr>
<tr>
<td>Multistage System Compatible:</td>
<td>Standard HVAC Systems: 3-stage heating, 2-stage cooling</td>
</tr>
<tr>
<td></td>
<td>Heat Pump Systems: 5-stage heating (2-compressor, 3 aux heat), 2-stage cooling</td>
</tr>
<tr>
<td>LEDs:</td>
<td>11 green, 1 amber</td>
</tr>
<tr>
<td>Communications:</td>
<td>12 VDC</td>
</tr>
<tr>
<td>AUX Contacts:</td>
<td>18–30 VAC, 2A max</td>
</tr>
</tbody>
</table>
Section 3. Installation

Unit Location Considerations

The unit’s rugged design allows installation in closet, attic or other non-condensing locations free from obstructions or other hazards.

1 Remove Cover

Remove cover by grasping at edges and gently pulling the cover straight towards you. It should release without much effort.

2 Mark Mounting Location

Mark four holes on the wall using the base as a template. A level may be used to ensure accuracy.
3 Mount Panel

**DRILL HOLES**

1/8” for screws into studs

3/16” for drywall anchors

**Mounting to studs:** Drill 1/8” pilot holes in the four locations marked above.

**Mounting to drywall:**
If mounting to drywall with no studs behind it, enlarge pilot holes to 3/16” for anchors (included with the relay panel).

Gently tap anchors into the holes.

Attach base to wall using four screws provided. Do not overtighten.

4 General Wiring Information

**WARNING**

LIVE ELECTRICAL COMPONENTS!
During installation, testing, servicing, and troubleshooting of this product, it may be necessary to work with live electrical components. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Wires may enter the Relay Panel through openings on each corner and at the center of each side.

Necessary wire lengths should be considered when determining entry points.

**CAUTION**

CAUTION: EQUIPMENT DAMAGE HAZARD - Improper wiring can lead to equipment damage. Follow the terminal connection information carefully to ensure the control is wired properly. After wires are secure, bare wires MUST NOT touch each other. See the Field Wiring Diagrams for specific system applications.

Wires may enter at any of 8 locations
5 Routing Wires

Run wires within the recessed wire “raceway”. Be sure there is ample length to reach the connectors.

6 Attaching Wires

Using 1/8" blade screwdriver, attach all wires securely to the proper terminals on the Relay Panel.

Refer to the following section for detailed terminal information.

(See the Field Wiring Diagrams section for common system configurations.)

7 Securing Wires

Secure all wires with the supplied wire ties to ensure that wires are kept in place and not strained.
Section 4. Terminal Locations and Identification

Refer to the following diagrams for descriptions of each terminal.

<table>
<thead>
<tr>
<th>KEY</th>
<th>Terminal Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Dual Fuel Switch</td>
</tr>
<tr>
<td>B</td>
<td>Thermostat + 24VAC Input</td>
</tr>
<tr>
<td>C</td>
<td>Optional Sensors</td>
</tr>
<tr>
<td>D</td>
<td>HVAC System</td>
</tr>
</tbody>
</table>

This switch ships in the NORM position by default. Refer to the following section for complete Field Wiring Diagrams.
For convenience, you may record the color of each wire used in the blanks provided.

### B Thermostat and Indoor Unit Connections

<table>
<thead>
<tr>
<th>Terminal Name</th>
<th>Description</th>
<th>Color Used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Data</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>24 V hot</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>24 V common</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** R & B must receive 24 volts from the indoor unit transformer.

### C Optional Remote Sensor Connections

<table>
<thead>
<tr>
<th>Terminal Name</th>
<th>Description</th>
<th>Color Used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Indoor RS</td>
<td>Remote Indoor temp sensor ZZSENSAL0400AA</td>
<td></td>
</tr>
<tr>
<td>Remote Indoor RS</td>
<td>ZZSENSAL0400AA</td>
<td></td>
</tr>
<tr>
<td>Outdoor ODT</td>
<td>Outdoor temp sensor BAYSEN01ATEMPA</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The Relay Panel uses 5 VDC to obtain temperature feedback from remote sensors. Do not run these sensors in a wiring bundle that contains 24 volts AC. See remote sensor literature for troubleshooting.

① Wired outdoor temperature sensor must be enabled at the 950 Control.

### D HVAC System Connections

<table>
<thead>
<tr>
<th>Terminal Name</th>
<th>Description</th>
<th>Color Used:</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>Switch Over Valve</td>
<td></td>
</tr>
<tr>
<td>Y1</td>
<td>First Stage Compressor</td>
<td></td>
</tr>
<tr>
<td>Y2</td>
<td>Second Stage Compressor</td>
<td></td>
</tr>
<tr>
<td>W1</td>
<td>First Stage ID Heating</td>
<td></td>
</tr>
<tr>
<td>W2</td>
<td>Second Stage ID Heating</td>
<td></td>
</tr>
<tr>
<td>W3</td>
<td>Third Stage ID Heating</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Indoor Blower</td>
<td></td>
</tr>
<tr>
<td>BK</td>
<td>PWM Signal for indoor blower modulation</td>
<td></td>
</tr>
<tr>
<td>Hum*</td>
<td>Humidifier Contact</td>
<td></td>
</tr>
<tr>
<td>Hum*</td>
<td>Humidifier Contact</td>
<td></td>
</tr>
<tr>
<td>Aux 1*</td>
<td>Dehumidifier/Ventilation</td>
<td></td>
</tr>
<tr>
<td>Aux 1*</td>
<td>Dehumidifier/Ventilation</td>
<td></td>
</tr>
<tr>
<td>Aux 2*</td>
<td>Dehumidifier/Ventilation</td>
<td></td>
</tr>
<tr>
<td>Aux 2*</td>
<td>Dehumidifier/Ventilation</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Hum & Aux terminals are dry contacts only. Input voltage will need to be supplied. Refer to humidifier’s installer’s guide. AUX 1 and AUX 2 contact control requires a 950 control with software version 2.1 or later.
Section 5. Field Wiring Diagrams

**DUAL FUEL**

**DUAL FUEL VARIABLE SPEED GAS FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**TWO STAGE VARIABLE SPEED GAS FURNACE**

**ONE OR TWO STAGE HEAT PUMP**

- **COOL/HEAT**
- **2nd STAGE**
- **24VAC HOT**
- **R**
- **W1**
- **W2**
- **W3**
- **Y1**
- **Y2**
- **Y3**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

- **HEATING**
- **4th STAGE**
- **HEATING**
- **3rd STAGE**
- **COOL/HEAT**
- **1st STAGE**
- **FAN**
- **SOV**
- **24VAC common**
- **OIL BURNER PRIMARY**

**NOTE:**
- Enable “BK” (turn on dehumidifier switch or cut “BK” jumper).
- Dual fuel switch on Relay Panel must be set to DUAL.
- Blower delay profiles must be turned off. See indoor unit service facts for details.

**DUAL FUEL NON-VARIABLE SPEED GAS FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**NON-V.S. ONE OR TWO STAGE GAS FURNACE**

**SINGLE STAGE HEAT PUMP**

- **COOL/HEAT**
- **1st STAGE**
- **HEATING**
- **2nd STAGE**
- **HEATING**
- **3rd STAGE**
- **HEATING**
- **4th STAGE**
- **W2**
- **O**
- **W3**
- **Y1**
- **Y2**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

**NOTE:**
- Dual fuel switch on Relay Panel must be set to DUAL.

**DUAL FUEL WITH VARIABLE SPEED OIL FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**VARIABLE SPEED OIL FURNACE**

**ONE OR TWO STAGE HEAT PUMP**

- **COOL/HEAT**
- **2nd STAGE**
- **24VAC HOT**
- **R**
- **W1**
- **W2**
- **W3**
- **Y1**
- **Y2**
- **Y3**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

- **HEATING**
- **4th STAGE**
- **HEATING**
- **3rd STAGE**
- **COOL/HEAT**
- **1st STAGE**
- **FAN**
- **SOV**
- **24VAC common**
- **OIL BURNER PRIMARY**

**NOTE:**
- Remove the “R” to “BK” jumper at the low voltage control board.
- Cut the factory installed “R” to “O” jumper at the LVTB.
- Blower delay profiles must be turned off. See indoor unit service facts for details.
- Dual fuel switch on Relay Panel must be set to DUAL.

**DUAL FUEL WITH NON-VARIABLE SPEED OIL FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**NON-VARIABLE SPEED OIL FURNACE**

**SINGLE STAGE HEAT PUMP**

- **COOL/HEAT**
- **1st STAGE**
- **HEATING**
- **2nd STAGE**
- **HEATING**
- **3rd STAGE**
- **HEATING**
- **4th STAGE**
- **W2**
- **O**
- **W3**
- **Y1**
- **Y2**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

**NOTE:**
- Dual fuel switch on Relay Panel must be set to DUAL.
- BT (Bonnet Thermostat) model THT1248 (BAYSEN03ATEMPAA) required for dual fuel, oil furnace applications.

---

**Section 5. Field Wiring Diagrams**

**DUAL FUEL**

**DUAL FUEL VARIABLE SPEED GAS FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**TWO STAGE VARIABLE SPEED GAS FURNACE**

**ONE OR TWO STAGE HEAT PUMP**

- **COOL/HEAT**
- **2nd STAGE**
- **24VAC HOT**
- **R**
- **W1**
- **W2**
- **W3**
- **Y1**
- **Y2**
- **Y3**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

- **HEATING**
- **4th STAGE**
- **HEATING**
- **3rd STAGE**
- **COOL/HEAT**
- **1st STAGE**
- **FAN**
- **SOV**
- **24VAC common**
- **OIL BURNER PRIMARY**

**NOTE:**
- Enable “BK” (turn on dehumidifier switch or cut “BK” jumper).
- Dual fuel switch on Relay Panel must be set to DUAL.
- Blower delay profiles must be turned off. See indoor unit service facts for details.

**DUAL FUEL NON-VARIABLE SPEED GAS FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**NON-V.S. ONE OR TWO STAGE GAS FURNACE**

**SINGLE STAGE HEAT PUMP**

- **COOL/HEAT**
- **1st STAGE**
- **HEATING**
- **2nd STAGE**
- **HEATING**
- **3rd STAGE**
- **HEATING**
- **4th STAGE**
- **W2**
- **O**
- **W3**
- **Y1**
- **Y2**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

**NOTE:**
- Dual fuel switch on Relay Panel must be set to DUAL.

**DUAL FUEL WITH VARIABLE SPEED OIL FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**VARIABLE SPEED OIL FURNACE**

**ONE OR TWO STAGE HEAT PUMP**

- **COOL/HEAT**
- **2nd STAGE**
- **24VAC HOT**
- **R**
- **W1**
- **W2**
- **W3**
- **Y1**
- **Y2**
- **Y3**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

- **HEATING**
- **4th STAGE**
- **HEATING**
- **3rd STAGE**
- **COOL/HEAT**
- **1st STAGE**
- **FAN**
- **SOV**
- **24VAC common**
- **OIL BURNER PRIMARY**

**NOTE:**
- Remove the “R” to “BK” jumper at the low voltage control board.
- Cut the factory installed “R” to “O” jumper at the LVTB.
- Blower delay profiles must be turned off. See indoor unit service facts for details.
- Dual fuel switch on Relay Panel must be set to DUAL.

**DUAL FUEL WITH NON-VARIABLE SPEED OIL FURNACE**

**THERMOSTAT**

**RELAY PANEL**

**NON-VARIABLE SPEED OIL FURNACE**

**SINGLE STAGE HEAT PUMP**

- **COOL/HEAT**
- **1st STAGE**
- **HEATING**
- **2nd STAGE**
- **HEATING**
- **3rd STAGE**
- **HEATING**
- **4th STAGE**
- **W2**
- **O**
- **W3**
- **Y1**
- **Y2**
- **DATA**
- **REMOTE INDOOR SENSOR**
- **OUTDOOR SENSOR**

**NOTE:**
- Dual fuel switch on Relay Panel must be set to DUAL.
- BT (Bonnet Thermostat) model THT1248 (BAYSEN03ATEMPAA) required for dual fuel, oil furnace applications.
### HEAT PUMP

#### HEAT PUMP WITH VARIABLE SPEED INDOOR
**Non-Communicating Air Handler**

<table>
<thead>
<tr>
<th>THERMOSTAT</th>
<th>RELAY PANEL</th>
<th>AIR HANDLER</th>
<th>ONE OR TWO STAGE HEAT PUMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Y2</td>
<td>Y2</td>
<td>Y2</td>
</tr>
</tbody>
</table>

**Note:**
- Remove the "R" to "BK" jumper at the low voltage control board.
- DIP Switches 5 & 6 must be set to OFF on indoor unit.

#### HEAT PUMP WITH NON-VARIABLE SPEED INDOOR

<table>
<thead>
<tr>
<th>THERMOSTAT</th>
<th>RELAY PANEL</th>
<th>AIR HANDLER</th>
<th>SINGLE STAGE HEAT PUMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Y2</td>
<td>Y2</td>
<td>Y2</td>
</tr>
</tbody>
</table>

**Note:**
- Remove the "R" to "BK" jumper at the low voltage control board.

#### HEAT PUMP WITH 2/4TEE3C
**Communicating Air Handler in 24 Volt Mode**

<table>
<thead>
<tr>
<th>THERMOSTAT</th>
<th>RELAY PANEL</th>
<th>AIR HANDLER</th>
<th>ONE OR TWO STAGE HEAT PUMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Y2</td>
<td>Y2</td>
<td>Y2</td>
</tr>
</tbody>
</table>

**Note:**
- Remove the "R" to "BK" jumper at the low voltage control board.

#### HEAT PUMP WITH *AM7 Air Handlers*

<table>
<thead>
<tr>
<th>THERMOSTAT</th>
<th>RELAY PANEL</th>
<th>AIR HANDLER</th>
<th>ONE OR TWO STAGE HEAT PUMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Y2</td>
<td>Y2</td>
<td>Y2</td>
</tr>
</tbody>
</table>

**Note:**
- Cut the factory installed "BK" jumper at the indoor unit.
HEAT/COOL

COOLING WITH VARIABLE SPEED INDOOR

THERMOSTAT

RELAY PANEL

COOLING-2nd

HEATING-3rd

24VAC Hot

HEATING-2nd

HEATING-1st

COOLING-1st

FAN

24VAC common

VS MODE - fan BK

DATA

REMOTE INDOOR SENSOR

OUTDOOR SENSOR

ONE OR TWO STAGE AIR CONDITIONER

Note: Enable "BK" (turn on dehumidifier switch or cut "BK" jumper).
Note: "R" is only connected on two-compressor models.

COOLING WITH NON-VARIABLE SPEED INDOOR

THERMOSTAT

RELAY PANEL

COOLING-2nd

HEATING-3rd

24VAC Hot

HEATING-2nd

HEATING-1st

COOLING-1st

FAN

24VAC common

DATA

REMOTE INDOOR SENSOR

OUTDOOR SENSOR

ONE OR TWO STAGE AIR CONDITIONER

SINGLE STAGE AIR CONDITIONER

Note: First stage blower air flow is set on air handler interface control board.
Note: Remove the "R" to "BK" jumper at the low voltage control.
Note: "R" is only connected on two-compressor models.

COOLING WITH 2/4TEE3C

Communicating Air Handler in 24 Volt Mode

THERMOSTAT

RELAY PANEL

COOL/HEAT 2nd STAGE

HEATING - 5th STAGE

24VAC Hot

HEATING - 4th STAGE

HEATING - 3rd STAGE

COOL/HEAT 1st STAGE

FAN

SOV

24VAC common

VS MODE - fan BK

DATA

REMOTE INDOOR SENSOR

OUTDOOR SENSOR

ONE OR TWO STAGE AIR CONDITIONER

Note: Remove the factory installed "BK" jumper at the indoor unit.
Note: "R" is only connected on two-compressor models.

COOLING WITH *AM7 AIR HANDLERS

THERMOSTAT

RELAY PANEL

COOLING-2nd

HEATING-3rd

24VAC Hot

HEATING-2nd

HEATING-1st

COOLING-1st

FAN

24VAC common

DATA

REMOTE INDOOR SENSOR

OUTDOOR SENSOR

ONE OR TWO STAGE AIR CONDITIONER

Note: Remove the factory installed "BK" jumper at the indoor unit.
Note: "R" is only connected on two-compressor models.
HEAT/COOL

COOLING WITH VARIABLE SPEED OIL FURNACE

COOL/HEAT
2nd stage

24VAC HOT

HEATING - 4th stage

HEATING - 3rd stage

COOL/HEAT - 1st stage

FAN

SOV

24VAC common

VS MODE -f

DATA

REMOTE INDOOR SENSOR

OUTDOOR SENSOR

Note: Remove the "R" to "BK" jumper at the low voltage control board.
Note: Cut the factory installed "R" to "O" jumper at the LVTB.
Note: Blower delay profiles must be turned off. See indoor unit service facts for details.

Note: *R is only connected on two-compressor models

COOLING WITH NON-VARIABLE SPEED OIL FURNACE

24VAC HOT

HEATING

COOLING

FAN

24VAC common

DATA

REMOTE INDOOR SENSOR

OUTDOOR SENSOR

Note: Enable "BK" (turn on dehumidifier switch or cut "BK" jumper).
Note: Dual fuel switch on Relay Panel must be set to DUAL.
Note: Blower delay profiles must be turned off. See indoor unit service facts for details.

COMMUNICATING FURNACE WITH 24V OUTDOOR

24V FROM RELAY PANEL

THERMOSTAT

RELAY PANEL

COMMUNICATING FURNACE

ONE OR TWO STAGE

HEAT PUMP

Note: Enable "BK" (turn on dehumidifier switch or cut "BK" jumper).
Note: Dual fuel switch on Relay Panel must be set to DUAL.
Note: Blower delay profiles must be turned off. See indoor unit service facts for details.
### Section 6. LED Indicators

**Comm**  
Communication LED – Amber  
- LED on when first powering up  
- LED flashes number of communicating components in the system.  
- (ex. communicating control with relay panel will equal two flashes)

**Bit Master**  
Bitmaster/Clock Signal LED – Green  
- LED on when Clock is working

**HVAC System**  
HVAC System LEDs – Green  
- A Green LED will illuminate when the relay is energized.

### Section 7. Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM LED is not flashing the appropriate number of devices</td>
<td>Loss of 24VAC between power (R) and common (B)</td>
<td>Check for proper incoming 24VAC power</td>
</tr>
<tr>
<td></td>
<td>One or more communicating devices is not communicating</td>
<td>Check for open or shorts in field wiring</td>
</tr>
<tr>
<td></td>
<td>• ~12VDC between D &amp; B = Proper communication</td>
<td>Evaluate other communicating devices and use the service facts of that device if not communicating properly</td>
</tr>
<tr>
<td></td>
<td>• ~16VDC between D &amp; B = Loss of communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Less than ~12VDC between D &amp; B = shorted or no power</td>
<td></td>
</tr>
<tr>
<td>Bit Master LED is off or fluttering</td>
<td>Loss of 24VAC between power (R) and common (B)</td>
<td>Check for proper incoming 24VAC power</td>
</tr>
<tr>
<td></td>
<td>Loss of communication</td>
<td>Check for shorted wire between data (D) and common (B) wires</td>
</tr>
<tr>
<td></td>
<td>• 0VDC between D &amp; B (shorted or no power)</td>
<td></td>
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<tr>
<td></td>
<td>• Less than ~12VDC between D &amp; B (low level short)</td>
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<tr>
<td>HVAC System LED is not illuminating when Relay Panel is calling for a particular relay</td>
<td>Control is not calling</td>
<td>Check the System Report screen at the control to verify demand</td>
</tr>
<tr>
<td></td>
<td>Relay Panel failed</td>
<td>Verify 24VAC between relay output terminal and common (B)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>**Relay output contains snubber circuits; always check with a load applied</td>
</tr>
</tbody>
</table>