**Terminal Function Version:**

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>Normally Open</td>
</tr>
<tr>
<td>COM</td>
<td>Common port</td>
</tr>
<tr>
<td>ON-D</td>
<td>External input (24Vac/DC)</td>
</tr>
<tr>
<td>FLOAT</td>
<td>External low voltage float switch or water sensor (use normally open switch)</td>
</tr>
<tr>
<td>VCC</td>
<td>Humidity transducer “+”</td>
</tr>
<tr>
<td>DATA</td>
<td>Humidity transducer DATA</td>
</tr>
<tr>
<td>GND</td>
<td>Humidity transducer “-”</td>
</tr>
</tbody>
</table>

**Auxiliary Relay Operation**

It may be desirable to coordinate fan operation of the central heating/cooling system with dehumidifier fan operation. The UNITA1-A2 contains a relay that provides this ability.

**Common Uses**

**Assuming standard thermostat wiring colors as noted:**

Energize the A/C Central Fan During Dehumidifier Fan Operation (Figure 1)

To automatically run the A/C FAN when the dehumidifier fan runs.

1. Attach a second Green wire to the FAN terminal on the thermostat.
2. Connect the new Green wire to the COM terminal on the UNIT.
3. Run a wire from the Red terminal on the thermostat to the NO (Normally Open) terminal on the UNIT.

The relay terminals labeled COM and NO operate according to the following chart:

<table>
<thead>
<tr>
<th>Fan</th>
<th>COM to NO</th>
<th>ON</th>
<th>CONNECTED</th>
<th>OFF</th>
<th>OPEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAN</td>
<td>COM to NO</td>
<td>ON</td>
<td>CONNECTED</td>
<td>OFF</td>
<td>OPEN</td>
</tr>
</tbody>
</table>

**Figure 1**

![Thermostat Wiring Diagram]
Dehumidifier Lock-On A/C Sensor Feature

To automatically activate the dehumidifier when the air conditioner runs.

Activate Dehumidification When the A/C is Running (Figure 2)

A voltmeter is required for the next steps to ensure the correct wiring from the A/C transformer is used to set up the Lock-On dehumidifier function.

1. The common wire from the existing A/C transformer (usually Black) must be attached to the “COM” sensor terminal between “ON-D” on the UNIT.

**TIP:** The common wire can be identified as the wire from the A/C transformer that reads 0 volts between it and the Yellow air conditioning call for cooling wire. The incorrect wire will give a 20 to 28 volt reading.

2. Another Yellow wire must be added to the thermostat Yellow terminal and run to the “ON-D” sensor terminal on the UNIT.

Dehumidifier auxiliary ventilation function

Energy-saving mode: when the outdoor humidity is lower than the indoor humidity, and lower than the humidity set by the dehumidifier, the fan will be turned on for ventilation dehumidifier. The dehumidifier will be closed with regular ventilation function, reduce indoor air pollution.

Operation steps of auxiliary air changing function:

1. Power on dehumidifier
2. Plug the power supply of the ventilation fan into “ventilator power”
3. Connect the wires of "DEHUM" of the ventilation fan to A7-A9 respectively.

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**Figure 2**

HVAC THERMOSTAT

- ON-DETECT
- COM
- 24 VAC
- RED
- BLACK
- BLACK
- A/C TRANSFORMER
- A/C UNIT
- FAN
- YELLOW
- GREEN
- YELLOW
- COM
- VENTILATOR POWER
- A7, A8, A9
- DEHUM
- POWER
- A7
- A8
- A9

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Built-in Humidity Sensor

1. POWER
2. DEHUM
3. 2
4. 3