The EvenAir H32 wiring hub is installed at the equipment. It is connected to the T32 or T32WF thermostat using the existing or new 4-wire thermostat cable that normally connects the thermostat to the equipment. The equipment is wired directly to the Wiring Hub. The upstairs sensor can be either a wired or wireless sensor. Wireless sensors require the ER1 radio module that plugs into the wiring hub. An outdoor temperature sensor can also be used to control fossil fuel heating in a dual fuel heat pump or to control a whole house fan or economizer.

The EvenAir wiring hub can be used to control humidification and de-humidification, fresh air intake per ASHRAE 62.2, ERVs or HRVs, whole house fans and economizers.

COMPONENTS: H32 Wiring Hub
- T32 or T32WF Thermostat
- AMJ type Modulating Dampers
- 1 TS51 or 2 TS52 Wired Temp Sensors

For Wireless Temperature Sensors
- 1 or 2 TSER Wireless Sensors
- 1 ER1 Plugin Radio Module

READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE PROCEEDING WITH THE INSTALLATION.

This device MUST be installed by a qualified agency in accordance with the manufacturer’s installation instructions. The definition of a qualified agency is: any individual, firm, corporation or company which either in person or through a representative is engaged in, and is responsible for, the installation and operation of HVAC appliances, who is experienced in such work, familiar with all the precautions required, and has complied with all the requirements of the authority having jurisdiction.

Please retain these instructions after installation.

Installed By: _______________________________ Phone: ___________________ Installation Date: _____________
Thank you for purchasing the EvenAir System from Field Controls. The EvenAir products are compatible with any HVAC system having accessible 24VAC terminals.

WIRING HUB OVERVIEW

FEATURES

COMPATIBLE EQUIPMENT
Gas/electric equipment with 2-stage heating and 2-stage cooling or conventional or dual fuel heat pumps with 2 compressor stages and 1 auxiliary heating stage.

POWER
Wiring hub is powered by 24VAC from the HVAC equipment R and C terminals.

POWER INDICATOR
LED indicator.

MODULATING DAMPERS
Round or rectangular dampers using the AMJ plug and play actuator and up to 1 inch static pressure. Up to 6 dampers can be daisy chained to define the upstairs sleeping area or downstairs living area.

WIRED TEMPERATURE SENSORS
One TS51 or two TS52 temperature sensors can be used in the sleeping area.

WIRELESS TEMPERATURE SENSORS
One or two TSER wireless temperature sensors can be used in the sleeping area. The ER1 radio module must be installed in the wiring hub when wireless sensors are used.
INSTALLATION

Homes with plaster walls with steel lathe may experience wireless communication interference when using wireless sensors. Wired sensors are recommended under those conditions.

CAUTIONS

- Before installing the EvenAir comfort system, turn off all power to your HVAC system.
- Read and follow all instructions carefully.
- Read entire manual before installing EvenAir products.
- Follow all local electrical codes during installation. All wiring must conform to local and national electrical codes.
- Use cautions when mounting components to surfaces that may have concealed wiring beneath the surface.
- When servicing EvenAir system or accessing products, turn off all power to these items.

ATTENTION INSTALLER

1) Install and wire components to the wiring hub. (See Wiring Diagrams section).
2) If wireless sensors are used, install the ER1 electronic receiver module in the wiring hub and set the sensor number and home number as necessary.
3) Place the thermostat on the subbase. Do not install batteries. (See T32 or T32WF manual).
4) Turn power to the HVAC equipment On.
5) Check for Start Up Messages/Errors.
6) Set equipment options 1-6 if different than factory default settings. (see T32 or T32WF manual).
7) Test the installation by initiating a heating call, cooling call and fan call.
8) Install batteries and set the time and day (see T32 or T32WF manual).

Refer to T32 or T32WF manuals for accessing:

- **Airflow Control Off** Option 50 turns off Airflow Control. The thermostat controls the system, dampers fully open, nighttime airflow control is disabled and airflow is no longer displayed on the thermostat.
- **User Airflow Control** can be enabled using Option 52. User turns off automatic airflow control in the User Options.
- **Nighttime Airflow Control** is defaulted to ON. If bedrooms are located downstairs, consider turning this option Off using the User Options if bedrooms are not on the same trunk.
- **Fresh Air Control** is defaulted to Off and controlled by Options 20 thru 25.
- **Whole House Fan or Economizer Control** is defaulted to Off and controlled by Options 30 thru 34.
- **Humidifier and De-Humidification Control** is defaulted to Off and controlled by Options 40 thru 42.
- **Airflow Control** is defaulted to On and controlled by Options 50 thru 57.

ATTACH THE H32 TO THE WALL

Attach the H32 at the equipment to a solid surface as shown using the screws and wall anchors supplied.
**INSTALL UPSTAIRS & DOWNSTAIRS DAMPERS**

Install a modulating damper in the duct supplying air to the upstairs sleeping area and plug one end of the cable into the connector marked IN on the AMJ actuator and the other end into the connector marked SLEEP DAMPER on the Wiring Hub. Install a second modulating damper in the duct supplying air to the downstairs living area and plug one end of the cable into the connector on the AMJ actuator marked IN and the other end into the connector on the Wiring Hub marked LIVING DAMPER. Each damper uses 2.4VA of power.

When two or more dampers are required to define the upstairs or downstairs areas, the second damper may be plugged into the connector marked OUT on the first damper. Up to 6 dampers can be connected to define an area. LEDs on the damper actuator indicate when the damper is fully open (green) or fully closed (red).

**Important!**
Ensure that damper installation does not cause obstruction to the damper blade.

**Warning - Only use plug and play cable provided with the Dampers. Additional RJ cables in 25 ft. lengths with connector PNP25C p/n 580011525) is available for runs of 50, 75 or 100 feet.**

**WIRING**

**Warning!**
Turn the power to the HVAC equipment off before wiring.

**Wiring Thermostat to H32 Wiring Hub**

Use the existing thermostat cable to wire the EvenAir communicating thermostat to the Wiring Hub.

<table>
<thead>
<tr>
<th>EvenAir Terminal</th>
<th>Wire Color</th>
<th>Wiring Hub Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>5V</td>
<td>Red</td>
<td>5V</td>
<td>24VAC Power</td>
</tr>
<tr>
<td>GND</td>
<td>White</td>
<td>GND</td>
<td>Common</td>
</tr>
<tr>
<td>SA</td>
<td>Blue</td>
<td>SA</td>
<td>Signal A</td>
</tr>
<tr>
<td>SB</td>
<td>Yellow</td>
<td>SB</td>
<td>Signal B</td>
</tr>
</tbody>
</table>
Wiring H32 to Gas/Electric, 1H/1C

Use 5-conductor, 18 or 20 gage, thermostat cable to wire the H32 Wiring Hub to the equipment.

<table>
<thead>
<tr>
<th>H32 Terminal</th>
<th>Wire Color</th>
<th>Equipment Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Red</td>
<td>R, Rc, Rh</td>
<td>24VAC Power</td>
</tr>
<tr>
<td>C</td>
<td>Blue</td>
<td>C</td>
<td>Common</td>
</tr>
<tr>
<td>W/B</td>
<td>White</td>
<td>W, W1</td>
<td>Stg1 Heating</td>
</tr>
<tr>
<td>Y</td>
<td>Yellow</td>
<td>Y, Y1</td>
<td>Stg1 Cooling</td>
</tr>
<tr>
<td>G</td>
<td>Green</td>
<td>G</td>
<td>Fan</td>
</tr>
</tbody>
</table>

Wiring H32 to Gas/Electric, 2H/2C

Use 7-conductor, 18 or 20 gage, thermostat cable.

<table>
<thead>
<tr>
<th>H32 Terminal</th>
<th>Wire Color</th>
<th>Equipment Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Red</td>
<td>R, Rc, Rh</td>
<td>24VAC Power</td>
</tr>
<tr>
<td>C</td>
<td>Blue</td>
<td>C</td>
<td>Common</td>
</tr>
<tr>
<td>W/B</td>
<td>White</td>
<td>W, W1</td>
<td>Stg1 Heating</td>
</tr>
<tr>
<td>Y</td>
<td>Yellow</td>
<td>Y, Y1</td>
<td>Stg1 Cooling</td>
</tr>
<tr>
<td>G</td>
<td>Green</td>
<td>G</td>
<td>Fan</td>
</tr>
<tr>
<td>W2/E</td>
<td>Brown</td>
<td>W2</td>
<td>Stg2 Heating</td>
</tr>
<tr>
<td>Y2</td>
<td>Orange</td>
<td>Y2</td>
<td>Stg2 Cooling</td>
</tr>
</tbody>
</table>

Wiring H32 to Heat Pump, 3H/2C

Use 7-conductor, 18 or 20 gage, thermostat cable.

<table>
<thead>
<tr>
<th>H32 Terminal</th>
<th>Wire Color</th>
<th>Equipment Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Red</td>
<td>R, Rc, Rh</td>
<td>24VAC Power</td>
</tr>
<tr>
<td>C</td>
<td>Blue</td>
<td>C</td>
<td>Common</td>
</tr>
<tr>
<td>W/B</td>
<td>Not Used</td>
<td>Not Used</td>
<td>Not Used</td>
</tr>
<tr>
<td>O</td>
<td>White</td>
<td>O</td>
<td>Reversing Valve</td>
</tr>
<tr>
<td>Y</td>
<td>Yellow</td>
<td>Y, Y1</td>
<td>Stg1 Compressor</td>
</tr>
<tr>
<td>G</td>
<td>Green</td>
<td>G</td>
<td>Fan</td>
</tr>
<tr>
<td>W2/E</td>
<td>Brown</td>
<td>E/W2</td>
<td>Aux Heating</td>
</tr>
<tr>
<td>Y2</td>
<td>Orange</td>
<td>Y2</td>
<td>Stg2 Compressor</td>
</tr>
</tbody>
</table>

Wired Sleeping Area Temperature Sensors

Use 2-conductor, 18 or 20 gage, thermostat cable to wire from the H32 Wiring Hub to the sleeping area temperature sensor.

<table>
<thead>
<tr>
<th>H32 Terminal</th>
<th>Wire Color</th>
<th>Sensor Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLP</td>
<td>White</td>
<td>SNR</td>
<td>Thermistor</td>
</tr>
<tr>
<td>SLP</td>
<td>Red</td>
<td>SNR</td>
<td>Thermistor</td>
</tr>
</tbody>
</table>

Printed circuit board
Brass washer
Place wire between brass washer and the printed circuit board and hand tighten screw.

The TS51 or TS52 can be installed in a single gang box or directly to the wall using the hardware provided.

Single Temperature Sensor

Dual Temperature Sensors

Model TS51 Temperature Sensor
Model TS52 Temperature Sensor
Model TS52 Temperature Sensor

Wiring Hub
H32
Wiring Hub
H32
Outdoor Temperature Sensor

The TS3 outdoor temperature sensor is required for dual fuel heat pumps. The wiring hub automatically switches to fossil fuel heating when the outdoor temperature drops below the OBP, Outdoor Balance Point temperature. The temperature limit can be changed using Installer Option 03 (see T32 or T32WF manual).

Use 2-conductor, 18 or 20 gage, thermostat cable to wire from the H32 Wiring Hub to the outdoor temperature sensor.

<table>
<thead>
<tr>
<th>H32 Terminal</th>
<th>Wire Color</th>
<th>Sensor Terminal</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODT</td>
<td>White</td>
<td>SNR</td>
<td>Thermistor</td>
</tr>
<tr>
<td>ODT</td>
<td>Red</td>
<td>SNR</td>
<td>Thermistor</td>
</tr>
</tbody>
</table>

The outdoor temperature sensor should be placed in a shaded location and protected from rain or snow such as under the eves of a home. Select a location and drill a 5/16-inch diameter hole to pass the sensor wires through.

USING WIRELESS SENSORS

Before installing the wireless remote temperature sensor, the ER1 Electronic Receiver Module needs to be installed in the Wiring Hub.

Install the ER1 Electronic Receiver

⚠️ Warning!

Do not turn power on until AFTER the wireless sensors have been installed and the sensor numbers set, as shown in the following steps. The Wiring Hub will automatically detect the electronic receiver and the sensors being used when powered up.

The ER1 Electronic Receiver plugs into the two 6-pin terminal strips on the H32 Wiring Hub.

Install Remote Wireless Sensors

The TSER is wireless and powered by two AA batteries. Two remote temperature sensors can be used and the temperatures are averaged. For a single sensor installation, install the sensor on an interior wall about 4-feet above the floor and in a location that best senses the upstairs sleeping area temperature.

For a dual sensor installation, install the sensors in locations that will best sense the average upstairs sleeping area temperature, such as the master bedroom and the bedroom hallway. Mount the TSER subbase using the screws provided.

Install two AA batteries as shown.
Setting Wireless Sensors as #1 or #2

The TSER is factory set as #0 wireless temperature sensor and must be set to #1. If two temperature sensors are used, set the address number on the second sensor to #2. The sensor location needs to be documented for future reference. Use the removable labels included with the wireless sensor to identify the sensors as #1 or #2. Place the labels on the front of the thermostat over the battery cover.

Press the push button and the LED will blink once, then twice and repeat this pattern. To set the sensor as the #1 sensor, release the push button switch after one blink or after two blinks to set it as #2 sensor. After releasing the push button, the LED will blink yellow once to indicate successful communication or blink red indicating that communication was not successful.

1 Blink = #1 Sensor
2 Blinks = #2 Sensor

After setting the sensor number, power can now be applied to the Wiring Hub. The Wiring Hub will automatically detect the Radio and the sensors being used when powered up.

Selecting a Different Home Number

When two or more wireless EvenAir installations are within 300-feet of each other, the EvenAir thermostat and remote wireless temperature sensors must be set to different Home numbers so they do not interfere with one another.

EvenAir Thermostat

Use Installer Option 58 in the thermostat installer manual to set a new Home number.

Remote Wireless Temperature Sensors

Remove one of the batteries to remove power to the sensor. While pressing the push button switch on the sensor, re-install the battery. The LED will blink red once, then two rapid blinks, then three rapid blinks and so on. Release the switch after the number of blinks corresponding to the Home number to be set. Changing the Home number does not affect the assignment as the #1 or #2 sensor (1 to 8).

Remote Wireless Bedside Control

If a TSRC bedside control is used to control the ECool mode for a whole house fan or economizer, the Home number in the TSRC must be set to same home number selected in the thermostat options. (see the TSRC manual).

Using the TSRC Wireless Bedside Control

The TSRC can be used to turn Econo Cooling (ECool) On or Off. The TSRC can be wall mounted or can sit on a bedside table.

When the Econo Cool mode (ECool) is turned On, the installed whole house fan or Economizer will be activated using the timer or temperature control.

The TSRC is battery powered and requires no wiring.

WIRING DIAGRAMS

The following pages include wiring diagrams and options for different types of installations:

- Wiring Diagram - Installation using wireless temperature sensors.
- Wiring Diagram - Installation using wired temperature sensors.
- Wiring Diagram - Humidifier.
- Wiring Diagram - De-Humidification.
- Wiring Diagram - Fresh Air Damper.
- Wiring Diagram - Whole House Fan
- Wiring Diagram - Whole House Ventilation Using Damper and Equipment Fan
- Wiring Diagram - Economizer Using Three Dampers and Equipment Fan
- Option - Indoor Fan Vent Mode.
EvenAir Thermostat
T32 or T32WF

ER1 Electronic Receiver Module
Installed in Wiring Hub

EvenAir H32 Wiring Hub
Installed at equipment.

Modulating Plug&Play Damper Sleeping Area Airflow

Modulating Plug&Play Damper Living Area Airflow

Optional Second Battery Powered Wireless Temperature Sensor

TSER Sensor installed in Master Bedroom

Optional T53 Outdoor Temperature Sensor

Required when using dual fuel heat pumps.

25-foot Plug&Play Cables Supplied with Dampers.

Existing thermostat Wires

EvenAir H32 Wiring Hub
24VAC, 10VA
Made in USA

Model TS3
PN 580011306
Temperature Sensor
10K @ 77F
Made in USA

Model H32
PN 580011202
Wiring Hub

P/N 780101720 3/18 Rev A

DWG: 780301206

EvenAir H32 Wiring Hub
Installed at equipment.

ER1 Electronic Receiver Module
Installed in Wiring Hub

Modulating Plug&Play Damper Living Area Airflow

Optional TS3 Outdoor Temperature Sensor

Required when using dual fuel heat pumps.

25-foot Plug&Play Cables Supplied with Dampers.

Existing thermostat Wires

EvenAir H32 Wiring Hub
24VAC, 10VA
Made in USA

Model TS3
PN 580011306
Temperature Sensor
10K @ 77F
Made in USA

Model H32
PN 580011202
Wiring Hub

P/N 780101720 3/18 Rev A

DWG: 780301206
Optional Second Wired Temperature Sensor

Wired Temperature Sensor

Sensor installed in Master Bedroom. See Note 2.

Sensor installed in Bedroom Hallway. See Note 1.

25-foot Plug&Play Cables Supplied with Dampers.

Optional TS3 Outdoor Temperature Sensor

Required when using dual fuel heat pumps.

Existing thermostat Wires

EvenAir H32 Wiring Hub

Installed at equipment.

EvenAir Thermostat

T32 or T32WF

Modulating Plug&Play Damper Sleeping Area Airflow

Modulating Plug&Play Damper Living Area Airflow

Note 1  Use one TS51 sensor for single sensor installations.

Note 2  Use two TS52 sensors for dual sensor installations.

Number of wires used in cable.
**Wiring Diagram, Humidifier**

Dry relay contacts (HFR and HFR) are provided for controlling a humidifier. A call for humidification is only made during a heating call if Option 40 is set to On. If Auto RH mode is set to On using Option 41, the Outdoor Temperature Sensor must be installed. In Auto mode, the RH setpoint is automatically decreased at outdoor temperatures below 35F.

* Models S2000 and S2020 are Field Controls humidifier products.

See T32 or T32WF Manual, Installer Options Section

**Enable Humidifier Operation**

Factory Default: OFF. Range: On or Off.
Select ON if a Humidifier is installed.

**Enable Automatic Adjustment**

Factory Default: OFF. Range: On or Off.
If automatic adjustment is set to On, the RH setpoint will decrease at outdoor temperatures below 35F. The RH Setpoint is reduced 1% for each 2F below 35F. Requires Outdoor temperature sensor be installed.

---

**Wiring Diagram, De-Humidification**

Some HVAC equipment is supplied with an input terminal that forces the equipment fan into low speed to extract more moisture from the air during cooling calls. The equipment terminal can be designated as DS, BK, ODD or DHUM. The Wiring Hub DS terminal is normally 24 VAC and goes to 0VAC when de-humidification is active. Option 42 turns de-humidification On or Off.

* Equipment terminal can be designated DS, BK, ODD or DHUM

See T32 or T32WF Manual, Installer Options Section

**Enable De-Humidification**

Factory Default: OFF. Range: On or Off.
Select if de-humidification is used during cooling calls.

If de-humidification is On and the humidity is above the setpoint, the DSBK terminal on the Wiring Hub will be set to 0VAC to force the indoor fan to operate at low speed to remove moisture.
Wiring Diagram, Fresh Air Damper

A fresh air damper can be used to meet ASHRAE 62.2 requirements to bring in fresh air each hour. The fresh air required is first fulfilled during heating and cooling calls. Only if the fresh air minutes exceed the heating and cooling call, the indoor fan (G) will be activated and the fresh air damper opened. Options 20 to 25 control fresh air operation.

![Fresh Air Damper Diagram]

Factory Default: OFF. Range: On or Off.

Set Fresh Air Minutes/Hour

Factory Default: 30 minutes. Range: 0 to 60.

Select the number of minutes the fresh air damper should open each hour based on ASHRAE 62.2 calculations and the damper size.

Enable Severe Weather Limit

Factory Default: OFF. Range: On or Off.

Select ON to inhibit fresh air intake using outdoor temperature limits set in options 23 and 24.

Set High Temperature Limit

Factory Default: 95F. Range: 65F to 100F.

Select the maximum outdoor temperature for fresh air damper operation.

Set Low Temperature Limit

Factory Default: 35F. Range: 0F to 65F.

Select the minimum outdoor temperature for fresh air damper operation.

Indoor Fan Vent Mode

The indoor fan VENT mode circulates air within the home between heating and cooling calls. If VENT mode is enabled in Option 25 and the homeowner has selected fan VENT mode, the fan will be activated for 15 minutes when no heating or cooling call has occurred in the last 120 minutes.

Vent mode will be automatically turned Off if Fresh Air Operation is selected using Option 20 or if Whole House Fan or Economizer operation is selected using Options 30 or 31.

Enable VENT Mode Operation

Factory Default: OFF. Range: On or Off.

Select ON to enable Fan VENT mode.
A relay (White Rogers 90-370) can be installed within the electrical box on the whole house fan and controlled by the Wiring Hub. The Wiring Hub applies 24 VAC to the OPN terminal that activates the external relay that controls line voltage to the whole house fan. The whole house fan can be timer or temperature controlled using the Options below.

Windows must be open to allow outdoor air to enter the home.

⚠️ Warning!

Turn power off before wiring. The relay must be installed within a UL conforming electrical enclosure to prevent electrical shock.

Enable Free Cooling using Whole House Fan
Factroy Default: Off. Range: On or Off.
Select ON if a whole house fan is controlled by the thermostat.

Whole House Fan controlled by Temperature
Factroy Default: Off. Range: On or Off.
Select ON to control the Whole House Fan using the outdoor, room and cooling setpoint temperatures.

Whole House Fan Outdoor Temperature Limit
Factroy Default: 0. Range: 0-10 degrees.
Select the number of degrees the outdoor temperature must be below the room temperature to activate the Economizer or Whole House Fan.

Whole House Fan Control by Timer
Factroy Default: Off. Range: On or Off.
Select ON to control Whole House Fan or Economizer using a 1 to 12 hour timer set in the thermostat by the homeowner using the User Menu. The timer starts when the System is switched to ECool. When the timer expires, the System is set to Off.

Windows must be open to allow outdoor air to enter the home.

Enable Free Cooling using Damper and Equipment Fan
Factroy Default: Off. Range: On or Off.
Select if dampers and the equipment fan is used to bring in cool outdoor air for cooling. See the Wiring Hub Installation for different economizer configurations.

Damper and Fan controlled by Temperature
Factroy Default: Off. Range: On or Off.
Select ON to control the Whole House Fan using the outdoor, room and cooling setpoint temperatures.

Damper and Fan Outdoor Temperature Limit
Factroy Default: 0. Range: 0-10 degrees.
Select the number of degrees the outdoor temperature must be below the room temperature to activate the Economizer or Whole House Fan.

Damper and Fan Control by Timer
Factroy Default: Off. Range: On or Off.
Select ON to control Whole House Fan or Economizer using a 1 to 12 hour timer set in the thermostat by the homeowner using the User Menu. The timer starts when the System is switched to ECool. When the timer expires, the System is set to Off.

⚠️ Warning!

Turn power off before wiring. The relay must be installed within a UL conforming electrical enclosure to prevent electrical shock.

![Wiring Diagram, Whole House Fan](image1)

![Wiring Diagram, Whole House Ventilation Using Damper and Equipment Fan](image2)
Three dampers can be installed to provide Economizer cooling using the equipment fan. In compressor cooling, the Exhaust Air and the Outdoor Air Intake Dampers are closed and the Return Air Damper is open.

When the system is in ECool and the Economizer is activated, the Outdoor Air Intake and Exhaust Air Dampers open, the Return Air Damper closes and the equipment fan is activated. Windows do not have to be open because outdoor air is drawn in thru the Outdoor Air Intake Damper.

Enable Free Cooling using Dampers and Equipment Fan
Select if dampers and the equipment fan is used to bring in cool outdoor air for cooling. See the Wiring Hub Installation for different economizer configurations.

Dampers and Fan controlled by Temperature
Select ON to control the Whole House Fan using the outdoor, room and cooling setpoint temperatures.

Dampers and Fan Outdoor Temperature Limit
Factory Default: 0. Range: 0-10 degrees.
Select the number of degrees the outdoor temperature must be below the room temperature to activate the Economizer or Whole House Fan.

Dampers and Fan Control by Timer
Select ON to control Whole House Fan or Economizer using a 1 to 12 hour timer set in the thermostat by the homeowner using the User Menu. The timer starts when the System is switched to ECool. When the timer expires, the System is set to Off.
**MAINTENANCE AND TROUBLESHOOTING**

**THERMOSTAT OPERATION**

Problem - nC is displayed on thermostat.

nC is displayed on the thermostat when the thermostat loses communication with the wiring hub. If the message continues to be displayed, turn the system off and check the wiring between the thermostat and wiring hub.

**DAMPER OPERATION**

Problem - No airflow to the sleeping area AND living area registers

Turn system off immediately. Both dampers may be connected backwards at the wiring hub or at the damper actuator (causing dampers to close rather than open).

Problem - No airflow to the sleeping area OR living area registers

Turn system off. One of the dampers may be connected backwards at the wiring hub or at the damper actuator (causing a damper to close rather than open).

Problem - Limited airflow to the sleeping area OR living area registers

Turn system off. The damper blade movement may be inhibited. To verify a damper blade moves freely, remove the two mounting screws on the actuator. Do not disconnect the plug and play cables. Verify the damper blade spins 360°. If the blade spins freely, reattach the actuator to the damper by aligning the keyed shaft. If the blade does not spin freely, examine the damper for obstruction or damage and replace the damper if necessary.

Problem - When directing airflow to the sleeping area, the airflow is actually directed to the living area, and when directing the airflow to the living area, the airflow is actually directed to the sleeping area.

Turn system off. Check if the dampers are switched (sleeping area damper is connected to the living area connector and the living area damper is connected to the sleeping area connector.)

**COMFORT CONCERNS**

Problem - Downstairs bedroom is too cold or too hot at night.

The Nighttime Airflow Control option directs more airflow to the sleeping area and less airflow to the unoccupied living area. If the downstairs bedroom is on the same HVAC trunk as the living area, the downstairs bedroom may become uncomfortable at night. Turn off the Nighttime Airflow Control option using the User Options.

Problem - The room temperature on the thermostat seems too high or too low.

The thermostat is factory calibrated within 1 degree. However, if a homeowner finds the temperature “Feels” too high or too low, the thermostat can be calibrated to what the homeowner feels is the correct temperature using Installer option 15 for the living area and option 16 for the sleeping area.

**SENSOR INSTALLATION**

Problem - nS message on thermostat.

For wired sensors, check that the sensor is wired correctly. Check for a short in the sensor wiring. For wireless sensors, check that batteries are installed in the sensor and that the sensor numbers are set correctly.

Problem - Err 01 or Err 02 message on thermostat.

Check the batteries in the wireless sensor and that the sensor numbers are set correctly.

Problem - Sleeping area temperature reading very high or very low.

Check that the correct sensor(s) have been used. One wired TS51 sensor is used in a single sensor installation. Two TS52 sensors are used in a dual sensor installation.
<table>
<thead>
<tr>
<th>Field Controls Part Number</th>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>580011106</td>
<td>T32</td>
<td>Programmable, communicating thermostat w/ airflow control, for all equipment.</td>
</tr>
<tr>
<td>580011107</td>
<td>T32WF</td>
<td>Programmable, communicating thermostat w/ airflow control for all equipment. WiFi enabled.</td>
</tr>
<tr>
<td>580011201</td>
<td>H32</td>
<td>Wiring Hub for gas/electric, conventional or dual fuel heat pump equipment with 3 Heat/2 Cool</td>
</tr>
<tr>
<td>580011301</td>
<td>TS51</td>
<td>Wired temperature sensor for the sleep area. Single sensor installation.</td>
</tr>
<tr>
<td>580011302</td>
<td>TS52</td>
<td>Wired temperature sensor for the sleep area. Dual sensor installation.</td>
</tr>
<tr>
<td>580011305</td>
<td>TSER</td>
<td>Wireless temperature sensor for the sleep area. Single or Dual sensor installation. Requires ER1.</td>
</tr>
<tr>
<td>580011205</td>
<td>ER1</td>
<td>Electronic receiver module. Required when using wireless sensors.</td>
</tr>
<tr>
<td>580011306</td>
<td>TS3</td>
<td>Outdoor temperature sensor. Required for dual fuel heat pumps.</td>
</tr>
<tr>
<td>580011410</td>
<td>TSRC</td>
<td>Wireless remote control/temperature sensor. Requires ER1.</td>
</tr>
<tr>
<td>580011402</td>
<td>AMJ</td>
<td>Replacement modulating actuator control, plug and play connectors.</td>
</tr>
<tr>
<td>580011510</td>
<td>PNP25</td>
<td>Replacement 25 ft. RJ cable.</td>
</tr>
<tr>
<td>580011525</td>
<td>PNP25C</td>
<td>Additional 25 ft. RJ cable and connector.</td>
</tr>
<tr>
<td>580011405</td>
<td>IS</td>
<td>Replacement idler shaft for AMT and AMJ actuators.</td>
</tr>
<tr>
<td>580011406</td>
<td>DS</td>
<td>Replacement drive shaft for AMT and AMJ actuators.</td>
</tr>
<tr>
<td>MDP-#</td>
<td></td>
<td>EvenAir Round Balance Damper, Plug and Play. Sizes - 4&quot; - 20&quot; diameter.</td>
</tr>
<tr>
<td>MDP-LxH</td>
<td></td>
<td>EvenAir Rectangular Balance Damper, Plug and Play. Sizes - 8&quot;, 10&quot; and 12&quot; Heights, up to 24&quot; Length.</td>
</tr>
<tr>
<td>510900300</td>
<td>370R</td>
<td>Relay, 24VAC Control, 250VAC Line, SPDT 90-370</td>
</tr>
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