

IR33 Digital Thermostat - Single probe

These instructions are for 110 & 220 volt BF series compressors.

INSTALLING THE THERMOSTAT

The IR33 can be located anywhere as long as it is protected from water and spray. The leads to the probe may be extended if the connections are soldered and sealed with heat shrink. The IR33 thermostat has no off switch. The compressor must be installed with a power switch disconnect to be able to shut off the system.

WIRE ROUTING

The Red, white and blue wire harness connects at the compressor. The probe wire must enter the refrigerated space.

Thermostat Wiring

The Electronic Temperature Control operates on low voltage (24VAC) which is supplied by the transformer in the compressor cabinet.

A 15' wiring harness is fitted to the thermostat. Use red, blue, and white to extend this harness if a longer length is needed. Attach the wires to the terminal strip using #8 ring terminals, matching corresponding wire color.

OPERATION

The temperature of the probe is displayed when the thermostat head is powered. When the compressor is running the #1 and the ↑D↓ on the thermostat display will be illuminated.

To change the set point temperature.

Hold the SET button until ST1 appears. The display shows ST1 and then the current set temperature of 35 degrees. Use the ↑ and ↓ arrows to navigate to the desired temperature. Press SET to accept the new value. The display will return to standard view.

To change the degrees of differential.

Hold the Program button for more than 5 seconds. Use the ↑ and ↓ arrows to navigate to the P-1. Press SET to view the current setting of 5 degrees. Use the ↑ and ↓ arrows to navigate to the desired temperature. Press SET to accept. This will bring you back to P-1. To save and exit hold the program button for 5 seconds.

Note: Six different parameters can be viewed by pressing the down arrow button. Always make sure you save the B1 temperature to the screen. Navigate to b1 using the arrows and then hold the set button for 5 seconds to save B1 to the screen.

b1: probe - air temperature readout

b2: probe 2 - not used

di1: digital input 1 – not used

d2: digital input 2 – not used

st2: set point 2 - not used

st1: set point 1 - used

PROGRAMMING THE HEAD

If you need to change all parameters back to factory default values

Power down the controller. Press PRG button. Power up the controller holding the PRG button until the message “std” is shown on the display. Then follow directions below to change the programming.

Enter the password for programming the head.

Hold the program (PRG) and select (SET) buttons at the same time for 5 seconds. Use the ↑ and ↓ arrows to navigate to the #77. Then press SET to accept. You are now in programming mode. A red wrench will light up.

C-O=1 (This sets the mode of operation – to direct- cooling mode.)

Use the ↑ and ↓ arrows to navigate to C-O. Press SET to accept. Use the ↑ and ↓ arrows to navigate to the #1. Press SET to accept. This will bring you back to C-O.

C-13=0 (To change type of probe to NTC.)

Use the ↑ and ↓ arrows to navigate to C-13. Press SET to accept. Use the ↑ and ↓ arrows to navigate to the #0 (NTC Probe). Press SET to accept. This will bring you back to C-13.

C-18=1 (To change the head from Centigrade to Fahrenheit.)

Use the ↑ and ↓ arrows to navigate to the C-18. Press SET to accept. Use the ↑ and ↓ arrows to navigate to the #1 for Fahrenheit. Press SET to accept. This will bring you back to C-18.

P-1=5 (To set the degrees of differential.)

Use the ↑ and ↓ arrows to navigate to the P-1. Press SET to accept. Use the ↑ and ↓ arrows to navigate to the #5. Press SET to accept. This will bring you back to P-1.

C-52 =0 (To display the temperature of probe 1)

Use the ↑ and ↓ arrows to navigate to the c-52. Press SET to accept. Use the ↑ and ↓ arrows to navigate to the #0. Press SET to accept.

To exit programming mode and save changes. Press the PRG button and hold for 5 seconds. This will take you out of programming mode and save all changes. The temperature will again be displayed.

ST1=35 (To set the set point temperature.)

Hold the SET button until ST1 appears. The display shows ST1 and then the current set temperature. Use the ↑ and ↓ arrows to navigate to the desired temperature. Press SET to accept the new value. The display will return to standard view.

Error on Screen	Cause	Solution
E01	B1 probe fault Box air Temperature probe	Check probe connection Or bad probe, replace

