

# THERMA-FUSER™

THERMALLY POWERED VAV DIFFUSERS

## ADJ-D FIELD ASSEMBLY WITH MODEL TF DIFFUSER

### INSTRUCTIONS FOR FIELD ASSEMBLY OF DIGITAL WALL ADJUSTER OPTION ONTO EXISTING MODEL TF THERMA-FUSER DIFFUSERS

Models: TF-C VAV cooling only  
 TF-CW VAV cooling and constant volume heating  
 TF-HC VAV cooling and VAV heating

Note: The Digital Wall Adjuster uses a Master and Secondary diffuser wiring scheme. These instructions are for field assembly of the Master and Secondary diffusers. For installation and maintenance instructions please visit our website [www.acutherm.com](http://www.acutherm.com) for the Digital Wall Adjuster Installation and Operating guide.

1. Drill a 5/16" hole in the top of the housing on the same side as the thermostat (see Fig. 1).
2. Position the terminal box over the 5/16" hole in the top of the housing (see Fig. 2).
3. Drill holes for screws or rivets and screw or rivet the terminal box onto the housing.
4. Insert the grommet in the 5/16" hole in the housing/terminal box.
5. Unlatch the hinged appearance panel.
6. Insert grommet into the hole in the diffusion plate behind the appearance panel clip bracket (see Fig. 3).
7. Adjust the cooling (and heating) thermostat set point to 76°F/24°C.

Caution: For proper operation of the Digital Wall Adjuster, the set point(s) must remain at 76°F/24°C.

8. Prepare resistance heaters following Heater Sub-Assembly Instructions (attached).
9. Slip shrink band and heater over the cooling thermostat. Locate the space between the ends of the heater at the bottom of the thermostat (where the heat will be applied to the shrink band). One edge should be against the hub of the thermostat. Heat the shrink band with a hair dryer until the band is tight. (Repeat for heating thermostat.)

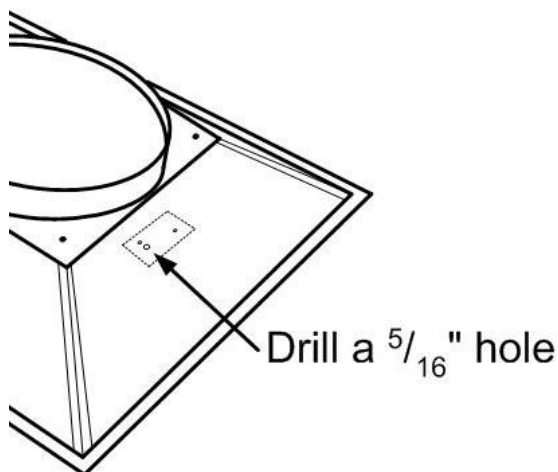


Fig. 1

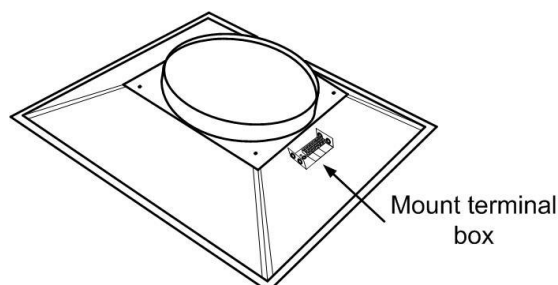


Fig. 2

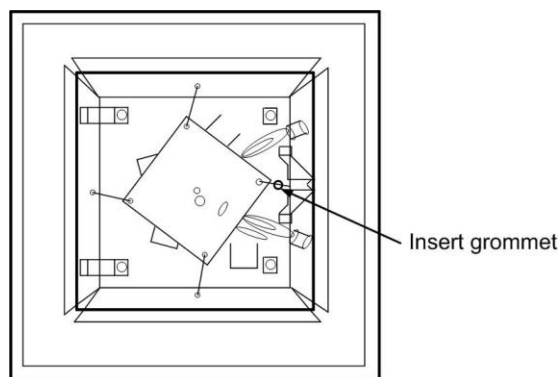


Fig. 3

10. Rout the wires through the grommet in the diffusion plate, through the 5/16" hole in the housing and into the terminal box.

11. Connect the red wire(s) to terminal 3 and the black wire(s) to terminal 4 (see Fig. 4).

Make the connections on the side opposite the label leaving the label side open for diffuser installation.

If wiring a Secondary diffuser or the terminal box has been factory wired with a 35ft/10.5m plenum rated cable with 10 pin quick connector see Fig. 5 and skip steps 13 and 14.

Note: The 35ft/10.5m plenum rated cable with 10 pin quick connector is ONLY required on a Master diffuser.

12. Fold up and latch the appearance panel.

13. Rout the open end of the 35ft/10.5m plenum rated cable with 10 pin connector through the grommet opposite the label on the screw terminal side (see Fig. 6).

14. Connect the wires of the 35ft/10.5 plenum rated cable with 10 pin connector (see Fig. 6):

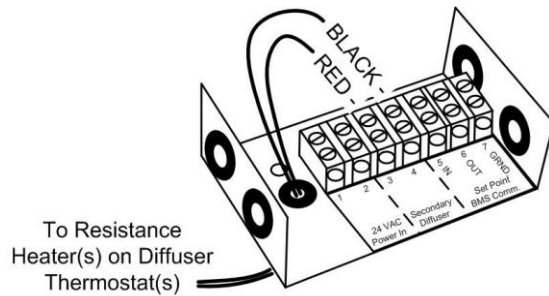
Wire	Screw Terminal
Orange	1
Brown	2
Blue	3
Green	4
Black	5
Purple	6
White	7
Yellow	Not Used
Red	Not Used
Gray	Not Used

Make the connections on the side opposite the label leaving the label side open for diffuser installation.

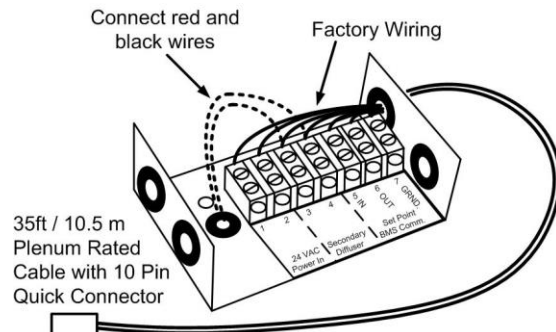
15. Fit the cover onto the terminal box.

16. Diffuser is ready for installation.

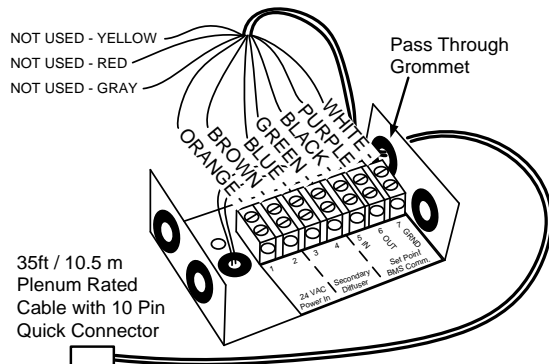
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**Fig. 4**



**Fig. 5**



**Fig. 6**

Resistance Heater  
Sub-Assembly Instructions

- With the flag away from you and pointing upwards
- Curl the flag toward the right.  
Do not curl toward the left as it will change the resistance.
- Slip the shrink band over the curled flag.
- Slide the shrink band/flag combination over the thermostat flush with the hub of the thermostat.

