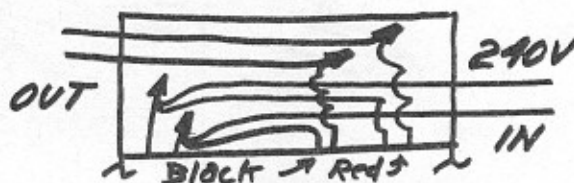
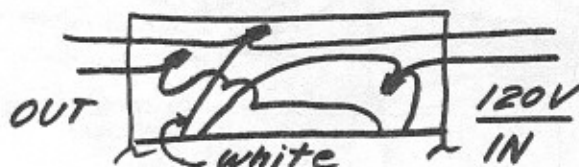


DELTA-T ELECTRICAL INSTALLATION INSTRUCTIONS, STEP-BY-STEP, ALL MODELS: For purposes of definition, a "PLUG-IN" type model is one provided with a receptacle in the cover and a line cord. NOTE: Permanently installed equipment should not be connected to the receptacle.

- 1A. On models other than "PLUG-IN" type, three holes are provided in the open cavity for mounting close to an electric source and/or the motor to be controlled.
- 1B. For "PLUG-IN" type models, mount within 30 inches of a properly grounded wall outlet so that no extension cord will be used.  
"PLUG-IN" type models are mounted to the wall by utilizing the special metal hanger which is provided. Do not remove the cover on the "PLUG-IN" type models.
- 2A. With customer-furnished Wire-Nuts, connect the ground wire to the green lead and make the illustrated connections: (Not applicable to "PLUG-IN" type models.)



2B. "PLUG-IN" type models: Plug the cord from the DELTA-T box into any 120V outlet and plug the UL listed pump/fan cord into the outlet on the box cover.

2C. DTT-500-503 models only: Utilize the two 22-ga. white wires in the box as the 12V DC input hook-up. One black wire is attached to the incoming lead to be switched, and the other black wire is attached to the outgoing lead.

3. The 24-ga. zip-cord sensor leads carry 10V DC and are to be attached to any two-conductor lead wire which will run from the DELTA-T box to the point where the temperature is to be sensed. (An 18-24ga. zip or bell lead wire is recommended.) Size 71B Wire-Nuts are provided for these attachments. The sensor leads are to run to the following locations: (Some models do not have the grey or brown leads.)

- WHITE - At collector where higher temperature will be sensed, preferable at the top of the collector.
- CLEAR - At storage where lower temperature will be sensed. In hot water heating systems this location is more accurate on the side of the steel hot water tank under the insulation rather than at the low pipe connection.
- ORANGE - At the point where the additional overriding function is to be sensed. On DTT-100 Series, 71 and the 791, at collector where white lead sensor is terminated. On DTT-200, and 290 Series, and the 72 and 792, at collector on exposed pipe leading to collector where temperature approaching freezing will be sensed. On DTT-400, 690 and 3410 Series, and the 74 and 794, at location where high temperature cut-off will be sensed.
- BROWN - At collector on exposed pipe leading to collector where temperature approaching freezing will be sensed. Use bi-metallic freeze sensor, FS-1, at this location.

4. At the termination of all lead wires, except the brown colored one, installed in Step 3, the 10" Thermistor End Sensors are to be attached. WEATHER INSULATING PROCEDURES SHOULD BE EXERCISED. If the Wire-Nuts are exposed to outside conditions, they should be sealed with vinyl cement or other suitable waterproofing cement.

5. Attach the Thermistor End Sensors to the surface to be sensed with the silicon/fiberglass tape included. Use approximately 1 1/2" tape and secure to a clean surface. The tape included is rated to 350°F. It may also be advisable to mechanically secure the lead wire just before the tape connection by tying the lead wire to a secure portion of the collector and pipe.

6. After installation of the Thermistor End Sensors, cover the tape and thermistors with any kind of weatherproof thermal insulation so that the sensors will pick up only the temperature of the surface, not the ambient air. THIS IS ABSOLUTELY NECESSARY FOR ACCURATE SENSING.

7. Should it be necessary to place the storage sensor into a liquid, it is recommended to utilize the BP series of sensors.

8. The DELTA-T is not to be field serviced. Should any service be required, the complete unit except Thermistor End Sensors, but the steel box, should be returned.

A simple ON/OFF electrical function test can be performed in the field. With the sensor leads not connected, shorting together the two white zip-cord leads from the box will turn the unit on and separating them will turn the unit off. The two clear zip-cord leads from the box should be separated and the two grey zip-cord leads from the box should be shorted together. (Only on the DTT-400, 3410 and 690 Series and the 74 and 794, should the grey be separated to perform this test.)