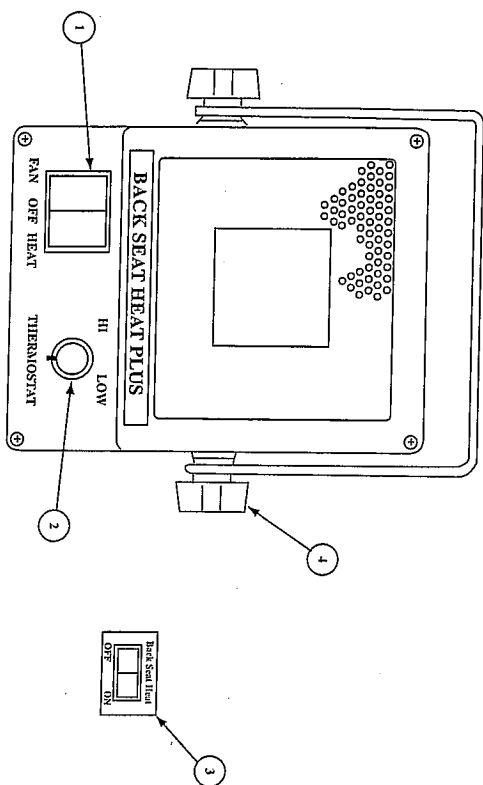


# Operating Instructions

Please read complete instructions before proceeding with installation.

**NOTE:** This heater draws 25 Amps. If your vehicle's alternator does not produce at least 45-50 Amps, there will not be enough power to operate this heater. **Do not install.**

**WARNING:** Vehicle should be started before the Back Seat Heat is turned on. **DO NOT** operate the heater or fan without the engine running.



1. Function Select Switch
  - a. Left Position: Fan only on.
  - b. Middle Position: Unit off.
  - c. Right Position: Both fan and heat on.
2. Thermostat Control
  - a. Rotate right or clockwise to increase temperature setting.
  - b. Rotate left or counter clockwise to reduce temperature setting.
3. Dash Switch (optional installation)
  - a. Left Position: Heater off.
  - b. Right Position: Heater and/or fan turned on.

**NOTE:** Both the Dash Switch (if used) and the Function Select Switch must be in the "on" position for the heater to operate. Either switch in the "off" position will turn the heater off.

4. Swivel Knobs
  - a. Loosen swivel knobs on either side to tilt the heater up or down and retighten.

## Suggested Mounting Locations

1. We suggest a mounting location low along the floor, under elevated seats, on wheel wells or on the floor.

**WARNING:** Do not mount the heater where air inlet or air outlet would be blocked. Allow 2-1/2" minimum clearance to obstacles at back and front of the heater.

2. Check heater and bracket dimensions for mounting obstructions before proceeding with installation.
3. Mount heater to metal seat frame, floor or wall

# Installation Instructions

1. After choosing an appropriate location (see Suggested Mounting Locations), mark centers of the three screw holes in U-Bracket on chosen mounting surface. Drill three (3) holes using 1/8" diameter drill bit.
2. Fasten U-Bracket to mounting surface with three (3) #8-32 x 1" long Phillips screws.
3. Uncoil the red, black and white wire furnished with the heater.
4. Route the red and black wires under carpet from the heater location to the driver's side firewall. Drill two 3/8" diameter holes through the firewall and insert two 3/8" bushings.

**WARNING:** Prior to drilling, make certain that the drill bit will not damage existing components on either side of firewall.

5. Feed all excess red and black wire through the bushings into the engine compartment.

**NOTE:** Make sure that the bushings are properly installed to protect wires.

## Installation Using the Optional Dash Switch (If not using the Optional Dash Switch, proceed to step #20)

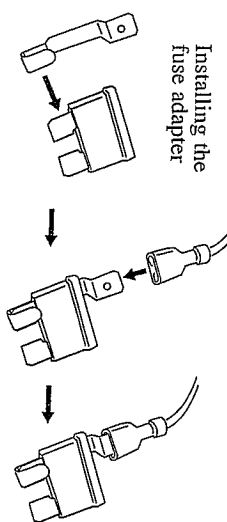
6. Strip 1/4" off end of the red and black wires at heater location and terminate with 12-gauge male spade terminals making sure that the male spade remains centered in the terminal.
7. Strip 1/4" off end of the white wire at heater location and terminate with 20-gauge male spade terminal making sure that the male spade remains centered in the terminal.

**WARNING:** When crimping the terminals to the wires, crimp must be tight to the wire. Use of a proper crimping tool is highly recommended. Failure to have a tight crimp can cause over-heating of the wire.

8. Connect terminals to the heater leads at the back of the heater. Connect red to red, black to black and white to white (see wiring diagram).
9. Mount the heater to the U-Bracket using two (2) 1/4-20 Swivel Knobs.
10. Select mounting location for the Dash Switch.
11. Mark the centers of the two (2) holes in the Dash Switch Angle Bracket at the desired location.

**WARNING:** Prior to drilling, make certain that the drill bit or inserted 1" long screws will not damage existing components.

12. Drill two (2) 1/8" diameter holes for the angle bracket. Fasten bracket to mounting surface using two (2) #8-32x1" long screws.
13. Install dash switch label over the angle bracket and insert switch with numbers facing away from the angle bracket.
14. Cut white wire into two (2) pieces. One to reach from the back of the heater to the dash switch. The other to reach from the dash switch to the vehicle's fuse box.
15. Using the white wire coming from the back of the heater, strip 1/4" off of one end. Terminate this end with a 20-gauge female terminal. Connect to either spade on the dash switch.
16. Using the remaining white wire, strip 1/4" off of one end. Terminate this end with a 20-gauge female terminal. Connect to the remaining spade on the dash switch.
17. Route this wire to the vehicle's fuse box. Strip 1/4" and terminate with a 20-gauge female terminal.
18. Select an existing 10 Amp fuse in the vehicle's fuse box that is dead when the vehicle is not running. This will allow the heater to turn off with the ignition key.
19. Install the fuse adapter into the selected fuse. Connect the terminal on the white wire to the fuse adapter (see diagram).



Skip to Step #26

## Installation Without the Optional Dash Switch

20. Strip 1/4" off end of the black wire at the heater location and terminate with 12-gauge male spade terminal making sure that the male spade remains centered in the terminal.
21. Cut a length of 5" from the white wire. Discard remaining white wire.
22. Strip 1/4" off end of the red and white wires at the heater location and terminate together with 12-gauge male spade terminal making sure that the male spade remains centered in the terminal.
23. Strip 1/4" off of the remaining end of the white wire and terminate with 20-gauge male spade terminal making sure that the male spade remains centered in the terminal.

**WARNING:** When crimping the terminals to the wires, crimp must be tight to the wire. Use of a proper crimping tool is highly recommended. Failure to have a tight crimp can cause over-heating of the wire.

24. Connect terminals to the heater leads at the back of the heater. Connect red/white to red, black to black and white to white (see wiring diagram).

25. Mount the heater to the U-Bracket using two (2) 1/4-20 Swivel Knobs.

26. Route power wires (red & black) around engine compartment. Attach wires with wire ties or clips to compartment walls away from engine block, manifolds, and other harnesses or moving parts.

**WARNING:** Do not cut off excess red and black wires. Shortening these wires will decrease the resistance of the wire, which in turn increases the current through the wire. This could cause the heater to malfunction and will void your warranty.

27. Terminate one end of the in-line fuse with a 1/4" ring terminal and the other end with a 12-gauge butt splice. Connect ring terminal to the positive (+) post on the battery. (If the system has a positive ground, attach the in-line fuse ring terminal to the negative (-) post.)

**WARNING:** The in-line fuse must be installed as close to the battery as possible (see wiring diagram). Changing the location of the in-line fuse can cause over heating of the fuse.

28. Strip 1/4" off of the end of red wire and terminate to the 12-gauge butt splice on the in-line fuse.
29. Strip 1/4" off of the end of black wire and terminate with a 1/4" ring terminal. Connect the ring terminal to the negative (-) post on the battery. (If the system has a positive ground, attach the black wire to the positive (+) post on the battery.)
30. Start the vehicle and test the heater. Both the Function Select Switch and the Dash Switch (if used) must be in the on position for the heater to start.

**Note:** If additional wire is required, use only properly insulated 12 AWG wire as power wires.

**WARNING:** Use only the recommended fuse sizes. Use of incorrect fuses can cause damage to heater or vehicle and will void your product warranty.

Installation also available at local service centers.

**Failure to follow these instructions may void product warranty.**

## Troubleshooting Guide:

**Heater does not operate (no fan and no heat).**

1. Check thermostat setting. Turn toward Hi until heater starts.
2. Check in-line fuse. If blown, replace with 30 Amp automotive fuse only. (It is possible that the fuse could have a hair-line crack that makes it difficult to tell if the fuse has blown.)
3. Check proper connection to battery. (Red to + and Black to -). Reverse if positive ground system.
4. Check proper connection of dash switch or optional wiring per wiring diagram.
5. Check connectors at rear of heater for proper insertion and complete connection.
6. After checking the above and the heater will still not operate, call our technical support team at 616-530-6540.

**Heat output, but no fan.**

1. Immediately discontinue use.
2. Call our technical support team at 616-530-6540.

**Fan works, but no heat output.**

1. Check the red wire connection at the back of the heater. (If an incomplete connection exists on the red wire, there will be 12 volt current up to the heater from the battery, but not into the heater.)
2. Recheck all crimps and connections.
3. After checking the above and the heater will still not operate properly, call our technical support team at 616-530-6540.

**Low heat output.**

1. This heater is not intended to serve as a primary heat source. The air output will be 20°-30°F warmer than the air input.
2. Alternator may not be getting enough Amps. Check for loose belts.
3. After checking the above and the heater will still not operate properly, call our technical support team at 616-530-6540.

### Specifications:

#### Model #3000C 12-volt

Voltage: 12 VDC  
Current: 25 Amp @ 12 VDC  
Power Consumption: 300 Watts, 1100 BTUs  
Wire Harness Length: 20 Ft.  
Fan Rating: 102 CFM

#### Model #4000 24-volt

Voltage: 24 VDC  
Current: 25 Amp @ 24 VDC  
Power Consumption: 600 Watts, 2100 BTUs  
Length Wire Harness: 20 Ft.  
Fan Rating: 102 CFM

## Two Year Limited Warranty

Therm Technology Corp. products are warranted to the original retail purchaser, to be free from defects in material and workmanship except as otherwise provided herein. This warranty is not transferable and is effective from the date of original retail purchase.

### This Warranty Covers:

1. During the first year from original retail purchase date, Therm Technology will, at its option, repair or replace defective components, including labor and the cost of shipment to original consumer.
2. After the first year from original retail purchase date, up to the term of the warranty, Therm Technology will repair or replace defective components with an identical or reasonably equivalent new component for a \$25.00 service charge which includes labor and the cost of shipment to original customer.

### This Warranty does not cover:

1. Cost of shipping the product to Therm Technology.
2. Normal wear, scratches or fading of the product.
3. Damage caused by abuse, misuse, neglecting to follow use procedures, failure to follow installation procedures (see instructions in product package) or product modifications made by consumer.
4. Damage to home or vehicle electrical system or components caused by inadequate wiring to the product plug-in point.
5. Damage to any object placed close (see instructions on product package) to the air output of the heater.
6. Damage caused by dropping of heater.
7. Product sold outside the USA and Canada.
8. Consequential damages, incidental damages or expenses, including damages to property. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### Procedures for Warranty service (USA only):

1. Contact Therm Technology at 616-530-6540 for a return authorization number. Write this number on the carton being returned to Therm Technology.
2. Attach, to the product itself, a tag showing your name, address, phone number, description of problem and proof of retail purchase date. Enclose a cashier's check, check, Visa or Mastercard information or money order for applicable service charges.
3. Package the product carefully to ensure that no damage occurs during return shipment. Return the product, postage prepaid, to Therm Technology, 2879 Remico SW, Grandville, MI 49418-1139.

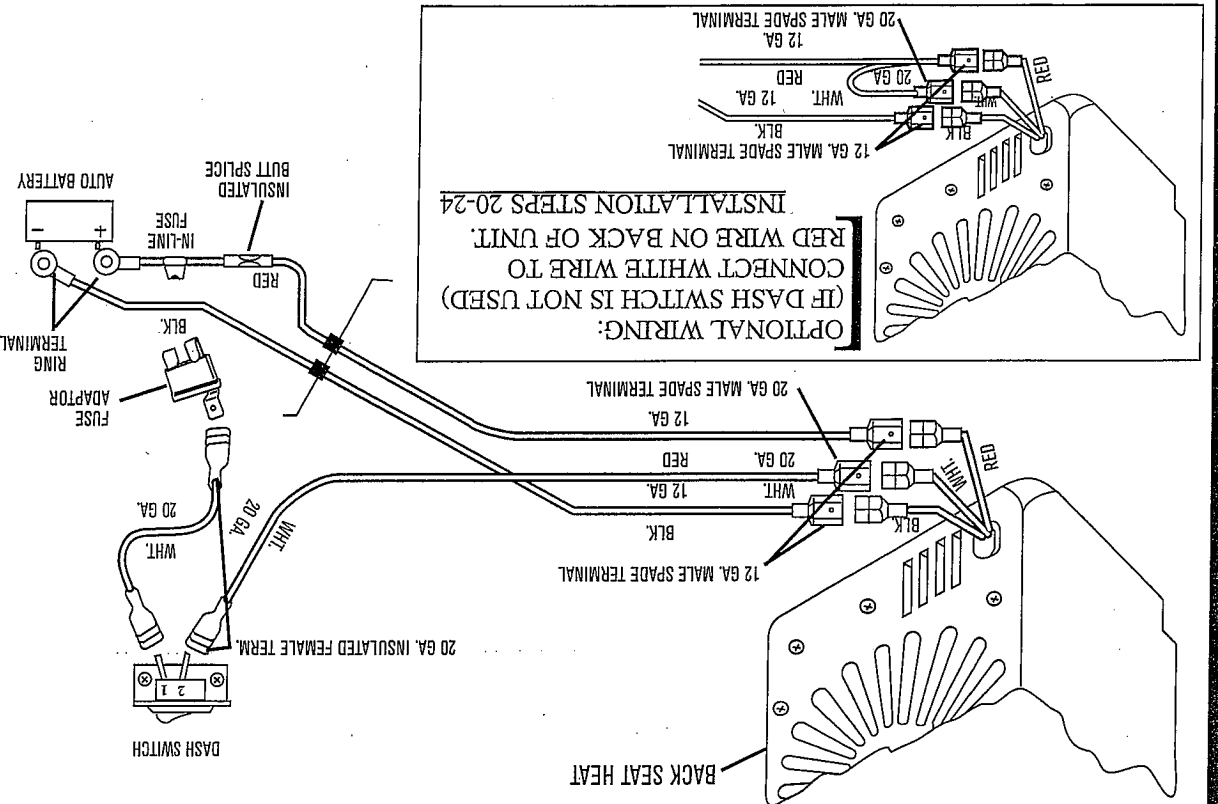
### Procedures for Warranty Service (Canada only):

1. Return heater with proof of purchase date to the store where purchased. Pay applicable service charges to the store.
2. Therm Technology has authorized the store to give a replacement heater or credit if no stock exists.
3. Therm Technology will repair or replace the heater directly to the store.

### Implied Warranty:

This warranty is limited to the provisions clearly stated herein. Any implied warranties, warranties of merchantability, warranties of fitness for a particular use are excluded.

If any provision of this warranty is prohibited by federal, state, or local law, that cannot be preempted, that provision shall not be applicable. This warranty gives you specific legal rights and you may also



SEE Expanded view  
on next page

# ENGLISH

