



PORTABLE HEAT-TROLLER™

for use with all heated apparel

Features:

- Electronic, solid-state design coupled with analog control for a full range of heat with minimum power loss
- Flashing L.E.D. provides visual feedback for on, off, power level & polarity
- Sealed switch with tactile on/off with 300° rotation
- Red L.E.D. indicates that unit is connected to power correctly and yellow L.E.D. indicates the polarity is reversed
- Heat-Troller is waterproof and can be left on the bike in the rain
- Permanently mounted Heat-Trollers feature switch and L.E.D. on a circuit board with 5ft of cable
- Solid-state, high-tech, safe & reliable electronics
- Fits comfortably in the palm of your hand, pocket or on the bike, scooter, small airplane or even a horse. Just about anywhere!
- Battery harness made of automotive grade wire that is resistant to oil, acid, water and grime with automotive style fuse
- Plug compatible with most DC heated products
- Handles 15 amps at 13 volts, 195 watts with internal reset for overloads
 & shorts. Works from 7 volt to 24 volt
- Recommended for all heated clothing

To see more technical information as well as use and mounting ideas visit www.warmnsafe.com

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Instructions for Installing Battery Harness

Read through all these instructions BEFORE starting

(Do not use a Battery Tender Harness to power heated clothing!)

- 1. Turn off the vehicle, generator or any charging source for the battery
- 2. At the Battery:
 - a. First disconnect the ground (-) cable from the battery
 - b. Then disconnect the plus (+) cable from the battery
- 3. Attach the positive ring terminal from the battery harness to the positive terminal on the battery.

 The positive ring terminal can be distinguished from the negative by the fact that it has a fuse attached to the wire.

 Reattach the bolt to the battery and tighten.
- 4. Attach the negative ring terminal from the battery harness to the negative terminal on the battery. The negative ring terminal can be distinguished from the positive by the fact that it does NOT have a fuse attached to the wire. Reattach the bolt to the battery and tighten.
- 5. Secure the wire harness with cable straps. Be certain the wire harness and all cords are not pinched. The connecting plug should be easily accessible but clear of all moving parts.
- 6. Test the connection! Plug the Heat-Troller to the battery harness, the L.E.D. should turn on and be red. If the polarity is reversed, the L.E.D. will be yellow. On a Dual Heat-Troller the red bicolor L.E.D. will turn yellow & the single yellow L.E.D. will not turn on at all.

CAUTION: It is possible to overload your charging system by adding too many electrical accessories. If your combined accessories use more electrical current than your charging system can produce, the consumption can discharge the battery leading to electric system damage. Ask your dealer for advice about the amount of current consumed by additional electrical accessories.

Using Your Portable Heat-Troller

- 1. Turn the knob of the Heat-Troller to the "off" position. Attach the plug of the Heat-Troller marked "power in" to the connecting plug on the battery harness.
- 2. Attach the plug marked "power out" directly to the garment. Turn the knob on, and the L.E.D. should begin to blink. When the light stays on without blinking, it is on full power.
- 3. Remember the plug marked "power in" always goes to the power source; the one marked "power out" always goes to the garment. If the Heat-Troller is not plugged in correctly, it will not work correctly.
- 4. With the Heat-Troller turned OFF, the L.E.D. should be OFF. When you turn the Heat-Troller ON the L.E.D. will start to flash; increasing in rate as you turn the Heat-Troller knob to full. When on full, the L.E.D. will stop blinking & will stay lit.
- 5. If you have a Dual Portable Heat-Troller, you notice that there is one red and one yellow dot on the knobs. The red L.E.D. is your primary control & goes to the grey or grey/red cable connector. The yellow controls the black or black/yellow cable connector. Remember, on a Dual Heat-Troller, if you have the power in polarity reversed then the red L.E.D. will be yellow and the yellow L.E.D. will not turn on.

Troubleshooting Information

- 1. If your Heat-Troller does not operate, check all connections for tightness & the wires for proper connection.
- 2. Make sure the battery harness is plugged directly to the battery and not to a fuse block & polarity is correct.
- 3. If you are using a BMW[®] power adapter made by some other company, check to see if the wires inside have come loose. Check the BMW[®] socket is fused for enough draw and NEVER use the BMW[®] power port on a CAN BUS system.
- 4. If the knob is too hard or too easy to turn, loosen the screw on the knob & adjust the knob & o-ring against the nut of the switch then retighten the knob set screw.
- 5. If your unit fails, contact us to help diagnose the problem.

Guidelines for Using Your Heat-Troller

To reduce the risk of burns, electric shock or fire, the Heat-Troller must be used in accordance with the following instructions:

- Use the Heat-Troller only on DC power with properly rated power source, this includes a rechargable battery or an AC to DC power adapter.
- The output cord (marked power out) of the Heat-troller is intended for use only with approved heated items. Other devices such as Battery Tenders should not be connected directly to the Heat-Troller. Do not use a Battery Tender power harness. It is not designed for the greater draw of heated clothing.
- For safety reasons, the Heat-Troller should not be put in the pocket of heated apparel while it is being used.
- Read through the installation instructions and warranty information in this booklet before installing your Heat-Troller.
- Broken wires or shorts in your heated clothing can damage your Heat-Troller, even though the clothing may appear to function normally. If your Heat-Troller fails to function correctly, we suggest you immediately check your clothing for shorts. You can find simple instructions for testing on our website.
- If the Heat-troller fails, after checking and fixing a short, you can turn the switch off and then on.
 This will reset it.

IMPORTANT!

This Heat-Troller has been equipped with a resettable cut-off which will cause the unit to stop working if there is a short in the clothing or wires for your protection. Just turn off the Heat-Troller, repair the problem, and then turn it back on.

CAUTION!

It is possible to overload your vehicle's charging system by adding too many electrical accessories. If your combined accessories use more electrical current than your vehicle's charging system can produce, the consumption can discharge the battery, leading to electric system damage. Ask your dealer or see your owner's manual for advice about the amount of current consumed by additional electrical accessories.

Warranty for Your Heat-Troller

If this unit fails due to faulty parts or manufacturing within 3 years of your purchase we WILL replace it. The cables, connectors and knobs are wear items and not covered, nor are units damaged by abuse or neglect. The Heat-Troller should be installed in accordance with the enclosed instructions. We are not responsible for units damaged by incorrect installation, improper use or shorts in the

clothing made by others.

- All warranties will be voided IF the following guidelines are not followed:

 Do not cut any of the wires or connectors!
- Only use the battery harness, cigarette plug adaptor, or the Firstgear BMW[®] power port adaptor MADE BY US to power your Heat-Troller! Attempting to use a home-made BMW[®] or cigarette plug adaptor will void the warranty.
- The Heat-Troller should be installed in accordance with the enclosed instructions. We are not responsible for units damaged by incorrect installation, improper use or shorts in the clothing caused by tampering.

Contact Information

For all issues contact us at www.warmnsafe.com • info@warmnsafe.com • or call +1(702)357-8664 Designed & Manufactured By Warm & Safe Heated Gear, LLC