



SEAT HEATER AND MASSAGE INSTALLATION KIT

Installation Instructions

- Read Carefully Before Starting Installation -

Limited Warranty

This Product is warranted to be free from defects in manufacturing and workmanship and is guaranteed to work for three years or 36,000 miles, whichever occurs first. This Limited Warranty covers the repair or replacement of the seat heater components and massage motors only, and does not cover any costs related to or damage resulting from the installation of the product. Seat heaters and motors must only be used in the seat applications for which they were designed, tested and approved by Check Corporation, and failure to properly install the designated product, or improper installation or misuse of any component, will void this Limited Warranty.

MANUFACTURER'S LIMITED REPAIR/REPLACEMENT WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR DUTIES OR WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OF TRADE OR COMMON LAW. IN NO EVENT SHALL MANUFACTURER BE LIABLE FOR PROXIMATE, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGES FOR LOSS OF PROFITS OR PRODUCTION OR INJURY TO PERSON OR PROPERTY. THE CONSUMER OF THIS PRODUCT SHOULD CONTACT ITS INSTALLATION DEALER FOR ANY WARRANTY CLAIM AND RETURN WARRANTY CARD TO VALIDATE WARRANTY.

- The Skills You Need -

Automotive electrical experience or a basic understanding of electrical systems and the ability to disassemble and reassemble automotive seating is recommended.

- Before You Start -

REVIEW ALL INSTALLATION INSTRUCTIONS AND PRODUCT WARNINGS BEFORE INSTALLATION!

NOTE: The thickness of the back foam bun at the motor locations must be more than 1 ½". This foam thickness will ensure that the motors do not touch the seat frame suspension or lumbar of the seat back after installation.

The heating panels work best with a ¼" to ½" piece of foam between them and the seat cover material. Thicker foam will increase the heat up time. Normally foam is sewn into the seat cover at the factory.

Check and determine that the heating panels will fit under the seat trim covers in the desired areas. The listing channels or the Velcro hold-downs should line up with the cutouts in the seat heater elements. This is not important if the heating element doesn't cross over a listing channel or a Velcro hold down.

Locate vehicle fuse panel and determine routing of wire. Length of power harness provided is 12 feet. Look for 12-15V ignition switched fuses that are 10A or greater. You will tap the "hot side" of the fuse. Use separate taps for each seat heater. Each seat heater MUST have its own 7.5A inline fuse (supplied with kit).

Seat heater elements are to be placed onto foam bun ONLY.

Some front passenger seats are outfitted with occupant detection sensors which are not compatible with ANY aftermarket seat heater. Consult with Check Corporation to determine the appropriate heating system for each specific vehicle.

Heating elements should NEVER be installed onto foam where an occupant detection sensor is visible on the TOP surface of the foam.... even if the heating element would not touch the sensor.

Never remove the cover of a bonded seat. The cover of a bonded seat cannot be installed again once it has been removed. If installation of a seat heater is to be attempted in this kind of seat, cut an opening in the foam bun large enough for the element to fit ½" underneath the cover. A professional should only attempt this, as mistakes often result in the replacement of the seat foam and cover.

IF ABOVE CONDITIONS CANNOT BE MET, DO NOT ATTEMPT INSTALLATION.

- ! WARNING ! -

PLEASE READ BEFORE INSTALLING SEAT HEATERS!

1. SEAT HEATERS SHOULD NEVER BE INSTALLED ONTO FOAM WHERE AN OCCUPANT DETECTION SENSOR IS VISIBLE ON THE TOP SURFACE OF THE FOAM... EVEN IF THE HEATING ELEMENT WOULD NOT TOUCH THE SENSOR. SEAT HEATER ELEMENTS ARE TO BE PLACED ONTO FOAM BUN ONLY.

THE HEAT UNITS MAY ADVERSELY AFFECT OR CAUSE THE SENSORS OR AIRBAG SYSTEM TO NOT FUNCTION CORRECTLY, THEREBY CAUSING SEVERE INJURY OR DEATH.

WHILE CHECK CORPORATION HAS ATTEMPTED TO SELECT SEAT HEATERS THAT THEY BELIEVE ARE FULLY COMPATIBLE WITH THE PARTICULAR VEHICLES, IT IS THE RESPONSIBILITY OF THE INSTALLER TO CAREFULLY INSPECT THE FOAM BUN SURFACE FOR OCCUPANT DETECTION SENSORS. INSTALLER SHALL INDEMNIFY AND HOLD CHECK CORPORATION HARMLESS FROM ANY AND ALL INSTALLATIONS CONTRARY TO THESE OR THE OTHER INSTALLATION INSTRUCTIONS.

2. IT IS IMPORTANT TO CONSULT WITH CHECK CORPORATION TO DETERMINE THE APPROPRIATE HEATING SYSTEM FOR EACH SPECIFIC VEHICLE.
3. REMOVE PAPER ADHESIVE LINER FROM THE CUSHION AND BACK HEATING ELEMENTS BEFORE INSTALLING THEM ONTO THE FOAM BUN.

THIS IS MANDATORY AS THE HEATING PATTERN IS MAINTAINED BY THE ADHESION OF THE HEATING ELEMENTS TO THE BASE FOAM OF THE SEAT. IF THE HEATER ELEMENTS ARE NOT SECURED THEY COULD DEVELOP HOT SPOTS, WHICH COULD START A FIRE.

4. THE PAPER LINER WILL BURN IF NOT REMOVED, AS IT IS COMBUSTIBLE AND NOT INTENDED TO BE INSTALLED WITH THE HEATER ELEMENTS.
5. SEAT HEATERS MUST BE CONNECTED TO SWITCHED IGNITION POWER ONLY. THIS WILL PREVENT CONTINUED OPERATION OF THE SEAT HEATERS AFTER THE VEHICLE HAS BEEN TURNED OFF. CONNECTING TO OTHER POWER POINTS WILL CAUSE THE BATTERY TO DISCHARGE TO A NONSTARTING VOLTAGE IF THE SEAT HEATER SWITCH IS LEFT ON AFTER THE VEHICLE HAS BEEN TURNED OFF.
6. SEAT HEATER ELEMENTS MUST NOT BE FOLDED INTO SEAT LISTING CHANNELS EXCEPT WHERE CUTOUTS WERE DESIGNED INTO THE ELEMENT. ALSO DO NOT FOLD THE HEATING ELEMENTS AGAINST THEMSELVES, AS THE UNIT WILL OVERHEAT AND BURN.
7. CUSHION AND BACK HEATING ELEMENTS ARE WIRED TO OPERATE IN SERIES ONLY. DO NOT CHANGE THE WIRING TO POWER THE HEATING ELEMENTS IN PARALLEL, AS IT WILL CAUSE THEM TO OVERHEAT AND BURN.
8. MESSAGE MOTORS ARE SPECIFICALLY DESIGNED FOR USE IN THE BACK FOAM BUN. NEVER INSTALL MOTORS IN CUSHION BUN.

IN THE EVENT THAT THE FOREMENTIONED WARNINGS ARE DISREGUARDED, THE WARRANTY BECOMES NULL AND VOID, BEING THAT THE COMPONENTS PROVIDED WITHIN THE SEAT HEATING KIT WERE MISUSED. MISUSE OF THIS PRODUCT MAY CAUSE SERIOUS

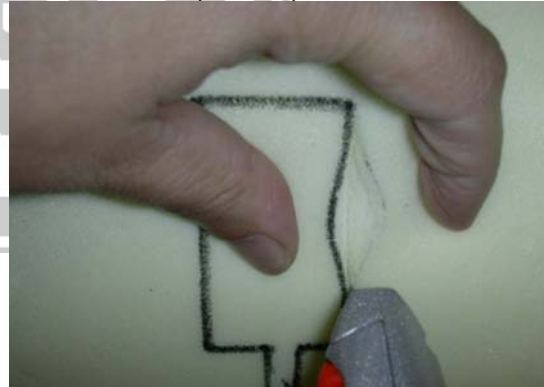
- Parts list -

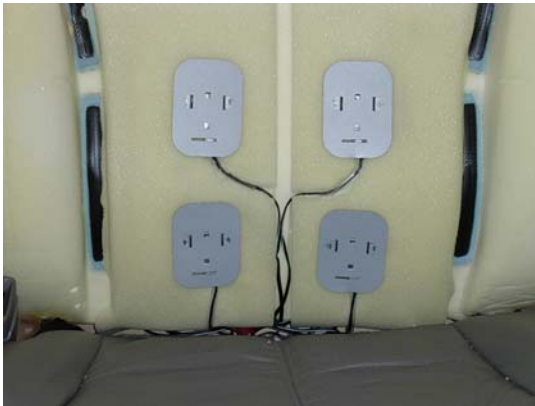
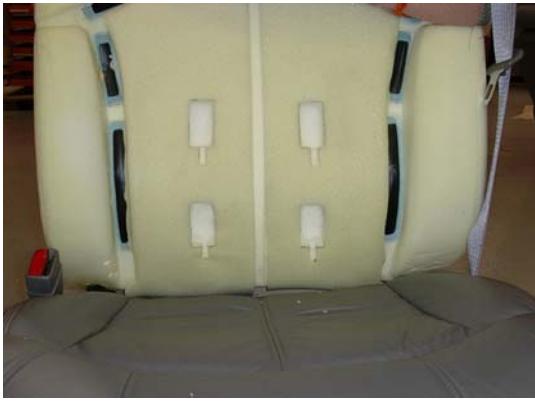
INJURY TO PERSON OR PROPERTY.

Back Element	1
Foam with Adhesive	1
Controller Assembly with Switch Harness	1
Power Harness	1
Hardware Package	1
Customer Information Package	1
Massage Motor Assembly-2 Motors	2
Super Glue	1
Template	1

- Installation -

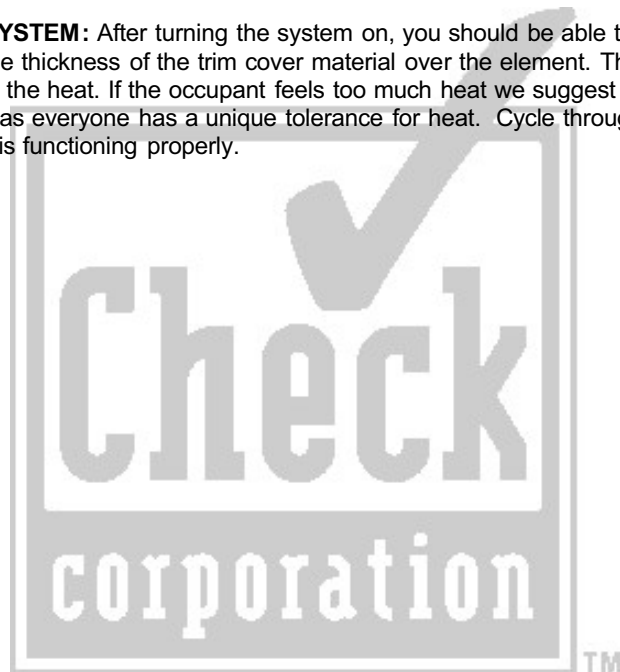
- 1** Pre-wire all components on your workbench and test with an ohmmeter for continuity. Do NOT use a battery charger as a power source. Use a 12V D.C. power source. If there are any problems, flip to troubleshooting page. **NEVER OPERATE SEAT OR BACK ELEMENT SEPARATELY. CHECK CORPORATION HAS SINGLE ELEMENT HEATERS AVAILABLE IF NEEDED.**
- 2** Disconnect and isolate the battery negative (ground) cable, pump the brakes a few times, and wait five minutes for the system to discharge. It is important to do this before disconnecting any airbag connectors.
- 3** Remove Seat(s) from vehicle. Care should be taken, as the sharp edges of the seat frame will scratch the interior trim. Use duct tape or padding to cover sharp areas before removing seat.
- 4** Remove the seat covers and verify the heating elements and motors fit. **SEAT HEATERS SHOULD NEVER BE INSTALLED ONTO FOAM WHERE AN OCCUPANT DETECTION SENSOR IS VISIBLE ON THE TOP SURFACE OF THE FOAM... EVEN IF THE HEATING ELEMENT WOULD NOT TOUCH THE SENSOR. BACK FOAM THICKNESS MUST BE AT LEAST 1 1/2" AT MOTOR LOCATIONS FOR PROPER INSTALLATION.**
- 5** While the seat is out, run the electrical harness under the carpet to the fuse panel. (Route the Heater Power Wires parallel to the vehicle wire harness.) **NEVER CUT ACROSS FLOOR PAN WHERE OCCUPANTS FEET AND WATER MAY BE PRESENT. DO NOT PLACE THE WIRES UNDER THE SEAT ANCHOR POINTS.**
- 6** Locate the desired IGNITION SWITCHED fuse outlet and connect using the supplied fuse accessory and wire ends. Only one seat per fuse outlet. Each seat requires its own 7.5A inline fuse (supplied with kit).
- 7** Install the ground wire ring terminal to the fuse box ground screw. **NEVER DRILL THROUGH A FLOOR.**
- 8** Install the seat heater switch on the seat molding, the center console, or using an optional switch bracket. Ensure that the wire harness will reach the switch and the wires aren't obstructed by the seat structure and supports. Cut out a switch hole to mount the switch. **NEVER PUT THE SWITCH IN A POSITION WHERE THE LIGHT FROM THE SWITCH WOULD GLARE INTO THE DRIVER'S OR OCCUPANT'S EYES.**
- 9** By using the template provided, locate and trace motor locations onto back foam bun. Using a standard carpenter's blade, cut and remove foam for motor placement. The required depth for the motors is 1 1/8".



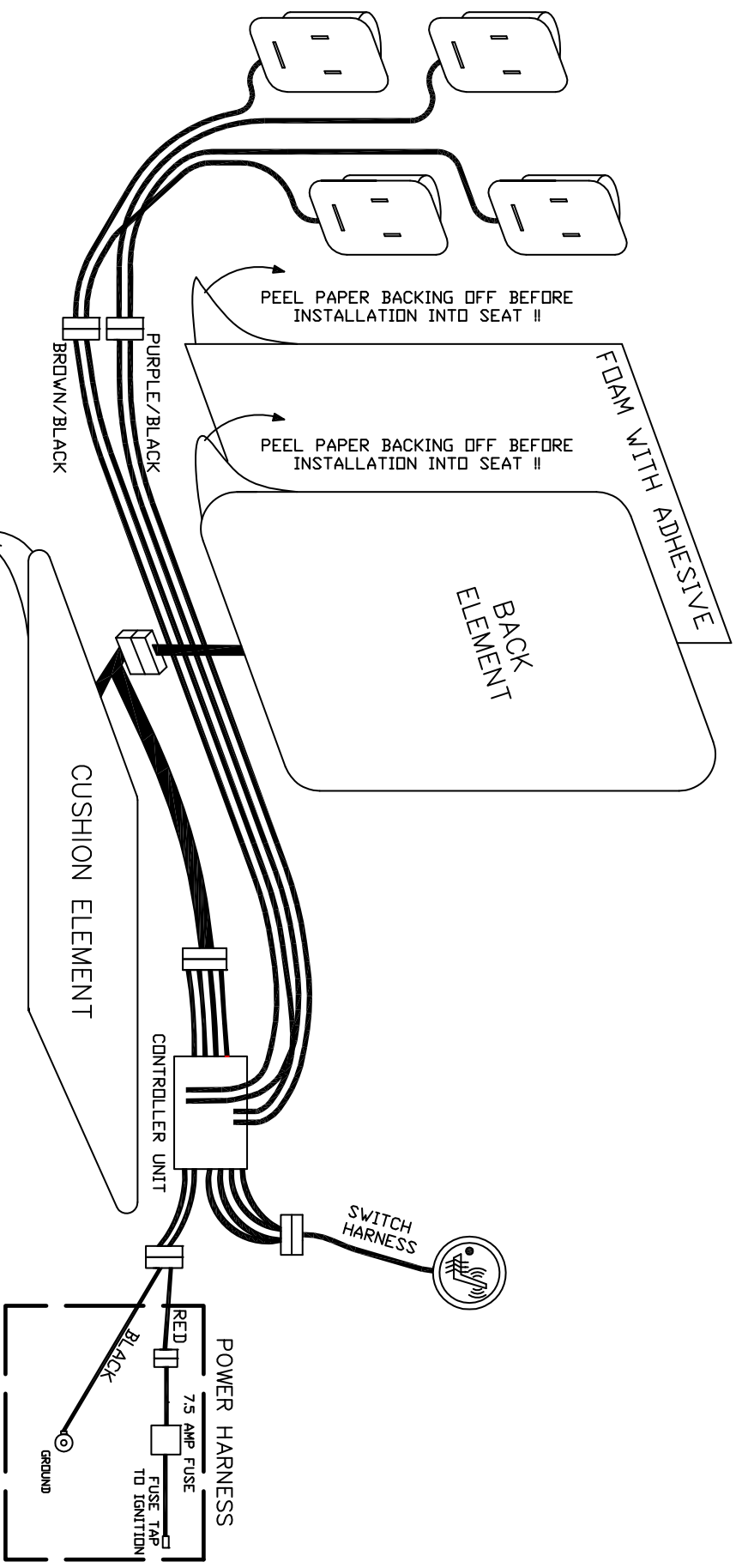


- 10** There are two sets of motors, one for the upper back and one for the lower back. Mark the motors before placing them into the seat to ensure that one set is installed into the upper back and another set is installed into the lower back.
- 11** Using the “Super Glue”, apply a light layer of adhesive on the flat plate of the domed side of the motor (see picture), ensure entire flat plate is covered. Place the motor into the depression and apply modest pressure for two minutes while the glue bonds. **BE SURE TO GLUE AND PLACE ONE MOTOR AT A TIME AS THE ADHESIVE IS QUICK-DRYING.** After installing the motors, cut a ¼” deep channel down the foam to cradle the motor wires.
- 12** Remove the adhesive release paper from the sheet “Foam with Adhesive”. Place the foam over the motors making sure that no part is left exposed.
- 13** Locate area for heating panels by tracing element outline onto foam bun. Be sure that the cushion element is placed on the cushion bun, and that the back element is placed on the back bun.

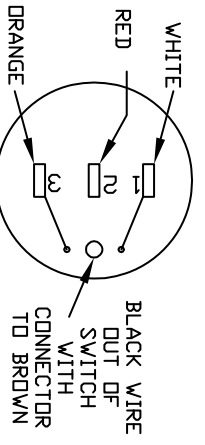
- 14** Remove the adhesive release paper. This paper must be removed, as it will BURN. Attach the heating panels to the base seat foam by pushing down on the pads causing the adhesive to stick completely to the seat base foam. **NOTE:** Element may be hard to handle if you tear release paper off all at once. Paper can be peeled away in increments as you apply the element to the foam bun. Apply cushion element rear to front and back element bottom to top. **RELEASE PAPER MUST BE COMPLETELY REMOVED. FAILING TO COMPLETELY REMOVE PAPER IS A FIRE HAZARD AND NULLIFIES AND VOIDS WARRANTY.**
- 15** Connect the seat wires together (refer to "Seat heater & massage kit wiring diagram"). (Remember - red-to-red, black-to-black). Ensure the upper set of motors connects to purple /black wires and the lower set of motors connects to brown/black wires from the controller unit. **SECURE THE WIRE WITH THE TIES PROVIDED. CHECK THAT THE RECLINING OF THE SEATS, OR THE MOVEMENT OF THE SEAT FRAME DOES NOT PULL, FRAY, OR CUT THE WIRES**
- 16** Re-install seat trim covers. Do not install hog rings through the heating element. **THE SEAT LISTING WIRES SHOULD NOT LIE DIRECTLY ON TOP OF THE HEATING ELEMENTS. IF THE LISTING WIRES MUST CROSS THE PADS IN THE CHANNELS, ADD SOME FOAM FOR PROTECTION.**
- 17** Install the seat into the vehicle. Connect the power harness to the seat. **TEST SEAT FUNCTIONS; RECLINE, FORWARD, REVERSE, UP, DOWN, ETC. MAKING SURE THAT NO STRAIN IS PLACED ON ANY OF THE SYSTEM'S WIRES.** Make sure all of the anchor bolts are tight to the manufacturer's specification.
- 18 OPERATION OF THE SYSTEM:** After turning the system on, you should be able to feel heat within 1-3 minutes depending on the thickness of the trim cover material over the element. The thicker the trim cover, the longer it takes to feel the heat. If the occupant feels too much heat we suggest turning the heater off or setting the heater to low as everyone has a unique tolerance for heat. Cycle through the four motor settings to verify that the system is functioning properly.



SEAT HEATER & MASSAGE KIT WIRING DIAGRAM



SWITCH WIRING DIAGRAM

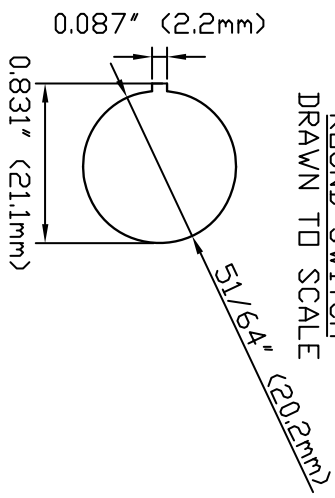


NOTE: TEMPERATURES & VIBRATION ARE SELECTED BY THE NUMBER OF TIMES THE SWITCH IS PRESSED.

SWITCH OPENINGS

5/164" Drill Bit with 3/8" Shank available from Advantage # ADV/PLEX385164 PHONE 407-678-1177

ROUND SWITCH DRAWN TO SCALE



- Seat Heaters and Motors Specification -

Check Corporation seat heater systems are specific to each seat. They are designed to fit specific vehicle seats according to the model and production year of the vehicle.

- 12V AUTOMOTIVE SYSTEM (11 – 15 Volts)
- MAXIMUM POWER REQUIREMENTS VARY BY KIT AND RANGE BETWEEN 51W (3.7A @ 13.8V) AND 84W (6.1A @ 13.8V).
- TEMPERATURE RANGE MEASURED AT SEAT SURFACE DURING NORMAL OPERATION **

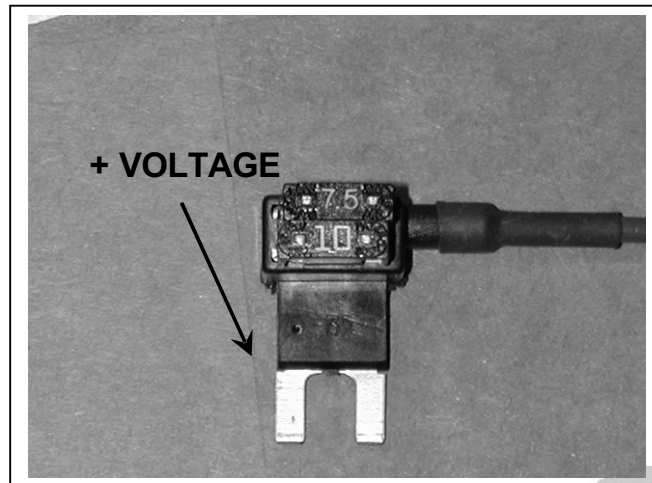
(TEMP III)	109 – 115 °F	(+/- 1 °F)
(TEMP II)	105 – 111 °F	(+/- 1 °F)
(TEMP I)	94 – 100 °F	(+/- 1 °F)

- HEATING ELEMENT IS 0.25 INCH THICK POLYESTER FOAM WITH NYLON SCRIM
- ADHESIVE BACKING IS 3.0 US MILS THICK ACRYLIC WITH 4.3 US MIL KRAFT LINER
- HEATING ELEMENTS MEET FMVSS 302 FLAMMABILITY REQUIREMENTS
- WIRING HARNESS IS MADE OF GXL AUTOMOTIVE RATED 18 AWG WIRE
- CONNECTORS ARE INDEXED TO PREVENT IMPROPER MATING
- HEATING ELEMENTS ARE WIRED IN SERIES
- BACK & CUSHION HEATING ELEMENTS ARE INCLUDED
- MOTORS ARE 3.5" LONG, 2.5" WIDE, AND 1 3/16" THICK
- LIMITED WARRANTY: 3 YEARS OR 36,000 MILES (see specific warranty statement)

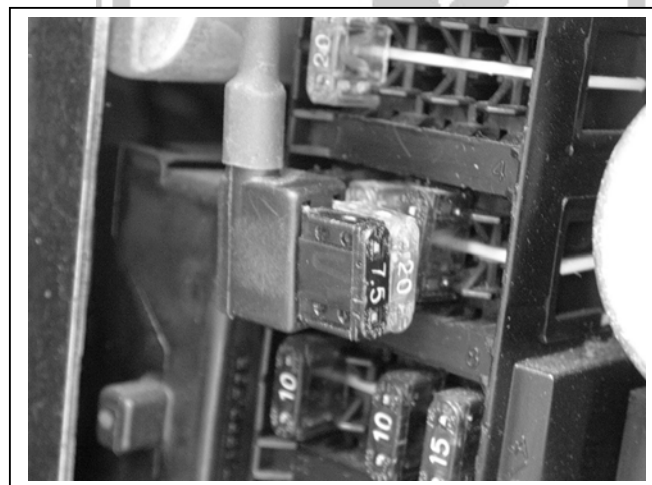


** Performance varies with seat materials used and the density and amount of sew foam between the heating elements and the surface of the seat. These numbers were measured with a test set-up consisting of the appropriate KIT #1 seat heater placed in an automotive seat with a leather cover and a low density sew foam 0.5 inches thick.

- Fuse Installation -



Above and Below: Add-A-Fuse Accessory. Prong indicated must go to the +12V "hot" side of the fuse receptacle.



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- Troubleshooting of the Electrical System -

IF THE SYSTEM DOES NOT HEAT UP

To test the unit you must sit in it for at least a 5-minute period in which the heat has time to reach the seat surface.

- ✓ Check the 7.5A inline fuse added during the installation.
- ✓ If the switch does not light or lights while switch is in the off position, then verify the switch wiring per included diagram. Also check that +12V is on the red wire at the control module and Ground is on the black wire at the module. It is important to check this AT the control module. Use the black ground wire at the module for your meter or test light... do not use a ground elsewhere in the vehicle.
- ✓ A flashing LED indicates a disconnected or faulty heating element. It can also be caused by a loose or poor ground connection in the system.
- ✓ Ensure that all connections are properly coupled and that the 12V DC and ground wires are properly installed. (See fig. 1 for wiring diagram and /or closed assembly drawing.)
- ✓ Test the heating elements at connector next to the "cushion element" label with an ohmmeter across pins with blue and yellow wires. If an open condition exists, check that the back element is properly connected to the cushion element. If an open condition still exists, there is either a broken heating wire or an open thermostat (standard kit only). Cool down the thermostat and check it again. **NOTE:** The cushion and back elements connected in series should have a resistance of 0-10 Ohms +-10% depending on the kit.
- ✓ If the heating elements, switch, and seat harness test OK, then a power problem exists.
- ✓ Using a voltmeter or a test light, start at the fuse tap and trace back through all of the connectors and the switch to determine where the power loss is occurring. Repair as necessary.
- ✓ If the accessory fuse continues to blow, the seat heater fuse may be connected to the wrong side of the fuse. The seat heater fuse must be on the +12 volt input side of the accessory fuse. To test for the +12V input side of the fuse, remove the fuse and locate the +12 volt side of the receptacle. +12V exists on one side after the fuse is removed and the ignition is turned on.
- ✓ Each seat heater that is installed in the vehicle must have its own fuse (provided with kit). It is also advisable that each seat heater assembly has its own fuse accessory at the fuse panel.
- ✓ **IF YOU HAVE ANY QUESTIONS REGARDING THE INSTALLATION OF CHECK CORPORATION SEAT HEATERS, PLEASE CALL OUR HOTLINE AT 1-800-927-6787, 8AM TO 5PM EASTERN STANDARD TIME.**

LIT-MSG REV A 02-10-05