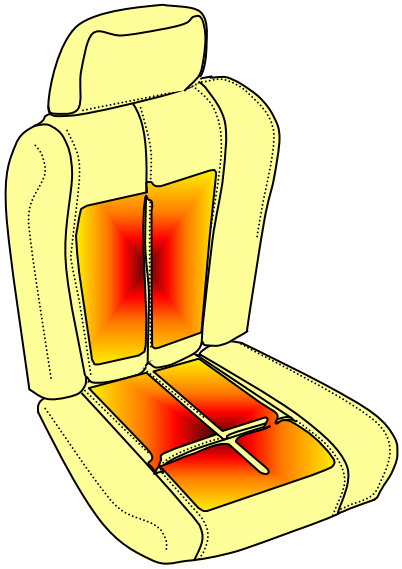
HILO KIT



SEAT HEATER INSTALLATION INSTRUCTIONS

1-Seat Coverage
2-temperature setting

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, or whichever occurs first. This Limited Warranty covers the repair or replacement of the seat heater components only and does not cover any costs related to or damage resulting from the installation of the seat heater. Seat heaters 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 seat heated product, or improper installation or misuse of any component, will void this Limited Warranty. Installer shall indemnify and hold Check Corporation harmless from any and all installations contrary to automobile OEM, automobile dealership, and Check Corporation issued instructions.

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 PROXIMITE, 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.

1-SEAT

HILO SEAT HEATER KIT

INSTALLATION MANUAL

for Leather and Cloth Seating

Installation Instructions

The skills you need:

You need to be confident in your ability to:

- remove an automotive seat and reinstall to specification
- remove the upholstery and reinstall the upholstery
- remove and reinstall other trim such as the center console or parts of the instrument panel
- creating a hole in the trim for placement of the switch
- work with advanced airbag and occupant detection systems if equipped

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

Recommended tools:

- Multi-meter
- Terminal crimpers
- Wire strippers
- Screw driver
- Wrenches
- Electrical tape
- Marker or pencil
- Drill
- Wire cutters
- Torque, socket and Allen wrenches
- Hog ring pliers
- Utility knife
- Needle nose pliers
- Ratchet
- Deep socket
- 3/4” Uni-bit (step bit)

This product features:

Temperatures	Seats
☐ 1 temp	☒ 1 seat
☒ 2 temp	☐ 2 seats
☐ 3 temp	

Available Switch Style Options for this product:

Round Rocker

HILO Seat Heater Kit

Checklists:

Kit Parts List	Part Number	HILO-1xx ONE SEAT CUSHION & BACK
CUSHION ELEMENT	SEE BELOW	1
BACK ELEMENT	SEE BELOW	1
LUX ROUND SWITCH	SW-SPDT-06-24V	1
HARDWARE PACK	HPACK-EC9-PRO	1
POWER HARNESS (12')	PH-12FT	1
ELECTRONIC SWITCH HARNESS (5')	SWH-EC9A-01	1
OWNERS MANUAL		1
SERVICE MANUAL		1

HPACK-EC9-PRO Parts List	QUANTITY
4" TY-RAP	4
7.5" TY-RAP	2
INLINE FUSE HOLDER	1
7.5AMP FUSE	1
FAST –ON TERMINAL	1
RING TERMINAL	1
TAP SCREW	1

HI LO KITS	ELEMENT PART NUMBERS
HILO-1XP	
CUSHION	E25004
BACK	E05004
HILO-110	
CUSHION	E25105
BACK	E05094
HILO-113	
CUSHION	E25106
BACK	E05107
HILO-120	
CUSHION	E25195
BACK	E05195

Installation Instructions

Product Specifications

- 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 **

High	110°F (+/- 3 °F)	or 43.3°C
Low	101°F (+/- 3 °F)	or 38.3°C

- Heating elements meet FMVSS 302 flammability requirements
- Connectors are indexed to prevent improper mating, including a quick disconnect for the switch
- New thin element design to reduce read through on thin upholstery on cloth and leather

** Performance varies with seat materials used and the density and amount of sew foam

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Safety:

PLEASE READ BEFORE INSTALLING HEATING ELEMENT ASSEMBLIES!

Do not modify this product.

Do not connect this product to factory seat heater parts

Check Corporation wire heating element assemblies are specific to each seat and are not to be cut. They are designed to fit specific vehicle seats according to the model and production year of the vehicle. For a full list of vehicles that your kit is compatible with, please call customer service at 800-927-6787.

- Some front passenger seats are outfitted with occupant detection sensors which are not compatible with any after-market seat heater. Consult with Check Corporation to determine the appropriate heating element assembly for each specific vehicle. See seat heater “selection guide” for details at www.CheckCorp.com

- 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. Heating elements are to be placed onto foam bun only. The heating elements may adversely affect or cause the sensors or airbag system to not function correctly, thereby causing severe injury or death.

- The heating elements must be connected to switched or keyed ignition power only, to prevent battery drain when vehicle is off.

- Check and determine that the heating elements 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 heating elements. This is not important if the heating elements do not cross over a listing channel or Velcro hold-down. See figure 2 (On last page of document)

- BONDED SEATS (UPHOLSTERY GLUED TO FOAM BUN)

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 heating element assembly 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 THESE SAFETY CONDITIONS CANNOT BE MET, DO NOT ATTEMPT INSTALLATION

To prevent OVERHEATING AND/OR A FIRE follow these instructions carefully:

- 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 foam bun of the seat. If the heating elements are not secured they could develop hot spots.

- The paper liner is combustible and is not intended to be installed with the heating elements.

- The Heating elements must NOT be folded into seat listing channels except where cutouts were designed into the element. Do not fold the heating elements against themselves.

- Cushion and back heating elements are wired to operate in series only. Do not change the wiring to power the heating elements in parallel.

IN THE EVENT THAT THESE WARNINGS ARE DISREGARDED, THE CUSTOMER SUPPORT AND WARRANTY BECOMES NULL AND VOID. MISUSE OF THIS PRODUCT MAY CAUSE SERIOUS INJURY TO PERSON OR PROPERTY.

Installation Instructions

Installation

1. Pre-wire all components on your workbench and test with a multi-meter for continuity. Do NOT use a battery charger as a power source. Use a 12V D.C. power source. If there are any problems, see the troubleshooting page. **IF THE KIT HAS A CUSHION AND BACK HEATING ELEMENT THEN BOTH MUST BE USED. NEVER OPERATE CUSHION OR BACK ELEMENT SEPARATELY. SINGLE ELEMENT HEATERS AVAILABLE IF NEEDED.**

2. Locate vehicle fuse panel and determine routing of power harness. Each seat heater needs a separate 7.5A inline fuse (included) with a switched ignition 12V power source.

3. Disconnect and isolate the negative (ground) battery 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.

4. 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.

5. Remove the seat covers and verify that the heating elements fit. **HEATING ELEMENT ASSEMBLIES 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.**

6. Install the ground wire ring terminal, from the power harness, to the fuse box ground screw. Clean terminals and grounding point of paint, grease, and dirt to ensure a good electrical connection. **NEVER DRILL THROUGH THE FLOOR.**

7. **Mounting the switches:**
   Determine a location for mounting the switch. Cut a hole according to the dimensions shown in the wiring diagram. Connect switch harness connector to the back of the switch as shown in the wiring diagram.

8. Locate area for heating elements 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.

9. Remove the adhesive release paper. This paper **MUST** be removed, as IT WILL BURN. Attach the heating elements to the foam bun (not the seat cover) by pushing down on the pads causing the adhesive to stick completely to the foam bun. **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.**

10. 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.**

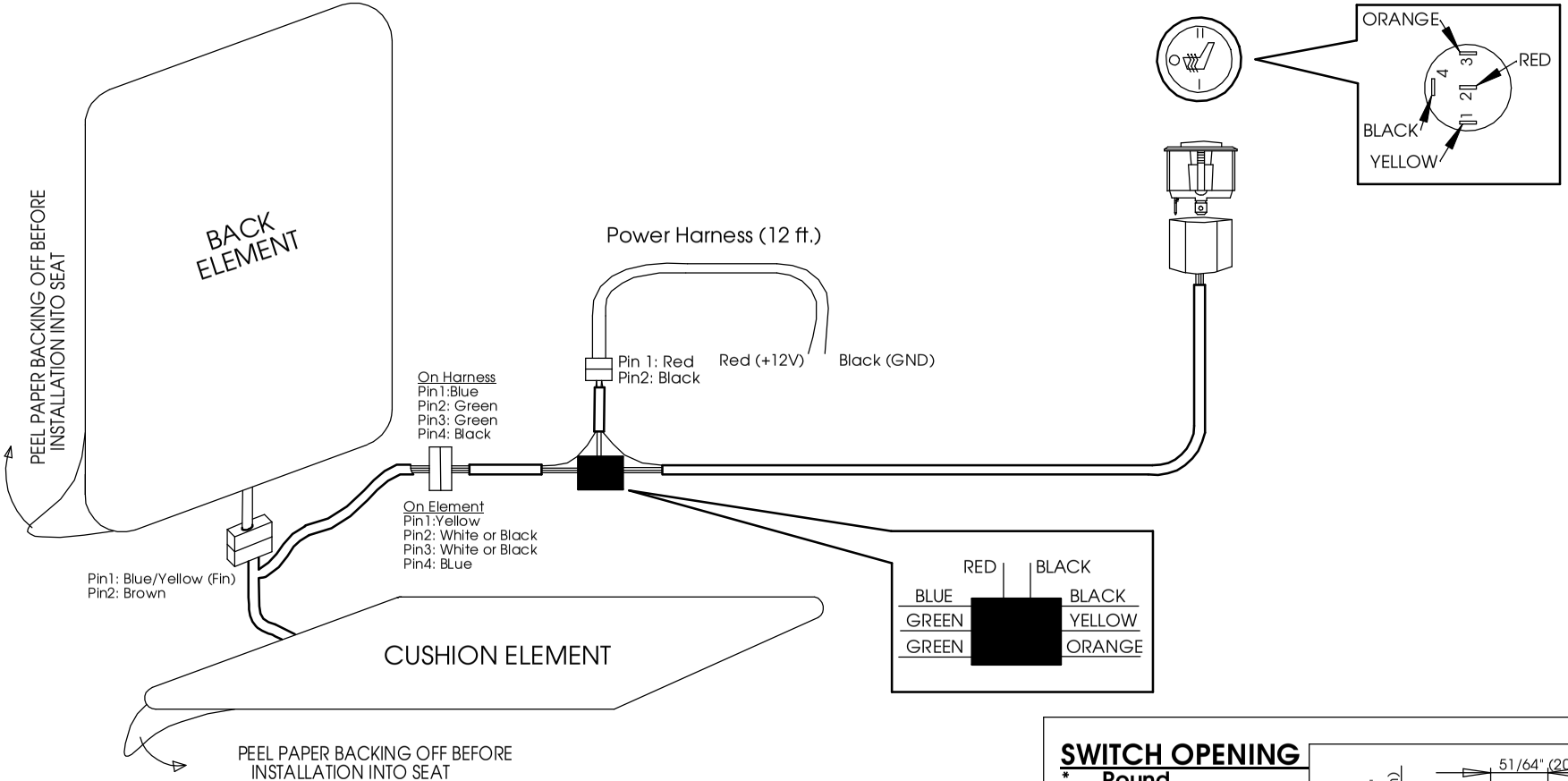
11. Install the seat into the vehicle. Reconnect airbag connectors and then the ground of the battery. Connect the element to the controller harnesses as shown in the wiring diagram.

12. Mate all remaining connectors (as shown in the wiring diagram). **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**

13. TEST SEAT FUNCTIONS; RECLINE, FORWARD, REVERSE, UP, DOWN, ETC. ENSURING THAT NO STRAIN IS PLACED ON ANY OF THE SYSTEM'S WIRES. Ensure all of the anchor bolts are tight to the manufacturer's specification.

14. **OPERATION OF THE HEATED SEATS:** After turning the system on, you must sit in the seat and should be able to feel heat within 1-5 minutes depending on the thickness of the trim cover material over the ele ment. The thicker the trim cover, the longer it takes to feel the heat.

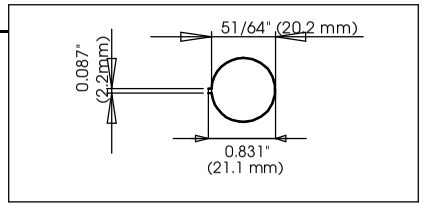
HILO-1XX FRONT SEAT HEATER KIT WIRING DIAGRAM



SWITCH OPENING

* **Round**

51/64" Drill Bit with
3/8" shank available
from Advantage
ADVPLEX385164
PHONE 407-678-1177



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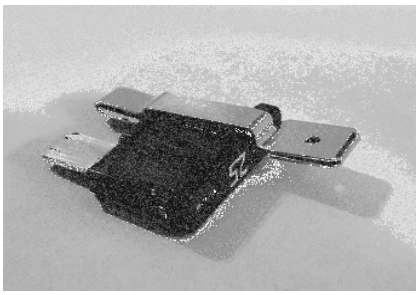
Using fuse-taps

If you are using fuse taps, it is important to draw from the correct side of the fuse

When connecting the red wire on the power harness connect it to the cold side of the fuse.

Red = Cold Side



Using Optional Add-A-Fuse Accessory (Purchased Separately)

This adaptor is rated to handle up to 10 amps on the accessory fuse.

Prong indicated in photo below must go to the DC +12V hot side of the fuse receptacle. In the example photo, the 7.5 amp fuse runs the seat heater accessory; the 10 amp fuse is the original amperage fuse from the fuse box. The 7.5 amp fuse is in line with the red wire for connection to the DC +12V seat heater wire.

Photo: Add-A-Fuse with fuses

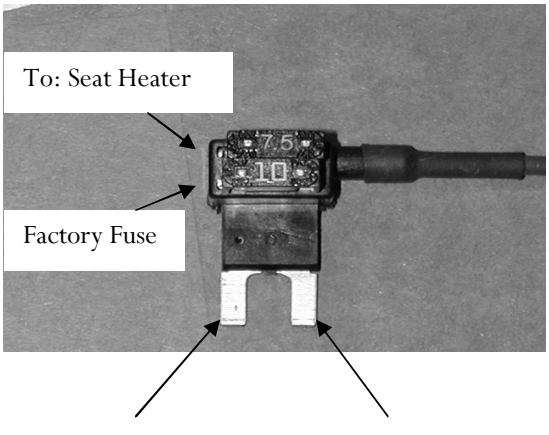
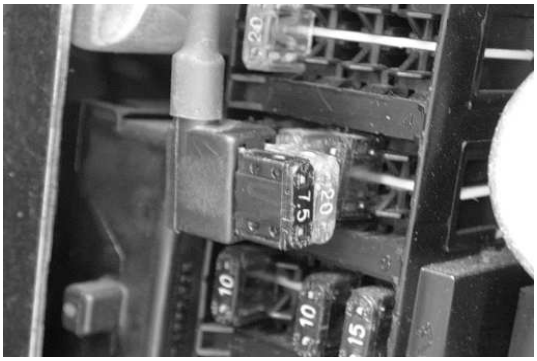


Photo: Add-A-Fuse installed in fuse box



Installation Instructions

Troubleshooting of the electrical system

If the system does not heat up, check the following:

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 fuse utilized during the installation.

- Ensure that all connections are properly mated and that the 12V DC and ground wires are properly installed. (See seat heater wiring diagram)

- A break in the heating element circuit. To check for this, pull on the blue & yellow wires at all connectors to verify they are properly seated in the connector. Don't forget the connector on the back element. Also check for continuity at the 4 pin connector. The cushion and back elements must be connected and use a multi-meter set to ohms. See Figure 1 (On last page).

- A low voltage condition on the controller input from the fuse box. To verify the voltage input, use a multi-meter set to volts, across red AND black wires at controller module (it should read 11-15V).

If the heating elements, switch, and seat harness test OK, then a power problem exists, check the following:

- Using a multi-meter or a test light, start at the power connection and trace back through all of the connectors and the switch to determine where the power loss is occurring. Repair as necessary.

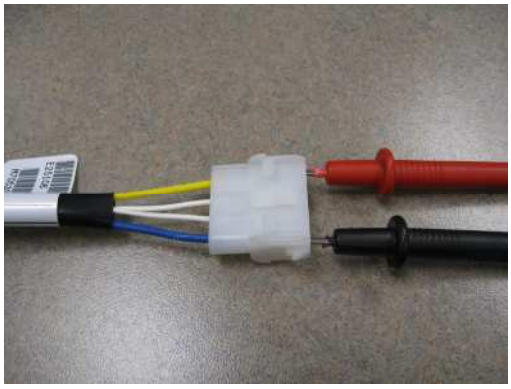
If the fuse continues to fail, check the following:

- Each pair of heating elements that are installed in the vehicle must have their own fuse.

- A poor ground connection. Check connections or try another grounding point. Another possible cause is the fuse used for power is computer controlled (try another fuse location).

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.

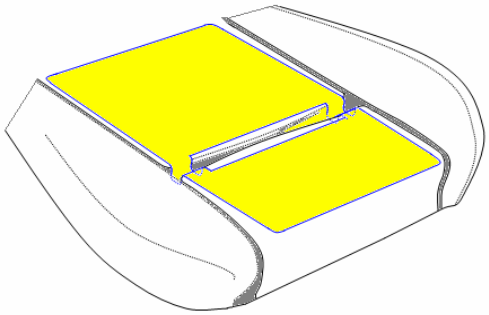
Figure 1



1. Set the multi-meter to ohms, and touch the red and black probes to the yellow and blue pins (the back element must be connected). The meter should show that there is continuity through the heating wire. A normal reading is approximately 3.0 to 4.0 OHM's; if the meter reads an open (Mega OHM's), there is a break in the heating wire.

- A test light will NOT work to test the continuity
- An audible continuity tester will work

Figure 2



1. The listing channels or the Velcro hold-downs should line up with the cutouts in the heating elements. Seat heater adheres 100% to the foam bun following the surface into the listing gaps. Opening in heater is aligned with gap.