

# Seat Comfort Systems

KIT P/N: 5000859A

## Seat Heater Installation Instructions

**UNIPAD** is a seat heating system that can be installed in a minimal amount of time with readily available tools. It combines the advantages of modern carbon-technology and highly sophisticated electronic control in one easy to install package. Heated seats are a comfort and convenience feature today's drivers expect in many of their new vehicles. The unique **UNIPAD** design allows the driver and passenger to experience heated comfort in almost all of today's vehicles.



### **IMPORTANT:**

**UNIPAD** can be built into seats, which offer a minimum of 11 inches of free space between both lateral recesses. The seat can have an unlimited number of horizontal channels. Seats with channels, which run along the length of the heating elements inside the heated area, are not suitable for fitting with **UNIPAD**. For a detailed fitting description refer to step 3 fitting **UNIPAD**.

### Contents

- Back Cushion Heat Element
- Bottom Cushion Heat Element
- Wire Harness with Control Unit
- Switch with 5-inch Wire Harness
- Adhesive Tape
- Cable Ties

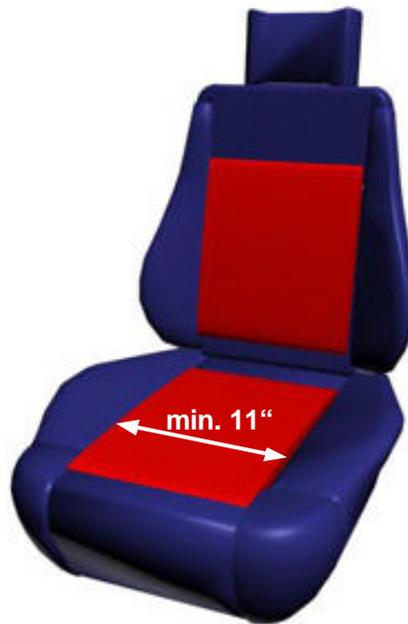


Illustration 1: Seat with minimum width marked

Correctly installed into your car's seat, **UNIPAD** will radiate comfort, warmth and will enhance your driving experience for many years to come.

## **GENERAL ADVICE:**

- The installer is liable for any damage due to improper fitting or not following these instructions.
- All steps explained in this manual are to be followed with great care. Fitting has to be performed by qualified personal only. Improper installation will void the limited warranty provided by the manufacturer and may cause physical damage to equipment or people.
- The seat heating system has to be connected to the onboard power supply exactly like described in this manual. It is necessary that the system is capable of driving up to 10 Amp continuous current per heated seat.
- Use only those components supplied by the manufacturer. Supplementing other components will void the manufactures warranty
- The seat heating elements (UNIPADS) have to be fitted without any folds.
- The seat heating system shall only be connected to a 12 Volt DC power supply. The separate seat heating elements (UNIPADS) for cushion and back are to be connected to the supplied electronic control unit only.
- The width of the heating elements (UNIPADS) is not to be modified by folding, cutting or in any other way.
- Fitting the seat heating system to seats with lengthwise lengthwise tie-downs is only possible if there are no channels running the length of the heating element inside the heated area.
- The wire harness has to be fitted to the seat in a way, that the full range of movement of the seat is possible without damaging the wire harness. At the same time it has to be made sure, that the wire harness is never going to intrude into the leg space of either the front or back passengers.
- Cars fitted with side airbags have to be treated according to the manufacturers fitting manuals. The seat heating element is only to be attached to the middle of the seat foam. The connections of the side airbag(s) have to be handled thoroughly and should never be connected to any kind of power supply during the fitting process.

### **Step 1: Dismantling the car seat**

- 1.1 Secure the car on a leveled surface by enabling the brakes.
- 1.2 Disconnect the car's battery or make sure in any other way, that the area to be worked within is grounded. If you have any doubt concerning the layout of the car's wire harness consult the wiring diagram provided by the manufacturer.
- 1.3 Dismantle the seat that will be fitted with UNIPAD. In most cases stripping the seat cover is easier with a dismantled seat.
- 1.4 To dismantle the seat, remove the plastic covers and remove the screws. Take the seat completely out of the interior of the car.
- 1.5 Remove all seat covers in the area you are planning to fit the seat heater and wire harness.

## Step 2: Striping the seat cover

- 2.1 Separate cushion and back from each other by removing the covers and unscrewing the connecting screws. It is advised to put the seat on a dedicated worktable for the following steps.
- 2.2 Remove the cover of both seat and back. To do so remove and dispose all upholstery clips. Unhook all other connections using a suitable screwdriver.
- 2.3 Make sure, that there are no loose metal parts left on the foam. Clean the seat's foam from any other debris.
- 2.4 Recheck again whether the seat heating elements will fit. There must be a minimum of 11 inches of free space between the lateral channels. The easiest way to do this is to lay the heating elements on seat and back as shown in picture 3 below. The length of the elements can be shortened but the width is fixed. Channels running alongside the heating element within the heated area cannot be tolerated.



### Step 3: Fitting the cushion heating element:

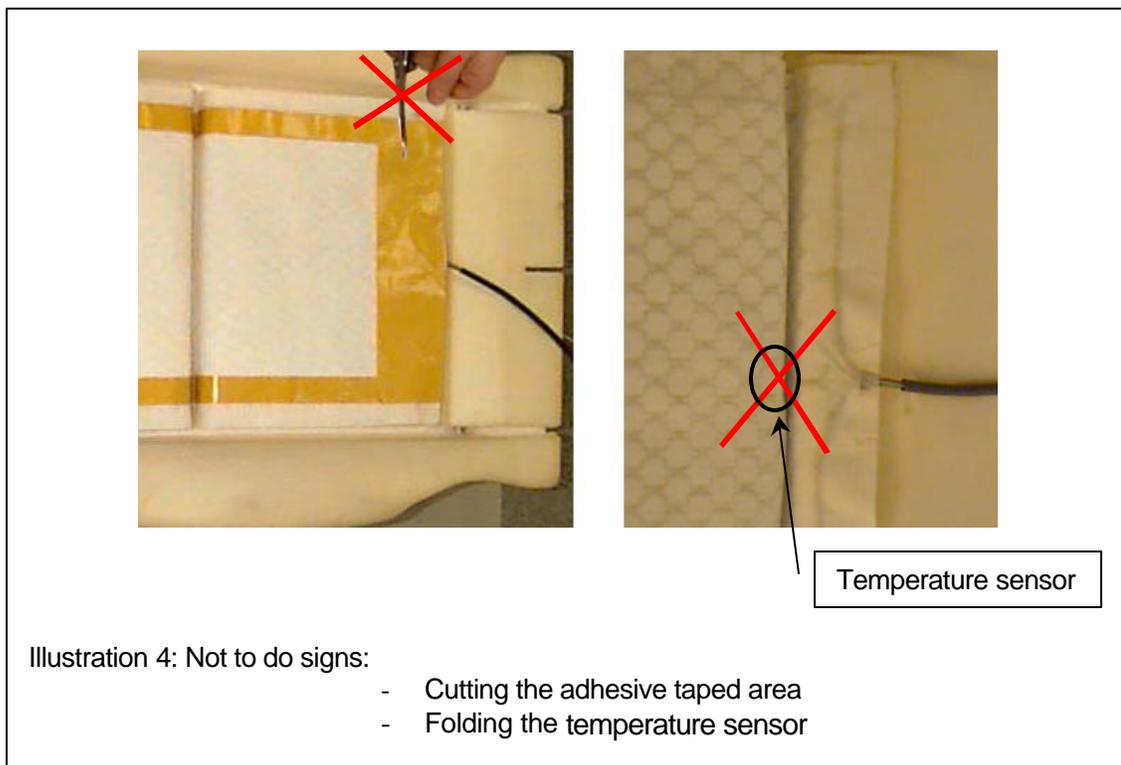
3.1 Lay the heating element labeled “cushion” with the labeled side up on top of the foam as shown in illustration 2. The supply wires have to be fitted below the back so they will not be noticed in the finished seat. Fit the heating element thoroughly into all channels and make sure not to fold any of the areas covered with adhesive tape. Only the 1 inch wide textile edge can be folded into the lateral channels. All areas covered with adhesive tape have to be glued onto a level surface. Make sure the heating element and the seat fulfill all demands. Only the length is variable.

#### ATTENTION:

It is recommended the temperature sensor not be installed in a recessed area. If the sensor must be placed in a recess, move sensor to make sure the adhesive tape will still be glued to a level surface. It may be necessary to remove small parts of the foam with a sharp knife in order to make sure that the wires will not be noticed in the finished seat. Do not cut or fold the heating element near the temperature sensor.

#### Note:

- **Never cut in areas covered with adhesive tape!**
- **Areas covered with adhesive tape have to be glued on a leveled surface only.**



3.2 Mark the middle of a channel as shown in illustration 5 and arrange the cutting stencil at this line.

3.3 Cut 5 holes with a diameter of about 1 inch out of the heating element utilizing the cutting stencil. Sandwich the heating element (top and back) with 2 strips of the enclosed adhesive tape. The tape should cover the whole width of the heating element including the sticky taped areas (from which you will have to remove the covering paper first).

3.4 Centered in the already cut holes, cut another 5 holes with a diameter of about 1/2". Through these holes the seat covering can be attached to the foam later on. So the tape will enclose all black carbon fibers and by doing so make sure, that they will not contact the metal frame.

3.5 Now again lay the heating element on top of the seat as described in step 3.1, this time printed side facing the foam.

3.6 Cut the heating element to the desired length and isolate the edge using the enclosed tape. Apply adhesive tape to foam covering the heating element. **Only in this step it is allowed to cut through the small lateral running areas covered with adhesive tape.**

3.7 Remove the covering paper and thoroughly glue the element on top of the foam beginning with the already glued front end. The connection wire can be run at a convenient position below the seat without interfering with the various seat joints.

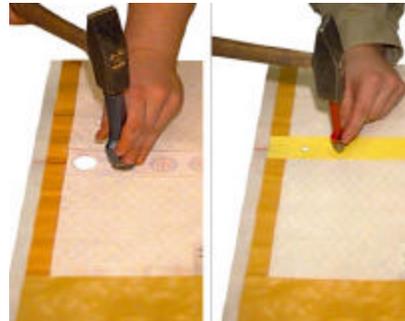


Illustration 6: Covering the channels

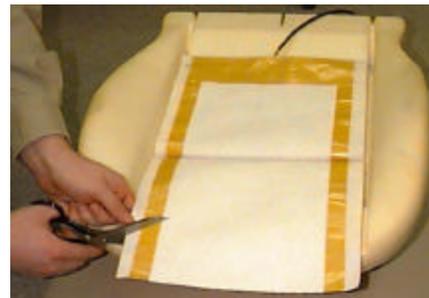


Illustration 7: Shortening UNIPAD



Illustration 8: Glueing UNIPAD

3.8 Fit the cushion cover to the cushion tie down points with the enclosed cable ties instead of the metal upholstery clips. Do not use any kind of metal cable ties or clips. While fastening in the area of the connection-wires, make sure not to crush or squeeze the wires. In addition pay attention that there are no folds in the heating element, caused by the process of re-attaching the cover.



Illustration 9: Fixing the seat cover

#### **Step 4: Fitting the back heating element**

To fit the back heating element - labeled "back" – please refer to steps 3.1 to 3.8.



Illustration 10: Finished back with adhered heating element

#### **Step 5: Assembling the wire harness and switch**

While running the wire harness you have to pay attention, that the wire cannot be cut, squeezed or damaged in any other way. The wire harness and control unit are to be attached to the seat frame securely.

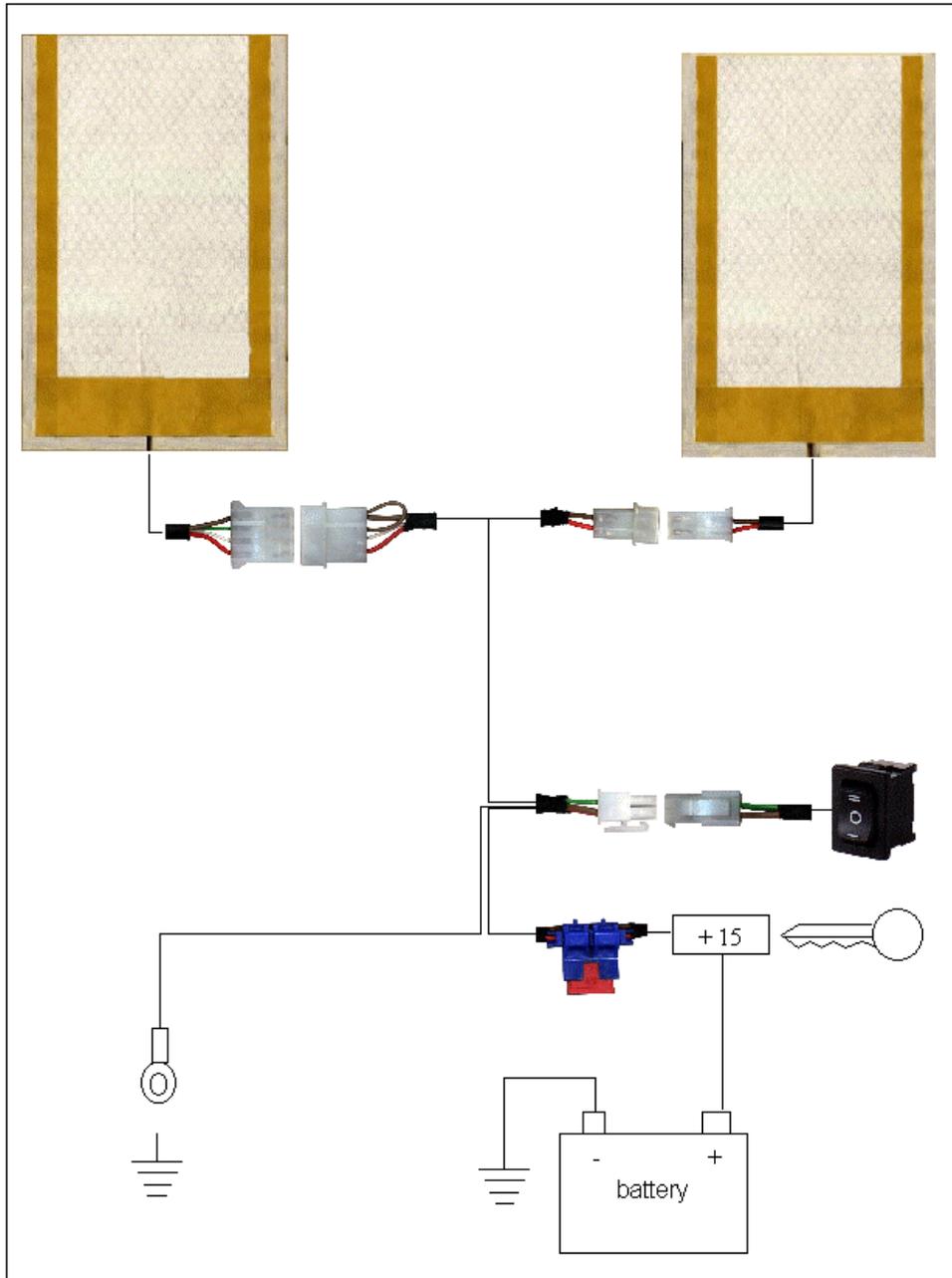
- 5.1 Reassemble the seat.
- 5.2 Plug the open connectors of the wire harness onto the open wires from the seat and back heating element. Fix the wire harness and the control unit to the seat frame.
- 5.3 Run the wire harness to the dashboard, center console or side seat shield. Using the template, cut a hole in the panel, pull the connecting wire through and then plug in the switch and push the switch into the panel.

### Step 6: Electrical connection and function test

6. Connect the last two open wires to the car power supply of 12 Volt DC. Connect them to a switched terminal capable of driving 10 A continuous current.

**Note:**

If you connect the seat heating system directly to the battery, it will be possible to run the seat heater without running the engine. Calculating a power consumption of about 70 Watts per seat this would strain the battery considerably if left with the engine off.



# Cutting stencils:

IG BAUSTRICH GmbH

D=10 ... 15 mm

D=25 ... 30 mm

IG BAUSTRICH GmbH

Switch Template