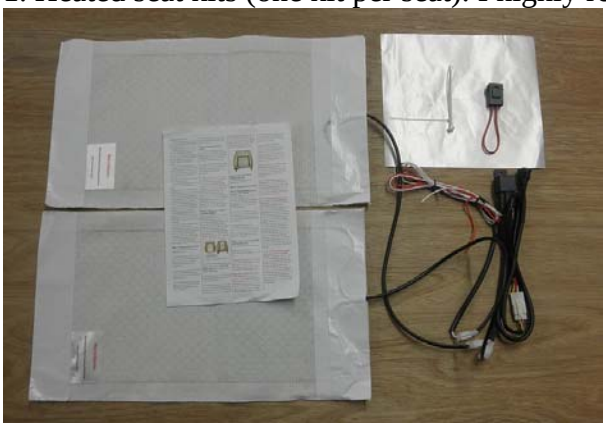
2006-2011 Yaris – DIY Heated Seats

Materials Required:
1. Heated seat kits (one kit per seat). I highly recommend http://www.warmseats.com



2. 1 - Automotive relay with socket (this will be used to make the seat heaters ignition switched to avoid accidentally leaving them on and killing the battery).



3. 1 - Female insulated spade terminal for 12AWG wire



4. 1 – ¼” Ring terminal for 12AWG wire



5. 1 – 12AWG Butt splice



6. 2 – 14-18AWG Butt splices



7. 1 – 18-22AWG Tap Splice



8. Upholstery adhesive (such as 3M Super 77, if installing heating pads under OEM seat fabric.

Tools Required:
1. #2 Phillips screwdriver
2. Ratchet with 10mm socket
3. Wire cutters/strippers
4. Pliers or crimp tool for terminals
5. E10 socket (external torx - if removing seats to install heat pads)

Installation:

A. Heat Pad Installation

1. Installing heat pads between OEM seat covers and aftermarket seat covers.



1.1. Position bottom and back pads so that their wires come out between the bottom and back of the seat.

1.2. Attach the pads to the seat with their adhesive strips. Make sure pads are completely flat. In the picture above the heat pads are inserted under my Clazzio seat covers. The covers were already installed, so I just pulled them out enough to be able to insert the heat pads.

1.3. Install seat covers. Be careful not to pull the heat pads off or crease them while pulling the seat covers over the seats.

1.4. If necessary cut slit(s) in covers to allow the heat pad wires to exit.



1.5. Run heat pad wires under the seat track and under the middle of the center console (in front of the emergency brake lever). With the WarmSeats kit, the length of the wire between the heat pads and their connectors is too short to allow the connectors to go under the console, while still allowing full front to back movement of the seat. Because of this, I connected the heat pad connector outside of the console, under the seat track. This allows the seat to move from end to end of the track, without pulling on the connectors.

1.6. Continue to section B.

2. Installing heat pads under the OEM seat fabric.

Note: I have only disassembled seats which do not contain the side airbags. For seats with the side airbags, I would recommend installing the heat pads with aftermarket seat covers, rather than attempting to dismantle the seats. Make sure that the aftermarket seat covers are designed for use with side airbags (like the Clazzio seat covers).

2.1 Remove the seat(s) which will receive the heaters.

2.1.1. On the driver's seat, disconnect the connector for the seat position sensor, and pop the clip that holds the harness to the bottom of the seat.

2.1.2. On the passenger seat, disconnect the Black connector from the passenger occupancy ECU and the white connector for the seatbelt, and pop the clip that holds the harness to the bottom of the seat.

2.1.3. Slide the seats to their rear most position and remove the two external torx bolts with an E10 socket. Slide the seats to their front most position and remove the other two external torx bolts.

2.1.4. Carefully lift and remove the seats from the car.

2.2. Separate the fabric from the bottom of the seat:

2.2.1. Remove the plastic trim from the outside of the seats by removing the Phillips head screw from the back of the trim piece and unhooking the plastic tab on the front of the piece (for the outside trim) and the round white tab (for the inside trim).







2.2.2. Release the elastic strap from the flap that covers the bottom of the seat by unhooking it from the seat springs.



2.2.3. Unhook the plastic hooks attached to the bottom of the seat fabric from the sheetmetal (along the front and sides) and from the springs (along the back).





2.2.4. With the side flaps of the seat fabric free, you can now begin pulling the fabric from the foam along the top portion. Work from the front, lifting the fabric while pushing down on the foam to separate the fabric from it.



2.2.5. Separate the fabric until you reach the seat back. Once you get to that point, just run a finger or two down the center of the seat bottom to make a channel for the wire for the heading pad.



2.3. Separate the fabric from the seat back.

2.3.1. The bottom of the seat back cover is secured closed with two metal rods that run through three hog rings. With a pair of cutting pliers, cut the three hog rings and discard them.



2.3.2. With the bottom of the seat back now open, begin separating the seat back fabric, as you did with the seat bottom.



2.3.3. Don’t remove the fabric completely – Just separate it high enough to fit the back heat pad.



2.4. Install the heat pads.

2.4.1. Spray the portion of the back of the pads that does not have the tape strips with upholstery adhesive and adhere them using their tape strips and the adhesive. Feed the wires between the seat back and bottom.



2.4.2. Press the pads into the contours of the seat, but avoid creasing the pads.

2.4.3. Spray the surface of the heat pads and the portions of the seat foam where the fabric was previously glued with the fabric adhesive.

2.4.4. Align the seat fabric in position on the pads and foam and press it to the adhesive working from top to bottom of the seat back and back to front of the seat bottom.

2.4.5. Punch a small hole in the back of the bottom fabric and bring the bottom pad’s wire through that hole.

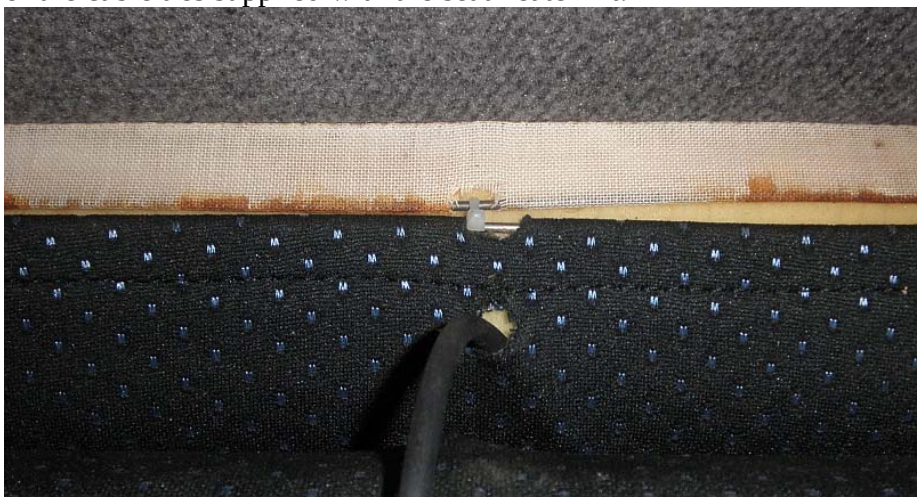


2.4.6. Secure the sides of the seat bottom fabric by reattaching the plastic clips to the sheetmetal and springs.

2.4.7. Push the back pad's wire through the center vent hole in the bottom of the back fabric.



2.4.8. Bring the two metal rods back together and secure them using three of the cable ties supplied with the seat heater kit.



2.4.8. Lay the wires towards the inside of the seats, and reattach the bottom seat flap by reattaching the plastic clips and the elastic strap.

2.5. Reinstall the seat(s).

2.5.1. Carefully place the seat on its mounts.

2.5.2. Install the two rear external torx bolts. Slide the seats to their rear most position and install the two front external torx bolts.

2.5.3. On the driver's seat, reconnect the connector for the seat position sensor, and pop the clip that holds the harness to the bottom of the seat back into place.

2.5.4. On the passenger seat, reconnect the Black connector to the passenger occupancy ECU and the white connector for the seatbelt, and pop the clip that holds the harness to the bottom of the seat back into place.

B. Wiring

Note: I chose to install the switches on two blanks on the center console. The included wiring harnesses allowed for this without issue. If you choose to mount your switches elsewhere, you may need to lengthen the harnesses to do so. The easiest place to lengthen the harnesses is in the section between the relay and the heat pad, as this section is only two wires.

1. Disconnect the negative battery terminal.

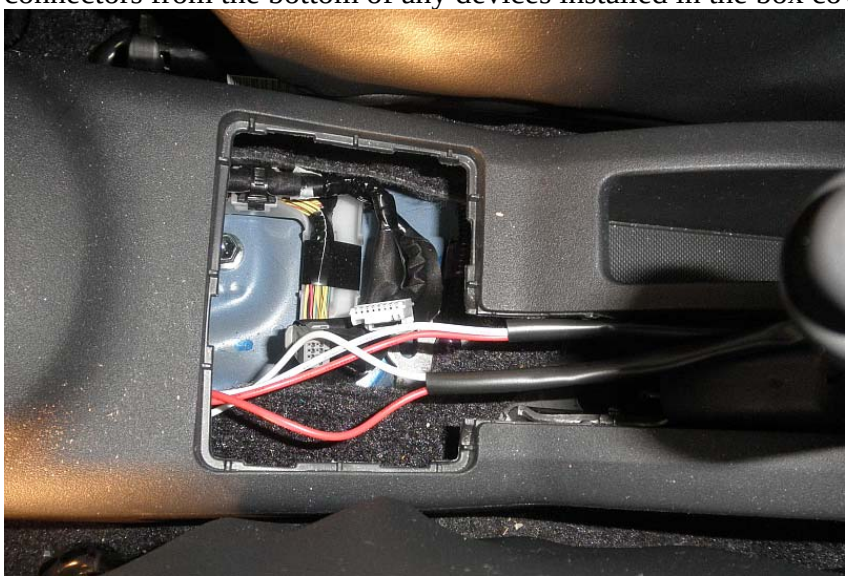
2. Route seat heater power wires through console to the under dash fuse panel area.

2.1. Open the access panel under the steering column by pulling out on both sides.

2.2. Open the fuse panel access by removing the storage cup. Open the cup, squeeze the sides of the top of the cup, pull the top out, and then pull up on the cup to release it.

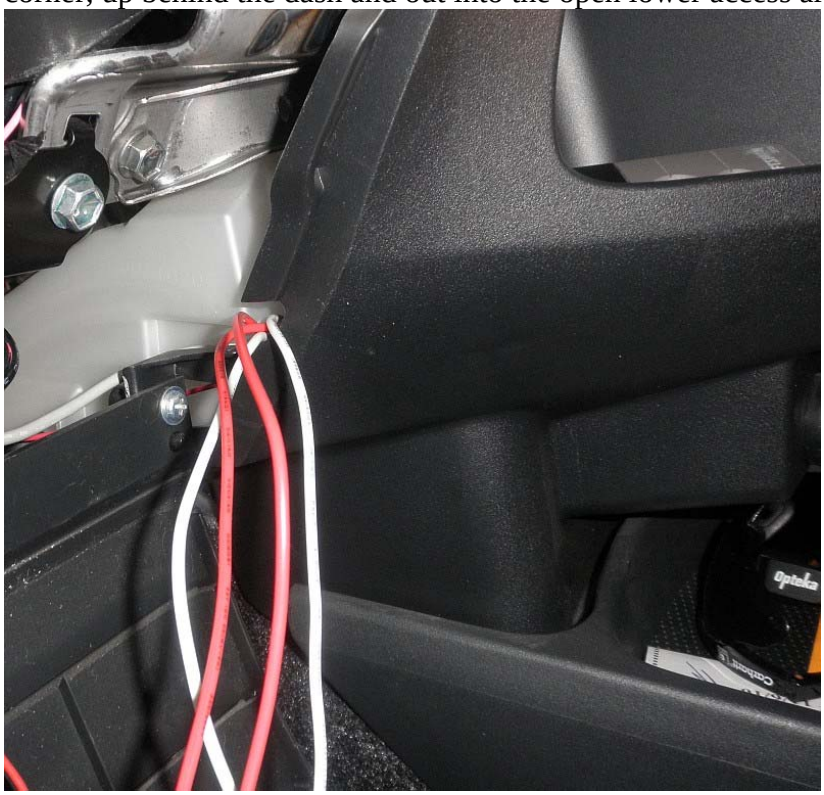


2.3. Remove the rear console box cover (the area which has four removable covers that may be occupied by a radio aux port, power lock switch, fog lamp switch, etc.) To remove the cover, lift the emergency brake lever the lift the console box cover where it extends under the brake lever. Disconnect the connectors from the bottom of any devices installed in the box cover.



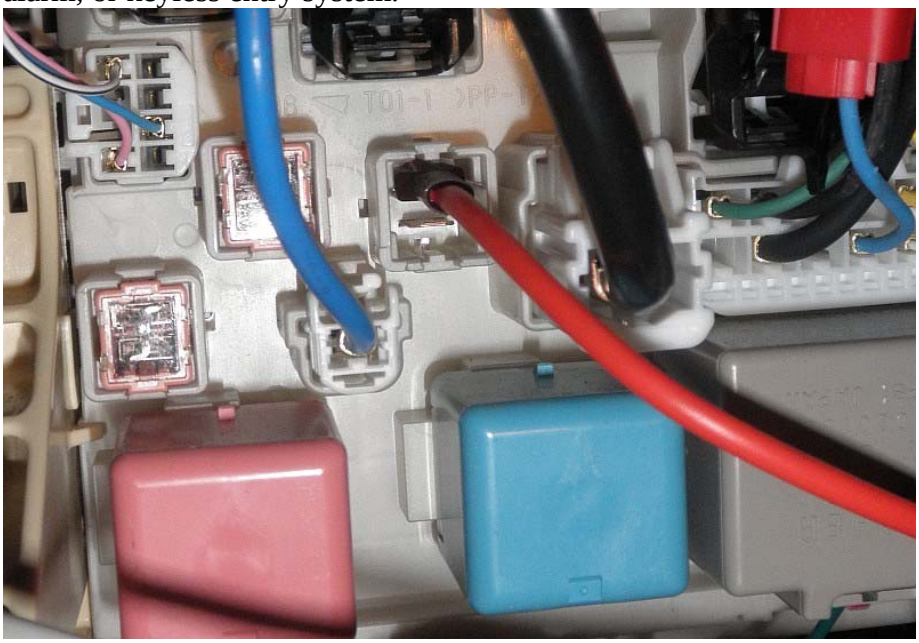
2.4. Loosen the front left corner of the center console by pulling outwards slightly while lifting up on the corner.

2.5. Feed the power wires for the seat heater harnesses into the open console, lay them along the left side of the shift lever, and bring them up behind the left front corner, up behind the dash and out into the open lower access area.



3. Assemble the relay harness for ignition switched power to the seat heaters.
Note: Relay harness wire colors can vary, so match the relay terminal numbers rather than the wire colors). Also, as you assemble the harness, note the three connection locations (+battery power, +ignition switched power, and ground) and make sure that the wires will be long enough to reach their end points. If they are not, you will need to splice an extension to that wire.

Positive 12V battery power connection location: Where the red wire is connected in the picture below. This is a high current feed to an unused fusible link. This feed is intended to supply 40A or more, so this feed can support four seat heaters and a remote starter, alarm, or keyless entry system.



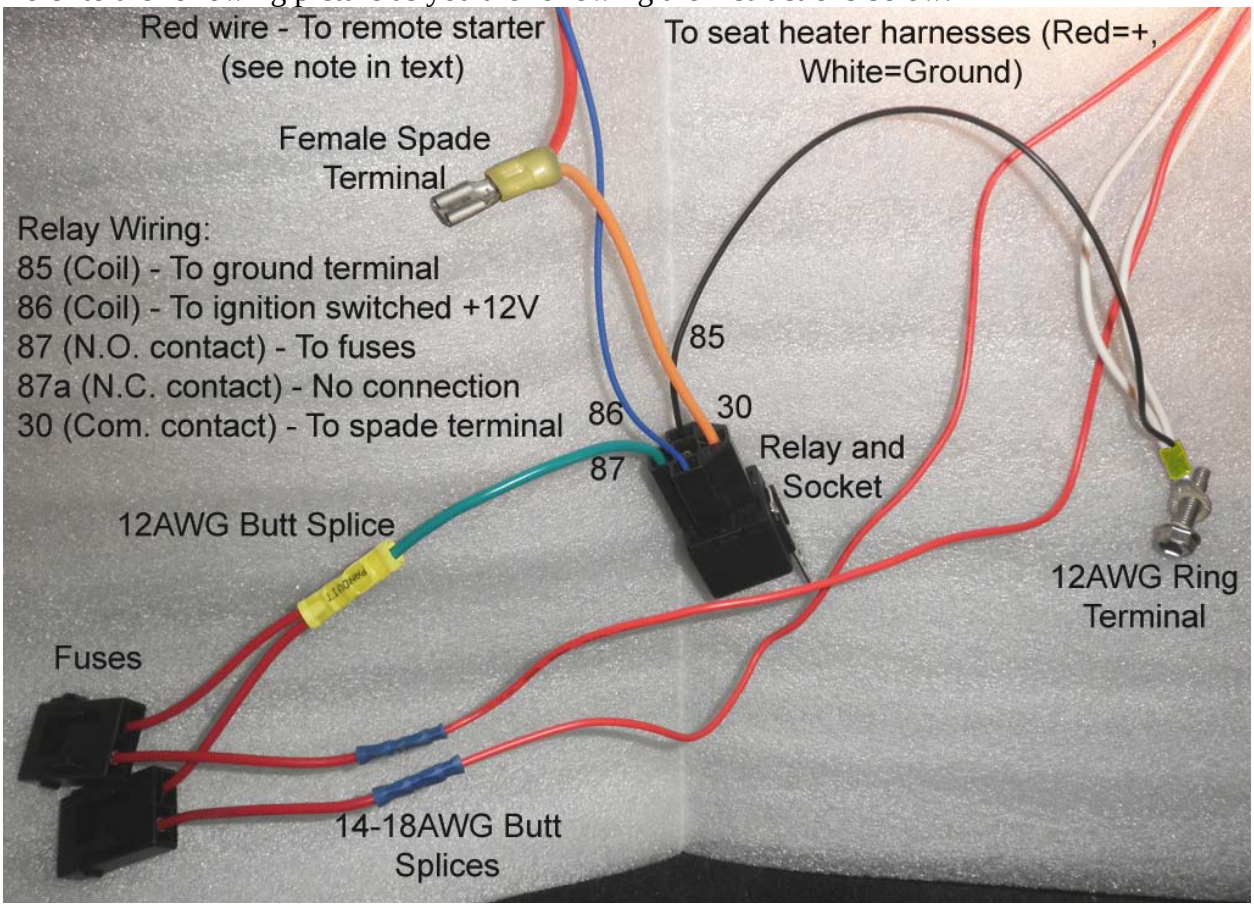
Ignition switched power connection: The white wire in pin 4 of connector 4F (the white wire on the lower right of the connector below).



Ground connection: The bolt on the right hand side of the under steering wheel access panel.



Refer to the following picture as you are following the instructions below.



3.1. Connect each of the positive wires of the seat heaters to one of the included fuses using the 14-18AWG butt splices.

3.2. Connect the other side of the fuses together and connect them to the normally open (N.O.) relay contact (terminal 87 of the relay) with the 12 AWG butt splice.

3.3. Twist the negative wires of the seat heaters together along with the relay harness negative coil wire (terminal 85) and crimp on the 12AWG ring terminal. Remove the bolt shown above with a 10mm socket, insert the ring terminal, and retighten the bolt.

3.3. Crimp the 12AWG insulated ¼" female spade terminal to the relay harness common (terminal 30). If you have a remote starter, alarm, or keyless entry system which is currently using the +battery power terminal shown above for power, then twist that wire to the relay harness terminal 30 wire and crimp on the 12 AWG female spade terminal. Insert the 12AWG female spade terminal into the position shown above.

3.4. Using the 18-22AWG tap splice connect the relay harness positive coil wire (terminal 86) to the white wire in pin 4 of connector 4F (shown above).

4. Mount the seat heater switches.

4.1. Choose the location for the switches. If you choose to mount them in the blank covers of the console box cover you can move the existing devices to have two side by side covers available.



4.2. Drill the specified size holes to mount the switches.

4.3. Disconnect the switch connector, slide the connecter and wire through the mounting hole, and snap the switch into place.

4.4. Reconnect the switch connector.

5. Connect the seat heater connectors.

    5.1. Make sure that the seat heater cables have enough slack to allow the seats to move all the way front to back. With the included harness this will require the seat connectors to be positioned under the seat track.

6. Neaten up the wiring and close the access panels.

    6.1. Mount the ignition switching relay so that it will not rattle under the dash.

    6.2. Cable tie any loose wires and close the under steering wheel access panel and the storage cup.

    6.3. Cable tie the harnesses within the center console. Ensure that all wiring is clear of the emergency brake lever motion.

    6.4. Reconnect the connectors for the devices mounted to the center console box cover and replace the cover.

7. Reconnect the negative battery connector.

8. Test the seat heaters. Turn the ignition switch to the on position and then switch the seat heater switches to the high position. If the seat heaters are mounted under aftermarket seat covers, such as the Clazzio covers, it will take approximately 2-3 minutes to feel the heat.