



INSTALLATION GUIDE

CTS STAGE 3 FUEL PUMP KIT
CTS-FPK-004



20630 Mufford Crescent, Unit #309
Langley, British Columbia V2Y 2V9

www.CTSTURBO.com

WHAT IS INCLUDED

1. Fuel Pump
2. Drill Bits (8mm & 6.5mm)
3. Spacers, Siphon Adapter, Pump Outlet Adapter
4. Fuel Pump Adapter
5. M6 Bolts w/ Nuts
6. O-Ring
7. Wire Connectors



TOOLS REQUIRED

1. High Speed Drill
2. Sharp Knife/Razor Blade
3. 5mm, 4mm, 3mm Allen Key
4. 10mm Socket
5. Wire Cutters
6. Small Pick/Flathead

NOTES

Professional installation recommended. Always make sure the car is safe to work on. Do not work on a hot motor/exhaust.

STEP 1

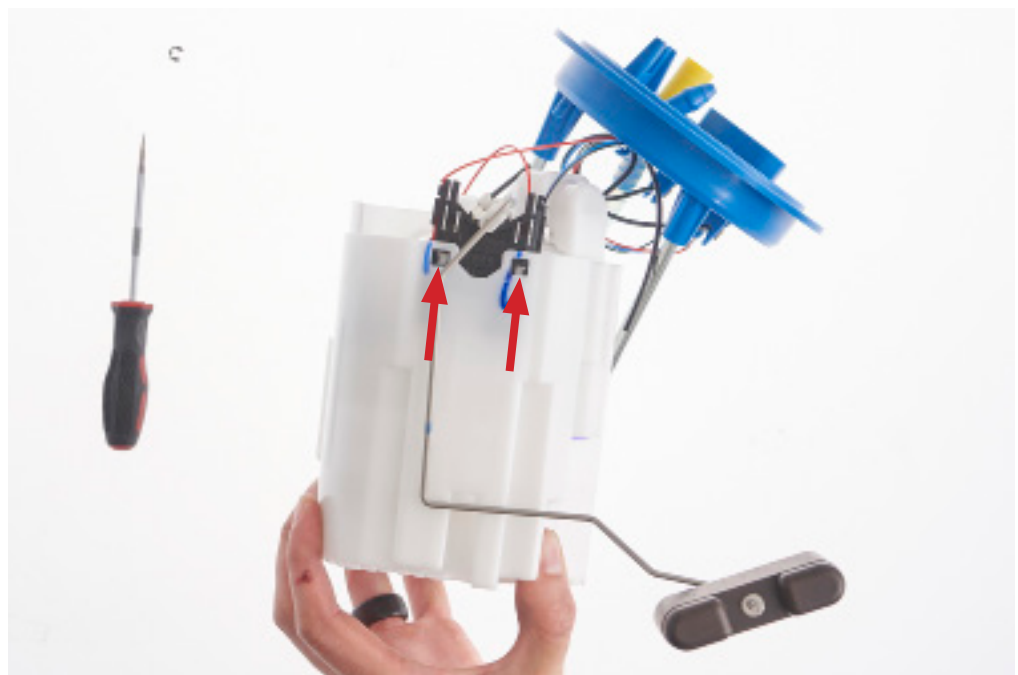
Remove the circlip from the bottom of the spring loaded rod on the bottom of the fuel pump. Do not lose this circlip, as it will be reused.

Lift the spring loaded top of the fuel pump off the fuel pump basket and set aside.



STEP 2

Push in on the tabs for the fuel level sensor and lift the sensor and sensor arm out of the pump basket



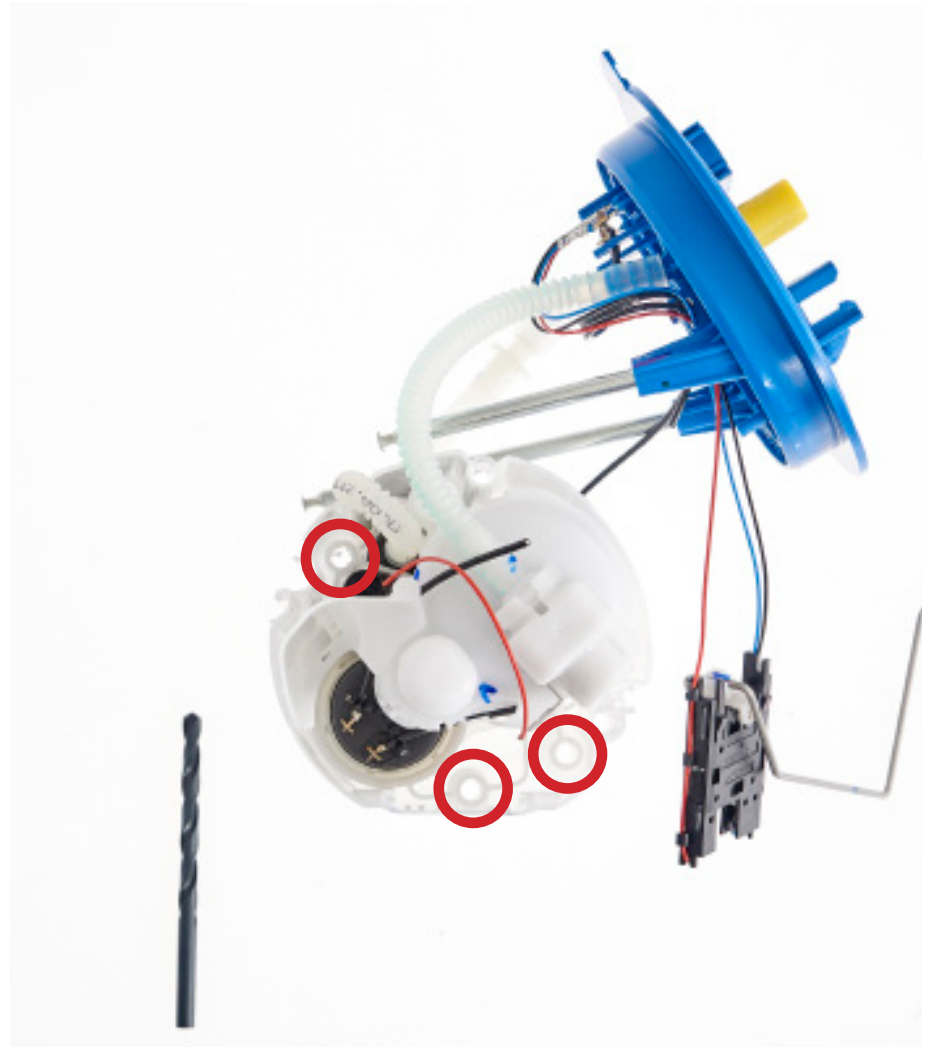
STEP 3

Inside the fuel pump basket around the perimeter, drill out the mounting holes with the 6.5mm drill bit. Drill these holes with a high drill speed, but very slowly to take care to not break the plastic of the pump basket. Drill all the way through these holes to the bottom side of the pump basket.

****Drill mounts Circed in red****

STEP 4

Flip the pump basket over, and locate the bottom of the three holes that were just drilled. Using the 8mm bit, drill the three holes from the bottom side. You should only need to drill about 3mm in order to drill through the plastic welding. If you drill too deep, you will drill into the thin part of the mount of the inner structure, and you will break the mounting holes off the support tabs.

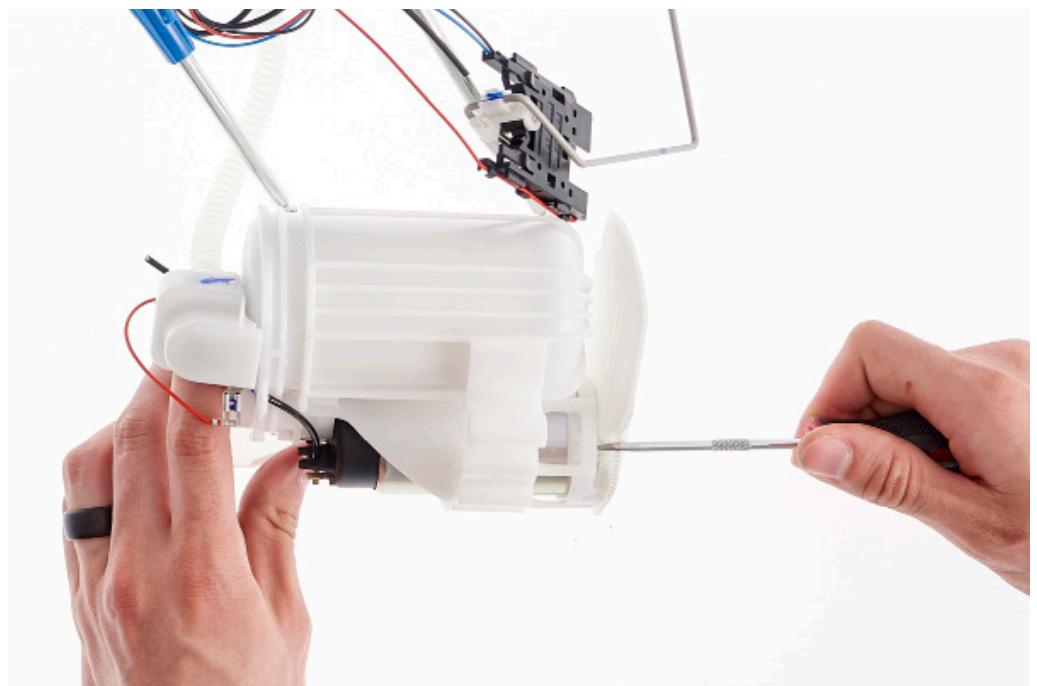


STEP 5

Carefully use a screwdriver to pry the inner plastic piece of the pump basket from the outer pump basket. Most of the plastic welding has been drilled through with the 6.5mm and 8mm drill bits, but it may be necessary to very slightly enlarge the 8mm holes.

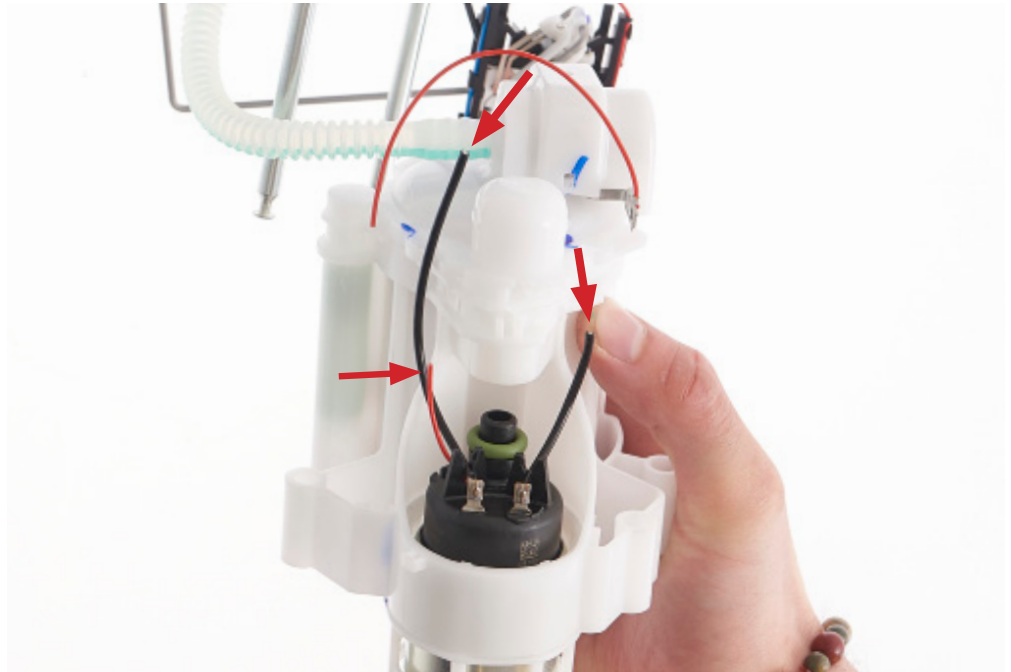
**STEP 6**

Use a small screwdriver and carefully pry both sides of the fuel pump sock away from the fuel pump. Once the sides have been released, gently remove the front tab holding the sock to the pump, and remove the sock.



STEP 7

Cut wires as shown



STEP 8

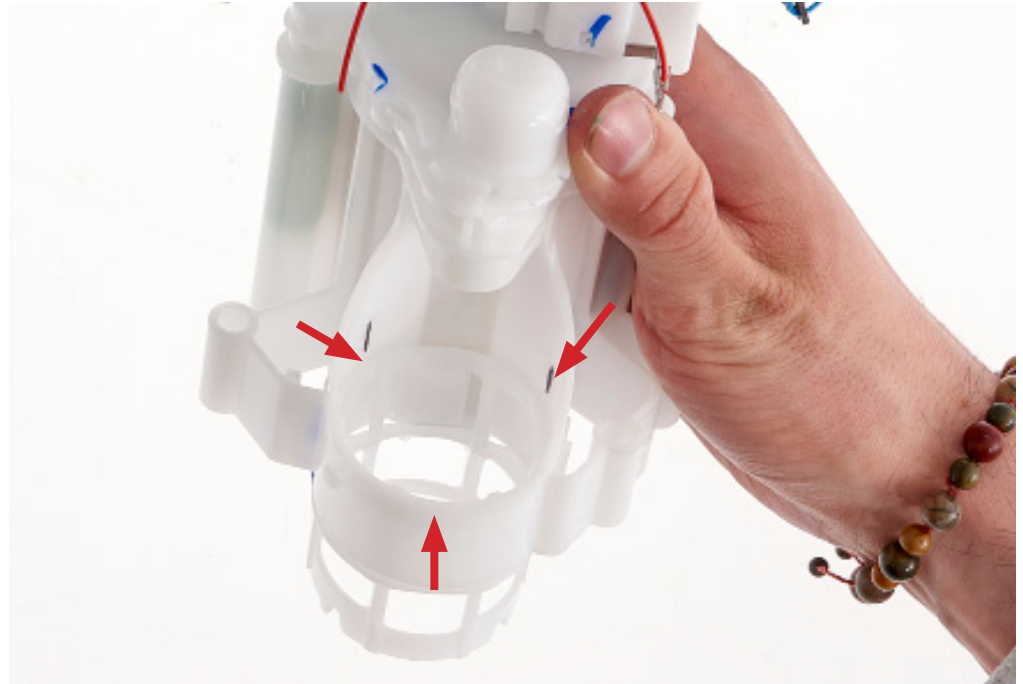
Pull/Push pump through
bottom of housing to remove



STEP 9

Use a small screwdriver to pop up the three small tabs holding the stock fuel pump spacer to pump housing.

Remove the stock pump spacer and discard.

**STEP 10**

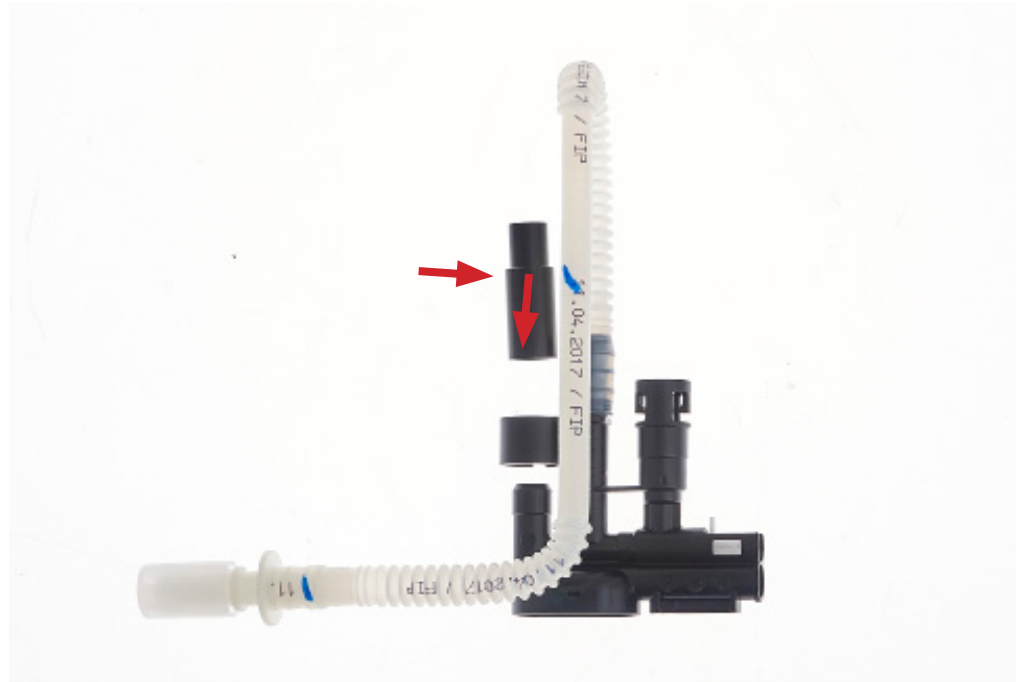
Cut 5-6mm off of the side of the pump housing as shown marked.



STEP 11

Remove the siphon tube assembly the pump basket. Angle the siphon tube to the side to separate it from the pump basket.

Press fit the CTS Turbo siphon tube adapter into the assembly

**STEP 12**

Using a sharp razor blade, remove any excess plastic from inside the pump basket around the three previously drilled holes. Cut the excess until the hole is flush to the flat portion of the pump basket.

Remove any excess plastic shavings out of the pump basket.



STEP 13

Re-install Siphon tube assembly

*photo shows 'Step 14' as-well



STEP 14

Locate the three bolts supplied with the kit.

From underneath the pump basket, place all the bolts into the three drilled hole locations. The smaller bolt goes next to the siphon tube.

Set the three identical spacers ontop of those bolts like shown.

*bolts in photo are incorrect length



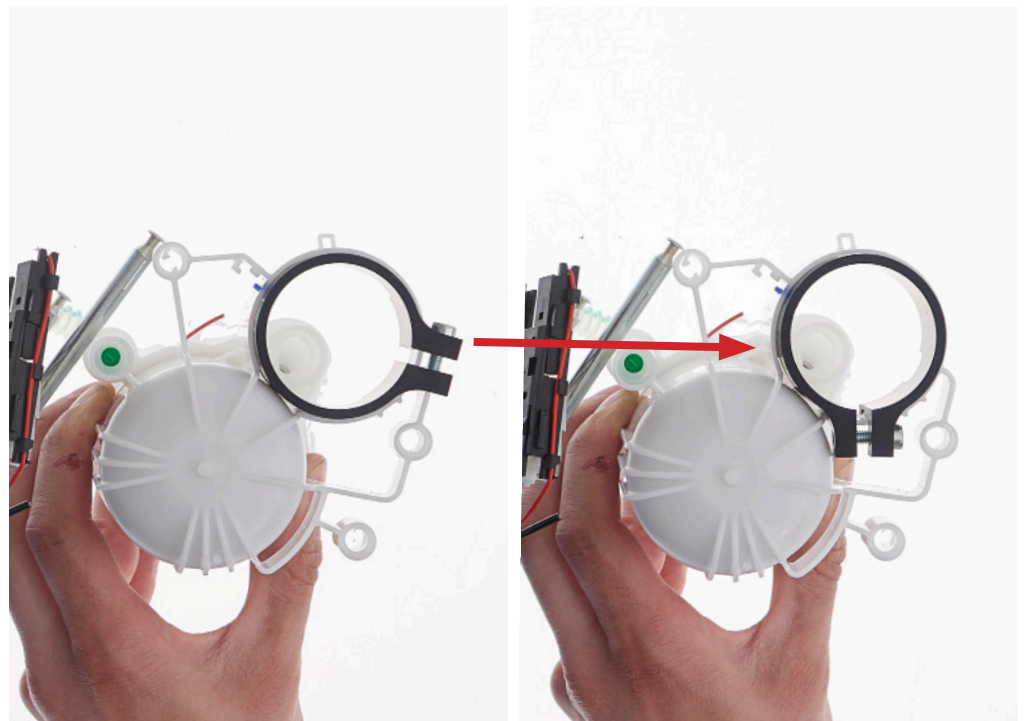
STEP 15

Loosely install the supplied CTS pump spacer. Insert the CTS pump spacer into the pump housing from beneath.

Ensure that the three notches in the pump housing align with the notches in the pump spacer.

**STEP 16**

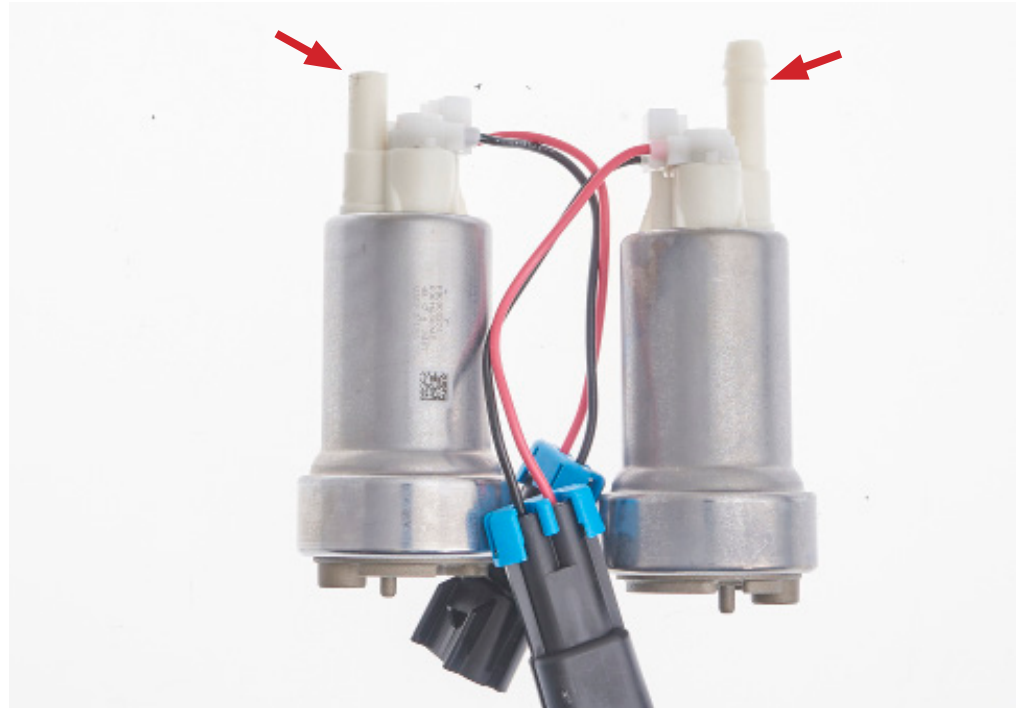
Rotate the pump spacer clockwise until the screw for the pump spacer is almost touching the fuel filter housing. Make sure not to rotate the spacer so much that when the pump is installed and the screw is tightened that the screw will not puncture the side of the fuel filter.



STEP 17

Cut the top of the fuel pump just below the lower 'rib'.

You want the new pump outlet adapter to sit flush with the top of the pump (see step 18 photo)

**STEP 18**

Press the pump outlet adapter on the fuel pump and push all the way down (Picture For Adapter orientation).

Lubricate and install the o-ring onto the end of the pump outlet. Slide the pump, electrical connector first, up into the CTS pump spacer. Push the pump up so that the o-ring goes inside the inner pump housing. Tighten the 3mm allen screw on the CTS spacer to secure the pump in place.



STEP 19

Cut both the red and black wires right at the connector on the new pump.



STEP 20

Connect the red wire from the new pump to the black wire labelled "EKP+" (on the lid of the pump)

Connect wire labelled "EKP-" and the smaller red wire, place into the connector and attach to the black wire from the new pump.

****if using heat-shrink connectors, DO NOT use an open flame, it could ignite vapours****



STEP 21

Place the whole pump assembly back into the basket and tighten the bolts/nuts with the appropriate spacers.

Reinstall the fuel level sensor in the pump basket. Make sure the level sensor snaps back in the original tabs. If it does not, you will need to disassemble the pump and trim more of the inner plastic housing as seen on step 10.

**STEP 22**

Make sure to route all the wires into the channels/clips indicated with red arrows.

Re-install the Circlip and spring we removed in 'Step 1'



You are Done!