



Installation Manual

P/N 1-301-1708-01 (STAGE 2+ FUEL KIT)

P/N 1-301-1708-02 (STAGE 3+ FUEL KIT)

VW/AUDI MK7 VEHICLES



This installation is not recommended for a novice or the new guy in the shop. Use caution when installing not to damage any factory components or components included in this kit. If you are not experienced in working on cars we recommend taking this kit to your local BMW Performance shop for installation.

Note: Precision Raceworks holds no responsibility for any damage that occurs or laws that are broken in the installation or use of this kit. This kit is intended for off road purposes only.

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STAGE 2 or STAGE 3 KIT CONTENTS

Qty	Description
1	FUEL PUMP
1	FUEL PUMP MOUNT
1	O-RING BASE
3	THREADED STAND OFF
1	VENTURI STAND OFF
6	STAINLESS SCREWS
1	VITON O-RING
1	7.5mm Drill Bit
2	NYLON WIRE CRIMPS

This section of the manual is intended to show the removal, assembly, installation of the **Precision Raceworks Stage 2 or Stage 3 Fuel Pump kit** P/N 1-301-1708-01 or P/N 1-301-1708-02. For removal and install of the pump assembly steps might be missing for your specific car. Please refer to manufactures instructions for removal or installation of the pump assembly from the car as needed.

NOTES: _____

1. Unpackage your Precision Raceworks Fuel Pump kit and verify the contents inside the box matches the list found at the top of this page.
2. Remove the bottom rear seat cushion from the car.
3. Locate and remove the rubber grommet used to pass the wires under the car.



4. Remove the plastic cover by pushing the cover towards the rear of the car firmly and pulling up on the front. Careful not to break the plastic tabs from the cover.



5. Using a flat blade screwdriver pull up the red locking tab (it does not require much pressure). Then disconnect the electrical harness from the fuel pump.



6. With the harness now disconnected from the fuel pump start the car, we are now depressurizing the fuel line it can take a couple minutes for the car to stall out. Ignore any dash lights resulting from the plug to the pump being disconnected. While the car is idling use this time to push the rubber grommet through the dust cover and take a rag and clean the top of the fuel pump assembly.



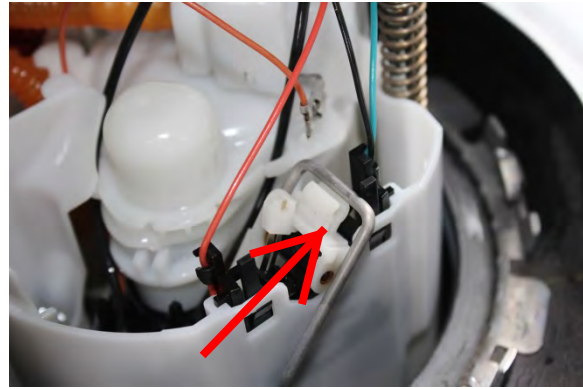
7. Once the car stalls out it is time to disconnect the fuel line. The line will still have a decent amount of pressure use a fresh rag to cover the assembly and soak up any fuel. Quick connects always work best by pushing down first on the connector then pushing in on the release and pulling up. Pull up slowly as fuel will spray out and have it covered with a rag to not make a mess. Allow the remaining fuel to soak into the rag so that it can be discarded.



8. Using a large flat blade screw driver and hammer if needed tap the lock ring in a counter clockwise rotation until the ring is released. Remove the ring and the pump should be released (it will pull up easily as shown).



9. **DO NOT LIFT THE ASSEMBLY OUT OF THE TANK AT THIS TIME** as damage can be caused by the fuel float being caught on the inside of the tank! Disconnect the fuel float from the sending unit by using a small screw driver or pick tool and popping it up from the lock then remove the float from the tank first.



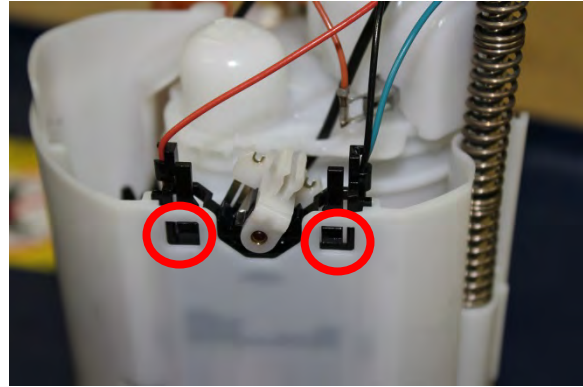
10. Once the float is removed, pull the fuel pump assembly out of the tank careful not to spill gas. Rotate the assembly counter clockwise until you have access to the disconnect. Remove the disconnect by pushing in first, then pressing the release and pulling apart. A small screwdriver can be helpful to separate the quick connect from the tube. The line is full of gas, in this position you can allow the assembly to sit and drain back into the fuel tank.



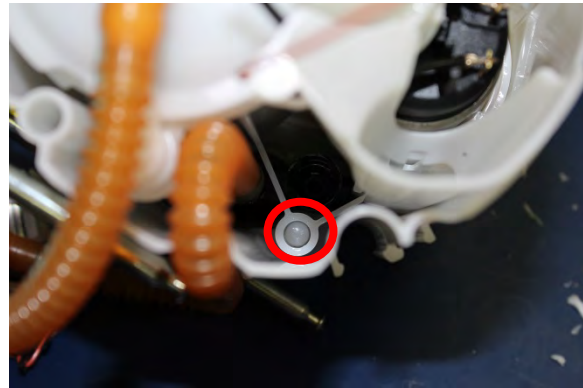
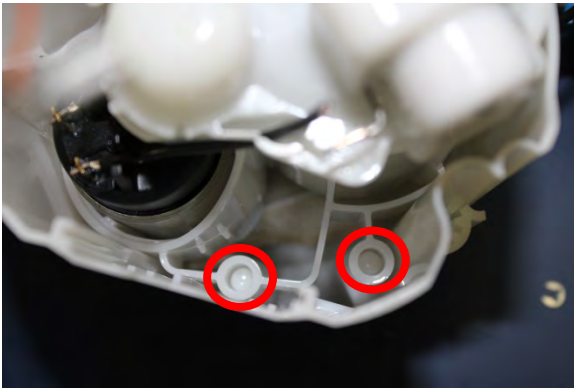
11. With the pump assembly removed from the car push down on the top hat and remove the lock ring from the shaft with spring as illustrated below.



12. Now remove the sending unit from the bucket by pushing the two release tabs near the top of sending unit and pulling up. (the two release tabs release the catches shown in the second photo)



13. Using the provided 7.5mm drill bit, drill through each of the locations shown below until the drill bit comes out of the bottom of the bucket. Keep in mind the bucket is plastic and can be broken! Control of drill speed should be maintained at all times and should be done slowly to prevent the drill bit grabbing and causing damage. Care to keep the drill bit straight with the hole should be maintained as well.



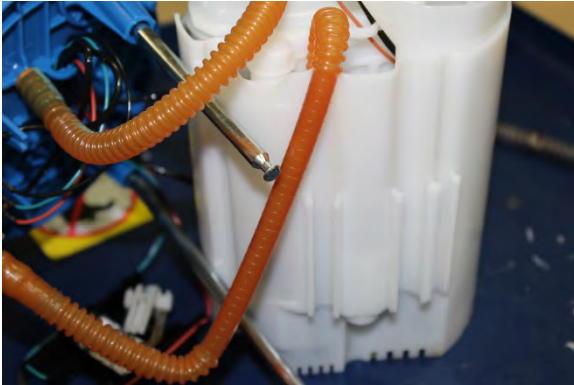
14. With all 3 of the plastic weld joints drilled through and now released, the internal assembly should be able to be removed from the bucket. This can require some wiggling to be done. However if you cannot remove the assembly using the drill bit drill again from the bottom in the same holes and continue to move the drill in and out until the weld joint is completely broken.



15. With the pump removed from the bucket, take a razor and clean any remaining plastic flashing from the holes. This is also a good time to remove any plastic or dirt from the bucket (we recommend compressed air for this).



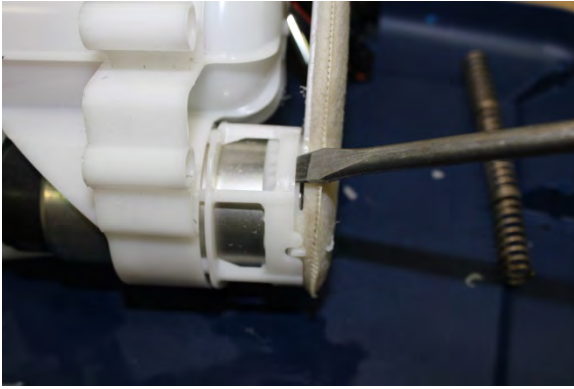
16. Disconnect the fuel output line from the side of the bucket and remove the black venturi from the bucket by pulling up.



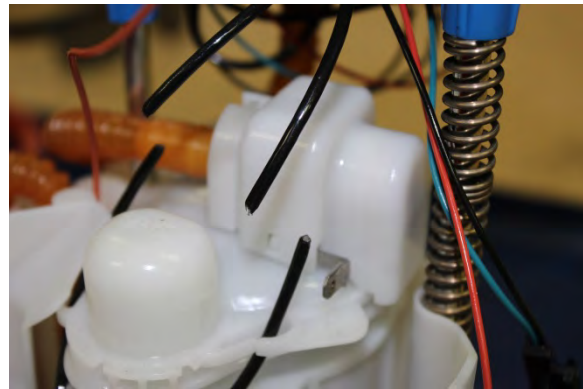
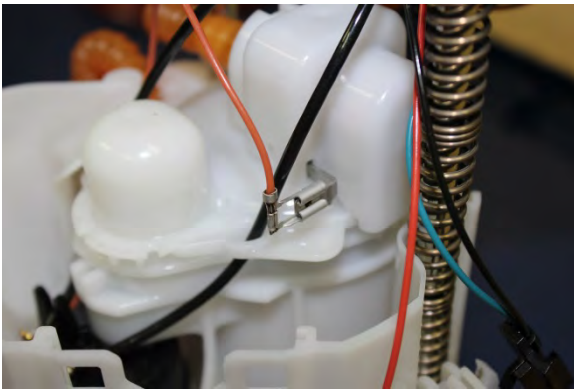
17. With the venturi removed from the bucket you can now install the venturi extension seen in the photo below.



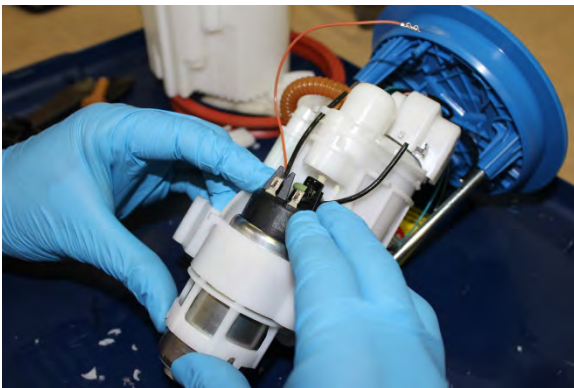
18. Remove the fuel filter from the bottom of the pump using a flat blade screwdriver.



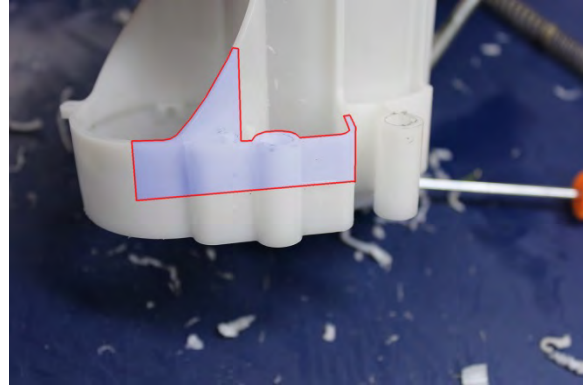
19. Disconnect the brown wire by pulling the spade terminal free from the male connector (this requires some force hold the male connector as needed to not cause damage). Once the male connector is removed cut the two wires coming from the fuel pump as shown below.



20. Remove the factory fuel pump by pulling it down and out of the plastic pump holder. Then remove the plastic holder by using a small flat blade screwdriver or pick tool next to each of the 3 clips.



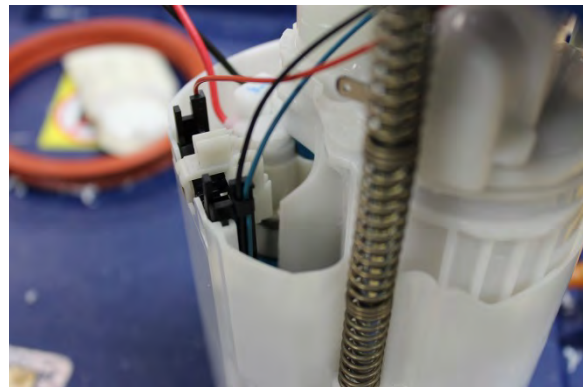
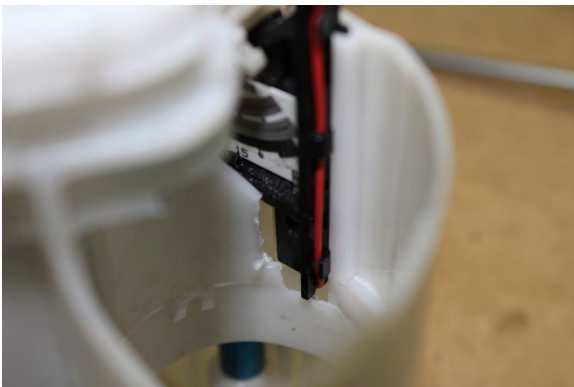
21. Mark the plastic as shown in the image below and carefully cut using a rotary tool, sharp razor, or other cutting tool of your preference.



22. Insert each of the 3 threaded stand offs in the holes securing with screws from the top. Then insert the assembly back into the bucket for test fitting.



23. Re install the sending unit as shown and ensure that it clicks in place with little to no force. If it does not then the sending unit is hitting somewhere and more trimming needs to be done. Remove the assembly from the bucket and trim as needed to gain clearance. Also ensure the sending unit arm can move freely from side to side without making any contact with anything.



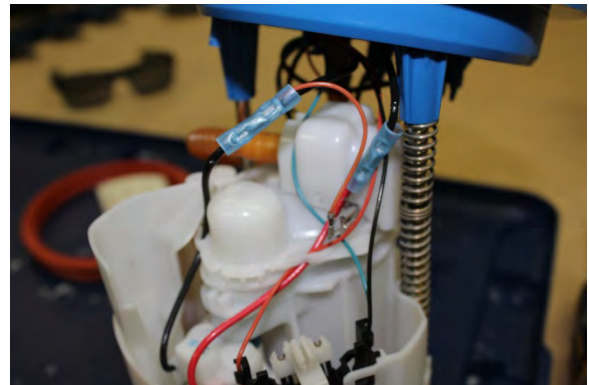
24. Once you have verified fitment of the sending unit, remove the sending unit as shown in step 12 of this manual then remove the assembly from bucket. With the assembly removed insert the pump mount locking ring as shown below and insert the pump into the assembly installing the fuel filter as keyed to the pump.



25. Insert the entire assembly back into the bucket and secure using the remaining three screws in the bottom of the bucket. Tighten only a few turns on each screw until all screws have been tightened completely. Tighten the top 3 screws again as needed. Then install the sending unit repeating step 23.

26. Install the top hat ensuring to install the spring back on the long shaft. Push down on the top hat and install the locking clip securing the top hat to the bucket. *(see step 11 for more information if needed)*

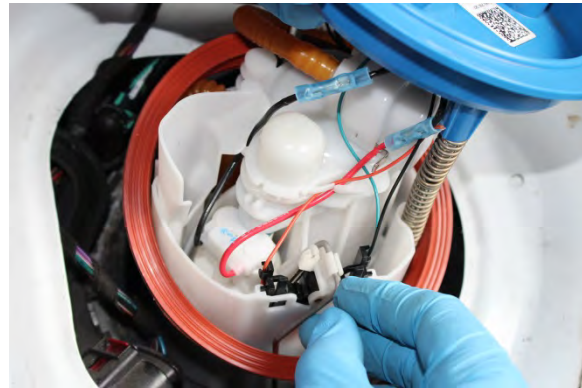
27. Identify the positive and negative wires coming from the top hat by using the identifying marks seen in the image below. Strip the wires and crimp them together using the supplied connectors. Ensure the spade wire disconnected in step 19 is crimped with the negative wire coming from the pump and reconnected to the terminal.



28. Place pump in the position shown in the car and reconnect the fuel line. Once the line is connected slide the o-ring down over the lines and secure it in place to the opening of the fuel tank.



29. Insert the pump into the tank rotating counter clockwise until the electrical connection on the pump assembly is located parallel to the back of the car. Then reinstall the fuel float as it was removed in step 9 of this install guide.



30. Seat the pump fully into the tank ensuring the alignment tab is in the correct position. Then proceed to install the locking ring into place using a large screw driver and hammer if necessary to turn the ring until the ring is tight. *(Tip: Moving the screwdriver to different locations on the ring and tapping works best to seat it)*



31. Connect the electrical connector and fuel line as shown below and start the car. It might take 2 or more attempts to start the car as we have removed fuel from the lines during this process. Let the car idle for 1-2 minutes then rev the engine lightly. Once you have ensured the motor runs smooth like before and there are no lights on the dash related to fuel pump you can install the plastic dust cover and set over the pump and assembly is complete.

12 Month Limited Warranty

Precision Raceworks, LLC warrants to the consumer that all Precision Raceworks products will be free from defects in material and workmanship for a period of twelve (12) months from date of the original purchase. Products that fail within this 12 month warranty period will be repaired or replaced at Precision Raceworks discretion, when determined by Precision Raceworks that the product failed due to defects in material or workmanship.

This warranty is limited to only the repair or replacement of the Precision Raceworks part. In no event shall this warranty exceed the original purchase price of the Precision Raceworks part nor shall Precision Raceworks be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product.

Warranty claims to Precision Raceworks must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is non-transferable. All implied warranties shall be limited in duration to the said 12 month warranty period. Improper use or installation, accident, abuse, unauthorized repairs or alterations voids this warranty.

A Precision Raceworks Warranty Claim Form Must Accompany All Warranty Claims. Products returned to Precision Raceworks with no Return Goods Authorization and or No Warranty Claim Form may be rejected and returned to sender. Precision Raceworks disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by Precision Raceworks. Warranty returns will only be accepted by Precision Raceworks when accompanied by a valid Return Goods Authorization (RGA) number. Credit for defective products will be issued pending inspection. Product must be received by Precision Raceworks within 30 days of the date RGA was issued.

Please note that before we can issue an RGA for any product, it is first necessary for the installer or end user to contact us at Warranty@PrecisionRaceworks.com to discuss the problem. Most issues can be solved through email or over the phone. Under no circumstances should a product be returned or RGA requested before the above process transpires.

A PRECISION RACEWORKS WARRANTY CLAIM FORM MUST ACCOMPANY ALL ELECTRONICS WARRANTY CLAIMS. Precision Raceworks Products returned to Precision Raceworks with no RGA and or No Warranty Claim Form may be rejected and returned to sender.

A copy of the Precision Raceworks Warranty Claim Form can be obtained by sending a request for the form to Warranty@PrecisionRaceworks.com .