



Installation Instructions

911 GT3 Cup Tank Tower—Pistol Type Filler (Type 992)

MT000120A

Version_V1_2021/11

Contact

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Note

By constantly optimizing our products, there are regular updates to this document. Please note that only the current version of the document is valid. In the download area the current documents are available for download. This vehicle is specially designed for participation in competitions on circuits.

Manthey-Racing GmbH assumes no responsibility for the compliance of the regulations. Illustrations, descriptions and schematics serve exclusively to represent the text. We assume no liability for the completeness and conformity of the content with the respective valid sporting regulations.

The technical documentation for the 911 GT3 Cup (Type 992) of Porsche AG must be observed.

Download Area

The installation and operating instructions as well as the technical manuals are available for downloading under the following link.

<http://www.manthey-racing.de/downloads.htm>

1. Warning and safety instructions

The classification of the warning and safety information is made using the respective signal word (Danger, Warning, Caution) in addition to the warning icon.

 **DANGER**

Warning of death or serious bodily injuries, which will occur in the event of non-compliance.

 **WARNING**

Warning of death or serious bodily injuries, which may occur in the event of non-compliance.

 **ATTENTION**

Warning of minor bodily injuries in the event of non-compliance.

NOTE

Warning of property damage in the event of non-compliance.

1.1 General Warning and Safety Instructions

 **DANGER**

Risk of injury and accident during and after work on the vehicle:

- Repairs are to only be carried out if access to technical documentation for the vehicle is available in the Porsche Motorsport Racecar Service Information portal (PMRSI).
- Follow the safety instructions.

 **DANGER**

Falling vehicle risk:

Risk of Squashing or Crushing.

Damage to vehicle.

- Do not place any rigid objects under the lifted vehicle.
- Secure lifting platform against lowering.
- Remove all objects under vehicle before lowering.
- Raise the vehicle using only the designated vehicle lifting points.
- Outer-most vehicle lifting points should be used as a matter of priority.

 **WARNING**

Improper handling of safety-related fasteners risk:

Risk of Injury.

Loosening of fasteners.

Torque Drop.

- Always use new fastening screws and nuts after every disassembly.
- Observe the specified tightening torques.
- Visually inspect the components used.

 **WARNING**

Heavy Components:

Risk of Crushing.

- Wear Personal Protective Equipment (PPE).
- If necessary seek assistance during task.

 **WARNING**

Flying foreign object during grinding, drilling and milling:

Risk of eye injuries.

- Wear safety glasses.

1.1 General Warning and Safety Instructions

WARNING

Falling objects or loads:

Risk of Squeezing or crushing.

- Secure components against falling.

WARNING

Non heat-resistant materials:

Fire Hazard.

- Avoid contact with hot components or sources of ignition.

ATTENTION

Sharp or sharp-edged objects:

Risk of Cracks, Punctures, or Cuts.

- Wear Personal Protective Equipment (PPE).

ATTENTION

Hot components:

Risk of Burns.

- Allow hot components to cool down.
- Wear Personal Protective Equipment (PPE).

ATTENTION

Heavy Components:

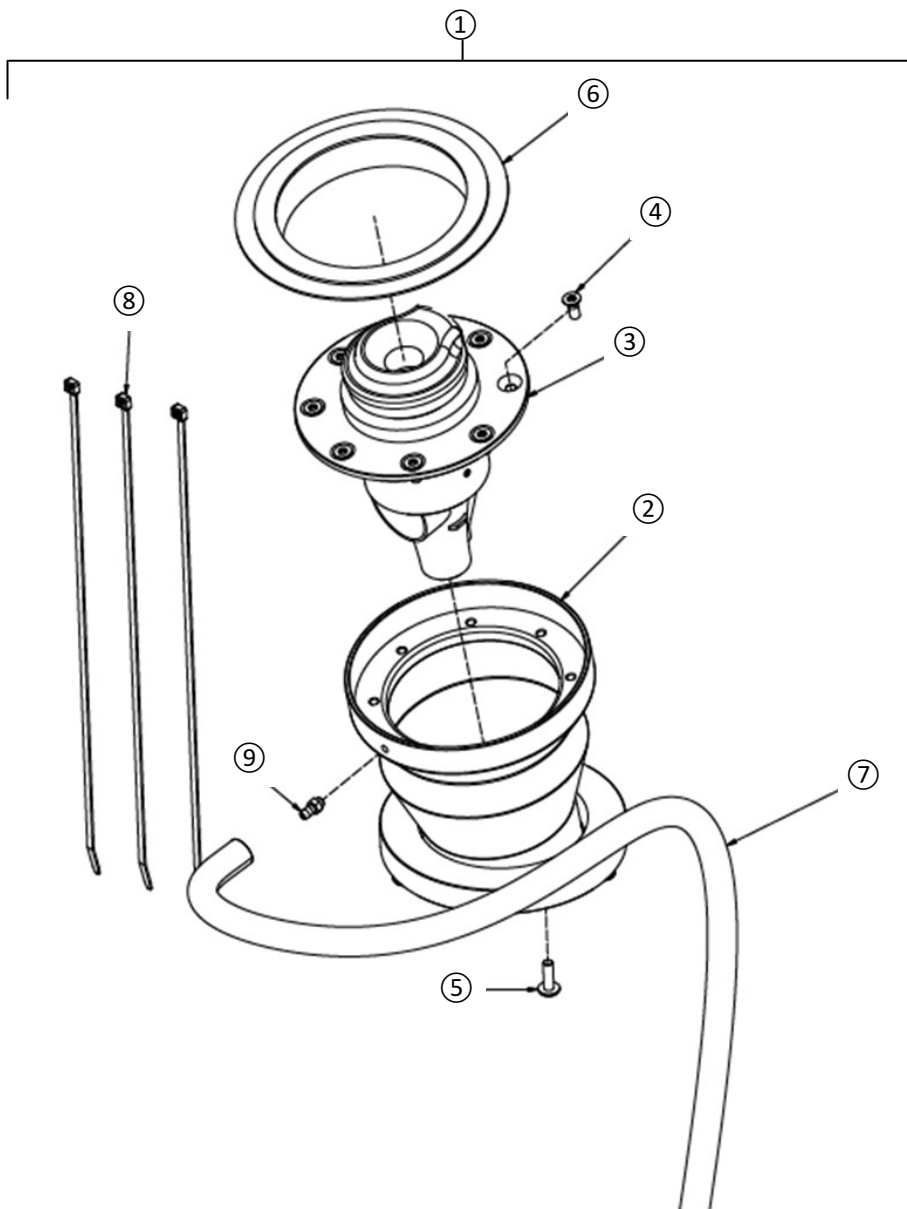
Risk of Crushing

- Wear Personal Protective Equipment (PPE).
- If necessary seek assistance during task.

NOTE

Always observe the currently valid "Technical Information" (TI) from Porsche AG. These can be viewed and downloaded at <https://motorsport.porsche.de>.

2.1 Component Overview - Tank Tower - Pistol Type Filler



| Pos. | Bezeichnung / Description | M | A. | Teile Nr. / Part no. |
|------|--|---|----|---|
| 1 | TANKBEFÜLLSYSTEM ZAPFPISTOLENVERWENDUNG 992 TANK FILLER SYSTEM - PISTOL TYPE FILLER 992 CUP | | | MT000120A |
| 2 | TANKTOWER TANKBEFÜLLSYSTEM 992 CUP TANK TOWER TANK FILLING SYSTEM 992 CUP | | 1 | MT000121A |
| 3 | TANKVENTIL INKL. ROTER PLATTE FUEL TANK VALVE INCL. RED PLATE | | 1 | MTH201151 |
| 4 | SENKKOPFSCHRAUBE - M5X12 COUNTERSUNK SCREW - M5X12 | | 8 | nur im Set verfügbar only available as a set |
| 5 | LINSENSCHRAUBE - M5X12 DOME HEAD SCREW - M5X12 | | 2 | nur im Set verfügbar only available as a set |
| 6 | CARBON RING HAUBE TANKBEFÜLLUNG 991 CUP CARBON RING TANK FILLER 991 CUP | | 1 | MR002326 |
| 7 | SCHLAUCH HOSE | | 1 | nur im Set verfügbar only available as a set |
| 8 | KABELBINDER — KLEIN CABLE TIE—SMALL | | 3 | nur im Set verfügbar only available as a set |
| 9 | SCHLAUCHANSCHLUSS BARB HOSE FITTING | | 1 | nur im Set verfügbar only available as a set |

⚠ WARNING

Adequate ventilation must be provided for all work on the open fuel system.

⚠ WARNING

Keep all potential ignition sources away from the work area!

⚠ WARNING

Wear personal protective equipment when working on the fuel system.

⚠ WARNING

Wear personal protective equipment when working with rotary cutters and grinding tools.

NOTE

When working on the fuel system, ensure that it is kept as clean as possible!

NOTE

The vehicle must be de-energized!

Disconnect the battery!

NOTE

Keep suitable fire extinguishers readily available in the work area at all times.

NOTE





The 2K adhesive required for bonding the carbon ring is not included in this kit. Manthey-Racing GmbH recommends the use of Würth **"REPOS UNIVERSAL"** for bonding the covers.

2.2 Removing the Tank Plate

Step 1:


Step 1:

Remove the following items:



1. Fuel Pump Electrical Connector 
2. Fuel Level Sensor Electrical Connector 
3. Roll-Over Valve Vent Pipe Connector 
4. Cut-Off Valve Connector 

NOTE

Remove any remnants of fuel left in the tank!

Remove all (30) M6 screws around the outer perimeter of the tank plate assembly, securing it to the fuel cell. 

Step 2:

Carefully lift the tank plate assembly and disconnect the fuel pump electrical connector and fuel line (quick disconnect coupling).  

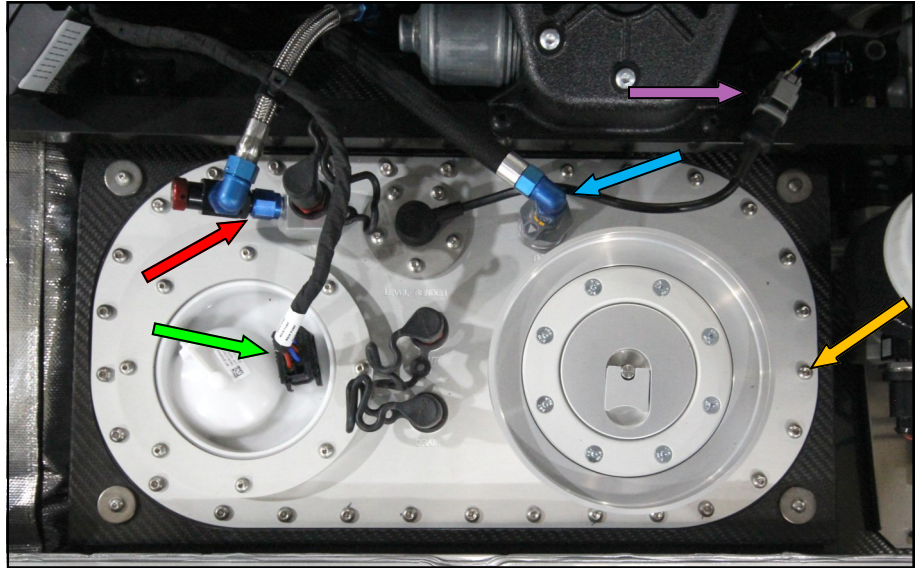
Fully remove the tank plate assembly from the vehicle and place on a suitable clean working surface.

NOTE

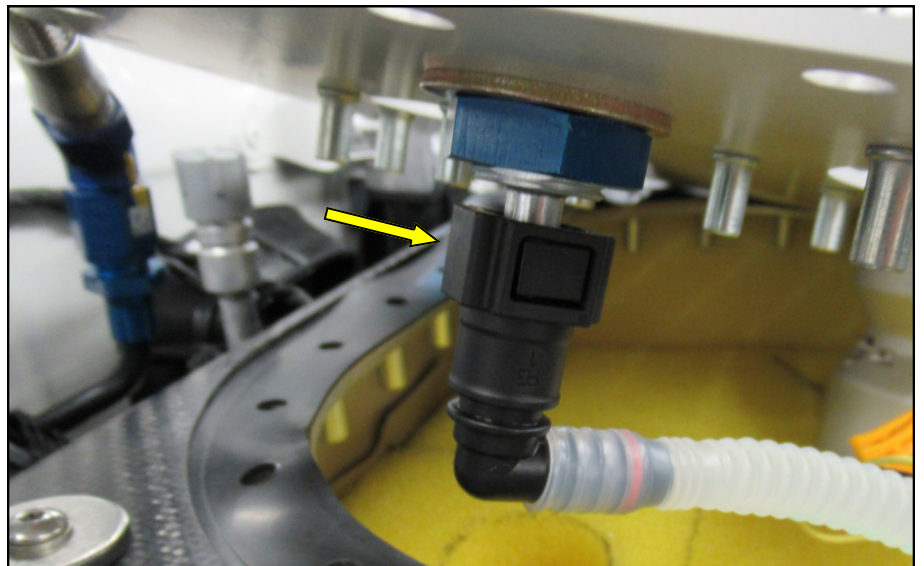
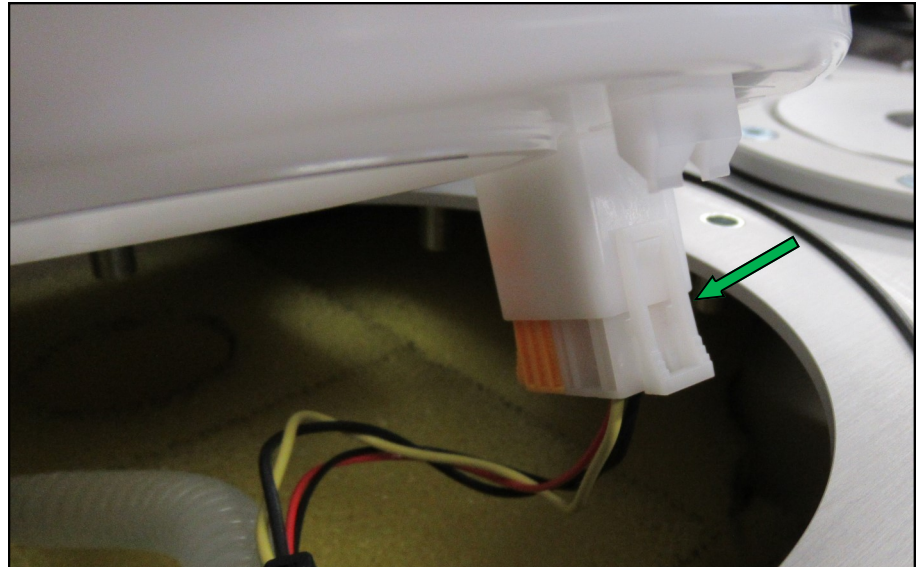
Do not damage any of the seals. These will be re-used!

NOTE

Cover the tank opening to protect against the ingress of dirt and unwanted contamination with a suitable means until the tank plate is re-installed.

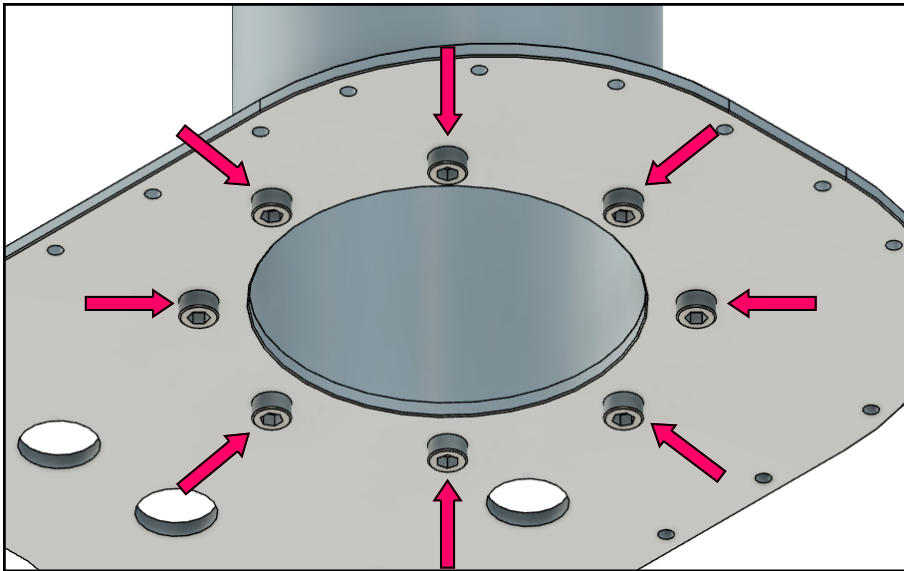


Step 2:

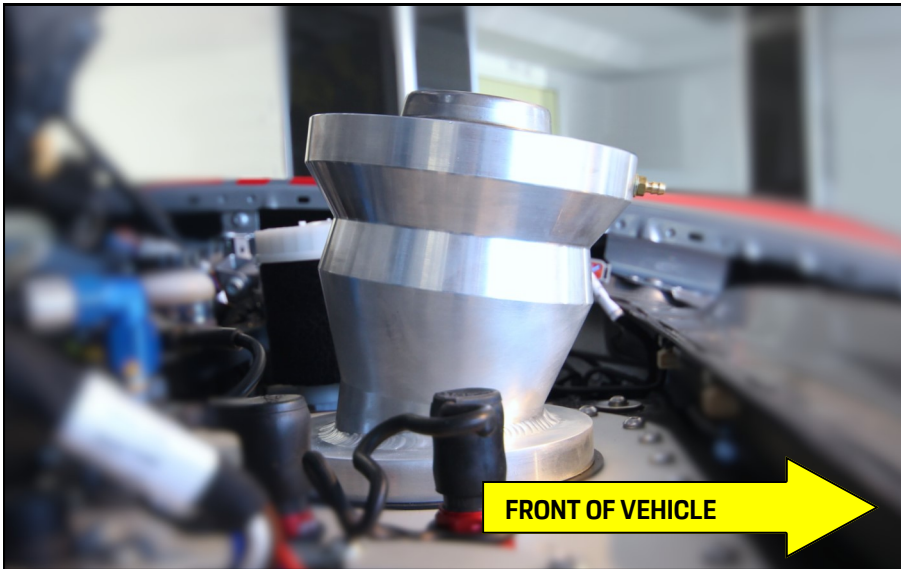


2.3 Replacing the Tank Tower

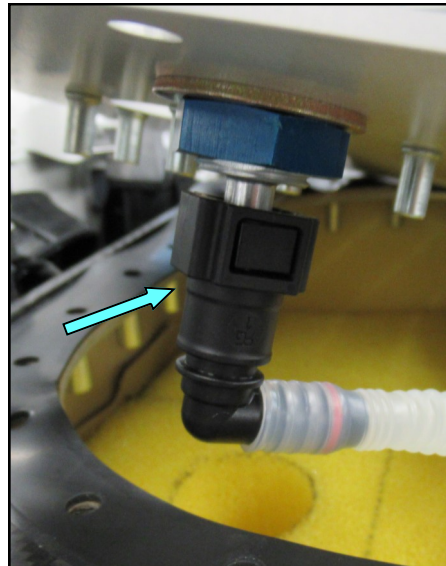
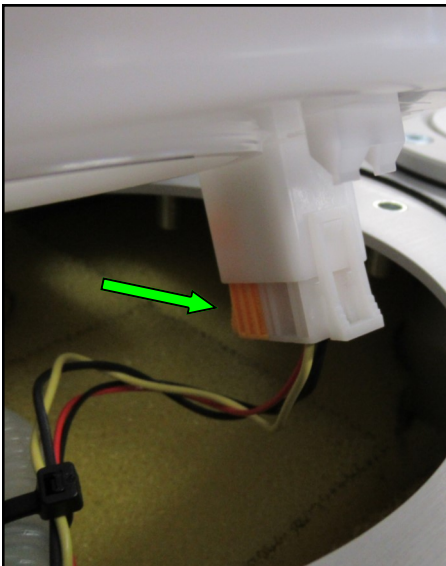
Step 1:



Step 2:



Step 3:



Step 1:

On the underside of the tank plate assembly, loosen and remove the eight M5X16 screws securing the tank tower to the tank plate.

Remove the original tank tower from the tank plate assembly.

The seal can remain in place on the tank plate.

NOTE

Do not damage any of the sealing gasket. This will be re-used!

Step 2:

Mount the new tank tower onto the tank plate assembly and secure from underneath using the eight included M5X12 screws.

NOTE

The tower should be orientated so that it is angle toward the front of the vehicle when the tank plate assembly is reinstalled (See Image).



M5X12 Screw

Tightening Torque: 3 Nm

Step 3:

Carefully bring the tank plate assembly into position over the fuel cell.


Reconnect the fuel pump electrical connector and fuel line (quick disconnect coupling) on the underside of the tank plate.

NOTE

The electrical connector and fuel line must be correctly fitted, and must be heard to 'Click' into place when fitting.

**911 GT3 Cup (Type 992)
Tank Tower—Pistol Type Filler**

Step 4:

Secure the tank plate using the 30 original M6 screws. 



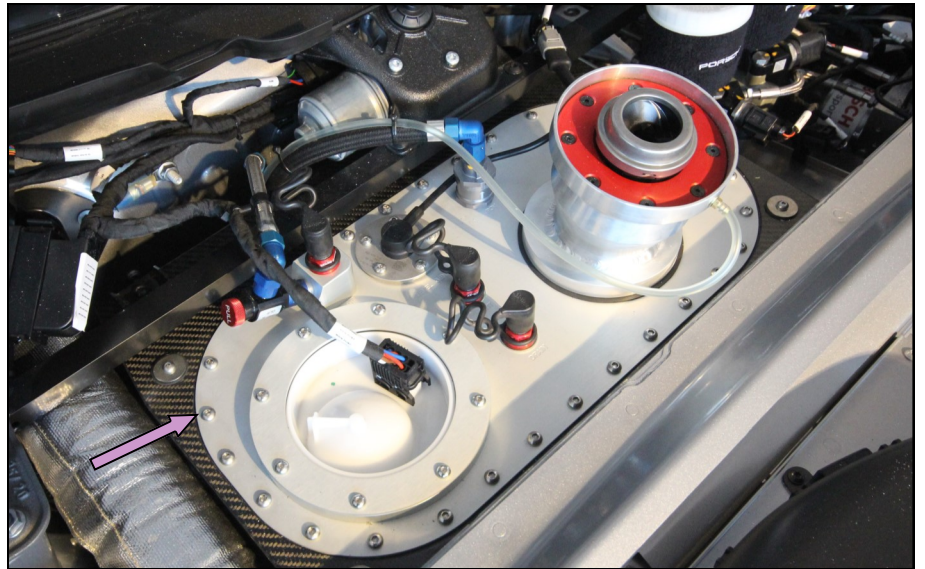
M6X20 Screw

Tightening Torque: 4 Nm

ATTENTION





Do not close the trunk hood until it has been modified! Risk of damage!

Step 4:

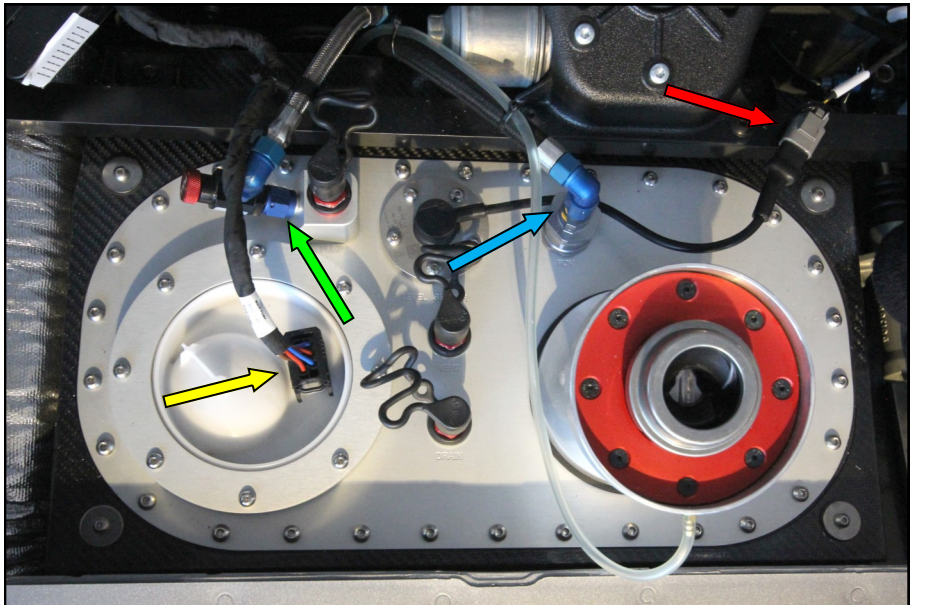


Step 5:


Connect the following items:

1. Fuel Pump Electrical Connector 
2. Fuel Level Sensor Electrical Connector 
3. Roll-Over Valve Vent Pipe Connector 
4. Cut-Off Valve Connector 

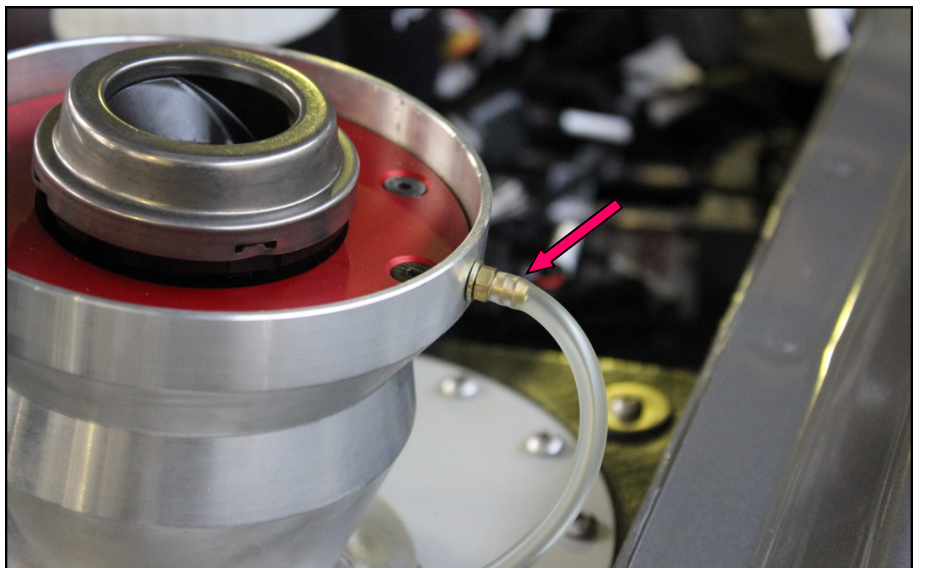
Step 5:

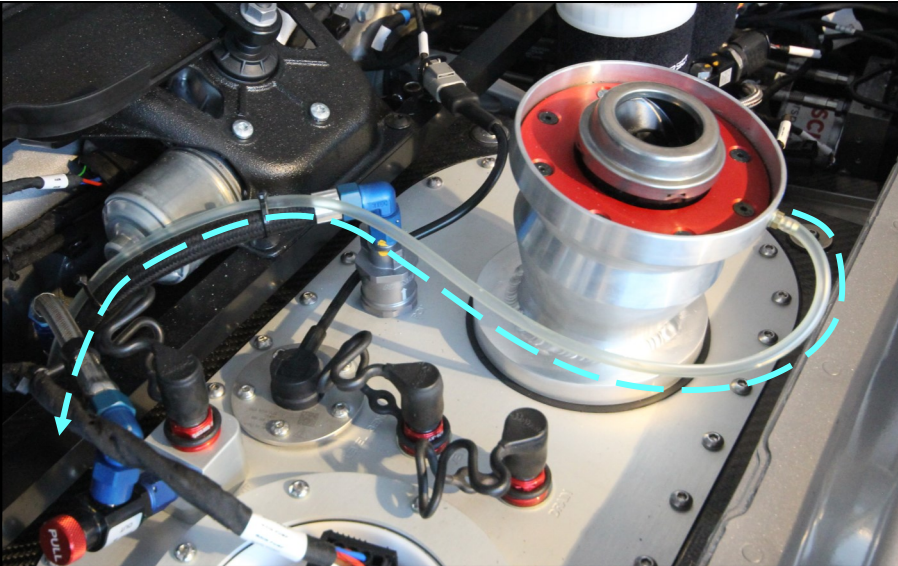


Step 6:

Push the included clear drain hose onto the barbed hose fitting at the front of the tower. 

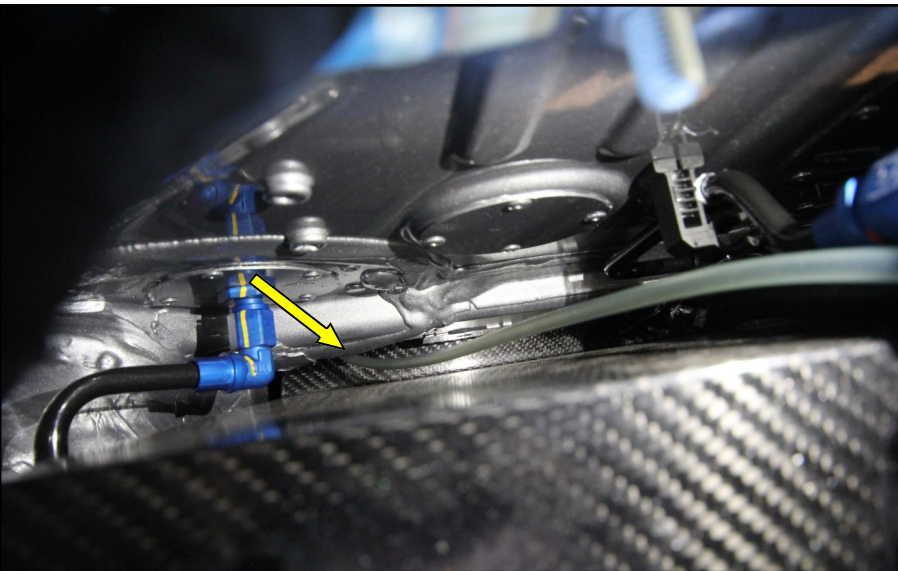
Step 6:



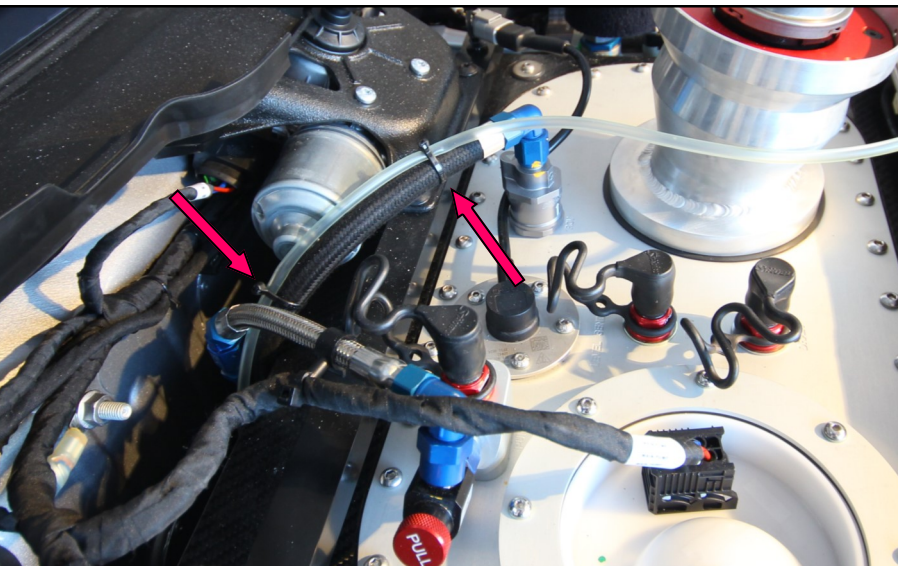
Step 7:**Step 7:**

Route the hose to the right of the vehicle around the tank tower and toward the rear of the fuel tank.

Route the drain hose down between the fuel tank and firewall, toward the underbody.

Step 8:**Step 8:**

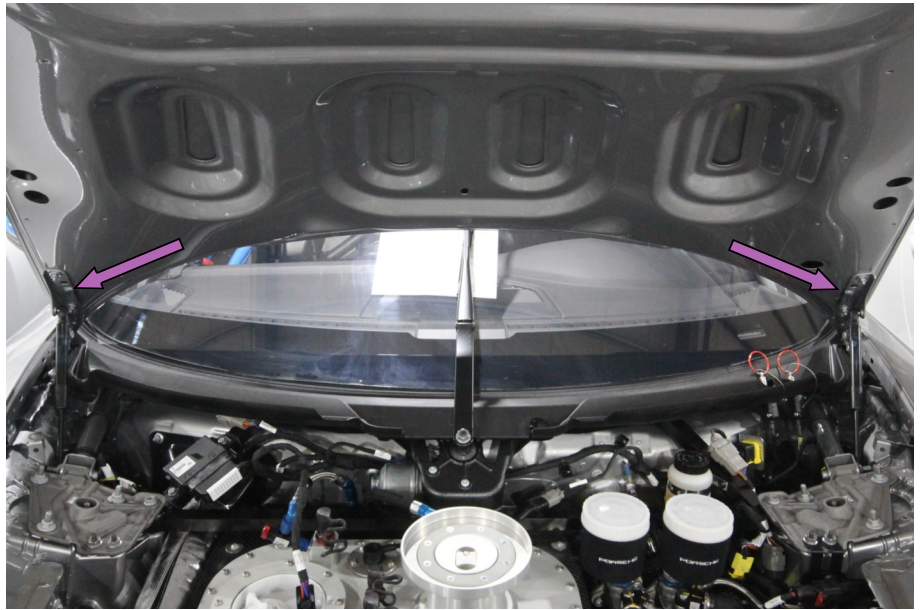
Guide the drain tube to a location which will allow any fuel to drain freely out from underneath the vehicle.

Step 9:**Step 9:**

Secure the drain hose to the fuel vent line using the included cable ties.

2.4 Modifying the Front Hood

Step 1:




NOTE

The assistance of a second mechanic is required for the following step.

Step 1:

Remove the front hood.


Loosen and remove the four M6 nuts securing the hood to the hood hinges. 


Have a second mechanic support the hood while loosening the nuts.


Remove the hood and place on a suitable working surface.


Step 2:

On the centre hood under panel reinforcement feature, complete the following;

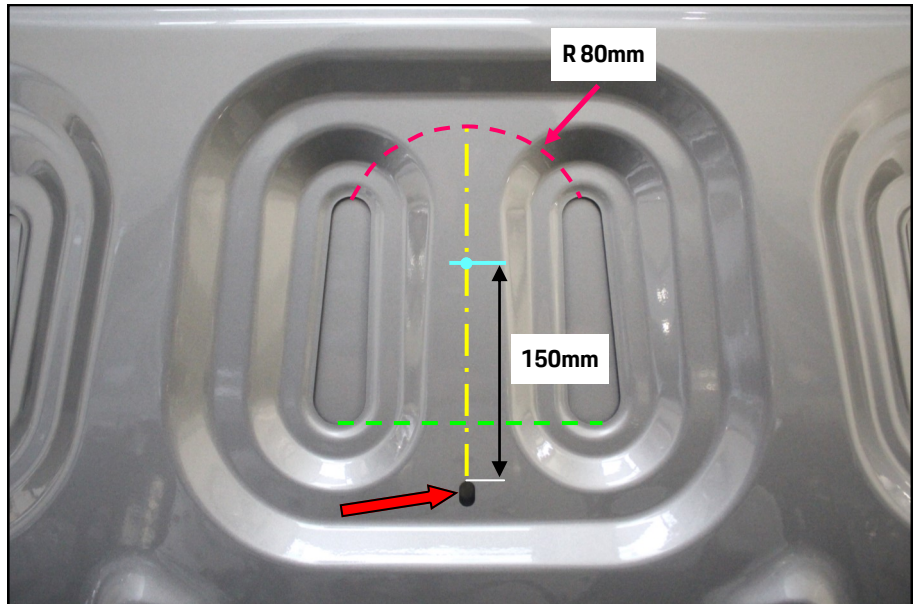
Mark a centreline in the centre of the pressing as shown. 

Mark a cut line tangent to lower edge of the large oval cutouts. 


Mark a point on the centreline measured 150mm up from the upper edge of the small oval hole in the panel. 

Referenced from the marked point, mark a radius 80mm arc as shown. 

Step 2:



Step 3:

At the marked point, Drill a 3mm hole through both the underpanel and hood panel. 


NOTE

Ensure the drill is held perpendicular to the surface when drilling.

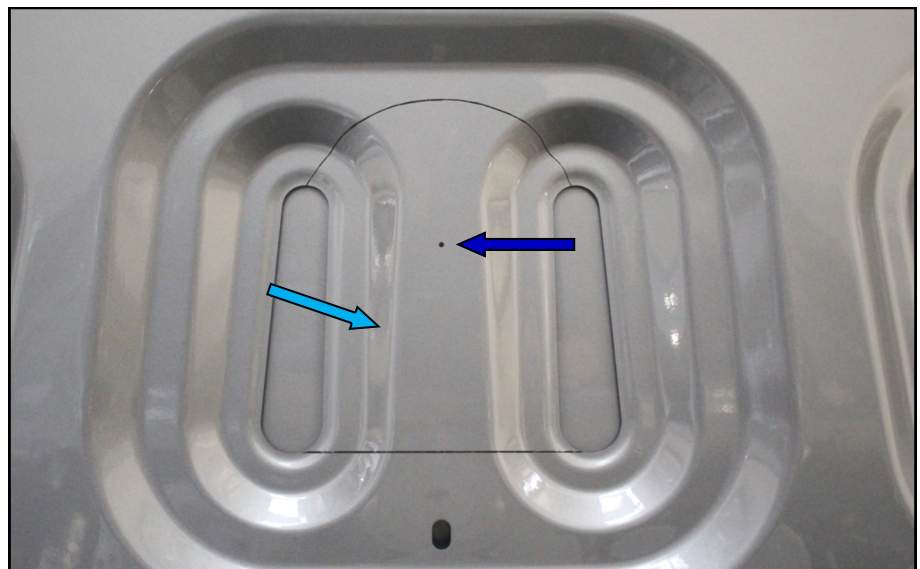
Using a suitable method, carefully cut the under panel along the lower line and upper arc.

NOTE

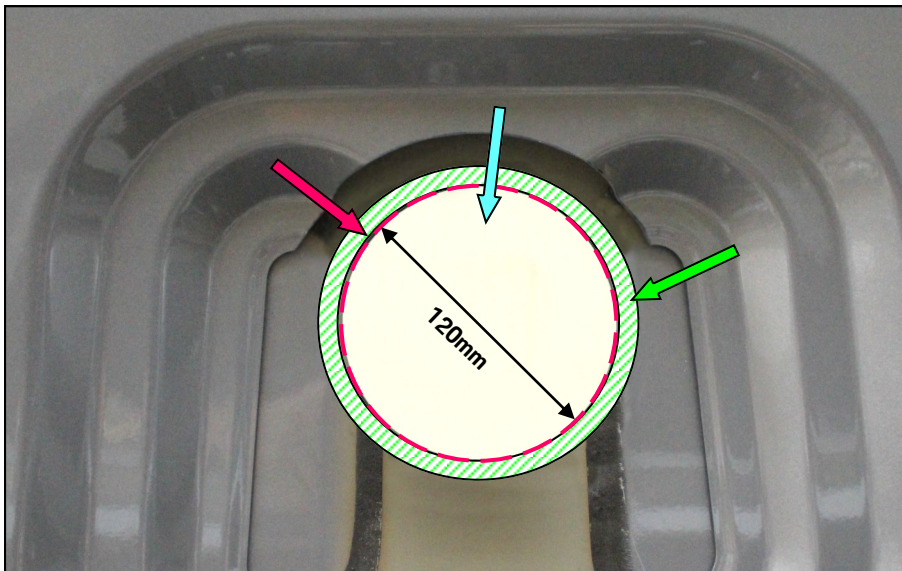
Only cut the under panel. Do not cut the hood panel!

After cutting, heat the adhesive bonding the under panel to the hood panel and gently remove the waste material. 

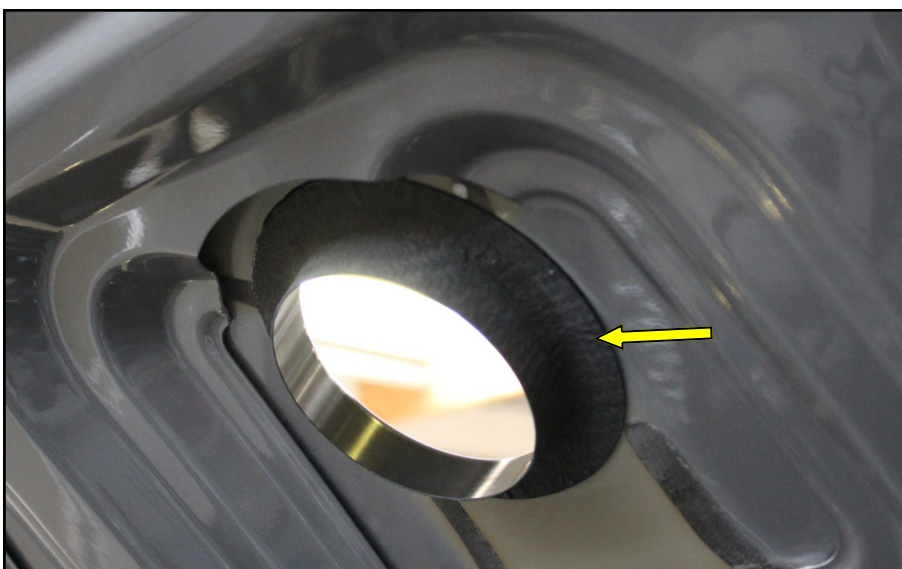
Step 3:



Step 4:



Step 5:



Step 4:

Using the 3mm hole as centre reference, mark a 120mm diameter circle on the underside of the hood panel.

Using a suitable method, carefully cut the the 120mm hole out of the hood panel.

Deburr all of the cut edges.

Sand the highlighted adhesion areas on the inside surface of the underside of the panel with sandpaper (240 grit).

Thoroughly clean and degrease the adhesion surfaces using acetone.

Step 5:

Prepare the carbon ring for bonding to the hood panel.

Carefully sand the adhesion surface with 240 grit sandpaper. Thoroughly clean and degrease the adhesion surfaces using acetone.

Apply a bead of the 2K-component adhesive approx. **3 mm high** around the centre of the adhesions surface.

NOTE

The 2K adhesive is not included in this kit. Manthey-Racing GmbH recommends the use of Würth "REPOS UNIVERSAL" for bonding the covers.

Once the adhesive has been applied, quickly insert the carbon ring into 120mm hole from the underside of the hood panel. Press the ring firmly into the adhesive.

Remove any excess adhesive that emerges from the top side of the hood.

Allow the adhesive to fully cure for the manufacturers specified time.

Step 6:

Once the epoxy for the carbon ring has fully cured, reinstall the hood in accordance with the Porsche AG repair guidelines for the 911 GT3 Cup (Type 992).

**M6 Nuts****Tightening Torque: 8 Nm****Step 6:**