



Installation Instructions

911 GT3 Cup Additional Lighting (Type 992)

MT000403A

Version_V1.8_2021/12

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:

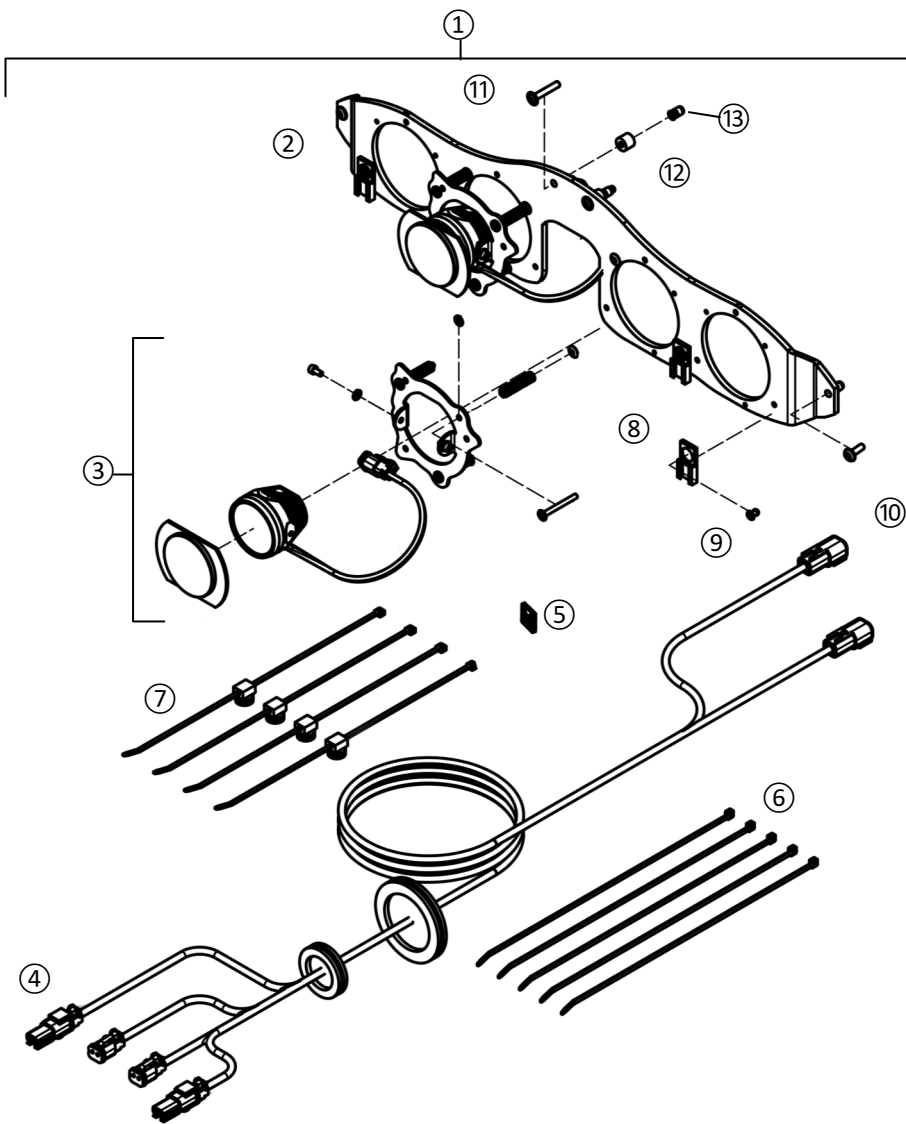
Risk of Crushing

- 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 - 24H Additional Lighting



Pos.	Bezeichnung / Description	M	A.	Teile Nr. / Part no.
1	24H ZUSATZBELEUCHTUNG 992 GT3 CUP Pos. 2 - 24H ADDITIONAL LIGHTING 992 GT3 CUP Pos. 2-		1	MT000403A
2	ANBINDUNGSBLECH 24H BELEUCHTUNG 982/981 MOUNTING FRAME 24H LIGHTING 982/981		1	nur im Set verfügbar only available as a set
3	SET LAMPE 24H BELEUCHTUNG 992 CUP LAMP SET 24H LIGHTING 992 CUP		2	MT000430A
4	ADAPTERKABELSTRANG 24H 992 CUP WIRING HARNESS ADAPTER 24H 992 CUP		1	MT000429A
5	KABELBINDER TANNENBAUM—KLEIN CABLE TIE W/MOUNT—SMALL		4	nur im Set verfügbar only available as a set
6	BEFESTIGUNGS SOCKEL SELBSTKLEBEND SELF ADHESIVE CABLE TIE MOUNT		1	nur im Set verfügbar only available as a set
7	KABELBINDER —KLEIN CABLE TIE—SMALL		5	nur im Set verfügbar only available as a set
8	BEFESTIGUNGSCLIP KUNSTOFF DTBL1 PLASTIC MOUNTING CLIP DTBL1		4	nur im Set verfügbar only available as a set
9	BLINDNIET - 4X8 - ALU/ST RIVET - 4X8 - ALU/ST		4	nur im Set verfügbar only available as a set
10	LINSENSCHRAUBE - M5X16 FLANGE SCREW - M5X16		2	nur im Set verfügbar only available as a set

WARNING

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

NOTE

The vehicle must be de-energized!

Disconnect the battery before beginning work!

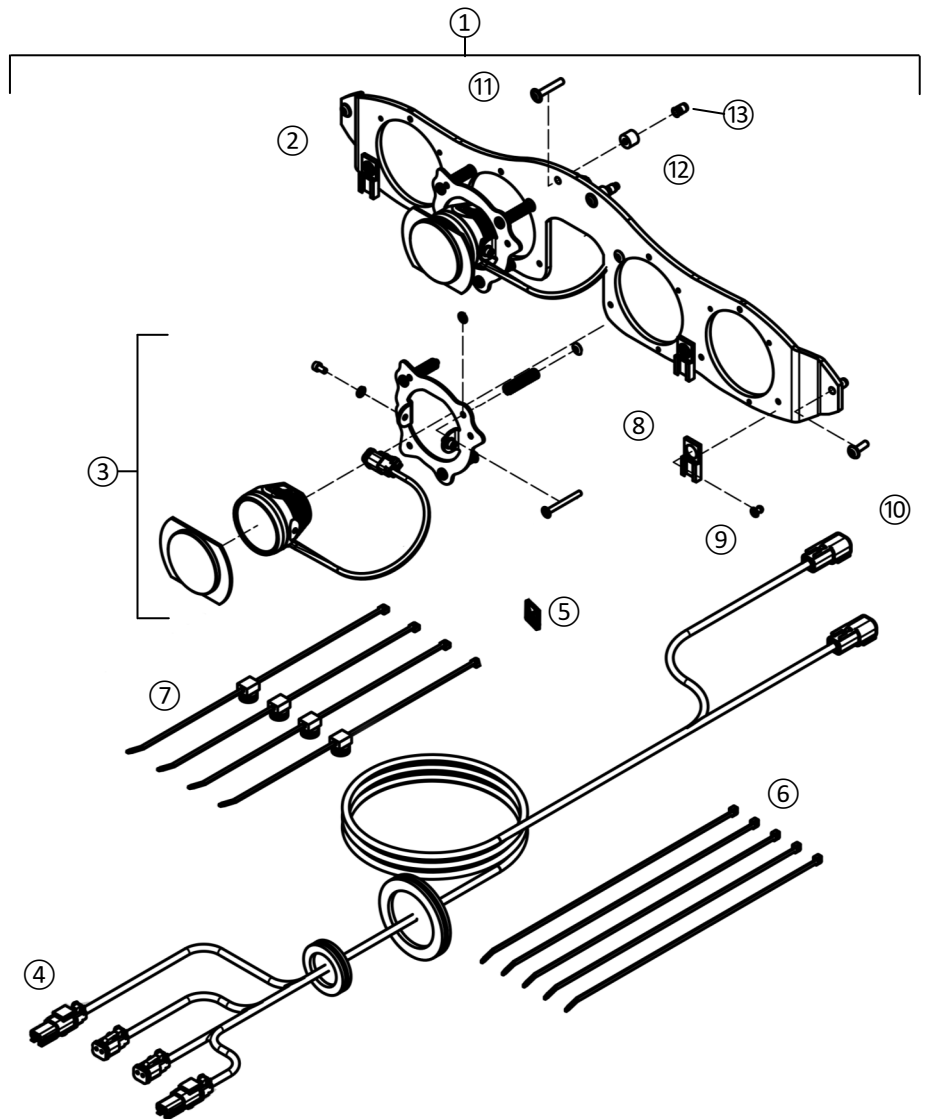
NOTE

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

NOTE

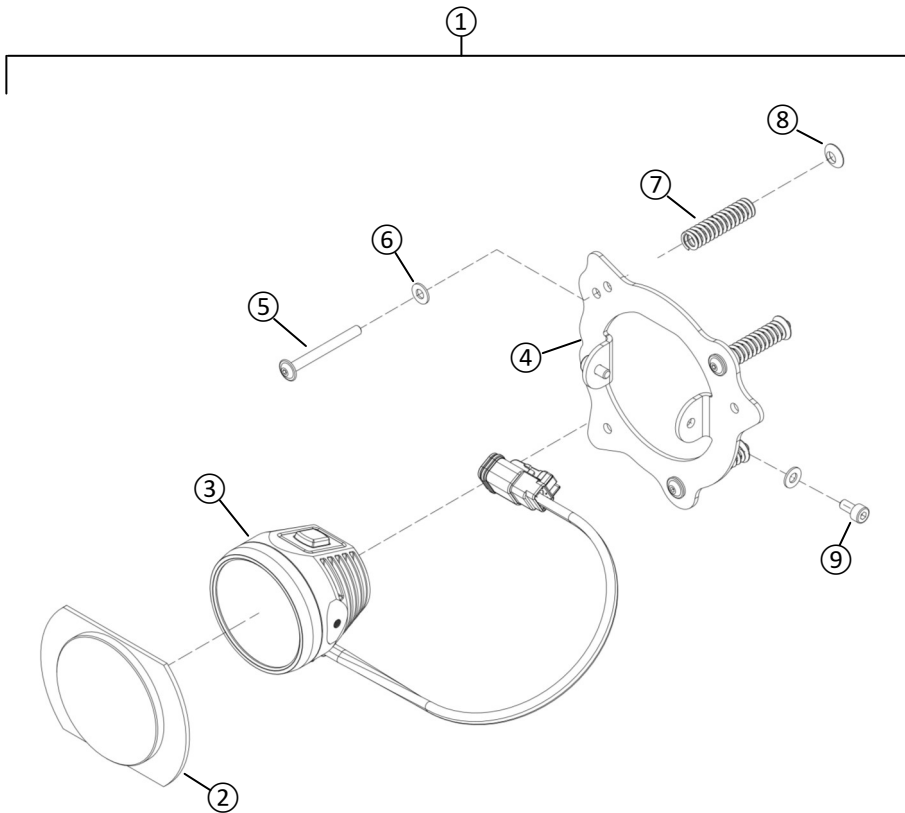
The 2K adhesive required to bond the light covers to the bumper is not included in this kit. Manthey-Racing GmbH recommends the use of Würth "REPOS UNIVERSAL" for bonding the covers.

2.1 Component Overview - 24H Additional Lighting



Pos.	Bezeichnung / Description	M	A.	Teile Nr. / Part no.
11	LINSENSCHRAUBE - M5X30 FLANGE SCREW - M5X30		2	nur im Set verfügbar only available as a set
12	SPACER 24H BELEUCHTUNG 992 CUP 24H ADDITIONAL LIGHTING 992 GT3 CUP Pos. 2-		2	nur im Set verfügbar only available as a set
13	EINNIETMUTTER SENKKOPF - M5X12 RIVET NUT COUNTERSUNK - M5X12		4	nur im Set verfügbar only available as a set

2.2 Component Overview - 24H Additional Lighting - Light Unit



Pos.	Bezeichnung / Description	M	A.	Teile Nr. / Part no.
1	SET LAMPE 24H BELEUCHTUNG 992 CUP POS. 2-9 LAMP SET 24H LIGHTING 992 CUP POS.2-9		1	MT000430A
2	24H ABDECKUNG 991 CUP II 24H LIGHT COVER 991 CUP II		1	MTH631112
3	24H BELEUCHTUNG LUPINE 24H LIGHTING LUPINE LIGHT UNIT		1	MT000431A
4	ADAPTER - 24H BELEUCHTUNG ADAPTER - 24H LIGHTING		1	MT000351A
5	FLANSCHESCHRAUBE M4X40 FLANGE SCREW M4X40		3	nur im Set verfügbar only available as a set
6	SCHEIBE DIN 125 - 4.3 DIN 125 WASHER - 4.3		5	nur im Set verfügbar only available as a set
7	DRUCKFEDER SPRING		3	nur im Set verfügbar only available as a set
8	KUGELSCHIEBE DOME WASHER		3	nur im Set verfügbar only available as a set
9	SCHRAUBE M4X8 SCREW M4X8		2	nur im Set verfügbar only available as a set

2.2 Installation Preparation

Step 1:

Attach the adhesive cutting template to the front bumper.

Pay close attention to the correct alignment of the template! The adhesion surface must be cleaned and free of grease before application.

The lower edge of the red line must be aligned with the edge of the cooling air inlet on the painted section of the front bumper. ↓

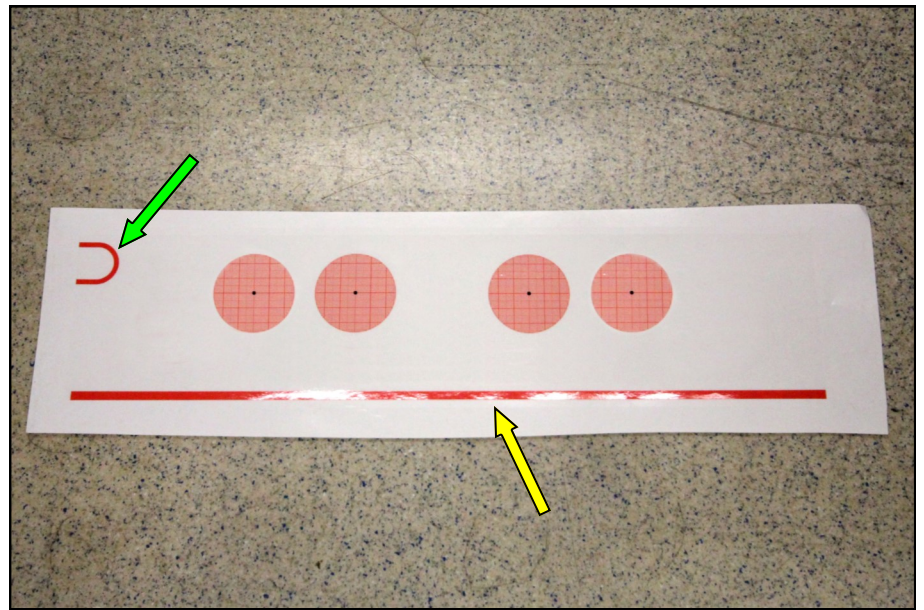
The semicircular reference line must be aligned with the opening for the towing eye. Align the inside edge of the reference line with the opening. ↓

If fitting the base additional lighting (2x light units), only the inner two adhesive grids need to be applied to the bumper.

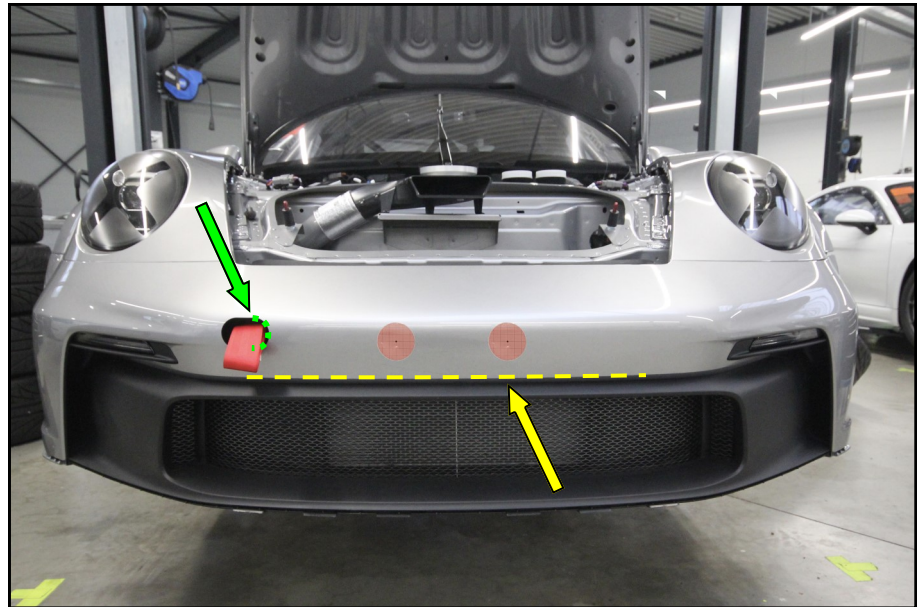
All four adhesive grids only need to be applied if installing the optional four lamp set up.

NOTE

Work carefully when applying the adhesive template.



Step 1:



Step 2:



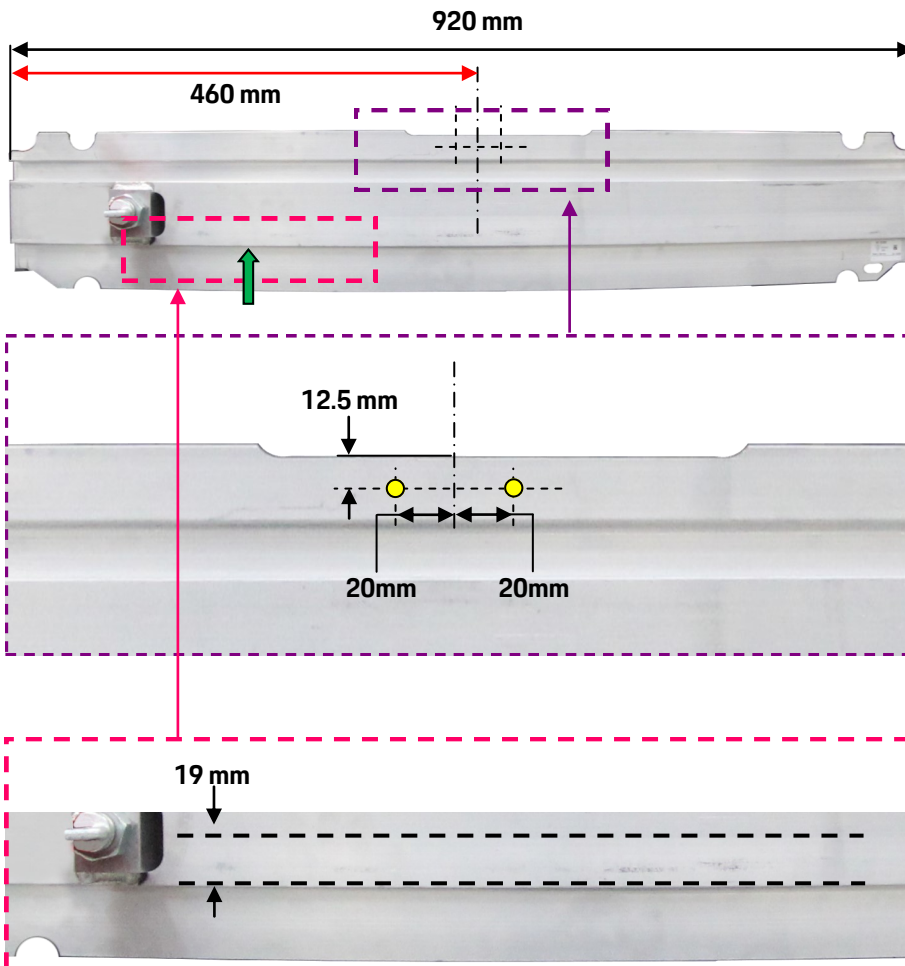
Step 2 (No Images):

Remove the front bumper for further modification in accordance with the Porsche AG repair guidelines for the 911 GT3 Cup (Type 992).

Remove the bumper bar foam part. This is no longer required. ↓

2.3 Mounting the light units and carrier

Step 1:



Step 1:

Mark the positions of the two upper fastening points on the bumper beam.

Measure 460mm in from the outside edge of the beam. Mark a vertical centreline at this position.

Measure 12.5mm down from the machined notch on the upper edge of the beam and mark a horizontal line. Measure out 20mm both left and right of the centreline and mark two vertical lines. The intersection of these lines indicates the centrepoints for the upper mounting holes.

Centre punch the hole positions.

Drill both holes using a 7.0mm drill bit.

Countersink the holes such that the supplied M5 rivnuts sit flush with the surface of the bumper beam.

Mark another horizontal reference line, measured a distance of 19mm up from the indicated edge of the bumper beam.


NOTE

The holes can be drilled with the bumper support beam installed on the vehicle. Use a vacuum cleaner while drilling to catch any chips. Ensure all metal filings / chips are removed from the vehicle.

WARNING

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



Step 2:

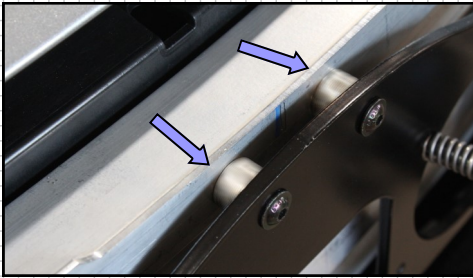
Insert the two M5 rivnuts into the holes. 


NOTE

None of the rivnut should protrude above the surrounding surface.

Step 3:

Fasten the frame with two M5X16 flange head screws and the two included spacers, placed between the frame and bumper beam.  




Align the outer mounting holes of the carrier frame with the horizontal reference line marked in step 3 such that the holes are centred on the reference line. 

Press the lamp carrier frame against the bumper beam and mark the centres of the two outer mounting holes on the bumper beam.

Step 4:

Remove the lamp unit again.

Centre punch the hole positions. 

Drill both holes using a 7.0mm drill bit.

Countersink the holes such that the supplied M5 rivnuts sit flush with the surface of the bumper beam.

Insert the two M5 rivnuts into the holes.

NOTE

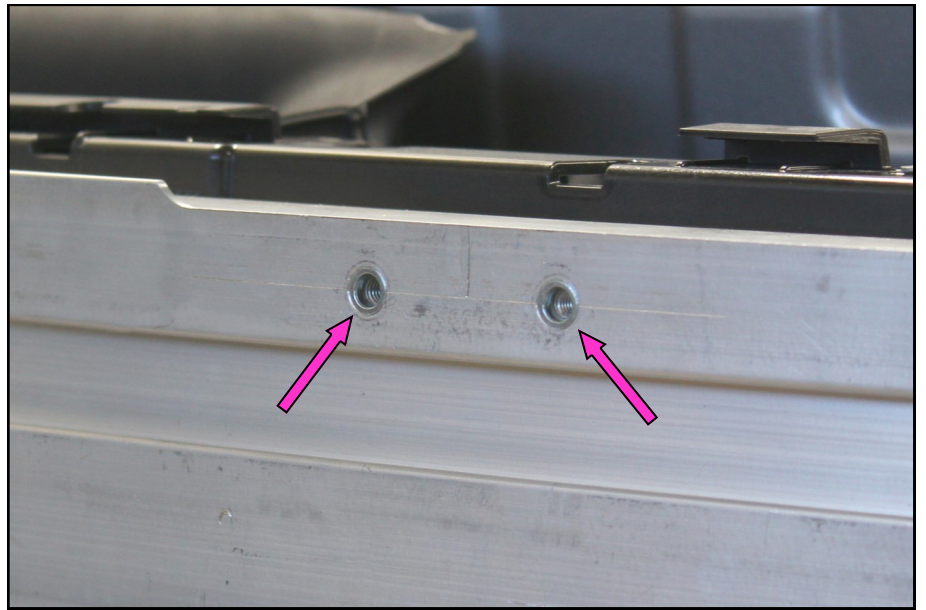
None of the rivnut should protrude above the surface.

WARNING

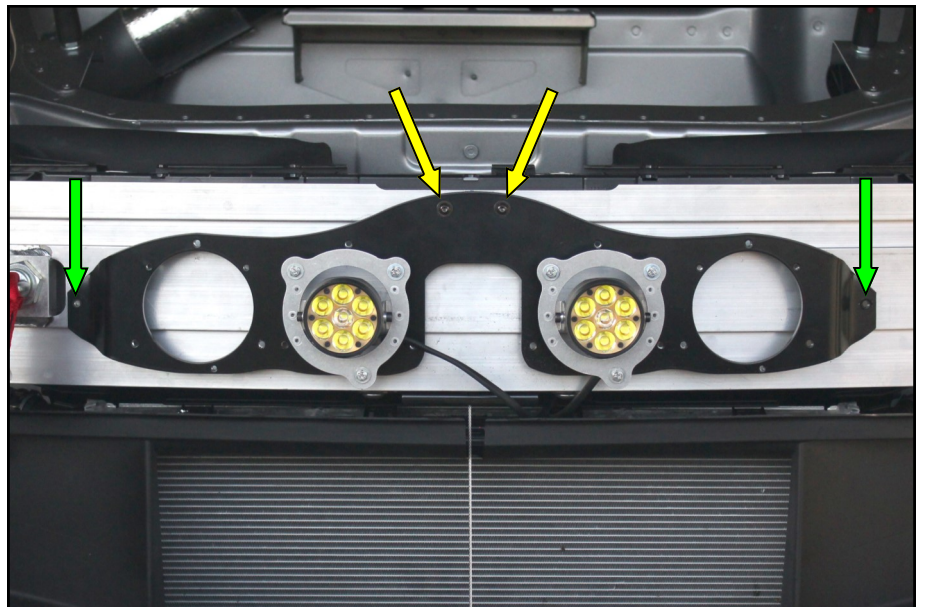
Wear personal protective equipment when working with rotary cutters and grinding tools.

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Step 2:



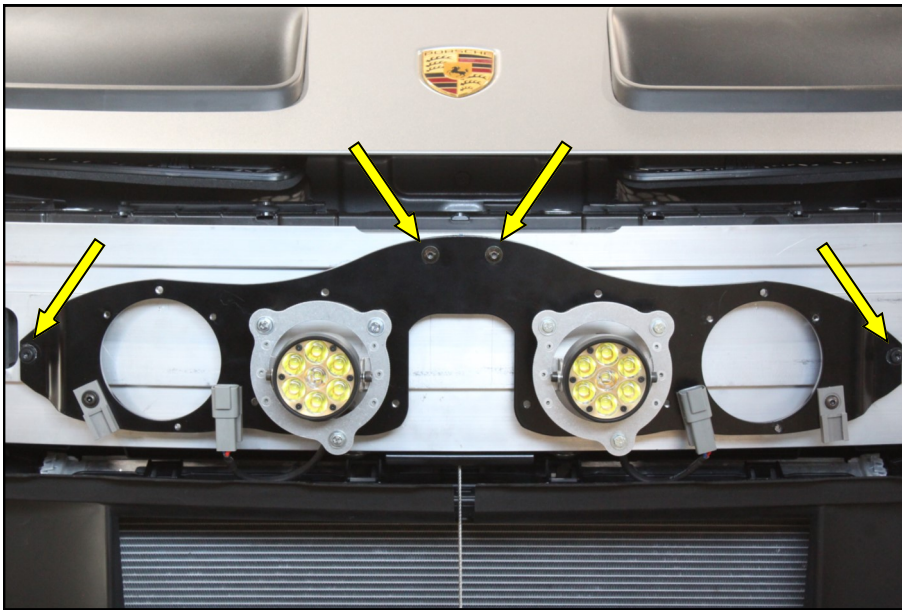
Step 3:



Step 4:



Step 5:



Step 5:

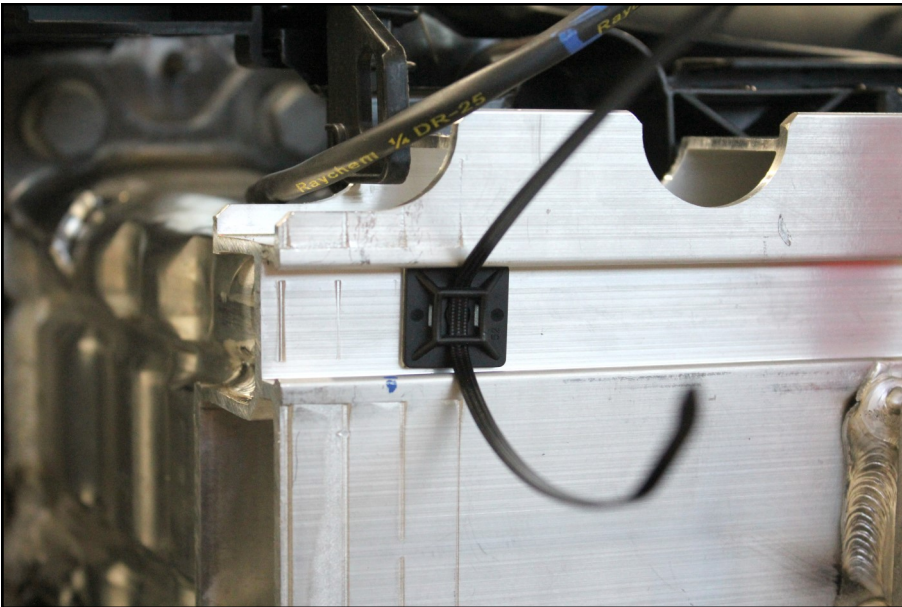
Mount the lamp unit on to the bumper support beam.

The carrier plate is secured to the bumper beam using the M5X16 flange screws included in the kit.



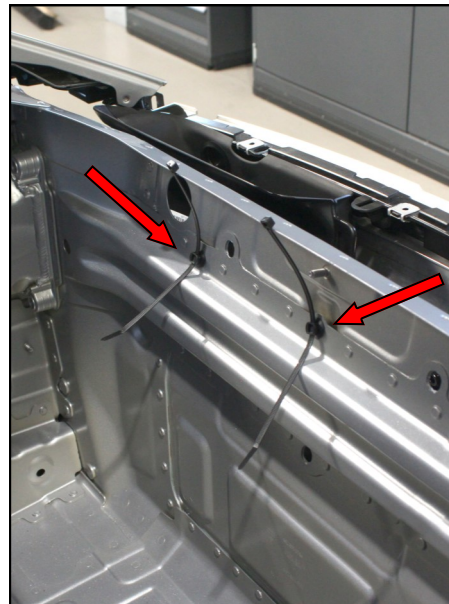
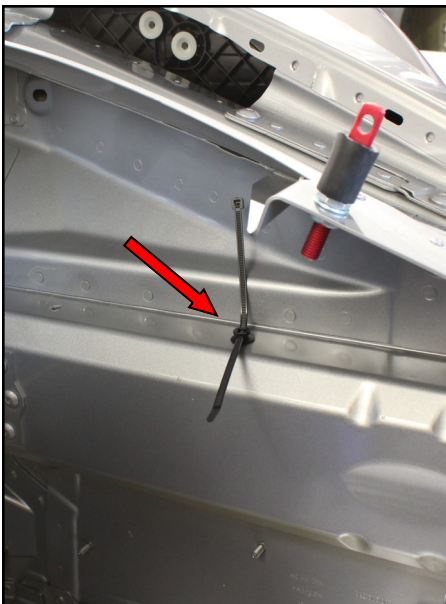
6 Nm

Step 6:



Step 6:

Place an adhesive cable tie mount on the left side of the front bumper bar in the position shown.



Insert cable mounts into the pre-existing holes at the positions shown in the front compartment.

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24H Additional Lighting**

2.4 Wiring harness installation

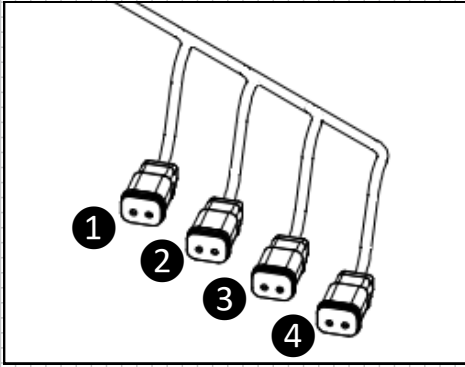
Step 1:

Step 1:

Lay the cable harness above the carrier frame as shown.

Insert connectors 2 and 3 into the plugs for the light units.

Connectors 1 and 4 are unused unless additional light units are fitted.



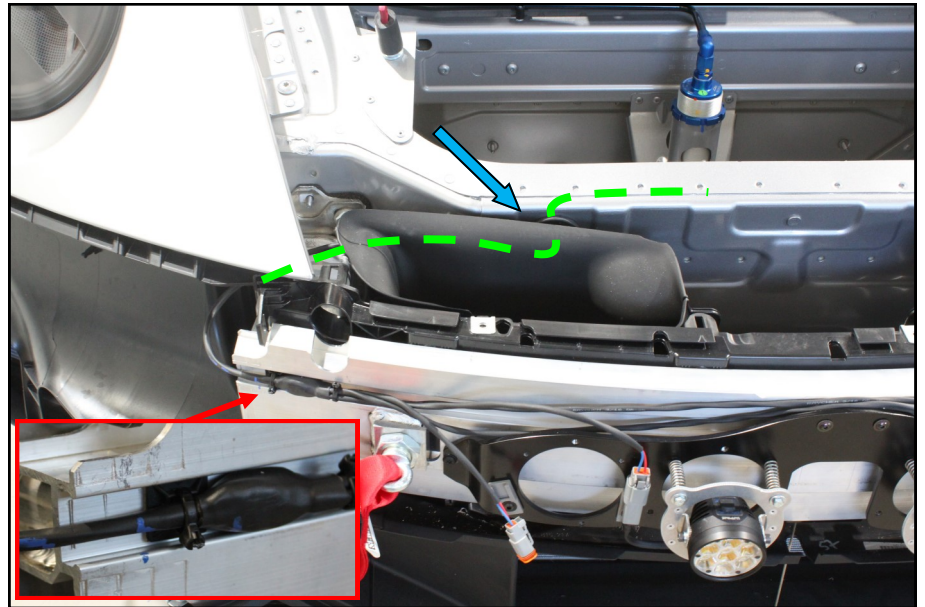
Step 2:

Step 2:

Secure the cable harness to the bumper bracket using the previously placed cable tie mount.

Route the cables harness of the rearwards behind the bumper bracket and airduct, and pass through the pre-existing hole in the front wall of the compartment.

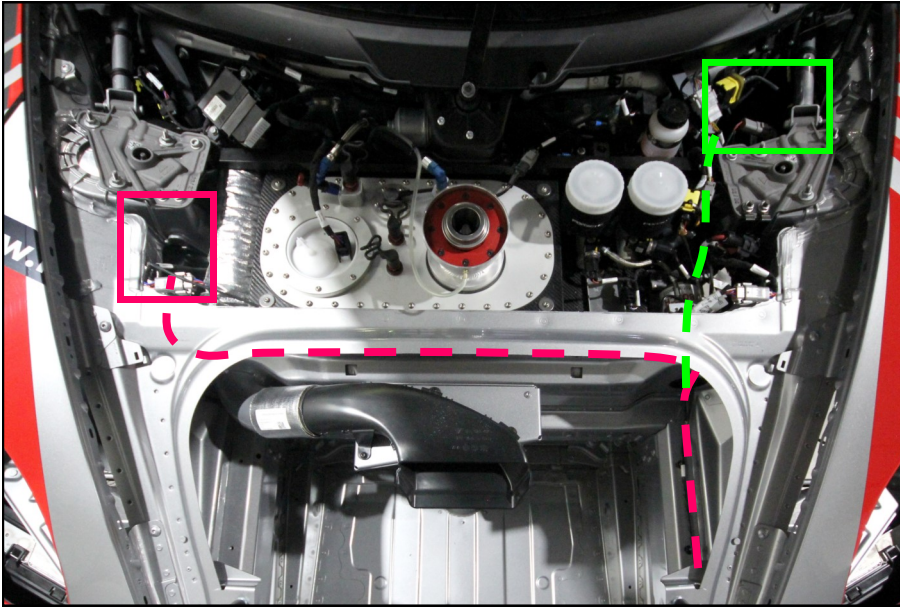
In the front compartment, route the cable along the path shown and secure using the cable ties attached in Section 2.3 Step 6.



NOTE

Lay the cables so that they are free of tension and will not abrade on surrounding surfaces.



Step 3:**Step 3:**

Route the cable harness as shown.

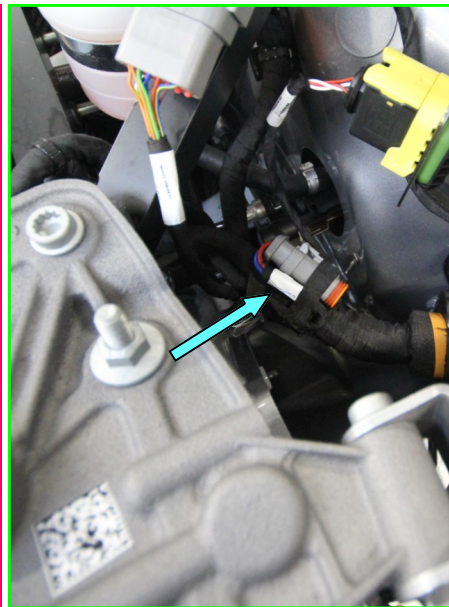
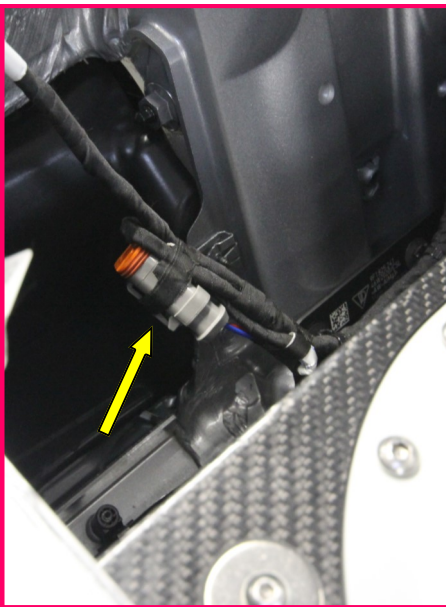
↓ The shorter section of harness is routed toward the vehicle's left side corner of the firewall. The plug connector is joined onto the "Aux Light FL" connector of the vehicle electrical harness.

↓ The longer section and female connector is routed along the front of the fuel tank toward the right side of the fuel tank compartment. The plug connector is joined onto the "Aux Light FR" connector from the vehicle electrical harness.

Secure the cables at regular, suitable intervals using cable ties.

NOTE

Lay the cables so that they are free of tension and will not abrade on surrounding surfaces.



NOTE

The latest firmware and setup for the power control unit (PCU) and logger must be installed, as shown in the latest software information from the Porsche Motorsport Racecar Service Information portal (motorsport.porsche.de).

The auxiliary lights must be enabled via the parameters in the Porsche Toolset.

In the Setups - Lights menu, in the table row **"Auxlights Enable"** update the value from **"Off"** to **"On"**.

Further information regarding Porsche Toolset updates can be found in the 992 GT3 Cup Technical Handbook from Porsche AG.

Once updated, using the centre console **"LIGHT"** button the headlights and auxiliary lighting can be operated as follows:

Push "LIGHT" button x1 -

- Headlights: **ON**
- Button Colour: **Dark Blue**
- Aux. Light: **OFF**
- Message Displayed: **LIGHT MAIN ON**

Push "LIGHT" button x2 -

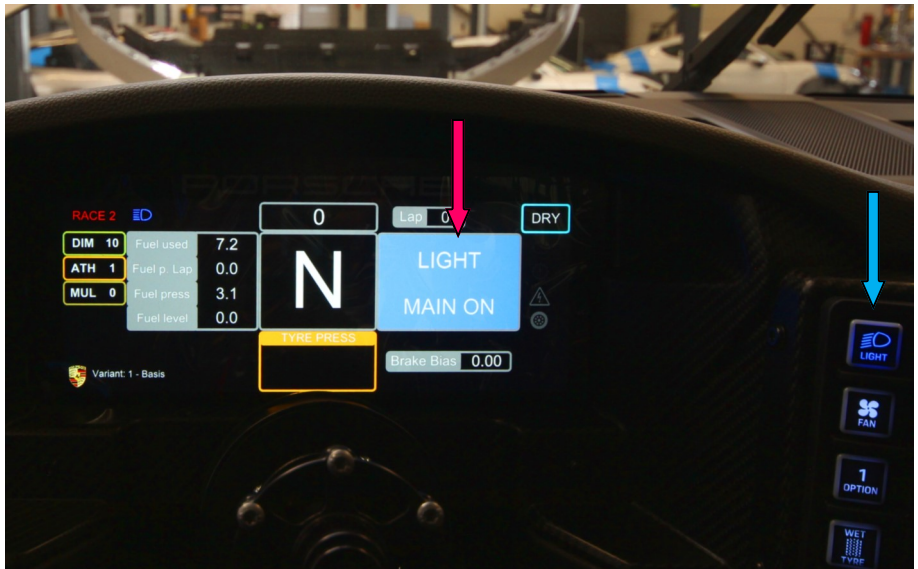
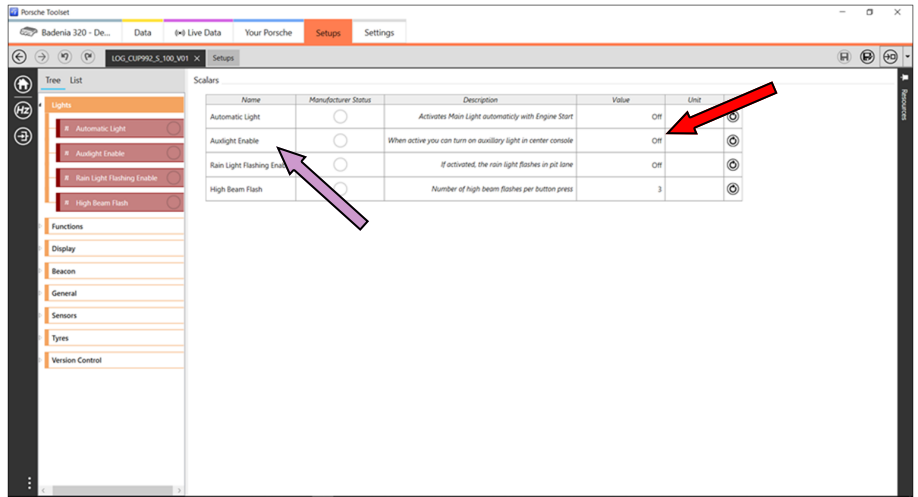
- Headlights **ON**
- Button Colour: **Yellow**
- Aux. Light: **ON**
- Message Displayed: **LIGHT AUX ON**

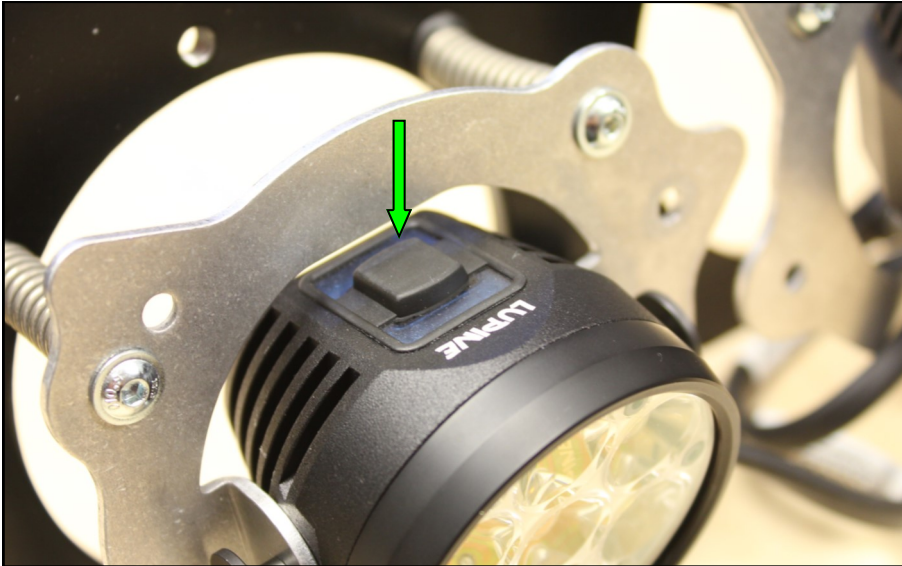
Push "LIGHT" button x3 -

- Headlights **OFF**
- Button Colour: **Light Blue**
- Aux. Light: **OFF**
- Message Displayed: **LIGHT OFF**

NOTE

After the updating the ECU, carry out a function test to ensure the correct operation of all lighting.



**NOTE**

If any of the light units do not turn on during the function test, it may be necessary to press the button on light unit once to activate the unit.

Repeat the function test using the centre console "LIGHT" button inside the vehicle.

Once it has been confirmed that the system is functioning correctly, the front bumper can be re-installed in accordance with the repair guidelines of Porsche AG.

2.6 Modifying the front bumper

Step 1:

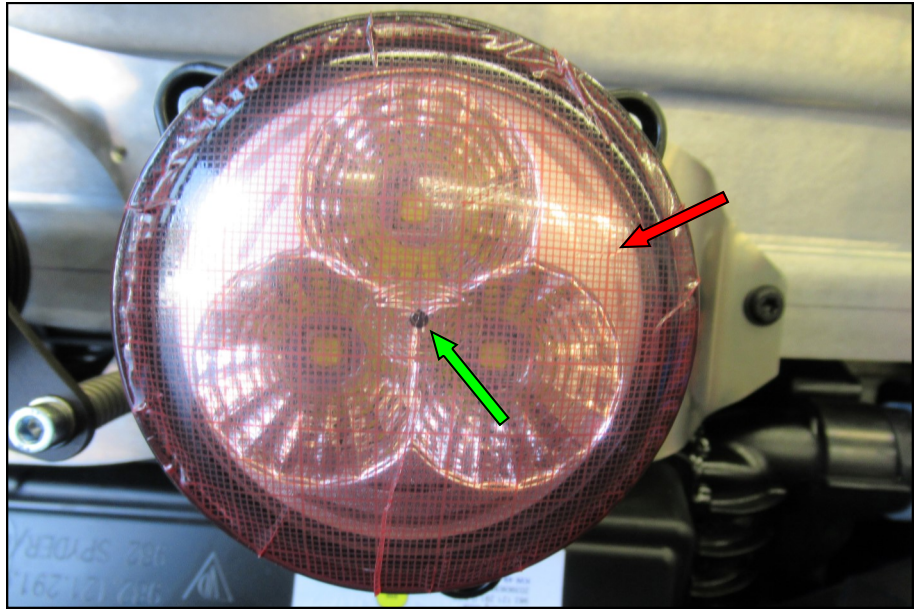
Step 1:

Attach the included adhesive templates centrally on the lights. ↓

The black centre point acts as a centering aid. ↓

NOTE

Carry out this step carefully ensuring the templates are centred accurately on the lights.



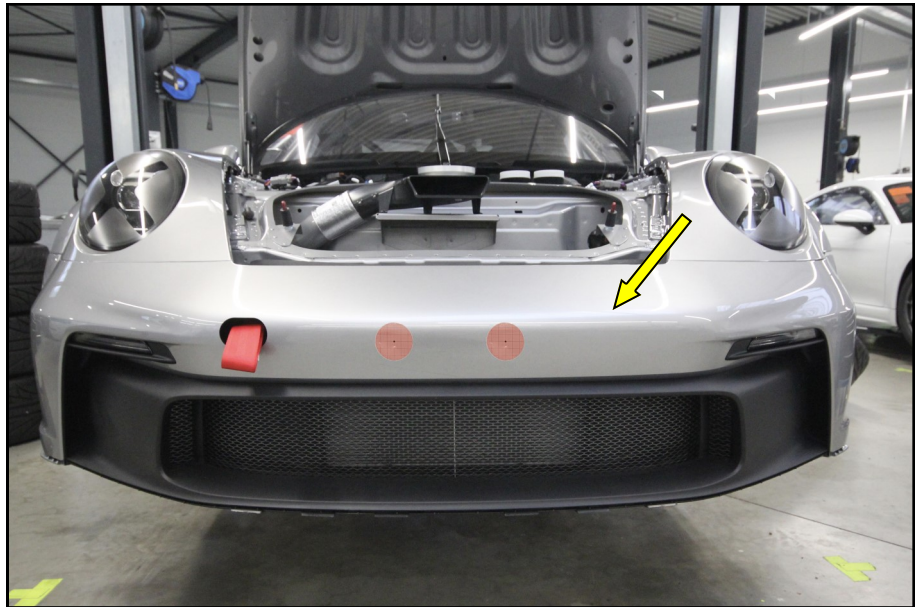
Step 2:

Step 2:

Drill a hole with a 3.0mm drill bit on the centrepoints of the templates adhered to the front bumper removed in step 2.

Install the front bumper back onto the vehicle. ↓

Fully secure the bumper using the standard fasteners.



Step 3:

Transfer the centrepoint positions of the holes in the front bumper onto the adhesive templates on the lights behind using a suitable pen (e.g. Borehole Marker). ↓

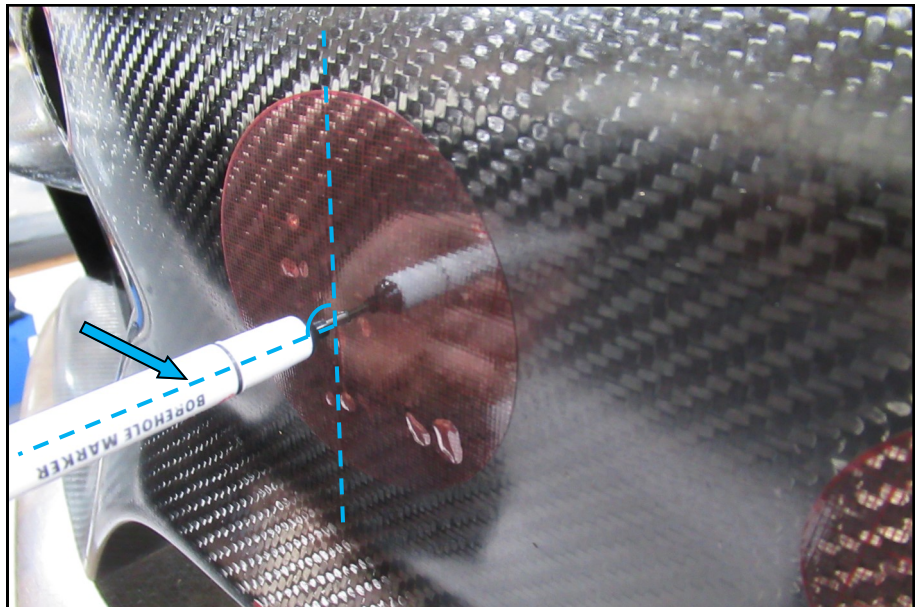
NOTE

Ensure the marker is horizontal when transferring the centrepoints to the adhesive templates on the lights.

NOTE

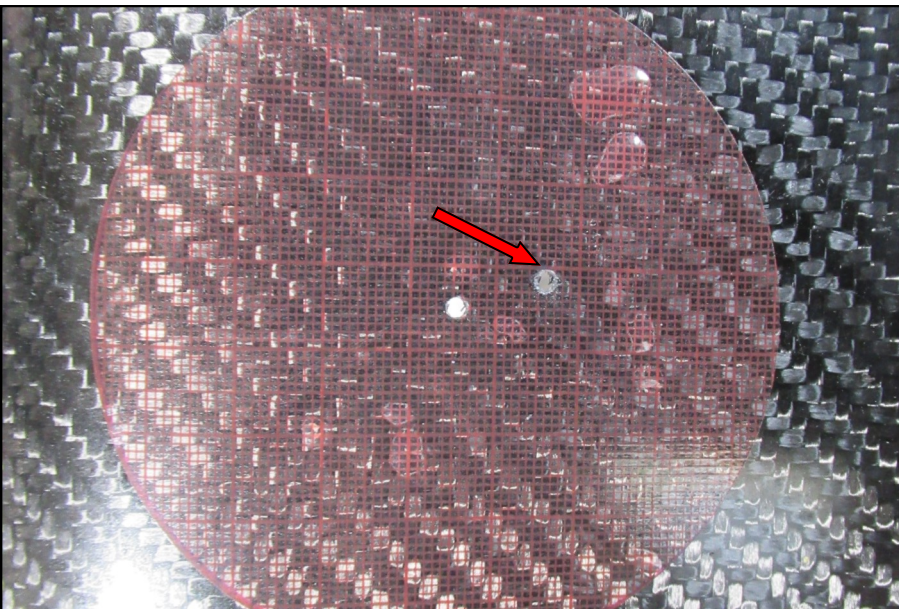
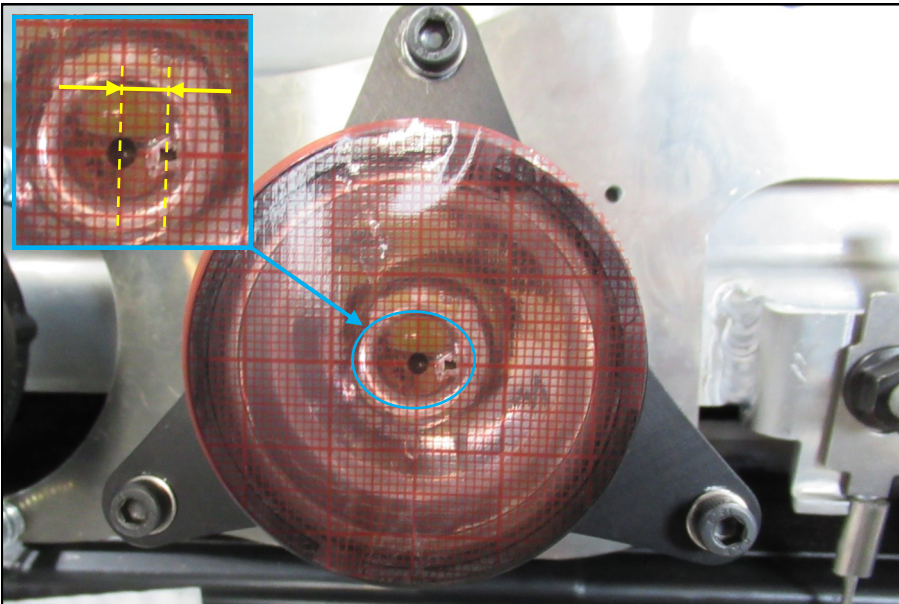
Picture opposite with carbon fibre bumper is for reference purpose only. The vehicle bumper is standard plastic.

Step 3:

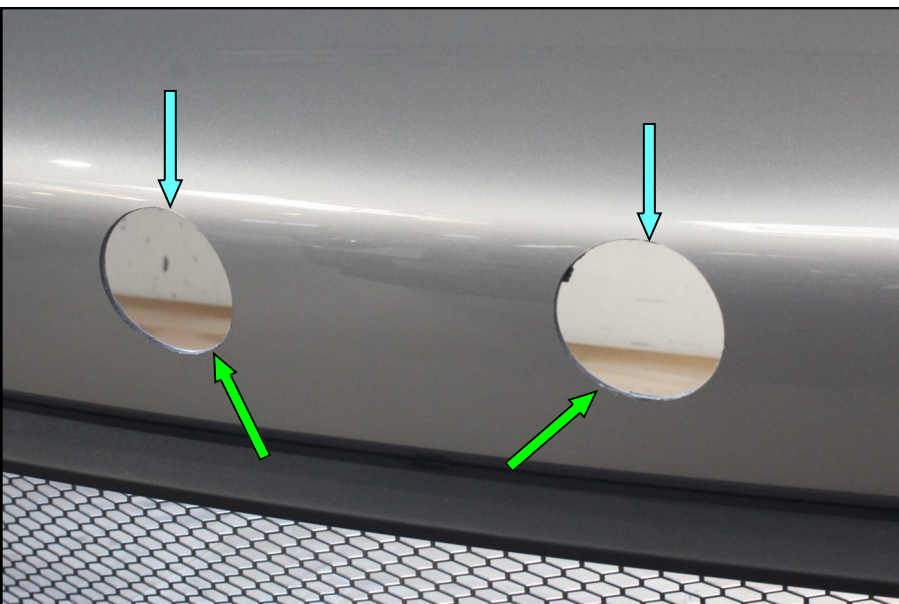


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Step 4:



Step 5:



Step 4:

Remove the front bumper again.

- ↓ Measure the X/Y Axis offset of the marking referenced from the centrepoint of the adhesive template on the light. Repeat this step for the other light unit.

NOTE

The offset can be read directly from the millimeter grid and transferred to the grid on the front bumper.

- ↓ Once all of the offset positions have been transferred to the front bumper, the true centre points for the four holes can be pre-drilled using a 3.0mm drill bit.

NOTE

If the final position of the pilot hole is very close to the position of the first centre hole, fast-curing adhesive should be used to close the hole to prevent the hole saw from slipping.

NOTE

Picture opposite with carbon fibre bumper is for reference purpose only. The vehicle bumper is standard plastic.

Step 5:

- ↓ Use a Ø57mm hole saw to create the inner two cutouts.
- ↓ Deburr the cut edges carefully.

NOTE

The hole saws must be sharp! The cutouts should be completed from the outside in. Work at a medium speed using low pressure.

⚠ WARNING

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

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Step 6:

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

Thoroughly clean and degrease the adhesion surfaces using acetone.

Step 7:

Prepare the two headlight covers for bonding to the front bumper.

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

NOTE

In order to avoid damage to the clear glass cover when sanding the adhesion surfaces or bonding to the front bumper, the protective film should only be removed once the covers have been installed.

Apply a bead of the 2K-component adhesive approx. **3 mm high** along the outer edge of the adhesions surfaces.

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 two clear glass covers into their respective hole from the inside of the bumper. Press the covers firmly into the adhesive.

Remove any excess adhesive that emerges from the front of the bumper.

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

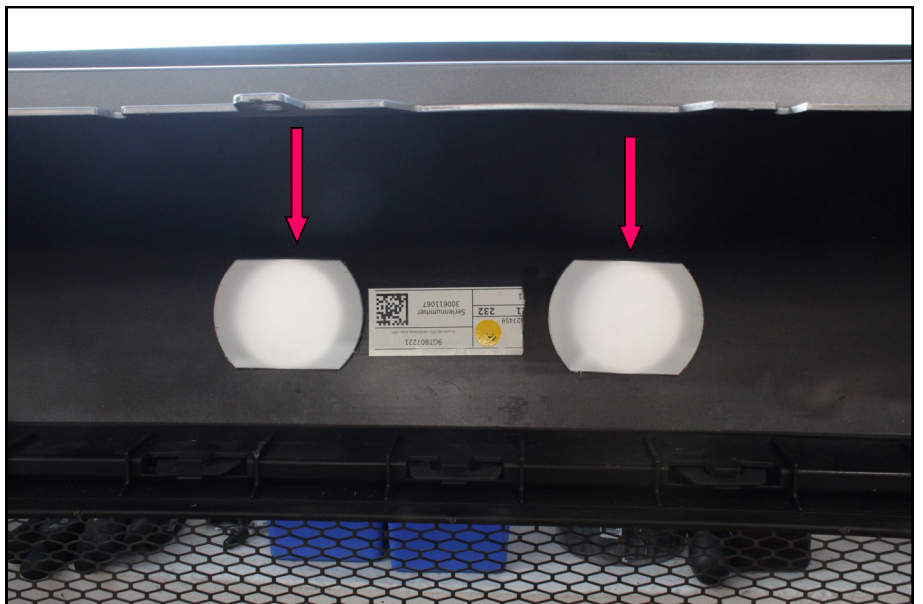
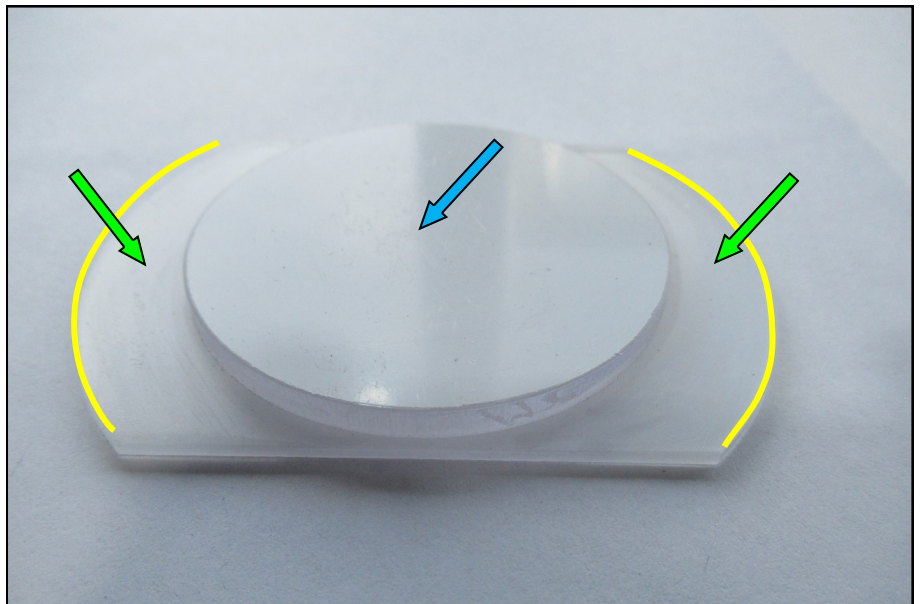
Set the front bumper aside until final re-assembly of the vehicle.

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Step 6:



Step 7:



Step 8:



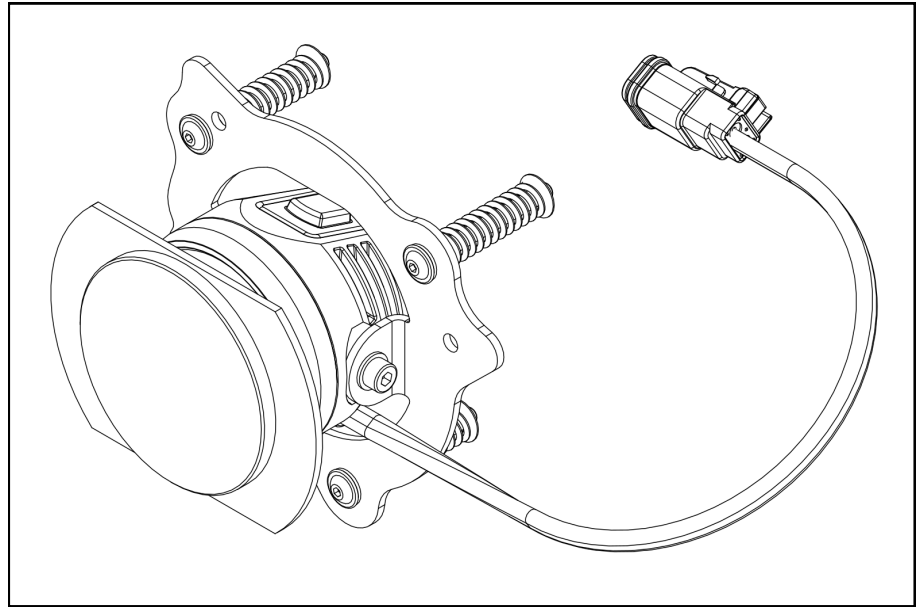
Step 8:

Once the epoxy for the protective lenses has fully cured, reinstall the front bumper in accordance with the Porsche AG repair guidelines for the 911 GT3 Cup (Type 992).

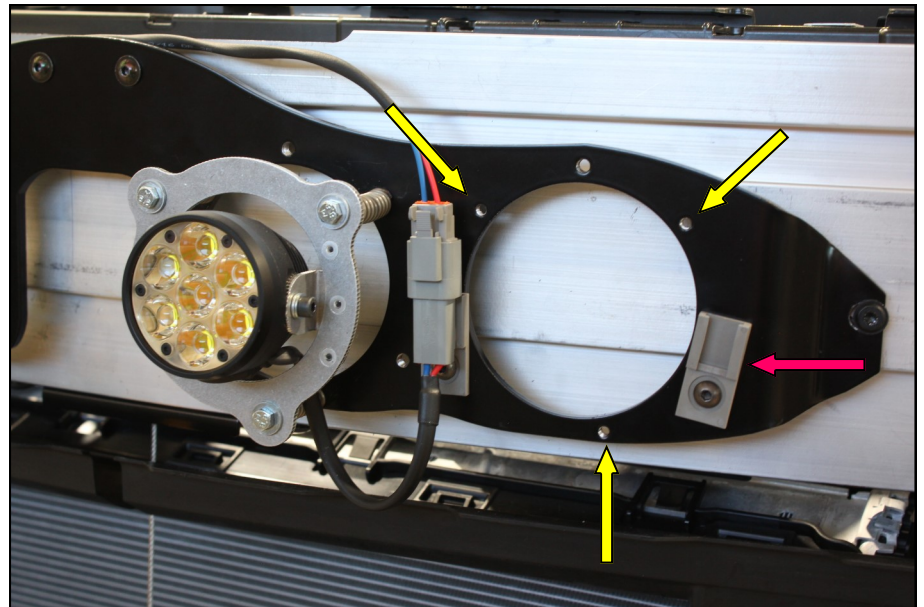
2.7 Installation of the Optional Outer Light Units

NOTE

The additional lighting can be easily upgraded from a two to a four light unit set up by purchasing and fitting two additional MT000430A light units.



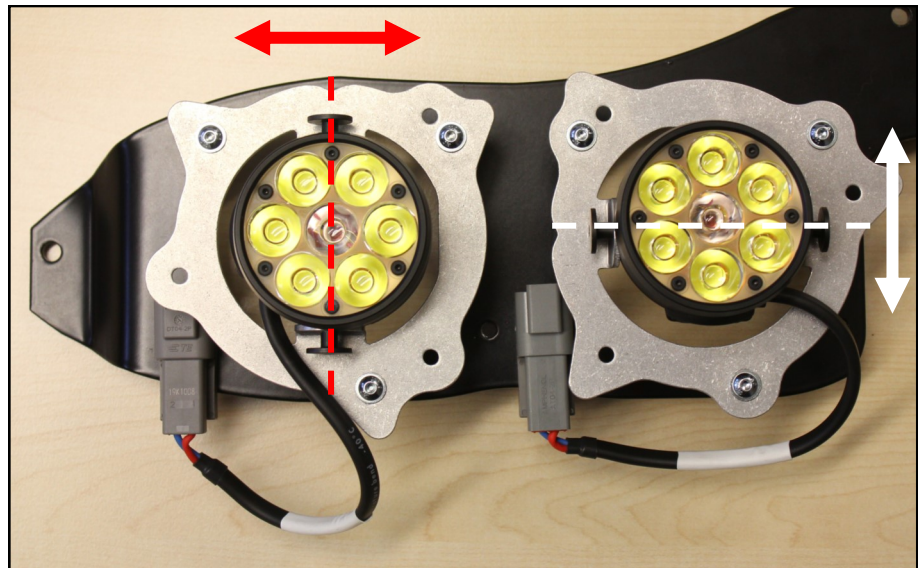
The light unit adapters are added to the frame by threading the three M4 adjustment screws through the adapter plate and into the threaded holes in the mounting frame as shown.



It is possible to mount the additional light units in one of two different orientations.

The first allows the light unit to be aimed left and right.

The second allows the light unit to be directed up and down.



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↓ The additional light units are added to the adapter plate using two M4x8 screws and washer as shown, on the left and right side of the light unit.

NOTE

A small amount of Loctite 243 must be placed on the M4X8 screws before threading into the light unit body.



The wiring loom in the base kit is pre-wired for additional light units.

↓ Insert the wiring loom connector into the plug for the light unit.

Adjust the orientation and positioning of the light unit to give the desired light spread before modifying the bumper.

This will ensure proper positioning of the lens.

After mounting the additional light units the bumper must be modified. This method for modifying the bumper is the same as that described in Section 2.5.

