

# 928-H4-Cap-22 Kit A

## Porsche 928 8" H4 Headlight LED H4 Bulb Sealing Cap Kit A Installation Guide



This kit is designed for use in conjunction with LED H4 bulbs — sold under many brand names — shown in the photo on the right.

**The LED H4 bulbs and driver modules are not included as part of the 928-H4-Cap-22 Kit A.**

Questions?

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## 928-H4-Cap-22 Kit A Contents



928-H4-Cap-22



80° angle  
bracket



M3 screw,  
12 mm long



M3 nut



M3 screw,  
8 mm long



2 mm hex  
L-key

- 2 ea. 928-H4-Cap-22 cap designed for H4 LED bulbs with  $\varnothing$  22 mm barrel, assembled with seals and vent
- 4 ea. 80°-angle aluminum bracket
- 8 ea. M3  $\times$  0.5 mm, 12 mm long, button head, hex drive, zinc-plated steel screw
- 8 ea. M3  $\times$  0.5 mm hex, zinc-plated steel nut
- 4 ea. M3  $\times$  0.5 mm, 8 mm long, button head, hex drive, zinc-plated steel screw
- 1 ea. 2 mm hex L-key

## 928-H4-Cap Family Features

- simple assembly (you are responsible for attaching your LED driver module to the cap using provided brackets and hardware) and installation
- ears on top of cap with bracket options to fasten LED driver module to cap, providing a clean, orderly, secure LED H4 bulb and LED driver module installation
- almost identical mass (excluding LED driver module brackets and related hardware) to factory cap
- weatherproof, air-tight seals (O-ring between cap hole surface and bulb barrel surface, foam seal between cap perimeter surface and headlight assembly surface)
- high-temperature O-ring seal is only material in contact with hot bulb barrel
- breathable membrane vent allows pressure equalization across the cap as the interior of the headlight heats and cools; vent passes air, but not vapors and contaminants
- replaceable seals and vent, should the need ever arise
- engineered for harsh automotive environment

## 928-H4-Cap-22 Specifications

- cap dimensions, including vent, but not including brackets, H $\times$ W $\times$ D: 95 mm  $\times$  90 mm  $\times$  16 mm (3 $\frac{3}{4}$  in.  $\times$  3 $\frac{1}{2}$  in.  $\times$   $\frac{5}{8}$  in.)
- cap mass, including vent, but excluding brackets and related hardware: 64 g (note: factory cap is 63 g)
- body material: copolymer or homopolymer acetal (POM-C or POM-H); rated for use at -29 °C to +82 °C (-20 °F to +180 °F)
- foam seal: soft silicone; rated for use at -73 °C to +204 °C (-100 °F to +400 °F)
- holes in ears:  $\varnothing$  3.2 mm (designed for M3 hardware)
- center (for bulb barrel) hole size:  $\varnothing$  24 mm (designed for  $\varnothing$  22 mm bulb barrel, separated/sealed by O-ring)
- O-ring: dash number 117 soft (durometer 50A) silicone; rated for use at -51 °C to +204 °C (-60 °F to +400 °F)

# Attaching the H4 LED Driver Module to the Cap

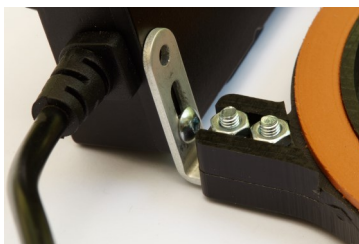
(Repeat for each cap.)

1. Using a Phillips screwdriver (not supplied with the kit), remove two of the M3 flat head screws from along one of the long edges of the cover (on the underside) of the LED H4 driver module. You will not need to reuse these screws; you can either save them somewhere or, alternatively, remove all four screws from the cover, remove the cover, and leave the two spare screws inside the module.



2. Attach the angle brackets to the LED H4 driver module using 8 mm long M3 screws as shown. Make sure that the long edges of the brackets are parallel to the short edges of the driver module or the brackets will not seat properly in the slots in the cap. The screws should be at the end of the oval slot in the brackets as shown; this positioning of the brackets can be adjusted later if necessary.

3. Fasten the LED H4 driver module with the brackets to the 928-H4-Cap-22 using 12 mm long M3 screws and M3 nuts as shown. When tightening the screws, make sure that the M3 nuts on the back are positioned such that they will be drawn into the slots and held captive.



The cap and H4 LED driver module should now look like this:



## Tip

On some pre-1991 928s, using LED H4 bulbs might result in an undesirable interaction between the headlights in high beam position and the fog lights.

If this occurs, you can probably solve the problem by replacing the fog light relay (928.615.117.0x or 928.615.137.0x) with a standard 141.951.253.B (also known as a "53" or "53.B") relay.

# Installing the Cap on the Headlight

(Repeat for each headlight.) These instructions assume that you are starting with the headlight cover removed, the LED H4 bulb (minus the heatsink and wave washer) installed and secured with the clamp wires in the headlight, as shown in the photo on the right.



1. Tilt the cap so the bottom of cap is closest to the headlight assembly as shown and feed LED H4 bulb's wire through the center hole.

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2. Carefully center the cap's center hole over LED H4 bulb's barrel and rotate cap back and forth a few degrees about its hole while applying gentle pressure toward the headlight assembly, taking care not to dislodge the O-ring.

If the O-ring becomes dislodged, remove the cap, reseat the O-ring in the groove in the cap, and try again.



3. Clamp the cap with the headlight assembly's cap clamp wires. If the top clamp wires hit the LED H4 driver module before they can be squeezed into the receiving slots on the headlight assembly, you may need to remove the cap and adjust the position of the LED H4 driver module on its brackets (the oval slot on the brackets allows for a 6.35 mm range of forward/backward positioning).



4. Install the LED H4 bulb's wave washer and heatsink, plug the LED H4 driver into the H4 socket on the car-side wiring harness, and plug the LED H4 bulb into the LED H4 driver.

Before replacing the covers on your headlights, consider aligning your headlights if you have not already done so. See, for example, Daniel Stern Lighting's [How to Aim Headlamps and Auxiliary Lamps](#).

