



PSDesigns Pre-facelift E46 / E46M3 and CSL Headlight Duct Kit Install instructions.

Kit contents;-

Included:

1 PSDesigns Carbon Fibre Duct
CanBus Error delete Resistor
Edge Trim
Installation Instructions
Cut Template.

Required tools:

Screw driver + and –
Torx bits T20.
Allen Key 5mm
Dremel or similar rotary handheld power tool with small cutting disc
Drill and small drill bit 3-4mm is perfect.
Long nose pliers
Face mask and safety equipment.

Optional:-

Cordless power drill with 5mm Allen key attachment
Black spray paint (see figure 26 and 27)

Process:-

PLEASE NOTE:

There is no need to remove the bumper or the Headlight for this installation.

Disconnect the Battery to avoid electric shock.

Be careful not to break any clips, they can be brittle.

PLEASE NOTE THE HEADLIGHT DUCT IS INTENDED FOR OFF ROAD/RACE USE AND IS FITTED AT THE PURCHASERS OWN RISK.



Figure 1



Figure 2



Figure 3

Models with headlight washers: Remove the headlight washers.
To do this, use a plastic prying tool and lever the washer out.

Models with headlight washers: Then grab and pull it straight out of headlight. When nozzle is pulled out, a small squirt of washer fluid is ejected.

Working at top corner of wing/fender, insert a Phillips screwdriver into the hole and remove the turn signal lens fastener. Some models do not have a screw, but a retaining tab instead. To release this, insert a flathead screwdriver into the same hole and release the tab while levering the turn signal lens out.



Figure 4

Slide the turn signal lens out of the wing/fender, disconnect the electrical connector and remove the turn signal lens from the vehicle.



Figure 5

Using a plastic prying tool, level out and remove the lower headlight trim.



Figure 6

Next, unclip the headlight to hood/bonnet seal from the headlight (green arrow) and remove it from the headlight assembly. If it is worn or cracked, replace with new.



Figure 7

Release the headlight lens retaining tabs (green arrows) and remove the lens from the headlight assembly.

FOR THE NEXT STEPS THE HEADLIGHT HAS BEEN SHOWN REMOVED FROM THE VEHICLE, IT IS NOT NECESSARY TO DO SO.



Figure 8

And this is what you end up with.



Figure 9

Remove the headlight trim, which is clipped in by 4 prongs (one on each corner). you want to pull them toward you.



Figure 9a



Figure 9b



Figure 9c

Here's a image showing 3 of the 4 prongs.



Figure 10

Next you want to remove the bulbs/bulb holder, and disconnect everything.

For the high beam side, you will see 2 prongs/tab that protrude out. You want to twist them a quarter turn or less to your left, then pull out the whole bulb holder. You can put that aside. (if you have halogen headlights, you will just do this twice; once for lows, once for highs). Take out the rubber dust cover as well



Figure 10a



Figure 10b



Figure 11

For the Xenon bulbs, Take off the plastic back cover that keeps the dust and other harmful stuff out. It's just held on by a tab and 2 little prongs. If you were doing it on the car, you would push down on the tab, remove it away from you, and pull up.



Figure 11a



Figure 11b

Here is what the cover looks like.



Figure 12

Next you would remove the igniter. It's a black/red piece connected by a couple of black wires (which are connected to a module inside the headlight). To remove, all you need to do is twist it a quarter turn to the left (or to the right if you are working on the car). Then pull straight out



Figure 12a



Figure 12b



Figure 12c



Figure 12d



Figure 13

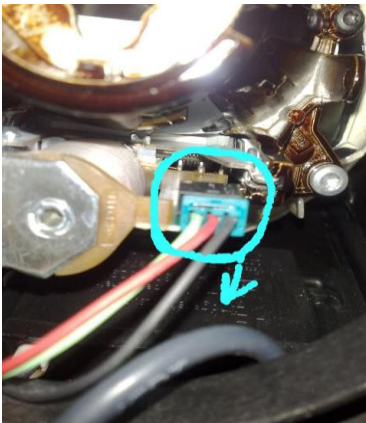


Figure 14



Figure 15



Figure 15a



Figure 16

You should end up with something like this:

Lastly, you need to unplug the connector that supplies the power for the bi-xenon shutter. (if you have single xenons, this does not apply to you).

The 2 adjustment knobs need to be turned clockwise until you can't go anymore. As you're doing it, you will see the reflector bowls move forward and down. Otherwise, you are turning the wrong way. This is where you would want to use a power drill or ratchet with the correct size bit (turning it with your hand will be painful and time consuming). And trust me, it takes a long time, even with a ratchet!

Many turns later this is what you should end up with:

The reflector bowl will be angled fully down and fully into the front of the vehicle.

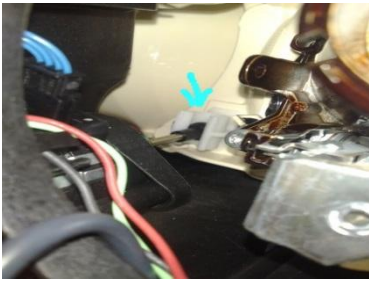


Figure 17

To take out the reflector bowl, you need to remove the two adjustment rails which are now visible, as shown. The final piece that's holding onto the bowl is the autoleveling arm, you need to pry this arm up with a flat screw driver (or push it down, whichever is easier for you). I usually pry it up, but i found it easier to push down on this particular headlight while pulling on the bowl and everything should come off. (for halogen headlights, the arm is white and is stationary).



Figure 17a

Another showing where to stick the flat (prying up method):



Figure 19

The 2 pieces are now apart.



Figure 20

Remove the trim separating the 2 headlight bowl, this is just cosmetic. Here's the trim in question (located between the 2 headlight bowls)



Figure 21

On the back of the bowl, there are 2 little prongs that hold the trim in.



Figure 22

Use the long nose pliers and just squeeze the two edges like so:



Figure 23

it will pop out like this



Figure 24

The next stage is to cut the main beam bowl from the reflector assembly. There is a natural cut line.

Cut along here (dotted line shows where to cut) using a Dremel or similar rotary cutting tool makes this very simple.

*****WEAR A MASK WHEN CUTTING THE HEADLIGHT BOWL*****

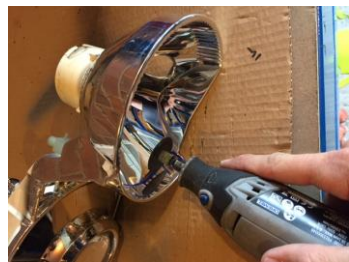


Figure 24a



Figure 24b

Clean and de-burr the remaining plastic. I like to paint this black as it neatens the install, this is optional however.

Reconnect the adjustment rails (if removed), and re attach the trim shown in figures 23 and 23a it will look like this.



Figure 25

It should look like this:

Once the Main beam bowl has been removed and the cut line cleaned and optionally painted black you will be left with this. It is now time to begin reassembly. Reinsert this into the headlight assembly and turn the adjustment screws to re located the new look headlight internals.



Figure 26

Apply the supplied edge trim to the internal headlight piece. Trim (removed in figure 9 to 9c) and apply some of the supplied edge trim as shown.



Figure 27

Reinsert the trim into the headlight. It should look like this now.

(Trim not present in photo)



Figure 27a

Insert the Carbon Fibre Headlight Duct. Push the duct through the main beam port at the rear of the headlight from the front of the headlight and align as shown. (edge trim applied in figure 26 missing from image)



Figure 30a

The bulb connections can now be made at the rear of the headlight to the Xenon, as shown in figures 12 to 14. The new Headlight lens can now be fitted; this is the reversal of the process shown in figures 6 and 7.

Refit the Headlight lower trim, headlight washer nozzle, signal lens and Headlight to bonnet trim.

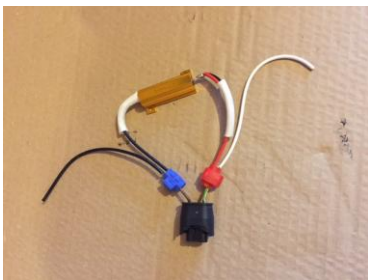


Figure 31

The supplied canbus resistor needs to be installed in place of the main-beam bulb. (Please note Connector shown removed from car, DO NOT DO THIS) Using the connectors supplied crimp in place as shown. (Ensure the connector is correctly installed and that connection is made between the canbus resistor and existing connector wiring.) Alternatively the resistor could be soldered in place. The Side light bulb and holder needs to be secured out of the way. (alternatively it is possible to drill a hole through the CF Duct to accommodate the sidelight bulb into the headlight).



Figure 32

Check Headlight functionality and ensure that the canbus resistor is stopping any dash warning lights from illuminating. If dash errors are present the canbus resistor is incorrectly installed. Refer back to figure 36.

Installation Complete.

Thank you for your purchase, we hope you enjoy the product.

Should you have any questions regarding installation please email us at:

info@psdesigns.global and a member of our team will be happy to assist as quickly as possible.

PSDesigns Pre-facelift E46 / E46M3 and CSL Headlight Duct lens Cutting Instructions.

Required tools:

Dremel or similar rotary handheld power tool with small cutting disc

Drill with small drill bit (3mm is perfect.)

Marker Pen.

File suitable for plastic

Wet and Dry paper.



Figure 1

Using the supplied template, apply to the headlight lens and draw around it with a permanent marker or similar. Use the positioning tabs to locate the template as shown. The template can be used on either side headlight lens, just flip it over according to which lens you are cutting.



Figure 2

Once marked out it should look like this.



Figure 3

Depending on the tools available to you, cut out the area you have just marked. A rotary cutting tool is good for this, alternatively drill a series of small holes along the cut line and then join them with a small fret saw or similar.

Clean the edges up using the file and wet and dry paper.



Figure 4

Drill some drain holes in the base of the lens. This is to prevent water from pooling inside the headlight assembly (if water should get into the light!)



Figure 5

Apply the supplied edge trim to the freshly cut headlight lens.

The lens is now completed and ready to fit back to the car.