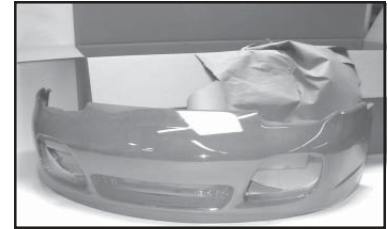


FRP Techniques

HOW TO INSTALL 996 FRONT BUMPERS

Installing front bumpers on 996's and Boxsters is a simple and straight forward procedure. Please read and follow these directions to get the best results.

As with all new parts, carefully unpack and check for any shipping damage and to make sure it is the correctly ordered part. Also and most importantly, as with any replacement item check the fit on the car before any painting or prep work is begun.



*PHOTO 1
Unpack and check for damage*

The new bumper is to be installed as follows.

1. Remove the old bumper and any other items that need to be replaced, the bumper support and radiator ducts if required.
2. Carefully check a few things on the replacement bumper as outlined below in steps 1-5
3. Install the new radiator ducts if required.
4. Bolt the new bumper in place and check the fit.
5. Remove the new bumper to prepare the grill openings and center duct.
6. Reinstall the bumper back onto the car and decide what needs to be done to achieve a perfect fit.
7. Start the normal steps for preparing a composite part for paint, as explained in "FRP TECHNIQUES" Beginning with a thorough Post Cure.

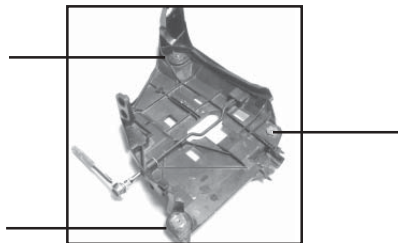
The bumper is held in place, across the top edge, by 5 interconnected and adjustable black plastic support rails (PHOTO 5). The left and right top corners are secured with screws that are behind the marker lights (PHOTO 11). The bottom edge is also screwed in place.

It is best to remove the head lights to insure that the bumper actually slides into the mounting clips and not over them (refer to PHOTO 2).

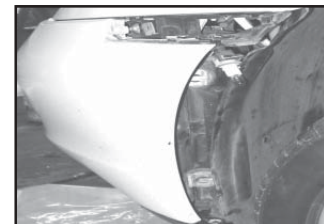
1. Remove the old bumper. Raise the car off the ground in the front and use jackstands under the suspension mounts for safety. Open the hood and remove the felt trunk liner to gain access to the head light retainers. Using the factory tool or a 5mm socket on an extension twist the locking bail to pop the lights forward and out. Next remove the black plastic cover by the front latch and unscrew the mounting screws. The side marker lights are held in place with a spring clip at the wheel side. Pop them out to reveal the 2 mounting screws. Take special note of the tab where the horizontal screw goes and how the little catch on the marker light has to slide behind it. The new installation will require 2 spacer washers on the backside of the new part to provide the correct spacing for the light. See photos 8-11.



*PHOTO 2
Removing the head lights
Passenger side- Clockwise off
Counter Clockwise on
Driver Side- Counter Clockwise off
Clockwise on*



*PHOTO 3
The head light retaining bail
plus the 3 adjustment knobs.*



*PHOTO 4
Removing the marker light screws.
Loosen the fender shield to gain
access from below.*

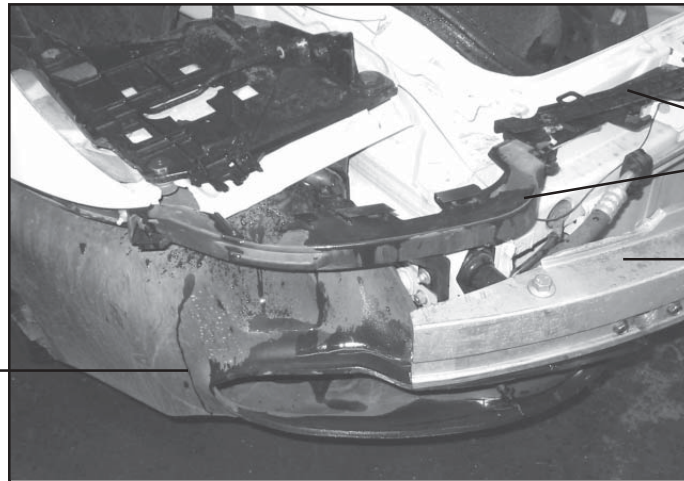
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Finish removing the fasteners underneath the car , pop out the grill mounted sensor and slide the plastic bumper off. The plastic grills should disengage from the rubber radiator bellows and you are left with PHOTO 5, below. Remove the aluminum bumper bar and depending on the type of replacement bumper, the radiator ducts may be replaced.

Radiator Bellows

Make sure the bellows slide around the outside of the ducting when installing



Plastic Mounting Brackets

The bumper must be able to slide into these clips

Front Bumper Bar

The corner of the blade will need to be trimmed to match the shape of the TURBO bumper blade which is shorter.

PHOTO 5

The front end with the bumper cover removed.

Now its time to prepare the new bumper. There are 5 areas to look at before attempting to install the new bumper.

1. The top mounting flange. This flange must slide into the plastic receivers on the mounting rails so it is important to check that the lip thickness is smooth and consistent and no more than .060". It may be necessary to slightly grind or sand the underside so that it is correct. As the bumper is pushed into the mounting nails, check for any spots that are causing interference.

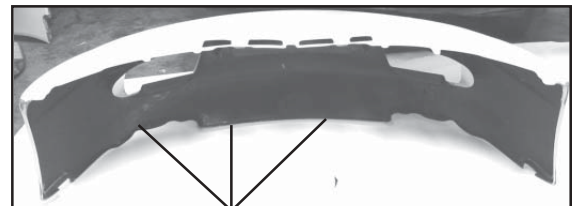


PHOTO 6

The underside of the bumpers mounting flange may need to be sized so that it slides into the plastic

2. The relief cutouts in the flange for the headlight squirters. See PHOTO 7. The new bumper does not have the flange relieved. If the car is equipped with washers then template off the old bumper and trim the new one to match.

CAUTION: These cutouts are often visible under the headlights if they are cut away too much.

3. The next thing to check , before mounting the bumper is how the marker lights fit. First make sure that the tab that the lights slide into is the proper width, PHOTO 10 shows an angle grinder just touching up the tab for the exact right fit. Second add two small washers as shims so that when the bumper tightens down there is a gap for the prongs on the light to slide into (PHOTO 11).



PHOTO 7

Cutouts in the top flange for the squirts to go down through.

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HOW TO INSTALL 996 FRONT BUMPERS

4. After the marker lights have been fit, check to see that the 2 mounting holes behind them are drilled for the attachment screws. Initially, they should only have a small 1/8" hole to help you see if they are centered. Once the bumper is on and positioned correctly this hole can be enlarged and counter sunk, then other hole locations, in the front rail and underneath, can be accurately marked and drilled later.

5. The last thing to do before you can mount the bumper is to notch or remove the aluminum bumper blade. Stock Turbos have bumper reinforcements that are quite a bit shorter than those on 996's. See PHOTOS 12 and 13. Use the supplied template to trace the trim line on the blade and remove the small section from the bottom corners. Photos 14 and 15.

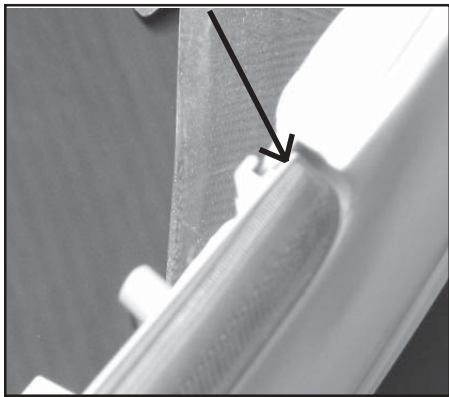


PHOTO 8
Its critical that the bumper mounting tab is the right thickness for the little mounting hooks on the light.



PHOTO 12
These two small washers will provide a space for the tabs on the light to fit behind.

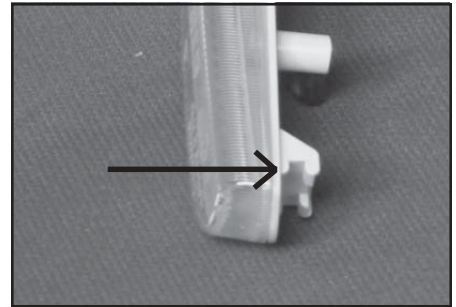


PHOTO 9
Trim away the small little bump on the inside of the light so it can slide over the thicker composite tab.



PHOTO 10
An angle grinder with a small disc is being used to touch up the tab.



PHOTO 11
Wrapping the washers in a piece of tape will make it easier to slide them into place.

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HOW TO INSTALL 996 FRONT BUMPERS

Installing the bumper can be a one man job but using 2 guys will lessen the chance of scratching any paint on the fenders.

Start by hooking the marker light recess into the passenger side and then slowly slide the flange into the tabs under the passenger head light light. Now check that the bellows is going behind the bumper duct and not bunching up. Applying a small amount of grease to the inside 2 inches of the rubber radiator will help the duct slide into it.

Now slide the flange under the tabs at the corner of the hood, working across from the left to the right. As the bumper starts to engage the tabs under the drivers head light, once again check the fit of the radiator duct. Finally hook the marker light recess onto the drivers side. Close the hood and center the bumper. Push the bumper as far forward as needed to (1) Close up the gap at the hood and (2) have the bumper pushed far enough back to provide enough room for the marker light holes.

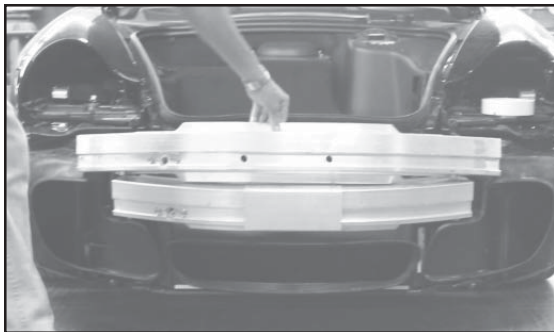


PHOTO 12
Notice the difference in length between the Turbo blade (mounted on the car) and the 996 version, held above.

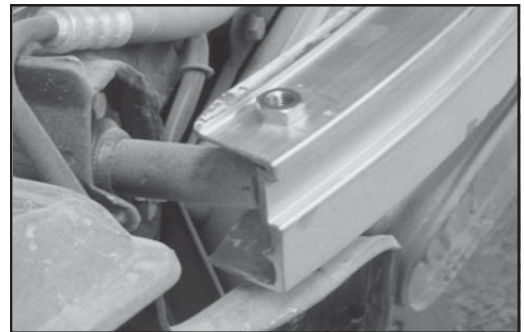


PHOTO 13
A close up view of how the factory trims the end off of the Turbo Blade.

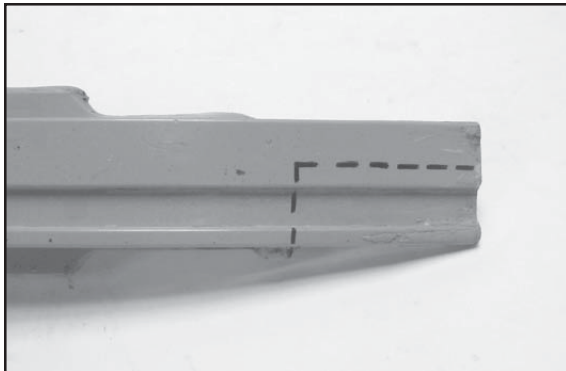


Photo 14
Use the template on the last page to mark the trim lines on the bumper blade. Remove this small section on each side



Photo 15
The blade reinstalled after it's been notched

Adjust as needed to line everything up correctly.

1. Head lights can be adjusted to match the bumper. Use the 3 knurled adjustment knobs underneath the headlight mounting tray (PHOTO 3).
2. The 5 plastic mounting rails can be moved up or down to position the bumper.
3. The hood can be moved slightly forward or back.

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Additional considerations.

Mounting the grill screens.

The front bumpers are designed to simplify the installation of grill screens. They simply slide up from the bottom of the bumper, into a special slot. If they become damaged by road debris it only takes a few minutes to replace them and doesn't require removing the bumper. See PHOTOS 16 and 17. Install the screens last, after the bumper has been painted. Pull the screen forward so there is no visible gap and apply a few drops of silicone

Fill in the bottom opening with a small amount of silicone sealent.



Photo 15
Correct alignment on the hood seam.

When you are satisfied with the fit, mark the other hole locations (other hoodrail and underneath) so they can be drilled.

Front mounted oil coolers. The front center duct may need to be cut open for cars equipped with these oil coolers.



PHOTO 14
After slipping the new bumper in place, and reinstalling the head lights see how the corner at the head light lines up.

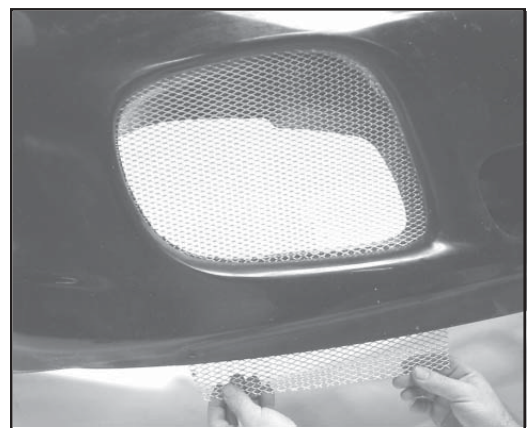


PHOTO 16
Installing a grill screen by sliding it into place.

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HOW TO INSTALL 996 FRONT BUMPERS



PHOTO 17

The bottom edge of the bumper showing the slot for inserting the screen.

5 1/2

1 3/8



Bumper blade template. Trim out and use on bumper blades

