

Service Installation of Litronic Headlights

Vehicle Type: **911 Carrera (993) as of M.Y. 1995**

Information: On the above mentioned vehicles, the Porsche Litronic headlight system can be retrofitted.

Through the installation of this system, the brightness (light intensity) in comparison to the normal halogen lights is approximately doubled with a 30% reduction in current consumption. A greater illumination range is achieved in the driving direction, and a better lighting to the left and right sides (advantageous when driving through curves) is realized.

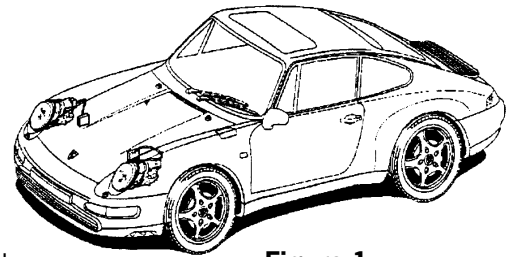


Figure 1

Installation: **1** - Before work begins, retrieve the radio code from the customer, disconnect the battery, and remove the carpet from the luggage compartment.

2 - Remove headlights.

Important: In order to prevent paint damage, tape off the fender area in front of the headlights.

2.1 - Unclip the headlight locking lever and turn the lever 180° to the rear (Figure 2, Position A)

2.2 - Turn the locking lever 90° to the front, until the lever points to the top (Figure 2, Position B).

2.3 - Pull out the headlights.

3 - Installation of Litronic control units.

3.1 - Remove the plugs and glue points next to the locking levers.

Note: If the holes of 4 and 9 mm dia. (Figure 3, Position B & C) are not drilled, use the control unit and plastic brackets as a template and drill the holes. Treat the holes with anti corrosion paint.

3.2 - Secure the plastic bracket (Figure 3, Arrow A) with pop-rivets into the lower holes (4mm diameter) as shown in Figure 3, Position B.

3.3 - Install the M6 rivet nut with rivet nut pliers into the top hole (9mm diameter) Figure 3, Arrow C.

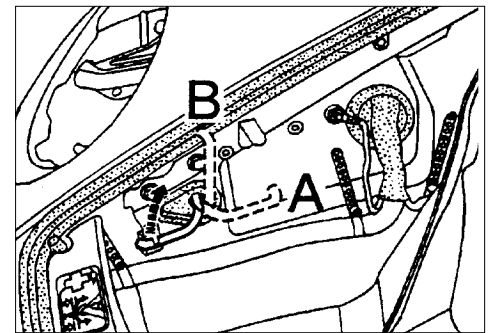


Figure 2

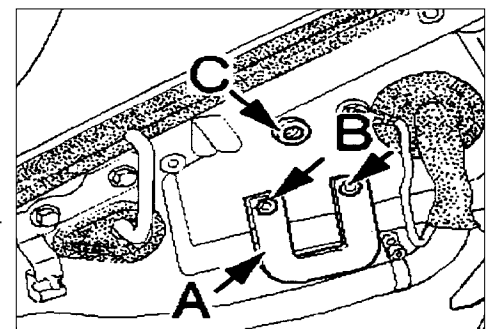


Figure 3

3.4 - Connect the adapter cables to the control units (connection only fits one way). Install the plastic brackets onto the control units using the self tapping T25 torx screws (Figure 4, Arrows).

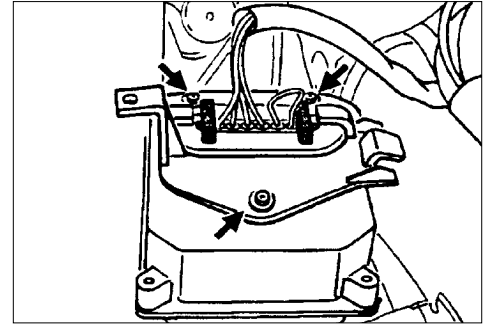


Figure 4

3.5 - Slide the control units into the plastic brackets and secure with the screw on top (Figure 5, Position A).

3.6 - Install "Caution High Voltage" labels onto the control units (Figure 5, Position B).

4 - Route adapter cables.

4.1 - Remove the front wheels and the inner fender liners.

4.2 - Route the adapter cables from the luggage compartment through the rubber seal (Figure 5, Position C) to the wheel housing and to the electrical connector of the headlight.

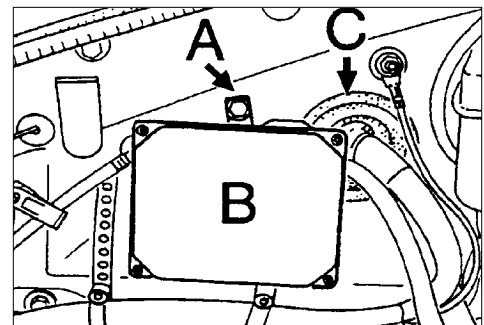


Figure 5

Important: In order to eliminate damage to the rubber seals and the connectors of the adapter cable, wrap the ends with tape.

4.3 - Secure the adapter cables to the existing cable harnesses using cable ties. Seal the harness grommets with a sealing compound.

5 - Installation of electrical connector onto the headlights.

5.1 - Turn the electrical connector 90° to unlock and remove the connector (Figure 6).

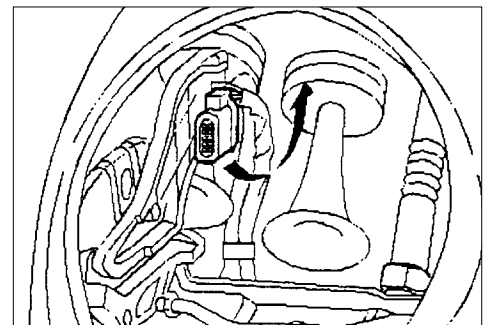


Figure 6

5.2 - Pull off the silicone hoses for the headlight venting.

5.3 - Slide the red cams of the connector lock (Figure 7, Arrows), one notch in the direction of the arrows, using the removal tool 88069.

5.4 - For the removal of the pins from the connector housing, use the removal tool No. 90006. The pins in the connector should be reworked as outlined on the following page:

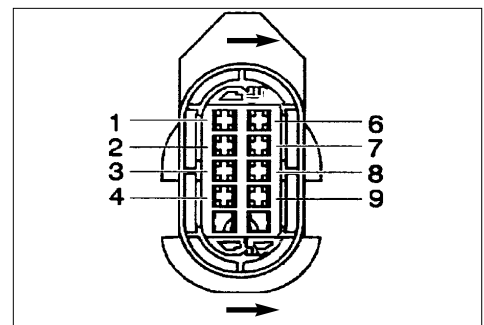


Figure 7

Headlight Connector:	Pin No.	Wire Diameter	Color	Work procedure
	1	1.5mm	Yellow or Yellow/Black	Remove wire from connector and crimp together with the yellow/blue (1.5mm) wire of the cable adapter. Shrink seal connection and tape to other wires.
	2	1.5mm	Brown	Deleted, cut off wire, insulate and tape to other wires.
	3	1.5mm	White or White/Black	Remains in same connector position.
	4	1.5mm	Brown	Remove and reinstall in location 6 of the connector.
Additional Harness:	Pin No.	Wire Diameter	Color	Work procedure
	1	.75mm	White	Install into connector position 1.
	2	.75mm	Brown	Install into connector position 2.
	9	1.5mm	Brown	Install into connector position 9.

Note: To install the additional harness connectors into the headlight connector plug, It is necessary to remove the silicone plugs in the connectors holes #6 and #9. Use a small screwdriver or pick for this purpose.

5.5 - Lock the red cams in the connector. Install the silicon vent hoses from the headlights to the electrical connector, and reinstall the connector.

5.6 - Check the fuses # 22 and 23 in the central electric board; a 15 amp fuse should be installed in both positions. If not, replace the fuses.

6 - Reinstall all components and check the function.

6.1 - Install the Litronic headlights and lock them into place.

Important: Ensure that the headlights are seated correctly in the fender in order to obtain proper sealing.

6.2 - Reconnect the battery, set the clock and enter the radio code.

6.3 - Check the headlight system.

6.4 - Reinstall the fender liners and front wheels; torque the lug nuts to 130 Nm (93.6 ft. lbs.)

6.5 - Before the headlights are adjusted, the shock absorbers should be loaded.

Parts: Installation Kit - 000 044 900 15

Single parts of the kit:

- | | |
|----------------|--------------------------------|
| 993 631 051 02 | Headlight - left |
| 993 631 052 02 | Headlight - right |
| 993 701 631 01 | Warning label |
| 000 044 900 13 | Cable adapter |
| 993 631 195 00 | Plastic bracket (control unit) |
| 993 631 196 00 | Base bracket (control unit) |
| 993 631 193 02 | Control unit |
| 999 500 042 02 | Pop-riev nut |
| 999 190 119 30 | Pop-riev (4mm) |
| 900 075 355 02 | Bolt M6 x 16 |
| 999 919 098 02 | Torx bolt |

Material - 999 915 400 40 - Sealer
Electrical tape
Black spray paint

Required Tools:

- | | |
|---|--|
| - Electrical pin press tools, No. 88069 and 90006 | - Philip and regular screw drivers |
| - 5 mm allen wrench | - Pop-riev nut pliers for M6 threads |
| - Box wrenches 10 and 13mm | - Torque wrench up to 130 Nm |
| - Drill bit 4mm and 9 mm diameter. | - Pop-riev pliers for 4mm diameter rivet |
| - Inside torx wrench T25 | - Lug nut socket |
| - Drill | - Crimp pliers |

Time allowance: 250 T.U.

Labor Operation: 94 15 24 00
Which includes: - R & R battery terminal
- R & R fender liners and front wheels
- Installation of control units and adapter cables
- Function test and headlight adjustments

Literature: - Owners Manual, R & R headlights and adjustment
- Workshop Manual 911 Carrera (993), volume VII.

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