

Automatic Dimming Rearview Mirror (Interior)

Vehicle Type: **911 Carrera (996)**

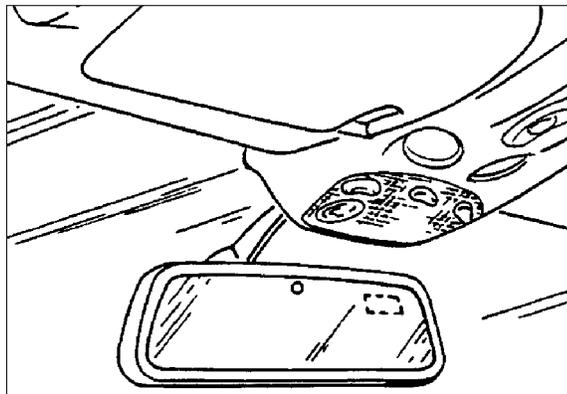
Model Year: **As of 1999 (X)**

Concern: **Service installation of the automatic dimming (anti-dazzle) interior rearview mirror. (Exclusive option "XE3")**

Information: When the ignition is switched on, the automatic dimming (anti-dazzle) interior rearview mirror detects incoming light by means of two photocells. If the brightness on the mirror glass is greater than the brightness on the mirror housing (front side), a control process is initiated and the mirror glass is darkened.

Note: The automatic dimming (anti-dazzle) function is disabled whenever the vehicle is in reverse gear (with ignition on). When in reverse gear, the mirror will only operate in a normal, undimmed state.

Important: For this reason, the reverse gear input signal to the automatic dimming interior mirror **must** be connected for proper operation. This input signal should be connected at weld-point 21 under the left (driver's) seat. See work procedure.



Parts Info.:	Part Number	Qty.	Description
	000 044 801 46	1	Automatic dimming (anti-dazzle) mirror (6-pole) kit
	Consisting of:		
	996 731 982 00 01C	1	Interior mirror, including lead and 6-pole plug
	996 612 986 00	1	Electrical wiring harness, including 6-pole plug
	N 020 909 4	7	Tie-wrap, 92 mm long / 2.4 mm wide
	999 513 054 40	3	Tie-wrap, large (for seat memory and wiring harness)

Required Tools: Special tool 9578
Teflon hose or flexible wire
Screwdrivers, as needed
Allen wrench, 4mm and 5mm
10 mm open-end wrench
Torque wrench, up to 65 Nm (48 ftlb.)
Torx socket wrench, T27 / E12
Hand saw
Lock file, flat
Side cutters
Felt-tip pen or scribe
Philips bit
Plastic spatula
Shop light

Req'd Materials: Electrical tape
Cleaning cloth
Crimp contact for reverse gear input connection (0.35 mm).

Work Procedure: **1. Preliminary steps.**

1.1 Disconnect the battery and cover the battery terminal.

1.2 Remove interior mirror with special tool 9578. See *Technical Manual*, Group 6, Serv.No. 68 27 19.

2. Removing required interior components.

2.1 Remove driver's side sun visor. See *Technical Manual*, Group 6, Service No. 68 23 19.

Cabriolet: Additionally, remove the socket for the guide pin of the convertible top.

2.2 Remove passenger compartment monitoring sensor. See *Technical Manual*, Group 9, Service No. 96 85 19.

2.3 Unclip the driver's side half of the windshield frame trim.

2.4 Remove side vent with main light switch. See *Technical Manual*, Group 7, Service No. 70 18 37 and *Technical Manual*, Group 9, Service No. 94 05 19.

2.5 Unclip the driver's side clothes hook (coupe only) on the B-pillar, and roof member A-pillar trim. See *Technical Manual*, Group 7, Service No. 70 57 19.

2.6 Remove the fuse carrier, carpet lining and relay carrier 1, cutting tie-wraps where necessary.

2.7 Remove left front (driver's) seat. Disconnect all electrical plug connections and expose weld point 21 (note the several BK/BL leads for the reverse gear signal, Figure 1). See *Technical Manual*, Group 7, Service No. 72 01 19.

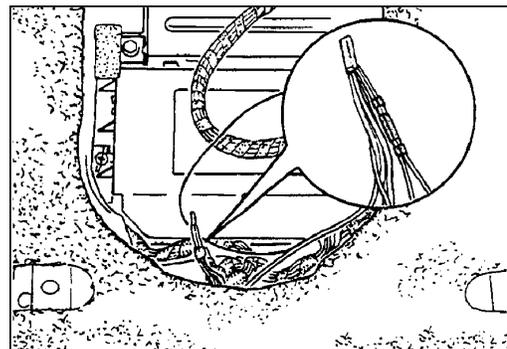


Figure 1

Work Procedure:
(cont'd)

2.8 Partially remove the left sill cover. See *Technical Manual*, Group 5, Service No. 55 10 37.

Note: The bowden cables for the lid releases need not be disconnected from the release levers.

3. Installing the new automatic dimming mirror.

3.1 If the vehicle is already equipped with a rain sensor, (refer to Technical Information Bulletin, Group 9, No. 4/98) the rain sensor must be relocated to the **right** of the mirror cable housing.

3.2 Unclip the cable cover of the new interior mirror by pulling it off in a rearward fashion. Using special tool 9578, install the interior mirror on the mirror base, ensuring that the pivoting metal rail of the interior mirror fits beneath the windshield frame trim. Shorten this rail if necessary. See *Technical Manual*, Group 6, Service No. 68 27 19.

4. Installing and connecting the interior mirror wiring harness.

4.1 Insulate the complete wiring harness up to the first branch (the two shortest leads). Connect the 6-pole plug of the mirror wiring harness to the automatic interior mirror.

4.2 Route wiring harness along the windshield frame to the driver's side A-pillar, and then to the fuse and relay carrier. Secure wiring harness with new tie-wraps as necessary.

4.3 Connect the mirror harness wires according to the table below. Also refer to *Technical Manual*, Group 9, Circuit Diagrams.

Note: The automatic dimming door mirror (option XEH) connects to the YE and GN leads (see table below). Insulate and tie these wires to the fuse carrier for future use. Automatic dimming door mirror installation is described in a separate Technical Information Bulletin (Group 6, #17/98)

Mirror harness pin assignments, wire colors, and associated mirror functions:

Pin	Cross Section	Color*	Function	Instructions
1**	0.35 (mm ²)	BK/OR	Terminal 15	<ul style="list-style-type: none"> - On cars produced prior to July 31st 1998, plug wire into an unused pin of multi-pin bridge plug BS 16/2, found in position 28 of Relay Support 1. - On cars produced after July 31st, plug wire into an unused pin of multi-pin bridge plug BS 16/2, found in position 11 of relay support 1.
2**	0.35 (mm ²)	BR	Terminal 31	<ul style="list-style-type: none"> - On cars produced prior to July 31st 1998, plug wire into an unused pin of multi-pin bridge plug BS 11, found in position 11 of Relay Support 1. - On cars produced after July 31st, plug wire into an unused pin of multi-pin bridge plug BS 11, found in position 28 of relay support 1.
3	0.35 (mm ²)	BL /RE	Reverse gear	Solder to one of the existing BK/BL wires at weld point 21, under driver's seat. Insulate.
4	0.35 (mm ²)	GN	Positive	For auto-dimming door mirror. Not used unless equipped with option XEH. Insulate and secure to fuse support A, where the main wiring harness is tie-wrapped. For XEH equipped cars, see Technical Info. Group 6, #17/98

Work Procedure: (cont'd)	Pin	Cross Section	Color*	Function	Instructions
	5	0.35 (mm ²)	YE	Negative	For auto-dimming door mirror. Not used unless equipped with option XEH. Insulate and secure to fuse support A, where the main wiring harness is tie-wrapped. For XEH equipped cars, see Technical Info. Group 6, #17/98.
	6	0.35 (mm ²)	Not Used	Not Used	Not Used

* These are the wire colors on the vehicle side of the supplied interior mirror harness. The wire colors on the mirror side of the plug may be a different color. This is insignificant because the plug is factory pre-assembled.

**Use the 1998 wiring diagrams for early production cars.

5. Connection of reverse gear input signal.

5.1 Wrap all but approx. 25 mm of the 0.35 mm² BK/BL wire with electrical tape.

5.2 Route the BK/BL wire under the door sill trim, and then to connector 21 (Figure 1) under the driver's front seat.

5.3 Strip approx. 20 mm off one of the weld point 21 wires (BK/BL) back to the connector. Crimp (with a 0.35 mm² crimp connector) or solder the BK/BL interior mirror wire to the stripped BK/BL of the weld point connector (Figure 1, enlarged view). Insulate the connection with adhesive tape. Insulate any remaining portion of unwrapped BK/BL wire.

6. Function test.

6.1 Connect the battery and switch on ignition.

6.2 Cover photocell on the glass side of the interior mirror; the mirror surface must darken after about 4 seconds. Uncover the photocell. The mirror should brighten within approx. 6 seconds.

6.3 Repeat step 6.2, except that before uncovering the photocell, ensure the mirror goes from a dimmed to an undimmed state when reverse gear is selected.

6.4 Switch ignition off. Disconnect and cover the battery.

7. Complete the vehicle

7.1 Reinstall the driver's seat (*Technical Manual*, Group 7, Service No. 72 01 19). Perform function test of the driver's seat electronics (e.g. electrical seat adjustment, seat memory).

7.2 Install the left sill cover. Perform function test of lid release levers (*Technical Manual*, Group 5, Service No. 55 10 37). Ensure the door seal is properly seated; correct with a plastic spatula if necessary.

7.3 Install relay support 1 and fuse carrier. Fasten wiring harness with a tie-wrap and install the carpet lining.

Work Procedure: **7.4** Attach windshield trim, and install the sun visor. Clip in the A-pillar trim (including roof member on the coupe) and clothes hook (coupe only) on the B-pillar (*Technical Manual*, Group 7, Service No. 70 57 19).

7.5 Adapt the interior mirror wiring harness cover to properly fit at the windshield frame trim (Figure 2). Do this by transferring the contour of the frame trim to the mirror cover (Figure 2, arrow A). Then remove excess material using a hand saw or lock file.

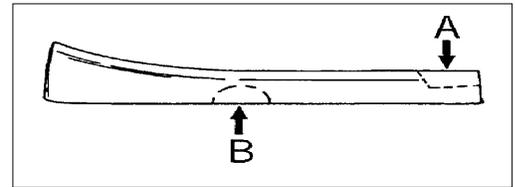


Figure 2

Note: Route the rain sensor wiring (if equipped) with the interior mirror wiring, under the mirror cover together. Make an opening for the rain sensor harness if necessary. (Figure 2, arrow B)

7.6 Install side vent and main light switch (*Technical Manual*, Group Service No. 70 18 37).

7.7 Install interior light or passenger compartment monitoring system (*Technical Manual*, Group 9, Service No. 96 85 19).

7.8 Set time on the clock.

7.9 Read out fault memory of the control modules in the equipment with the PST2, check, and erase if necessary. Input radio code, if necessary.

Working Time:	Labor Operation	TU	Description
	68 27 23 00	300	Installing automatic interior mirror <i>Includes: Disconnecting and connecting battery, removing standard interior mirror, installing and completely connecting the automatic interior mirror (and reverse gear signal), function test, reading out fault memories of the control modules.</i>

- Literature: 911 Carrera (996) *Technical Manual*, Groups 5/6/7/9, sections:
 55 10 37 - Disassembling and assembling front-lid release
 68 23 19 - Removing and installing sun visors
 68 27 19 - Removing and installing interior rearview mirror
 70 18 37 - Disassembling and assembling dashboard
 70 57 19 - Removing and installing A, B and C-pillar trim
 72 01 19 - Removing and installing front seat
 94 05 19 - Removing and installing main light switch
 96 85 19 - Removing and installing passenger compartment monitoring sensor
 97 Wiring diagrams: Lights, Mirror Adjustment, Connectors, Weld Points, Relay Supports, Fuses
 Technical Information, Group 6, No. 4/98 - Installation of a rain sensor

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