LED Headlights (I-no. 8EX, 8EY, 8IS)

Revision: This bulletin replaces bulletin Group 9, #31/16, dated June 23, 2016.
Information under “Restriction” was amended with “(I-no. 8BE/8EA/8EE/8EF/8EG/8JE)”.

Model Year: **As of 2016**

Concern: **Retrofitting**

Restriction: **Only** for vehicles with Bi-Xenon main headlights incl. Porsche Dynamic Light System (PDLS), (I-no. 8BE/8EA/8EE/8EF/8EG/8JE).



Information: The LED headlights incl. PDLS Plus have an unmistakable Look with the 4-point LED spots.

Parts Info: **95B.044.900.92** ⇒ LED headlights, USA, right-hand traffic, set

Parts List:

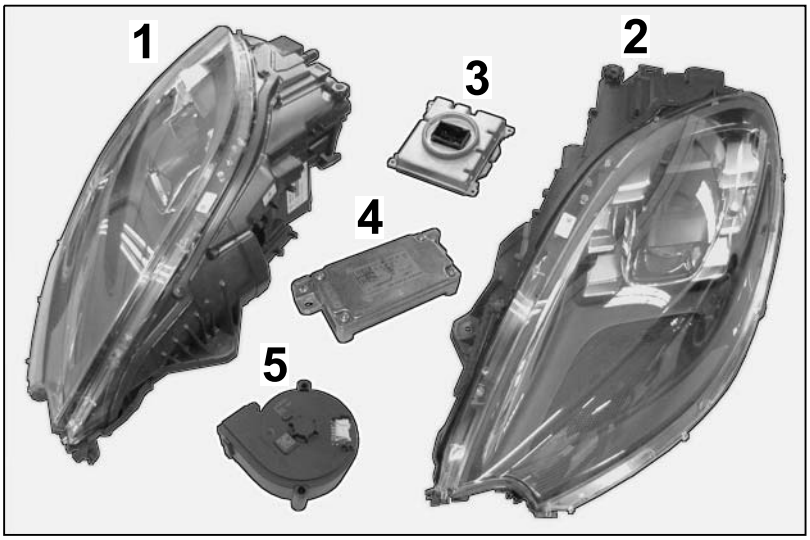


Figure 2

9A7.941.572.00	2 x	LED module control unit ⇒*Figure 2* **-3-**
7PP.941.597.B	2 x	Daytime driving lights control unit ⇒*Figure 2* **-4-**
9A7.907.463.00	2 x	Fan for LED module ⇒*Figure 2* **-5-**
N.100.092.09	4 x	Hexagon-head bolt, M6 x 20 (not shown)
999.919.159.09	6 x	Oval-head screw, 4.0 x 12.0 (not shown)
		Right-hand traffic
95B.941.039 F[1]	1 x	LED headlight, left, ECE ⇒*Figure 2* **-1-**
95B.941.040 F[1]	1 x	LED headlight, right, ECE ⇒*Figure 2* **-2-**
95B.941.039 H[3]	1 x	LED headlight, left, USA (not shown)
95B.941.040 H[3]	1 x	LED headlight, right, USA (not shown)
		Left-hand traffic
95B.941.039 G[2]	1 x	LED headlight, left, ECE (not shown)
95B.941.040 G[2]	1 x	LED headlight, right, ECE (not shown)

[1] Only contained in set 95B.044.900.90.

[2] Only contained in set 95B.044.900.91.

[3] Only contained in set 95B.044.900.92.

Tools: **9900 - PIWIS Tester 3**

VAS 5903 - Battery Charger, 70 A

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Work Procedure:

Information

Some of the repair illustrations show only one side of the vehicle. Naturally, some steps also have to be performed on the opposite side of the vehicle as well. These must be carried out as a mirror image of the steps shown.

1 Preparatory work

1.1 Connect a battery charger. ⇒*Workshop Manual '2X00IN Battery trickle charging'*

1.2 Remove headlight. ⇒*Workshop Manual '941519 Removing and installing headlights'*

Information

Always comply with the regulations for handling ESD-sensitive components!

- Assembly work must only be carried out if the technician is wearing Porsche approved work clothes and shoes.
- The new part must only be removed from the ESD (electrostatic discharge) protective packaging just before installation and at the position at which the part is to be installed.
- Never touch the electric pins and plug contacts.

2 Assemble LED headlight.

2.1 Remove light bulb control unit (power electronics control unit) from the standard main headlight.

2.1.1 Unscrew screws ⇒*Figure 3* **-1-**.

2.1.2 Carefully disconnect light bulb control unit ⇒*Figure 3* **-2-** from the standard headlight ⇒*Figure 3* **-arrow-**.

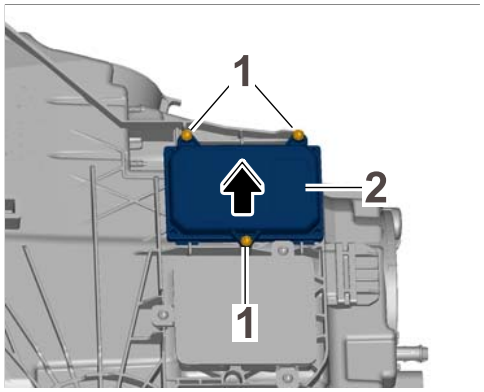


Figure 3

2.2 Fit light bulb control unit (power electronics control unit) on the new LED headlight.

2.2.1 Fit light bulb control unit ⇒*Figure 4* **-1-** on the LED headlight, making sure that the rubber seal is fitted correctly.

2.2.2 Screw in and tighten screws ⇒ *Figure 4* **-2-**.

2.3 Install LED module control unit.

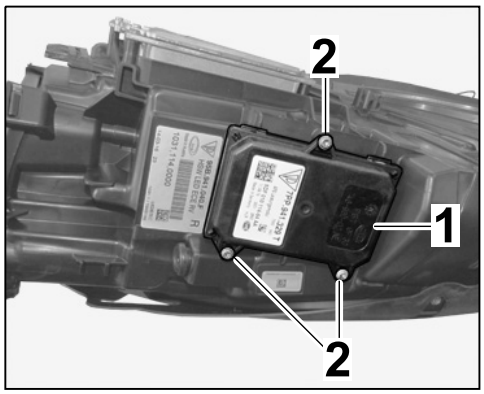


Figure 4

2.3.1 Unscrew screws ⇒*Figure 5* **-1-** from the standard light bulb igniter ⇒*Figure 5* **-2-**.

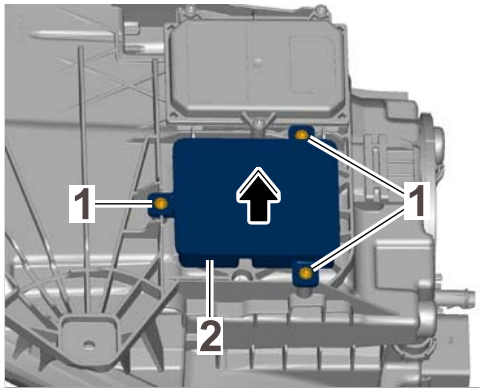


Figure 5

2.3.2 Open the lock on the connector. Plug in and lock plug connection ⇒ *Figure 6* **-a-** (⇒*Figure 6* **-b-**).

2.3.3 Position control unit on the LED headlight, making sure that the rubber seal ⇒*Figure 6* **-2-** is fitted correctly.

Tighten four screws ⇒*Figure 6* **-1-**.

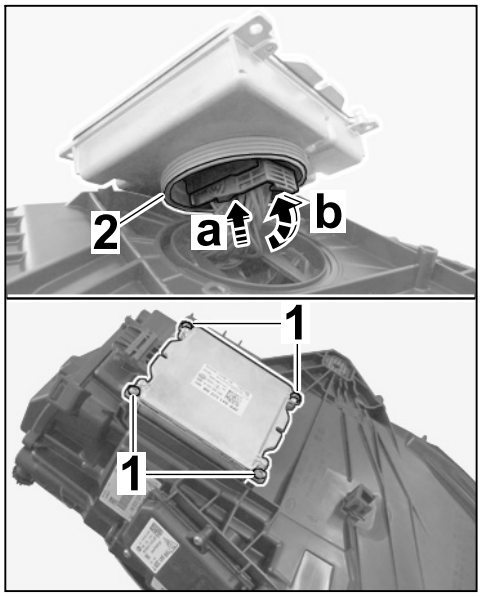


Figure 6

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2.4 Release cover ⇒*Figure 7* **-arrows-** and remove it ⇒*Figure 7* **-a-**.

2.5 Install LED fan.

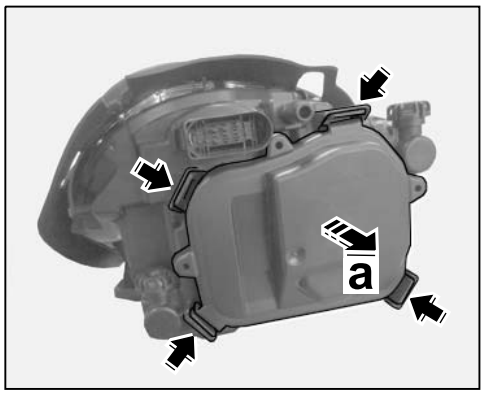


Figure 7

2.5.1 Connect plug connection for LED fan ⇒*Figure 8* **-arrow-**.

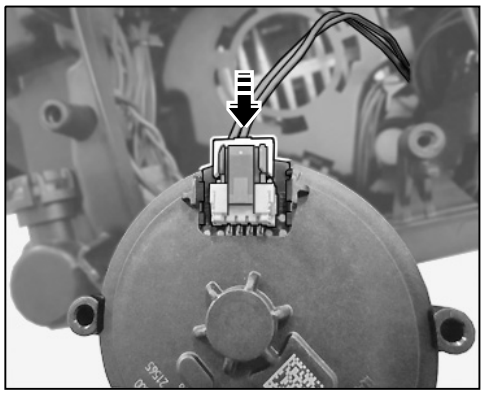


Figure 8

2.5.2 Insert LED fan ⇒*Figure 9* **-1-** into the LED holder and turn it clockwise ⇒*Figure 9* **-b-** as far as it will go.

Do not trap or crush lines ⇒*Figure 9* **-arrow a-**.

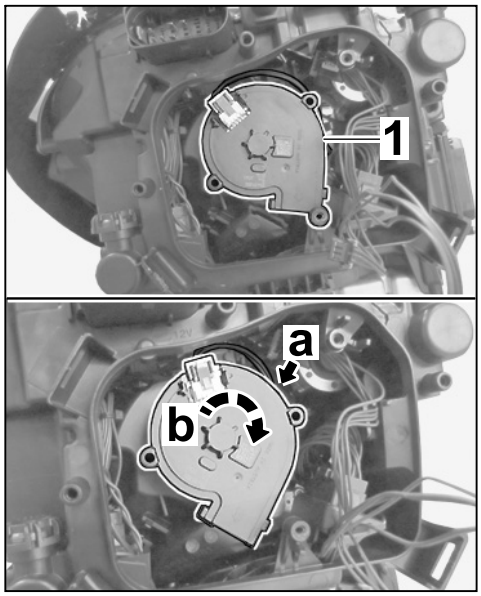


Figure 9

2.6 Install daytime driving lights control unit ⇒ *Figure 10* **-1-** on the new LED headlight.

2.6.1 Connect plug connections ⇒*Figure 10* **-arrows-**.

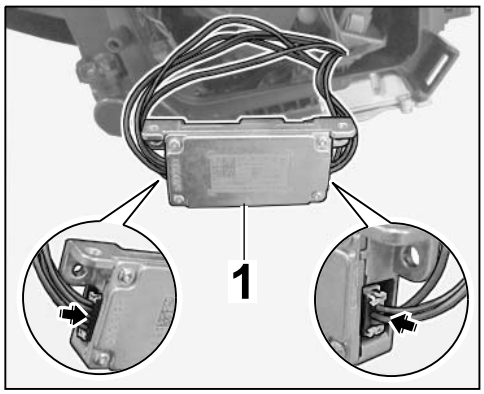


Figure 10

2.6.2 Fit daytime driving lights control unit ⇒*Figure 11* **-1-** and secure with new oval-head screws (4.0 x 12.0) ⇒*Figure 11* **-2-**.

2.6.3 Fit cover on the LED headlight.

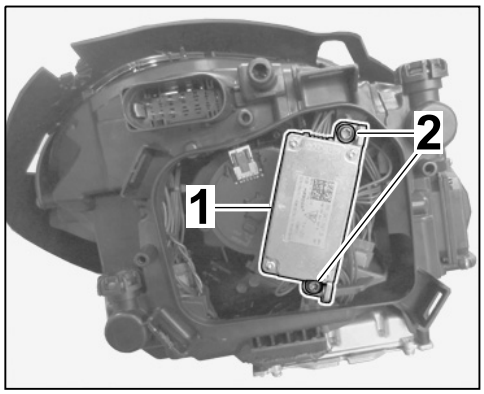


Figure 11

2.7 Remove standard seal ⇒*Figure 12* **-1-** from the standard headlight and fit it on the LED headlight ⇒*Figure 12* **-2-**.

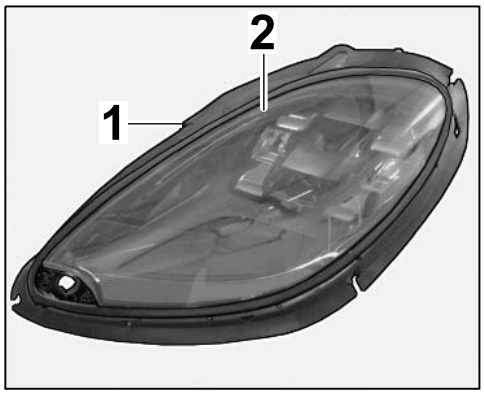


Figure 12

3 Concluding work

3.1 Install LED headlight using new screws. ⇒ *Workshop Manual '941519 Removing and installing headlights'*

NOTICE

Voltage drop

- **Risk of irreparable damage to control unit**
- **Risk of damage to control unit**

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- **Fault entries in the control unit**
- **Coding in the control unit is aborted**
- **Malfunctions in control unit, even during programming**

⇒ **Prior to disconnecting the control unit, switch off the ignition and remove the ignition key.**

⇒ **Ensure that the power supply is not interrupted during programming.**

⇒ **Connect battery charger / power supply suitable for AGM Type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V.**

Information

The **9900 - PIWIS Tester III** instructions take precedence since the description may be different with later Tester releases.

The procedure described here has been structured in general terms; different text or additions may appear on the **9900 - PIWIS Tester III**.

4 Code headlights.

4.1 **9900 - PIWIS Tester 3** must be connected before switching on the ignition.

4.2 Select the required vehicle type. PIWIS Tester III Diagnostics starts.

4.3 Maintenance of vehicle data.

4.3.1 **Additional menu** must now be selected by pressing •F7 “ . Press •F11 “ to confirm the question “Create vehicle analysis log (VAL)?”.

4.3.2 Select the **Maintenance of vehicle data** function. Press •F12 “ until **PR numbers** appears in the Value group column.

4.3.3 Select **Headlights** in the Family column.

Open the sub-menu in the Value column and select the relevant option for your country:

- **8EY - LED HEADL. USA RIGHT-HAND TRAFFIC + DYN. cornering light**
- **8EX - LED HEADL. ECE RIGHT-HAND TRAFFIC + DYN. cornering light**
- **8IS - LED HEADL. ECE LEFT-HAND TRAFFIC + DYN. cornering light**

Information

To activate the PDLS+ function, the following optional equipment must be installed:
Lane Departure Warning (7Y6)
or Lane Change Assist and Lane Departure Warning (7Y7)
or Traffic sign recognition (9Q6)

4.3.4 Activate the PDLS+ function.

Select **Light assist. systems** in the Family column.

Is the vehicle fitted with any of the following optional equipment: 7Y6, 7Y7 or 9Q6?

Yes: Open the sub-menu in the Value column and select the relevant option for your country:

- USA/Canada/Korea: **8G1 - PDLS+ (High beam assist.)**
- RoW: **8G2 - PDLS+ (Dynamic high beam)**

No: Open the sub-menu in the Value column and select.

- **8G0 - w/o High beam assist**

Press •F12 " to continue.

4.3.5 Activate the junction light for PDLS+.
Only for vehicles from the following countries together with PCM (I-no. 7T1):

Country	Country code	Country	Country code
Germany	C00	Luxembourg	C19
France/Andorra/Monaco	C05	Netherlands	C20
Italy	C07	Norway	C21
Sweden/Iceland	C09	Belgium	C22
Switzerland/Liechtenstein	C10	Spain/Portugal	C27
Austria/Czech Republic/Hungary/Romania/Slovakia/Slovenia/Macedonia/Croatia/Montenegro/Serbia	C11	Greece	C28
Denmark	C12	Cyprus/Malta	C98
Estonia/Finland/Latvia/Lithuania	C13	Bulgaria/Poland/Bosnia-Herzegovina	C99
Great Britain/Ireland	C16		

Select **Fog lights / Auxiliary headlights** in the Family column.

Open the sub-menu in the Value column and select **8WH - Junction light + Fog lights**.

4.3.6 The selected values appear. Press •F8 " to write values. Wait until the message **Generation of vehicle data is complete. …. to continue.** appears.

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4.3.7 Press • F12 " to switch to Report management. Press • F10 " to open the log and check that the required vehicle equipment is entered:
8EX - LED HEADL. ECE RIGHT-HAND TRAFFIC + DYN. cornering light or
8EY - LED HEADL. USA RIGHT-HAND TRAFFIC + DYN. cornering light or
8IS - LED HEADL. ECE LEFT-HAND TRAFFIC + DYN. cornering light
and 8G1 - PDLS+ (High beam assist) or 8G2 - PDLS+ (Dynamic high beam) or 8G0 – w/o High beam assist
or 8WH (Junction light + Fog lights) as required

Press • F11 " to switch to the control unit overview.

4.4 Headlight start-up

4.4.1 Select the **central headlight** control unit.

Switch to the **Maintenance / repairs** menu.

4.4.2 Select the **Headlight start-up** function. Press • F12 " to continue.

Follow the instructions on the PIWIS Tester until the message **Start-up completed successfully** appears. Press • F12 " to continue.

Switch to the **Overview** menu.

4.5 Read out the fault memories of all systems, work through any existing faults and erase the fault memories. ⇒ *Workshop Manual '0335IN Diagnostic maintenance: resetting diagnostic system and maintenance interval'*

4.6 **Only** for RoW vehicles with I-no. 8G2 - **PDLS+ (Dynamic high beam)**:
Activate Dynamic high beam function.

4.6.1 Main menu „Vehicle "> „Settings "> „Light & Visibility > „Exterior lights

4.6.2 Select "Dynamic high beam.

4.6.3 Confirm your selection.

4.7 **Only** for USA/Canada/Korea vehicles with I-no. 8G1 - **PDLS+ (High beam assist)**:
Activate Dynamic high beam function.

4.7.1 Main menu „Vehicle "> „Settings "> „Light & Visibility > „Exterior lights

4.7.2 Select Dynamic high beam assist.

4.7.3 Confirm your selection.

4.8 Switch off ignition and disconnect **9900 - PIWIS Tester 3**.

5 Adjust the headlights. ⇒ *Workshop Manual '941515 Adjusting headlights'*

6 Disconnect battery charger. ⇒ *Workshop Manual '2X00IN Battery trickle charging'*

94152340: Retrofitting LED headlights. Labor time: **148 TU**

Includes: Removing and installing headlights. Converting light bulb control unit (power electronics control unit) and seal. Installing LED module control unit, LED fan and daytime driving lights control unit.

Without: Adjusting headlights.

95151650: Adjusting headlights Labor time: **15 TU**

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