

Macan (95B)

14/20 ENU 6690

6

#### Trailer Hitch - Mechanical (1D6)

Information: Retrofitting

Model Year: As of 2019

Restrictions: **NOT** approved in conjunction with stainless steel rear panel (2JX)!



Figure 1

Note: The Macan can be retrofitted with a trailer hitch ( $\Rightarrow$  *Figure 1*). Note the following special features:

- Permissible hook load of 440 lbs (200 kg)
- Plug socket preparation for USA version
- Payload following installation, restricted by higher vehicle curb weight!
- Gross vehicle weight and axle load must not be exceeded!



#### Information

Further information/technical values, instructions for using the trailer hitch and "Driving with a trailer" can be found in the:

- Macan Owner's Manual, topics: "Trailer Hitch", "More Safety and More Driving Pleasure" and "Weights"
- Vehicle registration documents

Part Info: 95B.044.802.31  $\Rightarrow$  Towbar system – mechanical – USA (1D6), set

6690 ENU 14/20

# Installation and Conversion Instructions

**ONLY** for vehicles with SportDesign package (2D1/2D2/2D6), also order the following:

95B.807.8831 x $\Rightarrow$  Reinforcement, rear95B.807.834.N.1E01 x $\Rightarrow$  Rear panel, black

Parts List:

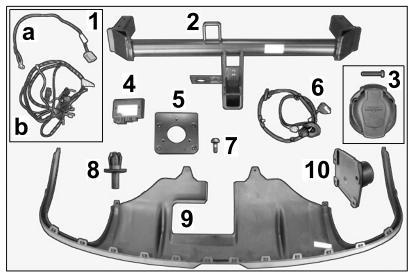


Figure 2

95B.044.802.35	1 x	Wire harness ( $\Rightarrow$ <i>Figure 2-1-</i> ) consisting of:
	1 x	Ground line for trailer hitch $\Rightarrow$ Figure 2-1a-
	1 x	Wire harness for control unit $\Rightarrow$ Figure 2 - 1b-
8R0.800.491.A	1 x	Trailer hitch $\Rightarrow$ Figure 2 -2-
999.650.893.40 <sup>1</sup>	1 x	7-pin socket with 3 screws $\Rightarrow$ Figure 2-3-
4H0.907.383.M	1 x	Control unit for mechanical trailer hitch $\Rightarrow$ Figure 2 -4-
7L5.945.205 <sup>1</sup>	1 x	Adapter for metal plate $\Rightarrow$ Figure 2-5-
95B.971.124.A <sup>1</sup>	1 x	Wire harness ⇒ Figure 2 -6-
N. 910.742.01	4 x	Screw, M5 x 16 $\Rightarrow$ Figure 2 - 7-
N.038.549.4	2 x	Expansion rivet, A8 x 12 $\Rightarrow$ Figure 2-8-
95B.807.834D 1E0	1 x	Rear panel, black $\Rightarrow$ Figure 2-9-
7L5.971.885 <sup>2</sup>	1 x	Cap ⇒ Figure 2 -10-
7L0.803.593	1 x	Stopper for cover, square (not shown)
N.907.721.02	4 x	Bolt, M10 x 105 x 45 (not shown)
95B.971.124 <sup>1</sup>	1 x	Wire harness (not shown)

Not in USA (1D6) set

<sup>2</sup> Only contained in set 95B.044.802.31.

Macan (95B)

14/20 ENU 6690

6

Tools: Nr.88 - Torque angle torque wrench

9900 - PIWIS Tester 3

Saw or vibrating knife

Plastic wedge Electric torch

Knife

VAS 6933 Disassembly tool

Steel drill bit, Ø up to 8.0 mm

Drill

Round/flat file Flat scraper

#### Assembly: 1 Preparatory work

- 1.1 Remove rear apron ( $\Rightarrow$  Workshop Manual '635519 Removing and installing rear apron').
- 1.2 Remove centre luggage compartment trim panel (luggage compartment cover) ( ⇒ Workshop Manual '700619 Removing and installing centre luggage compartment trim panel (luggage compartment cover)).
- 1.3 Remove side trim panel for luggage compartment (loadspace cover) ( ⇒ Workshop Manual '700619 Removing and installing side trim panel for luggage compartment (luggage compartment cover)).
- 1.4 Remove cover for rear lock carrier ( ⇒ Workshop Manual '703919 Removing and installing cover for rear lock carrier).
- 1.5 Remove side trim panel for luggage compartment at the right side ( $\Rightarrow$  *Workshop Manual '700319 Removing and installing side trim panel for rear luggage compartment'*).
- 1.6 Remove rear bumper ( ⇒ Workshop Manual '635019 Removing and installing rear bumper).
- 1.7 Disconnect the battery (  $\Rightarrow$  Workshop Manual '2X00IN Work instructions after disconnecting the battery).
- 2 Electrical work in passenger compartment
  - 2.1 Route and connect ground line

### 6690 ENU 14/20

## Installation and Conversion Instructions

- 2.1.1 Disconnect pin connector socket, green (towbar system preparation) from the holder from the rear (⇒ Figure 3).
  - Pin connector socket, green (towbar system preparation)
  - 2 Bracket
  - 3 Plug (socket) towbar system plug socket
- 2.1.2 Unlock pin connector socket (preparation) and push line BL 2.5<sup>2</sup> out of pin 6.
- 2.1.3 Unlock a new green pin connector socket (ground line) and push line BL 2.5<sup>2</sup> into chamber 6.

Lock the new green pin connector housing (ground line).

- 2.1.4 Install green pin connector socket (ground line) into the holder from the rear (⇒ Figure 4 -Arrow-).
  - 1 Ground line
  - **2** Cap nut for ground pin 42
- 2.1.5 Route ground line to ground pin 42 (rear, right) ( $\Rightarrow$  *Figure 4*).
- 2.1.6 Install cable ring eyelets onto ground pin 42 and fasten loosely with cap nut (⇒ Figure 4 -2-).

  An additional cable ring eyelet will be installed on ground pin 42 later.
- 2.2 Install and connect towbar system control unit

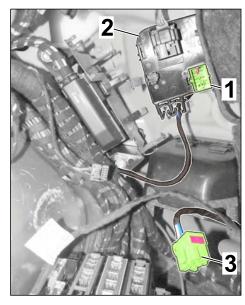


Figure 3

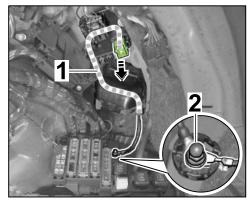


Figure 4



- 2.2.1 Clip towbar system control unit into bracket ( $\Rightarrow$  *Figure 5*).
  - 1 Trailer hitch control unit
  - Z Towbar system preparation
  - **3** Main wire harness
  - 4 Bracket



#### Information

Wire harness for trailer hitch preparation is secured to the main wire harness in the luggage compartment at the right ⇒ Figure 4 -3-.

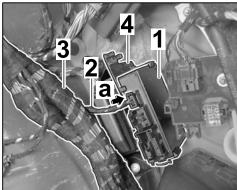


Figure 5

- 2.2.2 Disconnect towbar system preparation connector from main wiring harness.
- 2.2.3 Connect towbar system preparation plug to the trailer hitch control unit ( $\Rightarrow$  Figure 5 -a-).
- 2.3 Prepare control unit wire harness for installation
  - A Wire harness for control unit (Not for USA)
  - B Wire harness for control unit (USA version)
  - Branch for electric towbar system button
  - 2.3.1 Complete wire harness USA version  $(\Rightarrow Figure 6 B -)$ .
- 2.4 Connect branch for power supply (control unit wiring harness)

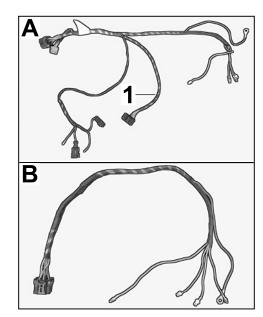


Figure 6

6690 ENU 14/20

# Installation and Conversion Instructions

- 2.4.1 Loosening fuse box in the luggage compartment
  - 1 Hexagon nut
  - Fuse box (luggage compartment)

Remove hexagon nut ( $\Rightarrow$  *Figure 7*).

Pull fuse box (boot) out of the openings on the longitudinal member (⇒ Figure 7-a-).

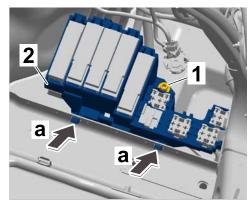


Figure 7

- 2.4.2 Release locks of fuse strip C and fuse strip B. Remove fuse strips B / C by pulling them down (⇒ Figure 8 -Arrows-) out of the fuse box.
  - 1 Fuse strip B
  - **2** Fuse strip C
  - 3 Locking mechanism

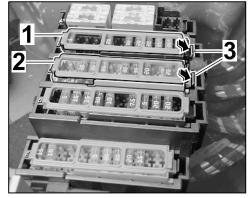


Figure 8

- 2.4.3 Release bottom cap from fuse strips B and C on both sides and unclip it (⇒ Figure 9-a-).
  - 1 Locking mechanism
  - 2 Bottom cap

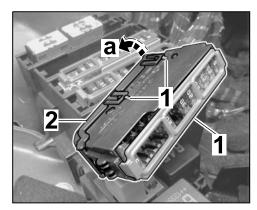


Figure 9

Macan (95B)

14/20 ENU 6690

6

2.4.4 Use a screwdriver to open the secondary lock on fuse strips B and C ( $\Rightarrow$  Figure 10-a-).

1 – Secondary lock2 – Screwdriver

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#### Information

Ensure socket contact is seated securely.

2.4.5 Insert socket contacts into fuse strips B / C as follows:

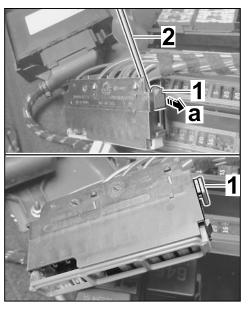


Figure 10

Fuse strip B, 1.5 mm <sup>2</sup>		Chamber
RD/WH line	⇒	2
RD/YE line	⇒	3
RD/BU line	⇒	4

Fuse strip C, 2.5 mm <sup>2</sup>		Chamber
RD/WH line	⇒	1

- 2.4.6 Close secondary lock on fuse strips B and C.
- 2.4.7 Install cap on fuse strips B and C.
- 2.4.8 Insert fuse strips C and B into the fuse box in the luggage compartment.

- 2.5 Secure fuse box in the luggage compartment.
  - 1 Hexagon nut
  - Fuse box (luggage compartment)
  - 2.5.1 Install fuse box (luggage compartment) into the openings on the longitudinal member (⇒ Figure 11-a-).
  - 2.5.2 Install hexagon nut.
- 2.6 Route and connect control unit wire harness.
  - 2.6.1 Route control unit wire harness to the trailer hitch control unit.
    - 1 Ground line for trailer hitch
    - **2** Ground pin 42
    - 3 Tie-wrap

Connect plug connection ( $\Rightarrow$  *Figure 12-a-*).

Secure control unit wire harness with a tie-wrap ( $\Rightarrow$  Figure 12-3-).

- 2.6.2 Route cable ring eyelet of ground line for towbar system (⇒ Figure 12
  -1-) to ground pin 42 (⇒ Figure 12-2-).
- 2.6.3 Secure cable ring eyelets from ground line for trailer hitch and ground line from control unit wire harness to ground pin 42.
   Tightening torque 9 Nm (6.5 ftlb.)
- 2.7 Secure towbar system as shown in Figure 13  $(\Rightarrow Figure 13)$ .
  - 1 30-amp/fuse strip C
  - 2 20-amp/fuse strip B
  - **3** 20-amp/fuse strip B
  - 4 20-amp/fuse strip B

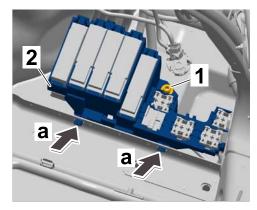


Figure 11

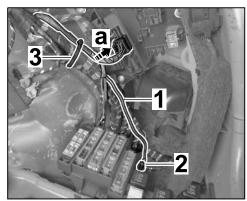


Figure 12

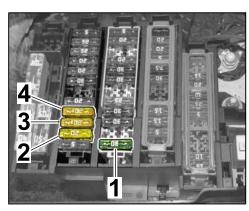


Figure 13

- 3 Install trailer hitch
  - 3.1 **ONLY** USA, Puerto Rico:

Mount cap with four screws M5 x 16 onto holder plate of towbar system ( $\Rightarrow$  *Figure 16*).

- **1** Screw, M5 x 16
- **2** Cap

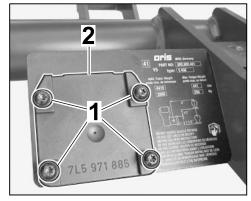


Figure 16

- 3.2 Remove dummy plug from rear closing panel  $(\Rightarrow Figure 17)$ .
  - 1 Dummy plug
- 3.3 Install trailer hitch

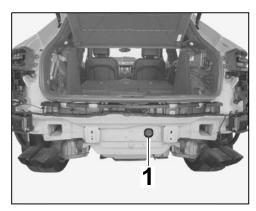


Figure 17

- 3.3.1 Insert towbar system guide profile into the longitudinal member on the vehicle, position it and secure it with four new screws, M10 x 105 x 45 (⇒ Figure 18).
  - 1 Screw, M10 x 105 x 45

Screw, M10 x 105 x 45 (4 ea.): **Tightening torque 50 Nm** (37.5 ftlb.) +90° (+67.5 ftlb.)

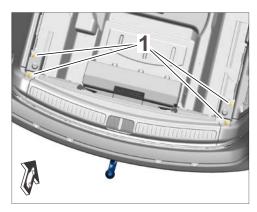


Figure 18

### 6690 ENU 14/20

## Installation and Conversion Instructions

- 3.3.2 Guide wire harness for towbar system through rear closing panel into the boot.
  - 1 Cable clip

Install grommet in rear wall (⇒ Figure 19 - Arrow-)

Install cable clip (wire harness for towbar system) on bolt ( $\Rightarrow$  *Figure 19-1-*).

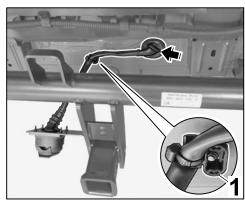
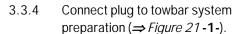


Figure 19

- 3.3.3 Route wire harness for towbar system (⇒ Figure 20 -1-) to the towbar system control unit.
  - Wire harness for trailer hitch
  - **2** Cable clip
  - 3 Bracket

Install cable clip ( $\Rightarrow$  Figure 20-2-) on back panel.

Install wire harness for trailer hitch in the bracket ( $\Rightarrow$  *Figure 20-3-*).



- Connection to towbar system preparation
- Towbar system control unit connection

Connect plug to the towbar system control unit (⇒ Figure 21 -2-)

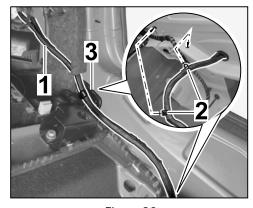


Figure 20

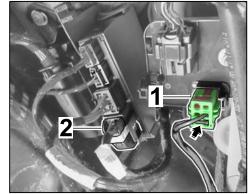


Figure 21

4.1 Install side trim panel for luggage

Concluding work

- compartment at the right side ( $\Rightarrow$  Workshop Manual '700319 Removing and installing side trim panel for rear luggage compartment).
- 4.2 Install cover for rear lock carrier ( ⇒ Workshop Manual '703919 Removing and installing cover for rear lock carrier).

Macan (95B)

14/20 ENU 6690



- 4.3 Install side trim panel for luggage compartment (loadspace cover) ( ⇒ Workshop Manual '700619 Removing and installing side trim panel for luggage compartment (luggage compartment cover)).
- 4.4 Install centre luggage compartment trim panel (luggage compartment cover) ( ⇒ Workshop Manual '700619 Removing and installing centre luggage compartment trim panel (luggage compartment cover)).
- 4.5 Convert rear panel ( ⇒ Workshop Manual '635619 Removing and installing rear panel').
- 4.6 Install rear apron ( ⇒ Workshop Manual '635519 Removing and installing rear apron').

#### Coding:

5 Code trailer hitch



#### Voltage drop

- Risk of irreparable damage to control unit
- Risk of damage to control unit
- · Fault entries in the control unit
- · Coding in the control unit is aborted
- · Malfunctions in control unit, even during programming
- ⇒ Switch off the ignition and remove the ignition key before disconnecting the control unit.
- ⇒ Ensure that the power supply is not interrupted during programming.
- ⇒ Connect a battery charger with a current rating of at least Nominal value 90 A to the vehicle battery.
  - 5.1 Connect battery charger (⇒ Workshop Manual '2X00IN battery trickle charging').



#### 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**.

- 5.2 **9900 PIWIS Tester 3** must be connected before switching on the ignition.
- 5.3 Select the required vehicle type. PIWIS Tester Diagnostics starts.
- 5.4 Maintenance of vehicle data
  - 5.4.1 Select Additional menu by pressing F7". Press F11" to confirm the question "Create Vehicle Analysis Log (VAL)?".

_	M	Macan (95B)			
6	6690	ENU 14/20			

- 5.4.2 Select the "Maintenance of vehicle data" function. Press F12" until "PR numbers" appears in the Value group column.
- 5.4.3 In the 'Family' column: Select "Towbar system".

Open the drop-down menu in the "Value" column and select "1D6 - Towbar system without ball hitch (USA)". Press • F12" to continue.

5.4.4 Selected values are displayed. Press •F8" to write values.

Wait until the message "Generation of vehicle data is complete. ..." appears.

- 5.4.5 Press F12" to switch to Report management.
- 5.4.6 Press F10" to open the log and check that vehicle equipment "1D6 Towbar system without ball hitch (USA)" is entered.

Close the log.

- 5.4.7 Press F11" to switch to the control unit overview.
- 5.5 Adapt coding.
  - 5.5.1 Select all control units with Ctrl A".
  - 5.5.2 Switch to the "Codings/adaptations" menu.
  - 5.5.3 Select function "Automatic coding". Press F12" to continue.
  - 5.5.4 Wait until the message "Coding has been completed successfully." appears. Press F12" to continue.
  - 5.5.5 Switch back to the "Overview!" menu.
- 5.6 Read out the fault memory of all systems, work through any existing faults and erase the fault memory ( ⇒ Workshop Manual '0335IN Diagnostic maintenance: Diagnostic system and maintenance inter...).
- 5.7 Switch off ignition and disconnect **9900 PIWIS Tester 3**.
- 5.8 Disconnect battery charger. ( $\Rightarrow$  Workshop Manual '2X00IN Battery trickle charging).

66 90 23 03: Mechanical towbar system (1 x) installed

Includes: Removing and installing rear panel, installing and coding

towbar system.

91 70 25 53: Lane Change Assist control unit programmed

discrepancy, the work procedures in the PIWIS Tester are the ones that must be followed.

Includes: Calibrating calibration plate on the vehicle.

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Labor time: 235 TU

Labor time: 47 TU