

ELV emulator

ELV Emulator is intended to be installed instead of the original Steering Column Lock (ELV)
Works with the VAG KESSY from 2002 to 2016

Supported models:

VW Touareg First generation (7L; 2002-2010)

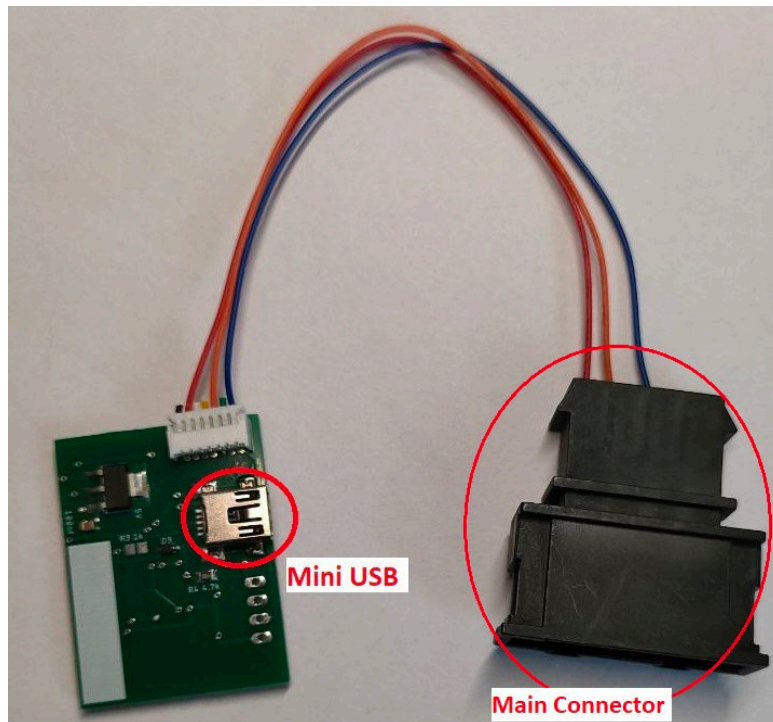
VW Phaeton (2005-2012)

Audi A8 Second generation (D3; Type 4E; 2002-2009)

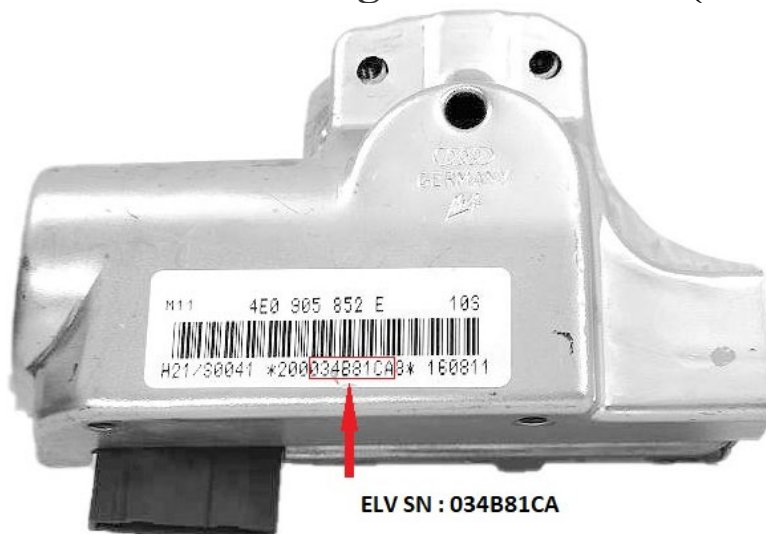
Porsche Cayenne First generation (E1 9PA; 2002-2010)

Bentley (2005-2016 with the Kessy ECU)

Emulator



Steering Column Lock (ELV)



Emulator connected to the car



The ELV emulator has two connectors and one LED

The main connector is used to connect emulator to the car

The mini-USB connector is used for programming the emulator

Before use, the Emulator must be programmed with the correct IMMO ID, ELV SN, and CS

The LED is ON when USB is connected and blinks when the emulator is exchanging data with the KESSY

How to use ELV emulator

1. Start the ELVtool program and connect the emulator to the computer with a USB cable
2. Write data into the emulator with ELVtool
3. Disconnect the USB cable
4. Install the emulator in the car
5. Remove the Original Steering Column Lock (ELV) from the car if it is stuck in the Locked position
6. Erase the Kessy Fault memory with the diagnostic tool
7. Perform ELV adaptation if you don't have the original ELV SN
8. Insulate the emulator with heat-shrink tubing

ELVtool can extract all necessary data from the KESSY EEPROM on Touareg, Cayenne, and Bentley models before 2008

ELV tool can extract ELV SN and IMMO ID from the Audi KESSY EEPROM

ELV tool can extract ELV SN and IMMO ID from the KESSY EEPROM after 2008

It is necessary to obtain the CS using a Key programmer (Autel, VVDI, CGPRO ...)

Or contact us for assistance with CS extraction

The emulator will be locked and permanently paired with the car after eight successful ignition cycles. It will no longer be possible to change the data in the emulator

Variant 1

Touareg, Cayenne or Bentley Kessy EEPROM **before 2008**

Calculate and write data into the emulator with ELVtool

No need to perform ELV adaptation

Erase the Kessy Fault memory if you can't turn the ignition ON

Watch "Variant 1" video

Variant 2

CS and **PIN** are available. There is no need to remove the Kessy and read EEPROM

ELV SN is printed on the ELV sticker or you can try to read it from **ORIGINAL ELV** with the diagnostic tool

Read **IMMO ID** with the diagnostic tool

Write the **IMMO ID** and **CS** into the emulator

Write **ELV SN** into the emulator, or leave as default (01020304) if you don't have the original ELV SN

No need to perform ELV adaptation if you programmed the original SN into the emulator

Erase Kessy Fault memory and perform ELV adaptation if you don't have original **ELV SN**

Watch "Variant 2" video

Variant 3

KESSY EEPROM from Audi

KESSY EEPROM from Touareg, Cayenne, Bentley EEPROM **after 2008**

ELVtool can calculate **IMMO ID** and **ELV SN**, but can't calculate **CS**

Contact us for assistance on **CS** extraction or using a Key programmer (Autel, VVDI, CGPRO ...)

After obtaining the **CS**, you can program the emulator with ELVtool

No need to perform ELV adaptation

Erase Kessy Fault memory if you can't turn the ignition ON

Watch "Variant 3" video

CS, PIN, IMMO ID with Autel

Porsche V1.31

Vehicle IMMO information 0.00V

VIN	WP1ZZZ9PZ
PIN	7583
CS code	F9 1D 49 78 39 FE 8B
IMMO code	VWZ3Z0D
Number of keys	02
Key ID 1 (hex)	2681700B

VIN:
Info:
SN:

OK

CS, PIN with VVDI

VVDI2 - VAG V1.0.8 Remaining Synchronization Time: 29 days

Options Diagnostic Key Learn Special Function

VW Touareg, Phaeton/Audi A8/Porsche Cayenne/Bentley 4th immobilizer system

Component security data

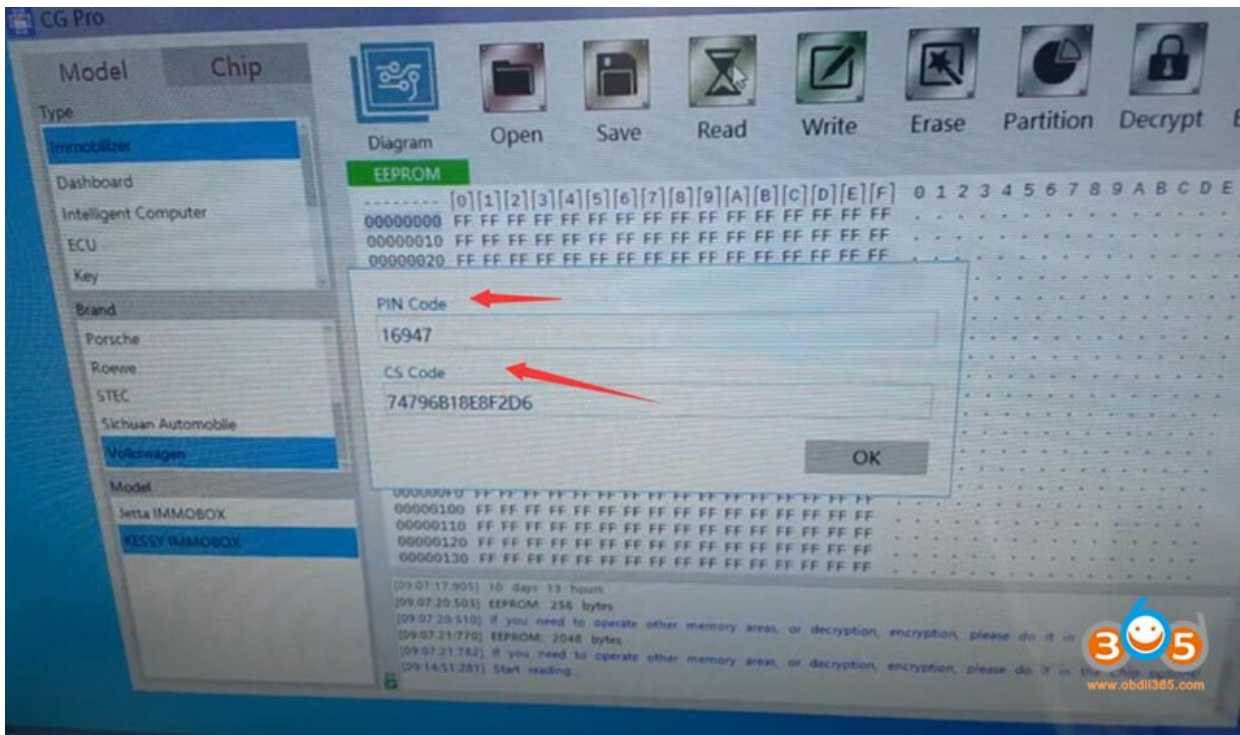
Component security bytes: 31 30 33 37 33 38 00

PIN(Login) code: 12079

MAC: 00000000

Reading data success.

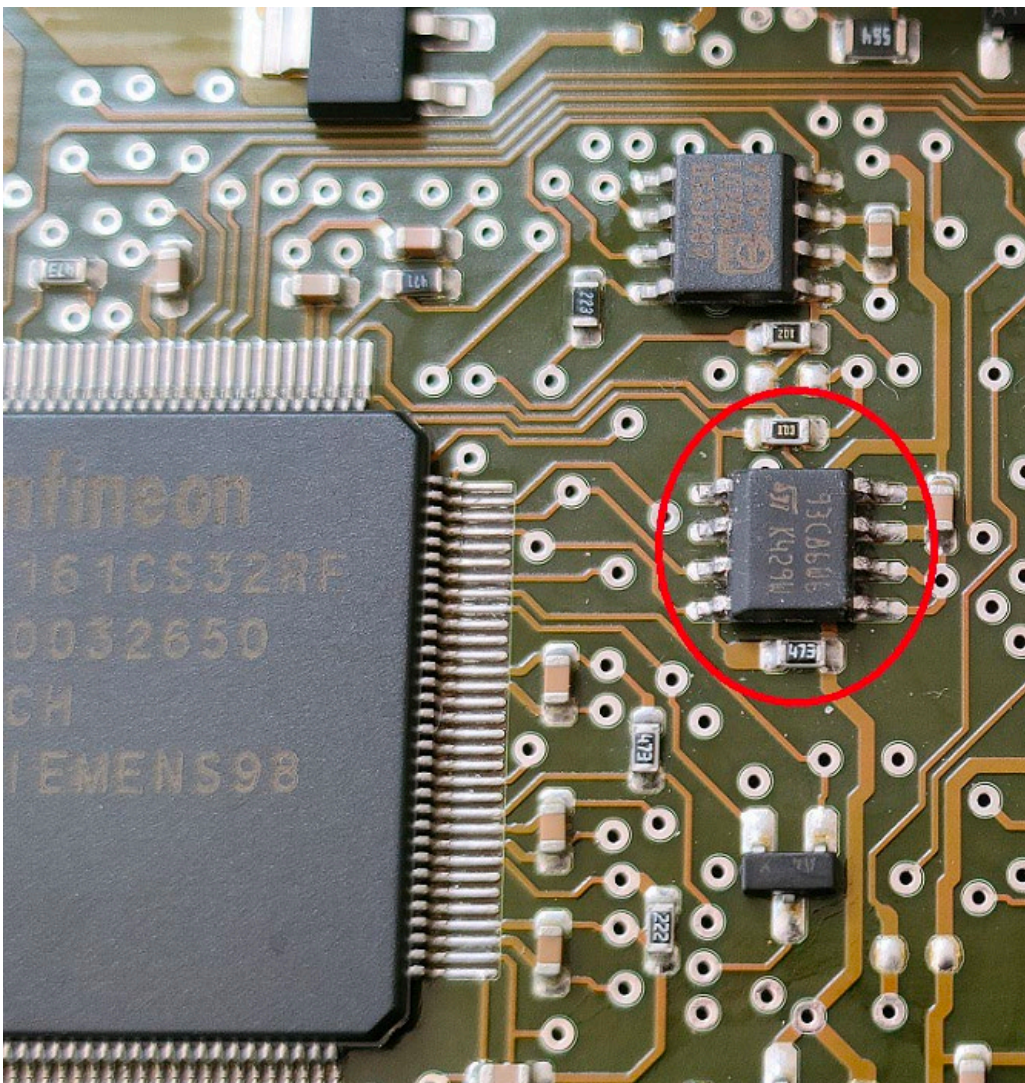
CS, PIN with CGPRO



Kessy



EEPROM



FAQ:

How to use the ELV tool?

Start the ELVtool Windows program and connect the emulator to the computer with a mini-USB cable

No need to install a driver. The emulator uses standard HID windows driver

Press the CONNECT button. You should get the message "ELV EMULATOR connected"

Watch "Variant 1" video"

What is IMMO ID, CS, ELV SN, PIN?

IMMO ID - VWZ3Z0D1258697 (14-digit Immobilizer ID number)

CS – 11223344556677 (7-digit crypto key)

ELV SN – 11223344 (4-digit ELV serial number)

PIN – 12345 (5-digit PIN code use for Key programming and ELV adaptation)

How to read Kessy EEPROM?

Use a quality programmer to read the EEPROM (93C86, 8 bits mode)

Do not attempt to read the EEPROM in-circuit unless you have experience!

Unsolder the chip or use Autel,VVDI,CGPRO

Check dump with ELVtool. You should see "EEPROM is correct"

Do I need a PIN code to use emulator?

The PIN code is used only to perform ELV adaptation if you don't have the original ELV SN

How to get ELV SN from original ELV sticker?

*200**034B81CA**8*

ELV SN : **034B81CA**

*200**5640AD3A**A*

ELV SN : **5640AD3A**

How to read ELV SN with diagnostic tool?

Use a suitable VAG diagnostic tool

Insert the key into the ignition switch and turn it counterclockwise. This will wake up the Kessy

Do not switch the ignition ON

Address 05 -> Meas.Block -> channel 31

Watch the "ElvSN Read" video

How to erase Kessy Fault memory?

Use a suitable VAG diagnostic tool

Insert the key into the ignition switch and turn it counterclockwise. This will wake up the Kessy

Address 05 -> Fault code -> Clear codes

Watch "FaultErase" video

How to read IMMO ID?

Use a suitable VAG diagnostic tool

Switch on the ignition or turn the key counterclockwise. This will wake up the Kessy

Address 05 -> Advanced ID

Watch "ReadImmID" video

How to perform ELV adaptation?

Use suitable VAG diagnostic tool

Insert the key into the ignition switch and turn it counterclockwise. This will wake up the Kessy

Address 05 -> Security Access -> Input PIN -> Adaptation channel 51

Watch "ElvAdaptation" video

How to check ELV status?

Use suitable VAG diagnostic tool

Insert the key into the ignition switch and turn it counterclockwise. This will wake up the Kessy

Address 05 -> Meas.Block -> channel 25

Status = INVALID POSSIBLE (ELV not adapted to the car, start engine is not allowed)

Status = VALID IMPOSSIBLE (ELV adapted to KESSY, start engine is allowed)

Watch "ElvAdaptation" video

Emulator LED not blinking when the Key is insert into the ignition switch

Need to erase Kessy Fault memory