

FanControl-U2 Installation in VAG vehicles

Module installation in VW Touareg (2011-2017) vehicles

Group 3, subgroup 1

Vehicle CAN bus:

- CAN-L – orange with a brown stripe
- CAN-H – orange with a violet stripe.

Factory control button:

- Central lock locking button located on driver's door.

Control by the factory remote control:

- Supported.

Control of a factory installed parking heater

A label located on the B-pillar under the driver's door indicates about presence of a factory heater.

The module allows switching on the factory heater for engine and interior warm-up from additional devices (GSM module, auxiliary car alarm etc.) through the external input, by the standard vehicle's button or by the factory remote control.

Module connection in the vehicle equipped with an activation timer

The module is connected to CAN bus at any convenient place, for instance, behind the climate system control unit. Module CAN 1 paired wire is used for connection. For detailed description of connection refer to Diagram 1.

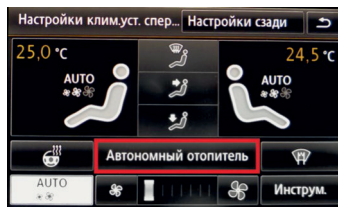


Figure 1

Module connection in the vehicle without an activation timer

The module is connected to the vehicle CAN bus by cutting into it right after the climate system control unit (Figure 2).

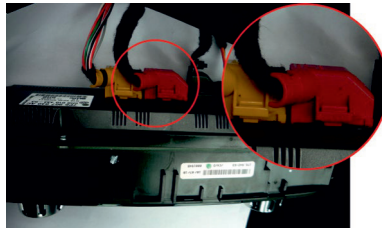


Figure 2

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then assemble it back using connector enclosures included in the kit (Figure 3).

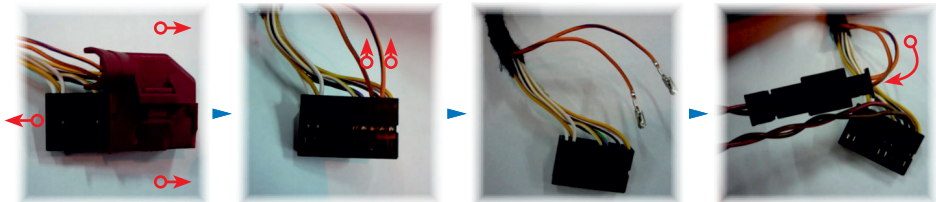


Figure 3

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 2.

Control of an aftermarket heater

The module allows switching on the vehicle climatic system in that mode which was used before ignition turn-off and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through external input, by the standard vehicle button and by the factory remote control.


Connection of the module

The module is connected in the same way as described above: into the vehicle CAN bus right after the climate system control unit. For detailed description of connection refer to Diagram 3.

 If installing heater on Volkswagen Touareg (2011–) with gasoline engine (3.6 L) it is possible for following error to happen: Engine fan switches to maximum speed and "Check-engine" error is detected. To remove the error service equipment is required.

It is possible to avoid «Check Engine» errors in the instrumental panel in case if they occur. In order to avoid the errors the module should be connected as follows:

- 1 – the blue/yellow wire of the FanControl must be connected to the digital control bus of an aftermarket engine heater.
- 2 – Engine heating temperature should be limited individually for each vehicle. This can be done with the built-in button or in TECprog.

 The module may be programmed to operate as follows: the climate control system will be activated if only the engine coolant is heated to 40 degrees. In order to program it this way the «Alternative algorithm 1» should be enabled. This may be done in TECprog or manually by using the built-in programming button:

1. Press and release the programming button 14 times in order to enter the 14-th menu of the Table 3.
2. The module will indicate a current status of the 14-th menu by a series of 1 LED flash.
3. Press the programming button 1 time to advance from the value 1 to the value 2.
4. The module will inform about the current status of the 14-th menu by a series of 2 LED flashes.

Module installation in Porsche Cayenne (2011-2017), Macan, Panamera (2009-2016)

Group 3, subgroup 3

Vehicle CAN bus:

- CAN-L – orange with a brown stripe
- CAN-H – orange with a violet stripe.

Factory control button:

- "Return" button on the steering wheel.

Control by the factory remote control:

- Supported.

Control of a factory parking heater or an auxiliary heater. Only for Porsche Cayenne (2011-2017).

The module may be controlled with additional devices (GSM module, an aftermarket car alarm, etc.) via one of the external inputs, with the standard vehicle button («Return» button located on the steering wheel) and with the factory remote control in order to activate a factory installed parking engine heater or a factory installed auxiliary engine heater.

The module is connected to the vehicle's CAN bus by cutting into it right behind the climate system control unit (Figures 4, 5).



Figure 4



Figure 5

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then assemble it back using connector enclosures included in the kit (Figure 6).

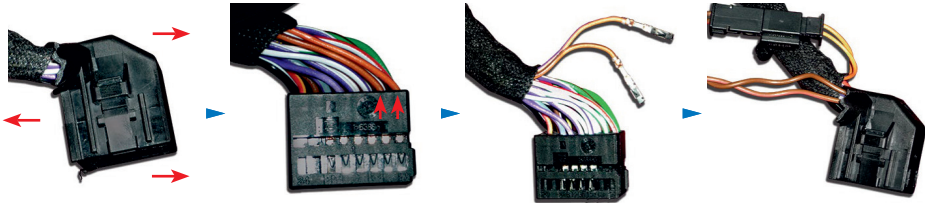


Figure 6

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 9.



Connect the yellow/red wire of the module (contact №14) to the brown/blue wire (contact №12 in the black 12-pin connector of the vehicle for proper heater electric water pump operation (see figures 7, 8).



Figure 7

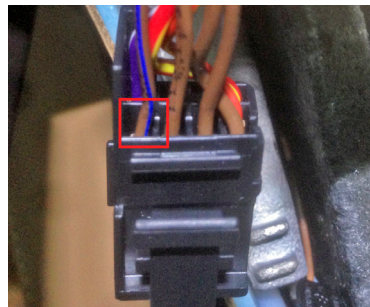


Figure 8

Control of a factory parking heater and an auxiliary heater. Porsche Cayenne (2011-2017), Panamera (2009-2016).

The module allows to switch on the factory heater for engine and interior warm-up from additional devices (GSM module, remote control of an aftermarket heater etc.) through the external inputs, by the standard vehicle button ("Return" button on the steering wheel) or by the factory remote control. Vehicles climatic system will operate in that mode which was used before ignition turn-off.

Module can be connected to CAN bus in any convenient place, for example behind the climate control unit. CAN 1 has to be used for connection. To control factory heater it has to be launched once from the main menu.

If the heater operates as preheater:

1. Connect red/black wire in the black connector of the heater (pin #3) to the ground through 70-100 Ohm\2.5 W resistor (figure 9)
2. Enable factory heater in the vehicle by using diagnostic equipment
3. Launch heater from the main menu (Outside temperature has to be lower than 4°C)

Check connection scheme 10 for detailed description.

Control of an aftermarket heater

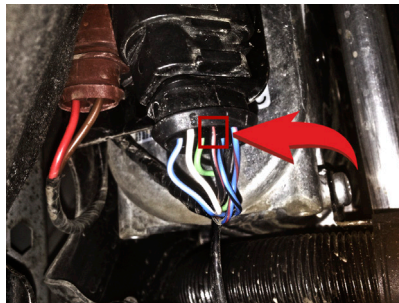


Figure 9

The module allows switching on the vehicle climatic system in that mode which was used before ignition turn-off and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through the external input, by the standard vehicle button ("Return" button located on the steering wheel) and by the factory remote control.

Module connection

The module is connected in the same way as described above: into the vehicle CAN bus right after the climate system control unit. For detailed description of connection refer to Diagram 3.

Module installation in Audi A6 (2011-2018), A7 (2010-2017)

<p>Group 3, subgroup 1 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – orange with a brown stripe • CAN-H – orange with a blue stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Central lock locking button located on driver's door. <p>Control by the factory remote control:</p> <ul style="list-style-type: none"> • Supported.
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Control of a factory parking heater (for Audi A6 (2011-2018 only)).

A sticker on the underside of the driver's door or on the B-pillar can be checked for presence of a factory parking heater in the vehicle.

The module may be controlled with additional devices (GSM module, an aftermarket car alarm, etc.) via one of the external inputs, with the standard vehicle button and with the factory remote control in order to activate a factory installed autonomous engine heater for engine and interior warm up.

If a vehicle is equipped with an activated control timer.

The module may be connected in any place, e.g. behind the climate control unit (figure 10). CAN1 of the FC module is used for connections. For detailed connections description refer to the diagram 1.

Control of an aftermarket heater

The module allows switching on a vehicle's climatic system and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through external input, by the standard vehicle button (central lock locking button located on driver's door) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it right after the climate system control unit (Figure 10).



Figure 10

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then assemble it again using connector enclosures included in the kit (Figure 11).

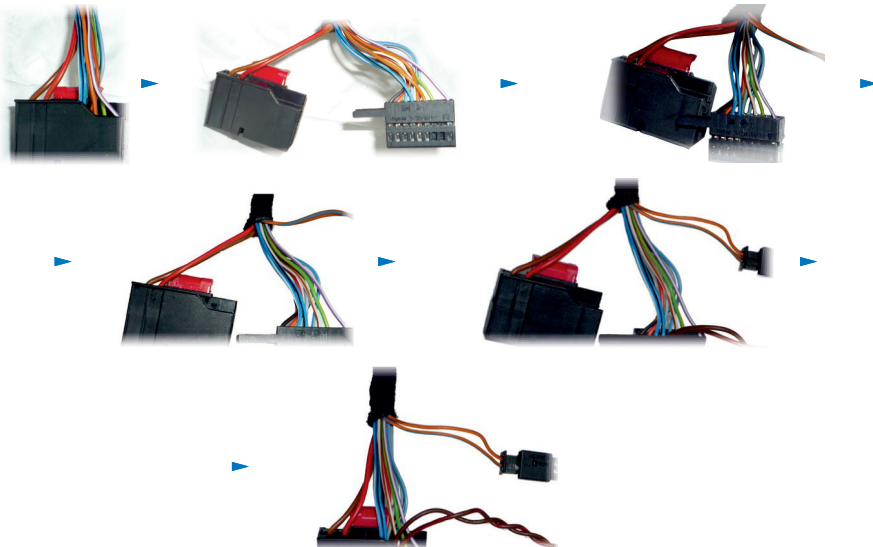


Figure 11

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 2.

Module installation in Audi A8 vehicles (2010-2017)

<p>Group 3, subgroup 1 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – orange with a brown stripe • CAN-H – orange with a violet stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Central lock locking button located on driver's door. <p>Control by the factory remote control:</p> <ul style="list-style-type: none"> • Supported.
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Control of an aftermarket heater

The module may be controlled with additional devices (GSM module, an aftermarket car alarm, etc.) via one of the external inputs, with the standard vehicle button and with the factory remote control in order to simultaneously activate an aftermarket engine heater and the climate control unit for engine and interior warm up.

Module connection

The module is connected to the vehicle CAN bus by cutting into it right after the climate system control unit (Figure 12).

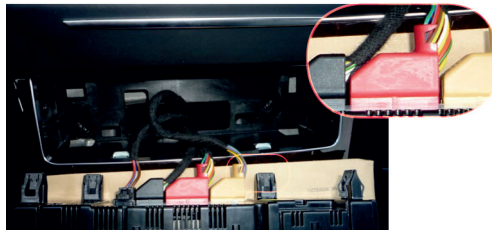


Figure 12

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then assemble it again using connector enclosures included in the kit (Figure 13).

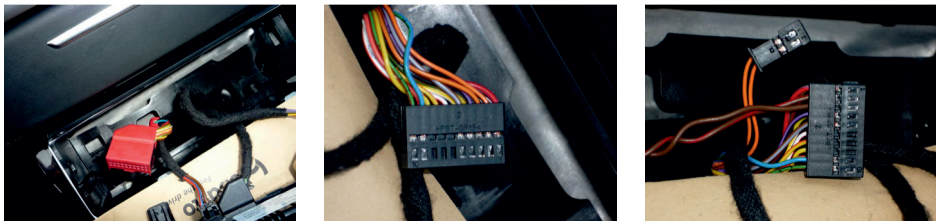


Figure 13

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 2.

Module installation in Audi A3 (2013--), Audi TT (2015--), VW Golf 7, Tiguan NF (2016--), Skoda Octavia 3 Kodiaq, VW Passat B8

Group 3, subgroup 2

Vehicle CAN bus:

- CAN-L – orange with a brown stripe
- CAN-H – orange with a green stripe.

Standard control button:

- Central lock locking button located on driver's door.

Control by the factory remote control:

- Supported.

Control of an aftermarket heater

The module allows switching on a vehicle's climatic system and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through external input, by the standard vehicle button (central lock locking button located on driver's door) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it right after the climate system control unit (Figure 14). For Audi TT (2015--) – behind the glovebox (figure 15).

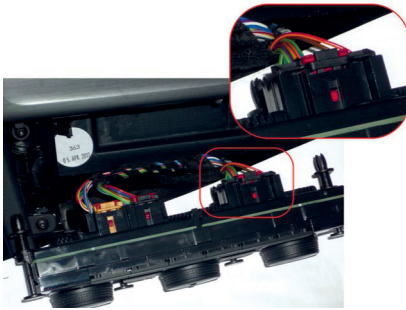


Figure 14

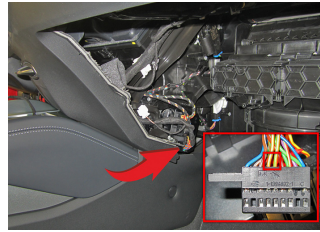


Figure 15

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then assemble it again using connector enclosures included in the kit (Figure 16).

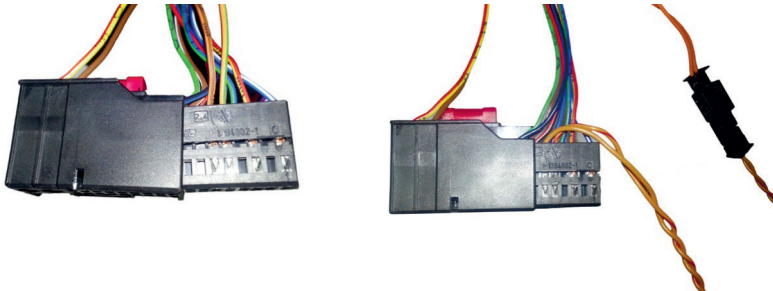


Figure 16

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 2.

Control of a factory parking heater in VW Golf 7, Skoda Octavia 3 and Tiguan NF (2016--) only

The module allows switching on the factory heater for engine and interior warm-up.

System installation

The module is connected to the vehicle interior CAN bus in any convenient place, for instance: behind climate system control unit. Module CAN 1 paired wire is used for connection.

Module installation in Audi Q7 (2015--)

<p>Group 3, subgroup 5 CAN-bus in the vehicle:</p> <ul style="list-style-type: none"> • CAN-L – orange with the brown stripe • CAN-H – black. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Central lock locking button on the driver's door.
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The module allows to simultaneously activate an aftermarket engine heater and the climate system control unit in the last mode used before turning the ignition off.



If the vehicle equipped with OEM electrical auxiliary air heater it must be switched OFF during FanControl module operation.

Control of an aftermarket heater

The module is connected to the vehicle CAN bus, connection can be made behind the left lick panel, in the red connector (figure 17).

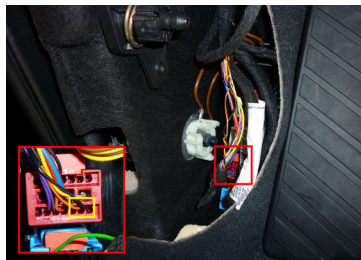


Figure 17

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side (harness going up), and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 2.

Control of a factory heater

<p>Group 3, subgroup 4 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – orange with a brown stripe • CAN-H – orange with a gray stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Central lock locking button on the driver's door.
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The module allows to activate a factory installed autonomous engine heater and the climate control unit.

Module connection

System connects to the CAN in the underhood harness (figure 18).

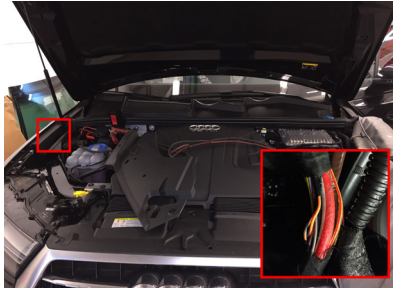


Figure 18

Module is connected with CAN 1 wires.
For detailed description of connection refer to Diagram 5.

Module application in Audi, A4 (2008-2015), Audi A5 (2007-2016), Audi Q5 (2008-2016)

Group 1, subgroup 1

Vehicle CAN bus:

- CAN-L – orange with a brown stripe
- CAN-H – orange with a blue stripe.

Standard control button:

- Central lock locking button located on driver's door.

Control by the factory remote control:

- Supported.

Control of an aftermarket heater

The module may be controlled with additional devices (GSM module, an aftermarket car alarm, etc.) via one of the external inputs, with the standard vehicle button and with the factory remote control in order to simultaneously activate an aftermarket engine heater and the climate control unit for engine and interior warm up.

Module connection

The module is connected to the vehicle CAN bus by cutting into it right after the climate system control unit (Figure 19) by paired wires CAN 1 and CAN 2.

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then assemble it again using connector enclosures included in the kit (Figure 20).



Figure 19

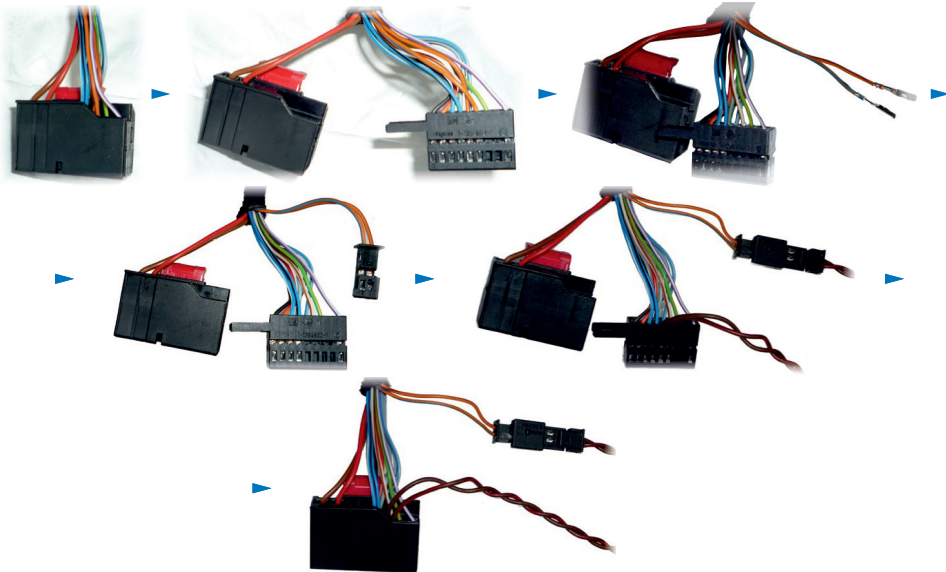


Figure 20

Module CAN 1 and CAN 2 paired wires are designed for connection of the module to CAN bus: CAN 2 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 4.

Control of a factory parking heater in Audi Q5

The module allows to switch on the factory heater for engine and interior warm-up from additional devices (GSM module, remote control of an aftermarket heater etc.) through the external inputs, by the standard vehicle button (central lock locking button) or by the factory remote control.

Vehicle's climatic system shall operate in that mode which was used before ignition turn-off.

Module connection

The module is connected to the vehicle interior CAN bus in any convenient place, for instance: behind climate system control unit. Module CAN 1 paired wire is used for connection.

For detailed description of connection refer to Diagram 1.

Module application in Audi Q7 (2011-2014), Q3 vehicles

For Audi Q7 group 1, subgroup 2
For Audi Q3 group 1, subgroup 3

Vehicle CAN bus:

- CAN-L – orange with a brown stripe
- CAN-H – orange with a green stripe.

Standard control button:

- Central lock locking button located on driver's door.

Control by the factory remote control:

- Supported.

Control of an aftermarket heater

The module allows switching on the vehicle climatic system in that mode which was used before ignition turn-off and simultaneously starting an aftermarket heater (start-up by means of output #9). The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through external inputs, by the standard vehicle button (central lock locking button located on driver's door) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it right after the climate system control unit (Figure 21) by paired wires CAN 1 and CAN 2.

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then assemble it again using connector enclosures included in the kit (Figure 22).



Figure 21

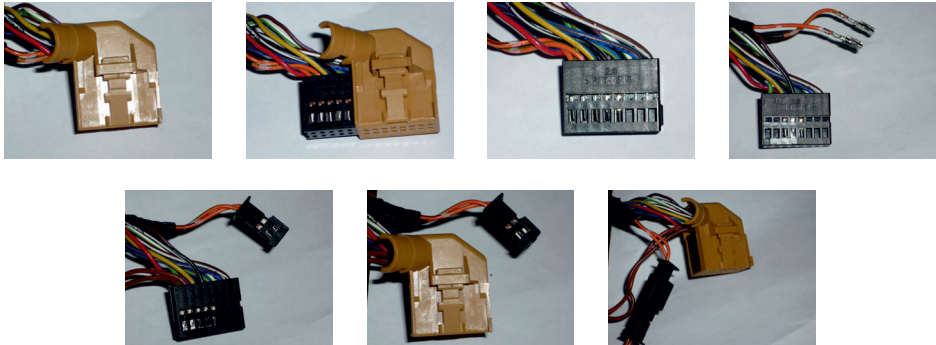


Figure 22

Module CAN 1 and CAN 2 paired wires are designed for connection of the module to CAN bus: CAN 2 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 4.

Control of a factory parking heater (only for AUDI Q7 2011-2014)

The module allows to switch on the factory heater for engine and interior warm-up from additional devices (GSM module, remote control of an aftermarket heater etc.) through the external inputs, by the standard vehicle button (central lock locking button) or by the factory remote control.

Vehicle's climatic system shall operate in that mode which was used before ignition turn-off.

Module connection

The module is connected to the vehicle interior CAN bus in any convenient place, for instance: behind climate system control unit. Module CAN 1 paired wire is used for connection.

For detailed description of connection refer to Diagram 1.

Module application in VW Passat B6, Passat CC, VW Golf 5, VW Jetta (2006--), VW Golf Plus, VW Caddy (2004--), VW Touran, VW Tiguan (2007-2016); Skoda Octavia 2, Skoda Superb (2009-2015); Seat Altea (2004--), Leon (2006--)

<p>Group 11, subgroup 2 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – orange with brown stripe • CAN-H – orange with green stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Central lock locking button located on driver's door. <p>Control by the factory remote control:</p> <ul style="list-style-type: none"> • Supported.
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Control of an aftermarket heater

The module allows switching the vehicle climatic system in special “blow-off” mode and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through external inputs, by the standard vehicle button (central lock locking button located on driver's door) and by the factory remote control.

Module connection

Module CAN 1 and CAN 2 paired wires are designed for connection of the module to CAN bus: CAN 2 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.(Figure 21).

For detailed description of connection refer to Diagram 6.

Output #14 of the module is used to control climate-control unit while ignition is off. Output #14 is connected to the wire going into pin #20 of the 20 pin unit connector of the climate control unit (Figure 23) by using diode harness TEC-4115 (included). Output is not used if connected to the VW Passat CC.

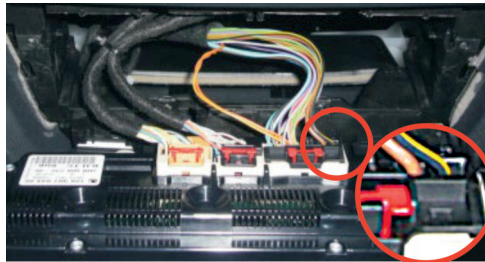


Figure 23

Control of a factory parking heater or an auxiliary engine heater

The module may be controlled with additional devices (e.g. GSM module, an aftermarket car alarm, etc.) connected to one of the external inputs, with the standard vehicle button and with the factory remote control in order to simultaneously activate a factory installed engine heater and the climate control unit for engine and interior warm up. The climate control unit is activated in the last used mode before turning the ignition off.

Module connection

Module CAN 1 and CAN 2 paired wires are designed for connection of the module to CAN bus: CAN 2 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 7.

The output №14 of the module is used to activate the climate-control unit while the ignition is off. The output №14 is connected to the wire going into the pin №20 of the 20-pin connector of the climate control unit (figure 23) by using diodes as shown in the diagram 7. The output №5 of the module is connected to the pin 2 of the 8-pin connector with the included wire with pin that has to be installed into stock heater connector (Figure 24). Connection is performed on the right side behind the front bumper (for ease of access it is recommended to dismount the fog light).



The vehicles equipped with the factory installed auxiliary engine heater Webasto with the updated firmware in 2010 year, require installation of the eFC-VAG module otherwise it is not possible to control the engine heater. The output №5 of the FC U2 module is not used when installing the eFC-vag module regardless of Webasto firmware version. eFC-vag was designed for vehicles with diesel engines only.



Figure 24

Module application in VW Multivan T5 (2003–2009), VW Multivan T5 (2010--) and VW Amarok (2010–2016)

Group 11, subgroup 1

Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – orange with green stripe.

Standard control button:

- Not supported.

Control by the factory remote control:

- Supported.

Control of a factory parking heater

The module may be controlled with additional devices (e.g. GSM module, an aftermarket car alarm, etc.) connected to one of the external inputs, with the standard vehicle button and with the factory remote control in order to simultaneously activate a factory installed engine heater for engine and interior warm up. Some vehicle configurations do not allow to use a standard vehicle button (central locking «lock» button on the driver's door) to control the engine heater.

Module connection

The FC module is connected to the vehicle CAN-bus in one of the convenient places, e.g.: under the driver's sit, behind the climate control unit, behind the glove box, under the front right sit. CAN1 is used for connections and CAN2 is not used.

The output №5 of the module (digital bus for heater control) is connected to the pin №1 of the 6-pin factory heater connector by using the wire with the connector included in standard kit.

In VW Multivan the engine heater is located on the left side of the underbody (driver's seat area) and is protected with a cover. The heater connectors are located on the top of the heater and it may be hard to reach them (figures 25-26).

It is not necessary to connect the output №5 of the FC U2 module in case if the vehicle is equipped with a factory activation timer because in this case the factory heater is controlled via the vehicle's CAN-bus. In VW Amarok the engine heater is located under the hood.

For detailed connection description refer to the diagram 8.

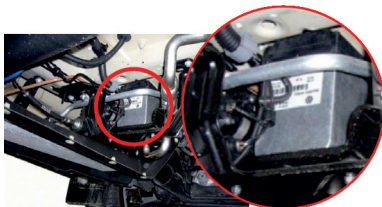


Figure 25

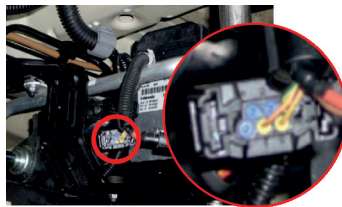


Figure 26

Control of an aftermarket heater in Amarak

The module allows switching on the vehicle climatic system in that mode which was used before ignition turn-off and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through the external input and by the factory remote control.

In some trims heater cannot be started by standard control button.

Module connection

Module CAN 1 and CAN 2 paired wires are designed for connection of the module to CAN bus: CAN 2 is connected to the climate control units side of the bus (figures 27, 28) and CAN1 – from vehicles side.



Figure 27

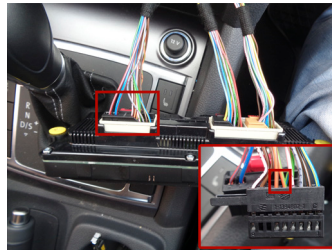


Figure 28

For detailed description of connection refer to Diagram 4



By default the climatic system turns on in default "blow-off" mode. The module can be set in such a way as to provide triggering the climatic system in the last mode before the ignition had been turned off.

Last mode set up:

1. Within 10 sec after turning the ignition on press the programming button 14 times.
2. The module shall inform about menu item status with single flash series.
3. Press the programming button 1 time.
4. The module shall inform about menu item status with double flash series.
5. Wait for 15 sec.
6. If setting has been saved successfully then the LED shall flash 4 times.
7. If error – 1 long flash

Module application in VW Passat B7

Group 11, subgroup 1

Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – orange with green stripe.

Standard control button:

- Central lock locking button located on driver's door.

Control by the factory remote control:

- Supported.

Control of an aftermarket heater

The module allows switching on the vehicle climatic system in that mode which was used before ignition turn-off and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through the external input, by the standard vehicle button ("Return" button located on the steering wheel) and by the factory remote control.

Module connection

Module CAN 1 and CAN 2 paired wires are designed for connection of the module to CAN bus: CAN 2 is connected to the bus from the climate system control unit side (Figure 29), and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 6.



Figure 29

Module application in VW Touareg (2006–2010)

Group 11, subgroup 1

Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – orange with green stripe.

Standard control button:

- Central lock locking button located on driver's door.

Control by the factory remote control:

- Supported.

Control of a stock (factory) heater

A label located on the B-pillar under the driver's door indicates about presence of a factory heater.

The module allows to switch on the factory heater for engine and interior warm-up from additional devices (GSM module, remote control of an aftermarket heater etc.) through the external inputs, by the standard vehicle button (central lock locking button) or by the factory remote control.

Module connection

Module is connected to interior CAN bus, for example behind climate control unit (Figure 30). Only CAN 1 wires are used.

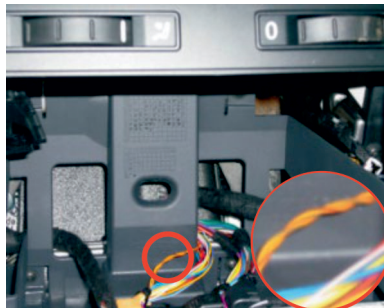


Figure 30

Output #5 of the module connects to the pin 1 of 6 pin connector with the included wire with pin that has to be installed into stock heater connector (Figure 31). Connection has to be performed behind the left front wheel.

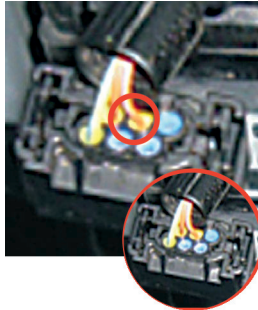


Figure 31

For detailed description of connection refer to Diagram 8.

Control of an aftermarket heater

The module allows switching the vehicle's climatic system in special "blow-off" mode and simultaneously starting an aftermarket heater. The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through external inputs, by the standard vehicle button (central lock locking button located on driver's door) and by the factory remote control.

Module connection

Module CAN 1 and CAN 2 paired wires are designed for connection of the module to CAN bus: CAN 2 is connected to the bus from the climate system control unit side (Figure 32), and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 2.

Module application in VW Crafter (2011-2016)

<p>Group 13, subgroup 1 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – brown • CAN-H – brown with red stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Steering wheel button "Down". <p>Control by the factory remote control:</p> <ul style="list-style-type: none"> • Supported.
---	--

Control of an aftermarket heater

Connection is performed to the CAN bus going to the KLA unit.

- Brown-red (CAN-H)
- Brown (CAN-L)



Figure 32

Module has to be cutted into CAN bus going into KLA unit. CAN 1 and CAN 2 pairs are used to connect module to the CAN bus: CAN 2 has to be connected from the side of KLA unit and CAN 1 from the vehicle's side. It is recommended to disassemble KLA connector, and then assemble it (use included pin covers). This way factory wiring will not be altered.

For detailed description of connection see Diagram 11.

! Climate control system will turn on in the last mode.

Control of a factory auxiliary engine heater

Connection is performed by cutting into the CAN bus going to the KLA unit.

- Brown-red (CAN-H)
- Brown (CAN-L)

Module has to be cutted into CAN bus going into KLA unit. CAN 1 and CAN 2 pairs are used to connect module to the CAN bus: CAN 2 has to be connected from the side of KLA unit and CAN 1 from the vehicle's side. Connection can be made in the power distribution unit behind the glovebox (figure 33).

Connection is made by using twisted pair X30/24.6.

For detailed description of connection see Diagram 11.

It is recommended to disassemble corresponding connector, and then assemble it (use included pin covers). This way factory wiring will not be altered.

! Climate control system will turn on in the last mode. Factory heater control regulator has to be toggled in auxiliary heating mode.

If vehicle is equipped with mechanical temperature and airflow controls, connect green/black wire (pin №15) of the unit to the black/red wire of the climate system through a relay (pin №5) (Figure 34).

For detailed description of connection see Diagram 12.

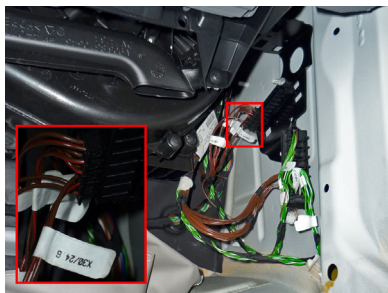


Figure 33

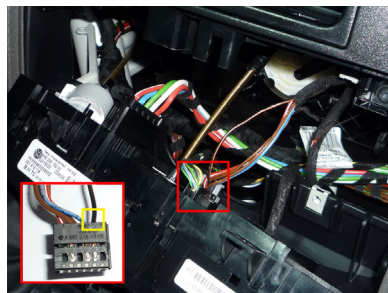


Figure 34

Module application in Multivan T6 (2015-2016)

Group 11, subgroup 3

Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – orange with green stripe.

Standard control button:

- Not supported.

Control via vactory remote control:

- Supported.

Control of an aftermarket heater

The module is connected to the vehicle's CAN-bus which leads to the KLA unit. CAN1 and CAN2 of the FC module are connected to the vehicle's CAN-bus in series. CAN2 is connected towards the KLA unit and CAN1 to the opposite direction (to the vehicle's side).

It is recommended to disassemble the relevant vehicle connectors and reassemble them using special plastic connectors included in standard kit. This way the vehicle wiring will not be harmed.

For detailed connection description refer to the diagram 4.

! Climate control unit is activated in the last mode used before turning the ignition off.

Control of a factory auxiliary engine heater

The module has to be connected in series to the vehicle's CAN-bus going into the KLA unit and the factory heater. CAN2 is connected towards the KLA unit and the factory heater and CAN1 to the vehicle's side. Connection to the engine heater may be performed under the driver's seat in the red connector (figure 35).

For detailed description of connection see Diagram 15.

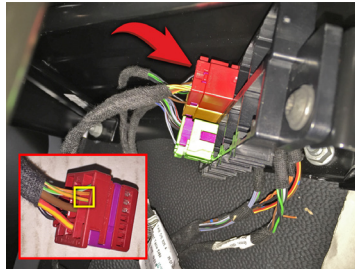


Figure 35

If the vehicle is equipped with the climate control unit which has mechanical air temperature and air flow direction regulators then in order to activate the heater fan it is necessary to connect the green/black wire (pin №15) to the red/yellow wire of the climate control unit via a relay (figure 36). It is also necessary to activate the heater's electric pump: the yellow/red wire (pin №14) of the module shall be connected to the yellow/green wire of the climate control unit (figure 37).

For detailed description of connection, see Diagram 14.

! Climate control unit is activated in the last mode used before turning the ignition off.

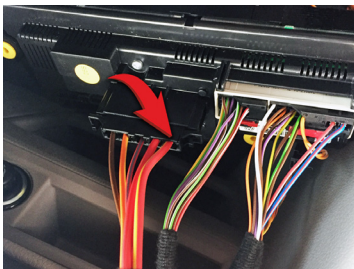


Figure 36

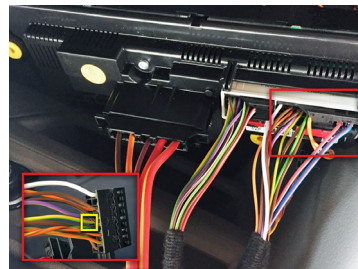


Figure 37

Control of a factory parking heater (if equipped with a factory activation timer)

! Maximum engine heater operation time is limited by 30 minutes.

Group 11, subgroup 1

Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – orange with green stripe.

Standard control button:

- Not supported.

Connection

The module is connected to the vehicle interior CAN bus in any convenient place, for instance: behind climate system control unit. Module CAN 1 paired wire is used for connection.

For detailed description of connection refer to Diagram 5.

Module application in Audi A4 (2015--), Audi Q5 (2017--), Audi A5 Coupe (2017--), Audi A5 Sportback (2017--)

Control of an aftermarket heater

Group 3, subgroup 6

Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – black.

Standard control button:

- Central lock locking button located on driver's door.

The module allows switching on the vehicle climatic system in that mode which was used before ignition turn-off and simultaneously starting an aftermarket heater.

Connection of the module

System is connected by cutting into the CAN-bus behind the left kick panel in the red connector (figure 38).

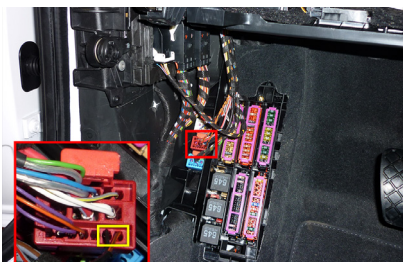


Figure 38

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side. For detailed description of connection, refer to Diagram 2.

Control of a factory heater for Audi A4 (2015--)

Group 3, subgroup 4

Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – orange with grey stripe.

Standard control button:

- Central lock locking button located on driver's door.

The module allows switching on a vehicle's climatic system and simultaneously starting the heater.

Connection of the module

System is connected to CAN-bus in harness behind the left kick panel (figure 39).

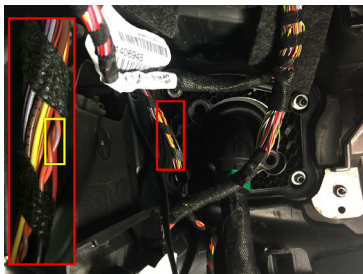


Figure 39

Module CAN 1 paired wire is used for connection. For detailed description of connection refer to Diagram 5.

Module application in Multivan T6 (2016--), VW Amarok (2017--)

<p>For a factory heater: Group 11, subgroup 5 For an aftermarket heater Group 11, subgroup 3 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – orange with brown stripe • CAN-H – orange with green stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Not supported. <p>Control via factory remote control:</p> <ul style="list-style-type: none"> • Supported.
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Control of an aftermarket heater

Connection to the vehicle's CAN-bus is performed behind the KLA unit. CAN2 should be connected towards the KLA unit and CAN1 to the vehicle's side (figure 40-41). It is recommended to disassemble a relevant vehicle's connector and then reassemble it using plastic connectors included in standard kit. For detailed connection description refer to the diagram 4.

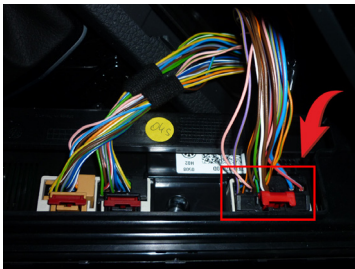


Figure 40



Figure 41

! Climate control unit is activated in the last mode used before turning the ignition off.

Control of a factory auxiliary engine heater

Connection to the vehicle's CAN-bus is performed behind the KLA unit. CAN2 should be connected towards the KLA unit and CAN1 to the vehicle's side (figures 40-41). For detailed connection description refer to the diagram 2.

! Climatic system turns on in the last used mode. Connection to electric pump is required.

If vehicle is equipped with climate control with mechanical air temperature and blow direction controls, connect green/black wire (pin №15) of the module to the red/yellow wire at the climate control through a relay (figure 42).

For detailed description of connection refer to Diagram 16.

! Climate control system will turn on in the last mode.

Control of a factory parking heater (with a factory activation timer)

! Maximum module operation time is limited by 30 minutes.



Figure 42

Group 11, subgroup 1
Vehicle CAN bus:

- CAN-L – orange with brown stripe
- CAN-H – orange with green stripe.

Standard control button:

- Not supported.

Connection of the module


Figure 43

The module is connected to CAN bus at any convenient place, for instance, behind the climate system control unit. Module CAN 1 paired wire is used for connection. For detailed description of connection refer to Diagram 5.

Module application in VW Caddy (2017--)
Group 11, subgroup 6 (gasoline engine)
Vehicle CAN bus:

- CAN-L – orange/brown.
- CAN-H – orange/violet.

Group 11, subgroup 7 (diesel engine)
Vehicle CAN bus:

- CAN-L – orange/brown.
- CAN-H – orange/violet.

Factory control button:

- Central lock locking button located on driver's door

Control of a factory auxiliary engine heater (with «Climatic» manual air conditioner)

Module has to be cut into CAN bus going into factory heater. CAN 1 and CAN 2 pairs are used to connect module to the CAN bus: CAN 2 has to be connected from the side of factory heater and CAN 1 from the vehicle's side (see fig. 44)

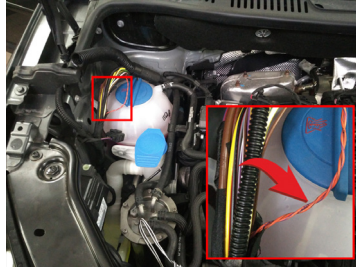


Figure 44

For activation of the heater fan the green/black wire (pin N°15) of the FC module should be connected to the ignition wire of the climate control unit connector via a relay.
For detailed description of connection, see Diagram 13.

! Climate control system is activated in the last mode used before turning the ignition off.

Module application in VW Crafter (2017--)

Group 3, subgroup 7

Vehicle CAN bus:

- CAN-L- orange with brown stripe
- CAN-H- orange with green stripe

Factory control button:

- Central lock locking button located on driver's door

! Climate control system is activated in the last mode used before turning the ignition off.

Control of an aftermarket heater:

The FC U2 module simultaneously activates the engine heater and the climate control system in the last mode used before turning the ignition off.

Connection of the module

Module is connected by cutting into the CAN-bus right behind the climatic control unit (figure 45).



Figure 45

When connecting the module to the CAN bus it is recommended to disassemble the relevant vehicle connector and then reassemble connector enclosures included in the kit (Figure 20).

Module CAN 1 and CAN 3 paired wires are designed for connection of the module to CAN bus: CAN 3 is connected to the bus from the climate system control unit side, and CAN 1 – from the vehicle's side.

For detailed description of connection refer to Diagram 2.

Control of a factory auxiliary engine heater

! Installation of eFC-VAG V2 module is required together with FanControl module. Please refer to the appropriate eFC-VAG V2 installation manual.

Control of a factory auxiliary engine heater

<p>Group 3, subgroup 8 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – orange with brown stripe • CAN-H – orange with violet stripe 	<p>Factory control button:</p> <ul style="list-style-type: none"> • Central lock locking button located on driver's door
--	--

! Connection to a circulation pump required. Herewith, climate control unit activation via the CAN-bus is not carried out.

The module is connected to vehicle CAN-Bus by parallel. The connection is performed in heater wiring harness under the driver's seat (figure 46).

For more detailed connection description please see diagram 17.



Figure 46

Module installation in Porsche Cayenne (2018--)

! This car is compatible with FanControl U2 module only.

Control of an aftermarket engine heater

<p>Group 3, subgroup 5 Vehicle's CAN-bus:</p> <ul style="list-style-type: none"> • CAN-L – orange with a brown stripe • CAN-H – pink. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Central locking «lock» button located on the driver's door
--	---

The module allows to activate the climate control unit in the last mode used before switching the ignition OFF and to simultaneously actuate an aftermarket engine heater.

! If the vehicle equipped with OEM electrical auxiliary air heater it must be switched OFF during FanControl module operation.

The module is connected by cutting into the CAN-bus (series connection), it is possible to perform the connection behind the left kick panel (green connector), (figure 47).

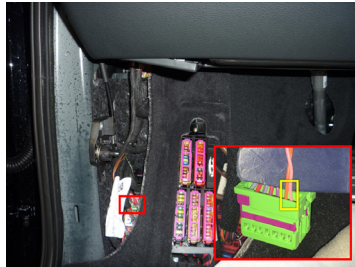


Figure 47

The module CAN-1 twisted pair and CAN-3 must be connected to the vehicle's CAN-bus as follows: CAN-3 is connected towards the climate control unit side (the wire harness which goes up), and CAN-1 towards the vehicle's side (opposite direction).

For more detailed connection description refer to the connection diagram 2.

Module installation in Porsche Panamera (2018--)

! This car is compatible with FanControl U2 module only.

Control of an aftermarket engine heater

<p>Group 3, subgroup 5 Vehicle's CAN-bus;</p> <ul style="list-style-type: none"> • CAN-L – orange/brown • CAN-H – orange/white 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Central locking «lock» button located on the driver's door
---	---

The module allows to activate the climate control unit in the last mode used before switching the ignition OFF and to simultaneously actuate an aftermarket engine heater.

! If the vehicle equipped with OEM electrical auxiliary air heater it must be switched OFF during FanControl module operation.

Module connection

The module is connected by cutting into the CAN-bus (series connection), it is possible to perform the connection behind the left kick panel (brown connector), (figure 48).

The module CAN-1 twisted pair and CAN-3 must be connected to the vehicle's CAN-bus as follows: CAN-3 is connected towards the climate control unit (to the wire harness side), and CAN-1 towards the vehicle (to the brown connector).

For more detailed connection description refer to the connection diagram 2.

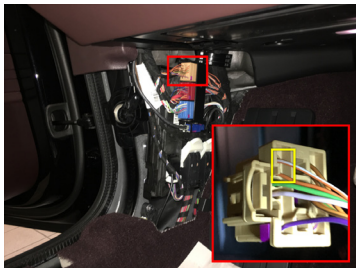


Figure 48

Module installation in VW Toureg (2018--)

Control of an aftermarket engine heater.

Group 3, subgroup 9

Vehicle's CAN-bus:

- CAN-L – orange/brown
- CAN-H – Pink

Standard control button:

- Central locking «lock» button located on driver's door

The module allows to activate the climate control unit in the last mode used before switching the ignition OFF and to simultaneously actuate an aftermarket engine heater.



If the vehicle equipped with OEM electrical auxiliary air heater it must be switched OFF during FanControl module operation.



The value 2 of the option №44 «Engine heater automatic shutdown» should be changed to the value 1 in case if errors occur after the ignition is switched ON while the engine heater is running.

Module connection

The module is connected by cutting into the CAN-bus (series connection), it is possible to perform the connection behind the left kick panel (black connector), (figure 49).

The module CAN-1 twisted pair and CAN-3 must be connected to the vehicle's CAN-bus as follows: CAN-3 is connected towards the connector of the BCM module, and CAN-1 towards the vehicle (to the wire harness).

Besides that it is needed to connect the LIN-bus - pin №1 violet/white wire of the vehicle's red connector (figure 50). The module LIN1 and LIN2 are connected to the vehicle's LIN-bus by series: LIN1 towards the vehicle and LIN2 towards the light control button.

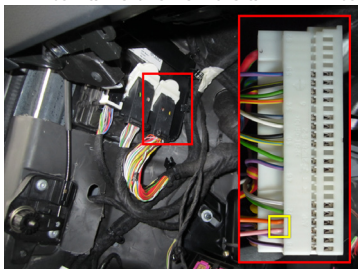


Figure 49

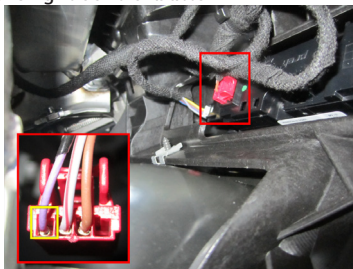


Figure 50

For more detailed connection description refer to diagram №18.

Module installation in VW Toureg (2018--)

Control of a factory parking heater

Group 3, subgroup 4

Vehicle's CAN-bus:

- CAN-L – orange/brown
- CAN-H – or violet

Standard control button:

- Central locking «lock» button located on driver's door

The module activates the factory autonomous engine heater and the climate control unit.

Module connection

Connect the module behind the left kick-panel in the red connector (figure 51). For more detailed dconnection description refer to the connection diagram 19.



Figure 51

Audi A6 (2019--), A7 (2018--), A8 (2018--), Q8 (2018--)

Control of an aftermarket engine heater

Group 3: Subgroup 9:

CAN bus in the vehicle:

- CAN-L: orange/brown (pin №41);
- CAN-H: green (pin №40)

Standard control button:

- central door locking «lock» button located on the driver's door.

The FanControl system activates the engine heater and the climate control unit in the last mode that was used before turning the ignition off.



If the vehicle equipped with OEM electrical auxiliary air heater it must be switched OFF during FanControl module operation.



The FanControl system is turned off after driver's door opening or after applying on the brake pedal.

Module connection

The module is connected to the vehicle's CAN-bus by series connection fore example, behind the left kick panel in the black connector (see figure 52, 53).

CAN3 is connected towards the vehicle's connector and CAN1 towards the wire harness (to the vehicle). It is also required to connect to LIN-bus of the lights control button- violet/white wire pin №1 (figure 54). It is connected in series: LIN2 is connected towards the lights control button and LIN1 to the wire harness (opposite direction).

For detailed connection description refer to the Diagram 18.

Audi A8 (2018--), Q8 (2018--)

Control of a factory parking heater

Group 3: Subgroup 4:

CAN bus in the vehicle:

- CAN-L: orange/brown;
- CAN-H: orange/violet or violet

Standard control button:

- central door locking «lock» button located on the driver's door.

The FanControl module activates the factory autonomous engine heater and the climate control unit.

Module connection

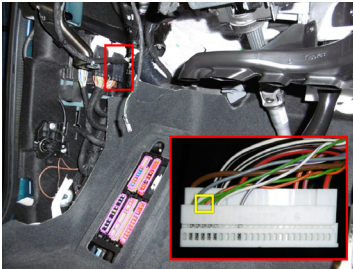


Figure 52 (A6, A7, Q8)



Figure 53 (A8)

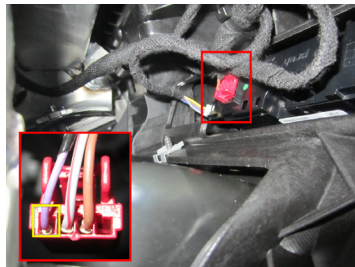


Figure 54

In Audi A8 connection to the CAN-bus is performed behind the left kick panel in the red connector (see figure 55). In Audi Q8 connection is performed at the head multimedia unit behind the glovebox (see figure 56).

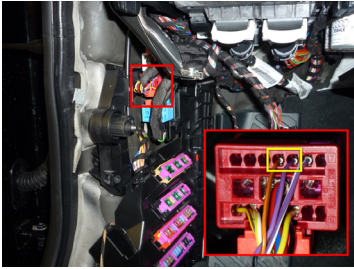


Figure 55

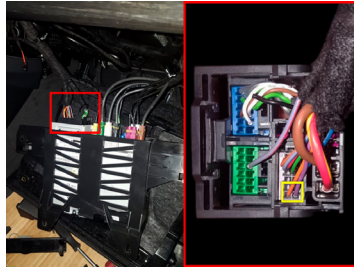


Figure 56

Only CAN1 paired wires of the FanControl module are used for connection, parallel connection method is used.
For detailed connection description refer to the Diagram 19.

Diagram 1

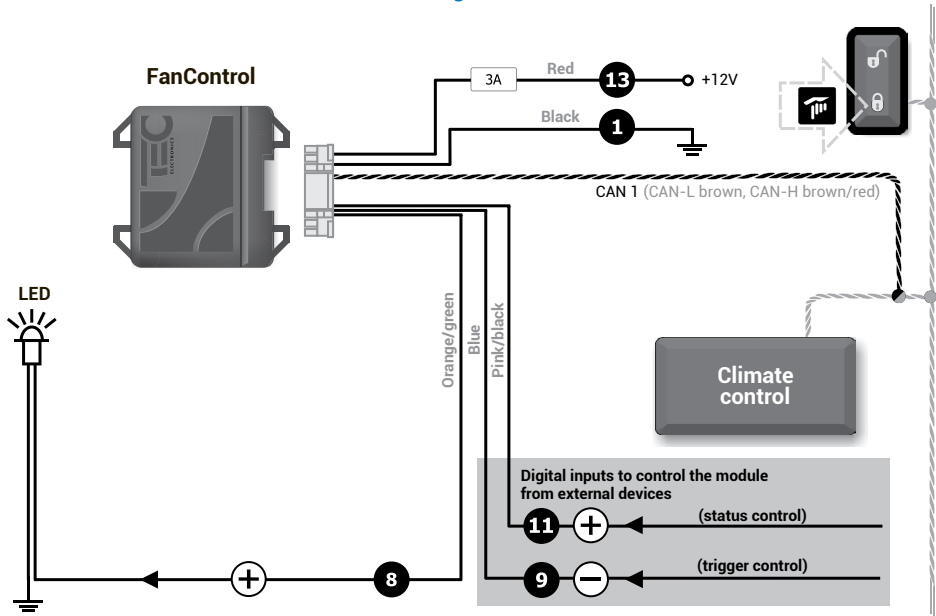
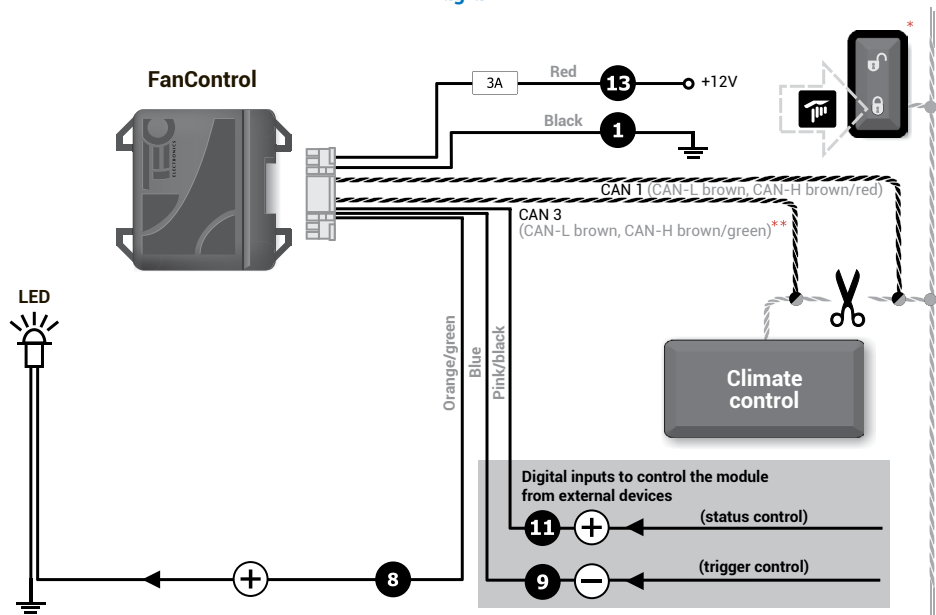


Diagram 2



Return button located on the steering wheel is used in Porsche Cayenne vehicles.

** On VW Touareg (2003-2010), Multivan T6 (2016--), VW Amarok (2017--) is connected CAN 2.

Diagram 3

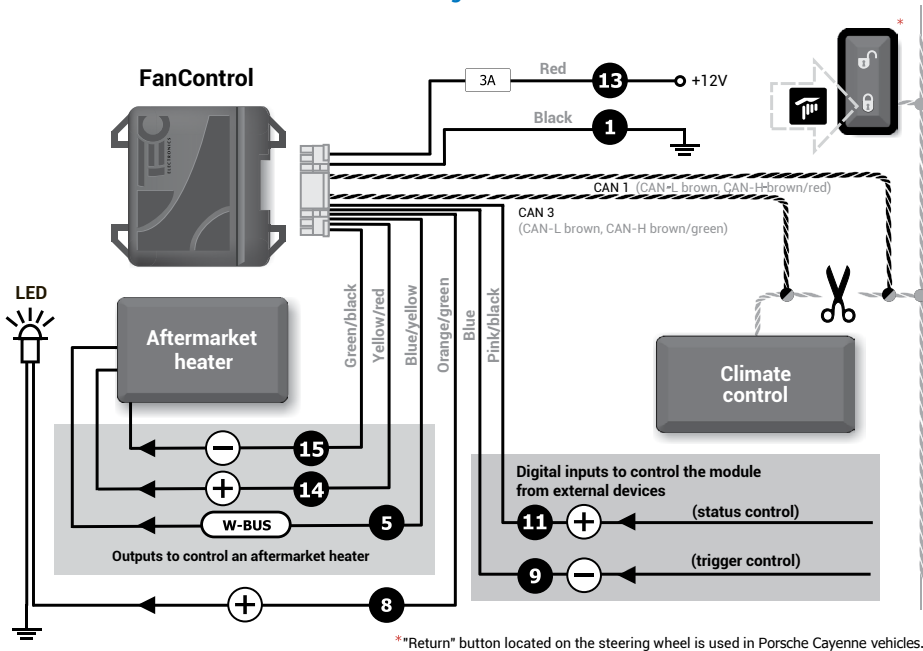


Diagram 4

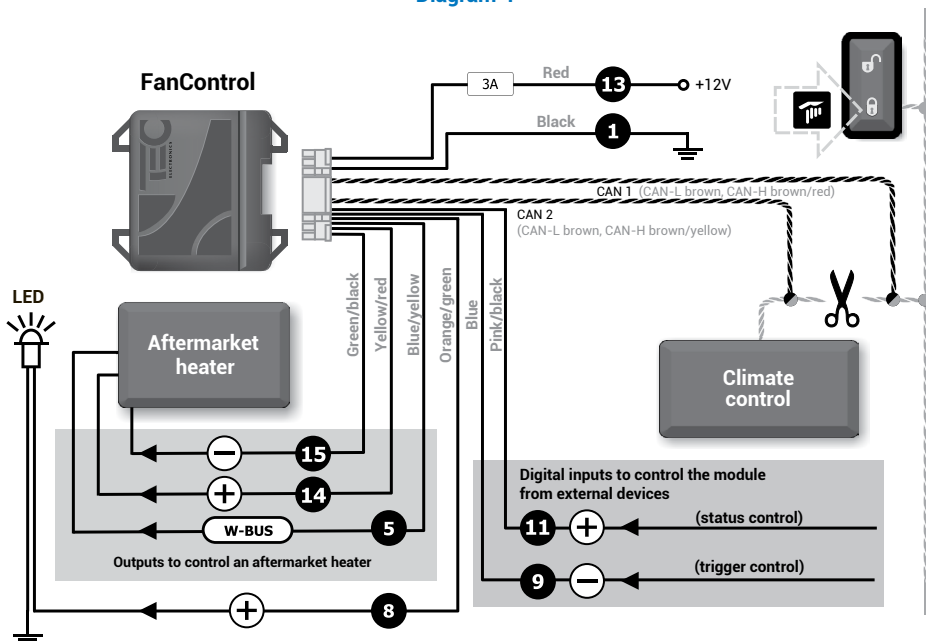


Diagram 5

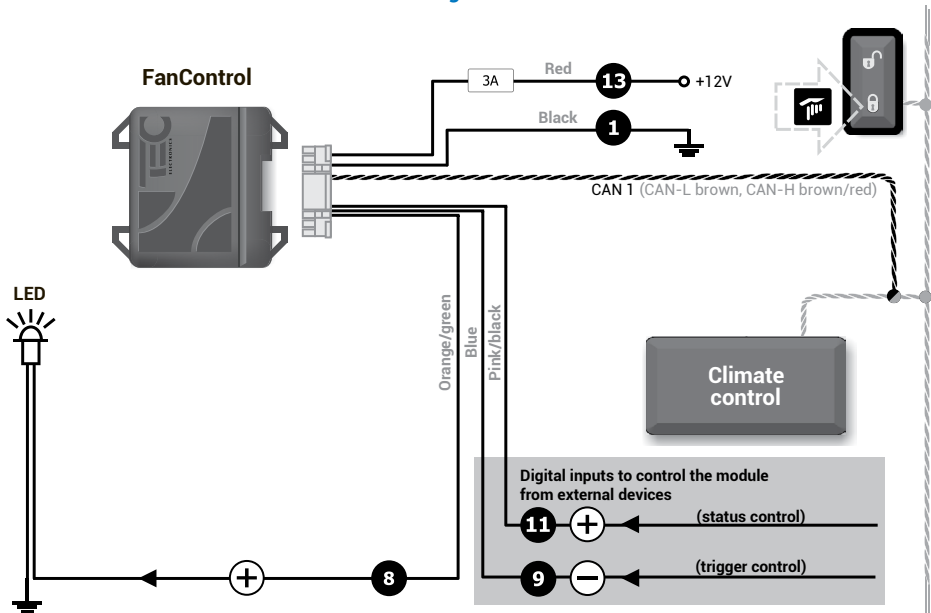


Diagram 6

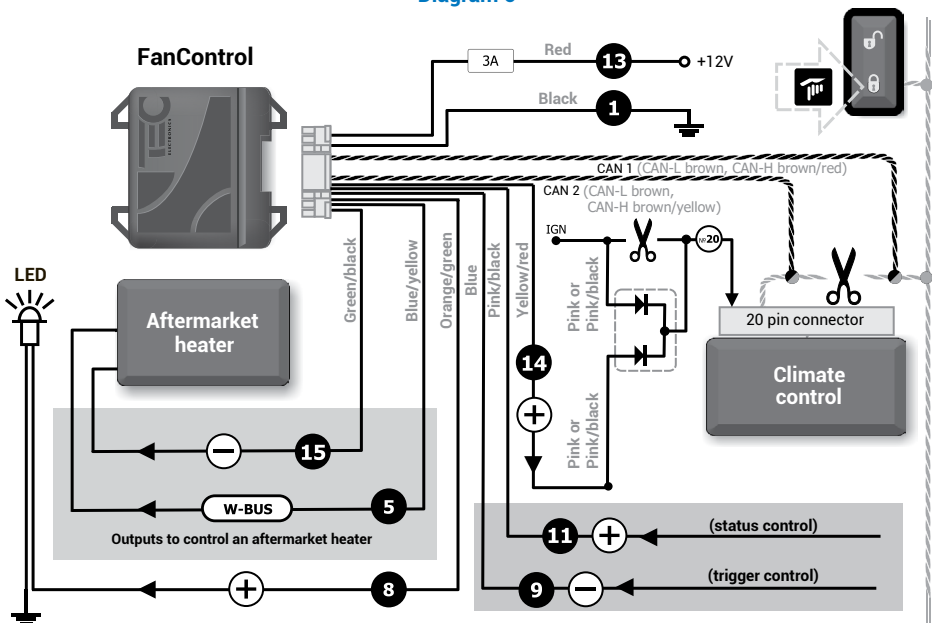
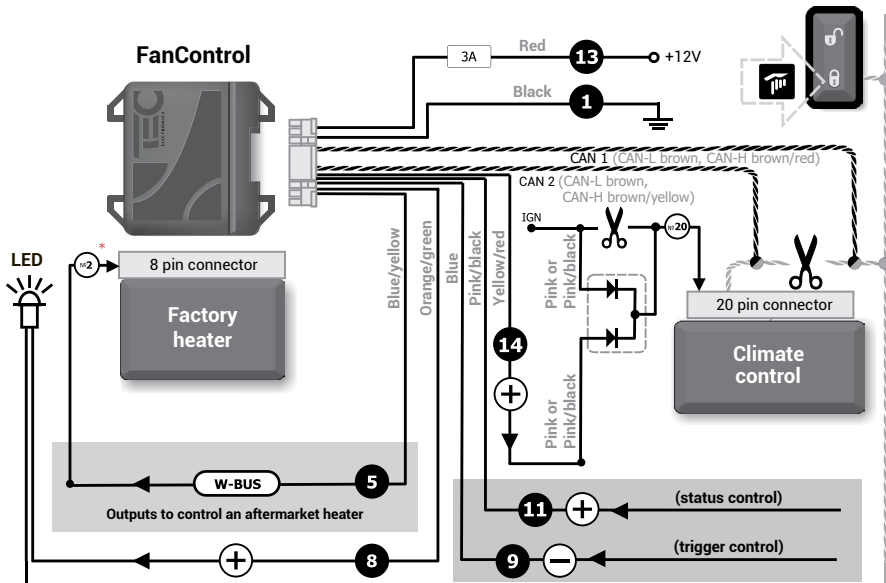
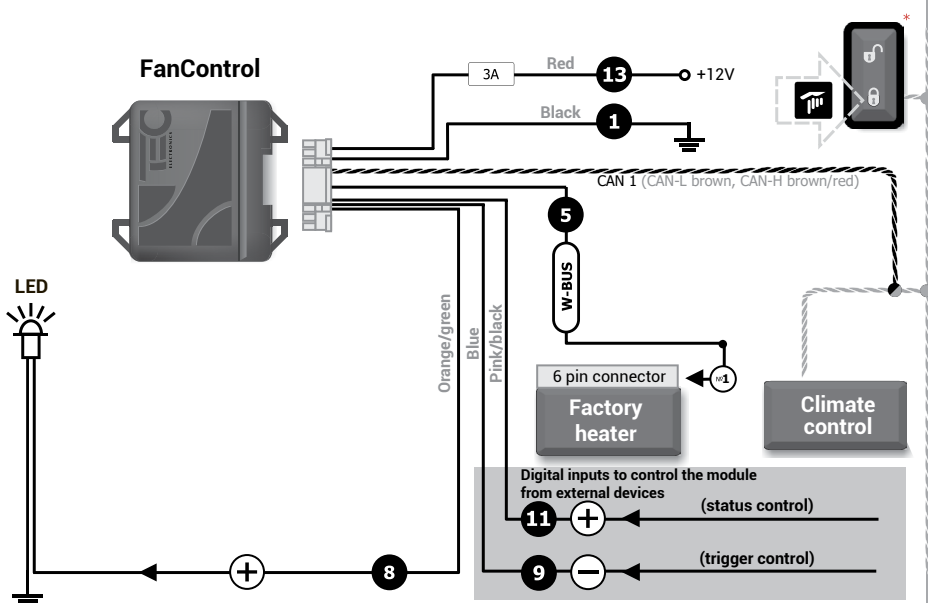


Diagram 7



* Connection to a factory parking heater required if only the eFC-VAG module is not installed

Diagram 8



* On VW Multivan T5, VW Amarok:

- no control over a parking heater from the vehicle's "lock" button
- the output №14 is used to operate an additional relay which will control the heater fan in cars equipped with the "Climatic" system.
- It is not required to use the module output №5 on vehicles equipped with an OEM activation timer controlling the OEM engine heater.

Diagram 9

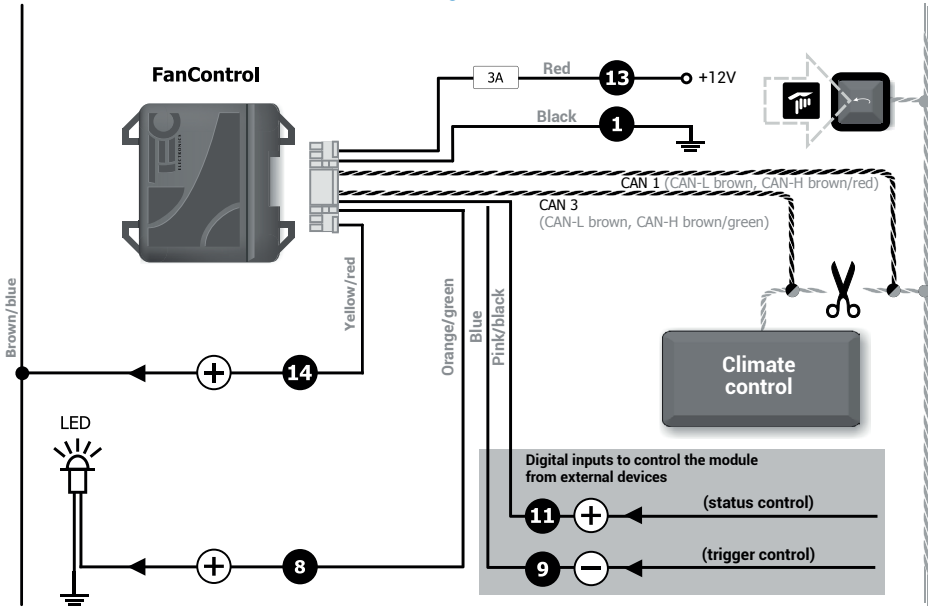


Diagram 10

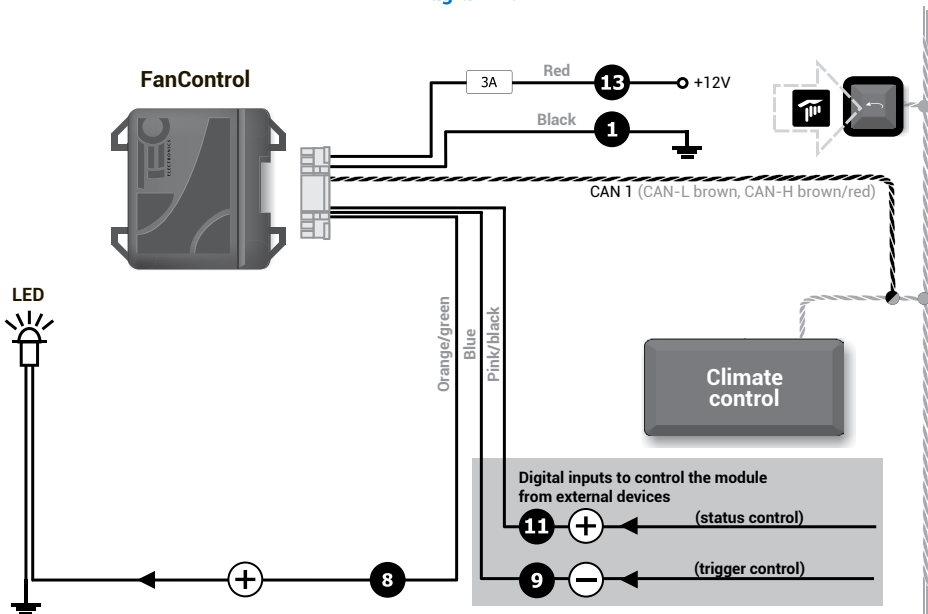


Diagram 11

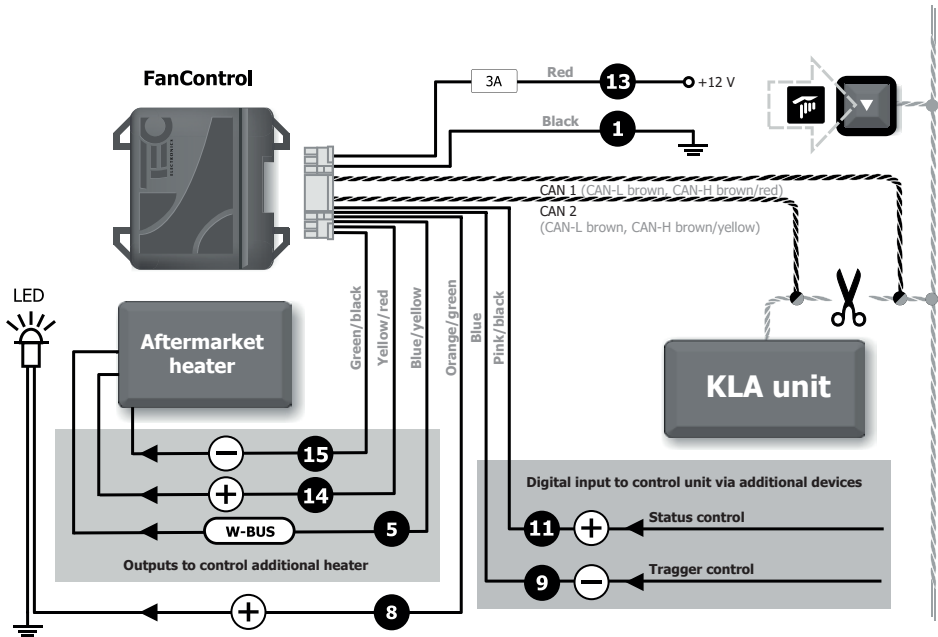


Diagram 12

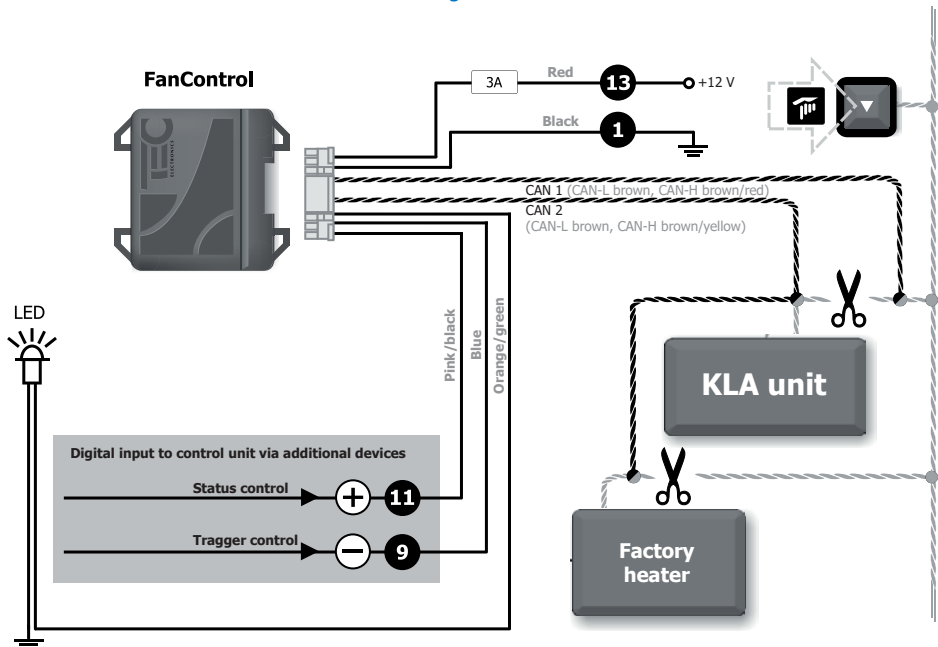


Diagram 13

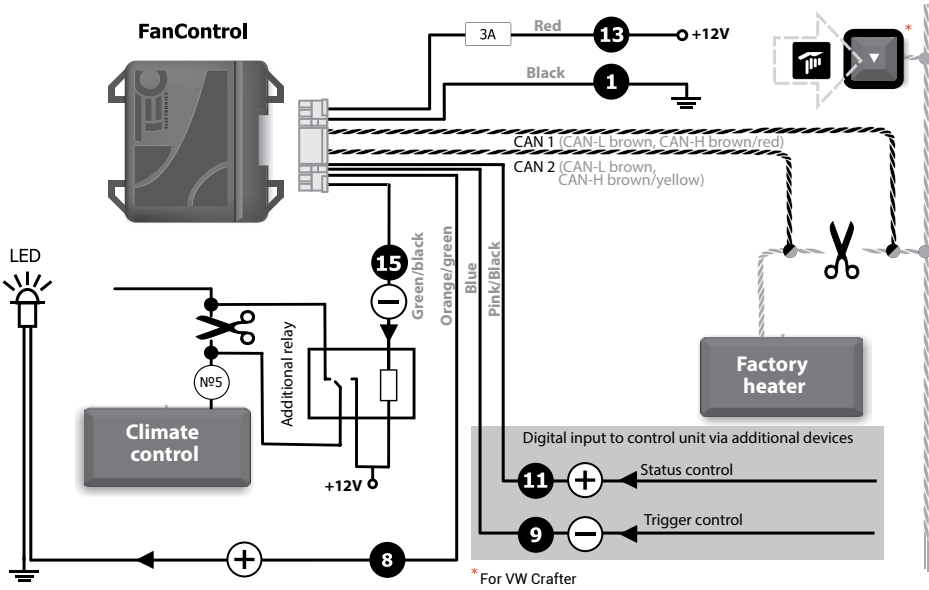


Diagram 14

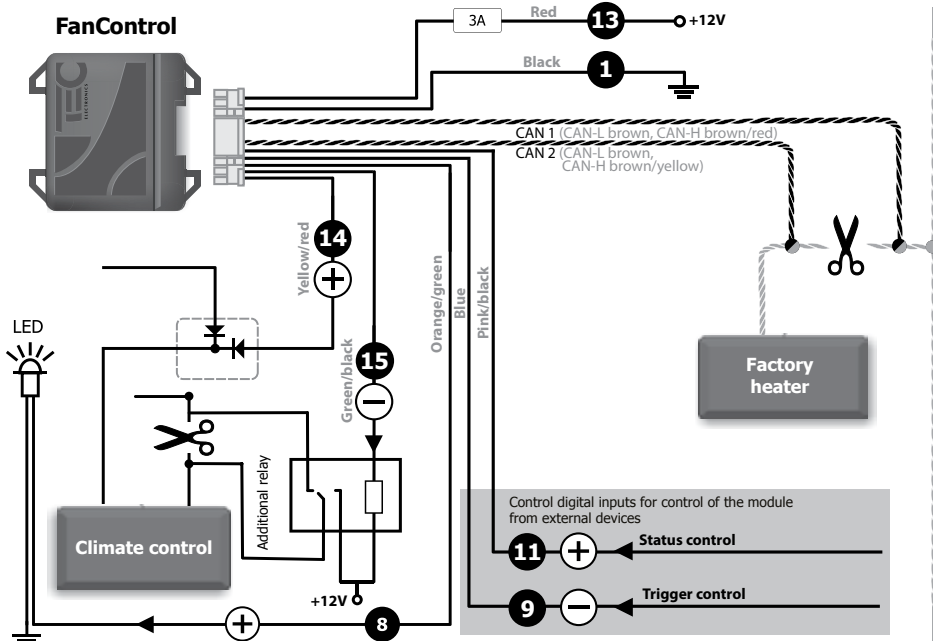


Diagram 15

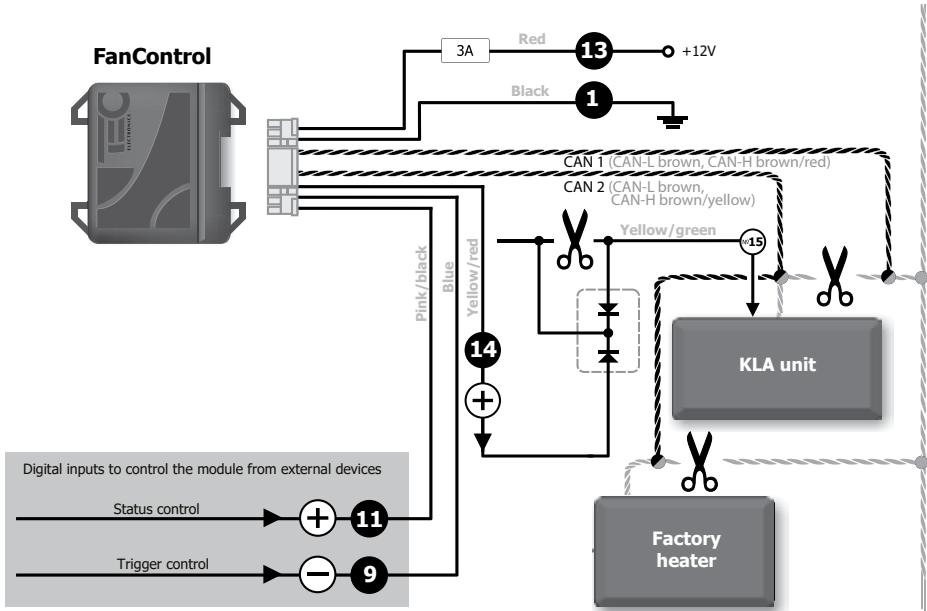


Diagram 16

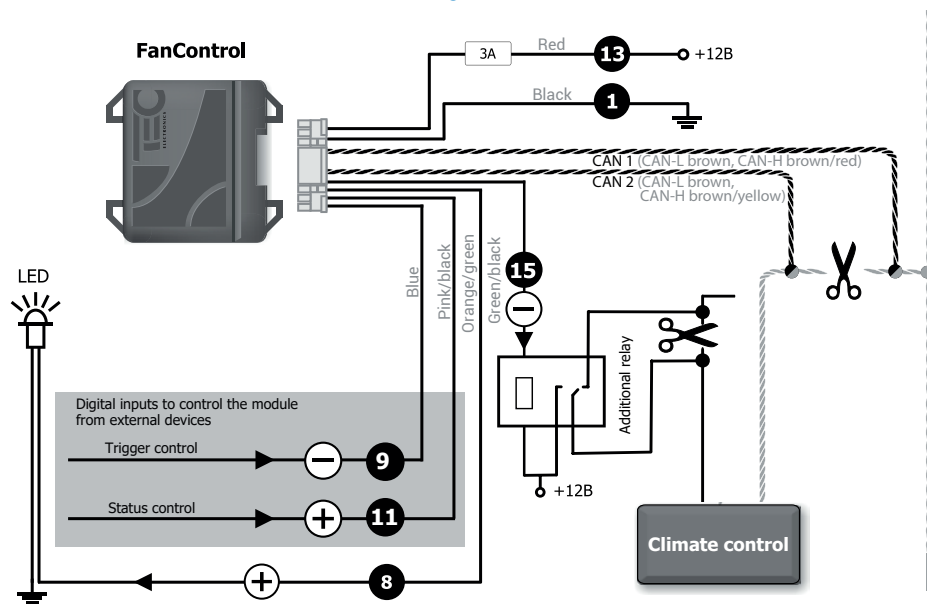


Diagram 17

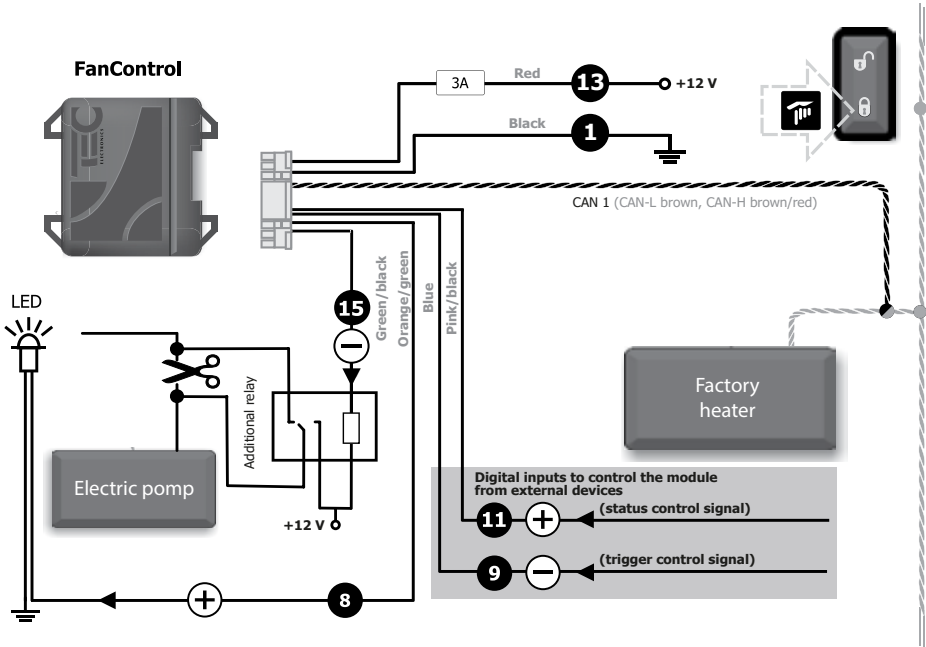


Diagram 18

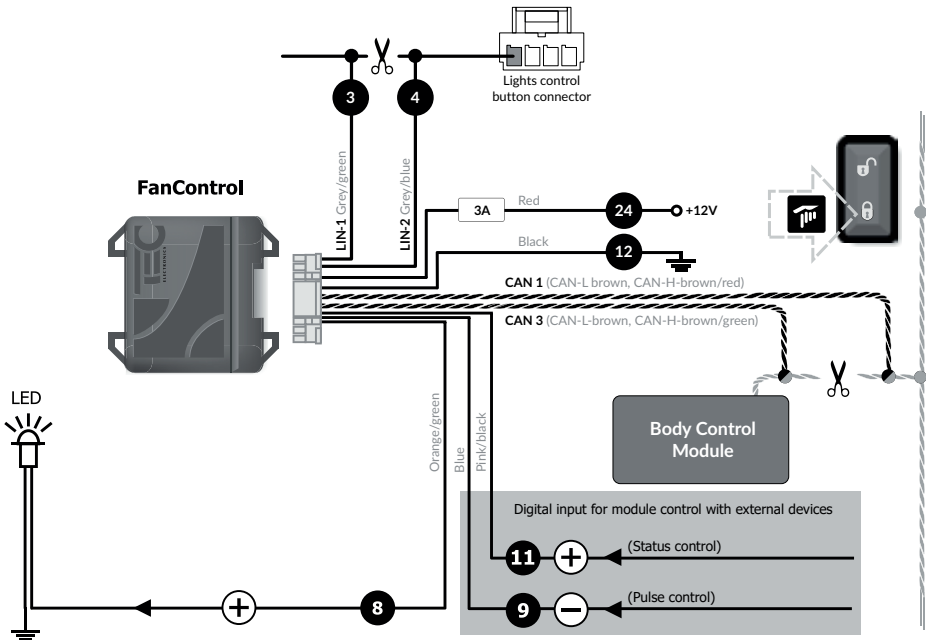


Diagram 19

