

FanControl-U2

Connection of the module in BMW and Mini Cooper vehicles

Module application in BMW 5 (F10), BMW 6 (F13), BMW 7 (F01, F02) vehicles

Group 4, subgroup 2

Vehicle CAN bus:

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

Standard control button:

- Front right seat heating button (operates only with ignition switched on).

Control by the factory remote control:

- Supported.

Control of an aftermarket heater

The module allows switching on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) 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 1) by paired wires CAN 1 and CAN 2.

When connecting the module to the CAN bus it is recommended to disassemble a correspondent vehicle connector and then assemble it again using connector enclosures included in the kit (figure 2).

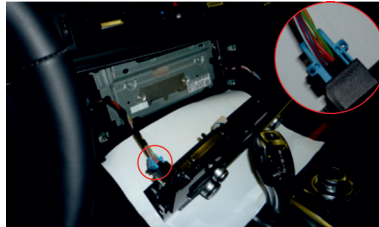


Figure 1

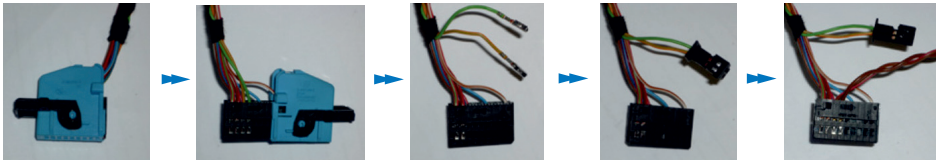


Figure 2

Module CAN 1 and CAN 2 paired wires are the factory remote control 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 1.

Control of a factory heater (only for BMW 5 (F10))

The module allows switching on the standard heater for engine and interior warm-up from additional devices (GSM module, remote control of an aftermarket heater etc.) through external inputs.

Vehicle climatic system shall operate in a mode provided by a car manufacturer.

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 2.

Module application in BMW 1 (F20) (2011-2014), BMW 3 (F30) (2011-2014) vehicles

<p>Group 4, subgroup 3 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – green • CAN-H – orange with a green stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (operates only with ignition switched on). <p>Control by the factory remote control:</p> <ul style="list-style-type: none"> • Supported.
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- ! Only a single start-up of FanControl can be performed between ignition activations
- FanControl maximum operation time is limited by 30 minutes.

Control of an aftermarket heater

The module allows switching on the vehicle's climatic system in that mode which was used before ignition turn off or preset special mode (see below) and simultaneously starting an aftermarket heater.

The climatic system can be activated in two possible modes:

- A last mode that was used before the ignition has been turned off
- Special mode that can be set up during installation of the module (adjustable parameters are fan speed, air blowing directions, temperature).

The module can be controlled from additional devices (GSM module, auxiliary car alarm etc.) through external inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it (by paired wires CAN 1 and CAN 2) right at the climate system control unit (figure 3) which is behind the glove compartment.

When connecting the module to the CAN bus it is recommended to disassemble the relevant connector and then assemble it again using connector enclosures included in the kit (figure 4).

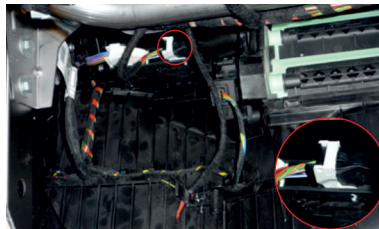


Figure. 3

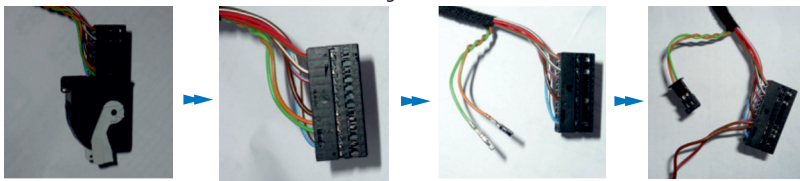


Figure. 4

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.

If you want to set the special mode of climate system parking operation then it is required to connect LIN 1 and LIN 2 outputs to vehicle's LIN bus by cutting into it. Connection is carried out to blue/white wire nearly close to the climate system control unit, in the same connector where CAN bus is connected. (figure 6). LIN 1 (grey/green wire) is connected to the bus from side of the climate system control unit. LIN 2 (grey/blue wire) – from the side of the vehicle.

If LIN-bus connection has not been carried out then the climate system will operate in the last mode before turning off the ignition.

Detailed connection – refer to diagram 1.

- !** If there is no available self-contained ventilation mode in the vehicle (corresponding head unit menu item is active when ACC is on and inactive in other modes), set the alternate mode for triggering the climatic system. To do it please:
1. Within 10 sec upon turning the ignition on press the programming button 14 times.
 2. The module shall inform about its status with one flash series.
 3. Press the programming button 1 time.
 4. The module shall inform about its status with series of two flashes.
 5. Wait for 15 sec.
 6. If saving is successful, the LED shall flash 4 times.

Climate system special mode setting up.

For self-optimization of the climatic system operation mode (LIN bus connection must be made):

1. Turn the ignition on.
2. Set the climatic system in a required mode.
3. Press and hold pressed the left seat heating button for 2 sec. The LED will light up.
4. If saving is successful, the LED shall flash 4 times. Error – 1 long flash.

- !** If the above mentioned mode is set up then upon activation of the module the climate control system shall activate the preset parameters (fan speed, air blowing directions, temperature) gradually. Upon tuning the ignition on the preset parameters will be gradually changed with the parameters set before the ignition had been turned off.

Module application in BMW 1 (F20) (2014--), BMW 3 (F30) (2014--) vehicles

<p>Group 6, subgroup 5 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – yellow/brown • CAN-H – yellow/red. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (operates only with ignition switched on). <p>Control by the factory remote control:</p> <ul style="list-style-type: none"> • Supported.
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- !**
- Only a single start-up of FanControl can be perform between ignition activations
 - FanControl maximum operation time is limited by 30 minutes.

Control of an aftermarket heater

The module allows switching on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it (by paired wires CAN 1 and CAN 3) right at the climate system control unit (see Figure 5, 6) which is behind the glove compartment.

When connecting the module to the CAN bus it is recommended to disassemble the relevant connector and then assemble it again using connector enclosures included in the kit (figure 5, 6).

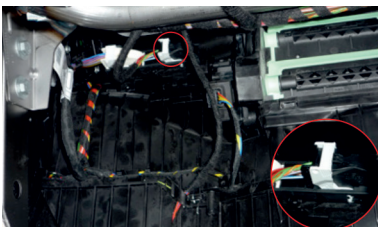


Figure 5

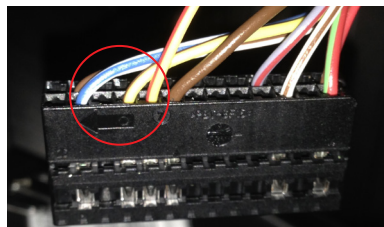


Figure 6

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.

If you want to set the special mode of climate system parking operation then it is required to connect LIN 1 and LIN 2 outputs to vehicle's LIN bus by cutting into it. Connection is carried out to blue/white wire nearby close to the climate system control unit, in the same connector where CAN bus is connected. (figure 6). LIN 1 (grey/green wire) is connected to the bus from side of the climate system control unit. LIN 2 (grey/blue wire) – from the side of the vehicle.

If LIN-bus connection has not been carried out then the climate system will operate in the last mode before turning off the ignition.

Detailed connection – refer to diagram 1.

! If there is no available self-contained ventilation mode in the vehicle (corresponding head unit menu item is active when ACC is on and inactive in other modes), set the alternate mode for triggering the climatic system. To do it:

1. Within 10 sec upon turning the ignition on press the programming button 14 times.
2. The module shall inform about its status with one flash series.
3. Press the programming button 1 time.
4. The module shall inform about its status with series of two flashes.
5. Wait for 15 sec.
6. If save is successful, the LED shall flash 4 times, if it failed there will be 1 long flash.

Climate system special mode setting up

For self-optimization of the climatic system operation mode (LIN bus connection must be made):

1. Turn the ignition on.
2. Set the climatic system in a required mode.
3. Press and hold pressed the left seat heating button for 2 sec. The LED will light up.
4. If saving is successful, the LED shall flash 4 times. Error – 1 long flash.

! If the above mentioned mode is set up then upon activation of the module the climate control system shall activate the preset parameters (fan speed, air blowing directions, temperature) gradually. Upon turning the ignition on the preset parameters will be gradually changed with the parameters set before the ignition had been turned off.

Module application in BMW X3 (F25), X4 (F26) vehicles

<p>Group 4, subgroup 2 – vehicles with aftermarket heater</p> <p>Group 4, subgroup 3 – vehicles with factory heater</p> <p>Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – green • CAN-H – orange with a green stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (operates only with ignition switched on). <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 on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) 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 7) by paired wires CAN 1 and CAN 2.

When connecting the module to the CAN bus it is recommended to disassemble the relevant connector and then assemble it again using connector enclosures included in the kit (figure 8).

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 1.



Figure 7

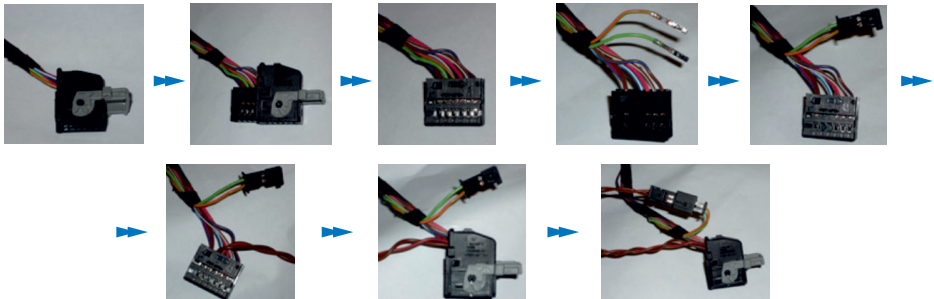


Figure 8

Module application in BMW X1 (E84), BMW 3 (E90) vehicles

<p>Group 4, subgroup 1 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – green • CAN-H – orange with a green stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (operates only with ignition switched on). <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 on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) 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 9) by paired wires CAN 1 and CAN 2.

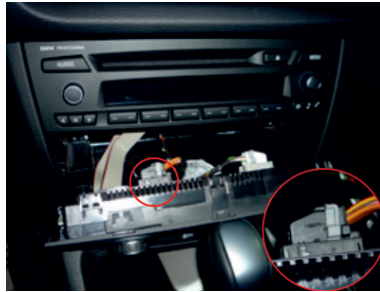


Figure 9

When connecting the module to the CAN bus it is recommended to disassemble the relevant connector and then assemble it again using connector enclosures included in the kit (figure 10).

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.

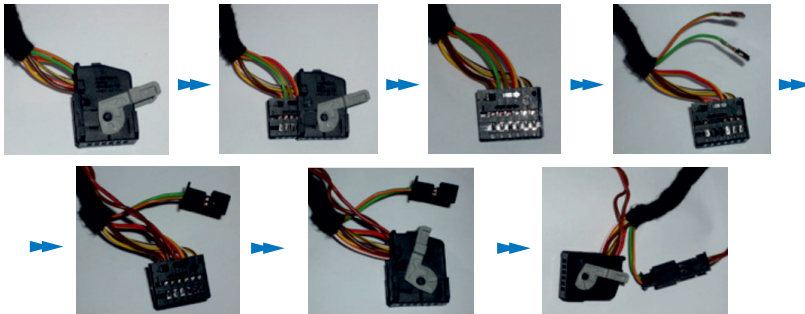


Figure 10

Module outputs №14 or №15 are used for climate system control with ignition cut off. This output is connected by means of an additional 5-contact relay to contact №4 of 12-pin climate system control connector.

For detailed description of connection refer to diagram 3.

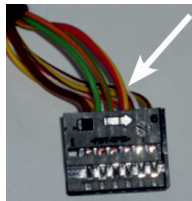


Figure 11

Module application in BMW X5, X6 (E70, E71) vehicles

Group 4, subgroup 1

Vehicle CAN bus:

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

Standard control button:

- Front right seat heating button (operates only with ignition switched on).

Control by the factory remote control:

- Supported.

Control of an aftermarket heater

The module allows switching on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) 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 12) by paired wires CAN 1 and CAN 2.

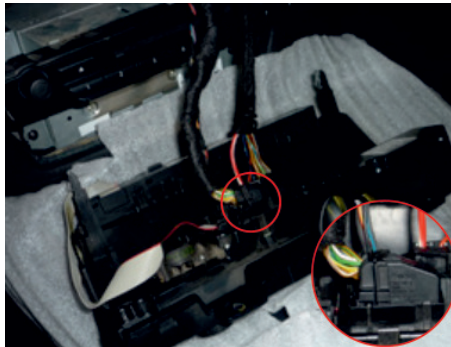


Figure 12

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

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.

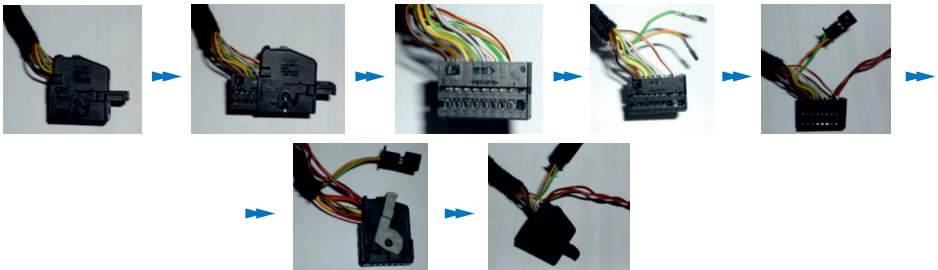


Figure 13

Module outputs №14 or №15 are used for climate system control with ignition cut off. This output is connected by means of an additional 5-contact relay to contact 4 of 12-pin climate system control connector (figure 14).

For detailed description of connection refer to diagram 3.

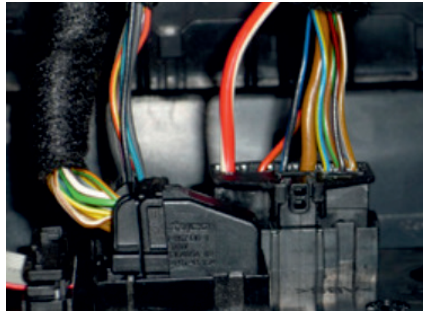


Figure 14

Control of a factory heater

The module allows switching on the standard heater for engine and interior warm-up from additional devices (GSM module, remote control of an aftermarket heater etc.) through external inputs.

Vehicle climatic system shall operate in a mode provided by a car manufacturer.

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.

Module outputs №14 or №15 are used for climate system control with ignition cut off. This output is connected by means of an additional 5-contact relay to contact №4 of 12-pin climate system control connector.

For detailed description of connection refer to diagram 4.

Module application in BMW 6 (E63, E64) vehicles

<p>Group 4, subgroup 1 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – yellow • CAN-H – black. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (operates only with ignition switched on). <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 on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it (by paired wires CAN 1 and CAN 2) right at the climate system control unit (figure 15).

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

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 1.

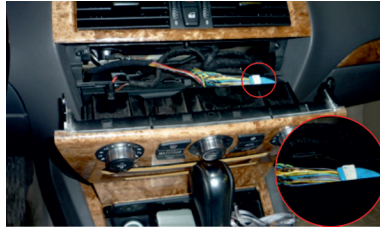


Figure 15

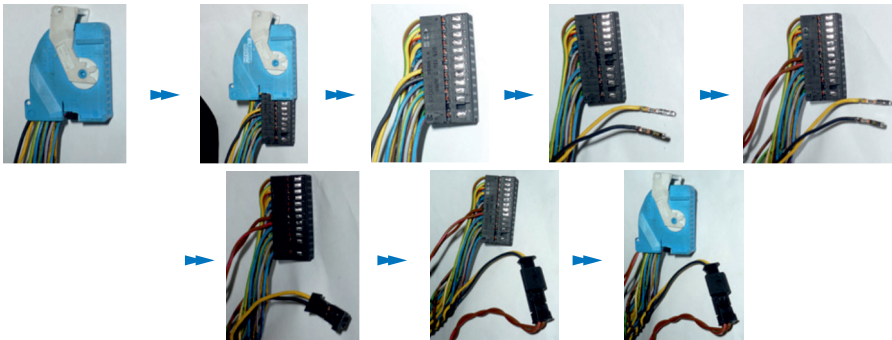


Figure 16

Module application in BMW X5 (F15), BMW X6(F16) vehicles

<p>Group 6, subgroup 5 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – blue with a white stripe • CAN-H – black with a blue stripe. 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (operates only with ignition switched on). <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 on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it (by paired wires CAN 1 and CAN 3) right at the climate system control unit (figure 17).

When connecting the module to the CAN bus it is recommended to disassemble the relevant connector and then assemble it again using connector enclosures included in the kit (figure 18).

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 1.

! If there is no available self-contained ventilation mode in the vehicle (corresponding head unit menu item is active when ACC is on and inactive in other modes), set the alternate mode for triggering the climatic system:

1. Within 10 sec upon turning the ignition on press the programming button 14 times.
2. The module shall inform about its status with one flash series.
3. Press the programming button 1 time.
4. The module shall inform about its status with series of two flashes.
5. Wait for 15 sec.
6. If saving is successful, the LED shall flash 4 times. If error – 1 long flash..

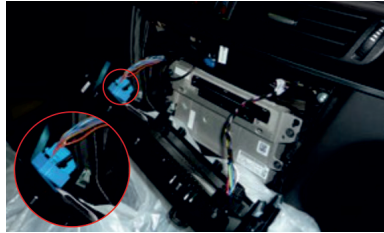


Figure 17

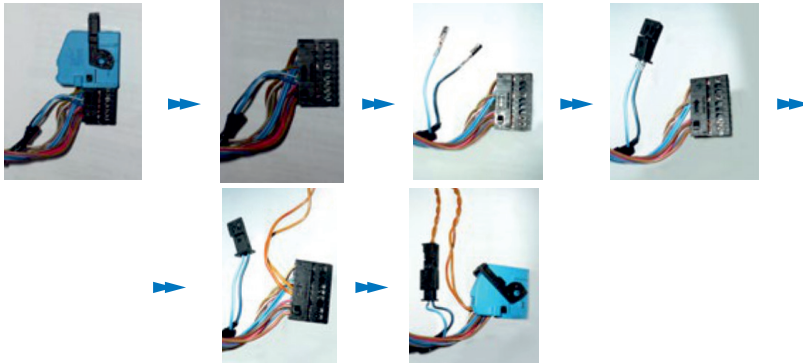


Figure 18

Control of a factory heater

The module allows switching on the standard heater for engine and interior warm-up from additional devices (GSM module, remote control of an aftermarket heater etc.) through external inputs.

Vehicle climatic system shall operate in a mode provided by a car manufacturer.

Module connection

The module is connected to the vehicle CAN bus by cutting into it (by paired wires CAN 1) right at the climate system control unit. For detailed description of connection refer to diagram 2.

Module application in Mini Cooper F56 (2014--) vehicles

Group 6, subgroup 5

Vehicle CAN bus:

- CAN-L – white
- CAN-H – violet.

Standard control button:

- Front right seat heating button (operates only with ignition switched on).

Control by the factory remote control:

- Supported.

- !**
- FanControl can be activated only once between ignition cycles
 - FanControl operation time is limited to 30 min.

Control of an aftermarket heater

The module allows switching on the vehicle's 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 inputs, by the standard vehicle button (by the front right seat heating button with ignition switched on) and by the factory remote control.

Module connection

The module is connected to the vehicle CAN bus by cutting into it (by paired wires CAN 1 and CAN 3) right at the climate system control unit (figures 19, 20), which is placed to the right from feet rest.

When connecting the module to the CAN bus it is recommended to disassemble the relevant connector and then assemble it again using connector enclosures included in the kit (figure 19, 20).

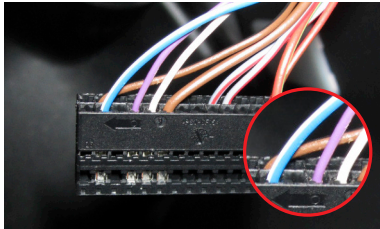


Figure 19

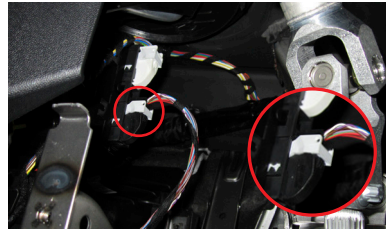


Figure 20

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

If you want to set the special mode of climate system parking operation then it is required to connect LIN 1 and LIN 2 outputs to vehicle's LIN bus by cutting into it. Connection is carried out to blue/white wire nearly close to the climate system control unit, in the same connector where CAN bus is connected. (figure 6). LIN 1 (grey/green wire) is connected to the bus from side of the climate system control unit. LIN 2 (grey/blue wire) – from the side of the vehicle. If LIN-bus connection has not been carried out then the climate system will operate in the last mode before turning off the ignition

Detailed connection – refer to diagram 1.



If there is no available self-contained ventilation mode in the vehicle (corresponding head unit menu item is active when ACC is on and inactive in other modes), set the alternate mode for triggering the climatic system. To do it:

1. Within 10 sec upon turning the ignition on press the programming button 14 times.
2. The module shall inform about its status with one flash series.
3. Press the programming button 1 time.
4. The module shall inform about its status with series of two flashes.
5. Wait for 15 sec.
6. If save is successful, the LED shall flash 4 times, if it failed there will be 1 long flash.

Climate system special mode setting up.

For self-optimization of the climatic system operation mode (LIN bus connection must be made):

1. Turn the ignition on.
2. Set the climatic system in a required mode.
3. Press and hold pressed the left seat heating button for 2 sec. The LED will light up.
4. If saving is successful, the LED shall flash 4 times. Error – 1 long flash.



If the above mentioned mode is set up then upon activation of the module the climate control system shall activate the preset parameters (fan speed, air blowing directions, temperature) gradually. Upon turning the ignition on the preset parameters will be gradually changed with the parameters set before the ignition had been turned off.

Module application in BMW X1 (F48), Mini Cooper Countryman (F60) (2017--)

<p>Group 6, subgroup 5 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – violet or white/black (pin. №33) • CAN-H – white (pin№34). 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (operates only with ignition switched on).
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- !**
- Only a single start-up of Fancontrol can be performed in between the ignition activations.
 - The maximum operating time of the system is limited by 30 minutes.

If there is no autonomous mode available (the appropriate item in head unit menu, is active when ACC is on), set up the alternative mode of triggering the climatic system. In order to do this:

- 1 Within 10 seconds after turning ignition on, press the programming button 14 times.
- 2 The system shall inform you about its status with one flash series.
- 3 Press the programming button one time.
- 4 The system shall inform you about its status with two flash series.
- 5 Take a 15 second pause.
- 6 If saving is successful the LED shall blink 4 times, if it fails – there shall be one long blink.

Control of an aftermarket heater:

The module allows switching on the vehicle climatic system in the last used mode before the ignition has been turned off and simultaneously starting an aftermarket heater.

Module connection:

The module is connected to the vehicle Can-bus by cutting into it (with paired wires CAN1 and CAN3). The connection is performed behind the right kick-panel. (pic. 21, 22).

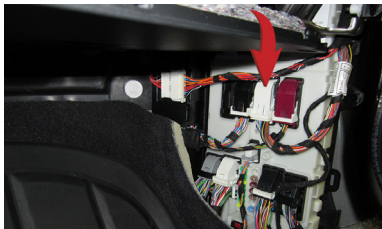


Figure 21

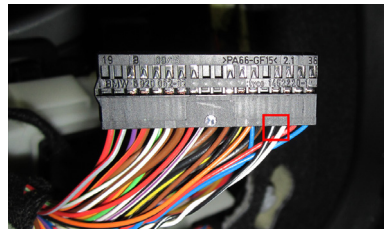


Figure 22

When connecting the module to Can-bus it is recommended to disassemble the relevant connector and then assemble it again using connector enclosures included in the kit.

Module Can1 and Can3 paired wires are designed for connection to the climate system Can-bus: CAN 3 is connected to the bus from the climate system control unit side and Can1- from the vehicle's BDC unit side.

For detailed connection description refer to diagram 5.

Module application in BMW 5 (G30), BMW 7 (G11), BMW 3 (G20), BMW X3 (G01), BMW X5 (G05), BMW X7 (G07)

<p>Group 6, subgroup 7 Vehicle CAN bus:</p> <ul style="list-style-type: none"> • CAN-L – pin № 33 • CAN-H – pin № 34 	<p>Standard control button:</p> <ul style="list-style-type: none"> • Front right seat heating button (while the ignition is switched on).
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Control of an aftermarket heater:

The module allows starting an aftermarket engine heater and simultaneously switching ON the climate system in the last mode that was used before turning off the ignition.

- ! The module can only operate properly in vehicles equipped with an autonomous ventilation system. Make sure the autonomous ventilation mode is available before installing the module. Switch on the vehicle's ACC and check if the required mode is available in the head multimedia unit.
- ! The module can only be activated for one time after the ignition is turned OFF, the next activation is possible after the ignition is turned back ON and then OFF.
- ! The maximum operating time of the system is limited to 30 minutes.

Module connection:

The module is connected to the vehicle Can-bus by cutting into it (with paired wires CAN1 and CAN3).

The connection is performed behind the right kick-panel. (pic. 23, 24).



Figure 23

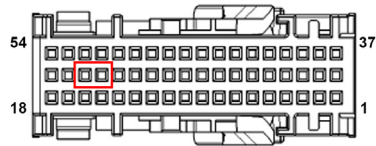


Figure 24

When connecting the module to Can bus it is recommended to disassemble the relevant connector and then reassemble it using connector enclosures included in the kit.

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

For detailed connection description refer to diagram 5.

Diagram 1

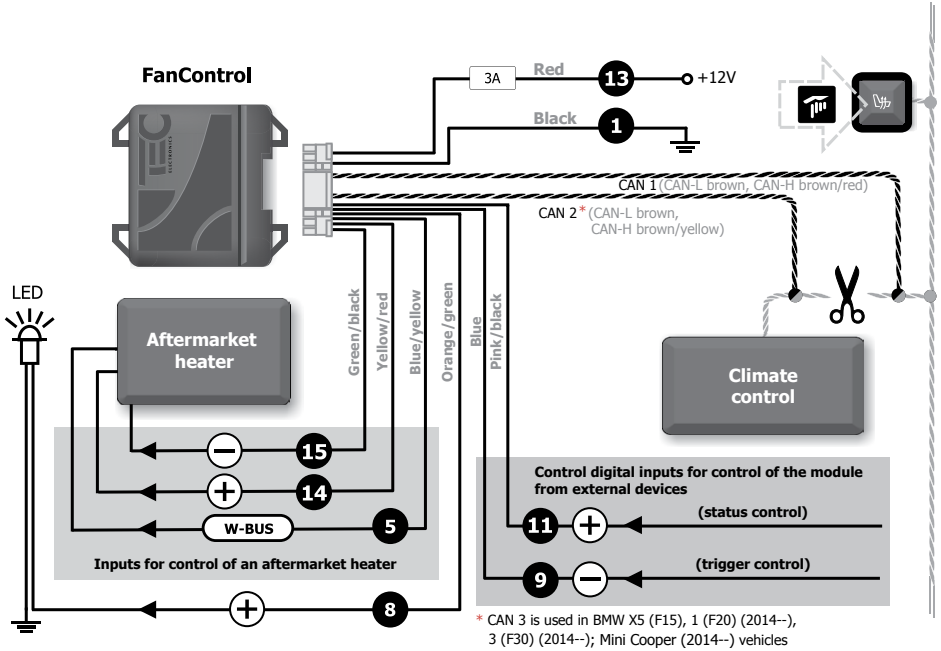


Diagram 2

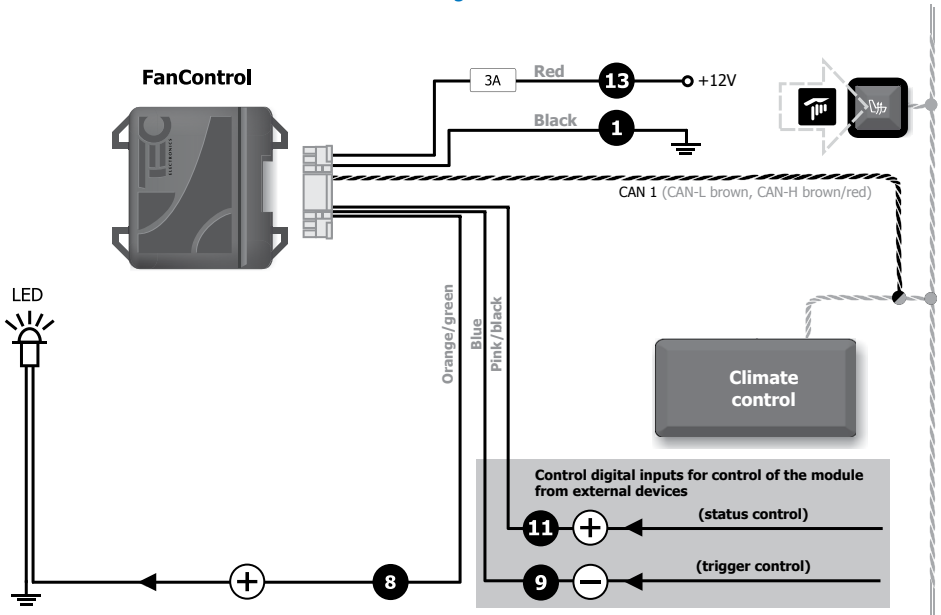


Diagram 3

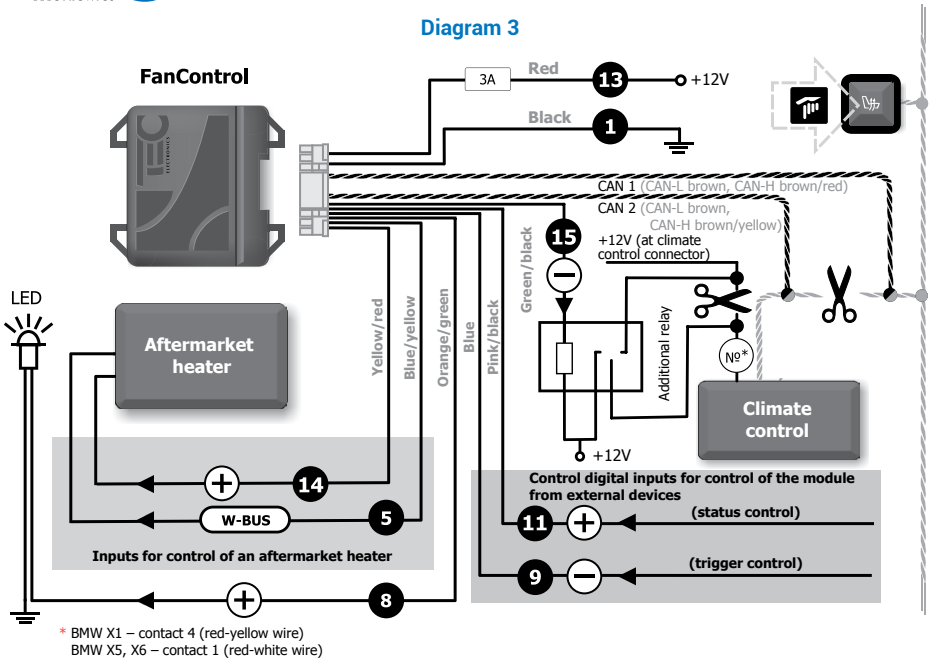


Diagram 4

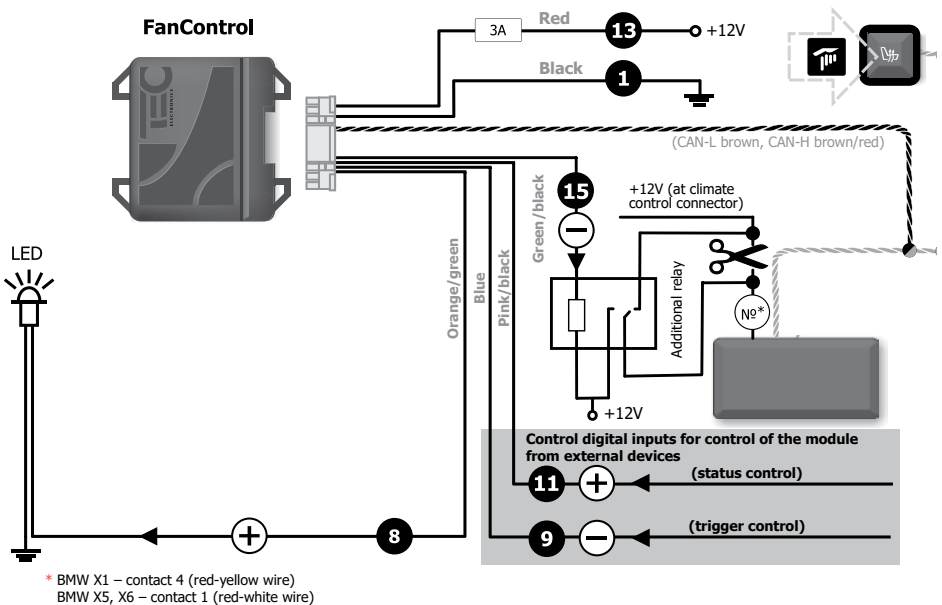


Diagram 5

