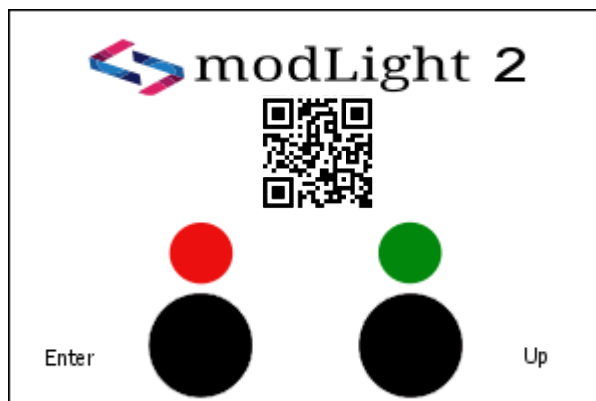# modLight 2

Instructions for use

Thank you for choosing our product!
Please read carefully the instructions for use before installing your modLight2 module!

The following is included in the set of your modLight2 module: a modLight2, 3-pin connector and instructions for use.

To install your modLight2 module, you have to connect it to 3 wires from the wire harness of your car – 12V (DIR, constant), Ground and IBUS.

1. Please connect the brown wire from modLight2's connector to the ground (GND) source of the wiring harness of your car. Usually, the color of the ground wire in your car's wire harness is brown. Please use a multimeter to confirm before the installation.

2. Please connect the red wire from modLight2's connector to constant 12V of the wiring harness of your car. Usually, the color of the constant 12V wire in car is red-green, red-white. Please use a multimeter to confirm before the installation.

3. Please connect the white wire from modLight2's connector to the IBUS of your car. The IBUS wire in your car is always white-gray wire with yellow dots.

All of the three wires that you need to connect the module to are available at multiple places in your car – at the connector of the radio, at the CD changer 3 pin connector, the instrument cluster, the LCM module and so on. One of the most convenient places for modLight2 installation is behind your left tail light. All three wires are available there, no matter whether your car is equipped with modules there or not.

After you have connected the connector to the wire harness of your car, please connect the connector to the module (modLight2). If you have connected everything correctly, the red and green indicator on the module will blink for around 3 seconds. This almost completes the initial installation of modLight2. Now you have to get familiar with the functions and the settings which the module offers. All possible functions and their settings are described in these instructions for use. The different settings of the functions are entered (programmed) in the module in simple way, through the user interface with 2 buttons and 2 LEDs, which you easily see on the face of the modLight2.

The right button plays the role of „up" or „scroll", i.e. each press on it leads you to the next option.

The left button plays the role of "enter", which you will usually use to select or confirm the selection by the right button.

In order to change the setting of a certain function, you will just have to program a different option for it and the easiest way to explain this is by giving you an example.

Example: if you wish to activate triple blinker, you have to set function3 of option4, which is done in the following way:

1. Press the right button three times to go to function3. On every pressing of the button, the green indicator turns on for a moment to show you that you have pressed the button successfully.

2. After pressing the right button three times, press the left button (enter) once, which will make the red indicator turn-on for a moment.

3. Press the right button 4 times to select option4.

4. Press the left button (enter) once to confirm the selected option.

5. Immediately after this confirmation, you will see the red indicator turn on and the green one counting the function we are changing. After counting it, i.e., after the green indicator blinks 3 times in this case, the red one will turn off and the green one will count the option we have entered, i.e. it will blink 4 times. That shows you have successfully changed Function3 to Option4.

Function 1 – Automatic locking when reaching 18km/h.
Option1 = ON (E39/E38)   Option5*** = ModLight2 Factory Defaults (this resets modLight's settings to factory defaults)
Option3 = OFF (default)
*If this function is set to ON, your car will lock itself when you reach 18km/h. This function will not work if your car is X5 E53.
** We recommend using this function only if your car cannot be coded (with diagnostic equipment) for such factory function. Self-locking, especially for bimmers produced after 1999 is not a well-designed manipulation through the IBUS.
***If you want to reset all the functions and settings of your modLight2 module, please set Function1 to Option5. The LEDs will blink for 4 seconds to confirm that you successfully reset your modLight2.

Function 2 – Automatic unlocking of the car when the engine is turned off.
Option1 = Unlocks on turning the key to position 1 (ACC) and/or to position 0 (OFF) (E39/E38)
Option3 = It does not unlock (default)   Option4 = For E39/E38 - Unlocks on turning the key to position 1 (ACC)
Option5 = For X5 (E53) unlocks when you turn the key to position 1 (ACC).
*If this functions is activated, your car will get unlocked immediately (if it is locked), when you turn off the engine.
** Option4 is created for those cars whose GM module is factory programmed to send zeroing message on the IBUS at a certain interval. This message would make the car to randomly unlock itself while driving if Option1 is selected. If your car unlocks randomly while driving, please select Option4.

Function 3 – Cornering lights and comfort turn signals
Option1 = Cornering lights   Option2 = Cornering lights & comfort blinker
Option3 = Off   Option4 = Triple blinker (default)
Option5 = Triple blinker 620ms (longer delay before starting)   Option6 = Triple blinker 630ms (longest delay)

*"Cornering lights" is a popular function among the newer cars. It helps you in urban conditions by turning on additional light when turning, in order to expand your angle of view.

Function 4 – 'Welcome' / 'Goodbye' message. You can select one of these messages:

Option1 = BMW E39 Club	Option2 = BMW E38 Club	Option3 = Off,
Option4 = BMW MOTORSPORT	Option5 = BMW ///M5	Option6 = BMW Individual
Option7 = BMW Performance	Option8 = BMW M Performance	Option9 = ///M
Option10 = ALPINA	Option11 = HAMANN	Option12 = RACING DYNAMICS

*Welcome message will appear only if the car is equipped with a HIGH IKE (high OBC).

Function 5 – Automatic folding of the side mirrors.
Option1 = long press the lock button on your remote control.   Option2 = double press the lock button on your remote control.
Option3 = OFF.   Option4 = single press the lock button.

Function 6 – Lights with long press of the lock button (check modLight cycles here modBM.com/patterns)
Option1 = Follow me home (high beam, fog lamps, rear lights)   Option4 = modLight cycle 2   Option7 = Ventilation ON
Option2 = modLight cycle 1   Option5 = Independent heater ON*   Option8 = Independent heater 2*
Option3 = OFF   Option6 = modLight cycle 3   Option9 = Independent heater 3*

*This function enables you to program which light cycle is to start by holding the lock button. Option1 is used as 'follow me home' function, which is popular with the newer model cars.
**You can see modLight's light cycles here: modBM.com/patterns.
***You can increase how long 'follow me home' or the other light cycles will stay on. Please read below.

Function 7 –Second press of lock button (modLight cycles here modBM.com/patterns)
Option1 = Follow me home (high beam, fog lamps, rear lights)   Option4 = modLight cycle 2   Option7 = Ventilation ON
Option2 = modLight cycle 1   Option5 = Independent heater ON*   Option8 = Independent heater 2*
Option3 = OFF   Option6 = modLight cycle 3   Option9 = Independent heater 3*
*If Option5 does not turn on your independent heater, please check function26, there are 4 different IBUS telegrams for heater activation.

Function 8 – GM module version of your car
Option1 = Old GM module. No signals from the lock/unlock buttons in IBUS/KBUS.
Option3 = New GM module (default). There are signals on the IBUS/KBUS for pressing any remote control button.
*In case that you receive your modLight2, but the functions connected to locking, unlocking and holding a button from your remote control do not work, select Option1 for that function or replace your GM with a newer version.
When using Option1 (Old GM), we do not have IBUS messages when we press remote control buttons. The double press lock function is not available on cars equipped with the Old GM module.

Function 9 – Single press of lock button (Goodbye lights)
Option1 = sidelights (parking lights) (default)   Option4 = modlight cycle 1   Option7 = modLight cycle 3
Option2 = Not used   Option5 = high beams + reverse + fog lights
Option3 = OFF   Option6 = modLight cycle 2 (not recommended)

Function 10 – Single press unlock buttons (Welcome lights)
Option1 = Sidelights (parking lights) (default)   Option4 = modLight cycle 1   Option7 = modLight cycle 3
Option2 = Not used   Option5 = high beams + reverse + fog lamps
Option3 = OFF   Option6 = modLight cycle 2 (not recommended)
*You can prolong the selected light pattern. Please see the next items in the instructions.
**In case that you select Option1 'Sidelights', you can add the fog lamps or the dipped-beam headlights. Please see the next items.

Function 11 – 'Comfort blinker' blinks
Option1 = not used   Option2 = not used   Option3 = 3 blinks
Option4 = 4 blinks(default)   Option5 = 5 blinks   Option6 = 6 blinks
*This function is used only if Function3 is programmed to Option4 (Triple blinker).

Function 12 – Duration of the 'Single press lock cycle'
Option1 = 10 seconds (default)   Option2 = 15 seconds
Option3 = 20 seconds   Option4 = 25 seconds

Function 13 – Duration of the 'Single press unlock cycle'
Option1 = 10 seconds (default)   Option2 = 15 seconds
Option3 = 20 seconds   Option4 = 25 seconds

Function 14 – Additional lights for the 'Single press unlock cycle'
Option1 = OFF   Option2 = Fog lamps (front)   Option3 = high beams

Function 15 – Additional lights for the 'Single press lock cycle'
Option1 = OFF   Option2 = Fog lamps (front)   Option3 = high beams

Function 16 – Duration of the 'Follow me home' cycle
Option1 = 10 seconds (default)   Option2 = 15 seconds   Option3 = 20 seconds   Option4 = 25 seconds

Function 17 – Not used

Function 18 - Automatic unfolding of the side mirrors.
Option1 = Single press of the unlock button on your key
Option3 = OFF
Option4 = Turn the contact key to position 2 (IGN)

Function 19 – IBUS communication version
Option1 = Version 1   Option2 = Version 2, E-series (default)   Option3 = Version 3
*This function is for factory testing. Please don't choose different option for this function.

Function 20 – "Welcome lights" cycle for each waking up/restart of the modLight2
Option1 = On. Your modLight2 module will start the "welcome lights" with each of its waking up/restart.
Option2 = Off (default)

Function 21 – Folding/unfolding – choice of model
Option1 = Reversed   Option2 = E39/E38 (default)   Option3 = E53 (X5)
If you have your modLight2 installed on E53 or Range Rover L322, please set function21 to option3. If you don't do that, the windows will roll-down when you unlock your car. This is because the IBUS telegram "unfold mirrors" for E39 is the same telegram for rolling the windows down of E53 and Range Rover L322.

Function 22 – Repetition of the modLight light cycles. If you wish to make these cycles longer, just program this function to a larger number of cycle repetitions (from 1 to 20)
Option1 = Repeat once; Option2 = Repeat twice; Option3 = Three times; … Option20 = Repeat 20 times.

Function 23 – "Welcome message" activation condition:
Option1 = With position 2 of the key (IGN);   Option2 = With position 1 of the key (ACC) (default).

Function 24 – Independent heater turn off when engage the key to position2 (IGN):
Option1 = Turn off heater (default)   Option2 = No turning off when key to position2

Function 25 – ModLight will check the level of instrument cluster brightness and headlights position:
Option1 = Yes (default)   Option3 = No (it will leave instrument cluster and headlights levels to MAX)
(unplug modLight2 from its 3-pin connector for at least 1 second if you change Function25)

Function 26 – Independent heater activation telegram
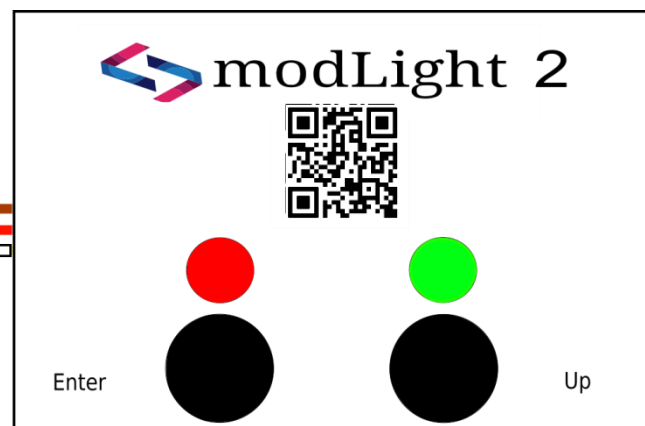Option1 = Telegram1 (default)   Option2 = Telegram2   Option2 = Telegram3   Option2 = Telegram4

Function 27 – Hazard lights activate "double press lock" function
Option1 = No (default)   Option2 = Yes

Factory wiring harness:

GND
12V
IBUS

Wiring diagram of modlight2's connector:
PIN1 (BROWN) – Ground (chassis)
PIN2 (RED) – 12V (constant 12V)
PIN3 (WHITE) – IBUS (communication)

In case that your car is not equipped with a properly working IBUS, you can connect the modLight2 to the KBUS. Each function is adjusted to work with KBUS as well, besides the "welcome message" on the high on-board computer (HIGH IKE). Please use a voltmeter or another measuring device in order to confirm the supply wires which the module is connected to!
Please, keep in mind that each additional wiring diagram or module, including modLight2, must be properly installed by a professional!
Do not connect in a way different from the one described in this user's manual!

Visit our website: modBM.com
IBUS Lights patterns videos: modBM.com/patterns

Thank you!

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