

# modLight E46 Lite Custom Lighting Module Instruction Manual

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# modLight E46 Lite Custom Lighting Module



#### **Product Information**

The modLight Lite module is a device designed to enhance the functionality of your car. It offers various options and settings that can be customized according to your preferences. Please read the following instructions carefully before installing the module.

# **Function Options**

- Option1: Unlocks the car on turning the key to position 1 (ACC) and/or to position 0 (OFF)
- Option2: Double press the lock button on your remote control
- Option3: It does not unlock (default)
- **Option4:** Unlocks the car on turning the key to position 1 (ACC). Recommended for cars with GM module programmed to send zeroing message on the KBUS at a certain interval.
- Option5: Triple blinker 620ms
- Option6: Triple blinker 630ms
- Option7: Ventilation ON\*
- Option8: Follow me home2\*\*
- Option9: Follow me home2\*\*\*

#### **Factory Defaults and Resetting**

To reset all functions and settings to factory defaults, set Function1 to Option5. The LEDs will blink for 4 seconds to confirm the successful reset.

# **Product Usage Instructions**

Follow the steps below to use the modLight Lite module:

- 1. Before installing the module, ensure you have read and understood the instructions provided.
- 2. For unlocking the car, choose one of the following options:
  - Option1: Turn the key to position 1 (ACC) and/or position 0 (OFF)
  - Option2: Double press the lock button on your remote control
  - Option4: Turn the key to position 1 (ACC). Recommended for certain car models with GM module programming.
- 3. If you want the car to lock itself when you reach 18km/h, set Function2 to Option1. Note that this function is only applicable if your car cannot be coded with diagnostic equipment.
- 4. If your car unlocks immediately when you turn off the engine and you experience random unlocking while driving, set Function3 to Option4.
- 5. To control the modLight cycles, select one of the following options:
  - Option5: Triple blinker 620ms
  - Option6: Triple blinker 630ms
  - Option7: modLight cycle 1
  - Option8: modLight cycle 2 (not recommended)
  - Option9: modLight cycle 3
- 6. If your car is equipped with K-BUS controlled heater, you can enable ventilation by setting Function4 to Option7 or activate Webasto heater by setting it to Option5.
- 7. For follow me home functionality, choose one of the following options:

<sup>\*</sup>Works only on cars equipped with K-BUS controlled heater.

<sup>\*\*</sup>Option8: high beams, fog lamps, rear standing lights for newer LCMs.

<sup>\*\*\*</sup>Option9: Sidelights (parking lights) (default)

- Option1: Follow me home (high beams, fogs, brake l.) (default)
- Option4: modLight cycle 2
- Option8: Follow me home2\*\*
- Option9: Follow me home2\*\*\*
- 8. To control sidelights or parking lights, select one of the following options:
  - Option1: Sidelights (parking lights) (default)
  - Option2: Sidelights (for newer LCMs)
  - Option4: modLight cycle 1
  - Option6: modLight cycle 2 (not recommended)
  - Option7: modLight cycle 3
- 9. Follow the specific instructions for mirrors folding/unfolding, depending on your car's features and requirements.

**Note:** It is important to refer to your car's specifications and ensure compatibility with the modLight Lite module before making any changes or adjustments.

#### Instructions for use

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

The following is included in the set of your modLight Lite module: a modLight Lite module with a male connector, female connector and instructions for use.

To install your modLight Lite module, you have to connect it to 3 wires from the wire harness of your car – direct 12V, ground and KBUS.

- 1. Please connect the brown wire from the female connector of modLlght Lite to the ground (GND) from the wire harness of your car. Usually, the color of the ground wire of your BMW is brown. Please use a voltmeter to confirm before the installation.
- 2. Please connect the red wire from the female connector of modLight Lite to constant (permanent, direct) 12V from the wire harness of your car. Usually the color of the permanent 12V wire of your BMW is red-green or red-white. Please use a voltmeter to confirm before installation.
- 3. Please connect the white wire from the female connector of modLight Lite to KBUS wire of your BMW. The color of KBUS wire is always white-red wire with yellow dots.

All of the three wires that you need to connect the module to are available at multiple locations inside your car – at the radio connector, at the 3-pin connector of the CD changer, the dashboard connectors, the LCM module connectors, etc.

Once you have modLight's female connector wired up to right wires of your car's wire harness, please confirm the voltage between the RED and the BROWN wires of modLight's connector, then connect it to modLight Lite module. 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 modLight Lite. Now you have to get familiar with the functions and the settings of the module. 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 very simple, through a user interface with 2 buttons and 2 LED indicators, which you can easily see on the front side of the modLight Lite.

The right button the "up" or "scroll", i.e. each press on it leads you to the next option. The left button is the "enter", which you will usually use to select or confirm the selection.

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

**Example:** if you would like to activate the comfort turn signals, you have to set function3 on option4. Here is how to do that:

- 1. Press the right button 3 times to select function3. On every right button press, the green LED turns on for a moment.
- 2. After pressing the right button 3 times, press left button (enter) once.
- 3. Now press the right button 4 times to select option4.
- 4. Without waiting, press the left button (enter) once to confirm the selected option.
- 5. Immediately after that, you will see the red LED light up while the green LED is counting the function you have chosen, then the red LED turns off and the green LED start counting the option you have chosen. That helps you confirm what you have set.
- 6. If you don't touch any button for more than 4 seconds, red LED will blink several times to show you that it is out of the menu.

#### Function 1 – Automatic locking when reaching 18km/h.

- Option1 = ON
- Option3 = OFF (default)
- Option5\*\*\* = ModLight Lite Factory Defaults (this resets modLight's settings to factory defaults)
- \*If this function is set to ON, your car will lock itself when you reach 18km/h.
- \*\* We recommend using this function only if your car cannot be coded (with diagnostic equipment) for such factory function. Self-locking, especially for newer BMWs (after 1999) is not a well-designed manipulation through the KBUS.
- \*\*\*If you want to reset all the functions and settings of your modLight Lite module, please set Function1 to Option5. The LEDs will blink for 4 seconds to confirm that you successfully reset your modLight Lite.

#### 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)
- Option3 = It does not unlock (default)
- Option4 = Unlocks on turning 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.

# Function 3 - Comfort turn signals (triple blinker) Option1 = Off

- Option3 = Off
- Option4 = Triple blinker (default)
- Option5 = Triple blinker 620ms
- Option6 = Triple blinker 630ms

<sup>\*\*</sup> Option4 is created for those cars whose GM module is factory programmed to send zeroing message on the KBUS 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 4 – Folding/unfolding mirrors – choice of mode

- Option1 = E46/E83 version1
- Option2 = E39
- Option3 = E53
- Option4: E46/E83

\*Mirrors folding/unfolding by the key fob remote is possible only on cars which has folding mirrors and power seats with memory.

\*\* Please, if your car meets the requirements above, but it does not fold/unfold your mirrors even after you tried with any of the 4 opitons, try with different setting of function21.

# 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 by long press of the lock button (check modLight cycles here modBM.com/patterns)

- Option1 = Follow me home (high beams, fogs, brake l.) (default);
- Option2 = modLight cycle 1
  - Option3 = OFF
- Option4 = modLight cycle 2
- Option5 = Webasto heater ON\*
- Option6 = modLight cycle 3
- Option7 = Ventilation ON\*
- Option8 = Follow me home2\*\*

# Function 7 – Double press the lock button (check modLight cycles here modBM.com/patterns)

- Option1 = Follow me home (high beams, fogs, brake I.) (default);
- Option2 = modLight cycle 1
  - Option3 = OFF
- Option4 = modLight cycle 2
- Option5 Webasto heater ON\*
- Option6 = modLight cycle 3
- Option7 = Ventilation ON\*
- Option8 = Follow me home2\*\*

<sup>\*</sup>Works only on cars equipped with K-BUS controlled heater.

<sup>\*\*</sup>Option8: high beams, fog lamps, rear standing lights for newer LCMs.

- \*Works only on cars equipped with K-BUS controlled heater.
- \*\*Option8: high beams, fog lamps, rear standing lights for newer LCMs.

## Function 8 - GM module version of your car

- Option1 = Old GM module. No signals from the lock/unlock buttons in KBUS/IBUS.
- Option3 = New GM module (default). There are signals on the KBUS/IBUS for pressing any remote control button.

\*In case that you receive your modLight Lite, 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 KBUS messages by pressing the remote control buttons of the key. The double press lock function is not possible with the Old GM module.

### Function 9 – Single press lock (Goodbye lights)

- Option1 = Sidelights (parking lights) (default)
- Option2 = Sidelights (for newer LCMs)
- Option3 = OFF
- Option4 = modlight cycle 1 Option7 = modLight cycle 3
- Option5 = high beams + reverse + fog lamps Option8 = Sidelight switch
- Option6 = modLight cycle 2 (not recommended)
- Option9 = Follow me home2\*\*\*

# Function 10 - Single press unlock buttons (Welcome lights)

- Option1 = Sidelights (parking lights) (default)
- Option2 = Sidelights (for newer LCMs)
- Option3 = OFF
- Option4 = modlight cycle 1
- Option5 = high beams + reverse + fog lamps
- Option6 = modLight cycle 2 (not recommended)
- Option7 = modLight cycle 3
- Option8 = Sidelight switch
- Option9 = Follow me home2\*\*\*

# Function 11 – 'Comfort turn signals blinks'

- Option1 = not used
- Option2 = not used
- Option3 = 3 blinks
- Option4 = 4 blinks(default)

<sup>\*</sup>You can increase the time of the selected lights cycle. Please see the next functions of the instructions.

<sup>\*\*</sup>You can add the fog lamps or the low-beam lights to the sidelights (see function14 and function15).

- Option5 = 5 blinks
- Option6 = 6 blinks

# Function 12 â€" Duration of the â€~Single press lock cycle'

- Option1 = 10 seconds (default)
- Option3 = 20 seconds
- Option2 = 15 seconds
- Option4 = 25 seconds

# Function 13 - Duration of the 'Single press unlock cycle'

- Option1 = 10 seconds (default)
- Option2 = 15 seconds
- Option4 = 25 seconds
- Option3 = 20 seconds

# Function 14 – Additional lights for the 'Single press unlock cycle'

- Option1 = OFF
- Option2 = Fog lamps (front) (E46 only)
- Option3 = dipped-beam headlamps

# Function 15 – Additional lights for the 'Single press lock cycle'

- Option1 = OFF
- Option2 = Fog lamps (front) (E46 only)
- Option3 = dipped-beam headlamps

# Function 16 - Duration of the 'Follow me home' cycle

- Option1 = 10 seconds (default)
- Option2 = 15 seconds
- Option4 = 25 seconds
- Option3 = 20 seconds

# Function 17 – Automatic restart of modLight Lite module

- Option1 = 1 hour
- Option2 = 2 hours
- Option3 = off
- Option4 = 8 hours
- Option5 = 24 hours Option
- 6 = 48 hours

\*This function automatically restarts the modLight Lite module every 1, 2, 8, 24, 48 hours from the last activity of the KBUS.

#### Function 18 - Not used

Function 19 - KBUS communication version

- Option1 = Version 1
- Option2 = Version 2 (default)
- Option3 = Version 3

Function 20 – "Welcome lights" cycle for each waking up/restart of the modLight Lite

- Option1 = On. Your modLight Lite module will start the "welcome lights" with each of its waking up/restart.
- Option2 = Off (default)

# Function 21 – Folding/unfolding mirrors normal operation of reversed.

- Option1 = Reversed
- Option2 = Normal(default)

# 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 - Not used

Function 24 – Webasto heater turn off when engage the key to position2 (IGN):

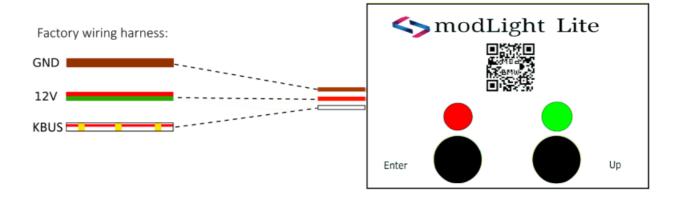
- Option1 = Turn off heater (default)
- Option2 = No turning off when key to position2

#### 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)

<sup>\*</sup>Please select your version or test which of the functions, "Triple blinker" will work better on your car.

<sup>\*</sup>Some E46/E83's GM modules sends reversed telegrams for mirror folding and unfolding.



### Wiring diagram of modLight Lite's connector

PIN1 (BROWN) - Ground (ground, chassis)

PIN2 (RED) - 12V (direct 12V)

PIN3 (WHITE) - KBUS (communication)

Please use a voltmeter or another measuring tool in order to confirm the power supply wires before plugging the module in.

Please keep in mind that each additional module, including modLight Lite,

must be properly installed by a professional! Do not connect in a way different from the one described in there instructions for use!

Visit our website: modBM.com

KBUS Lights patterns videos: modBM.com/patterns

Thank you!
Contact us:
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#### **Documents / Resources**



modLight E46 Lite Custom Lighting Module [pdf] Instruction Manual

E46 Lite Custom Lighting Module, E46, Lite Custom Lighting Module, Custom Lighting Module, Lighting Module, Module

#### References

- • modBM modules modLight2, IBUS interface, mod WIFI ENET
- Patterns modBM modules
- modBM modules modLight2, IBUS interface, mod WIFI ENET

Manuals+,