

# Radio module of engine compartment

# RHM-03 BT

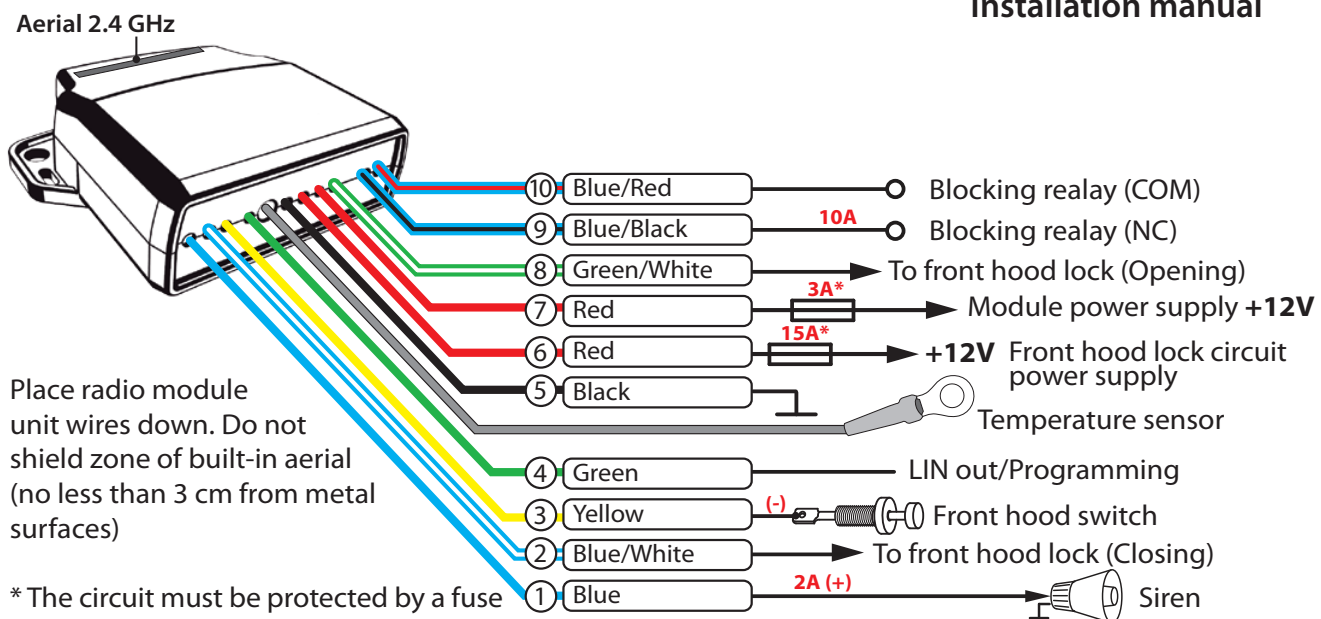
## General information

This module is designed to simplify the system installation and wiring in the engine compartment module. Data transmission and control are performed via system standard 2.4 GHz radio channel with Bluetooth 4.2 Low Energy protocol. The module allows to control front hood locks, siren and digital engine preheater it also allows to block the engine (engine blocking can be activated immediately or when determining motion with built-in accelerometer, it depends on the system configuration). The module also sends information about temperature to the base unit.

## List of supported systems

RHM-03BT: Pandora Immo; Pandora MINI, Pandora SMART; Future systems equipped with a Bluetooth module.

## Installation manual



Engine compartment module RHM-03 BT is installed discreetly in the engine compartment on the vehicles with 12V on-board voltage. Do not install the module near the exhaust manifold, as well as in places with high humidity! When installing the device, avoid shielding of built-in aerial 2,4 GHz by metal parts of the car body.

**Wire 1 (Blue) («Siren»)** connects to siren control wire (+) (maximum load current is 2A).

**Wire 2 (Blue-white) («Closing a lock»)** and **Wire 8 (Green-white) («Opening a lock»)** are outputs to control front hood lock. These wires connect to devices with current consumption no more than 15A. Front hood lock will be open if three conditions are satisfied:

- the system is disarmed,
- the ignition is switched on,
- radio tag is in range of the system base unit.

Front hood lock will be closed if any of the following conditions have occurred:

- radio tag is 'lost',

- the system is armed,
- engine is stopped (blocking is performed with delay of 15 seconds),
- when blocking command 666\* is issued via a phone (unlocking is performed only via entering command 999\* and PIN-code from personal owner's card).

To set different hood lock logic, program a setting in the 'Block of timer channels 10(K)' section. When closing the lock, the status of the hood trigger is taken into account (by analog or CAN), if the hood is open, closing the lock is performed after hood is closed with a delay of 3 seconds. If the system is in maintenance/valet mode, the hood lock is always open.

**Wire 3 (Yellow) («Front hood switch»)** is input of front hood limit switch.

**Wire 4 (Green) («LIN out/Programming»)** is programming wire that is used recording the module into the system memory. It can also be used to control digital engine preheaters (Eberspaehar and Webasto) if it is assigned as LIN out.

**Wire 5 (Black) («Ground»)** should be connected to the car body in a grounding spot or to a reliable conductor, connected to car body or to any grounded device. The wire should be connected FIRST during installation..

**Wire 6 (Red) («Front hood lock circuit power supply +12V»)** connects to any wire that has constant voltage of 12V. The circuit should be protected by a fuse (15A). If this condition is not satisfied, device can be damaged and it can impact the security features of the system.

**Wire 7 (Red) («Module power supply +12V»)** connects to any wire that has constant voltage of 12V.

**Wire 9 (Blue-black) and 10 (Blue-red) («Blocking»)** are normally closed contacts of the built-in relay. These wires are used for implementing engine blocking (NC – 9, COM – 10). The switching current of the relay should not exceed 10 A for a long time and should not exceed 20A when switching circuits without an inductive component.

## Programming (recording) the module

1. Enter the programming mode on the "Registering engine compartment module" level.
2. Wire 4 (programming) of RHM-03 BT module connects to wire 5 (ground) and connects with a grounded spot of the car.
3. After wire 7 is connected (module power supply +12V), the system will confirm recording of the module to the system's memory with 1 beep of the siren connected to the base unit. If the siren is connected to the RHM-03 BT module, there will be no sound signal.
4. Disconnect the programming wire 4 from wire 5 and insulate it.

## Specifications

Operating frequency of the radio channel: 2,4GHz-2,5GHz

Type of controlling code: dialog, AES

Dimensions: 95x54x19 mm

Supply voltage: 9...18 V

Current consumption

when arming: no more than 6mA

when blocking: no more than 80mA

Nominal switching current of the blocking relay: 10A

Maximum switching current of the blocking relay: 20A

(no longer than 1 minute)

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