

MARINEBEAM 12VDC WIRELESS REMOTE-CONTROL SWITCH

INSTRUCTIONS

The wireless remote switch can be used to turn ON and OFF any 12VDC device that draws 7 Amps or less (90W). This kit consists of a receiver module, and two (2) water-resistant transmitter fobs. The transmitter fobs each have a single pushbutton, which is pressed to activate the receiver/switch, and turn the 12VDC device ON or OFF. The typical maximum range is 100 meters.

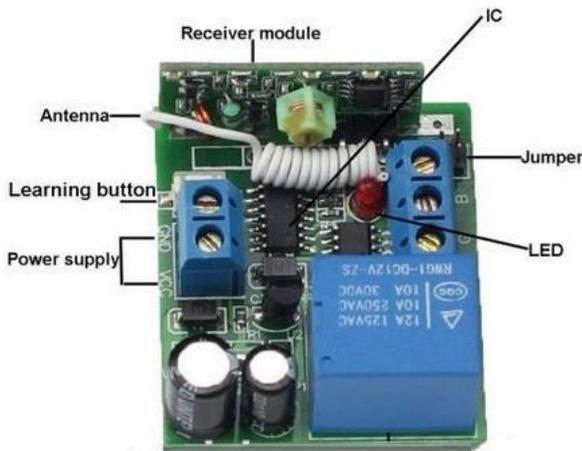
The receiver module contains a relay, which has contacts which close and open via the remote fob switch to turn the device ON or OFF. The relay can be configured to operate in several different modes depending on internal jumper settings and how it is wired by the user. The receiver module is contained within a black splash-proof box. Open the box to access the relay connections and the jumper settings.



The various modes are:

1. **Normally Open Configuration** – The user wires the relay contacts such that they are configured as Normally Open (NO), and the 12VDC device is then normally in the OFF state. This is the typical setting.
2. **Normally Closed Configuration**– The user wires the relay contacts such that they are configured as Normally Closed (NC), and the 12VDC device is then normally in the ON state.
3. **Non-Latched Mode**– This mode can be set via jumpers if you want the relay to act as a momentary switch. In this case the contacts are only open (or closed) when the button on the transmitter is pressed and held. Examples of uses in a Normally Open configuration would be a horn, or a bilge pump. Only while the button is held down does the horn sound or the bilge pump operate. When the button it is released, the device is OFF. This mode can also be used in Normally Closed mode. This would be used when you want to momentarily turn a device OFF that is otherwise normally on.
4. **Latched Mode** – This mode can be set via jumpers to have the relay operate like a regular switch, with one press of the button turning the device ON, and a second press turning the device OFF (in Normally Closed Configuration). This is the typical configuration for turning lights and other devices ON and OFF.

WIRING INSTUCTIONS



The receiver box contains the electronic receiver module (photo at left). Familiarize yourself with the instructions and the components before wiring to the module.

The receiver box should normally be mounted near 12VDC power, as well as near the circuit that you intend to control. The receiver is essentially wired like a second switch, so there are several wiring options, depending on whether you wish to have your existing switch in parallel (the remote control will operate ON/OFF independent of the existing switch), or you wish

to have it downstream (in series) of the existing switch, in which case the remote will only operate if the existing switch is on.

Another alternative is to wire the remote in series with the existing switch, and then use the Normally Closed (NC) wiring configuration. In this case, the remote relay contacts are closed, which means the controlled device mode is normally ON, so you can use your existing switch to turn the device ON/OFF as usual, but you can take control via the remote when needed. There are several wiring options, so be sure to think through your application to determine the best approach.

POWERING THE RECEIVER

The receiver is powered by 12VDC. Your +12VDC power and Ground (-) are connected to the terminals on the terminal block labeled GND and VCC. These designations are printed on the circuit board. VCC indicates +12VDC, and GND indicates Ground (-).

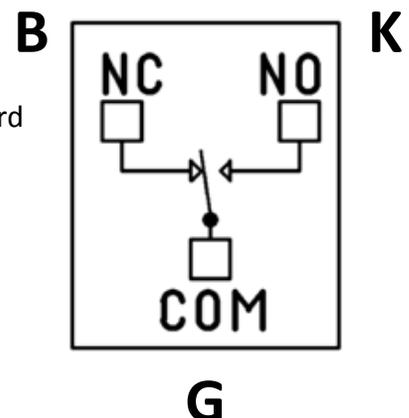
WIRING TO THE RELAY CONTACTS

The relay can be wired either in a Normally Open or Normally Closed configuration. There are designations on the circuit board near the wiring terminals as below:

K = Normally Open

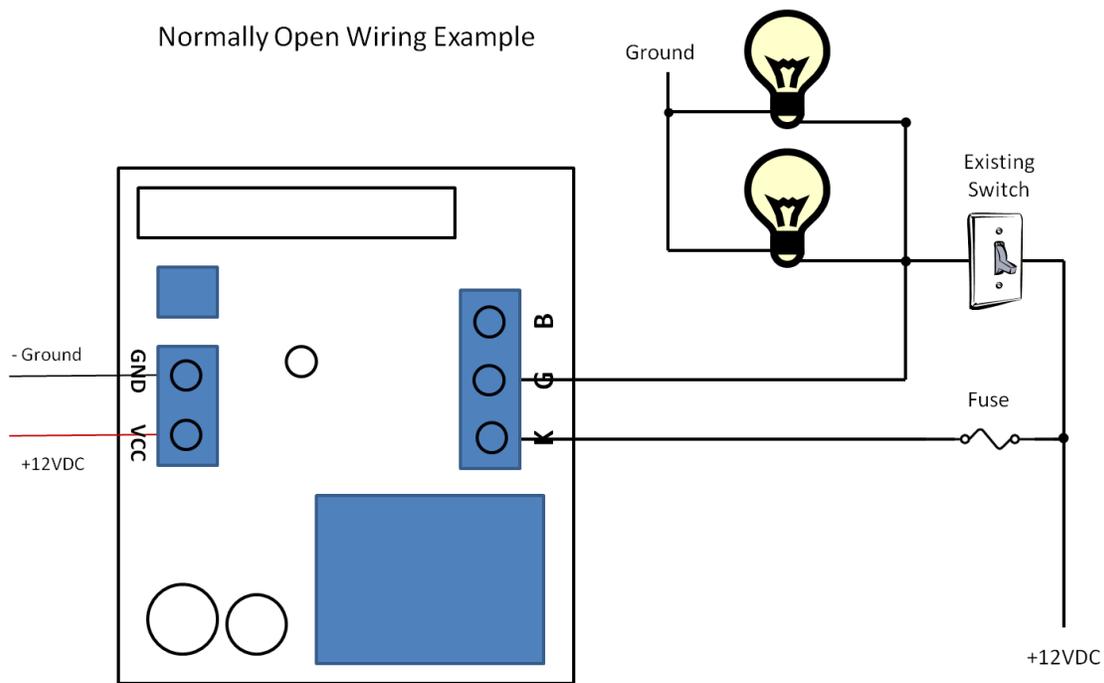
G = Common Terminal

B = Normally Closed



The device you wish to control will be connected to the connection terminals on the blue terminal block which is labeled K, G, B. (see diagram below for an example of typical wiring)

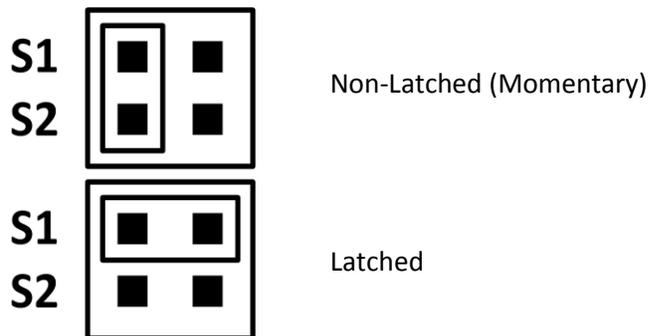
The example shown below is for wiring two spreader lights (normally open), with the remote control in parallel with the existing switch. In this case, the lights and the receiver are powered separately; however, a jumper wire connected from K could also be used to supply power to the VCC terminal.



NOTE: If after reviewing these instructions you do not feel comfortable wiring this device properly, then please seek out a qualified electrician.

SETTING THE LATCHING MODE USING THE JUMPER HAT

The modes available are Latched and Non-Latched (momentary). The Hat is a small black plastic piece that bridges two of four available pins on the receiver board. These pins are labeled S1 and S2. To set the mode, place the Hat such that it bridges the terminals as follows:



LEARNING BUTTON

The transmitters are shipped from the factory already paired with the receiver, so it should not be necessary to pair the remotes to the receiver upon purchase. However, should you ever need to re-pair the remotes, just press the white learning button on the receiver board and you will see the red LED flash. When the indicator LED flashes, press the button on the remote control. The pairing of the two devices is confirmed when the LED turns off. You must have 12VDC power to the receiver and batteries in the transmitters during pairing.

OPERATION

Once the device is wired and the modes are set, the white antenna wire can be unfurled. For the best range, extend this wire to its full length and height. The receiver module case can now be closed. Be careful to guide the wires through the slots before closing and locking the cover. Use Velcro or wire ties to securely mount the receiver box.

Test the device by pressing the button on the fob. You will hear the click of the relay actuating when you press the button. If you do not hear a click, you either have no power, the batteries are dead, or the transmitter is not paired properly to the receiver. If you hear a click, but your device does not operate, then check the relay connections, the controlled device, or the wiring.

NOTE: Always use fuses or breaker switches sized for the application. Be sure that all power connections have over-current protection. Determine the total maximum Wattage of the load, and divide by 12V to determine the Amp draw. The fuse or breaker should generally be sized approximately 20% larger than the maximum amperage draw.