Universal Dimmer Receiver Module

WMR-250

Specification:

Function: On / Off / Dimmer
Frequency: 433.92MHz
Power Rating: 230V~ /50Hz

Output rating:

Incandescent and halogen lamps (230V~):	20W-250W Max.
Electronic transformers (12V~):	20W-250W Max.
Inductive transformers (12V~):	40W-250W Max.
Dimmable energy saving lamp:	3W-24W Max.
Dimmable LEDs:	3W-24W Max.

！   Not compatible to fluorescent lamp

Overview:

Featuring an unique universal dimmer receiver module controlling existing dimmable LED, dimmable energy saving lamp, incandescent lamp, 230V~ halogen lamp and 12V halogen lamp with inductive transformer or electronic transformer.
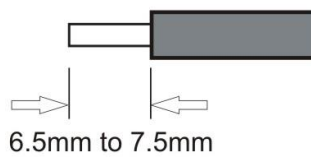
Benefit the ability to adjust the dim level for all dimmable loads and at the same time keeping your existing light switch.

Universal dimmer receiver module has 4 built-in dim level controlled by software to adjust the dim level   accordingly to different brands of load(s) used.
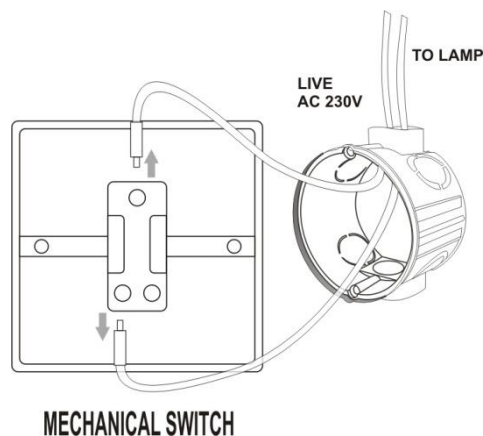
In addition the universal dimmer receiver module has built-in overload and over heat protection.
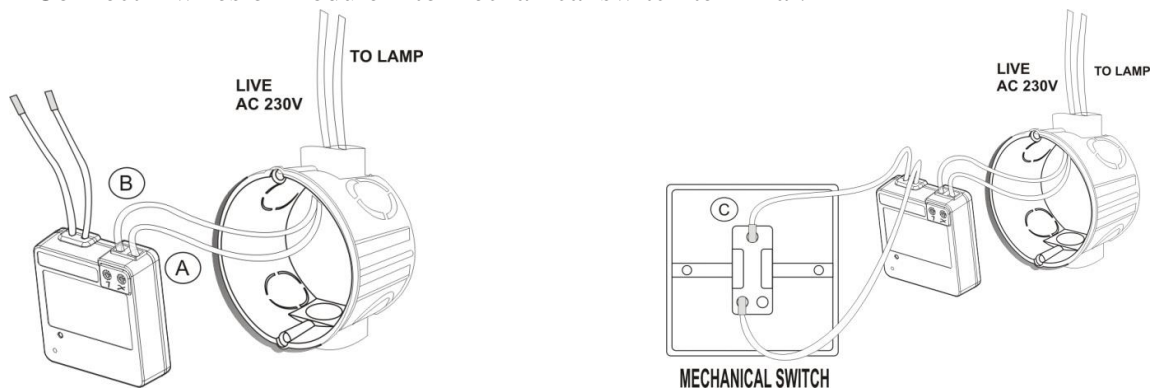
Wiring:

1. Turn Off mains power before installing and wiring.
2. Strip the cable as shown (at least 6.5mm to 7.5mm) then connect the wiring as per the diagrams below, ensure terminals are properly tightened and no bare wire is visible.
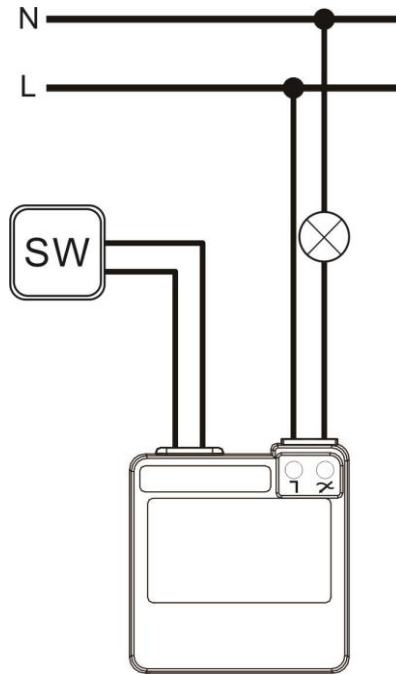

6.5mm to 7.5mm

3. Disconnect AC 230V Live wire from mechanical switch terminal.

MECHANICAL SWITCH

4. Connect AC wire into module terminal.
    Ⓐ   Load Live wire into terminal ✂.
    Ⓑ   Live AC 230V wire into terminal L.
    Ⓒ   Connect 2 wires of module into mechanical switch terminal.

MECHANICAL SWITCH

5. Tighten the terminal screws.
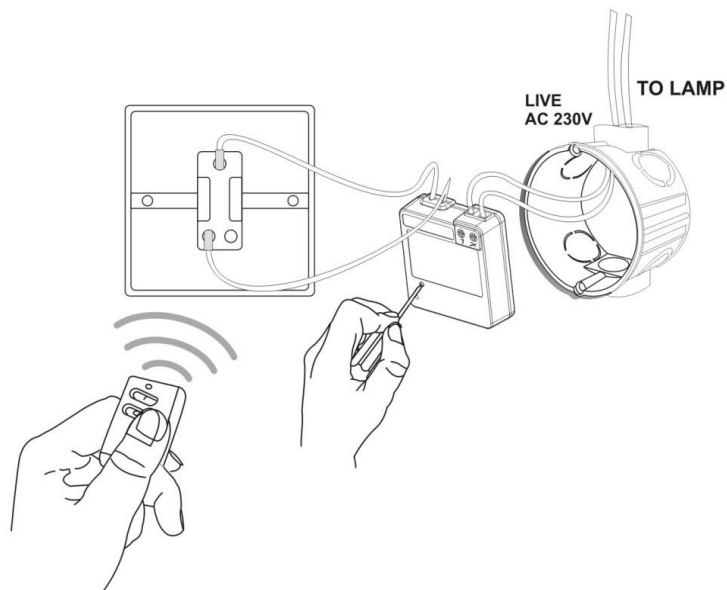
Paring:

Module can pair with up to <u>6 different remote controls</u> at any one time as it has **6 memories**.

Module is not compatible to "Code Switch" remote controls.

Only compatible to "Self Learning" remote controls.

Pairing using **LEARNING MODE**:

1. On the module press the **'Learn'** button once (LED on module will flash), this will enter learning mode.

2. With a remote control press the **'ON'** button intended to be paired; load(s) will flash twice to confirm that the remote control is now paired.

NOTE: Learning mode lasts for 12 seconds; if no signal is received from a remote control during this time then the module will automatically exit learning mode without pairing the device.

To exit learning mode manually, simply press the **'Learn'** button again.

！If during learning mode the module does not react and LED on module continues to flash, this means that the module's memory is **FULL** and no further remote control may be paired unless one of the existing remote control is first unpaired (see below).

Unparing:

Removing single device:

1. On the module press the **'Learn'** button once (LED on module will flash), this will enter learning mode.

2. With a remote control press the **'OFF'** button intended to be un-paired; load(s) will flash twice to confirm that the remote control is un-paired.

Clearing Memory (will remove all paired remote controls):

On the module press the **'Learn'** button for 6 seconds (LED on module will flash), release then press once again. Load(s) will flash twice to confirm that all remote control is unpaired.

※ Important※

Load (s) must be under 'OFF' state when performing 'pairing' and 'un-pairing' mode.

Dim Level Setup:

！**Recommend using the same brand of load at the same time.**

● Total 4 dim level from '4' (Brightness) through to '1' (Dimmest).

● Select the types of load (A) or (B) you wish to connect as the setup will be different.

● 2 types of setup

(A) Dimmable LED / Incandescent and halogen lamps / Electronic or Inductive transformers (factory pre-set mode)

(B) Dimmable ESL

(A) Dimmable LED / Incandescent and halogen lamps / Electronic or Inductive transformers

1. With a remote control, turn **'ON'** the module.

2. Press the **'Learn'** button **2 times**, this will enter the brightness level setup.

    A)   Initial setting will be at factory pre-set. (Brightest dim level).

    B)   2nd setting and after will be at previous stipulated dim level setting.

3. With the remote control press the **'OFF'** button once to <u>decrease</u> the dim level, once it reaches to dim level '1', module will not react any further.

    OR

    With the remote control press the **'ON'** button once to <u>increase</u> the dim level, once it reaches to

dim level '4', module will not react any further.

4. During the adjustment, **load will dim in steps** to the relevant dim level.

5. For the best appropriate setup, load should NOT flicker or turn OFF.

6. On the appropriate dim level press the **'Learn'** button **2 times** to complete the dim level setup, load will flash twice to confirm.

(B) Dimmable ESL

1. With a remote control, turn **'ON'** the module.

2. Press the **'Learn'** button **3 times**, this will enter the brightness level setup.

    A)   Initial setting will be at factory pre-set. (Brightest dim level).

    B) 2nd setting and after will be at previous stipulated dim level setting.

3. With the remote control press the **'OFF'** button once to <u>decrease</u> the dim level, once it reaches to dim level '1', module will not react any further.
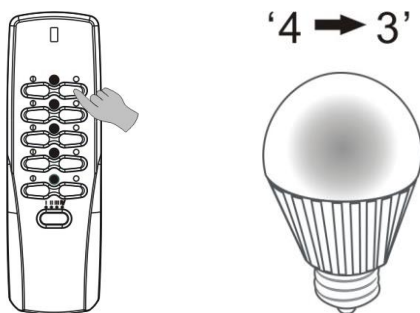
    OR

    With the remote control press the **'ON'** button once to <u>increase</u> the dim level, once it reaches to dim level '4', module will not react any further.
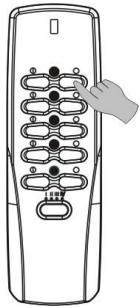
4. During the adjustment, load will need 100% power in order to activate. Therefore **load will rise to 100% brightness** then dim down to the relevant dim level (Dimming effect will be seen).

5. For the best appropriate setup, the load should NOT flicker or turn OFF.

6. On the appropriate dim level press the **'Learn'** button **3 times** to complete the dim level setup, load will flash twice to confirm.

◎   Example : Setting the dimmest level from factory pre-set.

1.   With a remote control press **'OFF'** button once, software will adjust from level **'4 → 3'**, if the load lights up normally then continue to dim down.

2. Press again the **'OFF'** button, software will adjust from level **'3 → 2'** and continue adjusting further until the load flickers or turn OFF.
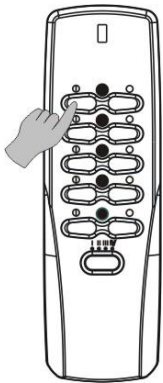
'3 ➡ 2'   '2 ➡ 1'
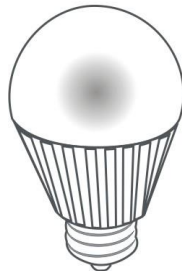
'OK'   'Flicker or OFF'

3. If load flickers or turns OFF, with the remote control press **'ON'** button once to adjust one level higher **'1 ➔ 2'**

'1 ➡ 2'

'OK'

4. In this example the appropriate dim level will be set at level **'2'**
5. You may also choose your own desired level of brightness.

! **During brightness level setup, some loads can be dimmed to a very low level however may not have enough power to properly turn 'ON' the load especially with cold loads. Characteristic of each load may be different therefore if this case is found after the setup please perform the brightness level setup again and increase one or two level of brightness.**

! **If you replace a new load or cleared all memories on dimmer module receiver, please perform the brightness level setup again.**

※ **Caution**※
If dimmable ESL is set in the wrong setting (A), the load may be in an abnormal state. i.e unable to turn **'ON'** the load.

Operation via remote control
ON/OFF Function:
Press the 'ON' button on remote control, the load(s) will gradually illuminate.
Press the 'OFF' button on wall switch, the load(s) will gradually turn OFF.
Dimming Function:
1. Make sure the load(s) is switched ON.

2. With the remote control press the ON button again, the load(s) will start to dim.

3. To stop at the desired dim level, press the ON button again.

※ Dim level dims in cycle, during the cycle if no signal is given within 4 cycles the load(s) will stop at 100% brightness.

！After setting a dim level with the remote control the load(s) is then switched OFF, the next time that the light is switched back ON again, dimmable ESL will rise to 100% brightness then to the stipulated brightness or dimmable LED will directly return to the previous stipulated brightness.

Operation via existing mechanical switch

ON/OFF Function:

Push once to switch ON, push again to switch OFF (latching action)

Dimming Function:

1. Make sure the load(s) is turned ON.

2. Push button twice, the loads will start to dim.

3. To stop at the desired brightness level, again push the button twice.

※ Dimming level dims in cycle, during the cycle if no signal is given 『with 4 cycles it will stop at 100% brightness』.

！After setting a dim level using the remote control the load(s) is then switched OFF, the next time that the load is switched back ON again dimmable ESL will rise to 100% brightness then to the stipulated brightness or dimmable LED will directly return to the previous stipulated brightness.

Example using in conjunction with remote control and mechanical switch.

Example 1:

If load(s) is switched ON from the mechanical switch then switch OFF via the remote control.

The next time turning ON the load can either:

(i)   With the remote press the ON button

OR

(ii) On mechanical switch press the button **once**.

Example 2:

If load(s) is switched ON from the mechanical switch then switch ON again via the remote control, then the load will start to dim.

To stop at the desired dim level:

(i)   Wit the remote press the ON button again

OR

(ii) On mechanical switch press the button **twice**.

Note:

This module is capable and safe for dimmable ESL and dimmable LEDs to operate up to 50 Watts maximum, but in order to fulfil the regulation the product specification rating must indicate 24Watts Maximum.

Caution:

Please leave minimum of 1.5 meters in-between 2 or more receivers.