

# UC-241 / UC-242 Receiver

The UC-241 is a 12-channel receiver of signals from TP wireless thermostats or from JA-60 wireless detectors. The UC-242 is a six-channel receiver. The two receivers have 12 and 6 outputs respectively, which can be used to control various devices. LEDs on the receiver's front cover indicate the status of each output channel. Additionally, a power relay is used for a pump control (the relay is on if any output is triggered).

When used with wireless thermostats, the UC-241 / UC-242 can efficiently control multi-zone heating and cooling systems.

JA-60M wireless detectors can also be used to control the UC-241's or UC-242's output relays remotely from any switching device (switch, micro switch sensor etc.). This can be convenient for automation or control tasks.

The receivers can also receive signals from JA-60S wireless smoke sensors and JA-60G gas leak sensors.

## Specification

Power supply:	24 V AC
Stand by consumption:	0.05 A
Max. supply current:	2 A
Internal current protection:	fuse F 3.15 A
Max. output load:	max. 2 A per one output and 2 A totally for all 1-12 outputs
Receiver radio frequency:	433.9 MHz, ISM EN 300220
Working distance:	max. 100 m in an open area
Dimensions:	165 x 125 x 75 mm (w/o antenna)
EMC	EN 300683
Working environment:	IP20 EN 60529
Humidity:	max. 85 %
Working temperature):	-10 to +40 °C



Hereby, Jablotron Ltd., declares that this UC-241 and UC-242 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. Original of the conformity assessment can be found at the web page [www.jablotron.cz](http://www.jablotron.cz), section Technical support.

## Installation

1. Remove the 4 screws holding the front cover and open the housing. Unplug the internal cable and remove the cover.
2. Attach the UC-241/242 in the desired location with two screws (provided).
3. Route cables through the housing and connect them to the terminals (see terminal description and examples of wiring).
4. Plug in the front panel cable and reattach the front cover to the housing.

*Note: Do not locate any cable close to the receiver antenna and do not install any other UC-241/242 closer than 2 meters (this could shorten the working distance). If you need a receiver with additional channels, you can connect two or more receivers with a two-wire data cable. The jumper setting indicates the master receiver (see Fig.4) !*

### Terminals description:

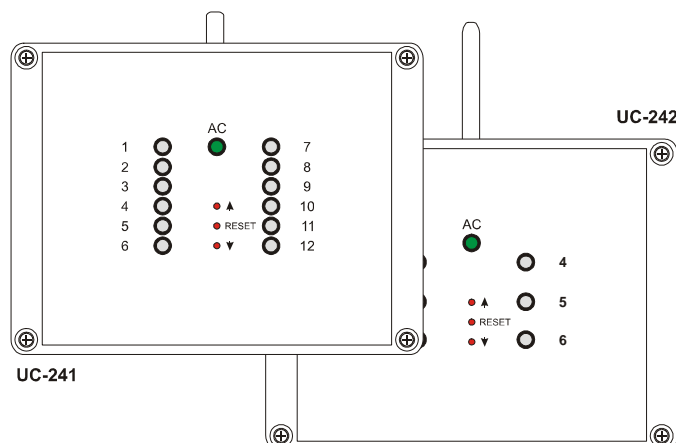
<b>AC, AC</b>	– AC power input 24 V AC
<b>L-A, N-A. PE-A</b>	– power supply input for the circulatory pump (use external fuse for its protection)
<b>L-B, N-B. PE-B</b>	– terminals for the circulatory pump connection (the L-B terminal is triggered if any of the 1-12 outputs are switched)
<b>1- 12</b>	– transistor outputs (switch to ground)
<b>COM</b>	– common positive output terminals

## Indicators

Green LED **AC** indicates the presence of the receiver's power supply. When lit, the receiver is powered.

Indicators **1 to 12** indicate the status of the output channels (relays).

LED 1 - 12	Description
Off	Channel is not used (no transmitter is enrolled)
Steady Green	Channel has a transmitter enrolled, relay is off
Steady Red	Relay is on (activated by the enrolled transmitter)
Flashing Green	Communication with the enrolled transmitter is down (Low battery in transmitter, radio interference etc.)
Flashing Red	Learning mode (to enroll a transmitter)



## Enrollment of transmitters

For each channel of the receiver, a transmitter (thermostat or wireless detector) can be enrolled in the following way:

- Press and hold **▲** or **▼** (UP or down) button in order to select the desired channel (current channel will be indicated by its LED flashing)
- insert batteries to the transmitter (thermostat or detector). When powered, the transmitter generates an enrollment signal and its code is stored in the selected receiver channel's memory
- enrollment of the transmitter is confirmed by the constant lighting of the green LED.

Only one transmitter can be enrolled to each UC-241 / UC-242 channel. A transmitter can be enrolled to multiple receivers without any restrictions. If you try to enroll a new transmitter to an occupied channel, the new transmitter will be stored and the former one will be erased.

### Erasing of a transmitter

To erase an existing transmitter,:

- using button **▲** or **▼** (UP or down) select the desired channel (current channel will be indicated by its LED flashing)
- press the RESET button and the corresponding LED will turn off

## Use and Maintenance

All enrolled transmitters (thermostats and detectors) transmit regular checking signals. If the receiver does not receive the signal of an enrolled transmitter for a certain period, it will indicate that communication with this item is down (flashing green LED) and the corresponding relay will turn off.

A reason for the lost connection can be low batteries in the transmitter. Average lifetime of the transmitter's batteries is about 1 year. Each transmitter checks its battery's conditions and signals in advance if the batteries are reaching a critically low state (see the transmitter manual for details).

Another reason of possible connection failure can be from radio signal interference in the working band of the receiver. In such a case the UC-241 /UC-242 will usually indicate loss of communication with a multiple number of transmitters. In this situation, check if there is any non-approved radio-communicating device in the working range of the receiver.

*Warning: manufacturer is not responsible for any damage caused by improper installation or non-suitable use of this product.*

**Note:** Although this product does not contain any harmful materials we suggest you to return the product to the dealer or directly to the producer after usage



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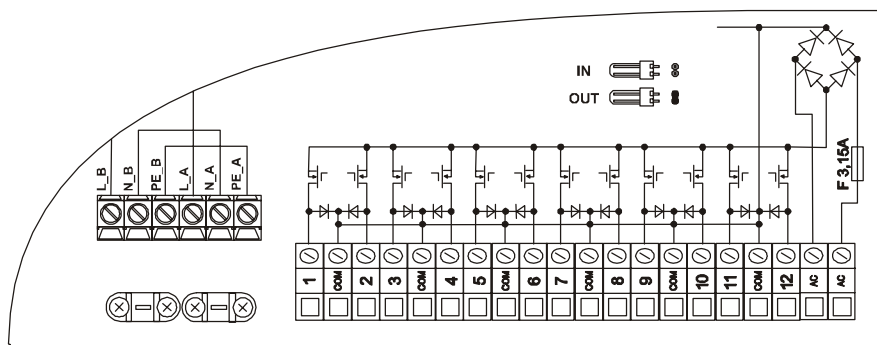


Fig.1 UC-241 terminals

Fig.2 UC-242 terminals

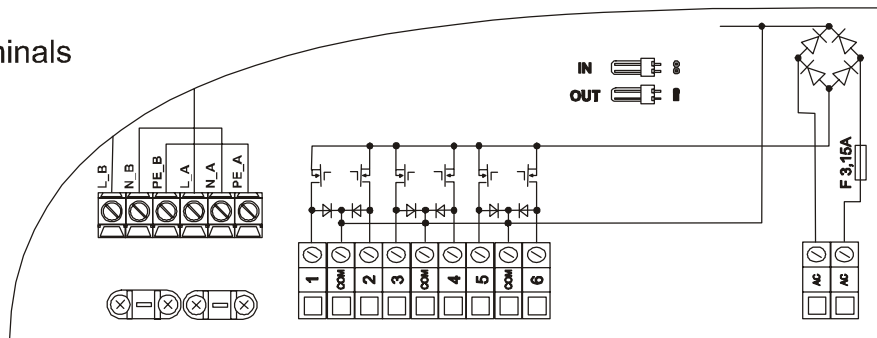


Fig. 3 Sample of UC-241 wiring

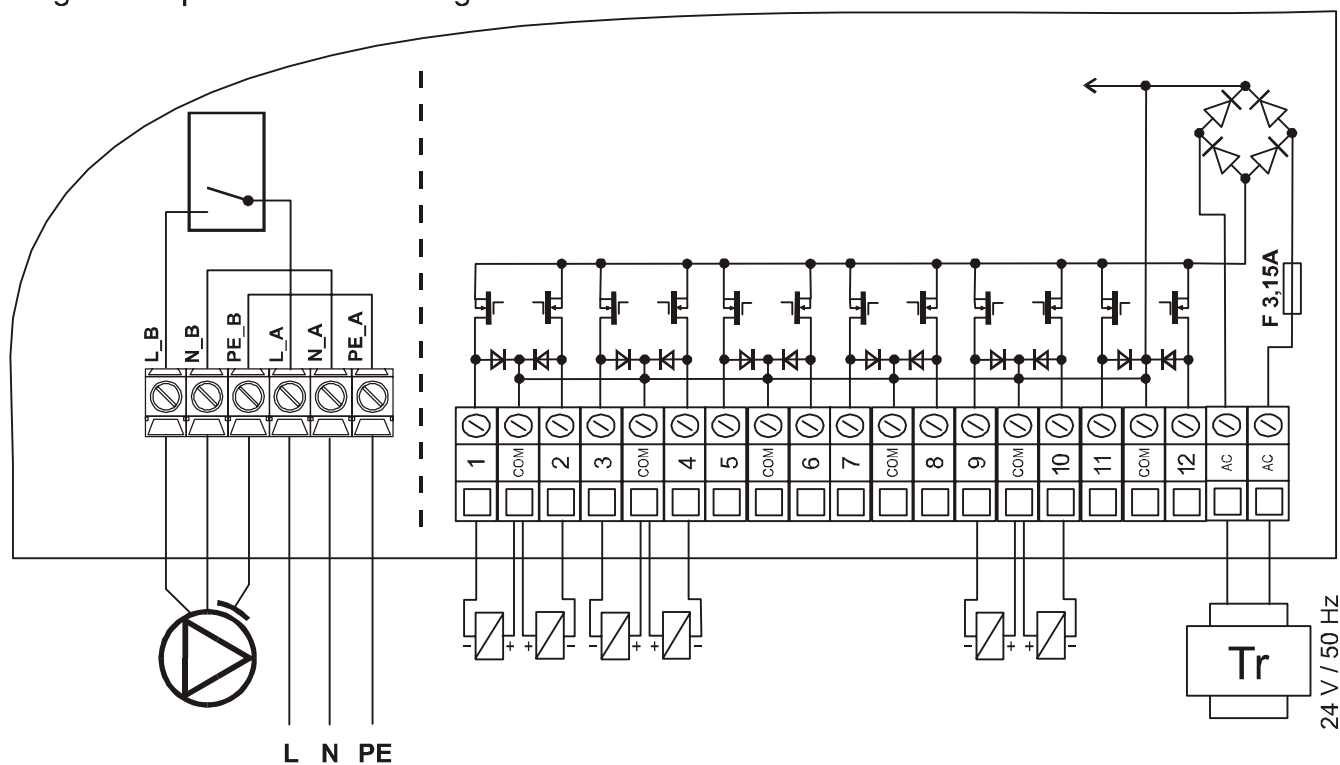


Fig.4 Connecting more receivers together

