

RX300

COMBINED RECEIVER/CONTROL UNIT

INSTALLATION INSTRUCTIONS

IMPORTANT. Please read instructions carefully before commencing installation.

FORWARD

The RX300 is a wireless receiver for use with TX500 wireless passive infra-red detectors.
The TX500 units are D.T.I. approved and therefore may be used without a licence.
The distance from the TX500s to the RX300 can be up to and over 100 meters across open ground.
The radio signal is digitally coded so that other radio systems cannot interfere with it.
Any amount of TX500s can operate with one single RX300.

BEGINNING THE INSTALLATION

The RX300 comes with a standard quarter wave aerial which is fixed and cannot be removed.
The TX500 transmission is limited to 1 milliwatt and therefore it is always advisable to position the RX300 in line of sight with TX500s.
If TX500s are placed in various positions around the building, try to site the RX300 in a central location.
For best results try to avoid obstructions such as steel girders, reinforced concrete, brick walls etc.
Although the RX300 has an IP55 rating it is always wise to fit the unit under cover for extra protection.
If the RX300 is only required to work at short distances then it may be fitted internally in garages, cupboards etc.

FIXING AND WIRING THE RX300

First the circuit board has to be removed from its enclosure. To do this, simply unscrew the two fixing screws and single aerial connection screw as shown in Fig1.
Now gently remove the board out of the enclosure by clasping the relay as shown in Fig1 and pulling upwards.
Drill a hole in two or more of the cupped feet and screw the enclosure to the wall. Now seal the screw holes with mastic or other water sealant and replace the circuit board. Firmly re-fit the two fixing screws and the aerial connection screw with its spring washer, but making sure not to over tighten. It is important to have a good aerial connection so make sure the spring washer is fitted. Secure the aerial vertically by pinning the tag to the wall. Fit a standard 20mm water-tight cable gland in order to maintain the IP rating and provide cable anchorage according to I.E.E. regulations, however a rubber grommet is supplied where the IP rating is not important but cable anchorage will still be necessary. If in doubt consult a qualified electrician. Supply the power to the RX300 via a switched fuse spur. Pass a three core cable through the cable entrance. Connect the Line feed to LINE IN and Neutral to NEUTRAL. Connect the lamp load to LINE OUT and share the NEUTRAL as shown in Fig2.

TESTING AND SETTING UP THE RX300

Make all necessary electrical tests before inserting a fuse in the fuse spur. The fuse rating depends on the lamp load to be connected. For example: 500Watts – 3amp. 1000Watts – 5amp. Switch on the power and observe the red power indicator which will remain lit for the working life of the RX300. See Fig3.

WARNING. The circuit board is now at mains voltage and the power must be switched off each time adjustments are made to avoid electric shock hazard.

SETTING THE CODE

RX300

Now a digital code must be selected so that your system cannot be operated by someone else's system. To do this select a code with the 5-way code switch on the RX300 (up to 32 combinations).

TX500

Select the same code on the TX500 detector/transmitter with switches 1.2.3.4.5. (Ignore switches 6.7.8.9.). See Fig3 for an example. Switch 10 is a transmit test switch only. Refer to the TX500 instructions for further details.

IMPORTANT. The TX500 code switches are **ON** when in the **DOWN** position, whereas the RX300 code switches are **ON** when in the **UP** position. See Fig3.

Now with the code set on the TX500, operate switch number 10 to send a permanent transmission to the RX300 receiver. If the codes are correctly matched then the red signal indicator on the RX300 will light. Fig3. The indicator will not flicker when a strong signal is received. Occasional flickering is acceptable but if the indicator flickers **OFF** for longer periods than it is **ON**, the TX500 should be moved to a better position. When the check is complete, switch off the number 10 switch on the TX500. Do the same test to all TX500 detectors used with the RX300.

During this procedure the RX300 time adjuster should be turned fully anti-clockwise for minimum time.

The lamps connected to the RX300 will light when a signal is received and stay lit after the signal has ceased for the duration of the lights on timer.

The TX500s can now be walk tested to make sure they detect movement within the areas desired. Refer to the TX500 instructions for further details.

When satisfied that all the TX500s are working correctly, turn the light adjusters full clockwise so that they only work during the night. Turn the time adjuster on the RX300 clockwise to increase the lights on time to the desired duration. Fig3.

Time duration is adjustable between 4 seconds to 4 minutes.

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