# INSTRUCTIONS

*Crystal Control Super-Heterodyne Receiver*　　　　**868RT SERIES**

## PRODUCT SPECIFICATIONS

**Product Type :** Super-Heterodyne Receiver
**Model Number :** 868RTx
**Operating Frequency :** 868.30 MHz (PLL)
**RF Bandwidth :** +/- 350KHz @ 3dBm
**Sensitivity :** Better than -105dBm
**Spurious Emissions :** Below 1000MHz <2nW, Above 1000MHz <20nW
**Available Channels :** 1, 2 or 3 Channels
**Decoding :** Trinary (Learn-Mode)
**Power Requirements :** 12 volt Dc or 24 volt Ac/Dc
**Absorption (Standby) :** 8.5mA @ 12v Dc, 14.0mA @ 24v Ac/Dc
**Absorption (Operating) :** 41.5mA @ 12v Dc, 47.0mA @ 24v Ac/Dc
**Relay Contacts :** Normally open, normally closed
**Trigger :** Momentary (< 1 sec) or continuous
**Max permissible load :** 2.0 Amp @ 24v Dc
**Compliance :** Meets EU directives 89/336/EEC; 92/31/EEC
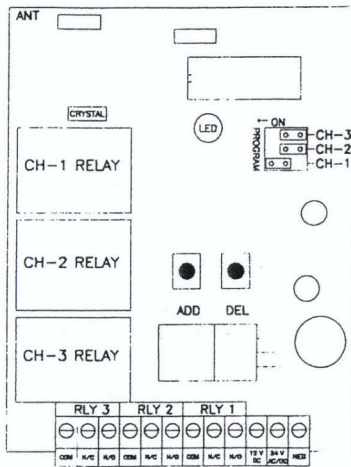
## POWER REQUIREMENTS

Your receiver has inputs that accommodate 12 volts Dc
(Min 10 volts, Max 16 volts) and 24 volts Ac/Dc (Min 12 volts, Max 30 volts).
Please ensure that you follow these ratings very carefully. Failure to do so can result in damage to the electronics or improper function of the receiver. Please follow the connection block diagram very carefully before applying power.

## INSTALLATION GUIDELINES

Please ensure that you try and mount the receiver at least 1–2 metres above ground level and avoid mounting near strong electro-magnetic fields. These guidelines will ensure your receiver operates at peak performance.

## OPERATING INSTRUCTIONS

Please refer to both diagrams. This product will only operate with *868TTx Series of Transmitters.*



## STEP 1
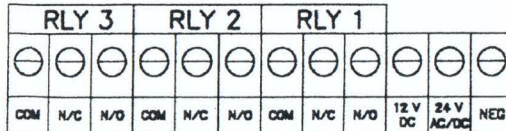
Carefully remove the top cover of the receiver by squeezing the sides with your thumb and forefinger.
You will immediately notice that there are no dip switches located on the board for coding purposes. This receiver has been designed to store all transmitter codes (up to 1000 unique codes) into a non-volatile memory. You will be required to use the **Add** and **Delete** buttons to perform this function. The **Add** and **Delete** buttons are also used to switch between **Momentary** (Pulse) and **Continuous** (Latch) modes. Each Channel (Relay) can be configured to operate in either of these modes. **IMPORTANT !** Before you proceed to **Step 2**. first decide how you would like each Channel (Relay) on the receiver to function. For example. If you want Channel 1 to operate an electronic gate motor for instance, you would configure Channel 1 for **Momentary** operation. Lets say Channel 2 is used to operate a flood light, you would then configure Channel 2 for **Continuous** operation.

## STEP 2

Now that you have decided how you want the channels to be configured, locate jumpers CH-1, CH-2 and CH-3. If you have only purchased a 1 channel receiver, only jumper CH-1 will be available.

Set jumper/s (CH-1, CH-2 and CH-3) for Momentary or Continuous mode as follows :

Jumper in **OFF** position – Momentary (Pulse) Mode
Jumper in **ON** position – Continuous (lLatch) Mode

Do not apply any power to the receiver at this stage.
As an example. In the above diagram CH-1 has been set to ON, CH-2 to OFF and CH-3 to OFF. The result would be as follows :

**Channel 1 = Continuous (Latch)**　　　　**Channel 2 = Momentary (Pulse)**　　　　**Channel 3 = Momentary (Pulse)**

## STEP 3

Now press and hold in the **Add** button. At the same time apply power to the receiver. **CAUTION !** Follow voltage ratings very carefully (see Power Requirements). Only release the **Add** button once the green light has flashed 3 times. The receiver channels have now been configured for Momentary or Continuous modes respectively.

**Note:** If you wish to change this configuration at any time, simply repeat Steps 2 and 3.

## STEP 4

The next step is to store the various transmitter codes into memory.
Remove power from the receiver. Put all jumpers back to the **OFF** position.
Now re-apply power (Light will flash 3 times). To store codes into the various channels set jumper/s as follows :

**CH-1=ON or, CH-2=ON or, CH-3=ON**

**Note:** You can only store transmitter codes into one channel at a time. The receiver will reject incoming codes if more than one jumper is set to the **ON** position. Example : If you want Channel 1 to receive a code set CH-1=ON , CH-2=OFF and CH-3=OFF

Next, bring your transmitter in close proximity to the receiver (Approx 20-30cm).
Press the **Add** button on the receiver and hold. At the same time press and hold the button on the transmitter until the green light on the receiver flashes 3 times. The code has now been stored into memory. Repeat this process for all transmitter codes you wish to store into appropriate channel. Test that each code has been successfully stored by simply pressing each transmitter button. The green light will flash 3 times and the relay on the receiver should click.

If you want to delete a code from memory, press and hold the **Delete** button on the receiver. At the same time press and hold the button on the transmitter (code you want deleted) until the green light on the receiver flashes 3 times. The code is now deleted from memory. Check that the code has been successfully deleted by pressing the transmitter button. The green light will shine but the relay will not respond.

## WARRANTY

Your receiver is guaranteed against defective components or workmanship for a period of 12 months from date of purchase. The product under warranty will be repaired or replaced free of charge at the discretion of the distributor in your country. Please ensure you retain all documentation as proof of purchase. The warranty excludes the following : 1. Normal wear and tear 2. Damage or malfunction resulting from physical shock 3. Damage or malfunction resulting from exposure to water 4. Damage or malfunction resulting from unauthorised tampering of electronic components 5. Alterations or modifications made to the product in anyway whatsoever 6. Damage caused by incorrect electrical wiring 7. Damage from lightning or power surges 8. Repairs undertaken without proper authorisation

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| RLY 3 | | | RLY 2 | | | RLY 1 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| COM | N/C | N/O | COM | N/C | N/O | COM | N/C | N/O | 12 V DC | 24 V AC/DC | NEG |