



INSTALLATION OPERATION & SERVICE MANUAL

SINGLE CHANNEL RADIO RECEIVER with RELAY

Model: RC613R For indoor and outdoor use, suitable for Pool/Spa equipment control

ELECTRICAL RATING: 30 Amp Resistive-120V or 240VAC, 12.5 Amp (1500 Watt)

Tungsten - 120VAC, 1.5 H.P. - 120VAC, 3.0 H.P. - 240VAC DPST

THIS DEVICE COMPLIES WITH FCC RULES PART 15. Operation of this device is subject to the following two conditions:

1. This device may not cause harmful interference. 2. This device must accept any interference that may be received, including interference that may cause undesired operation. FCC rules prohibit adjustments to or modification of receiver and transmitter circuitry except for replacing the transmitter battery. THERE ARE NO OTHER USER SERVICEABLE PARTS.

IMPORTANT SAFETY INSTRUCTIONS

1. This Control must be installed by a qualified electrician, according to National Electric Code (Including article 680) or Canadian Electric Code (Including Section 68) and Local Electrical Codes.
 2. USE COPPER CONDUCTORS ONLY. If applicable, install this Control not less than 5 feet (3 meters for Canadian instructions) from inside edge of pool or spa.
 3. Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
 4. For grounding of the installation, refer to article 250 and 680 of the National Electrical Code. (For Canadian Installations: Section 10 and 68 of the Canadian Electric Code)
 5. This Control should not operate any equipment which would cause bodily injury or property damage should it be activated unexpectedly.
 6. Always disconnect electricity at main panel before servicing this Control or the equipment(s) connected to it.
- THIS CONTROL IS NOT TO BE USED AS A POWER DISCONNECT.

READ, FOLLOW AND SAVE THIS INSTRUCTION MANUAL

GENERAL INFORMATION

This Heavy Duty Modular Radio Receiver is one half of a two part remote control system. It operates as an ordinary ON/OFF switch, but it also responds to the signals of a hand-held transmitter - the other half of the system. The Module is designed for indoor and outdoor use, works on either 120 or 240 volts and can handle a variety of switching applications, typical around the house or farm. By the push of a button on the face of the transmitter, the user is able to turn ON/OFF the connected load (lights, pump, etc.) from any remote location*, inside or outside of the house, safely and conveniently. In addition, a single transmitter can operate up to three receivers and is able to "teach" each Module a different code. (Transmitters are sold separately.)

The Module comes with its own manual ON/OFF button and it is intended to be used as a three-way switch, one at the location and the other being the transmitter. The connected load will respond to either of the two controls or may be turned ON using the hand-held transmitter and turned OFF by pushing the red button on the face of the receiver or vice versa.

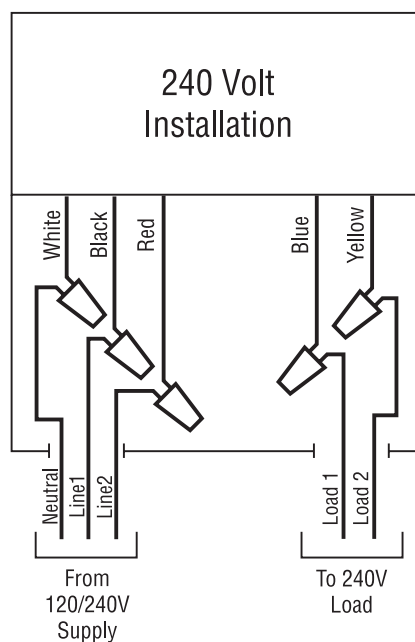
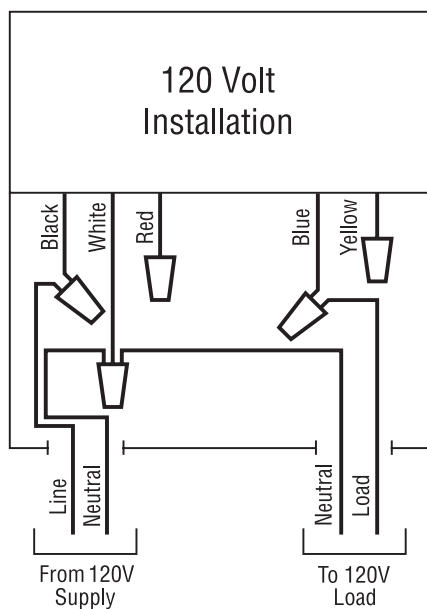
The Module consists of a Receiver Unit and a Relay Box permanently connected together with a seal between them. The Receiver Unit is welded and has no user serviceable parts inside. The Relay Box has two compartments, one for the 120 volt coil, double pole relay and the other for making the field connections.

Operation: Upon receiving a valid signal from a designated transmitter, the Receiver Unit will reverse the state of the relay contacts, that is, it will turn ON or OFF the connected load. In order to prevent bodily injury and/or equipment damage after a power failure, the contacts of the relay remain open until the button on the face of the Receiver Unit or on the transmitter is pushed.

* The range is 200 feet but depends on many factors like the age of the battery, proximity of large metal objects, the location of the receiver and environmental conditions at the time of transmission.



WIRING DIAGRAMS



NOTES:

1. NEUTRAL must always be connected to WHITE LEAD.
2. Ground connections are not shown.

OPERATION

In case this device is used to operate pool/spa equipment...

DANGER! To Reduce the Risk of Injury:

- ... do not permit children to operate the Control Unit or use the Pool/Spa unless they are closely supervised at all times.
- ... test GROUND FAULT protection regularly. If it fails to reset, DO NOT USE THE POOL or SPA! Contact a qualified service technician.

A. To Set Code

Receiver Modules have the capacity to “learn” and remember a unique code, generated by a transmitter. The transmitter will operate only the designated one or more receivers simultaneously. In addition, each transmitter can “teach” and operate up to three different sets of Receivers. Also, more than one transmitter can be assigned to operate the same Receivers.

1. Turn ON the main power and manually operate the load a few times then turn load OFF.
2. Holding the transmitter close to the Receiver Module, press and hold the pushbutton you choose to operate that particular Module. The red LED indicator should now be lit.
3. Press the “CODE SET” button on the face of the Receiver Module until the green light next to the button flashes ONCE (about one second).

4. Code setting is now complete. Release the transmitter button and test installation by pressing repeatedly on the chosen transmitter button. The load should cycle ON/OFF, if not, repeat steps 2 and 3 above.
5. If more than one Receiver Module is in use, repeat above procedure on the next Receiver Module and hold down the SAME transmitter button in step 2 if the Module is supposed to function TOGETHER with the first Module or press a different button on the transmitter, if it is supposed to operate INDEPENDENTLY.

To erase all memorized codes, press and hold CODE SET button on Receiver Module, until the green indicator light alongside goes out (in about 6 seconds).

To operate a Receiver Module with more than one transmitter, set master code switch, next to the battery inside the transmitters to the **same** setting.

LIST OF AVAILABLE MODELS AND COMPONENTS

Model	Description	Specifications
RC613	Single Channel Receiver 3-way Switching Module	10 Amp Resistive, 5 Amp (600 Watt) Tungsten, 1/3 HP Motor Load - 120 Volt.
RC613R	Heavy-Duty Receiver and Relay Assembly	30 Amp Resistive - 120/240 Volt, 12.5 Amp (1500 Watt) Tungsten - 120 Volt, 1.5 HP - 120 Volt, 3 HP - 240 Volt Double Pole Single Throw Contacts.
RC615	Single Channel Receiver Timer Override Module	10 Amp Resistive, 5 Amp (600 Watt) Tungsten 1/3 HP Motor Load - 120 Volt.
RC939	3 Channel Transmitter	Operates on 9 Volt Battery
P1103M	24 hr. Timer Mechanism Only	Mechanical Timer Mechanism - replaces Intermatic T100 Series timers and compatible with RC615 Receiver. Same rating as RC613R

TROUBLESHOOTING

Symptom	Possible Cause(s)	Corrective Action
No response to transmitter signal at anytime	No power. Loose connection(s) at receiver and/or load. Transmitter battery dead. Receiver and transmitter are on two different codes . . . Faulty transmitter Faulty receiver	Turn ON power at main panel Check connections Replace battery Change code settings (see page 3) Check battery connections, replace transmitter Replace Receiver Module
No response to transmitter signal some of the time	Weak Battery Appliance with brush type motor is in use. Other radio transmitter (police, etc.) is operating nearby Receiver is at edge of range	Replace battery Relocate appliance and/or connect to another circuit Change master code of transmitter (See page 3) Mount Receiver closer or higher
Insufficient Range	Weak battery Antenna too close to ground. Transmitter is held too close to ground Weak signal due to obstruction	Replace battery Relocate Receiver Module Hold transmitter at least 3 ft. above ground Remove/relocate Receiver Module
Nuisance operation	Other radio transmitter operating nearby Fluctuating supply voltage due to surge, etc. Faulty receiver	Change master code of transmitter (See page 3) If frequent - install surge suppressor Replace receiver module

WARRANTY

If within one (1) year from the date of installation, this product fails due to a defect in material or workmanship, Intermatic Incorporated will repair or replace it free of charge.

The warranty does not cover labor for removal or reinstallation and does not apply to: (a) damage caused by accident, abuse, mishandling, or dropping; (b) a unit which has been subject to unauthorized repair; (c) units not used in accordance with directions; (d) damages exceeding the cost of the product. Some states do not allow a limitation of damages so the foregoing warranty may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

This warranty service is available, if the defective product or its defective component is returned with proof of purchase and date of installation, either (a) to the dealer from whom the unit was purchased or (b) by shipping prepaid to the Intermatic Service Center, Intermatic Incorporated, Intermatic Plaza, Spring Grove IL 60081-9698

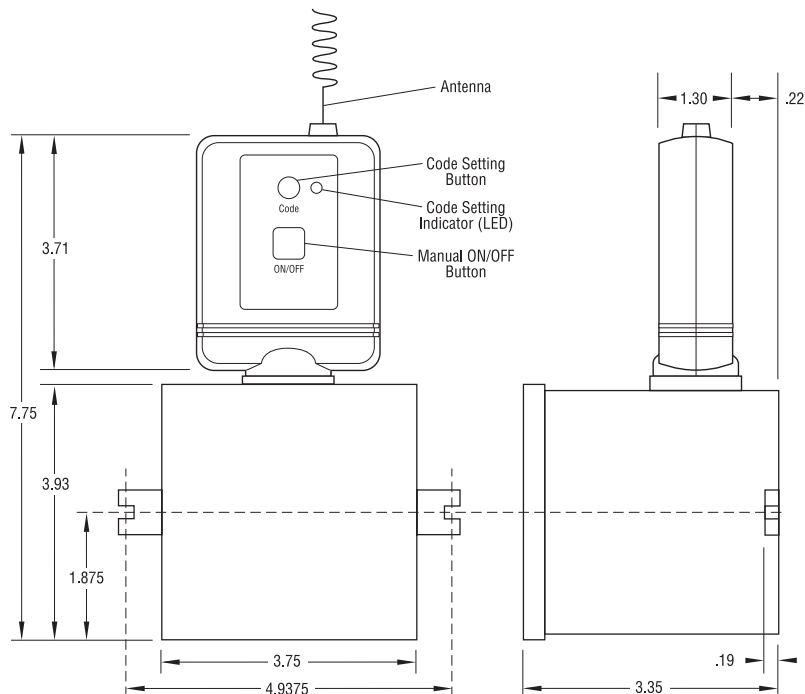
Because of our commitment to continuing research and improvements, Intermatic Incorporated reserves the right to make changes, without notice, in the specifications and material contained herein and shall not be responsible for any damages, direct or consequential, caused by reliance on the material presented.

INTERMATIC INCORPORATED, SPRING GROVE, IL 60081

SPECIFICATIONS AND OTHER INFORMATION

USEFUL INFORMATION

1. Radio Receivers are sensitive to heat. Avoid mounting them above heater, air conditioner or exposed to afternoon sun.
2. The higher the Receiver Module, the longer its range. For good range and reliable reception, install modules as high as practical above ground level with **antenna at top**.
3. Large metal objects divert radio signals. Avoid mounting Receiver Modules on metal wall, fence or near large metal objects.
4. Environmental conditions could affect the operation of the remote control system. For example, in rain the range may be less than normal.
5. Certain electric equipment like brush type motors or electronic gas heater igniters emit radio signals and can affect the function of the Receiver Module. Avoid mounting modules near such equipment.
6. To prevent electronic interference, install Receiver Modules at least 3 feet apart.



INSTALLATION

3-Way Switching Application

Make sure the intended load is within the capacity of the Module, see ratings on page 1.

1. This Module can be used to control either a 120 volt or 240 volt load. **The NEUTRAL, however, must always be connected to the WHITE lead of the Module.** Refer to wiring diagram on page 3 for proper installation.
2. Select the proper location (see Useful Information above) and install Module on a vertical surface or other support, using hardware suitable for the purpose.
3. Prepare the necessary conduit runs as required by the installation layout and pull-in the specified conductors.
4. Follow wiring diagram on page 3, make wire connections as shown.
5. Turn ON power and test installation, using the ON/OFF button on face of the Module. Replace junction box cover, make sure the installation is secure and raintight.
6. Set code, see Operating Instructions on page 3.

