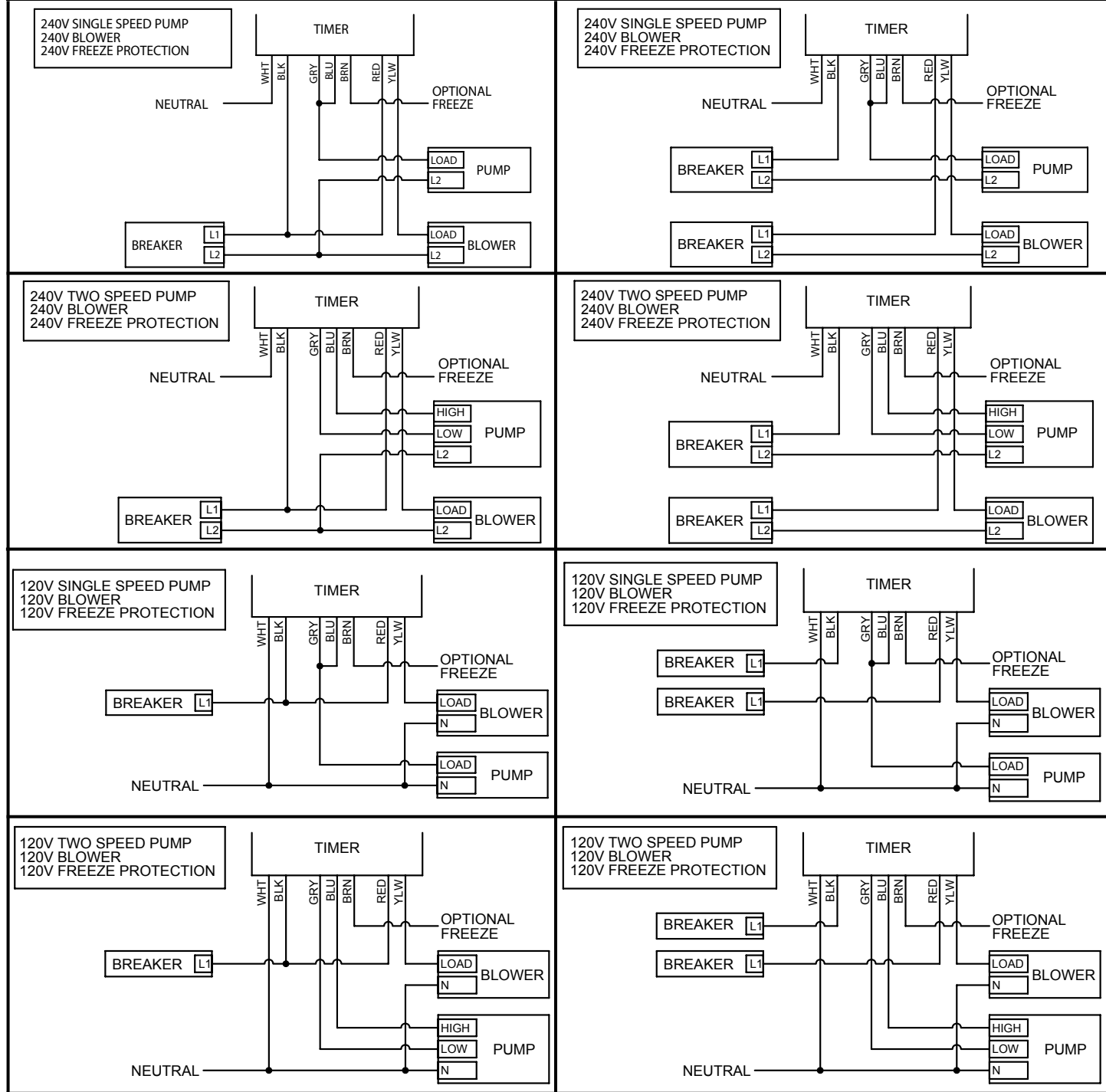


WIRING DIAGRAMS RC2343PT



IMPORTANT NEUTRAL WIRE MUST ALWAYS BE USED

NOTES:

1. Dot (•) indicates twist on wire connector.
2. If freeze protection is not required, permanently cap (twist on wire connector) brown lead.

LIMITED WARRANTY

Warranty service is available by either (a) returning the product to the dealer from whom the unit was purchased or (b) completing a warranty claim online at www.intermatic.com. This warranty is made by: Intermatic Incorporated, Customer Service 1950 Innovation Way, Suite 300, Libertyville, IL 60048.

For warranty service go to: <http://www.intermatic.com> or call 815-675-7000

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, LIBERTYVILLE, IL 60048

INTERMATIC® RC2000 SERIES AIR ACTUATED SPA CONTROLS

INSTALLATION OPERATION & SERVICE MANUAL

FOUR FUNCTION AIR SWITCH WITH TIMER

Model: RC2343PT - Plastic Outdoor Enclosure Suitable for POOL/SPA Equipment Control

RATINGS: 20 A (R), 1 HP, 120 V, 60 Hz.; 20 A (R), 2 HP, 240 V, 60 Hz.

READ AND FOLLOW ALL INSTRUCTIONS • IMPORTANT SAFETY INSTRUCTIONS • SAVE THESE INSTRUCTIONS

⚠ WARNING Risk of Fire or Electric Shock

- Electrical connections to this equipment must be accomplished by a qualified electrician in accordance with the National Electrical Code and in accordance with all local codes.
- Disconnect power at the circuit breaker(s) or disconnect switch(es) before installing or servicing. More than one circuit breaker or disconnect switch may be required to de-energize the equipment before servicing.
- For outdoor locations or wet locations (rain-tight), conduit hubs that comply with requirements of the UL514B (standard for fitting conduit and outlet boxes) are to be used.
- Do NOT exceed maximum current carrying capacity.
- Reinstall wire terminal cover after wiring is complete.
- KEEP DOOR CLOSED AT ALL TIMES when not servicing.
- The control panel is to be a minimum of 3 M. (in Canada) or 5 ft. (in USA) from the inside wall of the pool, spa, or pond, unless separated from the body of water by a fence, wall or other permanent barrier that will make the unit inaccessible to persons in the water.
- For grounding and bonding of this Control and the installation, refer to section 680 of the National Electrical Code.

GENERAL INFORMATION

This Air Switch is designed to control two separate pieces of equipment with one air button. Without electricity at the spa side, it can safely control a pump and blower. Each press of the air button will cycle between the sequences shown below. When left in sequence one, the timer will operate the pump at the times set for daily filtration. It also has an input for freeze protection.

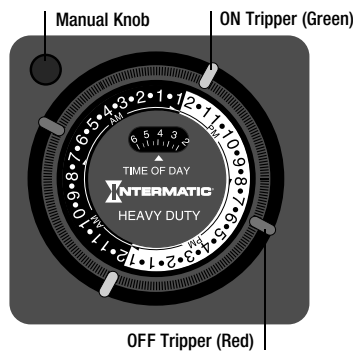


EQUIPMENT	SEQUENCE			
	1	2	3	4
PUMP (SINGLE-SPEED)	TIMER ON/OFF	ON	ON	OFF
PUMP (TWO-SPEED)	TIMER ON/OFF LOW	HIGH	HIGH	OFF
BLOWER	OFF	OFF	ON	ON

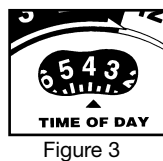
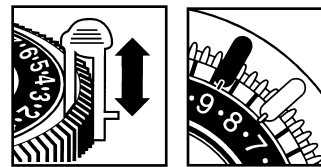
INSTALLATION - MODEL RC2343PT

- Select the appropriate wiring diagram on Page 4 and prepare your installation layout. Make sure only copper (solid or stranded) conductors are used, properly sized and suitable for the installation. Each equipment must have its own power disconnect and must be grounded properly.
IMPORTANT: NEUTRAL MUST ALWAYS BE CONNECTED TO THE WHITE LEAD OF THE CONTROL.
- Hang Air Switch on a flat vertical surface or other support, using hardware suitable for the purpose. Make sure the air button is within the range of the Air Switch. **NOTE:** The optimum range of this Air Switch is 100 feet. However, factors beyond control of the manufacturer (like the size of the air pump, the I.D. of the air hose, etc.) will determine the actual distance between the mechanism and the air pump.
- Prepare the necessary conduit runs, including one for the air hose, terminate them at both ends and pull-in the conductors as specified by the installation layout.
- Follow proper wiring diagram, make **LINE, PUMP, BLOWER** and **FREEZE PROTECTION** (if applicable) connections as shown. Make sure the installation is securely grounded.
- Make air hose connections. Remove compression nut from Pulse Switch, feed air hose through hole, connect hose to Pulse Switch and re-install compression nut. Repeat procedure at Air Button end of hose. Make sure connections are tight.
- Check wiring, tightness of connections and grounding. Close wiring compartment and test installation.
- Set timer, see instructions below.

OPERATION



- Insert ON (green) and OFF (red) trippers into dial at desired ON and OFF times (Fig. 1). Be sure trippers are firmly pressed against dial surface and at least one space is left between ON and OFF trippers (Fig. 2).
- Turn dial clockwise one or more revolutions until correct time of day is next to arrow in center of dial (Fig. 3).



- The knob in the upper left corner of timer is for operating the Filter pump manually when needed. By turning it COUNTERCLOCKWISE, it will start or stop the filtering/heating cycle ahead of the scheduled start/stop time. Automatic operation will resume with the next scheduled cycle.
- Timer comes with two sets of trippers, allowing the choice of two cycles per day. If only one cycle is needed, the extra trippers may be stored on the dial by placing SAME color trippers next to each other.
- To suspend automatic operation, remove red and green trippers from Dial and Store them in a convenient place.
- Additional trippers can be obtained by contacting an Intermatic distributor or Intermatic Customer Service at (815-675-7000 and asking for 156PB10398A tripper kit (2 ON and 2 OFF trippers.)

TROUBLESHOOTING

SYMPTOM	CAUSE(S)	CORRECTIVE ACTION
1. Pump will not operate or operates on low speed only.	1a. Air hose disconnected 1b. Defective air button 1c. Water in air hose 1d. Defective pulse switch 1e. Defective relay 1f. Air button is too far	Check hose connections. Replace air button - see note 1. Blow-out air hose - see note 2. Replace pulse switch - see note 2. Replace relay - see note 3. Install larger air button.
2. Pump will not turn off or operates on high speed only.	2a. Air hose disconnected 2b. Defective air button 2c. Defective relay	Check hose connections. Replace air button - see note 1. Replace relay - see note 3.
3. Pump turns on/off by itself.	3a. Defective pulse switch 3b. Water in air hose 3c. Changing air pressure in air hose	Replace pulse switch. Blow-out air hose - see note 2. Reroute air hose.

TROUBLESHOOTING NOTES

A Pneumatic Remote Control (Air Switch) consists of an air button (air pump, transmitter), a pulse switch (air Sensor, receiver) and a relay (either alternate action or stepper). The air button is connected to the pulse switch by the air hose. By pressing on the air button at one end of the air hose, the increased pressure will momentarily close the contacts of the pulse switch at the other end of the air hose, thus energizing the coil of the relay. The relay turns ON or OFF the connected equipment.

- An air button with ruptured seal or bellows inside, will not produce sufficient air pressure to operate the momentary air switch and could lead to total break down.
- Water in air hose will damage the pulse switch and it is caused by a faulty air button (see note 1 above) or condensation. In either case, it must be drained and the cause found and corrected. To reduce condensation,
- A defective relay is either due to contact or coil failure. Contact failure is caused by over-load or cross wiring and coil failure is caused by 240 volt connected across the 120 V coil or permanently applied 120 V. (The relay is designed for intermittent duty only). Permanently applied 120 V could be the result of water in the air hose (see note 2 above) or a spa cover placed over (and depressing) the air button. In any case, the cause must be found, corrected and the relay replaced.