

(3.) Programming by Remote Control.

The IBOC300 model can be programmed with the RCP8+ infrared programmer. Complete instructions that describe the features and use of each model are included with the RCP8+.

Note: you can set a manual irrigation at any time without altering the program stored in the IBOC300. A remote infrared transmitted program will override a manual program. Once the IBOC300 is programmed by the RCP8+, the "Interval Light" and its manual function is deactivated.

IMPORTANT: During the time that the IBOC300's infrared receptor is active, the infrared receptor will be sensitive to strong sunlight, neon or other bright light sources. It is imperative to proceed with transferring data from the remote programmer to the unit itself in shade or subdued light.

- **Good Infrared Reception** – A successful transfer of infrared data is acknowledged by 2 flashes of the "Interval Light".

If you do not see this acknowledgement, transfer the programming information again until the IBOC300 signals its reception.

- **Bad Infrared Reception** – If you see lights #5, #4 and #2 flash one after the other during programming by the RCP 8, you need to start the programming sequence again. This three-light flashing sequence either means you are trying to transfer a program to unit with a different address than the program number or that there is too much light.

4. Cancel the Irrigation but Retain the Program

If you decide not to water because of rain or any other reason, but you don't want to lose the program, simply remove the IBOC from the valve. When you're ready to resume watering, slide it over the valve adapter and irrigation resumes at its scheduled time.

IMPORTANT: Removing the battery for longer than 2 minutes erases the program in the IBOC. The battery can easily be changed in less than two minutes and all programming is retained.

E. Trouble Shooting

1. Valve does not operate - Remove the IBOC from the automatic irrigation valve and operate the valve manually. If valve does not open or close, disassemble valve and clean and repair.
2. Valve operates manually but not electrically - The problem may be a water pressure that is either too high or too low, a damaged valve adapter or a bad battery. Check water pressure to insure you have between 1.4 and 10 Bars (10–150 PSI) of pressure. If pressure is okay, remove valve adapter and insure its parts are free and not damaged. Replace as necessary. If valve adapter is good, change the battery.
3. No response from IBOC unit. Check battery voltage which should be between 6.2 and 4.2 VDC or try a different battery if you have a volt meter. If the battery is okay, re-set the IBOC by shorting the battery connector pins together and then re-install the battery

F. TECHNICAL INFORMATION

- Pressure limit: 10 Bars (150 PSI)
- Operating temperature: 0°–50°C (32–122°F)
- Dimensions: 76 x 63 x 38 mm (3" x 2 1/2" x 1 1/2")
- Weight: IBOC Controller - 150 g (5 1/4 ounces)
Battery Assembly - 40 g (1 1/2 ounces)

G. Accessories

These accessories are available through your Irritrol Systems dealer. They will allow you to adapt the IBOC to different brands of automatic irrigation control valves.

- VA 12 - valve adapter for Irritrol, Hit, Galcon and Bermad valves. (Supplied with IBOC models)
- VA 15 - valve adapter for Rain Bird valves.
- VA 20 - valve adapter for Nelson valves.

H. Warranty Information

Irritrol Systems warrants to its trade customers that its products will be free from original manufacturing defects in materials and workmanship.

"One"

For the first year from the date of original sale, Irritrol Systems offers "Hassle-Free" over the counter exchange of products found to have original manufacturing defects.

"Five"

For years two through five from the date of original sale, Irritrol Systems will repair or replace, without charge, all parts found to have original manufacturing defects, provided the product is returned at customer's expense.

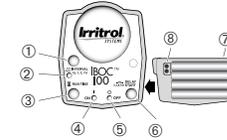
This warranty does not apply to loss or damage to the product due to improper installation, abuse, alteration, mishandling, accident, or if the product has been serviced by other than Irritrol Systems or its authorized service centers. This warranty is not a consumer warranty and does not extend to anyone other than those trade customers who purchase Irritrol Systems products. Irritrol Systems is not liable for failure of products not manufactured by it even though such products may be sold or used in conjunction with Irritrol System products. Irritrol Systems is not liable for indirect, incidental or consequential damages, including but not limited to vegetation loss during periods of malfunction or resulting non-use. Irritrol Systems is not liable for any loss or damage and property damage resulting from installer's negligence. This warranty is the only warranty made by Irritrol Systems, and replaces all other expressed or implied warranties including warranties of merchantability and fitness for a particular purpose.

Irritrol SYSTEMS IBOC100 / 300

Individual Valve Controller USER'S GUIDE

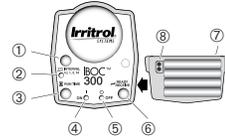
A. INTRODUCTION AND SET UP

IBOC100 Components



1. Interval Button
2. Interval Light
3. Run Time Button
4. On Light
5. Off Light
6. Delay Start Button
7. Battery Assembly
8. Connector Pin

IBOC300 Components



1. Interval Button
2. Interval light
3. Run Time Button
4. On light
5. Off light
6. Ready Receive Button
7. Battery Assembly
8. Connector Pin

The following is a brief description of the IBOC components and display elements. All models share similar components. *The IBOC300 has some different features. These features will be described in italics.* Each of these features is explained in further detail within this User's Guide.

1. **Interval Button** — Depressing this button sets the watering frequency (interval). You can set the watering frequency for 1/2 day (12 hours), 1 day, 2 days (every other day) or for 7 days.
 - 1/2 **Day** = one watering cycle every 12 hours
 - 1 **Day** = one watering cycle every day
 - 2 **Days** = one watering cycle every other day
 - 7 **Days** = one watering cycle every 7th day

2. **Interval Light** - This light has several functions. The first one is to acknowledge the input of the Interval Button use. If you press the interval button once for a 1/2-day interval, the light will flash once to acknowledge your input. It will flash twice for a 1-day delay, three times for a 2-day delay or four times for a 7-day delay.
3. **Run Time Button** - a) Depressing this button starts a watering cycle and electrically opens the valve. b) Depressing the button a second time ends the watering cycle and causes the valve to close. The time that occurs between a and b is stored as the run time of the valve.
4. **On Light** - This light has several functions. One function is to acknowledge the beginning of a run time by flashing once when the Run Time Button is pressed.
5. **Off Light** - This light has several functions also. One function is to acknowledge the end of a run time by flashing once when the Run Time Button is pressed a second time.
6. **Delay Start – (IBOC100 model only)** Depressing this button will delay the start time of an irrigation sequence by 0, 4, 8 or 12 hours. The delay is acknowledged by all three lights (#2, #4 and #5) flashing, one sequence of flashing for 0 delay, two flashes for a 4-hour delay, three flashes for an 8-hour delay and four flashes for a 12-hour delay.
- (6.) **Ready Receive Button (IBOC300)** – *Depressing this button enables the IBOC300 to receive an address via the infrared signal from the RCP8 Remote Programmer. Lights #2, #4 and #5 will flash once simultaneously to acknowledge that the IBOC300 is awake and ready to receive address information. After the Ready Receive button is pressed, the IBOC300 stays “awake” for one minute waiting for a signal from the remote programmer. If no signal is received during this period, the IBOC300 turns its infrared receptor off to conserve battery power.*
Note: *The IBOC300 wakes up every second to look for a signal from the RCP8 +. It is only necessary to depress the Ready Receive button to set an address.*
7. **Battery Assembly** – A water-resistant, 6 VDC battery that powers the IBOC100. The battery assembly mounts under the IBOC100. The unit may be shipped with the BAT9VDC battery adapter that accepts a 9 VDC alkaline battery.
8. **Connector Pin** – This connector contains silicon grease to waterproof the battery connection. The battery assembly can only be connected to the IBOC100 in the correct position.

CAUTION: Only depress the IBOC controller buttons with the flat part of your finger. Using your fingernail or any sharp object can puncture the waterproof membrane. Do not try to open either the IBOC unit or the battery assembly as the waterproof membranes can be destroyed and you will void the warranty.

B. Description

The IBOC100 is a waterproof automatic irrigation valve control module. The IBOC100 is programmed manually while the IBOC300 can be programmed manually or remotely with the RCP8+ infrared programmer. It can be mounted to the valve adapter of an automatic irrigation valve in the horizontal or vertical position. The program is stored in the IBOC100's memory for reliable operation. Battery life is one to two seasons of irrigation, depending upon the amount of irrigation during those seasons. Irritrol systems recommends replacing the battery annually to insure uninterrupted operation during the irrigation season. The IBOC monitors battery power and will not initiate a watering sequence if the battery power falls below the level required to close the valve. The program is stored in memory. The IBOC will retain the program for two minutes without battery power to allow time for changing the battery.

C. Set Up

1. Install the valve. The valve is marked with an arrow that indicates the direction of water flow.
Note: Irritrol Systems recommends that a manual valve be installed upstream of the automatic irrigation valve for ease of any future maintenance of the valve.
2. Install the valve adapter. Remove the automatic valve's solenoid and install the valve adapter being careful not to cross-thread the plastic threads. If you are using the IBOC100 with another brand of valve, purchase the correct valve adapter from your Irritrol Systems dealer.
3. Check valve operation. Manually open and close the automatic control valve to insure correct operation and water pressure. Water pressure should be between 1.4 and 10 Bars (10–150 PSI).
4. With the valve in the closed position, slide the IBOC100 over the valve adapter, past the detent and into the “locked” position. The IBOC100 is now installed and ready to program.

D. Programming the IBOC

CAUTION: When programming the IBOC while it's attached to the valve, support the underside of the unit with your free hand or the force of your fingers pressing the buttons will likely damage the valve adapter. Irritrol Systems recommends that you remove the unit from the control valve and program it in your hand.

NOTE: The IBOC comes from the factory with a preset back-up program. Installing the battery automatically starts a 15 minute run time beginning 24 hours later and repeats every 24 hours. Depressing the Run Time Button cancels the back-up program. Many users just modify the watering interval and use the 15 minute run time. It is important to program the IBOC in the following order: Run Time, Interval and then Delay Start if required.. Not following this order can cause the unit to lock up which requires re-setting the memory (See Trouble Shooting Section).

1. Set the Run Time

Since the IBOC100 is programmed in real time, try to start a watering sequence when you actually want the valve to operate. If that is not possible, start a watering sequence that can be delayed by 4, 8 or 12 hours to arrive at the time you want the watering to start (see “Delay Start” section).

- Depress the Run Time Button until the “On Light” (#4) flashes once to acknowledge the time. The valve will open about 6 seconds later. Depress the Run Time Button a second time when you want the irrigation to stop (this must be at least 6 seconds)
- The “Off Light” (#5) flashes once to acknowledge the end of irrigation and the valve will close about 6 seconds later. (If the valve fails to open or close, see “Trouble Shooting Section”).

EXAMPLE: You depress the Run Time Button at 4 PM on a Saturday. You depress the Run Time Button again at 4:30 PM. The run time is now set to start at 4 PM and run 30 minutes.

CAUTION: When programming several IBOC100's whose valves share a common water supply, stagger the start times so the valves do not turn on at the same time unless you have adequate water supply to run more than one valve at a time.

2. Set the Watering Interval

Depress the Interval Button the appropriate number of times to set the watering interval to every ½ day, every 24 hours, every 48 hours or once a week.

EXAMPLE: The watering start time is 4 PM on Saturday and the run time is 30 minutes. You want to irrigate every other day. After 4:30 PM, depress the Interval Button three times for 2-day operation. The “Interval Light” will flash three times to acknowledge 2-day operation. The next irrigation cycle will start on Monday at 4 PM.

3. To Delay the Start

You decide that the irrigation should start at 4 AM, not 4 PM. After the irrigation has finished on Saturday (after 4:30 PM), depress the “Delay Start” button four times to delay the next start 12 hours. The three lights (#2, #4 and #5) will flash four times to acknowledge a 12 hour delay. The next irrigation will now be at 4 AM on Tuesday. The interval has been set to 2 days so the following irrigation will be at 4 AM on Thursday.

NOTE: The irrigation schedule can be amended at any time after an irrigation has occurred.

To Add a second delay

EXAMPLE: You decide to have the irrigation start at 8 AM, rather than 4 AM. Sometime Tuesday after the irrigation cycle ends at 4:30 AM., depress the “Delay Start Button” twice to delay the next irrigation by 4 hours. The lights (#2, #4 and #5) will flash twice to acknowledge a 4 hour delay. The next irrigation will now start at 8 AM Thursday and continue at that time every other day.