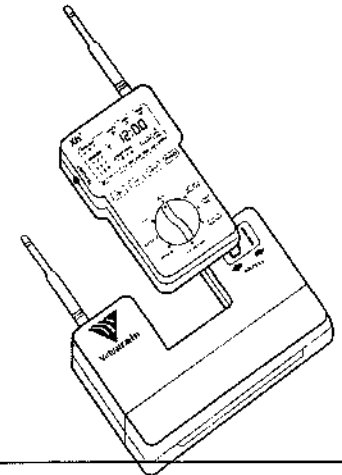


# Xh Remote Controllers

Residential / Light Commercial Irrigation Controller

Owner's Manual &  
Programming Instructions

Xh<sup>9</sup> 9 Station Indoor Model



 **Virtualrain**

Virtual rain is pleased to introduce the XH, a "Contractor Friendly" controller designed for residential, as well as many commercial applications.

The XH series offers dial programming, multiple water day options, and built-in remote capabilities that are only available as add-ons in other controllers.

Thanks for choosing Virtual rain for your controller needs and look for the "Contractor Friendly" logo on all Virtual rain products.

**It's our pledge to provide you with dependable, easy to use products.**

#### OPERATING SPECIFICATIONS:

- Station Run Time: 1-99 minutes in 1 minute increments
- Start Times: 4 per day, per program, for up to 12 daily starts
- Watering Schedule: 7-day calendar with every day, every second day, every third day or odd-even programming with 365-day clock/calendar

#### ELECTRICAL SPECIFICATIONS:

- Transformer Input: 120VAC, 60hz
- Transformer Output: 24VAC, .75 amps
- Station Output: 24VAC, .35 amps per station
- Maximum Output: 24VAC, .75 (includes Master Valve Circuit)
- Battery Backup: 4AA
- Three Programs: A, B & C
- Four start times for each program

#### DIMENSIONS:

- Overall Height: 11 1/2" 13"
- Width: 7"
- Depth: 2 1/8"

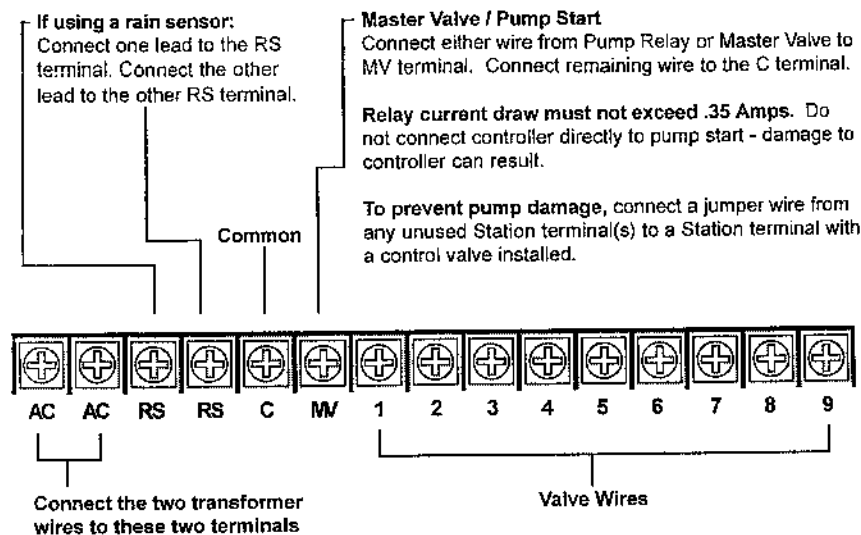
#### DEFAULT SETTINGS:

**Program A:** Each station 10 minutes every day, Start Time 1 will read 8:00 a.m. Start Times 2-4 OFF

**Program B:** Each station 0 minutes, Start Times 1-4 OFF

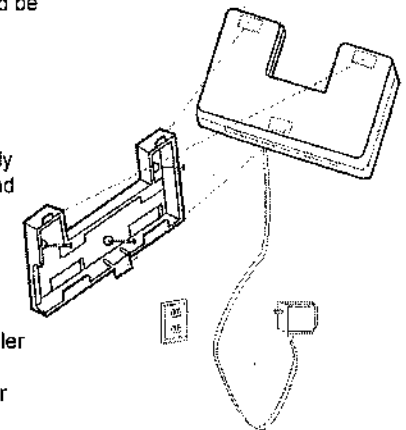
**Program C:** Each station 2:00 minutes, Start Times 1-4 OFF

## CONNECTING VALVES & TRANSFORMERS



**Do not plug the transformer into power source until the controller is mounted and all the valves have been connected!!!**

1. Select an indoor location near a standard 120VAC electrical outlet. The location should be protected from moisture and direct sunlight.
2. Remove the U Shaped mounting bracket (A) from the back of the controller housing.
3. Place the U Shaped mounting bracket slightly below eye level. Using the hole at the top and the slide cutout at the bottom, secure the bracket with #6 x 1" screws (B) provided. (Note: Install screw anchors if attaching mounting bracket to drywall or masonry.)
4. Align slotted openings on back of the controller housing (C) with rails (D) on the U Shaped mounting bracket. Gently slide the controller down into position on bracket.

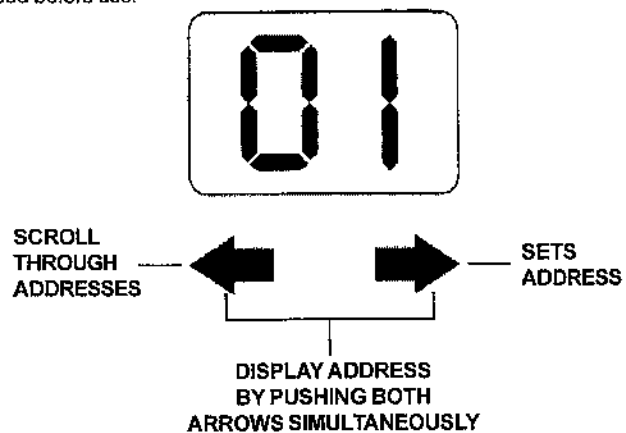


**Do not plug the transformer into power source until the controller is mounted and all valves have been connected.**

## MOUNTING THE CONTROLLER

## TRANSMITTER AND RECEIVER

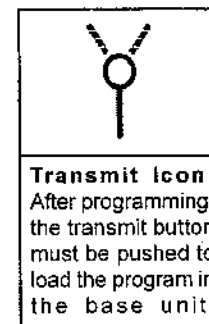
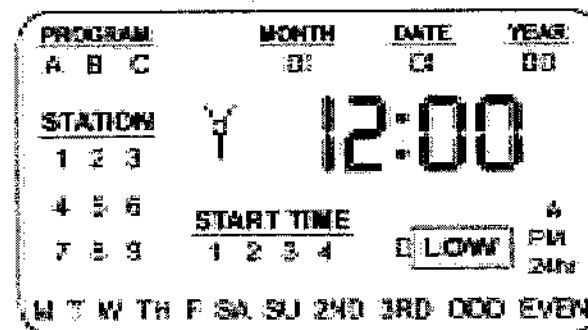
In order for the Transmitter and Receiver to recognize each other, the base unit must be addressed before use.



Pressing both "Arrows" on the base unit simultaneously will activate the address display. The left arrow "Scrolls" through addresses 1-11. The right arrow "Sets" the address. After "setting" the address, place the transmitter in the base unit until the base unit beeps. The beep indicates recognition of the transmitter by the base unit.

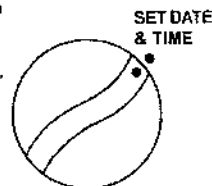
A key feature of the Xh is its clear, easy-to-read, large LCD display and easy-to-use dial design that makes programming a snap. All essential keypad functions are clearly marked to eliminate confusion.

The Xh display shows time and date when the controller is idle. When programming, the flashing portion of the display can be changed by pressing the + or - buttons. To change a field that is not flashing, press **NEXT** until desired field is flashing.



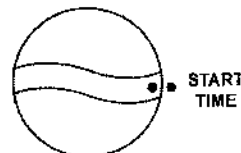
## Setting the Date & Time:

1. Turn dial to the **SET DATE & TIME** position (the month will flash "1").
2. **MONTH:** Use the + and - buttons to change the month.
3. **DATE:** Press the **NEXT** button to set the date of the month (the date will flash "1"). Use the + and - buttons to change the date of the month.
4. **YEAR:** Press the **NEXT** button to set the year (the year will flash "00"). Use the + and - buttons to change the year. (The day of the week [e.g. Monday, Wednesday, etc.] is automatically indicated by the first letter in the display.)
5. **TIME:** Press the **NEXT** button to set the time (the hours will flash "12"). Use the + and - buttons to set hours. Press the **NEXT** button to set the minutes (the minutes will flash "00"). Use the + and - buttons to change the minutes in the display. Press the **NEXT** button to set day mode (AM will flash). Use the + and - buttons to select AM, PM, or 24hr.



## Setting Watering Start Times:

1. Turn dial to the **START TIME** position. (Program A will appear on screen unless the user changes to B or C)
2. Start time 1 will set as default.
3. Press the **NEXT** button to set the start time (hours will flash). Use the + and - buttons to set hours. Press the **NEXT** button to set the minutes (minutes will flash). Use the + and - buttons to change minutes.
4. Press the **NEXT** button to select the next start time.



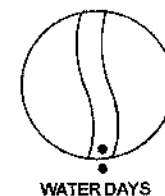
## Setting Station Run Times:

1. Turn dial to the **STATION RUN TIME** position.
2. The display will show the **station number** and the program letter selected (A, B, or C), and the flash the **run time** for that station.
3. Use the + and - buttons to change the time (in minute) shown on the display.
4. Press the **NEXT** button to advance to the next station.
5. Repeat steps 4 and 5 for each station.



## Setting Days to Water:

1. Turn dial to **WATER DAYS** position.
2. The LCD displays currently programmed day information. This dial position provides 5 different water day options: specific days of the week, 2<sup>nd</sup> days, 3<sup>rd</sup> days, odd days, and even days.



## Selecting Specific Days of the Week:

1. Press the + button to turn on a particular day of the week to water. Press the - button to cancel watering for that day. (after pressing button, the unit automatically advances to the next day)
2. Repeat step 1 until all desired days have been selected. The selected days will show on the display to indicate status as ON.
3. A flashing water day will not register as ON.

## Selecting 2<sup>nd</sup> Day, 3<sup>rd</sup> Day, Odd Days, & Even Days:

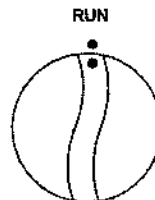
1. Press the + or - buttons until the letter display over 2<sup>nd</sup> day, 3<sup>rd</sup> day, odd days, or even days.
2. Press the + button to select or the - button to cancel 2<sup>nd</sup> day, 3<sup>rd</sup> day, odd days, or even days.
3. The previously selected days of the week will revert to active if 2<sup>nd</sup> day, 3<sup>rd</sup> day, odd days, or even days is canceled.
4. A flashing water day will not register as ON.

## Resetting the default Programming:

1. Turn programming dial to SET DATE and TIME.
2. Depress the NEXT and PRG keys simultaneously for three seconds.

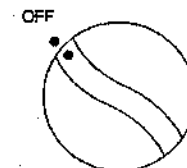
## Run:

Set dial to RUN to enable automatic execution of all selected programs and start times. Press the Transmission Button to transmit the control instruction. The LCD will display the real-time clock and date.



## System OFF:

Turn dial to OFF position. Press the Transmission Button to transmit the control instruction. Valves currently watering will be turned off after dial is in OFF position for 2 seconds. All active programs are discontinued and watering is stopped. To return the controller to normal automatic operation, simply return dial to RUN position and press the transmission button.



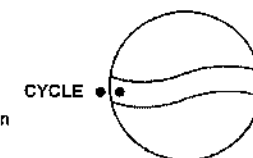
## Manually Run a Single Station:

1. Turn dial to the Manual position.
2. The station run time will flash as "0." You may use the + and - buttons to select the amount of time for valve to water. Use the NEXT button to move to the next station.
3. Turn dial to the RUN position and press the transmit button position to activate the station.
4. To manually turn a station OFF, rotate dial to OFF position and press the transmit button.



## Manually Run a All Station:

1. Turn dial to the CYCLE position.
2. Use the NEXT and + or - buttons to set up custom program to run one time.
3. Press the NEXT button until desired starting station is displayed.
4. Return dial to RUN (custom program will water, then controller will return to automatic mode).



## FCC NOTICE

**Warning:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet or on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

