



# FLOOD FREE ZONE

Water Control and Conservation System

## INSTALLATION, OPERATION AND MAINTENANCE MANUAL

### CAUTION: IMPORTANT SAFETY INSTRUCTIONS

The most important consideration when installing the Flood Free Zone Water Control and Conservation System (FFZ) is safety. Please observe the following precautions:

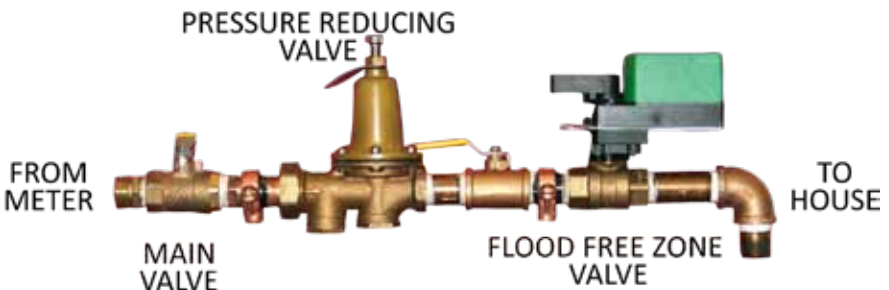
- Installation and maintenance of the FFZ system must be performed by qualified service personnel.
- The FFZ valve actuator requires connection to a properly grounded 110v electrical outlet. Contact a licensed electrician if an outlet is needed.
- Always turn off the power at the breaker panel before working with an electrical circuit and follow all required safety instructions relative to electrical work.
- It is recommended that a licensed plumber install the FFZ valve in the inlet water line.

### FFZ WATER CONTROL AND CONSERVATION SYSTEM COMPONENTS

- Valve – ¾" or 1" 600 WOG Ball Valve
- ACU - Actuator – 24VAC 2 Position Control
- AMU – Actuator Module Unit (Factory Installed in ACU)
- HHU – Handheld Unit – Remote Control
- HSU – Home Security Unit – (Security System Interface)
- Power adapter – 120v/24v Converter
- 2 AA Batteries

### INSTALLATION INSTRUCTIONS

1. Ensure the water inlet supply is turned off at the main valve.
2. Verify the FFZ valve is the proper size for the inlet water supply line.
3. Position the FFZ valve in the inlet supply line within easy reach as the unit is equipped with a manual override in the event of a loss of power.
4. The preferred location for the FFZ valve is downstream of the pressure reducing valve as shown below. This will allow for all sprinkler systems to perform when the FFZ valve is in the closed position.
5. Plug the FFZ A/C adapter into a properly grounded 110v electrical outlet. The FFZ valve is now ready for operation.



## USING THE HHU REMOTE CONTROL

The FFZ-HHU unit is a two way communication device. It transmits and receives signals from the FFZ valve actuator.



FFZ HHU

1. Install the two AA batteries furnished with your FFZ Water Control and Conservation System into the HHU Remote Control
2. Press either the "OPEN" or "CLOSE" button. The remote will either display "OPEN" or "CLOSE" indicating the status of the FFZ valve.
3. Press either "OPEN" or "CLOSE" a second time and the unit will begin to operate open or close based on the command. This will be indicated by a momentary flashing of either "OPEN" or "CLOSE".
4. For security system use, press the "AUTO" button on the remote. This will activate the HSU unit which will control the operation of the FFZ valve.
5. At any time, the remote control can be used to operate the unit or retrieve status of the FFZ valve position. A flashing "OPEN" or "CLOSE" indicates the FFZ valve is in the process of either opening or closing. A constant "OPEN" or "CLOSE" display indicates the valve is completely open or closed.

**NOTE: The HHU is designed to work within the interior confines of the home. In some cases barriers may exist within the home that interferes with signals. It may be necessary to determine the optimum location for best communication from the HHU to the FFZ valve.**

## USING THE HSU SECURITY SYSTEM INTERFACE

1. The FFZ valve can also be operated from the HSU Home Security Unit.
2. The HSU Unit is designed to be installed within a home security system panel. It requires a 6-12vdc power input from the security panel. Power is installed on the power terminals 1& 2.
3. To operate the FFZ valve from the HSU a contact closure or switch is required on terminals 3 & 4. This closure switch should be an output from the security panel. Consult your home security company for installation.
4. Operation from security system can be set using the switch on the HSU. When the switch is "ON" or in the UP position, the FFZ unit will be closed in the AUTO position. A contact closure or switch from the security system will cause the FFZ valve to open. The opposite will occur with the HSU switch in the "OFF" or down position. The FFZ valve will be open when the Auto button on the HHU is pressed and a contact closure on the HSU will cause the FFZ valve to close.



FFZ HSU

## USING THE AMU BYPASS

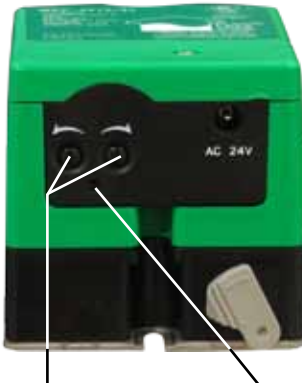
In the event that the HSU is lost, the FFZ valve can be operated utilizing the AMU bypass buttons. They are located on the FFZ AMU unit which can be found on the back of the ACU actuator. They are labeled with arrows pointing clockwise and counterclockwise.

1. To open the FFZ valve press the counterclockwise button. The valve should begin to rotate open – note the handle movement – operation from closed to open will be about 2 minutes.
2. To close the FFZ valve press the clockwise button. The valve should begin to rotate closed – note the handle movement – operation from open to closed will be about 2 minutes.

## USING THE MANUAL OVERRIDE

In the event of a power outage or system problem, the manual override clutch may be required to operate the FFZ valve. The manual override consists of two operations.

FFZ Actuator with AMU installed



1. Using the thumb on the right hand, push the manual clutch in a clockwise motion. The clutch will rotate slightly allowing the valve to become declutched from the actuator.
2. Turn the handle on top of the unit to rotate the valve counterclockwise to open and clockwise to close. The handle will only rotate 90 degrees.

## CODE MATCHING THE HHU REMOTE, ACU and HSU

The communications codes of the 3 units, HHU, ACU & HSU are factory set to communicate. However, if any of the three units are replaced for any reason, code matching will have to be performed to ensure proper communication between all devices.

1. If replacing the HHU (HHU is master code carrier): Put batteries in new HHU and close cover. Using a paper clip or similar, push and hold the “match” button on the ACU, then press the “auto” button on the HHU; the code matching will be completed automatically.
2. If either HSU or ACU is a new unit, repeat the above procedure with the new unit.

## **TROUBLESHOOTING THE FFZ WATER CONTROL AND CONSERVATION SYSTEM**

| <b>Trouble Condition</b>            | <b>Cause of Problem</b>                                 | <b>Problem Resolution</b>   |
|-------------------------------------|---|---|
| FFZ valve will not operate with HHU | Power disconnected from FFZ ACU                         | Plug power cord into FFZ ACU and verify operation - press bypass button to verify                   |
|                                     | HHU Remote batteries are weak                           | Replace HHU batteries   |
|                                     | Interference with communication signal                  | Verify location does not have physical obstructions. Locate area which HHU will communicate         |
|                                     | Communications code not matched between devices         | Perform code matching function for ACU - see code matching instructions                             |
| FFZ valve will not operate with HSU | Power disconnected from FFZ HSU                         | Verify 6-12vdc power input from security system   |
|                                     | Contact closure/switch not present from security system | Verify HSU operation by shorting terminals 3 & 4 with wire. Contact security company for assistance |
|                                     | Communications code not matched between devices         | Perform code matching function for HSU - see code matching instructions                             |