

Programming the Window (continued)

Setting the OFF Time (Interval)

The following screen shown in Fig 8 will appear:

On this screen the numbers refer to the interval between irrigations within the cycle (measured in minutes and hours). 'OFF' flashes on the screen, alternating with the numbers.

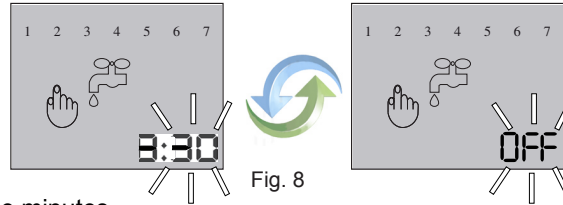


Fig. 8

1. Use the + or - buttons to adjust the minutes
2. Press SET to continue
3. Use the + or - buttons to adjust the hours.
4. Press SET to continue.

Setting the Days

The following screen shown in Fig 9 will appear:

You must select the days you wish the irrigation 'WINDOW' to operate. Each day selected will operate with the irrigation schedule you setup in Figures 6-8.

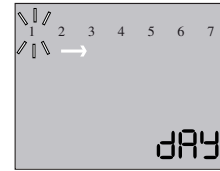


Fig. 9

1. Press SET to reach the day you wish to irrigate. The number (corresponding to the day of the week) will flash.
2. Press + to select that day (the square which appears indicates day is selected).
3. Press - to deselect a day (the square will disappear).
4. Press SET until all days are programmed as desired. Current day continues flashing.
5. Press SET to complete programming.


Example summary: The program has been set for a 10 hour Window (8:00 to 18:00) having 'On' time duration of 1 hour 30 minutes 9 seconds and 'OFF' time interval of 3 hours 30 minutes. This cycle will repeat twice during the 10 hour Window each day that is selected.

Note: The Window End time takes control over the schedule and turns off the valve even if the cycle is not complete.

Warranty and Disclaimer: Nelson Window+ controllers are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair. The manufacturer's liability under this warranty is limited solely to replacement or repair of defective parts, and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects in design or breach of warranty. This warranty is expressly in lieu of all other warranties, express or implied, including the warranties of merchantability and fitness for particular purposes and of all other obligations or liabilities of manufacturer. No agent, employee, or representative of the manufacturer has authority to waive, alter or add to the provisions of this warranty, nor to make representations or warranty not contained herein

Maintenance and Troubleshooting

Battery Installation

Replace the battery at the start of each irrigation season and when the low battery symbol  appears.

1. Using a Phillips screwdriver, remove the four battery cover screws.
2. Remove the battery cover and seal.
3. Replace the battery.
4. After reattaching the seal, put the cover back, and secure with the four screws.

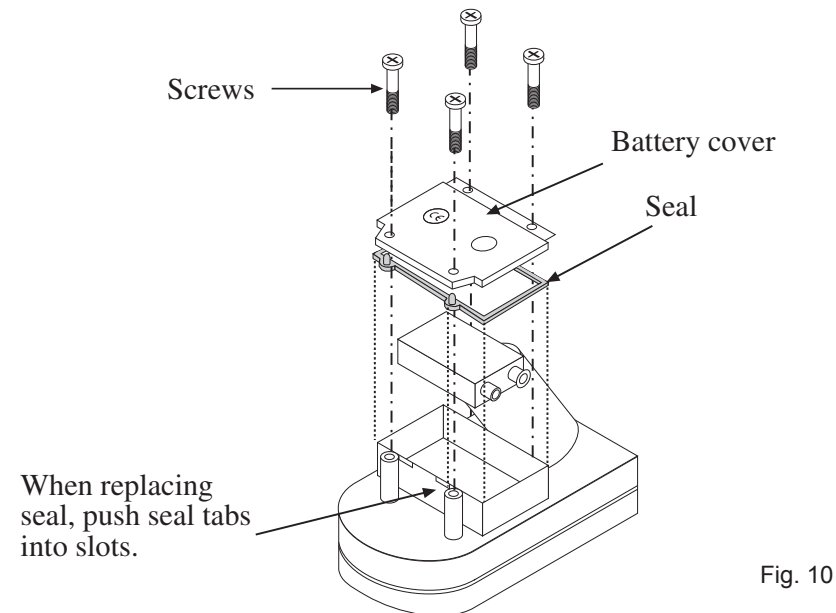


Fig. 10

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WINDOW+ Controller USERS GUIDE



Controller on 2" 800 Series valve

Features

This battery operated controller irrigates in cycles that will repeat during a window of time according to a program setup by the user. The wet and off cycles can be very frequent (over 100 per day) if wanted. It is very useful for evaporative cooling of fruit and dust suppression when irrigated for short wet/dry interval times. Cycle irrigation is also useful for normal sequential rotation of irrigation flow between field zones.

- Operates in cycles during programmed window
- Battery powered; no need for electrical hookup
- Easy installation
- Waterproof and weather resistant
- Easy programming

Parts Identification

- | | |
|---------------|-----------------------|
| 1. Top Cover | 2. Controller Display |
| 3. Controller | 4. Program keys |
| | 5. Solenoid |

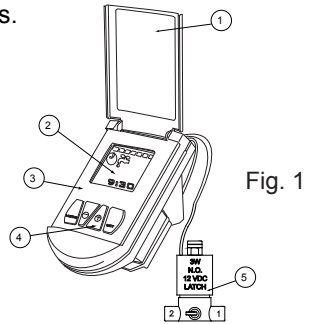


Fig. 1

Getting Started

Basic Controller Functions

This section gives a brief description of the Controller program key buttons. This figure shows the layout and the function is described below.




-  Quick presses of the **MODE** button turn the controller off, or on. Longer presses of the **MODE** button put the controller in programming mode.
-  Press the **SET** button to set a function and proceed.
-  Use these buttons to increase and decrease schedule functions.

Fig. 1a

Installation

The controller and solenoid will normally be installed on the valve at the factory. Occasionally the latching solenoid valve opens in transit. To ensure that the valve is closed before you turn on water pressure, first make sure that the controller is not set to OFF (If it is set to OFF, press briefly on the **MODE** button to turn it on.) Then press + and **SET** simultaneously to open, and press - and **SET** simultaneously to close. You are now ready to program the Window+ controller. *Caution note: Unique to latch solenoids is the potential to fail in either OFF or ON! Before installation make certain that the irrigation system has the proper pressure relief and some protection against damage if solenoid failure occurs.*

Manual Operation

To manually open the valve, make sure that the Controller is not set to OFF (If it is set to OFF, press briefly on the **MODE** button), then press + and **SET** simultaneously. The irrigation will continue until the interval defined in the program has passed. If the irrigation duration has been set to zero, the valve will close after one minute. To stop irrigating, press - and **SET** simultaneously.

Programming the Controller

Meaning of Controller Icons

NOTE: Quick presses of the **MODE** button turns the Controller off, or on. Longer presses of the **MODE** button put the Controller in programming mode.

1. Irrigating days of the week
2. Cycle start (shows that the time is within the window cycle has started)
3. Irrigation (valve has been opened)
4. Timing or clock
5. Low battery
6. Time adjustment

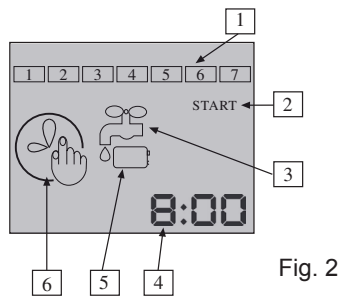


Fig. 2

NOTE: You cannot program the Controller if it is set to manual operation or if it is set to OFF. To release from manual operation press - and **SET** simultaneously. To release from OFF press briefly on the **MODE** button.

Setting the Clock

If the screen is blank, press **MODE** to activate. To set the program you must be in operating mode.

Before programming the Controller you must set the clock.

1. Press **MODE** until the adjustment icon appears (the minutes will be flashing).
2. Use the + or - to adjust the minutes
3. Press **SET**
4. Use the + or - to adjust the hours
5. Press **SET**
6. Use the + or - to select the current day
7. Press **SET** to return to operating mode.

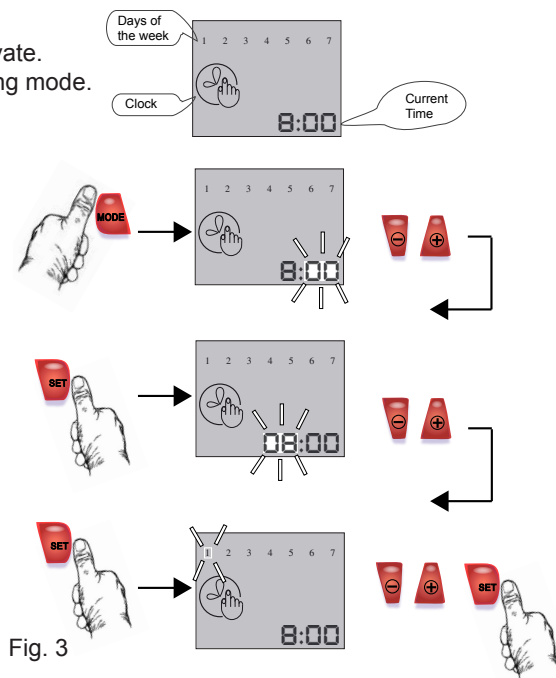


Fig. 3

Understanding the 'WINDOW'

The Window is the time between the Start and End of irrigation. The cycle consist of the 'On' time (actual irrigation time), and the 'OFF' time (interval between irrigation shut off and the time until the next irrigation begins). The cycle repeatedly recurs during the Window. **NOTE:** During programming, the screen will revert to operating mode if left inactive for 30 seconds.

Programming the Window

Setting Window Start Time

1. Press the **MODE** button until the clock settings screen appears, then press **MODE** again until this screen appears (the minutes will be flashing.) On this screen, the clock numbers refer to the time you wish the Window to begin. 'Str' flashes on the screen, alternating with the numbers.
2. Use the + or - buttons to adjust the minutes
3. Press **SET** to continue.
4. Use the + or - buttons to adjust the hours.
5. Press **SET** to continue.

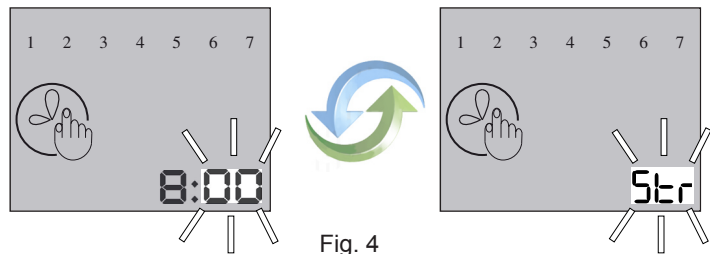


Fig. 4

Setting the Window End Time

1. The screen in Fig. 5 will appear. On this screen, the clock numbers refer to the time you wish the irrigation Window to end. 'End' flashes on the screen, alternating with the numbers.
2. Use the + or - buttons to adjust the minutes.
3. Press **SET** to continue.
4. Use the + or - buttons to adjust the hours.
5. Press **SET** to continue.

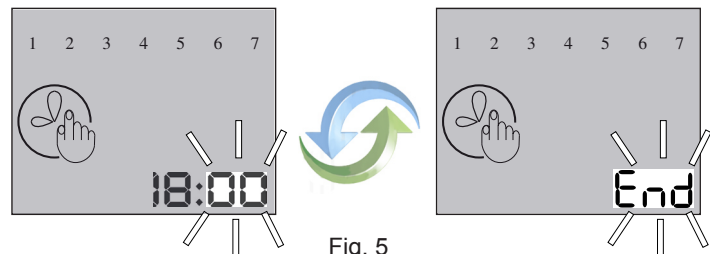


Fig. 5

Example above shows a window Start time of 8:00 and End of 18:00 (a 10 hour Window).

Programming the Window (continued)

Setting the ON Time (duration)

The following screen shown in Fig. 6 will appear: First the seconds are set then the hour and minute screen shown in Fig. 7 appears.

On Fig. 6 screen the numbers refer to the amount of time (in seconds) the irrigation will be on each time it activates within the cycle. The seconds number flashes and 'On' alternately flashes on the screen.

1. Use the + or - buttons to adjust the seconds.
2. Press **SET** to continue.

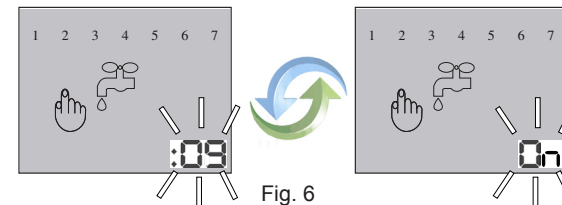
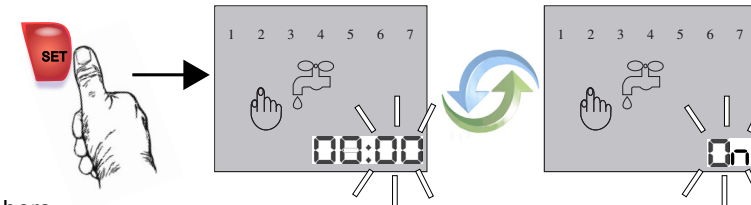


Fig. 6

3. For this screen the 'On' time numbers are measured in hours and minutes. Use the + or - buttons to adjust the minutes.
4. Press **SET** to continue.



5. Use the + or - buttons to adjust the hours.
6. Press **SET** to continue.

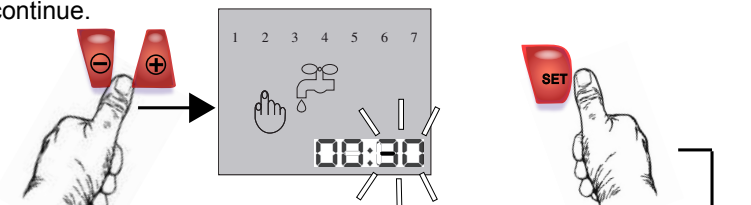


Fig. 7

Fig. 7 example shows watering duration for each cycle set to 1 hour 30 minutes and 09 seconds.