



AUTOMATIC YARD WATERING SYSTEM

Automatic Yard Watering System Instruction Manual

Model: 56211-1-100-1010-10102

Introduction

Thank you for selecting the quality Orbit Automatic Yard Watering System. You will enjoy many years of satisfactory service if proper installation and care is observed.

The Automatic Yard Watering System keeps your yard beautiful whether you are at home or away. Orbit gives you convenience and flexibility, letting you use an automatic watering program or the ability to override the automatic program for special watering needs.

The Orbit System's timer provides watering at up to 4 stations with the option of 3 start times per day with watering periods from 1 to 30 minutes per start time.

For ease of use, the User's Guide has step-by-step instructions for installation, set up and operation. Please read the Guide completely before installing, programming and operating.

Note: Use only with three 1.5-volt (AA)

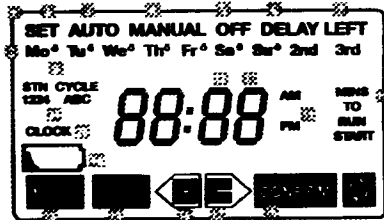


Figure 1 Key Pad and Display

- ⊞ Indicates different mode settings for programming.
- ⊞ Select to set day of the week, to set clock time, to set watering days, to set watering station and duration and to set start times.
- ⊞ Select to use automatic watering mode.
- ⊞ Select to enable watering manually.
- ⊞ Select to suspend watering and turn off all stations.
- ⊞ Select to postpone watering for up to 24 hours.
- ⊞ Indicates the number of hours remaining on the Delay.
- ⊞ Indicates current day of the week and the set days for watering.
- ⊞ Indicates which days are selected for watering.
- ⊞ Indicates the duration that each station will water.
- ⊞ Indicates A.M. or P.M. for clock and start time.
- ⊞ Indicates the time to begin watering.
- ⊞ Indicates clock, start time and watering duration.
- ⊞ Push to select or unselect a setting.
- ⊞ Push to confirm a new setting and advance to the next setting.
- ⊞ Push to increase numeric setting or advance a setting.
- ⊞ Push to decrease numeric setting or retract a setting.
- ⊞ Push to cycle through the different mode settings.
- ⊞ Indicates low battery, or that batteries need to be replaced.
- ⊞ Indicates that the setting of the clock and day of the week is in process.
- ⊞ Indicates which watering cycle is active or being set. Also indicates which watering station is active or being set.
- ⊞ One plastic "Reset" button. Push to reset all programs and settings.

INSTALLATION

GENERAL INFORMATION

1. Location:
 - Choose a spot where water drains away from house and window wells.

Warning: For outdoor use in cold water only.

2. Plumbing Codes:
 - Follow all watering and back-flow (anti-siphon) prevention codes.
3. Specifications:
 - Water pressure: Min. 10 psi/Max. 80 psi working pressure
 - Working Temperature: Min. 32° F/Max. 167° F
 - Storage Temperature: Min. -22° F/Max. 185° F
 - Electrical: Three AA 1.5-volt alkaline batteries
4. Installing the Batteries:
 - Remove timer cover and slide battery compartment cover off in the direction of arrow. Install three AA 1.5-volt alkaline batteries. Slide compartment cover back into place. (See Figure 2)

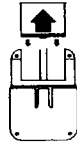


Figure 2

- Check the timer periodically for low voltage. When the battery power drops below the safety zone, the "Low Battery" indicator appears on the display. Replace the batteries with new fully-charged batteries when this appears. If old batteries are not replaced before they run out, all controls will be disabled.
 - Replace the timer cover.
5. Attach the 4-outlet brass manifold to an outside hose faucet. Ensure that the 4 outlet controls are in the "off" position.

Note: If desired, the brass manifold may be secured to the wall below the hose faucet using the mounting hardware and instructions provided.

Note: Keep Automatic Yard Watering packaging for off-season storage.

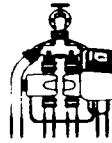


Figure 3

6. Attach up to 4 valves as needed to the 4-outlet brass manifold. (See Figure 3)
 - Note: The Automatic Yard Watering System timer may be mounted in one of two ways:
 - On a valve's mounting bracket opposite the brass manifold connection.
 - On the hose faucet wall within reach of the valve's black connector plug.
7. Select one of the options above to mount the timer. If the wall-mount method is selected, secure the mounting bracket to the wall using the plastic wall anchor and screws provided.
8. Attach up to 4 water connections as needed to either the brass manifold outlets or the valve outlets.
9. Insert as many black valve connector plugs as needed into the open ports underneath the timer.
- Note: Watering stations 1-4 match the connector ports underneath the timer from furthest left to furthest right.
10. Open the individual brass manifold outlet controls as needed to direct water through an attached watering connection or into the line controlled by a valve.
11. Turn the faucet on slowly to check for leaks. Tighten manifold, valve or water connection fittings if there are any leaks.

PROGRAMMING

SET CLOCK TIME AND DAY OF WEEK

- Push the indented RESET area to erase the current settings.
- After pressing RESET the timer automatically will start in the SET mode. The word SET will blink to indicate that it is selected.
- Push CONFIRM button to begin the set mode. The word CLOCK will appear to indicate the time/day setting is active.
- Push + or - button to select the current day of the week. The day selected will flash. (See Figure 4)

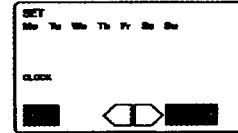


Figure 4

- Push CONFIRM button to accept the day setting and advance to set the clock time. The current time with A.M. or P.M. will flash.
- Push + or - button to select the correct current time.
- Push CONFIRM button to accept the time setting and advance to set watering days. (See Figure 5)

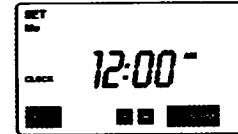


Figure 5

Note: When no button has been pressed for 1 minute, the timer will automatically switch to the AUTO mode and all the programmed settings. You may push MODE button to return to Mode Selecting. Push MODE button to select SET. The word SET will blink to indicate that it is selected.

SET WATERING DAYS

Your Orbit timer allows you to choose the days of the week for watering. You can water every day, only certain days, or every 2nd or 3rd day.

- Push CONFIRM button to begin the set mode.
- Push CONFIRM button two more times to move past the time/day setting. The days of the week will be flashing. (See Figure 6)

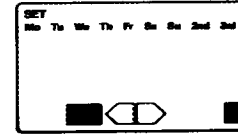


Figure 6

- Push + or - button to advance to the next day, or to the 2nd and 3rd day settings.
- When chosen day(s) are flashing, push the key to toggle the rain drop on/off. The rain drop indicates the day(s) chosen for watering.
- When the watering days are chosen, push NEXT button to advance to set watering duration. (See Figure 7)

Note: If you choose to only water at intervals of every 2nd or 3rd day, you cannot set specific days of the week for watering. When no button has been pressed for 1 minute, the timer will automatically switch to the AUTO mode and all the programmed settings. You may push MODE button to return to Mode Selecting. Push MODE button to select SET. The word SET will blink to indicate that it is selected.

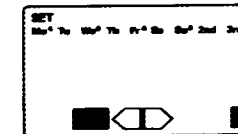


Figure 7

SET DURATION AND START TIME FOR WATERING

The Orbit timer allows you to set the duration (the number of minutes to water in each of four stations) and to set the start times for watering for each of three watering cycles.

- Push CONFIRM button to begin the set mode.
- Push CONFIRM button two more times and NEXT button once to move past the time/day setting and the watering days. STATION (STN) 1 will show to indicate which station is being set. MINS TO RUN will show with two digits or '-' flashing. (See Figure 8)

Note: STNs 1-4 match the connector ports underneath the timer from furthest left to furthest right.



Figure 8

- Push + or - button to set the duration desired for watering STATION (STN) 1, from 1 to 99 minutes.
- Push CONFIRM button to confirm the duration and advance to set the duration for STATION 2.
- Push + or - button to set the duration desired for watering STATION (STN) 2, from 1 to 99 minutes.
- Push CONFIRM button to confirm the duration and advance to set the duration for STATION 3.
- Push + or - button to set the duration desired for watering STATION (STN) 3, from 1 to 99 minutes.
- Push CONFIRM button to confirm the duration and advance to set the duration for STATION 4.
- Push + or - button to set the duration desired for watering STATION 4 (STN), from 1 to 99 minutes.
- Push CONFIRM button to confirm the duration and advance to set start time.

There are three unique watering start times, or cycles, that can be set: CYCLE A, CYCLE B and CYCLE C. Each cycle will appear on the screen to specify which one is to be set. One, two or three cycles may be selected. (See Figure 9)

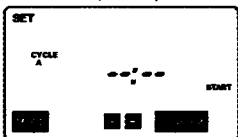


Figure 9

- Push + or - key to set the start time for CYCLE A.
- Push CONFIRM button to accept this time and advance to set CYCLE B.
- Push + or - button to set the start time for CYCLE B.
- Push CONFIRM button to accept this time and advance to set CYCLE C.
- Push + or - button to set the start time for CYCLE C.
- Push CONFIRM button to accept this time and return to Mode Selecting.

Note: When no button has been pressed for 1 minute, the timer will automatically switch to the AUTO mode and all the programmed settings. You may push MODE button to return to Mode Selecting. Push MODE button to select SET. The word SET will blink to indicate that it is selected.

AUTOMATIC WATERING

Once watering days, duration and start times are programmed, the Orbit timer will begin watering automatically.

- Push MODE button to select AUTO. The word AUTO will blink to indicate that it is selected.
- Push CONFIRM button to begin the auto mode. The timer is now ready to begin watering automatically. (See Figure 10)
- When watering begins, MINS TO RUN will alternate with the current time and day to indicate the time left on current cycle.
- In this mode, the unit executes any programmed schedule or default schedule.

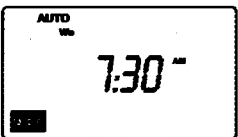


Figure 10

- In this mode, extra (Manual) watering is ceased.
- In this mode, Delay mode is canceled.

Note: When no button has been pressed for 1 minute, the timer will automatically switch to the AUTO mode and all the programmed settings. You may push MODE button to return to Mode Selecting. Push MODE button to select SET. The word SET will blink to indicate that it is selected.

MANUAL (EXTRA) WATERING

The Orbit timer allows you to add an extra 1 to 99 minutes of watering time for one or all stations. The manual setting does not alter the automatic settings during or after manual use.

- Push MODE button to select MANUAL. The word MANUAL will blink to indicate that it is selected.
- Push CONFIRM button to begin the manual mode. STATION (STN) 1 will flash.
- To have all stations water in manual (extra) mode, push CONFIRM button and all the stations will water at the duration previously set.
- To have only one station water in manual (extra) mode, push + or - to select which station to water.
- Push CONFIRM button to confirm the selected station to water. MINS TO RUN will show with two digits or "--" flashing. (See Figure 11)

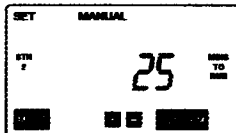


Figure 11

- Push + or - button to set the duration for the extra watering.
- Push CONFIRM button to confirm the desired duration. The extra watering will begin immediately for the duration selected at the selected station.
- As watering begins, MINS TO RUN will alternate with the current time and day to indicate the time left on manual cycle. The station currently being watered will also show.
- To discontinue the manual watering mode, push + and - together, and extra watering will end immediately.
- When the extra watering is finished, the unit will resume auto mode.

DELAY WATERING

The Orbit timer allows you to delay automatic watering for 1-24 hours.

- Push MODE button to select DELAY. The word DELAY will blink to indicate that it is selected. The unit will initiate a 24 hour delay.
- Push CONFIRM button to begin delay mode. "24 Hr" will blink and the word DELAY will appear. (See Figure 12)

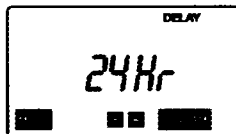


Figure 12

- Push + or - button to change the hour delay within 10 seconds after pushing CONFIRM button to begin delay mode. Otherwise, "24 Hr" and the current day and time will alternate blink and the timer will not accept a delay hour change. If this occurs, repeat the previous three instructions.
- Push CONFIRM button to confirm the delay mode for the desired time.
- LEFT will appear to indicate the time remaining on delay.
- To discontinue delay watering, push MODE button.

OFF MODE

In Off Mode all watering programs are inactive and no watering will occur.

- Push MODE button to select OFF. The word OFF will blink to indicate that it is selected. (See Figure 13)

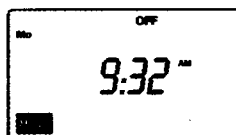


Figure 13

- Push CONFIRM button to begin off mode.
- While in off mode, the unit will continue to display current time and day.

- To discontinue off mode, push + and - buttons together. The unit will resume auto mode.

OFF-SEASON STORAGE & MAINTENANCE

- Turn the water off at the hose faucet and leave brass manifold outlet control levers in the "on" position for each connected valve.
- Push MODE button to select MANUAL. The words MANUAL and SET will blink to indicate that they are selected.
- Push CONFIRM button to begin the manual mode. STATION (STN) 1 will appear, indicating the current station.
- Push + or - button to advance to the valve station matching the connection to the timer.

Note: STNs 1-4 match the connector ports underneath the timer from furthest left to furthest right.

- Push CONFIRM button to control running time. MINS TO RUN will show with two digits or "--" flashing.
- Push + or - button to set the duration for 1 minute.
- Push CONFIRM button to open valve, draining water and relieving pressure. Repeat the previous six steps, if necessary, for other valve connections with the timer.
- Move the individual brass manifold outlet control levers to the "off" position.
- Remove as many black valve connector plugs as needed from the ports underneath the timer.
- Remove the timer either from the valve or from the wall-mounted bracket.
- Clean and dry the timer, if needed.
- Remove the batteries. Clean the contacts in the battery compartment. Apply new battery and terminal protection compound. If the batteries show any sign of corrosion, discard them.
- Store timer in a warm and dry place (avoid freezing).
- Remove as many water connections as needed from either the brass manifold outlets or the valve outlets.
- Remove as many valves as needed from the 4-outlet brass manifold.
- Remove the 4-outlet brass manifold from the outside hose faucet.
- Place Automatic Yard Watering System components in original packaging for off-season storage.

TROUBLESHOOTING

PROBLEM/POSSIBLE CAUSES

Water does not turn on:

- Programming is incorrect.
- Batteries are too weak to operate valve.
- Pressure is in excess of 80 psi.
- Hose faucet is turned off.
- Timer is in the off or delay mode.

Timer display is blank:

- Batteries are dead.
- Faulty display.

Timer will not operate manually:

- Water to faucet is turned off.
- Manifold outlet valve is turned off.
- Timer is in the off mode.
- Station selected may not match the port station number underneath the timer.

(Orbit)

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