TORO. Count on it.

EVOLUTION® Series Controller
Quick Start Guide

WaterSense
Meets EPA Criteria

Certified by
ICC-ES

EPA WaterSense® Certified
when used with Smart Connect™

For Complete User Guide,
Videos and Information,
Visit Toro.com/Evolution

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Thank you for purchasing Toro's new award-winning EVOLUTION® Series irrigation controller, delivering unprecedented control and ease-of-use of your irrigation system!

Based on years of customer research, the EVOLUTION® Series controller has the perfect balance of simplicity and sophistication. The modern-day programming, unique USB functionality, and smart capability make it an ideal choice for users seeking an advanced irrigation control without the complexity. With the addition of Smart Connect™, there are multiple options available to upgrade the controller to automatically adjust watering, or control other devices such as lighting or water features. Using the Smart Connect™ Weather Sensor, the EVOLUTION® controller meets the requirements of the EPA WaterSense® Program. You can even set your programs using a computer by utilizing the simple-to-use EVOLUTION® Scheduling Advisor which can be downloaded from the www.toro.com/evolution website.

If you have any questions about the controller, please call us toll-free at 1-877-345-8676 and we will be happy to help. From locations outside North America, please send your questions to the evolution@toro.com email address.

Controller Introduction

Timing Mechanism

1 – LCD Screen

2 – ⏻ Water Off Button. Use to turn off scheduled and manually activated watering. For extended watering off, you can select 1-14 days or Remains Off.

3 – 💧 Water Now Button. Use to manually activate a schedule, specific zone(s) or All Zones Test.

4 – 7 Schedules Button. Use to set your active watering day(s), schedule start(s) and zone runtime(s).

5 – ⇕ Adjust Water Button. Adjust your watering percentage per schedule or zone runtimes.

6 – 🔍 Review Button. Use to review your schedule parameters.

7 – ⬦ Advanced Button. Use to access the controller's advanced features from zone and schedule details to sensor setup and controller diagnostics.

8 – 🏠 Home Button. Use to display the controller's activity and alert messages.

9 – ❓ Help/Setup Button. Use to access and clear alerts, set the controller's time and date, locate Toro contact information and local service information, as well as modify controller preferences such as the display language and time and date format. Use Setup also to save or load a schedule to or from your USB thumb drive.

10 – △ ▽ Up and Down Arrow Buttons. Use to navigate up or down through the menu items. They are also used to modify parameters.

11 – ◁ ▷ Left and Right Arrow Buttons. Use to navigate between menu parameters. The ◁ button is also used to revert back to previous menu selections.

12 – ▼ Select Button. Use to select a menu item or enter and save parameters.

13 – LED Indicator. Indicates that Water Off is active (constantly lit) or an Alert condition is detected (flashing).

Figure 1

4

Internal Components

1 – Zones and Sensor Terminals
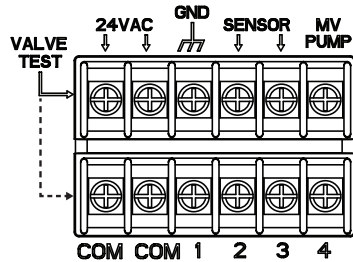
VALVE TEST – Use this terminal to test a valve for proper function.
24VAC – 24 VAC Power Source
GND – Power Source Ground
SENSOR – Sensor Terminals
MV PUMP – Master Valve Terminal
COM – Zones' and Master Valve Common Terminals
1, **2**, **3** and **4** – Zone 1, Zone 2, Zone 3, and Zone 4 Terminals

2 – Zones' 5, 6, 7 and 8 Expansion Module Socket

3 – Zones' 9, 10, 11 and 12 Expansion Module Socket

4 – Schedules USB Flash Drive Connector
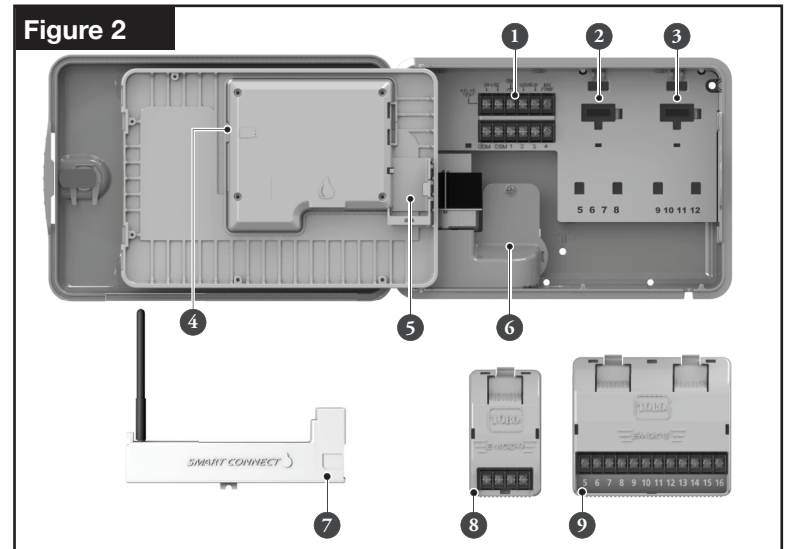
5 – 9 Volt Battery Compartment

6 – Power Supply Terminal Compartment

7 – Smart Connect™ Module
(available separately)

8 – EMOD-4, Four-Zone Expansion Module
(available separately)

9 – EMOD-12, Twelve-Zone Expansion Module
(available separately)

Figure 2

Home Screen Messages

A Title Bar   `▭`   `HOME`

The battery icon indicates that the controller's VAC power is off and the timer is running under battery power.

📝 **Note:** The 9-volt battery is used to allow programming when the VAC power supply is off, but it will not activate any zones.

B Main Display

`01:09PM` `TUES` `01/08`	Displays the current time, day of the week and date.
`SCHEDULE A/B/C OR AUX`	Indicates which schedule (A, B or C) or auxiliary is associated with the displayed status. If only Schedule A is active, EVOLUTION® will not display the Schedule "A", "B" and "C" or AUX.
`SCHEDULE A` `GROW IN`	Indicates the displayed schedule is set as Grow In. The Grow In option is set in the Schedule Details under the Advanced menu.
`NOT WATERING TODAY`	Indicates that the displayed schedule will not water that day.
`NOT ACTIVE TODAY`	The displayed auxiliary schedule (Aux) will not activate that day.
`ZONE 1` `◐00:05▶`	Indicates that Zone 1 is active with a 5-minute remaining runtime. Pressing the Right ▷ arrow will deactivate the running zone and activate the next zone (if additional zones are scheduled) in the schedule regardless of the remaining runtime.
`WATERING COMPLETE`	The displayed schedule completed its watering cycle.
`SCHEDULE COMPLETE`	The displayed auxiliary schedule (Aux) completed its cycle.
`NEXT START` `06:00AM`	Indicates the next start time of the displayed watering or auxiliary (Aux) schedule.
`DELAY` `00:05▶`	Indicates that the controller is performing a zone delay before the next zone in the schedule is activated. The zone delay is set in the Schedule Details under the Advanced menu.
`SOAK` `00:05▶`	Indicates that the active zone is performing a soak delay before continuing operation. The soak delay is set in the Zone Details under the Advanced menu.
`RAIN DELAY`	Indicates that the rain sensor is activated and the schedule is delayed until the rain sensor dries up.
`RAIN DELAY` `02 DAYS▶`	If Dryout Days is set, the controller will indicate Rain Delay until the number of Dryout Days are completed. Pressing the Right ▷ arrow will deactivate the Dryout Days and the Schedule(s) will continue normal operation.

6

```
↓NEXT START     06:00AM
```
The scroll down arrow ↓ indicates that additional information are available. Use the Down ▽ arrow to reveal the additional message(s).

```
        FREEZE HOLD
```
Indicates that the measured temperature from the rain/freeze sensor or weather station is the same of less than the set value in the FREEZE OFF menu parameter.

```
          ET HOLD
```
Indicates that all scheduled watering are placed on hold due to weather condition measured by the weather station. Scheduled watering will resume once the weather condition returns to conditions that permits watering.

C **Message Bar**

```
  ALERT: PRESS HELP
```
Indicates that the controller detected a condition that needs user attention. Check the alert messages in the Alerts menu under the Help/Setup function. For a list of the Alert messages and description, please refer to the Alert Messages section on page 22.

```
WATER OFF      04 DAYS
```
Indicates that scheduled watering has been suspended for the indicated days. Watering can be turned off from 1–14 days, Remains Off or will operate at the next scheduled start.

```
        SYSTEM OK
```
Indicates that the system is functioning as expected.

Setup Screen

Upon power up, the initialization screen will display briefly. On initial power up, the EVOLUTION® will display the SETUP screen.
This SETUP screen is only accessed during initial power up or after a factory reset is performed.

```
      WELCOME                    SETUP
                         LANGUAGE    ENGLISH
                         DATE FORMAT MM/DD/YY
     INITIALIZING        CLOCK       12 HOUR
   PLEASE WAIT . . .     TIME        12:01AM
                         DATE        01/01/13
                         BEGIN WEEK   SUNDAY
```

Set Language

Select the preferred display language. Select from English, Spanish, French, German, Italian or Portuguese.

Step 1 – While LANGUAGE is selected, press the Right ▷ arrow or SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to select from English (default), Spanish, French, German, Italian or Portuguese.
Press SELECT ✓.

Step 3 – Navigate to the next item or press the ⌂ HOME button to return to the main screen if setup is complete.

Set Date Format

Step 1 – Use the Down ▽ arrow to select DATE FORMAT. Press the Right ▷ arrow or SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to select MM/DD/YY (Month/Day/Year) (default) or DD/MM/YY (Day/Month/Year). Press SELECT ✓.

Step 3 – Navigate to the next item or press the ⌂ HOME button to return to the main screen if setup is complete.

Set Clock Format

Step 1 – Use the Down ▽ arrow to select CLOCK. Press the Right ▷ arrow or SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to select 12 HOUR (default) or 24 HOUR. Press SELECT ✓.

Step 3 – Navigate to the next item or press the ⌂ HOME button to return to the main screen if setup is complete.

Set the Current Time

Step 1 – Use the Down ▽ arrow to select TIME. Press the Right ▷ arrow or SELECT ✓.

Step 2 – Use the Left ◁ or Right ▷ arrows to navigate between the Hour and Minute positions. Use the Up △ or Down ▽ arrows to set the correct values. Press SELECT ✓ when finished.

Step 3 – Navigate to the next item or press the ⌂ HOME button to return to the main screen if setup is complete.

Set the Current Date

Step 1 – Use the Down ▽ arrow to select DATE. Press the Right ▷ arrow or SELECT ✓.

Step 2 – Use the Left ◁ or Right ▷ arrows to navigate between the Month, Day and Year positions. Use the Up △ or Down ▽ arrows to set the correct values. Press SELECT ✓ when finished.

Step 3 – Navigate to the next item or press the ⌂ HOME button to return to the main screen if setup is complete.

Set the Beginning of the Week

Step 1 – Use the Down ▽ arrow to select BEGIN WEEK. Press the Right ▷ arrow or SELECT ⊗.

Step 2 – Use the Up △ or Down ▽ arrows to select SUNDAY (default) or MONDAY as the beginning of the weekly schedule.
Press SELECT ⊗ when finished.

Step 3 – Navigate to the next item or press the ⌂ HOME button to return to the main screen if setup is complete.

Installation

Power Supply Installation

⚠ **WARNING:** AC power wiring must be installed and connected by qualified personnel only. All electrical components and installation procedures must comply with all applicable local and national electrical codes. Some codes may require a means of disconnecting from the AC power source installed in the fixed wiring and having a contact separation of at least 0.120" (3mm) in the line and neutral poles. Make sure the power source is OFF prior to connecting the controller. If the supply cord is damaged, it must be replaced by the manufacturer. its service agent or a similarly qualified person in order to avoid a hazard.

⚠ **WARNING:** This appliance is not intended for use by persons (including children) with reduced physical sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Indoor and 240 VAC Outdoor Models
Indoor models and the 240 VAC Outdoor model will be pre-wired with a power cord ready to be plugged into a wall power socket (**Figure 6**).

Figure 6

110 VAC (US and Canada) Outdoor Models

Step 1 – Route power and ground wires from a power source through a conduit and into the EVOLUTION® cabinet.

Step 2 – Open the EVOLUTION® controller and access the internal components.

Step 3 – Remove the power compartment cover to access the transformer wiring. Remove 1/2" (12.7mm) of insulation from the wire ends.

Step 4 – Using the provided wire nuts, secure the transformer Line (black) wire to the black power source wire, Neutral (white) to the white power source wire and Equipment Ground wire (green) to the green power source wire.

📝 **Note:** Earlier EVOLUTION® model is equipped with two Equipment Ground wires (green). Connect both wires to the green power source wire.

Step 5 – Install and secure the power compartment cover.

Step 6 – Apply power to the controller.

Figure 7

Black   White   Green

110 VAC Outdoor Models
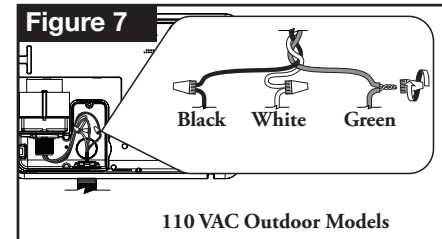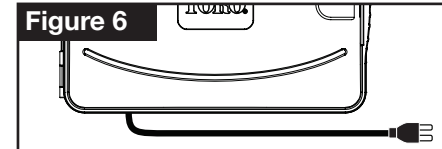
220 VAC (Outside US and Canada) Outdoor Models

Step 1 – Route power and ground wires from a power source through a conduit and into the EVOLUTION® cabinet.

Step 2 – Open the EVOLUTION® controller and access the internal components.

Step 3 – Remove the power compartment cover to access the transformer terminals.

Step 4 – Remove 1/2" (12.7mm) of insulation from the power source wire ends and install the brown wire into the Line (L)terminal. Install the green wire into the Ground ($\perp$) terminal and the blue wire into the Neutral (N) terminal.

Step 5 – Install and secure the power compartment cover.

Step 6 – Apply power to the controller.
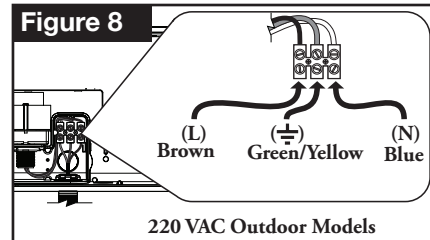
Zone Expansion Module Installation

The EVOLUTION® controller can be expanded using the optional 4-zone (EMOD-4) or 12-zone (EMOD-12) modules to add more zones to the system.

Module Installation

Step 1 – Open the EVOLUTION® controller door and control panel to access the internal components.

Step 2 – Locate the module slot **A** and **B**. Install the module by placing the bottom hooked standoffs into slot **A** and push the module tab towards the cabinet until a positive click is achieved. The click indicates that the module's retaining tab is fully engaged.

Once installed, the EVOLUTION® controller will be able to read the additional zones and will make them available for scheduling.

📝 **Note:** If installing only one four-station module (EMOD-4), it must be installed in the zone 5-8 module slot.
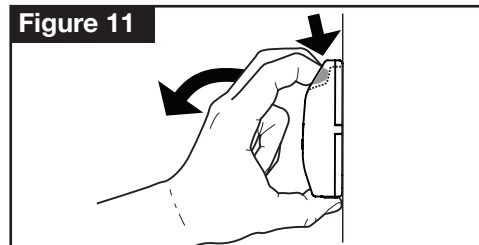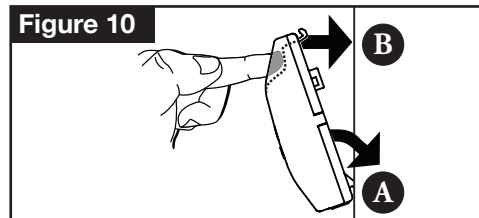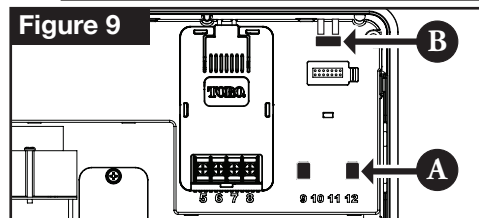
Module Removal

Step 1 – Open the EVOLUTION® controller door and control panel to access the internal components.

Step 2 – Hold the module as shown in Figure 11. Press the retaining tab while pulling the top of the module away from the cabinet, then lift the module out of the controller.

Figure 8

(L) Brown   ($\perp$) Green/Yellow   (N) Blue

220 VAC Outdoor Models

Figure 9

Figure 10

Figure 11

Battery Installation

The EVOLUTION® controller uses a 9-VDC battery for arm-chair programming.

Step 1 – Open the EVOLUTION® controller door and control panel to access the internal components.

Step 2 – Locate the battery compartment at the back of the control panel.

Step 3 – Align the polarity (– and +) of the battery then slide it into the battery compartment as shown in Figure 12.

📝 **Note:** You may need to pull the battery tab forward to align the battery properly.

Figure 12
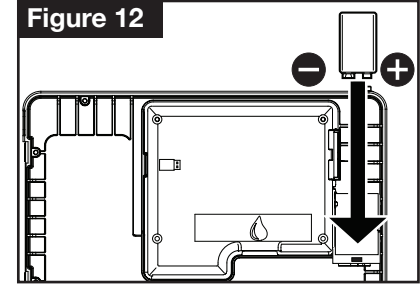
Valve, Pump Relay and Sensor Installation

Step 1 – Route valve wires from the valves, master valves, pump relay and/or sensor into the controller cabinet.

📝 **Note:** 18 AWG (1.0 mm2) multi-wire sprinkler valve connection cable can be used. This cable is insulated for direct burial and is color-coded to simplify installation. It can be routed directly into the controller through the access hole provided for valve wire conduit (if conduit is not used).

Step 2 – Connect valves, master valves and pump start relay to the valve wires - Connect the white color-coded wire from the cable to one wire from each valve solenoid and/or pump relay. (Either of the two wires

Figure 13

from the solenoid or pump relay can be used for this connection.) This connection will be designated as the valve common wire.

Connect a separate cable wire to the remaining wire from each valve solenoid. Note the wire color-code used for each valve and the zone it controls. You will need this information when connecting the valve wires to the controller.

Connect sensor to the valve wires - Connect any two unused color-coded wires to the sensor. Note the color-code of the sensor wires for installation.

Step 3 – Secure all wire splices using wire nut connectors. To prevent corrosion and possible short circuits, always use an insulated wire nut, grease cap or similar waterproofing method.

11
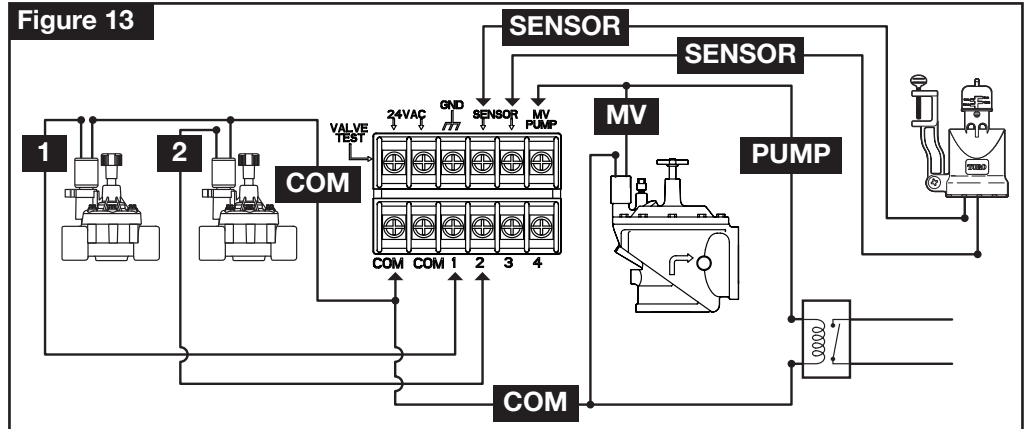
Step 4 – Connect valves wires to the controller - Secure the valve common wire (white) to either of the two terminals labeled COM. Secure the individual valve wires to the appropriate zones they control, Zone 1 valve to terminal 1, Zone 2 valve to terminal 2, etc.

Connect master valve/pump relay wires to the controller - Secure the valve common wire (white) to either of the two terminals labeled COM. Secure the Master Valve or Pump Relay wire to the terminal labeled MV/PUMP.

⚠️ **Caution:** To prevent controller damage, do not connect the pump motor starter directly to the controller. Connect sensor wires to the controller - Remove the jumper wire from the SENSORS terminals. Secure the two sensor wires to the sensor terminals. Refer to the provided sensor instructions for further installation instructions.

Step 5 – Test for proper operation.

Schedule Setup

The EVOLUTION® controller displays only one schedule by default. See the Advanced Functions section of the full User's Guide version to activate additional schedules if needed.

Water Days Setup

The EVOLUTION® controller allows for flexible watering by giving you four schedule options: 7-day, Even days, Odd days or Interval days. By default, the 7-day schedule is set for the schedule. To set watering days to Odd, Even or Interval, see the Advanced Functions section.

The 7-day schedule allows you to activate or turn off any of the days in the week. By default, all days are active.

Step 1 – Press the 🔢 SCHEDULES button.

Step 2 – (For controllers with multiple active schedules only.)

Use the Up △ or Down ▽ arrows to select the Schedule you want to edit. Press SELECT ✓.
📓 **Note:** The Schedule and Zone names can be customized using the EVOLUTION® Software which can be accessed at www.toro.com/evolution.

Step 3 – Use the Up △ or Down ▽ arrows to navigate to WATER DAYS. Press SELECT ✓.

Step 4 – Use the Up △ or Down ▽ arrows to select WEEKDAY, ODD, EVEN or INTERVAL. Press SELECT ✓.

```
        WEEKDAY
  S  M  T  W  T  F  S
  ▓  ♦  -  ♦  ♦  -  ♦

  TODAY IS TUESDAY
```
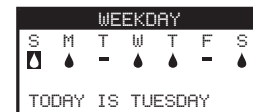
Step 5 – (**WEEKDAY Option**) The WEEKDAY schedule allows you to activate or turn off any of the days in the week. By default, all days are active.

Use the Left ◁ or Right ▷ arrows to navigate within the days of the week. Use the Up △ or Down ▽ arrows to activate ♦ or turn off ▬ the day for watering. Repeat for all days of the week.

(**ODD Option**) Selecting ODD schedule will set the odd numbered days of the calendar as the watering days.

(**EVEN Option**) Selecting EVEN schedule will set the even numbered days of the calendar as the watering days.

(**INTERVAL Option**) Selecting INTERVAL allows you to set the interval days between watering cycles. Use the Left or Right arrows to navigate to WATER EVERY. Use the Up or Down arrows to set the desired day interval between watering cycles, then press SELECT . While in the CURRENT DAY selection, press the Right arrow to navigate to the CURRENT DAY parameter. Use the Up or Down arrows to set the current day designation, then press SELECT .
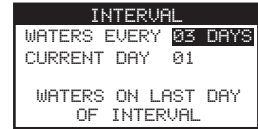
Step 6 – Press the BACK arrow to return to the previous menu or HOME to return to the main screen.

```
      SCHEDULE A
WATERS ON ODD
CALENDAR DAYS
```

```
      SCHEDULE A
WATERS ON EVEN
CALENDAR DAYS
```

```
      INTERVAL
WATERS EVERY 03 DAYS
CURRENT DAY  01

  WATERS ON LAST DAY
    OF INTERVAL
```

Schedule Start Setup

By default, the EVOLUTION® controller is set with 1 start time set to OFF. Additional Starts can be added with a maximum of four starts per schedule. Once a start is activated, the schedule will activate the first zone (lowest number). Once it is complete, the second zone will water. The schedule will continue until all zones with runtimes have been activated.

Step 1 – Press the 7 SCHEDULES button.

Step 2 – (For controllers with multiple active schedules only.)

Use the Up or Down arrows to select the Schedule you want to edit. Press SELECT .

📝 **Note:** The Schedule name can be customized using the EVOLUTION® Software which can be accessed at www. toro.com/evolution.

Step 3 – Use the Up or Down arrows to navigate to SCHEDULE STARTS. Press SELECT .

Step 4 – Use the Left or Right arrows to navigate to the start time's Hours, Minutes and AM/PM. Use the Up or Down arrows to set your desired start time. Press SELECT to save.

Step 5 – Navigate to ADD START to add another start time. Press SELECT . Modify the new start time as indicated in Step 3.

Step 6 – To delete a start time, set the time to OFF. The OFF selection is located between the full hour of 11:00 AM/PM and the full hour of 12:00 AM/PM (23:00 and 00:00).

Step 7 – Press the BACK arrow to return to the previous menu or HOME to return to the main screen.

```
       SCHEDULE
START        01:00AM
ADD START          ▶

  EACH START RUNS ALL
   SCHEDULED ZONES
```
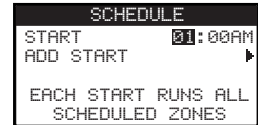
Zone Runtimes Setup

The Zone Runtimes is where you select all the zones that will run in the schedule. By default, all zones are set to OFF. Modify the runtime for each zone as necessary. Deactivate a zone by setting the runtime to OFF.

Step 1 – Press the ⬜7 SCHEDULES button.

Step 2 – (For controllers with multiple active schedules only.)

Use the Up △ or Down ▽ arrows to select the Schedule you want to edit. Press SELECT ⊙. If only Schedule A is enabled, move to Step 3.

📝 **Note:** The Schedule and Zone names can be customized using the EVOLUTION® Software which can be accessed at www.toro.com/evolution.

Step 3 – Use the Up △ or Down ▽ arrows to navigate to ZONE RUNTIMES. Press SELECT ⊙.

Step 4 – Use the Up △ or Down ▽ arrows to navigate to the ZONE you want to set or edit.

Press the Right ▷ arrow or SELECT ⊙.

```
        SCHEDULE
ZONE 1              00:15
ZONE 2              00:05
3:FRONT YARD        00:15
4:BACK YARD         00:20
ZONE 5                OFF
```

Step 5 – Use the Up △ or Down ▽ arrows to set the desired runtime for that particular zone. Press SELECT ⊙ to save.

Step 6 – Repeat Steps 4 and 5 for the remaining Zones. Set the Zone to OFF to disable.

Step 7 – Press the BACK ◁ arrow to return to the previous menu or 🏠 HOME to return to the main screen.

Water Now

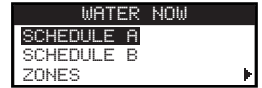Water Now is used to manually activate a schedule, zone(s), or to test all zones.

Manually Activate a Schedule

Step 1 – Press the 🔵 WATER NOW button.

Step 2 – Use the Up △ or Down ▽ arrows to navigate to SCHEDULE. Press SELECT ✓. Watering will begin.
The selected schedule will run and activate all assigned zones.
(For controllers with multiple active schedules only.)

Use the Up △ or Down ▽ arrows to select the Schedule you want to activate. Press SELECT ✓.
📝 **Note:** The Schedule name can be customized using the EVOLUTION® Software which can be accessed at www.toro.com/evolution.

```
       WATER NOW
SCHEDULE A
SCHEDULE B
ZONES                ▶
```

Step 3 – Press ◀ BACK to return to the previous menu or 🏠 HOME to return to the main screen.

Manually Activate a Specific Zone(s)

```
       WATER NOW
ZONE 1           OFF
ZONE 2         --:10
ZONE 3           OFF
```

Step 1 – Press the 🔵 WATER NOW button.

Step 2 – Use the Up △ or Down ▽ arrows to navigate to ZONES. Press SELECT ✓.
📝 **Note:** The Zone name can be customized using the EVOLUTION® Software which can be accessed at www.toro.com/evolution.

Step 3 – Use the Up △ or Down ▽ arrows to select the specific zone to activate. Press the Right ▷ arrow or SELECT ✓.

Step 4 – Use the Up △ or Down ▽ arrows to assign the zone a runtime. Press SELECT ✓.
The zone will activate until the specified runtime expires. A water drop icon is displayed to indicate that the zone is actively watering.

Step 5 – Repeat Steps 3 and 4 to activate additional zones. Watering will occur in the order that the zones are entered.

Step 6 – Press the BACK ◀ arrow to return to the previous menu or 🏠 HOME to return to the main screen.
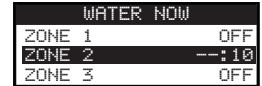
Manually Activate All Zone Test

Step 1 – Press the ▶ WATER NOW button.

Step 2 – Use the Up △ or Down ▽ arrows to navigate to ALL ZONE TEST. Press the Right ▷ arrow or SELECT ✓.

```
         WATER NOW
SCHEDULE
ZONES                    ▶
ALL ZONE TEST     02:00
```

Step 3 – Use the Up △ or Down ▽ arrows to assign a runtime. Press SELECT ✓.
   📝 **Note:** The EVOLUTION® controller will sequentially water all active zones (zones with runtimes) starting with Zone 1. All active zones will run the specified runtime duration.

Step 4 – Press the BACK ◁ arrow to return to the previous menu or 🏠 HOME to return to the main screen.
   📝 **Note:** All Zone Test will not affect the AUX schedule. AUX Schedule is normally used for lighting.
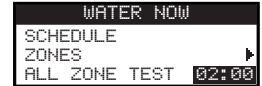
Water Off

Turn Off Current Operation

Step 1 – Press the ⏻ WATER OFF button.
   All currently active automatic schedule(s) and manually activated schedules and zones will turn off. The EVOLUTION® controller will not run any watering schedules while the WATER OFF screen is displayed.

```
         WATER OFF
     RESUME WATERING
 NEXT SCHEDULED START
```

Step 2 – Press the 🏠 HOME button. Irrigation will resume at the next automatic scheduled start time.

```
         WATER OFF
     RESUME WATERING
       IN 05 DAYS
```
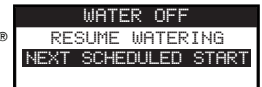
Water Off

Step 1 – Press the ⏻ WATER OFF button. All currently active automatic schedule(s) and manually activated schedules and zones will turn off. The EVOLUTION® controller will not run any watering schedules while WATER OFF is displayed. The auxiliary schedules will continue to operate as planned.

Step 2 – Use the Up △ or Down ▽ arrows to assign the number of days until watering resumes. Select a delay of 1–14 days, NEXT SCHEDULED START or REMAINS OFF. Press SELECT ✓ to enter or 🏠 HOME to cancel. Pressing SELECT will save your selection and take you back to the HOME screen.
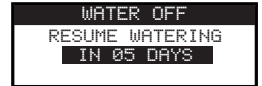
Firmware

The Firmware function allows you to review the controller's firmware version. Press SELECT ✓ to access the firmware version.

```
        FIRMWARE
CONTROLLER      01.09
```

Firmware Update

The EVOLUTION® controller's firmware can easily be updated by downloading the latest software from www.toro.com/evolution/. A USB flash drive is needed for this procedure. For further help, look for the firmware update video demonstration in the website.

Figure 14

Step 1 – Connect USB to the controller. See **Figure 14**.

Step 2 – Click the △ ADVANCED button. Use the Up △ or Down ▽ arrows to select FIRMWARE.

Step 3 – Select UPDATE and Press SELECT ✓. Select another UPDATE menu to start the process.

```
        ADVANCED
SCHEDULE DETAILS      ▶
SENSORS               ▶
ADD/REMOVE DEVICE     ▶
DIAGNOSTICS           ▶
FIRMWARE              ▶
```
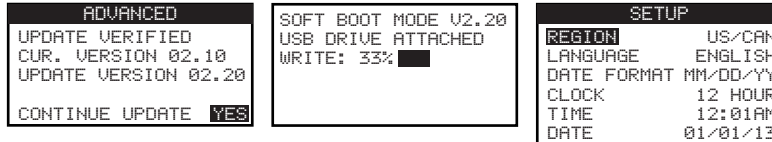
```
        FIRMWARE
VERSION               ▶
UPDATE                ▶
```

```
        FIRMWARE
CONTROLLER   UPDATE ▶
```

```
        FIRMWARE

    VERIFYING UPDATE
     33% ▓▓
```

Step 4 – Controller displays the firmware version in the controller (current) and the version on the USB drive (update). If the update version is more up-to-date than the current version, press SELECT on YES. Firmware file is updated and a status bar will indicate the progress. Once finished, the controller does a soft reboot and the update process is complete.

```
        ADVANCED
UPDATE VERIFIED
CUR. VERSION 02.10
UPDATE VERSION 02.20

CONTINUE UPDATE   YES
```

```
SOFT BOOT MODE V2.20
USB DRIVE ATTACHED
WRITE: 33% ▓▓
```

```
         SETUP
REGION          US/CAN
LANGUAGE       ENGLISH
DATE FORMAT MM/DD/YY
CLOCK          12 HOUR
TIME           12:01AM
DATE          01/01/13
```

Step 5 – Press △ ADVACED, and select FIRMWARE, then VERSION to verify the firmware version.

17
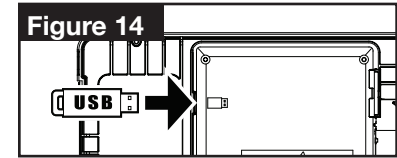
Factory Reset

Select this function to reset the controller to the factory default parameters. Schedule B, C and Auxiliary will be disabled and all and all of their parameters will be cleared or set to OFF. Schedule A will be set with a WEEKDAY schedule with all 7 days active. It will have one start time set to OFF and all zone runtimes set to OFF.

```
FACTORY RESET
RESET TO FACTORY
DEFAULTS?        YES
```
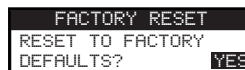
Help/Setup

Alerts
The EVOLUTION® controller always checks the system for proper function and it will provide feedback if it detects any system abnormality. The Alerts menu allows you to view and clear detected system faults.

Alert Listings
Freeze Hold - EVOLUTION® detected temperatures below the set FREEZE OFF temperature when the controller tried to irrigate. (Only available if Rain/Freeze or Weather sensor is connected).

Short - EVOLUTION® detected a short in the zone.

Overcurrent - EVOLUTION® detected an over current in the zone. Over current occurs when a terminal or combinations of terminals exceeded the recommended current draw rating.

Low Battery - EVOLUTION® detected no battery installed or the battery's power is low. Once the Low Battery alert is cleared, it will not display again unless a Factory Reset is performed or the newly installed battery runs low again.

Low A/C Power - EVOLUTION® detected low or no A/C power.

Factory Reset - EVOLUTION® encountered an error that required the system to reset to the factory defaults.

Communication Error - EVOLUTION® encountered a communication error with the output zones.

Clearing an Alert
You can clear Alerts using the CLEAR ALL command to erase them all, or you can clear each alert separately.

Step 1 – Press ? HELP/SETUP.

Step 2 – Use the Up △ or Down ▽ arrows to select the Alerts. Press SELECT.

Step 3 – Use the Up △ or Down ▽ arrows to select individual alerts or CLEAR ALL. Press SELECT.

Step 4 – Use the Up △ or Down ▽ arrows to confirm (Yes) or cancel (No). Press SELECT.

```
ALERTS
CLEAR ALL        ▶
LOW BATTERY      ▶
```

Local Contact

This option is available only when your local distributor or dealer has programmed the local contact information in the controller.

Contact Toro

Access Contact Toro to get the latest contact information.

Step 1 – Press ? HELP/SETUP.

Step 2 – Use the Up △ or Down ▽ arrows to select the Alerts. Press SELECT ☑.

```
    CONTACT TORO
US +1(800)367-8676
TORO.COM/EVOLUTION
FOR GLOBAL SUPPORT
SEND EMAIL TO
EVOLUTION@TORO.COM
```

Set Time/Date

Step 1 – Press the ? HELP/SETUP button.

Step 2 – Use the Up △ or Down ▽ arrows to navigate to SET TIME/DATE. Press SELECT ☑.

Step 3 – Use the Up △ or Down ▽ arrows to select TIME or DATE. Navigate to the TIME or DATE parameters using the Right ▷ arrow or SELECT ☑.

Step 4 – Use the Up △ or Down ▽ arrows to modify the TIME's Hour and Minutes or the DATE's Month, Day and Year (Day, Month and Year for International Format).

Step 5 – Press SELECT ☑ to save the changes.

Step 6 – Press the BACK ◁ arrow to return to the previous menu or ⌂ HOME to return to the main screen.

📝 **Note:** You can change the Time and Date format in the PREFERENCES menu. See **Set Clock Format** and **Set Date Format** sections on page 21 and 22.

```
     HELP/SETUP
ALERTS            ▶
CONTACT TORO      ▶
SET TIME/DATE     ▶
LOAD FROM USB     ▶
SAVE TO USB       ▶
```

```
   SET TIME/DATE
TIME       11:25AM
DATE      05/01/13
```

Load From USB

Load from USB function is used to retrieve schedules saved in a USB Flash drive.

📝 **Note:** Although many USB flash drives may function well with the EVOLUTION® controller, the following USB specifications are recommended:

• USB Version 2.0 Compliant

• 1–8 GB Memory Size (Smaller memory size will perform faster.)

• FAT32 File System with 1 Logical Partition

Step 1 – Plug your USB Flash drive into the EVOLUTION® USB port located at the back of the control panel. See Figure 2 on page 2.

Step 2 – Press the ❓ HELP/SETUP button.

Step 3 – Use the Up △ or Down ▽ arrows to navigate to LOAD FROM USB. Press SELECT Ⓥ.

The EVOLUTION® controller will list all available schedule files. Use the Up △ or Down ▽ arrows to navigate

to the desired schedule. Use the Right ▷ arrow or SELECT Ⓥ to load the schedule.

Step 4 – Use the Up △ or Down ▽ arrow to select YES from the confirmation window.

Step 5 – After the controller states Success, press the BACK ◁ arrow to return to the previous menu or 🏠 HOME to return to the main screen.

```
    HELP/SETUP
ALERTS             ▶
CONTACT TORO       ▶
SET TIME/DATE      ▶
LOAD FROM USB      ▶
SAVE TO USB        ▶
```

```
   LOAD FROM USB
ARE YOU SURE?    YES
```

Save to USB

Save to USB is used to save all the schedules that are programmed in the controller so it can be reloaded if accidentally erased. The Save to USB function is also helpful when loading multiple controllers with the same schedule programs.

📝 **Note:** Although many USB flash drives may function well with the EVOLUTION® controller, the following USB specifications are recommended:

• USB Version 2.0 Compliant

• 1–8 GB Memory Size (Smaller memory size will perform faster.)

• FAT32 File System with 1 Logical Partition

Step 1 – Plug your USB Flash drive into the EVOLUTION® USB port located at the back of the control panel. See Figure 2 on page 2.

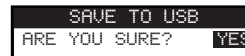Step 2 – Press the ❓ HELP/SETUP button.

Step 3 – Use the Up △ or Down ▽ arrows to navigate to SAVE TO USB. Press SELECT Ⓥ.

```
    HELP/SETUP
ALERTS             ▶
CONTACT TORO       ▶
SET TIME/DATE      ▶
LOAD FROM USB      ▶
SAVE TO USB        ▶
```

Step 4 – Use the Up △ or Down ▽ arrow to select YES from the confirmation window.

The EVOLUTION® controller will automatically save the schedules in the USB drive under the name format "EVOLUTIONMMDDHHMM.evo" (MM = Month, DD = Day, HH = Hour and MM = Minute).
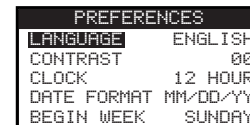
Step 5 – After the controller states Success, press the BACK ◁ arrow to return to the previous menu or 🏠 HOME to return to the main screen.

Preferences

Accessing the Preferences Menu

Step 1 – Press the ❓ HELP/SETUP button.

Step 2 – Use the Up △ or Down ▽ arrows to navigate to PREFERENCES. Press SELECT ✓.

Set Language

You can set the user interface to display in English (default), Spanish, French, German, Italian or Portuguese.

Step 1 – While in the PREFERENCES menu, use the Up △ or Down ▽ arrows to navigate to LANGUAGE. Press SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to navigate to your preferred language. Press SELECT ✓.

Step 3 – Press the BACK ◁ arrow to return to the previous menu or 🏠 HOME to return to the main screen.

Set Display Contrast

Step 1 – While in the PREFERENCES menu, use the Up △ or Down ▽ arrows to navigate to CONTRAST. Press SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to your preferred display contrast. Positive (+) setting will increase the contrast and negative (–) setting will decrease the contrast. Once you find the desired contrast, press SELECT ✓.

Step 3 – Press the BACK ◁ arrow to return to the previous menu or 🏠 HOME to return to the main screen.

Set Clock Format (12 Hour/24 Hour)

Step 1 – While in the PREFERENCES menu, use the Up △ or Down ▽ arrows to navigate to CLOCK. Press SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to select 12-Hour (default) or 24-Hour format. Press SELECT ✓.

Step 3 – Press the BACK ◁ arrow to return to the previous menu or 🏠 HOME to return to the main screen.

Set Date Format

Step 1 – While in the PREFERENCES menu, use the Up △ or Down ▽ arrows to navigate to DATE FORMAT. Press SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to select Month/Day/Year (MM/DD/YY) (default) or Day/Month/Year (DD/MM/YY) format. Press SELECT ✓.

Step 3 – Press the BACK ◁ arrow to return to the previous menu or ⌂ HOME to return to the main screen.

Set the Beginning of the Week

Step 1 – While in the PREFERENCES menu, use the Up △ or Down ▽ arrows to navigate to BEGIN WEEK. Press SELECT ✓.

Step 2 – Use the Up △ or Down ▽ arrows to select SUNDAY (default) or MONDAY as your starting point of the week. Press SELECT ✓.

Step 3 – Press the BACK ◁ arrow to return to the previous menu or ⌂ HOME to return to the main screen.

Setting the Remote and PIN Number

In order for the Evolution controller to communicate with Toro Gateway, a Smart Connect must be installed into the controller.
To communicate with Gateway, the Evolution controller utilize a 4-digit PIN to identify itself and the Gateway it wants to communicate. All Evolution controllers are set with 0000 PIN at the factory. It is necessary to set a different PIN in order distinguish your device from other Evolution in the vicinity.

Changing the Evolution controller's REMOTE PIN - Navigate to ADVANCED and scroll down to ADD/REMOVE DEVICE. Scroll down to REMOTE and press SELECT ✓. Use the Up △ or Down ▽ arrows to set a 4-digit remote PIN.

Changing the SMRTScape PIN number - Log-in to your SMRTScape.com account. Access your controller screen and change the PIN# to the same 4-digit remote PIN set in the Evolution controller.

Specifications

Power Specifications:
- US and Canada
  Internal Transformer, Class 2, UL Listed, CSA Certified (or equivalent)
  Input: 120 VAC, 60 Hz
  Output: 24 VAC, 60 Hz, 1.25A
- Outside US and Canada
  Internal Transformer, Meets TUV, VDE and SAA Requirements
  Input: 220–240 VAC, 50/60 Hz
  Output: 24 VAC, 50/60 Hz, 30 VA
- Total Maximum Load:
  1.0A @ 24 VAC

Cabinet Dimensions:
- 11.25" W x 7.75" H x 4.5" D (286 x 197 x 114 mm)
Surge Protection
- 1.5 KV common mode; 1.0 KV normal mode
Battery Type:
- 9V Alkaline (not included)

EPA Water Sense Qualification Criteria

EVOLUTION® controller settings and accessories for EPA WaterSense® program qualification test:

Program 1
Zone #1 = 6 Min

Zone #2 = 6 Min

Start Times = 1:00am, 2:00am

Skip Days = 0 (Water Everyday)

Program 2
Zone #3 = 9 Min

Zone #4 = 6 Min

Start Time = 3:00am

Skip Days = 0 (Water Everyday)

Program 3
Zone #5 = 21 Min

Zone #6 = 17 Min

Start Times = 4:00am, 6:00am, 8:00am

Skip Days = 0 (Water Everyday)

Accessories:
- Smart Connect™ (Model No. EVO-SC)
- Smart Connect™ Weather Sensor (Model No. EVO-WS)

Toro Contact Information

For U.S.A. support, call 1-877-345-8676.

For global support, send email to evolution@toro.com.

Visit the EVOLUTION® website for the latest news and information at www.toro.com/evolution.

Electronic Compatibility

US and Canada: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Subpart J of 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 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:

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

The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How To Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, stock # 004-000-00345-4.

Outside US and Canada: This is a CISPR 22 Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures. Each stations can activate up to two solenoids.

This product, utilizing a Class 2 transformer tested to UL1585, satisfies the requirements of a Class 2 Power Source as defined in the NFPA 70 (NEC), Article 725.121(A)(3).

Australian Warranty Statement

This product comes with a manufacturer's guarantee against defects in material and workmanship when used for its intended purpose.
Our obligation under this guarantee is limited to the repair or replacement of the product at our discretion for the period stated.
In the event of a claim, you must immediately cease using the product and return the product, together with your proof of purchase and an explanation of the fault to the store you purchased it from. All costs associated with the return of the product are the purchasers' responsibility.
To process the warranty, the retailer must contact Toro Australia via their representative or the phone number listed below.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Toro Australia Pty Ltd, 53 Howards Road, Beverley SA 5009 1300 130 898, info.au@toro.com

⚠️ **WARNING:** Cancer and Reproductive harm – www.P65Warnings.ca.gov
For more information, please visit www.toro.com/CAProp65.