Irritrol®
Get more done™

Climate Logic™

Wireless Weather Sensor System
User's Guide

Introduction

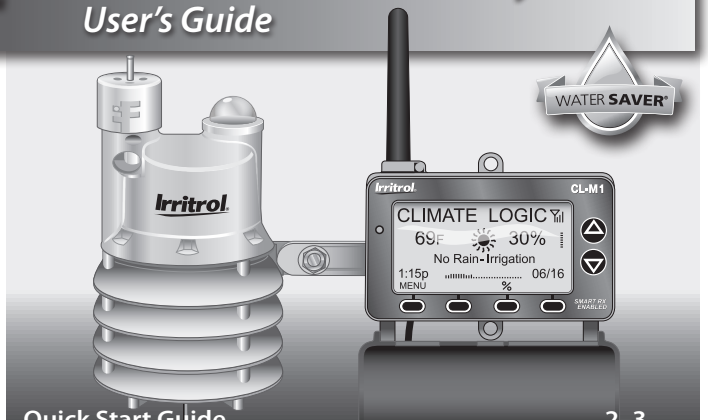
The Irritrol Climate Logic™ wireless weather sensor system transforms your automatic irrigation control system into a high-efficiency, water resource-management center.

Compatible with remote-ready Irritrol and Toro controllers, Climate Logic automatically regulates watering duration corresponding to real-time weather conditions and specific geographic and local weather profile information provided on a region-specific Setup Card. In addition, integral rain and freeze sensing further reduce wasteful, unnecessary irrigation and icing conditions.

Your Climate Logic system consists of a self-contained, Weather Sensor/Transmitter that continuously monitors current air temperature, solar radiation and precipitation. This data is transmitted at regular intervals throughout the day to the Receiver Module; linked directly to your controller's remote control port. Each day, Climate Logic calculates and adjusts the programmed station run time duration to the amount required for the next automatic watering cycle.

The Climate Logic system is designed for easy installation, setup and use. To take full advantage of the features and capabilities provided by the Climate Logic system, take a moment to review the detailed information provided within this guide.

To answer any questions you may have regarding the Climate Logic system, or any Irritrol product, please contact an Irritrol Customer Service representative at 1-800-634-8873.



The Quick-Start guide provides the essential steps required to properly install and setup the Climate Logic system in the most direct route possible. As needed, refer to the detailed information on the page number listed with each step.

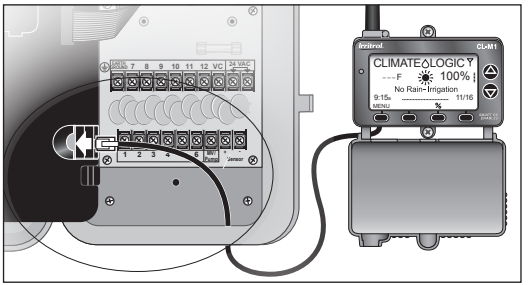
Step 1 – Connect and secure the Receiver Module next to the controller. *See* ***page 6***.

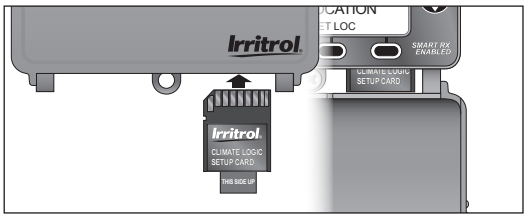
Step 2 – Adjust controller program **A** for the **hottest/ driest conditions expected, without causing over-watering and runoff**. Retain all watering time/day restrictions in the program schedule as required *See* ***page 6***.

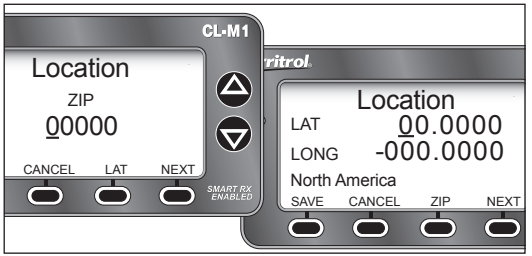
Step 3 – Synchronize the Receiver Module and controller to the current time and date. *See* ***page 7***.

Step 4 – Insert the Receiver Module **Setup Card** as shown. *See* ***page 8***.

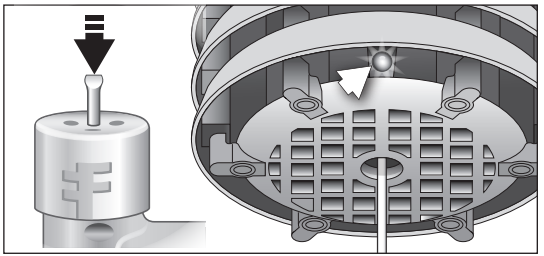
Step 5 – Establish your location by entering the five-digit ZIP code, or Lat/Lon coordinates as preferred. *See* ***page 8***.





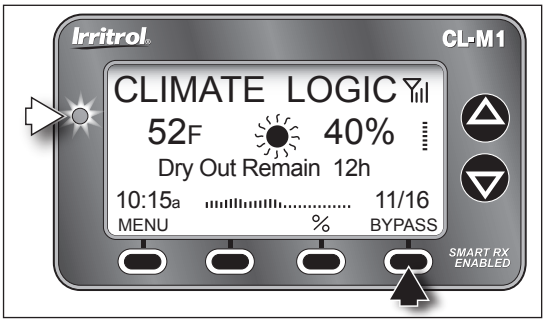


Step 6 – ***Press and hold the sensor Test Pin for 10–15 seconds to activate the Weather Sensor!***
A red LED (viewable through the lower vent ring) will illuminate twice after 10 seconds to confirm activation (if not already active). *See* ***page 9***.



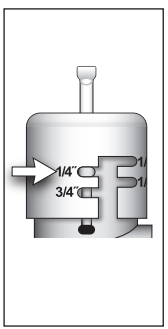
Step 7 – Press the sensor Test Pin again to confirm signal reception at the Receiver Module. The receiver's red LED will turn on momentarily when the signal is received. Press the **BYPASS** key to cancel the **Dry-out** mode delay period and resume normal operation. *See* ***page 9***.

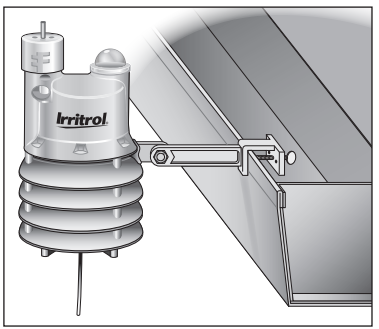
Note: *If the LED does not turn on, refer to the Weather Sensor setup procedure on* ***page 19***.



Step 8 – Check the Rain Sensor threshold setting and adjust as needed. *See page* ***10***.

Step 9 – Secure the Weather Sensor to a rain gutter or other suitable structure that provides unrestricted exposure. Adjust the sensor alignment to vertical. *See* ***page 11***.





System Components at a Glance

1 – Antenna

2 – LCD Screen: Large-format LCD screen provides enhanced clarity and use of text and graphics.

3 – Up/Down Arrow Keys: Control Menu cursor position, and adjust definable screen values.

4 – Setup Card: Provides historical weather data for regional location specified by ZIP code or Lat/Lon coordinates.

5 – CMR-ADP KwikDial Adaptor Cable: Adapts RJ25 connector to KwikDial controller's 5-pin receptacle.

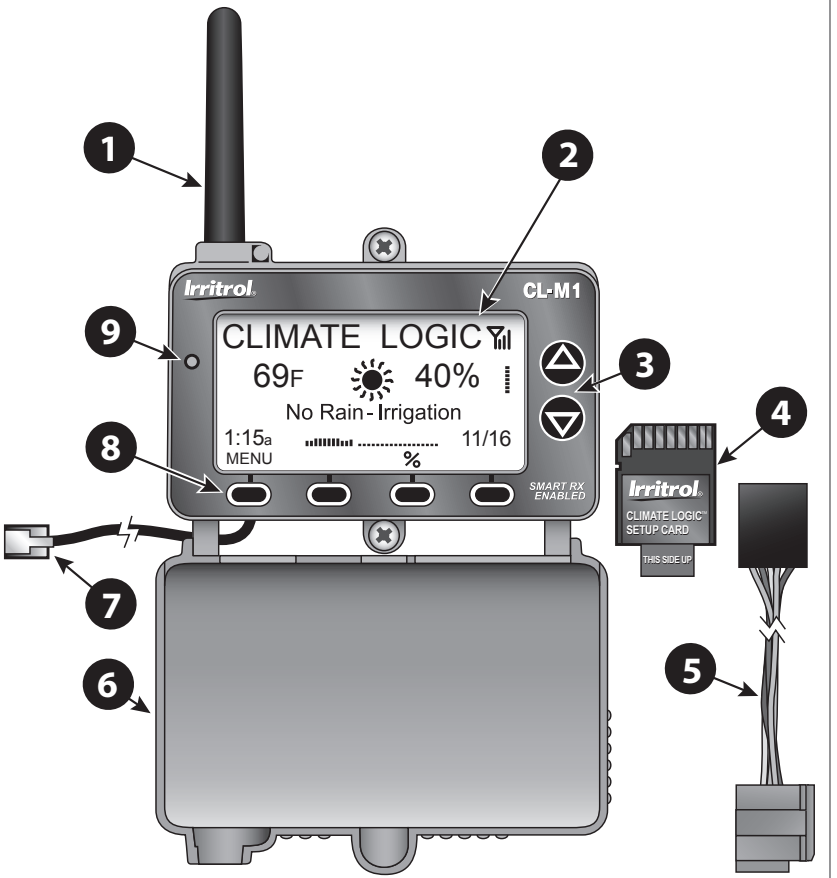
6 – Cover: Provides weather-resistance and display protection in closed position.

7 – Connector Cable: Plugs into controller's remote control receptacle.

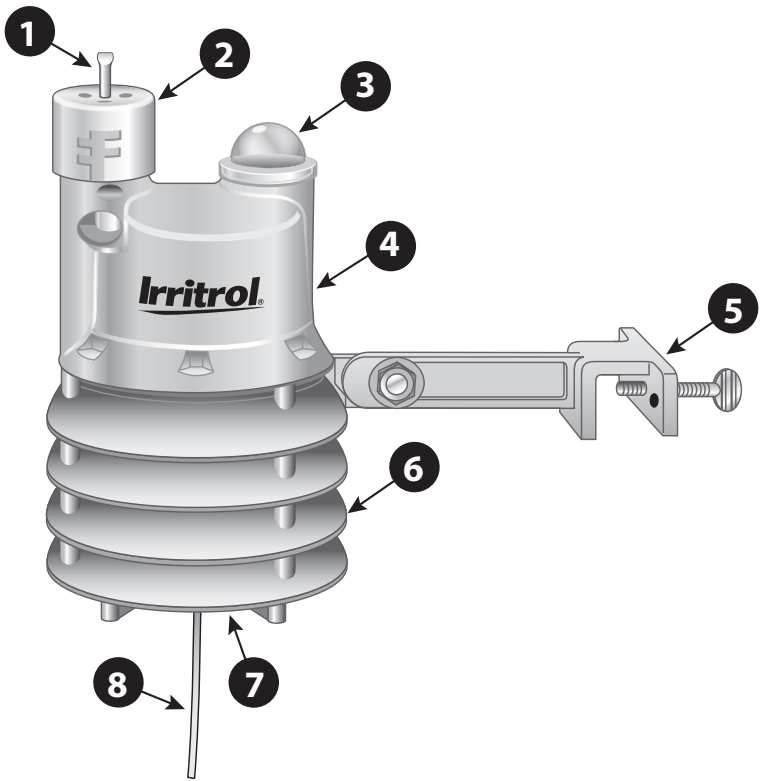
8 – Multifunction Keys: Key function is configured for each screen as required.

9 – LED Status Indicator: Remains On when irrigation is suspended; flashes when bypassed.

CL-M1 Receiver Module



CL-W1 Wireless Weather Sensor



1 – Weather Sensor Test Pin
Pressed to simulate rain sensor operation and test communication.

2 – Rain Sensor Adjustment Cap
Adjusts Rain Sensor threshold to a nominal setting of 1/8", 1/4", 1/2" or 3/4" (3 mm, 6 mm, 12 mm or 19 mm) of accumulated rainfall.

3 – Solar Collector
Collects and measures solar radiation. Requires full exposure to sunlight.

4 – Battery Compartment
Factory-installed 9V-Alkaline battery can sustain normal Weather Sensor operations up to five years.

5 – QuickClip™ Mounting Bracket
Convenient QuickClip mounting bracket provides quick and easy Weather Sensor installation.

6 – Temperature Sensor (not shown)

7 – RF Transmission LED (not shown)

8 – Antenna Wire

Note: *Installation methods must comply with all applicable national and local building codes.*

1. Setup controller watering Program **A** to provide an irrigation baseline for the Climate Logic system. The station run time, cycle start time(s), and watering day schedule* must be configured for the **hottest/driest conditions expected, without causing over-watering and runoff**. Retain all watering time/day restrictions in the program schedule as required.

   Note: *By default, Climate Logic modifies the run time of stations assigned only to Program **A**. To include Program **B**, or Programs **B** and **C**, see* ***page 13****.*

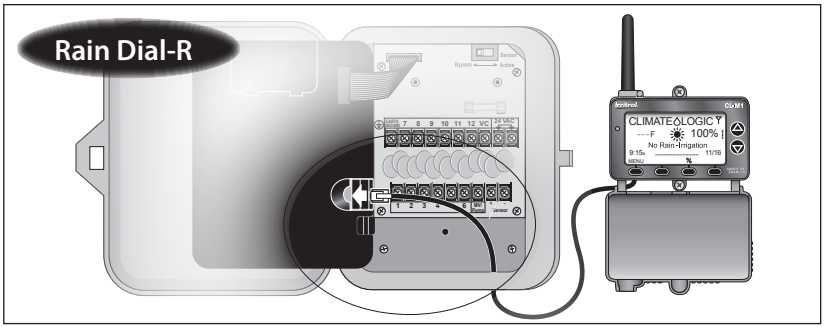
   ****Note:*** *For TMC-212 controller only: Interval day scheduling is not compatible with Climate Logic. Calendar and Odd/Even schedules are not affected.*

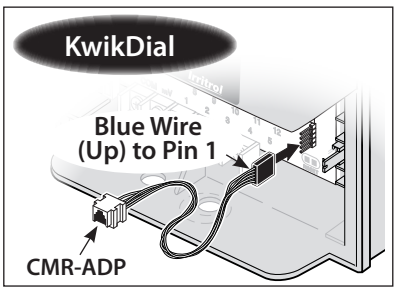
2. Route the connection cable into the controller cabinet. Insert the cable connector into the controller's remote control jack.

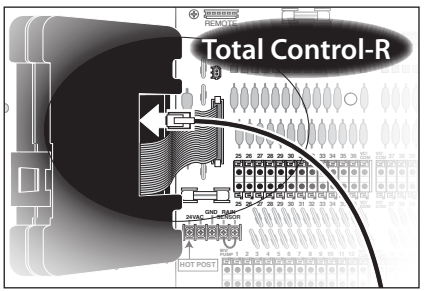
   Note: *Use the provided CMR-ADP cable adapter assembly for KwikDial and MC-E (Blue) controller applications.*

3. Secure the Receiver Module to the wall next to the controller using the provided screws or other suitable fasteners.

   Note: *For indoor application, adhesive-backed hook and loop tape (not included) can be used instead of screws.*







4. The Receiver Module will automatically* synchronize time and date with the host controller upon initial power-up.

   ****Note:** Does not apply to TMC-212 controller.*

5. Verify that the time and date are synchronized correctly. If necessary, adjust the Receiver Module as follows:

   ***Note:** The display will automatically return to the **Home** screen if a key is not pressed within 60 seconds.*

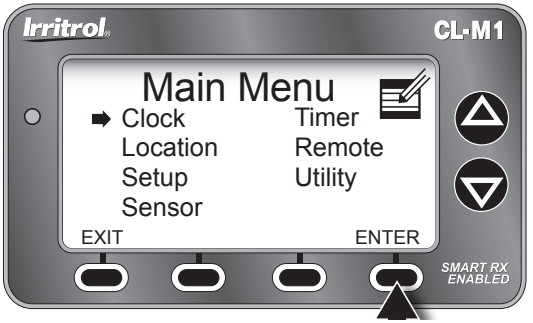
   - Press the **MENU** key to display the Main Menu screen. (The **CLOCK** menu option is selected by default.)
   - Press the **ENTER** key to display the **Clock** review screen.
   - Press the **SETUP** key to display the **Set Clock** screen.

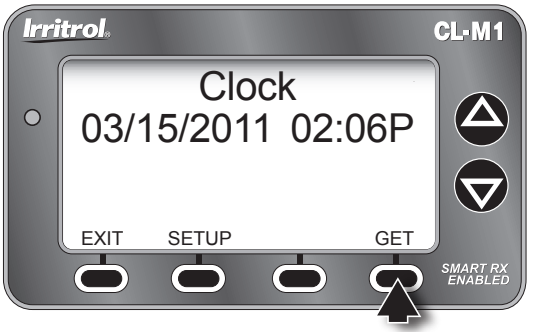
     ***Note:** To download the current time and date from the controller, press the **GET** key. When prompted, press the **YES** key. .*

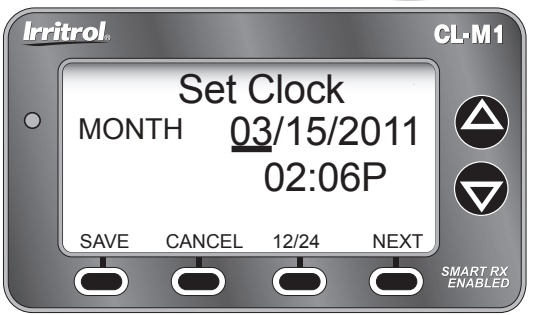
   - Press the ▲ or ▼ key to adjust the selected (underscored) value. Press the **NEXT** key to select the next value. Continue setting the current day, year and time.

     ***Note:** To change the clock time display format, press the **12/24** key. To return to the previous screen without making changes, press the **CANCEL** key.*

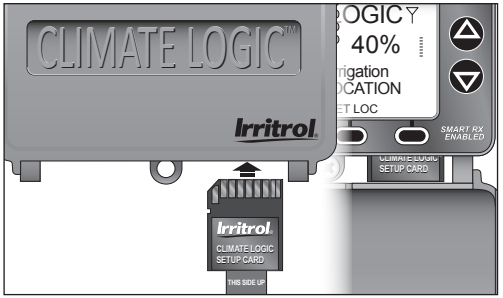
   - When the Receiver Module and controller are synchronized to the current time and date, press the **SAVE** key.
   - Press the **EXIT** key two times to return to the **Home** screen.



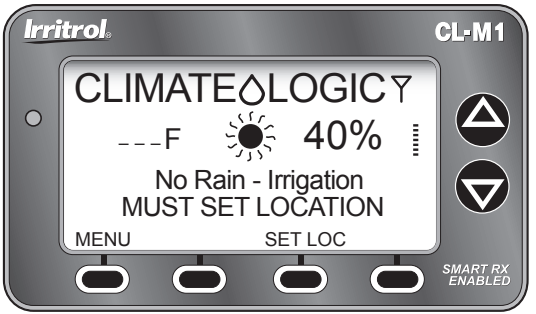




6. With the cover closed, insert the **Climate Logic Setup Card** into the Receiver Module slot as shown. Open the cover to proceed.

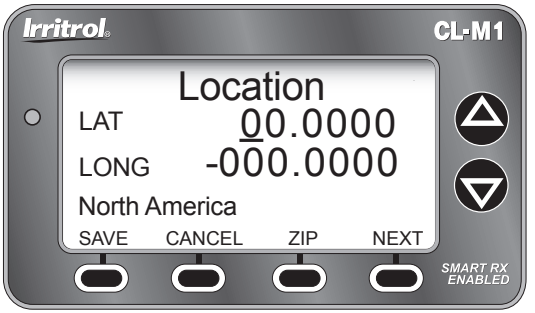


Note: *The* ***Home*** *screen (right) will be displayed only when a location has not been established, or has been erased. Press the* ***SET LOC*** *key to display the* ***Location*** *screen.*



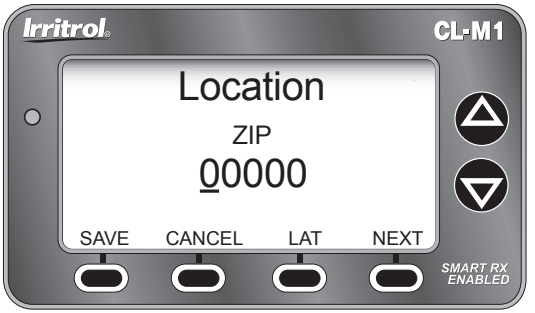
7. Establish the site location as follows:
   - Press **MENU** ⇨ **LOCATION** ⇨**ENTER** to display the **Location** screen.

     Note: *The Lat/Lon* ***Location*** *screen will be displayed by default. To set the location using a 5-digit ZIP code, press the* ***ZIP*** *key.*



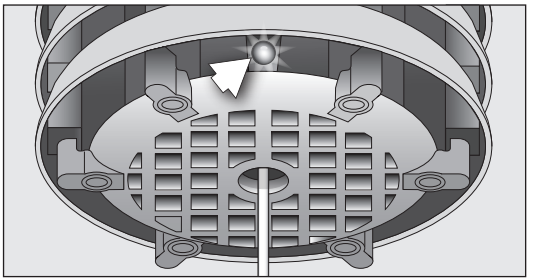
   - Press the ▲ or ▼ key to adjust the selected value. Press the **NEXT** key to select the next value in sequence.
   - When the location information is displayed correctly, press the **SAVE** key.

     Note: *The Receiver Module will begin transferring specific data from* ***Setup Card*** *for the defined location. A confirmation screen will indicate the completed transfer.*



   - Press the **EXIT** key (two times) to return to the **Home** screen.
8. Remove the **Setup Card** and stow inside the controller cabinet.

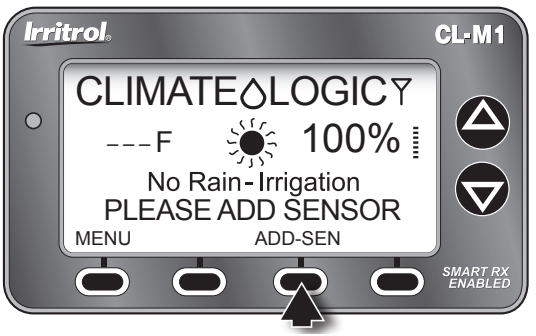
Weather Sensor Installation and Setup

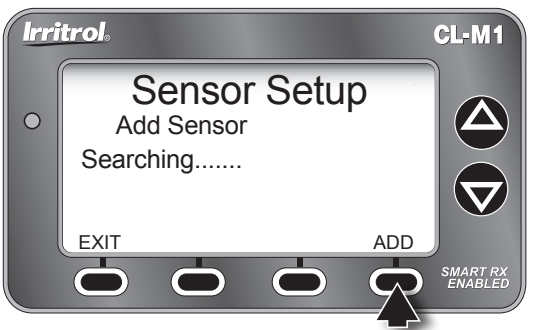


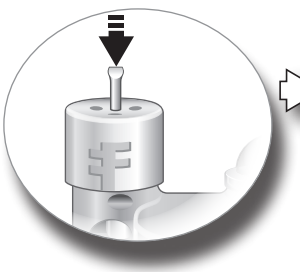
⚠ Important: The Climate Logic Weather Sensor is shipped with the battery circuit deactivated. To initially activate the sensor prior to installation, press and hold the Test Pin for 10–15 seconds. A red LED, viewable from the lower vent area, will illuminate <u>twice</u> after 10 seconds (if not already active).

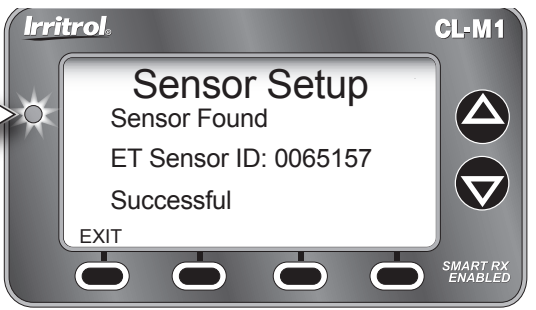
Note: *The Weather Sensor and Receiver Module are paired for wireless communication from the factory. The following procedure will only be required if* ***Please Add Sensor*** *is displayed on the* ***Home*** *screen.*

1. Pair the Weather Sensor transmitter with the Receiver Module to establish wireless communications as follows:
   - From the **Home** screen, press the **ADD-SEN** key to display the **Sensor Setup** screen. Press the **ADD** key to initiate the sensor ID search function.
   - Press and release the **Test Pin** to "Ping" the Receiver Module. When pairing is successful, the 7-digit sensor ID is displayed.



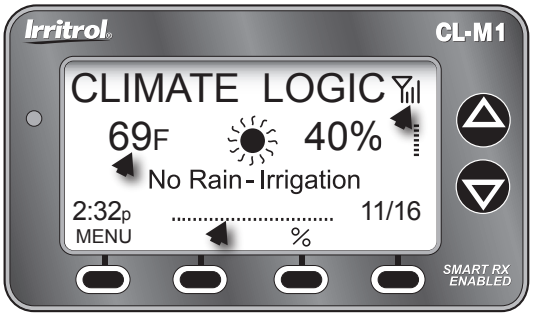






- Press the **EXIT** key (three times) to return to the **Home** screen. After a brief time, the current temperature, watering history graph line, and signal-strength bars will be displayed.

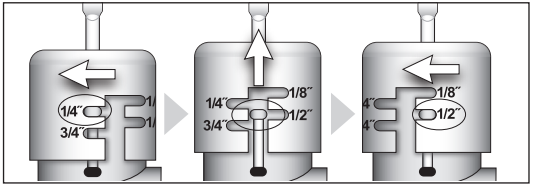
  Note: *A single Weather Sensor can be paired to multiple Receiver Modules when additional Climate Logic systems are installed within reception range.*



2. The **Rain Sensor** default threshold is ¼" (6 mm) of accumulated rainfall (nominal). The threshold can be lowered to ⅛" (3 mm) or raised to ½" (12 mm), or ¾" (19 mm) as preferred. Prior to installing the Weather Sensor, adjust the threshold to the preferred setting as follows:

   Note: *Increasing the threshold extends the length of time required for the Weather Sensor to signal the Receiver Module to stop irrigation, as well as extending the dry-out period before scheduled watering can resume. In areas where heavy fog, mist or high humidity is common, the ⅛" (3 mm) setting is not recommended due to the increased sensitivity to moisture.*

   - Turn the Rain Sensor cap slightly, releasing it from the retention pins, allowing the cap to move vertically.
   - Turn the cap to engage the retention pins at the preferred slot position.



⚠ ***Important: The Weather Sensor must have full exposure to sun, wind and rain, and must not be installed inside a rain gutter, or in any location where immersion, runoff, or contact with irrigation spray will occur. Avoid installation near a heat source, such as a heater vent or chimney. Wooden surfaces are preferred to concrete or asphalt shingles to reduce reflected heat. Installation over a planted area is preferred to a driveway, walkway etc. Avoid installation near any large metal structure, or high current-draw equipment that can cause signal interference. Ensure the antenna wire hangs vertically without contact.***

3. The Climate Logic system is designed to provide effective wireless communication in most applications. Loss of range can result from interference in the signal path. To verify signal reception from the selected installation site, perform the following test:
   - Start a manual watering operation of a zone that can be seen from the installation site. Press and hold the Sensor Test Pin. If the signal is received, watering should shut off within a short time.
   - Note the signal bars on the Home screen to verify good signal strength. *Three bars is optimal.*
   - Press the **BYPASS** key to cancel the **Dry-out** delay mode to resume normal operation.
4. Install the Weather Sensor using either of the following methods:
   - For rain gutter installation, unscrew the bracket thumbscrew enough to clear the rain gutter edge. Holding the Weather Sensor in position, tighten the thumbscrew securely.
   - For wood structure installation, remove the thumbscrew and secure the bracket using the provided screws or appropriate stainless fasteners.
   - Adjust the vertical alignment as needed by loosening the phillips screw at the bracket joint; adjust to vertical, then tighten securely.