



OMEGA[®] - B

Installation and Operation Guide



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1. SAFETY

This chapter reviews the Omega - B safety concerns and includes:

- [Safety Conventions](#)
- [Safety Instructions](#)
- [FCC Notice](#)
- [Declaration of Conformity](#)
- [Omega - B Controller Nameplate](#)

Safety Conventions



WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in injury or death.



CAUTION: Indicates that the equipment or environment can be damaged, or data can be corrupted.



NOTE: Indicates additional information to help the user obtain optimum performance. Notes are not safety-related to the equipment or personnel.



Tip: Indicates useful information to simplify steps or procedures.

Safety Instructions

Prior to performing any work on the Omega - B controller, become familiar with the following safety concerns:

General Safety Instructions

- Read this installation and operation guide prior to installing and servicing the system.
- Read all cautions and warnings in this guide before you start work.
- Installation must comply with all local electrical and plumbing codes.
- Omega - B is not intended for use by children.

Battery Safety Instructions

- BERMAD is not responsible for battery failures due to mishandling.
- Do not crush, break, or disassemble the batteries.
- Do not install the batteries backwards, put in fire, submerge in fluids, or mix with other battery types.
- Do not weld or solder the batteries onto the battery compartment.
- Dispose of batteries in accordance with local regulations.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



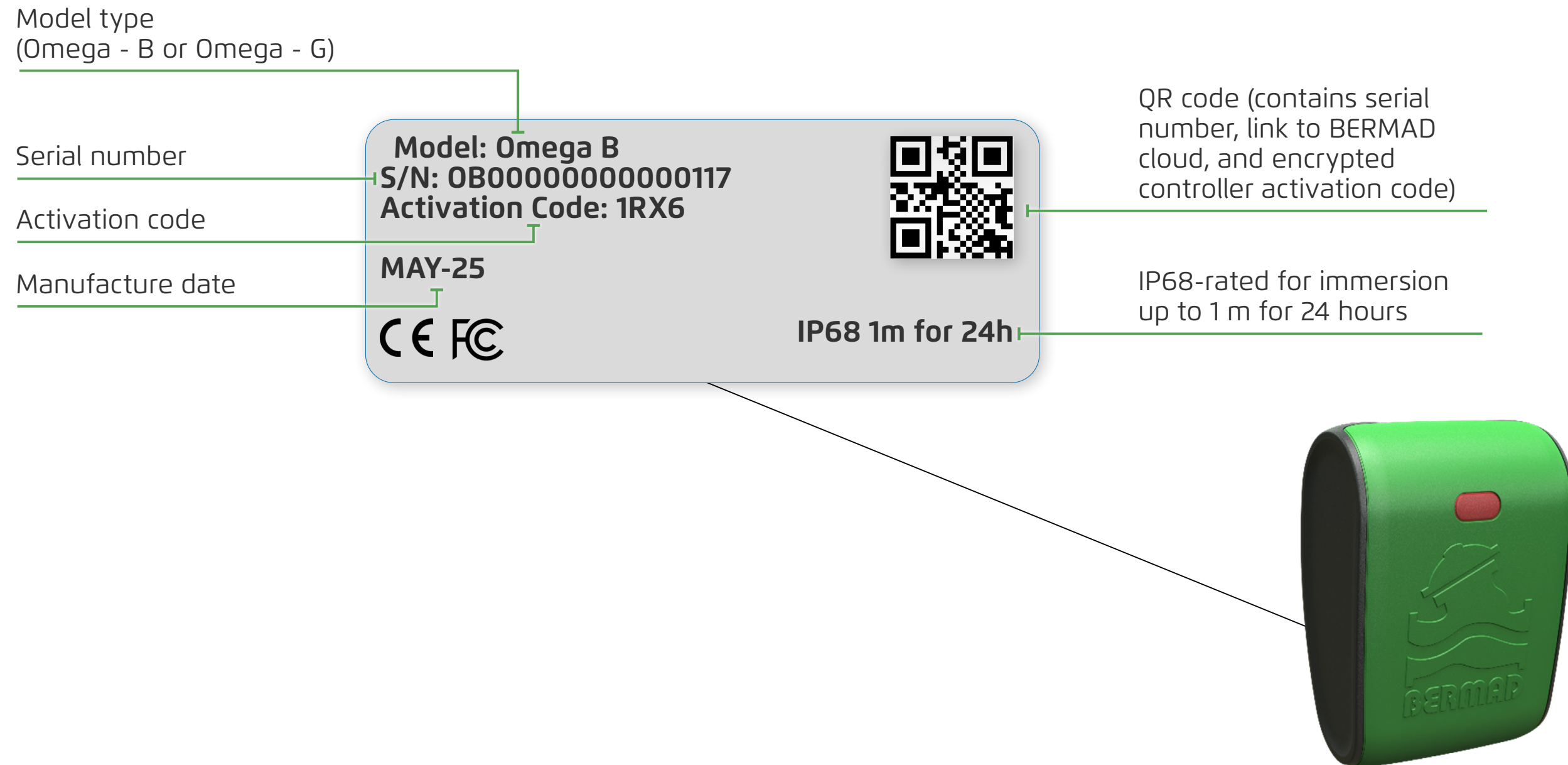
Declaration of Conformity

This equipment has been tested and found to comply with EN 61010-1:2010 and IEC 61010-1:2010, AMD1:2016 standards.



Omega - B Controller Nameplate

The Omega - B controller nameplate is located on the back of the controller. It contains the following information:



2. INTRODUCTION

This chapter reviews the Omega - B controller and includes:

- [Overview](#)
- [Typical Connection Layout](#)
- [Omega - B Controller](#)
- [Mobile Application](#)
- [Asynchronous Cloud Management System](#)

Overview

Omega - B is a battery-operated BLE controller that syncs with the BERMAD Cloud and the Omega ecosystem, transforming traditional hydrants into smart hydrants. Omega - B is a rugged, outdoor-rated, battery-powered smart controller that connects to a single valve and water meter.

Controller Features

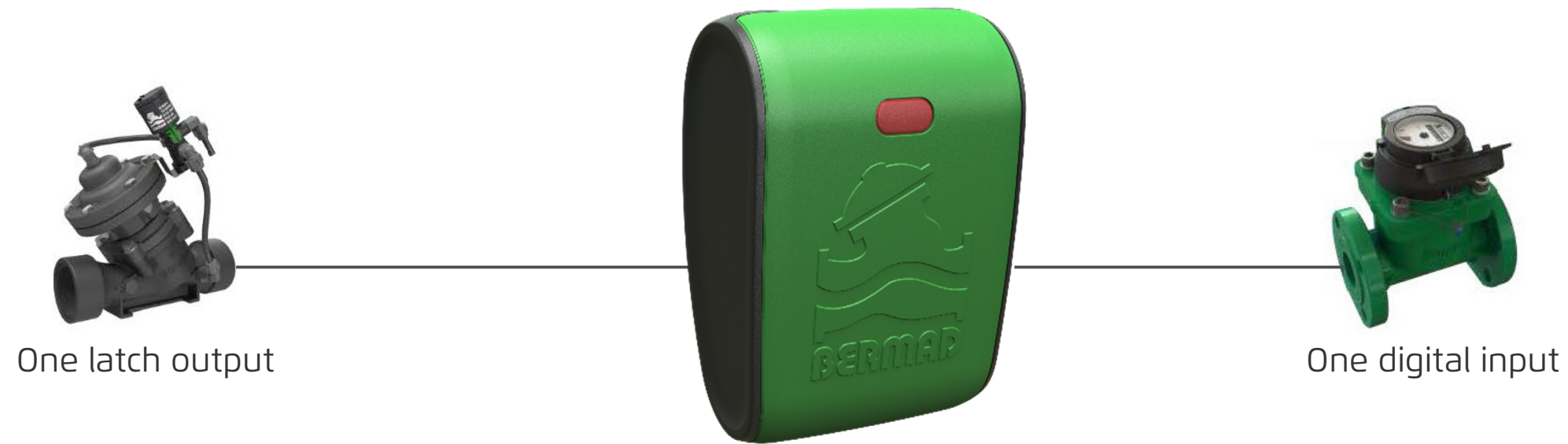
- Offline and online control.
- Volumetric and time-based irrigation:
 - One Weekly or Cyclic irrigation Program
 - 16 programmable start times or cyclic irrigation windows
 - Widespread valve run time range: 1 minute - 24 hours
 - Manual operation
- High/low flow monitoring & Leak detection.
- One latch output, one digital input
- Comprehensive log registry allows for long periods of offline operation.
- Irrigation restriction management:
 - Defines the dates for the irrigation season when the controller is active
 - Restricts irrigation on up to four specific dates
 - Restricts irrigation on selected fixed days
- Alert control:
 - Water leak and Valve flow alerts
 - Controller reaction to each type of alert
- IP68 rated with UV protection for outdoor installation.
- CE and FCC standard compliant



Typical Connection Layout

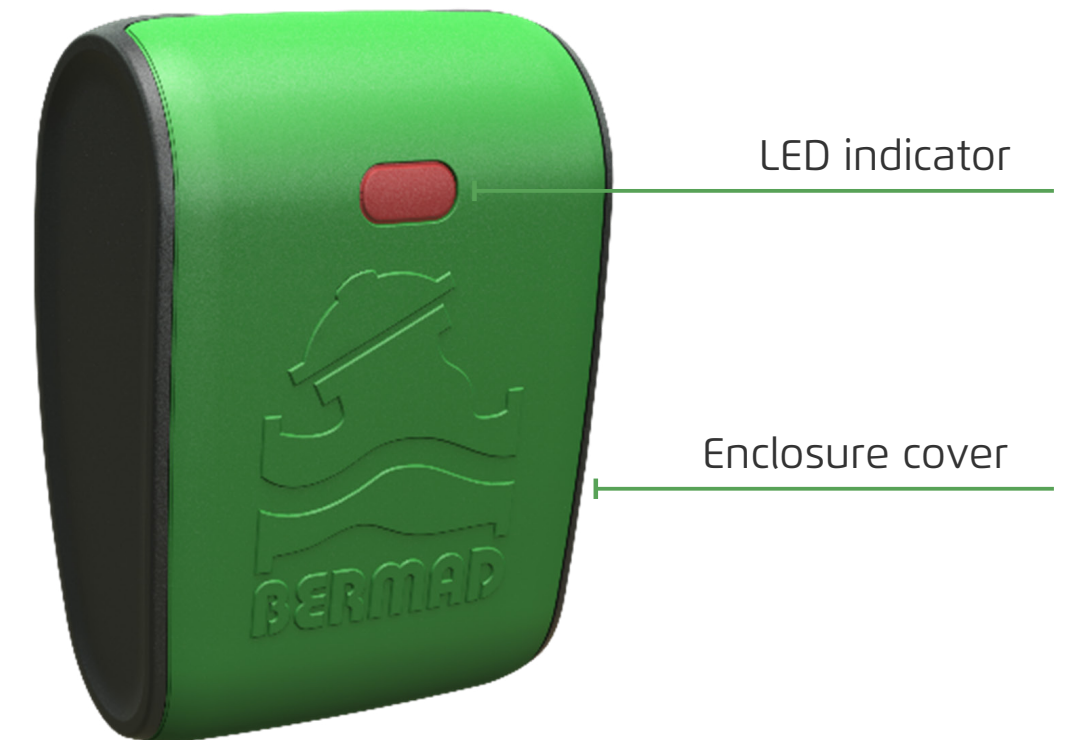
The Omega - B controller supports connection of the following devices:

- Latch solenoid
- Water meter



Omega - B Controller

The Omega - B controller includes the following components:



Mobile Application

The mobile application includes the following features:

- Password protected login:
 - Protected multi-user access
- Account management:
 - Language and time zone selection
 - Unit support (Metric, Imperial)
- Dynamic dashboard:
 - Geo-referenced map with site and device view & management
- Alerts:
 - Water leak & Valve flow alerts
 - Controller reaction to each type of alert
- History Reports & Logs:
 - Automatic upload of controller data to the Bermad Cloud via a local Bluetooth connection.
 - System logs, operation & irrigation events
 - Periodic water meter accumulations
- Irrigation restriction management:
 - Set dates for the irrigation season when the controller is active. Dates outside the range the controller is inactive
 - Set up to 4 dates when the controller is not allowed to operate
 - Setting fixed days when the controller is not allowed to operate

Asynchronous Cloud Management System

BERMAD Cloud provides a centralized web-based user interface for the Omega - B controller, allowing for track alert history, logs, irrigations and export reports of the irrigation system using a PC, tablet, or smartphone.

BERMAD Cloud offers the following benefits:

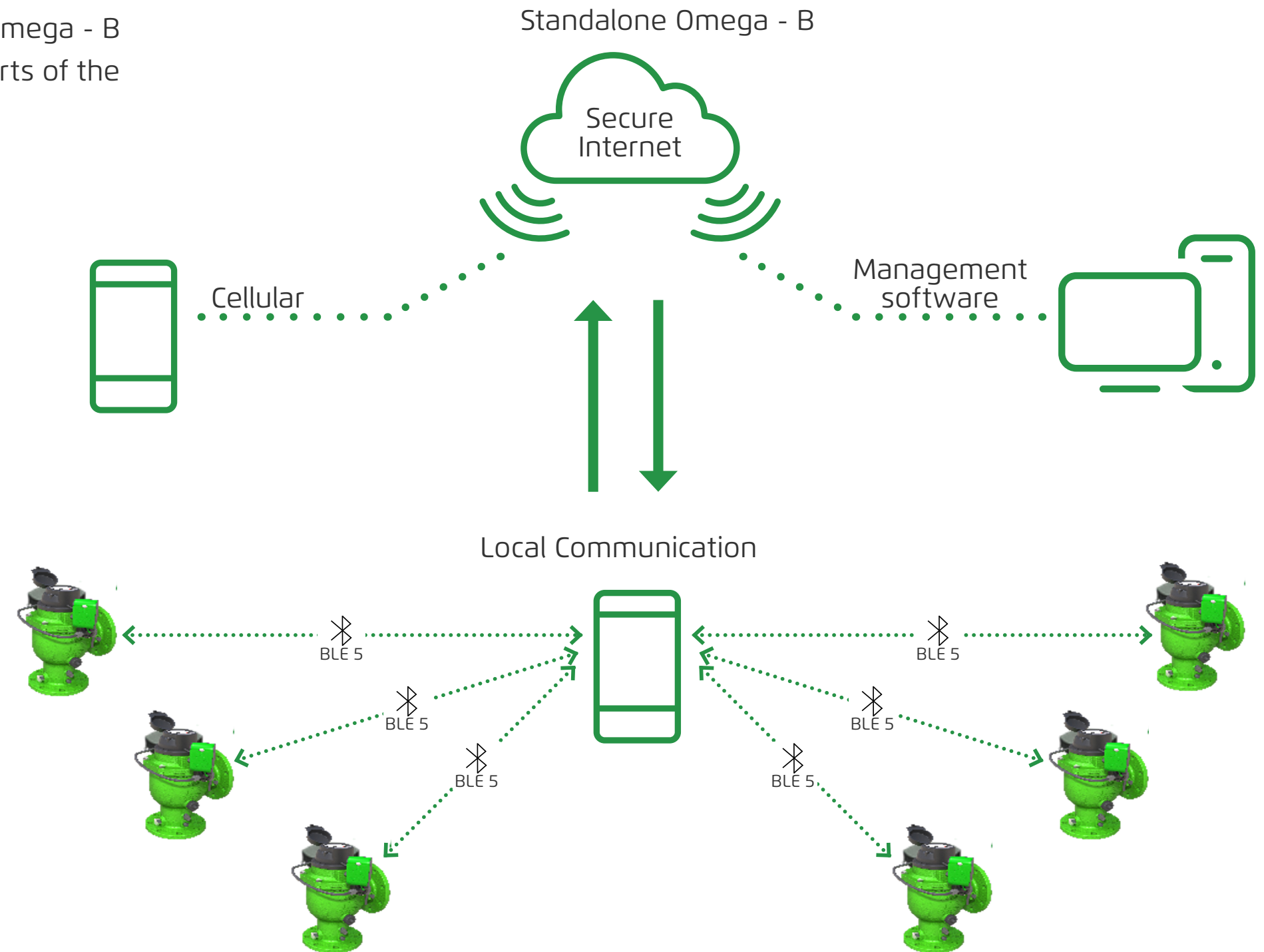
- Password protected login
- Dynamic dashboard
- Irrigation management and monitoring tools
- Alert controls
- Log information and report generation



NOTE: Login with own credentials will be available after integration to BERMAD cloud. Meanwhile use the automated user credentials.



NOTE: New data uploads to the BERMAD Cloud after the Omega - B is synchronized with a mobile device that has a cellular connection.



3. INSTALLATION

This chapter reviews Omega - B installation and includes:

- [Mounting Omega - B](#)
- [Battery Installation](#)

Mounting Omega - B

This section reviews mounting the Omega - B controller and includes:

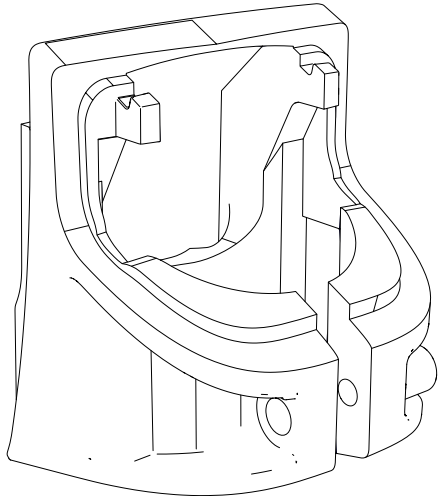
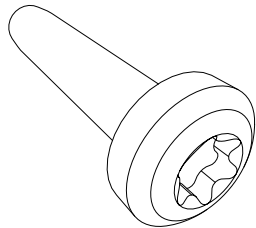
- [Mounting Kit](#)
- [Mounting Bracket](#)
- [Mounting Controller](#)
- [Solenoid Wiring](#)
- [Water Meter Wiring](#)



WARNING: Pressurized water can cause injury. Shut off and relieve system pressure before mounting the bracket.

Mounting Kit

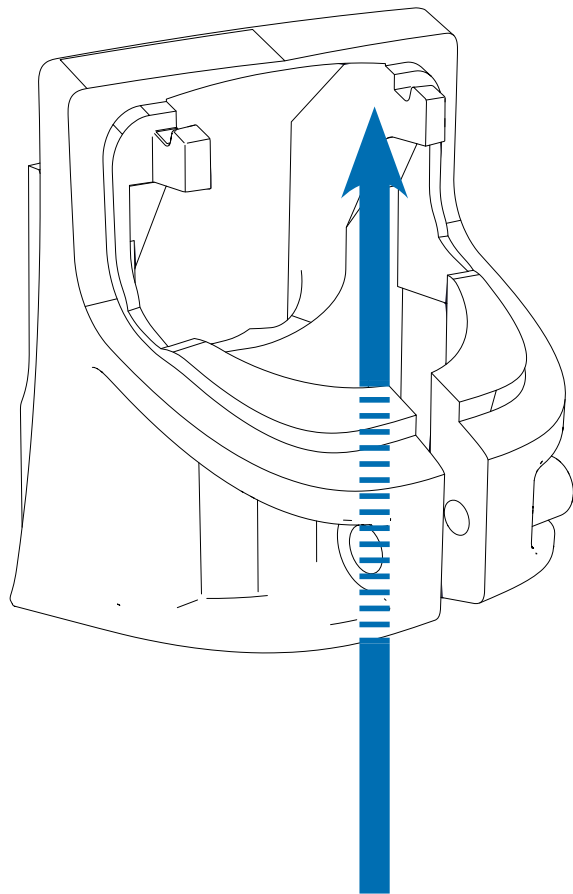
The Omega - B mounting kit includes the following components:

Image	Description	Qty.
	Bracket	1
	Connector	4
	Mounting screw	1

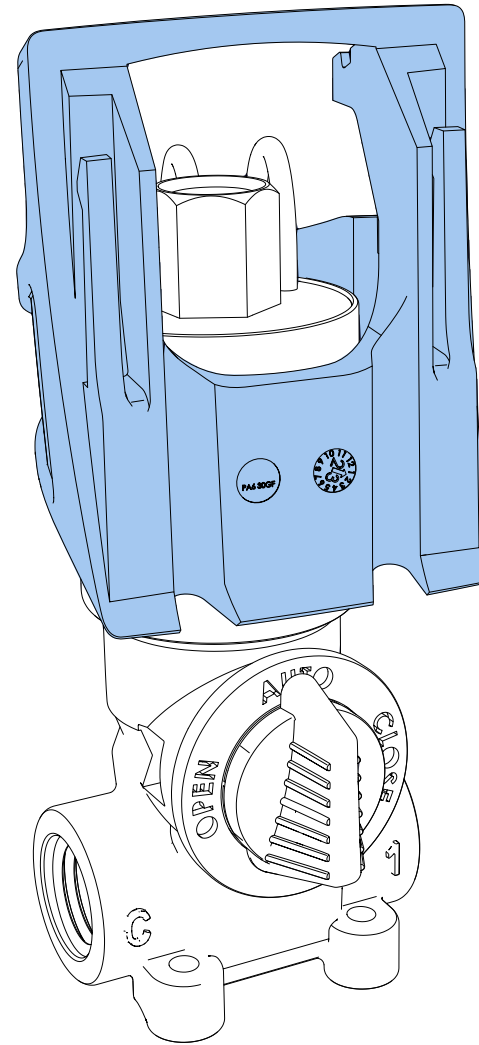
Mounting Bracket

Perform the following steps to mount the controller bracket on a solenoid:

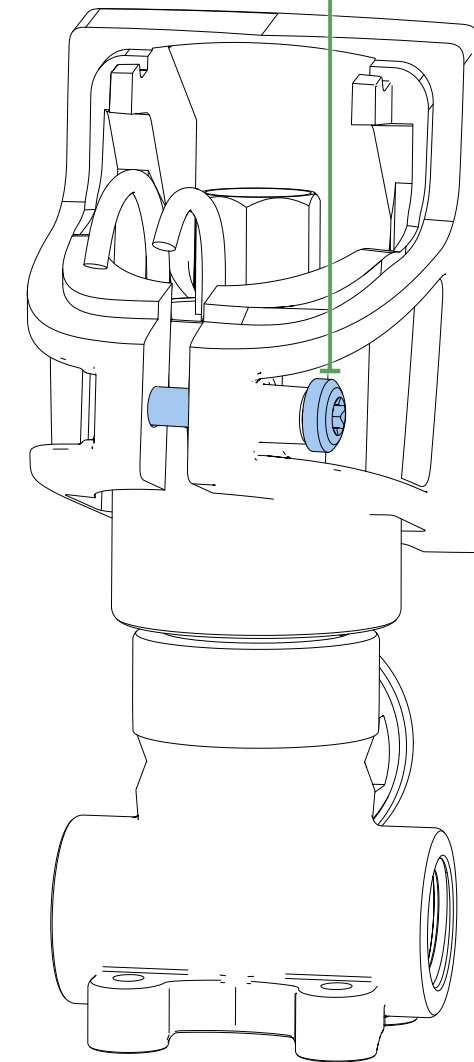
1. Thread the solenoid cables through the bracket



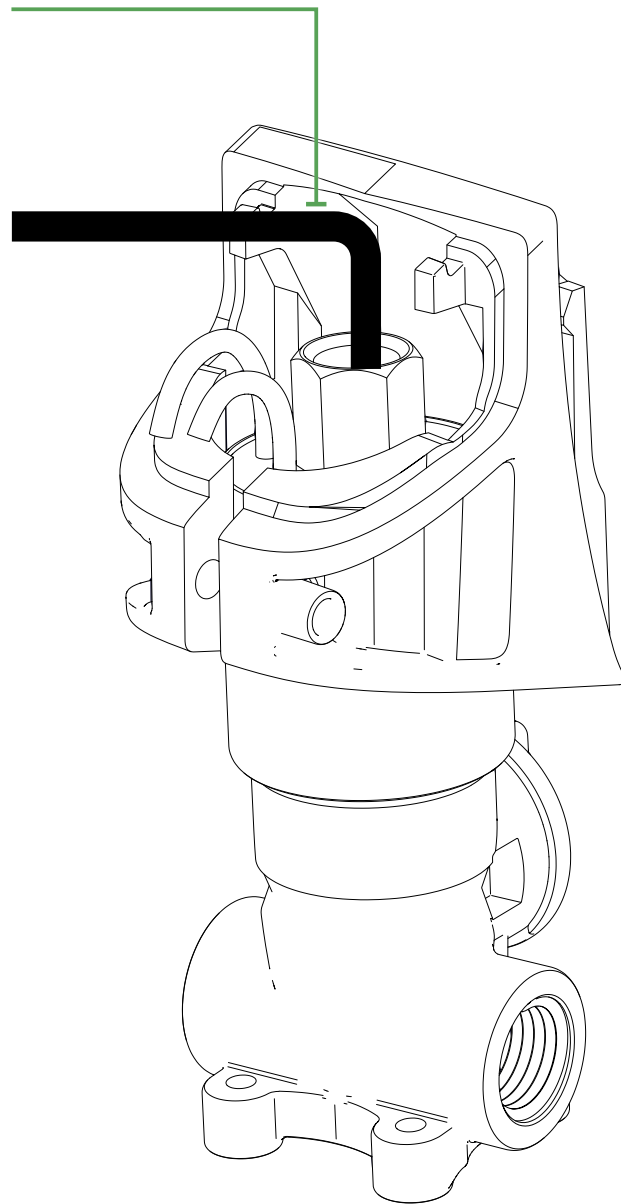
2. Position the bracket over the solenoid pipe



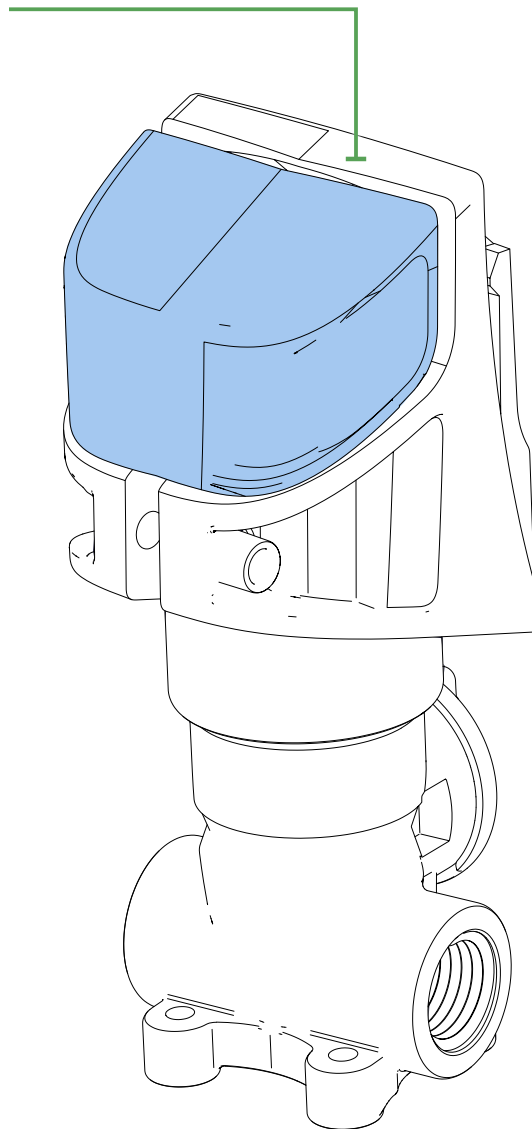
3. Secure the bracket with the mounting screw



4. Connect the valve control pipe to the solenoid



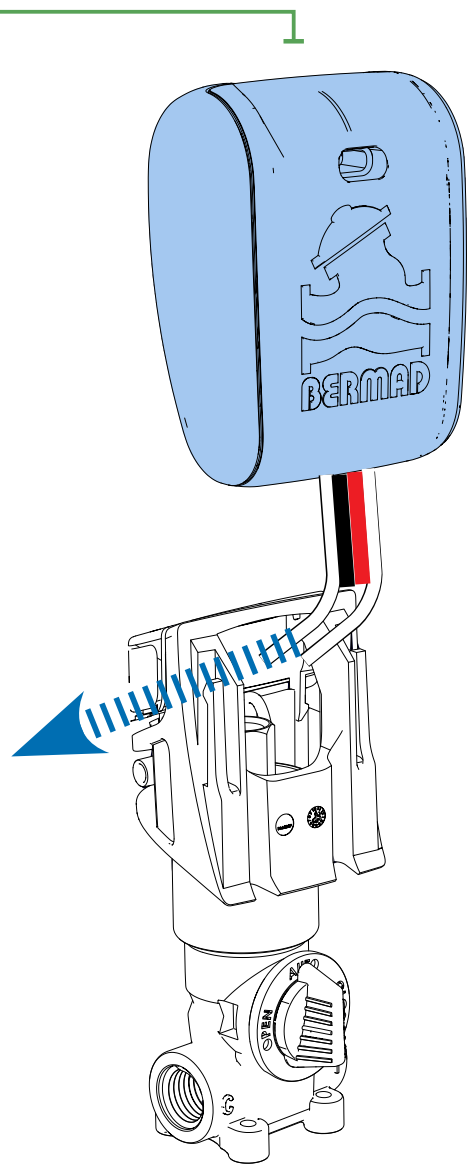
5. Cut the solenoid cables to fit in the bracket, and close the bracket cover [optional]



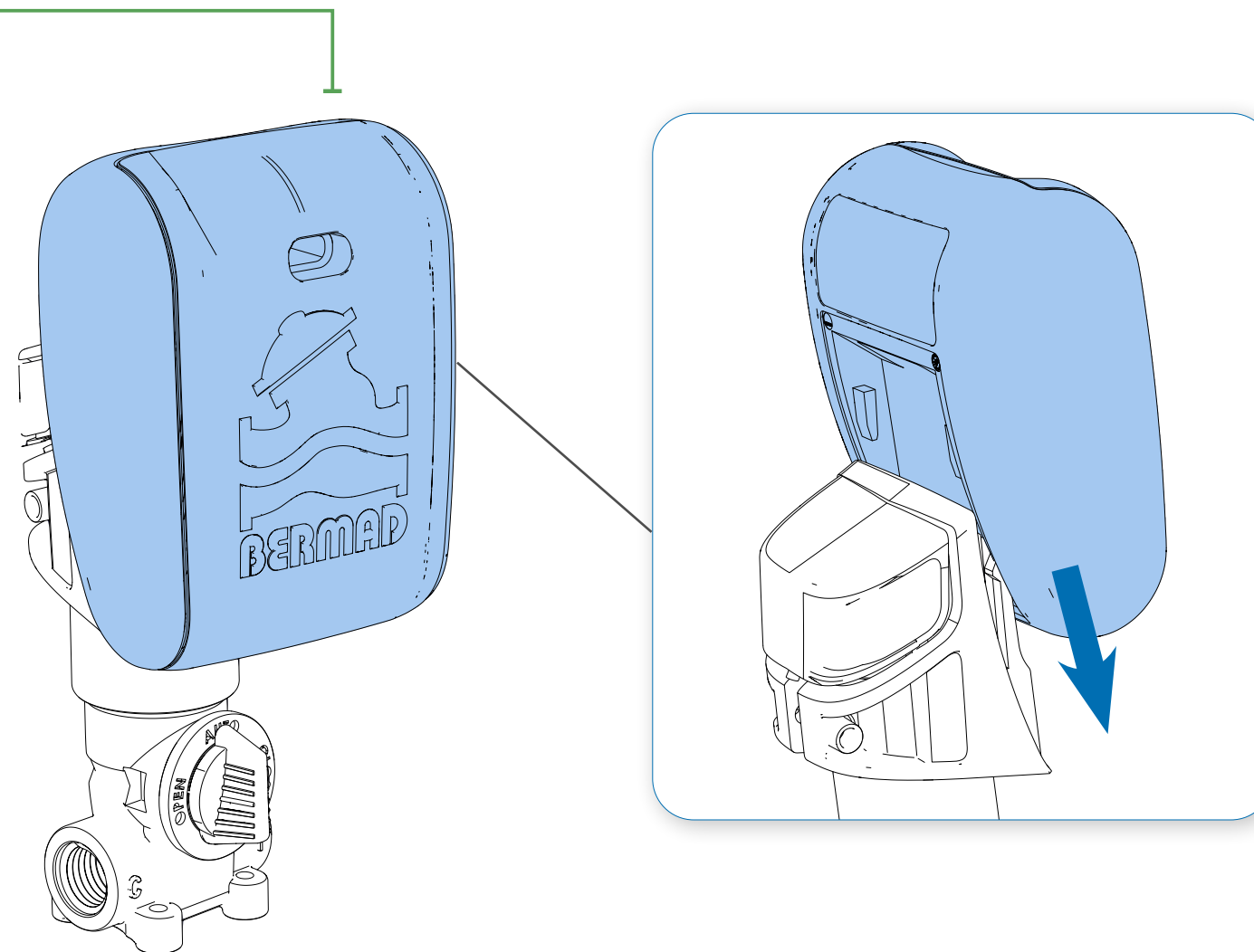
Mounting Controller

Perform the following steps to mount the Omega - B controller to the bracket:

1. Thread the controller cables through the bracket



2. Slide the controller on to the bracket until it clicks into place



Solenoid Wiring

Perform the following steps to connect the solenoid and controller wires:



CAUTION: Reversed polarity can damage the controller. Match the (+) and (-) wire polarity exactly before you connect."

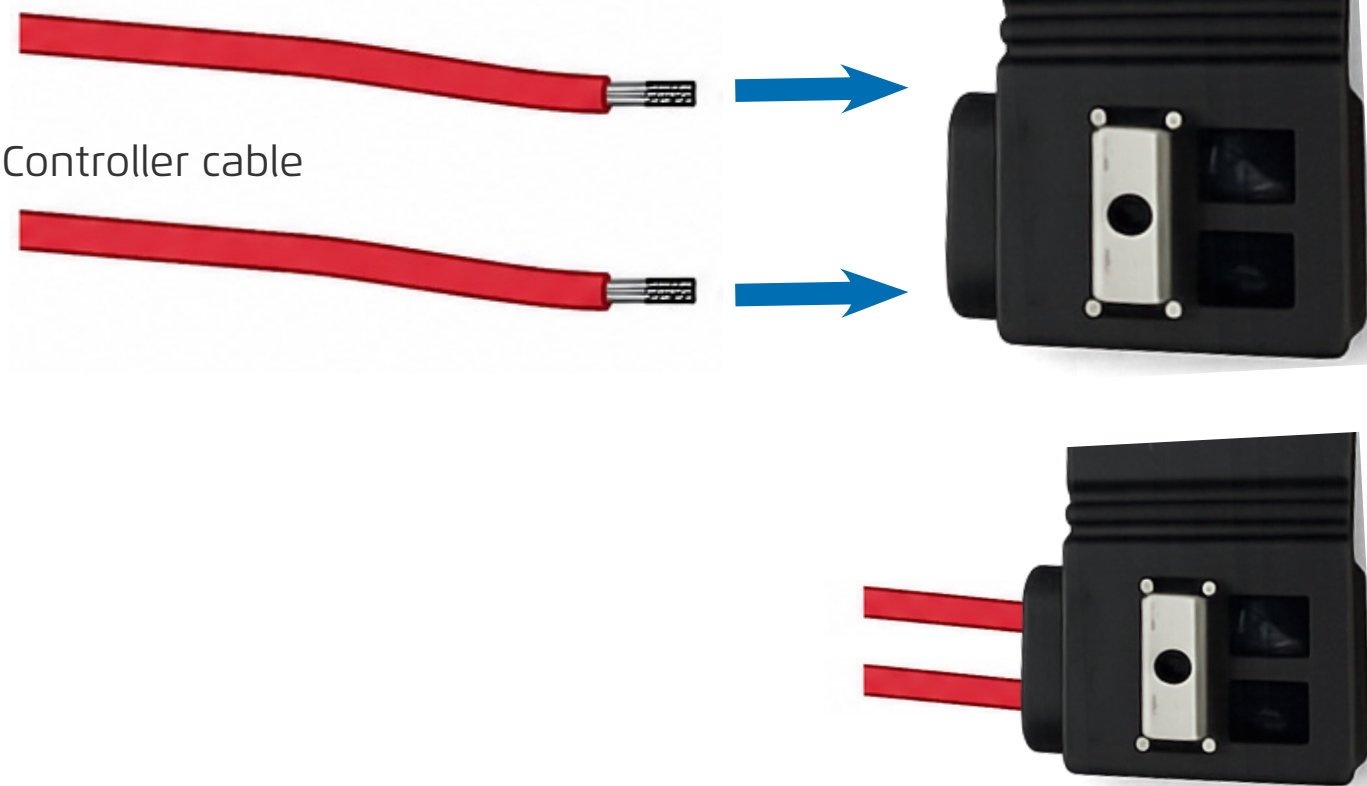


WARNING: The cable connector can only be closed once. If closed incorrectly, cut it off and replace it with a new connector.

1. Connect the red Plus (V+) wire from the solenoid to the red Plus (+) wire from the controller using a connector

Solenoid cable

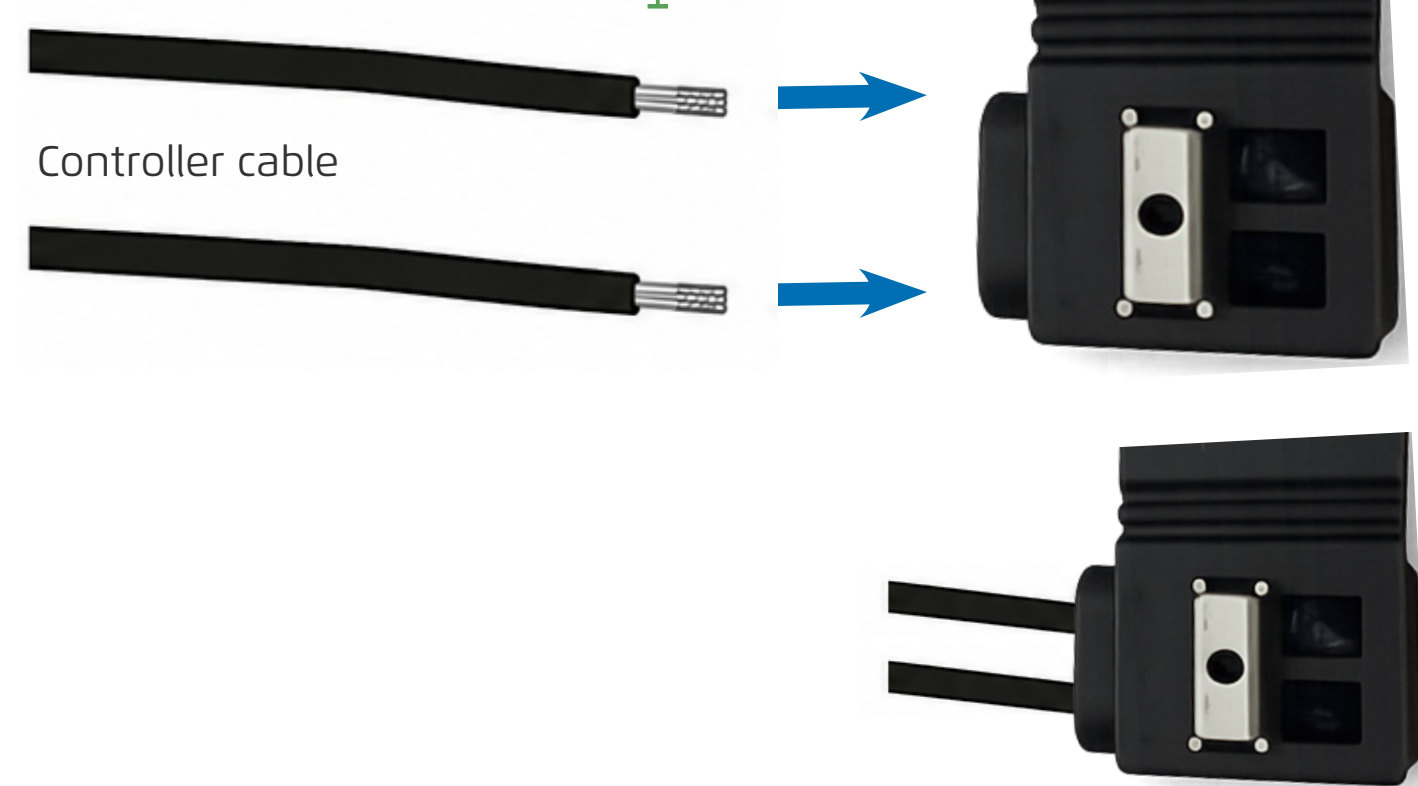
Controller cable



2. Connect the black Minus (V-) wire from the solenoid to the black Minus (-) wire from the controller using a connector

Solenoid cable

Controller cable



3. Close each connector until a click is heard

Water Meter Wiring

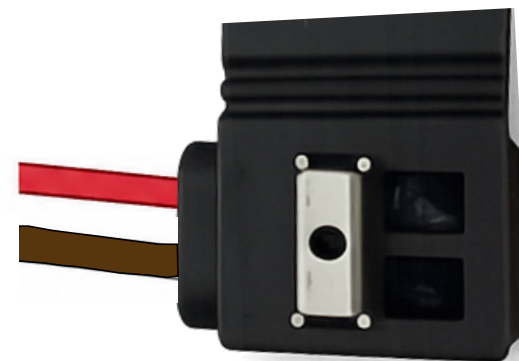
Perform the following steps to connect the water meter and controller wires:

1. Connect the red Plus (WM+) wire from the water meter to the Plus (+) wire from the controller using a connector

Water meter cable



Controller cable



2. Connect the black Minus (WM-) wire from the water meter to the Minus (-) wire from the controller using a connector

Water meter cable



Controller cable



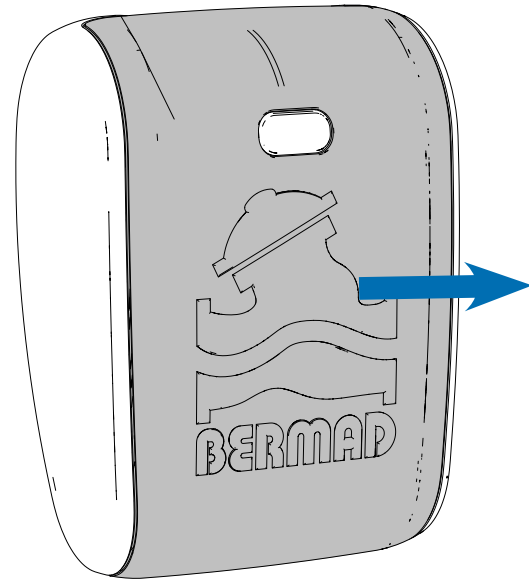
3. Close each connector until a click is heard

Battery Installation

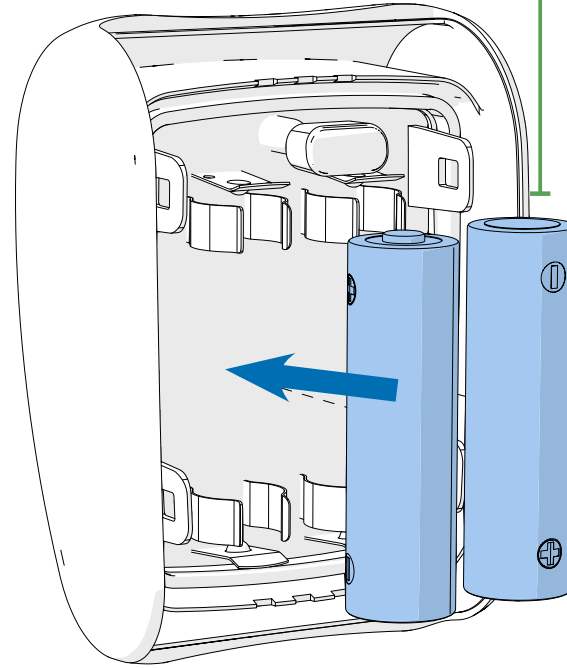
The Omega - B controller is powered by two 1.5 V AA Alkaline / Lithium batteries.

Perform the following steps to install the batteries:

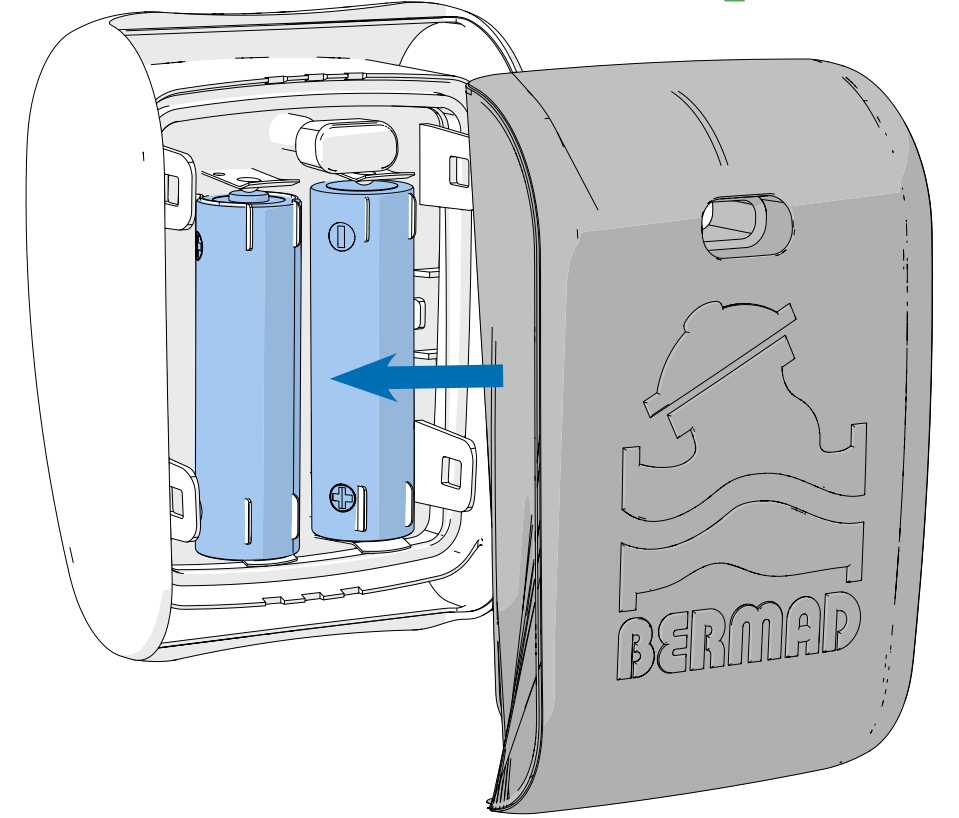
1. Remove the controller cover



2. Install two batteries according to the orientation displayed on the controller



3. Replace the controller cover



Tips:

- For best performance in outdoor installation, use batteries with an operating temperature range of -18° to 55° C or greater.
- Check batteries periodically, and replace them before irrigation season starts.
- Battery lifetime: 



CAUTION: Reversed battery polarity can damage the controller. Install batteries according to the (+) and (-) markings before replacing the cover."

Automatic Controller Test

After the batteries are inserted, the controller automatically performs the following tests, if a water meter and solenoid are connected. If no water meter and solenoid are connected skip to [No Solenoid and Water Meter Connected](#).

Solenoid and Water Meter Connected

When the controller is connected to a solenoid and water meter, the following automatic test is performed:

1. The controller LED flashes once to indicate the start of the test

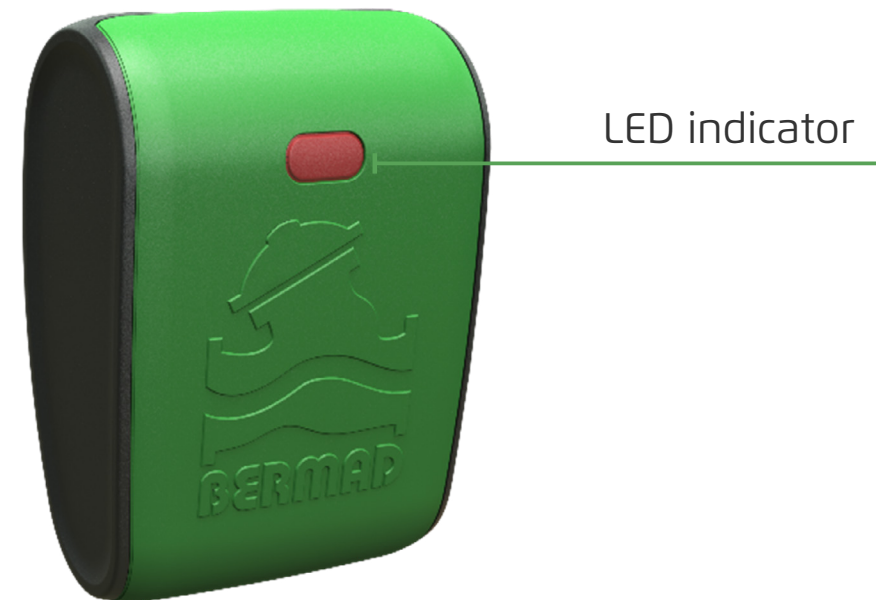
2. The controller opens the solenoid

3. The controller waits to receive three pulses from the water meter. The controller LED flashes once upon receiving each pulse

4. The controller LED flashes once to confirm the successful completion of the test



NOTE: During the test, controller configuration and monitoring through the application will not be available.

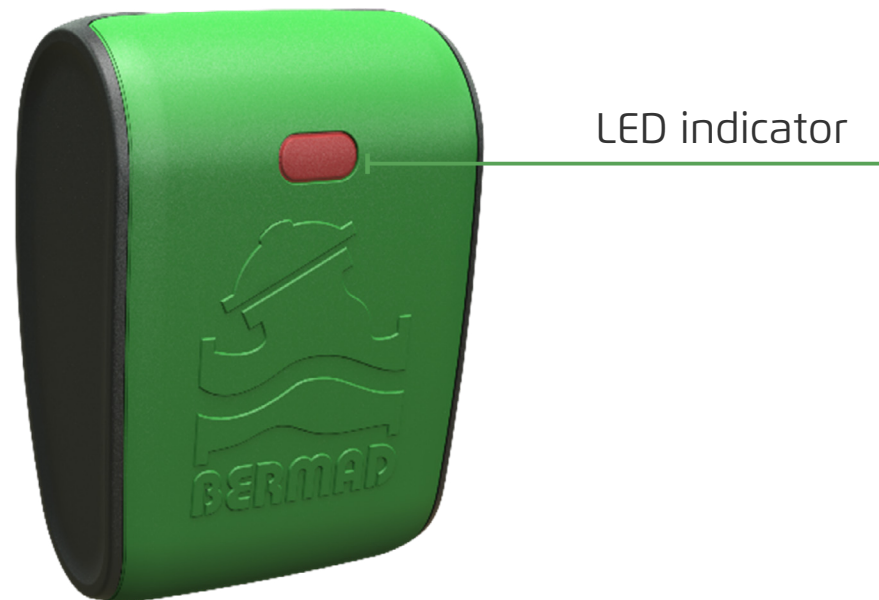


No Solenoid and Water Meter Connected

If the controller is not connected to a solenoid and water meter, the automatic test will not be performed.

1. After inserting the batteries, the controller waits for 30-40 seconds

2. The controller LED flashes once to indicate the controller is ready



4. CONFIGURATION

This chapter reviews configuring the Omega - B controller using the Omega - B mobile app and includes:

- [Downloading Omega - B Mobile App](#)
- [Registering](#)
- [Logging In](#)
- [Status Dashboard Overview](#)
- [Managing Sites and Controllers](#)
- [Manual Irrigation Operation](#)
- [Program Workflow](#)
- [Basic Device Settings](#)



NOTE: A gray Save button indicates that the current values are already applied. The button turns green when changes are made, indicating that the changes must be saved to apply them to the controller.

Downloading Omega - B Mobile App

The Omega -B mobile app is compatible with both the Omega - B and Omega - G controllers. Omega - G is a gardening controller designed to control a single valve without a water meter.

Perform the following steps to download the Omega - B mobile app:

1. Go to the relevant app store



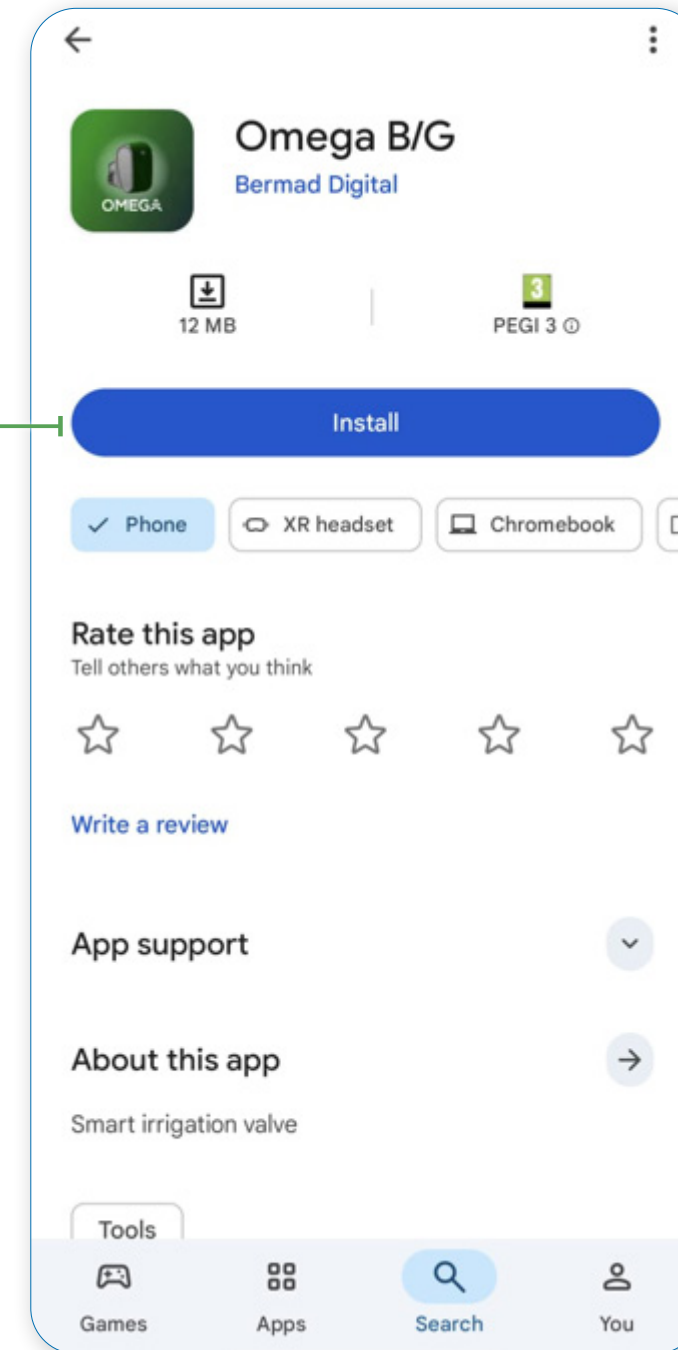
(Click to open)

2. Search for the **BERMAD Omega B/G** app and select it from the list



NOTE: Indicates additional information to help the user obtain optimum performance. Notes are not safety-related to the equipment or personnel.

3. Tap **Install**



Registering

Perform the following steps to register as a new user:



NOTE: The registration process will be available after integration with BERMAD cloud.

1. Open the Omega B/G app. The Omega B/G login window is displayed

2. Click **New User**. The registration window opens

3. Type first name, last name, and e-mail address

4. Type a password, then type it again to confirm

5. Select the relevant options

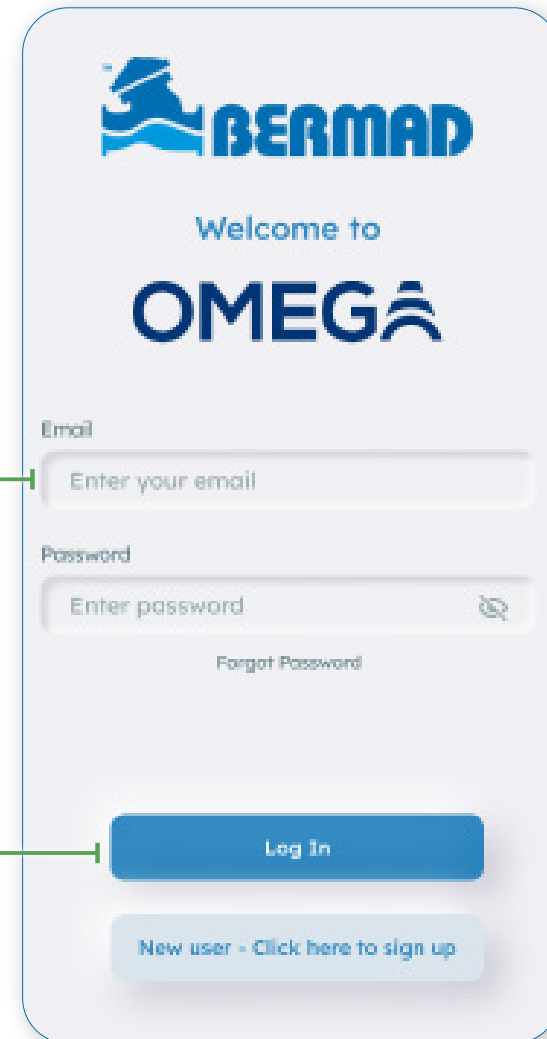
6. Click **Sign Up**

Logging In

Perform the following steps to log in to Omega B/G app:

1. Type the user credentials
(e-mail address and password)

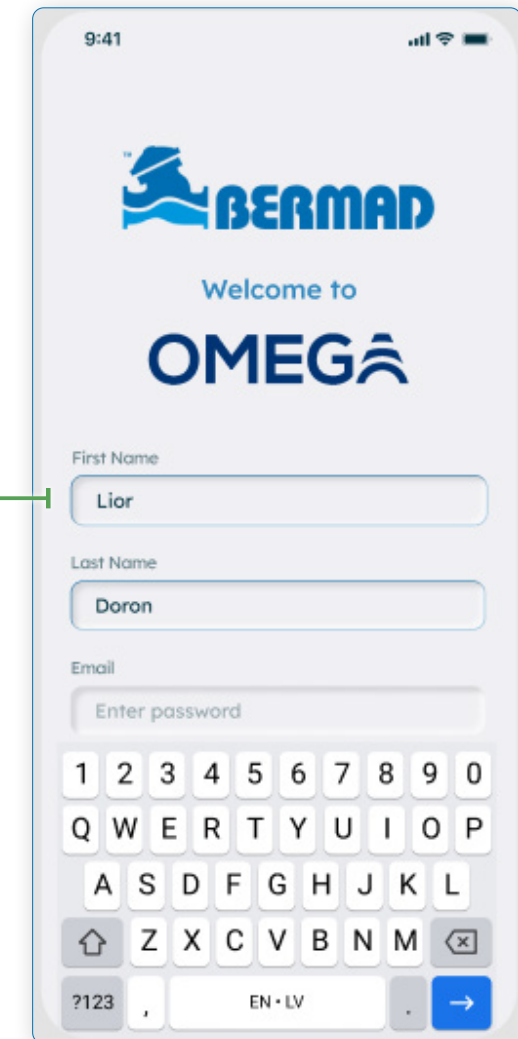
2. Click **Login**. The [site dashboard](#) window opens



The screenshot shows the BERMAD OMEGA login interface. At the top is the BERMAD logo and the text "Welcome to OMEGA". Below this are two input fields: "Email" with the placeholder "Enter your email" and "Password" with the placeholder "Enter password" and an eye icon for toggling visibility. A link "Forgot Password" is positioned below the password field. At the bottom, there is a blue "Log In" button and a light blue button that says "New user - Click here to sign up".



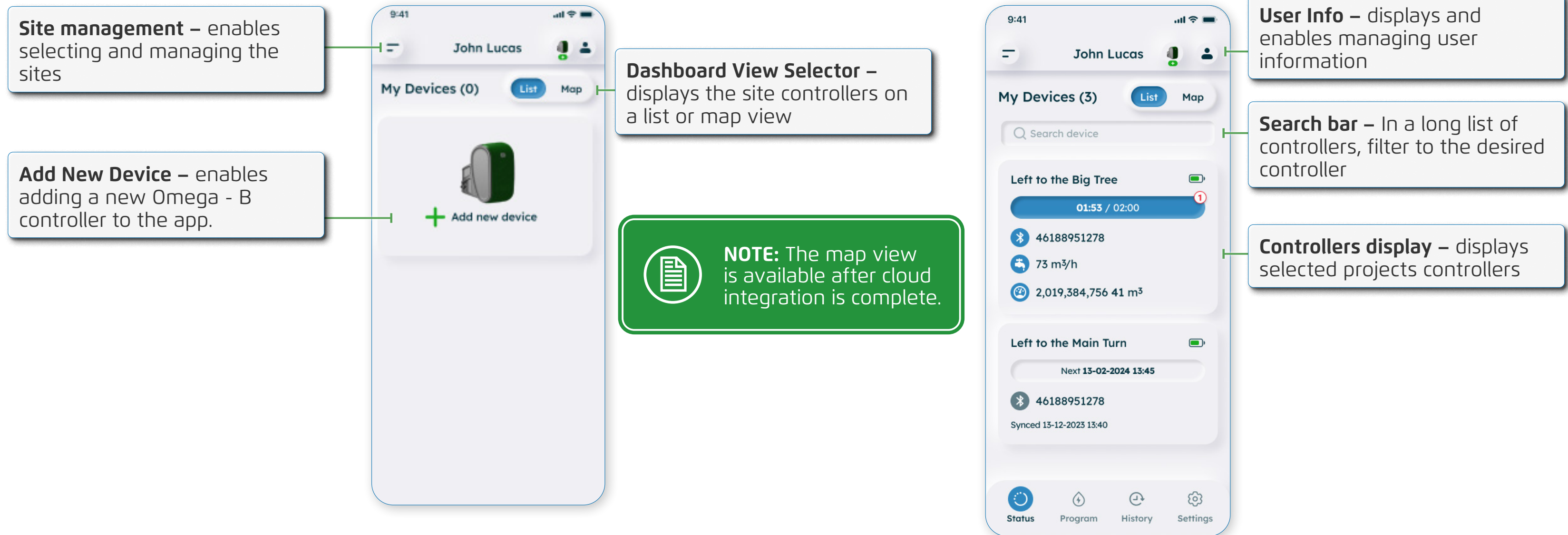
NOTE: Login with own credentials will be available after integration to BERMAD cloud. Meanwhile use the automate user credentials.



The screenshot shows the BERMAD OMEGA login interface on a mobile device. It features the BERMAD logo and "Welcome to OMEGA" text. The form includes fields for "First Name" (containing "Lior"), "Last Name" (containing "Doron"), and "Email" (with a placeholder "Enter password"). A numeric keypad is visible at the bottom of the screen, indicating the password field is active.

Status Dashboard Overview

The site dashboard opens, displaying the following:



Managing Sites and Controllers

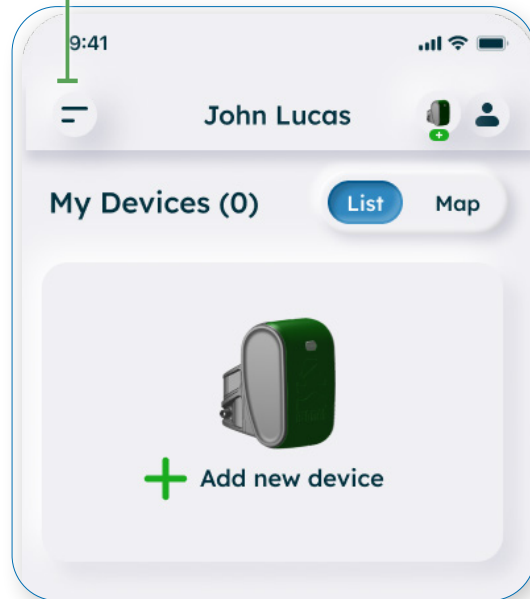
This section reviews managing sites and includes:

- [Creating and Editing a Site](#)
- [Account Setup](#)
- [Adding Controllers](#)
- [Selecting a Controller](#)
- [Controller Status Overview](#)
- [Manual Irrigation Operation](#)
- [Manual Irrigation Monitoring](#)

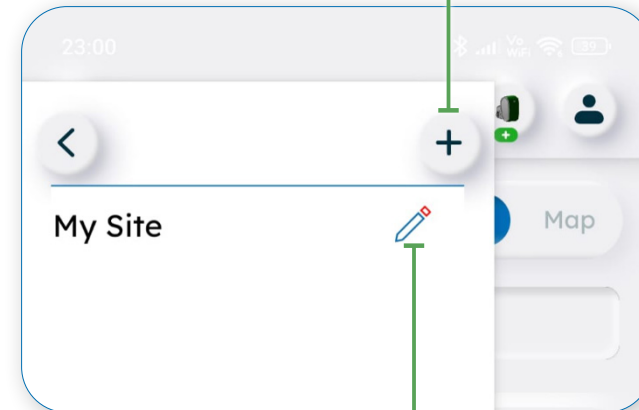
Creating and Editing a Site

Perform the following steps to create or edit a site:

1. Tap the **Menu** icon

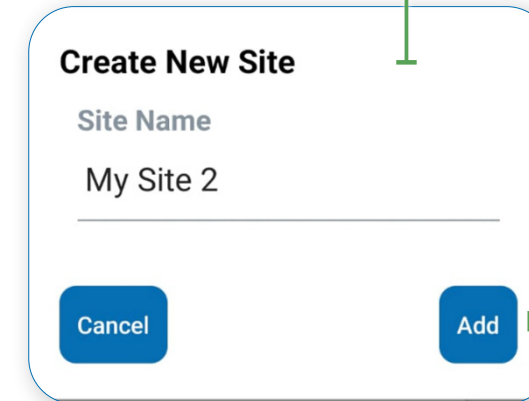


2. Tap the **Plus** button to create a site



Tap the **Pencil** button to edit a site

3. Enter the site name



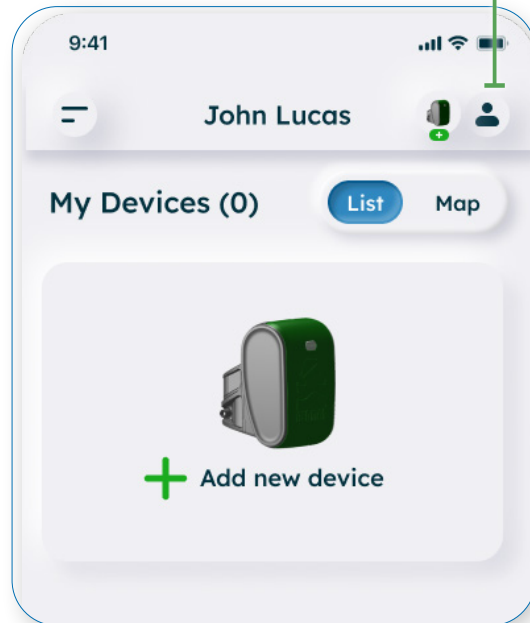
4. Tap **Add**

Account Setup

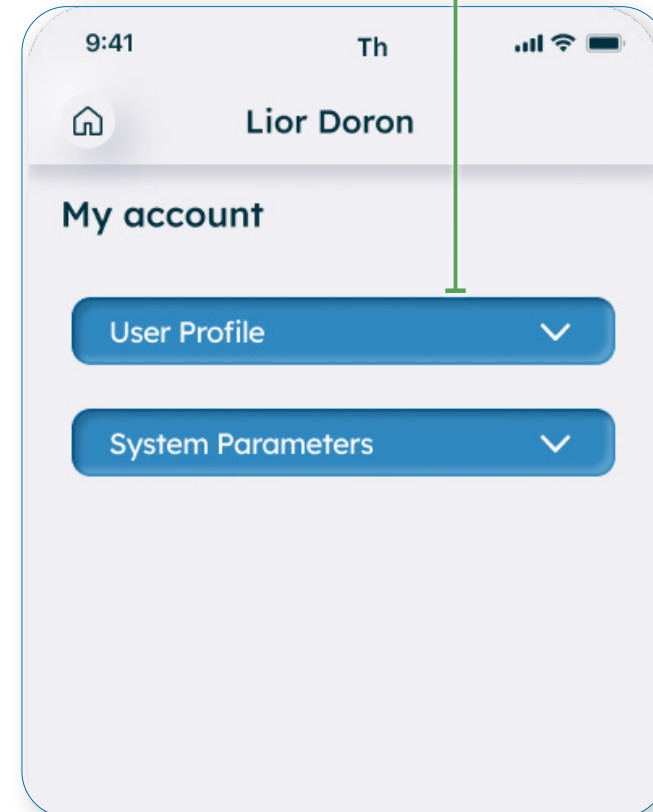
Perform the following steps to set up an account:

User Profile

1. Tap the **User Info** icon



2. Tap the **User Profile** tab



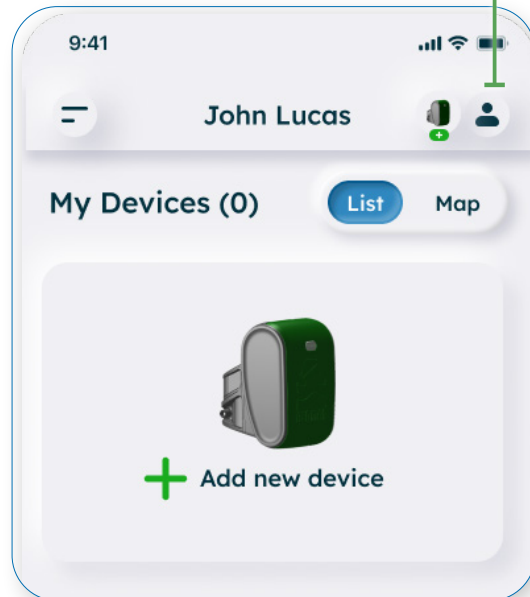
3. Enter the user profile details

A screenshot of the app showing the 'User Profile' form. The user's name is 'Lior Doron'. Below the name, there's a blue header with 'User Profile' and a back arrow. The form contains several input fields: 'First name', 'Last name', 'Username (e-mail)', and 'Phone Number'. Each field has a label and a text input area. At the bottom right, there's a green 'Save' button. A green line points from the instruction box to the 'Save' button.

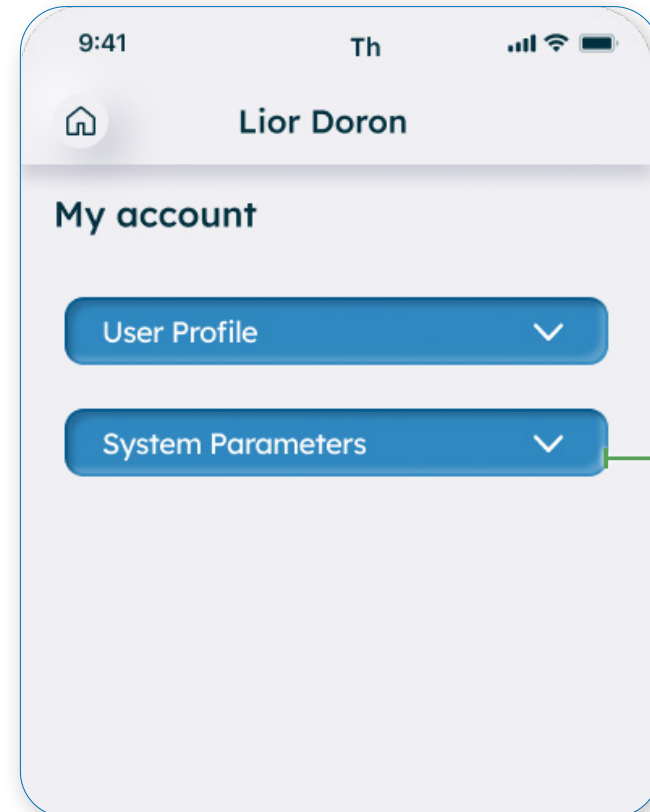
4. Tap **Save**

System Parameters

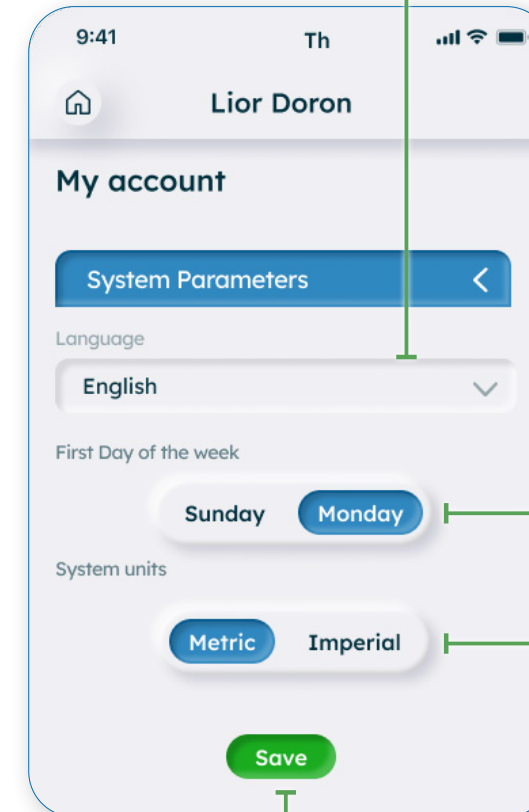
1. Tap the **User Info** icon



2. Tap the **System Parameters** tab



3. Select the preferred language



4. Select the first day of the week displayed in the application calendar

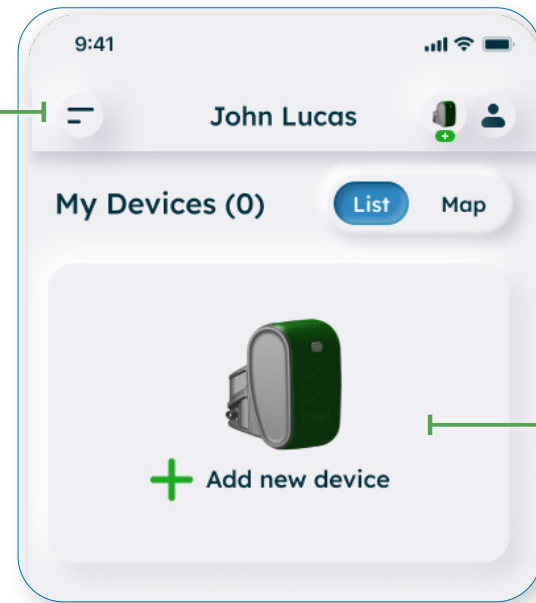
5. Select the preferred system units (Metric or Imperial)

6. Tap **Save**

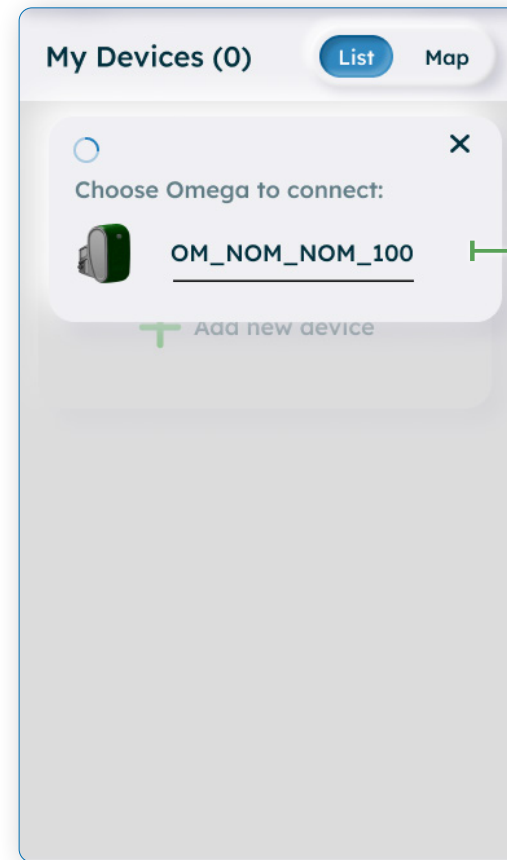
Adding Controllers

Perform the following steps to add a new controller to the selected site:

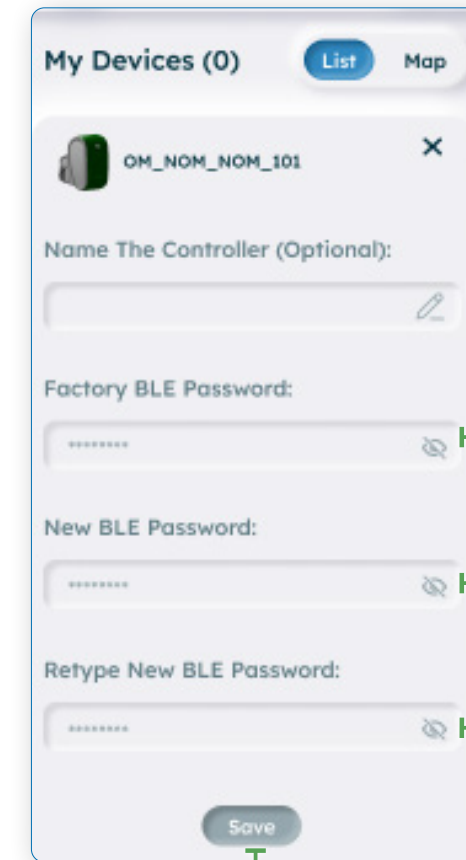
1. Select the required site from the menu icon



2. Tap the **Plus** button to add a controller



3. Verify the controller is detected via Bluetooth



4. Enter the Controller name

5. Displays the default Bluetooth password

6. Enter **123456** as the new Bluetooth password

7. Confirm **123456** as the new Bluetooth password

8. Tap **Save** to save the controller



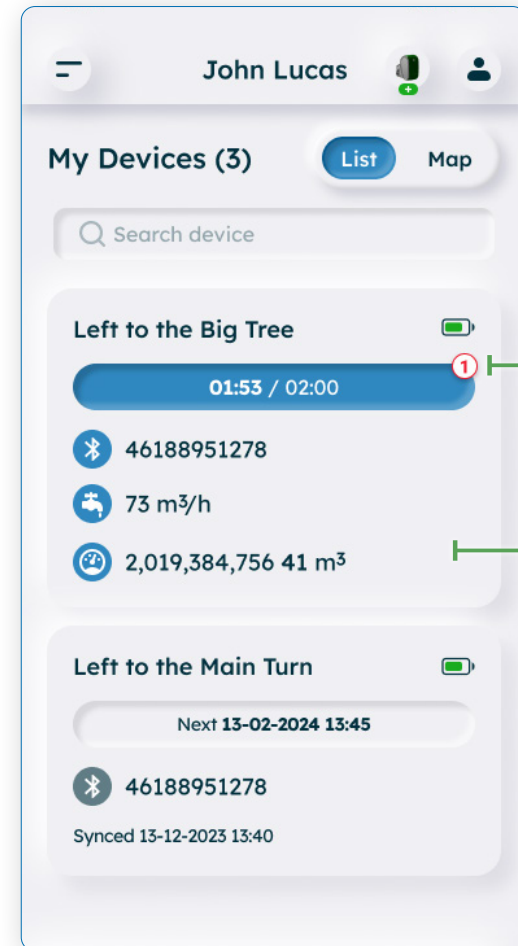
NOTE: After the password is changed, all users accessing the same controller must enter the current password (the last password set by the owner). Users who do not know the current password cannot access the controller.



NOTE: For first-time Bluetooth pairing, enter 123456 as the BLE password. After the initial connection, the BLE password can be changed.

Selecting a Controller

Perform the following steps to select a specific controller:



NOTE: The red number indicates the number of warnings or errors generated during an irrigation program. This counter resets after starting a new program or resolving the problem.

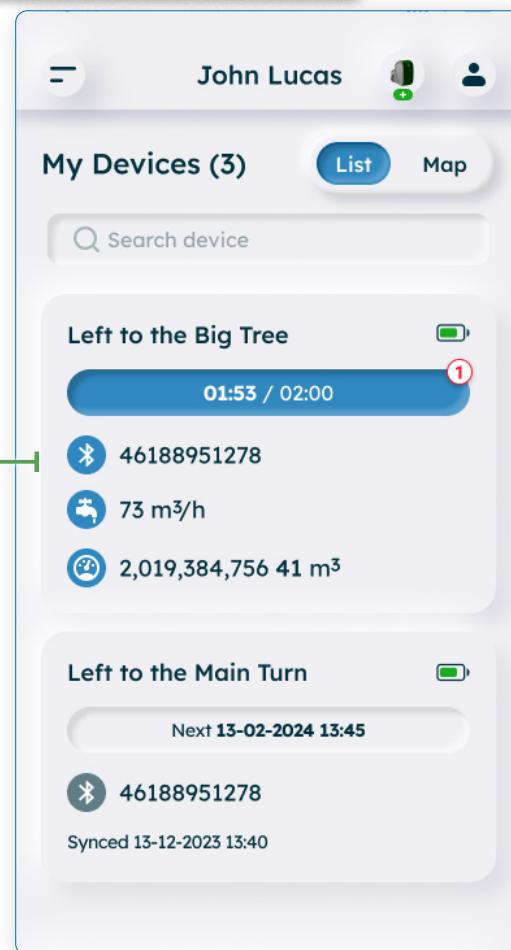
1. Tap the relevant controller from the list or map

2. The *controller status dashboard* is displayed

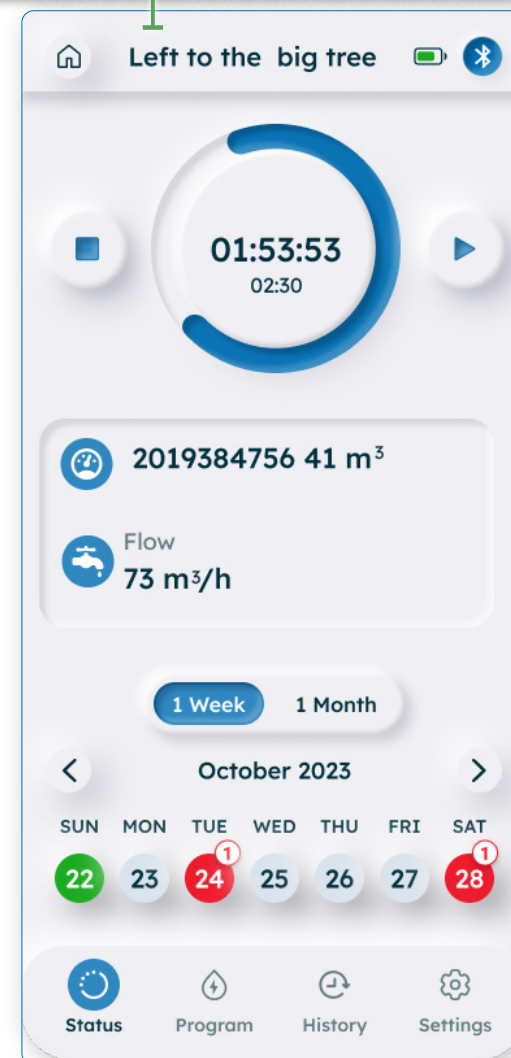
Controller Status Overview

The controller status dashboard includes the following:

1. Select the required controller from the status dashboard



2. The real-time controller operational status is displayed



Controller status includes:

- **Time** – displays the remaining time left of the program.
- **Stop/Start** – enables manually starting or stopping the program
- **Totalizer** – displays the cumulative measured volume.
- **Flow** – displays the real-time water flow rate.
- **1 week/1 month** – allows switching the display between weekly or monthly data.
- **Calendar** – displays active irrigation days using the following color coding:
 - **Green** - The irrigation program or the manually initiated operation was executed properly and completed successfully.
 - **Red** - The program was not completed successfully, or an alert was triggered during the irrigation process.

Manual Irrigation Operation

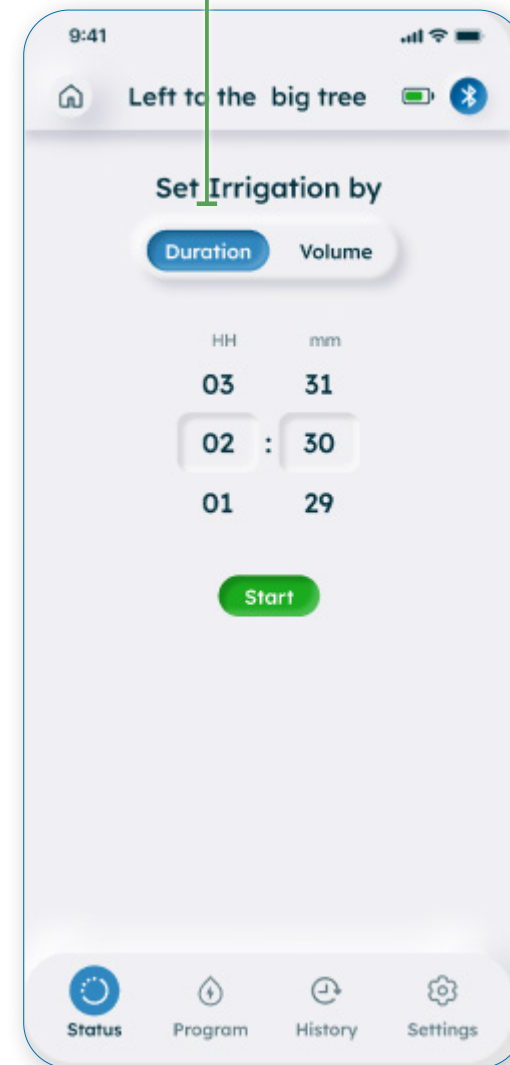
Perform the following steps to operate the irrigation manually by time or volume:

1. Verify the relevant controller is selected

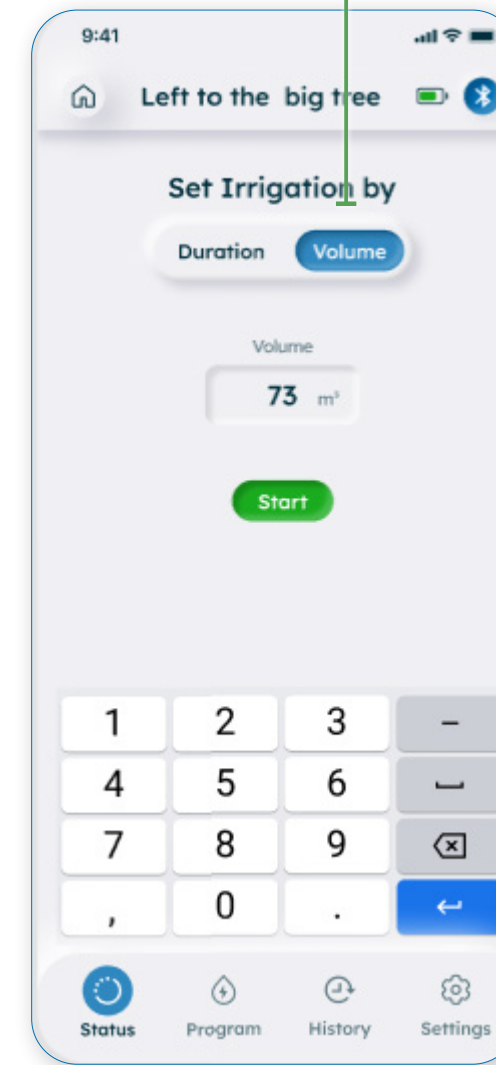


2. Tap the **Play** button to set the manual irrigation operation

3A. Tap the **Duration** option to run irrigation for a specified duration and then tap **Start**



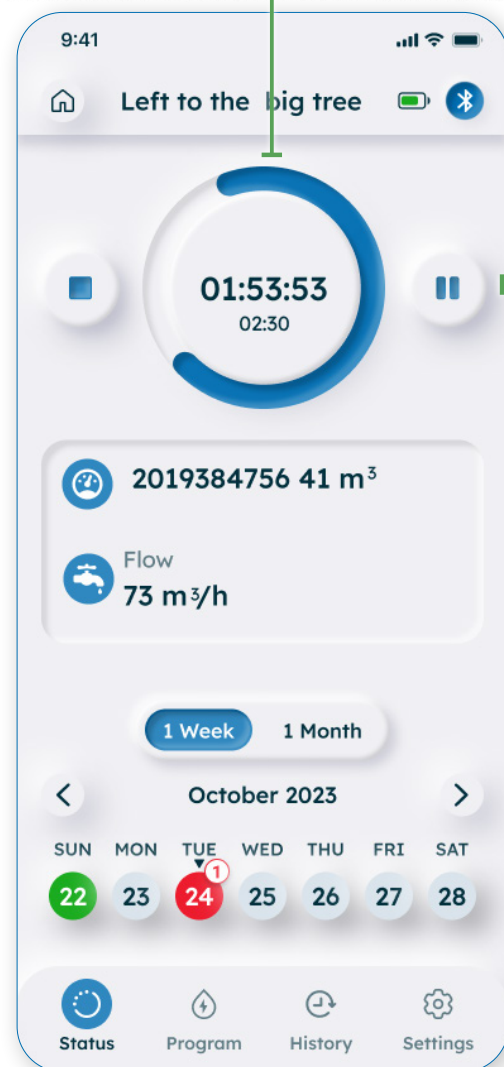
3B. Tap the **Volume** option to run the irrigation with a specified amount of water and then tap **Start**



Manual Irrigation Monitoring

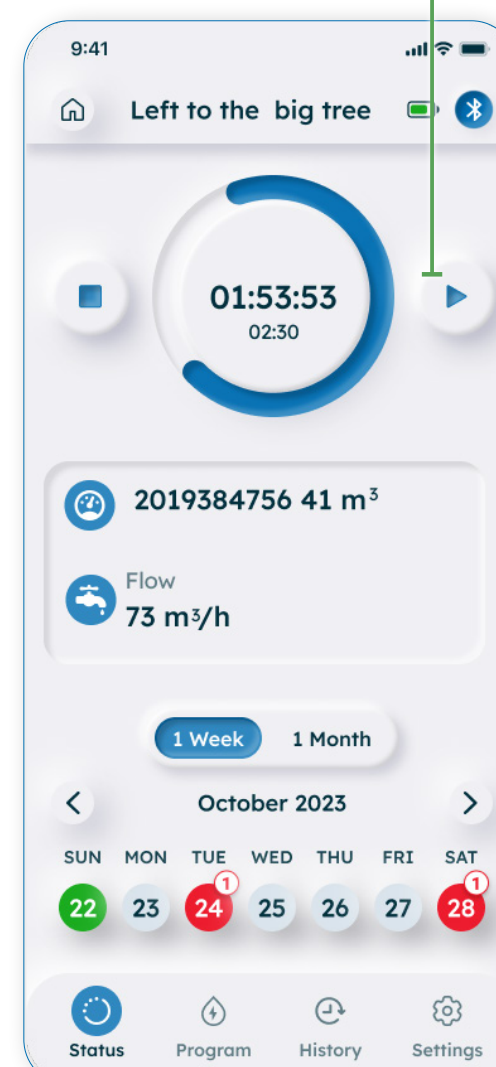
Perform the following steps to monitor and pause a manual irrigation operation:

1. Displays the status of a manually opened valve and provides real-time monitoring of the manual irrigation operation



2. Tap the **Pause** button to pause the manual irrigation operation

3. Tap the **Play** button to resume the manual irrigation operation when required



Manual Irrigation Operation

Creating a program includes the following steps:

1. Verify that the relevant controller is selected (see [Selecting a Controller](#))

3. Define the irrigation program type by days of the week or by cycle (see [Defining Irrigation Type](#))

4. Define when irrigation starts during the predefined irrigation days (see [Defining Cycle Type](#))

5. Define how the irrigation is measured and controlled (see [Defining irrigation Measuring Type](#))

2. Tap the **Program** tab

The screenshot shows the 'Program' configuration screen in the Omega-B mobile app. The screen is titled 'Left to the big tree' and has a status bar at the top. The 'Program' section is active, showing options for 'Type' (Week and Cycle), 'Days' (Su, Mo, Tu, We, Th, Fr, Sa), 'Irrigation Start' (Hours and Cyclic), and 'Irrigation by' (Duration and Volume). The 'Volume' option is selected, showing a value of 0 m³ and a time limit of 00:00. A 'Save' button is at the bottom. The bottom navigation bar shows 'Status', 'Program', 'History', and 'Settings'.

Program Workflow

Creating a program includes the following steps:

1. Verify that the relevant controller is selected (see [Selecting a Controller](#))

2. Tap the **Program** tab

9:41 Th

Left to the big tree

Program

Type

Week Cycle

Days

Su Mo Tu We Th Fr Sa

Irrigation Start:

Hours Cyclic

Starting Points

+

Irrigation by:

Duration Volume

Volume

0 m³

Time limit (optional)

HH mm

00 : 00

Save

Status Program History Settings

3. Define the irrigation program type by days of the week or by cycle (see [Defining Irrigation Type](#))

4. Define when irrigation starts during the predefined irrigation days (see [Defining Cycle Type](#))

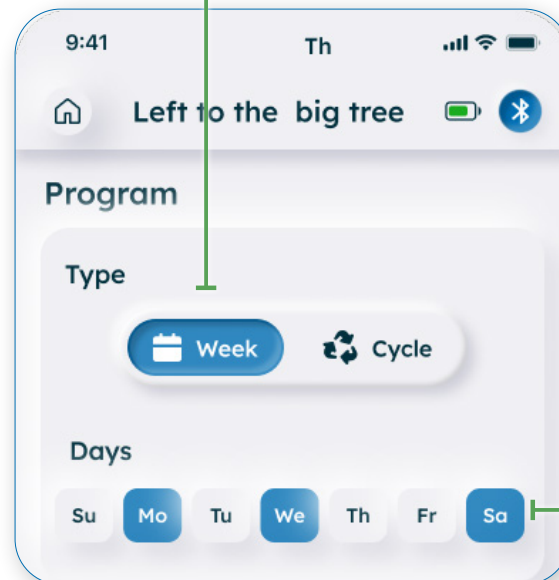
5. Define how the irrigation is measured and controlled (see [Defining irrigation Measuring Type](#))

Defining Irrigation Type

Define which days the irrigation program will run using one of the following two options:

Weekly Irrigation Type

1. Select the **Weekly** option to have the irrigation program run on certain days of the week



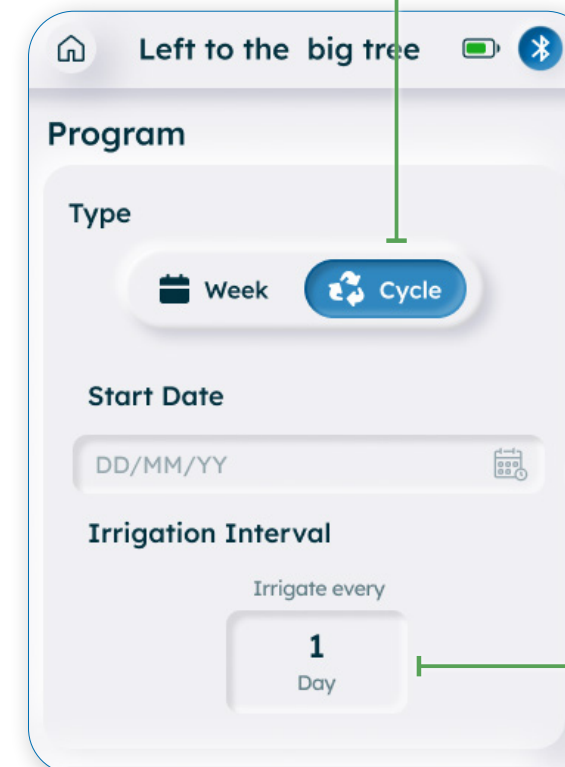
2. Select the days of the week



NOTE: Selected days are displayed in blue.

Cycle Irrigation Type

1. Select the **Cyclic** option to have the irrigation program run every set number of days



2. Select the date on which the irrigation cycle will start

3. Define the number of days between two irrigation days

Defining Cycle Type

Define when irrigation sessions occur during an irrigation day using one of the following two options:

Hours

1. Select the **Hours** option to have irrigation sessions occur at set times of the day

Irrigation Start:

Hours Cyclic

Starting Points

+

2. Click the **Plus** button to add a new irrigation time, up to 16 start times can be configured



NOTE: To remove a start time, select the time and delete it

Cyclic

1. Select the **Cyclic** option to have irrigation sessions occur every set number of hours

2. Set the time of the day to start the irrigation program

3. Define the amount of time between two irrigation cycles

4. Define the number of irrigation cycles to be performed during the irrigation program

Irrigation Start:

Hours Cyclic

Program start time

HH mm

02 : 30

Set time interval between irrigation cycles

HH mm

02 : 30

Set cycles per day

0

Defining irrigation Measuring Type

Define the method used to control the amount of water used during an irrigation session using one of the following two options:

Amount Measuring Type

1. Select the **Volume** option to have a water meter control the amount of water used per irrigation session

Irrigation by:

Duration

Volume

Volume

0 m³

Time limit (optional)

HH

mm

00 : 00

Save

2. Set the volume of water

3. Set the time limit if required

4. Tap **Save**

Duration Measuring Type

1. Select the **Duration** option to have a timer control the amount of water used per irrigation session

Irrigation by:

Duration

Volume

Watering Duration

HH

mm

02 : 30

Save

2. Set the irrigation duration

3. Tap **Save**

Basic Device Settings

This section reviews basic device settings and includes:

- [Controller Settings](#)
- [FOTA Process](#)
- [Water Meter Settings](#)
- [Irrigation Restrictions Settings](#)

Controller Settings

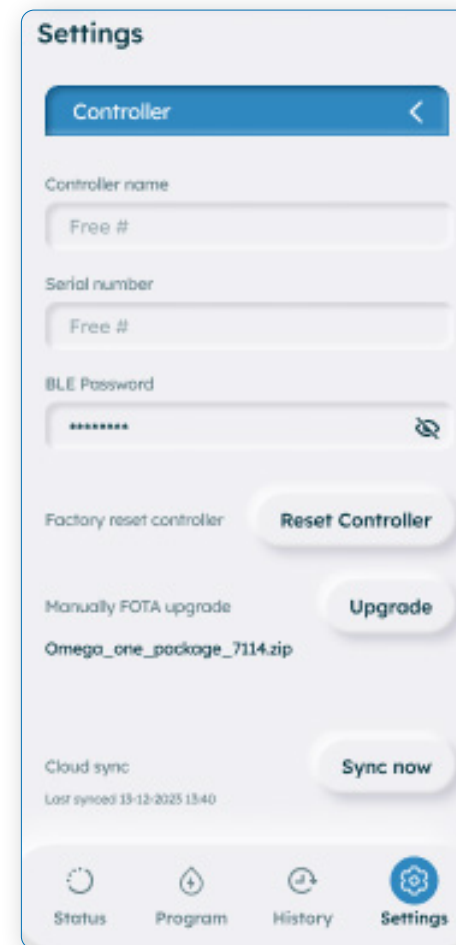
Perform the following steps to view and modify controller settings:

1. Verify that the relevant controller is selected (see [Selecting a Controller](#))



3. Tap the **Controller** tab from the menu

2. Click the **Settings** icon



Controller Settings include:

- **Controller name** – displays the name of the controller
- **Serial number** – displays the unique identification number of the device. This field cannot be edited.
- **BLE password** – displays the Bluetooth pairing password. Changing the password automatically restarts the controller.
- **Manually FOTA upgrade** – enables a manual firmware update using a firmware file provided by BERMAD and stored locally on the mobile device.



NOTE: After cloud integration, firmware updates will be performed using Firmware Over-the-Air (FOTA), eliminating the need to store a firmware file on the device.



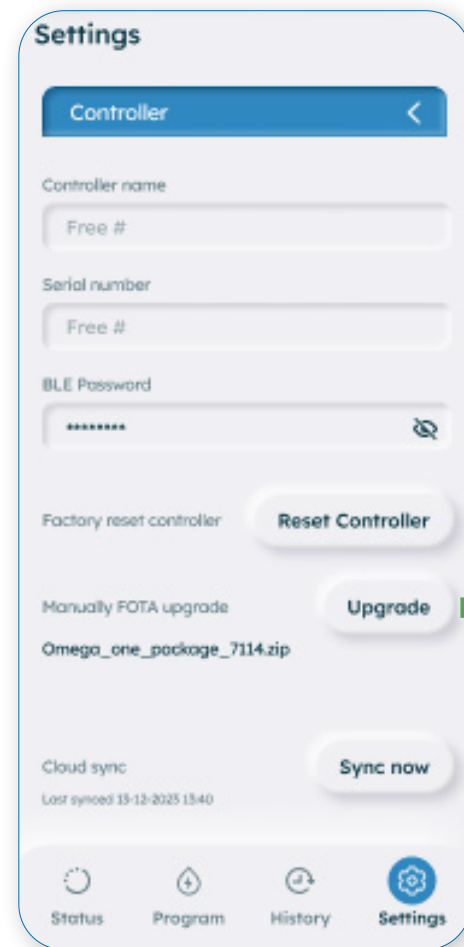
NOTE: After a firmware update, the controller automatically restarts and performs the same automatic test that runs when the batteries are removed and reinserted.

- **Cloud sync** – enables cloud synchronization

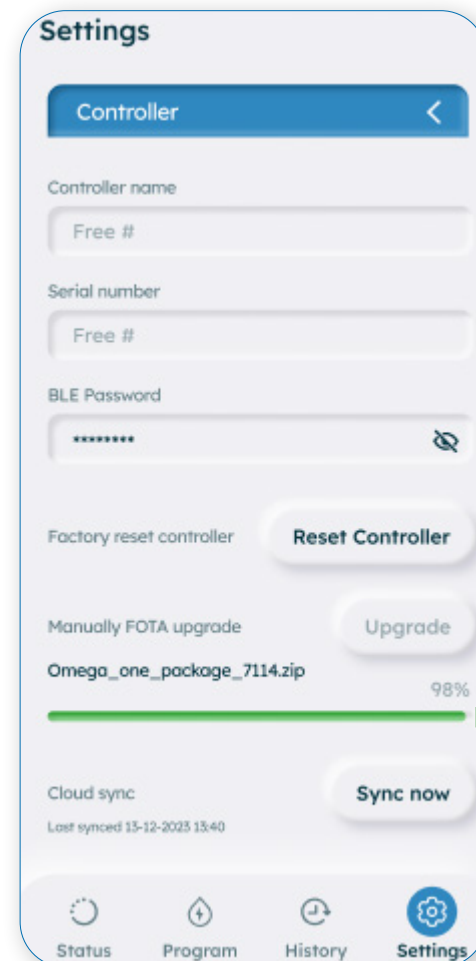
FOTA Process

This section displays the FOTA process screens:

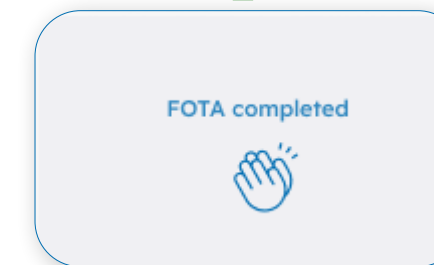
1. Tap the Upgrade button to start the FOTA upgrade process



2. Wait while the controller firmware is being upgraded. Do not close the application or interrupt the upgrade process



3. When the upgrade is complete, the following confirmation screen is displayed



Water Meter Settings

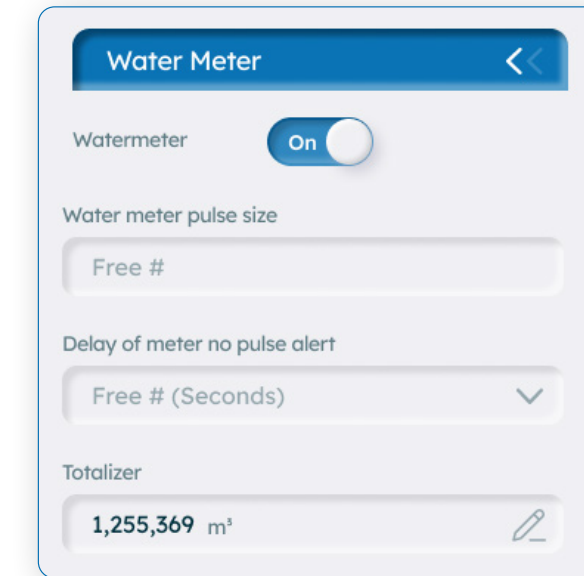
Perform the following steps to view and modify water meter settings:

1. Verify that the relevant controller is selected (see [Selecting a Controller](#))



2. Click the **Settings** icon

3. Tap the **Water Meter** tab from the menu



NOTE: Before configuring the water meter in Omega -B, ensure the settings match those of the water meter.

Water Meter Settings include:

- **Water meter** – For Omega - B, the toggle is fixed to ON
- **Water meter pulse size** – defines the volume of water which has to flow through the water meter to transmit a pulse
- **Delay of meter pulse alert** – amount of time before a pulse is transmitted when there is no water flow through the meter
- **Totalizer** – displays the accumulated total volume of water that has passed through the meter

1,255,369 m³

High pulse rate ☒

Water leak alerts ☒

Number of pulses to activate leak alert
Choose # from a list

Reaction to leak alert
Choose from a list

Valve flow alert ☒

Reaction to no pulse alert
Choose from a list

Flow alert delay
Free (Seconds)

Low flow alert threshold
Free m³/h

Low flow alert reaction
Choose from a list

High flow alert threshold
Free m³/h

High flow alert reaction
Choose from a list

Save

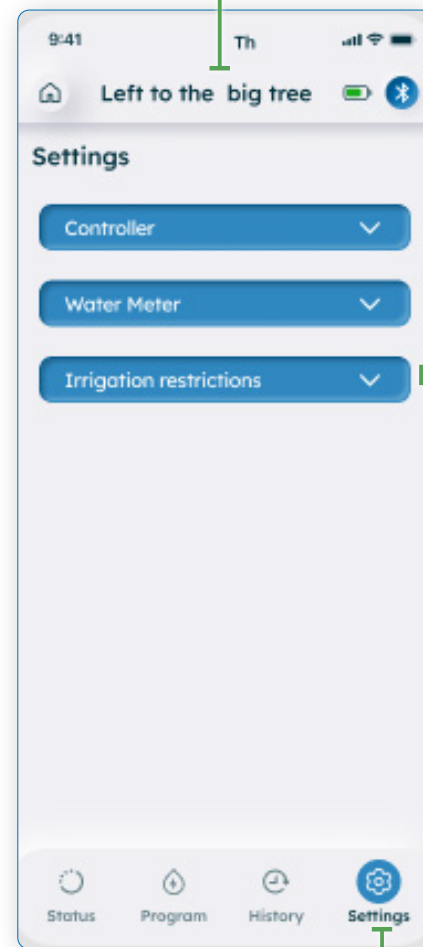
Water Meter Settings (Continued):

- **High pulse rate** – enables high speed pulses when using a meter with a transistor pulse
- **Water leak alerts** – enables or disables the water leak alerts
- **Number of pulses to activate leak alert** – defines the number of pulses required to trigger a leak alert
- **Reaction to leak alert** – displays the action taken when a leak alert is triggered
- **Valve flow alert** – enables or disables the valve flow alert
- **Reaction to no pulse alert** – displays the action taken when no pulses are detected
- **Low flow alert threshold** – displays the flow rate limit for triggering a low flow alert.
- **Low flow alert reaction** – displays the action taken when a low flow alert is triggered.
- **High flow alert threshold** – displays the flow rate limit for triggering a high flow alert.
- **High flow alert reaction** – displays the action taken when a high flow alert is triggered.
- **Save** – saves and applies the current settings

Irrigation Restrictions Settings

Perform the following steps to view and modify the irrigation restrictions settings:

1. Verify that the relevant controller is selected (see [Selecting a Controller](#))



3. Tap the **Irrigation restrictions** tab from the menu

2. Click the **Settings** icon



Irrigation Restrictions Settings include:

- **Irrigation season** – defines the active period for permitted irrigation.
- **Prohibition dates for irrigation** – defines dates when irrigation is not allowed.
- **Allowed irrigation hours** – defines the time window when irrigation is permitted.
- **Disable days** – defines specific days when irrigation is not allowed.

5. MONITORING

This section reviews monitoring the alerts history and includes:

- [History Screen](#)
- [Alerts](#)

History Screen

Perform the following steps to view all controller history:

2. Select the desired time range to view the recorded history

1. Tap the **History** tab

Left to the big tree

History

1 day 1 Week 1 Month 1 year

Chart List

Alerts Irrigation System

Date	Time	Value	Notes
6.3.25	19:00	25 m³	High flow
6.3.25	08:35	25 m³	Manual
6.3.25	19:00	25 m³	Program End
3.3.25	19:00	25 m³	Low flow
6.3.25	08:00		FOTA Start
6.3.25	19:00		FOTA End
6.3.25	08:35		Reset Controller
6.3.25	08:35	Nadav Siboni	Login
6.3.25	08:00		Water Leak

Status Program History Settings

5. Displays the controllers history and information

3. Allows for viewing the data in a chart or list form

4. Allows filtering the data according to the specified categories see Alerts

5. Displays the controllers history and information

9:41

Left to the big tree

History

1 day 1 Week 1 Month 1 year

< Nov 28, 2023 - Dec 28, 2023 >

225 225 153 225

28/11 05/12 12/12 21/12

Date	Time	Quantity	Notes
29/10	19:00	25 m³	High flow
29/10	19:00	25 m³	Completed
29/10	19:00	25 m³	Completed
29/10	19:00	25 m³	Low flow

Status Program History Settings

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Alerts

The history data is organized into the following three categories:

Alerts history – displays recorded alerts including the alert date, time, and related details

☒ Alerts ☐ Irrigation ☐ System

Date	Time	Value	Notes
6.3.25	08:00		Water Leak
6.3.25	11:00	25 m³	Low flow
6.3.25	13:00	25 m³	High flow
6.3.25	16:00	25 m³	No Pulse
6.3.25	19:00		Critical battery
6.3.25	19:00		Capacitor failure
4.3.25	19:20		Low battery

Irrigation history – displays recorded irrigation events, including irrigation date, time, and related details

☐ Alerts ☒ Irrigation ☐ System

Date	Time	Value	Notes
6.3.25	08:00		Program Start
6.3.25	19:00	05:35 hh	Program End
6.3.25	19:00	73 m³	Program End
1.2.25	08:35	01:38 hh	Manual
1.2.25	08:35	73 m³	Manual
1.2.25	08:35	High flow	Pause
1.2.25	08:35		Resume

System history – displays recorded system events, including date, time, and related details

☐ Alerts ☐ Irrigation ☒ System

Date	Time	Value	Notes
6.3.25	08:00		FOTA Start
6.3.25	19:00		FOTA End
6.3.25	08:35		Reset Controller
6.3.25	08:35	Nadav Siboni	Login
6.3.25	06:34		Clock Update
6.3.25	06:34		Controller Paired
6.3.25	06:34		Controller Unpaired
6.3.25	06:34		Config Error
6.3.25	06:34		General Error
6.3.25	06:34		N/A

When all three options are selected all alerts are displayed

☒ Alerts ☒ Irrigation ☒ System

Date	Time	Value	Notes
6.3.25	19:00	25 m³	High flow
6.3.25	08:35	25 m³	Manual
6.3.25	19:00	25 m³	Program End
3.3.25	19:00	25 m³	Low flow
6.3.25	08:00		FOTA Start
6.3.25	19:00		FOTA End
6.3.25	08:35		Reset Controller
6.3.25	08:35	Nadav Siboni	Login
6.3.25	08:00		Water Leak
6.3.25	16:00	25 m³	No Pulse
6.3.25	19:00		Low battery
6.3.25	08:35	Nadav Siboni	Logout

6. TROUBLESHOOTING

Issue	Symptom	Possible Cause	Corrective Action
Controller Does Not Power On	LED does not flash after battery installation	Batteries are depleted	Replace both batteries with new AA alkaline or lithium batteries.
	LED does not flash after battery installation	Incorrect battery polarity	Verify battery orientation according to the markings inside the battery compartment.
	Controller remains inactive	Poor battery contact	Remove and reinstall the batteries.
Automatic Test Fails	LED flashes once but test does not complete	Water meter not connected	Verify water meter wiring.
	Controller opens valve but successful test indication is not received	No water meter pulses detected	Verify meter pulse configuration and wiring.
	Automatic test does not start	Solenoid or meter not connected	Wait 30-40 seconds for controller initialization.
Cannot Find Controller via Bluetooth	Controller not detected	Bluetooth disabled on mobile device	Enable Bluetooth.
	Controller not detected	Controller batteries depleted	Replace batteries.
	Controller not detected	Controller is under auto test	Wait until the auto test is completed and scan again.
Valve Does Not Open During Irrigation	Irrigation program/manual operation starts but solenoid didn't react	Solenoid wiring reversed	Verify V+ and V- wiring polarity, inspect cable connectors and wiring.
Water Meter Values Are Incorrect	Flow rate too high or too low	Incorrect pulse size configuration	Verify the water meter pulse size setting.
	Totalizer value is inaccurate	Incorrect meter setup	Configure settings according to the meter manufacturer's specifications.
	No flow readings	Water meter disconnected	Check wiring and connections.
Irrigation Does Not Run Automatically	Program never starts	No irrigation days configured	Verify the weekly or cyclic schedule.
	Program does not run on certain days	Irrigation Restrictions enabled	Check prohibited dates and disabled days.
	Program starts outside expected hours	Incorrect controller time settings	Verify date, time, and time zone settings.
	Controller remains inactive	Outside irrigation season	Verify irrigation season settings.

Issue	Symptom	Possible Cause	Corrective Action
Alerts Are Triggered Repeatedly	Leak Alert	Water continues flowing unexpectedly	Inspect field piping and valves and check water leak alert settings
	High Flow Alert	Excessive flow rate or wrong thresholds	Verify valve operation and system demand and alerts thresholds in settings
	Low Flow Alert	Restricted flow or blocked line or wrong thresholds	Inspect filters, pipes, and valves and alerts thresholds in settings
	No Pulse Alert	Meter not sending pulses	Verify meter wiring and operation.

7. FAQ

- **How long do the batteries last?**

Battery life depends on controller activity, irrigation frequency, Bluetooth usage, and environmental conditions. Replace batteries before the start of each irrigation season for best performance.

- **Can the controller operate without an internet connection?**

Yes. The Omega-B supports offline operation and stores operational data locally. Cloud synchronization occurs when a Bluetooth-connected mobile device uploads data to the cloud.

- **Does the controller require a water meter?**

The controller is designed to support a water meter for monitoring, alerts, and volumetric irrigation.

- **Can irrigation be started manually?**

Yes. Irrigation can be started or stopped manually from the controller dashboard.

- **What happens after a firmware upgrade/changing controller name/setting a new password?**

The controller automatically restarts after the upgrade and performs the same initialization test that occurs after battery installation.

- **What if I forget the Bluetooth password?**

Contact the system owner or BERMAD support. After cloud integration, a user will be able to reset his own password.

- **Why is my controller not irrigating on a scheduled day?**

Check the following:

- Irrigation season settings.
- Prohibited irrigation dates.
- Disabled days.
- Program configuration.
- Battery condition.

- **Is the controller waterproof?**

Yes. The controller enclosure is rated IP68 for outdoor installations (1m for 24h)

- **When do I need to enable high pulse rate?**

Whenever you are using water meter with short pulses (≤ 200 msec)

- **What does Omega B kit include?**

Controller, bracket for small diameter solenoids, 4 cables connector

LED Indications Quick Reference

LED Behavior	Meaning
Single flash after battery insertion	Initialization started.
Three discontinuous flashes during test	Water meter pulses received.
Single flash after test	Test completed successfully.
LED light is on constantly	Someone is connected to the controller. You need to make sure you disconnect from the controller at the end of use so that the controller is available for use.
LED light is off	Does not indicate whether something is wrong with the controller. The controller is in this state most of the time.

8. SPECIFICATIONS

The Omega - B controller includes the following specifications:

Power source – 2* 1.5 V AA Alkaline / Lithium batteries

Data logging – more than 150,000 records

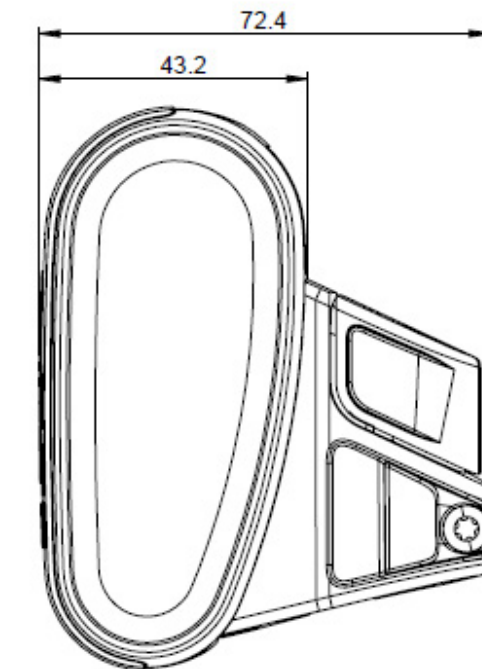
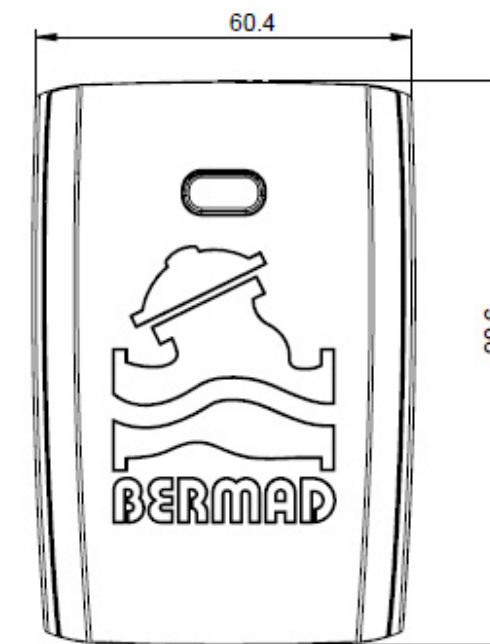
Firmware upgrades – periodic over the air/manual firmware upgrades (FOTA)

Environment – outdoor Installation: IP68 rated with UV protection

Standards compliance – CE & FCC

Compatibility – compatible with mechanical & digital pulse output & electromagnetic flow meter (High pulse)

Dimensions (mm)



9. WARRANTY

BERMAD Standard International Limited Warranty

Product Details: Omega - B irrigation controller (the "**Product**")

BERMAD CS LTD. ("**BERMAD**") warrants that, for a period of 24 months from the retail purchase date of the original (first) purchaser (the "**Warranty Period**"), each component of the Product shall be free from defects in material or workmanship and the Product shall meet in all material respects its specification as detailed in BERMAD documentations.

General Conditions

This warranty shall be valid only if the Product is installed, handled and maintained in accordance with BERMAD's written manual provided together with the Products or publish on BERMAD website.

This Warranty does not cover defects or damages resulting from accident, inappropriate physical or operational environment, failure of electrical power, 'acts of nature' (which includes but is not limited to, hail, lightning storm, blizzard, flood and fire effects), improper installation, maintenance, service, repair, transportation, storage, modification, operation, use, damage by animals, negligence or fault by any party other than BERMAD.

This Warranty shall run solely to and in favor of the customer that purchased the defective Product directly from BERMAD (or any of its authorized dealers), and it does not extend to any other purchaser or user of the Product.

Claims, Notifications and Compensation

Every warranty claim must be notified in writing to BERMAD (or to the relevant authorized dealer from which the Product was purchased) as soon as reasonably possible after the discovery of the defective Product, enclosing the original sales receipt and this Warranty.

The claimant must allow BERMAD to inspect the Product involved and the installation site itself while the Product is still in its original position and has not been removed or altered in any way and/or return the Product to BERMAD for testing. BERMAD reserves the right to investigate independently the cause of any failure.

If a claim under this Warranty is properly notified within the Warranty Period and found to be justified by BERMAD, then BERMAD, at its sole option, shall: (i) replace such Product; or (ii) repair such Product.

In any way, BERMAD's liability shall not exceed the amounts actually paid by the customer to BERMAD (or to any of its authorized dealers) for the defective Products.

Limitations

This Warranty is the sole warranty in respect to the Products.

Under no circumstances shall BERMAD be liable for any indirect, special or consequential damages, including, without limitation, for any loss of profit, loss in connection with business interruption, loss of use, loss of revenues or damage to business or reputation.

This warranty does not cover any costs and expenses of removal and installation of the Product or shipping cost or taxes or any other direct or indirect loss(es) which may result from the Product failure and BERMAD shall not be liable for such costs and expenses.

OTHER THAN HAS BEEN SPECIFICALLY STATED IN THIS WARRANTY, ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING ALL IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED SO FAR AS THE LAW PERMITS.

OMEGA Thank you!



Irrigation



www.bermad.com

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