













ANDROID

App User Manual



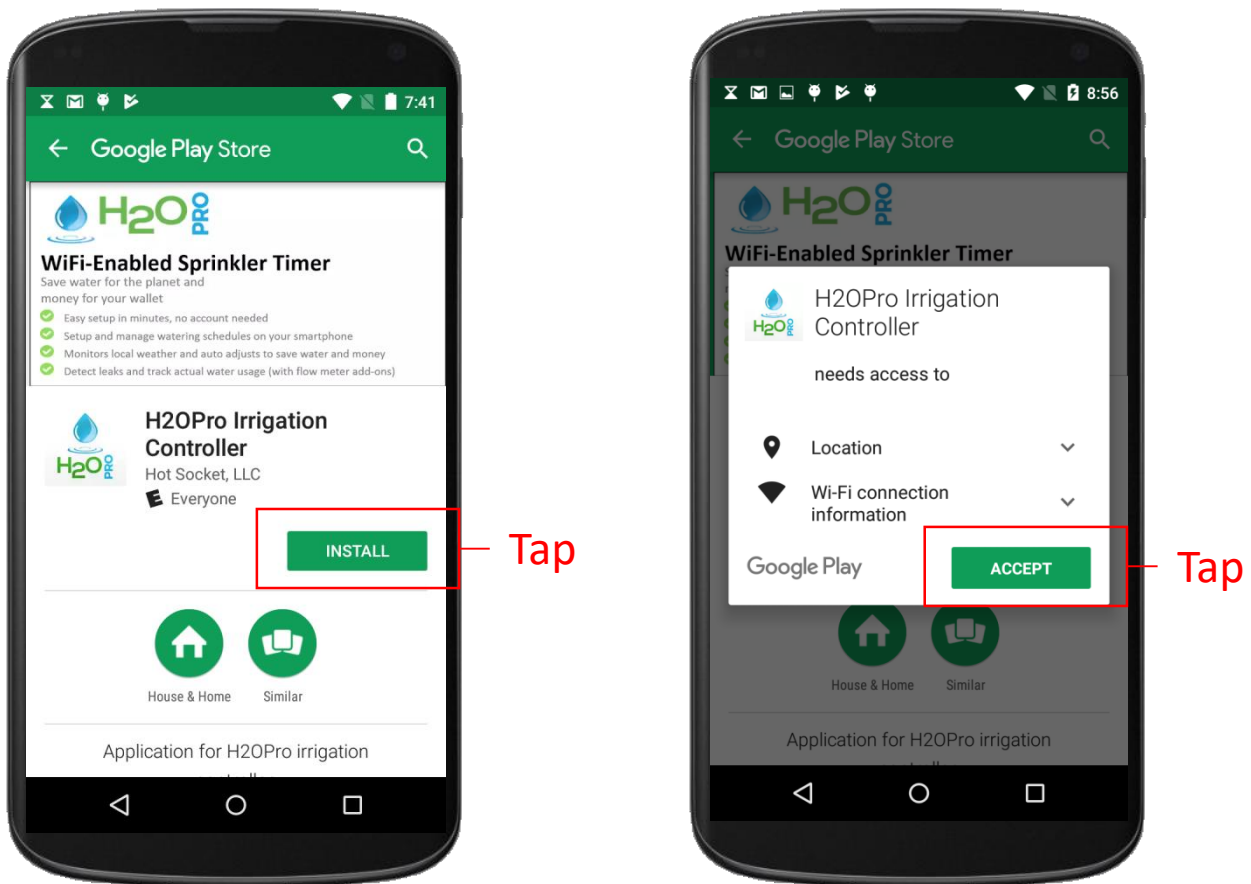
WaterSense mode capable version

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Android App Install

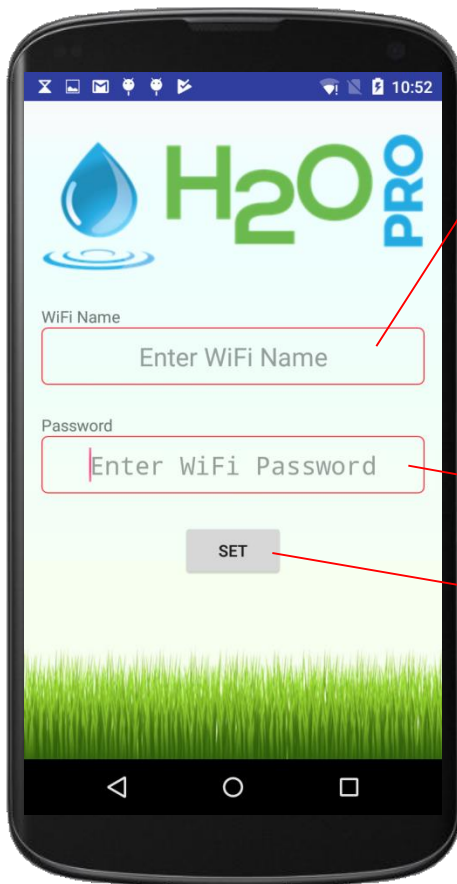
- Download the H2OPro App from Google play and install on your device.



*** Location and WiFi connection information are required by App to assist with device setup. Information is never sent to the cloud or shared with anyone.**

Startup

- The device running the H2OPro App must be connected to the same WiFi network to which you want to connect the H2OPro controller (e.g., your home network).
- When the H2OPro System is plugged in for the first time, it will enter configuration mode. When the H2OPro App is launched for the first time it will detect that the system requires configuration and will enter the device configuration mode as shown below.



1. Enter WiFi network name

The name of the network that your device is typically connected to will be automatically entered. If no name appears, enter the name yourself.

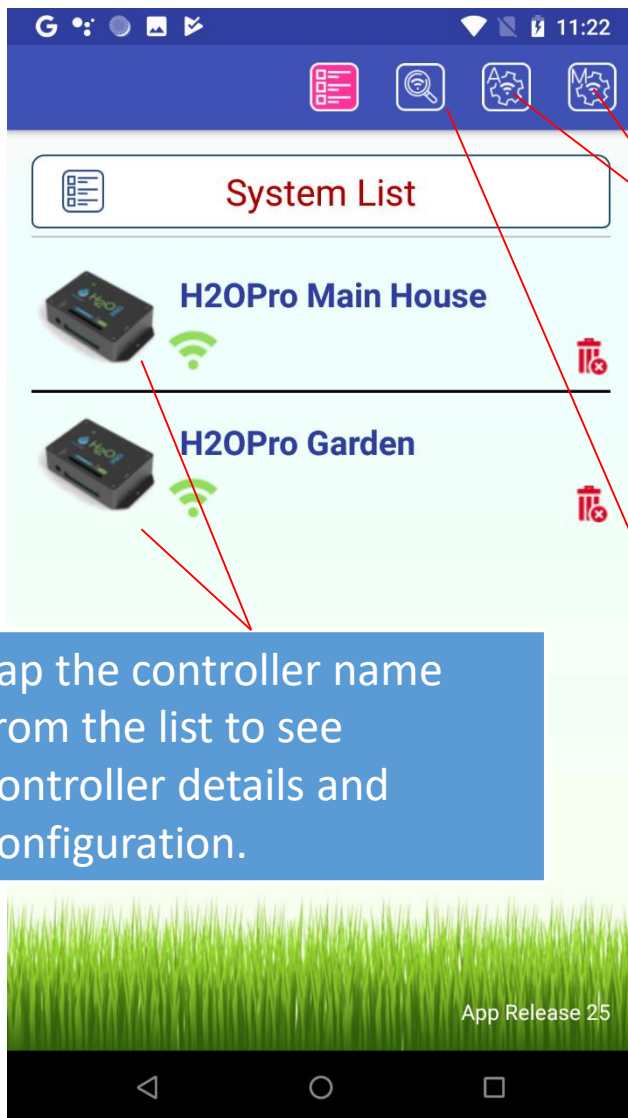
2. Enter WiFi Password

3. Tap SET



System List

- The system list page will show all of the H2OPro controllers connected to the same WiFi network as your device.



Tap one of the WiFi setup modes (Auto or Manual) to configure the WiFi network for an H2OPro controller.



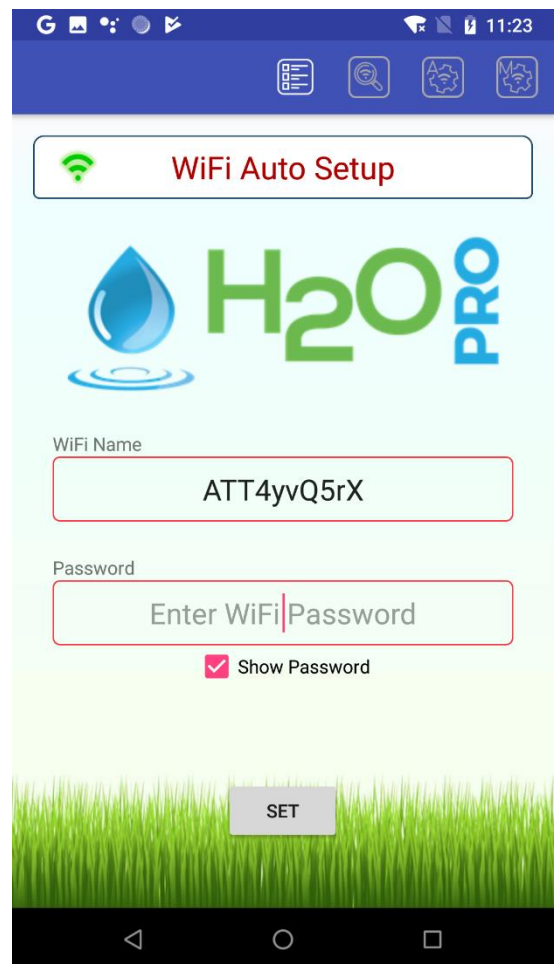
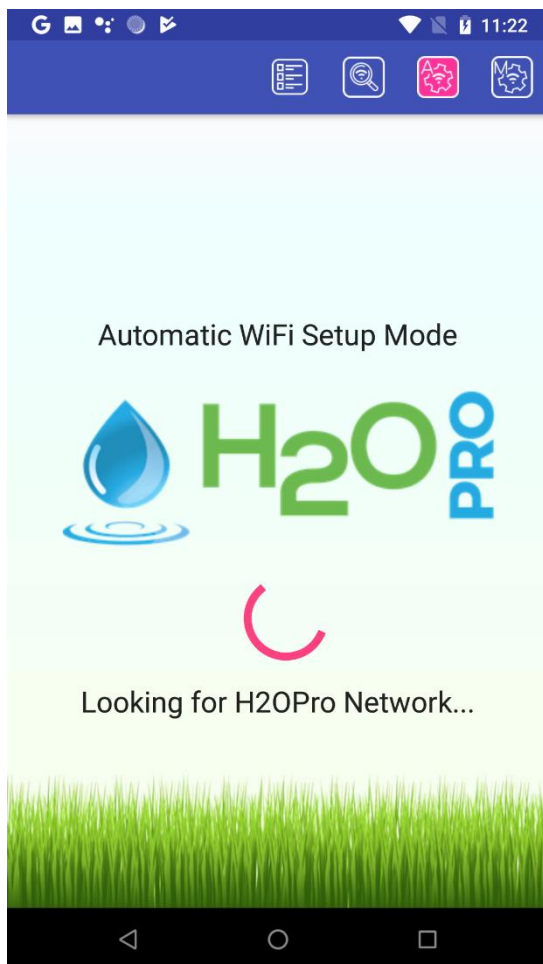
Tap SEARCH to find all the H2OPro controllers configured on the same network as your device.

Tap the controller name from the list to see controller details and configuration.



WiFi Auto Setup


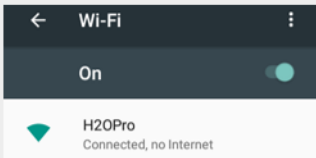
- The WiFi auto setup function will automatically switch the mobile device to the H2OPro network. In this mode the primary network for the mobile device is automatically entered in the WiFi name box, and then all you need to do is enter the network password, if required.

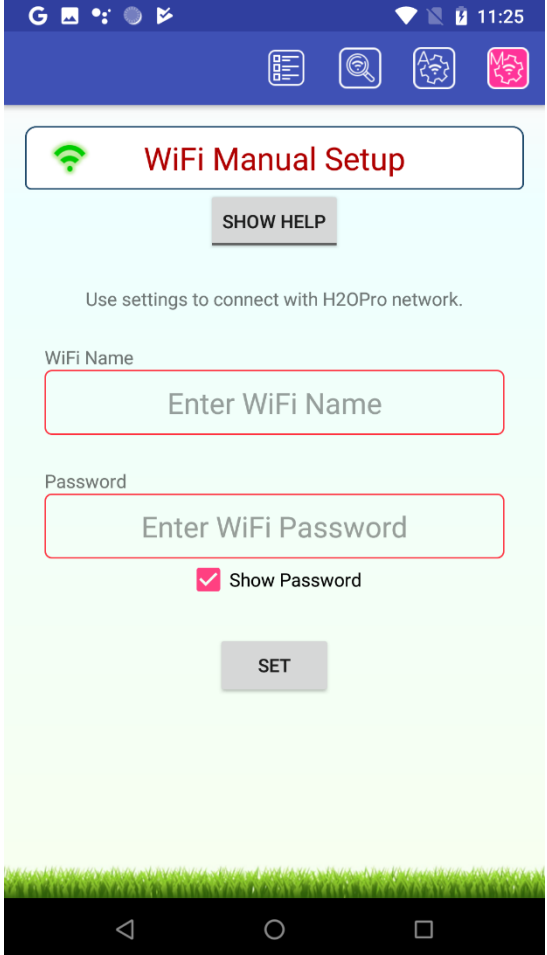




WiFi Manual Setup

- The WiFi manual setup function requires that you switch the mobile device network connection to the H2OPro network in the Android WiFi settings. In this mode you need to enter the primary network name and password that you want the H2OPro to connect to, and then tap the set button.

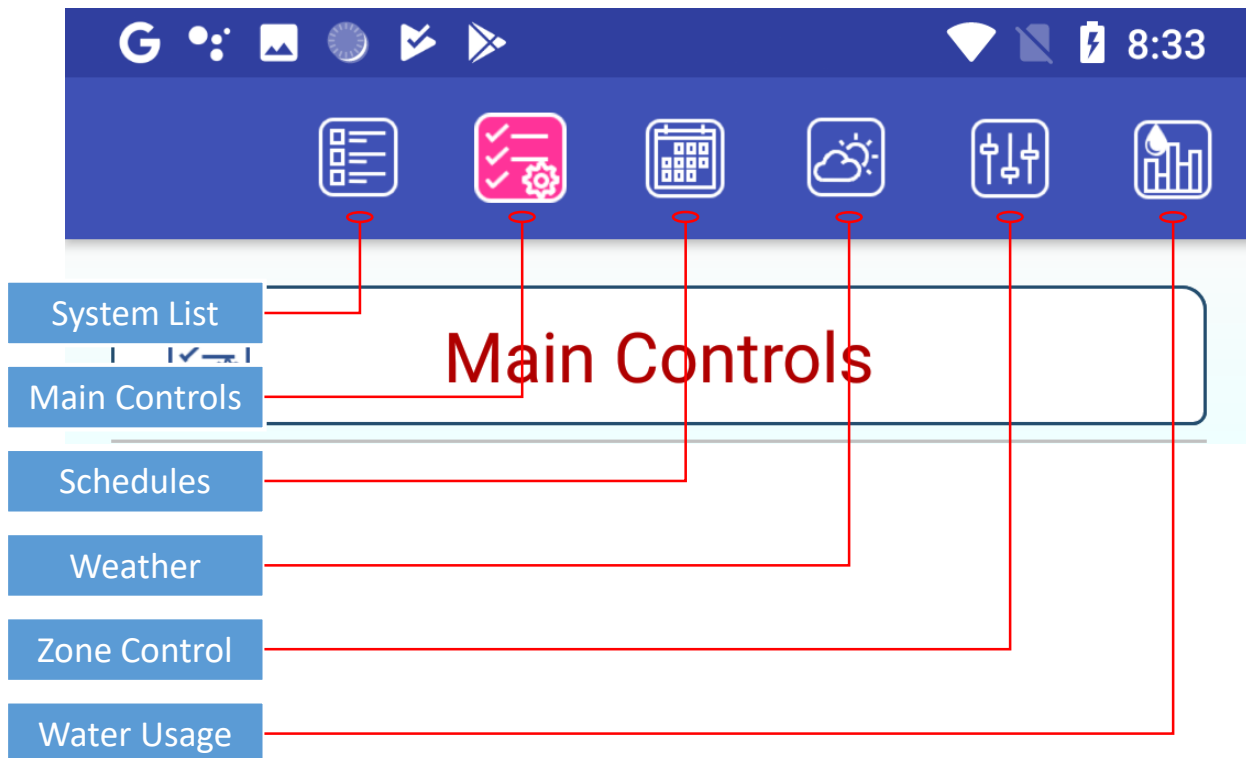
1. Verify H2OPro Wi-Fi Light is Blinking
2. Go to Android OS Settings 
3. Connect to H2OPro Network

4. Enter Network Name and Password
5. Tap SET



The screenshot shows the 'WiFi Manual Setup' screen. At the top, there's a header with a Wi-Fi icon and the title 'WiFi Manual Setup'. Below the header is a 'SHOW HELP' button. The main text says 'Use settings to connect with H2OPro network.' There are two input fields: 'WiFi Name' with the placeholder 'Enter WiFi Name' and 'Password' with the placeholder 'Enter WiFi Password'. Below the password field is a checkbox labeled 'Show Password' which is checked. At the bottom is a 'SET' button. The screen has a blue top bar with various icons and a green grass border at the bottom.

System Control Menu

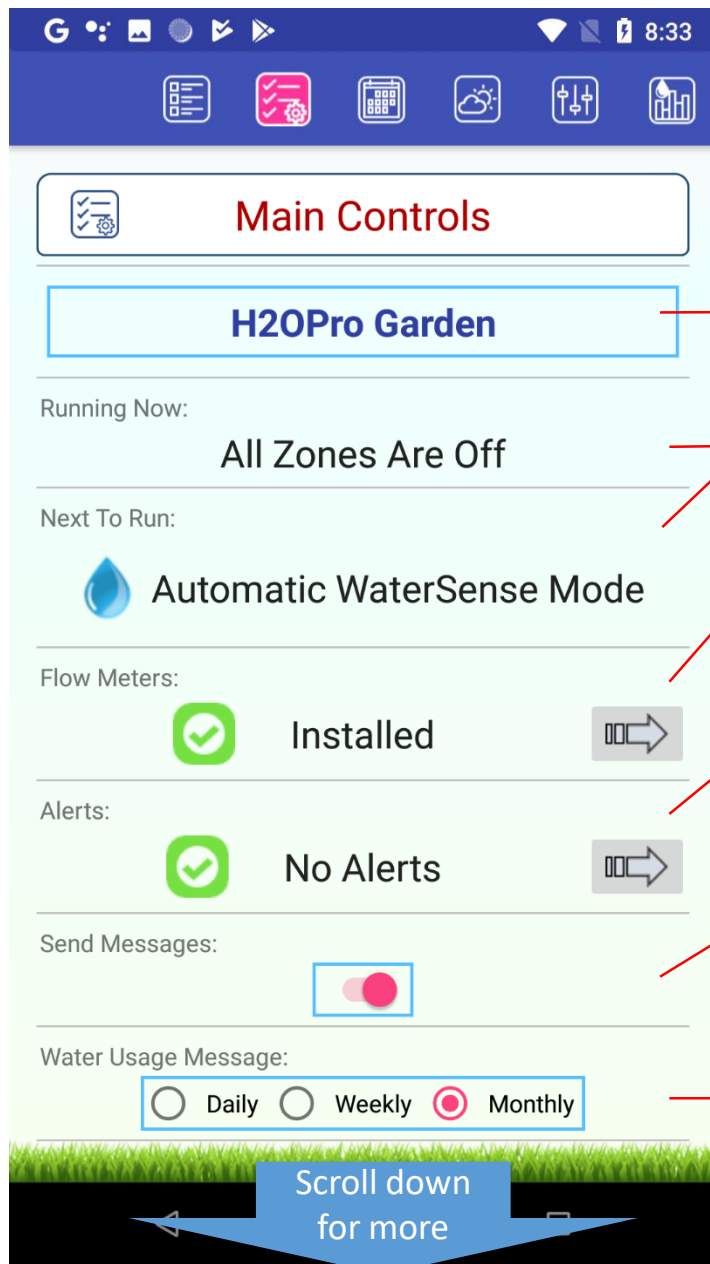
- After selecting a particular controller from the system list, the system control menu will be displayed. The system control menu allows access to all H2OPro functions.





Main Controls

- The main controls page provides access to most of the general settings for the H2OPro and displays the current watering action and next scheduled watering.



System name, TAP to change name

Current system activity

Flow meter configuration, TAP arrow to see additional details.

System alerts, TAP arrow to see alert details

Enable/disable alert messages to be sent to be sent as an e-mail or as a mobile text message

A water usage message is sent to email or SMS on this schedule if send messages is enabled.



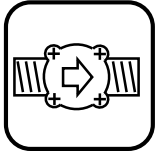
Main Controls Cont.

- Additional main controls are available by scrolling the screen position.

The screenshot displays the 'Main Controls' section of the 'H2OPro Garden' app. The interface includes a status bar at the top with the time 8:33 and various icons. Below the title bar, there are several settings sections: 'Send Messages' with a toggle switch, 'Water Usage Message' with radio buttons for 'Daily', 'Weekly', and 'Monthly' (selected), 'E-Mail Address' with a text field containing 'joe.blow@sbcglobal.net', and 'Water Rate' with radio buttons for '\$/Gal' (selected) and '\$/CCF', and a display showing '\$ 0.0066'. At the bottom, there are status fields for 'Time: Sun, 10 Mar 2019 11:28:16 AM', 'Firmware Version: 5.0.00', and 'Internet Connection: OK'. The app has a green grass border at the bottom.

Water rate used to calculate total water cost

Time of last parameter sync between system and app



Flow Meter Configuration

- The flow meter configuration page displays the status for detecting flow meters in the system.

Flow Meters

RESET DETECTION

H2OPro Zone Terminal #

	1	2	3	4	5	6	7	8
1	F							
2	F							
3	F							
4				F				
5					F			
6								
7								
8								

Water Zones

1: Back yard sprinkler 2
Connected on 1

2: Back yard sprinkler 1
Connected on 1

3: Back yard sprinkler 2
Connected on 1

4: Front yard drip
Connected on 4

5: Front yard sprinkler
Connected on 5

6: Zone6
Missing

Use the reset flow meter detection button to start a new automatic flow meter detection the next time zones are turned on.

Flow meter and zone configuration chart. In this example zones 1, 2, and 3 share the same flow meter that is connected on zone 1. Zones 4 and 5 are connected to individual flow meters.

A flow meter for zones 6 is missing.

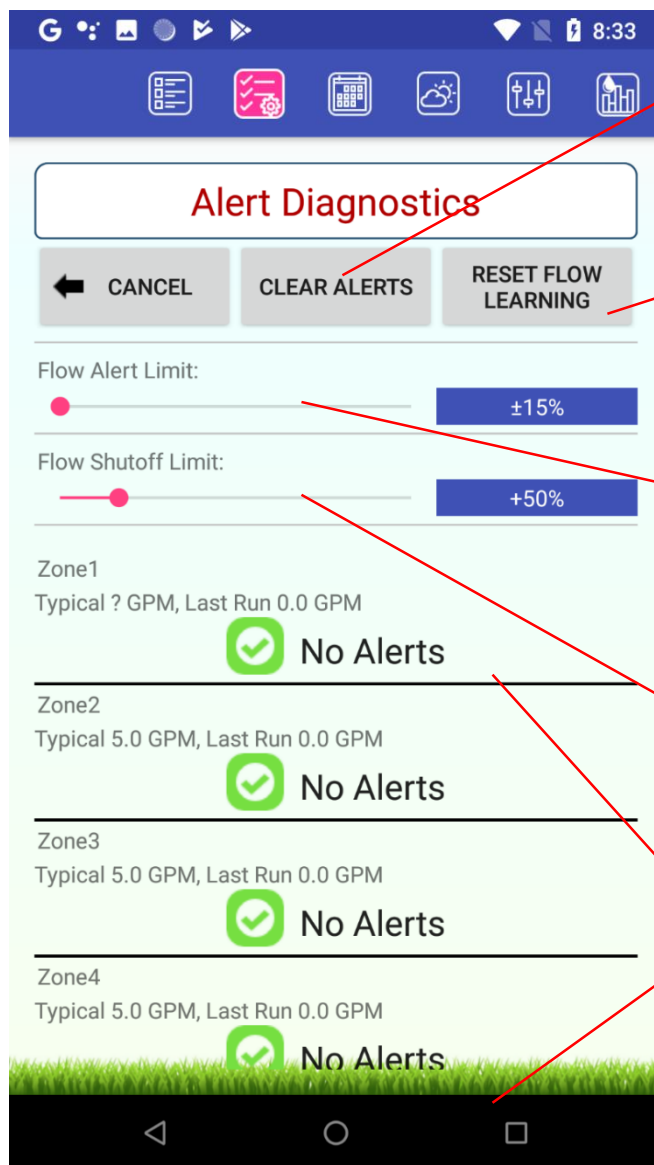
Flow meters have not been detected for Zones 7 and 8, because in this example they are unused in the system.

List of flow meter configuration details.



Alert Diagnostics

- The alert diagnostics page shows the alert conditions for all zones based on measured water flow. This page also displays the typical and last run water flow measurements for individual zones



Use the clear alerts button to reset all alerts, which could be required after system maintenance.

Use the reset flow learning button, to activate a new automatic flow learning for all zones.

Use the alert limit slider control to set the percentage change from typical water flow that will trigger an alert.

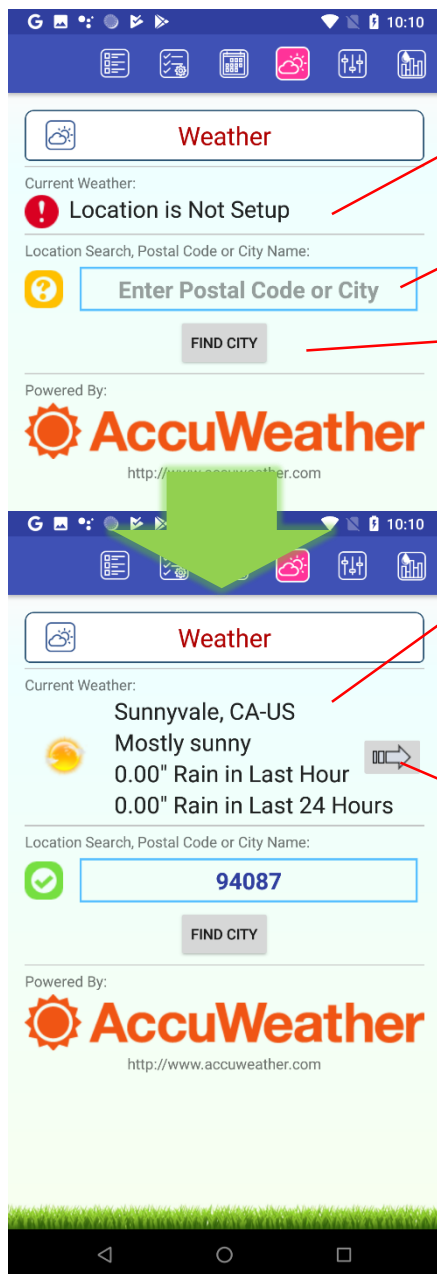
Use the shutoff limit slider control to set the percentage change from typical water flow that will trigger an automatic zone shutoff.

List of alert details for all zones.



Weather

- The Weather page allows for setting your weather location and displays the current conditions. It also allows the minimum rain amount that will cause a weather delay to be specified.

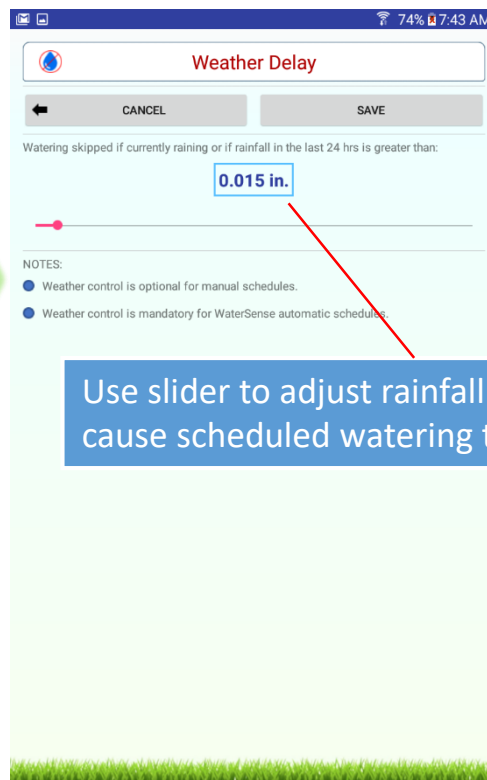


Before weather location setup.

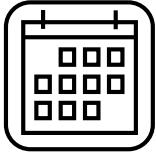
Enter postal zip code or city name to use for weather station search.

TAP find city to generate a list of city's to choose from to be used as the weather location.

After weather location setup.

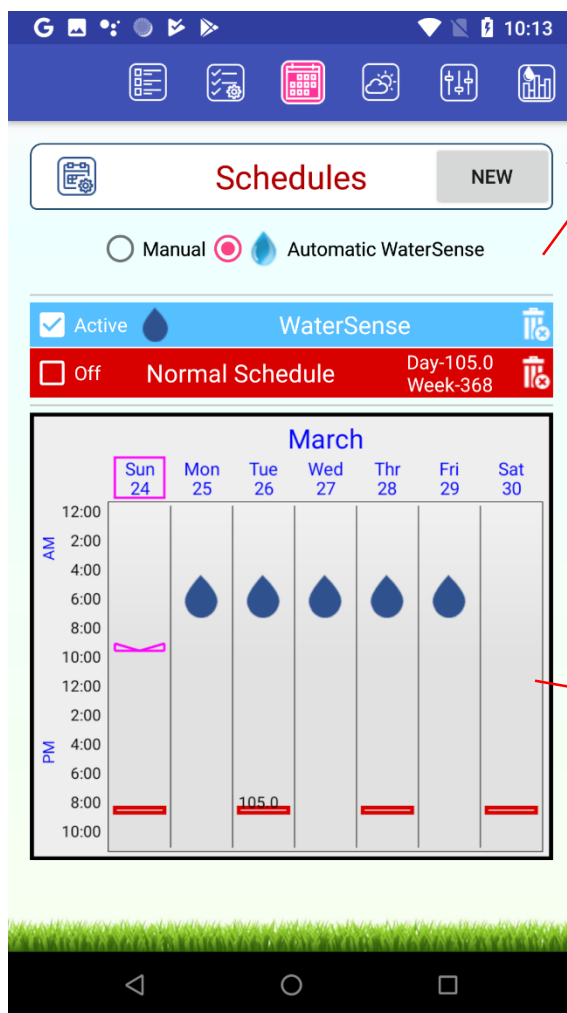


Use slider to adjust rainfall amount that will cause scheduled watering to be skipped.



Schedules

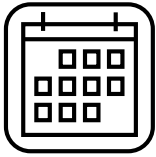
- The watering schedules page shows all of the schedules created for the H2OPro and allows for creating new schedules. There are two types of schedules: manual and automatic. An automatic schedule will determine watering needs for each zone based on weather, soil, and vegetation conditions. The H2OPro automatic schedule is certified according to the EPA WaterSense specifications.



TAP NEW to create a schedule. Up to five schedules can be created, however only one automatic WaterSense schedule is allowed.

All programmed schedules are listed. TAP the check box to toggle a schedule active. TAP the schedule name for additional schedule settings. For manual schedules the predicted water usage values by day and week are shown in gallons.

The schedule chart view shows all schedules for the current week. Active schedules are plotted as filled symbols while non-active schedules are open symbols.



Manual Schedule Settings

- The manual schedule settings page allows control of all manual schedule details.

TAP RUN NOW to start schedule immediately.

TAP schedule name to change schedule name.

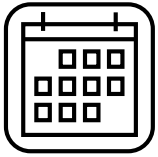
The total water usage by day and week is predicted based on water duration and water flow.

The slider control is used to set the schedule throttle. For example if a zone is set to run for 10 minutes and the throttle is set to 50%, the zone will run for 5 minutes.

Set schedule to be active.

Set weather check to be active. When active, current weather conditions will modify schedule run times.

Set schedule start time and repetition style. Repetition can be for particular weekdays or as number of days to skip between watering.

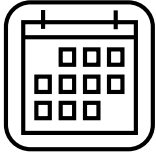


Manual Schedule Settings Cont.

- Scrolling the manual schedule settings allows control of the run time for each zone.

Use the slider control to set the run time in hours, minutes, and seconds. The slider will adjust either the hour, minute, or seconds value depending on the value underlined in the blue time box. TAP the blue time box to switch the underlined value between hours, minutes, and seconds.

NOTE: The maximum run time for all combined zones is 23 hours.



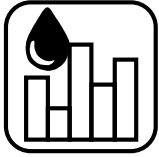
Automatic Schedule Settings

- The automatic schedule settings page allows control of the start time and allowed days of the week for watering. To completely enable the automatic watering schedules, the weather location, soil and plant type for individual zones need to be set using the zone settings page.

The screenshot shows the 'WaterSense Schedule Settings' screen. At the top is a title bar with a back arrow, 'CANCEL', and 'SAVE' buttons. Below the title is a 'Name:' field with a blue button labeled 'WaterSense Schedule'. Underneath is a 'Daily Start Time:' section with two radio button options: 'Morning 5:00 AM' (selected) and 'Evening 9:00 PM'. Below that is an 'Enabled Weekdays:' section with seven buttons for the days of the week: 'Sun', 'Mon', 'Tue', 'Wed', 'Thr', 'Fri', and 'Sat'. The 'Mon' through 'Fri' buttons are green, while 'Sun' and 'Sat' are white. At the bottom, there is a 'NOTE:' section with two bullet points: 'The minimum zone run time is 3 minutes.' and 'The maximum zone run time is based on the watering rate and runoff for a soil type and will be 20 minutes or less. Use the zone control setup to set particular zone values.' The bottom of the screen features a green grass graphic and an Android navigation bar.

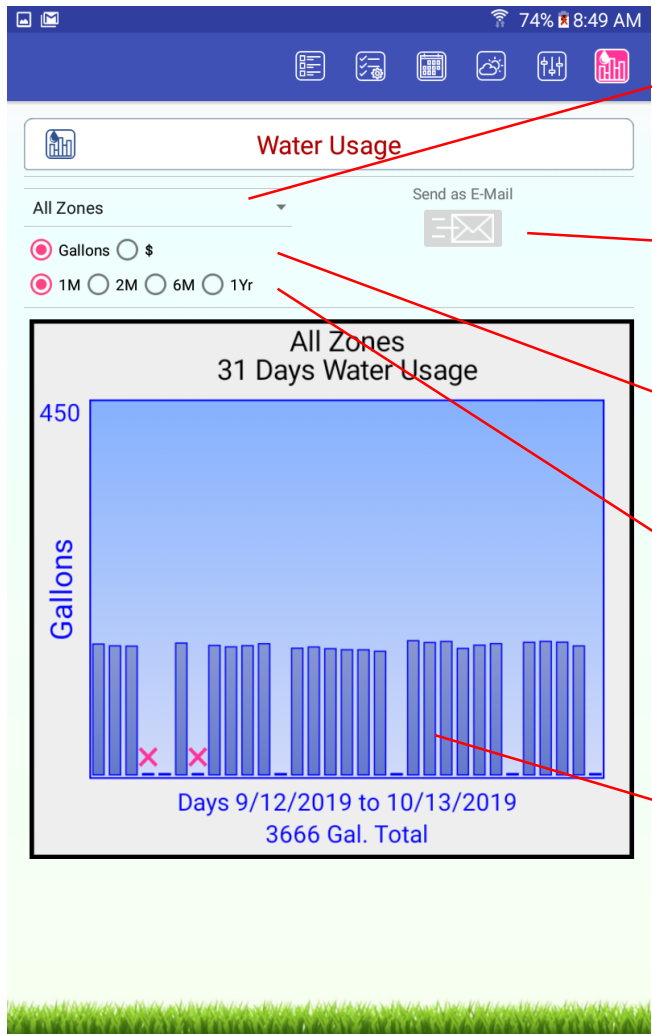
TAP schedule name to change schedule name.

Set allowed watering days of the week for watering by toggling them green.



Water Usage

- The Water Usage page provides a detailed look at the trend for water usage. H2OPro automatically records the actual water or estimated water used for every zone for up to a year. The chart shows the daily totals for a desired length of history.



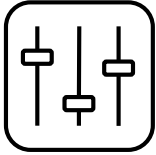
Select all zones or a particular zone to be plotted for the chart.

Send an e-mail with all water usage history as an EXCEL file and graphical chart to the e-mail address set on the main settings page.

Select either gallons or dollar units for chart and the grand total display.

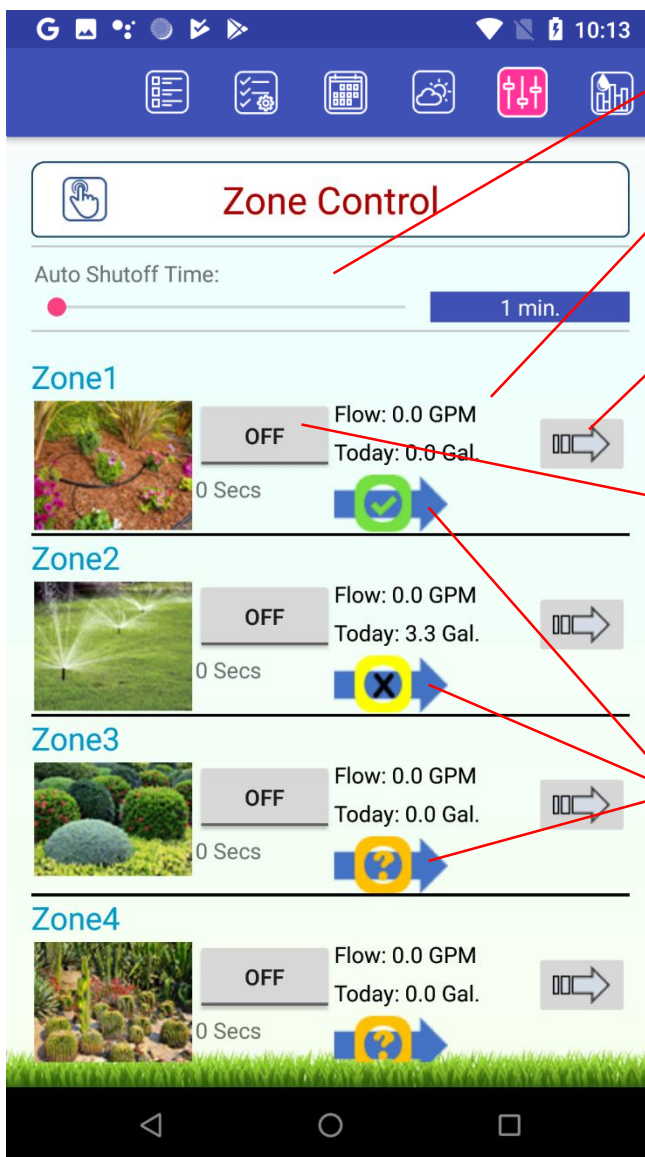
Select length of history to display as either 1 month, 2 months, 6 months, or 1 year.

Historical bar chart for daily water usage looking back from today. The water usage for today is shown on the right. A red X indicates that watering was skipped due to rain.



Zone Control

- The zone control page shows the current status for all zones and allows manual control for turning a particular zone on or off. If a flow meter is installed for any zone, the real time water flow is also displayed.



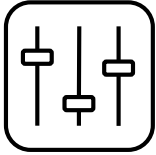
Set time limit to run a zone that is turned on from this page.

Current measured flow rate for zone

TAP arrow to go to zone settings page.

TAP button to toggle the zone ON/OFF. Only one zone can be ON at a time.

This icon indicates the status of the flow meter connection. A check mark indicates a flow meter has been detected. An X indicates a flow meter is not installed. A ? Indicates a flow meter detection sequence is pending. The flow meter detection sequence is initiated when the zone is turned on for the first time.



Zone Settings

- The zone settings page allows individual zone details to be set, such as the zone name and an icon selection. It also allows for setting more detailed zone information such soil and plant type which is required to run automatic WaterSense schedules.

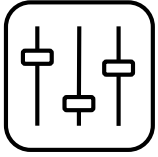
TAP to edit the zone name.

TAP to select the icon for zone.

TAP this icon to declare the zone as unused. It can be changed back to a used zone later if required.

Set the water flow for the zone if flow meters are not installed. If flow meters are installed the typical water flow will be shown and can not be modified.

TAP this checkbox to enable WaterSense mode and display settings.



Zone Settings WaterSense

- When WaterSense mode is enabled, additional zone information can be set which is necessary to run automatic watering schedules.

Zone Settings

Zone1
Flow 0.58 In/Hr, Max Run 20 Min.

Enable WaterSense Mode: ☒

Soil Texture: **Loam**

Vegetation: **Fescue**

Slope: **6%**

Flat

Scroll down for more

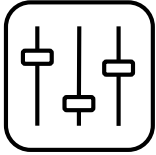
When the WaterSense mode is enabled, additional settings will be shown on this page.

TAP this box to select a soil texture in the irrigation area.

[Wikipedia: Soil Texture](#)

TAP this box to select a representative type of vegetation in the irrigation area.

Use the slider to adjust the ground slope for the irrigation area. Higher slopes will cause additional runoff which will limit maximum run time.



Zone Settings WaterSense Cont.

- Scrolling down on the expanded zone settings page shows additional WaterSense mode settings.

Zone Settings

Zone1
Flow 0.58 In/Hr, Max Run 20 Min.

Shade: **75% Shade**

Area Square Feet: **1000.0**

Watering Efficiency: **55%**

WaterSense Adjust: **0%**

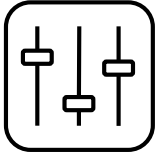
Scroll down for more

Adjust this slider to set the shade setting. A setting of 0% shade indicates full sun.

TAP this box to set the total zone area in sqft.

Use the slider to adjust how efficient the irrigation system is at delivering water to each zone.

Use the slider to adjust the total run time calculation for each zone.



Zone Settings WaterSense Cont.

- Scrolling down on the expanded zone settings page shows additional WaterSense mode settings.

Zone Settings

WaterSense #1

Flow 0.48 In/Hr, Max Run 20 Min.

1000.0

Watering Efficiency: 100%

WaterSense Adjust: 0%

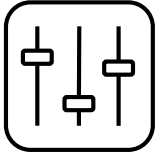
Current Soil Condition: ☐ Dry ☒ Normal ☐ Wet

Use WaterSense Enhanced Settings: ☒ Enhanced

Scroll down for more

Select the beginning soil condition when starting automatic watering. If a dry condition is selected, the initial watering run times will be longer.

Finer adjustments to WaterSense mode settings are available when this box is checked. Use the enhanced settings to tailor the WaterSense settings. The enhanced mode is not required and is recommended for expert users only.



Zone Settings WaterSense Cont.

- Scrolling down on the expanded zone settings page shows enhanced settings if enabled. Enhanced settings allow for more tailored zone settings and should only be used by expert users.

The percentage of available water in the soil is function of the selected soil texture, however the enhanced mode allows entering a non-standard value.

The root zone depth is a function of the vegetation selected, however enhanced mode allows entering a non-standard value.

The allowable water depletion percentage is a function of the vegetation selected, however enhanced mode allows entering a non-standard value.

The crop coefficient is a function of the vegetation selected, however enhanced mode allows entering a non-standard value.



EPA WaterSense Mode Setup

- The H2OPro controller includes an automatic watering mode based on the concept of evapotranspiration. This method of watering is regulated by the EPA WaterSense organization which promotes efficient use of water for a wide range of applications.
 - The H2OPro controller has been independently tested by an EPA certified testing body and has been found to comply with the EPA WaterSense specifications.
 - To use the H2OPro automatic watering mode based on EPA WaterSense requires: (1) setting your weather location, (2) providing information such as plant and soil type for each zone in your yard and (3) specifying watering start time and allowed watering days.
- 1) Use the [weather](#) control page to set your location. This will allow the controller to monitor your local weather. Weather data such as temperature, wind, and humidity are used to calculate water loss from your yard.

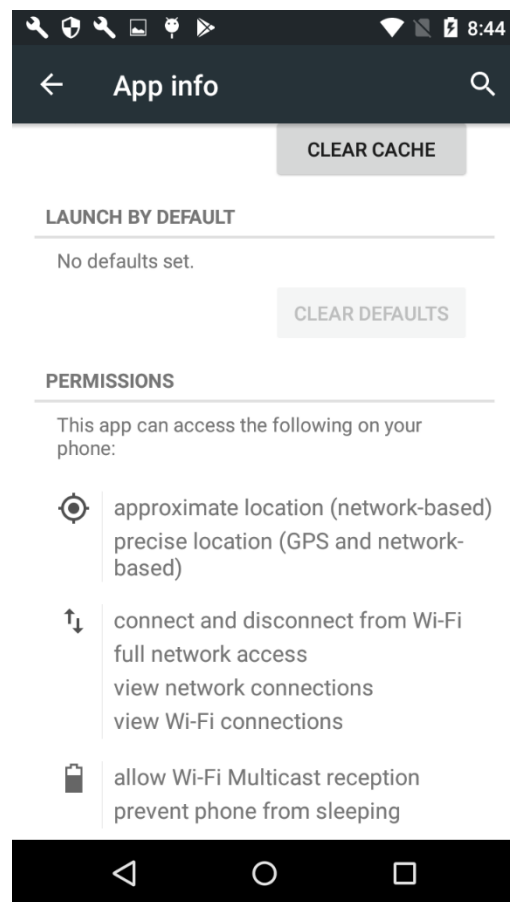
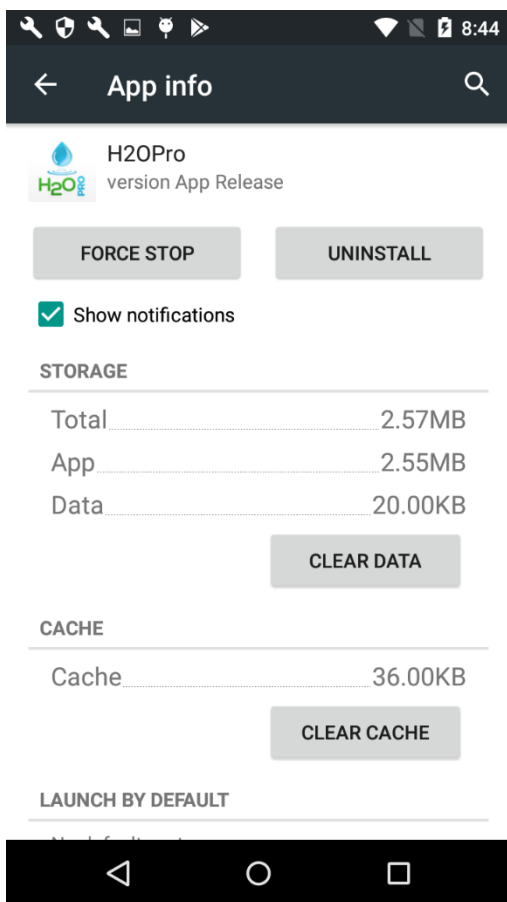
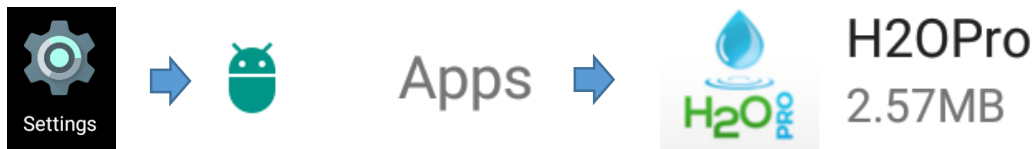


EPA WaterSense Mode Setup Cont.

- 2) On the zone settings page, enable WaterSense mode for any zone which you want to auto water. Any zone which is not WaterSense enabled will not be watered. Next, set the zone details such as plant type, soil type, slope, sun exposure, water flow and zone area. If flow meters are installed and detected, the actual typical water flow for each zone should already be shown. If flow meters are not installed, estimate or measure the water flow for each zone and enter manually. Otherwise, the default water flow value is 5 GPM. Use enhanced settings if you want to tailor the soil and plant information for any zone but this is not recommended unless you are an expert.
- 3) Use the [schedule](#) control page to enable an automatic schedule. Unlike manual schedules, you do not need to specify watering runtimes because the controller will automatically determine the optimal watering for each zone in your yard based on the weather and the zone details which you entered. Simply specify whether you prefer to start watering in the morning or evening and set allowed watering days, particularly if you live in an area which has watering restrictions. Manual schedules and Auto schedules can not be run simultaneously and the auto schedule will only operate for zones for which WaterSense mode has been enabled using the zone settings page.

Android App Permissions

- Some Android Versions may require you to manually set the permissions for the H2OPro app on your device. If required look for app permissions in the Android settings.





WiFi Re-Configuration

- If the Wi-Fi network password or access point name has been changed, a system re-configuration is required.
- All schedules and system settings are retained after a system reset, only the Wi-Fi network information is reset.

1. Use a screwdriver, or other small object, to press button, inside hole labeled reset.

2. LED will flash rapidly to indicate unit is in Wi-Fi configuration mode.

3. TAP the NEW SETUP button shown on the System List page.

