



FlowStation

Quick Start Guide

Firmware Version 1.0

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Introduction

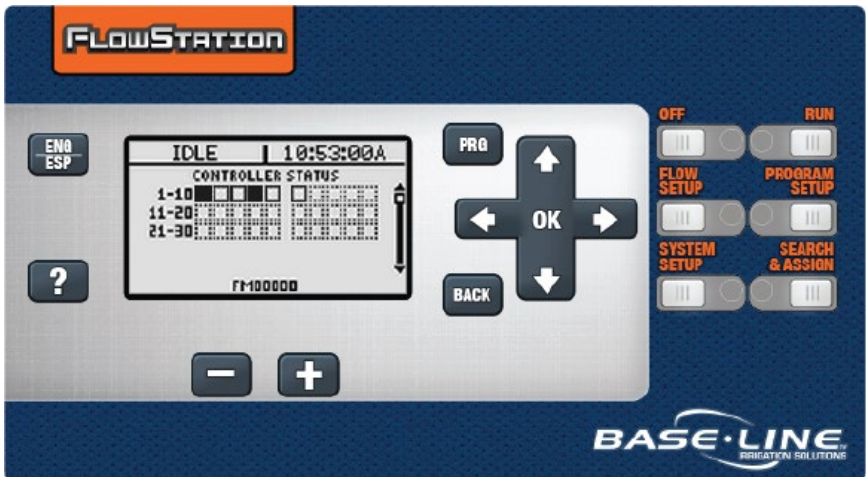
Baseline's FlowStation is the most powerful shared flow controller in the irrigation market today. The FlowStation allows up to 30 BaseStation 3200 irrigation controllers to share water resources including points of connection (POCs), master valves, and booster pumps.

The BaseStation 3200 irrigation controllers and the FlowStation communicate with each other through a local TCP/IP network connection. The connections can be a combination of wired Ethernet, Wi-Fi, and Ethernet radios.

The FlowStation can manage 20 points of connection (POC) and 20 mainlines. Each mainline aggregates the available water from each POC, and the FlowStation intelligently allocates water resources to the programs running on the controllers in the shared flow group. Each program can be assigned a priority, and the FlowStation will allocate water to the highest priority programs first.

This quick start guide helps you get familiar with the FlowStation interface, the menus, and the buttons on the front panel. It walks you through the basic steps for getting the FlowStation connected to the other devices in the shared flow group. Keep in mind that this guide is intended as a basic overview of the setup. You will find complete instructions for all of the FlowStation's features in the User Manual.

FlowStation Front Panel Layout



Display – The display indicates the current state of the FlowStation and is used to program the FlowStation. Refer to Setting Up the Screen Display in the User Manual for information about improving image quality in outdoor conditions including direct sunlight and low light.

Main Menu Buttons – The buttons are used to select the various operating or programming menus of the FlowStation. An indicator light glows on the button for the menu that is active.

Buttons – The buttons are used to select programming elements, change their values, and initiate operations.

?	Display help for any screen
+	Increase the value of the highlighted field, or sequence through the available options in the selected field
-	Decrease the value of the selected field, or sequence through the available options in the selected field
PRG	Select the program that you want to modify
Arrow Buttons ↑ ↓ ← →	Move within a screen
OK	Select an option or perform an action
BACK	Return to a previous screen or cancel an action

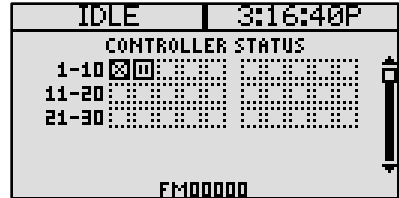
On-Screen Help

Press the **?** button at any time to display the On-Screen Help. When the help displays, press the **↓** button to scroll through the text, and when you have finished using the help, press the **?** button or the **BACK** button to return to the previous screen.

Controller Status Report









When the FlowStation is in the RUN menu, the Controller Status report typically displays on the screen.

If you do not see “CONTROLLER STATUS” and the list of controllers, press the RUN button to make sure that the controller is in the RUN menu, and then press the BACK button to display the Status Report menu. Select the Controller Status option from the menu.



Understanding Controller Statuses

The following icons identify the status of the controllers in the Shared Flow Group:

Icon	Status	Description
	Unassigned	No controller is assigned
	Done	The complete cycle has finished for this controller – including watering and soaking
	Waiting	The controller is scheduled to run, but currently it is not watering or soaking
	Watering	Watering is in progress
	Soaking	The controller finished watering a zone and it is now soaking
	Paused	A pause condition is in effect
	Disabled or Disconnected	The controller is marked as being disabled or disconnected from the FlowStation
	Message	There is a message associated with this controller

Overview of FlowStation and Shared Flow Setup

Step 1 – Install the FlowStation.

Step 2 – Power up the communication module and verify that it is communicating with the network.

Step 3 – Configure the network settings on the FlowStation.

Step 4 – Install the BaseStation 3200 controllers that will be in the shared flow group.

Step 5 – Install and connect all devices including the shared flow biCoders.

Step 6 – Complete the BaseStation 3200 configuration.

Step 7 – Power up the communication modules in the BaseStation 3200 controllers and verify that they are communicating with the network.

Step 8 – Configure the network settings on the BaseStation 3200 controllers.

Step 9 – Connect the BaseStation 3200 controllers to the FlowStation.

Step 10 – Check the BaseStation–FlowStation connection status.

Step 11 – Turn over control of the POCs to the FlowStation.

Step 12 – Assign the programs to the FlowStation.

Step 13 – Configure the FlowStation settings.

Quick Start for the FlowStation and Shared Flow Group

These instructions walk you through the basic steps for getting your FlowStation and BaseStation 3200 controllers set up. Refer to the User Manuals for complete instructions for all of the features on the FlowStation and the BaseStation 3200 controller.

STEP 1 – Install the FlowStation

Install the FlowStation and connect it to power according to the instructions in the installation guide.

STEP 2 – Power Up the Communication Module in the FlowStation

Power up the communication module in the FlowStation and make sure it is communicating with the network. Baseline provides instructions for the specific type of communication module you purchased with your FlowStation.

STEP 3 – Configure the Network Settings on the FlowStation

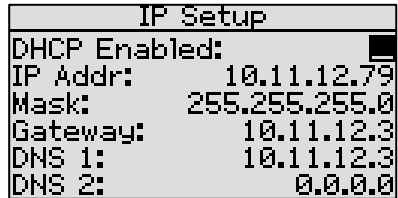
If the FlowStation will connect to an existing network that is managed by a network administrator, you need to ask the admin to set up a static IP address for the FlowStation. Also ask the admin for the Subnet Mask and the Gateway settings for the network. Perform the following procedure to configure the static IP address for the FlowStation.

If the FlowStation will connect to a stand-alone network, the static IP address for the FlowStation will be based on the IP addresses that are assigned to other devices in the network.

1. Make sure the communication module in your FlowStation is powered up and communicating with the network.
2. On the FlowStation, press the **System Setup** button. The System Setup menu displays.
3. Press the **↓** button to highlight the **Network Setup** option, and then press the **OK** button to select it. The Network Setup menu displays.
4. The **IP Setup** option should be highlighted. If it is not highlighted, press the **↑** or **↓** button to highlight it, and then press the **OK** button. The IP Setup screen displays.

5. Press the **+** or **-** button to remove the checkmark in the **DHCP Enabled** field. The fields for the network settings display.

Note: For an explanation of the settings, refer to Viewing the IP Information Screen in the FlowStation User Manual.



6. Determine the static IP address that you will assign to the FlowStation. The IP address is based on the IP addresses of the other devices on the network, but it **must have a unique last digit**.

Example: The devices in your shared flow group are connected to a stand-alone network that does not have Internet access. The communication modules in your FlowStation and controllers have factory-assigned IP addresses in the range 192.168.111.100 - 192.168.111.105. You can set the static IP address on the FlowStation to 192.168.111.106.

7. Press the **↓** button to highlight the first digits in the **IP Addr** field.
 - Press the **←** or **→** button to move to the digits that you want to change.
 - Press the **+** or **-** button to change the value in the field.

Note: To rapidly increase or decrease the value, press and hold the **+** button or the **-** button.

8. Press the **↓** button to move to the **Mask** field. Use the procedure described in step 7 to move within the digits and change the values. A typical value for the Subnet Mask is 255.255.255.0

Note: Set the Subnet Mask for all devices in your shared flow group to the same value.

9. Press the **↓** button to move to the **Gateway** field. Use the procedure described in step 7 to move within the digits and change the values.

Example: For the IP addresses in the example for step 6, the value for the Default Gateway would be 192.168.111.1.

Note: Set the Default Gateway for all devices in your shared flow group to the same value.

10. Press the **↓** button to move to the **DNS 1** field. Use the procedure described in step 7 to move within the digits and change the values to match the Gateway setting.
11. Leave the **DNS 2** field set to zeros.

STEP 4 – Install the BaseStation 3200 Controllers

Install the BaseStation 3200 according to the instructions that came with the controller.

IMPORTANT NOTE! If you are connecting a BaseStation 3200 controller that is already in service to a FlowStation, make sure that the controller has been updated to the most current firmware version. The current firmware version is listed on the Firmware Updates page on the Baseline website (www.baselinesystems.com). Refer to the BaseStation 3200 User Manual to find instructions for updating the controller firmware.

STEP 5 – Install and Connect All Devices

Install all of your irrigation devices and connect them to the controller according to the instructions that came with the devices.

Connect a shared flow biCoder to the two-wire path for each BaseStation 3200 that will be part of the shared flow group.

STEP 6 – Complete the BaseStation 3200 Configuration

On each BaseStation 3200 irrigation controller that is part of the shared flow group, follow the instructions in the BaseStation 3200 User Manual to perform the following tasks on the controller:

- Assign and configure the zones.
- Assign and configure the master valves, flow meters, and booster pumps.
- Set up the programs and their start/stop/pause conditions.
- Set up the points of connection (POC) – a POC that is assigned to the FlowStation will maintain all its settings except priority and rationing.

STEP 7 – Power Up the Communication Modules in the BaseStation 3200s

Power up the communication modules in the BaseStation 3200 controllers and make sure they are communicating with the network. Baseline provides instructions for the specific type of communication module you have purchased with your controller.

STEP 8 – Configure the Network Settings on the BaseStation 3200s

If the controllers in the shared flow group will connect to an existing network that is managed by a network administrator, ask the admin for the network settings.

If the controllers in the shared flow group will connect to a stand-alone network, make sure the communication modules in the controllers are powered up and communicating. The controllers can use either DHCP mode or a static IP address for the network connection. If you need to set up an IP address on the controller, refer to the instructions in the FlowStation User Manual.

After all devices are on the network, you can connect the controllers to the FlowStation.

STEP 9 – Connect the BaseStation 3200s to the FlowStation

When your FlowStation is powered up and connected to the network, you need to connect your irrigation controllers to the FlowStation.

1. Get the IP Address from the FlowStation.
 - a. On the FlowStation, press the **System Setup** button.
 - b. Press the **↓** button to select the **Network Setup** option, and then press the **OK** button. The Network Setup menu displays.
 - c. Press the **↓** button to select the **IP Info** option, and then press the **OK** button. The IP Info screen displays.
 - d. Find the IP address of the FlowStation in the **IP ADDR** field, and then write it down.
2. On a BaseStation 3200 irrigation controller that you want to connect to the FlowStation, turn the dial to the **Network** position.
3. Press the **Next** button to highlight the **Flow Station Setup** option.

4. Press the **Enter** button. The Network screen displays.
5. In the **Flow Station Control** field, press the **+** button to change the setting to **True**.
6. Press the **Next** button to move to the first cell of the **Flow Station IP** field.
7. Press the **+** button to change the number to match the first group of numbers in the IP address of the FlowStation.

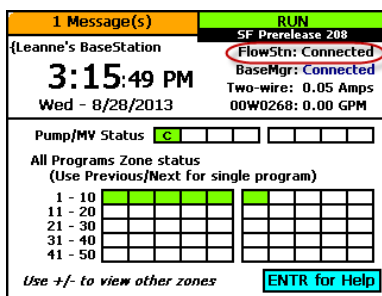
Note: Press and hold the **+** button or the **-** button to rapidly increase or decrease the number in the field.

8. Complete the IP address by pressing the **Next** button to move to the next cell of the **Flow Station IP** field, and then pressing the **+** button to change the number.
9. Repeat steps 2 through 8 on each BaseStation 3200 irrigation controller that you want to connect to the FlowStation.

Note: The connection between the controller and the FlowStation is not complete until you assign the controller on the FlowStation. Refer to Assigning Controllers to the Shared Flow Group in the FlowStation User Manual.

STEP 10 – Check the BaseStation-FlowStation Connection Status

When the dial on the BaseStation 3200 controller is in the **RUN** position, review the status of the FlowStation connection in the **FlowStn** field in the upper-right corner of the screen.

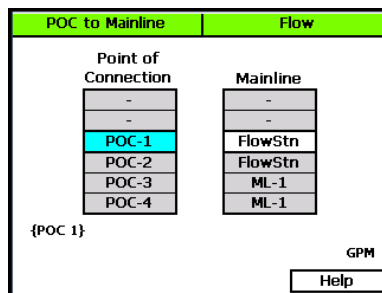


- **Wait Auth:** This status displays after the FlowStation-controller network connection has been established and you have connected the controller to the FlowStation. This status continues to display until you add the controller to the shared flow group in the FlowStation. Refer to Assigning the Controllers to the Shared Flow Group in the FlowStation User Manual.
- **Connected:** This status displays after the controller has been added to the shared flow group.

STEP 11 – Turn Over Control of the POCs to the FlowStation

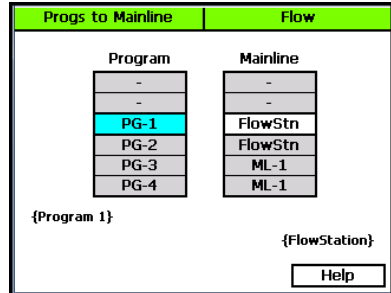
After the resources are “shared” they can no longer be used directly by the controller. The FlowStation will dictate when these resources are used.

1. On the BaseStation 3200 irrigation controller, turn the dial to the **Flow** position.
2. Press the **Next** button to highlight the **Assign Water Sources to Mainlines** option.
3. Press the **Enter** button. The POC to Mainline screen displays.
4. In the Point of Connection column, press the + or – button to select the POC that you want to assign to the FlowStation.
5. Press the **Next** button to move to the Mainline column.
6. Press the + or – button to display **FlowStn** in the Mainline column.
7. Repeat steps 1 – 6 on each BaseStation 3200 irrigation controller that will be sharing flow.



STEP 12 – Assign the Programs to the FlowStation

1. On the BaseStation 3200 irrigation controller, turn the dial to the **Flow** position.
2. Press the **Next** button to highlight the **Assign Programs to Mainlines** option.
3. Press the **Enter** button. The Progs to Mainline screen displays.
4. In the Program column, press the + or – button to select the program that you want to assign to the FlowStation.
5. Press the **Next** button to move to the Mainline column.
6. Press the + or – button to display **FlowStn** in the Mainline column.



STEP 13 – Configure the FlowStation Settings

For help with the tasks required to configure the FlowStation settings, refer to the following topics in FlowStation User Manual:

- Assigning the Shared Flow Devices
- Configuring the Shared Flow Settings