

## FlowStation™

The FlowStation™ with V1 firmware allows up to 30 BaseStation 3200 irrigation controllers to share water resources. With the FlowStation, controllers can share up to 20 separate points of connection and each point of connection can be assigned to one of 20 shared mainlines. The FlowStation will intelligently manage each mainline and allocate water resources among the BaseStation 3200 controllers in the shared flow group.

The FlowStation and the BaseStation 3200 communicate over a TCP/IP-based network.

### Display Features

- High contrast 3.25" backlit mono LCD screen
- Screen resolution 128x64 pixels
- Screen LCD brightness of 250 lumens for easy viewing in direct sunlight

### FlowStation Features

#### Operating Features

- Allows up to 30 BaseStation 3200 irrigation controllers to share water resources from up to 20 separate points of connection

#### Programmable Features

- Assign each POC to one of the mainlines. A mainline can have all 20 POCs assigned to it. A POC can only be assigned to one mainline.
- Set the design flow (maximum flow) for each mainline on the FlowStation. The flow will be dynamically allocated to the controllers.
- Set the number of concurrent zones for the mainline on the FlowStation. The zones will be dynamically allocated to the controllers.
- Assign a priority setting to control how water is allocated to controllers. The FlowStation uses a priority scale of 1 – 10, where 1 is the highest priority. This scale allows you to prioritize programs from multiple controllers at a granular level.
- Set the fill time for a mainline on the FlowStation.
- Assign any program from any controller to one of the 20 mainlines. A program can be assigned to only one mainline.
- Assign up to 16 booster pumps to programs.

#### Reports

##### >Controller Status

Displays the status of the connection between the FlowStation and the controller

Displays the requested flow and concurrent zones for the controller

##### >Program Status

Displays the status of the programs assigned to the FlowStation

Displays the amount of flow requested by the program

Displays the number of concurrent zones requested by the program

##### >Booster Pump Status

Displays the status of any booster pumps configured in the FlowStation

##### >Point of Connection Status

Displays the status of each POC

Displays the actual flow

Displays the total usage

##### >Mainline Status

Displays the status of each mainline

Displays the actual flow

Displays the total usage

Displays the assigned flow

Displays the number of concurrent zones assigned to the mainline

## FlowStation Messages

Messages notify you when something in your system needs your attention, such as an error on the controller that affects all programs, a disconnected controller, or a flow fault.

## BaseStation 3200 Irrigation Controller Features

**Note:** Complete details for the BaseStation 3200 V12 irrigation controller are found in the BaseStation 3200 V12 Technical Specifications.

### Operating Features for Shared Flow

- When a start condition is met for any one of the BaseStation 3200's shared programs, the controller will request water from the FlowStation. If the FlowStation determines there is adequate water available, it will allocate the water to the requesting controller's program. If water is not available, the program will wait until the FlowStation allocates water before it begins.
- The controller must have an attached two-wire license decoder to communicate with the FlowStation. Some menus and options are disabled until the license decoder has been authenticated.
- If a shared POC has a high flow shutdown event, the controller will shut down the POC and notify the FlowStation immediately.
- When changes are made to the BaseStation 3200 configuration, the changes will be sent to the FlowStation.
- The BaseStation 3200 uses the priority setting for shared programs to determine the order in which water is requested from the FlowStation.

- When a POC is assigned to the FlowStation, it will maintain all settings that were configured on the BaseStation 3200 except priority and rationing.
- Booster pumps that are configured on the BaseStation 3200 and assigned to the FlowStation will be started when water is used from the shared POC.

### Programmable Features for Shared Flow

- Assign each program in the controller to either a local mainline or to the FlowStation. Programs on local mainlines will run independently from those assigned to the FlowStation.
- Configure a shared program in the controller with normal program settings, including zones, start times, start days, water windows, and other start/stop/pause conditions, etc.

## Communication Requirements

- The FlowStation requires a static IP address on the network, and each BaseStation 3200 will need to have an IP address on the network.
- The BaseStation 3200 can be assigned a static IP address or it can operate in DHCP mode.
- Each BaseStation 3200 is assigned to a FlowStation by programming the IP address of the FlowStation into the controller.
- Where an existing network is not available, a radio network can be set up using Baseline Ethernet radios or Wi-Fi communication modules. Access to the Internet is not required. Please see the Ethernet Radio Technical Specification and the Wi-Fi Module Technical Specification for more information.

## Communication Options

### >Ethernet Cable

- Every FlowStation has a built-in Ethernet port. No additional hardware is required for Ethernet-based communication.

### >Wi-Fi Communication Modules

- The FlowStation is compatible with the Wi-Fi module.

### >Ethernet Radio (Spread Spectrum) Communication Modules

- The FlowStation is compatible with Baseline Ethernet Radio modules.
- Every Ethernet radio configuration requires at least one radio that is configured as a gateway. The BL-ER-C is an Ethernet radio in a "C" series enclosure with factory default settings as a gateway. It can also be configured as a repeater. One repeater may be inserted between a gateway and endpoint if required.

### >3-Port Ruggedized Ethernet Switch

- When there are multiple devices that require an Ethernet connection, a 3-port Ethernet switch should be specified along with the BaseStation 3200 or the FlowStation. To determine if an Ethernet switch is required, count the number of devices in an enclosure that have an Ethernet Port. If more than one device has an Ethernet port and only one Ethernet connection is available, an Ethernet switch is required. The FlowStation, BaseStation 3200 controllers, Ethernet Radios, and Wi-Fi modules all have Ethernet ports. When a FlowStation is specified for a BaseStation 3200 controller in a stainless-steel pedestal, an Ethernet switch is included.

## FlowStation Enclosure Options

### "X" Cabinet—Wall Mount Enclosure

- Dimensions: 15.50" x 12.38" x 6.40"
- 16 Gauge, powder-coated

### "XS" Cabinet—Wall Mount Enclosure

- Dimensions: 15.50" x 12.38" x 6.40"
- 16 Gauge, 304-grade stainless steel

### "P" Pedestal Enclosure

- The FlowStation is an add-on module for a BaseStation 3200 controller in a "P" enclosure
- Dimensions: 17.38" x 36.25" x 12.63"
- 16 Gauge, 304-grade stainless steel

### Enclosure Notes

FlowStations in the "X" and "XS" enclosures are large enough to hold the controller and a communication module. The communication module will be built into the enclosure by the factory when ordered together.

Baseline recommends that "X" or "XS" enclosures be specified when a wall-mount enclosure and communication modules are required.

The FlowStation is not available as a stand-alone unit in a pedestal enclosure. It can be installed as an add-on module in a BaseStation 3200 pedestal enclosure.

When adding a FlowStation into the enclosure of a BaseStation 3200 pedestal, the communication module should be specified as part of the controller. Refer to the BaseStation 3200 Configuration and Specification Guide for more information.

## **BL-3200UPG-SF Shared Flow biCoder**

The BaseStation 3200 irrigation controller must be upgraded to share water resources with the addition of a Shared Flow biCoder. The Shared Flow biCoder connects directly to the two-wire path and enables the shared flow features in the BaseStation 3200.

## **Electrical Specifications**

### **>Power Specifications**

- The FlowStation comes standard with a 120 VAC transformer, which has apparent power of 12 VA.

### **>Surge**

- Up to 5 levels of surge protection built into the controller boards
- Minimum surge response time of 1 picosecond

## **How to Specify**

### **Start with the FlowStation:**

BL-FLOWSTN

### **Designate the enclosure for the FlowStation with one of the following codes:**

'-X', '-XS', '-P'

### **Add a communication option for the FlowStation:**

Ethernet                      Included

Wi-Fi                              '-WF'

Ethernet Radio              '-ER'

Example:

BL-FLOWSTNWF-X

**Note:** Communication modules may also be ordered separately.

### **Specify the number of BaseStation 3200 irrigation controllers:**

BL-3200

### **Designate the enclosure for each BaseStation controller with one of the following codes:**

'-X', '-XS', '-P'

### **Add a communication option for each BaseStation controller:**

Ethernet                      Included

Wi-Fi                              '-WF'

Ethernet Radio              '-ER'

Example:

BL-3200X-WF

## Warranty

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- The FlowStation and installed equipment carry a standard warranty of 5 years from date of installation.
  - Please review the Baseline Warranty Statement available on the Baseline website ([www.baselinesystems.com](http://www.baselinesystems.com)).
- The user can apply for an extended warranty of 10 years from date of installation. Approval of the extended warranty is based on:
  - Fully completed extended warranty application
  - Successful site inspection completed by an authorized Baseline representative
- The extended warranty shall include coverage of surge damage, even from a direct lightning strike.
  - Surge protection equipment must be installed according to specification.