SmartLink®
Commercial Wireless

SmartLink Flow Aircard
SL-AIRCARDFLOW

Owner's Manual

SmartLink™
Wireless Landscape Network

SmartLine
ProLine
compatible

FLOW

STATUS

1ST BLINK — PANEL

2ND BLINK — TOWER

3RD BLINK — SIGNAL

4TH BLINK — ACTIVATION

LTE

To activate, download SmartLink
mobile app and scan QR code.

Weathermatic

Weathermatic
Water with Purpose

Introduction

The SmartLink Flow Aircard provides web-based management of site flow conditions when a Weathermatic SLFSI Flow Sensor is installed on the system main line and connected to the SmartLink Flow Aircard.

Before you start:

⚠️ If you wish to install and activate this SmartLink Flow Aircard before the SLFSI Flow Sensor is installed or accessible, only complete Sections 1 and 2. Complete Section 3 once you're ready to move forward with wiring the flow sensor to the Aircard and completing the SmartLink Network Flow setup process for this controller.

⚠️ If you want to connect the SLFSI Flow Sensor to the SmartLink Flow Aircard before on-line activation of the Aircard, then proceed to Section 3 of this instruction manual.

U.S. Patent No. 6,314,340
TRADEMARKS:
Weathermatic®
SmartLine®
SmartLink™
ProLine™
Smart Solutions for the Professional®

Help Desk

Online: support.weathermatic.com

Email: support@weathermatic.com

Telephone: 888-484-3776

Scan with smartphone to go to web-based help.

www.weathermatic.com

1.0 Installing the SmartLink Flow Aircard

1. Verify that the version of SmartLine controller you are connecting this Aircard to is compatible. This can be done through the "Advanced Menu" of the SmartLine controller. Only versions 3.1 and higher are compatible.

2. Remove the SmartLink Flow Aircard's accessory bag from the box. This contains the mounting screws, and antenna.

3. Before mounting to the wall, screw the antenna firmly into the bottom of the Aircard.

4. There are 2 cables leaving the bottom of the Aircard. Locate the cable on the left with the clear RJ-11 connector on the end. This is the Aircard cable and will need to be run up through the bottom of the SmartLine controller case. You may need to widen an existing hole using a drill or punch out the area indicated on the bottom.

5. Plug the Aircard cable into the RJ-11 jack located inside the controller. If the controller has two RJ-11 jacks (SL4800), either jack will work. The jack is located in the upper right area, and is black. Ensure it is plugged in completely.

6. Verify that all of the nearby cables are put neatly in place, which will enable the panel door to close completely.

7. The Aircard status LED will flash rapidly green until it cycles through the 4 status positions. This will last approximately 15-30 seconds.

8. Take note that on the outside of the Aircard's box and on the right side of the Aircard itself is a label printed with the 19- digit ID number. This is specific to this Aircard and will be needed to activate and register your Aircard on the SmartLink Network.

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8/30/13

9. If you have not yet activated and registered your Aircard, see Step 2 – Setting up your SmartLink Network Account to activate. You will need the 19-digit ID number.

10. If you have already activated the Aircard, the Aircard status LED will remain a solid green light once communication is established. If, after activation on the SmartLink Network, the status LED continues to flash red, please contact the Help Desk. http://support.weathermatic.com

11. Complete the installation by mounting the Aircard next to the SmartLine controller using the screws provided in your accessory bag. Make sure the Aircard is mounted so the antenna is facing downward, and the controller door can open fully.

2.0 Setting Up Your SmartLink Network Account

1. Go to www.smartlinknetwork.com and click the "Login" button at the top right of the screen. There you can login to an existing account or create a new one. If you already have an account, continue to Step 2. When creating a new account, please fill out all required areas marked with an asterisk (*). Note: Company Name is required. If creating a personal account, use your name in place of the company name.

2. Once logged in, you will be taken to the Sites page. Note: Sites are like "folders" that contain the SmartLine or ProLine controller/s.

3. **You can begin by adding a new Site or add the new SmartLine controller to an existing Site.**

4. To add a New Site for the controller to be placed in, click the "+Add New Site" button at the top right of the Sites page.

5. Enter the Site name, complete Address of the Site, Contact, Phone, Email, and Owner.

6. Click the Create Site button.

To add the new controller to your newly created Site or existing Site.

7. Select the Site where you want the new SmartLine or ProLine controller to be place inside.

8. Click "Add New Controller" and start by giving the controller a Name.

9. Locate the label on the outside of the Aircard's box or on the right side of the Aircard. There you will find a 19-digit ID number. Enter this number under "Aircard ID".

10. Finish by entering the SmartLine controller's location information.

11. Verify the information is correct.

12. Click the Activate button to activate your new Aircard. Only click the Activate button once.

13. The SmartLink Network will now attempt to communicate with the Aircard as shown by the Update window in the middle of the screen. If the installation is correct, and the activation occurred, the newly added controller's information will populate the programming fields.

New Controller

Name

Aircard ID

Location / Description

Activate   Cancel

Please wait while your controller is being setup

This process can take up 5 minutes

Note: An Aircard must be installed in order to be activated. Once activated, the Aircard can be moved and connected to any SmartLine controller Version 3.1 or higher. If the Aircard has yet to be installed, please see: 1.0 Installing the SmartLink Flow Aircard.

14. If any errors occur after installation and activation on the SmartLink Network, see Step 5.0 Troubleshooting, or contact our Help Desk for further assistance.

OPTION 2:
Plan Card Activation

Enter Plan Card

Activate with Plan Card

15. Once the Aircard is activated, you will be taken to the Subscription page.

16. To activate your access to your new controller, enter the 9-digit subscription plan number found on the PLAN CARD from the Aircard box or on the sticker on the FRONT of the Aircard.

17. If you do not have a subscription plan, you have the option of entering credit card information to charge the subscription or using the 30-day temporary access activation. Note: If a subscription plan or credit card info is not entered prior to the expiration of the 30-day access, you will lose the ability to access the controller from SmartLink.

## 3.0 Installing an SLFSI Flow Sensor to Main Line

A SmartLine Controller with a SmartLink Flow Aircard can receive Flow data from ONE Flow Sensor. For additional configuration options with multiple Flow Sensors, contact your local Weathermatic representative or visit Weathermatic.com.

1. Install the SLFSI Flow Sensor on the system main line after any Master Valve (Note: Master Valve not required).

    Available SLFSI Flow Sensor Models are:

SLFSI-T10	1" Tee
SLFSI-T15	1-1/2" Tee
SLFSI-T20	2" Tee
SLFSI-T30	3" Saddle
SLFSI-T40	4" Saddle

2. Install the Flow Sensor on a stretch of main line that will allow distance between itself and the next fitting, turn, valve, etc. on both sides. The Flow Sensor must be installed in accordance with the minimum distances that are shown in the installation diagram.
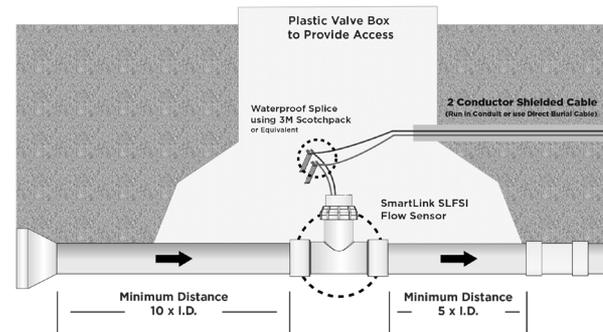
Installation Diagram

3. Install an adequately sized valve box over the Flow Sensor for proper maintenance access.

4. Use P-39 approved underground burial cable from the Flow Sensor to the Aircard mounted next to the controller. Maximum wiring distance from sensor to the Aircard is 2000 feet (610m). The cable should also be within an electrical conduit to protect wiring from rodents, lightning, dirt and water. All wire connection along the path must be made with 3M Scotchpack™ connectors or equivalent. Any deviation from these specifications can cause faulty flow readings.

5. Connect the underground cable to the Flow Sensor using 3M Scotchpack™ connectors or equivalent. Polarity is important! Connect the red to red and black to back.

6. Connect the Aircard to the Flow Sensor cable. Take the cable leaving the bottom of the Aircard next to the Antenna and connect it's wires to the Flow Sensor cable. Polarity is important! Connect the red to red and black to black.

Red / Black

   Note: The wire connection between the Aircard and the SLFSI Flow Sensor should be made inside the housing of the SmartLine controller, or an enclosure. Only use the provided 3M® Scotchlok™ Connectors. Insert the unstripped wires into the holes of the connector. Use a pair of pliers to make the connection by driving the cap down flush with the top edge of the connector body. Verify wires are secure.

7. If you have not already activated the SmartLink Flow Aircard, then proceed to Steps 1 and 2.

4.0 SmartLink Network Global Flow Settings, Zone Flow Settings, and Operation.
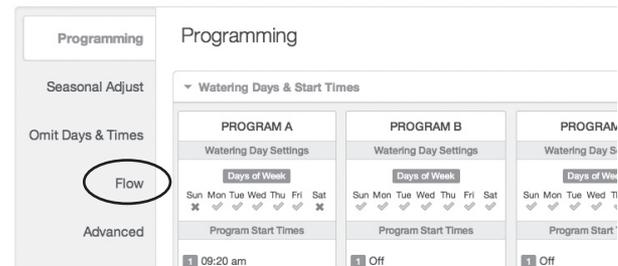
SmartLink Flow Aircard, in conjunction with SmartLink Flow Sensor, will shut down zones that report flow usage outside of the user defined high/low tolerance range. The entire system will be shut down if it detects two zones in a row reporting flow usage outside of the user defined high/low tolerance range. This indicates a system mainline break has occurred. With a Master Valve installed, breaks in the system's mainline will be protected, because the Master Valve is turned off when the alert occurs. Systems without a Master Valve installed will still register the alerts and shut down program operation, but with no Master Valve to shut down, the break can't be isolated.

Initial Programming or Changing of Settings in SmartLink:

Note: SmartLink Flow Aircard will operate with the attached SmartLine controller in either Smart "Auto Adjust" or Basic "Standard" Mode.

1. The online setup and operation of the Flow Sensor requires you to be logged in to your SmartLink Network account. Once logged in, view the controller where you installed the SmartLink Flow Aircard, as explained in Section 2.

2. The first page that appears is the main landing page for your controller. On the left side of the page (scroll down), locate the Flow tab to reveal the Flow Settings.

3. You will see the current "Edit Flow Settings". Click this to make changes.

Zone	Location	Flow Alert	Running Avg.	Current Avg.	Low Flow Limit	High Flow Limit
1	Zone 1	Enabled	13.8 GPM	0.0 GPM	11 GPM	17 GPM
2	Zone 2	Enabled	7.8 GPM	0.0 GPM	5 GPM	9 GPM
3	Zone 3	Enabled	11.0 GPM	0.0 GPM	8 GPM	13 GPM
4	Zone 4	Enabled	17.1 GPM	0.0 GPM	12 GPM	19 GPM
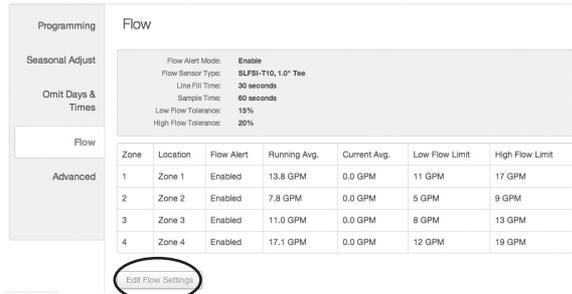
Edit Flow Settings:

1. **Flow Alert Mode:** Choose "Enable" to turn on all Flow Alerts for all zones globally. Choose "Disable" to turn off all Flow Alerts for all zones globally. Running Average, Current Average, and Total Usage will still be calculated and displayed (see Zone Flow Settings).

2. **Flow Sensor Type:** Choose the SmartLink Flow Sensor Type that was installed on the system's mainline (For example: SLFSI-T10, 1" Tee). Choose "Custom" to enter Flow Sensor information (PPG) for other compatible Flow Sensor brands.

3. **Line Fill Time:** Choose the length of time in seconds that it takes the main and lateral lines to charge.

4. **Sample Time:** Choose interval at which sampling of flow will occur. Currently fixed at 60sec (subject to change).

5. **Low Flow Tolerance:** Set the % of low flow tolerance to be globally applied to all zones. This is overridden if a "Low Flow Limit" is chosen for an individual zone.

6. **High Flow Tolerance:** Set the % of high flow tolerance to be globally applied to all zones. This is overridden if a "High Flow Limit" is chosen for an individual zone.

7. Click "Apply Tolerances" when finished, to save these settings.

Edit Zone Flow Settings:

Here you will see a chart containing a list of all the zones available on the controller. These settings give you the ability to address each zone. The zone location in column 2 will display the zone names you provided in the "Zone Run Times" on the "Programming" section of the Main page. If you have not named your zones, go back to the Main page and click "Edit Zone Run Times" within the "Zone Run Times" section. Once named, click "Save" and return to editing the Zone Flow Settings.

1. The Zone Flow Settings chart will have columns for both a Running Average and a Current Average of flow from each zone. If you see 0.0GPM in these columns, flow has not been learned.

Learning Flow for the First Time:

a. Once the "Flow Settings" have been applied, run through a complete program cycle. You can run a manual cycle or schedule a runtime to avoid watering during restricted times. Make sure though that every zone has run.

b. "Current Average" is calculated and viewable immediately after a program cycle is run. To populate the chart with that data you will need to click "Receive" on the top right of the main controller programming page.

c. "Running Average" is calculated after enough data has been accumulated. We recommend 3 to 5 program cycles for the most accurate number. The column will only populate with flow data during the Aircard's automatic nightly communication with the network. It cannot be populated manually.

Zone	Location	Flow Alert	Valve Size	PPG	Running Avg.	Current Avg.	Low Flow Limit	High Flow Limit
1	Zone 1	Enabled	0.75"	185.1	0.0 GPM	0.0 GPM	Off	Off
2	Zone 2	Enabled	0.75"	185.1	0.0 GPM	0.0 GPM	Off	Off
3	Zone 3	Disabled	0.75"	185.1	0.0 GPM	0.0 GPM	Off	Off
4	Zone 4	Enabled	0.75"	185.1	0.0 GPM	0.0 GPM	Off	Off

[Save Changes] [Cancel]   [Reset Running Average]

Zone	Location	Flow Alert	Valve Size	PPG	Running Avg.	Current Avg.	Low Flow Limit	High Flow Limit
1	Zone 1	Enabled ⇅	0.75" ⇅	185.1	0.0 GPM	0.0 GPM	Off ⇅	Off ⇅

2. Flow Alert column: Here you can choose between "Enabled" and "Disabled" per zone. If you selected "Disabled", it means that zone will NOT shut down for out-of-tolerance flow conditions. SmartLink Flow Aircard will still continue to calculate flow statistics for the zone and they will be displayed on the web screen and in the "Reports" section of SmartLink.

3. Valve Size column: Select the size of valve on for this zone. This can be done before or after flow averages have been established.

4. Low and High Limit columns: Individual zone Low/High Limit settings can be established two ways.

   a. Manually select the Low and High Limits for each zone. Refer to the "Running Average" to gauge the best flow limits. Select the Low Flow Limit (in GPMs) then the High Flow Limit (in GPMs). Be mindful that false alarms can occur if the Flow Limits are set too close to the "Running Average".

   a. Or allow the SmartLink Flow Aircard to automatically set the "Low/High Flow Limits" by using the "Low/High Flow Tolerance" % settings you entered earlier in the "Global Flow Settings". This will calculate the "Low/High Flow Limits" from the "Running Average" automatically. For example, if a zone's "Running Average" is 100GPM and the "Global Low/High Tolerance" was set to 25%, the zone's Low and High Flow Limits would be set to 75GPM and 125GPM. Manually setting the Low and High Flow Limits, as described above (1), will override this.

5. Click "Save" and you'll be returned to the Flow page where you can review the saved information.

What happens next?

When a zone or zones Low and High Flow Limits have been crossed: An alert will be sent to whoever is managing this system. Reminder: You/They must be set up to receive email alerts for these events in your SmartLink Account. Go to "My Account" to add the alerts. These alerts will also be viewable within SmartLink.

When a zone or zones Low and High Flow Limits have been crossed: The affected zone/s or the entire program will be shutdown.

When a single zone's Low and High Flow Limits have been crossed: Only that zone will be shut down.

When the Low and High Flow Limits have been crossed on two consecutive zones: A Master Valve/Pump Flow Fault will shut down the entire watering program. (Note: the program will run again at the next scheduled time or day.) A master valve is not required for this function. It is only required that the flow sensor be installed in the line ahead of the out-of-tolerance problem. However, a Master Valve/Pump Flow Fault alert will shut down any Master Valve that is in use.

Reset Running Average: Clicking this button will reset the Running Averages for all zones to 0.0GPM. New Running Averages will begin to be recorded.

View Reports: Clicking this button will take you to the "Reports" page associated with this controller and the Site "folder" it is within. For more information regarding "Reports", click the "Help" tab at the top of the page.

5.0 Troubleshooting

Controller not supported	The controller identifies as firmware version other than 3.10 or 3.13. Only 3.10 and higher are compatible and supported. (Contact distributor to upgrade.)
Could not connect	The connection timed out. Usually this is seen when the Aircard is unplugged or requires a reset (unplug, wait 10 seconds and plug back in).

Connected, but no response	The Aircard is connected, but it cannot communicate with the controller. This can happen if the controller door is not completely closed, or possibly for other unknown controller-related reasons.

Contacting the Help Desk

If there's a need to contact support, be prepared to provide the following information:

• Your Name and Contact information

• Site Name

• Which status light is red on the Aircard and/or Error message received on the SmartLink Network.

• Controller ID – This is found by opening the drop down menu next to "Additional Controller Info" while in the controller page.

Controller Model	**SmartLine 3.23**
Location	**San Marcos**
Stations	**12 Zones**
Controller ID	**CTL2682**
Aircard ID	**89012607622321776676**
Aircard Version	**0.20**
Renewal Date	**2014-08-14**
SLW Model	**SLW5**
SLW Location	**Roof**