Plus-X EM64/EM32

Addendum to Climate Guard Manual

BURK
TECHNOLOGY

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Introduction

Thank you for purchasing a Plus-X EM Series Environmental Monitor for the ARC Plus transmitter remote control system. The Plus-X EM series monitors temperature, humidity, flood/leak, and many other environmental conditions.

The Plus-X EM series is designed to be used in transmitter buildings, ATU's, relay sites and other remote locations where failed HVAC, intrusion or severe weather conditions could cause loss of service or damage to equipment.

The Plus-X EM64 is based on the Burk Technology Climate Guard unit, while the Plus-X EM32 is based on Climate Guard LT, both with the addition of Plus-X for your ARC Plus system. All Climate Guard sensors are available as channels on the ARC Plus, providing a common logging and monitoring method for all of your critical equipment.

We're sure you will appreciate the many benefits of this addition to your ARC Plus system, including extensive temperature and humidity monitoring and logging, direct web access from anywhere and a comprehensive email alerting system, as well as full integration into your ARC Plus system.

Compatibility

Before installing the Plus-X EM, please verify that the ARC Plus firmware, AutoPilot software and AutoLoad Plus software versions are current. Updates are available at www.burk.com/downloads .

The onboard web interface is compatible with most modern web browsers.

Installation

Please follow the instructions in the Climate Guard Installation and Operations Manual to set up and configure your unit before you begin the following Plus-X configuration. The manual is available at www.burk.com.

Plus-X Configuration

From your web browser, connect to your Plus-X EM unit. On the menu bar, choose **SETUP**, then select **Networking** from the list on the left. (see figure 1.)

Set the ARC Plus IP address for the ARC Plus unit to which this device will be connected.

> The ARC Plus IP address can be found on the front panel of the ARC Plus by navigating to **CONFIG/SYSTEM/NETWORK**. If the ARC-Plus and the Plus-X EM device are on the same subnet, use the private IP address, otherwise use the public IP address.

Set the Plus-X port. The default of 45000 is normally used. If you are using NAT to access multiple Plus-X EM devices behind a router, then each device must be on a separate port.

Next select **Plus-X Meters** from the list on the left. Use the dropdown boxes for each meter to assign the sensors to a Plus-X meter channel. Plus-X Channels can be mapped to any ARC Plus channel so it is not necessary to match the Plus-X channel with the desired ARC channel.

Finally, select **Plus-X Status** from the list on the left and assign as above.

Figure 1

Adding Plus-X Channels to the ARC Plus

Once the meter and status channels on the Plus-X EM have been configured, these channels may be added to the ARC Plus using AutoLoad Plus.

From AutoLoad Plus, select **Help** from the menu bar and choose **Supported Plus-X Devices** from the drop down menu. If your Plus-X EM device is listed, proceed to the next paragraph. If your Plus-X EM device is not listed, you will need to download Plus-X EM32.xml or Plus-X EM64.xml as appropriate from the download section of www.burk.com. Save the file in the Plus-X Devices directory and restart AutoLoad Plus.

From AutoLoad Plus, connect to the ARC Plus site to which the Plus-X EM is linked. From the **Edit** menu, select **Plus-X Devices...** and click **Add**.

In the **Plus-X Settings** window, select the desired Plus-X EM from the device type drop-down. Enter a description of the Plus-X EM for your own reference, followed by the IP address and Port, both of which should already be configured on the Plus-X EM.

Do not check the box marked **Map the default set of channels** unless you wish to add all 32 or 64 of the Plus-X EM meter and status channels to the ARC Plus. Press **OK** to close the **Plus-X Settings** window. Press OK to close the **Plus-X Devices** window.

To map Plus-X EM channels to the ARC Plus, click the **Metering** or **Status** tabs in AutoLoad Plus as appropriate. Edit the source of an unused channel by clicking **[...]** in the **Source** column. Click the Plus-X radio button and choose the Plus-X device and channel you wish to assign. Configure labels, limits and alarms for the newly added Plus-X EM channels in the same way as you would for normal ARC Plus channels.

Operation

Once you have added Plus-X EM channels to the ARC Plus, they appear on the ARC Plus front panel, AutoPilot software, Web Interface and RSI speech interface just as any other ARC Plus channel. They can be used in macros and custom views. You may also directly access the Plus-X EM using the webpage as described in the Climate Guard manual.

Getting Help

For customer support, please email support@burk.com or call our direct customer support line at 978-486-3711. We will be glad to assist you. The customer support office is open Monday – Friday, 9AM to 5PM Eastern Time.

Warranty

Burk Technology, Inc. warrants the Plus-X EM32 and Plus-X EM64 to be free of defects in materials and workmanship for a period of 24 months from the date of purchase. Equipment will be repaired or replaced at the option of Burk Technology and returned freight prepaid to the customer. Damage due to abuse or improper operation or installation of the equipment or caused by fire or flood or harsh environment is not to be covered by this warranty. Damage in shipping is not the responsibility of Burk Technology. A return authorization must be obtained before returning any equipment. Materials returned under this warranty must be shipped freight prepaid and insured in the original shipping carton or suitable substitute to Burk Technology, Inc., 7 Beaver Brook Road, Littleton, MA 01460. Repairs not covered under this warranty will be made at prevailing shop rates established by Burk Technology.

THE WARRANTY SET FORTH ABOVE IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A

PARTICULAR PURPOSE. BURK TECHNOLOGY, INC. SHALL NOT BE LIABLE TO ANY PARTY FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS EQUIPMENT.

Appendix A: Specifications

Dimensions:
1.75" (4.45cm) H
19" (48.26cm) W
5" (12.7cm) D

Operating Temperature:
-40 to 50°C

Power Requirements:
12VDC, 1A

Ethernet:
10/100 full or half duplex

Maximum Sensors:

EM64 (64 sensors total):
3 built-in sensors
8 switch inputs
8 powered switch inputs
45 digital sensors (with daisy-chaining)

EM32 (32 sensors total):
3 built-in sensors
8 powered switch inputs
21 digital sensors (with daisy-chaining)

Expansion Modules:
EM64 only: 2 expansion modules

Front Panel LEDs:
Power, Fault; Ethernet RJ45 LEDs: Link, Activity

Digital Sensor Inputs:
8 built-n ports for digital sensors and powered switch inputs

Switch Inputs:
EM64 only: 8 switch inputs for contact closures

Built-In Sensors:
Temperature, sound, light

Protocols:
HTTP, HTTPS, SMTP, SMTP/SSL, SNMP v1, SNTP