

This Quick Start Guide will show you how to set up the Plus-X EM32 in five simple steps. For detailed configuration and setup information, visit [www.burk.com/downloads](http://www.burk.com/downloads), select the Plus-X EM32 support page and download the Climate Guard & Plus-X EM Installation and Operation Manual.

## 1 UNPACKING

In addition to this Quick Start Guide, you will find the following in each package:

- (1) Plus-X EM32 Unit
- (1) Ethernet Cable
- (1) Power Cord



## CUSTOMER SUPPORT

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## 2 NETWORK SETUP

1. Plug in the power cord and connect the Plus-X EM32 to your network via the rear-panel Ethernet connector.
2. If your network supports DHCP functionality, a dynamic IP address will be assigned to the unit. If DHCP is not supported on your network skip ahead to step 3 now. To access the unit, launch a web browser and enter the hostname PLUSXEM32/ in the browser's address field then skip to step 5. Be sure to include the forward-slash symbol in the hostname.
3. If your network doesn't support DHCP, the Plus-X EM32 will assign itself the default IP address 192.168.0.100. You will need to connect a PC with a web browser to the Plus-X EM32 at this IP address before you can change the network settings on the unit. One way to do this is to unplug your PC from any other LAN and connect your PC to the Plus-X EM32 via a network switch or a cross-over ethernet cable. Then configure your PC with a compatible IP address so that you may connect to the Plus-X EM32. Running Windows, the following steps will allow you to configure your PC with a compatible IP address:

1 From the Control Panel, select Network Connections.	5 Select Properties.
2 Double-click the icon for the network you will be using.	6 Choose "Use the following IP address" and enter an IP address of 192.168.0.x, where x is any valid address location except 100.
3 On the General tab, click Properties.	7 Enter Subnet Mask 255.255.255.0
4 Click Internet Protocol version 4 "TCP/IPv4".	8 Click OK.

4. Open a browser and enter the Plus-X EM32 default IP address of 192.168.0.100.
5. The login screen will then be displayed. Enter the username admin and the password "password".
6. You will be prompted that the password is weak and will be recommended to change it. To configure user account passwords, click the Users link on the Setup page.
7. The first screen displayed after initial login is an abbreviated Network page requiring you to enter a static IP address for the Plus-X EM32. Check with your network administrator for an available IP address that is not within the DHCP address range.

8. Your browser will be automatically redirected to the new IP address. If your initial connection was made without DHCP, your PC should now be restored to its prior network settings and both the PC and the Plus-X EM32 should be connected to the normal LAN.

9. Log in to the Plus-X EM32 at its new static IP address, go to the Settings tab on the web page and select Network to change the network information.

Add the following network information and select save to confirm the changes.

- a. **NetBIOS/Hostname** – This name should be changed from its default value of PLUSXEM32 so conflicts will not occur if multiple Plus-X devices of the same model are installed on the network.
- b. **IP Address** – This field will display the static IP address you entered in a previous step.
- c. **Subnet Mask** – Check with your network administrator otherwise the factory default setting can be used.
- d. **Gateway** – Check with your network administrator otherwise the factory default setting can be used.
- e. **ARC Plus IP address** – Enter the IP address of the ARC Plus Touch or ARC Plus SL unit that the Plus-X EM32 will be connected to.
- f. **HTTP Port** – Check with your network administrator. The factory default setting is port 80.
- g. **Plus-X Port** – Check with your network administrator otherwise the factory default setting can be used. This port must match the setting for Plus-X Port on your ARC Plus Touch or ARC Plus SL unit.

10. To verify communication, open a command prompt on your computer and ping the address you just assigned to the unit to ensure it is correctly configured.

### 3 INSTALLING SENSORS AND SWITCH INPUTS

The Plus-X EM32 supports digital sensors for temperature and humidity monitoring, powered switch inputs such as motion sensors and smoke detectors and unpowered switch inputs like door contacts providing up to 32 sensors within the Plus-X EM32.

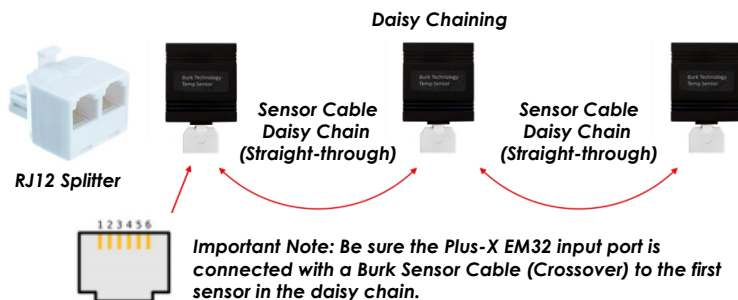
#### Wiring digital sensors and powered switch inputs

All external sensors connect to the front panel Sensor inputs on the Plus-X EM32. The pinouts are as follows:

Pin	Signal	Temperature Sensors	Other Digital Sensors	Powered Switch Inputs	Unpowered Switch Inputs
1	Ground		✓	✓	✓
2	Status Signal			✓	✓
3	Data	✓	✓		
4	Ground	✓	✓	✓	
5	Unused				
6	+12V		✓	✓	

Sensor input cabling may be extended using RJ-12 Couplers and additional Sensor Cables, available from Burk Technology.

Digital sensors may be daisy chained using Burk part numbers: RJ-12 Splitter, Sensor Cable, and Sensor Cable - Daisy Chain as shown in the diagram. The Burk Sensor Cable has cross-over wiring, while Sensor Cable-Daisy Chain has straight-through wiring.



### 4 CONFIGURE SENSOR INPUTS AND PLUS-X CHANNELS

Both digital sensors and switch inputs appear automatically on the Sensors page of the Plus-X EM32 web interface. Once the wiring of the sensors and switch inputs is complete, you can begin to configure the inputs. Click the Edit button next to a digital sensor to edit its settings.

The following settings are configurable:

Setting	Description
<b>Sensor name</b>	Enter a name to identify this sensor. Note that you may change this name without affecting your logged data or any other functionality.
<b>Alert enable</b>	Check this checkbox to enable alerting for this sensor.
<b>In alert delay</b>	The <i>in alert delay</i> is the number of seconds this sensor must be outside its thresholds before it will cause an alert.
<b>Out alert delay</b>	The <i>out alert delay</i> is the number of seconds this sensor's value must be back in tolerance before it may cause another alert.
<b>Upper threshold</b>	Enter the upper threshold value at which this sensor should go into alert.
<b>Lower threshold</b>	Enter the lower threshold value at which this sensor should go into alert.
<b>Hysteresis</b>	Enter the amount by which this sensor must cross back into tolerance before exiting the alert state.

#### Plus-X Meters

Meter 1

Meter 2

**Assign Sensors to Plus-X Channels** From the setup page, select Plus-X Meters or Status from the list on the left side. Use the drop-down box for each Plus-X Meter or Status channel to assign a sensor to that channel. Plus-X channels assigned in this screen can later be mapped to any ARC Plus channel as described in the following section.

### 5 CONNECT TO AN ARC PLUS TOUCH OR ARC PLUS SL

The Plus-X EM32 communicates with the ARC Plus Touch or ARC Plus SL via LAN/WAN, allowing installation anywhere a network connection is available.

Use AutoLoad Plus to add the Plus-X device to the ARC Plus Touch or ARC Plus SL unit. Ensure you have the current version of AutoLoad Plus installed on your computer. To obtain the current version, visit [www.burk.com/downloads](http://www.burk.com/downloads) and select the AutoLoad Plus support page. On the AutoLoad Plus menu, select Edit->Plus-X Devices and click **Add**. The dialog box shown to the right will be displayed.

- Select Plus-X EM32 and enter its network information.

**Note: If adding more than one Plus X device to an ARC Plus, change the starting channel so that other assigned channels are not overwritten.**

- Select OK to confirm the first Plus X device.
- If adding more than one Plus X device, repeat the same steps.
- Save the configuration by selecting File>Save in AutoLoad Plus.

To confirm that the Plus-X EM32 is communicating, log in to the ARC Plus Touch or ARC Plus SL using the web browser. All assigned channels should show their default values.

#### MANUALLY MAPPING PLUS-X CHANNELS

1. To manually map Plus-X channels to the ARC Plus, click the Meter Channels or Status Channels Command tab. Locate an unused channel and click the [...] button in the Source column. This will bring up the Source dialog. Click the Plus-X button and choose the Plus-X device and channel you wish to use.
2. Use the other Meter and Status tabs in AutoLoad Plus to configure additional Alarm, Actions, Notifications and Display settings for the newly added Plus-X EM32 channels.
3. Select File>Save to save the changes to the ARC Plus.

**Note: If the channels show as offline or a warning is displayed, check the network configuration and ensure the configuration is saved within AutoLoad Plus.**

Refer to the Climate Guard & Plus-X EM Installation and Operation Manual for further information on configuring and operating the Plus-X EM32 unit.