Troubleshooting

If you have problems mounting, wiring, or addressing the I/O Zone, contact OEMCtrl Technical Support.

Communication LED's

The LED's indicate if the controller is speaking to the devices on the network. The LED's should reflect communication traffic based on the baud rate set. The higher the baud rate the more solid the LED's become.

LEDs	Status
Power	Lights when power is being supplied to the controller.
	NOTE The I/O Zone is protected by internal solid state Polyswitches on the incoming power and network connections. These Polyswitches are not replaceable and will reset themselves if the condition that caused the fault returns to normal.
Rx	Lights when the controller receives data from the network segment; there is an Rx LED for Ports 1 and 2.
Tx	Lights when the controller transmits data to the network segment; there is an Rx LED for Ports 1 and 2.
Run	Lights based on controller health. See table below.
Error	Lights based on controller health. See table below.

The **Run** and **Error** LED's indicate controller and network status.

If Run LED shows...	And Error LED shows...	Status is...
1 flash per second	1 flash per second, alternating with the **Run** LED	The controller files are archiving. Archive is complete when **Error** LED stops flashing.
2 flashes per second	Off	Normal
2 flashes per second	2 flashes, alternating with **Run** LED	Five minute auto-restart delay after system error
2 flashes per second	3 flashes, then off	The controller has just been formatted
2 flashes per second	4 flashes, then pause	Two or more devices on this network have the same MS/TP network address
2 flashes per second	1 flash per second	The controller is alone on the network

If Run LED shows...	And Error LED shows...	Status is...
2 flashes per second	On	Exec halted after frequent system errors, due to: • Controller halted • Program memory corrupted • One or more programs stopped
5 flashes per second	On	Exec start-up aborted, Boot is running
5 flashes per second	Off	Firmware transfer in progress, Boot is running
7 flashes per second	7 flashes per second, alternating with **Run** LED	Ten second recovery period after brownout
14 flashes per second	14 flashes per second, alternating with **Run** LED	Brownout
On	On	Failure. Try the following solutions: • Turn the I/O Zone off, then on. • Download memory to the I/O Zone. • Replace the I/O Zone.

Recovering from a power outage

The I/O Zone has a 10-year Lithium CR2032 battery that ensures the following data is retained for a maximum of 10,000 hours during power outages:

• Time
• Graphics
• Control programs
• Editable properties
• Trends
• Schedules

If the above data is lost after power returns, replace the battery and then restore memory from archive. See instructions below.

Archive function

Factories - After a memory download, the firmware stores the touchscreen, BAC*view*® files, graphics, control programs, and database settings to flash memory. This archiving can take up to a minute, depending on the size of the files.

Site-specific - You can archive site-specific configurations to the I/O Zone by using the Equipment Touch, BAC*view*® device, the control program, the WebCTRL® for OEMs application, or Field Assistant. We strongly recommend you archive whenever you change factory settings, such as schedules, devices instances, network addresses, etc..

Restore memory from archive

The I/O Zone checks the memory configuration during power up and, if it is identified as corrupt, it reconstructs memory from the last archive. In addition, if the battery fails to power the device during a power outage, memory could be lost, but will be reconstructed from the last archive. The device supports factory and site-specific archives, which can be manually restored in the field.

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To restore the factory archive

1   Turn off the I/O Zone.

2   Address the rotary address switches to 0, 0 (zero, zero).

3   Put the **Format** jumper on the pins.

4   Turn on the I/O Zone.

5   **Run** and **Error** LED's cycle 3 times opposite of each other, then returning to normal operation once the process is complete.

   NOTE The **Run** LED flashes once per second during normal operation.

To restore the site-specific archive

1   Turn off the I/O Zone.

2   Address the rotary address switches to any numbers greater than 0, 0 (zero, zero). Example (0, 1).

3   Put the **Format** jumper on the pins. For device with a format button, hold it down.

4   Turn on the I/O Zone.

5   **Run** and **Error** LEDs cycle 3 times opposite of each other, then returning to normal operation once the process is complete..

   NOTE The **Run** LED flashes once per second during normal operation.

After restoring from archive

1   Run a module status and check the information message history to confirm the archive.

2   Set the time and date for schedules to operate properly.

   NOTE The restore uses June 12, 2002 @ 10:00 AM as a place holder because the battery failure inhibits the real time clock. Use the Equipment Touch, BAC*view*® local display, the WebCTRL® for OEMs application, or Field Assistant to set the correct time and date. If the device is integrated with a BACnet-speaking BAS, the time and date are set via the communication network.

Replacing the I/O Zone's battery

To determine when to replace the battery, remove power and measure the voltage. If the voltage is below 2.9 volts, you need to replace the battery.

⚠️ **CAUTION** Power must be **ON** to the I/O Zone when replacing the battery, or your date, time, and trend data will be lost.

1   Remove the battery from the controller, making note of the battery's polarity.

2   Insert the new battery, matching the battery's polarity with the polarity indicated on the I/O Zone.

Serial number

If you need the I/O Zone's serial number when troubleshooting, the number is on:

- a sticker on the back of the main controller board
- a Module Status report (modstat) from the WebCTRL® for OEMs application

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