

# USER GUIDE

Auto Failover / Changeover Panel  
pn: CS0-AC2

Version 2.3 – 04/2022

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## 1. INTRODUCTION

The CS0-AC2 is ideal for coordinated control of systems with redundant equipment, such as multiple environmental units or pumps. The CS0-AC2 controller is designed to interface with anything that closes an electrical dry-contact (common alarm) and can accept a remote start / stop command via a relay output.

· Fans

· Pumps

· Air Conditioners

· Motors

When the CS0-AC2 controller detects an alarm in an operating device, the CS0-AC2 enables a standby device and controls the device in alarm as configured.

The CS0-AC2 controller can also balance usage of devices by rotating units through Primary and Standby modes according to a user-defined schedule. This helps keep redundant equipment operating efficiently and equalizes runtime.

Another capability of the CS0-AC2 is monitoring the status of connected devices and keeping personnel apprised through local alarming as well as having a Modbus and BACnet interface for Building Management Systems. Supported protocols include: (Note: BACnet protocols are monitoring / read only.)

· Modbus RTU

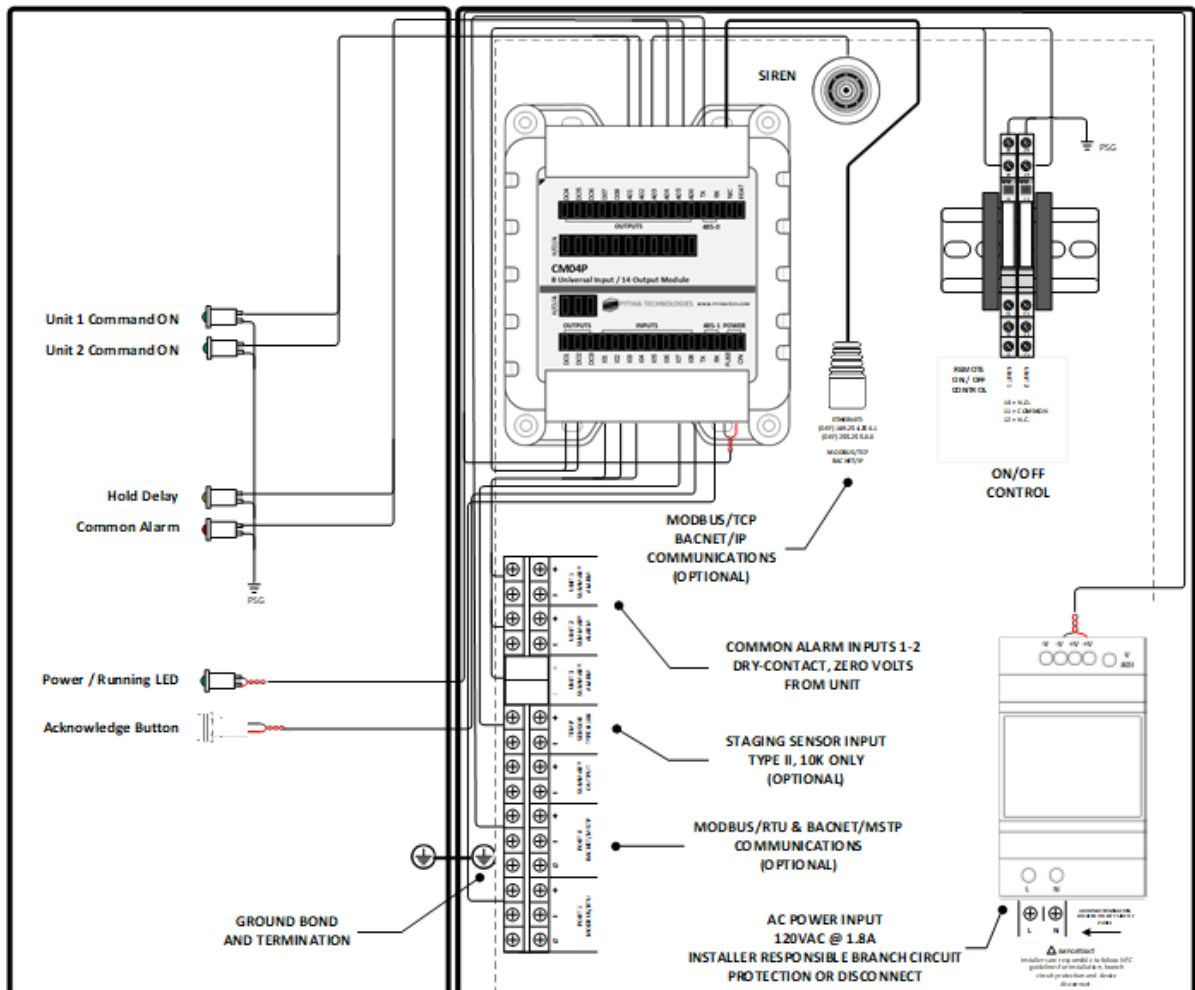
· Modbus TCP

· BACnet MSTP

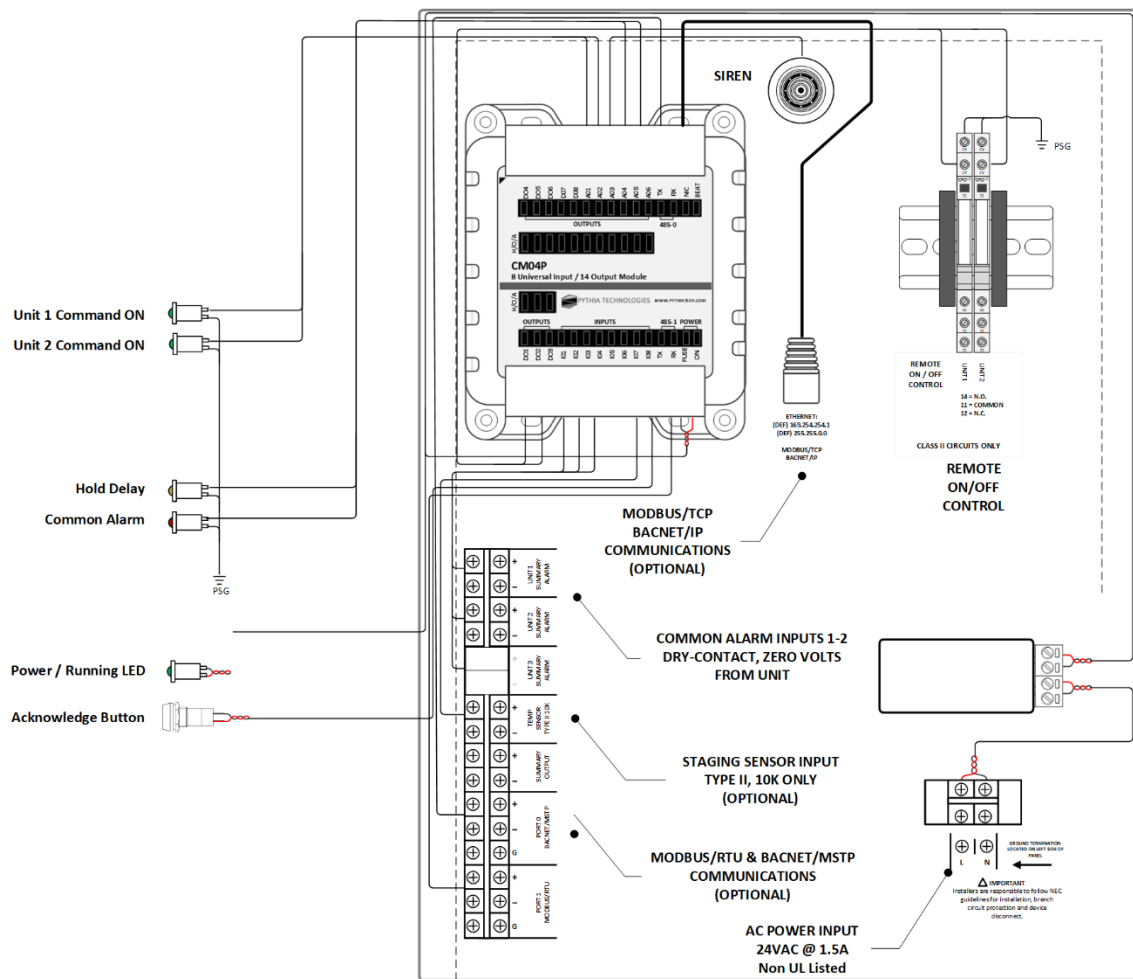
· BACnet IP

## 2. GETTING STARTED

### 2.1 STATUS PANEL (CS0-AC2) COMPONENTS (120VAC Panel):

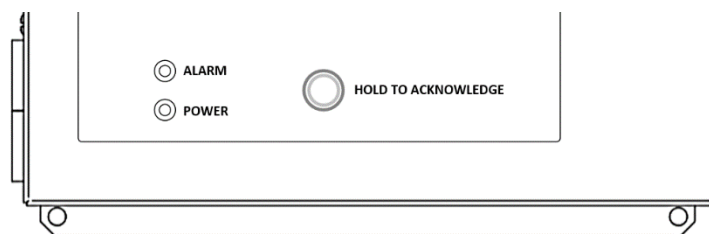


## 2.2 STATUS PANEL (CS0-AC2) COMPONENTS (24VAC Panel):



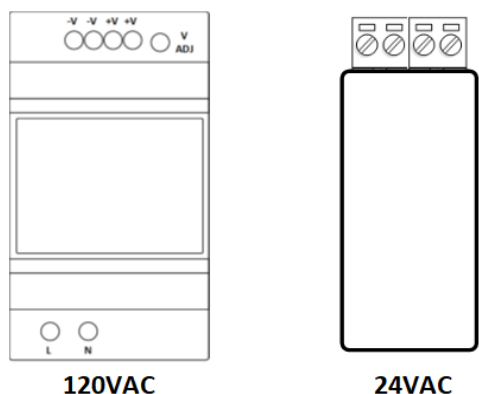
## 2.3 MOUNTING THE ENCLOSURE

The CS0-AC2 enclosure has a metal flange top and bottom for surface mounting. The panel weighs approximately 15lbs.

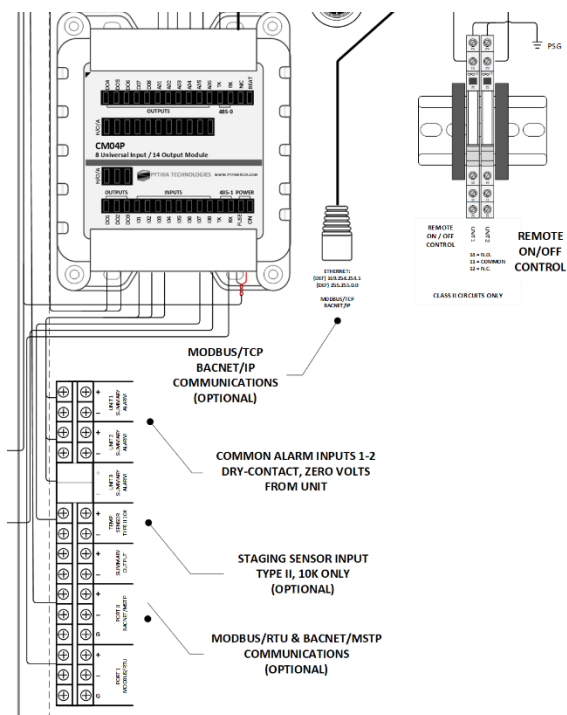


## 2.4 POWER CONNECTION

The CS0-AC2 contains either a 120/240-volt or 24VAC to 12VDC power supply that is located inside the panel. Installers will find the power supply with labeling for Line, Neutral and Ground. The power supply will draw a maximum of 1.8 Amps, so a standard 15 Amp outlet will suffice. Note: The installing contractor is responsible for disconnects if required by local electrical codes.



## 2.5 LOW VOLTAGE CONNECTIONS



## 2.6 INSTALLATION CONSIDERATIONS

The CS0-AC2 must be installed indoors and may be mounted on the surface of a wall or flush-mounted, depending on the user's application, the location of equipment to be connected and the type of wall the unit will be mounted on.

The CS0-AC2 should be mounted where it can be easily accessed. On-site personnel would access the unit through the front cover and/or the network or communications port located inside the cabinet.

The site also must have electrical service (120VAC) and must permit connecting the unit's two digital inputs and two digital outputs.

#### COMMON ALARM INPUTS:

The CS0-AC2 is designed to monitor voltage -free dry contacts. Contact Pythia Technologies other applications.

#### OUTPUT CONTROL RELAYS:

The CS0-AC2 is designed handle Class II circuits (100VA or less) on the output relays. If higher power is required, additional relays or contactors may be required.

## 2.7 WIRING SPECIFICATIONS

Input and output connections to the CS0-AC2 may be made in any order—it is not necessary, for example, to make all input connections before making any output connections. Use copper conductors only for all wiring.

Wiring	
Common Alarm Input	18-22 AWG Stranded—Belden 9740 (non-Plenum), Belden 89740 (plenum) or equal
Output Control Relay	14-18 AWG Stranded
Common Alarm Output	18-22 AWG Stranded—Belden 9740 (non-Plenum), Belden 89740 (plenum) or equal
Input Power	Standard 3-wire 120 VAC - 14 AWG.
RS485 Communications	18-22 AWG twisted pair, shielded, stranded Belden 88761 or equal
Network Communications	Standard CAT5, CAT6

## 3. OPERATION BASICS

### 3.1 DEFAULT OPERATION / SETTINGS

- Unit 1 = Primary, N.O. connection
- Unit 2 = Standby, N.O connection
- Failover = Enabled
- Latch Primary Alarm = Enabled
- Latch Primary On = Enabled
- Auto Changeover = Enabled, Wednesday @ 9am
- Temperature Staging = Disabled

### 3.2 UNIT WIRING

The output control relays have outputs for Normally Open (NO) as well as Normally Closed (NC). By default, units are configured for Normally Open connectivity. As a failsafe for power failure conditions, units may be wired to the Normally Closed contacts. User will need to match the physical wiring to the settings in the firmware for proper operation.

### 3.3 PRIMARY vs. STANDBY UNITS

Primary units are defined as the units designated to operate. Primary units are commanded to run when required and will be monitored for their common alarm input, where an action will be taken as the remaining settings for Failover, Auto Changeover and Staging dictate.

Standby units are generally not running and are connected for backup purposes or used in conjunction with the Staging feature of the CS0-AC2. All alarms are ignored for Standby units, which allows for the guarantee that a unit is commanded to run when a Primary unit fails (failsafe).

### 3.4 COMMON ALARM INPUT DELAY

By default, common alarm inputs are ignored for 10 seconds. Users may select from a range of 0-600 seconds.

### 3.5 PRIMARY UNIT LATCH ALARM

The firmware allows the user to whether the alarm indicator will “latch” on or off. In normal operation, the Standby unit will be commanded to run when an alarm occurs on the Primary. During this time, the Primary unit will be in the off condition for the entire time it remains in alarm. If the alarm condition transitions back to normal, the Primary unit will be commanded to run and the Standby unit will turn off.

When “Primary unit alarm latch” is enabled, the Primary unit will be locked out when an alarm occurs. This will prevent units from cycling when a “real” alarm on the Primary unit prohibits proper operation. Once the alarm condition is satisfied, the user can hold the Acknowledge for ~5 seconds or until the latch clears. At this point, CS0-AC2 operation returns to normal.

### 3.6 PRIMARY UNIT LATCH ON

This option allows user to select whether a unit continues to run when an alarm occurs.

### 3.7 FAILOVER

Failover is defined as commanding additional units “on” when a common alarm occurs on another unit. The failover feature can be enabled / disabled via the CS0-AC2 setup. Units are separated by Primary and Standby distinctions. When a Primary unit fails, the Standby unit will be commanded to “run” via an output relay. The internal alarm will sound by default and the CS0-AC2 will illuminate the front panel LED for “Unit Hold” indicating that a changeover has occurred. During this exchange, common alarms will be discarded for the time period configured in IPSETUNITSCYCLETIME. This time period will allow the Standby unit to establish itself and clear any common alarms that may have occurred during Standby operation.

### 3.8 AUTO CHANGEOVER / SWAP NOW

This feature permits units to automatically switch between Primary and Standby modes. This feature is useful in equalizing the runtime of units. The feature can be enable / disabled through the CS0-AC2 setup, as well as defining the parameters for changeover. The day of week, day of month or run hours along with the time of day, can define the trigger for auto changeover. During this change over, common alarms will be discarded for the time period configured in IPSETUNITSCYCLETIME. This time period will allow the Standby unit to establish itself and clear any common alarms that may have occurred during Standby operation.

#### SWAP NOW FUNCTION

When the Auto Changeover function is enabled, users may manually swap the Primary and Standby unit by holding the front panel Acknowledge button for ~ 15 seconds, or until the changeover occurs.

### 3.9 TIME SYNCHRONIZATION

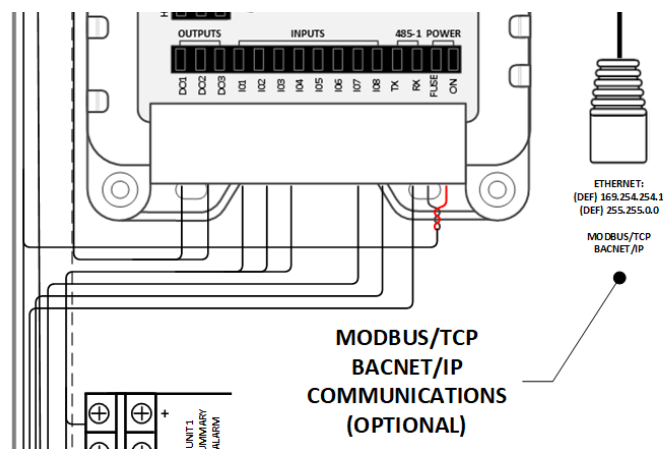
Time can be synchronized via the setup tool. Users can synchronize the time between the PC used for setup and the module. This ensures accurate timing between the changeover events and user expectations.

### 3.10 TEMPERATURE STAGING

Temperature staging is an additional feature that can be enabled / disabled the unit setup. The 2-step staging feature allows user to add an external temperature sensor (10K Type II) to command units “on” based on the temperature reading. This feature can work in conjunction with the Failover and Auto Changeover functions.

## 4. COMMUNICATION INTERFACES

The CS0-AC2 has Modbus and BACnet interfaces available via the network and RS-485 connections. See specifics below regarding connectivity and available points. Note: the Modbus interface allows user to monitor and control (R/W) the CS0-AC2, while the BACnet interface is monitoring only (R).



### 4.1 Modbus Interface

Modbus/TCP and Modbus/RTU are available on CS0-AC2. See the drawing on the previous page for location of the connections. This protocol allows users to monitor and control (R/W) the CS0-AC2.

Modbus register information as well as changing settings can be done by connecting to the network port of the CS0-AC2 and using the configuration tool as outline in sections “CONNECTING TO THE CS0-AC2” and “INITIAL SETUP - CONFIGURATION TOOL.”

The specific commands below will provide information on current set up as well as the ability to edit the properties to suit your application.

**SHOWDEFAULTS** – shows the current properties of the CS0-AC2

**SHOWMODBUSREGISTERS** – provides a current Modbus listing as well as current readings

**IPSETIP** – change the IP address of the CS0-AC2, if required

**IPSETMODBUS** – change the Slave ID

**IPSETBAUD1** – set the communications baud rate

## **4.2 BACnet Interface**

BACnet/IP and BACnet/MSTP are available on CS0-AC2. See the drawing on the previous page for location of the connections. This protocol allows users to monitor and control (R/W) the CS0-AC2.

BACnet Object listings as well as changing settings can be done by connecting to the network port of the CS0-AC2 and using the configuration tool as outline in sections "CONNECTING TO THE CS0-AC2" and "INITIAL SETUP - CONFIGURATION TOOL."

The specific commands below will provide information on current set up as well as the ability to edit the properties to suit your application.

**SHOWDEFAULTS** – shows the current properties of the CS0-AC2

**SHOWBACNETOBJECTS** – provides a current BACnet object listing as well as current readings

**IPSETIP** – change the IP address of the CS0-AC2, if required

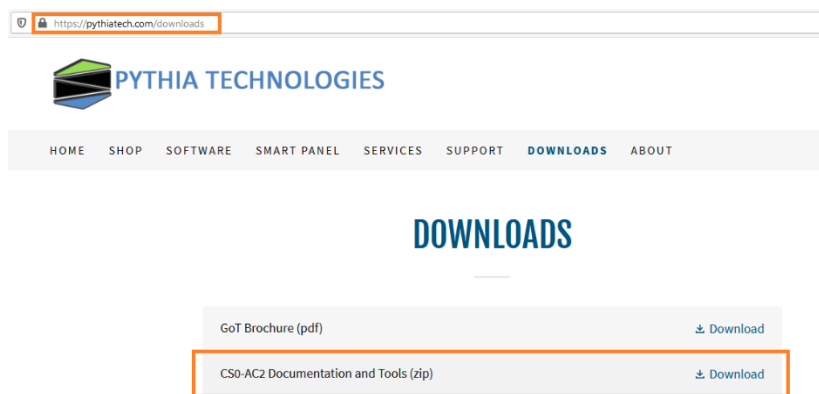
**IPSETMODBUS** – change the MAC address

**IPSETBAUD0** – set the communications baud rate

## 5. CONFIGURATION TOOL AND THE CS0-AC2

The CS0-AC2 requires users to download a specific software tool to configure the module.

The CS0-AC2 configuration tool can be found at <https://pythiatech.com/downloads>  
Select the link for CS0-AC2 Documentation and Tools (zip) and unzip the files using your favorite tool.



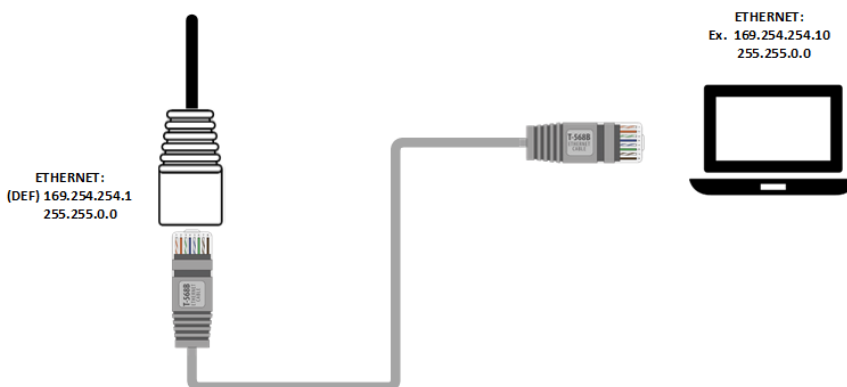
### 5.1 CONNECTING TO THE CS0-AC2

TCP / Network (RJ45): Connect a standard CAT5/6 cable to the Ethernet dongle located inside the enclosure next to the CM04P IO module. Users will need to set a static IP address of their machine to be on the same subnet as the CS0-AC2.

CS0-AC2 Default IP address: 169.254.254.1 / 255.255.0.0 / 169.254.254.254

Example User IP address: 169.254.254.10 / 255.255.0.0

(Gateway address is not required for configuration.)



## 5.2 INITIAL SETUP - CONFIGURATION TOOL

Once users have configured a static IP address as noted above, the CM03-AC2 should reply to simple ping commands from the laptop.

```
Pinging 169.254.254.1 with 32 bytes of data:  
Reply from 169.254.254.1: bytes=32 time=3ms TTL=128  
Reply from 169.254.254.1: bytes=32 time=3ms TTL=128  
Reply from 169.254.254.1: bytes=32 time=3ms TTL=128  
Reply from 169.254.254.1: bytes=32 time=3ms TTL=128
```

To see the ALL available commands and options, type “PTT\_CM04P\_AC02\_TOOLS” and press enter.

To see additional for information for each command option, type:

Ex: PTT\_CM04P\_AC02\_TOOLS IPHELP

To see current module configuration,

Syntax: IPGETCONFIG <ip\_address>

Ex: PTT\_CM04P\_AC02\_TOOLS IPGETCONFIG 169.254.254.1

### 5.2.1 Configure module IP address (if required)

Syntax: IPSETIP <existing\_ip\_address> <new\_ip\_address> <new\_netmask> <new\_gateway>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETIP 169.254.254.1 192.168.1.1 255.255.255.0 192.168.1.254

### 5.2.2 Configure module time

The CS0-AC2 will synchronize time with the current PC time used for configuration. Time is set to Eastern Standard Time by default.

Syntax: IPSETTIME <ip\_address>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTIME 169.254.254.1

### 5.2.3 Configure Unit Cycle Time

The Unit Cycle Time is intended to provide a delay to allow units to start and clear any “common alarms” before considering the unit as failed. This setting will keep units from bouncing on/off when temperatures are close to setpoints, or when a unit has a repeating common alarm. Set (in minutes) the delay times that a unit dictate the amount of time that a unit will run regardless of the common alarm input.

IPSETUNITSCYCLETIME: “10 = Default”.

Syntax: IPSETUNITSCYCLETIME <ip\_address> <cycle\_minutes>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETUNITSCYCLETIME 169.254.254.1 5

### 5.2.4 Configure Primary unit’s Alarm Delay as “0-600 seconds” - default is 10-seconds.

Syntax: IPSETALARMDELAY <ip\_address> <delay\_seconds>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETALARMDELAY 169.254.254.1 30

### 5.2.5 Configure Primary Unit to Latch ON in alarm

IPSETLATCHPRIMARYON: "0=NO (default)", "1=YES"

Syntax: IPSETLATCHPRIMARYON <ip\_address> <latch\_mode>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETLATCHPRIMARYON 169.254.254.1 1

### 5.2.6 Configure Each Unit Mode

IPSETUNIT1MODE: "0=OFF (default)", "1=ON", "2=STANDBY" or "3=PRIMARY".

Syntax: IPSETUNIT1MODE <ip\_address> <unit\_mode>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETUNIT1MODE 169.254.254.1 3

Syntax: IPSETUNIT2MODE <ip\_address> <unit\_mode>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETUNIT2MODE 169.254.254.1 2

### 5.2.7 Configure Wiring Connection

This setting needs to match the physical connections on the output relay board.

IPSETUNIT1CONNECTION: "0=Normally Open (default)", "1=Normally Closed".

Syntax: IPSETUNIT1CONNECTION <ip\_address> <unit\_connection>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETUNIT1CONNECTION 169.254.254.1 0

Syntax: IPSETUNIT2CONNECTION <ip\_address> <unit\_connection>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETUNIT2CONNECTION 169.254.254.1 0

### 5.2.8 Configure Failover

This setting enables or disable the function of basic failover, or lead/lag operation. Failover is defined as, when a Primary unit fails, the Standby unit will be told to run. Alarms are discarded for the duration defined in section 3.2.3 Unit Cycle Time and the UNIT HOLD lamp will be lit on the front panel.

IPSETFAILOVER: "0=DISABLED (default)", "1=ENABLED"

Syntax: IPSETFAILOVER <ip\_address> <fail\_mode>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETFAILOVER 169.254.254.1 1

### 5.2.9 Configure Auto Changeover

AUTO CHANGEOVER is defined as the method to automatically rotate units based on a schedule. Defining AUTO CHANGEOVER is a 4-step method.

The steps are:

IPSETAUTOCHANGEOVER – enables the mode for changeover (ex. Monthly)

- Mode 0 = Disabled
- Mode 1 = Day of Week (Range: 0= Sunday)
- Mode 2 = Day of the Month (Range: 0-31)
- Mode 3 = Number of Days (Range: 1-62)

IPSETAUTOCHANGEPERIOD – defines settings for changeover by week, month, or hours. (ex. 15<sup>th</sup>)

IPSETAUTOCHANGEHOUR – defines the hour of day to changeover (ex. 8am)  
IPSETAUTOCHANGEHOUR - defines the minute of hour to changeover (ex. 30)

Syntax: IPSETAUTOCHANGEOVER <ip\_address> <auto\_mode>  
Ex: PTT\_CM04P\_AC02\_TOOLS IPSETAUTOCHANGEOVER 169.254.254.1 3 \*\*Days

Syntax: IPSETAUTOCHANGEPERIOD <ip\_address> <auto\_period>  
Ex: PTT\_CM004P\_AC02\_TOOLS IPSETAUTOCHANGEPERIOD 169.254.254.1 15 \*\*Days

Syntax: IPSETAUTOCHANGEOVERHOUR <ip\_address> <auto\_mode>  
Ex: PTT\_CM04P\_AC02\_TOOLS IPSETAUTOCHANGEHOUR 169.254.254.1 8

Syntax: IPSETAUTOCHANGEMIN <ip\_address> <auto\_minute>  
Ex: PTT\_CM04P\_AC02\_TOOLS IPSETAUTOCHANGEMIN 169.254.254.1 30

### 5.2.10 Configure Temperature Staging

TEMPERATURE STAGING is defined as the method to automatically control standby units based on reading from a temperature sensor. When TEMPERATURE STAGING is enabled, users will then define the 2-step thresholds by using the IPSETTEMPSTAGE1 and IPSETTEMPSTAGE2 commands. User will then set the IPSETTEMPSTAGERANGE which is the hysteresis value.

Enable / Disable Temperature Staging: "0=DISABLED (default)", 1=ENABLED

Syntax: IPSETTEMPSTAGE <ip\_address> <tempstage\_mode>  
Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTEMPSTAGE 169.254.254.1 1

Configure Temperature Staging Temperature 1 as "45-95 (default=75)".

Syntax: IPSETTEMPSTAGE1 <ip\_address> <temperature>  
Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTEMPSTAGE1 169.254.254.1 70

Configure Temperature Staging Temperature 2 as "45-95 (default=80)".

Syntax: IPSETTEMPSTAGE2 <ip\_address> <temperature>  
Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTEMPSTAGE2 169.254.254.1 78

Configure Temperature Staging Temperature Range as "0-10 (default=5)".

Syntax: IPSETTEMPSTAGERANGE <ip\_address> <tempstage\_range>  
Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTEMPRANGE 169.254.254.1 2

### 5.3 Full Command List

#### COMMANDS

SHOWDEFAULTS  
SHOWMODBUSREGISTERS  
SHOWBACNETOBJECTS

#### IP Commands:

IPHELP  
IPSCAN  
IPGETCONFIG <ip\_address>  
IPSETIP <existing\_ip\_address> <new\_ip\_address> <new\_netmask> <new\_gateway>  
IPSETMODBUS <ip\_address> <modbus\_address>  
IPSETBAUD0 <ip\_address> <new\_baud\_rate0>  
IPSETBAUD1 <ip\_address> <new\_baud\_rate1>  
IPSETREBOOT <ip\_address>  
IPSETBUZZER <ip\_address>  
IPSETBUZZERVOLUME <ip\_address> <buzzer\_volume>  
IPSETTIME <ip\_address>  
IPSETUNITSCYCLETIME <ip\_address> <cycle\_minutes>  
IPSETLATCHPRIMARYALARM <ip\_address> <latch\_mode>  
IPSETLATCHPRIMARYON <ip\_address> <latch\_mode>  
IPSETALARMDELAY <ip\_address> <delay\_seconds>  
IPSETUNIT1MODE <ip\_address> <unit\_mode>  
IPSETUNIT1CONNECTION <ip\_address> <unit\_connection>  
IPSETUNIT2MODE <ip\_address> <unit\_mode>  
IPSETUNIT2CONNECTION <ip\_address> <unit\_connection>  
IPSETFAILOVER <ip\_address> <fail\_mode>  
IPSETAUTOCHANGEOVER <ip\_address> <auto\_mode>  
IPSETAUTOCHANGEPERIOD <ip\_address> <auto\_period>  
IPSETAUTOCHANGEHOUR <ip\_address> <auto\_hour>  
IPSETAUTOCHANGEMIN <ip\_address> <auto\_minute>  
IPSETTEMPSTAGE <ip\_address> <tempstage\_mode>  
IPSETTEMPSTAGE1 <ip\_address> <temperature>  
IPSETTEMPSTAGE2 <ip\_address> <temperature>  
IPSETTEMPSTAGERANGE <ip\_address> <tempstage\_range>

#### Options:

<baud\_rate0>  
9600 19200 38400  
<baud\_rate1>  
9600 19200 38400 56000 115200  
<modbus/mstp\_address>  
Modbus=1-254 MSTP=1-126  
<buzzer\_volume>  
1=LOW 2=MED 10=HIGH (1-10)  
<cycle\_minutes>  
0-59  
<latch\_mode>  
0=No 1=Yes  
<delay\_seconds>  
0-599  
<unit\_mode>

0=Off 1=On 2=Standby 3=Primary  
 <unit\_connection>  
 0=Normally Open 1=Normally Closed  
 <fail\_mode>  
 0=Disabled 1=Enabled  
 <auto\_mode>  
 0=Disabled 1=Day of Week 2=Day of Month 3=Days  
 <auto\_period>  
 Day of Week (0-6) Day of Month (1-31) Days (1-62)  
 <auto\_hour>  
 0-23  
 <auto\_minute>  
 0-59  
 <tempstage\_mode>  
 0=Disabled 1=Enabled  
 <temperature>  
 45-95  
 <tempstage\_range>  
 0-10

## COMMANDS HELP

### IPHELP

Show HELP for IP commands

### IPSCAN

Scan available IP addresses for module - local subnets only

### IPGETCONFIG <ip\_address>

Get module configuration

### IPSETIP <existing\_ip\_address> <new\_ip\_address> <new\_netmask> <new\_gateway>

Set module IP address configuration

### IPSETMODBUS <ip\_address> <modbus\_address>

Set module Modbus address

### IPSETBAUD0 <ip\_address> <new\_baud\_rate0>

Change module baud rate

### IPSETBAUD1 <ip\_address> <new\_baud\_rate1>

Change module baud rate

### IPSETREBOOT <ip\_address>

Reboot module

### IPSETBUZZER <ip\_address>

Silence Buzzer

### IPSETBUZZERVOLUME <ip\_address> <buzzer\_volume>

Configure Buzzer Volume

### IPSETTIME <ip\_address>

Sync module time with PC time

### IPSETUNITSCYCLETIME <ip\_address> <cycle\_minutes>

Configure unit cycle On/Off time

### IPSETLATCHPRIMARYALARM <ip\_address> <latch\_mode>

Configure latch primary alarm

### IPSETLATCHPRIMARYON <ip\_address> <latch\_mode>

Configure latch primary on

### IPSETALARMDELAY <ip\_address> <delay\_seconds>

Configure alarm delay

### IPSETUNIT1MODE <ip\_address> <unit\_mode>

Configure unit 1 mode

IPSETUNIT1CONNECTION <ip\_address> <unit\_connection>  
    Configure unit 1 wiring connection  
IPSETUNIT2MODE <ip\_address> <unit\_mode>  
    Configure unit mode  
IPSETUNIT2CONNECTION <ip\_address> <unit\_connection>  
    Configure unit 1 wiring connection  
IPSETFAILOVER <ip\_address> <fail\_mode>  
    Configure failover operation  
IPSETAUTOCHANGEOVER <ip\_address> <auto\_mode>  
    Configure autochangeover operation  
IPSETAUTOCHANGEPERIOD <ip\_address> <auto\_period>  
    Configure autochangeover period  
IPSETAUTOCHANGEHOUR <ip\_address> <auto\_hour>  
    Configure autochangeover hour  
IPSETAUTOCHANGEMIN <ip\_address> <auto\_minute>  
    Configure autochangeover minute  
IPSETTEMPSTAGE <ip\_address> <tempstage\_mode>  
    Configure temperature staging operation  
IPSETTEMPSTAGE1 <ip\_address> <temperature>  
    Configure stage 1 temperature  
IPSETTEMPSTAGE2 <ip\_address> <temperature>  
    Configure stage 2 temperature  
IPSETTEMPSTAGERANGE <ip\_address> <tempstage\_range>  
    Configure temperature range

**EXAMPLE CONFIGURATION**

Model: CM04P (74-10)  
Serial #: 000214C5  
Firmware Version: 53.1  
Hardware Version: 10  
Current Module Time: Tuesday 11-03-2020 13:21:32

IP Mode: STATIC  
IP Address: 169.254.254.1  
Netmask: 255.255.0.0  
Gateway: 169.254.254.254

Modbus/BACnet MSTP Address: 2  
Baud Rate0: 19200  
Protocol0: BACnet MSTP  
Baud Rate1: 19200  
Protocol1: Modbus/RTU

Setpoints:  
Buzzer = On  
Buzzer Volume = 3  
Unit Cycle Time = 10  
Primary Alarm Delay = 5  
Latch Primary Alarm = Yes  
Latch Primary On = Yes  
Unit 1 Mode = Primary  
Unit 1 Connection = Normally Open  
Unit 2 Mode = Standby  
Unit 2 Connection = Normally Open

Failover Mode = On  
Auto changeover Mode = Day of Week  
Auto changeover Period = 3  
Auto changeover Hour = 9  
Auto changeover Minute = 00  
Temperature Staging Mode = Off  
Temperature Stage 1 = 75  
Temperature Stage 2 = 80  
Temperature Range = 5

Status:  
Unit 1 = On  
Unit 2 = Off  
Unit Hold = Off  
Summary Alarm = Off  
Unit 1 Alarm = Off  
Unit 2 Alarm = Off  
Buzzer = Off  
Temperature = 73.94  
Stage = 0