



**PYTHIA TECHNOLOGIES**  
*data transformation solutions*

# Quick Start Guide

## CS0-AC2

Version 20201124

### INTRODUCTION

The panel provides Modbus/TCP/RTU (monitoring and control) and BACnet/IP/MSTP (monitoring only). The module is configured via the PTT\_CM04P\_AC02\_Tools.exe tool which can be downloaded from <https://www.pythiatech.com/downloads>.

CS0-AC2 Documentation and Tools (zip)

[Download](#)

### Default Communication Settings

- IP Address: 169.254.254.1, 255.255.0.0, 169.254.254.254
- Modbus/BACnet MSTP Address: 2
- Serial Configuration: 19200, 8, N, 1

*Note: Configure your PC will with a static IP address on the same subnet. For example: 169.254.254.10, 255.255.0.0. Gateway is not required with direct connect.*

### Default Panel configuration

Unit 1 as Primary  
Unit 2 as Standby  
Failover enabled  
Auto Changeover disabled  
Temperature Staging disabled

## CONFIGURATION

To see the 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,

IPGETCONFIG <ip\_address>

Ex: PTT\_CM04P\_AC02\_TOOLS IPGETCONFIG 169.254.254.1

Step 1: Configure module IP address if required.

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

Step 2: Configure module time. Module will sync with current PC time.

IPSETTIME <ip\_address>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTIME 169.254.254.1

Step 3: Configure each Unit Cycle Time – default is 10-minutes.

IPSETUNITCYCLETIME <ip\_address> <cycle\_minutes>

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

Step 4: Configure Primary unit's Alarm Delay as "0-600 seconds" - default is 10-seconds.

IPSETALARMDELAY <ip\_address> <delay\_seconds>

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

Step 5: Configure Primary unit to Latch On in alarm as "0=NO (default)", "1=YES".

IPSETLATCHPRIMARYON <ip\_address> <latch\_mode>

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

Step 6: Configure each unit's Mode as "0=OFF (default)", "1=ON", "2=STANDBY" or "3=PRIMARY".

IPSETUNIT1MODE <ip\_address> <unit\_mode>

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

IPSETUNIT2MODE <ip\_address> <unit\_mode>

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

Step 7: Configure each unit's wiring Connection as "0=Normally Open (default)", "1=Normally Closed".

IPSETUNIT1CONNECTION <ip\_address> <unit\_connection>

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

IPSETUNIT2CONNECTION <ip\_address> <unit\_connection>

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

Step 8: Configure Failover as "0=DISABLED", "1=ENABLED (default)".

IPSETFAILOVER <ip\_address> <fail\_mode>

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

Step 9: Configure Auto Changeover as "0=Disabled (default)", "1=Day of Week" "2=Day of Month" "3=Days".

IPSETAUTOCHANGEOVER <ip\_address> <auto\_mode>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETAUTOCHANGEOVER 169.254.254.1 3 \*\*Days

Step 10A: Configure Auto Changeover Period as "Day of Week(0-6 0=Sunday)", "Day of Month(1-31)", "Days(1-62)".

IPSETAUTOCHANGEPERIOD <ip\_address> <auto\_period>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETAUTOCHANGEPERIOD 169.254.254.1 30 \*\*Days

Step 10B: Configure Auto Changeover Hour as "0-23 (default=0)".

IPSETAUTOCHANGEOVER <ip\_address> <auto\_mode>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETAUTOCHANGEHOUR 169.254.254.1 12

Step 10C: Configure Auto Changeover Minute as "0-59 (default=0)".

IPSETAUTOCHANGEMIN <ip\_address> <auto\_minute>

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

Step 11: Configure Temperature Staging as "0=DISABLED (default)", "1=ENABLED".

IPSETTEMPSTAGE <ip\_address> <tempstage\_mode>

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

Step 11A: Configure Temperature Staging Temperature 1 as "45-95 (default=75)".

IPSETTEMPSTAGE1 <ip\_address> <temperature>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTEMPSTAGE1 169.254.254.1 70

Step 11B: Configure Temperature Staging Temperature 2 as "45-95 (default=80)".

IPSETTEMPSTAGE2 <ip\_address> <temperature>

Ex: PTT\_CM04P\_AC02\_TOOLS IPSETTEMPSTAGE2 169.254.254.1 78

Step 11C: Configure Temperature Staging Temperature Range as "0-10 (default=5)".

IPSETTEMPSTAGERANGE <ip\_address> <tempstage\_range>

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

## 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>  
 IPSETAUTOCHANGEVER <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 units 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 = 1  
Primary Alarm Delay = 5  
Latch Primary Alarm = No  
Latch Primary On = No  
Unit 1 Mode = Primary  
Unit 1 Connection = Normally Open  
Unit 2 Mode = Standby  
Unit 2 Connection = Normally Closed

Failover Mode = On  
Autochangeover Mode = Day of Week  
Autochangeover Period = 1  
Autochangeover Hour = 17  
Autochangeover Minute = 41  
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

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