

USERS GUIDE

Smart Panel FSS4

Version 2.0 - 12/2020

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1. INTRODUCTION

The SP-FSS4 is a microprocessor-based controller that is designed to monitor dry-contact summary alarm conditions from any piece of equipment that requires an automated way to provide auto sequencing, failover and/or temperature staging. The relay outputs of the SP-FSS4 signal the external equipment to start / stop based on the parameters set within the program.

Each feature of auto sequencing, failover and temperature staging may be enabled / disabled so users can define exactly how the system should operate for their environment.

STANDARD FEATURES AND FUNCTIONS:

- Monitor up to 4 devices thru dry contacts
- Control devices thru start/stop relay
- Auto-Sequencing enable / disable
- Fail-over enable / disable
- 4-step temperature staging (1 per group)
- Modbus TCP and SNMP for remote monitoring systems
- WIFI Capable
- Web enabled for configuration and operational viewing
- Event notifications when connected to the customers network
- Data logging and trend graphing
- Extensible by adding more I/O capability
- Common alarm output per unit
- Internal horn, power and common alarm relay

AUTOMATIONS:

- Event notifications based on severity and assigned category
- Configurable time-based exception processing (optional use)
- SMTP messaging for:
 - Email one or more recipients
 - Text messaging via cell provider
 - Voice to Text / Email translation services
- SNMP traps for Network Management System notification

REMOTE ACCESS:

- Compatible with all Internet browsers, smart phones and tablets for anytime, anywhere access

1.1 THEORY OF OPERATION

1.1.1 GROUPS – INITIAL SETUP

There are (2) fixed Groups per system. Groups are a collection of units that will adhere to the Failover, Auto Changeover and Temperature Staging rules set for the individual Group. Units can only be in (1) Group and each Group must have more than (1) Unit. Therefore, the following Group and Unit combinations are valid:

G1 = Unit 1 & Unit 2

G2 = Unit 3 and Unit 4

G1 = Unit 1, Unit 2 and Unit 3

G2 = Empty

G1 = Unit 1, Unit 2, Unit 3 and Unit 4

G2 = Empty

Group Properties:

Failover: The failover feature can be enabled / disabled for the Group. (See Failover Operation for further details.)

Auto-Sequencing: The Auto-Sequencing feature can be enabled / disabled for the Group. (See Auto-Sequencing Operation for further details.)

Auto-Sequencing Start: Specifies the time of day for changeover.

Auto-Sequencing Time: Specifies the number of hours between changeovers.

Temperature Staging: The Temperature Staging feature can be enabled / disabled. (Note: If a temperature sensor is not attached, or if readings are out of range (< 50, >99) the Temperature Staging feature is defeated and defaults to the Failover settings.)

Temperature Setpoint 1-4: Set the desired staging setpoint.

Description: Provide a meaningful description for the location. Example: North-End Units

1.1.2 UNIT – INITIAL SETUP

Units are added to either Group 1 or Group 2 for the purpose of working in adherence to the rule set up for the Group. Decide which units should work together as well as which units are Active (Primary) or Standby (Backup).

Unit Properties:

Enable: AUTO = dictates that the unit is a part of the overall processes. FORCE ON/OFF = dictates that unit are in the processes but are in a manually forced On or Off position. In normal operation units will be set to Auto mode.

Type: ACTIVE equates to the class of the unit and will be told to run as the primary. STANDBY dictates that this unit will be used for backup purposes. *(Note: This initial setup tells the SP-FSS4 the number of units that are required to run (Active) and the number of units that are in Standby mode.)*

Relay Mode: This setting must be consistent with the output control relay wiring. Units that are connected to the Normally Closed will default to a closed contact. This setting will also reverse the logic required so that remote on/off will work properly.

Description: Provide a meaningful description for the location. Example: CRAC-1

1.1.3 FAILOVER FUNCTION

The Failover function is enabled under the Group Properties as described earlier. Likewise, one of the Unit Type property is Active or Standby.

The number of specified Active Units dictates how many units need to be running within a Group. For instance, (2) units are distinguished as Active + (1) Standby for (3) Units total. If an Active unit goes into

Alarm (Common Alarm Input), then the Standby unit will be commanded ON. If a second unit goes into Alarm, the SP-FSS4 will attempt to bring on another unit to satisfy the (2) running unit requirement.

As normal conditions resume, then normal operation will follow.

1.1.4 AUTO SEQUENCING FUNCTION

Auto Sequencing will count the number of Units noted as Active. This determines the number of units required to run after the changeover and defines the changeover sequence. In normal operation, when the Auto Sequencing Time property and time of day expire, a new combination of units will be commanded to Run. If a unit is in alarm, it is removed from the count of active units.

1.1.5 TEMPERATURE STAGING

The number of Active units determines the minimum number of units to run in Temperature Staging mode. Temperature thresholds should be set in a linear fashion and should be (1) degree or more apart from each other.

As temperature rises in the sensor, more units will be commanded to run to satisfy the threshold. Units are commanded to run in sequence Unit 1 – Unit 4 respectively and regardless of alarm condition.

1.1.6 COMBINING FUNCTIONS AND FUNCTION PRIORITY

Failover, Auto-Sequencing and Temperature staging can be used in conjunction with each other.

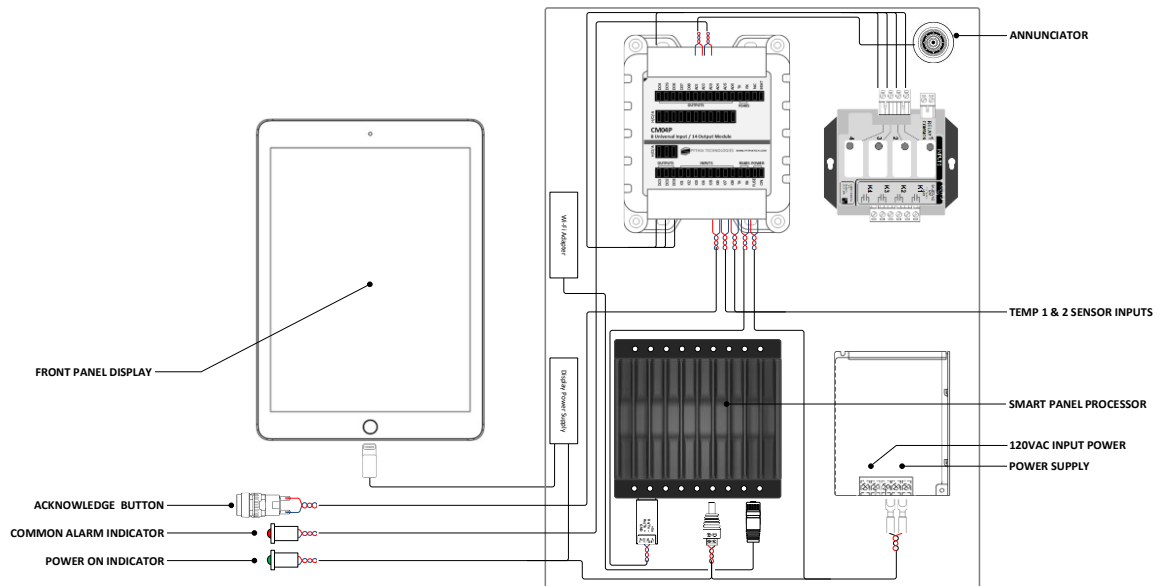
First Priority: When Temperature staging is enabled (by installing a valid temperature sensor), the SP-FSS4 will attempt to satisfy the condition regardless of the common alarm input on the unit. That is, Active units will attempt to satisfy the threshold conditions first, and if necessary, the SP-FSS4 will command Standby units to run. If the threshold is further exceeded, units with an alarm state will also be commanded to run to satisfy the threshold setting.

Second Priority: Failover will operate as expected (see 1.1.3) if there are no influences from Temperature Staging.

Third Priority: Auto Sequencing will operate as expected provided there are no influences from Temperature Staging or Failover.

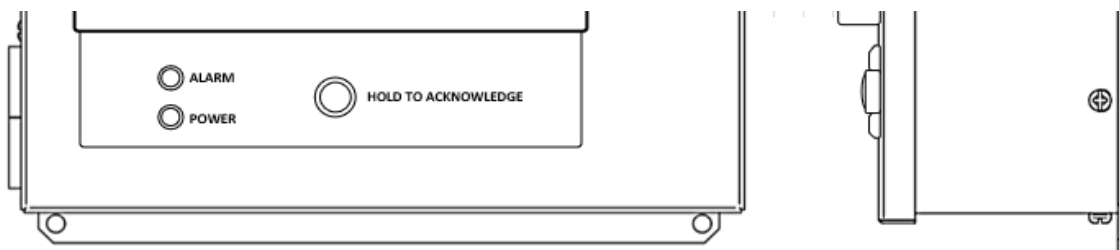
2. GETTING STARTED

2.1 SMART PANEL (SP-FSS4) COMPONENTS:



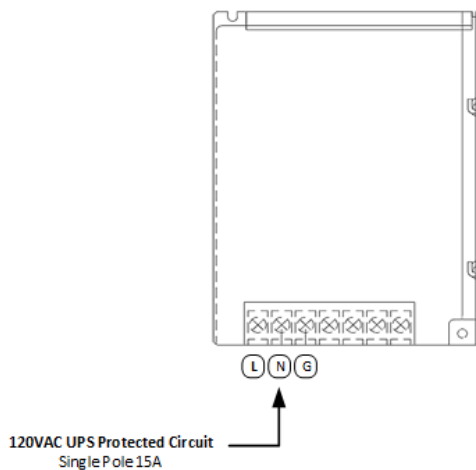
2.2 MOUNTING THE ENCLOSURE

The Smart Panel -FSS4 enclosure has a metal flange top and bottom for surface mounting. The panel weighs approximately 20lbs.



2.3 POWER CONNECTION

The Smart Panel -FSS4 contains a 120/240-volt power supply that is in the lower left-hand section of the panel. Installers will find the power supply with labeling for Line, Neutral and Ground. The power supply will draw a maximum of 1.0 Amps, so a standard 15 Amp outlet will suffice.

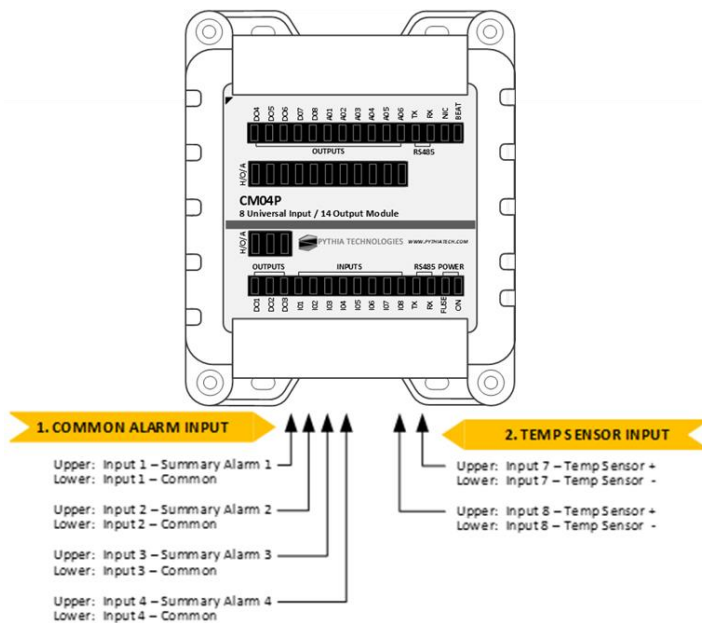


2.4 LOW VOLTAGE CONNECTIONS

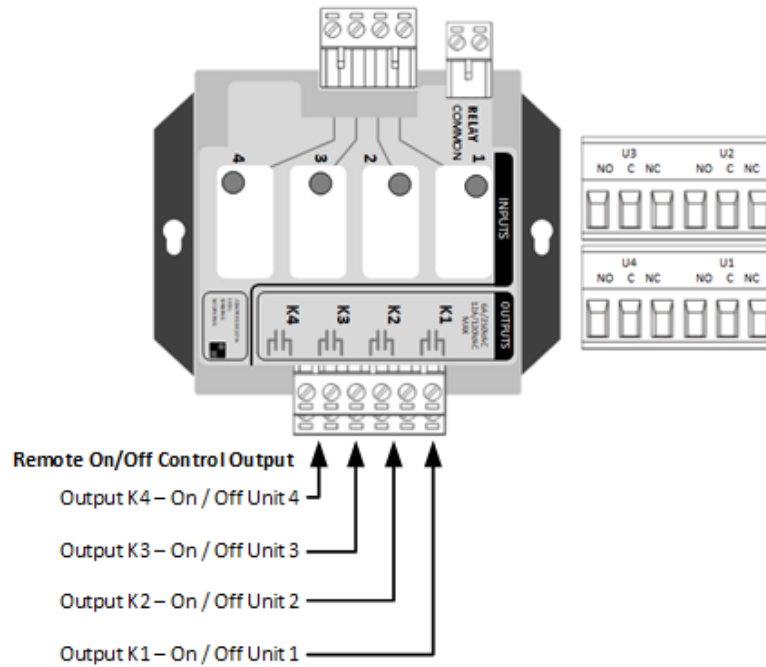
Common Alarm Inputs: Volt-free, dry-contacts are required for signal inputs. The input should signify a common alarm condition from the monitored device.

NOTE: Since the CM04 sources the power for contact closure sensing, the input cannot be shared with other systems.

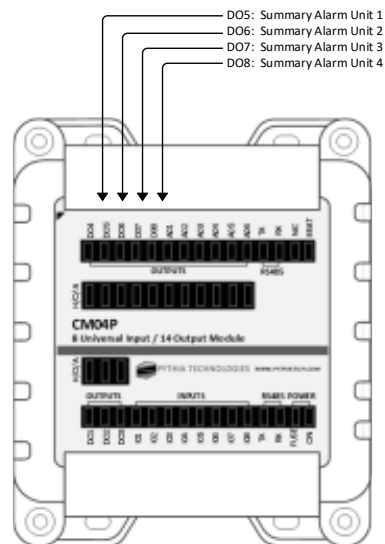
Temperature Staging Thermistors: In order to use the temperature staging feature temperature sensors must be connected to the IO board. (Thermistor, Type II, 10K)



On / Off Control Relay Outputs: The control relay outputs are used to control the desired unit. Note that each unit has a Normally Open and Normally Closed set of contacts. In a failed state (ex: power outage) units wired to the NC set of contacts will effectively commanded to run. Units connected to the NO set of contacts will not run. *(Note: One of the unit properties of the (Relay Setting) is related to this connection. Ensure that when the unit is defined in the system that the Relay Setting matches your wiring.)*



REMOTE MONITORING SUMMARY CONTACT OUTPUTS: The noted contacts are intended to mimic the common alarm input from the unit itself.



3. CONFIGURING THE SMART PANEL

Note: The following instructions are shown from a web browser standpoint. Users with the optional touch panel display (iPad) on the front of the Smart Panel can chose to follow the steps noted in this section or use the front display. All views / settings are comparable in appearance.



3.1 DEFAULT IP ADDRESS

Users will always connect to Port 0 network interface port on the bottom of the Smart Panel processor. Configure your laptop or desktop PC with an address within the same subnet as noted below.

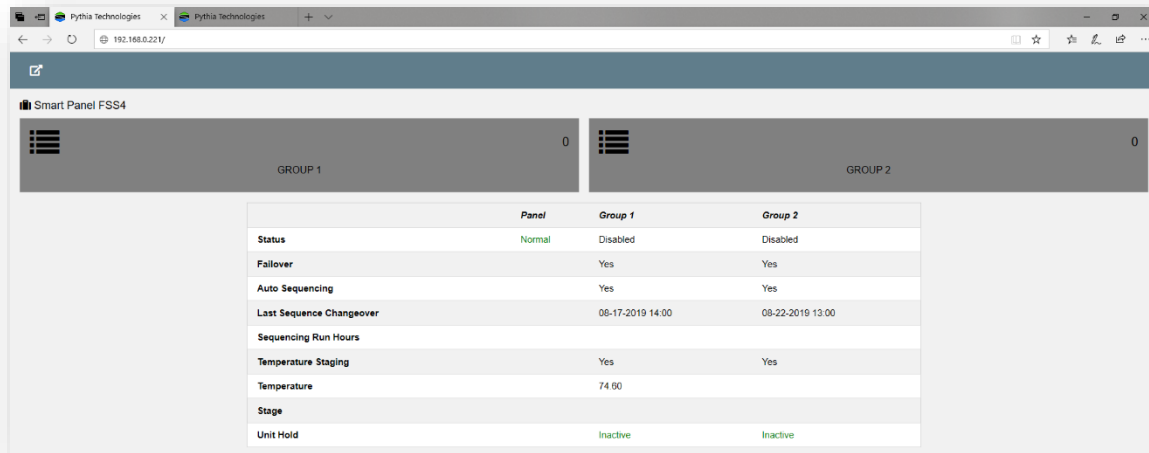
	SMART PANEL (PORT 0)	YOUR PC (EXAMPLE)
IP ADDRESS	192.168.0.221	192.168.0.100
SUBNET	255.255.0.0	255.255.0.0
GATEWAY	192.168.0.254	192.168.0.254

3.2 DEFAULT USERNAME AND PASSWORD

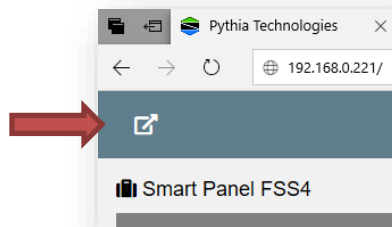
- The default username: "admin"
- The default password is "admin"

3.3 OPEN A WEB BROWSER SESSION

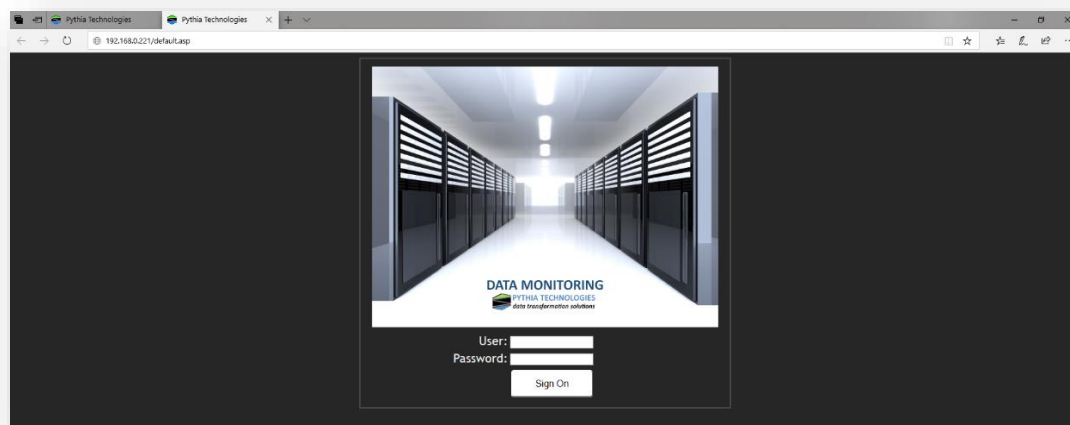
In the address bar type: 192.168.0.221 and a similar screen to following should appear. Note: If web page does not appear, check your network setting, cable, etc.)



Select the icon shown below. This will take you to the main console.



The following web page should appear. Default Username = "admin" and Password = "admin"



3.3.1 SMART PANEL GLOBAL SETTINGS

From the left-hand navigation tree, expand the “Locations” container and then click on the SPFSS4 container. The Properties button in the upper left of the screen will take you to the global settings page of the Smart Panel.

Properties				
Pythia Technologies	Group	Status	Failover	Auto Sequen
Alarms	Group 1	Normal	Yes	Yes
Automations	Group 2	Normal	Yes	Yes
Locations				
SPFSS4				
Logs				
Settings				
Trends				
Users				

DEFINITIONS:

Code: This field may be used to distinguish a facility, room, or area for the location of the Smart Panel

Unit Minimum Runtime: This field dictates that minimal amount of time that a unit will run when commanded. This is intended to keep units from cycling on/off within short periods.

Unit Off-On Delay: This field dictates how long a unit must be Off, before being able to be turned back on. This is intended to keep units from cycling on/off within short periods.

Unit Hold Time: This entry in this field is used whenever a system change occurs. This field dictates the number of minutes that the Common Alarm Inputs are ignored. This is intended to help room stabilization during failover, changeover and other events.

Buzzer: This field allows users to enable / disable the alarm annunciator

Description: User preference.

Select the “Save” button in the upper left of the screen when complete.

Back	Save		
Pythia Technologies	Property	Value	Description
Alarms	Code	<input type="text"/>	Location Code
Automations	Unit Minimum Runtime	2 ▾	Unit Minimum Runtime in Minutes
Locations	Unit Off-On Delay	3 ▾	Unit Cycle Off-On Delay in Minutes
SPFSS4	Unit Hold Time	5 ▾	Unit Change State Hold Time in Minutes
Logs	Buzzer	Enabled ▾	Enable/Silence Buzzer
Settings	Description	Smart Panel FSS4	Location Description
Trends			
Users			

3.3.2 ASSIGNING GROUP PROPERTIES

A Group is a container where the properties are defined for Failover, Auto-changeover and Temperature Staging. Units assigned with the Group will have the same operational properties.

Ultimately, a Group must have more than (1) Unit and may have a maximum of (4) Units assigned.

Access Groups by expanding Locations\SPFSS4 and select Group 1 or Group 2. To edit the Group properties, select the Properties button in the upper left of the screen.

Property	Value	Description
Failover	<input type="checkbox"/>	Enable Unit Failover
Auto Sequencing	<input type="checkbox"/>	Enable Unit Auto Sequencing
Auto Sequencing Start	14:00	Unit Auto Start Time
Auto Sequencing Time	168	Unit Auto Sequencing Time in Hours: (1 - 999)
Auto Sequencing Changeover	08-17-2019 14:00	Last Auto Sequencing Changeover Time
Temperature Staging	<input type="checkbox"/>	Enable Unit Temperature Staging
Temperature Setpoint 1	70	Temperature Staging Setpoint 1: (51 - 90)
Temperature Setpoint 2	70	Temperature Staging Setpoint 2: (51 - 90)
Temperature Setpoint 3	70	Temperature Staging Setpoint 3: (51 - 90)
Temperature Setpoint 4	80	Temperature Staging Setpoint 4: (51 - 90)
Description	Group 1 Units	Group Description

DEFINITIONS:

Failover: This field dictates enabling / disabling the feature.

Auto Sequencing: This field dictates enabling / disabling the feature.

Auto Sequencing Start: This field dictates the time of day that changeover occurs.

Auto Sequencing Time: This field dictates the number of hours between changeovers

Note: The auto sequencing start and time work in conjunction with each other to determine when to swap running units. In the noted example, auto sequencing will occur the next time that 2pm occurs and then every 168 hours thereafter.

If a user wanted to specify a weekly auto sequence cycle, uncheck the Auto Sequencing enable property and select the desired start time and a duration of 168 hours, then Save. Within 24 hours of the desired changeover, users should enable the Auto Sequence function and Save. Meaning that the auto changeover cycle will start the next time the "start time" is reached.

Temperature Staging: This field dictates enabling / disabling the feature.

Temperature Staging Setpoints: These fields dictate the temperature staging requirements.

Select the "Save" button in the upper left of the screen when complete

3.3.3 ADDING A UNIT TO A GROUP

The term Unit is referred to as the device you want to control. By default, units are labeled Unit-1 through Unit-4. Since we have Group 1 selected by the previous example, this step dictates that we will be adding a unit to Group 1. There is an opportunity to name the unit in the description field for the device.

The screenshot shows two overlapping windows from the Pythia Technologies software. The top window, titled 'Add New Unit', has a sidebar with a tree view containing 'Pythia Technologies', 'Alarms', 'Automations', 'Locations', 'SPFSS4', and 'Group 1'. The main area of this window is a table with columns 'Unit', 'Status', and 'En'. The bottom window, titled 'Properties', has a 'Back' and 'Save' button in the top left. Its sidebar shows a similar tree view with 'Group 1' and 'Group 2' expanded. The main area is a table with columns 'Property' and 'Value'. The 'Property' column lists 'Unit', 'Enable', 'Type', 'Unit Relay', and 'Description'. The 'Value' column shows dropdown menus for 'Unit 1', 'AUTO', 'ACTIVE', and 'Normally Open', and a text input field for 'Description'.

Property	Value
Unit	Unit 1
Enable	AUTO
Type	ACTIVE
Unit Relay	Normally Open
Description	

PROPERTY DEFINITIONS:

Unit: Use the pull-down to select the desired unit. *Note: Unit 1 refers to Summary Alarm Input 1, and Output Relay Contact 1.*

Enable: AUTO = Normal Operation, Unit may also be Forced ON/OFF.

Type: Choices are ACTIVE, or STANDBY.

Unit Relay: This field refers to how the unit is wired on at the Output Relay Contact. *Note: This setting must match the wiring for proper operation.*

Description: The actual Unit Name can be entered here.

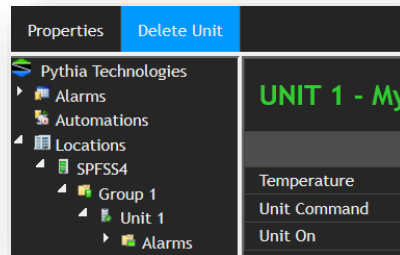
Select the "Save" button in the upper left of the screen when complete. Upon saving you will see the unit appear under the Group container.

Continue to add more units in the same manner.

3.3.4 EDITING UNITS AND GROUPS

An individual Unit can only be in Group 1 or Group 2. If the desired unit is in the wrong Group, or if changes must be made to move a unit from one Group to another Group – the Unit must first be deleted from the present Group, and then added to the proper Group.

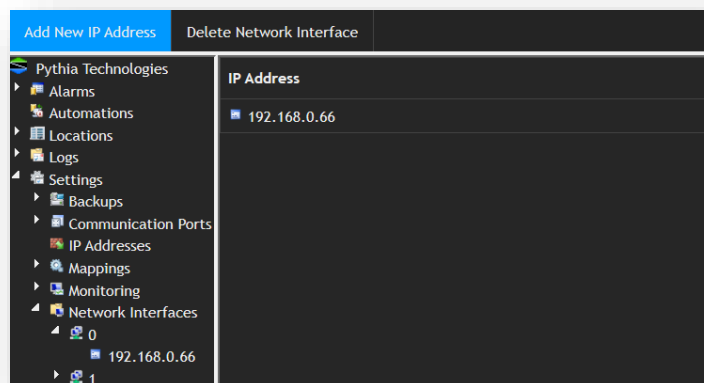
Select the desired Unit under Group 1 / 2, then select the Delete Unit button in the upper left of the screen.



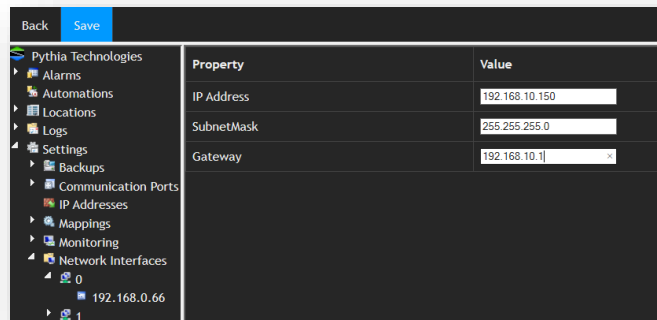
3.4 CHANGING THE IP ADDRESS OF THE SMART PANEL

Ensure that you are plugged into network jack labeled Port 0 before proceeding.

Navigate to Settings / Network Interfaces and click on "0." Select THE Add New IP Address button from the top left of the screen.



Modify the properties as required and select the Save button when complete. Once the IP address is Saved, you should see it in the list under Port 0. More than (1) IP address can be assigned to the port, so the default address can remain, or be deleted – user preference.

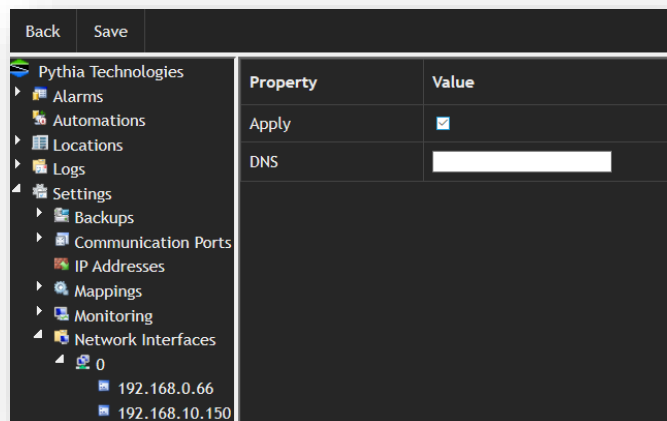


The screenshot shows the 'Save' button highlighted in blue. Below it, a table lists network properties for 'Port 0'.

Property	Value
IP Address	192.168.10.150
SubnetMask	255.255.255.0
Gateway	192.168.10.1

The left sidebar shows a tree view with 'Network Interfaces' expanded, showing '0' and '1'.

IMPORTANT: Once the Save action is complete, the Smart Panel must be restarted for the new IP address can be assigned to the port. Navigate to Settings / Network Interfaces and click Properties from the upper left of the screen. Select the Apply checkbox, then Save. The Smart Panel will now restart. The Smart Panel should be online within 60 seconds.



The screenshot shows the 'Save' button highlighted in blue. Below it, a table lists network properties for 'Port 0'.

Property	Value
Apply	<input checked="" type="checkbox"/>
DNS	

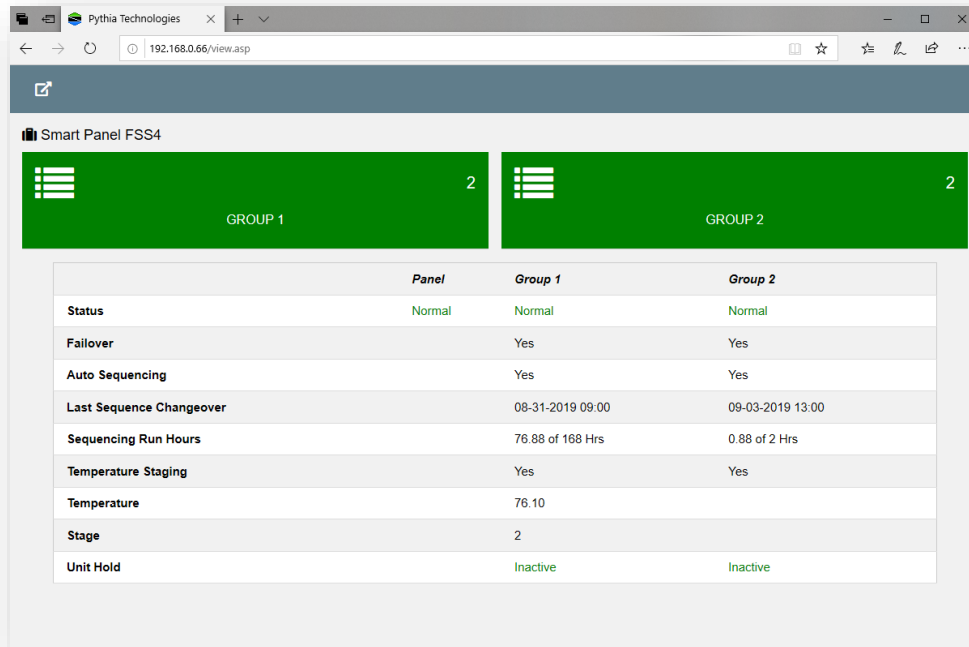
The left sidebar shows a tree view with 'Network Interfaces' expanded, showing '0' and '1'.

4. NAVIGATION – FRONT PANEL DISPLAY

The front panel display is an Apple iPad. The Safari web browser application is configured to go directly to the web site of the SP-FSS4 processor. If navigation is ever lost, user can simply reopen the Safari application and restore functionality.

4.1 MAIN SCREEN

The Main Screen will provide insight on the SP-FSS4 status as well as the operating conditions of the panel. From this point, user will be able to navigate inward using the touch display to review the status of the individual Groups as well as Units.



The screenshot displays a web browser window with the URL 192.168.0.66/view.asp. The page title is 'Smart Panel FSS4'. It features two green summary cards for 'GROUP 1' and 'GROUP 2', each with a menu icon and the number '2'. Below these is a table with the following data:

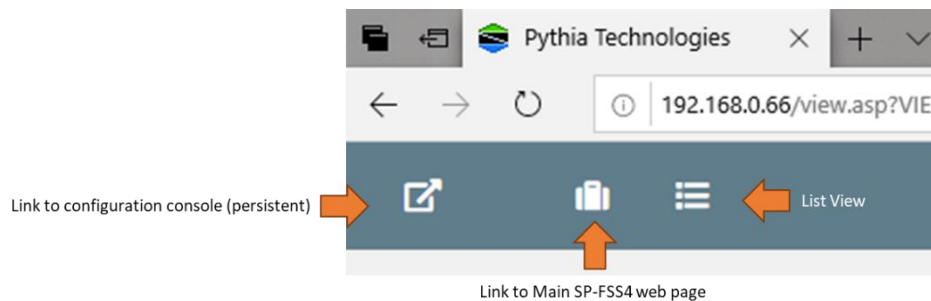
	Panel	Group 1	Group 2
Status	Normal	Normal	Normal
Failover		Yes	Yes
Auto Sequencing		Yes	Yes
Last Sequence Changeover		08-31-2019 09:00	09-03-2019 13:00
Sequencing Run Hours		76.88 of 168 Hrs	0.88 of 2 Hrs
Temperature Staging		Yes	Yes
Temperature		76.10	
Stage		2	
Unit Hold		Inactive	Inactive

4.1.1 NAVIGATION BAR

The navigation bar can be found just under the address bar of the web browser as shown below.

The icon to the far left is persistent and will link you to the main configuration console. This link will open a new window or tab, so you will not lose your place in the web application.

The icons to the right, will vary depending on where you are located within the web page and represent how deep you are in the application. The icons can be viewed a graphical representation of what you have open (window) and allows you to navigate backwards.



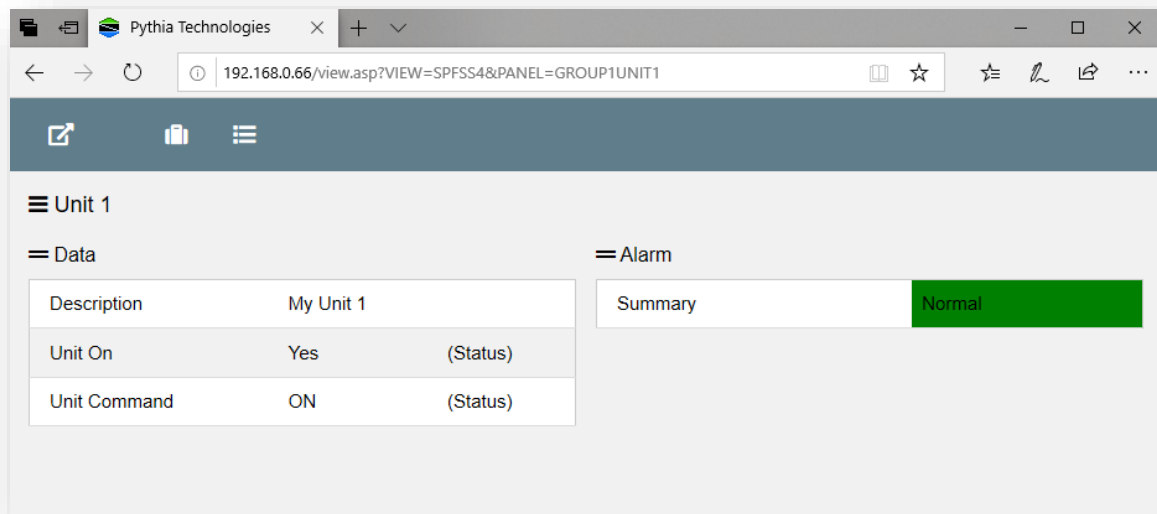
4.1.2 ACCESSING GROUP DATA

Group data can be accessed by selecting the Group 1 or Group 2 icon at the top of the screen, just under the Navigation bar.

	Unit 1	Unit 2
Description	My Unit 1	My Unit 2
Status	Normal	Normal
Enable	AUTO	AUTO
Type	ACTIVE	ACTIVE
Unit Command	ON	ON
Unit On	Yes	Yes
Unit On Relay	Normally Closed	Normally Closed

4.1.3 ACCESSING UNIT DATA

Unit data can be accessed by selecting the Unit icon at the top of the screen.



5. SNMP AND MODBUS TCP REFERENCE

Point Name	SNMP OID	Modbus Register	Read/Write	Notes
Panel Communications	.1.3.6.1.4.1.38801.6.1.0	40001	R	(0=normal, 1=loss of communications)
Panel State	.1.3.6.1.4.1.38801.6.2.0	40002	R	(0=disabled, 1=normal, 2=alarm)
Panel Unit Minimal Run Time	.1.3.6.1.4.1.38801.6.3.0	40003	R/W	(minutes)
Panel Unit Off / On Delay	.1.3.6.1.4.1.38801.6.4.0	40004	R/W	(minutes)
Panel Unit Hold Time	.1.3.6.1.4.1.38801.6.5.0	40005	R/W	(minutes)
Panel Buzzer	.1.3.6.1.4.1.38801.6.6.0	40006	R/W	(0=disabled, 1=enabled, 2=silence momentary)
Group 1 State	.1.3.6.1.4.1.38801.6.1001.0	41001	R	(0=disabled, 1=normal, 2=alarm)
Group 1 Failover	.1.3.6.1.4.1.38801.6.1002.0	41002	R/W	(0=disabled, 1=enabled)
Group 1 Auto Sequence	.1.3.6.1.4.1.38801.6.1003.0	41003	R/W	(0=disabled, 1=enabled)
Group 1 Auto Sequence Start Time	.1.3.6.1.4.1.38801.6.1004.0	41004	R/W	(hour)
Group 1 Auto Sequence Time	.1.3.6.1.4.1.38801.6.1005.0	41005	R/W	(hours)
Group 1 Temperature Staging	.1.3.6.1.4.1.38801.6.1006.0	41006	R/W	(0=disabled, 1=enabled)
Group 1 Temperature SetPoint1	.1.3.6.1.4.1.38801.6.1007.0	41007	R/W	(Deg F)
Group 1 Temperature SetPoint2	.1.3.6.1.4.1.38801.6.1008.0	41008	R/W	(Deg F)
Group 1 Temperature SetPoint3	.1.3.6.1.4.1.38801.6.1009.0	41009	R/W	(Deg F)
Group 1 Temperature SetPoint4	.1.3.6.1.4.1.38801.6.1010.0	41010	R/W	(Deg F)
Group 1 Sequencing Run Hours	.1.3.6.1.4.1.38801.6.1011.0	41011	R/W	(hours *.01)
Group 1 Temperature	.1.3.6.1.4.1.38801.6.1012.0	41012	R/W	(Deg F *.01)
Group 1 Temperature Stage	.1.3.6.1.4.1.38801.6.1013.0	41013	R	(1-4)
Group 1 Number Of Units	.1.3.6.1.4.1.38801.6.1014.0	41014	R	(number of units assigned to group)
Group 1 Auto Sequence Last Changeover	.1.3.6.1.4.1.38801.6.1015.0	41015	R	(number of seconds since 1/1/1970)
Group 1 Unit 1 State	.1.3.6.1.4.1.38801.6.1101.0	41101	R	(0=not assigned, 1=normal, 2=alarm)
Group 1 Unit 1 Enable	.1.3.6.1.4.1.38801.6.1102.0	41102	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 1 Unit 1 Type	.1.3.6.1.4.1.38801.6.1103.0	41103	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 1 Unit 1 Unit Command	.1.3.6.1.4.1.38801.6.1104.0	41104	R	(0=off, 1=on)

Group 1 Unit 1 Unit On	.1.3.6.1.4.1.38801.6.1105.0	41105	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 1 Unit 1 Summary Alarm	.1.3.6.1.4.1.38801.6.1106.0	41106	R	(0=inactive, 1=active)
Group 1 Unit 1 Description	.1.3.6.1.4.1.38801.6.1107.0	41107	R/W	(12 Characters SNMP only)
Group 1 Unit 2 State	.1.3.6.1.4.1.38801.6.1201.0	41201	R	(0=not assigned, 1=normal, 2=alarm)
Group 1 Unit 2 Enable	.1.3.6.1.4.1.38801.6.1202.0	41202	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 1 Unit 2 Type	.1.3.6.1.4.1.38801.6.1203.0	41203	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 1 Unit 2 Unit Command	.1.3.6.1.4.1.38801.6.1204.0	41204	R	(0=off, 1=on)
Group 1 Unit 2 Unit On	.1.3.6.1.4.1.38801.6.1205.0	41205	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 1 Unit 2 Summary Alarm	.1.3.6.1.4.1.38801.6.1206.0	41206	R	(0=inactive, 1=active)
Group 1 Unit 2 Description	.1.3.6.1.4.1.38801.6.1207.0	41207	R/W	(12 Characters SNMP only)
Group 1 Unit 3 State	.1.3.6.1.4.1.38801.6.1301.0	41301	R	(0=not assigned, 1=normal, 2=alarm)
Group 1 Unit 3 Enable	.1.3.6.1.4.1.38801.6.1302.0	41302	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 1 Unit 3 Type	.1.3.6.1.4.1.38801.6.1303.0	41303	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 1 Unit 3 Unit Command	.1.3.6.1.4.1.38801.6.1304.0	41304	R	(0=off, 1=on)
Group 1 Unit 3 Unit On	.1.3.6.1.4.1.38801.6.1305.0	41305	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 1 Unit 3 Summary Alarm	.1.3.6.1.4.1.38801.6.1306.0	41306	R	(0=inactive, 1=active)
Group 1 Unit 3 Description	.1.3.6.1.4.1.38801.6.1307.0	41307	R/W	(12 Characters SNMP only)
Group 1 Unit 4 State	.1.3.6.1.4.1.38801.6.1401.0	41401	R	(0=not assigned, 1=normal, 2=alarm)
Group 1 Unit 4 Enable	.1.3.6.1.4.1.38801.6.1402.0	41402	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 1 Unit 4 Type	.1.3.6.1.4.1.38801.6.1403.0	41403	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 1 Unit 4 Unit Command	.1.3.6.1.4.1.38801.6.1404.0	41404	R	(0=off, 1=on)

Group 1 Unit 4 Unit On	.1.3.6.1.4.1.38801.6.1405.0	41405	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 1 Unit 4 Summary Alarm	.1.3.6.1.4.1.38801.6.1406.0	41406	R	(0=inactive, 1=active)
Group 1 Unit 4 Description	.1.3.6.1.4.1.38801.6.1407.0	41407	R/W	(12 Characters SNMP only)
Group 2 State	.1.3.6.1.4.1.38801.6.2001.0	42001	R	(0=disabled, 1=normal, 2=alarm)
Group 2 Failover	.1.3.6.1.4.1.38801.6.2002.0	42002	R/W	(0=disabled, 1=enabled)
Group 2 Auto Sequence	.1.3.6.1.4.1.38801.6.2003.0	42003	R/W	(0=disabled, 1=enabled)
Group 2 Auto Sequence Start Time	.1.3.6.1.4.1.38801.6.2004.0	42004	R/W	(hour)
Group 2 Auto Sequence Time	.1.3.6.1.4.1.38801.6.2005.0	42005	R/W	(hours)
Group 2 Temperature Staging	.1.3.6.1.4.1.38801.6.2006.0	42006	R/W	(0=disabled, 1=enabled)
Group 2 Temperature SetPoint1	1.3.6.1.4.1.38801.6.2007.0	42007	R/W	(Deg F)
Group 2 Temperature SetPoint2	.1.3.6.1.4.1.38801.6.2008.0	42008	R/W	(Deg F)
Group 2 Temperature SetPoint3	.1.3.6.1.4.1.38801.6.2009.0	42009	R/W	(Deg F)
Group 2 Temperature SetPoint4	.1.3.6.1.4.1.38801.6.2010.0	42010	R/W	(Deg F)
Group 2 Sequencing Run Hours	.1.3.6.1.4.1.38801.6.2011.0	42011	R/W	(hours *.01)
Group 2 Temperature	.1.3.6.1.4.1.38801.6.2012.0	42012	R/W	(Deg F *.01)
Group 2 Temperature Stage	.1.3.6.1.4.1.38801.6.2013.0	42013	R	(1-4)
Group 2 Number Of Units	.1.3.6.1.4.1.38801.6.2014.0	42014	R	(number of units assigned to group)
Group 2 Auto Sequence Last Changeover	.1.3.6.1.4.1.38801.6.2015.0	42015	R	(number of seconds since 1/1/1970)
Group 2 Unit 1 State	.1.3.6.1.4.1.38801.6.2101.0	42101	R	(0=not assigned, 1=normal, 2=alarm)
Group 2 Unit 1 Enable	.1.3.6.1.4.1.38801.6.2102.0	42102	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 2 Unit 1 Type	.1.3.6.1.4.1.38801.6.2103.0	42103	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 2 Unit 1 Unit Command	.1.3.6.1.4.1.38801.6.2104.0	42104	R	(0=off, 1=on)
Group 2 Unit 1 Unit On	.1.3.6.1.4.1.38801.6.2105.0	42105	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 2 Unit 1 Summary Alarm	.1.3.6.1.4.1.38801.6.2106.0	42106	R	(0=inactive, 1=active)
Group 2 Unit 1 Description	.1.3.6.1.4.1.38801.6.2107.0	42107	R/W	(12 Characters SNMP only)
Group 2 Unit 2 State	.1.3.6.1.4.1.38801.6.2201.0	42201	R	(0=not assigned, 1=normal, 2=alarm)

Group 2 Unit 2 Enable	.1.3.6.1.4.1.38801.6.2202.0	42202	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 2 Unit 2 Type	.1.3.6.1.4.1.38801.6.2203.0	42203	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 2 Unit 2 Unit Command	.1.3.6.1.4.1.38801.6.2204.0	42204	R	(0=off, 1=on)
Group 2 Unit 2 Unit On	.1.3.6.1.4.1.38801.6.2205.0	42205	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 2 Unit 2 Summary Alarm	.1.3.6.1.4.1.38801.6.2206.0	42206	R	(0=inactive, 1=active)
Group 2 Unit 2 Description	.1.3.6.1.4.1.38801.6.2207.0	42207	R/W	(12 Characters SNMP only)
Group 2 Unit 3 State	.1.3.6.1.4.1.38801.6.2301.0	42301	R	(0=not assigned, 1=normal, 2=alarm)
Group 2 Unit 3 Enable	.1.3.6.1.4.1.38801.6.2302.0	42302	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 2 Unit 3 Type	.1.3.6.1.4.1.38801.6.2303.0	42303	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 2 Unit 3 Unit Command	.1.3.6.1.4.1.38801.6.2304.0	42304	R	(0=off, 1=on)
Group 2 Unit 3 Unit On	.1.3.6.1.4.1.38801.6.2305.0	42305	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 2 Unit 3 Summary Alarm	.1.3.6.1.4.1.38801.6.2306.0	42306	R	(0=inactive, 1=active)
Group 2 Unit 3 Description	.1.3.6.1.4.1.38801.6.2307.0	42307	R/W	(12 Characters SNMP only)
Group 2 Unit 4 State	.1.3.6.1.4.1.38801.6.2401.0	42401	R	(0=not assigned, 1=normal, 2=alarm)
Group 2 Unit 4 Enable	.1.3.6.1.4.1.38801.6.2402.0	42402	R	(0=not assigned, 1=auto, 2=force on, 3=force off)
Group 2 Unit 4 Type	.1.3.6.1.4.1.38801.6.2403.0	42403	R	(0=not assigned, 1=active, 2=standby). If unit exists, 0 removes unit from group. If unit doesn't exist in group, 1 or two creates unit and assigns to group.
Group 2 Unit 4 Unit Command	.1.3.6.1.4.1.38801.6.2404.0	42404	R	(0=off, 1=on)
Group 2 Unit 4 Unit On	.1.3.6.1.4.1.38801.6.2405.0	42405	R	(0=off, 1=on, 2=off delay, 3=on delay)
Group 2 Unit 4 Summary Alarm	.1.3.6.1.4.1.38801.6.2406.0	42406	R	(0=inactive, 1=active)
Group 2 Unit 4 Description	.1.3.6.1.4.1.38801.6.2407.0	42407	R/W	(12 Characters SNMP only)