



**FEDERAL SIGNAL**  
Safety and Security Systems

## **PAGASYS® GEN II**

Public Address and General Alarm System  
Model: P-SYSMGR-G

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***Description, Installation, and User Manual  
for the SYSTEM MANAGER software***

## Limited Warranty

This product is subject to and covered by a limited warranty, a copy of which can be found at [www.fedsig.com/SSG-Warranty](http://www.fedsig.com/SSG-Warranty). A copy of this limited warranty can also be obtained by written request to Federal Signal Corporation, 2645 Federal Signal Drive, University Park, IL 60484, email to [info@fedsig.com](mailto:info@fedsig.com) or call +1 708-534-3400.

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## 1.0 Safety Messages

### WARNING

It is important to follow all instructions shipped with this product. This device is to be installed by trained personnel who are thoroughly familiar with the country electric codes and will follow these guidelines as well as local codes and ordinances, including any state or local noise control ordinances.

#### Planning

- If suitable warning equipment is not selected, the installation site for the system is not selected properly or the system is not installed properly, it may not produce the intended optimum audible warning. Follow Federal Emergency Management Agency (FEMA) recommendations.
- If the system is not activated in a timely manner when an emergency condition exists, it cannot provide the intended audible warning. It is imperative that knowledgeable people, who are provided with the necessary information, be available at all times to authorize activation.
- The sound output of the system is capable of causing permanent hearing damage. To prevent excessive exposure, carefully plan placement, post warnings, and restrict access to areas near loudspeakers. Review and comply with any local or state noise control ordinances as well as OSHA noise exposure regulations and guidelines.
- Activating the system may not result in people taking the desired actions if those to be warned are not properly trained about the meaning of warning sounds. Users should follow FEMA recommendations and instruct those to be warned of correct actions to be taken.

After installation, service, or maintenance, test the system to confirm that it is operating properly. Test the system regularly to confirm that it will be operational in an emergency.

### 1.1 Safety Messages to Installers

People's lives depend on your safe installation of our products. It is important to follow all instructions shipped with this product. This device is to be installed by a trained electrician who is thoroughly familiar with the National Electrical Code and/or Canadian Electrical Code and will follow the NEC and/or CEC Guidelines as well as all local codes.

The selection of the mounting location for this system, its controls and the routing of the wiring are to be accomplished under the direction of the Facilities Engineer and the Safety Engineer. In addition, listed below are some other important safety instructions and precautions you should follow:

- Electrocution or severe personal injury can occur when performing various installation and service functions such as making electrical connections, drilling holes, or lifting equipment. Therefore, only experienced electricians should install this product in accordance with national, state and any other electrical codes having jurisdiction. Perform all work under the direction of the installation or service crew safety foreman.

## **Safety Messages**

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- Read and understand all instructions before installing, operating, or servicing this equipment.
- All effective warning sounds may, in certain circumstances, cause permanent hearing loss. Take appropriate precautions such as wearing hearing protection. Maximum sound level exposure limits specified in OSHA 29 CFR 1910 should not be exceeded.
- For optimum sound distribution do not install the loudspeakers where objects would block any portion of the front of the system.
- Establish a procedure to routinely check the signal system for proper activation and operation.
- Any maintenance to the unit **MUST** be performed by a trained electrician in accordance with NEC Guidelines and local codes or a Federal Signal certified Service Provider.
- Never alter the unit in any manner.
- The nameplate should **NOT** be obscured, as it contains cautionary and/or other information of importance to maintenance personnel.
- After installation and completion of initial system test, provide a copy of these instructions to all personnel responsible for operation, periodic testing, and maintenance of the equipment.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the device.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

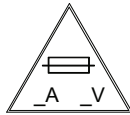
### **Installation and Service**

- After installation or service, test the system to confirm that it is operating properly. Test the system regularly to confirm that it will be operational in an emergency.
- If future service and operating personnel do not have these instructions to refer to, the system may not provide the intended audible warning and service personnel may be exposed to death, permanent hearing loss, or other bodily injury. File these instructions in a safe place and refer to them periodically. Give a copy of these instructions to new recruits and trainees. Also give a copy to anyone who is going to service or repair the system.
- To reduce the risk of electric shock, do not perform any servicing other than what is contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel. Always test the system before using after repairs have been made.

### **Ethernet Wiring**

- Unless shielded or run in conduit, Ethernet wiring must be at least six feet from bare power wiring or lightning rods and associated wires, and at least six inches from other wire (for example, antenna wires, doorbell wires, wires from transformers to neon signs), steam or hot water pipes, and heating ducts.
- Do not place Ethernet wiring or connections in any conduit, outlet or junction box containing high voltage electrical wiring.

### **Symbol Definition**



Indicates to reduce the risk of fire, replace fuse as marked.

Pay careful attention to the notice located on the equipment.

***Read and understand the information contained in this manual before attempting to install or service the system.***

## 2.0 General Description

### 2.1 Introduction

This document is a description, installation, and user manual for the PAGASYS GEN II System Manager application software. The System Manager software is a user interface to the PAGASYS GEN II Controller. Its intended audience are those assigned to use and maintain the system.

### 2.2 Overview

The PAGASYS GEN II system includes:

- System Controller—Located in the Controller Chassis of the Cabinet
- System Manager software—Interfaces with the System Controller

Use the System Manager software to do the following:

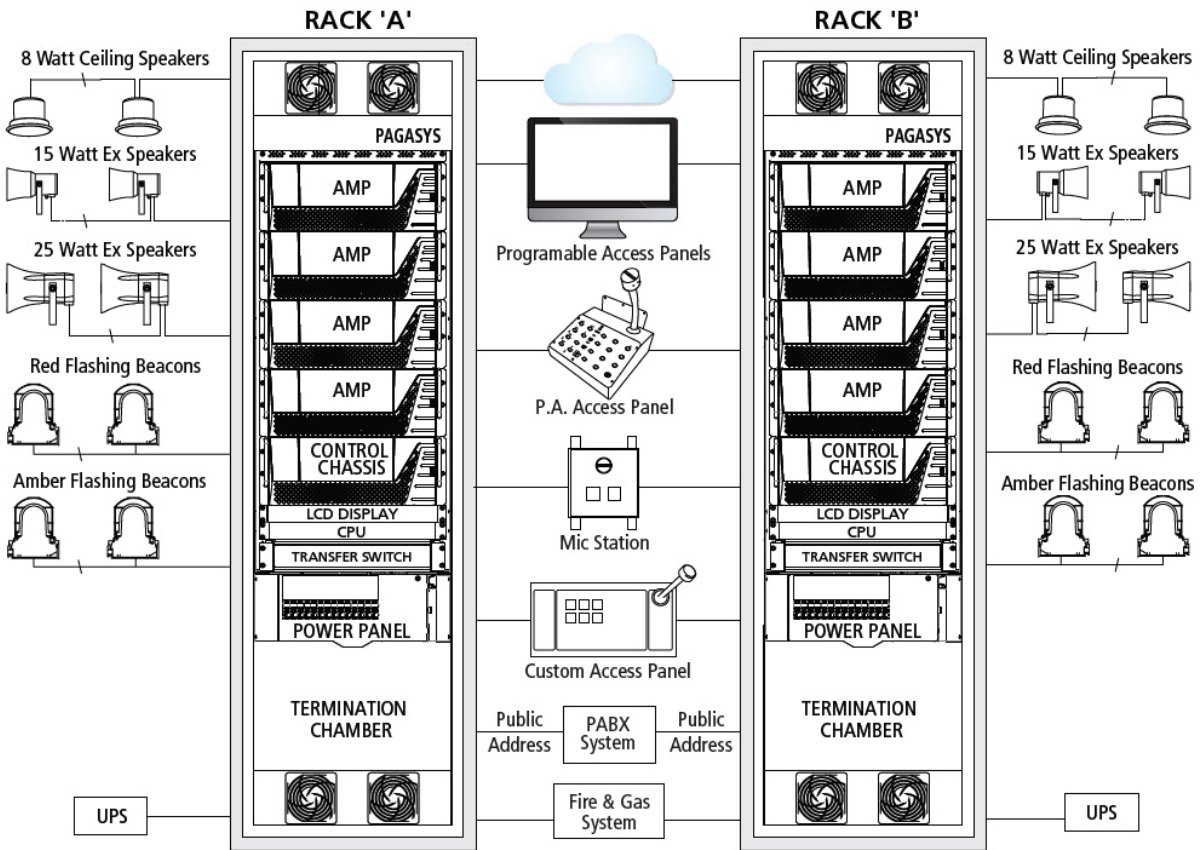
- Monitor the status of the system
- Broadcast messages
- Create the control panel
- Configure equipment, zones, and audio
- Conduct field diagnostics

The System Manager software and the PAGASYS GEN II Controller use a configuration file to ensure configuration data is consistent between the System Manager software and the Controller. The definitive source for this configuration file is the PAGASYS GEN II Controller. The System Manager application retrieves the configuration data from the PAGASYS GEN II Controller when the application is started and maintains the local configuration in memory. To ensure that the Controller recognizes the changes uploaded to the system, manually restart the Controller (FILE > RESTART CONTROLLER from the application menu) when appropriate. After the Controller returns, changes are populated to all System Manager processes connected to the Controller.

A configuration file automatically updates the PAGASYS GEN II application by retrieving the configuration data from the Controller when the application is started. The changes are made to all System Manager processes connected to the Controller. To restart the controller from the System Manager software's Home Page: FILE > RESTART CONTROLLER

While the primary operator interface to the PAGASYS GEN II system is the System Manager software, the PAGASYS GEN II system continues to operate normally if the connection to the System Manager software is lost.

Figure 1 System Architecture



## **2.3 Operating Requirements**

The PAGASYS GEN II System Manager operates in a Windows-based server environment.

### **2.3.1 Prerequisites**

1. Ensure Hardware meets minimum standards (See Hardware Requirements.)
2. Windows OS
  - Windows 10 Professional
  - Windows Server 2008 R2
  - Windows Server 2012 R2
  - Windows Server 2016
3. Microsoft .Net IIS v.7.5 or higher
4. .Net Framework v.3.5 or higher

### **2.3.2 Hardware Requirements**

#### **Recommended configuration for one machine**

- Processor: Intel Core i7 8 CPU core
- Memory: 8 GB
- HDD: 144 GB SSD
- Operating system: Windows Server 2012(R2) x64, or Windows 10 Pro x64
- Web server: IIS7.5
- SQL server: Microsoft SQL Server 2014 x64

#### **Recommended configuration for multiple servers**

- Processor: Intel Xeon 2GHz 4 CPU core
- Memory: 8 GB
- HDD: 144 GB SSD
- Operating system: Windows Server 2012(R2) x64, or Windows 10 Pro x64
- Web server: IIS7.5
- SQL server: Microsoft SQL Server 2014 x64



## 3.0 Installing the System Manager Software

Install the PAGASYS GEN II System Manager on a target computer that has a network (Ethernet) connection to the PAGASYS GEN II Controller.

### 3.1 Installing and Configuring the System Manager Software

The automated installer program does the following:

- Installs, upgrades, and configures the System Manager software.
- Creates the database, tables, and populates the necessary configuration table entries.
- Configures the correct settings in Internet Information Services (ISS).

**NOTE:** A manual installation procedure is available, but not recommended for the typical user.

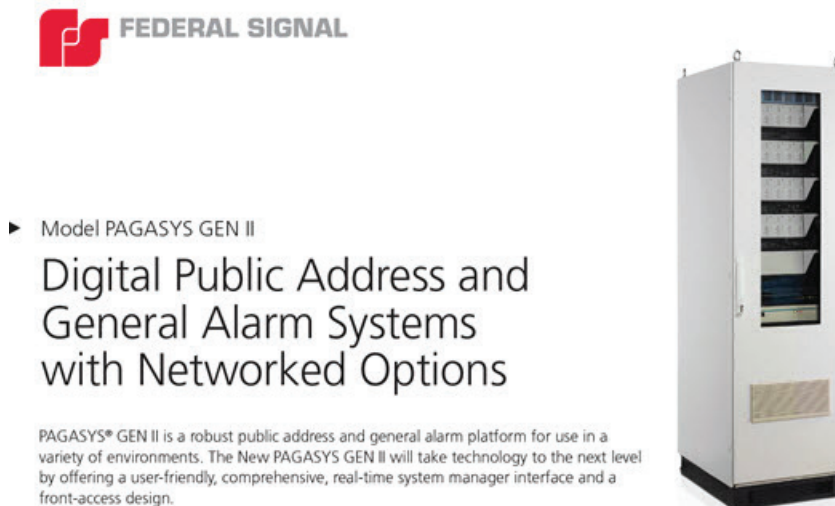
The System Manager software is distributed on the USB drive.

To install the System Manager software (P-SYSMGR-G) on your computer, do the following:

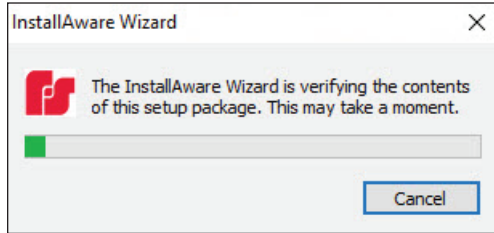
1. Insert the System Manager USB drive into a USB port on the target computer.
2. Move the installation MSI file to the desktop for the target computer.
3. Double-click the MSI file to launch the automatic installation program.

**NOTE:** The installation program prompts you for information at various stages of the process. If you are not familiar with Windows setup procedures, enter the default option for all prompts. On completion, the System Manager software is installed and a shortcut icon appears on the Windows Startup Group and All Programs Menu.

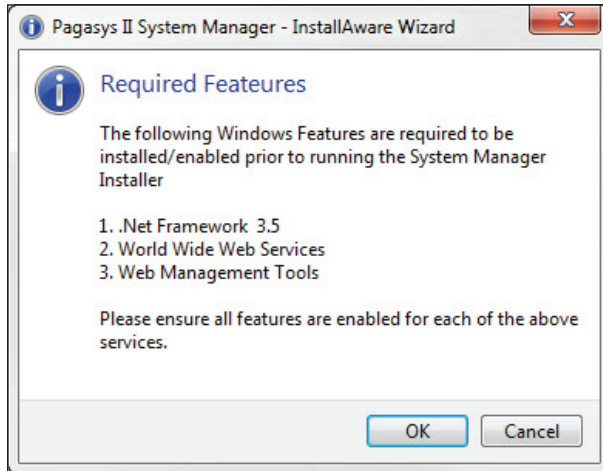
The following is the opening image for System Manager.



The InstallAware Wizard dialog appears.



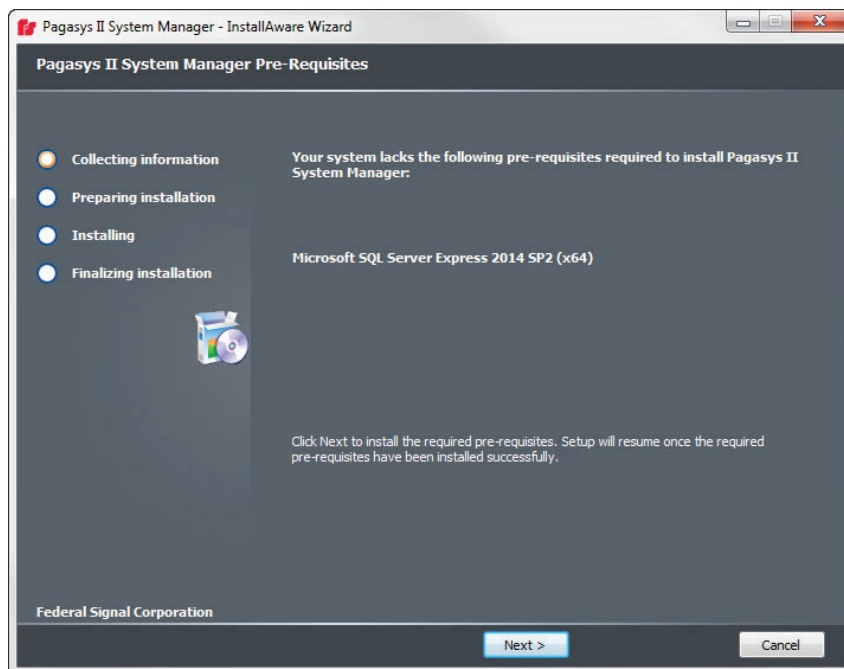
The following dialog box appears listing the required Windows features that need to be installed prior to running the System Manager installer.



The following are the dialog boxes that appear when you go through the installation program.

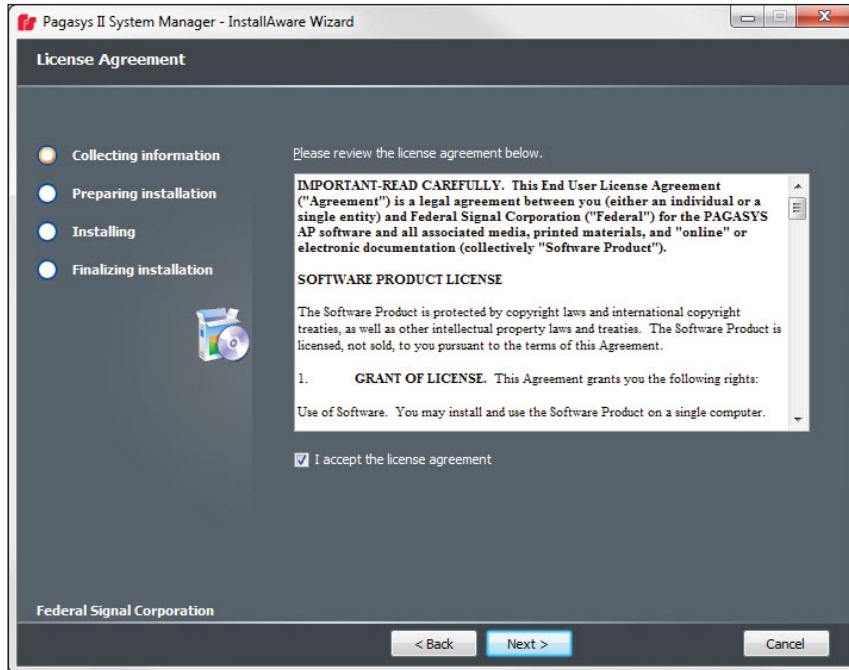
4. Wait for the files to be extracted.

The following dialog appears.



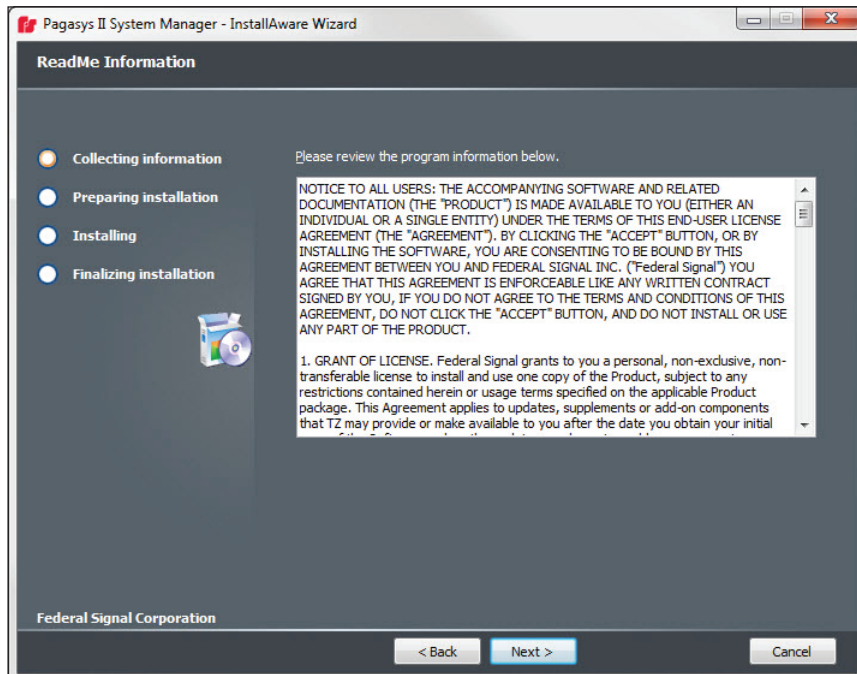
5. Read the information, and then click Next to continue.

The following dialog appears.



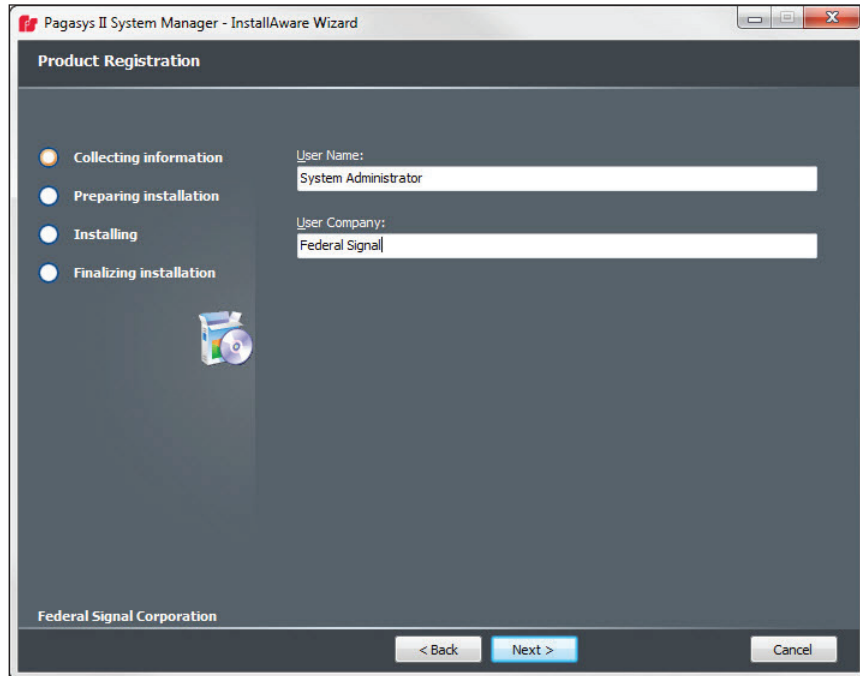
6. Select the I accept the license agreement check box, and then click the Next button.

The following dialog appears.



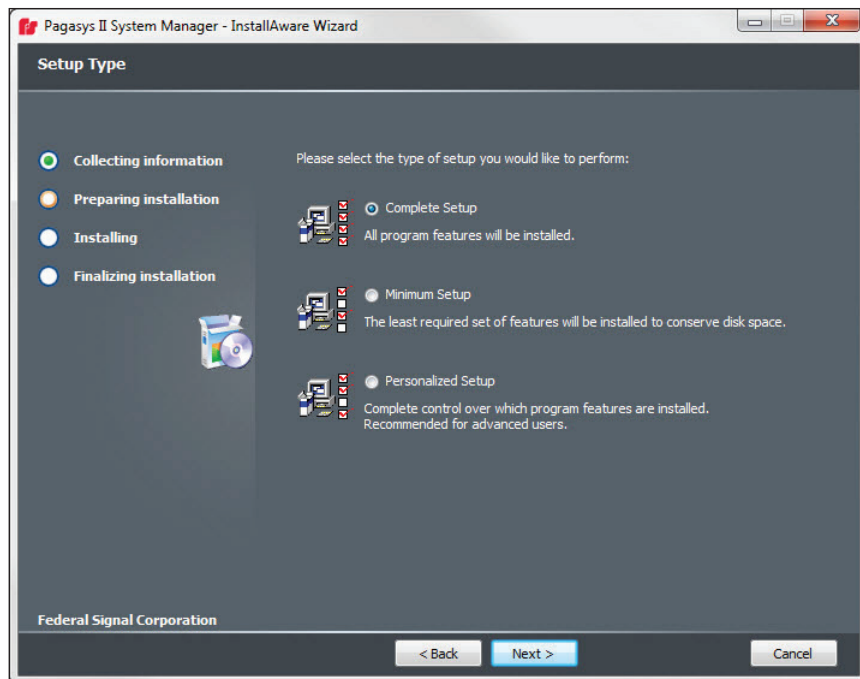
7. Click the Next button.

The following dialog box appears.



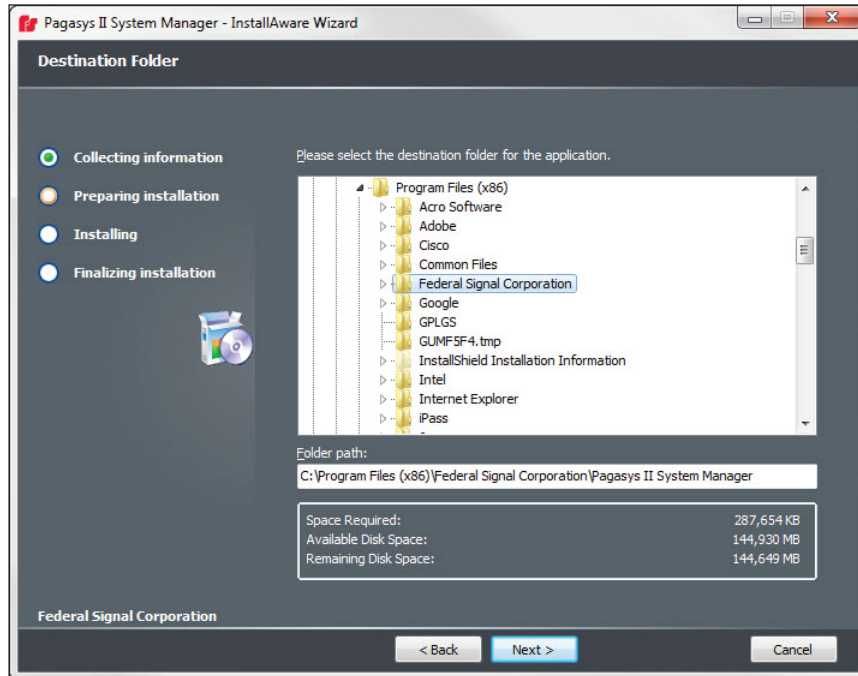
8. Enter the User Name and User Company, and then click the Next button.

The following dialog box appears.



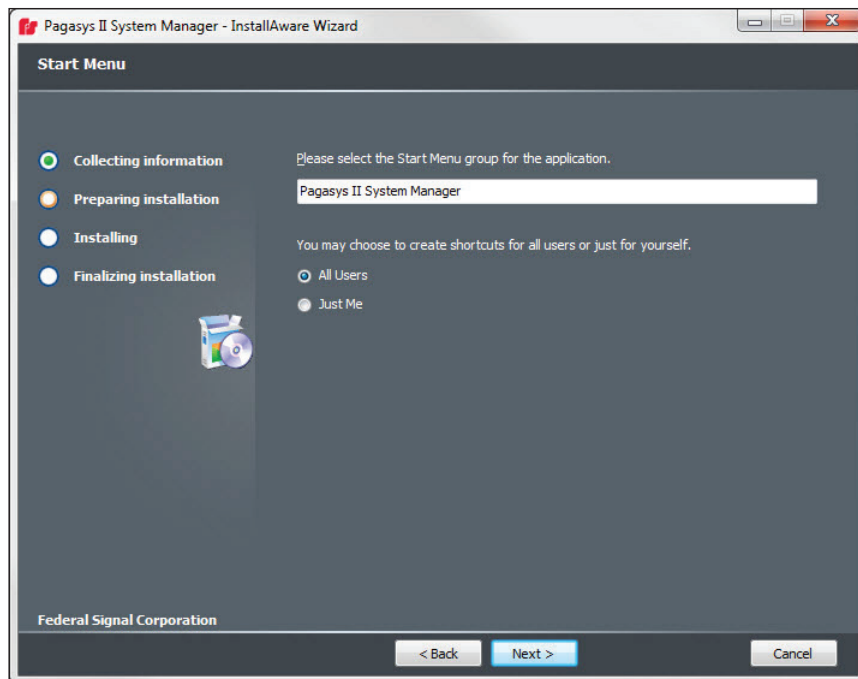
9. Click the type of setup you would like to perform (typically, Complete Setup), and then click the Next button.

The following dialog box appears.



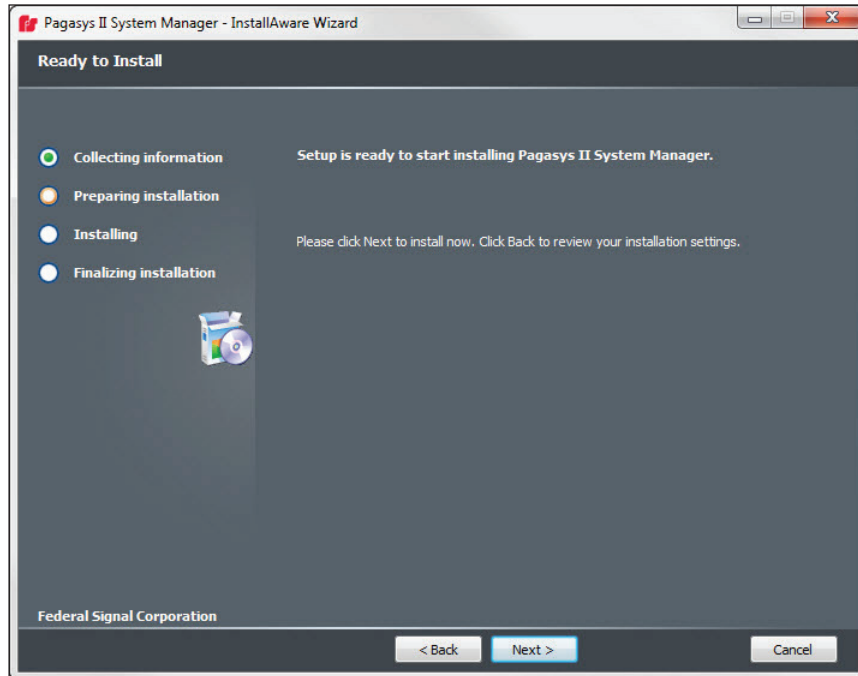
10. Select the destination folder for the application, and then click the Next button.

The following dialog box appears.

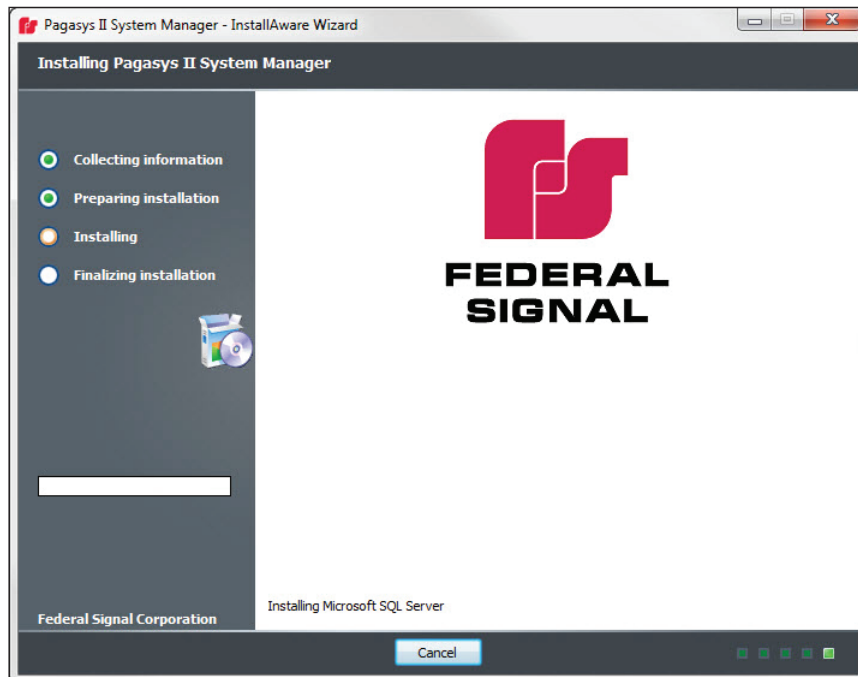


11. Click All Users to create a shortcut for all users, and then click the Next button.

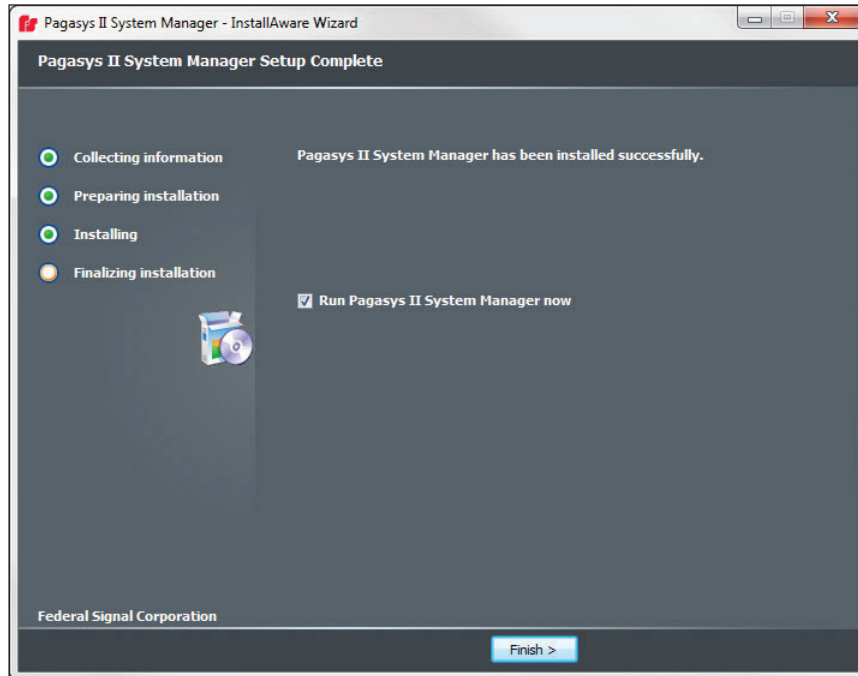
The following dialog box appears.



12. Click the Next button to install the System Manager software. Click Back to review your installation settings.
13. The following dialog box appears while the product is installing; you see a progress bar that indicates the status of the installation.



14. The following dialog box appears when the installation is complete.

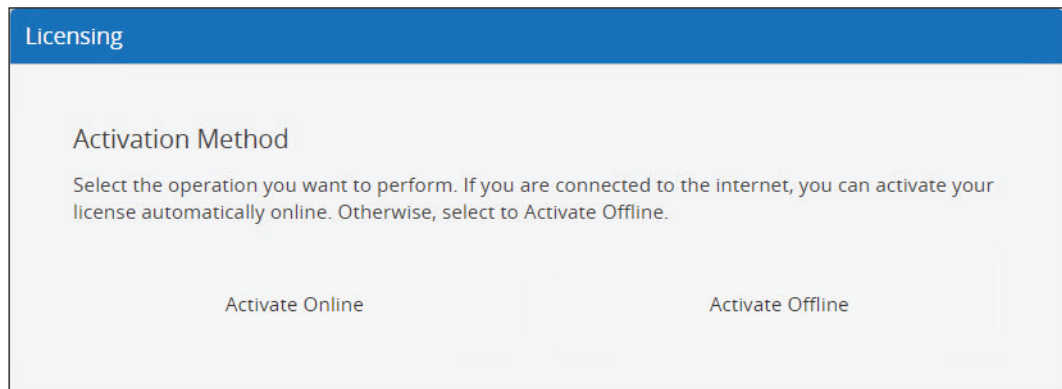


15. Click the Finish button.

### 3.1.1 License Activation

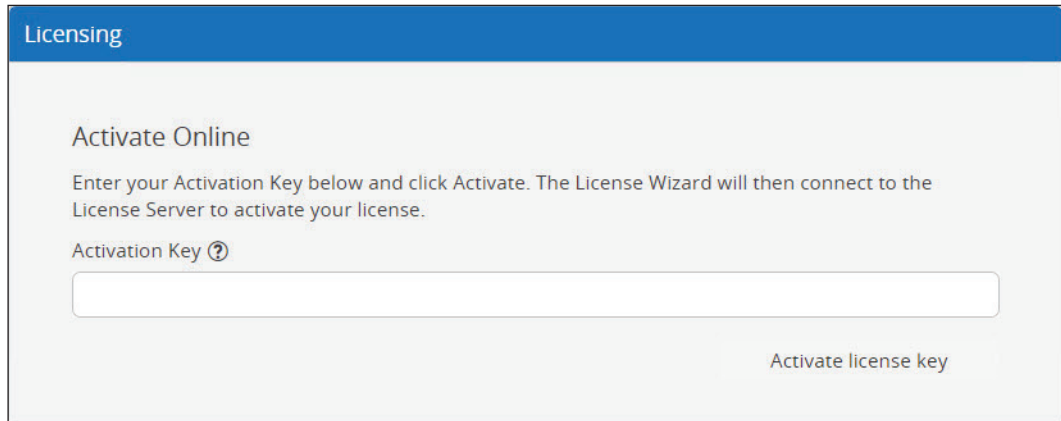
16. After installation, contact Federal Signal Customer Support to obtain your license key. See Getting Service.

The Licensing dialog box appears.





17. Click Activate Online if you have access to the Internet. The following dialog box appears.



**Licensing**

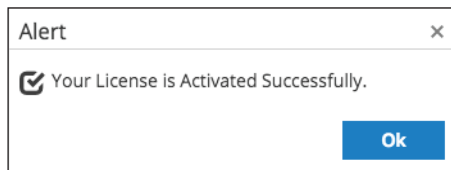
**Activate Online**

Enter your Activation Key below and click Activate. The License Wizard will then connect to the License Server to activate your license.

Activation Key ?

Activate license key

18. Type your activation key.
19. Click the Activate license key button. The following dialog box appears.



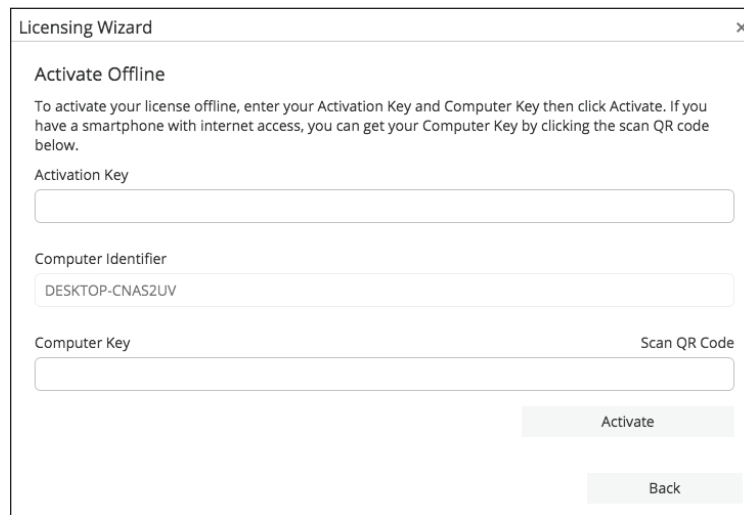
**Alert** x

Your License is Activated Successfully.

Ok

### Activation Without Internet Access

Activation can be completed without access to the Internet. Click Activate Offline if you do not have access to the Internet. The following dialog box appears.



**Licensing Wizard** x

**Activate Offline**

To activate your license offline, enter your Activation Key and Computer Key then click Activate. If you have a smartphone with internet access, you can get your Computer Key by clicking the scan QR code below.

Activation Key

Computer Identifier

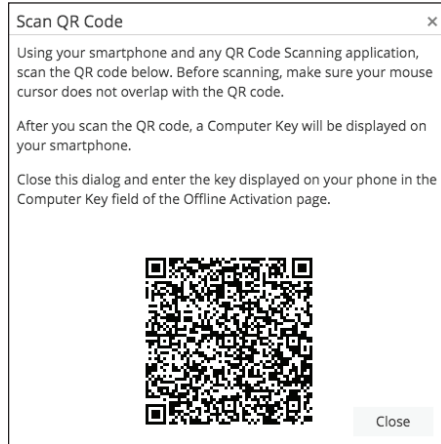
Computer Key Scan QR Code

Activate

Back



Click Scan QR Code. The following dialog box appears.

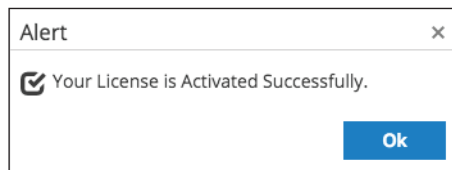


Using your smartphone and any QR Code Scanning application, scan the QR code on the dialog box. Before scanning, make sure your mouse cursor does not overlap with the QR code.

After you scan the QR code, a Computer Key will display on your smartphone.

Close this dialog box and enter the key displayed on your phone in the Computer Key field of the Activation Offline dialog box.

20. Type your activation key.
21. Click the Activate license key button. The following dialog box appears.



22. Click OK.

## 4.0 Starting the System Manager Software

Begin a System Manager session either locally on the computer the system was installed or remotely.

### 4.1 Connecting Remotely

To begin a System Manager session remotely, connect to the IP address and port of the System Manager server and application. The System Manager default configuration will have the default IP address of the System Controller.

**NOTE:** Multiple System Manager sessions can connect to a PAGASYS GEN II Controller concurrently and changes made by one of the sessions are shared with the other sessions.

To begin a session remotely:

1. Open a browser on your PC to access a running System Manager application.
2. Enter the IP address and port of the server that is running the System Manager application. The following is an example.

```
10.36.169.58:8091
```

where:

```
10.36.169.58 is the IP address
```

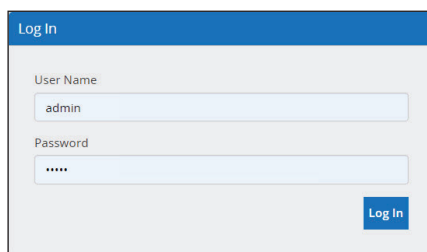
```
8091 is the IP port for the application
```

3. Enter User Name

```
admin (default administrator username)
```

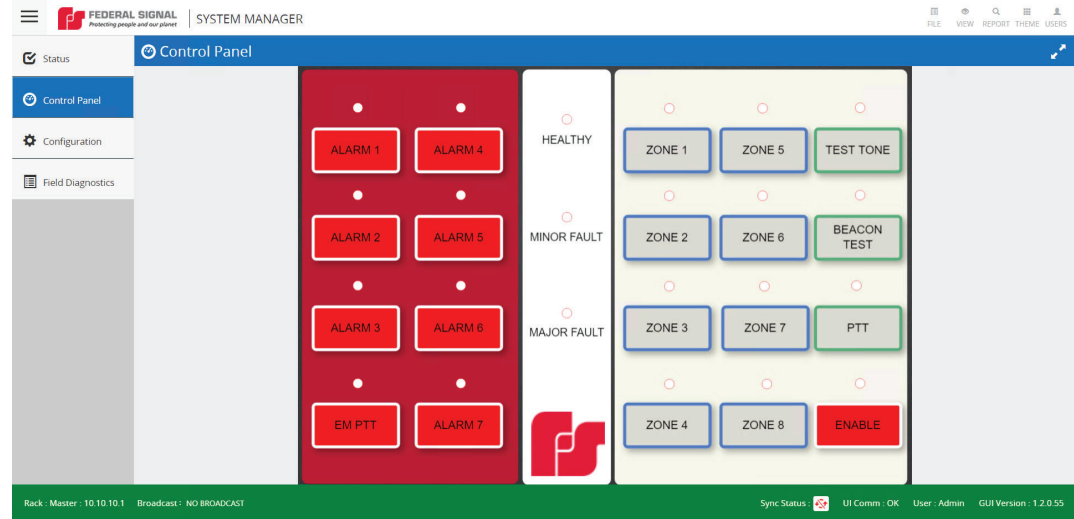
4. Enter Password.

```
admin (default administrator password)
```



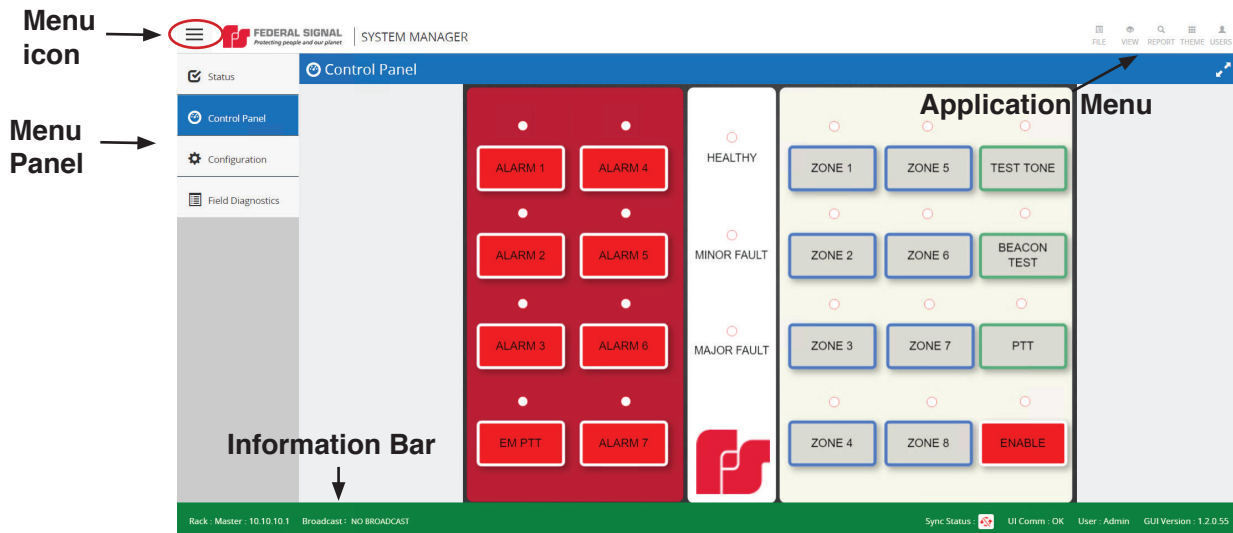
The screenshot shows a web-based login form titled "Log In". It features two text input fields. The first field is labeled "User Name" and contains the text "admin". The second field is labeled "Password" and contains masked characters ".....". A blue button labeled "Log In" is positioned at the bottom right of the form area.

The Home Page appears.



## 5.0 System Manager Software Main Window

The following picture describes the main components of the System Manager Software window: Menu icon, Menu Panel, Application Menu, and Information Bar.



### 5.1 Viewing the Menu

The Menu icon opens and closes the menu on the left side of the window.

### 5.2 Menu Panel

The menu is located on the left side of the window and has the following choices: Status, Control Panel, Configuration, or Field Diagnostics.

### 5.3 Application Menu

The Application Menu has the following choices: File, View, Report, Theme, and Users.

**NOTE:** The View menu is only available when a Globalization license is entered for the system.

### 5.4 Information Bar

The Information Bar is located at the bottom of the System Manager window and is present on all windows. The Information Bar displays the information related to local rack name, current broadcast status, communication status, logged-in user details and the version of the application software.

### 5.5 Sorting the Columns

The System Manager Software displays columns of information. You are able to sort these columns.

To sort a column:

1. Select the column you want to sort.
2. Click the column header to choose between either ascending or descending order.

### 5.6 Grouping Lists within the System Manager Software

The System Manager software offers list grouping.

To list by groups:

1. Select the column header you want to group.
2. Drag column header to the words (drag a column header and drop it here to group by that column) at the top right of the window.
3. Click the X to close the box.

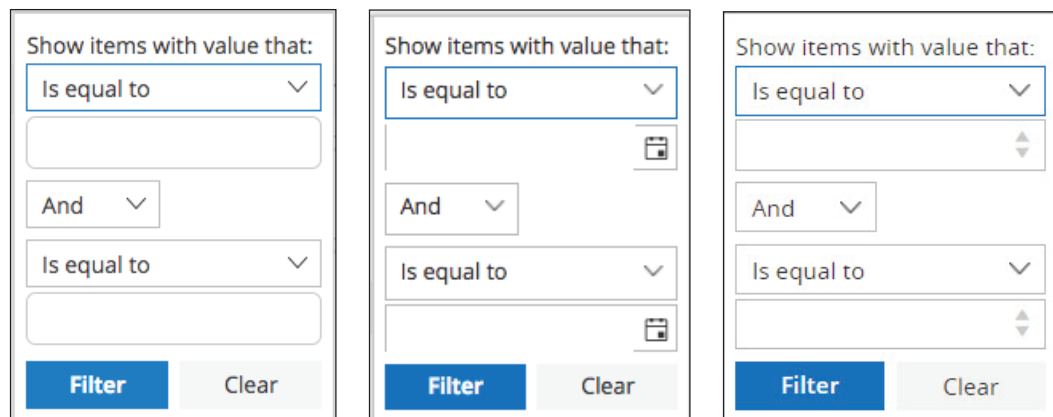
### 5.7 Using Text Filters

You are able to use text filters within the System Manager windows.

To use text filters:

1. Select the filter system icon .

One of the following dialog box appears.



Select from the following: Is equal to, Is not equal to, Starts with, Contains, Does not contain, Ends with, Is null, Is not null, Is empty, or Is not empty.

You can filter on one column, or two fields using an Or or And filter.

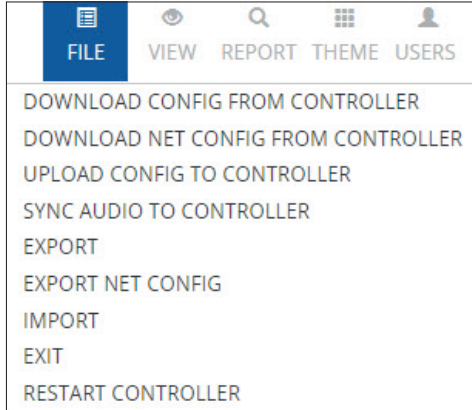
When available, select the calendar icon to select a date.

When available, select the down or up arrow to select a number.

2. The data is filtered by the selected text filter.

## 6.0 File Menu

The File Menu is responsible for the following: downloading the configuration from the controller, uploading the configuration to the controller, sync audio to the controller, export configuration to file, import configuration from file, exit, and restart the controller.



### 6.1 File Menu > Download Config from Controller

To download the configuration from the controller to either a file or database: click File Menu > Download Config from Controller.

### 6.2 File Menu > Download Net Config from Controller

To download the network configuration from the controller to either a file or the database: click File Menu > Download Net Config from Controller.

### 6.3 File Menu > Upload Config to Controller

To upload the configuration to the controller to either local, remote, or both: click File Menu > Upload Config to Controller.

### 6.4 File Menu > Sync Audio to Controller

To sync audio to the controller: click File Menu > Sync Audio to Controller.

### 6.5 File Menu > Export

To export configuration to file with or without audio or export log to text file: click File Menu > Export.

### 6.6 File Menu > Export Net Config

To export the network configuration to a file: click File Menu > Export Net Config.

### 6.7 File Menu > Import

To import configuration from file with or without audio: click File Menu > Import.

### 6.8 File Menu > Exit

To exit: click File Menu > Exit.

## **6.9 File Menu > Restart Controller**

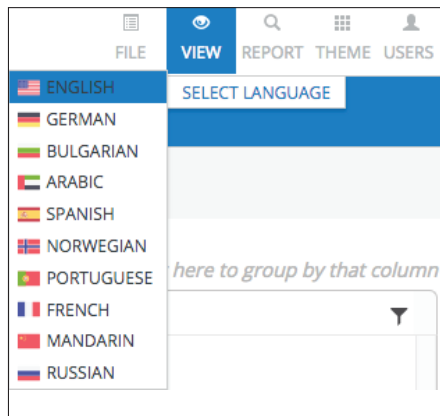
To restart the controller either local or remote: click File Menu > Restart Controller.

## 7.0 View Menu

The View Menu is responsible for changing the text in the System Manager software window to another language.

**NOTE:** Only application text is converted to the target language. Any text entered by the user is displayed in the language in which it is entered.

The View menu is only available when a license key is purchased to activate a Globalization feature (multi-language support).



### 7.1 View Menu > Select Language

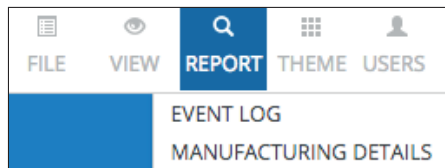
To change the text in the System Manager software window to another language: Click View Menu > Select Language > select a language.

**NOTE:** The View menu is only available when a Globalization license is entered for the system.



## 8.0 Report Menu

The Report Menu is responsible for exporting the event log and displaying manufacturing details.



### 8.1 Report Menu > Event Log

To export the event log: click Report Menu > Event Log.

A report is generated similar to the one below.

**Event Log**

FEDERAL SIGNAL  
Protecting people and our planet

Date: 6/14/2019

Event Log Report

Event ID/Value	Controller	Device Type	Device Number	Status Type	Time Stamp
22686	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/14/2019 2:02:53 PM
21637	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/12/2019 7:19:09 PM
19794	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/10/2019 6:21:54 PM
22290	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/13/2019 4:19:01 PM
21223	a_master	controller	1	Fault - Sys State Healthy	6/12/2019 1:26:22 PM
20591	a_master	controller	1	Fault - Sys State Healthy	6/11/2019 4:20:09 PM
21438	a_master	beacon_mon_card	1	Fault - Impedance Too High	6/12/2019 3:13:20 PM
20647	a_master	controller	1	Fault - Sys State Healthy	6/11/2019 5:39:30 PM
21277	a_master	access_panel	33	Input - Active	6/12/2019 2:07:49 PM
20114	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/11/2019 6:10:09 AM
21177	a_master	controller	1	Fault - Sys State Minor Fault	6/12/2019 12:18:24 PM
22593	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/14/2019 9:47:06 AM
21078	a_master	controller	1	Fault - Sys State Minor Fault	6/12/2019 10:04:59 AM
21382	a_master	beacon_mon_card	1	Fault - Impedance Too High	6/12/2019 2:51:35 PM
21372	a_master	beacon_mon_card	1	Fault - Impedance Too High	6/12/2019 2:49:34 PM
20481	a_master	controller	1	Fault - Sys State Healthy	6/11/2019 1:31:45 PM
20210	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/11/2019 8:31:26 AM
21691	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/12/2019 8:37:09 PM
21054	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/12/2019 9:25:08 AM
20944	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/12/2019 7:20:05 AM
21025	a_master	controller	1	Fault - Sys State Minor Fault	6/12/2019 8:48:38 AM
22469	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/14/2019 4:41:24 AM
21481	a_master	beacon_mon_card	1	Fault - Impedance Too High	6/12/2019 4:04:04 PM
21153	a_master	controller	1	Fault - Sys State Minor Fault	6/12/2019 11:57:18 AM
21155	a_master	controller	1	Fault - Sys State Healthy	6/12/2019 11:57:28 AM
21454	a_master	controller	1	Fault - Sys State Healthy	6/12/2019 3:35:46 PM
20851	a_master	controller	1	Fault - Sys State Healthy	6/12/2019 3:40:57 AM
22077	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/13/2019 11:51:11 AM
20499	a_master	controller	1	Fault - Sys State Minor Fault	6/11/2019 2:23:19 PM
20436	a_master	beacon_mon_card	1	Fault - Impedance Too Low	6/11/2019 12:31:39 PM
22122	a_master	controller	1	Fault - Sys State Healthy	6/13/2019 1:07:11 PM

Rack : Master : 10.10.10.1 Broadcast : NO BROADCAST

## 8.2 Report Menu > Manufacturing Details

To display manufacturing details: click Report > Manufacturing Details. The Manufacturing details window appears.

The screenshot shows a web application window titled "Manufacturing details". It contains a table with the following columns: Card Type, Page, Serial Number, Part Number, Board Build Date, Firmware Version, and Firmware Commit. The table lists various card types such as Controller, Amplifiers, ISMT Card, Input Cards, Relay Output Cards, Beacon Monitoring Cards, Fan Monitor Cards, and Miscellaneous Cards. At the bottom of the window, there is a status bar with information like "Rack: Master: 1010.10.1 Broadcast: NO BROADCAST" and "Sync Status: UI Comm: OK User: Admin GUI Version: 1.2.0.35".

Card Type	Page	Serial Number	Part Number	Board Build Date	Firmware Version	Firmware Commit
Controller	Master	123456			1.2.0.55	1c56d5a1 (clean)
Amplifiers	Amplifier Group 1->Amplifier 2	17	20000150	2018-06-05	1.0.0.3	c3cb3693
Amplifiers	Amplifier Group 1->Amplifier 3	17	20000150	2018-06-05	1.0.0.3	c3cb3693
Amplifiers	Amplifier Group 1->Amplifier 8	17	20000150	2018-06-05	1.0.0.3	c3cb3693
Amplifiers	Amplifier Group 1->Amplifier 7	17	20000150	2018-06-05	1.0.0.3	c3cb3693
Amplifiers	Amplifier Group 1->Amplifier 5	17	20000150	2018-06-05	1.0.0.3	c3cb3693
Amplifiers	Amplifier Group 1->Amplifier 6	17	20000150	2018-06-05	1.0.0.3	c3cb3693
Amplifiers	Amplifier Group 1->Amplifier 1	17	20000150	2018-06-05	1.0.0.3	c3cb3693
Amplifiers	Amplifier Group 1->Amplifier 4	17	20000150	2018-06-05	1.0.0.3	c3cb3693
ISMT Card	Amplifier Group 1->ISMT Card	3	20000151	2018-03-09	1.0.0.1	2c2d1092
Input Cards	Input card 1	061734100030	20000164	2018-02-25	1.0.0.1	f915a666
Relay Output Cards	Output card 1	061734100020	20000166	2018-02-25	1.0.0.1	f915a666
Relay Output Cards	Output card 2	061734100050	20000166	2018-02-25	1.0.0.1	f915a666
Beacon Monitoring Cards	Beacon Mon card 1	061736000440	20000208	2018-02-25	1.0.0.1	f915a666
Fan Monitor Cards	Fan Mon card 1	061801600030	20000167	2018-02-25	1.0.0.1	f915a666
Miscellaneous Cards	Misc Card	1	20000177	2018-06-05	1.0.0.2	ac3bb33b

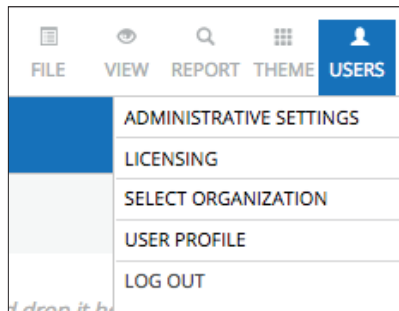
Fields	Description
Card Type	Displays the card type.
Page	Displays the page.
Serial Number	Displays the serial number.
Part Number	Displays the part number.
Board Build Date	Displays the date the board was built.
Firmware Version	Displays the version of firmware.
Firmware Commit	Displays the firmware commit.
Refresh	Click the Refresh button to refresh the information.
Export to PDF	Click the Export to PDF button to export the window to a PDF.

## 9.0 Users Menu

The User Administration component is responsible for displaying user attributes and provides the functionality for creating, editing, and deleting the users (depending on the role of the logged-in user).

The Users Menu provides the following options: Administrative Settings, Licensing, Select Organization, User Profile, and Log Out.

**NOTE:** The View menu is only available when a Globalization license is entered for the system.

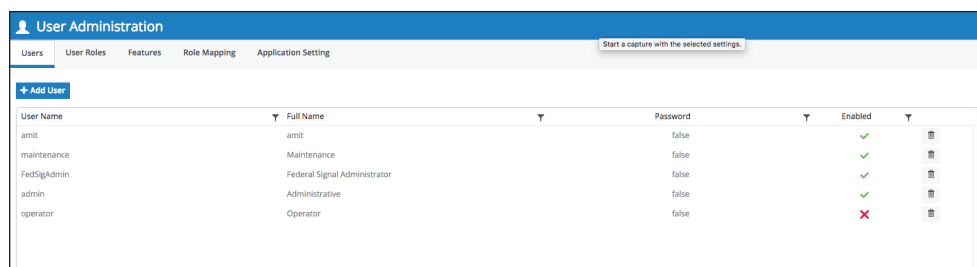


### 9.1 Users > Administrative Settings

To access the Administrative Settings, select Users > Administrative Settings. The Administrative Setting has the following tabs: Users, User Roles, Features, Role Mapping, and Application Setting.

#### 9.1.1 User Administration > Users

The following is the User Administration window.

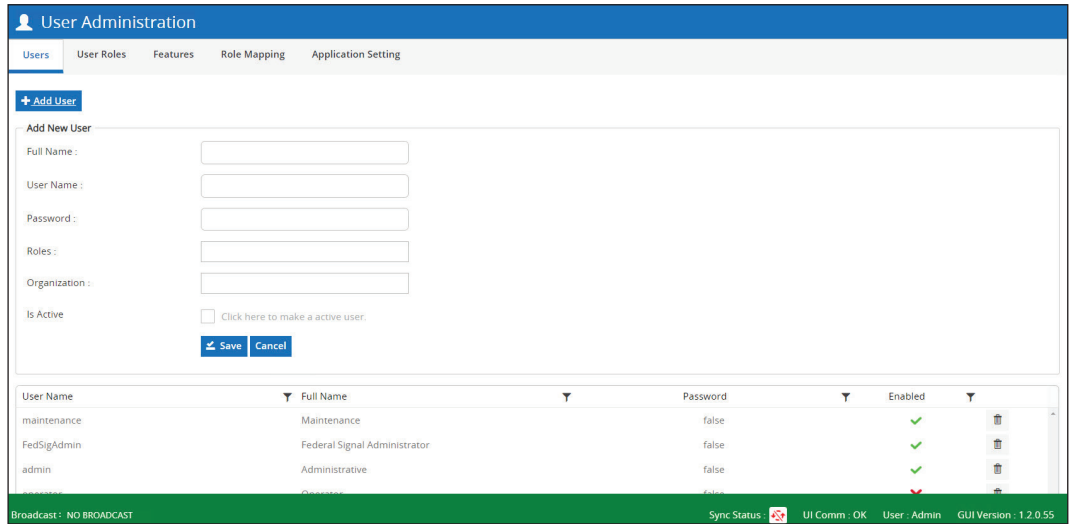



Fields	Description
Add User	Select button to add a new user.
User Name	User-provided user name.
Full Name	Full name of user.
Password	Does user need a password for login.
Enable	User allowed to access the system.
Delete icon 🗑️	Removes selected user.

**9.1.2 Adding Users**

To add users:

1. Click Add User button. The Add New User dialog box appears.

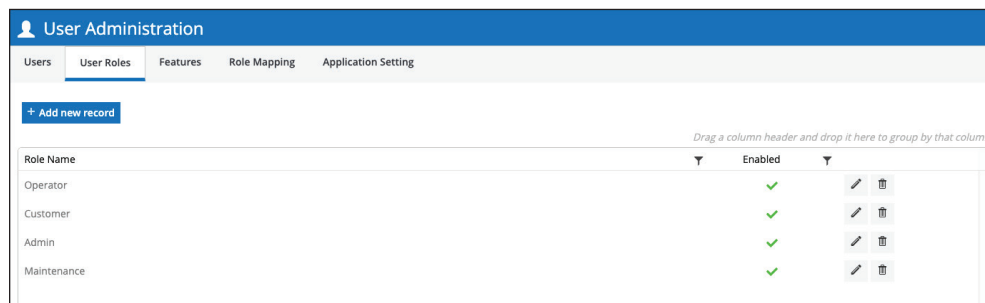




Fields	Description
<b>Add New User</b>	
Full Name	User-provided full name of user.
User Name	User-provided system user name.
Password	User-provided password for new user. (Can select using Admin password.) No password allows login without password.
Roles	Select new user roles. (Can be created under User Roles.)
Organizations	User-provided Organization.
Is Active	Select check box to make new user active on system.
Save	Select to save new user.
Cancel	Select to cancel creation of new user.
User Name	Displays current list of user names.
Full Name	Displays current list of full user names.
Password	Displays whether the user has created a password with user account.
Enabled	Displays a check mark if user is active on system.
Delete icon 	Deletes selected user account.

3. Enter the fields.
4. Click Add.

### 9.1.3 User Administration > User Roles

Assign User Roles to users to define the feature the user will have access to use in the System Manager.



Fields	Description
+ Add new record	Select to display the Add Role dialog box to add new record.
Role Name	User-provided role name.
Enabled	Displays a check mark if user role is active on the system.
Edit icon 	Displays the Edit Role dialog box to edit selected role.
Delete icon 	Deletes selected role.

#### Adding a new Role

To add a new role:

1. Click the Add Role button. The Add Role dialog box appears.

Fields	Description
RoleName	User-provided role name.
IsActive	Select check box to make the new role active on system.
Update	Saves the new role.
Cancel	Cancel the creation of the new role.

3. Enter the fields.
4. Click Update.

## Editing a Role

To edit a role:

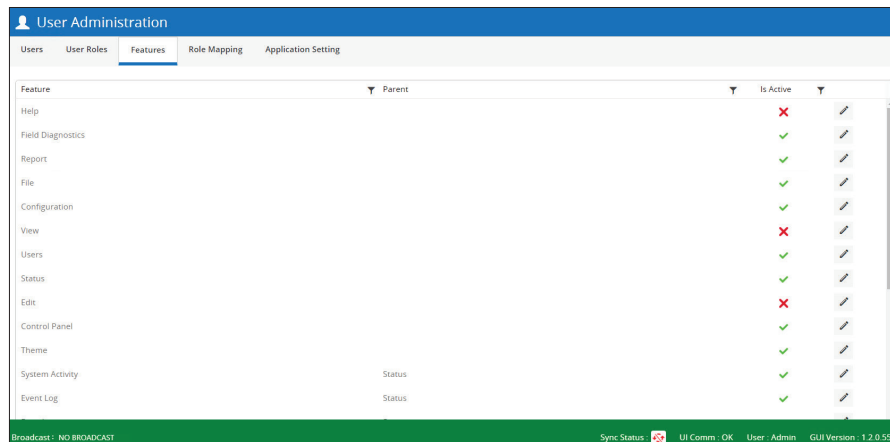
1. Click the Edit icon. The Edit Role dialog box appears.

Fields	Description
RoleName	Type a role name.
IsActive	Select check box to make the new role active on system.
Update	Saves the role.
Cancel	Cancel the change.

3. Enter the fields.
4. Click Update.

### 9.1.4 User Administration > Features

The Features tab displays the different features available on the system that you can assign to User Roles. You cannot add new features, but you can edit existing ones.

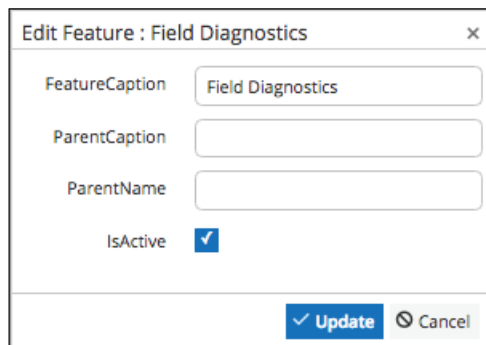


## Editing a Feature

The term Parent relates to the System Manager's component associated with the feature. For example, the Restart Controller feature is an attribute of the FILE menu (that is, FILE > RESTART CONTROLLER)

To edit a feature:

1. Click the Edit button. The Edit Feature dialog box appears.

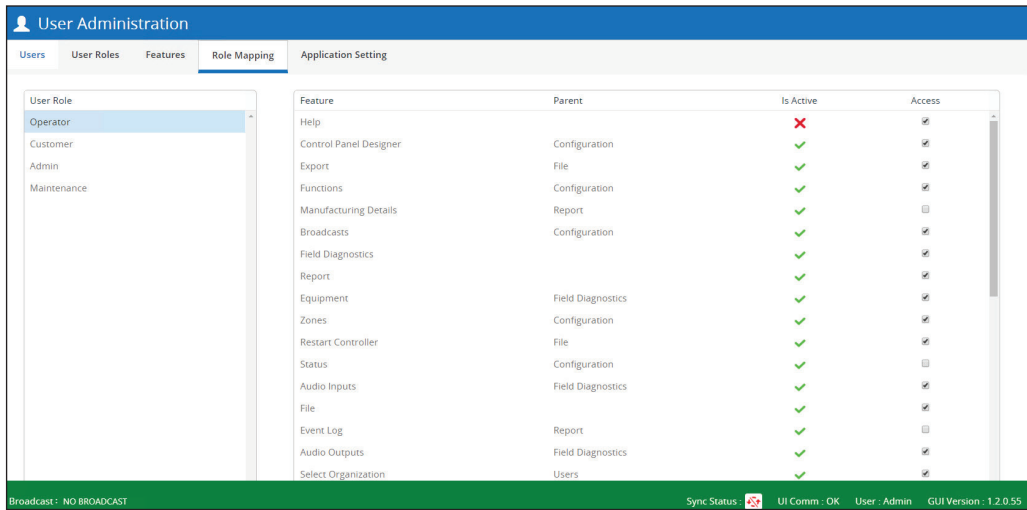


Fields	Description
FeatureCaption	User-provided name of Feature.
Parent Caption	User-provided component associated with the feature.
ParentName	Component associated with the feature.
IsActive	Select check box to make the feature active on system.
Update	Saves the feature.
Cancel	Cancels creation of the feature.

3. Enter the fields.
4. Click Update.

### 9.1.5 User Administration > Role Mapping

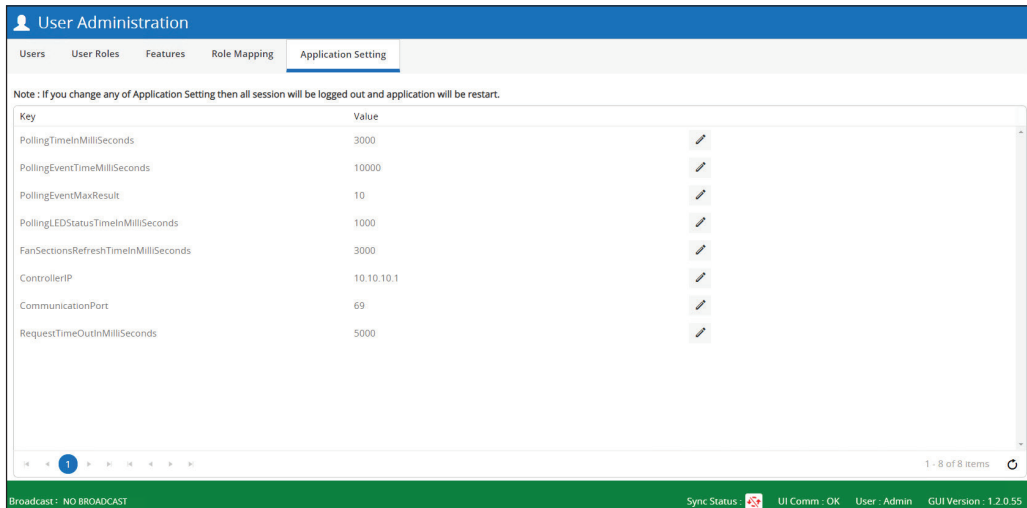
This window allows assignment of different features to the existing roles.




Fields	Description
User role	User Roles available on the User Roles window.
Feature	A list of available features for each User Role.
Parent	System Manager Component that uses selected feature.
Is Active	If set, indicates that the selected feature is active.
Access	Select check box to enable the feature for the selected user.

### 9.1.6 User Administration > Application Setting

This window allows you to edit the values described in the Key field.



Fields	Description
Key	User-described applications.
Value	Displays the value of the key.
	Allows you to edit the Value field.



**NOTE:** If you change any of Application Setting, all sessions are logged out and the application will restart.

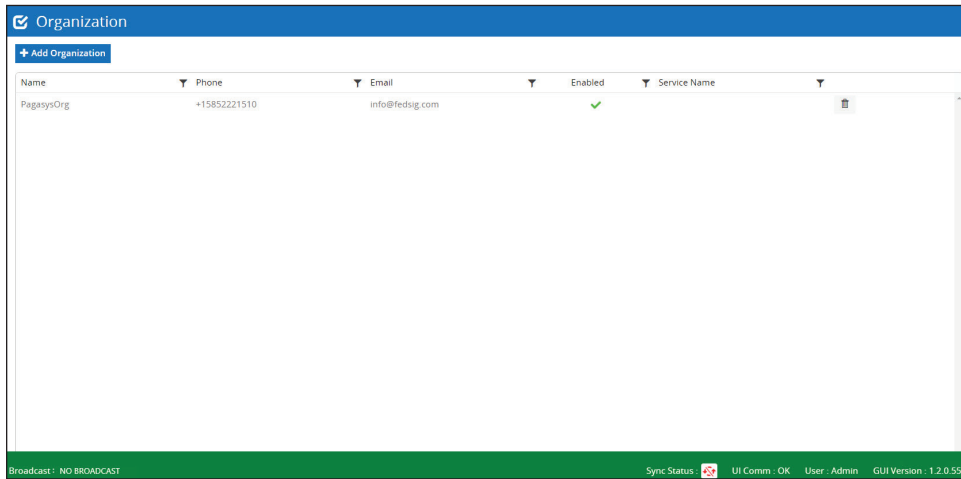
## 9.2 Users > Licensing

To access the Licensing Wizard, select Users > Licensing. The Licensing Wizard dialog box appears.

Fields	Description
Activation Key	Displays optional activation key for the System Manager. Contact your Federal Signal sales representative to acquire an activation key for optional features, such as Globalization (multi-language support).
Days Left	Displays the number of days left for the license.
Maintenance plan expires on	The date the maintenance play expires.
Features	Displays features.
License Registration Wizard	Opens a dialog box to either Activate you license or Deactivate your license.

### 9.3 Users > Select Organization

To access the Organization settings, select Users > Select Organization. The Organization window appears.

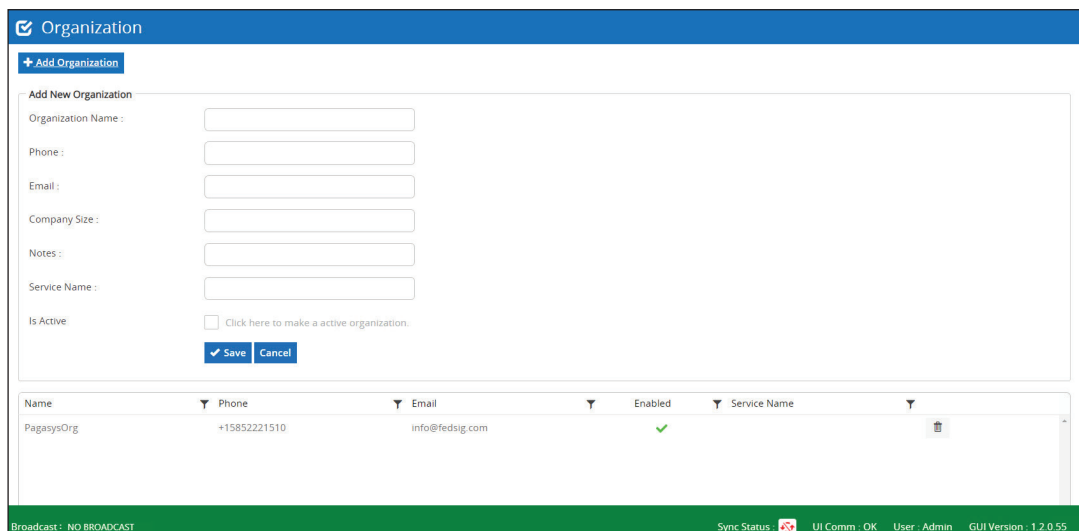


Fields	Description
Add Organization	Displays the Add New Organization window.
Name	Displays the name of the record.
Phone	Displays the phone number of the record.
Email	Displays the email of the record.
Enabled	Displays a check mark if user is active on system.
Service Name	Displays the service name.
Delete icon	Deletes the selected record.

#### 9.3.1 Adding Organizations

To add a organization:

1. Click the Add Organization button. The Add New Organization window appears.



Fields	Description
Organization Name	Type the organization's name.
Phone	Type the organization's phone number.
Email	Type the organization's email.
Company Size	Type the organization's company size.
Notes	Type your notes.
Service Name	Type of service name.
Is Active	Select check box to make new organization active on system.
Save	Click the Save button to ensure changes are saved to the System Manager.
Cancel	Cancel the creation of a new organization.

3. Enter the fields.
4. Click Save.

## 9.4 Users > User Profile

To access the User Profile settings, select Users > User Profile. The User Profile window appears.

The screenshot shows the 'User Profile' window with two main sections:

- Basic Information:** Contains four input fields: 'Full Name' (value: Administrative), 'User Name' (value: admin), 'Role' (value: Admin with a close icon), and 'Organization' (value: PagasysOrg with a close icon). Below these fields is a blue button labeled 'Update Profile' with a checkmark icon.
- Change Password:** Contains three input fields: 'Old Password' (value: \*\*\*\*), 'New Password', and 'Confirm Password'. Below these fields are two buttons: 'Change Password' and 'Cancel'.

Fields	Description
Full Name	Displays the user's full name.
User Name	Displays the user's name.
Role	Displays the user's role.
Organization	Displays the user's organization.
Update Profile	Click the Update Profile button to update the profile.

## Users Menu

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Fields	Description
Old Password	Type the old password.
New Password	Type the new password.
Confirm Password	Type the new password again.
Cancel	Cancels the changes.

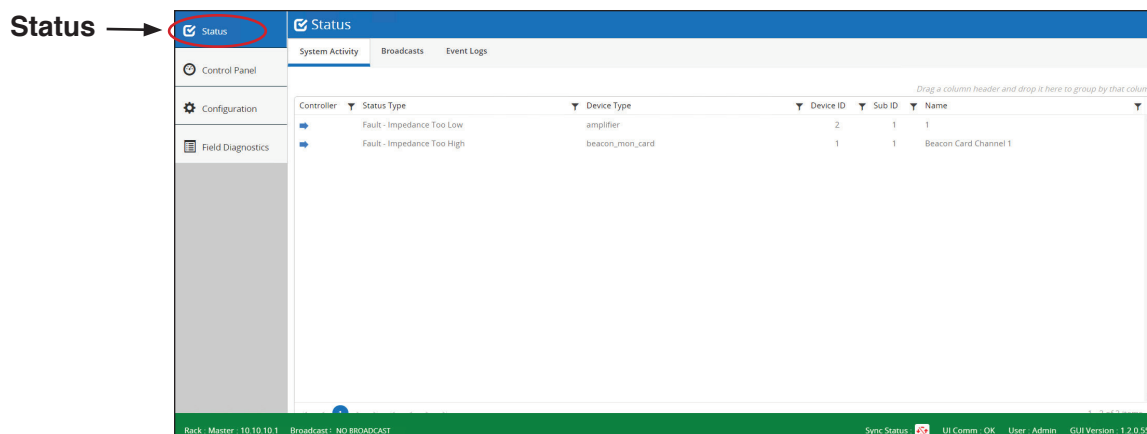
### 9.5 Users > Log Out

To Log out of the software, select Users > Log Out.

## 10.0 Using Status

The Status component is responsible for displaying current system activity and the event log details. The Status window displays System Activity, Broadcasts, Event Logs sent by the system.

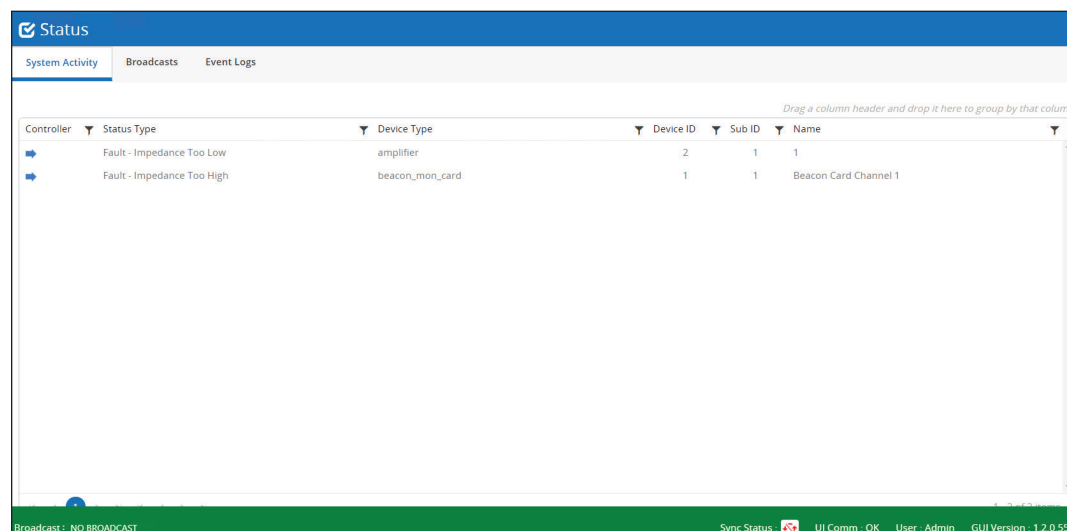
To access the Status window, click the Status menu item. The Status window appears. Use the Menu icon to open and close the Menu Panel.



### 10.1 Status > System Activity

To activate the System Activity window, click System Activity.

The Status System Activity window provides a list of active system faults, including the type of fault, device type with the fault, and device ID/name.



## 10.2 Status > Broadcasts

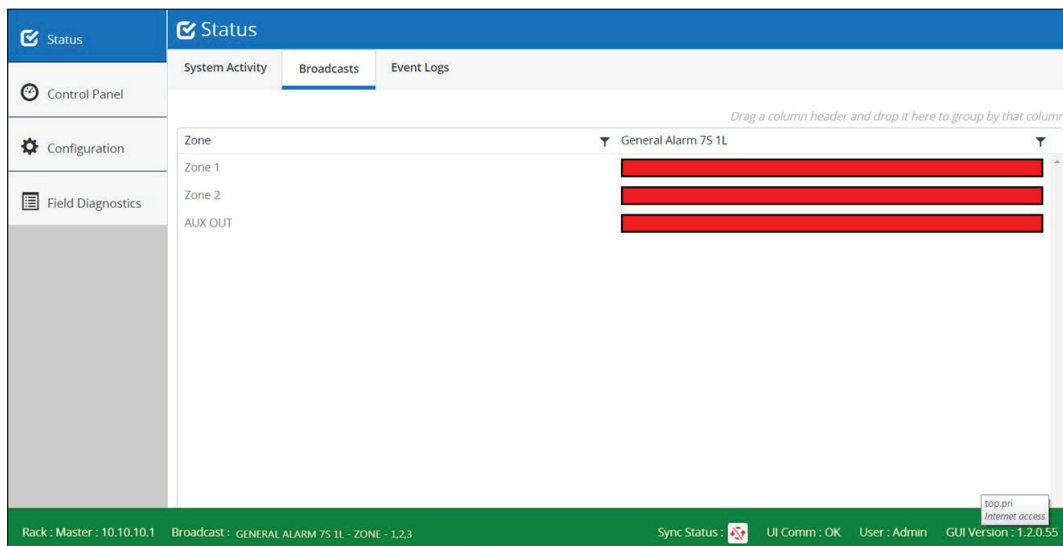
The Status Broadcasts window displays active broadcasts on the system, by zone and priority. The system may have up to six different broadcasts active concurrently. Broadcasts are listed in columns on this page, with the highest priority in the leftmost column and decreasing in priority moving right. Silent broadcasts will be displayed in the rightmost column. Zones with active broadcasts are listed in rows on this page. The system can have a total of 128 zones, with broadcasts active across one or more zones. Zones can have multiple broadcasts with different priorities. You can only have one broadcast active in a zone, so the highest priority broadcast in a zone will be active. Broadcasts that are superseded by a higher priority broadcast activate when a higher priority broadcast completes. The one exception to the single broadcast active at one time is when a duckable alarm is active and an Emergency Page is requested. In this case, the duckable alarm is reduced in volume while the Emergency Page is active, and then returns to normal volume after the completion of the Emergency Page.

Intersecting points on this window where a Broadcast is active in a Zone have a color matching the type of broadcast.

Broadcast Type	Color
Emergency Page	Light Blue
Alarm	Red
Priority Page	Amber
Routine Page	Green
Routine Message	Green
Program Audio	Grey

The current highest priority Broadcast displays in the Broadcast field on the Information Bar. Double-click on the Broadcast text (located on the Information bar) from any System Manager window to return to the Broadcasts window.

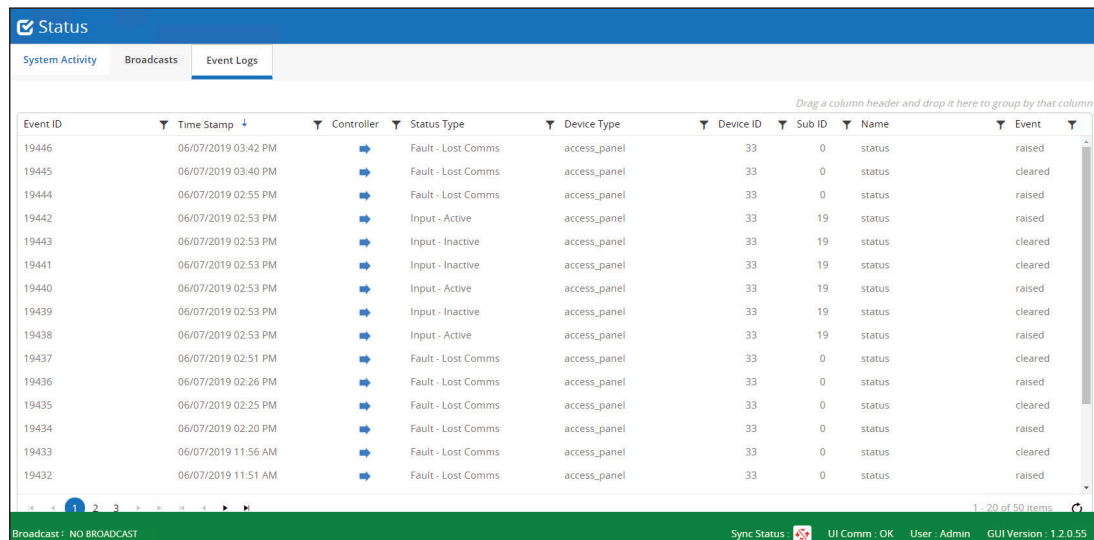
To access the Broadcasts window, click Broadcasts.



## 10.3 Status > Event Log

Event logs include Faults and activity from system devices. Events include date/timestamp for the event, the Controller reporting the event, Status Type, Device Type, Device ID/Sub ID, Name, and whether the event was raised or cleared at the event time. Events can be duplicated if more than one Controller is active. Order or filter events in the log by any available column.

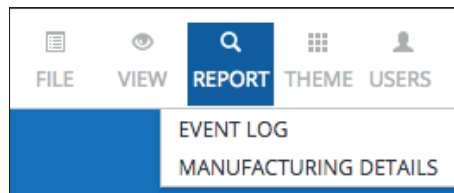
To activate the Event Log window, click Event Log.



Event ID	Time Stamp	Controller	Status Type	Device Type	Device ID	Sub ID	Name	Event
19446	06/07/2019 03:42 PM	➔	Fault - Lost Comms	access_panel	33	0	status	raised
19445	06/07/2019 03:40 PM	➔	Fault - Lost Comms	access_panel	33	0	status	cleared
19444	06/07/2019 02:55 PM	➔	Fault - Lost Comms	access_panel	33	0	status	raised
19442	06/07/2019 02:53 PM	➔	Input - Inactive	access_panel	33	19	status	raised
19443	06/07/2019 02:53 PM	➔	Input - Inactive	access_panel	33	19	status	cleared
19441	06/07/2019 02:53 PM	➔	Input - Inactive	access_panel	33	19	status	cleared
19440	06/07/2019 02:53 PM	➔	Input - Inactive	access_panel	33	19	status	raised
19439	06/07/2019 02:53 PM	➔	Input - Inactive	access_panel	33	19	status	cleared
19438	06/07/2019 02:53 PM	➔	Input - Inactive	access_panel	33	19	status	raised
19437	06/07/2019 02:51 PM	➔	Fault - Lost Comms	access_panel	33	0	status	cleared
19436	06/07/2019 02:26 PM	➔	Fault - Lost Comms	access_panel	33	0	status	raised
19435	06/07/2019 02:25 PM	➔	Fault - Lost Comms	access_panel	33	0	status	cleared
19434	06/07/2019 02:20 PM	➔	Fault - Lost Comms	access_panel	33	0	status	raised
19433	06/07/2019 11:56 AM	➔	Fault - Lost Comms	access_panel	33	0	status	cleared
19432	06/07/2019 11:51 AM	➔	Fault - Lost Comms	access_panel	33	0	status	raised

### 10.3.1 Exporting the Event Log

To export the Event Log: click the REPORT > EVENT LOG menu item.



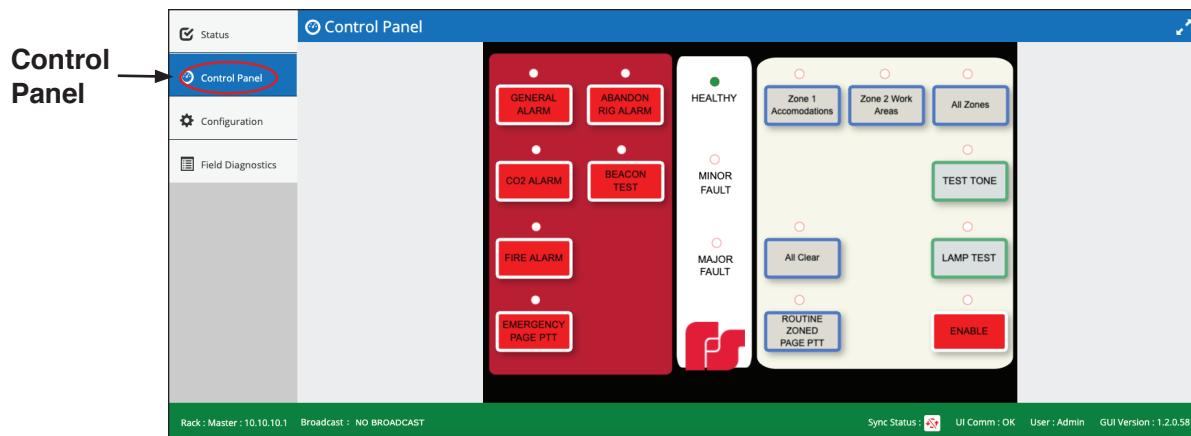
## 11.0 Using Control Panel

The Control Panel component displays the access panel buttons and the interface to communicate with the controller for the access panel button selections.

The Control Panel provides you with a software configurable control interface that can enable broadcast initiation and system status indications. The Control Panel is fully configurable using the Control Panel Designer under the Configuration section. You can maintain multiple versions of Control Panels in the system, with easy transition between different views using the Control Panel selectable items or buttons.

To access the Control Panel window, click Control Panel. Use the Menu icon to open and close the Menu Panel.

The Control Panel window appears.

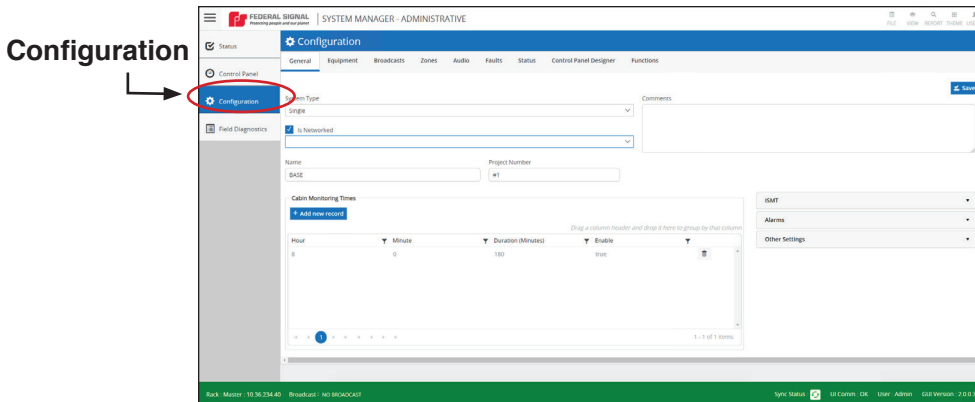




## 12.0 Using Configuration

The Configuration component is responsible for displaying the configuration available on the controller and also provides the functionality to modify the configuration that is sent to the controller.

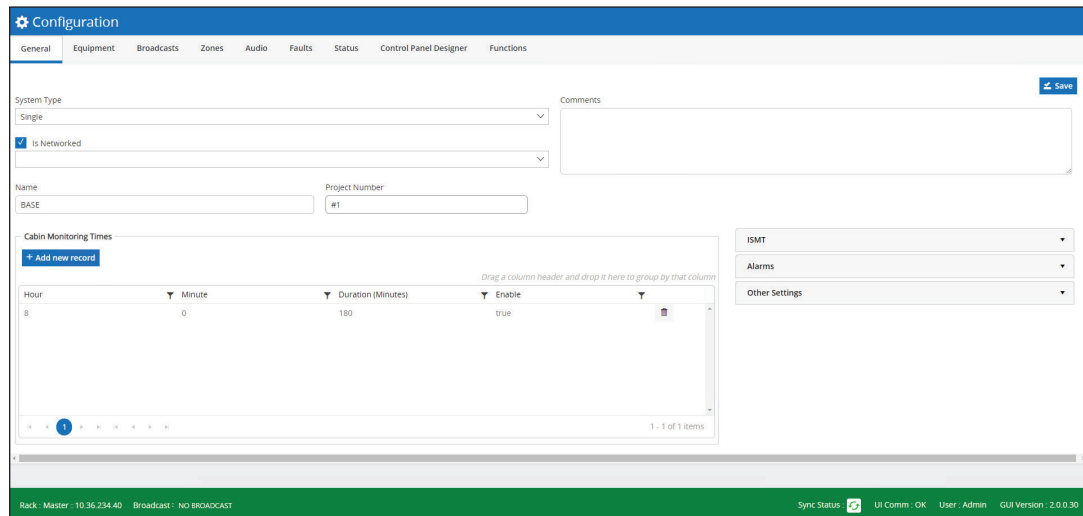
To access the Configuration window, click Configuration. Use the Menu icon to open and close the Menu Panel.



### 12.1 Configuration > General

The General Configuration window allows the user to configure the PAGASYS GEN II system attributes.

To activate the General window, click the General tab.



Fields	Description
System Type	Controller redundancy needed by user. Options are Single, High Integrity (Master + Standby), or Duplicated Pair.
Is Networked	Click the check box to indicate networked. Select from available Rack Id.
Name	User-defined text system Name.
Project Number	User-defined text Project Number.

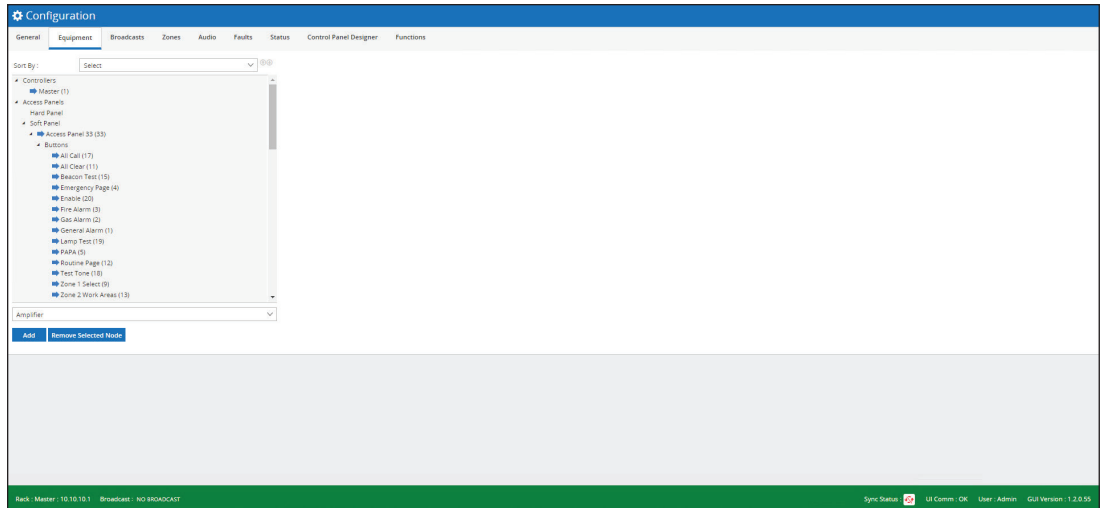
<b>Fields</b>	<b>Description</b>
Comments	Comments related to the general system. The maximum length is 512 characters.
Cabin Monitoring Times	Four-column table that allows you to define Hour and Minute for monitoring of speakers if you do not want monitoring to occur 24 hours a day. Duration (in minutes) to monitor, and a check box to Enable monitoring. Limited to 6 time periods. Group Monitoring Times by any column (Hour, Minute, Duration or Enable) by moving the desired grouping field column header into the grouping area at the top of the Cabin Monitoring Times window. (Drag a column header and drop it here to group by that column.)
<b>ISMT</b>	
Comms Retries	On the ISMT window, number of communication retries to perform with the ISMT card.
Allow Parallel Testing	On the ISMT window, click the check box to allow testing of all ISMT cards in the system concurrently, or uncheck to allow ISMT cards to test sequentially.
<b>Alarms</b>	
Alarm attenuation by	On the Alarms window, set a value to attenuate alarms to enable effective verbal communication. The range is 0 dB to 60 dB in steps of 1.
DB for	On the Alarms window, enter a time period for Alarm Attenuation. The range is 1 to 1800 seconds in steps of 1.
Alarm Mute Duration	On the Alarms window, the amount of time to mute the alarm. The range is 1 to 1800 seconds in steps of 1.
<b>Other Settings</b>	
Amplifier Test every minute	On the Other Settings window, the time between Amplifier tests. The range is 1 min to 120 minutes in steps of 1.
Impedance Test Every minute	On the Other Settings window, the time between Impedance tests. The range is 1 min to 120 minutes in steps of 1.
Event Log Retention Days	On the Other Settings window, the amount of time to retain Event Logs in system. The range is 1 day to 366 days in steps of 1.
Amplifier Crosstalk Threshold Volts	On the Other Settings window, the amount of volts of the amplifier crosstalk. The range is 1 to 5 in steps of 1. Threshold Volts.
AB Link Comm Timeout	On the Other Settings window, the timeout period for the communications link between the A/B systems.
Is Amp Test After Broadcast	Click this check box for an Is Amp test after broadcast.
Impedance Test After Broadcast	Click this check box for an Impedance test after broadcast.

## 12.2 Configuration > Equipment

The Equipment configuration window allows you to create new equipment entries on this window by selecting the type of item needed, and then selecting the Add button.

To remove an existing item from the equipment configuration screen, select the item to delete and select the Remove Selected Node button.

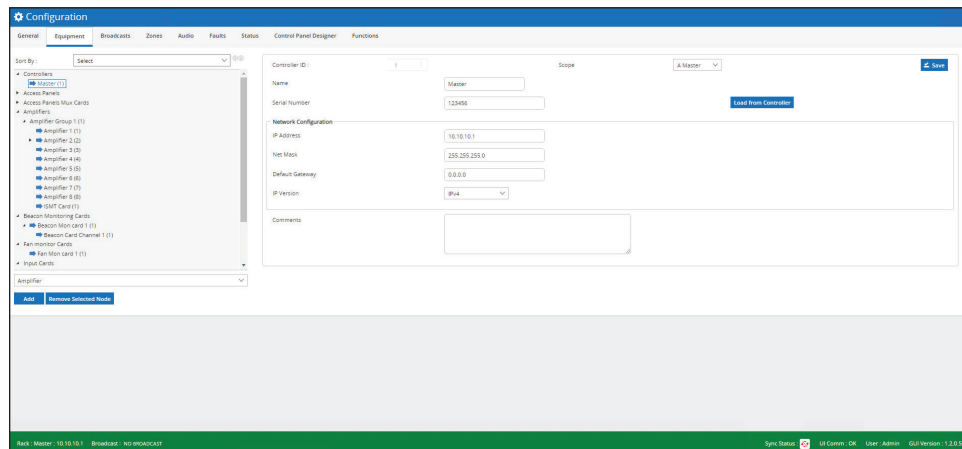
To access the Equipment window, click the Equipment tab.



Fields	Description
Add	Add a new equipment item under the equipment menu. Create the following: Amplifier, Amplifier Group, Access Panel, Access Panel Button, Access Panel Indicator, AP Mux Card, Beacon Monitoring Card, Beacon Monitoring Card Channel, Controller, Fan Monitor Card, Monitored Input Card, Monitored Input Card Channel, Input Card, Input Card Channel, ISMT Card, ISMT Speaker, Output Card, Output Card Channel, Misc (PABX) Card, Virtual Input Card, Virtual Input Card Channel, Virtual Output Card, Virtual Output Card Channel.
Remove Selected Node	Delete an existing equipment item.

### 12.2.1 Configuration > Equipment > Controller

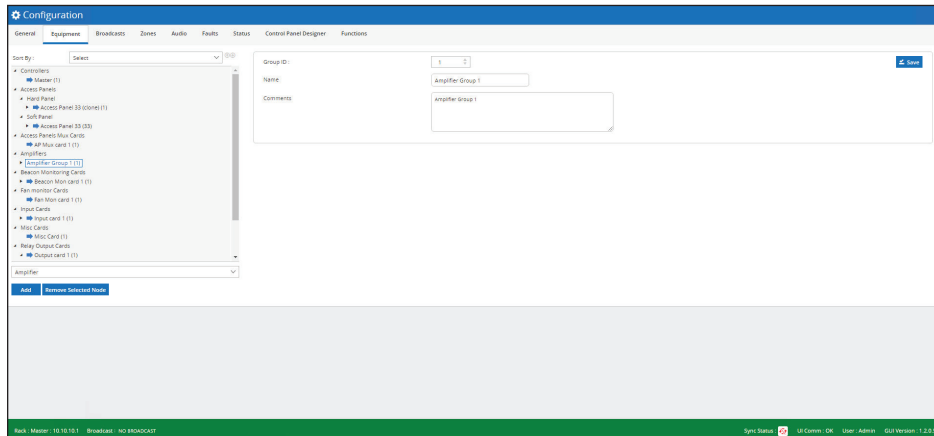
Select the Controller configuration window from the Equipment Configuration window by selecting the Controllers item. Select a specific controller to configure from the Equipment menu.



Fields	Description
Controller ID	Static field indicating the ID number for the selected controller. This field cannot be changed.
Name	User-defined Name for the controller.
Serial Number	Serial Number of the controller.
Scope	Select either A Master or B Standby.
Load from Controller	Click to load controller serial number from the controller in the rack.
<b>Network Configuration</b>	
IP Address	User-defined IP Address for the controller.
Net Mask	IP Subnet Mask for the controller.
Default Gateway	Network Default Gateway for the controller.
IP Version	IP Version used on the PAGASYS GEN II system. Select either version IPv4 or IPv6.
Comments	User comments related to this controller.
Save	Click the Save button to ensure changes are saved to the System Manager.

## 12.2.2 Configuration > Equipment > Amplifier Group

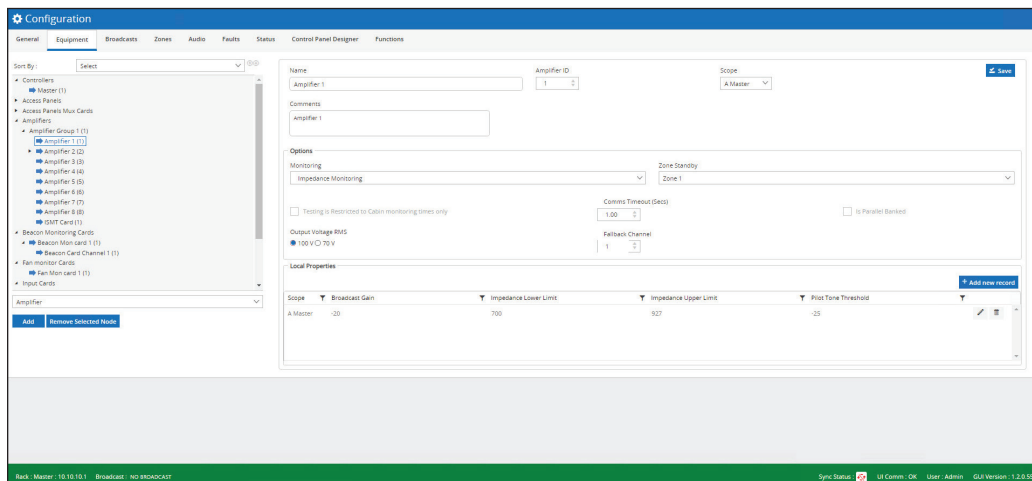
Select the Amplifier Group configuration window from the Equipment Configuration window by selecting the available Amplifier Group.



Fields	Description
Group ID	Numerical Amplifier Group ID (1-32). Amplifier Group IDs must be unique within a system.
Name	User-defined Name for the Amplifier Group.
Comments	Comments related to the specific amplifier Group selected. Common comments include whether ISMT or a Standby Amplifier is included on the Amplifier Group.

## 12.2.3 Configuration > Equipment > Amplifier

Select the Amplifier configuration window from the Equipment Configuration window by selecting the available amplifier. Wire the amplifiers that are in the same group to the same Standby Bus.



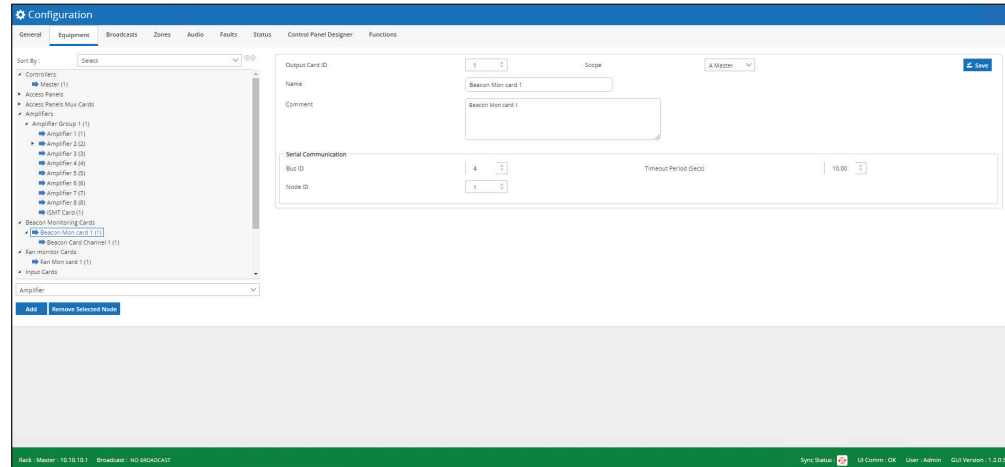
Fields	Description
Name	User-defined Name for the Amplifier
Amplifier ID	Numerical Amplifier ID (1-128). Amplifier IDs must be unique within a system.
Scope	Select from A Master, B Standby, Duplicated, or Shared.

<b>Fields</b>	<b>Description</b>
Comments	Comments related to the specific amplifier selected. Comments are useful for recording which speaker loops are attached to this Amplifier (for example, Accounts Office and Conference room 1).
<b>Options</b>	
Monitoring	One of the Amplifier options. This field allows you to select the type of monitoring needed for this Amplifier. Options include None, ISMT Spur Monitoring, ISMP Loop Monitoring, or Impedance Monitoring.
Zone Standby	Defines the Zone for the Amplifier. The only standard zone is Standby (no zone): all other zones are user created from the Configuration > Zones menu.
Testing is Restricted to Cabin Monitoring Times only	Click this check box if amplifier testing should be restricted only to Cabin Monitoring Time.
Comms Timeout (Secs)	Set number of seconds until communication times out. Range 1.0 to 26.5 seconds in 0.1 second steps.
Is Parallel Banked	Click this check box to indicate that this amplifier is parallel banked to its buddy amplifier. Parallel banking allows audio output values two times standard audio output. Parallel banking also requires parallel wiring on the audio distribution card.
Output Voltage RMS	Click to select desired output voltage. Select either 100 V or 70 V.
Fallback Channel	Set channel to use for fallback on the Amplifier.
<b>Local Properties</b>	
Add new record	Opens the New Local Properties dialog box that allows you to configure amplifier parameters. Include values for Scope, Broadcast Gain, Impedance Lower Limit, Impedance Upper Limit, and Pilot Tone Threshold.
Save	Click the Save button to ensure changes are saved to the System Manager.

## 12.2.4 Configuration > Equipment > Beacon Monitoring Card

The Beacon Monitoring Card dialog box is selected from the Equipment Configuration window by selecting one of the Beacon Monitoring Cards.

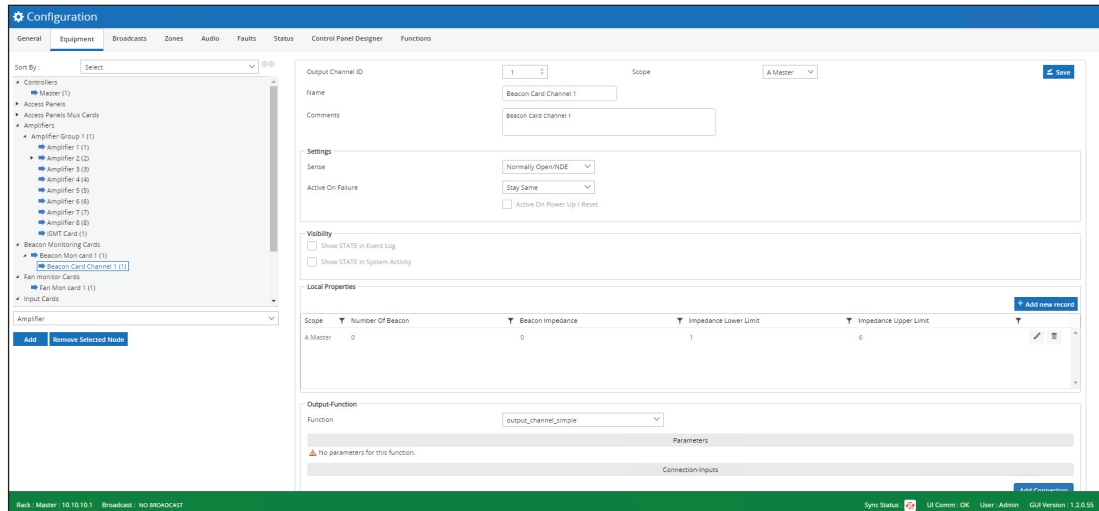
To view the Beacon Monitoring Card dialog box, click an item under Beacon Monitoring Cards from the list.



Fields	Description
Output Card ID	Numerical Card ID. The range is 1-255.
Name	User-defined name for the Output Card.
Comments	Comments related to the specific Input Output selected.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Serial Communications</b>	
Bus ID	Select the Bus ID for the Input Card. Determines which I/O socket the board is connected to. The range is 1-4.
Node ID	Select the Node ID for the Input Card. This must match the DIP switch setting on the card. The range is 1-63.
Timeout Period (Secs)	Set number of seconds until communication times out. The range is 1.0 to 26.5 seconds in 0.1 second steps.

### 12.2.5 Configuration > Equipment > Beacon Monitoring Card Channel

After creating a Beacon Monitoring Card from the Equipment Configuration window, configure the specific Beacon Monitoring Card channels by selecting the card listed under the Beacon Monitoring Cards list and adding an Beacon Monitoring Card Channel.



Fields	Description
Output Chan ID	Numerical Beacon Monitoring Card Channel ID. The range is 1-255.
Name	User-defined Name for the Beacon Monitoring Card Channel. The maximum length is 64 characters.
Comments	Comments related to the specific Beacon Monitoring Card Channel selected. The maximum length is 500 characters.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Settings</b>	
Sense	Sense for the Beacon Monitoring Card Channel defines the behavior of the system when the input signal is detected. Sense can be Normally Open/NDE or Normally Closed/NE.
Active On Failure	Select the Active On Failure for the Monitoring Card. Active On Failure can be Active, Inactive, or Stay Same.
Active On Power-Up/Reset	Check box that indicates whether the Beacon Monitoring Card channel should be active when powered up or reset.
Recovery Time (Secs) after activation	Set number of seconds of recovery time after activation. The range is 1.0 to 26.5 seconds in 0.1 second steps.
<b>Visibility</b>	
Show State in Event Log	Visibility field that enables state reporting in the System Event Log.
Show State in System Activity	Visibility field that enables state reporting in the System Activity window.

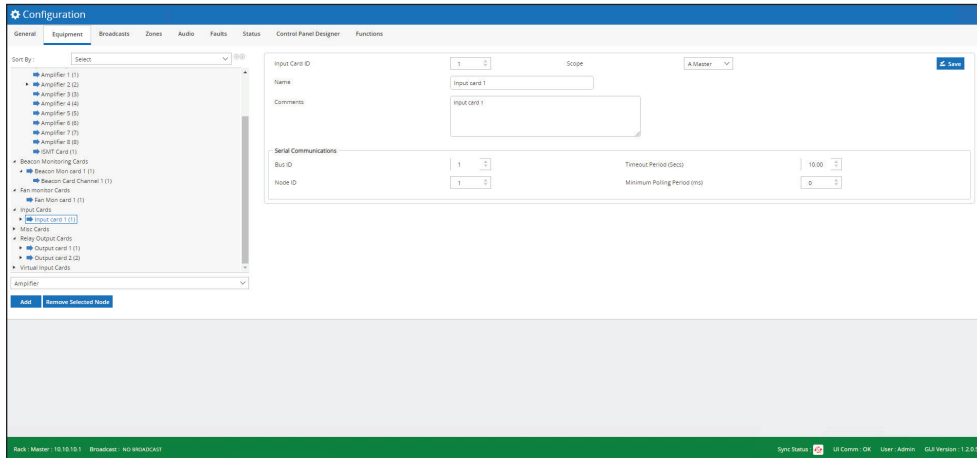


Fields	Description
<b>Local Properties</b>	
Add new record	Displays the New Local Properties dialog box to add new properties record. Typically, one record is needed for each scope type of the system (A Master, B Standby, etc).
<b>Output Function</b>	
Function	Function can be output_channel_bcast_active_all, output_channel_bcast_active_any, output_channel_bcast_slice_detect, or output_channel_simple. Beacon Monitoring Card parameters and connections are displayed below the Function box, when available.
<b>Parameters</b>	
Broadcast List	Select from available broadcasts which broadcasts to enable.
Zone List	Select from available zones which zones to apply the selected function.
<b>Connections-Inputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an input widget connection for the channel.
Inhibit	Inhibits the input.
Drive	Drives the input.
<b>Connections-Outputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an output widget connection for the channel.
State	The logical state of the output.
Raw State	The physical state of the output before any inhibit has been applied.
All Zones Active	Output is active when all zones are playing specified broadcast.
Any Zone Active	Output is active when any zone is playing specified broadcast.
Save	Click the Save button to ensure changes are saved to the System Manager.

### 12.2.6 Configuration > Equipment > Input/Output Card

All of the Input/Output Cards have common configuration fields that you can modify from the specific Input or Output Card items in the Equipment list. The Input cards include the Input Card, Monitored Input Card, and Virtual Inputs. The Output cards include the Relay Output Card, Beacon Monitoring Card, and Virtual Output Card.

Each card has additional fields that you can configure by clicking the channel under the Input or Output Card Equipment list. These lower-level configured items are discussed later.

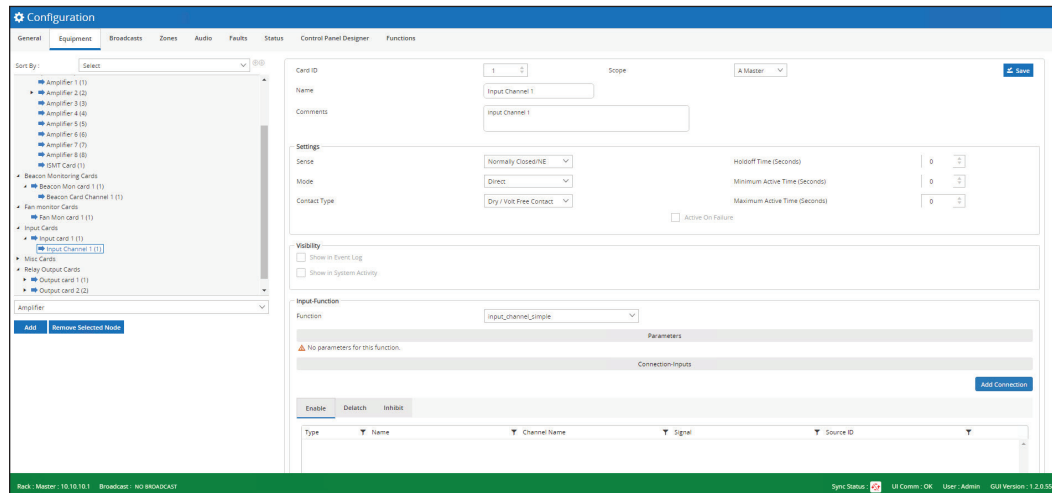


Fields	Description
Input Card ID	Numerical Card ID. The range is 1-255.
Name	User-defined name for the Input Card.
Comments	Comments related to the specific Input Card selected.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Serial Communications</b>	
Bus ID	Select the Bus ID for the Input Card. Determines which I/O socket the board is connected to. The range is 1-4.
Node ID	Select the Node ID for the Input Card. This must match the DIP switch setting on the card. The range is 1-63.
Timeout Period (secs)	Set number of seconds until communication times out. The range is 1.0 to 26.5 seconds in 0.1 second steps.
Save	Click the Save button to ensure changes are saved to the System Manager.

## 12.2.7 Configuration > Equipment > Input Card Channel

All of the Input Cards Channels have common configuration fields that you can modify from the specific Input Card items in the Equipment list. The Input Cards Channels include the Input Card Channel, Monitored Input Card Channel, and Virtual Input Card Channel.

After creating an Input Card from the Equipment Configuration window, configure the specific Input Card channels by selecting the card listed under the Input Card list and adding an Input Card Channel.



Fields	Description
Card ID	Numerical Input Card ID. The range is 1-255.
Name	User-defined Name for the Input Card Channel. The maximum length is 64 characters.
Comments	Comments related to the specific Input Card Channel selected. The maximum length is 500 characters.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Settings</b>	
Sense	Sense for the Input Card Channel defines the behavior of the system when the input signal is detected. Sense can be Normally Open/NDE or Normally Closed/NE.
Mode	Defines the action supported by the system when the button is selected. Options are Direct, Toggled, or Latched. Holdoff Time and Minimum Active Time are only visible for Direct Mode. Holdoff time is also visible for toggled mode.
Contact Type	Contact Type can be Dry/Volt Free Contact or Wet/Energized Contact. Use this field with isolated Input Cards. It is not visible on the Monitored Input Card or Virtual Input Card configuration.
Holdoff Time (Seconds)	Defines the amount of time that must pass before the input can be triggered after being cleared. The value can be set between 0 and 1 hour in 1 second increments.
Minimum Active Time (Seconds)	Minimum Active Time indicates the Minimum Time an action remains active after being initiated. Minimum Active Time is only visible when Mode is Direct Mode. The range is 0 to 1 hour in 1 second intervals.

<b>Fields</b>	<b>Description</b>
Maximum Active Time (Seconds)	Maximum Active Time indicates the Maximum Time an action remains active after being initiated. The range is 0 to 1 hour in 1 second intervals.
Active on Failure	Check box that indicates whether the input channel should be active when failed.
<b>Visibility</b>	
Show in Event Log	Visibility field that enables state reporting in the System Event Log.
Show in System Activity	Visibility field that enables state reporting in the System Activity window.
<b>Input-Function</b>	
Function	Function can be input_channel_bcast_req_fixed_zones, input_channel_bcast_req_variable_zones, input_channel_local_fault_accept, input_channel_saf_playback_inhibit, input_channel_simple, or input_channel_zone_selector. Input card parameters and connections are displayed below the Function box, when available.
<b>Parameters</b>	
Broadcast ID	Select from available broadcasts which broadcasts to enable.
Zone List	Select from available zones which zones to apply the selected function.
<b>Connection - Inputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an input widget connection for the channel.
Enable	Must be ACTIVE to allow the input to do anything.
Delatch	De-latches a latched input or resets a toggled input.
Inhibit	Inhibits the input.
<b>Connection - Outputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an output widget connection for the channel.
Raw State	The physical state of the input before any inhibit has been applied.
State	The logical state of the input.

## 12.2.8 Adding a Widget

The following procedure is for advanced users only.

To add a Widget:

1. Click Add Connection. The Widget Input Details dialog appears.

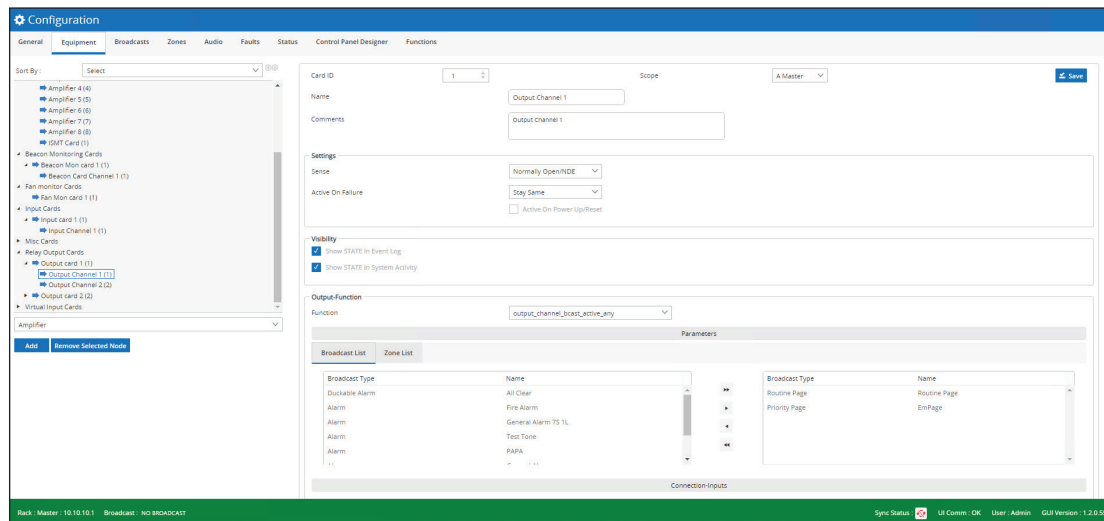
Fields	Description
Type	The type of the entity needing a Widget, Input Card.
Name (ID)	The index of the associated Input Card. The default value.
Channel Name (ID)	The Channel Number of the associated Input Channel. The default value.
Signal	Select the Signal Name.
Add	Click to add the new Widget.

3. Enter the fields.
4. Click Add.

### 12.2.9 Configuration > Equipment > Output Card Channel

All of the Output Cards Channels have common configuration fields that you can modify from the specific Output Card items in the Equipment list. The Output Cards Channels include the Output Card Channel and Virtual Output Card Channel.

After creating an Output Card from the Equipment Configuration window, configure the specific Output Card channels by selecting the card listed under the Output Card list and adding an Output Card Channel.



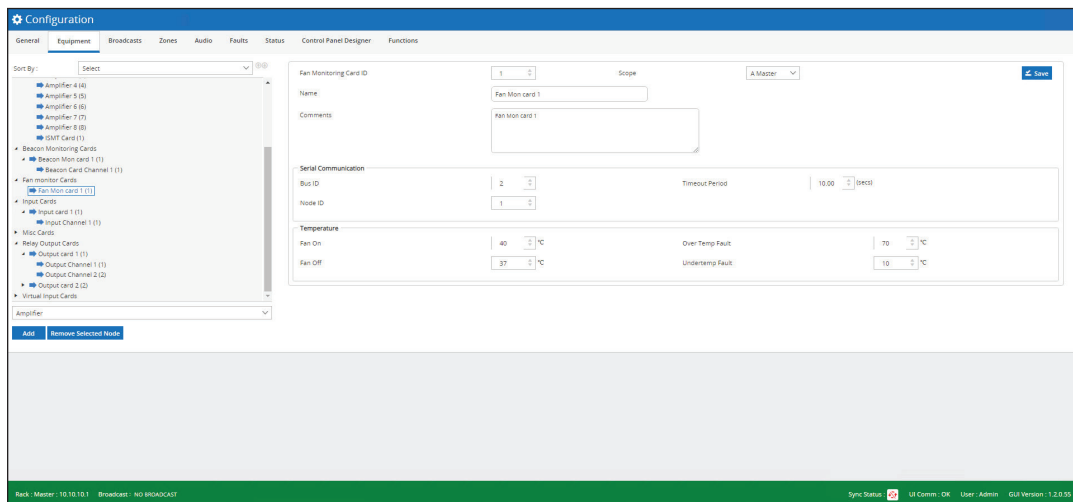
Fields	Description
Card ID	Numerical Output Card ID. The range is 1-255.
Name	User-defined Name for the Output Card Channel. The maximum length is 64 characters.
Comments	Comments related to the specific Output Card Channel selected. The maximum length is 500 characters.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Settings</b>	
Sense	Sense for the Output Card Channel defines the behavior of the system when the signal is detected. Sense can be Normally Open/NDE or Normally Closed/NE.
Active on Failure	Click the arrow to select the following: Active, Inactive, or Stay Same.
Active On Power-Up/Reset	Click to define the initial state of the output.
<b>Visibility</b>	
Show STATE in Event Log	Click to enable state reporting in the System Event Log.
Show STATE in System Activity	Click to enable state reporting in the System Activity window.
<b>Output-Function</b>	
Function	Click the arrow to select the following: output_channel_bcast_active_all, output_channel_bcast_active_any, output_channel_bcast_slice_detect, or output_channel_simple. Output card parameters and connections are displayed below Function box, when available.

Fields	Description
<b>Parameters</b>	
Broadcast List	Select from available broadcasts which broadcasts to enable.
Zone List	Select from available zones which zones to apply the selected function.
<b>Connection - Inputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an input widget connection for the channel.
Inhibit	Inhibits the output.
Drive	Drives the output.
<b>Connection - Outputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an output widget connection for the channel.
State	The logical state of the output.
Raw State	The physical state of the output before any inhibit has been applied. Always the same as the “drive” input.
All Zones Active	Output is active when all zones are playing specified broadcast.
Any Zone Active	Output is active when any zone is playing specified broadcast.

### 12.2.10 Configuration > Equipment > Fan Monitor Card

The Fan Monitor Card monitors Fan operation in the system and reports faults if fans are not working correctly. Only Fans that are configured as fitted are monitored, see Top Row and Bottom Row for fitted fans.

To view or configure the Fan Monitor Card dialog box, click the card under the Fan monitor cards list.



Fields	Description
Fan Monitor Card ID	Numerical Card ID. The range is 1-255.
Name	User-defined Name for the Fan Monitor Card. The maximum length is 64 characters.

<b>Fields</b>	<b>Description</b>
Comments	Comments related to the specific Fan Monitor Card selected. The maximum length is 500 characters.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Serial Communications</b>	
Bus ID	Serial Communications Bus ID. The range is from 1 through 4.
Node ID	Serial Communications Node ID. The range is from 1 through 63.
Timeout Period	Sets the number of seconds until communication times out. The range is 1.0 to 26.5 seconds in 0.1 second steps.
<b>Temperature</b>	
Fan On	Sets the temperature at which fans turn on. The range is -30°C to 100°C. Set Fan On greater than Fan Off to enable hysteresis.
Fan Off	Sets the temperature at which fans turn off. The range is -30°C to 100°C. Set Fan On greater than Fan Off.
Over Temp Fault	Sets temperature at which Fan Monitoring Card reports an Overtemp Fault. The range is -30°C to 100°C.
Undertemp Fault	Sets temperature at which Fan Monitoring Card reports an Undertemp fault. The range is -30°C to 100°C.

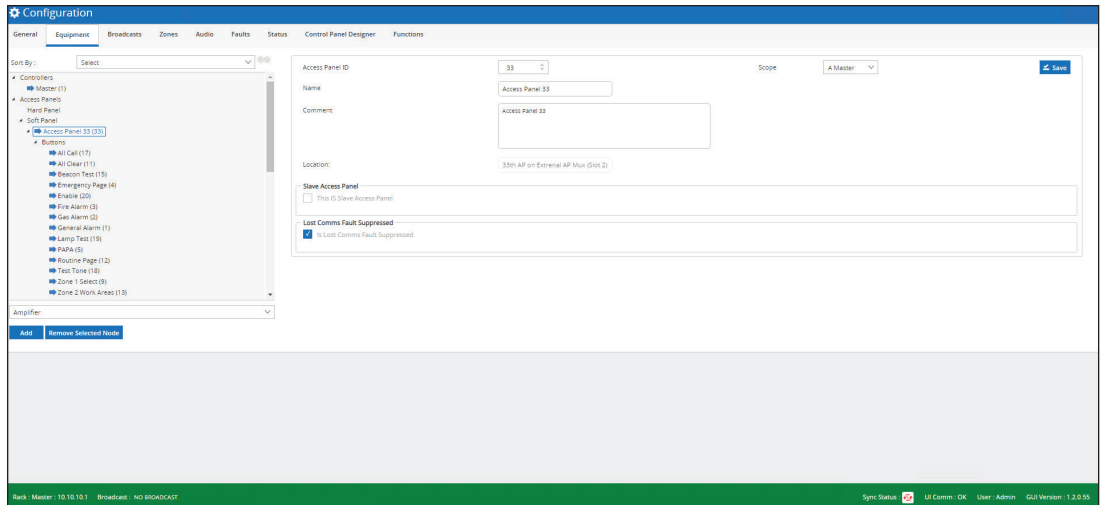


## 12.2.11 Configuration > Equipment > Access Panel

All of the Access Panel have common configuration fields that you can modify from the specific Access Panel item in the Equipment list. The Access Panel includes the Access Panel and Soft Access Panel.

To view or configure the Access Panel dialog box, click the item under the Access Panels.

The Access Panel dialog box appears.



Fields	Description
Access Panel ID	Numerical Card ID. The range is 1-255.
Name	User-defined Name for the Access Panel. The maximum amount is 64 characters.
Comments	Comments related to the specific Access Panel selected. The maximum amount is 500 characters.
Location	Read-only field that provides the system-defined location for the Access Panel.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Slave Access Panel</b>	
This is a Slave Panel	Indicate that this Access Panel is a Slave Access Panel to a Master Access Panel. Click this box to open a window to select the Master Panel ID.
Master Access Panel ID	Only available when the current panel is selected as a Slave Panel. Use the spin box to select the ID of the Master Access Panel. The range is from 1 to 32.
<b>Lost Comms Fault Suppressed</b>	
Is Lost Comms Fault Suppressed	Click to enable communication to be suppressed.
Save	Click the Save button to ensure changes are saved to the System Manager.

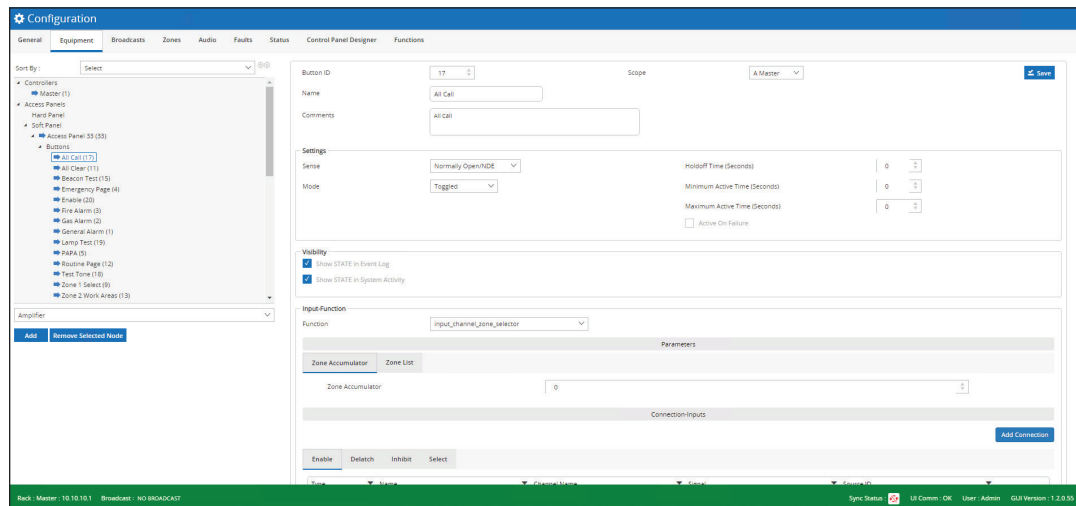
### 12.2.12 Configuration > Equipment > Access Panel Button

The Access Panel Button configuration dialog box is selected from the Equipment Configuration window by selecting one of the Access Panel Buttons.

This dialog box allows you to do the following:

- Define how button selection on the Access Panel is recognized
- How the system responds to the button selection
- Any system operations or functions that need to be performed on button selection

To view or configure the Access Panel Button dialog box, click the item under Buttons.



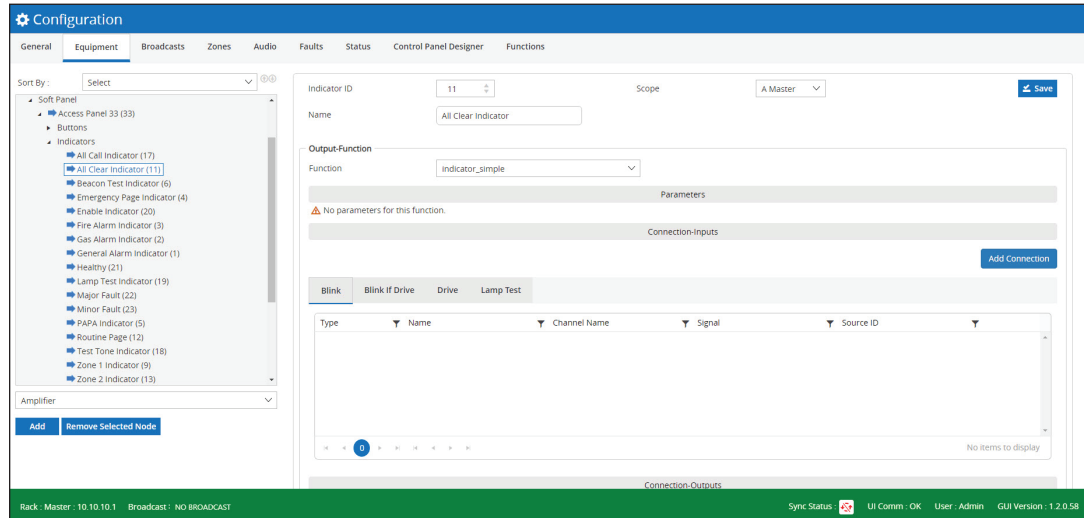
Fields	Description
Button ID	Select the number of the button ID to configure. The range is from 1-120.
Name	User-defined Name for the Access Panel Button. The maximum length is 64 characters.
Comments	Comments related to the specific Access Panel Button selected. The maximum length is 500 characters.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Settings</b>	
Sense	Defines the behavior of the system after the button is selected. Options are Normally Open/NDE or Normally Closed/NE
Mode	Defines the action supported by the system when the button is selected. Options are Direct, Tagged, or Latched.
Holdoff Time (Seconds)	Defines the amount of time that must pass before the input can be triggered after being cleared. The value can be set between 0 and 1 hour in 1 second increments.
Minimum Active Time (Seconds)	Indicates the Minimum Time an action remains active after being initiated. The range is 0 to 1 in 1 second intervals.

<b>Fields</b>	<b>Description</b>
Maximum Active Time (Seconds)	Indicates the Maximum Time an action remains active after being initiated, if the activating signal is still active. Maximum Active numerical information is only visible when the corresponding check box is selected. The range is 0 to 1 in 1 second intervals.
Active on Failure	Check box that indicates whether the button should be active when failed.
<b>Visibility</b>	
Show STATE in Event Log	Click to enable state reporting in the System Event Log.
Show STATE in System Activity	Click to enable state reporting in the System Activity window.
<b>Input-Function</b>	
Function	Action that is initiated on the system when an associated event occurs. Function display is dependent on the Function selected. Options are input_channel_bcast_req_fixed_zones, input_channel_bcast_req_variable_zones, input_channel_local_fault_accept, input_channel_saf_playback_inhibit, input_channel_simple, or input_channel_zone_selector. Output card parameters and connections are displayed below Function box, when available.
<b>Parameters</b>	
	Parameters differ based on the Function selected.
Zone Accumulator	Select from available zones which zones to enable. Available for function input_channel_zone_selector.
Zone List	Select from available zones which zones to apply the selected function. Available for function input_channel_zone_selector.
Broadcast ID	Select from available broadcasts which broadcasts to enable. Available under functions input_channel_bcast_req_fixed_zones and input_channel_bcast_req_variable_zones.
Zone List	Select from available zones which zones to apply the selected function. Available under functions input_channel_bcast_req_fixed_zones and input_channel_bcast_req_variable_zones.
<b>Connection - Inputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an input widget connection for the channel.
Enable	Must be ACTIVE to allow the input to do anything.
Delatch	De-latches a latched input or resets a toggled input.
Inhibit	Inhibits the input.
Select	Accepts the input.
<b>Connection - Outputs</b>	
Add Connection	Opens the Widget Output Details dialog box that allows you to add an output widget connection for the channel.
State	The logical state of the input.
Raw State	The physical state of the input before any inhibit has been applied.
Save	Click the Save button to ensure changes are saved to the System Manager.

### 12.2.13 Configuration > Equipment > Access Panel Indicator

The Access Panel Indicator configuration dialog box is selected from the Equipment Configuration window by selecting one of the Access Panel Indicators.

To view the Access Panel Indicator Configuration dialog box, click an item under Access Panels Indicators from the list.



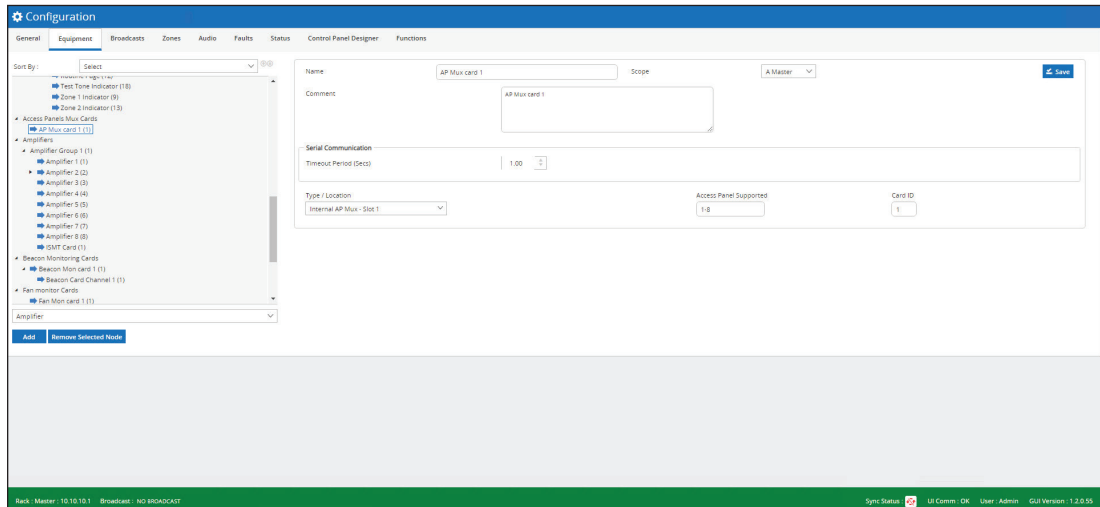
Fields	Description
Indicator ID	Numerical Card ID. The range is 1-255.
Name	User-defined Name for the Access Panel Indicator. The maximum length is 64 characters.
Save	Click the Save button to ensure changes are saved to the System Manager.
<b>Output-Function</b>	
Function	Click the arrow to select the function. Output card parameters and connections are displayed below Function box, when available. Options are indicator_bcast_slice_detect, indicator_healthy, indicator_minor_fault, indicator_major_fault, or indicator_simple.
<b>Parameters</b>	
Max Active Secs	Maximum number of seconds active.
Widget ID	ID of control widget that drives the input for this indicator. Widget ID is only available when indicator type is indicator_bcast_slice_detect.
<b>Connections-Inputs</b>	
Add Connection	Opens the Widget Input Details dialog box that allows you to add an input widget connection for the channel.
Blink	Causes the indicator to blink.
Blink If Drive	Causes the LED to blink if drive is also on.
Drive	Drives the LED ON. This overrides the BLINK input.
Lamp Test	Drives the LED indicator solid ON, unconditionally. This overrides all other inputs.
<b>Connections-Outputs</b>	
Standard LEDs have no Connections-Outputs, but some non-standard LEDs, such as Function indicator_minor_fault (and major/healthy) may have output functions.	

Fields	Description
Save	Click the Save button to ensure changes are saved to the System Manager.

### 12.2.14 Configuration > Equipment > Access Panel Mux Card

The Access Panel Mux configuration window is selected from the Equipment Configuration window by selecting the Access Panel Mux card.

To view the Access Panel Mux Configuration dialog box, click an item under Access Panel Mux Card from the list.



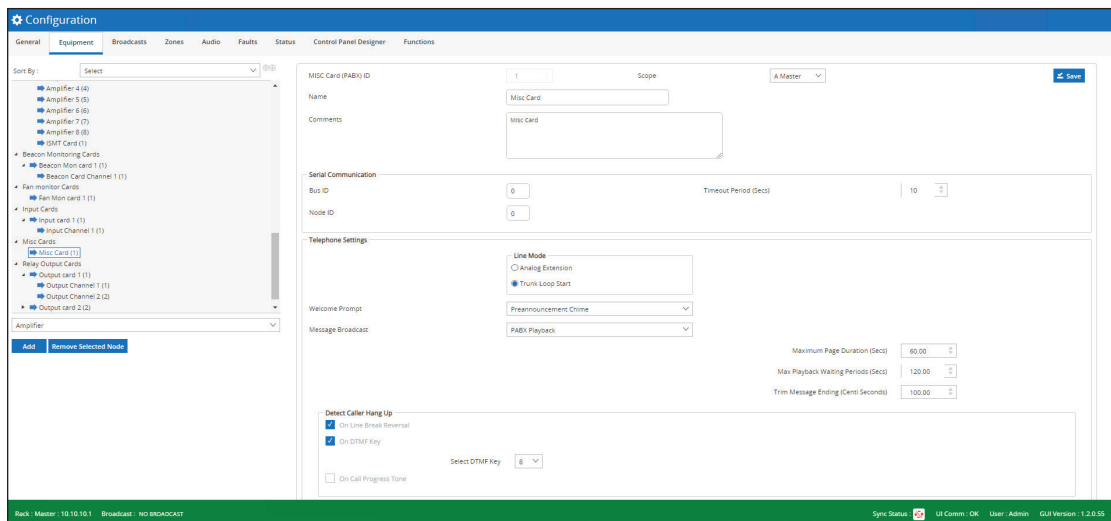
Fields	Description
Name	User-defined Name for the AP Mux Card.
Comments	Comments related to the specific AP Mux Card selected.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Serial Communications</b>	
Timeout Period (Secs)	Serial Communications timeout period. The range is from 1.0 to 26.5 seconds in 0.1 second steps.
Type/Location	Displays the type of AP Mux card and Controller slot used by the card. Select from the following: <ul style="list-style-type: none"> <li>Internal AP Mux – Slot 1</li> <li>Internal AP Mux – Slot 2</li> <li>External AP Mux – Slot 1, Aggregator ID 1</li> <li>External AP Mux – Slot 1, Aggregator ID 2</li> <li>External AP Mux – Slot 2, Aggregator ID 1</li> <li>External AP Mux – Slot 2, Aggregator ID 2</li> </ul>
Access Panels Supported	A read-only field that is dependent on the Type/Location of AP Mux card. Values are as follows: <ul style="list-style-type: none"> <li>1-8 for Internal AP Mux – Slot 1</li> <li>17-24 for Internal AP Mux – Slot 2</li> <li>1-8 for External AP Mux – Slot 1, Aggregator ID 1</li> <li>9-16 for External AP Mux – Slot 1, Aggregator ID 2</li> <li>17-24 for External AP Mux – Slot 2, Aggregator ID 1</li> <li>25-32 for External AP Mux – Slot 2, Aggregator ID 2</li> </ul>

Fields	Description
Card ID	A read-only field that is dependent on the Type/Location of AP Mux card. Values are as follows: <ul style="list-style-type: none"> <li>• 1 for Internal AP Mux – Slot 1</li> <li>• 3 for Internal AP Mux – Slot 2</li> <li>• 1 for External AP Mux – Slot 1, Aggregator ID 1</li> <li>• 2 for External AP Mux – Slot 1, Aggregator ID 2</li> <li>• 3 for External AP Mux – Slot 2, Aggregator ID 1</li> <li>• 4 for External AP Mux – Slot 2, Aggregator ID 2</li> </ul>
Save	Click the Save button to ensure changes are saved to the System Manager.

### 12.2.15 Configuration > Equipment > Misc Card

The Misc Card configuration window is selected from the Equipment Configuration window by selecting the Misc card.

To view the Misc Configuration dialog box, click an item under Misc Card from the list.



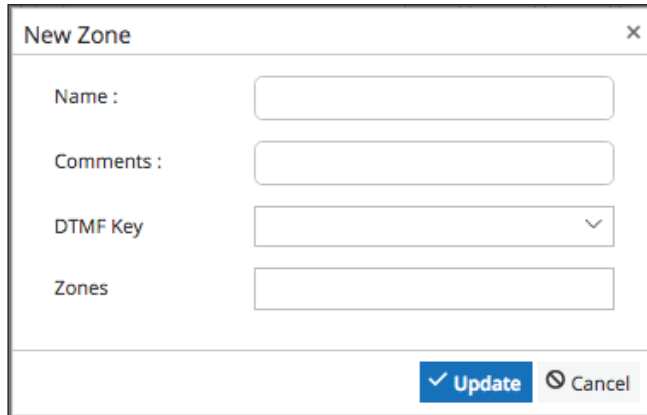
Fields	Description
Misc Card (PABX) ID	The range is 1-255.
Name	User-defined name of the Misc card.
Comments	User-defined Comments for the specified Misc Card.
Scope	Select either A Master, B Standby, Duplicated, or Shared.
<b>Serial Communications</b>	
Bus ID	Displays the Bus ID for the Misc Card Group. The range is 1-4.
Node ID	Displays the Node ID for the Misc Card Group. The range is 1-63.
Timeout Period (secs)	Displays number of seconds until communication times out. The range is 1.0 to 26.5 seconds in 0.1 second steps.
<b>Telephone Settings</b>	
Line Mode	Click either the Analog Extension or Tunk Loop Start option.
Welcome Prompt	Select the message to initially welcome the user on the PABX telephone handset.

<b>Fields</b>	<b>Description</b>
Message Broadcast	Select the message to broadcast to the user on PABX telephone handset.
Maximum Page Duration (Secs)	Maximum length of page, in seconds. The max is 600 seconds in steps of 5 seconds.
Max Playback Waiting Period (Secs)	Maximum period of time to wait before starting playback. The max is 600 seconds in steps of 5 seconds.
Trim Message Ending (Secs)	The number of seconds (between 0.1 and 10 seconds, in 0.1 seconds increments) to trim the page.
<b>Detect Caller Hang Up</b>	
On Line Break Reversal	Enables detection of line break / reversal.
On DTMF Key	Enables DTMF key entry. Selecting this check box displays the Select DTMF Key field.
Select DTMF Key	Defines the DTMF key code value used to hang-up if HANGUP ON DTMF TONE is enabled.
On Call Progress Tone	Enables call progress tone. Selecting this check box displays Cadence Timing and Timing Margin.
<b>Abort Call</b>	
On Line Break / Reversal	Enables detection of line break / reversal.
On DTMF Key	Enables DTMF key entry. Selecting this check box displays Select DTMF Key.
Select DTMF Key	Defines the DTMF key code value used to hang-up if HANGUP ON DTMF TONE is enabled.
Cadence Timing (Secs)	Define cadence patterns to be matched to abort call.
Timing Margin (ms)	Timing margin to allow when measuring Cadence Timing.
<b>Skip Welcome</b>	
Select DTMF Key	Defines the DTMF key code value used to hang-up if HANGUP ON DTMF TONE is enabled.
<b>Zone Selection</b>	
Add New Record	Opens the New Zone dialog box that allows you to create a new zone.
Default Zone	Select the default zone for the PABX broadcasts.
Save	Click the Save button to ensure changes are saved to the System Manager.

### 12.2.16 Adding a new Zone

To add a new Zone:

1. Click Add New Record. The New Zone dialog appears.



The screenshot shows a dialog box titled "New Zone" with a close button (X) in the top right corner. Inside the dialog, there are four input fields: "Name", "Comments", "DTMF Key" (which is a dropdown menu with a downward arrow), and "Zones". At the bottom right of the dialog, there are two buttons: "Update" (with a blue checkmark icon) and "Cancel" (with a grey close icon).

Fields	Description
Name	User-defined name of the Zone.
Comments	User-defined comment.
DTMF Key	Enter DTMF value to select this Zone.
Zones	Enter Zone.
Update	Adds the newly configured Zone and exits the New Zone window.
Cancel	Cancel the creation of a new Zone and exits the New Zone window.

3. Enter the fields.
4. Click Add.

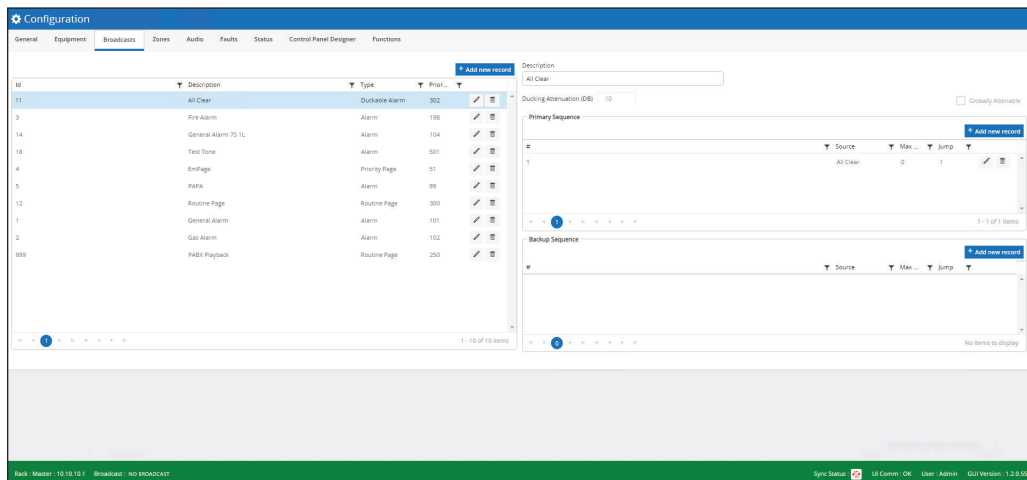


## 12.3 Configuration > Broadcasts

The Broadcast configuration window allows you to create and configure broadcasts to use in alarming and paging. When entering this window, the existing Broadcasts are displayed in the dialog box on the left side of the window. The dialog box includes the Description, Type, and Priority of the existing Broadcasts, an Edit button that allows you to make changes to an existing broadcast, and a Delete button that allows you to delete an existing broadcast.

To display the attributes of an existing Broadcast: select a Broadcast from the dialog box on the left side of the window. The attributes of the Broadcast displays on the right side of the window: Description, Globally Attenuable, Primary and Backup Sequences.

To create a new Broadcast record or create a new primary or backup sequence for an existing record: click the Add new record button.



Fields	Description
Add new record	Opens the New Broadcast dialog box that allows you to create a new broadcast.
Id	User-defined ID number. ID must be unique.
Description	User-defined description for the selected Broadcast.
Type	The Type of the Broadcast. Types include Emergency Page, Alarm, Priority Page, Duckable Alarm, Routine Page, Routine Message, or Program Audio.
Priority	Priority of the selected Broadcast. Lower numbers are higher priority.
Description	User-defined description for the selected Broadcast.
Ducking Attenuation (DB)	Only available when the duckable alarm is selected. Enter the Attenuation (DB) to reduce the duckable alarm in volume while the Emergency Page is active. After the Emergency Page is completed, the duckable alarm will return to normal volume.
Globally Attenuable	Indicates that the broadcast level may be reduced (attenuated) throughout the scope of the installation.
<b>Primary Sequence</b>	
Add new record	Opens the New Primary Sequence dialog box that allows you to create a new sequence.

Fields	Description
Source	Can be Silence, any Audio Input available, or recorded messages.
Max	For recorded messages, the message loop until the maximum duration has elapsed. If a maximum duration is not defined or zero, the message plays once. For live audio inputs, the maximum duration can be specified for timeout. When the maximum duration has elapsed, the sequence progresses to the next step (or jump, if provisioned). Default is no maximum duration.
Jump	If a different step in the Broadcast sequence is needed to play next, this field identifies the next step. This allows repetitions and looping sequences. If not configured, the sequence follows the next step.
<b>Backup Sequence</b>	
Add new record	Opens the New Backup Sequence dialog box that allows you to create a backup sequence.

### 12.3.1 Adding New Broadcasts

Selecting Add new record on the Configuration > Broadcast dialog box allows you to add new Broadcast.

To create a new broadcast:

1. Click Add new record. The New Broadcast dialog box appears.

The screenshot shows a dialog box titled "New Broadcast" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- ID:** A text input field containing the number "0".
- Name:** A text input field.
- Broadcast Type:** A dropdown menu with a downward arrow.
- Comment:** A text input field.
- Priority:** A spinner control showing the number "0".
- Is Mutable:** An unchecked checkbox.

At the bottom right of the dialog, there are two buttons: a blue "Update" button with a checkmark icon and a "Cancel" button with a close icon.

Fields	Description
ID	The ID number. The ID number of the Broadcast is not repeatable.
Name	User-defined name of the Broadcast.
Broadcast Type	The Type of the Broadcast. Types include Emergency Page, Alarm, Priority Page, Duckable Alarm, Routine Page, Routine Message, or Program Audio.
Comment	User-defined comment.
Priority	Priority of the Broadcast. Lower numbers are higher priority.
Is Mutable	Broadcast can be muted when higher priority broadcast is needed.

2. Enter the fields.
3. Click Update.

### 12.3.2 Adding a New Primary Sequence

Selecting Add new record in the Primary Sequence section on the Configuration > Broadcast dialog box allows you to add a new Primary Sequence.

To create a new broadcast:

1. Click Add new record. The New Primary Sequence dialog box appears.

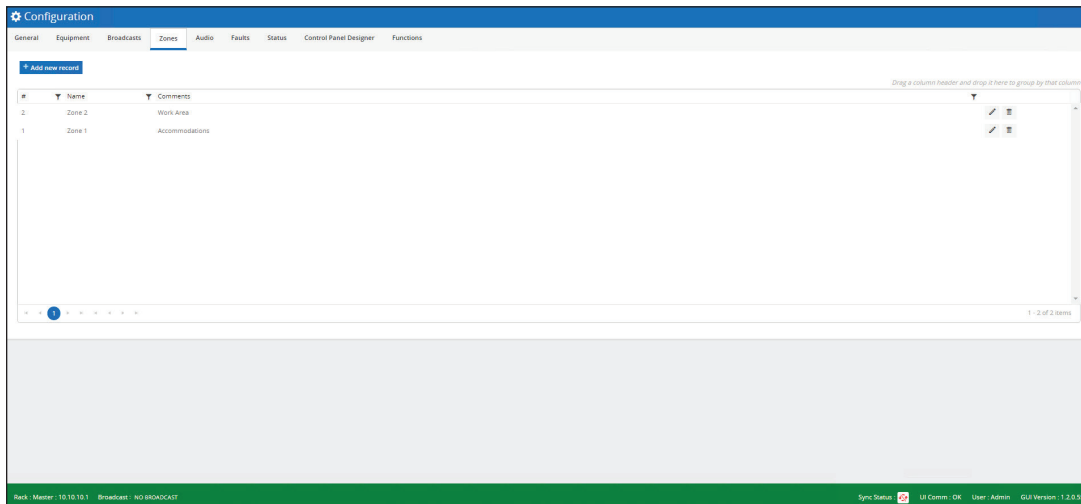
Fields	Description
ID	Displays the ID number. The ID number of the Broadcast is not repeatable.
Source	Click the arrow to select the AUDIO INPUTS and RECORDED MESSAGES.
Source Scope	Click the arrow to select from the available options. Options available are any audio inputs that have been defined.
Duration in Ms	Use the spin box to select the duration of the broadcast.
Next Slice ID	Use the spin box to select the next slice ID. Set this field to 1 to recursively repeat this sequence, or set it to the next sequence to initiate after this sequence.
Widget	Use the spin box to select the widget.



2. Enter the fields.
3. Click Update.

## 12.4 Configuration > Zones

The Zone configuration dialog box allows you to create new zone entries and delete existing ones.

To view the Zone Configuration dialog box, click Zones.



Fields	Description
Add new record	Select Add new record. The New Zone dialog box appears allowing you to choose from options to create a new Zone. Group Zones by any column (#, Name, or Comments) by moving the desired grouping field column header into the grouping area at the top of the Zone Config window.
	Select the Edit icon. The Edit Zone dialog box appears allowing you to edit the ZoneNumber, Name, and Comments.
	Select the Delete icon. Deletes the selected Zone.

### 12.4.1 Adding New Zones

Selecting Add new record on the Zone configuration dialog box allows you to add new Zones. Each Zone has a Zone Number, Name, and Comments.

To create a new zone:

1. Click Add new record. The New Zone dialog box appears.

Fields	Description
Zone Number	Enter user-defined Zone number. The range is from 1 to 128. Zone 0 exists by default, cannot be deleted, and all standby amplifiers belong to Zone 0. Zone IDs must be unique within the system.
Name	User-defined name of the Zone.
Comments	User comment related to selected Zone.
Update	Adds the newly configured Zone and exits the Zone Edit window.
Cancel	Cancels the creation of a new Zone and exit the Zone Edit window.

2. Enter the Zone Number, Name, and Comments.
3. Click Update.

### 12.4.2 Editing Zones

To edit an existing item from the equipment configuration dialog box, click the item and click edit.

To edit a zone:

1. Click the item. Click Edit. The Edit dialog box appears.

Fields	Description
Zone Number	Enter user-defined Zone number. The range is from 1 to 128. Zone 0 exists by default, cannot be deleted, and all standby amplifiers belong to Zone 0. Zone IDs must be unique within the system.
Name	User-defined name of the Zone.
Comments	User comment related to selected Zone.
Update	Adds the newly configured Zone and exits the Zone Edit window.
Cancel	Cancels the creation of a new Zone and exit the Zone Edit window.

2. Edit the Zone Number, Name, and Comments.
3. Click Update.

### 12.4.3 Deleting Zones

To remove an existing item from the equipment configuration dialog box, click the item and click Delete.

## 12.5 Configuration > Audio

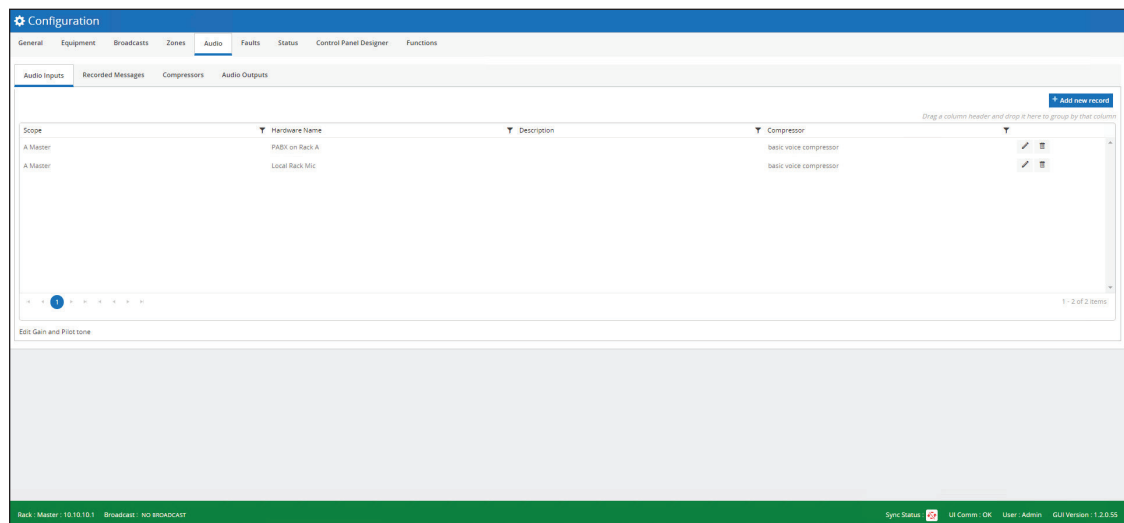
The Audio configuration window allows you to create the following:

- Audio Inputs
- Recorded Messages
- Compressors
- Audio Outputs



### 12.5.1 Configuration > Audio > Audio Inputs

The Audio Inputs dialog box allows you to add new Audio Inputs for the system. Each Audio Input has a Scope, Hardware Name, Description, and Compressor to use on the Audio Input signal.

To view the Audio Inputs dialog box, click Configurations > Audio > Audio Inputs.



Fields	Description
Add new record	Opens the New Audio Input dialog box that allows you to choose from system-defined audio input options.
Scope	Enter the Scope of the Audio Input, relative to the system type, and dependent on scope rules that prevents overlapping Audio Inputs. Options are as follows: <ul style="list-style-type: none"> <li>• A Master</li> <li>• B Standby</li> <li>• Duplicated</li> <li>• Shared</li> </ul>
Hardware Name	System-defined name and is not editable.
Description	User-defined description of the Audio Input.
Compressor	Compressor selection options are based on Compressors that are defined on the Compressors configuration window, discussed later.

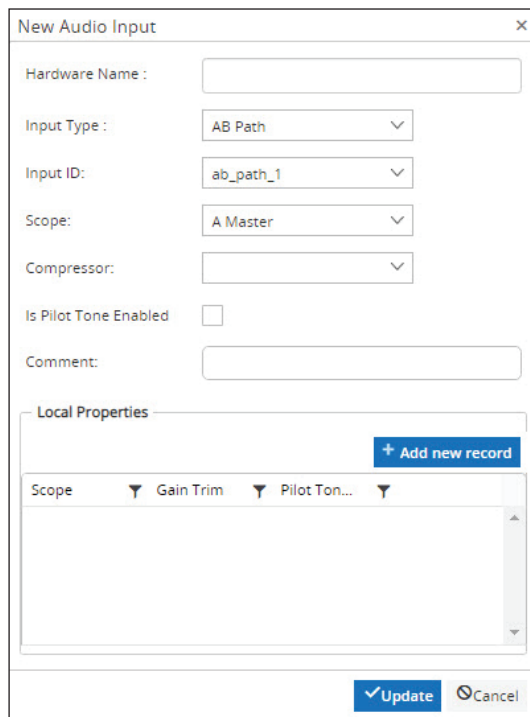
Fields	Description
Edit icon 	Select the Edit icon. The Edit Audio Input dialog box appears, allowing you to edit the Input Type, Hardware Name, Pilot Tone Threshold, Scope, Compressor, Is Pilot Tone Enabled, Gain Trim, and Comments.
Delete icon 	Deletes the selected Audio Input.
Edit Gain and Pilot Tone	Select the Edit Gain and Pilot Tone text at the bottom of the window to transition to the Field Diagnostics > Audio Input window. See the Field Diagnostics > Audio Input section for more information.

### 12.5.2 Adding New Audio Inputs

Selecting Add new record on the Audio Input dialog box allows you to add new Audio Inputs.

To create a new audio input:

1. Click Add new record. The New Audio Input dialog box appears.



Fields	Description
Hardware Name	User-defined name of the Audio Input.
Input Type	Broadcast Source or A/B Path.
Input ID	Select from a list of options based on the Input Type selected.

Fields	Description
Scope	Enter the Scope of the Audio Input, relative to the system type, and dependent on scope rules that prevents overlapping Audio Inputs. Options are as follows: <ul style="list-style-type: none"> <li>• A Master</li> <li>• B Standby</li> <li>• Duplicated</li> <li>• Shared</li> </ul>
Compressor	Compressor selection options are based on Compressors that are defined on the Compressors configuration window, discussed later.
Is Pilot Tone Enabled	Click to enable Pilot Tone detection on this Audio Input.
Comment	User comment related to selected Audio Input.
<b>Local Properties</b>	
Add new record	Opens the New Local Properties dialog box that allows you to choose the Scope, Gain Trim, and Pilot Tone Threshold.
Scope	Enter the Scope of the Audio Input, relative to the system type, and dependent on scope rules that prevents overlapping Audio Inputs. Options are as follows: <ul style="list-style-type: none"> <li>• A Master</li> <li>• B Standby</li> <li>• Duplicated</li> <li>• Shared</li> </ul>
Gain Trim	The value to trim the gain (for example, to compensate for losses in the cabling). Range is 6 to -30 in 1 dB increments.
Pilot Tone Threshold	The limit where a fault is raised when the measured Pilot Tone level is below the limit. Range is 0.0 to -100.0 in 0.1 dB.
Update	Adds the newly configured Audio Input and exits the Audio Input window.
Cancel	Cancels creation of a new Audio Input and exit the Audio Input window.

2. Enter the fields.
3. Click Update.

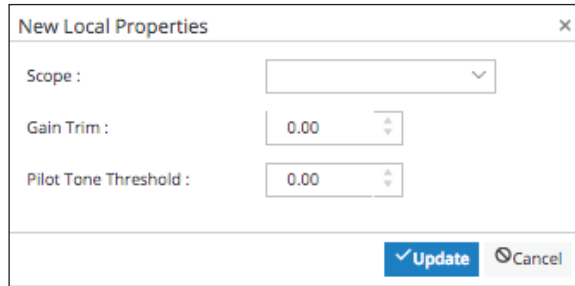


### 12.5.3 Adding New Local Properties

Selecting Add new record on the New Local Properties dialog box allows you to add new local properties.

To add new local properties:

1. Select Add New Record. The New Local Properties dialog box appears.



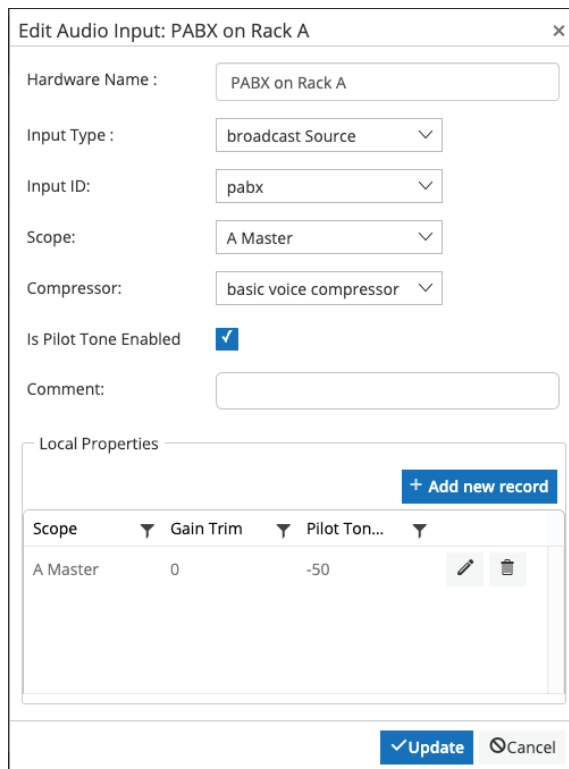
3. Select the Scope, Gain Trim, and Pilot Tone Threshold.
4. Click Update.

### 12.5.4 Editing Audio Inputs

Selecting Edit on the Audio Input dialog box allows you to edit the selected Audio Inputs.

To edit an Audio Input:

1. Select the Audio Input to edit.
2. Click the Edit icon. The Edit Audio Input dialog box appears for the hardware name selected.



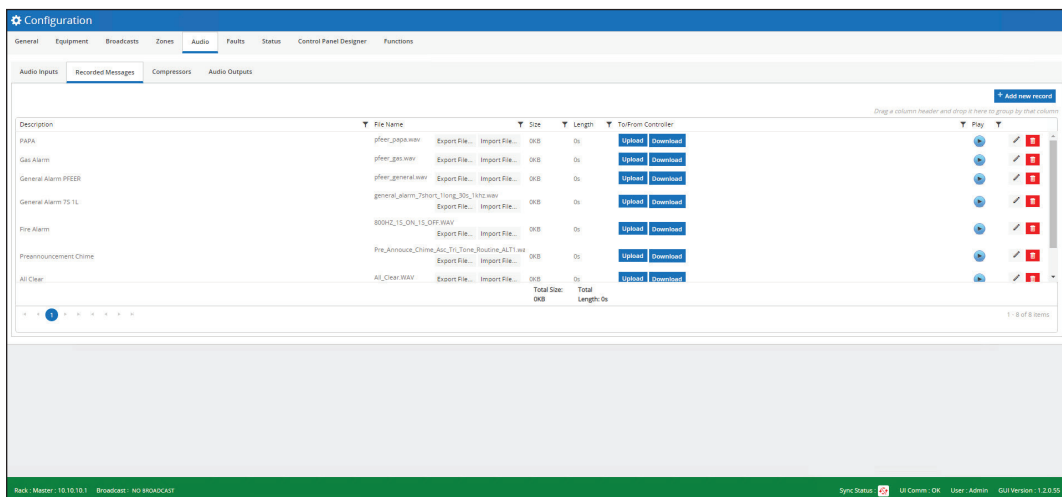
Scope	Gain Trim	Pilot Ton...
A Master	0	-50

3. Edit the fields.
4. Click Update.




### 12.5.5 Configuration > Audio > Recorded Messages

The Recorded Messages window allows you to add new Audio Files for the system. When the System Manager connects to the PAGASYS GEN II Controller, it downloads the configuration file from the Controller, which includes filenames for the audio files. Once the Recorded Message filenames are available, the System Manager downloads the audio files from the Controller and stores them in a local System Manager’s database. If new audio files are imported into the System Manager (using the To/From Controller text), they must be uploaded to the Controller using the Upload button to be retained in the system.

To view the Audio Files dialog box, click Configurations > Audio > Recorded Messages.



Fields	Description
Add new record	Opens a dialog box that allows you to enter Recorded Message options.
Description	User-defined description of the recorded message. This description was entered in the New Message dialog box.
File Name	User-defined file name for the Recorded Message. This file name was entered in the New Message dialog box.
Export File	Click to export a Recorded Message file currently in the system to the local computer.
Import File	Click to import a Recorded Message file currently on the local computer into the system. The system verifies the file type specified in the dialog box, transcodes the audio to raw sample data, and calculates the CRC of the raw sample data, before storing the file in the local system database.
Size	Displays the Size of the Recorded Message. The Size is calculated from the imported file.
Length	Displays the Length of the Recorded Message. The Length is calculated from the imported file.

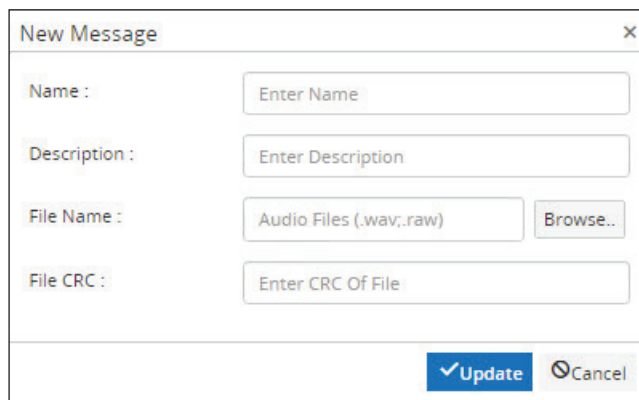
Fields	Description
To/From Controller	Uploads or downloads a Recorded Message to the Controller. Can contain one of two values: <ul style="list-style-type: none"> <li>Upload – The Controller is connected, but does not contain a matching file. Click Upload to upload the Recorded Message raw audio file into the Controller. Files Imported in the System Manager, but not uploaded, are not retained by the Controller.</li> <li>Download – The Controller is connected, and does contain a matching file. Click Download to download the Recorded Message raw audio file from the Controller to the System Manager database.</li> </ul>
Play icon 	Plays the Recorded Message on the local computer.
Edit icon 	Select Edit. The Edit Message dialog box appears, allowing you to edit the Name, Description, File Name, and File CRC.
Delete icon 	Deletes the Recorded Message from the System Manager's database and from the Controller.

### 12.5.6 Adding new Recorded Messages

The Add new record New Message dialog box allows you to add new Recorded Messages for the system.

To add a new recorded messages:

1. Click the Add new record button. The New Message dialog box appears.



Fields	Description
Name	Enter in the name of the Recorded Message.
File Name	File name for the Recorded Message. Click the Browse button to search the database for a file name.
File CRC	CRC for the Recorded Message, which is calculated from the imported file.
Update	Adds the new Recorded Message record to the Recorded Messages tab.
Cancel	Cancels the Add new Recorded Message action and return to the Recorded Messages tab.

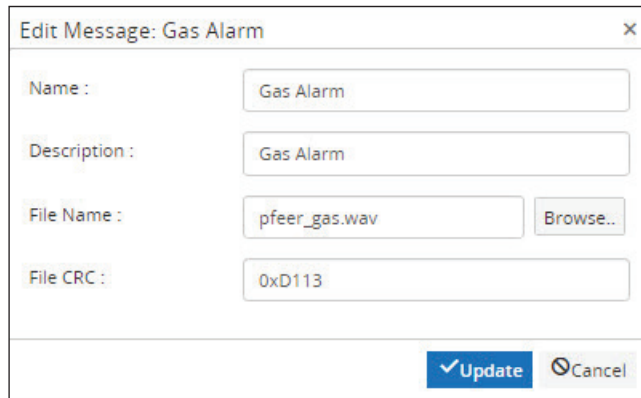
2. Enter the fields.
3. Click Update.

### 12.5.7 Editing Recorded Messages

Selecting Edit on the Recorder Message dialog box allows you to edit the selected Recorder Message.

To edit a Recorder Message:

1. Select the Recorder Message to edit.
2. Click the Edit icon. The Edit Messages dialog box appears for the file name selected.



The screenshot shows a dialog box titled "Edit Message: Gas Alarm" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Name :** A text input field containing "Gas Alarm".
- Description :** A text input field containing "Gas Alarm".
- File Name :** A text input field containing "pfeer\_gas.wav" and a "Browse.." button to its right.
- File CRC :** A text input field containing "0xD113".

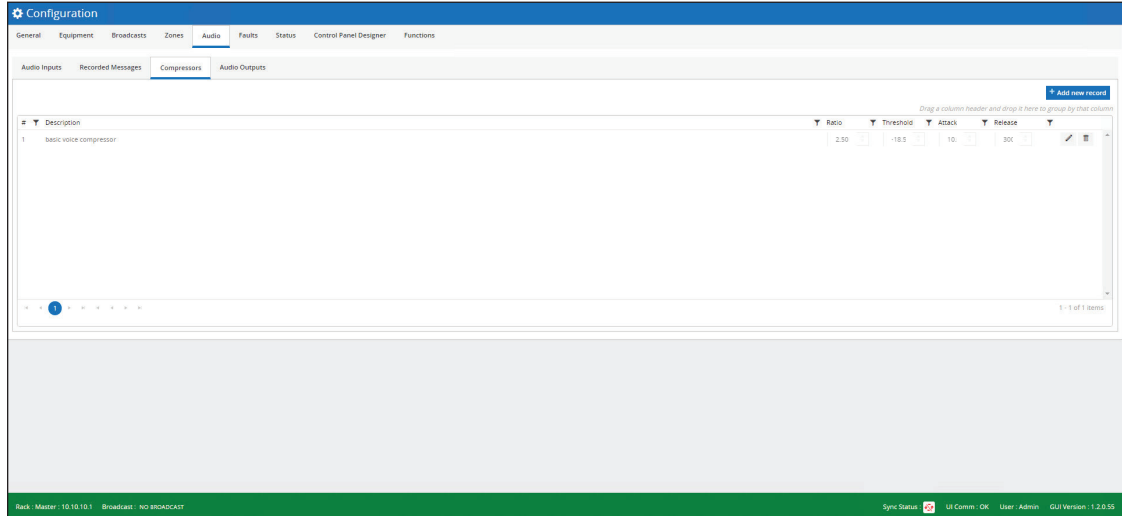
At the bottom right of the dialog, there are two buttons: a blue "Update" button with a checkmark icon and a grey "Cancel" button with a circle and slash icon.



3. Edit the fields.
4. Click Update.

## 12.5.8 Configuration > Audio > Compressors

The Compressors dialog box allows you to add new Compressors for the system. Audio Compression is used to lessen the dynamic range between the loudest and quietest parts of an audio signal.

To view the Compressors dialog box, click Configurations > Audio > Compressors.



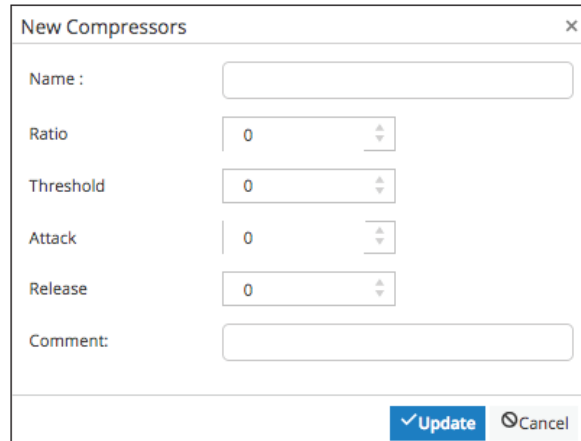
Fields	Description
Add new record	Opens a dialog box that allows you to enter Compressor options.
Description	User-defined description of the audio Compressor.
Ratio	Compression ratio desired. The range is 1 to 60 in steps of 0.1
Threshold	The dB threshold value where the compression begins to be applied. The range is 0 to -100 dBFS in steps of 1.
Attack	How quickly the compressor begins to start compression after the audio signal reaches the threshold. The range is from 1 to 50 ms in steps of 1.
Release	How quickly the compressor stops compression after the audio signal drops below the threshold. The range is from 10 to 2000 ms in steps of 10.
Edit icon 	Select Edit. The Edit Message dialog box appears allowing you to edit the Name, Ratio, Threshold, Attack, Release, and Comment.
Delete icon 	Deletes the selected Compressor from the System Manager's database and from the Controller.

### 12.5.9 Adding new Compressors

The new Compressor dialog box allows you to add new Compressors for the system.

To add a new Compressor:

1. Click Add new record button. The New Compressor dialog box appears.



The screenshot shows a dialog box titled "New Compressors" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Name: A text input field.
- Ratio: A numeric input field with a value of 0 and a small up/down arrow on the right.
- Threshold: A numeric input field with a value of 0 and a small up/down arrow on the right.
- Attack: A numeric input field with a value of 0 and a small up/down arrow on the right.
- Release: A numeric input field with a value of 0 and a small up/down arrow on the right.
- Comment: A text input field.
- At the bottom right, there are two buttons: a blue "Update" button with a checkmark icon and a "Cancel" button with a close icon.

Fields	Description
Name	Enter the Name for the new Compressor.
Ratio	Enter compression ratio desired. The range is 1 to 60 in steps of 0.1.
Threshold	Enter the dB threshold value where the compression will begin to be applied. The range is from 0 to -100 dBFS in steps of 1.
Attack	Enter how quickly the compressor begins to start compression after the audio signal reaches Threshold. The range is 1 to 50 ms in steps of 1.
Release	Enter how quickly the compressor stops compression after the audio signal drops below the Threshold. The range is from 10 to 2000 ms in steps of 10.
Comment	Enter a comment related to selected new Compressor.
Update	Adds the new Compressor record to the Compressor configuration window.
Cancel	Cancels the Add new Compressor action and return to the Compressor configuration window.

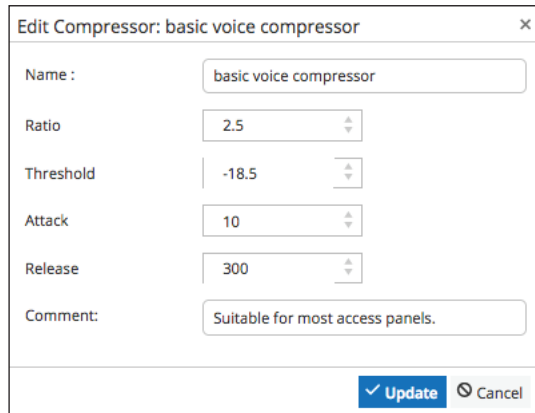
2. Enter the fields.
3. Click Update.

### 12.5.10 Editing Compressors

Selecting Edit on the Compressors dialog box allows you to edit the selected Compressor.

To edit a Compressors:

1. Select the Compressors to edit.
2. Click Edit. The Edit Compressor dialog box appears for the file name selected.



Dialog box titled "Edit Compressor: basic voice compressor" with the following fields and values:

Field	Value
Name :	basic voice compressor
Ratio	2.5
Threshold	-18.5
Attack	10
Release	300
Comment:	Suitable for most access panels.

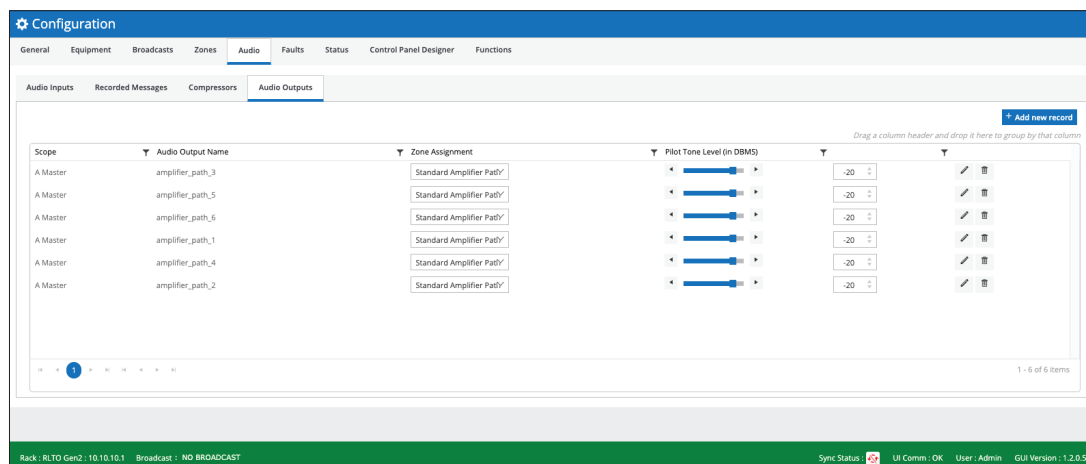
Buttons: Update (checked), Cancel



3. Edit the fields.
4. Click Update.

### 12.5.11 Configuration > Audio > Audio Outputs

The Audio Outputs configuration dialog box allows you to configure Audio Output routing for the system. Each Audio Output has an Audio Output Name, a Zone Assignment, and a Pilot Tone Level dBFS (slide bar and digital). The grid of Audio Outputs may be initially populated with the following Audio Outputs (user can add or remove Audio Outputs):

- 1 A/B Link (Global)
- 6 Amplifier Paths
- 1 Aux Out
- 16 Dante Network Channels



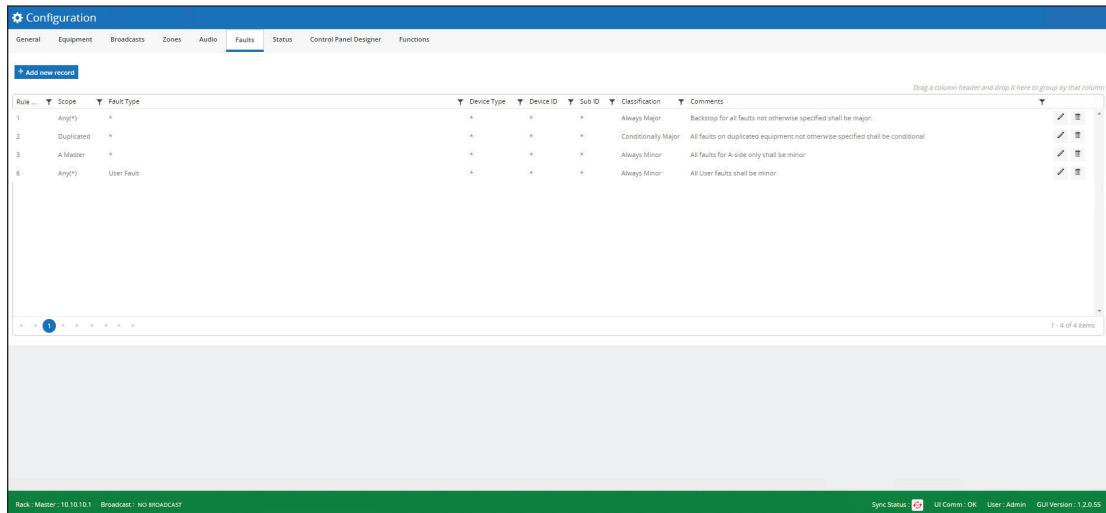
Fields	Description
Add new record	Opens a dialog box that allows you to enter Audio Output options.
Scope	Scope of the audio output. Options include A Master, B Standby, Duplicated, or Shared.
Audio Output Name	Hardware-defined name for the Audio Output.
Zone Assignment	The path for the output. Amplifier paths can be Standard or a Zone may be selected. All other outputs must have a zone (A/B Paths have a pseudo-zone ID, for example 101, 102, and so forth. This is used internally and must not match any defined zone).
Pilot Tone Level dBFS	User programmable Pilot Tone Level. The range is -100 to 0 in steps of 0.1.
Edit icon 	Select Edit. The Edit Audio Output dialog box appears allowing you to edit the Scope Name, Audio Output Name, Output Type, Zone, and Pilot Tone Type.
Delete icon 	Deletes the selected Audio Output from the System Manager's database and from the Controller.





## 12.6 Configuration > Faults

The PAGASYS GEN II system will process faults based on Rule ID, where the highest-numbered rule will be compared to the fault under consideration, followed by the next highest-numbered rule, all the way down to the lowest-numbered rule. The lowest-number rule will typically have a wildcard entry for all fault fields to ensure it applies to any fault not allocated to a higher-numbered rule.

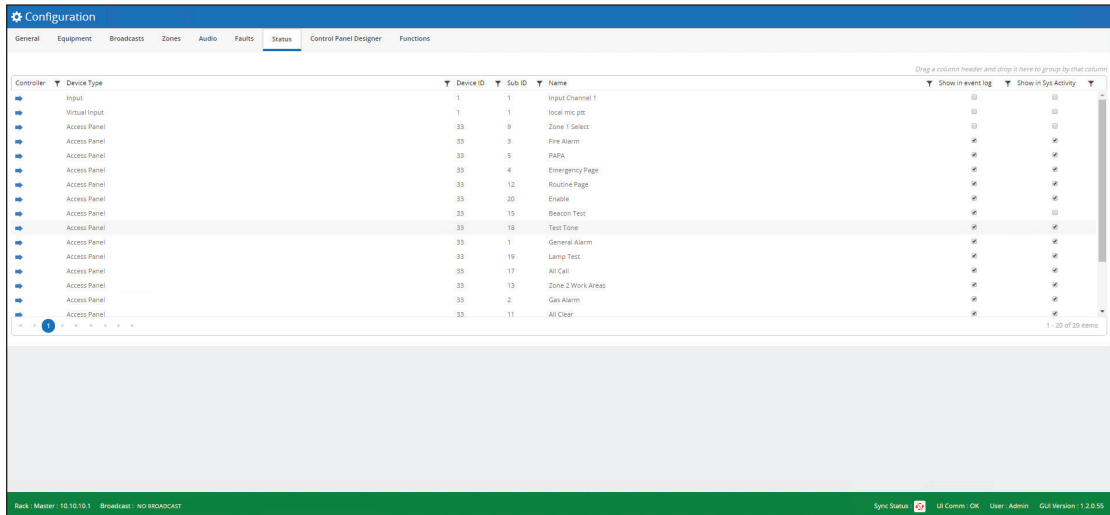
To access the Faults window, click the Faults tab.



Fields	Description
Add new record	Opens a dialog box that allows you to enter Fault options.
Rule ID	ID of the rule which is used to evaluate faults.
Scope	Options include A Master, B Standby, Duplicated, or Shared.
Fault Type	Fault types which are device dependent.
Device Type	Device type for status reporting.
Device ID	Device ID for Device Type reporting.
Sub ID	Sub ID under Device ID.
Classification	Options include Always Major, Always Minor, Conditionally, Major.
Comments	User-defined comments.
 Edit icon	Select Edit. The Edit Fault dialog box appears allowing you to edit the Rule ID, Scope, Fault Type, Device Type, Device ID, Sub ID, Classification, and Comments.
 Delete icon	Deletes the selected Fault from the System Manager's database and from the Controller.

## 12.7 Configuration > Status

To access the Status window, click the Faults Status.



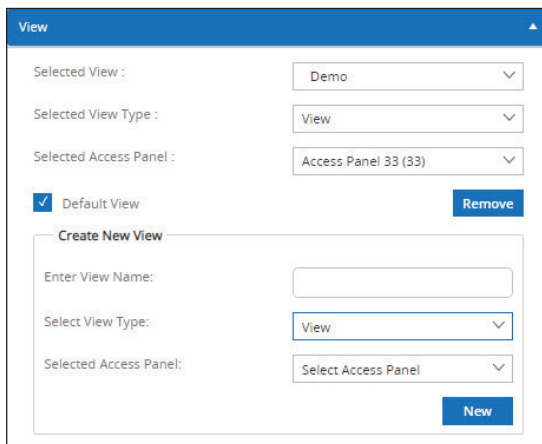
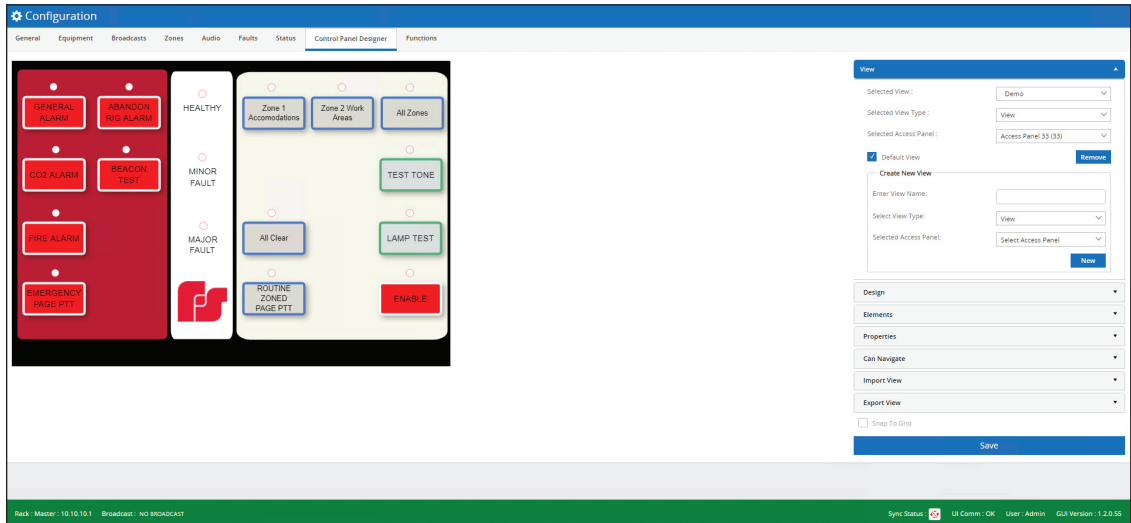
Fields	Description
Controller	A (→) or B (←) controller reporting status.
Device Type	Device type for status reporting.
Device ID	Device ID for Device Type reporting.
Sub ID	Sub ID under Device ID.
Name	Name of status item.
Show in Event Log	Select to show item in Event Log.
Show in Sys Activity	Select to show item in Sys Activity.

## 12.8 Configuration > Control Panel Designer

The Control Panel Designer configuration dialog box allows you to create and edit new Control Panels for the System Manager. When entering the Control Panel Designer window, the default Control Panel view is available for editing.

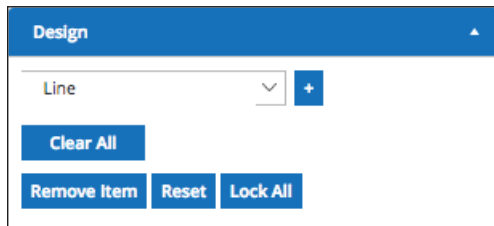
Use the controls on this window to do the following:

- Create new Control Panels
- Change the active Control Panel
- Edit existing Control Panels

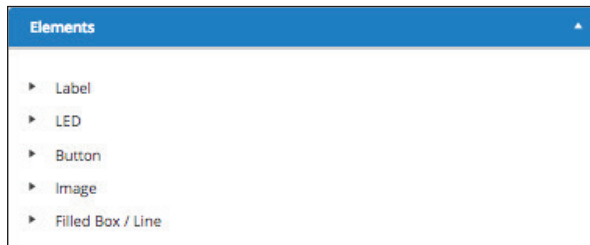


Fields	Description
View / Selected View	Click the down arrow to select your view and bring it into the Control Panel Designer for editing. View Type will be set to View for normal access panel, or GapView for global access panel.
View / Selected Access Panel	Click the down arrow to select your access panel and bring it into the Control Panel Designer for editing.
View / Default View	Select the Default View check box to make the current View in the Control Panel Designer the default View.
View / Remove	Deletes the current View in the Control Panel Designer.

Fields	Description
View / Enter View Name	Enter the name of the current View.
View / Select View Type	Click the down arrow to select your view type.
View / Selected Access Panel	Click the down arrow to select your access panel and bring it into the Control Panel Designer for editing.
View / New	Saves the current View. The name will display in the Selected View drop-down.



Fields	Description
Design / +	<p>Adds a new item of selected type to the active Control Panel. Select the design:</p> <ul style="list-style-type: none"> <li>• Line</li> <li>• Filled Box</li> <li>• Label</li> <li>• Image</li> <li>• LED</li> <li>• Background Image</li> <li>• Button</li> </ul> <p>Click the + button to place the design onto the active Control Panel.</p>
Design / Clear All	Removes all items from the active Control Panel.
Design / Remove Item	Removes the selected item from the active Control Panel.
Design / Reset	Resets active view to last saved version.
Design / Lock All	Locks active view in place. Button changes to Unlock All.



Fields	Description
Elements / Label	Displays and allows you to select the Label items on the active Control Panel.
Elements / LED	Displays and allows you to select the LED item on the active Control Panel.

Fields	Description
Elements / Button	Displays and allows you to select the Button item on the active Control Panel.
Elements / Image	Displays and allows you to select the Image item on the active Control Panel.
Elements / Filled Box / Line	Displays and allows you to select the Filled item on the active Control Panel.

**Properties**

Object ID: 7

Control Type: New Button

Is Fault Button

Height: 71.49      Width: 135.04

Left: 786.00      Top: 75.00

Label Text: All Zones

Font: Arial

Font Size: 16

Font Style: **B** *I* U

Font Alignment:

Font Horizontal Alignment:

Label Color:

Background Color:

Border Color:

Border: 5

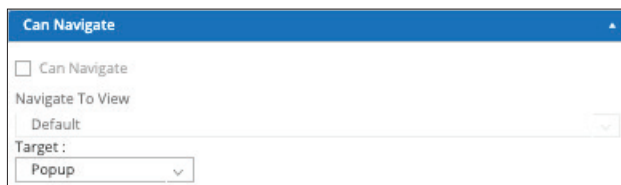
Button Radius: 5

Is Confirmation Needed

Controller ID#: All Call (17)

Fields	Description
Properties / Object ID	Displays the ID number of the object on the active Control Panel.
Properties / Control Type	Displays the type of item created in the Design window (for example, Label, LED, or Button). The Control Type cannot be changed after creation.
Properties / Height	Sets the height attribute of the selected object.
Properties / Width	Sets the width attribute of the selected object.
Properties / Left	Sets the distance from the left side of the active view of the selected object.
Properties / Top	Sets the distance from the top of the active view of the selected object.

Fields	Description
Properties / Label Text	Type the name of the item.
Properties / Font	Click the arrow to select a font.
Properties / Font Size	Sets the font size.
Properties / Font Style	Sets the styles as bold, italic, or underline.
Properties / Font Alignment	Sets the font alignment as align left, align center, align right, or justify all lines.
Properties / Font Horizontal Alignment	Sets the font alignment as align top, align middle, or align bottom.
Properties / Label Color	Click the down arrow to select the color of the label.
Properties / Background Color	Click the down arrow to select the color of the background.
Properties / Border Color	Click the down arrow to select the color of the border.
Properties / Border	Sets the size of the border.
Properties / Button Radius	Sets the button radius.
Properties / Is Confirmation Needed	Click to cause the control panel to confirm action when button is clicked.
Properties / Controller ID	Click the down arrow to select the Controller ID.



Fields	Description
Can Navigate / Can Navigate	Click this box if selecting this item on the Control Panel needs to transition to a new Control Panel view. This attribute is only an option for buttons.
Can Navigate / Navigate To View	Select the desired view for the Can Navigate attribute of a button.
Can Navigate / Target	Select type of window for the new navigation window: Popup, Blank, or Self.

Fields	Description
Import View / New View Name	Enter a View Name.
Import View / Select View Type	Click the down arrow to select your view type.
Import View / Selected Access Panel	Click the down arrow to select the access panel.
Import View / Select files	Click the button to open a file browser window to select initialization (json format) file for a new View.
Import View / New	Click the New button to create new view with New View Name.

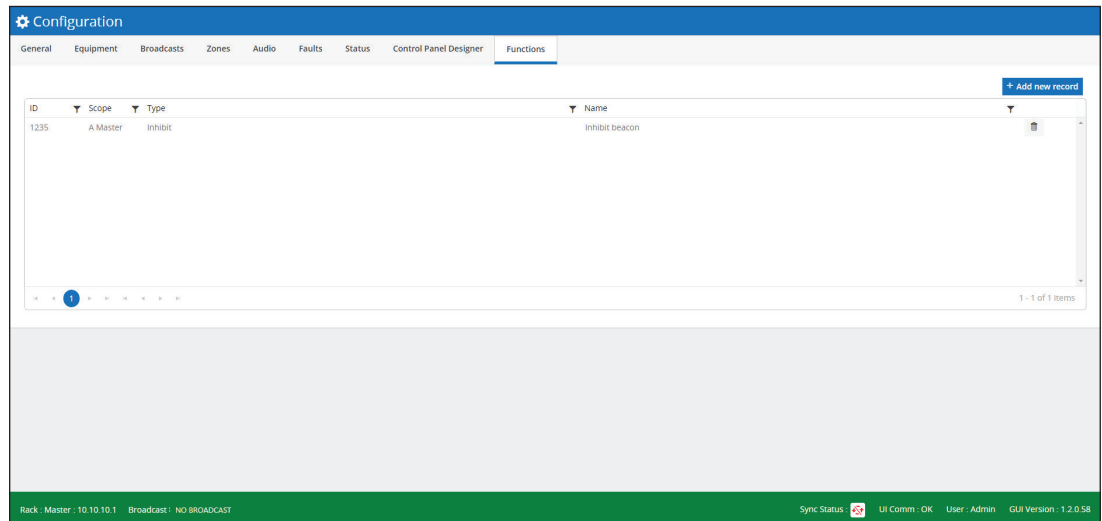
Fields	Description
Export View / Select View	Select a View Name.
Export View / Export	Click the Export button to export the current View.

Fields	Description
Snap to Grid	Click this box to force items to snap to grid layout of the Control Panel window.
Save	Saves the new or changed attributes for a object.

## 12.9 Configuration > Functions

The Functions configuration dialog box allows you to create processes that can initiate system actions when an event occurs. For example, when a Broadcast is occurring in a specific zone, the function could enable notification lights in the zone by driving a signal to an Output Card.

The initial entry window to the Functions configuration dialog box shows any existing Functions already present in the system. The dialog box displays Function ID, Scope, Type, and Name.



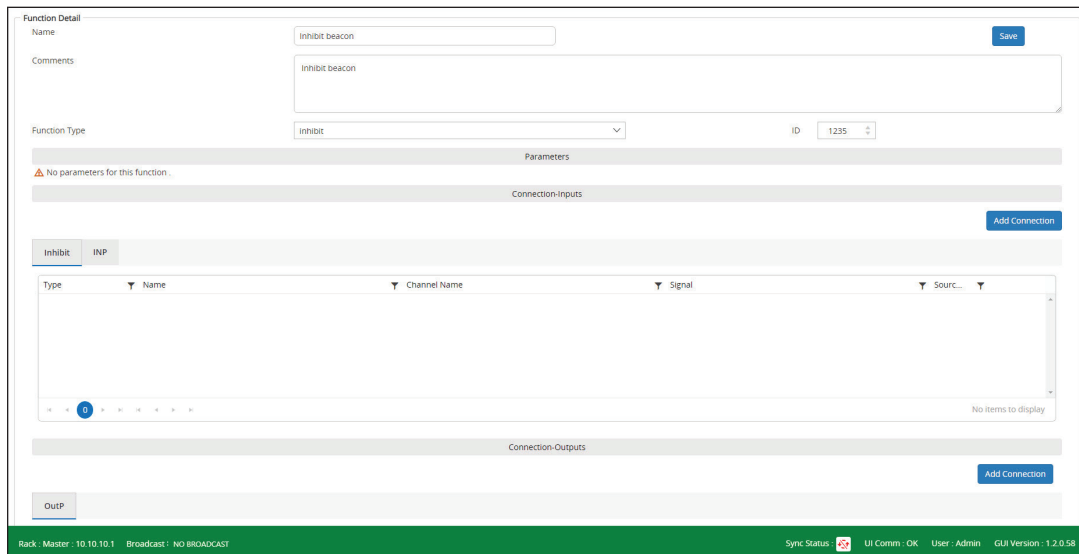
Fields	Description
+ Add new record	Select to display the New Function dialog box to add a new function.
ID	User-defined Function ID number. ID must be unique for Functions of a given type.
Scope	Displays the Scope of the Function, relative to the system type. Options are as follows: <ul style="list-style-type: none"> <li>• A Master</li> <li>• B Standby</li> <li>• Duplicated</li> <li>• Shared</li> </ul>



Type	<p>Displays the Function Type needed to initiate the Function. Available Function Types include:</p> <ul style="list-style-type: none"> <li>• all_of</li> <li>• bcast_req_fixed_zones</li> <li>• bcast_req_variable_zones</li> <li>• bcast_slice_detect</li> <li>• broadcast_active</li> <li>• broadcast_requested</li> <li>• fault_state</li> <li>• inhibit</li> <li>• local_fault_accept</li> <li>• saf_playback_inhibit</li> <li>• system_state</li> <li>• none_of</li> <li>• user_fault</li> <li>• zone_selector</li> </ul>
Name	User-defined Name for the Function.

When the Add new record button is selected on this window, the System Manager opens a dialog box allowing you to enter new Function attributes. See section on Creating a New Function Attribute.

When one of the existing Functions is selected, the window below the Function List shows the selected Function attributes. See table.



Fields	Description
<b>Function Details</b>	
Name	User-defined Name for the Function.
Comments	User-defined Comment that describes the function task.

Fields	Description
Function Type	Select the Function Type needed to initiate the Function. Available Function Types include: <ul style="list-style-type: none"><li>• all_of</li><li>• bcast_req_fixed_zones</li><li>• bcast_req_variable_zones</li><li>• bcast_slice_detect</li><li>• broadcast_active</li><li>• broadcast_requested</li><li>• fault_state</li><li>• inhibit</li><li>• local_fault_accept</li><li>• saf_playback_inhibit</li><li>• system_state</li><li>• none_of</li><li>• user_fault</li><li>• zone_selector</li></ul>
ID	User-defined Function ID number. ID must be unique for Functions of a given type.
Parameters	Parameters will differ dependent on function type.
Connection - Inputs	Inputs associated with the function
Connection - Outputs	Outputs associated with the function
Add Connection	Opens the Widget Input Details dialog box that allows you to add an input widget connection for the channel.
Save	Click the Save button to ensure changes are saved to the System Manager.

### 12.9.1 Creating a New Function Connection

To create a new function attribute:

1. Click the Add Connection button. The Widget Input Details dialog box appears.

The screenshot shows a dialog box titled "Widget Input Details" with a close button (X) in the top right corner. It contains four dropdown menus:

- Type: Access Panel Button
- Name (ID): Access Panel 33 (33)
- Channel Name (ID): All Call (17)
- Signal: raw\_state

An "Add" button is located at the bottom right of the dialog box.

2. Enter the new functions attributes.

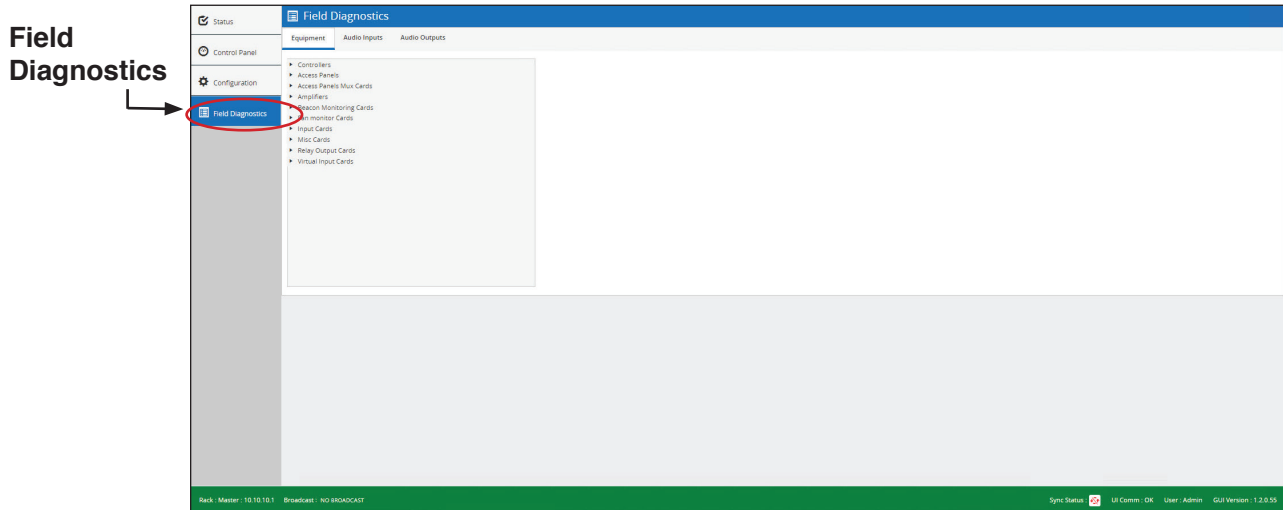
Fields	Description
Type	The type of the entity needing a Widget, Input Card.
Name (ID)	The index of the associated Input Card. The default value.
Channel Name (ID)	The Channel Number of the associated Input Channel. The default value.
Signal	Select the Signal Name.
Add	Click to add the new Widget.

3. Enter the fields.
4. Click Add.

## 13.0 Using Field Diagnostics

The Field Diagnostics component is responsible for displaying diagnostics options to you for all system hardware, including the beacon monitors and ISMTs. The Field Diagnostics window allows you to run diagnostics on Equipment, Audio Inputs, or Audio Outputs.

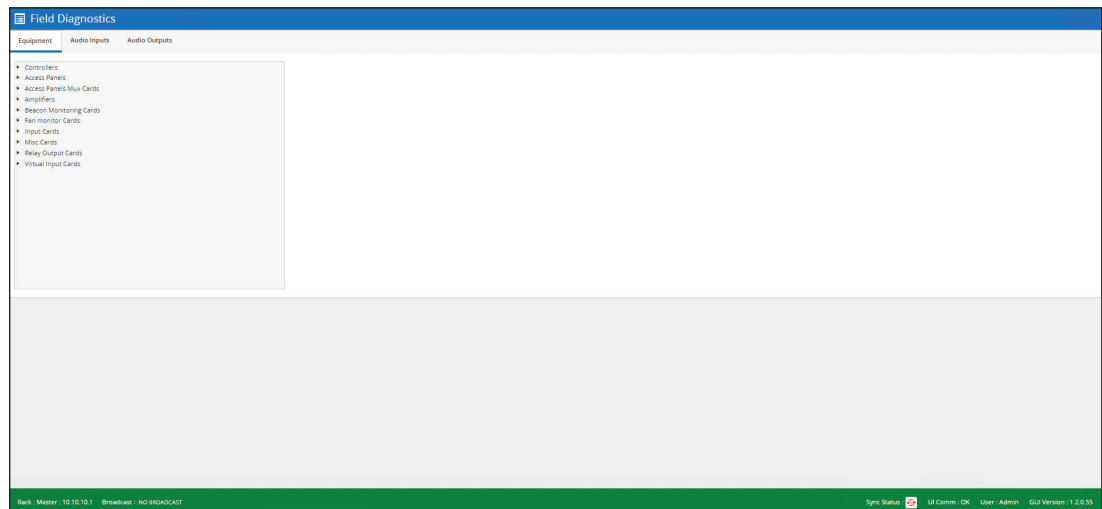
To access the Field Diagnostics window, click Field Diagnostics.



### 13.1 Field Diagnostics > Equipment

The Field Diagnostics component allows you to perform diagnostics operations on equipment in the system cabinet. If the system includes redundant equipment (A and B versions), Field Diagnostics displays all redundant versions of hardware, and diagnostics information is specific to the actual hardware selected.

To access the Equipment window, click Field Diagnostics > Equipment.



### 13.1.1 Field Diagnostics > Equipment > Controller

Select one of the Controllers from the Equipment list on the left side of the Field Diagnostics Equipment window. The Controller fields on the Diagnostics window are related to Basic Information and Network Configuration.

Fields	Description
<b>Manufacturing Details</b>	
Hardware Serial Number	Serial number for the specified Controller.
Firmware Version	Firmware version for the specified Controller.
Firmware Commit	Firmware commit for the specified Controller.
<b>Basic Information</b>	
Controller ID	User-defined ID for the specified Controller.
Name	User-defined Name for the specified Controller.
Config Serial Number	Serial number for the specified Controller.
Comments	User-defined Comments for the specified Controller.
<b>Network Configuration</b>	
IP Address	IP Address for the specified Controller.
Net Mask	Controller Net Mask.
Default Gateway	Controller Default Gateway.
IP Version	Version used on the PAGASYS GEN II system. Select either version IPv4 or IPv6.
<b>Controller Time</b>	
Time	
Sync To PC Time	Syncs the time to the specified Controller.

### 13.1.2 Field Diagnostics > Equipment > Amplifier Group



Select one of the Amplifier Groups from the Equipment list on the left side of the Field Diagnostics Equipment window. The Amplifier Group fields on the Field Diagnostics window displays only Basic Information.



Fields	Description
<b>Basic Information</b>	
Name	User-supplied Name for the specified Amplifier Group.
Comments	User-defined Comments for the specified Amplifier Group.

### 13.1.3 Field Diagnostics > Equipment > Amplifier


Select one of the Amplifiers from the Equipment list on the left side of the Field Diagnostics Equipment window. The Amplifier fields on the Field Diagnostics dialog box displays Manufacturing Details, Gain Control fields, Fan Status, Override Automatic Fan Control, Power Switch status, Internal DC Power Supply status, Amplifier Temperature status, Critical Path (Pilot Tone) Monitoring status, and Impedance Monitoring status or Speaker status depending on monitoring option selected for the amplifier in configuration.

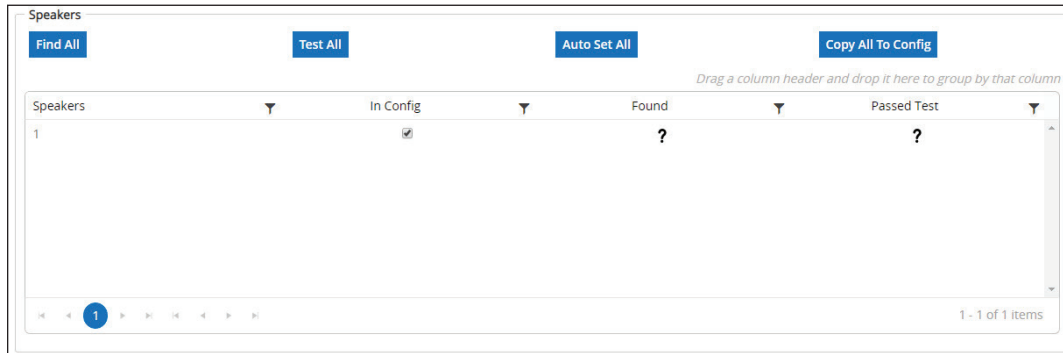
Manufacturing Details include all manufacturing specific information for the selected Amplifier card. These Manufacturing Details are requested by the System Manager at initial entry to this window, and can be refreshed by selecting the character and reported back to the System Manager by the selected Amplifier card in the system cabinet.

Fields	Description
<b>Manufacturing Details</b>	
Serial Number	Reported Serial Number for the specified Amplifier card.
Part Number	Reported Part Number for the specified Amplifier card.
Board Build Date	Reported Board Build Date for the specified Amplifier card.
Firmware Version	Reported Firmware Version for the specified Amplifier card.
Firmware Commit	Reported build number for the specified Amplifier card.
<b>Gain Control</b>	
Gain	Move the Gain indicator, or use the directional arrows on the on the Gain display bar to change the Gain value. Changing the Gain value increases or reduces the output of the amplifier. The Gain value is displayed digitally on the right side of the Gain display bar. The range is -30 to +0 in steps of 1 dB. Click the Go button to update the Gain value on the Amplifier.
<b>Fan Status</b>	
Fan Status	Displays status of the Amplifier Fans. When the fans are at rest, Fan Status show a no symbol  in the Running column, and RPM at 0. When fans are operating, the Fan Status has a check mark in the Running display, and RPM reflects the Amplifier fan speed.
Override Automatic Fan Control	Allows you to override the normal system control of the Amplifier Fans. (See Temperature below for Automatic Fan Control specifications). Select a time period to force the Amplifier Fans to operate. Values are 15 seconds, 30 seconds, 2 minutes, 3 minutes, or 5 minutes. Once the time period is selected, click Force Fan On to start Fan operation. You should see the Fan Status change to an operating status, while the Time Remaining field counts down to the selected time period. Fans automatically stop operating at completion of the time count down.
<b>Power Switch</b>	
Power Switch	The Amplifier cards each have a Power Switch indicator on their chassis display, but this Power Switch is normally not enabled. Select a time period to enable the Power Switch for the selected Amplifier. The values are 1 minute, 2 minutes, 3 minutes, 5 minutes, 10 minutes, or 15 minutes. While the Power Switch is enabled, a technician can press the Power Switch indicator on the chassis display and shut down the Amplifier. The Power Switch panel displays a Time Remaining field to count down the selected time period.
<b>Internal DC Power Supply</b>	
Internal DC Power Supply	Displays detected operating voltage of the selected Amplifier. On initial entry to the Amplifier Diagnostics window, this panel is not populated with actual data. Select the refresh character  at the top left of this window to retrieve Power Supply values from the Amplifier. Use this same selection method to refresh the Power Supply panel. The range for this field is 40 to 60 V. Undervoltage indication on the panel is set to < 45 V, Normal Operating Range is 45 to 56 V, and Overvoltage is set to > 56 to 60 V. If Voltage exceeds 60 V, the Amplifier shuts down.

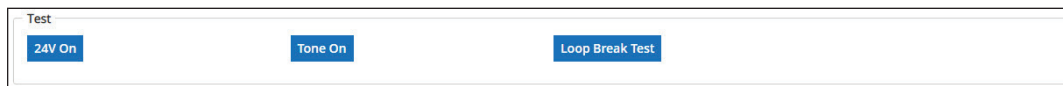
Fields	Description
<b>Temperature</b>	
Temperature	<p>Displays the Amplifier Temperature value. On initial entry to the Amplifier Diagnostics window, this window is not populated with data.</p> <p>Select the refresh character  at the top left of this window to retrieve Temperature values from the Amplifier. Use this same selection method to refresh the Temperature panel. Temperatures are displayed on the Temperature scale, and are available as a numeric value on the right side of the Temperature scale. The range for this field is 0 to 120°C. Fan On/Off Temperature on the panel is set to 35°C, 75°C, 85°C and 105°C, with 5 degrees of hysteresis. High Temperature indication is set for 77.5°C, Over Temp is set for 87.5°C, and the Amplifier shuts down if Temperature reaches 107.5°C.</p>
<b>Critical Path (Pilot Tone) Monitoring</b>	
Measured Level	<p>Displays the Measured Levels for the six audio channels on the selected Amplifier, and the Limit value that you can set. On initial entry to the Amplifier Diagnostics window, this window is not populated with data. Select the refresh character  at the top left of this window to retrieve Critical Path Measured Level values from the Amplifier. Use this same selection method to refresh the Critical Path Monitoring panel. A graphical display of the Critical Path Measured Level values is displayed on the six audio channel Measured Level scales, and a numeric value in a box to the right side of the Measured Level scales. The Critical Path Limit is displayed below the Measured Level scales, or by itself if you have not yet retrieve the Measured Level values. Make changes to the Limit value by increasing or decreasing the value in the dBFS box. The range for the Limit value is 0 to -50 dBFS. Changes made to the Limit in this window do not take effect until you click the Go button.</p>



Impedance Monitoring	
<p>Impedance Monitoring</p>	<p>Displays information related to monitoring Impedance on the Amplifier's speaker circuit when the amplifier monitoring option in configuration is set to Impedance Monitoring, and compares the measured values against stored calibration values</p> <p>Select the refresh character  at the top left of this window to retrieve Critical Path Measured Level values from the Amplifier. Use this same selection method to refresh the Critical Path Monitoring panel.</p> <p>Allows you to automate Monitoring of Impedance level by setting the Lower Margin % and Upper Margin % to help calculate the measurement limits for the amplifier, and selecting the Auto Set button in the Impedance Monitoring window. In this case, a fault is raised on the System Controller if the measured impedance value falls outside the margin percentages that were based on the Measured Impedance level at the time of the Auto Set.</p> <p>Allows you to manually set an Upper Limit and Lower Limit to the Measurement Level, where the system generates an Event if the measured impedance level does not fall within the two Limits. To manually monitor impedance on the Amplifier, set the Upper Limit and Lower Limit values on the Impedance Monitoring panel, and select the Manual Set button on the panel to send the Limits to the Amplifier.</p> <p>Limit values, and Measure Impedance values. The range is from 0 to 4000 Ohms.</p> <p>Click the Save Margin button after changing the Lower Margin and Upper Margin values to save them to the controller.</p>



Speaker	
Speaker Status	Displays information related to ISMT speaker status when the amplifier monitoring option in configuration is set to ISMT Spur Monitoring or ISMT Loop Monitoring, and provides status of ISMT speakers attached to the amplifier speaker loop.
Find All	Click to initiate the amplifier search for ISMT speakers on its speaker run.
Test All	Click to initiate self-test of ISMT speakers on the amplifier.
Auto Set All	Click to set upper and lower impedance margins for all ISMT speakers on the amplifier speaker run.
Copy All to Config	Click to copy all ISMT speakers found on the amplifier to be inserted into local System Manager configuration.



Test	
24V On	Click to send 24 V on speaker wiring for this amplifier.
Tone On	Click to have the ISMT card initiate a test tone signal on the amplifier speaker wiring.
Loop Break Test	Click to have the ISMT card simulate a loop break on the amplifier speaker wiring.

Speakers	
Speakers	ISMT Speaker IDs found on this amplifier speaker run.
In Config	Indicates the speaker has been added to System Manager configuration.
Found	This is set for the speaker after executing a Find All test on the amplifier speaker run.
Passed Test	This is set for the speaker after a Test All command is selected, a check mark indicates a pass state, and X indicates a fail.

### 13.1.4 Field Diagnostics > Equipment > Input/Output Cards

Select one of the Input/Output Card groups from the Equipment list on the left side of the Field Diagnostics Equipment window. The Input/Output Card fields on the Diagnostics window are related to Basic Information, Card Settings, and Serial Communications. Information on this window is only displayed on this window for user information.

**NOTE:** Any input or output card that is added to the equipment tree must have a channel created for the card prior to uploading the configuration to the controller or the configuration upload to the controller will fail.

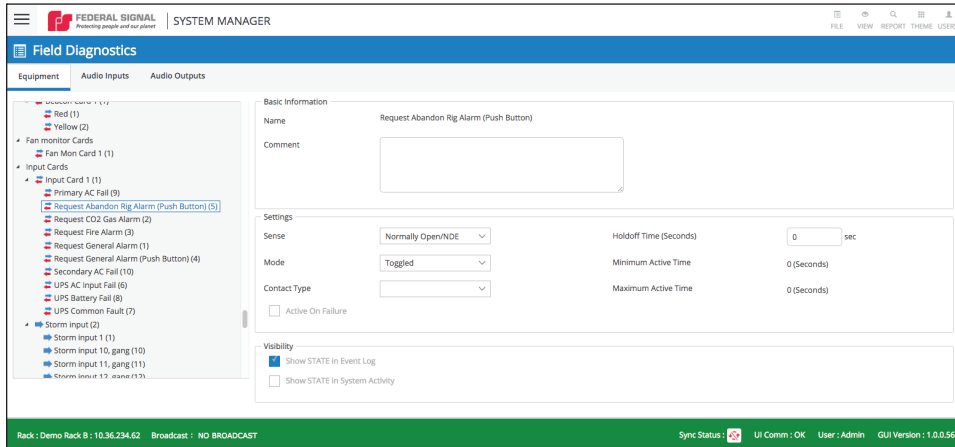
To change this information, you must access the appropriate Configuration window.

Fields	Description
<b>Manufacturing Details</b>	
Serial Number	Reported Serial Number for the specified Input/Output card.
Part Number	Reported Part Number for the specified Input/Output card.
Board Build Date	Reported Board Build Date for the specified Input/Output card.
Firmware Version	Reported Firmware Version for the specified Input/Output card.
Firmware Commit	Reported build number for the specified Input/Output card.
<b>Basic Information</b>	
Name	Displays user-defined Name for the specified Input/Output Card.
Comments	User-defined Comments for the specified Input/Output Card.
<b>Serial Communications</b>	
Bus ID	Displays the Bus ID for the Input/Output Card Group. The range is 1-4.
Node ID	Displays the Node ID for the Input/Output Card Group. The range is 1-63.
Timeout Period	Displays number of seconds until communication times out. The range is 1.0 to 26.5 seconds in 0.1 second steps.

### 13.1.5 Field Diagnostics > Equipment > Input Cards Channel

Select one of the Input Cards Channel from the Equipment list on the left side of the Field Diagnostics Equipment window. The Input Card Channel fields on the Diagnostics window are related to Basic Information, card Settings, and Visibility (related to system Event Log and System Activity). Information on this window is only displayed on this window for user information.

To change this information, access the appropriate Configuration window.



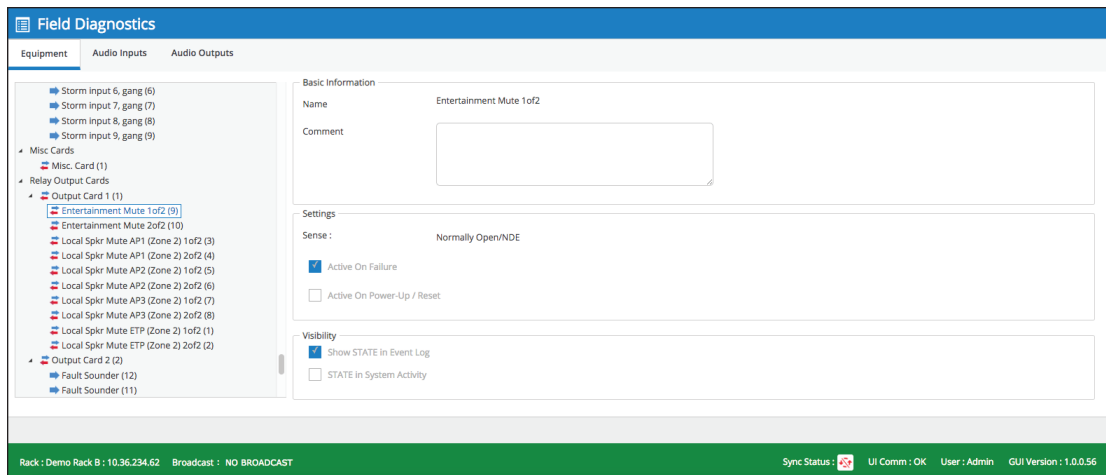
Fields	Description
<b>Basic Information</b>	
Name	User-defined Name for the specified Input Card Channel.
Comments	User-defined Comments for the specified Input Card Channel.
<b>Settings</b>	
Sense	Sense for the Input Card Channel defines the behavior of the system when the signal is detected. Sense can be Normally Open/NDE or Normally Closed/NE.
Mode	Mode for the Input Card Channel defines the action supported by the system when the Button is clicked. Mode can be Direct, Toggled, or Latched. Holdoff Time and Minimum Active Time are only visible for Direct Mode.
Contact Type	Contact Type can be Dry/Volt Free Contact or Wet/Energized Contact. Use this field with isolated Input Cards. It is not visible on the Monitored Input Card or Virtual Input Card configuration.
Holdoff Time	Defines the amount of time that must pass before the input can be triggered after being cleared. The value can be set between 0 and 1 hour in 1 second increments.
Minimum Active Time	Minimum Active Time indicates the Minimum Time an action remains active after being initiated. Minimum Active Time is only visible when Mode is Direct Mode. Minimum Active numerical information is only visible when the corresponding check box is enabled. Range is 0.1 second to 1 hour in 0.1 second increments.

Fields	Description
Maximum Active Time	Maximum Active Time indicates the Maximum Time an action remains active after being initiated, if the activating signal is still active. Maximum Active numerical information is only visible when the corresponding check box is enabled. Range is 0.1 second to 1 hour in 0.1 second increments.
Active on Failure	User selectable state that enables the input channel to be left active if communications is lost to the Input Card Channel.
<b>Visibility</b>	
Show STATE in Event Log	Visibility field that enables state reporting in the System Event Log.
Show STATE in System Activity	Visibility field that enables state reporting in the System Activity window.

### 13.1.6 Field Diagnostics > Equipment > Output Cards Channel

Select one of the Output Cards Channel from the Equipment list on the left side of the Field Diagnostics Equipment window. The Output Card Channel fields on the Diagnostics window are related to Basic Information, card Settings, and Visibility (related to system Event Log and System Activity). Information on this window is only displayed on this window for user information.

To change this information, access the appropriate Configuration window.

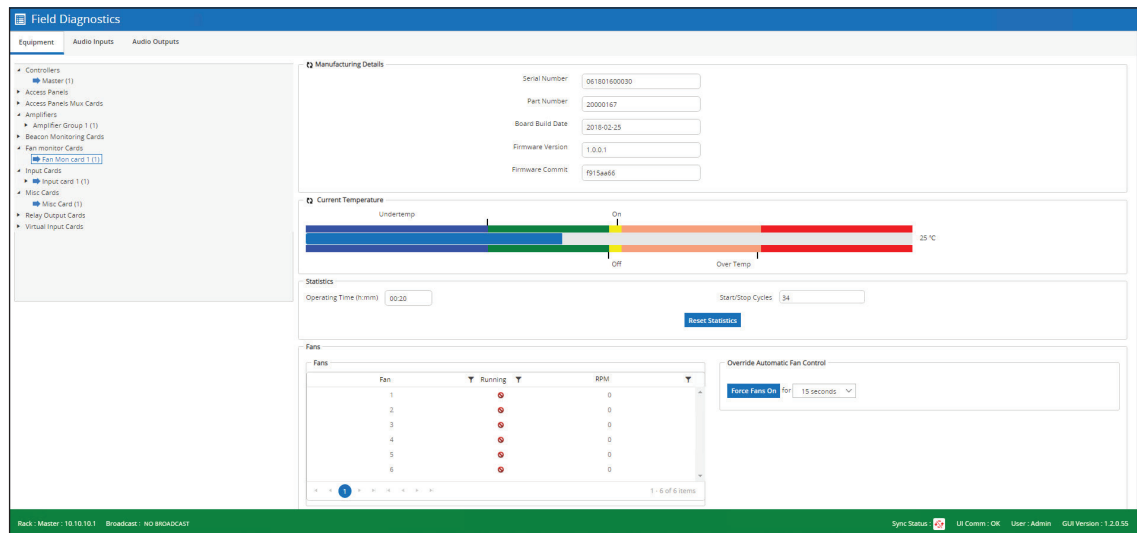


Fields	Description
<b>Basic Information</b>	
Name	User-defined Name for the specified Output Card Channel.
Comment	User-defined Comments for the specified Output Card Channel.
<b>Settings</b>	
Sense	Sense for the Output Card Channel defines the behavior of the system when the signal is detected. Sense can be Normally Open/NDE or Normally Closed/NE.
Active On Failure	Check box that indicates whether the card should be active when failed.

Fields	Description
Active On Power-Up / Reset	Check box that indicates whether the card should activate on power up or reset.
<b>Visibility</b>	
Show STATE in Event Log	Visibility field that enables state reporting in the System Event Log.
Show STATE in System Activity	Visibility field that enables state reporting in the System Activity window.

### 13.1.7 Field Diagnostics > Equipment > Fan Monitoring Cards

Select one of the Fan Monitor Cards from the Equipment list on the left side of the Field Diagnostics Equipment window. The Fan Monitor Card fields on the Diagnostics window are related to Manufacturing Details, Current Temperature, Statistics, and Fans (including Override Automatic Fan Control).



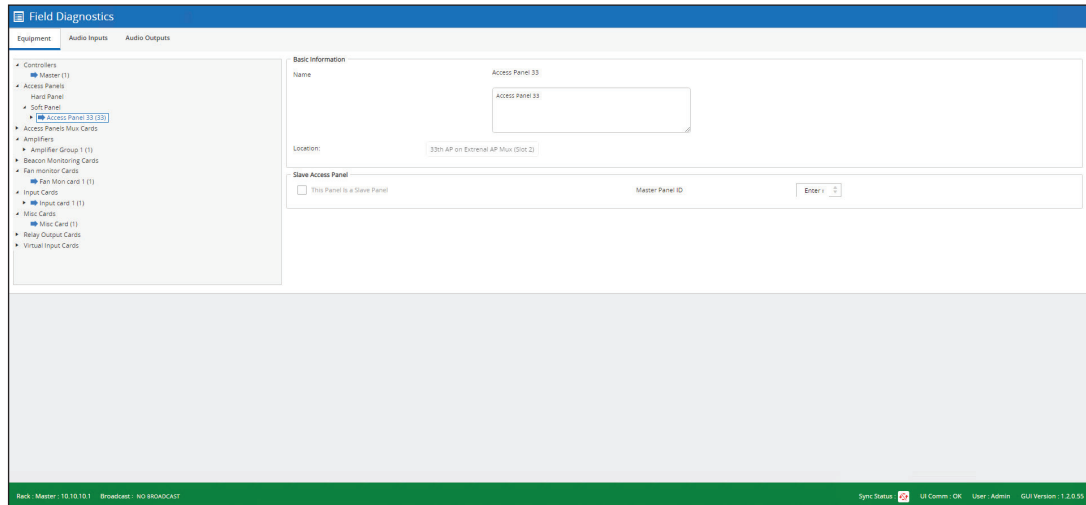
Fields	Description
<b>Manufacturing Details</b>	
Serial Number	Reported Serial Number for the specified Fan Monitor card.
Part Number	Reported Part Number for the specified Fan Monitor card.
Board Build Date	Reported Board Build Date for the specified Fan Monitor card.
Firmware Version	Reported Firmware Version for the specified Fan Monitor card.
Firmware Commit	Reported build number for the specified Fan Monitor card.
<b>Current Temperature</b>	

<b>Fields</b>	<b>Description</b>
Current Temperature	<p>Displays the system temperature value. The System Controller card requests system data from the Fan Monitoring Card automatically, no need for a refresh button. Temperature is displayed on the temperature scale and are available as a numeric value on the right side of the temperature scale. Range for this field is -30 to 100°C.</p> <p>Default temperatures are:</p> <ul style="list-style-type: none"> <li>• Fan on is set to 50°C</li> <li>• Fan off is set to 40°C</li> <li>• Overtemp is set to 70°C</li> <li>• Undertemp is set to 10°C</li> </ul> <p>All four fields are programmable on the Fan Monitoring Card Configuration window.</p>
<b>Statistics</b>	
Operating Time	Provides an indication of how long System Fans have been active since last system start or since you have clicked Reset Statistics. Time is displayed in hours and minutes.
Start/Stop Cycles	Indicates how many times the Fans have transitioned between Stop and Start since last system start or since you have clicked Reset Statistics.
Reset Statistics	Allows you to reset the two Statistics fields to zero: Operating Time and Start/Stop Cycles.
<b>Fans</b>	
Fans	Displays a check mark in the Running column if the Fans are operating and displays Fan speed in the RPM column.
Override Automatic Fan Control	Allows you to override the normal system control of the System Fans. You can select a time period to force the Fans to operate. The values are 15 seconds, 30 seconds, 60 seconds, 2 minutes, 3 minutes, or 5 minutes. To start Fan operation, select the time period, and then click Force Fans On. You should see the Fan Status change to an operating status, while the Time Remaining field counts down to the selected time period. Fans automatically stop operating at completion of the time count down.

### 13.1.8 Field Diagnostics > Equipment > Access Panel

Select one of the Access Panels from the Equipment list on the left side of the Field Diagnostics Equipment window. The Access Panel fields on the Diagnostics window are related to Basic Information and Slave Access Panel, and are not changeable on the Field Diagnostics window.

To change this information, access the appropriate Configuration window.



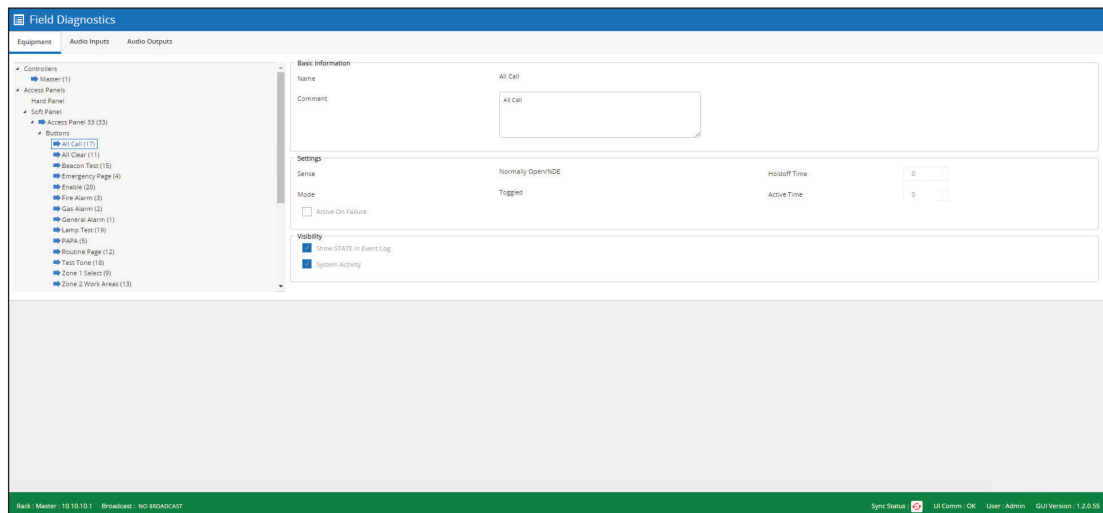
Fields	Description
<b>Basic Information</b>	
Name	User-defined Name for the specified Access Panel Button.
Comment	User-defined Comments for the specified Access Panel Button.
Location	Read-only field that provides the system defined location for the Access Panel.
<b>Slave Access Panel</b>	
This Panel is a Slave Panel	Checked if this Access Panel is going to be a slave panel to a Master Access Panel
Master Panel ID	Displays the ID number for the Master Access Panel. This field is only populated if This Panel is a Slave Panel is checked.



### 13.1.9 Field Diagnostics > Equipment > Access Panel Button

Select one of the Access Panel Buttons from the Equipment list on the left side of the Field Diagnostics Equipment window. The Access Panel Button fields on the Diagnostics page are related to Basic Information, Settings, and Visibility, and are not changeable on the Field Diagnostics window.

To change this information, access the appropriate Configuration page.

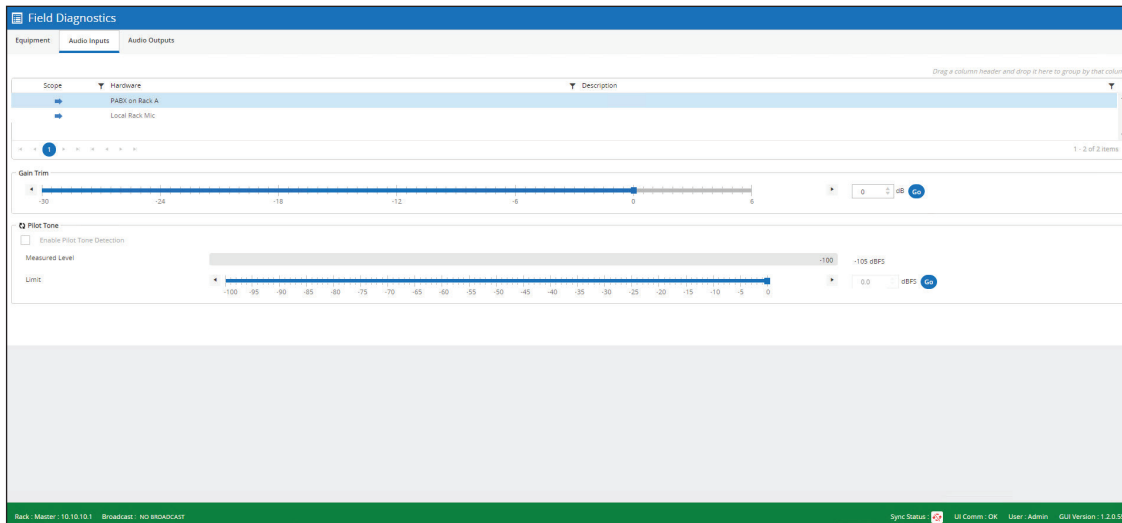



Fields	Description
<b>Basic Information</b>	
Name	User-defined Name for the specified Access Panel Button.
Comment	User-defined Comments for the specified Access Panel Button.
<b>Settings</b>	
Sense	Defines the behavior of the system after the Button is clicked. Sense can be Normally Open/NDE or Normally Closed/NE
Mode	Defines the action supported by the system when the Button is clicked. Mode can be Direct, Toggled, or Latched.
Holdoff Time	Defines the amount of time that must pass before the input can be triggered after being cleared. The value can be set between 0 and 1 hour in 1 second increments.
Active Time	Active Time shows time this Button has been Active. Range is 0.1 second to 1 hour in 0.1 second increments.
Active on Failure	User selectable state that enables the Access Panel Button input to be left active if communications is lost to the Access Panel.
<b>Visibility</b>	
Show State in Event Log	Visibility field that enables state reporting in the System Event Log.
System Activity	Visibility field that enables state reporting in the System Activity window.

## 13.2 Field Diagnostics > Audio Inputs

The Audio Inputs Field Diagnostics component allows you to evaluate performance of Audio Inputs sources in the System. Most of the Audio Inputs fields are not changeable on the Audio Inputs Field Diagnostics screen.

To change this information, access the appropriate Configuration page.

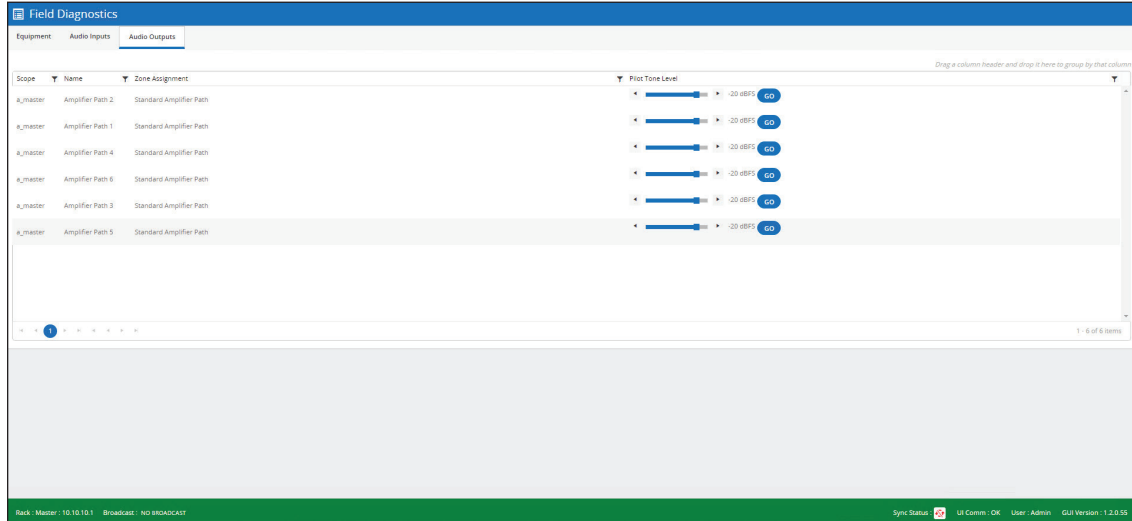


Fields	Description
Scope	Relates to redundancy. Options include A Master, B Standby, Duplicated, or Shared.
Hardware Name	Select one of the Audio Input sources in this column to display diagnostics fields for the source.
Description	User-defined description for the selected Audio Input source.
<b>Gain Trim</b>	
Gain Trim (dB)	Sets the input gain for the input source. Change Gain Trim by moving the slider on the Gain Trim bar. On the right side of the Gain Trim slider is a numeric display of current Gain Trim. Gain Trim range is -30 to +6 db in steps of 6 dB.
Go	Click this button to set Gain Trim for the selected Audio source.
<b>Pilot Tone</b>	
Enable Pilot Tone Detection	Click check box to set the Pilot Tone Limit to half scale. Leaving it unchecked sets the Pilot Tone Limit to zero.
Measured Level	Returns the system measured Pilot Tone Level in dBFS. Select the refresh symbol  to retrieved Measured Level. Range is 0 to -100 dBFS in steps of 1 dB.
Limit	Sets Pilot Tone Limit. Limit defaults to zero when Enable Pilot Tone Detection is checked, and set to half scale when Enable Pilot Tone Detection is unchecked. When the Enable Pilot Tone Detection is set, set the Pilot Tone Limit by moving the slider on the Limit bar.
Go	Click this button to set Pilot Tone Limit for the selected Audio source.

### 13.3 Field Diagnostics > Audio Outputs

The Audio Outputs Field Diagnostics component allows you to evaluate performance of Audio Output sources in the system. Most of the Audio Outputs fields are not changeable on the Audio Outputs Field Diagnostics window.

To change this information, access the appropriate Configuration page.



Fields	Description
Scope	Options include A Master, B Standby, Duplicated, or Shared.
Name	User-defined Name for the Audio Output.
Zone Assignment	Indicates the target zone for the output.
Pilot Tone Level	Indicates the current Pilot Tone Level for the selected output audio signal. Change the Pilot Tone Level by moving the slider on the Pilot Tone Level dBFS bar, or by using the left/right arrow buttons on to move the value up or down. A change to this field is automatically sent to the System Controller. The numeric value of the Pilot Tone Level dBFS is display to the right of the bar. Range is 0 to -100 dBFS in steps of 1 dB. Setting the level to -100 dBFS disables Pilot Tone for the selected output.

## 14.0 Getting Service

If you are experiencing any difficulties, contact Technical Support at: 800-524-3021 or through e-mail at: [techsupport@fedsig.com](mailto:techsupport@fedsig.com). For instruction manuals and information on related products, visit: <http://www.fedsig.com/>



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