

A050 and A250 Foundation Series Fire Alarm Control Units PC Programmer Installation Guide and Programming Instructions

579-1421AC Rev B



1	Cautions, Warnings, and Regulatory Information.....	3
2	Introduction.....	4
3	Installation.....	5
3.1	Minimum required configuration.....	5
3.2	Suggested configuration.....	5
4	Control panel connections.....	6
5	Panel selection.....	7
6	Main window.....	8
6.1	File menu.....	8
6.2	Tools menu.....	8
6.3	Help menu.....	9
7	Panel installation.....	10
7.1	Panel.....	10
7.2	Communication menu.....	11
7.3	Firmware update menu.....	11
7.4	Screen saver menu.....	11
7.5	Account menu.....	11
8	Programming screens.....	13
8.1	Loop programming.....	13
8.1.1	Detectors parameters programming.....	14
8.1.2	Modules parameters programming.....	18
8.2	Zones programming.....	20
8.3	Outputs programming.....	21
8.3.1	NAC outputs.....	21
8.3.2	Relay outputs.....	22
8.4	General options programming.....	23
8.4.1	General.....	23
8.4.2	Users.....	24
8.4.3	Communicators.....	24
8.4.4	Annunciator.....	24
8.4.5	Delays and Thresholds.....	26
8.4.6	Function keys.....	26
8.5	Communicators programming.....	27
8.5.1	Gateway.....	27
8.5.1.1	Options.....	27
8.5.1.2	Gateway address.....	28
8.5.1.3	Central station.....	28
8.5.2	Events.....	28
8.5.2.1	Events mapping.....	28
8.6	Clock.....	32
8.7	Log.....	33
8.8	Utilities.....	34
8.8.1	Battery calculation.....	34
8.8.2	USB I/O.....	35
8.8.3	Wire DB.....	36
8.8.4	Verify setup.....	37
8.8.5	Report.....	37
8.8.6	Import / Export.....	37
8.8.7	Configuration update notifications.....	38
8.8.8	Context-sensitive help.....	40

9	Panel configuration using mobile App and NFC.....	41
9.1	Installing the App.....	41
9.2	Setting the App.....	42
9.3	App icons.....	42
9.4	Site screens.....	42
9.5	Panel screens.....	43
9.6	Devices screens.....	44
9.7	Configuration settings.....	46
9.8	NFC.....	49
9.9	Mobile APP data transfer through OTG cable.....	52

1 Cautions, Warnings, and Regulatory Information

READ AND SAVE THESE INSTRUCTIONS Follow the instructions in this installation manual. These instructions must be followed to avoid damage to this product and associated equipment. Product operation and reliability depend upon proper installation.



DO NOT INSTALL ANY AUTOCALL™ PRODUCT THAT APPEARS DAMAGED Upon unpacking your Autocall product, inspect the contents of the carton for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify an authorized Autocall product supplier.



ELECTRICAL HAZARD Disconnect electrical field power when making any internal adjustments or repairs. All repairs should be performed by a representative or an authorized agent of your local Autocall product supplier.



EYE SAFETY HAZARD Under certain fibreoptic application conditions, the optical output of this device may exceed eye safety limits. Do not use magnification (such as a microscope or other focusing equipment) when viewing the output of this device.

FCC RULES AND REGULATIONS – PART 15

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

SYSTEM REACCEPTANCE TEST AFTER SOFTWARE CHANGES

To ensure proper system operation, this product must be tested in accordance with NFPA-72, after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring. All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

NFPA 72® is a registered trademark of the National Fire Protection Association.

2 Introduction

Use the Addressable Panel Programmer tool to program the system from the control panel (user interface) or a computer. This section describes how to program the system from a computer. If you intend to program the system from the control panel, refer to the *Programming from the panel* chapter in the corresponding *Installation manual*. To manage and program the A050-9101 and A250-9101 control panels using a computer, install the Addressable Panel Programmer tool on the computer. To program the fire control panel, use the Software Addressable Panel Programmer release 01.01.XX

3 Installation

Complete the following steps to install the Addressable Panel Programmer application:

1. Run the installer program Addressable Panel Programmer –vXX.XX.XX- Setup.exe (vXX.XX.XX indicates the program version).
2. Follow the required step.

Note: Download the latest version of Addressable Panel Programmer from the Autocall website.

Note: To install the Addressable Panel Programmer software on the computer, the PC following configurations are required.

3.1 Minimum required configuration

1 GHz microprocessor or better.

256 MB of free RAM or better.

Windows XP or higher operating systems.

250 MB of free hard-disk space after installation.

Administrator privileges on the machine.

3.2 Suggested configuration

1.5 GHz microprocessor or better.

512 MB of free RAM or better.

Windows 7 or higher operating systems.

250 MB of free hard-disk space after installation.

Administrator privileges on the machine.

4 Control panel connections

When using the Supervisory, Management, Downloading, and Log Management functions, connect the control panel to your computer by USB cable.

Connecting the control panel locally

Use the control panel's USB socket and a USB cable (Type A-A).

If you do not connect the control panel to your computer, the warning **Response from Panel Timed!** displays.

Note: The use of a desktop personal computer is not recommended for programming Foundation panels. Use a laptop personal computer operating on its internal batteries. A laptop plugged into AC power when connected to the panel's USB port causes a Ground Fault Error message on the panel.

5 Panel selection

Open programmer, click on **New** to create installation. Select the correct panel A050-9101 or A250-9101 with the correct panel firmware. The description window gives quick information about panel capacity, that helps the user to select a panel.

6 Main window

The main window gives quick information about the selected panel. The following selections describe the **File**, **Tools**, and **Help** menus.

6.1 File menu

With the File menu you can manage customer account data. The following are the various selections available in the File menu.

New

Click **New** to create a new installation and select a new panel. You can select multiple panels, configure for different settings and save separately for different sites / projects.

Open

Click **Open** to retrieve previously saved customer installation job files. Locate the required installation file and double-click to open it.

Note: You can have more than one installation file open at the same time. Pay attention to the tabs on the left side to ensure you edit the correct file.

Save

Click **Save** to save the changes in the current installation, if you modified the installation data.

Save as

Click **Save as** if you created a new installation or want to save an existing installation under a new name.

Close

Click **Close** to close the current installation. You are prompted to save any changes made.

Exit

Click **Exit** to close the Addressable Panel Programmer. You are prompted to save any changes made.

6.2 Tools menu

Language

You can select the preferable programmable language from the three options: **English**, **Spanish** and **Portuguese**.

To select the application language, follow these steps:

1. Click **Tools** then click on **Languages**.
2. Clicking on **Language** displays the drop-down list for supporting languages option.
3. Select a language from the Language list.

Skin

You can select the preferable appearance of the programmer. To select the appearance, follow these steps:

1. Click **Tools** then click on **Skin**.
2. Clicking on **Skin** displays the drop-down list for supporting appearance options.
3. Select appearance of your choice from the list.

Advanced



In the Advanced Settings window, you can set up the following settings:

1. Tooltips duration setting: can be set up to 5 seconds.
2. Load the driver to use the USB.
3. Associate the FCI files generated by the programming / management of the fire system with the Addressable Panel Programmer.

6.3 Help menu

The help menu provides information on the version of the programmer tool.

Table 1: Icons on the Main window

Icon	Description
	Downloads the programming by USB to the connected Fire control panel after entering the correct installer password
	Uploads the programming of the connected Fire control panel after entering the correct installer password

7 Panel installation

Panel details window shows all the following sub tabs. See Figure 1:

- Panel
- Communication
- Firmware Update.
- Screen Saver.
- Account

Figure 1: Main window

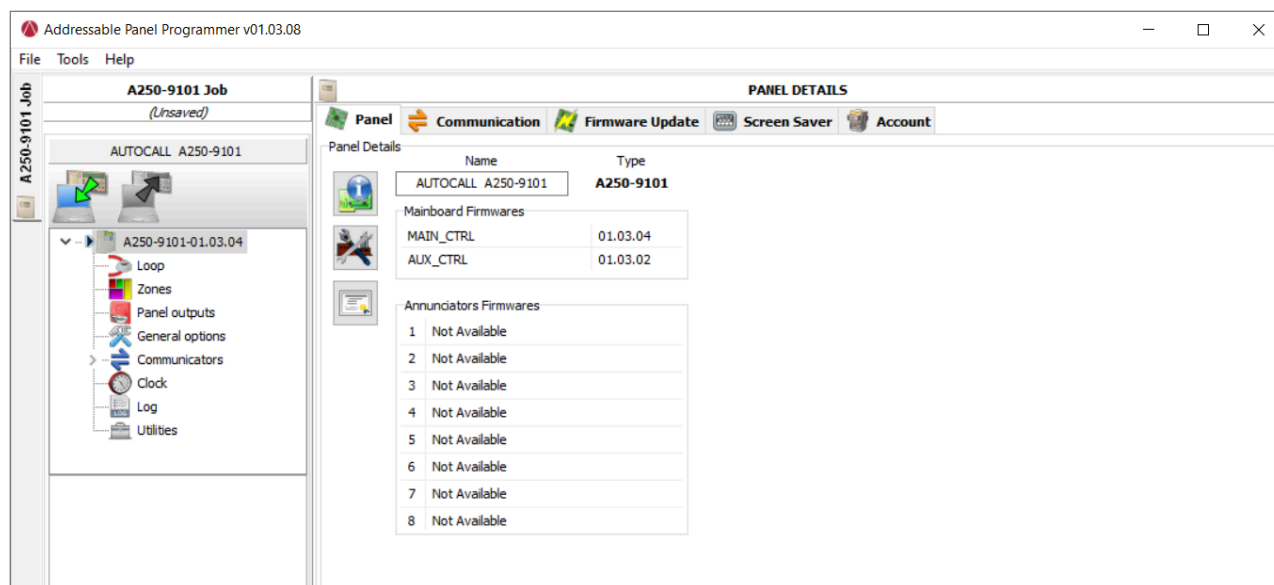






Table 2: Icons on the Panel Details menu

Icon	Icon name	Description
	Board Information	Checks the firmware version of Main board, Auxiliary controller and Annunciators.
	Tools	Restores the control panel to the factory default.
	Certificate	Opens the Installation manual.
	Firmware Update	Starts the firmware update process.

7.1 Panel

The Panel sub tab shows the following details:

1. Selected panel type: A050-9101 or A250-9101.
2. Main board firmware details for both Main_CTRL and Aux_CTRL.
3. Annunciators details: numbers of annunciators connected with panel with their firmware details.

7.2 Communication menu

USB is the connection mode between the Addressable Panel Programmer and your computer. Click on the refresh icon to update the type of connection. Click on the **TEST** button to verify the functionality of the connection status. The Addressable Panel Programmer shows a pop-up that asks you to **Enter Installer Password** every time you want to read or write to or from the panel. The password you enter must match with the panel installer password for successful communication.

7.3 Firmware update menu

Click on **Firmware Update** tab, then click on browse to select source file. From a source file, you can perform a firmware update of all the system interfaces including the Main board, Aux controller, and Annunciator.

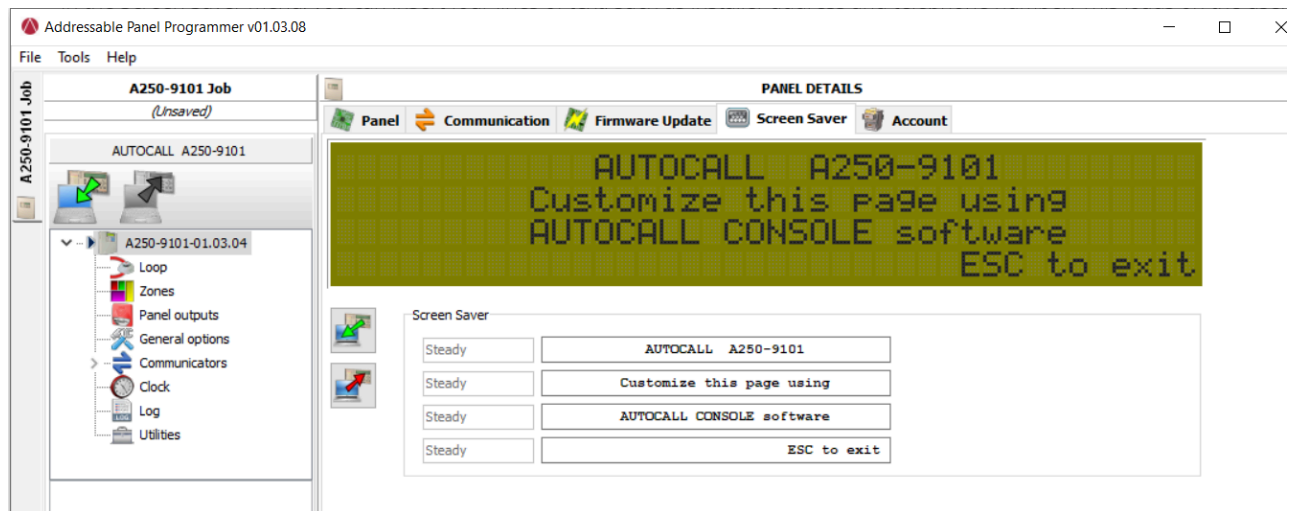
Steps to update Firmware

1. Click on the **Browse** button on the **Firmware Update** tab and select the Firmware 'XXX.bin' file.
2. **Firmware File Loaded Correctly** message box is shown. Click OK on the message box.
3. The main controller, Aux controller detected and version on file are shown in the table.
4. Select the check box for the Main and Aux controller.
5. Click on the **Firmware Update** button to update the panel firmware.
6. **Enter Installer Password** dialog appears.
7. Provide Panel Installer Password.
8. A confirmation window appears. Click **Yes** to continue. Click **No** to cancel.
9. Panel Firmware process starts. Firmware update progress is shown at the application left bottom.
10. After the Panel Firmware is updated successfully then the application shows message. **Firmware Upgrade completed successfully.**

7.4 Screen saver menu

In the Screen Saver menu, you can insert four lines of text, such as installer address and telephone number. This loads on the user interface display when the panel is in standby status. The four rows can include steady screen saver. See Figure 2.

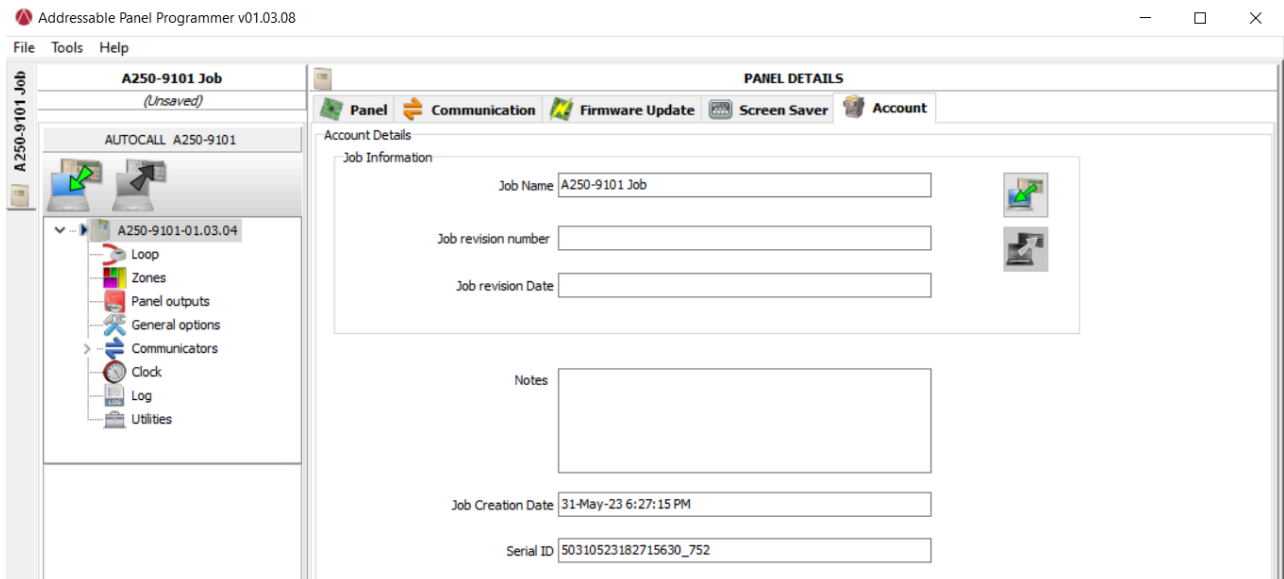
Figure 2: Screen saver



7.5 Account menu

Job Name is an editable character field of a maximum of 22 characters. The **Job revision number** and **Job revision Date** are non-editable fields. **Job Name** is a mandatory field, if it is blank then the configurations are not sent to the connected fire panel. You can send **Job Information** to the fire panel locally from the **Account** tab. **Job revision number** and the **Job revision Date** are updated after the configurations are read globally or locally from the panel and also when configurations are sent globally or locally to the connected fire panel.

Figure 3: Account menu



8 Programming screens

The programming screens of the system are the following:

- Loop
- Zone
- Panel outputs
- General options
- Communicators
- Clock
- Log
- Utilities





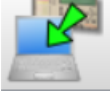




See more information on these screens in the following sections.

8.1 Loop programming

On the left side of the window, click on the **panel name** to expand the tree view. Then click on **Loop**, the device's programming window displays. The Loop window, located in the center, displays the entire list of configured / added devices. On the right window, the user has different options to add, delete, copy. See Table 3 for more details.

Note: On the right of Loop the current number of devices is shown in brackets.

Table 3: Icons in the toolbar

Icon	Description
	Add device: Select new devices.
	Removes device: Remove the install devices.
	Copies device to the clipboard: You can copy device data to the clipboard for use in another account.
	Pastes clipboard content: You can add device data previously copied to the clipboard.
	Read loop: You can upload the current loop data from the panel.
	Send elements: You can download the current loop data to the panel.
	Device's details: This opens a new window where you can see the device status.
	Selection: You can select all devices or invert the current selection.
	Print to file: You can print the list of devices of the selected loop to a .csv file. Use Microsoft Excel to edit the .csv file.

Note: If different devices have common programming parameters, you can use the multiple selections of the devices and assign the same parameters.

Add new devices

1. Click on **Panel**.
2. Select **Loop**.

3. Click on **Add device**, then select new device to add in the loop.
4. Select correct device detectors or ancillary. The user can select point type, quantity and device address.

Note: To add a similar type of device, the user can add any quantity in the capacity of the panel.

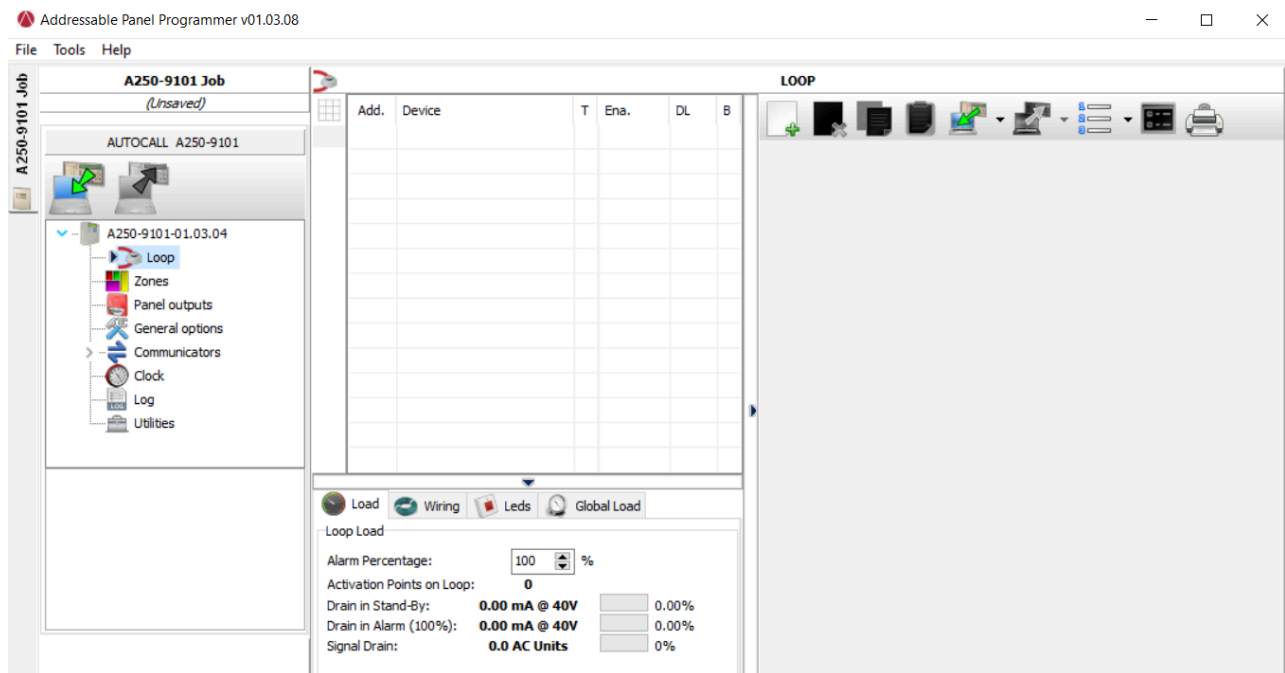
Remove devices

1. Select the devices in the list.
2. Click the Remove device icon.
3. Click **YES** to remove or **NO** to cancel.

Loop loading

Find the Loop load section at the bottom of the programmed devices list. See Figure 4

Figure 4: Loop loading calculations



This section displays the number of Activation points on the loop, the Drain in standby, the Drain in alarm, and the Signal drain. You can also adjust the Alarm percentage.

Note: You can enter remote LEDs in the calculation.

The percentage is shown in the Loop drain in alarm (100%) is the programmed value in [Utilities](#) an option of the [Utilities](#) screen for the battery calculation after you enter the cable length. You can choose the type of cable if you have a database.

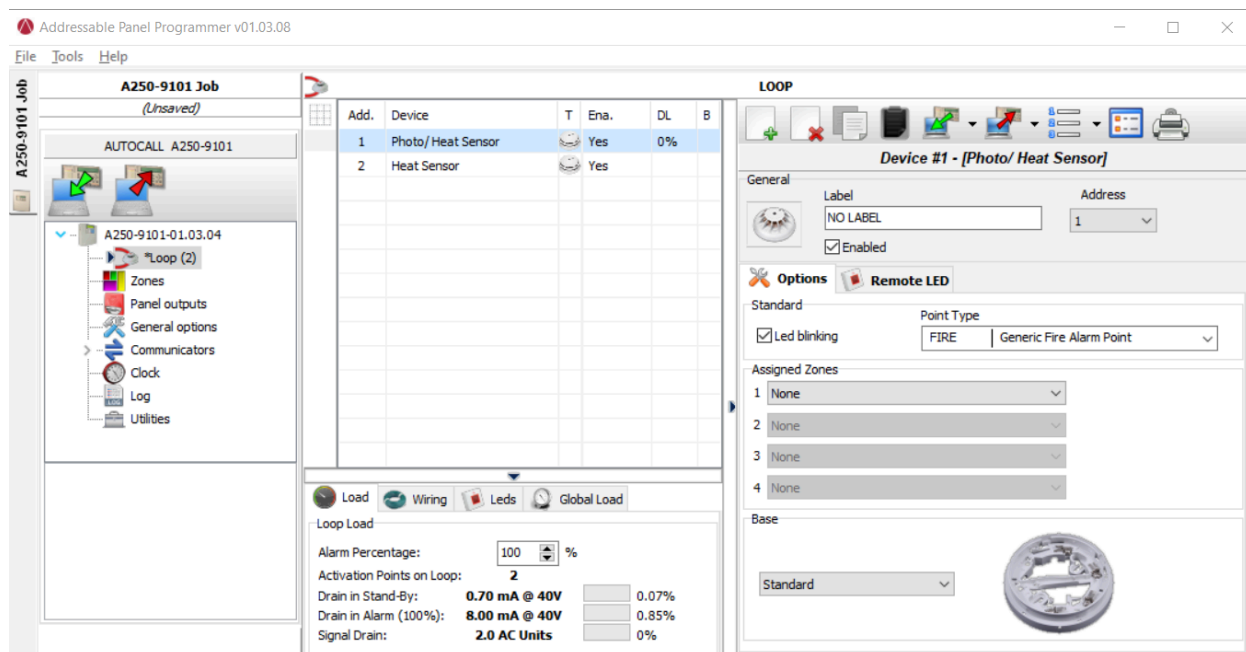
Loop wiring calculation

The loop **Wiring** tab is located beside the Loop **Load** tab. This gives you the maximum permitted resistance of the loop based on the cable length and the Alarm percentage. If cable data is available from the [Utilities](#) section, then a suitable cable may also appear.

8.1.1 Detectors parameters programming

Click on a device in the **Device** column. The relevant device programming window appears on the right. Every device has a dedicated programming window. To view the detectors, see Figure 5

Figure 5: Detectors parameters programming window



The first section (General)

- **Enabled:** A tick indicates that the detector is enabled.
- **Label:** This indicates the editable device label. The system uses the label as the device identifier. You can enter a maximum of 20 characters.
- **Address:** In this field, you can modify the detector address.

Options

- **Led blinking:** A tick indicates that the LED of the selected device will flash.
- **Point Type:** Use this option to change the device point type.
- **Assigned Zones:** You can associate Each Fire detector, input module, and manual call point with up to four available software zones. 50 for the A050-9101 and 125 for the A250-9101 control panel. If a device goes into alarm status, the primary zones assigned to it also goes into alarm status.

Note: First zone is the primary zone. It means the first zone assignment is mandatory to use the other three zones.

Base

In this section, it is possible to select the detector base when you click on the available bases. When you select the sounder base type, a new programming tab **Base** is available. This opens the sounder base programming screen. On this screen, you can select the trigger zones, the trigger points, and the trigger events conditions and you can configure the following parameters.

Table 4: Base parameters for detectors

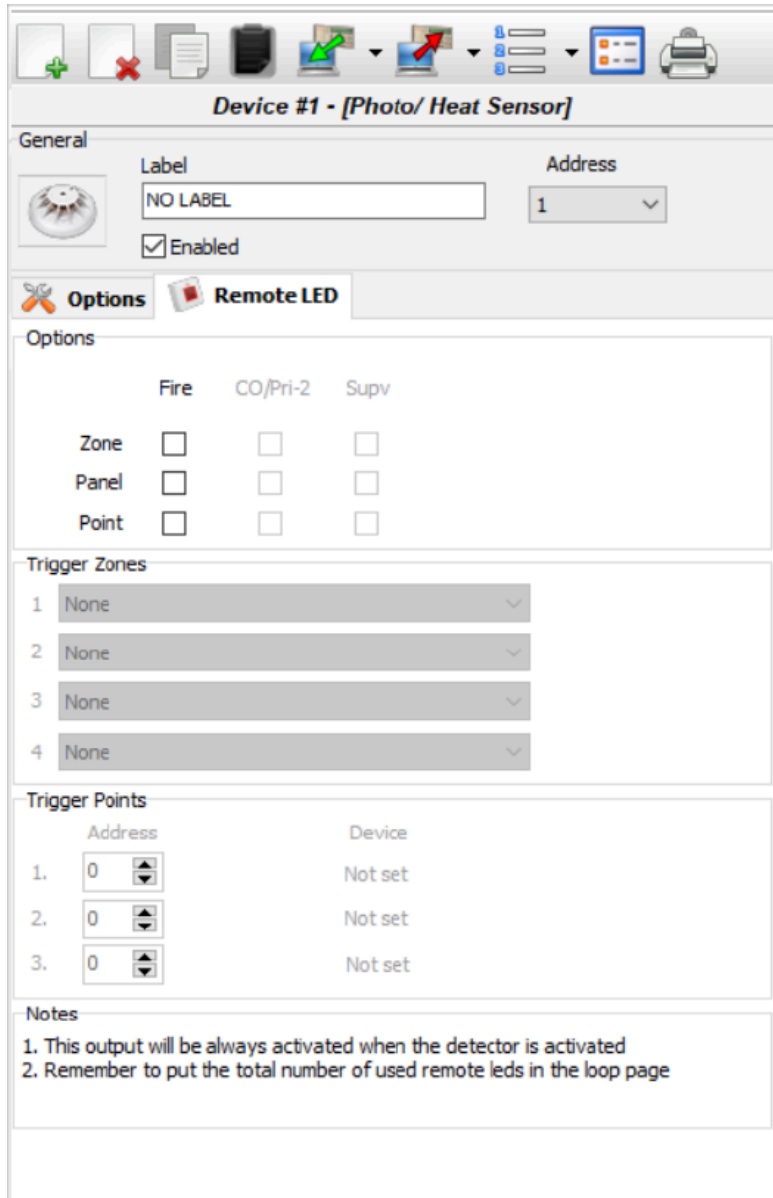
Parameter	Result
Enable	When selected, the base is enabled. Otherwise, the base is disabled.
Label	20 characters base label.

Remote LED

In this section, you can activate the programmable remote LED of the detectors. The detectors have an output used to drive the remote LED. This output is only activated for the detector alarm that it belongs to. Now, you can program the output to activate for other events, exactly as the activation occurs for other panel outputs, in addition to the detector alarm that it belongs to.

Note: On the control panel user interface, in the detectors programming page, you can program the remote LED.

Figure 6: Remote LED settings



Device #1 - [Photo/ Heat Sensor]

General

Label: NO LABEL Address: 1

Enabled

Options **Remote LED**

Options

	Fire	CO/Pri-2	Supv
Zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Panel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Trigger Zones

1. None
2. None
3. None
4. None

Trigger Points

	Address	Device
1.	0	Not set
2.	0	Not set
3.	0	Not set

Notes

1. This output will be always activated when the detector is activated
2. Remember to put the total number of used remote leds in the loop page

Gateway

- **Selected:** A tick indicates the device sends an event to the central station.
- **Mapping Type:** In this field, you can modify the mapping type associated with the device.

Note: If Gateway reporting type is **Event** then **All** mapping type are assigned to the detector by default. This option is available only if Gateway is enabled.

Figure 7: Gateway settings

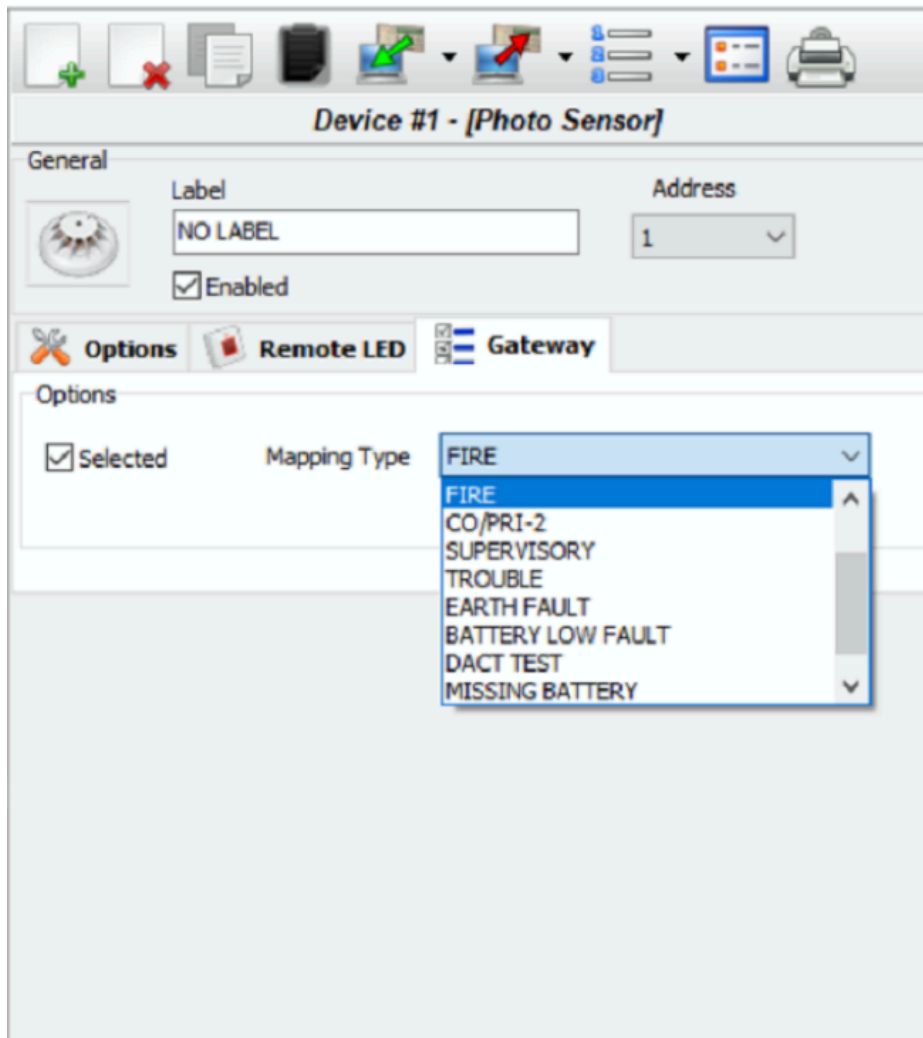


Table 5: Detector sections

Operating mode	Description
Heat sensor section.	ROR with FH135, FH135, FH200 for Heat sensor
Smoke sensor section.	The default for smoke detectors.
Triple sensor section.	Triple Technology Detector has Universal, High Immunity, and CO 5 Mode of operation.

Note:

1. Click to open or close the relevant section of parameters programming.
2. If a detector linked to an output or an input-output module is disabled (remove a tick in the proper section) a window asks for confirmation. Click on **Detail** to see further data.
3. Operating modes have different Point types. Heat or Triple sensor have three sections outlined in Table 5.

8.1.2 Modules parameters programming

Click on a device in the Device column. The relevant device programming window appears on the right. Every device has a dedicated programming window.

First section

See the [Detectors parameters programming](#) section.

Assigned zone

See the [Detectors parameters programming](#) section.

Second section

For MINI Module, select the operating mode style B or C. Operating mode has two styles, B and C.

- **B style:** A two-wire connection mode: the short-circuit condition as an Alarm condition.
- **C style:** A two-wire connection mode: the short-circuit condition as a Fault condition. Normally Open – Fault on Short Circuit Style C Normally Closed – Fault on Short Circuit.

Note: When you select different styles, the electrical operating diagram changes.

Gateway

- **Selected:** A tick indicates the device sends an event to the central station.
- **Mapping Type:** In this field, you can modify the mapping type associated with the device.

Note: If Gateway reporting type is **Event** then **All** Mapping type is assigned to the detector by default. This option is visible only if Gateway is enabled.

Output module programming parameters

Click on an **Output module** entered and the relevant programming window appears as in the following description.

First section

See the [Detectors parameters programming](#) section

Second section

For trigger zones, each Output module can be triggered by up to four of the available software zones of the A050-9101 and A250-9101 panels. The available zones are 50 for A050-9101 and 125 for A250-9101. An Output module is activated when any of the selected zones are triggered, reaching the status condition configured in the fourth section (zone row).

Third section

For trigger points, you can assign each output module three activation points. In this case, the Output module activates when at least one of the input points to which it belongs is in an alarm status. You must indicate:

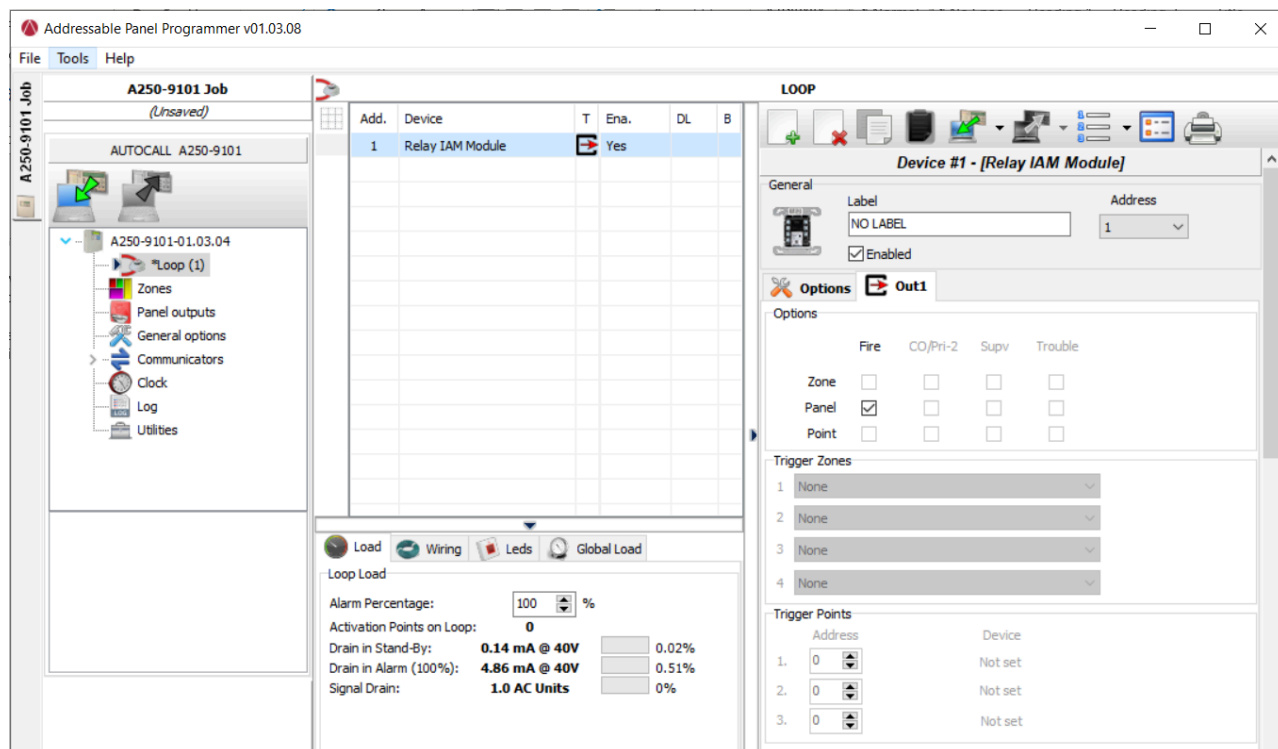
- The loop that the device connects to.
- The device address.

Fourth section

For Options, you can select the conditions that activate the output module. Options include:

- Fire zone, CO/Pri-2 zone, Supvzone, and Trouble zone.
- Fire Panel, CO/Pri-2 Panel, SupvPanel, and Trouble Panel.
- Fire point, CO/Pri-2 Point, SupvPoint, and Trouble Point.

Figure 8: Output Module programming parameters



Note: The following points are applicable for output modules and remote LED for detectors.

- After the Options Panel check box is selected then the Trigger zone and Trigger Points both are not available for editing.
- After the Options Zone check box is selected then the Trigger zone is available for editing and Trigger Points are not available for editing.
- After the Options Point check box is selected then the Trigger zone is not available for editing and Trigger zone is available for editing.
- If both options zone and point are selected then trigger zone and trigger point are available for editing.

Point type

Table 5 shows the mapping of point type of devices to the remote LED and output tabs options configurations. As in Table 5 depending on the point type corresponding options of Fire, Supv, CO/Pri-2, or Trouble options for the zone, panel and point are available.

Table 6: Point type mapping to the available output options for output module and remote LED of sensors.

Device	Point type	Functions
Photo sensor.	SMOKE	Smoke detector.
	SUPERV	Generic supervisory point.
	LATSUPV	Latching supervisory point.
	DUCT	Fire duct detector.
	SDUCT	Supervisory duct detector.
	LSDUCT	Latching supervisory duct detector.
Heat sensor.	HEAT	Heat detector.
	SUPERV	Generic supervisory point.
	LATSUPV	Latching supervisory point.
Photo / Heat sensor.	FIRE	Generic fire alarm point.
	SUPERV	Generic supervisory point.
	LATSUPV	Latching supervisory point.
Triple sensor.	FIRE	Generic fire alarm point.
	SUPERV	Generic supervisory point.
	LATSUPV	Latching supervisory point.
	GENPRI2	Priority2 alarm point.

Table 6: Point type mapping to the available output options for output module and remote LED of sensors.

Device	Point type	Functions
Mini IAM module. (B NO Contact)	FIRE	Generic fire alarm point.
	GENPRI2	Priority2 alarm point.
	SUPERV	Generic supervisory point.
	LATSUPV	Latching supervisory point.
	TROUBLE	Trouble monitor point.
	PULL	Manual pull station.
	WATER	Water flow switch.
	DUCT	Fire duct detector.
	SDUCT	Supervisory duct detector.
	LSDUCT	Latching supervisory duct detector.
	SMOKE	Smoke detector.
	SO	Sprinkler supervisory (Normally open).
HEAT	Heat detector.	
Mini IAM module. (C NO Contact)	STYLEC	Style-C monitor point.
Mini IAM module. (C NC Contact)	TROUBLE	Trouble monitor point.
ZAM IAM module.	FIRE	Generic fire alarm point.
Relay IAM module.	SRELAY	Alarm relay (On until silence)...
	RRELAY	Alarm relay (On until reset).
	GENPRI2	Priority2 alarm relay.
	SUPERV	Sprinkler supervisory relay.
	TRELAY	Trouble relay.
	DHOLDER	Door holder.
Single action pull station.	PULL	Manual pull station.
Double action pull station.	PULL	Manual pull station.

Gateway

- **Selected:** A tick indicates the device sends an event to the central station.
- **Mapping Type:** In this field, you can modify the mapping type associated with the device.

Note: If Gateway reporting type is **Event** then **All** Mapping type is assigned to the detector by default.

8.2 Zones programming

With the Zones option from the panel tree menu, you can access the software zone parameters. See Figure 9.

The software zones parameters are applied automatically to all devices associated with the applicable zone.

The first section (General)

- **Enabled:** A tick indicates that the zone is enabled.
- **Label:** This indicates the editable device label (up to 20 characters). The system uses the label as the zone identifier.

Options section

You can program several parameters in this section.

Walk test

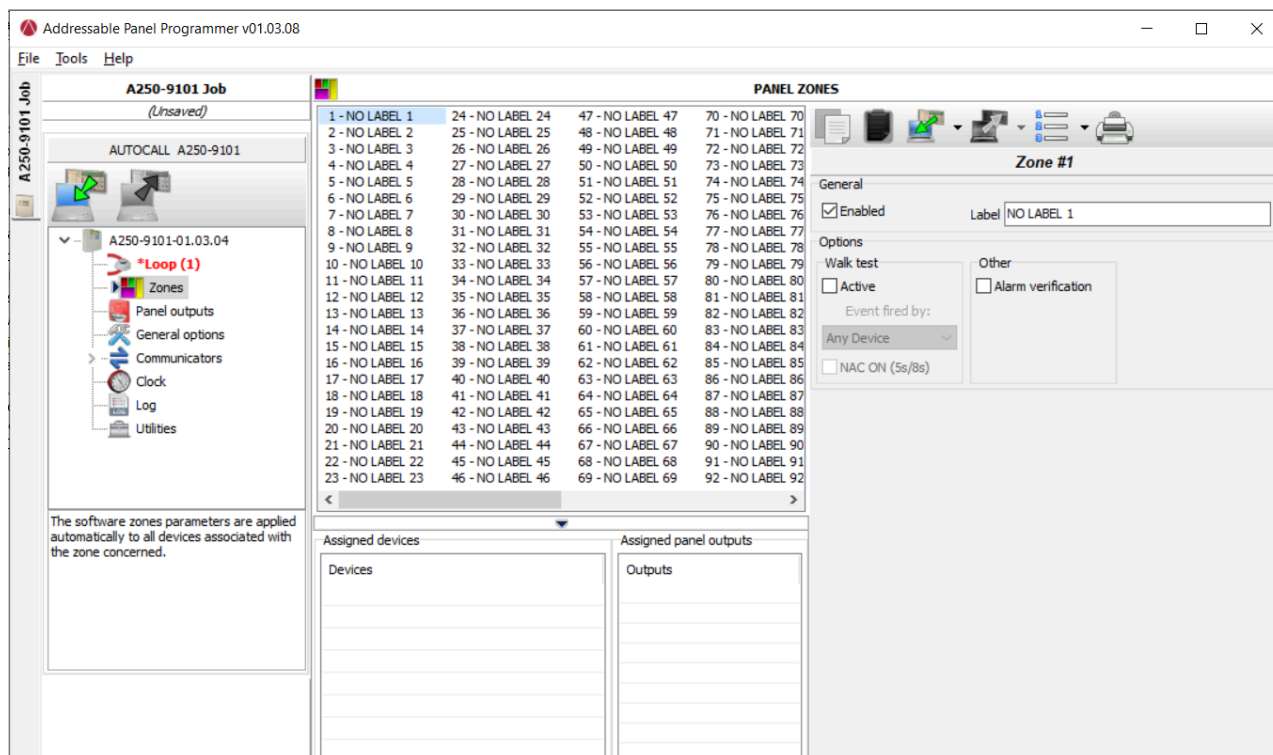
- **Active:** If enabled, the zones in Alarm status activate the programmed outputs with the Walk test event, while the control panel does not generate an alarm. Select this option if the event is generated by any device (modules, pull stations, and detectors), pull stations (only pull stations), and detectors (modules and detectors, but no pull stations).

Other

- **Alarm verification:** For each zone, you can program the delayed activation of the smoke detectors.

Note: Under the list of Zones (Zone programming page, see Figure 9) two windows display which devices and what outputs are enabled. If you click the right mouse button on a device in the list, a new menu displays. Selecting device details opens a new window, where it is possible to see what points and output are assigned to the device.

Figure 9: Zones programming window for the A250 panel



8.3 Outputs programming

With the Panel outputs option, you can access the output parameters. The relevant programming appears as in the description in Figure 10.

8.3.1 NAC outputs

These are supervised. When you click on an output, the relevant programming window appears.

General section

- **Enabled:** A tick indicates an enabled output.
- **Label:** This is for the editable Output label. The system uses the label as the Output identifier.

Options

In the Options section, you can select the conditions that activate the outputs. For example, if the Zone warning option is enabled, the control panel activates the output when one of it's associated points goes into Warning status.

Function Type

In this field, you can choose the behavior of NAC Output by selecting the relevant function type.

Table 7: Function type mapping to the available output options for NAC.

Device	Point type	Options
NAC	SSIG	Fire
	RSIG	Fire
	QALERT	Fire
	SUPERV	Supv
	TROUBLE	Trouble
	GENPRI2	Co/Pri-2

Coding pattern

In this field, you can choose the coding pattern. Temporal 3 is the default coding pattern assigned to the NAC.

In this session, it is possible to set the coding pattern for NAC. NAC supports the following coding patterns:

- Temporal 3 (default)
- Steady
- Sync
- 20 BPM
- 120 BPM
- Temporal 4

Wire

In this section, you can choose between class A and class B wire style for NAC.

EOLR (End of line resistor)

For wire style class A, EOLR values are fixed at 10 k. If wire style is class B, you can choose from the drop-down menu.

Selection

- Fire zone, CO/Pri-2 zone, Supvzone, and Trouble zone.
- Fire Panel, CO/Pri-2 Panel, SupvPanel, and Trouble Panel.
- Fire point, CO/Pri-2 Point, SupvPoint, and Trouble Point.

Zones

In the Zones section, it is possible to trigger each output by up to four of the available software zones.

Trigger points

In the Trigger points section, it is possible to trigger each output by three input points. For each point, you need to indicate the device address.

8.3.2 Relay outputs

The fire panel has two programmable and one non-programmable onboard relays. Two programmable relays are shown in the Panel Output. Non programmable relay is not shown in the Panel Output.

General section

- **Enabled:** A tick indicates an enabled output.
- **Label:** This is for the editable Output label. The system uses the label as the Output identifier.

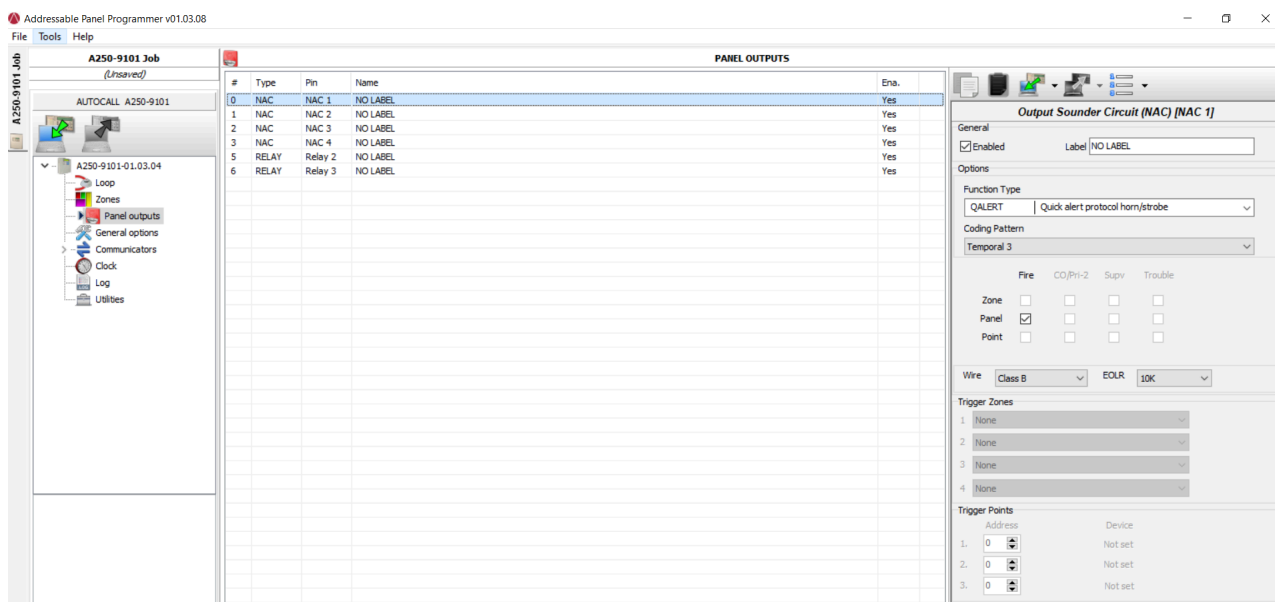
Options

In the Options section, you can select the Function type and another setting for relay outputs.

- **Function Type:** In this field, you can choose the behavior of Relay Output by selecting the relevant function type.
 - RRELAY
 - SRELAY
 - DHOLDER
 - GENPRI2
 - SUPERV
 - TROUBLE
- **Active on disablement:** Click this option to activate the programmable Relay outputs when any part of the system is disabled.

On selection of Active on Disablement, the Function type is not available for editing.

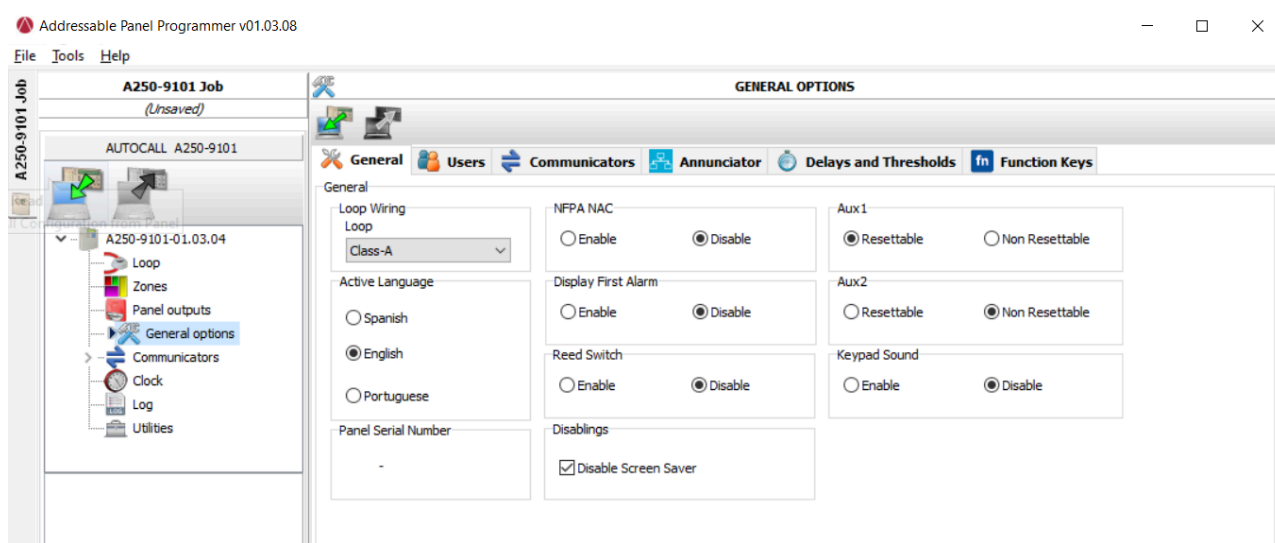
Figure 10: Panel outputs



8.4 General options programming

You can program the panel parameters through the General Options screen (See Figure 11).

Figure 11: General options



8.4.1 General

- **Loop wiring:** Select a class A or a class B wire connection for the Panel loop configuration.

Note: In the description of events, the devices are described as belonging to a loop. In the case of open loops, you cannot distinguish between the left and right sides. However, the loop concept is not meaningful by definition, and localization occurs by zones, the same way as conventional panels.

Note: If you do not address the devices, the mapping procedure will occur to locate each device and assign the proper zone to it.

- **Disable screen saver:** The user can enable or disable the screen saver on the main page of the control panel LCD. You can program the screen saver from the control panel user interface or by the Addressable panel programmer. If you have an enabled screen saver, it appears on the LCD and if panel is in normal / event free condition. If the screen saver is disabled, it does not appear. This feature is

unavailable for repeaters.

- **Active Language:** Here you can see the active language of the fire panel after reading from the panel.
- **NFPA NAC:** When this option is selected, the strobes on the QALERT NACs turn off when alarm silence is activated. If the option is not selected, the strobes turn off upon completion of a system reset.
- **Display First Alarm:** Enable it to display the Alarm event details and not the Panel UI Summary page.
- **Reed Switch:** To enable REED SWITCH mechanism in devices.
- **Disabling:** The user can enable or disable the screen saver on the main page of the control panel LCD.
- **AUX 1 and AUX 2:** If resettable auxiliary output turns off the voltage while the panel is resetting.

Note: If the auxiliary output is configured as non-resettable, in the case of NAC/MAIN over current the auxiliary output shuts off momentarily for detection of the over current source.

- **Keypad Sound:** Enable it to produce sound when the key is pressed.

8.4.2 Users

In the Users section, you can change the panel and the user codes. Each code must have five digits and they can include digits 0-9.

- **Panel Installer:**
 - With the installer code you can manage the three access levels: Level 1 (View), Level 2 (User), and Level 3 (Installer).
 - Only one Panel installer is supported with the application.
 - The default panel code is **99999**.
 - Panel Installer Password change: Firstly provide a panel password. A window shows to change the password. Panel Installer Password always has the first character as 9. Secondly, you can only use digits 0 to 9 for passwords. Finally, after a new password is entered, the **Password changed successfully** message is shown.
- Single click only means the password is present. A double click means the password is enabled.
- **Panel User**
 - With the user code you can manage two access levels of the control panel: Level 1 (View), Level2 (User).
 - Only one Panel user is allowed with the application.
 - Panel User password change: Firstly provide a panel user password. Panel user password always starts with 1. Secondly, you can only use digits 0 to 9 for passwords. Finally, after a new password is entered, the **Password changed successfully** message is shown.
 - The default user code is **11111**.
 - Single click only means the password is present. A double click means the password is enabled.

8.4.3 Communicators

In the Communicators section, you can enable the Gateway module, Central station and city circuit.

- By default Gateway installed and City circuit is not selected.
- After **Gateway installed** is selected, then Gateway Enabled for Internal or External along with Central station are available for editing.
- If the central station is not selected then the Central station tab is not available for editing.
- For City circuit only installed and enabled setting selection is available.

Note: If the user unchecks the Central Station option. Restart the Gateway to apply the setting.

8.4.4 Annunciator

In the Annunciator section, a tick means you can perform the following actions:

- Enable Annunciator.
- Enable annunciator modules in the annunciator tab..
- Eight annunciators are supported.
 - On single click, the checkbox is in an indeterminate state. It means that the annunciator is present but not enabled. As shown in Figure 12.
 - On double click, the checkbox is selected. It means that the annunciator is enabled. As shown in Figure 13.

Note: You can insert the annunciator address from the panel. See the chapter *Programming from the panel* in the *Installation manual*.

Table 8: Personal Computer console Annunciator tab showing click action

Figure 12: First click

The screenshot shows a software interface with a checked checkbox labeled "Enable Annunciator". Below it is the heading "Annunciators". There are two list items: "Annunciator 1" and "Annunciator 2". "Annunciator 1" is selected, indicated by a dark square icon and a blue highlight. "Annunciator 2" is not selected, indicated by an unchecked checkbox.

Figure 13: Second click

The screenshot shows the same software interface as Figure 12. The "Enable Annunciator" checkbox is checked. Under the "Annunciators" heading, "Annunciator 1" is now selected with a checked checkbox and a blue highlight. "Annunciator 2" remains unselected with an unchecked checkbox.

8.4.5 Delays and Thresholds

Delays and Thresholds

You can program the following reminders and delay settings:

- **Alarm Reminder:**

The Alarm Reminder feature provides an audible reminder that an alarm still exists on the FACP.

Range: From 1 to 24. Default value is 4 hrs.

- **CO/Pri-2 Reminder:**

The CO/PRI-2 Reminder feature provides an audible reminder that CO/PRI-2 still exists on the FACP.

Range: From 1 to 24. Default value is 4 hrs.

- **Supv Reminder:**

The SUPV Reminder feature provides an audible reminder that SUPV still exists on the FACP.

Range: From 1 to 24. Default value is 4 hrs.

- **Trouble Reminder:**

The Trouble Reminder feature provides an audible reminder that Trouble still exists on the FACP.

Range: From 1 to 24. Default value is 4 hrs.

- **AC loss Delay:**

You can program AC loss for a delay of 0-24 hours. The factory default setting is 2 hours.

- **Water Retard Flow:**

Range: From 0 s to 90 s. Default value is 90 s.

8.4.6 Function keys

The A050-9101 and A250-9101 fire panel keypad has 4 programmable function keys. You can program these keys to allow rapid disable / enable of various fire panel inputs and outputs during scheduled maintenance.

Each function key has configuration parameters for rapid enable / disablement of:

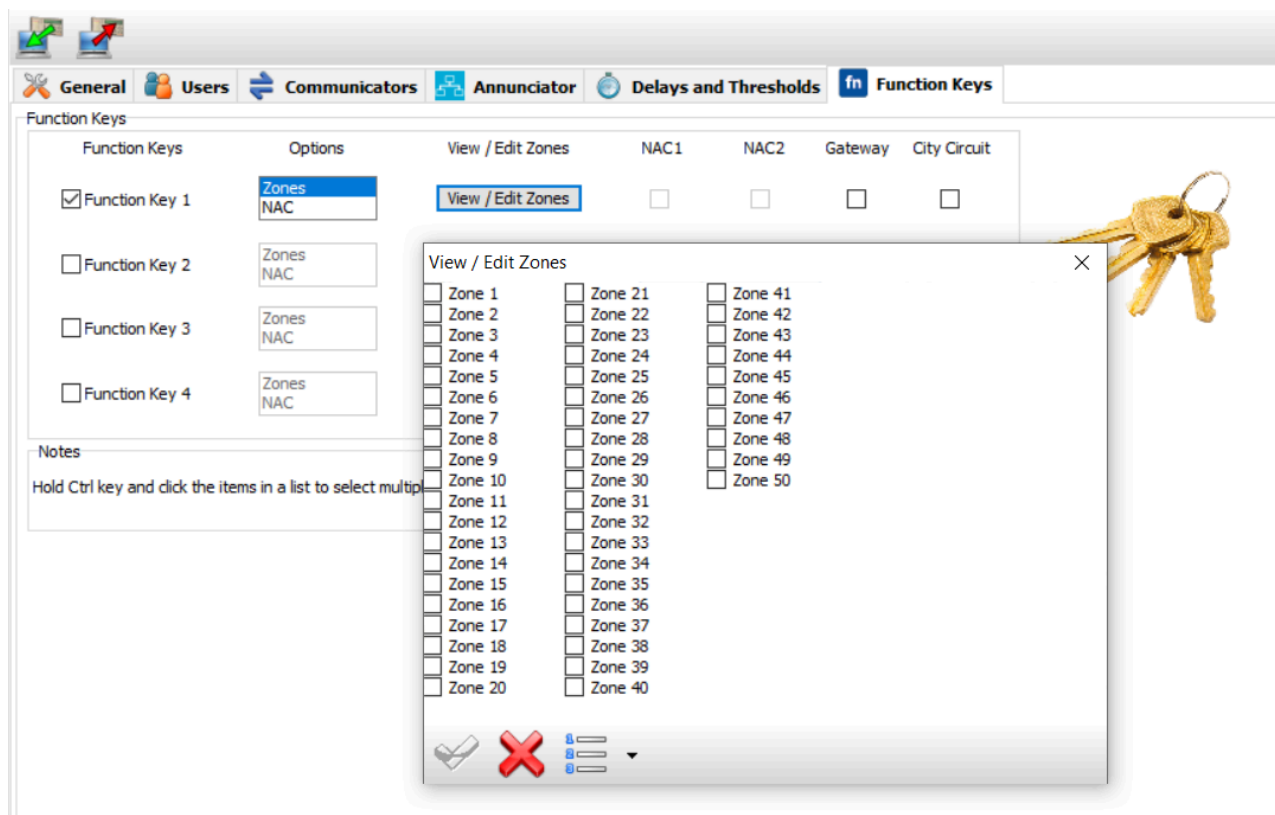
- Zones [1 to 50 zones for A050-9101 panel and 1 to 125 for A250-9101 panel..
- NAC [NAC 1 and NAC 2 for A050-9101 panel and NAC 1, NAC 2, NAC 3 and NAC 4 to 125 for A250-9101 panel..
- Gateway
- City Circuit.

Note: Hold the Control key on the keyboard to select multiple items in the list options list. List have Zones and NAC.

Function key Configurations for each function key.

- Single click on the zone from the options list, the view / edit zone button is then available for editing.
- When you click view / edit zone, View/Edit zone dialog appears for selection of zones or viewing of selected / de-selected zones. See Figure 14 for more details.
- View/Edit zone has number of selections check box as for each panels.
 - Select All and Invert select buttons are provided for marking all select zones or invert select zones.
 - Green tick mark for confirming selection.
 - Red Cross button for canceling the dialog. When you click on the red cross button, all modifications carried out on the View/Edit zones dialog are not saved.

Figure 14: General Options Function key View/Edit zones



8.5 Communicators programming

In this section, you can program the gateway and the events. See Figure 15.

8.5.1 Gateway

8.5.1.1 Options

- Reporting Type:
 - Per Point.
 - Event reporting type.
- **Communication Format:** The communication format is CID.
- **Dial Mode:** Dial mode is Tone.
- **Miscellaneous: Here you can do miscellaneous settings like settings:**
 - IP Path down delay: Default 3 min. range 1 to 60 min.
 - Test report period: Default 6 hours, range 1 to 24 hours.
 - Selectable set unmapped point.
- **Local code:**
Use the Local Codes group for Event code and restore code to do the following:
 - Set the event codes received by the central station when the Connected Services Gateway detects an error.
 - Modify the event codes for automatic test reporting.

Table 9: Local codes

Name	Event code	Restore code
Panel connection Trouble	350	350
Automatic test report	602	-
Off normal at test	608	-

8.5.1.2 Gateway address

- **DHCP:** Select this option if you want to use a dynamic address for the IP module you are programming.
- **IP static:** Select this option if you want to assign a static IP address to the IP module you are programming and set the following parameters:
 - **IP address:** Enter the IP address assigned to the IP module. The network administrator provides this information. The default settings 192.168.1.107
 - **Subnet mask:** This must be the same as the subnet mask for the local network. For each local network there is only one valid subnet mask. All nodes on the same subnet use the same subnet mask. The network administrator provides this information. The default setting is 255.255.255.0

8.5.1.3 Central station

The central station has primary and alternative communication paths. Each has the following configuration parameters. See Figure 16

- **Account Code:** The central station uses this account number to distinguish between transmitters. It is four digits numeric number.
- **Channel:** This is the communication medium between the panel gateway and central station.
 - **PSTN:** On selection of the PSTN as a channel, Address book is available for a configuration where Name and 17 digit telephone number are available for the configuration. Line number 1 and Line number 2 are provided for PSTN configurations. If you have the same Line number configurations for primary and alternative communication paths then the application shows a warning as both channels have the same line number configurations.
 - **IP:** On selection of the IP as a channel, Address book is available for a configuration where the user can provide the IP address, local port, and remote port.
 - **Cellular:** On selection of the cellular as a channel, Address book is available for a configuration where the user can provide the IP address, local port, and remote port.
 - **None:** On the selection of the **Channel as None**, the **Account Code** and the address book are not available. The **Account Code** is then blank. The **None** option is only available for an alternate communication path.

8.5.2 Events

This section contains the Mapping table, system Event, Point event settings.

8.5.2.1 Events mapping




Event mapping contains a table of predefined or user-created mapping types. If you click on any mapping type, corresponding values are shown in a right-side table.

In that table, you can see the event, CID code, and restoral code. See Figure 17.

Check the **Show Unused** to see unused mapping events

- If the user configures the gateway reporting type as for each point, then the following configurations are available.

Table 10: User-defiled Mapping Type

Icon	Description
	Add user-defined mapping type.
	Remove Mapping type.
	Edit name and description of Mapping type.

See Figure 20 on how to add user-defined mapping types. After you click on **Add user-defined mapping** type dialog is shown, which has Name and description fields.

- If the user enters the same name that is already added to the mapping list, then a warning is shown.
- The users must provide the mapping name otherwise they are not able to add mapping type.

Panel Events

Panel Events contain the list of all possible events generated by the fire panel. You can check / uncheck to notify the central station about the event. Here you can map the mapping type to panel event by selecting from the drop-down menu. See Figure 18 for more details.

Note: If reporting type on the Gateway options tab is set to **Event** then you cannot modify the mapping type.

Point Events

Panel Events are non-configurable from the Point Events. Point events tab on the gateway events tab you can see all the loop devices and their gateway setting. See Figure 19

Note: To modify any gateway device reporting events setting, go to loop and select the device and change it in the Gateway tab. See section Device Gateway in [Detectors parameters programming](#).

Figure 15: Communicators GATEWAY Options

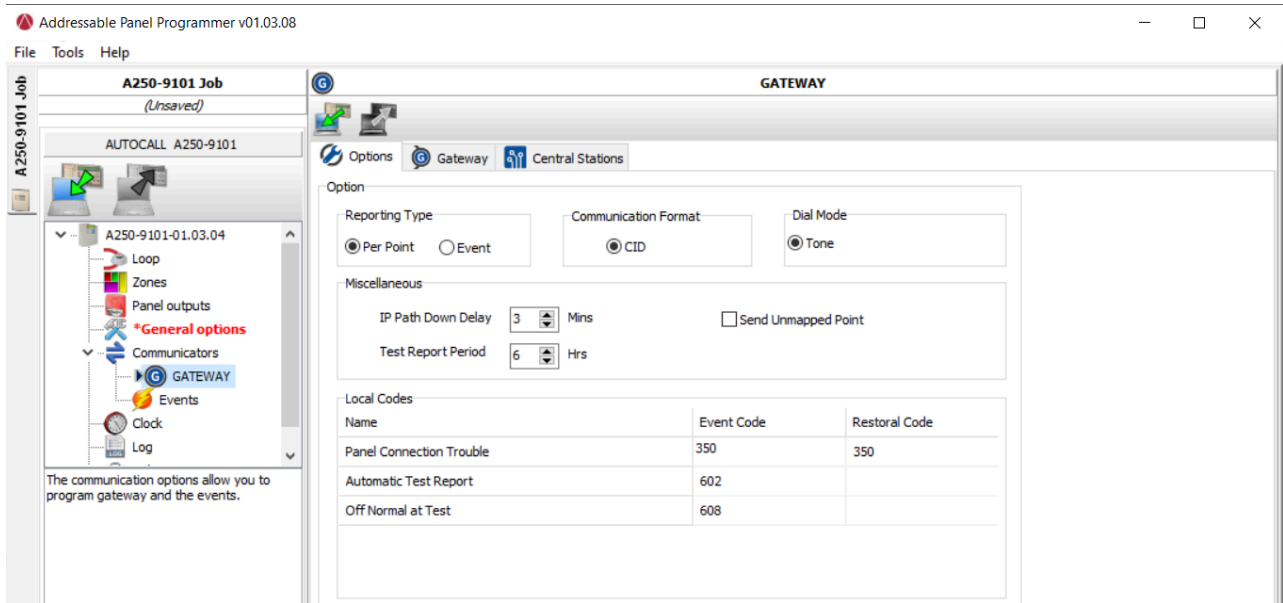


Figure 16: Communicators GATEWAY, Central Stations configurations

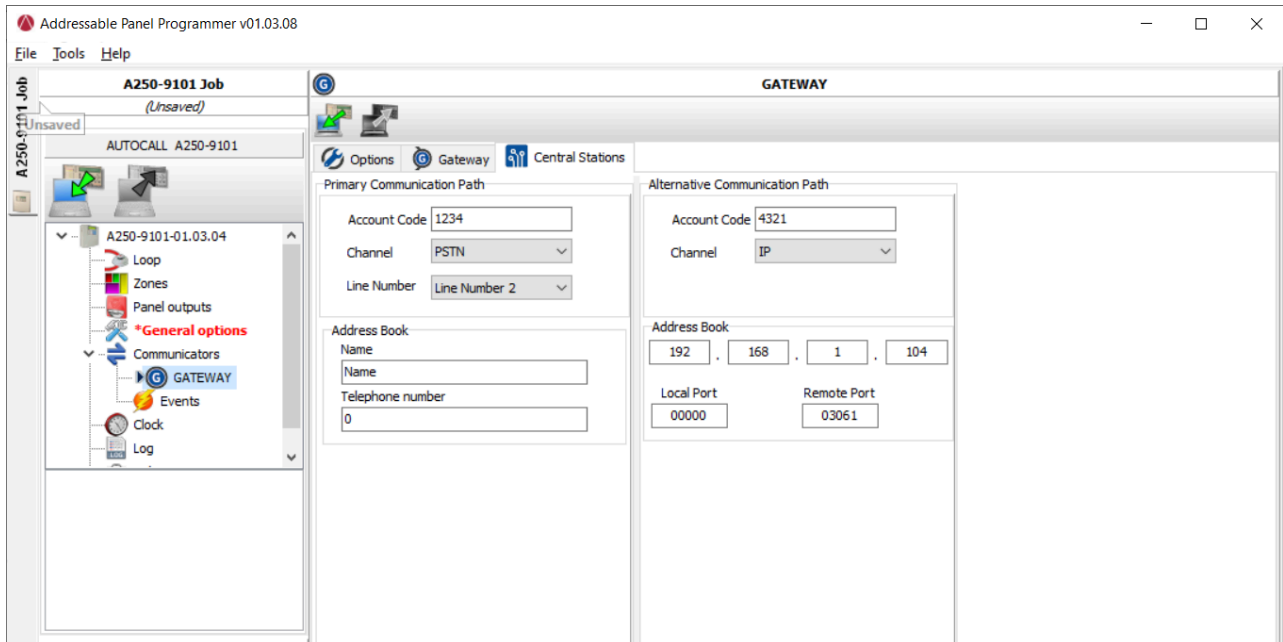


Figure 17: Communicators Events, with reporting type for each point

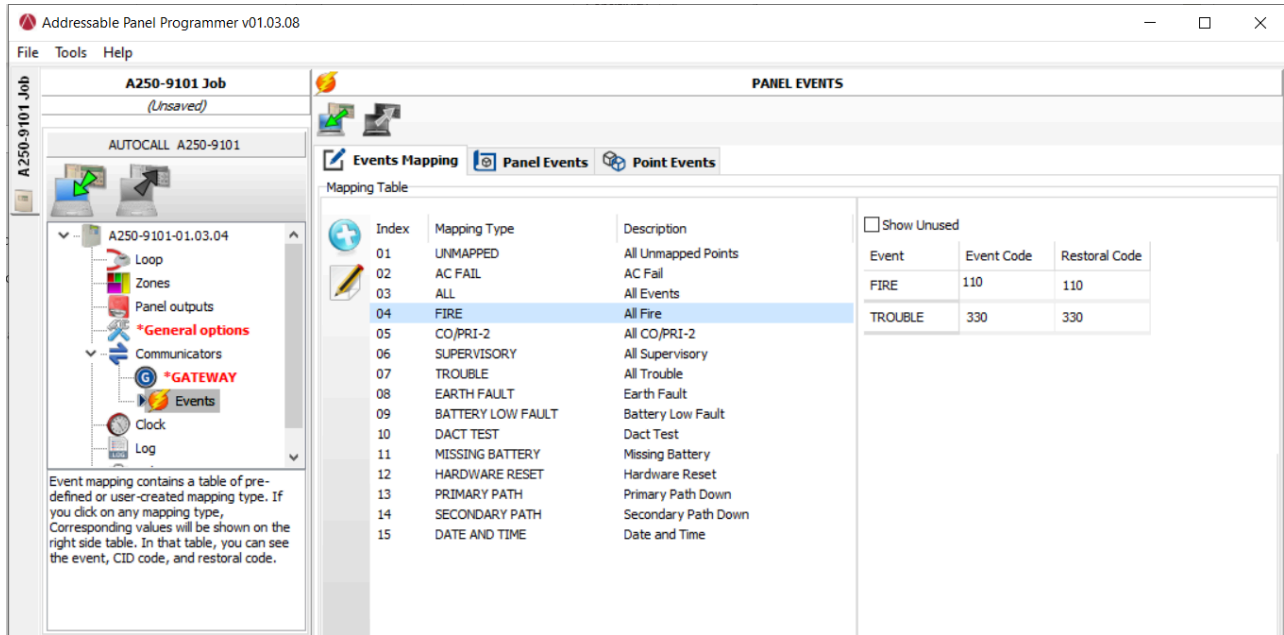


Figure 18: Communicators Events, Panel Events

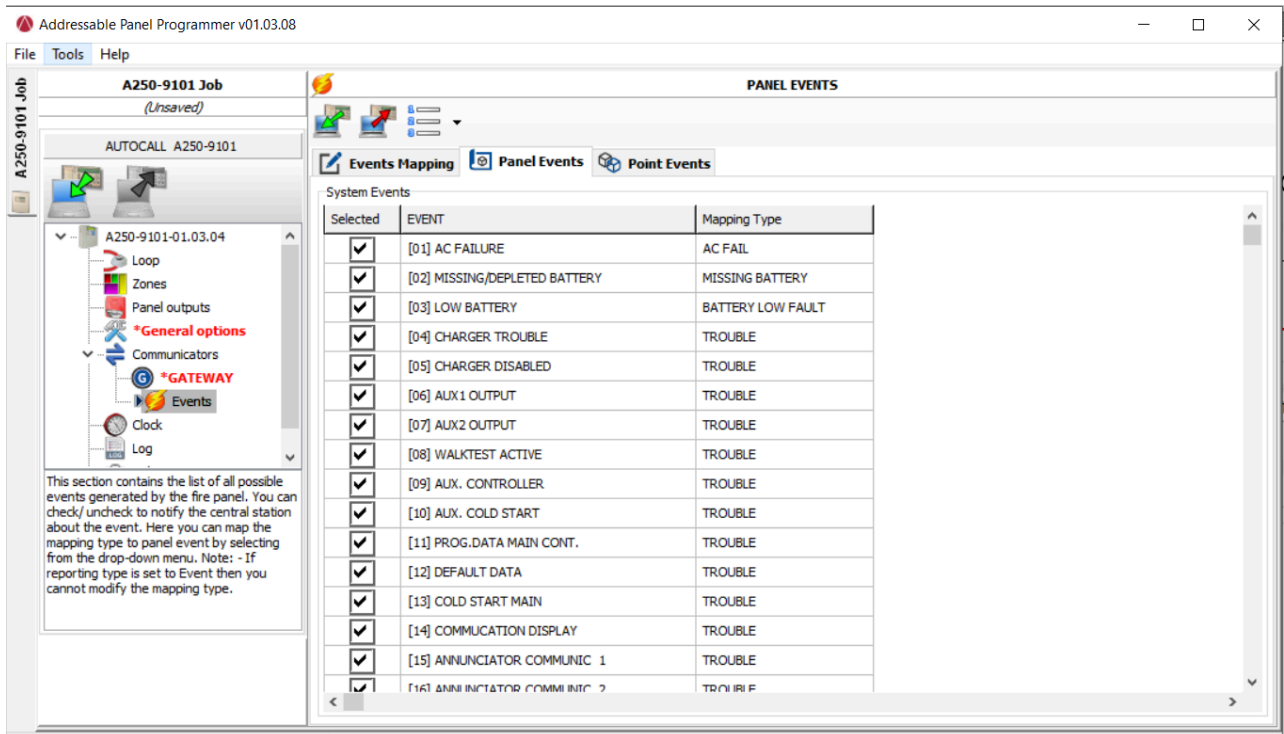


Figure 19: Communicators Events, Point Events

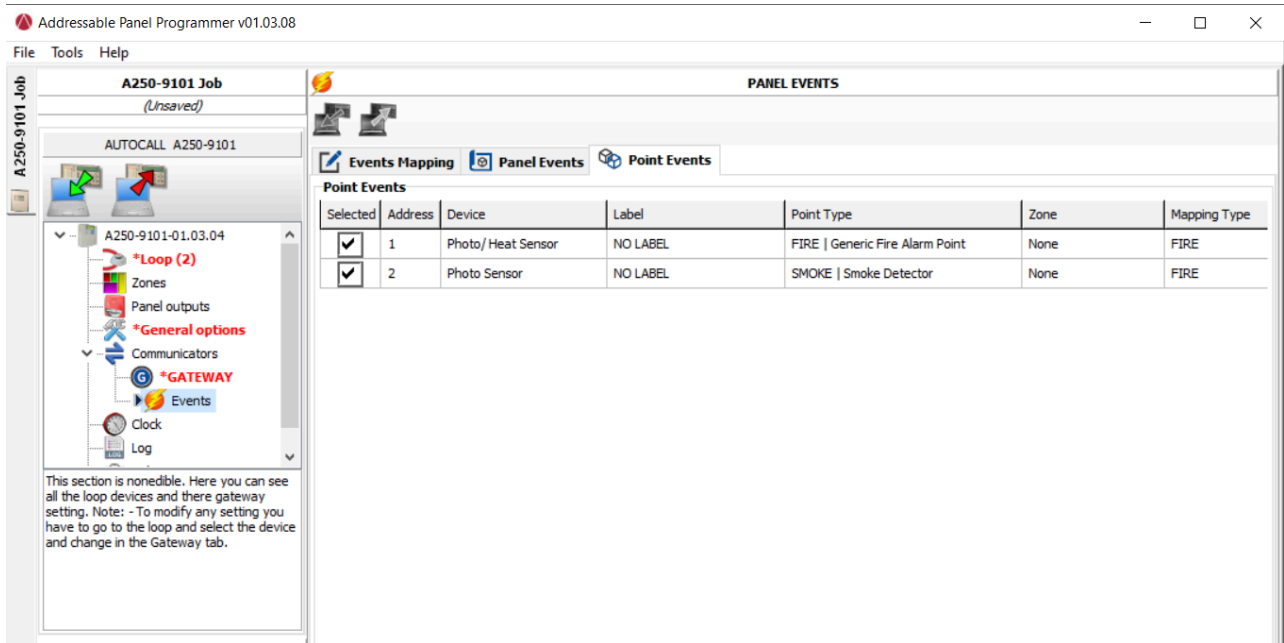
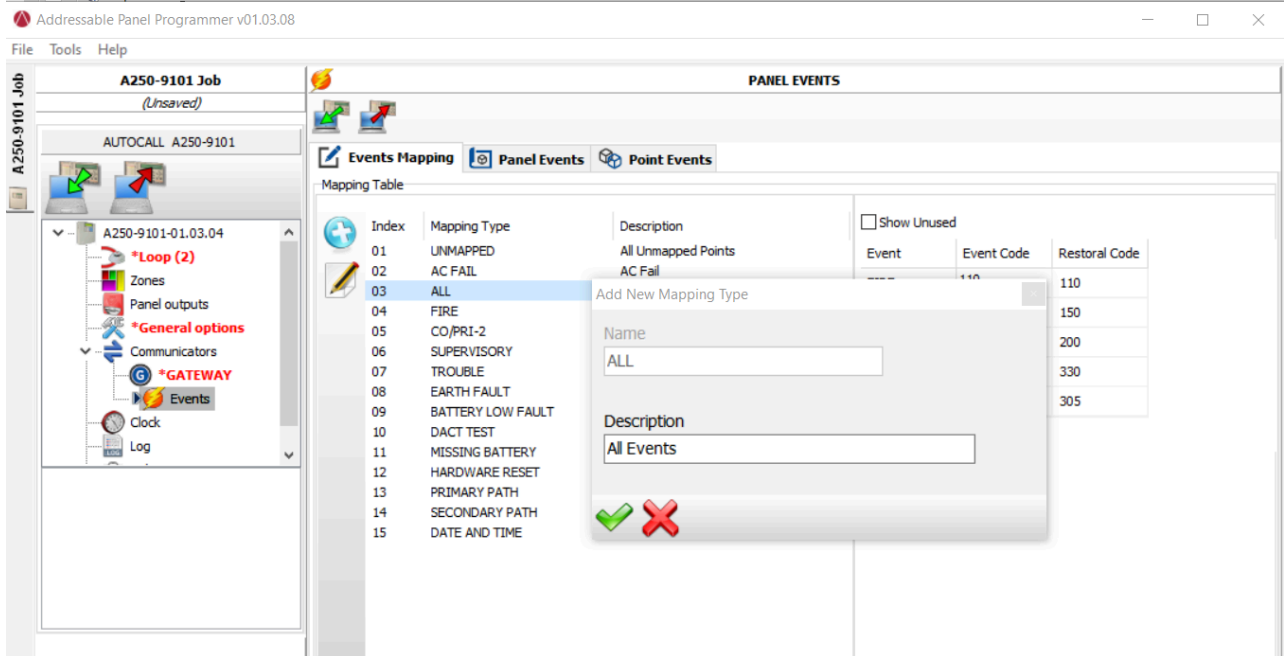


Figure 20: Communicators Events. Add New Mapping Type.



8.6 Clock

The Date / Time option on the Clock menu is for the clock settings on the control panel. Enter the required time and date. If required, schedule the automatic application for summertime.

- Panel Date format: User can set date and time to be displayed on the panel. The user can also select date format, either DD-MM-YY or MM-DD-YY.
- Daylight saving timings: See Figure 21.
 - General Enable: Enable daylight saving timing.
 - Daylight saving times table
 - The daylight saving timetable is from 2021 to 2031.
 - Each row on the table is configurable.
 - When you click on a reset timetable, a message box is shown for confirmation **This operation will reset daylight saving to default.**

Table 11: Clock Icon and descriptions




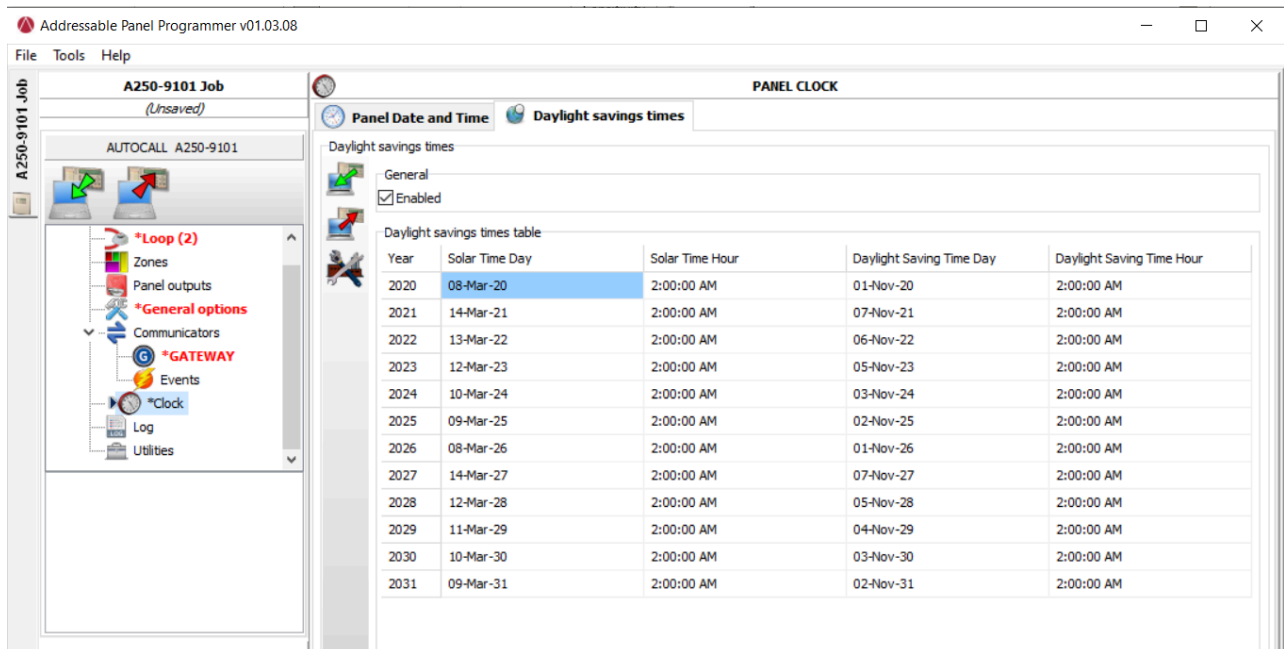
Icon	Description
	Read Panel Date and time.
	Send date and time to the panel.
	Reset time table to default.







Figure 21: Clock: Daylight saving times



8.7 Log

Use Log to get Panels Logs events.

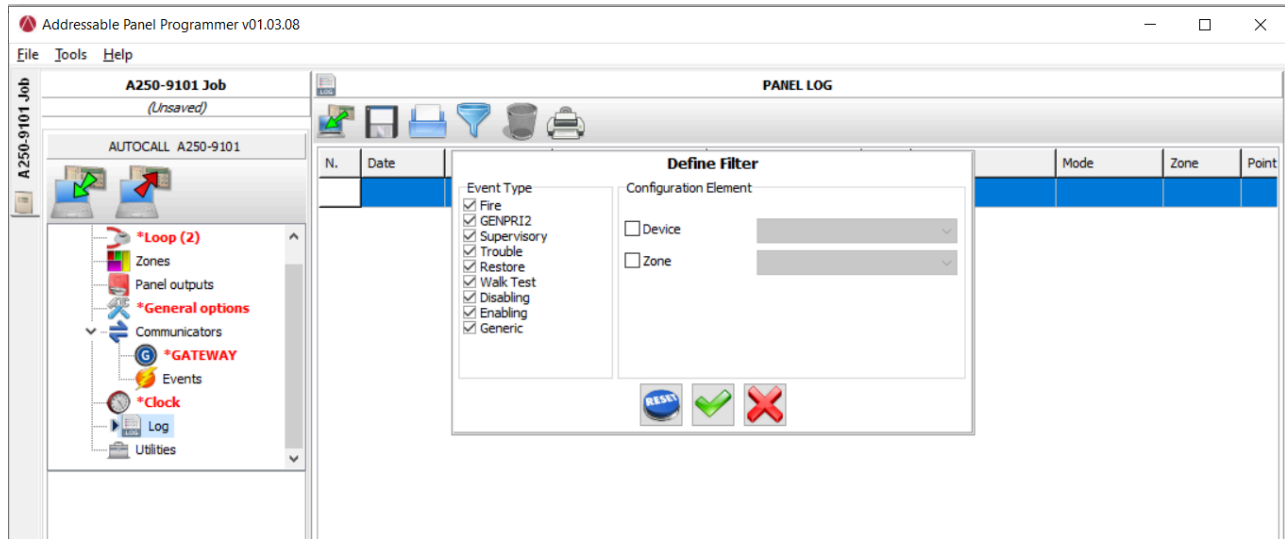
Table 12: Icons in the Log bar

Icon	Description
	Export Log to file: Exports the Legacy Log file in a (*.fcl) or Log plain file (*.xml) or Log compressed file (*.xmc)
	Import Log from file: Import the Legacy Log from a (*.fcl) or log plain file (*.xml) or log compressed file (*.xmc)
	Apply filter: Selects the Log filter if necessary: Event Type: <ul style="list-style-type: none"> • Fire • GENPRI2 • Supervisor • Trouble • Restore • Walk test • Disabling • Enabling • Generic Configuration Element <ul style="list-style-type: none"> • Device • Zone Reset: On clicking on the reset button all Event Types are selected and Device and zone.
	Print a text file: Prints the control panel Event log, or part of it.
	Clear the Panel log.
	Read the panel logs to the application.

The following data is stored in the Log: See Figure 22

- The Event's number.
- The Date.
- The Time.
- The Class (Fire, GENPRI2, Supervisory, Trouble, Restore, Walk test, Disabling, Enabling, Generic).
- The Event's description.
- Panel: P for Panel and A for Annunciator.
- The Device.
- Mode
- The Zone.
- Point type.

Figure 22: Panel Log, Define Filter



8.8 Utilities

Utilities have the following menu tabs:

- Battery Calculations.
- USB I/O
- Wire DB
- Verify Setup.
- Report
- Import/Export

8.8.1 Battery calculation

Battery calculation

With the Battery calculation window you can see the A050-9101 and A250-9101 system load in alarm and standby at 24 volts. Battery calculation gives Battery size / total Amps required, along with spare capacity in Ah. See Figure 23

Battery calculation considers the following in standby and alarm at 24 volts.

- Panel
- Devices connected in the loop.
- Functional base.
- Device LED. Assuming LED on condition.
- Resettable
- Other loads. Number of NACs: This is an editable field for alarm conditions. If the user provides an NAC current of more than 3000 mA then a warning is shown.

Note:

- The maximum NAC current is 3000 mA.
- Alarm load in the loop devices can not be more than 6000 mA.
- Considering 30% spare capacity.

Battery calculations have the following parameters

- Standby hours: 24 hours by default.
- Alarm minute: 5 minutes by default.

Figure 23: Utilities, Battery Calculation

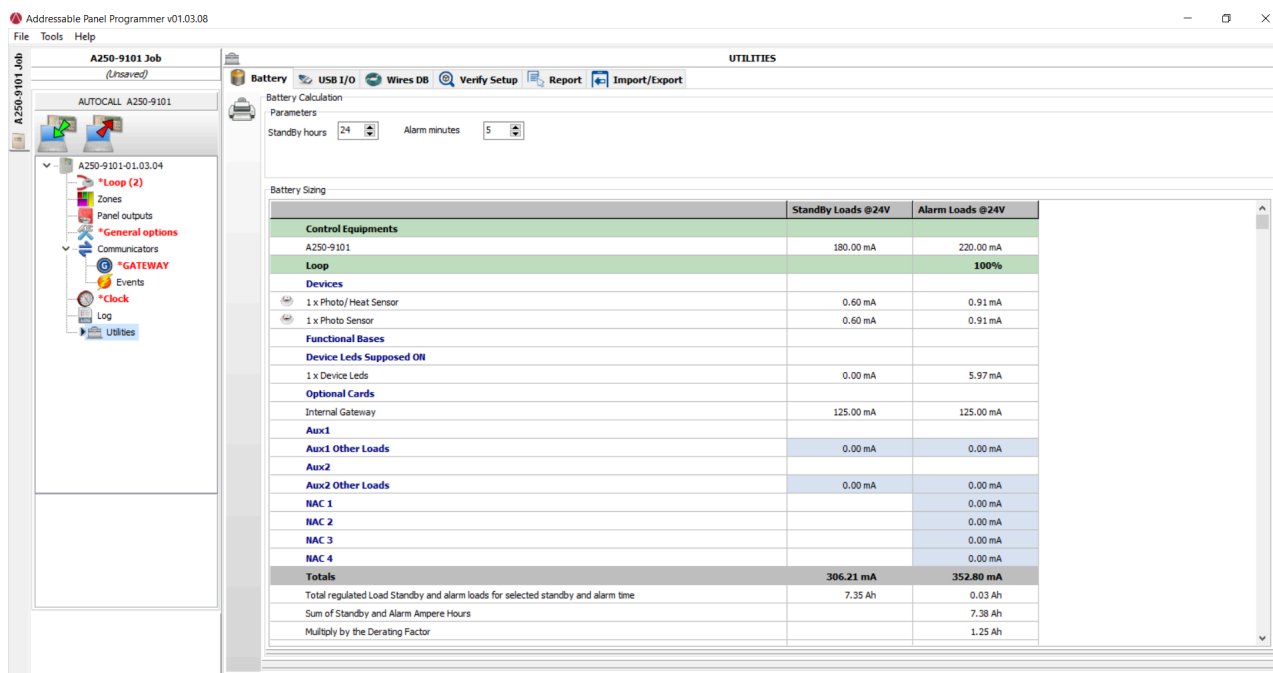


Table 13: Icons in the Utilities Battery calculation page

Icon	Description
	Checking battery calculations.
	Exports the battery calculation into a CSV file that Excel or a similar application can open.

Note: The software calculation is a rough calculation and cannot substitute the installer or qualified person's calculation.

Note: In the printer driver, set the page resizing option to none.

8.8.2 USB I/O

Import / Export from a thumb drive

Panel configurations and Panel logs data are possible to import / export to the application. See Figure 24.

For importing panel data to the application.

- Select a thumb drive.
- The application automatically identifies panel programming '.bin' file and Panel Event logs.
- Users can select the necessary data to import to the application.
- Then click on the Start import button to start the import activity.
- After Import is finished successfully, then the Application shows the message **Imported OK**.
- If a USB thumb drive has A050-9101 panel configuration data and if a user is trying to import configuration data by USB Import utility to A250-9101 program installation then or for vice versa scenario, the application notifies **wrong panel type** and does not import the configuration data.

For exporting application configurations to the thumb drive.

- Select the data to Export:
 - Include Firmware: On click of check box file, an open dialog appears to select the Firmware '*.bin' file.
 - Include Panel Programming.
- Select the USB drive: Dialog appears to select the USB thumb drive.
- Start Export button: When you click the start button, export activity starts. After the process has completed, the application shows the message **Programming file created Correctly** and also show the file explorer location. Also, the Firmware pack File was Transferred correctly with the file explorer location.

Figure 24: Utilities Battery USB I/O Import data

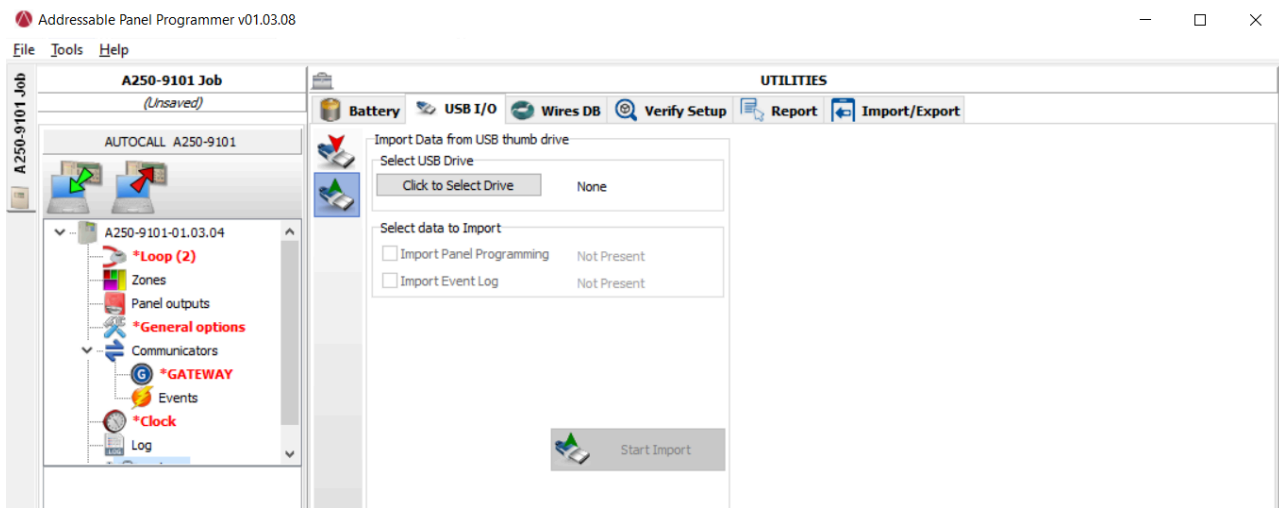


Table 14: Icons in the Utilities USB I/O

Icon	Description
	Use a USB thumb drive to Import Panel configuration data .
	Export the panel programming data to a USB thumb drive.

8.8.3 Wire DB

This is a wire database. Users can add wire resistance in [Ohm/Km] and wire section in [mm]. See Figure 25.

The cable selection is done automatically by the software. The user fills up the cable database with the cables he can find on the market. The software chooses from this database the cable that best matches the Calculated Max Resistivity.

Note: You can move the database from one system to another. The console searches for the wire database on start up. If you cannot access a moved database, close the software and restart.

Table 15: Icons in the Utilities USB I/O



Icon	Description
	Import Legacy wire database file (*.fcw)
	Add new wire description, resistance, and wire section.
	Edit wire database row. Select a particular wire Database row from the spreadsheet. Then click on the edit button to edit the wire database row data.
	Delete the wire database row. Select a particular wire database row and click on delete. The user gets confirmation by clicking on the delete button.
	Export the database to a CSV file. Clicking on Print to file , the user gets a file save dialog where the user can save the file in the .csv format.

8.8.4 Verify setup

Verify setup checks the configurations, each input device is connected programmatically to output devices or not. Or each output device is connected programmatically to input devices or not. Verify setup tries to minimize all potential issues on the Panel after configurations are transferred to the panel. Users can check the programming configurations by clicking on verify setup button. The application lists down all potential warnings in the configurations.

Note: Verify setup does not list all warnings if function type of Supervisory, CO/Pri2, and Trouble.

Table 16: Icons in the Verify Setup



Icon	Description
	Verify setup. After clicking this button, the application lists down all configurations related warnings in High, medium, and low-level warnings.
	Filter to show the configurations warnings High, medium, low, and All. Depending on the selection of filter Verify setup lists down warnings depending on the selected filter value. Default: All filter.

8.8.5 Report

With the help of reporting functionality, someone can create the following reports:

- Panel Configuration report.
- Central station event.
- NFPA System record of Completion.
- NFPA System record of Inspection and testing.



Table 17: Icons in the Report

Icon	Description
	Click to generate the report. Depending on the configuration selected report is getting generated.
	The Generated report is exported by clicking on the save button. The report is exported in three formats: <ol style="list-style-type: none"> 1. PFD file extension [.pdf] 2. Microsoft Word file extension [.docx] 3. Microsoft Excel file extension [.xlsx]

8.8.6 Import / Export

You can export and import panel configurations from the application to the mobile application.

Table 18: Icons in the Import/Export

Icon	Description
	Export configuration system that is compatible with the mobile App. Clicking on the export button, causes the save dialog to be shown, to save the configuration data to disk. After the file is saved in the destination folder, the File saved correctly message is shown.
	Import the App exported .json configuration file to the application. After clicking the Import button, a file open dialog will appear, select the .json file to import. If the selected file is for a different panel type, then the application does not import the file and shows the message wrong panel . It is the same case with a brand difference.

Note: While importing a .json file, the file must be of the same panel and same brand. If the file is of a different panel and different brand then the application import of the file data fails.

8.8.7 Configuration update notifications

Configuration update notifications.

The application shows a configuration update notification on the left-side navigation tree. See Figure 26.

Whenever the panel-related configurations are modified, that time corresponding node in the navigation tree is shown in red color and * is added to indicate that corresponding page configurations are changes and those are not sent to the panel.

Note: When configurations page data or global send command executed by clicking on the respective buttons red color and * are removed for the modified sections.

Error-prone configurations now allowing send to the Panel

The application in the background validates the warnings the same as verify setup. See section [Verify setup](#)

If the application found any potential warnings in the programming configurations then the application disables Global send and each send button. That means the user is not able to send the configurations to the panel in that case. To understand and resolve the configurations warnings:

- Users can navigate to Verify setup.
- Click on Verify setup button.
- Understand all warnings and correct them.

After all warnings are resolved then global send and each page send button is then enabled to send the configuration data to the panel.

Figure 25: Utilities, Wires DB

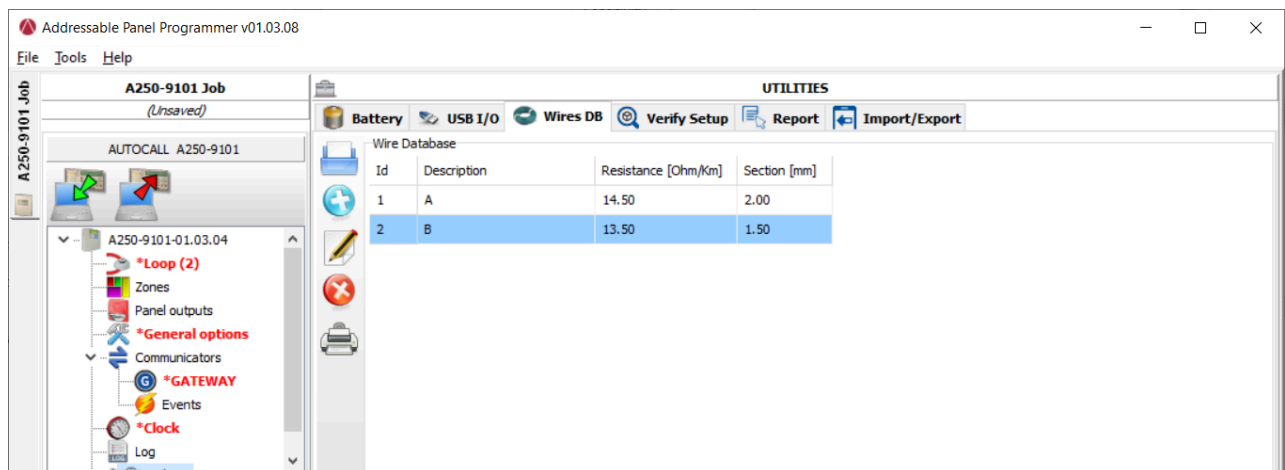
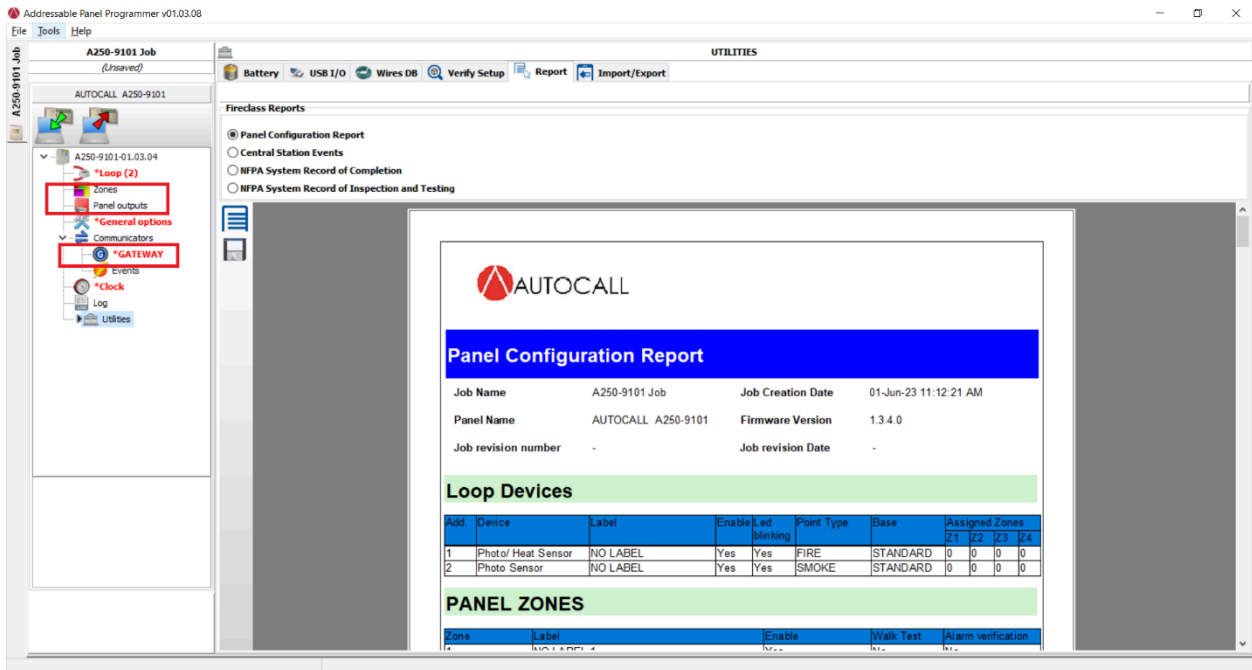


Figure 26: Configuration update

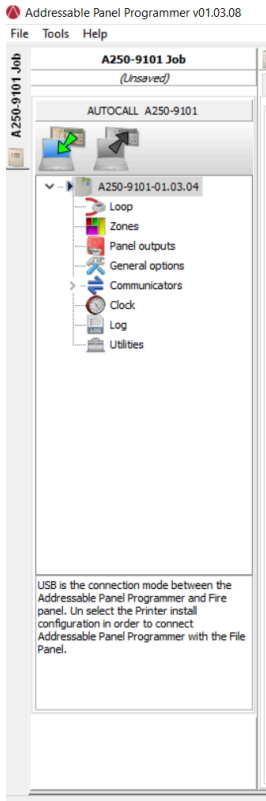


8.8.8 Context-sensitive help

The application shows context-sensitive help on the left bottom side. See Figure 27.

Context-sensitive help is updated as soon as the user moves the mouse over to the different parts of the application.

Figure 27: Context-sensitive help



9 Panel configuration using mobile App and NFC

9.1 Installing the App

1. User must use Johnson Controls login credentials to access to this link.

Note: Only user with the right access can download the App. The development team needs to enable access for individual users.

Figure 28: QR codes for the App

Install 'Autocall-Android' for Android



Install 'Autocall-iOS' for iOS



Table 19: Installation information

Install 'Autocall-Android' for Android	Install 'Autocall-iOS' for iOS
https://play.google.com/store/apps/details?id=com.johnsoncontrols.firedetectiontier3.autocall.prod&hl=en-IN&gl=US	https://apps.apple.com/jo/app/autocall-foundation-series/id1609217951
For Android-based on your phone, it might ask you to allow installation from an unknown source. This will not be the case for PROD as it will be downloaded from a known source which is Play Store.	For iOS, you need to trust the Johnson Controls Enterprise certificate to test. The following link describes how you can do that. https://support.apple.com/en-in/HT204460

Note:







- a. For Android, the user may have to enable installation from unknown sources or trust the application provider in the settings in order to install the .apk file.
- b. iOS might show **Untrusted Enterprise Developer** error. To resolve this issue, the user needs to go to **Settings-General-VPN & Device Management**- Click on **Enterprise App**- select App file- click on **Trust**. For more information see the following link: <https://support.apple.com/en-us/HT204460>.
- c. Often, the Johnson Controls company portal creates a secure work environment on the mobile. User will not be able to download and install the Tier3 application from this secure environment. Users need to download and install this application from a personal environment.
- d. Finally the App is available in the Play store / Apple Store.
- e. A key requirement of the mobile application is to configure the panel for first time by scanning all the devices and doing basic configuration. It is not recommended to download the configuration from the panel to the App and modify it. If the existing configuration in the panel needs to be modified, the user is recommended to use a personal computer programming tool or the panel UI.
- f. If a user denies permission to access OS services like the camera, the mobile app will not prompt the permission dialog again. This is the default OS behavior. Users will have to manually grant permission to the application from mobile settings.

9.2 Setting the App

When the App is opened for first time, after the splash screen, the App displays **Privacy Notice and Terms of Service** window. By default, the check box for accepting **Privacy policy and Terms of Service** is enabled. User can enable the check box to **Anonymously send crash and analytics data to server**. You can change this setting at any time in the application settings. After the user has pressed the **ACCEPT** button, the App displays **Sites** screen.

9.3 App icons

Table 20: App icons

Icon	Icon name	Description
	Edit	Button to edit an item.
	Trash	Button to delete an item.
	Add	Button to add an item.
	Options	Button to access additional options menu.
	QR Barcode	2D QR barcode.
	3 Bar	Button for menu items.

9.4 Site screens

The **Sites** screen is where the user can add site/ project specific information like site name, notes. The user can add a new site or edit/delete existing site information

1. **Steps to add new Site**
 - a. Press the **Add** button located in the top right corner of the screen.
 - b. The App displays **Add Site** screen.
 - c. Enter the **Site Name** and **Notes**.
 - d. Press **SAVE** to save the details or **CANCEL** to exit the screen.
 - e. Enter a valid site name. If a valid site name is not entered, the application prompts the user to do so.
 - f. Maximum permissible length is 20 alphanumeric characters.
2. **Steps to edit the Site details**
 - a. Press and hold the site name until the phone vibrates. The background of the site name then changes from gray to blue.
 - b. The user can press the **Edit** button to edit the site. The user can change the name of the site and notes associated with the site. After editing is done, the user can press **SAVE** to save information
3. **Steps to delete the existing Site**
 - a. Press and hold the site until the phone vibrates. The background of the site name then changes from gray to blue.
 - b. The user can press the **Trash** button to delete the existing configuration. The App displays a confirmation screen **Are you sure you want to delete the selected item?**
 - c. If the user presses **OK**, then the site is deleted. If the user presses **CANCEL**, the operation is aborted.

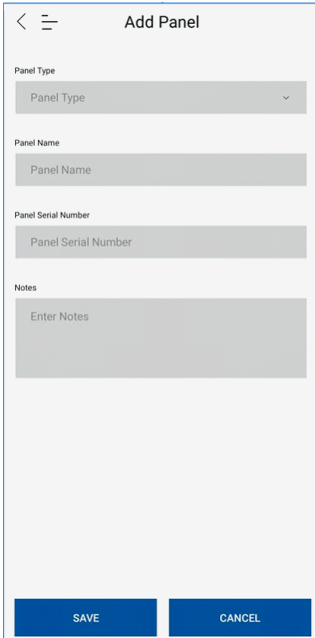
9.5 Panel screens

Each site can support any number of panel configurations. The user can add a panel, import an existing configuration created by panel/console or edit/delete existing panel configuration.

1. Steps to add a new panel

- a. Press the site name.
- b. Press the **Add** button on the top right corner. The **Panels** screen is displayed.
- c. Press **Add a panel**. The Add Panel window is displayed.

Figure 29: Add Panel screen



- d. The user can enter the following information:

- i. **Panel Type: Mandatory:** A250 or A050.
- ii. **Panel Name: Mandatory:** Alphanumeric. (22 alphanumeric characters in length)
- iii. **Panel Serial Number: Mandatory:** Eight hexadecimal characters (0-9, A-F). Serial number is unique to every panel and it is programmed into every panel during manufacturing. User can obtain the serial number from the panel. The user must press 1 = Analyze and 9 = Panel Info to view the serial number of the panel. Warning: If the panel serial no and serial no entered in the App does not match, then transmission completes but the panel displays **NFC FAILED: PANEL TYPE ERROR**.
- iv. **Notes:** Optional: Any notes the installer wants to add for the panel.

2. Steps to edit the panel configuration

- a. Press any existing site until the phone vibrates. The **Panels** screen is displayed.
- b. In the **Panels** screen, press and hold a panel.
- c. The user can press the **Edit** button to edit the existing panel, the user can change panel related information. After editing is done, the user can either press **SAVE** to save information.

3. Steps to delete the panel configuration

- a. Press and hold any existing panel until the phone vibrates. The background of the panel name then changes from gray to blue.
- b. The user can press the **Trash** button to delete the existing configuration. The App displays a confirmation screen **Are you sure you want to delete the selected item?**
- c. If the user presses **OK**, then the panel is deleted.

4. Steps to import a File

- a. Press the **Add** button on the top right corner. A pop-up window displays.
- b. Press **Import File**. File explorer is displayed.
- c. Select the json file to be imported.

- d. The App imports the file. If the selected file is not correct, the App displays **Import Error**.

9.6 Devices screens

Using **Devices** screen the user can add / modify / delete devices, update panel parameters such as Zones, NAC, Gateway and Panel Display. User can import a pre-existing file that was exported from a console or panel. The user can export the current configuration to either e-mail or to storage on mobile or to a panel using NFC.

1. Import file

- a. You can use this option to import any pre-existing configuration (saved JSON file- PC Software created JSON or Panel created JSON). You can skip this operation if a new configuration file is to be created.
- b. Select the panel that needs a file to be imported.
- c. Press **IMPORT**.
- d. The User can select the file to be imported in file explorer
- e. If file format is correct, then the App displays **File Import Successful**. If file format is incorrect or if any information is missing, then the App displays **Import Error**

2. Scan device

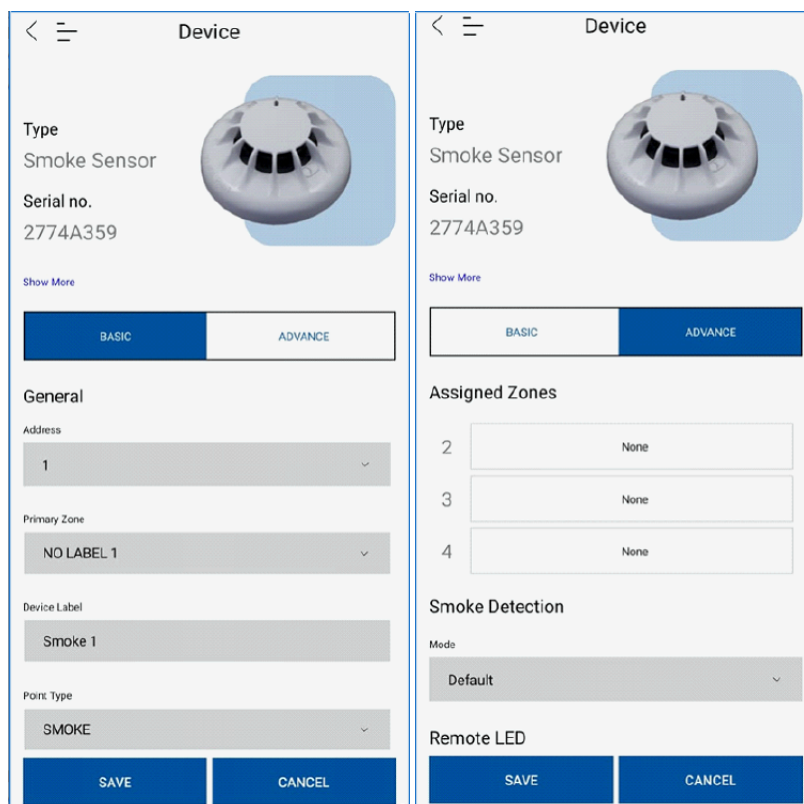
Ensure that all of the address DIP switches on the devices to be scanned are set to ON. For example, the address of each device is set to 0xFF.

- a. Press the **QR Barcode** button at the bottom middle of the screen. The camera of the phone opens.
- b. Scan the QR code located at the back of the Detector head.
- c. If an incorrect or invalid QR code is scanned, the App displays **Error** indicating that there was some issue with the QR code.
- d. After the QR code is scanned successfully, the phone vibrates and a detailed device information screen is displayed as follows.

Note:

- For some sites, the installer might want to allocate address to devices using the DIP switch. For such sites it is recommended to use personal computer Programmer software or the panel UI for doing the configuration.
- When allocating an address using the DIP switch, the DIP switch must be set to a valid address from 1 to 250.

Figure 30: Device details



- e. Modify the parameters as required, and press **SAVE** to save the device details.
- f. After all the devices are scanned, configured and saved, you can configure other panel parameters as follows.

Note: It is recommended to scan the device with a very good internet connection, otherwise the user will have scan issues.

3. Export the configuration

Press the **EXPORT** button on the bottom right corner of the screen. Export options Files, Email and NFC are displayed.

Files: This method is used to store the configuration into mobile phone storage. User can then transfer the configuration to a pen drive. Fire Panel provides functionality to import configuration from pen drive.

Email: This method is used to send the configuration file as an attachment in an email. User can use any standard email application, for example, Outlook to send file through email. Emailed file can be imported by other technicians on their phones / laptops as needed

NFC: This method is used to transfer the configuration file from mobile to panel using NFC technology.

- a. Press the **EXPORT** button in the bottom right corner of the screen. Select the **NFC** option to send data over NFC.
- b. The **NFC** screen is displayed
- c. Many older phones do not support NFC communications. On those older phones, the error message **Error. Programming using NFC is not supported** is displayed. Such mobile phones cannot be used to transfer data using NFC.
- d. If NFC communication is supported by the phone but is not enabled, the App prompts **Enable NFC to continue. Please enable NFC from settings.**
- e. After pressing **OK**, **NFC** settings page is opened.
- f. Enable NFC from settings and then press **BACK** to go back to **NFC** page.
- g. After NFC is enabled, the **START** button is displayed on the **NFC** screen.

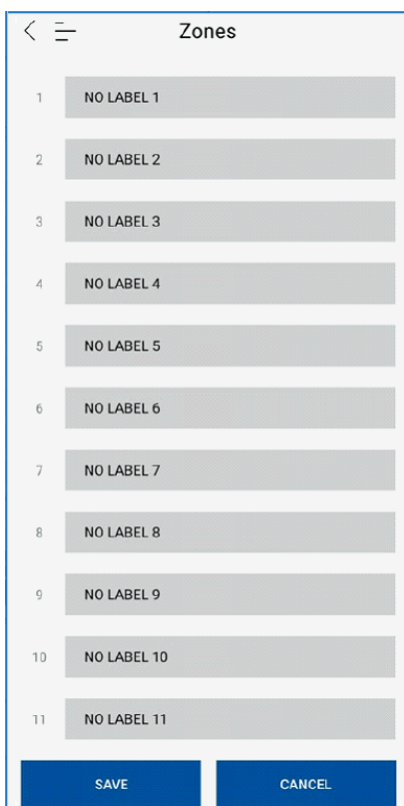
Note:

- i. Remove mobile cover/casing, if any. It may disrupt NFC signals.
- ii. See NFC section for more details.

9.7 Configuration settings

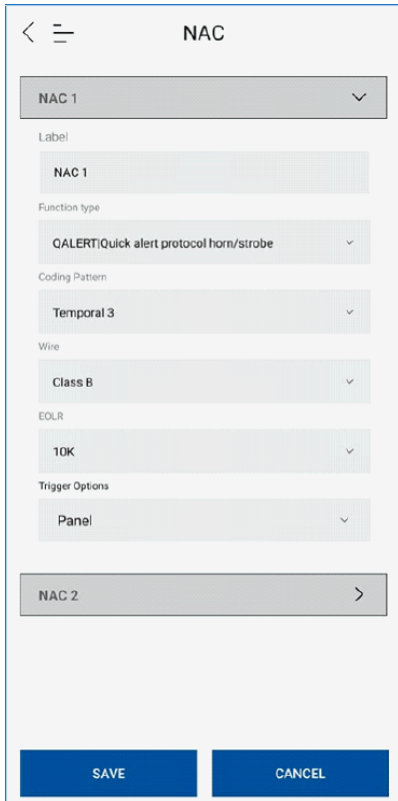
1. **Configure Zones**
 - a. Press the **Options** button on the top right corner. A drop-down list box appears with the following options.
 - Zones**
 - Communication**
 - NAC**
 - Central station**
 - Panel display**
 - Annunciator**
 - b. Select **Zones**.
 - c. The App displays the **Zones** screen, in this screen you can set Zone labels.

Figure 31: Zones screen



- d. To save any changes, press **SAVE**.
2. **Configure NAC**
 - a. Press the **Options** button on the top right corner. A drop-down list box appears with the following.
 - Zones**
 - Communication**
 - NAC**
 - Central station**
 - Panel display**
 - Annunciator**
 - b. Select **NAC**.
 - c. The App displays **NAC** configuration screen. Depending on the type of the panel selected, either two or four NAC's are available for configuration.

Figure 32: NAC screen



d. Edit the NAC configuration and to save the configuration press **SAVE**.

3. **Configure Central Station**

a. Press the **Options** button on the top right corner. A drop-down list box appears.

Zones
Communication
NAC
Central station
Panel display
Annunciator

b. On the list, press **Central station**.

c. Depending on the site configuration, on the **Central Station** page, the user can enable or disable **Gateway**.

d. If **Gateway** is enabled, then the App displays two **Gateway** configuration options, **PRIMARY** or **ALTERNATE**.

e. After completing configuration changes, to save changes press **SAVE**.

4. **Configure Panel Display**

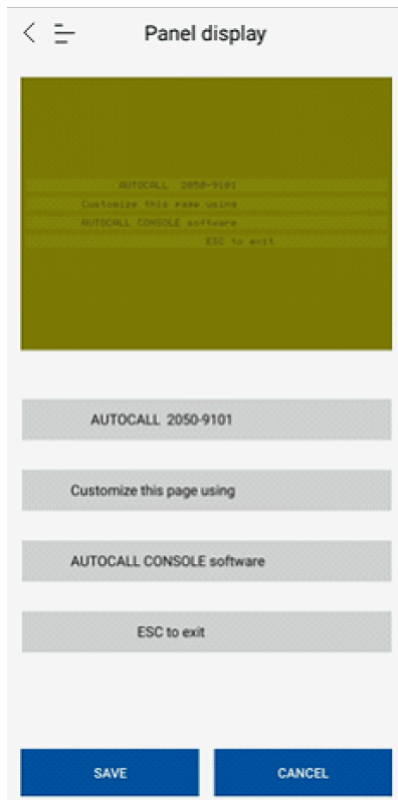
a. Press the **Options** button on the top right corner. A drop-down list box appears.

Zones
Communication
NAC
Central station
Panel display
Annunciator

b. Press **Panel display**.

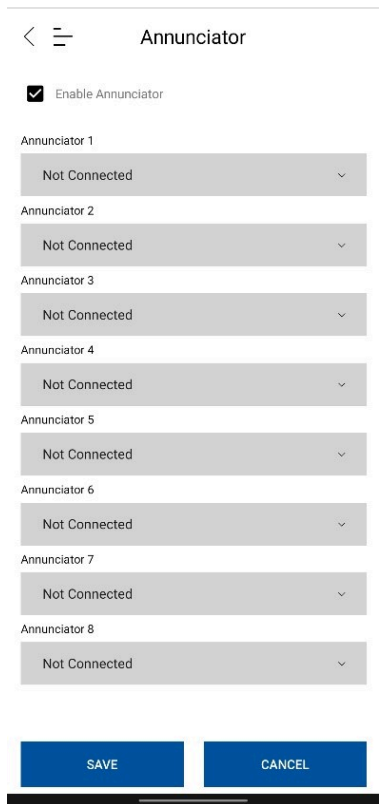
c. The App displays Panel display page. The user can update Panel display page as required. The panel UI is 40 x 4 characters.

Figure 33: Panel display screen



- d. After making changes, to save the changes press **SAVE**.
5. Configure an Annunciator
 - a. Press the **Options** button in the top right corner. A drop-down list box appears with the following.
 - Zones
 - Communication
 - NAC
 - Central Station
 - Panel Display
 - Annunciator
 - b. Select **Annunciator**
 - c. The App displays the Annunciator configuration screen. Select **Enable Annunciator** to configure the Annunciators.

Figure 34: Annunciator



d. To save any changes, press **SAVE**

9.8 NFC

1. NFC Support

To find the NFC antenna on your device go to the support tab under the **3 Bar** button on the top left corner.

- a. Then press **Help & Support** then press **NFC support**.
- b. On the App **Support** screen, select the specific brand of phone and the App redirects you to the support page of that brand. The brand support page has basic details on how to find the antenna on that device.

2. NFC test

In the App, press **Help & Support** then press **NFC test**. This is used as a quick test for testing NFC communication.

- a. On the Panel UI, go to the **MAIN** menu and select **1=Program**.
- b. When prompted to **Insert the Password**, enter a level 3 access, password.
- c. The Panel displays the **PROGRAM** menu. Select **0=NFC**
- d. On the Panel UI, select **1= Load NFC Data**. This loads the configuration into the panel. NFC is activated and the panel waits to receive data from the App.
- e. The panel displays **Waiting for NFC transmission to start Hold your Mobile near NFC Module** The timeout of this screen is one minute.
- f. Place the mobile near the NFC sticker on the safety plate of the panel, such that the NFC antenna of the mobile and NFC sticker are almost touching each other. The position of the mobile may vary depending on NFC antenna location in mobile. The **NFC** screen of the App displays **Searching for NFC tag...**
- g. If the mobile is capable of NFC communication with panel, the App **NFC** screen displays **NFC Tag Detected**.
- h. If the phone cannot communicate with the panel in the stipulated time, then the App **NFC** screen displays **Error. NFC tag search timed out**.

Note: Remove mobile cover or casing, if any. It might disrupt NFC signals.

3. NFC transfer

- a. Select Site

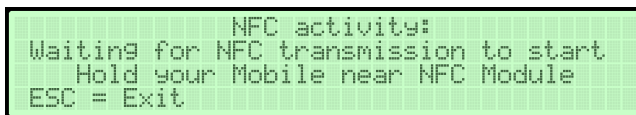
- b. Select panel
- c. Export NFC

Transfer Start – This option is used to start the transfer of data between mobile and the panel.

The App **NFC** screen displays **START**

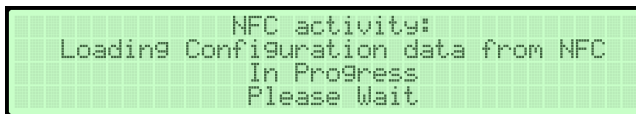
- a. In **MAIN** menu of the panel UI, select **1=Program**
- b. When prompted to **Insert the Password** enter a level 3 access, password.
- c. In the **PROGRAM** menu, select **0=NFC**
- d. In the **PROGRAM** menu, select **1= Load NFC Data** to load configuration into the panel. NFC is activated and the panel waits to receive data from the App.
- e. The Panel displays **Waiting for NFC transmission to start. Hold your Mobile near NFC Module**. Timeout of this screen is one minute.

Figure 35: Waiting for NFC transmission



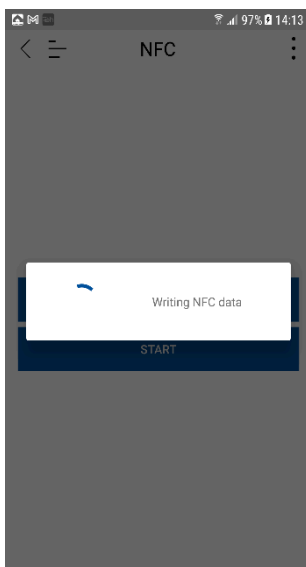
- f. Place the mobile near the NFC sticker on the safety plate of the panel such that the mobile NFC antenna and NFC sticker are almost touching each other. The position of the mobile may vary depending on NFC antenna location in the mobile.
- g. After communication has started, the panel displays **Loading Configuration data from NFC In Progress Please Wait**.

Figure 36: Loading configuration data



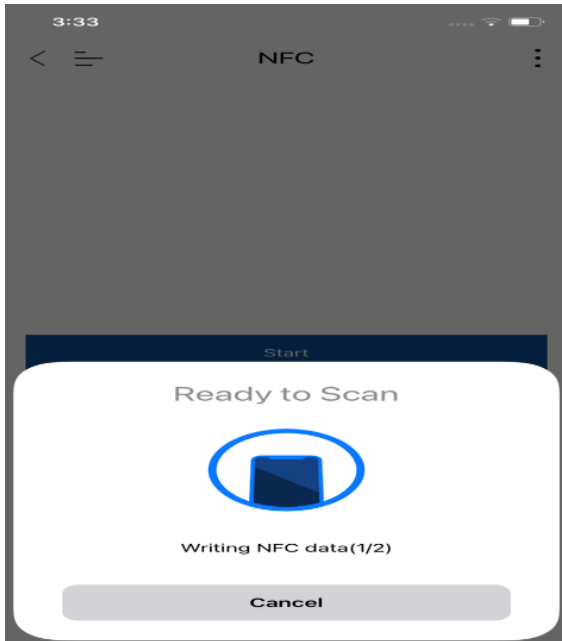
- h. The user needs to keep the mobile in the same place while the progress bar is being displayed on the panel and the App. The App **NFC** screen displays **Writing NFC data**

Figure 37: Writing NFC data



- i. If iOS data transmission from App to panel happens in multiple parts. After a part is programmed, the App waits for 1-2 seconds and then starts downloading the next part. This is expected behavior and the user needs to ensure that the mobile is not moved away during this period. For example, the App **NFC** screen displays **Ready to Scan. Writing NFC data (1 / 2)**.

Figure 38: Writing NFC data

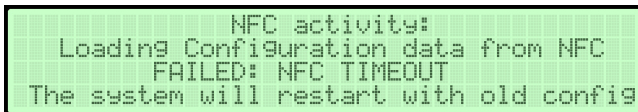


- j. After the NFC file has successfully transmitted to the panel, the App will display **NFC data was successfully written** and the panel will restart.

Transfer errors-

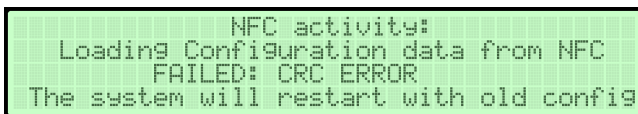
- a. If the transfer is stopped due to external factors like moving the mobile away, then the App displays **NFC Transmission timeout**
- b. While the NFC transfer is in progress, if the mobile phone goes to sleep/screen timeout, the NFC transmission stops and the mobile displays **There was an error while transmitting NFC data**. To restart the transfer process, you need to press the **START** option on the mobile and place the mobile near the NFC sticker. The panel displays the following error messages depending on the type of failure.
 - i. **FAILED: NFC TIMEOUT** caused by communication breaks during transmission.

Figure 39: NFC timeout



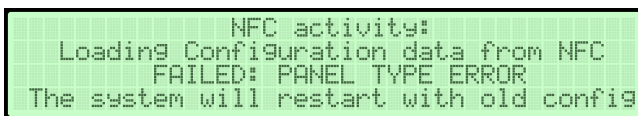
- ii. **FAILED: CRC ERROR** caused by a corrupted file received by the panel.

Figure 40: CRC error



- iii. **FAILED: PANEL TYPE ERROR** caused by an incorrect panel type or incorrect serial number entered by the user.

Figure 41: Panel type error



- iv. **FAILED: BRAND TYPE ERROR:** caused by incorrect brand selected.

Figure 42: Brand type error

```

NFC activity:
Loading Configuration data from NFC
FAILED: BRAND TYPE ERROR
The system will restart with old config
  
```

9.9 Mobile APP data transfer through OTG cable

1. Connect your OTG cable with your USB stick.
2. There might be a notification on some Android devices while the connection is in progress.
3. Go to your native file manager (Files app on iOS) and check if your USB stick is visible .
4. After the previous three conditions are met, just like your job for Android/iOS file system, you then have an option where you can save the file directly to that OTG Cable when you are exporting to file manager.
5. Go to the location you want and press save and your file is saved.
6. Type C/B (Depends on your device) to USB 2.0 Female adapter cable for Android and Apple's lightning cable/Type C to USB for iOS .

Note: For Apple devices, this is brand specific. Brand agnostic OTGs could work on Apple too but this cannot be confirmed.

<https://www.apple.com/in/shop/product/MD821ZM/A/lightning-to-usb-camera-adapter>

<https://www.apple.com/in/shop/product/MJ1M2ZM/A/usb-c-to-usb-adapter>

See an example of an OTG cable in Figure 43.

Figure 43: OTG cable

