IP HYBRID ALARM PANEL

INSTALLATION AND PROGRAMMING GUIDE

Revision Date: December 1, 2024

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This document outlines how to set up a new **UNO** IP Hybrid Alarm Panel.

Your EyezOn Account

Before doing anything please make sure you have an **EyezOn Account**. If you do not have an **EyezOn Account**, go to www.eyezon.com, and under the End User menu click **Create Account**. After setting up your EyezOn Account, you will then need to add the UNO Panel to your account. For a more complete description using your EyezOn Account, just log into your account and navigate to the Support -> Guides page and find the EyezOn User Guide link or you can copy and paste the link below to go directly there.

https://www.eyezon.com/EyezOnUserGuide.pdf

Activating the UNO Panel

Before electrically connecting the Panel, you must activate it on your account.

1. **Login** into your account.
2. From the **Systems** menu choose **Add New System.**
3. Select **UNO IP Alarm Panel** from the selection boxes.
4. Enter the MAC address for the **UNO** panel. The MAC is a 12 Digit ID number starting with 001C. It consists of HEX digits so only the numbers 0-9 and the letters A-F are valid. The MAC is found on the **UNO** board and appears on the box that the **UNO** came in.
5. Give the **UNO** a name (e.g. House, Cottage).
6. Review the **Terms and Conditions** and check the box indicating you have read and agree to the **Terms and Conditions**.
7. Click **Next** and, if successful, a confirmation message will appear.

Connecting the UNO Panel

Before installing the **UNO**, verify that you have activated it on your account as to ensure that the module downloads any updates, and you can access the panel programming.

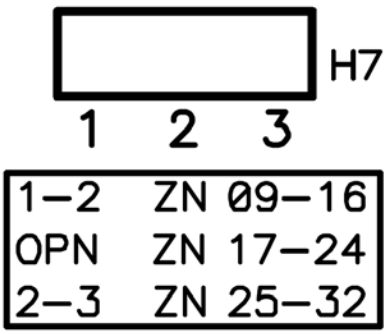
If the system is installed at a commercial site, ensure that the outbound UDP port 4021 and the outbound TCP port 4022 are not blocked on the network.

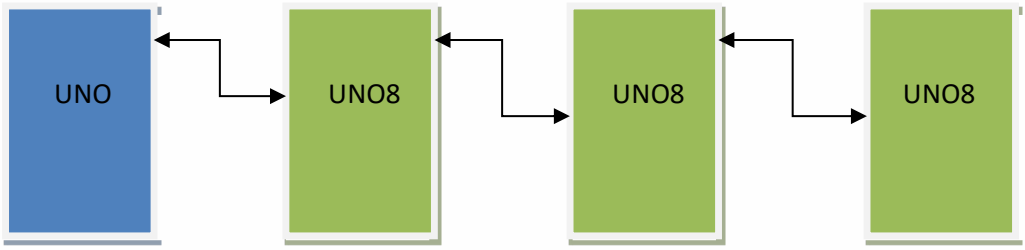
Some Important Configuration Notes:

- **There are 8 wired zones on-board.**
- **A maximum of 3 x UNO8 supported for 32 wired zones. UNO8 uses zones 9-32 as appropriate.**
- **UNO-RF433 supports up to 128 wireless zones - those need to be assigned to different zones than the wired expanders.**
- **A maximum of 15 x UNO5108 so 128 wired zones, Zones 9-128. If used with UNO8 then UNO5108 must be Zones 33-128.**
- **A maximum of 7 x PC5108 so 64 wired zones, Zones 9-64. If used with UNO8 then PC5108 must be Zones 33-64.**
- **DSC wireless maximum is based on whether it's an RFK keypad, RF5108, RF5133 receiver - and it's a DSC spec.**
- **DSC wireless and SOLO wireless can co-exist using the correct receivers.**
- **UNO8, UNO5108 or PC5108 boards may be mixed.**

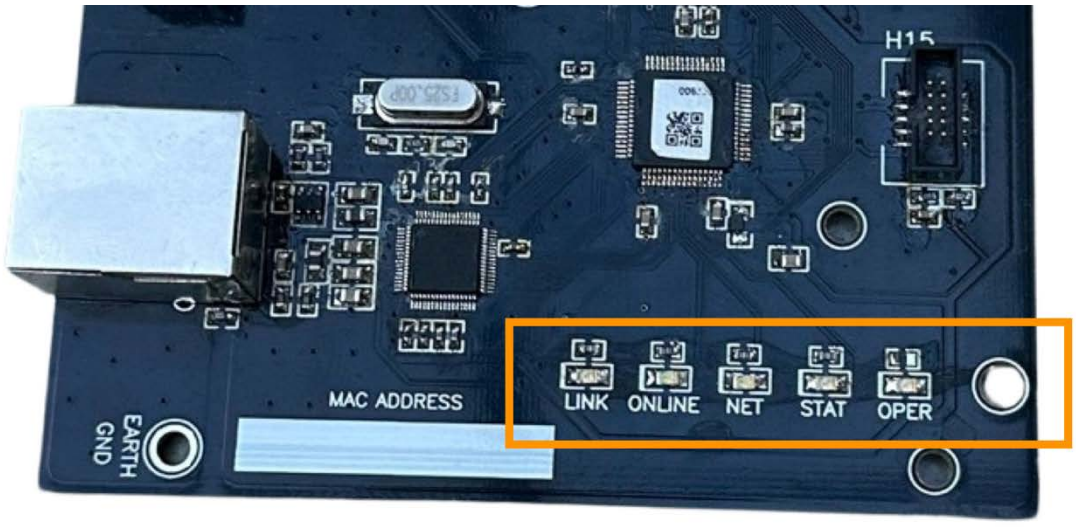
NOTE: When using DSC Wireless and DSC Expanders same limitations as with a DSC Panel. Cannot put DSC Wireless and Hard-wired Expander zones in the same blocks of 8.

1. Refer to the **UNO wiring diagram (last page of this document)** for details on connecting power and peripherals.
2. Select your mounting arrangement. The **UNO** is designed to mount inside a standard **DSC or Honeywell** enclosure. Keep in mind that the **UNO8** expansion modules have the same mounting-hole pattern as a typical DSC zone expander and can mount on the sides of the DSC enclosure. They can also be stacked on each other.
3. Install expansion modules, (if applicable). Using the included board-to-board standoffs or the standard can-to-board standoffs, and the 4-wire expansion cable. Connect each module to the **UNO** panel in a *daisy-chain* fashion. The order of modules in the chain does not matter. The zone range of each expander is selected using the H7 jumper block on the **UNO8.** The diagram below shows three **UNO8** expanders, forming a 32 zone, 8 programmable-output **UNO** system.





4. Using an 8-Conductor Ethernet Cable (not supplied) with an RJ-45 connector, connect the **UNO** to an available router, hub or switch port on a network with a DHCP Server (usually within a router). Power-up your **UNO**.
5. There are a number of LED lights located on the **UNO**. If installation and activation of the module was done correctly, you will see five solid green LEDs with the LINK LED being flashing occasionally to indicate network traffic. The KEYB LED may be off during the first 10 minutes after installation while the module downloads any firmware updates. Wait 10 minutes before troubleshooting.



Note: View shows IP end of panel with LEDs highlighted

LED Name	Description
OPER	**SOLID GREEN** - Power and functioning. **OFF –** Not functioning and not powered properly.
STAT	**SOLID GREEN –** Panel working properly **FLASHING** – Trouble condition indicated by number of flashes. (See Appendix A) **OFF –** Panel not working correctly.
NET	**SOLID GREEN** – IP obtained through DHCP server (router). **FLASHING** – Module programmed to static IP. **OFF** – Module cannot obtain IP form DHCP server (router).
ONLINE	**SOLID GREEN –**Module is communicating with servers and account is properly set up. **FLASHING** – Module is communicating with servers but no account exists. **OFF** – Module is not communicating with servers.
LINK	**SOLID GREEN** – Ethernet link established. Will flick with RX/TX. **OFF -** No Ethernet link.

6. After ten minutes the "STAT" LED should also be solid. If the LED is flashing, the number of flashes indicates the trouble condition that exists on the panel.

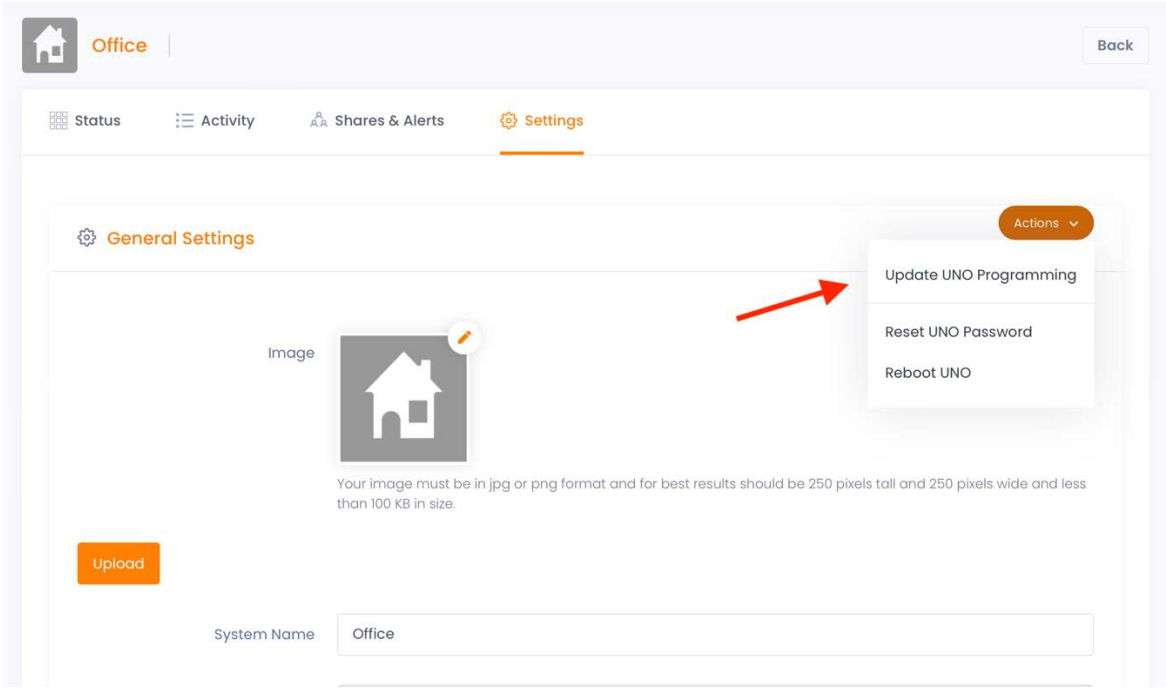
Installation is not successful until you have five green LEDs lit.

UNO Programming Options

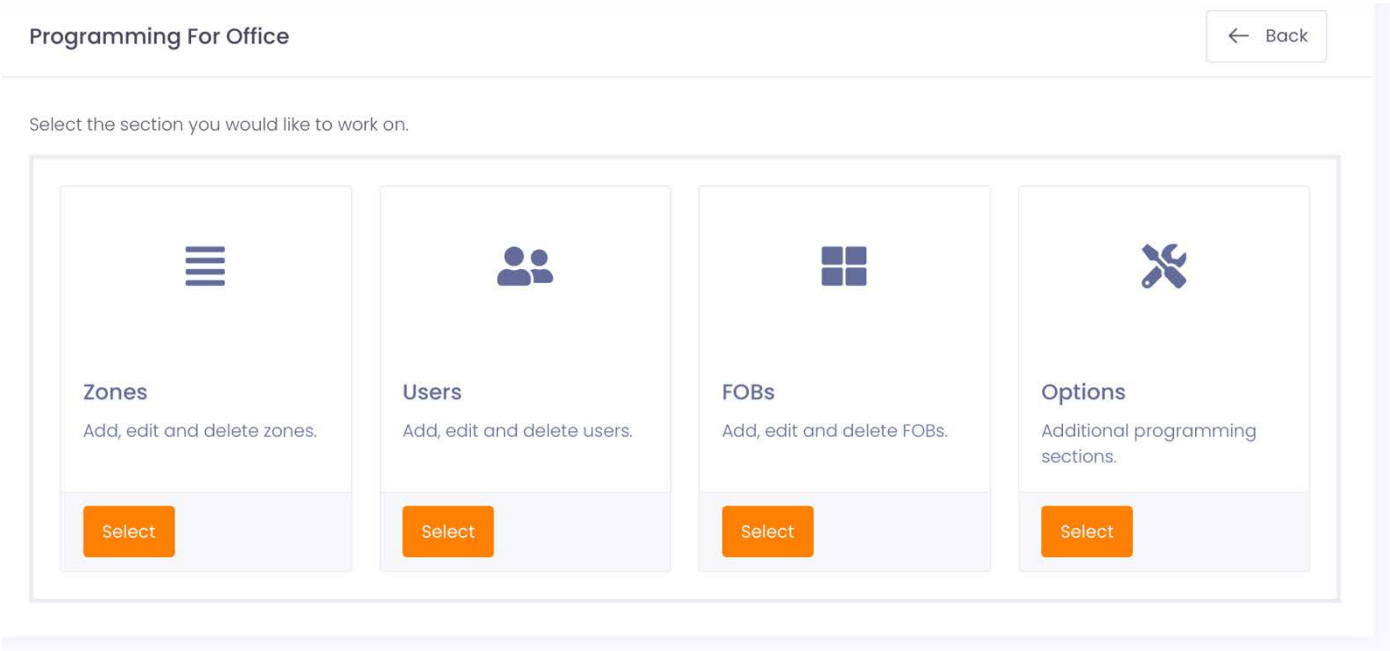
Programming is required for the **UNO** to function properly; Zones have to be defined, user codes added etc. Once your **UNO** is online, you will see an option for programming in your user portal.

The program settings exist in the panel and are uploaded and downloaded to the panel as you make changes so the panel **must be online** during this process.

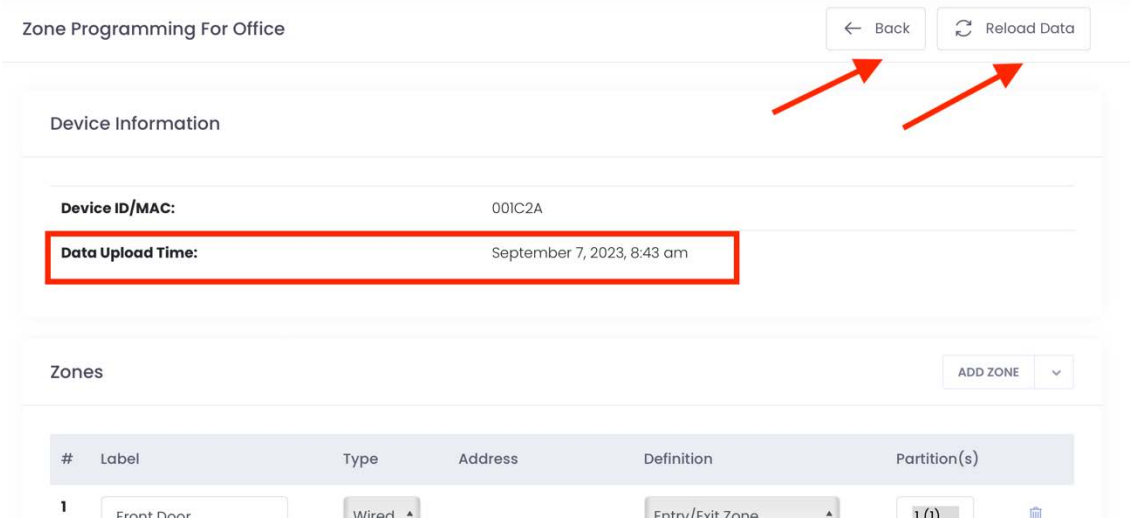
Navigate to the **Details** page for the UNO system you are installing and under the **Settings** tab you will find an **Actions** drop-down that will let you enter the actual programming pages.



Click on **"Update UNO Programming"** to go to the programming section screen. From here you can choose which programming section you would like to work on. There are currently four sections; Zones, Users, FOBs, and Options.



Click on the section **"Select"** to start a programming session for that section. If you are familiar with "downloading" on other on panel types, you will find this interface similar. As soon as you enter programming your **UNO** will upload the programming information to the server. The date and time of the upload is shown near the top of the programming page as well as the MAC address of the module the data is from. You can go back to the Section selection page by pressing the "**Back"** button. If the data does not populate or is old, try the **"Reload Data"** option.



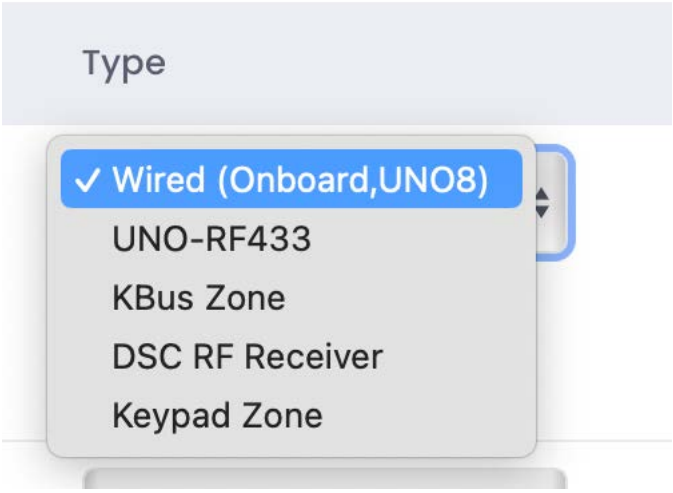
IMPORTANT: Make sure the Data Upload Time is within the last few minutes when starting a session. Data is cached on the server and may be old. Such a scenario would only happen if there were network problems.

Zone Programming Section

The **UNO** Panel supports up to 128 zones. These can be a mix of RF and hardwired zones.

Zone Type

Both a Zone Type and a Zone Definition must be programmed for each zone. The Zone Type tells the panel where the zone is located as in the following image:



The following Zone Types are currently supported on the system and are defined as follows:

Wired (Onboard, UNO8) – Use this if the zone is on the UNO main board or on an UNO8 expander.

UNO-RF433 – Use this for an RF zone on the UNO-RF433 module.

KBus Zone – Use this for a DSC bus connected module (other than an RF receiver) or the new UNO5108 zone expander.

DSC RF Receiver – Use this for an RF zone on a DSC RF receiver.

Keypad Zone – Use this for zones that exist on keypad.

Zone Definitions

Each of the available zones must have a definition to be active on the **UNO** system. There are up to 128 zones available in a fully expanded system these can be wired or wireless in any combination. If using the standard UNO8 zone expanders, they must be located in the same enclosure as the **UNO** Panel.

Zone Number	Host Device	Zone Capabilities
1-8	UNO (ON-BOARD)	Normally Closed, EOL resistors, and Double EOL resistors
9-16	UNO8 (Slot 1)	Normally Closed, EOL resistors, and Double EOL resistors
17-24	UNO8 (Slot 2)	Normally Closed, EOL resistors, and Double EOL resistors
25-32	UNO8 (Slot 3)	Normally Closed, EOL resistors, and Double EOL resistors

Each used zone requires programming of the zone function and how **UNO** will respond to state changes. This is the same as any other security system. Zone definition programming is done through the **zone programming** page, with a drop-down box for each type of supported zone definition. Below is a table explaining each zone definition type.

When completed always remember to press the **"Upload To Panel"** button at the bottom of the page to save the changes.

Zone Definition	Description
Not Used	Not Used –Default
Entry/Exit Zone	This perimeter zone type is used for normal entry doors and uses the programming entry or exit delay upon disarming or arming. These zones also work with the **door chime** feature.
Interior Zone (Stay)	This interior zone will be automatically bypassed when the user arms the partition in **arm-stay** mode.
Instant	This perimeter zone has no entry or exit delay. An example would be a perimeter window. This zone does us the **door chime** feature.
24 Hour Burg	The zone will generate an audible alarm on the partition regardless of the state of the partition. Examples would be fire zones, flooding detectors, or freeze detectors.
Keyswitch Maintained	This zone type will arm or disarm a partition by its physical state. An example would be a toggle switch or key-lock. Closing this zone without the partition **ready** will not arm the system. It will automatically arm when the partition becomes **ready.**
Keyswitch Momentary	This zone type will toggle the state of partition, **armed** or **disarmed**, when it transitions from open-to-close-to-open. An example would be a momentary push-button switch.
Remote Siren Monitor	Select with Wireless Siren installed (Currently not Operational)
24 Hour Delayed Fire	When Activated keypad and siren Sound no Transmit for 30 Seconds. If no input received, Fire Alarm will be transmitted. If alarm clears or entry from keypad, App or portal delay extends for 30 seconds. Can be repeated till alarm clears if required
24 Hour Instant Fire	24 Hour no delay, will Transmit Fire Alarm and siren will Sound. Enter code to Silence
24 Hour Water	24 Hour no delay, will Transmit Water Alarm and siren will Sound. Enter code to Silence
Panic/Duress (Silent)	24 Hour Silent, no Delay will Transmit Panic/Duress
Entry/Exit Zone 2	This secondary perimeter zone type is used for normal entry doors and uses the programming entry or exit delay upon disarming or arming. These zones also work with the **door chime** feature.
Monitor Only	No Alarm created, no affect on Ready Status. Used as Follower/Inactivity only
24 Hour Buzzer Only	
24 Hour 2-Wire Instant Fire	24 Hour no delay, will Transmit Fire Alarm and siren will Sound. Enter code to Silence. See 2-wire detector connection diagram on last page.
24 Hour 2-Wire Delay Fire	When Activated keypad and siren Sound no Transmit for 30 Seconds. If no input received, Fire Alarm will be transmitted. If alarm clears or entry from keypad, App or portal delay extends for 30 seconds. Can be repeated till alarm clears if required. See last page for connection.

IMPORTANT: Only 1 **Maintained Keyswitch** zone may be programmed on a system. Programming more than one zone as a **Maintained Keyswitch** zone will cause unpredictable behaviour.

User Programming Section

The **UNO** Panel supports up to 128 users. In the User section you can assign user codes for the system as well as labels for the users. Users can be assigned to a partition or multiple partitions.

When completed always remember to press the **"Upload To Panel"** button at the bottom of the page to save the changes.

FOB Programming Section

The **UNO** Panel supports up to 128 FOBs. In the FOB section you can enter the RF address, assign a function for FOB, as well as a User number and a Partition.

FOB Definitions

Each of the available FOBs must have a definition to be active on the **UNO** system.

FOB Function	Description
Medical/Personal Emergency	
Momentary Keyswitch	
Audible Panic	
Silent Panic (Holdup)	

When completed always remember to press the **"Upload To Panel"** button at the bottom of the page to save the changes.

Options Programming Section

The **UNO** Panel supports a variety of optional settings that will be familiar to anyone who has installed an alarm panel.

The main option sections are:

- **Programmable Outputs:** Set functions for available programmable outputs.
- **Partitions Enabled:** Select which partitions are enabled on the system.
- **Door Chimes Enabled:** Select whether door chime is enabled by partition.
- **Miscellaneous:** Set timers (BTO, Exit Delay, Entry Delay etc.), Zone resistor configurations, 4 or 6 digit code select

Programmable Outputs

The **UNO** platform allows for up to 8 user programmable outputs (PGMs). There are 2 on the main panel and the rest would physically reside on the **UNO8** expansion boards and provide **negative-trigger** (open collector) outputs capable of handling up to **3A** at **16Vdc**. This high-power rating means that a secondary relay is not needed for most applications, i.e. 35W external siren.

In addition to high power, the first programmable output on each expansion module is capable of analog output. This allows the user to control the current through the programmable output from 0% to 100%. This could be used to dim a light, or IR illuminator, or even a DC motor. **NOTE:** Analog output is only available to a programmable output defined as **normal** in the definitions.

VERY IMPORTANT! Do **not** use the expansion bus cable as a return path for your power-supply current. You **MUST** run a separate wire from the negative (common) terminal of your power supply to any one of the **COM** terminals on the **UNO8** when using a PGM sinking more than 100mA of current. **Failure to do so may result in loss of communication with the expansion module.**

PGM Number	Host Platform	Capability
1	**UNO**	Full Analog, Digital (ON/OFF)
2		Digital (ON/OFF)
3	**UNO8** (Slot 1)	Full Analog, Digital (ON/OFF)
4		Digital (ON/OFF)
5	**UNO8** (Slot 2)	Full Analog, Digital (ON/OFF)
6		Digital (ON/OFF)
7	**UNO8** (Slot 3)	Full Analog, Digital (ON/OFF)
8		Digital (ON/OFF)

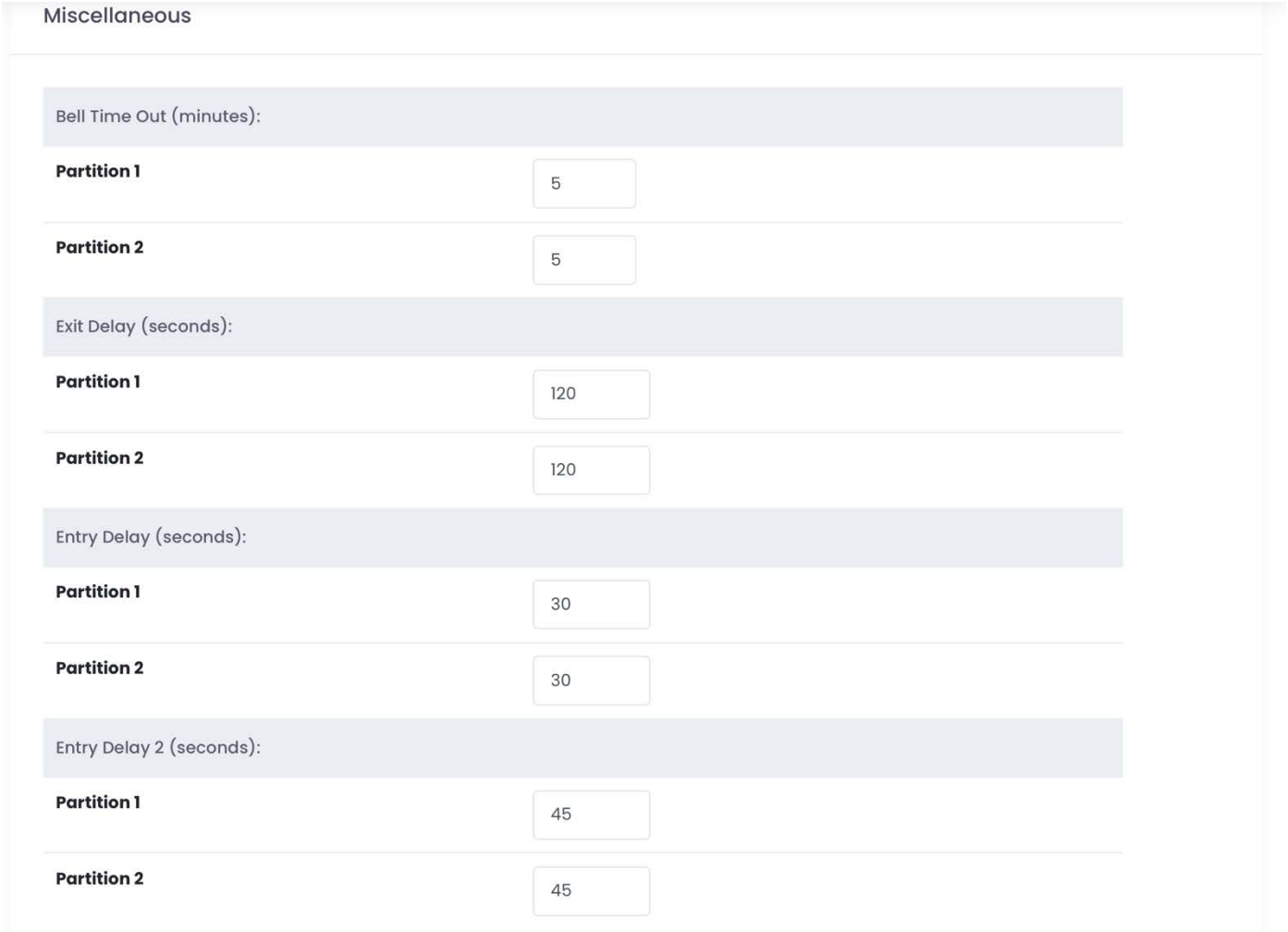
Table 1: Programmable Output Locations

Below is a list of programmable output functions and their meaning

Programmable Output	Description
Null (Not Used)	Not Used –Default
Bell Follower	When set to this function, the PGM will be active (ON) whenever the system siren would be active. This would only be when the partition is in alarm.
Normal (0% - 100%)	This mode is for user-controllable devices. The user can select whether this PGM is ON, OFF, or some percentage in-between from the **Portal.**
Pulse (2 Seconds)	This mode is typically to control a garage door opener by simulating a button push. Any action on this PGM from the **Connect2Go Portal** will cause the PGM to be active for 2 seconds, and then become in-active.
Ready-to-Arm Follower	A PGM set to this type will be active whenever the partition is **ready**, inactive otherwise.
Status Follower (Armed/Disarmed)	A PGM set to this type will be active whenever the partition is **armed,** inactive otherwise.
Buzzer Follower	A PGM set to this type follows the on-board buzzer (**UNO8)**. This allows for a remote sounder to follow audible notifications similar to a traditional security keypad.

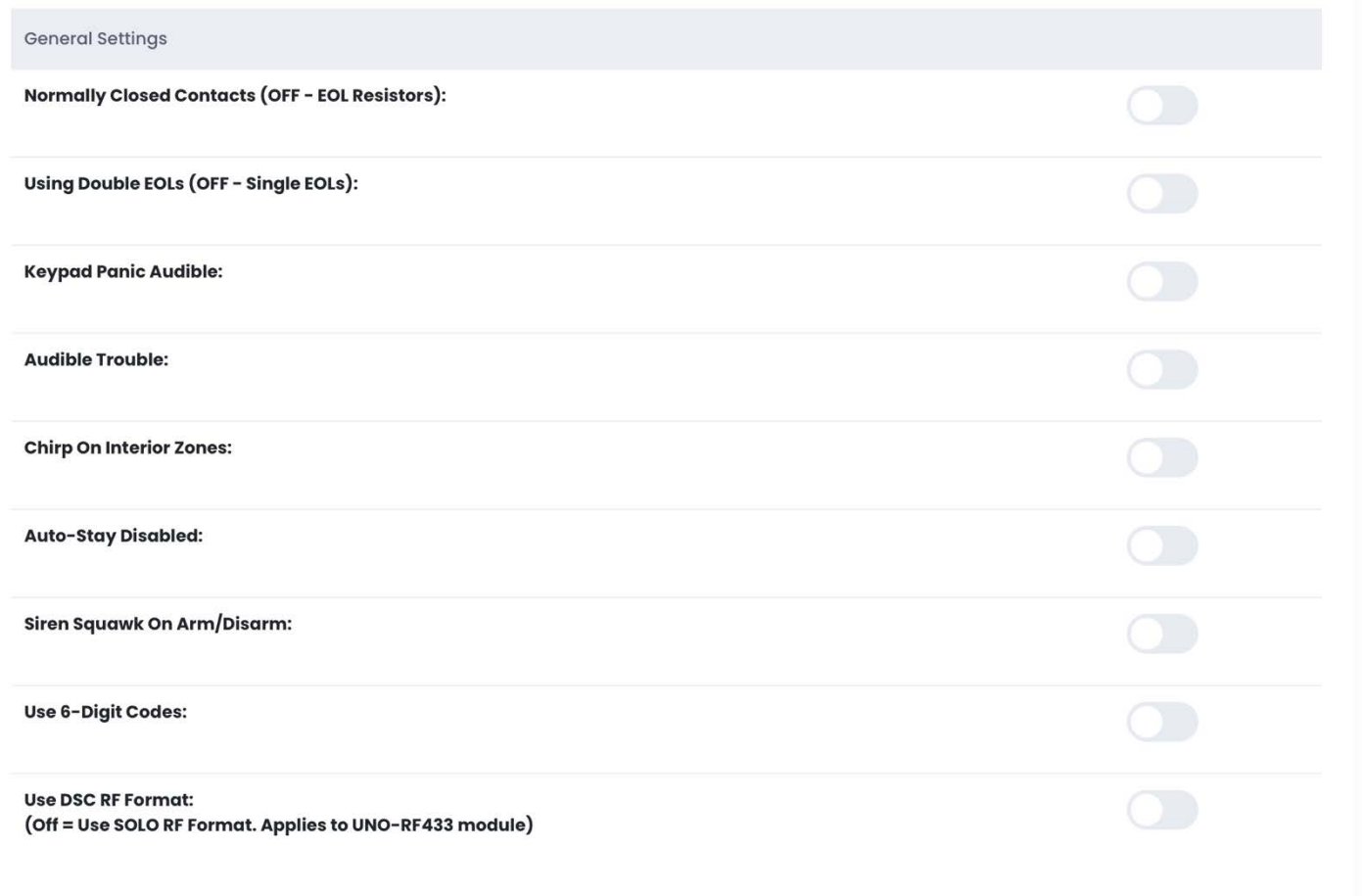
Timers

There are several different system timers that can be set. Each timer can be individualized by partition.



General Setting Options

The final part of the options section pertains to system wide general settings. These are added and changed regularly so what is shown below may be different from what you see in your **device programming** page. The options are self-explanatory and should be familiar to any security professional.

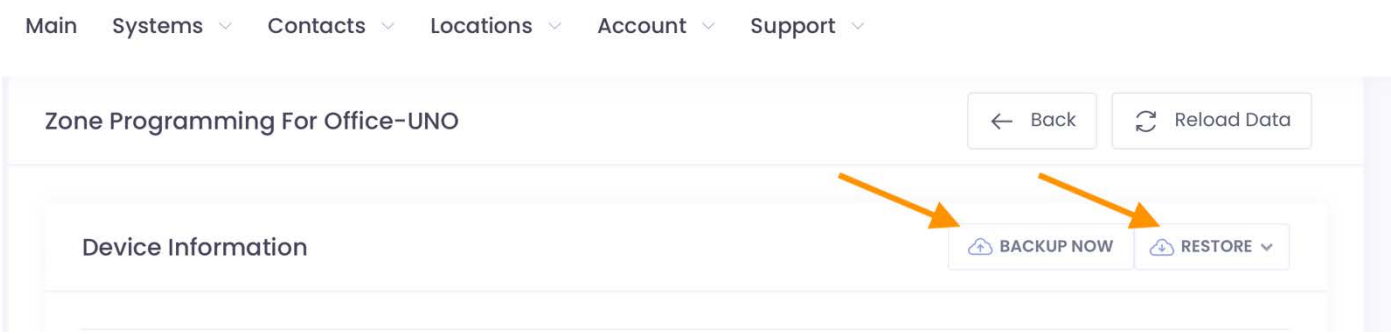


Note about "Use DSC RF Format": This applies to the UNO-RF433 module. It can be configured to use either SOLO RF format or DSC RF format. It can only do one or the other. DSC RF format will support DSC 433 sensors as well as 3rd party sensors such as most Ecolink.

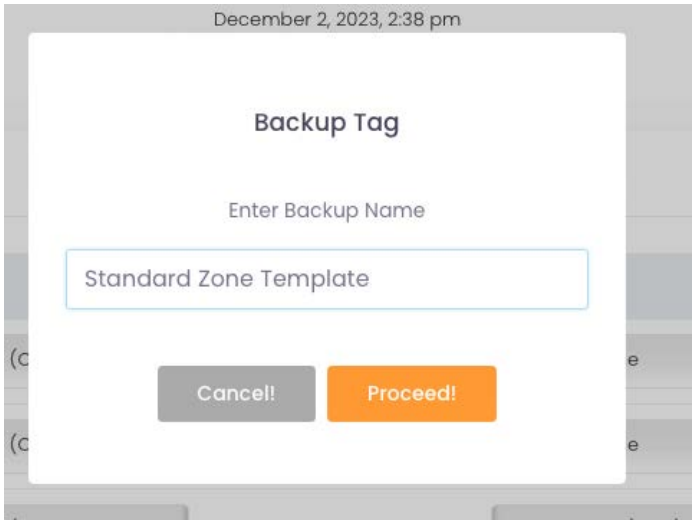
When completed always remember to press the **"Upload To Panel"** button at the bottom of the page to save the changes.

Programming Backups and Templates

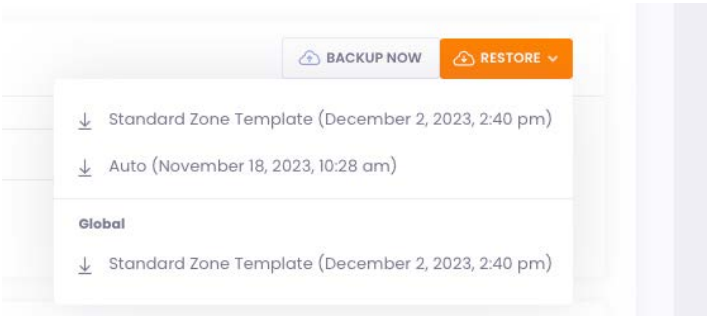
In each programming section there are two buttons the **Backup Now** button and the ***Restore*** button.



Pressing the Backup Now button will prompt you to enter a name or tag for your backup. You can perform backups for each section of the panel programming.



Once you enter a name and hit **Proceed** the backup will complete and will show in the **Restore** dropdown menu.



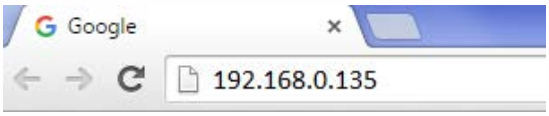
In the **Restore** menu you will see the backup that you just made. You may also see backups that are tagged **Auto**. Those are automatically created any time you save the data in those sections. It will keep the 5 latest Auto backups. you enter a name and hit **Proceed** the backup will complete and will show in the **Restore** dropdown menu. If you select any of the listed backups it will reprogram the panel to match the backup you selected.

If you have more than one UNO Panel, any backups from other panels will show in the **Global** section and are available to any other panels you have as a form of Global template.

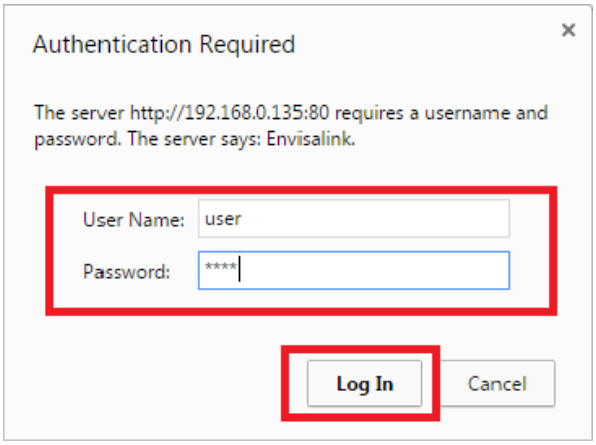
Accessing UNO Locally

With the **UNO** Panel installed and functioning, you may have to access the **UNO** locally in order to perform troubleshooting. For more information on accessing **UNO** locally, please refer to the ***Accessing UNO for Status, Programming and Troubleshooting Application Note***.

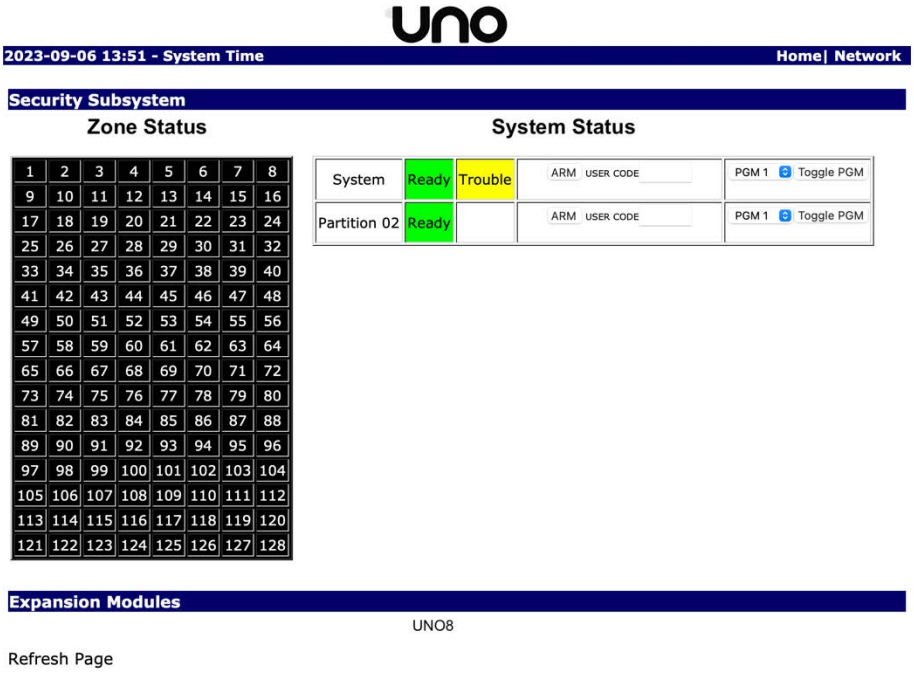
1. To access the **UNO** web interface, type the **UNO** IP address into any browser on the same internal network as the module (i.e. your customer's network). For help on obtaining the **UNO**'s IP address please refer to the ***Accessing UNO for Status, Programming and Troubleshooting Application Note***.



2. Once entered, the following login pop-up should appear. Enter **user** in the **User Name** field and the **last 6 digits of the MAC** in the **Password** field and click **Log In**.



Once you have logged into the web interface, the local **UNO** homepage will appear as seen below. This page allows you to have some rudimentary control over the system as well as showing status. Under **expansion modules**, you will see which expansion modules, if any, have been installed.



Configuration Notes and Compatible Modules and Accessories

Compatible Accessories & Modules

Expansion Header: Sidekick LTE, UNO8 Zone Expander

RF Expansion Header: UNO-RF433

KBUS:

DSC - PC5500, RFK5500, PK5501, PK5501RF, PK5508, LCD5511, PTK5507 (keypad functions only), PC5108, PC5132, PC5164

If you would like to use DSC RF sensors (or third-party sensors with DSC protocol such as Alula or EcoLink) with the UNO Panel, just connect a DSC PK5501RF or a PC5132 or PC5164 module to the KBUS. You can connect any of those modules to the bus and have an UNO-433RF connected at the same time and mix and match DSC and SOLO wireless sensors.

Configuration Notes

Some Important Configuration Notes:

- **There are 8 wired zones on-board.**
- **A maximum of 3 x UNO8 supported for 32 wired zones. UNO8 uses zones 9-32 as appropriate.**
- **UNO-RF433 supports up to 128 wireless zones - those need to be assigned to different zones than the wired expanders.**
- **A maximum of 7 x PC5108 so 64 wired zones, Zones 9-64. If used with UNO8 then PC5108 must be Zones 33-64.**

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- **DSC wireless and SOLO wireless can co-exist using the correct receivers.**
- **UNO8 and PC5108 boards may be mixed.**

NOTE: When using DSC Wireless and DSC Expanders same limitations as with a DSC Panel. Cannot put DSC Wireless and Hard-wired Expander zones in the same blocks of 8.

Troubleshooting Tips

Zones/Programmable Outputs Not Working

1. Check to make sure the expansion module appears on the local page.
2. The status LED on the expansion module show flash slowly if it is online with the **UNO.** If not, check the expansion cable.

Module is Offline with Servers

For Network Troubleshooting, refer to the ***Accessing UNO for Status, Programming and Troubleshooting Application Note*.**

Dealer Support Contact Information:

If you have any questions, concerns or have trouble activating your account or setting up systems, please email our Help Desk at **support@eyezon.com** or call 647-503-3400. Note that phone support is only available, Monday-Friday 9am-4pm EST.

Appendix A – Trouble Conditions

The following table shows trouble conditions based on the number of flashes of the

Number of Flashes	Condition
1	Service Required
2	AC Failure
3	Device Low Battery
4	Network Off-Line
5	Zone Trouble
6	System Battery
7	System Bell
8	Device Supervisory