



# uno

big security. small footprint.

## EYEZON INSTALLATION AND PROGRAMMING GUIDE



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This document outlines how to set up the **Envisalink4** for **UNO** standalone mode, as well as programming and installation.

### Activating **Envisalink4**

Before connecting **Envisalink4** to the Panel, you must activate it on your **Eyezon** account. If you do not have an **Eyezon**, go to [www.eyezon.com](http://www.eyezon.com), and click **Create Account**. Once you have set up your **Eyezon** Account, you will be able to activate the **Envisalink4** by following the steps below.

1. **Login** in to your **Eyezon** Account.
2. Select **Add New Device**.
3. Select **Envisalink4 UNO** from the drop down list.
4. Click **Next**.
5. Enter the MAC address for the **Envisalink4**. 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 **Envisalink4** and also appears on the box that the **Envisalink4** came in.
6. Give the **Envisalink4** a name (e.g. House, Cottage).
7. Review the **Terms and Conditions** and check the box indicating you have read and agree to the **Terms and Conditions**.
8. Click **Next** and the following message will appear.

*Thank you. The new device has been added.  
Please allow up to 10 minutes for activation to complete.*

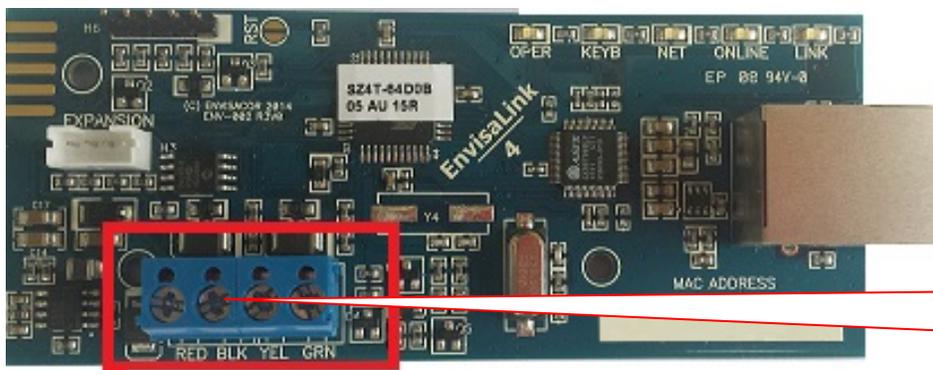
You must activate **Envisalink4** before you install it as the **Envisalink4** is shipped with DSC firmware. Once activated in UNO mode on the **Eyezon** portal, the **Envisalink4** will download the proper firmware. This may take up to 10 minutes.

### Connecting **Envisalink4** in UNO Standalone Mode

Before installing the **Envisalink4**, verify that you have activated “**Envisalink 4 UNO**” on your account as to ensure that the module downloads the correct firmware.

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.

1. Select a Power Supply. In UNO mode, you must supply the **Envisalink4** with enough power to run the module, as well as any expansion modules you may install. We recommend **12Vdc** with a minimum of **500mA** output but the voltage range can anywhere from 7.5Vdc to 16Vdc. Some examples would be: **SMP3** from **Altronix**, or even a standard “wall-wart” if battery backup is not required.
2. Select your mounting arrangement. While the **Envisalink4** is designed to mount inside a **DSC** enclosure, there are other mounting arrangements that might be better suited for a simple standalone IP security system. Keep in mind that the **UNO4** and **UNO8** expansion modules have the same mounting-hole pattern as the **Envisalink4** which allows for stacking and other mounting options.
3. Connect the **Envisalink4** to your power supply with the positive wire going to the **RED** terminal, and the negative wire going to the **BLK** terminal.



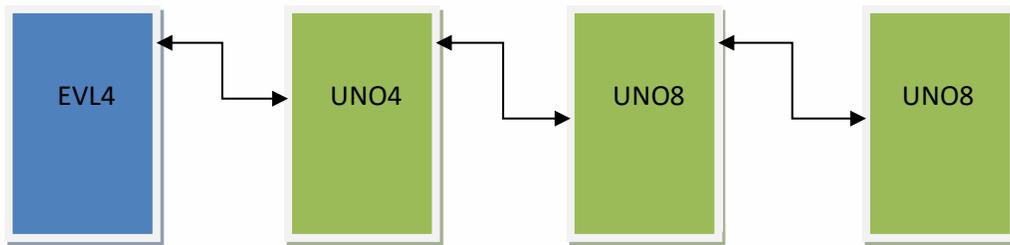
Connect the power supply leads to the terminals on the **Envisalink4**: Red and Black terminals.

4. Install Zones 1 and 2. At this time you should install the zone wiring on the **Envisalink4** itself, if used. Zone 1 is dedicated to the **YEL** terminal, and Zone 2 is dedicated to the **GRN** terminal. The **common** wire of the zones both go into the **BLK** terminal along with the negative from your power supply. These two zones are configured for **normally-closed contacts only**. If you have any normally open zones you must use one of the zone expansion modules like the **UNO4** or the **UNO8**.
5. Install zones on expansion modules (if applicable). Because the **UNO4** and the **UNO8** are designed to stack on top of one another, you may not be able to access the screw terminals once the boards are stacked. For that reason we recommend you complete your zone wiring before stacking. If you are using more than one **UNO8** don't forget to properly address the modes so that the zones do not overlap with each other. Each **UNO8** has to have its own address on the expansion bus.
6. Address your **UNO8** modules (if applicable). You can have up to three (3) **UNO8** modules on one system. Each one needs to be addressed uniquely to cover zones 9-16, 17-24, and 25-32. Use the supplied plastic shunt to jumper the appropriate pins on H7 as per the table below.

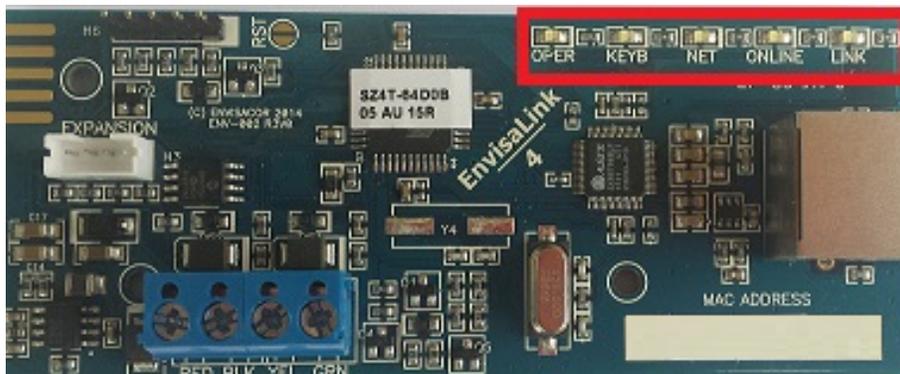


1-2	ZN 09-16
OPN	ZN 17-24
2-3	ZN 25-32

- Install expansion modules, (if applicable). Using the included board-to-board standoffs, and the 4-wire expansion cable, connect each module to the **Envisalink4** in a *daisy-chain* fashion. The order of modules in the chain does not matter. The diagram below shows one **UNO4**, and 2 **UNO8**, forming a 22 zone, 6 programmable-output **UNO** system.



- Using an 8-Conductor Ethernet Cable (not supplied) with an RJ-45 connector, connect the **Envisalink4** to an available router, hub or switch port on a network with a DHCP Server (usually within a router). Power-up your **Envisalink4**.
- There are a number of LED lights located on the **Envisalink4**. 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 UNO firmware. Wait 10 minutes before troubleshooting.



The **Envisalink4** has 5 LEDs. See table below for LED Descriptions.

LED Name	Description
OPER	<b>SOLID GREEN</b> - Power and functioning. <b>OFF</b> – Not functioning and not powered properly.
KEYB	<b>TWO QUICK FLASHES</b> - Running in <b>UNO</b> mode. <b>SOLID GREEN</b> – Panel Connected (DSC or Honeywell firmware installed) <b>FLASHING</b> - Panel not connected (DSC firmware installed). <b>OFF</b> – Panel not connected (Honeywell firmware installed).
NET	<b>SOLID GREEN</b> – IP obtained through DHCP server (router). <b>FLASHING</b> – Module programmed to static IP. <b>OFF</b> – Module cannot obtain IP form DHCP server (router).
ONLINE	<b>SOLID GREEN</b> –Module is communicating with servers and account is properly set up. <b>FLASHING</b> – Module is communicating with servers but no account exists. <b>OFF</b> – Module is not communicating with servers.
LINK	<b>SOLID GREEN</b> – Ethernet link established. Will flick with RX/TX. <b>OFF</b> - No Ethernet link.

10. After ten minutes the “KEYB” LED should also be solid. If the LED is flashing, you still have the default DSC firmware installed which indicates there is a network problem. If the LED is off, you somehow activated the module in Honeywell mode.

**DO NOT LEAVE the installation until you have five green LEDs lit.**

## Accessing Envisalink4 Locally

Now that the **Envisalink4** is installed and functioning, you may have to access the **Envisalink4** locally in order to perform troubleshooting. For more information on accessing **Envisalink4** locally, please refer to the **Accessing Envisalink4 for Status, Programming and Troubleshooting Application Note**.

1. To access the **Envisalink4** web interface, type the **Envisalink4** IP address into any browser on the same internal network as the module (i.e. your customer’s network). For help on obtaining the **Envisalink4’s** IP address please refer to the **Accessing Envisalink4 for Status, Programming and Troubleshooting Application Note**.



2. Once entered, the following login pop-up should appear. Enter user in both the User Name and Password fields and click **Log In**.

Authentication Required ✕

The server http://192.168.0.135:80 requires a username and password. The server says: Envisalink.

User Name:

Password:

Log In
Cancel

Once you have logged into the web interface, the local **Envisalink4** 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.

EnvisALERTS

**Envisalink 4**

2016-08-02 19:38 - System Time

Home | Network

**Security Subsystem - UNO Standalone**

Zone Status

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32

System Status

System Ready ARM

**HVAC Subsystem - If Equipped**

**Expansion Modules**

UNO4

Refresh Page

### Envisalink UNO Programming Options

Programming is required for the **Envisalink4** to function properly; Zones have to be defined, user codes added etc. Once your **Envisalink4** is **online** and has the proper **UNO** mode firmware, you will be able to access the programming .



## Details for UNO

Click on “Manage Device” on the details page for your UNO to start a programming session. If you are familiar with “downloading” on other on panel types, you will find this interface similar. As soon as you enter programming your **Envisalink4** will upload to the server all of its programming information. The date and time of the upload is shown at the top of the programming page as well as the MAC address of the module to which the data is from.

### Device Programming

#### Device Settings

MAC: 001C2A0108FB  
 Data Upload Time: 2016-08-04 12:42:35

The time shown is the local time of the **Envisalink**, which is not necessarily your local time.

#### Zone Definitions

Zone	Definition
1	Entry/Exit Zone
2	

**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.

### Programming Options

The programming options are divided into four groups:

- Zone Definitions
- User Codes
- Programmable Output Definitions
- System Options

### Zone Definitions

Each of the available zones must have a definition to be active on the **UNO** system. There are up to 30 zones available in a fully expanded system: **Envisalink4**, one **UNO4**, and three **UNO8**. Zones 7 and 8 are never available. The physical locations of the zones for **UNO** are explained in the table below.

Zone Number	Host Device	Zone Capabilities
1-2	Envisalink 4	Normally Closed Only
3-6	UNO4	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 **device programming** page, with a drop-down box for each type of supported zone definition. Below is a table explaining each zone definition type.

Zone Definition	Description
<b>Null (Not Used)</b>	Not Used –Default
<b>Entry/Exit Zone</b>	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 <b>door chime</b> feature.
<b>Interior Zone (Stay)</b>	This interior zone will be automatically bypassed when the user arms the partition in <b>arm-stay</b> mode.
<b>Instant Zone</b>	This perimeter zone has no entry or exit delay. An example would be a perimeter window. This zone does us the <b>door chime</b> feature.
<b>24 Hour Burglary</b>	The zone will generate an audible alarm on the partition regardless of the state of the partition. It will generate a burglary (BA) signal to the central station.
<b>Keyswitch (Maintained)</b>	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 <b>ready</b> will not arm the system. It will automatically arm when the partition becomes <b>ready</b> .
<b>Keyswitch (Momentary)</b>	This zone type will toggle the state of partition, <b>armed</b> or <b>disarmed</b> , when it transitions from open-to-close-to-open. An example would be a momentary push-button switch.
<b>24 Hour Fire</b>	The zone will generate an audible alarm on the partition regardless of the state of the partition. It will generate a fire (FA) signal to the central station. The siren will follow the fire cadence.
<b>24 Hour Water</b>	The zone will generate an audible alarm on the partition regardless of the state of the partition. It will generate a water-flow (WA) signal to the central station. The siren will follow the water-flow cadence.
<b>Panic/Duress (Silent)</b>	Generates a silent alarm for situations such as a hold-up.

**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 Codes*

The **Envisalink UNO** platform allows for 32 unique user codes to control arming and disarming of the system/partition. A user code is 4 digits long and must contain only numbers. Programming of user code is done from the **device programming** page. A code of all zeros, **0000**, is invalid and indicates that the user code entry is not used.

32      Null - Zone Not Used ▼

User Codes

User	Code
1	1234
2	0000
3	0000

User Code #1 defaults to 1234.

### Programmable Outputs

The **Envisalink UNO** platform allows for up to 8 user programmable outputs (PGMs). These physically reside on the **UNO4** and **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. **NOTE:** The **Envisalink4** does not have an auxiliary power output so the power for the device on the programmable output must come for the external power supply. As well, you must connect a single wire from the external power-supply's negative terminal to any one of the common terminals on the expansion board to ensure an adequate return-path for the current.

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 **UNO4/8** when using a PGM sinking more than 100mA of current. **Failure to do so may result in loss of communication with the expansion module.**

IMPORTANT!

PGM Number	Host Platform	Capability
1	<b>UNO4</b>	Full Analog, Digital (ON/OFF)
2		Digital (ON/OFF)
3	<b>UNO8</b> (Slot 1)	Full Analog, Digital (ON/OFF)
4		Digital (ON/OFF)
5	<b>UNO8</b> (Slot 2)	Full Analog, Digital (ON/OFF)
6		Digital (ON/OFF)
7	<b>UNO8</b>	Full Analog, Digital (ON/OFF)

8	(Slot 3)	Digital (ON/OFF)
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**Table 1: Programmable Output Locations**

Below is a list of programmable output functions and their meaning

<b>Programmable Output</b>	<b>Description</b>
<b>Null (Not Used)</b>	Not Used –Default
<b>Bell Follower</b>	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.
<b>Normal (0% - 100%)</b>	This mode is for user-controllable devices. Select whether this PGM is ON, OFF, or some percentage in-between.
<b>Pulse (2 Seconds)</b>	This mode is typically to control a garage door opener by simulating a button push. Any action on this PGM from the <b>EyezOn Portal</b> will cause the PGM to be active for 2 seconds, and then become in-active.
<b>Ready-to-Arm Follower</b>	A PGM set to this type will be active whenever the partition is <b>ready</b> , inactive otherwise.
<b>Status Follower (Armed/Disarmed)</b>	A PGM set to this type will be active whenever the partition is <b>armed</b> , inactive otherwise.
<b>Buzzer Follower</b>	A PGM set to this type follows the on-board buzzer ( <b>UNO4</b> and <b>UNO8</b> ). This allows for a remote sounder to follow audible notifications similar to a traditional security keypad.

### **System Options**

The final programming area pertains to system wide options. 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.

## System Options

User	Code
Bell Time Out (minutes)	10
Exit Delay (seconds)	30
Entry Delay(seconds)	30
ON - Normally Closed Contacts / OFF - EOL Resistors	<input type="checkbox"/>
ON - Using Double EOLs / OFF - Single EOLs	<input type="checkbox"/>
ON - Audible Door Chime / OFF - Disabled	<input checked="" type="checkbox"/>
ON - Audible Trouble / OFF - Disabled	<input checked="" type="checkbox"/>

Don't forget to click here to save your programming!

Submit

### ***Saving and Downloading***

Once you have made any changes to any of the programming options, you must select **SUBMIT** in order for the changes to be saved to the **EyezOn** servers and subsequently downloaded by the **Envisalink4**. **NOTE:** It is highly recommended that you reboot the **Envisalink4** after you make any changes to zone definitions or change a zone requirement like double end-of-line resistors. Such changes may leave the system in an unknown state.

## 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 **Envisalink4**. If not, check the expansion cable.

### Module is Offline with Servers

For Network Troubleshooting, refer to the *Accessing Envisalink4 for Status, Programming and Troubleshooting Application Note*.

### Dealer Support Contact Information:

If you have any questions or concerns, or have trouble activating your account and setting up customers, please email our Help Desk at [support@eyezon.com](mailto:support@eyezon.com) or call 647-503-3406. Note that phone support is only available, Monday-Friday 9am-4pm EST.