konnected

Alarm Panel Pro

12-Zone Smart Alarm Panel for Wired Alarm System Takeovers and Integration

MADE FOR ESPHome

| PoE POWER OVER ETHERNET | 🔌 | 📶 |

Welcome to your **Alarm Panel Pro**!

This guide will help you transform your traditional wired alarm system into a modern smart home system with Ethernet, Power-over-Ethernet (PoE), and Wi-Fi capability.

The Alarm Panel Pro may be sold alone or in a kit:

Conversion Kit

For takeover or conversion of an existing wired alarm system, or for brand new installs. Includes:

- 12-Zone Alarm Panel Pro
- 12V Power Adapter
- Piezo Buzzer
- Jumper Wires
- Adhesive-backed Mounting Standoffs
- Mini Screwdriver-pen
- Wire Labels
- Konnected Window Decal and Brand Sticker

Interface Kit

For connecting *in-parallel* to a traditional wired alarm system for smart home control (more complicated). Kit includes all of the above plus:

- Two 6-zone Interface Modules
- Additional Jumper Wires
- Additional Mounting Standoffs

⚠️ **NOT A FIRE OR LIFE SAFETY DEVICE**

For home automation and informational use only. This product is not suitable for life safety critical applications.

IMPORTANT SAFETY INSTRUCTIONS

- Read, follow and save these instructions.
- Unplug all power sources (including PoE) during installation to reduce the risk of electric shock and damage to sensitive components.
- Do not place the Alarm Panel Pro on a metal or conductive surface.
- Do not touch or allow anything to touch the electrical components on the front and back of the Alarm Panel Pro.
- Do not install in a wet or damp location or allow to be exposed to moisture or weather or extreme cold or heat.
- Secure all wires to prevent them from becoming loose or damaged.
- Mount securely using standoffs to avoid movement and contact.
- When using a ladder, follow all warnings to avoid injury.

ACCEPTABLE USAGE

No Life-Safety or Critical Uses of the Products or Services.
The Konnected Alarm Panel and related products, applications, and services (the "Products and Services"), whether alone or in combination with third-party products and services, are not certified for emergency response.

Not Approved for Use with Smoke, Fire, Heat or Carbon Monoxide detectors. The Konnected Alarm Panel and related products are not approved for use with fire or life safety devices and cannot be used to comply with fire protection safety regulations. Connecting an approved fire or life safety device to the Konnected Alarm Panel product may invalidate its regulatory approval. Konnected Products and Services can NOT be used to notify you in a life threatening emergency.

USE OF KONNECTED PRODUCTS AND SERVICES WITH SMOKE, FIRE, HEAT, OR CO DETECTORS MUST BE FOR INFORMATIONAL/ANCILLARY USE ONLY AND NOT IN PLACE OF COMPLIANT FIRE & LIFE SAFETY EQUIPMENT IN YOUR LOCAL JURISDICTION.

PROP 65 WARNING: This product can expose you to chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

STEP 1: Network & Power

Connect with Ethernet

Ethernet is enabled by default on your new Alarm Panel Pro. Just plug it in and you're ready to go! The device will automatically connect to your network and request an IP address from your router.

Power It Up

Use the 12V power adapter (included with the kit) or connect to a PoE+ (802.3at) compatible switch.

Konnected is powered by DC only! (6V-24V DC) DO NOT use the power brick that came with your traditional alarm panel -- this is AC and will cause damage!

12V AUX outputs supply power to connected powered devices (like motion sensors). Total power available varies depending on power source:
- PoE only: 1A @ 12VDC
- DC Power Adapter: Up to 2.5A @ 12VDC

You can connect both PoE and the 12V power adapter at the same time for extra power!

Check Your Power Needs!
The Alarm Panel Pro consumes only about 200mA of current. The rest is available to AUX powered devices and siren(s). Always test at full load (activate all sirens) to ensure that enough current is available!

Connect with Wi-Fi

To enable Wi-Fi, a firmware update is necessary! There are a couple of ways you can do this:
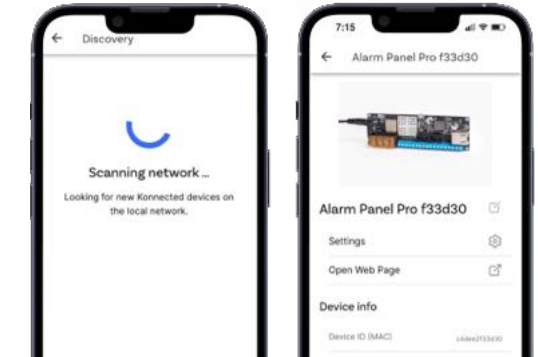
Option 1: Use the Konnected app
Download the Konnected app from your app store.

1. Connect the Alarm Panel Pro to the network via Ethernet first, launch the Konnected app, then tap *Add New Device* then *Discover Devices*.

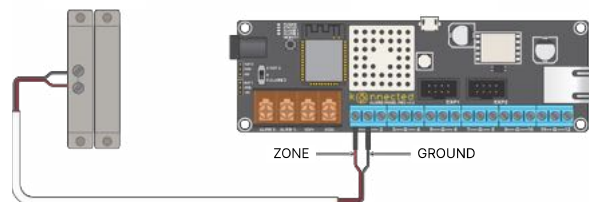2. Then tap *Settings* and update *Network Settings* to enable Wi-Fi.

Option 2: Re-flash the Firmware
Go to https://install.konnected.io to install a Wi-Fi enabled firmware build via a computer and USB cable.

STEP 3: Physical Setup

How to Use This Guide

This Quick Start Guide is a quick overview of the most common use cases for your Alarm Panel Pro. Scan the QR codes or visit support.konnected.io for detailed documentation and many more uses!

Mounting and Positioning

Most likely you will be mounting your Konnected Alarm Panel Pro in place of or co-located with an existing alarm panel, or in a location where your home's pre-wired sensors are terminated. When mounting, consider the location of your sensor wires, power outlet, Ethernet access, and WiFi signal strength (if you plan to use Wi-Fi). If you're retrofitting an old alarm system panel, you may want to mount the Alarm Panel Pro inside the existing enclosure.

Tips for Successful & Secure Installation:
1. Do not permanently mount until after you have finished connecting the wires and have verified functionality.
2. Position with at least 20cm distance from other transmitting devices or the human body.
3. Use *standoffs* to secure the board to the enclosure or mounting surface and prevent accidental contact. Magnetic backed standoffs are sold separately.
4. Do not allow loose wires to make contact with the board surface during or after installation.
5. Use bands or zip-ties to secure wires to prevent movement an strain.
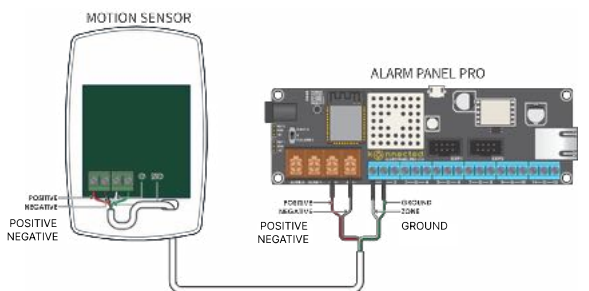

Connect Door & Window Sensors

ZONE   GROUND

Door and window sensors have two wires and simply connect to any inputzone and G.

Connect Motion Sensors

MOTION SENSOR   ALARM PANEL PRO

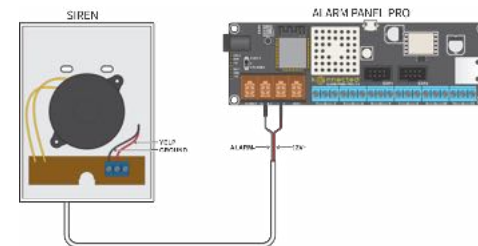POSITIVE NEGATIVE   POSITIVE NEGATIVE   GROUND ZONE / GROUND

Motion sensors have 4 wires: A red and black wire for 12V power is connected to AUX+ and AUX-

The other pair (may be any color) connect to any input zone and G.

Connect a Siren or Strobe

SIREN   ALARM PANEL PRO

The Alarm Panel Pro has two dedicated 12V siren outputs. Connect the red wire to 12V+ and black wire to ALRM1- or ALRM2-

Connect a Piezo Buzzer

BUZZER   ALARM PANEL PRO

A 3V piezo buzzer can be connected to either of the OUT pins, or any Zone 1-8 and G.

Connect Smoke & CO Detectors

⚠️ **USE WITH SMOKE, FIRE AND CO DETECTORS IS FOR HOME AUTOMATION & ANCILLARY USE ONLY**

With Hardwired Interconnected Smoke Alarm Relay

Most modern homes in North America have hardwired smoke alarms powered by household electrical. Use a **smoke alarm relay** to connect it safely to Konnected.

Low Voltage Smoke Alarms

Low voltage smoke detectors may be in some homes and connected to a previous alarm panel. As long as these are *in addition to* hardwired or battery-powered, code-compliant smoke alarms, they can be wired to Konnected for ancillary purposes.

SMOKE DETECTOR   ALARM PANEL PRO
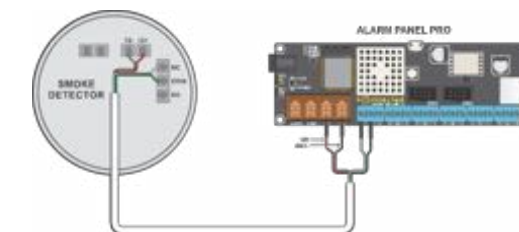
Connect a Relay

Relays can be used with the Alarm Panel Pro to isolate and switch on/off loads of different voltages. Use a **5V relay** and power it from 5V+ and GND pins. Use either of the OUT1 or OUT2 pins or any zone 1-8 to trigger the relay via the IN terminal(s).

There are **two ways** to configure your Alarm Panel Pro zones and settings. Use the **Konnected App** for the easy option, or manage your own firmware configuration using **ESPHome dashboard** (advanced).
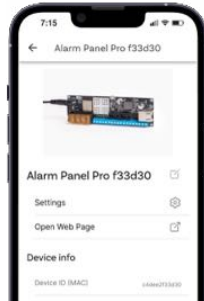
Konnected App   EASY

Get the App

 Download on the **App Store**

 GET IT ON **Google Play**

Discover & Edit Settings

Tap **Add New Device** then **Discover Devices** to find your Alarm Panel Pro on the network

Then tap **Settings** to customize your Alarm Panel Pro zones and settings.

Update the Firmware

Changes don't take effect until your customized firmware is installed on the device. Tap **Save and Continue** then **Build Now** when you're done making changes.

Finally, tap **Update Now** to push the firmware update to the Pro.

ESPHome Dashboard   ADVANCED

Install ESPHome as a Home Assistant add-on or see **esphome.io** for more ways.

Konnected's Pro firmware is open-source!

konnected-io / connected-esphome

Home Assistant   LOCAL

Home Assistant should automatically discover the Alarm Panel Pro as soon as it connects to the network.

1. Check the Notifications pane for *New Devices Discovered*, or go to *Settings > Devices & Services*.
2. The Konnected device will appear as a discovered ESPHome device.
3. Click *Configure*.
4. Add the device to an *Area* (optional) and click *Finish* to add the Konnected device and all zones to Home Assistant.

With Home Assistant's built-in alarm control panel and automations, or by using the easy-to-use Alarmo integration, you can create an alarm system with virtually unlimited capabilities:

Alarmo - This is an alarm system integration for Home Assistant. It provides a user interface for setting up your own alarm system completely from the browser. For installation instructions, visit https://github.com/nielsfaber/alarmo

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Hubitat   LOCAL

A new *local* Hubitat integration based on ESPHome's native API is in the works!

In the meantime, please use our classic firmware and Hubitat apps/drivers by installing Konnected classic firmware at **install.konnected.io**

 SmartThings

In the SmartThings app, tap the **+** icon and **Add device** > **Partner device** > **By brand** > **Konnected**

Follow the steps to link your Konnected Cloud account to SmartThings

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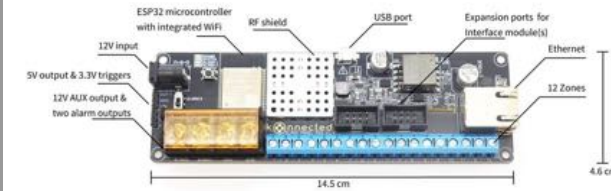
Input voltage	6-24 VDC (12V recommended)
AUX output voltage	Same as input (pass-through)
Power-over-Ethernet (PoE)	Compatible with PoE+ 802.3at equipment
PoE max current provided	1A
Power Adapter (included with kit)	12VDC 2.5A
Wirless microcontroller	ESP32-WROOM-32D (Espressif)
USB port	Micro-USB connector

Sensor Inputs (Zones 1-12)
• Detects an open/closed loop
• Works with: Magnetic door contacts, mechanical door contact sensors, limit switch sensors, PIR motion sensors (with dry-contact signal), any dry-contact or open collector circuit.
• Resistant to EMI and transient electrical surges caused by nearby lightning
• Programmable as binary (high/low) outputs: Zones 1-8
• Output voltage: 3.3V

Alarm Outputs
ALRM1 & ALRM2
• Output voltage: Same as input voltage or 12V when using PoE
• Output current maximum: 2A
• Negative switched

Trigger Outputs
OUT 1 & OUT 2
• Output voltage: 3.3V DC
• Output current maximum: 12mA

5V AUX Output
Pins +5V
• Output voltage: 5V DC
• Output current maximum: 300mA (combined)

USB
• USB port is provided for firmware servicing
• Micro-USB Type B
• Not intended for supplying power during prolonged operation

 https://support.konnected.io

 help@konnected.io

 https://community.konnected.io

Proudly designed, assembled and tested in the USA from components sourced globally.