Ethernet Extension Experts

Enable-IT 828 PoE and Gigabit Ethernet Extender Quickstart Guide

INSTALLING THE 828 GIGABIT ETHERNET EXTENDER

Installation

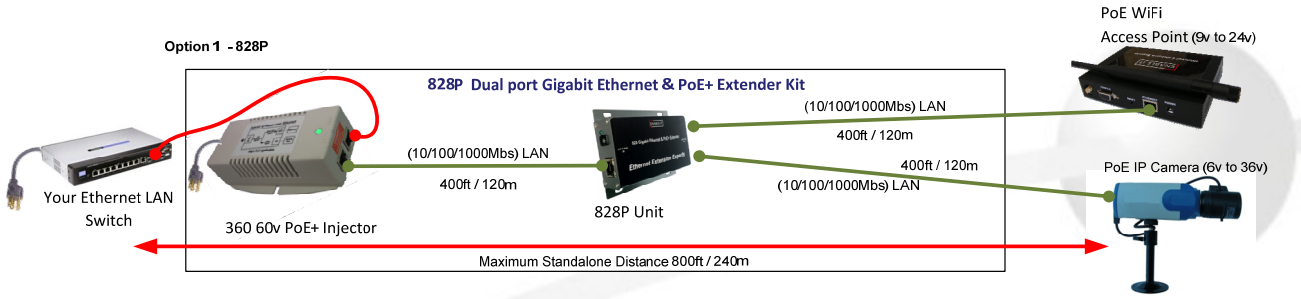
The Enable-IT 828 – A Dual Output PoE and Gigabit Extended Ethernet Unit has a distance restriction of 800ft or 240m over 4-pair Category 5e / CAT6 per unit. Multiple 828 units can be daisy chained to reach up to 2,000ft or 1,828m.

- Total distance limitation of 800ft or 240m from end to end per 828 unit.
- 4-pair Cat5e .30 Gage or better cabling is required.

Perform an out of the box Test

We highly recommend a quick test to ensure the working order of your 828 Gigabit unit. Depending on your kit, follow the appropriate directions below.

828P - The out of the Box test for the 828P kit is very straightforward.



As can be seen in the diagram above we have 7 devices or segments to prove out. These consist of the 3 LAN patch cords, and all the 4 LAN devices. Each device or segment needs to be proved good. To do this is a process of elimination.

Step 1 - Prove out the Ethernet patch cords by taking your end PoE device and connecting to your source PoE LAN switch. Test connectivity and PoE. This proves out your end PoE device, the patch cords and your PoE LAN switch as working if they all pass.

Step 2 - Prove out the 828P unit by making sure the DIP switches are set to ON (down) for the Output ports. By default they are set to OFF (up) to protect your standard LAN equipment. Next using a good known patch cord, attach your end PoE device to either of the Output ports of the 828P Extender and then use another good known patch cord to attach the 828P LAN In port to your PoE LAN Switch.

The LED indicators on the 828P LAN ports will vide visual operational status of the 828P standalone unit.

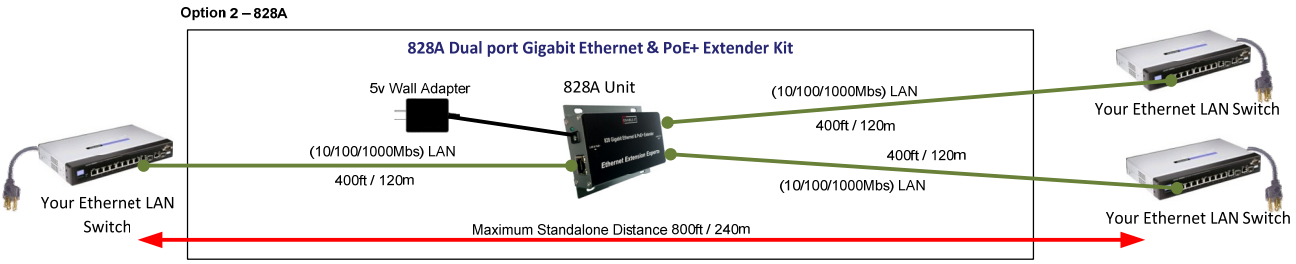
Input RJ-45 Port: **Power LED** - Solid Green LED (left side of DC input jack) indicates the 5v power input is on and good.
Input LEDs - Solid Yellow LED only (left side of RJ-45 port) indicates Gigabit Ethernet connectivity detected.
- Solid Green LED (right side of RJ-45 port) indicates 10Mbps or 100Mbps Ethernet connectivity detected. Yellow LED will be lit and blinking showing Link and LAN Activity.

Output RJ-45 Ports: Gigabit LED - Solid Yellow LED (left side of RJ-45 port) indicates Gigabit Ethernet connectivity and activity.
10/100 LED - Solid Green LED (right side of RJ-45 port) indicates100Mbps Ethernet connectivity and activity.
- No LED lit (right side of RJ-45 port) indicates10Mbps Ethernet connectivity.

Step 3 - If all equipment passes testing, the last step is the long distance wiring for in between the standalone 828P unit. The standalone 828P is an inline solution that cannot be more than 400ft / 120m from the source PoE Switch or the end PoE device. The 828P requires 4-pair wiring on all RJ-45 pins straight through and is recommended to use category rated twisted pair such as CAT5e minimum for Gigabit throughput.

Expected Throughput speeds 328ft to 2,000ft - 1000Mbps Full Duplex

828A - The out of the Box test for the 828A kit is very straightforward.



As can be seen in the diagram above we have 7 devices or segments to prove out. These consist of the 3 LAN patch cords, and all the 4 LAN devices. Each device or segment needs to be proved good. To do this is a process of elimination.

Step 1 - Prove out the Ethernet patch cords by taking the end device and connecting to your source LAN switch. Test connectivity. This proves out the end devices, the patch cords and your LAN switches as working if they all pass.

Step 2 - Prove out the 828A unit by placing inline (between the LAN devices). Attach the provided 5v Power adapter to the 828A. The PoE Output ports should be set to OFF (up). By default the Output DIP switches are set to OFF to protect your standard LAN equipment. Next using a good known patch cord attach your end device to either of or both of the Output ports of the 828A Extender and then use another good known patch cord to attach the 828A LAN in port to the source LAN Switch.

The LED indicators on the 828A LAN ports will vide visual operational status of the 828A standalone unit.

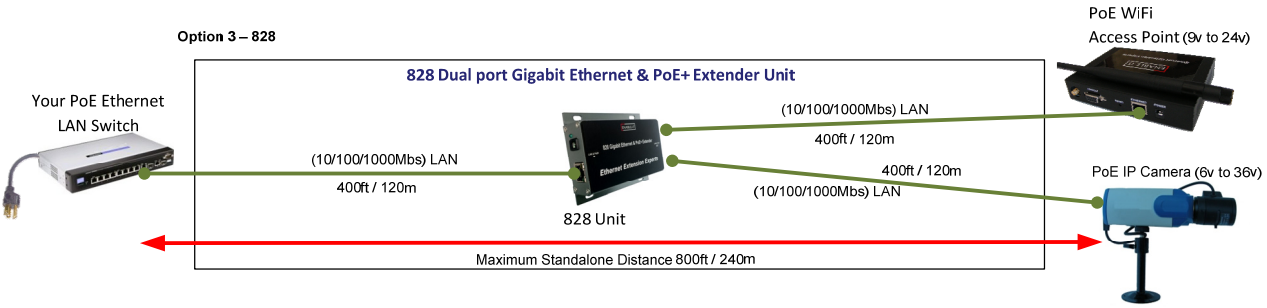
Input RJ-45 Port: **Power LED** - Solid Green LED (left side of DC input jack) indicates the 5v power input is on and good.
Input LEDs - Solid Yellow LED only (left side of RJ-45 port) indicates Gigabit Ethernet connectivity detected.
- Solid Green LED (right side of RJ-45 port) indicates 10Mbps or 100Mbps Ethernet connectivity detected. Yellow LED will be lit and blinking showing Link and LAN Activity.

Output RJ-45 Ports: Gigabit LED - Solid Yellow LED (left side of RJ-45 port) indicates Gigabit Ethernet connectivity and activity.
10/100 LED - Solid Green LED (right side of RJ-45 port) indicates100Mbps Ethernet connectivity and activity.
- No LED lit (right side of RJ-45 port) indicates10Mbps Ethernet connectivity.

Step 3 - If all equipment passes testing, the last step is the long distance wiring for in between the 828A unit. The 828A is an inline solution that cannot be more than 400ft / 120m from your source LAN Switch or your end LAN device. The 828A requires 4-pair wiring on all RJ-45 pins straight through and is recommended to use category rated twisted pair such as CAT5e minimum for Gigabit throughput.

Expected Throughput speeds 328ft to 2,000ft - 1000Mbps Full Duplex

828 - The out of the Box test for the 828 kit is very straightforward.



As can be seen in the diagram above we have 7 devices or segments to prove out. These consist of the 3 LAN patch cords, and all the 4 LAN devices. Each device or segment needs to be proved good. To do this is a process of elimination.

Step 1 - Prove out the Ethernet patch cords by taking your end PoE device/s and connecting to your PoE switch or injector. Test connectivity and PoE. This proves out your end PoE device/s, the patch cords, and your PoE switch or injector as working if they all pass.

Step 2 - Prove out the 828 unit by making sure the DIP switches are set to ON for the Output port. By default they are set to OFF to protect your standard LAN equipment. Using a good known patch cord attach your PoE switch or injector to the 828 LAN In port and then use another good known patch cord to attach the 828 LAN out port to your end PoE device/s. Using a PoE midspan switch you can daisy chain up to (2) 828 units. If using a standalone PoE Injector with no power detection you can daisy chain up to (4) 828 units.

The LED indicators on the 828 LAN ports will vide visual operational status of the 828 standalone unit.

Input RJ-45 Port: **Power LED** - Solid Green LED (left side of DC input jack) indicates the 5v power input is on and good.
Input LEDs - Solid Yellow LED only (left side of RJ-45 port) indicates Gigabit Ethernet connectivity detected.
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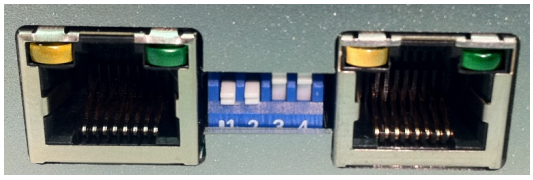
Step 3 - If all equipment passes testing, the last step is the long distance wiring for in between the 828 unit. The 828 is an inline solution that cannot be more than 400ft / 120m your PoE switch or injector or the end LAN device. The 828 requires 4-pair wiring on all RJ-45 pins straight through and is recommended to use category rated twisted pair such as CAT5e minimum for Gigabit throughput.

Expected Throughput speeds 328ft to 2,000ft - 1000Mbps Full Duplex

DIP Switch Settings

4 DIP Switches are provided in between Extender Output ports for setting PoE output power on or off.

Default DIP settings – **Disabled PoE** output
DIP position 1, 2, 3, & 4 Up
(OFF – no PoE Output)



To **Enable -PoE** output -
DIP position 1, 2, 3, & 4 Down
(ON – PoE Output)

Image shown above has PoE enabled on the LAN port to the left and PoE disabled on the right. DIP Switches 1 & 2 toggle PoE (ON / OFF) for the LAN ports adjacent to them likewise with DIP Switches 3 & 4 which toggle PoE (ON / OFF) for the LAN port to the right.