



## Multi Port Passive POE injector

Important: Using your WS-POE-8-12v60w+48v power injector  
( with bonus 48v, Cisco and splitter)



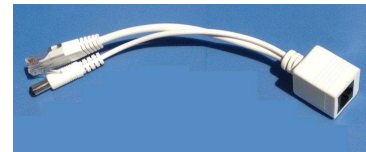
The POE side of the injector goes to the camera, phone or wifi access point. The LAN side goes to any Ethernet switch. Connect the 12 volt adapter to the 8 port injector. One LAN cable is needed for each POE port in use.

**Important Notes: Read First:** If your device does not power up with the 12 volt power supply, we provided some items to help. Please view our videos at <https://www.youtube.com/c/FindapoeATX>

a) Does the label or spec look like this photo? If it shows 802.3af or PoE in the spec, or if it works with a PoE switch – then the device needs 48v via the Ethernet cable, and 12 volts only when a wall transformer is used. Use the 48v power supply in this kit instead of the 12 volt. Save money and buy the **WS-POE-8-48v60w** next time.



b) **WS-POE-O** if the device is a 12 volt only device, and it is not working with the 12 volt injector – then you may need a passive PoE splitter like this to take the 12v from the Ethernet wire to power the device. Note – depending on power consumption – this may only work to 80 ft or so. Please see <http://wifiqos.com/poe-calc.html> to experience how distance affects voltage. Save money and buy the **WS-POE-8-12v60w** or **WS-POES-8-7-12v60w** next time.



**WS-POE-O (2.1mm)**

c) **12v to 328 ft** if the device is a 12 volt device, and the distance is greater than 80 ft, please use our 12 volt active splitter. This requires you to exchange this entire kit for our 12v kits for up to 16 cameras. see <http://find-a-poe.com/product-category/IP-Cameras/12v-non-PoE/>



**WS-POE-12v4x**

d) **WS-Cisco** for Cisco 7940 and 7960 phones – **ONLY** This device reverses the power on the injector, to power older Cisco phones.



**802.3af – auto negotiation** Many PoE devices have 802.3af in the data sheet. 802.3af is a 48v standard. 802.3af also implies an auto negotiation between the device and the injector or PoE switch. This auto negotiation is important if people will be plugging non-PoE devices into the injector. This injector provides power all the time, there is no autonegotiation, non PoE devices should not be connected to the POE side of the injector

### Kit Contents

WS-POE-8-ENC 8 port injector  
WS-PS-12v60w power supply  
WS-PS-48v60w power supply – only use if the device is a PoE device or 802.3af – see Hikvision example  
WS-PS-O 12v passive splitter – **DO NOT USE with 48v supply.**

URL: <http://wifi-texas.com/> Skype: wifiqos Video: <https://www.youtube.com/c/FindapoeATX>

This injector is best used with non-PoE switches, either disable PoE on the switch ports used, or use a non-PoE switch port. This device is for 10/100 mbit installations, if the remote device is non gigabit – no problem, if you need gigabit use our gigabit injectors. Note that cameras do not require gigabit speeds.

Full technical specs are at <http://find-a-poe.com/tech-manuals/>

### How PoE works

A device needs power to operate. Not volts or amps – power expressed as watts.

That power can be supplied at different voltages. The electronics inside the device needs usually about 3.3 or 5 volts. But at low voltages, the wires from power supply have a lot of loss beyond about 5 feet. So for short distance power, most IP phones and Cameras are shipped with a 12v or 24v power supply because 12v supplies are cheap. But these same devices, when powered via the Ethernet cable, use 48 volts. This is the 802.3af standard voltage.

So a 12v 1 amp power supply for local power – when using PoE at 48v .25 amps for the same power, 1 amp current causes 2 volts loss at 80 ft, 12v minus 2v = 10 v and the device fails. At 328ft, with .25 amps – the loss is 2 volts – 48 volts – 2 = 46 volts and this is no problem.

### How Much Power is Needed?



Our new PoE Tester will display the power and current that your device needs using RJ-45 connectors - put this between the injector and the load, and you can find out the power consumption for each device. Designed to pass data and power, it can be left inline during operation, at 10/100 or gigabit data rates.

It measures voltage, current and power used, Contact us for this unique tester – which also functions as a PoE injector, splitter and tester for desktop power supplies.

### Passive PoE Switch vs Injector



This 8 port PoE switch combines a switch and injector into one device, and it offers more features than any other PoE switch – it powers 7 devices from the power supply of your choice – 30, 60 or 120 watts. It can operate in a PoE repeater mode – this means you can power the switch and attached devices at a remote location. It provides low cost always on power for 802.3af and all other PoE methods. 10/100 or 10/100/1000 is available.

Other Products from WiFi-Texas



12 and 16 port rack mount



6 and 12 port gigabit



5v, USB and 12 volt active splitters

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