



## ***LANTEK Power over Ethernet Adapter Kit Quick Reference Guide***

The LANTEK Power over Ethernet kit (p/n LANTEKPOEKIT) allows all LANTEK models to test through PoE enabled patch panels while properly detecting the wiremap of the cabling circuit. Without the PoE kit, LANTEK communications signals are distorted by the DC blocking capacitors implemented into most PoE enabled patch panels causing the tester to detect wiremap failures where none actually exist.

No special setup is required when using the PoE testing kit. LANTEK will automatically detect the presence of the PoE adapters and change its communications method to a type that is compatible with PoE enabled patch panels. The PoE adapters can be used to test any type of 4 pair cabling terminated with RJ-45 connectors from TIA Category 3 (ISO Class C) through TIA Category 6A (ISO Class Ea).

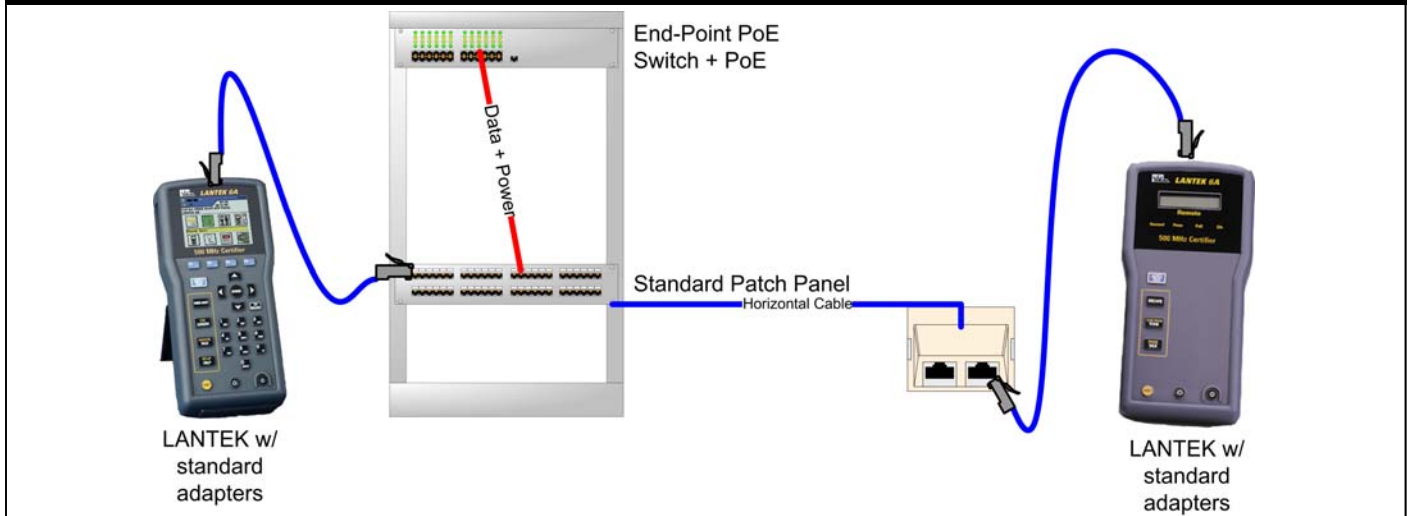
The LANTEK and the PoE testing kit is meant to test passive PoE systems only. To prevent damage to LANTEK, never connect the tester to a circuit that is under power.

PoE Configurations - There are three methods of applying power to data cabling circuits:

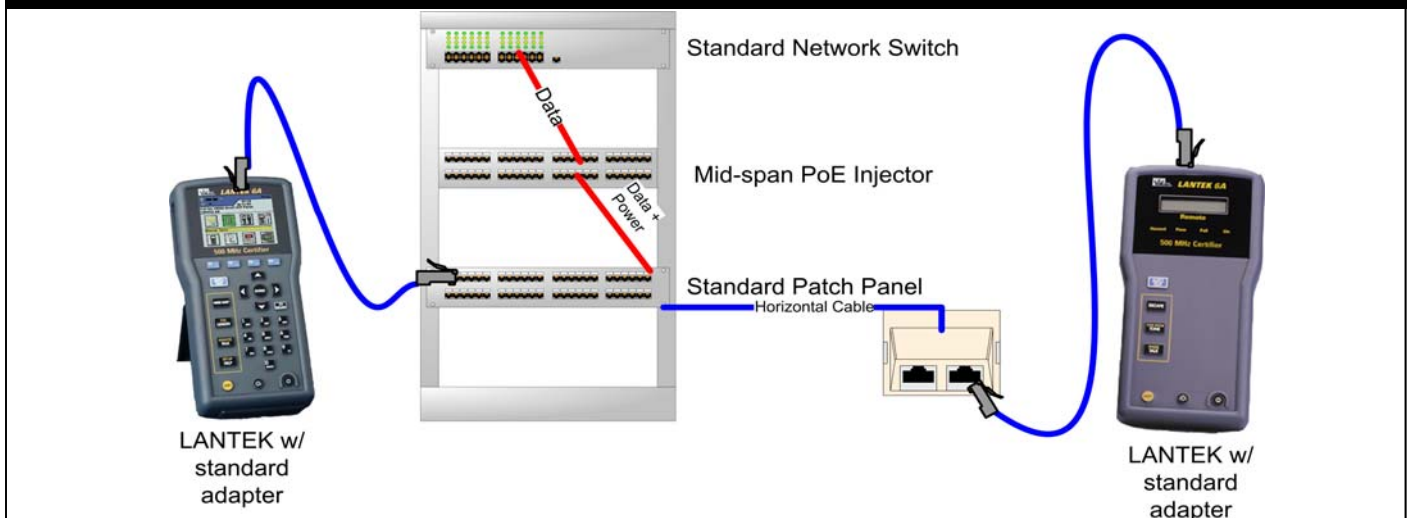
1. End-span PoE enabled devices. These are network devices that incorporate the PoE circuitry into the device. An example is a network switch with integrated PoE capability. In this situation a completely standard cabling system is in place (ordinary patch panels) and a special testing kit is not required since the cabling channel does not include any PoE components.
2. Mid-span PoE devices. These are also known as PoE injectors and are devices that sit between the network switch and patch panel. These devices will have an RJ-45 input and output port for each cabling channel. The "In" port is connected to the network switch and contains only data. The "Out" port is connected to the patch panel and contains data and power. Mid-span adapters are typically used to add PoE capability to an existing network. In this system the patch panel is an ordinary type and the PoE testing kit is not required.
3. PoE enabled patch panels. These devices combine a patch panel and a mid-span PoE injector into one device. The "In" port is an RJ-45 connector that is patched to the network switch and is data only. The "Out" port is a 110-style punch-down strip where the horizontal cable is terminated. This device saves rack space by integrating the patch panel and PoE injector into one panel and is typically used in new installations. When certifying the cable, the technician will connect the certification tester to the "In" port of the panel and test through the passive PoE circuitry. Without the special PoE adapters, the LANTEK will have trouble operating through this device and will give inaccurate test data.

See reverse side for application diagrams and testing configurations.

**Configuration 1—End-span PoE system with standard patch panel and cabling configuration. Test with standard LANTEK adapters.**



**Configuration 2—Mid-span PoE system with standard patch panel and cabling configuration. Test with standard LANTEK adapters. Do not test through PoE Mid-span.**



**Configuration 3—PoE enabled patch panel system where PoE injector is integrated**

