

SPS-01-AP Quick Install Manual

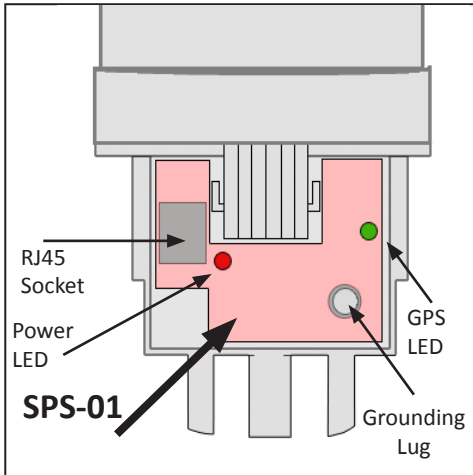
Introduction

The SPS-01-AP is designed as a surge suppressor for a Motorola Canopy radio and translates the GPS over POE synchronization pulse from the power port to the timing port. The 24VDC power provided to the radio is regulated. A nickel plated grounding lug is mounted on the board. The SPS-01-AP does not relay any GPS satellite information, only the GPS synchronization. Once the unit is installed, the Canopy radio will only show Receiving Sync.

Required Equipment

A grounding wire is required to connect the SPS-01-AP to a ground source. A ring lug terminal is recommended to terminate a solid copper wire to the surge suppressor. A minimum gauge of 10 AWG is recommended for the grounding wire. This wire is not provided due to changing length requirements at each install.

SPS-01-AP Install



Indicator Lights

Power LED – shows that the unit is operational and receiving power from the GPS over POE device
GPS LED – blinks once a second; showing that a GPS pulse is sent to the Canopy radio

Notice:

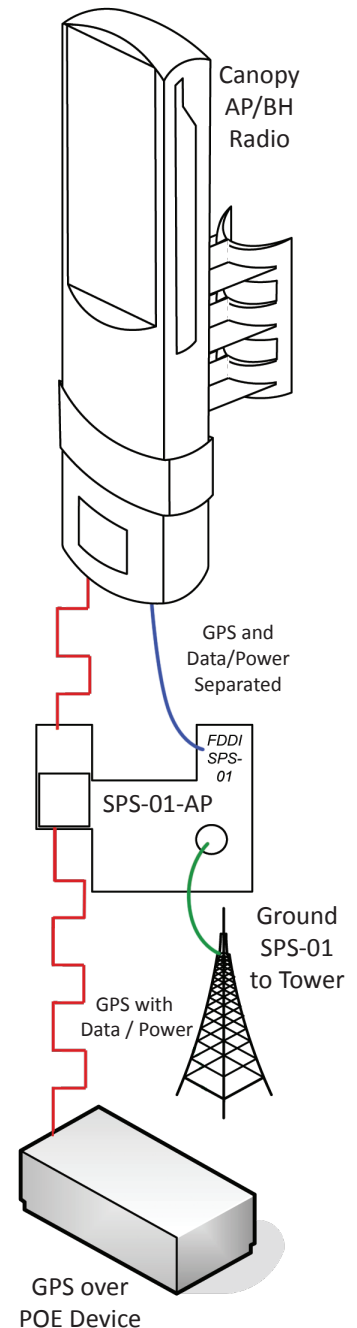
Follow all grounding procedures listed in the Motorola Canopy User Guide and local grounding and electrical code. It is recommended to install a surge protector (such as the SPS-01-MP or 300SS) at the base of the installation for complete lightning protection. Foiled shielded twisted pair CAT5 with shielded RJ45 plugs is recommended between the Canopy radio and the GPS over POE device.

Installation Procedure

1. Locate a good ground source – possibly the tower. It may be possible that the tower will not be a good ground source. It may be necessary to connect more grounding material to the tower/source.
2. Connect the grounding cable from the ground source to the SPS-01-AP.
3. Connect the six-pin RJ11 connector to the Canopy timing port.
4. Connect the eight-pin RJ45 connector to the Canopy data/power port.
5. Connect the CAT5 cable from the GPS over POE device to the SPS-01-AP.

NOTE: Once the GPS over POE device is connected, both the Power LED and GPS LED should be lit at this time.

6. Slide the SPS-01-AP unit inside the Canopy case. Begin by first inserting the board underneath the RJ45 and RJ11 connectors and positing the board so that it fits inside the Canopy case.
7. Align the CAT5 cable so that it will feed out from left position and the grounding cable will feed out from the right.
8. Replace the Canopy case cover
9. If not done so already, reprogram the radio to **Receive Sync from Timing Port** under the configuration page and reboot the Canopy radio.
10. Once the radio has restarted, the radio will receiving sync from the timing port.



Important Grounding Source Information

The SPS-01-AP will not function correctly without a proper ground source attached. If a good ground source is not connected, Ethernet traffic may not pass correctly. If Ethernet packet loss occurs or there is high activity on the status light on the switch, the ground source may not be adequate. Select another ground source or connect additional grounding sources.

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