

## S E R V I C E N O T E

SUPERSEDES: None

**E4411A Spectrum Analyzer  
(Model Number ESA-L1500A)****Serial Numbers:** US36450101-US37361052  
Exception: US37360939**Serial Numbers For Zener Diode Mod to A1A1 Front Panel Interface Board:**  
US36450101-US36450259

Exceptions:

US36450149, US36450174, US36450189, US36450206, US36450217,  
US36450225, US36450227, US36450232, US36450235, US36450238,  
US36450247, US36450248, US36450255, US36450256, US36450257)**Power Supply Upgrade to Accomodate DC Operation****To Be Performed By:** Agilent-Qualified Personnel**Parts Required:**

P/N	Description	Quantity
E4411-60007	Power Supply Upgrade Kit	1

*Continued*

DATE: November 1997

## ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

**MODIFICATION AVAILABLE**ACTION  
CATEGORY:

AGREEABLE TIME

☒ PERFORMANCE ENHANCEMENT  
☐ SERVICE/RELIABILITY ENHANCEMENT
LOCATION  
CATEGORY:
☐ CUSTOMER INSTALLABLE  
☐ ON-SITE  
☒ SERVICE CENTER
AVAILABLE UNTIL:  
End of support lifeAUTHOR:  
RAENTITY:  
5320ADDITIONAL INFORMATION:  
Labor is approximately 1.0 - 2.0 hours

**Situation:**

The original ESA-L1500A Power Supply, E4401-60042, does not support DC operation. The 12 Vdc Cable will not operate with this older version power supply, and operation of the Battery Pack with this older version power supply is unsupported and could be hazardous.

Additionally, the A1A1 Front Panel Interface Board has a bug which is magnified under conditions of dc operation. Without the appropriate modification to this assembly, the instrument will not properly turn on or off. This problem was identified early on, and units manufactured after the fix was put in place do not need this fix. Refer to the serial number range listed above for details. This same fix is covered in Service Note E4411-05.

**Solution / Action:**

Customers with ESA-L1500A instruments having serial numbers within the range identified above require an E4411-60007 Power Supply Upgrade Kit in order to use the Battery Pack or the 12 Vdc Cable accessories. Customers or Service Centers may verify whether the ESA-L1500A instrument requires the Power Supply Upgrade Kit by looking at the rear panel around the DC connector and confirming that it does not have the 12 Vdc label which identifies the new Power Supply Assembly. Service Centers may also confirm whether the instrument has the old or new Power Supply Assembly by opening up the instrument and looking at the part number on the Power Supply Assembly; the older power supplies which require upgrading are p/n E4401-60042. The replacement power supply is an E4401-60080 or newer and is included in the E4411-60007 Upgrade Kit.

The Power Supply Upgrade Kit is fully contained and includes a new power supply, a firmware upgrade kit, an installation note, and a label to identify units which have 12 Vdc capability. It also includes a 5.6V zener diode which is required for a subset of the serial numbers to correct the On/Off problem on the A1A1 Front Panel Interface Board. To perform the upgrade, follow the instructions in the Power Supply Upgrade Kit Installation Note. Ensure that appropriate safety and ESD procedures are followed as identified in Chapter 1 of the Service Guide. Also ensure that the A5 Power Supply Assembly post-repair procedures are performed.