

E6198A-02

S E R V I C E N O T E

Supersedes:
NONE

E6198A Switch Load Unit (SLU)
- used in E8780B, E8781A, E8786B, and E2240A

Serial Numbers: MY45330259 - MY45330782

The SLU internal power supply cable with higher current rating (E6170-61601) is available for customers using heavy load switching applications which draw high current from the power supply.

To Be Performed By: Agilent-Qualified Personnel Only

Parts Required:

P/N	Description	Qty.
E6170-61601	Cables, PS to Motherboard	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:	
MODIFICATION AVAILABLE	
ACTION CATEGORY::	AGREEABLE TIME
	<input type="checkbox"/> PERFORMANCE ENHANCEMENT <input checked="" type="checkbox"/> SERVICE / RELIABILITY ENHANCEMENT
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input checked="" type="checkbox"/> ON-SITE <input type="checkbox"/> SERVICE CENTER <input type="checkbox"/> CHANNEL PARTNERS
	AVAILABILITY: 01 December 2010
AUTHOR: GOH SWEE CHYE	PRODUCT LINE: PLQW
ADDITIONAL INFORMATION:	

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PRINTED IN U.S.A.

December 17, 2008

Rev. 15



Situation:

Agilent has introduced a new upgrade option of SLU internal power supply cable with higher current rating (E6170-61601) for customers using heavy-duty load switching applications. Customers can choose from the following two options.

Option 1: Remain using existing E6170-61624 Rev C power supply cable

Customer may choose this option if their application DOES NOT consume more than current rating of the cable (5A for +12V supply and 10A for +5V supply).

Option 2: Upgrade to new E6170-61601 power supply cable

Customer MUST perform this upgrade option if their application DOES consume more than current rating of the E6170-61624 Rev C cable. The new cable is able to handle up to 7A for +12V supply and 14A for +5V supply, any current level above the rating will be cut off by the fuses on the SLU backplane.

Descriptions/Specifications	E6170-61624 Rev C	E6170-61601 (New)
Crimp Material [current rating]	Brass [5A Max]	Phosphor Bronze [7A Max]
Housing Material [temperature rating]	Polyester, UL 94V-2 [75°C]	Polyester, UL 94V-0 [75°C]
Cable Rating	AWG 20	AWG 18
Note: +5V supply is split into two connector pins and thus the max current handling doubles (10A for E6170-61624 Rev C cable and 14A for E6170-61601 cable).		

Table1. Material specifications for the two power supply cables.

Procedures on how to choose between the two options available:

Step 1: Determine the model of SLU cards and the quantity used in the system.

Step 2: Estimate the worst possible usage rate of each card at any one time.

Step 3: Referring to Table 2 and the information from step 1 and 2, calculate the estimated maximum current drawn from the internal power supply (see example in Table 3).

Step 4: From the total maximum current obtained from step 3, decide if the upgrade option is needed.

SLU Card Current Consumption (Max)	N9379A	N9378A	N9377A	E6178B	E6177A	E6176A	E6175A	E8793A	E8792A
+5V Supply Current [A]	0.3	0.3	0.5	0.3	2.2	0.6	0.4	2.0	2.9
+12V Supply Current [A]	1.4	1.4	1	1.5	-	0.7	0.3	-	-

Table2. Maximum current consumed from the SLU internal power supply.

SLU Cards	Qty	Estimated Usage [%]	I @ +5V [A]	I @ +12V [A]
E8792A	1	30	0.87	-
E8793A	3	30	1.80	-
E6175A	1	40	0.16	0.12
E6176A	1	60	0.36	0.42
E6177A	1	40	0.88	-
E6178B	2	50	0.30	1.50
N9377A	1	30	0.15	0.30
N9378A	1	30	0.09	0.42
N9379A	0	-	-	-
Total:			4.61	2.76

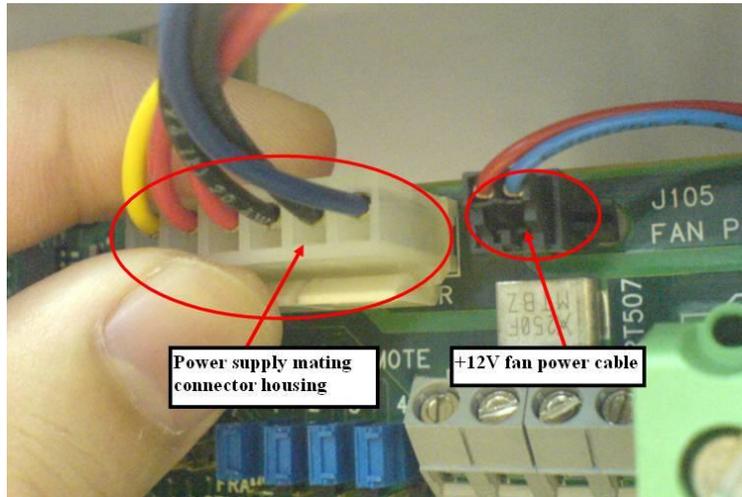
Table3. Example current consumption calculation for a typical system configuration. Upgrade option is not needed since the total current from +5V is less than 10A and total current from +12V is less than 5A.

Solution/Action:
Switch Load Unit internal power supply cable change procedures:

1. Switch off the SLU power supply via power switch on the front side and then unplug the power cord from the SLU. Unscrew the screw on the rear side (circled in red) of the SLU and then take off the rear cover.



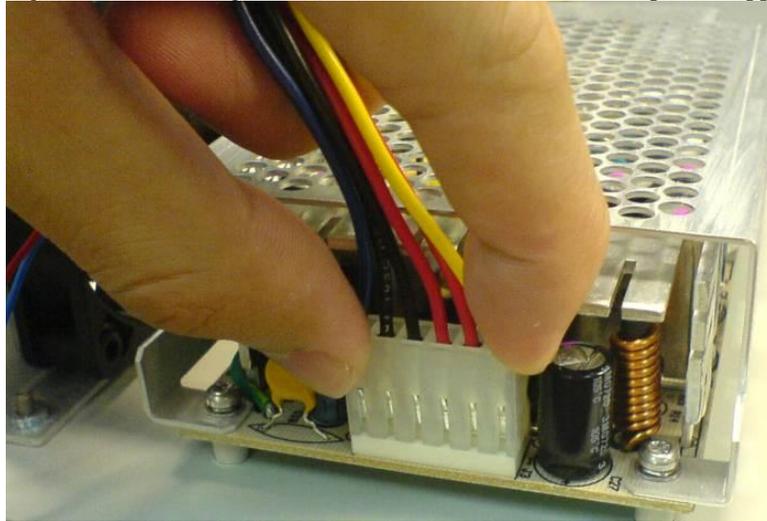
2. Unplug the power supply mating connector housing and +12V fan power cable from the SLU backplane as shown in the figure below.



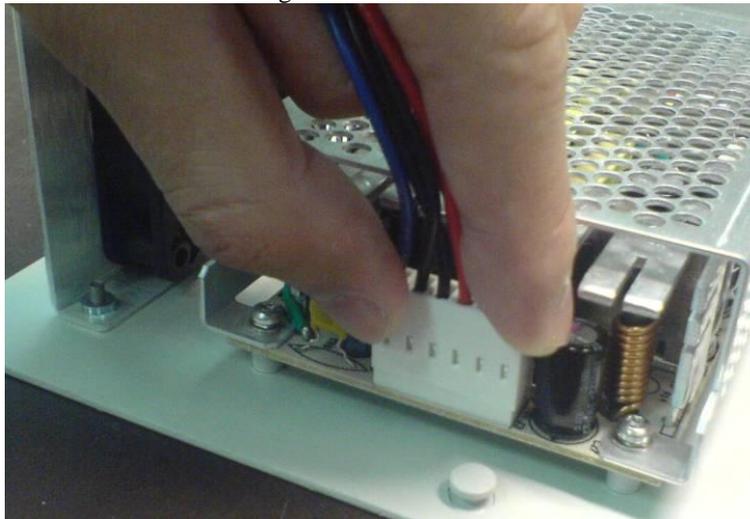
3. Unscrew the two screws on the front side (circled in red) of SLU and then remove the power supply from the SLU.



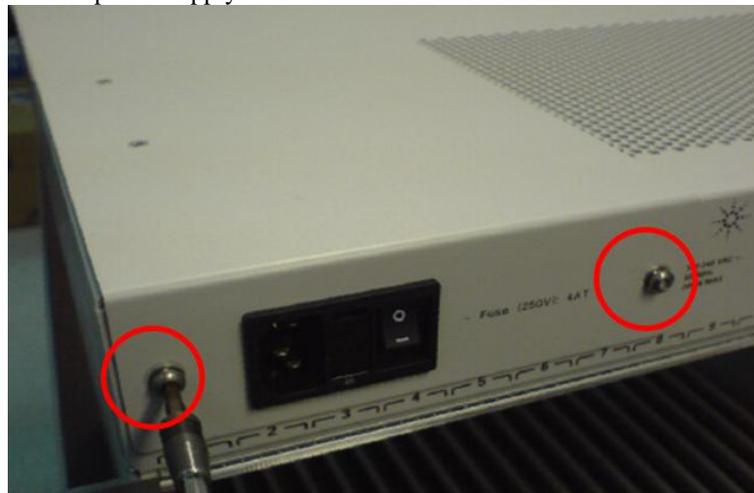
4. Unplug the mating connector housing of the other end of the cable from the power supply output connector.



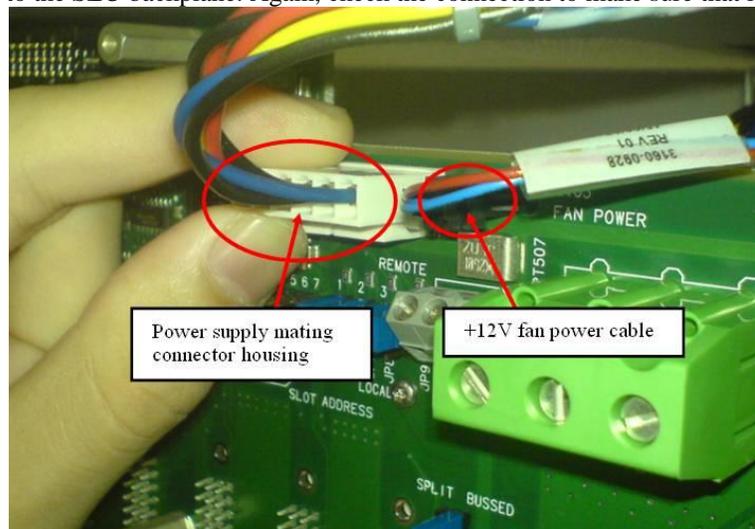
5. Plug in the new power supply cable (E6170-61601) mating connector housing to the power supply output connector. Ensure that the connection is tight.



6. Put and align the whole power supply back to the SLU and fasten it back with the two screws.



7. Carefully take out the other end of the power supply cable and +12V fan power cable, and then plug in the two connectors to the SLU backplane. Again, check the connection to make sure that it is tight.



8. Put and align the SLU rear cover back and then fasten it with the screw.

