N8201A-01

S E R V I C E N O T E

Supersedes:
none

N8201A Performance Downconverter

Serial Numbers: All Units

CPU Battery Replacement Instructions

Parts Required:

P/N	Description	Qty.
E4440-80582	Label, CPU Battery Replacement date	1
1420-0314	Lithium Battery (for CPU part number: N8201-65001 or N8201-65012 that have a white colored battery holder)	1
1420-0905	Lithium Battery (for CPU part number: N8201-65015 or N8201-65016 that have a black colored battery holder)	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: **INFORMATION ONLY**	
AUTHOR: KL	PRODUCT LINE: 12
ADDITIONAL INFORMATION:	

April 30, 2012

Agilent Technologies

Situation:

The N8201A's main A26 CPU uses a lithium battery to power the non-volatile memory (NVRAM). Instruments built prior to September 2009 have a battery that has a lifespan of three years with normal usage. Instruments built after September 2009 or for which the CPU has been replaced in 2010 and later have a battery with a lifespan of approximately five years with normal usage. (Note: the approximate serial number instrument for which the higher capacity battery began to ship is: US47270287). Instruments put into storage will have a significantly shorter battery lifespan due to the battery being continually drained. There was previously not a way to determine the age of the lithium battery in an instrument. When the battery dies, the following instrument settings will revert to their factory defaults: Auto Alignment settings, Power on Preset, Time and Date. Also, when the battery dies, the instrument will give the following message upon boot up to indicate that the calibration data was restored from EEPROM: "+609, Restoration of NVRAM data"

Solution/Action:

A label is now available to indicate when the lithium battery on the CPU assembly should be changed. On the label, write the appropriate month and date for when the battery should be replaced and place the label on the top of the rear fan. The life span of the 1420-0314 battery used in the N8201-65001 or N8201-65012 CPU is three years (at 25 degrees C). The life span of the 1420-0905 battery used in the N8201-65015 or N8201-65016 CPU is five years (at 25 degrees C). For example, when replacing the 1420-0314 battery for an instrument where today's date is March 31, 2010, write "March, 2013" on the label using a permanent marker. For instruction on how to replace the lithium battery on the CPU assembly, please see battery replacement instructions below. The 1420-0314 battery should only be used with the white colored battery hold for older CPUs. The 1420-0905 battery should only be used with the black colored battery holder for newer CPUs. When the correct battery is used, it will sit flush with the sides of the battery holder. The equivalent Panasonic part number for 1420-0314 is BR-2325. The equivalent Panasonic part number for 1420-0905 is BR-2330.

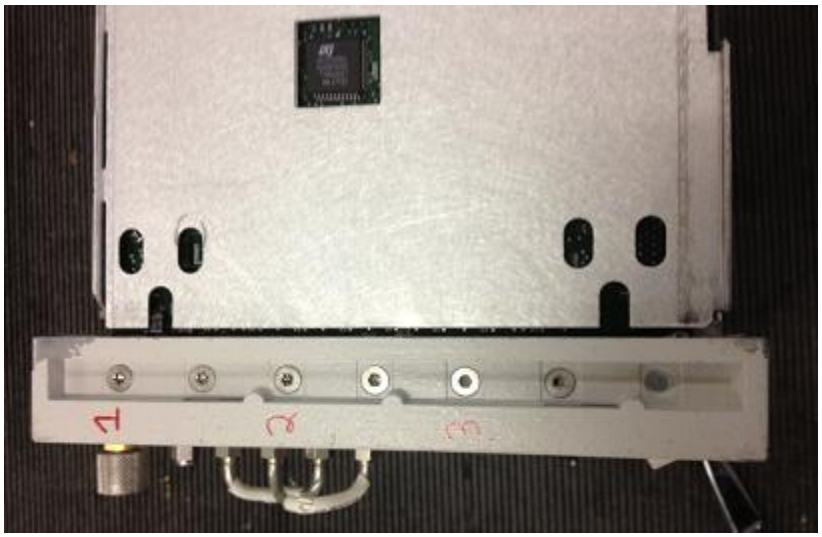
Figure 1: Location of Label on Rear Panel

Figure 2: Blank label for the month and year to be written on

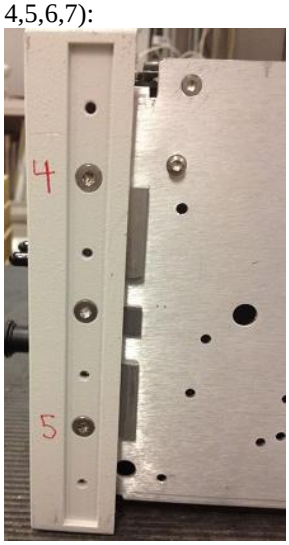
Battery Replacement Procedure:

Step 1: Using a Torx 20 driver, remove the rear feet and bottom feet and slide off the instrument cover

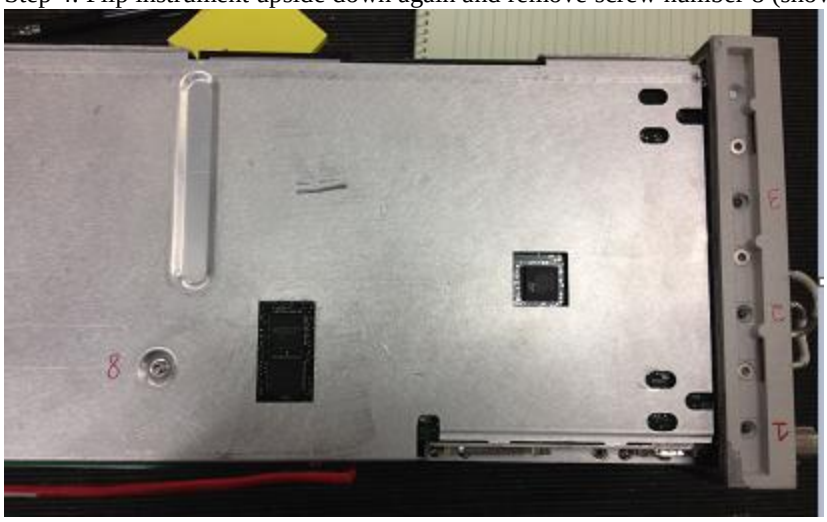
Step 2: Place the instrument upside down and using a Torx 10 driver, remove every-other screw from the bottom of the front frame starting from the left side. Please see below picture showing screws numbers 1, 2, and 3 to remove.



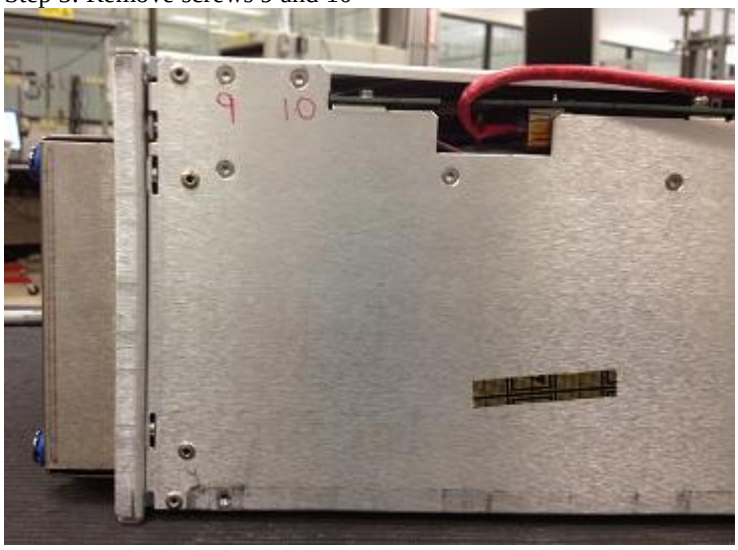
Step 3: Remove the top and bottom screws from the right side and left side of the front frame (screws number 4,5,6,7):



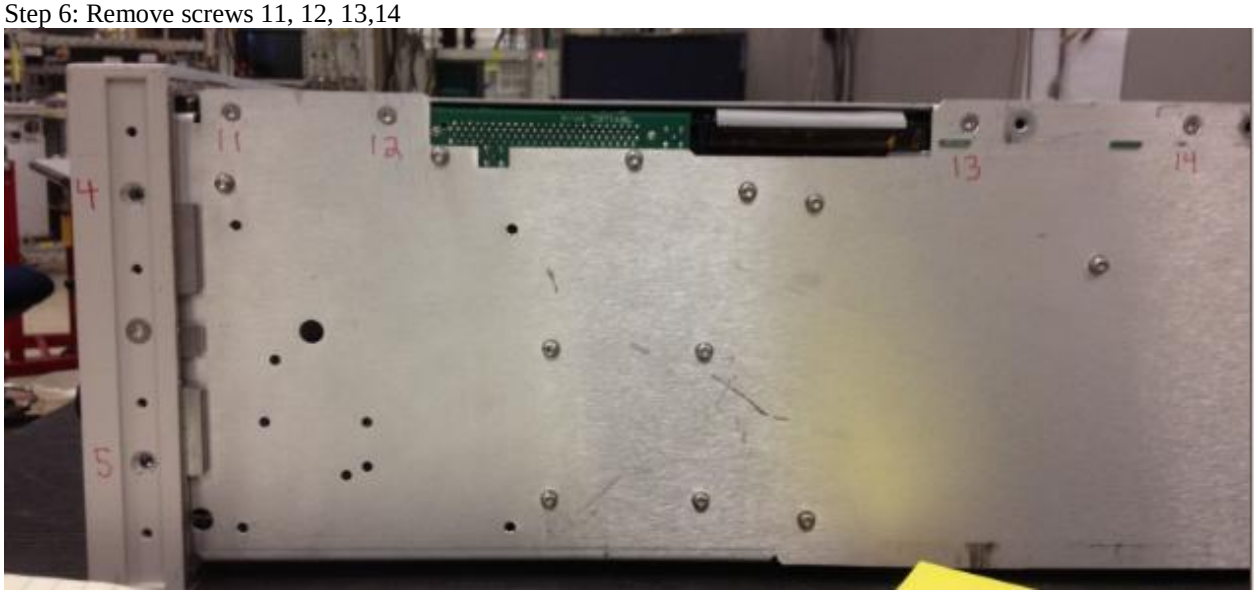
Step 4: Flip instrument upside down again and remove screw number 8 (shown below):



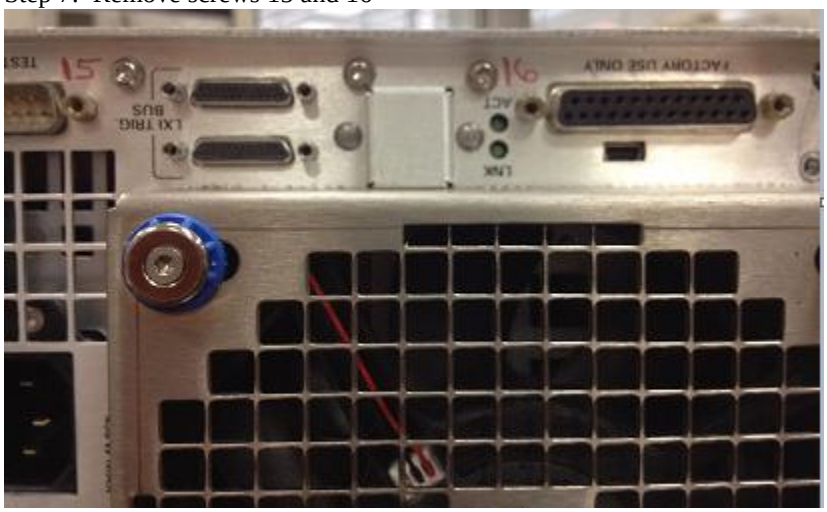
Step 5: Remove screws 9 and 10



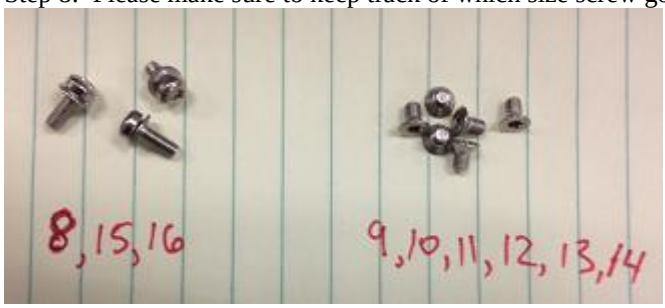
Step 6: Remove screws 11, 12, 13,14



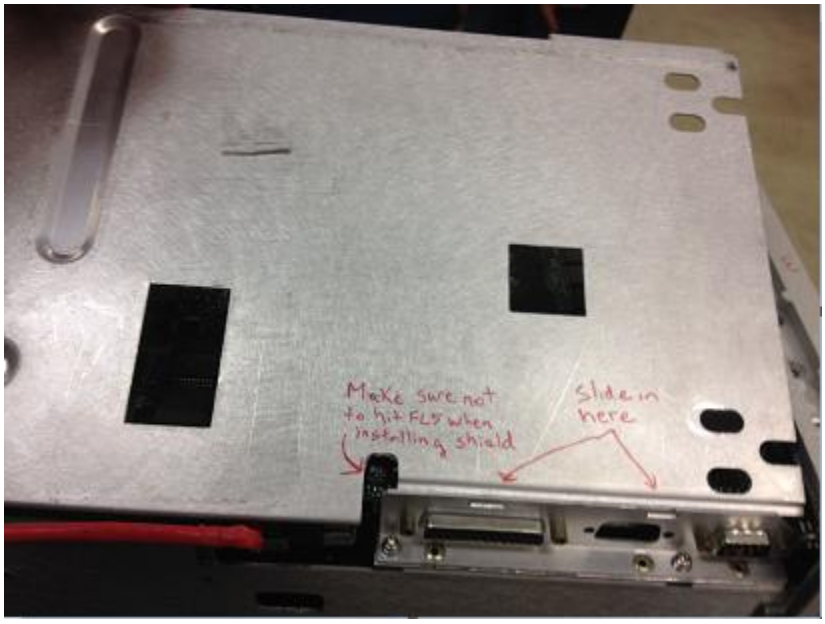
Step 7: Remove screws 15 and 16



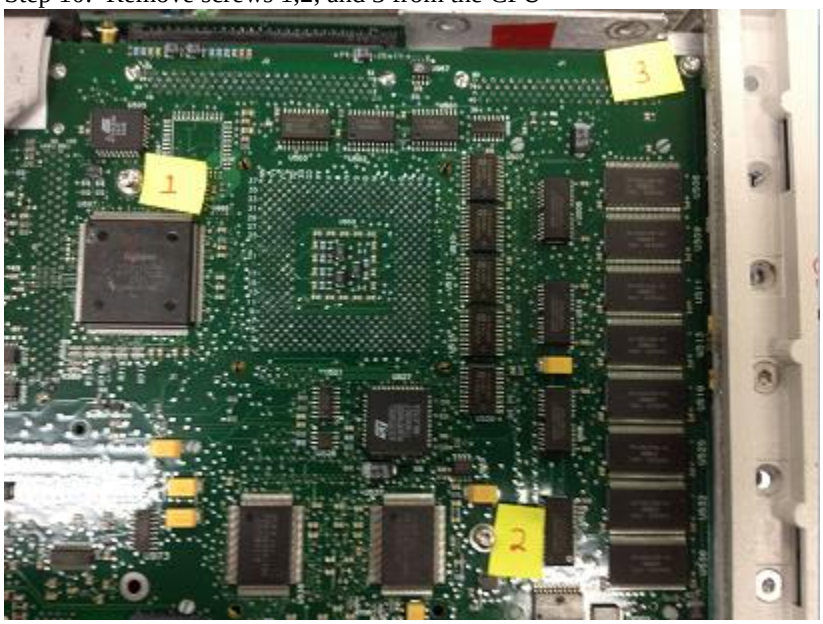
Step 8: Please make sure to keep track of which size screw goes into which screw hole.



Step 9: Lift up bottom shield and remove it. Make sure not to hit FL5 when removing or replacing the bottom shield.

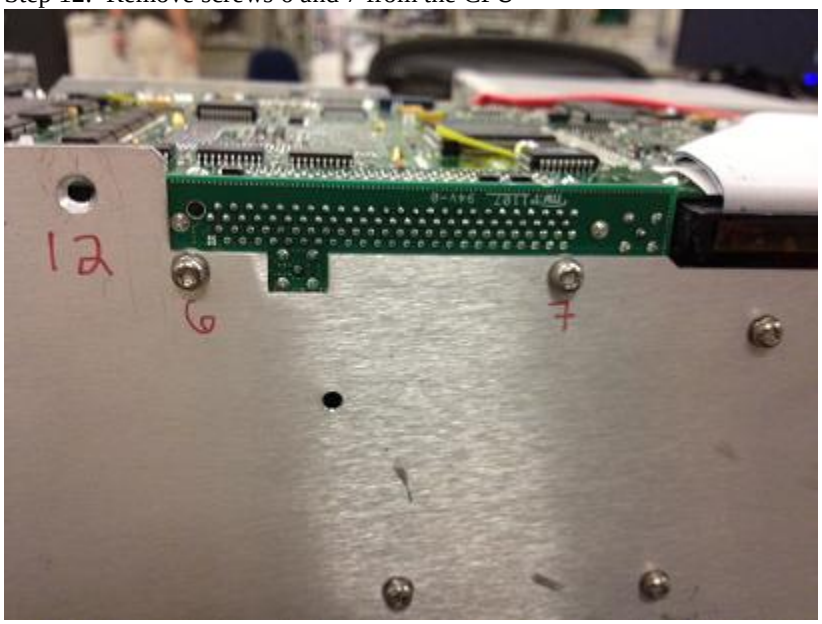


Step 10: Remove screws 1,2, and 3 from the CPU

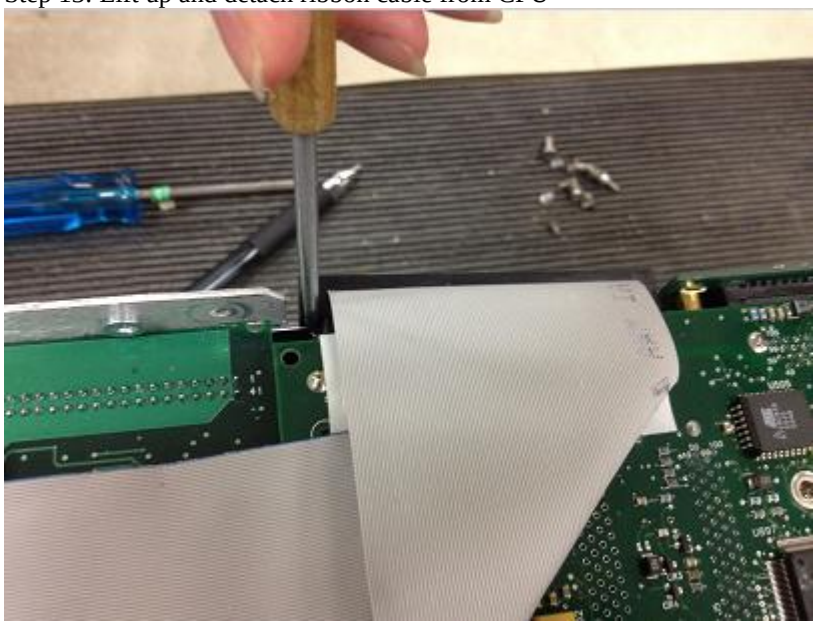


Step 11: Remove screws 4 and 5 from the CPU

Step 12: Remove screws 6 and 7 from the CPU



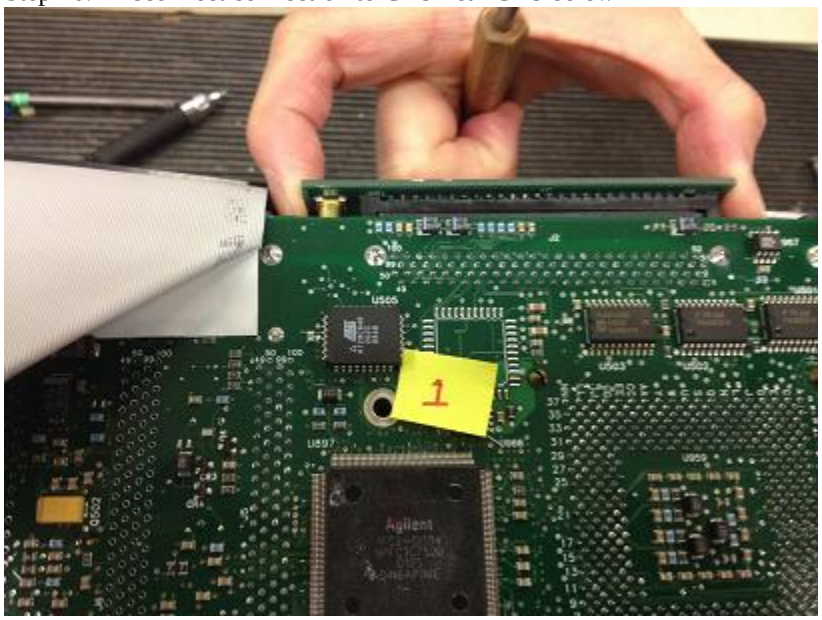
Step 13: Lift up and detach ribbon cable from CPU



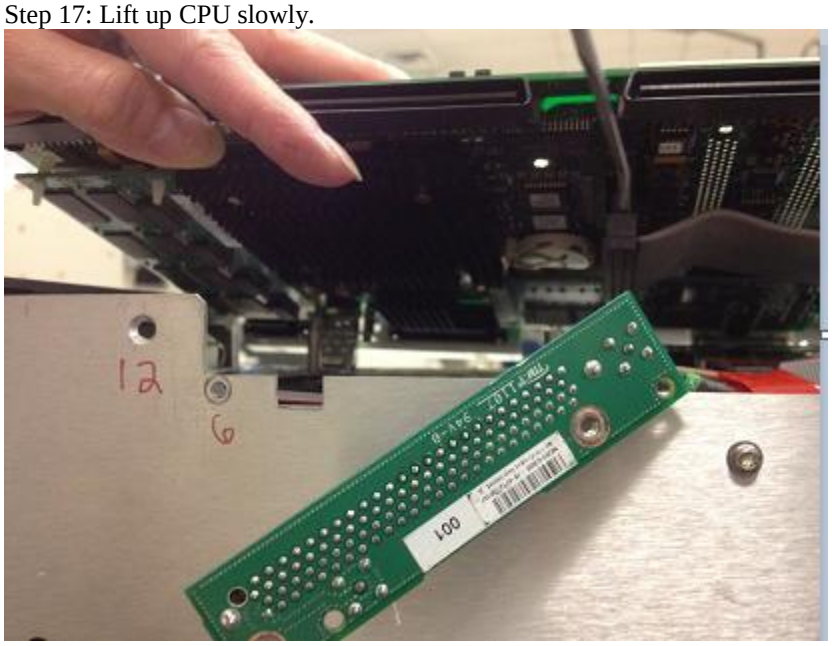
Step 14: Disconnect LAN cable from CPU

Step 15: Push the front frame forward to allow the CPU to be free from the front frame

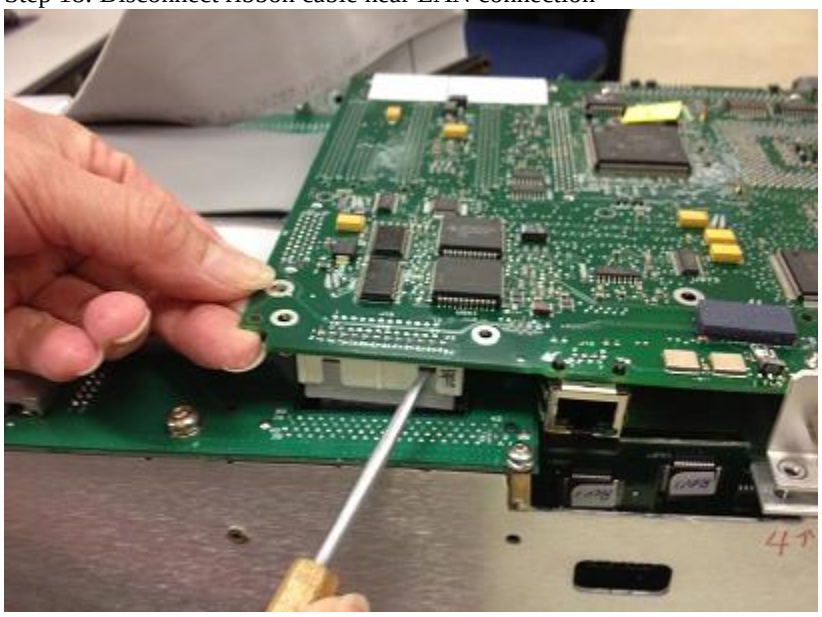
Step 16: Disconnect connection to CPU near CPU screw 1



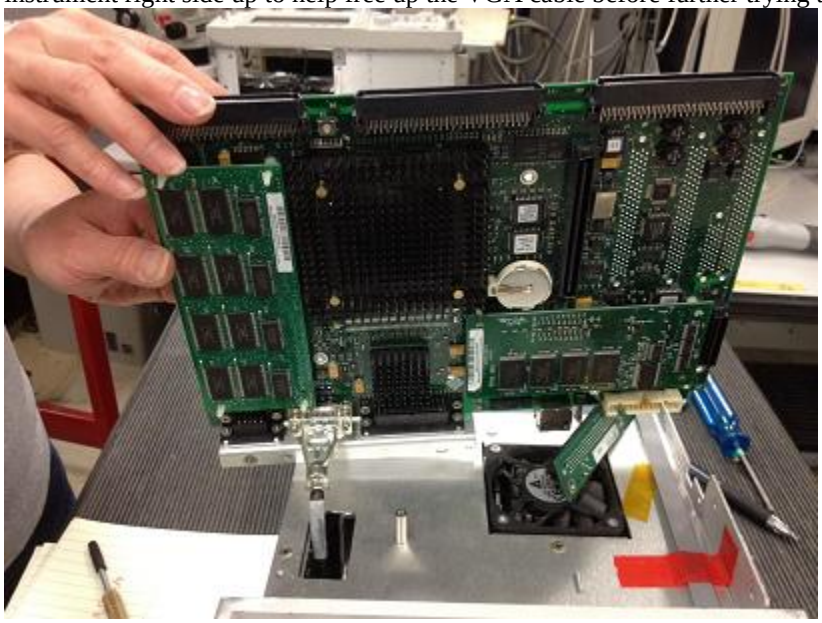
Step 17: Lift up CPU slowly.



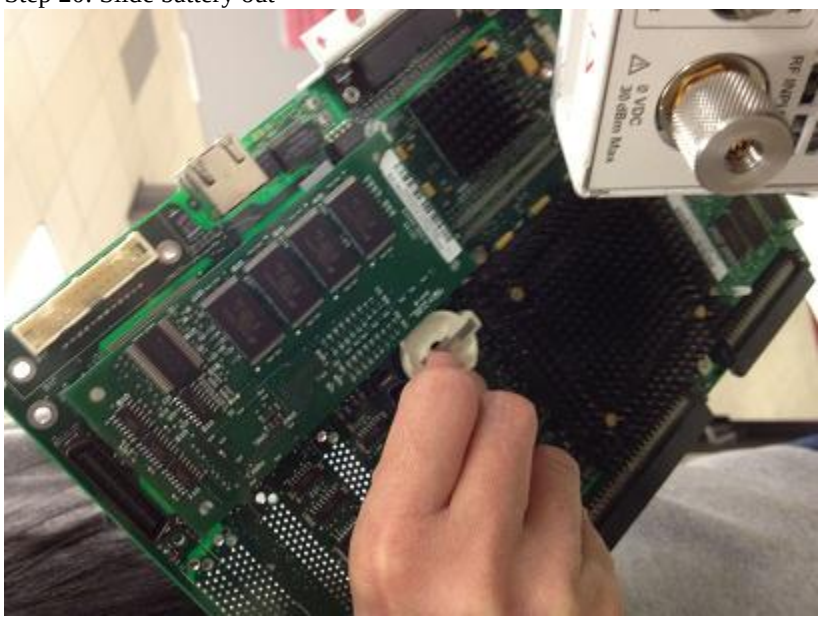
Step 18: Disconnect ribbon cable near LAN connection



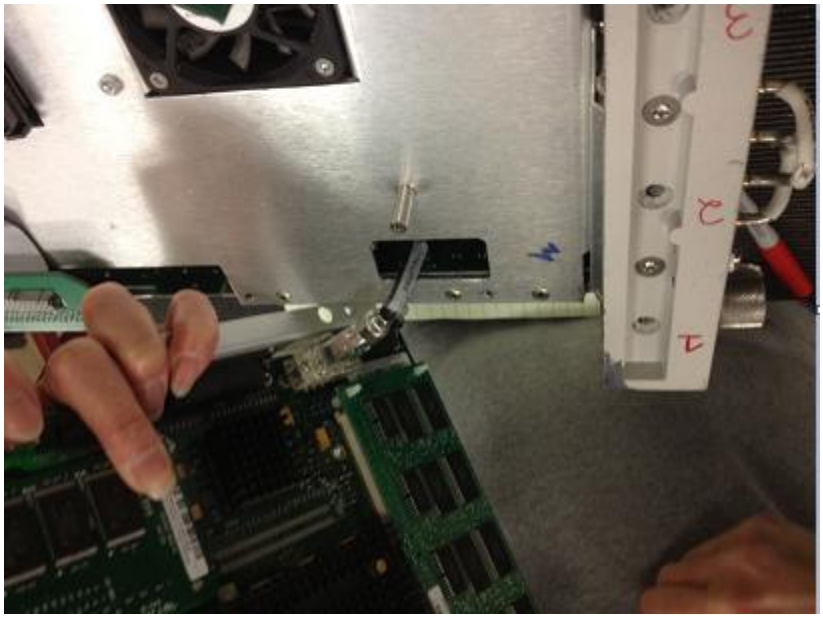
Step 19: Lift up the CPU. If the CPU gets caught, then the VGA cable may be hung up. You can flip the instrument right side up to help free up the VGA cable before further trying to lift up the CPU



Step 20: Slide battery out



Step 21: Note: this procedure can also be followed to replace the CPU. If replacing CPU, make sure to cover the hole through which the VGA cable is routed through, so that when unscrewing the screws attaching the VGA connector that none of the screws or nuts fall into the instrument



Step 22: After replacing the battery, follow the disassembly instructions in reverse to put the instrument back together.