NEI Work Instruction			Page 1 of 16	
Title: Unit D	Disassembly for V	VEEE		
Document Number / Disk File:         By:         Current Rev:         Date:           597-786-0553-00         Tim Connolly         0A         10/15/2012				
Assemblies Covered: N-2500 R5 (786-0553-XX and 786-0554-XX)				



Revision	Date	ECO#	Revised By	Description of Changes
0A	Oct 15, 2012	E03312	T.Connolly	Initial Release

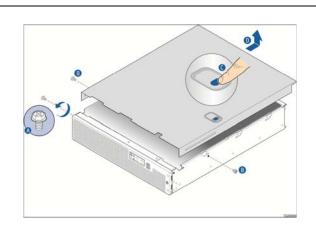
#### **Tools Required:**

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver

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Assemblies Covered:					
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NOTE: Ensure any power sources connected to the system are shut off or disconnected. Then disconnect any AC or DC Power Cords attached to the power supplies before disassembly of the unit.

- 1. Removal of the access covers requires a #2 Philips screwdriver.
  - a. Remove the three cover screws.
  - b. Press the cover release button and slide the cover towards the rear of the chassis until it stops.
  - c. Remove access cover by lifting it straight up.
  - d. Remove any labels from the chassis and access cover.
  - e. Discard Sheet Metal Cover, Cover Screws, and Labels in the appropriate Recycling Bin.
- 2. Removal of the bezel requires a #2 screwdriver.
  - a. Loosen the one screw securing the bezel to the chassis.
  - b. Rotate the bezel to the left to free it from the pins on the front panel, and remove it.
  - c. Remove the air filter (if installed) by lifting it straight off the back of the bezel.
  - d. Discard Bezel and Air Filter in the appropriate Recycling Bin.
- 3. Removal of the Power Supplies does not require any tools.
  - a. Press and hold the black button towards the right.
  - b. Pull the supply straight out of the rear of the chassis. Repeat for other supply.
  - c. Discard the Power Supplies in the appropriate Recycling Bin.







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# 4. Removal of the Hard Drives requires a #2 Philips screwdriver.

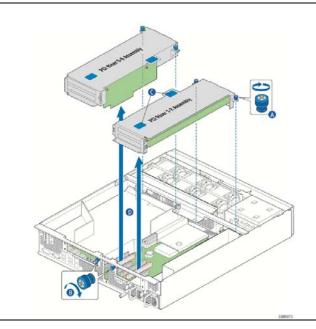
- a. Press the green button to extend the drive carrier latch.
- b. Pull the drive straight out of the front of the chassis.
- c. Unscrew the four screws holding the drive to the carrier.
- d. Repeat for all installed drives.
- e. Discard the hard drives, drive carriers, and screws in the appropriate Recycling Bin.



4.



- 5. Removal of the PCI riser assembly requires a #2 Phillips screw driver.
  - a. Disconnect any cables going to any installed PCI cards, and remove from the chassis.
  - b. Loosen the blue PCI riser retaining screw on the rear of the chassis.
  - c. Loosen the two blue PCI riser retaining screws inside the chassis.
  - d. Lift the assembly straight up and out of the chassis using the blue touch points.
  - e. Repeat if a second PCI riser assembly is installed.
  - f. Discard the cables in the appropriate Recycling Bin.



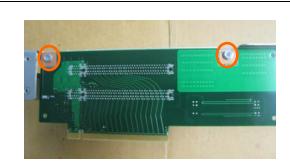
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6.	Removal of the PCI card(s) (if installed)
	requires a #2 Phillips screw driver.
	a. If installed, disconnect any additio

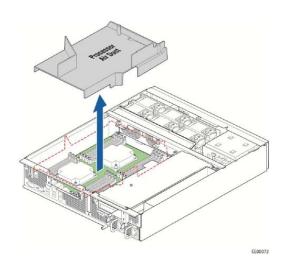
- a. If installed, disconnect any additional cables connected to the PCI cards.
- b. Remove the PCI card from the bracket by removing the one screw and pulling the card straight away from the riser.
- c. Repeat for any additional installed cards
- d. Discard the PCI card(s) and screw(s) in the appropriate Recycling Bin.



- 7. Removal of the PCI riser requires a #2 Philips screwdriver.
  - a. Remove the two screws securing the riser to the assembly.
  - b. Pull the riser straight away from the assembly to complete removal.
  - c. Repeat for second PCI riser if there was one installed.
  - d. Discard the riser, riser assembly, and screws in the appropriate Recycling Bin.



- 8. Removal of the Processor Air Duct requires a #2 Philips screwdriver.
  - a. Loosen the captive retention screw on the support cross bar that secures the air duct.
  - b. Rotate the air duct slightly to the left to clear the notch on the PCI riser assembly connector and slide the air duct backwards. Lift the air duct straight up to remove it.
  - c. Discard the Processor Air Duct in the appropriate Recycling Bin.



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L	N-2500 R5 (786-0553-XX and 786-0554-XX)		
9.	Removal of the Remote Management Module (if present) requires a #2 Phillips screwdriver.  a. Remove the two screws securing the module to the rear of the chassis.  b. Disconnect the module cable from the motherboard, and lift the module out of the chassis.	C600104	
9.	<ul> <li>c. Remove the cable connected to the module.</li> <li>d. Remove the two screws securing the module to the bracket.</li> <li>e. Discard the Remote Management Module, cable, bracket, and screws in the appropriate Recycling Bin.</li> </ul>	C600109	
10.	Removal of the PCI card(s) in the low profile slots requires a #2 screwdriver.  a. Disconnect any cables connected to the PCI card(s) and remove from the system.  b. Remove the one screw securing the PCI card(s) in the low profile slots.  c. If two cards are installed remove the card closest to the power supplies first by lifting straight out of the chassis.  d. If there is a second card repeat.  e. Discard the cable(s), PCI card(s), and screw in the appropriate Recycling Bin.		

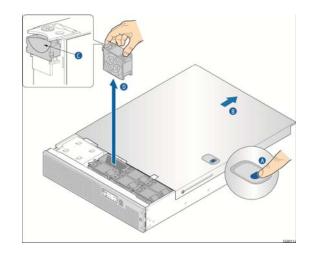
NEI	Work Inst	<b>Work Instruction</b>		
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11.	Removal of the Battery Backup/Supercap
	Assembly (if installed) requires a #2 Philips
	screwdriver.

- a. Loosen the blue retention screw that fastens the assembly to the cross bar.
- b. Lift the assembly straight out of the chassis.
- c. Press the locking lever on the plastic tray out, and slide the board towards the front of the bracket until the module lock disengages.
- d. Remove the Battery Backup module from the black plastic tray.
- e. Discard the Battery
  Backup/Supercap Module, plastic
  tray, and bracket in the appropriate
  Recycling Bin.



- 12. Removal of the System Fans does not require any tools.
  - a. Remove a System Fan by grasping both sides of the fan assembly, using the plastic finger guard on the left side and pulling the fan out of the metal enclosure that houses the fans and power cables.
  - b. Repeat for all installed System Fans
  - c. Discard the System Fans in the appropriate Recycling Bin.



- 13. Removal of the Support Cross Bar requires a #2 Philips screwdriver.
  - a. Remove the three screws securing the Support Cross Bar to the chassis.
  - b. Lift the bar out of the chassis.
  - c. Discard the Support Cross Bar and screws in the appropriate Recycling Bin.

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		G200111
14.	Removal of the Power Distribution Board cables does not require any tools.  a. Carefully uncover the black insulator covering the CPU 1 and CPU 2 power cables behind the fan cage.  b. Disconnect the CPU power cables from the server board and move them off to the side of the chassis (Since they are soldered on the power distribution board so you cannot yet remove them fully from the system).  c. Disconnect all other power cables which include: HDD backplane board power cable, Baseboard SSI main power cable, Fan control board power cable, Baseboard power control signal cable, and Auxiliary I/O power dongle.	CFU 1 and 2 Prover Cables  Control of the Control o
15.	Removal of the Backplane Retainer requires a #2 Philips screwdriver.  a. Remove the one screw securing the Backplane Retainer to the HDD bay assembly.  b. Slide the Backplane Retainer to the left of the chassis to release the tabs.  c. Lift the retainer off of the assembly.  d. Discard the Backplane Retainer and screws in the appropriate Recycling Bin.	Note: Chassis and Front Panel NOT shown for clarity.

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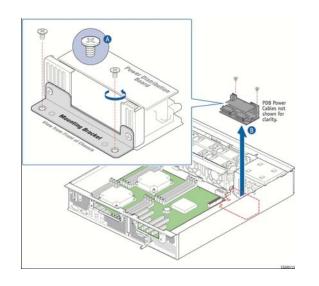
## Removal of the SAS Backplane requires a #2 16. Philips screwdriver. a. Lift the backplane and HDD air duct assembly up to access the connectors on the back of the board. b. Disconnect the four cables attached to the backplane. c. Lift the backplane board and air duct up and out of the chassis. d. Remove the HDD air duct by removing the two screws on the backplane. e. Discard the SAS Backplane, HDD air duct, and screws in the appropriate Recycling Bin. 16. Back View

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- 17. Removal of the fan cage requires a #2 Philips screwdriver.
  - a. Unplug the three fan connectors on the fan control board by pinching the sides of the connectors and pulling them up and off the headers on the fan control board.
  - b. Remove the two screws that fasten the fan cage to the chassis floor.
  - c. Pull the cage up and out of the chassis.
  - d. Discard the Fan Cage and screws in the appropriate Recycling Bin.

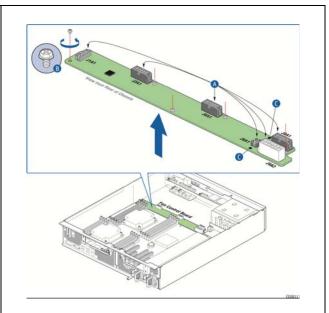


- 18. Removal of the Power Distribution Board requires a #2 Philips screwdriver.
  - a. Remove the two screws securing the board to the chassis.
  - b. Gently pull the PDB and all its attached cables out of the chassis.
  - c. Remove the two screws securing the mounting bracket to the board.
  - d. Discard the Power Distribution Board, Mounting Bracket, and screws in the appropriate Recycling Bin.

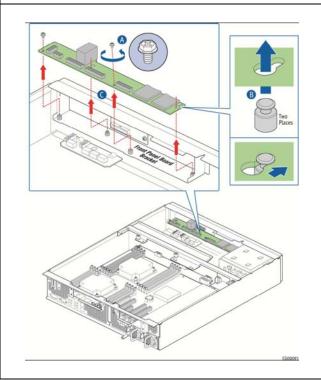


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- 19. Removal of the Fan Control Board does not require any tools.
  - a. Disconnect any cables still attached to the Fan Control Board.
  - b. Remove the five screws on the fan control board.
  - c. Lift the fan control board out of the chassis.
  - d. Discard the Fan Control Board and screws in the appropriate Recycling Bin.

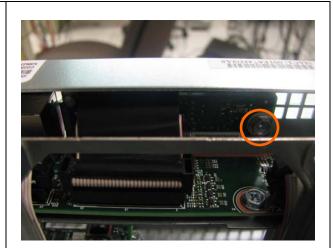


- 20. Removal of the Front Panel Board requires a #2 Philips screwdriver.
  - a. Remove any SD flash cards (if installed) in the SD module slots.
  - b. Disconnect all of the cables connected to the FP board.
  - c. Unscrew the two fasteners on the FP board and slide the board away from the front of the chassis and over the two keyhole standoffs to lift it up and out of the chassis.
  - d. Discard the PCI Fan Tray and screw in the appropriate Recycling Bin.



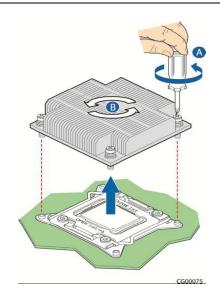
NEI	Work Inst	Work Instruction	
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- 21. Removal of the LED/Switch Board requires a #2 Philips screwdriver.
  - a. From behind the front panel, disconnect the LED/switch board power and signal ribbon cable from the LED/switch board
  - b. Remove the screw on the top right side of the LED/switch board.
  - c. The board is also attached to the front of the chassis by two standoffs. Pry the LED/switch board loose from these standoffs to remove it.
  - d. Discard the LED/Switch Board and screw in the appropriate Recycling Bin.



- 22. Removal of the Front Control Panel does not require any tools.
  - a. Remove the black control panel module from the front of the chassis by lifting up from the bottom and then pulling down to release the top tabs holding it into the chassis frame.
  - b. Pull away from the chassis to remove.
  - c. Discard the Front Control Panel in the appropriate Recycling Bin.
- 23. Removal of the CPU Heatsink(s) requires a #2 Philips screwdriver.
  - a. Start loosening the four screws of each heatsink two turns at a time in the order shown in the picture below.
  - b. Once all screws are fully out, twist the heat sink slightly to break the seal between the heatsink and the processor.
  - c. Lift the heat sink from the processor. If it does not pull up easily, twist the heat sink again and then lift out.
  - d. Repeat for other heatsink (if installed).
  - e. Discard the Heatsink(s) in the appropriate Recycling Bin.





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# 24. Removal of the Lithium Battery from the motherboard does not require any tools.

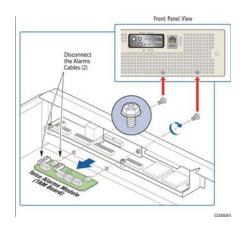
- a. Remove the coin style Lithium Battery by pressing the tab away from the battery.
- b. Discard the Lithium Battery in the appropriate Recycling Bin.

  \*\*\* CAUTION \*\*\*

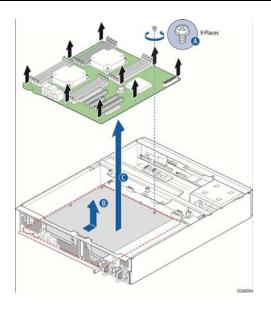
Care should be observed when disposing of the battery to avoid shorting it! Put a piece of scotch tape of the top and bottom of the battery to help minimize this risk.



- 25. Removal of the Telco Alarms Module (TAM) requires a #2 Philips screwdriver.
  - a. Remove the two screws securing the TAM to the front of the chassis.
  - b. Disconnect any cables connected to the module.
  - c. Remove by pulling the TAM away from the front panel.
  - d. Discard the TAM and screws in the appropriate Recycling Bin.



- 26. Removal of the Server Board requires a #2 Philips screwdriver.
  - a. Disconnect and remove any remaining cables to the server board.
  - b. Remove the nine screws securing the board to the chassis.
  - c. Tilt the server board up at the front edge and lift it from the chassis being careful to clear the rear panel of the chassis.
  - d. Discard the Server Board, cables, and screws in the appropriate Recycling Bin.



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DISCARD THE FULLY DISASSEMBLED UNIT IN THE APPROPRIATE RECYCLE BIN.	

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Recycling/Material Code	<b>Important Information</b>		
Material /Components, which must be a	removed and treated separately		
Lithium Battery	Battery free of hazardous substances, installed in socket on the motherboard		
Lithium Ion RAID Battery Backup	Battery is RoHS 5/6, installed under the RAID module		
Printed circuit boards	Motherboard, DIMMs, PCI card, PCI riser, Power Supply, SAS/SATA Module, Backplane, Power Distribution Board, Remote Management Module, Telco Alarm Board, Front Panel Board, LED/Switch Board, & Front Panel Board		
Disk Drives	Mounted on disk carrier		
Material /Components, which can distu	rb certain recycling processes Heatsink		
Material /Components, through which	benefits can normally be achieved		
Cold Rolled Steel	Cover, PCI brackets, Bezel, Fan Cage, & chassis		
* ABS	Front Panel Bezel, Cable Guide, Power Distribution Board Cover, Fan Assembly, PCI Riser guide, & Air Baffle		
Cables	Distributed in device & power cord		
Fans	Fans		
Special notes			
* Flame retardant of plastics does not con	tain PBB and PBDE.		

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### Annex A

Producer:	<company addressing="" name,="" on="" other="" producer="" the=""></company>
Scope of information sheet:	< product category as in Annex IA of WEEE Directive, or type of equipment as in Annex 1B of WEEE Directive, or producer's Product Family, or single products identified by brand and model name >

Component or Material	Remarks / Location
Battery (internal *) containing Mercury (Hg)/ NiCad/Lithium/	Lithium battery <b>\I</b>
Other	located on the motherboard
Backlighting lamps of LCD/TFT or similar screens containing Mercury (Hg)	NONE
Mercury (Hg) in other applications**	NONE
Cadmium**	NONE
Gas discharge lamps	NONE
Plastic containing brominated flame retardants other than in Printed Circuit Assemblies ***	NONE
Liquid Crystal Displays with a surface greater than 100 cm2	NONE
Capacitors with PCB's	NONE
Capacitors with substances of concern**** + height > 25 mm, diameter > 25 mm or proportionately similar volume	NONE
Asbestos	NONE
Refractory ceramic fibres	NONE
Radio-active substances	NONE
Beryllium Oxide	NONE
Other forms of Beryllium	BE-CU in some connector contacts
Gasses - which fall under Regulation (EC) 2037/2000 and all hydrocarbons (HC).	NONE
Components with pressurised gas which need special attention (Pressure > 1,5 bar) *****	NONE
Liquids ***** if volume > 10 cl (or equivalence in weight, e.g. for PCB, oil)	NONE
Mechanical components that store mechanical energy (i.e. springs) or equivalent parts which need special attention ***** (diameter > 10 mm and height > 25 mm or proportionally similar volume and expanding)	NONE
PBDE (deca- & octa-BDE) and Perfluorocatane sulfantes (PFOS) in Directive 2006/122/EC	NONE

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- = arrow indicates the need for the location of the compartment/ substances within the product. When the location of a substance/ components is requested, it is at part level, e.g. main board, housing etc
- \* Internal means that batteries can only be removed by opening the product by means of (a) tool(s).
- \*\* Substances are considered to be in the product if present above the levels specified in Commission Decision 2005/618/EC related to Directive 2002/95/(EC) (RoHS Directive) or if their use is permitted through exemptions in the Annex of Directive 2002/95(EC)
- \*\*\* To be coherent with industry current standards and practices on tracking of plastic parts, Directive 2002/96 (EC) Annex II requirement is understood to focus on plastic parts that weight more than 25 g.
- \*\*\*\* Substance of concern other than PCB, to be specified/ addressed further in the context of Directive 2002/96 (EC) Annex II national requirements and European developments
- \*\*\*\* Needs of equivalent nature as those for maintenance, service manuals and installation for safety purposes.