Netra™ 1290 Server Product Notes

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The *Netra 1290 Server Product Notes* provide last-minute information that corrects or compliments the Netra™ 1290 server documentation.

Topics discussed fall into these three catagories:

- "Hardware Notes" on page 2 – Changes to the server hardware or supported peripherals.
- "Software Notes" on page 5 – Changes to the installed software and includes patches and workarounds.
- "Documentation Notes" on page 5 – Changes to the documentation or new and updated information.

These product notes might change over time, so refer to them often for the latest information about your Netra 1290 server.

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Hardware Notes

Initial Power Connection Time Constraint

Although somewhat similar, the Netra 1290 server does not behave the same at initial power connection as the Netra 1280 server. In particular, you must apply power to any two of the four Netra 1290 input power connections within 2 seconds. Otherwise, the system controller might fail to start. To fulfill this time constraint, follow these guidelines:

- If not installed, install circuit breakers or quick connectors in the power path from source power to the server power inputs for -48 VDC input systems.
- Ensure that circuit breakers are off, quick connectors are disconnected, or AC power cords are unplugged. Energize the circuit breakers, connect the quick connectors, or plug in the AC power cords for two or more of the power inputs within a 2-second interval.

Note – The 2-second time constraint applies only to the initial power connection to an unenergized Netra 1290 server. There are no time constraints for power application to the third and fourth input power connections, or for replacement of a power supply in an operating system.

Shipping Kit Contents

The shipping kit might contain different items than those described on the packing list. For example, to promote eco-responsibility, the kit might no longer contain the RJ-45 Ethernet cable, the antistatic wriststrap, or other ancillary items. Alternatively, serial adapters, fasteners, or other items not listed on the packing list might be included to enhance the customer experience. Contact Sun Microsystems, Inc. to purchase the items you need. These ancillary items also might be available at computer supply stores.

Supported Writable Optical Media

The optical media drive shipped in your Netra 1290 server might be manufactured by Samsung. As a service to users who wish to burn CD or DVD writable media, Sun Microsystems is making the following information available from Samsung's in-house testing of their drive.

The following tables list the top write speeds of the respective manufacturer's writable media as of the date of this publishing. This information is subject to change at any time.

TABLE 1 DVD+R Writable Media Supporting 16x Burn

Maker	MID	MT ID	Maker	MID	MT ID
CMC	CMC MAG	M01	MKM	MCC	004
DAXON	DAXON	AZ3	MUST	MUST	006
DAXON	DAXON	CY3	PHILIPS	PHILIPS	C16
INFOMEDIA	INFOME	R30	Prodisc	PRODISC	R05
INFOSCIENCE	IS03	001	RICOH	RICOHJPN	R03
LEADDATA	LD	M04	RITEK	RITEK	P16
LGE	LGEP16	001	SONY	SONY	D21
MAXELL	MAXELL	003	TDK	TDK	003
MBI	MBIPG101	R05	TAIYO YUDEN	YUDEN000	T03

TABLE 2 DVD-R Writable Media Supporting 16x Burn

Maker	MID	Maker	MID	Maker	MID
CMC	CMC MAG. AM3	MAXELL	MXLRG04	RITEK	RITEKF1
DAXON	Daxon016	MBI	MBI 01RG40	SONY	SONY16D1
DAXON	DAXON016S	MKM	MCC03RG20	TDK	TTH02
INFOSCIENCE	INFOSMART03	OPTODISC	OPTODISCR016	TY	TYG03
LGE	LGE16	PRODISC	PRODISCS05		

TABLE 3 DVD+RW Rewritable Media Supporting 8x Burn

Maker	MID	MT ID	Maker	MID	MT ID
MKM	MKM	A03	RITEK	RITEK	008
Ricoh	RICOHJPN	W21			

TABLE 4 DVD-RW Rewritable Media Supporting 6x Burn

Maker	MID	Maker	MID	Maker	MID
CMC	CMCW04	MKM	MCC 01RW6X01	RITEK	RITEKW06
JVC	JVC1Victord7	TDK	TDK701saku		

TABLE 5 DVD+R Dual-Layer Writable Media Supporting 8x Burn

Maker	MID	MT ID	Maker	MID	MT ID
MKM	MKM	003	Ricoh	RICOHJPN	D01

TABLE 6 DVD-R Dual-Layer Writable Media Supporting 4x Burn

Maker	MID
MKM	MKM_01

TABLE 7 CD-R Writable Media Supporting 48x Burn

Maker	LI	LO	Maker	LI	LO
BEALL	972116	795974	Mitsubishi	973423	795973
CMC	972666	795971	MPO	970006	795974
CSI	972426	795974	NANYA	971537	795974
DAXON	972267	795974	NSD	972535	795971
FORNET	972607	795971	PRODISC	973219	795971
FUJI	972645	795973	PRODISC	973219	795972
GIGA	972812	795974	PRODISC	973219	795973

TABLE 7 CD-R Writable Media Supporting 48x Burn *(Continued)*

Maker	LI	LO	Maker	LI	LO
LEAD DATA	972656	795974	PRODISC	973219	795974
MAXELL	972529	743000	RITEK	971517	795970
MAXELL	972529	795974	Wealth Fair	971817	795974

TABLE 8 CD-RW Rewritable Media Supporting 16x Burn or Faster

Maker	LI	LO	Maker	LI	LO
Daxon	972260	744150	Mitsubishi	973425	744300
INFOEMDIA	972531	795973	Mitsubishi	973425	795974
Mitsubishi	973424	744300	Prodisc	973212	795973
Mitsubishi	973424	795974	RITEK	972712	744100

Software Notes

No updates at this time.

Documentation Notes

AC Power Supply Specifications

In the *Netra 1290 Server Service Manual*, Table A-3, Electrical Specifications on page A-3, has been updated as follows:

TABLE A-3   Electrical Specifications

Electrical Element	DC Version Requirement	AC Version Requirement
Voltage	-48 VDC, -60 VDC nominal	200 VAC to 240 VAC single phase, 47-63 Hz
Current (per power supply)	41 A maximum per input at -48 VDC	9A maximum per input at 200 VAC
Current (total)	99.5 A maximum total for all inputs at -40VDC	20A maximum total for all inputs at 180 VAC
Power[*]	3980 Watts	3750 Watts

* Total input power is approximately equally divided among the operating power supplies.

AC Power Supply Type

In the *Netra 1290 Server Administration Guide*, Code Example 5-10 on page 83, identifies the power supplies as a type `A166`. This is incorrect. The power supplies are type `A209` and should be identified as such. For example:

CODE EXAMPLE 5-10   `showboards` Command Output – `Disabled` and `Degraded` Components

```
Slot       Pwr Component Type               State      Status
----       --- -------------               -----      ------
SSC1       On  System Controller V2        Main       Passed
/N0/SCC    -   System Config Card          Assigned   OK
/N0/BP     -   Baseplane                   Assigned   Passed
/N0/SIB    -   Indicator Board             Assigned   Passed
/N0/SPDB   -   System Power Distribution Bd. Assigned Passed
/N0/PS0    On  A209 Power Supply           -          OK
/N0/PS1    On  A209 Power Supply           -          OK
/N0/PS2    On  A209 Power Supply           -          OK
/N0/PS3    On  A209 Power Supply           -          OK
/N0/FT0    On  Fan Tray                    Auto Speed Passed
/N0/RP0    On  Repeater Board              Assigned   OK
/N0/RP2    On  Repeater Board              Assigned   OK
/N0/SB0    On  CPU Board                   Active     Passed
/N0/SB2    On  CPU Board V3                Assigned   Passed
/N0/SB4    On  CPU Board                   Active     Passed
/N0/IB6    On  PCI+ I/O Board              Active     Passed
/N0/MB     -   Media Bay                   Assigned   Passed
```

Attaching Power Cables

Use the following procedures for attaching power cables.

Connecting AC Power Cables

Caution – The AC version of the Netra 1290 server is designed to work with power systems having a grounded neutral conductor. Do not connect the equipment into any other type of power system. Contact your facilities manager or a qualified electrician to determine what type of power is supplied to your building.

Caution – The AC version of the Netra 1290 server is shipped with grounding type (three-wire) power cords. Always connect the cords into a grounded power outlet.

Caution – The socket outlets must be near the equipment and easily accessible.

1. **Turn the server power switch to the Standby position.**

Caution – The On/Standby power switch does not isolate the equipment. The AC power cables are the primary means of disconnection for this product.

2. **Turn the cabinet power off (in a powered cabinet).**

   Refer to the installation guide that came with the cabinet.

3. **Label both ends of the power cables.**

   Two cables should be labeled Source A and two should be labeled Source B.

4. **Connect the power cables to the system.**

   a. **Connect the Source A power cables to AC0 and AC1 on the system.**

   b. **Connect the Source B power cables to AC2 and AC3 on the system.**

   c. **Run the power cables through the CMA and secure them with tie-wraps.**

      Ensure that the CMA can extend and retract without dislodging the power cables.

Note – Step 3 and Step 4 will already be completed for servers that come preinstalled in a Sun Rack 900 cabinet.

5. **Consider your next steps:**

   ■ If the server is mounted in an unpowered cabinet:

   a. **Connect power cables from Source A on the server to the customer-supplied power source A circuit breakers.**

   b. **Connect power cables from Source B on the server to the customer-supplied power source B circuit breakers.**

   ■ If the server is mounted in a powered cabinet:

   a. **Connect power cables from Source A on the cabinet to the customer-supplied power source A circuit breakers.**

   b. **Connect power cables from Source B on the cabinet to the customer-supplied power source B circuit breakers.**

   Refer to the installation guide that came with the cabinet for instructions on cabinet power cabling.

   Note – It is the installer's responsibility to ensure that the cabinet has sufficient electrical power and redundancy to handle the required installation.

   c. **Connect power cables from Source A on the cabinet to Source A on the server.**

   d. **Connect power cables from Source B on the cabinet to the Source B on the server.**

   Refer to the installation guide that came with the cabinet for instructions on cabinet power cabling.

DC Power Cable Conditions

The power supplied to the DC version of the Netra 1290 server must follow these conditions:

■ -48 VDC
■ 50A maximum per cable
■ 99.5A maximum for entire server

Assembling the DC Power Connectors

Caution – The following procedure is intended as a guide only and should only be performed by a qualified electrician.

1. **Turn the power switch to the Standby position.**

Caution – The On/Standby power switch does not isolate the equipment. The circuit breakers are the primary means of disconnection for this product.

2. **Remove the plastic covers from the DC inlet box (**FIGURE 1**).**

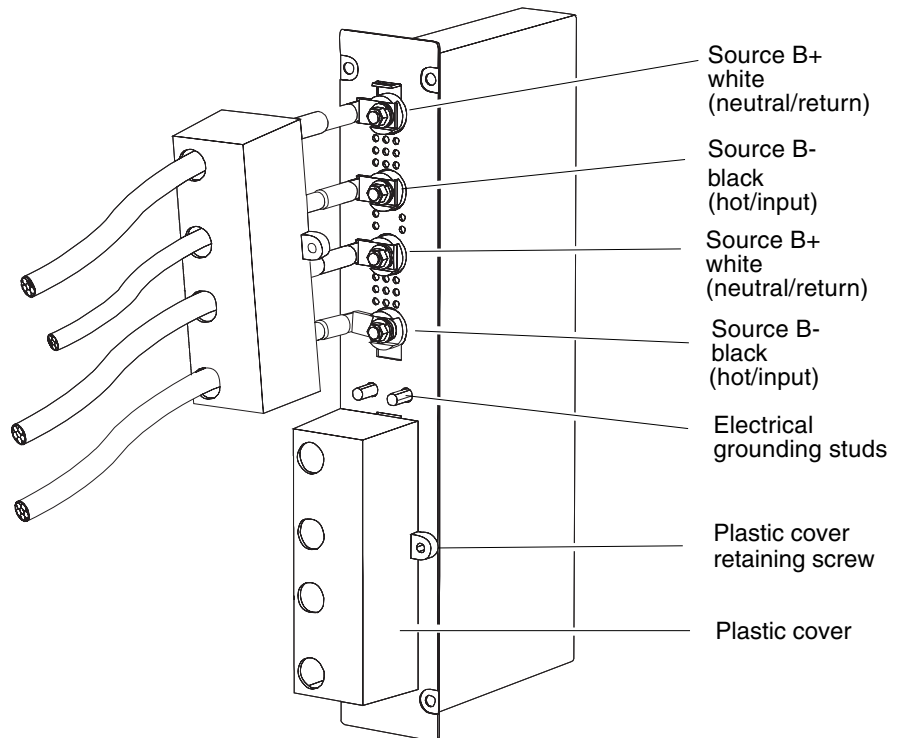   Each cover is retained by a Phillips screw.

FIGURE 1   DC Inlet Box With Source B Plastic Cover Removed and Connectors Exposed

3. **Assemble the ground connection.**

   a. **Crimp the two-hole ground lug onto the ground cable.**

   The shipping kit contains lugs for crimping customer-supplied cables. Use a crimping tool or approved equivalent to secure the lugs onto the cables.

   b. **Use two M5 nuts and washers to fit the lug to the electrical grounding studs between the two plastic covers.**

   Use the M5 nut driver provided.

4. **Assemble the power cable ends.**

    a. Crimp the single-hole lugs onto the input and return cables.

    b. Slide the lugs through the plastic cover.

       See (FIGURE 1).

    c. Use M5 nuts and washers to secure the lugs to the respective source terminals.

       Use the M5 nut driver provided.

5. **Ensure that:**

   - The cables are oriented correctly with respect to the labeling on the connection studs.

   - The correct polarity of feed is connected to each stud on the rear of the system.

   - A ground strap for each feed pair is connected to the electrical groundstuds.

6. **Secure the plastic covers with the Phillips screws.**

Connecting the DC Power Cables

Caution – The following procedure is intended as a guide only and should only be performed by a qualified electrician.

1. **Connect the ground cable to a suitable ground point.**

2. Connect the remaining power cables to the customer-supplied circuit breakers.

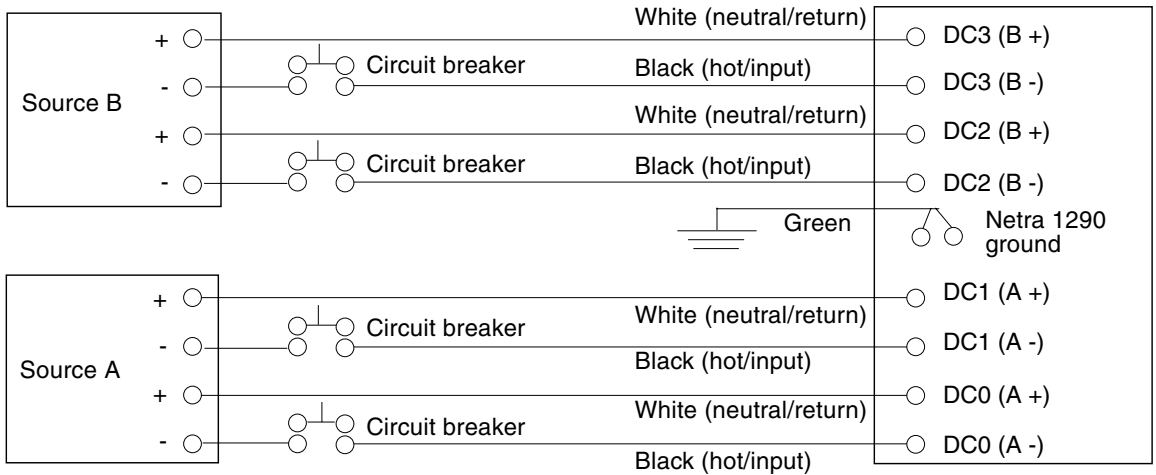DC0 and DC1 are connected to one power source. DC2 and DC3 are connected to the other power source (FIGURE 2).

FIGURE 2   Netra 1290 Power Feed Connectors

Verifying the DC Connections Prior to Applying Initial Power

Caution – The following procedure is intended as a guide only and should only be performed by a qualified electrician.

Caution – Ensure that the cabling is correct prior to switching system power on for the first time. Incorrect cabling could cause injury to personnel or damage to equipment.

1. Verify that the ground input wires (green) connect to system ground.

2. Verify that the hot input wires (black) connect to negative terminal lugs.

3. Verify that the neutral-return input wires (white) connect to positive terminal lugs.

4. Connect a digital volt meter to each branch in turn and verify that:

- DVM black probe to server ground and red probe to + (positive) terminals indicates 0 VDC.

- DVM black probe to server ground and red probe - (negative) terminals indicates -48 VDC.