A196 Power Supply Installation Guide

Sun Fire™ E25K/E20K Systems

Sun Fire 15K/12K Systems

Reducing Power or Powering Off

Since the A141 power supply is replaced one-at-a-time during this procedure, it is possible to update the system power supplies without powering the system off if the system has sufficient power redundancy.

1. **Check the power supply status by using the Sun Management Center or by typing the following SMS command:**

```
sc% showenvironment -p powers
POWER     UNIT     AC0      AC1      DC0      DC1      FAN0     FAN1
-----     ----     ---      ---      ---      ---      ----     ----
PS0       OK       OK       OK       ON       ON       OK       OK
PS1       OK       OK       OK       ON       ON       OK       OK

PS0
 Current0        11.95     A        N/A
 Current1        10.75     A        N/A
 48VDC           50.00     V        N/A
 Power           1135.00   W        N/A
PS1
 Current0        11.15     A        N/A
 Current1        11.15     A        N/A
 48VDC           50.00     V        N/A
 Power           1115.00   W        N/A
Total Power      2250.08   W        N/A
```

2. **Compare the Total Power balue with the table below:.**

TABLE 1   Maximum power for live upgrade

Number of Operating Power Supplies	Maximum Total Power Value
6	20,000W
5	16,000W
4	12,000W
3	8,000W
2	4,000W
1	N/A

If the Total Power value is higher than shown on this table the system power load must be reduced. Power off non-vital I/O boards and CPU boards or else the system must be powered off to replace the A141 power supplies.

Removing a Power Supply

1. **Power off the A141 power supply by using the Sun Management Center or by typing the following SMS command:**

```
sc% poweroff psx
```

where x is the power supply 0-5. Refer to poweroff(1M) man page for more information.

> ⚠ **Caution –** Power supplies have dual AC inputs. Both circuit breakers, AC0 and AC1 must be operated to turn off a power supply.

2. **Verify that both circuit breakers on the front of the A141 power supply are in the off position.**

> ⚠ **Caution –** Before removing the power supply from the system, the green activation LED must be off and the amber or blue removal OK LED must be on.

> ⚠ **Caution –** Be sure you are properly grounded before you begin the hardware removal and installation. There are four ground points on the system cabinet: top left and top right from the front, top left and top right from the rear.

3. **Label and remove both AC power cords from the front panel of the A141 power supply.**

4. **Use a Phillips No. 2 screwdriver to loosen the four (4) front panel captive fasteners.**

<table>
<tr><td>⚠ !</td><td>Caution – The power supply unit weighs 42.2 lb. (19.2 kg). Use proper heavy-lifting procedures when removing this unit.</td></tr>
</table>

5. **Slide the A141 power supply out the system and place it on a flat, sturdy, ESD-protected surface. Use the power connector insert-ejector bracket as a handle.**

6. **Insert the A196 power supply into the system.**

7. **Secure the A196 power supply with the four (4) front panel captive fasteners.**

8. **Verify the LED status.**

   Failure of the active LED to transition from on to off within 60 seconds after insertion indicates a power-status control fault.

9. **Connect the AC power cords to the front of the corresponding power supplies.**

10. **Power on both circuit breakers on the front of the A196 power supply.**

11. **Check for error messages on the system controller in** `/var/opt/SUNWSMS/adm/platform/messages`.

12. **Check the power supply status by using the Sun Management Center or by typing the following SMS command:**

```
sc% showenvironment -p powers
    POWER       UNIT  AC0   AC1   DC0  DC1  FAN0  FAN1
    -----       ----  ---   ---   ---  ---  ----  ----
    PS at PS0  OK    OK    OK    ON   ON   OK    OK
    ...
```

13. **Repeat Step 1 through Step 12 until each A141 power supply has been replaced.**

14. **Install** `SMS 1.4.1 patch 118595-02` **or greater or** `SMS 1.5` **software.**

    Refer to the *Sun Management Services (SMS) Installation Guide* for installation instructions.

    SMS now determines the type of power supplies present in the system at power on and when bulk power supplies are inserted. SMS 1.5 will even display A196 Power supplies as PS-A196 (instead of PS) under the `showenvironment -p powers` and the `showboards -v` commands:

```
sc% showenvironment -p powers
    POWER           UNIT  AC0   AC1   DC0  DC1  FAN0  FAN1
    -----           ----  ---   ---   ---  ---  ----  ----
    PS-A196 at PS0  OK    OK    OK    ON   ON   OK    OK
    PS      at PS1  OK    OK    OK    ON   ON   OK    OK
    ...
```

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Part No. 819-2636-10, Rev. 01
July 2005