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MINERDUDE 8XTREME Plus Smart Mining RIG User Guide

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User Guide

WELCOME
Thank you for purchasing the MINERDUDE™ 8XTREME PLUS™ mining system.
Every X8 is thoroughly tested before shipping, however, some issues might crop up while shipping or during setup.
This guide will show how to use the built-in system diagnostics tool and will go over how to fix some of the most common issues.

Contents

ABOUT THE SYSTEM DIAGNOSTICS TOOL

8XTREME PLUS has an integrated system diagnostics program named OCTOTEST for checking the health of various system devices, including power supply telemetry, fan speeds/PWM, system temperatures, humidity, and

air pressure.

NB!
The system diagnostics tool "OCTOTEST" has been preloaded on the SSD the system ships with. When installing a new operating system to your X8, it is recommended to either use a different SSD or to make a copy of the one provided by MINERDUDE.

INITIALIZING SYSTEM DIAGNOSTICS.

8XTREME PLUS has an integrated system diagnostics mode for system health monitoring. AUTOTEST has been built to verify that the system is running nominally and to pinpoint issues with an error code on the monitor. This troubleshooting guide will go through the error messages and help you fix these issues.
To enter the system diagnostics wait for the system to initialize. The system will reboot several times at first, and wait until the system bios have initialized.
To test the fans make sure you have the original SSD that shipped with the system.

1. Hold the down arrow on the keyboard until you get to the boot selection.

2. Select OCTOTEST from the boot selection and press enter.

3. Choose the correct test option by typing the number corresponding to your system

For X8 ULTRA PLUS, select an appropriate 8GPU option for your system:
3W is for systems with 140mm fans
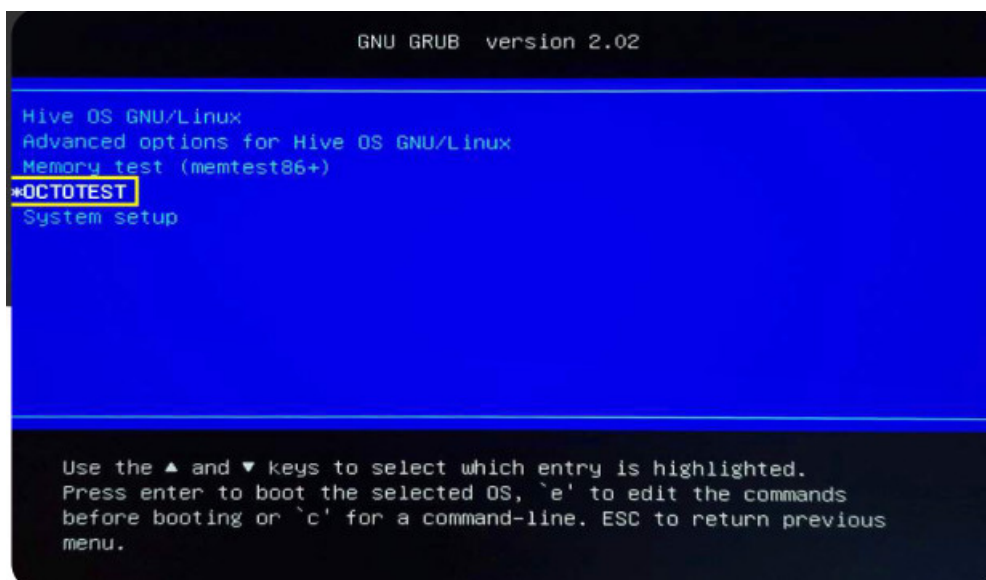2W is for systems with 120mm fans
3PSU stands for systems with 3 power supplies
2PSU stands for systems with 2 power supplies
1400W is for systems with DELL power supplies

For example, for a system with 2 power supplies you would select the option: 2) 8GPU_2_PSU
To better understand the results of the diagnostic refer to the images below:

```
[    1.413809] input: Logitech USB Receiver System Control as /de
2-1/2-1.5/2-1.5:1.1/0003:046D:C52B.0002/input/input6
[    1.415160] hid-generic 0003:046D:C52B.0002: input,hiddev0,hid
 USB Receiver] on usb-0000:00:1d.0-1.5/input1
[    1.418759] hid-generic 0003:046D:C52B.0003: hiddev1,hidraw2: l
Receiver] on usb-0000:00:1d.0-1.5/input2
udhcpc: sending discover
udhcpc: sending discover
udhcpc: no lease, failing
------------------------------------------------------------
VGA Devices:
00:02.0 VGA compatible controller: Intel Corporation Xeon E3-1200
ed Graphics Controller (rev 06)
------------------------------------------------------------
OCTOFAN TESTMODE: v4.0
OCTOFAN USB_OK: Firmware v3.0   Hardware v1.2   Bootloader: v2.0
OCTOFAN WATCHDOG: disabled.
OCTOFAN SELECT: Press appropriate key
1) 7GPU_2_PSU(#0#1)_NO_NET
2) 8GPU_2_PSU(#0#1)_NO_NET
3) 9GPU_2_PSU(#0#1)
4) 12GPU_2W_2_PSU(#0#1)
5) 12GPU_2W_2_PSU(#0#2)
6) 12GPU_2W_3_PSU
7) 12GPU_2W_4_PSU
8) 12GPU_3W_2_PSU(#0#1)
9) 12GPU_3W_2_PSU(#0#2)
0) 12GPU_3W_3_PSU
_
```

TEST FAILS WITH THE FOLLOWING ERROR MESSAGE

FAN 0 MAX RPM <4200	FAN 0 50% PWM >3500

Issue: The rightmost fan has PWM issues. The issue might be a loose connector a defective fan, something blocking the airflow or a temporary issue with the test mode.
Solution: : Re-run the test mode. If the result is the same then make sure the connector labeled as " FAN 0" on the diagram is firmly attached.

FAN 2 MAX RPM <4200	FAN 2 50% PWM >3500

Issue: The second fan from the right has PWM issues. The issue might be a loose connector a defective fan, something blocking the airflow or a temporary issue with the test mode.
Solution: Re-run the testmode. If the result is the same then make sure the connector labeled as "FAN 2" on the diagram is firmly attached.

FAN 4 MAX RPM <4200	FAN 4 50% PWM >3500

Issue: The third fan from the right has PWM issues. The issue might be a loose connector a defective fan, something blocking the airflow or a temporary issue with the testmode.
Solution: Re-run the testmode. If the result is the same then make sure the connector labeled as "FAN 4" on the diagram is firmly attached.

FAN 6 MAX RPM <4200	FAN 6 50% PWM >3500

Issue: The fourth fan from the right has PWM issues. The issue might be a loose connector a defective fan, something blocking the airflow or a temporary issue with the testmode.
Solution: Re-run the testmode. If the result is the same then make sure the connector labeled as "FAN 6" on the diagram is firmly attached.

FAN 8 MAX RPM <4200	FAN 8 50% PWM >3500

Issue: The leftmost fan has PWM issues. The issue might be a loose connector a defective fan, something blocking the airflow or a temporary issue with the testmode.
Solution: Re-run the testmode. If the result is the same then make sure the connector labeled as "FAN 8" on the diagram is firmly attached.

IF NONE OF THE FANS ARE WORKING

Make sure that the PCI-E power cable is firmly connected to the systems controller and the power supply backplane. Check for "PSU" labeled in blue in the graphic on the next page.

Here are some of the troubleshooting steps to fix an issue in the case of a malfunctioning or nonfunctioning display.

1. Make sure that the power supplies turn on at the same time from a PDU (Power Delivery Unit) Plugging in the power supplies one at a time may interfere with the normal functioning of the systems controller.
2. Make sure that the green LED on the power supplies is working. If the light is not turned on, try taking a power supply from a different slot and see if the LED turns on and that the testmode is working. If this is the case then the issue is most likely with the power supply.
   However, if after swapping the working power supply it also doesn't light up the LED, then the issue is with the power supply backplane. Inspect the pins of the backplane to see if any of them are bent.
3. Make sure that the 4-pin cable is firmly connected to the display.

NO VIDEO FROM THE FRONT PANEL VGA
Check that the VGA connector labeled on the schematics in red is securely connected to the motherboard and the system controller.
CLEAR CMOS BUTTON NOT WORKING
Check that the clear CMOS connector labeled on the schematics in purple is securely connected to the motherboard and the system controller.
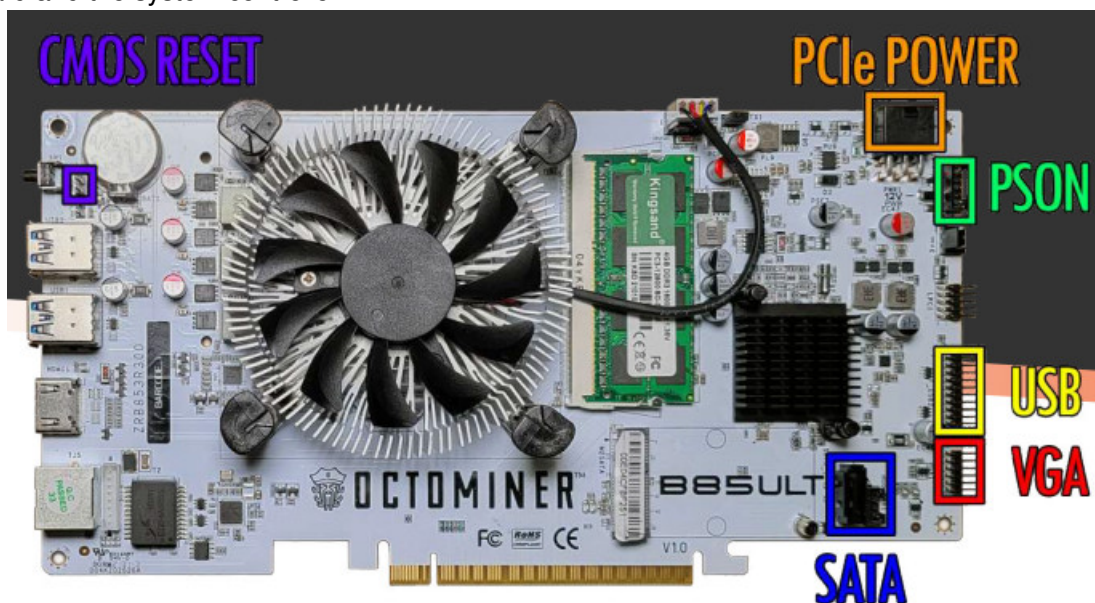
POWER DELIVERY SYSTEM, POWER SUPPLIES, COMPATIBLE CABLES, AND PDU
MINDERDUDE X12 and X8 come with various configurations of power supplies ranging from one to four units with ratings ranging from 460W up to 1800W per unit. Verify the specification of your power supply and calculate the rating based on your mains voltage as 110-250v output has different wattage ratings. The system consumes

up to 200W at 100% fan speed. Leave at least 10% power surplus for optimal operation.

The accessories include a power splitter cable. The C13 ends are meant to be plugged into the power supplies. On the other end, you'll find a C20 inlet that is compatible with properly rated cables and PDUs (Power Delivery units).

C20 inlets are rated at 16A/250VAC international and 20A/250VAC in North America whereas C13 is rated at 15A/250V in North America and international at 10A/250V.

Due to the higher rating of the C20 inlet, a properly rated cable and PDU combination must be used. If such a power delivery option is not available to you it is possible to use individual C13 cables for each of the power supplies.

TROUBLESHOOTING POWER DELIVERY

Refurbished server power supplies provided by MINERDUDE and tested in stress test cabinets before they get installed in your machine. In addition to stress testing, the output voltages are measured to be within the optimal range. However here are a few tips to pinpoint if you are having any issues with your power delivery.

Make sure your graphics cards' power requirements don't exceed the rated output of the power supplies. The power output of the power supplies is dependent on the supplied input voltage. Check the label on the power supply to match your AC voltage to the output rating and add 200W for the system running with fans at 100%. It's strongly recommended to not run your system over 90% of the maximum power output.

- Check that the 6-pin cable labeled as PSON is firmly connected on the motherboard and PSU backplane.
- Make sure each power supply is inserted properly and the status LED is working.
- If the system keeps crashing remove all but one power supply and remove all but one GPU.
- If still facing the same issue replace that single power supply and replace the graphics card with a different one.
- Reseat RAM into another slot, and make sure it's properly seated.
- Unplug the systems controller PCIe cable, disabling the fans.
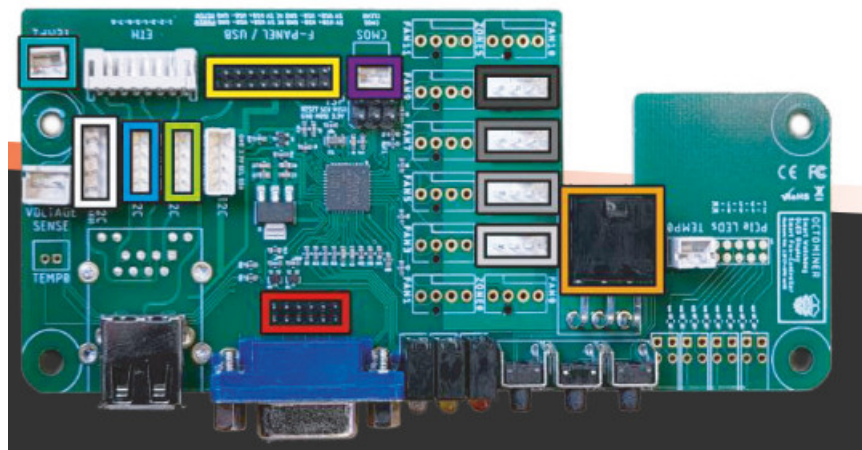
THE SYSTEM DOESN'T TURN ON

Check that the 6-pin cable labeled as PSON is firmly connected on the motherboard and PSU backplane.
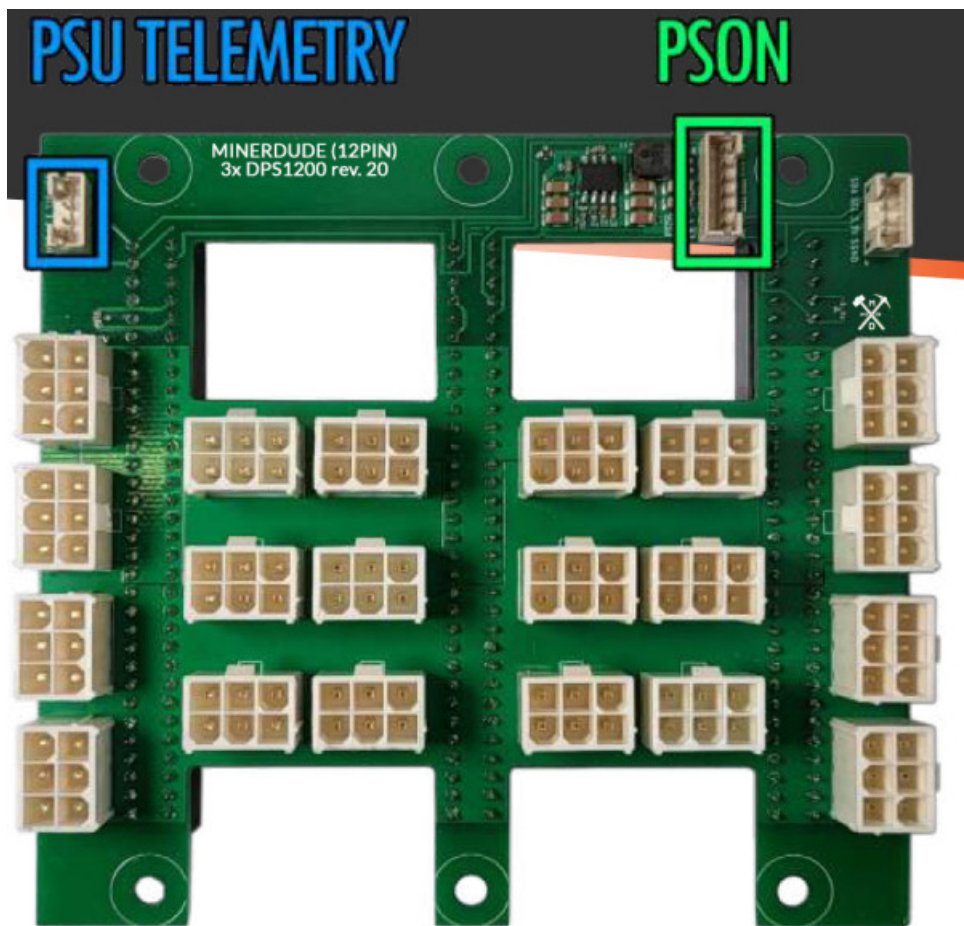
SYSTEM CONTROLLER

■ 6 PCIe POWER	■ USB
■ FAN 8 ■ FAN 6 ■ FAN 4 ■ FAN 2	■ BME 0
■ CMOS	■ PSU TELEMETRY
■ VGA	□ OLED ■ TEMP 1

BME 0 OUT OF RANGE

Issue: The temperature sensor located at the lower center of the front of the machine is not reporting the correct temperature.

Solution: Make sure the connector labeled in light green as "BME 0" on the diagram is firmly attached.

TEMP 1 OUT OF RANGE

Issue: The temperature sensor located at the rear of the machine is not reporting the correct temperature.

Solution: Make sure the connector labeled in dark blue as "TEMP 1" on the diagram is firmly attached.

PSU AC OUT OF RANGE

Issue: The systems controller can't communicate with the power supply, the power supply is not firmly connected,

the power cable is broken or the power delivery unit doesn't work.

Solution: Make sure the connector labeled on the diagram above in blue as "PSU" on the systems controller is firmly attached.

Make sure the other end of the cable is securely attached to the power supply backplane shown on the diagram below.

PSU DC OUT OF RANGE

Issue: The systems controller can't communicate with the power supply, the power supply is not firmly connected, the power backplane has a bent pin or the power supply is not functional.

Solution: Make sure the connector labeled on the diagram above in blue as "PSU" on the systems controller is firmly attached.

Make sure the other end of the cable is securely attached to the power supply backplane shown on the diagram below.

OTHER ISSUES WITH THE FRONT PANEL:

Some issues can not be displayed through the systems controller Testmode, The following issues that might happen are:

NO IMAGE IS DISPLAYED ON THE STATUS DISPLAY.

This issue can occur when the display cable has come loose. Make sure that the connector labeled in mint green as "7" is firmly connected on both the OLED panel below the systems controller, as well as on the systems controller itself.

THE USB ON THE FRONT PANEL IS NOT WORKING.

This issue is most likely related to the Black USB cable between the motherboard and the systems controller. Make sure the cable Labeled in green as "USB" is firmly connected.

THE RESET AND POWER BUTTONS ARE NOT WORKING.

This issue is caused by the power header cable being loose or damaged. Make sure the red-tipped cable labeled in red as "3" is firmly connected to the motherboard as well as on the systems connector.

THE MONITOR WILL NOT DISPLAY A PICTURE.

This issue can be caused by several factors. First, check that the VGA cable is firmly connected to both the motherboard and the monitor.

THE MACHINE CAN'T CONNECT TO THE INTERNET.

After making sure the ethernet cable works, proceed to check if the gray ethernet cable labeled in gray as "6" is firmly connected to both the motherboard and the systems controller. If this doesn't solve the issue see if the port on the rear of the machine works.

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support@minerdude.com

Documents / Resources

	MINERDUDE 8XTREME Plus Smart Mining RIG [pdf] User Guide 8XTREME Plus Smart Mining RIG, 8XTREME Plus, Smart Mining RIG, Mining RIG

References

- [Home - Minerdude](#)