X12 ULTRA
OCTOMINER™

System Troubleshooting Guide

Welcome

Thank you for purchasing the OCTOMINER™ X12 ULTRA™ mining system.
Every X12 is thourougly tested before shipping, however some issues might be crop up while shipping or during set up.
This guide will help you troubleshoot the issues you might encounter while setting up the machine.

Initializing System diagnostics.

X12 ULTRA has an integrated system diagnostics mode for system health monitoring. Testmode has been built to verify that the system is running nominally and to pinpoint any issues as an error code on the status display panel. 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 - wait until the final boot has finished and then press the middle reset button for several seconds until TESTMODE is displaid on the status display panel. The system will reboot once during testing and will display either "OK" or "FAIL" at the end.

Systems controller not working

See that the USB connection cable between the motherboard and the controller is firmly connected. See page 6 for the diagram. Make sure that the motherboard is powered on.

Display doesn't work/ Blue LED blinks slowly.

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

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 testmode.
> Solution: Rerun the testmode. 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 testmode.
> Solution: Rerun 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: Rerun 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: Rerun the testmode. If the result is the same then
> make sure the Connector Labeled as "FAN 6" on the diagram
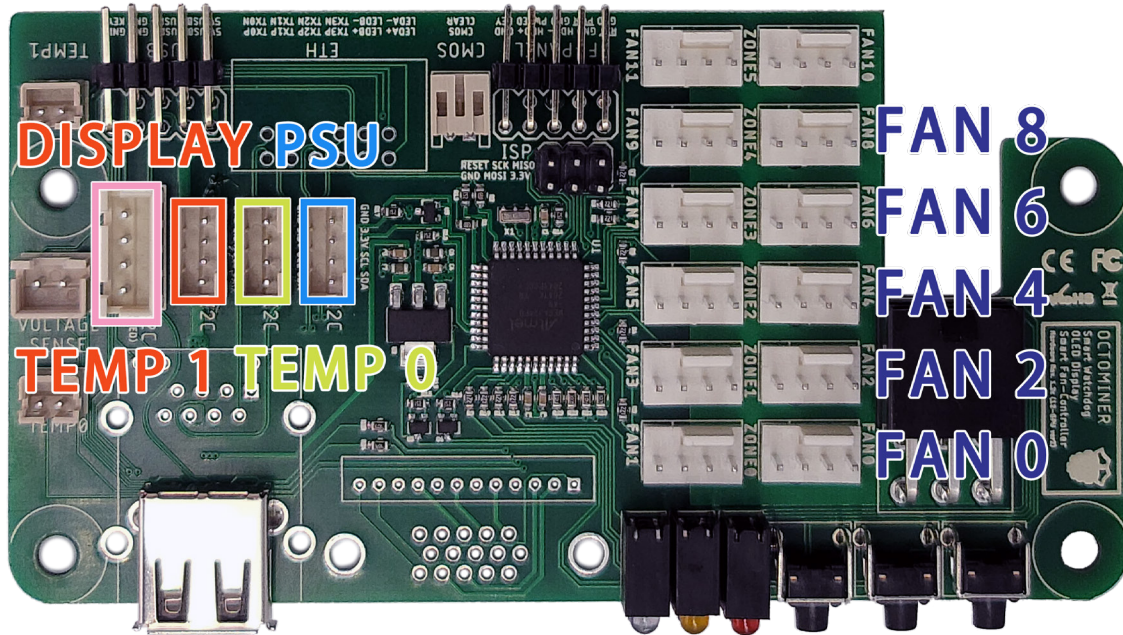> is firmly attached.

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: Rerun 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 PCIE 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.

Temp 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 blue as "T0" 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 "T1" 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 attatched 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 attatched to the power supply backplane shown on the diagram below.

The system doesn't turn on.

This issue can be caused by loose Front Panel connector. Check for the graphic on the next page and see if the cable labeled in mustard yellow as "F-Panel" is firmly connected between the motherboard and the system controller.

Getting access to motherboard connectors and RAM

In order so troubleshoot some of the issues removing of the power supply guide bracket is required. In order to do so first remove the power supply by pushing down on the rubber tab and pulling out.

Pull out the power supply and unscrew the 6 screws on the right side of the machine, as shown on the diagram. Carefully remove the guide bracket to gain access to the motherboard.
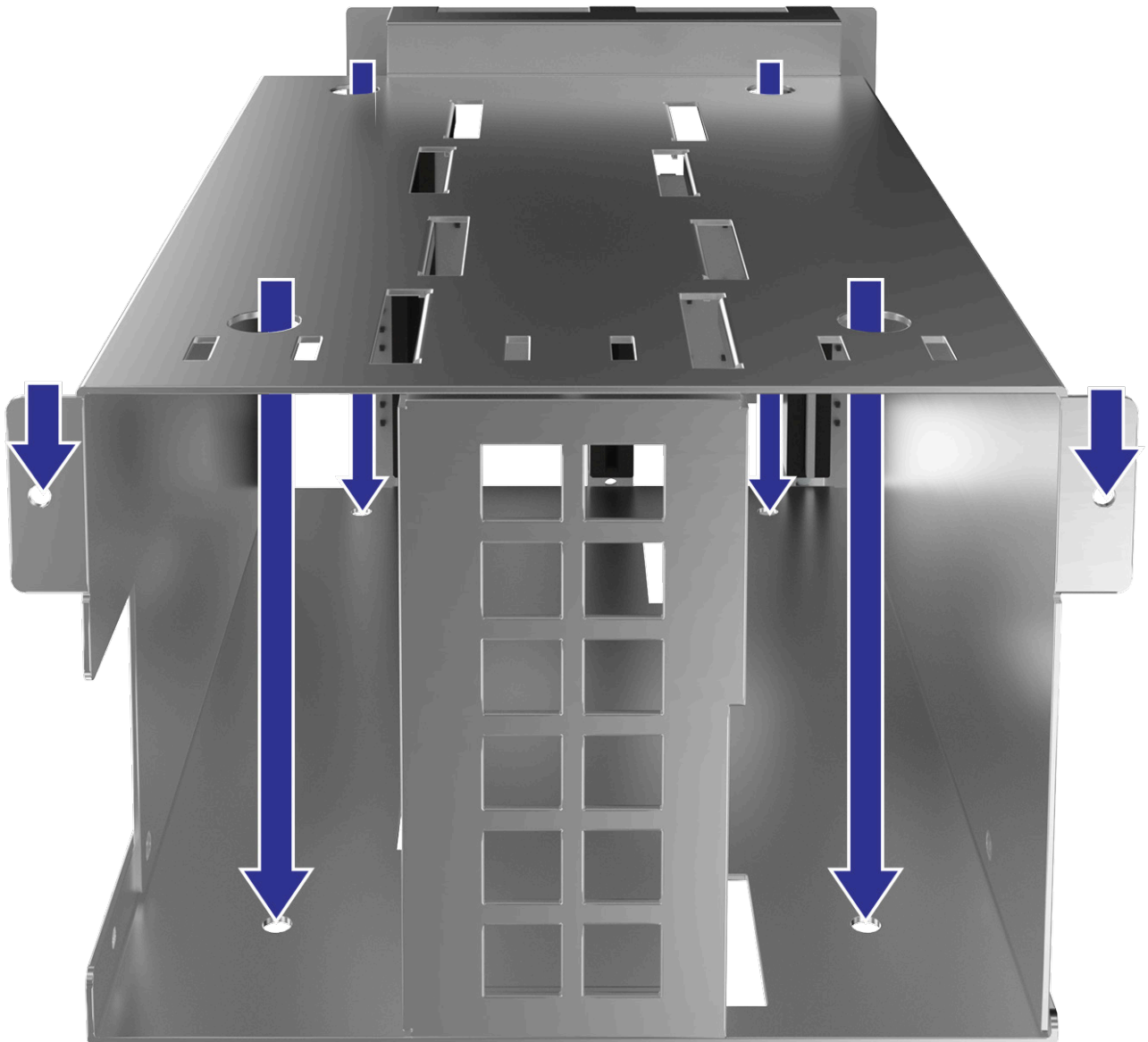
Other issues with the front panel:

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

No image displaid 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.
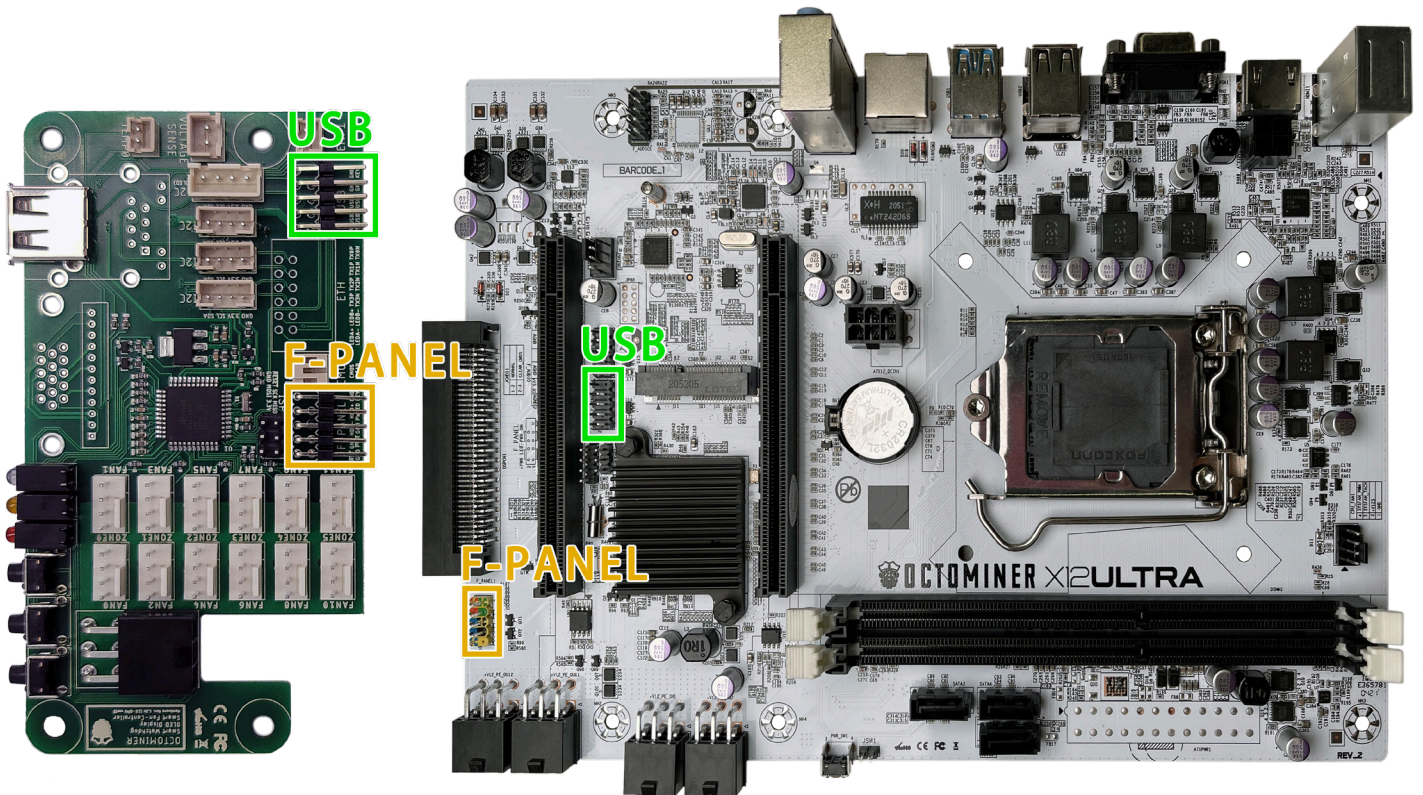
The red and black reset and power button are not working.

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 on the motherboard as well as on the systems connector.

The white clear CMOS button is not working

This issue is caused by the clear CMOS header cable being loose or damaged. Make sure the white cable labeled in light blue as "9" is firmly connected on the motherboard as well as on the systems connector. make sure that the 2 pins on the motherboard closest to the front of the machine are connected.

The Monitor will not display a picture.

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

The machine can't connect to the internet.

After making sure the modem and the ethernet cable works proceed to checking if the gray ethernet cable labeled in gray as "6" is firmly connected on 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.

The machine can't connect to the internet.

After making sure the modem and the ethernet cable works proceed to checking if the gray ethernet cable labeled in gray as "6" is firmly connected on 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.

Five fast beeps on Boot.

While the machine beeping on startup is normal five fast beeps right after turning on the machine might mean the RAM module is either loose or defective.
Remove the Power supply guide bracket and re insert the RAM. Make sure the connector clicks on both sides and at the same time. If it doesn't work after that it is worth trying again, just to make sure it's a RAM and not just a connection issue.

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1. Push the tab down

PSU 0 PSU 1 PSU 2

TEMP 0

1. Pull the power supply out

PSU

OCTOMINER
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POWER
TESTMODE
CLEAR CMOS

TEMP 1

CPU TEMP
46°C
FAN SPEED
4700RPM