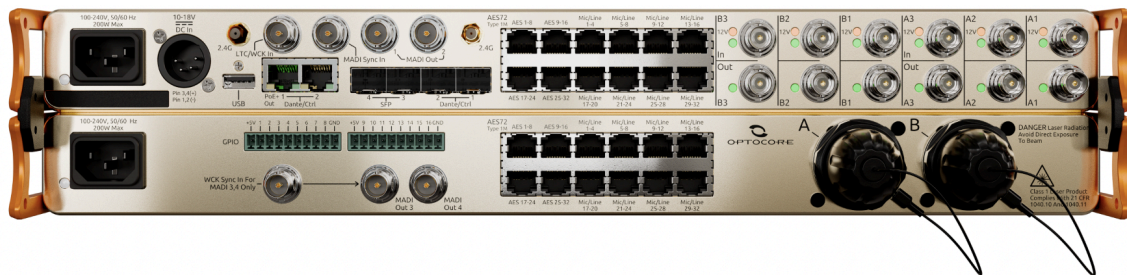


# SOUND DEVICES

## ASTRAL<sup>®</sup>



## A20-Opto

Installation Instructions

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## A20-Opto for A20-SuperNexus

The A20-Opto is an optional expansion box for the A20-SuperNexus that adds Optocore, MADI, AES, and analog outputs plus GPIO functionality. The A20-Opto comes in two versions, the A20-Opto-HMA and A20-Opto-ST. The only difference between the A20-Opto-HMA and A20-Opto-ST is the connector type used for the Optocore audio outputs, HMA or ST respectively. Photos in this guide are for the A20-Opto-HMA, but installation of an A20-Opto-ST is identical

The A20-Opto connects to the A20-SuperNexus via a multi-pin connector located on the bottom of A20-SuperNexus. Optocore output channels carry audio outs 1-64. The A20-Opto has 2x MADI outputs on 2x BNC connectors. At 48k, both MADI Outputs are hardwired to audio outs 1-64. At 96k, MADI Out 1 carries 1-32 and MADI Out 2 carries 33-64. For 96 kHz applications, the MADI outputs can be configured as Hi-Speed or SMUX 96k MADI format. The 32-channel Analog and AES digital (AES72 Type 1M) Outputs are configured as a redundant set of outputs that are fed from the same sources routed to the analog and digital outputs on the A20-SuperNexus.

When connected to an A20-SuperNexus:

- Power is shared between both units. Either is capable of powering the entire assembly. Both can be connected to power for redundancy.
- Control of the A20-Opto is from the A20-SuperNexus menus. Go to Audio -> A20-Opto Setup.
- Firmware versions on both must match and the firmware update is performed on the A20-SuperNexus
  - It's best practice to update the A20-SuperNexus firmware after the A20-Opto is connected to ensure the firmware is in sync.

*See the A20-SuperNexus User Guide for complete operational instructions.*

## Parts Included for Installation

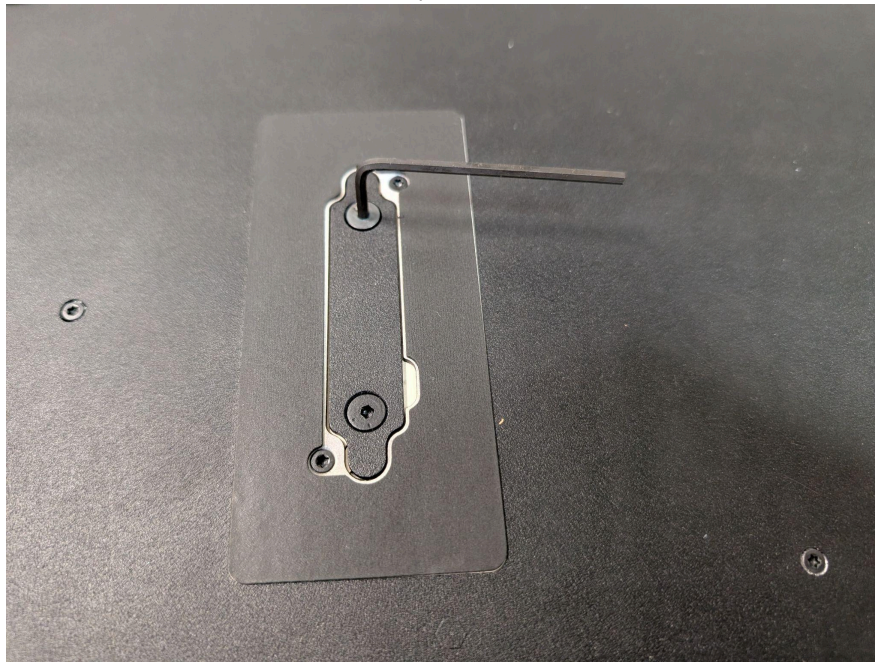
- 1.5 mm hex wrench
- 2.5 mm hex wrench
- Bridge board assembly
- Double rack ear assembly (rack ears, rear mounting bracket, 16 screws)

# Installation

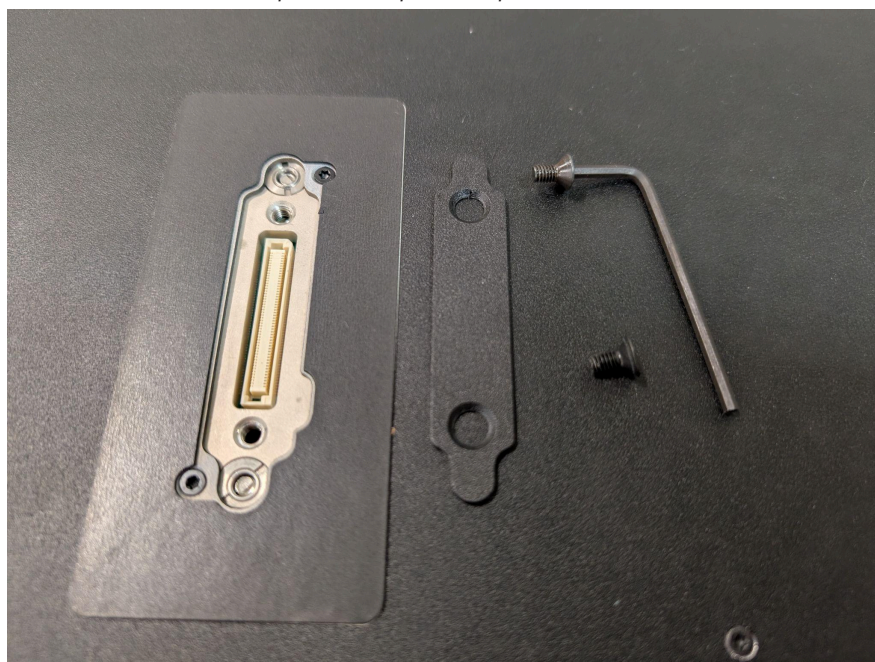
## Attaching the A20-Opto to the A20-SuperNexus

1. Unbox the A20-Opto and open the accessory packets.
2. Using the supplied 2.5 mm hex wrench, remove the protective plates covering the connecting ports on the top and bottom of the A20-Opto.

*Top Panel*

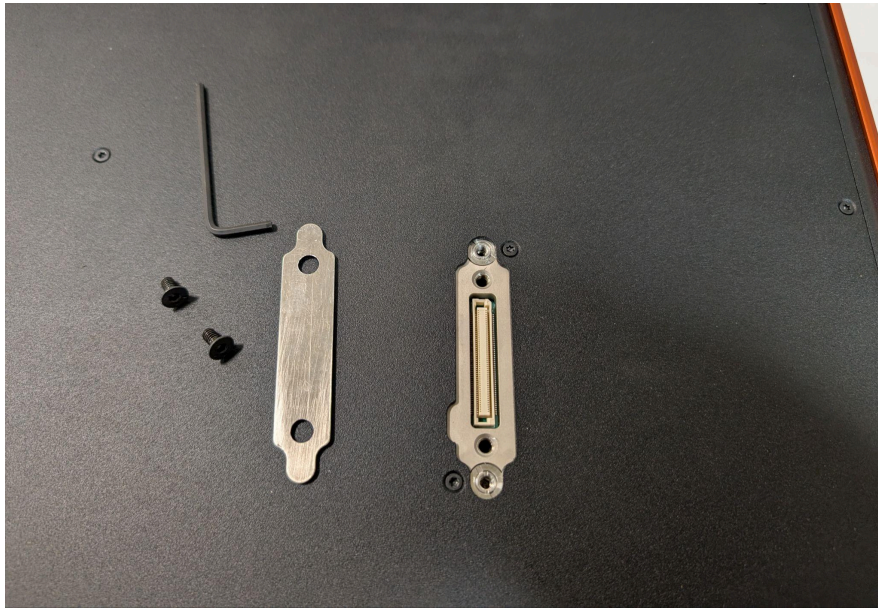


*Top Panel with protective plate removed*





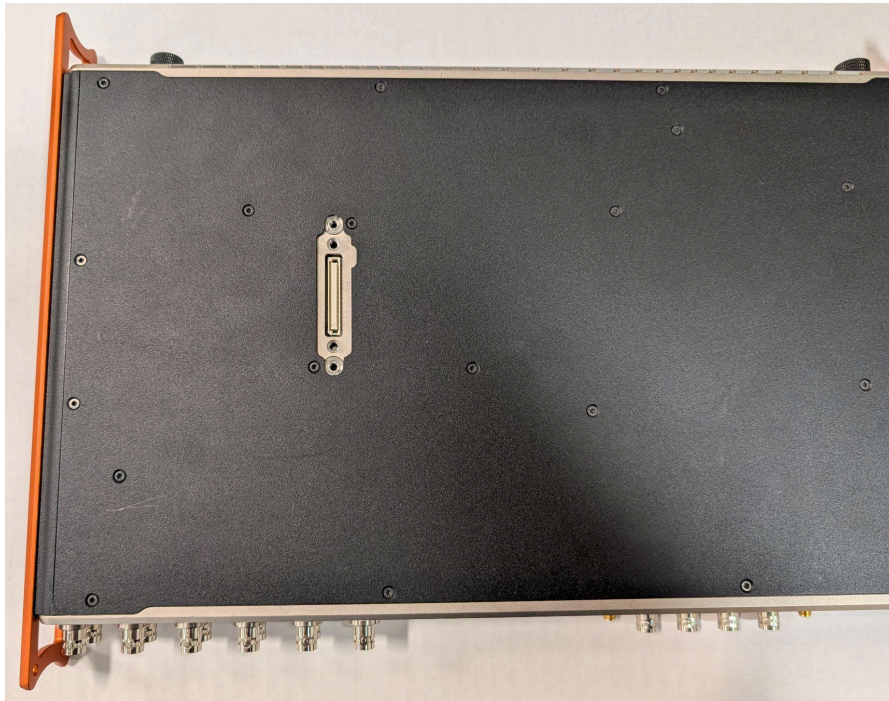
*Bottom panel with protective plate removed*



3. Remove both rack ears (6 screws each) from the sides of the A20-SuperNexus using the supplied 2.5 mm hex wrench. Put the removed screws aside for safe keeping. They will be needed to secure the double rack ear assembly later.



4. Lay the A20-SuperNexus on your work surface with the bottom side facing up.
5. Using the supplied 2.5 mm hex wrench, remove the protective plate covering the connecting port on the bottom of the SuperNexus.

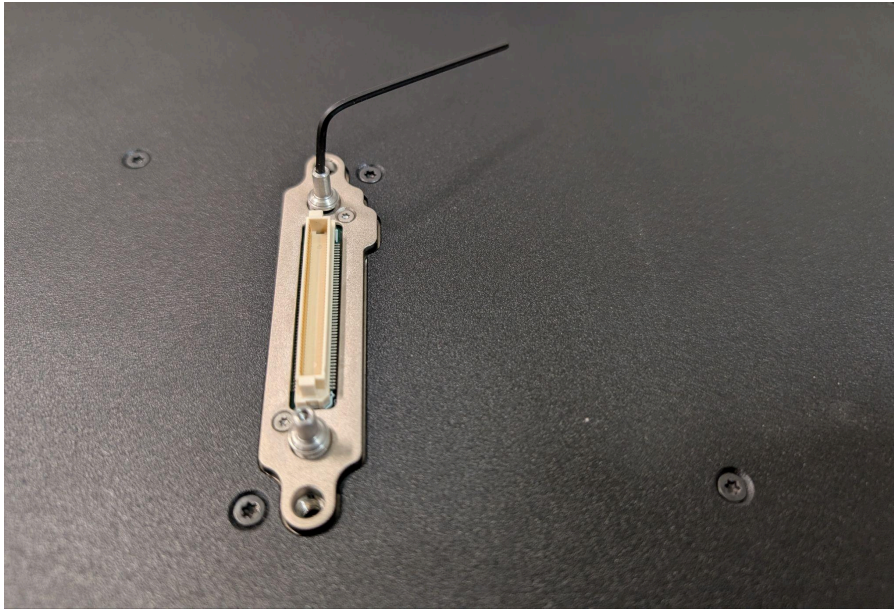


6. Paying attention to the keying feature that faces the inside of the chassis, gently connect the bridge board assembly (included with A20-Opto) to the port on the bottom of the A20-SuperNexus.

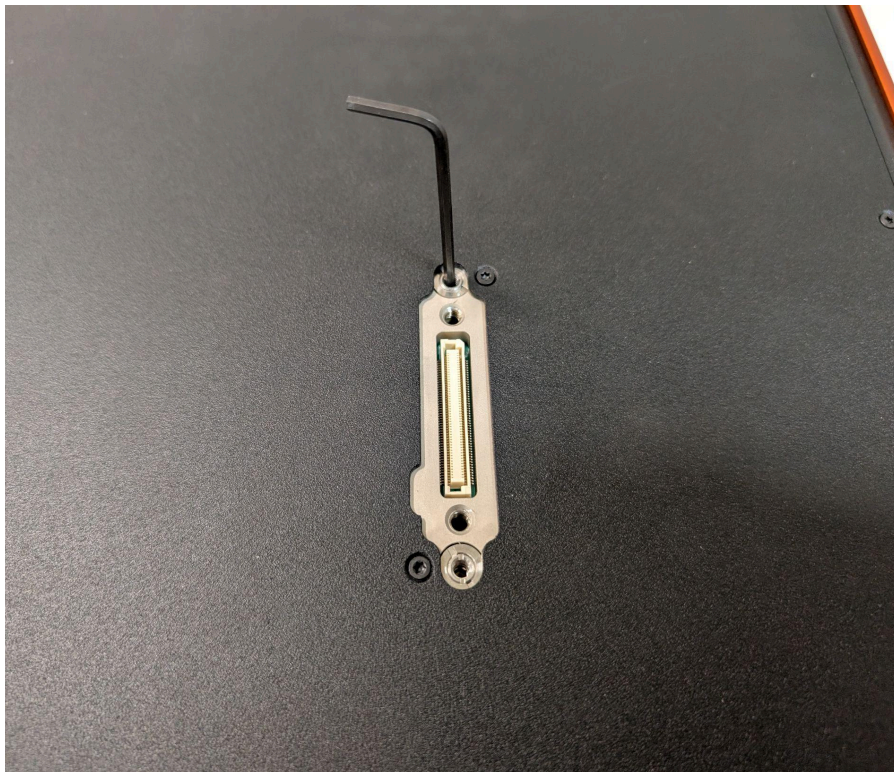




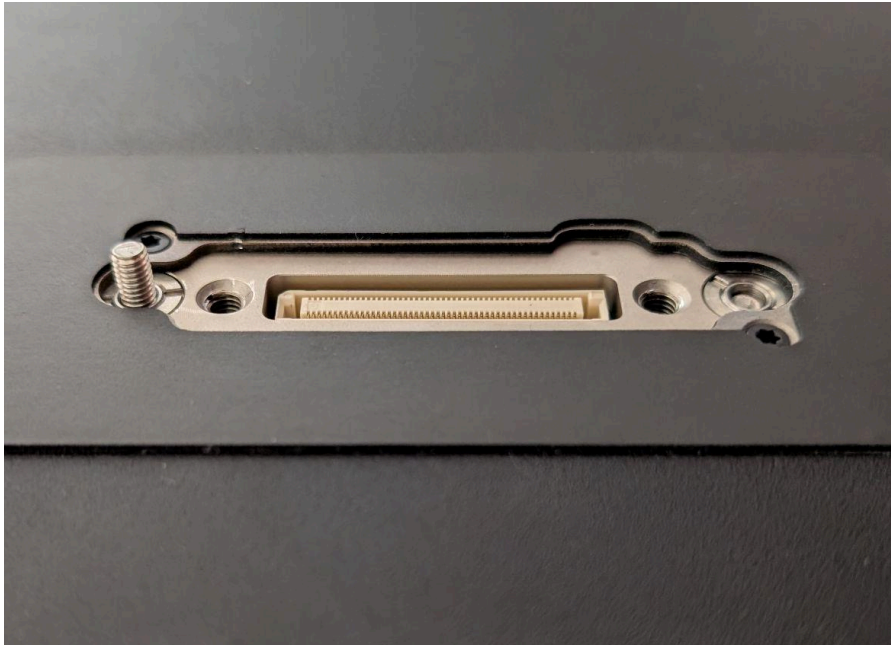
7. Tighten the two alignment posts using the included 1.5 mm hex wrench.



8. With the A20-Opto balanced on one of its sides, insert the 2.5 mm hex wrench into the outer holes of the connecting port on the bottom of the A20-Opto. This will engage a captive, spring-loaded connecting screw. Note that when you push in the wrench, the captive screw protrudes through the top of the A20-Opto.



*A20-Opto top panel with the captive, spring-loaded screw pushed through.*



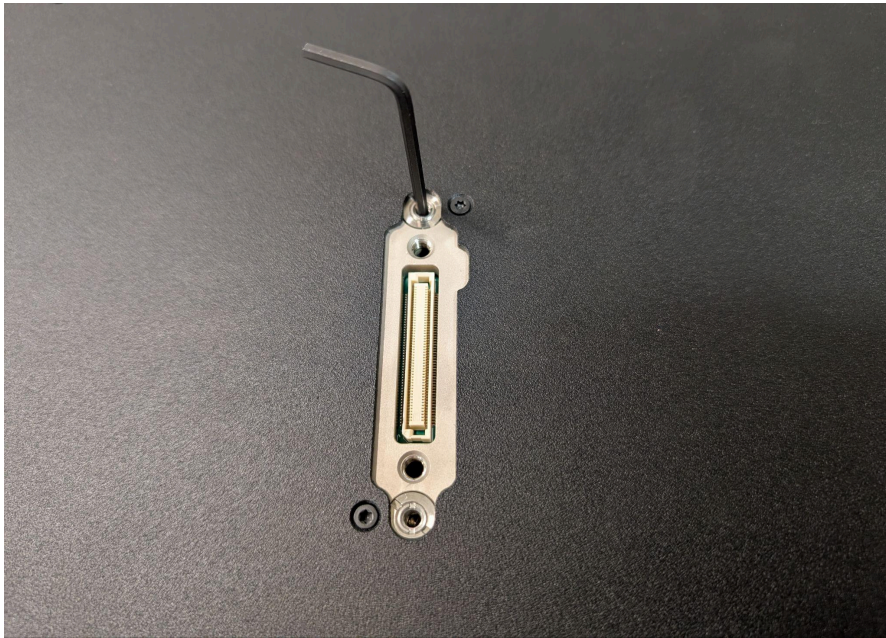
9. Paying attention to the alignment posts, gently place the A20-Opto upside down on the SuperNexus and align/connect the ports.





10. Insert the supplied 2.5 mm hex wrench into the outer holes of the connecting port on the bottom of the A20-Opto. Push to engage the captive, spring-loaded connecting screw, then turn clockwise until tight to fasten the bridge board assembly between the A20-Opto and A20-SuperNexus.

*Bottom Panel of the A20-Opto*



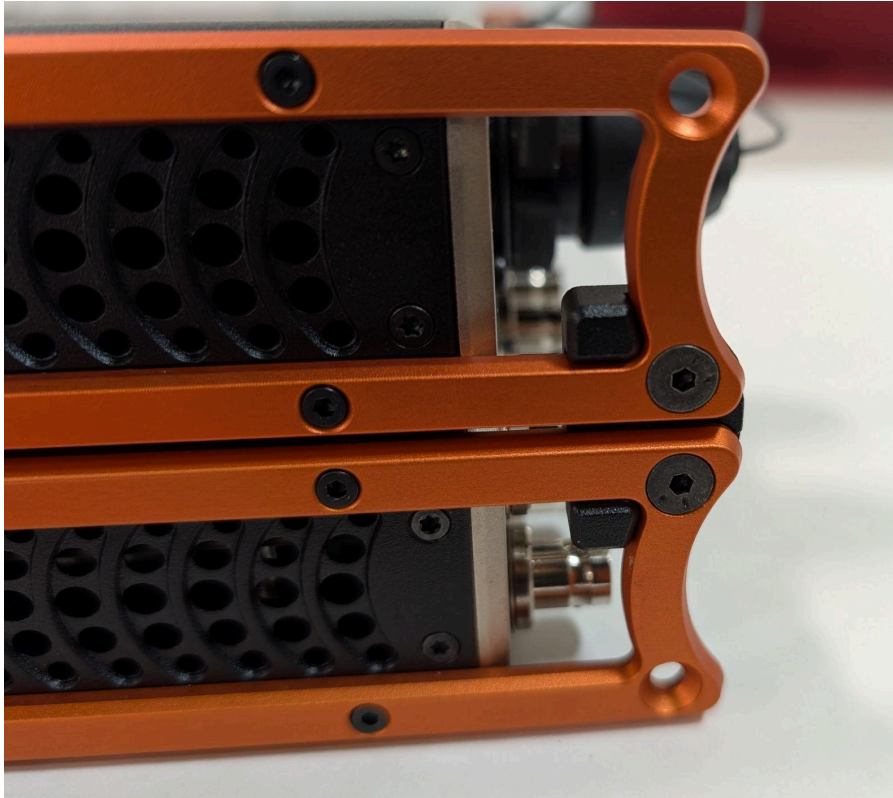
11. Using the supplied screws along with the rack ear screws removed earlier, fasten the double rack ear assembly to both front sides of the A20-Opto / A20-SuperNexus.

*Front side view*



12. Install the rear mounting brackets.

*Rear side view*

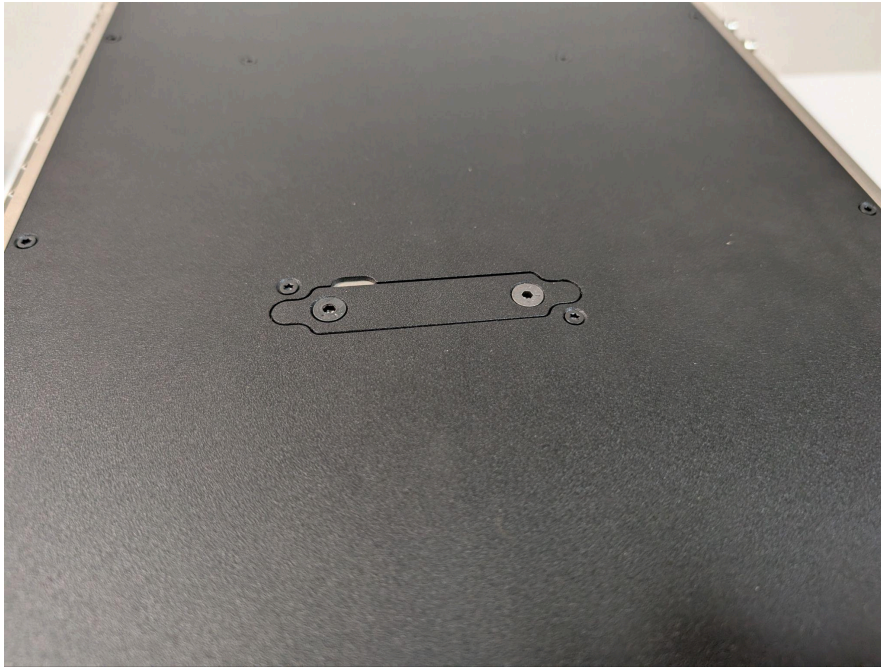


13. Check the tightness of the connection port screws on the bottom of the A20-Opto. Retighten if necessary.





14. Re-install port cover on bottom of A20-Opto



15. Connect power and turn on the SuperNexus.
16. Check the A20-Opto firmware version in the SuperNexus's Audio -> A20-Opto Setup menu. If "Update with SuperNexus PRG" is shown in **RED**, install the latest firmware on the A20-SuperNexus with A20-Opto connected. The firmware update will automatically be applied to both units.



## Warranty

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## Legal Notices

Product specifications and features are subject to change without prior notification. Read and fully understand this manual before operation.

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