

Quick Start Guide



FAD Series FAD602/FAD1202/FAD2402

60/120/240-Watt Commercial Amplifier with Direct Drive Technology,
Dante Networking and Energy Star Certification

EN Important Safety Instructions



Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock.

Use only high-quality professional speaker cables with ¼" TS or twist-locking plugs pre-installed. All other installation or modification should be performed only by qualified personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.



Caution

To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.



Caution

To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.



Caution

These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Use only attachments/accessories specified by the manufacturer.



12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid

injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.



17. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken

to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.

18. Do not install in a confined space, such as a book case or similar unit.

19. Do not place naked flame sources, such as lighted candles, on the apparatus.

20. Please keep the environmental aspects of battery disposal in mind. Batteries must be disposed-of at a battery collection point.

21. Use this apparatus in tropical and/or moderate climates.



Warning

Please refer to the information on the exterior of bottom enclosure for electrical and safety information before installing or operating the device.

LEGAL DISCLAIMER

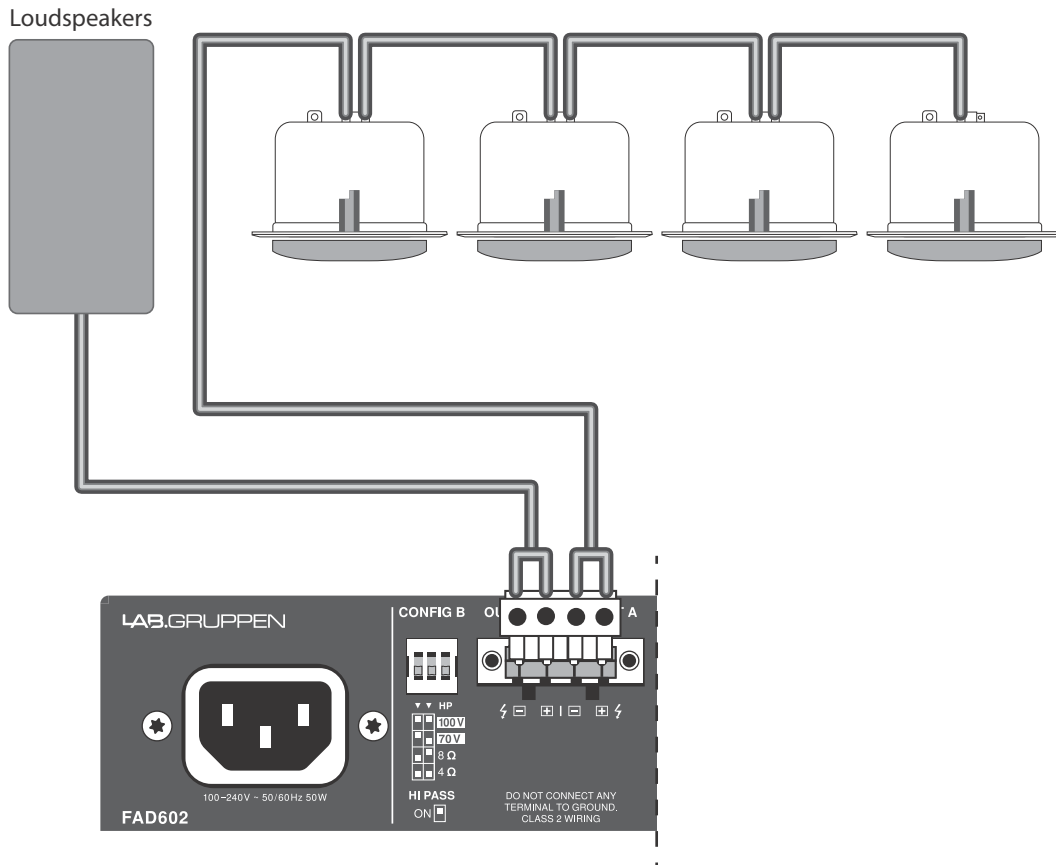
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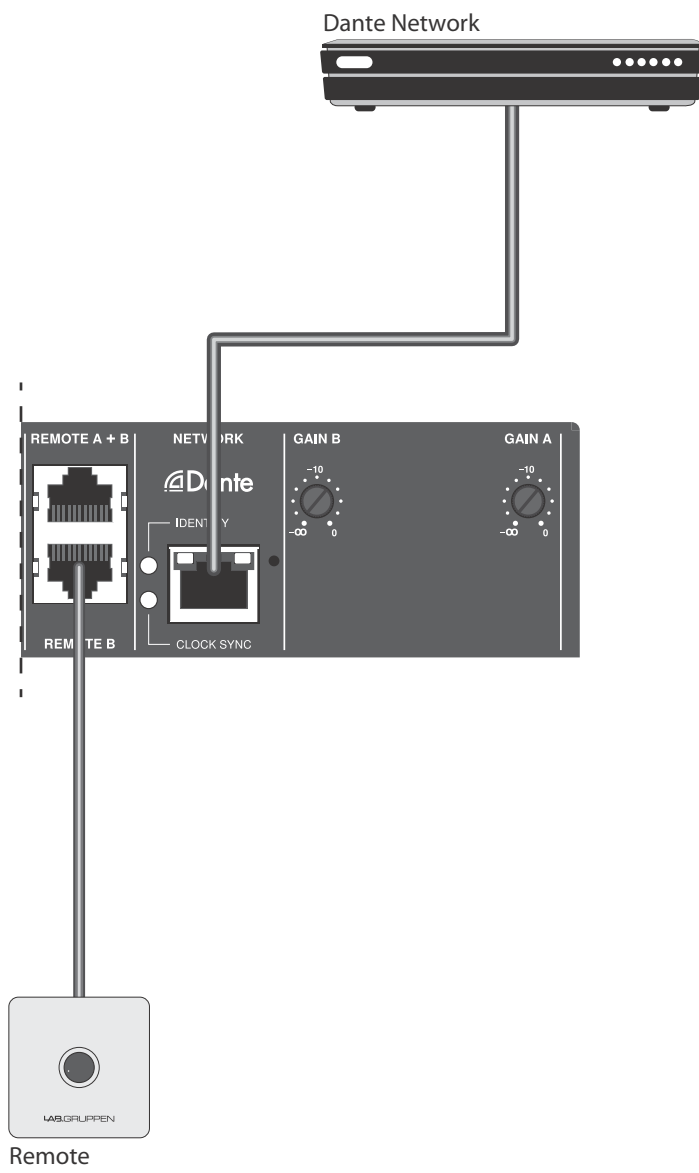
LIMITED WARRANTY

For the applicable warranty terms and conditions and additional information regarding Music Tribe's Limited Warranty, please see complete details online at musictribe.com/warranty.

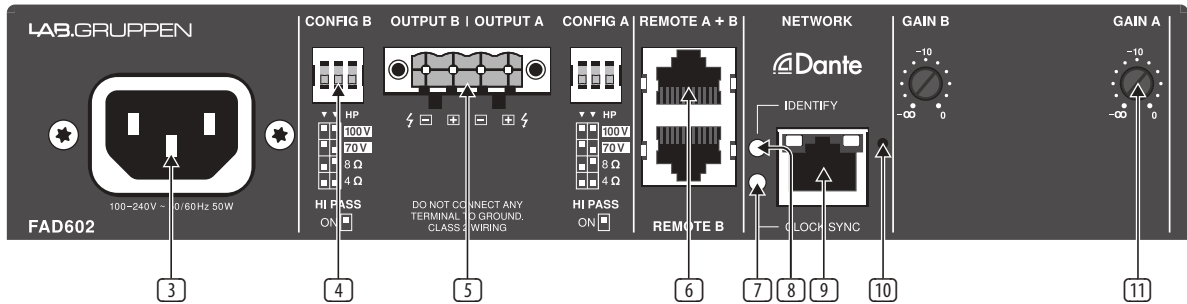
FAD Series Hook-up

Hook-Up





FAD Series Controls



Controls

- 1 **Input LEDs** - Light green for signal and red for limit/fault.
- 2 **POWER LED** - Lights blue for power on and yellow for sleep mode.
- 3 **Mains connector** – Connect the IEC cable to a mains outlet.
- 4 **CONFIG A/B switches** – Configure the output channel for the connected load type. See 'Getting Started' section for details.
- 5 **OUTPUT A/B** – Connect your speaker(s).
- 6 **REMOTE A/B** – Allows the connection of an external volume control module per channel. CRC-V available as a separate accessory.
- 7 **CLOCK SYNC LED** - Lights green to indicate successful connection to a Dante network.
- 8 **IDENTIFY LED** - Blinks 3 times to indicate "pinged" from within the Dante Controller.
- 9 **Network** - Connect the unit to a Dante network via Ethernet cable.
- 10 **Reset button** - Restore factory settings. See 'Getting Started' section for details.
- 11 **Gain** - Adjust the gain level for each input. If the respective front panel LED lights red, reduce the gain to avoid clipping.

FAD Series Getting started

Welcome to the FAD series Quick Start Guide and thank you for purchasing one of these amplifiers. The following accessories should be included with your product:

- Euroblock input connector(s)
- Euroblock output connector(s)
- Coupling plate (x2) with necessary screws
- Long angle bracket
- Front angle bracket (x2)
- Rear flat bracket
- Rear angle bracket with shoulder screw
- Power cable with mains plug corresponding to the specified country version
- Quick Start Guide (this document)

Rack Mounting

The FAD series amplifiers come with rubber feet that enable the amps to be placed on a clear surface without an additional installation. However, optional rack mounting hardware is also supplied, allowing several models to be housed and protected inside an enclosure. Follow these steps to attach the mounting hardware.

A pair of FAD units can be mounted side-by-side to occupy a single rack space. Attach the coupling plate to the underside of 2 FAD units using the included screws.

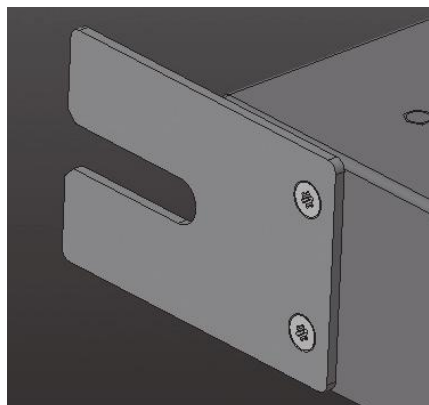


Attach the front angle brackets to either side of a pair of FAD units that have been coupled. Alternatively, a single FAD unit can be installed in a 19" rack using the long angle bracket, or in a half 19" rack using the short angled brackets.

Attach the angled brackets, by unscrewing the chassis side front screws and attach again together with the brackets.



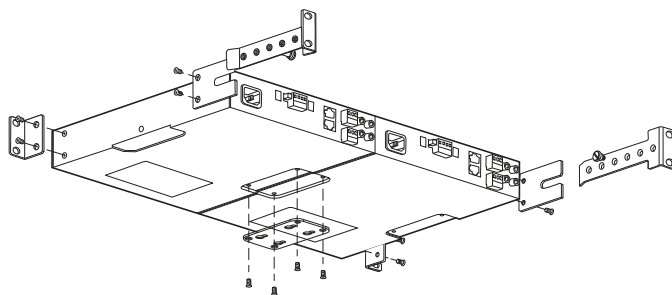
If your rack has rear rails, attach the rear flat brackets by reusing the screws from the chassis.



Mount the FAD units into the rack by attaching 4 rack screws through the front angle brackets and rack rails.

Hold one of the rear angle brackets up to the rear rack rails so that it lines up next to the rear flat bracket. Do not attach it to the rear rails yet.

Insert the included shoulder screw through the slot in the rear flat bracket and into one of the threaded holes in the rear angle bracket. The screw should allow the rear angle bracket to slide forward and back within the flat bracket's slot.



Repeat the process for the other rear angle bracket.

Mount the rear angle brackets to the rear rack rails using 4 standard rack screws.

Tighten the shoulder screw if necessary.

The standard rack screw is M4 x 8mm.

The FAD series amplifiers are convection cooled and primarily use the top surface to dissipate heat. For demanding applications, it is recommended to have sufficient space (1 RU) above the amplifier to reduce the risk of limiting due to overheating.

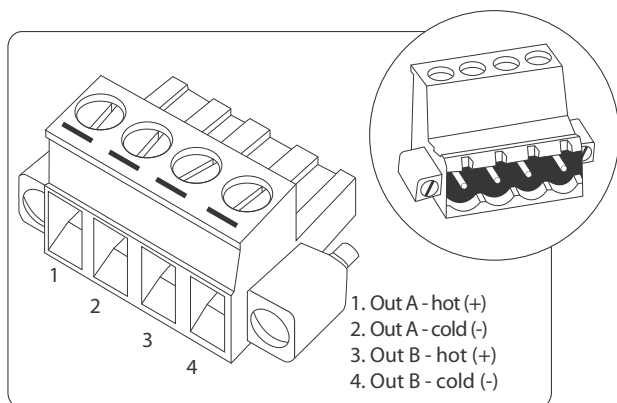
Table/Wall Mounting

Connect a pair of coupling plates to either side of a FAD series amplifier, then mount screws through the remaining holes in the plates to secure the unit to a wall or table.



Connections

For output signals, connect a 4-pole Euroblock connector to the main output connector. Do NOT connect any terminal to ground. Do NOT connect the cold (-) terminals together for common returns. Make sure to set the Config switches in the correct position to match your intended use. Speaker wire of 14-18 AWG (0.8 to 2.5 mm) is recommended for connections up to 50 feet.



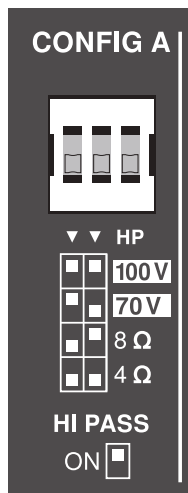
Factory Reset

A recessed Reset button on the rear panel (see figure on page 10) initiates a reset mode which will restore to factory settings, including the IP addressing mode to default, clear the previous IP address, and restore the device name to default.

To reset the unit, press and hold down the Reset button for 5 seconds until the Clock Sync LED goes out, then wait for the Clock Sync LED to light up again.

NOTE: When the FAD2402/FAD1202/FAD602 is first powered on or reset, the default name shall be "FAD2402-xxxxxx" or "FAD1202-xxxxxx" or "FAD602-xxxxxx" where xxxxxx are the last six digits of the MAC address of the unit.

Config



The first 2 Config dipswitches allow the output to be configured for 100 V, 70 V, 8 Ω, or 4 Ω operation. Always use the correct configuration for the speakers being driven! The mode of operation configures both the maximum voltage of the output and the gain through the device.

The 8 Ω setting should be used for a pair of 16 Ω speakers or a single 8 Ω speaker. The 4 Ω setting should be used for 4 x 16 Ω, 2 x 8 Ω, or a single 4 Ω speaker. Use 70 or 100 V setting for Constant Voltage high impedance speaker systems. Make sure the sum of the power tapping on the speakers plus margin does not exceed the amplifier's maximum power rating.

The 3rd dipswitch engages a high-pass filter at 80 Hz, which should be used on all Constant Voltage systems to avoid saturation on the transformer-enabled speakers, but can also be used to help maintain clear sound from small speakers or bass-heavy audio.

Remote

| RJ-45 Pin | Color (T568B) | Remote (1 channel products) | Remote A+B | Remote B |
|-----------|---------------|-----------------------------|--------------------------|--------------------------|
| 1 | White/Orange | VCC 10V | VCC 10V | VCC 10V |
| 2 | Orange | Volume Control | Volume Control Channel A | Volume Control Channel B |
| 3 | White/Green | N/A | Volume Control Channel B | N/A |
| 8 | Brown | Ground | Ground | Ground |

RJ45 receptacle to connect an optional remote volume control per channel. Use a standard cable to connect the CRC-V accessory. Or connect a custom potentiometer with the pinout information. Cable length above 305 m (1000 ft) is not recommended.

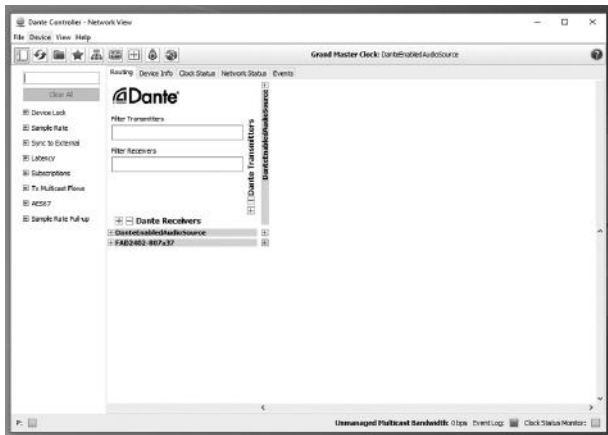
Signal Wake-up

If the amps are powered on, but do not receive any input signal (below signal present level) for 20 minutes, the system will enter standby mode to save power consumption. As soon as a signal is detected at any input, the unit will exit standby mode and resume normal function.

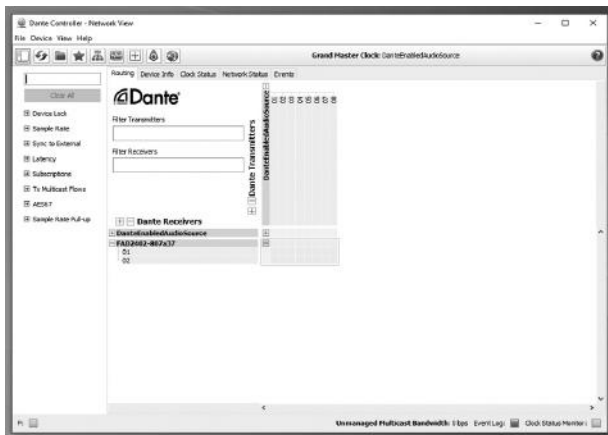
FAD Series Getting started

Configure and Operate the Dante Connection

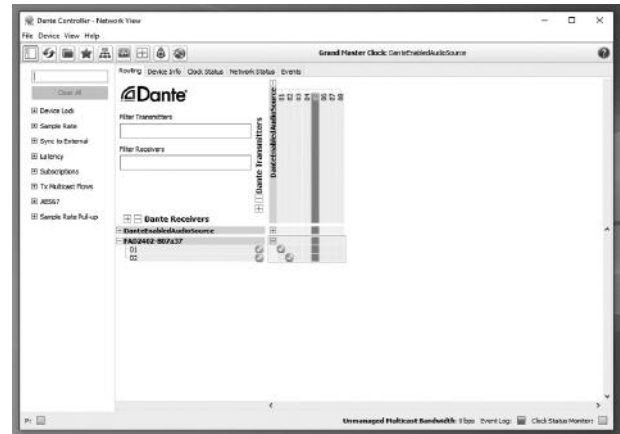
1. Download the Dante controller from the Audinate website at www.audinate.com. Install this software program to your computer.
2. Open the Dante Controller from the computer start menu. Once loaded, all Dante-enabled units in the network will show in this view. Your FAD unit should show up as a Dante Receiver in the list.



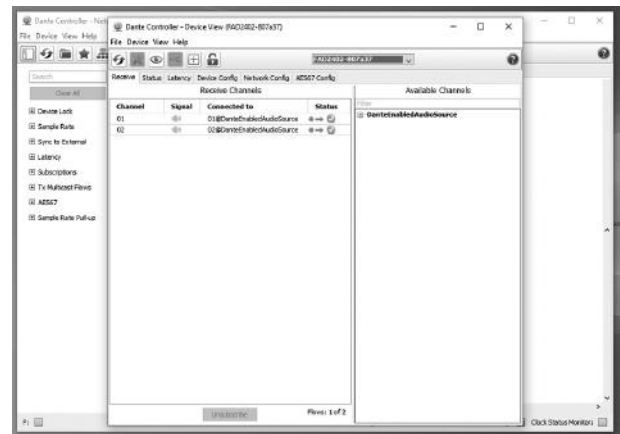
3. To set up a connection with a Dante Transmitter in the network, expand the FAD Dante channel list by clicking the plus sign to the left of the device name. Expand the preferred Dante-enabled audio source in the Dante Transmitter channel column list by clicking the plus sign below the Dante-enabled audio source device name.



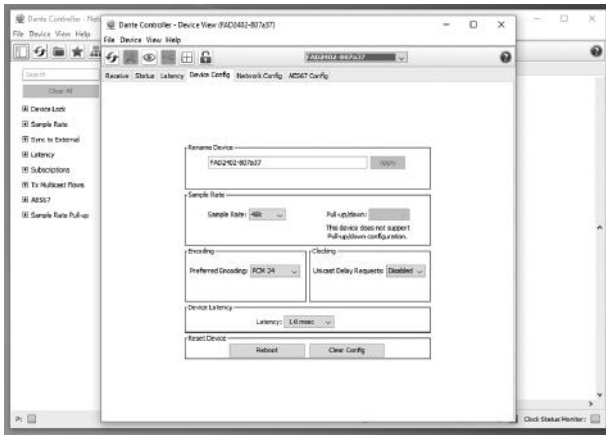
4. Highlight an intersection between the one of the FAD Dante channels and one of the Dante-enabled audio source channels and left-click the mouse. A successful subscription will show as a green check mark. If you are unable to create a subscription or encounter a red 'no' symbol, there is likely a configuration mismatch between the FAD and the Dante-enabled audio source device (e.g. sample rate, bit depth etc). Configure the Dante-enabled audio source device to match the default Dante audio configuration of the FAD unit or configure the FAD device to match the Dante-enabled audio source device settings in the dialog in Step 6.



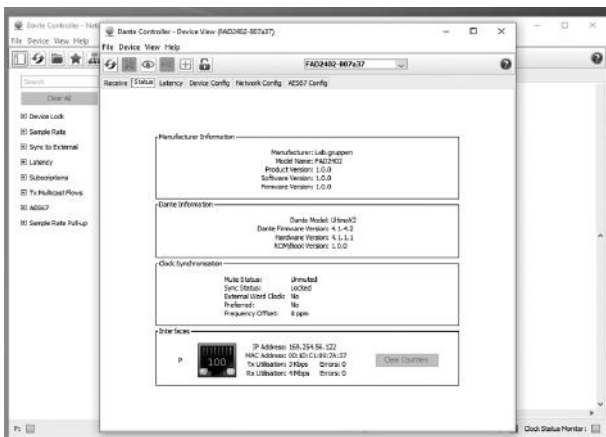
5. To show the device status and change the configuration of the FAD, double click the Device name in the same view. This window allows users to change the channel labels, set up restrictions for editing settings, and identify the physical device. Pressing the "Identify Device" button will trigger the IDENTIFY LED to flash on the rear panel of the FAD unit.



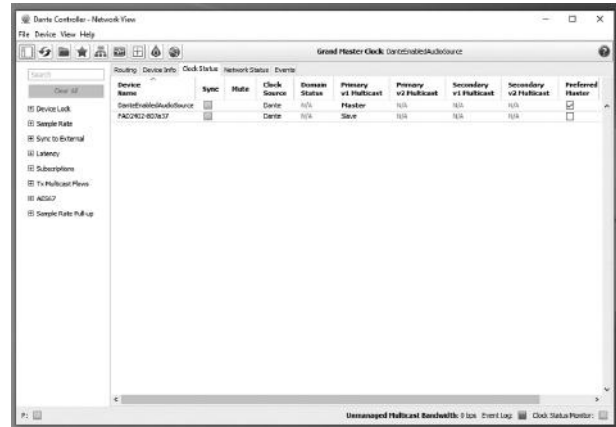
6. The Device Config tab allows the audio settings of the FAD unit to be changed. Please note that changes made to the audio encoding (sample rate, bit depth, etc) must be matched to the settings of the Dante-enabled audio source device and that a mismatch will break the signal chain and hold the subscription until the configuration is matched again.



7. In the Status tab, users can view device information, firmware version, IP-address of the unit, MAC-address of the unit etc.



8. For information about the Dante network synchronization, go to the Clock Status tab from the default Routing view. This view will show whether the internal clocks of the devices in the network are synced and also show the Master/Slave condition of the FAD unit. The Master/Slave condition of the device can also be seen on the rear panel of the FAD unit where a continuous green light from the CLOCK SYNC LED signifies that the FAD unit is Slave to another unit in the network and a flashing green light signifying the FAD unit is the Master in the network.



Specifications

| | FAD602 | FAD1202 | FAD2402 |
|--|--|---------------------|---------------------|
| Maximum Output Power | | | |
| 4 or 8 Ω per channel | 60 W | 120 W | 240 W |
| Number of Output Channels | | | |
| Number | 2 | | |
| Minimum Load Impedance | | | |
| 4 Ω mode | 4 Ω | | |
| 8 Ω mode | 8 Ω | | |
| 70 V output mode | 82 Ω | 41 Ω | 41 Ω |
| 100 V output mode | 166 Ω | 82 Ω | 82 Ω |
| Controls | | | |
| Front | N/A | | |
| Rear | Gain control, load config (4 Ω / 8 Ω / 70 V / 100 V), high-pass filter switch, reset button) | | |
| Indicators | | | |
| Front | | | |
| Power | On (blue), standby (yellow) | | |
| Limit (red LED), per channel | -0.5 dBFS (digital) | -1.5 dBFS (digital) | -1.5 dBFS (digital) |
| Signal (green LED), per channel | > -63 dBFS (digital) | | |
| Fault (red LED) | Overheat, DC fault, over current etc | | |
| Rear | | | |
| Dante | Identify (yellow), clock sync (white) | | |
| System | | | |
| Input transmission type | Dante, 2 channels Rx | | |
| Input connectivity | 1 x RJ45 Ethernet connector, 1-port 100 Mbps to Dante interface | | |
| Input sensitivity | -2 dBFS (digital) | | |
| Maximum input level | 0 dBFS (digital) | | |
| Outputs connectivity | 1 x 4-pin 5.08 mm Euroblock connector | | |
| Output circuit type | Class D | | |
| Remote connector | 2 x RJ45 Ethernet connector | | |
| Performance | | | |
| Distortion, 1/8 rated power | <0.1% | | |
| Frequency response | 20 Hz to 20 kHz, $\pm 0/-1.5$ dB | | |
| Crosstalk | >72 dB | | |
| Signal-to-noise | >101 dBA | | |
| High pass filter | 80 Hz HPF | | |
| Circuit Protection | | | |
| Cooling | Convection-cooled, fanless | | |
| Amplifier protection | Thermal protection, over current protection, DC protection, high frequency protection | | |
| Load protection | Controlled start and shutdown behaviour, DC-fault protection | | |
| Power Supply, Voltage (Fuse) | | | |
| Main voltage | 100-240 V~, 50/60 Hz with active power factor correction | | |
| Power consumption 1/8th rated power @ 4 Ω | 50 W | 70 W | 120 W |
| Mains connector | Standard IEC connector | | |
| Dimensions / Weight | | | |
| Dimensions (H x W x D) | 44 x 218 x 280 mm (1.7 x 8.6 x 11") | | |
| Weight | 2.6 kg (5.7 lbs) | | |
| Finish | Brushed black anodized aluminum chassis with black painted steel bottom | | |
| Approvals | CE, WEEE, cTUVus, PSE, RCM, RoHS, FCC part 15 Class B, Energy Star 3.0 | | |

EN Important information

1. Register online. Please register your new Music Tribe equipment right after you purchase it by visiting labgruppen.com. Registering your purchase using our simple online form helps us to process your repair claims more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.

2. Malfunction. Should your Music Tribe Authorized Reseller not be located in your vicinity, you may contact the Music Tribe Authorized Fulfiller for your country listed under "Support" at labgruppen.com. Should your country not be listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at labgruppen.com. Alternatively, please submit an online warranty claim at labgruppen.com BEFORE returning the product.

3. Power Connections. Before plugging the unit into a power socket, please make sure you are using the correct mains voltage for your particular model. Faulty fuses must be replaced with fuses of the same type and rating without exception.

FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION



Responsible Party Name: **Music Tribe Commercial NV Inc.**

Address: **901 Grier Drive
Las Vegas, NV 89118
USA**

Phone Number: **+1 702 800 8290**

FAD SERIES

complies with the FCC rules as mentioned in the following paragraph:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Important information:

Changes or modifications to the equipment not expressly approved by Music Tribe can void the user's authority to use the equipment.

