DANTE AUDIO INTERFACE M-44DT-AM

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Thank you for purchasing TOA's Dante Audio Interface.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

TOA Corporation

1. SAFETY PRECAUTIONS

• Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
• Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
• After reading, keep this manual handy for future reference.

Safety Symbol and Message Conventions
Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

⚠ WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

• Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.

• Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified   may result in fire or electric shock.

• Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.

• Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.

• Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
 · If you detect smoke or a strange smell coming from the unit.
 · If water or any metallic object gets into the unit.
 · If the unit falls, or the unit case breaks.
 · If the power supply cord is damaged (exposure of the core, disconnection, etc.).
 · If it is malfunctioning (no tone sounds.).

• Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.

• Do not touch the power supply plug during thunder and lightning, as this may result in electric shock.

⚠ CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

• Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.

• When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.

• Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

• Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.

• Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.

• Use the AC adapter supplied with the unit. Note that the use of an adapter other than specified may cause a fire.

• If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.

• Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

EMC PRECAUTIONS

Warning: Operation of this equipment in a residential environment could cause radio interference.

Note: 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 to an experienced radio/TV technician for help.

2. GENERAL DESCRIPTION

TOA's M-44DT is a Dante audio interface with 4 inputs and 4 outputs that seamlessly connects amplifiers, mixers, digital microphones and other devices on a Dante network.
It can be mounted in an EIA standard equipment rack with the rack mounting panel MB-M44DT (optional) .

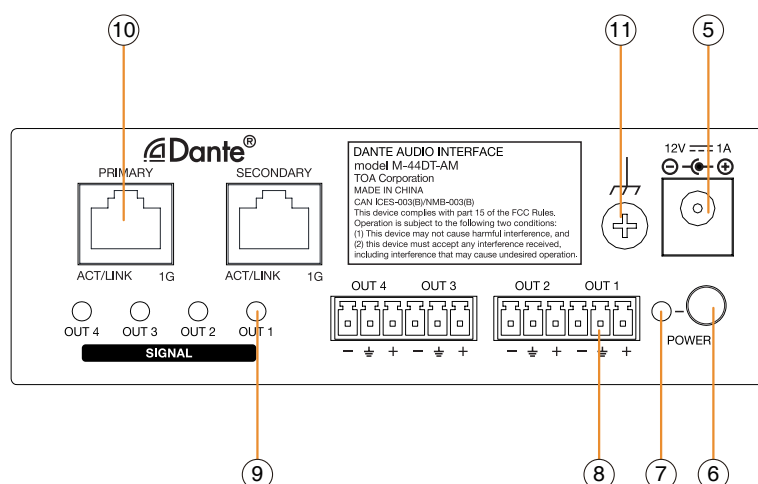*Dante ® is a registered trademark of Audinate Pty Ltd.

3. FEATURES

- MIC/Line 4 audio inputs, the gain can be adjusted independently.
- Line 4 audio outputs.
- The Dante digital network port is configured as a dual standard network interface, which fully supports the function of unite switching and hot backup.

4. HANDLING PRECAUTIONS

- To prevent static electricity from damaging the unit or causing it to operate abnormally, ground the functional ground screw of the unit. Turn off the power of the unit when connecting the cables. If the unit operate abnormally due to static electricity, turn the power switch off and then on again.
- The unit's life could be extremely shortened by salt damage. Therefore, do not install the unit near or on the beach.
- To clean, be sure to first switch off the unit's power, then wipe with a dry cloth. When the unit gets very dirty, use a cloth damped in a neutral cleanser. Never use benzene, thinner or chemically-treated cleaning cloth because such volatile liquids could deform or discolor the unit.

5. NOMENCLATURE AND FUNCTIONS

[Front]

[Rear]

1. Input 1-4 terminal
-50 - 0 dBV, 4.4 kΩ, electronically balanced, removable terminal block.

2. Input 1-4 gain control
Adjusts gain of the input 1-4, adjustment range 0-50dB.

3. Input 1-4 signal level indicator (Green)
Lights green when audio signals are active from inputs 1-4 terminal (1).

4. Rack mounting screw holes
With the optional RACK MOUNTING PANEL MB-M44DT, the device can be mounted on an EIA rack.

5. DC inlet [DC IN]
Connect the supplied AC adapter.
The supply voltage is between 100 V - 240 VAC, 50-60 Hz.

6. Power switch
Power is switched on and off with each depression of this switch.

7. Power Indicator
Lights blue when the power switch (6) is switched on.

8. Output 1-4 terminal
0 dBV, 10 kΩ, electronically balanced, removable terminal block.

9. Output 1-4 signal level indicator (Green)
Lights green when audio signals are active from outputs 1-4 terminal (8).

10. LAN
Primary and secondary port for the ethernet connection, 100Mbps adaptive, with DHCP function.
Note: The secondary ethernet port will behave as a standard switch port, allowing daisy-chaining through the device.

11. Functional ground terminal
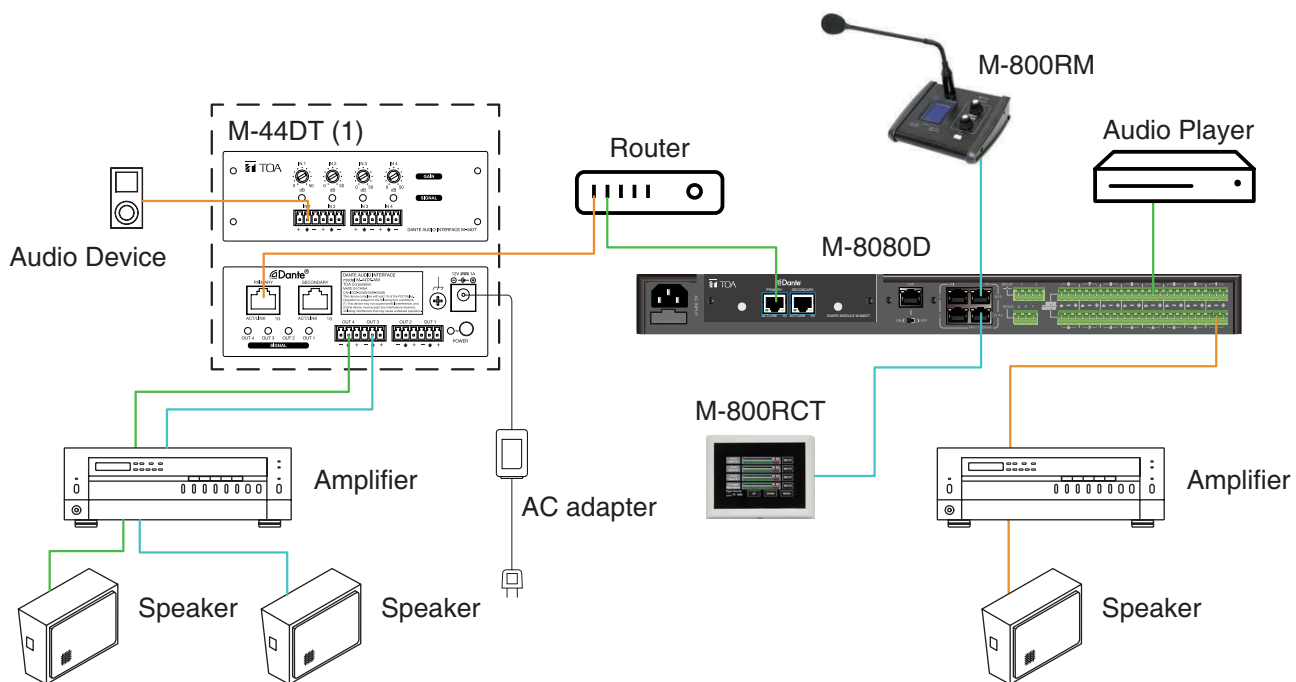Ground this screw to prevent static electricity from damaging the unit or causing it to operate abnormally.

6. CONNECTION EXAMPLE

Note: When connecting the cables, turn off the power of the unit to prevent static electricity from causing it to work abnormally.

6.1. M-44DT interconnection
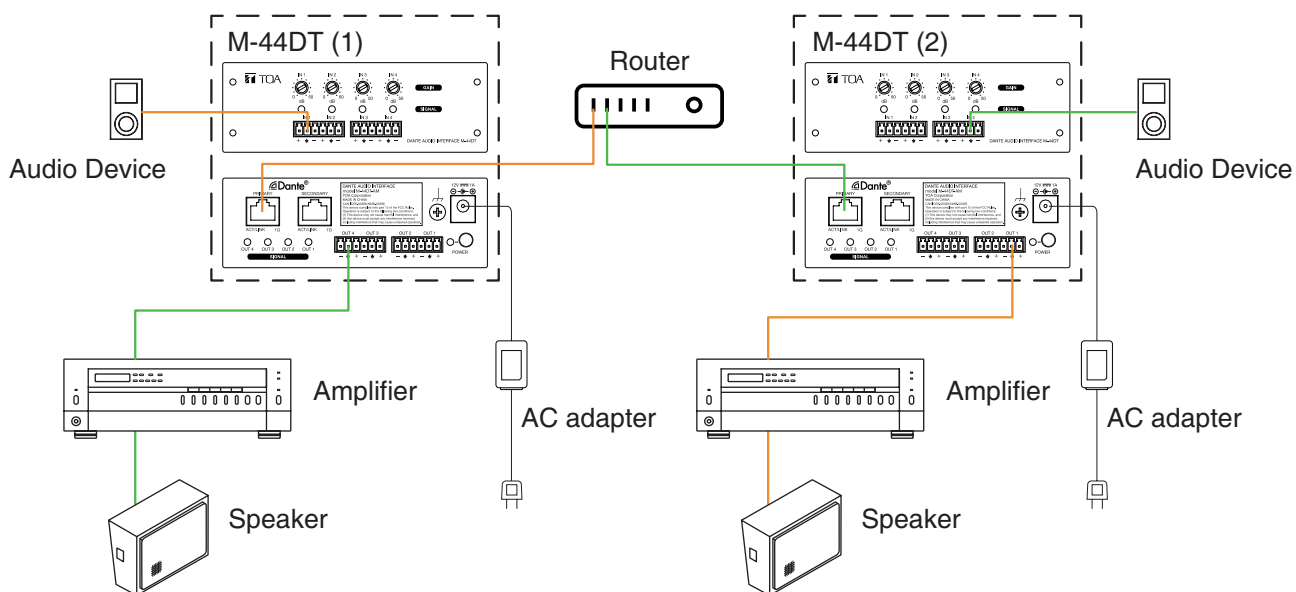
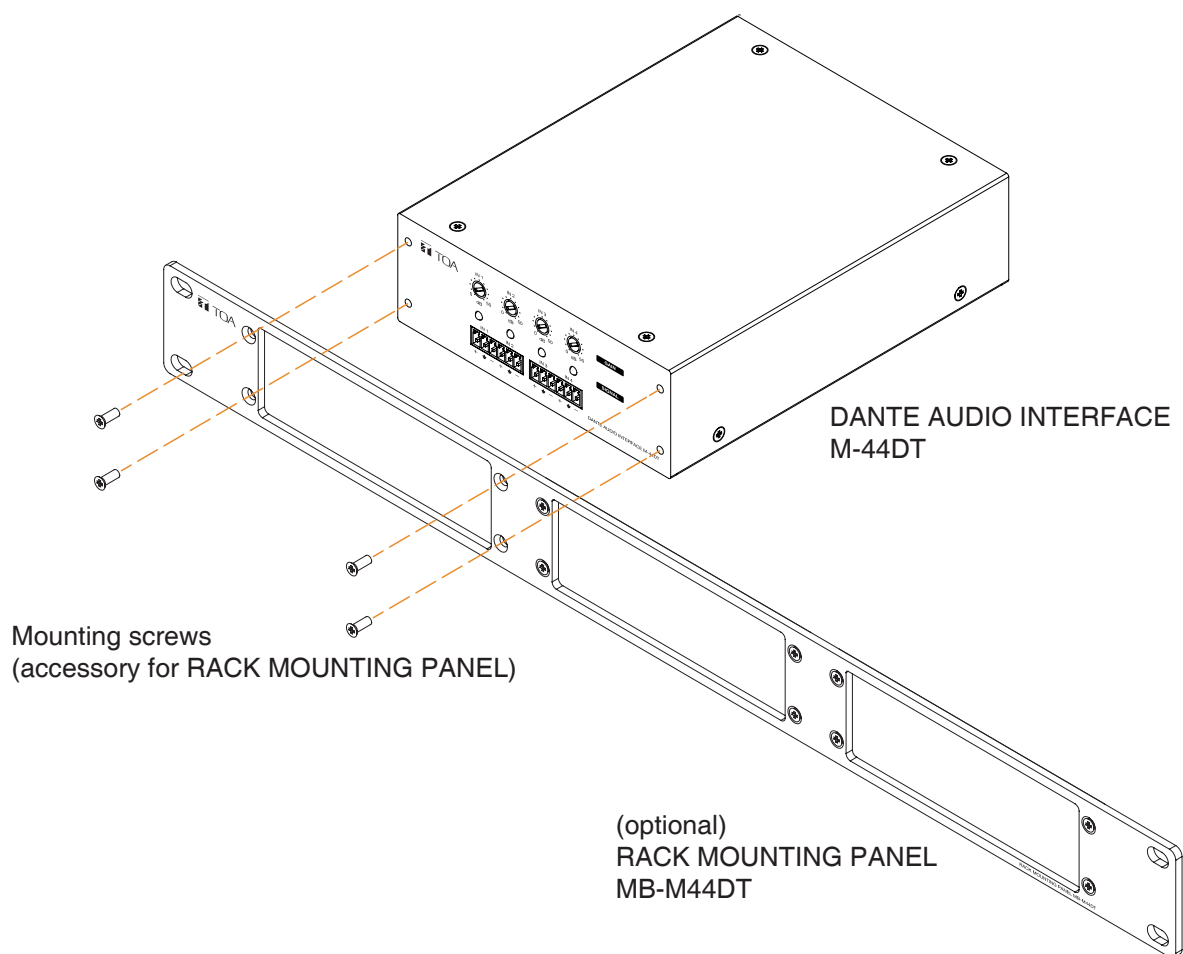## 6.2. M-44DT connected to M-8000

7. RACK MOUNTING

Step 1. Install the M-44DT to the RACK MOUNTING PANEL with screws.
Note: Up to 3 M-44DTs can be installed on one RACK MOUNTING PANEL.

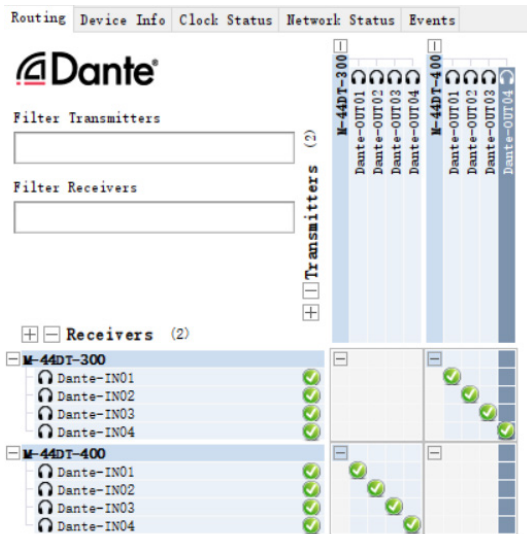**Step 2.** Screw the RACK MOUNTING PANEL to the EIA rack.

DANTE AUDIO INTERFACE
M-44DT

Mounting screws
(accessory for RACK MOUNTING PANEL)

(optional)
RACK MOUNTING PANEL
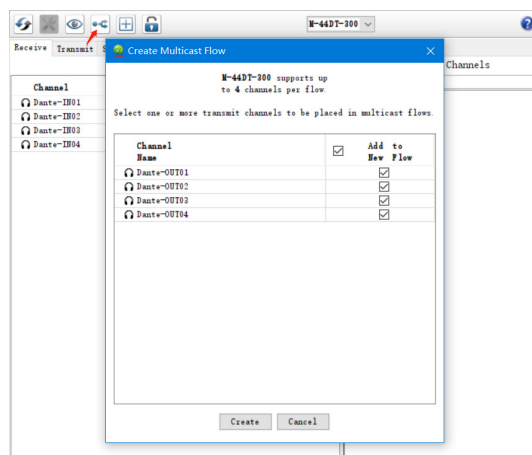MB-M44DT

8. DANTE NETWORK CONFIGURATION

Step 1. Install Dante Controller on the computer.

Step 2. Connect the M-44DT to the network.

Step 3. Open Dante Controller for routing configuration.

Note: When more than 2 devices are connected to the Dante network, the Multicast Flow function of M-44DT needs to be enabled.

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9. SPECIFICATIONS

Power Source	100 - 240 V AC, 50/60 Hz (use of the supplied AC adapter)
Power Consumption	10 W
Audio Input	Input 1-4: -50 - 0 dBV, 4.4 kΩ, electronic balanced, removable terminal block
Audio Output	Output 1-4: 0 dBV, 10 kΩ, electronic balanced, removable terminal block
Frequency Response	20 - 20,000 Hz, ±3 dB
Total Harmonic Distortion	0.01% (LPF 20 kHz)
S/N Ratio	Over 100 dB (A weighted)
Indicators	Power(blue) ...1, Input singnal(green) ...4, Output singnal(green) ...4
Operation	Input 1-4 gain control
Dante Chipset	Ultimo
Audio Transport Formats	Dante Audio over IP
Sample Rate	4x4 Channels at 48 kHz
Encoding	PCM 16 / 24 / 32
Control Interfaces	SPI Master and Slave
Network	100Mbps, RMII
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	90 % RH or less (no condensation)
Finish	Panel: Aluminum, black, alumite Case: Surface-treated steel plate, black, paint
Dimensions	130 (W) x 44 (H) x 161 (D) mm (5.12" x 1.73" x 6.34")
Weight	0.81 kg (1.79 lbs)
Accessory	AC Power Adapter ...1, Removable terminal plug (6 pins) ...4

Note: The design and specifications are subject to change without notice for improvement.

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