

PLEASE READ THIS MANUAL FIRST!

DIGITAL MIXER**D-2000 SERIES****TABLE OF CONTENTS**

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

1. IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 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.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- 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.



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

2. 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.

[D-2008SP, D-2012C only]

- 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.
- 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 it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit.
 - Leave any setting or modification inside the D-2008SP to qualified electricians.
 - Leave all servicing such as inspection, adjustment, and repair inside the D-2012C to your nearest TOA dealer.
- 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 a power supply plug during thunder and lightning, as this may result in electric shock.
- The apparatus shall be connected to a main socket outlet with a protective earthing connection.
- The socket-outlet shall be installed near the equipment and the plug shall be easily accessible.



CAUTION

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

[D-2008SP, D-2012C only]

- 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.
 - When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
 - Do not block the ventilation slots in the unit cover. Besides, do not block the fan vent on the unit's rear in the case of D-2008SP. Doing so may cause heat to build up inside the unit and result in fire. Also, periodically clean the ventilation slots of dust.
 - 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.
 - Be sure to follow the instructions below when rack-mounting the unit. Failure to do so may cause a fire or personal injury.
 - Install the equipment rack on a stable, hard floor. Fix it with anchor bolts or take other arrangements to prevent it from falling down.
 - When connecting the unit's power cord to an AC outlet, use the AC outlet with current capacity allowable to the unit.
- (When rack mounting screws are supplied)
- The supplied rack-mounting screws can be used for the TOA equipment rack only. Do not use them for other racks.
 - When installing the unit in a rack other than that of TOA, be sure to use the screws with a diameter of over 5 mm (0.2") and length of over 12 mm (0.47") to mount the unit.
- (When rack mounting screws are not supplied)
- Be sure to use the screws with a diameter of over 5 mm (0.2") and length of over 12 mm (0.47") to mount the unit.
- 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.

[D-2008SP only]

- Never touch the terminal pins on the D-2000CB when installing the D-2000CB CobraNet Interface Module inside the D-2008SP to prevent finger injury.

[D-2012AS only]

- Avoid touching the unit's sharp metal edge to prevent injury.



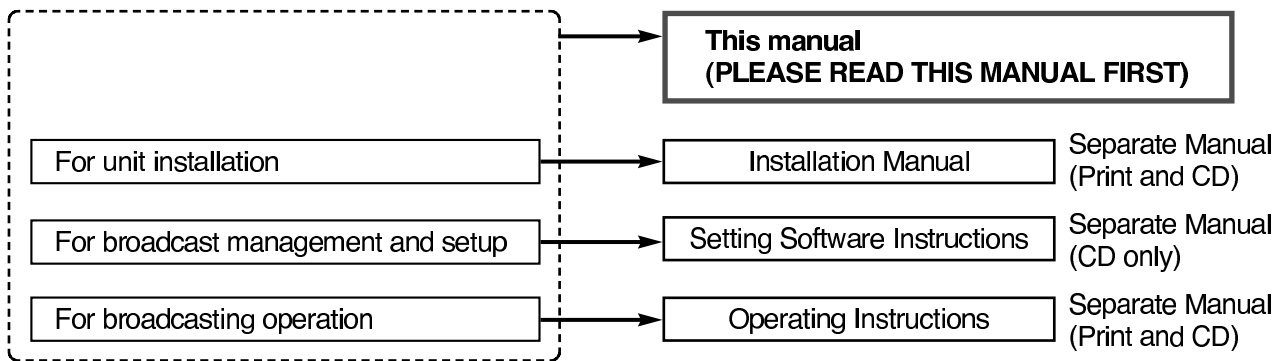
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instruction in the literature accompanying the appliance.

3. COMPOSITION OF THE D-2000 INSTRUCTION MANUAL

The D-2000 system Instruction manual is divided into 4 parts.
Please read the proper manual for your purpose.



4. GENERAL DESCRIPTION

The D-2000 Series is a network-type Digital Mixer, allowing multiple inputs, outputs, and controls to be installed in different locations. It is suited for use in halls, sports facilities, banquet rooms, and AV presentation rooms, and features simple operation. Systems can be configured appropriately to suite their scales. Built-in signal processing functions permit the unit to be used as both a digital matrix mixer and a signal processor.

Settings are performed by a PC using the supplied setting software.

Setting contents can be stored in the internal memory as preset memory, which can be recalled without using a PC. (The setting software is included in the supplied CD or can be downloaded from our website at "<http://www.toa-products.com/international/>.")

The D-2000 Series include the D-2008SP Digital Mixing Processor Unit that is a main unit to perform signal processing, input/output and remote control modules to be inserted into the main unit, and the D-2012C Remote Console Unit used to remotely control the D-2008SP. Attaching the D-2012AS Console Case to the D-2012C allows the D-2012C to be used on a desk.

5. FEATURES

- Remote control over LAN, configuring decentralized system for input/output and control sections
Configurable up to 4 D-2008SPs, 4 D-2012Cs, and 1 PC
- Function setting performed with the front-mounted keys and remote operation from a PC with the setting software installed
- Settings available on a PC via LAN
- High-quality audio transmission over the CobraNet network
Commercially available CobraNet equipment operable by inserting the CobraNet interface module
- Simple operation by only recalling preset memories
- 32 preset memories (D-2008SP), recallable from the D-2008SP or D-2012C as well
- Most appropriate system configured depending on the system scale in conjunction with various modules and units
- Up to 32 inputs and outputs in total for audio input/output, up to 48 contact inputs or 32 contact outputs for control to each D-2008SP
- Feedback suppression through simple operation
- Automatic mixing function to automatically adjust input signal volume level
- Controllable by controllers such as AMX and Crestron through RS232C port or TCP/IP port
- Key lock function to avoid mistaken operation of front panel keys and knobs
- Easy remote control for volume adjustment and preset memory recall with the use of optional remote control module

Notes

- CobraNet is a trademark of Cirrus Logic, Inc.
- AMX is a trademark of AMX Corporation.
- Crestron is a trademark of Crestron Electronics, Inc.

6. HANDLING PRECAUTIONS

- The power supply cords supplied with the D-2008SP and D-2012C are designed for exclusive use with each equipment. Never use them with other equipment.
- It is recommended that the unit be always used in locations where the ambient temperature ranges from 5 °C to 40 °C (41 to 104 °F) and humidity is less than 90% (no condensation).
- The unit is a precision audio component. To prevent failure, do not give the unit strong shocks or vibrations.
- When mounting the D-2008SP in an equipment rack, be sure to mount a perforated panel larger than 1U size*¹ above and below the unit.
- When mounting the D-2012C in an equipment rack, be sure to mount a perforated panel larger than 1U size*¹ above the unit.
- Do not position the heat-generating component such as a power amplifier immediately below the D-2012C in the rack. Also, keep such components away from each other so that the ambient temperature around the D-2012C should not exceed +40 °C (104 °F). Failure to do so may shorten the product life.
- Do not place objects on the motorized faders of the D-2012C as these faders move up and down automatically through operation such as preset memory recall.
- When using the multiple D-2008SP or D-2012C units, their firmware versions must be 3.0.0 or later, and the D-2000 Setting software version must be 3.0.0 or later.

For details on how to check their versions, read the separate Setting Software Instructions, "Menu item description."

Firmware of the D-2008SP and D-2012C can be updated using the Setting Software ver. 3.0.0 or later*².

For details on how to update the firmware, read the separate Setting Software Instructions, "Method to Enable Communications between the PC and the Unit."

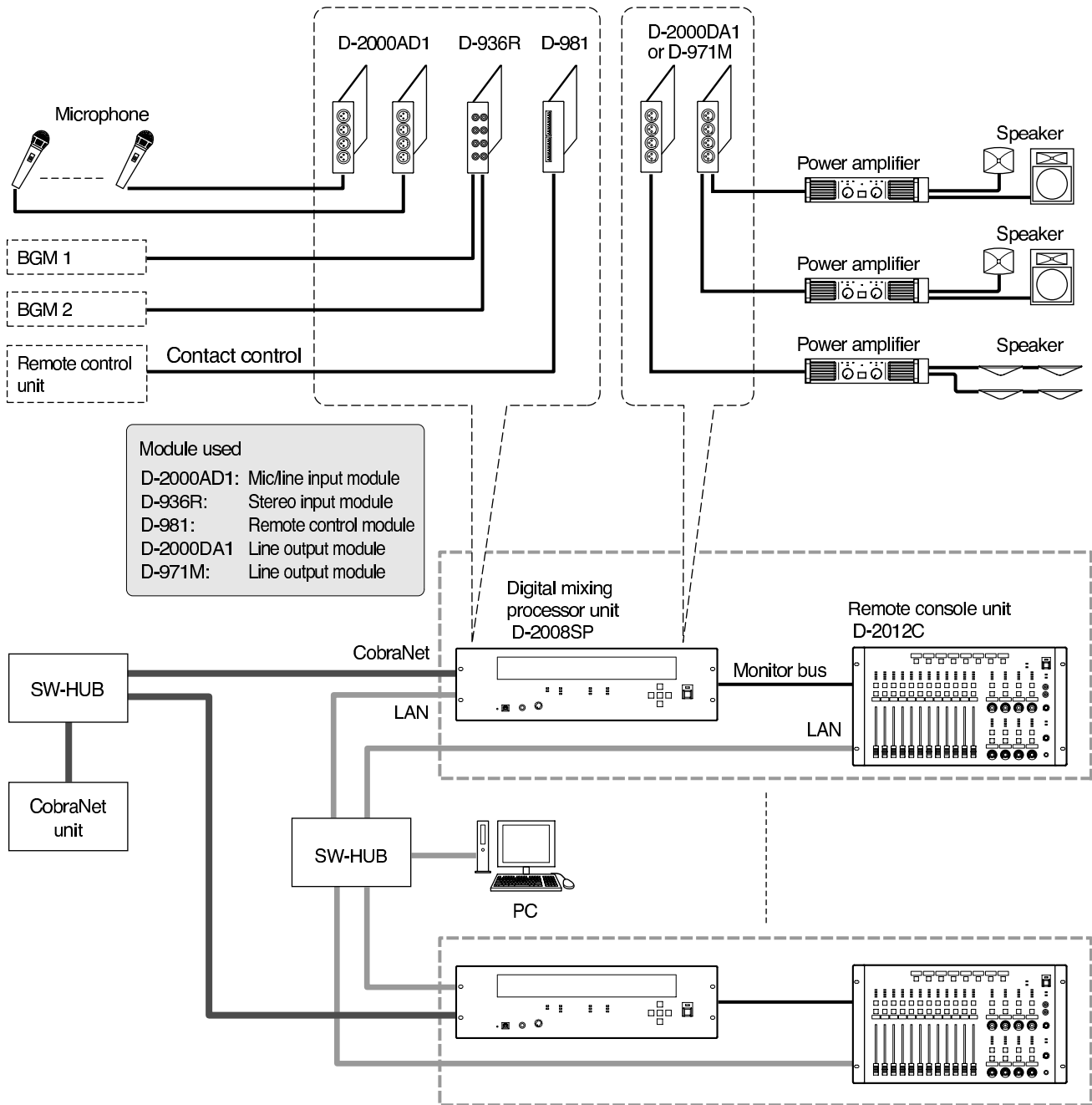
The latest versions of the D-2000 Setting Software and Instruction Manual are made available on the TOA product data download site (<http://www.toa-products.com/international/>).

- When cleaning the unit, be sure to turn the power switch to OFF. Wipe with a soft dry cloth. If it gets very dirty, use the soft cloth slightly moistened in neutral cleanser. Never use thinner, benzene, chemically processed towels, or alcohol as the unit's plastic or other parts may be deformed or discolored.
- About the wear-and-tear items
The D-2012C's following parts are wear-and-tear items. Replace them when they approach the end of their useful lives, which vary depending on the environments or conditions of use. Note that the replacement of such wear-and-tear parts is chargeable even when the unit is within the valid guarantee period.
 - Motor fader: 30000 reciprocations (Approx. 6 years)
 - Rotary encoder: 30000 rotations (Approx. 12 years)

*¹ 1U size = 44.5 mm or 1.75" (standard size)

*² To update the D-2012C firmware ver. 2.0.0, use the dedicated "D-2012C Firmware Updater Software Program." (Refer to the separate Installation Manual, "FIRMWARE UPDATE PROCEDURE.")

7. CONNECTION EXAMPLE



Note

The largest-scale system can be configured with 4 D-2008SPs, 4 D-2012Cs, and 1 PC.

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC REQUIREMENTS

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Traceability Information for Europe (EMC directive 2004/108/EC)

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