



# D-2000 SERIES DIGITAL MIXING SYSTEM



***Integrating high-performance  
mixing, matrixing and processing functions  
to meet a wide scope of sound reinforcement applications***

# Expandable and operation, a system contr

Expandable to a massive 128 input/output configuration, the D-2000 Series includes various modules and peripherals that can be combined to create the best possible sound in small to medium-size venues of all types, including hotel banquet and function rooms, indoor sports facilities, multipurpose halls and places of worship and many others.



D-2008SP

## *Creating the ideal sound environment*

### Auto-mixing advantages

**NOM** (Number of Open Microphones) - automatically adjusts output level based on the total number of open microphones.

**Ducker function** (Auto-Mute function) - automatically works to attenuate outputs of channels with low priority.

### Highly effective feedback suppression

The D-2000 Series provides feedback elimination for up to 4 channels. In addition, each channel can control 12 problem frequencies. This makes it convenient for feedback suppression in different areas of the same hall.

#### 2 versatile suppression modes

Either presettable **Auto Mode** or realtime **Dynamic Mode** can be selected to suit the situation and eliminate feedback.

### Essential audio processing

Delay, High-, Low-Pass and Notch Filters, Parametric Equalizers, Compressor/Auto Leveller, Gate, Crossovers and Crosspoint Gain.

D-2012C

# All-in-one designs ideal offering easy advanced functions and control capabilities

**User-friendly design facilitates operation by any user**

## 32 preset memories for user convenience.

Up to 32 different routing and parameter configurations can be stored in memory and called up to handle venues such as multi-purpose halls and conference rooms that require frequent changes in staging, seating and speaker arrangements.

## Intuitive GUI

The dedicated software's graphic, visually attractive user interface helps streamline settings and adjustments.

## Mixing console option

The D-2008SP can be connected via network to the D-2012C mixing console with 12 motorized faders and 8 rotary encoders. This enables simplified mixing operation that suit non-professional users. Using the D-2012C, allows input and output channel signal levels to be monitored, volume changes made as well as recalling preset memory settings, and contact control.

## VCA control

D-2000 Series units used in conjunction with the optional D-911 VCA Fader Unit provides more of an analog mixer user interface.

## RS-232C control

The RS-232C port allows external control when connected to external devices such as AMX<sup>\*1</sup> and Crestron<sup>\*2</sup> control units. This also allows full control over venue lighting and power curtains (blackout) from a central remote location. This feature is particularly suited for AV presentation rooms, conference rooms and hotel banquet rooms.

**Configuration flexibility and intelligent functions provide solutions for any situation**

## User-specific configurations

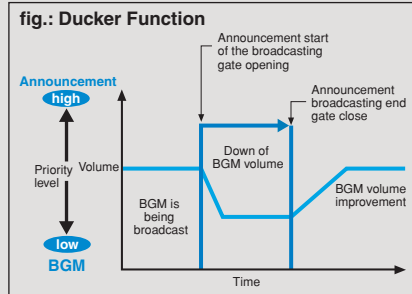
The D-2000 Series fully modular design makes it a simple matter to create a configuration that meets specific user requirements.

## 24-bus matrix

Totally flexible input-to-output signal routing for zoning or room-combining as needed.

## Extending operational use for more advanced applications

A 128 input/output system can be constructed by connecting four units of the D-2008SP using the CobraNet<sup>\*3</sup> module. LAN-connected D-2008SP units can be remotely operated from the console or PC software.



## Display of signal flow



Operation screen of software



Matrix setting screen



D-911

<sup>\*1</sup> AMX is a registered trademark of AMX Corporation.

<sup>\*2</sup> Crestron is a registered trademark of Crestron Electronics, Inc.

<sup>\*3</sup> CobraNet is a registered trademark of Cirrus Logic Corporation.

D-2000CB





# All-in-one designs ideal offering easy advanced functions and control capabilities

## Input Modules

### Mic/Line Input Modules (Monaural type)



#### D-2000AD1

- 4-channel, XLR connectors
- A/D converter: 24 bit
- Phantom power supply (48V)
- THD : 0.008% or less



#### D-921E

- 2-channel, Removable terminal block
- A/D converter: 24 bit
- Phantom power supply (15V)
- THD : 0.05% or less



#### D-921F

- 2-channel, XLR connectors
- A/D converter: 24 bit
- Phantom power supply (15V)
- THD : 0.05% or less



#### D-922E

- 2-channel, Removable terminal block
- A/D converter: 20 bit
- Phantom power supply (15V)
- THD : 0.05% or less



#### D-922F

- 2-channel, XLR connectors
- A/D converter: 20 bit
- Phantom power supply (15V)
- THD : 0.05% or less

### Mic/Line Input Module (Stereo type)

#### D-936R

- 4-channel, RCA pin jack
- A/D converter: 24 bit
- THD : 0.05% or less



### Digital Input Modules

#### D-923AE

- 2-channel line input
- Applicable Format: AES/EBU



#### D-937SP

- 1-channel stereo line input
- Applicable Format: S/PDIF



## Output Modules

### Line Output Modules



#### D-2000DA1

- 4-channel, XLR connectors
- D/A converter: 24 bit
- THD : 0.008% or less



#### D-971M

- 4-channel, XLR connectors
- D/A converter: 24 bit
- THD : 0.05% or less



#### D-971E

- 4-channel, Removable terminal block
- D/A converter: 24 bit
- THD : 0.05% or less



#### D-971R

- 4-channel, RCA pin jack
- D/A converter: 24 bit
- THD : 0.05% or less



#### D-961SP

- 2-channel stereo line output
- Coaxial RCA jack
- Applicable Format: S/PDIF



#### D-972AE

- 4-channel line output
- XLR connectors
- Applicable Format: AES/EBU

## Remote Control Modules

### Remote Control Modules

#### D-981

- 8 inputs/8 outputs
- Removable terminal block connectors



#### D-983

- 24 inputs/16 outputs
- RJ45 connectors



### VCA Control Module

#### D-984VC

- Interface to D-911 Remote Controller
- Eight RJ-45 connectors
- Control up to 12 inputs, 8 outputs



## CobraNet Interface Module

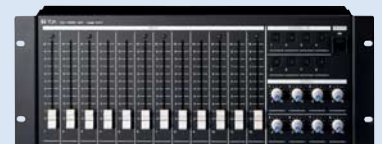


\*CobraNet was developed by Cirrus Logic, a US company and is a network protocol utilizing Ethernet networks to perform high-quality multi-channel digital transmission. It allows using existing Ethernet equipment such as CAT-5 switching hubs.

#### D-2000CB

- Allows audio transmission among D-2008SPs.

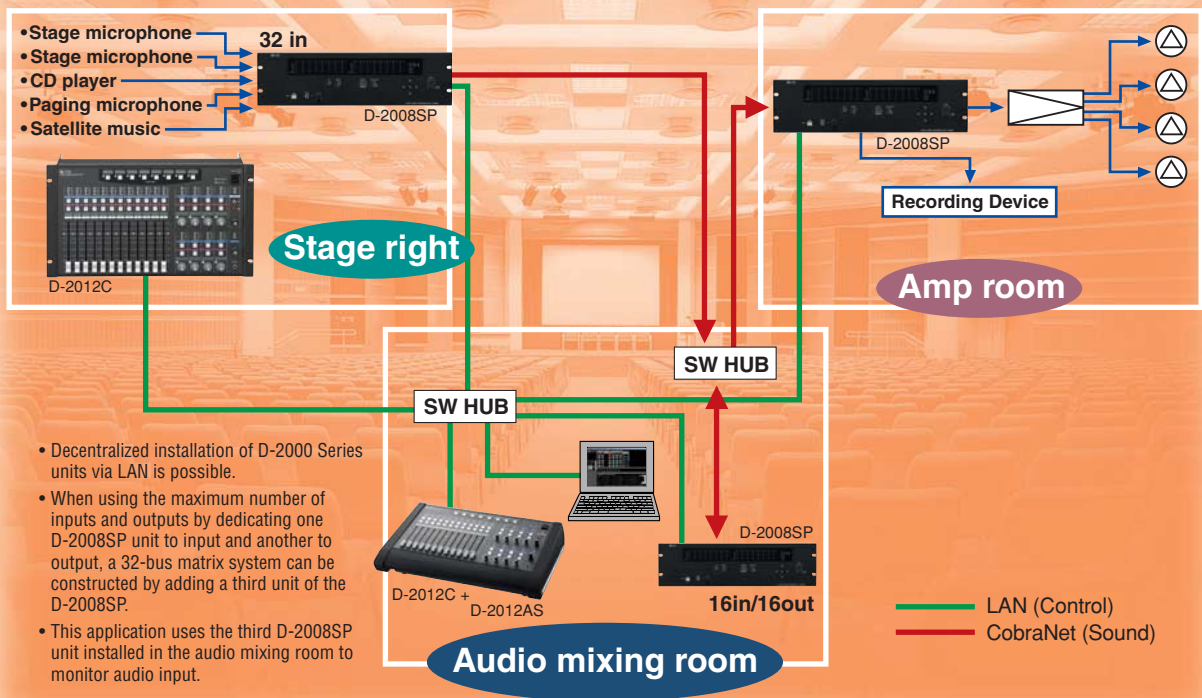
## VCA Fader Unit



#### D-911

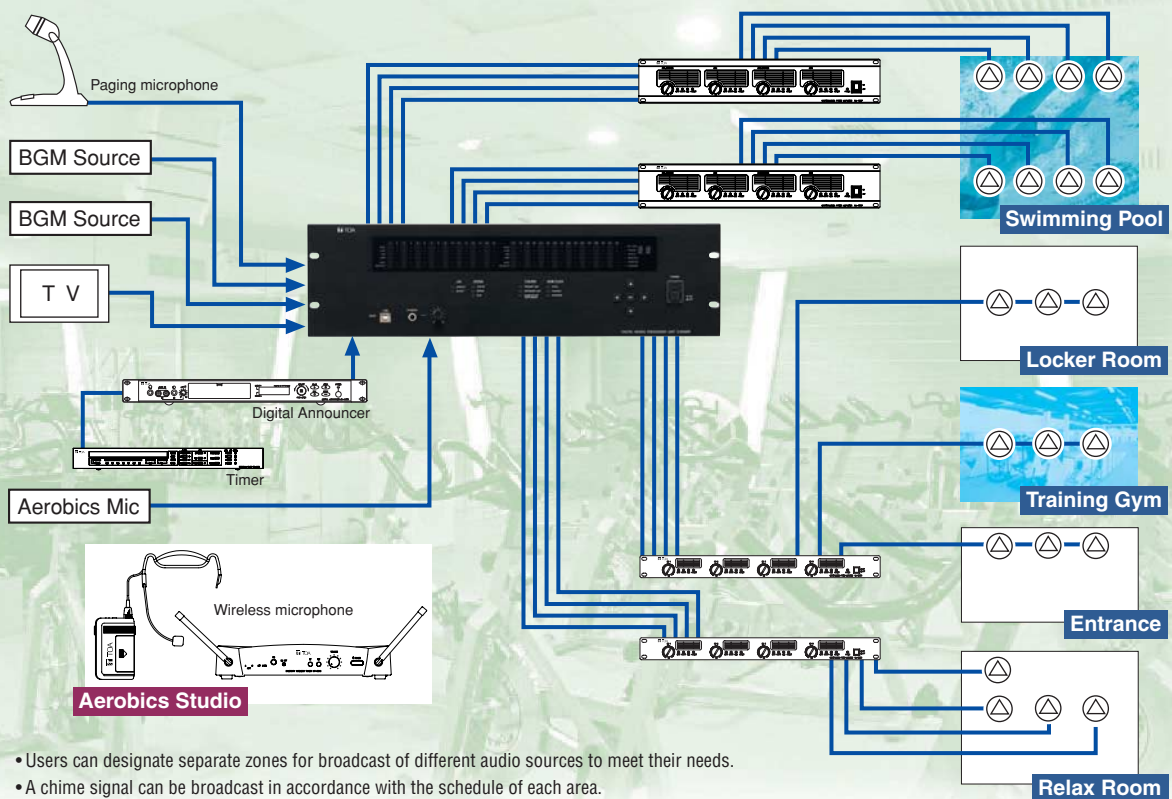
VCA Fader Unit for controlling 12 inputs/ 8 outputs, channel gains and 8 contact controls when used with the D-984VC.

# Municipal Hall Application



- Decentralized installation of D-2000 Series units via LAN is possible.
- When using the maximum number of inputs and outputs by dedicating one D-2008SP unit to input and another to output, a 32-bus matrix system can be constructed by adding a third unit of the D-2008SP.
- This application uses the third D-2008SP unit installed in the audio mixing room to monitor audio input.

# Fitness Club Application



- Users can designate separate zones for broadcast of different audio sources to meet their needs.
- A chime signal can be broadcast in accordance with the schedule of each area.

# Specifications

## ■D-2008SP Digital Mixing Processor Unit

\*1 0dB = 0.775V

Power Source	AC mains, 50/60Hz
Power Consumption	76W
Frequency Response	20Hz – 20kHz, ±1dB (±4dB*1 Input)
Sampling Frequency	48kHz
Input and Output	Input Max. 32 channels, modular construction (modules optional) Output: Max. 32 channels, modular construction (modules optional) Monitor bus: 1 stereo input, 1 stereo output Headphone: 1 stereo
Signal Processing	Feedback Suppression Function, Auto Mixing Function, Auto Mixing Group, Parametric equalizer High-pass filter, Low-pass filter, Notch filter, All-pass filter, High shelving filter, Low shelving filter, Horn equalizer, Crossover filter, Compressor/Auto-Leveler, Output Delay, BUS Delay, Matrix, CobraNet Matrix, Crosspoint Gain
Preset memory	32
Auxiliary Function	Key Locking function
LAN	Network I/F: 10BASE-T/100BASE-TX (Automatic-Negotiation) connected via a switching hub Network protocol: TCP/IP Connection cable: Shielded Category 5 or higher twisted pair LAN cable (CAT5-STP) Maximum cable distance: 100m (109.36 yd) (between D-2008SP and switching sub)
Control	RS-232C, D-sub connector (9 pins) Used for external control Module: Remote control module slot: 2
Operating Temperature	+5°C to +40°C (41°F to 104°F)
Dimensions	482 (W) × 132.6 (H) × 343.4 (D)mm (18.98" × 5.22" × 13.52")
Weight	6.3kg (13.89 lb)
Accessory	Power cord (2m (6.5 ft)) × 1, Rack mounting screw × 4, Module mounting screw (spare) × 4, Blank panel (preinstalled on the module slot) × 8, CD (Set-up software) × 1

### Personal Computer Requirements

Personal computer	PC-AT compatible
Personal computer requirement	CPU: Pentium4 2GHz or more Memory: 1.5GB or more (2GB or more recommended) Display adapter: XGA (1024 × 768) or more Network adapter: 10BASE-T or more
OS	Windows Vista, Windows XP (SP2) or later
Other	.NET Framework 3.5 SP1 (included in the supplied CD) installation required

\*Pentium is a registered trademark of Intel Corporation.

\*Windows, Windows Vista is a registered trademark of Microsoft Corporation.

## ■D-2012C Remote Console Unit

Power Source	AC mains, 50/60Hz
Power Consumption	18W
Volume Adjustment	100 mm motorized fader × 12, Rotary encoder × 8
Line Input	1 channel (stereo), +10 to -20dB*1, 10kΩ, unbalanced, RCA Pin-jack
Headphone Output	Stereo 100mW + 100mW (32Ω load), standard stereo phone-jack
Monitor Bus	1 stereo input, 1 stereo output
LAN	Network I/F: 10BASE-T/100BASE-TX (Automatic-Negotiation) RJ45 connector, Connected via a switching hub Network protocol: TCP/IP Connection cable: Shielded twisted pair (STP) Category 5 or higher LAN cable Maximum cable distance: 100m (109.36 yd) (between D-2008SP and switching sub)
Control	RS-232C, D-sub connector (9 pins) Used for maintenance use
Dimensions	482 (W) × 266 (H) × 138 (D)mm (18.98" × 10.47" × 5.43")
Weight	6.6kg (14.55 lb)
Accessory	Power cord (2m (6.5 ft)) × 1, Rack mounting screw × 4, Fader knob (yellow) × 3, Fader knob (red) × 3, Cord clamp (fitting screw) × 1

## ■D-2000AD1 Mic/Line Input Module

Input	4 channels, Mic/Line selectable Mic: -50/-36dB*1, 2.6kΩ, electronically-balanced Line: -10dB*1, 2.6kΩ/+4dB*1, 7kΩ, electronically-balanced Connector: XLR-3-31 equivalent Phantom power supply (48V DC, can be used when set for the Mic) Ground lift switch
A/D Converter	24 bit
THD	0.008% or less (+4dB*1 input)

## ■D-2000DA1 Line Output Module

Output	4 channels, +4dB*1/-10dB*1 (changeable), adaptable load of 600Ω or more, balanced (electronically-balanced)/unbalanced (changeable), XLR-3-32 equivalent
D/A Converter	24 bit
THD	0.008% or less

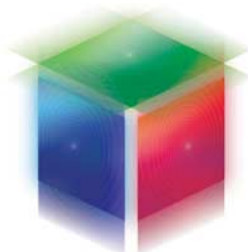
## ■D-2012AS Console Case (for desk-top use)

Finish	Side Panel: MDF, black, paint, mat Armrest: MDF, leather, black, mat Decorative panel: Stainless steel, silver
Dimensions	505 (W) × 127.5 (H) × 333.4 (D) mm (19.88" × 5.02" × 13.13") (assembled)

## ■D-2000CB CobraNet Interface Module

Network I/F	CobraNet: 100BASE-TX, PRIMARY/SECONDARY 2 system, RJ45 connector, Enables decentralized installation, Audio transmission only Connection cable: Shielded twisted pair (STP) Cat 5 or higher LAN cable (note: This network should be completely independent of other LAN.) Number of D-2008SP connection: Max. 4 Switching sub stage: Max. 7 Max extend distance: 100m (328.1 ft) (connected via a switching hub)
Input	16 channels, 20/24 bit
Output	16 channels, 20/24 bit

\*CobraNet is a registered trademark of Cirrus Logic Corporation.



**Human Society with  
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**TOA Corporation**

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Specifications are subject to change without notice.  
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