



OPERATING INSTRUCTIONS

DIGITAL MIXER

D-2000 Series (Version 4)

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.

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1. 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.
- Use the unit in locations where the temperature is between +5 to +40 °C (41 to 104 °F) and the 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.
- Do not position the heat-generating component such as a power amplifier immediately below the D-2008SP in the rack even if the perforated panel is mounted between them. Also, keep such components away from each other so that the ambient temperature around the D-2008SP should not exceed +40 °C (104 °F). Failure to do so may shorten the product life.
- 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.
- The largest-scale system can be configured with 4 D-2008SPs, 4 D-2012Cs, and 1 PC.
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/>).
- 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, chemically-treated cleaning cloth, or alcohol because such volatile liquids could deform or discolor the unit.
- 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." For details on how to update the firmware, refer to the separate installation manual.

2. NOMENCLATURE AND FUNCTIONS

2.1. D-2008SP Digital Mixing Processor Unit

The D-2008SP Digital Mixing Processor Unit is designed to have up to 32 audio inputs and outputs in total. A built-in multiple signal processing functions permit the unit to be used as both a mixer and a signal processor.

Its audio input/output and control ports can accept plug-in modules, making the unit have a maximum of 32 inputs or 32 outputs and up to 2 control modules.

Using the following optional modules enables the unit to perform their functions: Two D-983s Remote Control Module for providing a maximum of 48 contact inputs and 32 contact outputs, D-984VC VCA Control Module for VCA control, and D-2000CB CobraNet Interface Module for audio data transfer between CobraNet devices.

Each function can be set using the D-2000 Setting Software.

Operation can be performed through the front key operation and from a PC with the D-2000 Setting Software installed.

The D-2012C Remote Console Unit, when connected, remotely controls the D-2008SP's basic operations such as volume control.

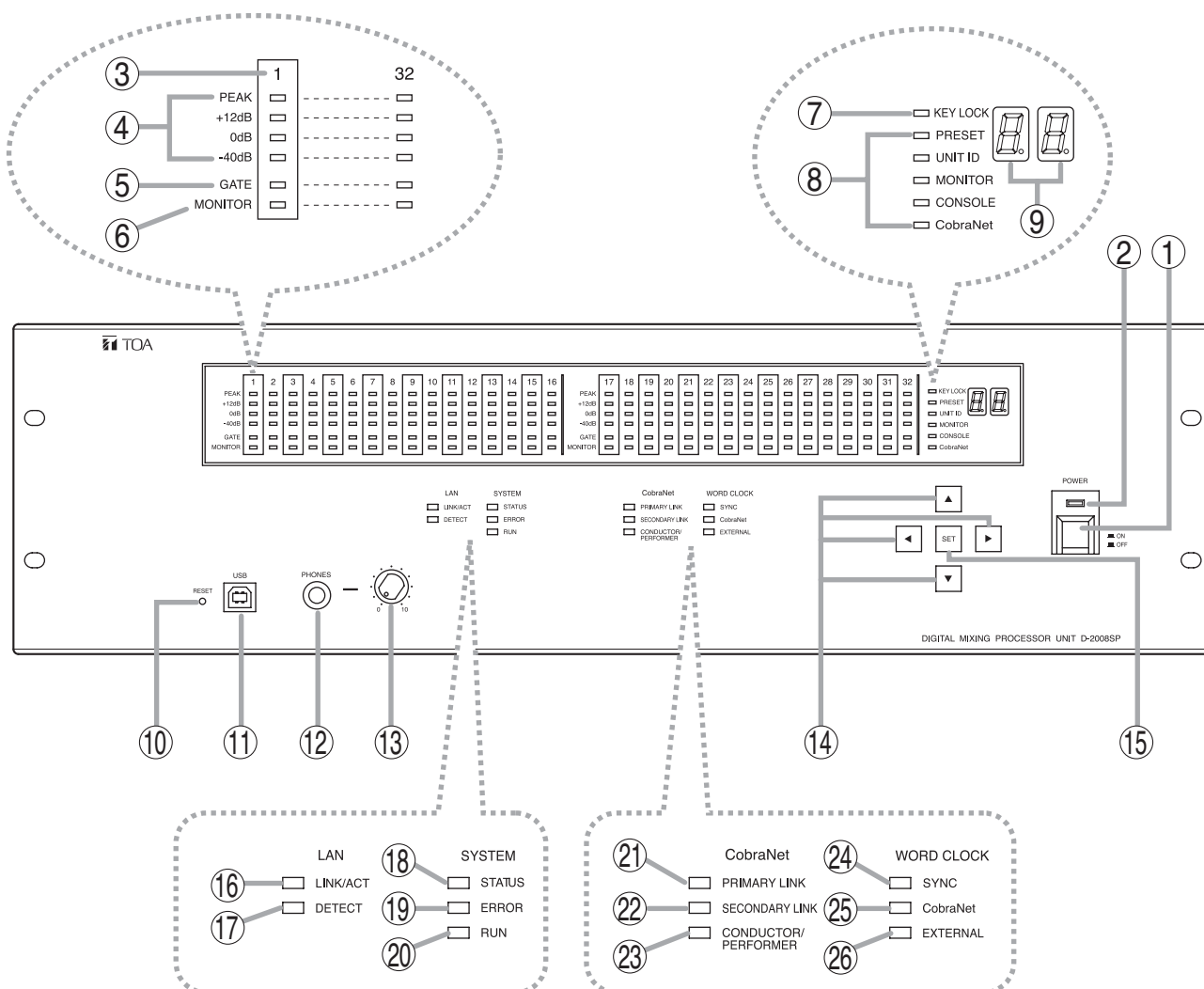
It can be mounted in an EIA component rack (3U size*).

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

Note

CobraNet is a trademark of Cirrus Logic, Inc.

[Front]



- 1. Power switch [POWER ON/OFF]**
Power is switched on and off with each depression of this switch.
- 2. Power lamp**
Lights when the power switch is set to ON.
- 3. Monitor number**
Number of channel to be monitored using headphones.
- 4. Level indicators [PEAK, +12 dB, 0 dB, -40 dB]**
Indicate the signal level of each individual channel.
Indicate the PFL (pre-fader level) value for the input channel, and the AFL (after-fader level) value for the output channel.
When an output channel is muted, only the PEAK indicator lights. When all output channels are muted by the "All Mute" function, all the PEAK indicators flash.
- 5. Gate indicator (Orange)**
Lights when the gate* is activated.

* This function passes, attenuates, or cuts the input signal depending on its signal level.
- 6. Monitor selection indicator (Orange)**
Lights to indicate the corresponding channel is selected for monitoring using headphones.
- 7. Key lock indicator (Red)**
Lights when key lock function is enabled.
- 8. Item selection indicators [PRESET, UNIT ID, MONITOR, CONSOLE, CobraNet] (Green)**
The indicator of the item selected with the Selection keys (14) lights.
- 9. Number display**
Displays the number of the preset memory recalled.
- 10. Reset switch**
Restarts the D-2008SP when pressed.
Press the switch (recessed) with a pen tip.
Note
Reactivating the unit stops audio signals currently being output.
- 11. USB terminal**
Not used.
- 12. Headphone jack**
Audio outputs for the channel of which Monitor selection indicator (6) is lighting can be monitored. Connect stereo headphones of 16 Ω or more. Adjust the monitor volume with the headphone volume control knob (13).
- 13. Headphone volume control knob**
Adjusts the headphone volume.
- 14. Selection keys**
Use the Up and Down keys to select the Item selection indicator.
Use the Left and Right keys to select the preset memory number when recalling the preset memory or the desired monitor number when MONITOR is selected.
- 15. Set key**
Used for preset memory recall or key lock setting.
- 16. LAN LINK/ACT indicator (Green)**
Lights when the LAN connector on the rear panel is connected, and flashes during LAN communications.
- 17. LAN DETECT indicator (Orange)**
Lights when this unit is selected on the D-2000 Setting Software.
- 18. SYSTEM STATUS indicator (Green)**
Lights when the unit is in communication with a PC.
- 19. SYSTEM ERROR indicator (Red)**
Lights while the unit is being activated, and goes out after the activation has been completed.
If this indicator remains lit even after activation completion, this indicates an internal fan failure. (For the relationship between the indicator and D-2008SP status, refer to the table on [p. 5.](#))
- 20. SYSTEM RUN indicator (Green)**
Lights when the unit is in normal operation, and goes out when a failure occurs.
(For the relationship between the indicator and D-2008SP status, refer to the table on [p. 5.](#))
- 21. CobraNet PRIMARY LINK indicator (Green)**
Flashes during CobraNet communications via the primary port.
- 22. CobraNet SECONDARY LINK indicator (Green)**
Flashes during CobraNet communications via the secondary port.
- 23. CobraNet CONDUCTOR/PERFORMER indicator (Green)**
Flashes when the primary port is in operation as the conductor, and lights when it is in operation as the performer.
- 24. WORD CLOCK SYNC indicator (Green)**
Lights when internal word clock synchronization is stable. Goes out if the clock gets out of synchronization, then the internal mute functions, causing the audio outputs to be interrupted. Even if once the clock had got out of synchronization, when the internal clock has stabilized, such operation state automatically returns to normal.

25. WORD CLOCK CobraNet indicator (Green)

Lights when the master of the internal word clock gets synchronization from CobraNet.

26. WORD CLOCK EXTERNAL indicator (Green)

Lights when the master of the internal word clock gets synchronization from the external word clock generator connected to the rear panel's word clock input.

• SYSTEM ERROR and SYSTEM RUN indicators vs. D-2008SP status

Indicator \ D-2008SP status	During activation	After activation completion		
		Normal state	System error	Fan error
SYSTEM ERROR	Lit	Unlit	Unlit	Lit
SYSTEM RUN	Unlit	Lit	Unlit	Lit

Note

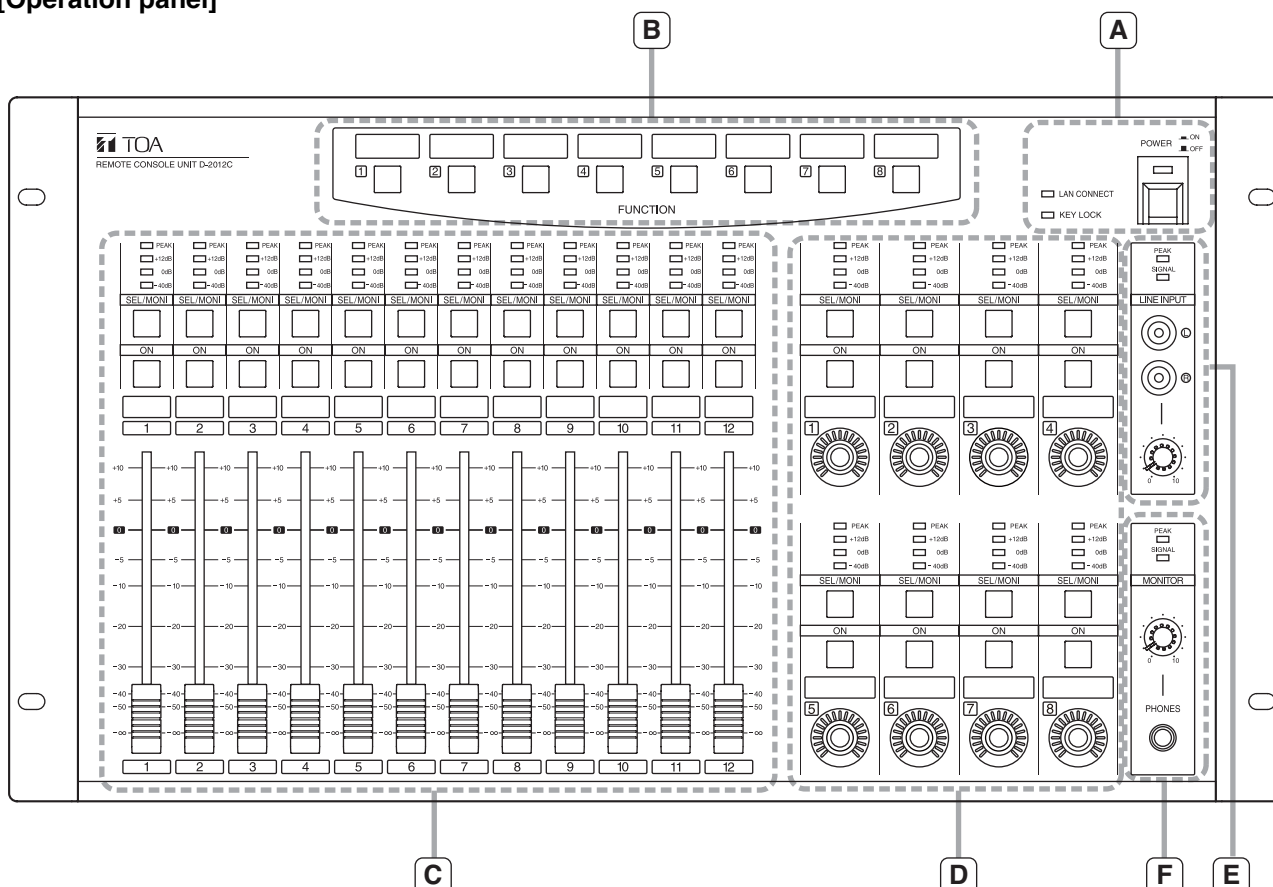
If both indicators light or remain unlit after the unit activation is complete, cycle the power. If the situation does not change after the unit power-up, the unit may break down. Contact your TOA dealer.

2.2. D-2012C Remote Console Unit

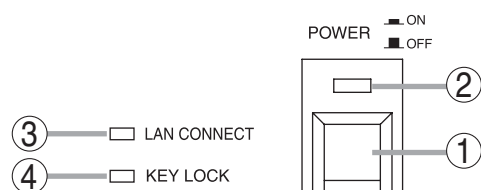
The D-2012C is designed to be used with the D-2008SP Digital Mixing Processor. The D-2012C can be LAN-connected to the D-2008SP Processor to allow remote operation of input and output channel volume adjustment, signal level monitoring, contact control and preset memory recall, etc. The D-2012C is equipped with line inputs and audio monitor bus terminal. A PC can be connected to perform such settings as selection of channels for operation and assigning functions to the function keys, using the D-2000 setting software supplied with the D-2008SP Processor. Up to 4 different fader layers can be set when assigning channels to each motorized fader and rotary encoder, allowing an individual D-2012C unit to operate up to 80 channels in monaural. More channels can be operated by performing settings for stereo link and grouping (refer to [p. 20](#) for details about the fader layer). It can be mounted in an EIA Standard component rack (6U* size). It can also be used as a desktop unit in combination with the optional D-2012AS Console Case.

* 1U size = 44.5 mm (reference size)

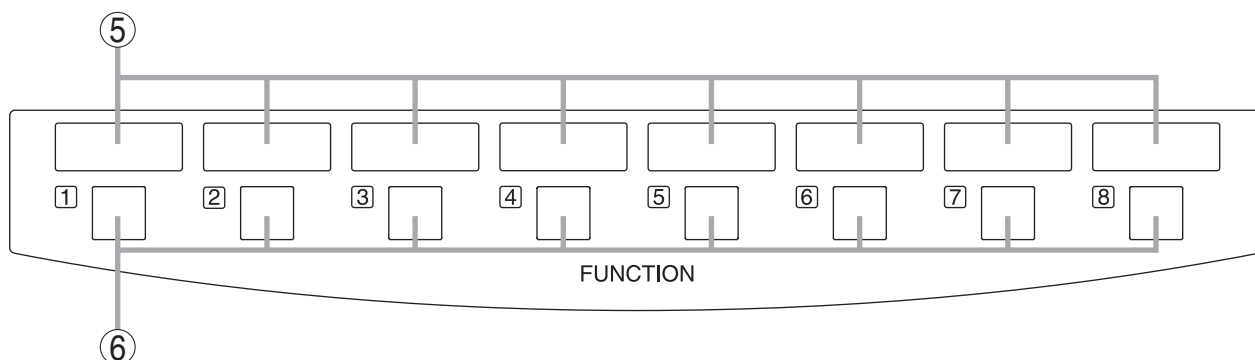
[Operation panel]



• A-Section



• B-Section



1. Power switch

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

2. Power indicator

Lights when the power is switched on.

3. LAN connection indicator

Displays the connection status of the D-2008SP to be controlled.

Lit: When all the D-2008SP units to be controlled are in controllable state.

Flashing: When both controllable and uncontrollable D-2000SP units exist in a system where multiple D-2008SP units to be controlled are used.

Unlit: When all the D-2008SP units to be controlled are in uncontrollable state.

If there exists any uncontrollable D-2008SP, check the D-2008SP's power supply and connections.

4. Key lock indicator

Lights red when the operation keys or knobs are locked.

5. Write-in space

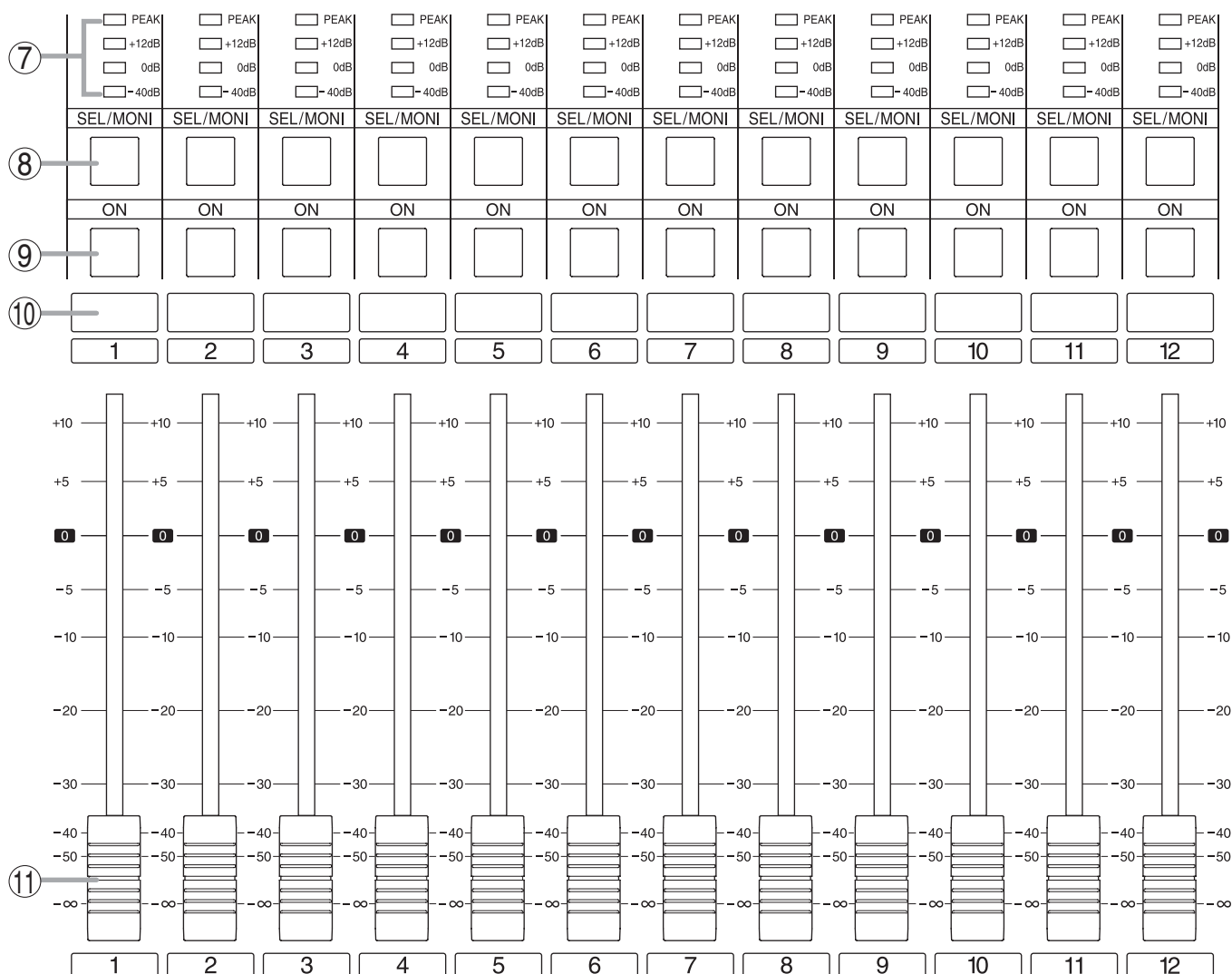
Write the name of the function assigned to the key, etc. in these spaces.

6. Function keys (1 – 8)

Execute contact control, preset memory recall or other functions assigned to the keys.

Use the D-2000 Setting Software to set functions and assign them to the keys.

• C-Section



7. Level indicators [PEAK, +12 dB, 0 dB, -40 dB]

Indicate signal levels for each channel. Pre-fader value is indicated for input channels and post-fader value for output channels. Adjust the sound volume so that the Peak indicator does not continuously remain lit.

8. Monitor channel selector keys

Select the channel to be monitored. Pressing a key causes it to light and allows its corresponding channel to be monitored. Pressing the key again causes the light to go out, disabling monitoring.

It can be enabled to switch the D-2008SP's selection channel on the D-2000 Setting Software in synchronization with this key operation. (For details, read the separate Setting Software Instructions, "Console SEL/MONI key interlock setting.")

9. Channel ON/OFF keys

Turn on or off the output for each channel. Pressing a key causes it to light and the signal of its corresponding channel to be output. When pressed again, the light goes out and the channel's signal output is stopped.

10. Write-in space

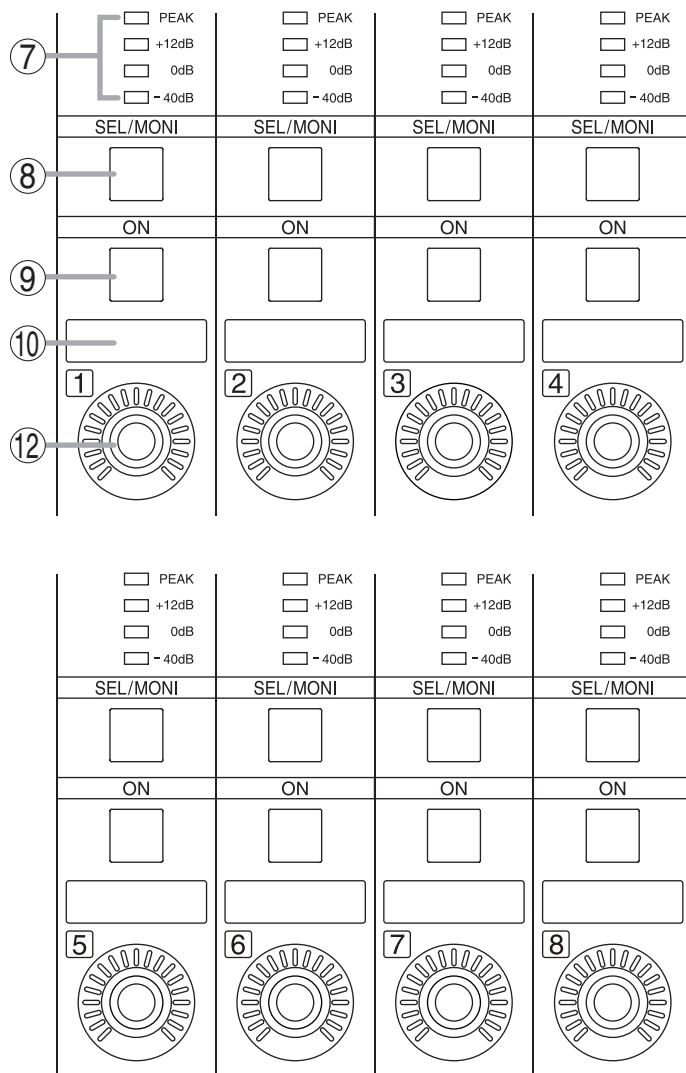
Write the name of the input or output channel, etc. in these spaces.

11. Motorized faders (1 – 12)

Adjust the volume of each input or output channel. With reference to fader position "0," the position "-∞" provides the minimum volume, and position "+10" the maximum volume.

Use the D-2000 Setting Software to perform settings for the input or output channels for which the volume is adjusted.

• D-Section



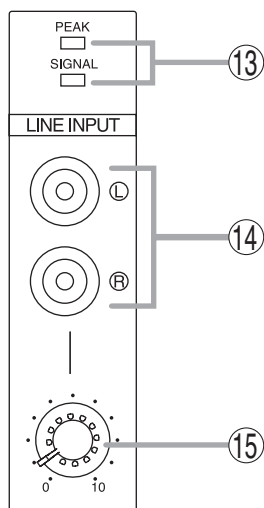
Note: Refer to [p. 7](#) for names and functions of parts 7 – 10.

12. Rotary encoders (1 – 8)

Adjust the volume of each input or output channel. The volume increases as the encoder is rotated clockwise, and decreases as it is rotated counterclockwise. (The knob rotates endlessly.) The volume indicators around the knob light depending on the rotation of the knob.

Use the D-2000 Setting Software to perform settings for the input or output channels for which the volume is adjusted.

• E-Section



13. Line input signal level indicators [SIGNAL, PEAK]

Display the signal level set with the Line input volume control (15). The SIGNAL indicator lights when a signal exceeding the reference level of -20 dB is fed to the line input terminal. If a signal at the line input terminals clips, the PEAK indicator lights.

14. Line input terminals

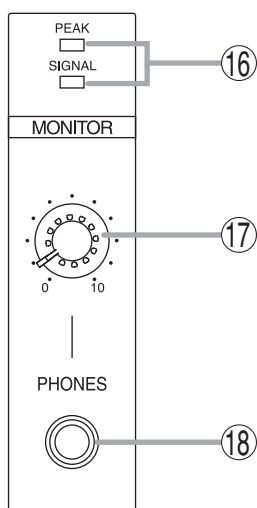
Connect stereo equipment of stereo line level of -10 dB* and $10\text{ k}\Omega$ to these terminals. When using these terminals, perform settings on the D-2008SP side using the D-2000 Setting Software.

* $0\text{ dB} = 0.775\text{ V}$

15. Line input volume control knob

Adjusts the signal input level from equipment connected to the line input terminal. The volume increases as the control knob is rotated clockwise and decreases as it is rotated counterclockwise. Adjust the level so that the SIGNAL indicator lights without lighting the PEAK indicator.

• F-Section



16. Monitor signal indicators [SIGNAL, PEAK]

Indicates the level of the signal being monitored. The SIGNAL indicator lights when a signal being monitored exceeding the reference level of -20 dB is fed to the line input terminal. If the signal level approaches clipping volume, the PEAK indicator lights. Select the channel to be monitored using Monitor channel selector keys (8).

17. Monitor volume control knob

Adjusts the volume of sound monitored by the headphones connected to the Headphone jack. The volume increases as the control knob is rotated clockwise and decreases as it is rotated counterclockwise.

18. Headphone jack

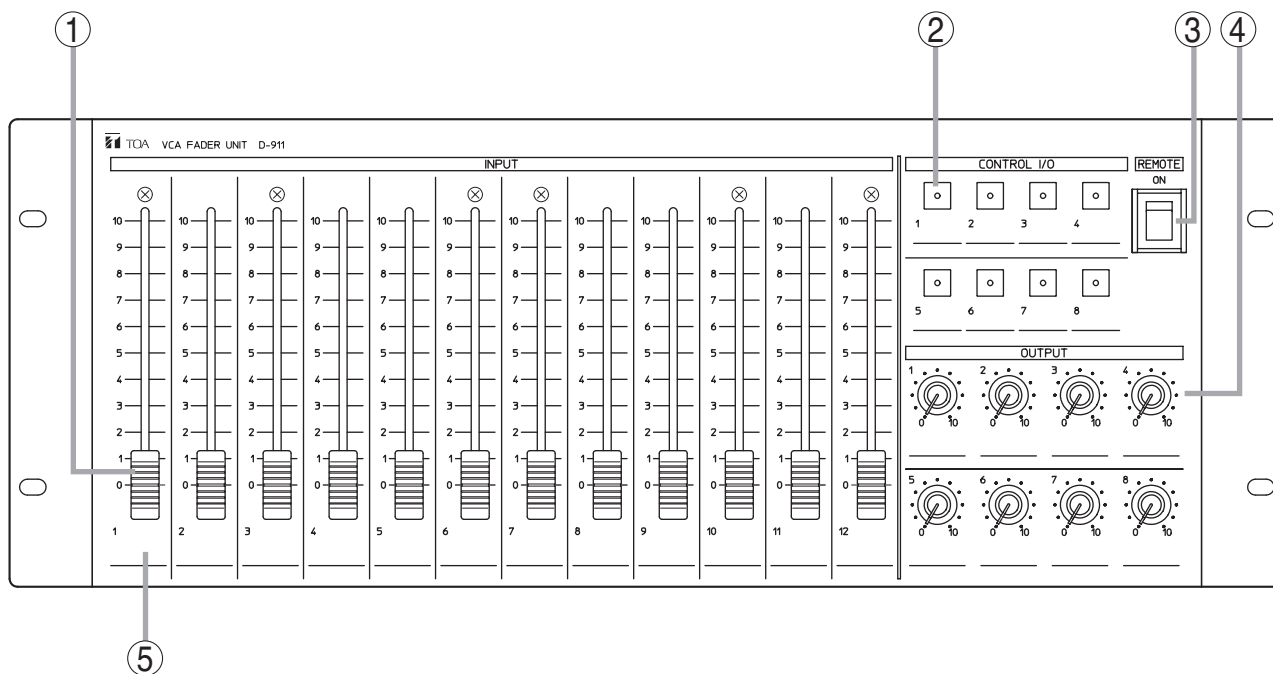
Applicable impedance is $16\ \Omega$ or greater. This jack allows monitoring of the sound output from the channel selected with the Monitor channel selector keys (8). Plug in headphones of $16\ \Omega$ or more to this jack. Adjust the monitor volume with the Monitor volume control knob (17).

2.3. D-911 VCA Fader Unit

The D-911 VCA Fader Unit is designed for use with the D-2008SP.

Connecting to the D-984VC VCA Control Module installed in the D-2008SP permits volume adjustment of input and output channels and contact controls of the D-2008SP. For details, refer to the instruction manual enclosed with the D-911.

[Front]



1. Input fader

Adjusts the volume of each input equipment (i.e. microphones and CD players). Fader position "0" provides the minimum volume, and position "10" the maximum volume.

Assign the channel to be operated using the D-2000 Setting Software. It is also possible to assign the channel as output fader.

2. Control key

Recalls preset memories or controls the contact. Lights when the preset memory is recalled or the contact is turned on.

Assign the contact functions using the D-2000 Setting Software.

3. Remote (Activation) switch

Setting this switch to the ON position closes the remote (activation) output terminals (6) on the rear panel, and setting this switch to the opposite side opens the output terminals.

4. Output volume control knob

Adjusts the output volume. Position "0" provides the minimum volume, and position "10" the maximum volume.

Assign the channel to be operated using the D-2000 Setting Software.

It is also possible to assign the knob as input volume control knob.

5. Write-in space

Used to fill in input/output name, preset memory contents, or other notes for convenience of operation.

3. OPERATIONS

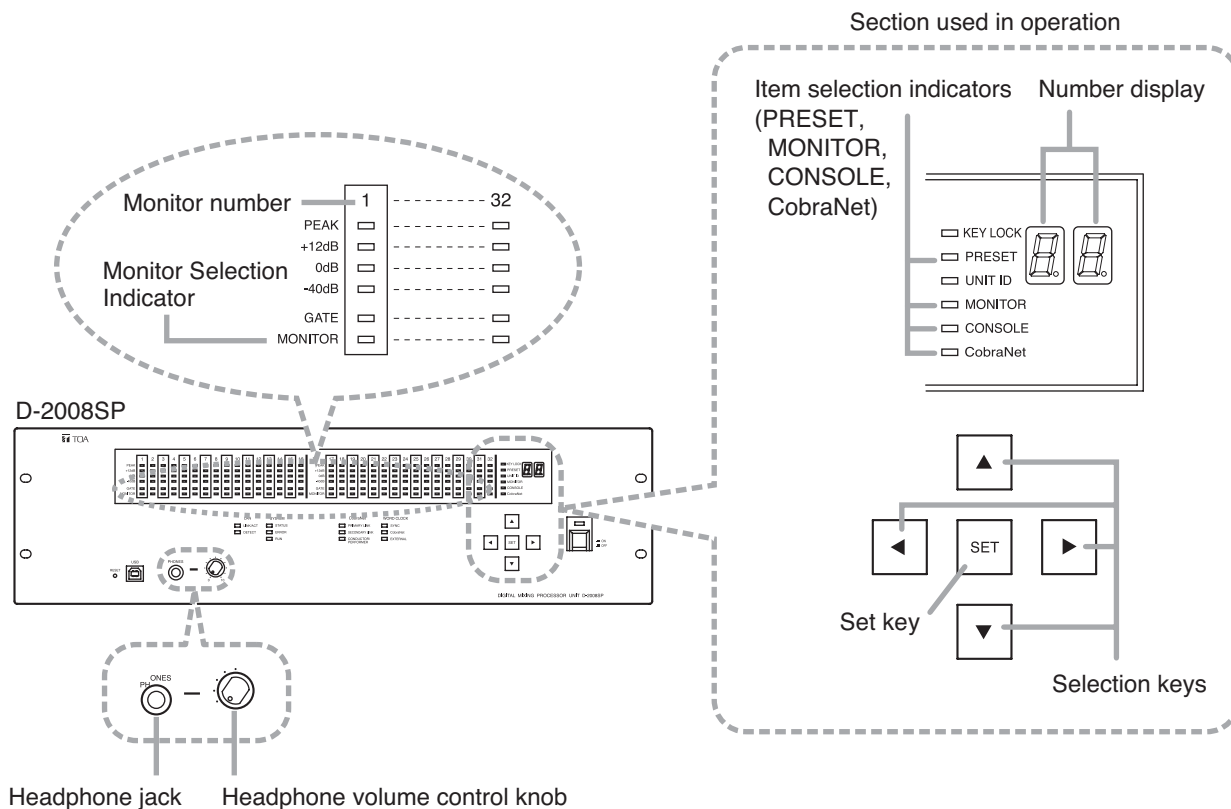
3.1. D-2008SP Operation

Using the front panel-mounted keys, preset memories can be recalled, and input or output channel to be monitored can be selected.

Input or output channel can be monitored through headphones connected to a front panel-mounted headphone jack. Its output sound can be adjusted with a front panel-mounted headphone volume control knob.

For the channel with stereo link established, it can be monitored in stereo.

For the channel in monaural, the same audio signal is provided to the left and right headphone speakers.



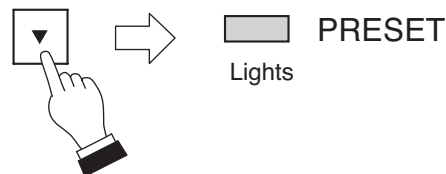
3.1.1. Recalling preset memories

Follow the procedure below to recall each parameter setting stored as preset memory* using the D-2000 Setting Software or D-2012C Remote console unit.

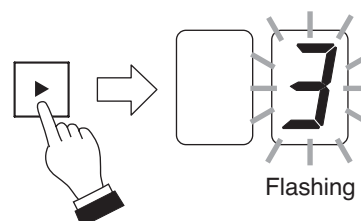
Note

When multiple D-2008SP and D-2012C units are installed in the system, the D-2008SP with ID1 must be included to simultaneously operate other units in the system through the following operation.

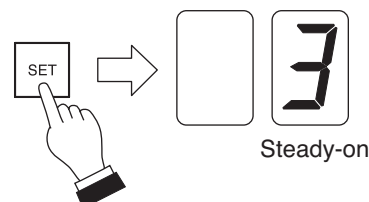
Step 1. Press the Selection key "▲" or "▼" several times to light "PRESET" (Item selection indicator).
Preset memory Number is displayed on the Number display.



Step 2. Press the Selection key "◀" or "▶" to select preset memory Number (1 – 32).
During this period, the number displayed on the Number display is flashing.



Step 3. Press the Set key to confirm the preset memory Number.
When confirmed, the displayed Number changes from flashing to steady-on state, and the parameters stored under its preset memory number is recalled.



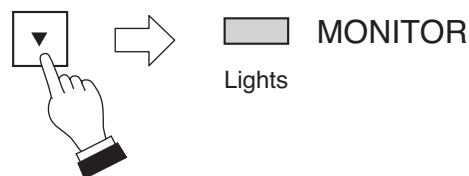
* Parameters stored in preset memory are as follows:

- Input channel parameters: PAD, phantom power, line input mode selection, line input selection, input trim gain, input trim polarity, input filter, compressor / auto leveler mode selection, compressor / auto leveler, level sensibility, gate, auto mixing function group, ducker, NOM attenuation function ON/OFF, input channel gain, channel ON/OFF, and group trim gain
- Bus channel parameters: Feedback suppression (dynamic mode ON/OFF, settings of the number of filters, and filter value set in auto mode and dynamic mode), sub-in-mix-gain, sub-in-mix ON/OFF, bus channel gain, channel ON/OFF, and group trim gain
- Output channel parameters: Output channel gain, group trim gain, channel ON/OFF, filter (including crossover), compressor, delay time, and mute
- Others: Stereo link setting, crossover function configuration setting, NOM attenuation function setting, and matrix assignment

3.1.2. Selecting the input or output channel to be monitored

D-2008SP's input or output channels in operation can be monitored.

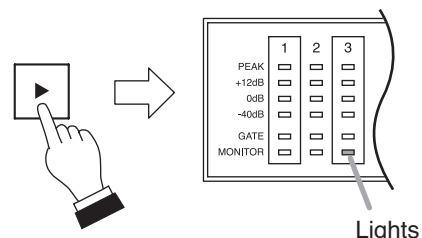
Step 1. Press the Selection key "▲" or "▼" several times to light "MONITOR" (Item selection indicator).



Step 2. Press the Selection key "◀" or "▶" to select monitor number (1 – 32).

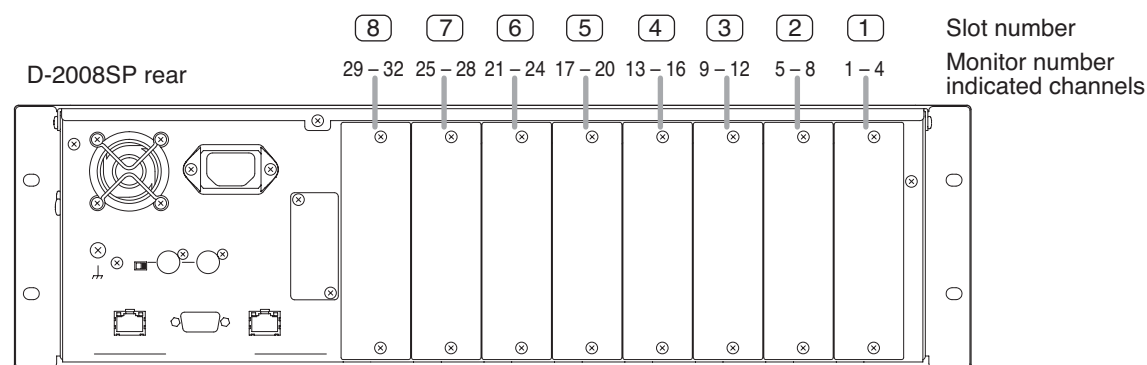
The monitor selection indicator of the selected number lights.

Note: Idle channel is skipped.

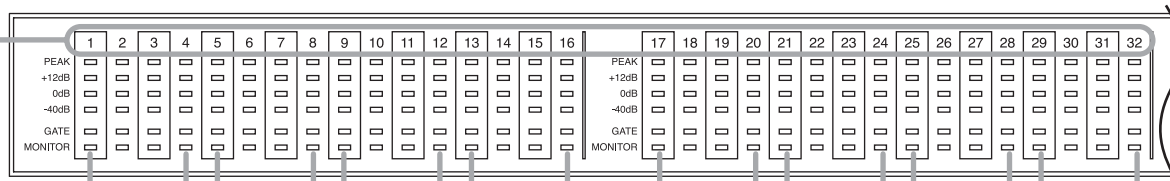


Monitor Numbers are assigned in groups of 4 to each module slot as shown below.

Idle channels will result if no module is installed in a slot or if a single 2-channel module is installed (in this case, the remaining 2 channels become idle).



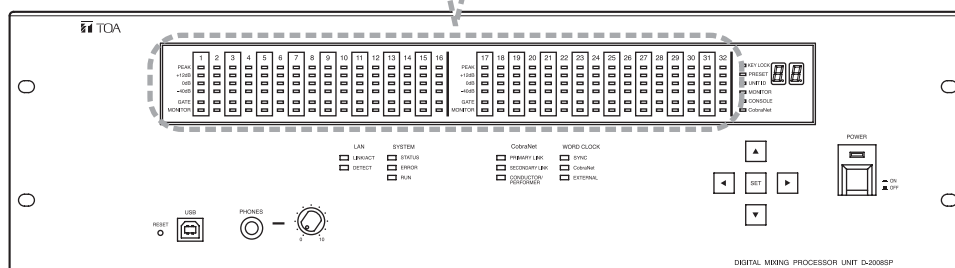
Monitor number



Rear's slot number



D-2008SP front



Step 3. Connect headphones to the headphone jack, then adjust the sound volume with the headphone volume control knob.

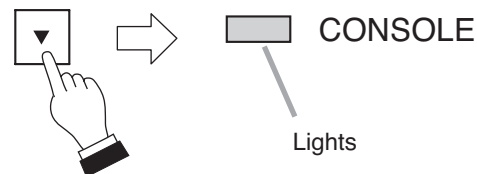
3.1.3. Selecting the D-2012C's monitor channels

The line input and headphone output of the D-2012C Remote Console connected to the D-2008SP processor's Monitor bus terminal can be monitored.

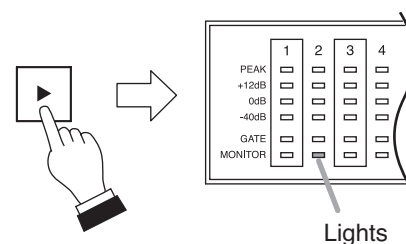
Note

Before selecting, connect the D-2008SP's Monitor bus terminal to the D-2012C's Monitor bus terminal and perform console settings using the D-2000 Setting Software.

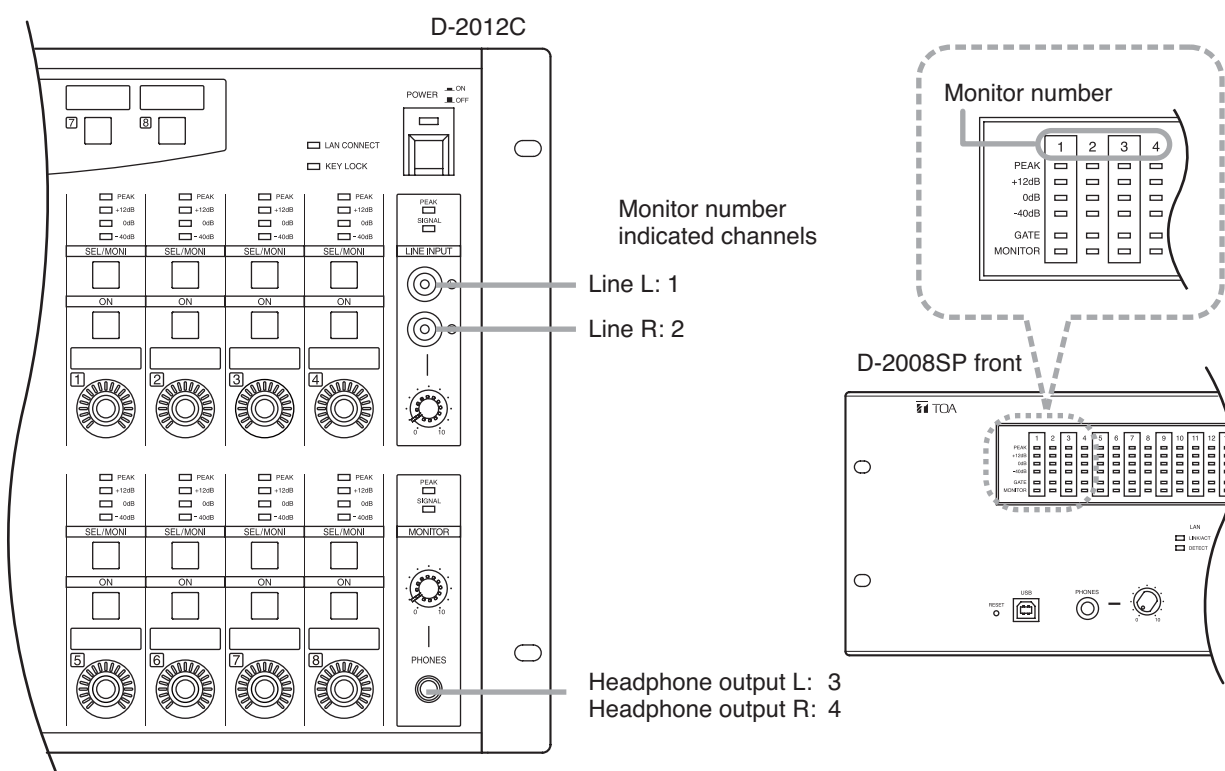
Step 1. Press the Selection key "▲" or "▼" several times to light "CONSOLE" (Item selection indicator).



Step 2. Press the Selection key "◀" or "▶" to select monitor number (1 – 4).
The monitor selection indicator of the selected number lights.



Monitor numbers 1 and 2 respectively correspond to the D-2012C's Line inputs L and R, while monitor numbers 3 and 4 correspond to the D-2012C's Headphone outputs L and R.

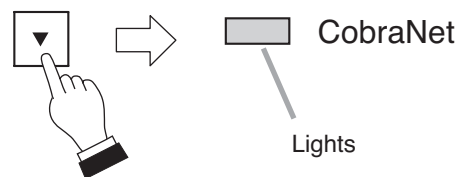


Step 3. Connect headphones to the headphone jack, then adjust the sound volume with the headphone volume control knob.

3.1.4. Selecting CobraNet's monitor channels

When the D-2000CB CobraNet Interface Module has been inserted into the D-2008SP and connected to other CobraNet equipment, CobraNet's input and output channel preprogrammed using the D-2000 Setting Software can be monitored.

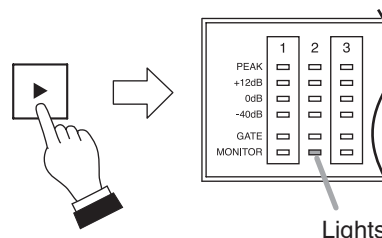
Step 1. Press the Selection key "▲" or "▼" several times to light "CobraNet" (Item selection indicator).



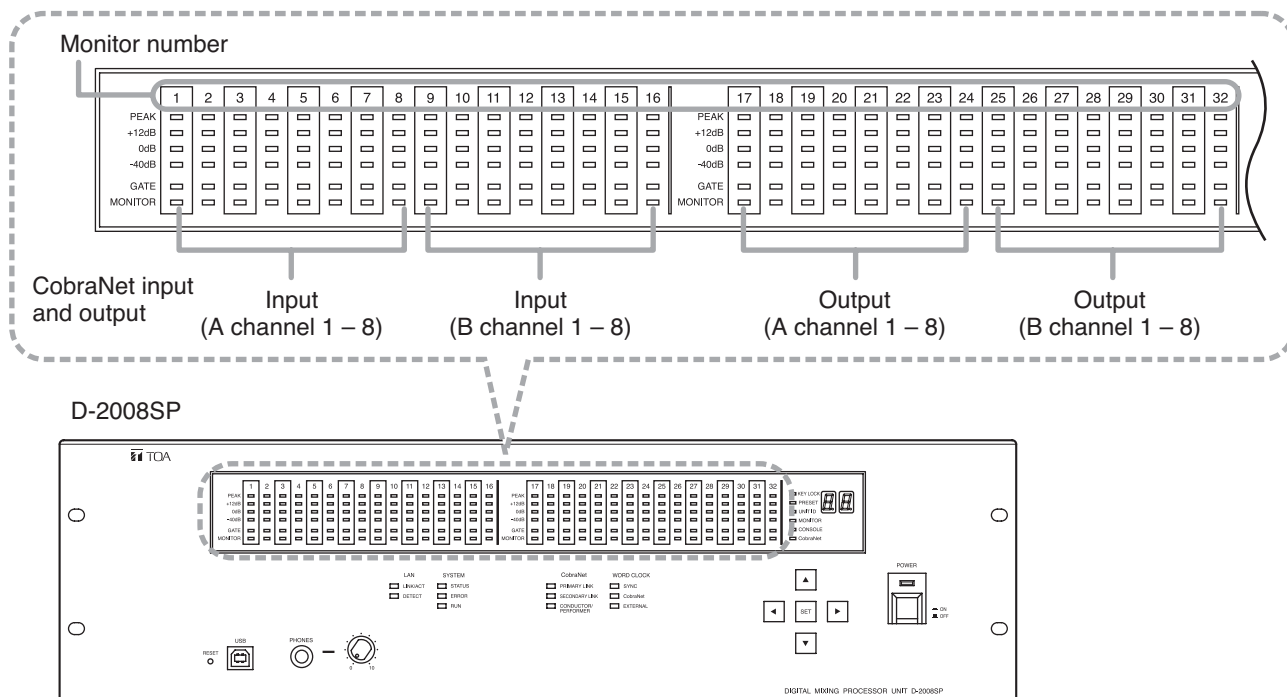
Step 2. Press the Selection key "◀" or "▶" to select monitor number (1 – 32).

The monitor selection indicator of the selected number lights.

Note: Idle channel is skipped.



Monitor numbers correspond as follows to the D-2008SP input and output channels set in the D-2000 Setting Software bundle settings:

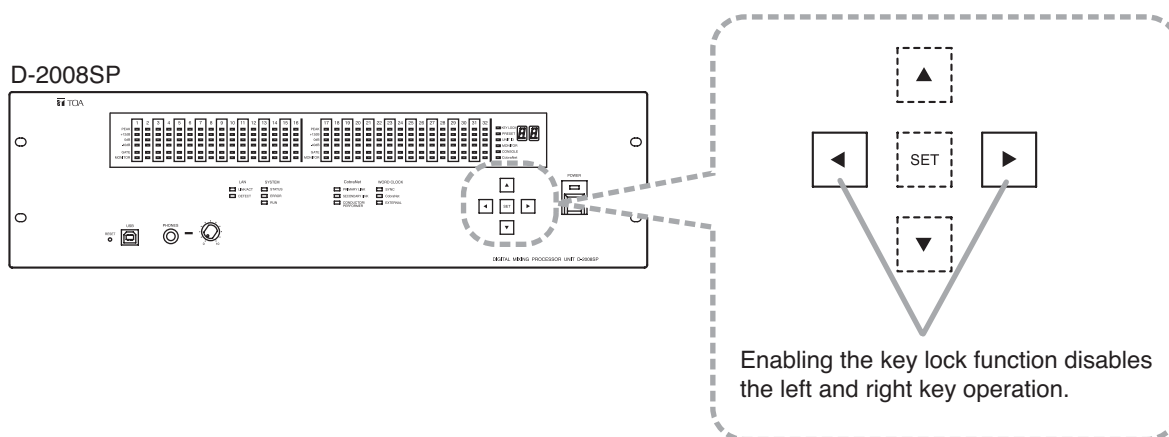


Step 3. Connect headphones to the headphone jack, then adjust the sound volume with the headphone volume control knob.

3.1.5. Key lock function ON/OFF

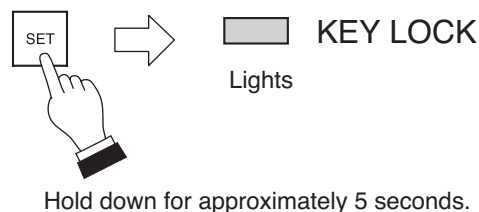
Enabling the key lock function disables the following operations made on the D-2008SP's front panel.

- Recalling preset memories
- Selecting the input or output channel to be monitored
- Selecting the D-2012C's monitor channels
- Selecting CobraNet's monitor channels



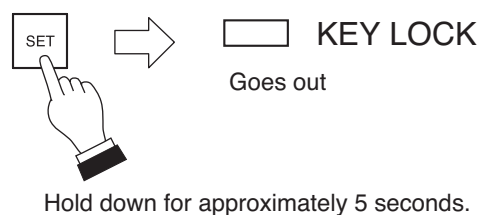
[Setting the key lock function to ON]

Hold down the Set key for approximately 5 seconds while the Key Lock indicator is unlit. The Key Lock indicator then lights, enabling the key lock function.



[Setting the key lock function to OFF]

Hold down the Set key for approximately 5 seconds while the Key Lock indicator is lit. The Key Lock indicator goes out, disabling the key lock function.



3.2. D-2012C Operation

3.2.1. Key-assignable functions

The following functions can be assigned to the D-2012C's function keys. The function keys are explained on the following pages using the name of the function assigned to each key (example: Memory key).

Note

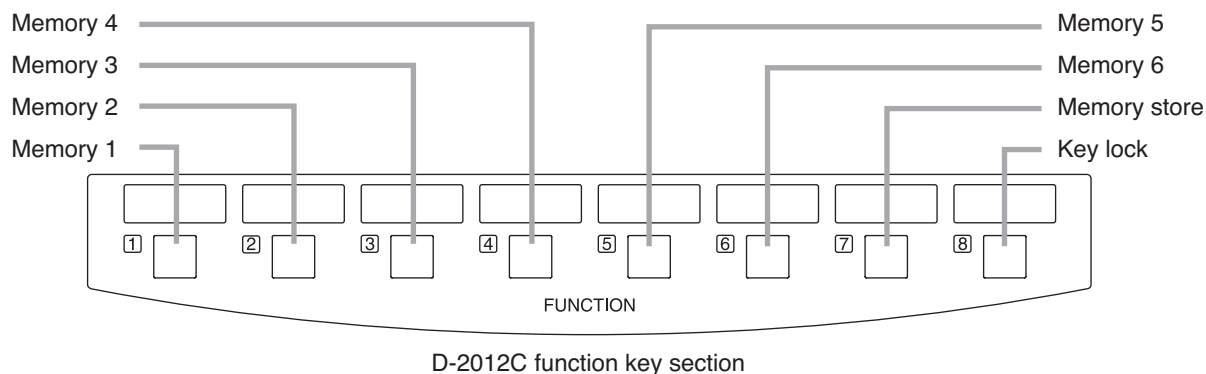
To implement the following functions (except Stereo Input) with the function key operation, the D-2008SP with ID1 must be included in the system.

- **Memory**
Recalls the setting status stored in preset memory. The D-2012C's current setting status can be stored in preset memory by pressing the function key assigned to the memory function in combination with the function key assigned to the memory storage function. (Refer to [p. 18.](#))
- **Memory Store**
Press the key assigned to the memory store function in combination with the function key assigned to the memory function. (Refer to [p. 18.](#))
- **Line Input** (valid only when the D-936R or D-937SP module is installed)
Switches the line (stereo) input of the D-936R Stereo Input Module or D-937SP Digital Input Module. (Refer to [p. 19.](#))
- **LED Control**
Causes the D-2008SP's front panel-mounted level indicator to go out. (Refer to [p. 19.](#))
- **Fader Layer**
Recalls the channel assignment status stored in the fader layer. (Refer to [p. 20.](#))
- **Console Switch**
Sets the contact output of the D-981 or D-983 Remote Control Module or the D-984VC VCA Control Module installed in the D-2008SP processor to ON. (Refer to [p. 21.](#))
- **Key Lock**
Enables and disables manual operation of the D-2012C's motorized faders, function keys, rotary encoders, etc. (Refer to [p. 22.](#))
- **Monitor Clear**
Clears the selection of channels to be monitored. (Refer to [p. 23.](#))
- **External Control Switch**
Allows the D-2008SP with ID 1 to transmit the function key ON/OFF data to an AMX or other external control devices using external control protocol. The external control device can transmit the external control command to the D-2008SP with ID 1, controlling its function key's indicator ON or OFF. (Refer to [p. 21.](#))

Note

Functions shown in the following figure are assigned by default. To change these assignments, use the D-2000 Setting Software supplied with the D-2008SP processor. For details, please read the separate software setting manual.

[Default Setting]

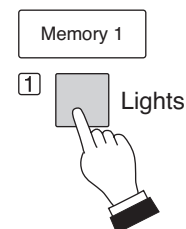


3.2.2. Preset memory recall

Each parameter stored as preset memory using the D-2000 Setting Software or the D-2012C can be recalled.

[Operation]

Pressing the Memory key switches the operation panel settings to the setting status stored under the designated preset memory number. In this event, the depressed key lights.



Notes

- Even if the preset memory number switches, the fader layer number remains unchanged.
- The figure shows an example in which "Memory 1" has been assigned to Function key 1.

3.2.3. Storage in preset memory

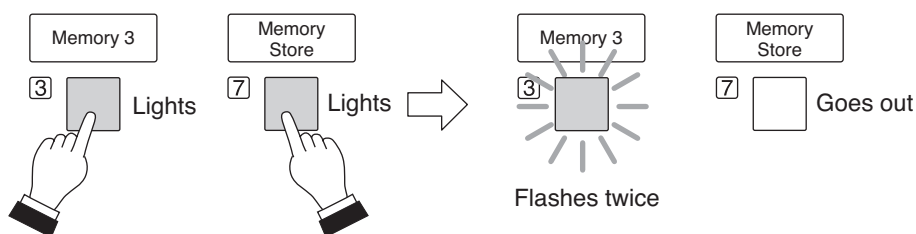
Store the current setting status of each channel in preset memory. Parameters stored in preset memory are as follows:

[Parameters Stored In Preset Memory]

- Input channel parameters: PAD, phantom power, line input mode selection, line input selection, input trim gain, input trim polarity, input filter, compressor / auto leveler mode selection, compressor / auto leveler, level sensibility, gate, auto mixing function group, ducker, NOM attenuation function ON/OFF, input channel gain, channel ON/OFF, and group trim gain
- Bus channel parameters: Feedback suppression (dynamic mode ON/OFF, settings of the number of filters, and filter value set in auto mode and dynamic mode), sub-in-mix-gain, sub-in-mix ON/OFF, bus channel gain, channel ON/OFF, and group trim gain
- Output channel parameters: Output channel gain, group trim gain, channel ON/OFF, filter (including crossover), compressor, delay time, and mute
- Others: Stereo link setting, crossover function configuration setting, NOM attenuation function setting and matrix assignment

[Storage]

Continue to press the Memory key for approximately 2 seconds while holding down the Memory Store key. After the two keys have lit, the Memory key flashes twice and the operation panel's current setting status is stored in the designated preset memory number.



Press for approximately 2 seconds.

Note

The figure shows an example in which "Memory 3" has been assigned to Function key 3, and "Memory Store" to Function key 7.

3.2.4. Switching Line Inputs (valid only when the D-936R or D-937SP module is installed)

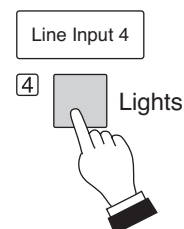
This function switches the line inputs (In 1 – 4) of the D-936R Stereo Input Module or the D-937SP Digital Input Module.

[Operation]

Pressing the Line Input key selects the designated line (stereo) input. In this event, the depressed key lights.

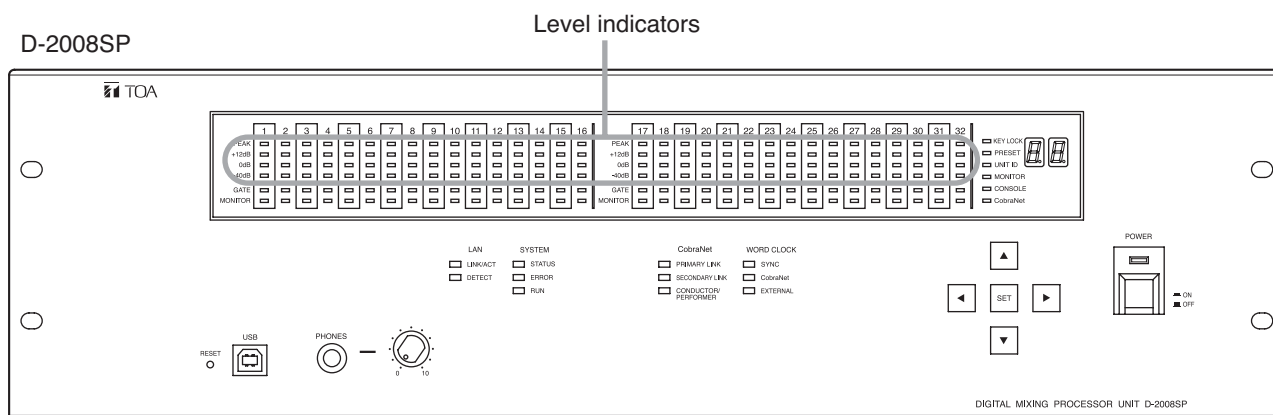
Note

The figure shows an example in which "Line Input (In 4)" has been assigned to Function key 4.



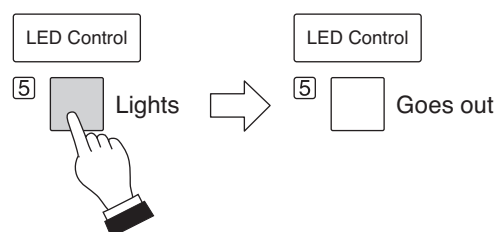
3.2.5. D-2008SP level indicator control (LED control)

This function turns off the level indicators on the front panel of the D-2008SP Digital Mixing Processor.

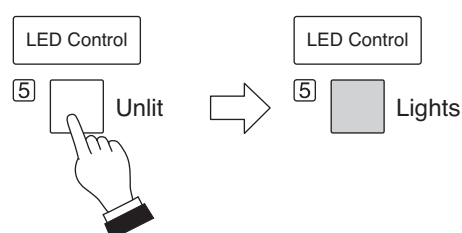


[Operation]

Press the LED Control key, and the D-2008SP's front panel-mounted level indicators go out. In this event, the depressed control key goes out.



Pressing the LED Control key again causes the D-2008SP's front panel-mounted level indicators to light. In this event, the depressed control key lights.



Note

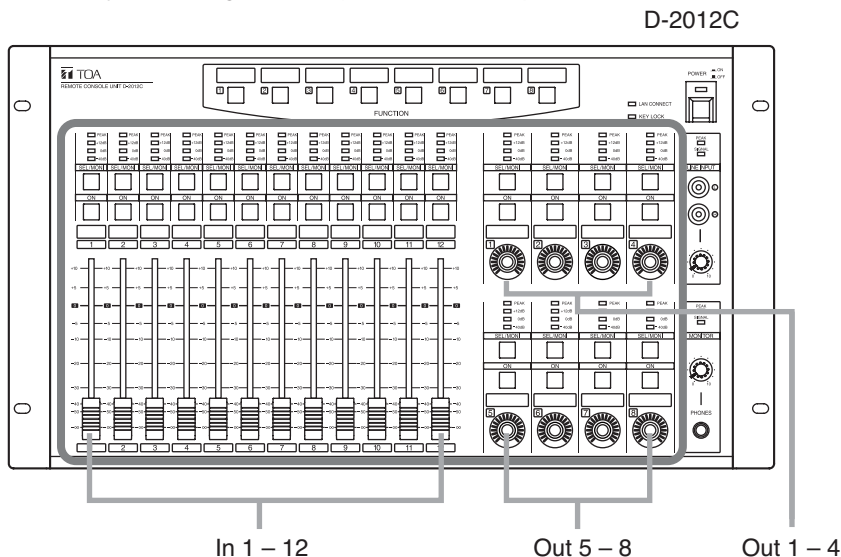
The figure shows an example in which "LED control" has been assigned to Function key 5.

3.2.6. Fader layer switching

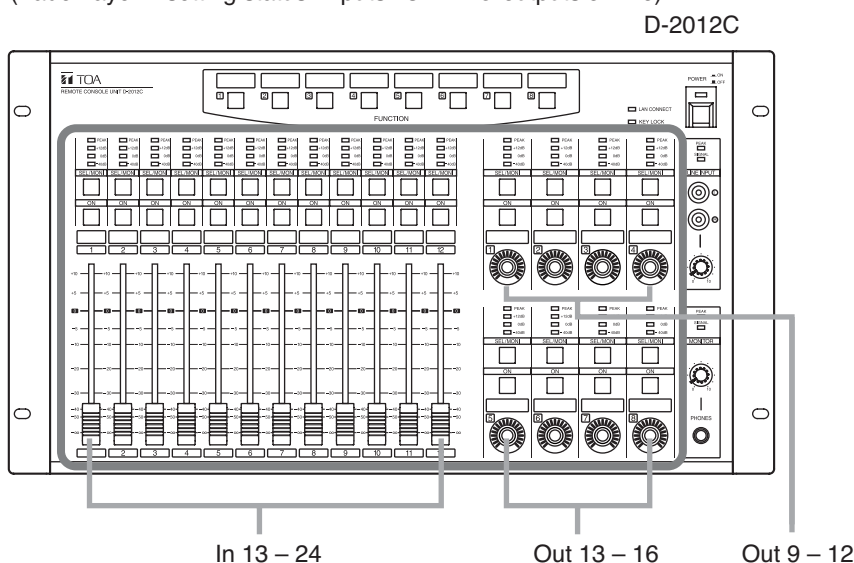
There are 12 motorized faders and 8 rotary encoders on the D-2012C's operation panel. Store a combination of their channel assignments as a single fader layer in advance using the D-2000 Setting Software. Since 4 different fader layers can be set, up to 4 channels can be assigned to each motorized fader and rotary encoder. By switching the channel assignment status using the Fader Layer key, up to 80 channels can be operated in monaural per D-2012C Console. If stereo link and grouping settings are performed, more channels can be operated.

[Fader Layer Setting Example]

(Fader layer 1 setting status: Inputs 1 – 12 & outputs 1 – 8)



(Fader layer 2 setting status: Inputs 13 – 24 & outputs 9 – 16)



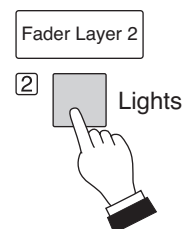
Tip
Bus channels and CobraNet channels can also be assigned.

[Fader Layer Switching]

Pressing the Fader Layer key switches the operation panel settings to the status stored in the designated fader layer number. In this event, the depressed key lights.

Notes

- Even if the fader layer number switches, the preset memory number remains unchanged.
- The figure shows an example in which "Fader Layer 2" has been assigned to Function key 2.



3.2.7. D-2008SP control output ON/OFF (console switch)

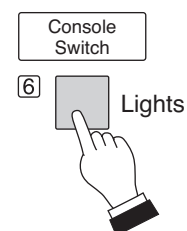
Enables or disables the contact output of the D-981 or D-983 Remote Control Module installed in the D-2008SP Digital Mixing Processor. The contact output terminals assigned to the "Console switch" using the D-2000 Setting Software can be operated. Operation differs depending on the setting of the contact output terminal's control method.

Note

Unify the control method of all the contact output terminals assigned to a single console switch to either "Momentary" or "Latch."

[When the Control Method Is Set to "Momentary"]

The set contact output is enabled as long as the Console Switch key is held down and the continuously depressed key remains lit. If the Console Switch key is released, the set contact output is disabled and the depressed key goes out.



[When the Control Method Is Set to "Latch"]

The set contact output is enabled if the Console Switch key is pressed and the depressed key lights. Pressing the Console Switch key again disables the set contact output and causes the depressed key to go out.

Note

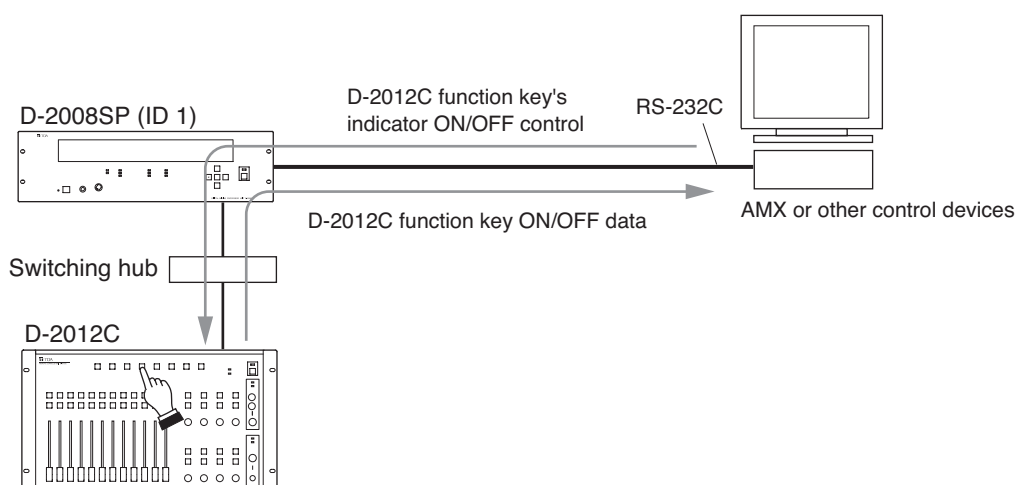
The figure shows an example in which "Console switch" has been assigned to Function key 6.

3.2.8. D-2008SP (ID 1) external control switch

Allows the D-2008SP with ID 1 to transmit the function key ON/OFF data to an AMX or other external control devices using external control protocol (RS-232C or LAN).

The external control device can transmit the external control command to the D-2008SP with ID 1, controlling its function key's indicator ON or OFF.

[Example of control using RS-232C]

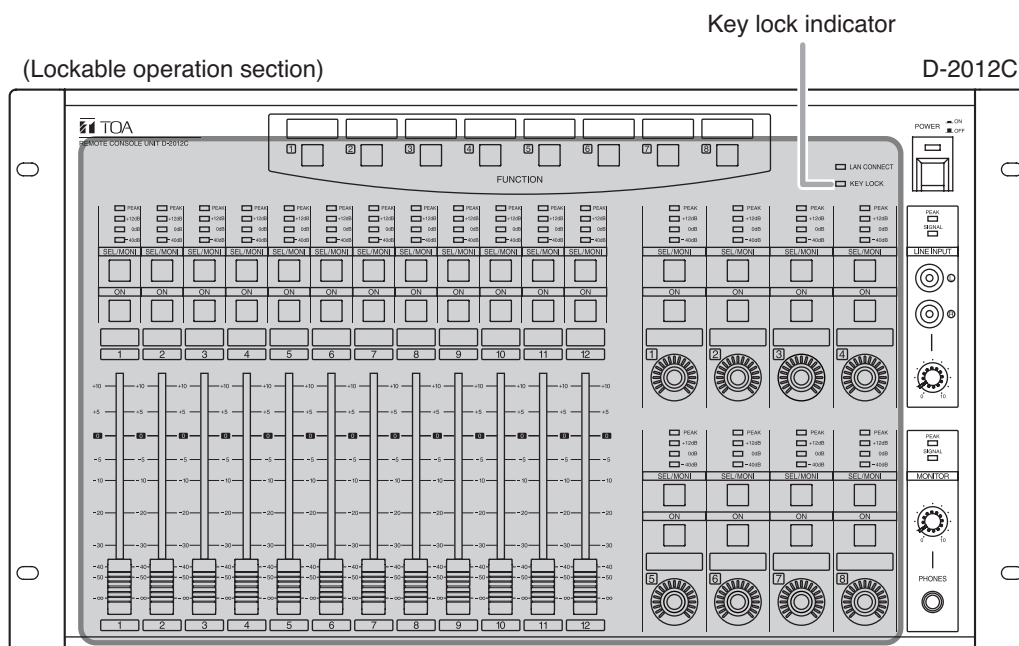


[Operation]

When the External Control Switch key is pressed, data that the key has been pressed is transmitted from the D-2008SP to the external control device using the external control protocol. To light or extinguish the External Control Switch key's indicator, controls should be made from the external control device using the external control protocol.

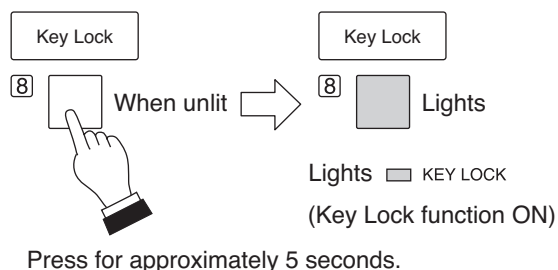
3.2.9. Key lock function ON/OFF

Setting the Key Lock function to ON allows operation of the following keys to be disabled: the D-2012C's operation panel-mounted function keys (except the Key Lock key), motorized faders, rotary encoders, Monitor Channel Selection keys, and Channel ON/OFF keys.



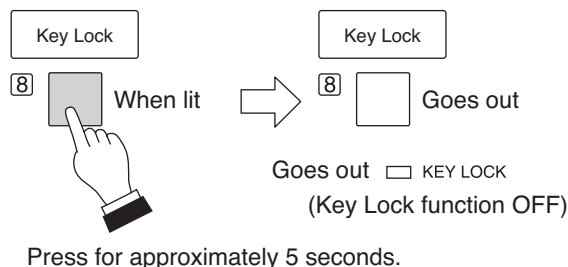
[When Enabling the Key Lock Function]

Holding down the Key Lock key for approximately 5 seconds while it is unlit causes the depressed key to light and enables the Key Lock function. In this event, the key lock indicator lights. While the Key Lock function is enabled, any key pressed other than the Key Lock key does not change status and remains lit or unlit. If a motorized fader is moved, it returns to its original position if the fader is released. Also, if a rotary encoder is rotated, the LEDs that indicate volume do not change.



[When Disabling the Key Lock Function]

Holding down the Key Lock key for approximately 5 seconds while the Key Lock key is lit causes the depressed key to go out and disables the Key Lock function. In this event, the key lock indicator goes out.



Note

The figure shows an example in which "Key lock" has been assigned to Function key 8.

3.2.10. Monitor channel clear

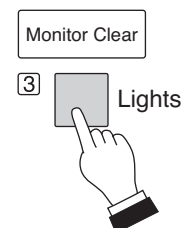
This function clears the selection of all the monitor channels assigned to the monitor bus to which the D-2012C in operation is connected.

[Operation]

If the Monitor Clear key is pressed, the selection of monitor channels is cleared and the depressed key lights.

Note

The figure shows an example in which "Monitor clear" has been assigned to Function key 3.

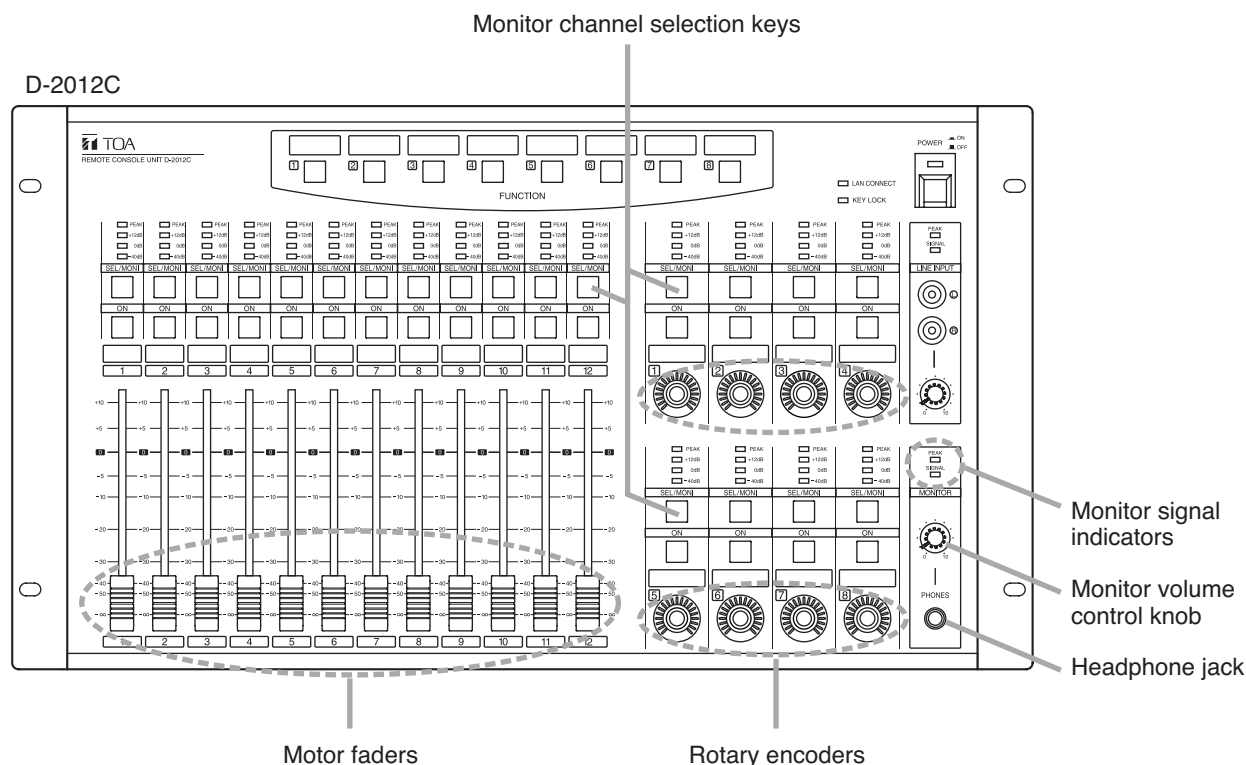


3.2.11. Monitoring

Output of the channel being operated using the D-2012C Remote Console's motor faders or rotary encoders can be monitored.

Notes

- Set the identical ID number for the D-2008SP and D-2012C to be connected through monitor bus terminals. Use the D-2000 Setting Software to set the ID number.
- Properly perform connections and settings for the D-2008SP's monitor input/output channels. For connections and settings, refer to the separate installation manual. Audio signals for the channel where monitor audio signal routing is not performed cannot be monitored even if selected.
- Monitor channel selection keys do not perform grouping operation.



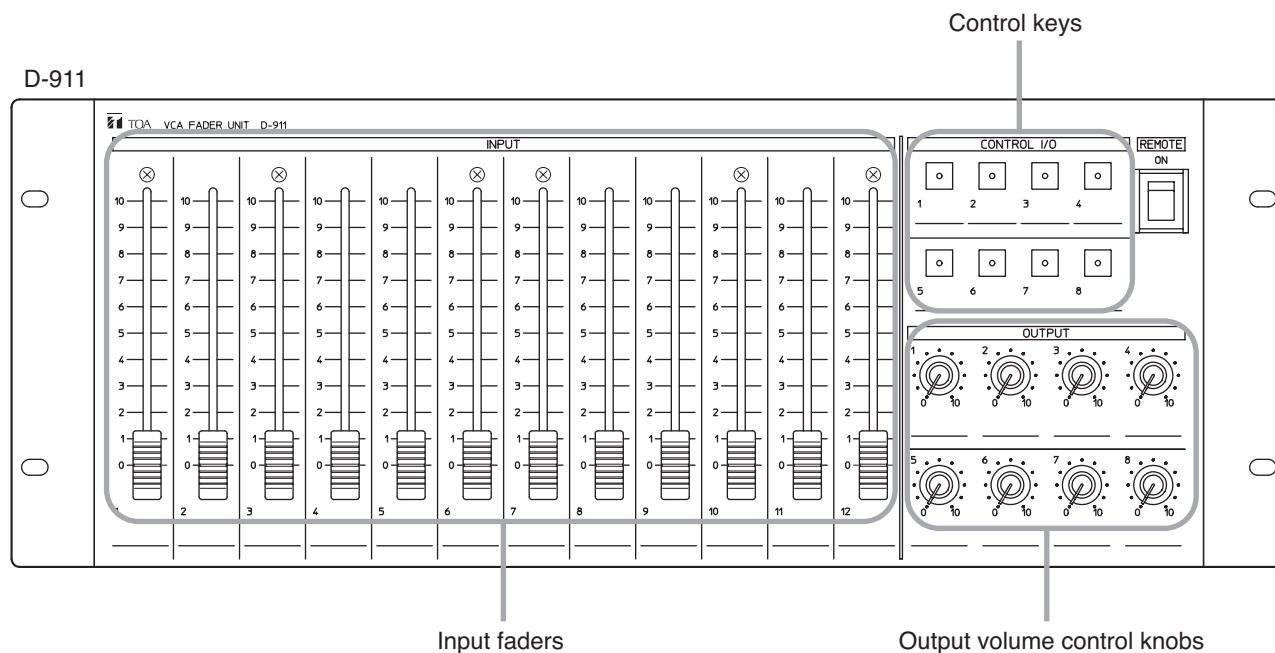
Step 1. When two or more fader layers are in use, select the fader layer that allows operation of the channel to be monitored.
Fader layers can be switched through operation of the function key assigned to Fader Layers 1 – 4. (Refer to p. 20.)

Step 2. Set the Monitor channel selection key for the channel to be monitored to ON.
The level of the selected output can be confirmed by means of the monitor signal indicator.

Step 3. Connect headphones to the Headphone jack and adjust the volume using the monitor volume control knob.

3.3. D-911 Operation

Only the D-2008SP's channels to which the D-984VC module is connected can be controlled.



3.3.1. Volume adjustment

Volume of the channel assigned to the D-984VC using the D-2000 Setting software can be adjusted using the D-911's input fader or output volume control knob.

Notes

- For channels with stereo link or group settings established at the D-2008SP, only the lowest numbered channel in the preset link or group is enabled.
- Fader position "10" of the D-911 provides the channel gain set by the D-2008SP. As a guide, fader position "8" provides channel gain about 10 dB lower than the set gain at the D-2008SP.

3.3.2. Contact control

Preset memory recall, Volume level up and down functions can be assigned to the D-984VC's contacts using the D-2000 Setting Software.

Assigned functions can be implemented by pressing the Control keys 1 – 8.

