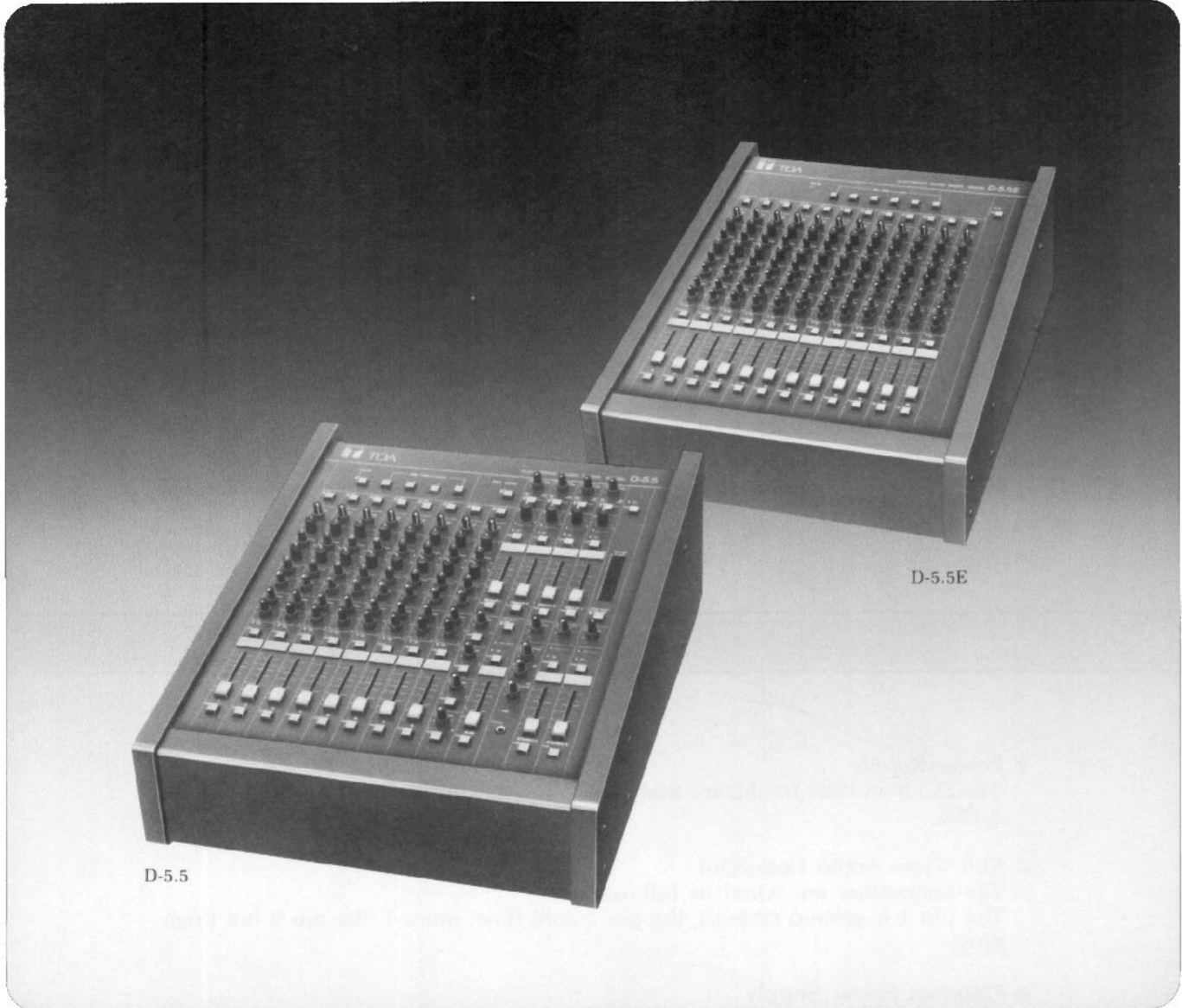




# ELECTRONIC MUSIC MIXER

Model D-5.5, D-5.5E



Toa Electric Co., Ltd.  
KOBE, JAPAN

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## ● Precautions

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1. Power Supply  
The D-5.5 and the D-5.5E are designed to operate on local AC (50/60Hz) Mains,  $\pm 10\%$ .
2. XLR Type Audio Connector  
The connectors are wired as follows.  
The pin 1 is ground (shield), the pin 2 cold (low, minus), the pin 3 hot (high, plus).
3. Phantom Power Supply  
The phantom power switch on each input channel permits the user to supply 48V DC through the input connectors to a condenser microphone. If phantom power is not required, the switch must be in the "off" position.
4. Description of components and function on the D-5.5, D-5.5E  
Various descriptions are applied, depending on each manufacture. In our Operating and Instruction Manual explanation of components and functions is made according to our usage for them.

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## ● General Description

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The TOA D-5.5 is a 19" rackmount or console configuration, eight-input stereo mixer especially designed for electronic music and sound. It is expandable to a 32-input mixing system, with group, stereo and mono outputs, and 16 MIDI-THRU jacks, when combined with two D-5.5E 12-input expansion units. The D-5.5 was designed to perform many different applications in broadcast, live sound reinforcement, and recording environments.

The D-5.5 provides four Group outputs, and mixing busses for Aux 1, Aux 2, Effects, Reverb, and Cue. System features include: Sum output selectable pre- or post-fader (St. L + R); two Aux sends, selectable pre-EQ/fader, post-EQ/pre-fader, or post-EQ/fader; Aux returns to Groups 1~4 and Stereo L, R, with pan, level and crossfade controls; an effects patching loop and an internal spring reverb effect are returnable to the 4 groups, stereo L, R, and Aux 1 & 2, with pan, level, and crossfade controls; dual bargraph meters, selectable to Sum/Cue or Stereo L/R; a Headphone output with level control, a Cue buss output with level control, and a Cue buss input.

Each input channel features a writing block to identify the source; tape/source selection switch; cue switch; 60 mm fader; pad and trim controls; two-color LED to indicate signal presence (green), or clipping (red); channel on/off switch with orange LED indicator; 3-band EQ (high and low shelving-type, and mid peaking-type with frequency sweep control); two Aux sends, selectable pre- or post-EQ; reverb send to internal spring reverb; effects send; and four group sends via two pan and level controls.

Each of the four Groups features level and crossfade controls for returning Aux and Effects signals to the Group mixing busses, and a stereo pan for assigning Group signals to the stereo Left and Right mixing busses. The four groups and Stereo L, R also feature dual-color signal presence/clip LED indicators; an on/off switch with orange LED; writing block; 60 mm fader; and cue switch.

The D-5.5 rear panel features an RCA tape input, a 1/4" phone jack, and an electronically balanced XLR (with switchable 48-volt phantom powering) for each input channel. Each input also has separate pre and post accessory patch points and a direct output. Input channels 7 and 8 are front panel switchable to stereo RIAA inputs, for use with magnetic cartridge turntable.

Group 1~4 output connections are RCA and 1/4" phone jacks; each features separate pre and post accessory patch points (RCA). Stereo L, R and Sum output connections are individual RCA's, 1/4" phone jacks, and electronically balanced XLR's with ground lift switches. Stereo L, R and Sum outputs also feature pre and post accessory patching jacks.

The MIDI jacks are also located on the rear panel. "A" or "B" MIDI inputs are assignable to four MIDI-THRU outputs (expandable to 16), allowing the use of multiple MIDI instruments without the data loss or delay that may occur when several instruments are connected serially through their internal MIDI-THRU jacks. Each MIDI-THRU output is provided with a front panel mounted on/off switch.

Also on the rear panel are a Buss-Link connector for connecting D-5.5 Expander units, separate 1/4" phone jacks for stereo L, R Cue buss input and outputs, Aux 1, 2 sends and returns, external Reverb send and return, and Effects send and return; a push button circuit breaker, chassis ground post, and six-foot AC power cord complete the rear panel.

The D-5.5 combines with one D-5.5E for 20-inputs or two D-5.5E's for 32 input channels. Both units can be mounted in a standard 19" rack, or may be used in a console configuration by removing the rack ears, rotating the rear panel 90 degrees, and attaching the included wooden side panels. The mixers are finished in an attractive and durable gray enamel, with 3-color control identification markings.

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## ● Features

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The D-5.5 is an 8 input, 19" rack mountable mixing console, featuring superior audio performance, system expandability, and unique "user friendly" design.

### **System Features:**

- 8×4×2×1 configuration: 8 inputs; 4 sub groups; stereo L & R; mono sum.
- Expandable to 32 inputs with two 12 input D-5.5E expansion unit.
- Rear panel rotates 90 degrees to enable use as console type mixer, or as 19" rack mount mixer with the included mounting brackets; removable wooden side panels.
- Selectable 2×4 MIDI Thru function; expandable to 2×16.
- Stereo RIAA Inputs for turntables with magnetic cartridge; selectable from front panel; input channels 7 & 8.
- 2 Aux returns to four groups and Stereo L & R, with level and crossfade controls.
- Internal spring reverb with dedicated 2-band EQ. Can return to four groups, stereo L & R, and Aux 1, 2 with pan, level, and crossfade controls.
- Effects patching loop, returnable to four groups, stereo L & R, and Aux 1, 2 with pan, level, and crossfade controls.
- Dual bargraph meters; selectable between Sum/Cue and St L & R.
- Sum Output (St L & R); selectable pre or post fader.
- 2 Aux sends; selectable "pre-EQ and fader," "post-EQ, pre-fader," "post-EQ and fader."
- Mono reverb send and mono effects send; both are "post EQ and fader."
- Headphones output with level control.
- Push button circuit breaker instead of fuse.

### **Each Input Channel Feature:**

- Tape/Source Selection switch.
- 2-color LED indicator for signal presence (green) and clip (red).
- Pad and trim controls.
- 3-band EQ; shelving type for high and low; peaking mid with sweep control.
- 2 Aux sends; selectable pre or post.
- Reverb send to internal spring reverb; post EQ and fader.
- Effect send; post EQ and fader.
- 4 group sends via 2 level and pan controls.
- Channel on/off switch with LED indicator (orange).
- Writing block.
- 60 mm fader.
- Cue switch.

### **Each Group Features:**

- Level and crossfade controls for returning aux and effects signals to group busses.
- Stereo pan pot to Stereo L & R busses.
- 2-color LED indicator for signal presence (green) and clip (red).
- Channel on/off switch with LED indicator (orange).
- Writing block.
- 60 mm fader.
- Cue switch.

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## ● Features

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### **Stereo L & R Features:**

- 2-color LED indicator for signal presence (green) and clip (red).
- Channel on/off switch with LED indicator (orange).
- Writing block.
- 60 mm fader.
- Cue switch.

### **REAR PANEL:**

#### **Input Channel Connections:**

- Separate pre and post accessory patch points: RCA.
- Direct Output: RCA.
- Source inputs: 1/4" phone jack, and electronically balanced XLR with individually switchable 48-volt phantom power.
- Tape input: RCA.
- RIAA inputs on channels 7 & 8: RCA.

#### **Group 1-4 Connections:**

- Separate pre and post accessory patch points: RCA.
- Direct Output: RCA, 1/4" phone jack.

#### **Stereo L & R Connections:**

- Separate pre and post accessory patch points: RCA.
- Direct Output: RCA, 1/4" phone jack, and electronically balanced XLR with ground lift switch.

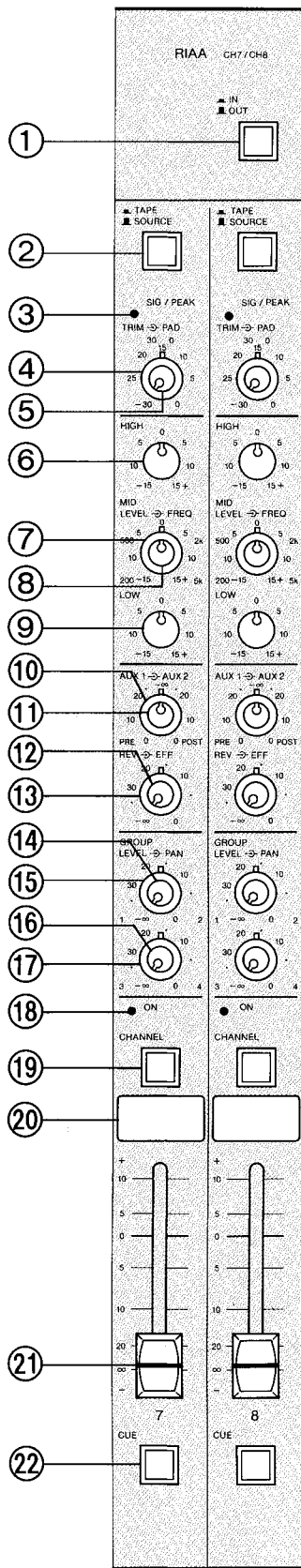
### **Sum Connections:**

- Separate pre and post accessory patch points: RCA.
- Direct Output: RCA, 1/4" phone jack, and electronically balanced XLR with ground lift switch.

### **Other Connections:**

- L & R Cue input: 1/4" phone jacks.
- L & R Cue Buss output: 1/4" phone jacks.
- Aux 1 & 2 sends and Aux 1 & 2 returns: 1/4" phone jacks.
- Rev send, and return: 1/4" phone jacks.
- Effects send, and return: 1/4" phone jacks.
- A and B MIDI Input: DIN plug.
- 1-4 MIDI Thru: DIN plug.
- Buss Link: Multi-pin computer-type connector.

## INPUT CHANNEL (D-5.5)



### ① Phono EQ (RIAA) IN/OUT Switch (RIAA IN/OUT)

This switch is available for input channels 7 and 8 only and is active when a turntable with magnetic type cartridge is connected to the Phono input channel. The switch is a "push-in push-out" type. The "out" position provides a flat frequency response.

### ② Tape/Source Switch (TAPE/SOURCE)

This switch is provided for selecting the desired input signals. When monitoring the signals from the XLR connector, phone jack and phono inputs, the switch should be set to the "SOURCE" position. When the signal from the "Tape In" input is desired, the switch should be set to the "TAPE" position.

### ③ Signal/Peak LED Indicator (SIG/PEAK)

The dual color LED indicator lights green when the pre or post EQ signal level reaches more than -30dB, and turns red when the signal level reaches 3dB below clipping, giving a visual reference for optimum setting of the trim control.

### ④ Input Level Selector (PAD)

The selector provides 30dB attenuation of the sensitivity of the XLR connector, phone jack and phono inputs at the "30" position. The "0" position shows the sensitivity indicated on the panel. The correct setting should be made according to the output level of the equipment connected.

### ⑤ Input Trim Control (TRIM)

The trim control adjusts the gain of the preamp stage of the associated channel, providing 30dB of gain control. When the trim control is set to the "0" position with the input level selector at the "0" position, the nominal levels of the associated inputs are as follows.

- Mic input: -60dB
- Tape input: -20dB
- Phono input: -50dB (Input channels, 7 and 8 only)

The trim control and input level selector of each channel should be properly adjusted so that the peak LED just begins to turn red from green or only flash red occasionally. This will ensure lowest distortion level and optimum signal to noise ratio.

### ⑥ High Equalizer Control (HIGH)

The high EQ control alters the high frequency response of the input channel, providing  $\pm 10$ dB at 4kHz, and  $\pm 15$ dB at 20kHz of continuously variable active shelving equalization. The "0" detented position provides flat audio response.

### ⑦ Mid Equalizer Center Frequency Control (MID FREQ)

This control alters the center frequency of the mid EQ control in the range from 200Hz to 5kHz.

### ⑧ Mid Equalizer Control (MID LEVEL)

This control alters the mid frequency response of the input channel, providing  $\pm 15$ dB at the center frequency of peaking equalization. The "0" detented position provides flat audio response.

### ⑨ Low Equalizer Control (LOW)

The low EQ control provides  $\pm 10$ dB at 150Hz and  $\pm 15$ dB at 20Hz of continuously variable active shelving equalization. The "0" detented position provides flat audio response.

### ⑩ AUX 1 Control (AUX 1)

This control determines the level of the input signal to be fed to the aux 1 buss. When in the center detent position the control is off, and no signal is assigned. Rotating the control counter-clockwise increases the amount of pre-fader/post-EQ signal assigned to the buss. Rotating the control clockwise increases the amount of post-fader/post-EQ signal.

Note: "Pre-fader/post-EQ" can be changed to the pre-EQ signal with an internal switch. (See page 19 for details.)

## ● Front Panel (D-5.5, D-5.5E)

### ⑪ AUX 2 Control (AUX 2)

This control determines the level of the input signal to be fed to the aux 2 buss. When in the center detent position the control is off, and no signal is assigned. Rotating the control counter-clockwise increases the amount of pre-fader/post-EQ signal assigned to the buss.

Rotating the control clockwise increases the amount of post-fader/post-EQ signal.

Note: "Pre-fader/post-EQ" can be changed to pre-EQ signal with an internal switch. (See page 19 for details.)

### ⑫ Reverb Control (REV)

This control determines the amount of post-fader/post-EQ signal assigned to the reverb buss from a given input channel, and thus the level of reverb for that channel.

### ⑬ Effects Control (EFF)

This control determines the amount of post-fader/post-EQ signal assigned to the effect buss from a given input channel, and thus the level of effects for that channel.

### ⑭ Group Assign Control 1 and 2 (GROUP LEVEL)

This control determines the level of input signal assigned to the group buss 1 and 2 via the group assign pan control.

### ⑮ Group Assign Pan Control 1 and 2 (GROUP PAN)

This pan control assigns the amount of signal determined by the group assign control to the group 1 and 2 busses, providing equal output to the group 1 and 2 busses at the center position. Rotating the pan control clockwise decreases the amount of signal to be fed to the group 2 buss, keeping the original level of the signal for the group 1 buss, while rotating the control counter-clockwise decreases the amount of signal to be fed to the group 1 buss, keeping the original level of the signal for the group 2 buss.

### ⑯ Group Assign Control 3 and 4 (GROUP LEVEL)

This control determines the amount of a given input signal assigned to the group 3 and 4 via the group assign control.

### ⑰ Group Assign Pan control 3 and 4 (GROUP PAN)

This pan control assigns the amount of signal determined by the group assign control to the group 3 and 4 busses, providing equal output to the group 3 and 4 busses at the detent center position. Rotating the pan control counter-clockwise decreases the amount of the signal to be fed to the group 4 buss, keeping the original level of the signal for the group 3 buss, while rotating the pan control clockwise decreases the amount of the signal to be fed to the group 3 buss, keeping the original level of the signal for the group 4 buss.

### ⑱ Channel Switch ON Indicator (CHANNEL ON)

The LED indicator lights orange when the channel on/off switch is "on".

### ⑲ Channel ON/OFF Switch (CHANNEL)

This pushbutton connects or disconnects the input signal to the mixing busses.

### ⑳ Writing Block

The name of the input equipment or microphone setting can be written in with an erasable felt pen or grease pencil.

### ㉑ Input Fader

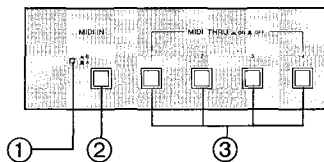
The fader provides continuously variable adjustment of the channel's output to the mixing busses. The nominal level is at the "0" position, with the fader retaining a 10dB margin.

### ㉒ Cue Switch (CUE)

The cue switch is for monitoring the post-EQ, pre-fader signal in each input channel through headphone and cue output. The switch is a "push-on push-off" type. When more than two switches are "on" the signals are combined.

## MIDI THRU

(D-5.5)



The D-5.5 incorporates two, switchable MIDI inputs and four MIDI THRU outputs. With the D-5.5E, six additional MIDI THRU outputs are available.

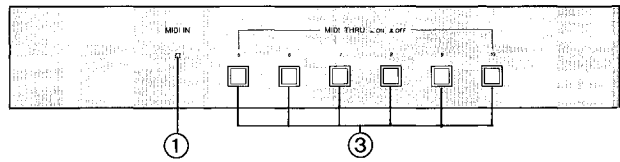
### ① MIDI LED Indicator (MIDI IN)

This yellow LED indicates the presence of MIDI data at the MIDI input jack on the rear panel (MIDI IN).

### ② MIDI Input Selector Switch (MIDI IN, A, B)

This switch selects either the MIDI input B signal in the "push" position, or A signal in the "release" position.

(D-5.5E)



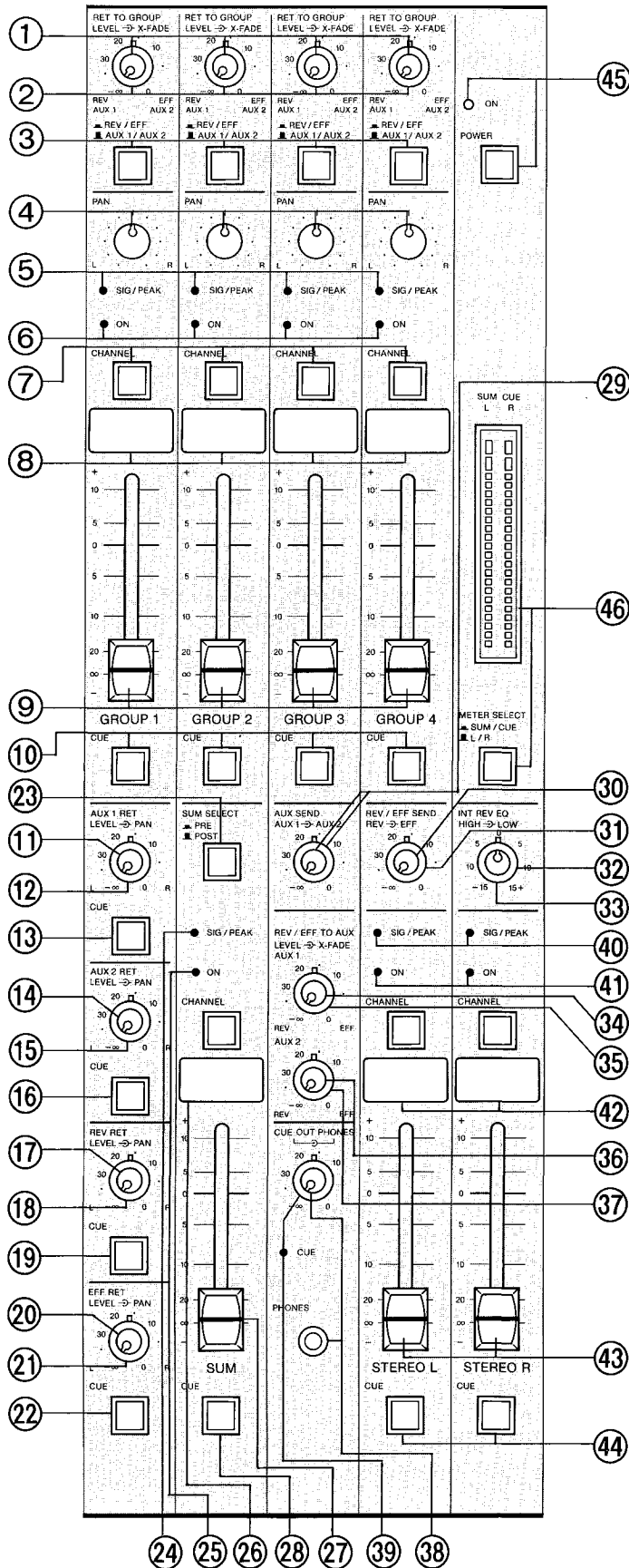
### ③ MIDI THRU ON/OFF Switch (MIDI THRU ON/OFF)

This switch is for "on" or "off" function of each MIDI THRU output. The MIDI THRU is "on" in the "push" position.

### CAUTION

While the MIDI LED indicator is flashing, do not operate either the MIDI input selector switch or the MIDI THRU on/off switch in order to avoid malfunction of connected MIDI equipment.

## OUTPUT CHANNEL



### ① Level Control for Return to Group (RET TO GROUP, LEVEL)

This control adjusts the level of signal from the AUX 1 return and AUX 2 return, or the EFF return and REV return.

### ② Cross-fade Control to Group (RET TO GROUP, X-FADE)

With the return signal select switch set to the REV/EFF position, the EFF and REV return signal levels are equally assigned to the group buss. When the control is in its center, detent position. Rotating the control counter-clockwise decreases the signal level of the EFF return, keeping the original level of the REV return signal, while rotating the control clockwise decreases the signal level of the REV return, keeping the original level of the EFF return signal.

With the return signal select switch set to the aux 1/aux 2 position, the aux 1 and aux 2 return signal levels are equally assigned to the group buss when the control is in its center, detent position. Rotating the control counter-clockwise decreases the signal level of the aux 2 return signal, keeping the original level of the aux 1 return signal, while rotating the control clockwise decreases the signal level of the aux 1 return, keeping the original level of the aux 2 return signal.

### ③ Return Signal Select Switch (REV/EFF, AUX 1 / AUX 2)

This switch selects either the REV/EFF return signals or the AUX 1 / AUX 2 return signals to feed them to the group buss.

### ④ Pan Pot (PAN)

The pan pot control assigns the fader output signal of each group channel to the stereo L and R mixing busses. At the detented center position, the pan pot routes the signal equally to the L and R mixing busses. Panning from one side to the other gradually assigns the input signal to either the stereo L or R mixing busses exclusively.

### ⑤ Signal/Peak LED Indicator (SIG/PEAK)

The LED indicator lights in green colour when the group output signal reaches more than -30dB, and turns to red when the groups signal reaches -3dB below clipping, giving a visual reference for adjustment of the group fader. (See NOTE 1)

### ⑥ Group Channel ON indicator (CHANNEL ON)

The LED indicator lights orange when the group channel ON/OFF switch is "on".

### ⑦ Group Channel ON/OFF Switch (CHANNEL)

This pushbutton connects or disconnects the signal to the group output and stereo L/R busses.

#### NOTE 1:

Levels should be adjusted so that the LED only flashes red intermittently. A steady red light indicates that the channel is being over driven and the level should be reduced.



## ● Front Panel (D-5.5)

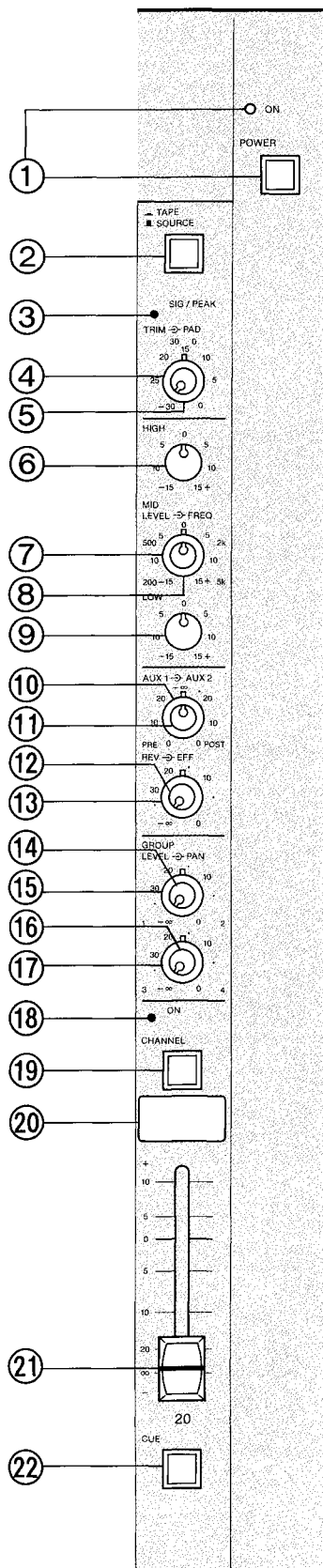
- ⑧ **Writing Block**  
The name of the source signal can be written in with an erasable felt pen or grease pencil.
- ⑨ **Group Fader (GROUP 1 - 4)**  
The 60mm fader provides continuously variable adjustment of the group level to the stereo L and R busses, and the group output connectors.
- ⑩ **Cue Switch (CUE)**  
The cue switch is for monitoring the pre-fader signal in each group channel through the headphones and cue out. This function is for independent audition of the group mixes.
- ⑪ **Level Control for Aux 1 Return to Stereo L and R (AUX/RET, LEVEL)**  
This control adjusts the signal level from the AUX 1 return and feeds it to the stereo L and R busses via the pan control.
- ⑫ **Pan Pot (PAN)**  
The pan control assigns the signal from the AUX 1 return to the stereo L and R busses.
- ⑬ **Cue Switch (CUE)**  
The switch permits monitoring the AUX 1 signal prior to the AUX 1 return level control.
- ⑭ **Level Control for Aux 2 Return to Stereo L and R (AUX 2 RET, LEVEL)**  
This control adjusts the signal level from the AUX 2 return and feeds it to the stereo L and R busses via pan control.
- ⑮ **Pan Pot (PAN)**  
The pan control assigns the signal from the AUX 2 return to the stereo L and R busses.
- ⑯ **Cue Switch (CUE)**  
The switch permits monitoring the AUX 2 signal prior to the AUX 2 return level control.
- ⑰ **Level Control for Reverb Return or Built-in Reverb to Stereo L and R (REVERB RET, LEVEL)**  
The control adjusts the signal level from the reverb or the built-in reverb and feeds it to the stereo L and R busses via the pan control.
- ⑱ **Pan Pot (PAN)**  
The pan control assigns the signal from the reverb return to the stereo L and R busses.
- ⑲ **Cue Switch (CUE)**  
The switch permits monitoring the signal prior to the reverb return level control.
- ⑳ **Level Control for Effect Return to Stereo L and R (EFF RET, LEVEL)**  
This control adjusts the signal level from the effects return and feeds it to the stereo L and R busses via the pan control.
- ㉑ **Pan Control (PAN)**  
The pan control assigns the signal from the effects return to the stereo L and R busses.
- ㉒ **Cue Switch (CUE)**  
The switch permits monitoring the signal prior to the effect return level control.
- ㉓ **Sum Select Switch (SUM SLECT, PRE/POST)**  
This switch selects either the channel pre-fader or post-fader signals derived from the stereo L and R busses, and sends them to the SUM output. The switch provides pre-fader signal in the "push" position, and post-fader signal in the "release" position.
- ㉔ **Signal/Peak LED Indicator (SIG/PEAK)**  
The LED indicator lights green when the sum output signal reaches more than -30dB, and turns to red when the signal level reaches -3dB below clipping, giving a visual reference for adjustment of the SUM channel fader. (See NOTE 1)
- ㉕ **Sum Channel ON Indicator and Channel ON/OFF Switch (CHANNEL ON)**  
The LED indicator lights orange when the channel on/off switch is "on".
- ㉖ **Writing Block**
- ㉗ **Sum Out Fader (SUM)**  
The fader provides continuously variable adjustment of the SUM output.
- ㉘ **Cue Switch (CUE)**  
The cue switch permits monitoring the pre Sum-fader signal through the headphone and cue output.
- ㉙ **Aux 1 / 2 Send Control (AUX SEND, AUX 1 / AUX 2)**  
The aux 1 and aux 2 send controls govern the overall level of signal sent to on-stage monitor amplifiers, or an outboard effect device through the aux 1 and 2 send jacks on the rear panel.
- ㉚ **Reverb Send Control (REV/EFF SEND, REV)**  
This control governs the overall level of signal sent to the built-in reverb unit or an outboard effect device through the reverb send jack on the rear panel.
- ㉛ **Effect Send Control (REV/EFF SEND, EFF)**  
This control governs the overall level of signal sent to an outboard effects device through the Effect Send jack on the rear panel.
- ㉜ **Internal Reverb Equalizer Control (INT REV EQ, HIGH/LOW)**  
These controls alter the frequency response of the built-in reverb circuitry. The high EQ control provides  $\pm 10\text{dB}$  at 4kHz, and  $\pm 15\text{dB}$  at 20kHz of continuously variable active shelving equalization.
- The low EQ control provides  $\pm 10\text{dB}$  at 150Hz and  $\pm 15\text{dB}$  at 20Hz of continuously variable active shelving equalization. The "0" detented position of both controls provide flat audio response.

- 34 Level Control for Effect and Reverb Return to Aux 1 (REV/EFF TO AUX, LEVEL AUX 1)**  
This control governs the amount of reverb signal (built-in or outboard) returned through the reverb return jack (REV RET), and effect signal returned through the effect return jack (EFF RET) to AUX 1 mixing buss. The signals of REV RET and EFF RET are controlled simultaneously.
- 35 Cross-fade Control to Aux 1 (REV/EFF TO AUX, X-FADE)**  
When this control is in the center position, the REV RET and EFF RET signals are equally assigned to the AUX 1 mixing buss. Rotating the control counter-clockwise decreases the EFF RET signal level, keeping the original level of the REV RET signal. Rotating the control clockwise decreases the REV RET signal level, keeping the original level of the EFF RET signal.
- 36 Level Control for Effect and Reverb Return to Aux 2 (REV/EFF TO AUX, LEVEL AUX 2)**  
This control governs the amount of reverb signal (built-in or outboard) returned through the reverb return jack (REV RET), and effect signal returned through the effect return jack (EFF RET) to AUX 2 mixing buss. The signal of REV RET and EFF RET are controlled simultaneously.
- 37 Cross-Fade Control to Aux 2 (REV/EFF TO AUX, X-FADE)**  
When the control is in the center position, the REV RET and EFF RET signals are equally assigned to the AUX 2 mixing buss. Rotating the control counter-clockwise decreases the signal level of the EFF RET, keeping the original level of the REV RET signal. Rotating the control clockwise decreases the signal level of the REV RET, keeping the original level of the EFF RET signal.
- 38 Cue Out Level Control and Cue ON LED Indicator (CUE OUT, CUE)**  
The cue out level control adjusts both the stereo L and R signals and the Cue in (L, R) signal fed to the Cue output on the rear panel (CUE OUT) and permits stereo monitoring when the cue switch is "off". When the cue switch is "on", the control adjusts the corresponding cue signal. When two or more of the cue switches are "on", the control adjusts the corresponding combined cue signals. The cue on LED lights when one of the cue switches is "on".
- 39 Headphone Level Control and Jack (PHONES)**  
The phones level control adjusts both the stereo L and R signals and the Cue IN (L, R) signal fed to the phones output and permits stereo monitoring when the cue switch is "off". When the cue switch is "on", the control adjusts the corresponding cue signal. When two or more of the cue switches are "on", the control adjusts the corresponding combined cue signals. The headphone jack will accept any stereo headphone with 8 ohms impedance, or higher.
- 40 Signal/Peak LED Indicator (SIG/PEAK)**  
The LED indicator lights green when the stereo out L or R signals reach more than -30dB, and turns to red when the stereo out L or R signals reach -3dB below clipping, giving a visual reference of adjustment of the stereo L or R faders. (See NOTE 1)
- 41 Stereo Channel ON Indicator and Channel ON/OFF Switch (CHANNEL ON)**  
The LED indicator lights orange when the channel switch is "on".
- 42 Writing Block**
- 43 Stereo Left and Right Fader (STEREO L, R)**  
The fader provides continuously variable adjustment of the stereo L or R output, and the signal level to the Sum out channel when the sum select switch is set in the "POST" position.
- 44 Cue Switch (CUE)**  
The cue switch permits monitoring the pre stereo L, R fader signals through the headphones and cue out.
- 45 Power LED indicator and Switch (POWER)**  
The power switch alternately turns AC power to the D-5.5 "on" and "off". The LED indicator lights when the switch is "on".
- 46 Dual LED Bargraph Meter and Meter Select Switch (METER SELECT, SUM/CUE, L/R)**  
The meter indicates the sum output (left side) and cue output (right side) when the meter select switch is set in the "push" position, and indicates the stereo L output (left side) and stereo R output (right side) when the meter select switch is set in the "release" position.



## ● Front Panel (D-5.5E)

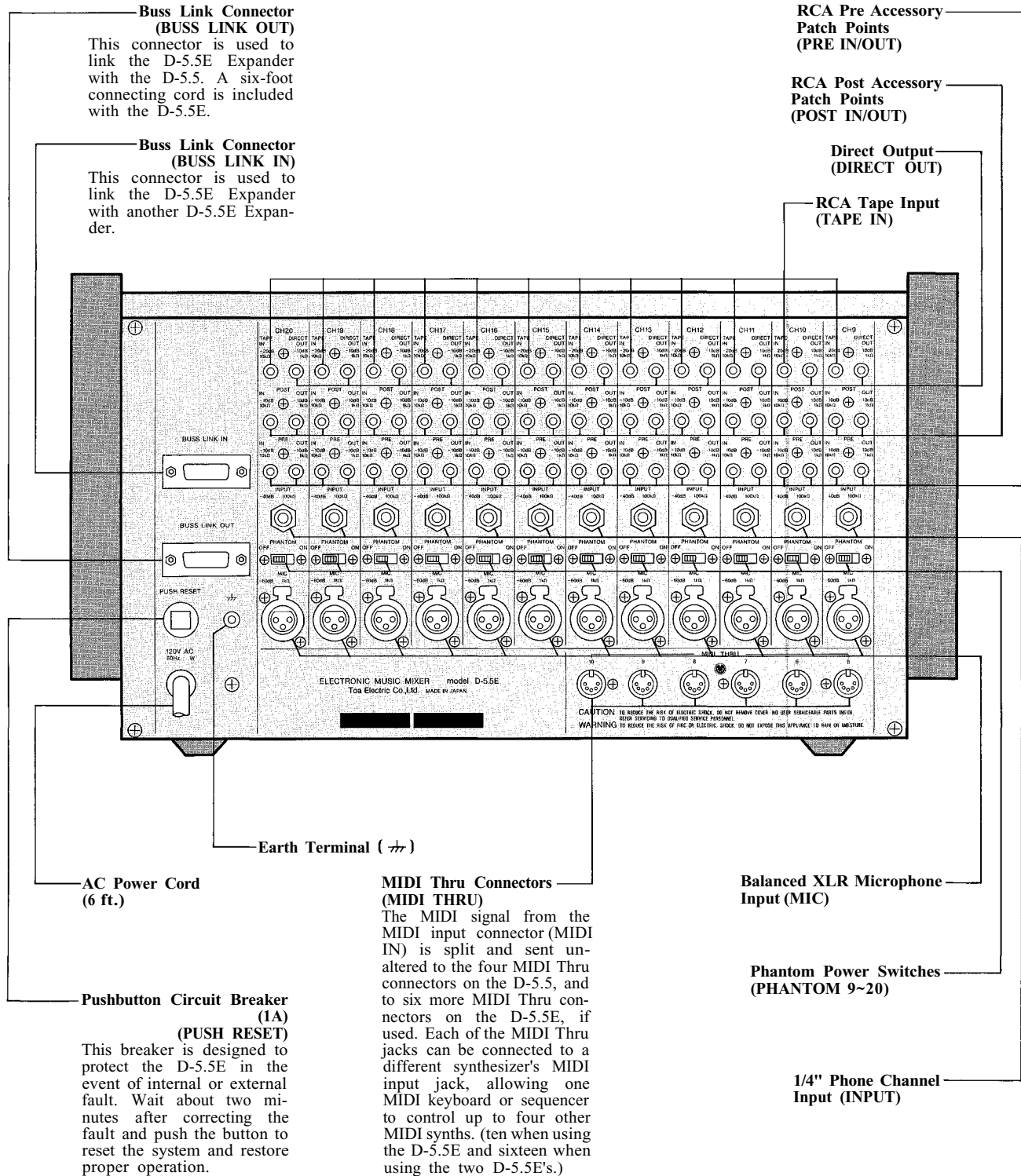
\* The names of the functions on the D-5.5E are specified below as function of the input channel on the D-5.5 is the same as the D-5.5E. Difference in functions are explained.



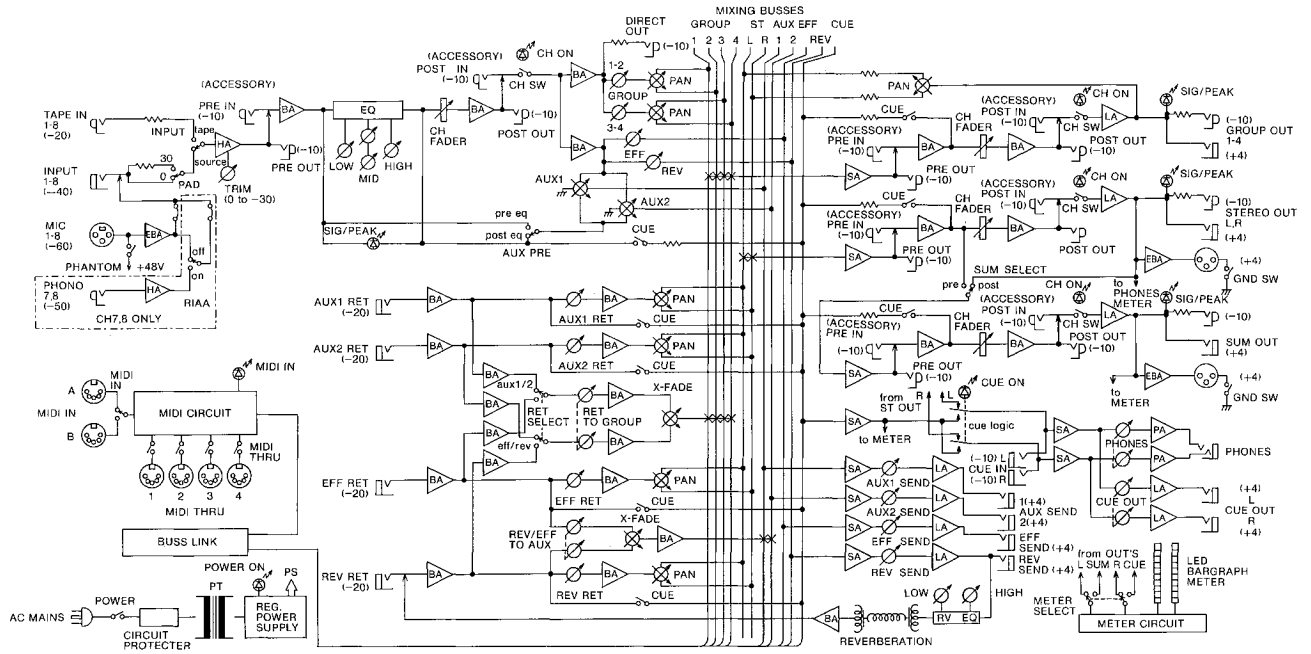
- ① **Power LED indicator and Switch (POWER)**  
The power switch alternately turns AC power to the D-5.5E "on" and "off". The LED indicator lights when the switch is "on".
- ② **Tape/Source Switch (TAPE/SOURCE)**
- ③ **Signal/Peak LED Indicator (SIG/PEAK)**
- ④ **Input Level Selector (PAD)**
- ⑤ **Input Trim Control (TRIM)**
- ⑥ **High Equalizer Control (HIGH)**
- ⑦ **Mid Equalizer Center Frequency Control (MID FREQ)**
- ⑧ **Mid Equalizer Control (MID LEVEL)**
- ⑨ **Low Equalizer Control (LOW)**
- ⑩ **AUX 1 Control (AUX 1)**
- ⑪ **AUX 2 Control (AUX 2)**
- ⑫ **Reverb Control (REV)**
- ⑬ **Effects Control (EFF)**
- ⑭ **Group Assign Control 1 and 2 (GROUP LEVEL)**
- ⑮ **Group Assign Pan Control 1 and 2 (GROUP PAN)**
- ⑯ **Group Assign Control 3 and 4 (GROUP LEVEL)**
- ⑰ **Group Assign Pan Control 3 and 4 (GROUP PAN)**
- ⑱ **Channel Switch ON Indicator (CHANNEL ON)**
- ⑲ **Channel ON/OFF Switch (CHANNEL)**
- ⑳ **Writing Block**
- ㉑ **Input Fader**
- ㉒ **Cue Switch (CUE)**

# ● Rear Panel (D-5.5E)

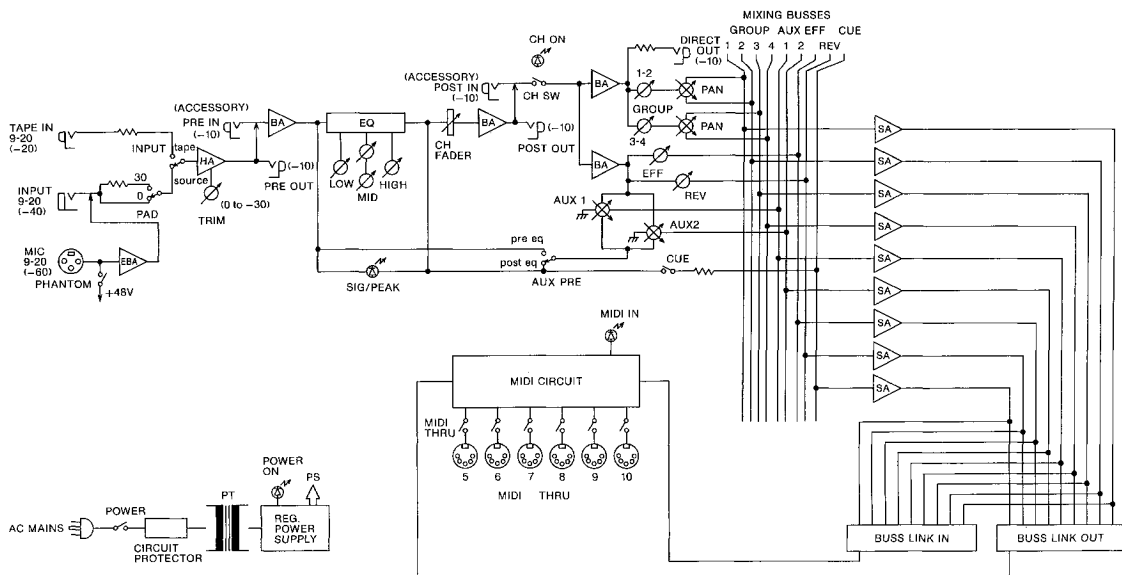
\* The names of the functions on the D-5.5E are specified below as connection of the input channel on the D-5.5E is the same as the D-5.5E. Difference in functions and connection are explained.



D-5.5 BLOCK DIAGRAM



D-5.5E BLOCK DIAGRAM





# ● Specifications (D-5.5, D-5.5E)

## GENERAL SPECIFICATIONS

### Frequency Response

+0dB, -0.5dB 50Hz to 20kHz  
+0dB, -3.0dB 20Hz to 50kHz

### Total Harmonic Distortion

Less than 0.3% +4dB\* 1kHz (MIC IN)  
Less than 0.1% +4dB\* 1kHz (INPUT)

### Hum and Noise (20Hz to 20kHz)

-125dB\* Equivalent Input Noise (MIC IN)  
-127dB\* Equivalent Input Noise IHF-A weighted (MIC IN)  
-100dB\* All Fader minimum  
-70dB\* Master (GROUP, STEREO or SUM) Fader Nominal, D-5.5 only  
-65dB\* Master (GROUP) Fader Nominal, D-5.5E connection  
-61dB\* Master (GROUP) and One Input Fader Nominal

### Maximum Voltage Gain

104dB MIC IN to SUM OUT  
94dB MIC IN to STEREO OUT  
84dB MIC IN to GROUP OUT  
64dB INPUT to GROUP OUT  
54dB INPUT to AUX½, REV, EFF SEND  
34dB AUX½, REV, EFF RET to GROUP OUT

### Equalization

LOW ±15dB 20Hz Shelving  
MID ±15dB 200Hz to 5kHz Variable Peaking  
HIGH ±15dB 20kHz Shelving

### Sig./Peak Indicator

Sig. (Green) LED turn on at -30dB below nominal level  
Peak (Red) LED turn over from Sig. (Green) at -3dB below clipping

### Phantom Power

48V DC is applied to MIC Input for powering condenser microphones

### Meter ("0" = Nominal level of STEREO, SUM OUT and CUE bus)

pair of 12 segment bargraph LED meter for STEREO L, R or SUM, CUE

### Power Consumption

D-5.5 41W  
D-5.5E 39W

### Dimensions (W×D×H)

D-5.5, D-5.5E  
485×634×274mm  
(19-1/8"×25"×10-3/4")

### Weight

D-5.5, D-5.5E  
22kg (48.5lbs)

### Accessory (D-5.5E ONLY)

BUSS LINK CABLE 6ft. 1

\* 0dB is referenced to 0.775V RMS  
Specifications are subject to change without notice.

## INPUT SPECIFICATIONS (D-5.5, D-5.5E)

0dB is referenced to 0.775V RMS

Input	PAD	Actual Load Impedance	For Use With Nominal	Input Level (Trim "0" to Trim "-30")		Connector
				Nominal	MAX. Before Clip	
MIC 1~8 <9~20>	0	1kΩ	50Ω to 250Ω MICROPHONES	-60dB (0.78mV) to -30dB (25mV)	-40dB (7.8mV) to -10dB (250mV)	XLR-3-31 TYPE
	30			-30dB (25mV) to 0dB (780mV)	-10dB (250mV) to +20dB (7.8V)	
INPUT 1~8 <9~20>	0	100kΩ	100kΩ or LOWER IMP. LINES	-40dB (7.8mV) to -10dB (250mV)	-20dB (78mV) to +10dB (2.5V)	1/4" PHONE JACK
	30			-10dB (250mV) to +20dB (7.8V)	+10dB (2.5V) to +40dB (78V)	
TAPE 1~8 <9~20>		10kΩ	10kΩ or LOWER IMP. LINES	-20dB (78mV) to +10dB (2.5V)	0dB (780mV) to +30dB (25V)	RCA PIN JACK
PHONO (RIAA) 7 & 8		50kΩ	—————	-50dB (2.5mV) to -20dB (78mV) at 1kHz	-30dB (25mV) to 0dB (780mV) at 1kHz	RCA PIN JACK
ACCESSORY IN PRE/POST (INPUT, GROUP, STEREO, SUM)		10kΩ	10kΩ or LOWER IMP. LINES	-10dB (250mV)	+10dB (2.5V) EXCEPT GROUP, STEREO, SUM. ACCESSORY IN POST +6dB (1.6V)	RCA PIN JACK
AUX1 RET, AUX2 RET REV RET, EFF RET		10kΩ	10kΩ or LOWER IMP. LINES	-20dB (78mV)	+10dB (2.5V)	1/4" PHONE JACK
CUE IN L & R		10kΩ	10kΩ or LOWER IMP. LINES	-10dB (250mV)	+24dB (12V)	1/4" PHONE JACK

< > : D-5.5E ONLY

All XLR type connectors are electronically balanced.

The XLR type connectors are wired as follows. Pin No.1-Ground, Pin No.2-Cold (Low), Pin No.3-Hot (High)

## OUTPUT SPECIFICATIONS (D-5.5, D-5.5E)

0dB is referenced to 0.775V RMS

Output	Actual Source Impedance	For Use With Nominal	Output Level		Connector
			Nominal	MAX. Before Clip	
GROUP 1~4	1kΩ	10kΩ Lines	+4dB (1.2V)	+20dB (7.8V)	1/4" PHONE JACK
			-10dB (250mV)	+6dB (1.6V)	RCA PIN JACK
STEREO L & R SUM	1kΩ	10kΩ Lines	+4dB (1.2V)	+20dB (7.8V)	XLR-3-32 TYPE
			-10dB (250mV)	+6dB (1.6V)	RCA PIN JACK
AUX1 SEND, AUX2 SEND REV SEND, EFF SEND	1kΩ	10kΩ Lines	+4dB (1.2V)	+20dB (7.8V)	1/4" PHONE JACK
ACCESSORY OUT PRE/POST (INPUT, GROUP, STEREO, SUM)	1kΩ	10kΩ Lines	+10dB (250mV)	+20dB (7.8V)	RCA PIN JACK
DIRECT OUT 1~8 <9~20>	1kΩ	10kΩ Lines	-10dB (250mV)	+10dB (2.5V)	RCA PIN JACK
CUE OUT L & R	1kΩ	10kΩ Lines	+4dB (1.2V)	+20dB (7.8V)	1/4" PHONE JACK
PHONES	150Ω	8Ω or higher	—————	-6dB (390mV)/8Ω +20dB (7.8V)/OPEN	1/4" STEREO PHONE JACK

< > : D-5.5E ONLY

Stereo phone jack is wired : Tip=Left, Ring=Right and Sleeve=Common.

All XLR type connectors are electronically balanced.

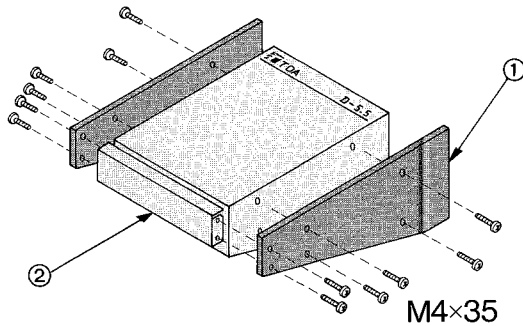
The XLR type connectors are wired as follows Pin No.1-Ground, Pin No.2-Cold (Low), Pin No.3-Hot (High)



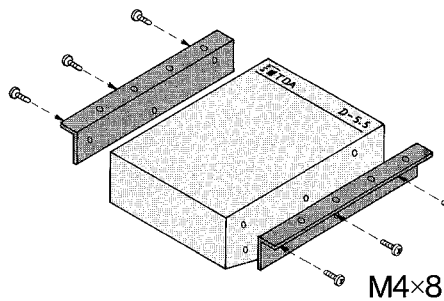
## ● Rack Mounting Instructions

The D-5.5 and D-5.5E are designed for either console or rack-mount use, using a pair of brackets (included). The following procedure should be observed for the rack-mount use.

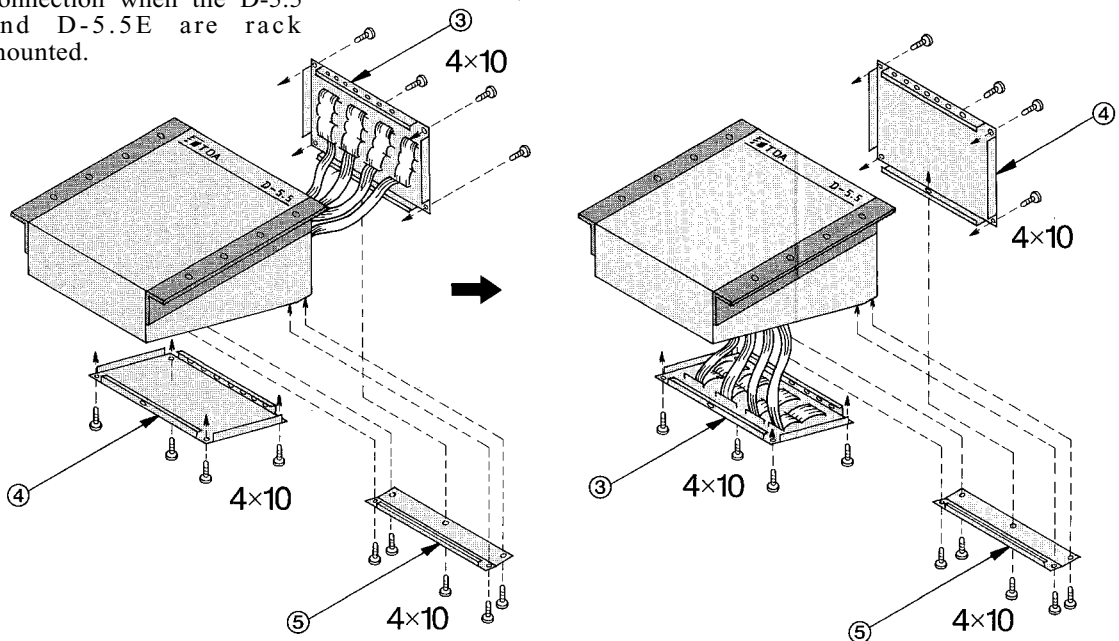
1. Remove both side panels ① and armrest ②, unscrewing and removing 6 screws.



2. Mount the brackets on both sides of the chassis, using the screws removed from the side panels.



3. The rear panel ③ and blank panel ④ should be interchanged to allow for easy connection when the D-5.5 and D-5.5E are rack mounted.



- a. Remove the rear panel ③, corner frame ⑤ and blank panel ④.
- b. Put the rear panel in the original position of the blank panel.
- c. Put the corner frame back in place.
- d. Put the blank panel in the original position of the rear panel.

### WARNING

The D-5.5 and D-5.5E contain voltage levels that may be hazardous to human life. Always disconnect the power cord from wall outlet prior to removing either unit's outer case.

## ● Procedure for Changing Internal Switch Setting

### NOTE:

The internal switches have been provided for added versatility when using the D-5.5 and D-5.5E in a variety of applications.

**AUX 1 / AUX 2 SEND PRE/POST EQ SELECTION SWITCH:** Each input features an auxiliary send control for use as either an additional effects send, or as an on-stage monitor send. You should note that the Aux 1 and 2 control are a "split" pot with the "∞" detent position (12 o'clock) being the off position. Typically, the control would be rotated clockwise ("post") when used as an effects send. This enables the effects level to be automatically increased as the input channel level increases. Obviously, since this signal is also derived "post" EQ, any changes made in the input channel's EQ settings will be reflected in the effects signal. When the AUX 1 or 2 control is to be used as an on-stage monitoring send, the control would typically be rotated counter clockwise ("pre"). This allows the on-stage monitor mix to operate independently of the input channel's fader. In other words, any change in the input channel's fader will not affect the level of the monitor mix. The Aux Send Pre/Post EQ Selection Switch is active only when the Aux 1 or 2 Control is used in the "pre" (counter clockwise) position. When the switch is set to the "pre" EQ position, the input channel's EQ controls will not affect the on-stage monitor mix. This is particularly desirable when the input source is a microphone. Since an on-stage monitor system is normally operated near acoustic feedback, a change in EQ (especially an increase in high frequencies) may cause ringing or squealing (feedback) through the on-stage monitor speaker system. However, when the input source is a synthesizer, musical instrument, etc., which is not so susceptible to feedback, you may desire to place the switch in the "post" EQ position so that the input channel EQ will affect that instrument in the monitor mix.

### NOTE:

The Aux 1 and 2 controls are unable to independently derive the pre or post EQ signal via the pre/post EQ selection switch, but always derive the same signal. Also the selection switch provides the pre or post EQ signal for the cue switch.

### WARNING

The D-5.5 and D-5.5E contain voltage levels that may be hazardous to human life. Always disconnect the power cord from wall outlet prior to removing either unit's outer case.

1. Disconnect the power cord from the wall outlet.
2. Remove the four screws that secure the bottom panel to the main chassis, and carefully remove the panel (See Fig 1)

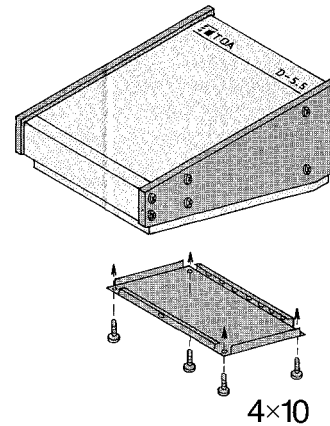


Fig 1

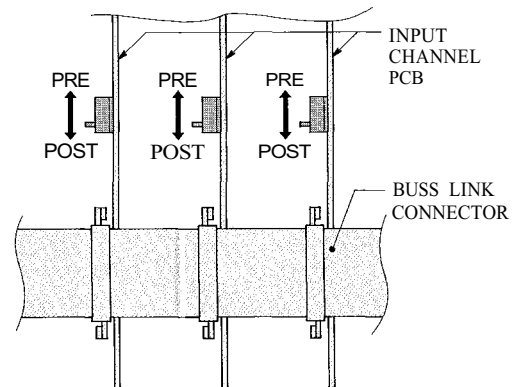
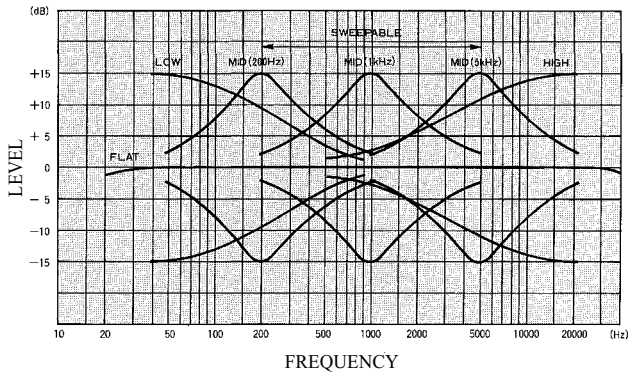


Fig 2

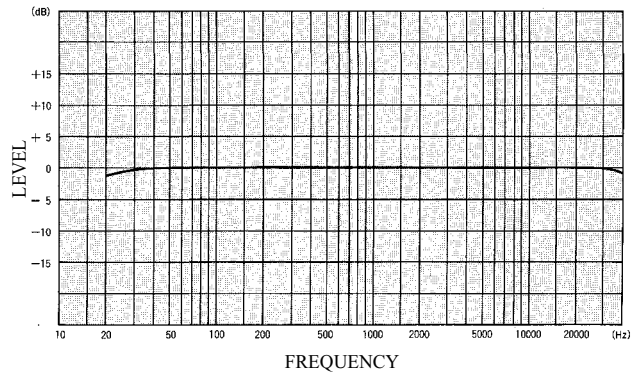
3. Refer to block diagrams and Figure 2 for location and orientation of switches.
4. Set switches to desired positions.
5. Carefully replace the bottom panel and secure with four screws.
6. The Aux send pre/post EQ switch is factory preset at "POST" position (post-EQ).

# Characteristics Diagrams

INPUT EQ CHARACTERISTICS

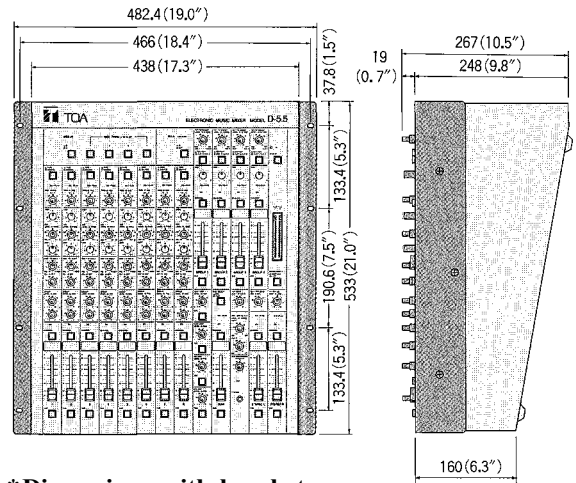
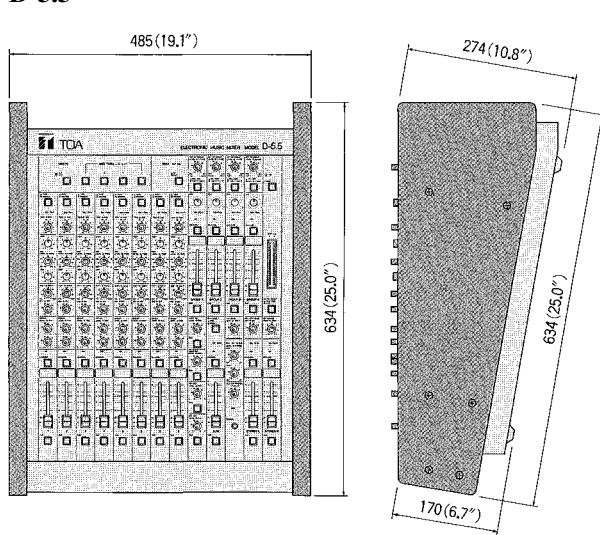


FREQUENCY RESPONSE



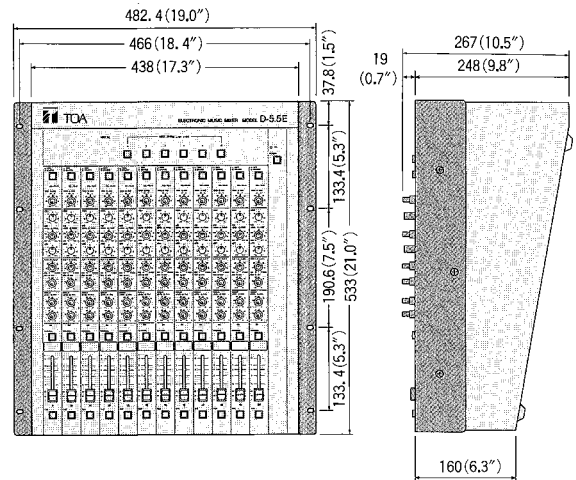
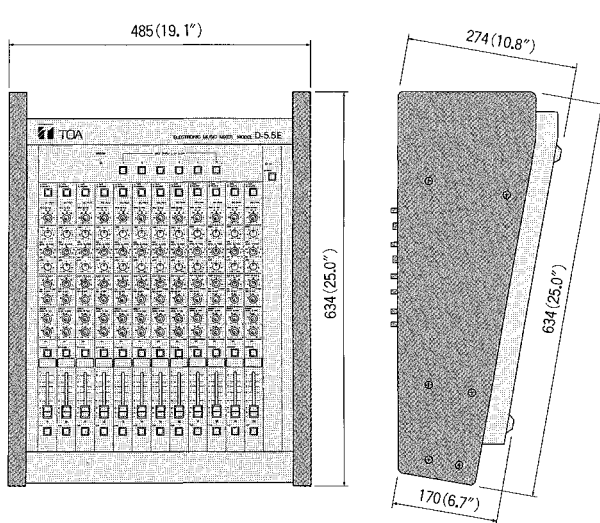
# Appearance

D-5.5



\* Dimensions with brackets

D-5.5E



\* Dimensions with brackets



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