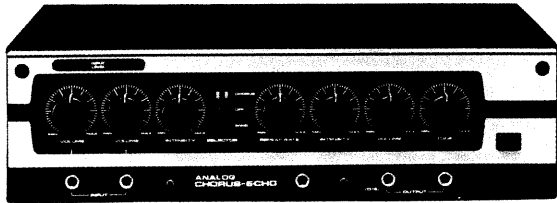


**ANALOG
CHORUS ECHO**

DC-30

INSTRUCTIONS

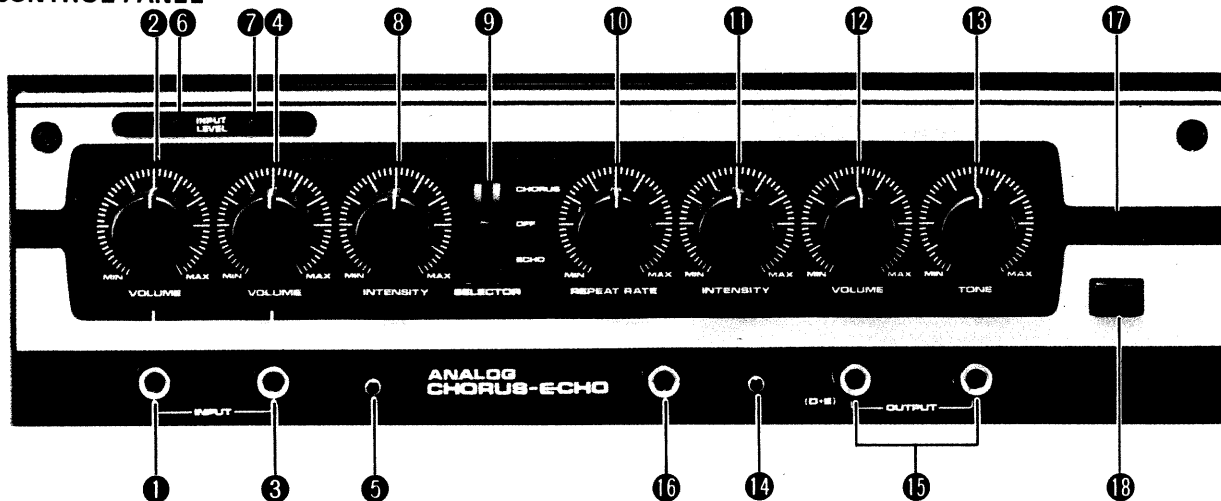


FEATURES

- Newly developed 4096-stage audio delay circuit combined with unique frequency controlled filter produces quality effect sound.
- In addition to ECHO, CHORUS effect is available to produce massive sound.
- The twin-input system is employed to accept and mix vocal and instrument at the same time.
- The twin-output system brings you stereophonic effect sound.
- Connecting footswitch, you can remote-control ON/OFF of effect sound. Further by connecting foot control, the repeat rate can also be remote-controlled to produce special effect.
- Fully electronic mechanism eliminates troublesome maintenance.

CONTROLS AND FUNCTIONS

CONTROL PANEL



1. MICROPHONE INPUT JACK

Connect microphone to this jack.

2. MICROPHONE VOLUME CONTROL

This controls volume of microphone input. Set it where Input Level Indicator (GREEN) continues to light and (RED) lights at intervals. Turn clockwise (↻) to increase and counterclockwise (↺) to decrease.

3. MICROPHONE/INSTRUMENT INPUT JACK

Connect microphone or instrument to this jack. (See connection diagram when connecting PA mixer.)

4. MICROPHONE/INSTRUMENT VOLUME CONTROL

This controls volume of microphone or instrument connected to Microphone/Instrument Input jack.

5. INPUT LEVEL CHANGEOVER SWITCH

Set this switch to proper position to meet the output level of microphone or instrument connected to Microphone/Instrument Input jack. (Microphone -50dB; Guitar -35dB; Electronic Organ -20dB)

* At -50dB position, impedance is low for microphone, and at -35 and -20dB positions, impedance is high for instruments. Depending on the device you connect, the gain may be reduced at -50dB position.

6. INPUT LEVEL INDICATOR (GREEN)

This indicator does not light when Input Level is too low. Adjust Microphone Volume or Microphone/Instrument Volume so that this indicator lights continuously.

7. INPUT LEVEL INDICATOR (RED)

This indicator lights to indicate excessive input level by detecting impulsive sound. This indicator lights at intervals at proper input level.

8. CHORUS INTENSITY

This is for controlling intensity of chorus effect. Turn clockwise (↻) to intensify the effect.

9. CHORUS/OFF/ECHO SELECTOR SWITCH

With this switch set at Up position, chorus effect is obtained; at Down, echo effect; and at Middle, unaffected normal sound is given.

10. ECHO REPEAT RATE

This controls echo interval. Turn clockwise (↻) for shorter interval and counterclockwise (↺) for longer interval. (Note that frequency response changes in accordance with setting position of this control.)

11. ECHO INTENSITY

This controls number of echo repetitions. Turn clockwise (↻) to increase and counterclockwise (↺) to decrease. At 8 or over, oscillation will occur, which can be used for special effect. Usually set the control lower position than 8.

12. ECHO VOLUME

This controls volume of echo sound. Turn clockwise (↻) to increase and counterclockwise (↺) to decrease.

* This control does not affect the volume of direct sound.

13. TONE CONTROL

This controls tone color of effect sound. (chorus or echo). Turning clockwise (↻) cuts lows and counterclockwise (↺) boosts lows.

14. OUTPUT LEVEL SELECTOR SWITCH

This switch selects a proper output level to meet the amplifier or mixer you use.

15. TWIN-OUTPUT JACK

When connected to Direct (D+E) jack only, both direct and effect sounds are produced. When connected to both jacks, direct sound is produced through Direct (D+E) jack and effect sound through Effect jack.

For connection, refer to connection diagram.

16. FOOTSWITCH JACK

Connecting the footswitch (FS-1), option, to this jack, you can remote-control ON/OFF of effect, which will wield power in on-stage performance.

17. PILOT LAMP

When power switch is turned on, this lamp lights up.

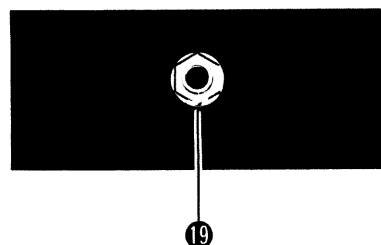
18. POWER SWITCH

Turn on to set the unit in operation.

REAR PANEL

19. REPEAT RATE CONTROL JACK

Connecting foot control (FV-2), option, to this jack, you can remote-control the repeat rate. Or, by connecting CV output from a synthesizer, the repeat rate is controlled from the synthesizer. The repeat rate is variable from the minimum to the set position of the Repeat Rate knob on the front panel. Depending on the mode of operating this function, Pitch Bender-like effect can be obtained.



CONNECTING DC-30

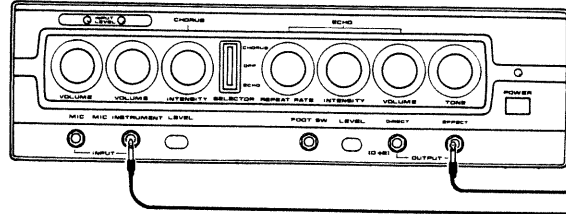
• CONNECTING TO PA MIXER

INPUT LEVEL

Set INPUT LEVEL where Peak Level Indicator lights at intervals with volume set around center. (-20dB or -30dB).

OUTPUT LEVEL

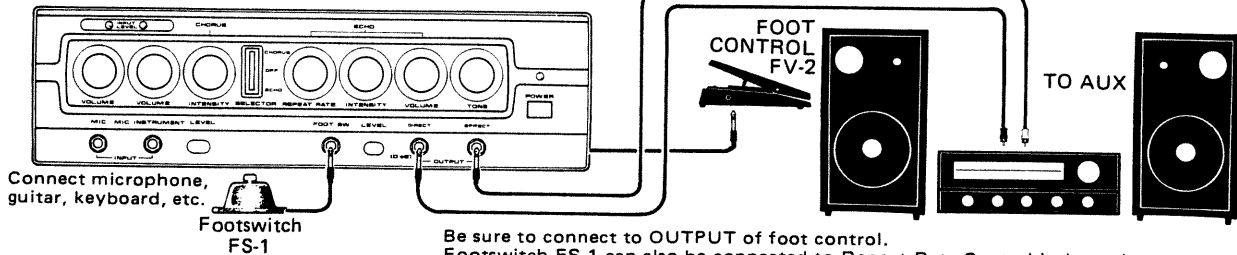
Set OUTPUT LEVEL to -20dB or -35dB, ordinarily to -35dB.



* Set REVERB/ECHO switch of applicable channels of mixer to ECHO.

• CONNECTING TO STEREO SYSTEM

Set Chorus/Echo selector as you desire.



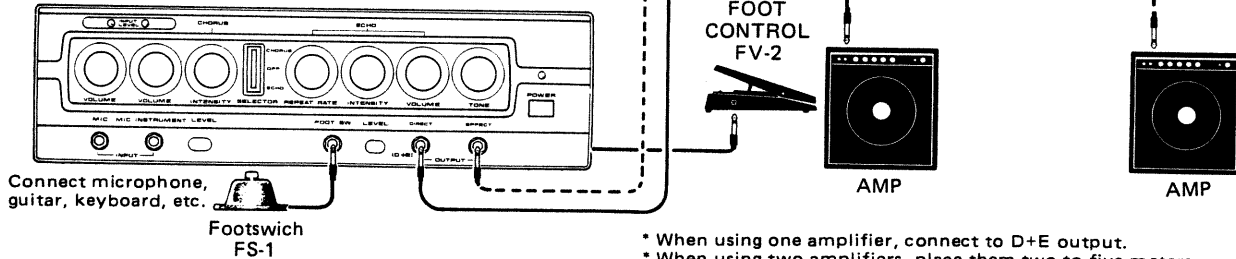
Be sure to connect to OUTPUT of foot control. Footswitch FS-1 can also be connected to Repeat Rate Control jack on the rear panel.

• CONNECTING TO GUITAR AMPLIFIER

Set Chorus/Echo selector as you desire.

When connecting instrument directly, set INPUT LEVEL to -35dB or -20dB.

When connecting two microphones, set INPUT LEVEL to -50dB.

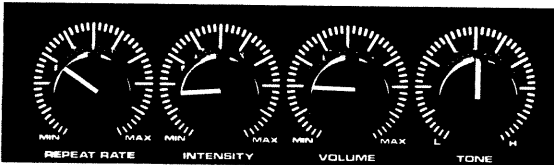


* When using one amplifier, connect to D+E output.
* When using two amplifiers, place them two to five meters apart.

TO MAKE THE BEST USE OF DC-30

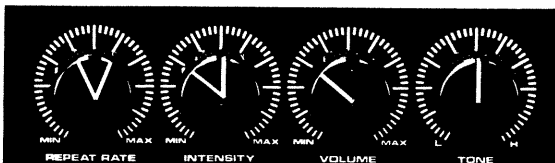
ECHO EFFECT

• TO OBTAIN EFFECT LIKE STADIUM ANNOUNCEMENT



Echo sound like stadium announcement can be produced.

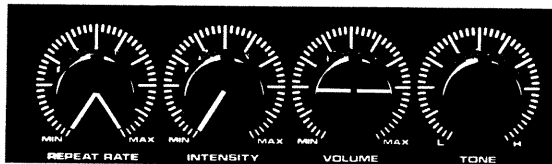
• TO OBTAIN ECHO LIKE A LARGE HALL



The above setting will produce an acoustical effect of echo unique to a large hall.

THE POINT: If amplifier you use has reverberation, the echo effect will be enhanced by adding a little reverberation.

• TO OBTAIN SINGLE DELAY WITH ONE ECHO SOUND



THE POINT: Set REPEAT RATE and ECHO VOLUME within the range marked, to obtain single delay. When REPEAT RATE is turned further clockwise (☉), special effect can be produced.

CHORUS EFFECT

* Set Chorus Intensity control at a lower position for instrument and at a higher position for microphone to get good result.

CAUTIONS

- If neon or fluorescent lamp is located close to DC-30 or instrument, that may cause noise. Separate them from each other.
- To protect the speaker system from breakdown, avoid the following with volume controls set at high level. 1. Power on/off; 2. Plug in/out of cables; 3. Speaker howling; 4. Big shock noise into DC-30.
- When connecting an instrument with DC-30, connect the cord plug to the instrument first and the other end to DC-30. For disconnection, reverse the order: from DC-30 first and then from the instrument.
- Avoid using DC-30 under dusty or humid conditions to prevent troubles.
- Avoid using chemical detergent, thinner or the like.

OPTION

FOOTSWITCH FS-1

Footswitch for remote-controlled ON/OFF operation of effects.

- FS-5 with 5m cord is also available.



FOOT CONTROL FV-2

Foot pedal for repeat rate control used with DC-30.



SPECIFICATIONS

| | |
|--|---|
| Input Jack | 2 |
| Output Jack | 2 |
| Footswitch Jack (effect — on/off) | 1 |
| Foot Control Jack (echo repeat rate) | 1 |
| Controls | |
| Input Volume Control x 2, Chorus Intensity, Echo Repeat Rate, Echo Intensity, Echo Volume Control, Tone Control | |
| Selectors | |
| Input Level 3-Step Changeover Switch Output Level 2-Step Changeover Switch Effect Mode Changeover Switch (chorus/off/echo) | |
| Level Indicator: Normal — Green / Peak — Red | |
| Delay Time: Chorus | 22mS — 44mS |
| Echo | 40mS — 600mS |
| Frequency Response | 10KHz — 1.5KHz |
| Input Sensitivity / Impedance: | |
| Microphone | —50dB/4.7KΩ |
| Microphone/Instrument | —50dB/4.7KΩ —35dB/470Ω —20dB/470Ω |
| Output Level / Impedance | —20dB, —35dB/less than 600Ω |
| Power Consumption | 6W |
| Dimensions | 386(W) x 123(H) x 206(D)mm 15.2(W) x 4.9(H) x 8.1(D)in |
| Weight | 3.7kg, 8.2 lbs |
| Accessory | Connection Cord 2.5m |

* Specifications are subject to change without notice.

TROUBLESHOOTING GUIDE

If your unit does not operate properly, take proper action, consulting the table below. The symptom listed would be caused by mistake in using the unit. If the trouble cannot

be remedied even after actions instructed or if there is any symptom other than those listed below, make contact with the shop you bought your DC-30.

| SYMPTOM | POSSIBLE CAUSE | ACTION TO BE TAKEN |
|---|---|--|
| Even when Power Switch is set ON, Pilot Lamp does not light and no sound is produced. | Imperfect connection of power cord. | Plug in power cord perfectly. |
| Pilot Lamp lights but no sound is produced. | Imperfect connection of cords. Volume is set to minimum. | Connect perfectly. Turn up to proper level. |
| Sound is produced but without echo (chorus). | Echo Volume is set to minimum. Chorus/Off/Echo selector is set at Off. When footswitch or foot control is connected. | Turn up to proper level. Set to Chorus or Echo. Unplug footswitch or foot control and check. |
| Effect sound is produced but no direct sound. | Connected to Effect output jack (right) only. | Connect to D+E output jack (left). |
| Continued oscillation sound. | Amplifier and DC-30 volume controls are set too high. Speaker is placed too close to microphone. Intensity control is set too high. | Reduce to proper level. Separate them from each other or rotate cabinet not to face the source. Lower to proper level. |
| Proper volume is obtained but much noise. | Improper setting of input and/or output level. | Change the setting where lesser noise is heard. |