

**KORG**  
**STAGE ECHO**  
**SE-500**  
**OWNER'S MANUAL**

## INDEX

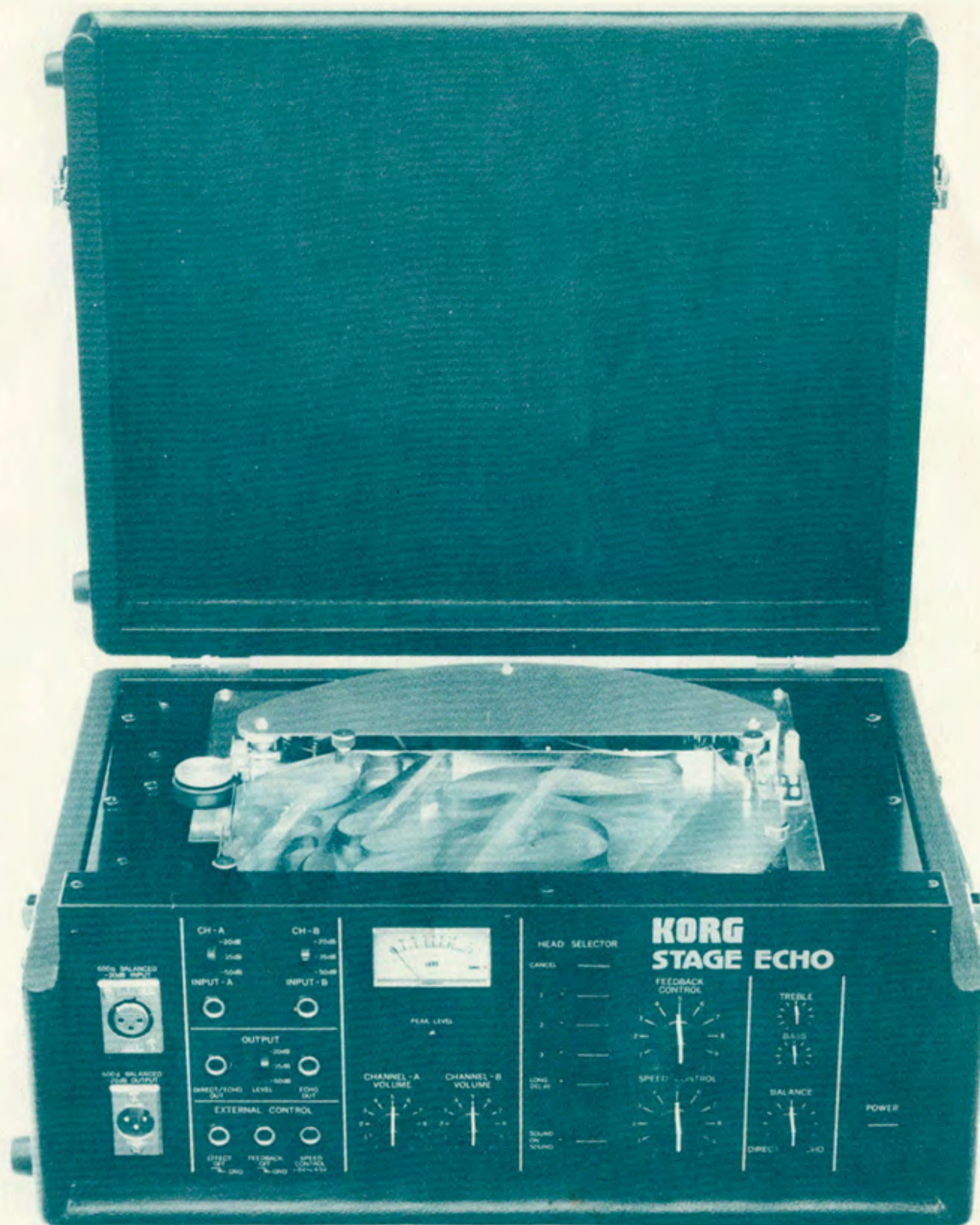
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## 1. Introduction.

Thank you for choosing the Korg Stage Echo

The SE-500 is a great echo machine for use with such inputs as Korg synthesizers, electric guitars, microphones, PA mixers, and the like. There are five playback heads, by means of which you can get five different patterns of reproduction. You can even turn on all the heads at once, if you want. The tone controls affect the echo and SOS sounds alone; the original "dry" signal is left clean and clear.

A professional quality direct drive motor is used in the tape transport system to assure speed accuracy and long term reliability.

Remote control is one of the big features of the SE-500. Since all functions are voltage controlled, you can use a synthesizer or other output voltage for this purpose. See how many ways the SE-500 will come in handy for both live performances and recording. Be sure to clean the heads, capstan and pinch roller at regular intervals to ensure optimum results.

## 2. Main features of the SE-500

- 1) A long delay of 1500ms is possible.
- 2) The noise reduction system features a full-fledged compander circuit for professional results.

3) Variation of the echo effect is provided by sound-on-sound "SOS" effect.

4) The tape transport system features a professional direct-drive motor with built-in extra-large flywheel.

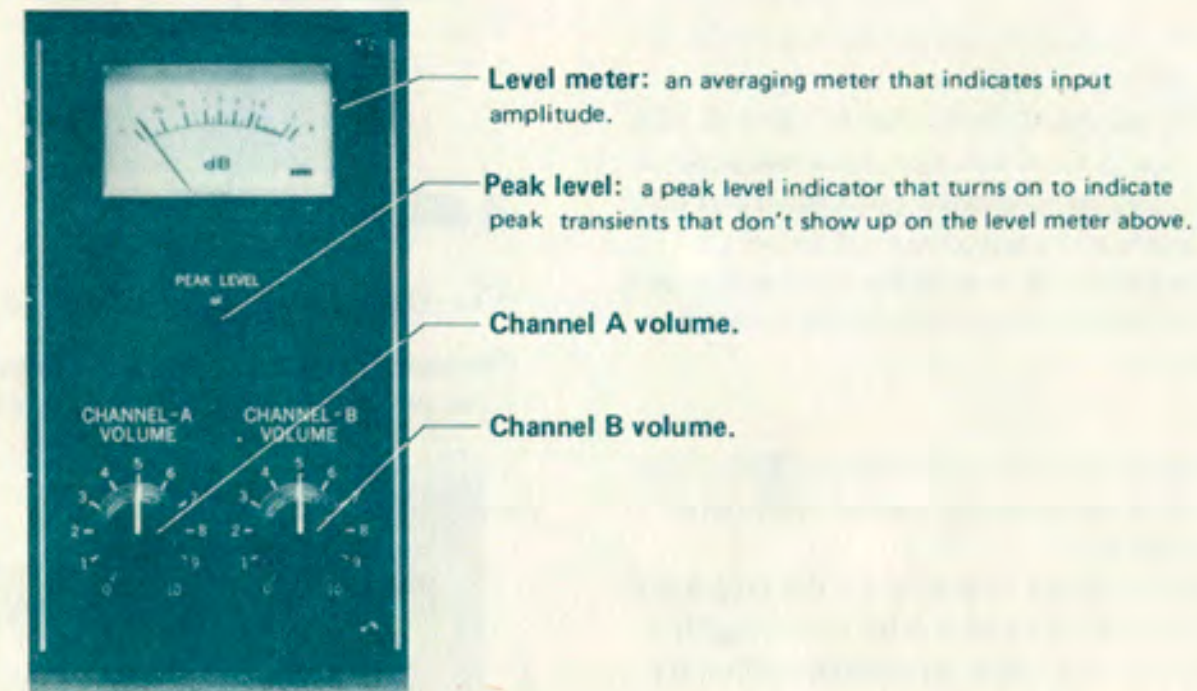
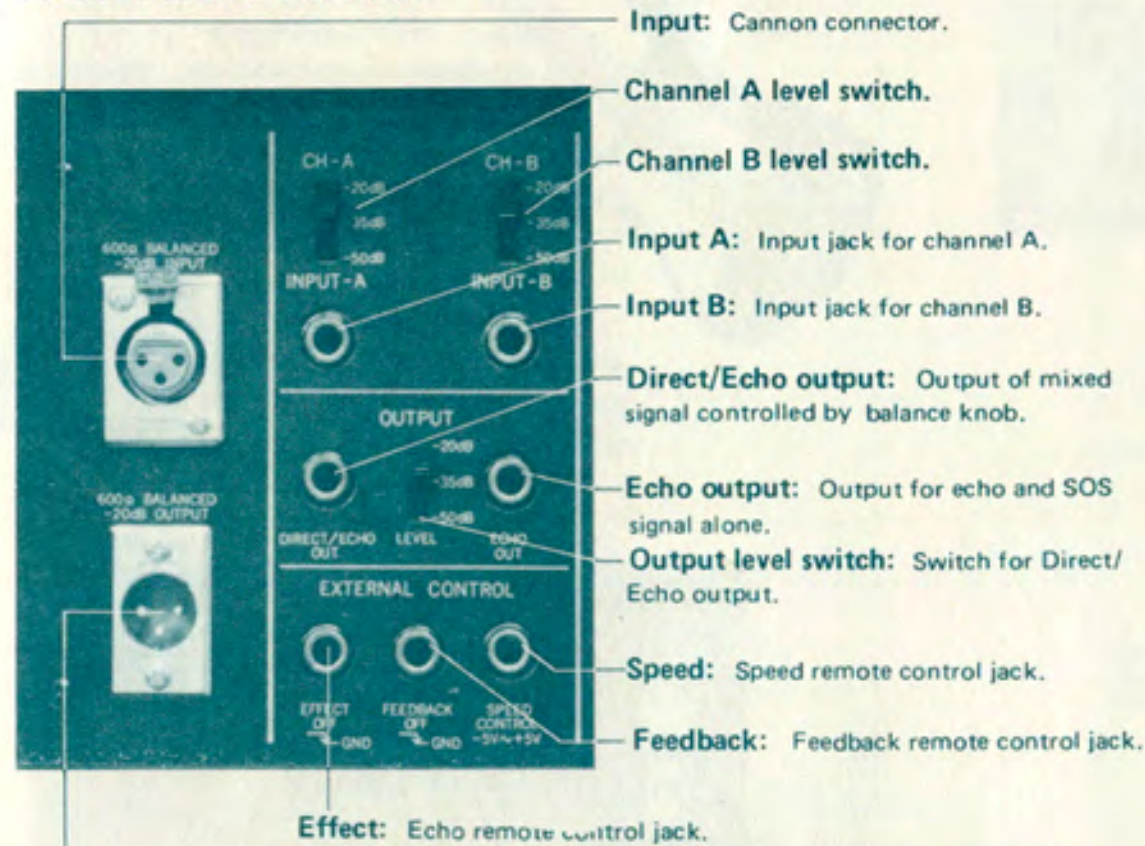
5) Feather-touch head selector switches make for effortless handling.

6) A microprocessor or synthesizer can easily be used for remote control since all functions can be controlled by voltage.

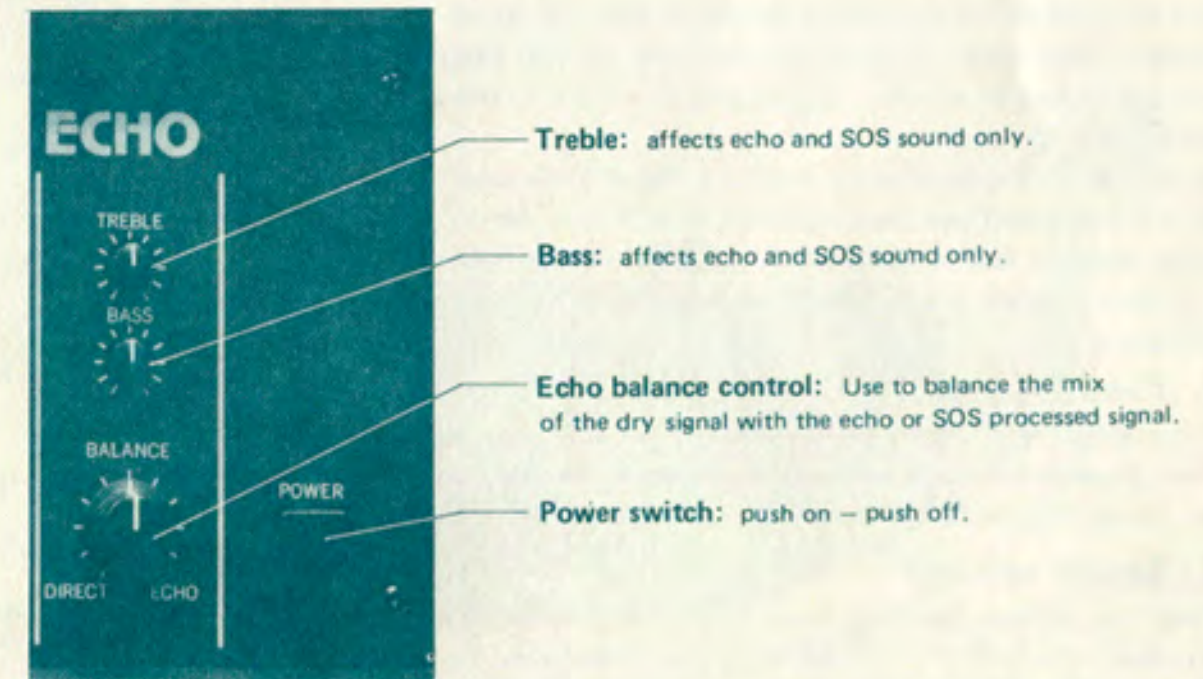
7) Long delay indication is by LED so you can control timing while referring to the flashing light.

8) Since this unit is designed for professional use, balanced cannon connectors are provided for both input and output.

## 3. Features and functions



Output: Cannon connector.



#### 4. Input mode

On the A and B inputs there are level switches that should be set to match the input signal as follows:

- 20dB (100k $\Omega$ ) – Synthesizer, electric organ, etc.
- 35dB (50k $\Omega$ ) – Electric guitar, etc.
- 50dB (600 $\Omega$ ) – Microphone

#### Input level adjustment:

The indication shown by the level meters depends on input signal strength. After setting the channel A and B level switches, adjust the channel A and B volume knobs so that the maximum meter needle indication is between -5dB and 0dB during the loudest musical passages. If the input signal goes above 3dB, the peak level indicator LED will light up. If the LED remains on, or if it lights up often, the reproduced sound will be distorted. For best results, adjust the A and B volume knobs so that the input level is just below the point where the peak indicator LED turns on during peak volume inputs.

#### 5. Output

Two kinds of output jacks are provided. One is for the echo or SOS processed signal alone; the other is for the mixed signal made up of both the echo, or SOS signal, and the original input signal. The echo balance control knob affects this output only.

The output level switch should be set to match the input of the amp or mixer to which it is connected. Choose between three positions: -20dB, -35dB, and -50dB.

#### 6. Head selector

You have a choice of six buttons with the head selector. The cancel button turns off all the heads, so only the dry unprocessed signal emerges from the direct/echo output.

Buttons 1, 2, 3 give you different delay time lengths. The long delay button gives you a maximum 15 second delay. This long delay is a unique Korg feature previously unavailable on echo machines. By adding the long delay to a regular echo effect, you will discover many new creative possibilities.

The SOS button gives a sound-on-sound effect in which the recorded signal is reproduced 20 to 30 seconds later, so you can play one passage on top of another, or add special effects to the sound you are playing.

Note that it is possible to depress more than one of the five head selector buttons at a time. The echo pattern will vary according to the combination of buttons depressed, but the output level will not increase.

#### 7. Feedback control

This knob controls the number of times the echo is repeated. Too many repeats will cause self-oscillation. With remote control you can cancel the feedback setting; this will give just a single repeat.

#### 8. Speed control

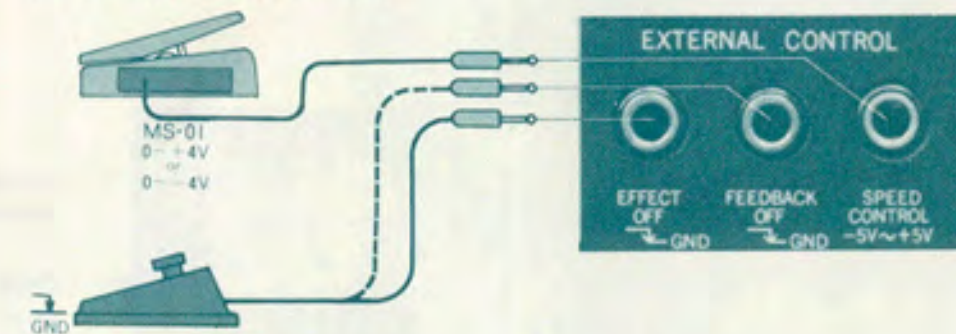
This knob adjusts the delay time. Since this is voltage controlled, you can use a +5V ~ -5V signal for remote control. You could try using the Korg MS-01 foot controller, a synthesizer modulation generator (LFO), or microcomputer for this purpose.

#### 9. Echo balance control

This adjusts the balance between the echo or SOS processed signal and the direct unprocessed signal. This knob only affects the direct/echo output.

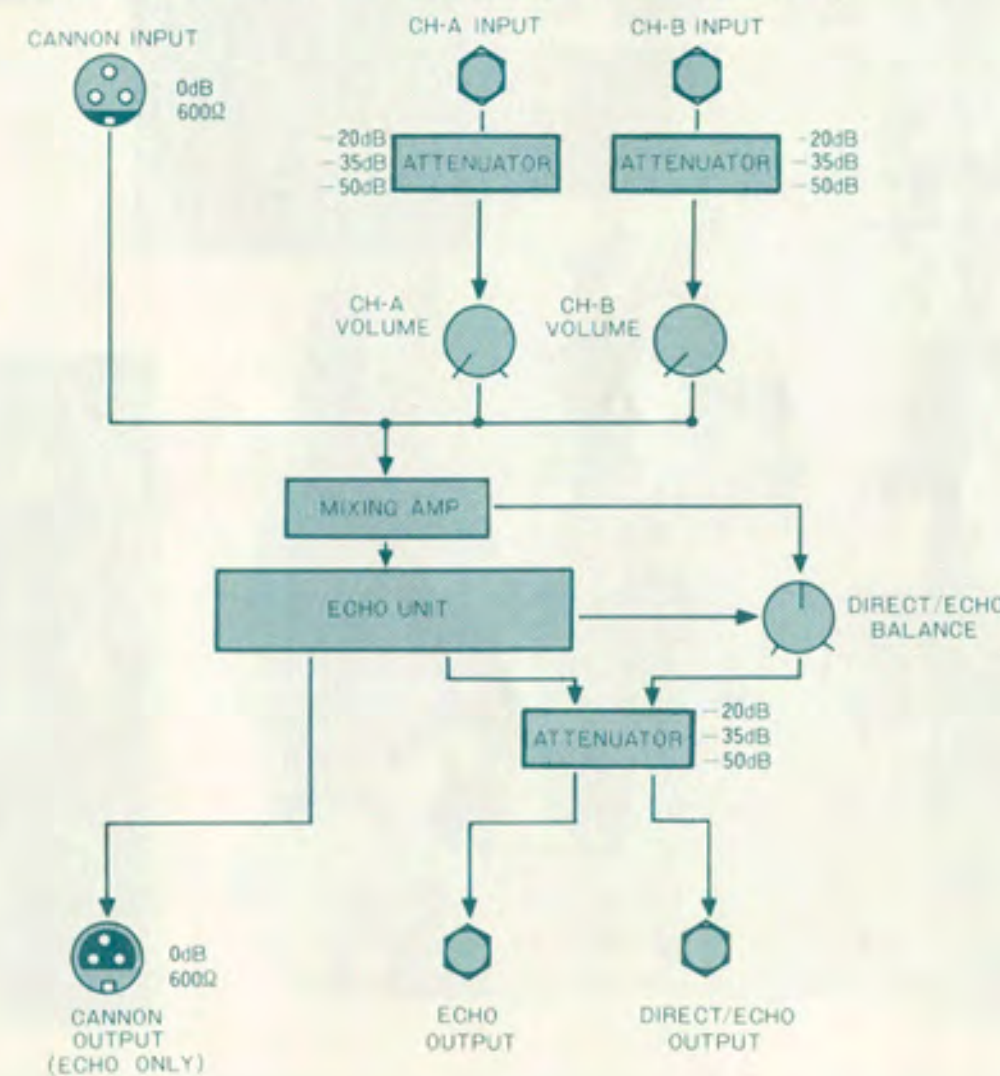
#### 10. Remote control

Besides feedback and speed control, "effect remote control" is also possible. This is remote ON/OFF control of the echo and SOS effect. Since everything is voltage operated, you can use a foot controller (MS-01) or synthesizer as your remote control unit. For feedback and effect control ON/OFF operation, you can use the accessory foot switch.



#### 11. Input/output relationships

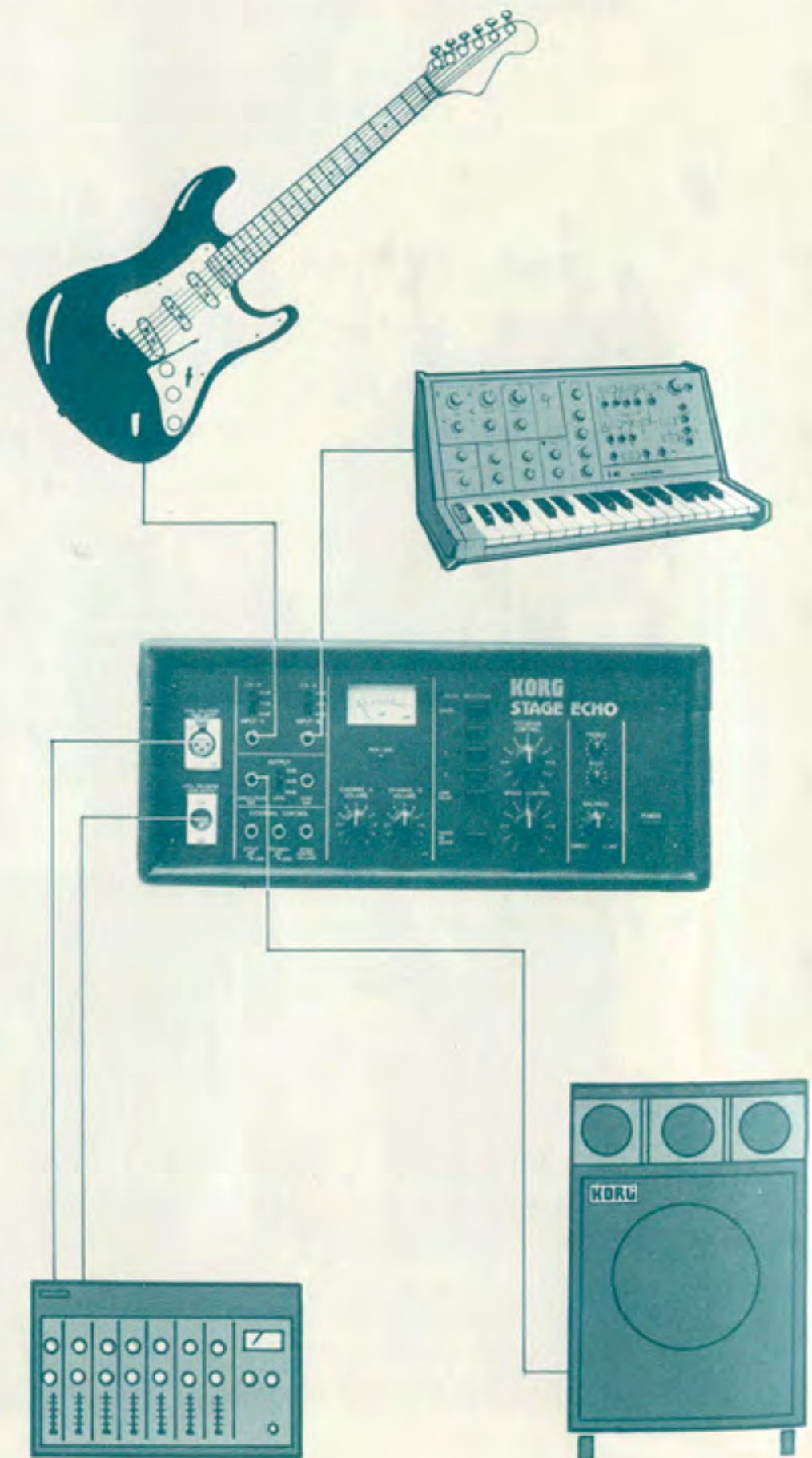
The signal flow from inputs to outputs is shown in the chart. Note that the cannon connector is a 600 $\Omega$  balanced type.



#### 12. Connections

As mentioned before, different sources have different levels. Adjust the input level switches to match your inputs as shown in the chart.

- 20dB 100k $\Omega$  Synthesizer, electric organ, etc.
- 35dB 50k $\Omega$  Electric guitar, etc.
- 50dB 600 $\Omega$  Microphone, etc.



### 13. Specifications

|                         |   |    |
|-------------------------|---|----|
| <b>Inputs</b>           | Phone jacks (for mike, instruments etc.)  | 2  |
|                         | Input attenuators -20, -35, -50dB         | 2  |
|                         | Cannon connector -0dB, 600Ω balanced type | 1  |
| <b>Outputs</b>          | Phone jacks - direct/echo mixed           | 1  |
|                         | Direct                                    | 1  |
|                         | Level switch -20dB, -35dB, -50dB 600Ω     | 1  |
|                         | Cannon connector -0dB, 600Ω balanced type | 1  |
| <b>Remote Control</b>   | Effect Phone jack 0V (L level) OFF        | 1  |
|                         | +5V (H level) ON                          | 1  |
|                         | Feedback Phone jack 0V (L level) OFF      | 1  |
|                         | +5V (H level) ON                          | 1  |
|                         | Rate (Speed) Phone jack -5V ~ +5V         | 1  |
|                         | Delay time: min. ~ max.                   | 1  |
| <b>Control knobs</b>    | Volume Input Channel A                    | 1  |
|                         | Channel B                                 | 1  |
|                         | Tone: Treble                              | 1  |
|                         | Bass                                      | 1  |
|                         | Balance Echo                              | 1  |
|                         | Feedback                                  | 1  |
|                         | Rate (Speed) Delay time                   | 1  |
| <b>Control switches</b> | Head selector: 6 pushbuttons              | 1  |
|                         | Input level attenuators: 3-way            | 2  |
|                         | Output level attenuator: 3-way            | 1  |
|                         | Power switch                              | 1  |
|                         | Level meters (VU type)                    | 2  |
|                         | Peak indicator LED                        | 1  |
|                         | Head ON indicator LED's                   | 5  |
|                         | Heads: Recording 1, playback 5, erase 1.  | 7  |
|                         | Motor: Brushless direct-drive servo       | 1  |
|                         | IC's                                      | 13 |
|                         | Transistors                               | 17 |
|                         | Diodes                                    | 13 |

Power supply voltage 100V ~ 120V; 220V ~ 240V; 50/60Hz

Power consumption 40W

Dimensions W x D x H 420 x 335 x 170mm

Weight 22.5kg

\* Appearance and specifications subject to change without notice.

### 14. Caution

1. Do not store or use the unit where it will be subject to dust, dirt, high humidity or high temperature.
2. All heads must be cleaned regularly with head cleaning fluid or alcohol. Also clean capstan, pinch roller, and tape guides. Wait for all parts to dry before allowing tape contact with heads.
3. Do not oil or lubricate moving parts. No lubrication is needed, and it may cause deterioration of performance.
4. The endless tape loop will deliver optimum performance for about 300 hours of use. After that, performance will be reduced. Replace with SET-01 tape loop.
5. The SE-500 may pick up noise if placed too near other equipment. If this occurs, try changing the relative positions of the units. Also check the input signal for noise.

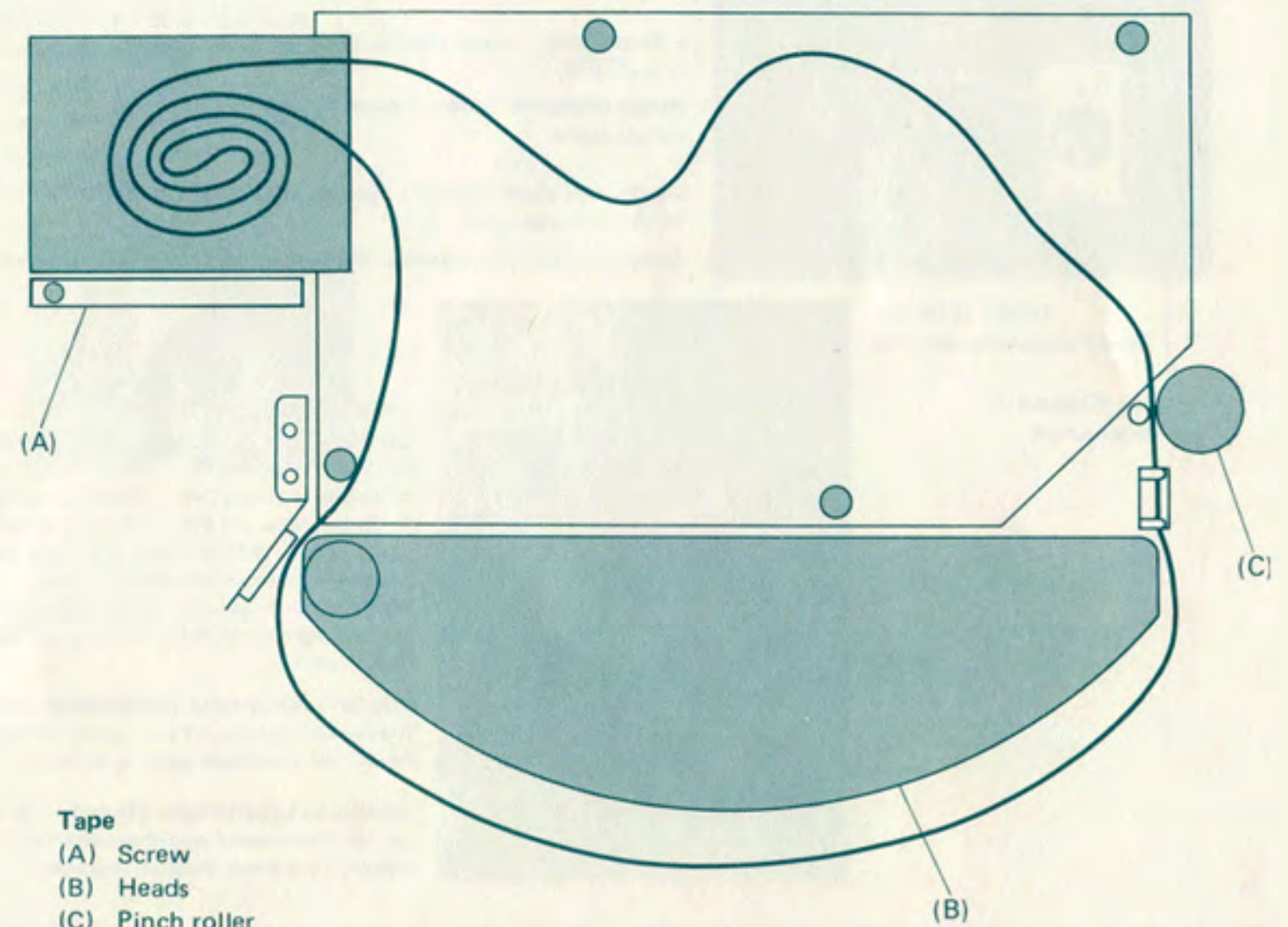
### 15. Replacing the cartridge tape

#### How to change the tape

- 1) Turn off the power
- 2) Loosen screw (A), unscrew the other four screws and remove the clear plastic cover.
- 3) Take out the old tape.
- 4) Clean the heads (B), pinch roller (C), capstan, and tape guides
- 5) Place the SET-01 tape case in the position shown in the diagram.
- 6) Pull the end of the tape out of the SET-01 case and pass the loop around the heads (B) and pinch roller (C).
- 7) After threading the tape, put the plastic cover back on and screw in the four screws.
- 8) Turn on the power so that the tape is pulled completely out of the tape case.
- 9) Once the tape is out of the case, remove the SET-01 tape case and tighten screw (A) in its original position.
- 10) Run the tape for 5~10 minutes to loosen it up.

#### \* Caution

When changing the tape, be sure to clean the entire tape path including the heads and pinch roller.  
Use of tape other than SET-01 may result in loss of performance.



#### Tape

- (A) Screw
- (B) Heads
- (C) Pinch roller