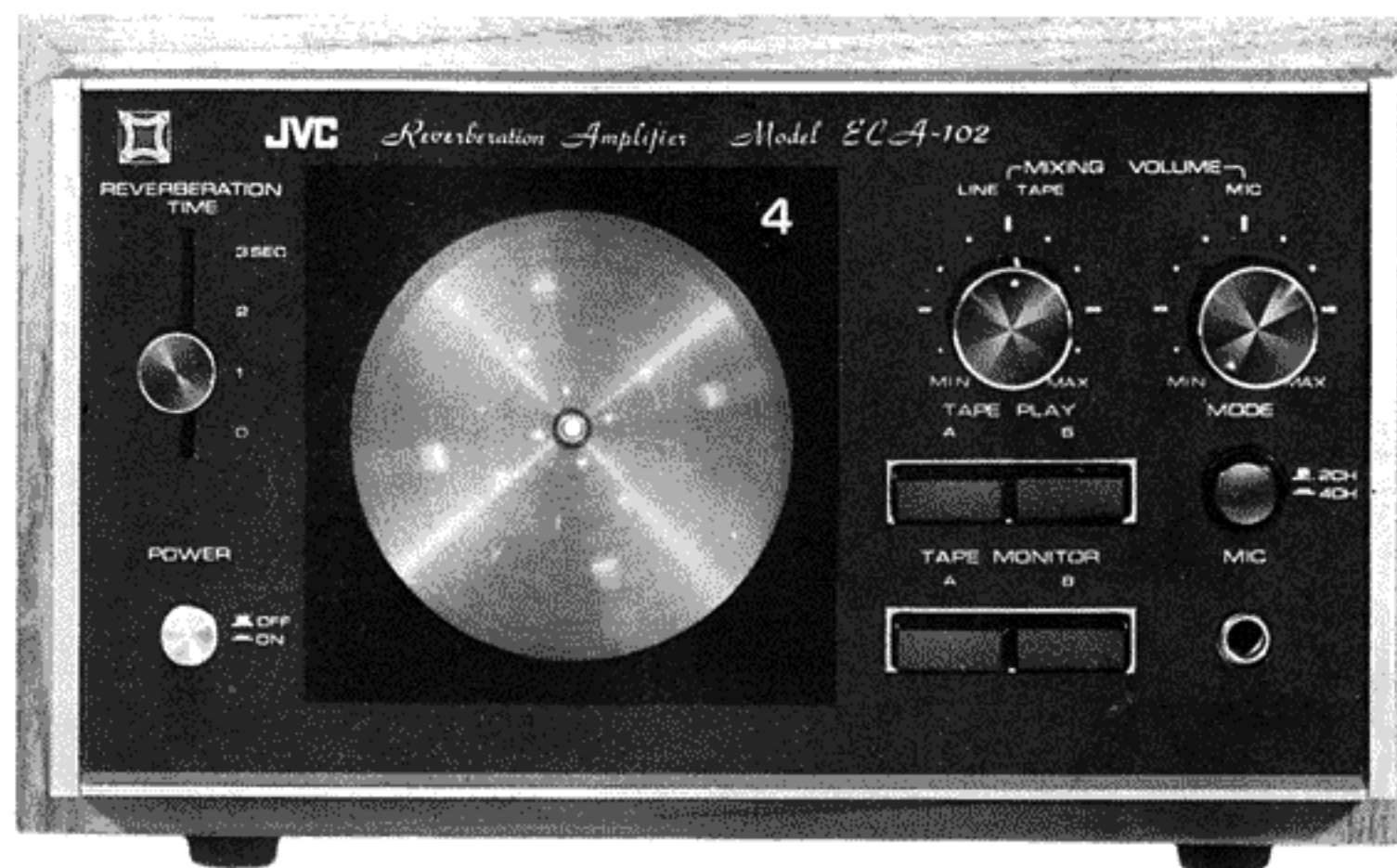


JVC
NIVICO



MODEL **ECA-102**

**INSTRUCTION MANUAL
FOR SOLID-STATE
REVERBERATION AMPLIFIER**

ECA-102 FEATURES

1. 4-Channel Effect

By simply connecting this unit to an integrated amplifier or receiver reverberation can be introduced into the original sound reproduction. Operating on a time delay principle, this unit is capable of reproducing a simulated 4-channel effect from any 2-channel source.

Fig. 1 4-CH effect on time delay principle;

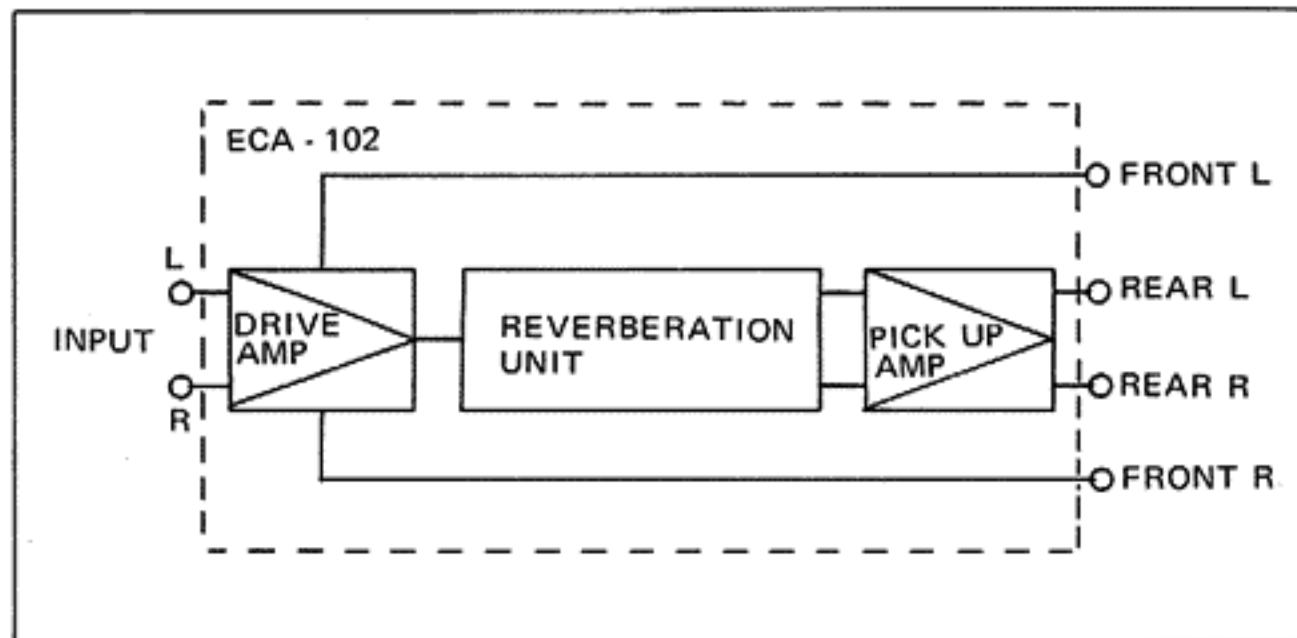
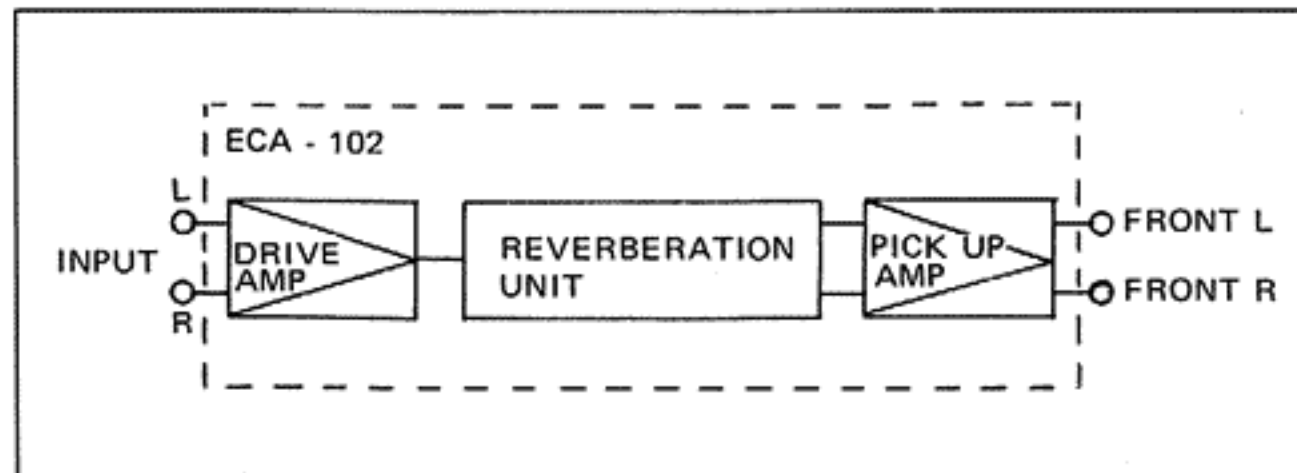


Fig. 2 Reverberation amplifier



2. High Fidelity

The ECA-102 is equipped with two springs, each having different reverberation times. This unique double pick-up system creates the most natural, high fidelity reverberated sound. A convenient slide control on the front panel provides instant adjustment of the reverberation time, from anywhere between 0 and 3 seconds.

3. Microphone Mixing

Interesting input mixing is possible by simply connecting a microphone to the jack provided on the front panel. Mixing the input signals of the line or tape with those of the microphone and adding reverberation to the result produces an enjoyable 4-channel effect.

4. Simultaneous Recording On Two Tape Decks And Monitoring With 3-Head Units

A combination of any two tape decks, open reel, cassette or cartridge, can be connected to the tape jacks on the rear panel. Signals having the desired amount of reverberation can be recorded simultaneously on both decks. Monitoring of the recorded sound is possible if 3-head tape decks are used.

5. Easy-To-Operate

Featuring easy-to-use, all pushbutton changeover switches for simple trouble-free operation. No further connections are necessary when changing from 4 channel to 2-channel operation, simply push the appropriate mode button.

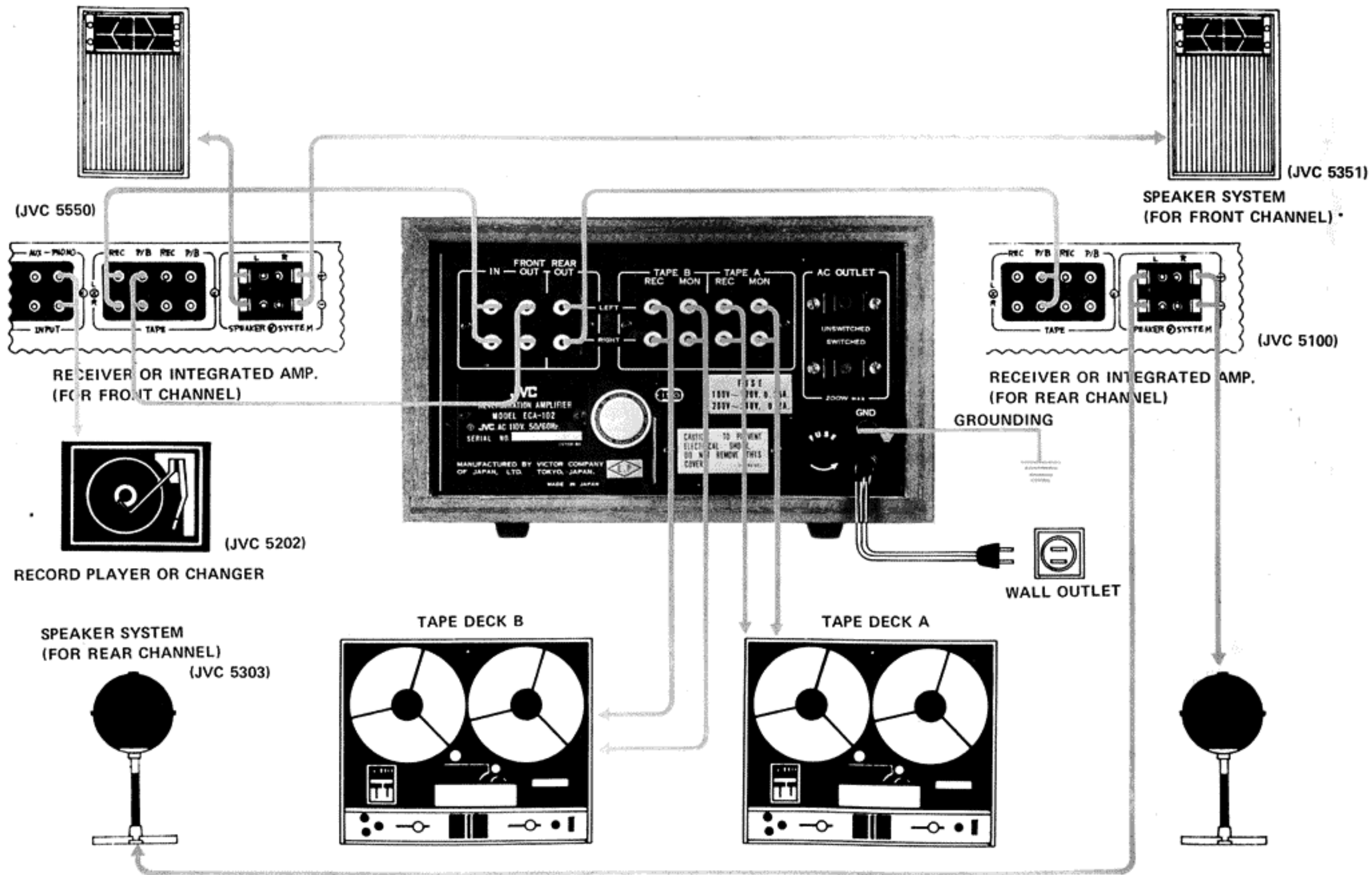
CONNECTIONS

Refer to the following table for all rear panel connections.

How To Connect ECA-102

REVERBERATION AMPLIFIER ECA-102 TERMINALS	CONNECT TO
IN	RECORDING OUTPUT Terminals of Receiver 1 or Integrated Amp 1 For example JVC 5550/5550U, 5540/5540U
FRONT OUT	PLAYBACK (MONITOR) Terminals of Receiver 1 or Integrated Amp 1
REAR OUT (Four Channel Effect Connection)	PLAYBACK (MONITOR) Terminals of Receiver 2 or Integrated Amp 2 For example JVC 5100, 5550/5550U
TAPE "A" REC.	LINE INPUT (Recording) Terminals of TAPE DECK "A"
TAPE "A" MON.	LINE OUTPUT (MONITOR or P/B) Terminals of TAPE DECK "A"
TAPE "B" REC.	LINE INPUT (Recording) Terminals of TAPE DECK "B"
TAPE "B" MON.	LINE OUTPUT (MONITOR or P/B) Terminals of TAPE DECK "B"

4-CHANNEL EFFECT CONNECTION

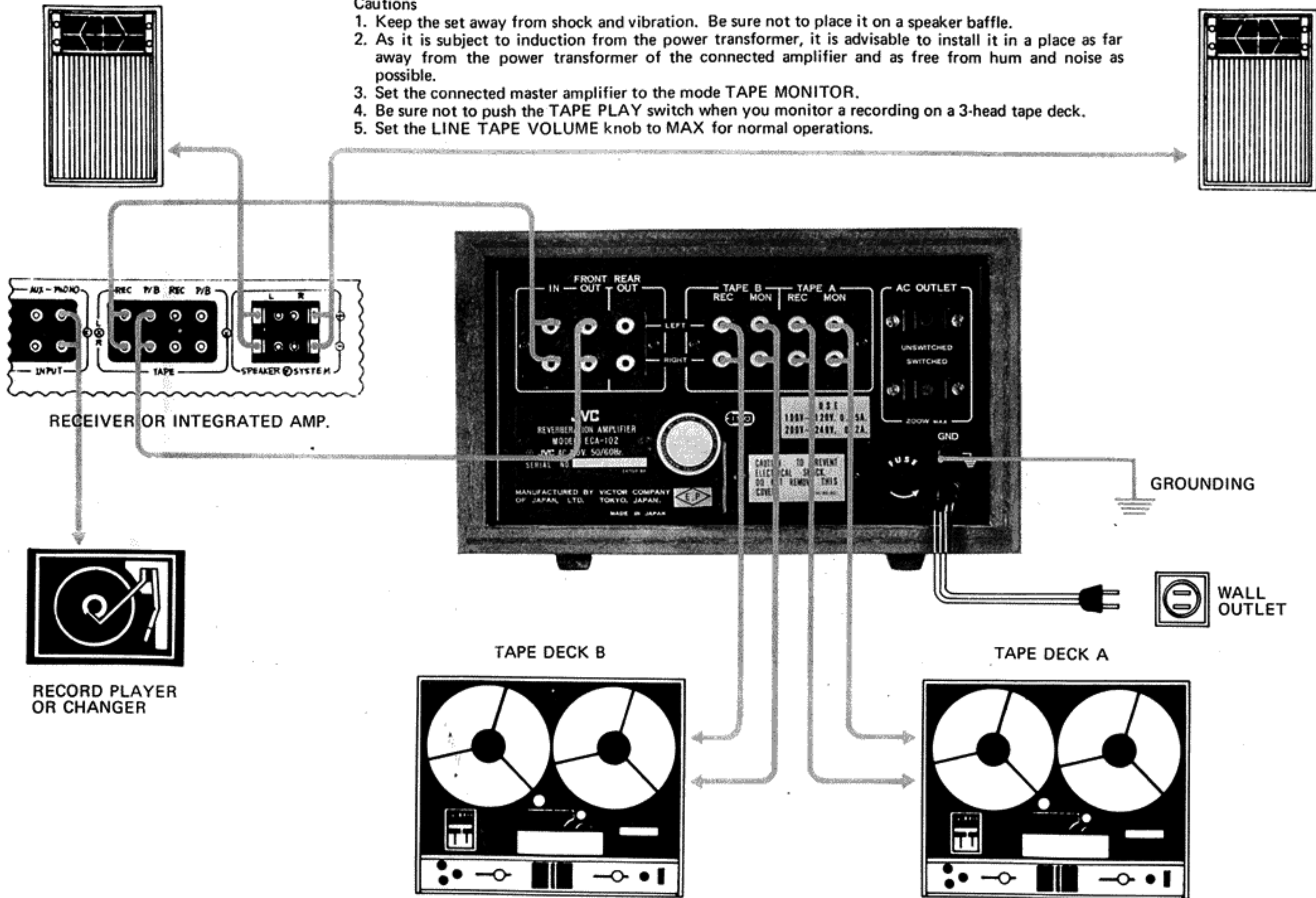


JVC ECA-102 REAR PANEL CONNECTIONS

Please refer to the tables in the section "CONNECTIONS" of the Instruction Manual for the ECA-102.

Cautions

1. Keep the set away from shock and vibration. Be sure not to place it on a speaker baffle.
2. As it is subject to induction from the power transformer, it is advisable to install it in a place as far away from the power transformer of the connected amplifier and as free from hum and noise as possible.
3. Set the connected master amplifier to the mode TAPE MONITOR.
4. Be sure not to push the TAPE PLAY switch when you monitor a recording on a 3-head tape deck.
5. Set the LINE TAPE VOLUME knob to MAX for normal operations.



OPERATIONS

A. Controls

1. Power switch

Power is controlled by a pushbutton type switch. Push it once for "ON" and again for "OFF".

2. Reverberation time control knob

This sliding type control knob regulates the amount of reverberation time from anywhere between 0 and 3 seconds.

3. Reverberation indicator

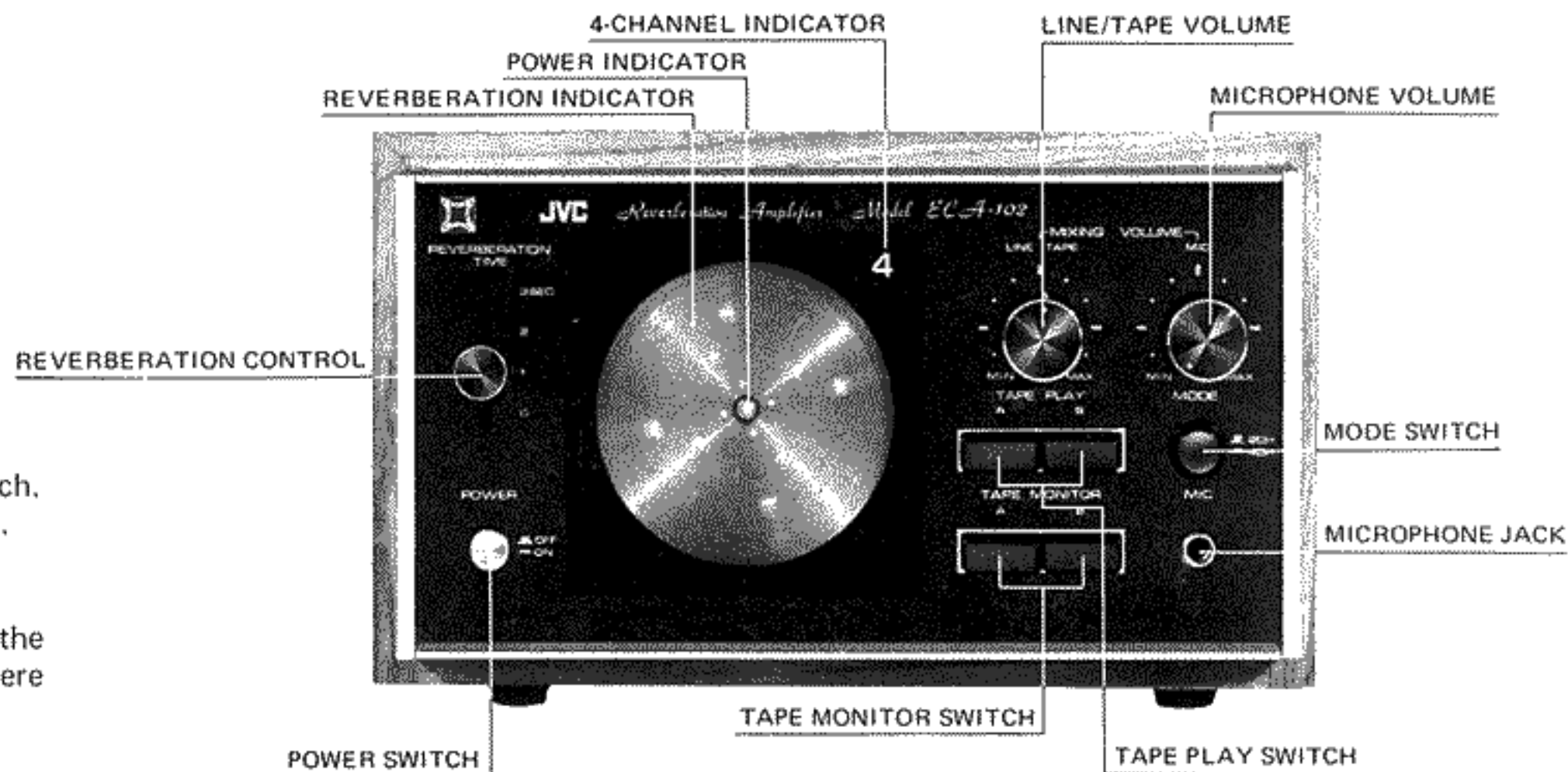
The extent of reverberation is indicated on the center dial by a green geometrical figure, which varies according to the reverberation time. A central, bright red "rabbit eye" indicator lamp lights up whenever the unit is in operation.

4. Microphone jack

By connecting a microphone to this jack input mixing is possible with the line or tape signals. Adjust the respective volumes as desired with the MIC and LINE/TAPE volume control knobs. The amount of reverberation applied can be regulated by using the sliding REVERBERATION TIME control knob.

5. Line/Tape mixing volume control knob

The input signal volume from both line and tape is controlled with this knob. During normal use it is set in the MAX position but should be adjusted accordingly when you are input-mixing with the microphone.



6. Microphone mixing volume control knob

The microphone's input signal volume is controlled with this knob. When the microphone is not in use it should be set in the MIN position.

7. Mode switch

This is a pushbutton, 2-channel/4-channel selector switch. When pushed in to the 4CH position the unit becomes a simulated 4-channel composer, reproducing a dynamic sense of concert hall presence. However, during 2-channel reproduction it becomes a reverberation on-off switch. When the set is operating as a simulated 4-channel composer, number 4 appears at the upper right of the reverberation indicator.

8. TAPE PLAY A & B pushbutton switches

Either or both of the decks connected to the

unit are selected by using these pushbutton switches. When line inputs are used both these buttons should be in the off position. The following are examples of various switch positions for reproducing line input signals and TAPE A or B recording and playback.

9. TAPE MONITOR A & B pushbutton switches

These pushbutton switches have been provided especially for the purpose of monitoring the recording process on 3-head tape decks. When these switches are depressed, the input signals to the TAPE MON. terminals on the rear panel come through the output terminals without any reverberation.

When you want to monitor the recorded sound, set the buttons as tabulated. In this case, the TAPE PLAY buttons should be released.

B. How to operate the TAPE PLAY and TAPE MONITOR pushbutton switches

Any type of tape deck can be connected to this unit regardless of whether it is an open reel, cassette or cartridge model. Whenever reverberation is not required, set the time control knob to "0", or in the case of 2-channel reproduction release the mode button. Microphone mixing is possible except when either of the TAPE MONITOR buttons are depressed.

1. To add reverberation to the ECA-102's input signals.

	TAPE DECK A B	TAPE PLAY A B	TAPE MONITOR A B
Without Recording	— —	OFF OFF	OFF OFF
When Recording on TAPE DECK "A"	REC —	OFF OFF	OFF OFF
When Recording on TAPE DECK "B"	— REC	OFF OFF	OFF OFF
When Recording on TAPE DECK "A" & "B" Simultaneously	REC REC	OFF OFF	OFF OFF

2. To add reverberation to the TAPE DECK's playback sound

	TAPE DECK A B	TAPE PLAY A B	TAPE MONITOR A B
TAPE DECK "A"	P/B —	ON OFF	OFF OFF
TAPE DECK "B"	— P/B	OFF ON	OFF OFF

3 Tape reprinting with reverberation

	TAPE DECK A B	TAPE PLAY A B	TAPE MONITOR A B
A → B Reprinting	P/B REC	ON OFF	OFF OFF
B → A Reprinting	REC P/B	OFF ON	OFF OFF

4. Using 3-head tape decks with reverberation

	TAPE DECK A B	TAPE PLAY A B	TAPE MONITOR A B
TAPE "A" MONITOR	MONIT. —	ON OFF	OFF OFF
TAPE "B" MONITOR	— MONIT.	OFF ON	OFF OFF
Recording on TAPE "A"	REC —	OFF OFF	OFF OFF
Recording on TAPE "B"	— REC	OFF OFF	OFF OFF
TAPE DECK "A" RECORDING MONITORING	REC —	OFF OFF	ON OFF
TAPE DECK "B" RECORDING MONITORING	— REC	OFF OFF	OFF ON

TAPE A → B and TAPE B → A signifies reprinting from one tape deck to the other and vice versa. Individual and simultaneous recording on either or both decks is possible by simply setting them to their respective recording modes. When making such recordings the mixing volume control should be adjusted as required.

Of the tables, the columns "TAPE DECK" indicate the operation modes of the tape decks connected to the ECA-102, and the columns "TAPE PLAY" and "TAPE MONITOR" indicate the settings of the respective knobs on the front panel of the ECA-102.

SPECIFICATIONS

SOLID STATE 4 CHANNEL REVERBERATION AMPLIFIER

Reverberation System	: Double pickup system
Frequency Response	: 20 – 40KHz \pm 2dB at rev. time min. 20 – 40KHz \pm 10dB at rev. time max.
Signal to Noise Ratio	: 70dB at 1KHz, 0.775V output
Harmonic Distortion	: Less than 0.2% at 1KHz, 0.775V output
Reverberation Time	: 0 – 3 sec. variable
Delay Time	: 25 \pm 5m second
Max. Input Voltage/ IMPEDANCE	: 2.5V/27K Ω at 1KHz
POWER Consumption	: 10W
Power Source	: AC 100, 120, 220, 240V Selectable 50, 60Hz
Dimension	: W 9-5/8", H 5-7/8", D 13-3/4"
Weight	: 10 Lbs.

Reverberation Mode Selector 4CH/2CH (2CH ON/OFF)
Function Selector Tape Play(A/B), Tape Monitor(A/B)
Mixing Control Line(or Tape), Microphone



PRINTED IN JAPAN
E 30580 - 291A