

LLC-8000A System

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

LLC-8000A LL Control Console

ER-8020 Educational Recorder

EA-80 Educational Amplifier

WARNING

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

For the customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

Pour les utilisateurs au Canada

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Für Kunden in Deutschland

Dieses Produkt kann im kommerziellen und in begrenztem Maße auch im Industriellen Bereich eingesetzt werden. Dies ist eine Einrichtung, welche die Funk-Entstörung nach Klasse B besitzt.

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Notice

To expand system functions

The following options allow you to expand the system functions of the LLC-8000A:

- **MLS-8000A Companion Software**
Provides the graphical interface that allows the LLC-8000A to be controlled by a personal computer.
- **LU-800B Conference Board**
Wiring board to hold the random pair practice and conference practice for up to 32 students.
- **LU-801B Conference Board**
Wiring board to hold the random pair practice and conference practice for up to 64 students.

For detailed information on how to control the LLC-8000A using the MLS-8000A, to hold the random pair practice or random group conference practice, refer to the on-line manual of the MLS-8000A or the Getting Started Guide supplied with the MLS-8000A.

Features

The LLC-8000A system is a language laboratory system (abbreviated to “LL system”) that enables an instructor to control up to 64 students.

The system, which has the following functions, allows the instructor to conduct an effective classroom lesson.

Four cassette tapes for program

The LLC-8000A is equipped with four master recorders. These tapes are called “Program 1”, “Program 2”, “Program 3”, and “Program 4”. Students can listen to tapes through a headset or a room speaker.

Video equipment for program source

You can connect up to three pieces of video equipment such as a VTR, or a video presentation stand. You can select the desired video equipment from the control console.

Assigning programs

Students can be assigned to work with Programs 1, 2, 3 or 4, or they can study other tapes independently in library mode. These five options can be assigned to students separately during the same lesson.

Various types of lessons

The system offers the following types of lessons.

Model function: One or more students can act as a model for pronunciation practice or conversation practice, with all students or a group listening.

Pairing function: Students can converse using their headsets in pairs by seat assignment. The students can thus practice in conversational situations.

Conference function: Students within a group communicate with each other using their headsets .

Library function: Students assigned in library mode can study independently at their own pace, using different program sources.

Easy setting of lesson pattern

You can select only frequently used functions and register them as a lesson pattern. You can set up to five kinds of lesson patterns. This is useful as you can start the next lesson with the same settings just by selecting the desired pattern number.

High speed program recording

A program can be recorded at double the normal recording speed from the master recorder to student recorders, or from Master Recorder 1 to Master Recorder 2.

Simple testing analyzer

With the analyzer function, you can conduct tests from the master recorder and the students answer using their student recorders. The counter on the control console indicates the number and the percentage of students giving answers, as well as the test number. The monitor lamps on the control console indicate which students have answered, and those who have answered correctly. You can monitor the students’ progress.

System flexibility

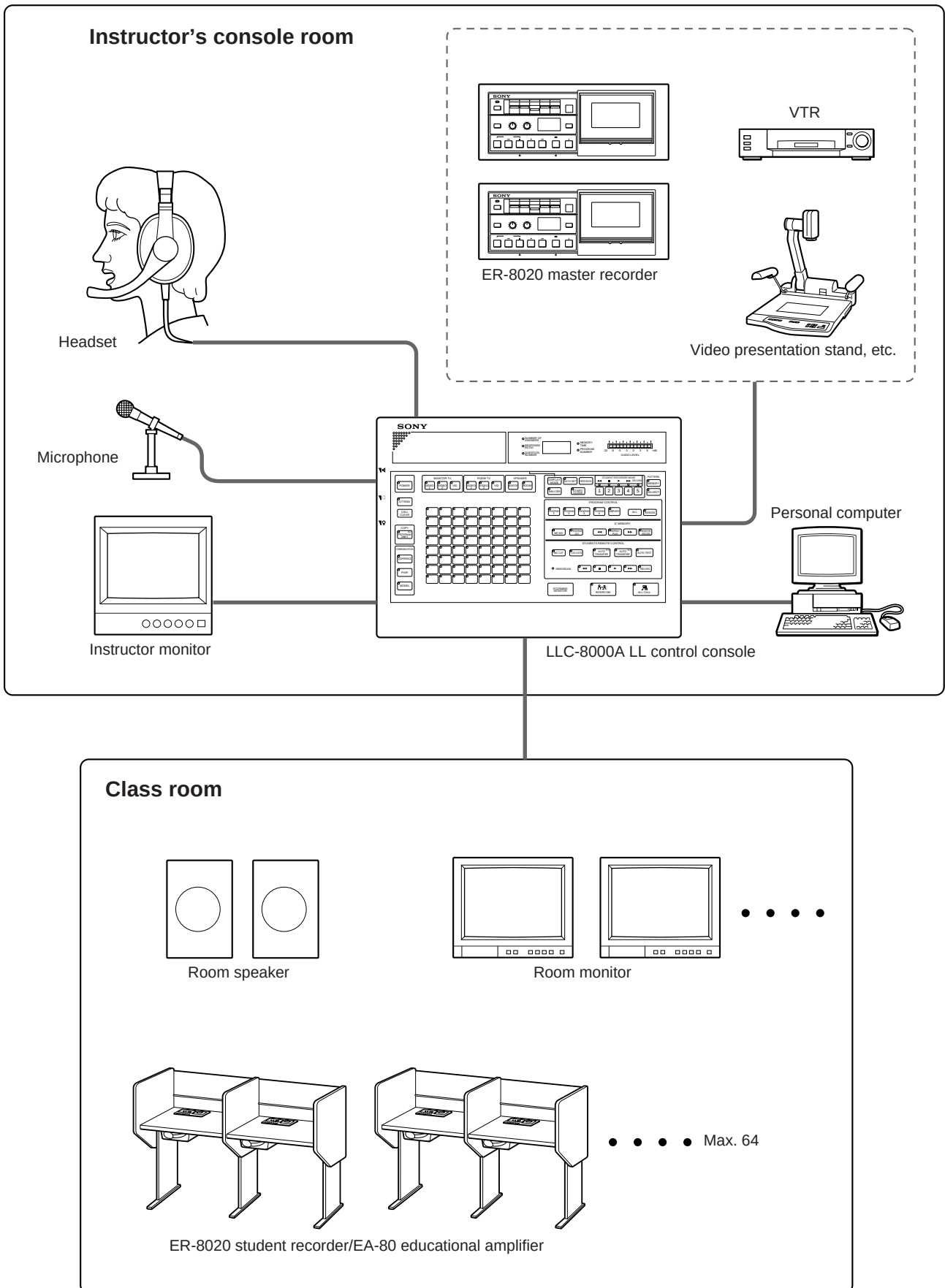
The system can accommodate up to 32 students as standard. You can expand the system to accommodate up to 64 students by using two LU-816A expansion boards (not supplied).

About the ER-8020 educational recorder (called also “master recorder” or “student recorder” in this manual) and the EA-80 educational amplifier

The explanation in this manual assumes a system where the ER-8020 student recorders are used in the booths.

In a system where the EA-80 educational amplifier is used instead of the ER-8020 student recorder, substitute EA-80 educational amplifier for ER-8020 student recorder. The manual clearly identifies and describes differences between the EA-80 educational amplifier and ER-8020 student recorder.

System Configuration



Safety Precautions

Power supply

- Operate the unit only with a power source specified in “Specifications” in Appendix.
- To turn off the power of the system, set the POWER switch of the LLC-8000A control console to off first, then turn off the AC power distribution box.
- While operating the control console, if there is any trouble, turn off the the AC power distribution box immediately and contact your Sony dealer or local authorized Sony service facility.

Safety precaution on the ER-8020 master recorder/student recorder/EA-80 educational amplifier

The ER-8020/EA-80 is turned on or off by setting the POWER switch of the LLC-8000A control console to ON or OFF. The power cannot be turned on or off by using the ATTENDANCE button of the ER-8020/EA-80.

To prevent a fire hazard or severe injury, pay attention to the following.

When the ER-8020/EA-80 does not work correctly, set the POWER switch of the LLC-8000A to OFF and remove the connecting cord from the ER-8020/EA-80. Then ask your Sony dealer or local authorized Sony service facility to repair it. Do not remain the damaged unit as it is.

For detailed of how to remove the ER-8020/EA-80, contact your Sony dealer or local authorized Sony service facility.

Keep foreign objects out of the cabinet

Dropping flammable or metal objects into the cabinet, or spilling liquids nearby, can lead to accidents.

Handling Precautions

In case of malfunction

If you notice any unusual sound, smell or smoke, turn off the power immediately, disconnect the power supply and contact your Sony dealer.

Location

Do not store or use the unit under any of the following conditions:

- In excessive heat or cold; permissible temperature range: 5°C to 35°C (41°F to 95°F).
- In direct sunlight or near heaters.
- In damp or dust locations.
- In location subject to vibration
- Near strong magnetic fields
- Near television or radio stations generating strong radio frequency energy.

Protect from impacts

Do not drop the unit or subject it to severe shocks.

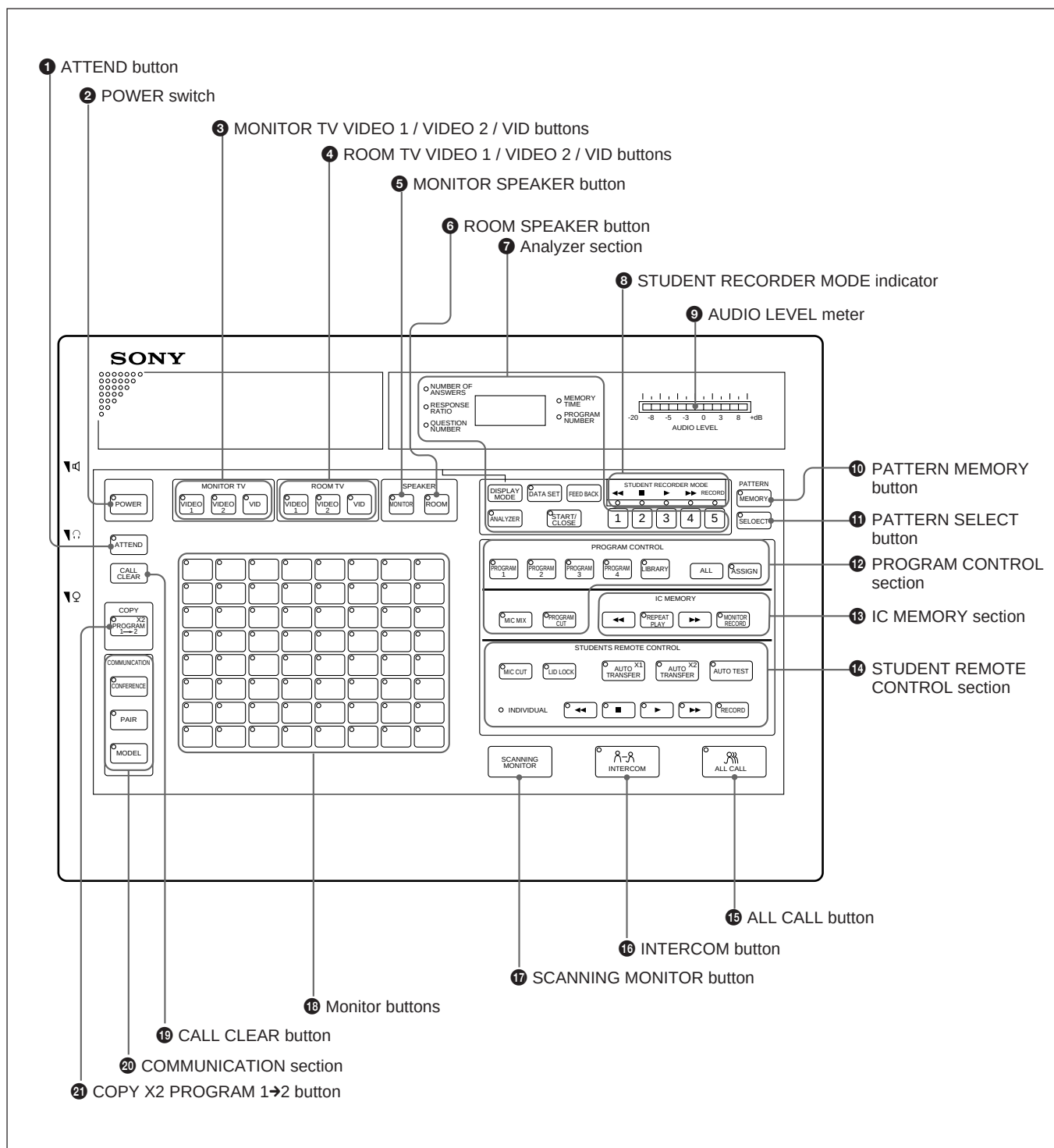
Keep well ventilated

To prevent the temperature from rising inside the unit, keep the unit uncovered and well ventilated while in operation.

Location and Function of Parts and Controls

LLC-8000A LL Control Console

Front



1 ATTEND button

Press this button to simultaneously turn on all the student recorders. The lamp on this button turns red and the lamps of the monitor buttons turn green when you press this button.

To turn off the recorders of absent students, press the ATTEND button again. The lamp blinks. Then press the monitor buttons of the absent students' recorders so that the monitor button lamps go out. Finally, press the ATTEND button again. The lamp stops blinking and stays lit.

2 POWER switch

Switch the system power on. When you press this switch, the software version appears and blinks in the display for about three seconds. Then the control console and the master recorders turn on.

3 MONITOR TV VIDEO 1/VIDEO 2/VID buttons

Select the desired output to the monitor TV display. Press the button corresponding to your desired output. The lamp on that pressed button lights.

4 ROOM TV VIDEO 1/VIDEO 2/VID buttons

Select the desired output to the room TV display. Press the button corresponding to your desired output. The lamp on that pressed button lights.

5 MONITOR SPEAKER button

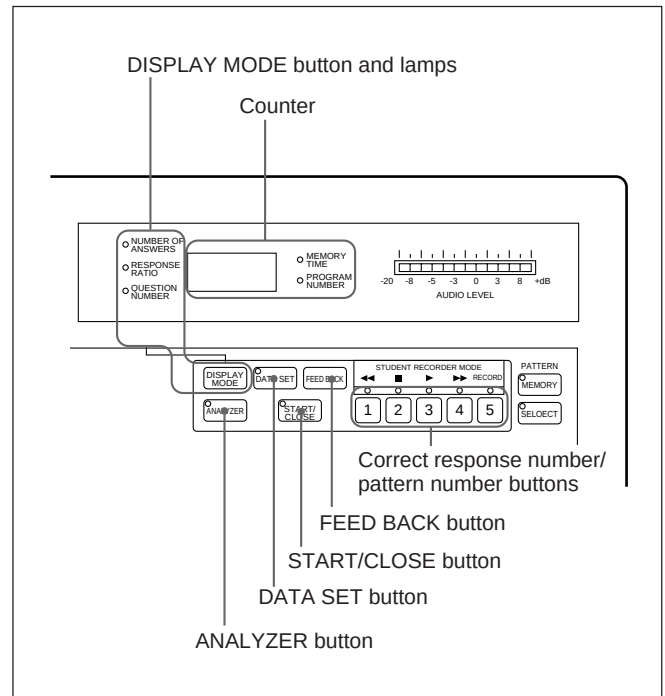
Press this button to listen to a student's voice or a program being monitored through the monitor speaker. Press again to turn off the monitor speaker.

6 ROOM SPEAKER button

Press this button to turn on the room speaker. The student's voice or program that the instructor is currently hearing through the headset can be heard through the room speakers. Press this button again to turn off the room speakers.

7 Analyzer section

Used to perform an analyzer test.



DISPLAY MODE button and lamps

Selects the information to be displayed in the counter. Every time you press the DISPLAY MODE button, the display changes in the order NUMBER OF ANSWERS→RESPONSE RATIO→QUESTION NUMBER...and the lamp corresponding to the selected display lights.

Lamp	Information displayed
NUMBER OF ANSWERS	Number of students who responded
RESPONSE RATIO	Ratio of number of students who responded to number of students
QUESTION NUMBER	Number of current question

Location and Function of Parts and Controls

Counter

Changes the information displayed according to the currently selected system mode.

In analyzer mode: Displays the information according to the item selected by the DISPLAY MODE button.

For details, see “DISPLAY MODE button and lamps”.

In LL mode: Displays the following.

When the MEMORY TIME lamp is lit; Time remaining in the control console for recording the program in memory by pressing the MONITOR RECORD button in the IC MEMORY section. Playback time when playing back the program stored in memory by pressing the REPEAT PLAY button.

When the PROGRAM NUMBER lamp is lit, the group to which the monitored student belongs is displayed.

ANALYZER button

Press this button to perform the analyzer test. When you press this button, the ANALYZER SET button lamp and DATA SET button lamp turn red and correct response buttons 1 to 5 blink and the system enters analyzer mode.

DATA SET button

Press this button to set the correct answer of the test. When the DATA SET button lamp turns red, you can set the correct answer of the test by using the response number buttons.

START/CLOSE button

Press this button to start the analyzer test.

When you press this button, its lamp turns red and the monitor lamps corresponding to attendant students blink in green.

To close the analyzer test, press this button again.

FEED BACK button

Used to inform students that their responses were correct. On the ER-8020 student recorder, pressing and holding this button causes the correct answer number to blink on the counter of the student recorder. On the EA-80, pressing and holding this button causes the RESPONSE indicator corresponding to the correct answer to blink rapidly. On the other hand, in the console, the monitor buttons of the students who gave the correct answer blink in green. In the counter of the control console, the correct answer number is displayed.

Correct response number/pattern number buttons

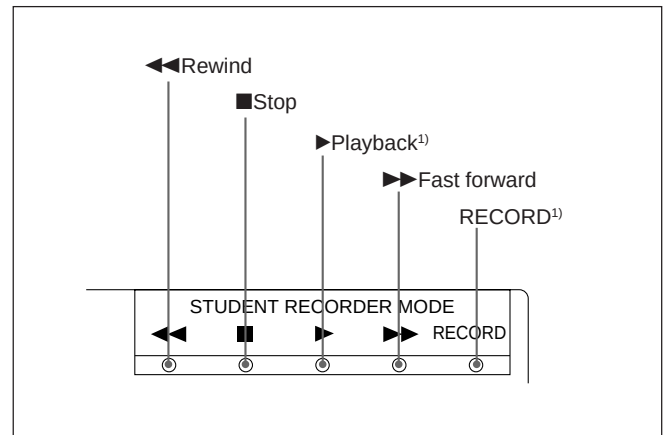
In analyzer mode: Used to set the correct answer of the test.

In pattern setting mode: Used to set the pattern number.

8 STUDENT RECORDER MODE indicator

Indicates the operation mode of each student recorder as illustrated while the student is being monitored.

This STUDENT RECORDER MODE indicator does not function when the EA-80 is used.



1) When the student is recording for his/her practice, the RECORD lamp lights. When the program is being automatically recorded on the student recorder by the remote control from the console, RECORD and ► lamps light.

9 AUDIO LEVEL meter

When the instructor's headset unit, room speaker or monitor speaker are used, this meter indicates the output level of each item of equipment.

When only the instructor's microphone is used, this meter indicates the input level of this microphone or the microphone of the headset unit.

10 PATTERN MEMORY button

Press this button to set lesson patterns in which you can register frequently used functions.

When you press this button, its button lamp lights and the correct response number/pattern number buttons in the Analyzer section blink in red. You can set up five kinds of patterns.

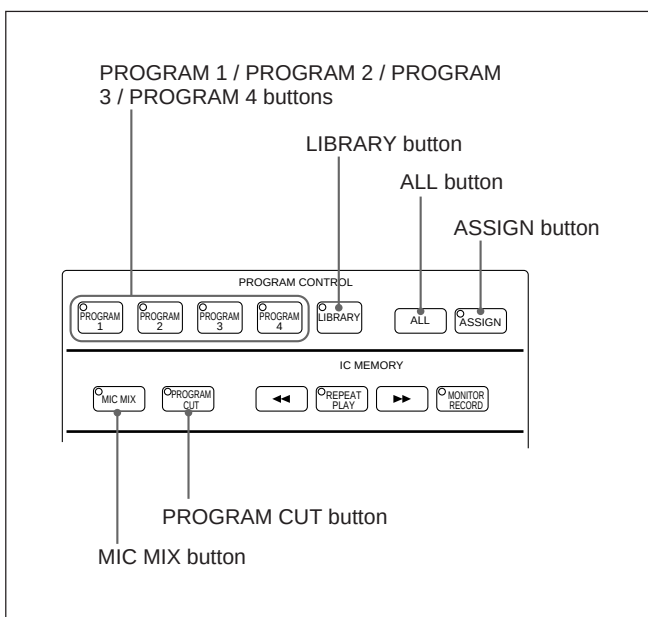
11 PATTERN SELECT button

Press this button to select the pattern number. When you press this button, its lamp turns red and the correct response number/pattern number buttons to which the patterns have been registered. Press the desired pattern number.

Note

After you press the ATTEND button, the PATTERN SELECT button is disabled.

12 PROGRAM CONTROL section



PROGRAM 1 / PROGRAM 2 / PROGRAM 3 / PROGRAM 4 buttons

The functions of these buttons depend on the setting of the ASSIGN button.

When the ASSIGN button is ON: Used to divide students into groups. When you press the ASSIGN button, the lamp of the program button that was selected before you press the ASSIGN button blinks and the monitor buttons of students who belong to that program group turn red. In this condition, you can assign the students to the selected group.

When you use this system for the first time, all students are assigned in the PROGRAM 1 group.

When you press the ASSIGN button, the PROGRAM 1 button lamp blinks and the monitor buttons turn red.

When the ASSIGN button is OFF: Press the program button which you want to control. You can control the following functions for the selected group.

- MIC MIX
- PROGRAM CUT
- Buttons in the STUDENT REMOTE CONTROL section

LIBRARY button

This button functions when the ASSIGN button is ON. Press this button to assign the students to library mode. Press this button, then press the monitor button of the student you want to assign to library mode. The monitor button of the student assigned to library mode turns red.

ALL button

This button functions when the ASSIGN button is ON. Press this button to assign all students to the same group. When you press this button while condition where one of PROGRAM 1/PROGRAM 2/ PROGRAM 3/PROGRAM 4/LIBRARY is blinking, all students are assigned to that group and their monitor lamps turn red.

ASSIGN button

Press this button to divide students into the groups. When you press this button, the lamp of the program button which was lit before you pressed the ASSIGN button blinks in red, and the monitor buttons of the students assigned to that group light in red.

When you press the ASSIGN button again, its lamp goes out, and the blinking program button lights. The color of the buttons of the students assigned to that group change from red to green.

MIC MIX button

Press this button to mix the instructor's voice with Program 1, 2, 3, or 4, or to transmit the instructor's voice only as a program.

PROGRAM CUT button

Press this button to cut a program so that students cannot hear the tape when cuing.

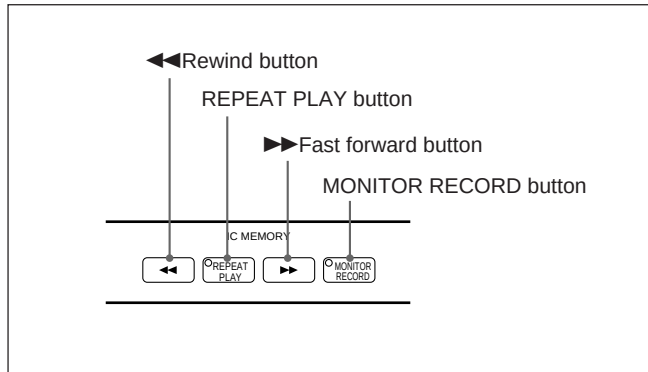
When you press this button, its lamp lights and the students cannot hear the currently selected program.

When you press this button again, the students can hear the program again.

Location and Function of Parts and Controls

13 IC MEMORY section

Used to store the program monitored through the headset in memory, and control the program in memory.



◀◀ Rewind button

The program in memory is rewound while holding down this button. The program playback starts again when you release the button.

REPEAT PLAY button

Press this button to let the students hear the program in memory.

When you press this button, the top of the program in memory is played back and at the end of the program, playback stops automatically and the button lamp goes out. The program in memory can be transmitted to the students together with the currently selected program.

▶▶ Fast forward button

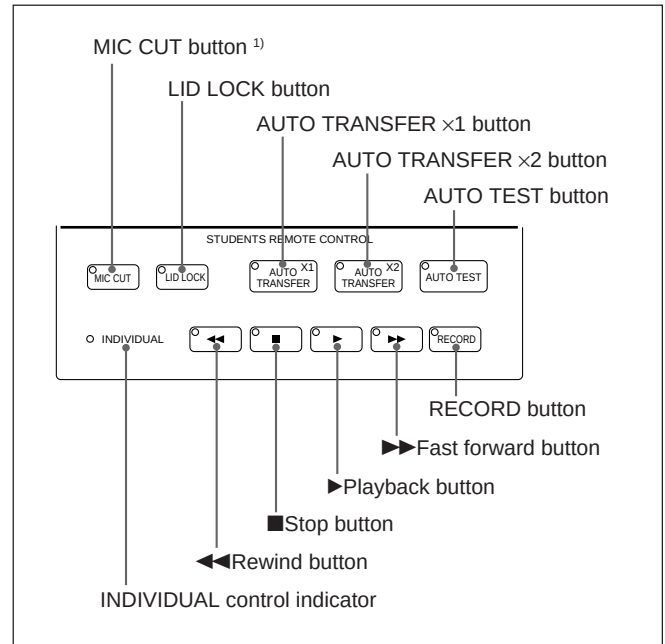
The program in memory is fast-forwarded while holding down this button. The program playback starts again when you release the button.

MONITOR RECORD button

Press this button to record the program that the instructor is monitoring into the memory of the control console. When you press this button, its lamp lights in red and the program is recorded for up to 32 seconds. If some program was stored in memory beforehand, the new program overwrites this.

14 STUDENT REMOTE CONTROL section

Used to remotely control the student recorders or programs from the console.



1) When the EA-80 is used, only this MIC CUT button is activated. The remaining buttons are deactivated.

MIC CUT button

Press to turn off the microphones on the students' headset units.

When you press this button, its lamp turns red.

You can use this button to record a program without students' voices. When you press this button again, the lamp goes out and the microphones are turned on.

LID LOCK button

Press this button to lock of the lids of the student recorders. When you press this button, the lids of the recorders of students who belong to the currently selected group are locked.

When you press this button again, its lamp goes out and the students can open the lids of their recorders.

AUTO TRANSFER x1 button

Press this button to automatically play back the master tape after rewinding the student tapes or from the current tape position, and to begin recording the program on the student recorders.

AUTO TRANSFER ×2 button

Press this button to automatically play back the master tape after rewinding the student tapes or from the current tape position, and to begin recording the program on the student recorders at double the normal recording speed.

AUTO TEST button

Press this button to give the test in auto test mode. When you press this button, its lamp lights and the student recorders stop when the master recorder is playing back. When the master tape stops playback, the student recorder starts recording. Use this auto test function to record only the student's voice when the student answers the question.

INDIVIDUAL control indicator

Is lit when the instructor is talking with a student (the lamp of the INTERCOM button is also lit), and indicates that the instructor can control the recorder of that student by using ◀◀Rewind, ■Stop, ▶Playback, and ▶▶Fast forward, excluding the RECORD button. Individual control does not function if a program is being transferred to the student the instructor is talking with.

◀◀Rewind button

Press this button to rewind the tape in the student recorder.

■Stop button

Press this button to stop the tape in the student recorder.

▶Playback button

Press this button to play back the tape in the student recorder.

▶▶Fast forward button

Press this button to fast forward the tape in the student recorder.

RECORD button

The button lamp blinks when you press this button. To start recording, press the playback button when the RECORD lamp is blinking. When the student recorder is individually controlled (when the INDIVIDUAL control indicator is lit), this RECORD button does not function.

15 ALL CALL button

Press this button to speak with a monitored or calling student using the microphones.

16 INTERCOM button

Press this button to speak with a monitored or calling student. Press again when the conversation is finished.

17 SCANNING MONITOR button

Press this button to monitor students' practice according to the seating chart order. The seating chart order runs horizontally or vertically. This seating order is determined by setting the lesson pattern. You can monitor the students' practice sequentially at 0.2 second intervals if you press this button for longer than one second. When the students are divided into groups, you can monitor students' practice by groups. If you press this button while monitoring the student practice, you can monitor the students in the groups to which they belong.

18 Monitor buttons

Press the button to select a student to monitor. The following table shows the relationship between the button lamp color and lighting condition.

Location and Function of Parts and Controls

Lighting condition	Color of the lamp	Meaning
Lit	Green	Indicates the following: The student is attendant. The tape is rewound to the top of the tape in the recorder of that student. In group assignment, that student is not assigned to the selected group. In analyzer mode, the student pressed the response button after the START button was pressed to start the test. In analyzer mode, the student pressed the response button corresponding to the correct response button, among buttons 1 to 5, that the instructor pressed. In analyzer mode, the student pressed the wrong response button (while you kept pressing the FEED BACK button).
	Red	Indicates the following: The instructor monitors his/her practice, or speaks with that student by pressing the INTERCOM button. In group assignment mode, that student is assigned to that group.
Blinks	Green	Indicates the following: The tape is rewound in the recorder of that student. In analyzer mode, that student does not press the response button even after the test is started by pressing the START button. In analyzer mode, that student pressed the response button corresponding to the correct answer (while you kept pressing the FEED BACK button).
	Red	Indicates the following: That a student is calling. The tape is not set in the recorder of that student ¹⁾ .

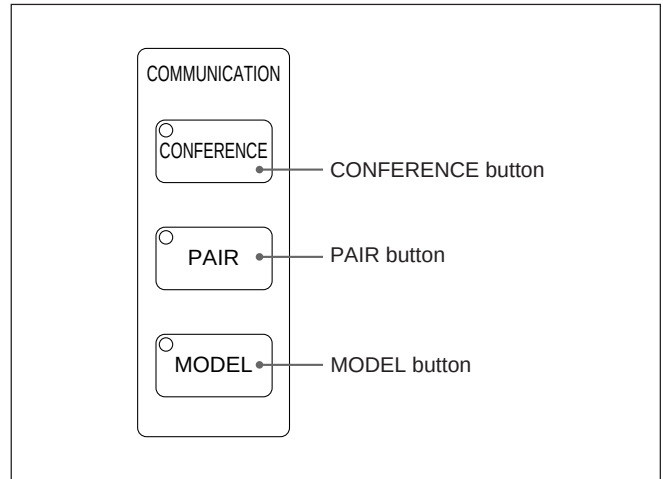
- 1) During recording, automatic recording in normal speed or automatic recording in double-speed, when a student in the same group calls, the “no-tape” error occurs and the monitor button lamp of the calling student blinks when recording is finished.
When a student in a different group calls, both monitor lamps blink.

19 CALL CLEAR button

Press this button to clear a call from a student. By pressing this button while multiple students are calling, all calls are cleared.

20 COMMUNICATION section

Used to set lesson type.



CONFERENCE button

Press this button to form a conference group.
To select the group members, press this button, then press the monitor buttons of the students to be assigned to a conference group.
To exit conference mode, press this button again.

PAIR button

Press this button to let students work in pairs.
The pairs are determined by the horizontal seating order set at system installation.

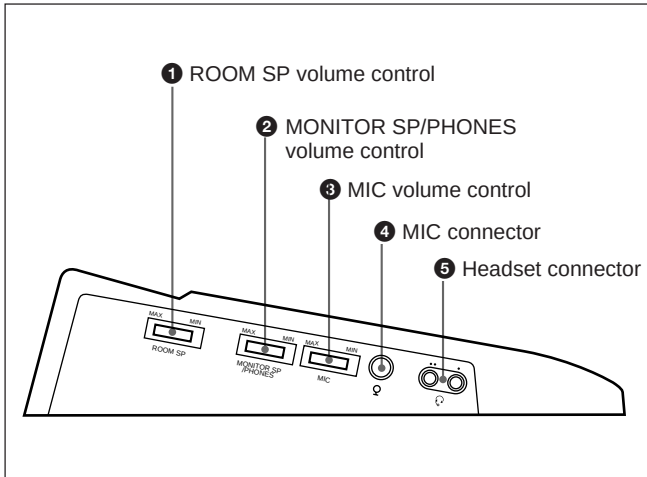
MODEL button

Press this button to transmit the model voice to the entire class.
To select the modes, press this button once, then press the monitor buttons of the students to be selected as a model.
To release the model voice mode, press this button again.

21 COPY ×2 PROGRAM 1→2 button

Press this button to begin copying a program from Master Recorder 1 onto the tape in Master Recorder 2 at double normal recording speed.

Side panel



❶ ROOM SP (speaker) volume control

Adjusts the volume of the room speaker.

❷ MONITOR SP (speaker)/PHONES volume control

Adjust the volume of the monitor speaker and headset.

❸ MIC volume control

Adjusts the input level of the microphone of the headset and external microphone.

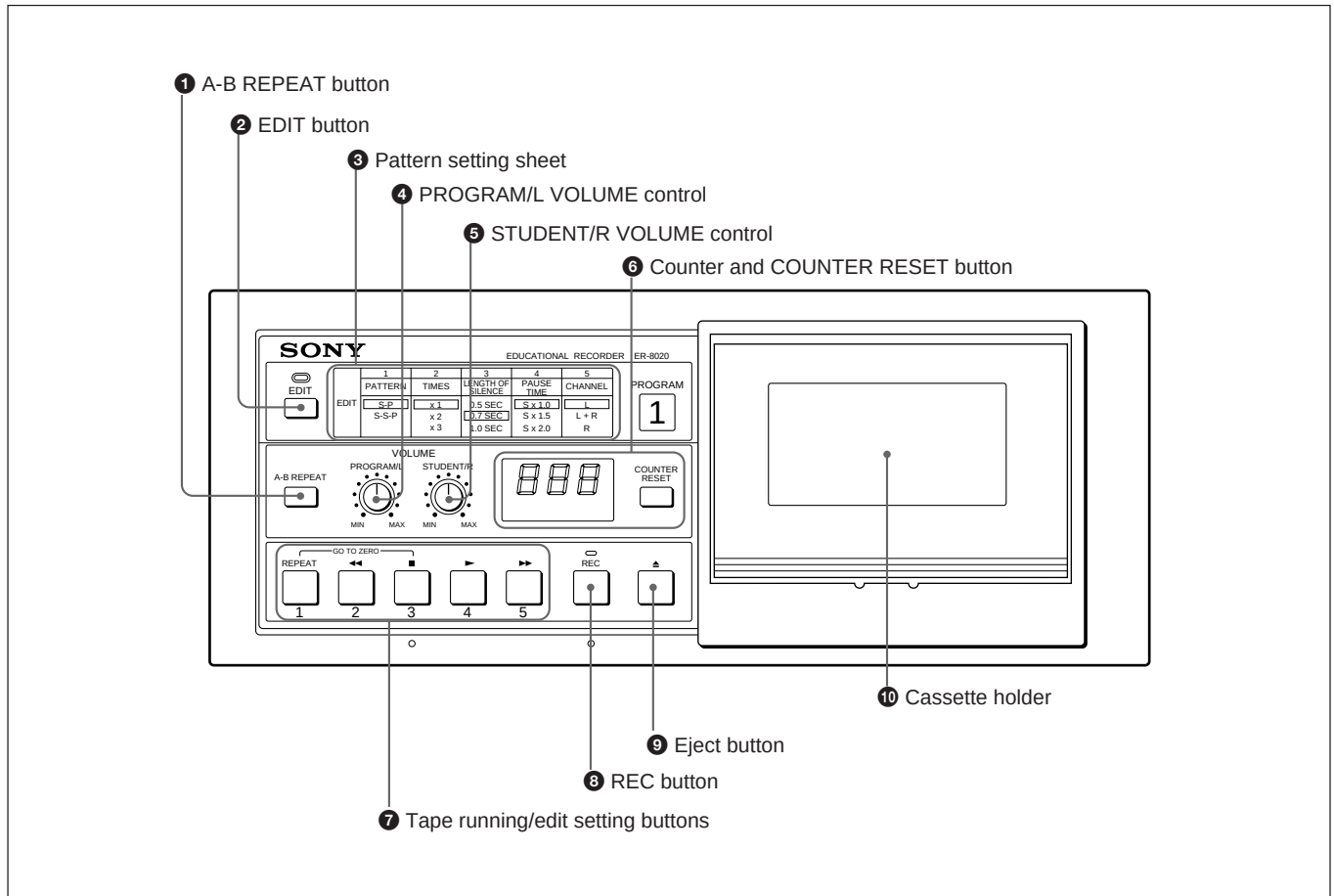
❹ MIC connector

Connects to an external microphone.

❺ Headset connector

Connects to a headset unit.

ER-8020 Master Recorder



1 A-B REPEAT button

Press this button to repeatedly replay the desired section.

Press this button to mark the start and end points while the master recorder is in playback mode. The section between the two points can be played back repeatedly up to 10 times.

2 EDIT button

Used to edit an audio program tape. This is called “PME editing”.

Press this button to set the master recorder to PME editing mode.

By pressing the proper button among edit setting buttons 7 while holding down this button, you can perform various kinds of editing.

3 Pattern setting sheet

Indicates the functions set by using the EDIT button 2 and edit setting buttons 7. Functions indicated in white are default settings.

The pattern setting sheet indication will not change even if you change the pattern setting. You can see the current settings in the counter.

4 PROGRAM/L VOLUME control

Adjusts the output level of the sound recorded in channel L.

5 STUDENT/R VOLUME control

Adjust the output level of the sound recorded in channel R.

6 Counter and COUNTER RESET button

Indicates the position on the tape. Use this to cue up the tape.

Press the COUNTER RESET button to reset the tape counter to “000”.

When you press the COUNTER RESET button during A-B REPEAT playback ([-) is displayed in the tape counter) or playback in PME mode (SP or SSP is displayed in the tape counter), the current tape position appears in the tape counter.

7 Tape running/edit setting buttons

In normal operation: Used to control tape running.

Button	Function
REPEAT	Press this button to repeat a sentence which has just been played back while the master tape is in playback mode. Note The REPEAT button does not function if there is no sound during playing back. A break between sentences depends on the length of the silence and level of the signal recorded on the tape. You can change the length of silence. For details of how to set the length of the silence, see “Editing a Program Tape Using the Edit Function” on page 3-13.
◀◀Rewind	Press this button to rewind the tape in the student recorder. During playback, the tape is rewound only while this button is held down. The recorder returns to playback mode when the button is released.
■Stop	Press this button to stop the tape.
▶Playback	Press this button to play back the tape.
▶▶Fast forward	Press this button to fast forward the tape. During playback, the tape is fast forwarded only while this button is held down. The recorder returns to playback mode when the button is released.
■ + REPEAT (GO TO ZERO)	By pressing the ■ + REPEAT buttons simultaneously, the tape is reset to the position of 000 in the counter. Note The counter may indicate 999. This is because the tape stops just before the tape top so that the tape top will not cut.

In editor mode: Used to edit a program.

For details, see “Editing a Program Tape Using the Edit Function” on page 3-13.

8 REC button

Press this button and ▶ button simultaneously to begin recording.

9 Eject button

Press this button to open the cassette holder, and insert or remove a cassette tape.

10 Cassette holder

Insert a cassette tape.

Operating the EA-80 Educational Amplifier

Make copies of this page and hand out a copy to each student, if necessary.

Signing in

Press ATTENDANCE when instructed to do so by your instructor.

Note

You cannot sign out on your unit once you have signed in.

You can, however, use this button as a CALL button after you have signed in.

Calling the instructor

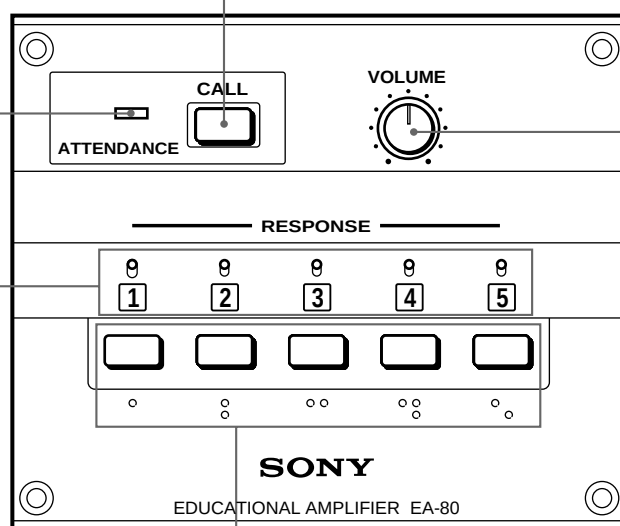
Press CALL.

The instructor will answer your call.

This indicator is lit after ATTENDANCE is pressed. However, it will begin to blink if you call the instructor by pressing the CALL button.

RESPONSE indicators

During analyzer test, these indicators blink.



Adjusting the sound volume

Rotate VOLUME until the optimum sound volume is obtained.

Headset

Put on the headset with the microphone to the left.



Position the microphone close to your mouth.

Taking an analyzer test

- 1 Listen to the question.
After the RESPONSE indicators begin to blink, you can start responding.
- 2 Press the RESPONSE button (1 to 5) that corresponds to what you think is the correct answer.
Only the RESPONSE indicator corresponding to the pressed button keeps blinking and remaining RESPONSE indicators go off.

To change your answer:

Press another button. The blinking RESPONSE indicator goes off and the RESPONSE indicator corresponding to the button just pressed starts blinking.

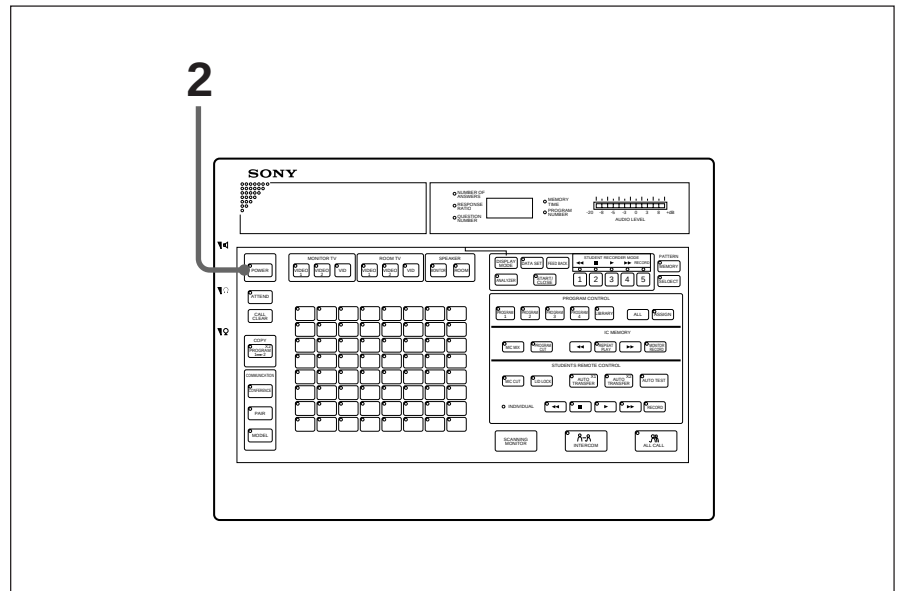
As long as the RESPONSE indicator corresponding to the pressed button is blinking, you can continue changing your answer.

When the blinking RESPONSE indicator corresponding to the pressed button lights

The instructor has closed the test. You cannot respond or make further changes.

- 3 Check the correct answer.
The instructor presses the button of the correct answer on the control unit.
The RESPONSE indicator corresponding to the correct answer blinks rapidly. When your answer is correct, the RESPONSE indicator corresponding to the pressed button blinks rapidly. When your answer is wrong, the RESPONSE indicator of your answer remains lit.

Turning the System Power On



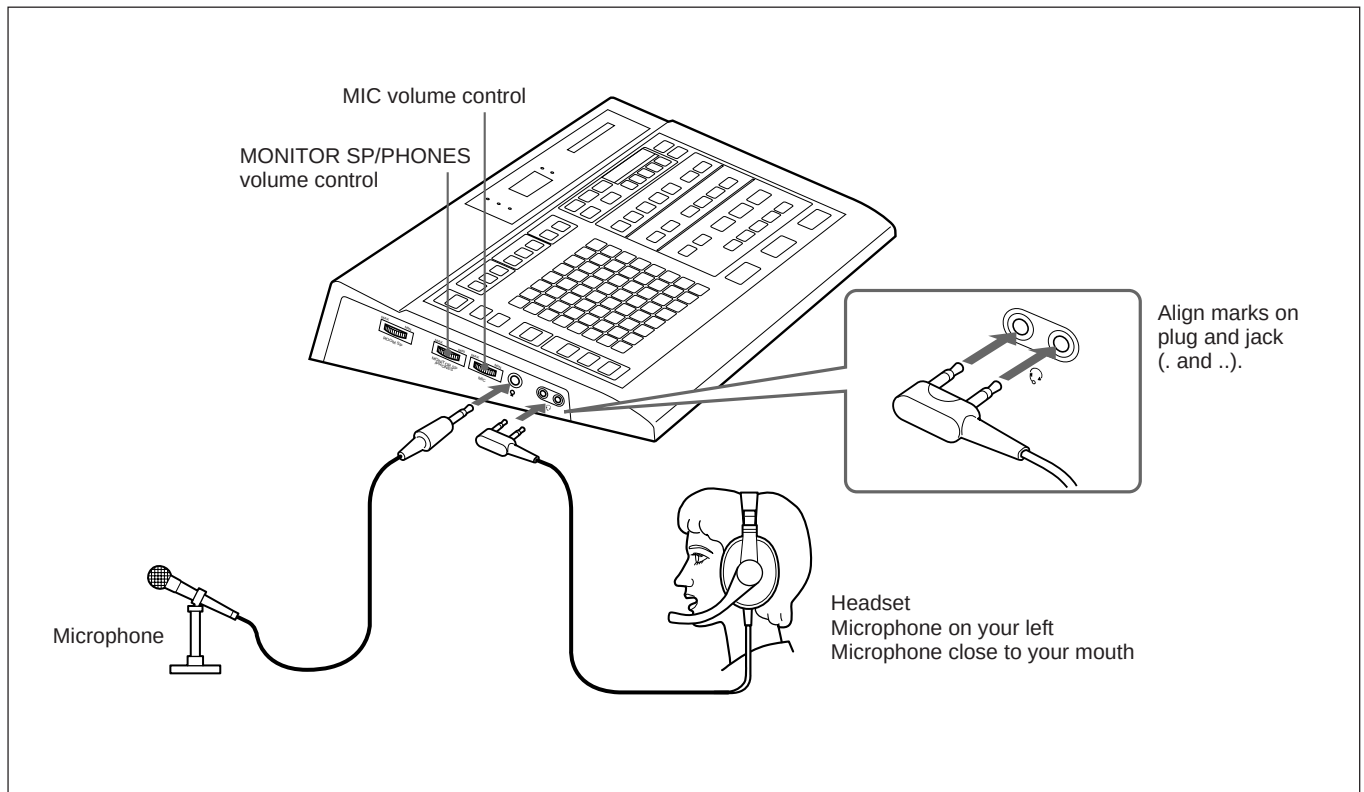
- 1** Turn on the switch of the AC power distribution box.
- 2** Press the POWER switch.
The lamp lights and the control console and the master recorders are turned on.

Note

After the system has been turned off, wait for more than 2 seconds before turning it on again.

Connecting the Headset and Microphone

Connect the headset and external microphone to the headset connector of the side panel of the control console. Adjust the volume.



When you connect the headset and an external microphone, you can use both microphones at the same time.

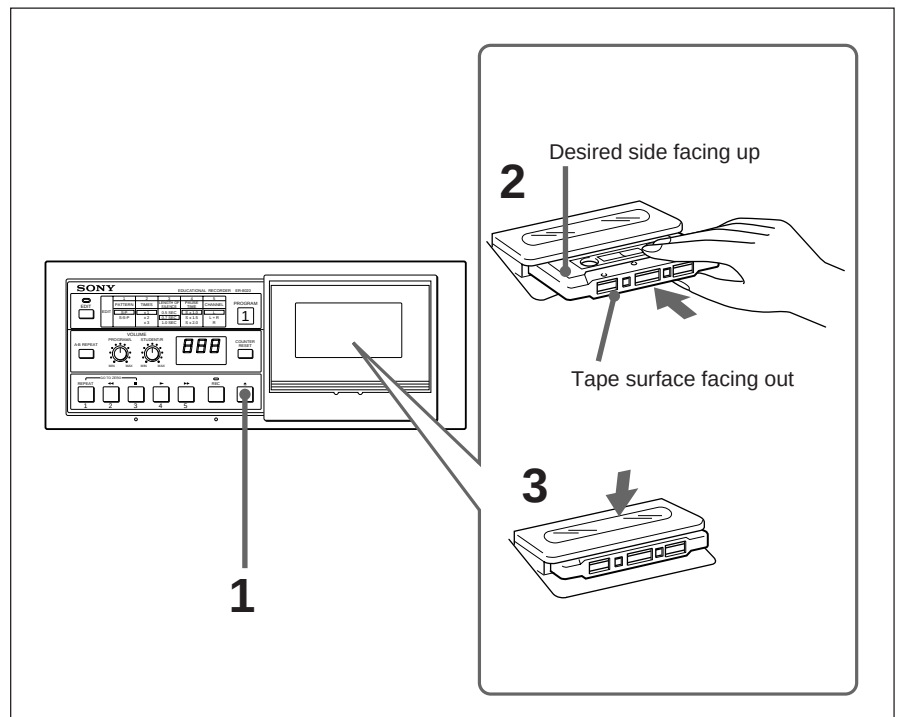
To adjust the microphone and headset

Adjust the microphone of the headset and external microphone using the MIC volume control and the earphones of the headset using the MONITOR SP/PHONES volume control on the side panel of the control console.

Basic Operation of the Master Recorder

The master recorder distributes the programs to the students' recorders. This section describes the basic operation of the master recorder. For detailed information on how to use master recorders, see "Using Master Recorders" on page 3-9.

Inserting a cassette tape



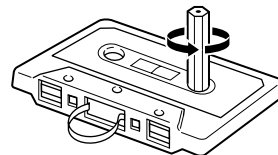
- 1** Press the  button.
- 2** Insert the cassette.
- 3** Push the lid down to close.

To eject the inserted cassette
Press the  button and remove the cassette.

Note

Remove any slack in the tape before use.

Use a pencil or some other such item.

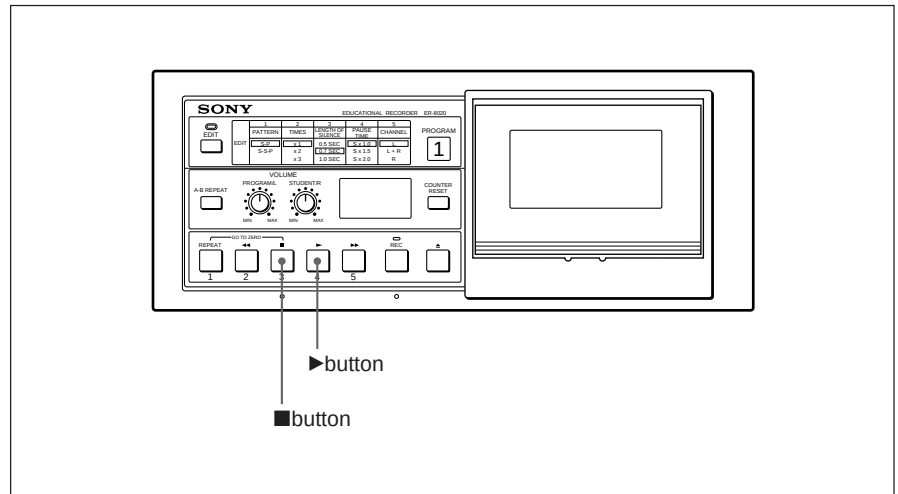


Preparation

To prevent accidental erasure

Break off the small tab at the rear of the cassette. When the cassette is installed with the tabs broken out, the REC button on the master recorder does not function.

Playing back a cassette tape



To play back a tape

Press the ▶button.

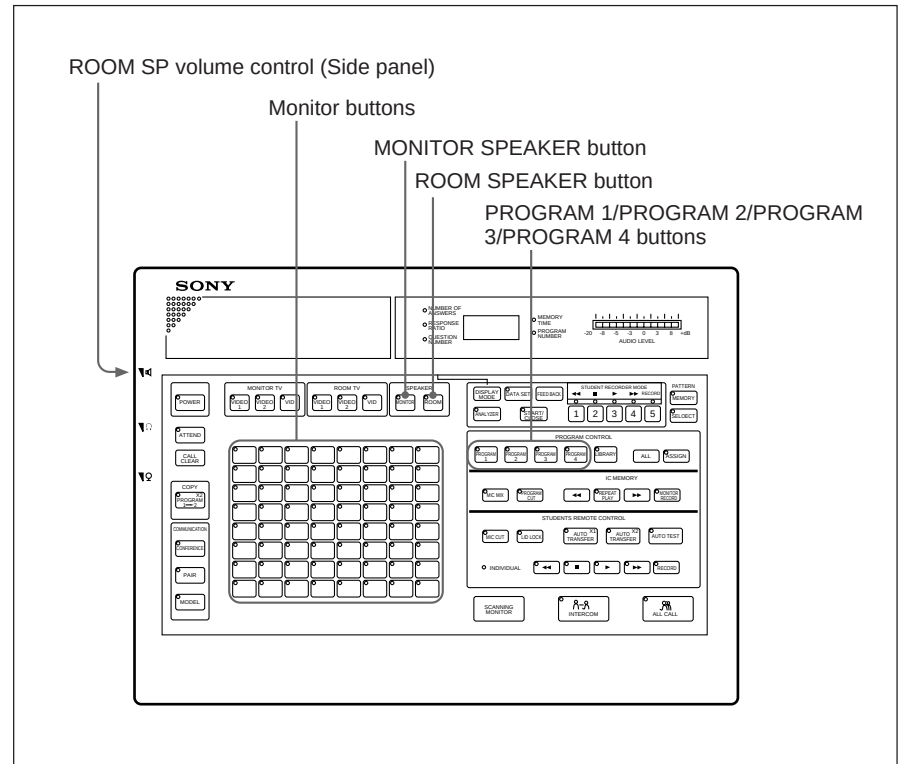
To play back the tape in PME editing mode, press the EDIT button on the master recorder so that its lamp is lit.

For detailed information on the PME editing, see “Editing a Program Tape Using the Edit Function” on page 3-13.

To stop the tape

Press the ■ button.

To monitor the tape through the headset or the monitor speaker



Press the desired program button so that its lamp lights. You can monitor the program through the headset. To monitor the program through the monitor speaker, press the MONITOR SPEAKER button. You can now also hear the program through the monitor speaker.

To hear the program through the room speaker

Press the ROOM SPEAKER button.

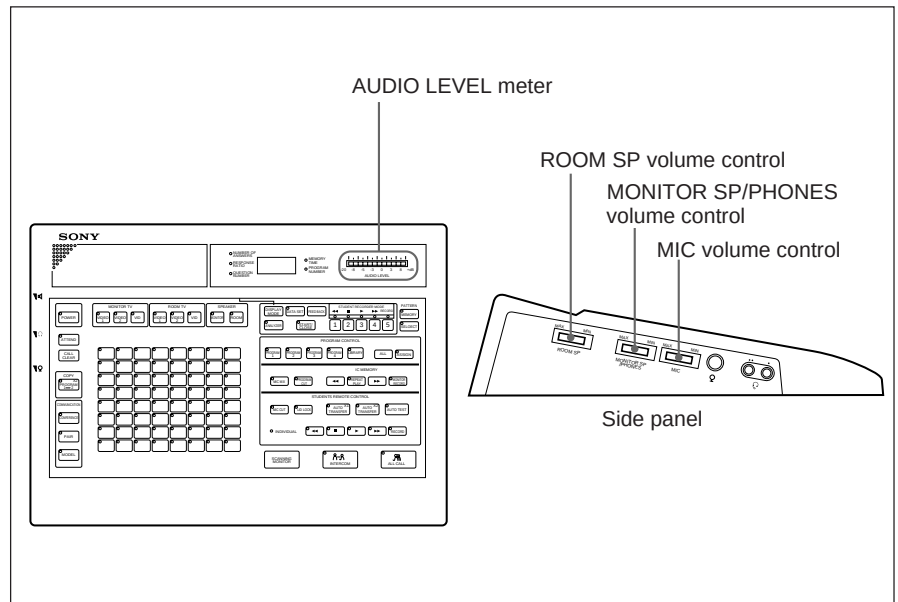
For details of how to adjust the volume, see “Adjusting the Sound Level” on page 2-6.

When you cannot monitor the tape even though you can hear the student’s voice

Check the monitor buttons of the students who belong to the group you want to monitor. Any monitor buttons with lamps that are red. Should be pressed again so that they turn green. When you monitor the student’s voice, you cannot hear the program.

Adjusting the Sound Level

To adjust the sound level of the speaker or microphones, use the following buttons.



To adjust the headset, monitor speaker and room speaker

Play back the tape on a master recorder. While listening to the sound, adjust the level for each.

To hear the sound through the room speaker: Press the ROOM SPEAKER button. To turn the room speaker off, press the ROOM SPEAKER button again.

To adjust the volume of the room speaker: Adjust the volume using the ROOM SP volume control.

To hear the sound through the monitor speaker: Press the MONITOR SPEAKER button. To turn the monitor speaker off, press the MONITOR SPEAKER button again.

To adjust the volume of the headset and monitor speaker: Adjust the volume using the MONITOR SP/PHONES volume control.

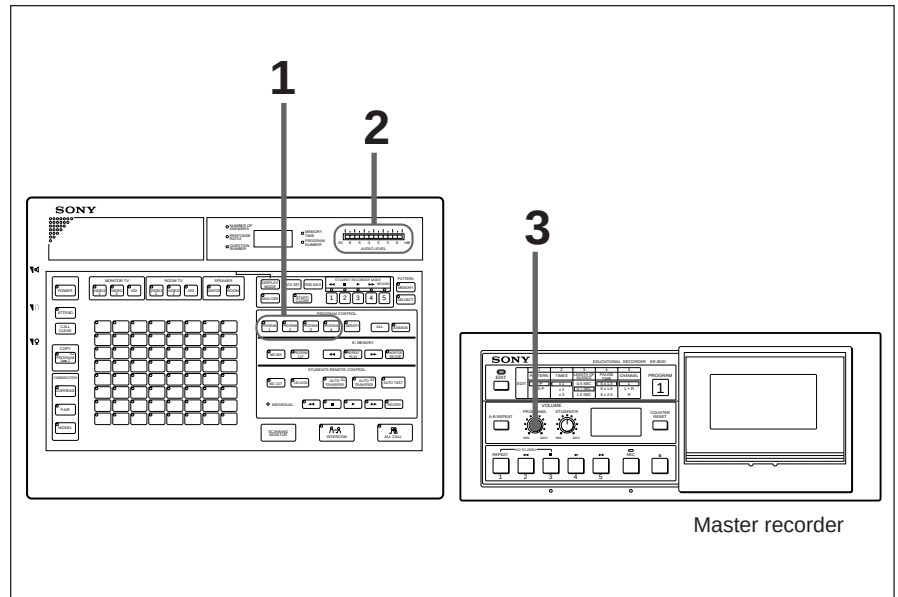
To adjust the microphone level

To turn on the external microphone or headset microphone, press the ALL CALL, INCOM or MIC MIX button so that its lamp light.

Speak through the microphone or headset microphone and adjust the level using the MIC volume control on the side panel of the control console so that the AUDIO LEVEL meter lights up at around 0 dB.

To turn off the external microphone or headset microphone, press the ALL CALL, INCOM or MIC MIX button, so that the lamp goes out.

To check the tape output level



- 1** Press the PROGRAM button corresponding to the master recorder to be checked.
- 2** Play back the tape on a master recorder to be checked.
Check whether the AUDIO LEVEL meter lights up at 0 dB.
If the AUDIO LEVEL meter is not around 0 dB, the tape output level is not appropriate. In such a case, go to step 3.
When the AUDIO LEVEL meter is around 0 dB, the tape output level is good. In this case, check the other master recorders repeating steps 1 and 2.
- 3** Turn the PROGRAM/L VOLUME and/or STUDENT/R VOLUME controls on the master recorder so that the AUDIO LEVEL meter on the control console lights at around 0 dB.

About channels

The output channel of the master recorder can be selected according to the program tape in use.

For detailed information on the channels L and R, see “Selecting a Channel” on page 3-9.

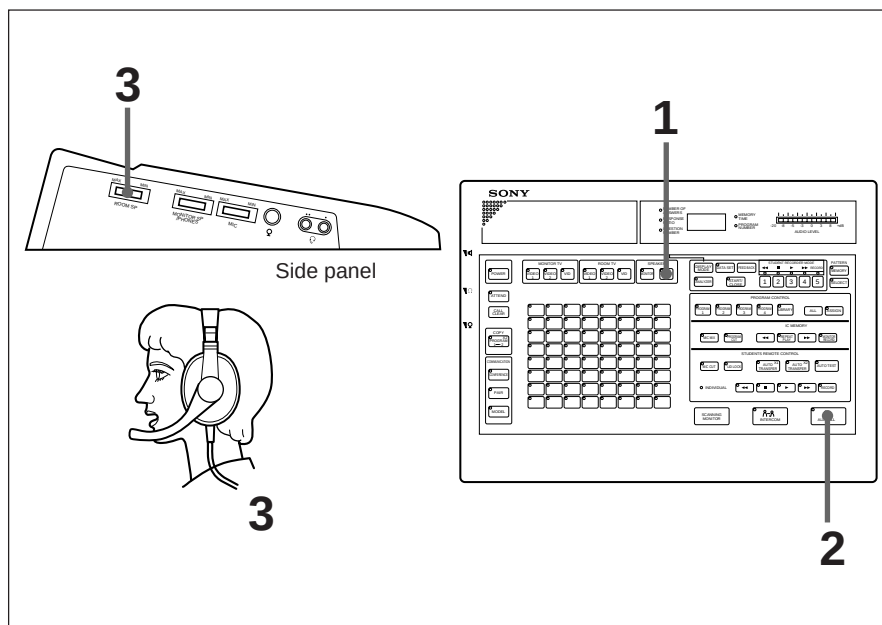
Starting the Class

Speaking to the Students

Start the class by speaking to the students through the room speaker or students' headsets.

Speaking to the class via the microphone and room speaker

To speak to the class via the microphone and room speaker, proceed as follows.



- 1** Press the ROOM SPEAKER button.
- 2** Press the ALL CALL button.
- 3** Speak through the headset microphone (or external microphone).
Adjust the volume of the room speaker using the ROOM SP volume control on the side panel.

To turn off the room speaker

Press the ROOM SPEAKER button. The room speaker is turned off.

To set the room speaker on or off

You can set the room speaker on or off using the pattern setting function. If you set the room speaker to on, the voice that the instructor is monitoring is always fed to the room speaker.

For details, see “Setting Lesson Patterns” on page 3-17.

Speaking to the class via the headset

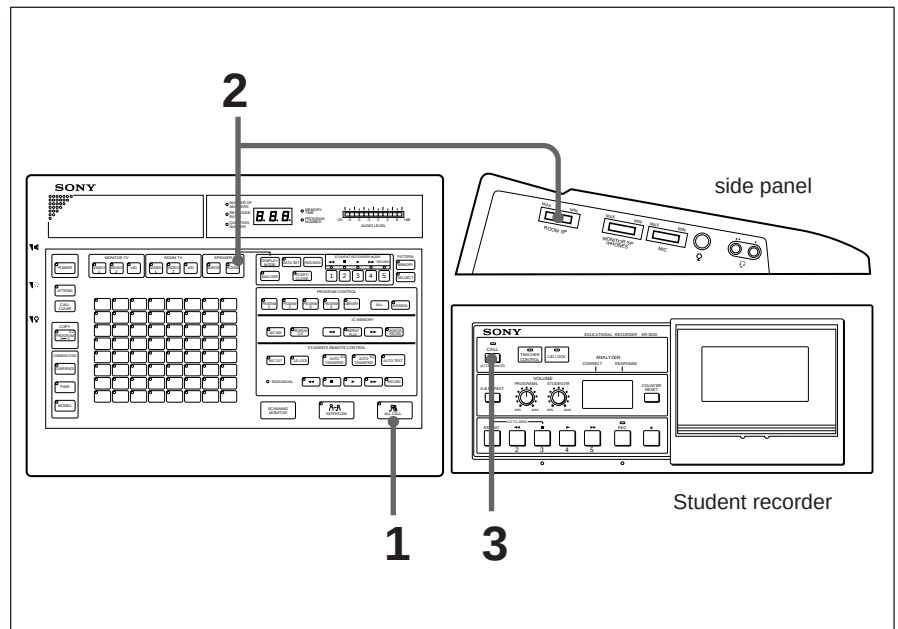
To call the students via the headset, the students must first be signed in. For details of how to sign in, see “Checking Attendance” on this page.

- 1** Press the ALL CALL button.
- 2** Speak through the headset microphone (or external microphone).

Checking Attendance

When the student recorders are turned on, the corresponding monitor button lamps light. Attendance can be taken by checking these lamps. There are two ways to turn on the student recorders as follows.

Letting a student turn on his/her recorder



- 1** Press the ALL CALL button.
- 2** Press the ROOM SPEAKER button to turn the room speaker on. Adjust the volume of the room speaker by using the ROOM SP volume control, if necessary. Tell students to press the ATTENDANCE button on the students' recorders.

(Continued)

- 3** When the student presses the ATTENDANCE button, 000 appears on the counter of the student recorder when the ER-8020 student recorder is used. When the EA-80 is used, the ATTENDANCE/CALL indicator lights.

He or she can hear the instructor's voice, programs, etc. through the headset.

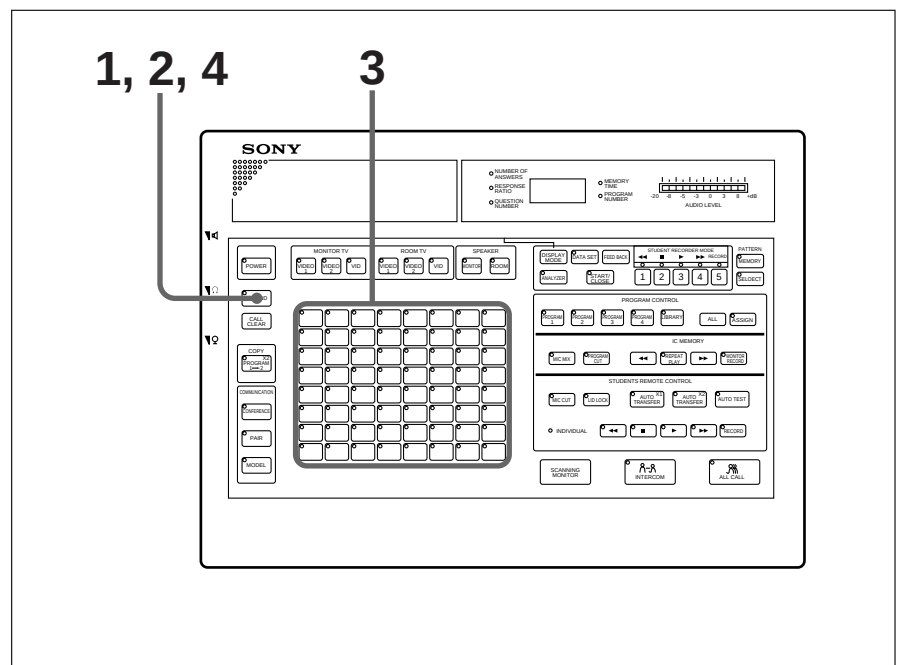
You can also call the students via the headset.

On the control console, the monitor button lamp of the student who has pressed the ATTENDANCE button turns green. Once students sign in, they cannot sign out on the students' recorders.

Turning on all student recorders at once

You can turn on all the student recorders at once, and later, individually turn off absent students' recorders.

Turn on the students' recorders in the following way when a program is to be recorded on the student tape before the class.



- 1** Press the ATTEND button.
The ATTEND button lights.
All the student recorders are turned on and the counter display lights on all the student recorders. The monitor button lamps of all students turn green.
- 2** Press the ATTEND button again.
The ATTEND button lamp blinks.

- 3** Press the monitor buttons corresponding to the absent students' recorders.
The monitor lamp goes off and his or her student recorder is turned off.
- 4** Press the ATTEND button again.
The lamp stops blinking and stays lit.

When you turn off an attendant student's recorder by mistake, or a student comes to class late

Tell the student to press the ATTENDANCE button.

The student recorder power is turned on and monitor button lamp of that student turns green.

About the name sheet

It is recommended to make a transparent name sheet and place over the console monitor buttons.

Assigning Programs to Students

Before distributing the program, assign programs to each student.

Available Programs

You can use the following two types of materials in the class.

- You (instructor) distribute programs to the students' recorders and students study using the program recorded on their students' recorders.
- Students study using the different materials without programs distributed from the master recorders. (Library mode)

Programs you can distribute

You can distribute four kinds of programs from four master recorders.

These four kinds of programs are called Program 1, Program 2, Program 3 and Program 4.

Groups of students to whom programs 1 to 4 are assigned are called Group 1, Group 2, Group 3 and Group 4.

Students' recorders are remotely controlled by groups.

Library mode or independent study

Students whose units are in library mode can study independently.

Dividing Students into Groups

You can divide students into groups according to the program type or their ability.

When turning on all the student recorders at once

The system allows you to distribute Program 1.

To distribute Program 1, see "Letting All the Students Listening to the Same Program" on page 2-17.

To divide students into groups

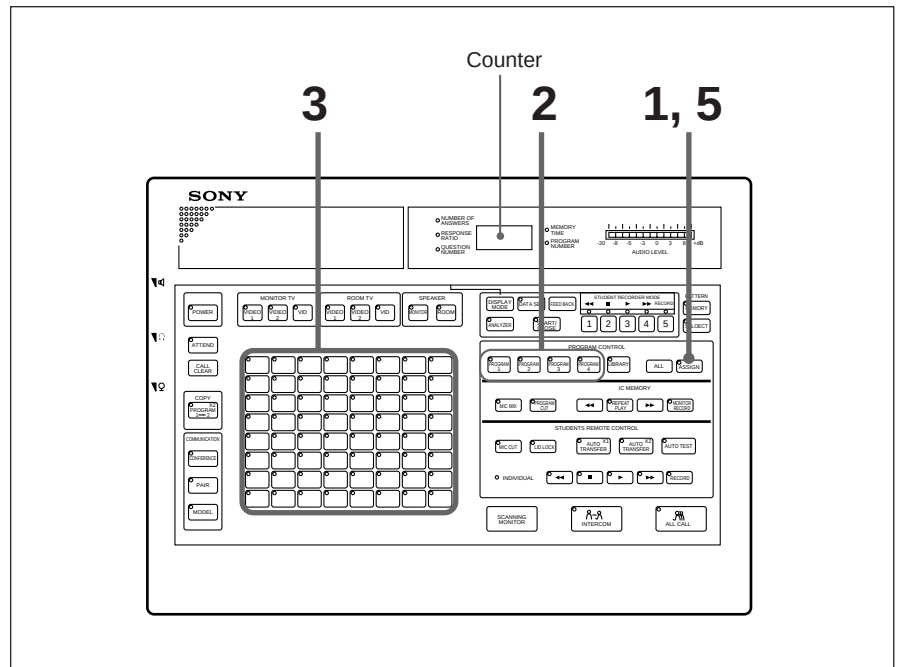
You have to divide students into groups to distribute programs by groups.

To save the group setting

Even though the students have been divided into groups, once the power is turned off, the group setting will be cleared. When the power is turned on next time, all the students are assigned to Group 1.

To use the same group setting in the next lesson, you can register the group setting as a lesson pattern.

For details, see "Setting Lesson Patterns" on page 3-17.



- 1** Press the ASSIGN button.
The ASSIGN button lamp lights.
- 2** Press the desired PROGRAM button to select the program.
The pressed PROGRAM button blinks.
When there are some students who have been already assigned to the selected program group, their monitor buttons turn red.
- 3** Press the monitor buttons corresponding to the students you want to assign to the group selected in step 2.
The pressed monitor button lamps change from green to red.
- 4** Assign remaining students to remaining groups repeating steps 2 and 3.
- 5** Press the ASSIGN button again.
The ASSIGN button lamp goes out and the system returns to normal mode from group assigning mode.
The PROGRAM button pressed last stops blinking to lit.

To assign all the students to the same group

Press the ALL button in step 3. All the students are assigned to the group selected in step 2.

To check the group assignment

Press the monitor button of the student you want to check in his/her group.
The program group number of that student appears in the counter of the control console.

Letting Students Study by Listening to Tape or Watching Video Program

You can let students study by distributing audio and video programs as follows.

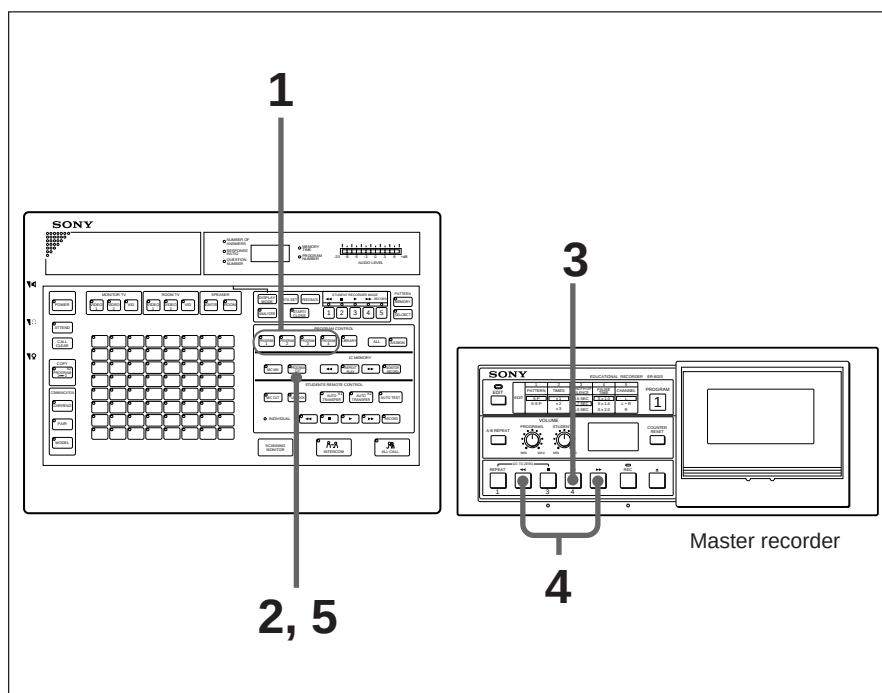
- Let all the students listen to the same program
- Let students listen to the program while recording it
- Show the video program using the room TV, video presentation stand, etc.

Before distributing a program, cue the tape onto the master recorder. This section explains how to cue the tape, first, then how to control student recorders and how to distribute programs.

Cuing the Tape

Cuing means that you search for the portion you want to distribute so as to distribute the program quickly.

If you do not want to let students hear the cuing sound, proceed as follows.

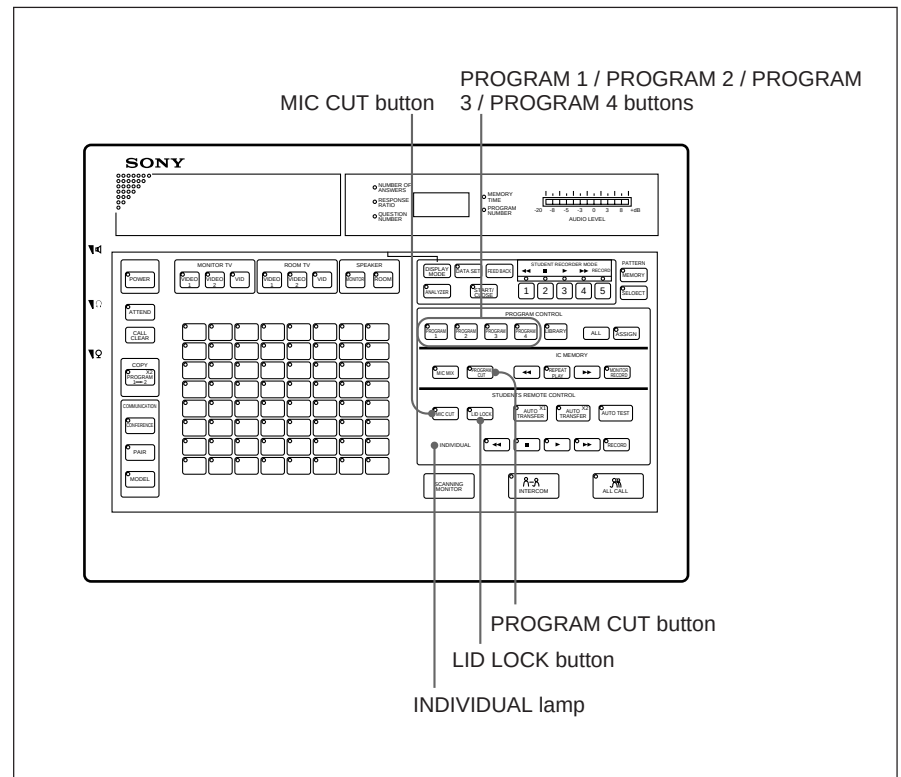


- 1** Press the PROGRAM button to be distributed.
- 2** Press the PROGRAM CUT button.
The program will not be distributed to the student recorders.
- 3** Press the ► button on the master recorder.
The master recorder plays back the tape.

- 4 Cue the tape .
Cue the tape, listening to the played back tape. Use the tape counter to cue the tape by setting the tape counter to 000 at the beginning of the tape and monitoring the counter.
To advance the tape quickly, press the ►► button. To rewind the tape, press the ◀◀ button.
- 5 Press the PROGRAM CUT button again.
The program is distributed to student recorders again.

Controlling the Student Recorders from the Control Console

You can remotely control the student recorders from the control console. The following operation is effective when the student recorder is on.



Letting Students Study by Listening to Tape or Watching Video Program

Recorder to be controlled (Only for ER-8020)

In group

You can control all the student recorders in the currently selected group. The selected PROGRAM button lamp lights.

Individual

While communicating with a student, (by intercom), you can remotely control only his/her recorders. The INDIVIDUAL lamp lights.

Locking the lid of the student recorders (Only for ER-8020)

Press the LID LOCK button so that the lamp light.

The lids of the student recorders of the currently selected program group are locked and students cannot open them.

To release the lock

Press the LID LOCK button again.

Stopping the distribution of the program temporarily (Only for ER-8020)

This is useful when you do not want to let the student hear the program while you are locating the beginning of the program to be distributed.

To stop distributing temporarily

Press the PROGRAM CUT button so that its lamp lights.

To start distributing again

Press the PROGRAM CUT button again. Its lamp goes out and you can distribute program again.

Deactivating the student's microphone

Press the MIC CUT button so that its lamp lights.

The microphone of the student headset is deactivated.

This is useful when you only want to let the student concentrate on listening to a program, or to only record the program onto the student recorder.

To activate the microphone

Press the MIC CUT button again. Its lamp goes out and the microphone of the student headset is activated.

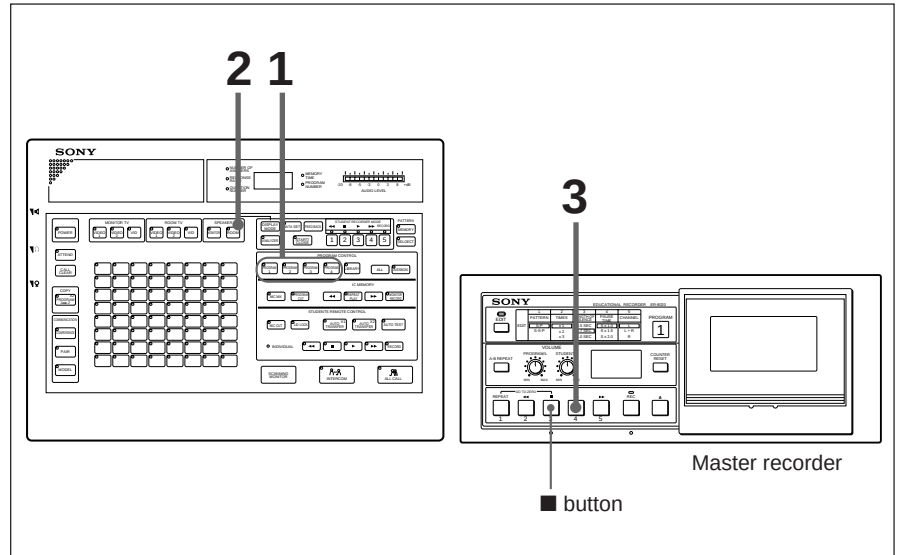
To register the functions of the remote control from the console as the lesson pattern

Functions of the LID LOCK, PROGRAM CUT and MIC CUT buttons described above are registered as the lesson pattern.

For details, see "Setting Lesson Patterns" on page 3-17.

Letting All the Students Listening to the Same Programs

Listening via the room speaker



- 1** Press the PROGRAM button of the program to be distributed.
The pressed PROGRAM button lamp lights.
You can monitor the program being distributed.
- 2** Press the ROOM SPEAKER button.
- 3** Press the ▶ button.

To stop playback of the program

Press the ■ button.

Letting Students Study by Listening to Tape or Watching Video Program

To select L or R channel

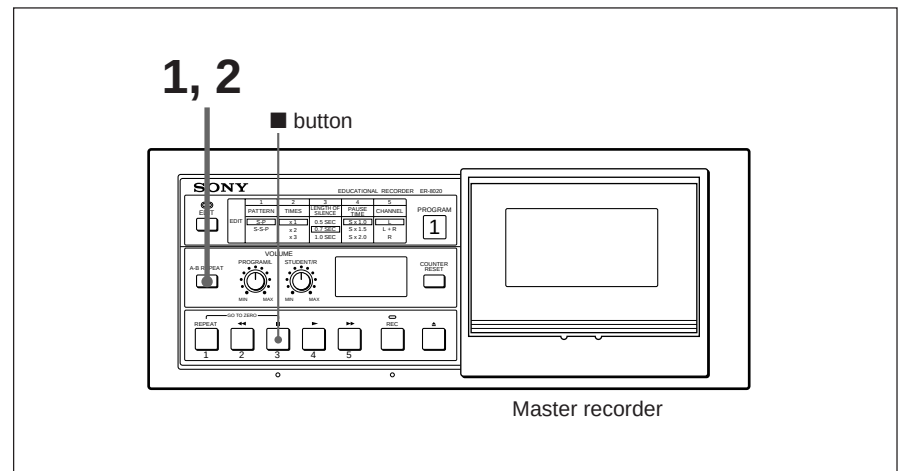
Sound recorded in the L-channel is usually distributed from the master recorder to student recorders.

You may want to distribute only the R-channel or both the L- and R-channel sound depending on the program tape. In such a case, you can select the output channel.

For detailed information on the channel and channel selection, see “Using Master Recorders” on page 3-9.

To replay the desired section repeatedly

You can let students listen to the desired section repeatedly.



- 1** Press the A-B REPEAT button to mark the starting position desired during playback.
[- appears in the counter of the master recorder.
- 2** Press the A-B REPEAT button to mark the desired ending position.
The counter display changes to [-].

The section between the top of the sentence being played when you marked on step 1 and the position just marked in step 2 will be played back repeatedly up to 10 times.

When there is no sound where you made the first mark in step 1, the position just you pressed the A-B REPEAT button is considered as the starting point.

To stop repeat playback

Press the ■ button, or the A-B REPEAT button again.

Notes

- The A-B REPEAT button is deactivated during playback, there is no sound continued after starting playback.
- The sentence break (top of the sentence) depends on the length of silence and recording level.

You can change the length of silence.

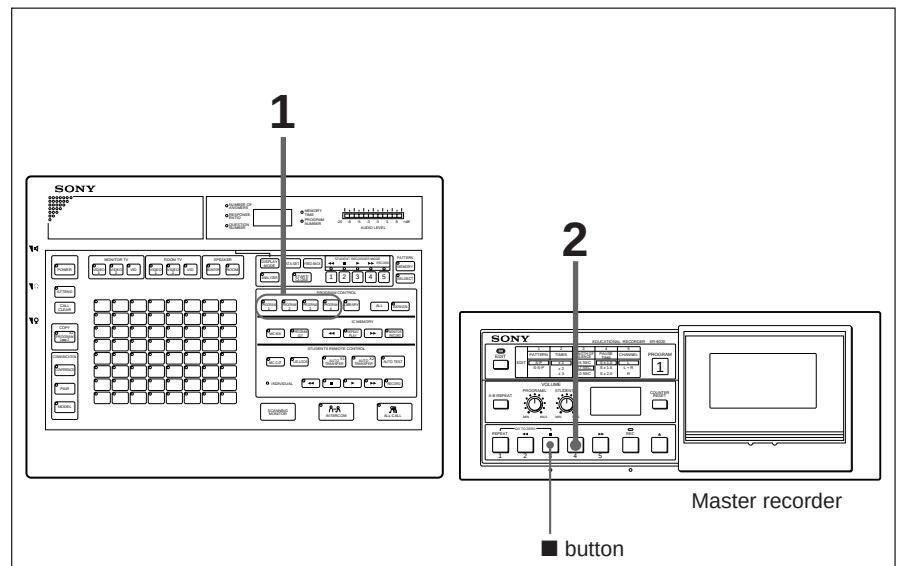
For details of how to do this, see “Editing a Program Tape Using the Edit Function” on page 3-13.

When the program distribution is completed

Press the ROOM SPEAKER button so that its lamp goes out.

The instructor's voice and programs are distributed via the headsets of students.

Distributing programs through the headsets



- 1** Press the PROGRAM button of the program to be distributed.
The pressed PROGRAM button lamp lights.
You can monitor the program being distributed.
- 2** Press the ▶ button.
The programs are distributed through the headsets to the students who belong to the group of the PROGRAM button pressed in step 1.
When students perform speaking practice while listening to the program, they can hear both the program and their own voice through the headset.

To stop playback of the program tape

Press the ■ button on the master recorder.

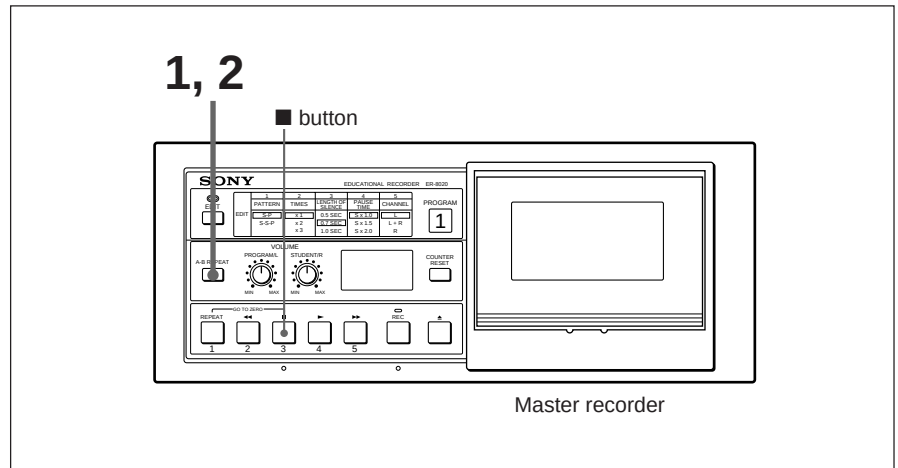
To distribute different programs

Immediately after distribution of the program to one group of students has started, another program can be distributed to another group of student by pressing the ▶ button on the corresponding master recorder. No waiting time between distribution is necessary.
Students can hear only the assigned program.

Letting Students Study by Listening to Tape or Watching Video Program

To relay the desired section repeatedly

You can let students listen to the desired section repeatedly.



- 1 Press the A-B REPEAT button to mark the desired starting position during playback.
[- appears in the counter of the master recorder.
- 2 Press the A-B REPEAT button to mark the desired ending position.
The counter display changes to [-].

The section between the top of the sentence being played, as marked on step 1, and that just marked in step 2 will be played back repeatedly up to 10 times.

When there is no sound where you made the first mark in step 1. The position at which you pressed the A-B REPEAT button is considered to be the starting point.

To stop repeat playback

Press the ■ button, or the A-B REPEAT button again.

Notes

- The A-B REPEAT button is deactivated when playback of no sound is continued after starting playback.
- The sentence break (top of the sentence) depends on the length of silence and recording level.

You can change the length of silence.

For details of how to change the length of silence, see "Editing a Program Tape Using the Edit Function" on page 3-13.

Letting Students Listen to Programs While Recording

Only the ER-8020 student recorder has this function. Omit this topic when the EA-80 is used.

To give a lesson, programs must be recorded on the student recorders. Students can study them again during or after class.

The following four methods are available to record the programs.

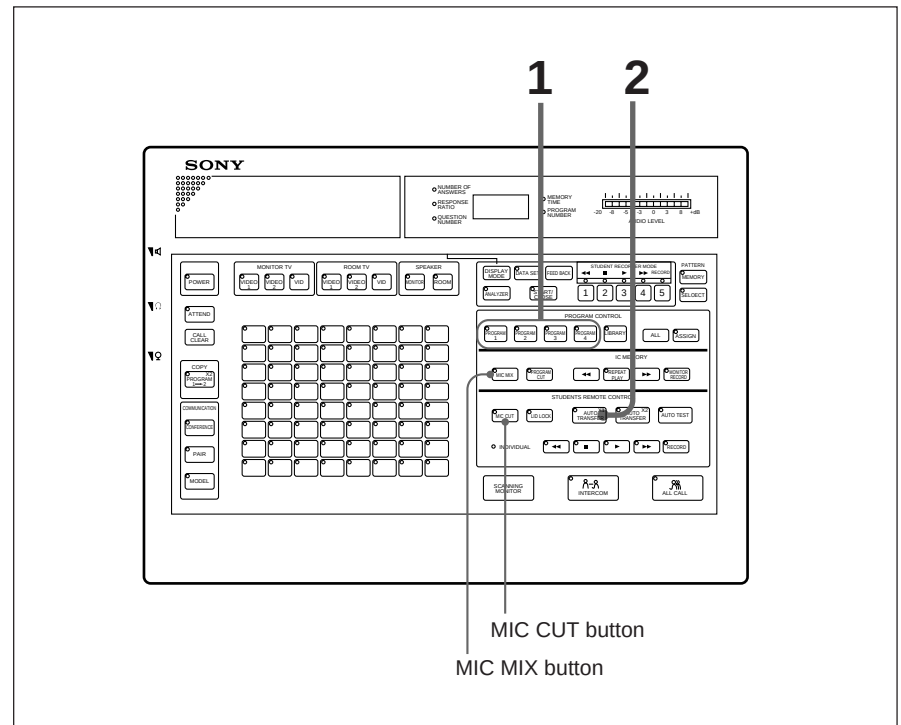
- Automatic recording at normal speed after rewinding the tape of the student recorders
- Recording at normal speed from the current tape position
- Automatic recording at double the normal recording speed after rewinding the tape of the student recorders
- Recording at a double the normal recording speed from the current tape position

To record the same material onto the student recorders of all the students, assign all the students to the same program group.

For details of how to assign the students to the group, see “Dividing Students into Groups” on page 2-12.

Automatic recording

You can automatically rewind the student tapes and begin recording.



- 1** Press the PROGRAM button of the program to be distributed. The pressed PROGRAM button lamp lights. You can monitor the program being distributed.

(Continued)

2 Press the AUTO TRANSFER $\times 1$ button.

All student recorders of the students belonging to the program group selected in step 1, are set to rewind mode. The master tape is not rewound. At this time, the monitor button lamps of the corresponding students blink in green.

After student tapes are rewound (at this time, the monitor buttons of the corresponding students stop blinking, the student recorders are set to the recording mode and playback of the master recorder begins.

Student can monitor the program being recorded through their headsets.

When tape distribution is completed

Press the AUTO TRANSFER $\times 1$ button again. The master recorder stops playback. The tapes in the student recorders are rewound automatically to the position where recording started. Students can start practising the recorded program immediately.

When you press the ■ button to stop playback of the master recorder, the tape stops without being rewound on the student recorders.

To record the student oral practice with a program

If a student performs oral practice, the program is recorded on the L channel of the tape and voice is recorded on the R channel of the tape.

If the lamp of the MIC CUT button in the STUDENT REMOTE CONTROL section of the control console is lit, the microphone of the student headset are deactivated. Press the MIC CUT button so that its lamp goes out. The microphones of the student headsets are activated.

To distribute the instructor's voice with a program

Press the MIC MIX button on the control console after pressing the PROGRAM button to be distributed in step 1.

Your voice is distributed together with the program and recorded.

You can distribute only your voice as Program 1, 2, 3 or 4 without distributing the program.

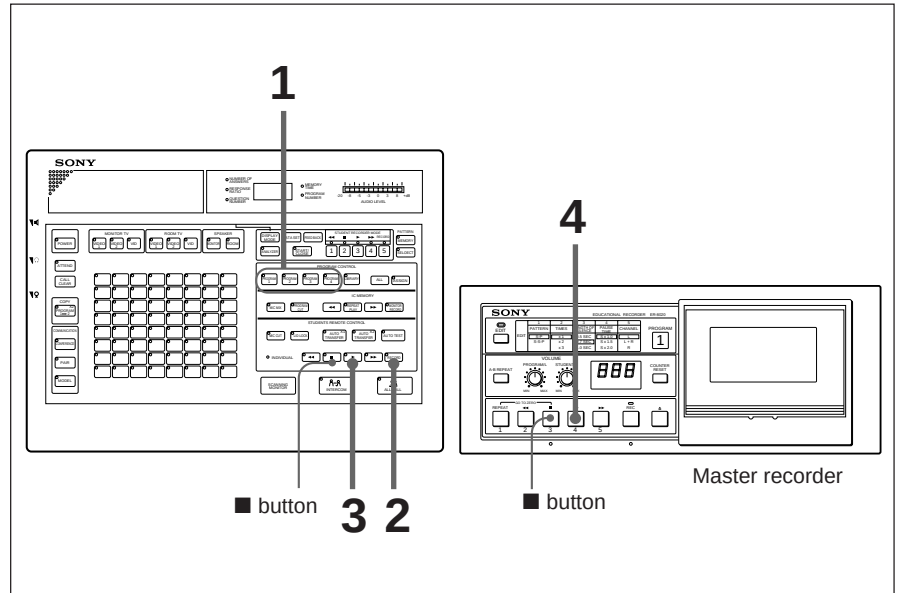
To start recording at a point immediately following the previous lesson's recording

The tape in the student recorders is rewound automatically to the position where the tape has been rewound when you press the AUTO TRANSFER $\times 1$ button in step 2. Usually, the tape is rewound to the top of the tape when you press the AUTO TRANSFER $\times 1$ button to start automatic recording. By changing this setting, the tape is not rewound even if you press the AUTO TRANSFER $\times 1$ button and recording starts from the current tape position without erasing the previous lesson's recording.

For detailed information on the position to which the tape is rewound, see the item "Rewinding a tape" of "Setting Lesson Patterns" on page 3-19.

Manual recording

You can begin recording at a point immediately after the previous lesson's recording.



- 1** Press the PROGRAM button to be distributed.
The pressed PROGRAM button lamp lights.
You can monitor the program being distributed.
- 2** Press the RECORD button.
The lamp blinks and the student recorders are set to recording standby mode.
- 3** Press the ► button on the control console.
- 4** Press the ► button on the master recorder.

When tape distribution is completed

Press the ■ button on the master recorder and the ■ button on the STUDENT REMOTE CONTROL section of the control console.

To record a student's voice with a program

You can record a student's with a program.

For details, see "To record the student oral practice with a program" on page 2-22.

To distribute the instructor's voice with a program

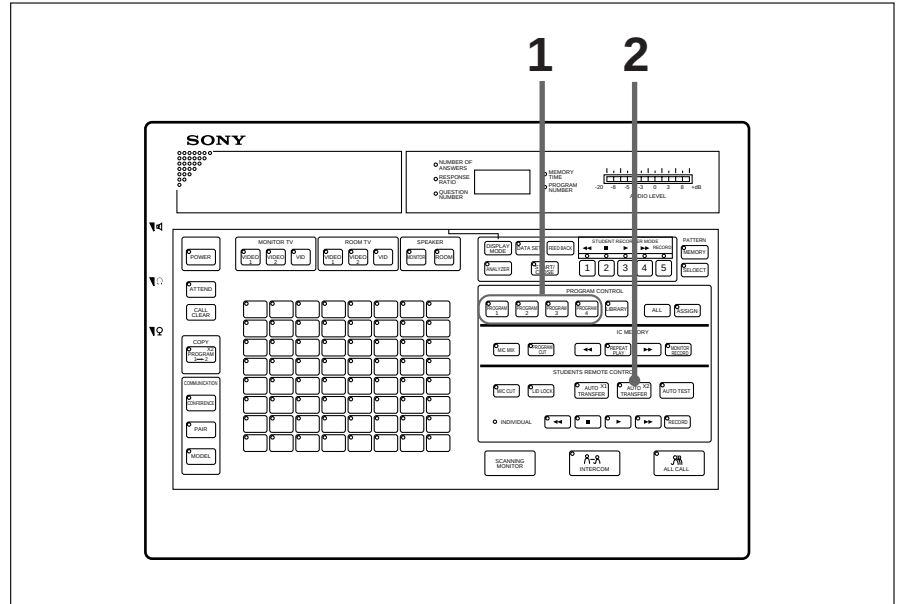
You can transmit your voice as a program.

For details, see "To distribute the instructor's voice with a program" on page 2-22.

Letting Students Study by Listening to Tape or Watching Video Program

Recording the program at high speed

You can automatically record a program onto the student tape at double the normal recording speed without letting the student hear a program while recording.



- 1** Press the PROGRAM button of the program to be distributed.
The pressed PROGRAM button lamp lights.
- 2** Press the AUTO TRANSFER $\times 2$ button.
All recorders of the students who belong to the program group selected in step 1, are set to rewind mode. The master tape is not rewound. At this time, the monitor button lamps of the corresponding students blink in green.
After student tapes are rewound (at this time, the monitor button lamps of the corresponding students stop blinking), the student recorders are set to recording mode and playback of the master recorder begins at double the normal recording speed.

When tape distribution is completed

Press the AUTO TRANSFER $\times 2$ button again. The master recorder stops playback. The tapes in the student recorders are rewound automatically to the position where recording started. Students can start practising the recorded program immediately.

When you press the ■ button to stop playback of the master recorder, the tape stops without being rewound on the student recorders.

To start recording at a point immediately following the previous lesson's recording

The tape in the student recorders is rewound automatically to the position where the tape has been rewound when you press the AUTO TRANSFER $\times 2$ button in step 2. Usually, the tape is rewound to the top of the tape when you press the AUTO TRANSFER $\times 2$ button to start automatic recording. By changing this setting, the tape is not rewound even if you press the AUTO TRANSFER $\times 2$ button and recording starts from the current tape position without erasing the previous lesson's recording.

For detailed information on the position to which the tape is rewound, see the item "Rewinding a tape" of "Setting Lesson Patterns" on page 3-19.

When you press the AUTO TRANSFER $\times 2$ button at completing the tape distribution, the tape of the student recorder is rewound automatically to the position whether recording started.

Drill practice

Students can perform and record their oral practice using the recorded tape.

- 1** Insert the recorded tape in the student recorder.
- 2** Locate the position to be practised using the $\blacktriangleright\blacktriangleright$ or $\blacktriangleleft\blacktriangleleft$ buttons and stop by pressing the $\blacksquare$ button.
- 3** To record the oral practice, press the REC button.
The oral practice can be recorded in R channel without erasing the program recorded in the L channel.

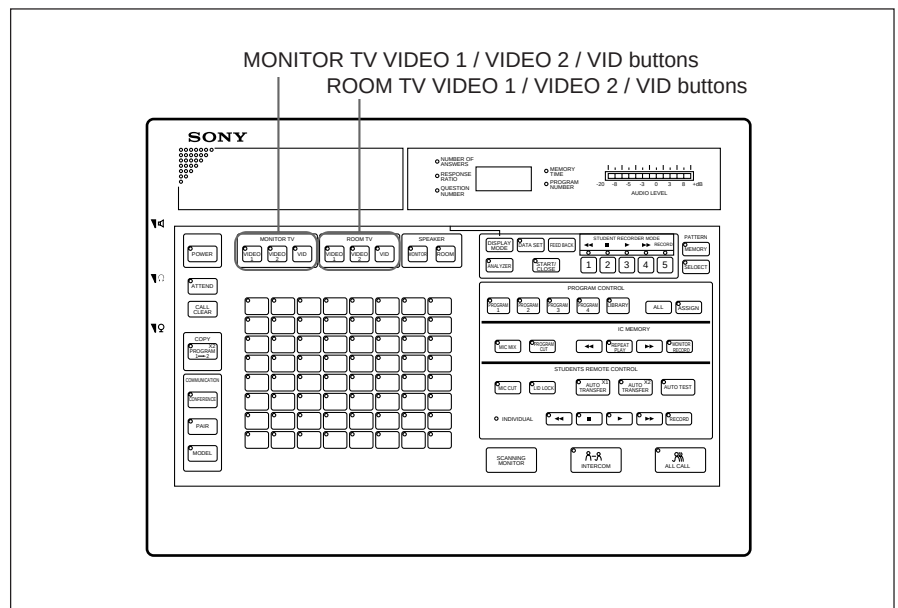
Letting Students Study by Listening to Tape or Watching Video Program

Distributing Video Program

You can connect two items of video equipment and one item of VID equipment to the LLC-8000A. You can select one of VIDEO 1, VIDEO 2 or VID on the control console and distribute the video program to the room TV or monitor TV.

Watching the video program

Turn on the power to the video equipment, room TV and monitor TV, then distribute the video program from the video equipment.



Press the button corresponding to the desired video program.

The selected video program are distributed to the room TV or monitor TV.

MONITOR TV

VIDEO 1: Distributes the video 1 program.

VIDEO 2: Distributes the video 2 program.

VID: Distributes the picture of the VID equipment.

ROOM TV

VIDEO 1: Distributes the video 1 program.

VIDEO 2: Distributes the video 2 program.

VID: Distributes the picture of the VID equipment.

To stop distributing the video program from video equipment

Press the button whose lamp is lit so that it goes out.

Turn off the power to the video equipment to stop distribution of the video program.

To listen to the sound from the video equipment

If the audio signal of the video equipment is connected to one of AUX1, AUX 2, AUX3 or AUX4, you can distribute the audio sound from video equipment as program 1, Program 2, Program 3 or Program 4.

In this case, you can let students listen to the sound from the video equipment through the room speaker or headset.

The volume can be adjusted using the ROOM SP volume control.

For the input level of the signal connected to AUX 1 to AUX 4, adjust the output level on each of equipment.

Note

When you distribute the sound from video 1 or video 2 as Program 1, 2, 3, or 4, if you distribute the program from the master recorder corresponding to this program, both sounds are distributed.

To select the next program to distribute while the students are watching

You can select the next program to distribute while the students are still watching the current program.

- 1** While the students are watching the program distributed from VIDEO 1, VIDEO 2 or VID of the ROOM TV, select the next program to be distributed by pressing VIDEO 1, VIDEO 2 or VID of the MONITOR TV, that is not used for the ROOM TV.
- 2** Locate the start point of the program to be distributed, using the control buttons of the video equipment selected by using one of the MONITOR TV buttons.
- 3** When the current material finishes, press one of the ROOM TV buttons corresponding to the video program selected in step 1.
- 4** Start playback on the video equipment to distribute the video program.

To determine the TV to display the picture

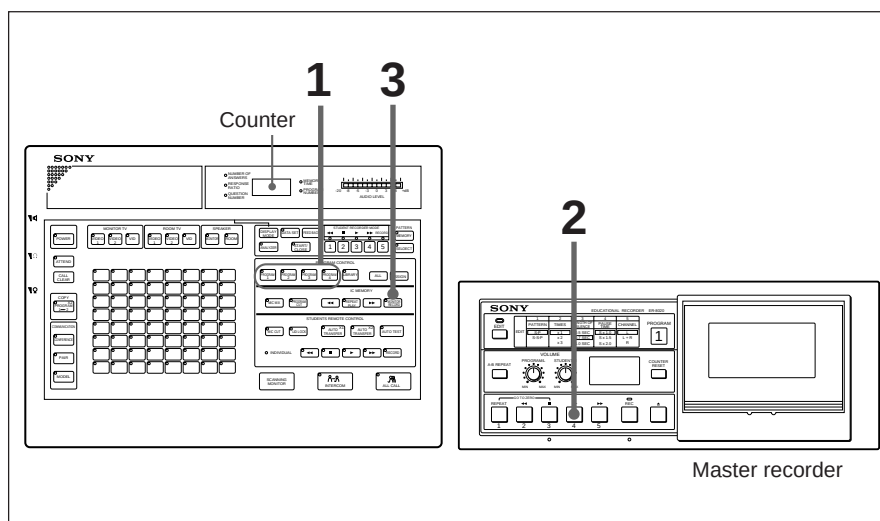
You can select and determine the MONITOR TV and ROOM TV so that students are always watching the same TV.

For details, see “Setting Lesson Patterns” on page 3-17.

Distributing Program in Memory

You can give lessons using the program stored in memory of the control console. You can record the program in memory for about 32 seconds.

Storing tape program in memory



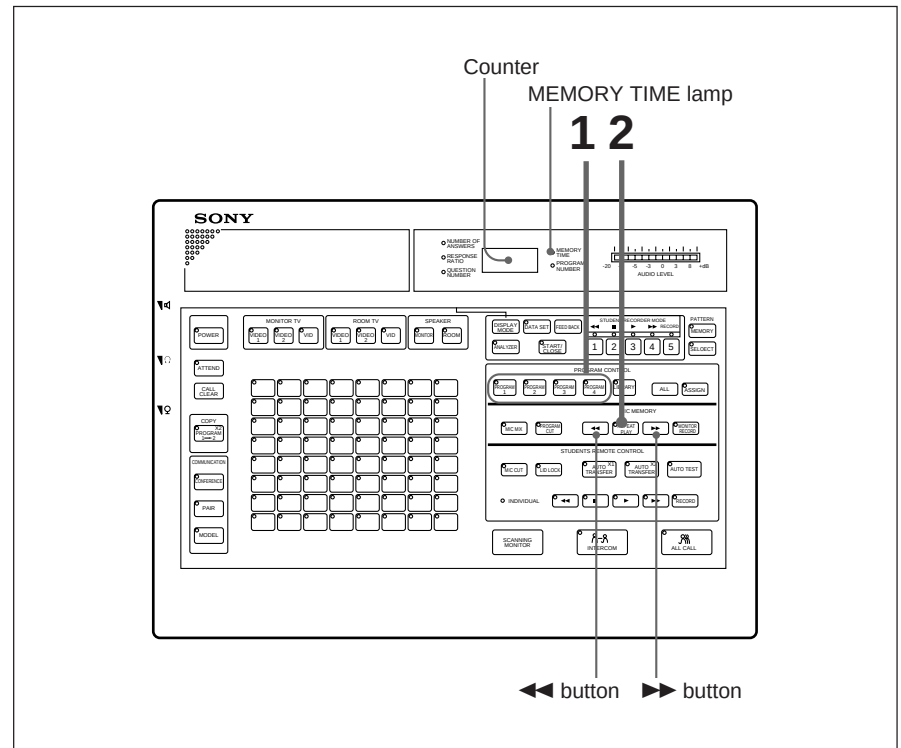
- 1** Press the desired PROGRAM button so that its lamp lights.
- 2** Press the ► button on the master recorder.
- 3** While listening to the program play back, press the MONITOR RECORD button at a position where you want to start recording. Recording starts from the mark point and continues for a maximum of 32 seconds. When the program is recorded for 32 seconds, recording will be automatically stopped and the lamp goes out. While recording, the MEMORY TIME lamp on the control console lights and the remaining recording time appears in the counter.

If a program already has been recorded, the new program overwrites this program.

Program you can store in memory

You can store all sounds that you monitor through the headset. You press the MONITOR RECORD button while you are monitoring. Recording starts immediately and continues for 32 seconds.

Distributing the program in memory



1 Press the desired PROGRAM button.

2 Press the REPEAT PLAY button.

The lamp turns red and playback starts. The program in memory is distributed to the headsets of the students.

Playback stops automatically when the program is played to the end of the program in memory and the REPEAT PLAY button goes out.

While playing back, the MEMORY TIME lamp on the control console lights and the playback time appears in the counter.

To advance the program/to rewind the program

To advance the program quickly, press the ►► button in the IC MEMORY section during playback. The program is advanced quickly while holding down the button and playback starts when you release the button.

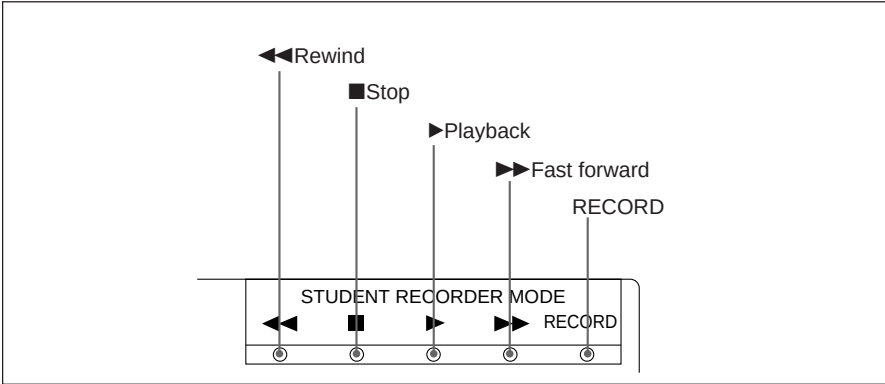
To rewind the program, press the ◀◀ button in the IC MEMORY section during playback. The program is rewound while holding down the button and playback starts when you release the button.

Monitoring Students

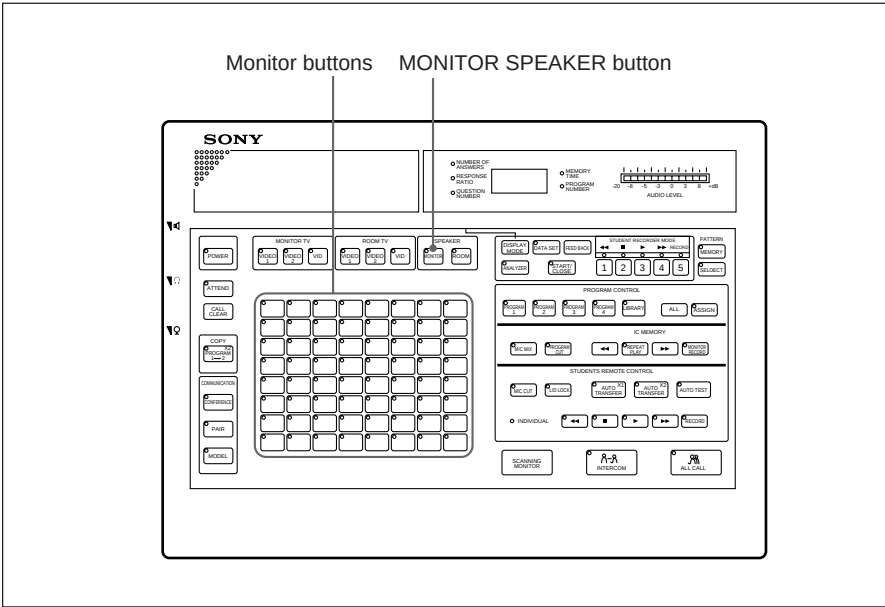
You can monitor each student through the headset, while students practice. There are two kinds of monitoring: monitoring a particular student's practice, and monitoring all students' practice in order. While monitoring, you can instruct to students individually as required. For details of how to provide individual instruction, see "Talking with a Student (Intercom)" on page 2-33.

To check the student recorders' operating mode (Only for ER-8020)

The STUDENT RECORDER MODE indicator shows the operating mode of a student recorder while the student is being monitored.



Monitoring a particular student's practice



Press the monitor button corresponding to the student to be monitored. The lamp of the pressed monitor button turns red.

To stop monitoring

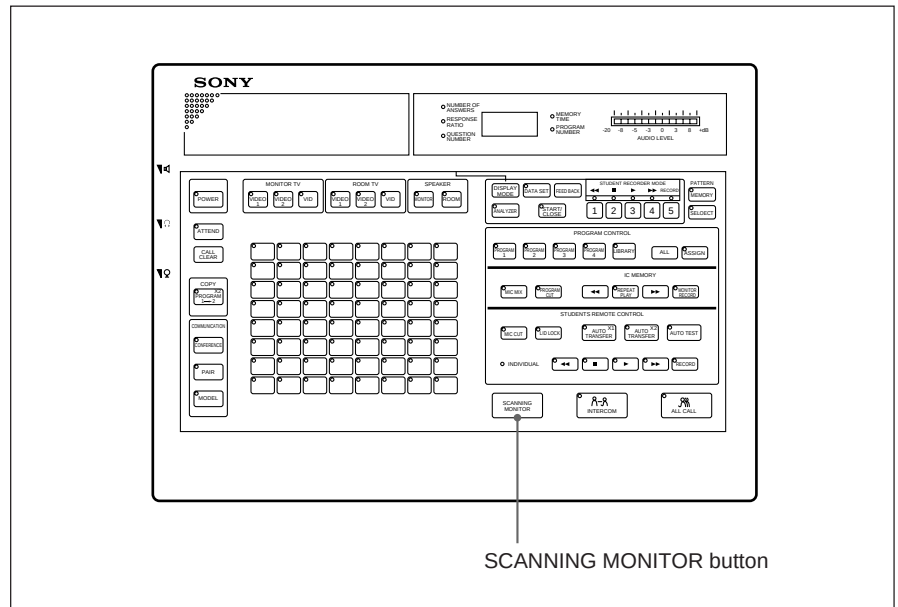
Press the monitor button currently lit in red.

To monitor through the monitor speaker

Press the MONITOR SPEAKER button. Its lamp lights.

You can monitor students' practice through both the headset and monitor speaker.

Monitoring students according to the seating chart order (scanning monitor)



Press the SCANNING MONITOR button.

Each time you press the SCANNING MONITOR button, monitoring switches to the next student.

Monitoring is scanned in a horizontal or vertical order. The setting order can be determined by the pattern setting.

For details of how to set the lesson pattern, see "Setting Lesson Patterns" on page 3-17.

To stop monitoring

Press the corresponding monitor button currently lit in red.

When students are divided into groups

If you press the SCANNING MONITOR button when the monitor button is lit in red:

You can monitor the students who belong to the group of that student (Program 1, Program 2, Program 3, Program 4 or library) in order.

If you press the SCANNING MONITOR button when no students are monitored:

If you press the SCANNING MONITOR button for the first time after you have started the class, the student located at the bottom left of the monitor buttons is monitored, and students that belong to the same group are monitored in order.

If you have already monitored some students, the next student who belongs to the same group is monitored. Then students in the same group are monitored in order.

To monitor students different groups

Press the monitor button corresponding to the student who belongs to the group you want to monitor. Then press the SCANNING MONITOR button.

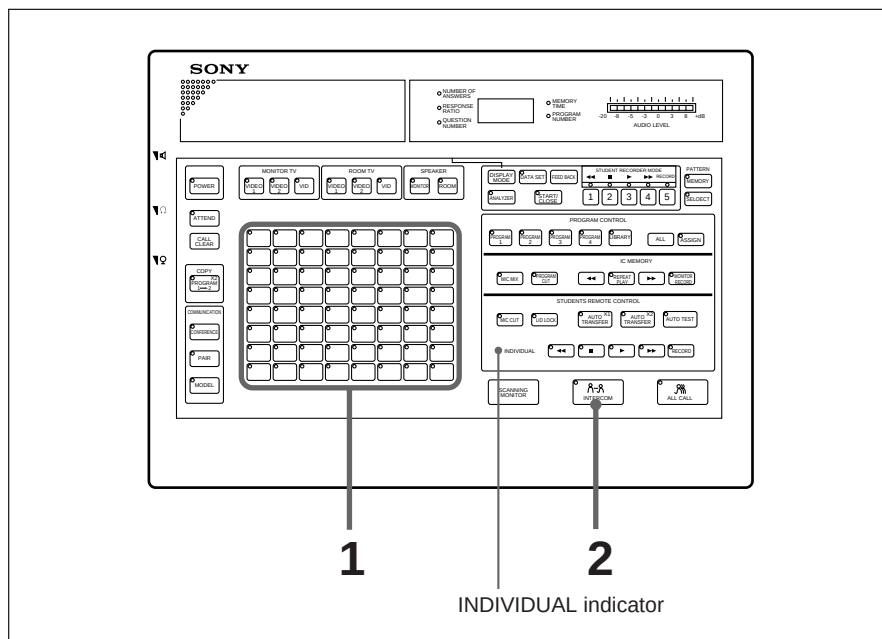
To skip a student while monitoring

There are two ways to skip students.

Press the monitor button of the student you want to monitor. Or by holding down the SCANNING MONITOR button for more than one second, students you can monitor changes every 0.2 seconds.

Talking with a Student (Intercom)

You can break into the practice of the student you are monitoring to give that student individual instruction. You can talk with a student via the headset. This is called an intercom.



- 1** Press the monitor button corresponding to the student you want to talk to.
You can listen to his or her practice.
- 2** Press the INTERCOM button.
The INTERCOM button lamp and the INDIVIDUAL indicator light.
You can talk with the student through the headset.
You can control a student recorder during intercommunication.
For details of how to remotely control, see “Controlling a student recorder during the intercommunication” on page 2-34.

To stop intercommunication

Press the INTERCOM button again so that its lamp goes out. The INDIVIDUAL indicator also goes out.

Or press the monitor button lit in red. The INTERCOM button lamp also goes out.

Note

Howling may occur if you increase the monitor speaker volume while talking when the room speaker or monitor speaker is turned on.

Preventing student recorders from stopping during intercommunication

When you press the INTERCOM button, the corresponding student recorder stops. You can make the student recorder not to stop by setting the lesson pattern.

For details of how to set the lesson pattern, see “Setting Lesson Patterns” on page 3-17.

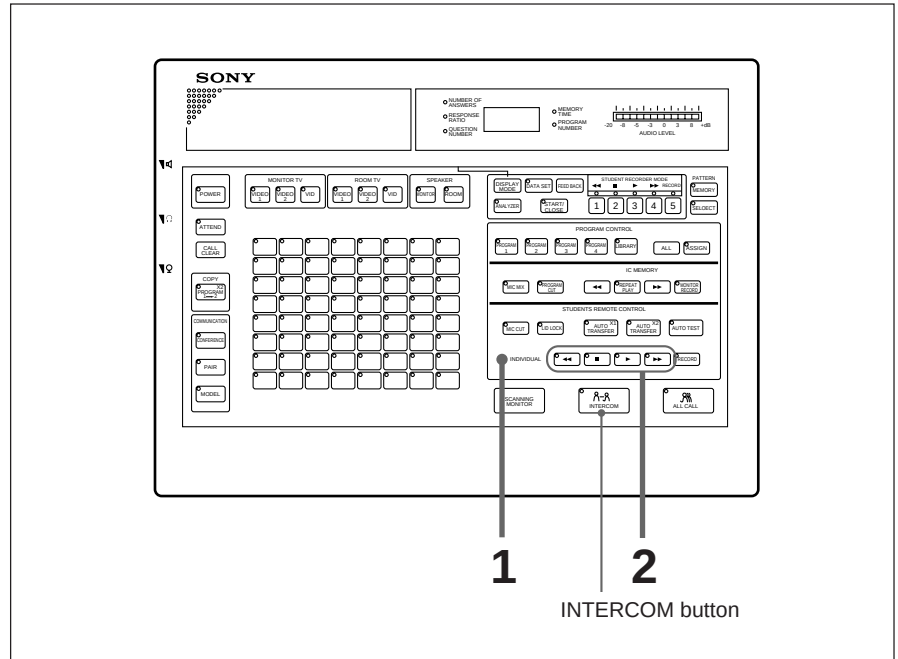
Controlling a student recorder during the intercommunication

Only the ER-8020 student recorder has this function. Omit this topic when the EA-80 is used.

You can control a student recorder while communicating with the student.

Note

You cannot control a student recorder remotely when a program is being distributed to the student or when model voice, conference mode or pair practice is being used.



- 1** Check that the INDIVIDUAL indicator is lit.
If not, press the monitor button of the student whose recorder you want to control, then press the INTERCOM button.
For details, see steps 1 and 2 on the previous page.
- 2** Control the student recorder by pressing ►►, ◀◀, ► or ■ button.

Note

In this mode, the RECORD button does not function.

To release the remote control of the student recorder

Press the INTERCOM button or monitor button so that they go out. The INDIVIDUAL indicator also goes out.

Answering a Call from a Student (Call/Response)

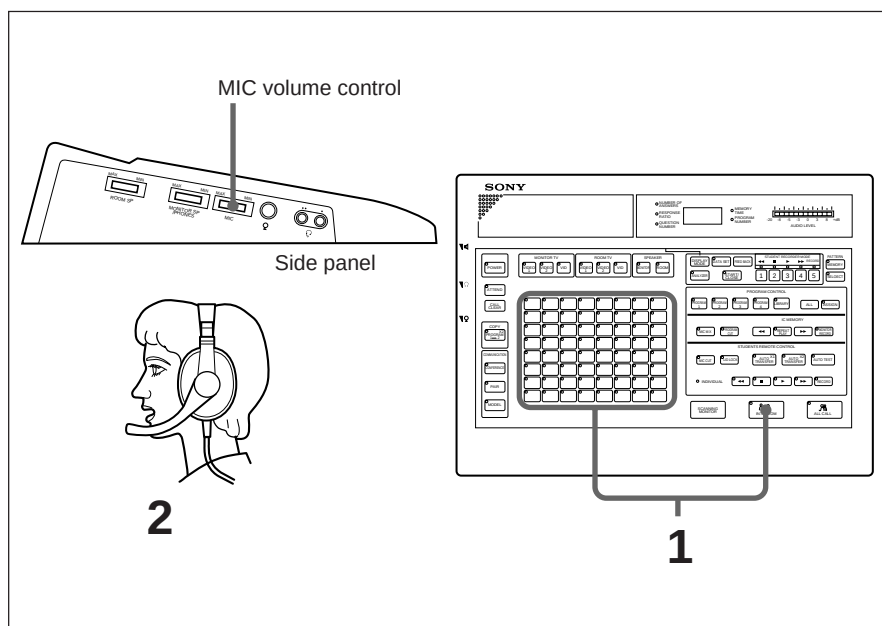
Students can call on the instructor to ask questions. You can respond to these questions individually.

When a student calls you by pressing the CALL button on his or her student recorder, the monitor button lamps corresponding to that student blink. You will also hear a call tone through the headset or monitor speaker.

Answering calls

Note

When you are called while monitoring some student, release monitoring by pressing the monitor button of the student, then proceed as follows.



- 1** Press the INTERCOM button or press the blinking monitor button. The monitor button corresponding to the calling student turns red. The INTERCOM button lamp also turns red.
- 2** Talk with a student using the headset. Adjust the microphone volume using the MIC volume control.

When finished speaking

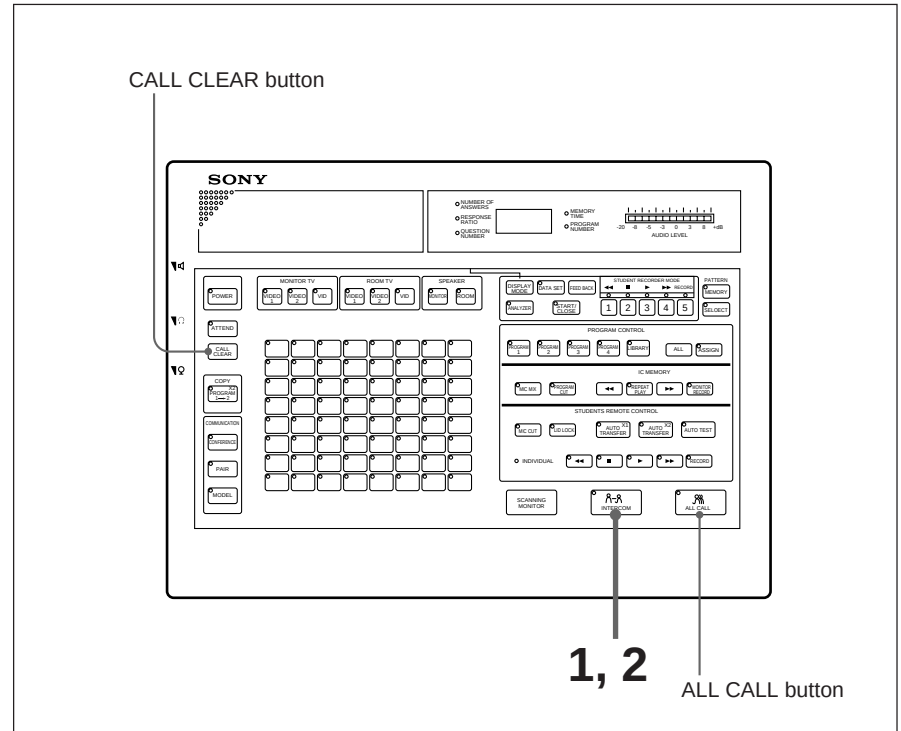
Press the INTERCOM button again. The INTERCOM button lamp goes out.

Answering a Call from a Student (Call/Response)

Answering calls in the received order

Note

When you are called while monitoring some student, release monitoring by pressing the monitor button of the student you are currently monitoring. Then proceed as follows.



- 1** Press the INTERCOM button.
You can talk with the first student.
Adjust the microphone volume using the MIC volume control.
- 2** Press the INTERCOM button again.
You are connected to the second student and you can talk with him or her.
Each time you press the INTERCOM button, you can talk with students in the order they called you.

When talking has finished

Press the INTERCOM button once you finish talking with the last student. The INTERCOM button lamp goes out.

To answer a specified student's call while answering calls

Press the blinking monitor button corresponding to the student with whom you want to talk. Then press the INTERCOM button. You can talk with that student.

To cancel all calls at once

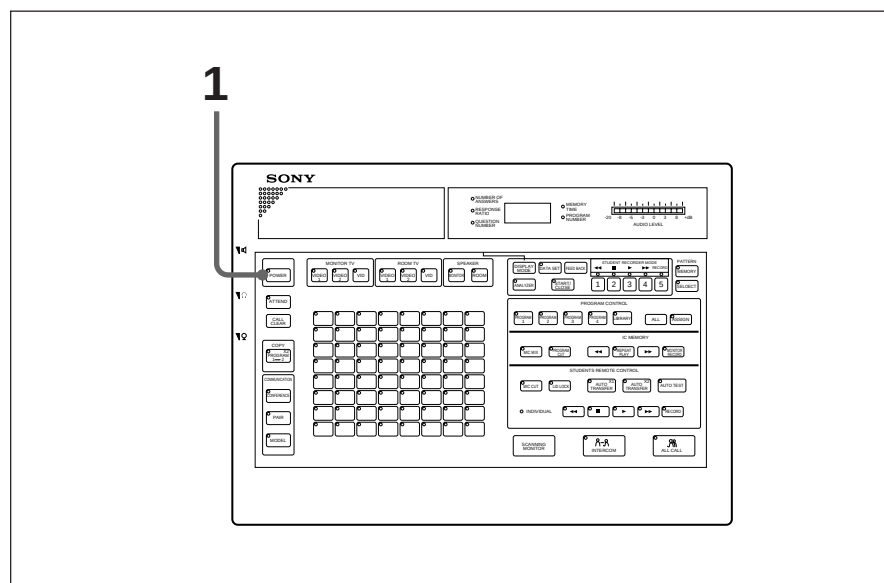
Press the CALL CLEAR button. All monitor buttons stop blinking and all student calls are cancelled.

To speak to all the students at once after cancelling the calls, press the ALL CALL button.

Notes

Before ending the class, check the following.

- Program distribution has been completed from a master recorder to student recorders and that there are no programs recorded in the student recorders.
- Students have finished using their operation of student recorders.
- If you let students take home their tapes, let them eject their cassettes. If the power to the system is turned off, they cannot eject the cassettes.



To end the class

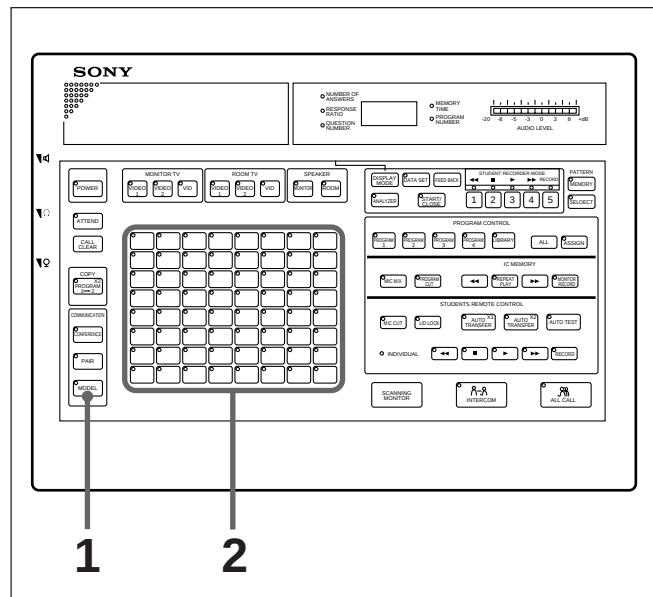
- 1** Press the POWER switch for a while (more than 0.3 seconds at least). The power of the control console, master recorders and student recorders turn off.
- 2** Turn off the switch of the AC power distribution box.

Note

If you turn off the AC power distribution box when the power is applied to the ER-8020 master recorder/student recorder and they are in operation mode, the ER-8020 may malfunction.

Distributing a Model Voice (Model Practice)

You can select one student as a model in a group, and distribute his or her voices to the group members.



1 Press the MODEL button.

2 Press the monitor button corresponding to the student to be selected as a model.
Let a student know that he or she is selected as a model.
When the ER-8020 student recorder is used, the counter on the student recorder corresponding to the pressed monitor button blinks to inform that he or she is selected as a model.

All the group members can hear the selected student practice.

At the side of instructor

You can hear the model's voice.

To mix your voice with the model's voice, press the INTERCOM button. Your voice is distributed to the group as a practice model.

To stop distribution of the model's voice

Press the monitor button of the model student.

To select another model

Press the monitor button of the student you want to select as a model while distributing a model practice. The model is switched, and his or her voice is distributed to the group members.

You can change the model in order by pressing the SCANNING MONITOR button.

To release the model voice mode

Press the MODEL button again.

To select a model while practising in a different practice mode

If you press the MODEL button while you are monitoring or talking with a student or letting the students in a conference group, that student is selected as a model and his or her voice is distributed.

To let another group studying in model voice mode

Only one group can study in model voice mode at any given time.

Release the former group from model voice mode before you assign the new group.

When a student in a different group calls while distributing the model voice

If you answer a student call while distributing the model voice, the calling student's voice is also distributed as a model.

You can clear the call without answering it, or can cancel the student's model voice mode after answering the call.

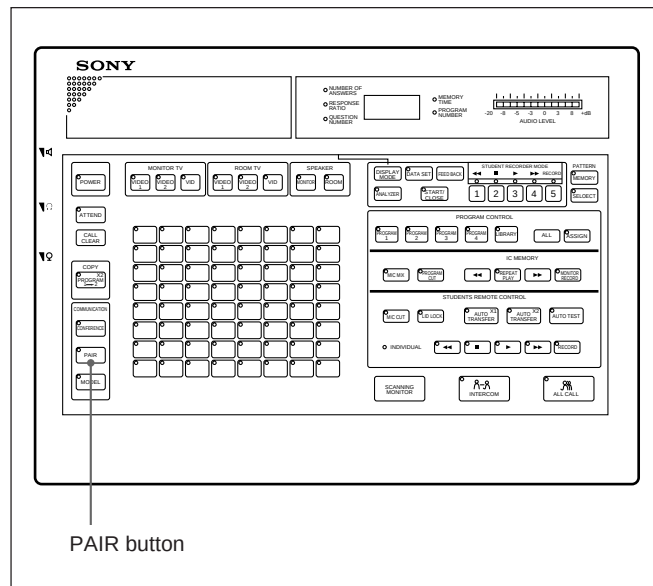
Distributing paired students' practice as a model voice

You can distribute the paired students' practice to the entire class. Press the monitor button of one of the paired students

For details of setting up pair practice, see "Practicing in Pairs (Pair Practice)" on page 3-2.

Practicing in Pairs (Pair Practice)

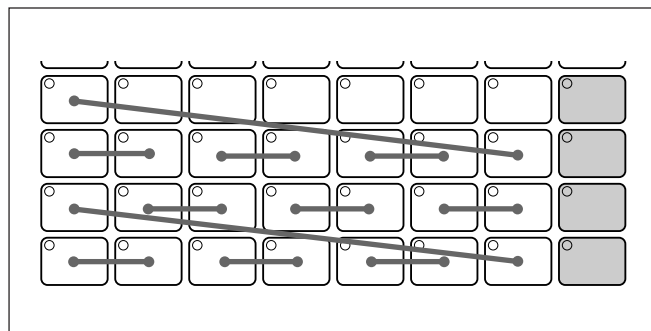
You can divide the whole class into pairs for interactive practice.



Press the PAIR button to make students practice in pair mode.

Students are divided into pairs in horizontal seating order starting from the left bottom. This seating order has been determined when setting up the system and you cannot change.

When one line contains odd number of seats, there is a case where the right end of the student is paired with the left end student of the next upper line as illustrated.



To check the paired students

Press the monitor button of the student whose partner you want to know. The monitor button lamps of paired students light in red.

In pair practice mode, all the students are assigned to one group selected when you press the PAIR button. They are reset to their own group when they are released from pair practice mode.

Note

When one of the AUTO TEST, AUTO TRANSFER $\times 1$ or AUTO TRANSFER $\times 2$ button is activated, you cannot press the PAIR button.

To start pair practice, end the currently selected mode.

To change the program group during pair practice

Press the desired PROGRAM button. Students are assigned to that group.

If the AUTO TEST, AUTO TRANSFER $\times 1$, or AUTO TRANSFER $\times 2$ button is pressed during pair practice

Pair practice mode is automatically ended, and the system enters a mode corresponding to the pressed button.

When the number of student recorders is odd

If an odd number of student recorders have been installed when setting up the system, the last student can not be paired in pair practice mode. The last student is automatically set in monitor/incoming mode in pair practice lesson. Thus he or she can be paired with you. In this case, the INTERCOM button and the monitor button lamps of the last student are lit.

When you want to monitor or communicate with another pair, press the INTERCOM button so that its lamp goes out, and also the monitor button of the student you want to monitor or communicate with lights.

The student paired with you is released. To pair with him again, press the monitor button of that student and the INTERCOM button. He or she can talk with you again through the headset.

To end pair practice

Press the PAIR button so that its lamp goes out.

To interrupt pair study

- 1** Press the monitor button corresponding to the student pair.
The monitor buttons corresponding to the student pair turn red.
- 2** Press the INTERCOM button.
You can talk with that student pair through the headset.

Forming a Conference Group

You can let a group of students hold a conference through the headsets without being heard by other students.

Note

In conference practice mode, all of the student in the class can not record their own voice in the student recorders.

To remove one student from the conference group

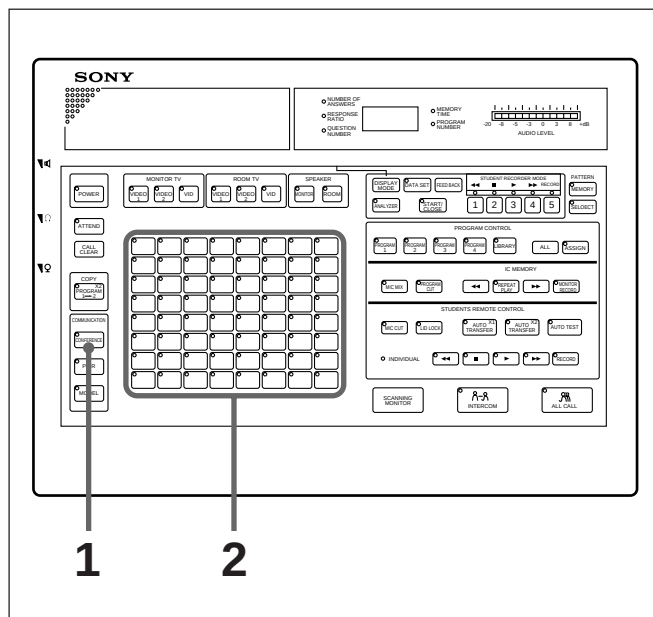
Press the student's monitor button again so that his or her monitor button lamp goes out.

To end the conference

Press the CONFERENCE button again.

When a student calls in conference practice

When you answer a student call while monitoring other students' conferences, the calling student is automatically included in the conference. You can clear the call without answering, or eliminate the student from the conference after answering the call.



- 1 Press the CONFERENCE button.
The CONFERENCE button lamp turns red.

Notes

- When the AUTO TEST, AUTO TRANSFER ×1 or AUTO TRANSFER ×2 button is activated, you cannot press the CONFERENCE button. To start conference practice, end the currently selected mode.
 - In conference practice mode, all the students in the class are assigned to one group selected when you press the CONFERENCE button even if some students are not assigned in the conference group. They are returned to their own groups when they are released from conference practice mode so that his or her monitor button goes out.
- 2 Select up to 48 students to form the conference group by pressing their monitor buttons. You can select students from different program groups. They are assigned to one group selected when you press the CONFERENCE button. They are returned to their own groups when they are released from conference mode.

Assigning Students to Library Mode

You can assign students to library mode. Students in library mode cannot hear the program you distribute from the master recorder. They study on their own student recorders.

For details of how to assign students in library mode, see “Dividing Students into Groups” on page 2-12.

Students in library mode study under the following condition.

- They cannot hear the program tape you distribute from the master recorder.
- They can hear your voice through the headset when you call students by pressing the ALL CALL button.
- You can monitor their practice through the headset by pressing the corresponding monitor button. You, however, cannot remotely control their student recorders.
- You can talk with them by pressing the INTERCOM button while monitoring.
- When you press the PAIR button to start the pair practice, students are included in the pair practice lesson. When the pair practice lesson is ended by pressing the PAIR button again, they return to library mode.

- When you press the ANALYZER button to give analyzer test, they can have analyzer tests with other students.
- They cannot have a test in auto test mode.
- When distributing the video program, they can hear the sound of the video program through the room speaker.

To remove a student from library mode

After you press the ASSIGN button, press the desired PROGRAM button. Then press the monitor button corresponding to that student in library mode.

The monitor button lamp of that student changes from green to red, and he or she has been assigned to the group currently selected.

Giving a Test

You can give the following tests.

- Auto test
- Analyzer test

Giving a Test in Auto Test Mode

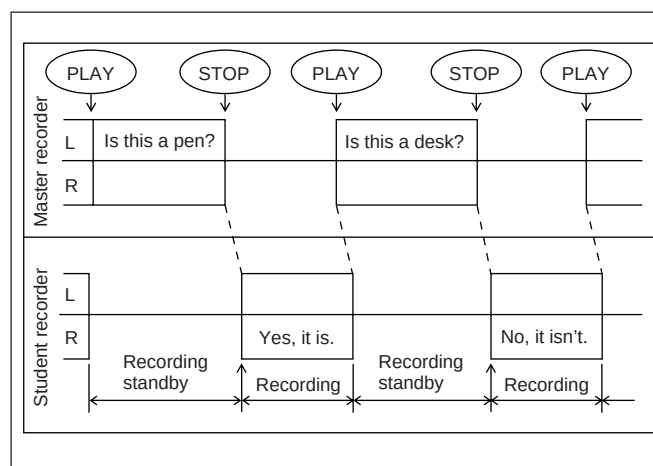
Auto test mode is not available when the EA-80 is used. Omit this topic when the EA-80 is used.

You can test the students automatically when the master recorder and the student recorder are synchronized in auto test mode.

When you distribute a question from the master recorder operating in auto test mode, the student recorders are automatically set to recording standby mode. When the student answers the question, the student recorder begins recording. Only the student's voice will be recorded.

Students who can have an auto test are ones who belong to the currently selected program group.

The following shows the principle of an auto test.

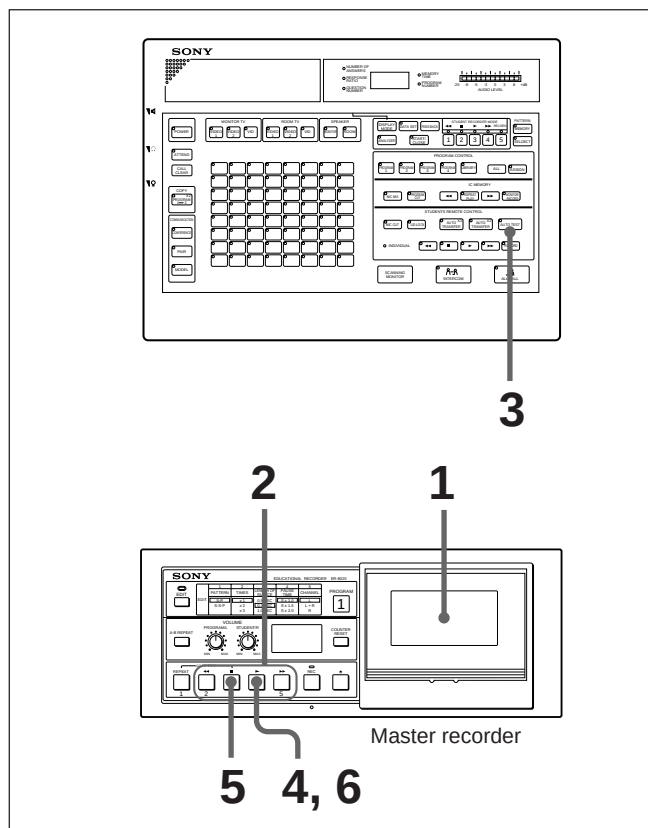


When you operate the master recorder manually, the student recorders will be synchronized.

Prepare the tape in which questions for the auto test have been recorded.

Note

Students in library mode cannot have an auto test. To let them have an auto test, remove them from library mode, and assign them to the proper group.



- 1 Insert the tape of questions into the master recorder corresponding to the group you want to test. Students who belong to the group of that master recorder can have a test.
- 2 Cue the tape to locate the desired question. *For details of how to cue the tape, see "Cuing the Tape" on page 2-14.*
- 3 Press the AUTO TEST button.
- 4 Press the ► button of the master tape recorder. The master tape recorder starts playing back the question.
- 5 Press the ■ button when question comes to an end. The master recorder stops playback and the student recorders start to record the students' answers.
- 6 Press the ► button of the master recorder to distribute the next question. The student recorder is set to stop mode and students can hear the question.
- 7 Repeat steps 5 and 6 until all questions are answered.

To end an auto test

Press the AUTO TEST button.

Giving a Test in Analyzer Mode

You can give a test in analyzer mode by preparing a question program such as questions and possible answers, etc., using a tape recorder or video equipment such as a video presentation stand (VID), etc. The student chooses his/her answer by pressing one of the five response keys on the student recorder. You can see the answering condition and test results on the counter of the control console.

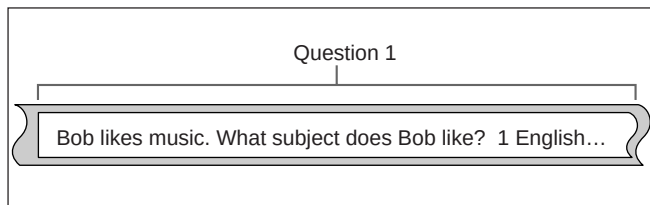
You can give up to 99 questions.

Question program for analyzer test

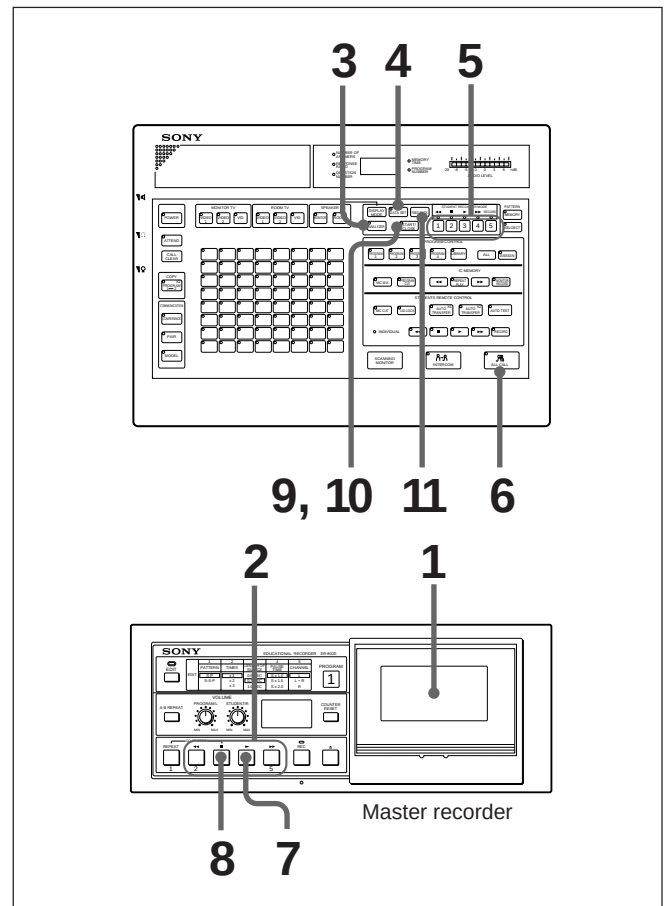
You can prepare tape programs using master recorders and also video programs using video equipment such as a VID.

The following is an examples of an analyzer test using the tape.

Prepare various kinds of analyzer test programs using audio and video equipment.



All the student in the class have the same analyzer test. The following shows the example of the analyzer test using the tape.



Note

Since all the student in the class have the same analyzer test, you have to assign all the students to the same group.

For details, see “Dividing Students into Groups” on page 2-12.

1 Insert a question program into the master recorder corresponding to the group to which all the students have been assigned. Make sure the corresponding PROGRAM button lamp is lit. If not, press the corresponding PROGRAM button so that the lamp lights.

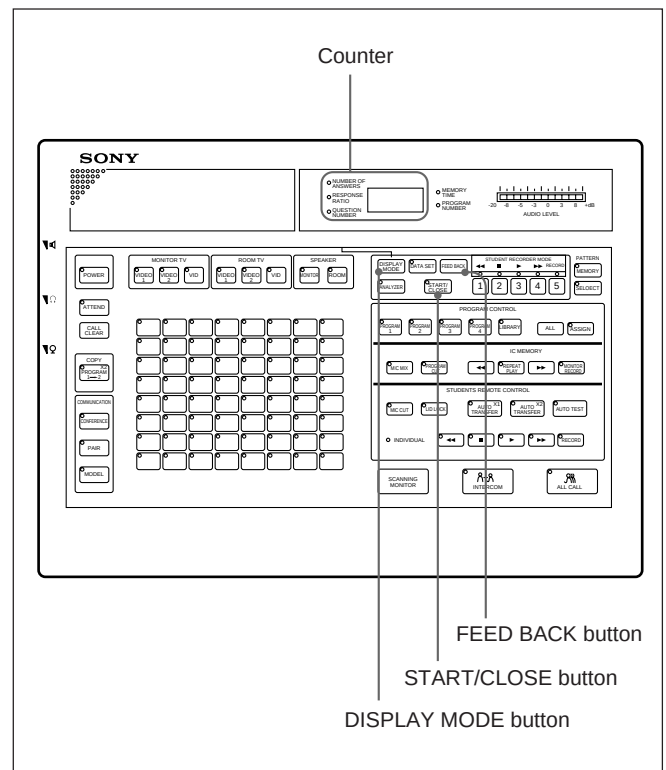
2 Cue the tape to locate the desired question. For details of how to cue the tape, see “Cuing the Tape” on page 2-14.

- 3** Press the ANALYZER button.
The ANALYZER button lamp lights up.
When you have the first question: the DATA SET button is turned on and the DATA SET button lamp light in red and the correct response number buttons 1 to 5 blink. Go to step 5.
- 4** Press the DATA SET button.
The DATA SET button lamp lights in red and the correct response number buttons 1 to 5 blink.
When the ER-8020 student recorder is used, the student uses the tape running buttons on the student recorder because those buttons double as response number buttons.
The EA-80 has dedicated the RESPONSE buttons.
- 5** Press the response number button corresponding to the correct answer.
The pressed response number button lights and remaining four response number buttons go out.
- 6** Press the ALL CALL button and tell students to listen to the tape and answer the question, then press the ALL CALL button again so that the ALL CALL button lamp goes out.
- 7** Press the ► button on the master recorder.
The master recorder starts playback and students can hear the question through the headset.
- 8** Press the ■ button on the master recorder when playback is completed.
The master recorder stops playback.
- 9** Press the START/CLOSE button.
The START/CLOSE button lamp lights in red.
Let students press the button corresponding to the correct answer.
Students start to respond.
You can see the response condition on the counter and monitor buttons.
For details, see the next “Checking the response condition of students”.
- 10** Press the START/CLOSE button again to close the answer.
The START/CLOSE button lamp goes out.
The number of students and percentages for each button are fixed to those when you pressed the START/CLOSE button. The students cannot respond any more.

- 11** Press the FEED BACK button to inform the correct answer to the students.
Pressing and holding the FEED BACK button displays the correct answer number in the counter of the student recorder when the ER-8020 student recorder is used. When the EA-80 is used, the RESPONSE indicator corresponding to the correct answer blinks rapidly.
On the console, the monitor buttons of the students who gave the correct answers blink in green. The correct answer number appears in the counter of the control console.
- 12** Repeat steps 4 to 11 until the last question is finished.
The test result is cleared when the next question is given.

Checking the response condition of students

While giving an analyzer test, you can see the response conditions of students using the counter and monitor button lights.



Giving a Test

To check the response condition on the counter

Whenever you press the DISPLAY MODE button, the display of the counter changes as follows.

Lighting lamp	Display in the counter
NUMBER OF ANSWERS	Number of students who responded.
RESPONSE RATIO	Ratio of number of students who responded to number of students
QUESTION NUMBER	Number of current question

To check the response condition on the monitor buttons

The lamps of monitor buttons change as follows from the start of the analyzer test to close of question.

When the students start to respond after you press the START/CLOSE button

The monitor button lamps of students who press their response button turn green. The monitor button lamps of student who have not responded yet blink in green.

When you press the monitor button for monitoring after you press the START/CLOSE button in step 9

The monitor button lamp does not turn in red even though you can hear his or her voice through the headphone.

When you press the START/CLOSE button again to close the answer, its monitor button lamp turns in red, if you still keep monitoring.

When you press one of response number buttons on the control console

While students are responding, by pressing one of response number buttons, monitor buttons of students who have pressed that response number button on their student recorders light in green. Monitor buttons of remaining students go out.

When you are giving the correct answer by holding down the FEED BACK button

Monitor button lamps of students who gave the correct answer blink in green.

Monitor buttons of students who pressed the wrong answer buttons light in green.

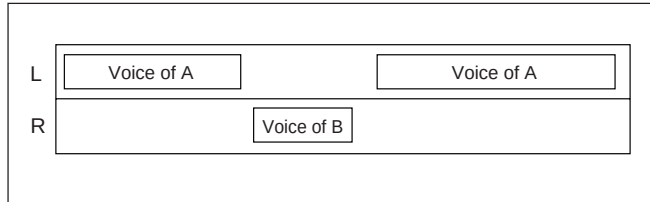
Ending the analyzer test

Press the ANALYZER button. The ANALYZER button lamp goes off and the system leaves from analyzer mode.

Using Master Recorders

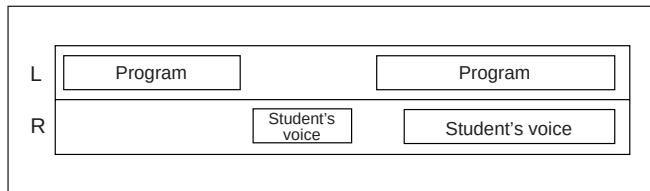
When you use a tape where the program material is recorded in both the L and R channels

- Tape on which conversation of A and B are recorded alternately



To let students hear and record only voice A: select L.
To let students hear and record only voice B: select R.
To let students hear and record both voice A and voice B: select L + R

- Tape on which a student recorded his or her practice

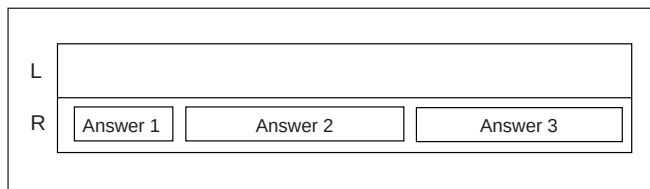


To hear only the student's voice: select R.
To hear both the program and the student's voice: select L + R.

- Tape on which sound is recorded on both channels L and R (like music tape)

To hear only the sound in channel L: select L.
To hear only the sound in channel R: select R.
To hear the sound in both channels: select L + R.

When you use a tape where program is recorded only in channel R



To hear the tape on which the students have recorded their answers in auto test mode: select R.

When the playback sound is too loud or too weak

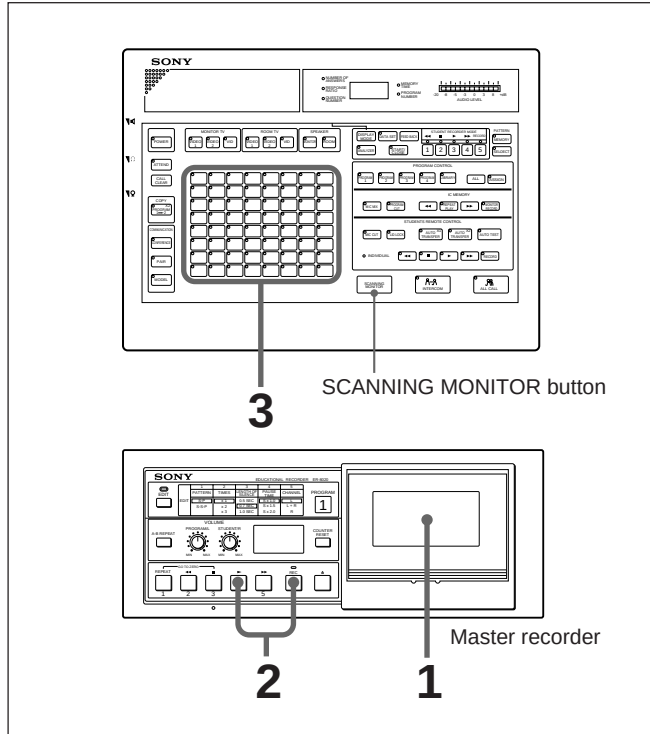
The recording level depends on the tape.

If you play back the tape such as a music tape with L + R channels, the music may play back loudly. In such a case, adjust the output level of the master recorder using the PROGRAM/L VOLUME control and STUDENT/R VOLUME control.

For details of how to adjust, see "To check the tape output level" on page 2-7.

Recording Student Voices

You can record student voices or programs monitored on one of four master recorders 1, 2, 3 and 4.



- 1 Insert the tape in one of the master recorders.

Note

Do not use the program tape to record the student's voice.

If you use the program tape, the important program is replaced with the student voices.

- 2 Holding down the REC button, press the ► button. The master recorder starts to record.
- 3 Press the monitor button corresponding to the student you want to record.

To stop recording

Press the ■ button.

To record students' voices while monitoring in seating order.

Press the SCANNING MONITOR button in step 3, instead of pressing the monitor button.

For detailed information on scanning monitor, see "Monitoring students according to the seating chart order (scanning monitor)" on page 2-31.

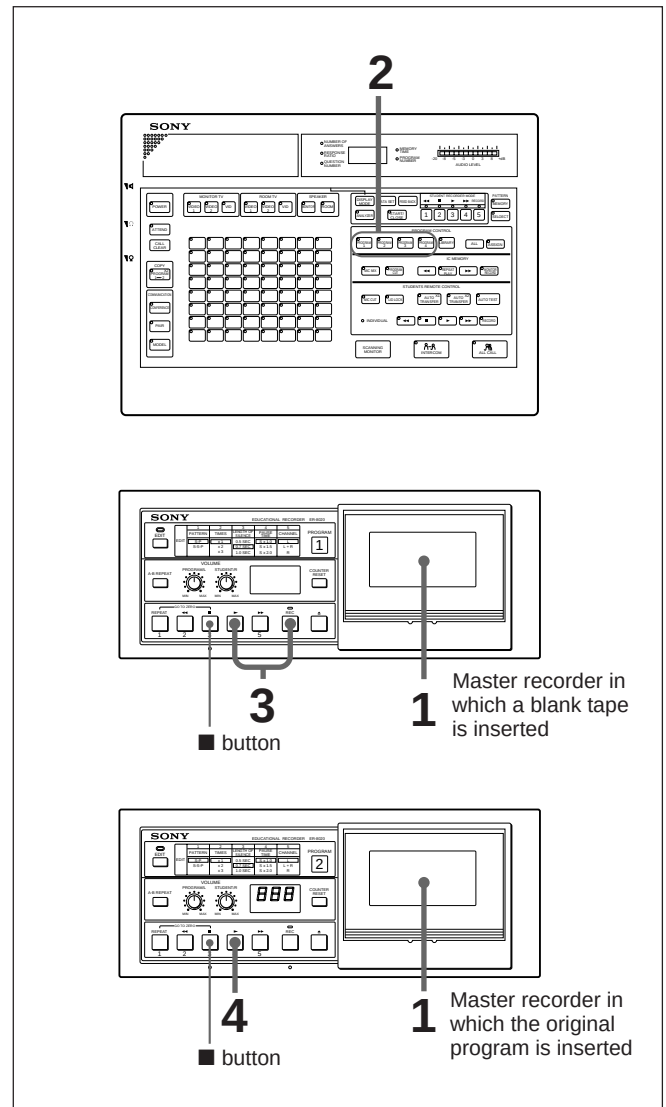
Copying a Tape

You can copy a tape with the following two methods.

- Copying a tape manually from the master recorder to another master recorder at normal speed.
- Copying a tape automatically from the master recorder 1 to the master recorder 2 at double the normal recording speed.

Copying a tape at normal speed

You can copy a tape between any two of four master recorders at normal speed. The following example is to copy a tape from the master recorder 2 to the master recorder 1.



(Continued)

Using Master Recorders

- 1 Insert a blank tape into the master recorder and insert the tape to be copied into another master recorder.
- 2 To monitor the tape being played back, press the PROGRAM button corresponding to the master recorder playing back the original tape. The PROGRAM button lamp lights and you can monitor the sound being copied through the headset while copying.

Note

If you change the PROGRAM button after starting to copy, you cannot copy the tape correctly.

- 3 On the master recorder in which a blank tape has been inserted, press the ► button, holding down the REC button. This master recorder is set to recording mode.
- 4 On the other master recorder in which the original program tape has been inserted, press the ► button.

When copying has been completed

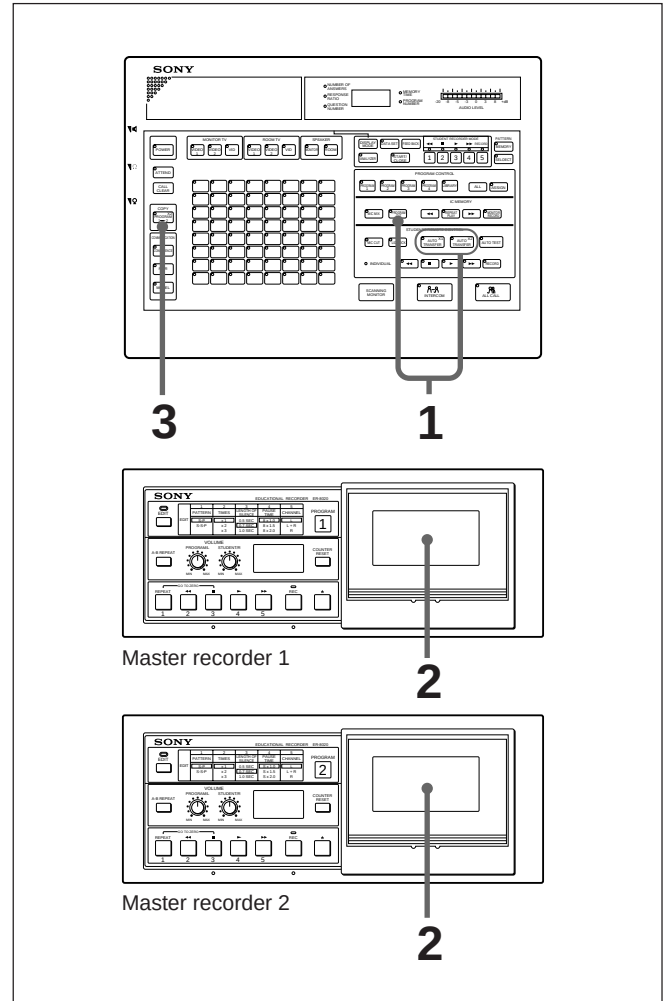
Press the ■ button on both master recorders to stop the tape.

Note

If you press the monitor button to monitor a student's voice while copying, this voice is also copied.

Copying a tape at high speed

You can copy a tape from the master recorder 1 onto the master recorder 2 at double the normal recording speed.



- 1 Confirm that the following button lamps are not lit.
AUTO TRANSFER ×1 button
AUTO TRANSFER ×2 button
If one of these is lit, copying is not possible. Press that button so that the lamp goes out.
- 2 Insert a blank tape into the master recorder 2 and insert the tape to be copied into the master recorder 1.
- 3 Press the COPY ×2 PROGRAM 1→2 button. High speed copying begins.

When copying has been completed

Press the COPY $\times 2$ PROGRAM 1 $\rightarrow$ 2 button. Both recorders stop.

When one of the tapes has been completed

Both recorders stop automatically. To resume copying, turn the completed tape over and press the PROGRAM 1 $\rightarrow$ 2 button.

Notes

- Insert into master recorder 2 a cassette whose safety tab is not removed. Otherwise, the COPY $\times 2$ PROGRAM 1 $\rightarrow$ 2 button will not work to prevent accidental erasure.
- When the AUTO TRANSFER $\times 1$ or AUTO TRANSFER $\times 2$ button is pressed during copying, copying will stop and the function which the button controls will begin.

Editing a Program Tape Using the Edit Function

You can edit an audio program tape using the edit function. This function is very helpful when making a program tape for conversation, etc.

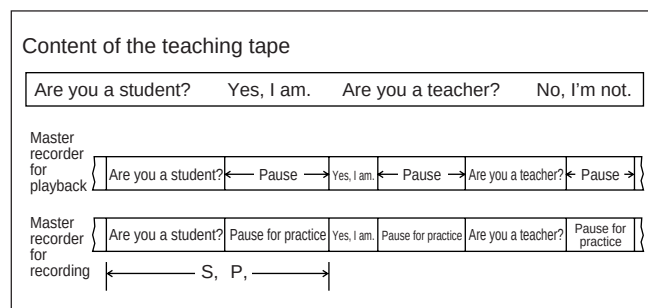
Edit patterns

You can edit an audio program tape using either of the following two edit patterns.

- SP mode
- SSP mode

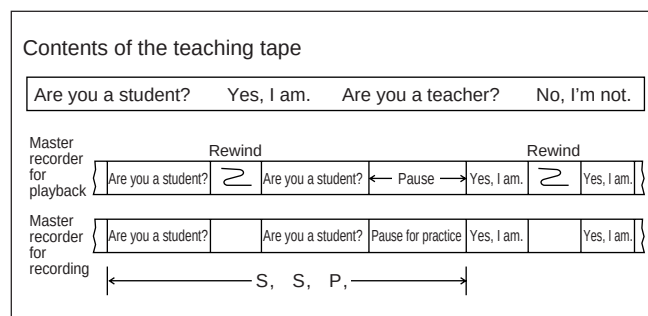
SP mode

After playing back a sentence, a pause for practice is provided on the tape.



SSP mode

A sentence is repeated automatically twice, then a pause for practice is provided on the tape.



Using Master Recorders

Editing a program tape

This section explains how to set an edit mode and edit a program tape.

Use two master recorders to set an edit mode and edit a program tape. You can use any two of four master recorders.

Set the edit mode in one recorder. You can play back a program tape according to the set edit mode using this master recorder.

While playing back the program tape using this tape recorder, you can make a program tape which will be edited according to the edit mode using the other master recorder or student recorders.

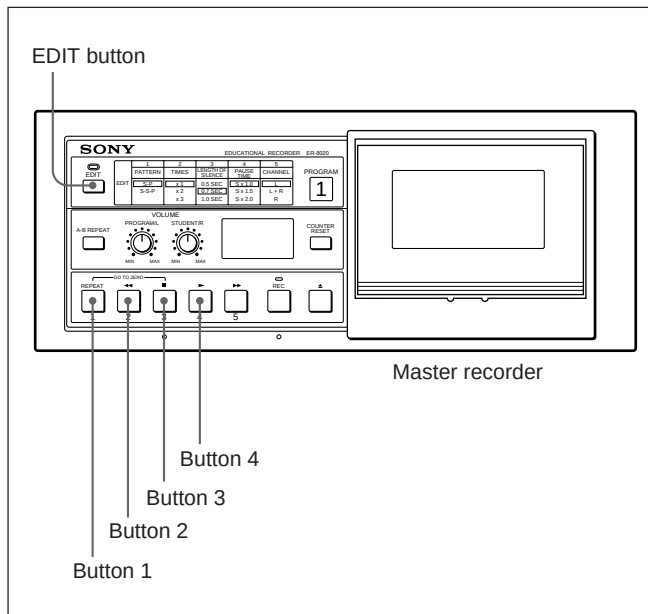
The following two master recorders are taken as an example to instruct how to set an edit mode and edit a program tape.

Master recorder 1: Master recorder in which an edit mode is set.

Master recorder 2: Master recorder that records the edited program tape sent from the master recorder in which the edit mode has been set.

To set an edit mode

Select the edit mode depending on the program tape.

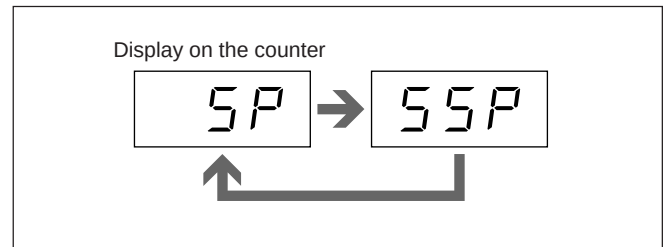


1 Select the edit pattern.

- (1) Holding down the EDIT button, press button 1.

When you press button 1 the first time, the currently selected edit pattern appears in the counter.

Each time you press the button 1, the edit pattern changes in the sequence SP→SSP→SP...



- (2) Release the EDIT button when the desired edit pattern appears.

2 Set the number of times to play back the sentence.

- (1) Holding down the EDIT button, press the button 2.

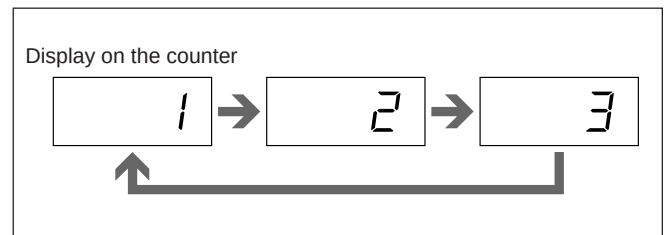
When you press button 2 the first time, the number of times currently selected appears in the counter.

Each time you press button 2, the number of times changes in the sequence of 1→2→3→1...

1: for once

2: for twice

3: for three times



- (2) Release the EDIT button when the desired number appears.

3 Set the interval between the sentences (length of silence).

- (1) Holding down the EDIT button, press the button 3.

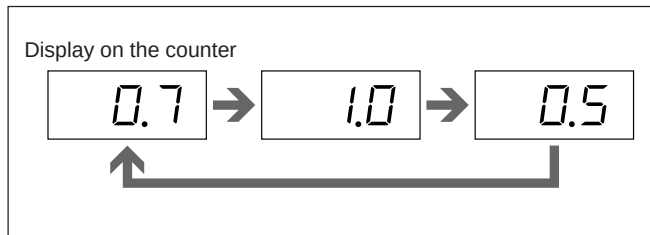
When you press button 3 the first time, the length of silence currently selected appears in the counter.

Each time you press button 3, the length of silence changes in the sequence 0.5→0.7→1.0→0.5...

0.5: When there is a 0.5-second silence between the sentences, the sentence is considered to be ended.

0.7: When there is a 0.7-second silence between the sentences, the sentence is considered to be ended.

1.0: When there is an 1.0-second silence between the sentences, the sentence is considered to be ended.



- (2) Release the EDIT button when the desired length of silence appears.

4 Set the pause length between the sentences.

- (1) Holding down the EDIT button, press button 4.

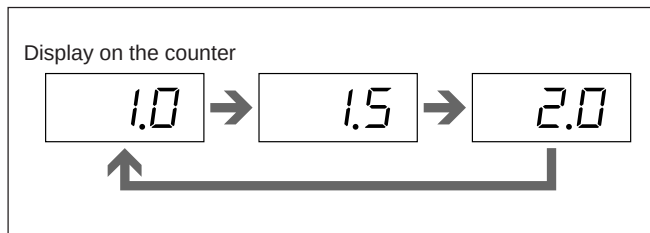
When you press button 4 the first time, the pause length currently selected appears in the counter.

Each time you press button 4, the pause length changes in the sequence 1.0→1.5→2.0→1.0...

1.0: Same length as the sentence

1.5: One and half times the length of the sentence

2.0: Twice the length of the sentence

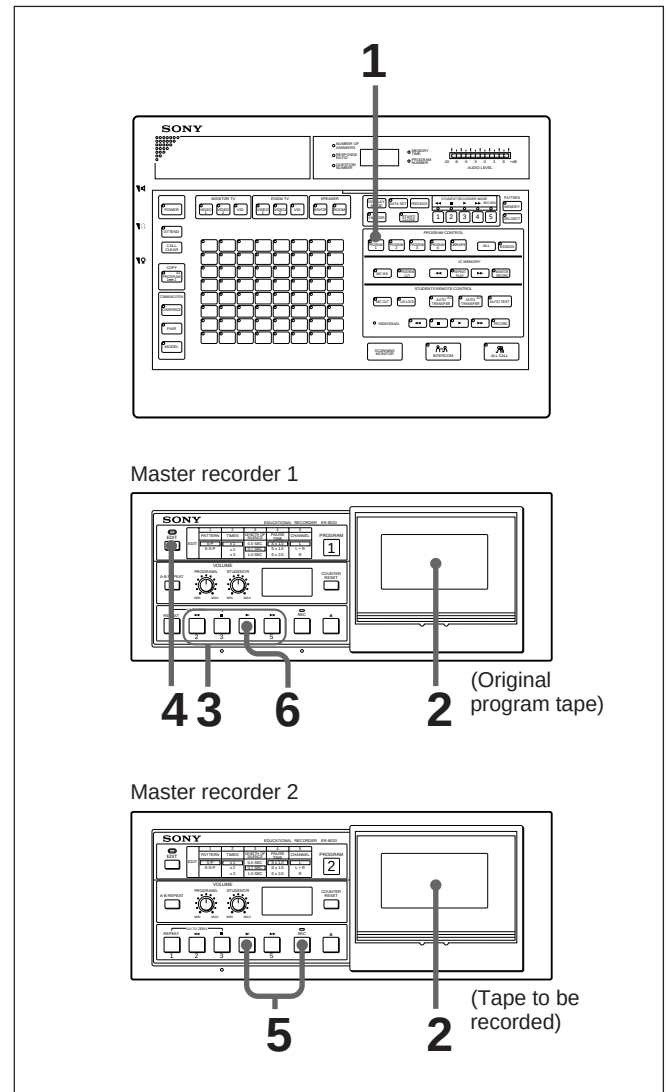


- (2) Release the EDIT button when the desired pause length appears.

The edit pattern has been set. This selected edit pattern remains as long as you do not turn off the power to the system.

To edit a program tape

This section explains how to edit a program tape while copying from master recorder 1 to master recorder 2. You can also use the student recorders instead of master recorder 2.



- 1** Press the PROGRAM 1 button.
The PROGRAM 1 button lamp lights.
- 2** Insert the original tape into the master recorder 1 and a tape to be recorded into master recorder 2.
- 3** Cue the tape on master recorder 1.
- 4** Press the EDIT button on master recorder 1.

(Continued)

- 5** Holding down the REC button, press the ► button on master recorder 2.

The master recorder starts recording.

When you use the student recorders, press the AUTO TRANSFER ×1 button to play back the program tape and to let the student recorders record the tape in step 5.

In this case, you do not need to perform operation in step 6.

- 6** Press the ► button on master recorder 1.
The tape is recorded according to the selected edit mode.

To stop editing

Press the ■ buttons of both master recorders, and press the EDIT button on the master recorder 1.

When one of the tapes has been completed

To resume copying, turn the completed tape over and press the ► button on the master recorder when the tape in the master recorder has been completed, or the ► button while holding down the REC button on the master recorder when the tape in the master recorder has been completed.

Note

Insert into master recorder 2 a cassette whose safety tab is not removed. Otherwise, the edited program will not be recorded.

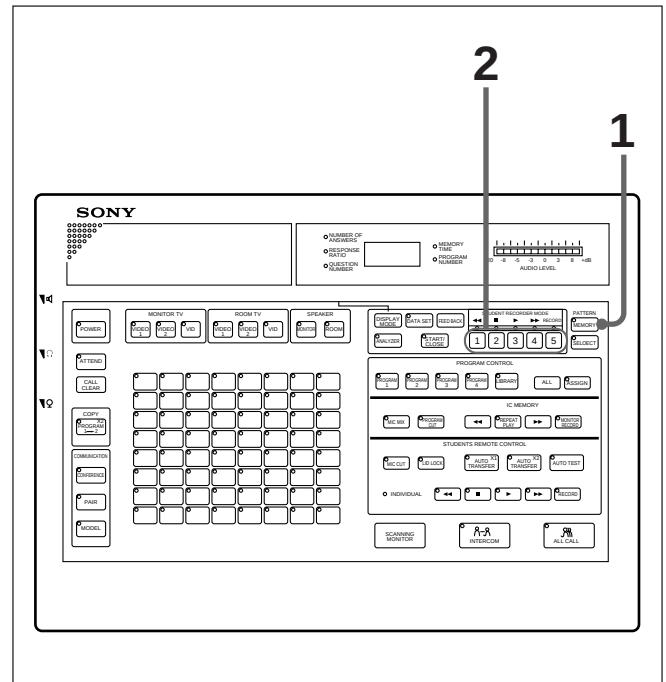
Setting Lesson Patterns

You can set frequently used functions and register them in memory as a lesson pattern. You can set five kinds of lesson patterns.

Items you can set as a lesson pattern are the following 16 items. The 16 items are divided into two groups depending on the setting method.

		Functions	Default
Setting method	Items set during a class	MONITOR TV selection	ON
		ROOM TV selection	OFF
		MONITOR SPEAKER ON/OFF	OFF
		ROOM SPEAKER ON/OFF	OFF
		MIC MIX ON/OFF	OFF
		PROGRAM CUT ON/OFF	OFF
		MIC CUT ON/OFF	OFF
		LID LOCK ON/OFF	OFF
		PROGRAM GROUP selection	PGM 1
		AUTO TRANSFER ×1 ON/OFF	OFF
		AUTO TRANSFER ×2 ON/OFF	OFF
	Items set before the class (added to items set during the class)	Scan direction	Horizontal
		Student recorder compulsory stop ^{a)}	Stop
		Call tone ON/OFF	ON
		CALL button on the student recorder	ON
		Rewinding a tape ^{b)}	Rewinding

- a) You can set whether to stop student recorders when pressing the ALL CALL button or INTERCOM button
- b) You can set whether to rewind a tape in a student recorder or start copying from the current position when copying using the AUTO TRANSFER ×1 or AUTO TRANSFER ×2 function.



- 1 Press the MEMORY button.
The MEMORY button lamp turns red and the pattern number button lamps blink.
- 2 Press the desired pattern number button.
The lamp of the pressed pattern number button lights.
The settings in step 3 are registered in this pattern number.
- 3 Select the desired function of each item.
For how to set, see the reference page in the table.

Function	Page
MONITOR TV selection	2-27
ROOM TV selection	2-27
MONITOR SPEAKER ON/OFF	2-5
ROOM SPEAKER ON/OFF	2-8
MIC MIX ON/OFF	2-22
PROGRAM CUT ON/OFF	2-16
MIC CUT ON/OFF	2-16
LID LOCK ON/OFF	2-16
PROGRAM GROUP selection	2-12
AUTO TRANSFER ×1 ON/OFF ^{a)}	2-22
AUTO TRANSFER ×2 ON/OFF ^{a)}	2-24

- a) To register the function of AUTO TRANSFER ×1 and AUTO TRANSFER ×2, while copying using either of AUTO TRANSFER ×1 or AUTO TRANSFER ×2 function, press the MEMORY button and the desired pattern number button.

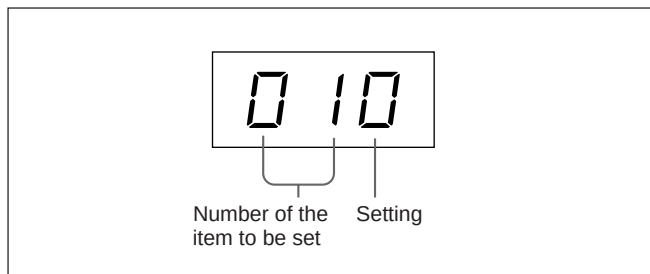
Setting Lesson Patterns

The setting of functions listed in the table can be set individually during a class except control of a class using the analyzer function, by repeating step 1 to 3

Setting additional functions

You have to set additional functions before starting the class.

- 1** Holding down the MEMORY button, press the POWER switch.
The SELECT button lamp lights in red and the pattern number buttons blink.
“┐┐┐” appears in the counter.
- 2** Press the desired pattern number button.
The lamp of the pressed button lights.
The settings in step 3 are registered in this pattern number.
- 3** Set the desired function of each item as follows.
(1) Select the item to be set by pressing the DISPLAY MODE button.
The upper two digits in the counter indicate the number of the item to be set.
And the lowest digit indicates the setting (function) of the item.



When the DISPLAY button is pressed, the currently setting appears.

When you press the DISPLAY button the first time, the upper two digits show “01”. Each time you press the DISPLAY button, the number changes in the sequence 02→03→04→05→01...

- 01: Sets the scanning direction.
02: Sets whether student recorder stops when the ALL CALL or INTERCOM button is pressed.
03: Sets whether a call tone sounds when a student calls.

04: Sets whether the CALL buttons on student recorders are activated.

05: Sets whether a tape is rewound and recording starts or recording starts from the current tape position when copying using the AUTO TRANSFER ×1 or AUTO TRANSFER ×2 function.

- (2) Perform settings of the item selected in step (1).
To set the lowest digit, use the ►► and ◄◄ button on the STUDENT CONTROL section.
To display 0, press the ►► button.
To display 1, press the ◄◄ button.

01: Sets the scanning direction.

Setting	Display of the lowest digit	Press
Vertical	0	►►
Horizontal	1	◄◄

02: Sets whether the student recorder stops when the ALL CALL or INTERCOM button is pressed.

Setting	Display of the lowest digit	Press
To stop	0	►►
Not to stop	1	◄◄

03: Sets whether a call tone sounds when a student calls.

Setting	Display of the lowest digit	Press
To sound	0	►►
Not to sound	1	◄◄

04: Sets whether the CALL buttons on student recorders are activated.

Setting	Display of the lowest digit	Press
To activate	0	►►
Not to activate	1	◄◄

- 05: Sets whether a tape is rewound to the top of the tape and recording starts or recording starts from the current tape position when copying using the AUTO TRANSFER ×1 or AUTO TRANSFER ×2 function.

Setting	Display of the lowest digit	Press
To rewind	0	▶▶
Not to rewind	1	◀◀

- (3) Perform remaining settings.
When you have entered settings 01 to 05, the lamp of the pattern number button pressed in step 2 blinks.
- 4** Press the blinking pattern number lamp button.
The settings performed in step 3 are registered to the pattern number corresponding to the button pressed in step 2. These settings are added to the settings which have been already registered.
- 5** Press the POWER switch.
The power to the system is turned off. The registered functions are effective when you turn on the POWER again.

To register the functions to the remaining pattern numbers

Repeat operations from step 1 to step 5 for every pattern number.

Using the registered lesson pattern

To control the class according to the lesson pattern, select the desired lesson pattern number before the class.

- 1** Press the POWER switch.
The power of the system is turned on.
- 2** Press the SELECT button.
- 3** Press the pattern number button corresponding to the desired lesson pattern.
- 4** Check attendance.
For details of how to check attendance, see “Checking Attendance” on page 2-9.

Specifications

LLC-8000A LL Control Console

General

Power requirement	DC+15V, using the PTU-8 power unit
Power consumption	5.6 A (for the system with one LLC-8000A, four ER-8020 master recorders and 32 EA-80s) 20 A (for the system where one LLC-8000A, four ER-8020 master recorders and 32 ER-8020s)
Dimensions	Operation unit: 380 × 71 × 290 mm (w/h/d) (15 × 2 7/8 × 11 1/2 inches) Control unit: 350 × 390 × 140 mm (w/h/d) (13 7/8 × 15 3/8 × 5 5/8 inches)
Mass	Operation unit: 2.3 kg (5 lb 1 oz) Control unit: 4 kg (8 lb 13 oz)

Input/output connectors

Input	Headset microphone (mini jack) × 1 Input impedance 600 ohms Input level -54 dB Microphone (phone jack) × 1 Input impedance 680 ohms Input level -60 dB Line input (for master recorders) (8-pin) × 4 Input impedance 11 kilohms Input level -10 dB Monitor/intercom (8-pin) × 32 Input impedance 5 kilohms Input level -10 dB Aux 1/2/3/4 (phono jack) × 4 Input impedance 10 kilohms Input level -10 dB Video 1/2/3/4 (phono jack) × 4 Input impedance 75 ohms Input level 1 Vp-p
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Output	Headset (stereo mini jack) × 1 Load impedance 32 ohms Output level -19 dB Intercom (8-pin) Output impedance 1 kilohms Output level -10 dB Program (8-pin) × 32 Output impedance 1 kilohms Output level -10 dB Line output (for master recorders) (8-pin) × 4 Output impedance 1 kilohms Output level -10 dB Monitor speaker (built-in) × 1 Output impedance 8 ohms Output power 1 W Room speaker (phono jack) × 2 Output impedance 8 ohms Output power 2 W Room TV/monitor TV (phono jack) × 2 Output impedance 75 ohms Output level 1 Vp-p
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Supplied Accessories

Installation manual (1)
Operating instructions (1)
Operation card (1)

ER-8020 Master Recorder/ Student Recorder

Audio head	Recording/playback head × 1 Erase head × 1
Recording system	4 track, 2 channels
Wow and flutter	0.08 %WRMS
Input/output	DIN 8-pin connector
Input	Microphone (mini jack) Input impedance 600 ohms Input level -54 dB Program (8-pin) Input impedance 10 kilohms Input level -10 dB Intercom (8-pin) Input impedance 10 kilohms Input level -10 dB

Specifications

Output	Headset (stereo mini jack) Load impedance 32 ohms Output level –19 dB Monitor (8-pin) Output impedance 68 ohms Output level –10 dB
Frequency response	50 to 10,000 Hz
Signal to noise ratio	47 dB (WTD) (at the headset output connector during playback on the ER-8020)
Power requirement	DC +15V, 500 mA
Dimensions	317 × 124 × 114 mm (w/h/d) (2 1/2 × 5 × 4 1/2 inches)
Mass	2 kg (4 lb 7 oz)

EA-80 Educational Amplifier

Input/output	DIN 8-pin connector
Input	Microphone (mini jack) Input impedance 600 ohms Input level –54 dB Program (8-pin) Input impedance 56 kilohms Input level –10 dB Intercom (8-pin) Input impedance 10 kilohms Input level –10 dB
Output	Headset (stereo mini jack) Load impedance 32 ohms Output level –19 dB Monitor (8-pin) Output impedance 68 ohms Output level –10 dB
Frequency response	50 to 10,000 Hz
Signal to noise ratio	55 dB (WTD) (at the headset output connector when the signal is input from the headset microphone of the EA-80)
Power requirement	DC +15V, 50 mA
Dimensions	120 × 100 × 45 mm (w/h/d) (4 3/4 × 4 × 1 13/16 inches)
Mass	200 g (7 oz)

PTU-8 Power Unit for LLC-8000A System

Power requirement	Model for the USA and Canada: 120 V AC Model for the European countries: 230 V AC Model for other countries: 110 to 240 V AC
Power consumption	Model for the USA and Canada: 4.5 A Model for the European countries: 3.5 A Model for other countries: 600 W
Rated power output	DC +15 V
Rated current output	DC 24 A (6 A × 4)
Mass	4 kg (8lb 13oz)

When the ER-8020 student recorders are used, the unit can supply the power up to 32 student recorders, a control console and 4 master recorders. To supply the power to the student recorders of more than 32 and up to 64, the second PTU-8 should be used. When the EA-80 educational amplifiers are used, the unit can supply the power up to 64 educational amplifiers, a control console and 4 master recorders.

LU-800B/801B Conference Board

Power requirement	DC+15V from IF-645A board
Input/Output	Monitor (50-pin connector CN1 to CN 4) Input path: Input impedance 13 kilohms Input level –10 dB Output path: Output impedance 10 ohms Output level (at 1 kHz) –10 ±2 dB Signal to noise ratio more than 65 dB (WTD. IEC-179-A) Frequency response 50 to 10,000 Hz Crosstalk more than 65 dB (WTD. IEC-179-A) Signal to noise ratio in 64-student conference mode more than 50 dB (WTD. IEC-179-A)
Dimensions	LU-800B/801B: 300 × 48 × 180 mm (w/h/d) (11 7/8 × 15/16 × 7 1/8 inches)
Mass	LU-800B: 0.45 kg (16 oz) LU-801B: 0.65 kg (1 lb 7 oz)

The LU-800B Option Board is required to hold the random pair practice and group conference practice for up to 32 students.

The LU-801B Option Board is required to hold the random pair practice and group conference practice for up to 64 students.

Design and specifications are subject to change without notice.

Note

The system has been tested to guarantee the normal operation under harmful radio frequency electromagnetic interference by other electronic equipment. However, care should be taken not to be affected by a hand-held telephone or a transceiver, for example, used in close proximity of the system, which may cause some degradation in sound quality of the system.

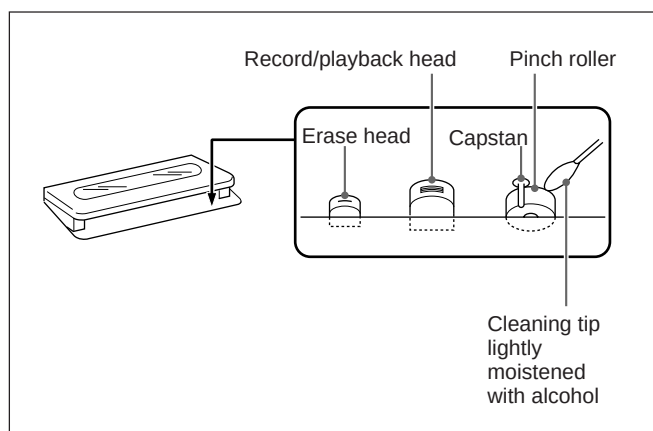
Maintenance

Cleaning the Cabinet

Clean the cabinet and panels by wiping with a soft, dry cloth. For severe stains, moisten the cloth with a small amount of neutral solvent, and finish by wiping with a dry cloth. Do not use alcohol, benzine, thinners or volatile liquids, as these may discolor or damage the cabinet surface.

Cleaning the Heads

Keeping the tape heads in a clean condition is essential to the proper operation of the ER-8020. The accumulation of dust and tape oxides on the heads will result in sound drop-outs, a loss of high frequency response and excessive tape wear.



- 1** Turn on the power of the ER-8020 tape recorders. To turn on the master recorders, press the POWER switch of the LLC-8000A. They are automatically turned on.
To turn on the student recorders, press the ATTENDANCE button on the student recorder after the LLC-8000A power is switched on.
- 2** Press the EJECT button to open the cassette holder lid.
Remove the cassette, if present.
- 3** Press both A-B REPEAT button and COUNTER RESET button and hold them down.
The heads come forward and the capstan and pinch roller rotate. You can now access them easily.
- 4** When the heads come forward, release either the A-B REPEAT button or the COUNTER RESET button.
The head section remains with either of the two buttons held down.
- 5** Moisten a cotton swab or soft cloth with a denatured alcohol, and gently wipe the heads, capstan, and pinch roller over which the tape travels. Avoid catching the cotton between the pinch roller and capstan.
- 6** Push the button to release it.
The head section is returned to its original position, and the capstan and pinch roller stop rotating.
- 7** Close the cassette holder lid.

Note

Do not operate the recorders for about three minutes until alcohol left on the head is evaporated.