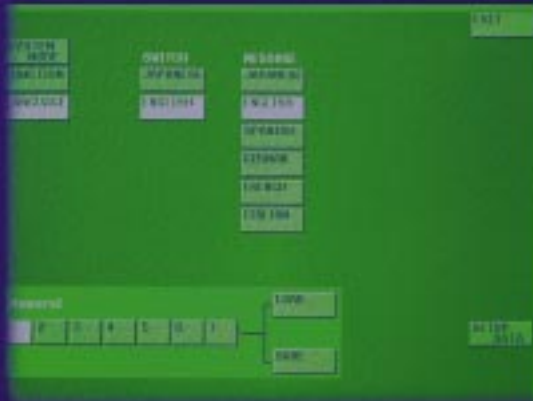
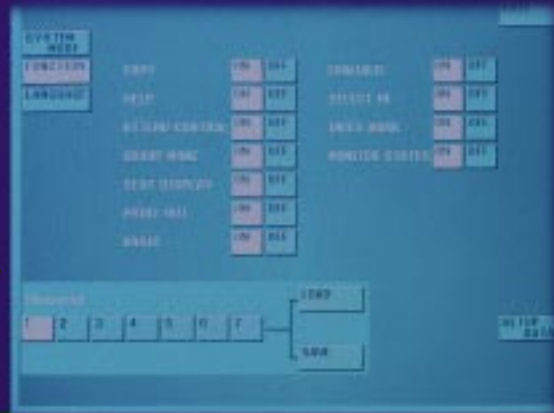


SONY®

Learning Laboratory System **LLC-9000 System**



*Innovative, sophisticated,
and easy to use by
teachers and students*



*The Sony LLC-9000 System
provides outstanding versatility
for effective training*

LLC-9000



The LLC-9000 has achieved worldwide acclaim in the education field as a comprehensive learning system that produces excellent training results. However, it is not limited to being just an outstanding tool for traditional language teaching—its abilities can be equally applied to audio/visual classes, providing a video library or teaching the skills required for simultaneous language interpretation. Combining the LLC-9000 and a personal computer can extend its versatility to forming the basis of a Computer Assisted Learning Laboratory.

The LLC-9000 features many advanced functions, selected by a simple-to-use touch screen CRT display. The display provides quick, easy access to these functions so that a teacher can rapidly set up different instruction patterns. It also provides detailed information on student progress, seating plans, working groups and so on.

The LLC-9000 system has a wide range of optional peripheral units. This makes it easy to provide facilities for a system with varying levels of sophistication and to tailor them to differing numbers of students. For example,

the Video Units are key components. Each unit enables up to four VTRs to be integrated into a system so that different video programs can be individually assigned to students. The Program Editor is another important component. Providing the facilities needed to prepare teaching tapes. The Response Analyzer allows student responses to be fully analyzed, while Management Software enables teachers to easily manage class data such as student names and attendance records.

With this degree of sophistication in its design, a full range of advanced functions and excellent system flexibility, the Sony LLC-9000 continues to be the obvious choice for learning laboratory applications.



LLC-9000 Control Console

The Control Console uses both push button switching and a touch screen display to provide complete system control. Using two types of switching gives a very logical separation of control functions.



Console switches provide complete control over class teaching

Console switches are positioned below the CRT display for instant access. Frequently used switches, such as INTERCOM, ALL CALL, MODEL and PAIR can be used at any time during class sessions. Program levels are easy to adjust for differing requirements.

- 1 The INTERCOM (inter-communication) switch:
Permits conversation between the teacher and individual students.
- 2 The ALL CALL switch:
Allows the teachers' voice to be heard through all students' headsets.
- 3 The MODEL switch:
Allows a particular student's voice to be heard by all the class as a model voice.
- 4 The PAIR switch:
Combines students in pairs so that they can practice conversation. The teacher can choose whether pairs are made up automatically and randomly.
- 5 Student recorder control section
- 6 Audio/Visual control section

Touch Screen for quick, simple operation

The LLC-9000 Control Console uses a touch screen, making it easy to select functions with just the touch of a fingertip. A layout of the students' seating is displayed in the center of the monitor. Using the seat display keys, the teacher can check attendance, make random groups / pairs, monitor individual student's voice practice, assign audio / video programs and check the operational status of all student recorders.

When one of the function switches in the monitor display is touched, a supplementary panel on the lower part of the screen is opened and operational instructions are displayed.

All the teacher then has to do is select one of several set up conditions by following these operational messages.

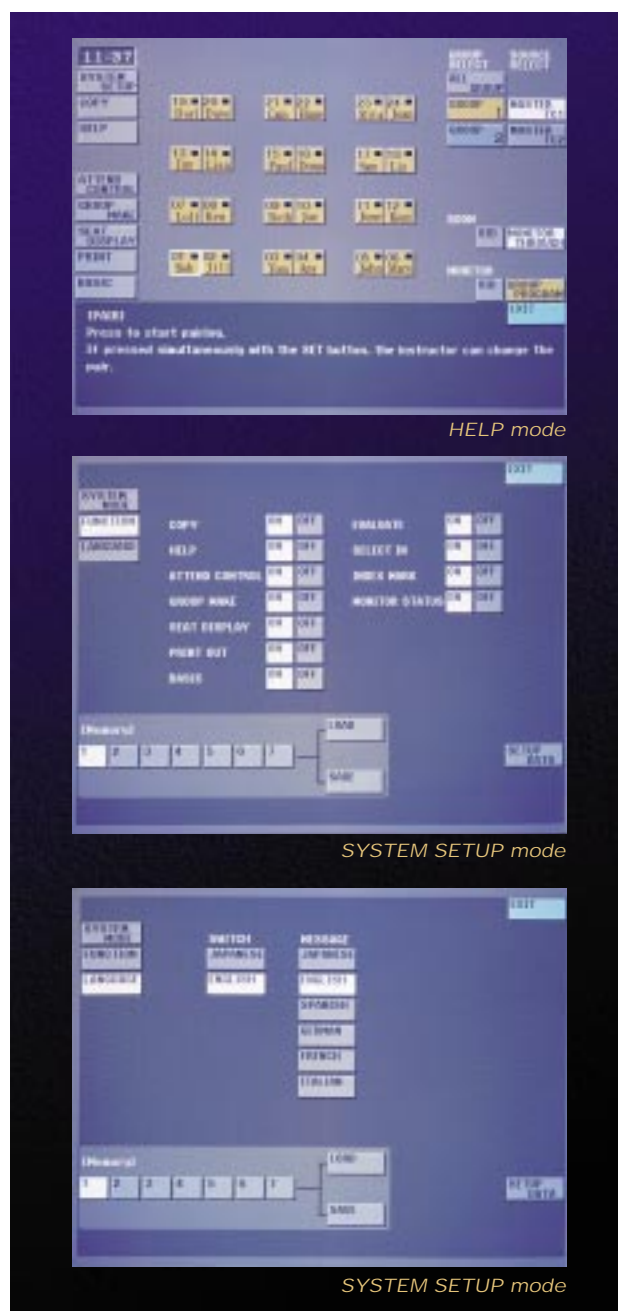
BASIC and HELP modes provide a guide to easy operation

In the BASIC and HELP modes, operational information is displayed on the CRT. This information is displayed from a choice of English, German, French, Italian or Spanish texts.

The BASIC function provides the teacher with comprehensive instructions on how to proceed with the class lesson. So even a teacher inexperienced in LL tuition can easily proceed with teaching a class, just by following the on-screen display of instructions and the flashing LED on the control panel. The HELP function explains the use of the Master Console buttons, so that their functionality is easily understood, even by a



beginner. When the teacher touches the HELP button and a function button, an explanation of the operational use of that function is displayed.



Memorizing instruction patterns

From the range of available functions, the teacher uses the SYSTEM SETUP mode to select only those needed for a particular class. This eliminates unnecessary functions from the screen, making it easier to operate the system.

Instruction patterns can be memorized in the internal RAM, so that the teacher does not have to set up a menu every time a class begins. Up to seven instruction patterns can be memorized.

Random group make up

Any student can be assigned to a random group, the teacher initiating this random selection from the student seat display, in the center of the CRT. Up to four different audio / visual programs can be assigned to each group.

Seat display

Using the SEAT DISPLAY mode, information such as seat number, student recorder situation, analyzed scores, evaluation data, student time keeping, etc. is displayed for each student.

Stereo sound reproduction

The LLC-9000 system reproduces audio recordings in stereo sound. Teachers can make use of the increasing availability of stereo audio/visual material to add a greater sense of reality to language learning. This is also ideal for simultaneous interpretation training. However, in the Simul Mode, students cannot hear their own voice from the headset to facilitate interpretation practice. Audio sources can be selected to the stereo channel and Left/Right balance controlled.

Master Recorders ER-9052/9062 and Student Recorders ER-9030/9060

There are two types of both Master Recorder, ER-9052/9062 and Student Recorder, ER-9030/9060. The ER-9062 and ER-9060 provide a high-speed copy function. The teacher can remotely control all the student recorder functions from the control console, except for the Sentence Repeat and A-B Repeat Function.

Index Search function

Index Search function allows up to five preset points to be marked at random in audio teaching recordings. These points can be recalled quickly for replay of the desired portion of the tape.

Liquid Crystal Display

An easy-to-read LCD shows a tape counter, program number, volume control, and L/R balance settings, etc.

Sentence Repeat function

When the REPEAT button is pressed, the tape recorder rewinds the tape to the beginning of the sentence and replays it immediately.

A-B Repeat function

A teacher can register two points at random on the teaching tape. The section of tape between these two points can be repeated up to ten times.

High speed tape copying with the ER-9062/ER-9060

The Master Recorder ER-9062 and the Student Recorder ER-9060 are designed to copy tapes at four times normal speed. Copying programs between master recorders and student recorder is performed quickly to save times when preparing lessons.



ER-9062



ER-9060

Model Name	Combination-1		Combination-2	
	ER-9052	ER-9030	ER-9062	ER-9060
Functions				
Stereo Sound	●	●	●	●
LCD Display	●	●	●	●
Double Deck	●	—	●	—
Index Search	●	●	●	●
Sentence Repeat	●	●	●	●
A-B Repeat	●	●	●	●
High Speed Copy	—	—	●	●
Tape Speed Control	—	—	—	●

System expandability with optional equipment

The LLC-9000 Control Console can be combined with different types of peripheral units, so that systems can be built up to various levels to meet individual requirements. This is one of the most powerful features of the LLC-9000 System.

Student Response Analyzing function with the RN-9000 Response Analyzer

The RN-9000 Response Analyzer displays the students' learning progress and test score. Response results of up to 100 questions can be added together and analyzed. Questions are fed from the master tape recorder to the student's headset, to be answered by pressing one of five buttons on the student recorder. The current number of responses and current percentage of correct answers is shown on the control console display. In the student seat display, those who answer correctly are displayed in white, and those who answer incorrectly, in black. If the FEEDBACK switch is pressed after each question, the correct answer is indicated to students on the LCD of their recorders. The teacher's monitor and room monitor (NTSC only) can display data such as START/CLOSE display with time progress, response distribution list and cumulative response/correct-answer curve per second. Additionally, a built-in thermal printer provides hard copies of data including student-problem table, student score/rank, percentage of correct answers, response distribution and problem analysis. These are extremely useful for analyzing lesson questions and student responses to improve class performance.

***** STUDENT SCORE/RANK *****										***** PROBLEM ANALYSIS *****									
GROUP-1					GROUP-1					GROUP-1					GROUP-1				
STD	RANK	SCR	CRCT%	Z-SCR	STD	RANK	SCR	CRCT%	Z-SCR	QNO	CORRECT	NO CORRECT	CRCT%	Z-SCR	QNO	CORRECT	NO CORRECT	CRCT%	Z-SCR
01	2	26	88.7	61.5	02	7	22	73.3	55.5	1	1	26	54.2	2	3	27	56.3		
03	3	24	80.0	58.5	04	13	21	70.0	54.0	3	5	24	50.0	4	1	29	60.4		
05	13	21	70.0	54.0	06	18	20	66.7	52.5	5	2	35	72.9	6	3	29	60.4		
07	27	18	60.0	49.5	08	7	22	73.3	55.5	7	4	29	60.4	8	5	29	60.4		
09	27	18	60.0	49.5	10	18	20	66.7	52.5	9	1	27	56.3	10	2	31	64.6		
11	13	21	70.0	54.0	12	23	19	63.3	51.0	11	3	30	62.5	12	4	21	43.8		
13	27	18	60.0	49.5	14	18	20	66.7	52.5	13	5	28	58.3	14	1	33	68.8		
15	7	22	73.3	55.5	16	23	19	63.3	51.0	15	2	34	70.8	16	3	30	62.5		
17	6	23	76.7	57.0	18	44	12	40.0	40.5	17	4	35	72.9	18	5	29	60.4		
19	42	13	43.3	42.0	20	47	8	26.7	34.5	19	1	30	62.5	20	2	31	64.6		
21	48	4	13.3	28.5	22	45	11	36.7	39.0	21	3	34	70.8	22	4	29	60.4		
23	7	22	73.3	55.5	24	3	24	80.0	58.5	23	5	36	75.0	24	1	28	58.3		
25	18	20	66.7	52.5	26	37	15	50.0	45.0	25	2	28	58.3	26	3	31	64.6		
27	41	14	46.7	43.5	28	45	11	36.7	39.0	27	4	28	58.3	28	5	17	35.4		
29	42	13	43.3	42.0	30	37	15	50.0	45.0	29	1	29	60.4	30	2	33	68.8		
31	37	15	50.0	45.0	32	23	19	63.3	51.0										
33	1	29	96.7	66.0	34	3	24	80.0	58.5										
35	13	21	70.0	54.0	36	27	18	60.0	49.5										
37	18	20	66.7	52.5	38	34	16	53.3	46.5										

Printed data from RN-9000

Individual assignment for four video teaching programs

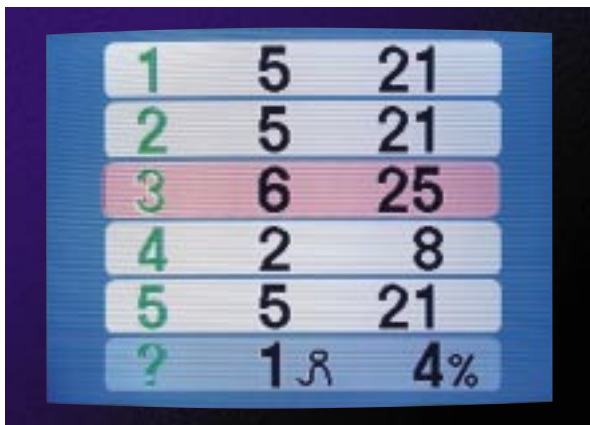
Current learning laboratory systems are being integrated with visual equipment. Some LL Systems are equipped with a monitor TV for each student but, with such systems, students can see only one program at a time. The Video Control Unit LU-V900 and Video Distribution Unit LU-V910 allow the teacher to individually assign video-teaching programs to students from up to four VTRs. The program assignment can be performed easily by use of the seat display keys on the control console CRT. From the student positions, video programs are also selectable. Each LU-V910 has 16 outputs and support up to eighty students.

Remote control of video equipment with the LU-R900 enhances training

The Remote Control Unit LU-R900 provides desktop operation of video equipment such as VTRs, DVD players via their Control-S terminal. Remote control of a classroom TV powered via the terminal is also included. The Remote Control Unit can execute advanced functions such as Memory Search and Chapter Search, if the video equipment is equipped with these functions. By allowing the smooth integration of video sources into a training program, the LU-R900 helps the teacher enrich the learning process.



RN-9000



Display monitor showing analyzer results



LU-R900

LU-916 Expansion Unit increases student numbers

The standard configuration of the LLC-9000 system is arranged for forty-eight students. Using the Expansion Unit LU-916, the number of students can be increased up to eighty. Each unit supports up to sixteen additional students and up to two units can be integrated into a system.

Program editing function with the Program Editor PME-900

The Program Editor PME-900 provides teaching tapes which can include repeats and pauses for student practice. The teacher can select from one of three editing patterns to adjust parameters such as length of pause, length of interval between sentences and temporary cancellation of editing mode sentence by sentence.

Class management with LL Management Software LSJ-9000

With a PC connected to the LLC-9000 via its RS-232C port and with LSJ-9000 software installed, the teacher can input the students' names. These are displayed on-screen so that the teacher can relate students to their names. Seating arrangements can also be easily changed by drag-and-drop or copy/paste. The original data can be directly keyed in, or loaded from a CSV-format file.

In addition, the analyzer data, attendance data and evaluation data can be stored and added up automatically.

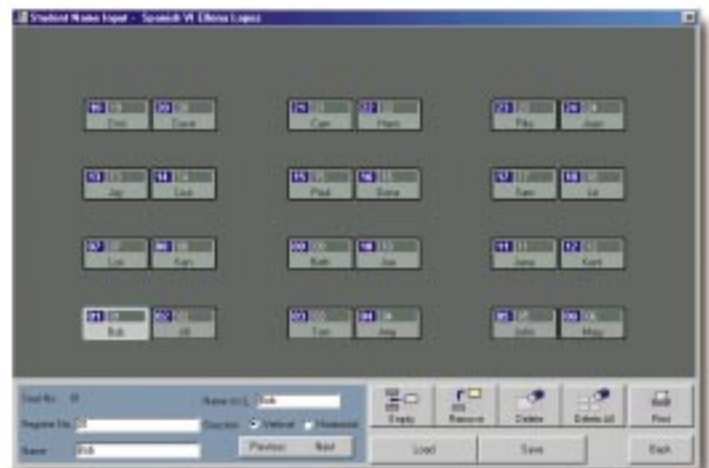
As it is becoming normal for a class to have at least one computer in the room, the LSJ-9000 Software is able to enhance the functionality of the LLC-9000 System.

Expanding teaching methods with RS-232C control

Because the LLC-9000 has an RS-232C interface it has the potential to expand the use of LL classroom; not only as a language laboratory, but also as a multi-purpose classroom, computer assisted classroom, etc.



Class Window



Class/Student Name Input Window

The LLC-9000 System Can Be Used In...

A basic class

Listening is one of the most important elements of learning a new language. Being able to visualize places and situations relating to a language is a valuable part of this learning process. Authentic material brings a language to life.

The Sony LLC-9000 combines superb sound quality, with a line-up of video presentation products, allowing a true multimedia learning experience.

The LLC-9000 System has a stereo output capability that makes full use of stereo audio and video teaching materials. Combine these with random pairing and grouping of students for conversation practice and discussion, or selecting a student to be a model voice, and a class can appreciate a variety of learning stimuli. After material has been presented, a quick measure of comprehension can be taken using the analyzer and the results printed out. This system is also easy for teachers to use the touch screen gives quick random access and simple operation and the BASIC and HELP modes provide an easy guide through the operation. The potential for student learning, and for providing interesting and stimulating classes, is limitless and led by the imagination and creativity of the teacher and students.



A Video Library and Simultaneous Interpretation training

With its full range of features, the LLC-9000 System is able to meet requirements for special classes.

A Library mode enables the LLC-9000 System to serve as an audio and video library, from which students can independently select video and audio programs. The classroom can be used as an open class in which the students can work independently at their own pace. In addition, because of its stereo output, the LLC-9000 system can be used for lessons that involve simultaneous interpretation. In this application, the L channel carries the main teaching material and the R channel provides associated teaching material. Alternatively, the R channel can be used by the student to record his or her own voice. The voice cannot be heard by the student during recording, but is available for later use if required.



The computer-assisted LL class

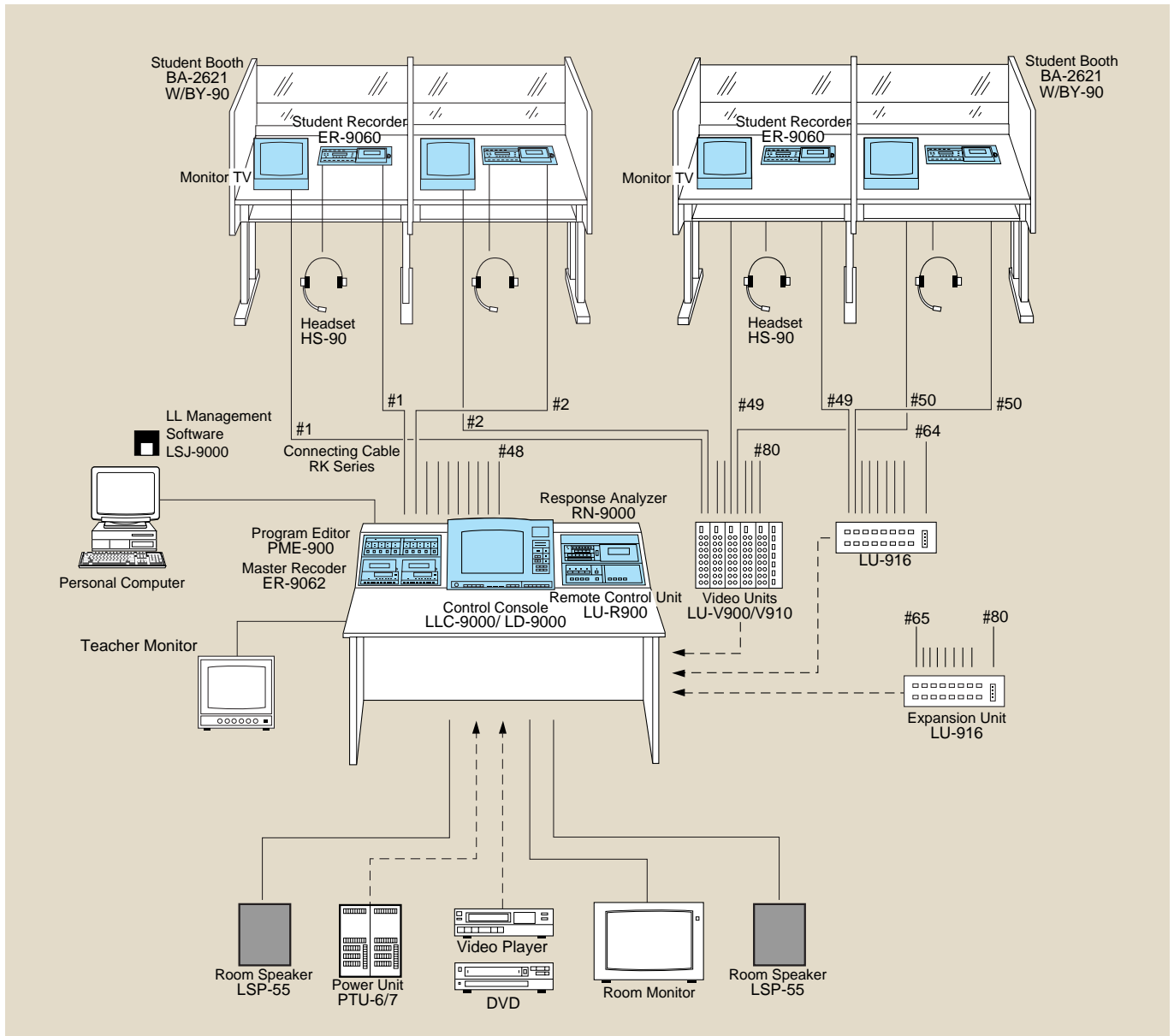
The LLC-9000 enriches the speaking and listening skills of students. Integrating the language learning system with a personal computer adds still another dimension to the teaching and learning process.

The LLC-9000 RS-232C Serial Communication Port can support a Computer Assisted Learning Laboratory. Uses range from analyzer data transfer for student records to exploring the world via CD-ROM or the Internet.

The language laboratory is no longer restricted to language instruction, but through the integration of computers it can be used as a multi-disciplinary tool.



System Configuration



Model Name	Product Name	Number of Students			
		32	48	64	80
LLC-9000	Control Console	1	1	1	1
ER-9062	Master Recorder	1	1	1	1
RN-9000	Response Analyzer	1	1	1	1
PE-9000	Printing Paper Roll	1	1	1	1
LU-R900	Remote Control Unit	1	1	1	1
PME-900	Program Editor	1	1	1	1
LSJ-9000	LL-Management Software	1	1	1	1
PTU-6	Power Supply Unit	1	-	2	1
PTU-7	Power Supply Unit	-	1	-	1
LU-916	Expansion Unit	-	-	1	2
LU-V900	Video Control Unit	1	1	1	1
LU-V910	Video Distribution Unit	2	3	4	5
LD-9000	Desk Assembly	1	1	1	1
LD-910	Desk Assembly (Side Table)	2	2	2	2
LD-91S	Inner Shelf	2	2	1	1
LD-91F	Front Shelf	-	-	1	1
LD-91D	Desktop Shelf	-	-	1	1
Monitor for Teacher		1	1	1	1
Monitor for Students		32	48	64	80
ER-9060	Student Recorder	32	48	64	80

Model Name	Product Name	Number of Students			
		32	48	64	80
BA-2621	Booth Assembly	16	24	32	40
BY-90	Mounting Panel	16	24	32	40
HS-90	Headset	33	49	65	81
LSP-55	Room Speaker	2	2	2	2
Room Monitor		1	1	1	1
3C-2V	100 m Video Cable	3	4	6	7
BNC-531P	BNC Connectors (50 pcs)	2	3	4	5
UGC-2	2 m BNC Cable	5	5	5	5
RK-C75	Audio Connecting Cable	4	4	4	4
EAC-58	Adaptor (Phono to BNC)	5	5	5	5
RK-9080	8 m Connecting Cable	4	4	4	4
RK-9095	9.5 m Connecting Cable	8	8	8	8
RK-9110	11 m Connecting Cable	8	8	8	8
RK-9125	12.5 m Connecting Cable	12	12	12	12
RK-9140	14 m Connecting Cable	-	12	12	12
RK-9155	15.5 m Connecting Cable	-	4	8	12
RK-9170	17 m Connecting Cable	-	-	8	12
RK-9185	18.5 m Connecting Cable	-	-	4	8
RK-9200	20 m Connecting Cable	-	-	-	4

LLC-9000 Specifications

Inputs:

Headset microphone

Mini jack x2
Impedance 600 Ω
Level -54 dBu

Microphone

Phone jack x1
Impedance 600 Ω
Level -60 dBu

Master recorder

15-pin multi connector x4
Impedance 47 k Ω
Level 0 dBu

Audio

Phono connector x4
Impedance 47 k Ω
Level -5 dBu

Monitor

15-pin multi connector x48
Impedance 2.2 k Ω (L), 5.7 k Ω (R)
Level 0 dBu

Video

Phono connector x6
Impedance 75 Ω
Level 1Vp-p

Outputs:

Headset

Stereo mini jack x2
Impedance 32 Ω
Level -19 dBu

Intercom

15-pin multi connector x48
Impedance 1 k Ω
Level -5 dBu

Program

15-pin multi connector x48 (L,R)
Impedance 247 Ω
Level -5 dBu

Line

Phono connector x1
Impedance 1 k Ω
Level -5 dBu

Recording

Phono connector x5
Impedance 1 k Ω
Level -5 dBu

Room speaker

Phono connector x2 (L, R)
Impedance 8 Ω
Power 5 W

Video monitor

Phono connector x1
Impedance 75 Ω
Level 1Vp-p

Room monitor

Phono connector x2
Impedance 75 Ω
Level 1Vp-p

Video line

Phono connector x4
Impedance 75 Ω
Level 1Vp-p

Video recording

Phono connector x1
Impedance 75 Ω
Level 1Vp-p

Interface:

RS-232C D-sub 9-pin (male)

Frequency response:

Program 50 to 40,000 Hz
Monitor 50 to 12,000 Hz
Intercom 50 to 6,000 Hz

Signal-to-noise ratio:

Program 52 dB
Monitor 45 dB
Intercom 43 dB

General:

Power requirements

AC 120 V or 220 to 240 V

Power consumption

2.7 A (120 V model)
230 W (220 to 240 V model)

Dimensions

1208 (W) x 799 (H) x 800 (D) mm (with LD-9000)
(47 5/8 x 31 1/2 x 31 1/2 inches)

Mass

70.3 kg (155 lb) (with desk assembly LD-9000)
33.3 kg (73 lb 7 oz) (without LD-9000)

Peripheral Equipment



Master Recorder
ER-9062

- ◆ Four times normal speed tape copying
- ◆ Quick index searching
- ◆ Dual tape mechanism
- ◆ Liquid crystal display
- ◆ Sentence Repeat function
- ◆ Stereo sound reproduction



Student Recorder
ER-9060

- ◆ Four times normal speed tape copying
- ◆ Tape speed control
- ◆ Quick index searching
- ◆ Liquid crystal display
- ◆ Sentence Repeat function
- ◆ Stereo sound reproduction
- ◆ L/R balance control



Master Recorder
ER-9052

- ◆ Quick index searching
- ◆ Dual tape mechanism
- ◆ Liquid crystal display
- ◆ Sentence Repeat function
- ◆ Stereo sound reproduction



Student Recorder
ER-9030

- ◆ Quick index searching
- ◆ Liquid crystal display
- ◆ Sentence Repeat function
- ◆ Stereo sound reproduction
- ◆ L/R balance control

		Master Recorder		Student Recorder	
		ER-9062	ER-9052	ER-9060	ER-9030
Heads	REC/PB	1 x 2	1 x 2	1	1
	Erase	1 x 2	1 x 2	1	1
Track system	4 track 2 channel			4 track 2 channel	
Cassette type	Normal type (C-46/60/90)			Normal type (C-46/60/90)	
Tape speed	4.8 cm/s (at normal speed) 19 cm/s (at 4x normal speed)		4.8 cm/s	4.8 cm/s (at normal speed) 19 cm/s (at 4x normal speed)	
Rewind time	60 s (C-60)			60 s (C-60)	
Bias frequency	150 kHz			150 kHz	
Frequency response	50 to 12,500 Hz			50 to 12,500 Hz	
S/N ratio	52 dB (peak level recording, EAIJ)			52 dB (peak level recording, EAIJ)	
Total harmonic distortion	Less than 2 % (1 kHz)			Less than 2 % (1 kHz)	
Wow and flutter	Less than 0.09 % (WRMS) Less than 0.09 % (WRMS)				
Inputs	Line L,R: -5 dBu, 50 k Ω			Microphone: -54 dBu, 600 Ω Program: -5 dBu, 50 k Ω Intercom: -5 dBu, 50 k Ω	
Outputs	Line L,R: 0 dBu, 68 Ω	Line L,R: -5 dBu, 50 Ω		Earphones: L,R: -19 dBu (7 steps), 32 Ω Monitor L,R: 0 dBu, 68 Ω Monitor L,R: -5 dBu, 50 Ω	
Power requirements	DC 24V, 250 mA (supplied from the PTU-6/7)			DC 24V, 250 mA (supplied from the PTU-6/7)	
Mass	4.5 kg (9 lb 15 oz)			2.3 kg (5 lb 1 oz)	

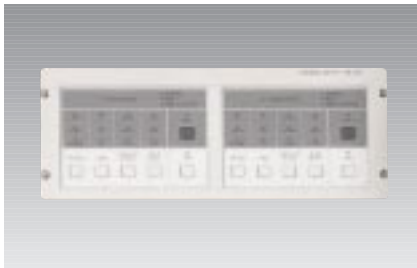


Response Analyzer RN-9000

- ◆ Analyzes up to 100 response results
- ◆ Analyzing function, available group by group
- ◆ Auto close function
- ◆ Response situation and response curve displayed on a room monitor
- ◆ Thermal printer provides hard copies of various data.

Control:	LLC-9000 to RN-9000 D-sub 15-pin (for RS-232C interface)
Video out:	Phono jack connector (1) Output level 1 Vp-p NTSC
Printer:	Thermal serial dot
Printing system	Character 5 x 7 dot matrix
Printing configuration	Graphics 320 dots/line
Printing Width	Characters 40 columns (89.5 mm)
Printing speed	43 cps
Power requirements:	DC 5 V 0.6 A, DC 12 V 0.4 A (supplied from the LLC-9000)
Dimension:	324 (W) x 112.5 (H) x 124 (D) mm (12 7/8 x 4 1/2 x 5 inches)
Mass:	2.2 kg (4 lb 14 oz)

Printing Paper Roll PE-9000



Program Editor PME-900

- ◆ Prepares teaching tapes that include repeat and pauses.
- ◆ Three program editing patterns.
- ◆ Three steps of pause length.

Power requirements:	DC 5 V 25 mA (supplied from the master recorder ER-9062/9052)
Dimensions:	324 (W) x 29 (H) x 124 (D) mm (12 7/8 x 1 3/16 x 5 inches)
Mass:	700 g (1 lb 9 oz)



Remote Control Unit LU-R900

- ◆ Control of video equipment via Control-S terminal.
- ◆ Connections for four video units
- ◆ Can be installed on an Desk Assembly LD-9000.

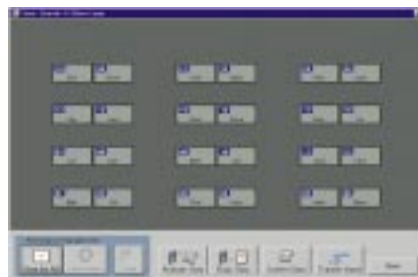
Power requirements:	DC 5 V, 30 mA (from LLC-9000)
Dimensions:	324 (W) x 109 (H) x 126 (D) mm (12 7/8 x 4 3/8 x 5 inches)
Mass:	900 g (1 lb 15 oz)



Student Expansion Unit LU-916

- ◆ Expansion unit for larger numbers of students.
- ◆ One expansion unit supports 16 students.
- ◆ Up to two units can be connected to an LLC-9000.

Dimensions:	380 (W) x 116 (H) x 197 (D) mm (15 x 4 5/8 x 7 7/8 inches)
Mass:	2.8 kg (6 lb 2 oz)



LL Management Software LSJ-9000

- ◆ Accepts student name and also transfers data in CSV format.
- ◆ Easy-to-change seating arrangements with drag-and-drop copy/paste.
- ◆ Analyzer / attendance / evaluation data stored and totaled.

System requirements:

- ◆ Any PC equipped with an RS-232C port and with a CPU higher than Pentium 200 MHz
- ◆ Memory: more than 64 MB
- ◆ Display: more than 800 x 600 pixels
- ◆ OS: Windows™ 95/English, Windows™ 98/English



Video Control Unit LU-V900 Video Distribution Unit LU-V910

- ◆ Up to four video programs can be individually assigned to students.
- ◆ Video programs selectable by students in Library mode.
- ◆ LU-V910 provides 16 outputs. Up to five units can be connected to an LU-V900 to provide 80 video outputs.

Control:	LLC-9000 to LU-V900 LU-V900 to LU-V910
	D-sub 9-pin (for RS-422 interface) D-sub 15-pin (for parallel communication)
LU-V910/Video Inputs	BNC (4) Level 1 Vp-p
LU-V910/Video Outputs	BNC (16) (to student monitor TV) BNC (4) (to another LU-V910)
	Impedance 75 Ω Level 1 Vp-p
Power requirements:	LU-V900: DC 5 V 0.2 A LU-V910: DC 5 V 0.1 A, DC 12 V 0.4 A
Dimensions:	74 (W) x 320 (H) x 175 (D) mm (3 x 12 5/8 x 7 inches)
Mass:	LU-V900: 1.5 kg (3 lb 5 oz) LU-V910: 1.8 kg (3 lb 15 oz)
Supplied accessories:	LU-V900: D-sub 9-pin cable LU-V910: D-sub 15-pin cable



Power Unit PTU-6 / PTU-7

- ◆ Supplies power to student recorders.
- ◆ PTU-6 operates 32 student records, PTU-7 operates 48.
- ◆ Compact and low cost thanks to single voltage (DC 24 V)

Power requirements:	AC 120V/220 to 240 V, 50/60 Hz
Power consumption:	PTU-6: 4.5 A (120 V model), 350 W (220 to 240 V model) PTU-7: 6.3 A (120 V model), 520 W (220 to 240 V model)
Dimensions:	100 (W) x 240 (H) x 280 (D) mm (4 x 9 1/2 x 11 1/8 inches)
Mass:	PTU-6: 4.5 kg (10 lb) PTU-7: 4.8 kg (10 lb 9 oz)
Supplied accessories:	Connecting cable



Headset HS-90

- ◆ Stereo sound reproduction.
- ◆ Uses an electret condenser microphone.
- ◆ Mass 200 g (7 oz) (approximately)



Connecting Cable for ER-9060/9030 RK-9065 to RK-9280

- ◆ 15-pin to 15-pin multi connectors to connect student recorders to the LLC-9000 console or the LU-916.
- ◆ Available in a choice of 12 lengths from 6.5 m to 26.0 m.



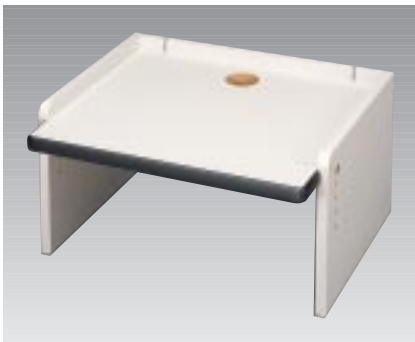
**Desk Assembly
LD-910**

**Inner Shelf
LD-91S**

**Rack Mount Adaptor
LD-91R**

- ◆ Desk assembly LD-910 accommodates peripheral equipment for LL systems.
- ◆ With inner shelf LD-91S, the LD-910 can be used as a shelf-type desk.
- ◆ With rack mount adaptor LD-91R, the LD-910 can be used as a rack mount-type desk.

Mass:	LD-910: 20 kg (44 lb 1 oz)
	LD-91S: 6 kg (13 lb 4 oz)
	LD-91R: 1.5 kg (3 lb 5 oz)

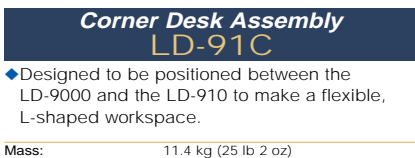


**Desktop Shelf
LD-91D**

**Front Panel
LD-91F**

- ◆ Combined with an LD-91D on the top, the LD-910 accommodates additional peripheral equipment.
- ◆ Combined with an LD-91F, the LD-910 Desk Assembly can accommodate Video Control / Distribution Units LU-V900/V910 and several VTRs.

Mass:	LD-91D: 7.5 kg (16 lb 9 oz)
	LD-91F: 7.5 kg (16 lb 9 oz)



**Corner Desk Assembly
LD-91C**

- ◆ Designed to be positioned between the LD-9000 and the LD-910 to make a flexible, L-shaped workspace.

Mass:	11.4 kg (25 lb 2 oz)
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**LL Desk Assembly
LD-9000**

- ◆ LL Control Console, Master Recorders, Remote Control Unit, Response Analyzer can be attached.

Dimensions:	1280 (W) x 799 (H) x 800 (D) mm (47 5/8 x 31 1/2 x 31 1/2 inches)
Mass:	37 kg (81 lb 9 oz)



**Booth Assembly
BA-2520**

- ◆ Low-divider type twin booth

Dimensions:	1420 (W) x 745 (H) x 538.5 (D) mm (56 x 29 3/8 x 21 1/4 inches)
Mass:	32 kg (70 lb 8 oz)



**Booth Assembly
BA-2521**

- ◆ High-divider type twin booth

Dimensions:	1420 (W) x 1067 (H) x 538.5 (D) mm (56 x 42 1/8 x 21 1/4 inches)
Mass:	44 kg (97 lb)



**Booth Assembly
BA-2320**

- ◆ Two student * one monitor TV-type booth assembly
- ◆ 9-inch TV monitor PVM-8040 / 9040ME (optional) can be installed in the booth.

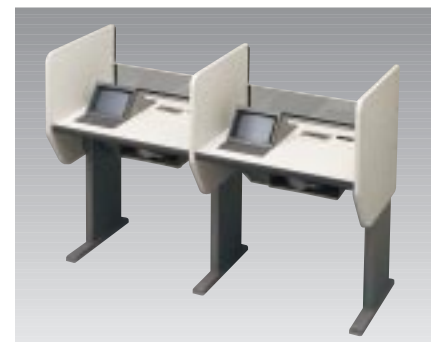
Dimensions:	1500 (W) x 745 (H) x 538.5 (D) mm (59 1/8 x 29 3/8 x 21 1/4 inches)
Mass:	37 kg (81 lb 9 oz)



**Booth Assembly
BA-2620**

- ◆ 9-inch TV monitor PVM-8040 / 9040ME (optional) can be installed for each student.
- ◆ Low-divider type twin booth

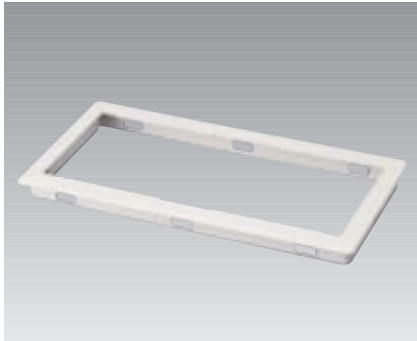
Dimensions:	1500 (W) x 745 (H) x 647.5 (D) mm (59 1/8 x 29 3/8 x 25 1/2 inches)
Mass:	36 kg (79 lb 5 oz)



**Booth Assembly
BA-2621**

- ◆ 9-inch TV monitor PVM-8040 / 9040ME (optional) can be installed for each student.
- ◆ High-divider type twin booth

Dimensions:	1500 (W) x 1067 (H) x 647.5 (D) mm (59 1/8 x 42 1/8 x 25 1/2 inches)
Mass:	50 kg (110 lb 3 oz)



Mounting Panel BY-90

- ◆ All types of booth assemblies require a Mounting Panel BY-90 for installation of a Student Recorder ER-9060 or ER-9030.



Video Presentation Stand VID-P150 (NTSC/PAL)

- ◆ Three dimensional objects, as well as flat objects, can be displayed on TV monitors and projection screens
- ◆ Remotely controlled pan and tilt camera head
- ◆ 420 TV lines resolution for superb picture quality
- ◆ Excellent functions such as 12 x auto zoom lens, high speed auto focus, auto iris/white balance, etc
- ◆ Back light function
- ◆ RS-232C interface port



VHS Hi-Fi Videocassette Recorder SVO-1630/1520P

- ◆ VHS Hi-Fi stereo sound
- ◆ Auto repeat playback capability
- ◆ Dual mode shuttle ring control
- ◆ Control-S IN/OUT terminals for remote operation

Dimensions:	SVO-1630	360 (W) x 98 (H) x 295 (D) mm (14 1/4 x 3 7/8 x 11 5/8 inches)
	SVO-1520P	430 (W) x 100 (H) x 360 (D) mm (17 x 38 11/12 x 14 1/6 inches)
Mass:	SVO-1630	4 kg (8 lb 13 oz)
	SVO-1520P	5.6 kg (12 lb 16 oz)



Stereo Cassette Duplicators CCP-2310F/CCP-2410F

- ◆ High-speed duplication at 16 times normal speed.
- ◆ Up to 10 CCP-2410F units can be connected to a CCP-2310F to produce 43 tapes simultaneously.
- ◆ F&F (ferrite core & ferrite guard) heads for heavy-duty use and long head life.



Room Speaker LSP-55

- ◆ 16-cm (6.5-inch) diameter one-way full range speaker



Color Video Monitor PVM-8040/9040ME

- ◆ 9-inch monitors
- ◆ Beam current feedback circuitry for color balance stability
- ◆ Accepts composite video and Y/C signals

Dimensions:	217 (W) x 217 (H) x 352.5 (D) mm (8 5/8 x 8 5/8 x 16 inches)
	7.8 kg (17 lb 3 oz)



Monaural Cassette Duplicators CCP-1310F/CCP-1410F

- ◆ High-speed duplication at 16 times normal speed.
- ◆ Up to 10 CCP-1410F units can be connected to a CCP-1310F to produce 43 tapes simultaneously.
- ◆ F&F (ferrite core & ferrite guard) heads for heavy-duty use and long head life.



Video/Audio Distributor DA-1400

- ◆ Two video/audio inputs and 14 distribution outputs

Power requirements:	AC 120, 60 Hz
	AC 230, 50/60 Hz
Power consumption:	16 W
Dimensions:	424 (W) x 88 (H) x 350 (D) mm (16 3/4 x 3 1/2 x 13 7/8 inches)
	6 kg (13 lb 23 oz)



Color Video Monitor PVM-20N5U/20N5E/20N5A

- ◆ 20-inch monitors
- ◆ Resolution of 500 TV lines
- ◆ Beam current feedback circuitry for color balance stability
- ◆ Accept composite video and Y/C signals

Dimensions:	449 (W) x 441 (H) x 502 (D) mm (17 11/16 x 17 3/8 x 19 3/4 inches)
	28 kg (61 lb 11 oz)

SONY

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