

AccessionIndex: TCD-SCSS-T.20160929.001

Accession Date: 29-Sep-2016

Accession By: Andy Kennedy

Object name: Linguaphone LL Cassette Recorder MR-L5

Vintage: c.19xx

Synopsis: Portable compact cassette tape recorder/player optimised for language learning.

Description:

Compact cassette tapes were invented by Philips N.V. in 1962 as a common speech quality tape format for speech recording and playback over 30, 60 or 90 minutes durations. Within a plastic shell, polyester tape with a magnetic coating traversed from a left to a right rotating spool. When fully wound to the right spool, it could be manually flipped over (or “auto-reversed”) to traverse in the reverse direction. In each direction, audio was recorded on a mono track or a pairs of stereo tracks, and a write protection tab at top left could be broken off to prevent over-writing existing content. Over time improved audio quality allowed them to supercede cartridge and reel-to-reel tapes for domestic speech & music and many other uses, including simple computer data storage, e.g. the Interdata Model 70 in this collection uses compact cassettes for boot loading.

The unit in this collection is a Linguaphone MR-L5, sold by Linguaphone [1] [2] as one of its language learning support tools. Like many cassette decks of the era it has a built-in microphone and speaker, as well as sockets for an external microphone and speaker, and can be powered from 220VAC mains or battery. It operates off 7.5V and includes 5 x UM-3 or HP7 batteries. (*Note the power supply unit is set to 12VDC.*)

The MR-L5 is unusual in being optimised for speech, able to vary the speed by +15% and -15%, having an index (cue) facility to enable teachers to record cues and to enable students to fast forward or rewind between cues during playback, and a socket for remote stop/start. It operates in two modes: (a) as a standard stereo cassette recorder & player, and (b) in language learning mode, where the left track is for the teacher and the right track for the student.

This item is included in the collection because its unusual facilities will potentially help future researchers to decipher and transcribe the cassette tapes in the collection despite their gradual deterioration (although ideally electronic copies will be taken before that occurs).

Many thanks to Andy Kennedy, who donated this item and its documentation.

The documentation is properly part of the Literature category of this catalog, but is listed here too for convenience.

Accession Index	Object with Identification
TCD-SCSS-T.20160929.001	Linguaphone LL Cassette Recorder MR-L5. S/N:
TCD-SCSS-V.20160929.003	Linguaphone LL Cassette Recorder MR-L5 Operating Instructions.

References:

1. Wikipedia, *Linguaphone (company)*, see:
[https://en.wikipedia.org/wiki/Linguaphone_\(company\)](https://en.wikipedia.org/wiki/Linguaphone_(company))
Last browsed to on 29-Sep-2016.
2. Linguaphone UK, see:
<https://www.linguaphone.co.uk/>
Last browsed to on 29-Sep-2016.



Figure 1: Linguaphone MR-L5 case closed



Figure 2: Linguaphone MR-L5 case open



Figure 3: Linguaphone MR-L5 front view



Figure 4: Linguaphone MR-L5 left side view



Figure 5: Linguaphone MR-L5 manufacturing label
 Linguaphone Model MR-L5
 Linguaphone LL Cassette Recorder
 DC 7.5V UM-2 x 5
 Made in Japan

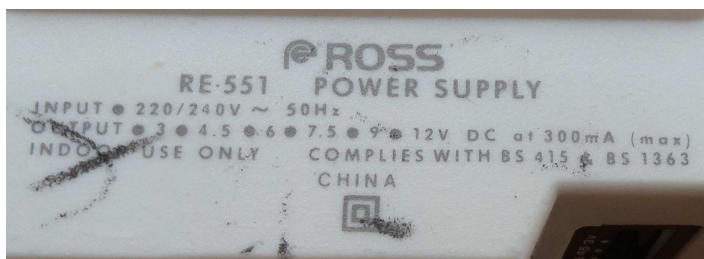
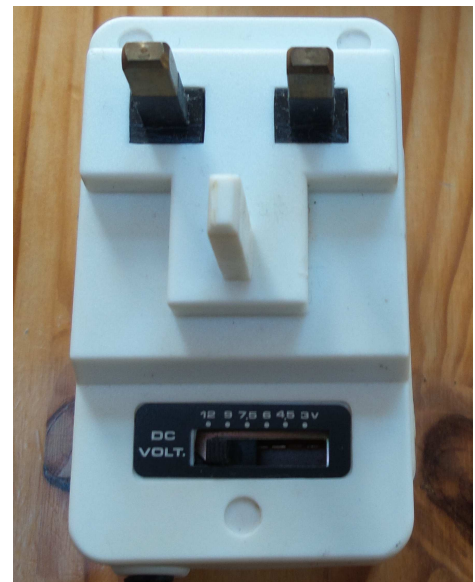


Figure 6: Linguaphone MR-L5 power supply unit (NB: set to 12V)
 ROSS RE 551, 230/240V 50Hz, 3V / 4.5V / 6V / 7.5V / 9V / 12V DC 300mA,
 Complies with BS 415 & BS 1363

Specifications

4-track system in LL mode
2-track system in normal mode
Recording system: AC bias
Erasing system: AC erasure
Tape speed: 4.8 cm/sec. ($\pm 15\%$ adjustable on replay)
Fast-forward and rewind time: 150 sec. with a C-60 cassette
Frequency response: 210 – 7,000 Hz
Speaker: 66 mm dia. 8 ohms
Max. power output: 600 mW
Inputs: microphone (MIC) 2k ohms
Outputs: earphone (EAR) 8 ohms
Power requirements: 220V AC via mains transformer (not supplied) or 5 x HP7 batteries
Power consumption: 3 W via mains transformer
Weight inc. batteries: 1 kg

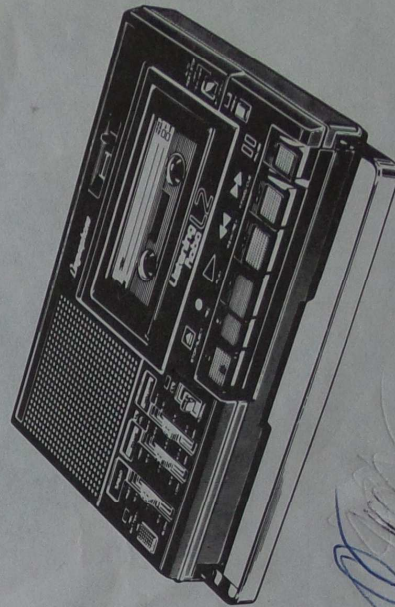
Supplied accessories

Headset
Connector cable
Erase plug



LINGUAPHONE

LL Cassette Recorder MR-L5



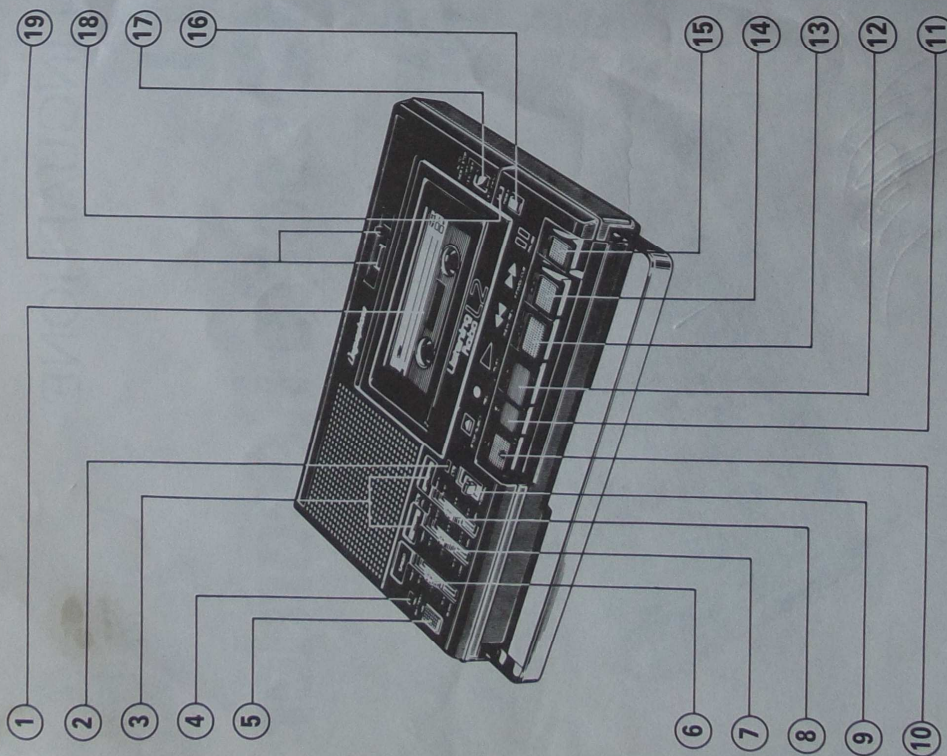
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OPERATING INSTRUCTIONS

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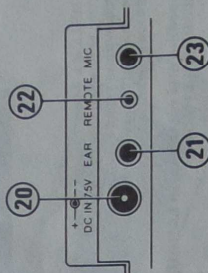
Figure 7: Linguaphone MR-L5 Manual, front page 1 & back page 8

Control locations



16. Index button
The Index button enables you to mark the beginning of a particular section of the recording by placing an inaudible electronic marker on the tape. On pressing the Review button the tape is rewound as far as the marker, where it automatically stops and replay resumes. This enables quick and easy repetition of a particular section of the recording as often as required. The indexing procedure operates in a similar way when the Cue button is pressed during replay.
17. Auto Index Stop switch: selects either Teacher track or Student track
18. Index lamp
19. Tape counter with reset button

External connections

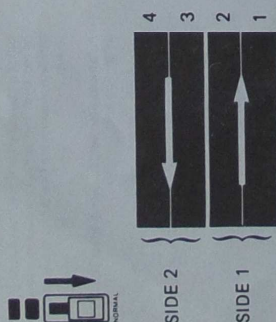


20. Socket for 7.5 V DC mains transformer (not supplied). Batteries automatically disconnected when in use.
21. Earphone socket
22. Socket for remote stop/start control unit (optional accessory)
23. Microphone input

Figure 8: Linguaphone MR-L5 Manual, pages 2 & 3

Recording and replaying in STANDARD CASSETTE RECORDER (NORMAL) MODE

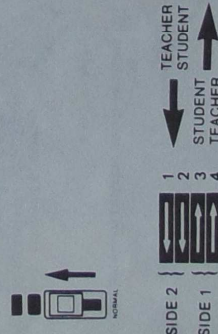
(Switch 9 in 'NORMAL' position)



The MR-L5 is a 4-track cassette recorder and when recording or replaying Side 1 or A of a cassette it will record/play tracks 1 and 2 simultaneously, as illustrated above. On turning the cassette over to Side 2 or B tracks 3 and 4 are recorded/played.

Recording and replaying in LANGUAGE LEARNING (LL) MODE

(Switch 9 in 'LL' position)



In language learning recorder mode the 4 tracks of the cassette are used separately. Tracks 1 and 4 are used for the teacher's voice (or original recording) and tracks 2 and 3 for the Student's voice. In LL mode Teacher tracks 1 and 4 cannot be erased, but Student tracks 2 and 3 can be re-recorded and replayed as often as required. Your original recording or language learning programme is therefore protected against accidental erasure.

Function of Automatic Index Stop in LL mode

When the Index button is momentarily pressed during recording with the Auto Index Stop switch set to 'STUDENT', an inaudible marker is recorded on the tape and the Index lamp lights for approx. 3 seconds. On pressing the Review or Cue buttons during replay the tape automatically stops at the location of the markers and replay then resumes automatically. Index markers should not be placed at less than 5 second intervals.

With the switch in 'TEACHER' position it is not possible to place markers on Tracks 1 and 4 (Original or Teacher track). This switch position only functions in LL mode if the cassette has been pre-recorded with index markers by the manufacturer.

If the cassette stops at an index marker and the Cue or Review button is pressed again, the tape will run on and stop at the next marker, and so on.

As the Cue and Review functions only operate during replay, replay is automatically resumed after stopping at a marker. In order to record, only the Record button need be pressed.

Function of Auto Index Stop in NORMAL mode

In NORMAL mode the Auto Index Stop system operates with the switch in either 'STUDENT' or 'TEACHER' position. To switch it off, move the switch to the OFF position.

The MR-L5 switches off automatically when the end of the tape is reached during PLAY or RECORD.

Note

If a pre-recorded cassette is inserted with the unit in LL mode, it can be replayed simply by pressing PLAY. In order to avoid the feedback effect referred to above, the loudspeaker is automatically switched off during recording. Monitoring of the recording is only possible via the headset.

Should you wish to monitor via the loudspeaker, the erase plug supplied can be plugged into the microphone socket. This switches off the built-in microphone, and you can monitor the recording via the loudspeaker. However, the Student track will be simultaneously erased. This procedure should only rarely be necessary, since the Student track is automatically erased by recording over it.

When the recorder is employed for language learning purposes, the use of the combined headset and microphone is recommended to ensure maximum concentration. This is connected via the EAR and MIC sockets.

Replay function in STANDARD CASSETTE RECORDER operation

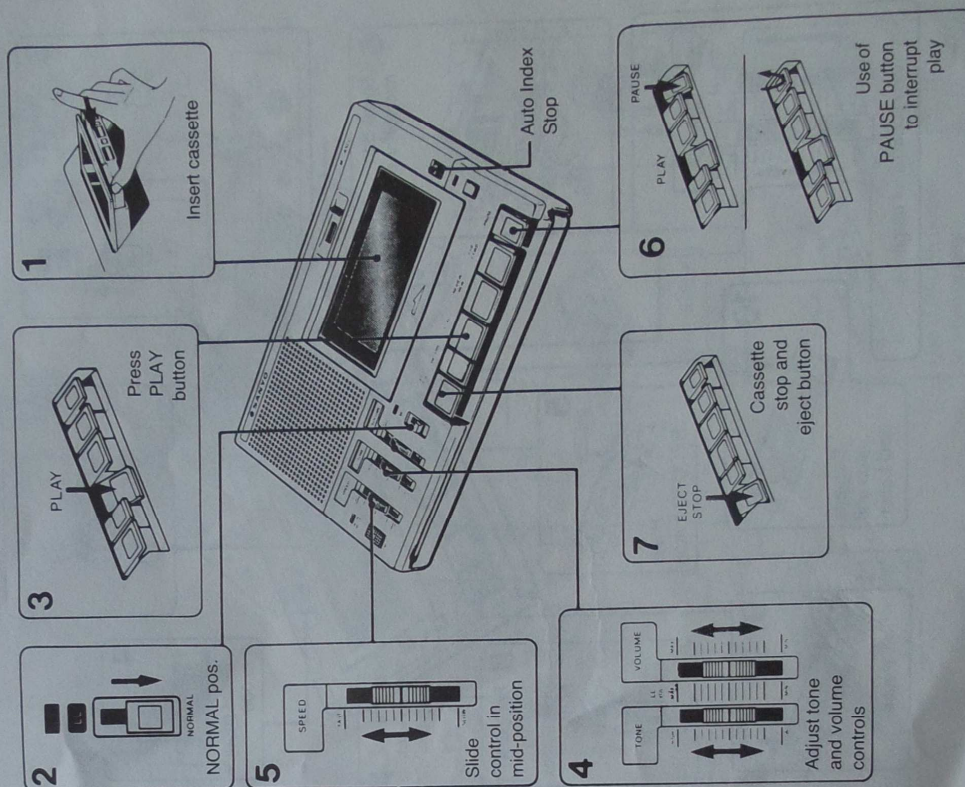


Figure 9: Linguaphone MR-L5 Manual, pages 4 & 5

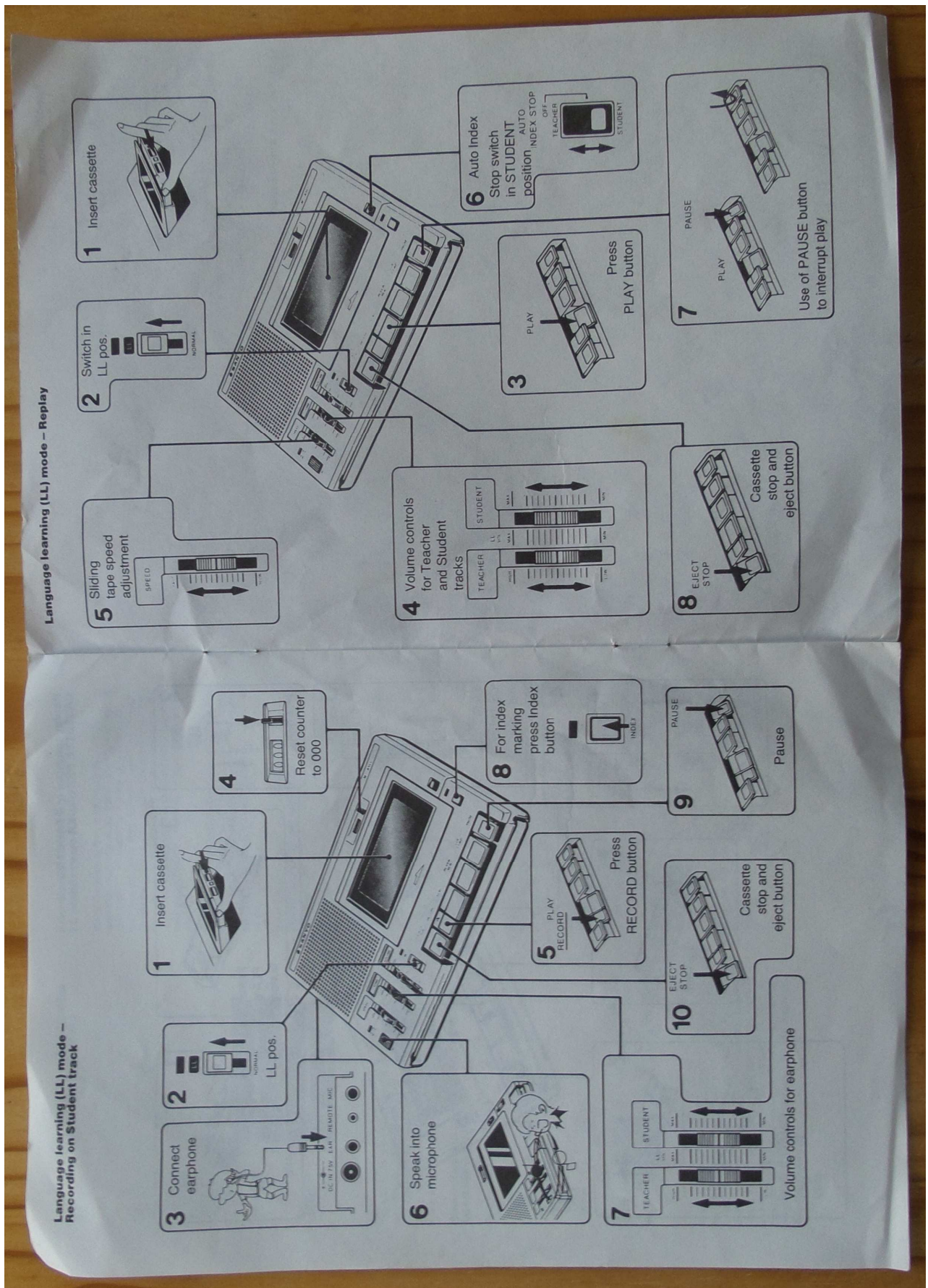


Figure 10: Linguaphone MR-L5 Manual, pages 6 & 7