

Special magnetic disc recorder MAG-D1 (P-181)

AUTHOR

TIME AND PLACE OF CREATION

Time:
1957



TECHNICAL DATA

Dimensions:
height: 280 mm, width: 540 mm, depth: 325 mm

OTHER

MIM 1318/V/296

KEYWORDS

analogowy, czas wolny, dźwięk, elektronika, elektrotechnika, fonografia, komunikacja, kopiowanie, muzyka, nagłośnienie, nośnik, odtwarzanie dźwięku, prąd, propaganda, przemysł, urządzenia mobilne, wojsko, zapis dźwięku

DESCRIPTION

The special vacuum-tube magnetic disc recorder MAG-D1 (P-181) (МАГ-Д1, П-181) was designed and manufactured by the Soviet Audio Recordings Institute in Moscow (Всесоюзный научно-исследовательский институт звукозаписи, ВНАИЗ) in 1957. The device was designed as a component of a military communications system and was intended for recording radiotelegraphic Morse code signals. The MAG-D1 model belongs to a numerous family of MAG special-purpose magnetic recorders, and it differs from the other models by the use of a ferromagnetic disc instead of a reel of magnetic tape. It is one of the first devices manufactured in the USSR in which the technology was used for recording radiotelegraph signals. The principle of operation of the recorder is based on magnetic recording. The head system incorporates a magnetic adapter with a needle for readout, which allows two-way recording and playback of the disc. The device uses special discs for

recording (similar in appearance to gramophone records), with tractor grooves and ferromagnetic material (ferrous and chromium oxides) applied to the disc surface. Recordings could be deleted by demagnetising the disc in a separate device, or by sliding a bar magnet over the surface of the disc. The recording time at maximum speed is about a minute and a half, but can go up to two minutes. The disc speed during recording and playback can be changed between 35 and 100 rpm. The device has a built-in vacuum tube amplifier, a speaker, and a low-pass, narrow band filter, which allows even a very weak signal to be separated during playback. The device's mechanism is enclosed in a steel case (the entire device weighs 35 kg) that is covered in a hammered texture paint and has a removable cover. There are handles on both sides of the case, and two rails are attached at the bottom. Knobs on the front wall are for advancing and reversing the recording, and for adjusting volume and tone. The device is AC-powered from the mains supply. Additional equipment for the recorder includes a case for carrying discs and a disc stand. Apart from military applications, the MAG-D1 was used in telephone exchanges, at railway stations and airports, for recording and automatically playing back messages, advertisements, or Morse code signals from the radiotelegraph. It was also used in offices as a voice recorder and answering machine. Author: Filip Wróblewski