

Revox G36

(in England named "Revox 736")



LET REVOX PUT YOUR REDORDING QUALI TY INTO THE PROFESSIONAL CLASS

The REVOX 736 (G36) is a mono/stereo machine with stacked erase heads, separate recording heads separate replay heads, six audio pre-amplifiers. and a push/pull power amplifier. Tape speeds of 3 3/4 and 7 1/2 .i. p. s. are obtained by pole-changing the synchronous Papst capstan motor. Twin-track and four-track models are available, both fully stereo phonic, recording to the latest C.C.I.R. (DIN 45113) characteristic.

FACILITIES

Switched inputs are provided on each channel for mic, radio, or diode, and separate channel gain controls enable recordings to be independently of one another in the stereo mode. Alternatively, one channel can be set to playback whilst the other channel is recording, and all forms of duoplay and multiplay are possible. Furthermore, mixing arrangements provide for both pre-amplifiers to be coupled to the same channel, with neither gain control acting a master. Thus any two signals may be mixed and recorded simultaneously in the mono mode. Two V.U. meters calibrated + 3 to 20 v.u.'s as per A.S.A. standard, are set 6 db. above constant tone to permit accurate register of signal peaks. The mono power amplifier of the REVOX gives an output of 6 watts at less than 1% distortion, and its input may be switched to monitor either or both tape replay amplifiers or the incoming signal on either channel. The same control switches the signal to one of the

two sets of cathode follower outputs (B), located on the rear connecting panel, designed to feed external high quality amplifiers. Outputs A are permanently connected to the tape replay amplifiers, but the connections to outputs B need some explanation. Consider the signal from the upper track (channel 1) as X. and the signal from the lower track (channel 2) as Y, we have the following result. as shown in figure 2. All connections are made to a rear panel. which also contains two sets of cathode follower outputs.

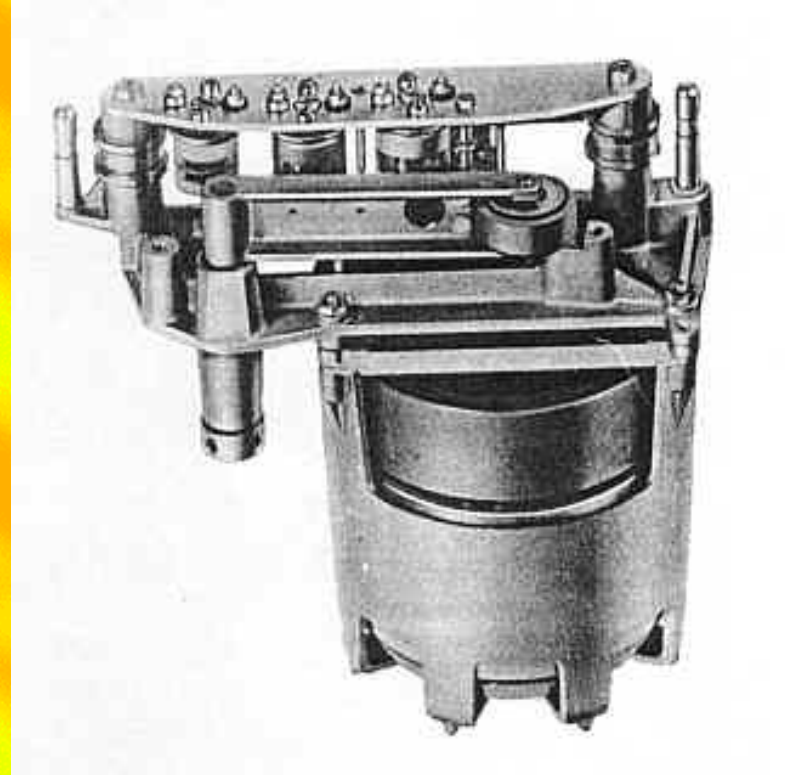
Selector Setting	Monitor Amplifier connected to	Cath / Foll Outputs B	
		I	II
Input 1	Recording Pre-Amp Ch. 1	X	X
Tape 1	Playback Pre-Amp Ch. 1	X	Off
Tape 1 + 2	Playback Pre-Amp Ch. 1 + 2	X	Y
Tape 2	Playback Pre-Amp Ch. 2	Off	Y
Input 2	Recording Pre-Amp Ch. 2	Y	Y

A new reel size selector switch assures even tape tension for all reel sizes up to 10 1/2 in diameter (N. A. B. spools require adaptor). Tape reels can now be locked on to their respective shafts, enabling the REVOX to be operated vertically if required. The machine is fitted into a functional carrying case, colour grey with a detachable lid.

HEART OF THE REVOX

Your assurance against wow and flutter, now or later, is the huge Papst Hysteresis - Synchronous capstan motor with external rotor directly coupled to a dynamically balanced flywheel by means of a special anti-vibration rubber disc (as shown in figure 1). This effectively damps out all but the barest traces of flutter

and permits piano recordings to be made at 3 3/4 i. p. s. in absolute safety. The motor is now carried in a new casting to reduce any ringing noise. Two smaller Papst outer rotor motors are employed for fast winding and tensioning and a slight back tension is retained during winding. So smooth is this operation that you can actually switch from right to left (or vice versa) on fast tape handling - no tape snatch no tape spill no breakage. The braking is mechanical with electrical control. Consequently braking is efficient precise and immediate; so the REVOX always fails 'safe' with any tape. The use of solenoid control throughout provides for effective remote control, and the machine may be started or stopped in the record or replay functions at any distance.



CAPSTAN-FLYWHEEL-HEAD BLOCK ASSEMBLY

TAPE HEADS AND TAPE TRANSPORT



REVOX provide three ring - core heads on all models. thus permitting optimum performance to be obtained. Each head is beautifully engineered, and is bonded in Araldite to prevent the laminations from moving. due to jarring or heat with a resultant loss of high frequency response. In addition the record and replay heads are placed in screening cans with a face shield covering the front of the replay head when the machine is running. The heads are now mounted on a head block casting, which is integral with the motor casting above the baseplate. The tape is held against the heads by the use of pads but in the professional manner of arranging the heads in an arc. Result - less friction on the tape and much reduced and more even head wear. An end-of-tape stop is ingeniously provided during all functions, with or without the use of stop foils. The machine also stops should the tape break or the mains fail momentarily, but a plug-in relay and delay circuit

serve to avoid unintentional stoppages.

[\(click here to enlarge the photo\)](#)

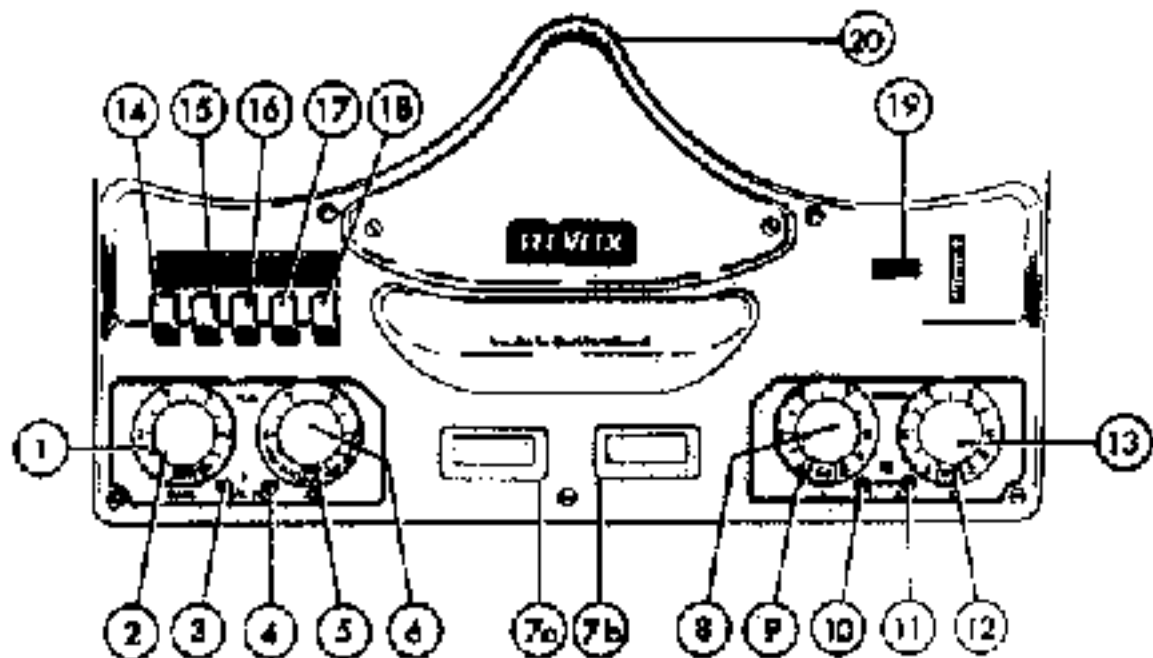
Note that there is a giant capstan-cum-flywheel bearing which is more than able to stand up to the high pressure exerted on it by the pinch roller. This roller is fixed in a sturdy arm, the long plain bearing for which forms part of the motor casting. Thus the roller and capstan will never get out of alignment.

ELECTRONICS OF THE HIGHEST QUALITY

REVOX provide Ceramic valve bases, high stability resistors d.c. heated first stages, and totally screened wiring. All these assist in attaining extremely low noise levels - and reliability. Further all gain controls and most selector switches are fitted to the underside of the lower chassis, with shaft extensions coupling them to the control knobs above the top escutcheon. This reduces hum levels considerably by keeping all the screened leads as short as possible. The controls of the REVOX have been arranged simply and logically. RECORD on the right. REPLAY on the left.

CONTROLS - KEY TO FIGURE

1. Main on/off switch. **2.** Base boost control (monitor am. only). **3. & 4.** Speed change switch. Depressing (3) selects 3 3/4 i. p. s. and (4) selects 7 1/2 i. p. s. By setting (3) and (4) in a halfway position, the capstan motor is switched off when the machine is used solely for amplification purposes. **5.** Monitor amplifier and Cathode follower B selector switch. **6.** Volume control for in-built monitor amplifier. **7a.** Channel 1 V.U. meter. **7b.** Channel 2 V. U. meter. **8.** Channel 1 RECORD gain control. **9.** Input selector for Channel 1. marked I-II, R, M, D. I-II position for Echo and Multiplay, R selects Radio input 1, M selects Mic input 1. D selects Diode input 1. **10. & 11.** Interlocked push-buttons selecting recording mode. With (10) depressed both recording pre-amplifiers switched to Channel 1. With (11) depressed both recording pre-amplifiers switched to Channel 2. When both buttons set half down both pre-amplifiers are separated for recording in stereo mode. **12.** Input selector for Channel 2 (detail as per (9)-) **13.** Channel 2 RECORD gain control. **14.** Fast rewind button. **15.** Fast forwards button. **16.** Tape Transport button. Operates replay when pressed alone, record when



pressed with button (18), 17. Stop button for all functions. 18. Record button - can be selected alone for setting up level on V. U. meters. or with button (16) for immediate recording. 19. Digital counter. 20. High/ low tape tension switch selects reduced. tape tension when lever in out, increases tape tension for 25 cm and larger spools when turned in.

SPECIFICATION

Tape speed	3 3/4 and 7 1/2 ips, pole-switching capstan motor, direct drive (motor may be switched off, if recorder is used as an amplifier)	
Flutter and wow	below $\pm 0,1\%$ at 7 1/2 ips	
Rewind time	approx. 80 seconds of a 2400 feet reel	
Max. reeldiameter	up to 25 cm (10 1/2")	
Frequency response	40 - 15'000 cycles at 7 1/2 ips $\pm 2/-3$ db 40 - 12'000 cycles at 3 3/4 ips $\pm 2/-3$ db	
Equalization	in accordance with CCIR standards. 70 micro-seconds at 7 1/2 ips. 140 micro-seconds at 3 3/4 ips.	
Signal to noise ratio	Better than 52 db at peak record level (2 track) Better than 50 db at peak record level (4 track)	
Dynamic range (overall)	2-track recorder:	55 db at 7 1/2 ips
		53 db at 3 3/4 ips
	4-track recorder	52 db at 7 1/2 ips
		50 db at 3 3/4 ips
	(Thd.= 3%)	
Crosstalk	Mono 55 db	stereo 40 db
Oscillator-bias frequency	70'000 cycles,	push-pull oscillator
Inputs per channel	1. microphone	= 1 Megohm, 3 mV
	2. Radio	= 1 Megohm, 50 mV
	3. Diode	= 47 K'ohms, 3 - 50 mV, adjustable
Outputs	2 cathode-follower outputs, impedance = 5'000 ohms (input impedance of amplifier to be connected should be higher than 100'000 ohms.) Output voltage = 0.6 volts - (2 track) = 0,4 volts - (4 track) 1 loudspeaker output 5 ohms, 6 watt Push-pull power amplifier, internal speaker may be switched off.	
Tube complements	4 x ECC 81, 1 x ECC 82, 5 x ECC 83, 2 x ECL 86, 1 x EM 801, 3 diodes, 3 selenium rectifiers	

Power line voltage	110, 240 volts, 50 cycles
Power requirements	approximately 120 watt
Fuses	for 220-240 volts: 0.6 Amps) 5 x 20 mm slow-blow for 110-145 volts: 1,2 Amps) 5 x 20 mm slow-blow
All these data are valid for the 2-track as well as the 4-track recorder, unless noted otherwise.	

Price: England, 1963:	124 gns in Portable Case	119 gns Casis only
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