

Recorder AN/ANQ-2 is an airborne recorder which records voice and radio signals by embossing on a plastic disk. Its associated ground equipment, Recorder-Reproducer AN/GNQ-2, records in a similar manner and provides playback by means of a pickup, amplifier and loud speaker.

Recordings are made by embossing on a cellulose acetate disk with a special wax surface treatment. The disk is 0.010 inches thick by 7 inches in diameter. The disk is driven by an off-center pin which engages a hole in the disk and one of a series of corresponding off-center holes in the turntable. The drive pin is mounted on a spring-loaded record clamp which holds the disk on the turntable. The embossing stylus consists of a sapphire point (tip radius 0.0015") on an aluminum alloy shank 3/4 inch long by 0.063 inch in diameter. Turntable speed is 11.75 r.p.m., line spacing 210 lines per inch, and recording time 30 minutes on each side of the disk. The outer and inner groove radii are 3.38 and 1.70 inches, respectively, and the corresponding groove speeds are 4.2 inches/second and 2.1 inches/second.

The magnetic recording head is mounted on a short counterbalanced arm which is pivoted at its center of gravity. The recording head arm is spring-loaded, and the vertical force at the stylus is approximately 5 ounces. The recording head carriage is driven by an overhead feed mechanism of conventional design.

The turntable is driven by a rubber-rimmed idler which engages the bottom surface of the turntable. The idler is driven by a knurled drive wheel which is driven through a flexible coupling, by a gear reduction box built into the motor. The motor is a 28 volt series motor (shaft speed 4100 r.p.m.) with a Lee governor mounted directly on the shaft.

The turntable consists of two halves joined by a sponge rubber pad. The upper half is supported on a stainless steel shaft which rests in a journal assembly consisting

of two oilite sleeve bearings and a single ball bearing at the bottom.

The control box provides remote operation for the recorder. The operator's microphone and headset are plugged into the control box, and the control box is wired to the operator's interphone jack box and to Recorder Unit RD-6/ANQ-2. Terminals are also available in the control box for connection to the output of a radio receiver not wired into the airplane interphone system.

A five position switch allows the operator to select one of the following types of recorder operation: Interphone; Microphone; Off; Record Radio; Monitor Radio.

For all ordinary uses of AN/ANQ-2, only the first three positions (i.e., Interphone, Microphone, and off) are needed, and that the operator is connected to the interphone system in each of these positions. The last two positions (i.e., Record Radio and Monitor Radio) are intended for certain specialized applications, and the operator is completely disconnected from the airplane interphone system in these two positions.

The equipment operates at a nominal voltage of 115 volts, 60 cycles per second and draws 0.5 ampere when the motor is running. Standby current is 0.2 ampere.

Army Supply Program requirements as of 31 July 1944 were for 270 equipments for the calendar year 1944.

POWER INPUT	28 VOLTS D.C.
FREQUENCY	AUDIO
TYPE OF SIGNAL	VOICE
RECORDING TIME	30 MINUTES (One side)
TURNTABLE SPEED	11.75 R.P.M.
FREQUENCY RESPONSE	400 TO 2500 CYCLES PER SECOND WITHIN +3 DB and -6 DB
SIGNAL TO NOISE RATIO	40 DB at 1000 C.P.S.
LINE SPACING	210 LINES PER INCH



Recorder Unit RD-6/ANQ-2

RECORDER AN/ANQ-2

TOTAL WEIGHT 27 LBS.

Component	Nomenclature	Size	Weight
Recorder Unit	RD-6/ANQ-2		20 Lbs.
Mounting	MT-199/ANQ-2		5 Lbs.
Control Box	C-99/ANQ-2		2 Lbs.
Mounting	MT-200/ANQ-2		

and includes plugs and adapters.

March 1945