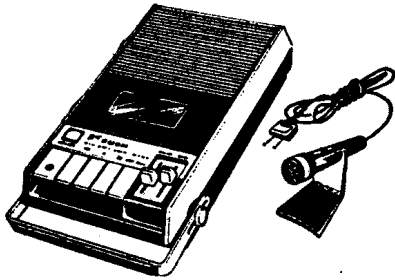




BUSH BT 8506

Cassette recorder

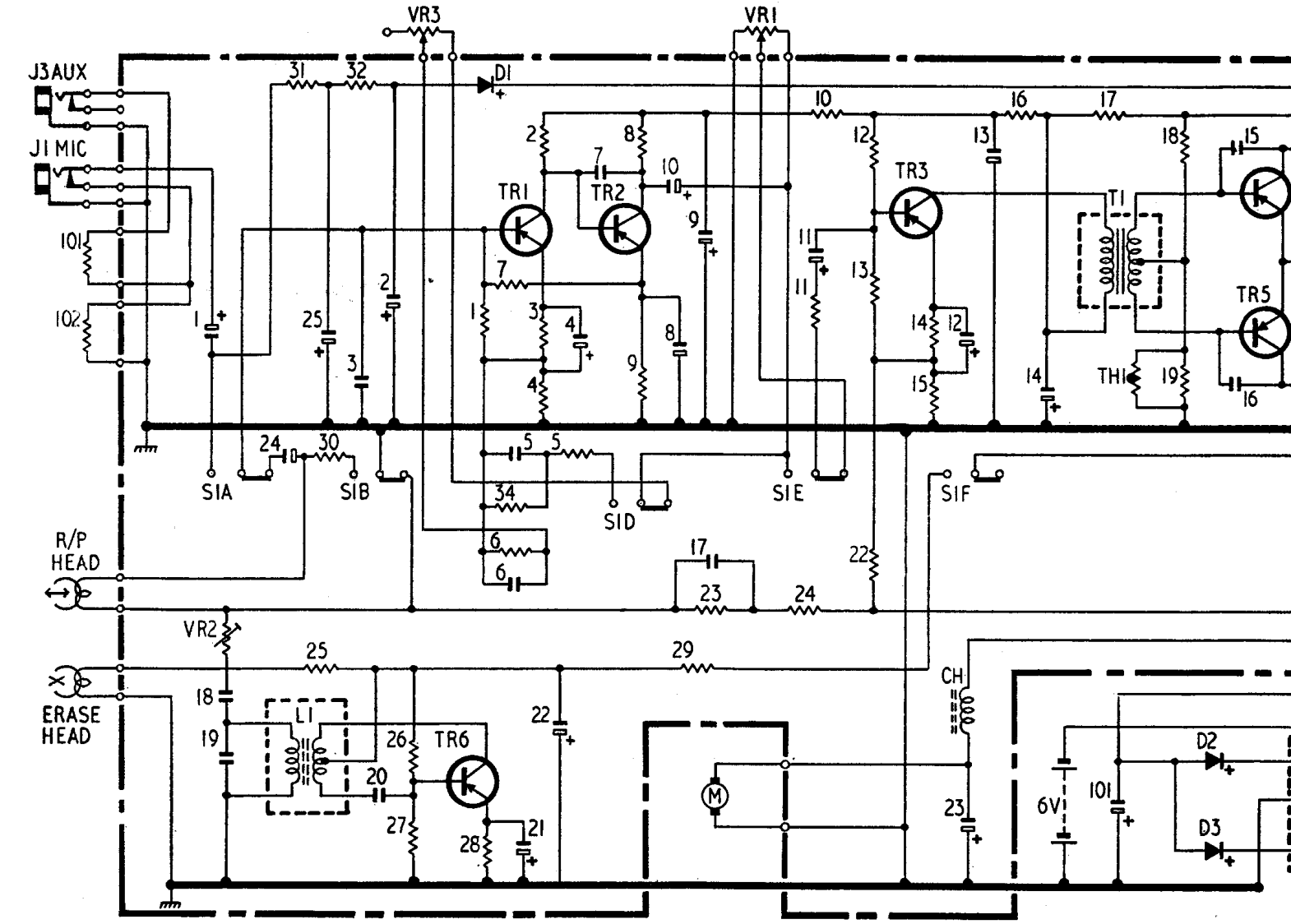
2058



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R	101	VR2	31	32	VR3	27	1	7	2	3	8	9	23	VR1	24	10	12	15	16	17	TH1	18	19
C	102	1	18	24	25	3	2	5	21	22	4	7	10	8	9	11	12	13	22	14	13	15	16
L				LI																			TI



8506

recorder

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THE Bush BT8506 is a two track mono cassette recorder for battery or mains operation incorporating automatic record level and auto-stop facilities.

Power supply
Battery. Four HP11 or sealed equivalents.
Mains. 240V 50Hz.

Consumption
Battery. 160mA average
Mains 4W.

Fuse
50mA

Transistors
TR1 2SB173 (A)
TR2 2SB175 (C)
TR3 2SB175 (C)
TR4 2SB324 (E)
TR5 2SB324 (E)
TR6 2SB172 (A)

Diodes
D1 OA90
D2 S-05-01
D3 S-05-01

Thermistor
MT100

Frequency response
200 — 5000Hz ± 4 dB wrt 1000Hz
(FE₀ O₂).

Signal to noise ratio
Replay 50dB

Wow and flutter
0.45 per cent.

Erase and bias frequency
50kHz nominal.

Record level
Automatic control.

Rewind time
C60 approx. 110 seconds.

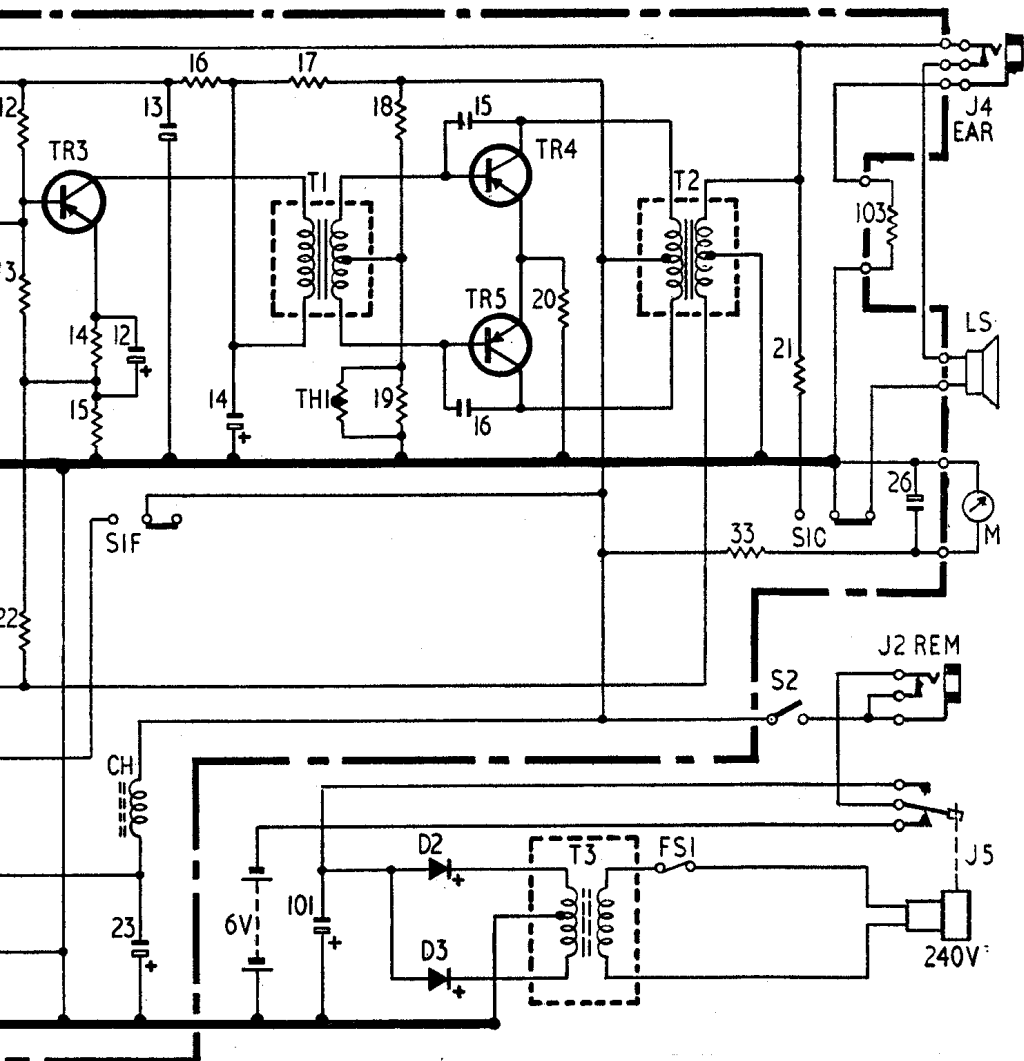
Microphone
7.5k impedance.

Loudspeaker
3in. circular 8ohm

Power output
500mW at 1000Hz.

Inputs
Microphone and auxiliary

12	15	16	17	TH1	18	19	20	33	21	103
13	22	14								
	12	23	13	14	101	15	16			26
				T1				T3	T2	

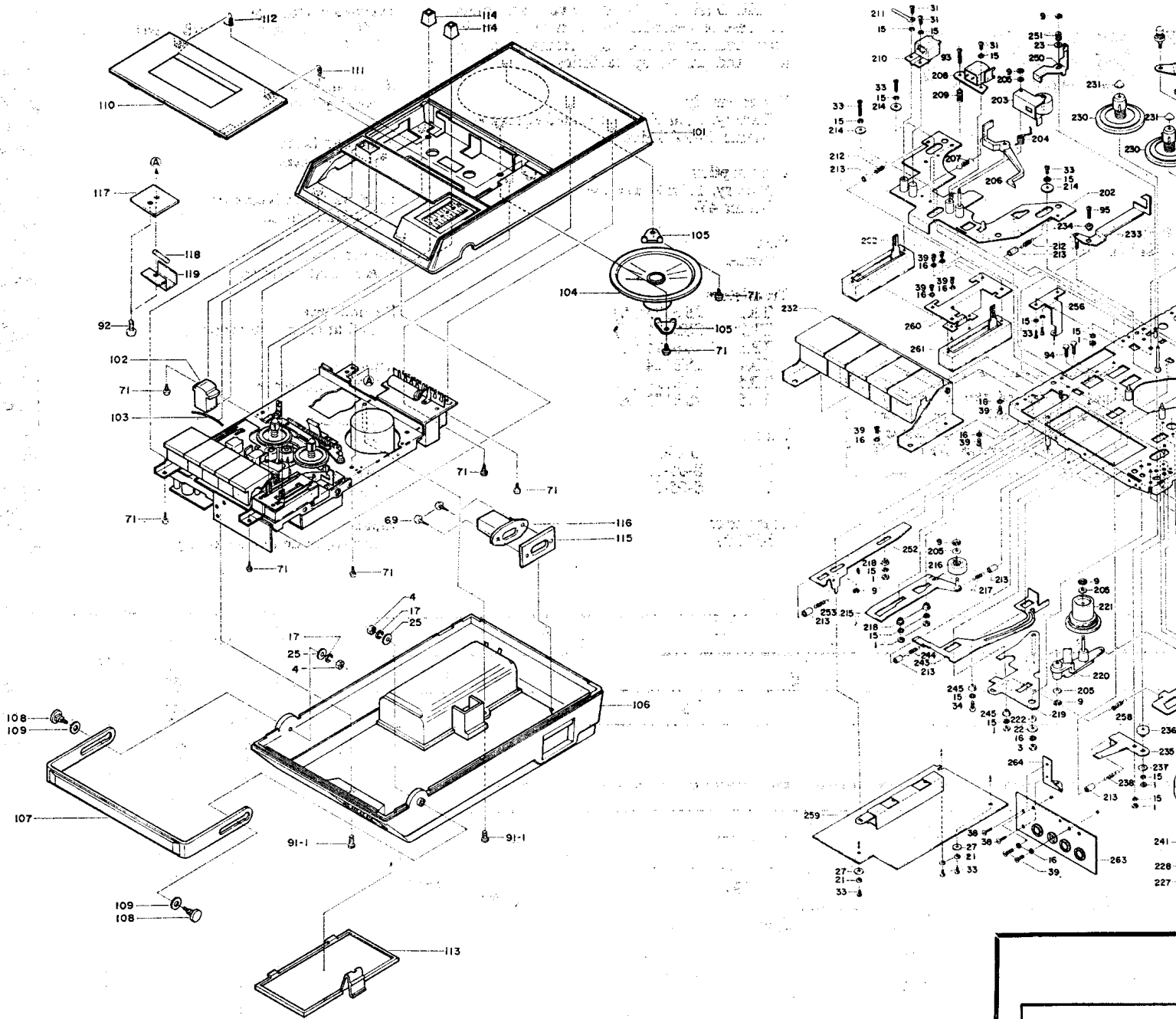


RESISTORS

R1	82K	B2
R2	15K	B2
R3	1K5	B2
R4	47	B2
R5	4K7	B2
R6	68K	B2
R7	22K	B2
R8	4K7	B2
R9	2K2	B2
R10	470	B2
R11	1K	A2/B2
R12	47K	B2
R13	8K2	A2
R14	330	A2
R15	10	A2
R16	100	A2
R17	68	A2/B2
R18	1K8	A2/B2
R19	100	A2
R20	2R2	A1
R21	8R2	B1
R22	8K2	A1/B1
R23	220K	B1
R24	47K	B1
R25	470	B1
R26	47K	B1
R27	4K7	B1
R28	33	B1
R29	33	B1
R30	100	B2
R31	22K	A1
R32	2K2	A1
R33	820	A1
R34	5K6	B2
R101	47K	B2
R102	2K2	—
R103	22	—
VR1	10K	—
VR2	100K	B2
VR3	5K	—

CAPACITORS

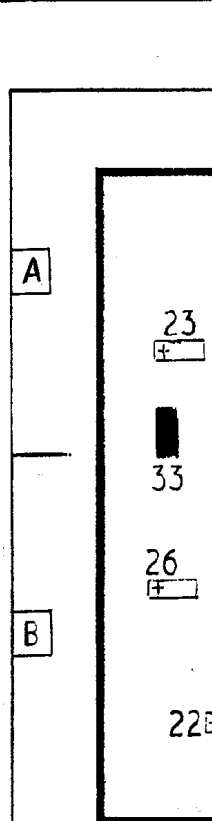
C1	10 μ 6V	B2
C2	330 μ 6V	A1
C3	1n	B2
C4	33 μ 6V	B2
C5	100n	B2
C6	47n	B2
C7	470p	B2
C8	33 μ 6V	B2
C9	330 μ 10V	B2
C10	10 μ 6V	B2
C11	1 μ 6V	A2
C12	33 μ 6V	A2
C13	100 μ 6V	A2
C14	330 μ 6V	A2
C15	4n7	A2
C16	4n7	A1
C17	470p	B1
C18	100p	B2
C19	500p	B1
C20	10n	B1
C21	10 μ 6V	B1
C22	330 μ 10V	A1
C23	330 μ 10V	B1
C24	10 μ 6V	B2
C25	10 μ 6V	—
C26	330 μ 6V	B1
C101	1000 μ 10V	—

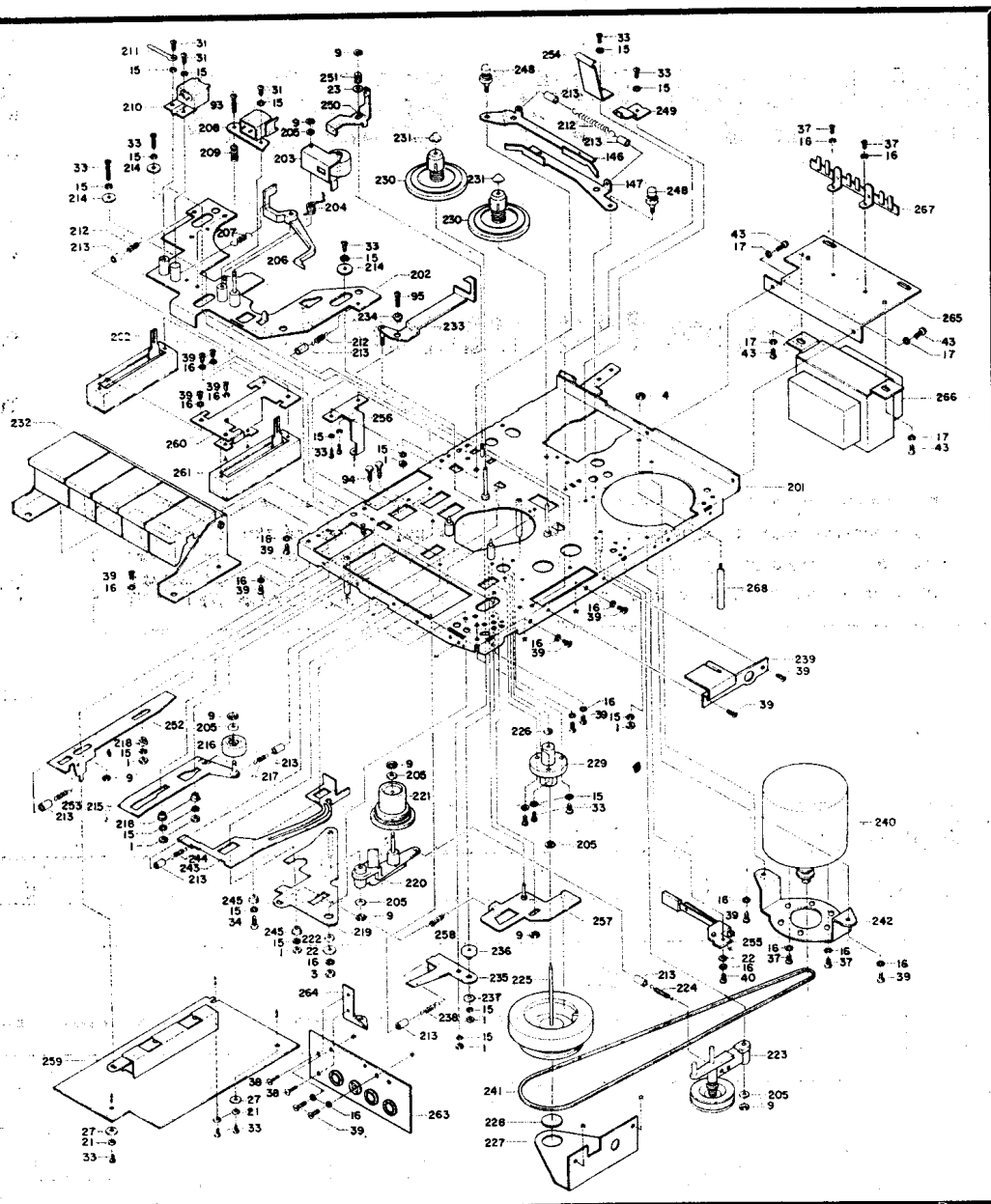


- 1 Nut M2
- 4 Nut M3-ISO-Handle Pivot
- 9 Circlip
- 15 Spring Washer M2
- 16 Spring Washer M2-6
- 17 Spring Washer M3
- 21 Washer M2
- 22 Washer M2-6 x 7-50
- 23 Washer M3
- 25 Washer, M3 x 80—Handle Pivot
- 27 Fibre Washer M2 x 60
- 31 Screw, Pan M2 x 4—Erase Head/R/P Head
- 33 Screw, Pan M2 x 6
- 34 Screw, Pan M2 x 8
- 37 Screw, Pan M2-6 x 4 motor
- 38 Screw, Pan M2-6 x 5
- 39 Screw, Pan M2-6 x 6
- 40 Screw, Pan M2-6 x 8
- 43 Screw, Pan M3 x 4 ISO
- 71 Screw, capping—M3 x 8
- 93 Screw, Pan M2 x 15—Azimuth Adjust.
- 94 Screw, Pan M2 x 6-5 Rewind Slider
- 95 Screw, C/Sunk M2 x 12
- 101 Cabinet Front assembly
- 102 Level meter
- 103 Retainer—Level Meter
- 104 Loudspeaker—77/52/1
- 105 Retainer—Loudspeaker
- 106 Cabinet Back Assembly
- 107 Handle Assembly
- 108 Pivot—Handle
- 109 Washer, Vinyl—Handle Pivot
- 110 Cassette Cover Assembly
- 111 Cassette Pop-up Spring (B)—Left
- 112 Cassette Pop-up Spring (A)—Right

- 113 Battery Cover
- 114 Knob—Volume/Tone Controls
- 115 Plate Mounting Mains Socket
- 116 Mains Socket
- 117 Fuse Holder
- 118 Fuse 50ma—Anti-surge
- 119 Fibre Shield over fuse
- 201 Chassis Assy.
- 202 Head and Pressure Roller Slider Assy.
- 203 Pressure Roller Assy.
- 204 Pressure Roller Spring
- 205 Washer (D) Nylon
- 206 Shut Off Lever
- 207 Shut Off Lever Spring
- 208 Record/Playback Head
- 209 Record/Playback Head Spring (C)
- 210 Erase Head
- 211 Lead Clamp (A)
- 212 Spring (B)
- 214 Flange Spacer (A)
- 215 Rewind Slider Assy.
- 216 Rewind Idler Assy.
- 217 Spring (A)
- 218 Flange Spacer
- 219 Fast Forward Lever Assy. (A)
- 220 Fast Forward Lever Assy. (B)
- 221 Fast Forward Idler Assy.
- 222 Spacer (D)
- 223 Friction Lever Assy.
- 224 Spring (F)
- 225 Flywheel/Capstan
- 226 Washer (F) Nylon
- 227 Flywheel Retainer
- 228 Flywheel Bottom Bearing
- 229 Flywheel Bearing

- 230 Reel Table Assy.
- 231 Reel Table Assy. Stopper
- 232 Push Button Assy. with knobs
- 233 Eject Lever Assy. (C)
- 234 Eject Spacer (A)
- 235 Eject Lever (D)
- 236 Eject Lever (D) Spacer (C)
- 237 Eject Lever (D) Washer (G)
- 238 Eject Lever (D) Spring (G)
- 239 Ejector Lever (D) Thruster
- 240 Motor with Pulley
- 241 Drive Belt
- 242 Motor Bracket
- 243 Brake Slider
- 244 Brake Slider Spring (D)
- 245 Brake Slider Flange Spacer (C)
- 246 Take-up Reel Brake Arm
- 247 Feed Reel Brake Arm
- 248 Brake Arm Shaft
- 249 Brake Arm Holder
- 250 Erase Foolproof Lever
- 251 Erase Foolproof Lever Spring
- 252 Record Slider
- 253 Record Slider Spring
- 254 Cassette Brace
- 255 Leaf Switch
- 256 P.C.B. Holder
- 257 Shut-off Slider Assy.
- 258 Shut-off Slider Assy.
- 260 Bracket—Controls
- 263 Plate Mounting Jack Sockets
- 265 Chassis Mains Transformer
- 266 Mains Transformer
- 267 Terminal Strip—8 way
- 268 Retainer (A)—60 x 25—Cabinet Back





Outlets

Monitoring and replay signals at EAR socket.

Manufacturer

Rank Radio International, PO Box 596, Power Road, Chiswick, London W4. 01-994 6491.

Service Dept.

Rank Radio International, Service Centre Watton Road, Ware, Herts. Ware 3966.

Adjustments

Equipment

- (1) High impedance AC voltmeter.
- (2) Head azimuth alignment cassette.
- (3) 80hm resistor.
- (4) Frequency counter

Head azimuth alignment

- (1) Connect the 80hm resistor across the EAR socket.
- (2) Connect the AC voltmeter across the resistor.
- (3) Insert the head azimuth alignment cassette.
- (4) Switch the recorder to play.
- (5) Adjust the spring-loaded mounting screw of the record/play head for maximum indication on the AC voltmeter.

Bias and erase frequency

- (1) Connect the frequency counter across the bias resistor VR2.
- (2) Switch the recorder to record.
- (3) Adjust the bias oscillator coil L1 for a frequency of 50kHz.

Record Bias

- (1) Connect the AC voltmeter across R30 (in series with the record/play head).
- (2) Switch the recorder to record.
- (3) Adjust the bias resistor VR2 to obtain an indication of 60mV on the AC voltmeter.

Service Notes

On later models (Serial No. 10001 upwards) modifications have been introduced to the ALC and output circuits entailing changes to the circuit diagram and component layout.

- Assy.
- Assy. Stopper
- on Assy. with knobs
- on Assy. (C)
- er (A)
- er (D)
- er (D) Spacer (C)
- er (D) Washer (G)
- er (D) Spring (G)
- er (D) Thruster
- ch Pulley
- cket
- er
- er Spring (D)
- er Flange Spacer (C)
- eel Brake Arm
- Brake Arm
- n Shaft
- n Holder
- lproof Lever
- lproof Lever Spring
- ider
- ider Spring
- Brace
- ch
- ider
- ider Assy.
- ider Assy.
- Controls
- nting Jack Sockets
- ains Transformer
- nsformer
- Strip—8 way
- (A)—60 x 25—Cabinet Back

