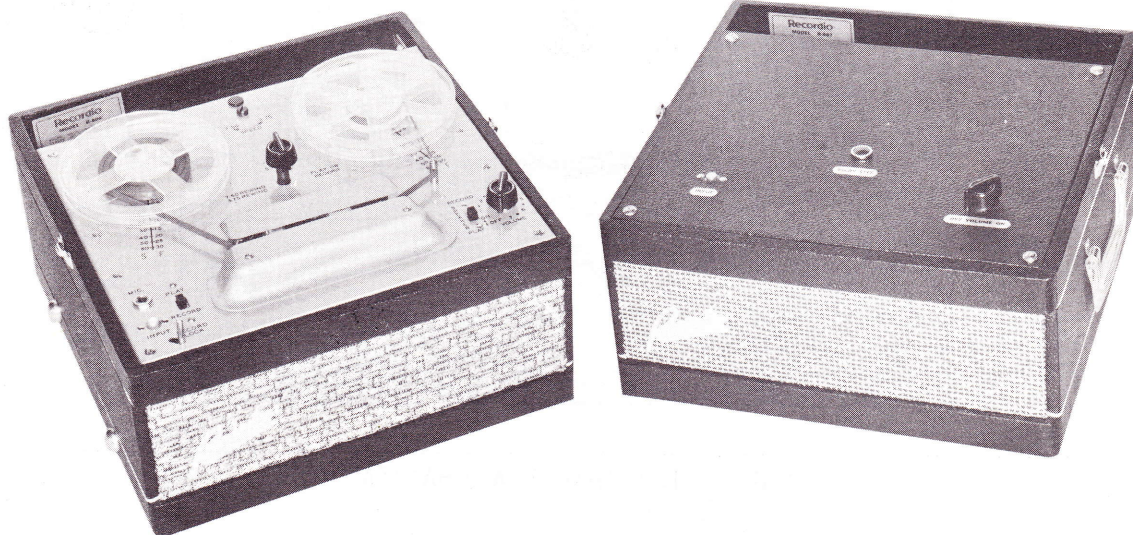
RECORDIO MODELS
804, 806, SA-807RECORDIO MODELS
804, 806, SA-807

GENERAL INFORMATION

Recordio Models R-804 and R-806 are similar in basic design and construction. The Model R-804 is designed to record and play dual-track monaural recordings. Model R-806 is designed to record and play dual-track monaural recordings, and in addition, will play two-track or four-track prerecorded stereophonic tapes when connected to an external amplifier and speaker system.

The R-804 is equipped with a monaural half-track head, a single channel 2-watt amplifier, and one 4-inch speaker.

The R-806 is equipped with a stereophonic, quarter-track head, a single channel 2-watt amplifier, and two 4-inch speakers. In addition, the R-806 is equipped with a high gain pre-amplifier for driving, an external amplifier, and speaker system to provide for the playback of the lower (right) channel of stereophonic tapes. The upper (left) channel is played through the self-contained 2-watt amplifier.

Models R-804 and R-806 have tape speeds of 7 1/2 and 3 3/4 inches per second. Using both tracks of the tape the recording time is as follows:

Reel Size	3 3/4" Speed	7 1/2" Speed
5" (600 ft)	1 Hour	1/2 Hour
7" (1200 ft)	2 Hours	1 Hour

New monaural recordings can be made on previously recorded tape when the Record-Play switch is in the Record position. Monaural recordings can be made from a radio, television receiver, or phonograph in addition to those made directly from a microphone.

These recorders operate on 60 cycles, 117 volts AC only.

Manufactured By:

Recordio Corporation
Charlotte, Michigan

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of CQ468



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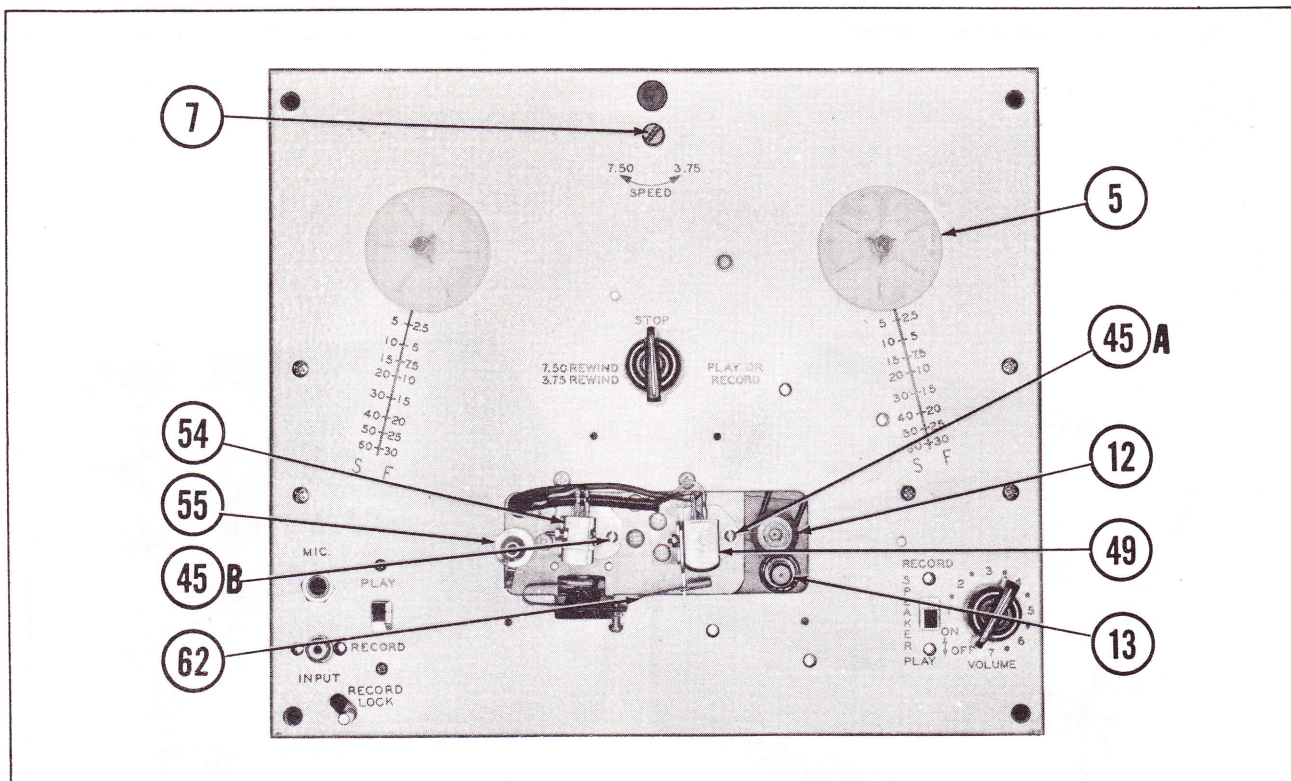


FIG. 1 TOP VIEW OF MECHANISM

FUNCTION OF CONTROLS, SWITCHES, AND JACKS

On-Off Volume, and Record Level Control

Rotating this control clockwise, turns the unit on and is used as the volume control when playing a recording.

When making a recording, it is used as a record level control. Use the calibrated scale and pointer to select the proper record level.

Rewind, Stop, Play-Record Control

This control places the tape mechanism in the proper mode of operation when recording or playing back a reel of tape.

Play-Record Switch

This slide switch controls the play or record functions of the unit.

CAUTION: This control must be in the Play position when rewinding or playing a tape; otherwise, complete erasure of the tape will result.

Record Lock

This control is of the sliding lever type and is located below and slightly to the left of the "Play-Record" switch. Used for the purpose of preventing accidental erasure of tapes, the lever must be pushed to the left before the "Play-Record" switch can be placed in "Record" position. Make sure the "Play-Record" switch is returned to the "Play" position before playing a tape.

Speed Change Control

This control is the slotted shaft located at the rear center of the unit. By inserting a coin or screwdriver into the slot, the control can be turned to select either 7 1/2 or 3 3/4 inches per second operating speed. For 7 1/2 ips operation, this control must be turned firmly until it snaps into position.

CAUTION: Do not change the speed control while the unit is operating; stop the unit first.

Speaker Switch

When recording from a microphone, place the switch in the Record position to prevent squeal or feedback. When playing a recording, the switch must be in the Play position.

Microphone Jack

This jack, located at the left of the unit, serves as the input when recording from a microphone. When playing or rewinding, the microphone plug should be removed to prevent feedback.

Input Jack (Radio, Phono, TV)

Located below the microphone jack, this jack serves as a low level input for recording from radio, TV, or phonograph. It also serves as a constant low level output for playing tapes through an external Hi-Fi amplifier or for the purpose of duplicating tapes, using two recorders.

Phono In and Pre-Amp Out Jacks (Model 806)

These jacks are located at the right rear in the storage compartment and are used to play Stereo

records or Stereo tapes in conjunction with an external amplifier.

OPERATING INSTRUCTIONS

Threading the Tape

1. Place a reel of tape on the supply spindle (left) making certain the reel slots engage the protrusions on the reel spindle. Place an empty reel on the take-up spindle (right), again making certain the reel slots engage the protrusions on the take-up spindle.
2. Unwind about 14 inches of tape from the supply reel. Hold a section of the tape taut and insert in the tape slot, making sure the dull-coated side of the tape faces away from the operator.
3. Insert the free end of the tape into one of the three slots in the hub of the take-up reel. While holding the end in place, give the reel two or three turns until the tape is secured to the reel.
4. The tape must be threaded between the tape guide sleeve (located below the take-up reel) and the reel, not around it.

To Record from a Microphone

1. Turn the On-Off-Volume control to the On position and allow about 30 seconds for the amplifier to warm up.
2. Place the Speaker Switch in Record position.
3. Push Record Lock lever to the left and hold in this position.
4. Slide the Record-Play switch to Record position and release the Record Lock lever.
5. Adjust the Volume control so that the arrow is at approximately $4\frac{1}{2}$ on the numbered scale, and turn Rewind, Stop, Play-Record control to the Play-Record position.
6. Hold the microphone 2 or 3 inches away from your mouth and talk in a normal tone of voice.

NOTE: The setting of the Volume control for recording will vary with the strength of the voice and the distance from the microphone. After several satisfactory recordings have been made, the location of the arrow can be used as a reference for future recordings.

To Record from a Radio, Television Receiver or Phonograph

1. Connect one end of a patch cord across the voice coil of a radio, television receiver, or phonograph.
2. Plug the other end of the patch cord into the Input jack.
3. Set the volume control of the radio, television receiver, or phonograph to normal room volume. If external equipment has a tone control, this

should be set at treble.

4. Proceed as outlined in "To Record from a Microphone".

To Use the Second Track

1. Place the Rewind, Stop, Play-Record Control to the Stop position after all the tape has been wound onto the take-up reel.
2. Remove the empty reel from the supply spindle.
3. Remove the reel containing the tape. Turn it over and place it on the supply spindle.
4. Place the empty reel on the take-up spindle.
5. Thread the tape and proceed as outlined under "To Record from a Microphone" or "To Record from a Radio, Television Receiver, or Phonograph".

To Erase the Tape

When the Rewind, Stop, Play-Record control and the Play-Record switch are in Record position, the erase head is activated and automatically erases previous recorded material while a new recording is being made. Material no longer needed may be erased without recording. The setup is the same for erasing as for recording, except that the Volume, Control should be turned to minimum. One track is erased at a time. To erase the second track, reverse the reels and proceed as previously noted.

Fast Rewind

This unit has two rewind speeds, the speed being determined by the setting of the Speed Control. Faster rewind is obtained when the Speed Control is set at $7\frac{1}{2}$ ips.

CAUTION: When rewinding, the Play-Record switch must be in the Play position; otherwise, complete erasure of the recording will result.

To Play a Recording

1. Thread the tape as outlined under "Threading the Tape".
2. Set Speed control to the speed at which recording was made.
3. Set Record-Play switch to Play and turn Rewind, Stop, Play-Record Control to the Play-Record position.
4. Adjust the volume to the desired level.

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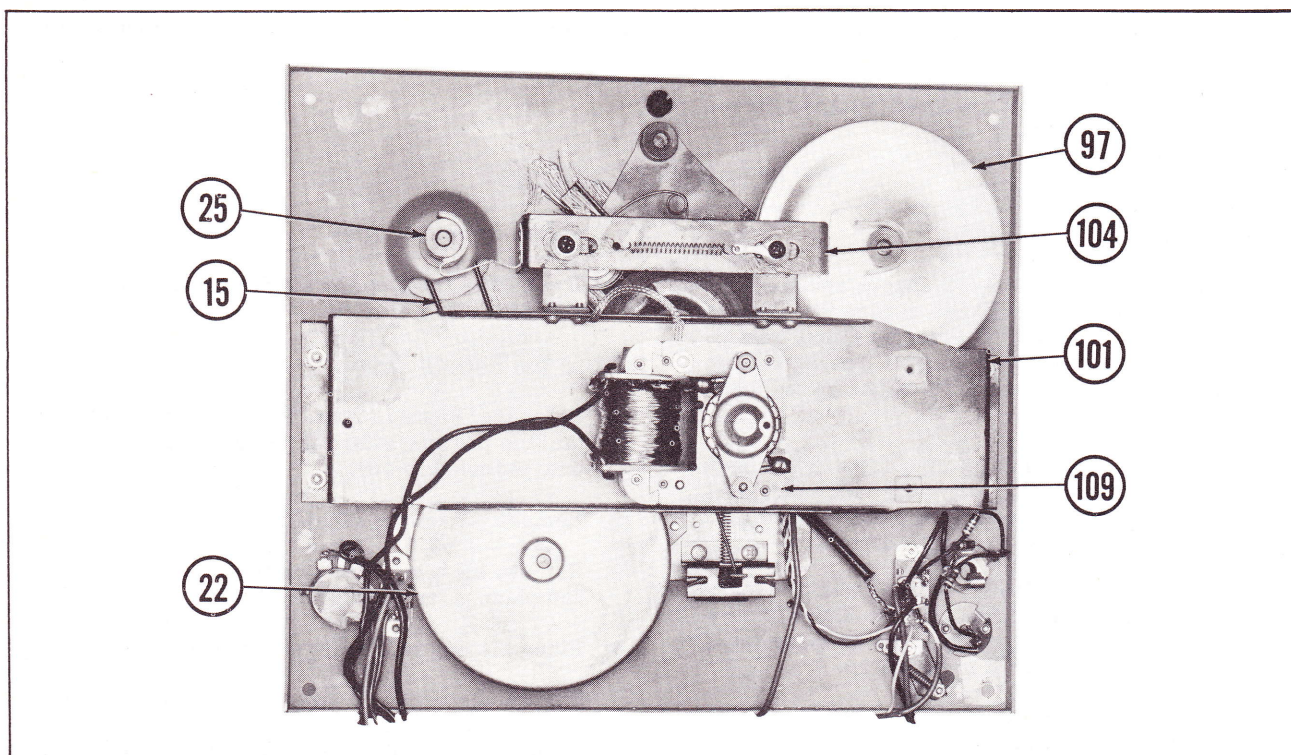


FIG. 2 BOTTOM VIEW OF MECHANISM

To Record from Phonograph Turntable

1. Plug the output lead of the turntable into the Input jack.
2. Proceed as outlined under "To Record from a Microphone".

NOTE: Since the microphone (which can pick up external noise) is not being used, the Speaker Switch can be pushed to the Play position, so that the recording can be heard through the built-in speakers.

To Use as Amplifier for Phono Turntable

Push the Speaker switch to the Play position, and the Play-Record switch to the Record position. Adjust Volume control to desired listening level.

To Play Tape through External Amplifier (Monaural)

1. Connect the Input jack of the recorder to the input of the external amplifier.
2. Turn the Rewind-Stop-Play knob to Play.
3. Adjust the external amplifier to the desired listening level.

NOTE: In the Play position, the input jack acts as a constant low-level output. Varying the

Volume control will have no effect on the output. To hear both the recorder and the external amplifier, advance the recorder Volume control. The Speaker switch must be in the Play position.

To Play Stereo Quarter-Track Tapes (Model R806)

1. Thread the tape as outlined under "Threading the Tape."
2. Connect the jack marked Pre-Amp Out to the input of the external amplifier.
3. Proceed as outlined under "To Play a Recording".
4. Adjust volume control on external amplifier so that volume is the same as recorder volume.

To Play Stereo Records (Model R-806)

1. Connect one output cable from the turntable to the Input jack on the recorder.
2. Connect the other output cable to the Phono-In jack.
3. Connect an external amplifier to the Pre-Amp. Out jack.
4. Turn the recorder on and adjust the volume controls for equal volume from both speakers.

DISASSEMBLY INSTRUCTIONS

To Remove Unit from Case

1. Remove four Phillips head screws holding transport assembly in case.

2. Remove four Phillips head screws from basket holding Phono-In and Pre-Amp Out jacks.

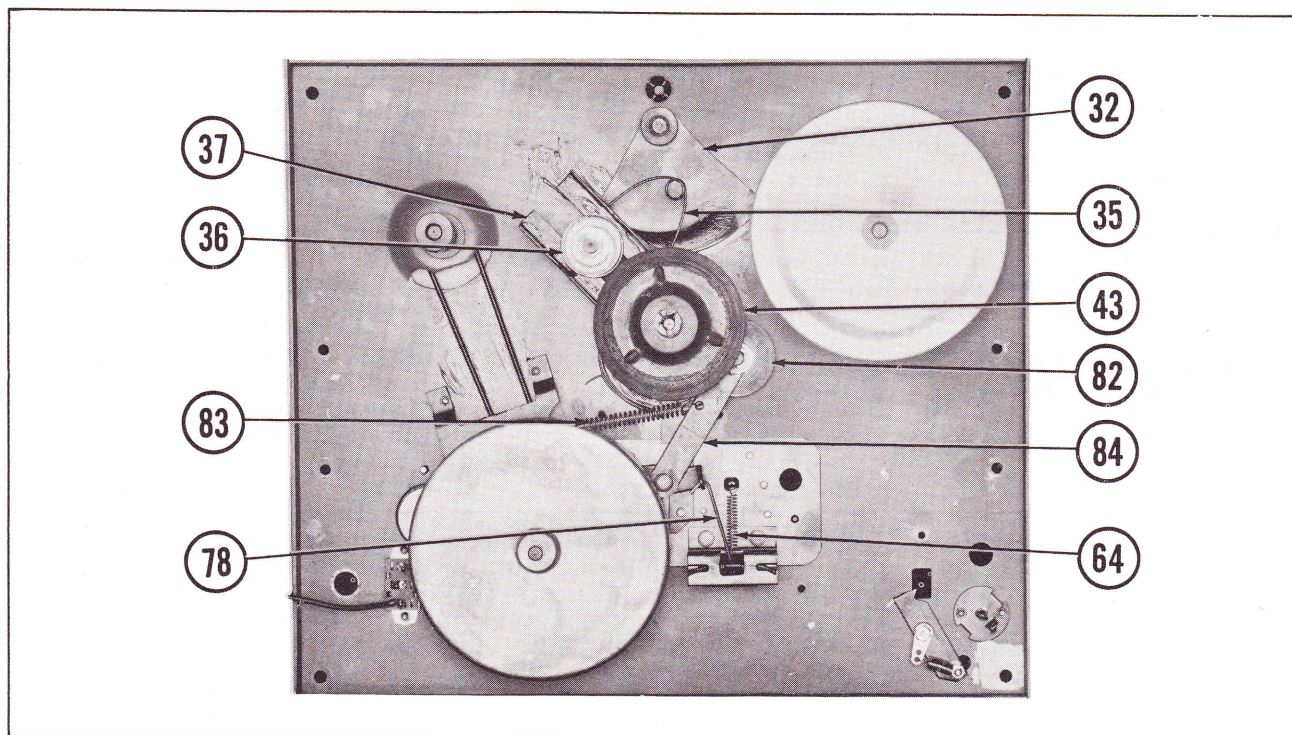


FIG.3 BOTTOM VIEW OF MECHANISM WITH DRIVE MOTOR PLATE REMOVED

3. Lift transport unit up as far as possible and disconnect speaker leads. Note that black lead plugs into terminal with phasing dot.
4. Remove two Phillips head screws holding stereo

preamp. unit.

NOTE: Steps 2 and 4 does not apply to Model R-804.

ADJUSTMENTS

Pressure Pad and Spring Assembly

1. Remove front escutcheon (3).
2. Turn the Rewind-Stop-Record/ Play control to the Play position. Do not turn recorder on.
3. Use a pencil-type postal scale and check the amount of pressure necessary to just pull the right-hand pad away from the play-record head. With the scale at the end of the pressure pad and spring assembly, adjust locked adjustment screw (73) until a reading of 1 oz., $\pm 1/4$ oz., is obtained.
4. Adjust the erase head pressure pad by bending the left-hand portion of pressure pad and spring assembly (62) for $3/4$ oz. pressure against tape.

After adjustments are made, return the Rewind-Stop-Record/ Play control to the Stop position.

Play Record Head

An alignment tape recorded at a frequency of 6,000 cps should be used when aligning the head.

1. Remove front and rear escutcheons (3) and (1), and clean pole pieces of play/ record head (49) with a soft cloth and alcohol.
2. Thread alignment tape on recorder, and turn

Volume control to maximum. Connect VTVM across speaker voice-coil terminals. Set meter for 3 volts AC.

3. Place unit in Play mode, at $7 1/2$ ips speed. Decrease volume to point where output is 1 volt on meter. Adjust play/ record head adjustment screw (45) for maximum deflection on meter.
4. Gently press right-hand portion of pressure pad assembly (62) at extreme right of play/ record head. Output on meter should not increase. If a slight gain is noted, readjustment of the pressure pad assembly may be necessary.

Erase Head

1. Thread the tape on recorder. Turn recorder on, place Rewind-Stop-Record/ Play control to the Record position. Allow tape to run for a few seconds, then turn recorder off. Leave control in Record position.
2. Adjust tape height as follows:
 - (a) Check to see if tape is even with top edge of the erase head pole piece. To adjust the level of the tape, loosen set screw (53) and turn threaded tape-guide post (55) to move tape up or down.
 - (b) If adjust of head azimuth is necessary, adjust by tightening or loosening slotted screw (45A).

TROUBLE CHART

Symptom	Cause	Remedy
Transport does not function in any mode.	1. Inoperative motor. 2. Motor pulley loose on motor shaft.	1. Replace or repair motor. 2. Tighten set screw in pulley.
Record-Play switch will not stay locked in Play position.	1. No tension on Record Lock Post.	1. Check to determine if Record Lock lever spring (95) is either loose or broken.
Tape fails to wind on take-up reel during Play or Record.	1. Pinch roller (12) does not engage capstan shaft (13). 2. Idler wheel (43) does not engage flywheel (22). 3. Reel drive spring (35) loose, disconnected, or broken.	1. Check for either loose or broken cam follower spring (83). 2. Check for either broken or loose idler tension spring (35). 3. Repair or replace spring.
Tape spills when Rewind-Stop Record/ Play control is turned to Stop position.	1. Brake shoes out of adjustment. 2. Felt brake pad (104A-B) worn out or missing.	1. Bend brake shoes for normal drag. 2. Replace brake pads.
"Wow" during operation of recorder.	1. Brake return spring (108) disconnected or broken. 2. Check all driving surfaces for oil or foreign matter.	1. Connect or replace spring (108). 2. Clean with a soft cloth and alcohol.
"Flutter" during operation of recorder.	1. Dirty-play-record head (49), pressure pads, capstan shaft or pinch roller (12).	1. Clean with a soft cloth and alcohol.
No erase or erase is incomplete.	1. Spring (64) disconnected or broken. 2. Erase head (54) not adjusted properly. 3. Erase head dirty.	1. Connect or replace spring (64). 2. See "Erase Head Adjustment" under Adjustments. 3. See "Cleaning".
Does not record.	1. Faulty microphone or cord. 2. Faulty input jack. 3. Faulty tube. 4. Open play/ record head (49). 5. Dirty play/ record head (49). 6. Play-record head not adjusted properly.	1. Replace if necessary after checking recorder with another type of input. 2. Check and replace if necessary. 3. Check tubes. 4. Check continuity. After checking continuity, demagnetize head. 5. See "Cleaning". 6. See "Play-Record Head Adjustment" under Adjustments.
Motor and amplifier inoperative.	1. Power supply defective. 2. Damaged power cord. 3. Defective On-Off switch.	1. Check voltages per schematic. 2. Repair or replace. 3. Replace switch.

LUBRICATION

All rotating parts are provided with generous size oilite bearings, lubricated at the factory. Under normal use no further lubrication is necessary. In heavy-duty service, the following parts should be lubricated once a year with a drop of SAE10 motor oil.

1. Top and bottom motor bearings.
2. Capstan shaft bearing.
3. Pinch roller (12) bearing.
4. Idler and drive wheel bearings.
5. Reel spindle bearings.

6. Speed shift cam (32).

CAUTION: Do not over-lubricate. Oil must be kept off all rubber idlers, belts, and periphery of flywheel, and all parts that might transfer oil to them. Always wipe excess lubricant from parts that have been lubricated.

CLEANING

The record/play head (49), capstan shaft (13), pinch roller (12), and erase head (54) are subject to an accumulation of tape oxide coating worn off the tape as it passes these parts. This accumulation may cause

faint recordings, poor playback, or crosstalk; therefore, it should be removed periodically. Wipe off the above surfaces carefully with a soft cloth and alcohol.

MECHANICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	C-19,1660-1	Rear Escutcheon	48	73-2231-4	#6 Internal Lockwasher (4 req'd.)
2	57-6C-603-5	#6-32 x 3/16" Phillips Head Screw (2 req'd.)	49	B-36,251	Record/Playback Head (For Model R-804)
3	B-19,1659-1	Front Escutcheon		B-36,254	Record/Playback Head (For Model R-806)
4	57-6C-620-5	#6-32 x 1 1/4" Phillips Head Screw (2 req'd.)	50	B-35,1383-1	Record Head Mtg. Bracket Ass'y.
5	C-13,318-2	Reel Pan Assembly (2 req'd.)	51	B-19,1689	Tape Guide Plate (For Model R-804)
6	73-2340-1	Linen Washers (4 req'd.)		B-19,1690	Tape Guide Plate (For Model R-806)
7	B-32,478-1	Speed Shift Control Shaft	52	57-1C-603-1	#6-32 x 3/16" Phillips Head Screw (2 req'd.)
8	C-13,253-7	Speed Shift Knob, and Volume Control Knob	53	57-3698-0	#8-32 x 3/16" Bristol Head Set Screw
9	B-32,475-1	Control Shaft	54	B-36,264	Erase Head
10	C-33,418-2	1/8" E Ring	55	B-32,300	Left Tape Guide
11	73-2243-75	Brass Washer	56	B-35,1383-2	Erase Head Mtg. Bracket Ass'y.
12*	B-33,404 *	*Pinch Roller	57	B-33,325-1	Solder Lug
13	B-32,379	Capstan Shaft	58	48-410-1	#6-32 Hex Nut
14	B-28,163	Linen Washer (2 req'd.)	59	B-35,1382-1	Head Mounting Plate Ass'y.
15	B-31,497	Reel Drive Spring	60	57-1C-602-1	#6-32 x 1/8" Phillips Head Screw
16	D-35,1416-1	Baseplate Assembly	61	57-1C-803-1	#8-32 x 3/16" Phillips Head Screw
17		#4-40 x 1" Phillips Hd. Screw	62	B-35,1386-1	Pressure Pad and Spring Assembly
18		Tape Guide Sleeve	62A	B-31,444	Pressure Pad (2 req'd.)
19	57-4C-606-5	#6-32 x 3/8" Phillips Oval Head Screw (4 req'd.)	63	B-19,1694-1	Cam Stop Adjusting Plate
20	B-28,163	Linen Washer	64	B-31,338	Spring
21	73-2248-39	Phenolic Washer (2 req'd.)	65	B-19,1647-1	Pressure Pad Hinge Mtg. Bracket
22	C-13,257-1	Flywheel	66	B-19,1648-1	Pressure Pad Lever
23	57-3698-0	#8-32 x 3/16" Bristol Head Set Screw	67	73-2231-4	#6 Internal Lockwasher (2 req'd.)
24	73-2340-1	Linen Washer (2 req'd.)	68	57-1C-603-1	#6-32 x 3/16" Phillips Head Screw (2 req'd.)
25	B-32,477-1	Spacer Bushing	69	73-2241-74F	Flat Steel Washer
26	57-3690-0	#8-32 x 3/16" Bristol Head Set Screw	70	73-2231-4	#8 Internal Lockwasher
27	B-32,473	Pinch Roller Plate Spacer(Top)	71	57-7C-804-1	#8-32 x 7/16" Phillips Head Screw
28	B-35,1398-1	Pinch Roller Plate Assembly	72	48-410-1	#6-32 Hex Nut
29	B-32,472	Pinch Roller Plate Spacer (Bottom)	73	57-6C-606-1	#6-32 x 3/8" Phillips Head Screw
30	57-3698-0	#8-32 x 3/16" Bristol Head Set Screw	74	C-19,1661	Function Shift Cam
31	73-2241-74F	Flat Washer	75	B-32,460-1	Cam Follower Pin
32	B-35,1401-1	Speed Shift Cam Assembly	76	57-3698-0	#8-32 x 3/16" Bristol Head Set Screw
33	73-2231-5	#8 Internal Lockwasher	77	73-2243-75	Brass Washer
34	57-1C-807-1	#8-32 x 7/16" Phillips Head Screw	78	B-31,494	Linkage Arm
35	B-31,491	Idler Tension Spring	79	57-1C-803-1	Shouldered Washer
36	B-32,466	Idler Slide Bushing	80	B-19,1642-1	Cam Follower Link(Short)
37	B-35,1403-1	Idler Slide Plate Assembly	81	73-2243-75	Brass Washer (3 req'd.)
38	B-31,327	Idler Lift Compression Spring	82	B-32,471-1	Cam Follower
39	73-2241-143	Flat Steel Washer	83	B-31,473	Cam Follower Spring
40	C-33,418-3	E Ring	84	B-19,1641-1	Cam Follower Link (Long)
41	73-2241-150	Flat Steel Washer (2 req'd.)			
42	B-28,163	Linen Washer (3 req'd.)			
43*	B-33,408 *	*Idler Wheel			
44	B-33,418-2	1/8" E Ring			
45	57-16C-404-1	#4-40 x 1/4" Slotted Screw (2 req'd.)			
46	73-2241-134	Flat Steel Washer (2 req'd.)			
47	57-1C-602-1	#6-32 x 1/8" Phillips Head Screw (4 req'd.)			

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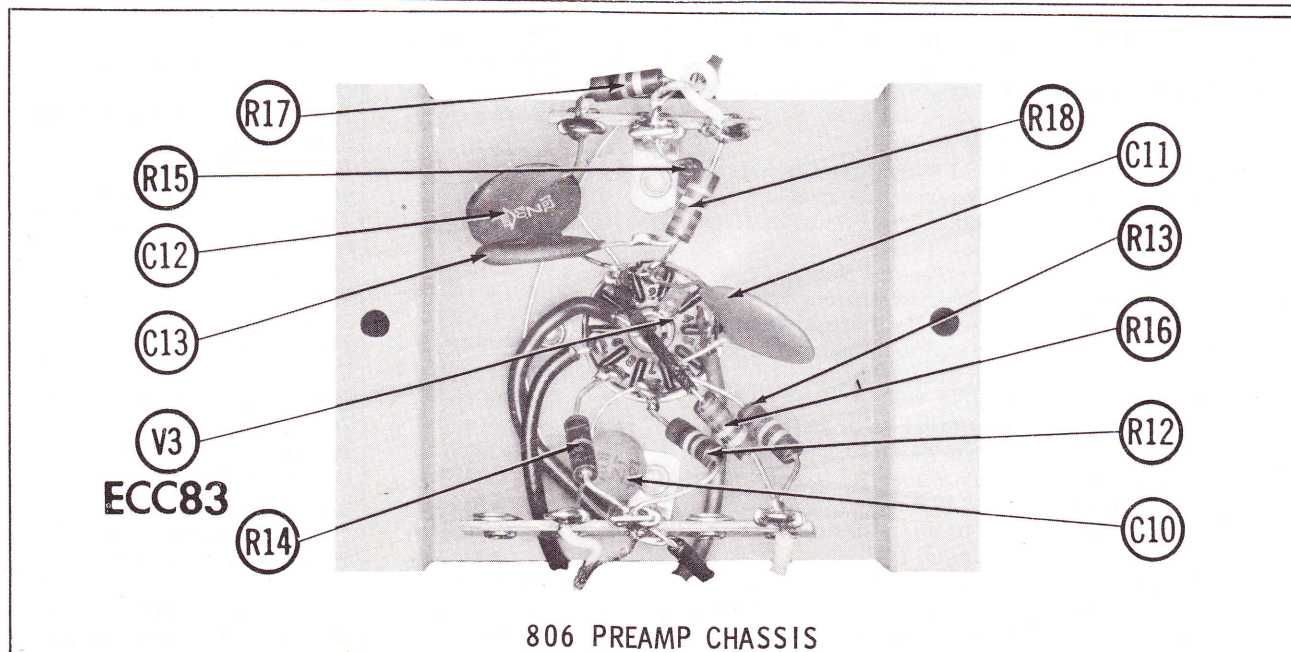
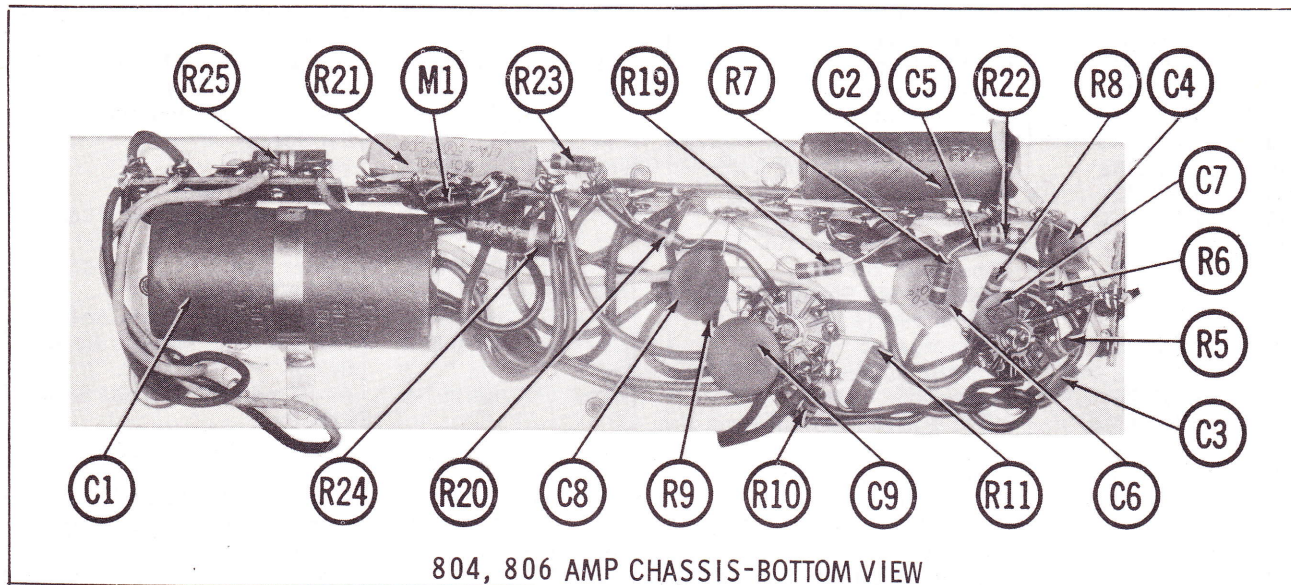
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MECHANICAL PARTS LIST (CON'T.)

Ref. No.	Part No.	Description	Ref No.	Part No.	Description
85	C-33.418-3	3/16" E Ring	99	B-33.627	Fastex Plastic Grommet (2 req'd.)
86	B-32.476-1	Shouldered Washer	100	B-19.1697	Brake Slide Plate Mtg. Brkt. (2 req'd.)
87	57-1C-603-1	#6-32 x 3/16" Phillips Head Screw	101	D-19.1643	Drive Mounting Plate
88	57-6C-406-5	#4-40 x 3/8" Phillips Head Screw	102	48-2219-1	#6-32 Keps Hex Nut (4 req'd.)
89	B-32.480-1	Spacer	103	B-28.186	Rubber Shock Mount (3 req'd.)
90	B-32.373	Record Lock Post	104	B-35.1405-1	Brake Slide Plate Assembly
91	B-19.1664-1	Record Lock Lever	104A	B-31.492-2	Felt Brake Pad (Long)
92	48-1C-9-1	#4-40 Hex Nut	104B	B-31.492-1	Felt Brake Pad (Short)
93	44-122-6	Terminal Lug	105	B-32.479-1	Shouldered Washer (2 req'd.)
94	48-410-1	#6-32 Hex Nut	106	44-122-8	#8 Internal Locking Terminal
95	B-31.338	Record Lock Lever Spring	107	57-6C-806-1	#8-32 x 3/8" Phillips Head Screw (2 req'd.)
96	73-2340-1	Linen Washer (2 req'd.)	108	B-31.338	Brake Return Spring
97	C-35.1050-1	Brake Drum Assembly	109	C-36.267	Motor
98	57-3698-0	#8-32 x 3/16" Bristol Head Set Screw	110	B-19.1645	Motor Support Bracket

* Idler Wheel WALSCO Part No. 1430

* Pinch Roller WALSCO Part No. 1457



804, 806 AMP PARTS LIST AND DESCRIPTIONS

TUBES

GENERAL ELECTRIC			RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	
V1 V2	Channel 1 AF Amp. Channel 1 AF Amp. - Cathode Follower- Channel 1 Output	12AX7/ ECC83 ECL82/ 6BM8	V3	Channel 2 AF Amp.	ECC83/ 12AX7	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	RECORDIO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1A B C D C2	50 50 50 20 16	150 150 150 25 150	B-5, 482-1	PR4-450	BBRQ55515C	WQ250	CDBQ-1001	TVAS-4525 *	
			C-5, 483-1	PR51430	BBR16-150	TC44	TD-16-150	TVA-1409	

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13	100000 10V 470 10% 10000 10000 470 10% 20000 10000 100000 10V 10000 20000 10000		DI-470 BPD-01 BPD-01 BPD-01 BPD-02 BPD-01 BPD-01 BPD-02 BPD-01 BPD-02 BPD-01	UK10-104 DD-471 DD-103 DD-103 DD-471 DD-203 DD-103 UK10-104 DD-103 DD-203 DD-103	H-05P10 5R5T47 BYA10S1 BYA10S1 5R5T47 BYB6S2 BYA10S1 H-05P10 BYA10S1 BYB6S2 BYA10S1	IDP-2-104 CCD-471 CCD-103 CCD-103 CCD-471 CCD-203 CCD-103 IDP-2-104 CCD-103 CCD-203 CCD-103	TA-010 GP347 B-110 B-110 GP347 B-120 B-110 TA-010 B-110 B-120 B-110	HY-320 10TS-T47 5HK-S10 5HK-S10 10TS-T47 5HK-S20 5HK-S10 HY-320 5HK-S10 5HK-S20 5HK-S10

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESIST-ANCE	WATTS	RECORDIO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1A B C	1meg Shaft Switch	$\frac{1}{2}$	C-8, 227-15	B-70-S Not Req. Not Req.	A47-1meg-Z FS-3 SWE-12	Q13-137 Not Req. 76-1	U53 Not Req. US-26	Volume Power Off-On

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13	470K 10meg 4.7meg 100K 220K 2.2meg 220K 100K 470K 330Q 1W 100K 220K				R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25	1500Q 2.2meg 220K 10K 220K 10K 1meg 10K 5W 68K 1000Q 220Q 1W 3.3Q		PW5-10K 5W-SQ-10K	

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	RECORDIO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T1	117V @ .23A	130V @ .050A DC	6.3V @ 1.3A	C-9-310	P-3045Q	PA8421Q	26R38Q	Q Drill New Mounting Hole(s).

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	RECORDIO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	6100Q	3-4Q	B-9, 282-4	A-2930	A-3850	24S51	S-49X	

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	RECORDIO PART No.	QUAM PART No.	
SP1 SP2	4" 4" 4"	PM PM PM	6-8Q 6-8Q 3-4Q	30, 353-2* †	4A07Z8 4A07Z8	* Model 806. Alternate Part #C-30, 352-2. † Model SA-804

POWER RECTIFIERS

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	CURRENT (Measured)		RECORDIO PART No.	RCA PART No.	SARKES TARZIAN PART No.	SYLVANIA PART No.	
M1	.050A		B-22, 103	1N1763	2F4	SR200	

MISCELLANEOUS

ITEM No.	PART NAME	RECORDIO PART No.	NOTES
M2 M3	Switch Switch		Record-Play (Slide Type, DPDT) Speaker (Slide Type, SPST)

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors
Power Cord Use BELDEN No. 1765-B (6 Ft. Length)
1725-K (7½ Ft. Length)
Low-Loss Shielded Lead (Interconnecting) Use BELDEN No. 8401
Phono Pick-up Arm Cable Use BELDEN No. 8430 (Two Conductor - Twisted)

SA-807 PARTS LIST AND DESCRIPTIONS

TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V4	Channel 2 AF Amp. - Channel 2 Output	ECL82/6BM8						

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	RECORDIO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C14A	50	150	B-5, 482-1	PR4-450	BBRQ55515C	WQ250	CDBQ-1001	TVAS-4525*	
B	50	150							
C	50	150							
D	20	25							

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C15	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C16	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	RECORDIO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R26A	1meg	1/2	C-8, 227-15	B-70-S Not Req. Not Req.	A47-1meg-Z FS-3 SWE-12	Q13-137 Not Req. 76-1	U53 Not Req. US-26	Volume
B	Shaft							
C	Switch							Power Off-On

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R27	10meg				R32	3300Ω			
R28	100K				R33	1000Ω			
R29	330Ω				R34	220Ω 1W			
R30	470K				R35	100K			
R31	330Ω 1W								

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	RECORDIO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	117V @ .22A	130V @ .045A DC	6, 3V @ .75A	C-9, 310	P, 3045 ①	PA-8421 ①	26R38 ①		① Drill New Mounting Hole(s)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	RECORDIO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T4	6100Ω	3-4Ω	B-9, 282-4	A-2930	A-3850	24S51	S-49X	

SPEAKER

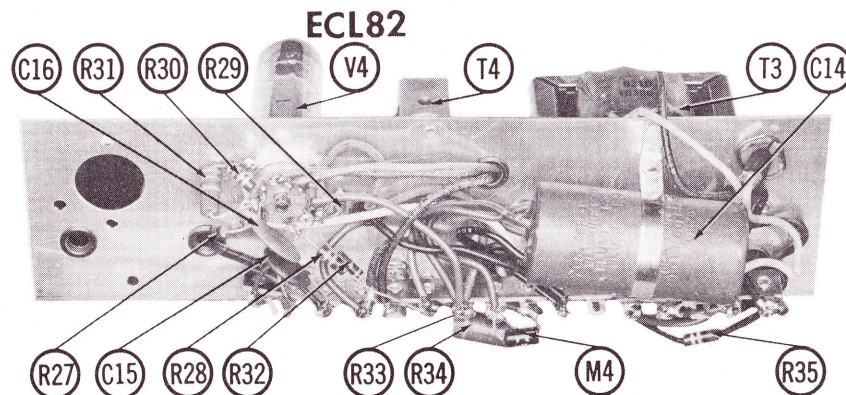
ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	RECORDIO PART No.	QUAM PART No.	
SP3	4"	PM	6-8Ω	30, 353-2*	4A07Z8	* Alternate Part #C-30, 352-2. Part #C-35, 1430-1 includes speakers and mounting panel.
SP4	4"	PM	6-8Ω		4A07Z8	

POWER RECTIFIERS

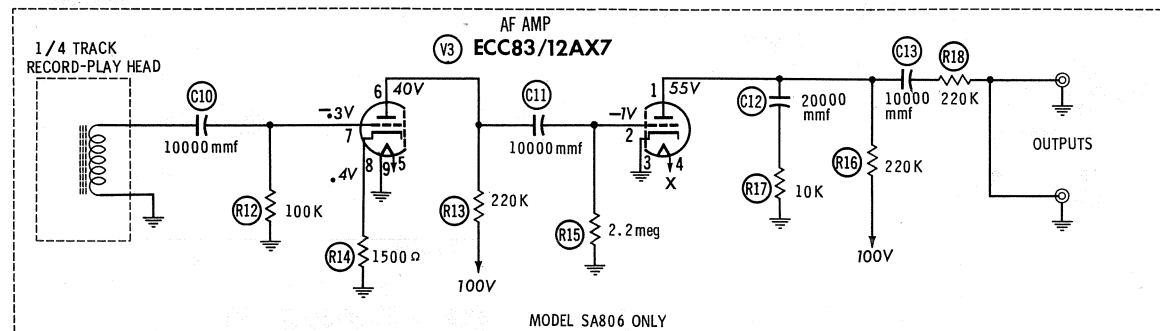
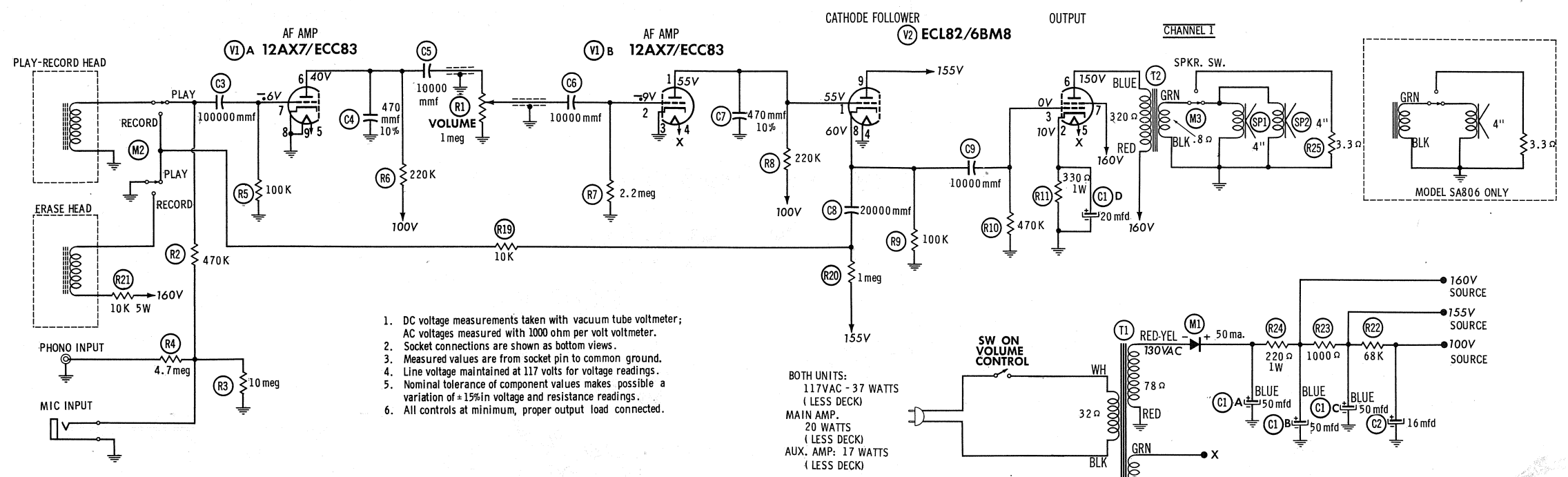
ITEM No.	RATING		REPLACEMENT DATA				NOTES
	CURRENT (Measured)		RECORDIO PART No.	RCA PART No.	SARKES TARZIAN PART No.	SYLVANIA PART No.	
M4	.045A		B-22, 103	1N1763	2F4	SR200	

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors
Power Cord Use BELDEN No. 1765-B (6 Ft. Length)
1725-K (7½ Ft. Length)
Low-Loss Shielded Lead (Interconnecting) Use BELDEN No. 8401
Phono Pick-up Arm Cable Use BELDEN No. 8430 (Two Conductor - Twisted)



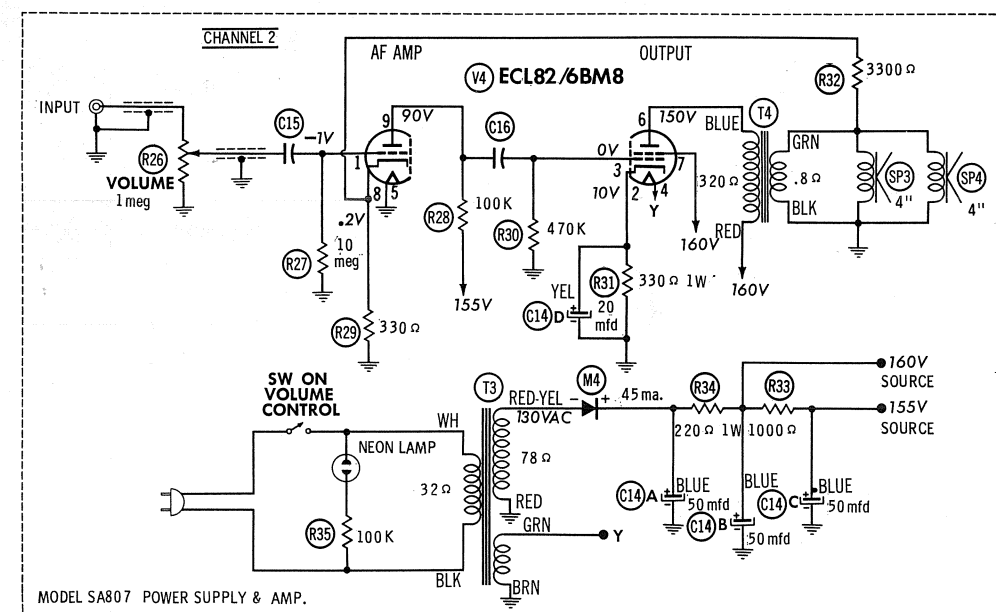
SA-807 POWER CHASSIS

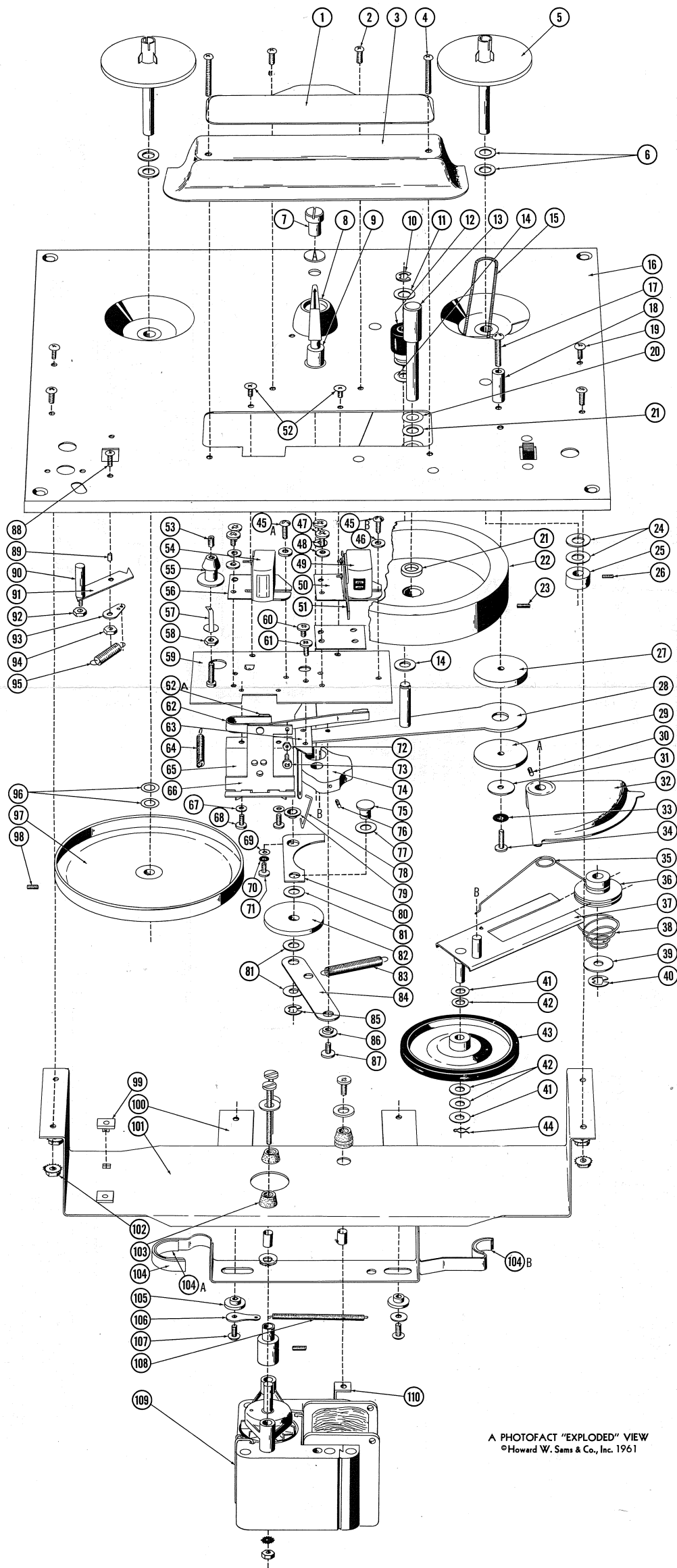


RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	ECC83	$\dagger 290\text{K}$	2.2meg	0 Ω	FIL	FIL	$\dagger 290\text{K}$	100K	0 Ω	FIL
V2	ECC82	$\dagger 290\text{K}$	330 Ω	470K	FIL	FIL	$\dagger 540\Omega$	$\dagger 220\Omega$	100K	$\dagger 1200\Omega$
V3	ECC83	$\dagger 290\text{K}$	2.2meg	0 Ω	FIL	FIL	$\dagger 290\text{K}$	100K	1500 Ω	FIL
V4	ECC82	10meg	330 Ω	470K	FIL	FIL	$\dagger 540\Omega$	$\dagger 220\Omega$	300 Ω	$\dagger 100\text{K}$

ALL MEASUREMENTS MADE IN EITHER PLAY OR RECORD POSITION WITHOUT DECK.
 \dagger MEASURED FROM OUTPUT OF M1. \dagger MEASURED FROM OUTPUT OF M4.





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EXPLODED VIEW OF MECHANISM