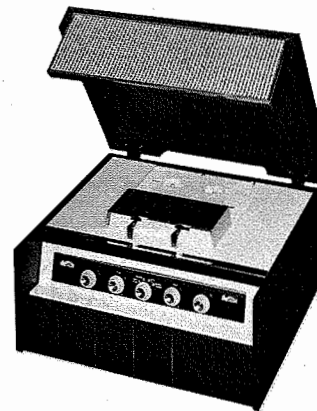
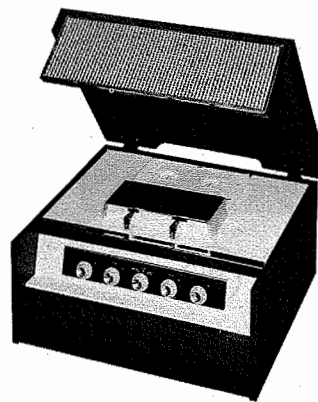
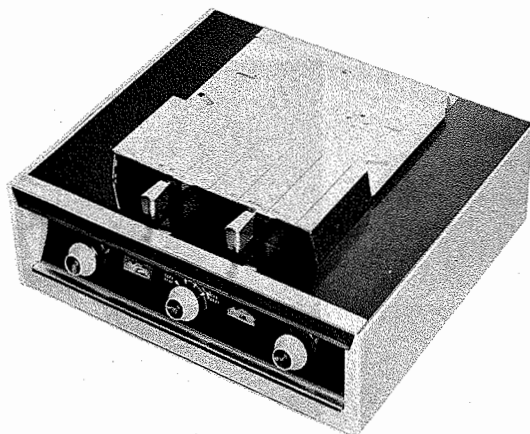
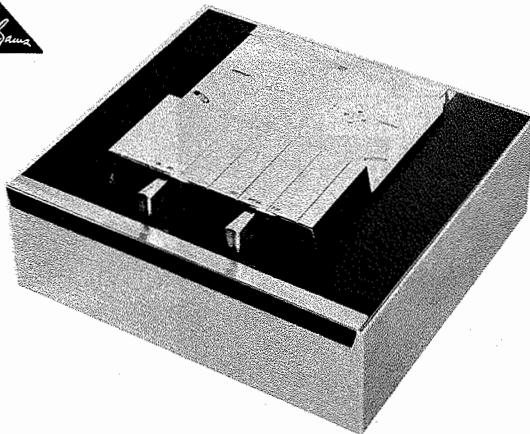


BELL SOUND MODELS  
401, 402, 403, 404, 405, 406



BELL SOUND MODELS  
401, 402, 403, 404, 405, 406

GENERAL INFORMATION

Bell Model 401 is a Stereo-Pak cartridge tape transport mechanism. It is connected directly into the tape-head inputs of a stereo amplifier.

Bell Model 402 has a dual playback preamplifier. Thus, a stereo tape cartridge can be played back into any stereo amplifier or combination of two amplifiers.

Bell Model 403 is a Stereo-Pak cartridge tape recorder with a built-in transistor record-playback preamplifier. This unit is connected to a stereo amplifier or two separate amplifiers.

Bell Model 404 is a Stereo-Pak cartridge tape player. The preamplifier and amplifier are enclosed within the case.

Bell Models 405 and 406 are complete stereo cartridge tape recorders. Both models contain a 14-watt stereo amplifier and a transistorized record-playback preamplifier. The only difference between these two models is the case. All units have one tape speed - 3 3/4 ips. They should be connected to an outlet supplying 110 - 120 volts, 60 cycles AC only.

Manufactured by:

Bell Sound Division  
Thompson Ramo Wooldridge, Inc.  
555 Marion Road  
Columbus 7, Ohio

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 CQ424

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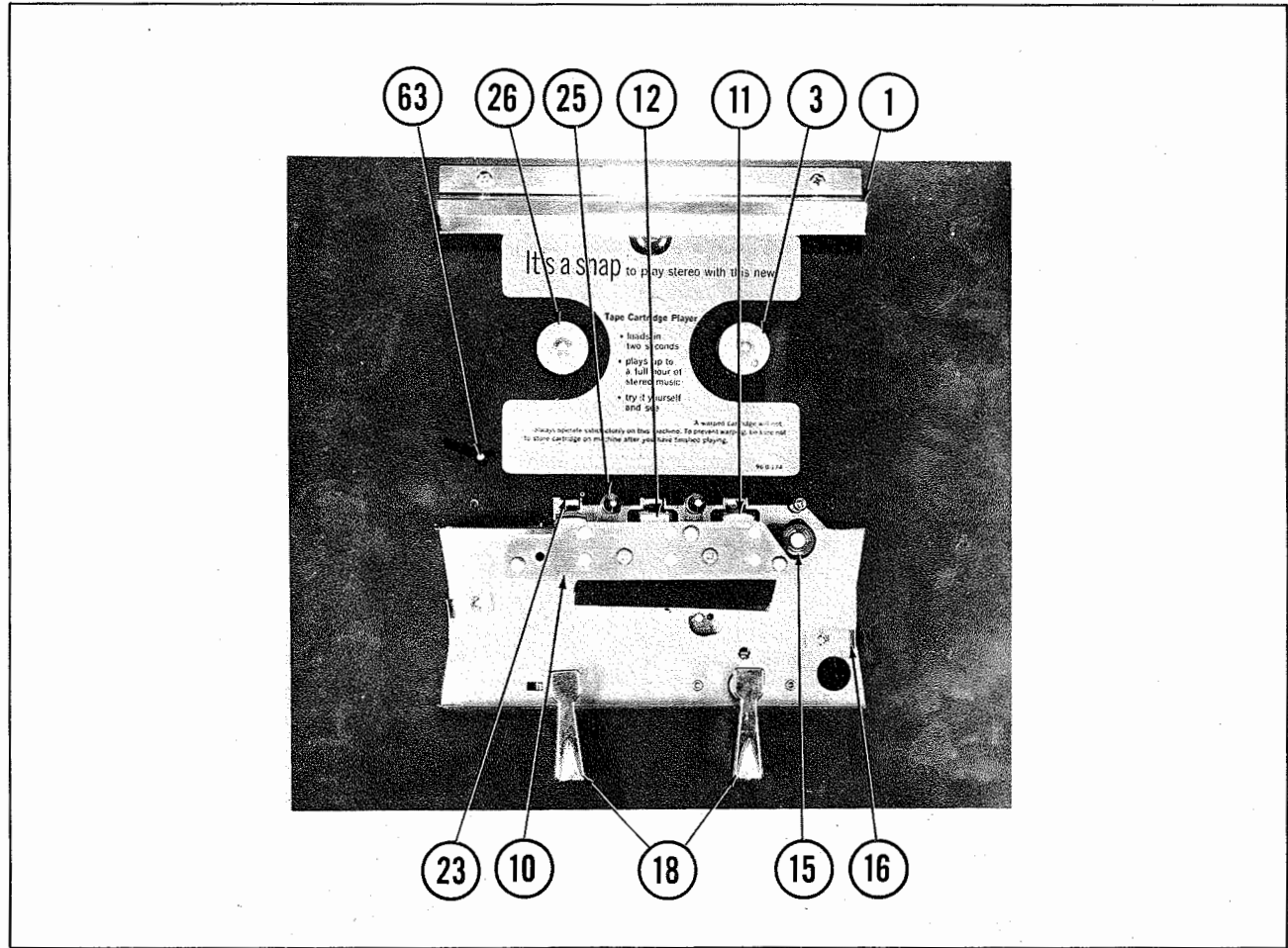


FIG.1 TOP VIEW OF MECHANISM WITH HEAD COVER REMOVED

### PREPARING FOR OPERATION

1. Place the unit on a level surface.
2. Make all necessary connections. "See Typical Hookup"
3. Plug the AC cord into an outlet of proper rating.

### TYPICAL HOOKUP

#### Model 401

Plug the head leads into the tape-head inputs of any stereo amplifier.

#### Model 402

Plug the output leads of the stereo tape cartridge player into the auxiliary, radio, or other high-level inputs of a stereo amplifier or combination of amplifiers.

A high-fidelity system can be used as one channel, and a radio, phonograph, or TV set, as the other channel.

#### Model 403

1. Plug the outputs of the Stereo-Pak into the auxiliary, radio, or high-level inputs of a stereo

Hookup" under the appropriate model.

1. Plug the cables from the left and right speakers into their respective speaker terminals on the amplifier or combination of amplifiers.
2. Plug the auxiliary inputs of the Stereo-Pak into the record outputs of a stereo amplifier.
3. To make live recordings, connect low-impedance microphones to the microphone inputs.
4. To transfer a stereo disc to a tape cartridge, connect a record player with a stereo magnetic cartridge to the Stereo-Pak Mag Phono inputs.
5. Connect a stereo radio tuner to the auxiliary inputs for recording stereo radio programs directly on a tape cartridge.

#### Model 404, 405, and 406

1. Plug the cables from the left and right speakers into their respective speaker terminals on the

## MODEL 403 AMP PARTS LIST (Continued)

ITEM No.	PART NAME	BELL SOUND PART No.	NOTES
M23	Head	36B10	Playback
M24	Head	36B11	Erase
M25	Switch	43B73	Function
M26	Switch	43B52	Off-On
M27	Switch	43A53	Automatic Stop
M28	Meter	46B5	Left Channel Recording Level Indicator
M29	Meter	46B5	Right Channel Recording Level Indicator
M30	Motor	35C10	Drive

## MODEL 402 AMP PARTS LIST AND DESCRIPTIONS

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V19	Left Channel Preamp.	ECC83/12AX7	V21	Rectifier	EZ80
V20	Right Channel Preamp.	ECC83/12AX7			

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING	BELL SOUND PART No.	REPLACEMENT DATA	ITEM No.	REPLACEMENT DATA
C116A	40 250	20B51	AEROVOX PART No. AFH2-28	FP230	TYL-2519
B	420 250				

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

### FIXED CAPACITORS

ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMICO PART No.	MALLORY PART No.	SPRAGUE PART No.
C117	10000		BPD-01	DD-103	BYAUSI	CCD-103	GP110	5HK-S10
C118	.1 200V		P288N-1	DF-104	CUB2PI	2DF-3-104	GEM-201	2TM-P1
C119	560 10%		DL-560	DD-561	1B5756	CCD-561	GP356	10TS-T56
C120	10000		BPD-01	DD-103	BYAUSI	CCD-103	GP110	5HK-S10
C121	.1 200V		P288N-1	DF-104	CUB2PI	2DF-3-104	GEM-201	2TM-P1
C122	560 10%		DL-560	DD-561	1B5756	CCD-561	GP356	10TS-T56

### CONTROLS

ITEM No.	RATING	BELL SOUND PART No.	REPLACEMENT DATA	ITEM No.	REPLACEMENT DATA
R191A	250Ω	15B35	AEROSTAT PART No. B-2	BI-201	Hum Balance
B	Shunt		Not Req.		

### RESISTORS (IRC or EQUIVALENT)

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R192	220K		R197	300K	
R193	220K		R198	220K	
R194	220K		R199	220K	
R195	10meg		R200	2200Ω	
R196	220K		R201	10meg	

### TRANSFORMER (POWER)

ITEM No.	RATING	BELL SOUND PART No.	REPLACEMENT DATA	ITEM No.	REPLACEMENT DATA
T8	117V@ .12A	300VCT, 6.3V@ 1.2A	BELL SOUND PART No. 32B70	Merit PART No.	Thorndson PART No.

### MISCELLANEOUS

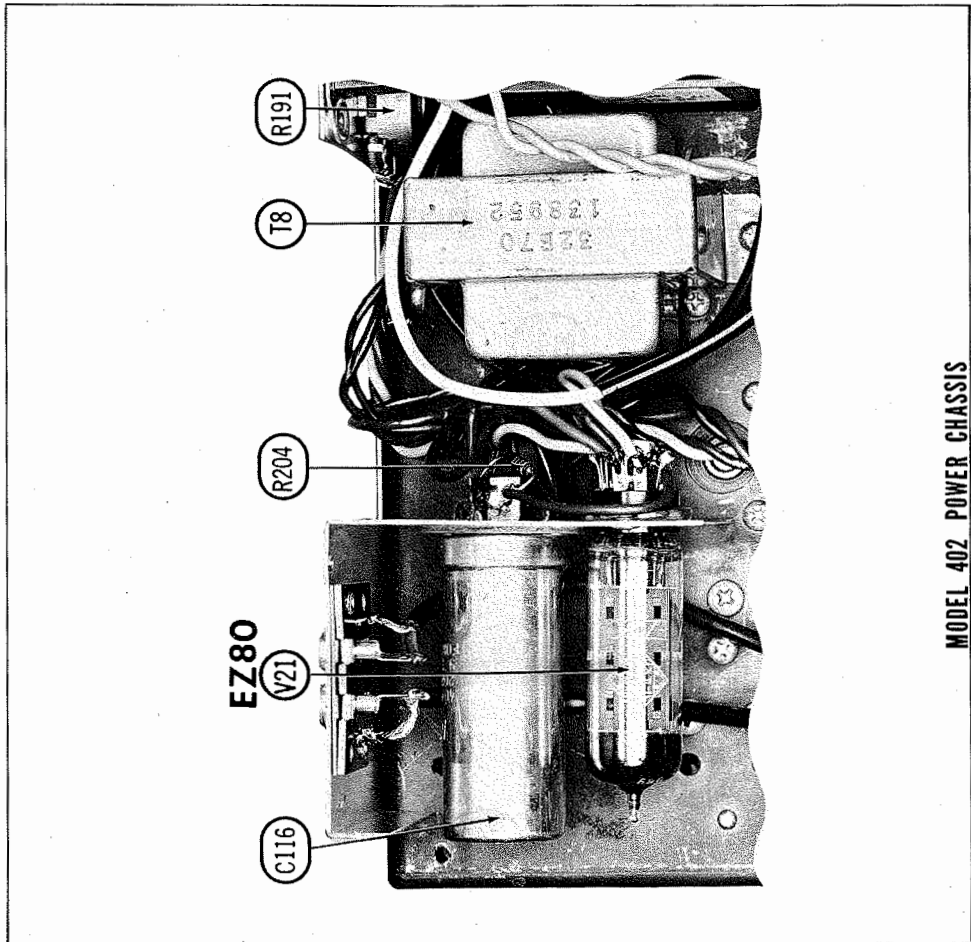
ITEM No.	PART NAME	BELL SOUND PART No.	NOTES
M31	Head	36B9	Playback
M32	Head	43B52	Off-On
M33	Switch	43A53	Automatic Stop
M34	Motor	35C10	Drive

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

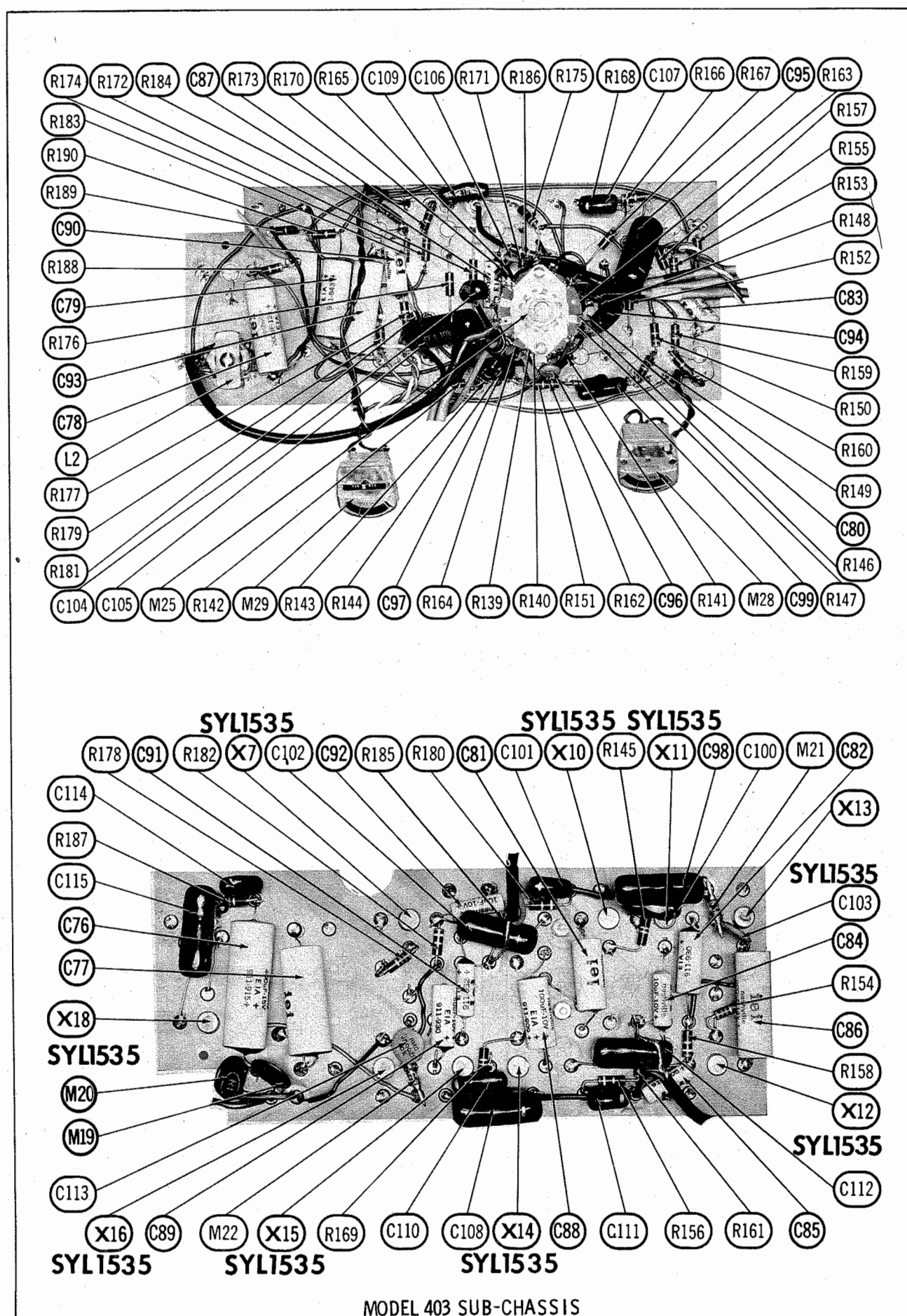
NAME	PART NO.	DESCRIPTION
Knob	84A35	All controls and switch

BELL SOUND MODELS  
401, 402, 403, 404, 405, 406

## MODEL 402 POWER CHASSIS



FOLDER 4



2. Remove the top half of the shell and the Mylar sheet.
3. Pull the brake lever forward to free the hubs, and unwind a few inches of tape.
4. Butt the broken ends together, and apply the

splicing tape to the glossy side of the recorded tape.

5. Trim the tape slightly narrower at the splice.
6. When reassembling, insert the rear edges together first.

## DISASSEMBLY

### Removing Model 402 From Cabinet

1. Remove the screws holding the bottom pan onto the cabinet.
2. Remove the pan.
3. Remove the screws holding the tape transport to the rails in the cabinet.
4. Lift the unit from the cabinet.
5. To reassemble, reverse this procedure.

### Removing Model 403 Tape Transport and Preamp From Cabinet

1. Remove the control knobs on the front of the unit.
2. Remove the hex nut from the Selector switch.
3. Remove the screws holding the pan to the bottom of the cabinet.
4. Move the pan to one side, and disconnect the power plug.
5. Remove the head cover.
6. Disconnect the head leads.
7. Remove the pan and preamp from cabinet.
8. Remove the screws holding the tape transport to the side rails of the cabinet.
9. Lift the tape transport from the cabinet.
10. To reassemble, reverse this procedure.

### Removing Models 404 and 405 From Cabinet

1. Remove the tube guard on the rear of the unit.
2. Remove the tubes.
3. Remove the screws from the bottom of the cabinet.
4. Remove the bronze screws extending through the back of the cabinet into the mechanism.
5. Lift the unit from the cabinet.
6. To reassemble, reverse this procedure.

### Removing Amplifier From Tape Transport Mechanism — Model 404

1. Remove the control knobs.
2. Remove the hex nuts from the left-and right-channel Volume controls and the Selector switch.
3. Remove the small escutcheon and the spaces over the control shafts.
4. Remove the large escutcheon.
5. Disconnect the motor leads from the AC supply.
6. Disconnect the AC supply from the On-Off switch.
7. Remove the two screws from the bracket (on right side) holding the tape transport to the amplifier.
8. Remove the two screws, one on each side, holding the front escutcheon to the front escutcheon to the tape transport.
9. Remove the two screws from the bottom of the amplifier pan holding the bracket (on left side of tape transport) to the amplifier pan.
10. Remove the leads to the playback head.
11. Lift the tape transport from the amplifier.
12. To reassemble, reverse this procedure.

### To Remove Preamp and Amplifier From Tape Transport Mechanism — Models 405 and 406

1. Remove the control knobs.
2. Remove the hex nuts from the left-and right-channel Volume controls and Selector switch.
3. Remove the small escutcheon and spacers over the control shafts.
4. Remove the Record Level Indicator meters and the large escutcheon.
5. Disconnect the motor leads from the AC supply.
6. Disconnect the AC supply from the On-Off switch.
7. Disconnect the leads to the erase and record-playback heads.
8. Remove the two screws from the bracket (on right side) holding the tape transport to the bottom pan.

BELL SOUND MODELS  
401, 402, 403, 404, 405, 406

FOLDER 4



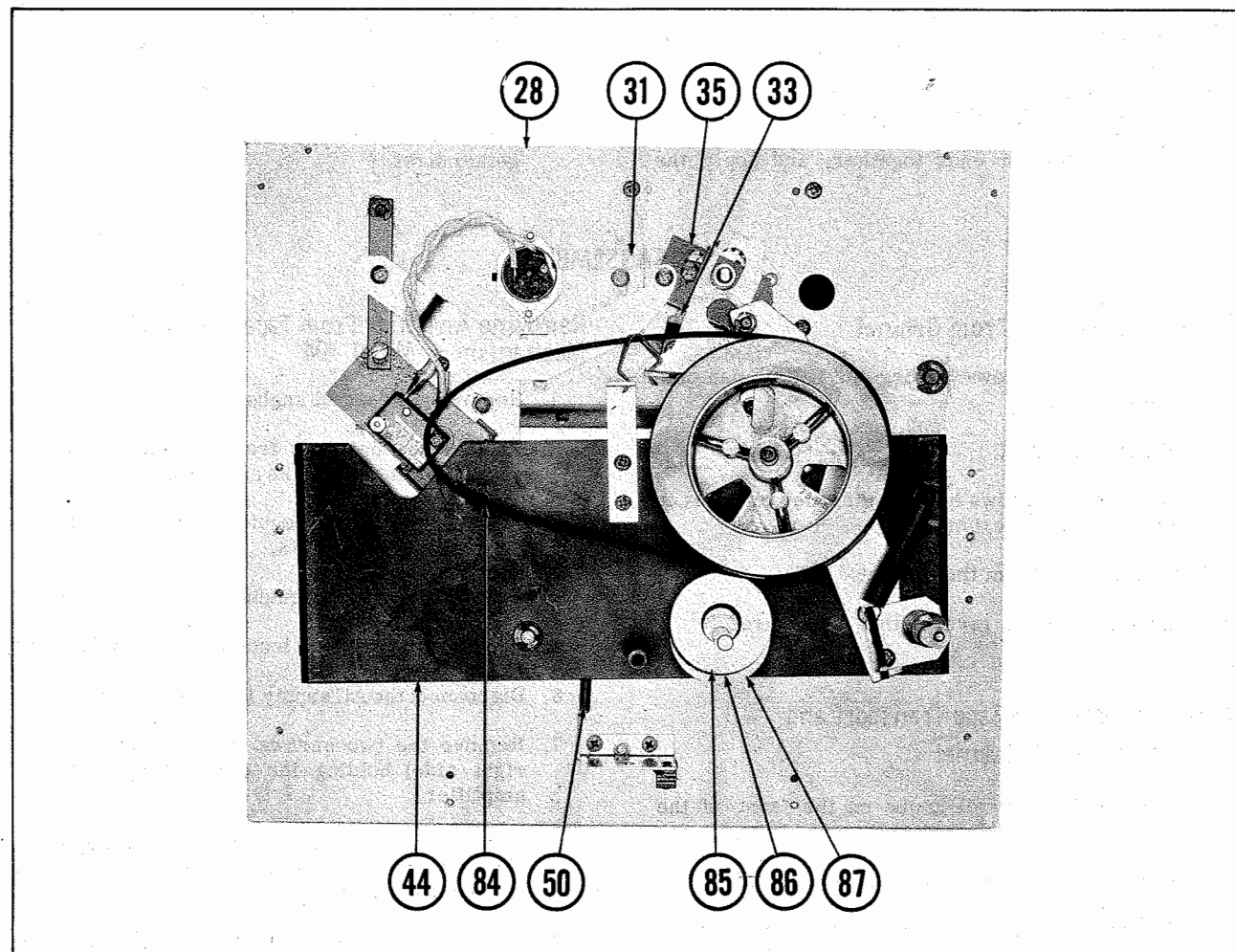


FIG.3 BOTTOM VIEW OF MECHANISM WITH BOTTOM OF SUB DECK REMOVED

9. Remove the two screws, one on each side, holding the front escutcheon to the tape transport.
10. Remove the two screws from the bottom of the pan holding the bracket (on left side of tape

transport) to the amplifier pan.

11. Lift the tape transport from the amplifier pan.
12. To reassemble, reverse this procedure.

### MECHANICAL ADJUSTMENTS

#### Clutch

To vary the friction of the clutch on second production models, tighten clutch adjusting screw (48) until the torque is 6 inch-ounces, and loosen clutch plate mounting and adjusting screw (49) until the torque is 3 inch-ounces. On first production models, loosen the locknut, and adjust the screw for a torque of 3 inch-ounces.

#### Play - Record Head ( See Exploded View, Item 11)

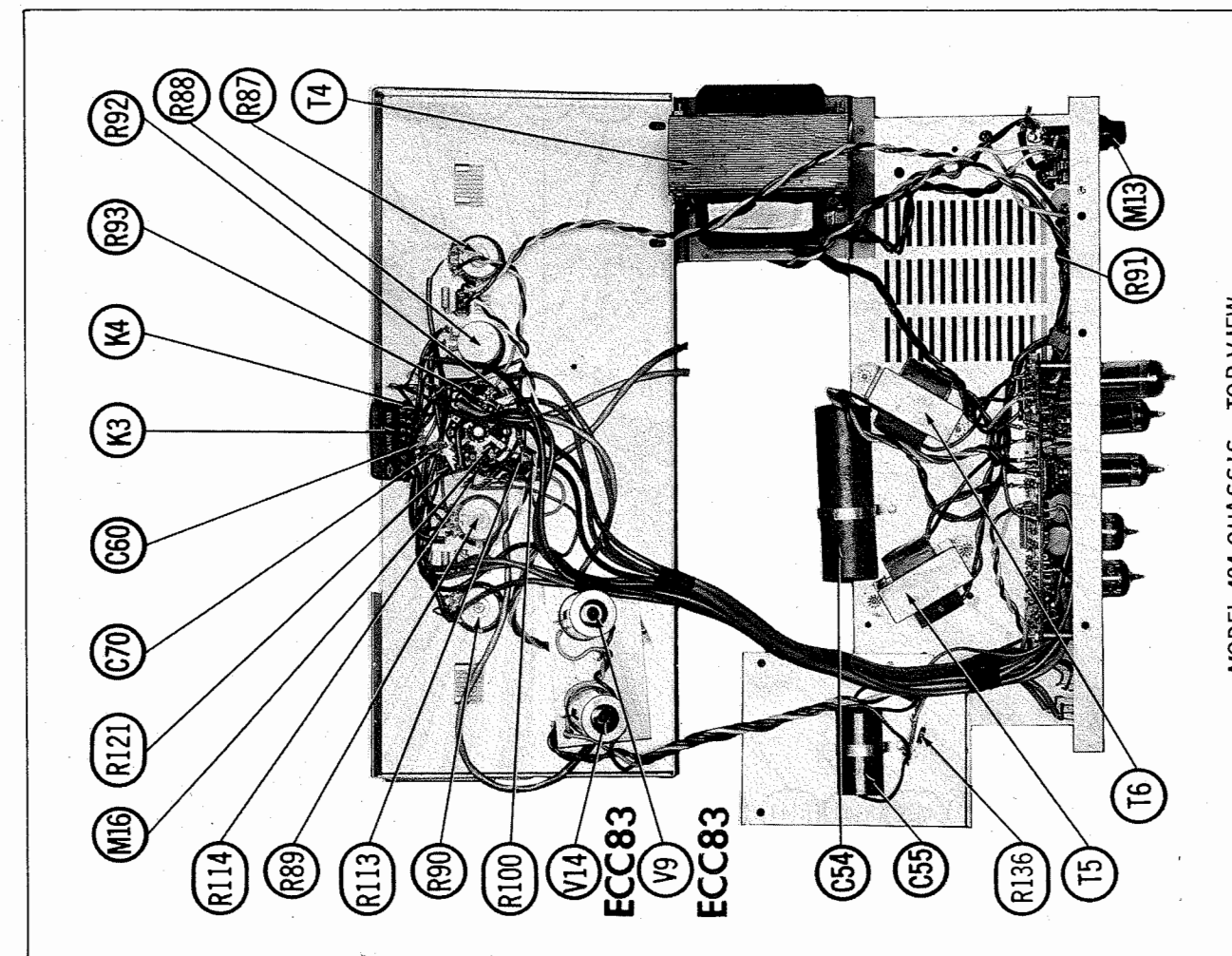
1. Loosen the locking nuts on the sides of the heads. Adjust the vertical position of the erase and record/play heads until the top edge of the tape is even with the top edge of the lamination of the head.

2. To adjust the horizontal position, turn head ad-

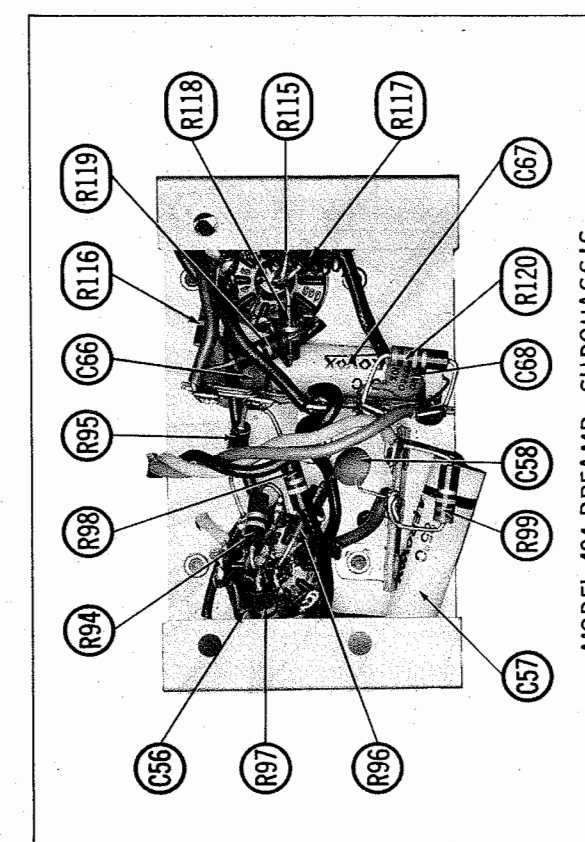
justing screw (8) to the right or left.

#### Play-Record Head (See Exploded View, Item 96)

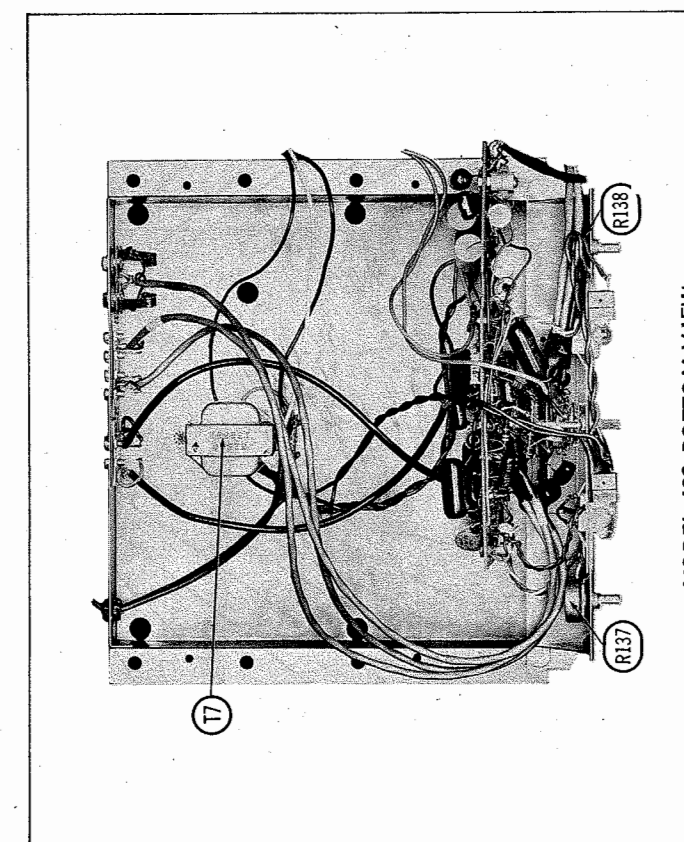
1. Slightly loosen the two head mounting nuts.
2. Place the unit in Playback, and connect an ACVTVM to the outputs.
3. Play back a test-tape cartridge and raise or lower the head bracket, by means of the bent-out tab at the rear, until maximum output is obtained from the right channel.
4. Check the left-channel output.
5. Tighten the head mounting nuts.



MODEL 404 CHASSIS - TOP VIEW



MODEL 404 PREAMP. SUBCHASSIS



MODEL 403 BOTTOM VIEW

MODEL 403 AMP PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	SYLVANIA PART No.	
X10	SYL1635	Left Channel Presamp.		SYL1635	PNP
X11	SYL1635	Left Channel 1st AF Amp.		SYL1635	PNP
X12	SYL1635	Left Channel 2nd AF Amp.		SYL1635	PNP
X13	SYL1635	Left Channel Meter Amp.		SYL1635	PNP
X14	SYL1635	Right Channel Presamp.		SYL1635	PNP
X15	SYL1635	Right Channel 1st AF Amp.		SYL1635	PNP
X16	SYL1635	Right Channel 2nd AF Amp.		SYL1635	PNP
X17	SYL1635	Right Channel Meter Amp.		SYL1635	PNP
X18	SYL1635	Bias Oscillator		SYL1635	PNP

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	CAP.	VOLT.	REPLACEMENT DATA					NOTES
				BELL SOUND PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C76	400	.47	50V	23B54	P851220	BR5001	TC1505	TD-500-15	TVAS-1161, 5*
C77	200	.15	50V	23B55	P851210	NLW200-15	TC1502	TD-250-15	TE-1164
C78	100	.15	50V	23B56	PWE25100	NLW200-15	TC1502	ML100-15	TE-1167
C79	200	.12	50V	23B57	SRE12V200	NLW200-12	TC1502	TD-250-15	TE-1167
C80	25	.10	50V	23B58	PWE10025	NLW200-12	TC1502	ML100-15	TE-1167
C81	100	.10	50V	23B59	PWE10025	NLW200-12	TC1502	ML100-15	TE-1167
C82	50	.10	50V	23B59	PWE10050	NLW50-10	TC1502	ML100-15	TE-1167
C83	50	.10	50V	23B59	PWE10050	NLW50-10	TC1502	ML100-15	TE-1167
C84	10	.10	50V	23B61	PWE10010	NLW10-15	TC1502	ML10-15	TE-1167
C85	10	.10	50V	23B61	PWE10010	NLW10-15	TC1502	ML10-15	TE-1167
C86	20	.12	50V	23B60	SRE12V200	NLW200-12	TC1502	ML100-15	TE-1167
C87	25	.10	50V	23B58	PWE10025	NLW50-10	TC1502	ML100-15	TE-1167
C88	100	.10	50V	23B58	PWE10050	NLW50-10	TC1502	ML100-15	TE-1167
C89	50	.10	50V	23B59	PWE10050	NLW50-10	TC1502	ML100-15	TE-1167
C90	50	.10	50V	23B59	PWE10050	NLW50-10	TC1502	ML100-15	TE-1167
C91	10	.10	50V	23B61	PWE10010	NLW10-15	TC1502	ML10-15	TE-1167
C92	10	.10	50V	23B61	PWE10010	NLW10-15	TC1502	ML10-15	TE-1167
C93	200	.12	50V	23B70	SRE12V200	NLW200-12	TC1502	TD-250-15	TE-1167

\* 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					NOTES
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	ELMENDO PART No.	
C94	.01	50V 10%	Y84C281-10%	DD-102	PM451	GEM-1611	IDP-1-103	4TM-SI
C95	.47	50V 10%	Y84C284-10%		PM451	GEM-2047	2DP-5-474	2TM-SI
C96	1000	10%	DI-1000		PM451	GEM-2047	CCD-102	10TS-D10
C97	.01	50V 10%	Y84C281-10%		PM451	GEM-1611	IDP-1-103	4TM-SI
C98	.33	50V 10%	Y84C283-10%		PM451	GEM-2033	2DP-5-334	2TM-SI
C99	.047	50V 10%	Y84C284-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C100	.047	50V 10%	Y84C284-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C101	.0082	50V 10%	P851220		PM451	GEM-2047	IDP-2-473	2TM-SI
C102	.22	50V 10%	Y84C282-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C103	.22	50V 10%	Y84C282-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C104	.01	50V 10%	Y84C281-10%		PM451	GEM-1611	IDP-1-103	4TM-SI
C105	.47	50V 10%	Y84C284-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C106	100	10%	DI-1000		PM451	GEM-2047	IDP-2-473	2TM-SI
C107	.01	50V 10%	Y84C281-10%		PM451	GEM-1611	IDP-1-103	4TM-SI
C108	.33	50V 10%	Y84C283-10%		PM451	GEM-2033	2DP-5-334	2TM-SI
C109	.047	50V 10%	Y84C284-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C110	.047	50V 10%	Y84C284-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C111	.0082	50V 10%	P851220		PM451	GEM-2047	IDP-2-473	2TM-SI
C112	.22	50V 10%	Y84C282-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C113	.22	50V 10%	Y84C282-10%		PM451	GEM-2047	IDP-2-473	2TM-SI
C114	.022	50V 10%	DI-2005		PM451	GEM-2047	IDP-2-473	2TM-SI
C115	.33	50V 10%	Y84C283-10%		PM451	GEM-2033	2DP-5-334	2TM-SI

ITEM No.	RATING	RESIST. ANCE	WATTS	REPLACEMENT DATA				INSTALLATION NOTES
				BELL SOUND PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	
R137A	100K	1/2	15B72	15B72	B-36		B17-128	Note 2
R138A	100K	1/2	15B72	15B72	B-36		B17-128	Note 2
R139A	100K	1/2	15B72	15B72	B-36		B17-128	Note 2

Note 2. Some versions may use 500K in this application.

RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R139	4700K		R157	22K		R175	47K	
R140	100K		R158	3000K		R176	2200K	
R141	22K		R159	18K		R177	27K	
R142	39K		R160	22K		R178	68K	
R143	470K		R161	68K		R179	1800K	
R144	270K		R162	5600K		R180	3900K	
R145	100K		R163	4700K		R181	22K	
R146	220K		R164	100K		R182	3900K	
R147	18K		R165	22K		R183	18K	
R148	560K		R166	39K		R184	22K	
R149	560K		R167	470K		R185	68K	
R150	6800K		R168	270K		R186	5600K	
R151	47K		R169	100K		R187	15K	
R152	2200K		R170	220K		R188	68K	
R153	27K		R171	18K		R189	22K	
R154	68K		R172	22K		R190	1000K	
R155	1800K		R173	560K				
R156	3900K		R174	6800K				

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			NOTES
		BELL SOUND PART No.	Miller PART No.	Stancor PART No.	
L2	Osc. Coil	31A33 ①			① Alternate Part 131A48

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA			NOTES
		BELL SOUND PART No.	Merit PART No.	Thordarson PART No.	
T7	117V @ .03A	32B86	6.3V 2		

POWER RECTIFIERS

ITEM No.	RATING	REPLACEMENT DATA			NOTES
		BELL SOUND PART No.	SARKES TARTZIAN PART No.	SYLVANIA PART No.	
M19	.035A	42A6	40K	SR500	Silicon Type
M20	.035A	42A6	40K	SR500	Silicon Type

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		BELL SOUND PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M21	IN60	42X3	IN60	IN60	Base, Meter Amp. (Left Channel)
M22	IN60	42X3	IN60	IN60	Base, Meter Amp. (Right Channel)

- rear panel.
- Connect a record changer or turntable with a magnetic stereo cartridge to the Mag Phono inputs.
- Connect a stereo radio tuner to the auxiliary inputs.

FUNCTION OF TAPE-DECK CONTROLS

On-Off

Turning this control to the left turns the power on; to the right, turns the power off.

Operating Lever

Turn this control to Play to play back a tape cartridge; to Fast to move the tape rapidly to any desired selection. To rewind tape, turn the cartridge over, and place the lever in the Fast position.

FUNCTION OF AMPLIFIER CONTROLS

Models 403 and 404

- Set the Selector switch to the desired function.
- Adjust the Left and Right Volume controls until the sound from each channel is balanced.
- (Model 404 only) Adjust the Bass and Treble controls to the desired listening level. The tone is controlled in both speakers simultaneously.

Models 405 and 406

- Set the Selector switch to the desired function.

OPERATING INSTRUCTIONS

NOTE: See "Typical Hookup" for proper connections.

Loading the Tape Cartridge

Place the back of the cartridge under the retainer flange. While pressing the cartridge against the flange, push the front down firmly into position.

To Play a Recording

- Load the cartridge (see "Loading the Tape Cartridge").
- Move the On-Off switch to the On position.
- On Models 401 and 402, move the Operating Lever to Play.
- On Models 403, 404, 405, and 406, turn the Selector switch to the Tape position; then move the Operating Lever to Play.
- Adjust the Volume controls to the desired sound level.
- On Models 404, 405, and 406, adjust the Bass

and Treble controls to the desired settings.

NOTE: The Bass and Treble controls affect the playback response only.

To Play a Phonograph — Models 403, 404, 405, and 406

- Turn the Selector switch to the Phono position.
- Turn the On-Off switch to On.
- Load the phonograph with stereo records.
- Adjust the Volume and the Bass and Treble controls to the desired sound level.

To Play a Stereo Tuner — Models 403, 404, 405, and 406

- Turn the Selector switch to the Aux position.
- Turn the On-Off switch to On.
- Tune the tuner to the desired program.
- On Models 404, 405, and 406, adjust the volume

BELL SOUND MODELS 401, 402, 403, 404, 405, 406

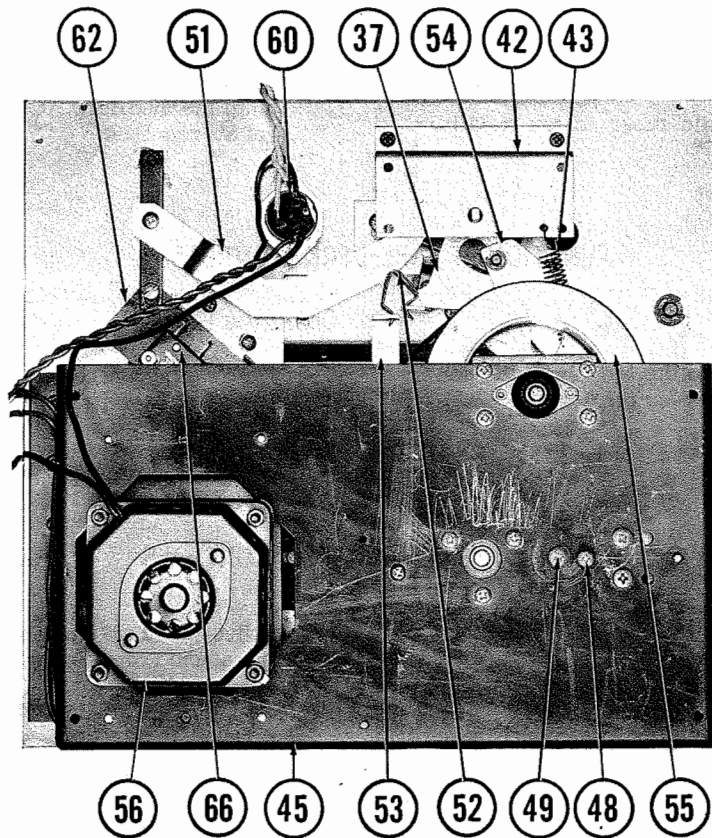


FIG. 2 BOTTOM VIEW OF MECHANISM

and the Bass and Treble controls to the desired sound level.

#### Fast Forward

Move the Operating Lever to Fast to advance the tape rapidly to a desired selection.

#### Rewind

To rewind a tape, turn the tape cartridge over, and move the Operating Lever to Fast.

**NOTE:** Always return the Operating Lever to neutral before loading or unloading a cartridge.

#### To Make a Stereo Recording — Models 403, 405, and 406

1. Set the Selector switch to correspond to the source being recorded (phonograph, stereo radio tuner, or microphone).
2. Load a blank tape cartridge into the unit.
3. Adjust the Left and Right Volume controls until the Volume Level meters fluctuate in the upper part of the black scales.
4. Move the Operating Lever to Play.

**NOTE:** Always set the Selector switch to Tape Play before setting the Operating Lever to Fast.

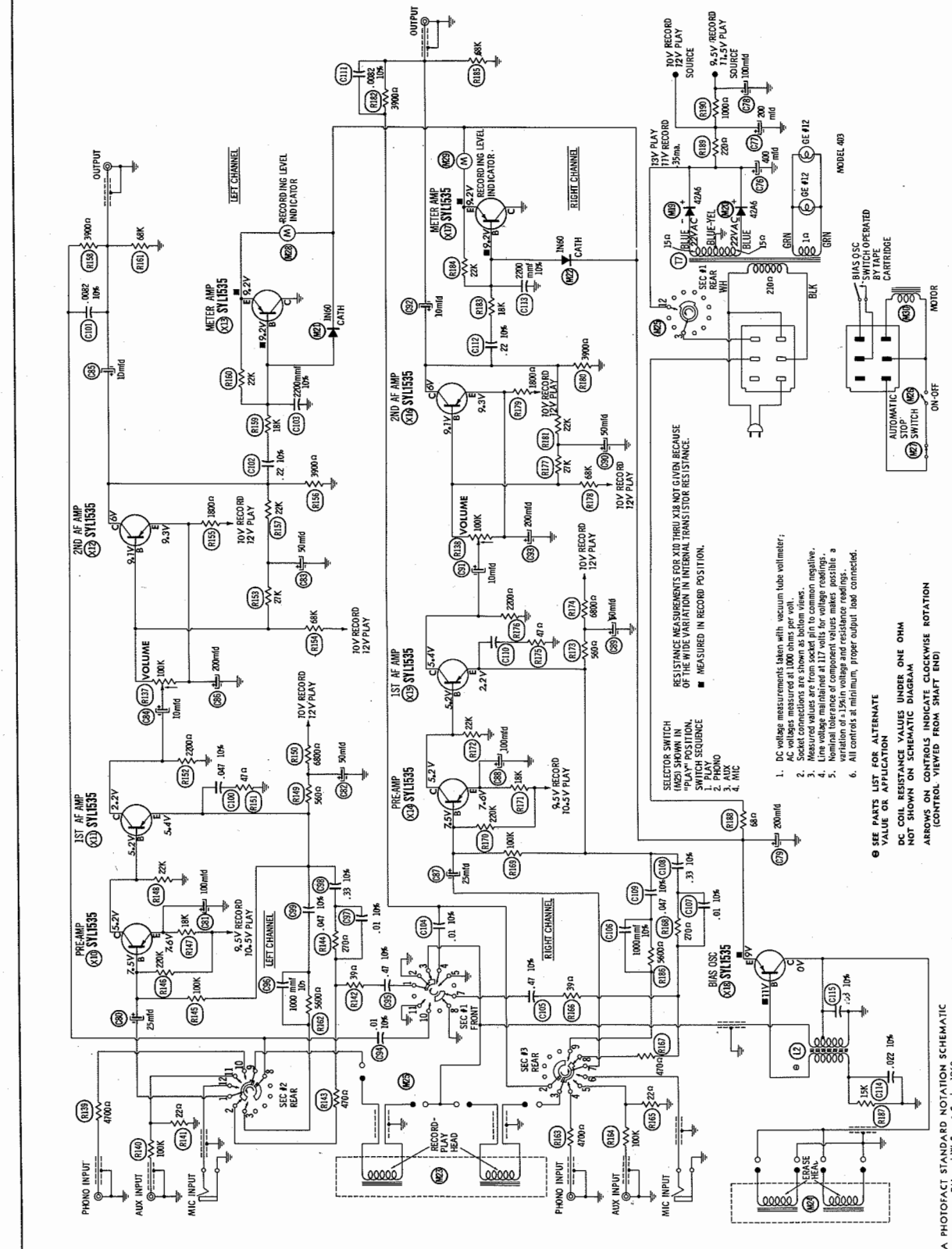
5. After a recording has finished in one direction, it can be kept permanently, by breaking out the plastic insert between the two small slots (on the back of the cartridge, to the right of the guide slot). Repeat this procedure after recording in the other direction.

#### To Erase a Prerecorded Tape Cartridge — Models 403, 405, and 406

1. Cover the open slot of the tape cartridge with a double thickness of cellophane tape.
2. If a new recording is to be made, proceed as described under "To Make a Stereo Recording".
3. If no recording is to be made, turn the Selector switch to the Phono, Aux, or Microphone position; then rotate the Volume controls fully counterclockwise, and move the Operating Lever to Play.

#### Splicing the Tape

1. Remove the two screws at the front of the cartridge.





MODEL 404 AMP PARTS LIST AND DESCRIPTIONS

RESISTORS (IRC or EQUIVALENT)

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

WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8520 (Solid) Available in Ten Colors  
Power Cord ..... Use BELDEN No. 1785-B (6 Ft. Length)  
1725-B (7 1/2 Ft. Length)

TUBES

GENERAL ELECTRIC				RAYTHEON				SYLVANIA			
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V9	Left Channel Preamp.	EC83/12AX7	V14	Right Channel Preamp.	EC83/12AX7	V14	Right Channel Preamp.	EC83/12AX7	V14	Right Channel Preamp.	EC83/12AX7
V10	Left Channel AF Amp.	EC83/12AX7	V15	Right Channel AF Amp.	EC83/12AX7	V15	Right Channel AF Amp.	EC83/12AX7	V15	Right Channel AF Amp.	EC83/12AX7
V11	Left Channel Phase Inv.	EC83/12AX7	V16	Right Channel Phase Inv.	EC83/12AX7	V16	Right Channel Phase Inv.	EC83/12AX7	V16	Right Channel Phase Inv.	EC83/12AX7
V12	Left Channel Output	6AQ5A	V17	Right Channel Output	6AQ5A	V17	Right Channel Output	6AQ5A	V17	Right Channel Output	6AQ5A
V13	Left Channel Output	6AQ5A	V18	Rectifier	E281	V18	Rectifier	E281	V18	Rectifier	E281

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
C54A	40 350	23B47		C54B	40 350	23B47		C54C	40 350	23B47	
C55	40 350	23A52		C55A	40 350	23A52		C55B	40 350	23A52	

\* 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.

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
C56	10000			C56A	10000			C56B	10000		
C57	1 200V			C57A	1 200V			C57B	1 200V		
C58	560 10%			C58A	560 10%			C58B	560 10%		
C59	0.03 100V 10%			C59A	0.03 100V 10%			C59B	0.03 100V 10%		
C60	75 N150			C60A	75 N150			C60B	75 N150		
C61	10000			C61A	10000			C61B	10000		
C62	2.2 NPO .25mmf			C62A	2.2 NPO .25mmf			C62B	2.2 NPO .25mmf		
C63	68 NPO			C63A	68 NPO			C63B	68 NPO		
C64	10000			C64A	10000			C64B	10000		
C65	10000			C65A	10000			C65B	10000		
C66	10000			C66A	10000			C66B	10000		
C67	1 200V			C67A	1 200V			C67B	1 200V		
C68	560 10%			C68A	560 10%			C68B	560 10%		
C69	0.03 100V 10%			C69A	0.03 100V 10%			C69B	0.03 100V 10%		
C70	75 N150			C70A	75 N150			C70B	75 N150		
C71	10000			C71A	10000			C71B	10000		
C72	2.2 NPO .25mmf			C72A	2.2 NPO .25mmf			C72B	2.2 NPO .25mmf		
C73	10000			C73A	10000			C73B	10000		
C74	68 NPO			C74A	68 NPO			C74B	68 NPO		
C75	10000			C75A	10000			C75B	10000		

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

# Bell Sound Part Number.

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
R87	100K			R87A	100K			R87B	100K		
R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
R87	100K			R87A	100K			R87B	100K		
R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
R87	100K			R87A	100K			R87B	100K		
R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
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R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
R87	100K			R87A	100K			R87B	100K		
R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
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R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
R87	100K			R87A	100K			R87B	100K		
R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
R87	100K			R87A	100K			R87B	100K		
R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

REPLACEMENT DATA				REPLACEMENT DATA				REPLACEMENT DATA			
ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS	ITEM No.	RATING	BELL SOUND PART No.	REMARKS
R87	100K			R87A	100K			R87B	100K		
R88A	2meg			R88A	2meg			R88B	2meg		
R88B	2meg			R88B	2meg			R88C	2meg		
R89A	2meg			R89A	2meg			R89B	2meg		
R89B	2meg			R89B	2meg			R89C	2meg		
R90	100K			R90A	100K			R90B	100K		
R91A	250K			R91A	250K			R91B	250K		
R91B	250K			R91B	250K			R91C	250K		

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESIST-ANCE	WATTS	BELL SOUND PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLOY PART No.	
R87	100K		15B78				Left Volume Bass, Left Channel Bass, Right Channel Treble, Left Channel Treble, Right Channel Right Volume Hum Balance
R87A	2meg		15B65				
R88A	2meg		15B66				
R89A	2meg						
R90	100K		15B78				
R91	250Ω		15B35				
R92	Shunt						
R93	Shunt						
R94	Shunt						
R95	Shunt						
R96	Shunt						
R97	Shunt						
R98	Shunt						
R99	Shunt						
R100	Shunt						
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R367	Shunt						
R368	Shunt						
R369	Shunt						
R370							

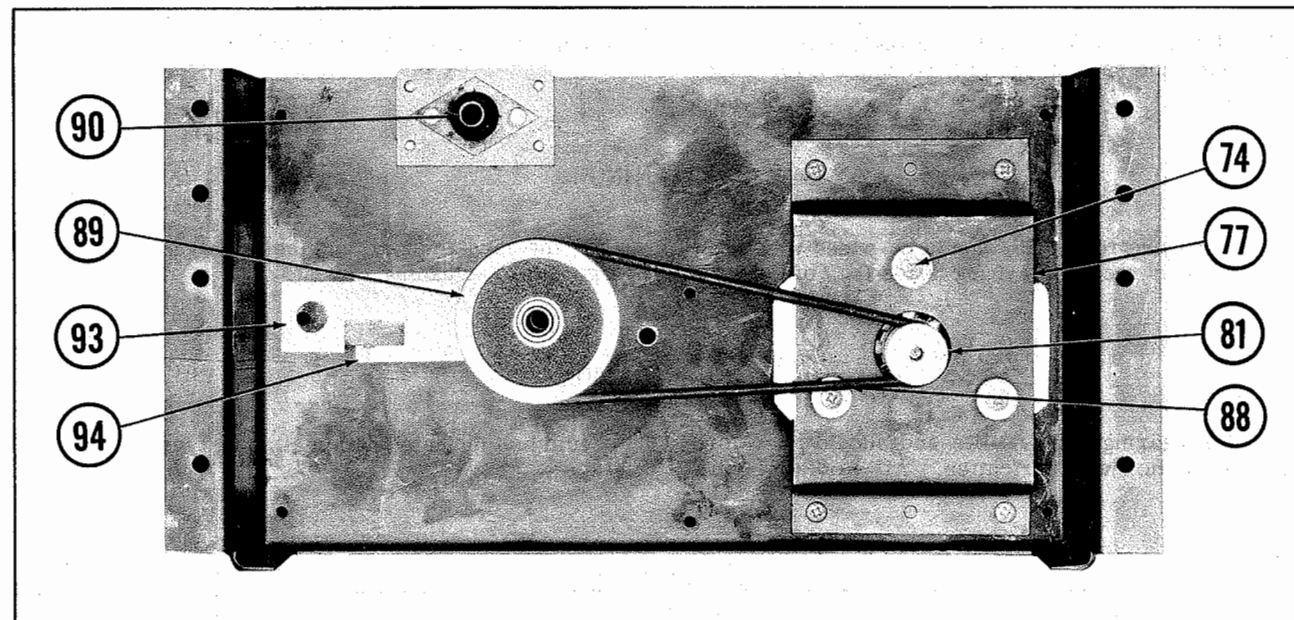


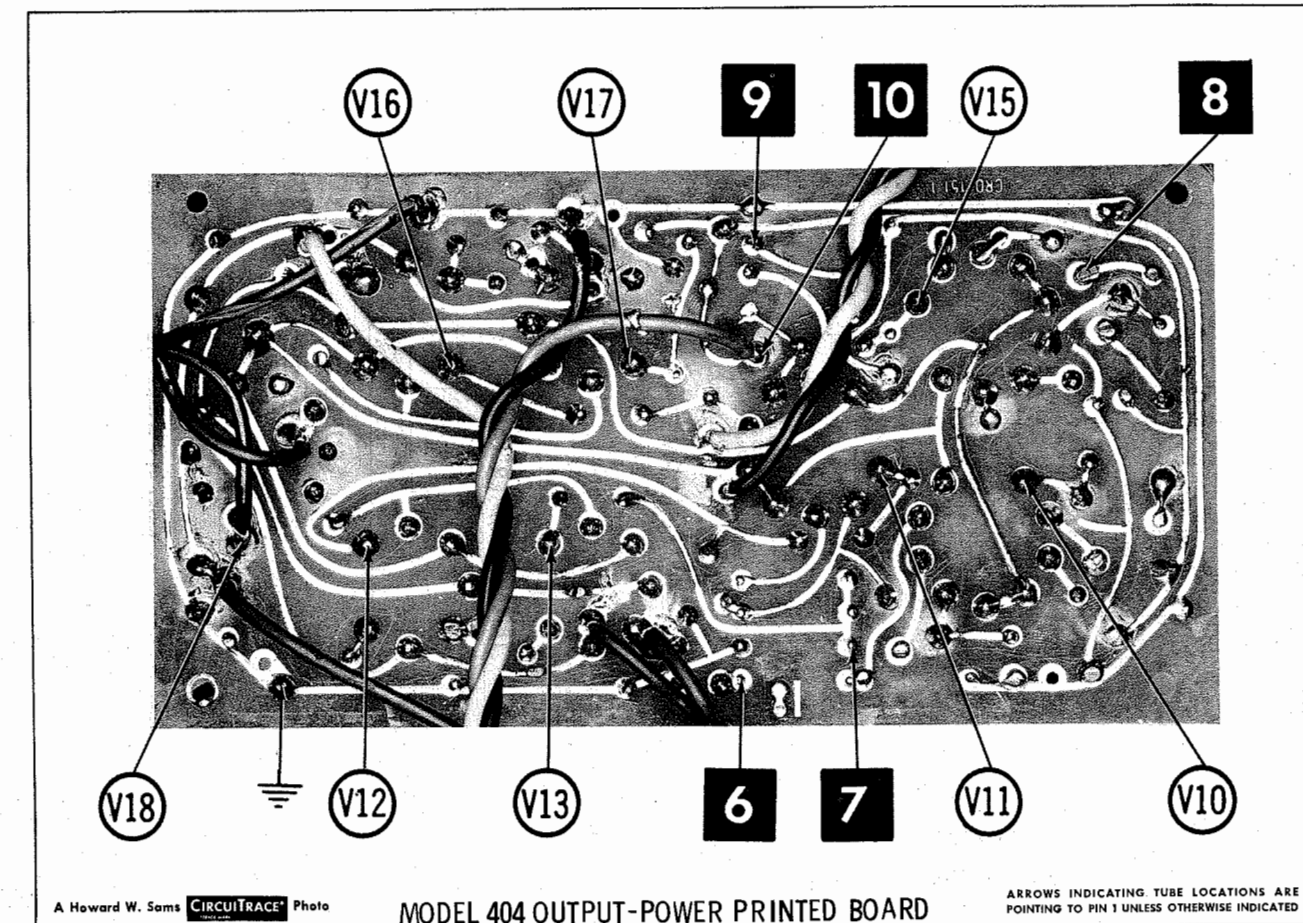
FIG.4 TOP VIEW OF SUB DECK

# TROUBLE CHART (CON'T.)

Symptom	Cause	Remedy
Intermittent blank spots on recorded tape.	1. Dirty heads and tape guides.	1. See "Cleaning".
	2. Fingerprints on oxide side of tape.	2. Cut out this section, and splice the tape.
Noisy preamplifier.	1. Defective transistors, usually in the first and second stages.	1. Replace any defective transistors.
Record meter reads when no signal is applied and unit is in Record with a blank cartridge inserted.	1. Defective blue-dot meter transistor.	1. Replace the blue-dot meter transistor.
Insufficient erase and record bias.	1. Defective bias-oscillator transistor.	1. Replace bias-oscillator transistor.
Weak bass response on Models 403, 404, and 405.	1. High-impedance microphone being used.	1. For proper sound, a low-impedance microphone must be used.

# MECHANICAL PARTS LIST

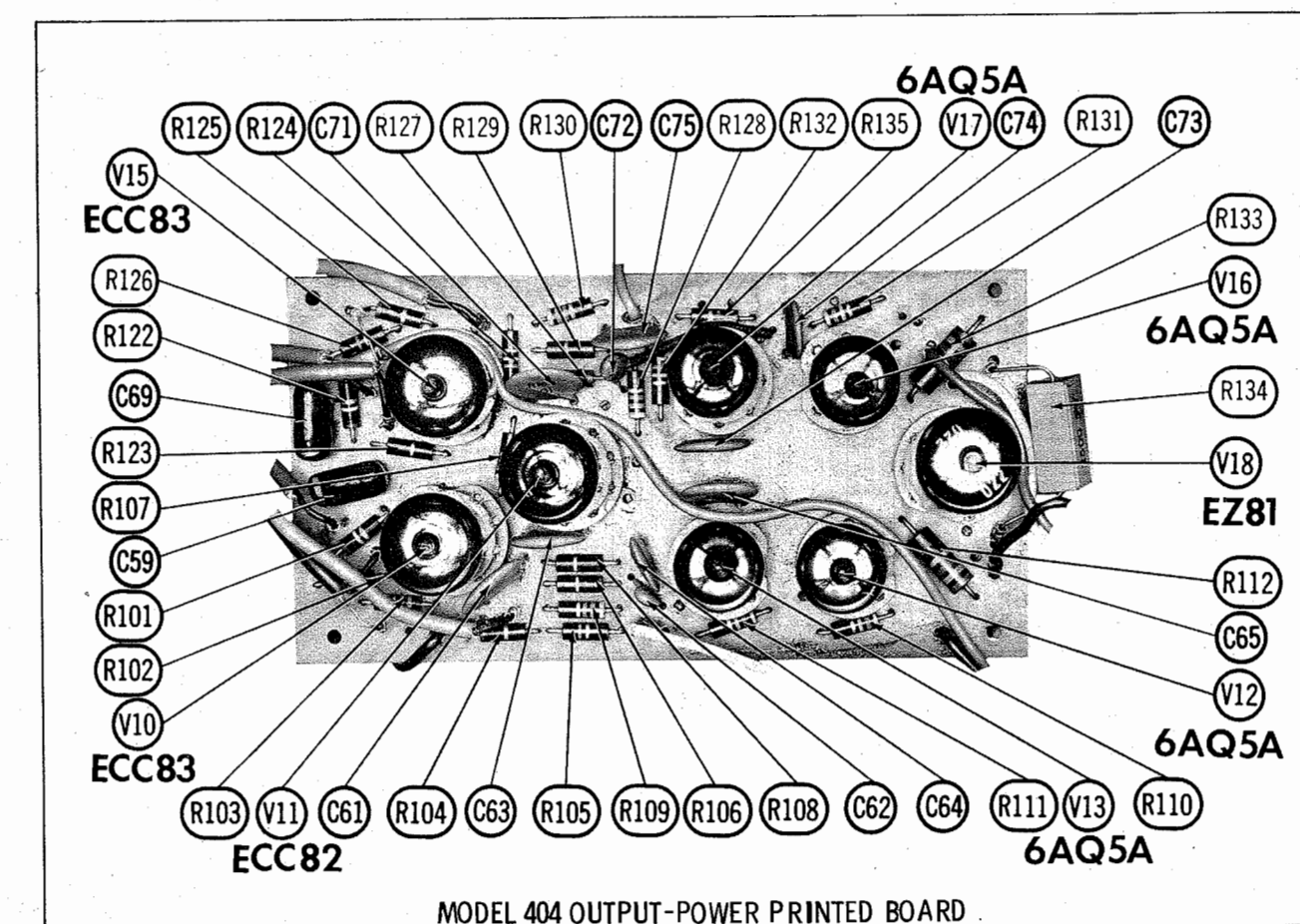
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1		Cartridge Retainer Screws	11	36B10	Record/ Playback Head
2	78B164	Cartridge Retainer		36B9	Playback Head
3	75B67	Take-up Reel Platform	12	36B11	Erase Head
4	77A19	Reel Platform Index Spring	13		Tension Spring
5	75A64	Index Pin	14	67X8	Retaining Ring - 3/16"
6	76A19	Take-up Shaft	15	83A39	Pressure Roller
7	78B106	Head Cover	16	66A19	Head-Cover Retaining Clip
8		Head Adjusting Screw	17		Set Screw, Allen Cup Point
9		Head Mounting Plate Screws	18	73A4	Function Selector Knob & On-Off Knob
10	91B242	Head Mounting Plate Ass'y-Models 401, 402, 404	19		Hex Nut
10	91B243	Head Mounting Plate Ass'y-Models 403, 405, 406	20	72D332	Deck Cover
			21	78B165	Front Frame Strip-Model 402



A Howard W. Sams CIRCUITRACE Photo

MODEL 404 OUTPUT-POWER PRINTED BOARD

ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED



MODEL 404 OUTPUT-POWER PRINTED BOARD



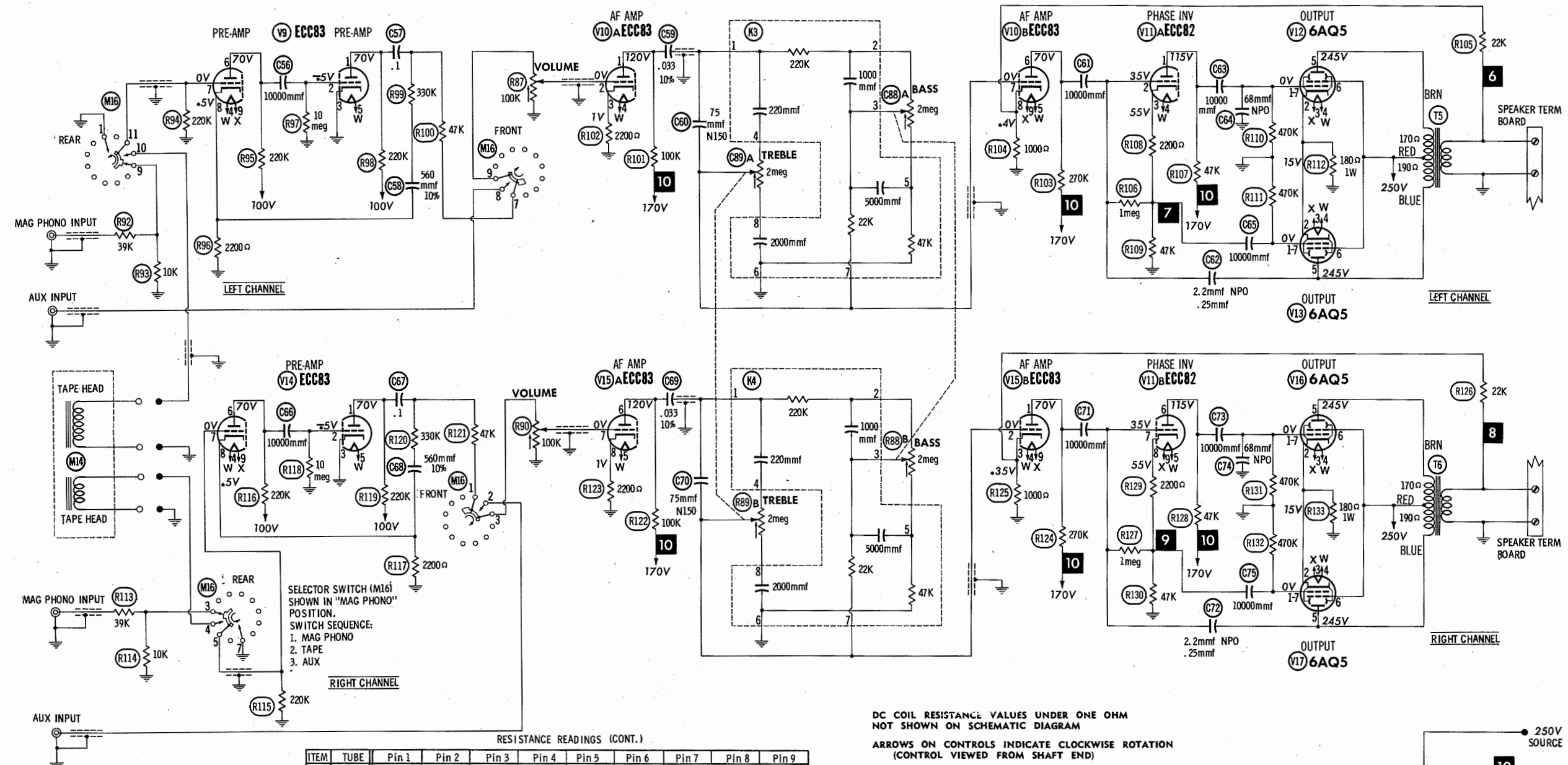
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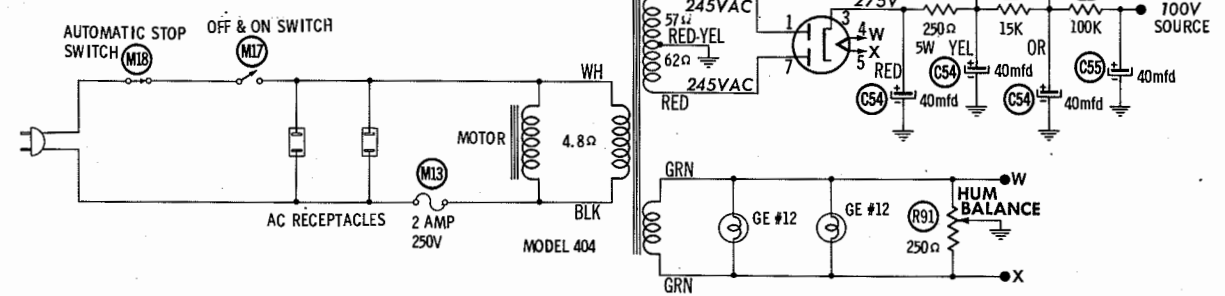
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DC COIL RESISTANCE VALUES UNDER ONE OHM  
NOT SHOWN ON SCHEMATIC DIAGRAM  
ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION  
(CONTROL VIEWED FROM SHAFT END)



1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance of component values makes possible a variation of  $\pm 15\%$  in voltage and resistance readings.
6. All controls at minimum, proper output load connected.

RESISTANCE READINGS (CONT.)

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V9	ECC83 12AX7	1135K	10meg	0 $\Omega$	55 $\Omega$	55 $\Omega$	1135K	10K	2200 $\Omega$	55 $\Omega$
V10	ECC83 12AX7	1115K	0 $\Omega$	2200 $\Omega$	55 $\Omega$	55 $\Omega$	11285K	49K	1000 $\Omega$	55 $\Omega$
V11	ECC82 12AU7	1162K	1meg	49K	55 $\Omega$	55 $\Omega$	1162K	1meg	49K	55 $\Omega$
V12	6AQ5A	470K	180 $\Omega$	55 $\Omega$	55 $\Omega$	11420 $\Omega$	11250 $\Omega$	470K		
V13	6AQ5A	470K	180 $\Omega$	55 $\Omega$	55 $\Omega$	11440 $\Omega$	11250 $\Omega$	470K		
V14	ECC83 12AX7	11335K	10meg	0 $\Omega$	55 $\Omega$	55 $\Omega$	11335K	10K	2200 $\Omega$	55 $\Omega$
V15	ECC83 12AX7	11285K	69K	1000 $\Omega$	55 $\Omega$	55 $\Omega$	11115K	0 $\Omega$	2200 $\Omega$	55 $\Omega$
V16	6AQ5A	470K	180 $\Omega$	55 $\Omega$	55 $\Omega$	11420 $\Omega$	11250 $\Omega$	470K		
V17	6AQ5A	470K	180 $\Omega$	55 $\Omega$	55 $\Omega$	440 $\Omega$	11250 $\Omega$	470K		
V18	EZ71	57 $\Omega$	NC	1	55 $\Omega$	55 $\Omega$	NC			

1. THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.  
11. MEASURED FROM PIN 3 OF V18. NC NO CONNECTION

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
with **CIRCUITRACE**  
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# MODEL 404

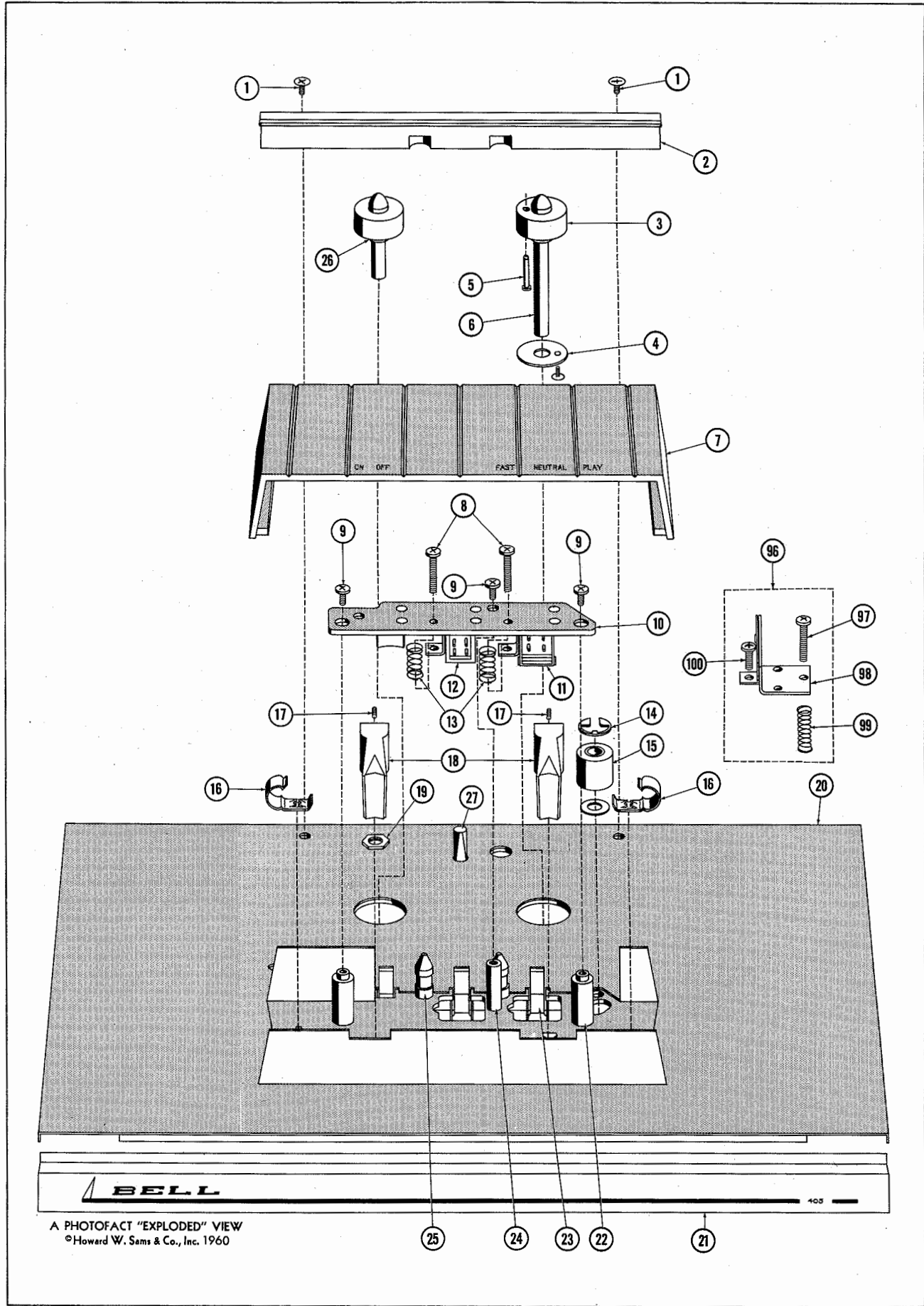


FIG.5A EXPLODED VIEW OF PARTS ABOVE DECK COVER

# MODELS 405 AND 406 AMP PARTS LIST AND DESCRIPTIONS (Continued) COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		BELL SOUND PART No.	Miller PART No.	Stancor PART No.	Triad PART No.	
L1	Osc. Coil	31A33				①

## TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		BELL SOUND PART No.	Merit PART No.	Stancor PART No.	Triad PART No.	
		32B71				
T1	PRI. SEC. 1 SEC. 2 117V 6.3V 22VCT ① .782 @ 3.5A @ .035A					

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEADANCE	REPLACEMENT DATA				NOTES
		BELL SOUND PART No.	Merit PART No.	Stancor PART No.	Triad PART No.	
		32B74	A-2901	24506	S-52X	
T2	68000 CT 6-80					
T3	68000 CT 6-80					

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	BELL SOUND PART No.	REPLACEMENT DATA
K1	Tone Compensator	220mmf, 1000mmf, 2000mmf, 5000mmf, 22K, 47K, 220K	91A196	
K2	Tone Compensator	220mmf, 1000mmf, 2000mmf, 5000mmf, 22K, 47K, 220K	91A196	

## POWER RECTIFIERS

ITEM No.	RATING	CURRENT (Measured)	REPLACEMENT DATA				NOTES
			BELL SOUND PART No.	RC PART No.	SARKES TAZZAN PART No.	SYLVANIA PART No.	
M1	.035A		42A6	1N1783	40K	SR500	Silicon Type
M2	.035A		42A6	1N1783	40K	SR500	Silicon Type

## FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA				NOTES
			BELL SOUND PART No.	LITTELFUSE PART No.	BUSS PART No.	HOLDER	
M3	3AG	2A 250V	53A8	312002 (3AG 2A 250V)	342007	AGC 2	HKP

## SIGNAL DIODES

ITEM No.	ORIG. TYPE	BELL SOUND PART No.	REPLACEMENT DATA		NOTES
			GENERAL ELECTRIC PART No.	RAYTHEON PART No.	
M4	IN60	42X3	IN60	IN60	Base, Meter Amp. (Left Channel)
M5	IN60	42X3	IN60	IN60	Base, Meter Amp. (Right Channel)

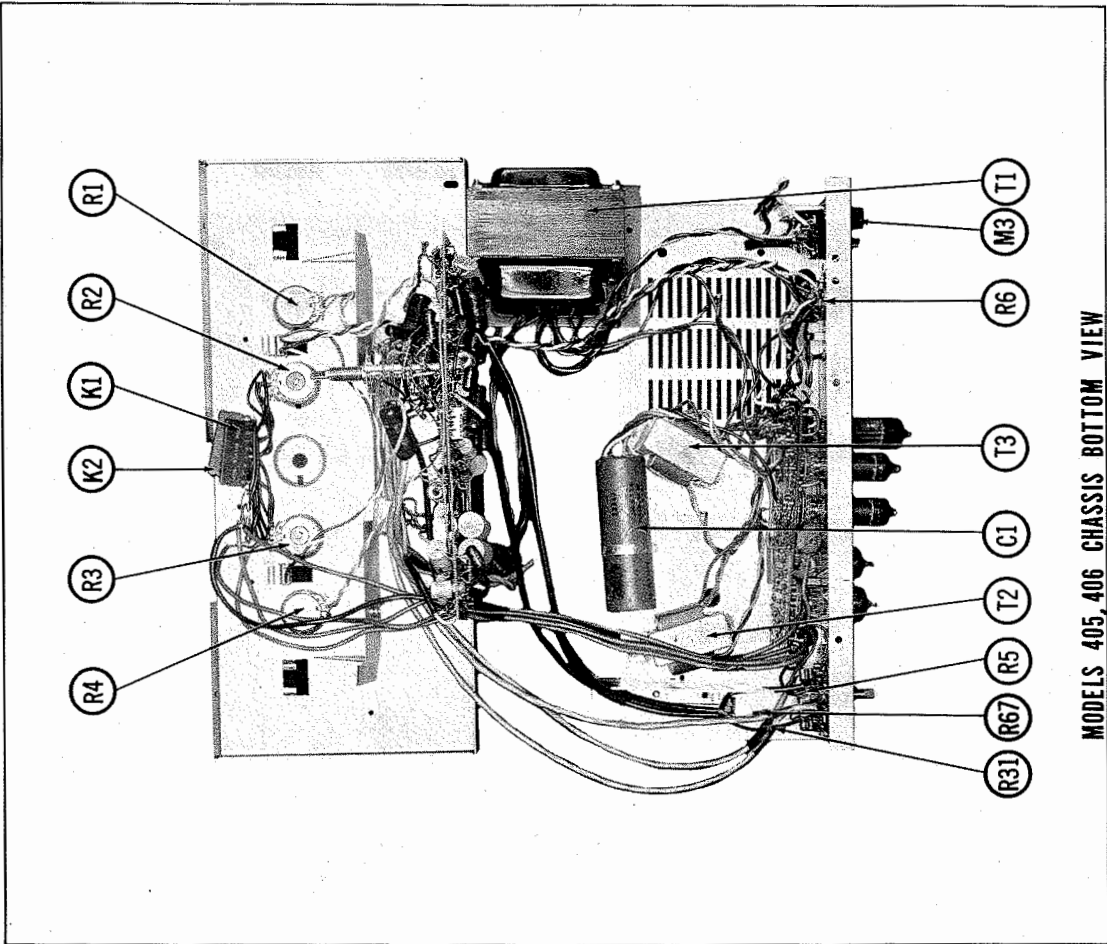
## MISCELLANEOUS

ITEM No.	PART NAME	BELL SOUND PART No.	NOTES
M6	Head	36B10	Playback
M7	Head	36B11	Erase
M8	Switch	43B74	Function Selector
M9	Switch	43B62	Off-On
M10	Switch	43A53	Auto Stop
M11	Switch	46B5	Record Level Indicator (Left Channel)
M12	Meter	46B5	Record Level Indicator (Right Channel)

FOLDER 4

BELL SOUND MODELS  
401, 402, 403, 404, 405, 406

MODELS 405, 406 CHASSIS BOTTOM VIEW



# MODELS 405 AND 406 AMP PARTS LIST AND DESCRIPTIONS

## TUBES

GENERAL ELECTRIC				RAYTHEON				SYLVANIA			
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	Left Channel AF Amp.	EC83/2AX7	V5	Right Channel AF Amp.	EC83/2AX7	V6	Right Channel AF Amp.	EC83/2AX7	V7	Right Channel Output	6AQ5A
V2	Left Channel Phase Inv.	EC83/2AU7	V6	Right Channel Output	6AQ5A	V7	Right Channel Output	6AQ5A	V8	Rectifier	E281
V3	Left Channel Output	6AQ5A	V8	Rectifier	E281						
V4	Left Channel Output	6AQ5A									

## TRANSISTORS

REPLACEMENT DATA				REPLACEMENT DATA				NOTES			
ITEM No.	ORIG. TYPE	USE	RAYTHEON PART No.	SYLVANIA PART No.	USE	RAYTHEON PART No.	SYLVANIA PART No.	USE	RAYTHEON PART No.	SYLVANIA PART No.	USE
X1	STL-1535	Left Channel Presamp.	STL-1535	STL-1535	Left Channel Presamp.	STL-1535	STL-1535	Left Channel Presamp.	STL-1535	STL-1535	Left Channel Presamp.
X2	STL-1535	Left Channel 1st AF Amp.	STL-1535	STL-1535	Left Channel 1st AF Amp.	STL-1535	STL-1535	Left Channel 1st AF Amp.	STL-1535	STL-1535	Left Channel 1st AF Amp.
X3	STL-1535	Left Channel 2nd AF Amp.	STL-1535	STL-1535	Left Channel 2nd AF Amp.	STL-1535	STL-1535	Left Channel 2nd AF Amp.	STL-1535	STL-1535	Left Channel 2nd AF Amp.
X4	STL-1535	Left Channel Meter Amp.	STL-1535	STL-1535	Left Channel Meter Amp.	STL-1535	STL-1535	Left Channel Meter Amp.	STL-1535	STL-1535	Left Channel Meter Amp.
X5	STL-1535	Right Channel Presamp.	STL-1535	STL-1535	Right Channel Presamp.	STL-1535	STL-1535	Right Channel Presamp.	STL-1535	STL-1535	Right Channel Presamp.
X6	STL-1535	Right Channel 1st AF Amp.	STL-1535	STL-1535	Right Channel 1st AF Amp.	STL-1535	STL-1535	Right Channel 1st AF Amp.	STL-1535	STL-1535	Right Channel 1st AF Amp.
X7	STL-1535	Right Channel 2nd AF Amp.	STL-1535	STL-1535	Right Channel 2nd AF Amp.	STL-1535	STL-1535	Right Channel 2nd AF Amp.	STL-1535	STL-1535	Right Channel 2nd AF Amp.
X8	STL-1535	Right Channel Meter Amp.	STL-1535	STL-1535	Right Channel Meter Amp.	STL-1535	STL-1535	Right Channel Meter Amp.	STL-1535	STL-1535	Right Channel Meter Amp.
X9	STL-1535	Bias Oscillator	STL-1535	STL-1535	Bias Oscillator	STL-1535	STL-1535	Bias Oscillator	STL-1535	STL-1535	Bias Oscillator

## ELECTROLYTIC CAPACITORS

REPLACEMENT DATA				REPLACEMENT DATA				NOTES			
ITEM No.	RATING	VOIT.	BELL SOUND PART No.	CORNELL-DUBIER PART No.	AEROVOX PART No.	RAYTHEON PART No.	SYLVANIA PART No.	USE	RAYTHEON PART No.	SYLVANIA PART No.	USE
C1A	40	350	23B47	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C2	400	300	23B54	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C3	400	15	23B55	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C4	100	15	23B56	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C5	200	12	23B70	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C6	25	10	23B60	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C7	100	10	23B58	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C8	50	10	23B59	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C9	50	10	23B61	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C10	10	10	23B61	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C11	10	10	23B61	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C12	25	10	23B60	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C13	25	10	23B60	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C14	50	10	23B59	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C15	50	10	23B59	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C16	50	10	23B59	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C17	10	10	23B61	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C18	10	10	23B61	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C19	200	12	23B70	BERQ0174	PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *

\* 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.

REPLACEMENT DATA				REPLACEMENT DATA				NOTES			
ITEM No.	RATING	VOIT.	BELL SOUND PART No.	CORNELL-DUBIER PART No.	AEROVOX PART No.	RAYTHEON PART No.	SYLVANIA PART No.	USE	RAYTHEON PART No.	SYLVANIA PART No.	USE
C20	.01 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C21	.47 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C22	1000 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C23	.01 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C24	.33 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C25	.047 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C26	.047 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C27	.0082 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C28	.22 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C29	.033 100V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C30	10000				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C31	10000				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C32	2.2 NPO .25mmf				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C33	10000				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C34	68 NPO				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C35	10000				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *
C36	.01 50V 10%				PR4-200	WQ795	TD-40-450	TVAS-3745 *	TD-40-450	TVAS-3745 *	TVAS-3745 *

\* Alternate Value

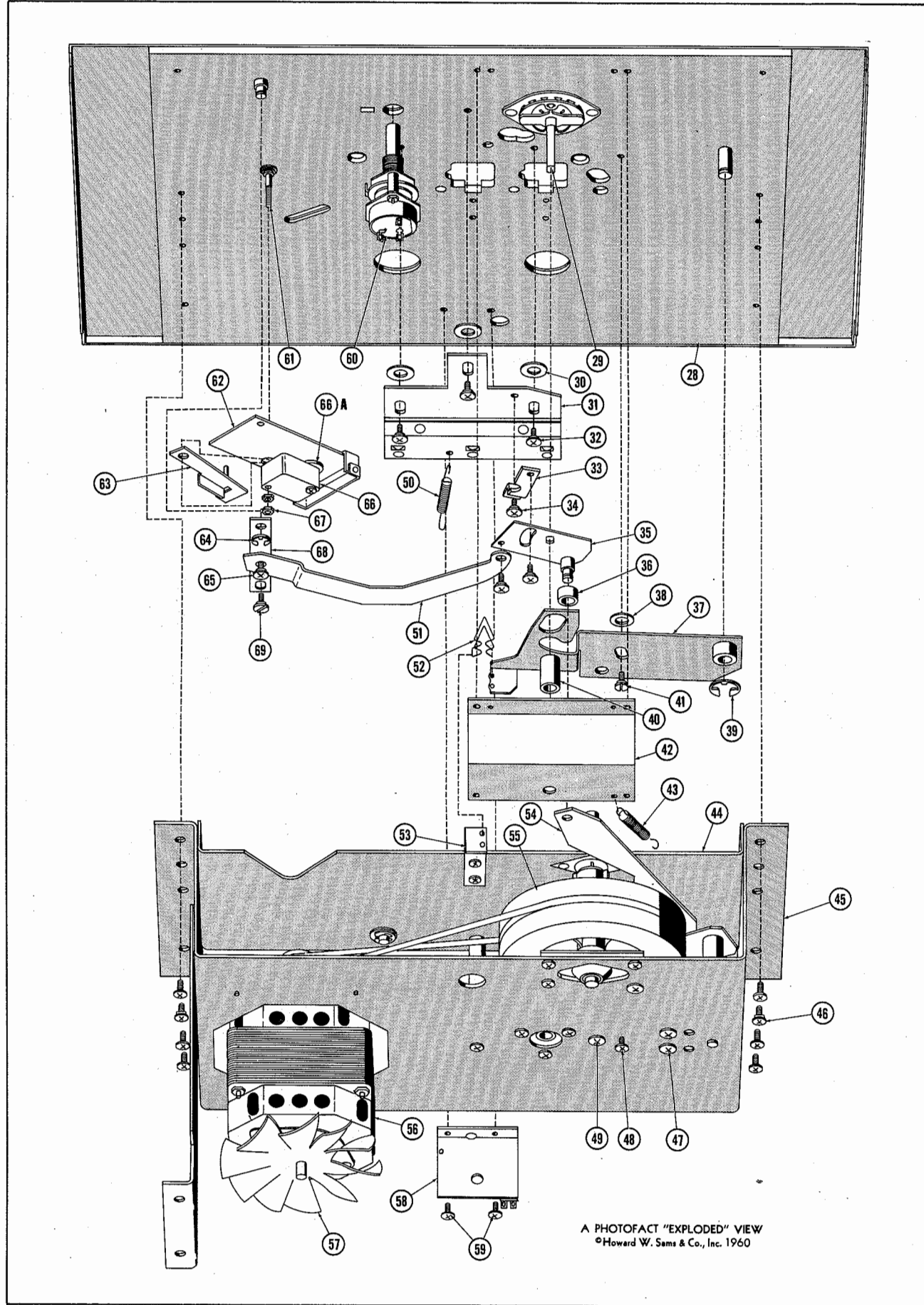


FIG.5B EXPLODED VIEW OF PARTS BELOW DECK PLATE

A PHOTOFACT "EXPLODED" VIEW  
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FOLDER 4

BELL SOUND MODELS  
401, 402, 403, 404, 405, 406



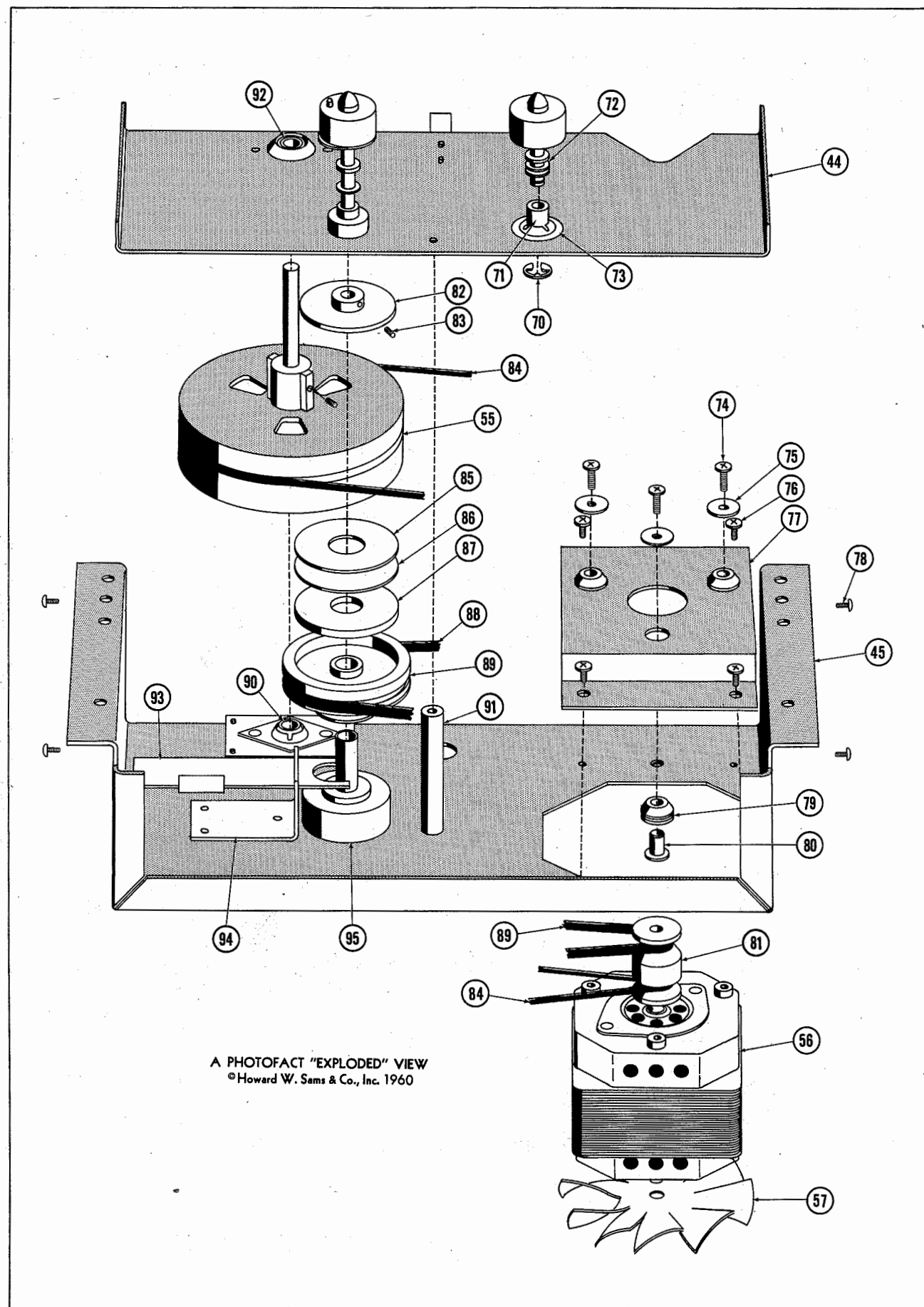


FIG.5C EXPLODED VIEW OF PARTS BELOW SUB DECK TOP PLATE

