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I. General Information

1.1 Specifications

Speed:	1.875 ips
Wow and Flutter:	less than 0.15%, DIN Weighted
High Speed Wind Times:	45 seconds for a C-60
End of Tape Shut Off:	Fully automatic, Disengages pinch roller and heads from the cassette.
Input Sensitivity:	35 mv for 0 VU
Input Impedance:	Nominally 50,000 ohms. Varies with settings of INPUT and RECORD LEVEL controls from 25,000 to 100,000 ohms.
Output:	With OUTPUT LEVEL control at maximum, 580 mv @ 200 ohms from 0 VU tape level.
Distortion:	Tape dependent. Distortion in the electronics is typically less than 0.1% up to and beyond tape saturation.

Frequency Response:	35-15,000 Hz $\pm$ 2 dB with Crolyn tape (@-30 VU)* 35-14,000 Hz $\pm$ 2 dB with Regular tape.
Signal to Noise Ratio:	Referenced to 0 VU, Dolby System off. Better than 54 dB with Crolyn tape. Better than 48 dB with Regular tape
Noise Reduction:	With Dolby System on. 10 dB @ 4,000 Hz and above 9 dB @ 2,400 Hz 6 dB @ 1,200 Hz 3 dB @ 600 Hz
Bias Frequency:	110 kHz
Power Requirements:	120 Volts AC, 60 Hz, 25 watts

*A Word About Frequency Response

Frequency response measurements on open reel recorders are normally taken at a record level 20 dB below 0 VU (-20 VU) in order to avoid tape saturation at high frequencies. Because of the substantial amount of high frequency boost equalization required at 1-7/8 ips in order to achieve extended high frequency response, frequency response measurements must be taken at a record level 30 dB below 0 VU. Frequency response measurements taken at a higher level than that will only indicate the saturation properties of the tape being used, not the high frequency capabilities of the recorder. (By the way, when tape saturates, the output does not remain constant; it actually *decreases* as the input signal is increased.

If you're wondering how it's possible to record music when wide band response is possible only at such low levels, rest at ease. Music is not flat. Because there are no musical fundamentals above approximately 4 kHz (and those at that frequency are rare), the only information above that frequency is composed of musical harmonics or overtones so that the energy in music above 4 kHz decreases dramatically. Were this not so, the equalization so necessary to not only tape recording, but discs and FM as well, would not be possible. And for those few pieces of music that do cause saturation when recorded normally, the solution is to record at a lower level.

1.2 Test Tapes

Listed below are the various tapes that should be used for checking and performing the adjustments to this manual. The source for these tapes is Philips.

TYPE NUMBER	DESCRIPTION	PRICE	COMMENTS
TC-A10	10kHz azimuth tape	\$19.25	Probably the one tape that every service department should have.
TC-FL3	3000 Hz flutter tape	\$21.50	These tapes are useful only if you have a flutter meter.
TC-FL3.15	3150 Hz flutter tape	\$21.10	
TC-S	6.3 kHz & 800 Hz tape	\$17.70	This can be used for checking speed without a drift (speed) meter.
TC-FR	Playback frequency response	\$95.50	Of limited use for servicing although it can double as an azimuth (10kHz band) tape.

A booklet giving detailed descriptions of these tapes is available from: North American Philips Corp., Order Dept., Home Entertainment, 100 East 42nd Street, New York, N. Y. 10017. Telephone: 212-697-3600.

II. Mechanical Section

2.1 Disassembly Instructions for Transport

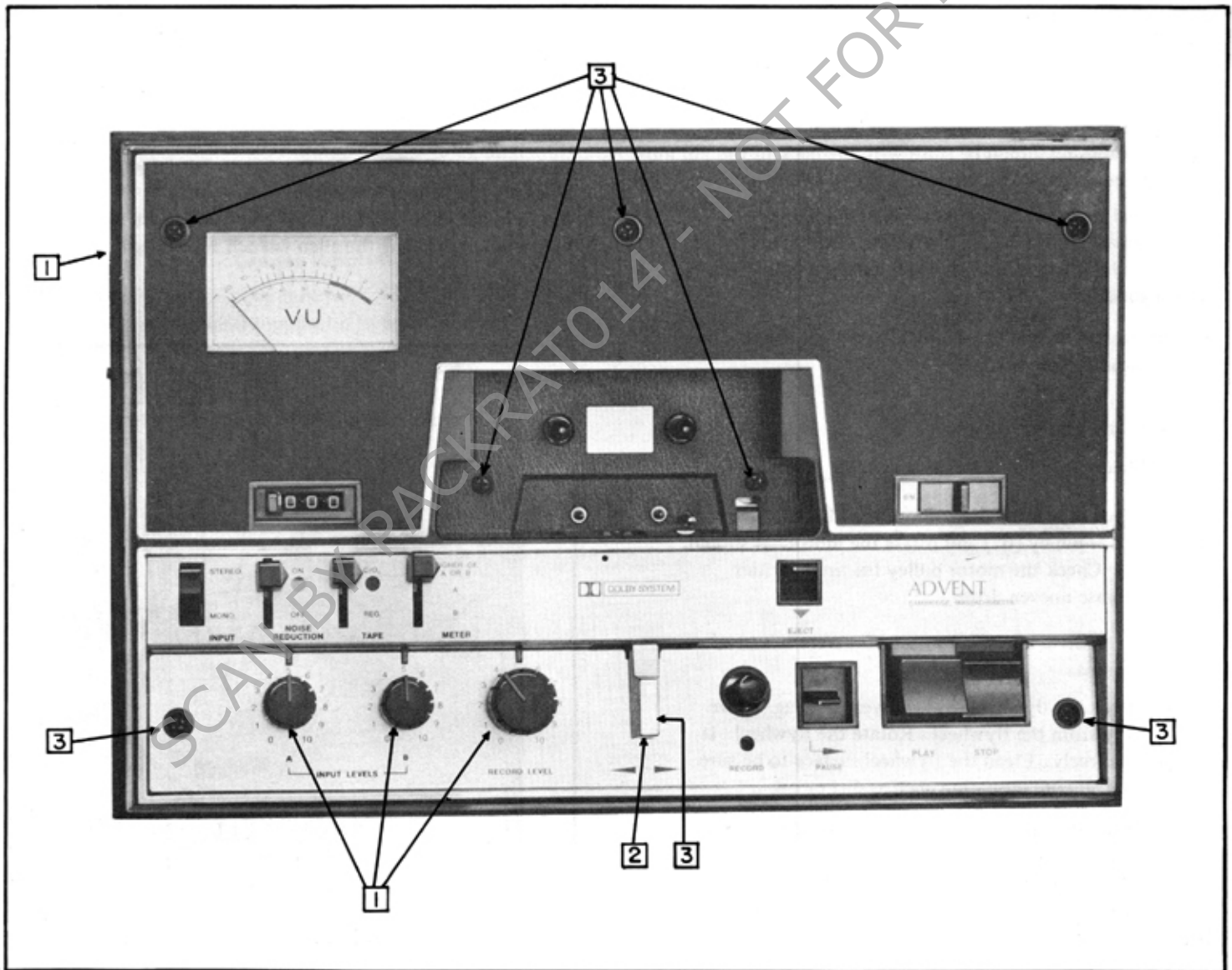
A. Removing the Transport

1. Remove 3 volume knobs (1), the Output level knob on the side of the 201, and the switch knobs.
2. Remove 1 screw in High Speed Lever (2).
3. Remove 6 top plate screws and 2 screws in cassette well (3).
4. Lift Top Plate off of 201.
5. Remove 4 screws in each corner of wooden base and lift out mechanism.

B. For Removal of PC Board, see Disassembly Instructions (3.3)

2.2 Reassembly Instructions for Transport

- A. Reverse Disassembly procedures. NOTE: When inserting top plate onto the transport, be sure that the cassette retaining leaf is positioned properly. Also make certain the Power (On-Off) housing captures the slide switch handle properly, and check for correct positioning of the High Speed Lever.



2.3 Troubleshooting

A. Record/Play Heads Bent Out of Adjustment

Trying to insert the cassette when the unit is in the **PLAY** or **RECORD** mode can bend the head mount and/or the tape guides out of adjustment.

The result of a mispositioned head is poor head-to-tape contact which would show up as poor high frequency response, unstable recording and playback, low gain (**RECORD** and/or **PLAY CAL** can't be properly adjusted), flutter, speed variation, and/or distortion.

If the head mount has been bent, the entire head assembly (5) should be replaced. If the head is loose in the mount, the head and the inside of the mounting sleeve must be cleaned before regluing to insure a good bond with a sharp knife or razor blade. Do not use a file.

Before resealing the head, position the head so that the face is perfectly vertical and the gap is at the point of tangency between the head and tape surface. The back of the head housing should be flush with the back of the mounting sleeve.

To seal the head in the sleeve, use a few drops of a super adhesive (such as Eastman 910, Loctite, etc.), applying it at the top of the head and letting it seep down to give a good seal.

Warning: Be careful not to get any adhesive on the face or leads of the heads.

B. Wow and Flutter

1. Check for debris on capstan and/or pinch roller.
2. Check motor for drag. Move the idler (72) away from the motor pulley (67) and rotate the motor. It should rotate freely. Check the motor pulley for irregularities which may cause uneven drive.
3. Check drive idler (72) surface for wear or out of round conditions.
4. Check the flywheel (81) for wear or drag. Move the idler away from the flywheel. Rotate the flywheel. It should rotate freely. Clean the flywheel surface to be sure it is free from all contamination such as dirt or oil.
5. Check the pressure roller bearings (2) for wear or drag. Clean the surface to insure good drive or replace if necessary. Make sure the pressure roller is making good contact. Check the pressure roller spring (7) for adequate roller tension.

6. Check the capstan for abnormal excessive abrasion or oil to insure proper drive.

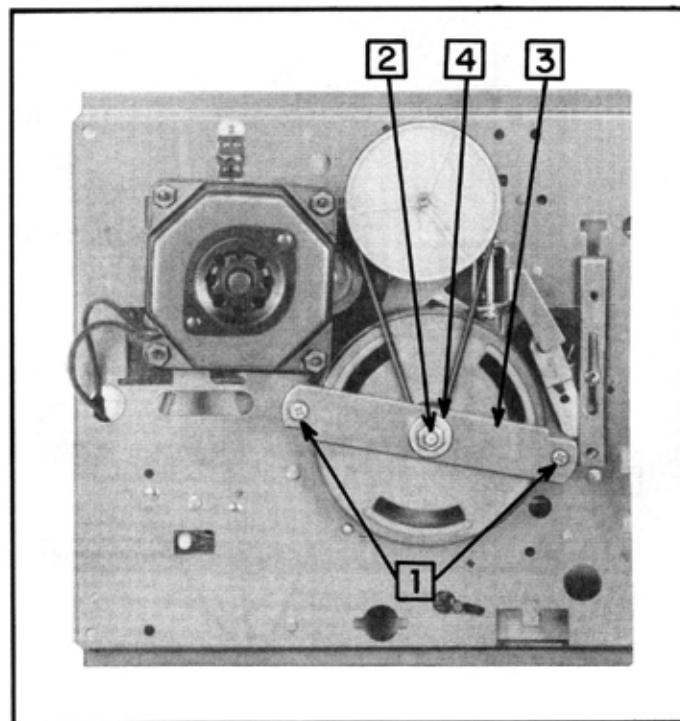
7. In **PLAY** and **RECORD** position the brakes (30 and 31) should be disengaged. If at any time the brakes drag or touch, wow and flutter will occur.

8. Remove the counter belt (19) to determine whether the counter is introducing irregular tape drive.

9. Replace flywheel (81).

The 201 must be completely disassembled in order to change the flywheel. Refer to Section 3.3 for disassembly procedure.

Remove 2 screws (1) on lower bearing mount and remove the flywheel. In replacing the flywheel capstan assembly it is not necessary to readjust the end play adjust screw and lock nut, (2). In reassembling the flywheel mount bracket it may be necessary to rotate the bracket 180° if the flywheel shows any sign of drag or binding, (3). The end play adjustment for the flywheel is: use an allen wrench to adjust the screw, (2), to just touch the flywheel shaft. Back off 1/4 turn and lock in place with lock nut, (4), holding the allen wrench adjustment.



C. No Tape Drive in Play or Record

1. Frozen or open motor.
2. If motor is not frozen, a motor lead may be off.
3. Idler jammed or idler spring (56) disconnected not allowing contact with motor pulley and flywheel.
4. Grease or oil on motor pulley (67), drive idler (72) or flywheel (81) (outer surface). Clean.
5. Pressure roller spring (7) disconnected or broken.

D. Tape-Up Reel Does Not Turn Although Tape Feeds Past the Capstan

1. Take-up idler spring (65) off or broken.
2. Oil or grease on idler and hub of flywheel.

E. Take-up Spindle Fails (Weak Take-Up) Especially When Reel is Full

1. Check with a known good cassette to determine if the cassette is defective.
2. Grease or oil on take-up idler (75) or drive idler (72), or flywheel surface (81). Clean with alcohol or replace.
3. Take-up spindle clutch (22) weak; replace.

F. No Fast Forward; Capstan Revolves

1. Check for defective cassette.
2. Spindle tire (22) slipping on flywheel because of wear or oil on surface.

G. No Rewind; Capstan Revolves

1. Check for defective cassette.
2. Spindle tire (22) slipping on flywheel because of wear or oil on surface.

H. Tape Spills When Functions are Changed

1. Brake spring (28) weak or disconnected; connect or replace.
2. Brake lever (45) jammed or off; replace.

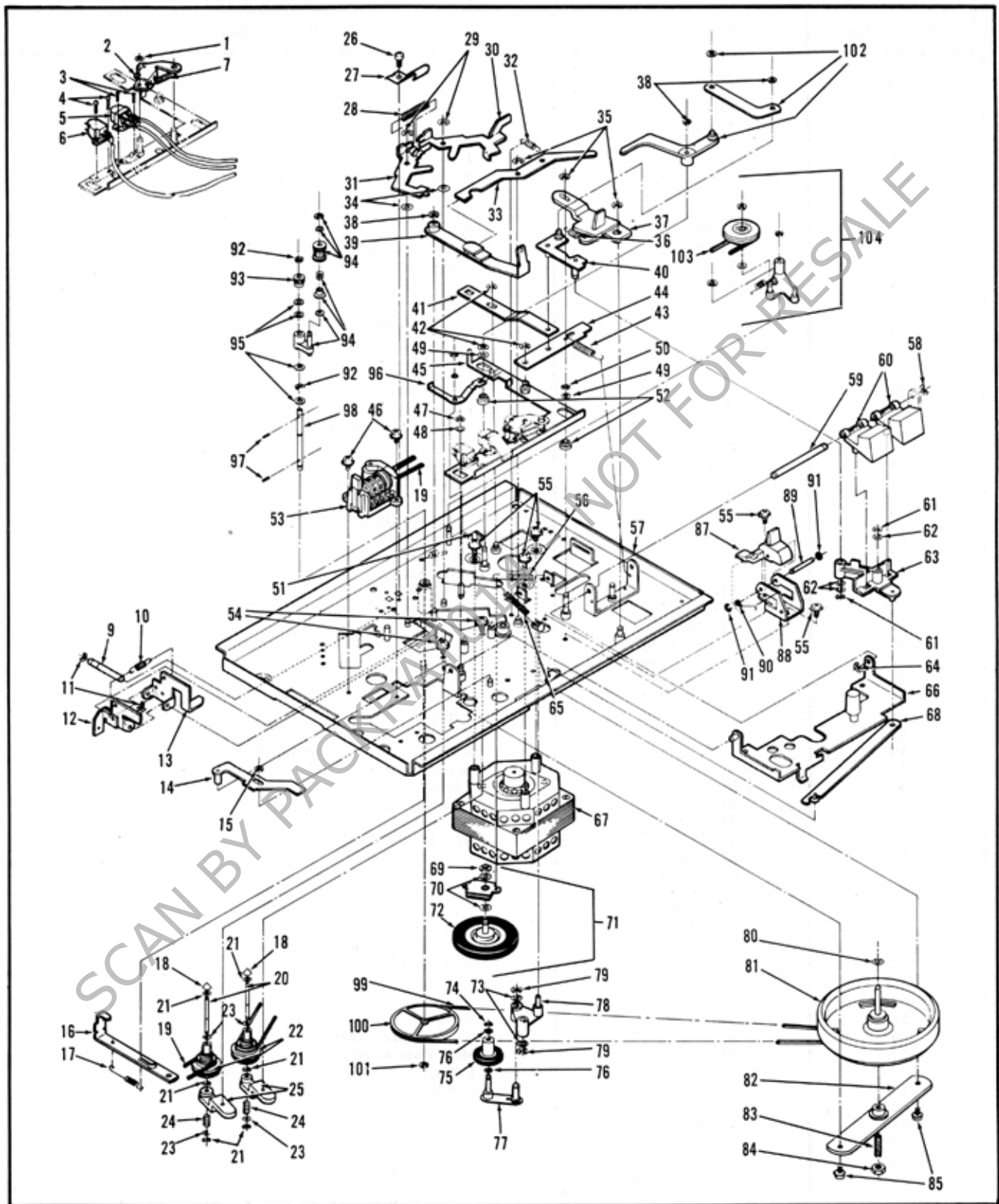
I. Recorder in Constant Fast Forward and Rewind

1. Rewind-fast forward spring (10) weak or disconnected; replace or reconnect.

J. Pause Lever Does Not Function

1. Check to see that the pressure roller (2) releases from the capstan, take-up idler (75) releases from take-up spindle (22), and brake (31) is applied to the supply spindle. Check linkage.
2. Will not lock in pause. Check for notch in button (37); replace button if necessary.

2.4 Exploded Diagram



2.5 Parts List

Item Number	Part Number	Description
1	81-09131990-5	E Ring
2	81-01857190-1	Pressure Roller
3	81-14327620-2	Screw
4	81-14327610-3	Screw
5	81-27161410-9	Record/Play Head
6	81-01856450-5	Erase Head
7	81-13327370-6	Spring-Pressure Roller
9	81-04325870-6	Shaft
10	81-13327300-3	Spring Forward/Rewind
11	81-09131990-5	E Ring
12	81-03325190-1	Advance Actuator
13	81-03325200-8	Rewind Actuator
14	81-01857160-4	Record Lock Out Assembly
15	81-09132000-2	E Ring
16	81-03325250-3	Link Lock Out
17	81-13327440-7	Spring
18	81-15327980-7	End Cap
19	81-30309730-3	Counter Belt
20	81-04325810-2	Spindle Shaft
21	81-09326770-6	E Ring
22	81-01863700-9	Spindle Clutch Assembly
23	81-08326300-4	Washer
24	81-13327340-9	Search Spring
25	81-01857090-3	Spindle Mount Assembly
26	81-14321640-6	Screw
27	81-13327380-5	Spring, Cartridge Pressure
28	81-13327350-8	Spring, Brake
29	81-09132000-2	E Ring
30	81-03325170-3	Brake Advance
31	81-03325180-2	Brake Rewind
32	81-13327320-1	Spring Forward/Rewind
33	81-03325110-9	Interlock
34	81-08064330-7	Washer
35	81-09132000-2	E Ring
36	81-13327400-1	Spring, Pause
37	81-15328020-1	Pause Lever
38	81-09132000-2	E Ring
39	81-01857150-5	Pause Lever Assembly
40	81-01856350-2	Actuator Link Assembly EOTS
41	81-03325380-8	Actuator Muting Switch
42	81-09132000-2	E Ring
43	81-13327310-2	Spring, Actuator
44	81-03325160-4	Actuator Lever
45	81-01854840-4	Slide Plate and Bushing Assembly EOTS
46	81-14326660-9	Screw
47	81-09132000-2	E Ring
48	81-08064330-7	Washer
49	81-08064330-7	Washer
50	81-09132000-2	E Ring
51	81-28141210-6	S7 Muting Switch
52	81-15328010-2	Slide Plate Roller
53	81-09326500-7	Counter
54	81-14326660-9	Screw
55	81-14326660-9	Screw
56	81-13327390-4	Spring — Drive Idler
57	81-01854850-3	Mech Plate Assembly EOTS
58	81-09132000-2	E Ring
59	81-04325660-1	Key Shaft
60	81-15327960-9	Key
61	81-09132000-2	E Ring
62	81-08064330-7	Washer
63	81-15328070-6	Actuator

2.5 Parts List

Item Number	Part Number	Description
64	81-09132000-2	E Ring
65	81-03327360-7	Spring-Take Up
66	81-01860770-5	Record Link Assembly (Chrome 4700B and 4750)
67	81-01857070-5	Motor Assembly with Pulley
68	81-01857200-8	Record Interlock
69	81-09118880-5	E Ring
70	81-08331320-5	Washer
71	81-01863060-8	Idler and Slide Assembly
72	81-01857860-9	Tire and Shaft Assembly E.V.
72	81-01863500-3	Tire and Shaft Assembly L.V.
73	81-08326310-3	Washer E.V.
73	81-08331320-5	Washer L.V.
74	81-09065010-2	E. Ring E.V.
74	81-09326720-6	E Ring L.V.
75	81-01857400-4	Take Up Idler
76	81-08326310-3	Washer
77	81-01857130-7	Link Assembly
78	81-15327970-8	Clutch Line
79	81-09132999-2	E Ring
80	81-08226610-7	Washer
81	81-08154900-6	Flywheel EOTS
82	81-01854910-5	Flywheel Bracket Assembly EOTS
83	81-17327710-4	Screw (Nylon)
84	81-09326540-3	Nut
85	81-04326660-9	Screw
87	81-15328280-1	Ejector
88	81-03325350-1	Ejector Bracket
89	81-04326000-9	Ejector Pin
90	81-13327450-6	Ejector Spring
91	81-09131990-5	E Ring
92	81-09132000-2	E. Ring
93	81-15328340-3	Shut Off Drive Gear
94	81-01863410-5	Shut Off Assembly
95	81-08064330-7	Washer
96	81-03325510-0	Idler Washer
97	81-09320600-1	Pin
98	81-04326040-5	Shaft
99	81-30320770-8	Drive Belt
100	81-15328350-2	Pulley
101	81-09132000-2	E Ring
102	81-01856460-9	Kickout Lever and Link
103	81-30329730-3	Belt
104	81-01854920-4	Trigger Assembly

III. Electrical Section

3.1 Set-Up and Chassis Alignment

If you want to do a complete set up and alignment, then proceed in the order given here.

If you simply want to adjust bias, proceed to Steps F, G, H, & I.

Equipment Required:

Oscillator (HP 204C or equivalent)
VTVM (HP 400 GL or equivalent)
Oscilloscope
Flutter Meter (Woelke ME-104)

A. Meter and Oscillator Calibration

1. With **OUTPUT LEVEL** fully clockwise and 201 in **RECORD** mode, feed 400 Hz external signal into Channel A and adjust recording level for $580 \text{ mv} \pm 0.5 \text{ dB}$ at Channel A **OUTPUT. METER** switch to "A". Adjust **METER SENS.** pot (2) so that 201 VU meter reads 0.

2. Meter balance can be checked by monitoring the voltages at the points on the circuit board labeled M1 and M2. They should be within $1/2 \text{ dB}$ of each other. If not adjust **METER BALANCE POT** (7) and then reset meter **METER SENS.** per above.

3. 201 in **RECORD** and **METER** Switch to "A", depress **REC CAL TONE** button. Adjust **OSC CAL A** (3) for 0 reading on VU Meter. **METER** Switch to "B". Adjust **OSC CAL B** (3) for 0 on VU Meter.

B. Dolby Check and Alignment

With the 201 in the **RECORD** mode, **PAUSE** switch on, **NOISE REDUCTION** switch off, feed a 5kHz signal to Channel A input. Adjust oscillator for 17.5 mV output at Channel A **OUT** test point on PC Board. Move the probe to Channel A1-test point and note level. Switch **NOISE REDUCTION** on and note increase of 8 dB. Repeat for Channel B, at B1 test point. If either channel requires alignment turn **LAW** pot (5) fully counterclockwise, short **FET** gate to ground, and adjust **GAIN** pot (6) for a 10 dB increase from reference level at point A1, (with **N/R** Switch off). Then re-adjust **LAW** pot (**N/R** Switch on) for a 2 dB drop from -10 level.

C. Azimuth Adjustment

Using 10 kHz azimuth test tape (TC-A10), with the 201 in Play mode, set **AZIMUTH** for maximum reading on VTVM. (HF pots control the frequency response in playback from 10 kHz up. They are adjusted at the factory so that the 1 kHz and 10 kHz sections from a standard test tape play back at the same level).

D. Wow and Flutter

Using 3 kHz test tape (TC-FL3), check wow and flutter. Should be 0.15% or less (DIN Weighted).

E. Play Cal Adjustment

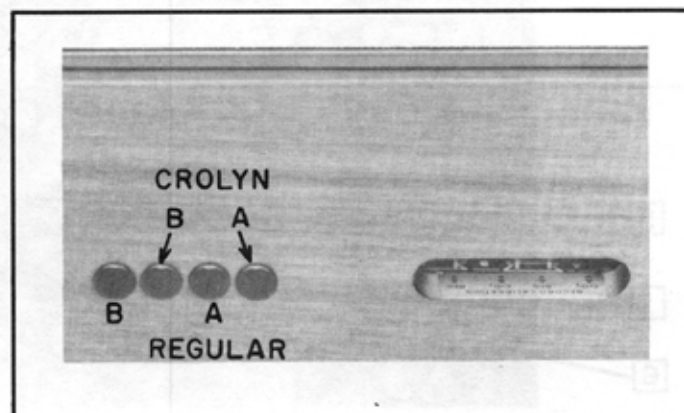
Insert standard Dolby Level tape (200 nW/m) and adjust Channel A **PLAY CAL** pot (4) for 0 VU on meter. Meter switch to Channel B and adjust **B PLAY CAL** (4) pot for 0 VU.

F. Bias Adjustment (Crolyn Tape)

With Crolyn tape inserted and the 201 in **RECORD** mode, output taken from line outputs, the **TAPE** Switch set for "Cr02", and the **NOISE REDUCTION** Switch Off, feed external oscillator at 1 kHz and adjust oscillator output for 0 VU reading on Model 201. Reduce input by 30 dB and record 1 kHz signal for two turns on the counter. Switch external oscillator to 10 kHz and record for two or more turns on the counter. Rewind tape and play back. If necessary, adjust **CROLYN BIAS** pots (right rear of PC board) for each channel and re-record until the 10 kHz signal plays back at the same level as the 1 kHz signal.

1. A convenient aid in adjusting bias is to measure bias voltage across the head terminals (top plate removed) with a low capacitance probe. Channel A is the bottom pair of terminals, Channel B the top. Adjusting the bias voltage approximately the number of dB that you wish to alter the frequency response at 10 kHz will enable you to hone in on the proper setting. Nominal voltages are 14 volts for "Cr02" and 10 volts for "Reg"

2. Since the same kind of tape can vary slightly in frequency response, verify your bias adjustment by checking another cassette.



G. BIAS Adjustment (All tapes other than Crolyn)

Perform adjustment as in Step F, except that the **TAPE Switch** is in the **REGULAR** position, and the **REGULAR BIAS** pots (right rear of PC board) should be adjusted.

H. REC CAL Adjustment (All tapes other than Crolyn)

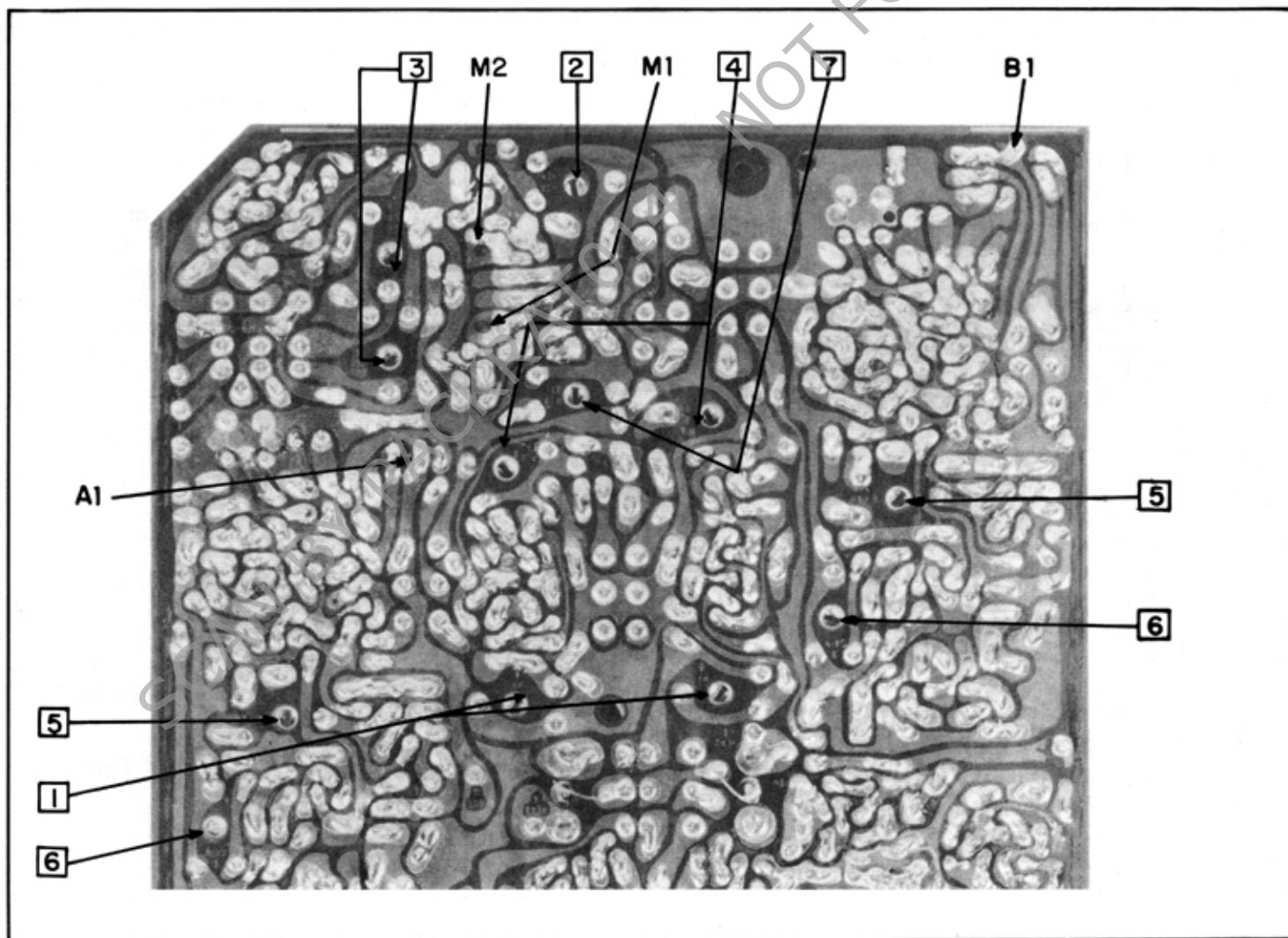
Insert tape. Be sure **TAPE Switch** is set to **REGULAR**. Put 201 into **RECORD** mode and depress **REC CAL TONE** button. Record for about 2 digits on the counter. Rewind tape and play back. NOTE reading on VU meter for Channel A. Adjust **REC CAL** for Channel A by adjusting **REGULAR** pot on left rear of PC board, so that when you record and play back the oscillator's signal, the VU meter reads 0. Repeat for Channel B.

I. REC CAL Adjustment (Crolyn tape)

Insert CrO_2 tape (**TAPE Switch** to CrO_2) and perform same adjustments as in Step H, adjusting the CrO_2 pots at left rear of PC board.

J. Hum and Noise

With all inputs removed, the **NOISE REDUCTION** Switch on, and the **TAPE Switch** set for CrO_2 , output should measure -55 dB from reference of 580 mv with the 201 in the **PLAY** mode.



3.2 Troubleshooting

(Refer to pull out Circuit Path Diagram)

(Channel A – Odd Numbers)

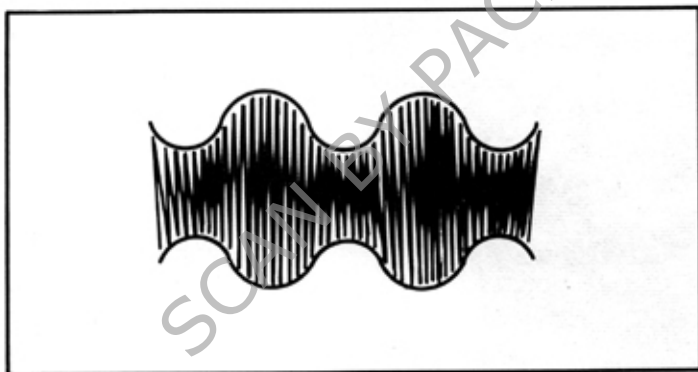
(Channel B – Even Numbers)

Record Mode

Attach a 400 Hz signal at approximately 35 mv into either input of the 201, the mode switch in the **MONO** position, enabling you to compare Ch A vs Ch B at various test points, and all **CONTROLS** maximum clockwise.

The signal is fed from the Channel A input (ΔN) and Channel B (ΔM) to the corresponding A (ΔN) and B (ΔM) inputs of the record play switches. There is a 3X amplification through Q300 and Q301, and a signal of approximately 100 mv should appear at the bases of Q302 and Q303. The signal is then amplified through Q302 and Q304, Q303 and Q305 and should appear as approximately 580 mv at the collector of Q304 and Q305. From here it passes through C310 and C311 and is fed by external connection to the $\Delta A1$ point (Ch B), $\Delta A2$ point (Ch A) of the R/P switches. Here it is transferred through the switch to the output test points.

At C310 and C311 the signal is also fed through R321 and R320 into the summing and inverting amplifier. There is no further amplification through these two transistors (Q307 and Q309, Q306 and Q308) and the 580 mv signal is then fed from ΔS (Ch A) and ΔT (Ch B) into the corresponding inputs of the record amplifier. The signal is then amplified through Q201 and Q203 and Q200 and Q202 and the following waveform should appear at the collector of Q202 and Q203.



(The high-frequency component is residual bias.)

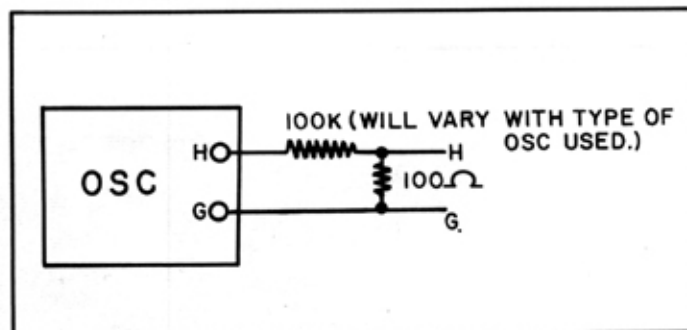
This signal is then fed through the appropriate calibration pots (signal path is shown with **TAPE** switch in CrO₂ position) to the Head inputs. An approximate 14V (with low cap probe) signal should appear at this point.



With the **NOISE REDUCTION** switch activated, a portion of the 580 mv signal is taken from the output test points and fed through the side chain of the Dolby circuit. At the base of Q313 and Q312 there should be approximately 8 mv. At the collector of Q315 and Q314 there should be approximately 200 mv. This signal is then fed through C313 and C312 into the bases of Q307 and Q306 and follows the regular output path through the summing amplifier. If the N/R switch is in the "Off" position, the signal gets shorted to ground at the negative side of C329 and C320.

Play Mode

Feed a signal between 0.25 and 0.4 mv into the Channel A or B head input. You may have to use a voltage divider from your oscillator, and the following is suggested:

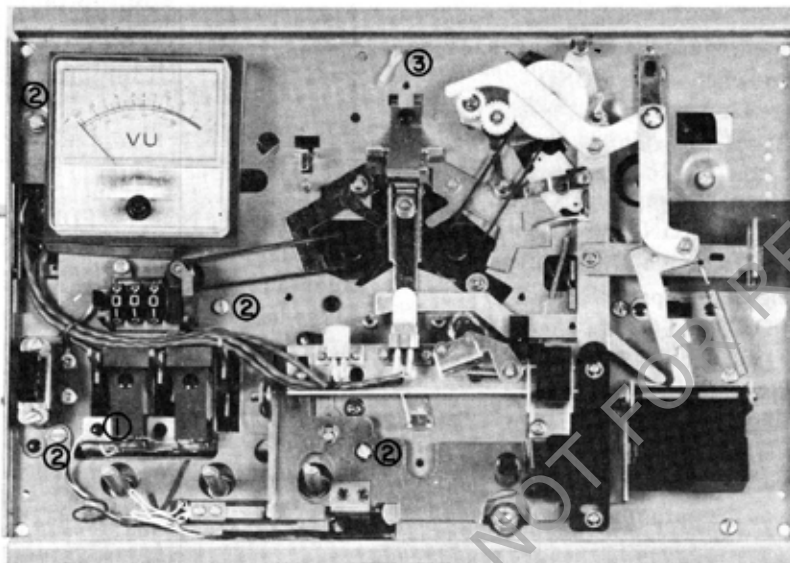


The signal then goes to the respective **REC/PLAY** switches by way of an external jumper between ΔK on the PC Board and ΔK on the **REC/PLAY** switch for Ch B. Channel A follows the foil pattern. Then both signals follow the same signal path as in **RECORD** through C311 and C310. Instead of feeding the Dolby circuitry from the input of the summing amp (as in the **RECORD** mode) it is fed from the output of the summing amplifier and follows the same signal path through the Dolby circuitry.

3.3 P. C. Board Disassembly

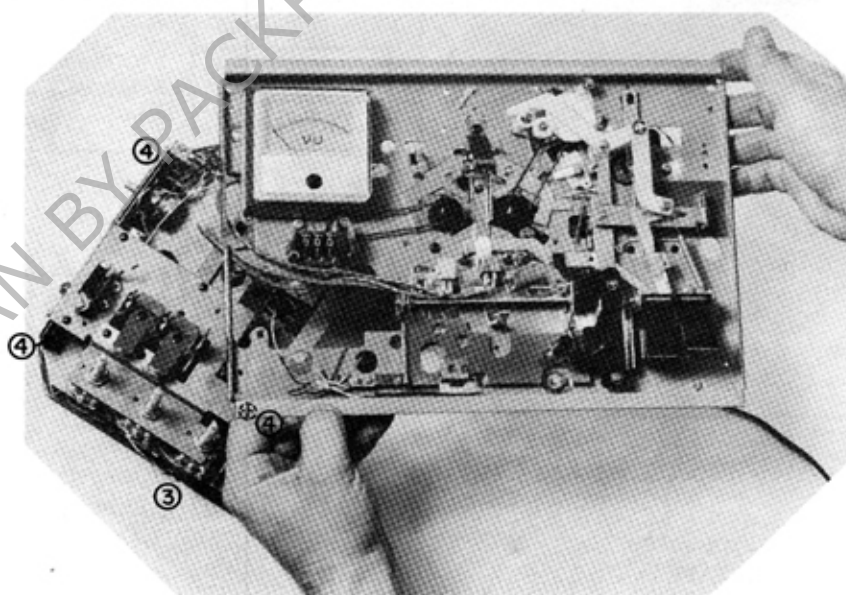
1. Remove green and green/white wires (1) from light sockets and red and black wires from power supply to PC

board. Remove four screws (2) on top plate. Remove tie down (3).

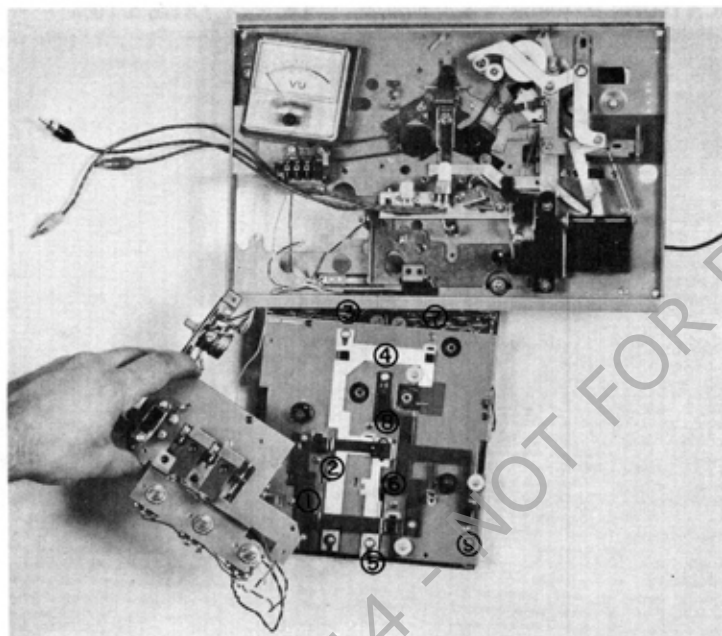


2. Pull wires through the slotted openings on the front of the PC board (3). In earlier models slots weren't provided therefore you will have to unsolder the wires and pull them through the holes. Lift transport up and swing in

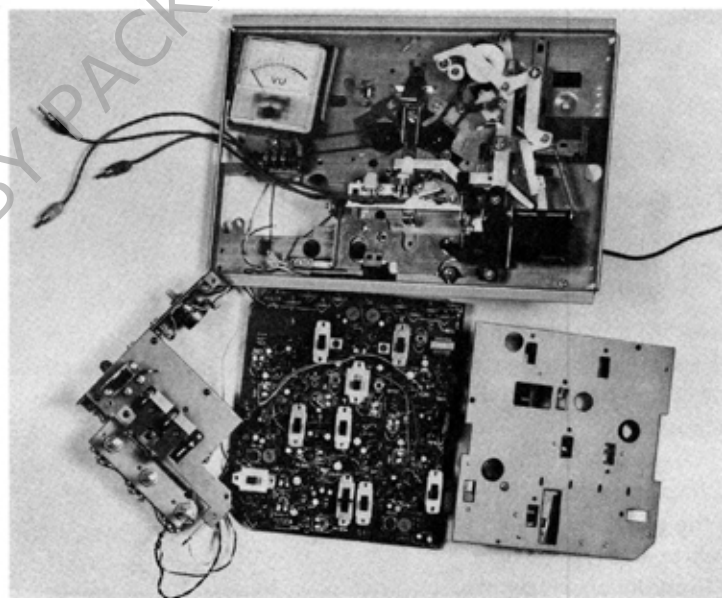
a counterclockwise direction. Remove three screws (4) from the switch mechanism and lift the mechanism off and place on the left side of board.



3. Remove 9 screws (all slotted 1-9) from the switch linkage (three of them with stand-offs) and place the top plate on the right of the PC board.



4. The board is now accessible to be worked on. Attach the red and black power supply wires to their appropriate connections.



3.4 Voltage Chart and Board Photo

Odd Nos. — Ch A

Even Nos. — Ch B

TEST POINT	LOCATION	DC VOLTAGE $\pm 10\%$
1 & 2	Regulated B+	1 -- 8v 2 -- 18v
3 through 14	Dolby Circuit	3 & 4 -- 8v 5 & 6 -- 12v 7 & 8 -- 5.5v 9 & 10 -- 6v 11 & 12 -- 4v 13 & 14 -- 10v
15 & 16	Play Preamp	3v
17 & 18	Meter Amp	12v
19	400 Hz Osc. (Depress side panel CAL Switch)	9v
20 & 21	Record Amp	8v
22	Erase Head (bias osc.)	50v AC

3.5 Reassembly

1. Install 9 screws (all slotted) to linkages and be sure that linkage activates all switches properly. The three screws with standoffs should be tightened only enough to guide the linkage properly.

2. Install the switch module and be extremely careful that the switch posts line up properly with the linkage. Activate switches to insure proper operation before installing the three screws that hold the module in place.

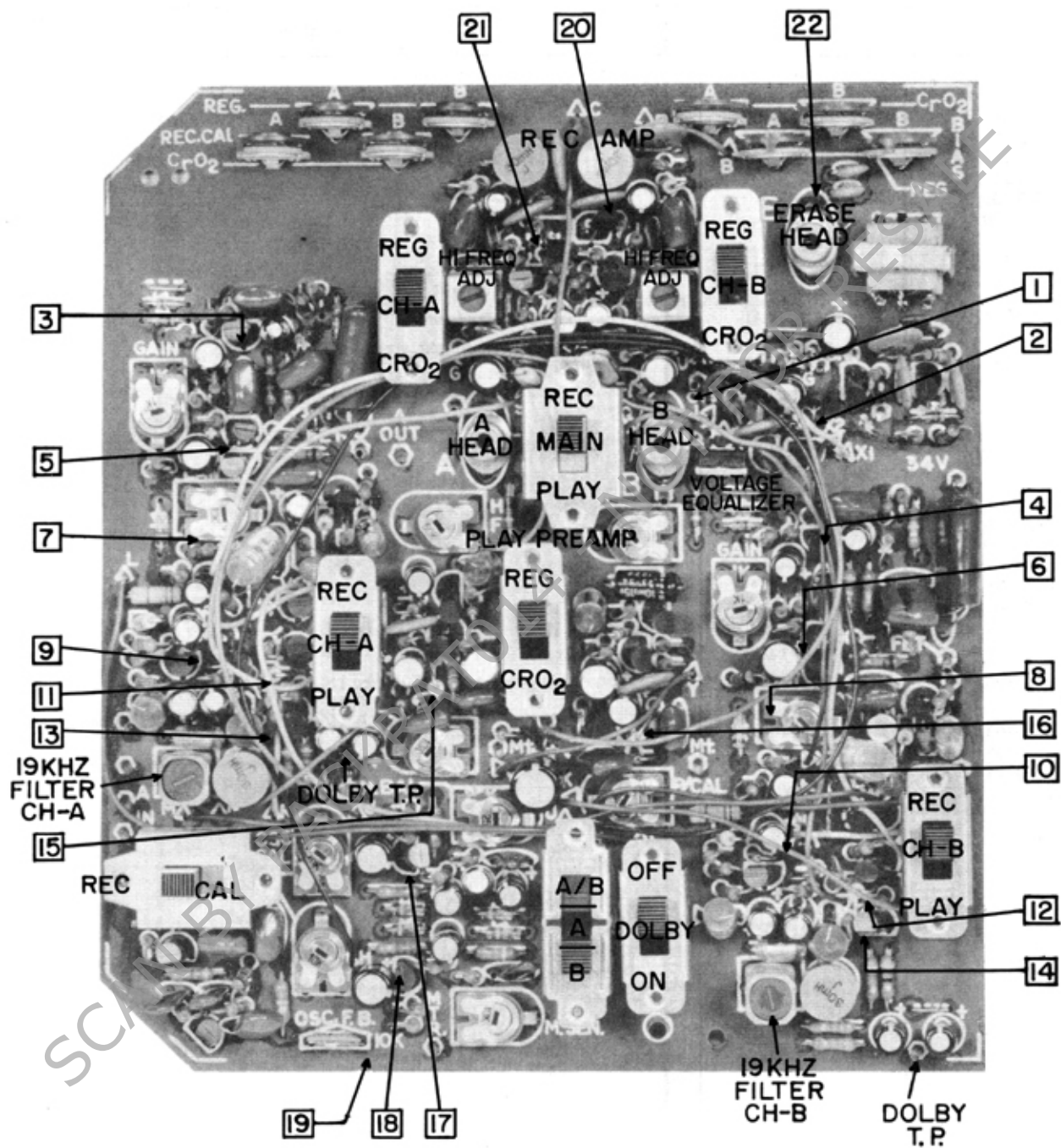
3. Install 3 head cables.

4. Install Transport to the PC board Assembly.

5. Install 4 Phillips screws on top plate.

6. Hook up green and green/white wires to the light sockets and the red and black wires from the power supply.

7. Install tie down in proper place.



3.6 Parts List

PC BOARD ASSY. NO. 10-990-054

Symbol	Part Number	Description
T600	10-990-067	Transformer Assembly
L200,L201	60-623-005	Coil, 10 MH
L302,L303	60-623-003	Coil, 23 MH
L202,L203	60-623-004	Coil, 30 MH
R350,R351	50-714-021	Pot, 1K, laydown
R340,R341, R523,R100, R101,R700, R701	50-714-023	Pot, 10 K, laydown
R500	50-714-027	Pot, 25K, laydown
R707	50-714-029	Pot, 10K, upright
R120,R121	50-714-031	Pot, 50K, laydown
R604,R605, R606,R607	50-714-019	Pot, 100 K, upright, green Stackpole Type 20 C
R224,R225, R226,R227	50-714-020	Pot, 50 K, upright, black Stackpole Type 20 C
Q003,Q004, Q100-103, Q200,Q201, Q300-Q303, Q306-Q309, Q312,Q313 Q316,Q317, Q500,Q501, Q600,Q601, Q700,Q701	60-673-006	Transistor, TIS 97
Q002	60-673-008	Transistor, TIP 29
Q001,Q310, Q311	60-674-001	Transistor, MPS 603 (tested 1N 5458)
Q202,Q203, Q304,Q305, Q314,Q315	60-674-003	Transistor, 2N 5087
D300-303, D500-503	60-663-002	Diode, 1N 191
D304-309, D600,D601	60-663-003	Diode, 1N 914
D003	60-663-009	Diode, 1N 756A
S2 (EFG)	50-211-013	RCA Phono Jack, NTT 328, single
S4	50-263-021	Slide Switch, TPDT, Switchcraft XW 1618
S1	50-263-018	Slide Switch, DPTT, Switchcraft XW 1615
S2 (A&B) (C&D)	50-263-020	Slide Switch, TPDTM, Switchcraft XW 1617
S6 (A&B) (C&D) (E&F) S3 (A&B)	50-263-017	Slide Switch, DPDT, Switchcraft

NOTE: The remaining parts are all standard and can be obtained through normal channels.

POWER SUPPLY ASSY. NO. 10-990-060

Symbol	Part Number	Description
S2H	30-427-010	Power Supply Bracket
	90-881-018	Insulator, Terminal Strip
	60-222-016	Terminal Strap
	50-263-004	Slide Switch SPST, Switchcraft 46202L
	40-693-005	Line Cord, Black 6'
C002	60-312-019	Strain Relief Bushing, Heyco SR 2 P 1
	10-980-027	Transformer Assembly
C001	60-613-024	Cap., 1000 MFD 40 V, PC, Electroly
D001, D002	60-632-001	Cap., .005 MFD 1400 V, Ceramic
R005	60-663-010	Diode, TI IN 4002
	60-652-021	Res., 1K Ohm 1 wt. 10%
	60-743-004	Fuse, ½ Amp. Slow-Blow, Pig Tail

SWITCHBODY ASSY. NO. 10-990-062

Symbol	Part Number	Description
	30-423-021	Switchbody
	30-453-032	Spacer Handle
	30-423-022	Switch Handle 2 Pos.
	30-423-023	Switch Handle 3 Pos.
	60-321-021	Nylon Shoulder Washers, Nylomatic N 6505
	30-423-031	Actuator Arm
	50-343-004	Ball Bearing, .156 Dia., Hoover
	30-423-033	Spring Detent, .010 thick plated
	30-453-031	Spacer Pivot
	30-423-030	Actuator Dog
	60-321-022	Nylon Flanged Bearing, Nylomatic N 5111
	60-733-033	Pilot Light Bulb, GE 51
	30-423-032	Shutter, Light

TOP SIDE PANEL ASSY. NO. 10-990-061

Symbol	Part Number	Description
R378,R379	30-415-018	Sidepanel
	30-415-022	Topplate
	50-211-004	RCA Phono Jack, Dual, NTT 352
	50-211-002	RCA Phono Jack, Single, NTT 326
	30-415-019	Overlay-Sidepanel
	60-733-005	Pilot Light Socket
	50-714-024	Pot, 100 K, Stackpole Type I, 5020 Taper (Input level pot)
	50-714-026	Pot, 100 K Dual, Stackpole Type II 5020 Taper, (Master Level Pot M 201)
	50-714-025	Pot, 10 K Dual, Stackpole Type II, 5020 Taper (Output Pot M 201)
	60-654-049	Res., 4 K 7 ¼ wt. 10%
R376,R377		Rockerswitch DPDT, Stackpole RS-50
R380,R381		

BOTTOM PLATE ASSY. NO. 10-990-063

Symbol	Part Number	Description
	10-990-054	PC Board Assembly
	90-881-025	Electrostatic Shield
	90-881-021	Transistor Guard
	30-531-005	Guides, Nylon
	60-321-022	Nylon Flanged Bearing, Nylomatic N 5111
	60-332-010	Spring
	30-423-026	Noise Reduction - Linkage
	30-423-025	CrO ₂ -Linkage
	30-423-028	Meter-Linkage
	30-454-029	Record Play-Linkage
	30-454-005	Tone Button
	40-693-010	RCA Phono Cable E (brown plug)
	40-693-011	RCA Phono Cable B (black plug)
	40-693-012	RCA Phono Cable A (gray plug)

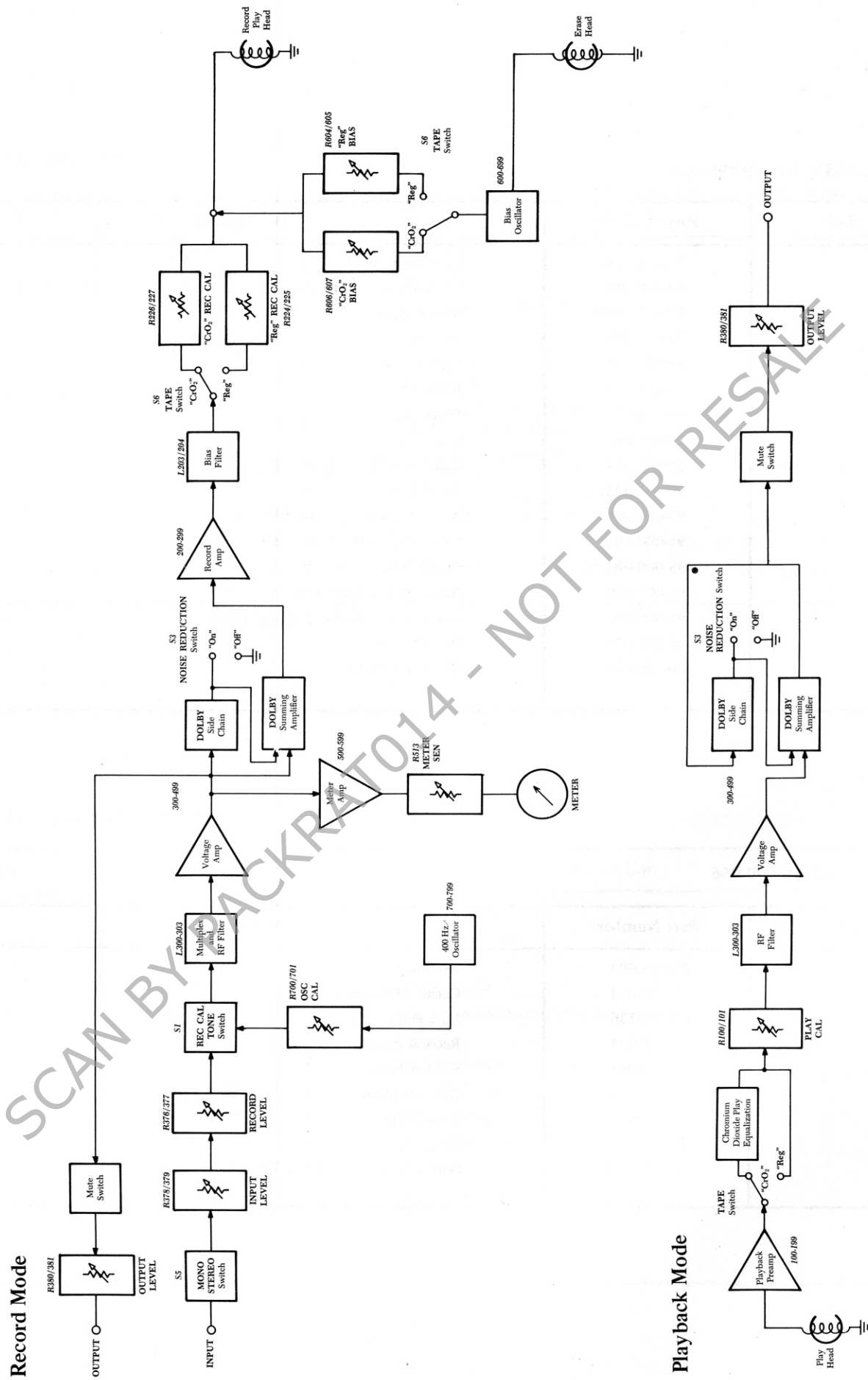
TOP PANEL ASSY. NO. 10-990-065

Symbol	Part Number	Description
	30-535-001	Case Top, Mod.
	30-427-007	Deck Plate
	30-427-008	Name Plate
	30-427-009	Trimplate
	95-000-004	Tape Mirror
	90-881-030	Jewel, Clear
	90-881-031	Jewel, amber
	90-881-032	Jewel, red
	90-881-024	Base Lightshield, Switch Handles
	90-881-022	Shield Foam
	95-000-008	Power Switch Dog (3M 15328050)
	95-000-002	Felt Bumpers (3M 09173750)
	95-000-003	On/Off Nameplate (3M 12327120)
	95-000-010	Power Switch Knob (3M 1532829)
	95-000-007	Power Switch Screw (3M 14327660)
	90-881-029	Meter Stand
	60-786-003	Meter (KPM-6F)

FINAL ASSY. NO. 10-990-066

Symbol	Part Number	Description
	85-938-003	Wood Cabinet
	30-416-012	Corner Mountings
	60-311-136	Hole Plugs
	30-415-021	Rec-Cal Panel
	60-522-001	Rubber Feet
	30-533-015	Knob, medium
	30-533-017	Knob, large
	30-533-010	Knob
	95-000-011	Search Knob (3M 15328680)

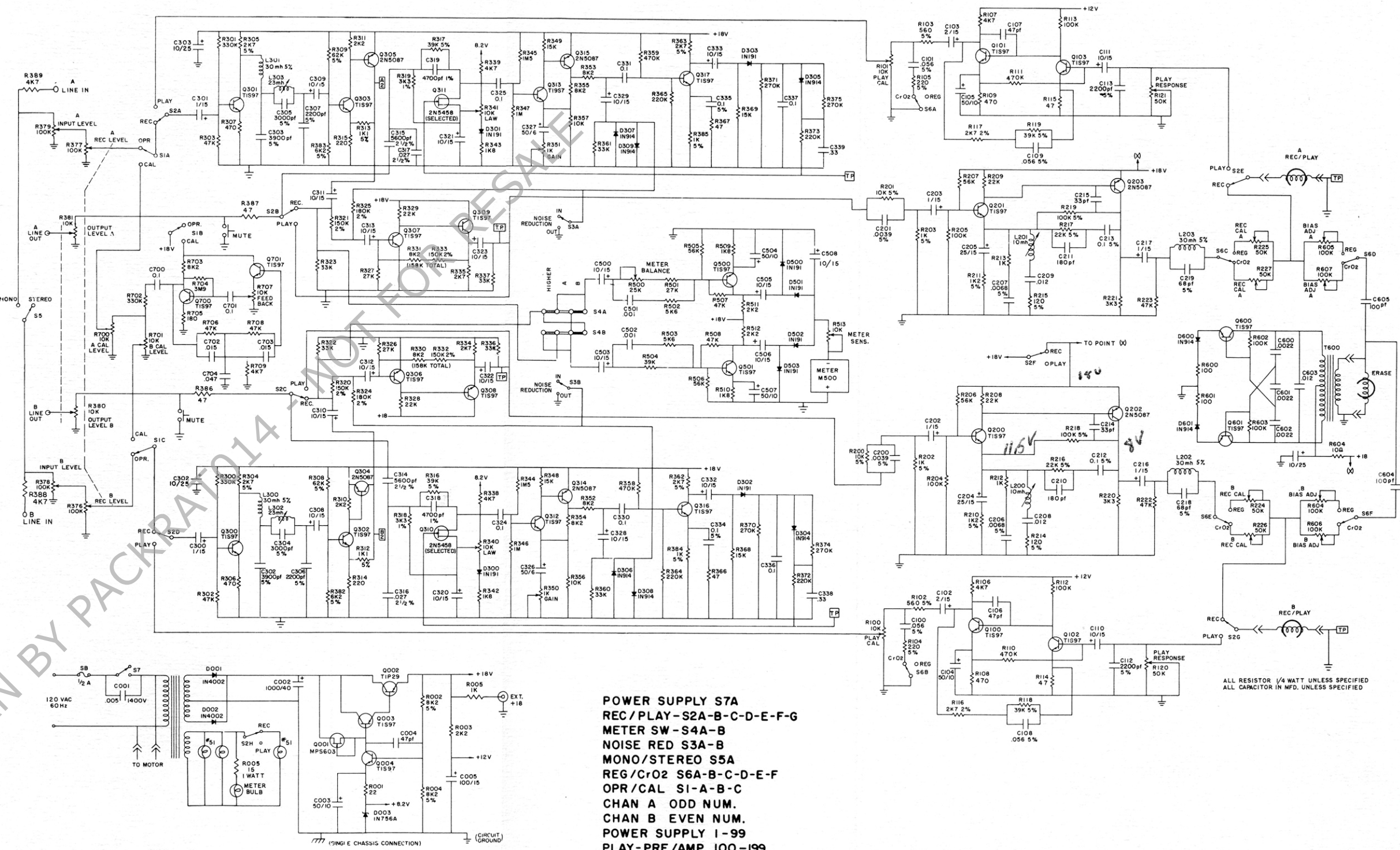
3.7 Block Diagram of the Advent Model 201 (One Channel Only)



Circuit Changes

Starting with serial number C 01379, two 1.5k resistors have been added from the output level control to the A and B line output jacks.

3.8 Schematic



- POWER SUPPLY S7A
- REC/PLAY-S2A-B-C-D-E-F-G
- METER SW-S4A-B
- NOISE RED S3A-B
- MONO/STEREO S5A
- REG/CrO2 S6A-B-C-D-E-F
- OPR/CAL SI-A-B-C
- CHAN A ODD NUM.
- CHAN B EVEN NUM.
- POWER SUPPLY 1-99
- PLAY-PRE/AMP 100-199
- REC-AMP 200-299
- DOLBY CKTS 300-499
- METER AMP 500-599
- BIAS OSC 600-699
- 400 Hz OSC 700-799

M201

Notes for Future Reference

SCAN BY PACKRAT014 - NOT FOR RESALE

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