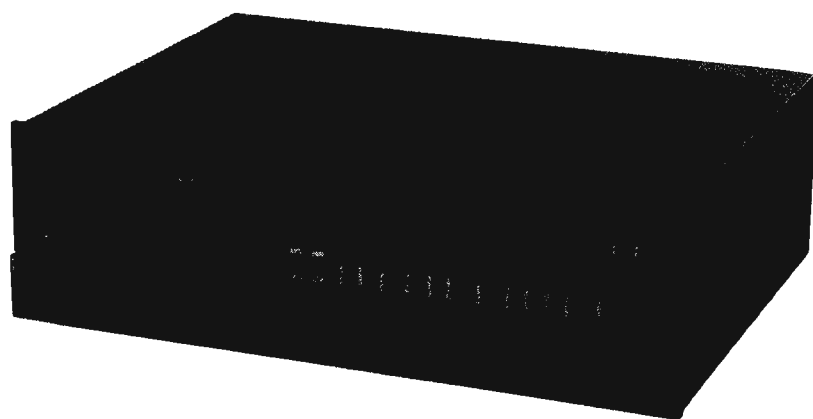


Service Manual

Cassette Deck
RS-M95
 (Black Face)

Quartz Phase Locked Direct-Drive Cassette Deck with
 Microprocessor Tape Tension Control, New 3 Head System



Professional Series

This is the Service Manual for the following areas.

- Ⓓ For All European areas except United Kingdom.
- Ⓔ For United Kingdom.
- Ⓐ For Australia.

RS-M85 MECHANISM SERIES

Specifications

Track system:	4-track 2-channel stereo recording and playback	Inputs:	MIC; sensitivity 0.25mV, input impedance 10k Ω applicable microphone impedance 400 Ω —10k Ω
Tape speed:	4.8cm/s		LINE; sensitivity 60mV, input impedance 60k Ω
Wow and flutter:	0.03% (WRMS), $\pm 0.09\%$ (DIN)	Outputs:	LINE; output level 650mV, output impedance 6k Ω or less, load impedance 2k Ω over
Frequency response: Metal tape;	20—20,000Hz 20—20,000Hz (DIN) 20—20,000Hz ± 3 dB		HEADPHONE; output level 88mV, load impedance 8 Ω
(0VU)	20—13,000Hz ± 3 dB	Bias frequency:	85kHz
CrO ₂ /Fe-Cr tape;	20—20,000Hz 20—19,000Hz (DIN) 20—19,000Hz ± 3 dB	Motor:	2-motor system Capstan; 1-quartz control phase-locked DC brushless direct-drive motor
Normal tape;	20—18,000Hz 20—17,000Hz (DIN) 20—17,000Hz ± 3 dB		Reel table; 1-DC coreless motor
Signal-to-noise ratio: Dolby [®] NR in; 70dB (above 5kHz)		Heads:	3-head system 2-HPF heads for rec/playback (combination type) 1-sensist/ferrite double-gap head for erasure
Dolby NR out; 60dB (signal level=max. recording level, Fe-Cr/CrO ₂ type tape)		Power requirements:	AC; 110/125/220/240V, 50-60Hz
Fast forward and rewind time: Approx. 80 seconds with C-60 cassette tape		Power consumption:	46W (50W for England and Australia)
		Dimensions:	45cm(W) $\times$ 14.2cm(H) $\times$ 34.8cm(D)
		Weight:	12kg

Specifications are subject to change without notice.

* 'Dolby' and the double-D symbol are trademarks of Dolby Laboratories.

Technics

Matsushita Electric Trading Co., Ltd.
 P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS AND COMPONENTS

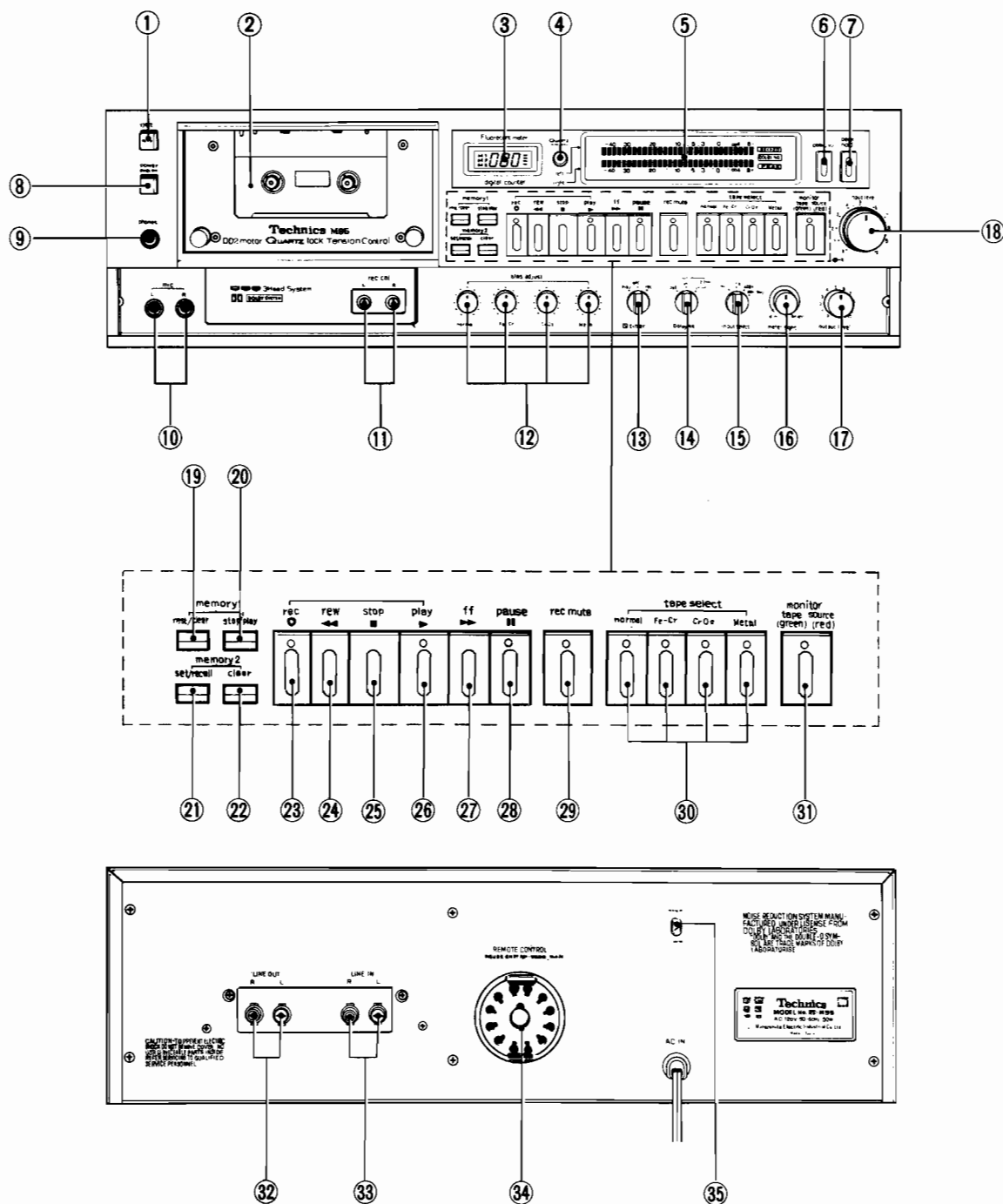


Fig. 1

- | | | |
|----------------------------------|--|---|
| ① Eject button | ⑬ Timer operation selector | ⑳ Stop button |
| ② Cassette compartment door | ⑭ Dolby noise-reduction selector | ㉑ Playback button and playback-indication lamp |
| ③ Digital tape counter | ⑮ Input selector | ㉒ Fast forward button |
| ④ Quartz strobo | ⑯ Meter-brightness control | ㉓ Pause button and pause-indication lamp |
| ⑤ Fluorescent level meter | ⑰ Output-level control | ㉔ Record-muting button and muting-indication lamp |
| ⑥ Peak/VU selector | ⑱ Input-level controls | ㉕ Tape selectors and tape-indication lamps |
| ⑦ Peak-hold selector | ㉑ Memory-1 reset/clear button | ㉖ Monitor selector and LED monitor indicator |
| ⑧ Power switch | ㉒ Memory-1 stop/play button | ㉗ Line-output connection jacks |
| ⑨ Headphones connection jack | ㉓ Memory-2 set/recall button | ㉘ Line-input connection jacks |
| ⑩ Microphone connection jacks | ㉔ Memory-2 clear button | ㉙ Remote-control connector |
| ⑪ Recording-calibration controls | ㉕ Record button and record-indication lamp | ㉚ Voltage selector |
| ⑫ Bias controls | ㉖ Rewind button | |

DISASSEMBLY INSTRUCTIONS

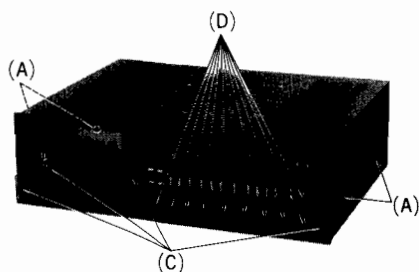


Fig. 2

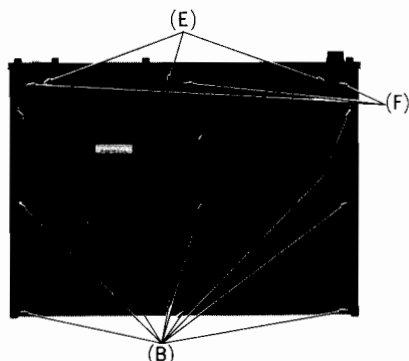


Fig. 3

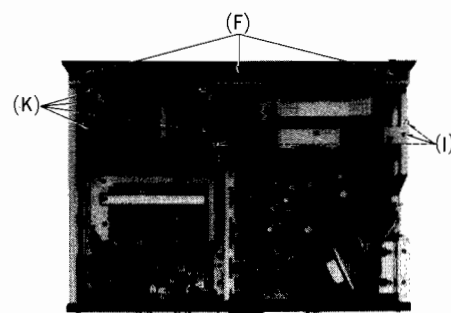


Fig. 4

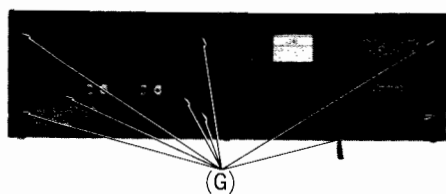


Fig. 5

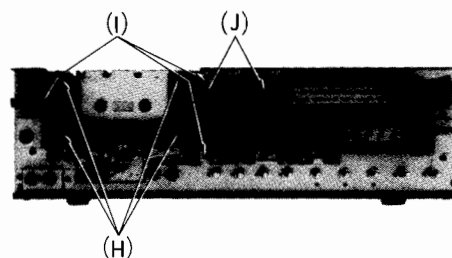


Fig. 6

Procedure	To remove — .	Remove — .	Shown in fig. — .
1	Case cover	• 4 black screws(A)	2
2	Bottom cover	• 9 red screws(B)	3
3	Front panel	• 4 screws(C) • 10 control knobs(D) • 3 screws(E) • 6 black screws(F)	2 2 3 3, 4
4	Back cover	• 8 black screws(G)	5
5	Cassette lid	• 4 black screws(H)	6
6	Mechanism	• 6 screws(I)	4, 6
7	Tape counter	• 2 counter holders(J)	6
8	FL level meter	• 4 screws(K)	4

CIRCUIT BOARDS LOCATION

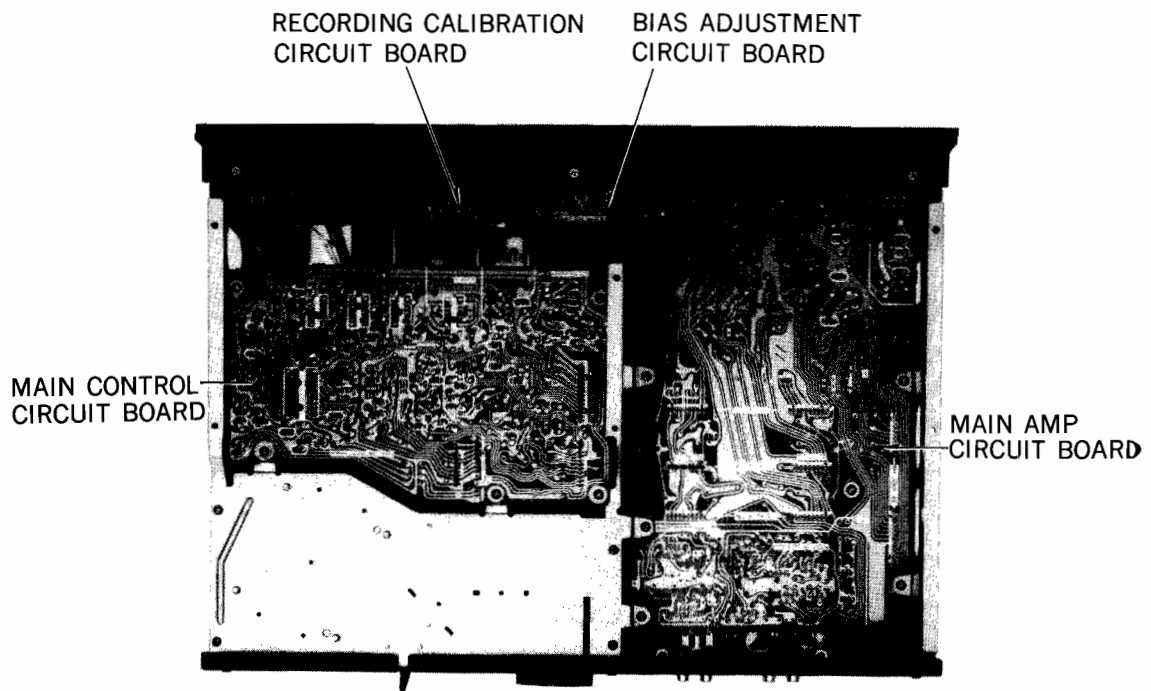
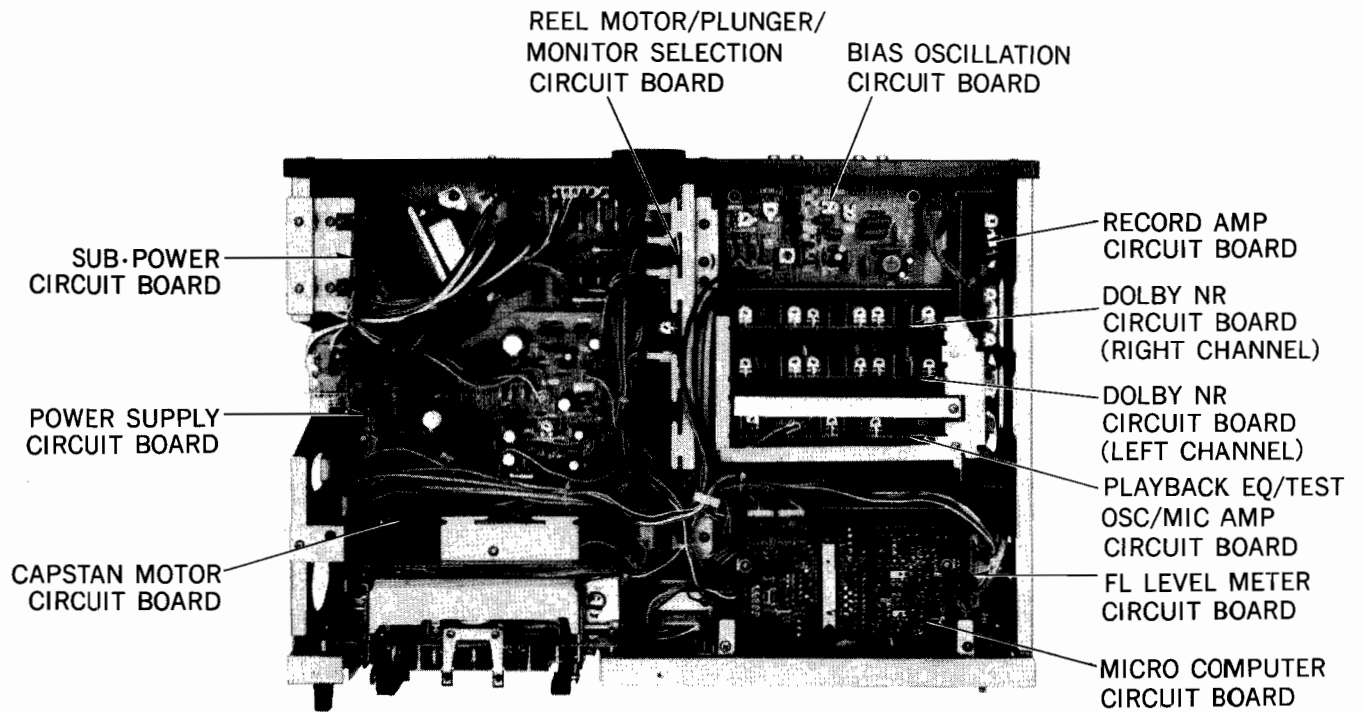
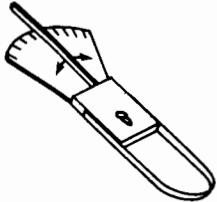
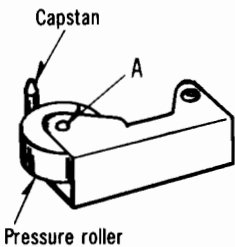
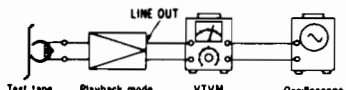
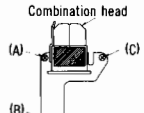
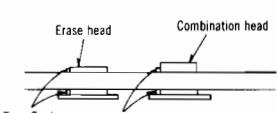
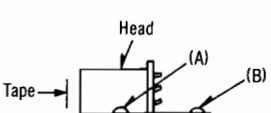


Fig. 7

MEASUREMENT AND ADJUSTMENT METHODS

NOTE:

1. Make sure heads are clean.
2. Make sure capstan and pressure roller are clean.
3. Judgeable room temperature: $20 \pm 5^{\circ}\text{C}$ ($68 \pm 9^{\circ}\text{F}$).
4. Tape selector: Normal.
5. Monitor selector: Tape.
6. Bias adjustment control: Center.
7. Input level control: Maximum.
8. Output level control: Maximum.
9. Dolby NR selector: Out.
10. Input selector: Line.
11. Meter light control: Bright.
12. Peak/VU selector: Peak.
13. Peak hold selector: OFF.
14. Timer selector: OFF.

ITEM	MEASUREMENT & ADJUSTMENT
A Power supply adjustment	+20V adjustment - Connect voltmeter to the test point [20V T.P] on the power circuit board and read voltage. Standard value: $+20 \pm 0.5\text{V}$ - If measured value is not in standard, adjust VR801 as shown in fig. 37.
B Pressure of pressure roller Condition: * Playback mode Equipment: * Tension gauge (max. 500 gr) 	- Place UNIT into playback mode. - Hook tension gauge to pressure roller shaft top (A), and pull gauge in direction opposite to pressure of pressure roller against capstan (See fig. 8). - Read pressure indicated on gauge immediately when pressure roller moves away from capstan and stops rotating. Standard value: $400 \pm 30\text{ gr}$  Fig. 8
C Takeup tension Condition: * Playback mode Equipment: * Cassette torque meter (QZZSRKCT)	- Mount cassette torque meter on UNIT. - Place UNIT into playback mode. - Measure the takeup torque within 15 seconds after starting the playback mode. Standard value: $40 \pm 2\text{ gr-cm}$ - If measured value is not within standard, adjust VR601.
D Combination head adjustment Condition: * Playback mode Equipment: * VTVM * Oscilloscope * Test tape... QZZCRD (Tape path viewer with mirror) * Test tape... QZZCFM (azimuth)	- Test equipment connection is shown in fig. 9. - Playback the test tape (QZZCRD). - In this condition, adjust screws (A) and (B) shown in fig. 10 and 12 so that the tape may not get curled or malformed by tape guides of the erase head and the combination head (fig. 11 shows correct condition). Note: For the combination head carefully adjust the height so that the head surface contacts the tape in parallel shown in fig. 12. - Playback the azimuth tape (QZZCFM 8kHz). - Adjust the combination head angle adjustment screw (C) in fig. 10 so that the output level at LINE OUT becomes maximum. - Measure both channels, and adjust levels for equal output. - After adjustment, lock the head adjustment screws with lacquer.  Fig. 9  Fig. 10  Fig. 11  Fig. 12

ITEM	MEASUREMENT & ADJUSTMENT
E Tape speed Condition: • Playback mode Equipment: • Digital electronic counter • Test tape ... QZZCWAT	Tape speed accuracy 1. Test equipment connection is shown in fig. 13. 2. Playback test tape (QZZCWAT 3,000Hz), and supply playback signal to frequency counter. 3. Measure this frequency. 4. On the basis of 3,000Hz, determine value by following formula: $\text{Tape speed accuracy} = \frac{f - 3,000}{3,000} \times 100 (\%)$ f = measured value 5. Take measurement at middle section of tape. Standard value: $\pm 0.4\%$ Tape speed fluctuation Make measurements in same manner as above (beginning, middle and end of tape), and determine difference between maximum and minimum values and calculate as follows: $\text{Tape speed fluctuation} = \frac{f_2 - f_1}{3,000} \times 100 (\%)$ f_1 = maximum value, f_2 = minimum value Standard value: Less than 0.3%
F Wow and flutter Condition: • Playback mode Equipment: • Wow meter • Test tape ... QZZCWAT	1. Test equipment connection is shown in fig. 14. 2. Use wow test tape (3,000Hz) and measure its playback signal on wow meter. 3. Wow and flutter is expressed in percentage and that measurement can be weighted by JIS network (WRMS). 4. Measure at middle section of test tape. Standard value: 0.04% (WRMS)
G Capstan motor circuit adjustment Condition: • Playback mode Equipment: • DC voltmeter • Oscilloscope	A. Standard DC power supply voltage adjustment 1. Measure the DC voltage between central point of VR703 and ⑥ terminal of IC702 as shown in fig. 15. Standard voltage: $0 \pm 0.05 \text{ V}$ 2. If measured voltage is not within standard, adjust VR703. B. Phase lock point adjustment 1. Measure the DC voltage between ④ terminal of IC702 and ground as shown below. Standard voltage: $5.2 \pm 0.1 \text{ V}$ 2. If measured voltage is not within standard, adjust VR702. C. Position detecting signal output level adjustment 1. Connect oscilloscope to test point (T.P. P.V.). 2. Measure the peak-to-peak voltage of position detection signal of test point with the oscilloscope. 3. If the measured signal voltage is markedly different from the voltage shown below, make the necessary adjustment with VR701.

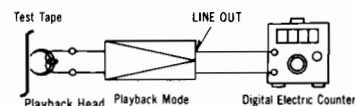


Fig. 13

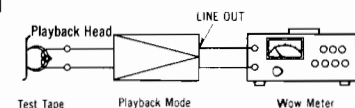


Fig. 14

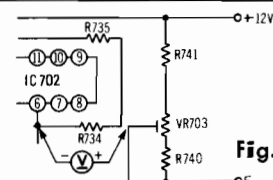


Fig. 15

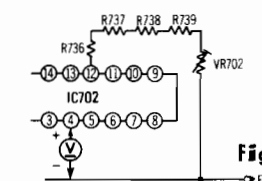


Fig. 16

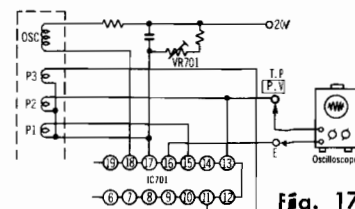


Fig. 17

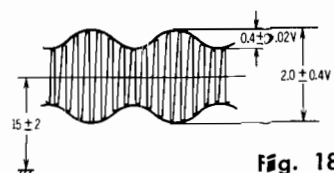
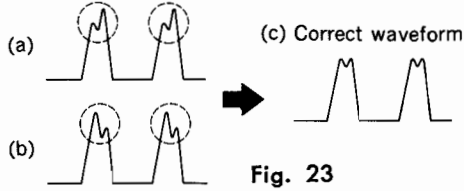
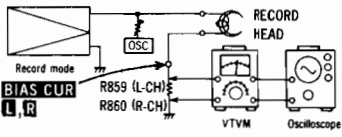
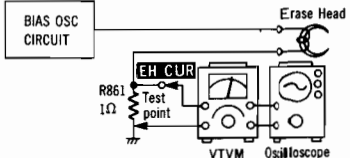
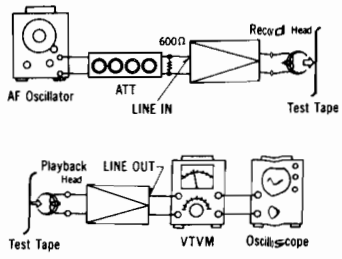
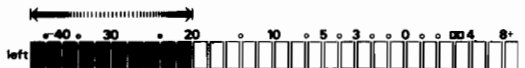
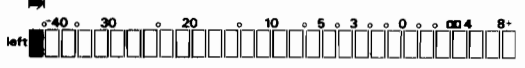
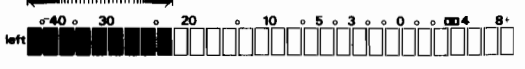
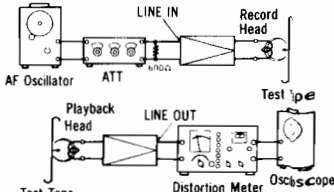
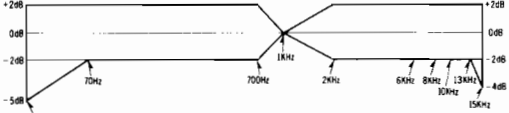
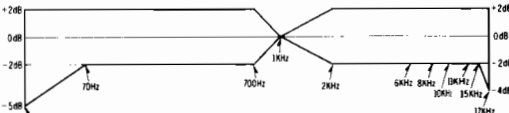
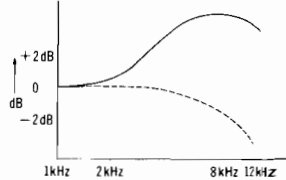
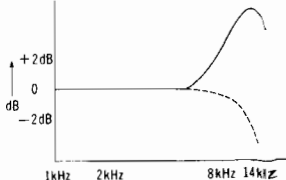


Fig. 18

ITEM	MEASUREMENT & ADJUSTMENT
H Playback frequency response Condition: • Playback mode • Output level control ... MAX Equipment: • VTVM • Oscilloscope • Test tape ... QZZCFM	1. Test equipment connection is as same as "Head azimuth adjustment" but use the test tape (QZZCFM) instead of head azimuth tape (See fig. 9). 2. Place UNIT into playback mode. 3. Playback frequency response test tape (QZZCFM). 4. Measure output level at 12.5kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz and 63Hz and compare output level with standard frequency 315Hz at LINE OUT. 5. Make measurement for both channels. 6. Make sure that the measured value is within the range specified in the frequency response chart. 7. If measured value is not in standard, adjust VR1 (L-CH), VR2 (R-CH) (See fig. 35 on page 9). Playback frequency response chart Fig. 19
I Playback gain Condition: • Playback mode • Output level control ... MAX Equipment: • VTVM • Oscilloscope • Test tape ... QZZCFM	1. Test equipment connection is shown in fig. 9. 2. Playback standard recording level portion on test tape (QZZCFM 315Hz) and, using VTVM, measure the output level at LINE OUT jack. 3. Make measurement for both channels. Standard value: 0.65 ± 0.05 V Adjustment 1. If measured value is not standard, adjust VR101 (L-CH), VR102 (R-CH) (See fig. 37 on page 11). 2. After adjustment, check "Playback frequency response" again.
J Playback S/N ratio Condition: • Playback mode • Output level control ... MAX Equipment: • VTVM • Oscilloscope • Test tape ... QZZCFM • Empty cassette	1. Test equipment connection is shown in fig. 9. 2. Playback standard recording level test tape (QZZCFM 315Hz) and read output level on VTVM. Refer to "Playback gain adjustment". 3. Place empty cassette (which has been cut) and playback again. 4. Measure noise level at this time using VTVM, and determine ratio of this level to test tape output signal voltage (315Hz). Standard value: Greater than 47dB
K Bias leak Condition: • Record mode • Input level control ... MAX Equipment: • VTVM • Oscilloscope	1. Test equipment connection is shown in fig. 20. 2. Place UNIT into record mode. 3. Adjust trap coils L851 (L-CH), L852 (R-CH) so that measured value becomes minimum (See adjustment parts location on page 11). 4. Make adjustment for both channels. Fig. 20
L Record bias amplifier circuit	Transistor base current waveform adjustment A. Lower part of wave form 1. Set the tape selector to the "Metal" position. 2. Press the record and pause buttons. 3. Connect the oscilloscope to 1 (for Q853) and 2 (for Q854). 4. Observe the wave form on the oscilloscope, and adjust VR851 (for Q853) and VR852 (for Q854) so that the lower part of the wave form is as shown in fig. 22. Note: The wave form can be improved by turning VR851 and VR852 counterclockwise. Stop turning VR851 and VR852 immediately after elimination of deformed part of the wave. Fig. 21 Fig. 22

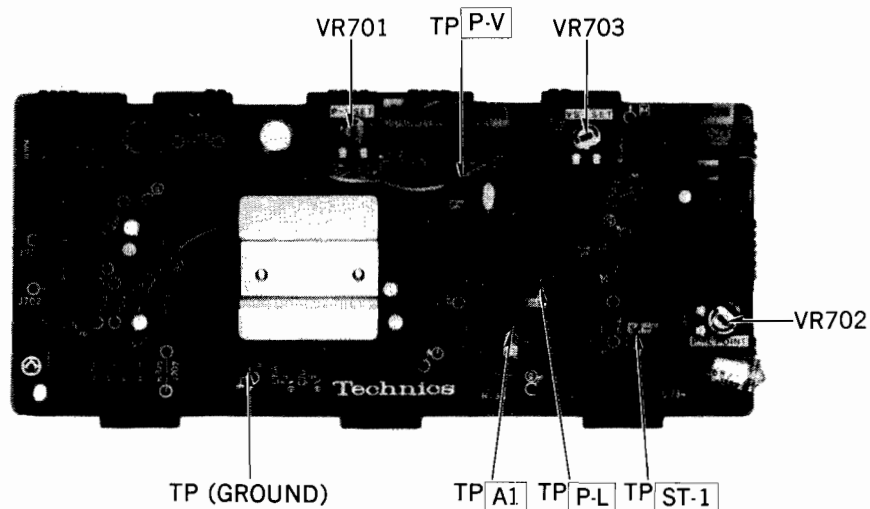
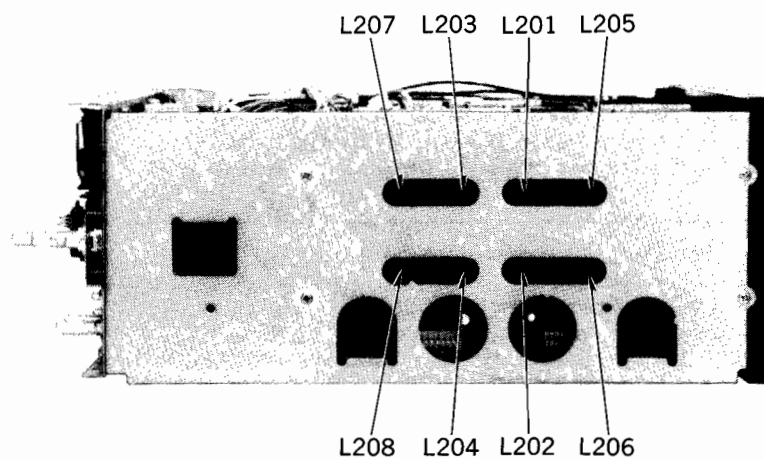
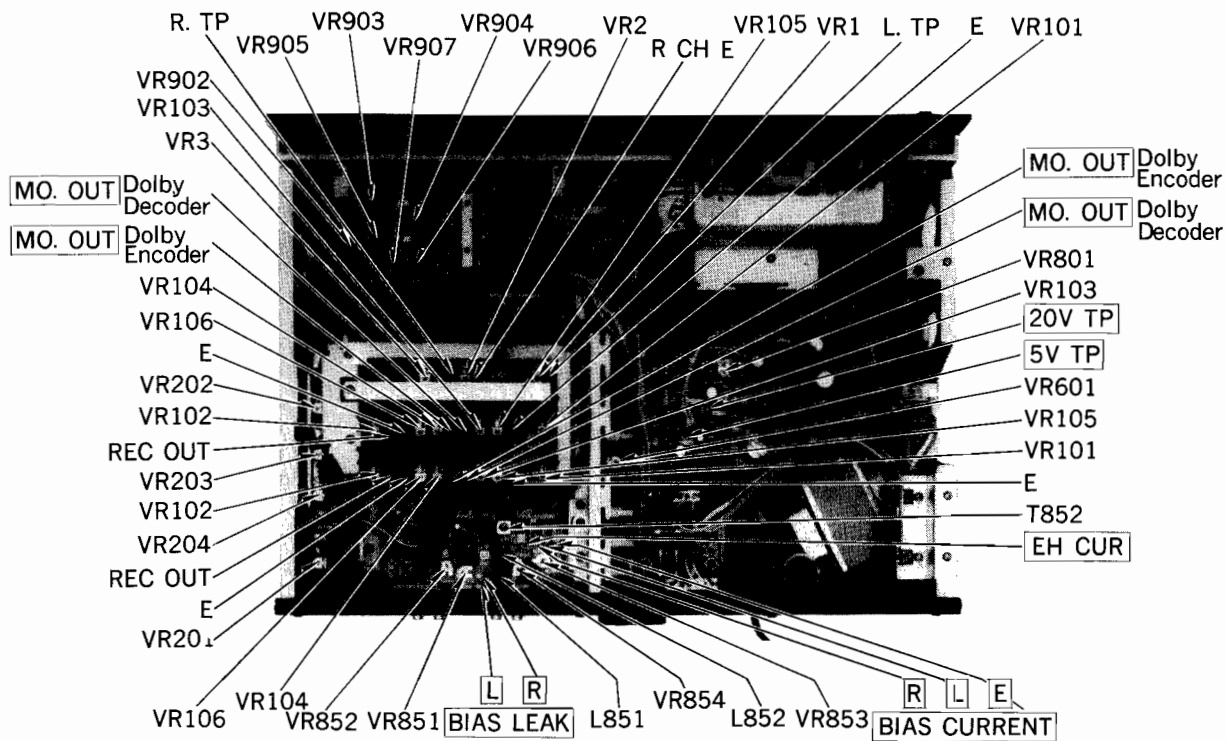
ITEM	MEASUREMENT & ADJUSTMENT
	B. Upper part of wave form 5. After adjusting the lower part of the wave form, observe the upper part of the wave. 6. If the wave form is as symmetrically distorted as shown in fig. 23, adjust T852. Note: If the wave form is observed as in (a), turn T852 clockwise. If the wave form is observed as in (b), turn T852 counterclockwise. In each case to achieve symmetrical pattern as shown in (c).  Fig. 23
M Bias current Condition: * Record mode * Bias adjustment control ... Center Equipment: * VTVM * Oscilloscope	1. Test equipment connection is shown in fig. 24. 2. Press the record and pause buttons. Set the tape selector to normal position. 3. Read voltage on VTVM and calculate bias current by following formula. $\text{Bias current (A)} = \frac{\text{Value read on VTVM (V)}}{10 (\Omega)}$ Standard value: 1.0 ± 0.3 mA 4. Adjust VR853 (L-CH) and VR854 (R-CH) (See adjustment parts location on page 11). 5. Then changing the tape selector to Fe-Cr position measure the bias current. Standard value: 1.1 ± 0.3 mA 6. If measured value is not in standard, adjust VR202. 7. Change the tape selector to CrO₂ position, measure the bias current. Standard value: 1.5 ± 0.4 mA 8. If measured value is not in standard, adjust VR203. 9. Change the tape selector to the "Metal" position, measure the bias current. Standard value: 2.2 ± 0.6 mA 10. If measured value is not in standard, adjust VR204.  Fig. 24
N Erase current Condition: * Record mode * Bias adjustment control ... Center Equipment: * VTVM * Oscilloscope	1. Test equipment connection is shown in fig. 25. 2. Set the tape selector to the "Metal" position. 3. Press the record and pause buttons. 4. Measure voltage on VTVM. 5. Determine erase current with the following formula. $\text{Erase current (A)} = \frac{\text{Voltage across both ends of R861}}{1 (\Omega)}$ Standard value: 95 $\pm$ 5 mA (Metal position) 6. If measured value is not within standard, adjust VR201.  Fig. 25
Overall gain Condition: * Standard input level: MIC -72 ± 3 dB LINE IN ... -24 ± 3 dB Equipment: * AF oscillator * VTVM * ATT * Oscilloscope * Test tape (reference blank tape) ... QZZCRA for Normal	1. Test equipment connection is shown in fig. 26. 2. Set the tape selector to "Normal" position. 3. Supply 1 kHz signal (-24 dB) from AF oscillator, through ATT, to LINE IN. 4. Adjust ATT until source monitor level at LINE OUT becomes 0.65 V. 5. Using test tape, make recording. 6. Then, measure the tape monitor output level at LINE OUT on VTVM. Standard value: 0.65 ± 0.05 V 7. If measured value is not within standard, adjust VR102.  Fig. 26

ITEM	MEASUREMENT & ADJUSTMENT
P Fluorescent level meter Condition: * Record mode * Peak/VU selector ... Peak position Equipment: * VTVM * AF oscillator * ATT	- Test equipment connection is shown in fig. 26. - Set the monitor switch to the "source" position. - Supply 1 kHz signal (-24 ± 3 dB) to the LINE IN jack. - Adjust the ATT so that the source monitor output level of left channel becomes 0.65 V. * The attenuation of ATT at that point is the standard input level. A. Adjustment of "-20dB" indication (Left channel indication) - Attenuate ATT by 20dB from the standard input level. (Then, the source monitor output level is 0.065 V.) - Turn VR903 clockwise completely. - Next, slowly turn VR903 counterclockwise until the "-18 dB" indication on the meter goes out.  Fig. 27 B. Adjustment of "0dB" indication (Left channel indication) - Set the ATT to the standard level. (Then, the source monitor output level is 0.65 V.) - Turn VR907 counterclockwise completely. - Slowly turn VR907 clockwise until the "+1 dB" indication on the meter goes out.  Fig. 28 C. Adjustment of balance between right and left channels. - After the adjustment in B, adjust VR902 (for right channel), if necessary, so that the right channel indication matches the left channel indication.  Fig. 29 D. Adjustment of "-42dB" indication * "-42 dB" indication lights up with power supply turned on. - Attenuate the ATT by 42 dB from the standard input level. (Then, the source monitor output level is 0.0052 V.) - Fully turn VR904 (for L-CH) and VR905 (for R-CH) clockwise. - Slowly turn VR904 and VR905 counterclockwise until the "-40 dB" indication on the meter goes out.  Fig. 30 E. Adjustment of "-22dB" indication - Attenuate the ATT by 22 dB from the standard input level. (Then, the source monitor output level is 0.052 V.) - Turn VR906 counterclockwise completely. - Slowly turn VR906 clockwise until the "-20 dB" indication on the meter goes out.  Fig. 31
Q Overall distortion Equipment: * Distortion meter * AF oscillator * ATT * Oscilloscope * Test tape ... QZZCRA (reference blank tape)	- Test equipment connection is shown in fig. 32. - Set the monitor selector to "source" position. - Supply 315 Hz signal to LINE IN and adjust ATT so that output level at LINE OUT indicates 0.65 V. - Change the monitor selector to "tape" position. - Press the record and playback buttons, and measure distortion factor of tape monitor output signal.  Fig. 32

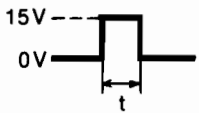
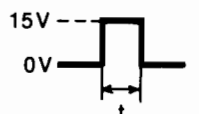
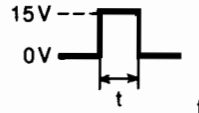
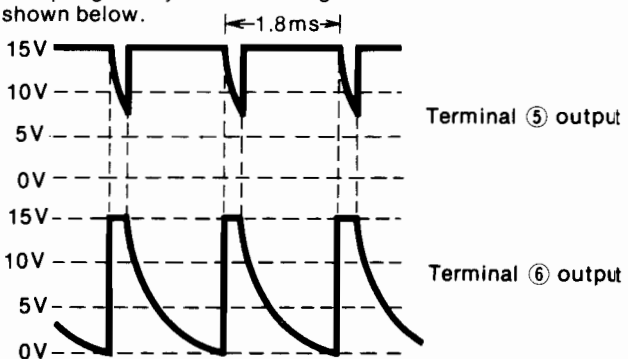
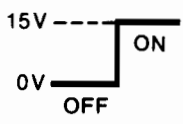
ITEM	MEASUREMENT & ADJUSTMENT
	6. When the distortion factor does not satisfy the standard, check the bias current. When the bias current is lower than standard, distortion will increase. Care should be exercised in the adjustment because the bias current also has an influence on the overall frequency response. Refer to "The overall frequency response" and "The bias current adjustment". Standard value: Less than 2.5%
Ⓡ Overall frequency response Equipment: * VTVM * AF oscillator * ATT * Test tape (reference blank tape) ... QZZCRA for Normal ... QZZCRX for CrO₂ ... QZZCRY for Fe-Cr ... QZZCRZ for Metal Adjustment-1 Adjustment-2	Note: Before measuring and adjusting, make sure of the playback frequency response (For the method of measurement, please refer to the playback frequency response). 1. Test equipment connection is shown in fig. 26. 2. Load reference blank test tape. 3. Set the monitor selector to "source" position. 4. Supply 1 kHz signal from AF oscillator through ATT to LINE IN. 5. Adjust ATT so that input level is -20 dB below standard recording level (standard recording level = 0 VU). 6. At this time, LINE OUT level indicates 0.065 V. 7. Change the monitor selector to "tape" position. 8. Press the record and playback buttons and supply each frequency signals 1 kHz, 30 Hz, 70 Hz, 700 Hz, 6 kHz, 8 kHz, 10 kHz, 13 kHz, 15 kHz and 16 kHz. 9. Measure the tape monitor output level and express in dB the difference between the tape monitor output level of each frequency based on output level of 1 kHz. 10. Make sure that the measured value is within the range specified in the overall frequency response chart. Adjustment-1 Using bias current 1. When the frequency response between the middle and high frequency range becomes higher than the standard value, as shown by the solid line in fig. 35 increase the bias current by turning the following VR. - Normal VR853 (L-CH), VR854 (R-CH) - Fe-Cr VR202 - CrO₂ VR203 - Metal VR204 2. When it becomes lower, as shown by dotted line, reduce the bias current by turning in the direction opposite to arrow indication. Note: 1. For adjustment when the bias current is lower than the standard value use the procedure indicated in adjustment 2, because reducing the bias current beyond this point may worsen the distortion factor. 2. For the method of bias current measurement, refer to "Bias current adjustment" on page 7. Adjustment-2 Using the peaking coil for recording equalization When the frequency response is flat in the middle frequency range and makes a sharp rise or drop in the high frequency range, as shown in fig. 36, adjust by turning the following peaking coils. - Normal L207 (L-CH), L208 (R-CH) - Fe-Cr L205 (L-CH), L206 (R-CH) - CrO₂ L203 (L-CH), L204 (R-CH) - Metal L201 (L-CH), L202 (R-CH) Overall frequency response chart (Normal)  Fig. 33 Overall frequency response chart (Fe-Cr, CrO₂, Metal)  Fig. 34 Fig. 35  Fig. 36 

ITEM	MEASUREMENT & ADJUSTMENT
㊦ Dolby NR circuit Equipment: * VTVM * AF oscillator * ATT * Oscilloscope	A. Dolby encoder block 1. Set the Dolby NR selector to "OUT" position. 2. Supply 5 kHz signal to LINE IN to obtain -35 dB at test point MO. OUT on the Dolby encoder circuit board. 3. Then change the Dolby NR selector to "IN" position. 4. Measure the output level at test point REC OUT. 5. Confirm that the value at "IN" position is 8 dB greater than the value at "OUT" position of Dolby NR selector. Standard value: $+8 \pm 0.5\text{ dB}$ 6. If measured value is not within standard, adjust as follows. ① Set the Dolby NR selector to "IN" position. ② Turn VR104 clockwise completely. ③ At this time, adjust VR106 so that the output level at test point REC OUT becomes -25 dB. ④ Then adjust VR104 so that the output level at test point REC OUT becomes -27 dB. B. Dolby decoder block 1. Set the Dolby NR selector to "OUT" position. 2. Supply 5 kHz signal to test point L.T.P and R.T.P on the playback EQ AMP circuit board and adjust ATT to obtain -27 dB at test point MO. OUT on the Dolby decoder circuit board. 3. Then change the Dolby NR selector to "IN" position. 4. Measure the output level at test point MO. OUT. 5. Confirm that the value at "IN" position is 8 dB smaller than the value at "OUT" position of Dolby NR selector. Standard value: $-8 \pm 0.5\text{ dB}$ 6. If measured value is not within standard, adjust as follows. ① Set the Dolby NR selector to "IN" position. ② Turn VR103 counterclockwise. ③ At this time, adjust VR105 so that the output level at test point MO. OUT becomes -37 dB. ④ Then adjust VR103 so that the output level at test point MO. OUT becomes -35 dB.
㊦ Overall S/N ratio Equipment: * VTVM * AF oscillator * ATT * Oscilloscope * Test tape ... QZZCRX (reference blank tape)	1. Test equipment connection is shown in fig. 26. 2. Set the monitor selector to tape position and tape selector to CrO₂ position. 3. Load reference blank test tape (QZZCRX). 4. Press the record and playback buttons. 5. Supply 1 kHz signal to LINE IN and adjust ATT so that tape monitor output level at LINE OUT indicates 0.65 V. 6. Then, disconnect input plug to LINE IN. 7. Measure tape monitor output signal levels of 1 kHz and no signal level (noise), and determine the ratio in decibels (dB). 8. The value is difference between "Playback S/N and overall S/N", but for decibel calculation refer to "Playback S/N measurement" on page 6. Standard value: Greater than 45 dB (without NAB filter)
㊦ Test oscillator	Test oscillation level 1. Set the input selector to "400 Hz/8 kHz" position and monitor selector to "source" position. 2. Press the record and pause buttons. 3. Measure the output level of LEFT (400 Hz) and RIGHT (8 kHz) channels at LINE OUT. Standard value: Same level 4. If output levels are not same, adjust VR3.

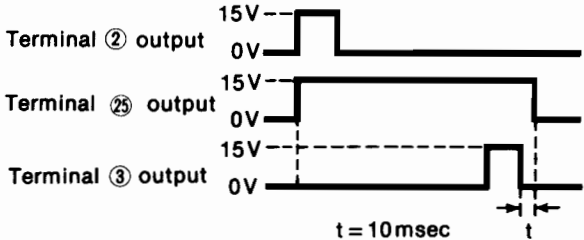
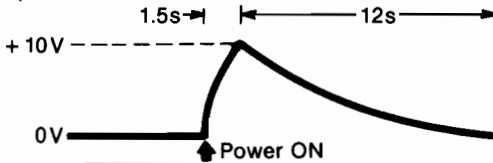
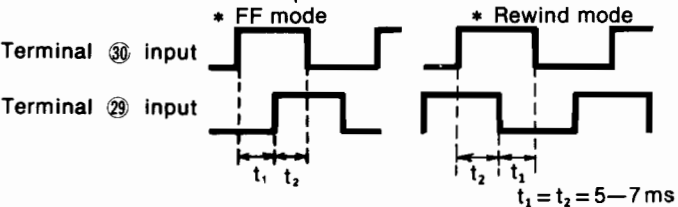
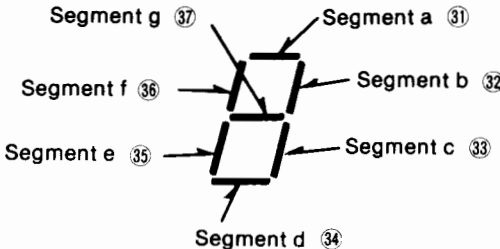
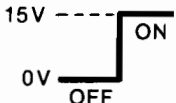
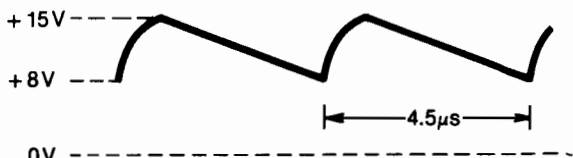
ADJUSTMENT PARTS LOCATION



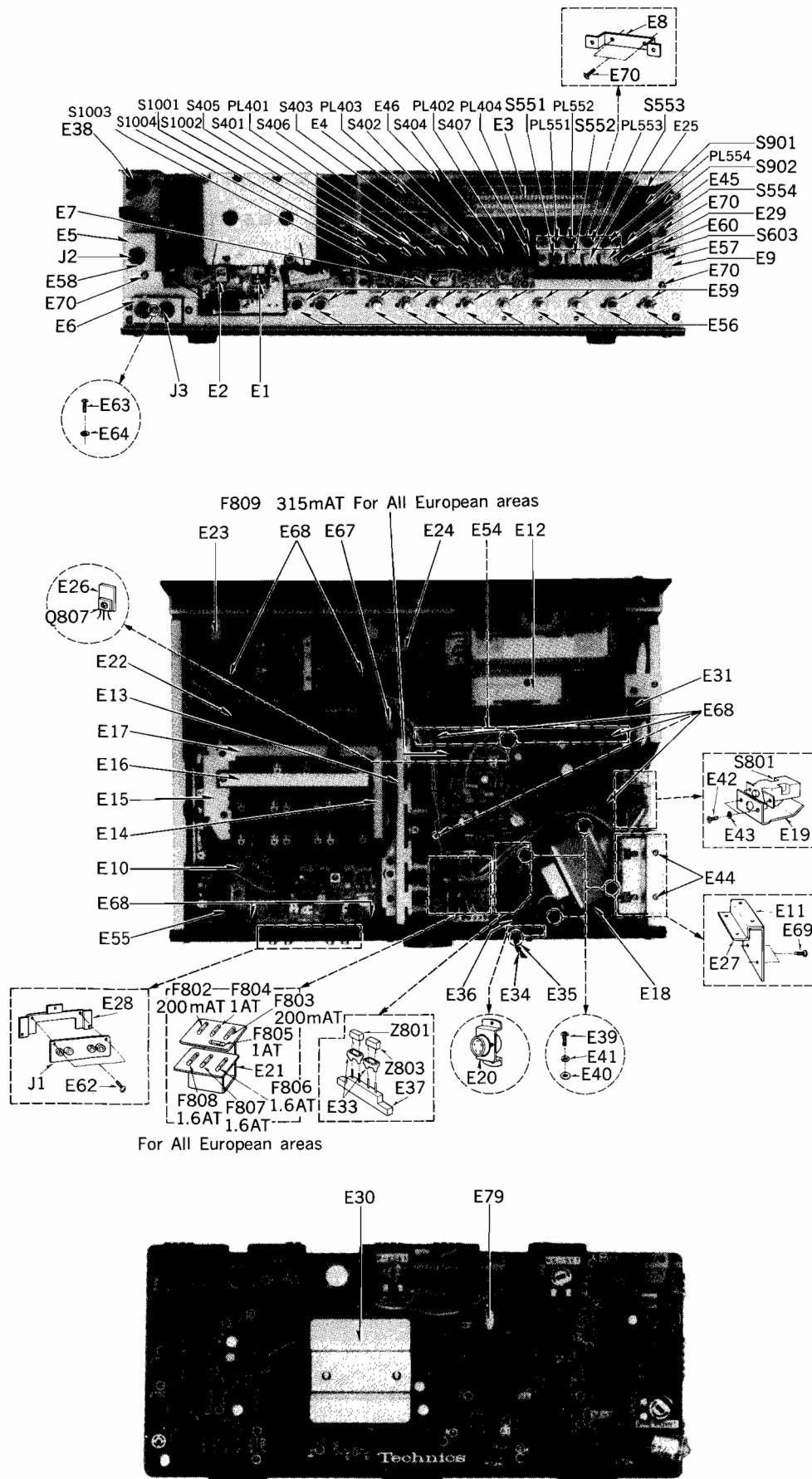
MICROCOMPUTER TERMINAL OPERATION TABLE

Terminal No.	Symbol	Name	Function/Operation
①	VSS		Power $15V \pm 0.5V$
②	CO11	C-port output	- Emits Play operation signal in memory PLAY mode. - Emits temporary PLAY operation signal for focusing stop in memory STOP mode.  $t = 0.1 - 1 \text{ msec}$
③	CO10	C-port output	Emits STOP operation signal in memory PLAY, memory STOP, and AUTO STOP modes.  $t = 0.6 - 1 \text{ msec}$
④	CO9	C-port output	Emits REW operation signal in memory REW mode.  $t = 0.6 - 1 \text{ msec}$
⑤ ⑥	CO8 CO7	C-port output	The output gives dynamic scan signal to S1003 and S1004 as shown below.  Terminal ⑤ output Terminal ⑥ output
⑦ ⑧ ⑨	CO6 CO5 CO4	C-port output	- Emits the signals to indicate M1, MP, M2 on the digital counter. - Terminal ⑦for M2 - Terminal ⑧for MP - Terminal ⑨for M1  ON OFF

Terminal No.	Symbol	Name	Function/Operation																				
⑩ ⑪ ⑫ ⑬	CO3 CO2 CO1 CO0	C-port output	Sends scan signal to each grid of digital counter to turn on grids G1—G4 Terminal ⑩ output Terminal ⑪ output Terminal ⑫ output Terminal ⑬ output																				
⑭ ⑮ ⑯ ⑰	AI3 AI2 AI1 AI0	A-port input	- Reads in each control mode of REW, FF, PLAY, REC. - Terminal ⑭ input..... $\ominus$ in REW mode - Terminal ⑮ input..... $\ominus$ in FF mode - Terminal ⑯ input..... $\ominus$ in PLAY mode - Terminal ⑰ input..... $\ominus$ in REC mode * $\ominus$ Level = +15V																				
⑱	BI3	B-port input	Reads in 0.94Hz signal (about 1 sec. interval) from strobo illumination divider circuit to use it as the reference interval for take-up tension control. $t = 1.06 \text{ sec}$																				
⑲	BI2	B-port input	With memory switch S1003 or S1004 pressed, it reads in scan signal from terminal (5) or (6) to check the status of control of S1003 and S1004. With S1003 pressed With S1004 pressed																				
⑳ ㉑	BI1 BI0	B-port input	- With memory switches S1001 and S1002 pressed, it reads in $\ominus$ signal. - Terminal ⑳ input.....S1002 - Terminal ㉑ input.....S1001 $t = \text{switch pressing time}$																				
㉒ ㉓	EO0 EO1	E-port output	- Sends 2-bit tension control signal to the reel motor drive circuit. - At start of PLAY, terminal ㉒ output is $\ominus$ and ㉓ output is $\ominus$ for 15 sec. irrespective of tape winding diameter. - After that, signals shown below are emitted according to the tape diameter. <table border="1"> <thead> <tr> <th>Tape travel</th><th>㉒</th><th>㉓</th><th>Motor torque</th></tr> </thead> <tbody> <tr> <td>Start</td><td>$\ominus$</td><td>$\ominus$</td><td>Low</td></tr> <tr> <td>↓</td><td>$\ominus$</td><td>$\ominus$</td><td>↓</td></tr> <tr> <td>↓</td><td>$\ominus$</td><td>$\ominus$</td><td>↓</td></tr> <tr> <td>End</td><td>$\ominus$</td><td>$\ominus$</td><td>High</td></tr> </tbody> </table>	Tape travel	㉒	㉓	Motor torque	Start	$\ominus$	$\ominus$	Low	↓	$\ominus$	$\ominus$	↓	↓	$\ominus$	$\ominus$	↓	End	$\ominus$	$\ominus$	High
Tape travel	㉒	㉓	Motor torque																				
Start	$\ominus$	$\ominus$	Low																				
↓	$\ominus$	$\ominus$	↓																				
↓	$\ominus$	$\ominus$	↓																				
End	$\ominus$	$\ominus$	High																				

Terminal No.	Symbol	Name	Function/Operation
②⑤	EO3	E-port output	Delivers an output, to ground the signal going to LINE OUT, for muting purposes during focusing of memory STOP (M1, M2). 
②⑦	RST	Reset	Initiates computer instruction at address "0". 
②⑨ ③①	SNS0 SNS1	Sense input	Reads in the rotational state of reel table from hall IC output in order to obtain the following functions. Functions: Tape tension control. Digital counter indication (tape travel) Full auto stop. 
③① ③② ③③ ③④ ③⑤ ③⑥ ③⑦	DO0 DO1 DO2 DO3 DO4 DO5 DO6	D-port output	Emits the signal to activate each segment for the indication of tape travel amount on the digital tape counter. Relationship between terminal and segment.  
④①	OSC	Oscillation input	This is the control terminal of oscillation circuit for producing the clock signal on which the computer operation is based.  Note: Do not connect the probe of oscilloscope to this terminal directly, otherwise the oscillation frequency may vary.

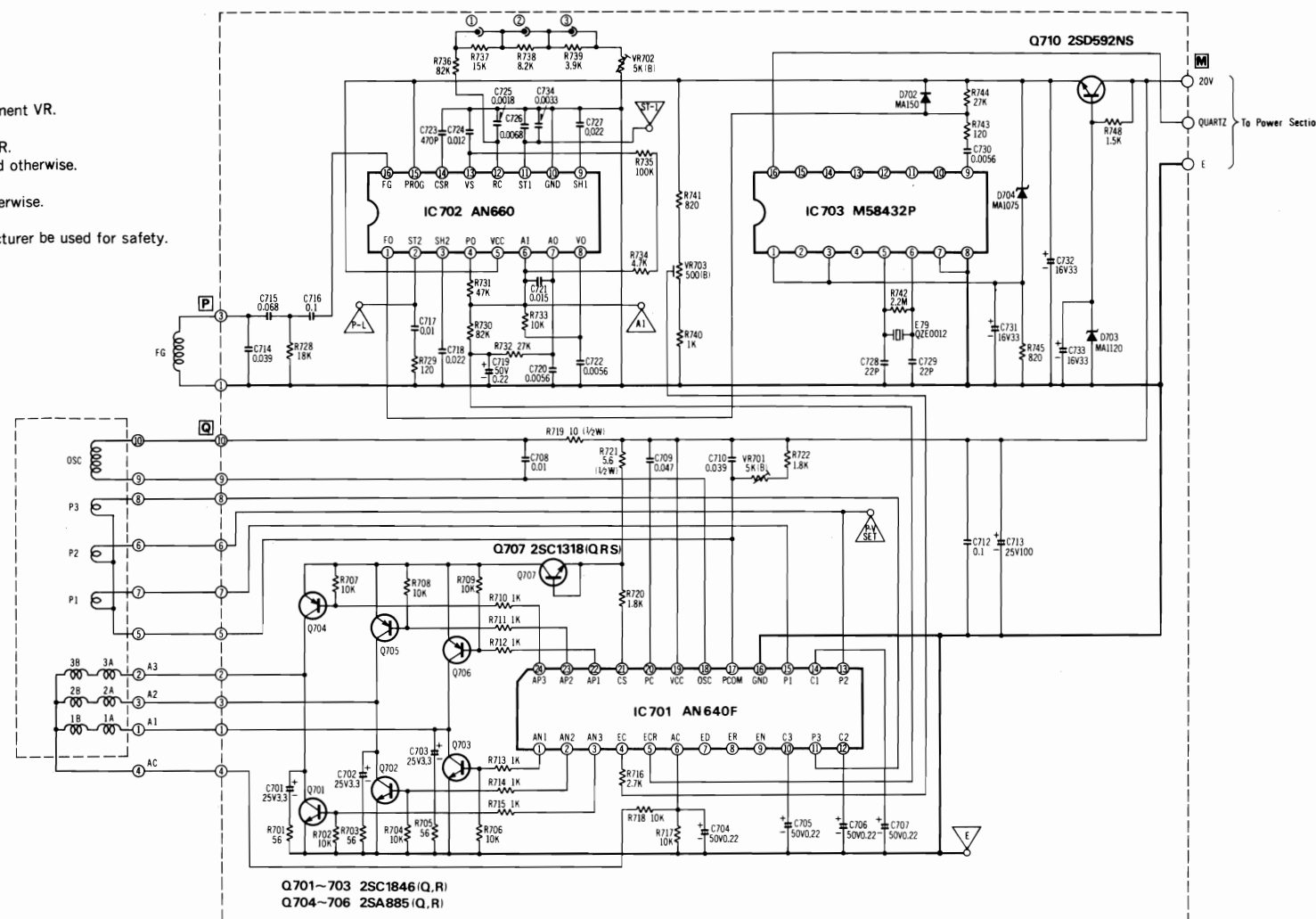
ELECTRICAL PARTS LOCATION



Ref. No.	Part No.	Part Name & Description
ELECTRICAL PARTS		
E1	WY1403Z	Combination Head (Record/Playback)
E2	QWY2137Z	Erase Head
E3	QSL5005RF	Fluorescent Level Meter
E4	QZE0027	Digital Tape Counter
E5	QMA3623	Headphones Jack Angle
E6	QMA3624	Microphone Jack Angle
E7	QMA3627	Circuit Board Angle
E8	QMA3626	Switch Angle-B
E9	QMA3625	Volume Angle
E10	QMA3682	Circuit Board Angle
E11	QTH1145	Heat Sink-A
E12	QMA3643	Motor Circuit Board Angle-B
E13	QMA3638	Control Circuit Board Angle
E14	QMA3640	Dolby NR Circuit Board Angle
E15	QMA3639	Record Circuit Board Angle
E16	QTS1457	Shield Plate
E17	QTS1472	Shield Plate-A
E18	QMA3635	Transformer Angle
E19	QMA3637	Switch Angle
E20	QMA2885	AC Power Voltage Select Switch Angle
E21	QMA3804	Fuse Angle
*For All European areas.		
E22	QMA3629	Meter Angle-A
E23	QMA3630	Meter Angle-B
E24	QMA3641	Circuit Board Angle-A
E25	QMH2045	Meter Holding Angle
E26	QTH1118	Heat Sink
E27	QTH1146	Heat Sink-B
E28	QMA3300	Jack Board Angle
E29	QMA3628	Switch Angle-A
E30	QTH1136	Heat Sink
E31	QXR0441	Push Button Assembly
E33	QTW1118	Spark Killer Cover
E34	QFC1204M	AC Power Cord
*For All European areas except United Kingdom.		
	QFC1205M	"
*For United Kingdom.		
	QFC1208M	"
*For Australia.		
E35	QBJ1425	Cord Bushing
E36	QTD1164	Cord Clamper
E37	QJT4017	4 Pin Terminal
E38	QKJ0242	Cap
E39	XSN4+8S	Screw $\pm 4 \times 8$
E40	XWA4B	Washer
E41	XWG4	"
E42	XSN3+5S	Screw $\pm 3 \times 5$
E43	XWA3B	Washer
E44	XTN3+8B	Tapping Screw $\pm 3 \times 8$
E45	QMH2043	LED Holder
E46	QMH2044	Counter Holder
E47	QJT1053	Contact-A
E48	QJT1054	Contact-B
E49	QJS1923TN	9 Pin Connector
E50	QJS1925TN	15 Pin Connector
E51	QJS1924TN	12 Pin Connector
E52	QJS1922TN	6 Pin Connector
E53	QJS1921TN	3 Pin Connector
E54	QMA3636	Circuit Board Angle
E55	QMA3633	Shield Angle
E56	QNQ1004	Nut 8 ϕ
E57	QNQ1039	Nut 9 ϕ
E58	QNQ1070	Nut 12 ϕ
E59	QWQ2002	Washer 8 ϕ
E60	QWQ1133	Washer 9 ϕ
E61	QJS1923TNL	9 Pin Connector
E62	XSN3+6S	Screw $\pm 3 \times 6$
E63	XSN3+5S	Screw $\pm 3 \times 5$
E64	XWA3B	Washer
E65	QJP1925TNL	15 Pin Plug
E66	QJP1924TNL	12 Pin Plug
E67	QTD1250XN	Cord Clamper
E68	XTW3+8B	Tapping Screw $\pm 3 \times 8$
E69	XSS3+5S	Screw $\pm 3 \times 5$
E70	XTN3+6B	Tapping Screw $\pm 3 \times 6$
E71	QJP1922TN	6 Pin Post
E72	QJP1923TN	9 Pin Post
E73	QJP1922TNL	6 Pin Post
E74	QJP1923TNL	9 Pin Post
E75	XSN3+20S	Screw $\pm 3 \times 20$
E76	QJP1924TN	12 Pin Post
E77	QJP1925TN	15 Pin Post
E78	QJP1921TN	3 Pin Post
E79	QZE0012	Crystal

Capstan Motor Section

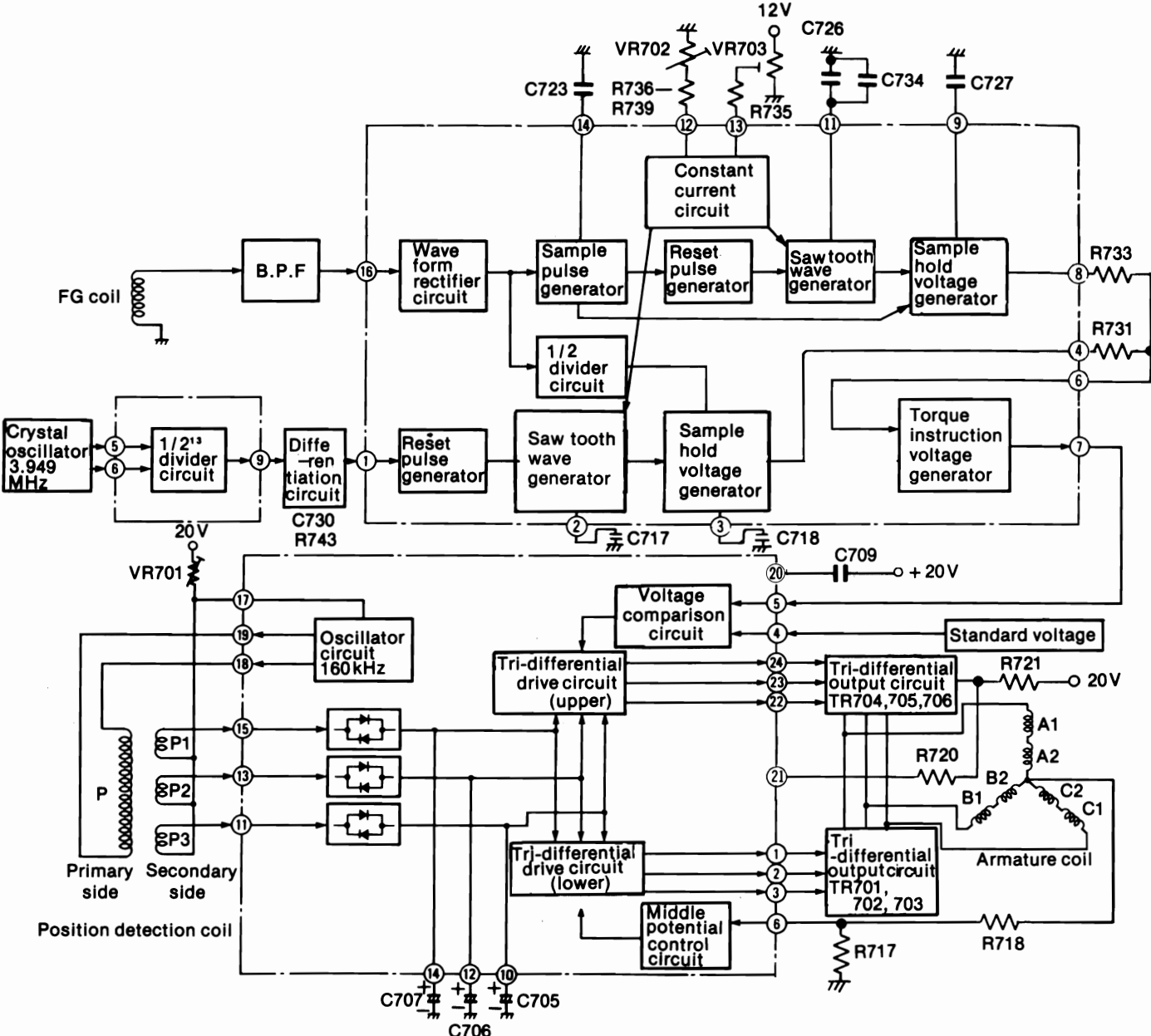
detection coil output level adjustment VR.
ck point adjustment VR.
DC power voltage adjustment VR.
ms (Ω), 1/4 watt unless specified otherwise.
ofarads (μ F) unless specified otherwise.
y parts specified by the manufacturer be used for safety.



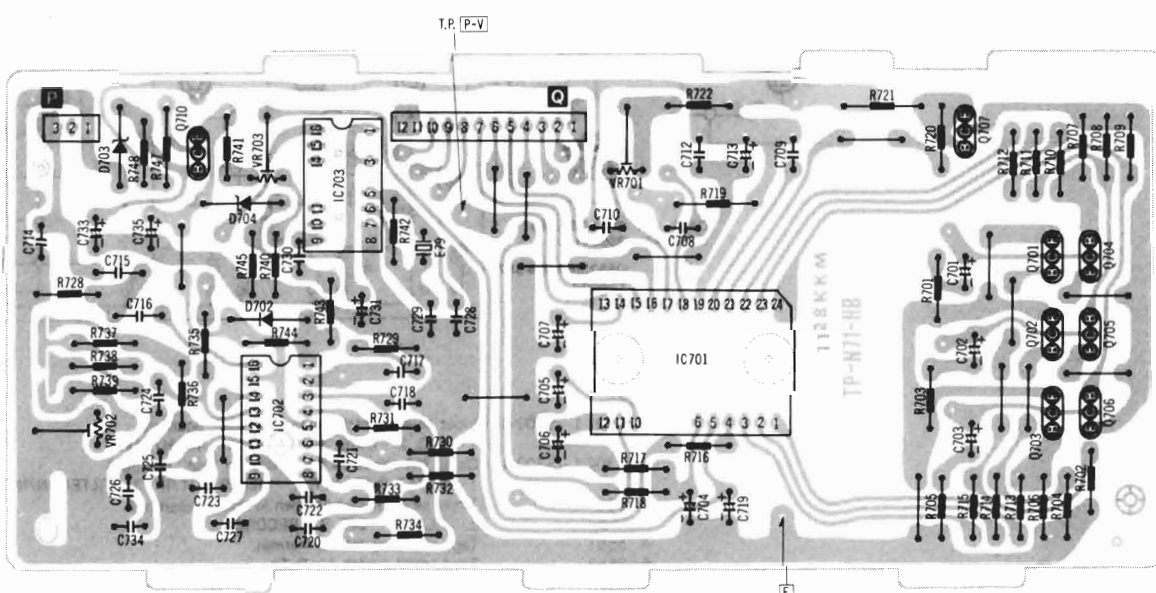
WAVE FORM IC703 and IC702 (CAPSTAN MOTOR SECTION)

Terminal No.	Measured Wave Form	Terminal No.	Measured Wave Form	Terminal No.	Measured Wave Form
IC703 5, 6	around 4.2V Crystal signal	IC702 16	around 6V FG signal	IC702 3, 4	around 5V
IC703 9	around 5V around 0V 2ms	IC702 14	around 8V around 0V 1ms	IC702 6	around 6.5V
IC702 1	around 12V around 7V	IC702 11	around 6V around 0V	IC702 7	around 7.4V
IC702 2	around 3V around 1.4V	IC702 9	around 6.4V	IC702 8	around 6.6V

BLOCK DIAGRAM (CAPSTAN MOTOR SECTION)

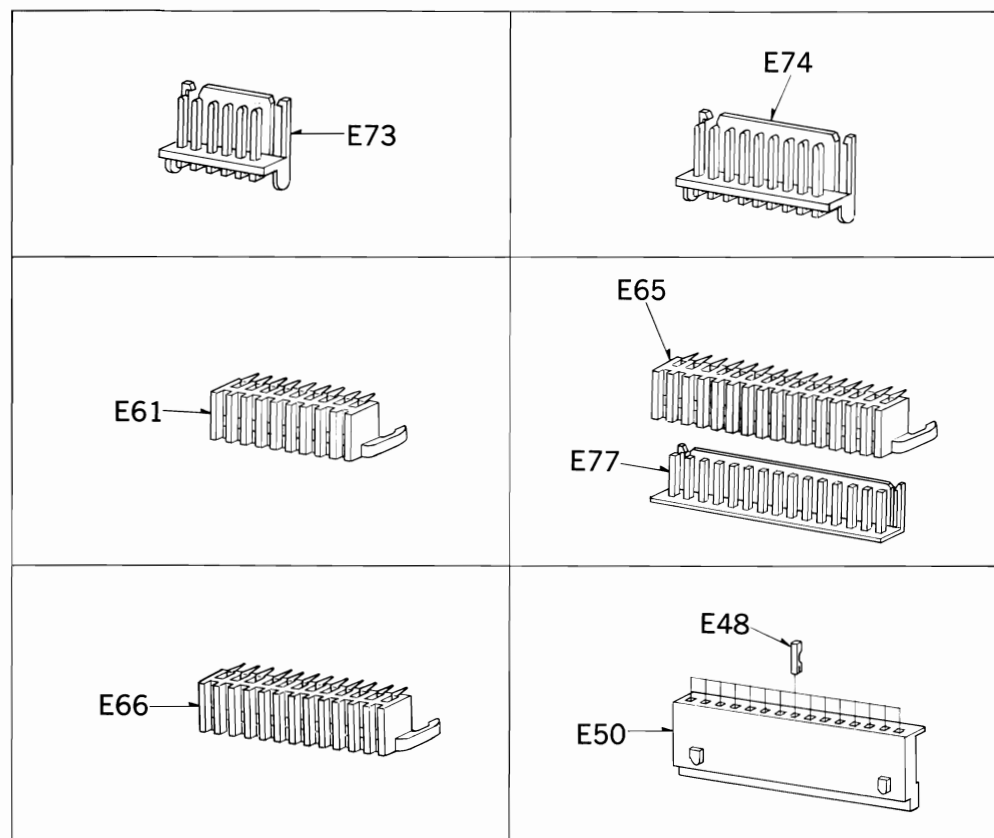
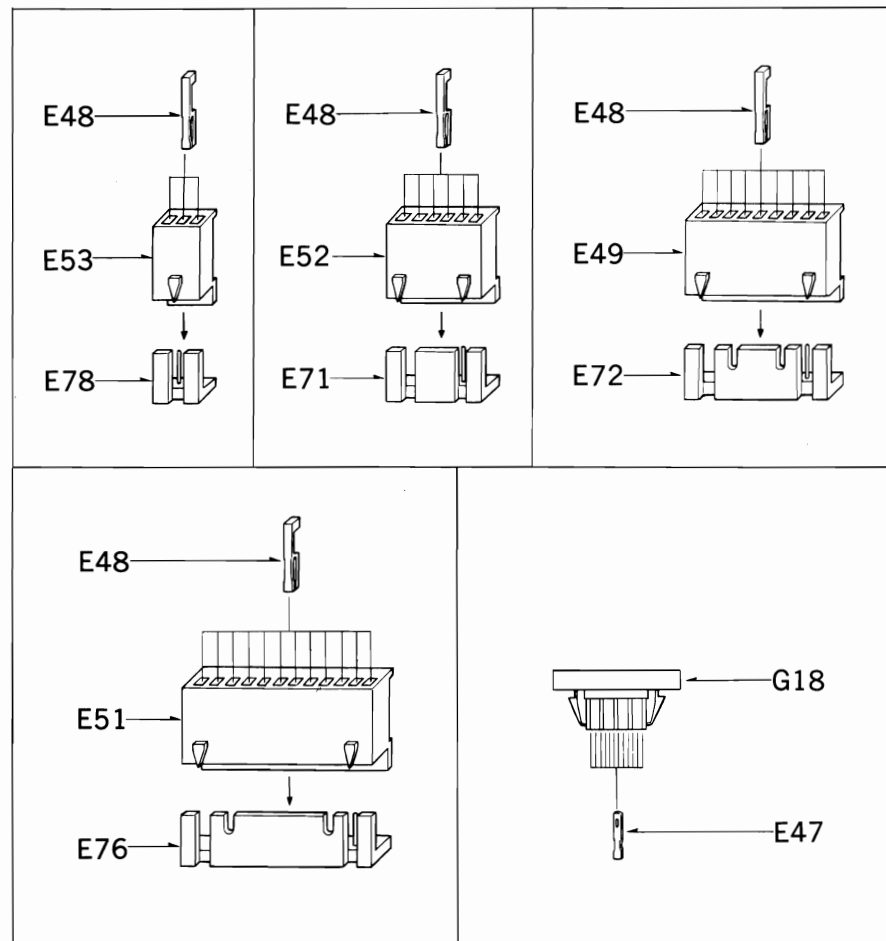


CAPSTAN MOTOR CIRCUIT BOARD



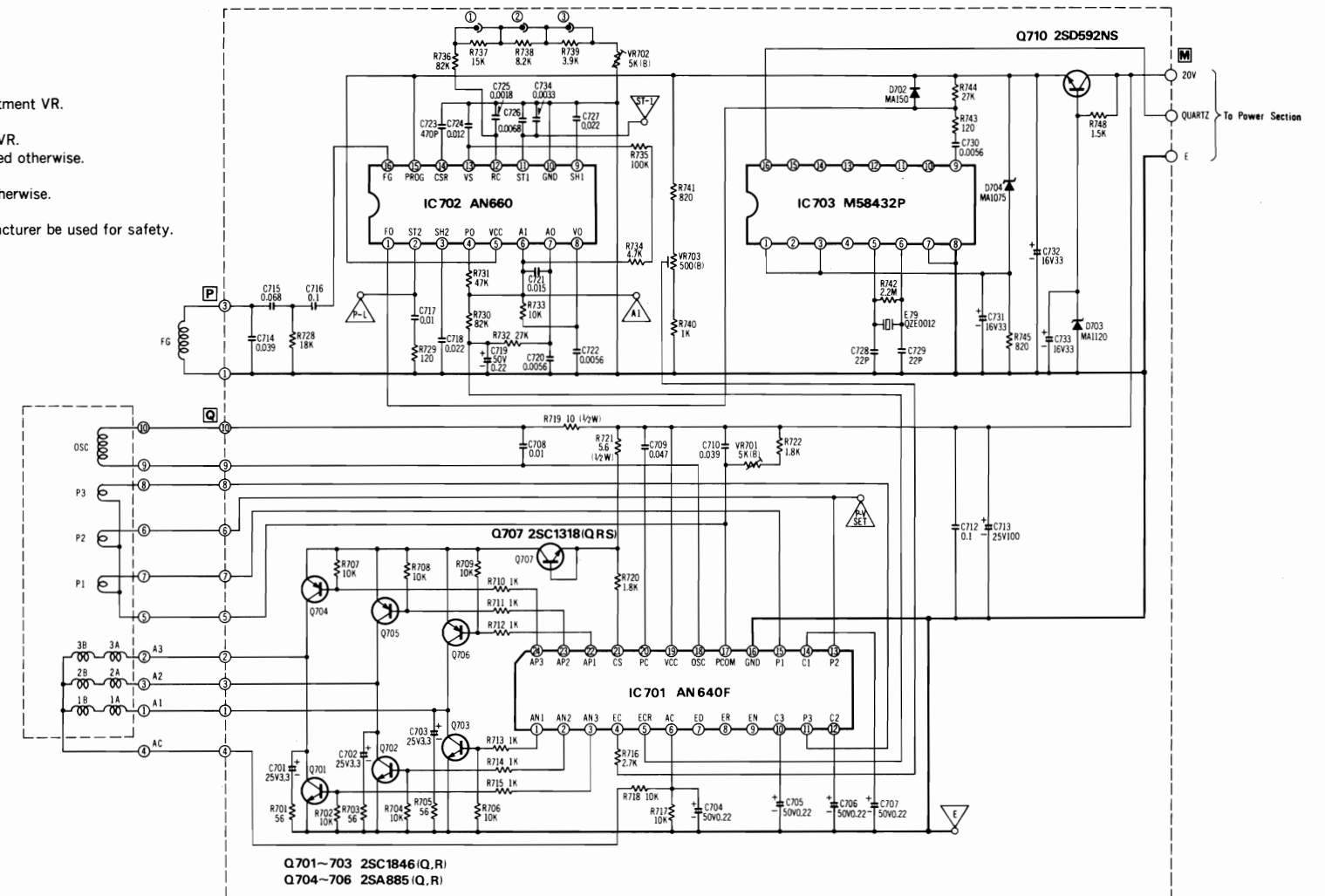
NOTE: The circuit shown in red on the conductor is +B (bias) circuit.

Capstan Motor Section



NOTE:

1. VR701.....Position detection coil output level adjustment VR.
2. VR702.....Phase lock point adjustment VR.
3. VR703.....Standard DC power voltage adjustment VR.
4. Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
K=1,000 Ω .
5. Capacity are in microfarads (μ F) unless specified otherwise.
P=Pico-farads.
6. Δ indicates that only parts specified by the manufacturer be used for safety.



WAVE FORM IC703 and IC702 (CAPSTAN MOTOR SECTION)

Terminal No.	Measured Wave Form	Terminal No.	Measured Wave Form	Terminal No.	Measured Wave Form
IC703 5, 6	around 4.2V $\rightarrow$ Crystal signal	IC702 16	around 6V $\rightarrow$ FG signal	IC702 3,4	around 5V $\rightarrow$
IC703 9	around 5V $\rightarrow$ around 0V $\rightarrow$ 2ms	IC702 14	around 8V $\rightarrow$ around 0V $\rightarrow$ 1ms	IC702 6	around 6.5V $\rightarrow$
IC702 1	around 12V $\rightarrow$ around 7V $\rightarrow$	IC702 11	around 6V $\rightarrow$ around 0V $\rightarrow$	IC702 7	around 7.4V $\rightarrow$
IC702 2	around 3V $\rightarrow$ around 1.4V $\rightarrow$	IC702 9	around 6.4V $\rightarrow$	IC702 8	around 6.6V $\rightarrow$

FG coil

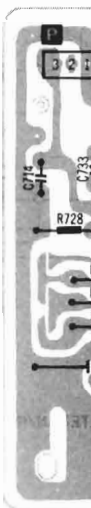
Crystal oscillator
3.949 MHz

V

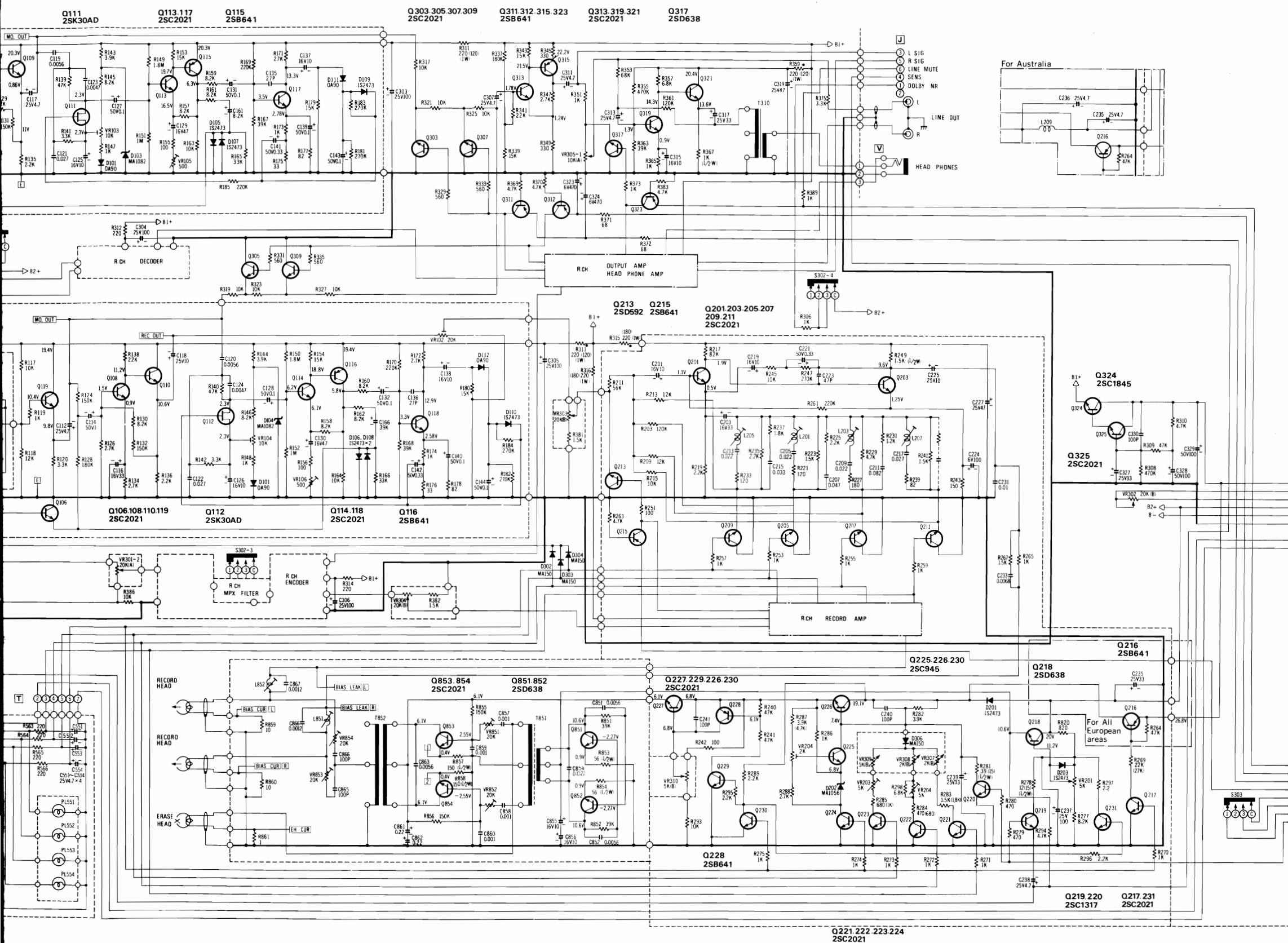
Primary side

Position det

CAP



NOTE: Th

RS-M95

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|----------------------|--|----------------------|---|
| 9. VR3 | Test oscillator level adjustment VR at 400Hz. | 20. VR303, 304 | Record calibration control. |
| 10. VR101 | Playback gain adjustment VR. | 21. VR305 | Output level control. |
| 11. VR102 | Record gain adjustment VR. | 22. VR307 | Bias current adjustment control for normal tape. |
| 12. VR103, 105 | Decoder (Playback DOLBY) adjustment VR. | 23. VR308 | Bias current adjustment control for Fe-Cr tape. |
| 13. VR104, 106 | Encoder (Record DOLBY) adjustment VR. | 24. VR309 | Bias current adjustment control for CrO ₂ tape. |
| 14. VR201 | Erase current adjustment VR at metal position. | 25. VR310 | Bias current adjustment control for metal tape. |
| 15. VR202 | Bias current adjustment VR at Fe-Cr position. | 26. VR851, 852 | Bias wave form correction VR at metal position. |
| 16. VR203 | Bias current adjustment VR at CrO ₂ position. | 27. VR853, 854 | Bias current adjustment VR at normal position. |
| 17. VR204 | Bias current adjustment VR at Metal position. | 28. L201, 202 | Record equalizer adjustment coil for CrO ₂ tape. |
| 18. VR301 | Input level control. | 29. L203, 204 | Record equalizer adjustment coil for Fe-Cr tape. |
| 19. VR302 | Meter light control. | 30. L205, 206 | Record equalizer adjustment coil for metal tape. |

31. L207, 208Record equalizer adjustment coil for normal tape.
32. L851, 852Bias leakage adjustment coil.
33. The resistance () show for Australia.
34. Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
K=1,000 Ω .
35. Capacity are in microfarads (μF) unless specified otherwise.
P=Pico-farads.
36. All voltage values shown in circuitry are under no signal condition
with volume control at minimum position.

ALTER IN/IN.

NOTE: RESISTORS

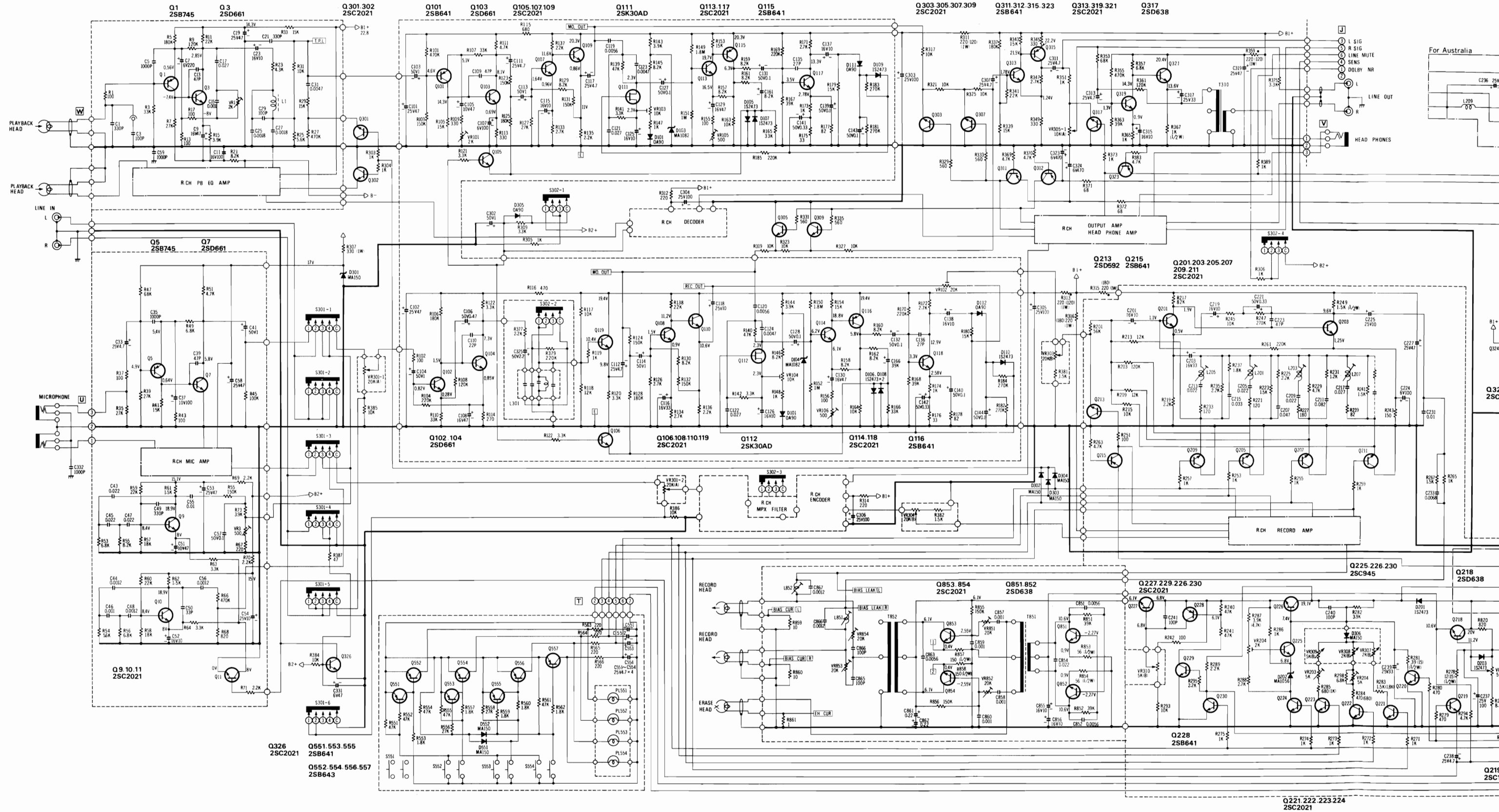
ERD	Carbon
ERG	Metal-oxide
ERO	Metal-film
ERX	Metal-film
ERQ	Fuse type metallic
ERC	Solid
ERF	Cement

CAPACITORS

ECG	Ceramic
ECC	Ceramic
ECC	Ceramic
ECF	Ceramic
ECM	Polyester
ECQE	Polyester
ECQF	Polypropylene
ECE	Electrolytic
ECE	Non polar electrolytic
EQS	Polystyrene
ECS	Tantalum

Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.
RESISTORS		R265, 266	ERD25TJ102	R205, 206, 209, 210	ERD25TJ103
R1, 2	ERD25TJ101			R211, 212	ERD25TJ154
R3, 4	ERD25TJ333				ERD25TJ223
R5, 6	ERD25TJ184	R267, 268	ERD25TJ152	R213, 214	ERD25TJ103
R7, 8	ERD25TJ273			R215, 216	ERD25TJ823
R9, 10	ERD25TJ124	R269		R217, 218	ERD25TJ222
R11, 12	ERD25TJ223		ERD25TJ273		ERD25TJ121
R13, 14	ERD25TJ101	*For All European areas.			
R15, 16	ERD25TJ392		ERD25TD223		
R17, 18	ERD25TJ101	*For Australia.			
R19, 20	ERD25TJ332	R270, 271, 272, 273, 274, 275			
		ERD25TJ102			
R21, 22	ERD25TJ822	R276	ERD25TJ821		
R23, 24	ERD25TJ472	R277	ERD25TJ822		
R25, 26	ERD25TJ562	R278		R223, 224	ERD25TJ152
R27, 28	ERD25TJ474		ERQ12HJ120	R225, 226	ERD25TJ222
R29, 30	ERD25TJ153	*For All European areas.			
R31, 32	ERD25TJ103		ERD25TJ150	R227, 228	ERD25TJ181
R33, 34	ERD25TJ153	*For Australia.			
R35, 36	ERD25TJ273	R279, 280		R229, 230	ERD25TJ472
R37, 38	ERD25TJ101		ERD25TJ471		
R39, 40	ERD25TJ273	R281		R231, 232	ERD25TJ122
			ERQ12HJ390	R233, 234	ERD25TJ121
R41, 42	ERD25TJ153	*For All European areas.			
R43, 44	ERD25TJ101		ERD25TJ150		
R45, 46	ERD25TJ104	*For Australia.			
R47, 48	ERD25TJ683	R282	ERD25TJ332	R235, 236	ERD25TJ152
R49, 50	ERD25TJ682				
R51, 52	ERD25TJ472	R125	ERD25TJ184	R237, 238	ERD25TJ152
R53	ERD25TJ682	R126, 127			
R54	ERD25TJ562		ERD25TJ273	R239, 240	ERD25TJ820
R55	ERD25TJ822	R128	ERD25TJ184		
R56	ERD25TJ682	R129, 130		R283	ERD25TJ152
			ERD25TJ822	R284	
R57, 58	ERD25TJ183	R131, 132			ERD25TJ471
R59, 60	ERD25TJ223		ERD25TJ154	*For All European areas.	
R61, 62	ERD25TJ152	R133, 134			ERD25TJ681
R63, 64	ERD25TJ332		ERD25TJ272	*For Australia.	
R65	ERD25TJ154	R135, 136		R285	ERD25TJ102
R66	ERD25TJ474		ERD25TJ222	*For Australia.	
R67	ERD25TJ221	R137, 138		R286	ERD25TJ102
R68	ERD25TJ821		ERD25TJ223	R287	
R69, 70, 71		R139, 140			ERD25TJ392
	ERD25TJ222		ERD25TJ473	*For All European areas.	
R72	ERD25TJ392				ERD25TJ472
		R141, 142	ERD25TJ332	*For Australia.	
R101	ERD25TJ474			R288	ERD25TJ272
R102	ERD25TJ102	R143, 144		R289	ERD25TJ222
R103	ERD25TJ154		ERD25TJ392	R290, 291	
R104	ERD25TJ224	R145, 146			ERD25TJ473
R105	ERD25TJ153		ERD25TJ822	R292	ERD25TJ101
R106	ERD25TJ184	R147, 148		R293	ERD25TJ103
R107	ERD25TJ333		ERD25TJ102	R294	ERD25TJ472
R108	ERD25TJ124	R149, 150			
R109	ERD25TJ331		ERD25TJ185	R295, 296, 297	
R110	ERD25TJ332	R151, 152			ERD25TJ222
			ERD25TJ105	R298	ERD25TJ682
R111	ERD25TJ472	R153, 154		R301, 302	
R112	ERD25TJ332		ERD25TJ153		ERD25TJ473
R113	ERD25TJ331	R155, 156		R303, 304, 305, 306	
R114	ERD25TJ271		ERD25TJ101	R	ERD25TJ102
R115	ERD25TJ681	R157, 158, 159, 160, 161, 162		R307	ERG1ANJ331
R116	ERD25TJ471		ERD25TJ822	R308	ERD25TJ474
R117	ERD25TJ103	R163, 164		R309	ERD25TJ473
R118	ERD25TJ123		ERD25TJ103	R310	ERD25TJ472
R119	ERD25TJ102			R311, 312, 313, 314	
R120, 121, 122		R165, 166			ERG1ANJ221
	ERD25TJ332		ERD25TJ333	*For All European areas.	
		R167, 168			ERG1ANJ121
R123, 124			ERD25TJ333	*For Australia.	
	ERD25TJ154	R169, 170		R315, 316	
			ERD25TJ154		ERG1ANJ221
R241, 242		R171, 172		*For All European areas.	
	ERD25TJ152		ERD25TJ272		ERG1ANJ181
		R173, 174	ERD25TJ102	*For Australia.	
R243, 244					
	ERD25TJ151	R175, 176			
R245, 246			ERD25TJ330	R317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328	
	ERD25TJ103	R177, 178			ERD25TJ103
R247, 248			ERD25TJ820	R239, 330, 331, 332, 333, 334, 335, 336	
	ERD25TJ274	R179, 180			ERD25TJ561
R249, 250			ERD25TJ153	R337, 338	ERD25TJ184
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R251, 252		R185, 186		R339, 340	ERD25TJ153
	ERD25TJ101		ERD25TJ224		
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R261, 262		R201, 202	ERD25TJ563	R343, 344	ERD25TJ153
	ERD25TJ224				
R263	ERD25TJ472	R203, 204	ERD25TJ124	R345, 346	ERD25TJ331
R264	ERD25TJ473				

SCHEMATIC DIAGRAM
Main Amp Section

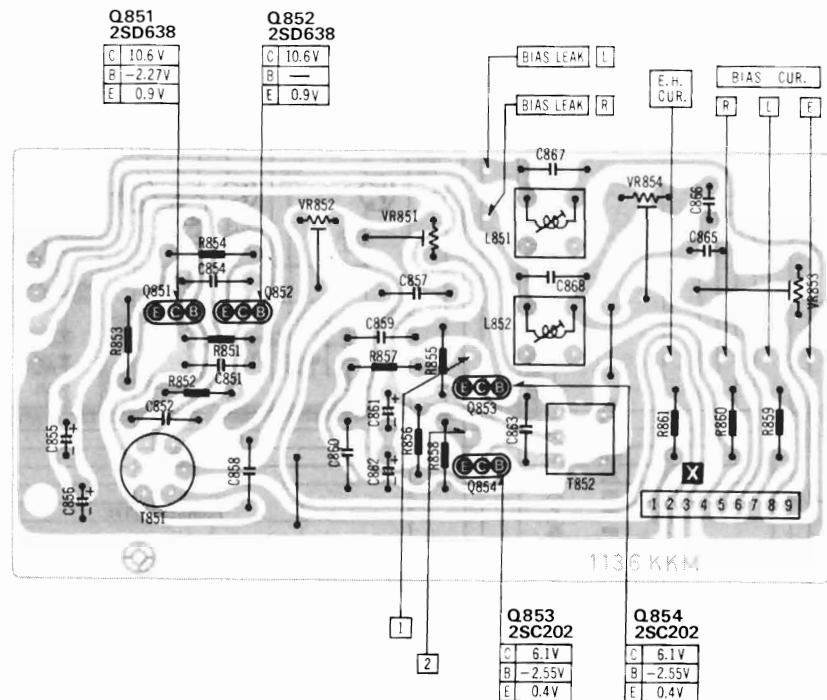


NOTE: Δ indicates that only parts specified by the manufacturer be used for safety.

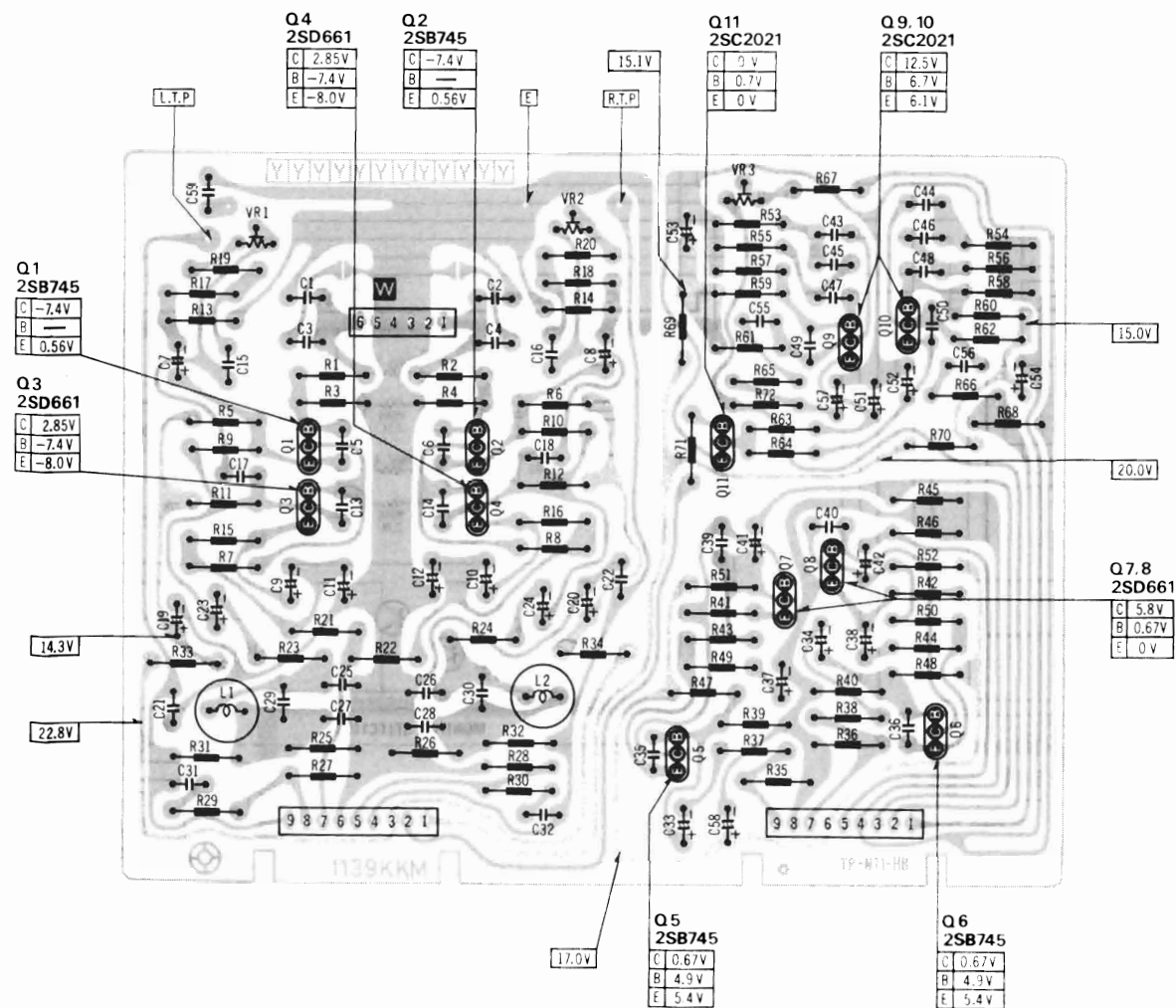
Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.
R347, 348	ERD25TJ272	R463	ERD25TJ101	R645	ERD25TJ272	R818	ERD25TJ154	R953, 954	ERD25TJ682	VR906, 907	EVNKA4A00B14	C211, 212	ECQM05823KZ
R349, 350	ERD25TJ331	R464	ERD25TJ473	R646	ERD25TJ103	R819	ERD25TJ153	R955, 956	ERD25CKF1001	CAPACITORS			
R351, 352	ERD25TJ102	R465	ERD25TJ562	R647	ERG12ANJ181	R820	ERG1ANJ471	R957, 958	ERD25TJ122	C1, 2	ECQS1331JZ	C213, 214	ECQM05223KZ
R353, 354	ERD25TJ683	R466, 467	ERG12ANJ562	R648	ERD25TJ272	R821	ERG1ANJR47	R959, 960	ERD25CKF8202	C3, 4	ECQD1H102K	C215, 216	ECQM05473KZ
R355, 356	ERD25TJ474	R468	ERG12ANJ153	R649	ERD25TJ473	R822	ERD25TJ101	R961, 962	ERD25CKF1502	C5, 6	ECEA0J5221	C217, 218	ECQM05273KZ
R357, 358	ERD25TJ682	R470, 471	ERG12ANJ153	R650, 651	ERD25TJ472	R823	ERD25TJ123	R963, 964	ERD25TJ102	C7, 8	ECEA1HS470	C219, 220	ECEA1HS100
R359, 360	ERG1ANJ221	R472	ERD25TJ473	R661	ERD25TJ332	R824	ERD25TJ332	R965	ERD25TJ123	C9, 10	ECEA1HS101	C221, 222	ECEA50ZR33
*For All European areas.	ERG1ANJ121	R473	ERD25TJ562	R662	ERD25TJ101	*For All European areas.	ERG12ANJ122	R966	ERD25TJ123	C11, 12	ECQD1H470K	C223, 224	ECQM05103KZ
*For Australia.	ERD25TJ124	R474	ERD25TJ473	R663, 664	ERD25TJ273	*For Australia.	ERD25TJ471	R967, 968	ERD25TJ391	C13, 14	ECQD1H470K	C225, 226	ECEA1ES100
R361, 362	ERD25TJ102	R475	ERD25TJ562	R666	ERD25TJ272	R825	ERD25TJ121	R970	ERD25TJ391	C15, 16	ECQM05102KZ	C227, 228	ECEA1ES470
R363, 364	ERD25TJ393	R476	ERD25TJ224	R667	ERD25TJ332	*For All European areas.	ERD25TJ121	R971	ERD25TJ391	C17, 18	ECQM05273JZ	C229, 230	ECEA1ES101
R365, 366	ERD25TJ102	R478, 479	ERD25TJ471	R668	ERD25TJ272	R827	ERD25TJ152	R972	ERD25TJ102	C19, 20	ECEA1ES470	C231, 232	ECQM05103KZ
R367, 368	ERG12ANJ102	*For All European areas.	ERQ12HJ180	R669	ERD25TJ473	*For Australia.	ERD25TJ152	R973, 974, 975	ERD25TJ683	C21, 22	ECQD1H331K	C233, 234	ECQM05682KZ
R369, 370	ERD25TJ472	*For All European areas.	ERD25TJ270	R670	ERD25TJ181	*For All European areas.	ERD25TJ272	R977	ERD25TJ391	C23, 24	ECEA1HS100	C235	ECEA1ES330
R371, 372	ERD25TJ680	R482	ERD25TJ473	R671	ERD25TJ473	*For Australia.	ERD25TJ272	R978, 979	ERD25TJ101	C25, 26, 27, 28	ECQM05182KZ	*For All European areas.	ECEA1ES470
R373, 374	ERD25TJ102	R483	ERD25TJ272	R672	ERD25TJ181	R826	ERD25TJ332	R979	ERD25TJ102	C29, 30	ECQD1H470K	C237	ECEA1ES101
R375, 376	ERD25TJ332	R484	ERD25TJ473	R673, 674	ERD25TJ273	*For All European areas.	ERD25TJ332	R980, 981	ERD25TJ473	C31, 32	ECQD1H470K	C238	ECEA1ES470
R377, 378	ERD25TJ222	R485	ERD25TJ102	R675, 676	ERD25TJ331	*For Australia.	ERD25TJ332	R982	ERD25TJ102	C33, 34	ECQD1H470K	C239	ECEA1ES330
R379, 380	ERD25TJ224	R486	ERQ12HJ180	R677	ERD25TJ331	R827	ERD25TJ152	R983	ERD25TJ153	C35, 36	ECEA1AS101	C240, 241	ECQD1H101K
R381, 382	ERD25TJ152	*For All European areas.	ERD25TJ270	R678	ERD25TJ103	*For All European areas.	ERD25TJ152	R984, 985, 986	ERD25TJ102	C37, 38	ECQD1H470K	C302	ECEA1ES470
R383	ERD25TJ472	R487	ERD25TJ102	R679, 680	ERD25TJ103	R828	ERG12ANJ680	R987	ERD25TJ102	C39, 40	ECQD1H470K	C303, 304, 305, 306	ECEA1ES101
R384, 385, 386	ERD25TJ103	R488	ERD25TJ153	R701	ERD25TJ560	R829	ERG12ANJ331	R988	ERD25TJ223	C41, 42	ECEA50M1	C307, 308	ECEA1ES470
R387	ERD25TJ470	R489	ERD25TJ471	R702	ERD25TJ103	R830	ERD25TJ222	R989	ERD25TJ222	C43	ECQM05223KZ	C309, 310	ECEA1ES330
R388	ERD25TJ332	R490	ERD25TJ473	R703	ERD25TJ560	R851, 852	ERD25TJ393	R990	ERD25TJ103	C44	ECQM05122KZ	C311, 312, 313, 314	ECEA1ES470
R389	ERD25TJ102	R491	ERD25TJ471	R704	ERD25TJ103	R853, 854	ERG12ANJ680	R991	ERD25TJ562	C45	ECQM05223KZ	C313, 316	ECEA1ES100
R401	ERD25TJ562	R492	ERD25TJ392	R705	ERD25TJ560	R855, 856	ERG12ANJ560	R992	ERD25TJ473	C46	ECQM05122KZ	C317, 318	ECEA1ES330
R402	ERD25TJ101	R493	ERD25TJ123	R706, 707, 708, 709	ERD25TJ103	R857, 858	ERG12ANJ51	R993	ERD25TJ103	C47	ECQD1H331K	C319, 320	ECEA1ES470
R403	ERD25TJ562	R494	ERD25TJ472	R710, 711, 712, 713, 714, 715	ERD25TJ102	*For All European areas.	ERG12ANJ51	R995	ERD25TJ393	C48	ECQD1H331K	C323, 324	ECEA1ES470
R404	ERD25TJ101	R495	ERD25TJ473	R716	ERD25TJ272	*For Australia.	ERG12ANJ51	R1001, 1002	ERD25TJ682	C49	ECQD1H331K	C325, 326	ECEA1ES470
R405	ERD25TJ562	R496	ERD25TJ102	R717, 718	ERD25TJ103	*For All European areas.	ERG12ANJ51	R1003, 1004	ERD25TJ102	C50	ECQD1H331K	C327	ECEA1ES330
R406	ERD25TJ101	R497	ERD25TJ104	R719	ERG12ANJ100	*For Australia.	ERG12ANJ51	R1005	ERD25TJ102	C51	ECQD1H331K	C328, 329	ECEA1ES101
R407	ERD25TJ562	R498	ERD25TJ153	R720	ERG12ANJ182	R859, 860	ERD25TJ100	R1006, 1007	ERD25TJ102	C52	ECQD1H331K	C330	ECEA1ES470
R408	ERD25TJ101	R499	ERD25TJ332	R721	ERG12ANJ182	R861	ERD25TJ100	R1008, 1009	ERD25TJ102	C53	ECQD1H331K	C331	ECEA1ES470
R409	ERD25TJ562	R500	ERD25TJ102	R722	ERG12ANJ182	R901, 902	ERD25TJ104	R1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017	ERD25TJ102	C54	ECQD1H331K	C332	ECEA1ES470
R410	ERD25TJ101	R501	ERD25TJ102	R723	ERG12ANJ182	R903, 904	ERD25TJ102	R1018	ERD25TJ222	C55	ECQD1H331K	C333	ECEA1ES470
R411	ERD25TJ562	R502	ERD25TJ102	R724	ERG12ANJ182	R905, 906	ERD25TJ222	R1019	ERG12ANJ390	C56	ECQD1H331K	C334	ECEA1ES470
R412	ERD25TJ101	R503	ERD25TJ102	R725	ERG12ANJ182	R907, 908	ERD25TJ221	R1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033	ERD25TJ473	C57	ECQD1H331K	C335	ECEA1ES470
R413	ERD25TJ331	R504	ERD25TJ102	R726	ERG12ANJ182	R909	ERD25TJ682	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C58	ECQD1H331K	C336	ECEA1ES470
R414	ERD25TJ331	R505	ERD25TJ102	R727	ERG12ANJ182	R910	ERD25TJ392	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C59	ECQD1H331K	C337	ECEA1ES470
R415	ERD25TJ272	R506	ERD25TJ102	R728	ERG12ANJ182	R911, 912, 913, 914	ERD25TJ472	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C101, 102	ECQD1H331K	C338	ECEA1ES470
R416	ERD25TJ332	R507	ERD25TJ102	R729	ERG12ANJ182	R915, 916	ERD25TJ223	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C103	ECQD1H331K	C339	ECEA1ES470
R417	ERD25TJ272	R508	ERD25TJ102	R730	ERG12ANJ182	R917, 918	ERD25TJ473	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C104	ECQD1H331K	C340	ECEA1ES470
R418	ERD25TJ272	R509	ERD25TJ102	R731	ERG12ANJ182	R919, 920	ERD25TJ102	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C105	ECQD1H331K	C341	ECEA1ES470
R419, 421	ERD25TJ332	R510	ERG12ANJ222	R732	ERG12ANJ182	R921, 922	ERD25TJ103	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C106	ECQD1H331K	C342	ECEA1ES470
R422	ERD25TJ272	R511	ERG12ANJ222	R733	ERG12ANJ182	R923, 924	ERD25TJ472	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C107	ECQD1H331K	C343	ECEA1ES470
R423, 424, 425	ERD25TJ473	R512	ERG12ANJ222	R734	ERG12ANJ182	R925, 926	ERD25TJ223	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C108	ECQD1H331K	C344	ECEA1ES470
R426, 428, 429, 430	ERD25TJ273	R513	ERG12ANJ222	R735	ERG12ANJ182	R927, 928	ERD25TJ153	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C109	ECQD1H331K	C345	ECEA1ES470
R431	ERD25TJ153	R514	ERG12ANJ222	R736	ERG12ANJ182	R929, 930	ERD25TJ334	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C110	ECQD1H331K	C346	ECEA1ES470
R433, 434	ERD25TJ473	R515	ERG12ANJ222	R737	ERG12ANJ182	R931, 932	ERD25TJ154	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C111, 112	ECQD1H331K	C347	ECEA1ES470
R435	ERD25TJ562	R516	ERG12ANJ222	R738	ERG12ANJ182	R933, 934	ERD25TJ102	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C113, 114	ECQD1H331K	C348	ECEA1ES470
R436	ERD25TJ103	R517	ERG12ANJ222	R739	ERG12ANJ182	R935, 936	ERD25TJ331	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C115	ECQD1H331K	C349	ECEA1ES470
R437	ERD25TJ473	R518	ERG12ANJ222	R740	ERG12ANJ182	R937, 938	ERD25TJ824	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C116	ECQD1H331K	C350	ECEA1ES470
R438	ERD25TJ183	R519	ERG12ANJ222	R741	ERG12ANJ182	R939, 940	ERD25TJ102	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C117	ECQD1H331K	C351	ECEA1ES470
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R440	ERD25TJ153	R521	ERG12ANJ222	R743	ERG12ANJ182	R943, 944	ERD25TJ224	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C119, 120	ECQD1H331K	C353	ECEA1ES470
R441, 442	ERD25TJ562	R522	ERG12ANJ222	R744	ERG12ANJ182	R945, 946	ERD25TJ102	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C121, 122	ECQD1H331K	C354	ECEA1ES470
R443	ERD25TJ473	R523	ERG12ANJ222	R745	ERG12ANJ182	R947, 948, 949, 950	ERD25CKF1001	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C123, 124	ECQD1H331K	C355	ECEA1ES470
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R445	ERD25TJ331	R525	ERG12ANJ222	R747	ERG12ANJ182	R953, 954	ERD25TJ682	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C127, 128	ECQD1H331K	C357	ECEA1ES470
R446	ERD25TJ153	R526	ERG12ANJ222	R748	ERG12ANJ182	R955, 956	ERD25CKF1001	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C129, 130	ECQD1H331K	C358	ECEA1ES470
R447, 448	ERD25TJ331	R527	ERG12ANJ222	R749	ERG12ANJ182	R957, 958	ERD25TJ122	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C131, 132	ECQD1H331K	C359	ECEA1ES470
R449	ERD25TJ473	R528	ERG12ANJ222	R750	ERG12ANJ182	R959, 960	ERD25CKF8202	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C133, 134	ECQD1H331K	C360	ECEA1ES470
R450	ERD25TJ103	R529	ERG12ANJ222	R751	ERG12ANJ182	R961, 962	ERD25CKF1502	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C135, 136	ECQD1H331K	C361	ECEA1ES470
R451, 453	ERD25TJ473	R530	ERG12ANJ222	R752	ERG12ANJ182	R963, 964	ERD25TJ102	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C137, 138	ECQD1H331K	C362	ECEA1ES470
R454	ERD25TJ273	R531	ERG12ANJ222	R753	ERG12ANJ182	R965	ERD25TJ123	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C139, 140	ECQD1H331K	C363	ECEA1ES470
R455	ERD25TJ821	R532	ERG12ANJ222	R754	ERG12ANJ182	R967, 968	ERD25TJ391	R1034, 1035, 1036, 1037, 1038, 1039	ERD25TJ153	C141, 142	ECQD1H331K	C364	ECEA1ES470</

Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Part Name & Description			
C631, 632	ECEA1HS100	Z802	Δ B4BC0802	Q552	2SA719	D603	MV121	T1	Δ QLPD38ENX	TRANSFORMERS				AC Power Transformer			
C633	ECEA1HS010	Z803	Δ QCR0011	Q553	2SA564	D604	MA161	*For All European areas except United Kingdom.									
C661	ECEA1AS470	TRANSISTORS		Q554	2SA719	D606	MA161	" "									
C662, 663, 664, 665	ECFWD104MXY	Q1, 2	2SA721	Q555	2SA564	D631	MA161	" "									
C666	ECKD1H103ZF	Q3, 4	2SC1327	Q556, 557	2SA719	D632	OA902	" "									
C667	ECKD1H103ZF	Q5, 6	2SA721	Q601, 602, 603	2SA719	D633	SM112	" "									
C701, 702, 703	ECEA25Z3R3	Q7, 8	2SC1327	Q605	2SC1317	D634	OA902	" "									
C704	ECEA50ZR47	Q9, 10, 11	2SC1327	Q606	2SC1846	D635	SM102	" "									
C705, 706, 707	ECEA50ZR22	Q101	2SA564	Q607, 608, 609, 610, 611	2SC1383	D661	LN16BP	" "									
C708	ECQM05103KZ	Q102, 103, 104	2SC1327	Q612	2SC1684	D662	LN32	" "									
C709	ECQM05473KZ	Q105, 106, 107, 108, 109, 110	2SC1684	Q613	2SC1684	D702	MA161	" "									
C710	ECQM05393KZ	Q111, 112	2SK30AD	Q614	2SA886	D703	MA1120	" "									
C712	ECFWD104MXY	Q113, 114	2SC1684	Q615, 616	2SC1684	D704	MA1075	" "									
C713	ECEA25Z100	Q115, 116	2SC1684	Q617	2SA719	D801, 802, 803, 804	MA1075	" "									
C714	ECQM05393KZ	Q117, 118, 119	2SA564	Q618	2SC1684	Δ SM102		" "									
C715	ECQM05683KZ	Q119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 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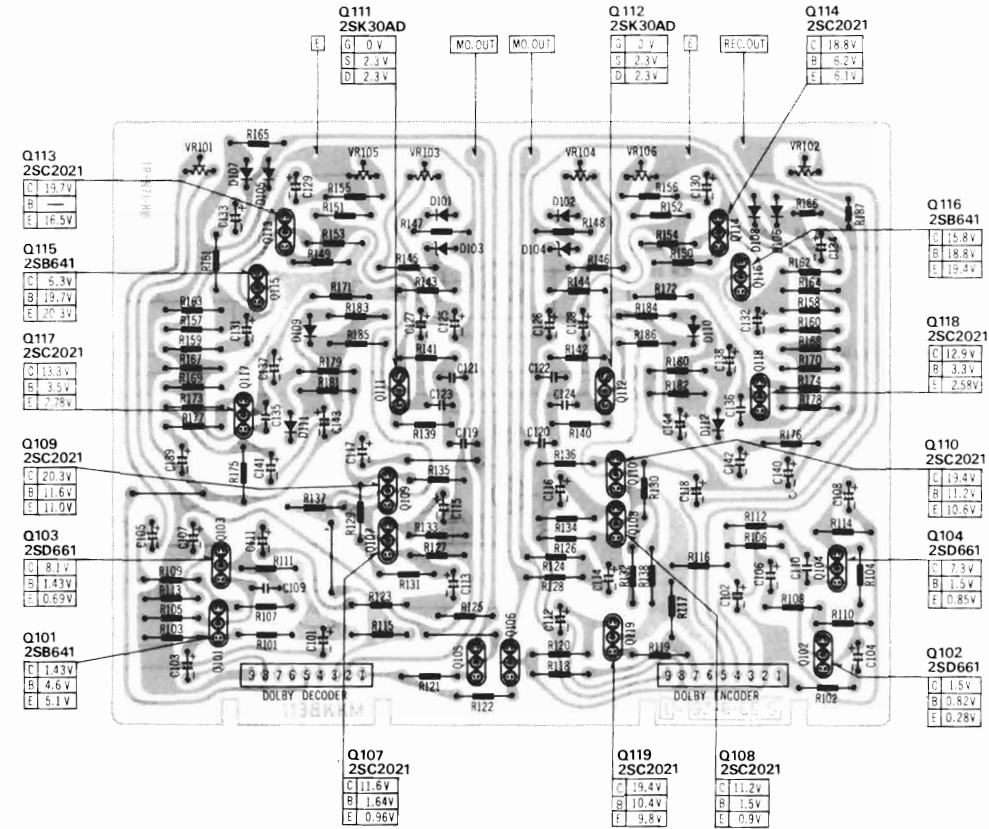
BIAS OSCILLATION CIRCUIT BOARD



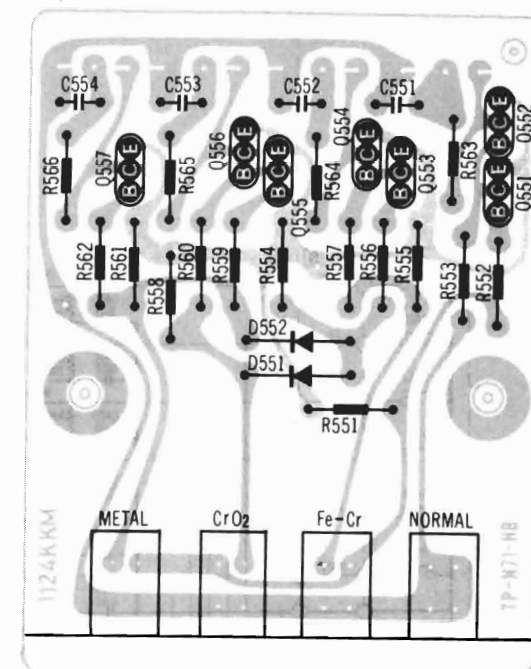
PLAYBACK EQUALIZER/TEST OSCILLATOR/ MIC AMP CIRCUIT BOARD



DOLBY NR CIRCUIT BOARD



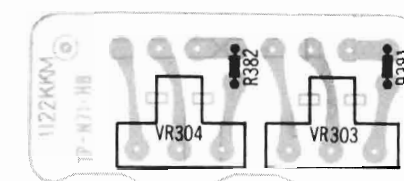
TAPE SELECT CIRCUIT BOARD



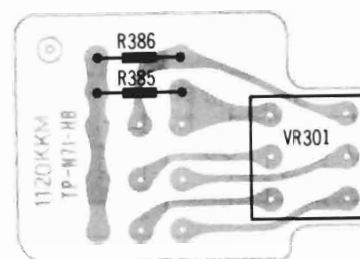
MIC JACK CIRCUIT BOARD



RECORDING CALIBRATION CIRCUIT BOARD



INPUT LEVEL CIRCUIT BOARD



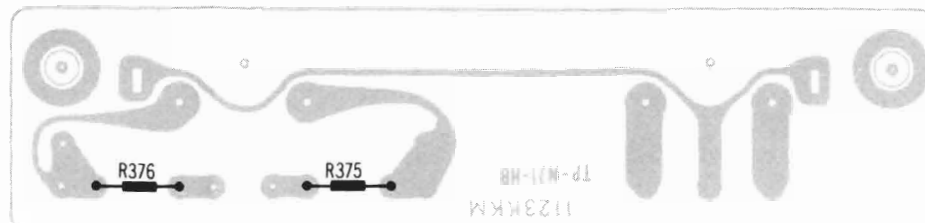
HEADPHONES JACK CIRCUIT BOARD



BIAS ADJUSTMENT CIRCUIT BOARD



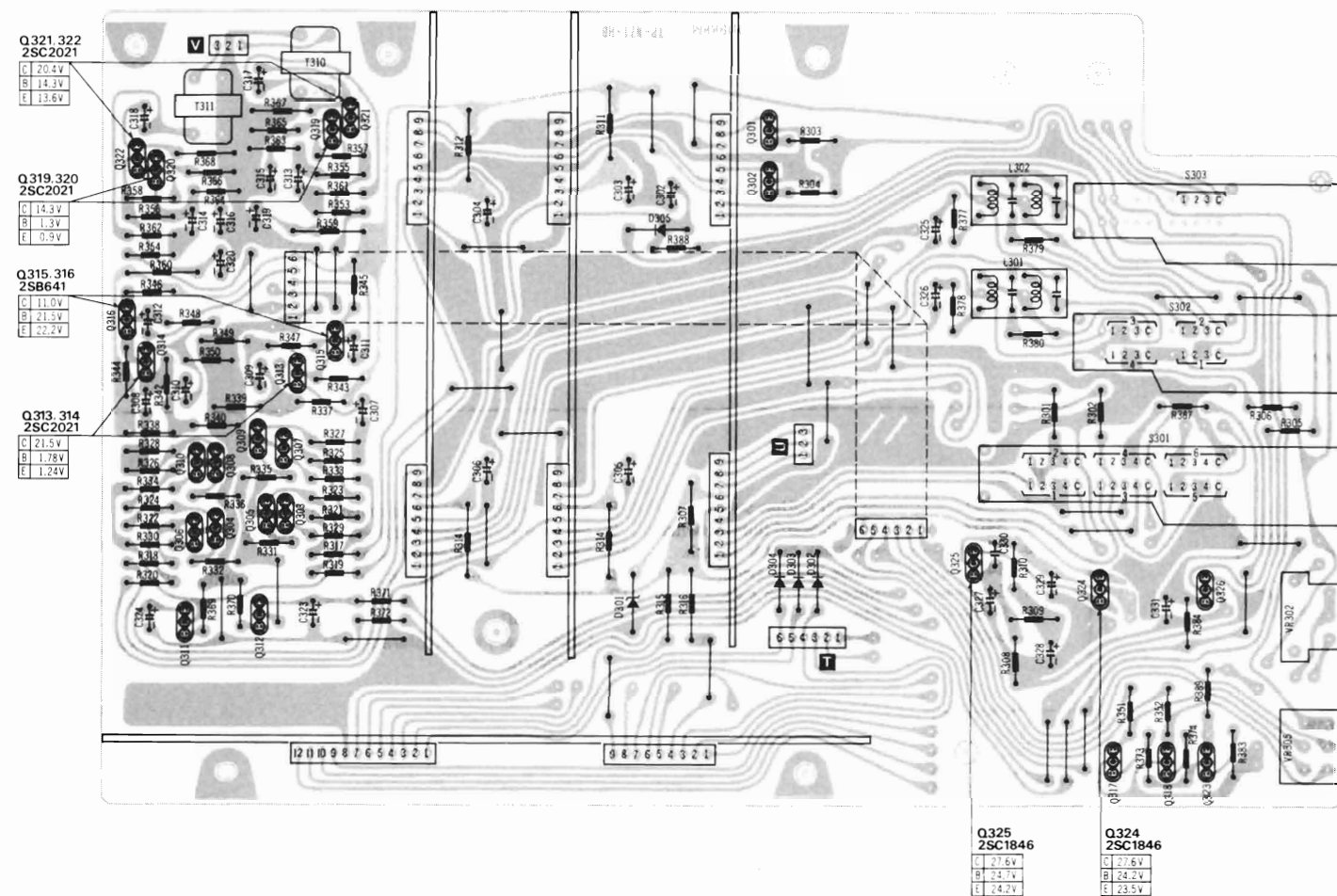
MAIN JACK CIRCUIT BOARD



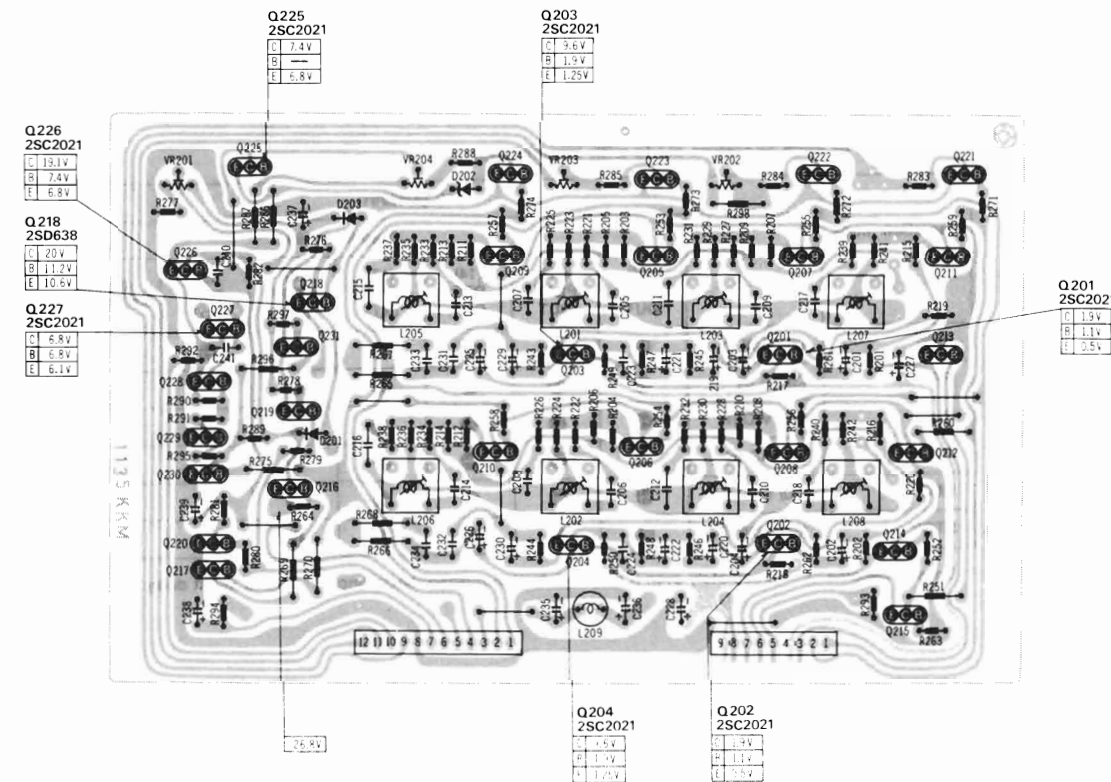
NOTE:
The circuit shown in red on the conductor is +B (bias) circuit.
Values indicated in  are DC voltage between the chassis and electrical parts.

CIRCUIT BOARD

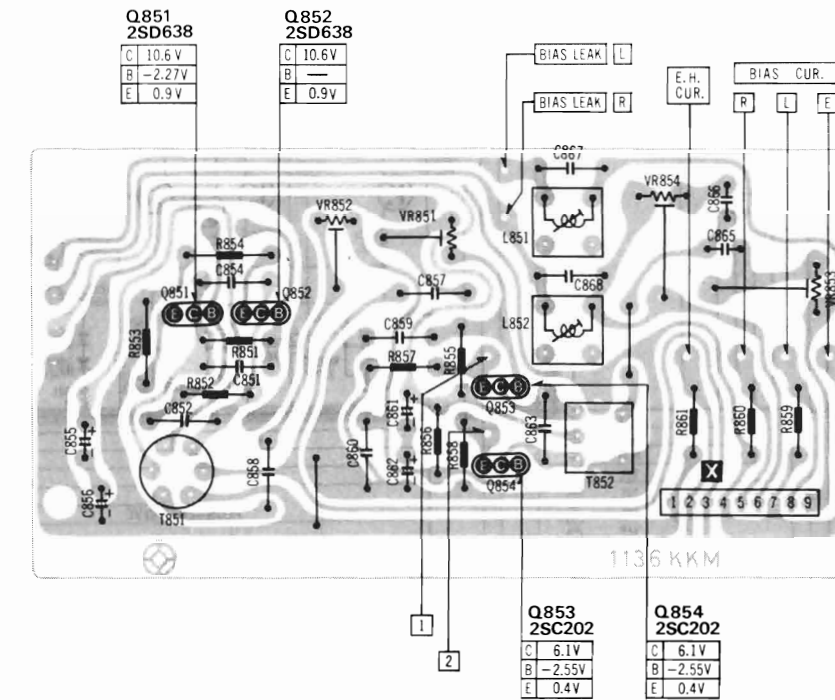
MAIN AMP CIRCUIT BOARD



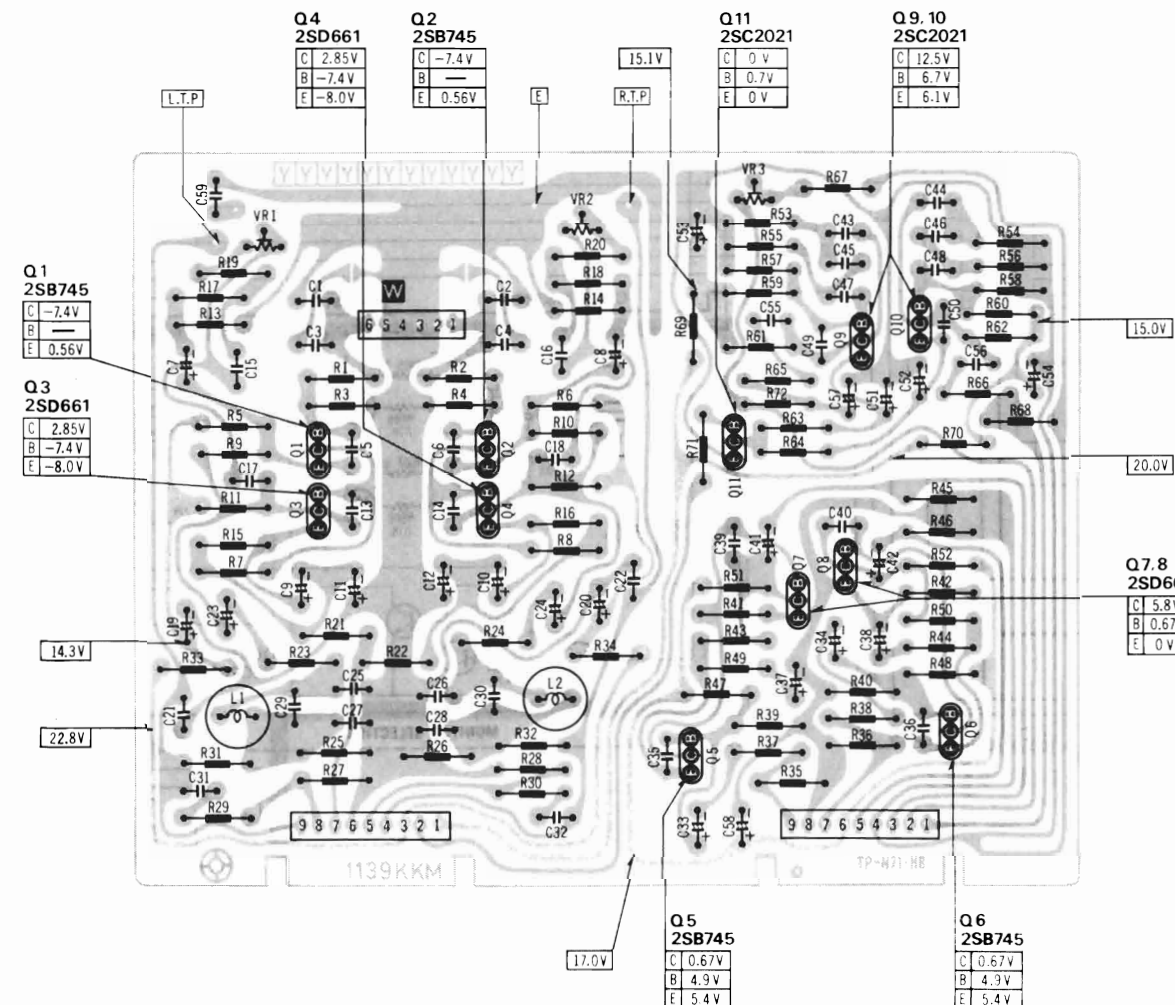
RECORD AMP CIRCUIT BOARD



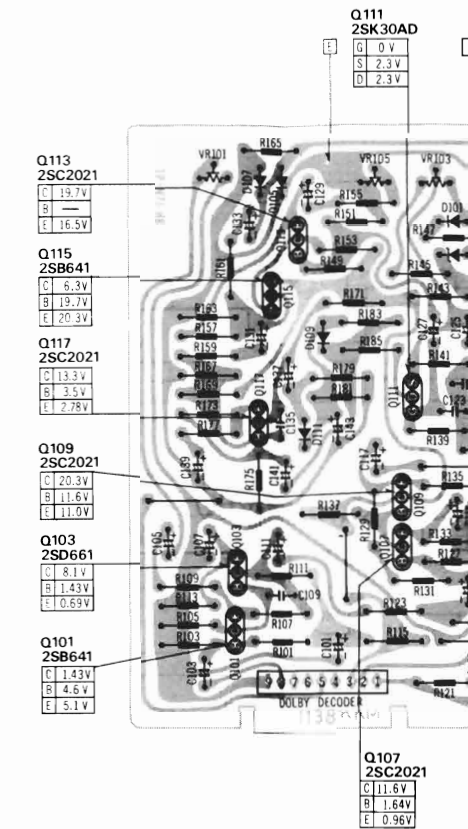
BIAS OSCILLATION CIRCUIT BOARD



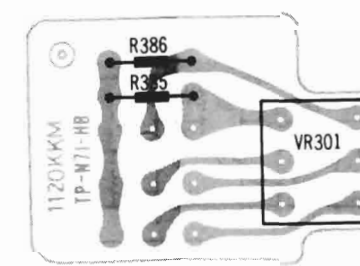
PLAYBACK EQUALIZER/TEST OSCILLATOR/ MIC AMP CIRCUIT BOARD



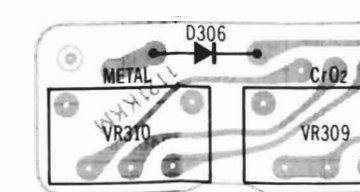
DOLBY NR CIRCUIT



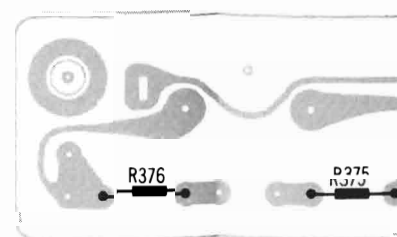
INPUT LEVEL CIRCUIT BOARD



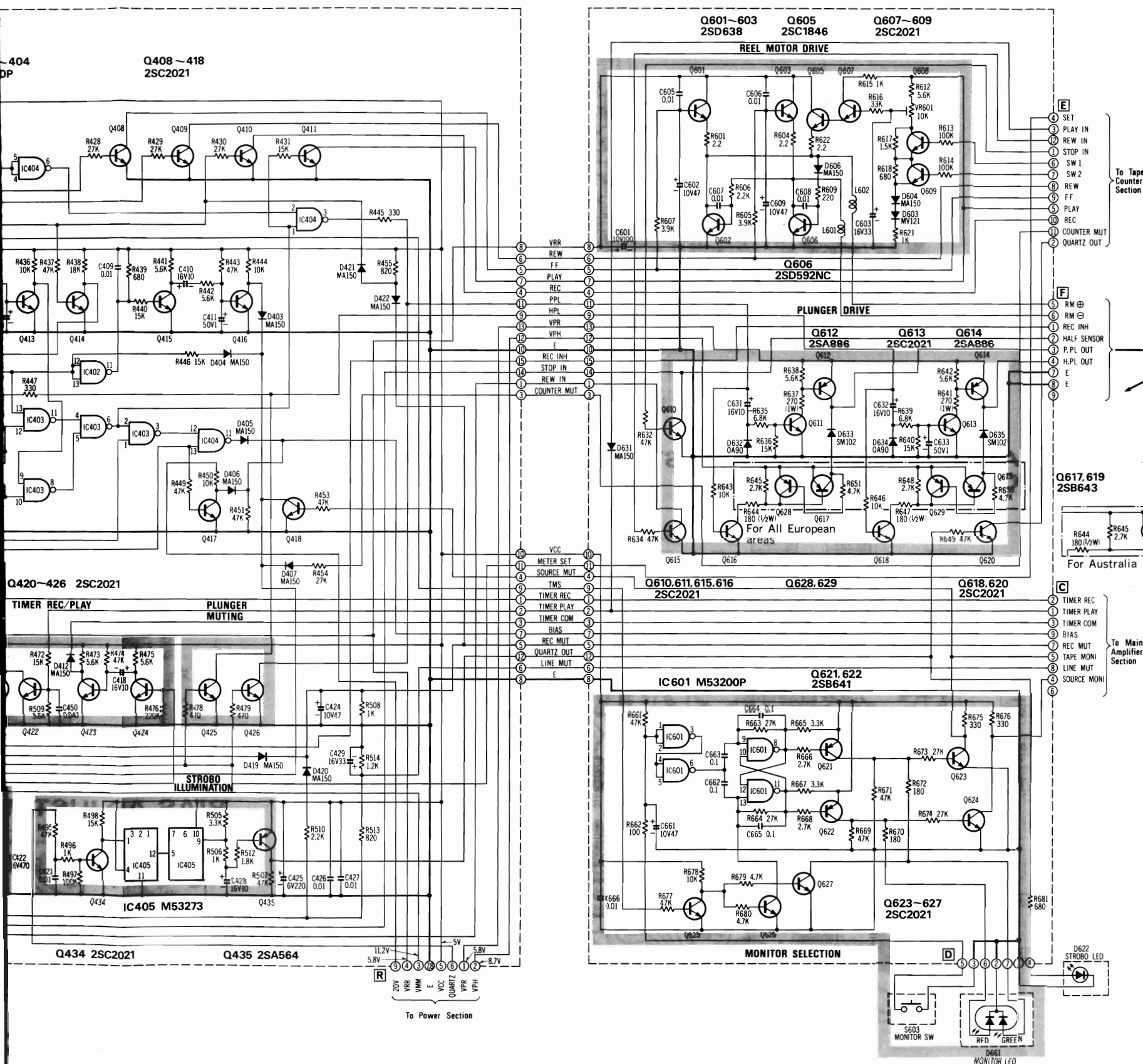
BIAS ADJUSTMENT



MAIN JACK CIRCUIT



RS-M95



NOTE:

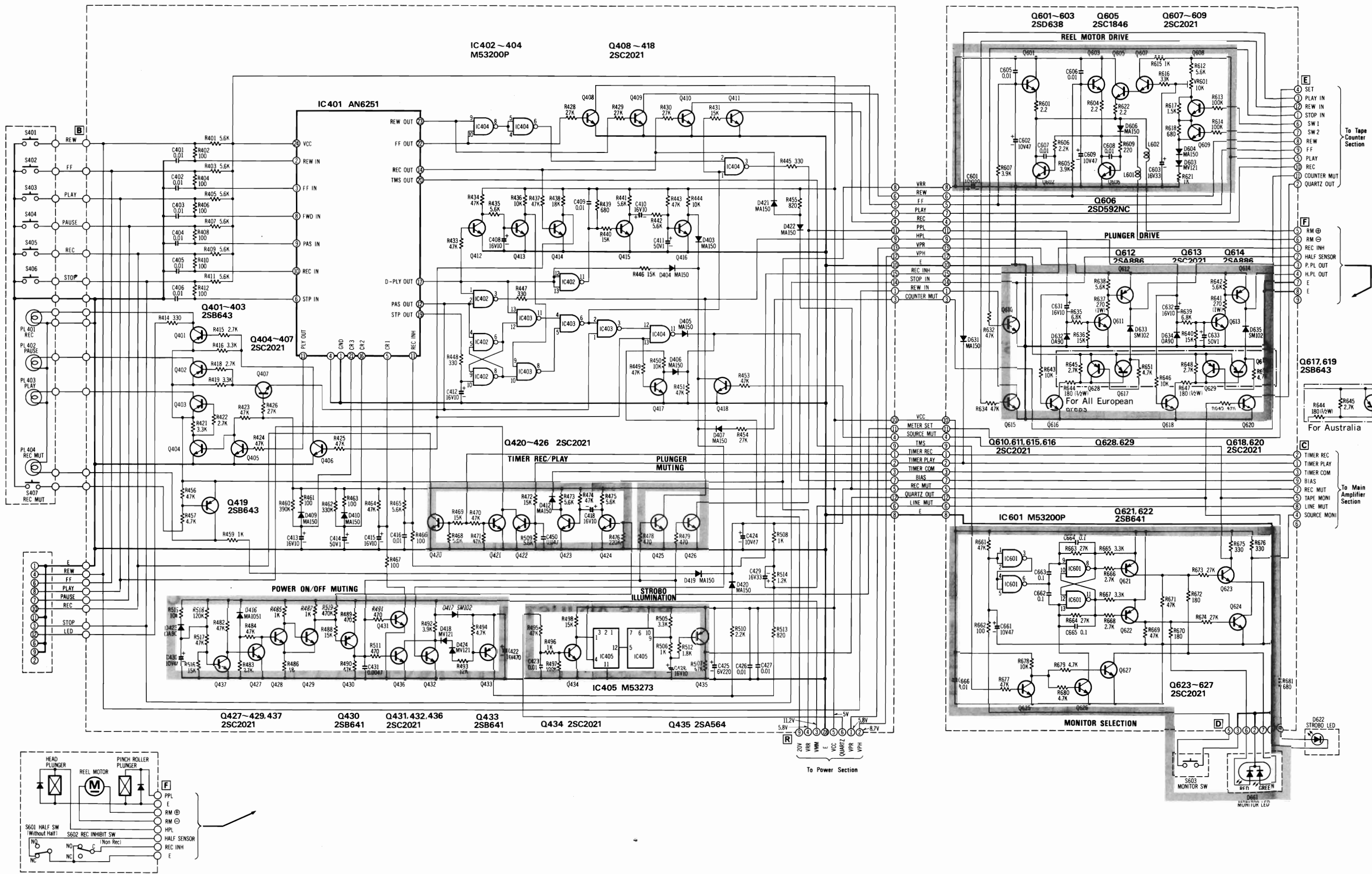
1. S401.....Rewind button switch.
2. S402.....Fast forward button switch.
3. S403.....Playback button switch.
4. S404.....Pause button switch.
5. S405.....Record button switch.
6. S406.....Stop button switch.
7. S407.....Record muting switch.
8. S601.....Cassette detection switch.
9. S602.....Accidental erase prevention switch.
10. S603.....Monitor select switch.
11. VR601.....Playback tape tension adjustment VR.
12. Resistance are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000 Ω .
13. Capacity are in microfarads (μ F) unless specified otherwise. P=Pico-farads.

Relationship of each operation mode with input/output

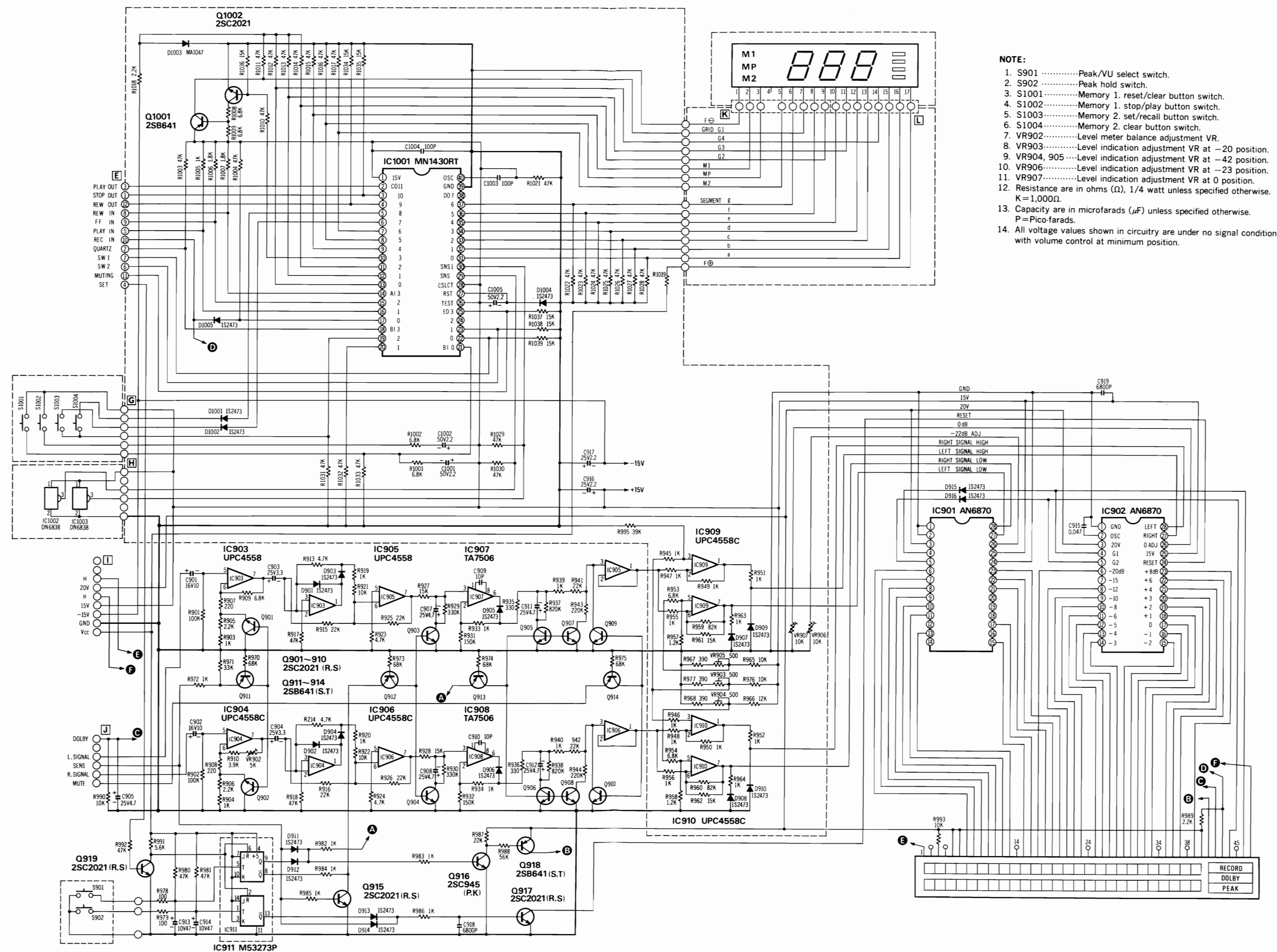
Operation mode	Input Terminal	IC (AN6251)						
		Output terminal						
		(12) PAUSE OUT	(13) PLAY OUT	(14) REC OUT	(17) D-PLAY OUT	(19) STOP OUT	(20) TMS OUT	(22) FF OUT
REW	(2) REW IN	●	●	●	●	●	●	●
FF	(3) FF IN	●	●	●	●	●	●	●
PLAY	(8) FWD IN	●	●	●	●	●	●	●
PAUSE	(9) PAS IN	●	●	●	●	●	●	●
REC	(10) REC IN	●	●	●	●	●	●	●
STOP	(6) STOP IN	●	●	●	●	●	●	●

* Doesn't become "L" immediately even if playback button pushed: becoming "L" after a slight delay.

SCHEMATIC DIAGRAM
Main Control Section

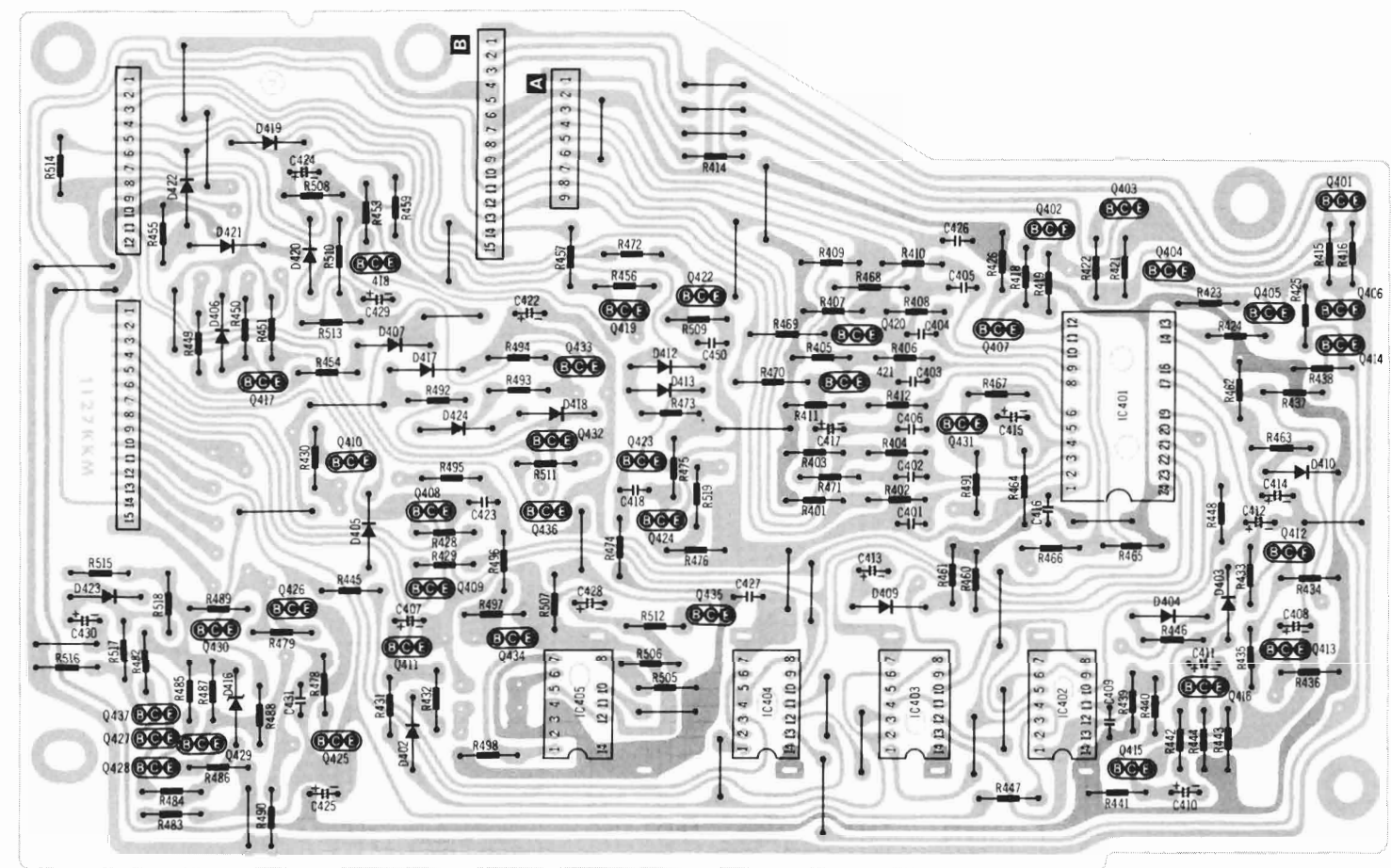


SCHEMATIC DIAGRAM TAPE COUNTER AND LEVEL METER SECTION

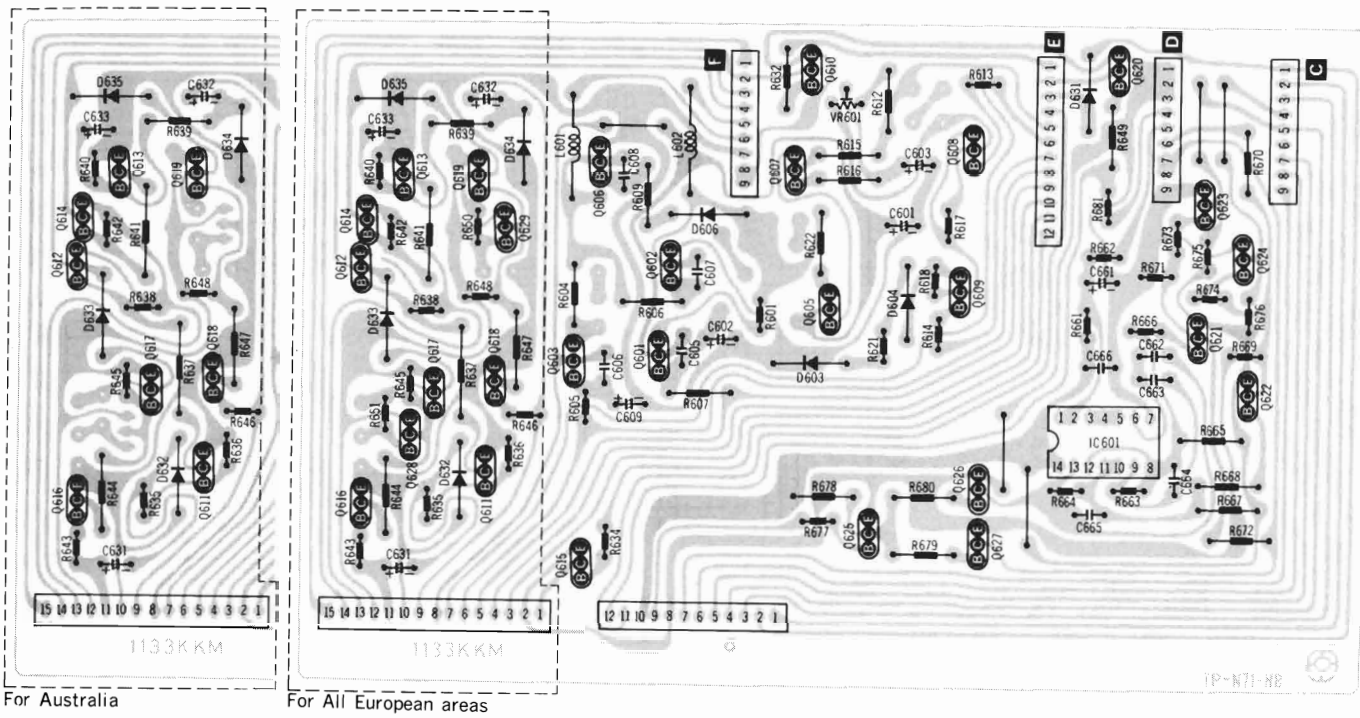


CIRCUIT BOARD

MAIN CONTROL CIRCUIT BOARD



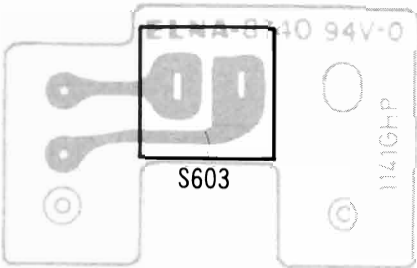
REEL MOTOR/PLUNGER/MONITOR
SELECTION CIRCUIT BOARD



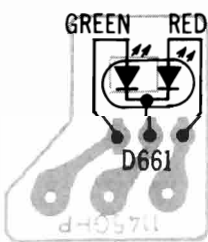
QUARTZ STROBO
CIRCUIT BOARD



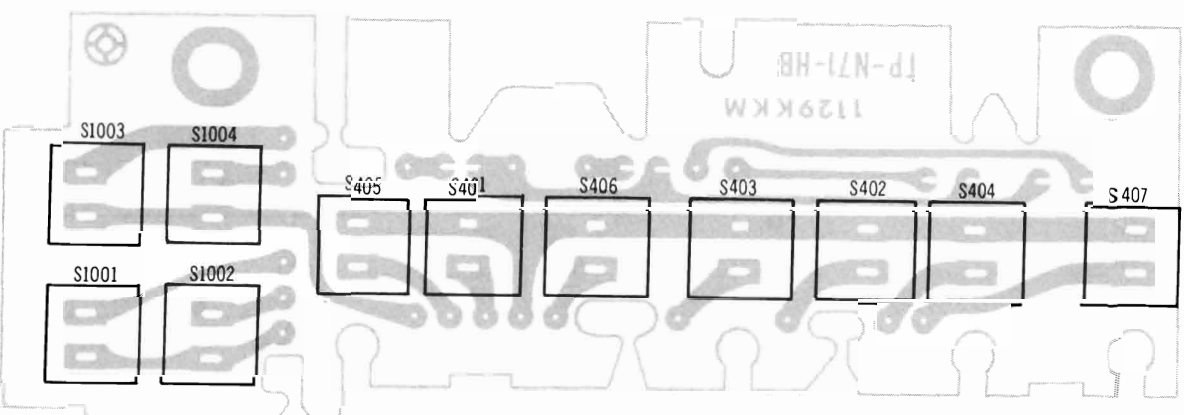
MONITOR SELECT
CIRCUIT BOARD



LED MONITOR
INDICATOR
CIRCUIT BOARD



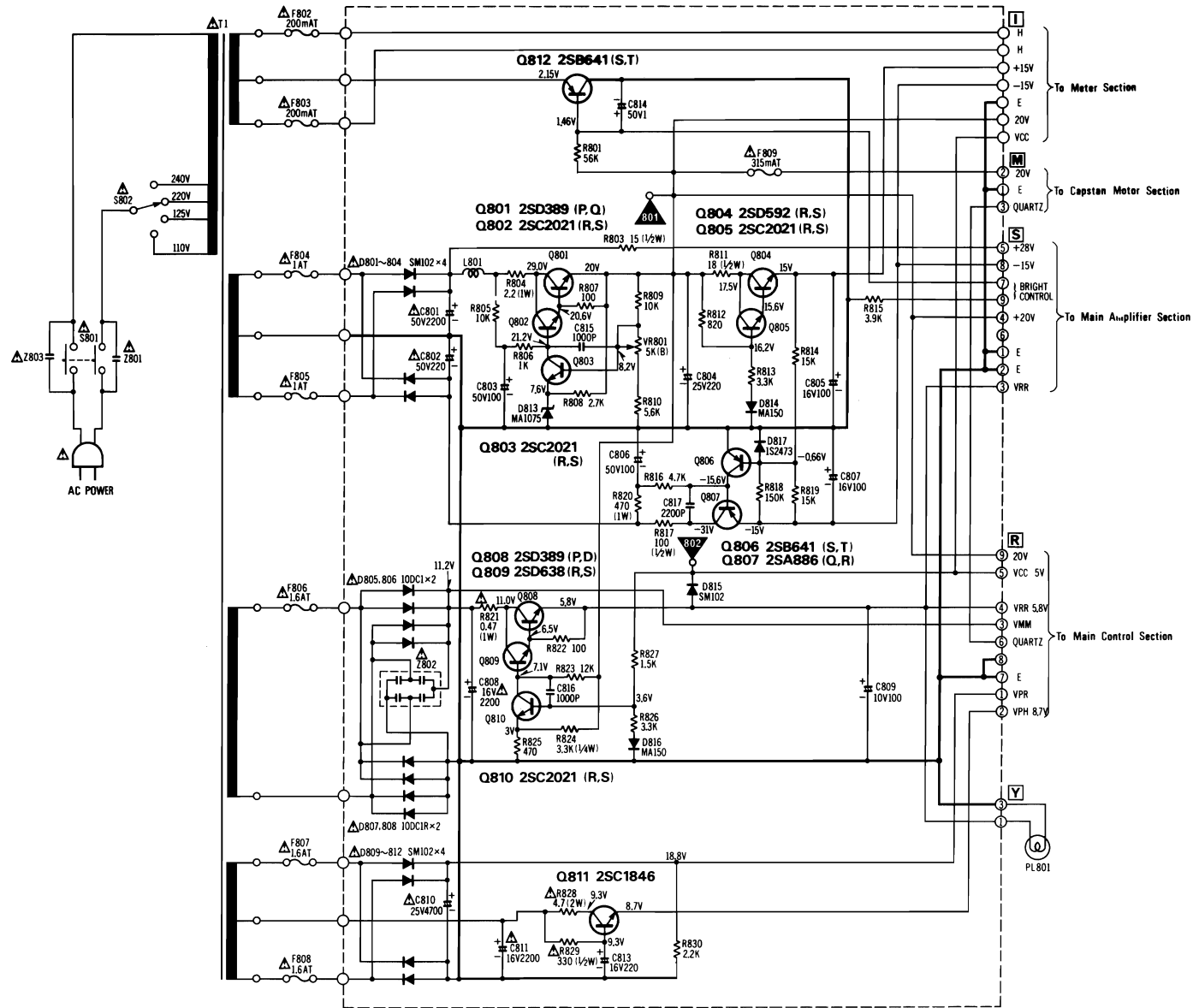
OPERATION SWITCH CIRCUIT BOARD



NOTE:
The circuit shown in red on the conductor is +B (bias) circuit.

SCHEMATIC DIAGRAM POWER SECTION

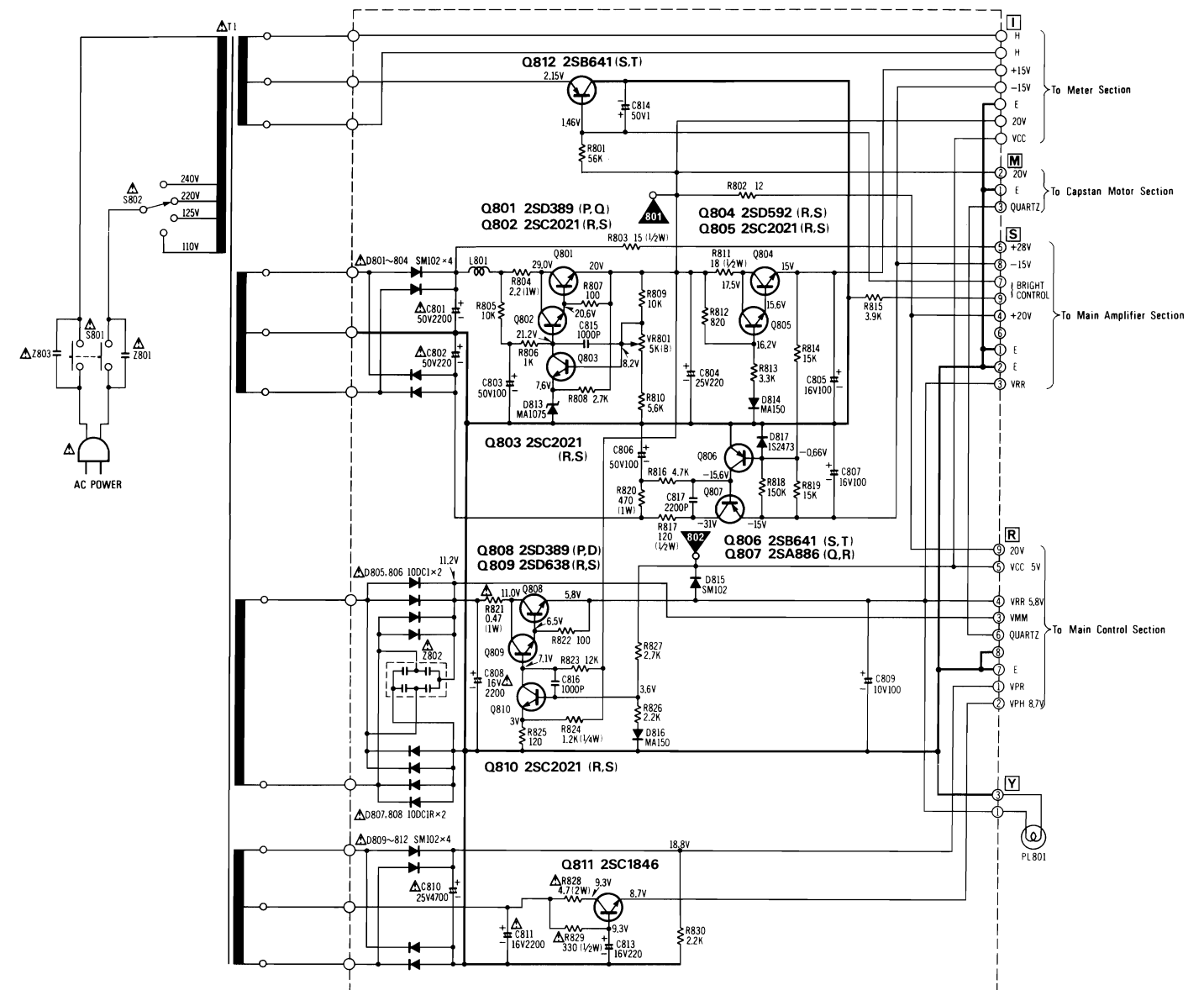
For All European areas.



NOTE:

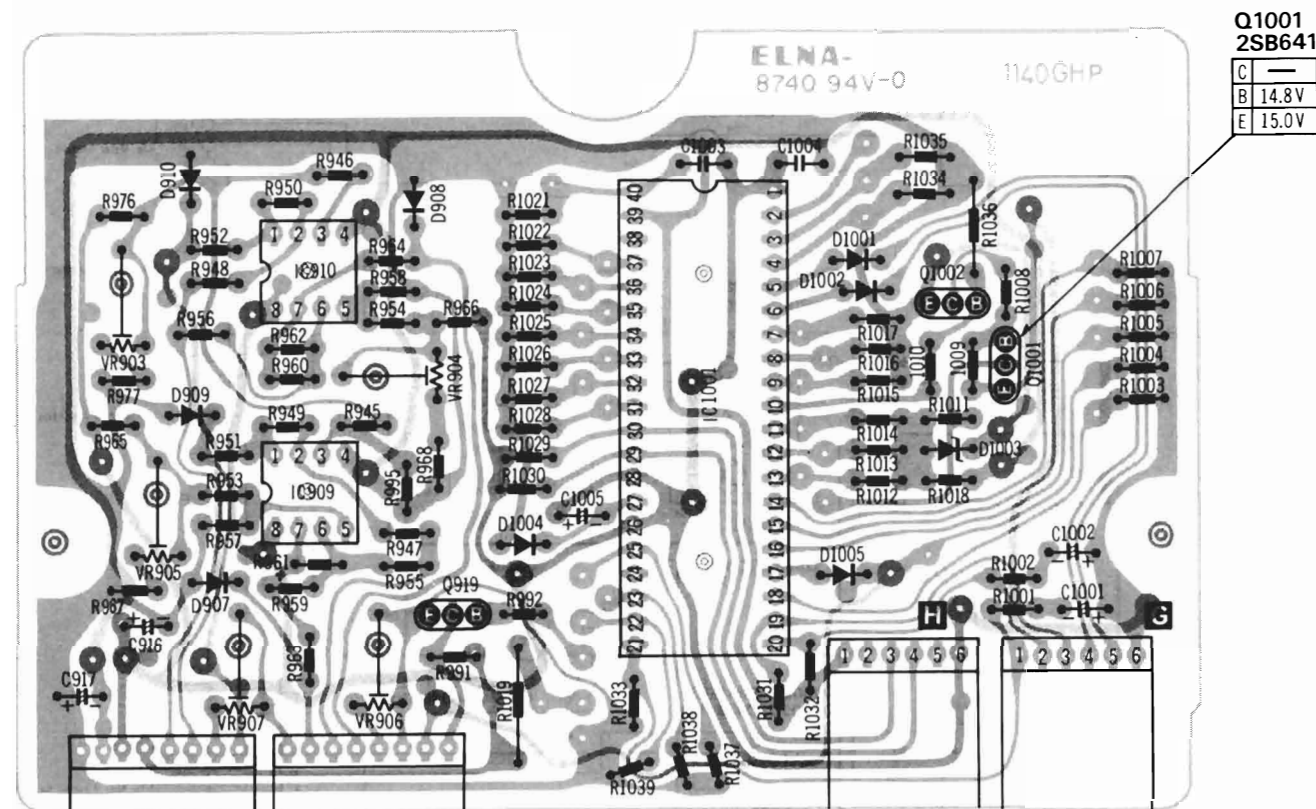
1. S801.....Power ON/OFF switch.
2. S802.....AC power voltage select switch.
3. VR801.....DC voltage (20V) adjustment VR.
4. Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
K=1,000 Ω .
5. Capacity are in microfarads (μ F) unless specified otherwise.
P=Pico-farads.
6. All voltage values shown in circuitry are under no signal condition and record mode with volume control at minimum position.
7. Δ indicates that only parts specified by the manufacturer be used for safety.

For Australia

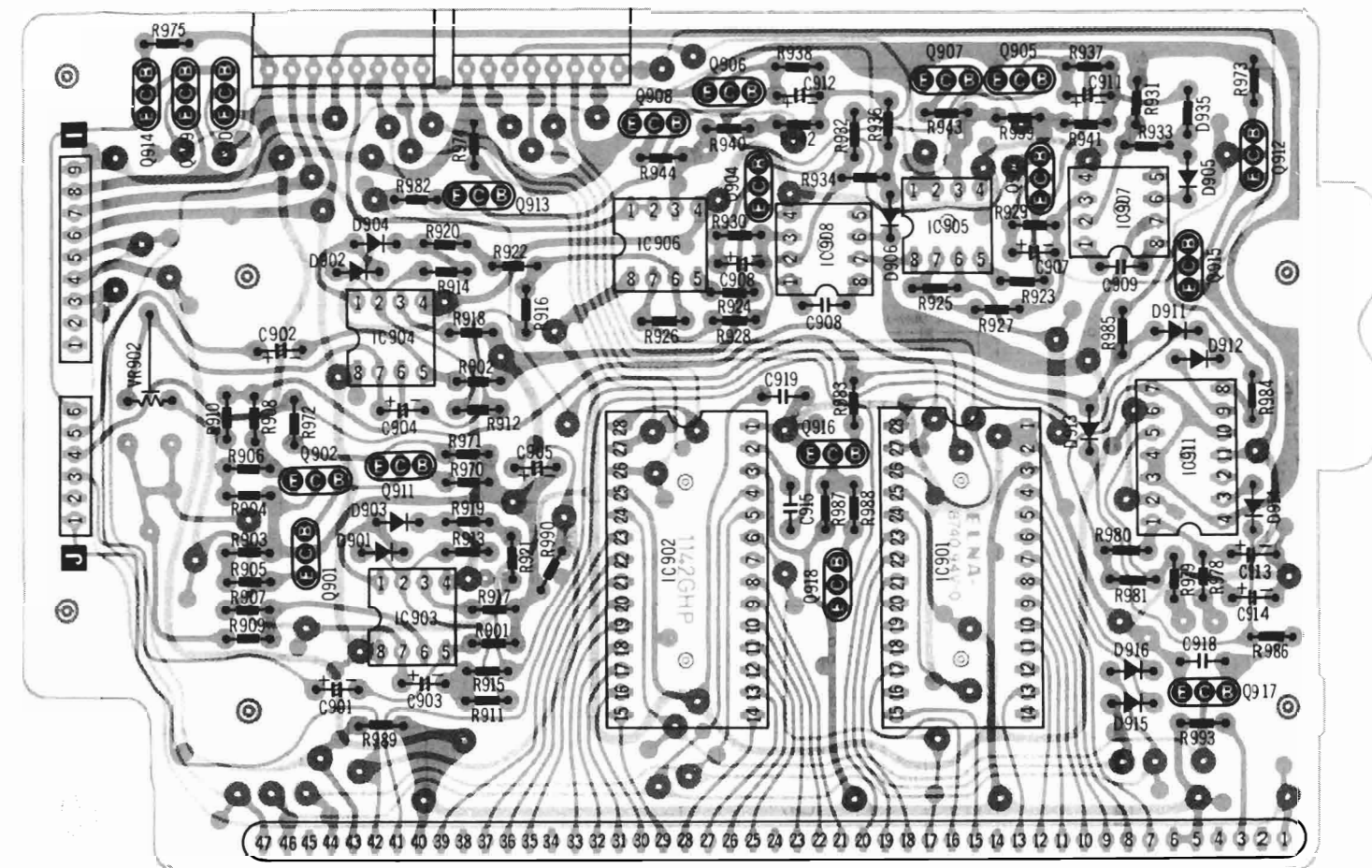


CIRCUIT BOARD

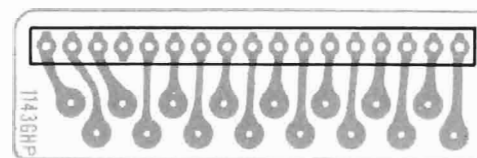
MICRO COMPUTER CIRCUIT BOARD



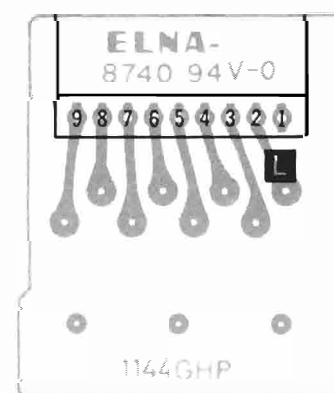
FLUORESCENT LEVEL METER CIRCUIT BOARD



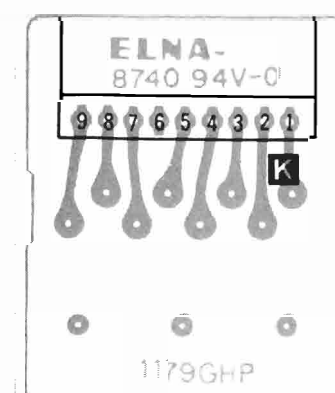
DIGITAL TAPE COUNTER CIRCUIT BOARD



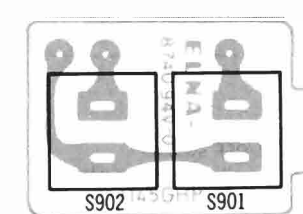
CONNECTOR CIRCUIT BOARD



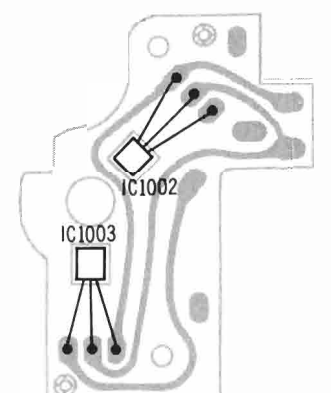
CONNECTOR CIRCUIT BOARD



METER FUNCTION CIRCUIT BOARD

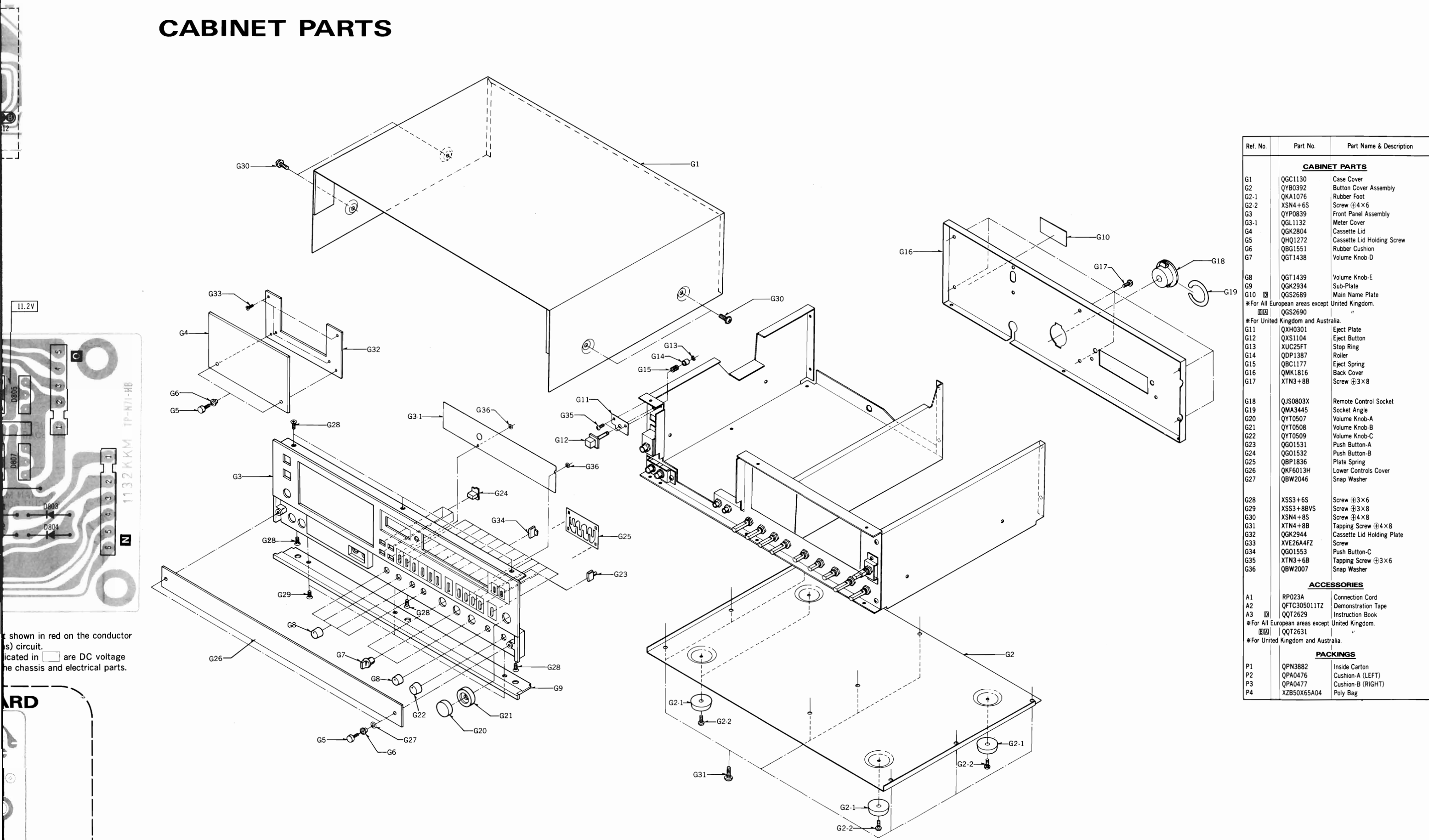


HALL IC CIRCUIT BOARD



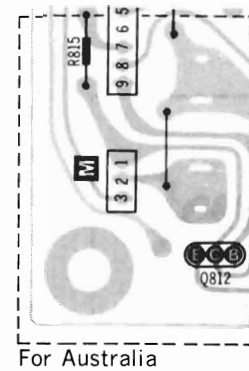
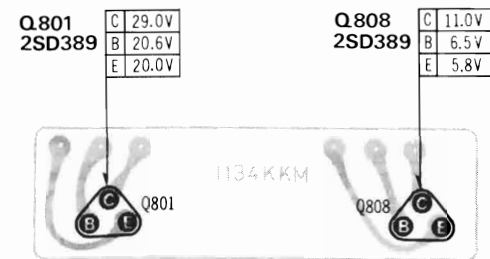
NOTE:
The circuit shown in red on the conductor is +B (bias) circuit.
Values indicated in are DC voltage between the chassis and electrical parts.

CABINET PARTS

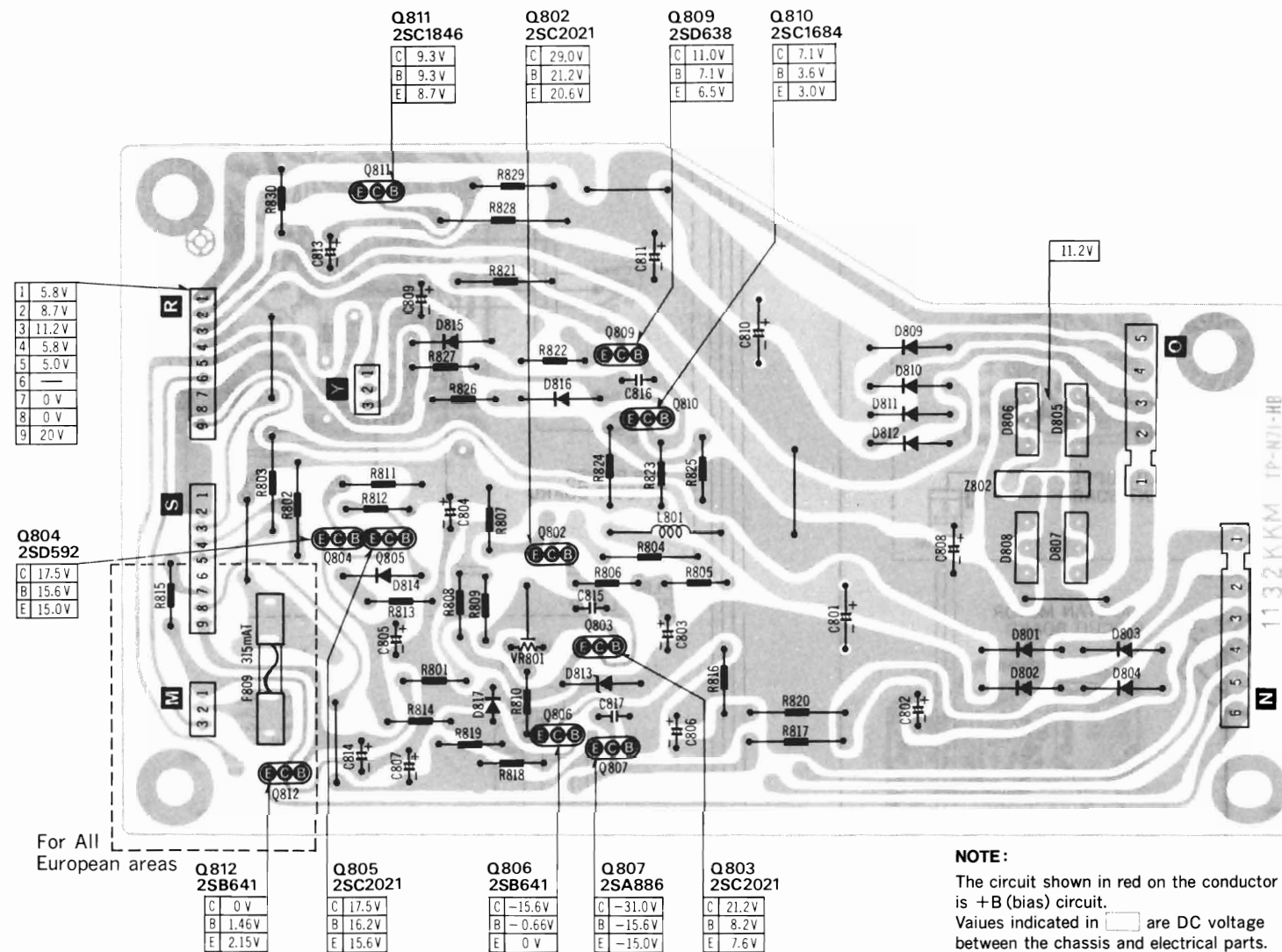


Ref. No.	Part No.	Part Name & Description
CABINET PARTS		
G1	QGC1130	Case Cover
G2	QYB0392	Button Cover Assembly
G2-1	QKA1076	Rubber Foot
G2-2	XSN4+6S	Screw $\varnothing$ 4×6
G3	QYP0839	Front Panel Assembly
G3-1	QGL1132	Meter Cover
G4	QKG2804	Cassette Lid
G5	QH01272	Cassette Lid Holding Screw
G6	QBG1551	Rubber Cushion
G7	QGT1438	Volume Knob-D
G8	QGT1439	Volume Knob-E
G9	QKG2934	Sub-Plate
G10	QGS2689	Main Name Plate
*For All European areas except United Kingdom.		
*For United Kingdom and Australia.		
G11	QXH0301	Eject Plate
G12	QXS1104	Eject Button
G13	XUC25FT	Stop Ring
G14	QDP1387	Roller
G15	QBC1177	Eject Spring
G16	QMK1816	Back Cover
G17	XTN3+8B	Screw $\varnothing$ 3×8
G18	QJS0803X	Remote Control Socket
G19	QMA3445	Socket Angle
G20	QYT0507	Volume Knob-A
G21	QYT0508	Volume Knob-B
G22	QYT0509	Volume Knob-C
G23	QGO1531	Push Button-A
G24	QGO1532	Push Button-B
G25	QBP1836	Plate Spring
G26	QKF6013H	Lower Controls Cover
G27	QBW2046	Snap Washer
G28	XSS3+6S	Screw $\varnothing$ 3×6
G29	XSS3+8BVS	Screw $\varnothing$ 3×8
G30	XSN4+8S	Screw $\varnothing$ 4×8
G31	XTN4+8B	Tapping Screw $\varnothing$ 4×8
G32	QKG2944	Cassette Lid Holding Plate
G33	XVE26A4FZ	Screw
G34	QGO1553	Push Button-C
G35	XTN3+6B	Tapping Screw $\varnothing$ 3×6
G36	QBW2007	Snap Washer
ACCESSORIES		
A1	RP023A	Connection Cord
A2	QFTC305011TZ	Demonstration Tape
A3	QQT2629	Instruction Book
*For All European areas except United Kingdom.		
*For United Kingdom and Australia.		
PACKINGS		
P1	QPN3882	Inside Carton
P2	QPA0476	Cushion-A (LEFT)
P3	QPA0477	Cushion-B (RIGHT)
P4	XZB50X65A04	Poly Bag

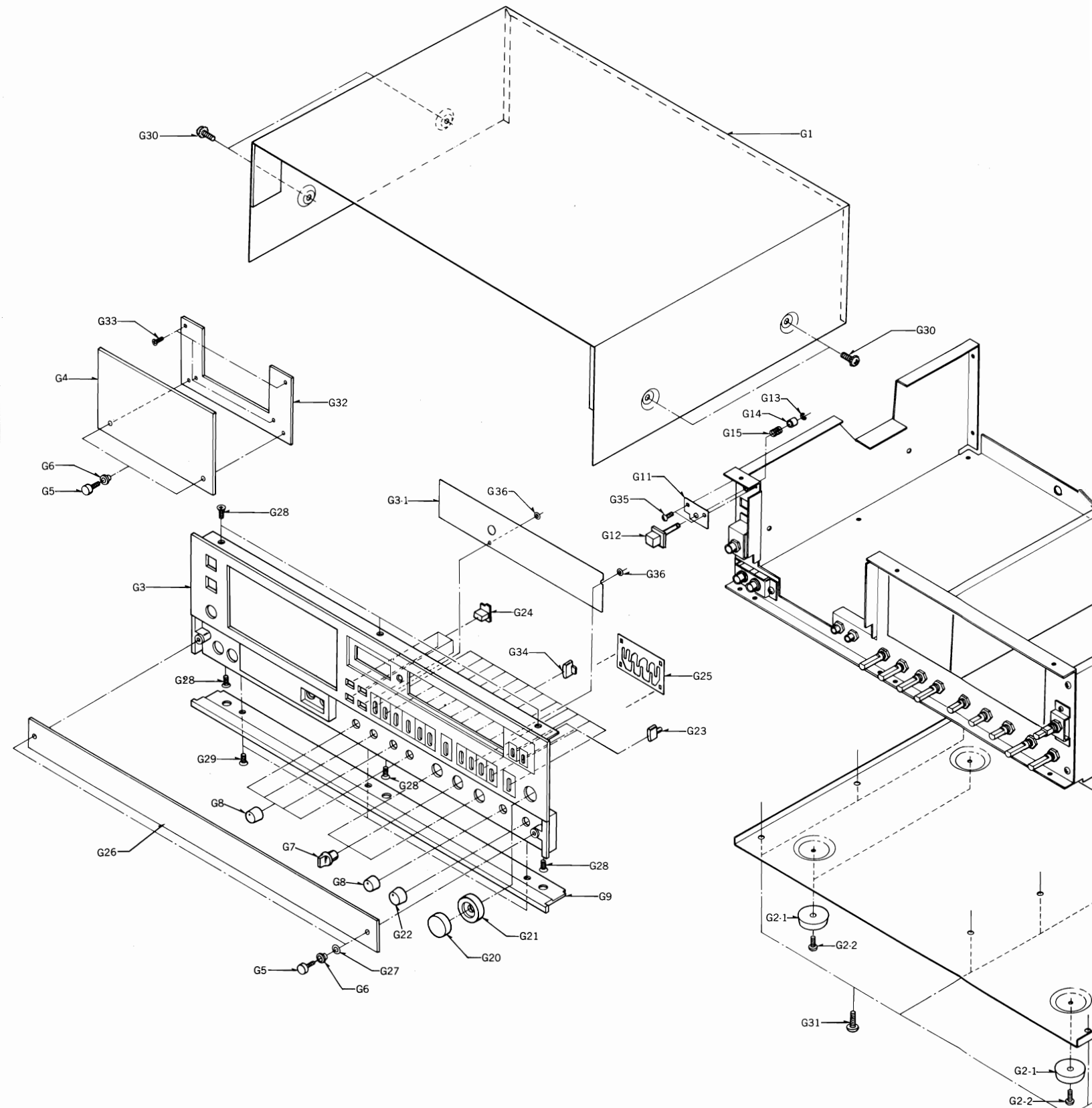
CIRCUIT BOARD POWER SECTION SUB-POWER CIRCUIT BOARD



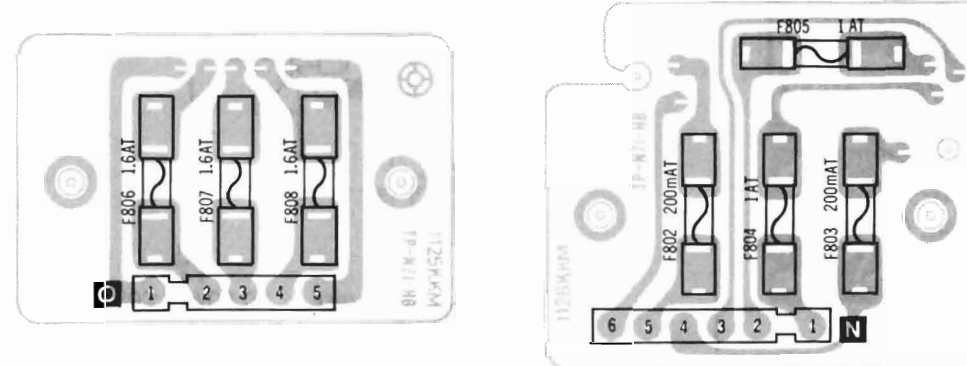
POWER SUPPLY CIRCUIT BOARD



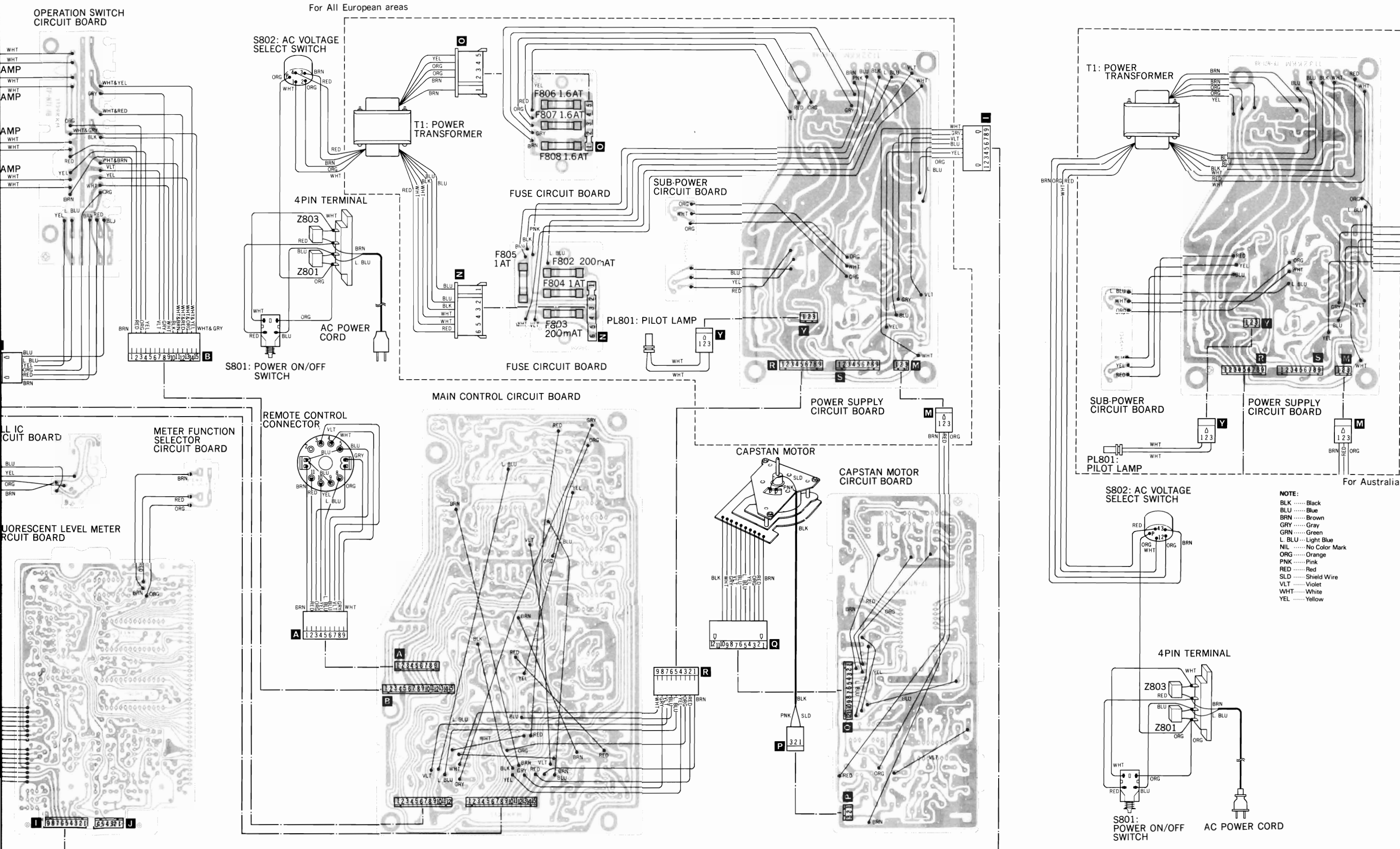
CABINET PARTS



FUSE CIRCUIT BOARD FUSE CIRCUIT BOARD

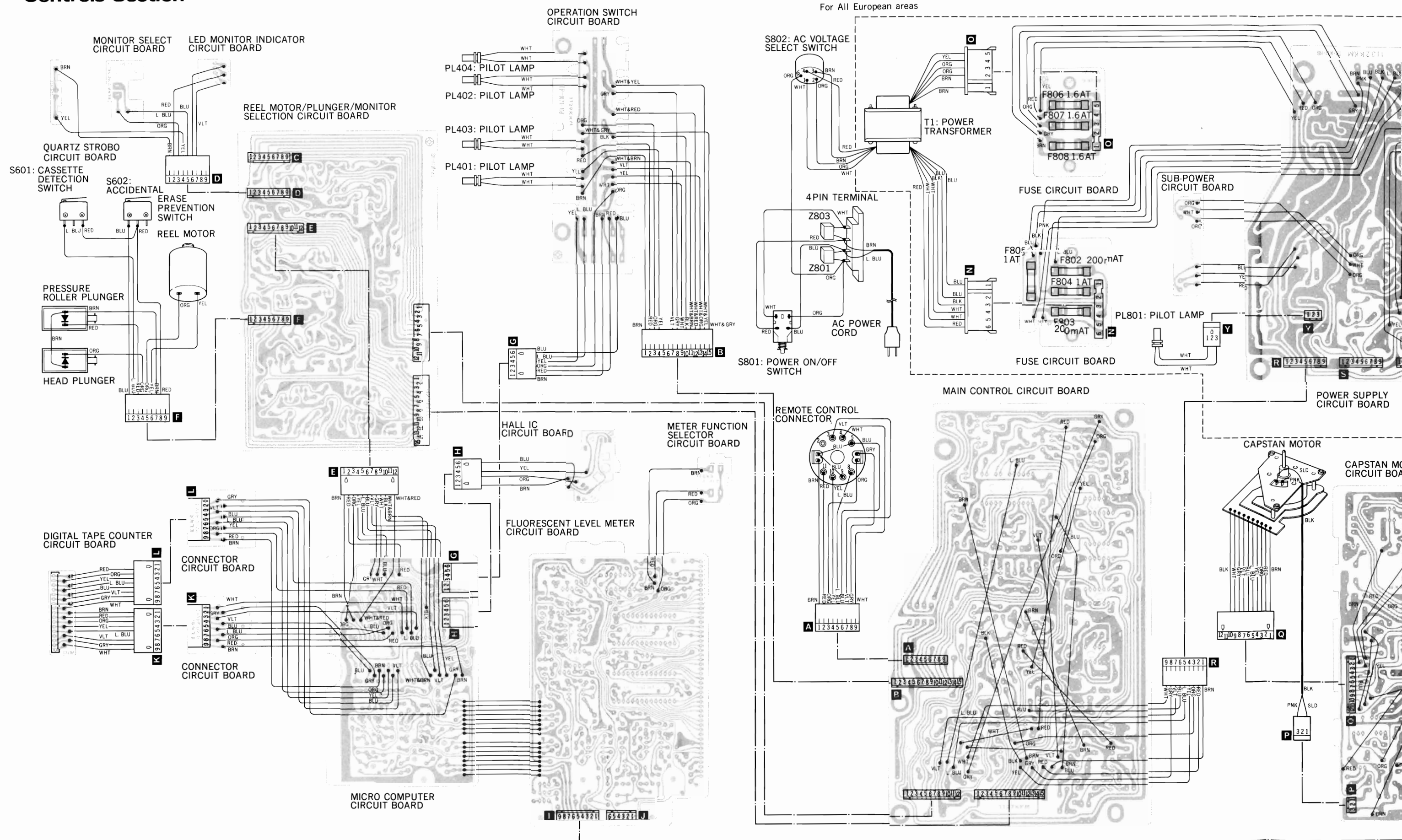


For All European areas.

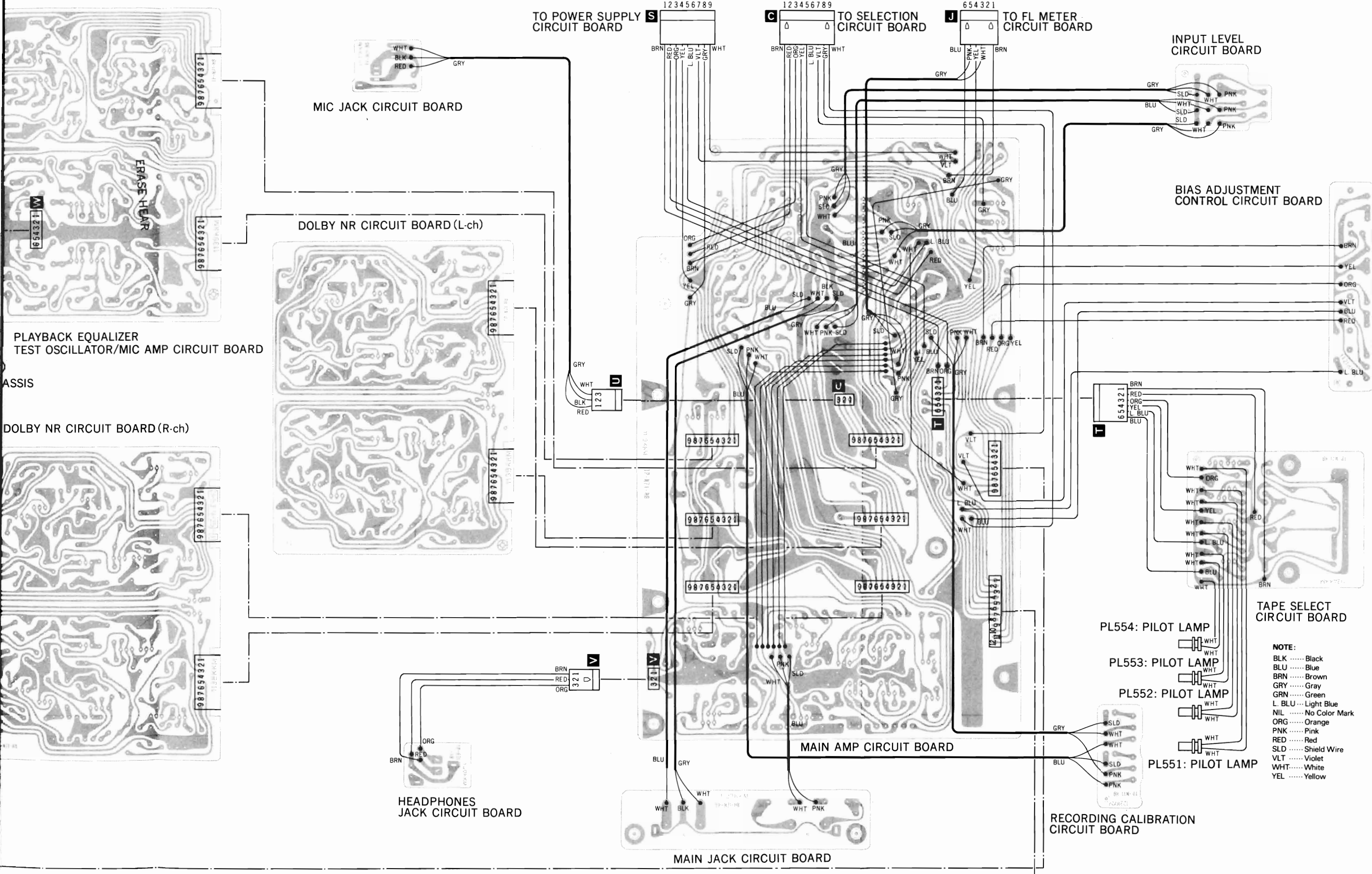


WIRING CONNECTION DIAGRAM

Controls Section

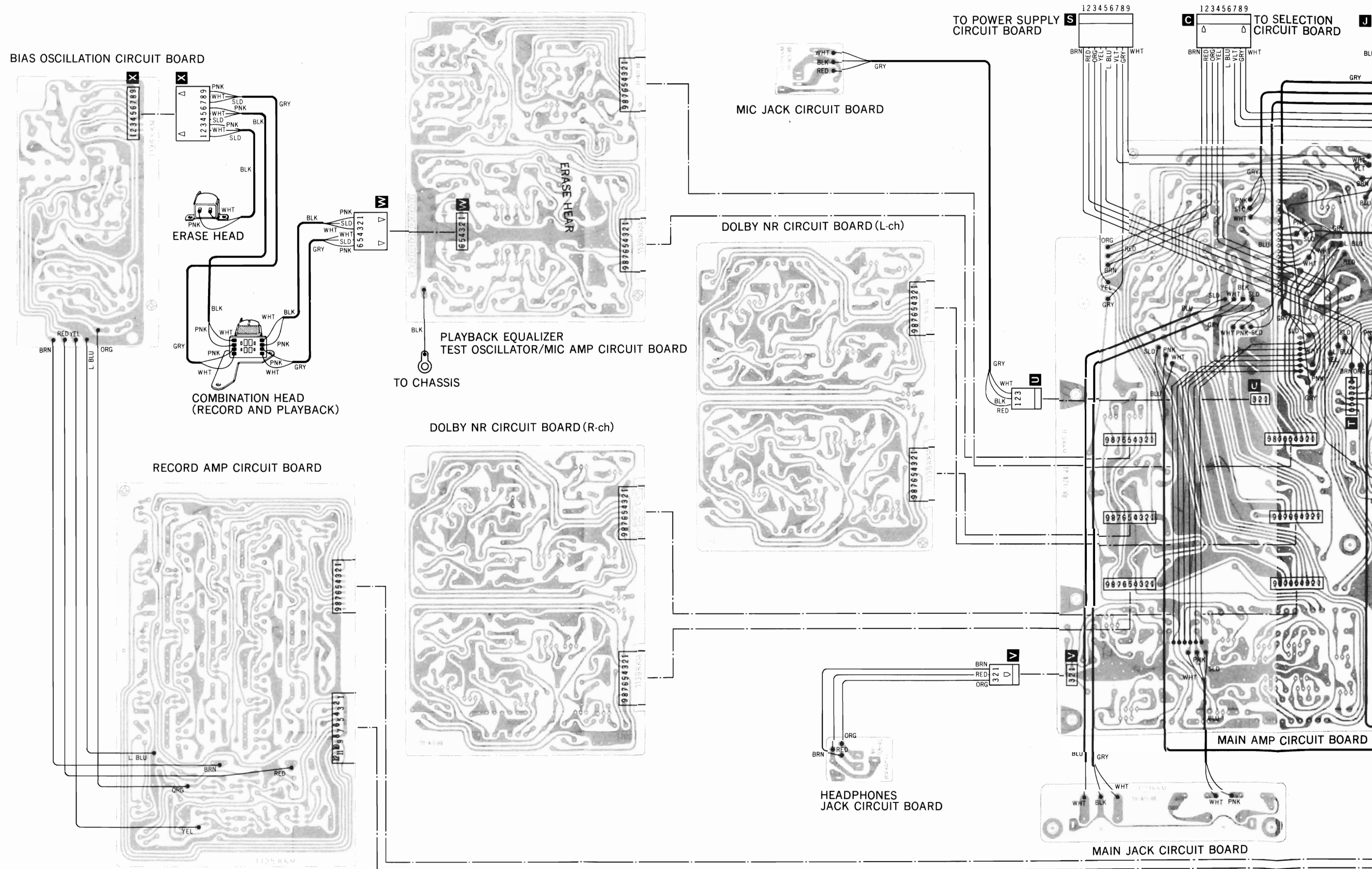


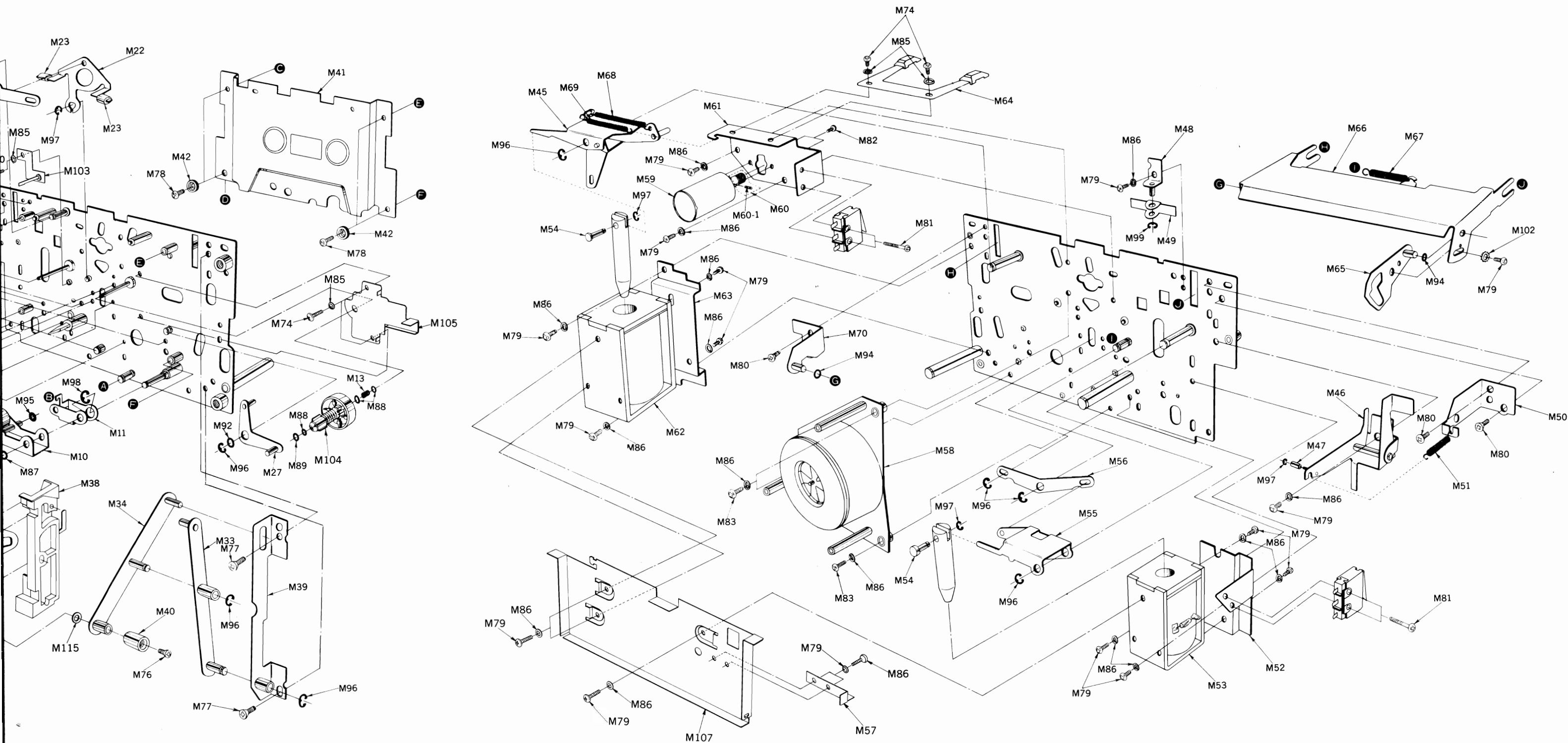
AM



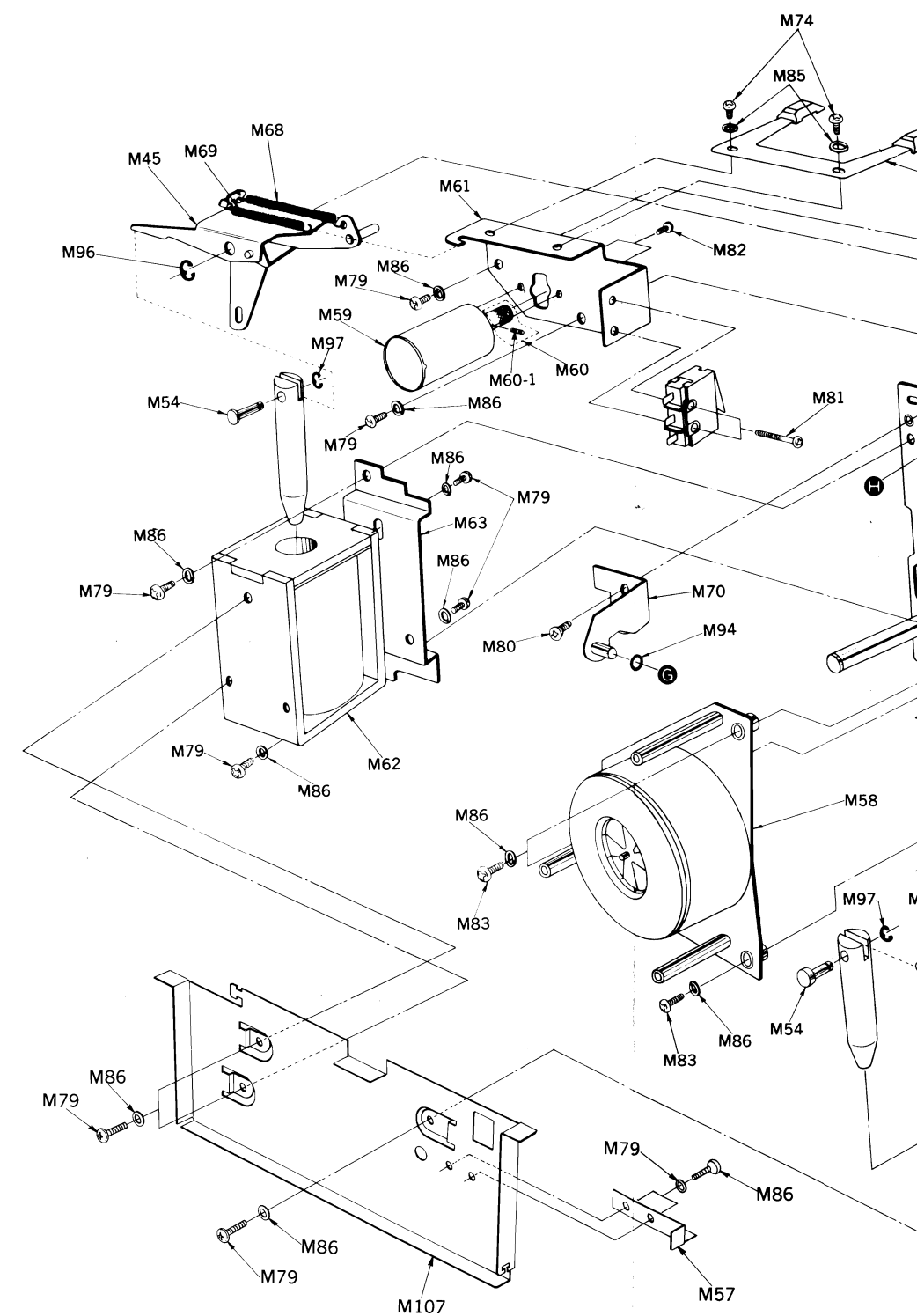
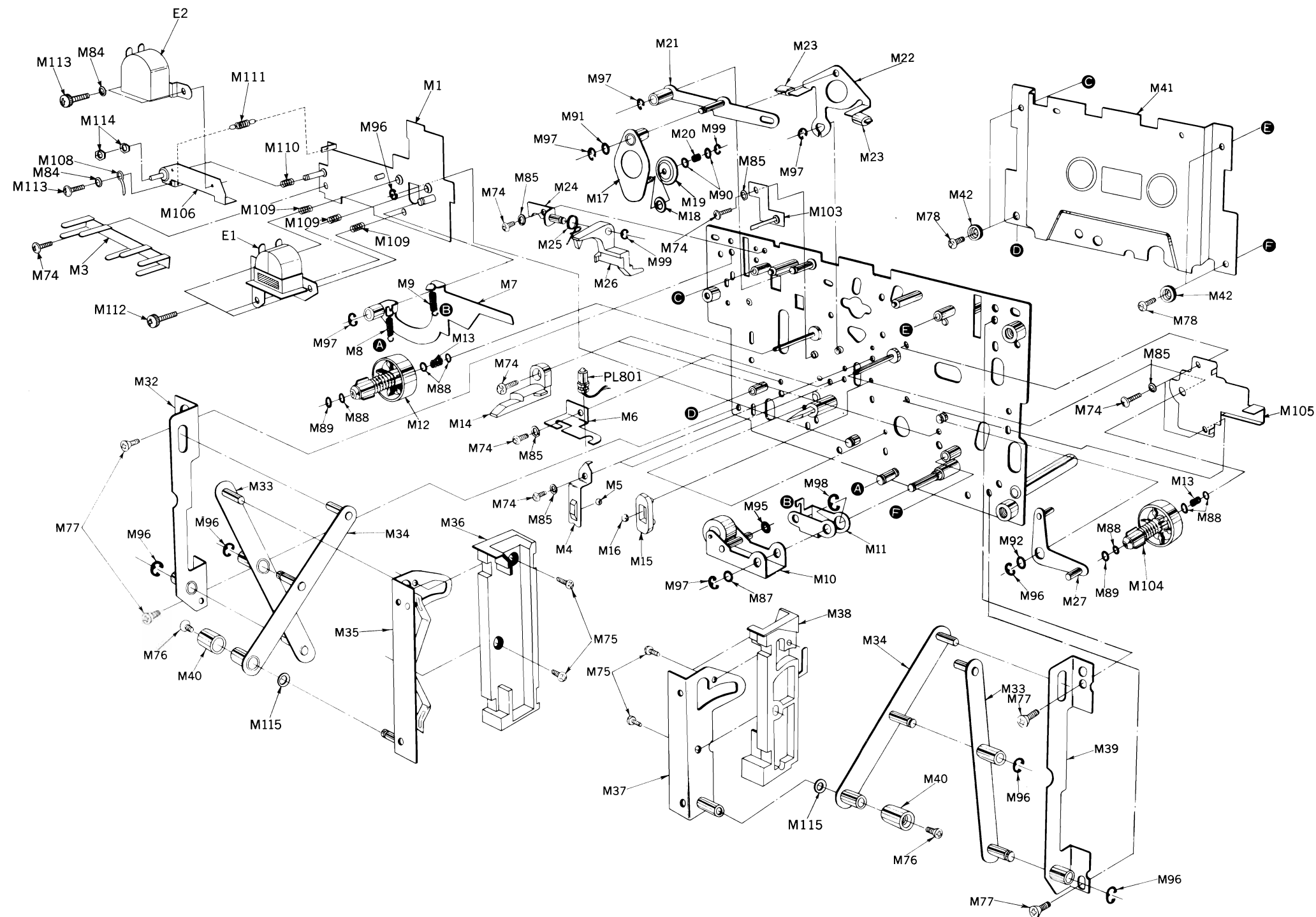
WIRING CONNECTION DIAGRAM

Amp Section



RS-M95[illegible]

EXPLODED VIEWS



Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
M1 M3 M4 M5 M6 M7 M8 M9 M10 M11	MECHANICAL PARTS		M17	QXL1189	Idler Lever Assembly	M37	QXA0705	Holder Angle-R Assembly	M53	QME0141	Plunger	M68	QBT1405	Lever Spring	M88	QBW2012	"	M104	QXD010	
			M18	QBF1260	Idler Felt	M38	QMH2028	Cassette Holder-R	M54	QMN2095	Plunger Pin	M69	QBT1713	Record Spring				M105	QTD127	
	QXN2152	Head Base Plate Assembly	M19	QXK101	Idler Assembly	M39	QXA0704	Angle-R Assembly	M55	QXL1171	Plunger Lever-L Assembly	M70	QXA0702	Connector Angle-R Assembly	M89	QBW2008	"	M106	QML127	
	QTD1270	Head Wires Clamper	M20	QBC1308	Idler Spring	M40	QKJ0245	Spacer-A	M56	QML3276	Plunger Lever	M74	XSN26+4	Screw ③2.6×4	M90	QBW2015	"	M107	QMA364	
	QBP1733	Steel Ball Holder-A	M21	QXL1164	Brake Lever Assembly	M41	QXH0286	Mechanism Cover				M75	XSN26+4BVS	"	M91	QBW2017	"	M108	QTD116	
	QDK1012	Steel Ball 2.5φ				*For All European areas except United Kingdom.			M57	QMA3681	Reinforcement Angle	M76	XSS2+4	Screw ③2×4	M92	QBW2018	"	M109	QBC123	
	QMA3321	Lamp Angle	M22	QML3273	Brake	QXH0277B	"		M58	QXK2010	Capstan Motor Assembly	M77	XSS3+4S	Screw ③3×4						
	QXL1168	Pressure Roller Lever Assembly	M23	QBG1132	Stopper Rubber	*For United Kingdom and Australia.			M59	MKCN22AE5	Reel Motor	M78	QH1185	Step Screw	M94	QBW2019	Poly Washer	M110	QBC122	
	QBT1490	Eject Lever Spring	M24	QXA0711	Detection Angle Assembly	M42	QML2123	Spacer-B	M60	QXP0574	Motor Pulley Assembly				M95	QBK7123	Fiber Washer	M111	QBT161	
	QBT1441	Pressure Roller Spring	M25	QBN1573	Detection Lever Spring	M43	QBP1135	Spring Washer	M60-1	XXE2603FZ	Set Screw	M79	XSN3+5S	Screw ③3×5	M96	XUC3FT	Stop Ring 3φ	M112	QXS2+1	
QXL1166	Pressure Roller Assembly	M26	QML3285	Detection Lever	M45	QXL1165	Lever-B Assembly	M61	QMA3313	Motor Angle	M80	XUC25FT	Stop Ring 2.5φ	M97	XUC5FT	Stop Ring 5φ	M113	XSN2+4		
QML3267	Pressure Roller Lever-1	M27	QXL1172	Lever-A Assembly	M46	QXL1188	Eject Lever Assembly	M62	QXE0243	Plunger	M81	QH1182	Step Screw	M98	XUC5FT	Stop Ring 5φ	M114	XNF26A		
		M32	QXA0703	Angle-L Assembly				M63	QMA3312	Plunger Angle-R	M82	XSN2+3	Screw ③2×3	M99	XUC2FT	Stop Ring 2φ	M115	QBK700		
M12	QXD0087	Reel Table	M33	QXL1191	Link Lever-A Assembly	M47	QDP1758	Roller	M64	QXH0276	Cassette Holding Cushion	M83	XSN3+8S	Screw ③3×8				M100	XSN26+6	
M13	QBC1272	Back Tension Spring	M34	QXL1190	Link Lever-B Assembly	M48	QXA0713	Angle Assembly	M65	QXL1173	Lock Lever Assembly	M84	XWA26	Spring Washer 2.6φ				M101	XWG26	
M14	QMG0054	Cassette Guide	M35	QXA0706	Holder Angle-L Assembly	M49	QML3284	Release Lever				M85	XWA3	Spring Washer 3φ				M102	XWC3	
M15	QMH2009	Steel Ball Holder-B				M50	QMA3314	Connector Angle	M66	QML3282	Connector Lever	M86	QBW2016	Poly Washer				M103	QXH0308	
M16	QDK1006	Steel Ball 3φ	M36	QMH2027	Cassette Holder-L	M51	QBT1753	Playback Lever Spring	M67	QBT1553	Plunger Angle-L									