ORDER NO. ARD-7805028C

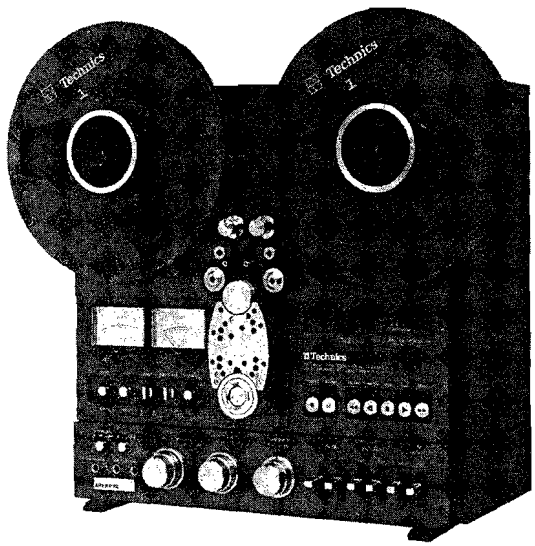
Service Manual

Open Deck

RS-1700

Vol. 1

"Isolated Loop" Quartz-Locked Direct-Drive Three-Motor Auto-Reverse Open-Reel Tape Deck



Information:

The Service Manual for model RS-1700 is in 2 parts: Vol. 1 and Vol. 2.
Vol. 1 does not include measurements and adjustments.
Refer to Vol. 2 for these items.

RS-1500U MECHANISM SERIES

Specifications (Catalog specifications for sales)

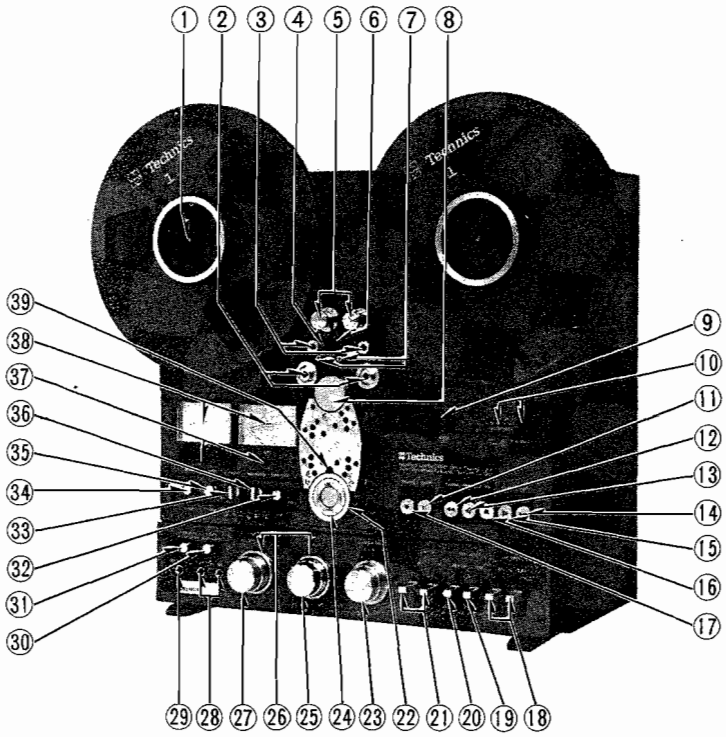
Operation:	Automatic reverse
Track system:	4-track 2-channel recording, playback, erasure on both way
Heads;	6 heads system 2-record/erasure combination head and 2-playback head
Motors:	3 direct-drive motors system
Capstan;	Quartz control phase-locked DC brushless servo direct-drive motor
Reel table;	2-tape tension controlled DC brushless direct-drive motor
Reel size:	13 cm to 26.5 cm (5" to 10-1/2") outside diameter
Tape speed:	38 cm/s, 19 cm/s and 9.5 cm/s (15 ips, 7-1/2 ips and 3-3/4 ips)
Wow and flutter:	(recording and playback)
38 cm/s (15 ips);	0.018% (WRMS), ±0.035% (Peak DIN)
19 cm/s (7-1/2 ips);	0.03% (WRMS), ±0.06% (Peak DIN)
9.5 cm/s (3-3/4 ips);	0.06% (WRMS), ±0.12% (Peak DIN)
Speed deviation:	±0.1% at 38 cm/s (15 ips)
Speed fluctuation:	0.05% at 38 cm/s (15 ips)
Frequency response:	
38 cm/s (15 ips);	30 ~ 30,000 Hz ±3 dB (rec. level = −10 dB from 0 VU)
19 cm/s (7-1/2 ips);	20 ~ 25,000 Hz ±3 dB (rec. level = −20 dB from 0 VU)
9.5 cm/s (3-3/4 ips);	20 ~ 15,000 Hz ±3 dB (rec. level = −20 dB from 0 VU)
Signal-to-noise ratio:	Weighted (ASA-A curve) 1 kHz
Recording level;	(3% THD) (185 nWb/m + 6 dB)
38 cm/s (15 ips);	68 dB 62 dB
19 cm/s (7-1/2 ips);	68 dB 62 dB
9.5 cm/s (3-3/4 ips);	67 dB 60 dB
Distortion (THD):	Measured via tape at 400 Hz (at any speed)
	Less than 0.8% (0 VU)
	Less than 2.0% (185 nWb/m + 6 dB)
Channel separation:	Better than 50 dB
Erasing ratio:	Better than 65 dB (rec. level = +10 dB at 1 kHz)
Pitch control:	±6% (recording and playback)
Time counter accuracy:	±1% at 38 cm/s (15 ips)
Fast winding time:	150 sec. for 762 m (1.5 mil, 2500 feet) tape
Auto-reverse sensing:	Photoelectric
Auto-stop sensing:	Photoelectric, Tension roller switches or Take-up reel table servo control system
Recording bias:	120 kHz
Bias level;	BIAS selector at "1" 90% at "2" 100% at "3" 110%
Equalization:	NAB standard position "2" of "EQ" and "BIAS" selector set for Scotch #207 tape
Recording level calibration:	Referenced to 185 nWb/m
Inputs:	
MIC;	Unbalancedphone type jack sensitivity 0.25 mV (−72 dB), input impedance 4.7 KΩ (at 0 VU, Mic. level control at maximum position) 2.5 mV (−52 dB)/4.7 KΩ with 20 dB Mic. Attenuation switch on. overload margin 55 dB (75 dB with 20 dB Mic. Att.) applicable microphone impedance 400Ω ~ 10 KΩ
LINE;	Unbalanced phono type jack sensitivity 60 mV (−24 dB), input impedance 150 KΩ overload margin = infinity (line input connected to LINE IN level control before pass through the amplifier)
THROUGH OUT;	Same as LINE IN (connected in paralled to LINE IN)
Outputs:	
LINE;	2-pair of unbalanced phone type jack output level 0.55 V at 0 VU (output level control at "8") 0.775 V or more at output level control maximum output impedance less than 3 KΩ load impedance 22 KΩ over
HEADPHONE;	Stereo phone type jack output level 80 mV at 0.55 V line output load impedance 8Ω
Power requirements:	AC 110/125/220/240 V, 50/60 Hz DC 24 V, 4.9 A peak (with optional battery adaptor RP-086)
Power consumption:	160 W
Weight:	25.7 kg, (56 lbs 9 oz)
Dimentions (W × H × D):	45.6 cm × 44.6 cm × 25.8 cm (18" × 17-1/2" × 10-1/8")

Specifications based on use of Technics RT-10B218 (Scotch #207) tape.
Specifications are subject to change without notice.

National Technics

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

LOCATION OF CONTROLS AND COMPONENTS



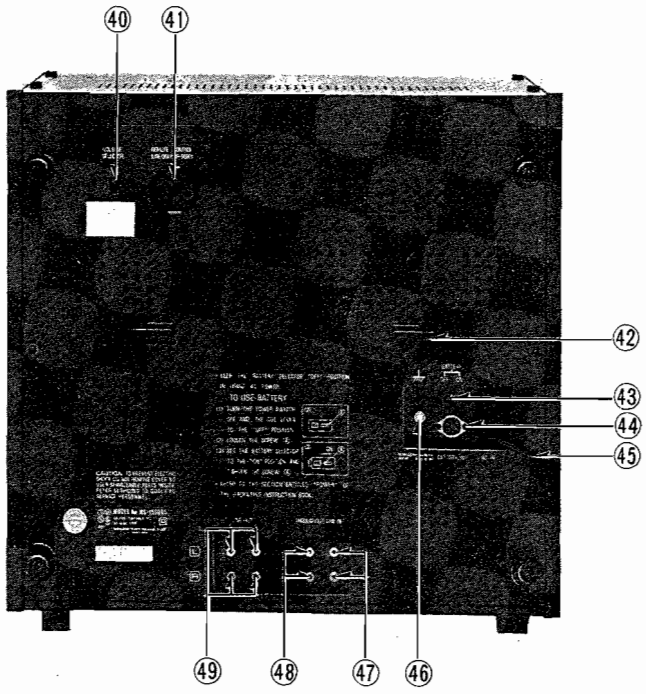


Fig. 1

① Reel clamper
② Double pinch rollers
③ Tape marker
④ Light sensing system: Light-emitting diode
⑤ Tension rollers
⑥ Light sensing system: Photo-transistor
⑦ Guide pins
⑧ Capstan
⑨ Cue lever/DC power switch
⑩ Time counter, reset button
⑪ Pause button
⑫ Rewind button
⑬ Reverse button
⑭ Fast-forward button
⑮ Forward button
⑯ Stop button
⑰ Record button
⑱ Record mode switches
⑲ Bias selector
⑳ Equalization selector
㉑ Monitor switches
㉒ Reversing roller
㉓ Output level controls
㉔ Edit dial
㉕ Line-input level controls
㉖ Preset markers
㉗ Microphone level controls
㉘ Microphone jack
㉙ Headphones jack
㉚ Microphone attenuator switch
㉛ Meter scale selector
㉜ Timer start switch
㉝ Tape speed selector
㉞ Power switch
㉟ Pitch control
㊱ Reverse selector
㊲ Level meter zero-point adjustment screws
㊳ Level meters
㊴ Stroboscope lamp
㊵ Voltage selector
㊶ Remote-control connector
㊷ Power cord holder
㊸ Battery selector
㊹ DC IN connector
㊺ Power cord
㊻ Ground terminal
㊼ Line input jacks
㊽ "Throughout" jacks
㊾ Line output jacks

AMPLIFIER SECTION BLOCK DIAGRAM

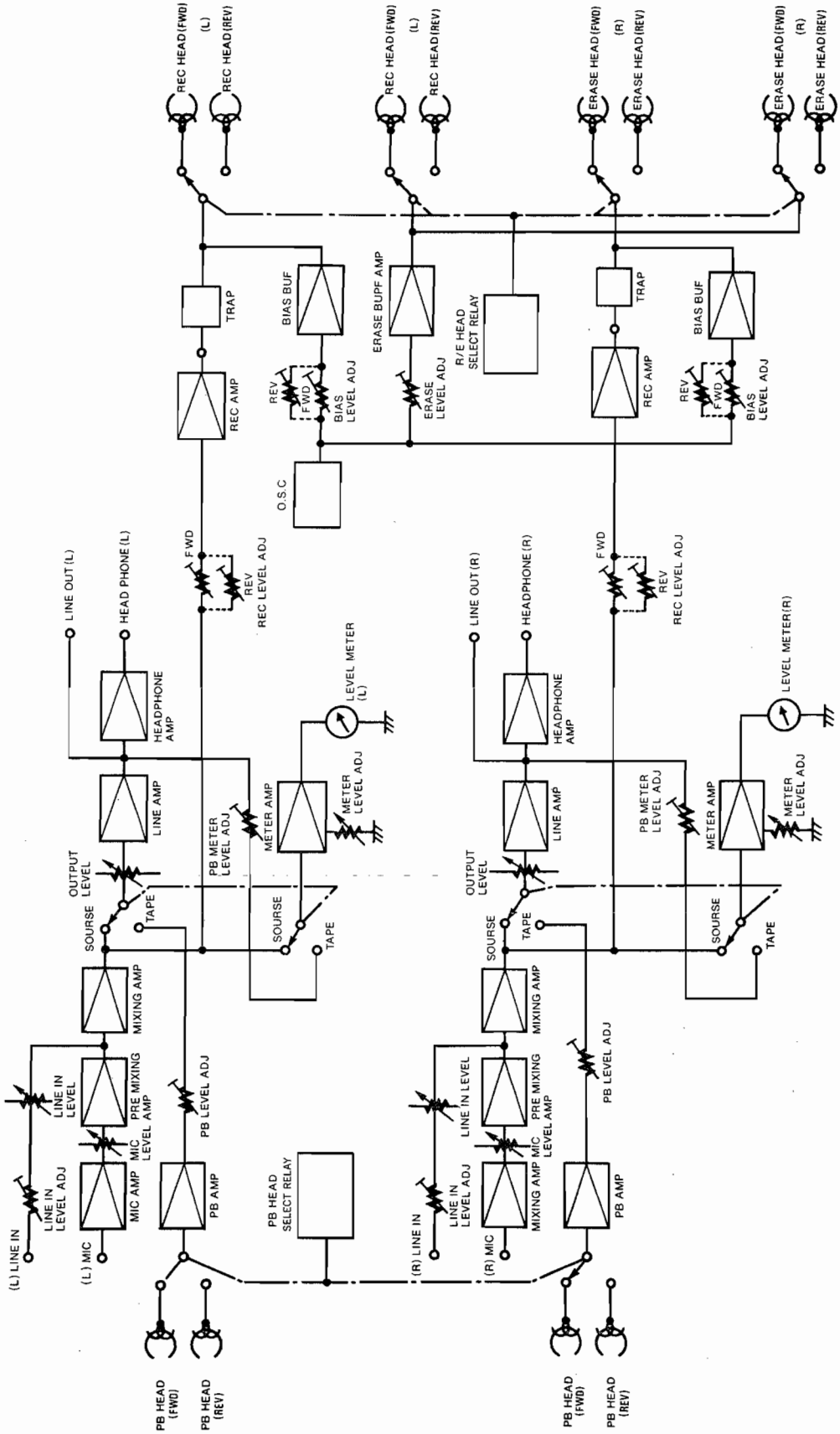


Fig. 2

MAIN CONTROL CIRCUIT SECTION

Equivalent Circuit

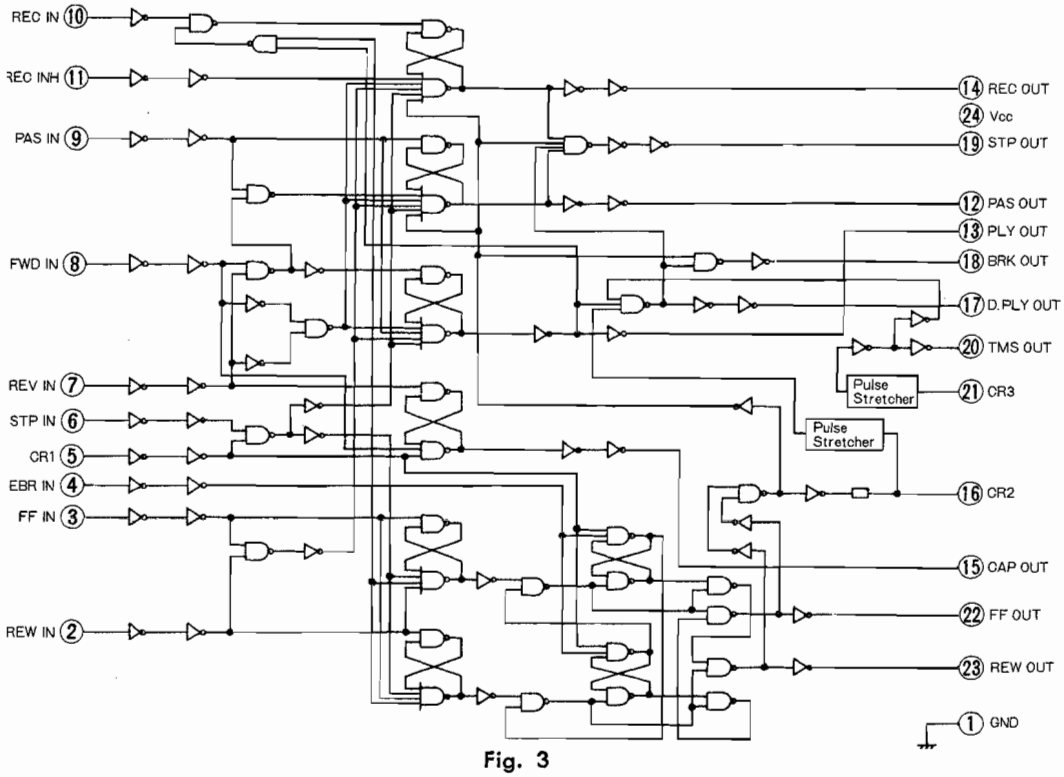
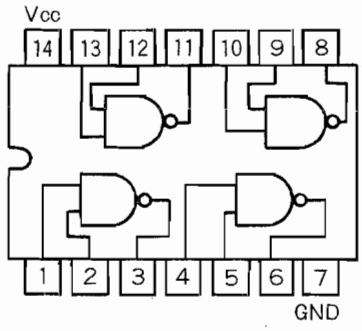


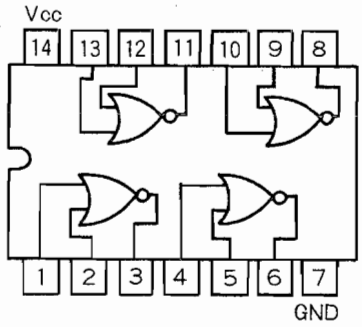
Fig. 3

Internal Circuit of ICs.

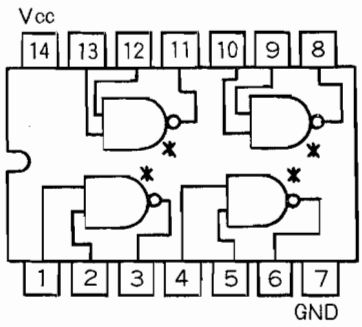
M53200P Quadruple 2-In put Positive Nand gate



M53202P Quadruple 2-In put Positive Nor gate



M53203P Quadruple 2-In put Positive Nand gate



M53204P Hex Inverter

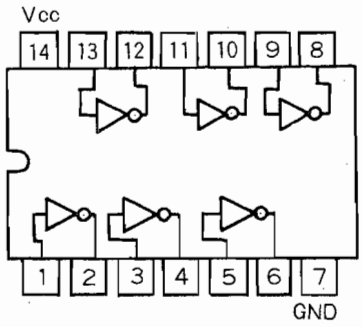


Fig. 4

DISASSEMBLY INSTRUCTIONS

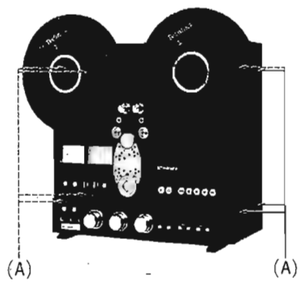


Fig. 5

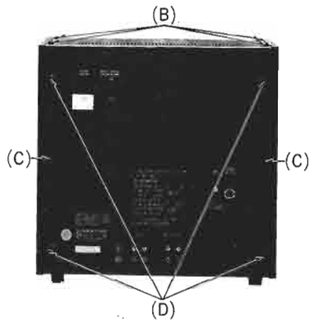


Fig. 6

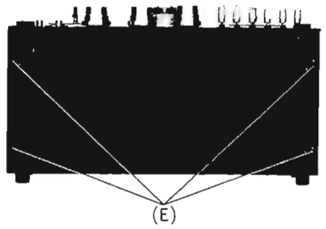


Fig. 7

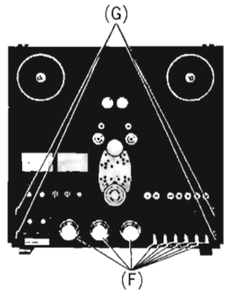


Fig. 8

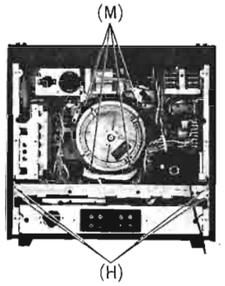


Fig. 9

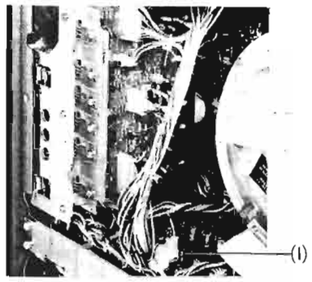


Fig. 10

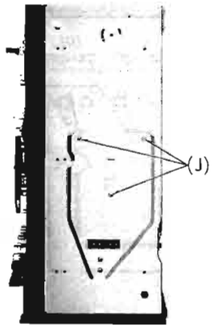


Fig. 11

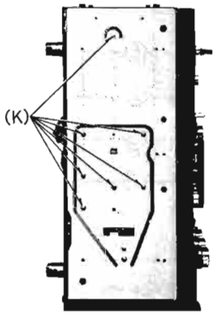


Fig. 12

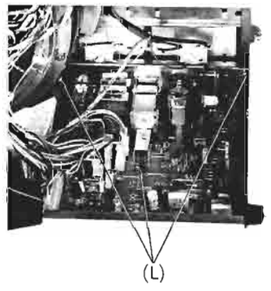


Fig. 13

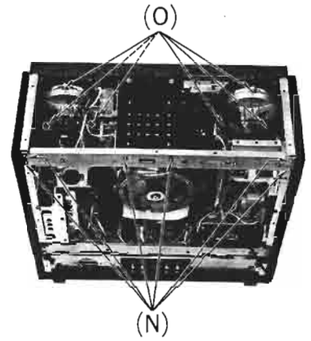


Fig. 14

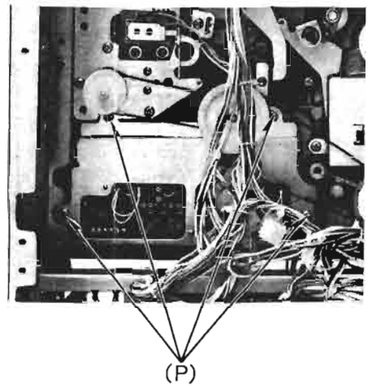
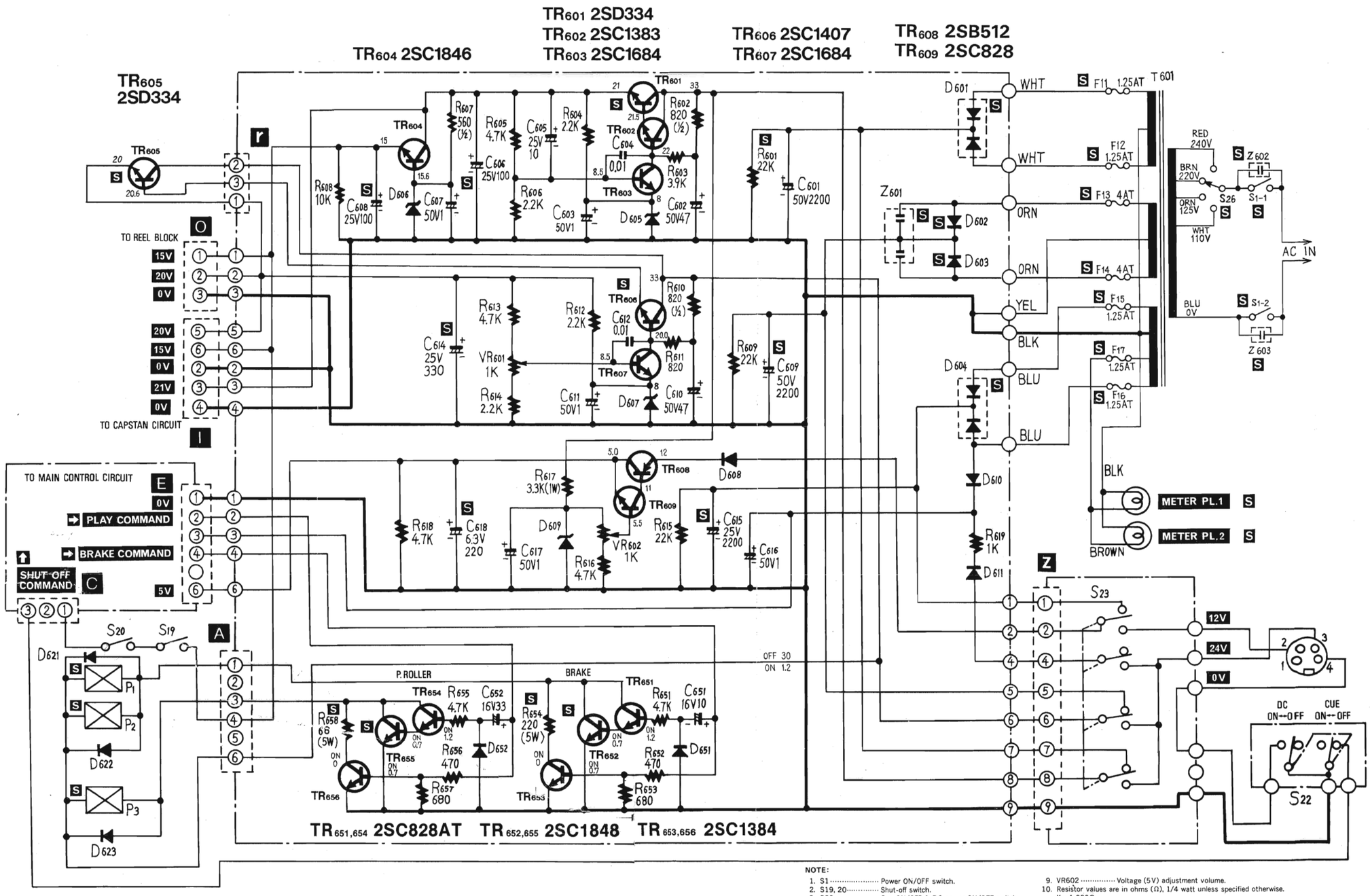


Fig. 15

Procedure	To remove ——.	Remove ——.	Pcs.	Shown in fig. ——.
1	Side board	Screws (A)	(8)	5
——	Top cover	Screws (B)	(4)	6
——	Rear cover	Screws (C) (D)	(2), (4)	6
——	Bottom cover	Screws (E)	(4)	7
2	Function panel and main P.C.B assembly	Knobs (F) Screws (G)	(9), (4)	8
——	Main control P.C.B assembly	Screws (H) (I) Connectors	(4), (1) (10)	9, 10
——	Reel motor driving P.C.B and reel motor tension control P.C.B	Screws (J)	(3)	11
——	Power supply P.C.B	Screws (K)	(7)	12
——	Capstan motor control P.C.B	Screws (L)	(3)	13
——	Capstan motor assembly	Screws (M)	(4)	9
——	Power transformer angle assembly	Screws (N)	(6)	14
3	Reel motor assembly	Screws (O)	(6)	14
——	Function button control P.C.B assembly	Screws (P)	(4)	15

SCHEMATIC DIAGRAM MODEL RS-1700

Power Supply Section

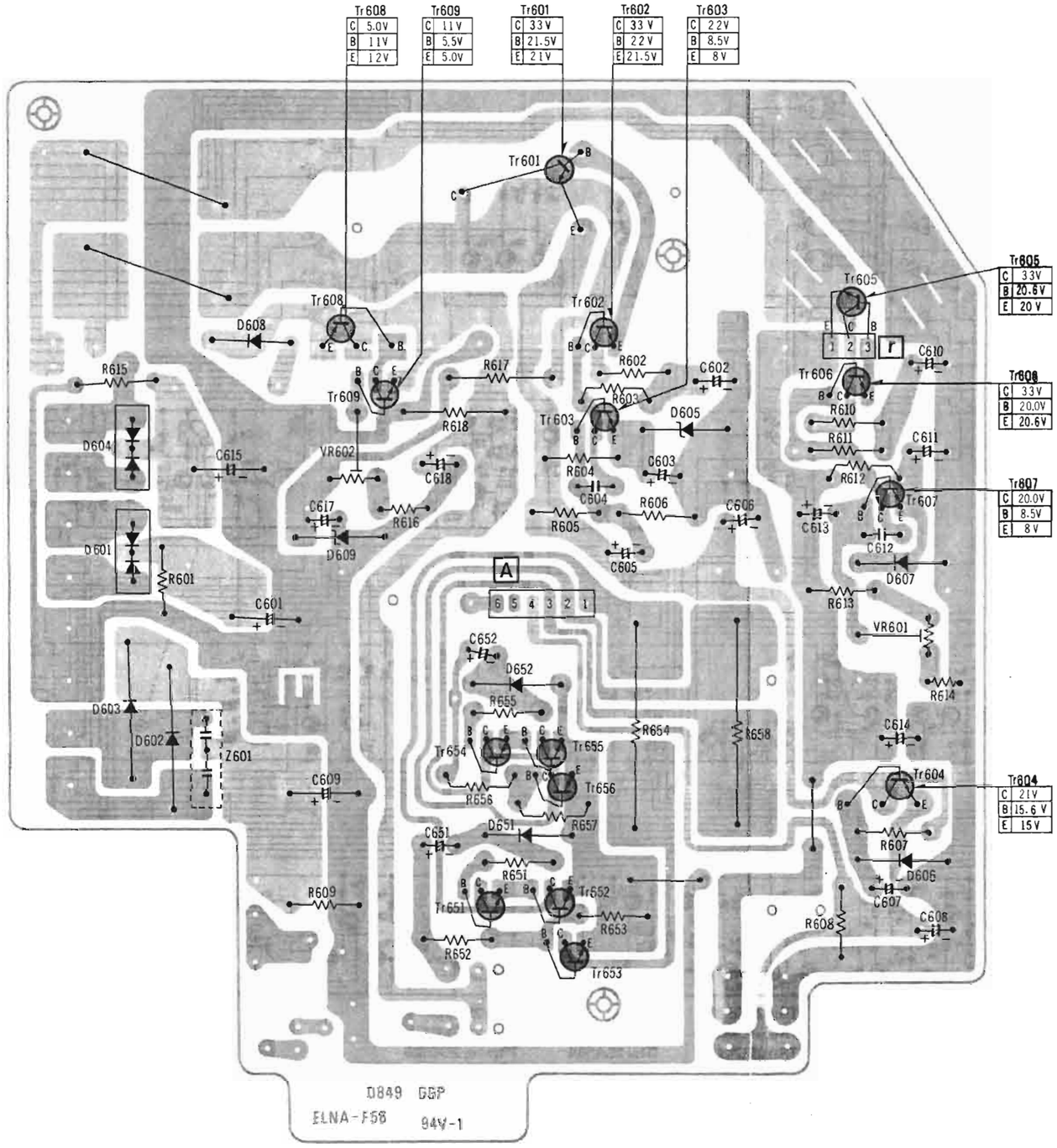


NOTE:

1. S1 ..... Power ON/OFF switch.
2. S19, 20 ..... Shut-off switch.
3. S22 ..... Cue ON/OFF & DC power ON/OFF switch.
4. S23 ..... AC/DC select switch.
5. S26 ..... AC voltage select switch.
6. P1, 2 ..... Brake plunger.
7. P3 ..... Pressure roller plunger.
8. VR601 ..... Voltage (20V) adjustment volume.
9. VR602 ..... Voltage (5V) adjustment volume.
10. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
11. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.
12. All voltage values show in circuitry are under no signal condition with volume control at minimum position. For measurement, use VTVM.
13. S indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

Power Supply

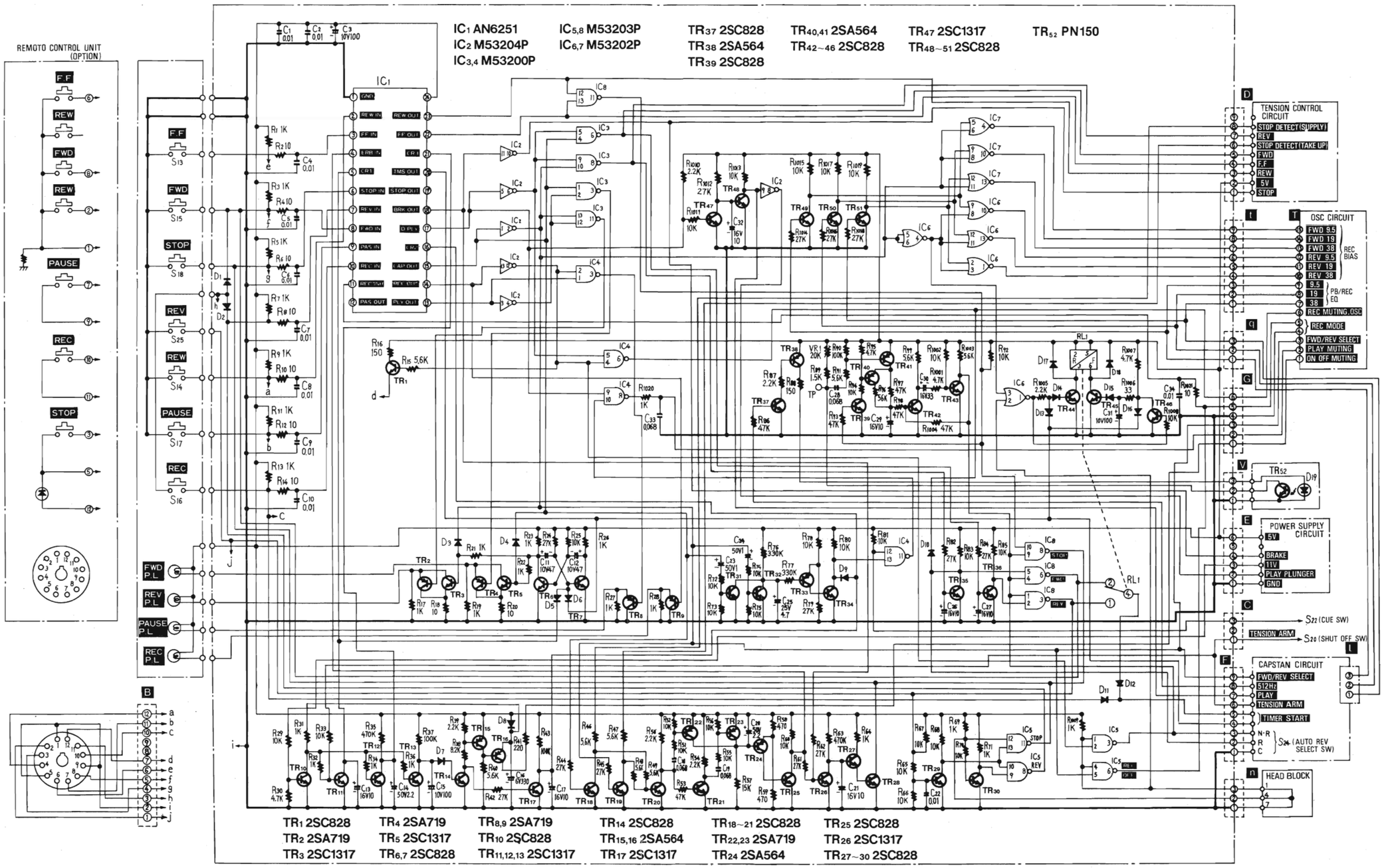


NOTE:

The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.

SCHEMATIC DIAGRAM MODEL RS-1700

Main Control Section

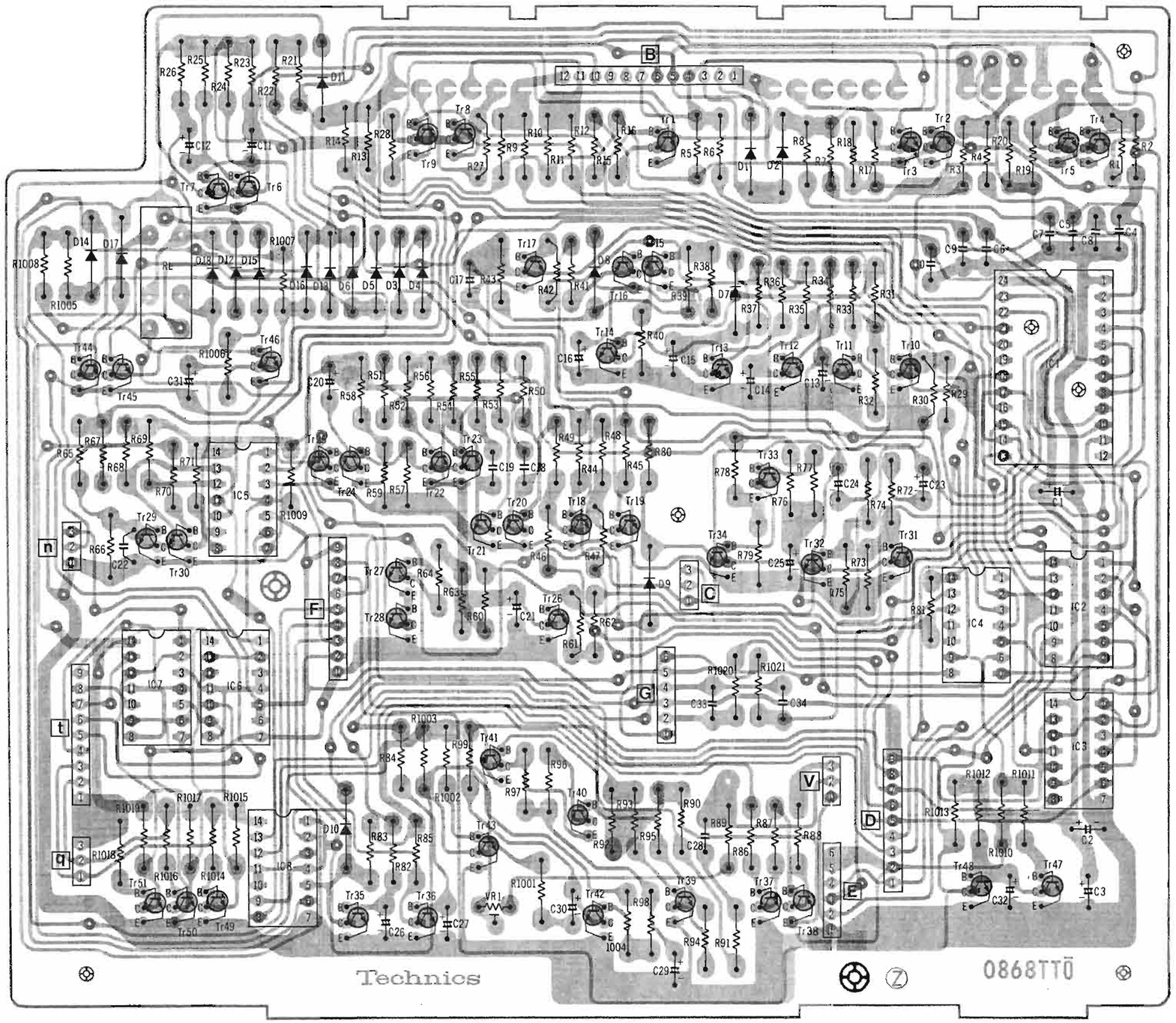


NOTE:

1. S13~18, 25 ..... Control key switch.
2. VR1 ..... Photo transistor adjustment VR.
3. RL1 ..... Forward/reverse select relay.
4. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
5. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.
6. All voltage values show in circuitry are under no signal condition with volume control at minimum position. For measurement, use VTVM.
7. S indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

Main Control



NOTE:

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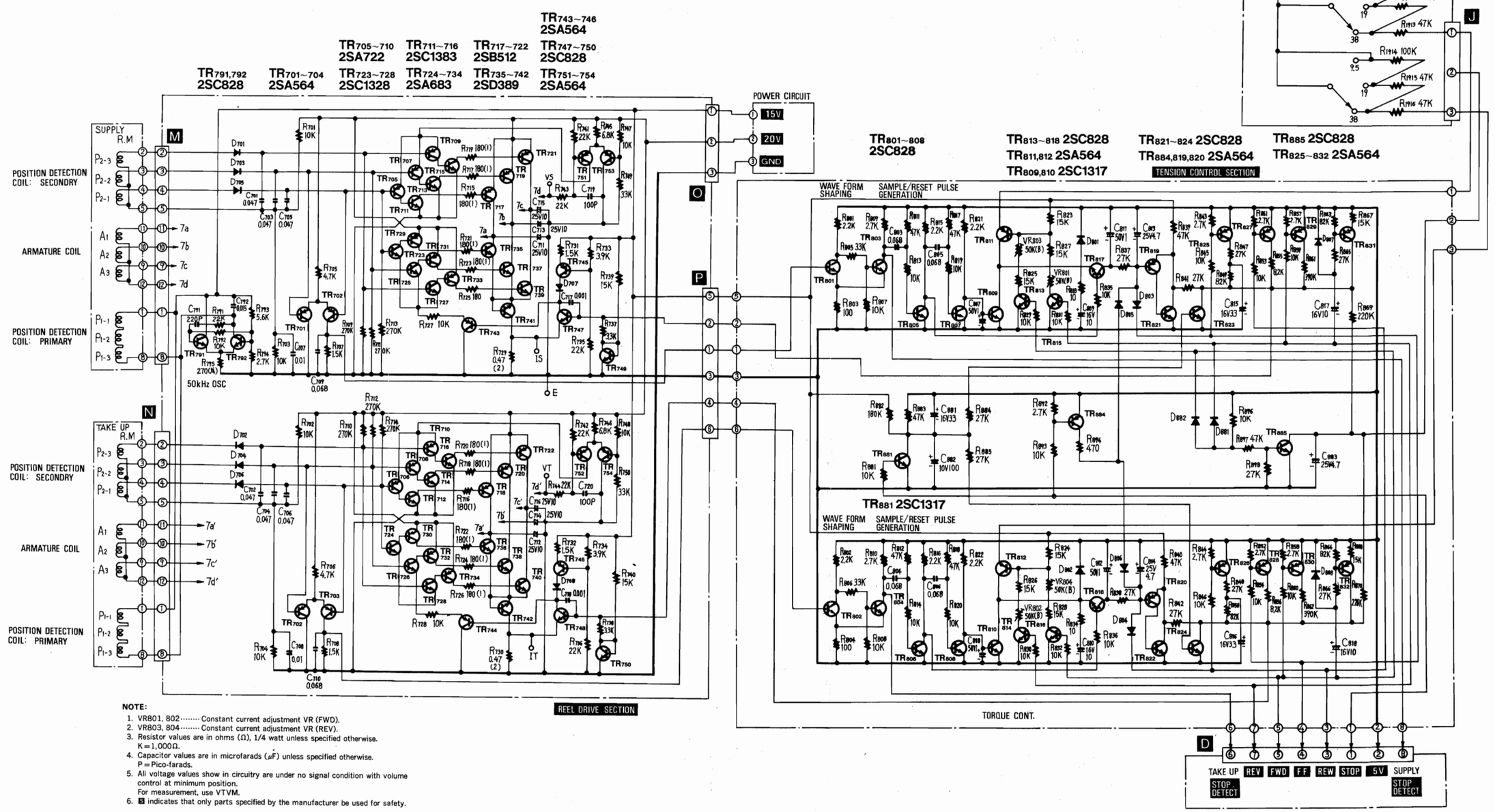
SCHEMATIC DIAGRAM MODEL RS-1700

Reel Motor Section

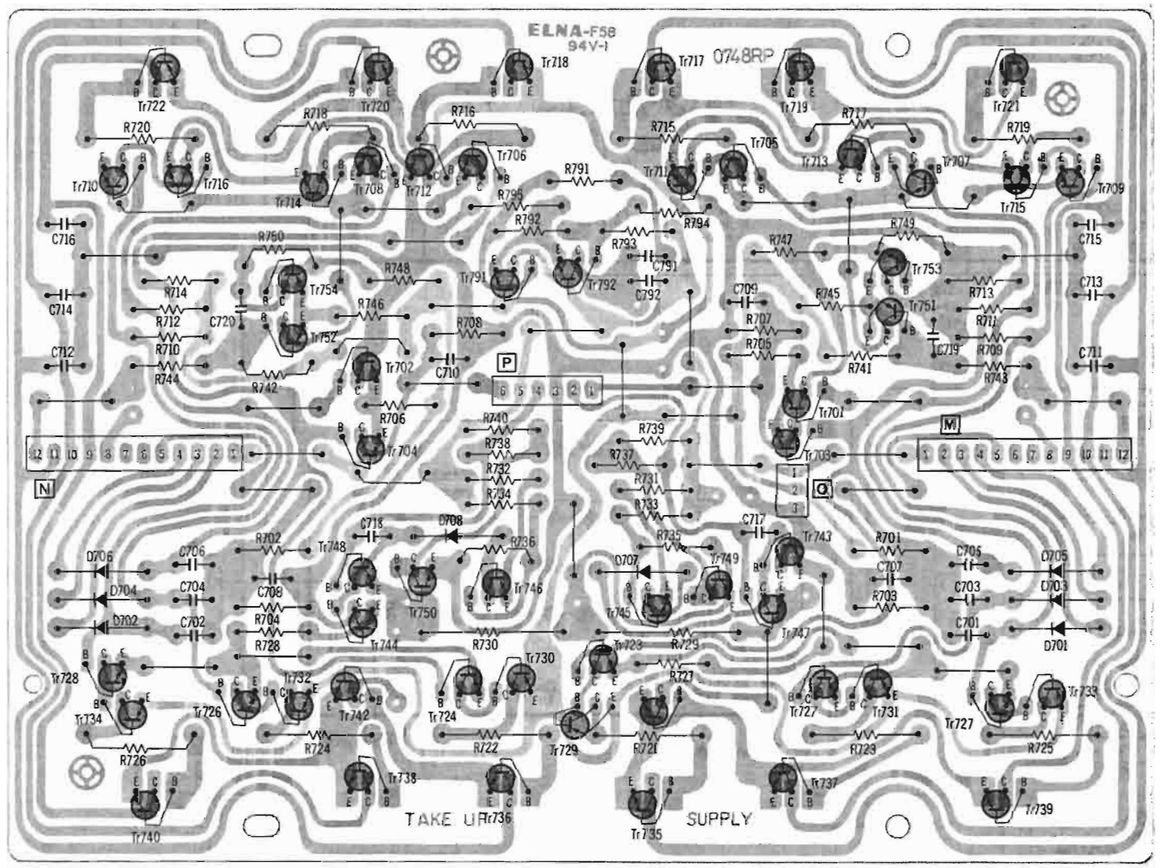


NOTE:

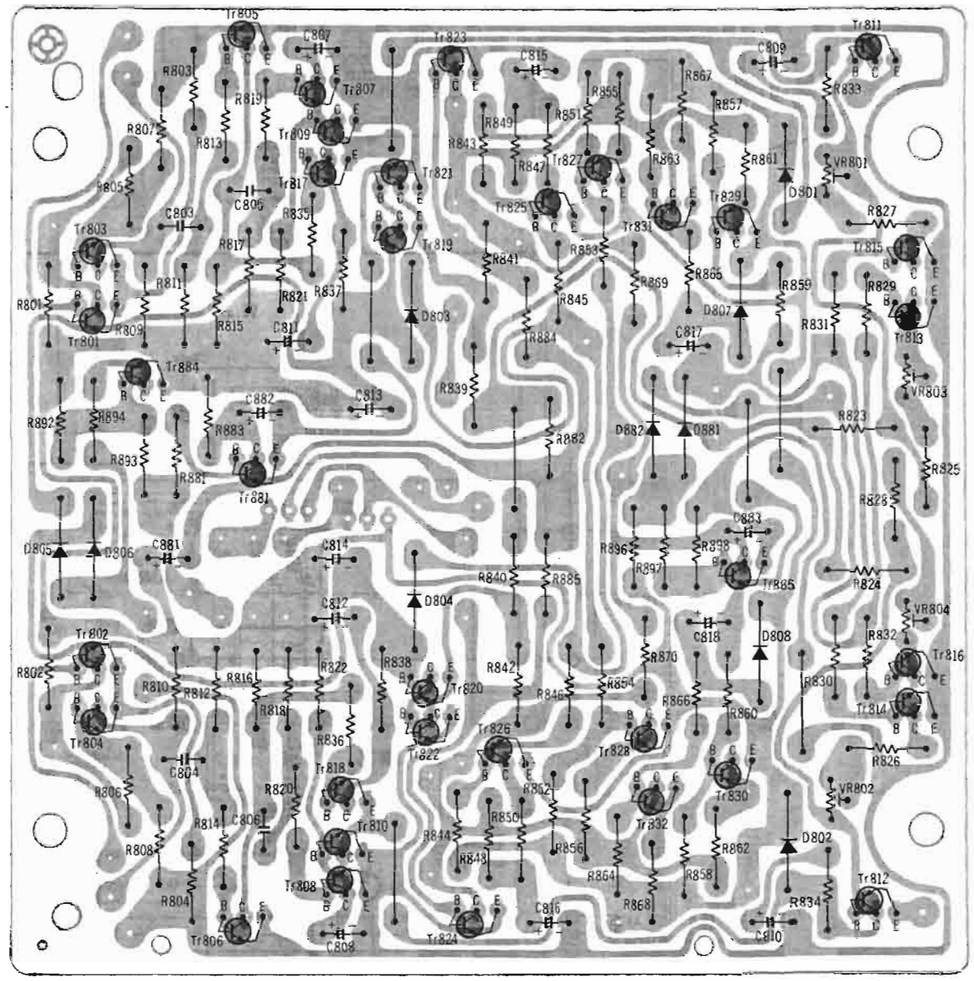
1. VR801, 802 ..... Constant current adjustment VR (FWD).
2. VR803, 804 ..... Constant current adjustment VR (REV).
3. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise.
   K = 1,000Ω.
4. Capacitor values are in microfarads (μF) unless specified otherwise.
   P = Pico-farads.
5. All voltage values show in circuitry are under no signal condition with volume control at minimum position.
   For measurement, use VTVM.
6. ⚠ indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

Reel Motor Driving



Reel Motor Tension Control



NOTE:

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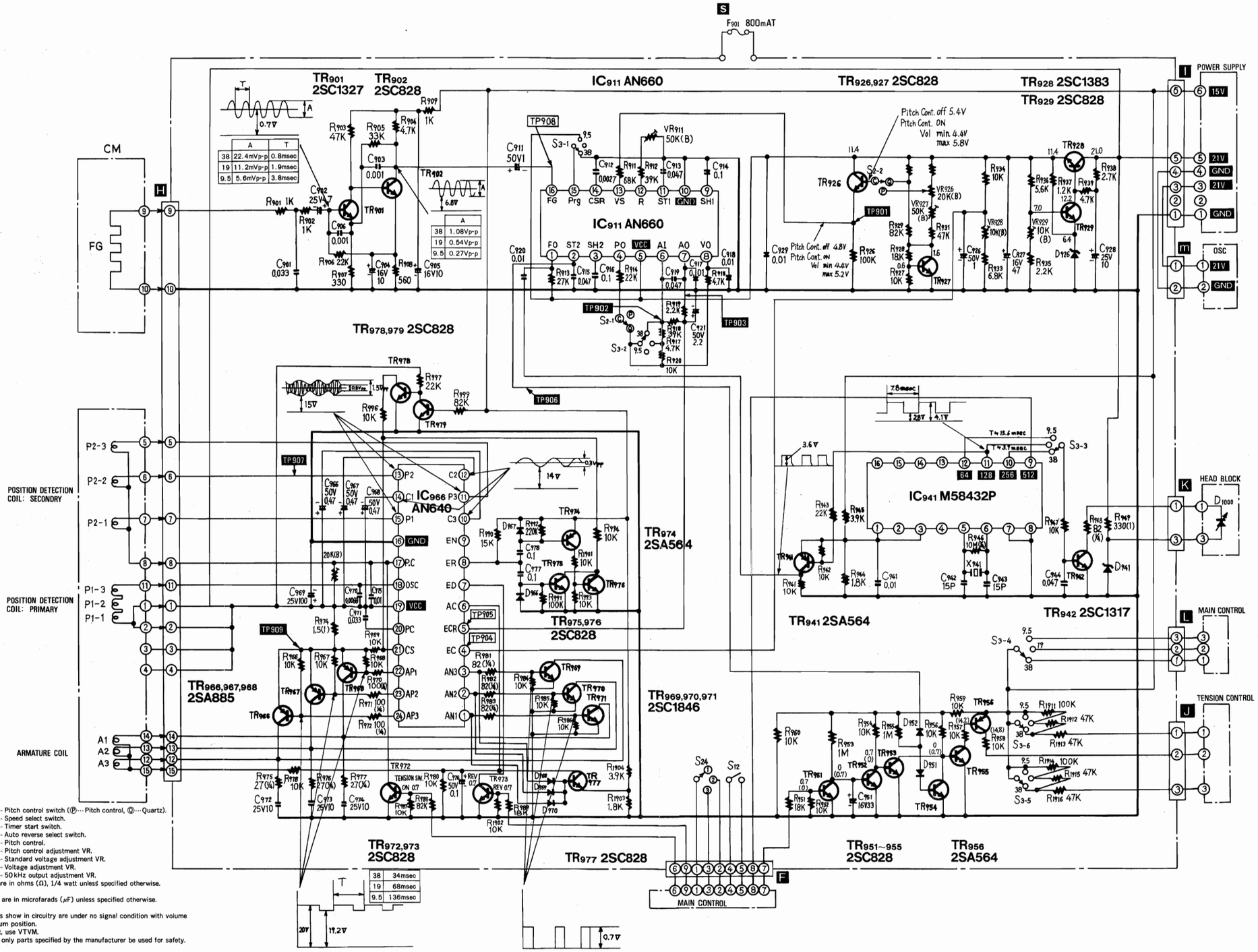
Values indicated in ▭ are DC voltage between the chassis and electrical parts.

SCHEMATIC DIAGRAM MODEL RS-1700

Capstan Motor Section

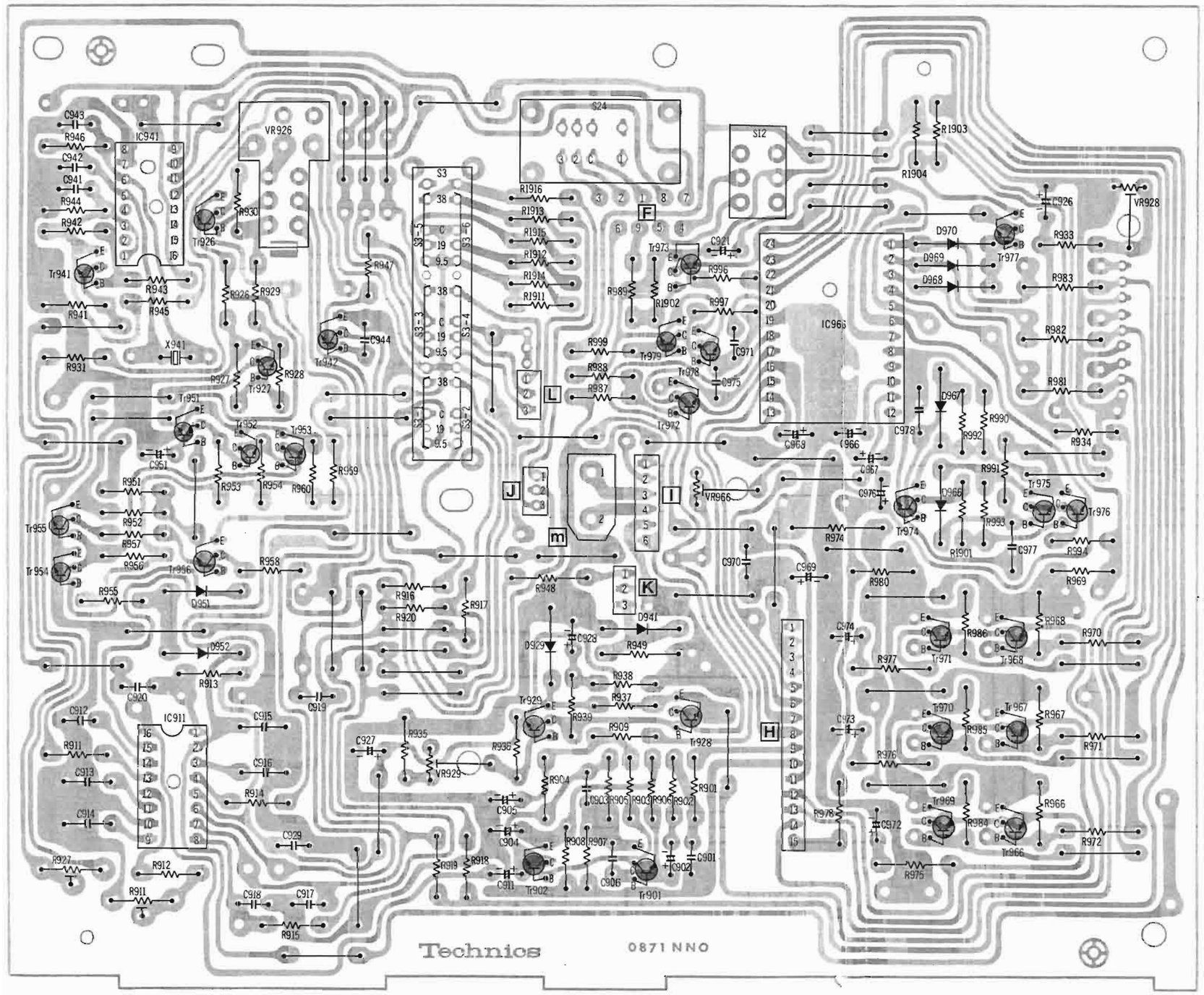


NOTE:

1. S2 ..... Pitch control switch (Ⓟ··· Pitch control, Ⓠ··· Quartz).
2. S3 ..... Speed select switch.
3. S12 ..... Timer start switch.
4. S24 ..... Auto reverse select switch.
5. VR926 ..... Pitch control.
6. VR927 ..... Pitch control adjustment VR.
7. VR928 ..... Standard voltage adjustment VR.
8. VR929 ..... Voltage adjustment VR.
9. VR966 ..... 50kHz output adjustment VR.
10. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
11. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.
12. All voltage values show in circuitry are under no signal condition with volume control at minimum position. For measurement, use VTVM.
13. S indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

Capstan Motor Control

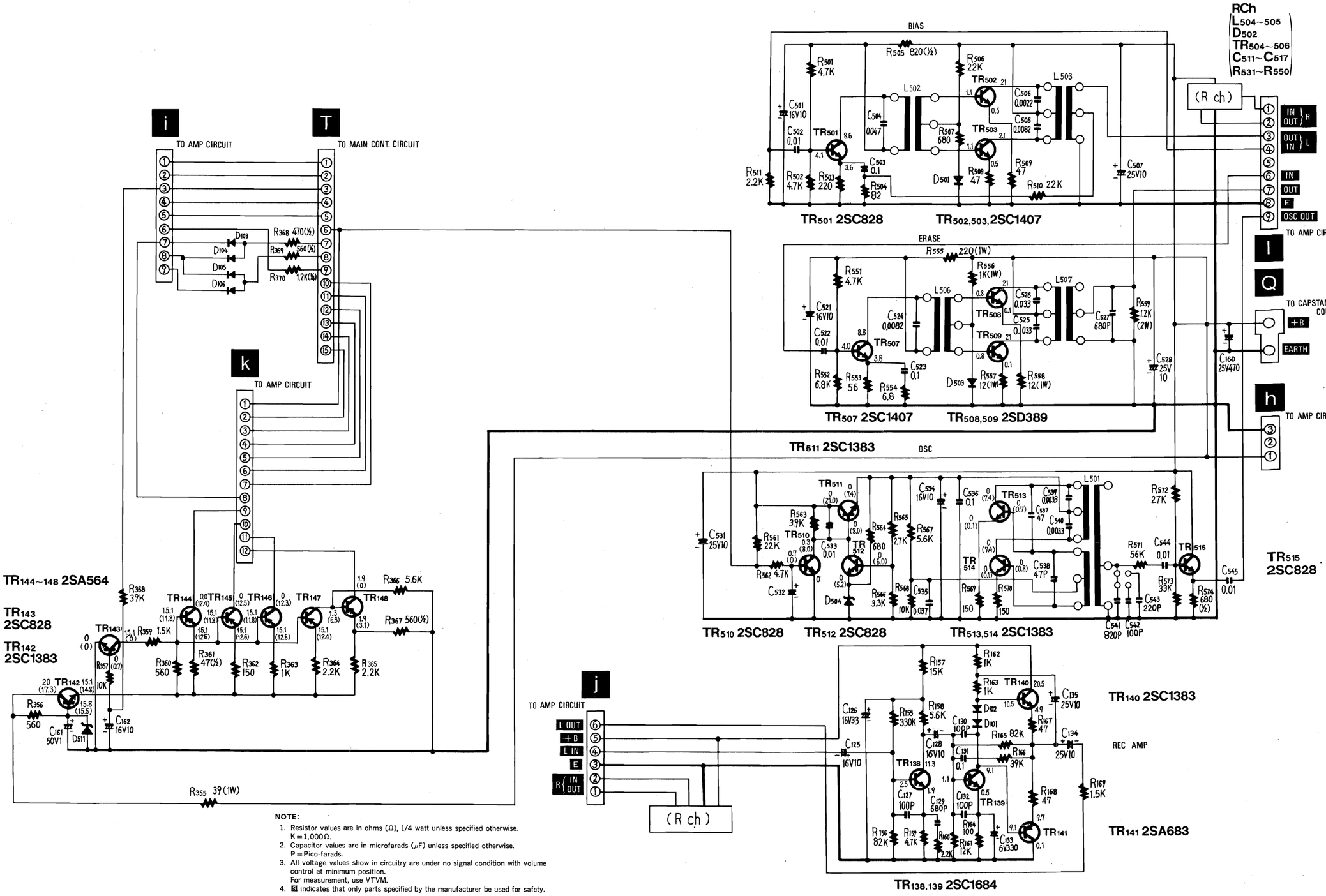


NOTE:

The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.

SCHEMATIC DIAGRAM MODEL RS-1700

Oscillation Section

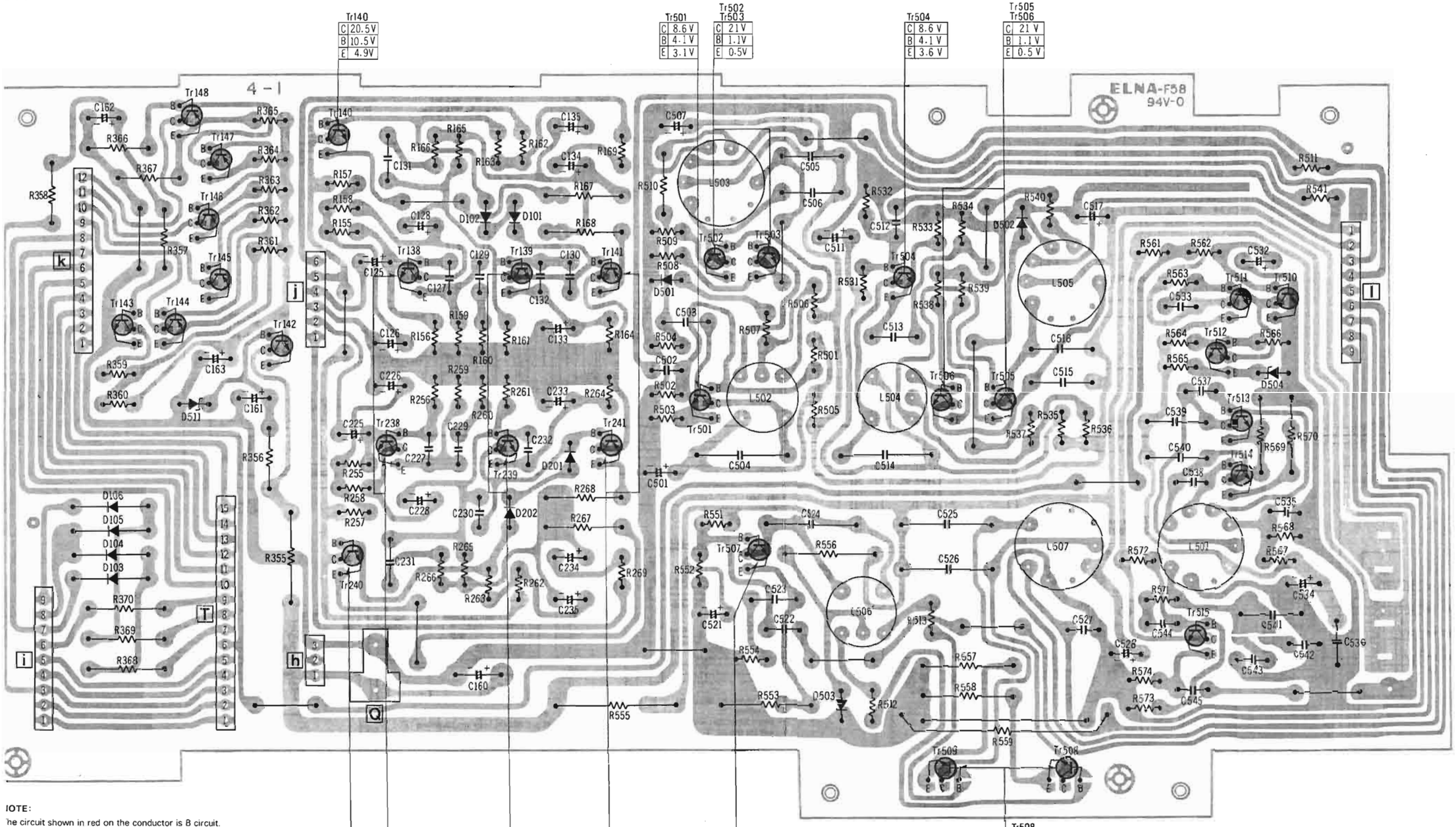


NOTE:

1. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise.
   K = 1,000Ω.
2. Capacitor values are in microfarads (μF) unless specified otherwise.
   P = Pico-farads.
3. All voltage values show in circuitry are under no signal condition with volume control at minimum position.
   For measurement, use VTVM.
4. S indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

Oscillation



NOTE:

The circuit shown in red on the conductor is B circuit.
Values indicated in [ ] are DC voltage between the chassis and electrical parts.

Tr240	
C	20.5 V
B	10.5 V
E	4.9 V

Tr138 Tr238	
C	11.3 V
B	2.5 V
E	1.9 V

Tr139 Tr239	
C	9.1 V
B	1.1 V
E	0.5 V

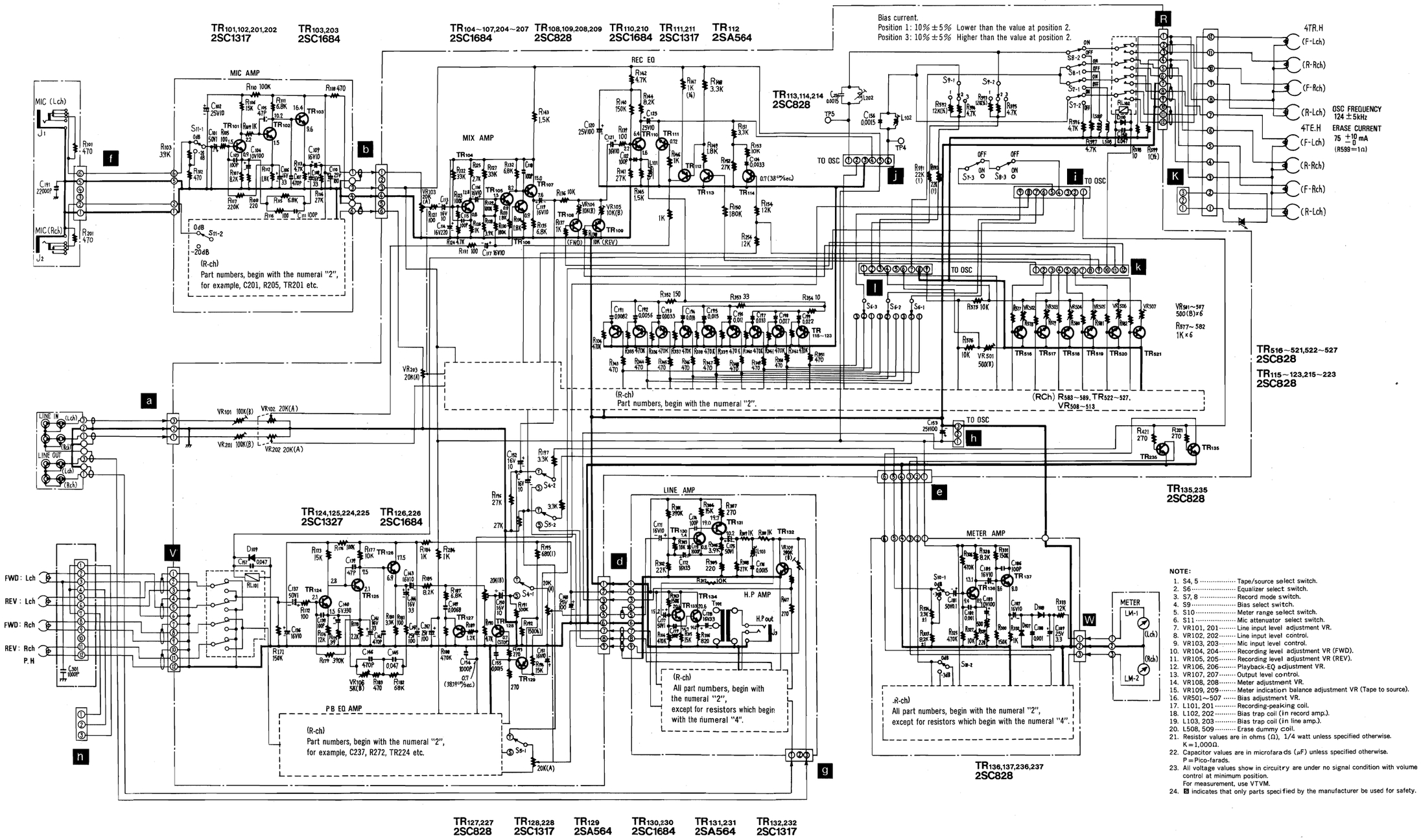
Tr241	
C	0.1 V
B	9.1 V
E	9.7 V

Tr507	
C	8.8 V
B	4.0 V
E	3.6 V

Tr508 Tr509	
C	21 V
B	0.8 V
E	0.1 V

SCHEMATIC DIAGRAM MODEL RS-1700

Main Amp Section

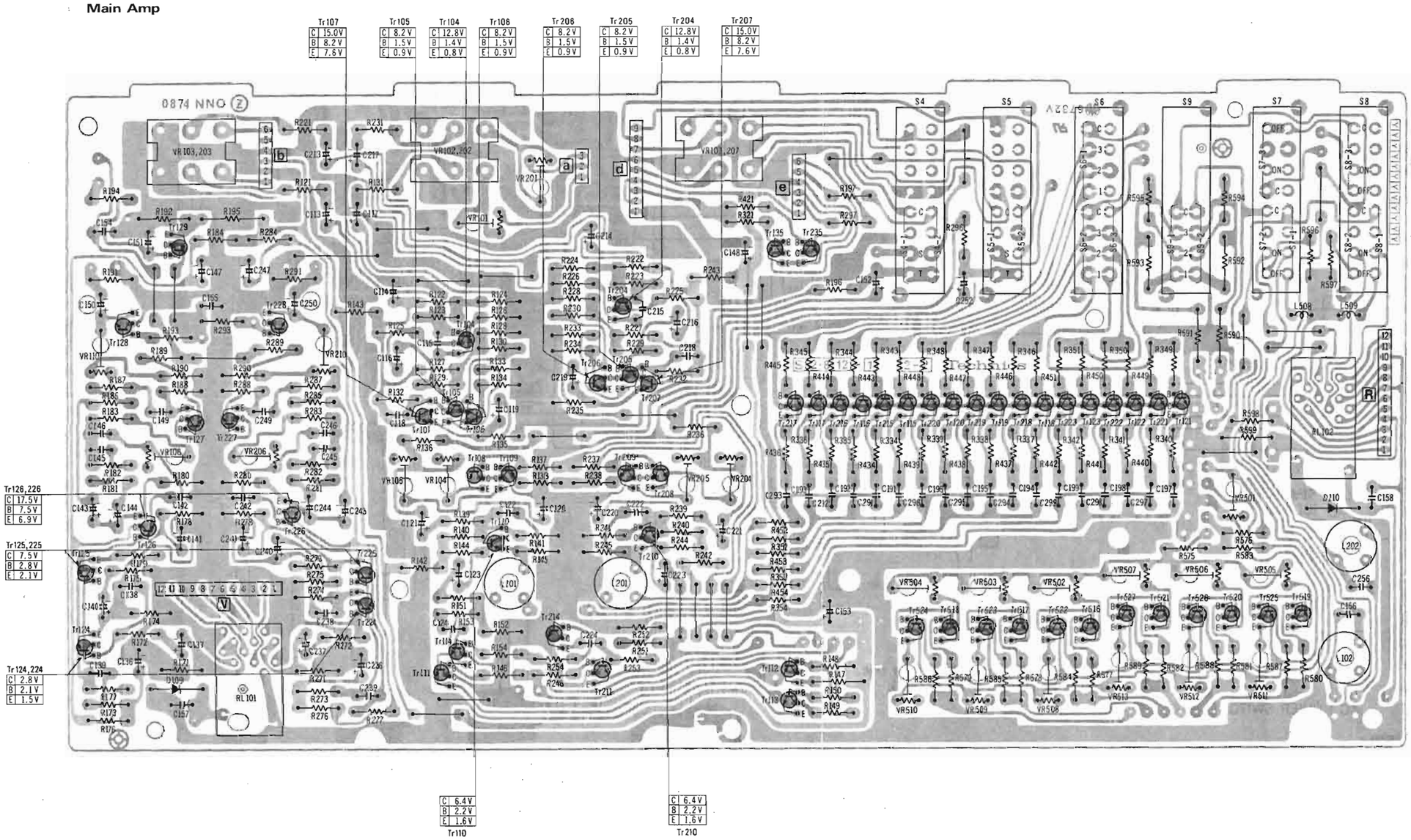


NOTE:

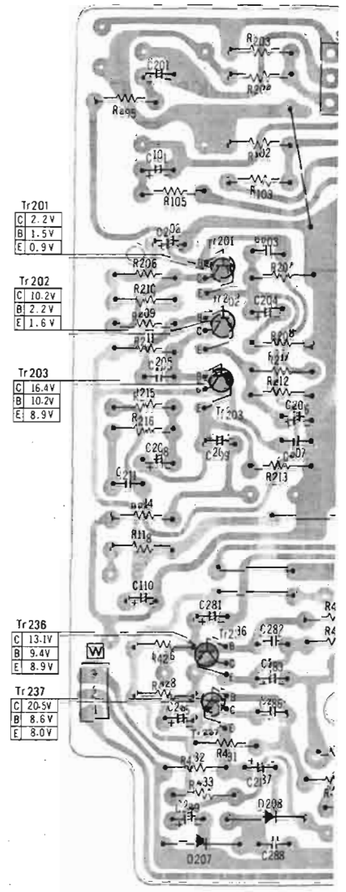
1. S4, 5 ..... Tape/source select switch.
2. S6 ..... Equalizer select switch.
3. S7, 8 ..... Record mode switch.
4. S9 ..... Bias select switch.
5. S10 ..... Meter range select switch.
6. S11 ..... Mic attenuator select switch.
7. VR101, 201 ..... Line input level adjustment VR.
8. VR102, 202 ..... Line input level control.
9. VR103, 203 ..... Mic input level control.
10. VR104, 204 ..... Recording level adjustment VR (FWD).
11. VR105, 205 ..... Recording level adjustment VR (REV).
12. VR106, 206 ..... Playback-EQ adjustment VR.
13. VR107, 207 ..... Output level control.
14. VR108, 208 ..... Meter adjustment VR.
15. VR109, 209 ..... Meter indication balance adjustment VR (Tape to source).
16. VR501~507 ..... Bias adjustment VR.
17. L101, 201 ..... Recording-peaking coil.
18. L102, 202 ..... Bias trap coil (in record amp.).
19. L103, 203 ..... Bias trap coil (in line amp.).
20. L508, 509 ..... Erase dummy coil.
21. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
22. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.
23. All voltage values show in circuitry are under no signal condition with volume control at minimum position. For measurement, use VTVM.
24. S indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

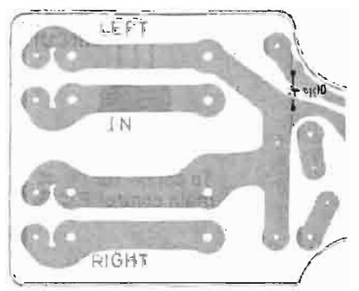
Main Amp

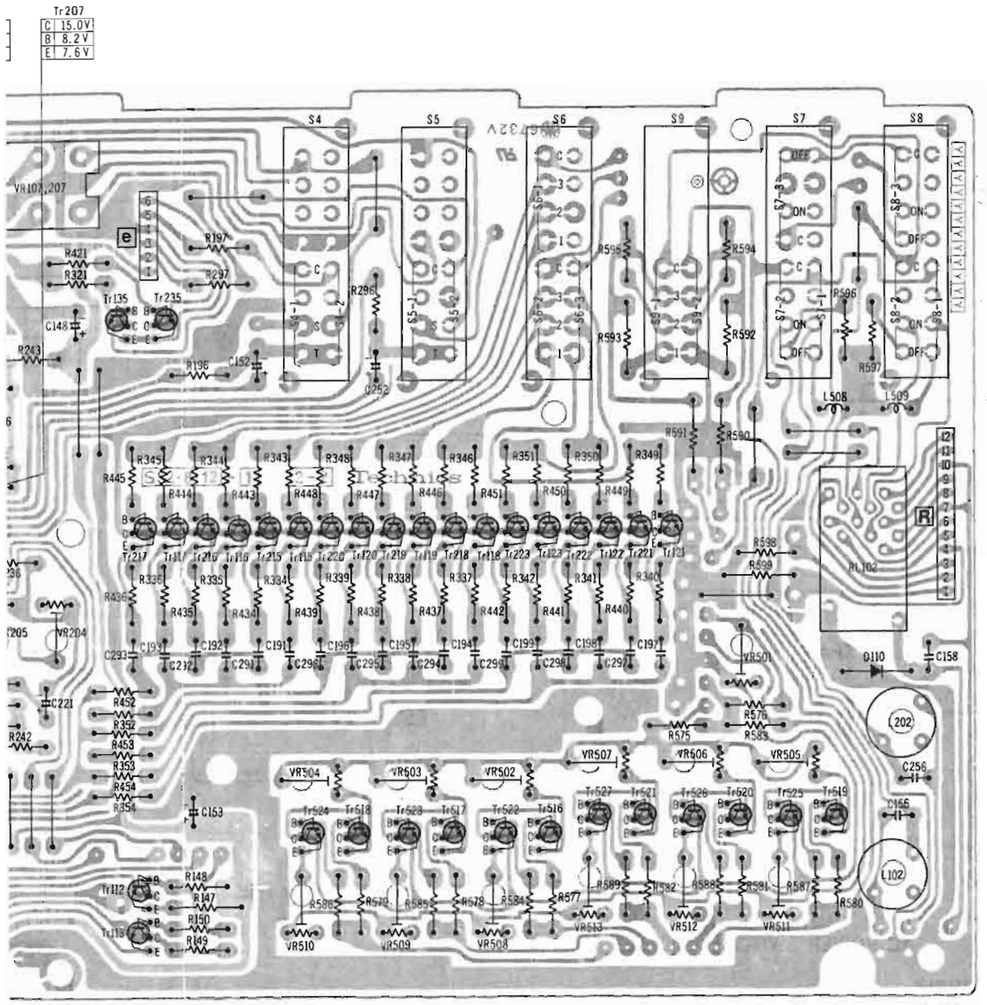


Mic and Meter Amp

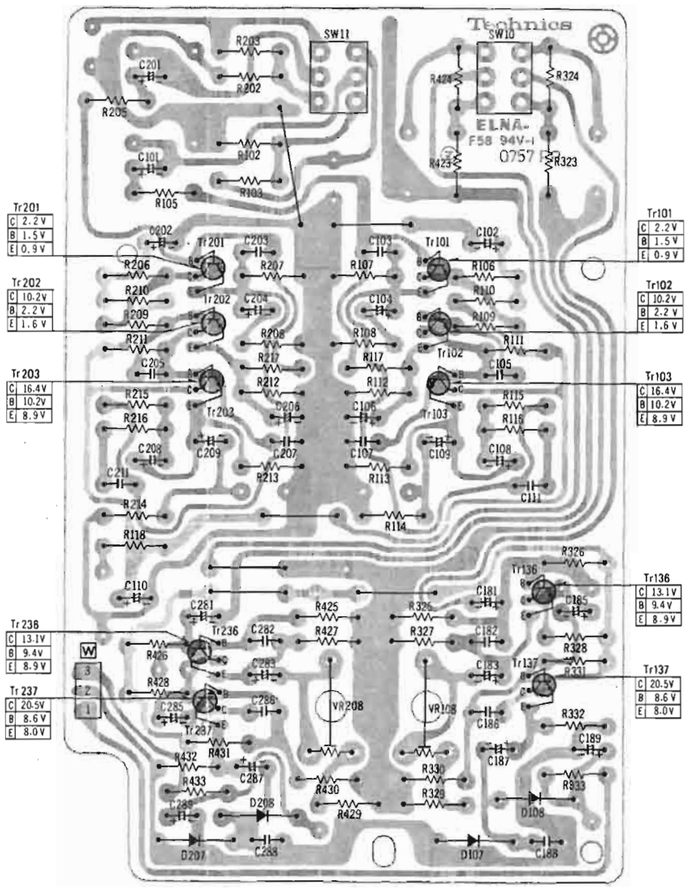


Jack

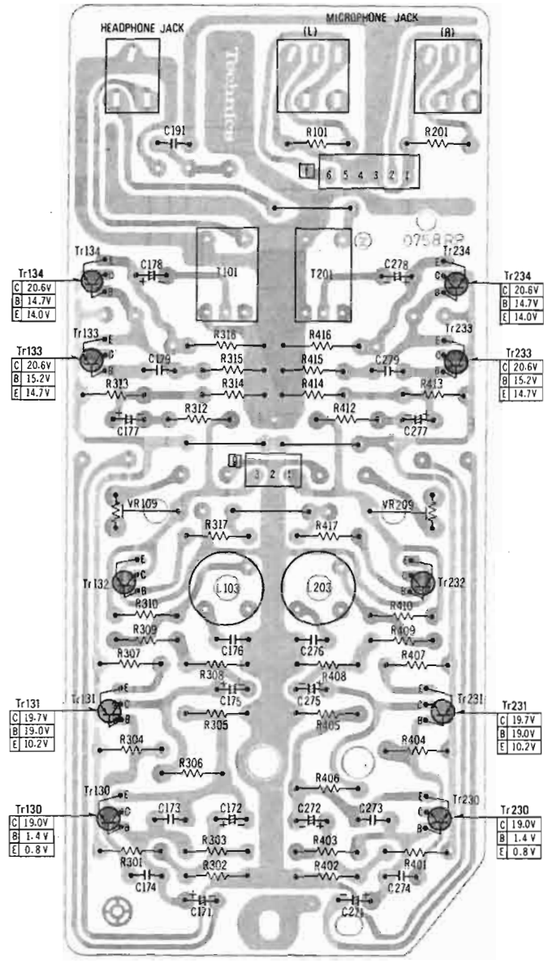




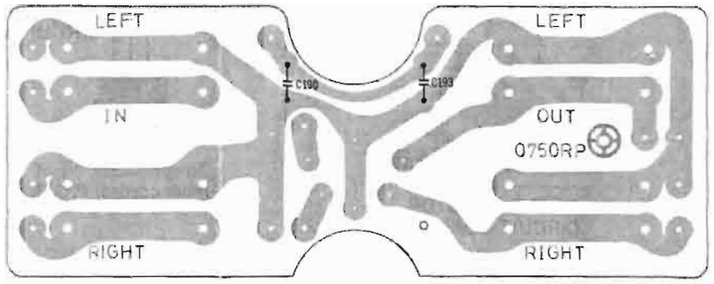
Mic and Meter Amp



Line-out Headphone Amp

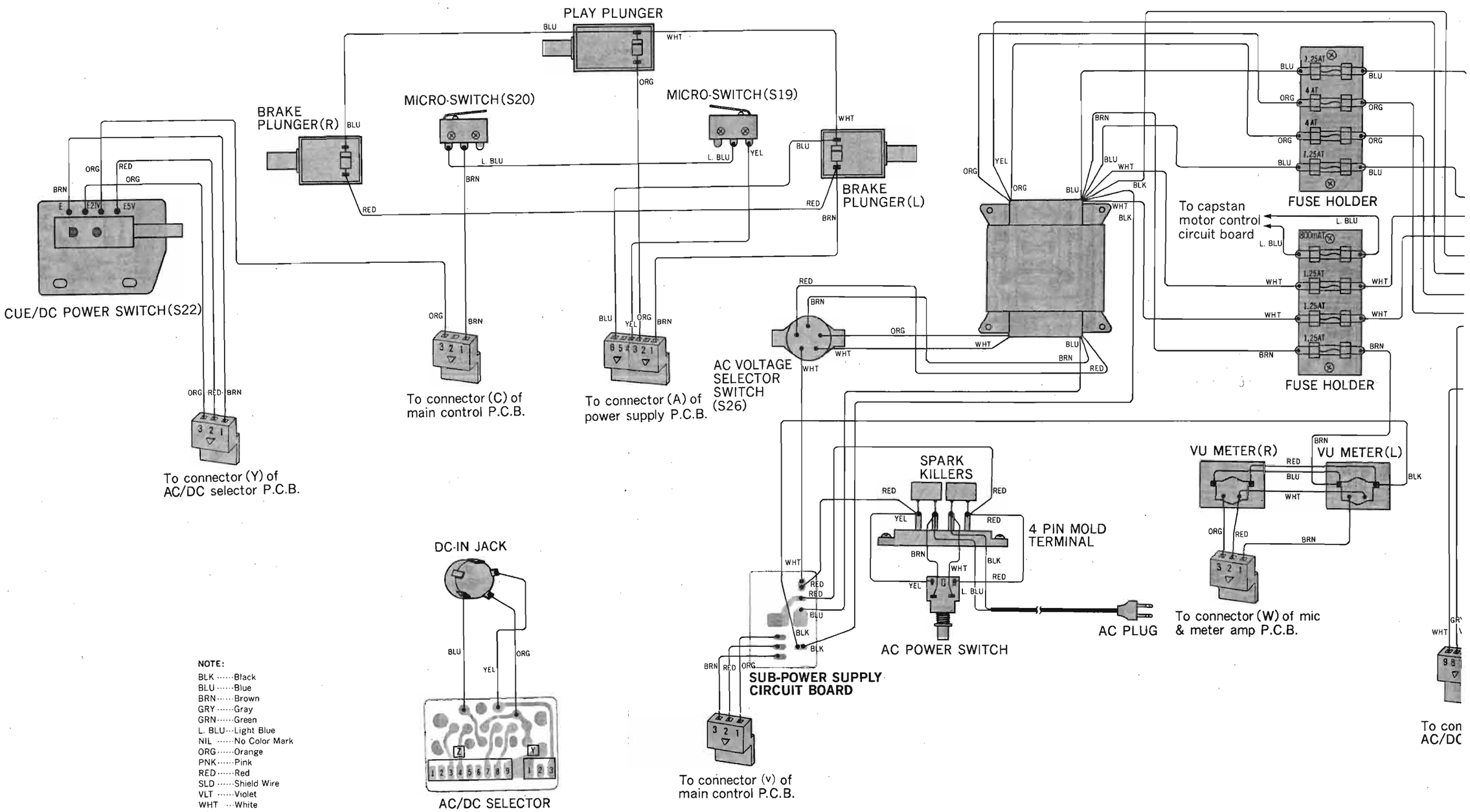


Jack



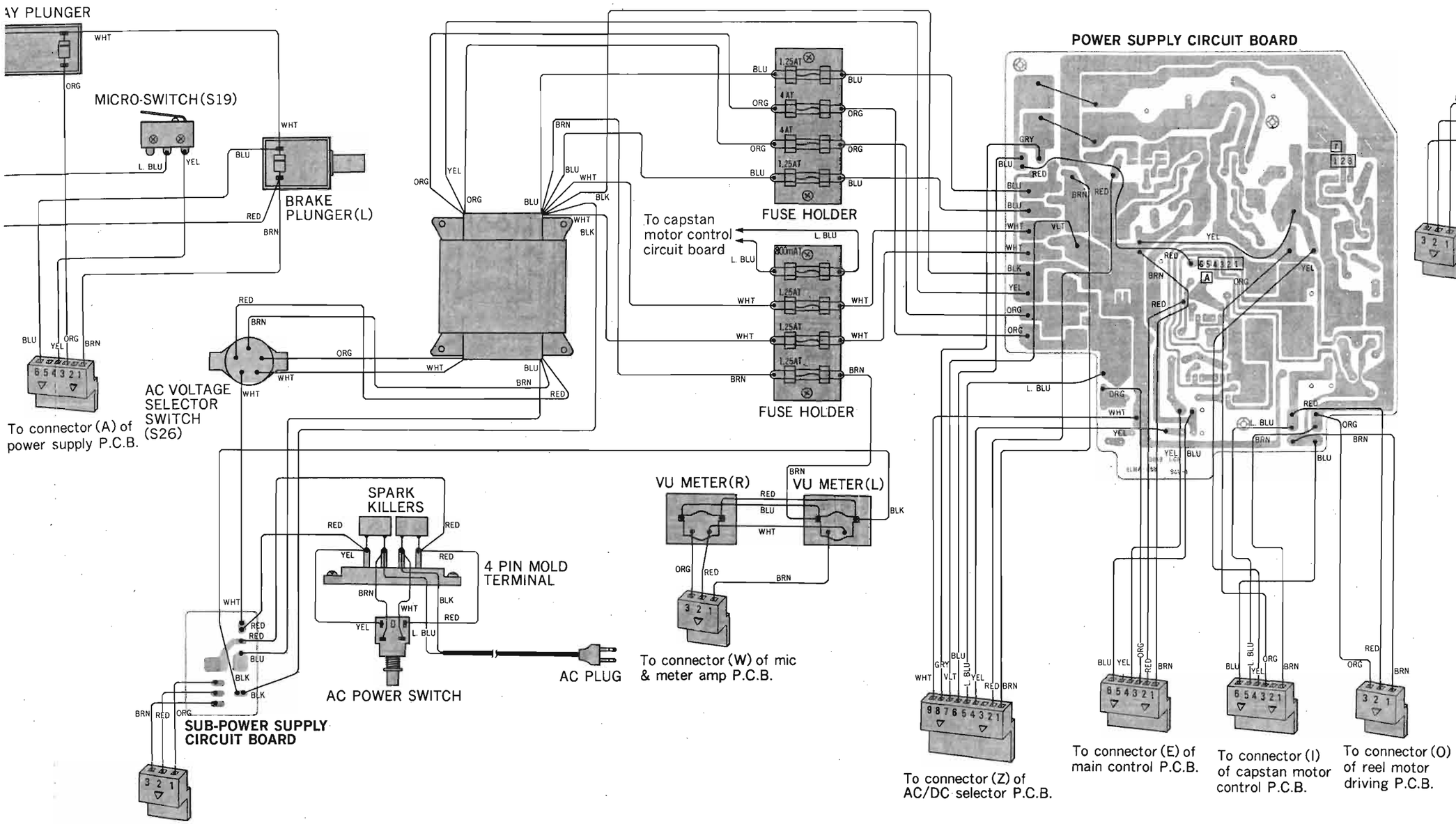
NOTE:
The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.

WIRING CONNECTION DIAGRAM MODEL RS-1700

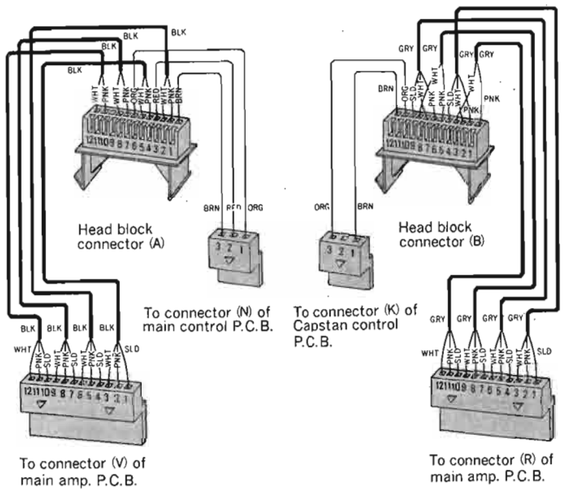


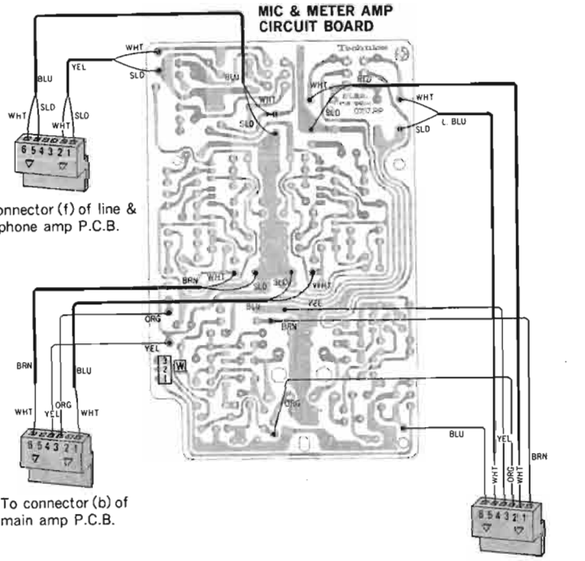
NOTE:

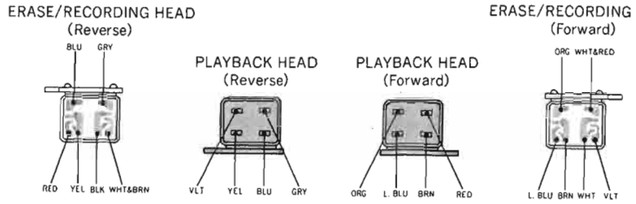
BLK ·····Black
BLU ·····Blue
BRN·····Brown
GRY·····Gray
GRN·····Green
L. BLU···Light Blue
NIL ·····No Color Mark
ORG·····Orange
PNK·····Pink
RED·····Red
SLD ·····Shield Wire
VLT ·····Violet
WHT ···White
YEL ·····Yellow

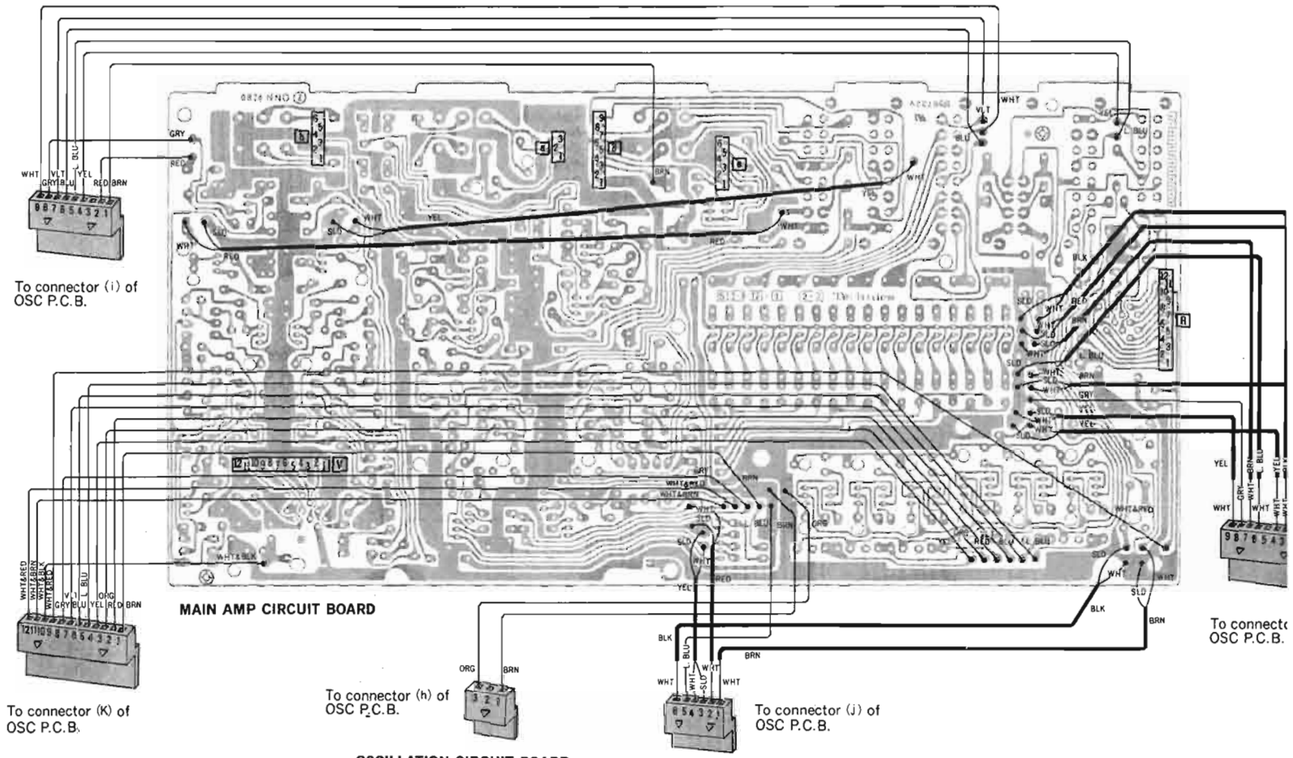

AY PLUNGER
WHT
ORG
MICRO-SWITCH(S19)
L. BLU
YEL
BLU
WHT
BRAKE PLUNGER(L)
RED
BRN
BLU YEL ORG BRN
6 5 4 3 2 1
To connector (A) of power supply P.C.B.
AC VOLTAGE SELECTOR SWITCH (S26)
RED
BRN
ORG
WHT
WHT
BLU
BRN
RED
SPARK KILLERS
RED
RED
YEL
RED
4 PIN MOLD TERMINAL
BRN
WHT
BLK
RED
YEL
L. BLU
AC POWER SWITCH
AC PLUG
WHT
RED
RED
BLU
BLK
BLK
BRN RED ORG
SUB-POWER SUPPLY CIRCUIT BOARD
3 2 1
To connector (v) of main control P.C.B.
YEL
ORG
BLU
BRN
WHT
BLK
ORG
BLU
WHT
BLK
To capstan motor control circuit board
BLU
ORG
ORG
1.25AT
BLU
4AT
4AT
1.25AT
BLU
FUSE HOLDER
L. BLU
L. BLU
800mAT
1.25AT
1.25AT
1.25AT
WHT
WHT
WHT
WHT
BRN
BRN
FUSE HOLDER
VU METER(R)
BRN
VU METER(L)
RED
BLU
WHT
BLK
ORG
RED
BRN
3 2 1
To connector (W) of mic & meter amp P.C.B.
POWER SUPPLY CIRCUIT BOARD
GRY
BLU
RED
BLU
BLU
WHT
WHT
BLK
YEL
ORG
ORG
BRN
RED
YLT
YEL
RED
BRN
RED
6 5 4 3 2 1
A
ORG
YEL
L. BLU
ORG
WHT
YEL
YEL
BLU
RED
L. BLU
BRN
ORG
BRN
BLU
L. BLU
WHT
VLT
BLU
L. BLU
YEL
RED
BRN
9 8 7 6 5 4 3 2 1
To connector (Z) of AC/DC selector P.C.B.
BLU
YEL
ORG
RED
BRN
6 5 4 3 2 1
To connector (E) of main control P.C.B.
BLU
L. BLU
ORG
YEL
BRN
6 5 4 3 2 1
To connector (I) of capstan motor control P.C.B.
RED
ORG
BRN
3 2 1
To connector (O) of reel motor driving P.C.B.
HEAT SINK FOR Tr605
BRN
RED
ORG
3 2 1
To connector (r) of power supply P.C.B.

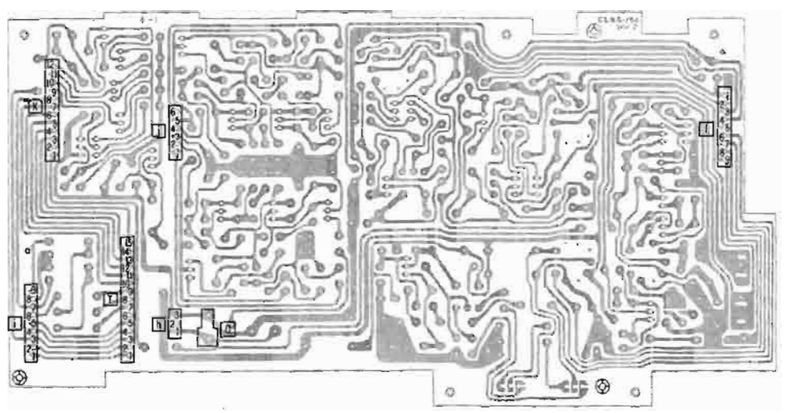
WIRING CONNECTION DIAGRAM MODEL RS-1700



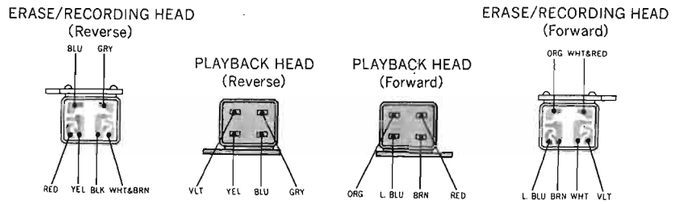


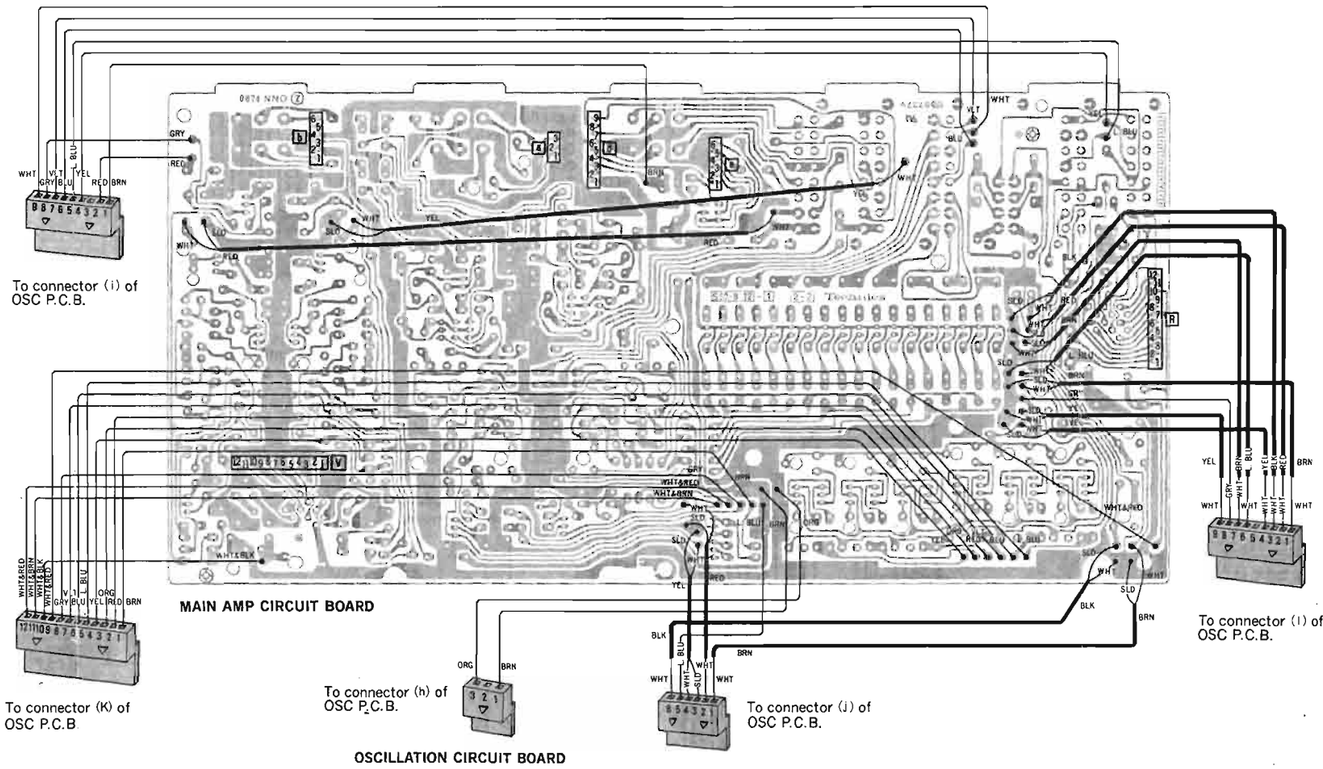




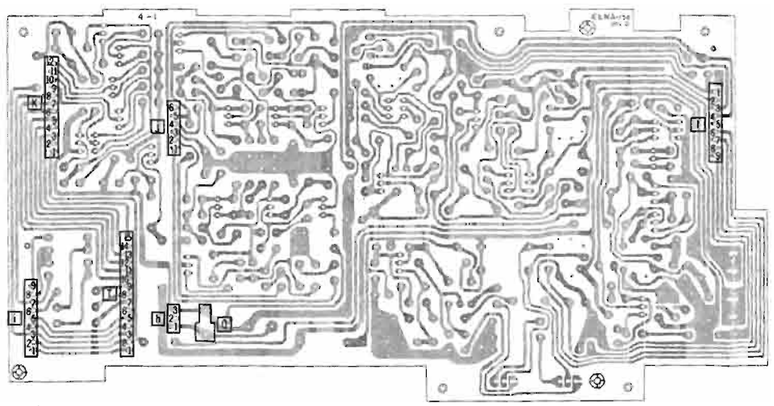


,GRAM MODEL RS-1700

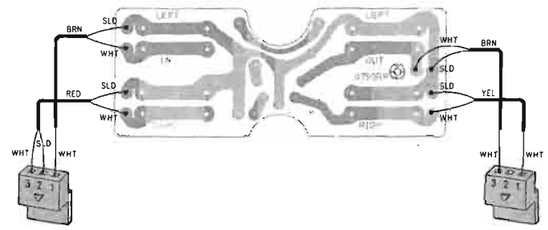




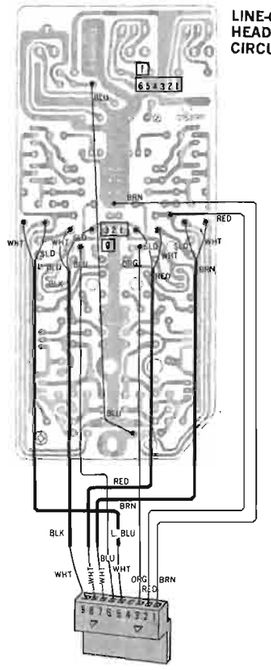
OSCILLATION CIRCUIT BOARD



JACK CIRCUIT BOARD



LINE-OUT & HEADPHONE AMP CIRCUIT BOARD

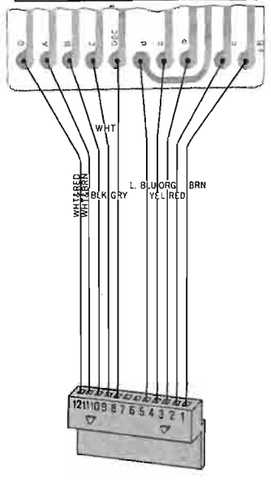


NOTE:

BLK ·····Black
BLU ·····Blue
BRN·····Brown
GRY ·····Gray
GRN·····Green
L. BLU···Light Blue
NIL ·····No Color Mark
ORG·····Orange
PNK·····Pink
RED·····Red
SLD ·····Shield Wire
VLT ·····Violet
WHT ···White
YEL ·····Yellow

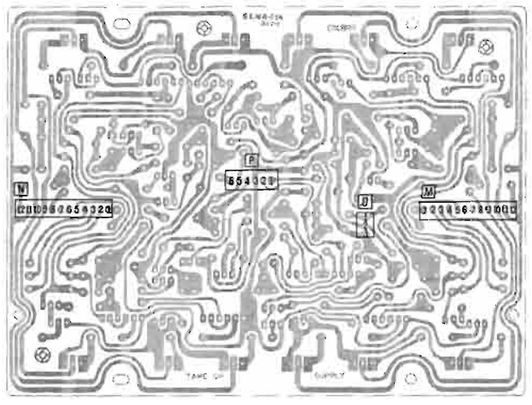
WIRING CONNECTION DIAGRAM MODEL RS-1700

TAKE-UP REEL MOTOR SIDE

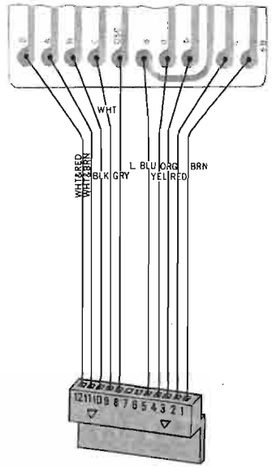


To connector (N) of reel motor driving P.C.B.

REEL MOTOR DRIVING CIRCUIT BOARD



SUPPLY REEL MOTOR SIDE

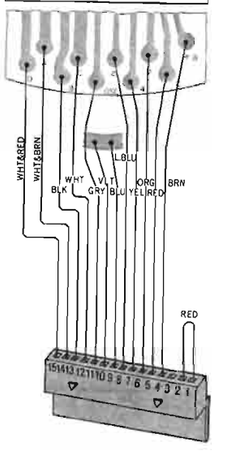


To connector (M) of reel motor driving P.C.B.

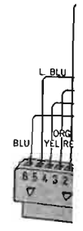
NOTE:

BLK ·····Black
BLU ·····Blue
BRN·····Brown
GRY·····Gray
GRN·····Green
L. BLU···Light Blue
NIL ·····No Color Mark
ORG·····Orange
PNK·····Pink
RED·····Red
SLD ·····Shield Wire
VLT ·····Violet
WHT ···White
YEL ·····Yellow

CAPSTAN MOTOR SIDE

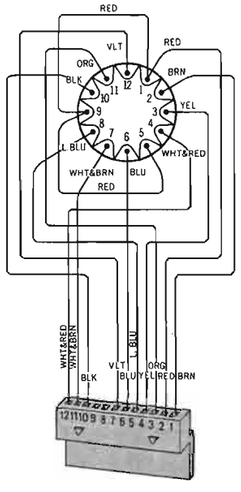


To connector (H) of capstan motor control P.C.B.



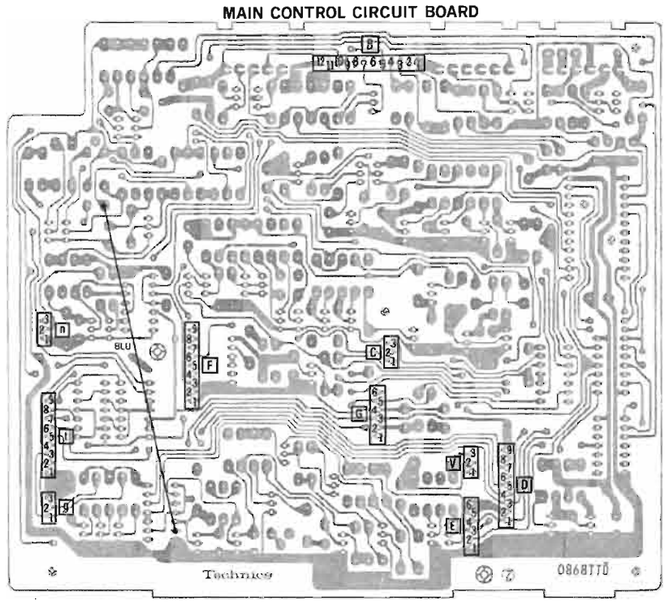
To connector (F reel motor driving P.C.B.

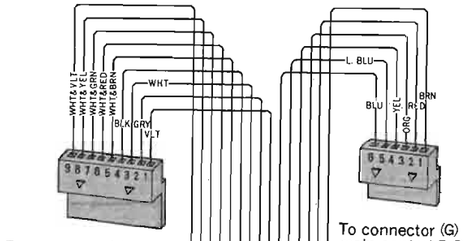
12P remote control socket



To connector (B) of main control P.C.B.

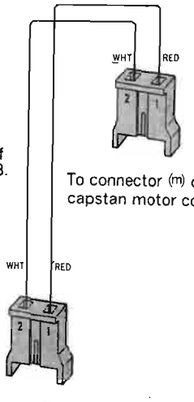
MAIN CONTROL CIRCUIT BOARD



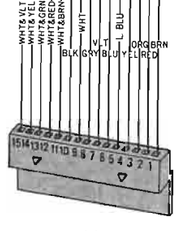


To connector (t) of main control P.C.B.

To connector (G) of main control P.C.B.

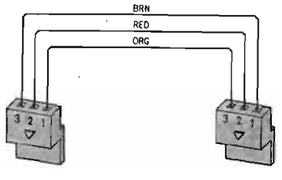


To connector (m) of capstan motor control P.C.B.



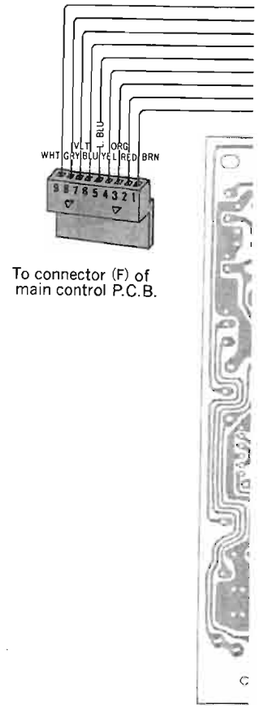
To connector (Q) of OSC P.C.B.

To connector (T) of OSC P.C.B.



To connector (q) of main control P.C.B.

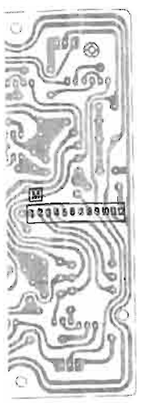
To connector (L) of capstan motor control P.C.B.



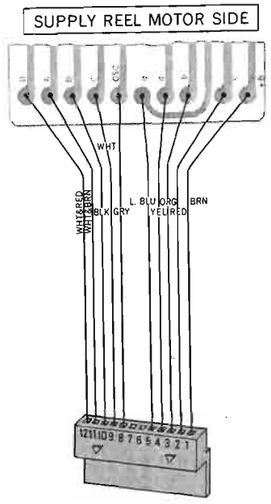
To connector (F) of main control P.C.B.

1 MODEL RS-1700

ARD



SUPPLY REEL MOTOR SIDE

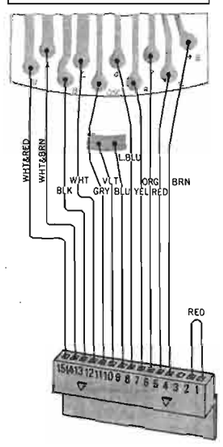


To connector (M) of reel motor driving P.C.B.

NOTE:

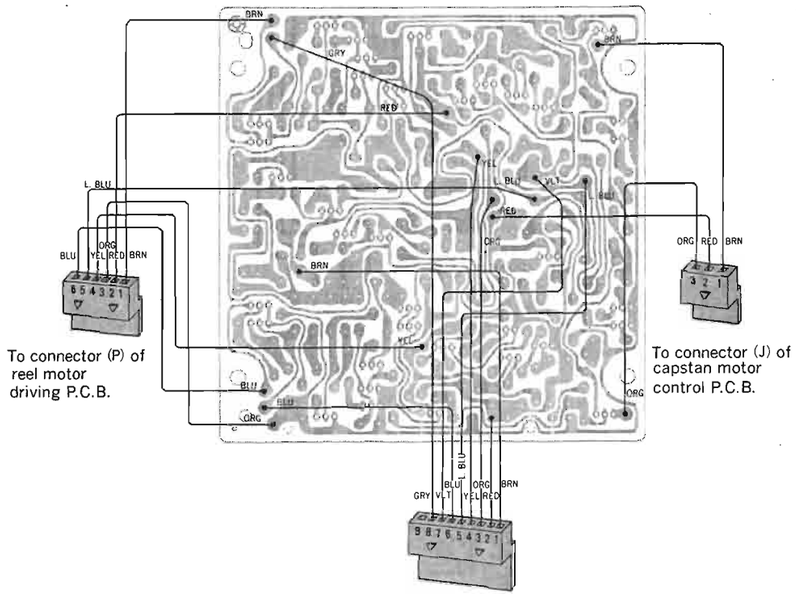
BLK ·····Black
BLU ·····Blue
BRN·····Brown
GRY·····Gray
GRN·····Green
L. BLU···Light Blue
NIL ·····No Color Mark
ORG·····Orange
PNK·····Pink
RED·····Red
SLD·····Shield Wire
VLT ·····Violet
WHT ···White
YEL ·····Yellow

CAPSTAN MOTOR SIDE



To connector (H) of capstan motor control P.C.B.

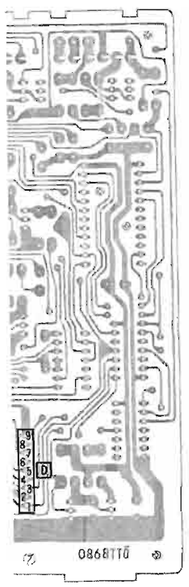
REEL MOTOR TENSION CONTROL CIRCUIT BOARD

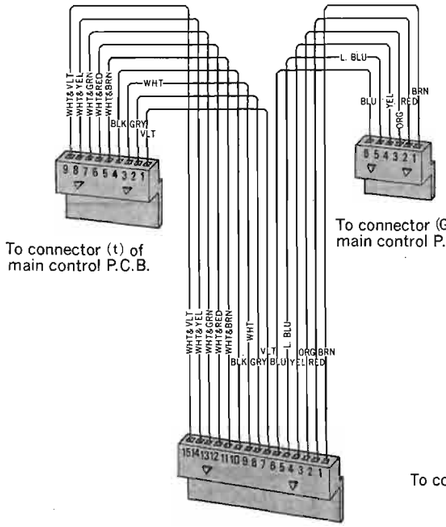


To connector (P) of reel motor driving P.C.B.

To connector (J) of capstan motor control P.C.B.

To connector (D) of main control P.C.B.

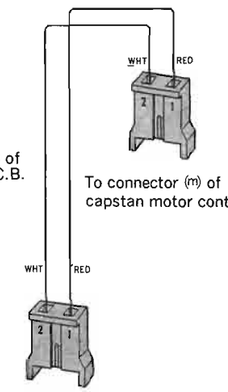




To connector (t) of main control P.C.B.

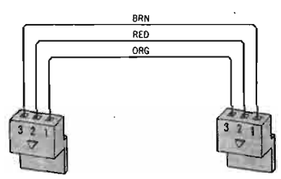
To connector (G) of main control P.C.B.

To connector (T) of OSC P.C.B.



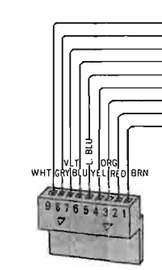
To connector (m) of capstan motor control P.C.B.

To connector (Q) of OSC P.C.B.

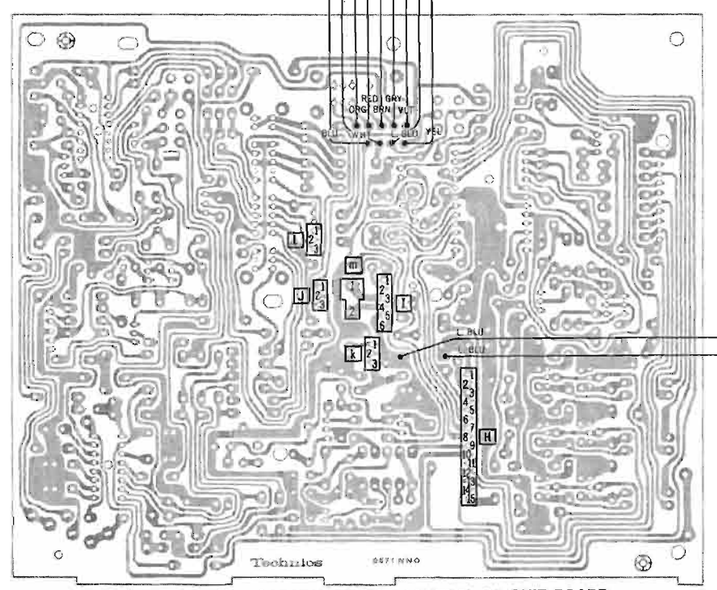


To connector (q) of main control P.C.B.

To connector (L) of capstan motor control P.C.B.



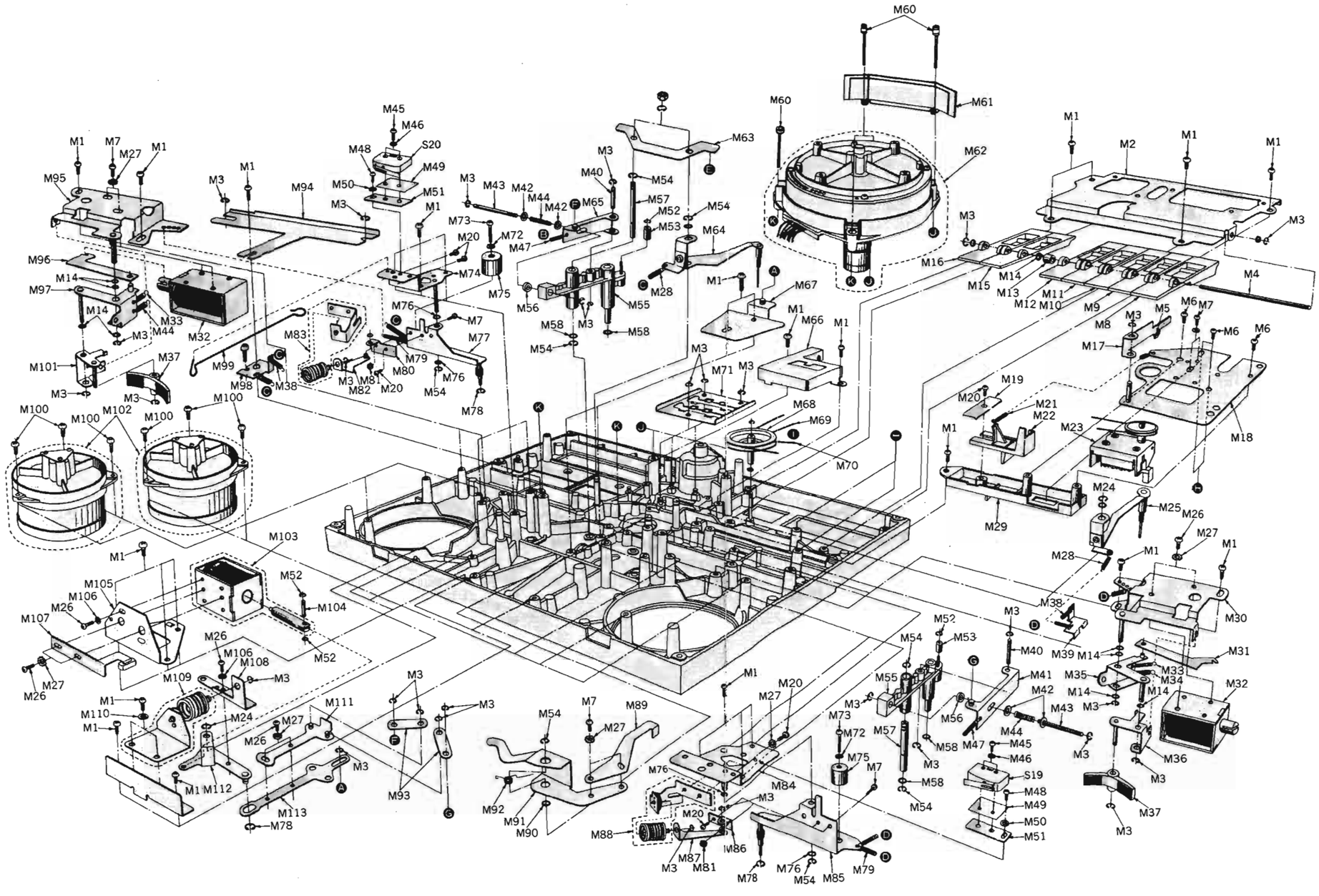
To connector (F) of main control P.C.B.



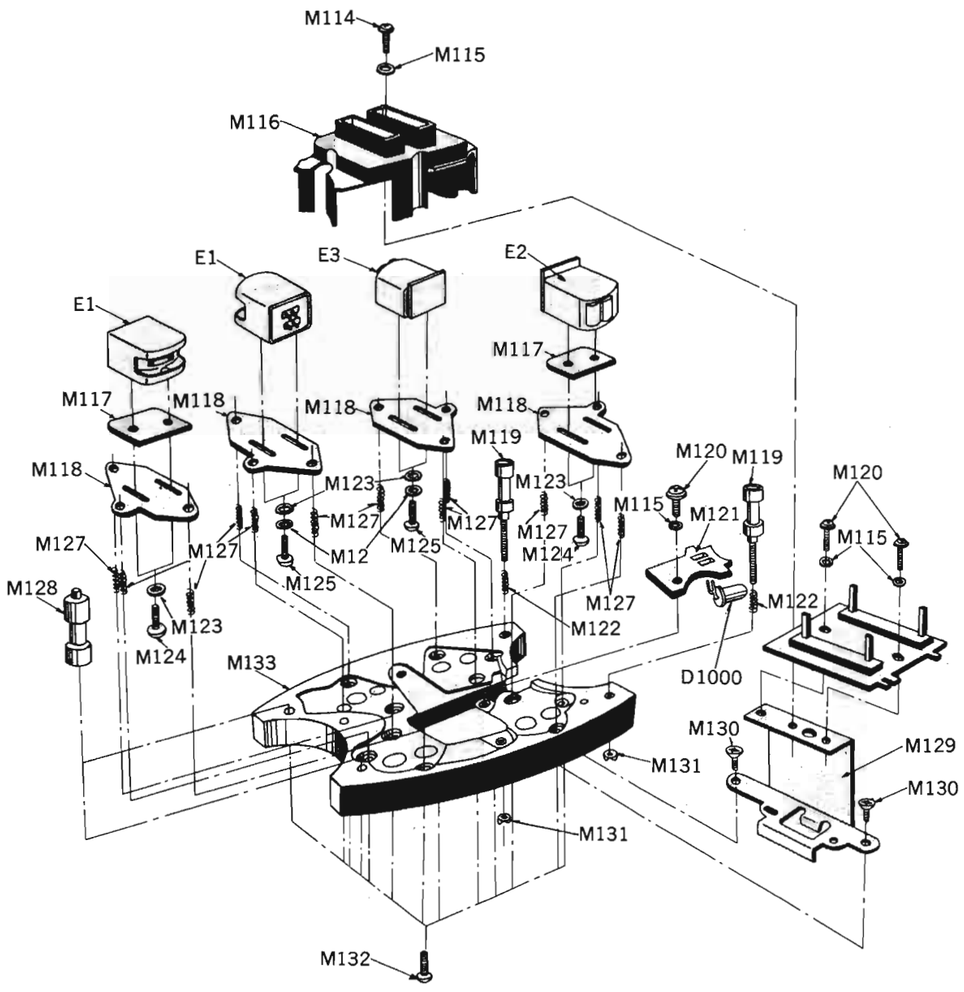
To 800 mA fuse In power supply section

CAPSTAN MOTOR CONTROL CIRCUIT BOARD

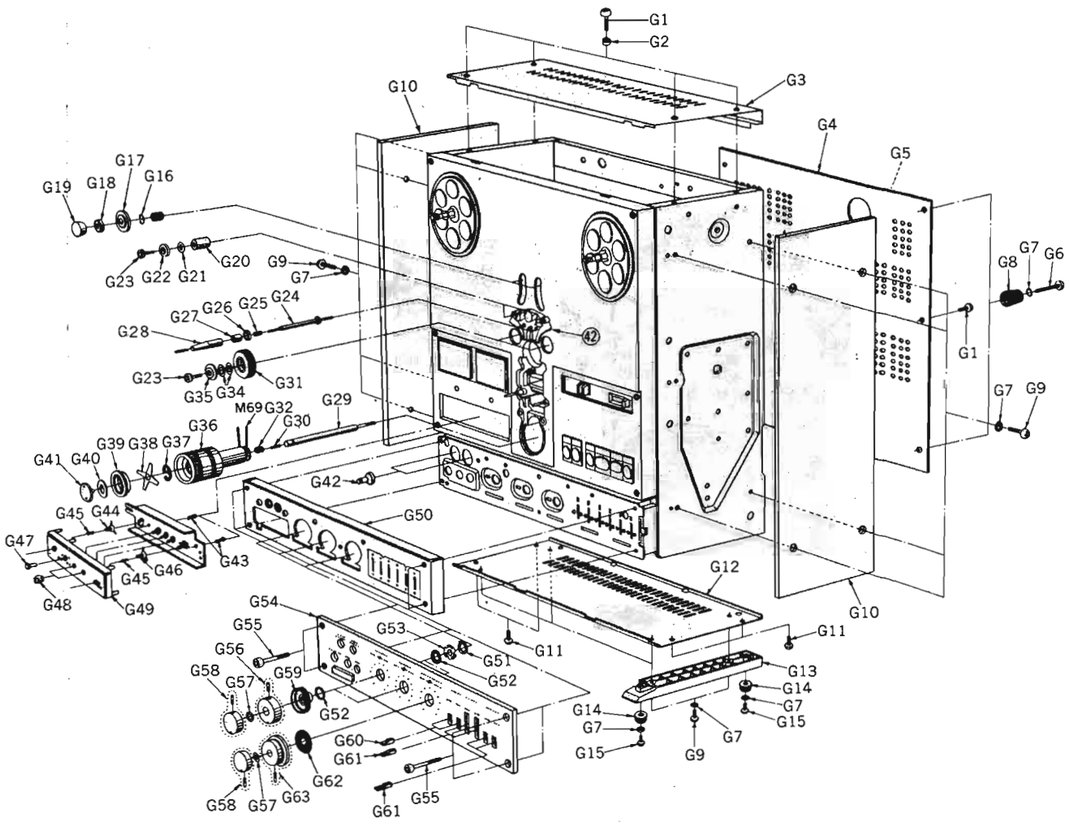
EXPLODED VIEWS



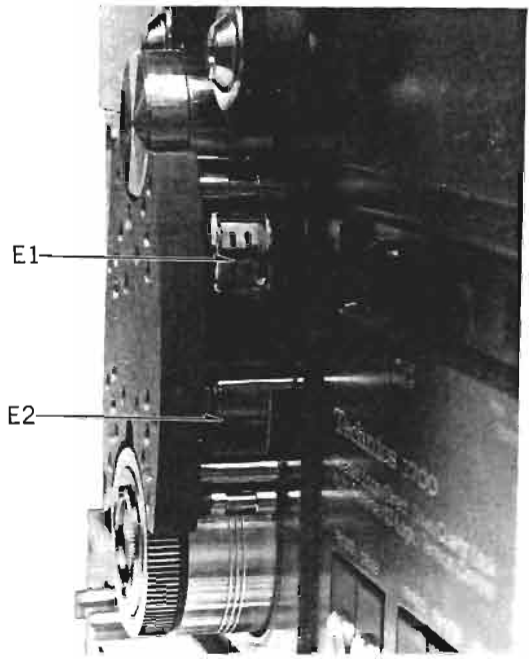
EXPLODED VIEWS

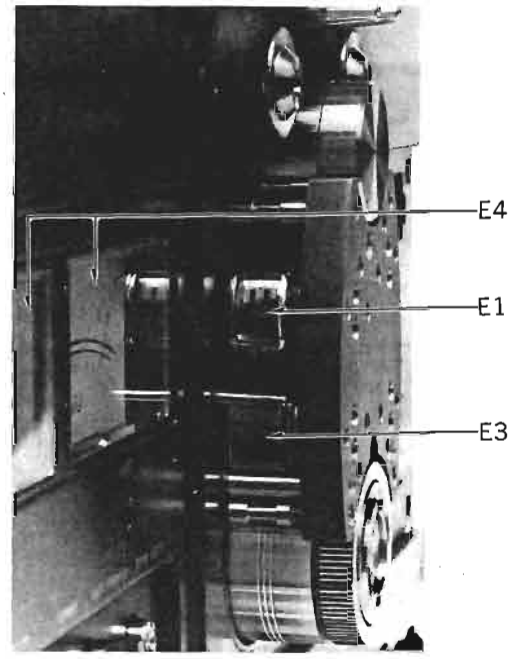


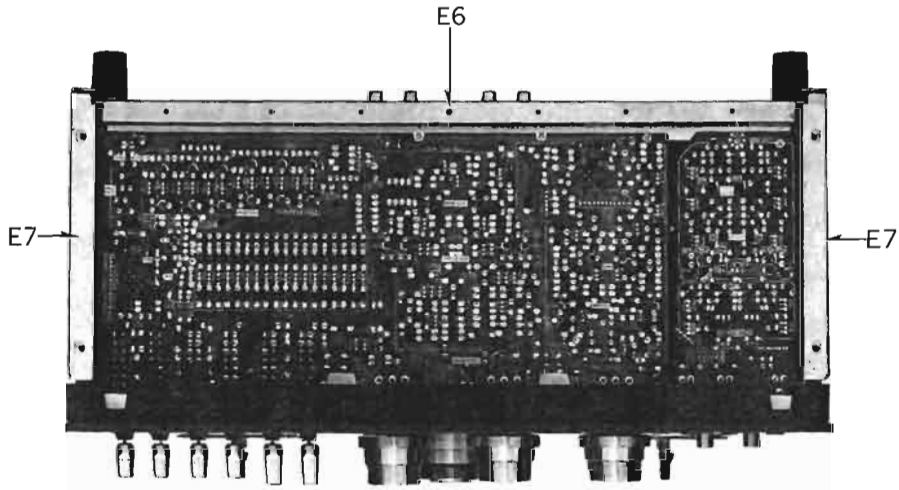
CABINET PARTS

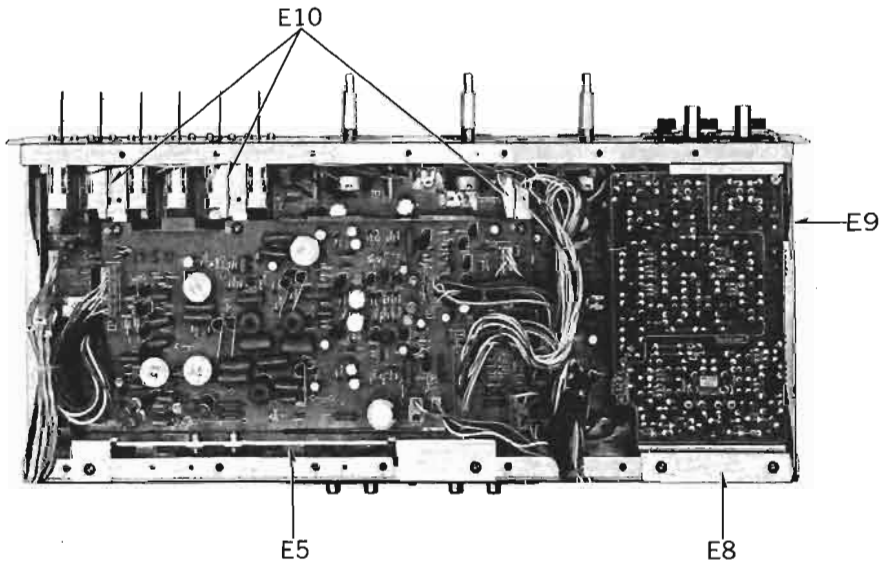


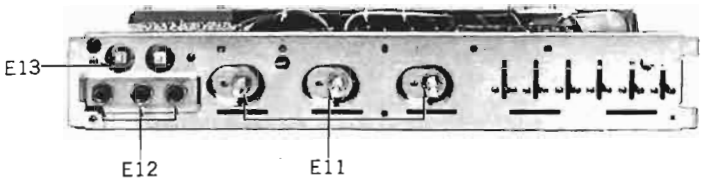
ELECTRICAL PARTS LOCATION







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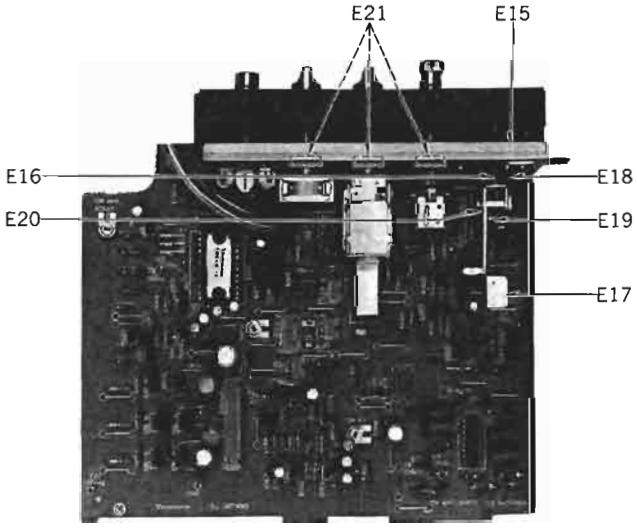
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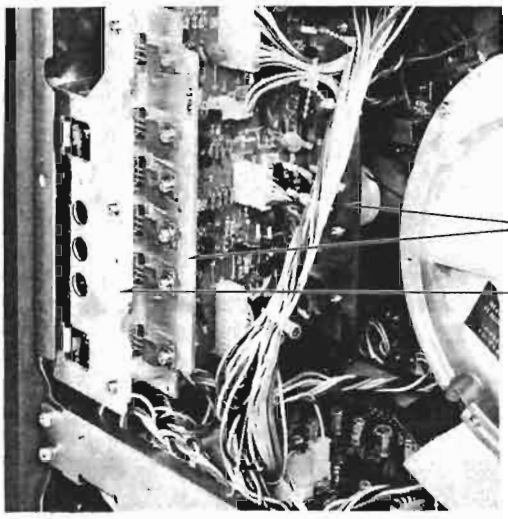
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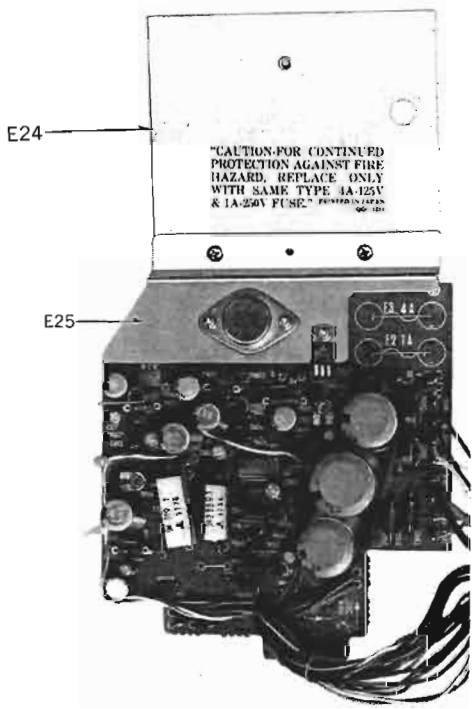
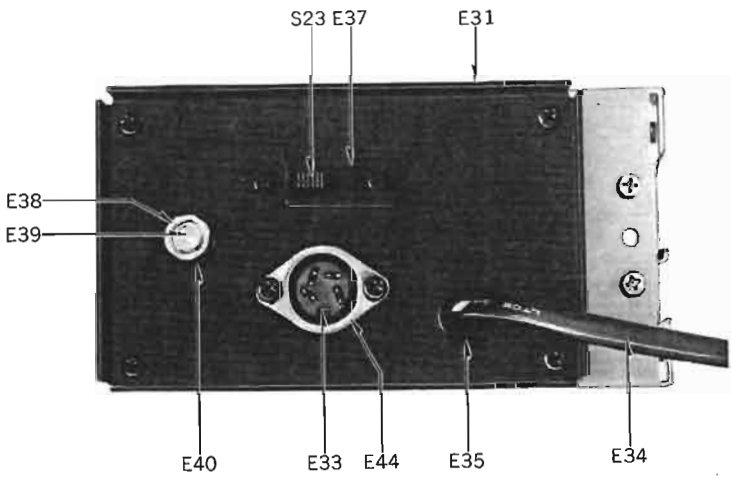

E24
"CAUTION-FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE 4A-125V & 1A-250V FUSE."
E25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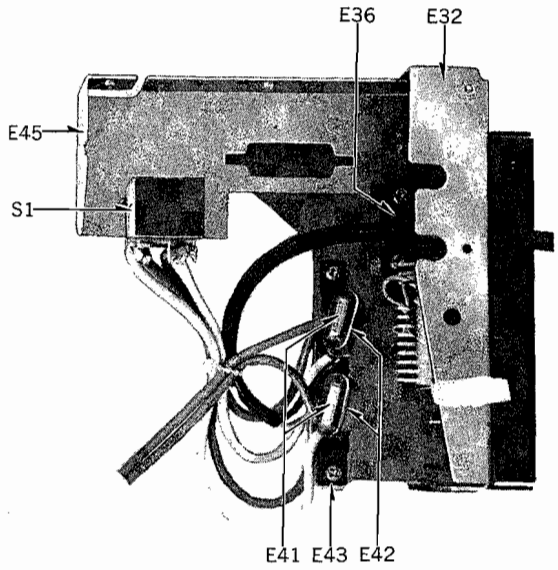
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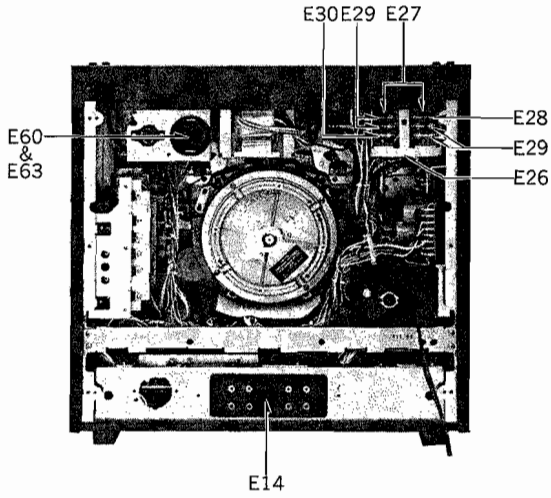
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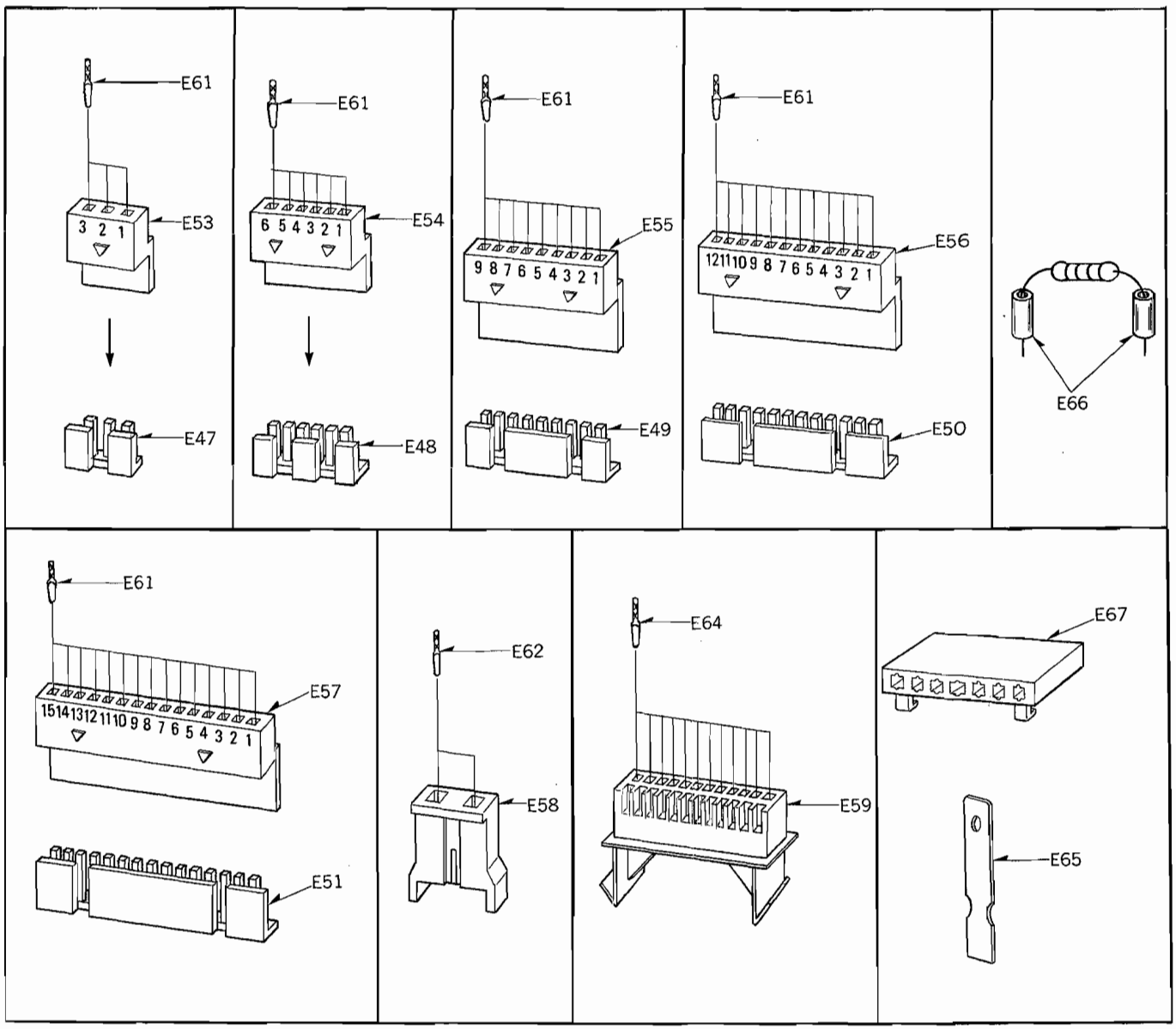
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ORDER NO. ARD-7807049C

2505

Service Manual

Open Deck

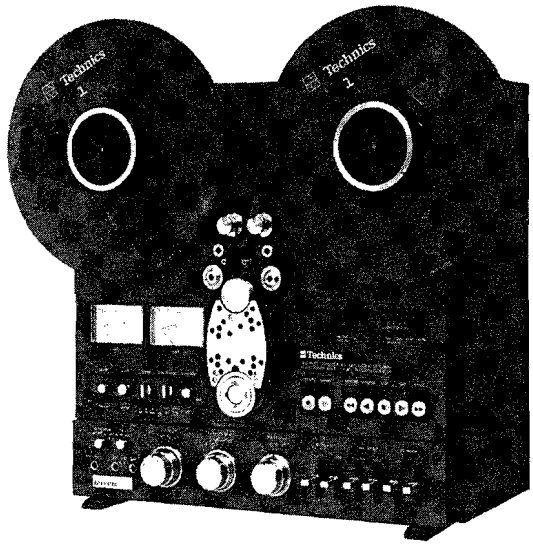
RS-1700

Original

Vol. 2

Information:

The RS-1700 Service Manual Vol. 2 is provided for the purposes of measurements and adjustments. Use Vol. 2 together with Vol. 1. The measuring and adjusting methods of RS-1700 are almost the same as those of RS-1500US. Common items are summed up into a list to simplify the manual. So, for details, refer to the RS-1500US Service Manual.



FOR MEASUREMENTS AND ADJUSTMENTS

RS-1500U MECHANISM SERIES

Specifications (Catalog specifications for sales)

Operation:	Automatic reverse
Track system:	4-track 2-channel recording, playback, erasure on both way
Heads;	6 heads system 2-record/erasure combination head and 2-playback head
Motors:	3 direct-drive motors system
Capstan;	Quartz control phase-locked DC brushless servo direct-drive motor
Reel table;	2-tape tension controlled DC brushless direct-drive motor
Reel size:	13 cm to 26.5 cm (5" to 10-1/2") outside diameter
Tape speed:	38 cm/s, 19 cm/s and 9.5 cm/s (15 ips, 7-1/2 ips and 3-3/4 ips)
Wow and flutter:	(recording and playback)
38 cm/s (15 ips);	0.018% (WRMS), ±0.035% (Peak DIN)
19 cm/s (7-1/2 ips);	0.03% (WRMS), ±0.06% (Peak DIN)
9.5 cm/s (3-3/4 ips);	0.06% (WRMS), ±0.12% (Peak DIN)
Speed deviation:	±0.1% at 38 cm/s (15 ips)
Speed fluctuation:	0.05% at 38 cm/s (15 ips)
Frequency response:	
38 cm/s (15 ips);	30~30,000 Hz ±3 dB (rec. level = −10 dB from 0 VU)
19 cm/s (7-1/2 ips);	20~25,000 Hz ±3 dB (rec. level = −20 dB from 0 VU)
9.5 cm/s (3-3/4 ips);	20~15,000 Hz ±3 dB (rec. level = −20 dB from 0 VU)
Signal-to-noise ratio:	Weighted (ASA-A curve) 1 kHz
Recording level;	(3% THD) (185 nWb/m + 6 dB)
38 cm/s (15 ips);	68 dB 62 dB
19 cm/s (7-1/2 ips);	68 dB 62 dB
9.5 cm/s (3-3/4 ips);	67 dB 60 dB
Distortion (THD):	Measured via tape at 100 Hz (at any speed) Less than 0.8% (0 VU) Less than 2.0% (185 nWb/m + 6 dB)
Channel separation:	Better than 50 dB
Erasing ratio:	Better than 65 dB (rec. level = + 10 dB at 1 kHz)
Pitch control:	±6% (recording and playback)
Time counter accuracy:	±1% at 38 cm/s (15 ips)
Fast winding time:	150 sec. for 762 m (1.5 mil, 2500 feet) tape
Auto-reverse sensing:	Photoelectric
Auto-stop sensing:	Photoelectric, Tension roller switches or Take-up reel table servo control system
Recording bias:	120 kHz
Bias level;	BIAS selector at "1" 90% at "2" 100% at "3" 110%
Equalization:	NAB standard position "2" of "EQ" and "BIAS" selector set for Scotch #207 tape
Recording level calibration:	Referenced to 185 nWb/m
Inputs:	
MIC;	Unbalancedphone type jack sensitivity 0.25 mV (−72 dB), input impedance 4.7 KΩ (at 0 VU, Mic. level control at maximum position) 2.5 mV (−52 dB)/4.7 KΩ with 20 dB Mic. Attenuation switch on. overload margin 55 dB (75 dB with 20 dB Mic. Att.) applicable microphone impedance 400Ω~10 KΩ
LINE;	Unbalanced phono type jack sensitivity 60 mV (−24 dB), input impedance 150 KΩ overload margin = imfinity (line input connected to LINE IN level control before pass through the amplifier)
THROUGH OUT;	Same as LINE IN (connected in paralled to LINE IN)
Outputs:	
LINE;	2-pair of unbalanced phone type jack output level 0.55 V at 0 VU (output level control at "8") 0.775 V or more at output level control maximum output impedance less than 3 KΩ load impedance 22 KΩ over
HEADPHONE;	Stereo phone type jack output level 80 mV at 0.55 V line output load impedance 8Ω
Power requirements:	AC 110/125/220/240 V, 50/60 Hz DC 24 V, 4.9 A peak (with optional battery adaptor RP-086)
Power consumption:	160 W
Weight:	25.7 kg, (56 lbs 9 oz)
Dimentions (W × H × D):	45.6 cm × 44.6 cm × 25.8 cm (18" × 17-1/2" × 10-1/8")

Specifications based on use of Technics RT-10B218 (Scotch #207) tape.
Specifications are subject to change without notice.

National Technics

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

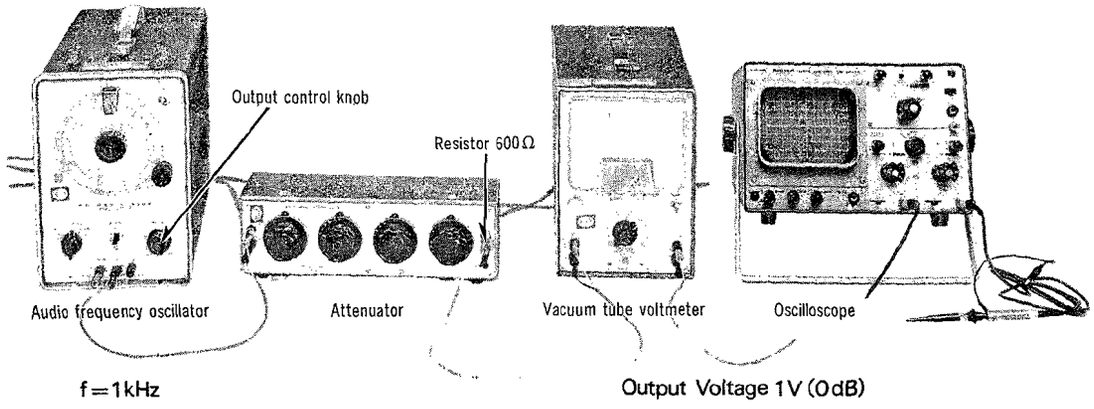
2505

I. TEST PREPARATION AND TEST INSTRUMENTS

1. Prepare test instruments which are equivalent in accuracy to those shown below.
2. The test instruments should be inspected and corrected by specialists once every 6 months, because a long period of use without maintenance may increase errors in indication.
3. Warm-up the test instruments for 30 minutes and the set to be measured for 10 minutes before taking the measurements. If not, there may arise an error or difference between the initial value and the stabilized value measured after "aging".
4. Test instruments
   The instruments required are the same as those for RS-1500US.
   Refer to RS-1500US Service Manual Vol. 2 P6—P8.

II. MEASUREMENT CONDITIONS

1. Standard measurement conditions
   * Ambient temperature: 10—30°C (50—86°F)
   * Ambient humidity: 30—90% RH
   * Power voltage accuracy: ±3%
2. Position of tape recorder
   * When measuring, place the unit under test in a horizontal position.
3. Oscillator output voltage adjustment
   * Connect the equipments as shown in the following and adjust the oscillator output control for 1 V (f = 1 kHz) through the attenuator while keeping the attenuator at 0dB.
   * When supplying a signal to the tape recorder amplifier, adjust the input level using the attenuator.



III. TEST TAPE

Test tape life

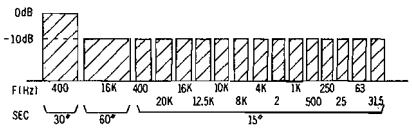
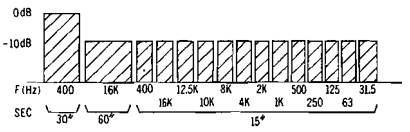
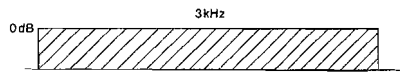
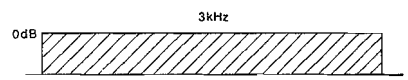
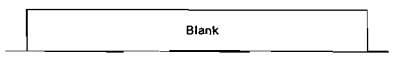
The more frequently the test tape is used, the more the tape characteristics will deteriorate (e.g. lowering of recorded level, worsening of frequency response particularly in high-frequency range, and an increase in wow due to tape elongation) until measured values become unreliable. Even in such a case when a tape is not used, but stored, for a long period of time, tape shows deterioration in performance because of self damagenetization due to storage conditions, etc.

Please refer to the tape life specification and take care not to use a tape longer than its rated life when servicing.

Frequence of use: Not more than 20 times for each tape length.

Storage period: Not more than 60 months.

* **Test tape**

PARTS NO.	PARTS NAME	SPECIFICATIONS	REMARKS
QZZOF380EX	Standard recording level, azimuth and frequency response tape		• Tape speed: 38cm/s • Full track: • 400Hz 0dB, • 20kHz—31.5Hz −10dB
QZZOF190EX	Standard recording level, azimuth and frequency response tape		• Tape speed: 19cm/s • Full track: • 400Hz, 0dB • 16kHz—31.5Hz −10dB
QZZOW380EX	Wow and tape-speed tape		• Tape speed: 38cm/s • Full track: 8 (min) • 3kHz 0dB
QZZOW190EX	Wow and tape-speed tape		• Tape speed: 19cm/s • Full track: 8 (min) • 3kHz 0dB
QZZORA218	Reference blank tape		• Unrecorded tape (550m)

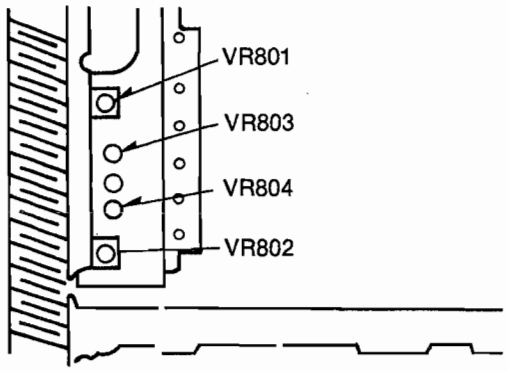
MEASUREMENT AND ADJUSTMENT

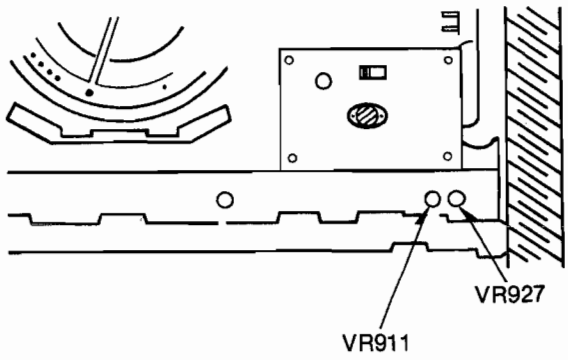
RS-1700

For measurement and adjustment method, there is no great difference from that for Model RS-1500US. Therefore please refer to the Service Manual Vol. 2 of RS-1500US, RS-1506US.

<table>
<tr><th>Item</th><th>Specification</th><th>Measurement Point</th><th>Adjustment Part</th><th>Remarks</th></tr>
<tr><td colspan="5">Mechanism Section Please refer to Service Manual Vol. 2 (P2—P20) of RS-1500US, RS-1506US.</td></tr>
<tr><td>Pressure Roller position</td><td>Symmetrical left and right with relation to the Capstan</td><td>———————</td><td>Screw (A) and (B) (Refer to fig. 3 in the Vol. 2 of RS-1500US)</td><td></td></tr>
<tr><td>Cue lever</td><td colspan="4">Same as RS-1500US</td></tr>
<tr><td>Pressure or Pressure Roller</td><td>900 ± 100 gr</td><td>———————</td><td>Position of P. Roller Plunger</td><td></td></tr>
<tr><td>Stopper Position</td><td colspan="4">Same as RS-1500US</td></tr>
<tr><td>Height of Pressure Roller</td><td colspan="4">Same as RS-1500US</td></tr>
<tr><td>Braks</td><td>Stronger direct-ion:
470 ± 70 gr
Weaker direction:
140 ± 25 gr</td><td>———————</td><td>Brake plunger</td><td>Specified with 115 mm of diameter reel.</td></tr>
<tr><td>Tension Roller height</td><td colspan="4" rowspan="2">Same as RS-1500US</td></tr>
<tr><td>Reel Table height</td></tr>
<tr><td>Tape Guide</td><td colspan="4">Refer to page 12 of this book.</td></tr>
<tr><td>Tape Tension</td><td>Takeup torque:
65 ± 5 gr
Bake tension:
75 ± 5 gr</td><td colspan="2">FWD mode Tape speed: 19 cm/s
<table><tr><th>Check point</th><th>I_T</th><th>I_S</th></tr><tr><td>with 10″ reel tape</td><td>3.8 V</td><td>3.2 V</td></tr><tr><td>with 7″ reel tape</td><td>2.45 V</td><td>1.9 V</td></tr><tr><td>adjustment part</td><td>VR802</td><td>VR801</td></tr></table></td><td>Use a full wound tape
I_T : for Takeup
I_S : for Back-tension</td></tr>
</table>

Item	Specification	Measurement Point	Adjustment Part	Remarks
	REV mode Tape speed: 19cm/s Check point: I_S / I_T with 10″ reel tape: 3.8V / 3.2V with 7″ reel tape: 2.45V / 1.9V adjustment part: VR803 / VR804			I_T : for Back-tension I_S : for Takeup
Adjustment of Auto-reverse Detection circuit	Adjust VR1 so that the wave form of output signal from a photo-transistor becomed sharp. (Refer to page 14)			





Tape speed and wow & flutter

Please refer to Servic Manual Vol. 2 (P19—P20) of RS-1500US, RS-1506US.

Tape Speed (cm/s)	Speed Deviation $\frac{f-3000}{3000}\times 100(\%)$	Speed Fluctuation $\frac{f_1-f_2}{3000}\times 100(\%)$	Wow & Flutter		Pitch Control (%)
			JIS WRMS (%)	DIN W/P-P (%)	
38	±0.10	0.10	0.018	±0.035	±6
19	±0.15	0.15	0.03	±0.08	±6
9.5	±0.20	0.20	0.06	±0.16	±6

Item	Specification	Measurement Point	Adjustment Part	Remarks
1. DC Power voltage	DC 5 ± 0.4 V	TP901	VR929	
2. Standard voltage	DC 0 ± 0.05 V	TP904 and TP905 (Terminal No. 4 and No. 5 of IC966)	VR928	• Short circuit between TP902 and TP903 • Adjust VR928 so that voltage between TP904 and TP905 becomes 0 ± 0.005 V
3. Quartz lock position		TP906	VR911	• Refer to page 13 for deteils • Adjust so that locking mark position at the center.
4. Position detecting signal output	1.5 Vp-p	TP907	VR966	
5. Pitch control	± 6(%)		VR927	• Refer to page 14 for details • Pitch control: ON and set at center.

Playback Heads

Refer to Service Manual Vol. 2 of RS-1500US, RS-1506US.

Playback Head

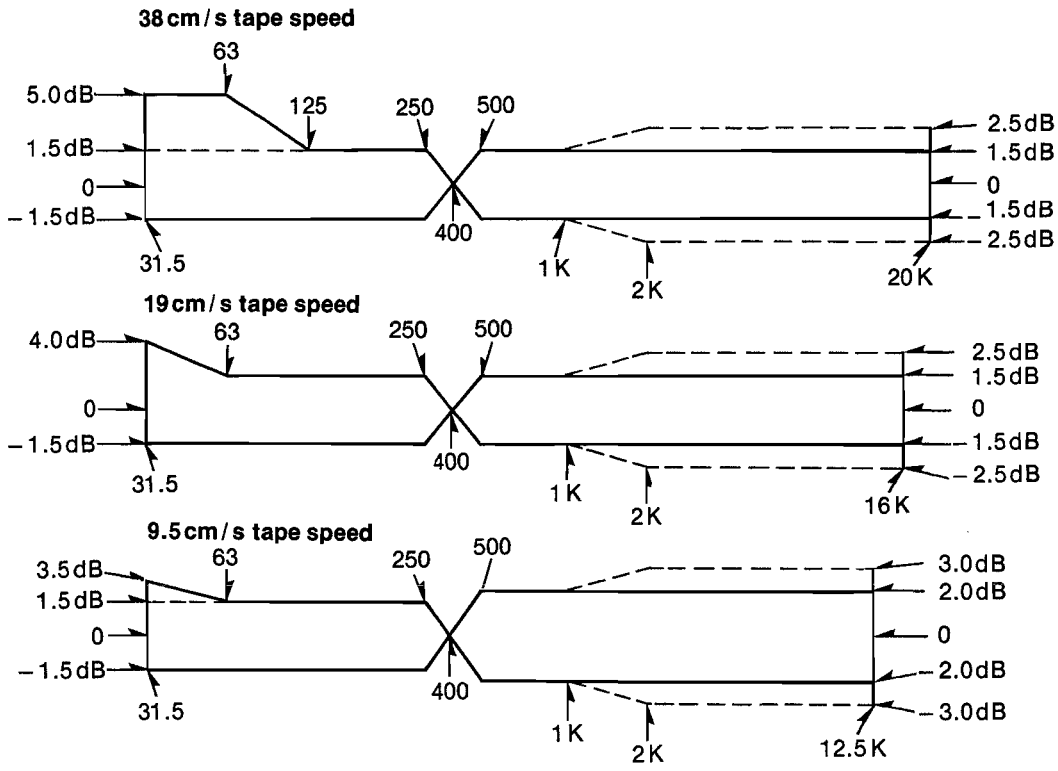
Please refer to Service Manual Vol. 2 (P22—P24) of RS-1500US, RS-1506US and page 15 of this book.

Playback Amplifier

Please refer to Service Manual Vol. 2 (P25—P27) of RS-1500US, RS-1506US.

Standard Playback Output	0.55 V	Line out jack	VR110 (L-CH) VR210 (R-CH)	• Use test tape • 8 position of output control

Item	Specification	Measurement Point	Adjustment Part	Remarks
Playback Frequency Response			VR106 (L-CH) VR206 (R-CH)	• Adjustment should be done at high frequency range with 38cm/s tape speed



Note: Doted line show the frequency response of REV mode.

Playback S/N ratio	48dB or more (38/19cm/s) 46dB or more (9.5cm/s)	Line out jack	———	Unweighted
Maximum Playback Output	0.775V	Line out jack	———	With output control at max. position.

Record Amplifier

Please refer to Service Manual Vol. 2 (P28—P34) of RS-1500US, RS-1506US.

Standard recording level	Mic in: −72±2dB Line in: −24±3dB	Line out jack	———	Standard of output 0.55V at "8" position of output control

Item	Specification	Measurement Point	Adjustment Part	Remarks
Line input level adjustment	−24 ± 3dB	Line out jack	VR101 (L-CH) VR201 (R-CH)	
Level meter (Source position)	0VU	Level meter	VR108 (L-CH) VR208 (R-CH)	
Bias Osc. frequency	124 ± 5kHz	I_{ER}(TP3)	Soldering or unsoldeing C542 or C543	
Erase current	75^{+10}_{-0}mA	I_{ER}(TP3)	VR501 • Erase current = Value read on VTVM (V) / 1 ohm (R599) • Value indicated should be for each erase head. • When there is difference among value for FWD L-CH and R-CH, and REV L-CH and R-CH, adjustment should be made so that the lowest one becomes within the standard.	

Oscillation Circuit Adjustment

1. Connect VTVM to test point I_B (TP2) and I_{ER}(TP3).
2. Set the unit in the recording mode.
3. Adjust respectively the adjustment coils (as shown below) so that the output at the test point will be maximum.
   - Lch recording bias current L502
   - Rch recording bias current L504
   - Erase current L506

Bias current leakage-1	1V or less	TP4 (L-CH) TP5 (R-CH)	L102 (L-CH) L202 (L-CH)	
Bias current Leakage-2	3mV or less	Line out jack	L103 (L-CH) L203 (R-CH)	

Record Head and Erase Head

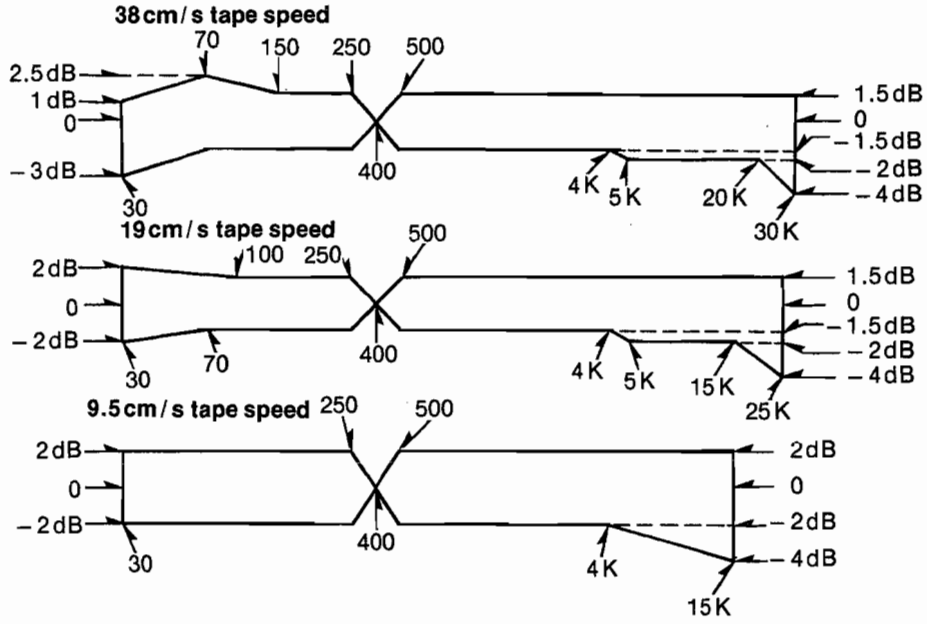
Please refer to the Service Manual Vol. 2 (P36—P37) of RS-1500US, RS-1506US except overall frequency response.

Item	Specification	Measurement Point	Adjustment Part	Remarks

Overall Specification

Overall frequency response

Eq. selector:
Position 2
Bias selector:
Position 2
Line input:
– 34dB (38cm/s)
– 44dB (19/9.5)



Adjustment parts:

FWD direction:

38cm/s tape speed
- VR504 (L-CH)
- VR510 (R-CH)

19cm/s tape speed
- VR503 & L101 (L-CH)
- VR509 & L201 (R-CH)

9.5cm/s tape speed
- VR502 (L-CH)
- VR508 (R-CH)

REV direction:

38cm/s tape speed
- VR507 (L-CH)
- VR513 (R-CH)

19cm/s tape speed
- VR506 (L-CH)
- VR512 (R-CH)

9.5cm/s tape speed
- VR505 (L-CH)
- VR511 (R-CH)

Note:
- Adjustment parts (variable resistors) beginning with VR are actualy used bias current change.
- L101 and L201 adjust the REC equalization.

Adjustment Procedure:

A) FWD direction, 19cm/s tape speed

1. 400Hz, −44dB of input to Line In jacks.
2. Adjust VR503 (L-CH) and VR509 (R-CH) for maximum Line output.
3. Change the input frequency to 10kHz, and again adjust VR503 and VR509 so that the Line output becomes the same value as for 400Hz in step 2.
4. Again change the input frequency to 25kHz, and adjust L101 (L-CH) and L202 (R-CL) so that the Line output becomes 2dB lower than that of 400Hz in step 2 above.
5. Then confirm the overall frequency response for other frequencies is in the standard.

B) FWD direction, 38cm/s tape speed

1. 400Hz, −44dB of input to Line In jacks.
2. Adjust VR504 (L-CH) and VR510 (R-CH) for the maximum Line output.
3. Change the input frequency to 26kHz, and adjust again VR504 and VR510 so that the Line output becomes 1dB lower than that of 400Hz in step 2.
4. Then change the input frequency to 30kHz and confirm that the Line output is within −2dB compared with output of 400Hz in step 2 above.
5. After above, confirm that the overall frequency response for other frequencies is in the standard.

C) FWD direction, 9.5cm/s tape speed

1. 400Hz, −44dB of input to Line In jacks.
2. Adjust VR502 (L-CH) and VR508 (R-CH) for the maximum Line output.
3. Change the input frequency to 14kHz, and adjust again VR502 and VR508 so that the Line output becomes within −2dB compared with the output of 400Hz in step 2 above.
4. Then confirm the overall frequency response for each frequency.

D) REV direction, 38cm/s tape speed

Adjustment method is the same as in FWD direction but adjustment should be done by using VR507 (L-CH) and VR513 (R-CH).

E) REV direction, 19cm/s tape speed

1. 400Hz, −44dB of input to Line In jacks.
2. Adjust VR506 (L-CH) and (R-CH) for the maximum Line output.
3. And change the input frequency to 25kHz, and adjust VR506 and VR512 so that the Line output becomes within −2dB with compared to the output of 400Hz in step 2 above.
4. Then confirm that overall frequency response for each frequency is within the standard.

F) REV direction, 9.5cm/s tape speed

Adjustment method is the same way as in FWD direction but adjustment parts are VR505 (L-CH) and VR511 (R-CH).

Item	Specification	Measurement Point	Adjustment Part	Remarks
Bias current	Bias selector: 2 38cm/s: around 2.9mA 19cm/s: around 2.7mA 9.5cm/s: around 2.3mA For position 1 of Bias selector: 10% less than that with position 2 of Bias selector. For position 3 of Bias selector: 10% more than with position 2 of Bias selector.	I_B (TP2)	Refer to overall frequency response adjustment.	
Recording equalization				

Compensation values depending upon frequencies.

Tape speed: 38cm/s, Eq. position: 2

Frequency (Hz)	31.5	100	400	6.3K	20K
Value (dB)	3±2	1±2	0	−2±2	2±3

Tape speed: 19cm/s, Eq. position: 2

Frequency (Hz)	400	6.3K	16K
Value (dB)	0	3±3	12±4

Tape speed: 9.5cm/s, Eq. position:2

Frequency (Hz)	400	6.3K	12.5K
Value (dB)	0	4±3	15±4

Compensation value depending upon EQ. positions.

Tape speed: 38cm/s, Frequency: 20kHz

Eq. position	1	2	3
Value (dB)	+3±1	0	−3±1

Tape speed: 19cm/s, Frequency: 16kHz

Eq. position	1	2	3
Value (dB)	3±2	0	−3±2

Tape speed: 9.5cm/s, Frequency: 12.5kHz

Position	1	2	3
Value (dB)	4±3	0	−4±3

Item	Specification	Measurement Point	Adjustment Part	Remarks
Overall gain	0.55V ± 1dB (0.775V ± 1dB)	Line out jack	FWD direction VR104 (L-CH) VR204 (R-CH) REV direction VR105 (L-CH) VR205 (R-CH)	• Line in: – 24dB • Output level control "8" position (Max position)
Recording current	180μA	IB (TP2)	———	Remove fuse on oscillation circuit board to stop the bias oscillation.
Level meter (for playback)	0VU	On meter	VR109 (L-CH) VR209 (R-CH)	Monitor: Tape position
Overall S/N ratio	38cm/s: 46dB or more 19cm/s: 46dB or more 9.5cm/s: 44dB or more	Line out jack	———	• Frequency 1kHz
Erase ratio	1kHz: 70dB or more 100Hz: 60dB or more	Line out jack	———	Tape speed: 38cm/s Input: –14dB
Overall distortion	0.8% or less	Line out jack	———	

1. MECHANISM

The items, methods and specifications for measurements and adjustments are basically the same as for RS-1500US. Therefore, only these items which differ between RS-1700 and RS-1500US are mentioned in the following.

[1] Tape Transport

Thread 150% blank tape through the unit and run the tape forward and reverse at a speed of 19cm/sec. Then make the following adjustments so that the tape is not curled by the tape guide tension roller.

[A] Tension Rollers Height Adjustment.
[B] Reel Tables Height Adjustment.
[C] Tape Guide Adjustment.

Since the adjustments in (A) and (B) are the same as for RS-1500US, refer to RS-1500US Service Manual Vol. 2.

1) Tape Guide Adjustment

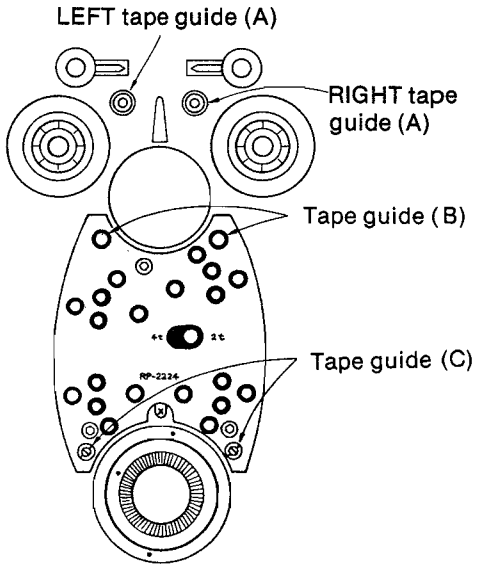
Tape guide (B) is fixed, and the tape transport can be adjusted with tape guide (A) and tape guide (C).

a) Make the adjustment so that the tape runs at the center of tape guide (B) without being curled.

* LEFT tape guide (A) in forward mode.
* RIGHT tape guide (A) in reverse mode.

b) Tape guide (C)

Adjust tape guide (C) so that the tape is not curled at tape guide (C) in forward and reverse modes.



c) The factors of tape travel variation can be summarized as follows:

Forward mode

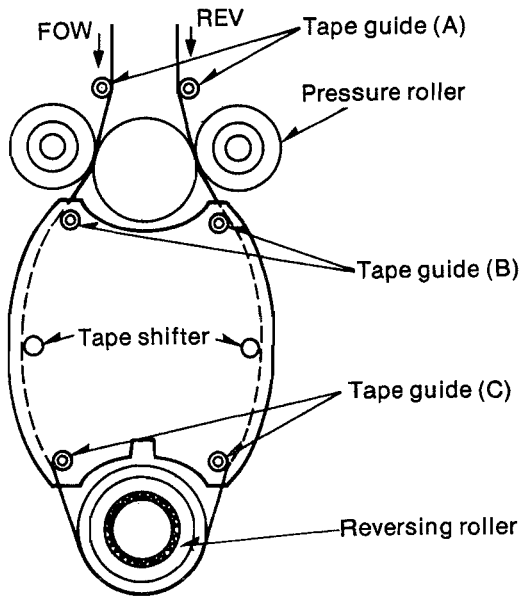
Left tension roller height.
Height of tape guide (A).
Tilt and contact of reverse playback head.
Tilt of reversing roller (when tape is curled at tape guide (C)).

Reverse mode

Right tension roller height.
Height of tape guide (A).
Tilt and contact of forward playback head.
Tilt of reversing roller.

FF/REW mode

Heights of tape guides (A), (B), (C).
Verticality of tape shifter.



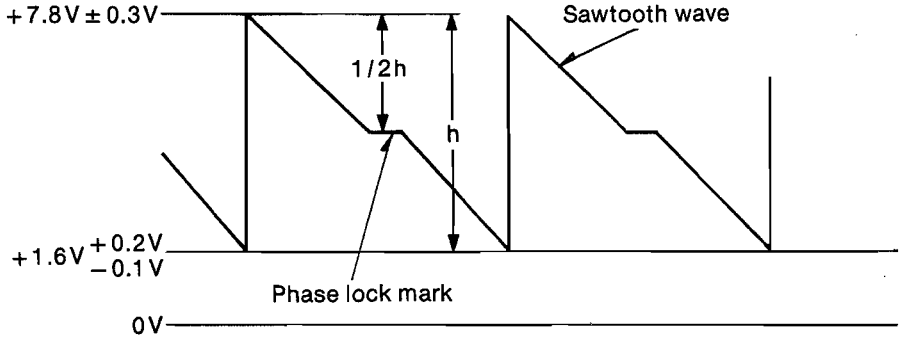
[2] Tape Speed, Wow and Flutter

Since the contents of 1) Tape speed measurement, 2) Tape speed fluctuation measurement, and 3) Wow and flutter measurement are the same as for RS-1500US, refer to RS-1500US Service Manual Vol. 2. But for pitch control adjustment and capstan motor circuit adjustment, RS-1700 differs from RS-1500US as follows:

1) Adjustment of Capstan Motor Circuit

Connect oscilloscope to TP906. (Dual-trace oscilloscope is not needed for RS-1700.)

2. Set AC/DC selector switch of oscilloscope to DC position.
3. Thread 10″ or 7″ real tape and set tape speed selector to 9.5cm/sec.
4. Playback the tape (at the middle of tape wound).
5. Make the adjustment so that the output waveform of TP906 is as shown below at VR911.



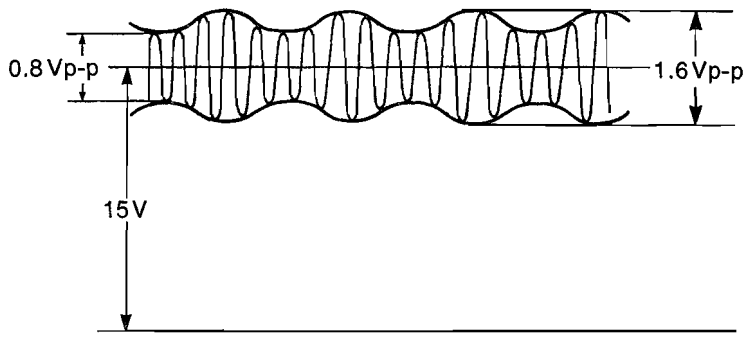
6. The phase lock mark is shifted upward when the tape speed is changed to 19cm/sec. and 38cm/sec. If it is stationary, there will be no problem.

2) Pitch Control Adjustment

1. Set the pitch control switch to ON, maintaining the connection made in section 1).
2. Thread 10″ or 7″ real tape and set tape speed selector to 9.5cm/sec.
3. Adjust VR927 so that the lock marl of sawtooth wave is as stationary as possible (actually the lock mark moves slowly).

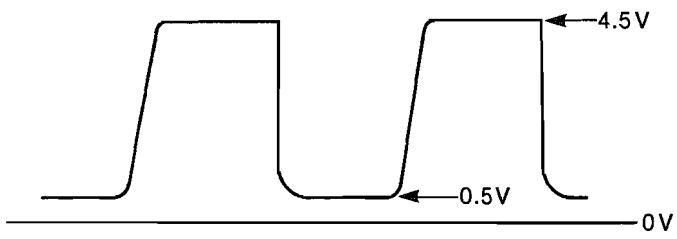
3) Position Detecting Signal Output

1. Connect oscilloscope to TP907 (capstan motor control circuit board).
2. Set the tape speed to 9.5cm/sec. in playback mode.
3. Measure the peak-to-peak voltage of position detecting signal of TP907 with the oscil-oscilloscope.
4. If the measured signal voltage is markedly different from the voltage shown below, make the necessary adjustment with VR966.



4) Adjustment of Auto Reverse Detection Circuit

1. Retain the tension roller so that shut-off switch (S19, S20) turns ON.
2. Set the unit to playback mode without tape threaded. Connect oscilloscope to TP (main control circuit board R89 1.5K), and then check the waveform.
3. Adjust VR1 so that the voltage waveform of TP becomes a sharper spuare waveform and its amplitude is as shown below.



2. HEAD ADJUSTMENT

The head composition of RS-1700 is different from that of RS-1500US. It is composed of Forward Erase/Record Head, Forward Playback Head, Reverse Frase/Record Head, and Reverse Playback Head. For alignment, however, RS-1700 is basically the same as RS-1500US.

(1) Playback head adjustment (both forward and reverse).

(2) Frase/Record head adjustment (both forward and reverse).

Regarding (1) and (2), the following adjustments are necessary.

[A] Head height.

[B] Tilt.

[C] Azimuth.

[D] Contact and tangency.

[E] Phase.

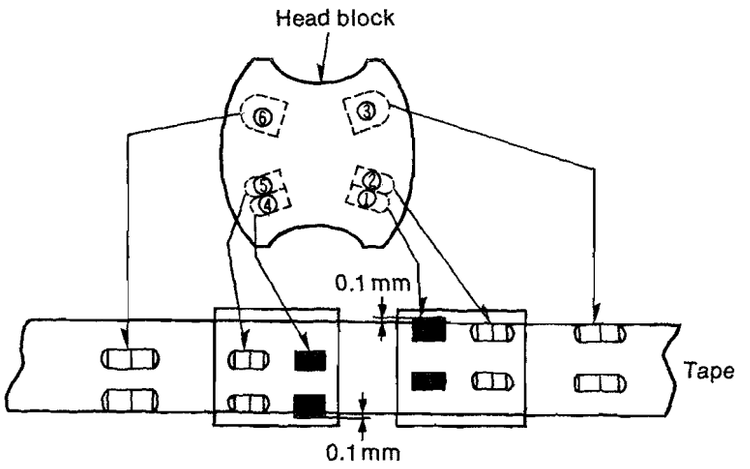
Since the adjustment methods for (A) and (B) are the same as for RS-1500US, refer to RS-1500US Service Manual Vol. 2 P22—P24, P36—P37.

[1] Head Setting

a) Tape transport must be adjusted and checked before the adjustment of electrical characteristics. But if the tape travel is not normal, carry out the above-stated tape guide adjustment, and then check and adjust the head position; i.e. head height, tilt, tangent and tape contact.

b) Since the adjustment of each head is the same as for RS-1500US, refer to RS-1500US Service Manual Vol. 2. Incidentally, make the adjustments for RS-1700 in forward and reverse modes.

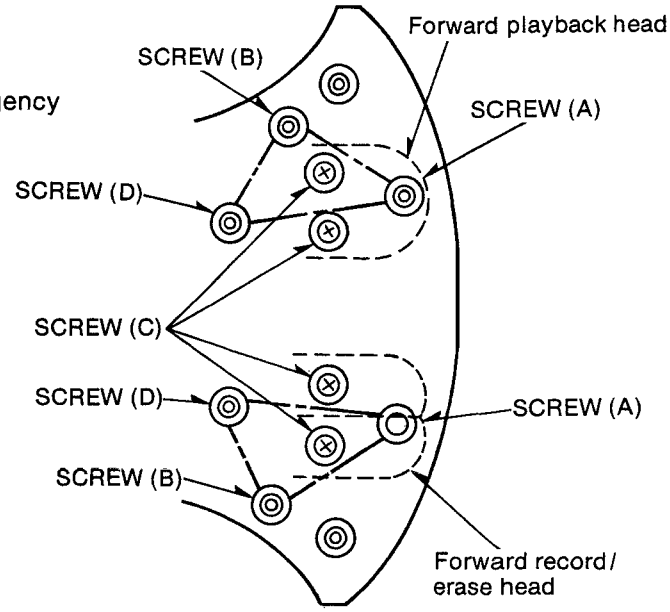
c) Head height, and tape touch of Record/Erase head.



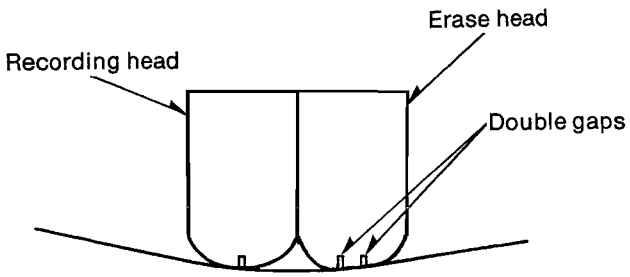
① Forward erase head.
② Forward record head.
③ Forward playback head.
④ Reverse erase head.
⑤ Reverse record head.
⑥ Reverse playback head.

(1) The height of each head from the tape must be visually checked and then adjusted with head height adjustment screw as shown above.

SCREW (A): for height
SCREW (B): for azimuth
SCREW (C): for contact and tangency
SCREW (D): for tilt



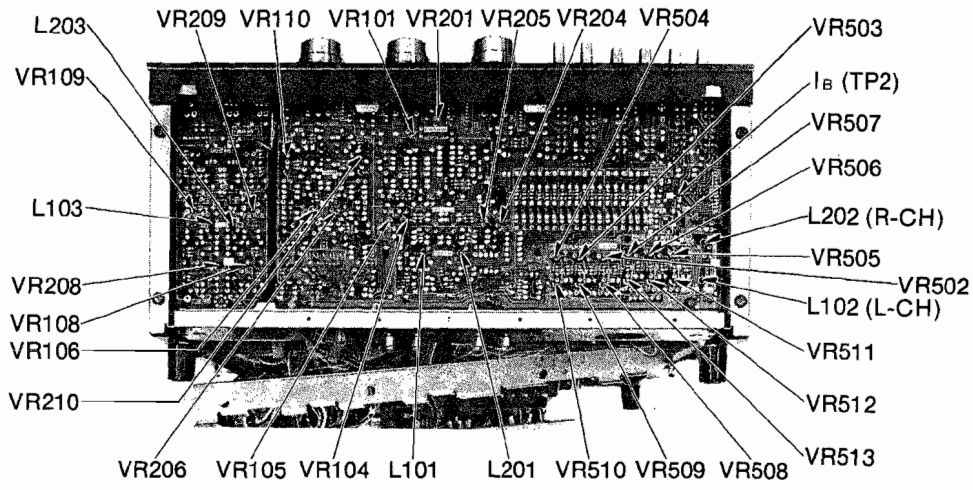
(2) Tape touch of Record/Erase head.



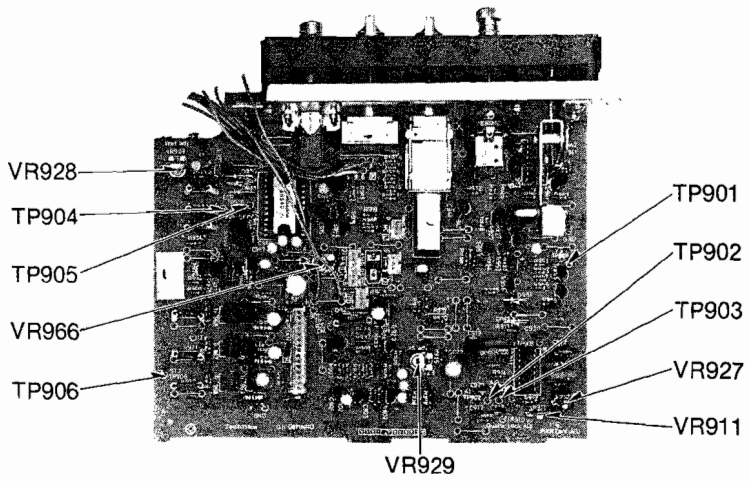
Adjust the Record/Erase head position with head adjustment screw (C) so that record head gap and erase head gaps touch the tape as illustrated above.

ADJUSTMENT PARTS LOCATION

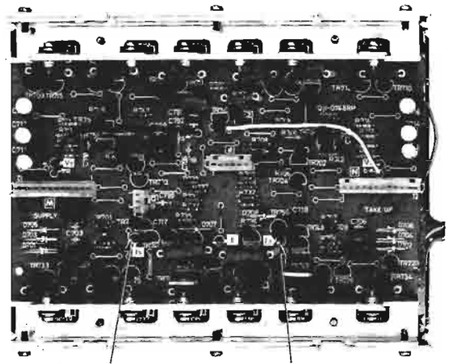
Line-out Headphone/ Main Amplifier



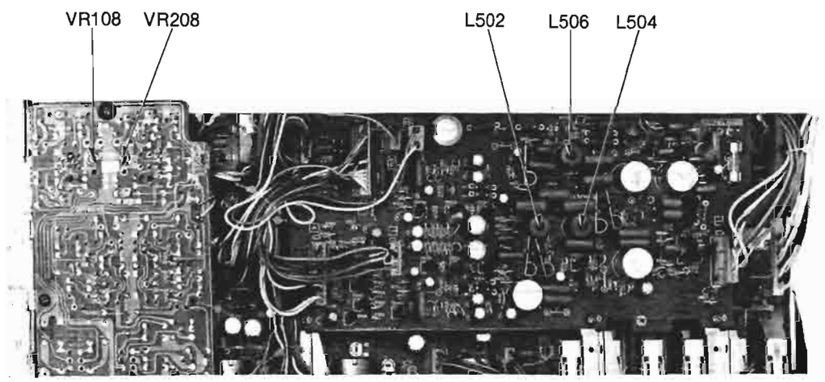
Capstan Motor Control Circuit



Reel Motor Driving Circuit

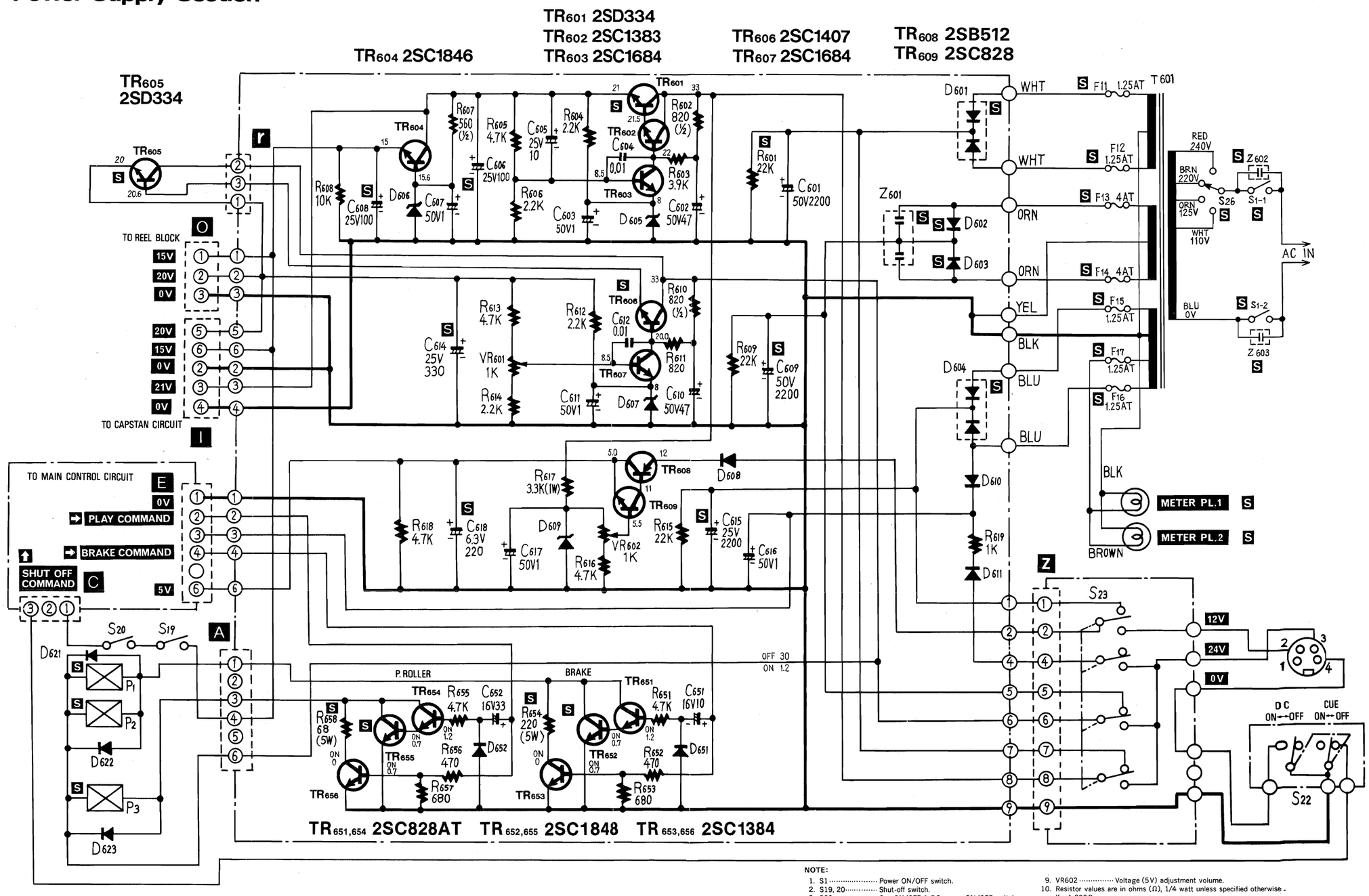


Mic and Meter Amplifier/Oscillation Circuit



SCHEMATIC DIAGRAM MODEL RS-1700

Power Supply Section

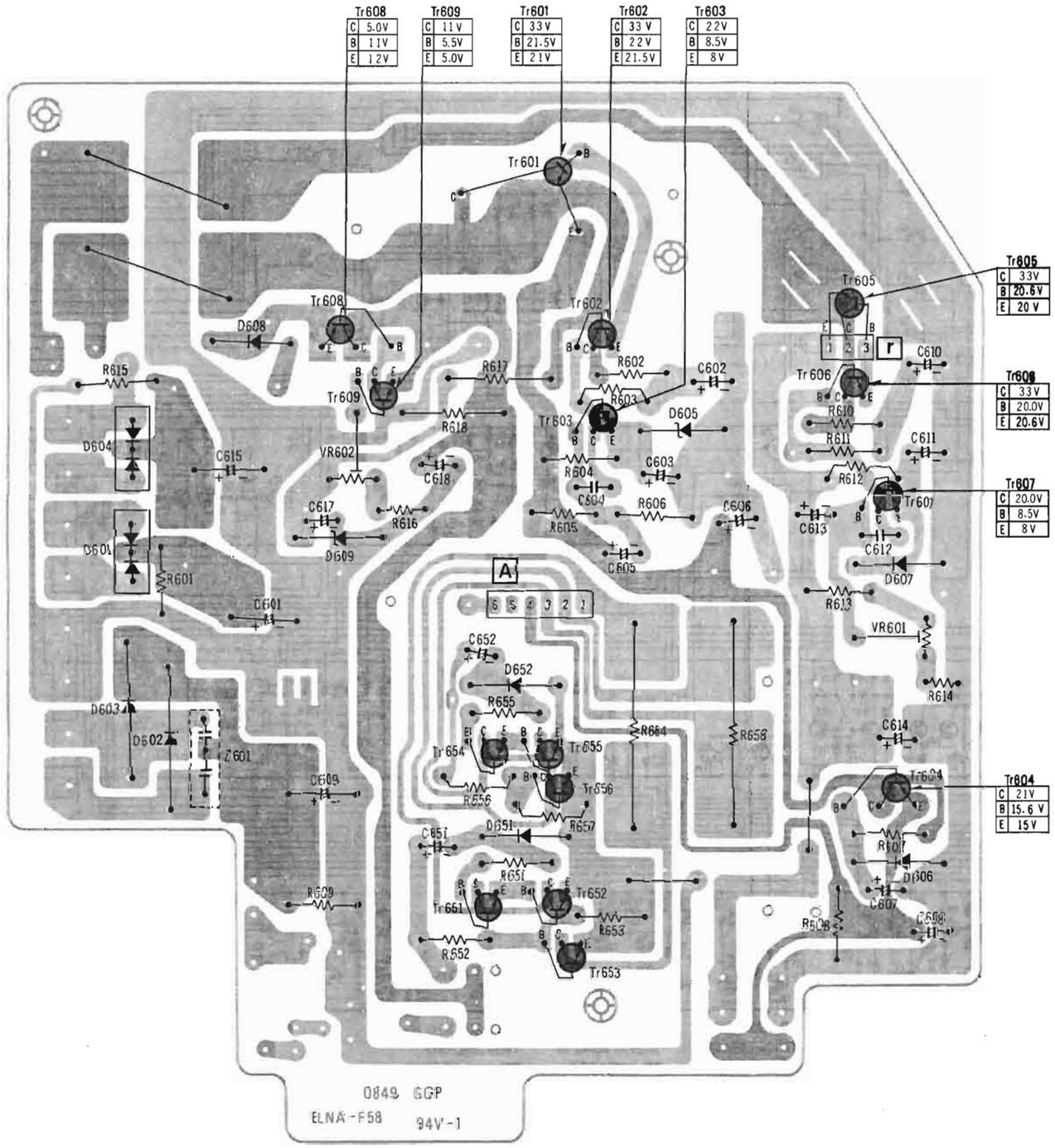


NOTE:

1. S1 ..... Power ON/OFF switch.
2. S19, 20 ..... Shut-off switch.
3. S22 ..... Cue ON/OFF & DC power ON/OFF switch.
4. S23 ..... AC/DC select switch.
5. S26 ..... AC voltage select switch.
6. P1, 2 ..... Brake plunger.
7. P3 ..... Pressure roller plunger.
8. VR601 ..... Voltage (20V) adjustment volume.
9. VR602 ..... Voltage (5V) adjustment volume.
10. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K = 1,000Ω.
11. Capacitor values are in microfarads (μF) unless specified otherwise. P = Pico-farads.
12. All voltage values show in circuitry are under no signal condition with volume control at minimum position. For measurement, use VTVM.
13. S indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

Power Supply

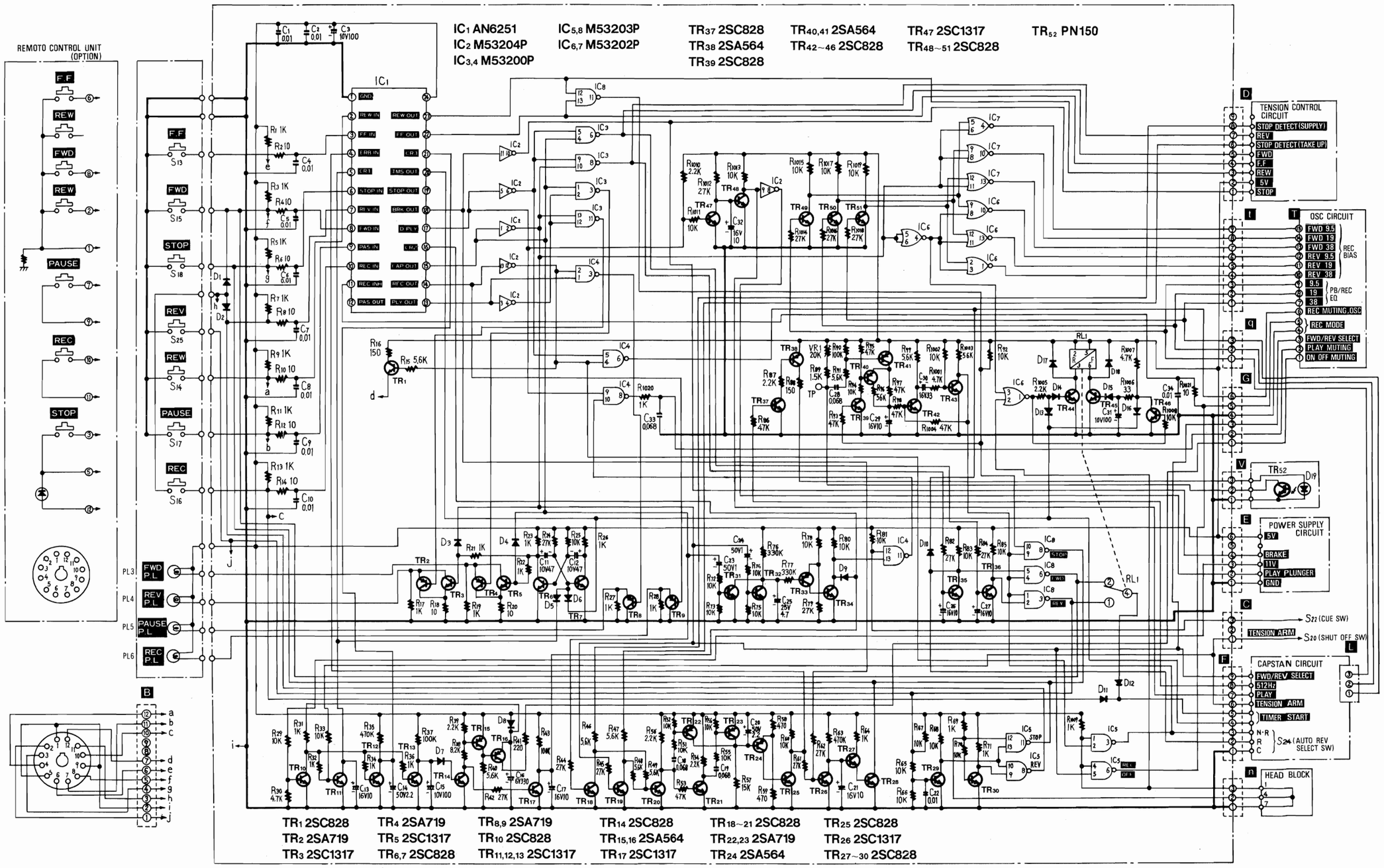


NOTE:

The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.

SCHEMATIC DIAGRAM MODEL RS-1700

Main Control Section

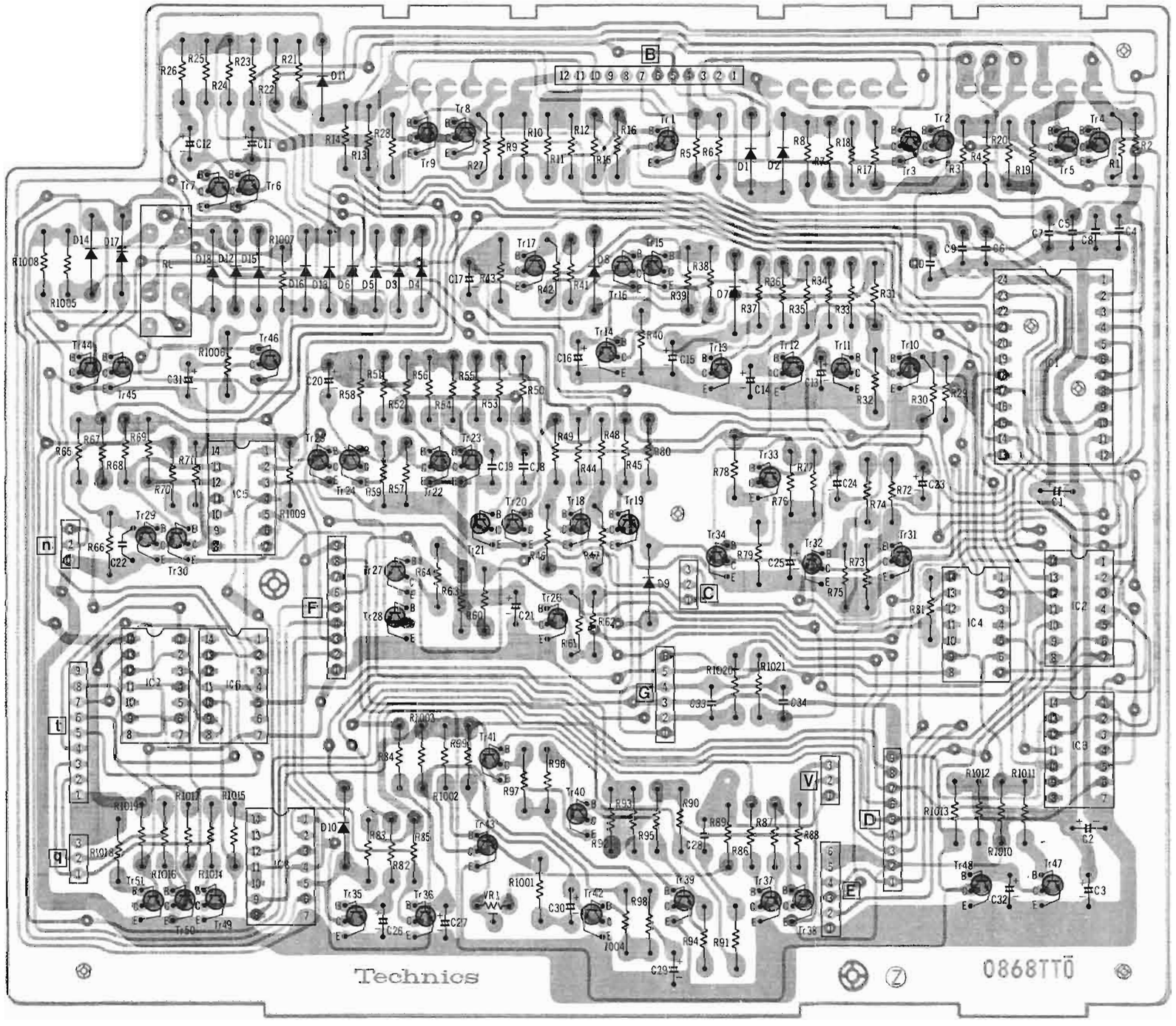


NOTE:

1. S13~18, 25 ..... Control key switch.
2. VR1 ..... Photo transistor adjustment VR.
3. RL1 ..... Forward/reverse select relay.
4. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K = 1,000Ω.
5. Capacitor values are in microfarads (μF) unless specified otherwise. P = Pico-farads.

CIRCUIT BOARD

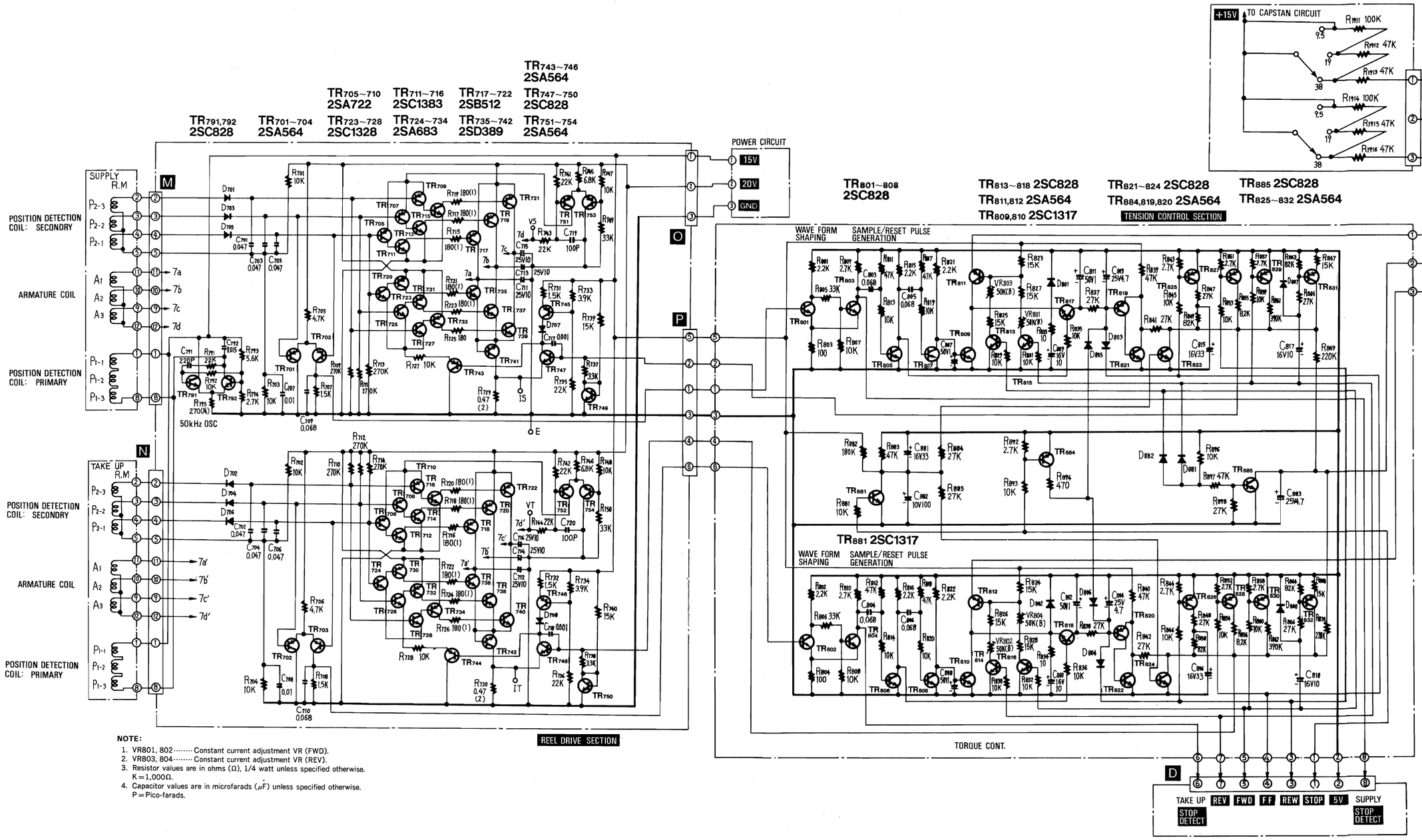
Main Control



NOTE:
The circuit shown in red on the conductor is B circuit.

SCHEMATIC DIAGRAM MODEL RS-1700

Reel Motor Section

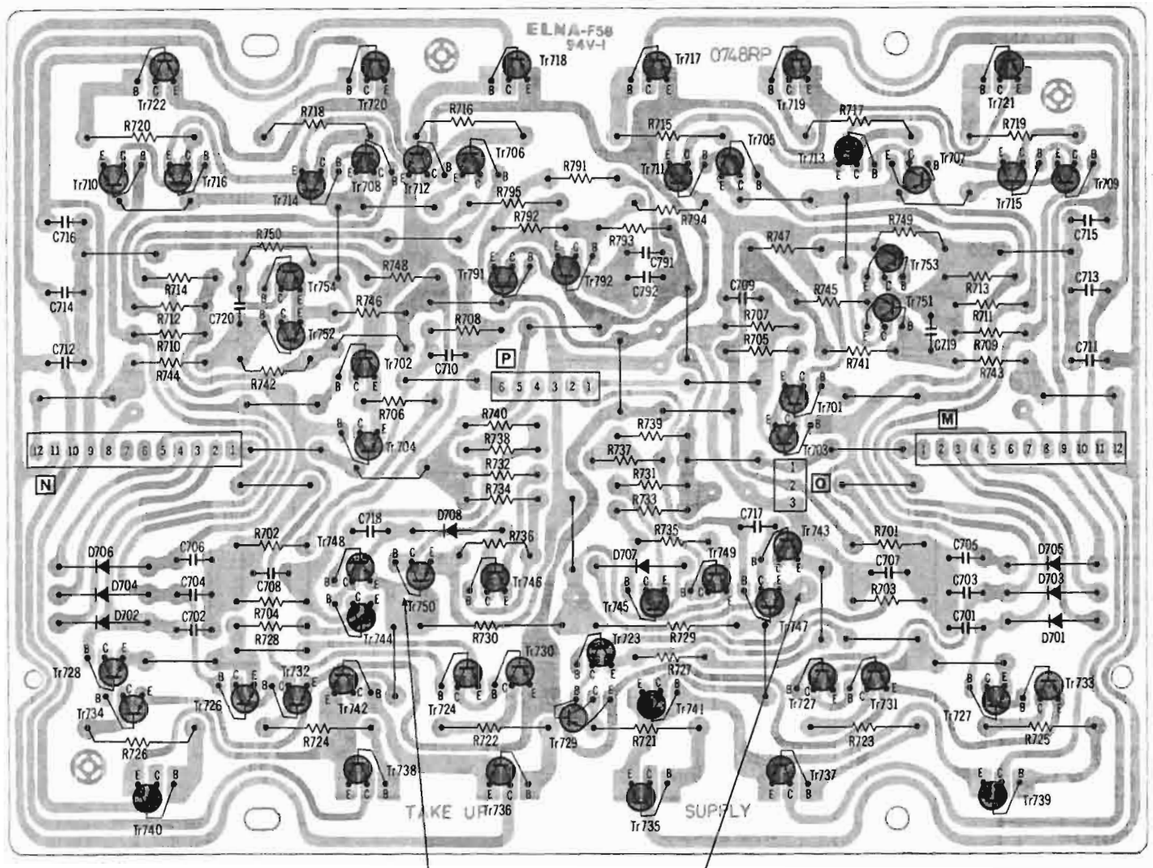


NOTE:

1. VR801, 802 ····· Constant current adjustment VR (FWD).
2. VR803, 804 ····· Constant current adjustment VR (REV).
3. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
4. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.

CIRCUIT BOARD

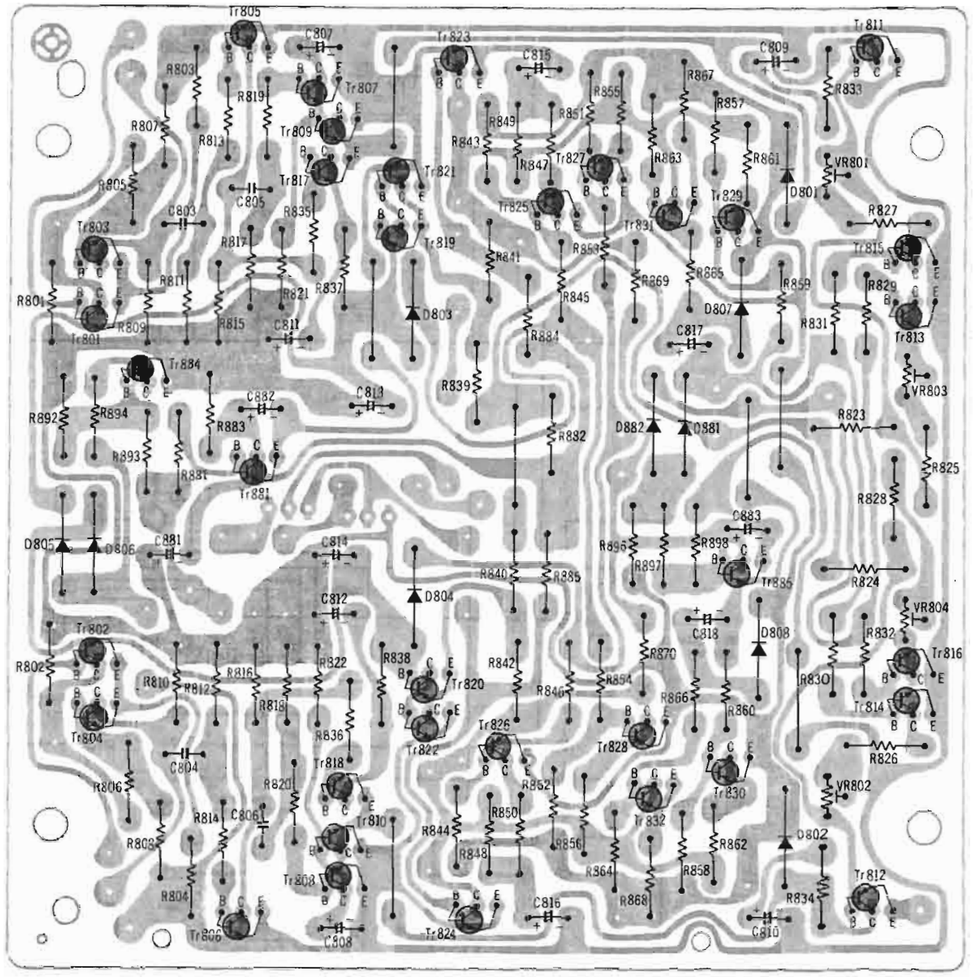
Reel Motor Driving



I_T (For tape tension)

I_S (For tape tension)

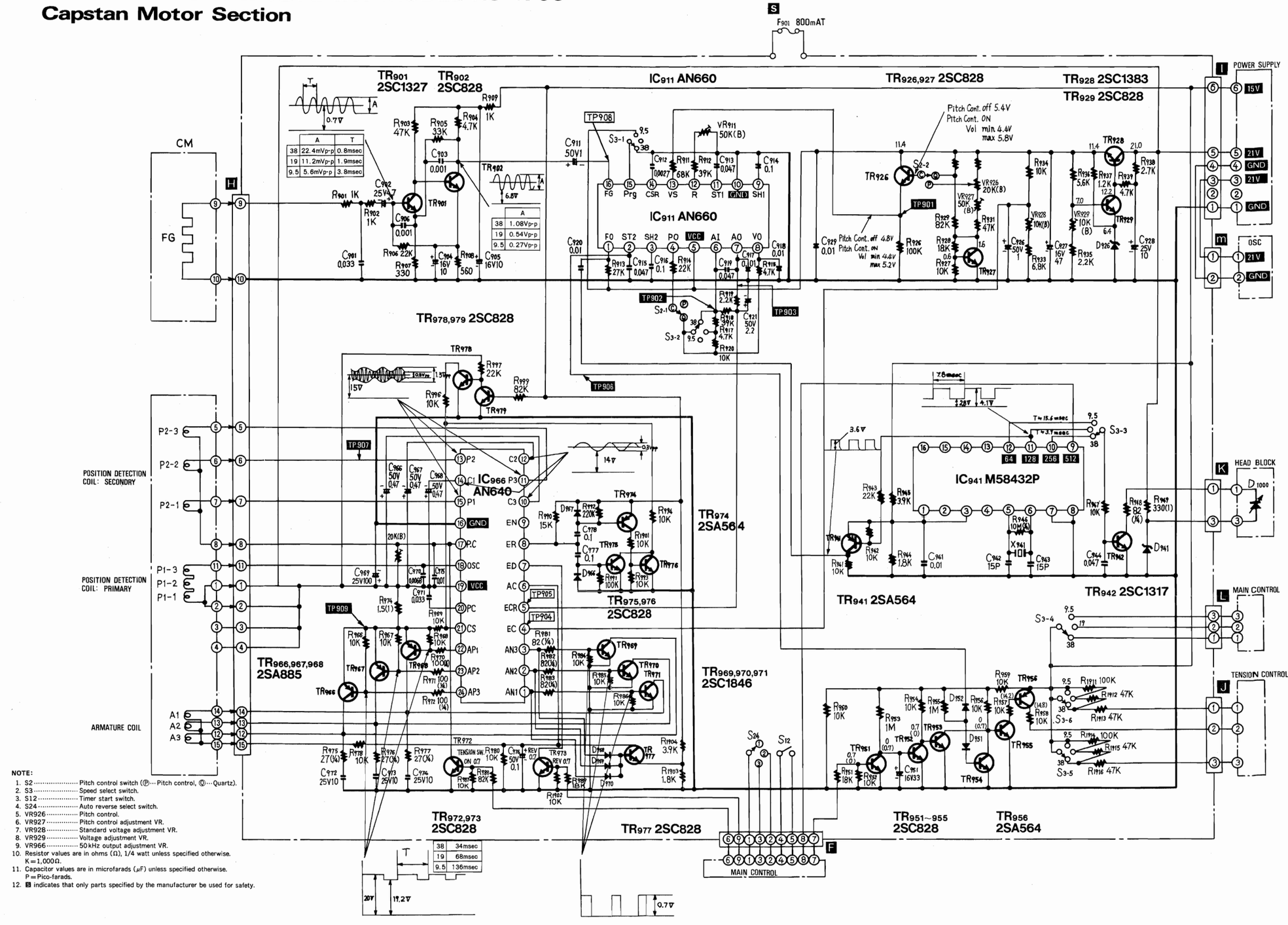
Reel Motor Tension Control



NOTE:
The circuit shown in red on the conductor is B circuit.

SCHEMATIC DIAGRAM MODEL RS-1700

Capstan Motor Section

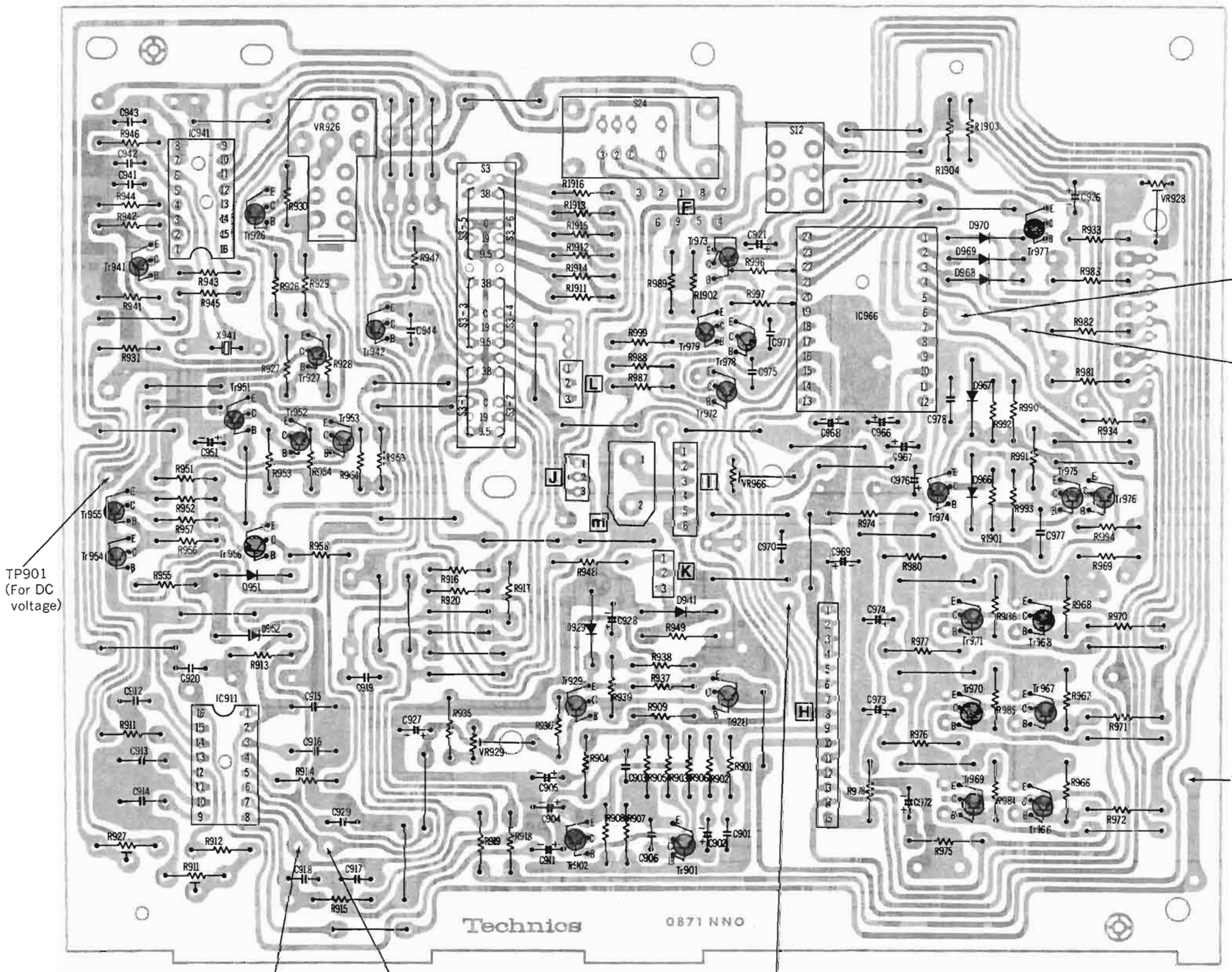


NOTE:

1. S2 ····· Pitch control switch (Ⓟ··· Pitch control, Ⓠ··· Quartz).
2. S3 ····· Speed select switch.
3. S12 ····· Timer start switch.
4. S24 ····· Auto reverse select switch.
5. VR926 ····· Pitch control.
6. VR927 ····· Pitch control adjustment VR.
7. VR928 ····· Standard voltage adjustment VR.
8. VR929 ····· Voltage adjustment VR.
9. VR966 ····· 50 kHz output adjustment VR.
10. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K = 1,000Ω.
11. Capacitor values are in microfarads (μF) unless specified otherwise. P = Pico-farads.
12. ⓢ indicates that only parts specified by the manufacturer be used for safety.

CIRCUIT BOARD

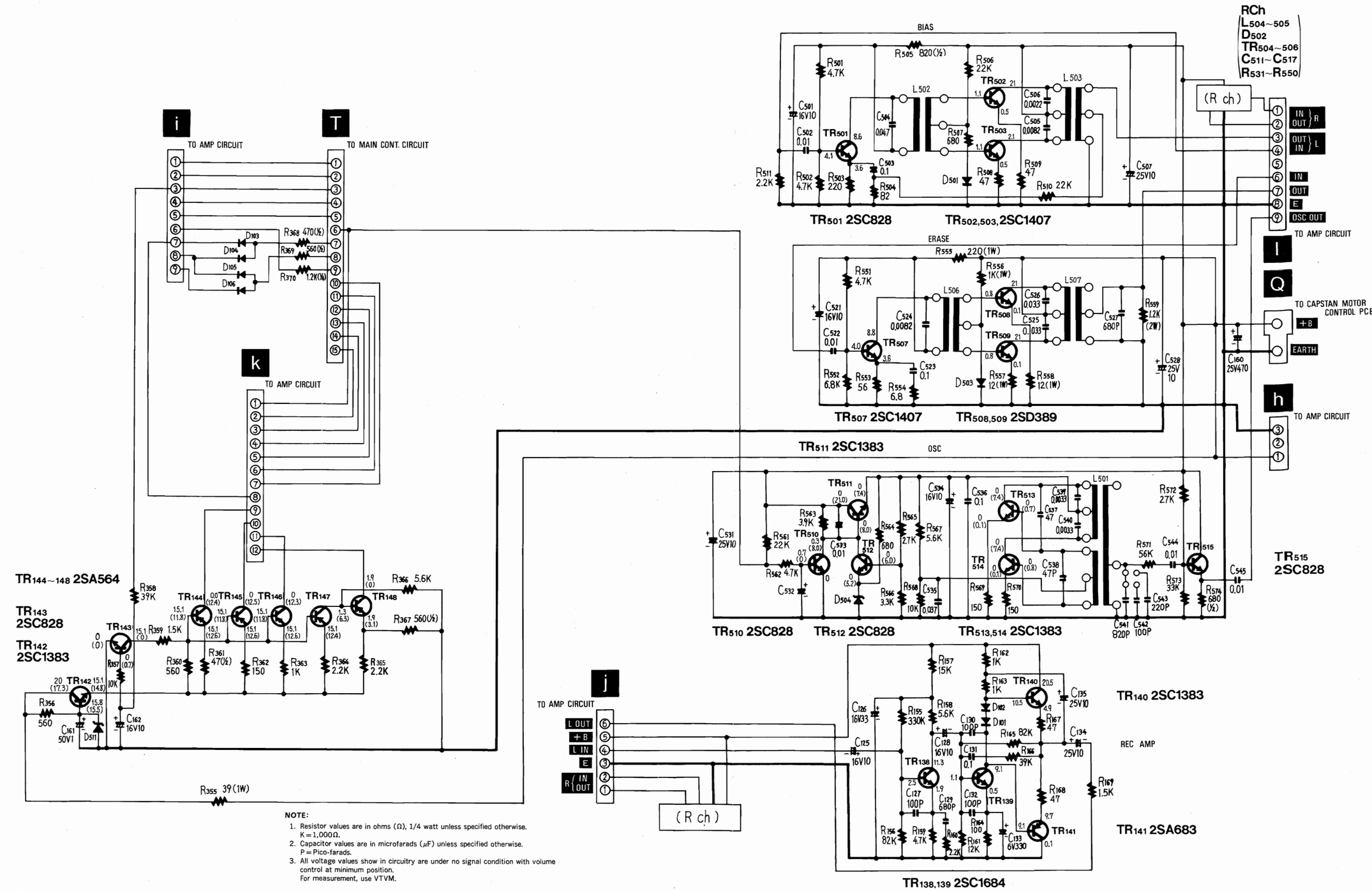
Capstan Motor Control



NOTE:
The circuit shown in red on the conductor is B circuit.

SCHEMATIC DIAGRAM MODEL RS-1700

Oscillation Section

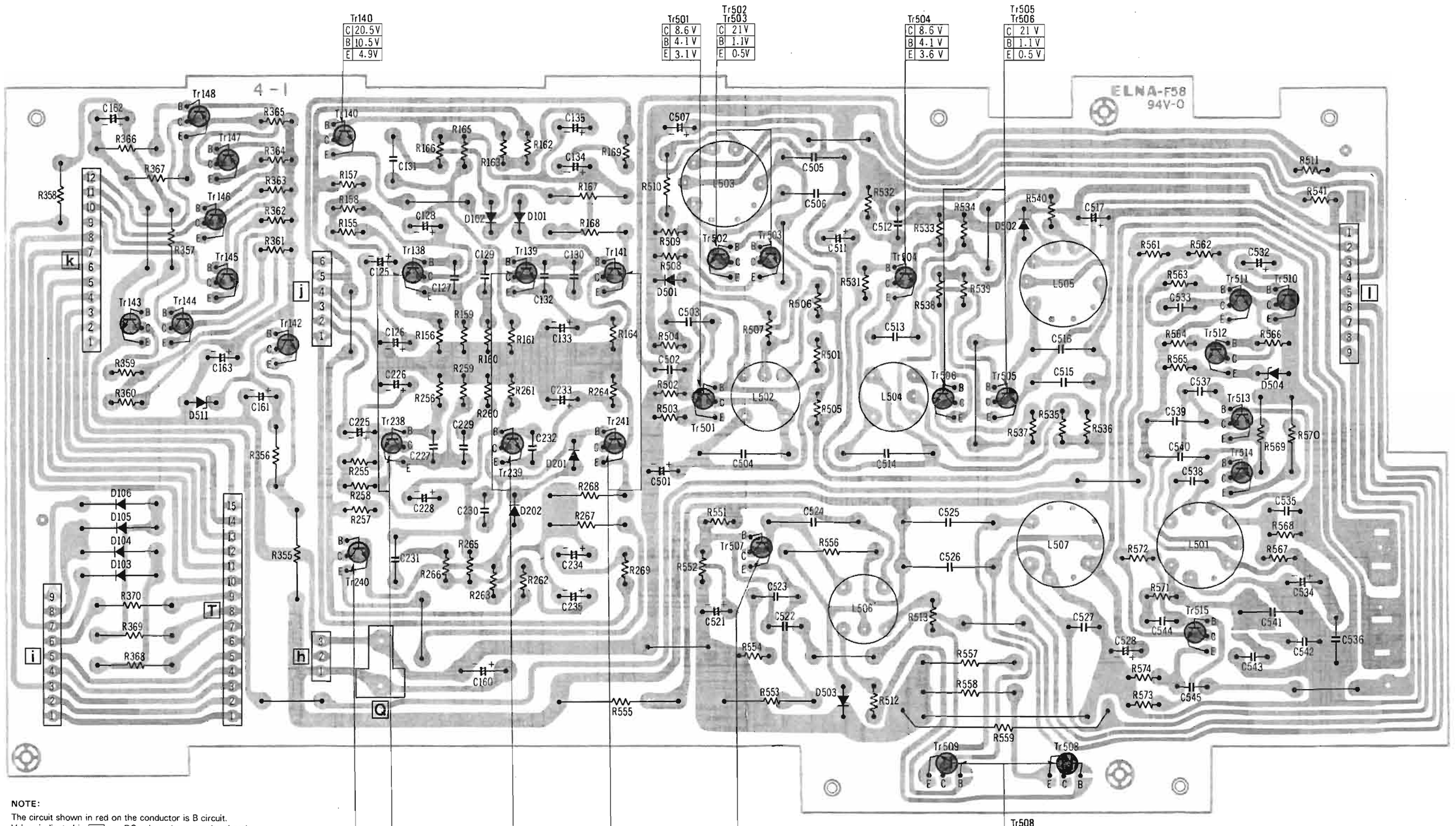


NOTE:

1. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K = 1,000Ω.
2. Capacitor values are in microfarads (μF) unless specified otherwise. P = Pico-farads.
3. All voltage values show in circuitry are under no signal condition with volume control at minimum position. For measurement, use VTVM.

CIRCUIT BOARD

Oscillation

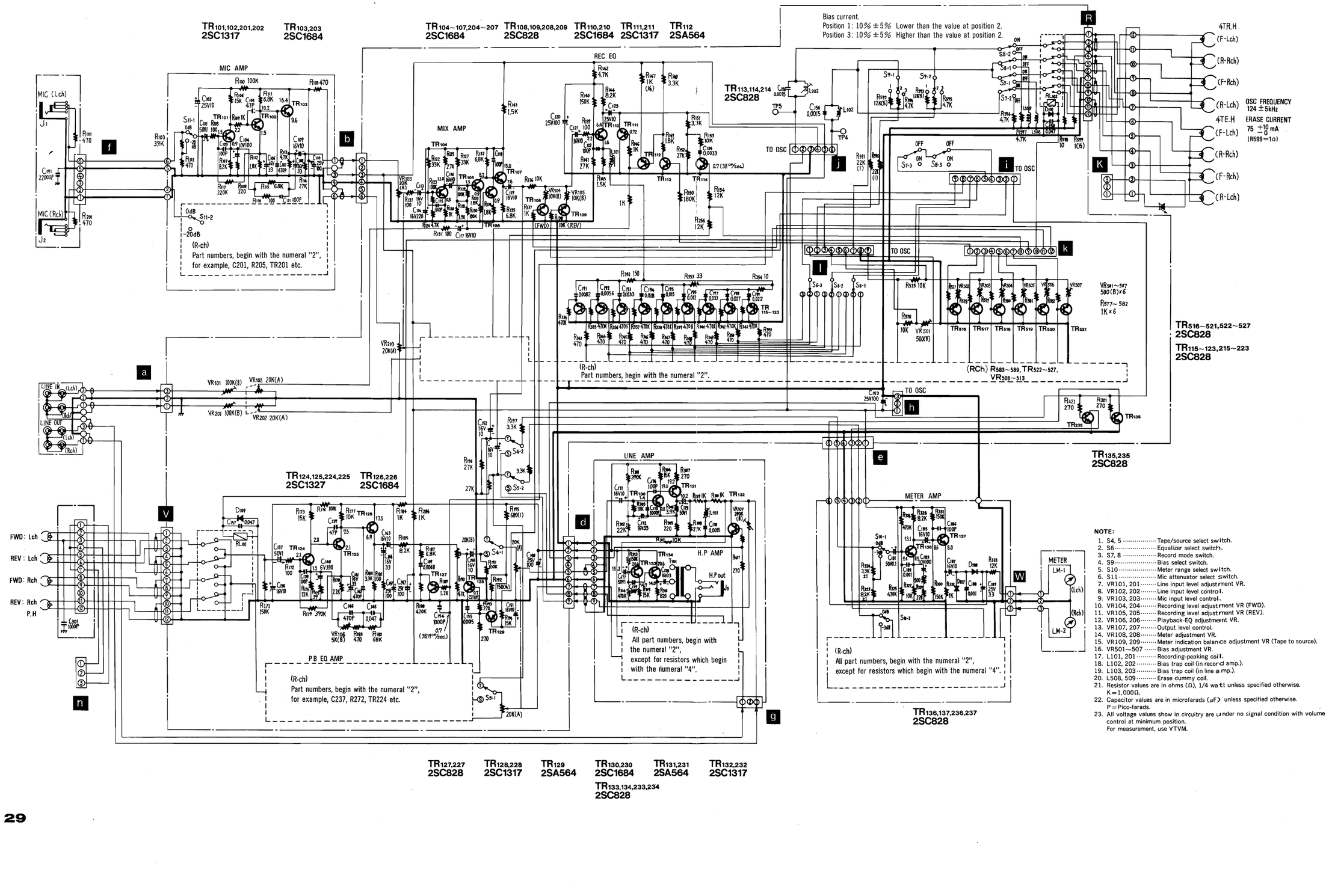


NOTE:

The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.

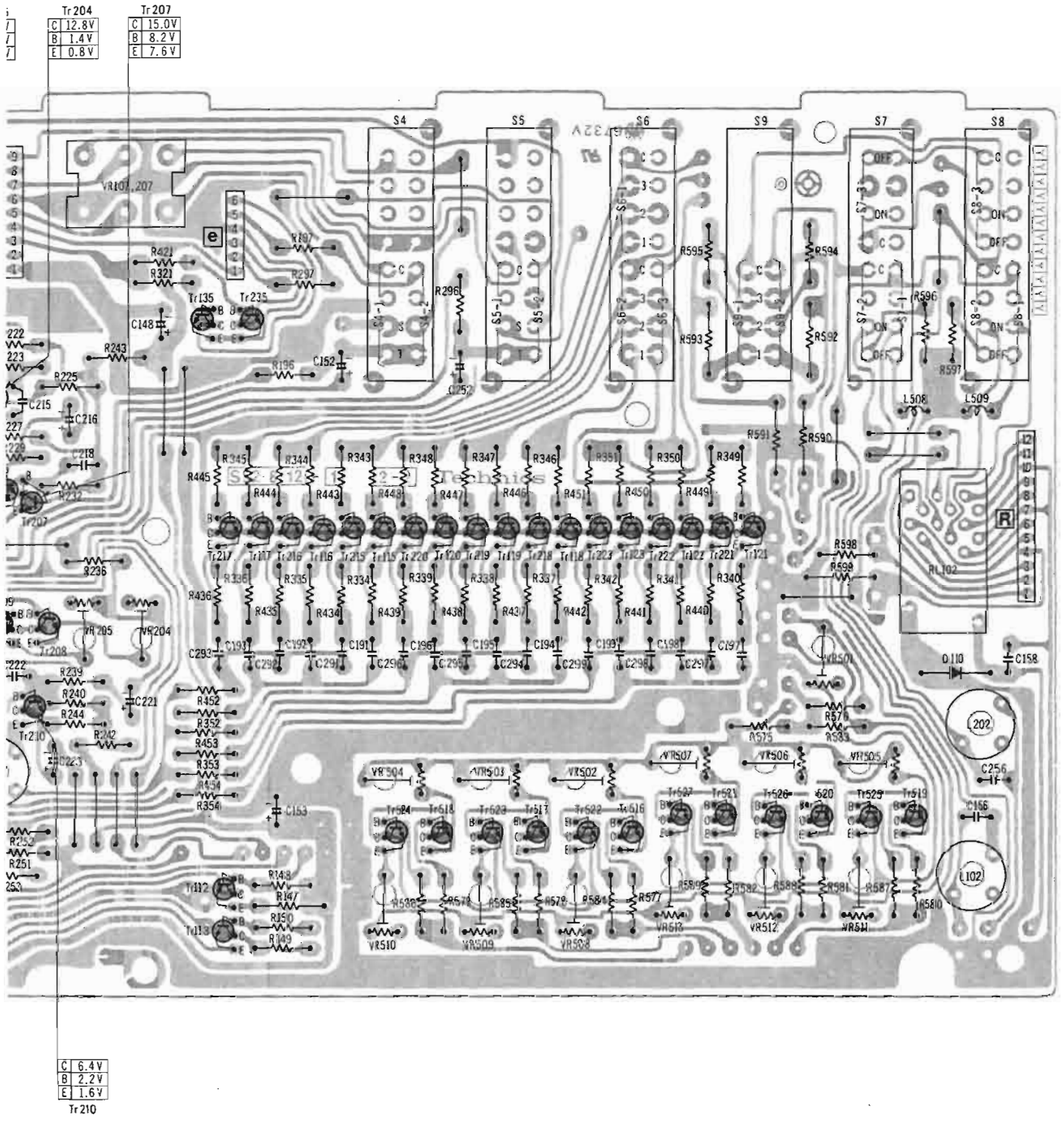
SCHEMATIC DIAGRAM MODEL RS-1700

Main Amp Section

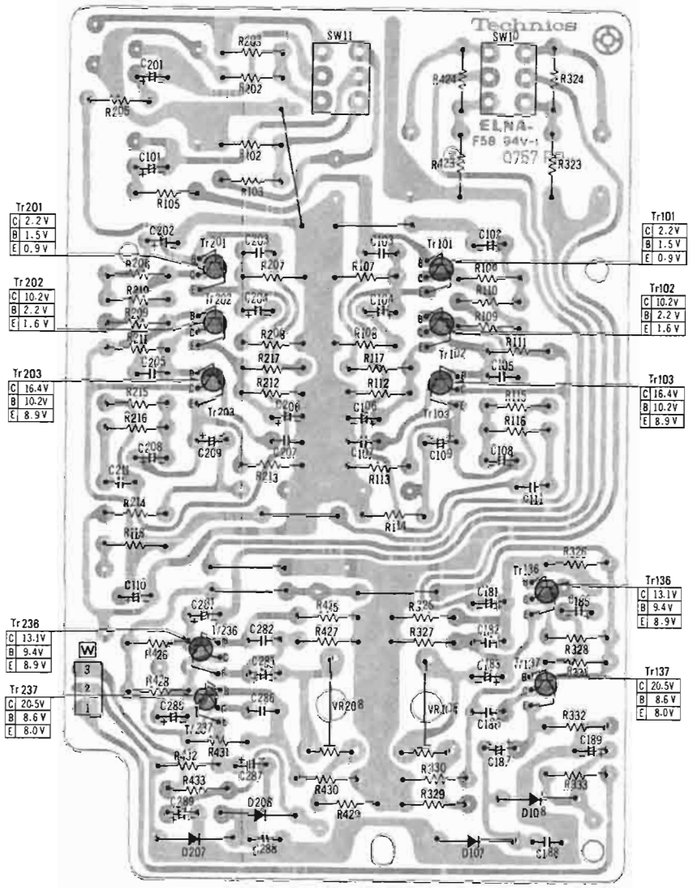


NOTE:

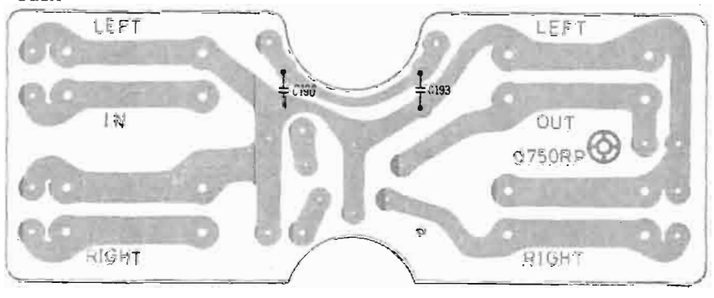
1. S4, 5 ..... Tape/source select switch.
2. S6 ..... Equalizer select switch.
3. S7, 8 ..... Record mode switch.
4. S9 ..... Bias select switch.
5. S10 ..... Meter range select switch.
6. S11 ..... Mic attenuator select switch.
7. VR101, 201 ..... Line input level adjustment VR.
8. VR102, 202 ..... Line input level control.
9. VR103, 203 ..... Mic input level control.
10. VR104, 204 ..... Recording level adjustment VR (FWD).
11. VR105, 205 ..... Recording level adjustment VR (REV).
12. VR106, 206 ..... Playback-EQ adjustment VR.
13. VR107, 207 ..... Output level control.
14. VR108, 208 ..... Meter adjustment VR.
15. VR109, 209 ..... Meter indication balance adjustment VR (Tape to source).
16. VR501~507 ..... Bias adjustment VR.
17. L101, 201 ..... Recording-peaking coil.
18. L102, 202 ..... Bias trap coil (in record amp.).
19. L103, 203 ..... Bias trap coil (in line amp.).
20. L508, 509 ..... Erase dummy coil.
21. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
22. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.
23. All voltage values show in circuitry are under no signal condition with volume control at minimum position. For measurement, use VTVM.



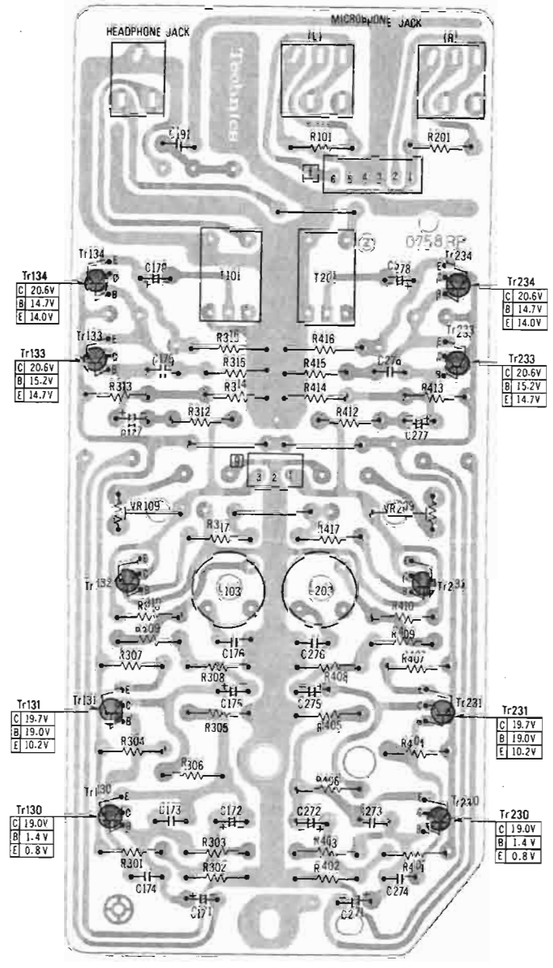
Mic and Meter Amp



Jack



Line-out Headphone Amp

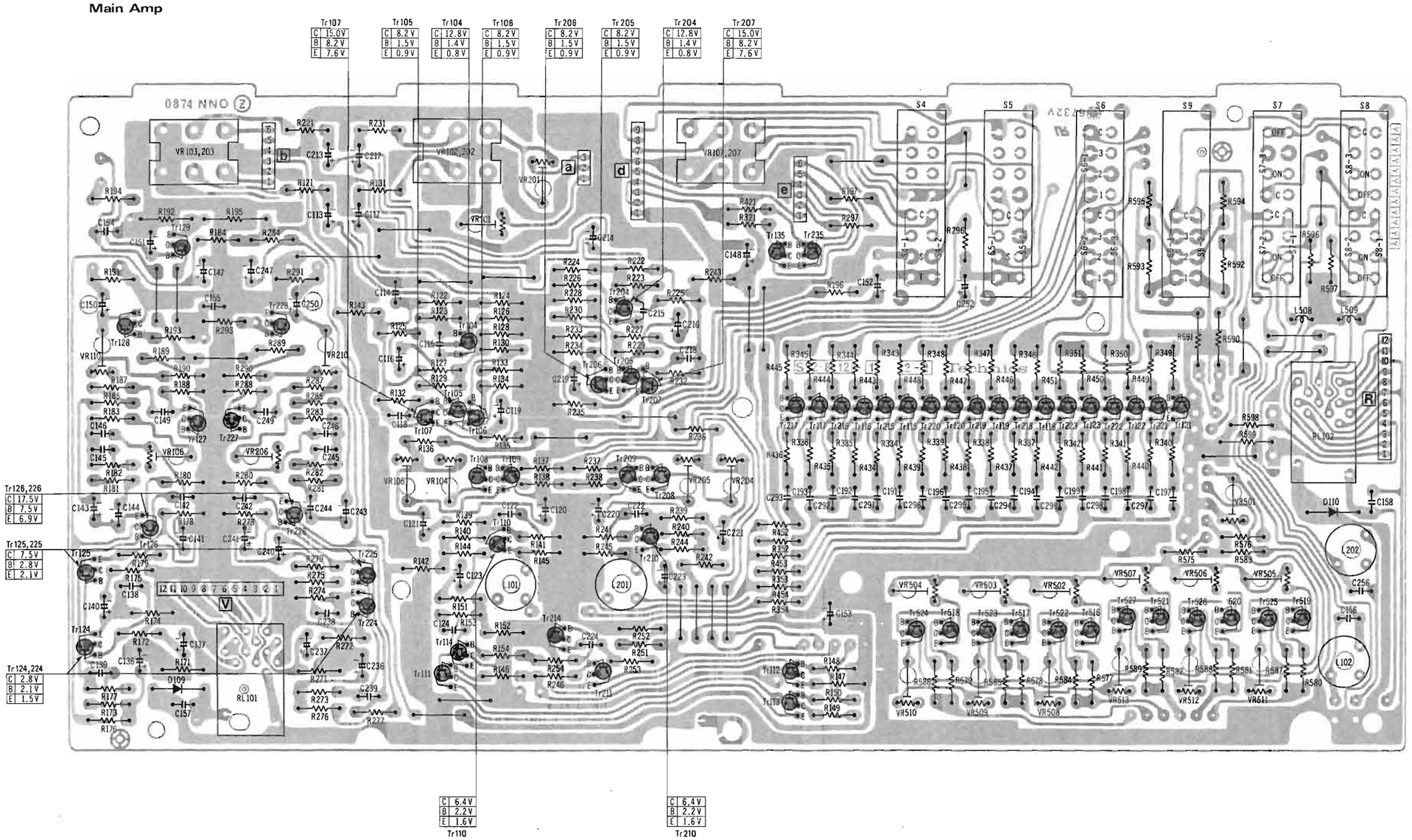


NOTE:

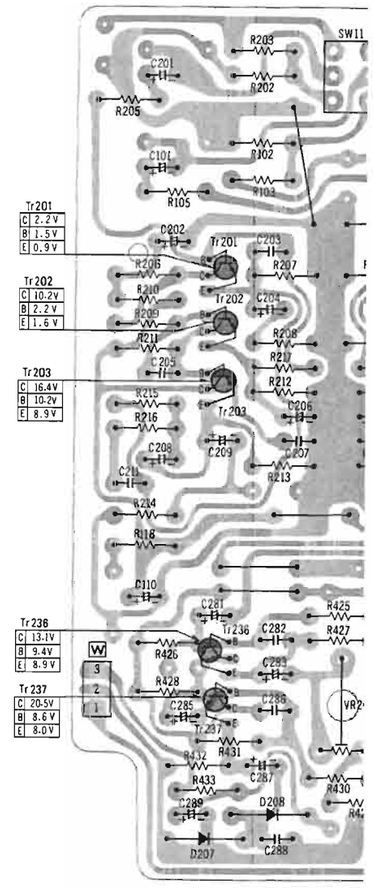
The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.

CIRCUIT BOARD

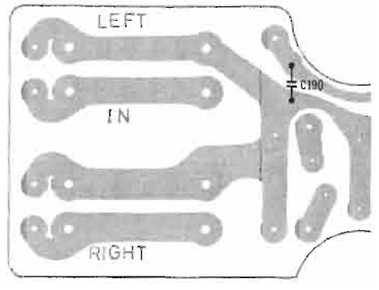
Main Amp



Mic and Meter Amp



Jack



REPLACEMENT PARTS LIST MODEL RS-1700 (Technics)

NOTE: Ⓢ indicated that only parts specified by the manufacturer be used for safety.

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		MECHANICAL PARTS		
M1	XTN4+10B	Tapping Screw	15	
M2	QXH0273	Function Button Holding Plate Assembly	1	
M3	XUC3FT	Stop Ring	30	
M4	QMN2142	Shaft	1	
M5	QBG1132	Stopper Rubber	1	
M6	XTN3+12B	Tapping Screw	3	
M7	XSN3+6S	Screw	4	
M8	QXB0504	Fast Forward Button Assembly	1	
M9	QXB0502	Forward Playback Button Assembly	1	
M10	QXB0506	Stop Button Assembly	1	
M11	QXB0503	Reverse Playback Button Assembly	1	
M12	QXB0505	Rewind Button Assembly	1	
M13	QMC0050	Coller	1	
M14	QBW2019	Washer	9	
M15	QXB0501	Pause Button Assembly	1	
M16	QXB0500	Record Button Assembly	1	
M17	QML3024	Switch Arm	1	
M18	QXA0608	Counter Holding Plate	1	
M19	QMF1862	Stopper Plate	1	
M20	XTN3+8B	Screw	6	
M21	QBT1601	Slide Plate Spring	1	
M22	QGO1284	Cue Button-1	1	
M23	QDC0087	Counter	1	
M24	XUC5FT	Stop Ring	2	
M25	QXL1148	Shifter Arm Assembly	1	
M26	XSN3+6S	Screw	5	
M27	XWC3B	Washer	7	
M28	QBT1239	Spring	2	
M29	QMH2004	Cue Holder	1	
M30	QXA0606	Angle (L) Assembly	1	
M31	QMR1571	Rod (L)	1	
M32	QME0147	Brake Plunger	2	
M33	QBT1420	Recording Lever Spring	2	
M34	QBT1687	Spring	2	
M35	QXL1111	Arm (L)	1	
M36	QXL1108	Sub Arm (L) Assembly	1	
M37	QXL1112	Brake Lever Assembly	2	
M38	QBT1322	Spring	2	
M39	QMF1929	Spring Hook Plate	1	
M40	QMN2139	Shaft	1	
M41	QXL1103	Sub Arm (L) Assembly	1	
M42	XWG4	Washer	4	
M43	QMN2140	Shaft	2	
M44	QBC1071	Spring	2	
M45	XSN2+12	Screw	2	
M46	XWA2BFZ	Washer	2	
M47	QBT1664	Spring	2	
M48	XSN26+6	Screw	2	
M49	QBK1217	Isolation Sheet	2	
M50	XWA26B	Washer	2	
M51	QMF1682	Switch Holding Plate	2	
M52	XUC2FT	Stop Ring	4	
M53	QDP1704	Roller	2	
M54	XUC5FT	Stop Ring	7	
M55	QXL1098	Pressure Roller Lever Assembly	2	
M56	QMC0053	Spacer	2	
M57	QMS2428	Shaft	2	
M58	QBW0034	Washer	4	
M60	XVE5C30FZS	Hexagon Screw	3	
M61	QXH0268	Flywheel Cover	1	
M62	QXS1090Z	Capstan Motor Assembly	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M63	QMA3193	Angle	1	
M64	QXL1149	Shifter Arm (R) Assembly	1	
M65	QXL1104	Sub Arm (R) Assembly	1	
M66	QMA2955	Cover Angle	1	
M67	QXH0248	Masking Plate	1	
M68	QDP1702	Connection Pulley	1	
M69	QDB0173	Counter Belt-A	1	
M70	QDB0215	Counter Belt-B	1	
M71	QMF1947	Connector Holding Plate	1	
M72	XWA4	Washer	2	
M73	XSN4+30S	Screw	2	
M74	QXH0258	Tension Lever (R) Holding Plate	1	
M75	QMC0052	Spacer	2	
M76	QBW2022	Washer	4	
M77	QXL1106	Tension Lever (R) Assembly	1	
M78	XUC4FT	Stop Ring	3	
M79	QBT1843	Spring	2	
M80	QMA2984	Angle	1	
M81	QNQ1069	Nut	2	
M82	QXR0307	Air Damper Rod (R) Assembly	1	
M83	QXQ0095	Air Damper (R) Assembly	1	
M84	QXH0257	Tension Lever (L) Holding Plate	1	
M85	QXL1105	Tension Lever (L) Assembly	1	
M86	QMA2985	Angle	1	
M87	QXR0308	Air Damper Rod (L) Assembly	1	
M88	QXQ0096	Air Damper (L) Assembly	1	
M89	QMF1852	Adjustment Plate	1	
M90	QBW2023	Washer	1	
M91	QML3007	Cue Lever	1	
M92	QBN1346	Spring	1	
M93	QMR1531	Connecting Rod	1	
M94	QXH0269	Meter Holding Plate	1	
M95	QXA0607	Angle (R) Assembly	1	
M96	QMR1572	Rod (R)	1	
M97	QXL1110	Arm (R) Assembly	1	
M98	QMF1930	Spring Hook Plate	1	
M99	QBS1109	Clamper	1	
M100	XTN4+14B	Screw	6	
M101	QXL1109	Sub Arm (R) Assembly	1	
M102	QXD0070Z	Reel Motor Assembly	2	
M103	QME0138	Plunger (Pressure Roller)	1	
M104	QMN2168	Plunger Pin	1	
M105	QMF1874	Plunger Holding Plate	1	
M106	XWA3B	Spring Washer	2	
M107	QXA0633	Stopper Angle	1	
M108	QMA3124	Air Damper Angle	1	
M109	QXQ0097	Air Damper Assembly	1	
M110	XWA4	Spring Washer	1	
M111	QXH0259	Adjustment Plate-2 Assembly	1	
M112	QXL1107	Driving Lever Assembly	1	
M113	QMF1855	Control Plate	1	
		Head Block Parts		
M114	XSN26+8	Screw	1	
M115	XWA26B	Spring Washer	4	
M116	QGC1065	Head Bottom Cover	1	
M117	QMF1941	Head Spacer-2	2	
M118	QMZ1181	Head Spacer-1	4	
M119	QXZ0060	Tape Guide Assembly	2	
M120	XSN26+6	Screw	3	
M121	QKJ0163	LED Holder	1	
M122	QBC1304	Spring	2	
M123	XWA2BFZ	Spring Washer	8	
M124	XSN2+5	Screw	4	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M125	XSN2+4	Screw	4	
M126	XWG2FZ	Washer	4	
M127	QBC1180	Spring	12	
M128	QMG0029	Tape Guide	2	
M129	QMA2929	Angle	1	
M130	XSS26+6BV	Screw	2	
M131	QNQ1069	Nut	2	
M132	QHQ1248	Screw	14	
M133	QMK1680	Head Base Plate	1	
	RESISTORS			
R1	ERD25TJ102	Carbon Resistor 1KΩ 1/4W	1	SD SUPPLY
R2	ERD25TJ100	〃 10Ω 1/4W	1	〃
R3	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R4	ERD25TJ100	〃 10Ω 1/4W	1	〃
R5	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R6	ERD25TJ100	〃 10Ω 1/4W	1	〃
R7	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R8	ERD25TJ100	〃 10Ω 1/4W	1	〃
R9	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R10	ERD25TJ100	〃 10Ω 1/4W	1	〃
R11	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R12	ERD25TJ100	〃 10Ω 1/4W	1	〃
R13	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R14	ERD25TJ100	〃 10Ω 1/4W	1	〃
R15	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R16	ERD25TJ151	〃 150Ω 1/4W	1	〃
R17	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R18	ERD25TJ100	〃 10Ω 1/4W	1	〃
R19	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R20	ERD25TJ100	〃 10Ω 1/4W	1	〃
R21, 22, 23	ERD25TJ102	〃 1KΩ 1/4W	3	〃
R24	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R25	ERD25TJ103	〃 10KΩ 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R26, 27, 28	ERD25TJ102	Carbon Resistor 1KΩ 1/4W	3	SD SUPPLY
R29	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R30	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R31, 32	ERD25TJ102	〃 1KΩ 1/4W	2	〃
R33	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R34	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R35	ERD25TJ474	〃 470KΩ 1/4W	1	〃
R36	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R37	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R38	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R39	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R40	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R41	ERD25TJ221	〃 220Ω 1/4W	1	〃
R42	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R43	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R44, 45	ERD25TJ273	〃 27KΩ 1/4W	2	〃
R46, 47, 48, 49	ERD25TJ562	〃 5.6KΩ 1/4W	4	〃
R50	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R51, 52	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R53	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R54	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R55, 56	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R57	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R58, 59	ERD25TJ471	〃 470Ω 1/4W	2	〃
R60	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R61, 62	ERD25TJ273	〃 27KΩ 1/4W	2	〃
R63	ERD25TJ474	〃 470KΩ 1/4W	1	〃
R64	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R65, 66, 67, 68	ERD25TJ103	〃 10KΩ 1/4W	4	〃
R69	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R70	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R71	ERD25TJ102	〃 1KΩ 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R72, 73, 74, 75	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	4	SD SUPPLY
R76, 77	ERD25TJ334	〃 330KΩ 1/4W	2	〃
R78	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R79	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R80, 81	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R82	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R83	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R84	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R85	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R86	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R87	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R88	ERD25TJ151	〃 150Ω 1/4W	1	〃
R89	ERD25TJ152	〃 1.5KΩ 1/4W	1	〃
R90	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R91	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R92	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R93	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R94	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R95	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R96	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R97	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R98	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R99	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R101, 102	ERD25TJ471	〃 470Ω 1/4W	2	〃
R103	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R105	ERD25TJ101	〃 100Ω 1/4W	1	〃
R106	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R107	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R108	ERD25TJ271	〃 270Ω 1/4W	1	〃
R109	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R110	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R111	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R112	ERD25TJ182	Carbon Resistor 1.8KΩ 1/4W	1	SD SUPPLY
R113	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R114	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R115	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R116	ERD25TJ101	〃 100Ω 1/4W	1	〃
R117	ERD25TJ224	〃 220KΩ 1/4W	1	〃
R118	ERG12ANJ471	Metal-oxide Resistor 470Ω 1/2W	1	〃
R121	ERD25TJ101	Carbon Resistor 100Ω 1/4W	1	〃
R122	ERD25TJ333	〃 33KΩ 1/4W	1	〃
R123	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R124	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R125	ERD25TJ272	〃 2.7KΩ 1/4W	1	〃
R126	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R127	ERD25TJ333	〃 33KΩ 1/4W	1	〃
R128	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R129, 130	ERD25TJ104	〃 100KΩ 1/4W	2	〃
R131	ERD25TJ101	〃 100Ω 1/4W	1	〃
R132	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R133, 134	ERD25TJ182	〃 1.8KΩ 1/4W	2	〃
R135	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R136	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R137	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R138	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R139	ERD25TJ101	〃 100Ω 1/4W	1	〃
R140	ERD25TJ154	〃 150KΩ 1/4W	1	〃
R141	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R142	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R143	ERD25TJ152	〃 1.5KΩ 1/4W	1	〃
R144	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R145	ERD25TJ152	〃 1.5KΩ 1/4W	1	〃
R146, 147	ERD25TJ102	〃 1KΩ 1/4W	2	〃
R148	ERD25TJ332	〃 3.2KΩ 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R149	ERD25TJ182	Carbon Resistor 1.8KΩ 1/4W	1	SD SUPPLY
R150	ERD25TJ184	〃 180KΩ 1/4W	1	〃
R151	ERD25TJ332	〃 3.2KΩ 1/4W	1	〃
R152	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R153	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R154	ERD25TJ122	〃 1.2KΩ 1/4W	1	〃
R155	ERD25TJ334	〃 330KΩ 1/4W	1	〃
R156	ERD25TJ823	〃 82KΩ 1/4W	1	〃
R157	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R158	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R159	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R160	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R161	ERD25TJ123	〃 12KΩ 1/4W	1	〃
R162, 163	ERD25TJ102	〃 1KΩ 1/4W	2	〃
R164	ERD25TJ101	〃 100Ω 1/4W	1	〃
R165	ERD25TJ823	〃 82KΩ 1/4W	1	〃
R166	ERD25TJ393	〃 39KΩ 1/4W	1	〃
R167, 168	ERG12ANJ470	Metal-oxide Resistor 47Ω 1/2W	2	〃
R169	ERD25TJ152	Carbon Resistor 1.5KΩ 1/4W	1	〃
R170	ERD25TJ272	〃 2.7KΩ 1/4W	1	〃
R171	ERD25TJ154	〃 150KΩ 1/4W	1	〃
R172	ERD25TJ101	〃 100Ω 1/4W	1	〃
R173	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R174	ERD25TJ123	〃 12KΩ 1/4W	1	〃
R175	ERD25TJ390	〃 39Ω 1/4W	1	〃
R176	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R177	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R178	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R179	ERD25TJ394	〃 390KΩ 1/4W	1	〃
R180	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R181	ERD25TJ101	〃 100Ω 1/4W	1	〃
	— Cont. —			

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R182	ERD25TJ683	Carbon Resistor 68KΩ 1/4W	1	SD SUPPLY
R183	ERD25TJ471	〃 470Ω 1/4W	1	〃
R184	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R185	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R187	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R188	ERD25TJ474	〃 470KΩ 1/4W	1	〃
R189	ERD25TJ122	〃 1.2KΩ 1/4W	1	〃
R190	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R191	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R192	ERG1ANJ151	Metal-oxide Resistor 150Ω 1W	1	〃
R193	ERG12ANJ271	〃 270Ω 1/2W	1	〃
R194	ERD25TJ153	Carbon Resistor 15KΩ 1/4W	1	〃
R195	ERG1ANJ681	Metal-oxide Resistor 680Ω 1W	1	〃
R196	ERD25TJ273	Carbon Resistor 27KΩ 1/4W	1	〃
R197	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R201, 202	ERD25TJ471	〃 470Ω 1/4W	2	〃
R203	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R205	ERD25TJ101	〃 100Ω 1/4W	1	〃
R206	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R207	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R208	ERD25TJ271	〃 270Ω 1/4W	1	〃
R209	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R210	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R211	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R212	ERD25TJ182	〃 1.8KΩ 1/4W	1	〃
R213	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R214	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R215	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R216	ERD25TJ101	〃 100Ω 1/4W	1	〃
R217	ERD25TJ224	〃 220KΩ 1/4W	1	〃
R221	ERD25TJ101	〃 100Ω 1/4W	1	〃
R222	ERD25TJ333	〃 33KΩ 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R223	ERD25TJ104	Carbon Resistor 100KΩ 1/4W	1	SD SUPPLY
R224	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R225	ERD25TJ272	〃 2.7KΩ 1/4W	1	〃
R226	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R227	ERD25TJ333	〃 33KΩ 1/4W	1	〃
R228	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R229, 230	ERD25TJ104	〃 100KΩ 1/4W	2	〃
R231	ERD25TJ101	〃 100Ω 1/4W	1	〃
R232	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R233, 234	ERD25TJ182	〃 1.8KΩ 1/4W	2	〃
R235	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R236	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R237	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R238	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R239	ERD25TJ101	〃 100Ω 1/4W	1	〃
R240	ERD25TJ154	〃 150KΩ 1/4W	1	〃
R241	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R242	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R243	ERD25TJ152	〃 1.5KΩ 1/4W	1	〃
R244	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R245	ERD25TJ152	〃 1.5KΩ 1/4W	1	〃
R246	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R251	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R252	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R253	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R254	ERD25TJ122	〃 1.2KΩ 1/4W	1	〃
R255	ERD25TJ334	〃 330KΩ 1/4W	1	〃
R256	ERD25TJ823	〃 82KΩ 1/4W	1	〃
R257	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R258	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R259	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R260	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R261	ERD25TJ123	Carbon Resistor 12KΩ 1/4W	1	SD SUPPLY
R262, 263	ERD25TJ102	〃 1KΩ 1/4W	2	〃
R264	ERD25TJ101	〃 100Ω 1/4W	1	〃
R265	ERD25TJ823	〃 82KΩ 1/4W	1	〃
R266	ERD25TJ393	〃 39KΩ 1/4W	1	〃
R267, 268	ERG12ANJ470	Metal-oxide Resistor 47Ω 1/2W	2	〃
R269	ERD25TJ152	Carbon Resistor 1.5KΩ 1/4W	1	〃
R271	ERD25TJ154	〃 150KΩ 1/4W	1	〃
R272	ERD25TJ101	〃 100Ω 1/4W	1	〃
R273	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R274	ERD25TJ123	〃 12KΩ 1/4W	1	〃
R275	ERD25TJ390	〃 39Ω 1/4W	1	〃
R276	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R277	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R278	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R279	ERD25TJ394	〃 390KΩ 1/4W	1	〃
R280	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R281	ERD25TJ101	〃 100Ω 1/4W	1	〃
R282	ERD25TJ683	〃 68KΩ 1/4W	1	〃
R283	ERD25TJ471	〃 470Ω 1/4W	1	〃
R284	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R285	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R287	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R288	ERD25TJ474	〃 470KΩ 1/4W	1	〃
R289	ERD25TJ122	〃 1.2KΩ 1/4W	1	〃
R290	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R291	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R293	ERG12ANJ271	Metal-oxide Resistor 270Ω 1/2W	1	〃
R294	ERD25TJ153	Carbon Resistor 15KΩ 1/4W	1	〃
R296	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R297	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R301	ERD25TJ394	〃 390KΩ 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R302	ERD25TJ223	Carbon Resistor 22KΩ 1/4W	1	SD SUPPLY
R303	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R304	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R305	ERD25TJ221	〃 220Ω 1/4W	1	〃
R306	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R307	ERD25TJ271	〃 270Ω 1/4W	1	〃
R308	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R309, 310	ERD25TJ102	〃 1KΩ 1/4W	2	〃
R312	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R313	ERD25TJ154	〃 150KΩ 1/4W	1	〃
R314	ERD25TJ474	〃 470KΩ 1/4W	1	〃
R315	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R316	ERD25TJ821	〃 820Ω 1/4W	1	〃
R317, 321	ERD25TJ271	〃 270Ω 1/4W	2	〃
R323	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R324	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R325, 326	ERD25TJ474	〃 470KΩ 1/4W	2	〃
R327	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R328	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R329	ERD25TJ221	〃 220Ω 1/4W	1	〃
R330, 331	ERD25TJ154	〃 150KΩ 1/4W	2	〃
R332	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R333	ERD25TJ123	〃 12KΩ 1/4W	1	〃
R334, 335, 336, 337, 338, 339, 340, 341, 342	ERD25TJ474	〃 470KΩ 1/4W	9	〃
R343, 344, 345, 346, 347, 348, 349, 350, 351	ERD25TJ471	〃 470Ω 1/4W	9	〃
R352	ERD25TJ151	〃 150Ω 1/4W	1	〃
R353	ERD25TJ330	〃 33Ω 1/4W	1	〃
R354	ERD25TJ100	〃 10Ω 1/4W	1	〃
R355	ERG1ANJ390	Metal-oxide Resistor 39Ω 1W	1	〃
R356	ERD25TJ561	Carbon Resistor 560Ω 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R357	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	1	SD SUPPLY
R358	ERD25TJ393	〃 39KΩ 1/4W	1	〃
R359	ERD25TJ152	〃 1.5KΩ 1/4W	1	〃
R360	ERD25TJ561	〃 560Ω 1/4W	1	〃
R361, 362	ERD25TJ470	〃 47Ω 1/4W	2	〃
R363	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R364, 365	ERD25TJ222	〃 2.2KΩ 1/4W	2	〃
R366	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R367	ERD25TJ561	〃 560Ω 1/4W	1	〃
R368	ERG12ANJ471	Metal-oxide Resistor 470Ω 1/2W	1	〃
R369	ERG12ANJ561	〃 560Ω 1/2W	1	〃
R370	ERD25TJ122	Carbon Resistor 1.2KΩ 1/4W	1	〃
R401	ERD25TJ394	〃 390KΩ 1/4W	1	〃
R402	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R403	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R404	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R405	ERD25TJ221	〃 220Ω 1/4W	1	〃
R406	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R407	ERD25TJ271	〃 270Ω 1/4W	1	〃
R408	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R409, 410	ERD25TJ102	〃 1KΩ 1/4W	2	〃
R412	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R413	ERD25TJ154	〃 150KΩ 1/4W	1	〃
R414	ERD25TJ474	〃 470KΩ 1/4W	1	〃
R415	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R416	ERG12ANJ821	Metal-oxide Resistor 820Ω 1/2W	1	〃
R417, 421	ERD25TJ271	Carbon Resistor 270Ω 1/4W	2	〃
R423	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃
R424	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R425, 426	ERD25TJ474	〃 470KΩ 1/4W	2	〃
R427	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R428	ERD25TJ822	〃 8.2KΩ 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R429	ERD25TJ221	Carbon Resistor 220Ω 1/4W	1	SD SUPPLY
R430, 431	ERD25TJ154	〃 150KΩ 1/4W	2	〃
R432	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R433	ERD25TJ123	〃 12KΩ 1/4W	1	〃
R434, 435, 436, 437, 438, 439, 440, 441, 442	ERD25TJ474	〃 470KΩ 1/4W	9	〃
R443, 444, 445, 446, 447, 448, 449, 450, 451	ERD25TJ471	〃 470Ω 1/4W	9	〃
R452	ERD25TJ151	〃 150Ω 1/4W	1	〃
R453	ERD25TJ330	〃 33Ω 1/4W	1	〃
R454	ERD25TJ100	〃 10Ω 1/4W	1	〃
R501, 502	ERD25TJ472	〃 4.7KΩ 1/4W	2	〃
R503	ERD25TJ221	〃 220Ω 1/4W	1	〃
R504	ERD25TJ820	〃 82Ω 1/4W	1	〃
R505	ERG12ANJ821	Metal-oxide Resistor 820Ω 1/2W	1	〃
R506	ERD25TJ223	Carbon Resistor 22KΩ 1/4W	1	〃
R507	ERD25TJ681	〃 680Ω 1/4W	1	〃
R508, 509	ERD25TJ470	〃 47Ω 1/4W	2	〃
R510	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R511	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R512, 513	ERD25TJ561	〃 560Ω 1/4W	2	〃
R531, 532	ERD25TJ472	〃 4.7KΩ 1/4W	2	〃
R533	ERD25TJ221	〃 220Ω 1/4W	1	〃
R534	ERD25TJ820	〃 82Ω 1/4W	1	〃
R535	ERG12ANJ821	Metal-oxide Resistor 820Ω 1/2W	1	〃
R536	ERD25TJ223	Carbon Resistor 22KΩ 1/4W	1	〃
R537	ERD25TJ681	〃 680Ω 1/4W	1	〃
R538, 539	ERD25TJ470	〃 47Ω 1/4W	2	〃
R540	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R541	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R551	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R552	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R553	ERG12ANJ560	Metal-oxide Resistor 56Ω 1/2W	1	SD SUPPLY
R554	ERD25TJ6R8	Carbon Resistor 6.8Ω 1/4W	1	〃
R555	ERG1ANJ221	Metal-oxide Resistor 220Ω 1W	1	〃
R556	ERG1ANJ102	〃 1KΩ 1W	1	〃
R557, 558	ERG1ANJ120	〃 12Ω 1W	2	〃
R559	ERG2ANJ122	〃 1.2KΩ 2W	1	〃
R561	ERD25TJ223	Carbon Resistor 22KΩ 1/4W	1	〃
R562	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R563	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R564	ERD25TJ681	〃 680Ω 1/4W	1	〃
R565	ERD25TJ272	〃 2.7KΩ 1/4W	1	〃
R566	ERD25TJ332	〃 3.3KΩ 1/4W	1	〃
R567	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R568	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R569, 570	ERG12ANJ151	Metal-oxide Resistor 150Ω 1/2W	2	〃
R571	ERD25TJ563	Carbon Resistor 56KΩ 1/4W	1	〃
R572	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R573	ERD25TJ333	〃 33KΩ 1/4W	1	〃
R574	ERG12ANJ681	Metal-oxide Resistor 680Ω 1/2W	1	〃
R575	ERD25TJ562	Carbon Resistor 5.6KΩ 1/4W	1	〃
R576	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R577, 578, 579, 580, 581, 581	ERD25TJ102	〃 1KΩ 1/4W	6	〃
R583	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R584, 585, 586, 587, 588, 589	ERD25TJ102	〃 1KΩ 1/4W	6	〃
R590, 591	ERG1ANJ223	Metal-oxide Resistor 22KΩ 1W	2	〃
R592, 593	ERG12ANJ123	〃 12KΩ 1/2W	2	〃
R594, 595, 596, 597	ERD25TJ472	Carbon Resistor 4.7KΩ 1/4W	4	〃
R598	ERD25TJ100	〃 10Ω 1/4W	1	〃
R599	ERX12ANJ1R0	Metal-oxide Resistor 1Ω 1/2W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R601	ERD25TJ223	Carbon Resistor 22KΩ 1/4W	1	SD SUPPLY
R602	ERG12ANJ821	Metal-oxide Resistor 820Ω 1/2W	1	〃
R603	ERD25TJ392	Carbon Resistor 3.9KΩ 1/4W	1	〃
R604	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R605	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R606	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R607	ERG12ANJ561	Metal-oxide Resistor 560Ω 1/2W	1	〃
R608	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	1	〃
R609	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R610, 611	ERG12ANJ821	Metal-oxide Resistor 820Ω 1/2W	2	〃
R612	ERD25TJ222	Carbon Resistor 2.2KΩ 1/4W	1	〃
R613	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R614	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R615	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R616	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R617	ERG1ANJ332	Metal-oxide Resistor 3.3KΩ 1W	1	〃
R618	ERD25TJ472	Carbon Resistor 4.7KΩ 1/4W	1	〃
R619	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R651	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R652	ERD25TJ471	〃 470Ω 1/4W	1	〃
R653	ERD25TJ681	〃 680Ω 1/4W	1	〃
R654	ERF5ZJ221	Cement Resistor 220Ω 1W	1	
R655	ERD25TJ472	Carbon Resistor 4.7KΩ 1/4W	1	SD SUPPLY
R656	ERD25TJ471	〃 470Ω 1/4W	1	〃
R657	ERD25TJ681	〃 680Ω 1/4W	1	〃
R658	ERF7ZJ680	Cement Resistor 68Ω 1W	1	
R701, 702, 703, 704				
	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	4	SD SUPPLY
R705, 706	ERD25TJ472	〃 4.7KΩ 1/4W	2	〃
R707, 708	ERD25TJ152	〃 1.5KΩ 1/4W	2	〃
R709, 710, 711, 712, 713, 714				
	ERD25TJ274	〃 270KΩ 1/4W	6	〃
R715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726				
	ERG1ANJ181	Metal-oxide Resistor 180Ω 1W	12	SD SUPPLY
R727, 728	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	2	〃
R729, 730	ERX2ANJR47	Metal-oxide Resistor 0.47Ω 2W	2	〃
R731, 732	ERD25TJ152	Carbon Resistor 1.5KΩ 1/4W	2	〃
R733, 734	ERD25TJ392	〃 3.9KΩ 1/4W	2	〃
R735, 736	ERD25TJ223	〃 22KΩ 1/4W	2	〃
R737, 738	ERD25TJ332	〃 3.3KΩ 1/4W	2	〃
R739, 740	ERD25TJ153	〃 15KΩ 1/4W	2	〃
R741, 742, 743, 744				
	ERD25TJ223	〃 22KΩ 1/4W	4	〃
R745, 746	ERD25TJ682	〃 6.8KΩ 1/4W	2	〃
R747, 748	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R749, 750	ERD25TJ333	〃 33KΩ 1/4W	2	〃
R791	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R792	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R793	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R794	ERD25TJ272	〃 2.7KΩ 1/4W	1	〃
R795	ERG12ANJ271	Metal-oxide Resistor 270Ω 1/2W	1	〃
R801, 802	ERD25TJ222	Carbon Resistor 2.2KΩ 1/4W	2	〃
R803, 804	ERD25TJ101	〃 100Ω 1/4W	2	〃
R805, 806	ERD25TJ333	〃 33KΩ 1/4W	2	〃
R807, 808	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R809, 810	ERD25TJ272	〃 2.7KΩ 1/4W	2	〃
R811, 812	ERD25TJ473	〃 47KΩ 1/4W	2	〃
R813, 814	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R815, 816	ERD25TJ222	〃 2.2KΩ 1/4W	2	〃
R817, 818	ERD25TJ473	〃 47KΩ 1/4W	2	〃
R819, 820	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R821, 822	ERD25TJ222	〃 2.2KΩ 1/4W	2	〃
R823, 824, 825, 826, 827, 828				
	ERD25TJ153	〃 15KΩ 1/4W	6	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R829, 830, 831, 832				
	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	4	SD SUPPLY
R833, 834	ERD25TJ100	〃 10Ω 1/4W	2	〃
R835, 836	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R837, 838	ERD25TJ273	〃 27KΩ 1/4W	2	〃
R839, 840	ERD25TJ473	〃 47KΩ 1/4W	2	〃
R841, 842	ERD25TJ273	〃 27KΩ 1/4W	2	〃
R843, 844	ERD25TJ272	〃 2.7KΩ 1/4W	2	〃
R845, 846	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R847, 848	ERD25TJ273	〃 27KΩ 1/4W	2	〃
R849, 850	ERD25TJ823	〃 82KΩ 1/4W	2	〃
R851, 852	ERD25TJ272	〃 2.7KΩ 1/4W	2	〃
R853, 854	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R855, 856	ERD25TJ822	〃 8.2KΩ 1/4W	2	〃
R857, 858	ERD25TJ272	〃 2.7KΩ 1/4W	2	〃
R859, 860	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R861, 862	ERD25TJ394	〃 390KΩ 1/4W	2	〃
R863, 864	ERD25TJ823	〃 82KΩ 1/4W	2	〃
R865, 866	ERD25TJ273	〃 27KΩ 1/4W	2	〃
R867, 868	ERD25TJ153	〃 15KΩ 1/4W	2	〃
R869, 870	ERD25TJ224	〃 220KΩ 1/4W	2	〃
R881	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R882	ERD25TJ184	〃 180KΩ 1/4W	1	〃
R883	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R884, 885	ERD25TJ273	〃 27KΩ 1/4W	2	〃
R892	ERD25TJ272	〃 2.7KΩ 1/4W	1	〃
R893	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R894	ERD25TJ471	〃 470Ω 1/4W	1	〃
R896	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R897	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R898	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R901, 902	ERD25TJ102	〃 1KΩ 1/4W	2	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R903	ERD25TJ473	Carbon Resistor 47KΩ 1/4W	1	SD SUPPLY
R904	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R905	ERD25TJ333	〃 33KΩ 1/4W	1	〃
R906	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R907	ERD25TJ331	〃 330Ω 1/4W	1	〃
R908	ERD25TJ561	〃 560Ω 1/4W	1	〃
R909	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R911	ERD25TJ683	〃 68KΩ 1/4W	1	〃
R912	ERD25TJ393	〃 39KΩ 1/4W	1	〃
R913	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R914	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R915, 917	ERD25TJ472	〃 4.7KΩ 1/4W	2	〃
R918	ERD25TJ393	〃 39KΩ 1/4W	1	〃
R919	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R920	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R926	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R927	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R928	ERD25TJ183	〃 18KΩ 1/4W	1	〃
R929	ERD25TJ823	〃 82KΩ 1/4W	1	〃
R930	ERD25TJ124	〃 120KΩ 1/4W	1	〃
R931	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R932	ERD25TJ124	〃 120KΩ 1/4W	1	〃
R933	ERD25TJ682	〃 6.8KΩ 1/4W	1	〃
R934	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R935	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R936	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R937	ERD25TJ122	〃 1.2KΩ 1/4W	1	〃
R938	ERD25TJ272	〃 2.7KΩ 1/4W	1	〃
R939	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R941, 942	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R943	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R944	ERD25TJ182	〃 1.8KΩ 1/4W	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R945	ERD25TJ392	Carbon Resistor 3.9KΩ 1/4W	1	SD SUPPLY
R946	ERD25TJ106	〃 10MΩ 1/4W	1	〃
R947	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R948	ERD25TJ820	〃 82Ω 1/4W	1	〃
R949	ERG1ANJ331	Metal-oxide Resistor 330Ω 1W	1	〃
R951	ERD25TJ183	Carbon Resistor 18KΩ 1/4W	1	〃
R952	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R953	ERD25TJ105	〃 1MΩ 1/4W	1	〃
R954	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R955	ERD25TJ105	〃 1MΩ 1/4W	1	〃
R956, 957, 958, 959, 960, 966, 967, 968, 969	ERD25TJ103	〃 10KΩ 1/4W	9	〃
R970, 971, 972	ERG12ANJ101	Metal-oxide Resistor 100Ω 1/2W	3	〃
R974	ERX1ANJ1R5	〃 1.5Ω 1W	1	〃
R975, 976, 977	ERD25TJ270	Carbon Resistor 27Ω 1/4W	3	〃
R978, 980	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R981, 982, 983	ERD25TJ820	Metal-oxide Resistor 82Ω 1/2W	3	〃
R984, 985, 986, 987	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	4	〃
R988	ERD25TJ823	〃 82KΩ 1/4W	1	〃
R989	ERD25TJ183	〃 18KΩ 1/4W	1	〃
R990	ERD25TJ153	〃 15KΩ 1/4W	1	〃
R991	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R992	ERD25TJ224	〃 220KΩ 1/4W	1	〃
R993, 994, 996	ERD25TJ103	〃 10KΩ 1/4W	3	〃
R997	ERD25TJ223	〃 22KΩ 1/4W	1	〃
R999	ERD25TJ823	〃 82KΩ 1/4W	1	〃
R1001	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R1002	ERD25TJ103	Carbon Resistor 10KΩ 1/4W	1	SD SUPPLY
R1003	ERD25TJ562	〃 5.6KΩ 1/4W	1	〃
R1004	ERD25TJ473	〃 47KΩ 1/4W	1	〃
R1005	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R1006	ERD25TJ330	〃 33Ω 1/4W	1	〃
R1007	ERD25TJ472	〃 4.7KΩ 1/4W	1	〃
R1008	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R1009	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R1010	ERD25TJ222	〃 2.2KΩ 1/4W	1	〃
R1011	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R1012	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R1013	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R1014	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R1015	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R1016	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R1017	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R1018	ERD25TJ273	〃 27KΩ 1/4W	1	〃
R1019	ERD25TJ103	〃 10KΩ 1/4W	1	〃
R1020	ERD25TJ102	〃 1KΩ 1/4W	1	〃
R1021	ERD25TJ100	〃 10Ω 1/4W	1	〃
R1901, 1902	ERD25TJ103	〃 10KΩ 1/4W	2	〃
R1903	ERD25TJ182	〃 1.8KΩ 1/4W	1	〃
R1904	ERD25TJ392	〃 3.9KΩ 1/4W	1	〃
R1911	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R1912, 1913	ERD25TJ473	〃 47KΩ 1/4W	2	〃
R1914	ERD25TJ104	〃 100KΩ 1/4W	1	〃
R1915, 1916	ERD25TJ473	〃 47KΩ 1/4W	2	〃
VARIABLE RESISTORS				
VR1	EVNK0AA00B24	Semi-fixed Variable Resistor 20KΩ (B)	1	
VR101	EVNK4AA00B15	〃 100KΩ (B)	1	

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Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
VR102, 103 202, 203					
	EWFFWAR30A24	Variable Resistor	20KΩ (A)	2	
VR104, 105	EVNK4AA00B14	Semi-fixed Variable Resistor	10KΩ (B)	2	
VR106	EVNK4AA00B53	〃	5KΩ (B)	1	
VR107, 207	EWFFWAR30A24	Variable Resistor	20KΩ (A)	1	
VR108	EVLS3AA00B52	Semi-fixed Variable Resistor	500Ω (B)	1	
VR109	EVNK4AA00B25	〃	200KΩ (B)	1	
VR110	EVNK4AA00B24	〃	20KΩ (B)	1	
VR201	EVNK4AA00B15	〃	100KΩ (B)	1	
VR204, 205	EVNK4AA00B14	〃	10KΩ (B)	2	
VR206	EVNK4AA00B53	〃	5KΩ (B)	1	
VR208	EVLS3AA00B52	〃	500Ω (B)	1	
VR209	EVNK4AA00B25	〃	200KΩ (B)	1	
VR210	EVNK4AA00B24	〃	20KΩ (B)	1	
VR501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513					
	EVNK4AA00B52	〃	500Ω (B)	13	
VR601, 602	EVNK4AA00B13	〃	1KΩ (B)	2	
VR801, 802, 803, 804					
	EVNK0AA00B54	〃	50KΩ (B)	4	
VR911	EVLS0AA00B54	〃	50KΩ (B)	1	
VR926	QVKF25B24	Variable Resistor	20KΩ (A)	1	
VR927	EVLS0AA00B54	Semi-fixed Variable Resistor	50KΩ (B)	1	
VR928, 929	EVNK4AA00B14	〃	10KΩ (B)	2	
VR966	EVNK4AA00B24	〃	20KΩ (B)	1	
CAPACITORS					
C1, 2	ECKD1H103ZF	Ceramic Capacitor	0.01μF	2	
C3	ECEA10V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C4, 5, 6, 7, 8, 9, 10					
	ECKD1H103ZF	Ceramic Capacitor	0.01μF	7	
C11, 12	ECEA16V47	Electrolytic Capacitor	47μF	2	SD SUPPLY
C13	ECEA16V10	〃	10μF	1	〃
C14	ECEA50V2R2	〃	2.2μF	1	〃

Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
C15	ECEA10V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C16	ECEA6V330	〃	330μF	1	〃
C17	ECEA16Z10	〃	10μF	1	〃
C18, 19	ECQM05683KZ	Mylar Capacitor	0.068μF	2	
C20	ECEA50Z2R2	Electrolytic Capacitor	2.2μF	1	SD SUPPLY
C21	ECEA16Z10	〃	10μF	1	〃
C22	ECKD1H103ZF	Ceramic Capacitor	0.01μF	1	
C23, 24	ECEA50V1	Electrolytic Capacitor	1μF	2	SD SUPPLY
C25	ECEA25Z4R7	〃	4.7μF	1	〃
C26, 27	ECEA16V10	〃	10μF	2	〃
C28	ECQM05683KZ	Mylar Capacitor	0.068μF	1	
C29	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C30	ECEA16V33	〃	33μF	1	〃
C31	ECEA10V100	〃	100μF	1	〃
C32	ECEA16V10	〃	10μF	1	〃
C33	ECQM05683KZ	Mylar Capacitor	0.068μF	1	
C34	ECKD1H103ZF	Ceramic Capacitor	0.01μF	1	
C101	ECSZ25AF1E	Tantalum Capacitor	1μF	1	
C102	ECEA35V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C103	ECCD1H101K	Ceramic Capacitor	100pF	1	
C104	ECEA10V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C105	ECCD1H470KC	Ceramic Capacitor	47pF	1	
C106	ECEA16V33	Electrolytic Capacitor	33μF	1	SD SUPPLY
C107	ECKD1H471KB	Ceramic Capacitor	470pF	1	
C108	ECEA16V33	Electrolytic Capacitor	33μF	1	SD SUPPLY
C109	ECEA16V10	〃	10μF	1	〃
C110	ECEA25V100	〃	100μF	1	〃
C111	ECCD1H101K	Ceramic Capacitor	100pF	1	
C113	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C114	ECEA16V220	〃	220μF	1	〃
C115	ECCD1H101K	Ceramic Capacitor	100pF	1	
C116, 117	ECEA16V10	Electrolytic Capacitor	10μF	2	SD SUPPLY

Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
C118	ECCD1H101K	Ceramic Capacitor	100pF	1	
C119	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C120	ECEA25V100	〃	100μF	1	〃
C121	ECEA16V10	〃	10μF	1	〃
C122	ECCD1H101K	Ceramic Capacitor	100pF	1	
C123	ECEA35V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C124	ECQM05332JZ	Mylar Capacitor	0.0033μF	1	
C125	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C126	ECEA16V33	〃	33μF	1	〃
C127	ECCD1H101K	Ceramic Capacitor	100pF	1	
C128	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C129	ECQS1681JZ	Styrol Capacitor	680pF	1	
C130	ECCD1H101K	Ceramic Capacitor	100pF	1	
C131	ECQM05104JZ	Mylar Capacitor	0.1μF	1	
C132	ECCD1H101K	Ceramic Capacitor	100pF	1	
C133	ECEA6V330	Electrolytic Capacitor	330μF	1	SD SUPPLY
C134, 135	ECEA35V10	〃	10μF	2	〃
C136	ECEA16V10	〃	10μF	1	〃
C137	ECSZ25AF1E	Tantalum Capacitor	1μF	1	
C138	ECCD1H101K	Ceramic Capacitor	100pF	1	
C139	ECCD1H470KC	〃	47pF	1	
C140	ECEA6V330	Electrolytic Capacitor	330μF	1	SD SUPPLY
C141	ECEA16V33	〃	33μF	1	〃
C142	ECKD1H471KB	Ceramic Capacitor	470pF	1	
C143	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C144	ECEA16V33	〃	33μF	1	〃
C145	ECQM05473JZ	Ceramic Capacitor	0.047μF	1	
C146	ECKD1H471KB	〃	470pF	1	
C147, 148	ECEA25V100	Electrolytic Capacitor	100μF	2	SD SUPPLY
C149	ECQM05682JZ	Mylar Capacitor	0.0068μF	1	
C150, 151, 152	ECEA16V10	Electrolytic Capacitor	10μF	3	SD SUPPLY
C153	ECEA25V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C154, 155	ECKD1H102KB	Ceramic Capacitor	0.001μF	2	
C156	ECQM05152KZ	Mylar Capacitor	0.0015μF	1	
C157, 158	ECQM05473KZ	〃	0.047μF	2	
C160	ECEA35V470	Electrolytic Capacitor	470μF	1	SD SUPPLY
C161	ECEA50V1	〃	1μF	1	〃
C162, 171	ECEA16V10	〃	10μF	2	〃
C172	ECEA16V33	〃	33μF	1	〃
C173	ECKD1H102KB	Ceramic Capacitor	0.001μF	1	
C174	ECCD1H101K	〃	100pF	1	
C175	ECEA50V1	Electrolytic Capacitor	1μF	1	SD SUPPLY
C176	ECQM05152KZ	Mylar Capacitor	0.0015μF	1	
C177	ECEA50V1	Electrolytic Capacitor	1μF	1	SD SUPPLY
C178	ECEA16V33	〃	33μF	1	〃
C179	ECCD1H101K	Ceramic Capacitor	100pF	1	
C181	ECEA50ZR1	Electrolytic Capacitor	0.1μF	1	SD SUPPLY
C182	ECKD1H102KB	Ceramic Capacitor	0.001μF	1	
C183	ECEA10V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C185	ECEA16V10	〃	10μF	1	〃
C186	ECCD1H101K	Ceramic Capacitor	100pF	1	
C187	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C188	ECQM05102KZ	Mylar Capacitor	0.001μF	1	
C189	ECEA50V3R3	Electrolytic Capacitor	3.3μF	1	SD SUPPLY
C190	ECQM05822JZ	Mylar Capacitor	0.0082μF	1	
C191	ECKD1H223ZF	Ceramic Capacitor	0.022μF	1	
C192	ECQM05562JZ	Mylar Capacitor	0.0056μF	1	
C193	ECQM05332JZ	〃	0.0033μF	1	
C194	ECQM05183JZ	〃	0.018μF	1	
C195	ECQM05153JZ	〃	0.015μF	1	
C196	ECQM05123JZ	〃	0.012μF	1	
C197	ECQM05333JZ	〃	0.033μF	1	
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Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
C198	ECQM05273JZ	Mylar Capacitor	0.027μF	1	
C199	ECQM05223JZ	〃	0.022μF	1	
C201	ECSZ25AF1E	Tantalum Capacitor	1μF	1	
C202	ECEA35V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C203	ECCD1H101K	Ceramic Capacitor	100pF	1	
C204	ECEA10V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C205	ECCD1H470KC	Ceramic Capacitor	47pF	1	
C206	ECEA16V33	Electrolytic Capacitor	33μF	1	SD SUPPLY
C207	ECKD1H471KB	Ceramic Capacitor	470pF	1	
C208	ECEA16V33	Electrolytic Capacitor	33μF	1	SD SUPPLY
C209	ECEA16V10	〃	10μF	1	〃
C211	ECCD1H101K	Ceramic Capacitor	100pF	1	
C213	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C214	ECEA16V220	〃	220μF	1	〃
C215	ECCD1H101K	Ceramic Capacitor	100pF	1	
C216, 217	ECEA16V10	Electrolytic Capacitor	10μF	2	SD SUPPLY
C218	ECCD1H101K	Ceramic Capacitor	100pF	1	
C219	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C220	ECEA25V100	〃	100μF	1	〃
C221	ECEA16V10	〃	10μF	1	〃
C222	ECCD1H101K	Ceramic Capacitor	100pF	1	
C223	ECEA35V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C224	ECQM05332JZ	Mylar Capacitor	0.0033μF	1	
C225	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C226	ECEA16V33	〃	33μF	1	〃
C227	ECCD1H101K	Ceramic Capacitor	100pF	1	
C228	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C229	ECQS1681JZ	Styrol Capacitor	680pF	1	
C230	ECCD1H101K	Ceramic Capacitor	100pF	1	
C231	ECQM05104JZ	Mylar Capacitor	0.1μF	1	
C232	ECCD1H101K	Ceramic Capacitor	100pF	1	
C233	ECEA6V330	Electrolytic Capacitor	330μF	1	SD SUPPLY
C234, 235	ECEA35V10	Electrolytic Capacitor	10μF	2	SD SUPPLY
C236	ECEA16V10	〃	10μF	1	〃
C237	ECSZ25AF1E	Tantalum Capacitor	1μF	1	
C238	ECCD1H101K	Ceramic Capacitor	100pF	1	
C239	ECCD1H470KC	〃	47pF	1	
C240	ECEA6V330	Electrolytic Capacitor	330μF	1	SD SUPPLY
C241	ECEA16V33	〃	33μF	1	〃
C242	ECKD1H471KB	Ceramic Capacitor	470pF	1	
C243	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C244	ECEA16V33	〃	33μF	1	〃
C245	ECQM05473JZ	Mylar Capacitor	0.047μF	1	
C246	ECKD1H471KB	Ceramic Capacitor	470pF	1	
C247	ECEA25V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C249	ECQM05682JZ	Mylar Capacitor	0.0068μF	1	
C250, 252	ECEA16V10	Electrolytic Capacitor	10μF	2	SD SUPPLY
C256	ECQM05152KZ	Mylar Capacitor	0.0015μF	1	
C271	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C272	ECEA16V33	〃	33μF	1	〃
C273	ECKD1H102KB	Ceramic Capacitor	0.001μF	1	
C274	ECCD1H101K	〃	100pF	1	
C275	ECEA50V1	Electrolytic Capacitor	1μF	1	SD SUPPLY
C276	ECQM05152KZ	Mylar Capacitor	0.0015μF	1	
C277	ECEA50V1	Electrolytic Capacitor	1μF	1	SD SUPPLY
C278	ECEA16V33	〃	33μF	1	〃
C279	ECCD1H101K	Ceramic Capacitor	100pF	1	
C281	ECEA50ZR1	Electrolytic Capacitor	0.1μF	1	SD SUPPLY
C282	ECKD1H102KB	Ceramic Capacitor	0.001μF	1	
C283	ECEA10V100	Electrolytic Capacitor	100μF	1	SD SUPPLY
C285	ECEA16V10	〃	10μF	1	〃
C286	ECCD1H101K	Ceramic Capacitor	100pF	1	
C287	ECEA16V10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C288	ECQM05102KZ	Mylar Capacitor	0.001μF	1	

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
C289		ECEA50V3R3	Electrolytic Capacitor 3.3μF	1	SD SUPPLY
C290		ECQM05822JZ	Mylar Capacitor 0.0082μF	1	
C292		ECQM05562JZ	〃 0.0056μF	1	
C293		ECQM05332JZ	〃 0.0033μF	1	
C294		ECQM05183JZ	〃 0.018μF	1	
C295		ECQM05153JZ	〃 0.015μF	1	
C296		ECQM05123JZ	〃 0.012μF	1	
C297		ECQM05333JZ	〃 0.033μF	1	
C298		ECQM05273JZ	〃 0.027μF	1	
C299		ECQM05223JZ	〃 0.022μF	1	
C501		ECEA16V10	Electrolytic Capacitor 10μF	1	SD SUPPLY
C502		ECQM05103KZ	Mylar Capacitor 0.01μF	1	
C503		ECQM05104KZ	〃 0.1μF	1	
C504		ECQF4473KZ	Polypropylene Capacitor 0.047μF	1	
C505, 506		ECQF4822KZ	〃 0.0082μF	2	
C507		ECEA35V10	Electrolytic Capacitor 10μF	1	SD SUPPLY
C511		ECEA16V10	〃 10μF	1	〃
C512		ECQM05103KZ	Mylar Capacitor 0.01μF	1	
C513		ECQM05104KZ	〃 0.1μF	1	
C514		ECQF4473KZ	Polypropylene Capacitor 0.047μF	1	
C515, 516		ECQF4822KZ	〃 0.0082μF	2	
C517		ECEA35V10	Electrolytic Capacitor 10μF	1	SD SUPPLY
C521		ECEA16V10	〃 10μF	1	〃
C522		ECQM05103KZ	Mylar Capacitor 0.01μF	1	
C523		ECQM05104KZ	〃 0.1μF	1	
C525, 526		ECQF4333KZ	Polypropylene Capacitor 0.033μF	2	
C527		ECQS5681J	Styrol Capacitor 680pF	1	
C528		ECSZ25EF10Q	Tantalum Capacitor 10μF	1	
C533		ECQM05103KZ	Mylar Capacitor 0.01μF	1	
C534		ECEA16V10	Electrolytic Capacitor 10μF	1	SD SUPPLY
C535		ECQM05393KZ	Mylar Capacitor 0.039μF	1	
C536		ECQM05104KZ	〃 0.1μF	1	

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
C537, 538		ECCD1H470KC	Ceramic Capacitor 47pF	2	
C539, 540		ECQF6332KZ	Polypropylene Capacitor 0.0033μF	2	
C541		ECQF6102KZ	〃 0.001μF	1	
C542		ECQS5101J	Styrol Capacitor 100pF	1	
C543		ECQS5221J	〃 220pF	1	
C544, 545		ECQM05103KZ	Mylar Capacitor 0.01μF	2	
C601	S	ECET50R2200S	Electrolytic Capacitor 2200μF	1	
C602		ECEA50V47	〃 47μF	1	SD SUPPLY
C603		ECEA50V1	〃 1μF	1	〃
C604		ECKD1H103ZF	Ceramic Capacitor 0.01μF	1	
C605		ECEA35V10	Electrolytic Capacitor 10μF	1	SD SUPPLY
C606		ECEA25V100	〃 100μF	1	〃
C607		ECEA50V1	〃 1μF	1	〃
C608		ECEA25V100	〃 100μF	1	〃
C609		ECET50R2200S	〃 2200μF	1	
C610		ECEA50V47	〃 47μF	1	SD SUPPLY
C611		ECEA50V1	〃 1μF	1	〃
C612		ECKD1H103ZF	Ceramic Capacitor 0.01μF	1	
C614		ECEA25V330	Electrolytic Capacitor 330μF	1	SD SUPPLY
C615		ECET25R2200S	〃 2200μF	1	
C616, 617		ECEA50V1	〃 1μF	2	SD SUPPLY
C618	S	ECEA6V220	〃 220μF	1	〃
C651		ECEA16V10	〃 10μF	1	〃
C652		ECEA16V33	〃 33μF	1	〃
C701, 702, 703, 704, 705, 706		ECQM05473KZ	Mylar Capacitor 0.047μF	6	
C707, 708		ECQM05103KZ	〃 0.01μF	2	
C709, 710		ECQM05683KZ	〃 0.068μF	2	
C711, 712, 713, 714, 715, 716		ECEA25N10	Electrolytic Capacitor 10μF	6	SD SUPPLY
C717, 718		ECQM05102KZ	Mylar Capacitor 0.001μF	2	
C719, 720		ECCD1H101K	Ceramic Capacitor 100pF	2	

Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
C791	ECCD1H221K	Ceramic Capacitor	220pF	1	
C792	ECQM05153KZ	Mylar Capacitor	0.015μF	1	
C803, 804, 805, 806					
	ECQM05683KZ	〃	0.068μF	4	
C807, 808	ECEA50V1	Electrolytic Capacitor	1μF	2	SD SUPPLY
C809, 810	ECEA16V10	〃	10μF	2	〃
C811, 812	ECEA50V1	〃	1μF	2	〃
C813, 814	ECEA25Z4R7	〃	4.7μF	2	〃
C815, 816	ECEA16V33	〃	33μF	2	〃
C817, 818	ECEA16V10	〃	10μF	2	〃
C881	ECEA16V33	〃	33μF	1	〃
C882	ECEA10V100	〃	100μF	1	〃
C883	ECEA35V4R7	〃	4.7μF	1	〃
C901	ECQM05333KZ	Mylar Capacitor	0.033μF	1	
C902	ECEA35V4R7	Electrolytic Capacitor	4.7μF	1	SD SUPPLY
C903	ECQM05102KZ	Mylar Capacitor	0.001μF	1	
C904, 905	ECEA16V10	Electrolytic Capacitor	10μF	2	SD SUPPLY
C906	ECQM05102KZ	Mylar Capacitor	0.001μF	1	
C911	ECEA50Z1	Electrolytic Capacitor	1μF	1	SD SUPPLY
C912	ECQM05272KZ	Mylar Capacitor	0.0027μF	1	
C913	ECQM05473JZ	〃	0.047μF	1	
C914	ECQM05104KZ	〃	0.1μF	1	
C915	ECQM05473JZ	〃	0.047μF	1	
C916	ECQM05104KZ	〃	0.1μF	1	
C917, 918	ECQM05103KZ	〃	0.01μF	2	
C919	ECQM05473KZ	〃	0.047μF	1	
C920	ECQM05103KZ	〃	0.01μF	1	
C921	ECEA50Z2R2	Electrolytic Capacitor	2.2μF	1	SD SUPPLY
C926	ECEA50V1	〃	1μF	1	〃
C927	ECEA16V47	〃	47μF	1	〃
C928	ECEA35V10	〃	10μF	1	〃
C929, 941	ECQM05103KZ	Mylar Capacitor	0.01μF	2	

Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
C942	ECCD1H100KC	Ceramic Capacitor	10pF	1	
C944	ECQM05473KZ	Mylar Capacitor	0.047μF	1	
C951	ECEA16Z10	Electrolytic Capacitor	10μF	1	SD SUPPLY
C966, 967, 968					〃
	ECEA50ZR47	〃	0.47μF	3	〃
C969	ECEA25V100	〃	100μF	1	〃
C970	ECQM05682KZ	Mylar Capacitor	0.0068μF	1	
C971	ECQM05333KZ	〃	0.033μF	1	
C972, 973, 974					
	ECEA25N10	Electrolytic Capacitor	10μF	3	SD SUPPLY
C975	ECQM05103KZ	Mylar Capacitor	0.01μF	1	
C976	ECEA50ZR1	Electrolytic Capacitor	0.1μF	1	SD SUPPLY
C977, 978	ECQM05104KZ	Mylar Capacitor	0.1μF	2	
C989	ECCD1H100KC	Ceramic Capacitor	10pF	1	
COMBINATION PARTS					
Z601	QCRFWR1	C-C Combination Part		1	
Z602, 603	QCR0011	Spark Killer		2	
TRANSISTORS					
Tr1	2SC828	Transistor		1	
Tr2	2SA719	〃		1	
Tr3	2SC1317	〃		1	
Tr4	2SA719	〃		1	
Tr5	2SC1317	〃		1	
Tr6, 7	2SC828	〃		2	
Tr8, 9	2SA719	〃		2	
Tr10	2SC828	〃		1	
Tr11, 12, 13	2SC1317	〃		3	
Tr14	2SC828	〃		1	
Tr15, 16	2SA564	〃		2	
Tr17	2SC1317	〃		1	
Tr18, 19, 20, 21	2SC828	〃		4	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
Tr22, 23	2SA719	Transistor	2	
Tr24	2SA564	〃	1	
Tr25	2SC828	〃	1	
Tr26	2SC1317	〃	1	
Tr27, 28, 29, 30	2SC828	〃	4	
Tr31, 32	2SC1317	〃	2	
Tr33	2SA564	〃	1	
Tr34	2SC1317	〃	1	
Tr35, 36, 37	2SC828	〃	3	
Tr38	2SA564	〃	1	
Tr39	2SC828	〃	1	
Tr40, 41	2SA564	〃	2	
Tr42, 43, 44, 45, 46				
	2SC828	〃	5	
Tr47	2SC1317	〃	1	
Tr48, 49, 50, 51	2SC828	〃	4	
Tr52	PN150	Photo Transistor	1	
Tr101, 102	2SC1327MST	Transistor	2	
Tr103, 104, 105, 106, 107				
	2SC1684	〃	5	
Tr108, 109	2SC828	〃	2	
Tr110	2SC1684	〃	1	
Tr111	2SC1317	〃	1	
Tr112	2SA564	〃	1	
Tr113, 114	2SC828	〃	2	
Tr115, 116, 117, 118, 119, 120, 121, 122, 123				
	2SC1684	〃	9	
Tr124, 125	2SC1327MST	〃	2	
Tr126	2SC1684	〃	1	
Tr127	2SC828	〃	1	
Tr128	2SC1317	〃	1	
Tr129	2SA564	〃	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
Tr130	2SC1684	Transistor	1	
Tr131	2SA564	〃	1	
Tr132	2SC1317	〃	1	
Tr133, 134, 135, 136, 137				
	2SC828	〃	5	
Tr138, 139	2SC1684	〃	2	
Tr140	2SC1383	〃	1	
Tr141	2SA683	〃	1	
Tr142	2SC1383	〃	1	
Tr143	2SC828	〃	1	
Tr144, 145, 146, 147, 148				
	2SA564	〃	5	
Tr201, 202	2SC1327MST	〃	2	
Tr203, 204, 205, 206, 207				
	2SC1684	〃	5	
Tr208, 209	2SC828	〃	2	
Tr210	2SC1684	〃	1	
Tr211	2SC1317	〃	1	
Tr214, 215, 216, 217, 218, 219, 220, 221, 222, 223				
	2SC828	〃	10	
Tr224, 225	2SC1327MST	〃	2	
Tr226	2SC1684	〃	1	
Tr227	2SC828	〃	1	
Tr228	2SC1317	〃	1	
Tr230	2SC1684	〃	1	
Tr231	2SA564	〃	1	
Tr232	2SC1317	〃	1	
Tr233, 234, 235, 236, 237				
	2SC828	〃	5	
Tr238, 239	2SC1684	〃	2	
Tr240	2SC1383	〃	1	
Tr241	2SA683	〃	1	
Tr501	2SC828	〃	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
Tr502, 503	2SC1407	Transistor	2	
Tr504	2SC828	〃	1	
Tr505, 506, 507				
	2SC1407	〃	3	
Tr508, 509	2SD389	〃	2	
Tr510	2SC828	〃	1	
Tr511	2SC1383	〃	1	
Tr512	2SC828	〃	1	
Tr513, 514	2SC1383	〃	2	
Tr515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527				
	2SC828	〃	13	
Tr601	2SD334	〃	1	
Tr602	2SC1383	〃	1	
Tr603	2SC1684	〃	1	
Tr604	2SC1846	〃	1	
Tr605	2SD334	〃	1	
Tr606	2SC1407	〃	1	
Tr607	2SC1317	〃	1	
Tr608	2SB512	〃	1	
Tr609	2SC828	〃	1	
Tr651	2SC828AT	〃	1	
Tr652	2SC1848	〃	1	
Tr653	2SC1384	〃	1	
Tr654	2SC828AT	〃	1	
Tr655	2SC1848	〃	1	
Tr656	2SC1384	〃	1	
Tr701, 702, 703, 704				
	2SA564	〃	4	
Tr705, 706, 707, 708, 709, 710				
	2SA722	〃	6	
Tr711, 712, 713, 714, 715, 716				
	2SC1383	〃	6	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
Tr717, 718, 719, 720, 721, 722				
	2SB512	Transistor	6	
Tr723, 724, 725, 726, 727, 728				
	2SC1328	〃	6	
Tr729, 730, 731, 732, 733, 734				
	2SA683	〃	6	
Tr735, 736, 737, 738, 739, 740, 741, 742				
	2SD389	〃	8	
Tr743, 744, 745, 746				
	2SA564	〃	4	
Tr747, 748, 749, 750				
	2SC828	〃	4	
Tr751, 752, 753, 754				
	2SA564	〃	4	
Tr791, 792, 801, 802, 803, 804, 805, 806, 807, 808				
	2SC828	〃	10	
Tr809, 810	2SC1317	〃	2	
Tr811, 812	2SA564	〃	2	
Tr813, 814, 815, 816, 817, 818				
	2SC828	〃	6	
Tr819, 820	2SA564	〃	2	
Tr821, 822, 823, 824				
	2SC828	〃	4	
Tr825, 826, 827, 828, 829, 830, 831, 832				
	2SA564	〃	8	
Tr881	2SC1317	〃	1	
Tr884	2SA564	〃	1	
Tr885	2SC828	〃	1	
Tr901	2SC1327	〃	1	
Tr902, 926, 927				
	2SC828	〃	3	
Tr928	2SC1383	〃	1	
Tr929	2SC828	〃	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
Tr941	2SA564	Transistor	1	
Tr942	2SC1317	〃	1	
Tr951, 952, 953, 954, 955				
	2SC828	〃	5	
Tr956	2SA564	〃	1	
Tr966, 967, 968				
	2SA885	〃	3	
Tr969, 970, 971				
	2SC1846	〃	3	
Tr972, 973	2SC828	〃	2	
Tr974	2SA564	〃	1	
Tr975, 976, 977, 978, 979				
	2SC828	〃	5	
INTEGRATED CIRCUITS				
IC1	AN6251	Integrated Circuit	1	
IC2	M53204P	〃	1	
IC3, 4	M53200P	〃	2	
IC5	M53203P	〃	1	
IC6, 7	M53202P	〃	2	
IC8	M53203P	〃	1	
IC911	AN660	〃	1	
IC941	M58432P	〃	1	
IC966	AN640	〃	1	
DIODES & RECTIFIERS				
D1, 2, 3, 4, 5, 6	OA90M	Diode	6	
D7	MA150	〃	1	
D8	SM102	〃	1	
D9	MA150	〃	1	
D10, 11, 12, 13	OA90M	〃	4	
D14, 15	MA150	〃	2	
D16	OA90M	〃	1	
D17, 18	MA150	〃	2	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
D19	LN55	LED	1	
D101, 102	MA150	Diode	2	
D103, 104, 105, 106				
	MA150	〃	4	
D107, 108	OA90M	〃	2	
D109, 110	MA150	〃	2	
D201, 202	MA150	〃	2	
D207, 208	OA90M	〃	2	
D501, 502, 503				
	QVDM8513ARM	〃	3	
D504	MA1056	〃	1	
D511	MA1150	〃	1	
D601	RVD10DC2	Silicon Rectifier	1	RD SUPPLY
D602, 603	SR3AM2N	〃	2	
D604	RVD10DC2	〃	1	RD SUPPLY
D605	MA1062	Diode	1	
D606	MA1150	〃	1	
D607	MA1062	〃	1	
D608	SM102	Silicon Rectifier	1	
D609	MA1062	Diode	1	
D610	SM102	Silicon Rectifier	1	
D611	MA150	Diode	1	
D651, 652	OA90M	〃	2	
D701, 702, 703, 704, 705, 706, 707, 708, 801, 802, 803, 804, 805, 806, 807, 808				
	MA150LF	〃	16	
D881, 882	OA90M	〃	2	
D926	MA1062	〃	1	
D941	MA1056	〃	1	
D951, 952, 966, 967, 968, 969, 970				
	MA150	〃	7	
D1000	LN21	LED	1	

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
			TRANSFORMERS		
T101, 201		QLT2D10A	Headphone Transformer	2	
T601	S	QLPZ8FQA	Power Transformer	1	
			COILS		
L101		QLH2020	Peaking Coil	1	
L102, 103		QLH2019	Bias Trap Coil	2	
L201		QLH2020	Peaking Coil	1	
L202, 203		QLH2019	Bias Trap Coil	2	
L501		QLB0182	Oscillator Coil	1	
L502		QLB0181	High Frequency Coil	1	
L503		QLB0182	Oscillator Coil	1	
L504		QLB0181	High Frequency Coil	1	
L505		QLB0182	Oscillator Coil	1	
L506		QLB0181	High Frequency Coil	1	
L507		QLB0182	Oscillator Coil	1	
L508, 509		QLQX6814Y	Erase Dummy Coil	2	
			SWITCHES		
S1	S	QSW2214	Power ON/OFF Switch	1	
S2		Refer to VR926	Pitch Control Switch	(1)	
S3		QSR6301	Speed Select Switch	1	
S4, 5		QST4211	Tape/Source Select Switch	2	
S6		QST4306	Equalizer Select Switch	1	
S7, 8		QST4208	Record Mode Switch	2	
S9		QST2302	Bias Select Switch	1	
S10		QSW2209	Meter Range Select Switch	1	
S11		QSW2209	MIC Attenuator Switch	1	
S12		QSW2208	Timer Start Switch	1	
S13, 14, 15, 16, 17, 18		EVQPAR11K	Control Key Switch	6	
S19, 20		QSM0068	Micro Switch	2	

Ref. No.		Part No.	Part Name & Description	Pcs/ Set	Remarks
S23		QSS4212	Slide Switch	1	
S24		QSR2301	Auto Reverse Select Switch	1	
S25		EVQPAR11K	Control Key Switch	1	
S26	S	QSR1407	AC Voltage Select Switch	1	
			RELAYS		
RL1		QSK0134	Lead Relay	1	
RL101, 201		QSK0423	Relay	2	
			FUSES		
F11, 12, 15, 16, 17		XBAQ125028	Fuse (1.25AT)	5	
F13, 14		XBAQ400032N	〃 (4AT)	2	
F901		XBAQ080030	〃 (800mAT)	1	
			ELECTRICAL PARTS		
E1		QWY4011	Playback Head	2	
E2		QWY4014	Erase/Recording Head (Forward)	1	
E3		QWY4015	Erase/Recording Head (Reverse)	1	
E4		QSL9009RNM	Level Meter	2	
			Main Amplifier Section		
E5		QMA3188	Heat Sink	1	
E6		QMA2926	Back Side Angle	1	
E7		QMA2932	Side Angle (Left, Right)	2	
E8		QMA2944	MIC and Meter Amplifier Holding Angle	1	
E9		QMA2938	MIC and Meter Amplifier Sub Holding Angle	1	
E10		QMA3189	P.C.B. Holding Angle	3	
E11		QNQ1039	Nut for VR	3	
E12		QNQ1070	Nut for MIC and Holding Angle	3	
E13		QMA3147	Switch Holding Angle	1	
E14		QEJ5001SM	LINE IN/OUT Jack Board Assembly	1	
			Capstan Motor Control P.C.B. Section		
E15		QMA3192	Switch Angle	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
E16	QML3013	Power Switch Lever	1	
E17	QML3194	Power Switch Lever Arm	1	
E18	QXA0647	Power Switch Lever Holding Angle	1	
E19	QHQ1177S	Step Screw	1	
E20	XUC4FT	Stop Ring	1	
E21	QNQ1004	Nut for Speed, Auto Reverse and Pitch Control	3	
		Reel Motor Control P.C.B. Section		
E22	QMA2941	P.C.B. Holding Angle (C)	1	
E23	QMA2942	P.C.B. Holding Angle (D)	2	
		Power Supply P.C.B. Section		
E24	QMF1861	P.C.B. Holding Plate	1	
E25	QMA3148	P.C.B. Holding Angle	1	
E26	QMA3156	Fuse Angle (A)	1	
E27	QTF1039	Fuse Holder (A)	2	
E31	QMA3155	Power Source Board Angle	1	
E32	QMA3158	Power Source Board Holding Angle	1	
E33	QJS0748	4 Pin DC-IN Socket	1	
E34	QFC1204M	AC Cord	1	
E35	QBJ1425	AC Cord Bushing	1	
E36	QTD1164	AC Cord Clamper	2	
E37	QMF1933	AC/DC Select Switch Holding Plate	1	
E38	QJT1027	Eath Terminal Nut	1	
E39	QJT1025	Earth Terminal Shaft	1	
E40	QJT1026	Earth Terminal Seat	1	
E42	QTW1151	Spark Killer Cover	2	
E43	QJT4017	4 Pin Terminal	1	
E44	QKJ0189	Connector Cover	1	
E45	QMA2946	Power Source Board Holding Angle (A)	1	
		Power Transformer Section		
E46	QMA3149	Transformer Angle	1	
E47	QMA3159	Connector Angle	1	
E48	QTH1131	Heat Sink	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		Miscellaneous		
E49	QJP1923TN	9P Plug	6	
E50	QJP1924TN	12P Plug	6	
E51	QJP1925TN	15P Plug	2	
E52	QJP1921TN	3P Plug	13	
E53	QJS1921TN	3P Socket	13	
E54	QJS1922TN	6P Socket	9	
E55	QJS1923TN	9P Socket	6	
E56	QJS1924TN	12P Socket	5	
E57	QJS1925TN	15P Socket	2	
E58	QJS0776	2P Housing	2	
E59	QJS0789JN	12P Housing	2	
E60	QJS0803X	Remote Control Socket	1	
E61	QJT1054	Contact	230	
E62	QJT1040	〃	4	
E63	QJT1053	〃	12	
E64	QJT1042	〃	24	
E65	QJT1041A	Flat Pin	40	
E66	QZE0003	Porcelain Tube	51	
E67	QJS0754	6P Housing	3	
E68	QJP1922TN	6P Plug	10	
		CABINET PARTS		
G1	XSN4+10BVS	Screw	6	
G2	QBJ3205	Washer	4	
G3	QGC1066	Top Cover	1	
G4	QKS1235	Back Board	1	
G5	QKJ0170	Cord Clamper	2	
G6	XSN4+35BVS	Screw	4	
G7	XWG4	Washer	14	
G8	QKA1053	Rubber Foot	4	
G9	XSN4+14BVS	Screw	4	
G10	QKS1220	Side Board	2	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
G11	XSN4+8S	Screw	4	
G12	QGC1067	Bottom Cover	1	
G13	QMH2005	Foot Holder	2	
G14	QKJ0178	Foot for Bottom Side	4	
G15	XTN3+12B	Tapping Screw	4	
G16	XUC4FT	Stop Ring	2	
G17	QMG0033	Tape Guide-1	2	
G18	XLCQ0001	Tension Roller	2	
G19	QMG0034	Tape Guide-2	2	
G20	QMC0074	Sleeve	2	
G21	QBG1559	Stopper Rubber	2	
G22	QMC0054	Spacer	2	
G23	XVE3C8FZS	Hexagon Screw	4	
G24	QHQ1247	Step Screw	2	
G25	QBC1278	Tape Guide Spring	2	
G26	QMG0046	Tape Guide-3	2	
G27	QMG0045	Tape Guide-4	2	
G28	QMG0031	Tape Guide-5	2	
G29	QMS2430	Reversing Roller Shaft	1	
G30	XXE3D10FZS	Screw	1	
G31	QXP0544	Pressure Roller Assembly	2	
G32	QBC1202	Spring	1	
G34	QBW2016	Washer	2	
G35	QGK2731	Pressure Roller Ornament	2	
G36	QXP0559	Reversing Roller Assembly	1	
G37	XUC7FT	Stop Ring	1	
G38	QBP1714	Plate Spring	1	
G39	QDP1701	Roller	1	
G40	QBF1254	Felt	1	
G41	QGK2643	Roller Ornament	1	
G42	QXB0492	Push Button Assembly	2	
G43	XTN3+8B	Tapping Screw	2	
G44	QXB0494	Push Button (C) Assembly	1	
G45	QBC1231	Spring	2	
G46	QXB0493	Push Button (B) Assembly	1	
G47	QYT0451	Pitch Control Knob	1	
G48	QYT0452	Knob Assembly	2	
G49	QYP0688	Operation Panel Assembly	1	
G50	QYP0683	Panel (B)	1	
G51	XUB16FP	C Ring	2	
G52	QKJ0167	Spacer	4	
G53	QBP1712	Plate Spring	2	
G54	QYK0092	Function Panel Cover	1	
G55	XVE4C30FZS	Hexagon Screw	4	
G56	QYT0407	Volume Knob (D) Assembly	2	
G57	QBJ3299	Washer	3	
G58	QYT0406	Volume Knob (C) Assembly	3	
G59	QYT0413	Master Knob Assembly	1	
G60	QYT0449	Lever Knob (L) Assembly	2	
G61	QYT0450	Lever Knob Assembly	4	
G62	QBJ1459	Spacer	1	
G63	QYT0412	Knob (L) Assembly	1	

ACCESSORIES

A1	RP023A	Connection Cord	2	
A2	QYQ0271	Reel Holder	2	
A3	QYC0183	Dust Cover Assembly	1	
A4	QYQ0274	Reel Table Spacer	1	
A5	QFX0013	Head Cleaner	1	
A6	QQT2221	Instruction Book	1	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		PACKINGS		
P1	QPN3646	Inner Packing	1	
P2	QPA0238	Cushion-A	1	
P3	QPA0239	Cushion-B	1	
P4	QPA0240	Cushion-C	1	
P5	QPA0241	Cushion-D	1	
P6	QPA0242	Cushion-E	1	
P7	XZB50X58XA05	Poly Sheet for Main Unit	1	