GRUNDIG SERVICE MANUAL

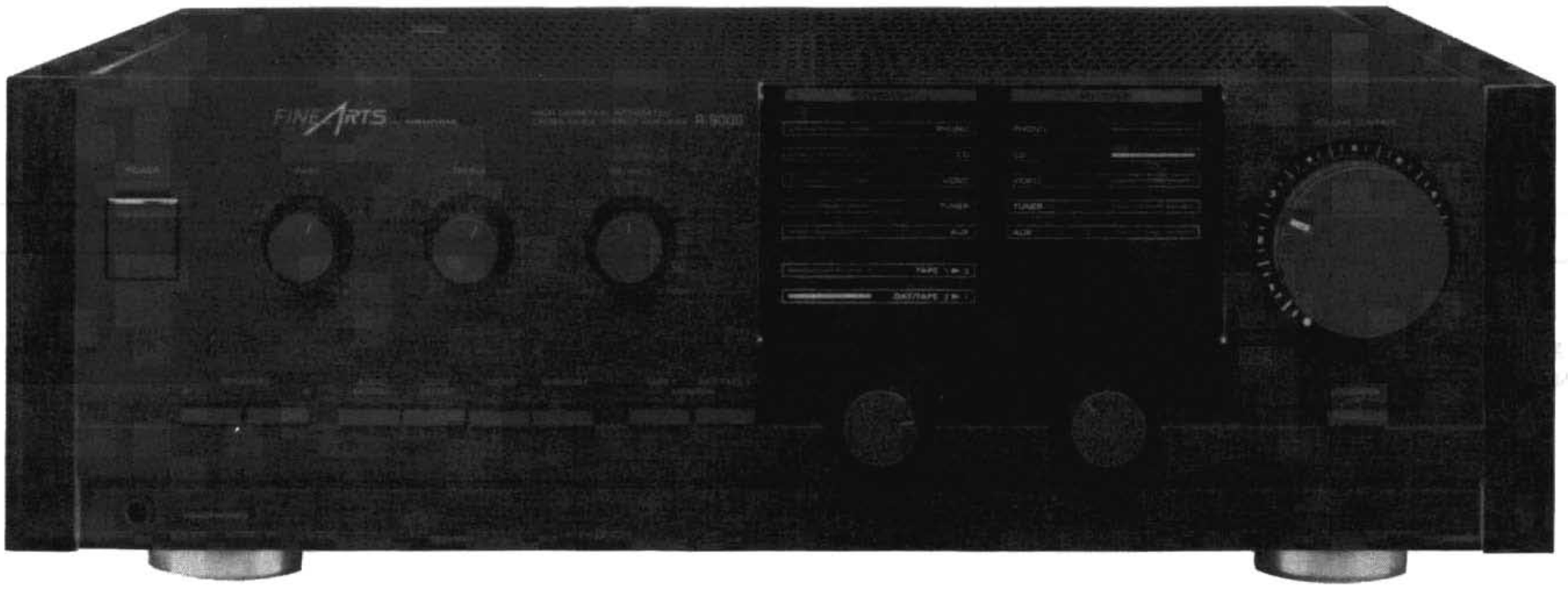
HIFI

Ⓓ Btx ★ 32700 #

FINE ARTS

12/87

A 9000



Technische Daten | **Technical Specification**

Ausgangsleistung (DIN) an 8 Ω:	Output Power (DIN)	2 x 120 / 180 W	
Klirrfaktor bei 1 kHz, P -1dB:	Total Harmonic Distortion 1 kHz, P -1 dB:	<0,005 %	
Intermodulation 1 kHz, P -1dB:	Intermodulation Distortion 1 kHz, P -1 dB:	<0,015 %	
TIM 1 kHz, P -1 dB:	TIM 1 kHz, P -1 dB :	<0,01 %	
Dämpfungsfaktor 1 kHz:	Damping Factor 1 kHz	150	
Geräuschspannungsabstand (120W/50mW):	Signal-to-Noise Ratio (Weighted) (120W/50mW)	IEC	DIN
CD	CD	> 104 / 83 dB	> 95 / 74 dB
Hochpegel	High Level	> 103 / 83 dB	> 94 / 73 dB
Phono MM	Phono MM	> 82 / 77 dB	> 73 / 70 dB
Phono MC	Phono MC	> 78 / 76 dB	> 70 / 67 dB
Fremdspannungsabstand (120W/50mW):	Signal-to-Noise Ratio (Unweighted) (120W/50mW)	IEC	DIN
CD	CD	> 101 / 80 dB	> 97 / 75 dB
Hochpegel	High Level	> 100 / 80 dB	> 96 / 75 dB
Phono MM	Phono MM	> 76 / 73 dB	> 72 / 69 dB
Leistungsbandbreite:	Power Bandwidth	> 5 Hz..... < 80 kHz	
Übertragungsbereich:	Frequency Response		
CD	CD	7 Hz .... 100 kHz	
Hochpegel	High Level	7 Hz .... 80 kHz	
Monitor	Monitor	7 Hz .... 70 kHz	
Phono MM	Phono MM	10 Hz .... 80 kHz	
Sereo - Übersprechdämpfung (1 kHz):	Stereo Separation (1 kHz)		
CD, Hochpegel, Monitor	CD, High Level, Monitor	> 70 dB	
Phono MM	Phono MM	> 60 dB	
Eingangsempfindlichkeit:	Input Sensitivity		
Hochpegel	High Level	150 mV / 50 kΩ	
Phono MM	Phono MM	2,5 mV / 47 kΩ	
Phono MC	Phono MC	0,35 mV / 330 Ω	
Übersteuerungsfestigkeit:	Input Overload Point		
Hochpegel	High Level	10V	
Phono MM	Phono MM	160 mV	
Netzspannung	Mains Voltage	220 V, 50 / 60 Hz	
Leistungsaufnahme bei Nennleistung:	Power Consumption at Nominal Power	ca. 400 W	

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Bei Eingriffen Schutzmaßnahmen für MOS-Bauteile beachten!

Das Gerät muß auch nach der Reparatur den Sicherheitsbestimmungen nach DIN / IEC 65 VDE 0860 entsprechen.

N.B. When carrying out repairs, observe MOS precautions !

After the unit has been repaired, it should still meet the DIN/IEC 65 VDE 0860 safety requirements.

Ausbauhinweise

Gehäuseoberteil abnehmen
- Je 3 Schrauben **a** seitlich und 2 Schrauben hinten herausschrauben.
- Gehäuseoberteil abnehmen.

Gehäuseboden abnehmen
- 10 Schrauben **b** herausschrauben.
- Gehäuseboden abnehmen.

Frontblende abnehmen
- Gehäuseoberteil und -boden abnehmen.
- Reglerknöpfe abziehen.
- 6 Schrauben **c** herausschrauben.
- Frontblende abnehmen.

Montagerahmen ausbauen
- Frontblende abnehmen.
- Knopf von Netzschalter abziehen.
- 5 Schrauben **d** herausschrauben.
- RECORD OUT - und SELECTION - Schalter abschrauben.
- Steckverbindungen lösen.
- Montagerahmen abnehmen.

LED - Platte ausbauen (PY01)
- Frontblende abnehmen.
- Steckverbindungen lösen.
- 2 Plattenhalter (Stöpsel) **e** entfernen.

drücken

Disassembly Instructions

Removing the top of the case
- Remove the 3 screws **a** on each side and the 2 screws on the back.
- Take off the top of the case.

Removing the bottom plate
- Unscrew the 10 screws **b**.
- Take off the bottom.

Removing the front panel
- Remove the top of the case and the bottom plate.
- Pull off the control knobs.
- Unscrew the 6 screws **c**.
- Remove the front.

Disassembly of the mounting frame
- Remove the front panel.
- Pull off the knob from the mains switch.
- Unscrew the 5 screws **d**.
- Unscrew the RECORD OUT and SELECTION switches.
- Disconnect the plug-in connections.
- Remove the mounting frame.

Removing the LED circuit board (PY01)
- Remove the front panel.
- Disconnect the plug-in connections.
- Remove the 2 board holders (pegs) **e**.

push

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- Leitung zur Netzschalteranzeigeplatte (PY51) und zur Lautstärke-anzeigeplatte (PZ01) ablöten.
- LED - Platte abnehmen.

Lautstärkeanzeigeplatte ausbauen (PZ01)
- Frontblende abnehmen.
- 2 Plattenhalter (Stöpsel) entfernen.
- Leitung ablöten.

Netzschalteranzeigeplatte ausbauen (PY51)
- Frontblende abnehmen.
- Plattenhalter (Stöpsel) entfernen.
- Leitung ablöten.

Klang- und Balancereglerplatte ausbauen (PG51)
- Frontblende abnehmen.
- Muttern der Potentiometer abschrauben.
- Leitungen ablöten.

Schalterplatte ausbauen (PS01)
- Montagerahmen lösen.
- Schalterknöpfe abziehen.
- 4 Schrauben **f** herausschrauben.
- Steckverbindungen lösen.
- Übrige Leitungen ablöten.

Kopfhörerbuchsenplatte ausbauen (PW51)
- Montagerahmen lösen.
- Haltefeder **g** nach oben ziehen.
- Steckverbindung lösen.

Lautstärkereglerplatte ausbauen (PG01)
- Montagerahmen lösen.
- Lautstärkeanzeigeplatte lösen.
- Mutter des LS - Potentiometers abschrauben.
- Knopf von Loudness - Schalter abziehen.
- Schraube **h** herausschrauben.
- Steckverbindungen lösen.

SELECT / REC. OUT - Platte (PV 01)
- Montagerahmen lösen.
- 3 Schrauben **I** herausschrauben.
- Abschirmblech herausnehmen.
- 11 Schrauben **k** herausschrauben.
- Flachbandleitung WJ01 auslöten.
- SELECT / REC. OUT - Platte (PV 01) mit rechtem Chassis nach außen klappen.
- Steckverbindungen lösen.
- Schraube **I** herausschrauben.
- Stöpsel **m** entfernen.
- Chassis abnehmen.

Netzteilplatte ausbauen (P801)
- 4 Schrauben **n** herausschrauben.
- Steckverbindungen lösen.
- Netzteilplatte herausnehmen.

Trafo ausbauen (L001)
- 4 Schrauben **o** herausschrauben.
- Leitungen ablöten.
- Trafo herausnehmen.

- Unsolder the lead to the mains switch indicator board (PY51) and to the volume control indicator board (PZ01).
- Remove the LED board.

Removing the volume control indicator board (PZ01)
- Remove the front panel.
- Remove the 2 holders (pegs) from the board.
- Unsolder the lead.

Removing the mains switch indicator board (PY51)
- Remove the front panel.
- Remove the holders (pegs).
- Unsolder the lead.

Removing the tone and balance control boards (PG51)
- Remove the front panel.
- Unscrew the nuts from the potentiometers.
- Unsolder the leads.

Removing the switch board (PS01)
- Loosen the mounting frame.
- Pull off the switch knobs.
- Unscrew the 4 screws **f**.
- Disconnect the plug-in connections.
- Unsolder the other leads.

Removing the headphone-socket board (PW51)
- Loosen the mounting frame.
- Pull the retaining spring **g** upwards.
- Disconnect the plug-in connections.

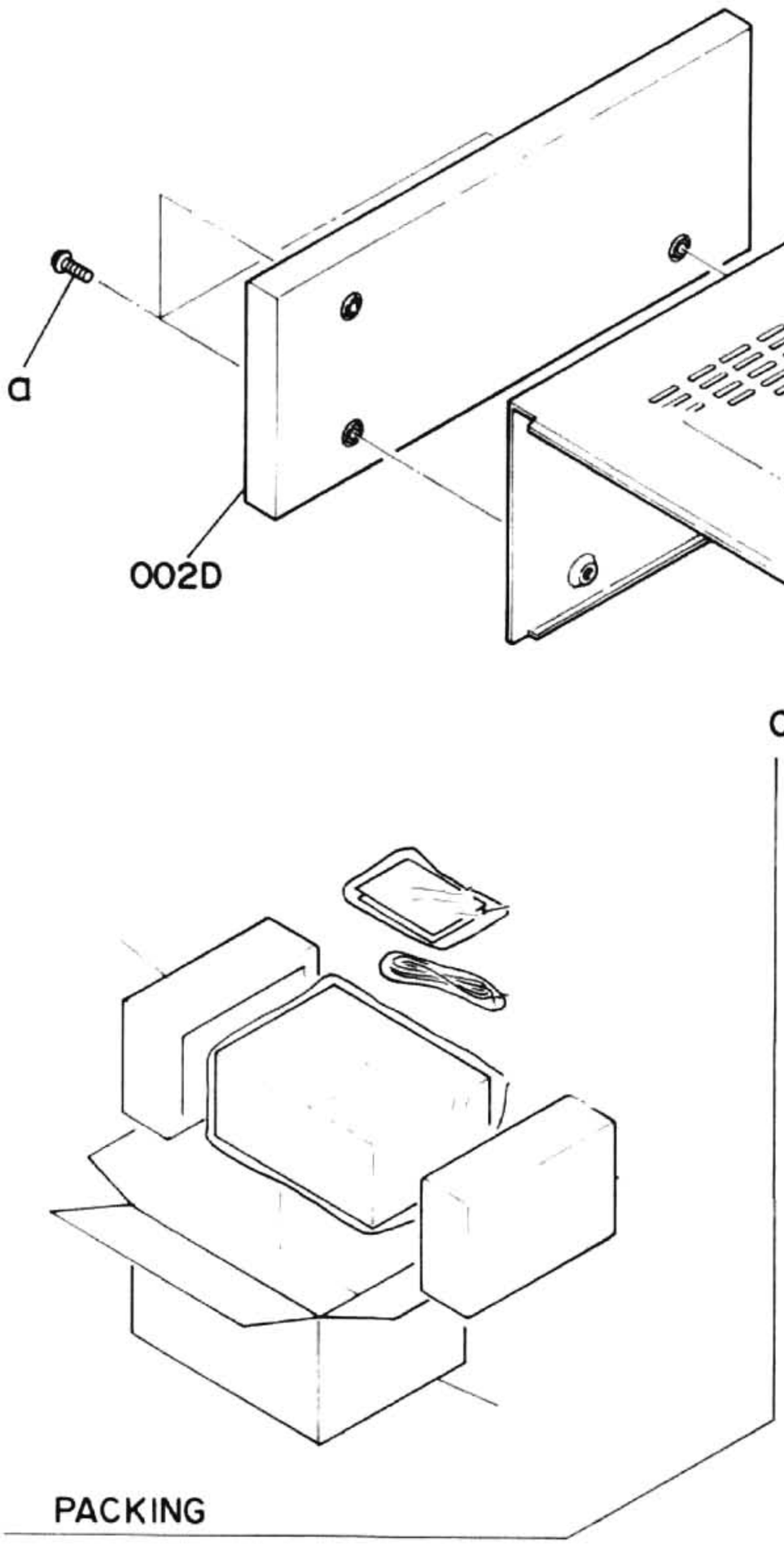
Removing the volume control board (PG01)
- Loosen the mounting frame.
- Loosen the volume level indicator board.
- Unscrew the nut from the volume control potentiometer.
- Pull off the knob from the loudness switch.
- Unscrew the screw **h**.
- Disconnect the plug-in connections.

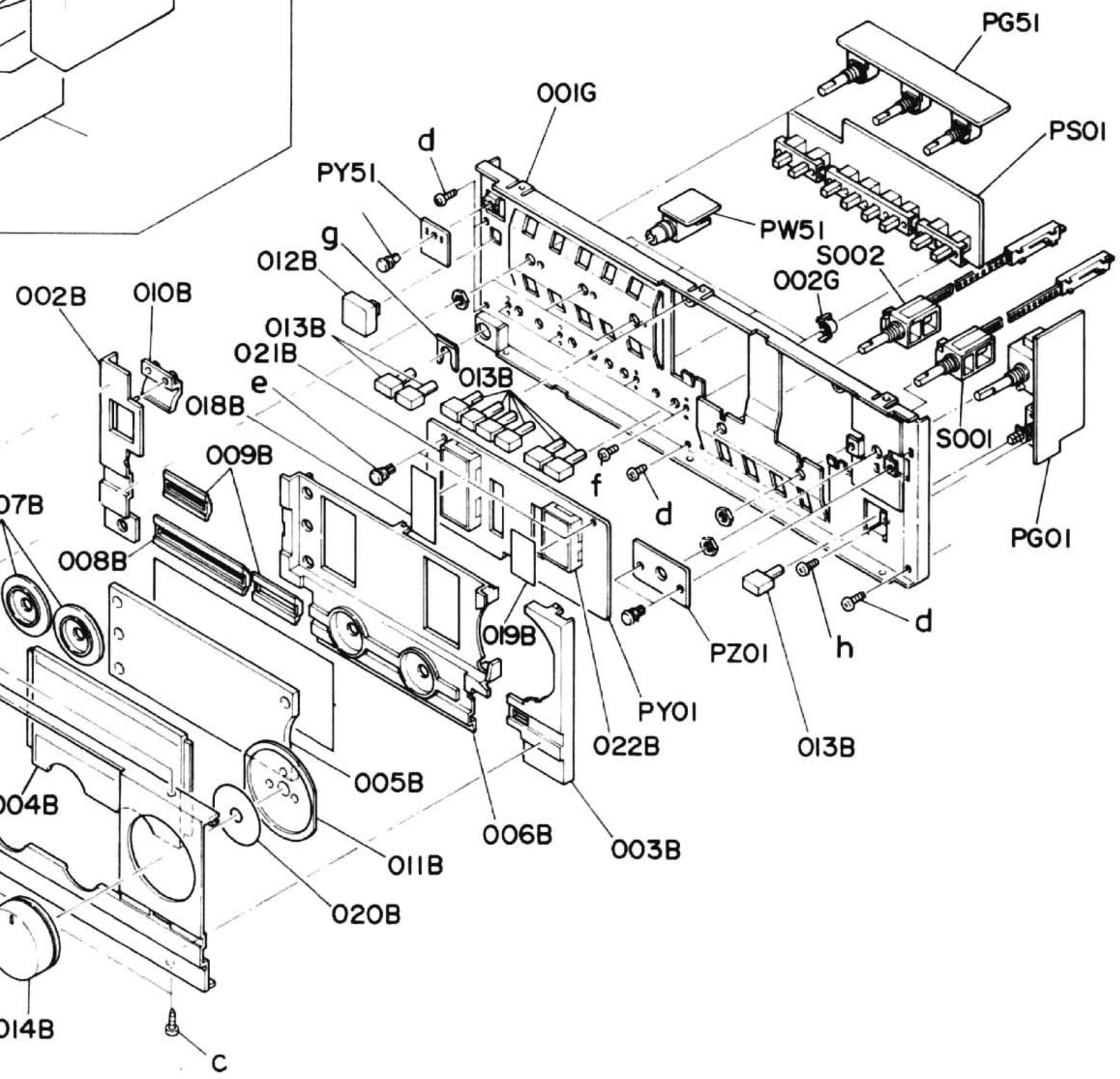
SELECT / REC.OUT board (PV01)
- Loosen the mounting frame.
- Unscrew the 3 screws **I**.
- Take out the screening plate.
- Undo the 11 screws **k**.
- Unsolder the ribbon cable WJ01.
- Turn out the SELECT / REC.OUT board (PV01) with the right-hand chassis.
- Disconnect the plug-in connections.
- Unscrew the screw **I**.
- Remove the peg **m**.
- Take out the chassis.

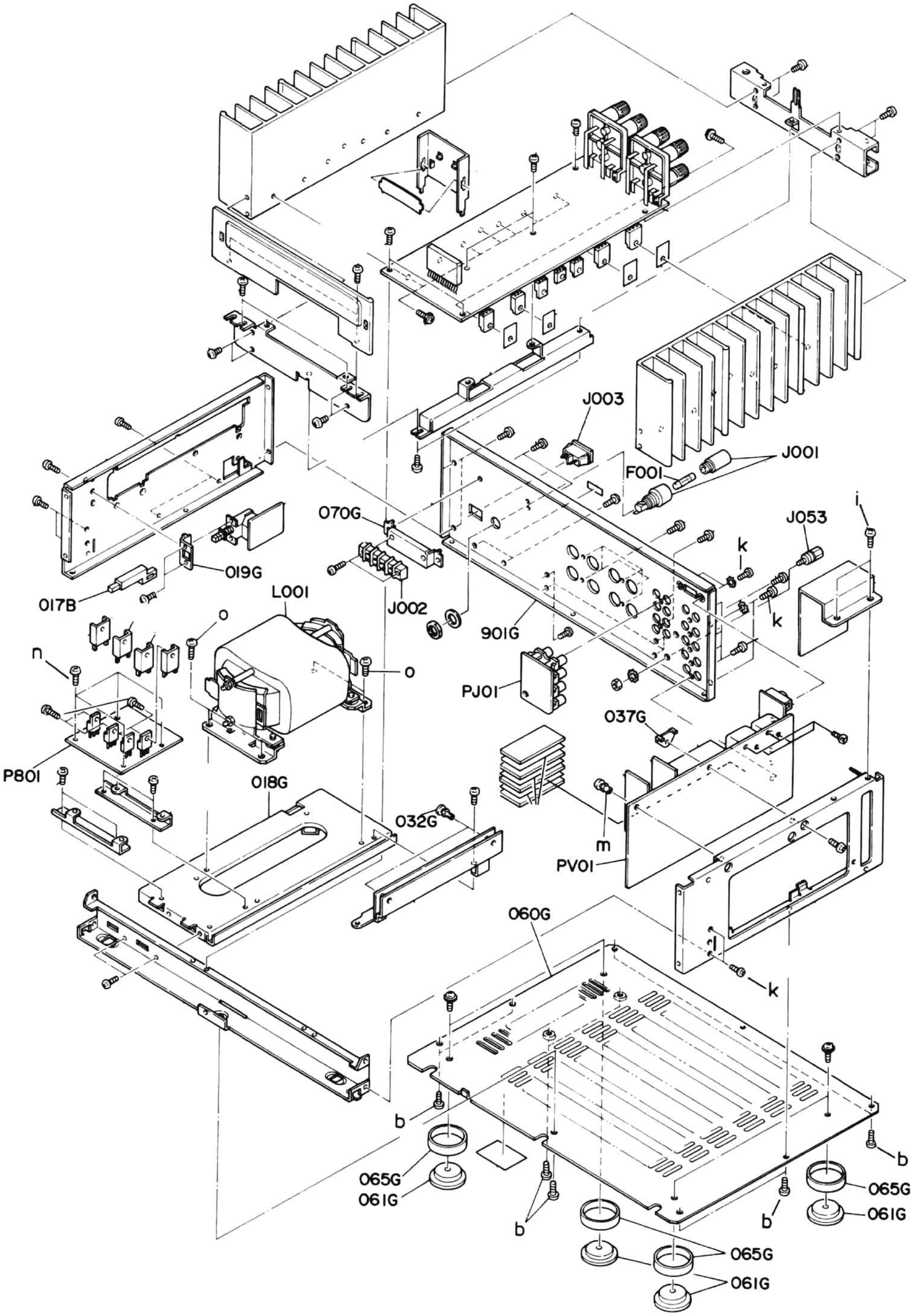
Removing the power supply circuit board (P801)
- Undo the 4 screws **n**.
- Disconnect the plug-in connections.
- Take out the power supply board.

Removing the transformer (L001)
- Unscrew the 4 screws **o**.
- Unsolder the leads.
- Remove the transformer.

EXPLODED VIEW AND PARTS LIST






J003
J001
F001
070G
J053
i
k
019G
017B
J002
L001
o
901G
n
PJ01
037G
P801
018G
032G
m
PV01
060G
l
b
065G
061G

Pos. No.	Fig. No.	Bestell-Nr. Part No./Ref. Nr. d'ordinazioni		Benennung	Description	Désignation	Denominazione
001	B	55103-300.01		Frontblende	front mask	ecran frontal	mascherina frontale
002	B	75987-452.10		Kappe links	cap, left	chapeau, gauche	cappa, sinistra
003	B	75987-452.12		Kappe rechts	cap, right	chapeau, droite	cappa, destra
004	B	75987-452.15		Fenster	window	fenetre	finestra
005	B	75987-452.16		Anzeige Fenster	inducator window	fenetre afficheur	vetrino indicatore
006	B	75987-452.18		Montagerahmen	mounting frame	cadre de montage	telaio di montaggio
007	B	75987-452.19	3x	Drehknopfführung	rotary knob guide	guide pontentiomet.	guida manopola
008	B	75987-452.20		Führung/Druckknopf	guide/push button	guide/	guida/
009	B	75987-452.21	2x	Führung/Druckknopf	guide/push button	guide/	guida/
010	B	75987-452.22		Lichtleiter	lighting guide	guide de lumiere	conduttore die luce
011	B	75987-452.23		Scheibe	washer	rondelle	rondella
012	B	55103-238.01		Netztaste	mains button	touche secteur	tasto di rete
013	B	75987-452.24	9x	Drucktaste	push button	touche a pression	tasto
014	B	55103-511.01		Drehknopf LS	rotary knob LS	bouton LS	manopola LS
015	B	55103-230.01	2x	Drehknopf	rotary knob	bouton	manopola
016	B	55103-229.01	3x	Drehknopf	rotary knob	bouton	manopola
017	B	75987-452.25		Schieber-Netz	slider-mains supply	poussoir-secteur	cursore-rete
018	B	75987-452.26		Abdeckung	cover	recouvrement	coperatura
019	B	75987-452.27		Abdeckung	cover	recouvrement	coperatura
020	B	75987-452.28		Leuchtkörper	light element	element lumineux	corpo luminoso
021	B	75987-452.30		LED-Halter	LED-holder	LED-fixation	LED-supporto
022	B	75987-452.31		LED-Halter	LED-holder	LED-fixation	LED-supporto
001	D	75987-452.08		Gehäuse-Oberteil	cabinet top	couvercle d.boitier	parte superiore mob.
001	G	75987-452.09		Montageplatte	mounting panel	support de montage	piastra di montaggio
002	G	75987-452.11		Druckschalterführung	push switch guide	guide interr.pouss.	guide interrutore
005	G	75987-452.17		Stöpsel	plug	bouchon	tappo
019	G	75987-452.28		Netzschalterhalter	mains switch holder	support interr.sect.	supporto int.di rete
032	G	75987-452.32		Bolzen	bolt	goujon	perno
037	G	75987-452.33		Gewindeplatte	threaded panel	support filetage	piastra con filetto
039	G	75987-452.17		Pfropfen	rataining plug	rivet	tappo
060	G	75987-452.34		Gehäuse-Boden	cabinet bottom	fond de boitier	fondale mobile
061	G	55100-342.01	4x	Fuß	foot	pied	piedino
065	G	55100-346.01	4x	Fußblende	foot screen	enjoliveur	mascherina di base
070	G	75987-452.35		Stütze	support	support	supporto
901	G	75987-452.36		Gehäuse-Rückteil	cabinet back	boitier arriere	parte posteriore mob.
002	D	54527-442.08		Seitenteil links	side part, left	cote, gauche	parte laterale,sinistr
003	D	54527-444.08		Seitenteil rechts	side part, right	cote, droite	parte laterale,destra
JJ	01	75987-451.35		Cinch-Buchse	cinch socket	prise cinch	presa cinch
JJ	02	75987-451.36		Cinch-Buchse	cinch socket	prise cinch	presa cinch
JV	01	75987-451.37		Buchse CD	socket CD	embase CD	presa CD
JV	02	75987-451.37		Buchse Video	socket Video	embase Video	presa Video
JV	03	75987-451.37		Buchse Tuner	socket Tuner	embase Tuner	presa Tuner
JV	04	75987-451.37		Buchse AUX	socket AUX	embase AUX	presa AUX
JW	51	75987-451.38		Kopfhörerbuchse	ear phone socket	prise ecouteur	presa cuffia
J	482	75987-451.43		Buchse Phono	socket Phono	embase Phono	presa Phono
J	701	75987-451.44		Lautsprecher-Anschluß	loudsprecher connection	raccord haut parl.	colleg. altoparlante
J	702	75987-451.45		Lautsprecher-Anschluß	loudsprecher connection	raccord haut parl.	colleg. altoparlante

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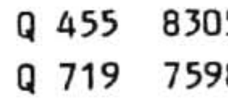
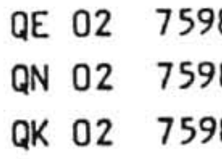
Pos. No.	Fig. No.	Bestell-Nr. Part No./Ref. Nr. d'ordinazioni	Benennung	Description	Désignation	Denominazione
003 F		75987-452.14	Feder	spring	ressort	molla
L 001		09068-005.01	Netztrafo	mains transformer	transform.secteur	trasformatore di rete
SS 51		75987-451.99	Schalter/Loudness	switch/loudness	commutateur loudn.	commutatore loudness
SS 01		75987-451.97	Schalter	switch	commutateur	commutatore
SS 02		75987-451.98	Schalter	switch	commutateur	commutatore
ST 01		75987-451.98	Schalter	switch	commutateur	commutatore
SV 01		75987-452.00	Schiebeschalter	slider switch	interr.a coulisse	interruttore a cursore
SV 02		75987-452.01	Schiebeschalter	slider switch	interr.a coulisse	interruttore a cursore
S 481		75987-452.04	Schiebeschalter	slider switch	interr.a coulisse	interruttore a cursore
S 901		75987-452.05	Netzschalter	mains switch	interrupt. secteur	interruttore di rete
S 001		75987-452.02	Drehschalter	rotary switch	commutateur rotatif	commutatore rotativo
S 002		75987-452.03	Drehschalter	rotary switch	commutateur rotatif	commutatore rotativo
J 001		75987-451.39	Sicherungseinschub	safety insert	tiroir a fusibles	dispositivo di sicur.
J 002		75987-451.40	Anschlußplatte-Netz	connection panel	plaque de connect.	piastra di collegam.
J 003		75987-451.41	Netzbuchse	mains socket	carte d.bloc sect.	presa di rete
J 053		75987-451.42	Masse-Anschluß	earth-connection	raccordement masse	collegamento di massa

Pos. No.	Fig. No.	Bestell-Nr. Part No. Réf. Nr. d'ordinazioni	Benennung Description Désignation Denominazione



L 401	75987-451.48	
L 402	75987-451.48	
L 701	75987-451.49	
L 702	75987-451.49	

LN 01	75987-451.46	
LN 02	75987-451.46	
LN 03	75987-451.47	



QN 04	75987-451.55	TA 7317 P
QE 05	75987-451.51	NJM 2041 DD
Q 455	8305-204-833	LM 833
Q 719	75987-451.63	STK 3102 (!)
Q 801	75987-451.64	NJM 78 M 18 A (!)
Q 802	75987-451.65	NJM 79 M 18 A (!)
Q 803	75987-451.66	NJM 78 M 15 A (!)
Q 804	75987-451.67	NJM 79 M 15 A (!)

QE 01	75987-451.50	2 SK 369
QN 01	75985-667.00	2 SC 2240 (!)
QK 01	75987-429.00	2 SC 2458 L
QE 02	75987-451.50	2 SK 369
QN 02	75985-667.00	2 SC 2240 (!)
QK 02	75987-429.00	2 SC 2458 L

Pos. No.	Fig. No.	Bestell-Nr. Part No. Réf. Nr. d'ordinazioni	Benennung Description Désignation Denominazione
QE 03		75987-451.50	2 SK 369 (!)
QN 03		75987-451.54	2 SA 970 (!)
QK 03		75987-300.75	2 SA 1048 L
QE 04		75987-451.50	2 SK 369
QK 04		75987-300.75	2 SA 1048 L
QJ 31		75987-429.00	2 SC 2458 L
QK 31		75987-429.00	2 SC 2458 L
QJ 32		75987-429.00	2 SC 2458 L
QK 32		75987-429.00	2 SC 2458 L
QJ 33		75987-300.75	2 SA 1048 L
QK 33		75987-300.75	2 SA 1048 L
QJ 34		75987-300.75	2 SA 1048 L
QK 34		75987-300.75	2 SA 1048 L
QJ 51		75987-429.00	2 SC 2458 L
QK 51		75987-429.00	2 SC 2458 L
QJ 52		75987-429.00	2 SC 2458 L
QK 52		75987-429.00	2 SC 2458 L
QJ 53		75987-300.75	2 SA 1048 L
QK 53		75987-300.75	2 SA 1048 L
QJ 54		75987-300.75	2 SA 1048 L
QK 54		75987-300.75	2 SA 1048 L
QK 31		75987-429.00	2 SC 2458 L
QK 71		75987-429.00	2 SC 2458 L
QK 72		75987-429.00	2 SC 2458 L
QK 73		75987-300.75	2 SA 1048 L
QK 74		75987-300.75	2 SA 1048 L
Q 451		75987-451.50	2 SK 369 BL
Q 452		75987-451.50	2 SK 369 BL
Q 453		75987-451.50	2 SK 369 BL
Q 454		75987-451.50	2 SK 369 BL
Q 701		75987-451.56	2 SD 1508 (!)
Q 702		75987-451.56	2 SD 1508 (!)
Q 703		75987-451.57	2 SC 2229 (!)
Q 704		75987-451.57	2 SC 2229 (!)
Q 705		75987-451.58	2 SA 949 (!)
Q 706		75987-451.58	2 SA 949 (!)

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Pos. No.	Fig. No.	Bestell-Nr. Part No. Réf. Nr. d'ordinazioni	Benennung Description Désignation Denominazione	
Q 707		75987-451.59	2 SC 3298	(!)
Q 708		75987-451.59	2 SC 3298	(!)
Q 709		75987-451.60	2 SA 1306	(!)
Q 710		75987-451.60	2 SA 1306	(!)
Q 711		75987-451.61	2 SC 3182	(!)
Q 712		75987-451.61	2 SC 3182	(!)
Q 713		75987-451.62	2 SA 1265	(!)
Q 714		75987-415.62	2 SA 1265	(!)
Q 715		75987-451.61	2 SC 3182	(!)
Q 716		75987-451.61	2 SC 3182	(!)
Q 717		75987-451.62	2 SA 1265	(!)
Q 718		75987-451.62	2 SA 1265	(!)

DN 01		75987-251.15	1 SS 81
DN 02		75987-251.15	1 SS 81
DN 03		75986-200.82	DSF 10 C
DN 04		75984-074.00	1 S 2473
DN 05		75986-200.82	DSF 10 C
DN 06		75986-200.82	DSF 10 C
D 703		8309-230-133	1 SS 133
D 704		8309-230-133	1 SS 133
D 705		8309-230-133	1 SS 133
D 706		8309-230-133	1 SS 133
D 707		75987-451.31	MTZ 3,9 V 0,5 W
D 708		75987-451.31	MTZ 3,9 V 0,5 W
D 709		75987-451.32	MTZ 4,7 V 0,5 W
D 710		75987-451.32	MTZ 4,7 V 0,5 W
D 711		75987-251.15	1 SS 81
D 712		75987-251.15	1 SS 81
D 713		75987-251.15	1 SS 81
D 714		75987-251.15	1 SS 81
D 781		75987-451.33	S 5 VB 20 (!)
D 782		75987-451.33	S 5 VB 20
D 783		75986-200.82	DSF 10 C
D 784		75986-200.82	DSF 10 C
D 785		75986-200.82	DSF 10 C
D 786		75986-200.82	DSF 10 C
D 801		75986-200.82	DSF 10 C (!)
D 802		75986-200.82	DSF 10 C (!)
D 803		75986-200.82	DSF 10 C (!)
D 804		75986-200.82	DSF 10 C (!)
D 805		75986-200.82	DSF 10 C (!)
D 806		75986-200.82	DSF 10 C (!)
D 807		75986-200.82	DSF 10 C (!)
D 808		75986-200.82	DSF 10 C (!)

DY 01	75987-451.29	GL 3 HS 47
DY 02	75987-451.29	GL 3 HS 47
DY 03	75987-451.29	GL 3 HS 47
DY 04	75987-451.29	GL 3 HS 47
DY 05	75987-451.29	GL 3 HS 47
DY 06	75987-451.29	GL 3 HS 47
DY 07	75987-451.29	GL 3 HS 47
DY 08	75987-451.29	GL 3 HS 47
DY 09	75987-451.29	GL 3 HS 47
DY 10	75987-451.29	GL 3 HS 47
DY 11	75987-451.29	GL 3 HS 47
DY 12	75987-451.29	GL 3 HS 47
DY 13	75987-451.29	GL 3 HS 47
DY 14	75987-451.29	GL 3 HS 47
DY 15	75987-451.29	GL 3 HS 47
DY 16	75987-451.29	GL 3 HS 47
DY 17	75987-451.29	GL 3 HS 47
DY 18	75987-451.29	GL 3 HS 47
DY 19	75987-451.29	GL 3 HS 47
DY 20	75987-451.29	GL 3 HS 47
DY 21	75987-451.29	GL 3 HS 47
DY 22	75987-451.29	GL 3 HS 47
DY 23	75987-451.29	GL 3 HS 47
DY 24	75987-451.29	GL 3 HS 47
DY 51	75987-451.29	GL 3 HD 47
DY 52	75987-451.29	GL 3 HD 47

RN 01	75987-451.72	1 KOhm / 1/4 WW
RT 01	75987-451.76	3,9 KOhm / 1 W (!)
RN 02	75987-451.72	1 KOHm / 1/4 W
RT 02	75987-451.76	3,9 KOhm / 1 W (!)
RG 05	75987-451.70	50 KOhm
RV 09	75987-451.77	470 Ohm / 1/4 W
RV 10	75987-451.77	470 Ohm / 1/4 W
RN 11	75987-451.72	22 Ohm / 1/4 W (!)
RV 11	75987-451.77	470 Ohm / 1/4 W
RV 12	75987-451.77	470 Ohm / 1/4 W
RV 13	75987-451.77	470 OhM / 1/4 W
RV 14	75987-451.77	470 Ohm / 1/4 W
RV 15	75987-451.77	470 Ohm / 1/4 W
RV 16	75987-451.77	470 OHm / 1/4 W
RN 17	75987-451.73	270 Ohm / 2 W (!)
RV 17	75987-451.77	470 Ohm / 1/4 W
RV 18	75987-451.93	2,2 KOhm / 1/2 W (!)
RV 19	75987-451.77	470 Ohm / 1/4 W
RV 20	75987-451.77	470 Ohm / 1/4 W
RV 21	75987-451.77	470 Ohm / 1/4 W
RE 25	75987-451.68	47 Ohm / 1/4 W (!)
RE 26	75987-451.68	47 Ohm / 1/4 W (!)
RG 51	75987-451.71	100 Ohm
RN 57	75987-451.74	330 OHm / 2 W (!)
RN 58	75987-451.74	330 Ohm / 2 W (!)
RE 65	75987-451.69	10 KOhm
RE 66	75987-451.69	10 KOhm
R 401	75987-451.78	150 Ohm / 1/4 W (!)
R 402	75987-451.78	150 Ohm / 1/4 W (!)
R 707	75987-451.79	820 Ohm / 1/4 W (!)
R 708	75987-451.79	820 Ohm / 1/4 W (!)
R 713	75987-451.80	18 KOhm / 1/2 W (!)
R 714	75987-451.80	18 KOhm / 1/2 W (!)
R 719	75987-451.81	2,2 KOHm
R 720	75987-451.81	2,2 KOhm
R 723	75987-451.82	100 Ohm / 1/6 W (!)
R 724	75987-451.82	100 Ohm / 1/6 W (!)
R 725	75987-451.82	100 Ohm / 1/6 W (!)

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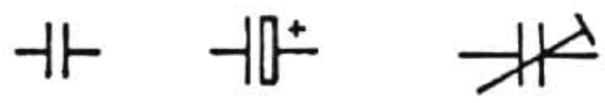
Pos. No.	Fig. No.	Bestell-Nr. Part No. Réf. Nr. d'ordinazioni	Benennung Description Désignation Denominazione	
R 726		75987-451.82	100 Ohm / 1/6 W	(!)
R 727		75987-451.83	1,2 KOhm / 1/6 W	(!)
R 728		75987-451.83	1,2 KOhm / 1/6 W	(!)
R 729		75987-451.84	10 OHm / 1/6 W	(!)
R 730		75987-451.84	10 Ohm / 1/6 W	(!)
R 731		75987-451.84	10 Ohm / 1/6 W	(!)
R 732		75987-451.84	10 Ohm / 1/6 W	(!)
R 733		75987-451.85	180 Ohm / 1 W	(!)
R 734		75987-451.85	180 Ohm / 1 W	(!)
R 735		75987-451.86	10 Ohm / 1/4 W	(!)
R 736		75987-451.86	10 Ohm / 1/4 W	(!)
R 737		75987-451.86	10 Ohm / 1/4 W	(!)
R 738		75987-451.86	10 Ohm / 1/4 W	(!)
R 739		75987-451.86	10 OHm / 1/4 W	(!)
R 740		75987-451.86	10 Ohm / 1/4 W	(!)
R 741		75987-451.86	10 Ohm / 1/4 W	(!)
R 742		75987-451.86	10 Ohm / 1/4 W	(!)
R 743		75987-451.87	0,18 Ohm / 3 W	(!)
R 744		75987-451.87	0,18 Ohm / 3 W	(!)
R 745		75987-451.87	0,18 Ohm / 3 W	(!)
R 746		75987-451.87	0,18 Ohm / 3 W	(!)
R 747		75987-451.87	0,18 Ohm / 3 W	(!)
R 748		75987-451.87	0,18 Ohm / 3 W	(!)
R 749		75987-451.87	0,18 Ohm / 3 W	(!)
R 750		75987-451.87	0,18 Ohm / 3 W	(!)
R 751		75987-451.88	22 Ohm / 1/6 W	(!)
R 752		75987-451.88	22 Ohm / 1/6 W	(!)
R 753		75987-451.89	220 Ohm / 1/4 W	(!)
R 754		75987-451.89	220 Ohm / 1/4 W	(!)
R 755		75987-451.90	10 Ohm / 1/4 W	(!)
R 756		75987-451.90	10 Ohm / 1/4 W	(!)
R 781		75987-451.91	1 Ohm / 1/4 W	(!)
R 782		75987-451.91	1 Ohm / 1/4 W	(!)
R 801		75987-451.92	1,2 Ohm / 1/2 W	(!)
R 802		75987-451.93	22 Ohm / 1/2 W	(!)
R 805		75987-451.92	1,2 Ohm / 1/2 W	(!)
R 806		75987-451.93	22 Ohm / 1/2 W	(!)
R 807		75987-451.82	10 Ohm / 1/2 W	(!)
R 809		75987-451.94	180 Ohm / 2 W	(!)
R 810		75987-451.94	180 OHm / 2 W	(!)
R 811		75987-451.95	47 Ohm / 1/2 W	(!)
R 812		75987-451.96	47 Ohm / 1/2 W	(!)
R 813		75987-451.95	47 Ohm / 1/2 W	(!)
R 814		75987-451.96	47 Ohm / 1/2 W	(!)



CK 01	75987-451.09	1 uF / 50 V
CN 01	75987-451.10	4,7 uF / 50 V
CK 02	75987-451.09	1 uF / 50 V
CN 02	75987-451.11	4,7 uF / 50 V
CE 03	75987-451.01	270 uF / 50 V
CE 04	75987-451.01	270 pF / 50 V
CN 04	75987-451.12	47 uF / 10 V
CN 05	75987-452.39	47 uF / 10 V
CE 07	75987-451.02	33 uF / 10 V
CK 07	75987-451.10	4,7 uF / 50 V
CE 08	75987-451.02	33 uF / 10 V
CK 08	75987-451.10	4,7 uF / 50 V
CV 09	75987-451.14	470 UF / 25 V
CV 10	75987-451.14	470 uF / 25 V
CV 11	75987-451.14	470 uF / 25 V
CV 12	75987-451.14	470 uF / 25 V
CV 13	75987-451.14	470 uF / 25 V
CV 14	75987-451.14	470 uF / 25 V
CE 15	75987-451.04	220 uF / 50 V
CV 15	75987-451.14	470 uF / 25 V
CE 16	75987-451.04	220 uF / 50 V
CV 16	75987-451.14	470 uF / 25 V
CV 17	75987-451.14	470 uF / 50 V
CV 18	75987-451.14	470 uF / 50 V
CV 19	75987-451.14	470 uF / 50 V
CV 20	75987-451.14	470 uF / 50 V
CJ 31	75987-451.09	1 uF / 50 V
CK 31	75987-451.09	1 uF / 50 V
CJ 32	75987-451.09	1 uF / 50 V
CK 32	75987-451.09	1 uF / 50 V
CJ 37	75987-451.10	4,7 uF / 25 V
CK 37	75987-451.10	4,7 uF / 25 V
CJ 38	75987-451.10	4,7 uF / 25 V
CK 38	75987-451.10	4,7 uF / 25 V
CE 51	75987-451.05	0,047 uF / 50 V
CK 51	75987-451.05	0,047 uF / 50 V
CJ 51	75987-451.09	1 uF / 50 V
CS 51	75987-451.13	0,082 uF
CE 52	75987-451.05	0,047 uF / 50 V
CK 52	75987-451.05	0,047 uF / 50 V
CJ 52	75987-451.09	1 uF / 50 V
CS 52	75987-451.13	0,082 uF
CE 55	75987-451.06	0,015 uF / 50 V
CE 56	75987-451.06	0,015 uF / 50 V
CJ 57	75987-451.10	4,7 uF / 25 V
CK 57	75987-451.10	4,7 uF / 25 V
CJ 58	75987-451.10	4,7 uF / 25 V
CK 58	75987-451.10	4,7 uF / 25 V
CE 59	75987-451.07	39 pF
CE 60	75987-451.07	39 pF
CE 61	75987-451.08	470 uF
CE 62	75987-451.08	470 uF
CK 71	75987-451.09	1 uF / 50 V
CK 72	75987-451.09	1 uF / 50 V
CK 77	75987-451.10	4,7 uF / 25 V
CK 78	75987-451.10	4,7 uF / 25 V
C 401	75987-451.14	470 uF / 25 V
C 402	75987-451.14	470 uF / 25 V
C 451	75987-451.03	0,0033 uF / 50 V
C 452	75987-451.03	0,0033 uF / 50 V
C 456	75987-451.05	0,047 uF / 50 V
C 461	75987-451.15	510 uF / 10 V
C 462	75987-451.15	510 uF / 10 V
C 463	75987-451.16	22 uF / 50 V
C 464	75987-451.16	22 uF / 50 V
C 467	75987-452.39	51 uF / 10 V
C 468	75987-452.39	51 uF / 10 V
C 701	75987-451.17	10 uF / 50 V
C 702	75987-451.17	10 uF / 50 V

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Pos. No.	Fig. No.	Bestell-Nr. Part No. Réf. Nr. d'ordinazioni	Benennung Description Désignation Denominazione
C 703		75987-451.18	100 uF / 50 V
C 704		75987-451.18	100 uF / 50 V
C 705		75987-451.19	100 uF / 100 V
C 706		75987-451.19	100 uF / 100 V
C 713		75987-451.20	100 uF / 16 V
C 714		75987-451.20	100 uF / 16 V
C 715		75987-451.21	15 pF / 125 V
C 716		75987-451.21	15 pF / 125 V
C 717		75987-451.22	100 pF / 125 V
C 718		75987-451.22	100 pF / 125 V
C 719		75987-451.22	100 pF / 125 V
C 720		75987-451.22	100 pF / 125 V
C 721		75987-451.23	0,22 uF / 50 V
C 722		75987-451.23	0,22 uF / 50 V
C 723		75987-451.23	0,22 uF / 50 V
C 724		75987-451.23	0,22 uF / 50 V
C 729		75987-451.19	100 uF / 100 V
C 730		75987-451.19	100 uF / 100 V
C 783		75987-451.24	6800 uF / 71 V
C 784		75987-451.24	6800 uF / 71 V
C 785		75987-451.24	6800 uF / 71 V
C 786		75987-451.24	6800 uF / 71 V
C 787		75987-451.25	470 uF / 400 V
C 788		75987-451.25	470 uF / 400 V
C 803		75987-451.26	1000 uF / 35 V
C 804		75987-451.27	330 uF / 35 V
C 805		75987-451.04	220 uF / 25 V
C 806		75987-451.26	1000 uF / 35 V
C 807		75987-451.27	330 uF / 35 V
C 808		75987-451.04	220 uF / 35 V
C 809		75987-355.85	100 uF / 10 V
C 810		75987-451.28	47 uF / 50 V
C 811		75987-452.37	22 uF / 25 V
C 812		75987-451.28	47 uF / 50 V
C 813		75987-452.37	22 uF / 25 V
C 901		75987-452.38	0,01 uF / 400 V

Pos. No.	Fig. No.	Bestell-Nr. Part No. Réf. Nr. d'ordinazioni	Benennung Description Désignation Denominazione

VY 01		75987-452.06	8 V / 50 MA
VZ 01		75987-452.07	8 V / 50 MA
VY 02		75987-452.06	8 V / 50 MA
VZ 02		75987-452.07	8 V / 50 MA
VY 03		75987-456.06	8 V / 50 MA
VZ 03		75987-452.07	8 V / 50 MA
VY 04		75987-452.06	8 V / 50 MA
VY 05		75987-452.06	8 V / 50 MA

F 001		75987-451.34	3,15 A/T / 250 V

Bedienungsanleitung
Instuction book
Mode d'emploi
Instruzioni d'uso
72010-706.95

Serviceanleitung
Service manual
Instructions de service
Manuale di servizio
72010-706.35

Bauteilhinweis:
(!) Hinweis:
Bauelemente nach VDE-bzw. IEC-Richtlinien.
Im Ersatzfall nur Teile mit gleicher Spezifikation verwenden!
Notes on components (!) Cautions:
Components to VDE or IEC quidelines. Only use components with the same specification for replacement!
(!) attention:
Composants conformes aux prescriptions vde et iec.
en cas de replacement n'utiliser que des compos. de memes specifications!
(!) nota:
Componenti secondo le norme vde risp. te iec. in caso di sostituzione impiegaresolo componenti con le stesse caratteristiche!

Endstufen - Ruhestrom - Einstellung

1. Meßpunkte
   Linker Kanal: TP - 1 (-), TP - 2 (+)
   Rechter Kanal: TP - 3 (-), TP - 4 (+)

2. Abgleichpunkte
   Linker Kanal: Einstellregler R 719 (2,2 kΩ)
   Rechter Kanal: Einstellregler R 720 (2,2 kΩ)

3. Abgleich
   Digitalvoltmeter an den Meßpunkten anschließen (Lautstärke auf 0 drehen).
   Nach Einschalten des Gerätes folgende Werte einstellen:
   30 sec. nach Einschalten des Gerätes: 22 - 23 mV
   1 min nach Einschalten des Gerätes:24 - 25 mV
   Beim Abgleich eines aufgeheizten Gerätes das Gerät ca. 10 Minuten im Leerlauf betreiben und dann auf ca. 28 mV abgleichen.

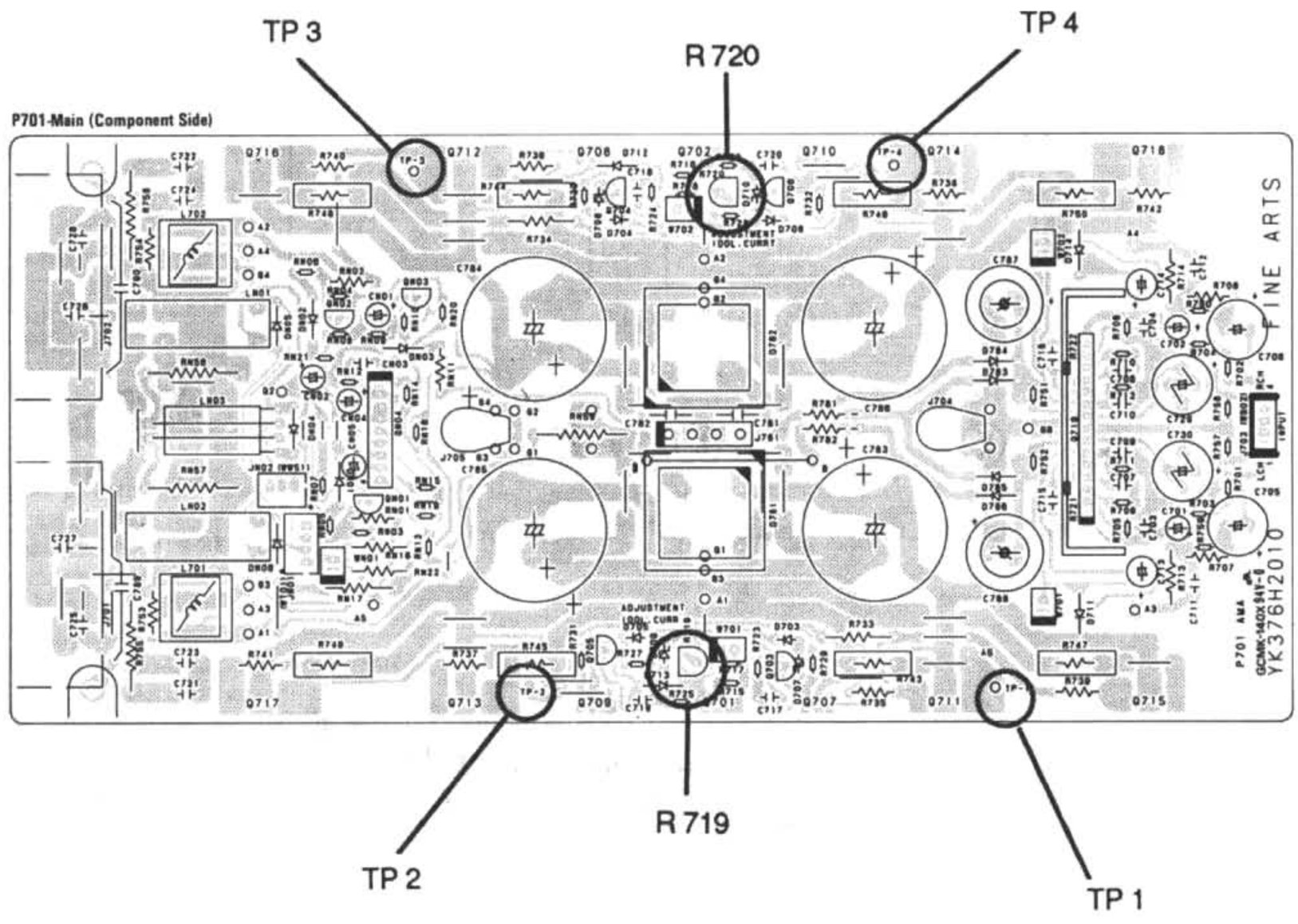
Main Amplifier Idling Adjustment

1. Test Points
   Left channel: TP - 1 (-), TP - 2 (+)
   Right channel: TP - 3 (-), TP - 4 (+)

2. Adjustment Points
   Left channel: R 719 semi - fixed resistor (2,2 kΩ)
   Right channel: R 720 semi - fixed resistor (2,2 kΩ)

3. Procedure
   Connect a DC digital voltmeter to the test points, observing the polarity (set main volume to zero load).
   After turning power on, adjust to the following values:
   30 sec. after power on: 22 to 23 mV
   1 min. after power on: 24 to 25 mV
   When readjusting a heated-up unit, leave it in the idling condition for about 10 minutes and then adjust it to approx. 28 mV.

P701-Main (Component Side)



Druckplatten
Der A 9000 besteht aus folgenden Einheiten:

1.	Lautstärkeregler	Leiterplatte PG 01
2.	Klangregler	Leiterplatte PG 51
3.	Tape Monitor	Leiterplatte PJ 01
4.	Tape 1 Eingangsverstärker	Leiterplatte PJ 31
5.	Tape 2 Eingangsverstärker	Leiterplatte PJ 51
6.	CD - Eingangsverstärker	Leiterplatte PK 01
7.	Video - Eingangsverstärker	Leiterplatte PK 31
8.	Tuner - Eingangsverstärker	Leiterplatte PK 51
9.	Aux - Eingangsverstärker	Leiterplatte PK 71
10.	Fronttasten/Klangregelung	Leiterplatte PS 01
11.	Selection/Record out Wahlschalter	Leiterplatte PV 01
12.	Kopfhörerbuchse	Leiterplatte PW 51
13.	LED - Display	Leiterplatte PY 01
14.	Netzschalter - Anzeige - LED	Leiterplatte PY 51
15.	Lautstärkeanzeigelampe	Leiterplatte PZ 01
16.	Phono - Eingangsverstärker	Leiterplatte P 451
17.	Phono MC/MM - Schalter	Leiterplatte P 481
18.	Hauptplatte	Leiterplatte P 701
19.	Netzteil	Leiterplatte P 801
20.	Netzschalter	Leiterplatte P 901

Jede Einheit, die auf einer Druckplatte aufgebaut ist, ist im Schaltbild von einer gestrichelten Linie umgeben.

P.W. Boards
The chassis of Model A 9000 consists of the following units:

1.	Master Volume	P.W. Board PG 01
2.	Tone Volume	P.W. Board PG 51
3.	Tape Monitor	P.W. Board PJ 01
4.	Tape 1 Buffer Amp.	P.W. Board PJ 31
5.	Tape 2 Buffer Amp.	P.W. Board PJ 51
6.	CD Buffer Amp.	P.W. Board PK 01
7.	Video Buffer Amp.	P.W. Board PK 31
8.	Tuner Buffer Amp.	P.W. Board PK 51
9.	Aux Buffer Amp.	P.W. Board PK 71
10.	Front Switch/Tone Amp.	P.W. Board PS 01
11.	Select/REC Out Mode	P.W. Board PV 01
12.	Headphone	P.W. Board PW 51
13.	LED Display	P.W. Board PY 01
14.	Power Switch/Indicator LED	P.W. Board PY 51
15.	Volume Indicator Lamp	P.W. Board PZ 01
16.	Phono Amp.	P.W. Board P 451
17.	Phono MC/MM Switch	P.W. Board P 481
18.	Main	P.W. Board P 701
19.	Power Supply	P.W. Board P 801
20.	Power Switch	P.W. Board P 901

Each unit mounted on a printed circuit board is descripted within the square enclosed by a bold dotted line on the circuit diagram.

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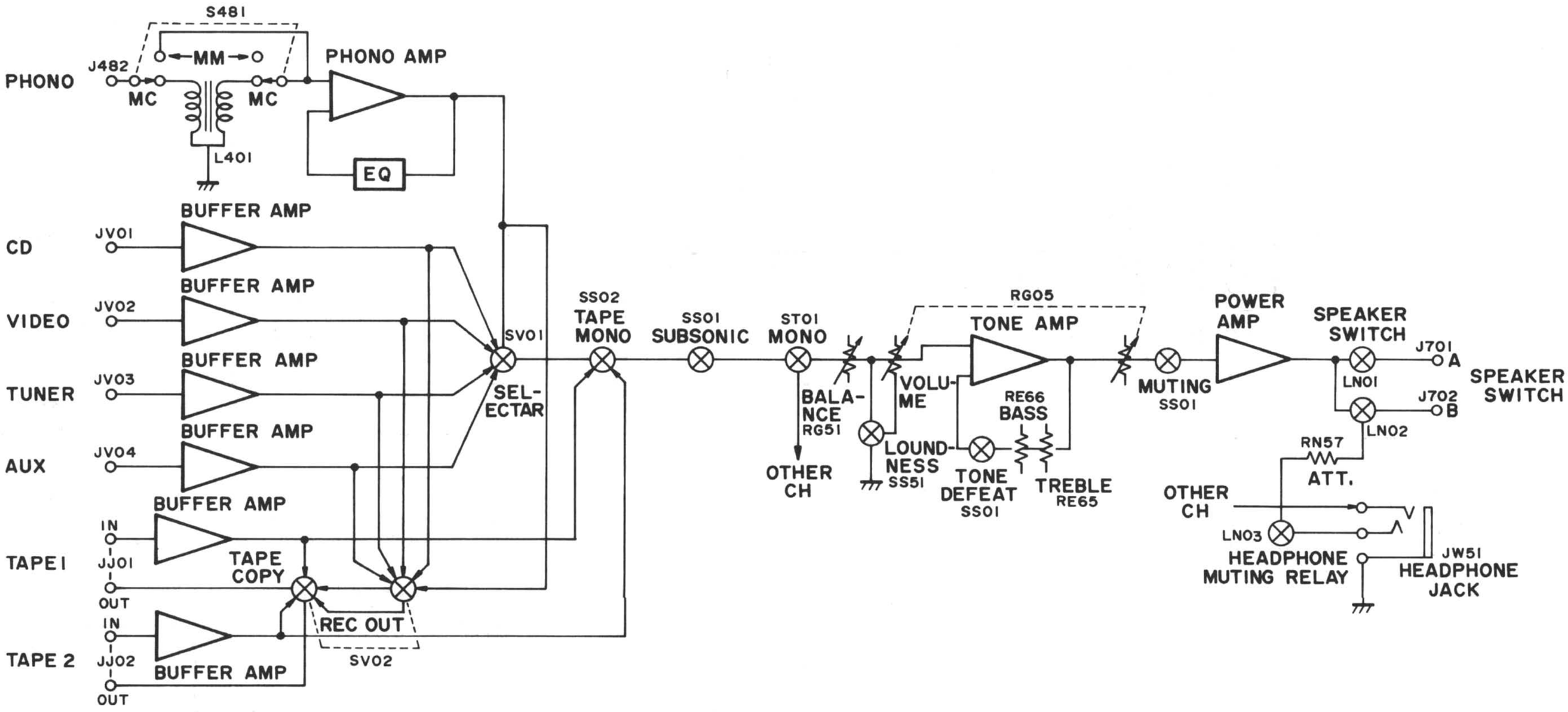
BLOCK DIAGRAM



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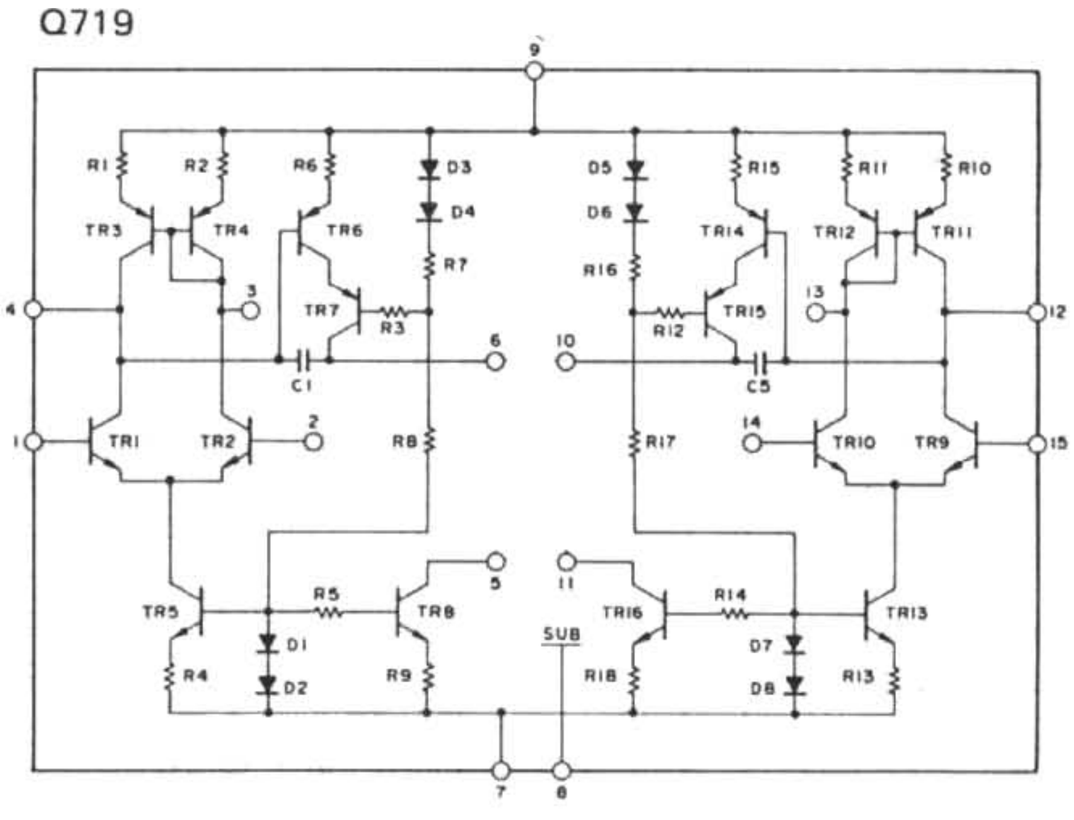

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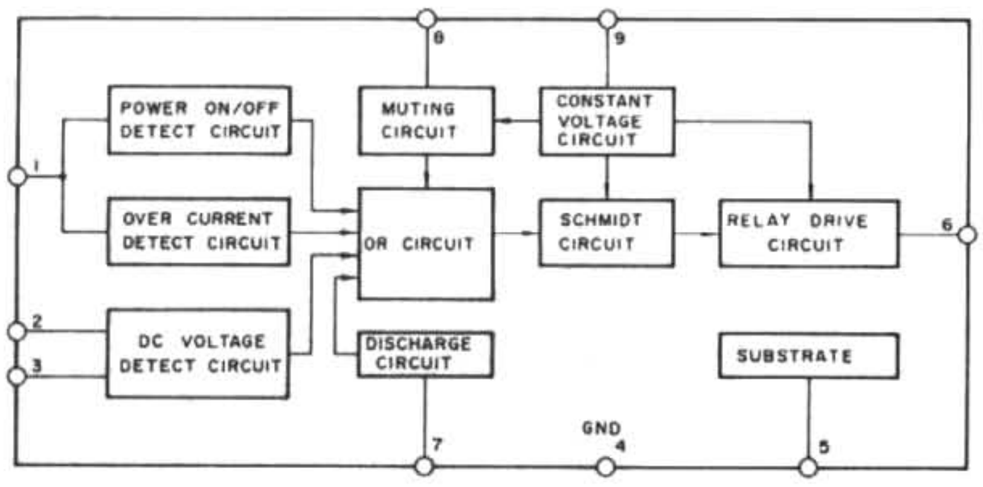

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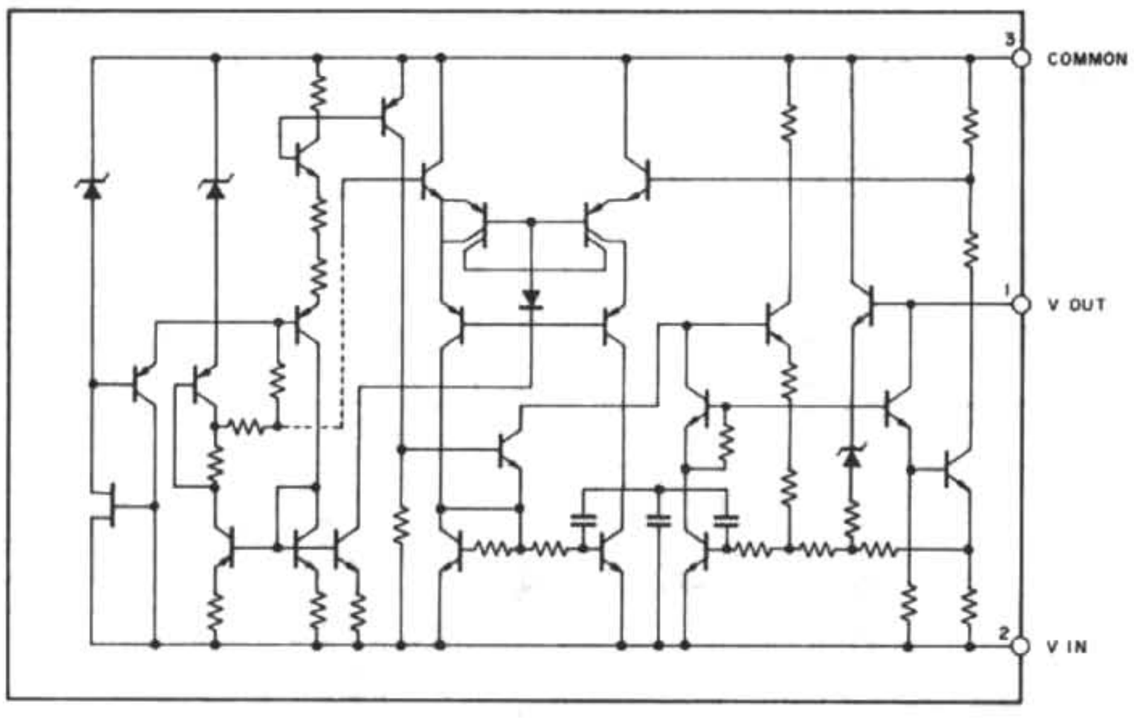

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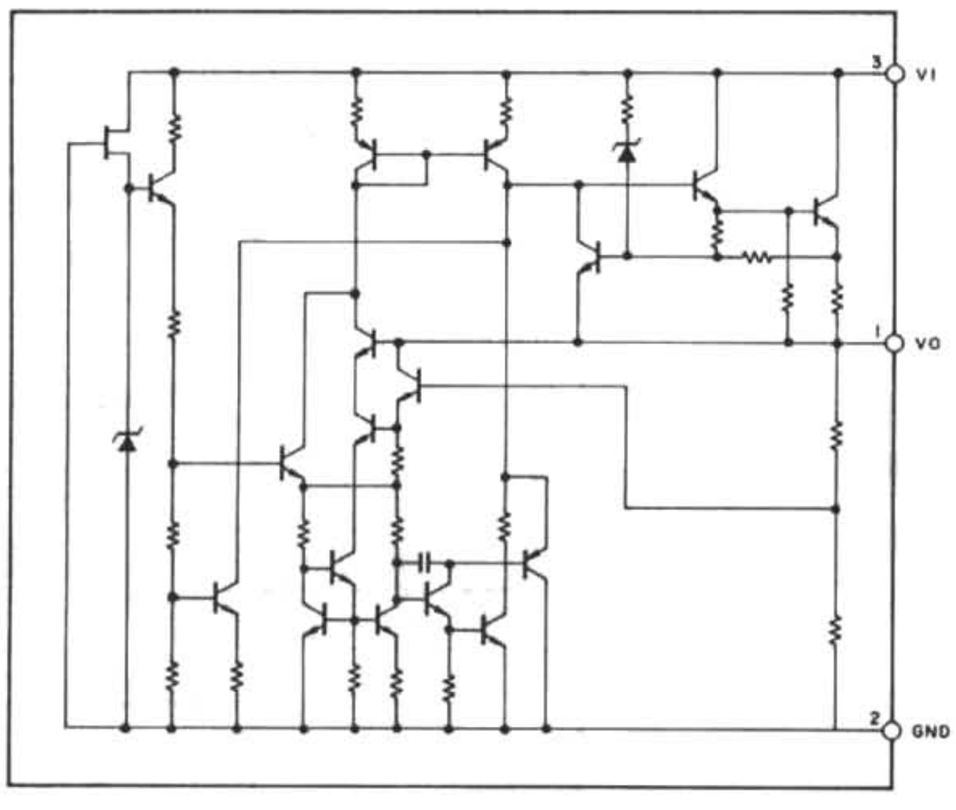

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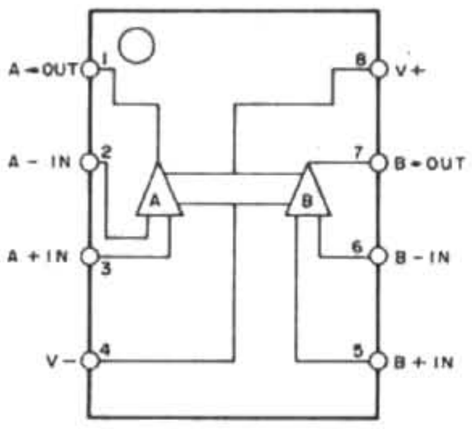

ACHTUNG! (D) — VORSCHRIFTEN BEIM UMGANG MIT MOS - BAUTEILEN BEACHTEN !

ATTENTION! (GB) — OBSERVE MOS COMPONENTS HANDLING INSTRUCTIONS WHEN SERVICING !

ATTENTION! (F) — LORS DE LA MANIPULATION DES CIRCUITS MOS , RESPECTER LES PESCRIPTIONS MOS !

ATTENZIONE! (I) — OSSERVARE LE RELATIVE PRESCRIZIONI DURANTE, LAVORI CON COMPONENTI MOS !

ATENCION! (E) — DURANTE LA REPARACION OBSERVAR LAS NORMAS SOBRE COMPONENTES MOS !

ACHTUNG: (D)

BEI EINGRIFFEN INS GERÄT SIND DIE SICHERHEITSVORSCHRIFTEN NACH VDE 701 (REPARATURBEZOGEN) BZW. VDE 0860 / IEC 65 (GERÄTEBEZOGEN) ZU BEACHTEN.

⚠ IM REPARATURFALL DÜRFEN NUR ORIGINALBAUTEILE VERWENDET WERDEN !.

ATTENTION: (GB)

PLEASE OBSERVE THE APPLICABLE SAFETY REQUIREMENTS ACCORDING TO VDE 701 (CONCERNING REPAIRS) AND VDE 0860 / IEC 65 (CONCERNING TYPE OF PRODUCT).

⚠ ONLY USE COMPONENTS WITH THE SAME SPECIFICATION FOR REPLACEMENT !

ATTENTION: (F)

PRIERE D' OBSERVER LES PRESCRIPTIONS DE SECURITE VDE 701 (CONCERNANT LES REPARATIONS) ET VDE 0860 / IEC 65 (CONCERNANT LE TYPE DE PRODUIT).

⚠ EN CAS REMPLACEMENT N' UTILISER QUE DES COMPOSANTS DES MEMES SPECIFICATIONS !

ATTENZIONE: (I)

OSSERVARNE LE CORRISPONDENTI PRESCRIZIONI DI SICUREZZA VDE 701 (CONCERNENTE SERVIZIO) E VDE 0860 / IEC 65 (CONCERNENTE IL TIPO DI PRODOTTO).

⚠ IN CASO DI SOSTITUZIONE IMPIEGARE SOLO COMPONENTICON LE STESSE CARATTERISTICHE !

ATENCION: (E)

RECOMENDAMOS LAS NORMAS DE SEGURIDAD VDE U OTRAS NORMAS EQUIVALENTES. POR EJEMPLO: VDE 701 PARA REPARACIONES, VDE 0860 / IEC 65 PARA APARATOS.

⚠ EN CASO DE REPARACION UTILIZAR UNICAMENTE REPUESTOS ORIGINALES !

Änderungen vorbehalten!
Subject to alteration!
Modifications reservees!
Con riserva di modifica!
Reservado el derecho de modificacion!

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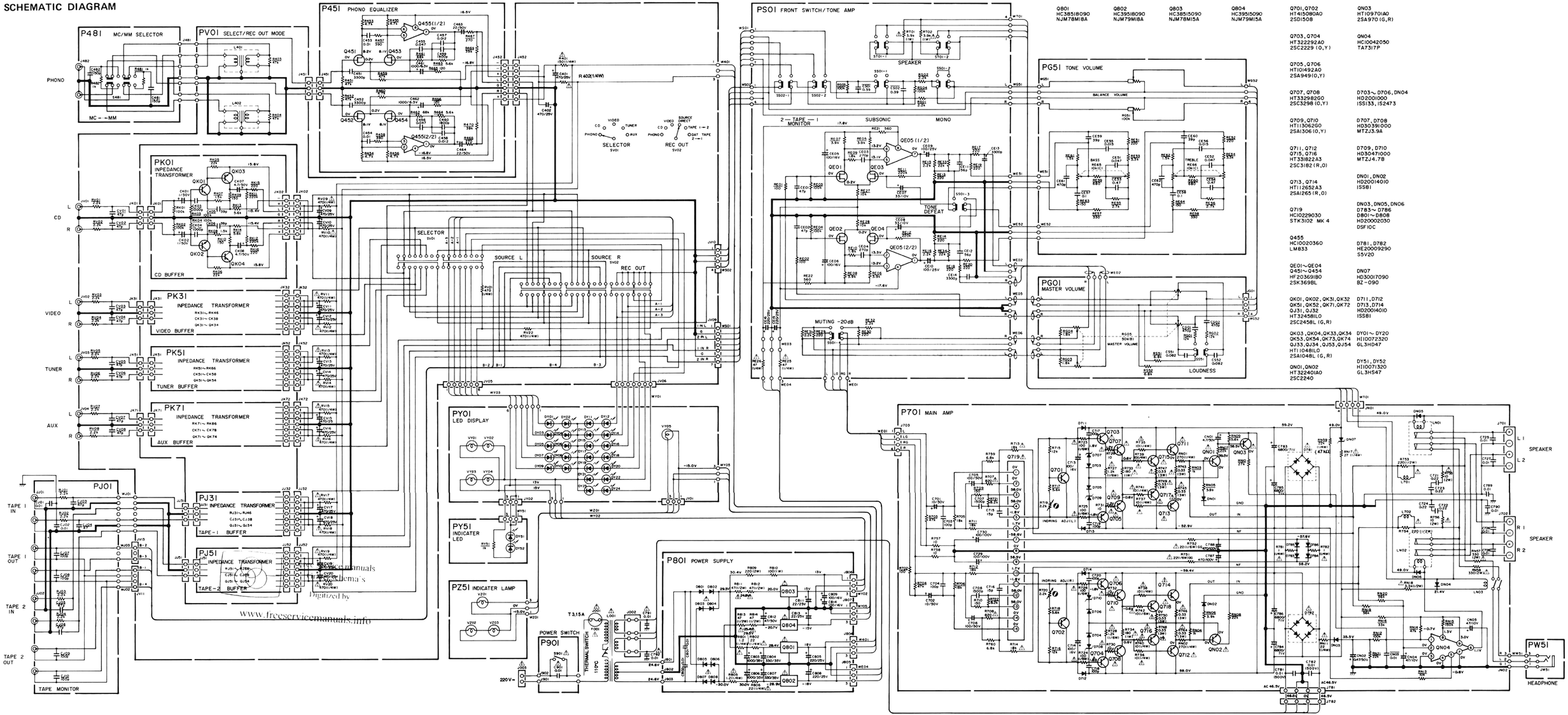
SCHEMATIC DIAGRAM



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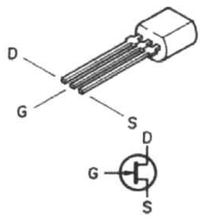

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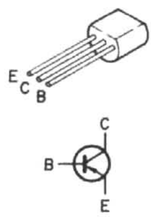

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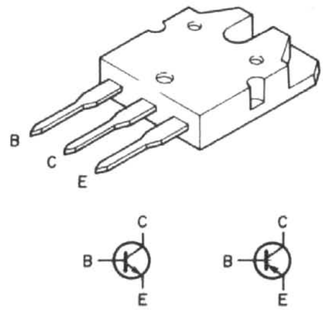

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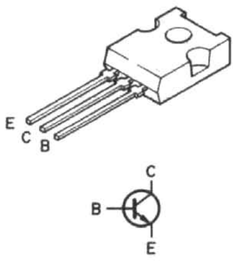

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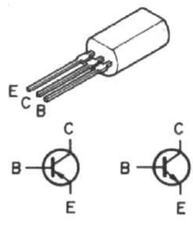

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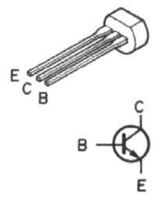

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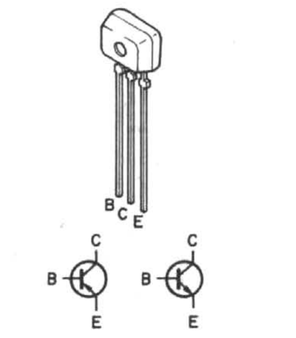

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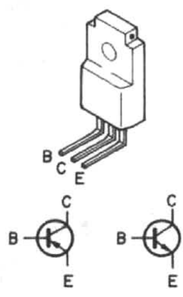

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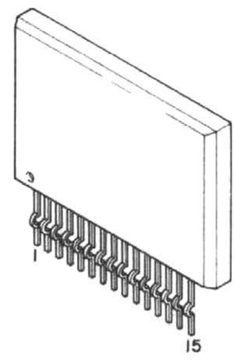

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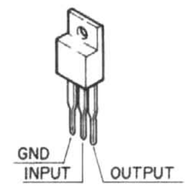

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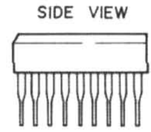

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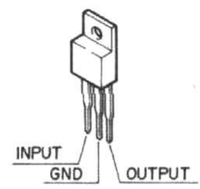

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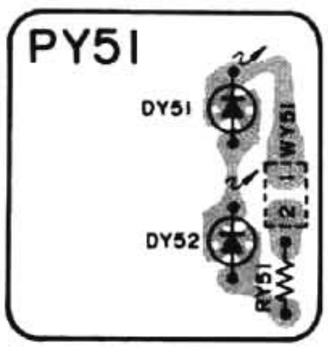
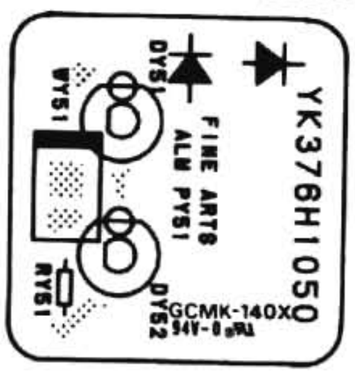
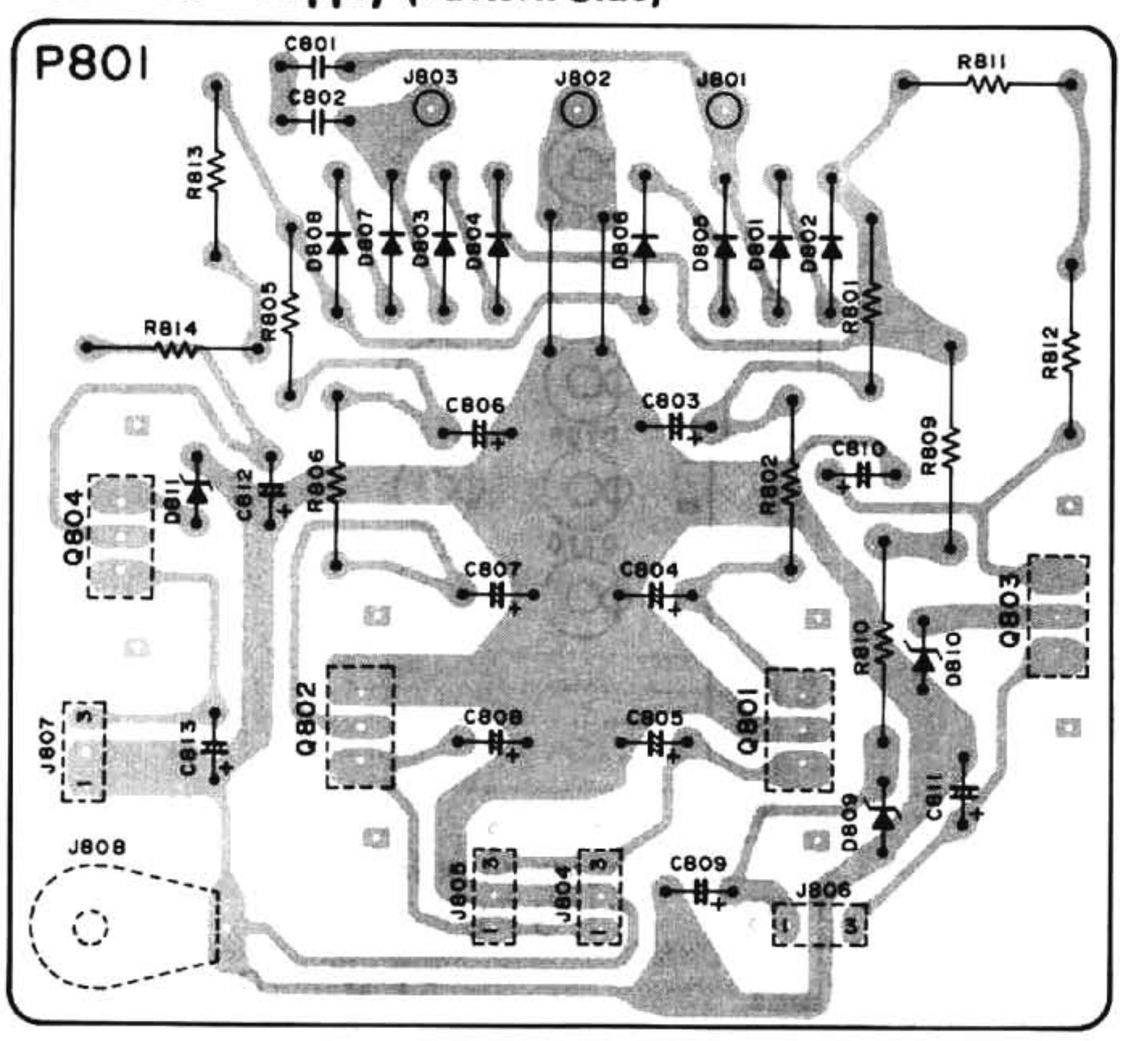
PY51-Power Switch/Indicator LED (Pattern Side)



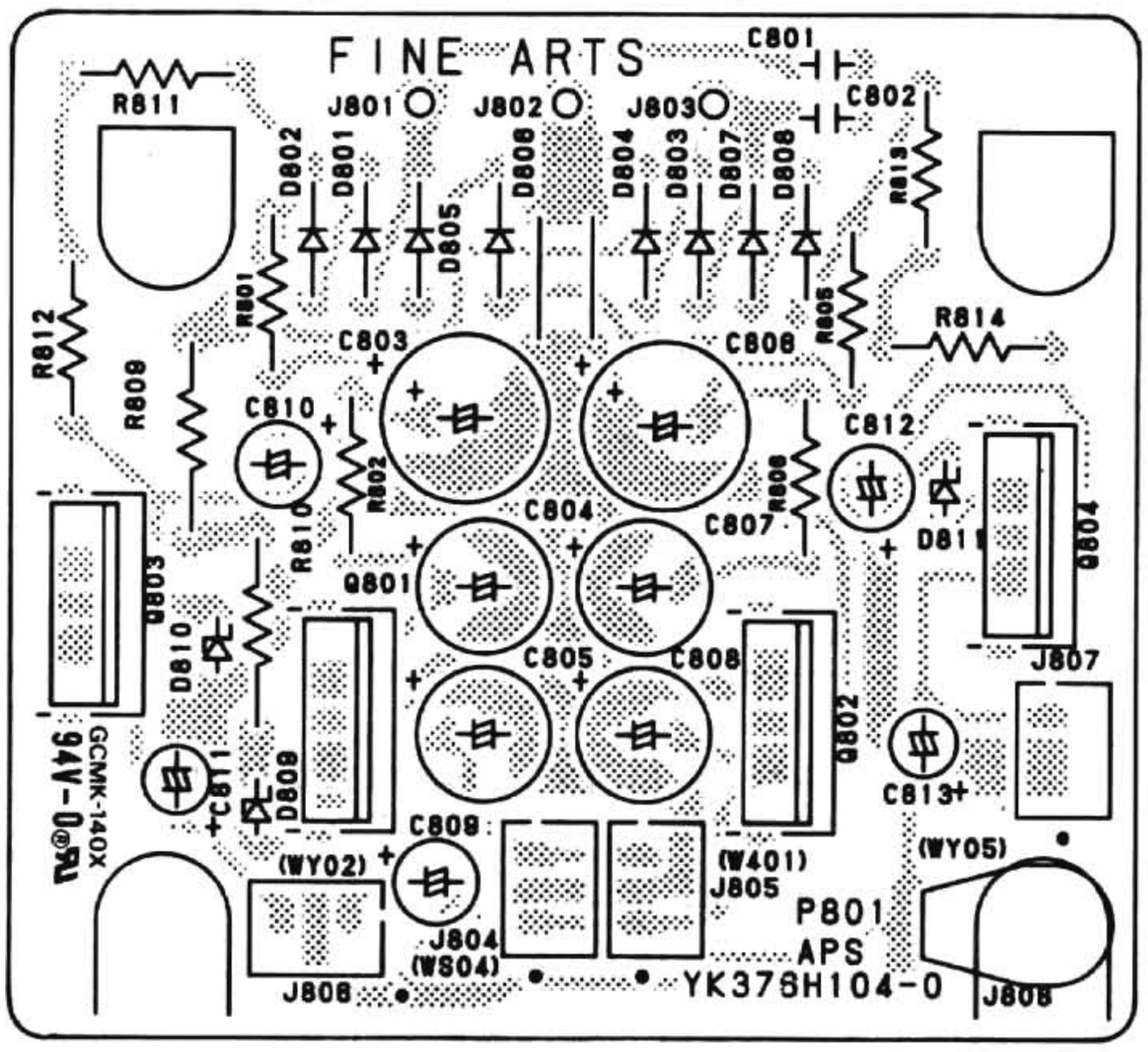
PY51-Power Switch/Indicator LED (Component Side)



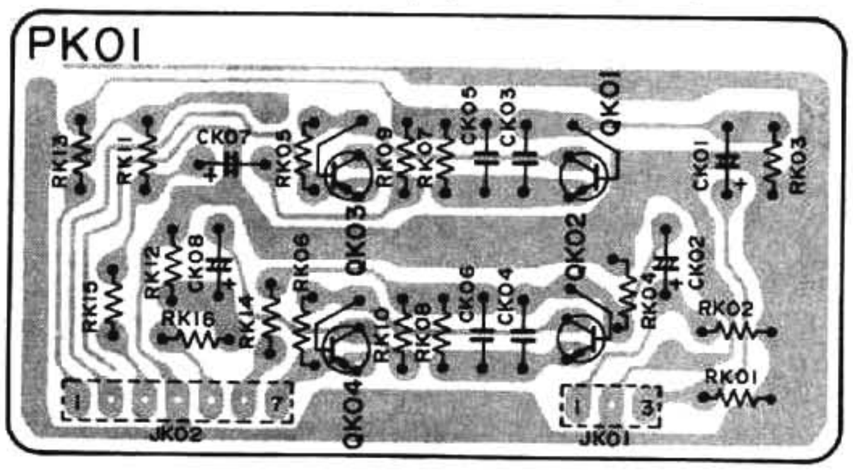
P801-Power Supply (Pattern Side)



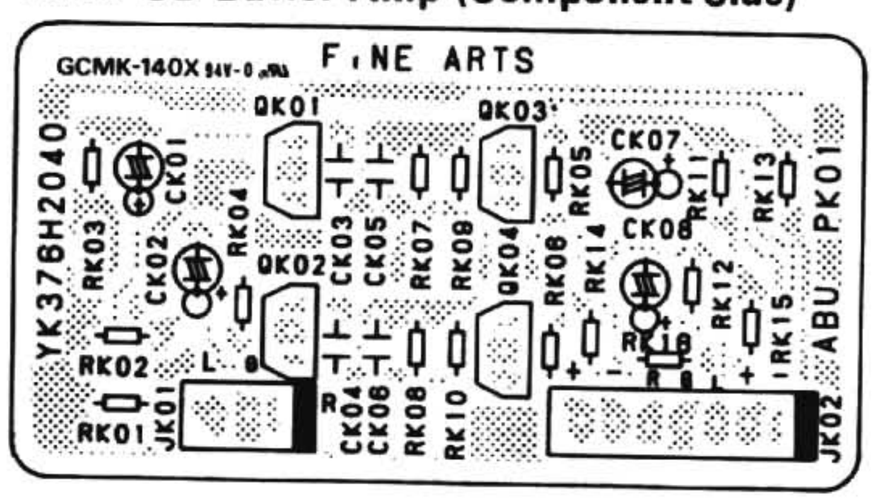
P801-Power Supply (Component Side)



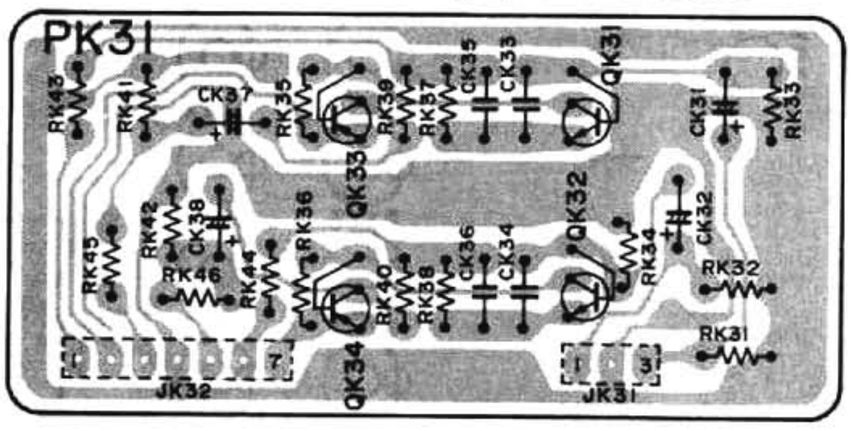
PK01-CD Buffer Amp (Pattern Side)



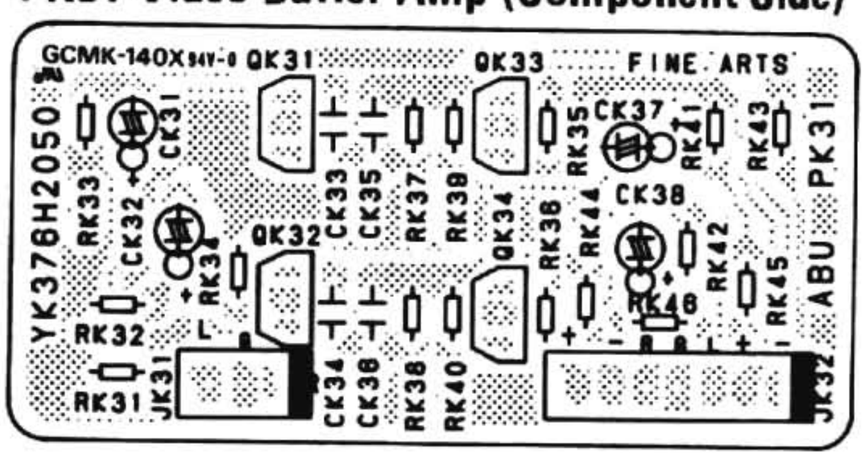
PK01-CD Buffer Amp (Component Side)



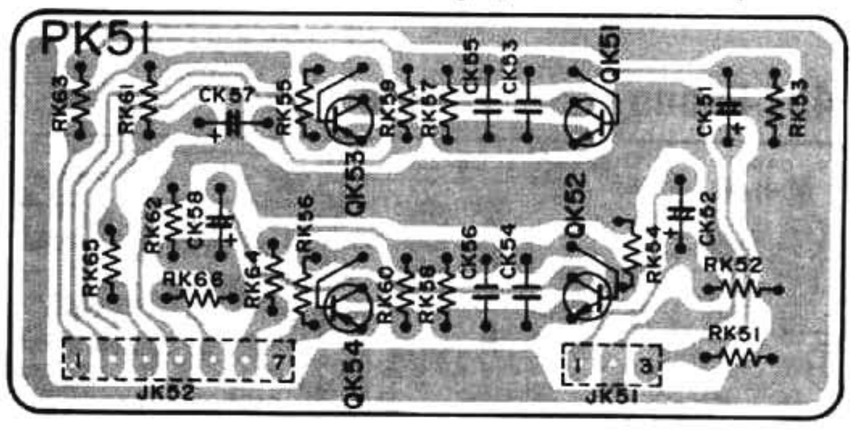
PK31-Video Buffer Amp (Pattern Side)



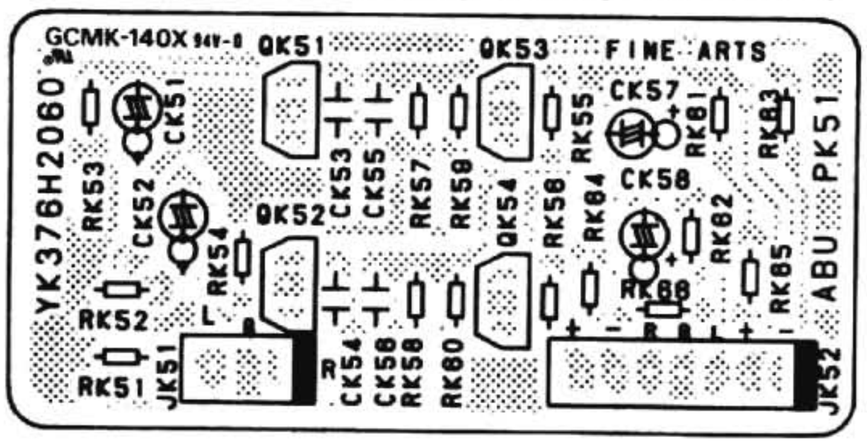
PK31-Video Buffer Amp (Component Side)



PK51-Tuner Buffer Amp (Pattern Side)



PK51-Tuner Buffer Amp (Component Side)



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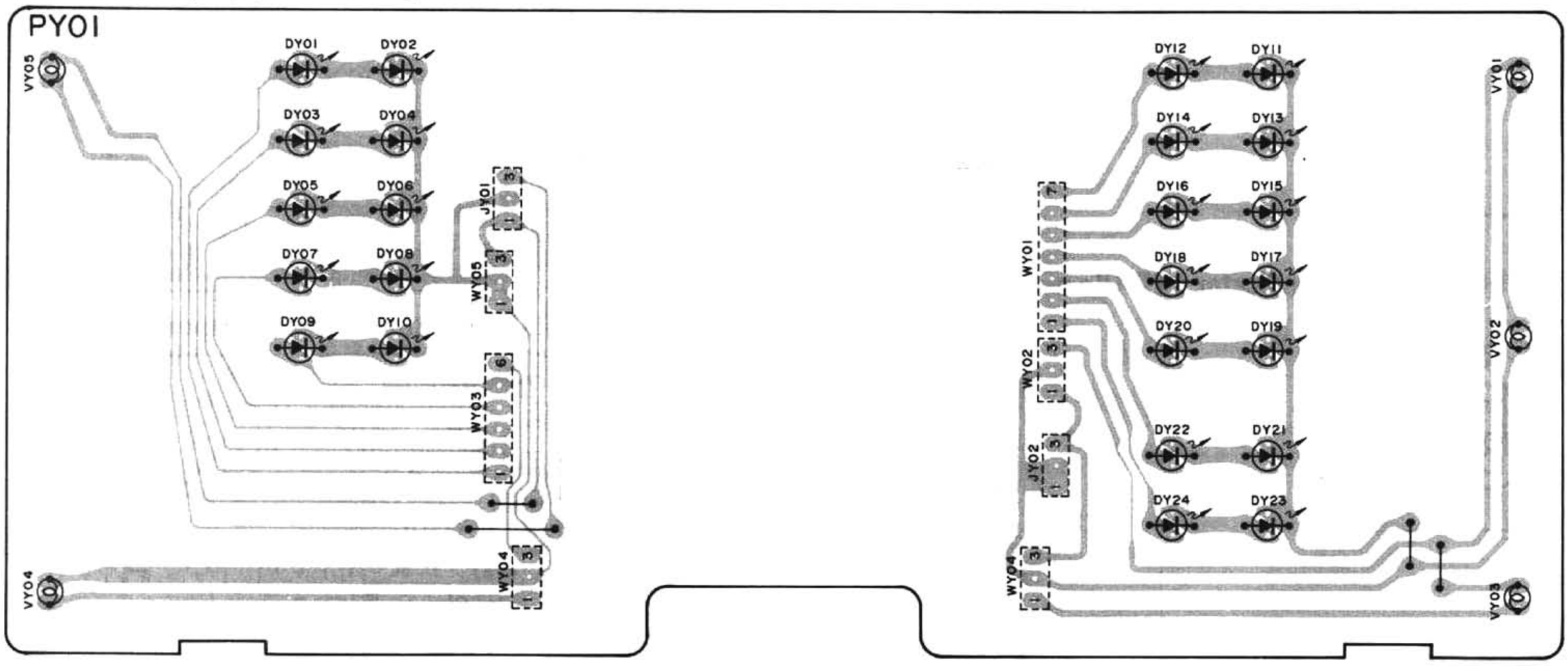
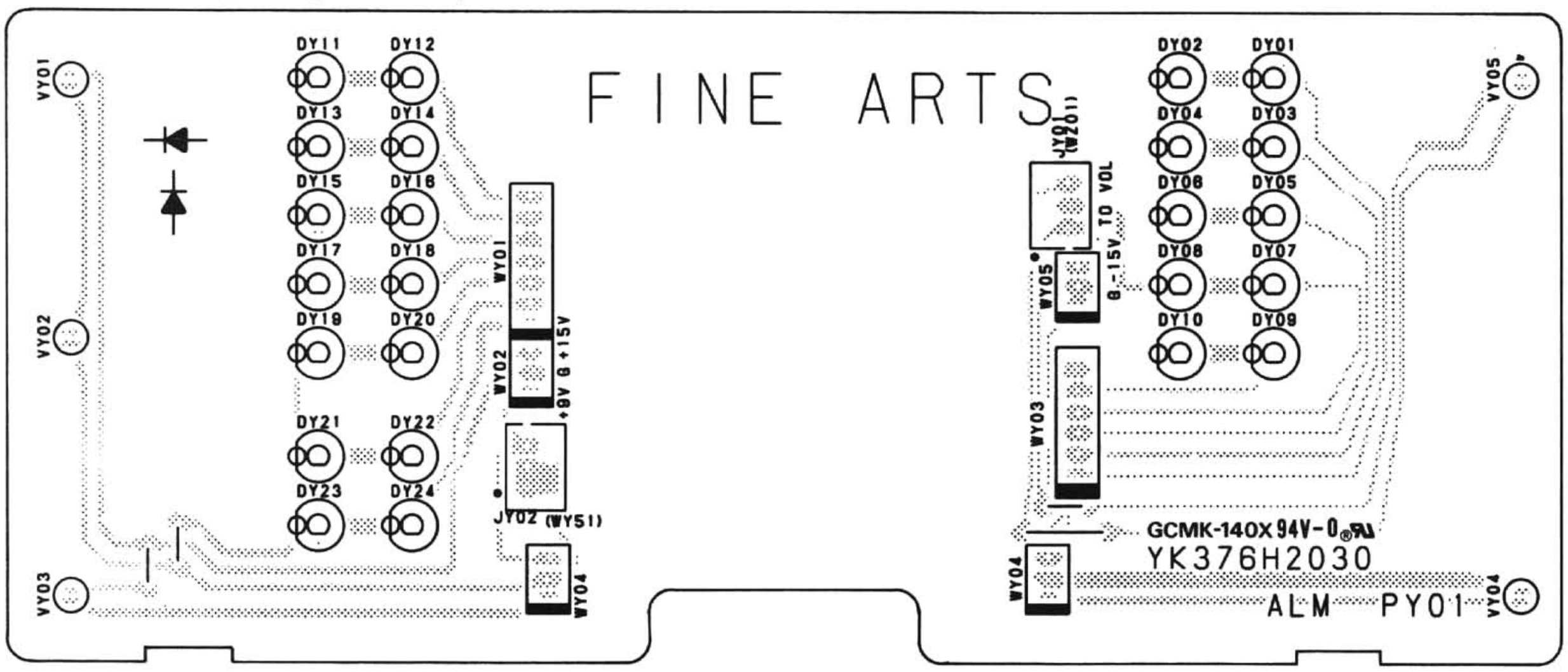
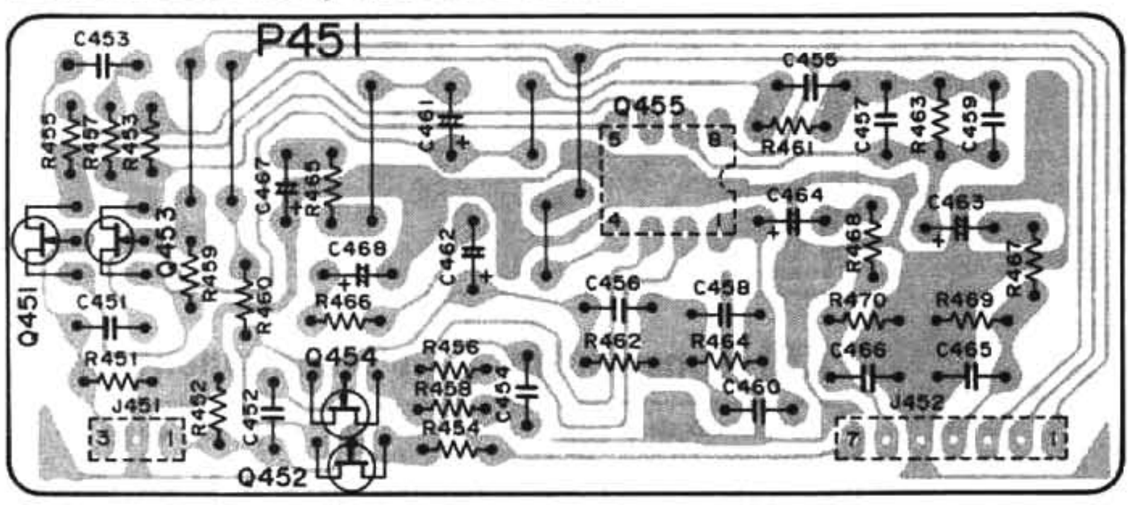
PY01-LED Display (Pattern Side)



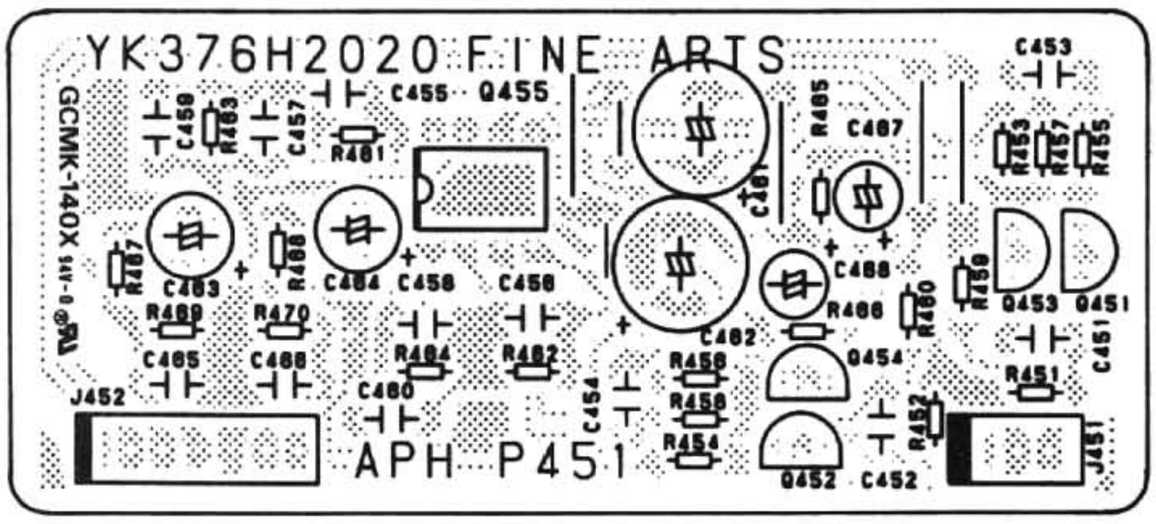
PY01-LED Display (Component Side)



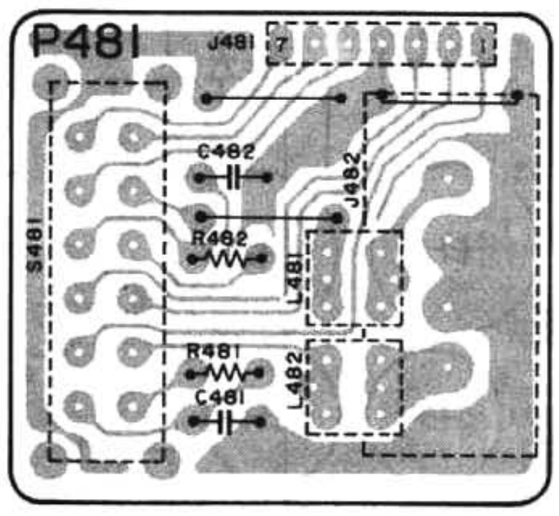
P451-Phono Amp (Pattern Side)



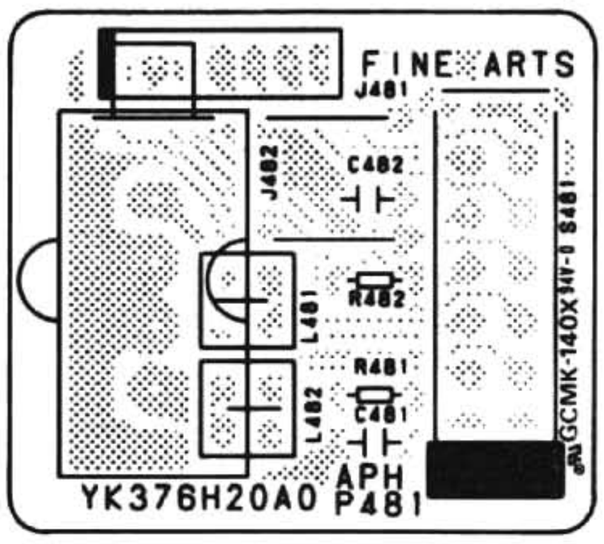
P451-Phono Amp (Component Side)



P481-Phono MC/MM Switch (Pattern Side)

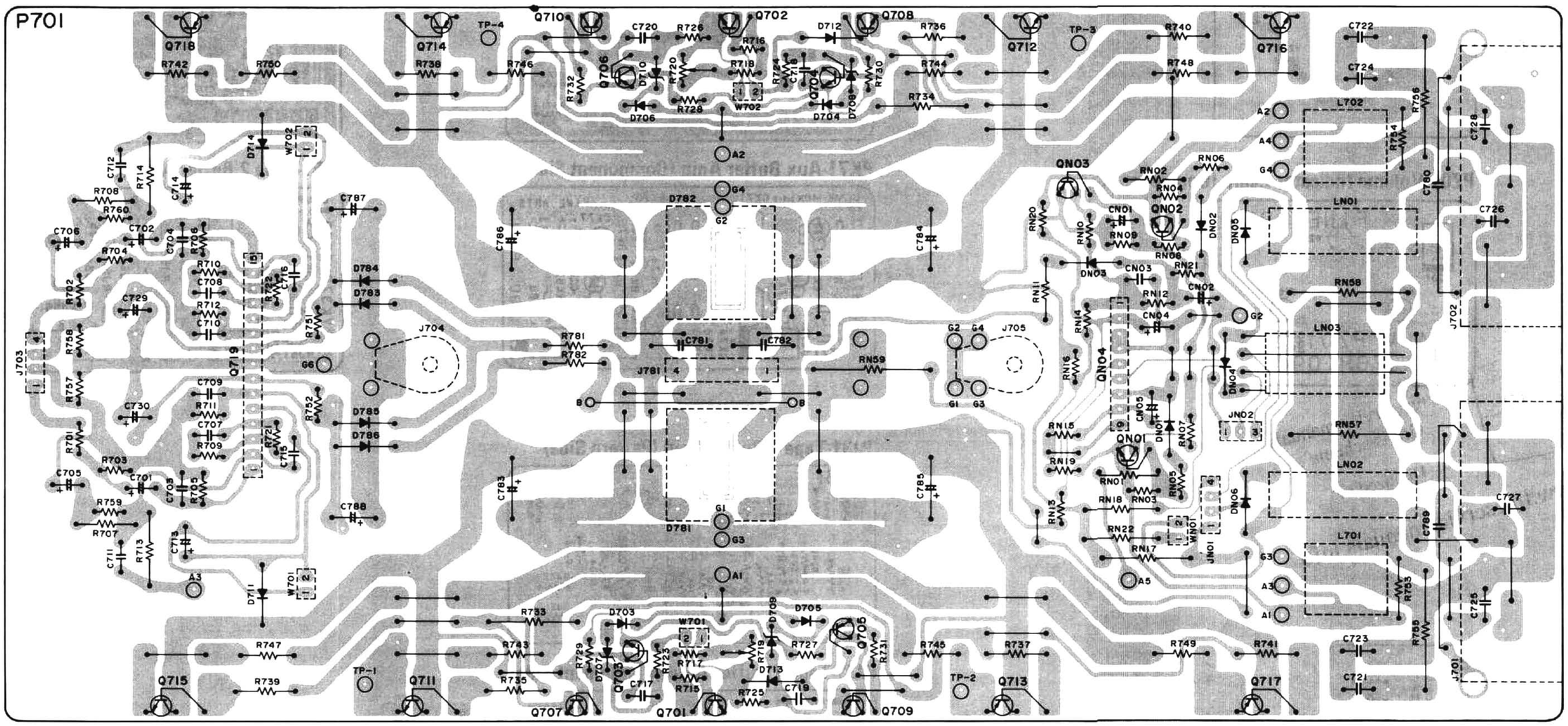


P481-Phono MC/MM Switch (Component Side)

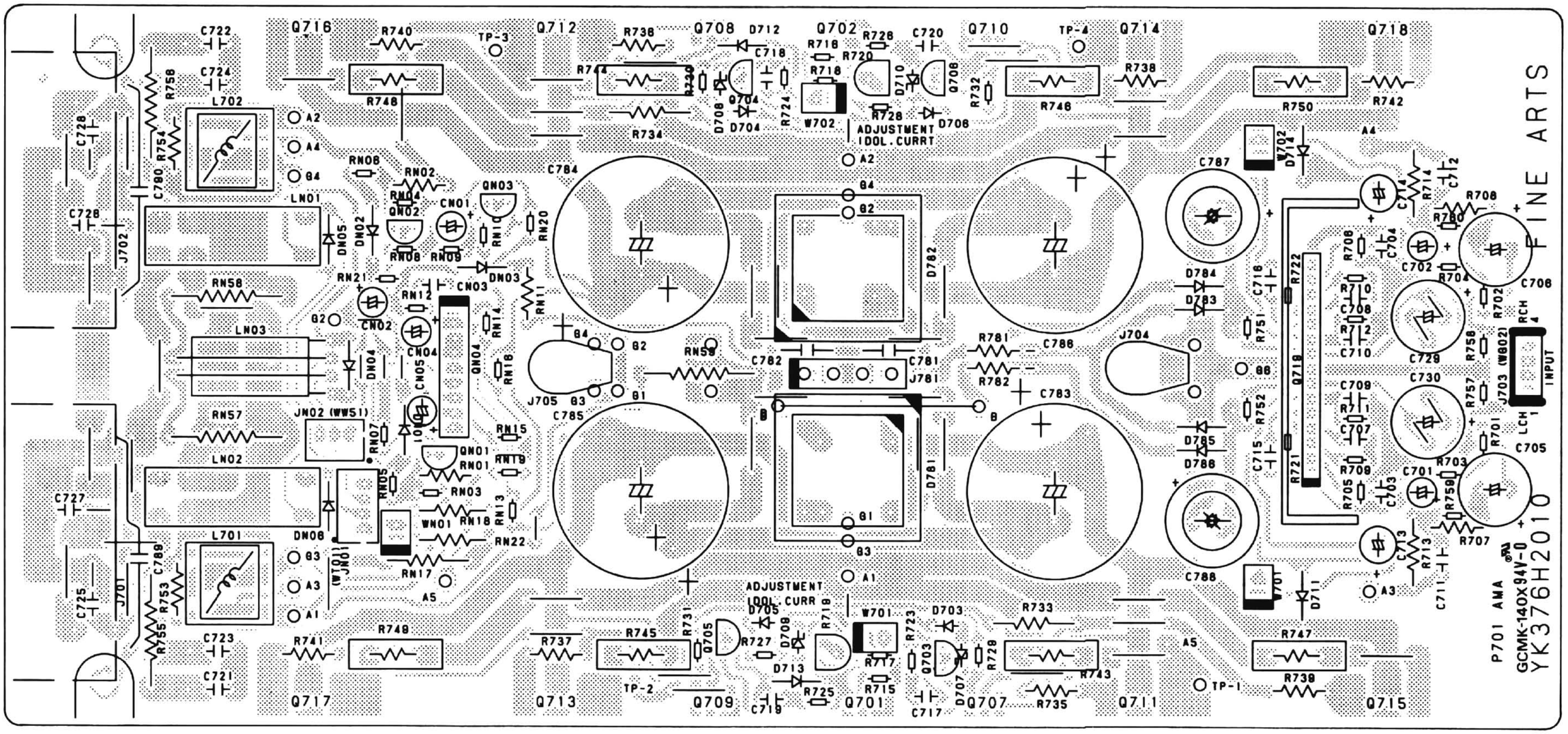


COMPONENT LOCATIONS

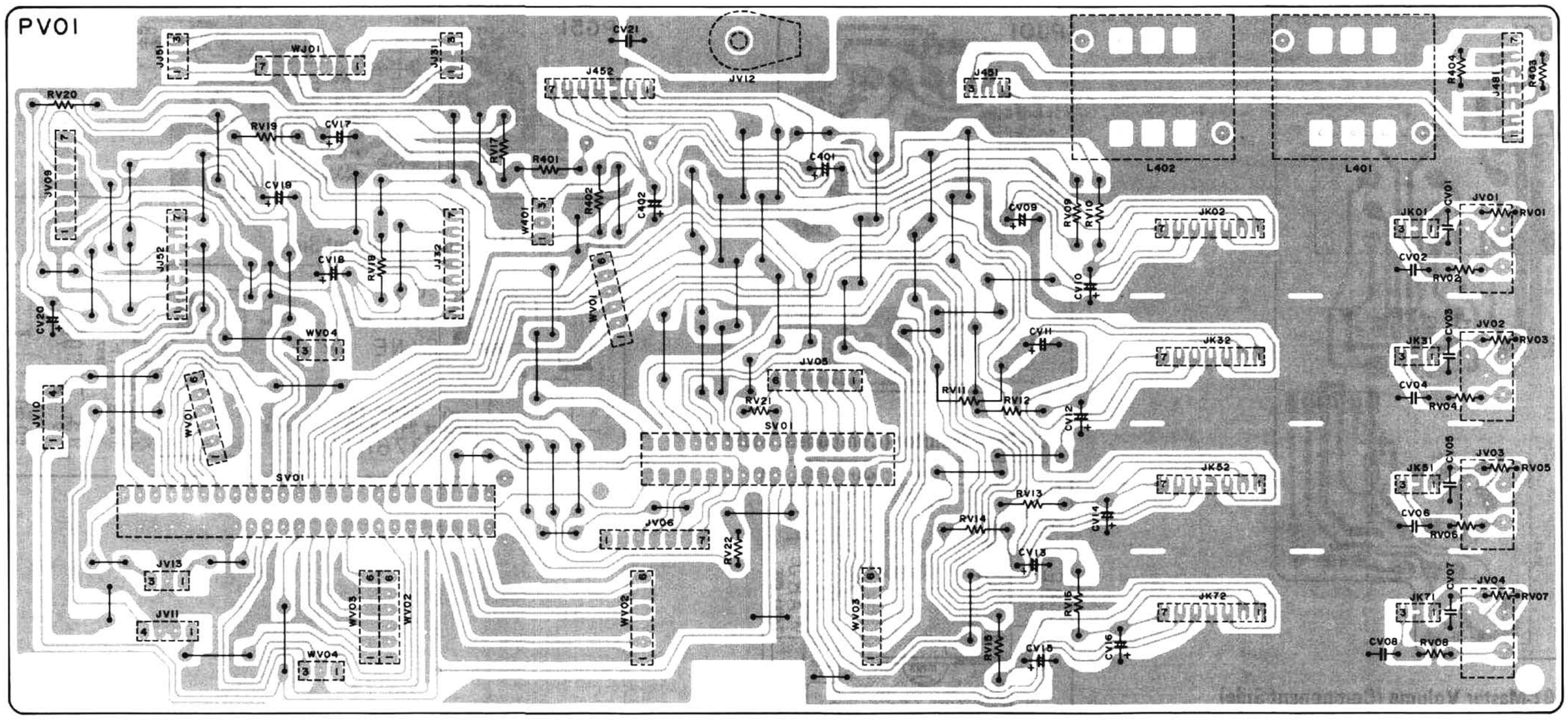
P701-Main (Pattern Side)



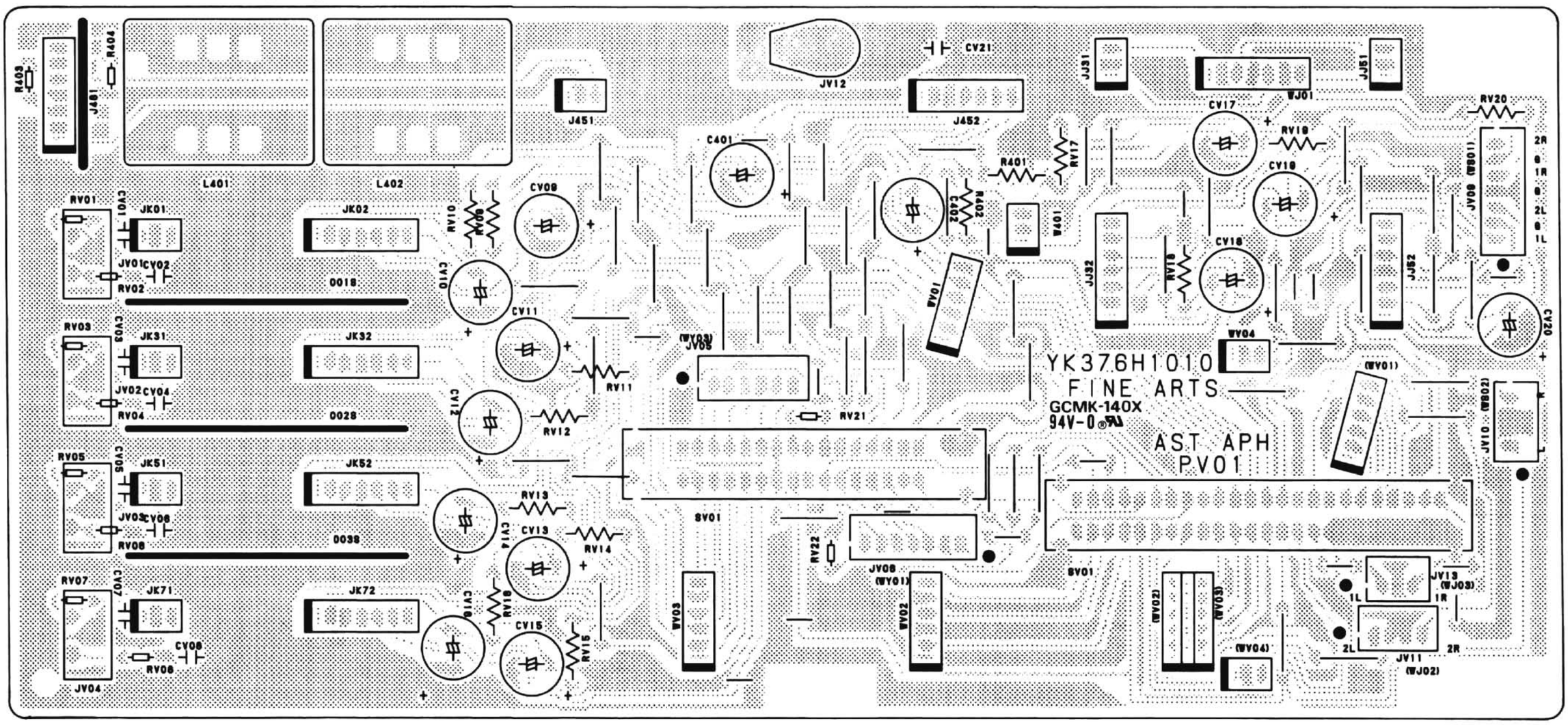
P701-Main (Component Side)



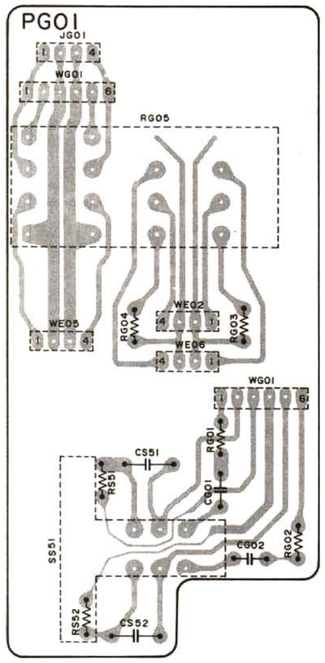
PV01-Select/REC Out Mode (Pattern Side)



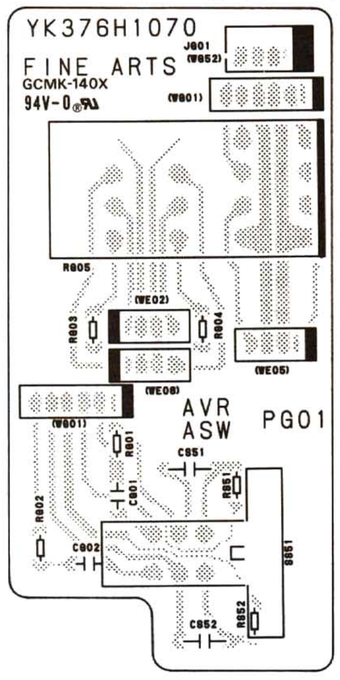
PV01-Select/REC Out Mode (Component Side)



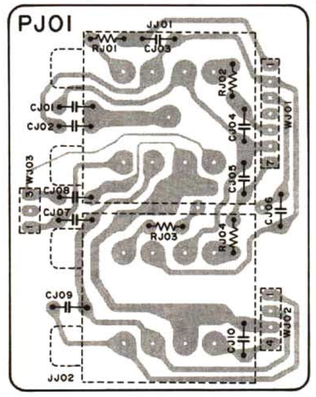
PG01-Master Volume (Pattern Side)



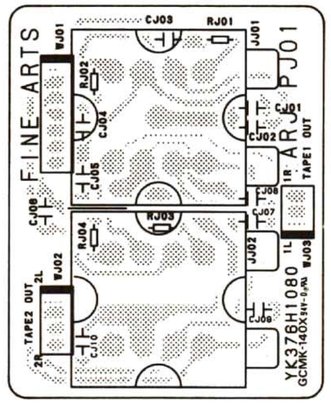
PG01-Master Volume (Component Side)



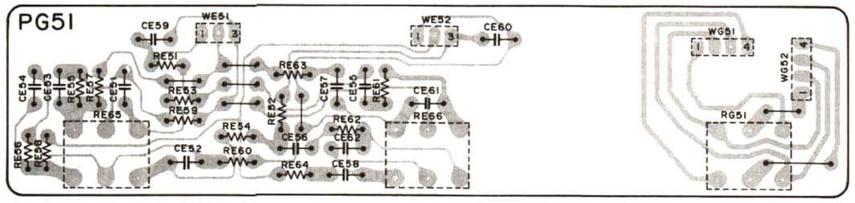
PJ01-Tape Monitor (Pattern Side)



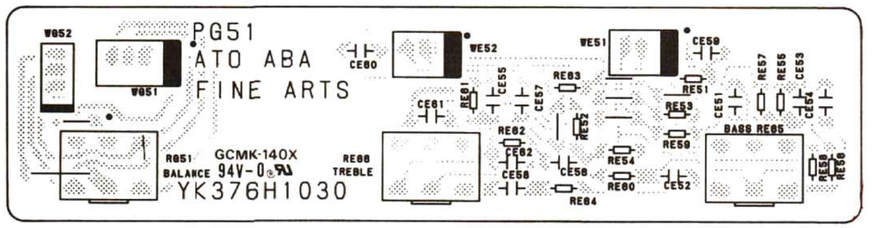
PJ01-Tape Monitor (Component Side)



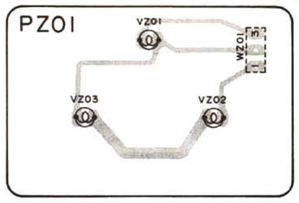
PG51-Tone Volume (Pattern Side)



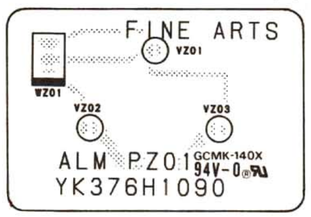
PG51-Tone Volume (Component Side)



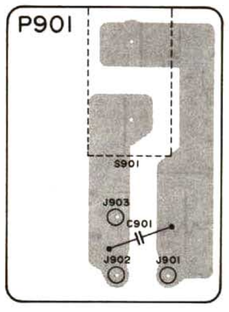
PZ01-Volume Indicator Lamp (Pattern Side)



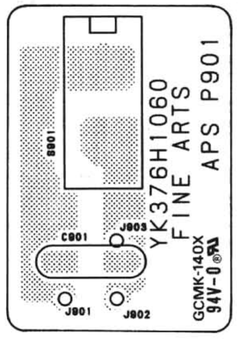
PZ01-Volume Indicator Lamp (Component Side)



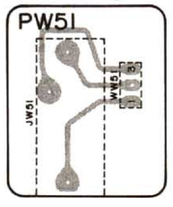
P901-Power Switch (Pattern Side)



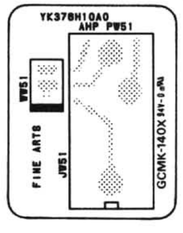
P901-Power Switch (Component Side)



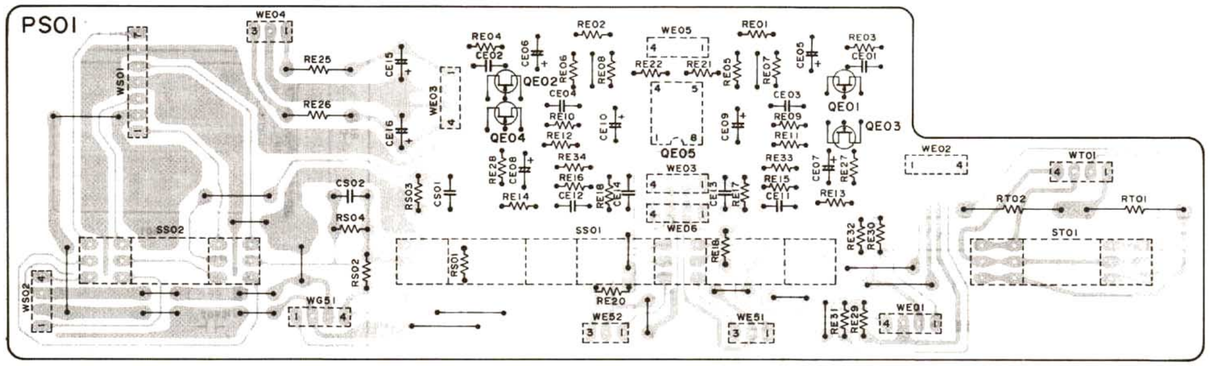
PW51-Headphone (Pattern Side)



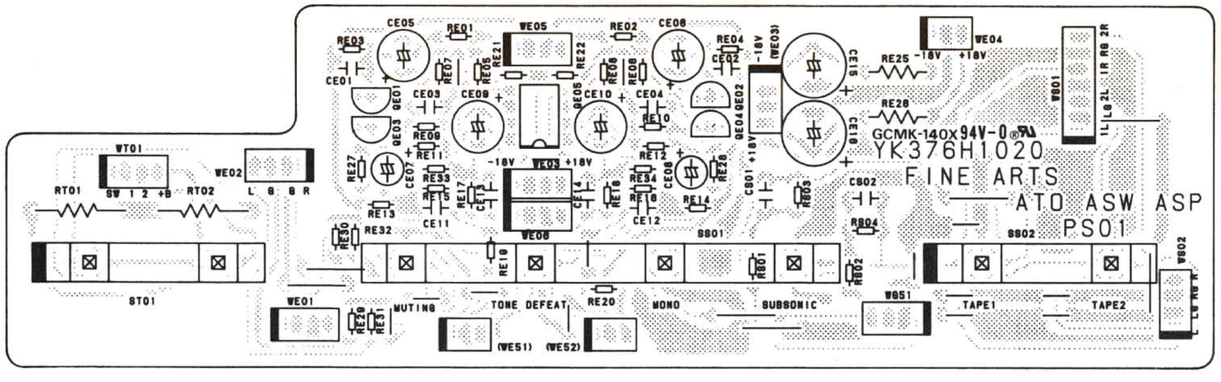
PW51-Headphone (Component Side)



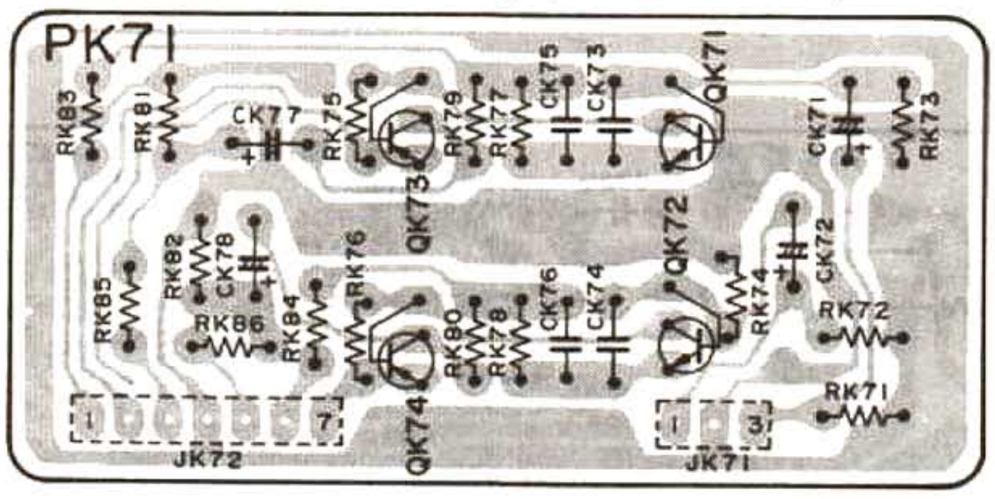
PS01-Front Switch/Tone Amp (Pattern Side)



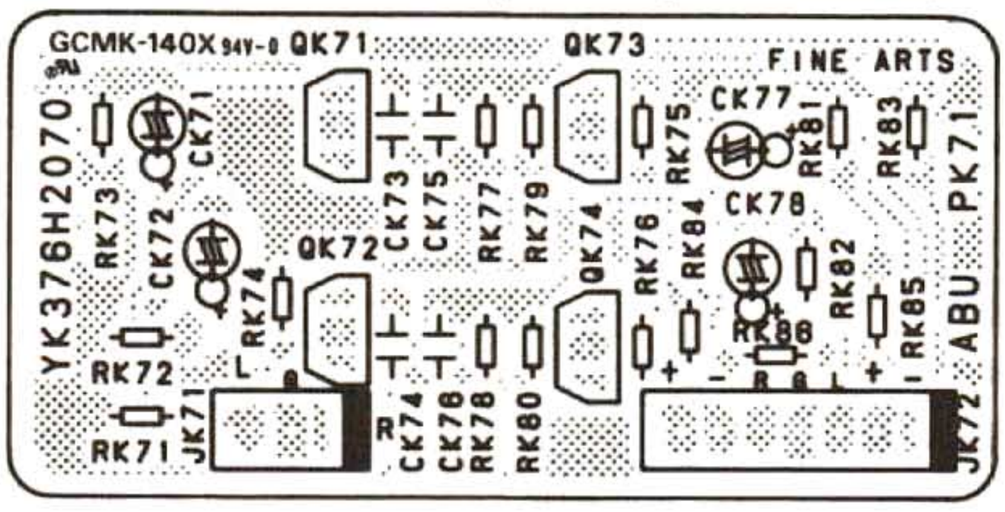
PS01-Front Switch/Tone Amp (Component Side)



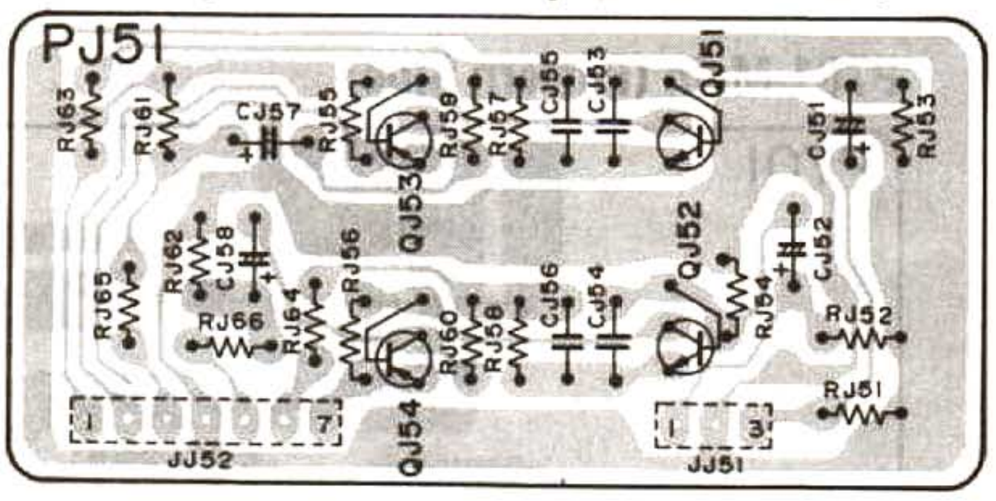
PK71-Aux Buffer Amp (Pattern Side)



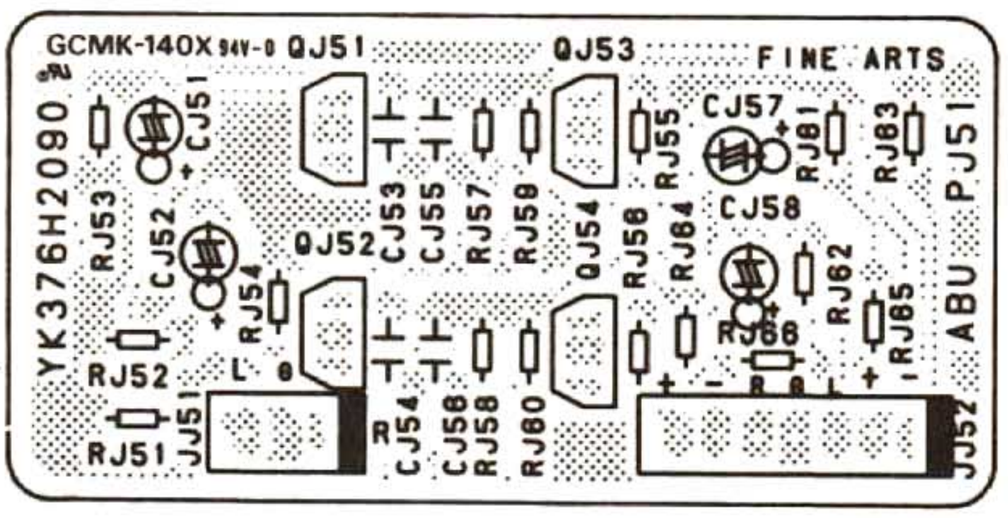
PK71-Aux Buffer Amp (Component Side)



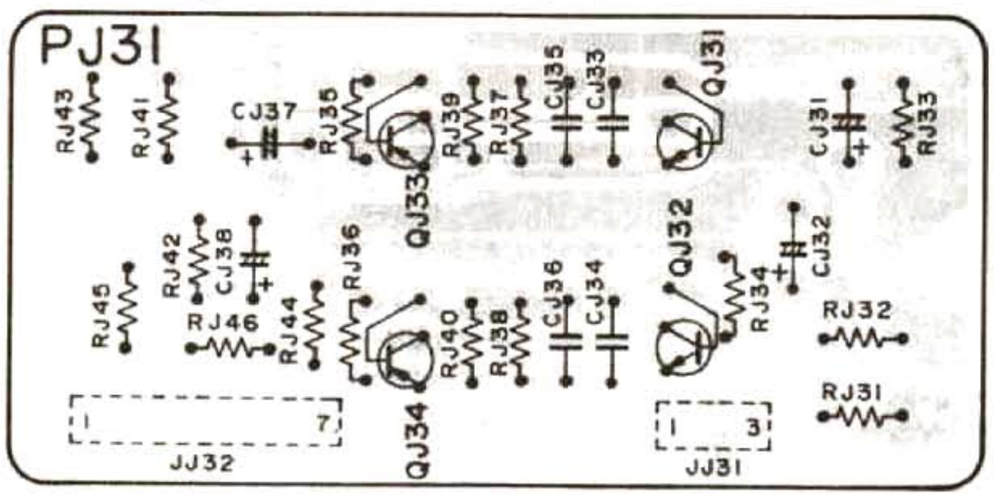
PJ51-Tape 2 Buffer Amp (Pattern Side)



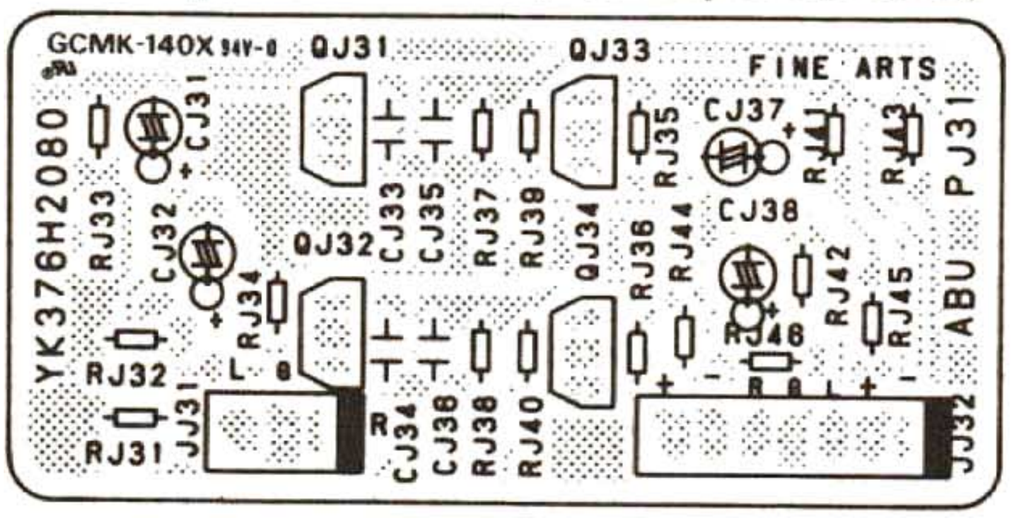
PJ51-Tape 2 Buffer Amp (Component Side)



PJ31-Tape 1 Buffer Amp (Pattern Side)



PJ31-Tape 1 Buffer Amp (Component Side)



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Änderungen vorbehalten Subject to alteration Printed in Germany Service Manual A 9000 Sachnr./Order No. 72010 - 706.15

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