

GENERAL SERVICING INFORMATION

The following information applies to all players in this volume, and should be followed before any adjustments are made or trouble diagnosis is attempted. Any exceptions or additions will be found in the detailed servicing procedures for each player.

POWER SOURCES

Many players require full supply voltage for proper operation. Be sure the supply voltage is maintained at the rated value under load while making adjustments.

CLEANING

Head faces should be cleaned with head cleaner to remove dust and accumulated oxide. (An applicator may be fashioned from absorbent cotton.) Do not use a screwdriver or any metallic object near the head faces.

CAUTION: Avoid getting head cleaner on any plastic surface.

Clean capstans, pressure rollers, and tape guides with alcohol using a soft lint-free cloth. Also use alcohol to remove oil and grease from drive belts and other driving surfaces.

LUBRICATING

Clean all surfaces before lubricating. Apply a few drops of #20 machine oil to all bearings and rotating bushings. Apply a thin film of light, nonhardening grease to all cam surfaces and pawls, if they have been factory lubricated. Always wipe excess oil or grease from parts that have been lubricated.

CAUTION: Oil and grease must be kept off all driving surfaces as well as any parts which may transfer oil or grease to them.

DEMAGNETIZING

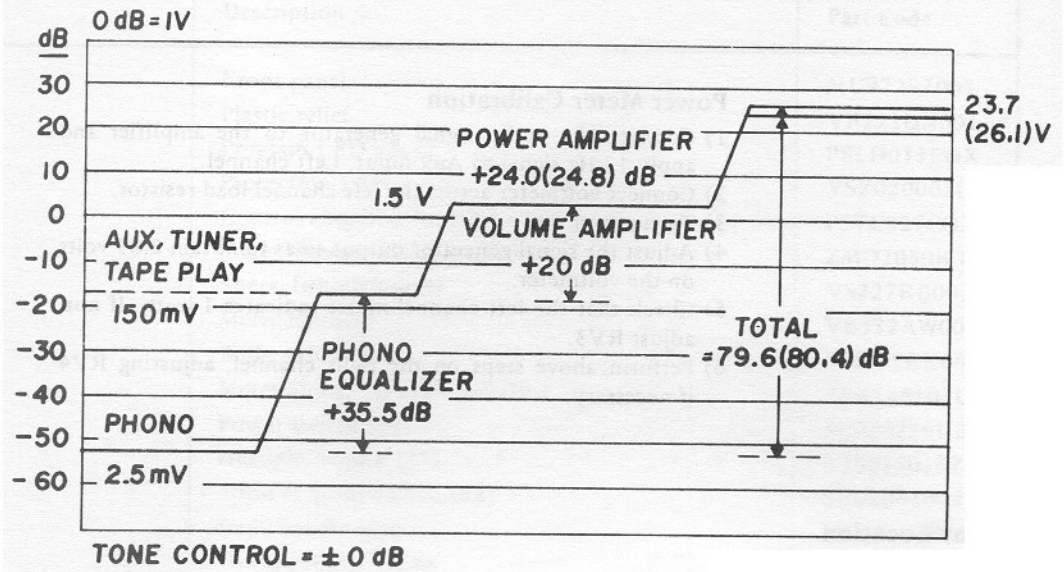
Heads require demagnetizing at regular intervals to maintain high-frequency response, dynamic range, and low distortion. (Follow instructions included with the demagnetizing unit.) After demagnetizing the heads, keep all screwdrivers and other metallic objects away from the head faces. Tape guides may also require occasional demagnetizing:

IMPORTANT: Be sure to demagnetize the heads after making resistance measurements in the head circuits.

CARTRIDGES

Many problems associated with tape players result from defective cartridges. Always try a cartridge known to be good before attempting repairs.

Scott 460A,480A



Level Diagram:
460A (480A) [1 kHz Input]

ADJUSTMENT

Equipment Required

Audio signal generator.

DC voltmeter.

Speaker load resistors, 8 ohm, 100 watt.

Digital voltmeter or DC milliammeter.

The following adjustments are the same for both the left and the right channel.

Bias Adjustment

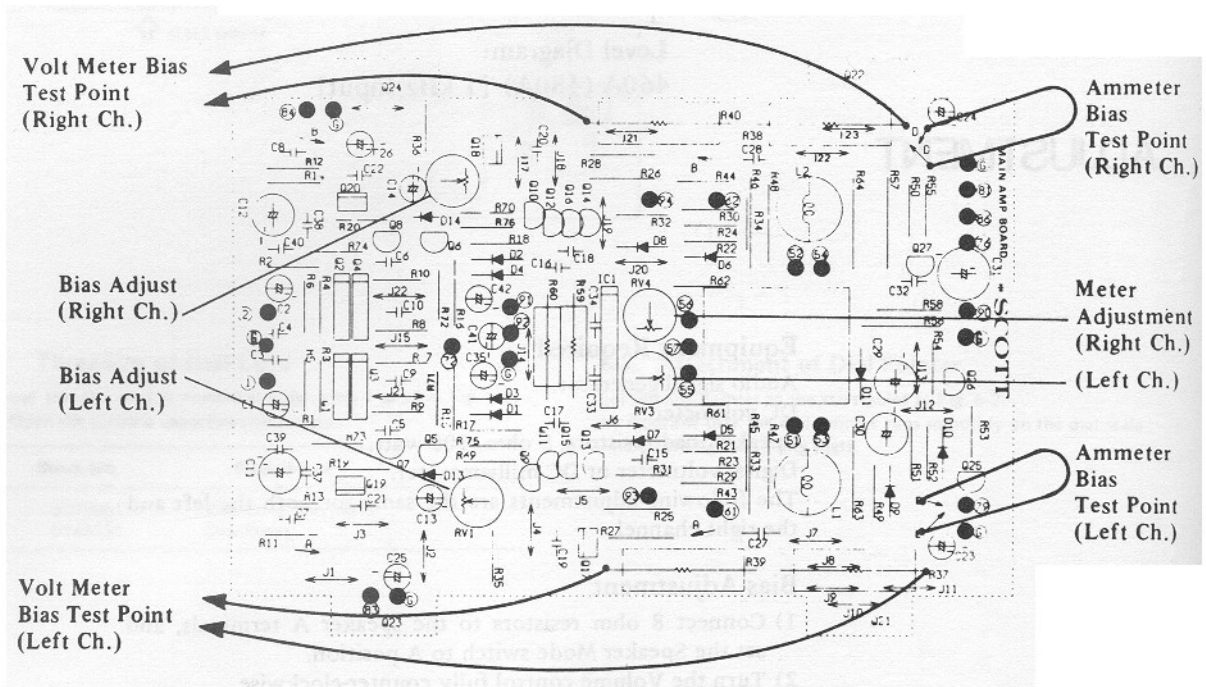
- 1) Connect 8 ohm resistors to the speaker A terminals, and set the Speaker Mode switch to A position.
- 2) Turn the Volume control fully counter-clockwise.
- 3) Turn RV1 fully counterclockwise.
- 4) Depending on available equipment, use A or B:
 - A. Set digital voltmeter to most sensitive voltage range. Connect probes across R37 and R39 (Voltmeter bias test points, L channel). Turn unit on. Let it idle for at least one minute. Adjust RV1 for 40 mV across the resistors.
 - B. With unit off, remove jumper between PC board terminals E and E, and connect ammeter, set to 100 mA range. Turn unit on and let it idle for at least one minute. Adjust RV1 for 40 mA.
- 5) Perform the same procedure for the right channel, except measure voltage across R38 and R40 (voltmeter bias test points, R channel) or replace jumper from D to D with ammeter. Adjustment is made with RV2.

- 6) Leave the amplifier on for about 30 minutes, then recheck measurement. A tolerance of $\pm 25\%$ is acceptable. Re-adjust if necessary.

Power Meter Calibration

- 1) Connect the audio signal generator to the amplifier and apply 1 kHz signal to Aux input, Left channel.
- 2) Connect voltmeter across the left channel load resistor.
- 3) Turn power on.
- 4) Adjust the signal generator output so as to obtain 2.83 volts on the voltmeter.
- 5) Check that the left channel meter indicates 1 watt. If not, adjust RV3.
- 6) Perform above steps on the right channel, adjusting RV4 if necessary.

Adjustment Location



	Description	Part Code
	Front panel	MU972SZ003
	Plastic relief	VF221DN001
	Program LED board	PSLD013COX
	Protection LED socket	YSZ020002U
	Control amplifier board	PSTC027COX
	Meter, Power Output (M1, 2)	ZMD2050K01
	Sheet, behind meters	VS227RB001
	Meter housing	VB532AW001
	Bulbe relief	VM165RX003
	Meter bulbe, 14V/80 mA (PL1, 2)	ZPA148103U
	Power switch (S1)	SL020216UB
	Headphone jack (J7)	YJS03S016Z
	Speaker mode switch (S2)	SR0204107T
	Rack handle base	MC371SZ002
	Power supply chassis	MU865SZ001
	Power transformer (PT1)	TPAA5A002Y
	Transformer plate	MU762SZ003
	Electrolytic capacitor (C3, 4)	CEJ1G10304
	Wiring bridge	MP363SS001
	Power supply board	PSPW003COX
	Power board stand	VX311NN001
	Fuse (F2, 3), 6A	ZFBQ60201Z
	Fuse (F4), 0.5A	ZFBQ50103Z
	Chassis bridge	MB851SZ001
	Heatsink plate	MS867SZ003
	Heatsink	MH766AA002
	Power amplifier board	PSMA030COX
	Transistor (Q21, 22), 2SD745	QTD0745XAA
	" (Q23, 24), 2SB705	QTB0705XAA
	Chassis bridge (right)	MU851SZ004
	Control amplifier board	PSPA038COX
	Record/Input selector bracket	MS766SZ021
	Shaft joint	VM460SW001
	Remote shaft	MT865AD009
	Rear panel	MB972SE031
	Ground thumb screw (J9)	BWM30A08SN
	Tape input board	PSAZ023COX
	Shorting bar	MU132BU001
	Speaker output terminal (J5, 6)	YTS04S007U
	Power selector board	PSSW066COX
	Switch bracket	ML322SZ005
	Voltage selector (J4)	YJZ10S001U
	" (plug)	YPZ06S004U
	AC accessory outlet (J2, 3)	YJA020005U

	Description	Part Code
	Fuse holder (J8) Fuse (F1), 100–117V: 5A 220–240V: 2.5A AC power receptacle (J1) Voltage identification plate US/Canada: Europe: Front escutcheon panel Protection LED bezel LED, Protection LED housing Knob, Tape Input/Mode/Speaker „ all lever switches „ Volume „ Tone, Balance „ Tone Flat „ Power Bottom plate Foot Cabinet cover	YHF1S3001U ZFBQ50201U ZFBQ25201U YJA03S002U MS766SE011 MS636SE001 AM460A**01 MT665BC001 QLAGD4505R VM162RX001 MN376AA019 VN360SX001 MN386XA024 MN276XA020 VN265SP003 VN370SX001 MS986SZ017 VM280EB001 MU897SX009

480A Mechanical

	Description	Part Code
	Front panel Plastic relief Program LED board Meter, Power Output (M1, 2) Sheet, behind meters Meter housing Bulbe relief Bulbe, 14V/80 mA (PL1, 2) Power switch (S1) Rotary switch (S2), Speaker Mode Headphone jack (J7) Control amplifier board Rack handle base Power supply chassis Power transformer (PT1) Transformer plate Electrolytic capacitor (C3, 4), 10,000/63 Wiring bridge Power supply board Power supply board stand	MU972SZ002 VF221DN001 PSLD013COX ZMD2050K01 VS227RB001 VB532AW001 VM165RX003 ZPA148103U SL020216BU SR0204107T YJS03S016Z PSTC017COX MC371SZ002 MU865SZ001 TPAA5A001Y MU762SZ003 CEJ1H10305 MP363SS001 PSPW033COX VX311NN001

	Description	Part Code
	Fuse (F2, 3), 7A	ZFBQ70201Z
	Fuse (F4), 0.5A	ZFBQ50103Z
	Chassis bridge	MB851SZ001
	Heatsink plate	MS867SZ003
	Heatsink	MH766AA001
	Power amplifier board	PSMA030COX
	Transistor (Q21, 22), 2SD745	QTD0745XAA
	„ (Q23, 24), 2SB705	QTB0705XAA
	Chassis bridge (right)	MU851SZ004
	Record/Input select bracket	MS766SZ021
	Coil spring	MW141SD001
	Shaft joint	VM460DN001
	Remote shaft, long	MT865AD008
	„ short	MT865AD009
	Rear panel	MB972SE030
	Ground thumb screw	BWM30A08SN
	Input circuit board	PSPA038COX
	Tape input board	PSAZ023COX
	Speaker output terminal (J5, 6)	YTS04S007U
	Power selector board	PSSW066COX
	Switch bracket	ML322SZ005
	Voltage selector (J4)	YJZ10S001U
	„ plug	YPZ06S004U
	Voltage identification plate, US/Canada:	MS766SE011
	Europe:	MS636SE001
	AC accessory outlet (J2, 3)	YJA020005U
	Fuse holder (J8)	YHF1S3001U
	Fuse (F1) 110–117V: 6A	ZFBQ60201U
	220–240V: 3A	ZFBQ30201U
	AC power receptacle (J1)	YJA03S002U
	Front escutcheon panel	AM480A**01
	Protect LED bezel	MT165BC001
	LED, Protection (LD1)	QLAGD4505R
	Protect LED relief	VM162RX001
	Protect LED socket	YSZ020002U
	Knob, Tape/Input, Mode, Speaker	MN376AA019
	„ all lever switches	VN360SX001
	„ Capacitance/Impedance	MN276AA101
	„ Volume	MN386XA024
	„ Tone, Balance	MN276XA020
	„ Tone/Flat	VN265SP003
	„ Power	VN370SX001
	Bottom plate	MS986SZ017
	Foot	VM280EB001

	Description	Part Code
	Cabinet cover	MU897SX009

Parts on Main Chassis

Symbol No.	Description	Part Code
C1, 2	US/Canada: Ceramic capacitor, 4,700p*, 125V AC	CKDX472PMM
D13, 14	Europe: Oil-paper capacitor, 0.01*/450V	CNST103MAN
	Quadruple diode array, STV-4H	QVFSTV4HXD

Miscellaneous

Description	Part Code
Operation Manual, US/Canada: 460A	KT460A**AX
US/Canada: 460A	KT480A**AX
Europe: 480A	KT460AE*AX
Europe: 480A	KT480AE*AX
Carton, 460A:	KP460A**01
480A:	KP480A**01
Cushoning, 460A:	KN440A**03
480A:	KN480A**03

PSPW033COX [Power Supply]

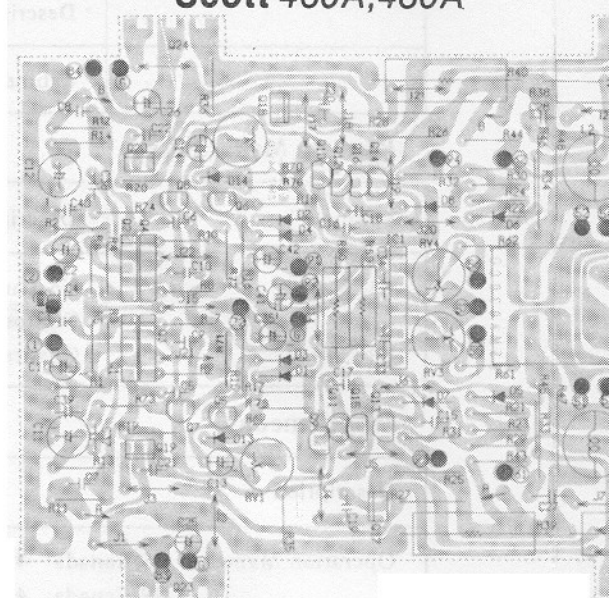
Symbol No.	Description	Part Code
Q1	Transistor, 2SA1015	QTA1015XAT
D1-4	460A: Silicon diode, SR3AM-8B	QDSR3AM8BE
	480A: Silicon diode, SR3AM-8A	QDSR3AM8AE
D5	Silicon diode, RA-1Z	QDSRA1ZXXD
D6, 7	" 1N4448	QDSN4448XZ
R1, 2	460A: MOF resistor, 2.2k, 2W	RG2ANJ222N
	480A: MOF** resistor, 2.2k***, 3W	RG3ANJ222N
R4	460A: MOF resistor, 3.9k, 1W	RG1ANJ392N
	480A: MOF** resistor, 4.7k, 1W	RG1ANJ472N
R6	480A: 390, 1/2W	RGHANJ391N
C1	Ceramic capacitor, 0.01, 500V	CKDE103PEM
C2	Electrolytic capacitor, 47/16	CEWD470ALX
	Fuse housing	YHF0P0003Z

* All capacitors are rated in micro-farad, and have voltage handling of 50V, both unless otherwise specified.

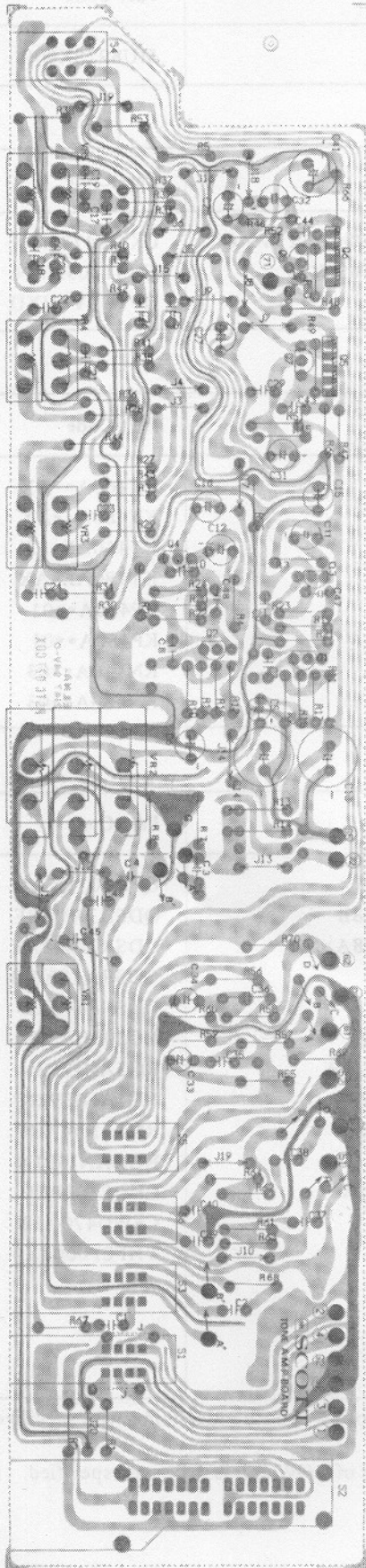
** Metal-oxide-film (resistor).

*** All resistors are rated in Ohm, and have power handling capability of 1/4W unless otherwise specified.

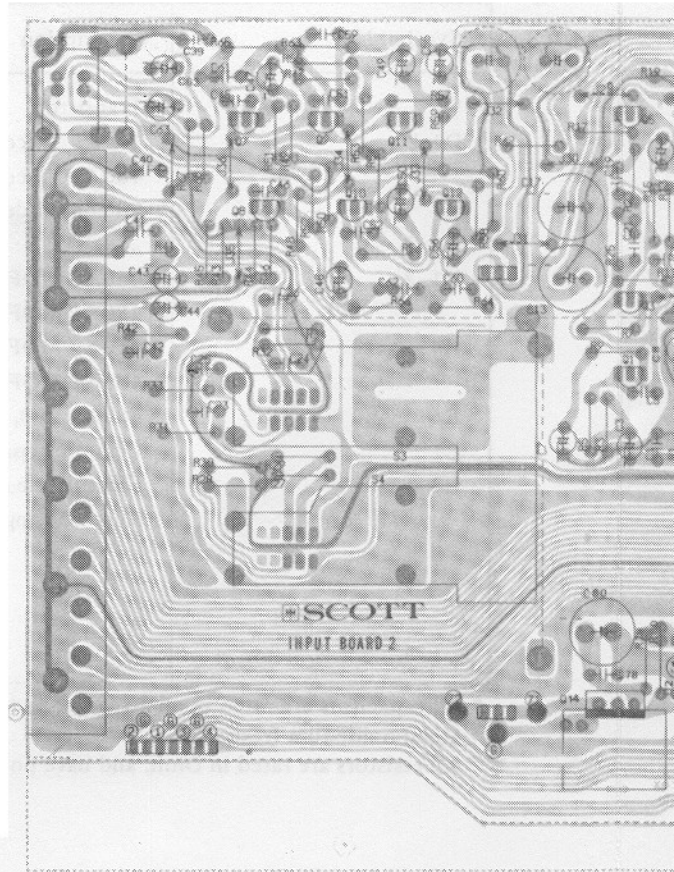
Scott 460A,480A



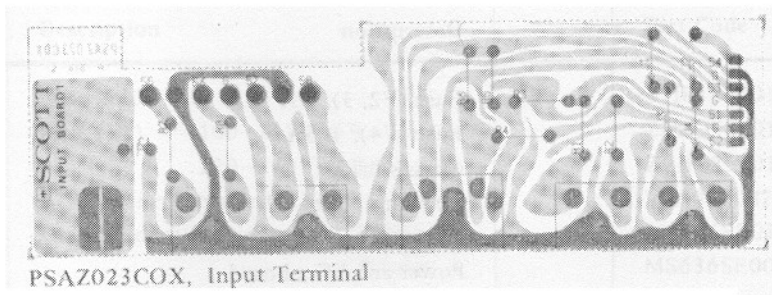
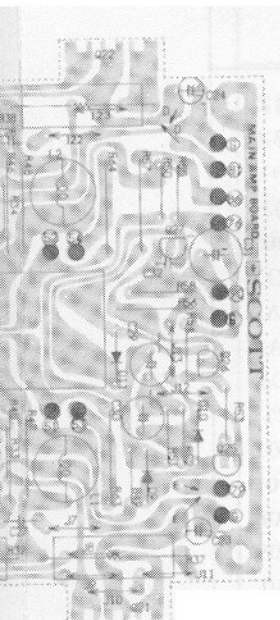
PSMA030COX, Main Amplifier



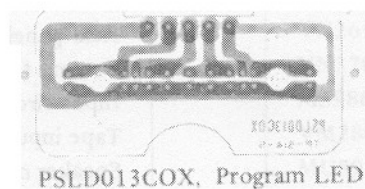
PSTC027COX, Tone Amplifier



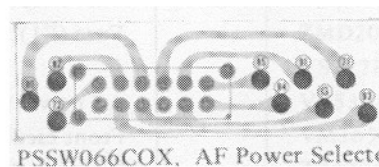
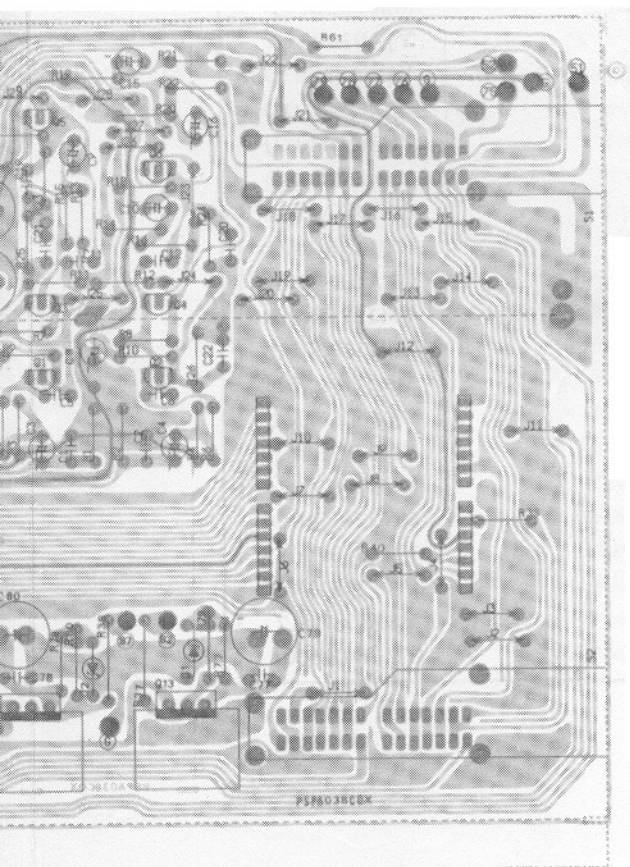
PSPA038COX, Pre Amplifier



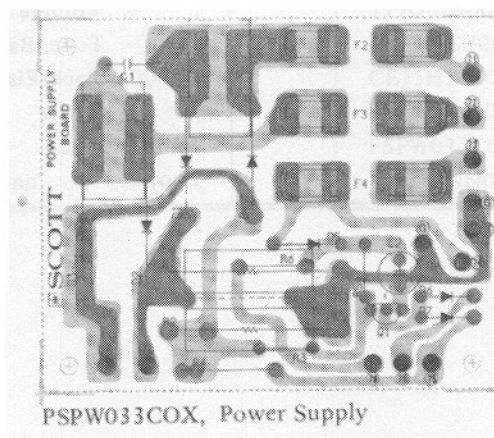
PSAZ023COX, Input Terminal



PSLD013COX, Program LED

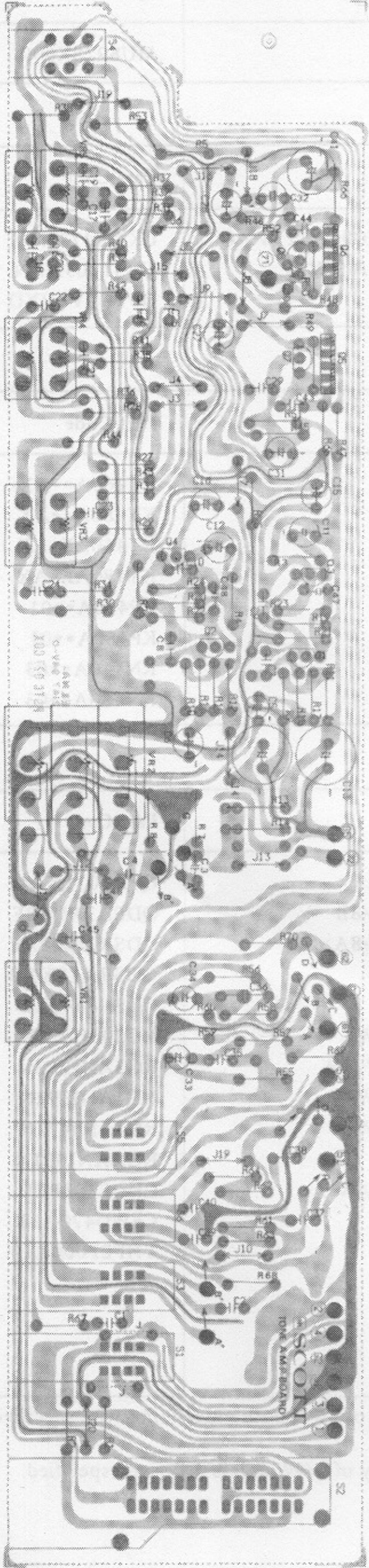


PSSW066COX, AF Power Selector

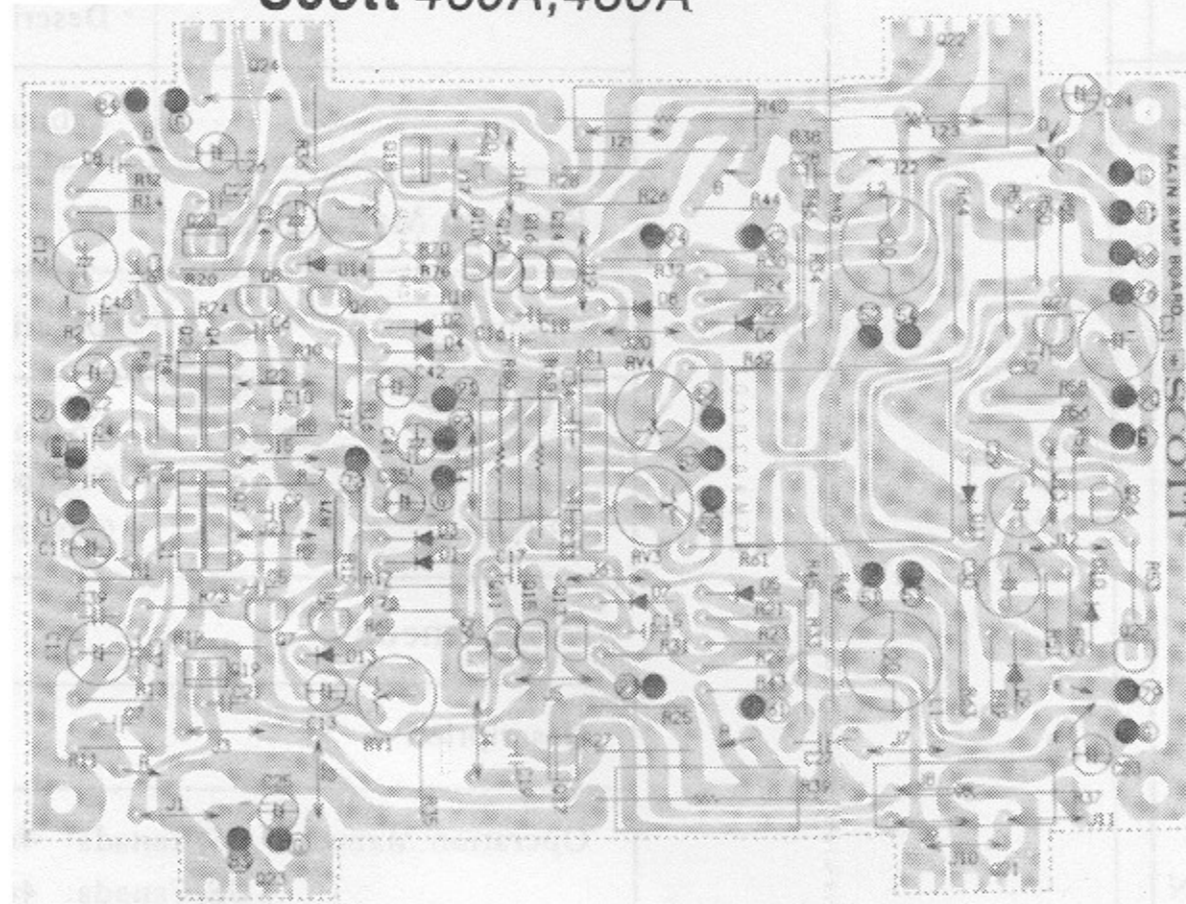


PSPW033COX, Power Supply

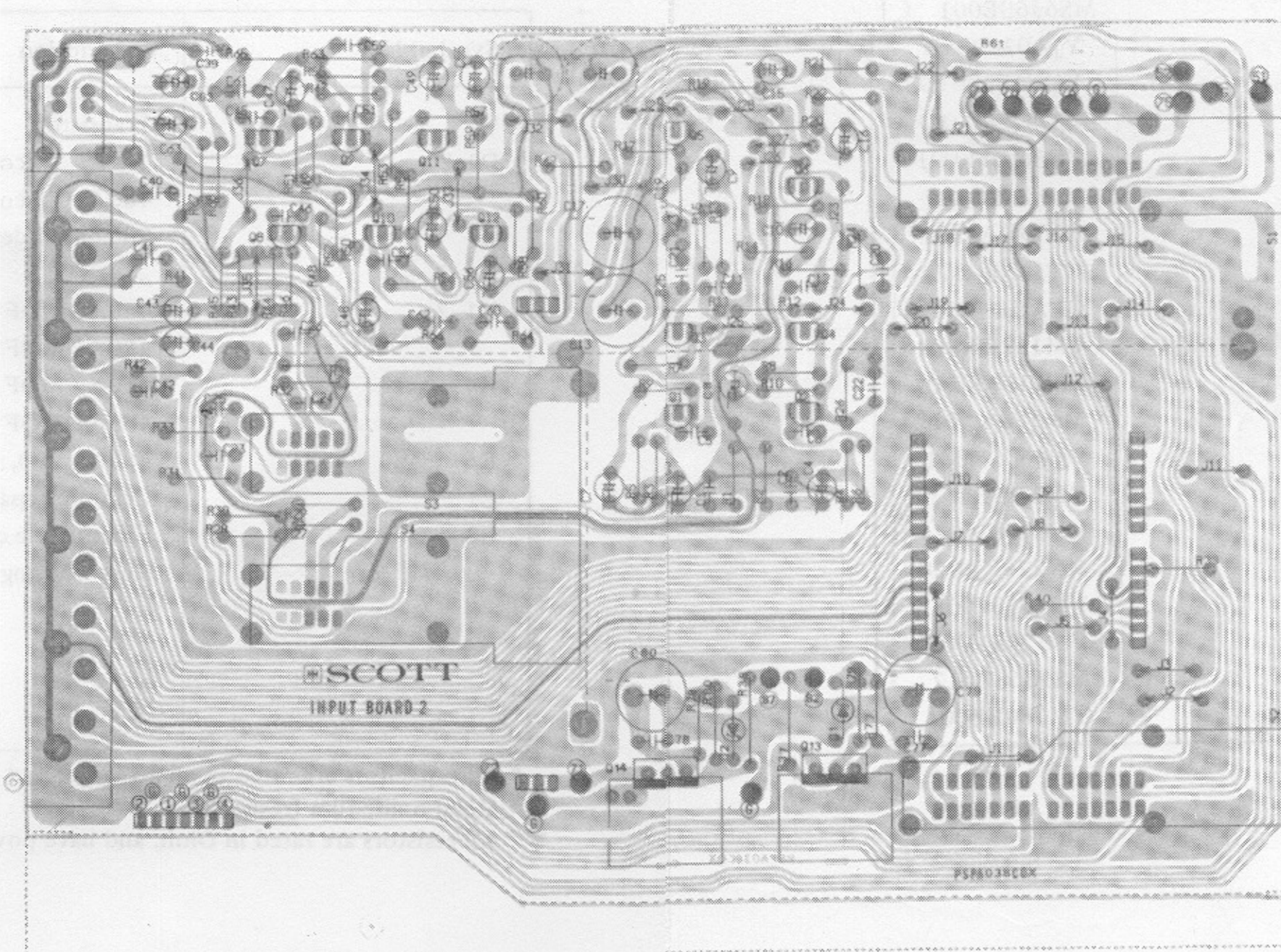
Scott 460A,480A



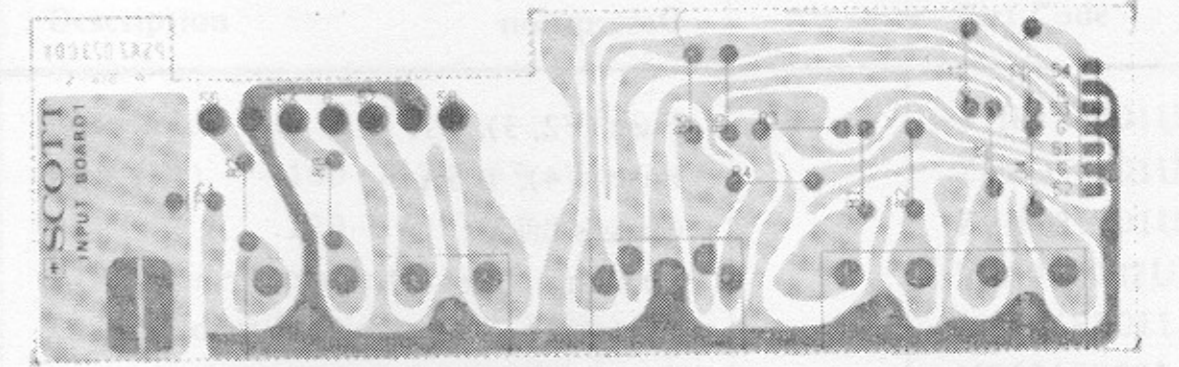
PSTC027COX, Tone Amplifier



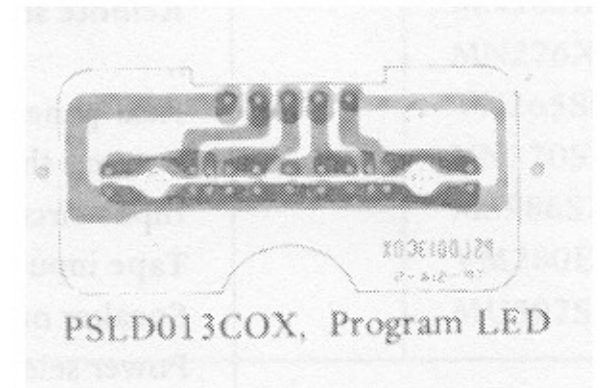
PSMA030COX, Main Amplifier



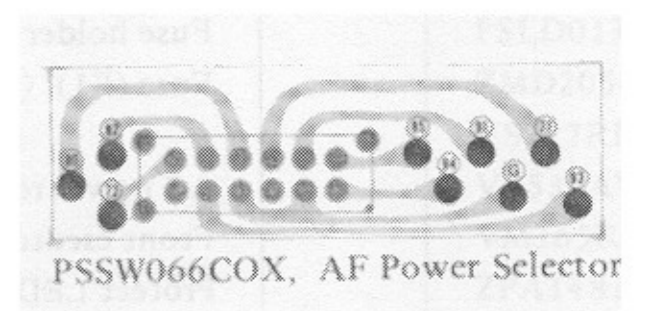
PSPA038COX, Pre Amplifier



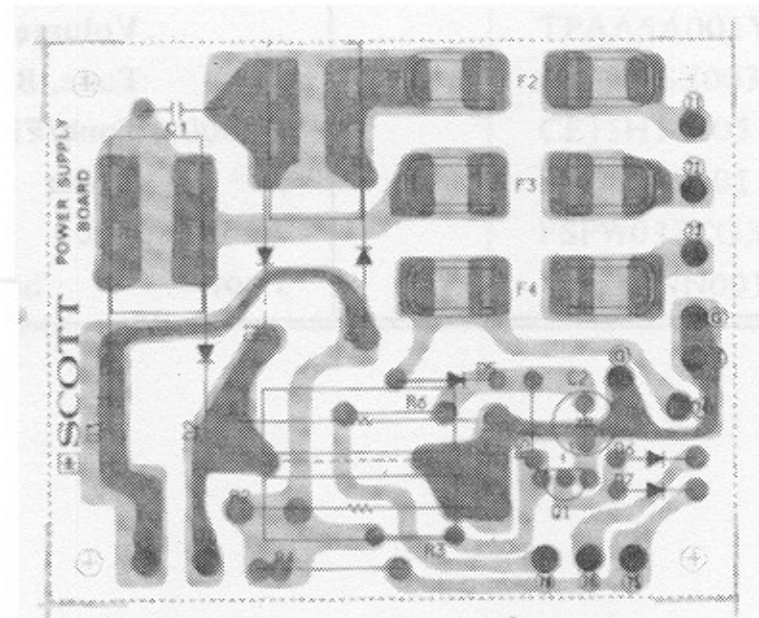
PSAZ023COX, Input Terminal



PSLD013COX, Program LED



PSSW066COX, AF Power Selector



PSPW033COX, Power Supply

Scott 460A,480A

PSMA030COX [Power Amplifier]

Symbol No.	Description	Part Code
IC1	IC, TA7318P-2, meter driver	QQM07318AT
Q1, 2	Transistor, 2SA798	QTA0798XEE
Q3, 4	480A only: Transistor, 2SC2291	QTC2291XAE
Q5, 6	Transistor, 2SA912	QTA0912XAN
Q7, 8	" 2SC1885	QTC1885XAN
Q9, 10	" 2SA720	QTA0720XBN
Q11, 12	" 2SC1318	QTC1318XDN
Q13, 14, 26, 27	" 2SC1815	QTC1815XAT
Q15, 16	" 2SA1015	QTA1015XAT
Q17, 18	" 2SC2238	QTC2238XBT
Q19, 20	" 2SA968	QTA1968XBT
Q25	" 2SA970	QTA0970XBT
D1-10	Silicon diode, 1N4448	QDSN4448XZ
D11-18	" RA-1Z	QDSRA1ZXXD
L1, 2	RFC, 2.5 μ H	LA3QH1323B
RY1	DC relay, type-24	ZRA444103U
RV-1, -2	Trimming resistor, 100/B	RPJNB10103
RV-3, -4	" 220/B	RPJNB22101
R15, 16	MOF resistor, 15k, 1/2W	RGHANJ153N
R25-28	" 150, 1/2W	RGHANJ151N
R37-40	460A: Cement resistor, 0.47, 3W	RF03SKR47B
	480A: Cement resistor, 0.47, 5W	RF05SKR47B
R45, 46	MOF resistor, 5.6, 2W	RX2ANJ5R6N
R47, 48	" 5.6, 1W	RX1ANJ5R6N
R56	460A: MOF resistor, 3.3k, 1W	RG1ANJ332N
	480A: " 3.9k, 1W	RG1ANJ392N
R57	460A: " 560, 2W	RG2ANJ561N
	480A: " 680, 2W	RG2ANJ681N
R58	MOF resistor, 100, 1/2W	RGHANJ101N
R59	460A: MOF resistor, 2.2k, 2W	RG2ANJ222N
	480A: " 2.4k, 2W	RG2ANJ242N
R60	460A: " 2.2k, 2W	RG2ANJ222N
	480A: " 2.4k, 2W	RG2ANJ242N
R63, 64	MOF resistor, 270, 2W	RG2ANJ271N
C1, 2	Electrolytic capacitor, 2.2	CEAG2R2ZMN
C3, 4	Ceramic capacitor, 330p	CCFB331KOT
C5, 6	" 2p	CCGB020COT
C7, 8	" 3p	CCGB030DOT
C9, 10	" 5p	CCGB050COT
C11, 12	Electrolytic capacitor, 100/10	CEWC101ALX
C13, 14	" 10/16	CEWD100ALX
C15-18	Ceramic capcitor, 4,700p	CKGB472ZFT
C19-22	460A: Ceramic capacitor, 220p	CCFB221KOT
	480A: " 47p	CCGB470KOT

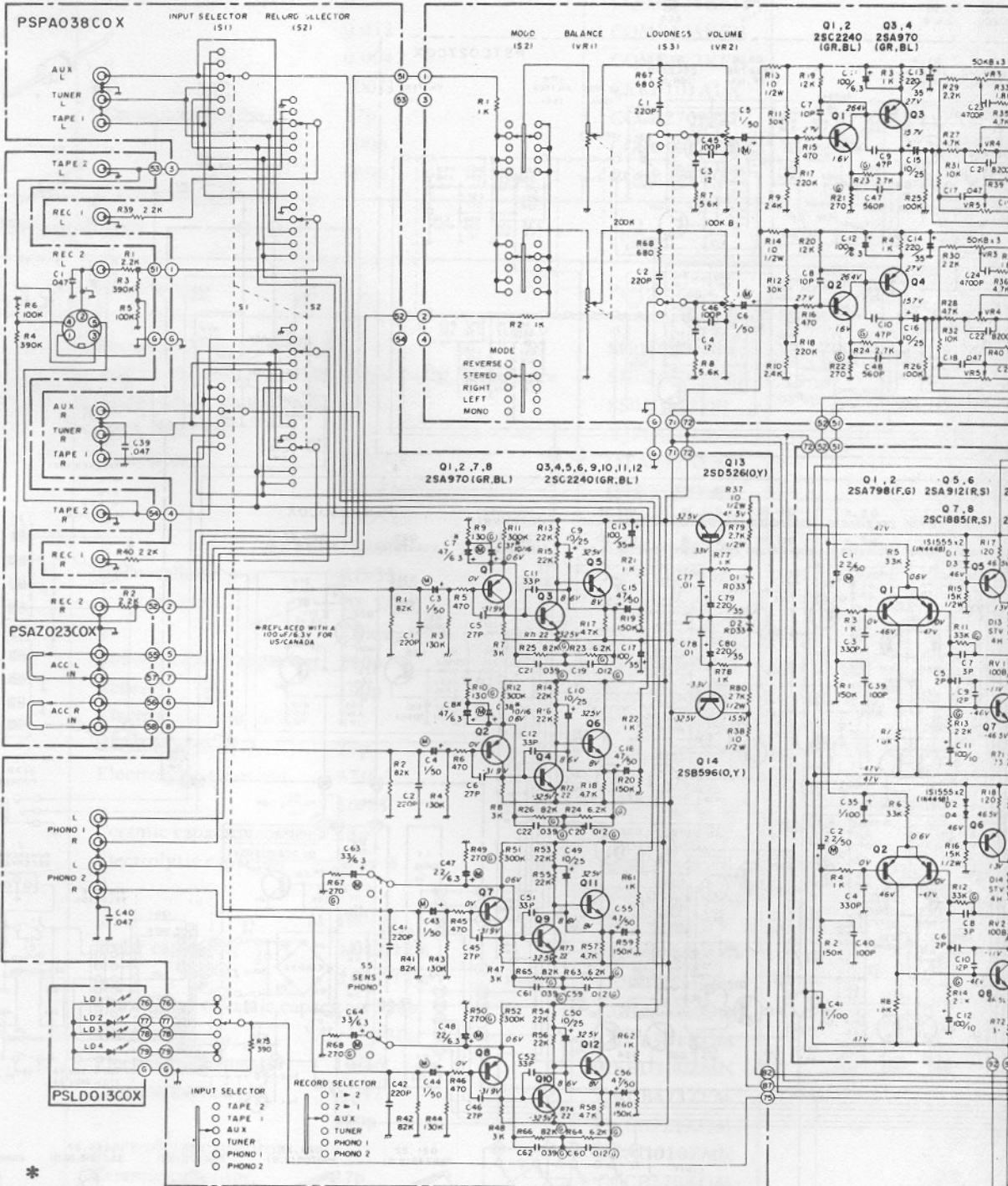
Symbol No.	Description	Part Code
C23-26	Electrolytic capacitor, 1/100	CEWK010ALX
C27, 28	Mylar capacitor, 0.056/100	CQMC563KEH
C29, 30	Electrolytic capacitor, 100/10	CEWC101ALX
C31	" 22/50	CEAG220AMN
C32	Mylar capacitor, 0.047	CQMB473KTH
C33, 34	" 0.022	CQMB223KTH
C35	Electrolytic capacitor, 1/100	CEWK010ALX
C37, 38	480A only: Ceramic capacitor, 220p	CCFB221KOT
C39, 40	Ceramic capacitor, 100p	CCGB101KOT
C41, 42	Electrolytic capacitor, 1/100	CEWK010ALX
C43-46	" 4.7/25	CEAF4R7ALX

PSTC027COX [Tone Amplifier]

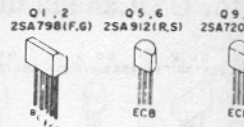
Symbol No.	Description	Part Code
S1	480A only: Lever switch, 2-2****, Acc/Input	SL020215ZB
S2	Rotary switch, 4-5, Mode	SH040503ZA
S3	Lever switch, 2-2, Loudness	SL020215ZB
S4	Push switch, Tone/By-pass	SP01AAX29A
S5, 6	Lever switch, 2-2, Lo-Fil	SL020218ZB
VR	VR, Balance, 200k/MN	RVQA204X01
VR2	460A: Volume, 100k/B 480A: ,, 100k	RVDA104B01 RVZA104B01
VR3-5	VR, Tone, 50k/B	RVQA503B05
Q1, 2, 7, 8	Transistor, 2SC2240	QTC2240XAT
Q3, 4	" 2SA970	QTA0970XAT
Q5, 6	" 2SA798	QTA0798XEE
R13, 14	MOF resistor, 10, 1/2W	RXHANJ100N
C1, 2	Ceramic capacitor, 220p	CCCB221KOM
C3, 4	Mylar capacitor, 0.12	CQMB124KEH
C5, 6	Electrolytic capacitor, 1	CEAG010ZMN
C7, 8	Ceramic capacitor, 10p	CCCB100DOM
C9, 10	" 47	CCCB470KOM
C11, 12	Electrolytic capacitor, 100/6.3	CEEB101ALX
C13, 14	" 220/35	CEEF221ALX
C15, 16	" 10/25	CEEE100ALX
C17-20	Mylar capacitor, 0.047	CQMB473KEH
C21, 22	" 8,200p	CQMB822KEH
C23, 24	" 4,700p	CQMB472KEH
C25, 26	" 0.01	CQMB103KEH
C27, 28	Electrolytic capacitor, 4.7/25	CEEE4R7ALX
C29, 30	Ceramic capacitor, 47p	CCCB470KOM
C31, 32	Electrolytic capacitor, 4.7/25	CEEE4R7ALX

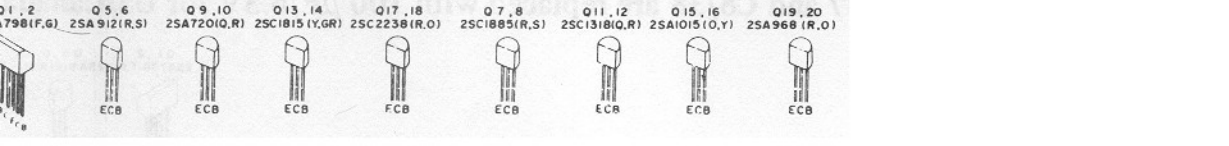
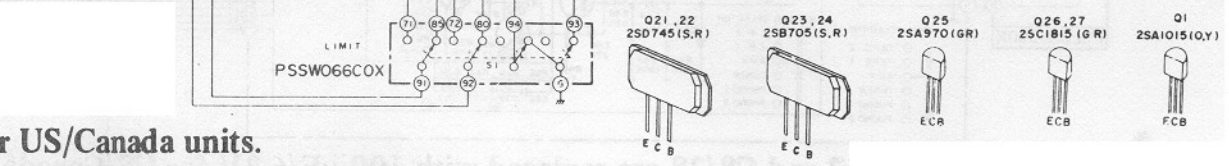
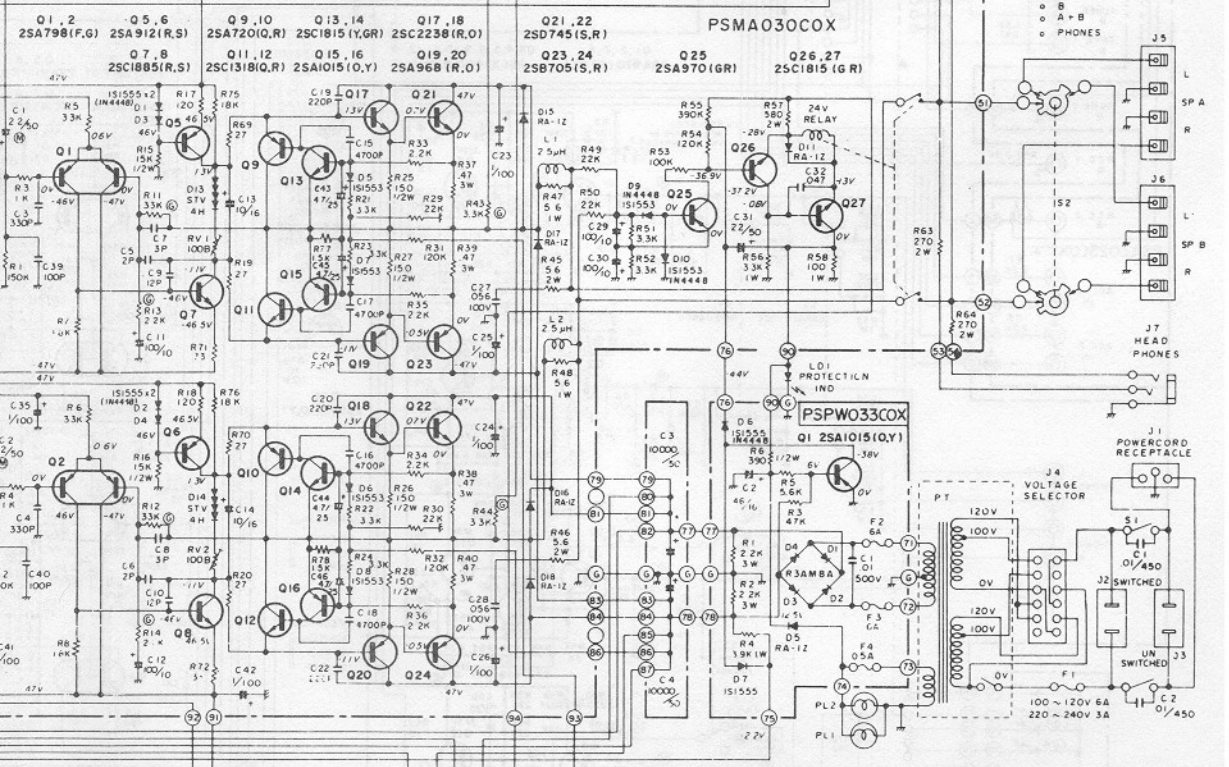
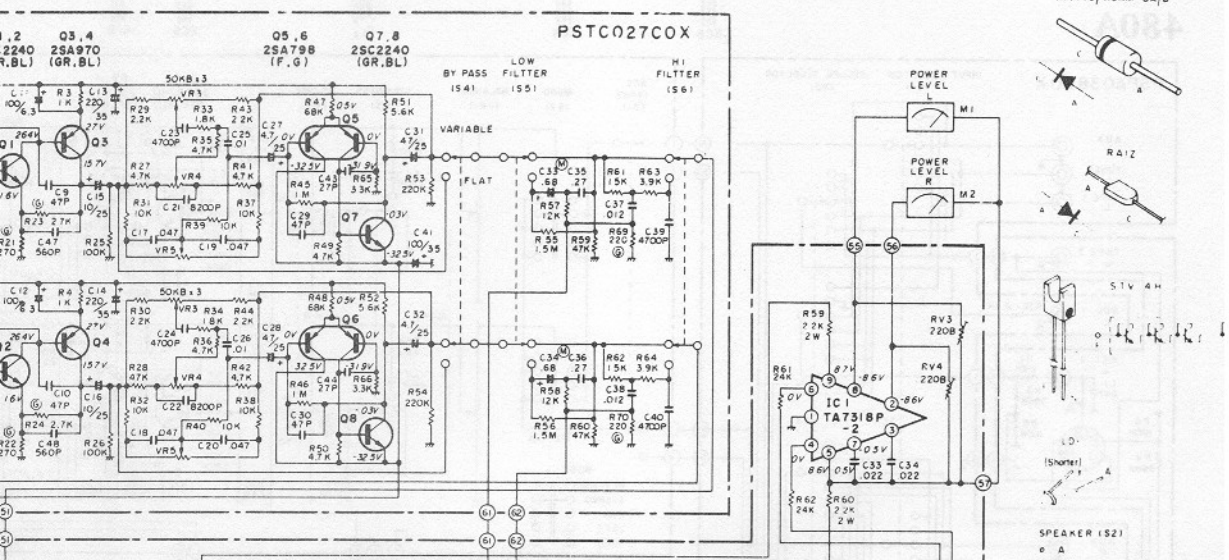
**** No of pole-throw. (Ex. 2-pole/2-throw)

460A

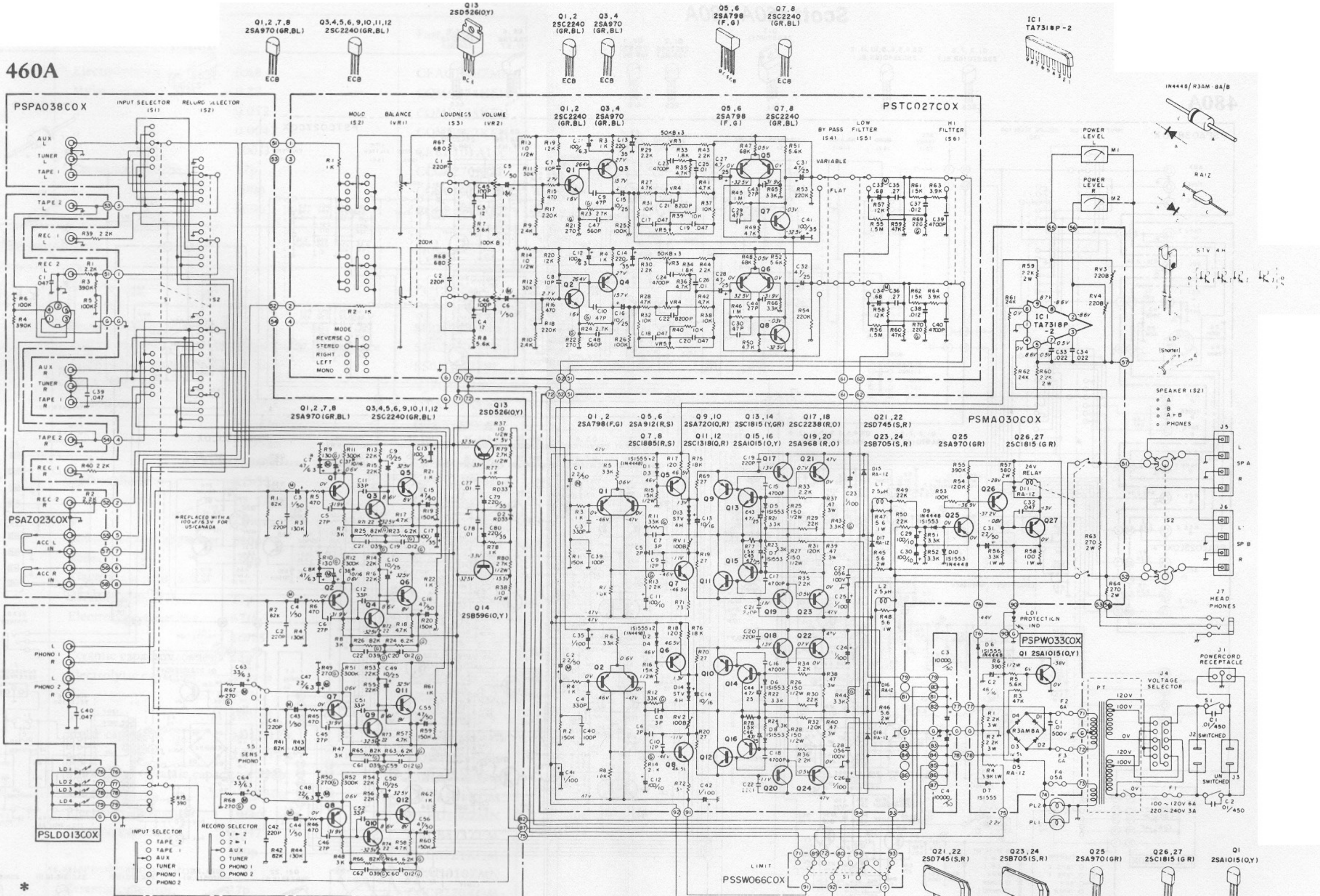


Combination of C7/37 and C8/38 are replaced with 100 μF/6.3V for US/Canada un

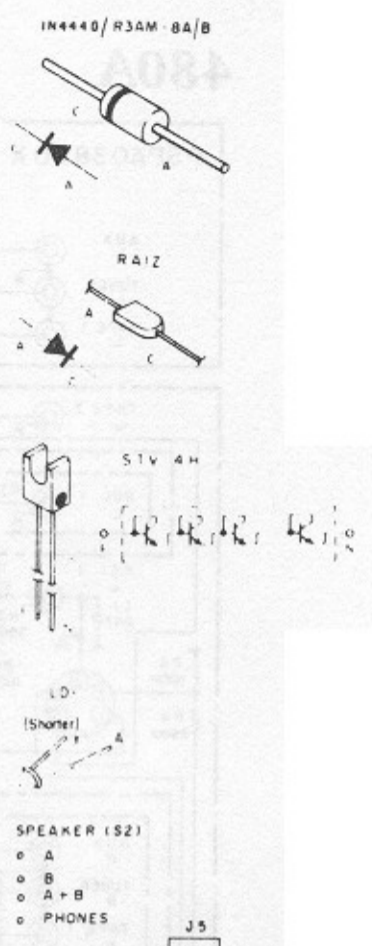
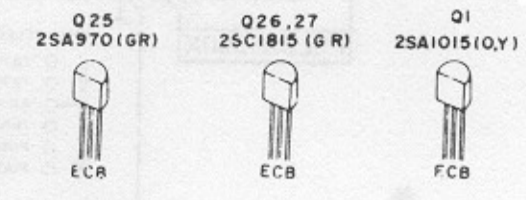
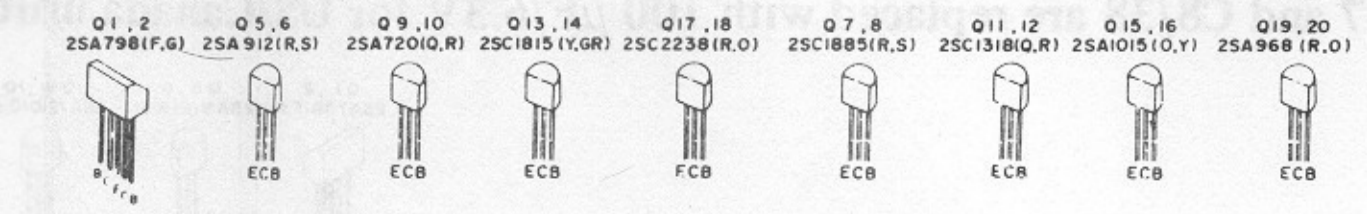




460A



* Combination of C7/37 and C8/38 are replaced with 100 μF/6.3V for US/Canada units.



1N4440/R3AM 8A/B

RA1Z

S1V 4H

LD1

J5

J6

J7

J8

J9

J10

J11

J12

J13

J14

J15

J16

J17

J18

J19

J20

J21

J22

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J30

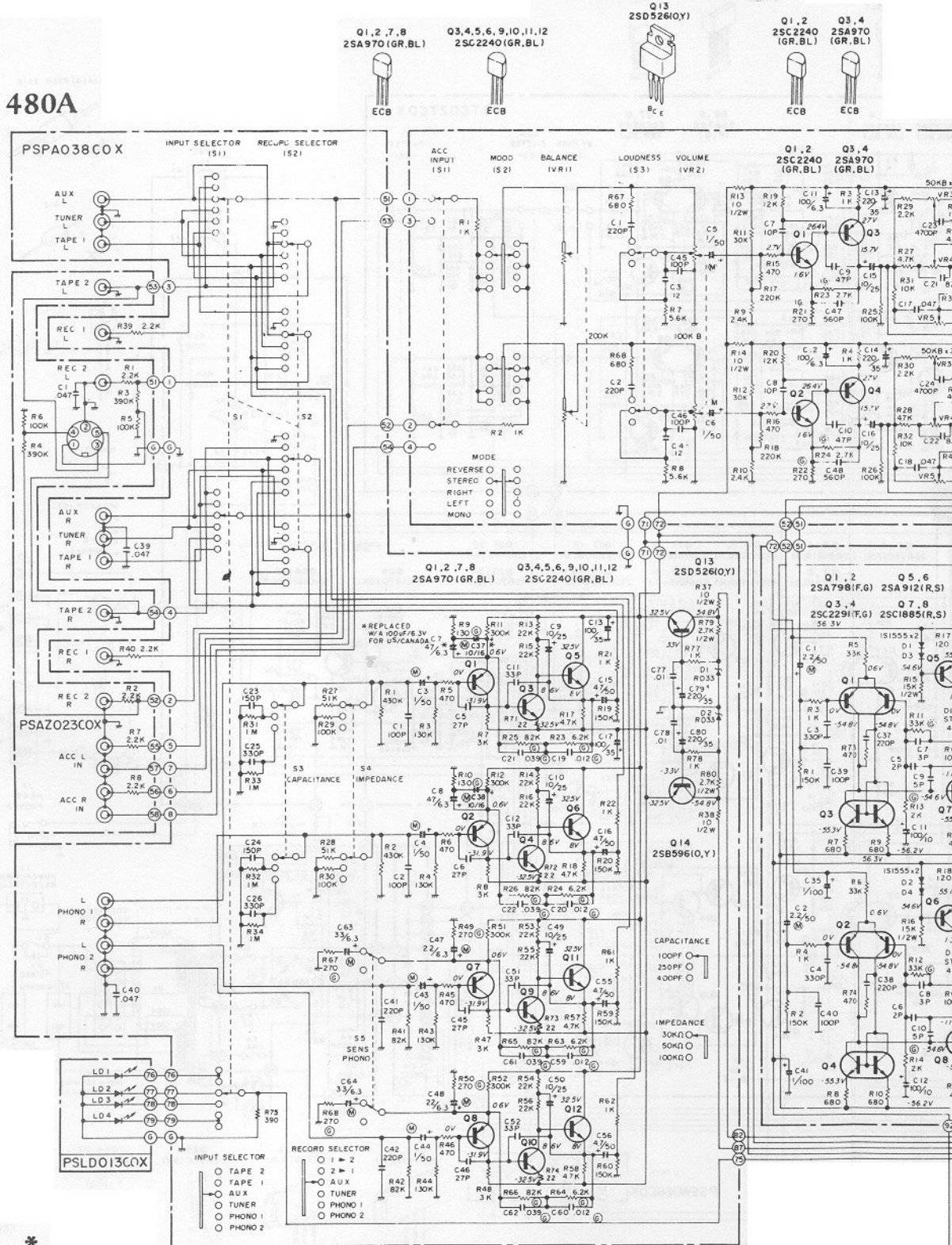
J31

J32

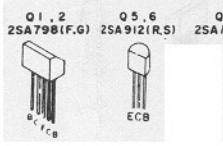
J33

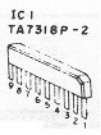
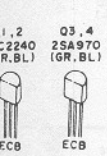
Scott 460A, 480A

480A

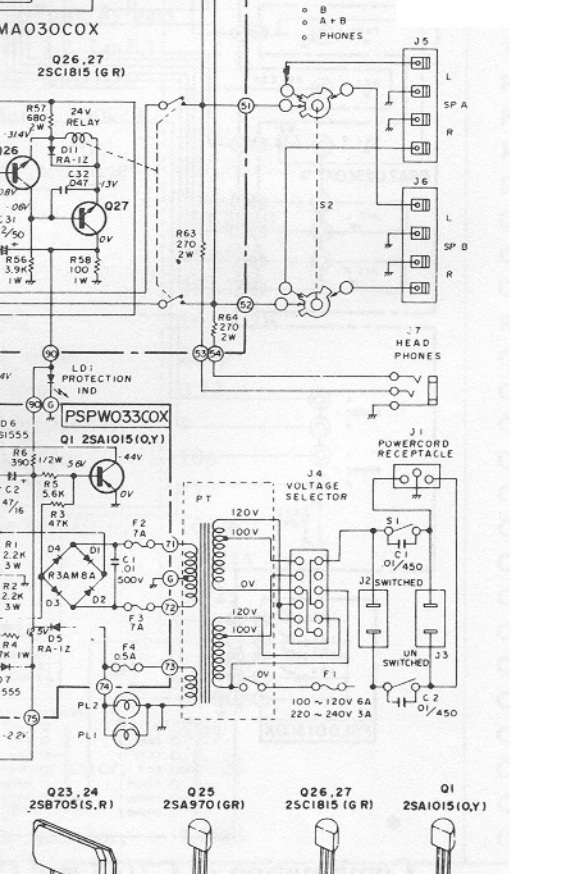
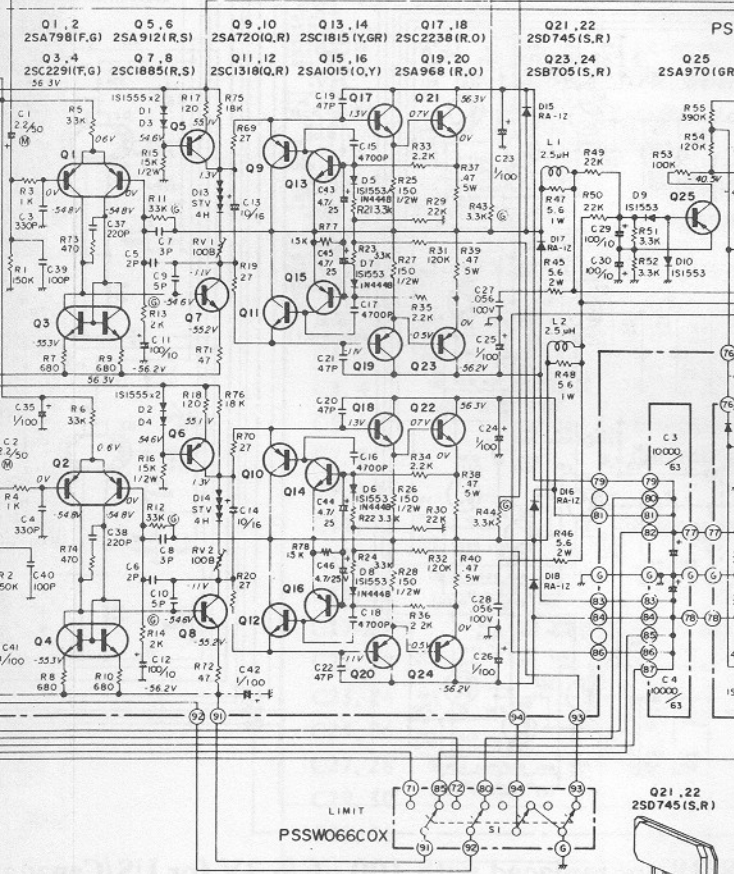
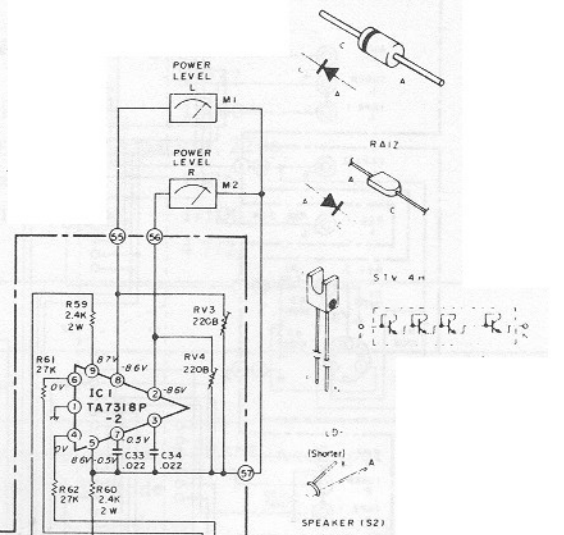
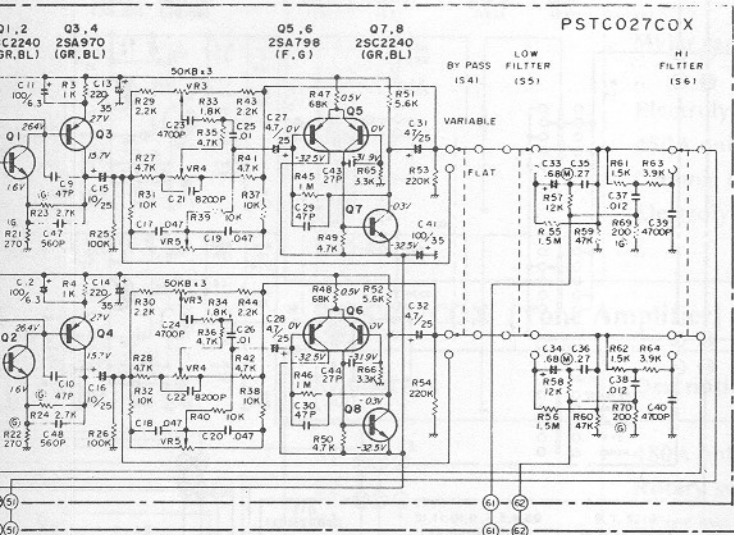


* Combinations of C7/37 and C8/38 are replaced with 100 μF/6.3V for US/Canada u

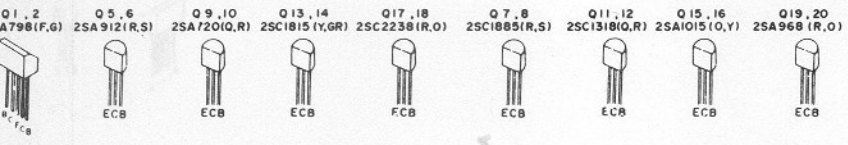




1N4440/R34M-64/B

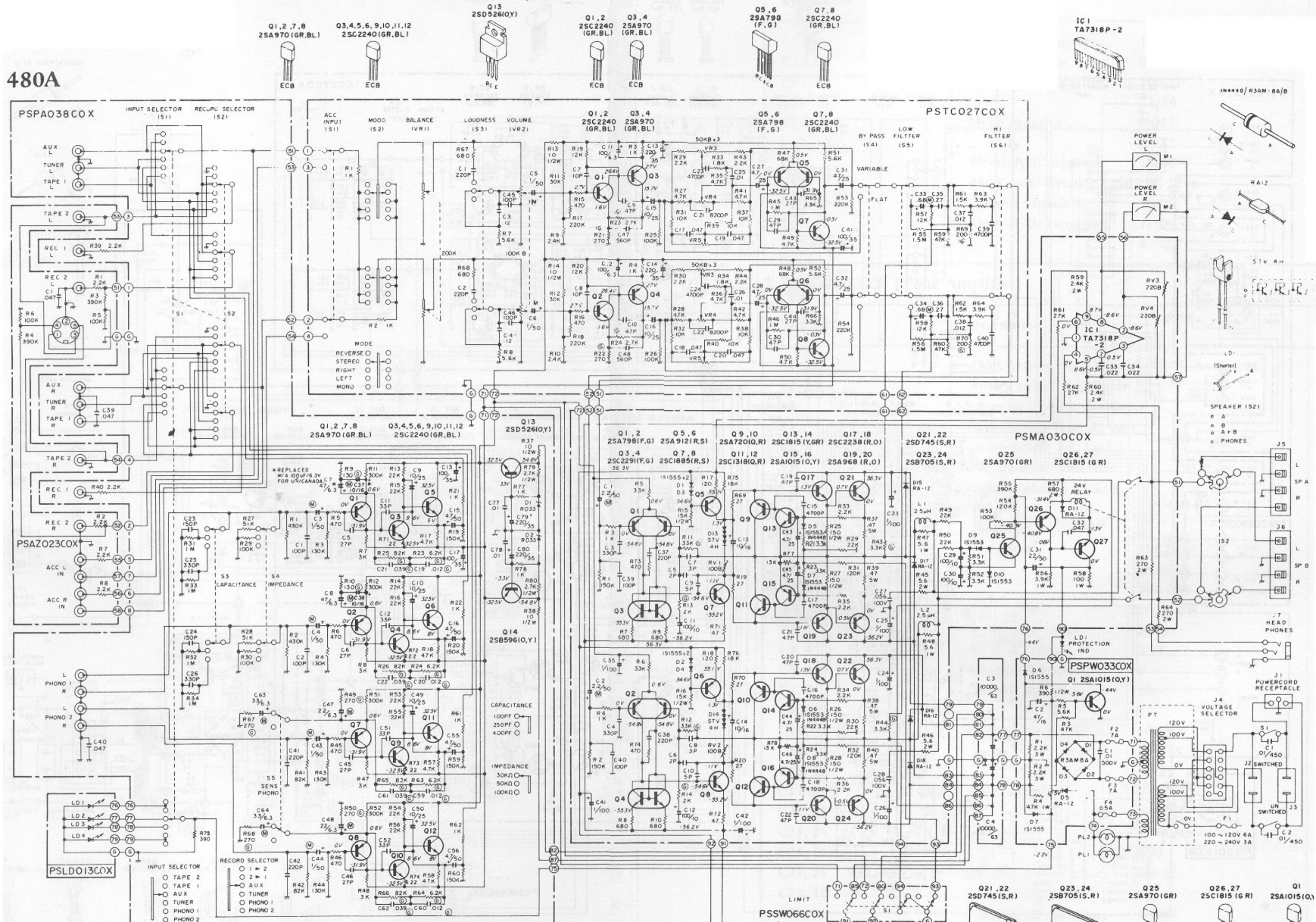


for US/Canada units.

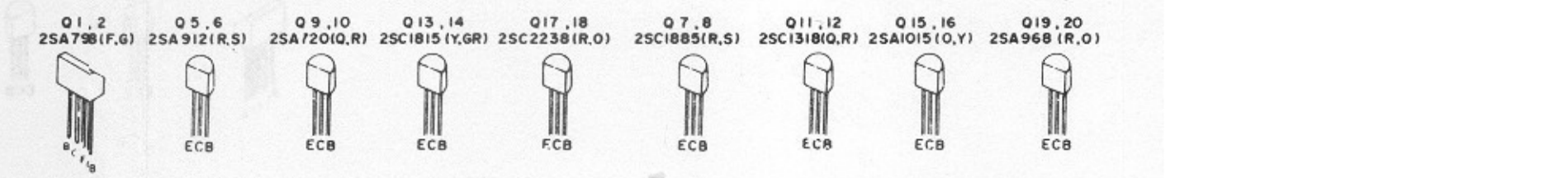


Scott 460A, 480A

480A



* Combinations of C7/37 and C8/38 are replaced with 100 μF/6.3V for US/Canada units.



Scott 460A,480A

Symbol No.	Description	Part Code
C33, 34	Electrolytic capacitor, 0.68	CEAGR68ZMN
C35, 36	Mylar capacitor, 0.27	CQMB274KEH
C37, 38	" 0.012	CQMB123KEH
C39, 40	" 0.0047	CQMB472KEH
C41	" 100/35	CEEF101ALX
C43, 44	Ceramic capacitor, 27p	CCCB270KOT
C45, 46	" 100p	CCCB101KOT
C47, 48	" 560p	CCCB561KOT

PSPA038COX [Preamplifier]

Symbol No.	Description	Part Code
S1, 2	Rotary switch, Selector, 4-6	SH040603ZA
S3, 4	480A only: Rotary switch, Capacitance/Impedance	SH020301ZA
S5	Slide switch, Phono Sens, 2-2	SS020233ZA
J1-3	RCA jack, 4p	YJP04S016U
Q1, 2, 7, 8	Transistor, 2SA970	QTA0970XAT
Q3-6, 9-12	" 2SC2240	QTC2240XAT
Q13	" 2SD526	QTD0526XAT
Q14	" 2SB596	QTB0596XAT
D1, 2	Zenner diode, RD-33	QDZRD33XXA
R37, 38	MOF resistor, 10, 1/2W	RXHANJ100N
R79, 80	" 2.7k, 1/2W	RGHANJ272N
C1, 2	460A: Ceramic capacitor, 220p	CCCB221KOM
	480A: ,, 100p	CCCB101KOM
C3, 4	Electrolytic capacitor, 1	CEAG010ZMN
C5, 6	Ceramic capacitor, 27p	CCCB270KOM
C7, 8	Electrolytic capacitor, 47/6.3	CEAB470ZMN
C9, 10	" 10/25	CEEE100ALX
C11, 12	Ceramic capacitor, 33p	CCCB330KOM
C13	Electrolytic capacitor, 100/35	CEEF101ALX
C15, 16	" 4.7	CEAG4R7ZMN
C17	" 100/35	CEEF101ALX
C19, 20	Mylar capacitor, 0.012 ±2%	CQMB123GEH
C21, 22	" 0.039 ±2%	CQMB393GEH
C23, 24	480A:only: Ceramic capacitor, 150p	CCCB151KOM
C25, 56	480A only: ,, 330p	CCCB331KOM
C37, 38	Electrolytic capacitor, 10/16	CEED100ZMN
C39, 40	Ceramic capacitor, 0.047	CKCB473ZFM
C41, 42	" 220p	CCCB221KOM
C43, 44	Electrolytic capacitor, 1	CEAG010ZMN
C45, 46	Ceramic capacitor, 27p	CCCB270KOM
C47, 48	Electrolytic capacitor, 22/6.3	CEAB220ZMN

Symbol No.	Description	Part Code
C49, 50	Electrolytic capacitor, 10/25	CEEE100ALX
C51, 52	Ceramic capacitor, 33p	CCCB330KOM
C55, 56	Electrolytic capacitor, 4.7	CEAG4R7ZMN
C59, 60	Mylar capacitor, 0.012 ±2%	CQMB123GEH
C61, 62	" 0.039 ±2%	CQMB393GEH
C63, 64	Electrolytic capacitor, 33/6.3	CEAB330ZMN
C65, 66	" 1	CEAG010ALX
C77, 78	Ceramic capacitor, 0.01	CKCB103PEM
C79, 80	Electrolytic capacitor, 220/35	CEEF221ALX

PSAZ023COX [Input Terminal]

Symbol No.	Description	Part Code
J1, 2	Accessory in/out RCA jacks, 4P	YJP04S016U
J3	Tape DIN-standardized jack, 5P	YJD05S011Z
C1	Ceramic capacitor, 0.047	CKFB473ZFT

PSLD013COX [Program LED]

Symbol No.	Description	Part Code
LD1-4	LED, Program	QLAPR5531R

SSW066COX [AF Power Select]

Symbol No.	Description	Part Code
S1	Sliding switch, 4-2	SS040204ZA