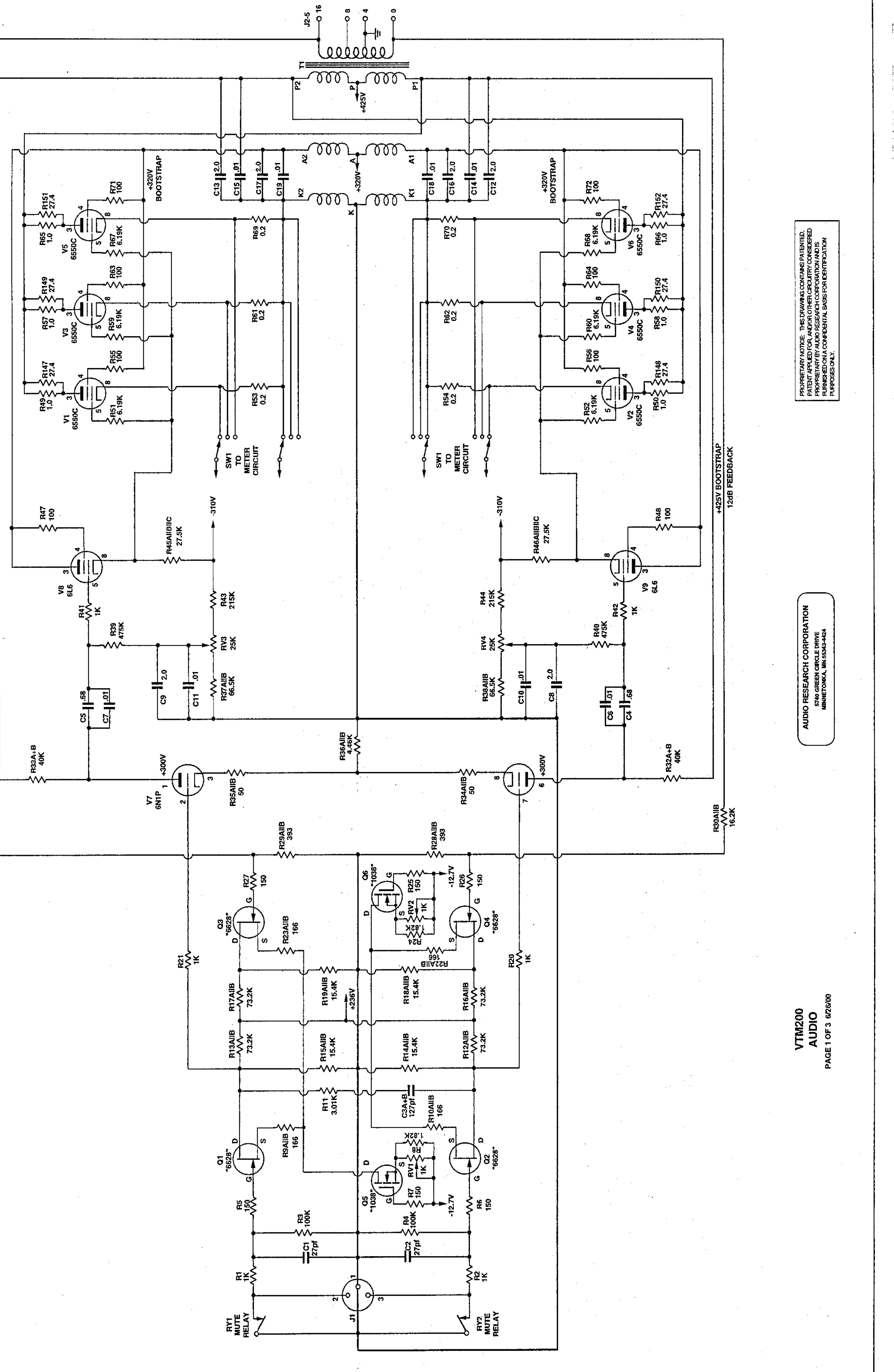


120B FEEDBACK
+425V BOOTSTRAP

R31A1B
16.2K

R32A+B
40K

R33A+B
40K

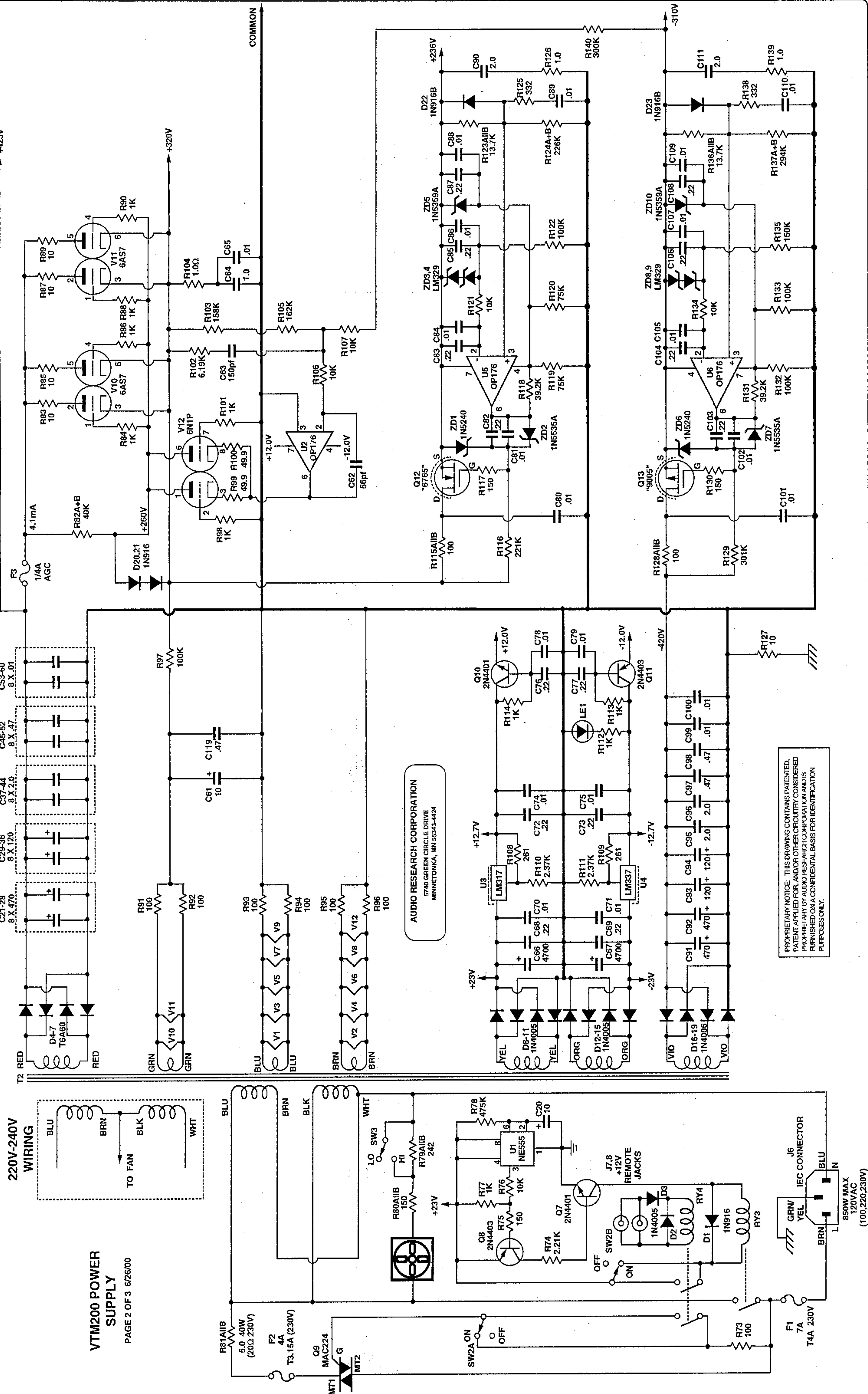
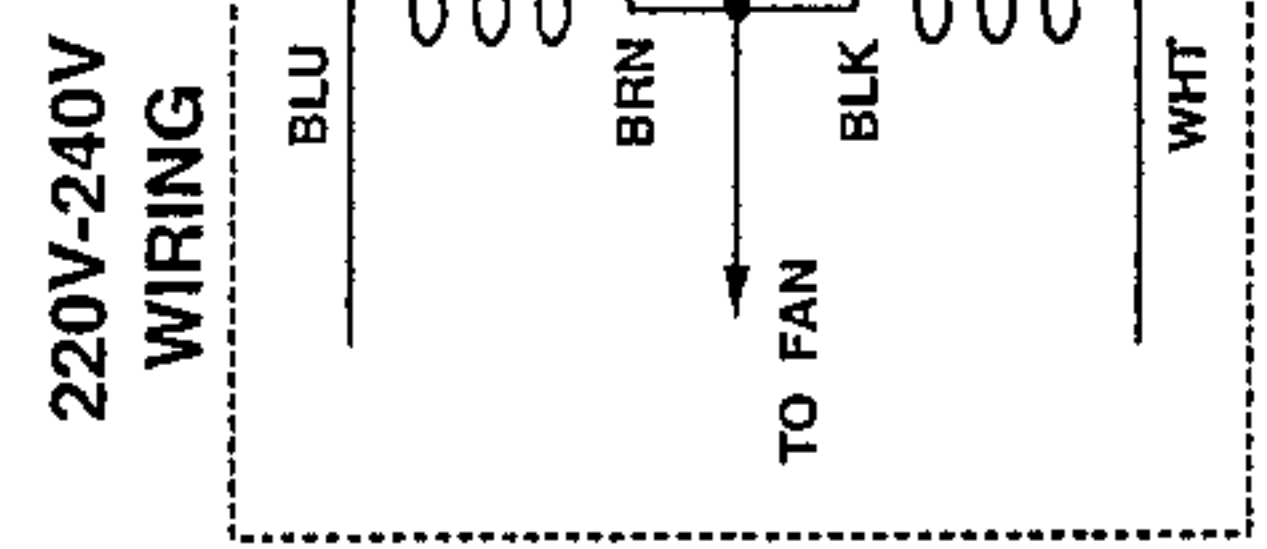


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 5740 GREEN CIRCLE DRIVE
 MINNETONKA, MN 55343-4424

VTM200
 AUDIO
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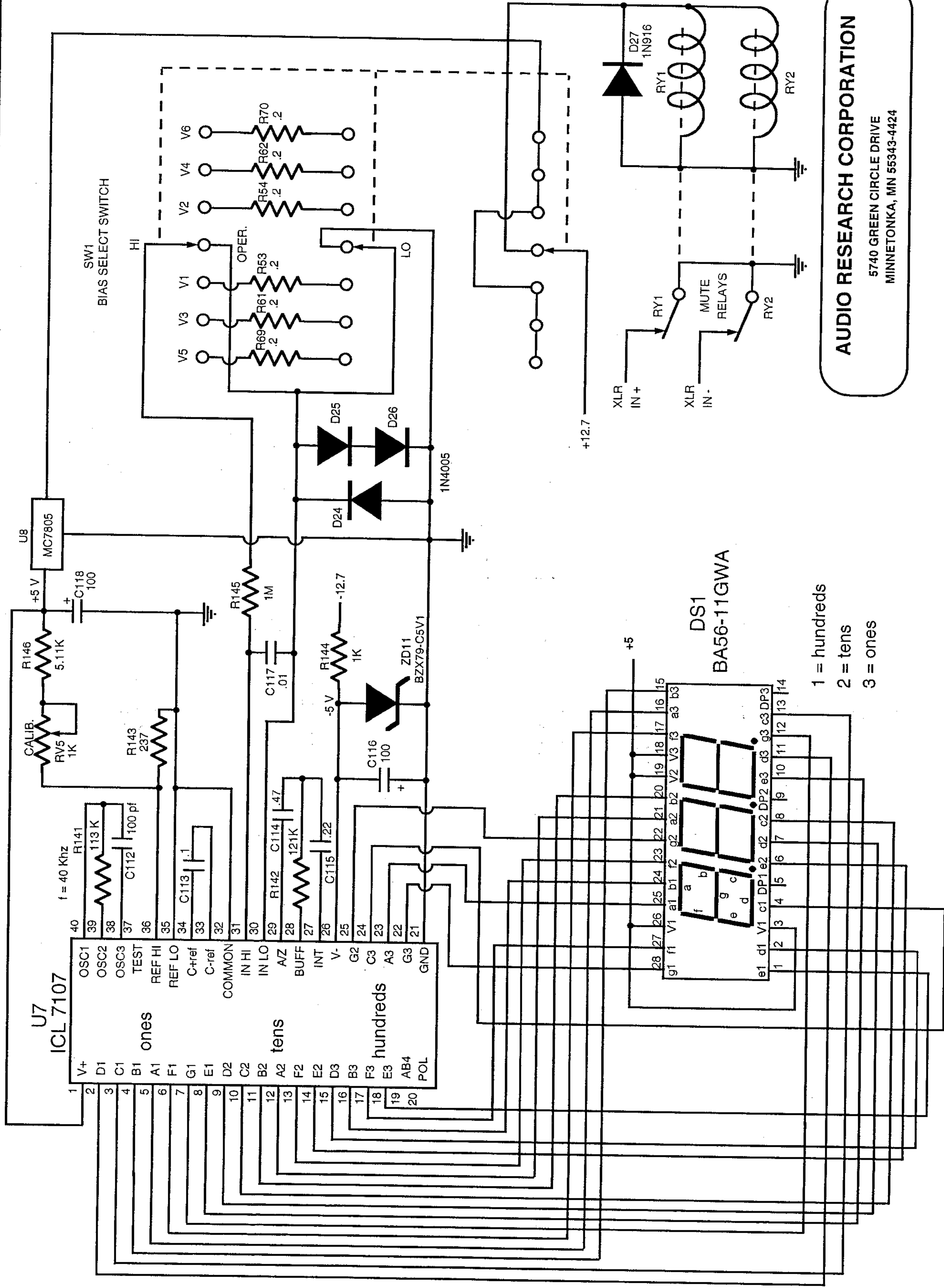
VTM200 POWER SUPPLY
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850W MAX
120VAC
(100,220,230V)



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VTM200 BIAS METER
 PAGE 3 OF 3
 6-1-00

1 = hundreds
 2 = tens
 3 = ones

PARTS LIST

As of AUG 11 00

PRODUCT: VTM200

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1,2,3B	3	53270101	CAP., 27pf \pm 1pf 630V PNP
C3,4	2	53680505	CAP., .68 μ F 425V INFINICAP GRN
C3A	1	53100202	CAP. 100pf \pm 2.5% 630V PPN
C6,7	2	53100414	(SS)CAP., .01 μ F 630V. INFI GRN
C8,9	2	53200603	CAP., 2 μ F \pm 10% 250V
C10,11,53-60,65,89,99,100,110	15	53100406	(SS)CAP., .01 μ f \pm 10% 630V
C12,13,16,17,37-44,90,95,96,111	16	53200602	CAP., 2 μ F \pm 10% 450V
C14,15,18,19,80,101	6	53100412	CAP., .01 μ F \pm 10% 600V RTX
C20	1	51100700	CAP., 10 μ F 20V \pm 10% DIP TANT.
C21-28,91,92	10	50470807	CAP., 470 μ F 450V "LYTIC"
C29-36,93,94	10	50120801	CAP., 120 μ F 450V "LYTIC"
C45-52,97,98,119	11	53470509	CAP., .47 μ f \pm 10% 450V
C61	1	50100706	CAP., 10uf 400V
C62	1	53560103	CAP., 56pf \pm 2.5% 630V PPN
C63	1	53150202	CAP., 150pf 2-1/2% 630V PPN
C64	1	53100610	CAP., 1.0 μ F \pm 10% 400V PPMF
C66,67	2	50470901	CAP., 4700 μ F 35V
C68,69,72,73,76,77,82,83,85,87,103	15	53220507	CAP., .22 μ f \pm 10% 160V
C 104,106,108,115			
C70,71,74,75,78,79,81,84,86,88,102	14	53100410	CAP., .01uf \pm 10% 400V
C 105,107,109			
C112	1	52100200	CAP., 100pf 200V \pm 10%
C113	1	52100500	CAP., 0.1 μ f 100V \pm 20%
C114	1	52470500	CAP., .47 μ F 200V \pm 10% CER RAD
C116,118	2	50100804	CAP., 100 μ F 10V "LYTIC"
C117	1	52100400	CAP., .01 μ f 200V \pm 10%
D DIODES			
D1,20-23,27	6	30500910	1N916B
D2,3,8-15,24-26	13	30500400	IN4005
D4-7	4	30503310	T6A60, TAITRON
D16-19	4	30502200	IN4006
DS1	1	34200200	DISPLAY, L.E.D. 3 DIGIT GREEN
F FUSES			
F1	1	34500703	(B)FUSE, 7 AMP MDX BUSSMAN
F2	1	34500705	(B)FUSE, 4 AMP MDQ BUSSMAN
F3	1	34500102	(B)FUSE, 1/4 AMP 250V
J CONNECTORS			
J1	1	23201970	CONNECTOR, XLR FEM. #NC3FP-1-B
J2-5	4	10036620	BINDING POST, & KNOB
J6	1	23201810	CONNECTOR, HUBBEL REF300
J7,8	2	23202900	JACK, MINI PHONE .140"

PARTS LIST

As of AUG 11 00

PRODUCT: VTM200

Schematic Symbol	Quantity	ARC Part #	Description
LE			PANEL INDICATOR
LE1	1	34300320	L.E.D., GREEN SPOT L424GDT
Q			TRANSISTORS
Q1-4	4	30006628	FET, VIOLET RED GRAY
Q5,6	2	30011037	FET, GREEN-ORANGE-VIOLET
Q7,10	2	30002800	TRANSISTOR, 2N4401
Q8,11	2	30002900	TRANSISTOR, 2N4403
Q9	1	30010910	TRANSISTOR, TRIAC MAC224
Q12	1	30006765	FET, ORANGE-YELLOW-GREEN
Q13	1	30009005	FET, GREEN-GRAY
R			RESISTORS
R1,2,20,21,41,42,84,86,88,90	10	42100314	RES., 1K Ω MK-5 1% 50PPM
R3,4	2	42100503	RES., 100K Ω MK-3 1% 50PPM
R5,6,7,25-27,75,117,130	9	42150202	RES., 150 Ω MK-2 1% 50PPM
R8,24	2	42182303	RES., 1.82K Ω MK-3 1% 50PPM
R9A,9B,10A,10B,22A,22B,23A,23B,125	10	42332203	RES., 332 Ω MK-3 1% 50PPM
R 138			
R11	1	42301303	RES., 3.01K Ω MK-3 1% 50PPM
R12A,13A,16A,17A,119,120	6	42750405	RES., 75K Ω MK-8 1% 50PPM
R12B,13B,16B,17B	4	42301603	RES., 3.01 MEG MK-3 1% 50PPM
R14A,15A,18A,19A	4	42178403	RES., 17.8K Ω MK-3 1% 50PPM
R14B,15B,18B,19B,124B	5	42115503	RES., 115K Ω MK3 1% 50PPM
R28A,29A	2	42750203	RES., 750 Ω MK-3 1% 50PPM
R28B,29B	2	42825203	RES., 825 Ω MK-3 1% 50PPM
R30A,30B,31A,31B	4	42324403	RES., 32.4K Ω MK-3 1% 50PPM
R32A,32B,33A,33B,82A,82B	6	42200414	RES., 20K Ω MK-5 1% 50PPM
R34A,34B,35A,35B,91-96	10	42100203	RES., 100 Ω MK-3 1% 50PPM
R36A,137A	2	42750303	RES., 7.5K Ω MK-3 1% 50PPM
R36B	1	42110403	RES., 11K Ω MK-3 1% 50PPM
R37A,37B,38A,38B	4	42133503	RES., 133K Ω MK-3 1% 50PPM
R39,40,78	3	42475503	RES., 475K Ω MK-3 1% 50PPM
R43,44	2	42215503	RES., 215K Ω MK-3 1% 50PPM
R45A,45B,45C,46A,46B,46C	6	42825405	RES., 82.5K Ω MK-8 1% 50PPM
R47,48,55,56,63,64,71,72	8	43100208	RES., 100 Ω 5% 3W W.W.
R49,50,57,58,65,66,104	7	43100006	RES., 1.0 Ω 3W PRC
R51,52,59,60,67,68	6	42619314	RES., 6.19K Ω MK-5 1% 50PPM
R53,54,61,62,69,70	6	43200005	RES., 0.2 Ω 3W \pm 5% MATCHED PAIR
R73	1	43100200	RES., 100 Ω 5% 2W
R74	1	42221303	RES., 2.21K Ω MK-3 1% 50PPM
R76,106,107,121,134	5	42100403	RES., 10K Ω MK-3 1% 50PPM
R77,98,101,112-114	6	42100303	RES., 1K Ω MK-3 1% 50PPM
R79A	1	43375200	RES., 375 Ω 3W \pm 1% W.W.
R79B	1	43680200	RES., 680 Ω 3-4W \pm 5%
R80A,80B	2	43300202	RES., 300 Ω 2W \pm 5% W.W.
R81A,81B	2	43100106	RES., 10 Ω 20W W.W.
R83,85,87,89	4	43100105	RES., 10 Ω 2W 5% W.W.
R97,122,132,133	4	42100505	RES., 100K Ω MK-8 1% 50PPM
R99,100	2	42499102	RES., 49.9 Ω MK-2 1% 50PPM
R102	1	42619303	RES., 6.19K Ω MK-3 1% 50 PPM
R103	1	42158503	RES., 158K Ω MK-3 1% 50PPM
R105	1	42162503	RES., 162K Ω MK-3 1% 50PPM
R108,109	2	42261203	RES., 261 Ω MK3 1% 50 PPM
R110,111	2	42237303	RES., 2.37K Ω MK-3 1% 50PPM
R115A,115B,128A,128B	4	42200205	RES., 200 Ω MK8 1% 50PPM

PARTS LIST

As of AUG 11 00

PRODUCT: VTM200

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R116	1	42221503	RES., 221KΩ MK-3 1% 50PPM
R118,131	2	42392403	RES., 39.2KΩ MK-3 1% 50PPM
R123A,123B,136A,136B	4	42274403	RES., 27.4KΩ MK-3 1% 50PPM
R124A	1	42110503	RES., 110KΩ MK3 1% 50PPM
R126,139	2	43100002	RES., 1Ω 2W 5% W.W.
R127	1	42100103	RES., 10Ω MK-3 1% 50PPM
R129	1	42301503	RES., 301KΩ MK-3 1% 50PPM
R135	1	42150514	RES., 150KΩ MK-5 1% 50PPM
R137B	1	42287503	RES., 287KΩ MK-3 1% 50PPM
R140	1	42300514	RES., 300KΩ MK-5 1% 50PPM
R141	1	42113503	RES., 113KΩ MK3 1% 50PPM
R142	1	42121502	RES., 121KΩ MK-2 1% 50PPM
R143	1	42237202	RES., 237Ω MK-2 1% 50PPM
R144	1	42100302	RES., 1KΩ MK-2 1% 50 PPM
R145	1	42100602	RES., 1 MEG MK2 1% 50PPM
R146	1	42511302	RES., 5.11K MK-2
R147-152	6	42274103	RES., 27.4Ω MK-3 1% 50PPM
RV			CONTROLS
RV1,2	2	45100301	POT., TRIM 1KΩ
RV3,4	2	45250405	POT., 25KΩ 10%
RV5	1	45100300	POT., TRIM 1KΩ
RY			RELAYS
RY1,2	2	64101000	RELAY, 12V REED S1P 1200Ω
RY3	1	64101510	RELAY, 24V
RY4	1	64101800	RELAY, 12V FAST
SW			SWITCHES
SW1	1	24003800	SWITCH, BIAS 7 POSITION
SW2	1	24102300	SWITCH, ROCKER
SW3	1	24101510	SWITCH, TOGGLE NON-THREADED
T			TRANSFORMERS
T1	1	60016900	XFR., OUTPUT VTM200
T2	1	60017414	XFR., POWER VTM200
U			INTEGRATED CIRCUITS
U1	1	31000800	TIMER, NE555N
U2,5,6	3	31002210	OP-AMP, OP176GP
U3	1	31004000	REGULATOR, VOLTAGE ADJ POS.
U4	1	31004700	REGULATOR, VOLTAGE ADJ. NEG.
U7	1	31009210	IC, DRIVER DVM TC7107CPL
U8	1	31002910	REGULATOR, IC 5V
V			VACUUM TUBES
V1-6	6	32000561	(B)VAC. TUBE, 6550C TESTED
V7,12	2	32002200	(B)TUBE, VACUUM SVETLANA 6N1P
V8,9	2	32000421	TUBE, SV6L6GC (TESTED)
V10,11	2	32000611	(B)TUBE, SV6AS7G (TESTED)

PARTS LIST

As of AUG 11 00

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Schematic Symbol	Quantity	ARC Part #	Description
ZD			ZENER DIODES
ZD1,6	2	30504400	IN5240B
ZD2,7	2	30504210	DIODE, ZENER IN5535A (KNOX)
ZD3,4,8,9	4	31000705	FET, GREEN
ZD5,10	2	30503500	IN5359A OR B
ZD11	1	30505200	ZENER, 5.1V BZX79-C5V1RL