

# **audio research**

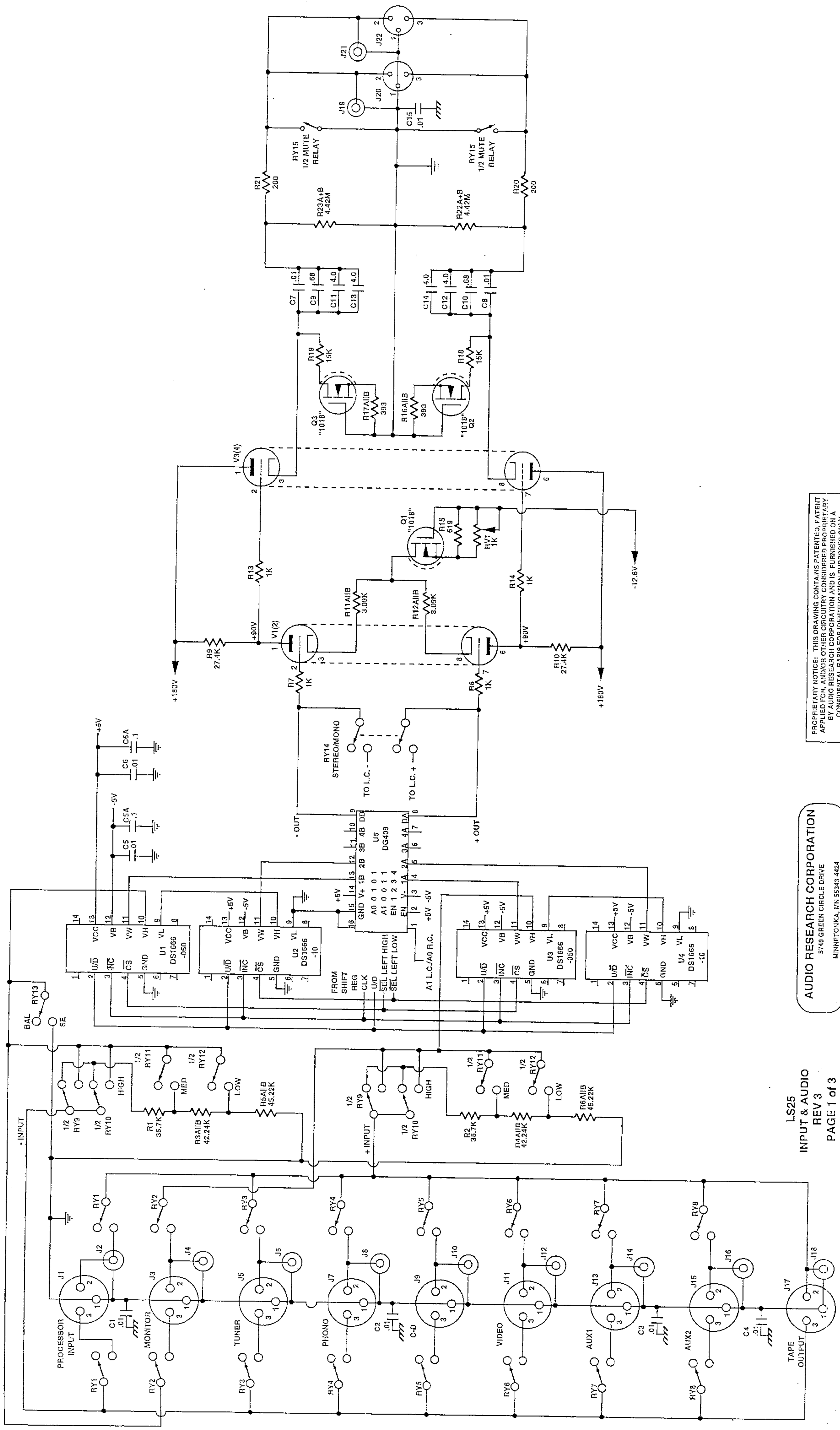
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3900 ANNAPOLIS LANE NORTH / PLYMOUTH, MINNESOTA 55447-5447 / PHONE: 763-577-9700 FAX 763-577 0323

LS25 PREAMPLIFIER

SCHEMATIC

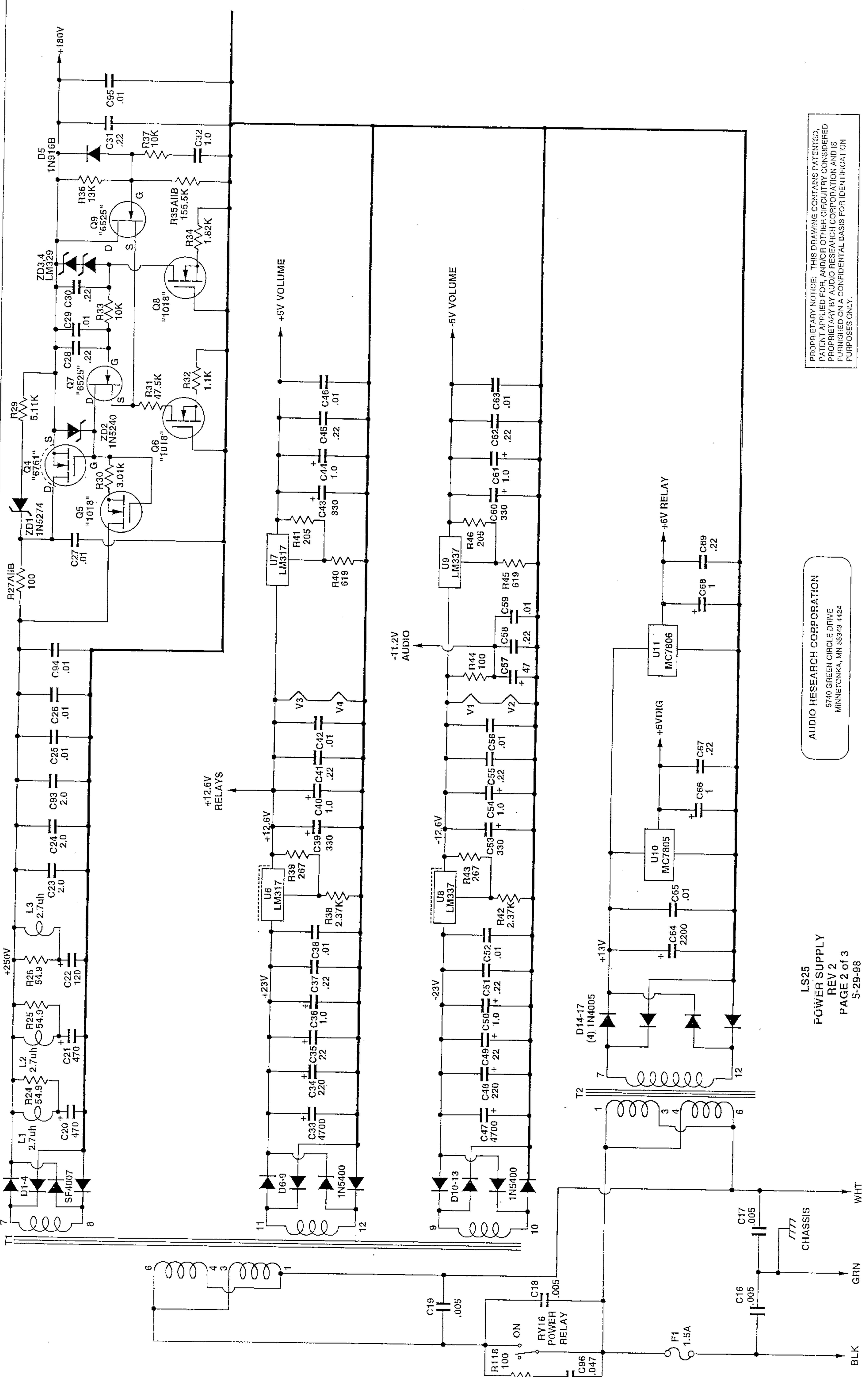
6-25-98



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AUDIO RESEARCH CORPORATION  
5740 GREEN CIRCLE DRIVE  
MINNETONKA, MN 55343-4424

LS25  
INPUT & AUDIO  
REV 3  
PAGE 1 of 3  
6-25-98

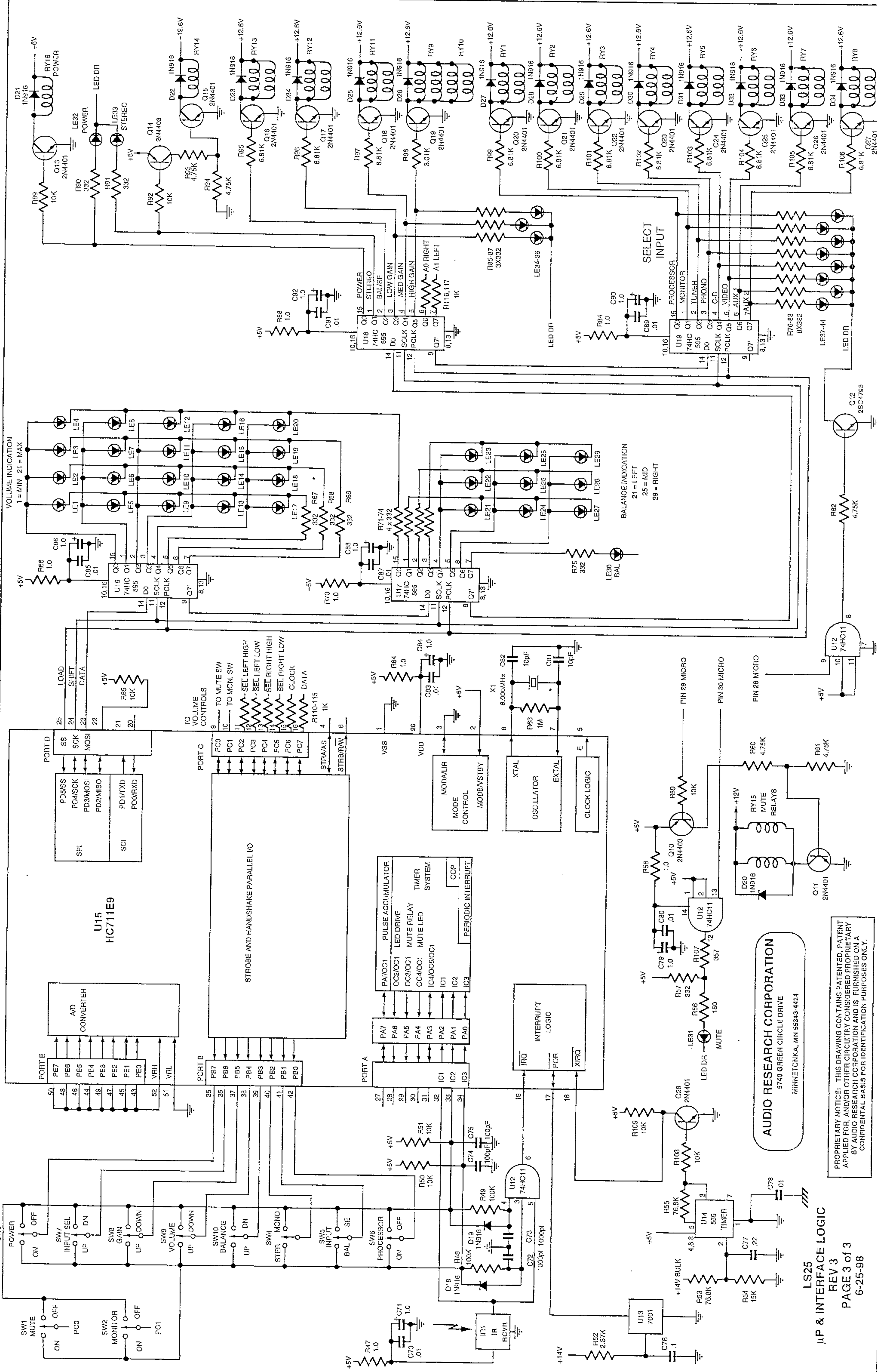


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 5740 GREEN CIRCLE DRIVE  
 MINNETONKA, MN 55343 4424

LS25  
 POWER SUPPLY  
 REV 2  
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 5-29-98





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3900 ANNAPOLIS LANE NORTH / PLYMOUTH, MINNESOTA 55447-5447 / PHONE: 763-577-9700 FAX 763-577-0323

LS25 PREAMPLIFIER

PARTS LIST

Nov. 19, 1998

## PARTS LIST

As of NOV 19 98

PRODUCT: LS25

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1-6,15,70,78,80,83,85,87,89,91	22	52100400	CAP., .01µf 200V ±10%
C7,8,95	5	53100414	CAP., .01µF 630V. INFINI GRN
C9,10	4	53680505	CAP., .68µF 425V INFINICAP GRN
C11-14	8	53400602	CAP., 4.0µF 20% 425V INFINIGRN
C16-19	4	53470305	CAP., 4700pF ±20% 250V or 275V
C20,21	2	50470807	CAP., 470µF 450V "LYTIC"
C22	1	50120801	CAP., 120µF 450V "LYTIC"
C23,24,93	3	53200602	CAP., 2µF ±10% 450V
C25,26,27,94	4	53100412	CAP., .01µF ±10% 600V RTX
C28,30,37,41,45,51,55,58,62,67,69,77	12	53220507	CAP., .22µf ±10% 160V
C29,38,42,46,52,56,59,63,65	9	53100410	CAP., .01uf ±10% 400V
C31	1	53220509	CAP., .22µf ±10% 400V
C32	1	53100606	CAP., 1.0µf ±10% 250V
C33,47	2	50470901	CAP., 4700µF 35V
C34,48	2	50220801	CAP., 220µF 50V
C35,49	2	50220702	CAP., 22µF 50V "LYTIC"
C36,40,44,50,54,61,66,68,71,79,84,86	15	50100601	CAP., 1µF 50V "LYTIC"
C 88,90,92			
C39,43,53,60	4	50330801	CAP., 330µF 16V "LYTIC"
C57	1	50470702	CAP., 47µF 10V "LYTIC"
C64	1	50220903	CAP., 2200µF 35V ELECTROLYTIC
C72,73	2	52100301	CAP., 1000pf 200V ±10% CER RAD
C74,75	2	52100200	CAP., 100pf 200V ±10%
C76,5A,6A	5	52100500	CAP., 0.1µf 100V ±20%
C81,82	2	52100100	CAP., 10pf 200V ±10% CER. RAD.
C96	1	53470404	CAP., .047µf ±20% 250V
D DIODES			
D1-4	4	30505900	DIODE, SF4007
D5,18-34	18	30500910	1N916B
D6-13	8	30501500	IN5400
D14-17	4	30500400	IN4005
F FUSES			
F1	1	34501700	(B)FUSE, 1.5 AMP MDX BUSSMAN
J CONNECTORS			
J1,3,5,7,9,11,13,15	16	23201960	CONNECTOR, XLR FEM. #NC3FD-V-B
J2,4,6,8,10,12,14,16,18,19,21	11	23201510	JACK, CHASSIS WHITE
J2,4,6,8,10,12,14,16,18,19,21	11	23201509	JACK, CHASSIS RED
J17,20,22	6	23201965	CONNECTOR, XLR MALE #NC3MD-V-B
LE PANEL INDICATOR			
LE1-44	44	34300300	L.E.D., GREEN SPOT LTL-1234A



## PARTS LIST

As of NOV 19 98

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Schematic Symbol	Quantity	ARC Part #	Description
Q      TRANSISTORS			
Q1,2,3,5,6,8	9	30011018	FET, GREEN/WHITE/GRAY
Q4	1	30006761	FET, ORANGE YELLOW BROWN
Q7,9	2	30006525	FET, WHITE RED GREEN
Q10,14	2	30002900	TRANSISTOR, 2N4403
Q11,13,15-28	16	30002800	TRANSISTOR, 2N4401
Q12	1	30010105	TRANSISTOR, GREEN
R      RESISTORS			
R1,2	4	42357403	RES., 35.7K $\Omega$ MK-3 1% 50PPM
R3A,4A	4	42619403	RES., 61.9K $\Omega$ MK-3 1% 50 PPM
R3B,4B	4	42133503	RES., 133K $\Omega$ MK-3 1% 50PPM
R5A,6A	4	42768403	RES., 76.8K $\Omega$ MK-3 1% 50PPM
R5B,6B	4	42110503	RES., 110K $\Omega$ MK3 1% 50PPM
R7,8,13,14	8	42100314	RES., 1K $\Omega$ MK-5 1% 50PPM
R9,10	4	42274405	RES., 27.4K $\Omega$ MK-8 1% 50PPM
R11,12	0	49127303	RES., 1.27K 1% HOLCO H4
R11,12	4	49301303	RES., 3.01K 1% HOLCO H4
R15	2	42619202	RES., 619 $\Omega$ MK-2 1% 50PPM
R16A,17A	4	42750203	RES., 750 $\Omega$ MK-3 1% 50PPM
R16B,17B	4	42825203	RES., 825 $\Omega$ MK-3 1% 50PPM
R18,19	4	42150405	RES., 15K $\Omega$ MK-8 1% 50PPM
R20,21,27A,27B	6	42200205	RES., 200 $\Omega$ MK8 1% 50PPM
R22A,22B,23A,23B	8	42221602	RES., 2.21 MEG MK-2 1% 50PPM
R24-26	3	42549103	RES., 54.9 $\Omega$ MK-3 1% 50PPM
R29	1	42511303	RES., 5.11K $\Omega$ MK-3 1% 50PPM
R30,98	2	42301302	RES., 3.01K $\Omega$ MK2 1% 50PPM
R31	1	42475402	RES., 47.5K $\Omega$ MK-2 1% 50 PPM
R32	1	42110302	RES., 1.1K $\Omega$ MK-2 1% 50PPM
R33,37,119	3	42100403	RES., 10K $\Omega$ MK-3 1% 50PPM
R34	1	42182302	RES., 1.82K $\Omega$ MK-2 1% 50 PPM
R35A	1	42243503	RES., 243K $\Omega$ MK3 1% 50PPM
R35B	1	42432503	RES., 432K $\Omega$ MK-3 1% 50PPM
R36	1	42130403	RES., 13K $\Omega$ MK-3 1% 50PPM
R38,42	2	42237303	RES., 2.37K $\Omega$ MK-3 1% 50PPM
R39,43	2	42267203	RES., 267 $\Omega$ MK-3 1% 50PPM
R40,45	2	42619203	RES., 619 $\Omega$ MK-3 1% 50PPM
R41,46	2	42205203	RES., 205 $\Omega$ MK-3 1% 50PPM
R44,118	2	42100203	RES., 100 $\Omega$ MK-3 1% 50PPM
R47,58,64,66,70,84,88	8	42100002	RES., 1 $\Omega$ MK-2 1% 50 PPM
R48,49	2	42100502	RES., 100K $\Omega$ MK-2 1% 50PPM
R50,51,59,65,89,92,108,109	8	42100402	RES., 10K $\Omega$ MK-2 1% 50 PPM
R52	1	42237302	RES., 2.37K $\Omega$ MK-2 1% 50PPM
R53,55	2	42768402	RES., 76.8K $\Omega$ MK-2 1% 50PPM
R54	1	42150402	RES., 15.0K $\Omega$ MK-2 1% 50 PPM
R56	1	42150202	RES., 150 $\Omega$ MK-2 1% 50PPM
R57,67,68,69,71-83,85-87,90,91	22	42332202	RES., 332 $\Omega$ MK-2 1% 50PPM
R60,61,62,93,94	5	42475302	RES., 4.75K $\Omega$ MK-2 1% 50 PPM
R63	1	42100602	RES., 1 MEG MK2 1% 50PPM
R95,96,97,99-106	12	42681302	RES., 6.81K $\Omega$ MK-2 1% 50 PPM
R107	1	42357202	RES., 357 OHM MK-2
R110-117	8	42100302	RES., 1K $\Omega$ MK-2 1% 50 PPM

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As of NOV 19 98

PRODUCT: LS25

Schematic Symbol	Quantity	ARC Part #	Description
			RY RELAYS
RY1-15	29	64101600	RELAY, 12VDC
RY16	1	64101310	RELAY, MUTE VTM120
			SW SWITCHES
SW1-6	6	24102600	SWITCH, MOMENTARY REF1
SW7-10	4	24003600	SWITCH, ROTARY UP-DOWN LS15
			T TRANSFORMERS
T1	1	60015814	(B)XFR., LS25 DUAL VOLTAGE
T2	1	60013614	(B)XFR., LS15 10V (115/130V.)
			U INTEGRATED CIRCUITS
U1,3	4	31008121	POT., DIGITAL DS1666-050
U2,4	4	31008111	POT., DIGITAL 10KΩ DS1666-10
U5	2	31003820	DUAL ANALOG SWITCH DG409DJ
U6,7	2	31004000	REGULATOR, VOLTAGE ADJ POS.
U8,9	2	31004700	REGULATOR, VOLTAGE ADJ. NEG.
U10	1	31002910	REGULATOR, IC 5V
U11	1	31002920	REGULATOR, IC 6V MC7806CT
U12	1	31007400	TRIPLE 3-INPUT & GATE, 74HC11N
U13	1	31008400	LX7001CLP, LINFINITY
U14	1	31000801	TIMER, MC1455P1 OR NE555V
U15	1	31006900	(Q)MICROCONTROLLER
U16-19	4	31006800	REGISTER, LATCH
			V VACUUM TUBES
V1-4	4	32001162	(B)TUBE, 6922 SILVER TESTED
			X CRYSTALS
X1	1	27000060	CRYSTAL, 8MHZ #CTX082ND
			ZD ZENER DIODES
ZD1	1	30503800	DIODE, ZENER IN5274B
ZD2	1	30504400	IN5240B
ZD3,4	2	31000705	FET, GREEN