

audio research

H I G H D E F I N I T I O N[®]

5740 GREEN CIRCLE DRIVE / MINNETONKA, MINNESOTA 55343-4424 / PHONE 612/939-0600 FAX 612/939-0604

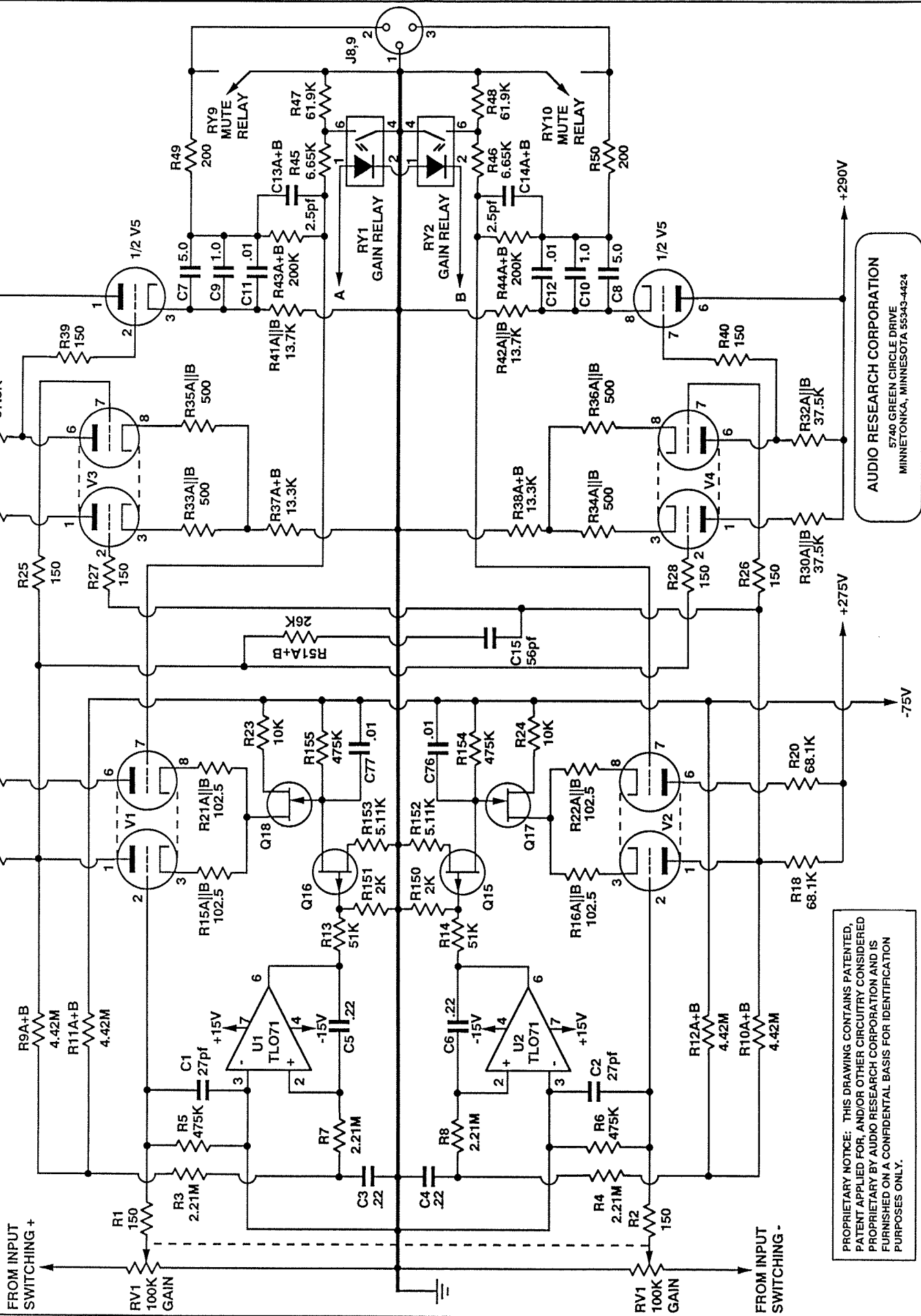
LS5 PREAMPLIFIER

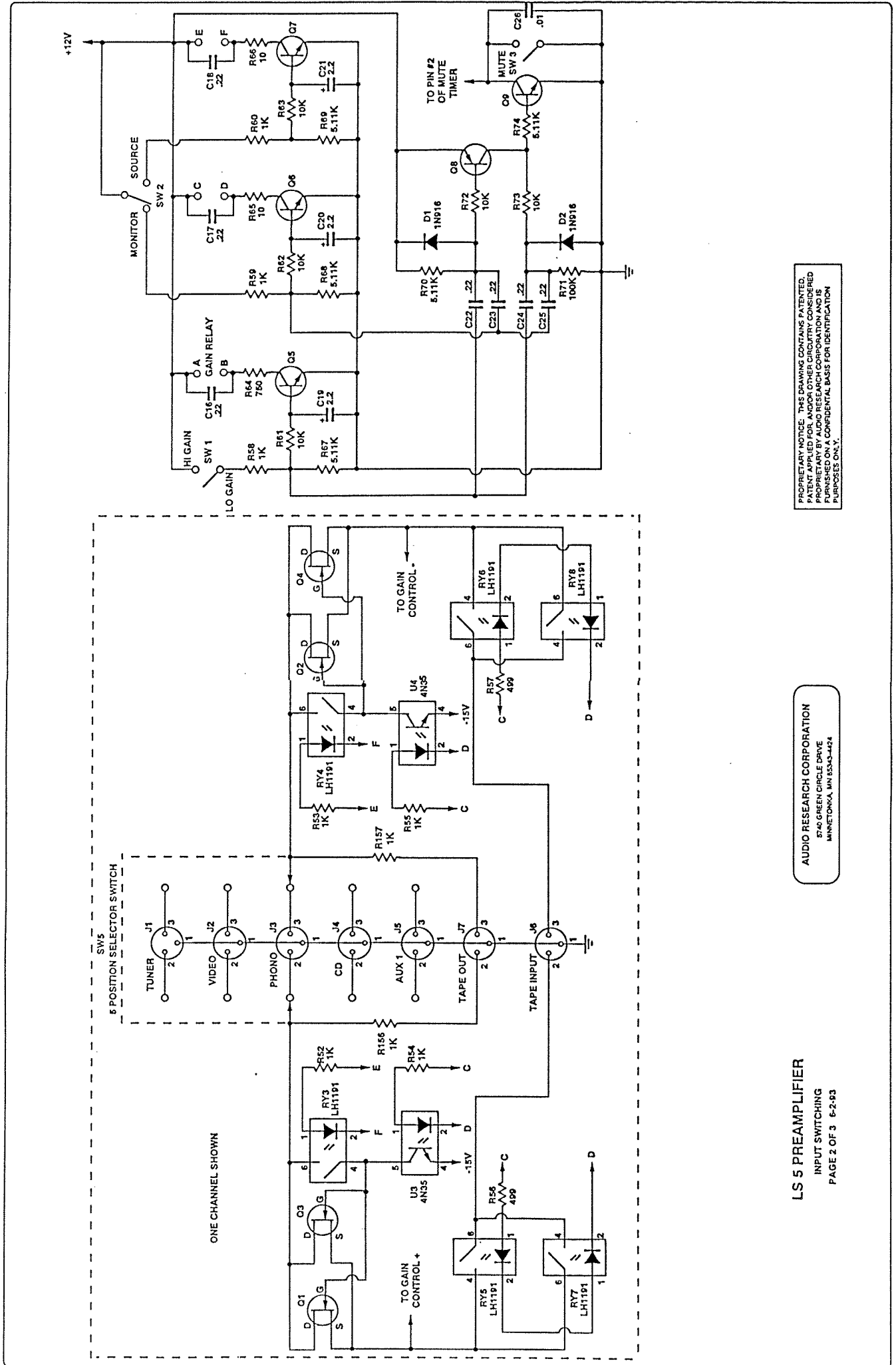
SCHEMATIC AND PARTS LIST

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LS5 PREAMPLIFIER

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

PARTS LIST

As of JUN 11 93

PRODUCT: LS5

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1,2	4	53270101	CAP. 27 PF +/-1PF 630V PNP
C3-6,16-18,22-25,35-37,41-43,50-52	35	53220507	CAP. .22 UF 10% 160V
C 57-60,63-66,69-71			
C7,8	4	53500607	CAP. 5 UF 200V
C9,10	4	53100610	CAP. 1UF 400V
C11,12	4	53100412	CAP. .01UF 600V
C13A,13B,14A,14B	8	53500001	CAP. 5 PF +/-1PF 630V DPN
C15	2	53560103	CAP. 56 PF+/-2% 630V DPN
C19,20,21	3	51220601	CAP. 2.2 UF+/-10% 25V
C26	1	53100410	CAP. .01 UF 400V MKP10
C27-30	4	50120801	CAP. 120UF 450V.
C31,32	2	53100608	CAP. 1.0 UF 1-20% 425V TYPE V
C33,34,38,40,44,49,53,76,77	11	53100406	CAP. .01 UF+/-10% 630V
C39,45,48,54	4	53200602	CAP. 2 UF +/-10% 450V
C46,47	2	50470804	CAP. 470 UF 160V. RADIAL
C55,56,61,62	4	50220903	CAP. 2200 UF 35V.
C67	1	50220701	CAP. 22 UF 100V
C68	1	50100911	CAP. 1000 UF 35V
C72	1	51330702	CAP. 33 UF+/-10% 16V
C73	1	52200400	CAP. .02 UF 20% 300VAC/2000VD
C74,75	2	52500300	CAP. .005 UF 20% CERAMIC DISC
D DIODES			
D1,2,7-10,15,16,29,30	10	30500910	1N916B
D3-6,11-14	8	30502200	IN4006
D17-20,21-24	8	30501500	MOTOROLA IN5400
D25-28	4	30500400	IN4005 GENERAL INSTRUMENT
F FUSES			
F1	1	34500404	FUSE, MDQ-3
J CONNECTORS			
J1-6	12	23201960	CONNECTOR, XLR FEMALE
J7-9	6	23201965	CONNECTOR, MALE XLRS
L INDUCTORS			
L1-4	4	61000170	CHOKE, 5.5 UH
L5-9	5	61000160	CHOKE, 2.7 UH +/- 10%
LE PANEL INDICATOR			
LE1	1	34300102	L.E.D. COLLAR & RETAINING RING

PARTS LIST

As of JUN 11 93

PRODUCT: LS5

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
Q TRANSISTORS			
Q1-4	8	30006602	FET, VIOLET RED
Q5,6,7,9,13,14	6	30002800	TRANSISTOR,2N4401
Q8	1	30002900	TRANSISTOR,2N4403
Q10,11	2	30006761	FET, ORANGE YELLOW BROWN
Q12	1	30006200	MTP 2P45
Q15,16	4	30006407	FET, BLUE VIOLET
Q17,18	4	30006506	FET, WHITE BLUE
R RESISTORS			
R1,2,25,26,27,28,39,40	16	42150203	RES. 150 OHM 1% MK-3 50PPM
R3,4,7,8,9A,9B,10A,10B,11A,11B,12A	24	42221603	RES. 2.21 MEG 1% MK-3 50PPM
R 12B			
R5,6,154,155	8	42475503	RES. 475K 1% MK-3 50PPM
R13,14	4	42511403	RES. 51.1K 1% MK-3 50PPM
R15A,15B,16A,16B,21A,21B,22A,22B	16	42205203	RES. 205 OHM 1% MK-3 50PPM
R17,18,19,20	8	42681405	RES. 68.1K 1% MK-8 50PPM
R23,24,72,73,143,146,61,62,63	11	42100403	RES. 10K+/-1% MK-3 50PPM
R29A,29B,30A,30B,31A,31B,32A,32B,137	17	42750405	RES. 75K 1% MK-8 50PPM
R33A,B-35A,B,36A,B,52-55,58-60,115	36	42100303	RES. 1K 1% MK-3 50PPM
R 120,126,131,148,156,157			
R37A,B,38A,B,45,46	12	42665303	RES. 6.65K 1% MK-3 50PPM
R41A,B,R42A,B,106,107	10	42274405	RES. 27.4K 1% MK-8 50PPM
R43A,B,44A,B,71,141	10	42100503	RES. 100K+/-1% MK-3 50PPM
R47,48	4	42619403	RES. 61.9K 1% MK-3 50 PPM
R49,50,81A,81B,91A,91B,103A,103B	10	42200205	RES. 200 OHM+/-1% MK8 50PPM
R51A,51B,97,109	6	42130403	RES. 13K 1% MK-3 50PPM
R56,57	4	42499203	RES. 499 OHM 1% MK-3 50PPM
R64	1	42750203	RES. 750 OHM 1% MK-3 50PPM
R65,66	2	42100103	RES. 10 OHM 1% MK-3 50PPM
R67,68,69,70,74,152,153	9	42511303	RES. 5.11K 1% MK-3 50PPM
R79,80,101,102,135,136	6	42100203	RES. 100 OHM 1% MK-3 50PPM
R82	1	42158513	RES. 158K 1% MK-4 50PPM
R83,93,105	3	42196403	RES. 19.6K 1% MK-3 50PPM
R84,85,94,95,138A,138B	6	42100505	RES. 100K 1% MK-8 50PPM
R86,96,108	3	42499303	RES. 4.99K 1% MK-3 50PPM
R87	1	42121403	RES. 12.1K 1% MK-350PPM
R88,98	2	42243513	RES. 243K 1% MK-4 50PPM
R89,99,111	3	42332203	RES. 332 OHM 1% MK-3 50PPM
R90,100,112	3	43100002	RES. 1 OHM 2W 5% W.W.
R92,142	2	42274403	RES. 27.4K 1% MK-3 50PPM
R104	1	42499403	RES. 49.9K 1% MK-3 50PPM
R110	1	42590403	RES. 59K 1% MK-3 50PPM
R113,114,124,125,158	5	42549103	RES. 54.9 OHM 1% MK-3 50PPM
R116,121,127,132	4	42287303	RES. 2.87K 1% MK-3 50PPM
R117,122,128,133	4	42267203	RES. 267 OHM 1% MK-3 50PPM
R118,119,129,130	4	43750001	RES. 7.5 OHM 2W W.W.
R123,134	2	43680000	RES. 6.8 OHM 2W 5% SPH
R139,147	2	42237203	RES. 237 OHM 1% MK-3 50PPM
R140,150,151	5	42200303	RES. 2K MK-3 1% 50PPM
R144	1	42768403	RES. 76.8K 1%MK-3 50PPM
R145	1	42100603	RES. 1 MEG 1% MK-3 50PPM
R149	1	42316303	RES. 3.16K 1% MK-3 50PPM

PARTS LIST

As of JUN 11 93

PRODUCT: LS5

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
RV CONTROLS			
RV1	1	45100536	QUAD 100K GAIN POT.
RY RELAYS			
RY1-8	16	31004800	RELAY, LS5
RY9,10	4	64101000	RELAY, 12V REED S1P 1200 OHM
SW SWITCHES			
SW1,2,3	3	24100430	TOGGLE SWITCH GOLD, SATIN
SW4	1	24100730	TOGGLE SWITCH SILVER, SATIN
SW5	1	24002710	LS5 DETENT SWITCH
T TRANSFORMERS			
T1	1	60010600	XFR. LS5 TOROID 120V.
U INTEGRATED CIRCUITS			
U1,2	4	31001900	J FET INPUT OP-AMP
U3,4	4	34400402	PHOTO COUPLER 4N35 TESTED
U5,6,7	3	31002200	MC34071P
U8,9,12	3	31004000	ADJ. O.P. VLTG. REG.
U10,11	2	31004700	ADJ REG, NEG, LM337T
U13,14	2	31000800	NE555N TIMER
V VACUUM TUBES			
V1,2,6,7	4	32001150	SOVTEK 6922 VACUUM TUBE
V3,4,5,8,9,10	6	32001200	VAC.TUBE, 12BH7A
ZD ZENER DIODES			
ZD1,6,11	3	30500300	IN4740A
ZD2,7,12	3	30504210	IN5535A (KNOX ONLY)
ZD3,4,8,9,13,14	6	31000705	LM329DZ GREEN
ZD5,10,15	3	30503500	IN5359 B