

audio research corporation

6801 SHINGLE CREEK PARKWAY
MINNEAPOLIS, MINNESOTA 55430
AREA CODE 612 / 566-7570
FAX 612 / 566-3402

D400 POWER AMPLIFIER

SCHEMATIC AND PARTS LIST

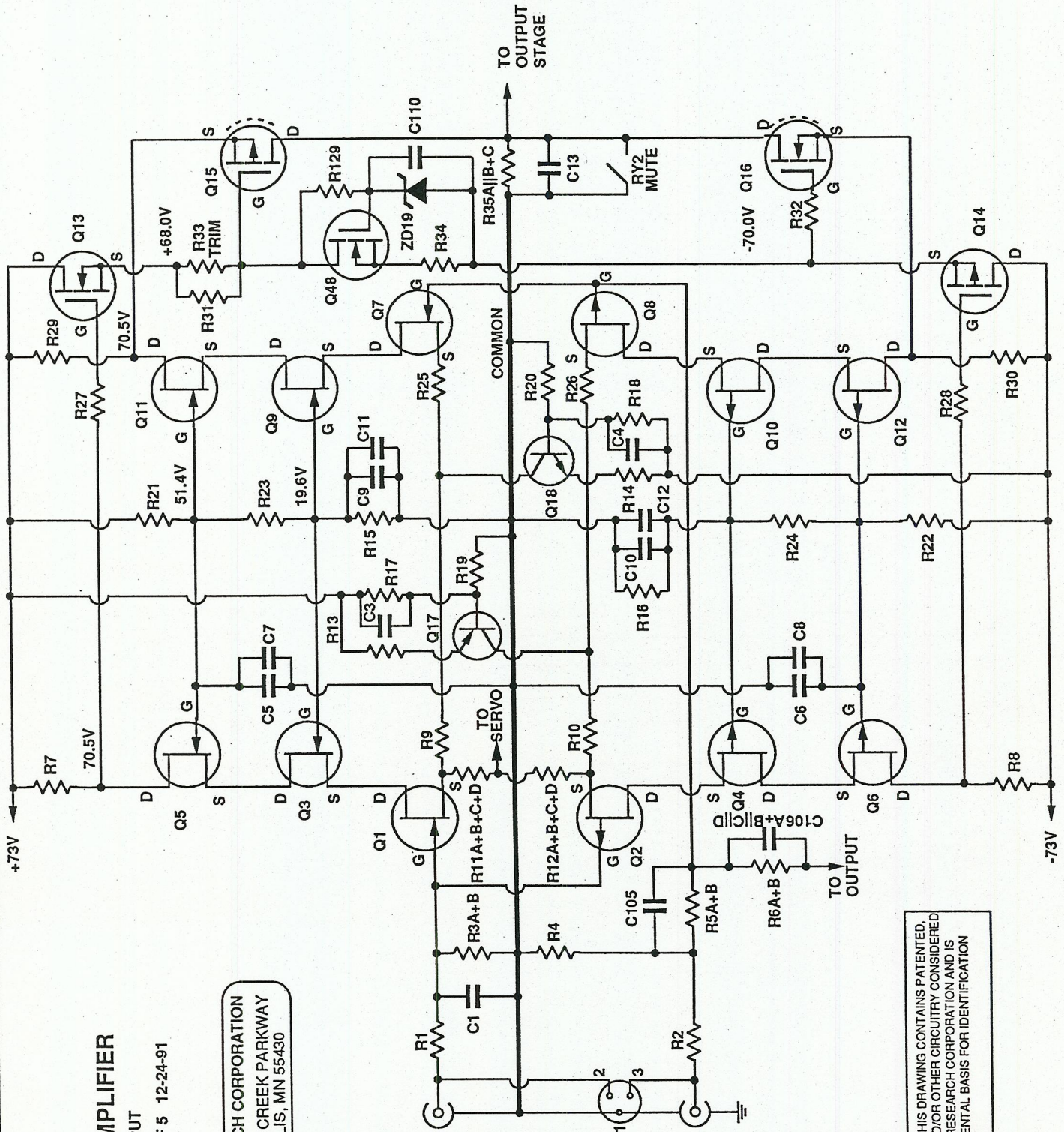
12-30-91

D400 AMPLIFIER

INPUT

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MINNEAPOLIS, MN 55430



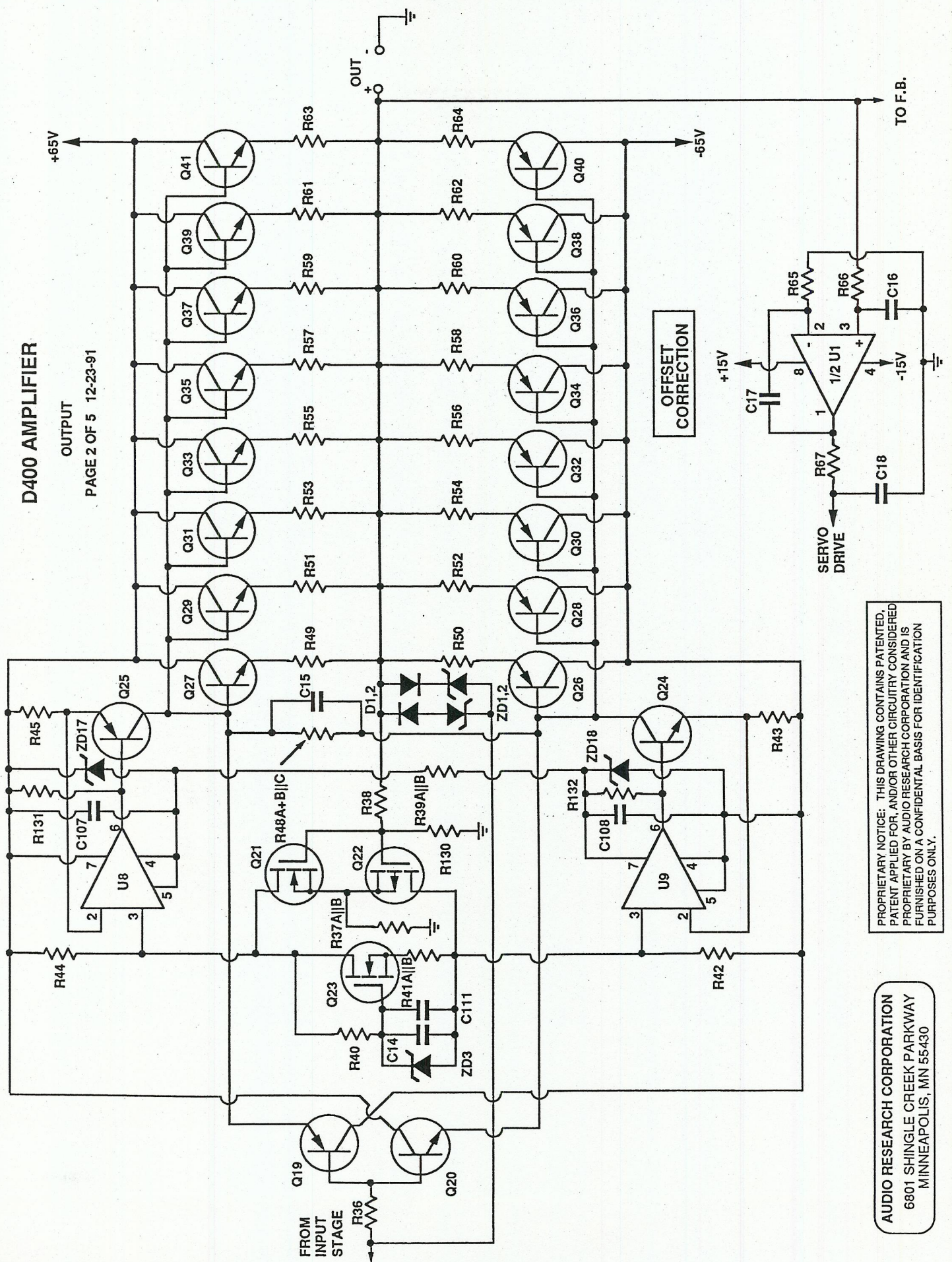
JUMPER PIN 1
AND PIN 3 FOR
SINGLE ENDED
INPUT

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D400 AMPLIFIER

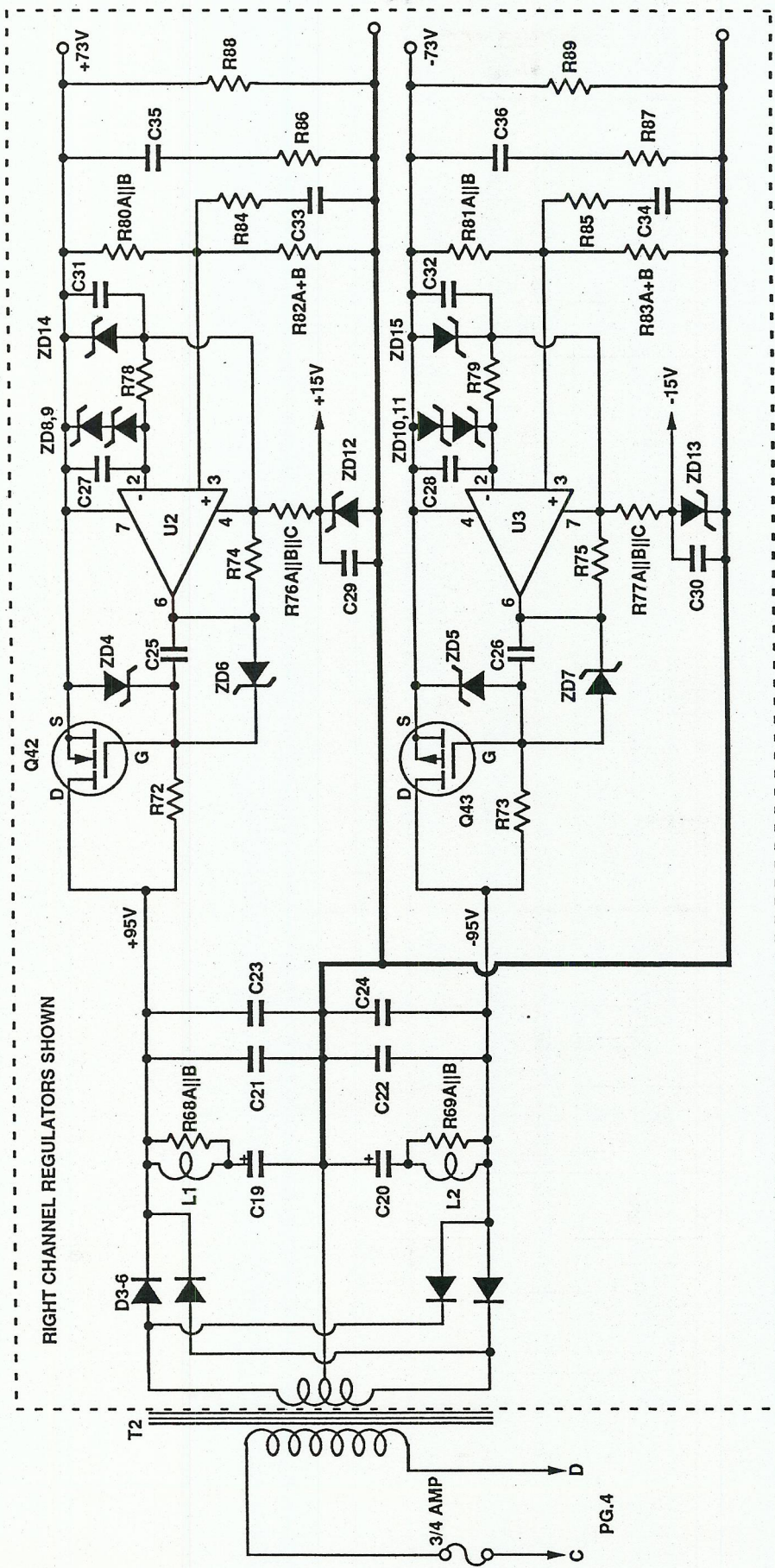
OUTPUT

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RIGHT CHANNEL REGULATORS SHOWN

D400 AMPLIFIER

POWER SUPPLY
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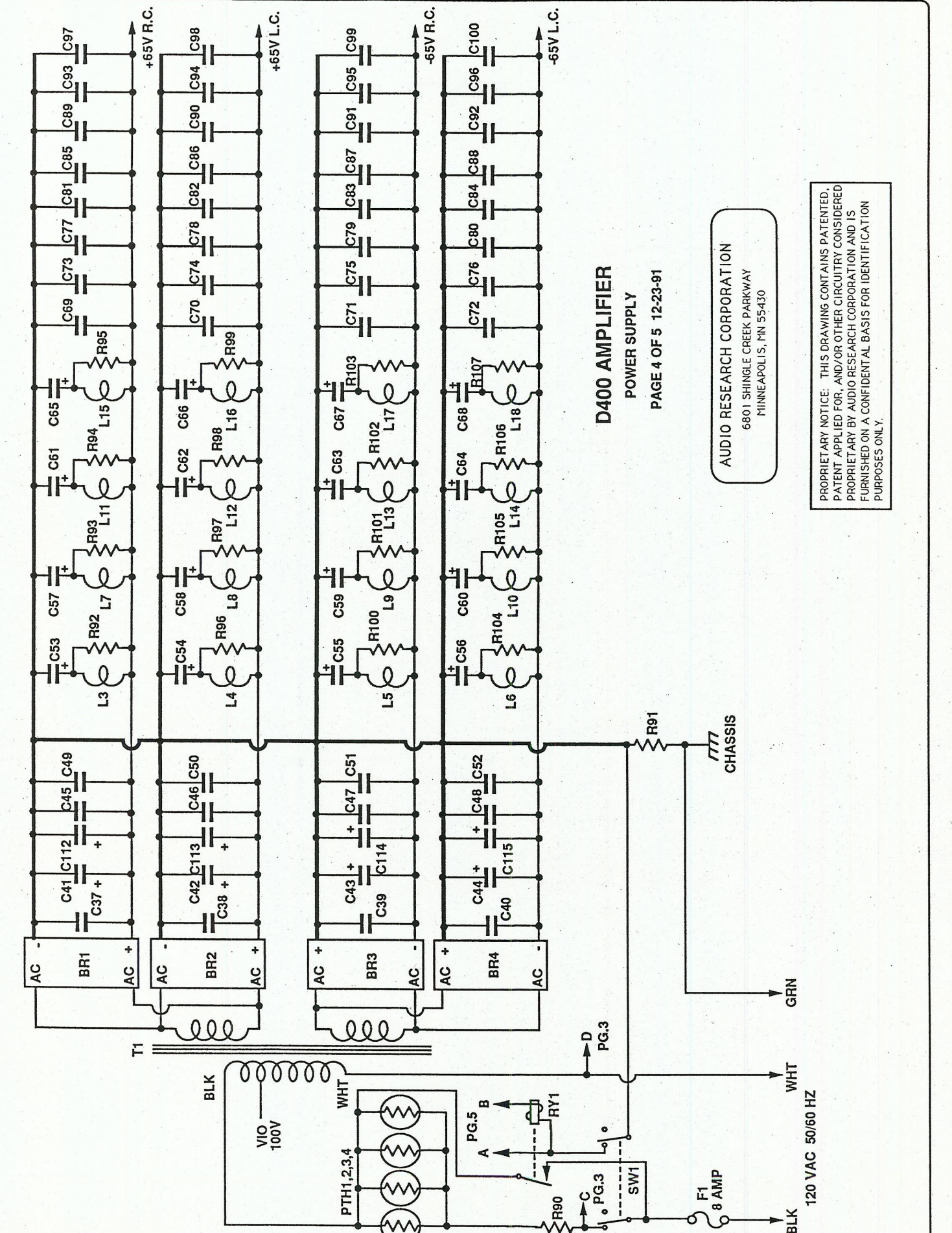
D400 AMPLIFIER

POWER SUPPLY

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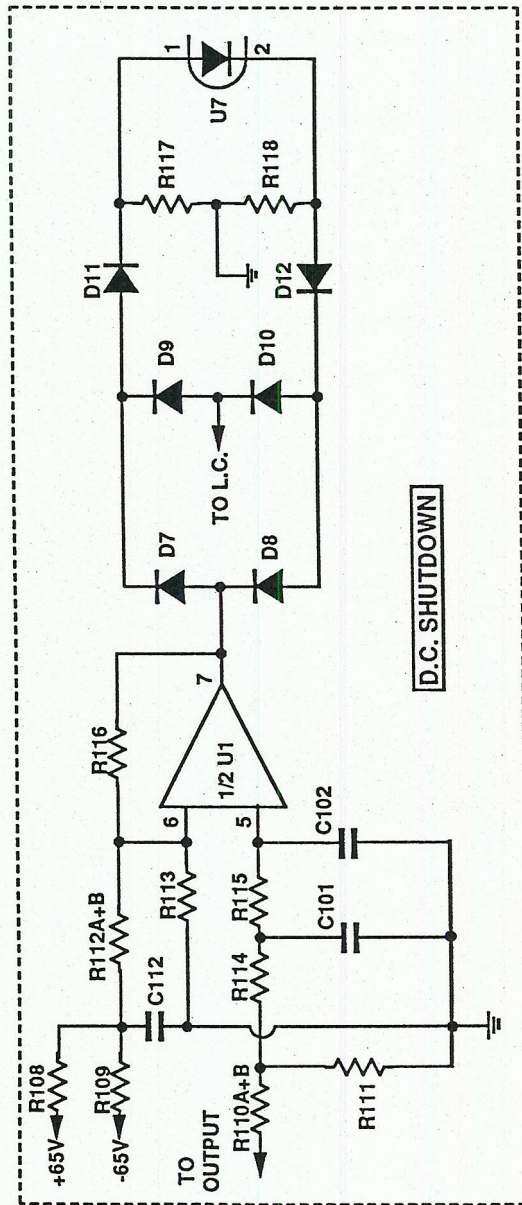
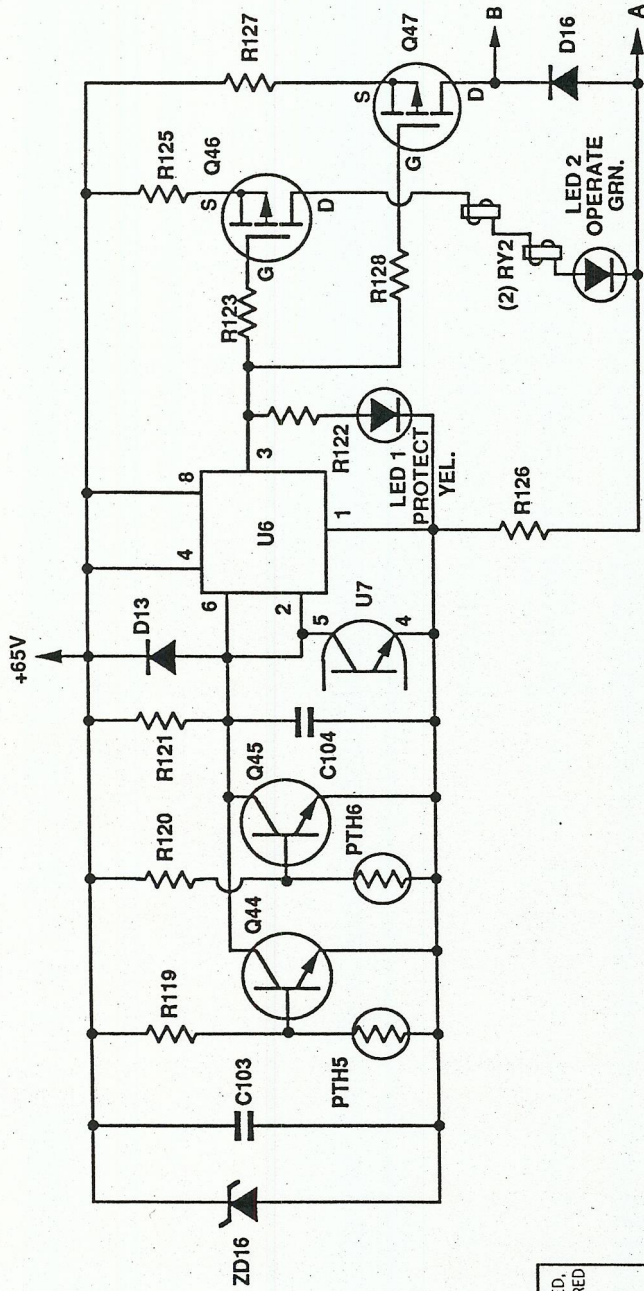
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D400 AMPLIFIER
 TIMER / PROTECT
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D.C. SHUTDOWN

PARTS LIST

As of DEC 30 91

PRODUCT: D400

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
R 65,66,114	6	42464603	RES. 4.64 MEG. 1% MK-3 50PPM
R 74,75,119,120	6	42392403	RES. 39.2K 1% MK-3 50PPM
R 76C,77C	4	42511303	RES. 5.11K 1% MK-3 50PPM
R 78,79	4	42499303	RES. 4.99K 1% MK-3 50PPM
R 80A,81A	4	42130403	RES. 13K 1% MK-3 50PPM
R 80B,81B	4	42118403	RES. 11.8K 1% MK-3 50PPM
R 82A,83A	4	42150403	RES. 15K 1% MK-3 50PPM
R 82B,83B	4	42121403	RES. 12.1K 1% MK-350PPM
R 86,87	4	43100002	RES. 1 OHM 2W 5% W.W.
R 88,89	4	42215414	RES. 21.5K 1% MK-5 50PPM
R 90	1	43120101	RESISTOR: 12Ω ±10% 20W WW
R 91	1	42100103	RES. 10 OHM 1% MK-3 50PPM
R 108,109,112A	4	42301503	RES. 301K 1% MK-3 50PPM
R 111	2	42221403	RES. 22.1K 1% MK-3 50PPM
R 112B	2	42348503	RES. 348K 1% MK-3 50PPM
R 115	2	42100703	RES. 10 MEG 1% MK-3 50PPM
R 116	2	42432503	RES. 432K 1% MK-3 50PPM
R 121,129	3	42100603	RES. 1 MEG 1% MK-3 50PPM
R 126	1	43130300	RES. 1.3K WW
R127	1	43270200	RES. 270 OHM 2-3W +/-1%
RY RELAYS			
RY 1	1	64101500	RELAY,24V
RY 2	2	64101000	RELAY, 12V REED S1P 1200 OHM
SW SWITCHES			
SW 1	1	24200700	SWITCH,PUSH BUTTON,D240
T TRANSFORMERS			
T1	1	60009700	XFR. D400 POWER 120V
T2	1	60009800	XFR. D400 SMALL(120V)
U INTEGRATED CIRCUITS			
U 1	2	31001910	TLO72CP
U 2,3	4	31002200	MC34071P
U 6	1	31000801	TIMER MC1455P1
U 7	1	34400402	4N35 PHOTO COUPLER TESTED
U 8,9	4	31004200	OP AMP,NE5230N
ZD ZENER DIODES			
ZD 1,2,17,18	8	30502100	1N5234B
ZD 3	2	30504210	IN535A (KNOX ONLY)
ZD 4,5	4	30500300	IN4740A
ZD 6,7,9	6	30504220	IN535A (A.P.D. ONLY)
ZD 8-11	8	31000705	LM329DZ GREEN
ZD 12,13,18	5	30501800	IN5245B
ZD 14,15	4	30503500	IN5359 B

PARTS LIST

As of DEC 30 91

PRODUCT: D400

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
BR BRIDGE RECTIFIER			
BR 1-4	4	30501920	BRIDGE RECTIFIER 35AMP 100V
C CAPACITORS			
C 1	2	53560103	CAP. 56 PF +/-2% 630V DPN
C 3-6,9,10,14,110,112	16	53100506	CAP. 0.1 UF 160V
C 7,8,11,12	10	53100408	CAP. .01 UF 10% 63V PPN
C 13,105	4	53560201	CAP. 560 PF +/-2.5% 630V
C 15,23,24,33,34,77-80,93-96	18	53470402	CAP. 0.047 UF 160V 10%
C 16-18,25-28,31,32,37-40	22	53220507	CAP. .22 UF 10% 160V
C 19,20	4	50100910	CAP. 1000UF 100V MARCON
C 21,22,35,36	8	53330602	CAP. 3.3 UF 160V +/-10%
C 29,30,101,103,107,108	11	53100505	CAP. .1 UF 10% 63V
C 41-44	4	50671000	CAP. 67000µF 75V ALUM ELECT
C 45-52,73-76,89-92	16	53470513	CAP. 0.47 UF 160V 10% MKP10
C 53-56,61-64	8	50220701	CAP. 22 UF 100V
C 57-60,65-68,112-115	12	50470803	CAP. 470uf 100V.
C 69-72,85-88	8	53220601	CAP. 2.2 UF 160V 10% MKP10
C 81-84,97-100	8	53100410	CAP. .01 UF 400V MKP10
C 102	2	53220402	CAP. .022 UF 63V FKP2
C 104	1	51220601	CAP. 2.2 UF +/-10% 25V
C 106A,106B	4	53200003	CAP. 2 PF STY.
C 106C	2	53500001	CAP. 5 PF +/-1PF 630V DPN
C 106D	2	53100101	CAP. 10 PF +/-1 PF 630V PPN
C 111	2	50470701	CAP. 47UF 35V
D DIODES			
D 1,2	4	30504800	PAD-5 DIODE,FE
D 3-6,16	9	30500400	IN4005 GENERAL INSTRUMENT
D 7-13	7	30500910	1N916B
F FUSES			
F 1	1	34500802	FUSE, MDQ8
F 2	1	34500260	FUSE, BUSSMANN MDQ 3/4
J CONNECTORS			
J 1,2	2	23201509	CHASSIS JACK,RED
J 3,4	2	23201510	CHASSIS JACK,WHITE
J 5,6	2	23201970	XLR CONNECTOR (Female)
L INDUCTORS			
L 1-18	20	61000190	CHOKE, 2.7UH +/-10%

PARTS LIST

As of DEC 30 91

PRODUCT: D400

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
LE PANEL INDICATOR			
LE 1	1	34300400	L.E.D. YELLOW,D240
LE 2	1	34300300	L.E.D. GREEN,D240
PTH POSISTERS			
PTH 1-4	4	47000600	POSISTER 15 OHM PTH
PTH 5,6	2	47000500	POSISTOR 330 OHM PTH
Q TRANSISTORS			
Q 1,3,5,7,9,11	12	30006526	FET, WHITE RED BLUE
Q 2,8	4	30006428	FET, GRAY,GRAY
Q 4,6,10,12	8	30006424	FET, GRAY YELLOW
Q 13,21	4	30007900	FET, VNO116N5 SUPERTEX
Q 14,22	4	30008000	FET, VPO116N5 SUPERTEX
Q 15	2	30008400	VP1116N5
Q 16	2	30008500	VN0216N5
Q 17	2	30003000	TRANSISTOR,2N5087 PNP
Q 18,44,45	4	30003100	TRANSIST.,2N5088,2N5209,2N5210
Q 19,25,26,28,30,32,34,36,38,40	20	30008200	SANKEN 2SA1215
Q 20,24,27,29,31,33,35,37,39,41	20	30008300	SANKEN 2SC2921
Q 23	4	30006725	FET, ORANGE RED GREEN
Q 42	2	30006834	FET, GREEN YELLOW
Q 43,46,47	4	30007029	FET, GRAY WHITE
R RESISTORS			
R 1,2,35A,35B,35C	10	42100314	RES. 1K 1% MK-5 50PPM
R 3A,3B,5A,5B	8	42768403	RES. 76.8K 1% MK-3 50PPM
R 4	2	42665503	RES. 665K 1% MK-3 50 PPM
R 6A,6B	4	42240613	RES. 2.4 MEG. MK-4
R 7,8,117,118,122	7	42100303	RES. 1K 1% MK-3 50PPM
R 9,10,25,26	8	42162203	RES. 162 OHM 1% MK-3 50PPM
R 11A-11D,12A-12D,19,20,67,72,73	26	42357403	RES. 35.7K 1% MK-3 50PPM
R 13,14,41A,76A,76B,77A,77B	16	42665303	RES. 6.65K 1% MK-3 50PPM
R 15,16,110A,110B	8	42100503	RES. 100K+/-1% MK-3 50PPM
R 18,18	4	42324403	RES. 32.4K 1% MK-3 50PPM
R 21,22,113	6	42110503	RES. 110K 1% MK3 50PPM
R 23,24	4	42162503	RES. 162K 1% MK-3 50PPM
R 27-30,32,68A,68B,69A,69B,92-107,128	35	42100203	RES. 100 OHM 1% MK-3 50PPM
R 31,84,85,131	8	42332203	RES. 332 OHM 1% MK-3 50PPM
R 34,130	4	42237303	RES. 2.37K 1% MK-3 50PPM
R 36,48A	4	42200205	RES. 200 OHM+/-1% MK8 50PPM
R 37A,132	4	42200303	RES. 2K MK-3 1% 50PPM
R 37B	2	42221303	RES. 2.21K 1% MK-3 50PPM
R 38,123	3	42100403	RES. 10K+/-1% MK-3 50PPM
R 39A,39B	4	42274405	RES. 27.4K 1% MK-8 50PPM
R 40	2	42332603	RES. 3.32 MEG 1% MK-3 50PPM
R 41B	2	42619403	RES. 61.9K 1% MK-3 50 PPM
R 42,44	4	42274103	RES. 27.4 OHM1% MK-3 50PPM
R 43,45	4	43050004	RES. 0.5 OHM+/-2% 3W W.W.
R 48B,48C,125	5	42121303	RES. 1.21K 1% MK-3 50PPM
R 49-64	32	43200004	RES. 0.2 OHM 5% 5W