

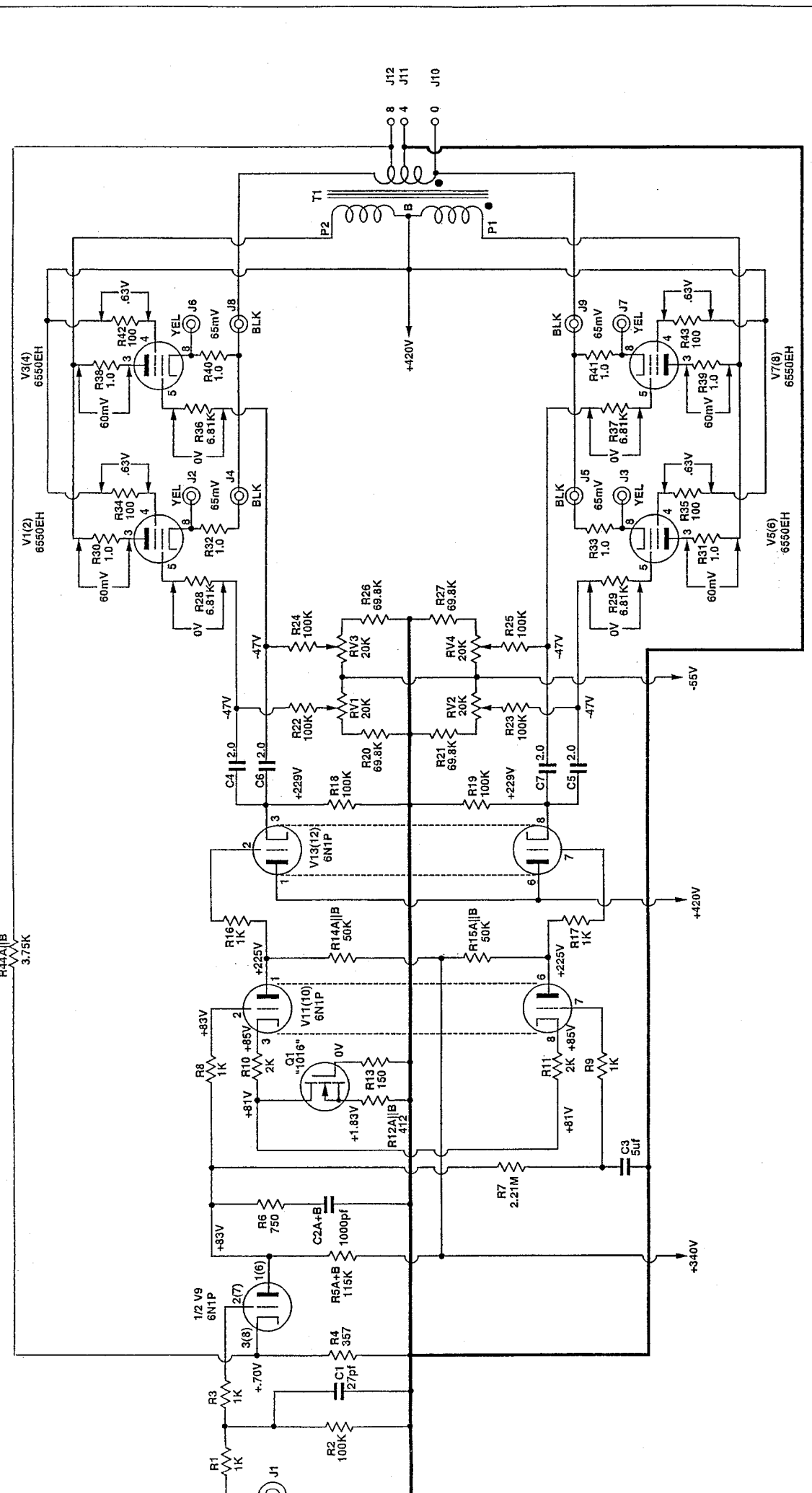
# **audio research**

H I G H D E F I N I T I O N<sup>®</sup>

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

## VS110 POWER AMPLIFIER SCHEMATIC

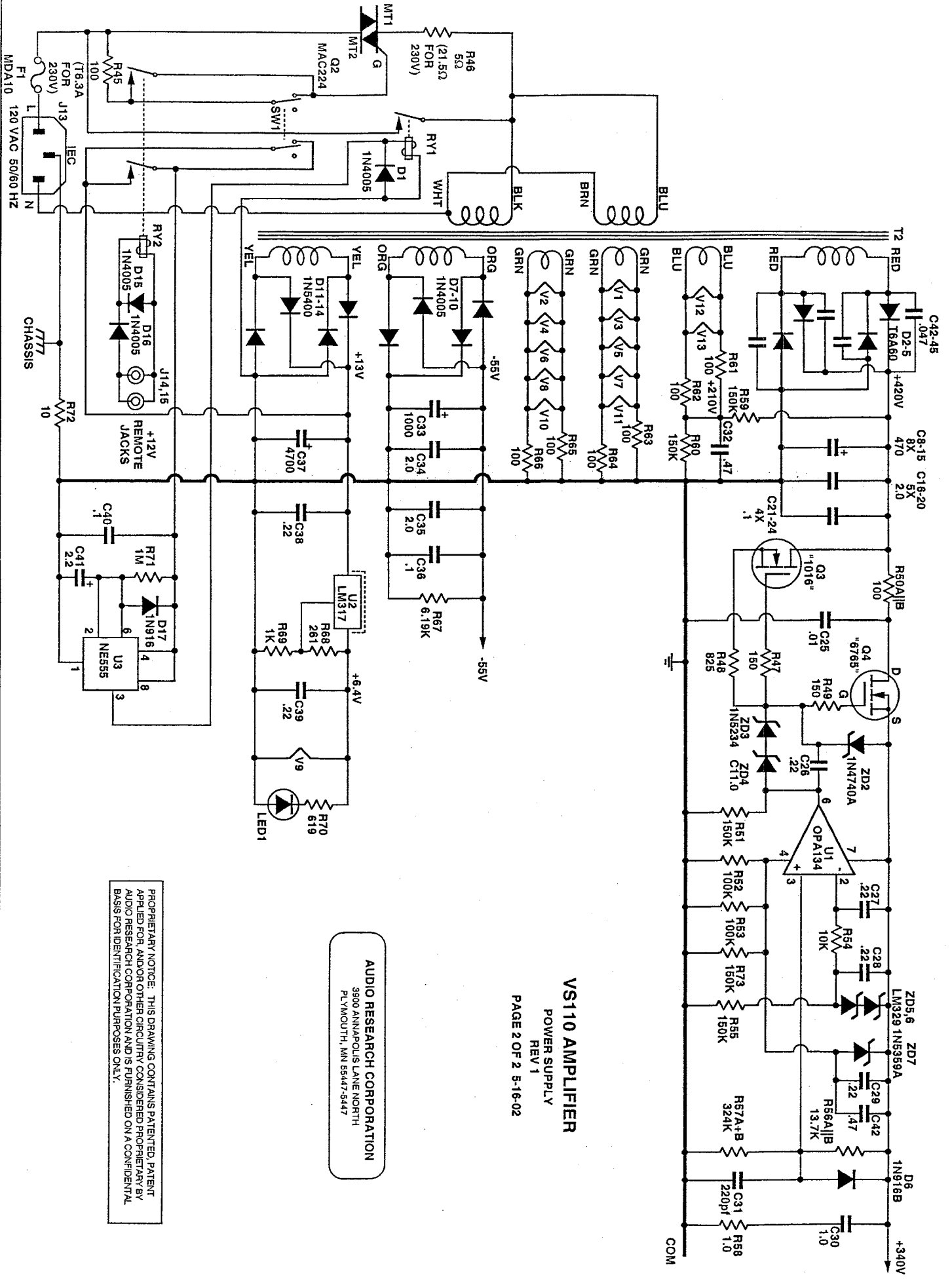
4-9-02



PROPRIETARY NOTICE: THIS DRAWING CONTAINS PATENTED, PATENT APPLIED FOR, AND/OR OTHER CIRCUITRY CONSIDERED PROPRIETARY BY AUDIO RESEARCH CORPORATION AND IS FURNISHED ON A CONFIDENTIAL BASIS FOR IDENTIFICATION PURPOSES ONLY.

AUDIO RESEARCH CORPORATION  
3900 ANNAPOLIS LANE NORTH  
PLYMOUTH, MN 55447-5447

VS110AUDIO  
PAGE 1 OF 2 4/9/02



**VS110 AMPLIFIER**

POWER SUPPLY

REV 1

PAGE 2 OF 2 5-16-02

**AUDIO RESEARCH CORPORATION**  
 3900 ANNAPOLIS LANE NORTH  
 PLYMOUTH, MN 55447-3447

PROPRIETARY NOTICE: THIS DRAWING CONTAINS PATENTED, PATENT APPLIED FOR, AND/OR OTHER CIRCUITRY CONSIDERED PROPRIETARY BY AUDIO RESEARCH CORPORATION AND IS FURNISHED ON A CONFIDENTIAL BASIS FOR IDENTIFICATION PURPOSES ONLY.

# **audio research**

H I G H D E F I N I T I O N<sup>®</sup>

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

VS110 POWER AMPLIFIER

PARTS LIST

7-17-02

## PARTS LIST

As of JUL 17 02

PRODUCT: VS110

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
R RESISTORS			
R1,3,8,9,16,17,69	13	42100303	RES., 1K $\Omega$ MK-3 1% 50PPM
R2,22-25	10	42100503	RES., 100K $\Omega$ MK-3 1% 50PPM
R4	2	42357203	RES., 357 $\Omega$ MK-3 1% 50PPM
R5A,14A,14B,15A,15B,18,19,52,53	16	42100505	RES., 100K $\Omega$ MK-8 1% 50PPM
R5B	2	42150405	RES., 15K $\Omega$ MK-8 1% 50PPM
R6	2	42750203	RES., 750 $\Omega$ MK-3 1% 50PPM
R7	2	42221603	RES., 2.21 MEG MK-3 1% 50PPM
R10,11	4	42200303	RES., 2K $\Omega$ MK-3 1% 50PPM
R12A,12B,48	5	42825203	RES., 825 $\Omega$ MK-3 1% 50PPM
R13,47,49	4	42150202	RES., 150 $\Omega$ MK-2 1% 50PPM
R20,21,26,27	8	42698403	RES., 69.8K $\Omega$ MK-3 1% 50PPM
R28,29,36,37	8	42681303	RES., 6.81K $\Omega$ MK-3 1% 50PPM
R30,31,38,39	8	43100004	RES., 1 $\Omega$ 2W 5% BLUE LINE
R32,33,40,41	8	43100007	RES., 1 $\Omega$ 2W 5% MATCHED
R34,35,42,43,45	9	43100200	RES., 100 $\Omega$ 5% 2W
R44A,44B	4	42750303	RES., 7.5K $\Omega$ MK-3 1% 50PPM
R46	1	43500003	RES., 5 $\Omega$ 25W $\pm$ 10% W.W.
R50A,50B	2	42200205	RES., 200 $\Omega$ MK8 1% 50PPM
R51,55,59,60,73	5	42150514	RES., 150K $\Omega$ MK-5 1% 50PPM
R54	1	42100403	RES., 10K $\Omega$ MK-3 1% 50PPM
R56A,56B	2	42274403	RES., 27.4K $\Omega$ MK-3 1% 50PPM
R57A,57B	2	42162503	RES., 162K $\Omega$ MK-3 1% 50PPM
R58	1	43100002	RES., 1 $\Omega$ 2W 5% W.W.
R61-66	6	42100203	RES., 100 $\Omega$ MK-3 1% 50PPM
R67	1	42619314	RES., 6.19K $\Omega$ MK-5 1% 50PPM
R68	1	42261203	RES., 261 $\Omega$ MK3 1% 50 PPM
R70	1	42619203	RES., 619 $\Omega$ MK-3 1% 50PPM
R71	1	42100603	RES., 1 MEG MK-3 1% 50PPM
R72	1	42100103	RES., 10 $\Omega$ MK-3 1% 50PPM
RV CONTROLS			
RV1-4	8	45200412	POT., 20K $\Omega$ TRIM #3104F-1-203K
RY RELAYS			
RY1	1	64101250	RELAY, 12V POWER
RY2	1	64101800	RELAY, 12V FAST
SW SWITCHES			
SW1	1	24102300	SWITCH, ROCKER
T TRANSFORMERS			
T1	2	60005900	(SS)XFR., D115/M100 OUTPUT
T2	1	60018714	XFR, POWER VS110

## PARTS LIST

As of JUL 17 02

PRODUCT: VS110

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1	2	53270101	CAP., 27pf ±1pf 630V PNP
C2	2	53100304	CAP., 1000pf ±2.5% 630V PPN
C3	2	53500606	CAP., 5µF ±20% 250V
C4-7,16-20	13	53200602	CAP., 2µF ±10% 450V
C8-15	8	50470807	CAP., 470µF 450V "LYTIC"
C21-24,36	5	53100507	CAP., 0.1µF ±10% 630V
C25	1	53100412	CAP., .01µF ±10% 600V RTX
C26-29,38-39	6	53220507	CAP., .22µF ±10% 160V
C30	1	53100800	CAP., 1µF ±10% 450V
C31	1	53220201	CAP., 220pf ±2.5% 630V PPN
C32	1	53470511	CAP., .47µF ±20% 250V
C33	1	50100908	CAP., 1000µF 63V
C34,35	2	53200603	CAP., 2µF ±10% 250V
C37	1	50470903	CAP., 4700UF 16V
C40	1	53100510	CAP., 1uf 100V MKP2
C41	1	51220601	CAP., 2.2µF 25V ±20% DIP TANT.
C42	1	53470513	CAP., 0.47µf ±10% 160V
D DIODES			
D1,7-10,15,16	7	30500400	IN4005
D2-5	4	30503310	T6A60, TAITRON
D6,17	2	30500910	1N916B
D11-14	4	30501500	IN5400
F FUSES			
F1	1	34501014	(B)FUSE, 10 AMP MDA BUSSMANN
J CONNECTORS			
J1	2	23202101	JACK, PHONO W/RED & WHT
J2,3,6,7	8	23201404	JACK, BANANA YEL
J4,5,8,9	8	23201400	JACK, BANANA BLK D160 BIAS
J10	2	23106340	POST, BLACK
J11,12	4	23106330	POST, RED
J13	1	23201800	INLET, IEC MALE POWER
J14,15	2	23202900	JACK, MINI PHONE .140"
LED1	1	34300101	L.E.D., GREEN W/O CLIP & RING
Q TRANSISTORS			
Q1,3	3	30011016	FET, GREEN/WHITE/BLUE
Q2	1	30010920	TRANSISTOR, TRIAC 25A
Q4	1	30006765	FET, ORANGE-YELLOW-GREEN

## PARTS LIST

As of JUL 17 02

PRODUCT: VS110

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
			U INTEGRATED CIRCUITS
U1	1	31002230	OPA134
U2	1	31004000	REGULATOR, VOLTAGE ADJ POS.
U3	1	31000800	TIMER, NE555N
			V VACUUM TUBES
V1-8	8	32000571	(B)TUBE, 6550EH SOVTEK TESTED
V9-13	5	32002200	(B)TUBE, 6N1P SVETLANA
			ZD ZENER DIODES
ZD2	1	30500300	IN4740A
ZD3	1	30502100	1N5234B
ZD4	1	30504900	ZENER, 11V BZX55C11
ZD5,6	2	31000705	FET, GREEN
ZD7	1	30503500	IN5359A OR B