

# **audio research**

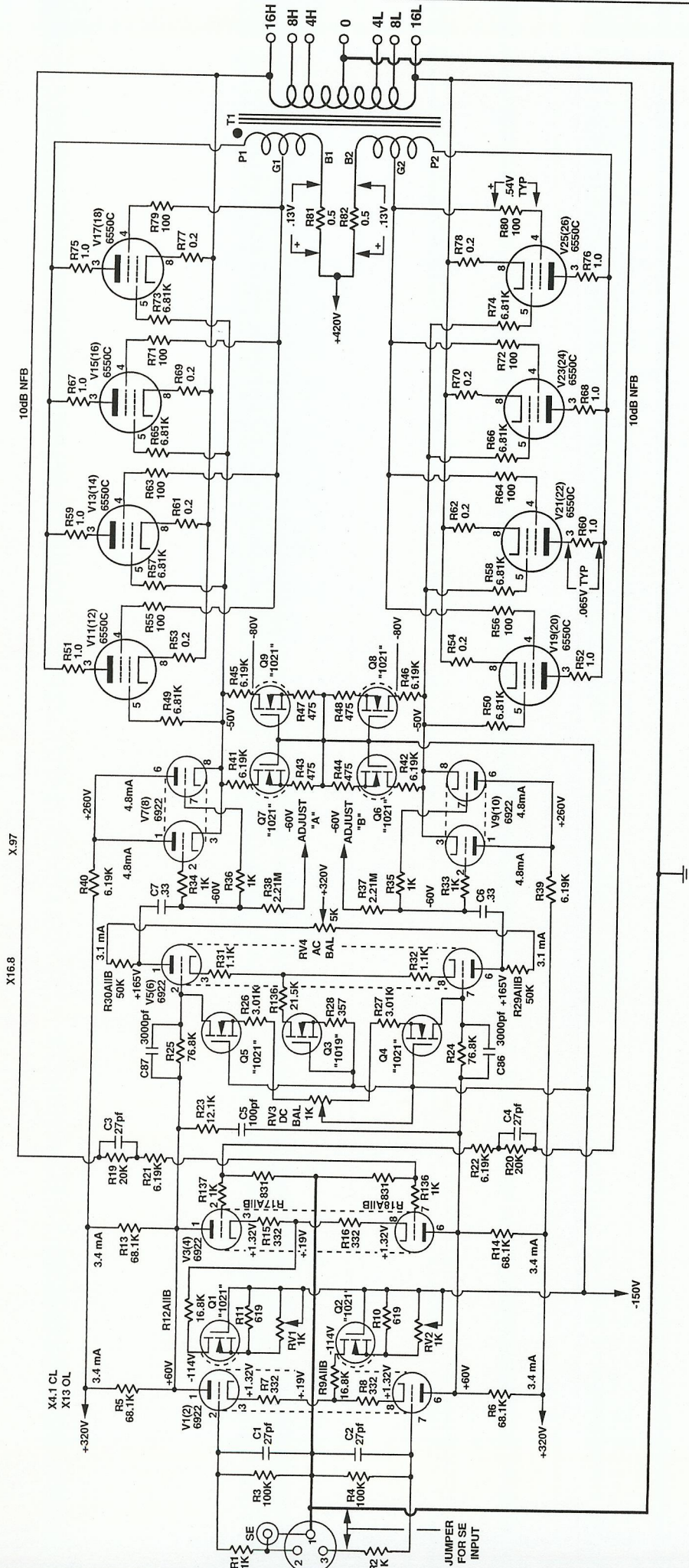
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H I G H D E F I N I T I O N<sup>®</sup>

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## VT200 AMPLIFIER SCHEMATIC AND PARTS LIST

Schematic 6-18-97  
Parts List 10-13-97



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AUDIO RESEARCH CORPORATION  
3740 GREEN CIRCLE DRIVE  
MINNETONKA, MN 55345-4424





## PARTS LIST

As of OCT 13 97

PRODUCT: VT200

Schematic Symbol	Quantity	ARC Part #	Description
<b>C CAPACITORS</b>			
C1,2,3,4	8	53270101	CAP., 27pf $\pm$ 1pf 630V PNP
C5	2	53100202	CAP. 100pf $\pm$ 2.5% 630V PPN
C6,7	4	53330502	CAP., .33 $\mu$ F 425V. INFINCAP GRN
C7,8	4	42768403	RES., 76.8K $\Omega$ MK-3 1% 50PPM
C8-15	8	53100407	CAP., .01 $\mu$ f $\pm$ 20% 250V
C16-31	16	50470807	CAP., 470 $\mu$ F 450V "LYTIC"
C32-35	4	50120801	CAP., 120 $\mu$ F 450V "LYTIC"
C36-45,61	11	53200602	CAP., 2 $\mu$ F $\pm$ 10% 450V
C46-55,60	11	53100406	CAP., .01 $\mu$ f $\pm$ 10% 630V
C56	1	53100412	CAP., .01 $\mu$ F $\pm$ 10% 600V RTX
C57-59,64,66,67,70,71,73,74,77,78,82	14	53220507	CAP., .22 $\mu$ f $\pm$ 10% 160V
C 83			
C62,63	2	50100915	CAP., 1000 $\mu$ f 100V MUSE
C65,68,69,72,75,76,79	7	53100410	CAP., .01 $\mu$ f $\pm$ 10% 400V
C80,81	2	50220903	CAP., 2200 $\mu$ F 35V ELECTROLYTIC
C84	1	51100700	CAP., 10 $\mu$ F 20V $\pm$ 10% DIP TANT.
C85	1	50100908	CAP., 1000 $\mu$ F 63V
C86,87	4	53300303	CAP., 3000pf $\pm$ 2.5% 630V PPN
<b>D DIODES</b>			
D1-12	12	30503310	T6A60, TAITRON
D13,14,21	3	30500910	1N916B
D15,16	2	30500400	IN4005
D17-20	4	30501500	IN5400
D22	1	30502200	IN4006
<b>F FUSES</b>			
F1	1	34501014	(B)FUSE, 10 AMP MDA BUSSMANN
F2	1	34500705	(B)FUSE, 4 AMP MDQ BUSSMAN
<b>FAN FANS</b>			
FAN1	1	64000210	(B)FAN, PAPST 4800N
<b>J CONNECTORS</b>			
J1	2	23201970	CONNECTOR, XLR FEM. #NC3FP-1-B
J2	1	23201509	JACK, CHASSIS RED
J3	1	23201510	JACK, CHASSIS WHITE
<b>L INDUCTORS</b>			
L1,2	2	61000240	CHOKE, VT200
L3,4	4	61000160	CHOKE, 2.7 $\mu$ H $\pm$ 10%
<b>LE PANEL INDICATOR</b>			
LE1	1	34300320	L.E.D., GREEN SPOT L424GDT



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<b>Q TRANSISTORS</b>			
Q1,2,4-9	16	30011021	FET, GREEN GREEN BROWN
Q3	2	30011019	FET, GREEN WHITE WHITE
Q10	1	30010910	TRANSISTOR, TRIAC MAC224
Q11	1	30006761	FET, ORANGE YELLOW BROWN
Q12	1	30002900	TRANSISTOR, 2N4403
Q13	1	30002800	TRANSISTOR, 2N4401
Q14	1	30006727	FET, ORANGE RED VIOLET
<b>R RESISTORS</b>			
R1,2,17A,18A,33-36	20	42100314	RES., 1K $\Omega$ MK-5 1% 50PPM
R3,4	4	42100503	RES., 100K $\Omega$ MK-3 1% 50PPM
R5,6,13,14	8	42681405	RES., 68.1K $\Omega$ MK-8 1% 50PPM
R7,8,15,16	8	42332202	RES., 332 $\Omega$ MK-2 1% 50PPM
R9A,12A,136	6	42215414	RES., 21.5K $\Omega$ MK-5 1% 50PPM
R10,11	4	42619203	RES., 619 $\Omega$ MK-3 1% 50PPM
R17B,18B,90	5	42499303	RES., 4.99K $\Omega$ MK-3 1% 50PPM
R19,20	4	42200414	RES., 20K $\Omega$ MK-5 1% 50PPM
R21,22,39-42,45,46	16	42619314	RES., 6.19K $\Omega$ MK-5 1% 50PPM
R23	2	42121403	RES., 12.1K $\Omega$ MK-3 1% 50PPM
R24,25	4	42768402	RES., 76.8K $\Omega$ MK-2 1% 50PPM
R26,27	4	42301302	RES., 3.01K $\Omega$ MK2 1% 50PPM
R28	2	42357203	RES., 357 $\Omega$ MK-3 1% 50PPM
R29A,29B,30A,30B,88,89	10	42100505	RES., 100K $\Omega$ MK-8 1% 50PPM
R31,32	4	42110303	RES., 1.10K $\Omega$ MK3 1% 25PPM
R37,38	4	42221603	RES., 2.21 MEG MK-3 1% 50PPM
R43,44,47,48	8	42475202	RES., 475 $\Omega$ MK-2 1% 50 PPM
R49,50,57,58,65,66,73,74	16	42681302	RES., 6.81K $\Omega$ MK-2 1% 50 PPM
R51,52,59,60,67,68,75,76	16	43100004	RES., 1 $\Omega$ 2W 5% BLUE LINE
R53,54,61,62,69,70,77,78	16	43200004	RES., 0.2 $\Omega$ 3W $\pm$ 5%
R55,56,63,64,71,72,79,80	16	43100208	RES., 100 $\Omega$ 5% 3W W.W.
R81,82	4	43050004	RES., 0.5 $\Omega$ +/-2% 3W W.W.
R83A,83B	2	43100106	RES., 10 $\Omega$ 20W W.W.
R84	1	43100200	RES., 100 $\Omega$ 5% 2W
R85A,85B	2	42200205	RES., 200 $\Omega$ MK8 1% 50PPM
R86,99,102,105,108	4	42301503	RES., 301K $\Omega$ MK-3 1% 50PPM
R86	1	42301502	RES., 301K $\Omega$ MK-2 1% 50PPM
R87	1	42392403	RES., 39.2K $\Omega$ MK-3 1% 50PPM
R91	1	42127403	RES., 12.7K $\Omega$ MK-3 1% 50PPM
R92A,92B	2	42562503	RES., 562K $\Omega$ MK-3 1% 50PPM
R93	1	42332203	RES., 332 $\Omega$ MK-3 1% 50PPM
R94	1	43100002	RES., 1 $\Omega$ 2W 5% W.W.
R95,96,119,120,137	5	42549103	RES., 54.9 $\Omega$ MK-3 1% 50PPM
R97,100,103,106	4	42619403	RES., 61.9K $\Omega$ MK-3 1% 50 PPM
R98,101,104,107	4	42511403	RES., 51.1K $\Omega$ MK-3 1% 50PPM
R109-118	10	42100203	RES., 100 $\Omega$ MK-3 1% 50PPM
R121	1	42287303	RES., 2.87K $\Omega$ MK-3 1% 50PPM
R122	1	42267203	RES., 267 $\Omega$ MK-3 1% 50PPM
R123	1	42100303	RES., 1K $\Omega$ MK-3 1% 50PPM
R124,125	2	43680000	RES., 6.8 $\Omega$ 2W $\pm$ 5% W.W.
R126	1	42475502	RES., 475K $\Omega$ MK-2 1% 50PPM
R127	1	42100402	RES., 10K $\Omega$ MK-2 1% 50 PPM
R128	1	42100302	RES., 1K $\Omega$ MK-2 1% 50 PPM
R129	1	42221302	RES., 2.21K $\Omega$ MK-2 1% 50 PPM
R130	1	42150613	RES., 1.5 MEG MK-4 1% 50PPM
R131	1	42182302	RES., 1.82K $\Omega$ MK-2 1% 50 PPM
R132	1	42100103	RES., 10 $\Omega$ MK-3 1% 50PPM

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PRODUCT: VT200

Schematic Symbol	Quantity	ARC Part #	Description
R133	1	43200200	RES., 200Ω 2W ±1% W.W.
R134,135	2	43125200	RES., 125Ω 4W
RV			CONTROLS
RV1,2,3	6	45100301	POT., TRIM 1KΩ
RV4	2	45500303	POT., 5KΩ TRIM VERT. 25 TURN
RV5-8	4	45200412	POT., 20KΩ TRIM #3104F-1-203K
RY			RELAYS
RY1	1	64101500	RELAY, 24V
RY2	1	64101620	RELAY, 48 VOLT VT200
SW			SWITCHES
SW1	1	24102300	SWITCH, ROCKER
SW2,3	1	24102800	SWITCH, 2-SPDT DIP VT200
T			TRANSFORMERS
T1	2	60015000	(B)XFR., VT200 OUTPUT
T2	1	60015114	(B)XFR., VT200 DUAL VOLTAGE
U			INTEGRATED CIRCUITS
U1	1	31002210	OP-AMP, OP176GP
U2	1	31004000	REGULATOR, VOLTAGE ADJ POS.
U3	1	31000800	TIMER, NE555N
V			VACUUM TUBES
V1-10	10	32001162	(B)TUBE, 6922 SILVER TESTED
V11-26	16	32000561	(B)VAC. TUBE, 6550C TESTED
ZD			ZENER DIODES
ZD1	1	30500300	IN4740A
ZD2	1	30504210	DIODE, ZENER IN5535A (KNOX)
ZD3	1	31000702	FET, RED
ZD4	1	31000703	FET, ORANGE
ZD5	1	30503500	IN5359A OR B
ZD6-10	5	30504400	IN5240B