

D-70 POWER AMPLIFIER  
SCHEMATIC & PARTS LIST

Rev. C  
2/2/84

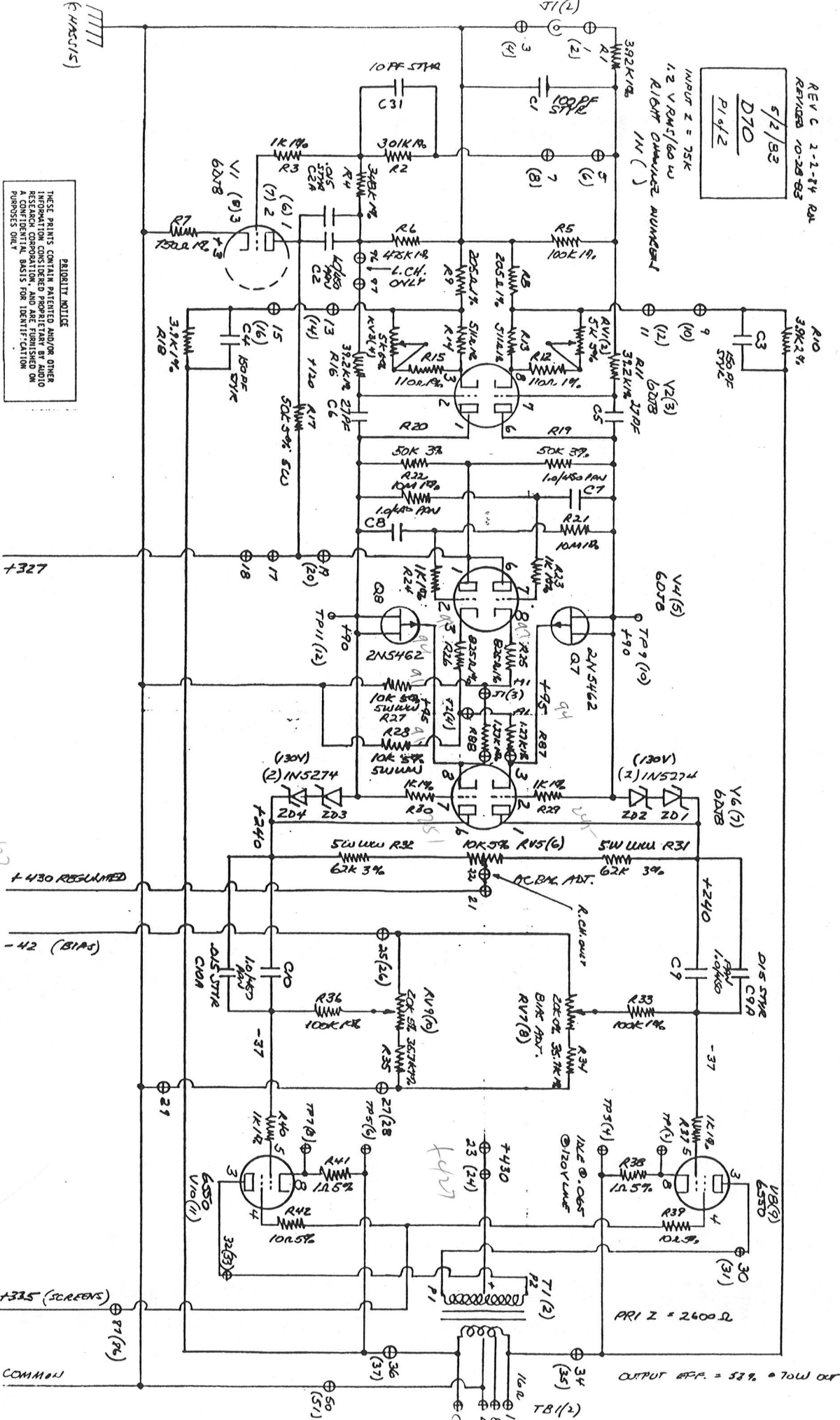
**audio research corporation**

6801 SHINGLE CREEK PARKWAY  
MINNEAPOLIS, MINNESOTA 55430

REV C 2-2-84 RA  
REVISED 10-28-83

5/2/33  
D70  
P14/2

INPUT Z = 75K  
1.2 V RMS/60 W  
R/L/B/T CHANNELS NUMBERED  
IN ( )



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OUTPUT IMP. = 58% @ 70W OUT



## D-70 PARTS LIST

COMPONENT	QUAN.	DESCRIPTION	VALUE	RATING	TOL.	ARC PART NO.
R1	2	Metal Film	3.92K	1/2W	1%	42392303
R2	2	Metal Film	301K	1/4W	1%	42301502
R3, 23, 24, 29, 30, 37, 40, 46, 61, 62	17	Metal Film	1.0K	1/4W	1%	42100302
R4	2	Metal Film	348K	1/4W	1%	42348802
R5	2	Metal Film	100K	1/2W	1%	42100503
R6	2	Metal Film	475K	1/2W	1%	42475503
R7	2	Metal Film	750	1/4W	1%	42750202
R8, 9	4	Metal Film	1.5K	1/2W	1%	42150302
R10, 18	4	Metal Film	205	1/2W	2%	42205203
R11, 15	4	Metal Film	39.2K	1/4W	1%	42392403
R12, 15	4	Metal Film	110	1/2W	1%	42110202
R13, 14	4	Metal Film	1.5K	1/4W	1%	42150303
R17, 19, 20	6	Metal Film	511	1/2W	1%	42150303
R21, 22	4	Metal Film	50K	3/4W	1%	43500400
R25, 26	4	Metal Film	100K	1/2W	2%	42100504
R27, 28	4	Metal Film	10K	1/2W	1%	42825203
R31, 32	4	Metal Film	8.5K	3/4W	1%	43375200
R33, 36, 79	5	Metal Film	62K	3/4W	3%	43620400
R34, 35	4	Metal Film	33K	1/4W	1%	43330401
R38, 41, 76	5	Metal Film	100K	1/4W	1%	42100502
R39, 42, 60	5	Metal Film	35.7K	1/4W	1%	42357402
R43, 83	2	Metal Film	1.0	2W	5%	43100002
R44	1	Metal Film	10	2W	5%	43100105
R45	1	Metal Film	511	1/4W	1%	42511202
R47	1	Metal Film	4.64K	1/4W	1%	4264302
R48-53	1	Metal Film	5.11K	1/4W	1%	42511302
R54	6	Metal Film	470	2W	10%	40470205
R55	1	Metal Film	100	1/2W	10%	40100203
R56	1	Metal Film	75	W	5%	43750101
R57	1	Metal Film	22.1K	1/2W	1%	42221403
R58	1	Metal Film	180K	1/4W	5%	41180504
R59	1	Metal Film	100K	1/2W	5%	41100503
R63	1	Metal Film	100K	2W	2%	46100501
R64	1	Metal Film	100	1/4W	1%	42100202
R65, 68	1	Metal Film	120K	1/2W	5%	41120503
R66, 67	2	Metal Film	7.5	2W	5%	41100403
R69	2	Metal Film	680	2W	5%	43750001
R70	1	Metal Film	470	1W	10%	40680204
R71	1	Metal Film	4.9K	1/4W	1%	40470204
R72	1	Metal Film	3.01K	1/4W	1%	42499302
R73	1	Metal Film	1.0K	1/4W	1%	42301302
R74, 75	2	Metal Film	11.8K	1/4W	1%	42100602
R77, 78	2	Metal Film	150K	1/2W	1%	42118402
R80	1	Metal Film	280K	1/2W	1%	42150503
R81, 82	2	Metal Film	27K	7W	3%	42280503
R84	1	Metal Film	1.82Meg	1/2W	1%	43270401
R85	1	Metal Film	270K	2W	5%	42182603
R86	1	Metal Film	20K	5W	5%	41470405
R87, 88	4	Metal Film	1.27K	1/4W	5%	41270505
C1	2	Polystyrene	100pF	630V	5%	53100201
C2, 7, 8-10	10	Met. Polystyrene	1.0uF	450V	10%	53100800
C2A, (A, 10A, 15A, 19A, 23A, 30A, 34	11	Polystyrene	.015uF	630V	5%	53150404

## D-70 PARTS LIST

COMPONENT	QUAN.	DESCRIPTION	VALUE	RATING	TOL.	ARC PART NO.
C3, 4	4	Polystyrene	150pF	160V	2.5%	53150200
C5, 6	2	Polystyrene	27pF	630V	5%	53270000
C11, 25-29	6	Polystyrene	22uF	100V	10%	53220506
C12	1	Electrolytic	150uF	75V	10%	50150800
C13	1	Electrolytic	.01uF	160V	10%	53100403
C14	1	Electrolytic	530uF	150V	10%	50530800
C15	1	Met. Polystyrene	5.0uF	200V	10%	53500604
C16, 17	2	Electrolytic	800uF	450V	10%	50100907
C18, 19, 23, 30	4	Met. Polystyrene	2.0uF	450V	10%	53200602
C20	1	Electrolytic	10uF	150V	10%	50100703
C21, 21A	2	Electrolytic	1000uF	25V	5%	50100903
C24	1	Polystyrene	1000pF	630V	5%	53100301
C31	2	Polystyrene	10pF	630V	5%	53100100
C32	1	Polystyrene	5pF	630V	10%	53500000
C35	1	Polystyrene	220pF	160V	2.5%	53220200
D1-4, 13-16, 17	9	Silver Mica	5pF	500V	10%	57500000
D5-8	4	IN4005	1A	600V		30500400
D9-12	4	IN4143	3A	600V		30503300
D18-21	4	IN914	3A	50V		30501500
Z01-4	4	1N5274B	1/2W	100V		30500900
Z05-10	8	1N4756A	1W	130V	5%	30503800
Z011	6	1N5374	5W	47V	5%	30503200
Z012	1	Z20	1W	75V	10%	30502900
Z013	1	1N5359A	5W	20V	10%	30503700
Z014, 15	2	LM3290Z	6.9V	24V	4%	30503500
Z016	1	1N5234B	1/2W	6.2V	5%	30502100
Z017	1	T282508	5W	250V	5%	30503600
Z018, 19	2	1N5368B	5W	47V	5%	30503000
F1 120V	1	MDX5 S10	5A	125V	5%	34500505
F2 100V	1	MDA3 S10	3A	250V		34500402
F3, 4	2	MDX7 S10	7A	125V		34500703
J1-2	1	3A81 Fast	1A	250V		34500304
J3, 4	2	Phono Jack				23201000
LED1, 2	2	LED green				23100100
Q1	2	IP141 Trans	34300100			30005500
Q2	1	D40K1 Trans	30005200			30005200
Q3	1	2N4401 Trans	30002800			30005101
Q4	1	TIP42A Trans	30005301			30005301
Q5	1	D41K2 Trans	30002900			30005900
Q6	1	2N4403 Trans	30005700			45500300
Q7, 8	4	2N5462 FET	30005810			45200412
Q9	1	MJE8502 Trans	30005809			45100424
RV1-4	4	Trim Pot	5K	120V	10%	45100412
RV5, 6	2	Trim Pot	20K	120V	10%	45100412
RV7-10	4	Trim Pot	10K	120V	10%	45100412
RV1	1	30A Relay	20	12V		45200412
SW1	1	DPT Switch	120			64100800
T1, 2	2	Output Transformer	6A			24100900
T3	1	Power Transformer				60005600
THM-1, 2	1	Power Transformer				60005810
U1, 2	2	Thermistor (2 for 240V)				60005809
V1-7	7	TL071CP Op Amp				31001900
V8-11	2	6D08 Tube				32001100
V12	1	6550 Matched Pair				32000502
V13	1	6550 Tube				32000501
VR1, 2	2	EC83/12AX7 Tube				32000700
		MC815CT Reg	1A	15V		31002000

NOTE: Resistor values are in "ohms" except "K" = x 1,000; "Meg" = x 1,000,000