

Sears

ORIGINAL VERSION

MODEL NUMBER
257.14283200**DIVISION 57**
TECHNICAL MANUAL
INSTRUMENT AMPLIFIER**FILING INSTRUCTIONS**FILE THIS PAGE IN NUMERICAL ORDER BY MODEL NUMBER
IN THE DIV. 57 RADIO TECHNICAL MANUAL.25 M

SCHEMATIC LOCATION	PART NUMBER	DESCRIPTION
RESISTORS		
(All resistors 1/2w., 10% unless otherwise noted)		
R1	120-105222	1 MEGOHM
R2	120-154222	150K OHM
R3, 10	120-393222	39K OHM
R4	120-472222	4.7K OHM
R5, 11, 13	120-222222	2.2K OHM
R6	122-19-1043	100K OHM LINEAR, CONTROL
R7	120-153222	15K OHM
R8, 9	120-223222	22K OHM
R12	120-180222	18 OHM
R14	120-102222	1K OHM
R15	122-20-1022	1K OHM REVERSE AUDIO, CONTROL
R16	122-10-1533	15K OHM LINEAR, CONTROL

CAPACITORS		
C1, 2, 5, 6	114-10410122	.1 MFD 100V MYLAR
C3	118-2500251	25 MFD 25V ELECTROLYTIC
C4	112-30105022	300 PF 50V DISC.
C7, 9	118-1000251	10 MFD 25V ELECTROLYTIC
C8, 12	118-2510161	250 MFD 16V ELECTROLYTIC
C10	118-2510401	250 MFD 40V ELECTROLYTIC
C11	118-0100251	1 MFD 25V ELECTROLYTIC
C13	118-1520251	1500 MFD 25V ELECTROLYTIC
C14	118-5520403	5500 MFD 40V ELECTROLYTIC
C15	117-4	.022 MFD 600V PAPER UL
C16	117-1	.047 MFD 150V AC UL APR'D PAPER MYLAR
C17	112-10105022	100 PF 50V DISC.

SCHEMATIC LOCATION	PART NUMBER	DESCRIPTION
TRANSISTORS		
Q1	127-6080	N.P.N. SIGNAL
Q2	127-6070	N.P.N. SIGNAL
Q3	128-8055	N.P.N. DRIVER
Q4	128-9050	N.P.N. POWER
Q5	128-8050	P.N.P. POWER

DIODES		
D1, 2, 3, 4, 5	126-3	DIODE

MISCELLANEOUS PARTS		
CO-1	108-2	A.C. CONVENIENCE OUTLET
	152-21	CABINET WITH HANDLE & HARDWARE (NO SPEAKER)
	139-2	CORD, A.C. POWER
	130-14	FUSE 1 AMP 250V 3 AG SLO-BLO
	131-2	FUSE HOLDER
	131-3	FUSE HOLDER CAP
	148-13	GRILLE CLOTH & FRAME
	144-2	HANDLE & HARDWARE FOR CABINET
J2	108-3	JACK 2 CIRCUIT SHORTING
J1	108-4	JACK 1 CIRCUIT SHORTING
	142-8	KNOB
	180-20	MANUAL, OWNERS
	180-21	MANUAL, TECH.
PL-1	130-4	PILOT LIGHT
	234-179	PRINTED CIRCUIT BOARD W/COMPONENTS
	138-9	SPEAKER, 15" 4. OHM
SW-1	125-2	POWER SWITCH, TOGGLE
T1	135-14-2	TRANSFORMER, POWER

NOTE THAT AN INSULATING WAFER IS USED BETWEEN Q4 AND THE CHASSIS. TO AID HEAT TRANSFER, A COATING OF SILICONE COMPOUND (G. C. No. 8101), OR EQUIVALENT MUST BE APPLIED BETWEEN THE TRANSISTOR CASE OF Q5 AND THE HEAT SINK OR IN RESPECT TO Q4 TO EACH SIDE OF THE INSULATING WAFER.

NOTE THAT THE POWER SUPPLY VOLTAGE APPEARS ON THE Q4 TRANSISTOR CASE. AVOID SHORTING THE CASE TO THE CHASSIS OR GROUND.

Refer to the Div. 57 Authorized Price List 257.00 for current selling prices, availability and ordering information.

Service Flash References.

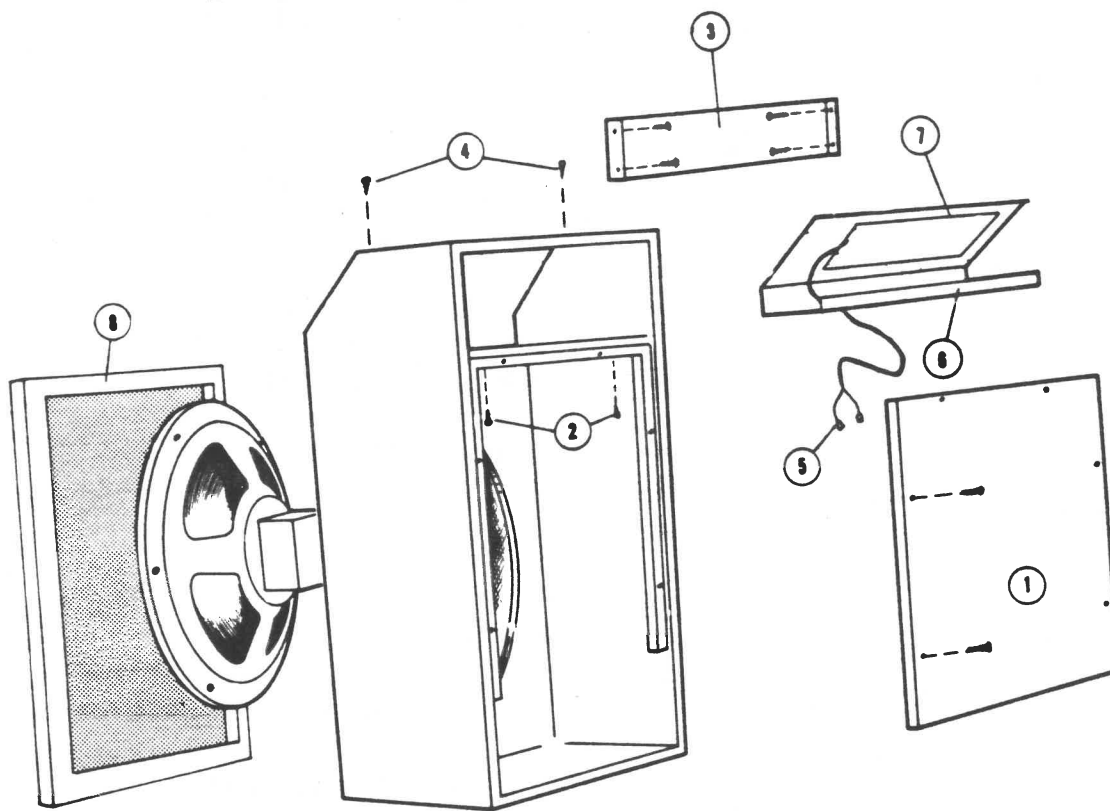
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180-21

SM62

Sears, Roebuck and Co.4
ALL

DISASSEMBLY INSTRUCTIONS



CABINET EXPLODED VIEW

REMOVAL OF CHASSIS:

REMOVE THE LARGE BACK (1). REMOVE TWO SCREWS FROM UNDER THE CHASSIS SHELF (2).

REMOVE THE SMALL BACK (3). REMOVE TWO SCREWS FROM THE TOP FRONT OF THE CABINET (4).

UNPLUG THE SPEAKER WIRE (5) AND PULL UP THROUGH THE SHELF AND THE CHASSIS (6) CAN BE TAKEN OUT FROM THE REAR OF THE CABINET.

REMOVAL OF PRINTED CIRCUIT BOARD:

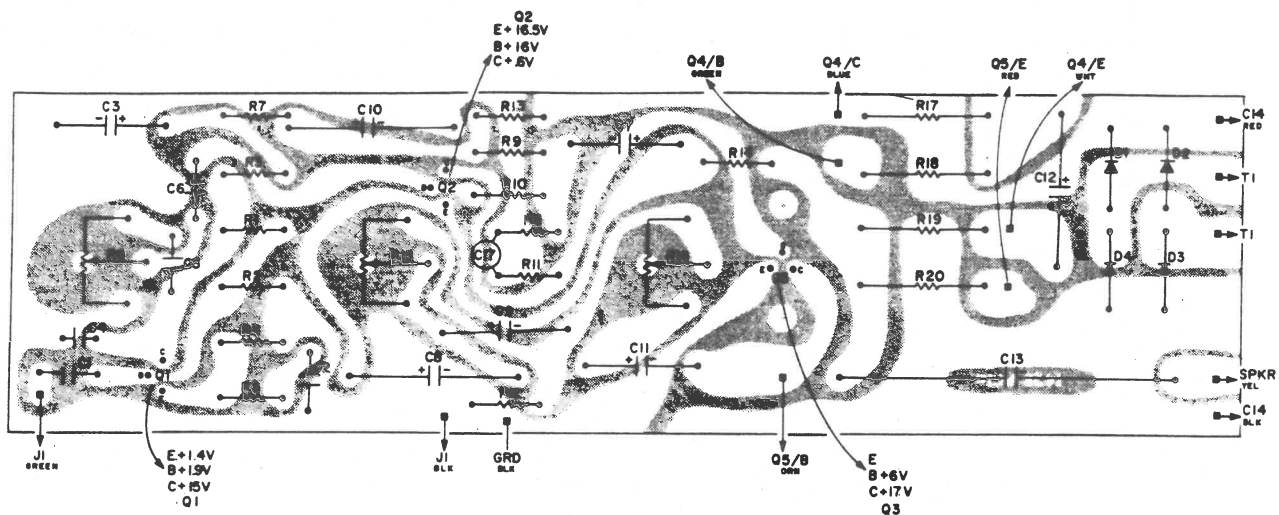
CAREFULLY PULL OFF KNOBS; REMOVE THE NUTS FROM THE CONTROLS ON THE FRONT PANEL AND THE BOARD (7) IS LOOSE.

NOTE: THE FLANGE OF THE STANDOFF IS TOWARD THE FRONT PANEL.

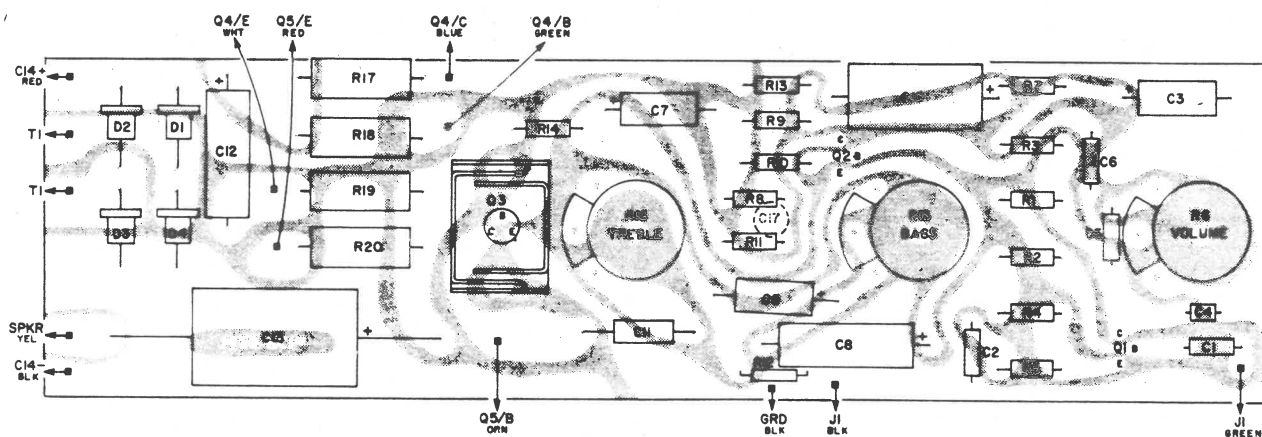
REMOVAL OF SPEAKER:

THE GRILLE CLOTH FRAME (8) IS HELD IN PLACE WITH FOUR PRESSURE SENSITIVE PADS, ONE AT EACH CORNER. THE FRAME CAN BE REMOVED BY PULLING EITHER OF THE BOTTOM CORNERS OF THE FRAME FORWARD.

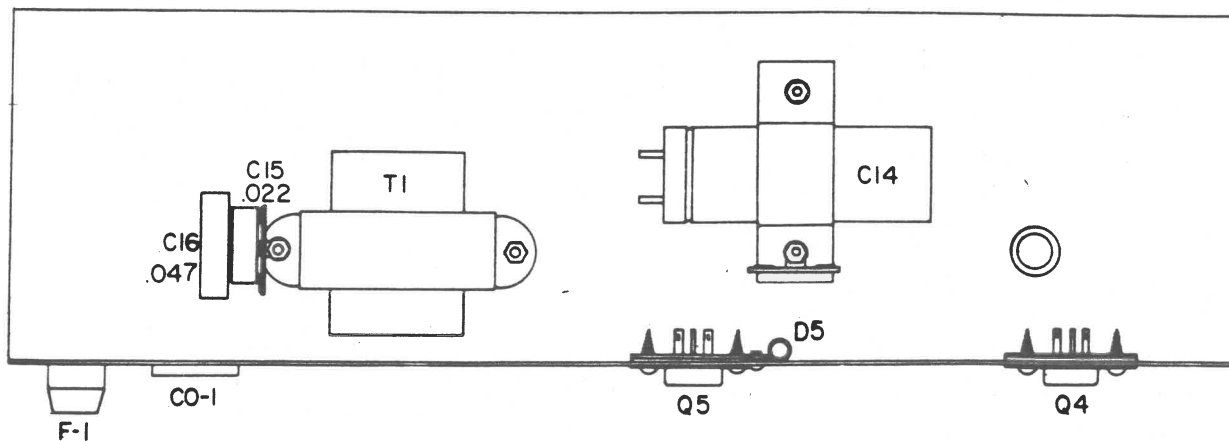
UNPLUG THE SPEAKER WIRE; TAKE OUT THE EIGHT SCREWS AROUND THE SPEAKER AND REMOVE.



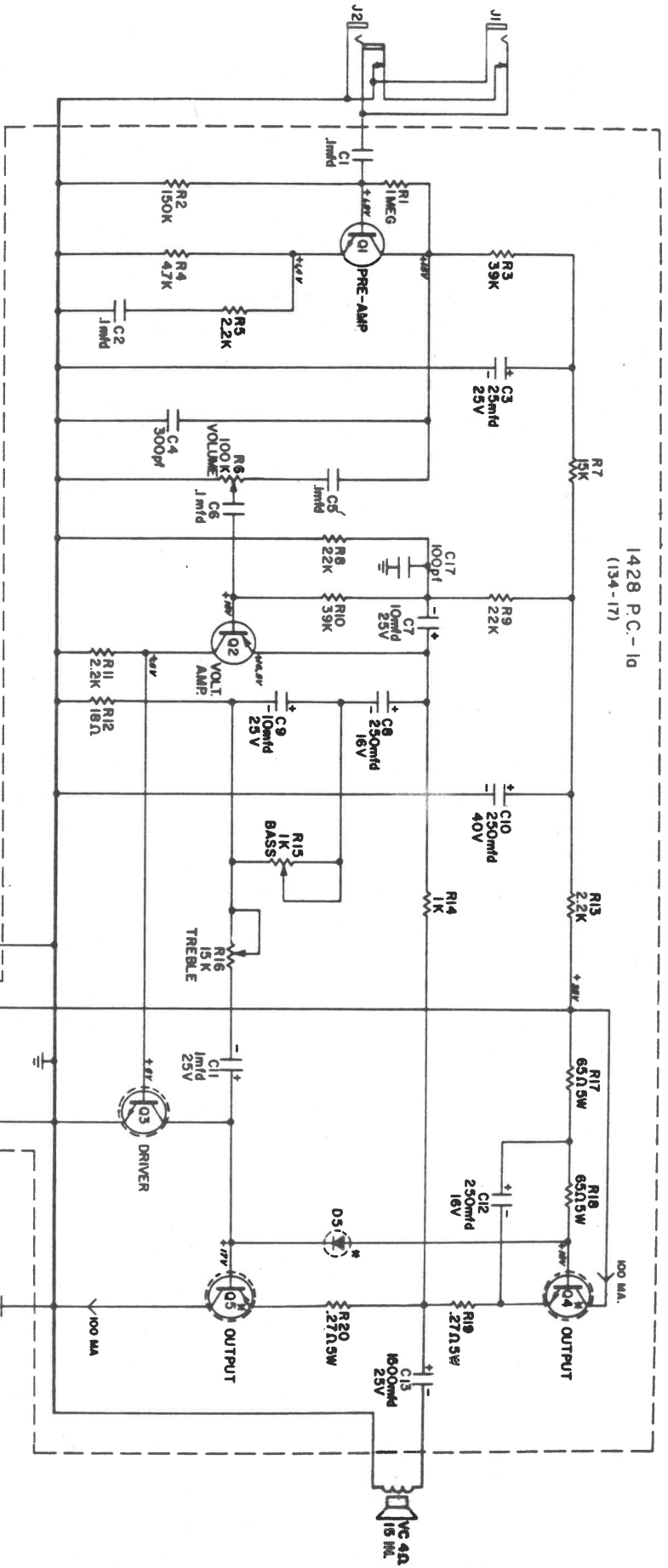
CIRCUIT SIDE



COMPONENT SIDE



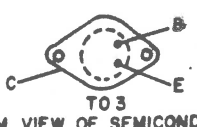
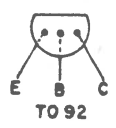
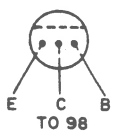
TOP VIEW CHASSIS



NOTES

1. VALUE OF ALL CAPACITORS IN MFD, UNLESS OTHERWISE SPECIFIED.
2. ALL RESISTORS ARE 1/2 WATT, ±10%, UNLESS OTHERWISE SPECIFIED.
3. ALL VOLTAGES MEASURED FROM POINTS INDICATED TO CHASSIS WITH 20,000 OHMS/VOLTMETER. ALL VOLTAGES ±15%. READ WITH ALL CONTROLS SET TO EXTREME COUNTER CLOCKWISE POSITION.
4. A DASHED LINE AROUND ANY SEMI-CONDUCTOR INDICATES THAT THIS UNIT IS HEATSINKED.
5. SENSITIVITY FOR RATED OUTPUT OF 25 WATTS IS 30 MILLIVOLTS, TEST MADE AT 1,000 HZ INTO A 4 OHM LOAD WITH VOLUME AND TONE CONTROLS SET TO MAXIMUM.
6. Q4, Q5, AND D5 ARE NOT ON 1428 PC-1 AS SHOWN, BUT ARE ON MAIN CHASSIS.

SCHEMATIC DIAGRAM



BOTTOM VIEW OF SEMICONDUCTORS