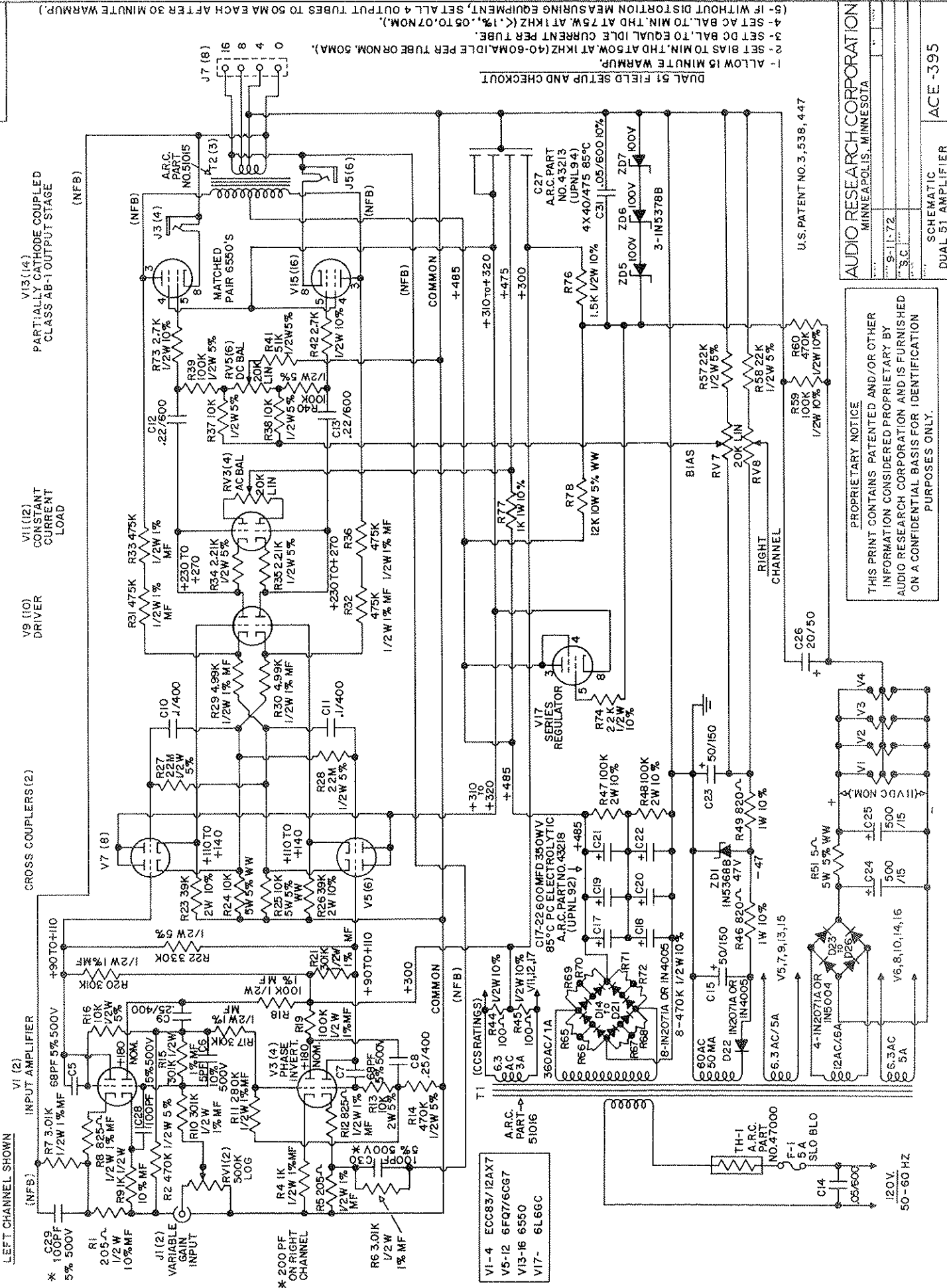


audio research

H I G H D E F I N I T I O N[®]

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

D51 POWER AMPLIFIER
SCHEMATICS & CHASSIS/TUBE
LAYOUT



1 - ALLOW 15 MINUTE WARMUP
 2 - SET BIAS TO MIN. THD AT 50 MA. IDLE PER TUBE OR NOM. 50 MA.
 3 - SET DC BAL. TO EQUAL IDLE CURRENT PER TUBE.
 4 - SET AC BAL. TO MIN. THD AT 75 W. AT 1KHZ (< 1%, .05 TO .07 NOM.).
 5 - IF WITHOUT DISTORTION MEASURING EQUIPMENT, SET ALL 4 OUTPUT TUBES TO 50 MA EACH AFTER 30 MINUTE WARMUP.

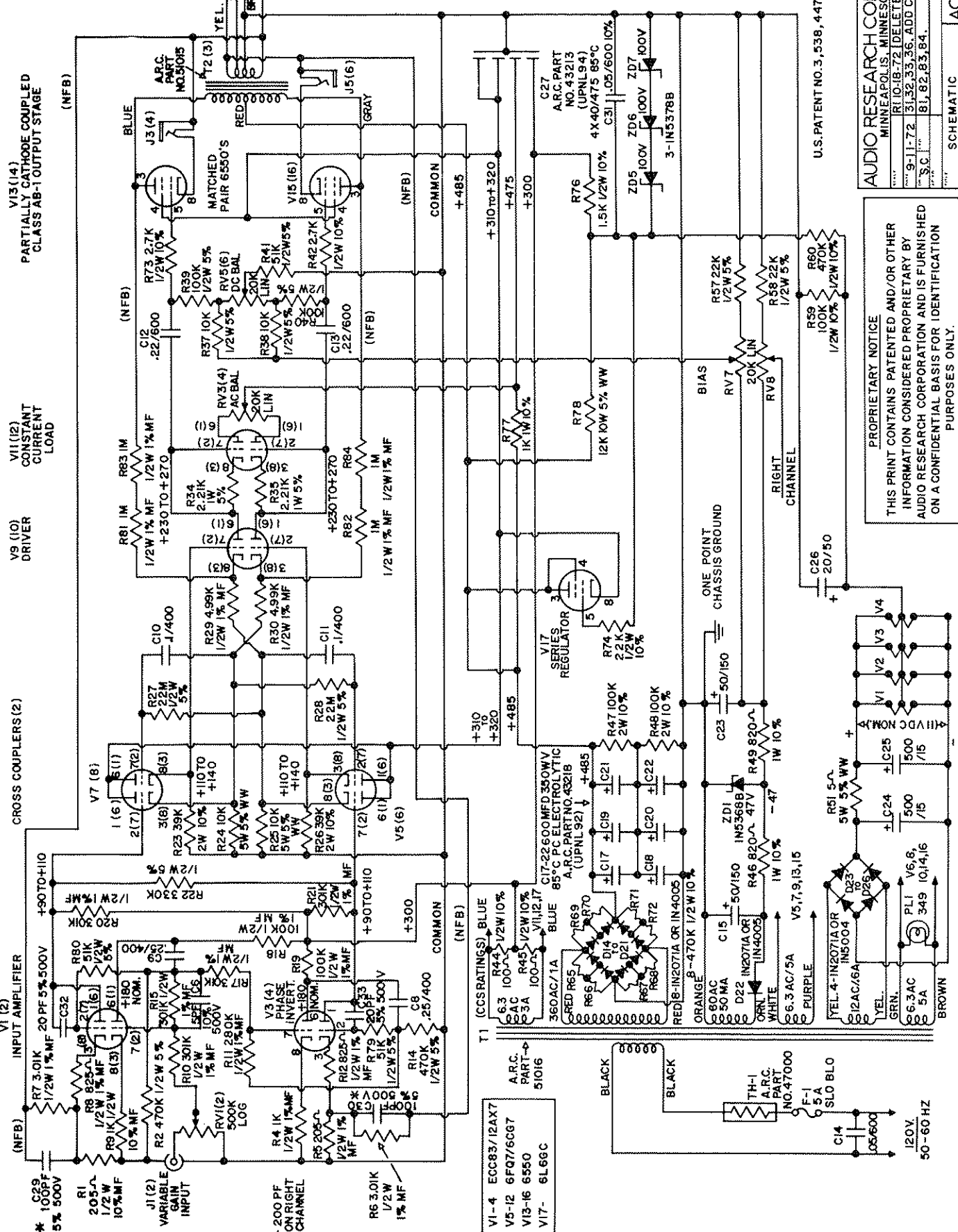
- V1-4 ECC83/12AX7
- V5-12 6FQ7/6CG7
- V13-16 6550
- V17- 6L6GC

AUDIO RESEARCH CORPORATION
 MINNEAPOLIS, MINNESOTA
 S.C. 9-11-72

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U.S. PATENT NO. 3,538,447

LEFT CHANNEL SHOWN (RIGHT CHANNEL TUBE PINS, WHERE DIFFERENT, ARE IN PARENTHESIS)



- 1- ALLOW 15 MINUTE WARMUP
- 2- SET BIAS TO MIN. THD AT 30W. AT 1KHZ (40-60MA/IDLE PER TUBE OR NOM. 50MA).
- 3- SET OC BAL. TO EQUAL IDLE CURRENT PER TUBE.
- 4- SET AC BAL. TO MIN. THD AT 75W. AT 1KHZ ((.1%, .05 TO .07NM).
- 5- IF WITHOUT DISTORTION MEASURING EQUIPMENT, SET ALL 4 OUTPUT TUBES TO 50MA EACH AFTER 30 MINUTE WARMUP.)

DUAL 5T FIELD SETUP AND CHECKOUT

U.S. PATENT NO. 3,538,447

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AUDIO RESEARCH CORPORATION
MINNEAPOLIS, MINNESOTA
RT 10, B-72 DELETE. C57, 28, R3, 16.
9-1-72 31, 32, 33, 36, ADD C32, 33, R79, 80.
S.C. 81, 82, 83, 84.

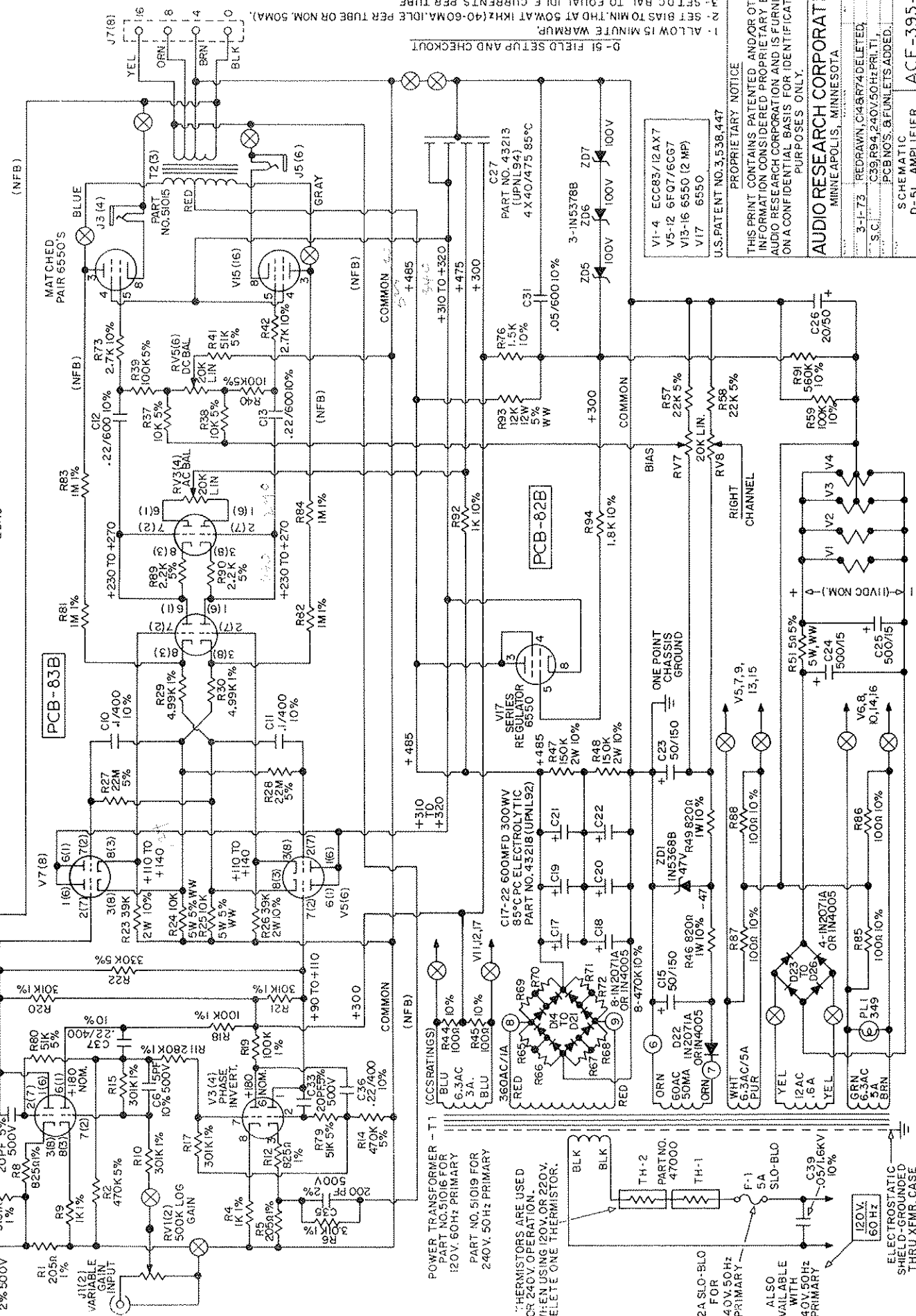
ACE-395-R1

SCHMATIC
DUAL 5T AMPLIFIER

ACE-395-R1

⊗ DENOTES P.C. BOARD FUNNELTS.
⑥

LEFT CHANNEL SHOWN (RIGHT CHANNEL TUBE PINS, WHERE DIFFERENT, ARE IN PARENTHESIS)
 V1 (2) INPUT AMPLIFIER
 V9 (10) DRIVER
 V11 (12) CONSTANT CURRENT LOAD
 V13 (14) PARTIALLY CAT HOPE COUPLED CLASS AB-1 OUTPUT STAGE
 ALL RESISTORS 1/2 WATT AND ALL CAPACITORS IN MF. EXCEPT AS NOTED.
 CROSS COUPLERS (2)
 MATCHED PAIR 6550'S (NFB)



POWER TRANSFORMER - T1
 PART NO. 51016 FOR 120V. 60HZ PRIMARY
 PART NO. 51019 FOR 240V. 50HZ PRIMARY
 THERMISTORS ARE USED FOR 240V OPERATION. WHEN USING 120V OR 220V, DELETE ONE THERMISTOR.
 3.2A SLO-BLO FOR 240V 50HZ PRIMARY
 ALSO AVAILABLE WITH 240V 50HZ PRIMARY
 F-1 5A SLO-BLO
 C39 .05/1.6KV -10%
 120V 60HZ
 ELECTROSTATIC SHIELD-GROUNDED THRU XFMR. CASE

PCB-82B
 PCB-83B
 V17 SERIES REGULATOR 6550
 C17-22 600MFD 300WV 85°C PC ELECTROLYTIC PART NO. 43218 (UPNL92)
 C17 100μF 10%
 C18 100μF 10%
 C19 100μF 10%
 C20 100μF 10%
 C21 100μF 10%
 C22 100μF 10%
 C23 50/150 ONE POINT CHASSIS GROUND
 C24 500/15
 C25 500/15
 C26 200/50

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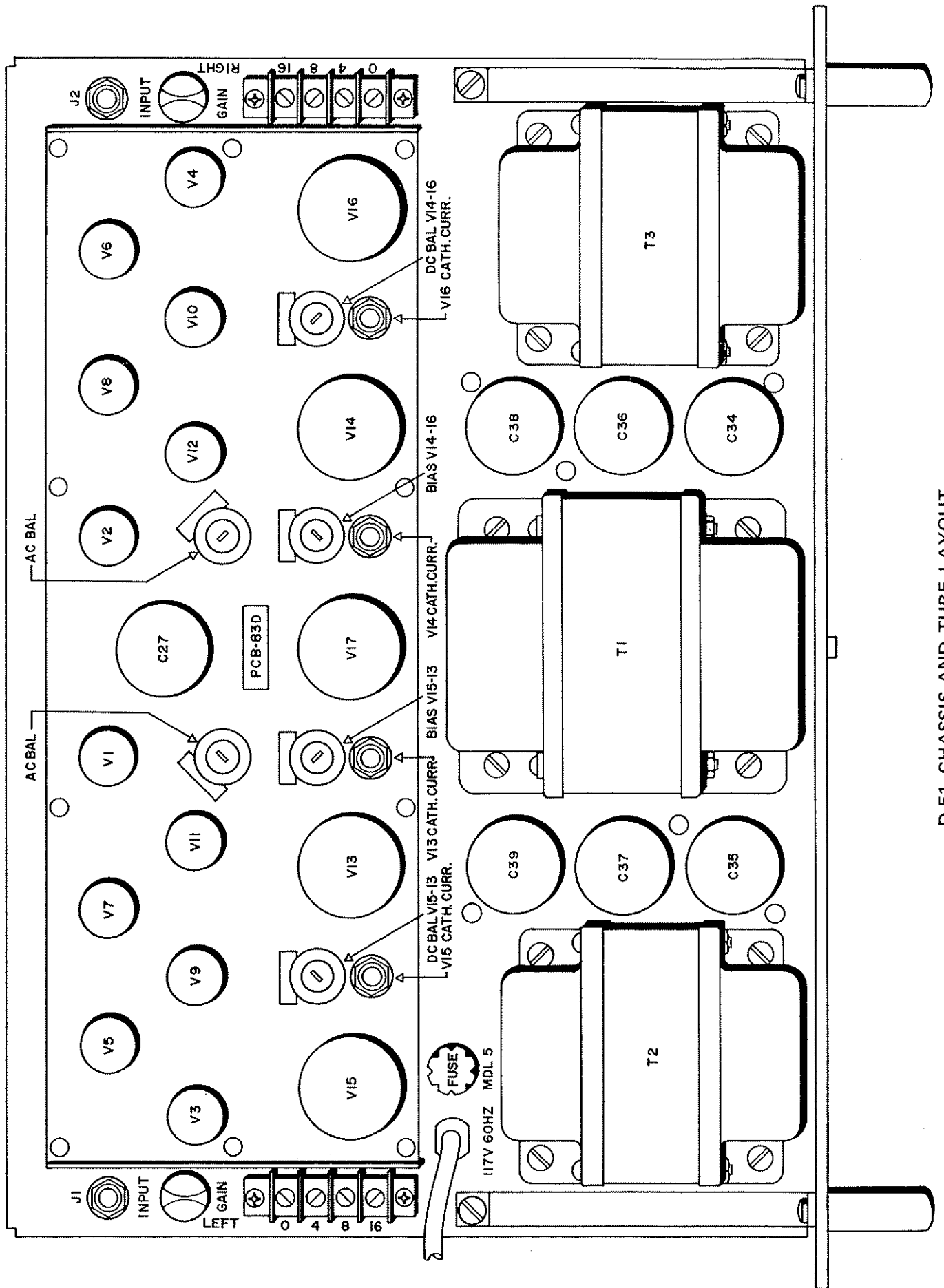
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FIELD SETUP AND CHECKOUT
 1. ALLOW 15 MINUTE WARMUP
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 4. GET AC BAL. TO MIN. THD AT 75W. AT 1KHZ. (<1% .05 TO .07 NOM.)
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U.S. PATENT NO. 3,538,447
 V1-4 ECC83/12AX7
 V5-12 6F07/6CG7
 V13-16 6550 (2 MF)
 V17 6550

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AUDIO RESEARCH CORPORATION
 MINNEAPOLIS, MINNESOTA
 3-1-73 REDRAWN C14874 DELETED
 C39 R94 240V/50HZ PRI. T.
 S.C. PCB NOS. 6 FUNNELTS ADDED.



D-51 CHASSIS AND TUBE LAYOUT