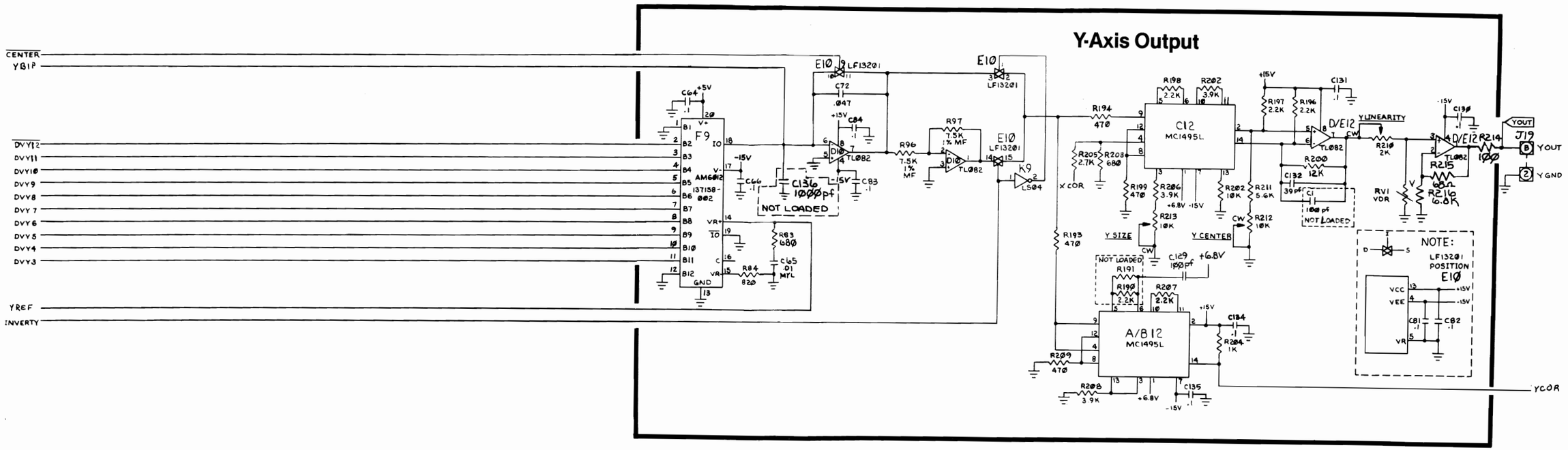

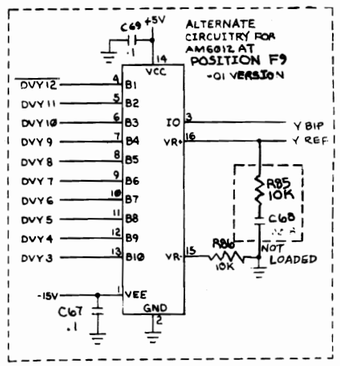

Adjusting X- and Y-Axis Video Potentiometers

If you replace the main Gravitar PCB or the display, you may have to make the following adjustments:

1. Enter self-test and advance to diagonal crosshatch pattern (Screen 2).
2. *Centering Pots:* Adjust X CENTER (R189) and Y CENTER (R212) so that the crosshatch pattern is located at the middle of the screen.
3. *Size Pots:* Adjust XSIZE (R192) and YSIZE (R213) so that the crosshatch pattern exactly covers the whole visible screen.
4. *Linearity Pots:* Adjust XLIN (R187) and YLIN (R210) so that the diagonal lines are straight. Since the LIN pots change the size of the displayed picture on the screen, you may have to readjust the SIZE pots in order to get the correct adjustment.
5. *Bipolar Pots:* Advance to the self-test raster pattern (Screen 4). Adjust XBIP (R99) and YBIP (R98) for a 1-inch high horizontal raster in the center of the screen. Be sure the raster ends are square with the sides of the outer rectangle.

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Black Widow PCB Schematic Diagram

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SP-234 Sheet 10B
2nd printing

Amplifone Deflection PCB

DESIGNATOR	
LAST USED	NOT USED
R74	
C25	
CR23	
Q26	
F4	
FB2	
W8	

NOTE: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTORS VALUES ARE IN OHMS, ¼W, 5%
2. ALL CAPACITORS IN µf.
△3 COMPONENTS LOADED IN -01 VERSION ONLY.

⚠ WARNING ⚠
Components identified by shading have special characteristics important to safety and must be replace only with identical parts.

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Amplifone
Color X-Y Display Schematic

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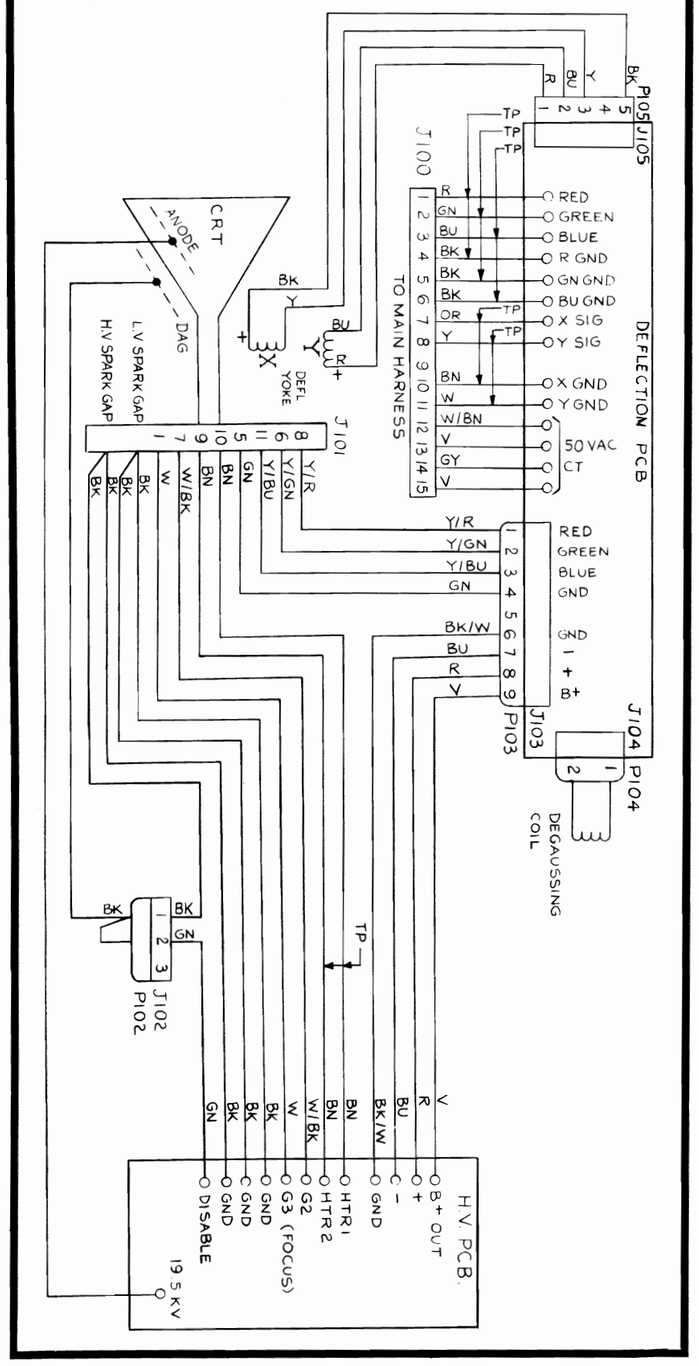
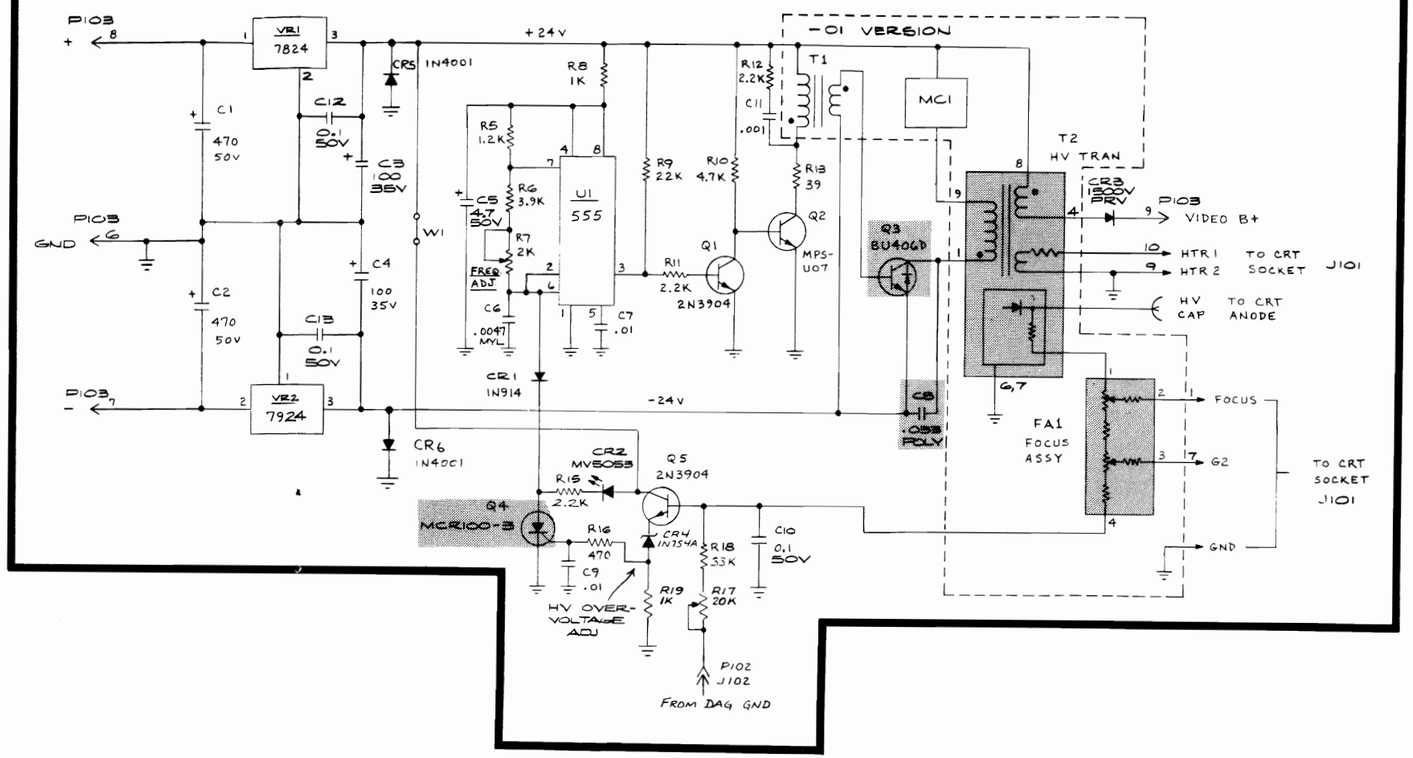
SP-234 Sheet 11A
2nd printing

Amplifone Main Wiring Diagram



Amplifone High-Voltage PCB



Note: Unless otherwise specified-
1. All resistor values are in ohms, ¼ W, 5%
2. All capacitor values are in μF.

DESIGNATOR	
LAST USED	NOT USED
R19 C13 Q5 VR2 T2 FA1 U1 MC1 CR6 W1	R1-4, 14

WARNING

Components identified by shading have special characteristics important to safety and must be replaced only with identical parts.

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Amplifone
Color X-Y Display Schematic

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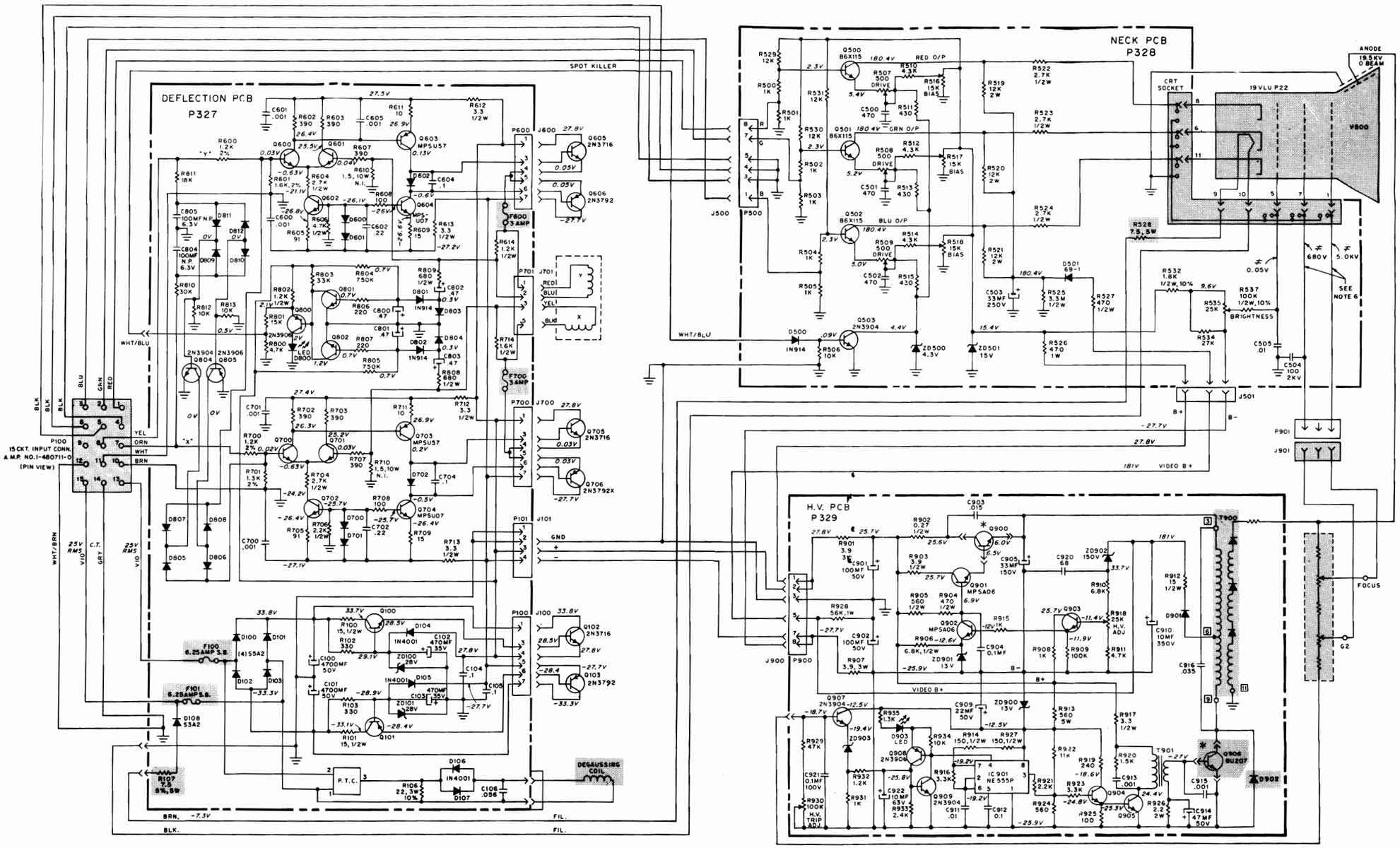
SP-234 Sheet 11B
2nd printing


DEFLECTION PCB
P327
NECK PCB
P328
H.V. PCB
P329
SPOT KILLER
WHT/BLU
J500
P500
P100
15 CKT. INPUT CONN.
A.M.P. NO.1-480711-0
(PIN VIEW)
YEL
ORN
WHT
BRN
BLK
BLU
GRN
RED
"Y"
"X"
2N3904 Q804
2N3906 Q805
25V RMS V10
C.T.
25V RMS V10
GRY
WHT/BRN
BRN. -7.3V
BLK.
FIL.
GND
DEGAUSSING COIL
P.T.C.
F100 6.25AMP S.B.
F101 6.25AMP S.B.
F600 3.4AMP
F700 3.4AMP
(4) S5A2
D108 S3A2
R107 7.5 5%, 5W
CRT SOCKET
19VLU P22
ANODE 19.5KV 0 BEAM
V500
J501
P901
J901
680V
5.0KV
SEE NOTE 6
0.05V
BRIGHTNESS
R532 1.8K 1/2W,10%
R535 25K
R537 100K 1/2W,10%
R334 27K
C505 .01
C504 100 2KV
B+
B-
-27.7V
27.8V
181V
VIDEO B+
R528 7.5, 5W
R527 470 1/2W
R526 470 1W
R525 3.3M 1/2W
R524 2.7K 1/2W
R523 2.7K 1/2W
R522 2.7K 1/2W
R519 12K 2W
R520 12K 2W
R521 12K 2W
R529 12K
R531 12K
R530 12K
R502 1K
R503 1K
R504 1K
R505 1K
R500 1K
R501 1K
Q500 86X115
Q501 86X115
Q502 86X115
RED O/P
GRN O/P
BLU O/P
180.4V
R510 4.3K
R512 4.3K
R514 4.3K
R516 15K BIAS
R517 15K BIAS
R518 15K BIAS
R507 500 DRIVE
R508 500 DRIVE
R509 500 DRIVE
C500 470
C501 470
C502 470
R511 430
R513 430
R515 420
D500 IN914
R506 10K
Q503 2N3904
ZD500 4.3V
ZD501 15V
D501 69-1
C503 33MF 250V
R533 2.4K
R535 25K
R536 1.5K
R537 100K
R538 27K
R539 1.8K
R540 1K
R541 1K
R542 1K
R543 1K
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