



MANUAL CHANGES

MODEL 1915A

VARIABLE TRANSITION TIME OUTPUT

Manual Serials Prefixed: 1119A

Manual Printed: JULY 1971

Make all changes listed below as Errata. Check the following table for your instrument serial prefix and/or serial number and make listed change(s) to the manual:

Serial Prefix or Number	Make Changes	Serial Prefix or Number	Make Changes
1142A	1		
1143A	1, 2		
1203A	1 thru 3		
1207A	1 thru 4		

ERRATA

Page 4-8, Figure 4-1,

Add the following to the graph:

On any amplitude range, power detector is off to left of curve, power detector is on to right of curve.

Page 4-9, Figure 4-2,

Add the following to the graph:

On any amplitude range, power detector is off to left of curve, power detector is on to right of curve.

Table 6-2,

A2Q6: Change to HP Part No. 1854-0471; Qty 2;
TSTR: SI NPN; Mfr. Code 28480; Mfr. Part No. 1854-0471.

A2Q7: Change to HP Part No. 1854-0471; Qty 1;
TSTR: SI NPN; Mfr. Code 28480; Mfr. Part No. 1854-0471.

Table 6-2, (Cont'd)

A3R85: Change to HP Part No. 2100-2489; Qty 2; R: VAR FLM 5K OHM 10% LIN 1/2W; Mfr. Code 28480; Mfr. Part No. 2100-2489.

A3R88: Change to HP Part No. 2100-2522; Qty 2; R: VAR CERMET 10K OHM 10% LIN 1/2W; Mfr. Code 28480; Mfr. Part No. 2100-2522.

A4R85: Change to HP Part No. 2100-2489; R: VAR FLM 5K OHM 10% LIN 1/2W; Mfr. Code 28480; Mfr. Part No. 2100-2489.

A4R88: Change to HP Part No. 2100-2522; R: VAR CERMET 10K OHM 10% LIN 1/2W; Mfr. Code 28480; Mfr. Part No. 2100-2522.

21 July 1972

Δ = Latest additions to this change sheet.

This change sheet supersedes all prior change sheets for this manual.

Supplement A for
01915-90906

CHANGE 1

Table 6-2,

- A2: Change to HP Part No. 01915-66526; Qty 1;
ASSY:WIDTH CONTROL & AMPLITUDE
VERNIER.
- Add: A2Q38; HP Part No. 1854-0365; Qty 1;
Q:SI NPN; Mfr. Code 80131; Mfr. Part No. 2N4410.
- Add: A2Q39; HP Part No. 1853-0062; Qty 1;
Q:SI PNP; Mfr. Code 28480; Mfr. Part No. 1853-
0062.
- Add: A2R93; HP Part No. 0684-1031; Qty 2;
R:FXD COMP 10K OHMS 10% 1/4W; Mfr. Code
01121; Mfr. Part No. CB 1031.
- Add: A2R94; HP Part No. 0684-2231; Qty 2;
R:FXD COMP 22K OHMS 10% 1/4W; Mfr. Code
01121; Mfr. Part No. CB 2231.

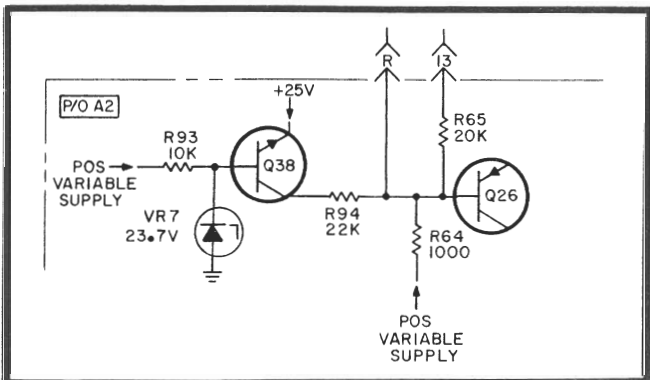


FIGURE 1

- Table 6-2, (Cont'd)
- Add: A2R95; HP Part No. 0684-1031; R: FXD COMP
10K OHMS 10% 1/4W; Mfr. Code 01121; Mfr. Part
No. CB 1031.
- Add: A2VR7; HP Part No. 1902-3256; Qty 2; VR:
DIODE BREAKDOWN SI 23.7V 5% 400 MW;
Mfr. Code 28480; Mfr. Part No. 1920-3256.
- Add: A2VR8; HP Part No. 1902-3256; VR: DIODE
BREAKDOWN SI 23.7V 5% 400 MW; Mfr. Code
28480; Mfr. Part No. 1920-3256.
- Delete: Q3, Q4, R8, R9, R10, R11, VR1, VR2.
- Δ Page 8-14, Figure 8-6,
Delete: Figure 8-6.
- Add: new Figure 8-6 attached this change sheet.
- Page 8-19, Figure 8-13,
Delete: Q3, Q4, R8, R9, R10, R11, VR1, VR2.
- Make the schematic changes shown in Figure 1 and 2.

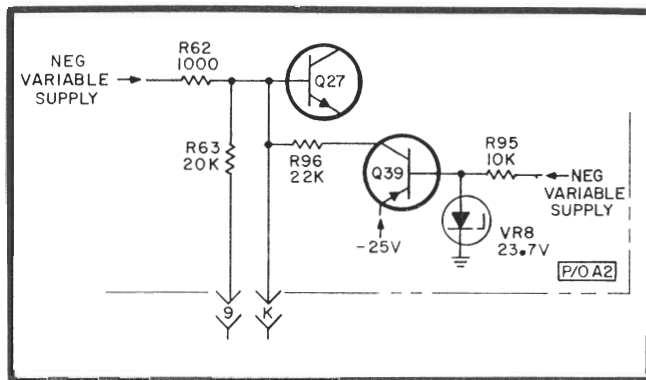


FIGURE 2

CHANGE 2

Table 6-2,

- A5Q5: Change to HP Part No. 1853-0210; Qty 1;
TSTR: SI PNP; Mfr. Code 28480; Mfr. Part No.
1853-0210.
- A5Q6: Change to HP Part No. 1854-0362; Qty 1;
TSTR: SI NPN; Mfr. Code 28480; Mfr. Part No.
1854-0362.
- A7: Change to HP Part No. 01915-66522; Qty 1;
ASSY: OFFSET, POWER SUPPLY; Mfr. Code
28480; Mfr. Part No. 01915-66522.
- A7R1: Change to HP Part No. 0757-0444; Qty 1;
R: FXD METFLM 12.1K OHM 1% 1/8W; Mfr. Code
28480; Mfr. Part No. 0757-0444.
- A7R2: Change to HP Part No. 0757-0283; Qty 1;
R: FXD METFLM 2K OHM 1% 1/8W; Mfr. Code
28480; Mfr. Part No. 0757-0283.
- A7R3 and A7R4: Change to HP Part No. 0698-3154;
Qty 2; R: FXD METFLM 4.22K OHM 1% 1/8W;
Mfr. Code 28480; Mfr. Part No. 0698-3154.

Table 6-2, (Cont'd)

- A8: Change to HP Part No. 01915-66527; Qty 1;
ASSY: DUMMY PGM; Mfr. Code 28480; Mfr. Part
No. 01915-66527.
- A8R2: Change to HP Part No. 0757-0928; Qty 1;
R: FXD METFLM 1.5K OHM 2% 1/8W; Mfr. Code
28480; Mfr. Part No. 0757-0928.
- Delete: A8R3.
- W1: Change to HP Part No. 01915-61615; Qty 1;
CABLE MAIN; Mfr. Code 28480; Mfr. Part No.
01915-61615.
- Page 8-17, Figure 8-11,
Make schematic changes shown in Figures 3 and 4.
- Page 8-28, Figure 8-26,
Replace with Figure 8-26A enclosed.
- Page 8-29, Figure 8-29,
A7R1: Change value to 12.1K ohms.
A7R2: Change value to 2000 ohms.
A7R3: Change value to 4220 ohms.
A7R4: Change value to 4220 ohms.

CHANGE 2 (Cont'd)

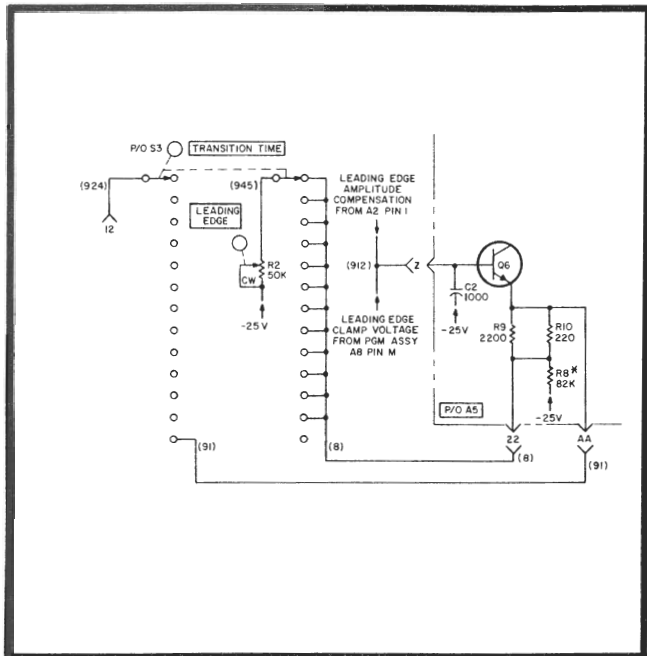


Figure 3

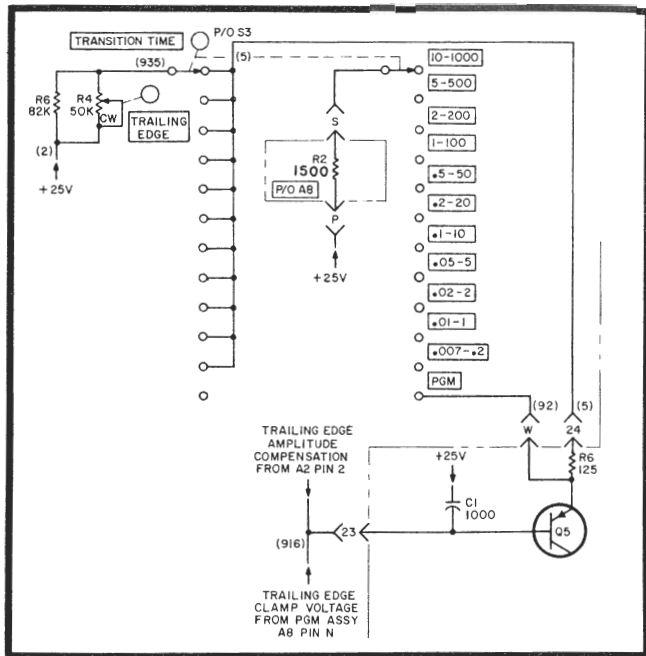


Figure 4

CHANGE 3

Page 1-2, Table 1-1,

Change the OVERLOAD specification to read as follows:

Overload lamp lights to indicate when power detector protection circuits are turning off the output current to limit the output power and prevent output transistor damage. Single shot or <0.2% duty cycle operation at output amplitudes >10V will cause severe pulse top distortions. If no pulses are generated for more than 100 ms, or if the duty cycle is <.04%, rounding of >2% may occur on the leading edge. With the internal 50-ohm termination connected and a 50-ohm load connected at the output, leading edge rounding increases to 10% with a settling time of 400 usec when a very long time occurs between pulses or for very low duty cycles compared to the values above. Without the internal 50-ohm termination connected, leading edge rounding increases to double the amount. If the Model 1915A output is likely to be shorted to a power supply, the power supply must be current limited to ±200 mA peak to protect the Model 1915A. If the power supply is not current limited to ±200 mA peak, the Model 1915A can be shorted to no more than 4V without damage.

Page 3-1, Paragraph 3-15,

Delete step c.

Page 3-5/3-6, Paragraphs 3-30 and 3-31,

Delete Paragraphs 3-30 and 3-31,

Page 4-2, Paragraph 4-14,

Delete Paragraph 4-14,

Page 4-7, Paragraphs 4-84 thru 4-89,

Delete Paragraphs 4-84 thru 4-89.

Page 4-8, Figure 4-1,

Delete Figure 4-1.

Page 4-9, Figure 4-2,

Delete Figure 4-2.

Page 5-2, Paragraph 5-10,

Delete Paragraph 5-10.

Page 5-2, Figures 5-2 and 5-3,

Delete Figures 5-2 and 5-3.

Page 5-8a, Paragraph 5-10,

Delete Paragraph 5-10.

Page 5-12, Paragraph 5-27,

Delete steps o, p, and q.

Page 5-12, Figure 5-15,

Delete Figure 5-15.

Page 5-14, Paragraph 5-30,

Delete steps o, p, and q.

Page 5-15, Figure 5-20,

Delete Figure 5-20.

CHANGE 3 (Cont'd)

Table 6-2,

Delete A3Q22.

A3R73: Change to HP Part No. 0698-5572; Qty 4;
R:FXD FLM 12.5K OHM .5% 1/8W; Mfr. Code
28480; Mfr. Part No. 0698-5572.

A3R74: Change to HP Part No. 0698-5572; R:FXD
FLM 12.5K OHM .5% 1/8W; Mfr. Code 28480;
Mfr. Part No. 0698-5572.

Delete A4Q22.

A4R73: Change to HP Part No. 0698-5572; R:FXD
FLM 12.5K OHM .5% 1/8W; Mfr. Code 28480;
Mfr. Part No. 0698-5572.

A4R74: Change to HP Part No. 0698-5572; R:FXD
FLM 12.5K OHM .5% 1/8W; Mfr. Code 28480;
Mfr. Part No. 0698-5572.

S5: Change to HP Part No. 3100-2565; Qty 1;
SWITCH:ROTARY, 3 SECTION (AMPLITUDE);
Mfr. Code 28480; Mfr. Part No. 3100-2565.

Add: VR3; HP Part No. 1902-3193; Qty 2; DIODE
BREAKDOWN: 13.3V 5%; Mfr. Code 28480;
Mfr. Part No. 1902-3193.

Add: VR4; HP Part No. 1902-3193; DIODE BREAK-
DOWN: 13.3V 5%; Mfr. Code 28480; Mfr. Part
No. 1902-3193.

W1: Change to HP Part No. 01915-61617; Qty 1;
CABLE:MAIN; Mfr. Code 28480; Mfr. Part No.
01915-61617.

Page 8-6, Paragraph 8-62,
Delete step d.

Page 8-6, Paragraph 8-63,
Delete Paragraph 8-63.

Page 8-7, Table 8-5,
Delete Table 8-5.

Page 8-7, Paragraph 8-65,
Delete step d.

Page 8-7, Paragraph 8-66,
Delete Paragraph 8-66.

Page 8-8, Table 8-7,
Delete Table 8-7.

Page 8-21, Figure 8-17,
Make changes shown in Figure 5.
Delete A3Q22.

Page 8-23/8-24, Figure 8-21,
Make changes shown in Figure 6.
Delete A4Q22.

Page 8-25/8-26, Figure 8-23,

A3R73: Change value to 12.5K ohms.

A3R74: Change value to 12.5K ohms.

Page 8-27, Figure 8-25,

A4R73: Change value to 12.5K ohms.

A4R74: Change value to 12.5K ohms.

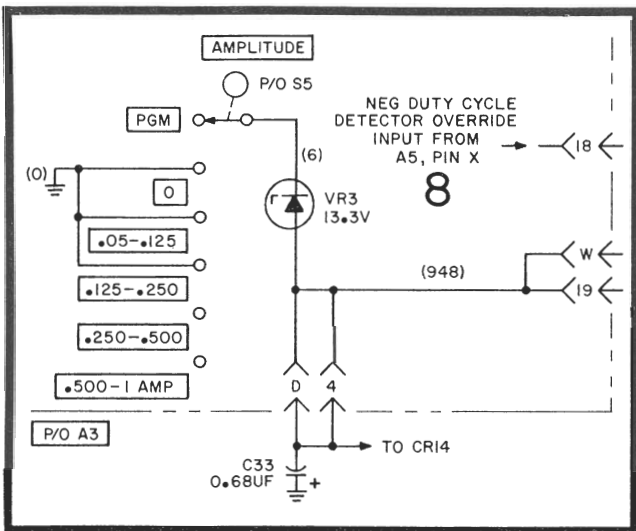


Figure 5

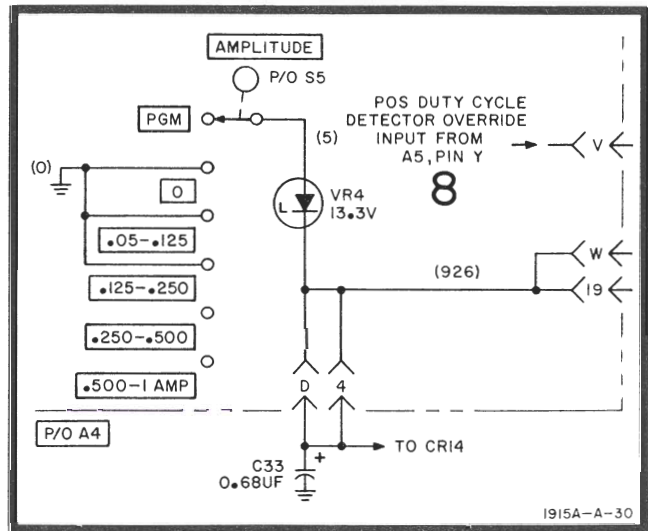


Figure 6

CHANGE 4

Table 6-2,

Add: A3C37; HP Part No. 0140-0192; Qty 2; C:FXD MICA 68 PF 5%; Mfr. Code 28480; Mfr. Part No. 0140-0192.

Add: A3R89; HP Part No. 0757-0454; Qty 2; R:FXD MET FLM 33.2K OHM 1% 1/8W; Mfr. Code 28480; Mfr. Part No. 0757-0454.

Add: A4C37; HP Part No. 0140-0192; C:FXD MICA 68 PF 5%; Mfr. Code 28480; Mfr. Part No. 0140-0192.

Add: A4R89; HP Part No. 0757-0454; R:FXD MET FLM 33.2K OHM 1% 1/8W; Mfr. Code 28480; Mfr. Part No. 0757-0454.

Add: A7C10; HP Part No. 0150-0093; Qty 2; C:FXD CER 0.01 UF +80–20% 100 VDCW; Mfr. Code 72982; Mfr. Part No. 801-K800011.

Add: W1C3; HP Part No. 0150-0093; C:FXD CER 0.01 UF +80–20% 100 VDCW; Mfr. Code 72982; Mfr. Part No. 801-K800011.

MP2: Change to HP Part No. 0370-2142; Qty 1; KNOB ASSY: WIDTH, JADE-GRAY; Mfr. Code 28480; Mfr. Part No. 0370-2141.

MP3: Change to HP Part No. 0370-2122; Qty 1; KNOB ASSY: TRANSITION TIME, JADE-GRAY; Mfr. Code 28480; Mfr. Part No. 0370-2122.

MP4: Change to HP Part No. 0370-2126; Qty 1; KNOB ASSY: AMPLITUDE, JADE-GRAY; Mfr. Code 28480; Mfr. Part No. 0370-2126.

MP5: Change to HP Part No. 0370-2125; Qty 1; KNOB ASSY: OFFSET, JADE-GRAY; Mfr. Code 28480; Mfr. Part No. 0370-2125.

MP6: Change to HP Part No. 0370-2124; Qty 1; KNOB ASSY: POLARITY, JADE-GRAY; Mfr. Code 28480; Mfr. Part No. 0370-2124.

Table 6-2, (Cont'd)

MP7: Change to HP Part No. 0370-2048; Qty 5; KNOB ASSY: VERNIER, JADE-GRAY; Mfr. Code 28480; Mfr. Part No. 0370-2048.

MP10: Change to HP Part No. 01915-60201; Qty 1; PANEL: FRONT, MINT-GRAY; Mfr. Code 28480; Mfr. Part No. 01915-60201.

MP11: Change to HP Part No. 01915-20202; Qty 1; FRAME: PANEL, MINT-GRAY; Mfr. Code 28480; Mfr. Part No. 01915-20202.

Page 7-6, Table 7-3,

MP4: Change to HP Part No. 0370-2123; TQ 1; KNOB ASSY: AMPLITUDE, JADE-GRAY.

MP10: Change to HP Part No. 01915-60202; TQ 1; PANEL: FRONT, MINT-GRAY.

Page 8-25/8-26, Figure 8-23,

Add A3C37 (68 PF) and A3R89 (33.2K), a series RC network, in parallel with A3R82.

Page 8-27, Figure 8-25,

Add A4C37 (68PF) and A4R89 (33.2K), a series RC network, in parallel with A4R82.

Page 8-29, Figure 8-29,

Add A7C10 (0.01 UF) from POS VARIABLE SUPPLY to ground at A7 pin 1 (capacitor mounted on pc board A7).

Add W1C3 (0.01 UF) from NEG VARIABLE SUPPLY to ground at A7 pin M (capacitor mounted on connector).

OPTION 007

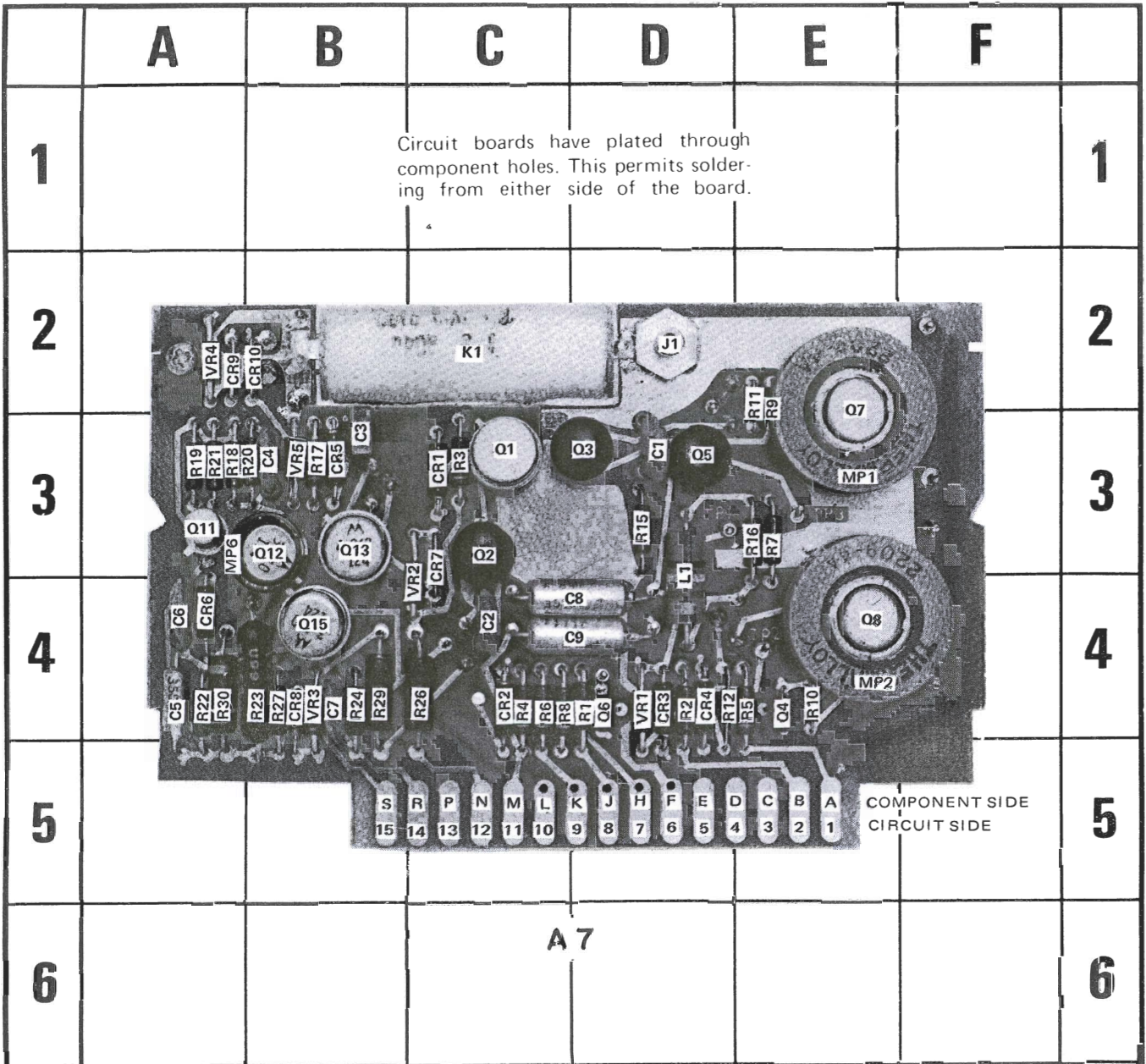
This Option provides rear panel output to the Model 1900A mainframe.

Ref Desig	HP Part No.	Qty	Description
MP14	01900-00506	1	GUSSET: LEFT SIDE (Option 007)
W3	01915-61616	1	CABLE ASSY: OUTPUT (Option 007)
W3P1	1250-0872	1	CONNECTOR: RF 50 OHM SNAP ON TYPE (MATES WITH A7J1)
W3P2	1250-1221	1	CONNECTOR: RF 50 OHM SLIDE-ON RECESSED
W3MP1	01900-01209	1	BULKHEAD CABLE TYPE BRACKET: CONNECTOR

OPTION X95

This Option provides the Hewlett-Packard blue-gray color scheme.

Ref Desig	HP Part No.	Qty	Description
MP2	01915-67405	1	KNOB ASSY: WIDTH, BLACK.
MP3	01915-67402	1	KNOB ASSY: TRANSITION TIME, BLACK.
MP4	01915-67403	1	KNOB ASSY: AMPLITUDE, BLACK
MP5	01915-67404	1	KNOB ASSY: OFFSET, BLACK
MP6	01915-67405	1	KNOB ASSY: POLARITY, BLACK
MP7	01905-67404	5	KNOB ASSY: VERNIER, BLACK
MP10	01915-00201	1	PANEL: FRONT, LIGHT GRAY
MP11	01915-20201	1	FRAME: PANEL, DARK GRAY

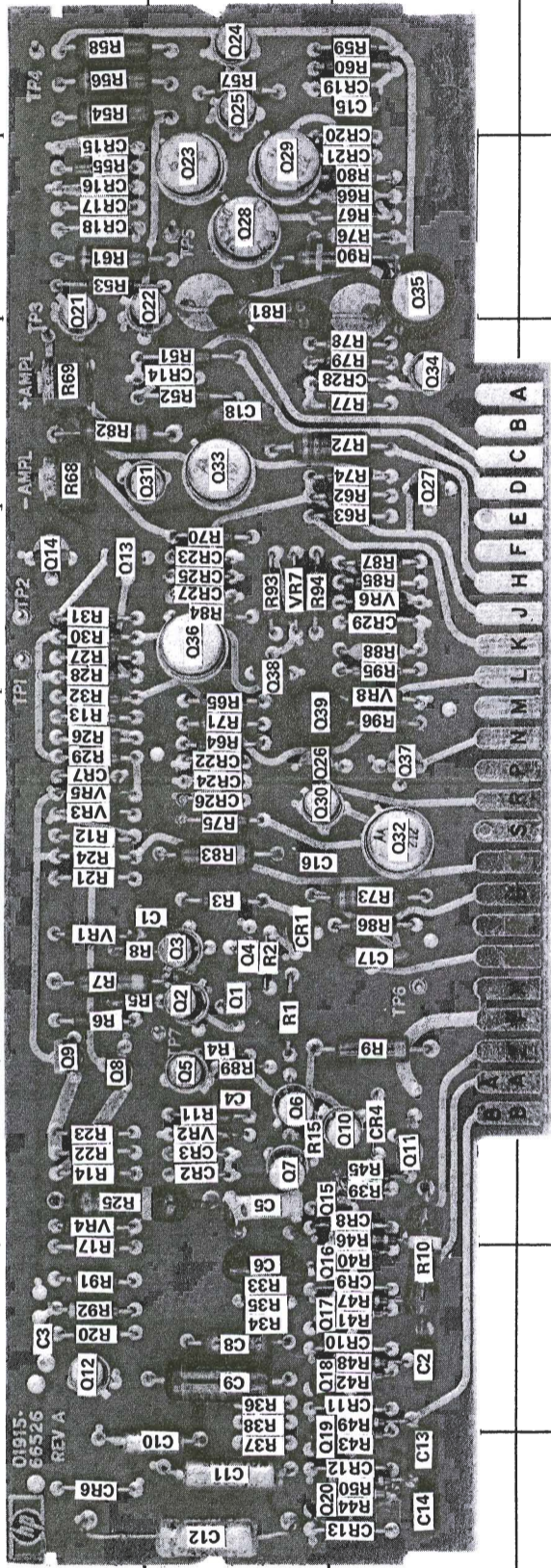


REF DESIG	GRID LOC	REF DESIG	GRID LOC	REF DESIG	GRID LOC	REF DESIG	GRID LOC	REF DESIG	GRID LOC	REF DESIG	GRID LOC
C1	D-3	CR3	D-4	MP2	E-4	Q12	B-3	R9	E-2	R22	A-4
C2	C-4	CR4	D-4	MP6	A-3	Q13	B-3	R10	E-4	R23	B-4
C3	B-3	CR5	B-3	Q1	C-3	Q15	B-4	R11	E-2	R24	B-4
C4	B-3	CR6	A-4	Q2	C-3	R1	D-4	R12	D-4	R26	C-4
C5	A-4	CR7	C-3	Q3	D-3	R2	D-4	R15	D-3	R27	B-4
C6	A-4	CR8	B-4	Q4	E-4	R3	C-3	R16	E-3	R29	B-4
C7	B-4	CR9	A-2	Q5	D-3	R4	C-4	R17	B-3	R30	A-4
C8	D-4	CR10	B-2	Q6	D-4	R5	E-4	R18	A-3	VR1	D-4
C9	D-4	J1	D2	Q7	E-2	R6	C-4	R19	A-3	VR2	C-4
CR1	C-3	K1	C2	Q8	E-4	R7	E-3	R20	B-3	VR3	B-4
CR2	C-4	L1	D3	Q11	A-3	RC	C-4	R21	A-3	VR4	A-2
		MP1	E3							VR5	B-3

1915A-A-7B

Figure 8-26A. Offset and Power Supply, A7, Component Identification (Front View)

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2													
3													
4													
5													
6						A2							



Circuit boards have plated through component holes. This permits soldering from either side of the board.

REF. DESIG	GRID LOC	REF. DESIG	GRID LOC	REF. DESIG	GRID LOC	REF. DESIG	GRID LOC	REF. DESIG	GRID LOC	REF. DESIG	GRID LOC	REF. DESIG	GRID LOC
C1	F-3	CR1	F-3	R2	F-3	R23	E-2	R40	D-4	R57	K-3	R73	F-4
C2	D-4	CR2	E-3	R3	F-3	R24	G-2	R41	E-2	R58	K-2	R74	I-4
C3	D-2	CR3	E-3	R4	F-3	R25	E-2	R42	E-2	R59	K-4	R75	G-3
C4	E-3	CR4	E-4	R5	F-2	R26	G-2	R43	G-2	R60	K-4	R76	J-4
C5	E-3	CR5	E-4	R6	F-2	R27	G-2	R44	H-2	R61	J-2	R77	I-4
C6	D-3	CR6	D-2	R7	F-2	R28	H-2	R45	H-2	R62	I-4	R78	I-4
C8	D-3	CR7	H-2	R8	F-2	R29	H-2	R46	H-2	R63	H-4	R79	I-4
C9	D-3	CR8	H-2	R9	F-2	R30	H-2	R47	H-2	R64	H-4	R80	J-4
C10	C-3	CR9	H-2	R10	F-2	R31	H-2	R48	H-2	R65	G-3	R81	J-3
C11	C-3	CR10	H-2	R11	F-2	R32	H-2	R49	H-2	R66	G-3	R82	I-2
C12	C-3	CR11	H-2	R12	F-2	R33	H-2	R50	H-2	R67	J-4	R83	I-2
C13	C-4	CR12	H-4	R13	F-2	R34	D-3	R51	I-3	R68	J-4	R84	H-3
C14	C-4	CR13	H-4	R14	F-2	R35	D-3	R52	I-3	R69	I-2	R85	H-3
C15	K-4	CR14	F-3	R15	F-2	R36	D-3	R53	J-2	R70	H-3	R86	H-4
C16	C-4	CR15	F-3	R16	D-2	R37	D-3	R54	K-2	R71	H-3	R87	F-4
C17	F-4	CR16	F-2	R17	D-2	R38	D-3	R55	K-2	R72	G-3	R88	R-4
C18	I-3	CR17	J-2	R18	F-2	R39	E-4	R56	K-2		I-4		
				R19	F-3	R20	E-2						
				R21	F-3	R22	E-2						
				R22	F-3	R23	E-2						
				R23	E-2	R24	G-2						
				R24	G-2	R25	E-2						
				R25	E-2	R26	G-2						
				R26	G-2	R27	G-2						
				R27	G-2	R28	H-2						
				R28	H-2	R29	H-2						
				R29	H-2	R30	H-2						
				R30	H-2	R31	H-2						
				R31	H-2	R32	H-2						
				R32	H-2	R33	D-3						
				R33	D-3	R34	D-3						
				R34	D-3	R35	D-3						
				R35	D-3	R36	D-3						
				R36	D-3	R37	D-3						
				R37	D-3	R38	D-3						
				R38	D-3	R39	E-4						

Figure 8-6. Input and Width Assembly A2, Component Identification