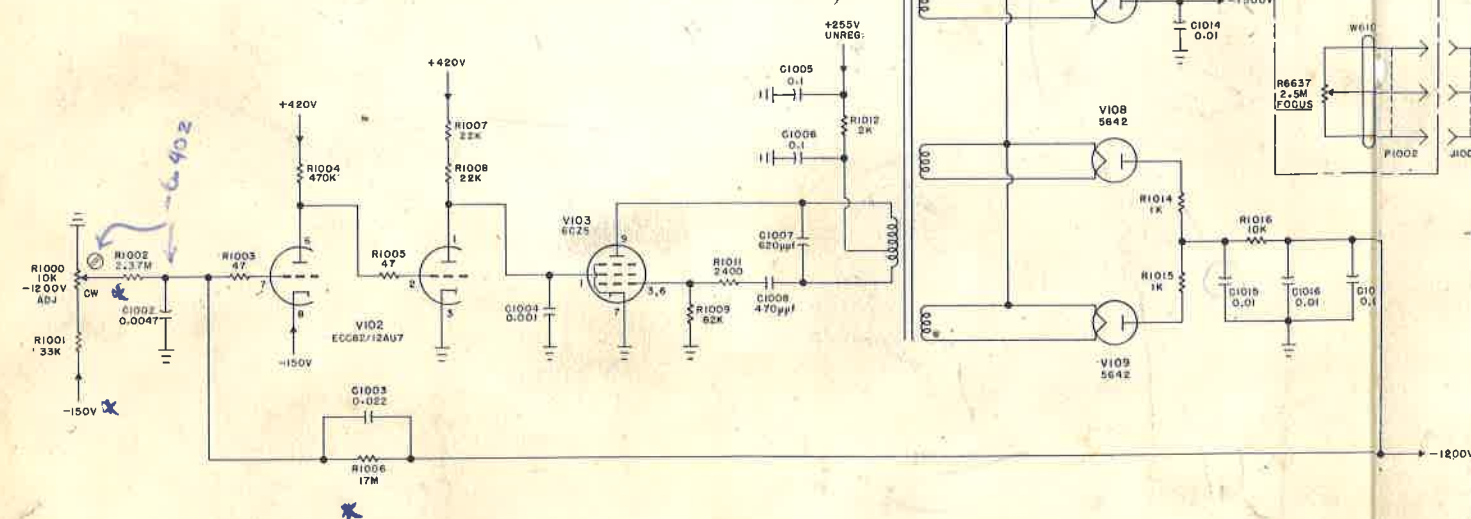
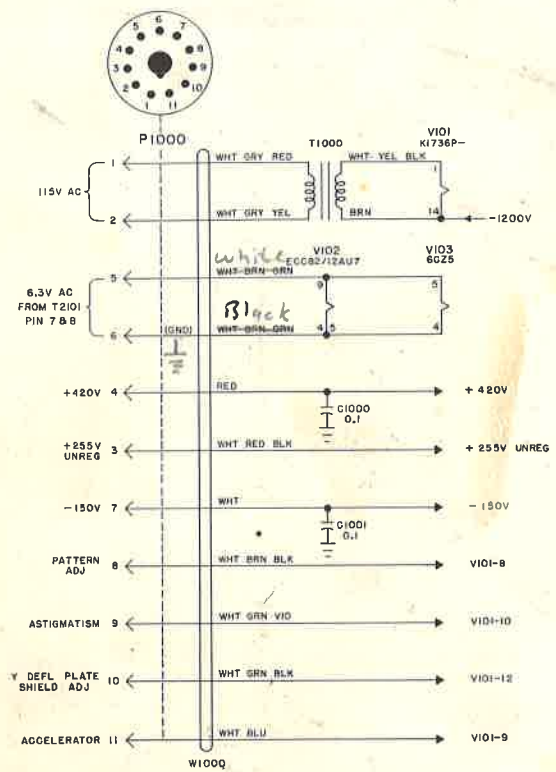
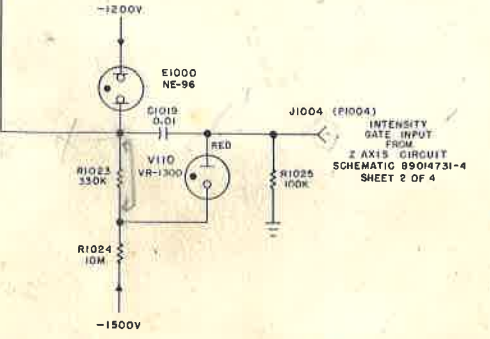
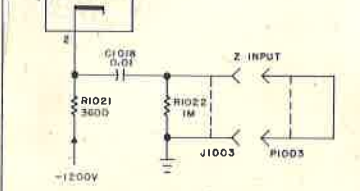
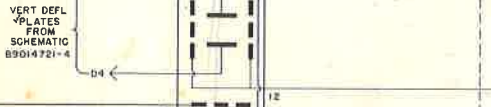
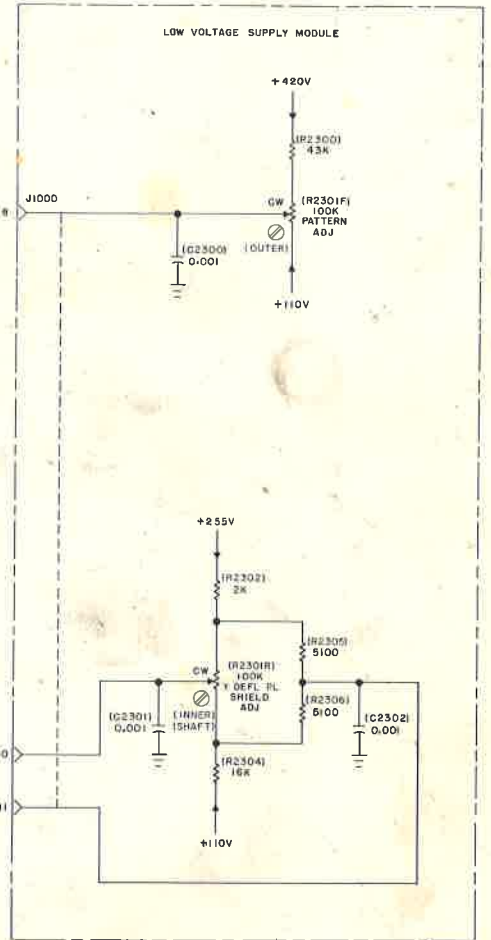
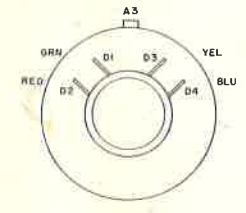
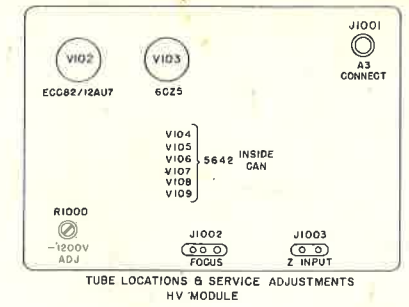


TO LOW VOLTAGE SCHEMATIC  
8901471-4 SHEET 4 OF 4



\* critical for regulation



- NOTES:
- 1-RESISTANCE VALUES ARE IN OHMS, K-THOUSAND, M-MILLION.
  - 2-CAPACITANCE VALUES ARE IN µF UNLESS OTHERWISE SPECIFIED.
  - 3-FRONT PANEL FACILITIES ARE UNDERLINED.
  - 4-⊗ INDICATES SERVICE ADJUSTMENT.
  - 5-PIN NUMBERS ON P1000 ARE VIEWED FROM PLUG SIDE.
  - 6-V102 & 103 ARE SHIELDED.

Figure 3-1. SCHEMATIC, HIGH VOLTAGE POWER SUPPLY MODULE  
DU MONT TYPE 425 OSCILLOSCOPE  
(Reference Drawing 8901 4701-4, Sheet 1 of 1)

WAVEFORMS  
(Taken With Controls Set As Follows:)

MAIN FRAME

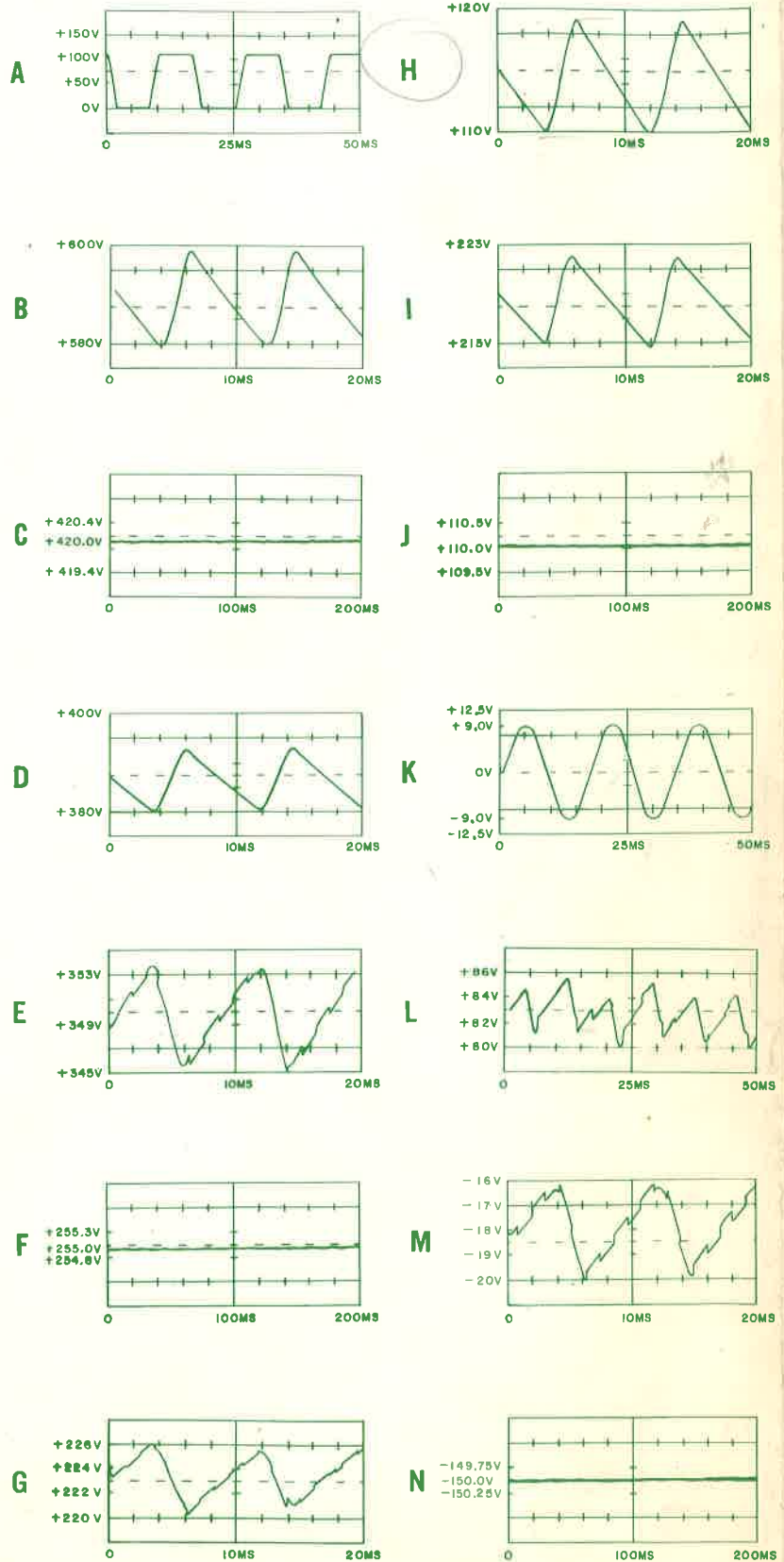
<u>Control</u>	<u>Setting</u>
Digital Read Out	999
Index Positioning	Center dot
Pattern Positioning	Center display with base line on center line
Polarity	+
Trigger Source	+ Int
Trig Level	Preset
Trig/Rec	Preset
Trigger Mode	Armed AC
Sweep Rate	1 Ms/Cm
Switch Mode	Alternate (out)
Display Logic	RO

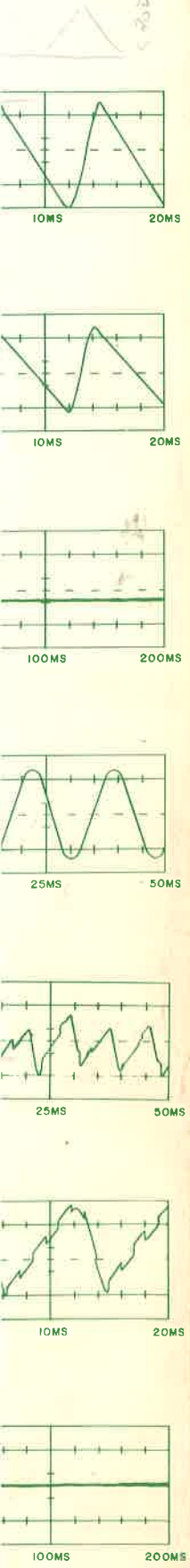
DUAL TRACE

<u>Control</u>	<u>Setting</u>
Input Selector	Channel A
Volts/Cm	Cal
AC/DC	DC
Polarity	Normal
Read Out	Normal

DELAYING SWEEP

<u>Control</u>	<u>Setting</u>
Trigger Mode	AC
Trig/Rec	Preset
Trig Level	Preset
Trigger Source	+ Line
Pick-Off Source	Del Swp
Delay Zero	Fully cw
Sweep Rate	5 Ms/Cm
Length and Delay Multiplier	Adjust these controls to agree with waveform



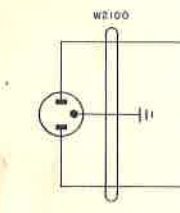
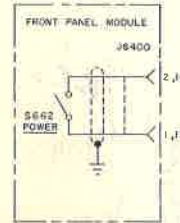
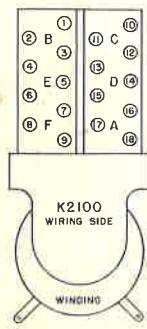


FRONT

CR2109	CR2118	CR2111
CR2108	CR2104	CR2107
CR2105	CR2121	CR2106
CR2119	CR2118	CR2100
CR2117	CR2116	CR2102
CR2115	CR2114	CR2101
CR2113	CR2122	CR2103

REAR

SEMICONDUCTOR LOCATIONS  
TOP VIEW



- NOTES:
- 1-CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE SPECIFIED.
  - 2-RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.
  - 3-FRONT PANEL FACILITIES ARE UNDERLINED.
  - 4- $\odot$  INDICATES SERVICE ADJUSTMENT.
  - 5-CHOICE OF AC OR DC FAN IS OPTIONAL; WHEN DC FAN IS USED CR2122 & G6600 ARE INSERTED.
  - 6-ALL SECONDARY VOLTAGE MEASUREMENTS WERE TAKEN AT FULL LOAD, 115/230V, 60CPS.

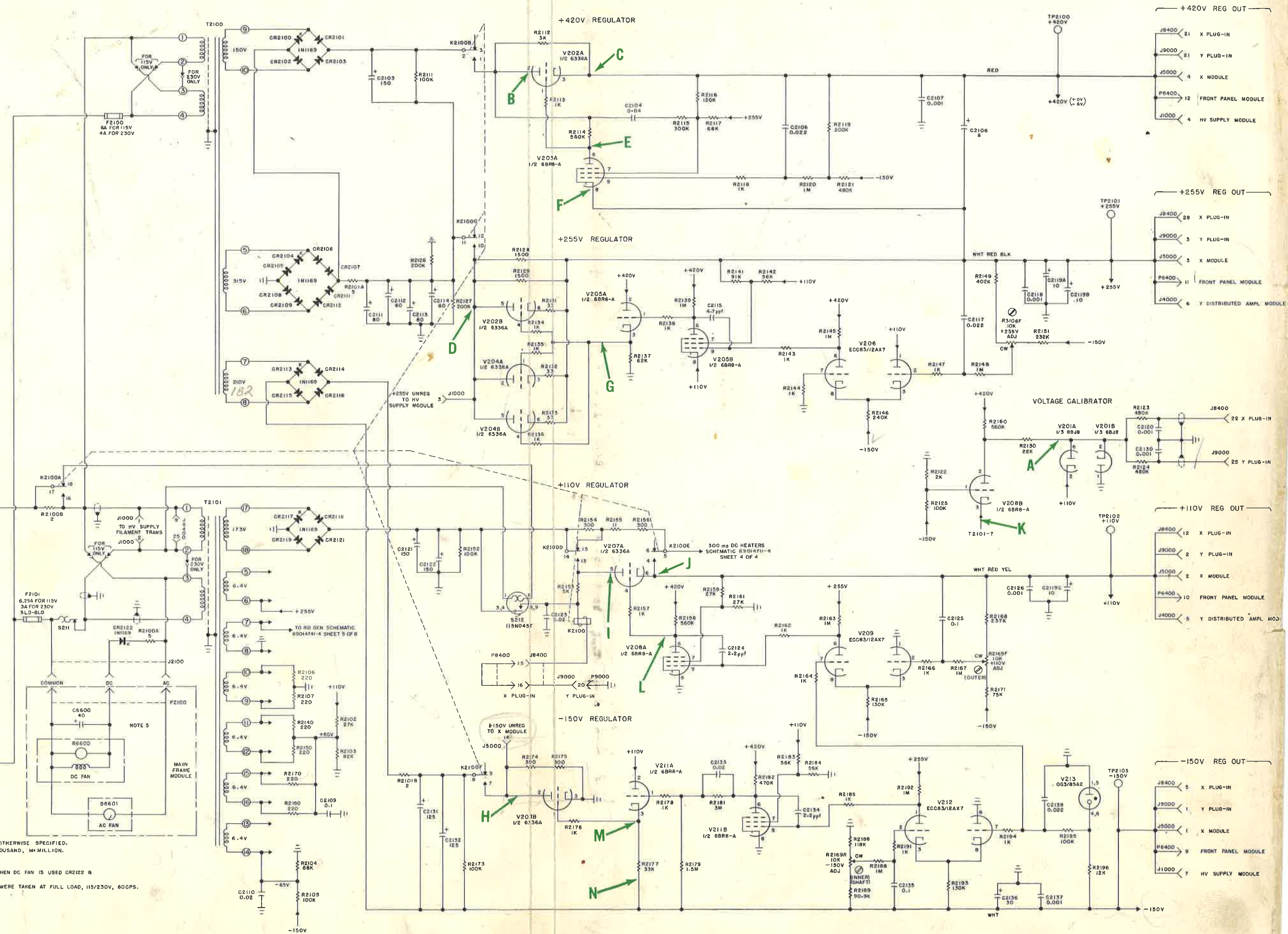


Figure 3-2. SCHEMATIC, LOW VOLTAGE POWER SUPPLY; LOW VOLTAGE MODULE MONT TYPE 425 OSCILLOSCOPE  
(Reference Drawing 8901 4711-4, Sheet 1 of 4)

WAVEFORMS  
(Taken With Controls Set As Follows:)

MAIN FRAME

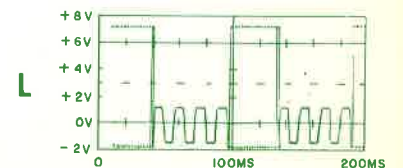
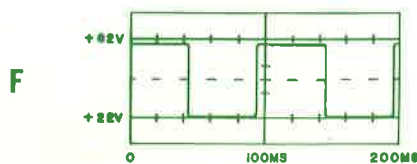
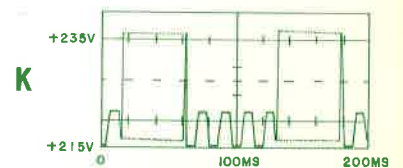
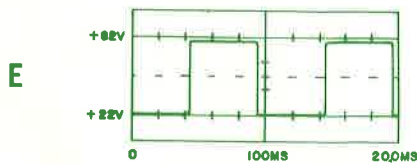
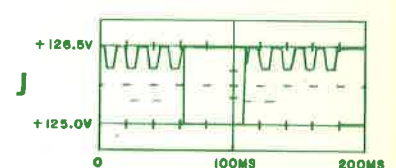
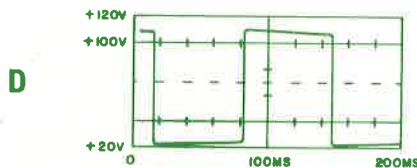
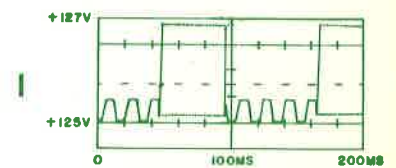
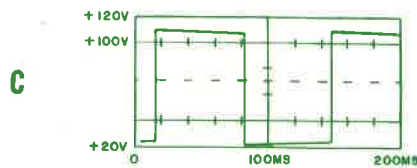
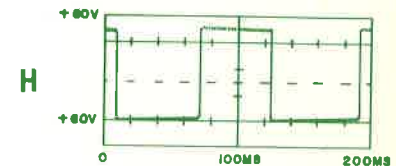
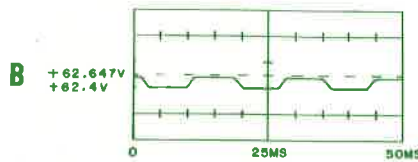
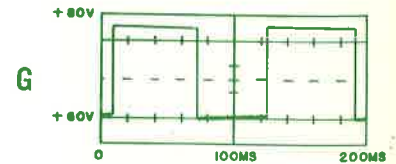
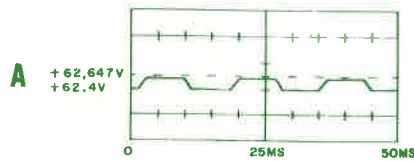
<u>Control</u>	<u>Setting</u>
Digital Read Out	999
Index Positioning	Center dot
Pattern Positioning	Center display with base line on center line
Polarity	+
Trigger Source	+ Int
Trig Level	Preset
Trig/Rec	Preset
Trigger Mode	Armed AC
Sweep Rate	1 Ms/Cm
Switch Mode	Alternate (out)
Display Logic	RO

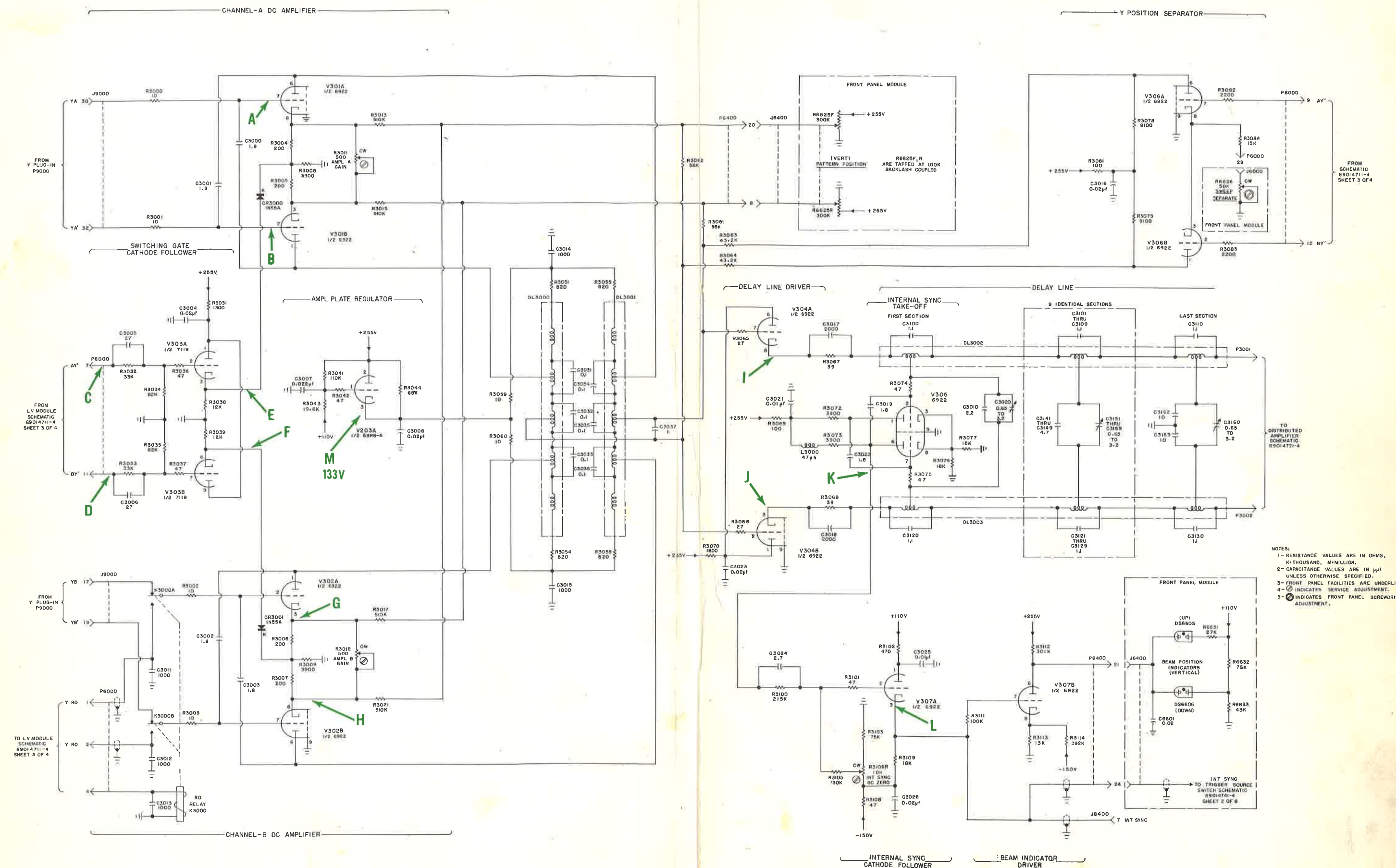
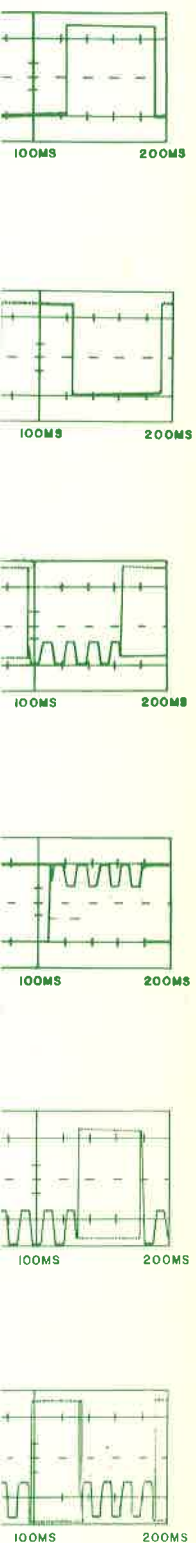
DUAL TRACE

<u>Control</u>	<u>Setting</u>
Input Selector	Channel A
Volts/Cm	Cal
AC/DC	DC
Polarity	Normal
Read Out	Normal

DELAYING SWEEP

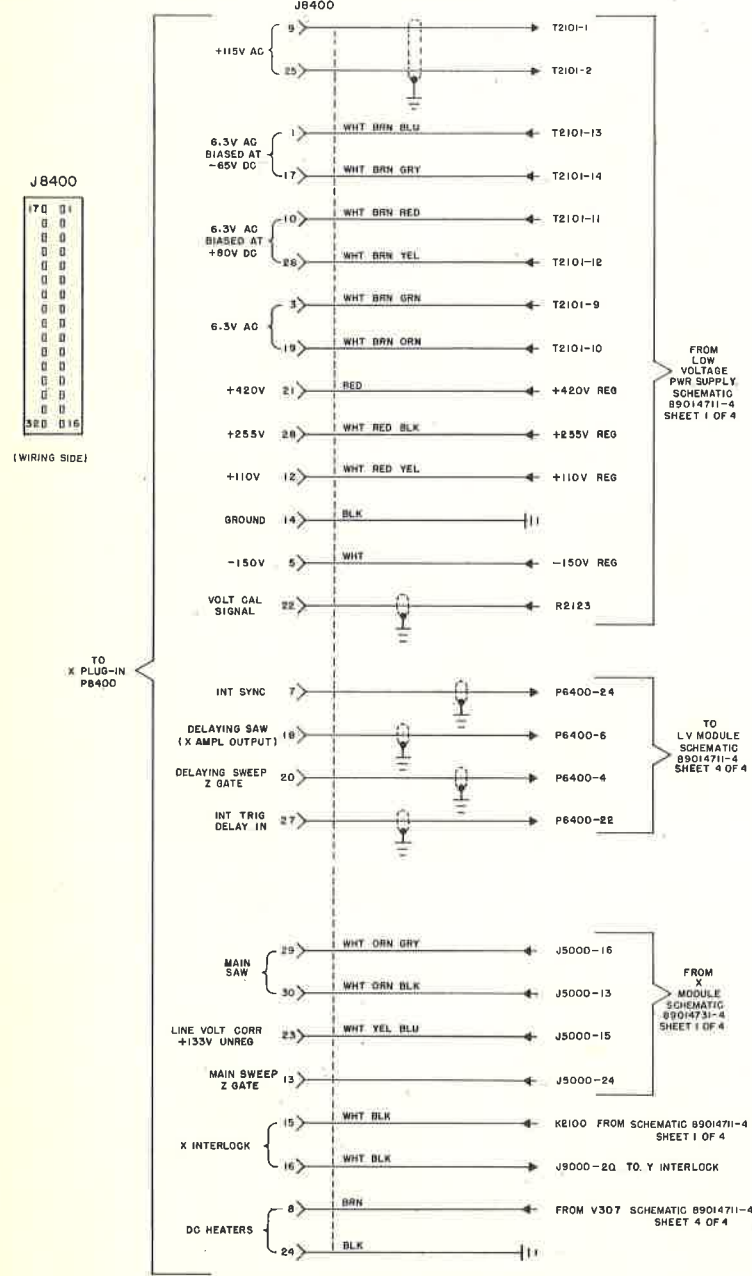
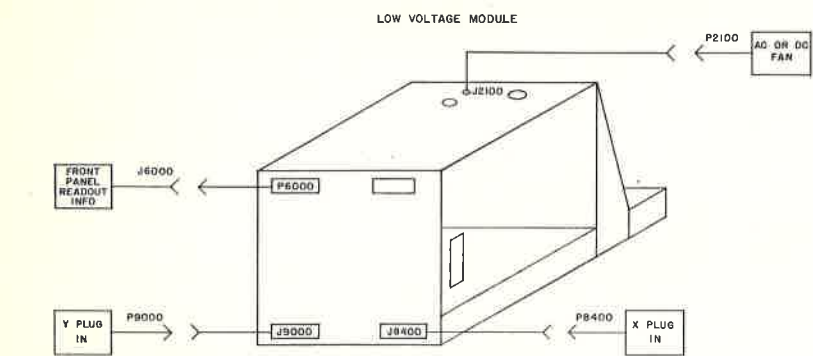
<u>Control</u>	<u>Setting</u>
Trigger Mode	AC
Trig/Rec	Preset
Trig Level	Preset
Trigger Source	+ Line
Pick-Off Source	Del Swp
Delay Zero	Fully cw
Sweep Rate	5 Ms/Cm
Length and Delay Multiplier	Adjust these controls to agree with waveform





- NOTES:
- 1- RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.
  - 2- CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE SPECIFIED.
  - 3- FRONT PANEL FACILITIES ARE UNDERLINED.
  - 4-  $\odot$  INDICATES SERVICE ADJUSTMENT.
  - 5-  $\oplus$  INDICATES FRONT PANEL SCREWDRIVER ADJUSTMENT.

**Figure 3-3. SCHEMATIC, Y SWITCH AND DRIVER; LOW VOLTAGE MODULE DU MONT TYPE 425 OSCILLOSCOPE**  
 (Reference Drawing 8901 4711-4, Sheet 2 of 4)



NOTES:  
 1 - PIN NUMBERS ON CONNECTORS ARE VIEWED FROM WIRING SIDE.  
 2 - CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE SPECIFIED.

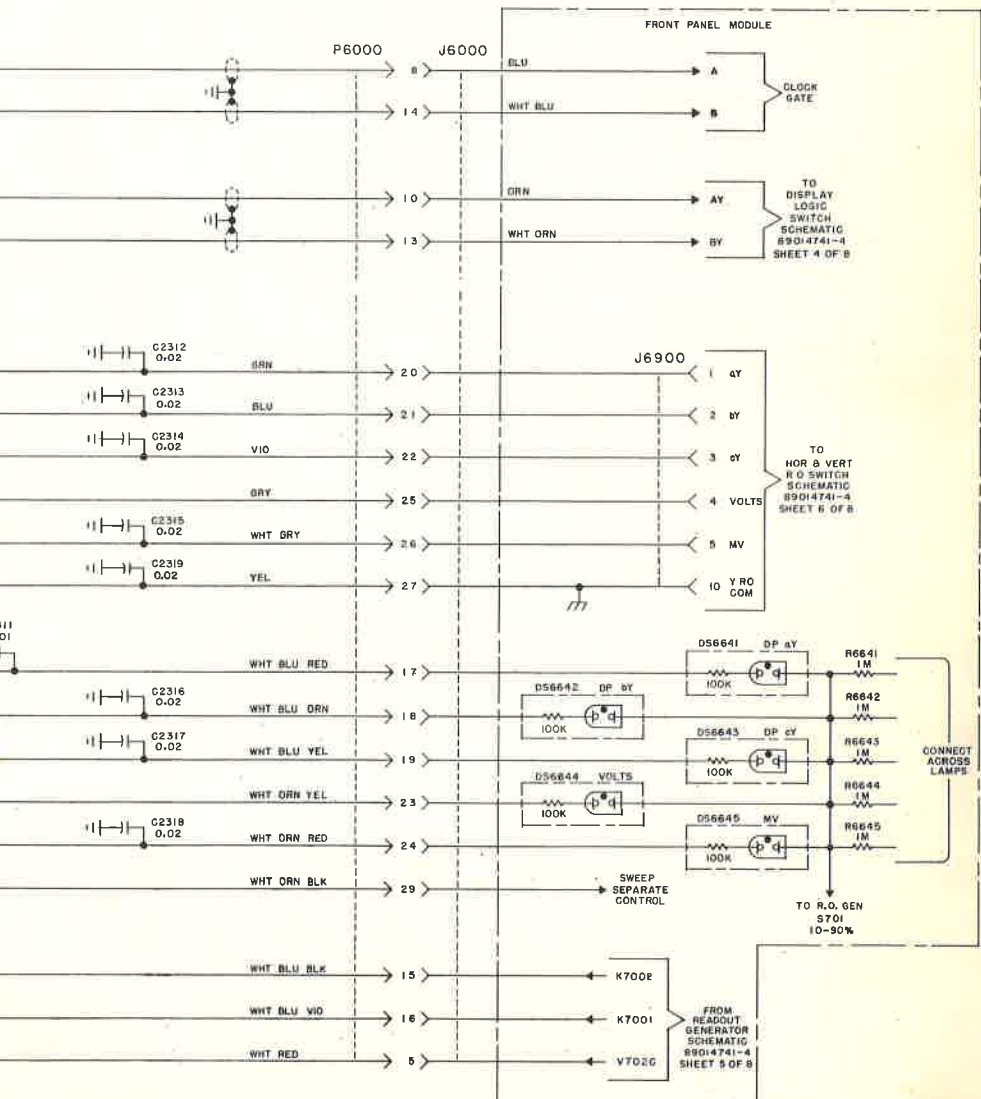
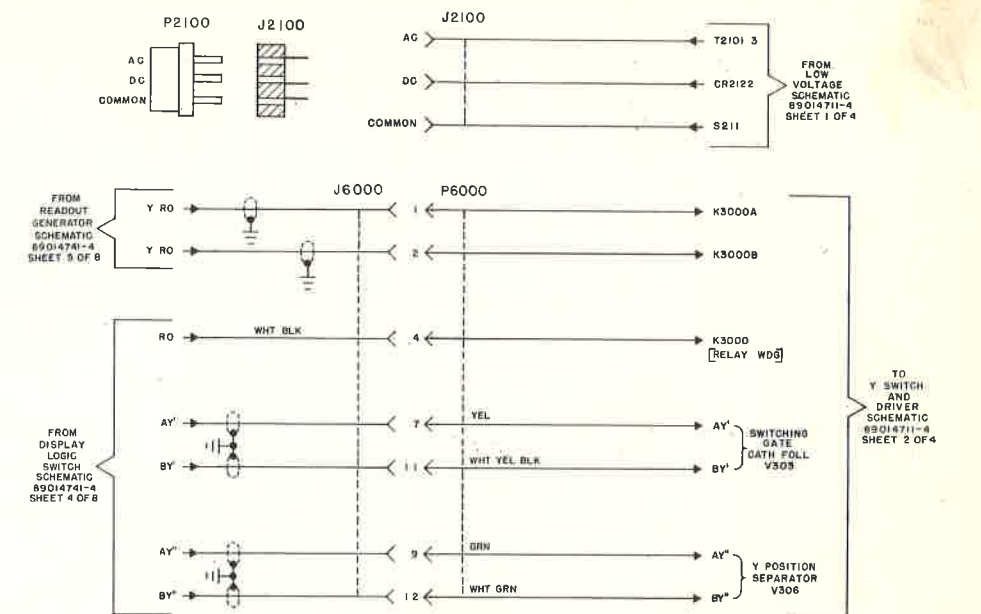
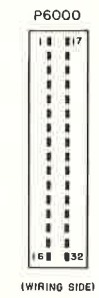
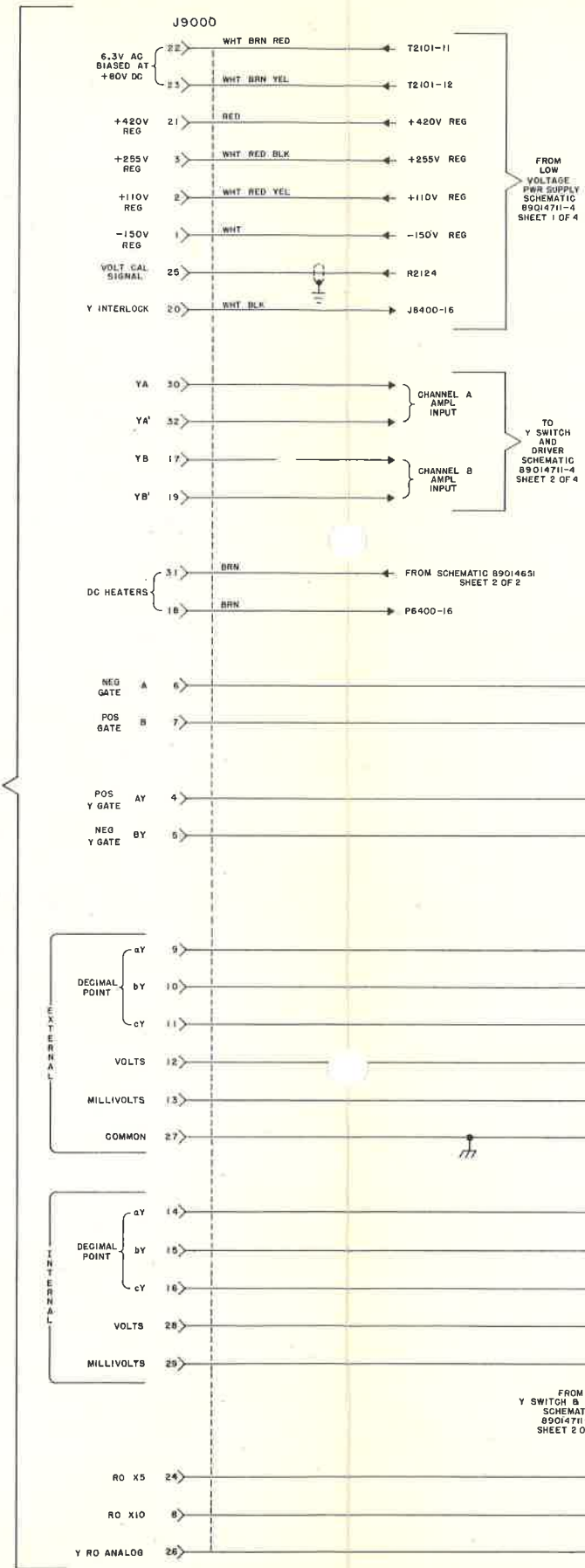
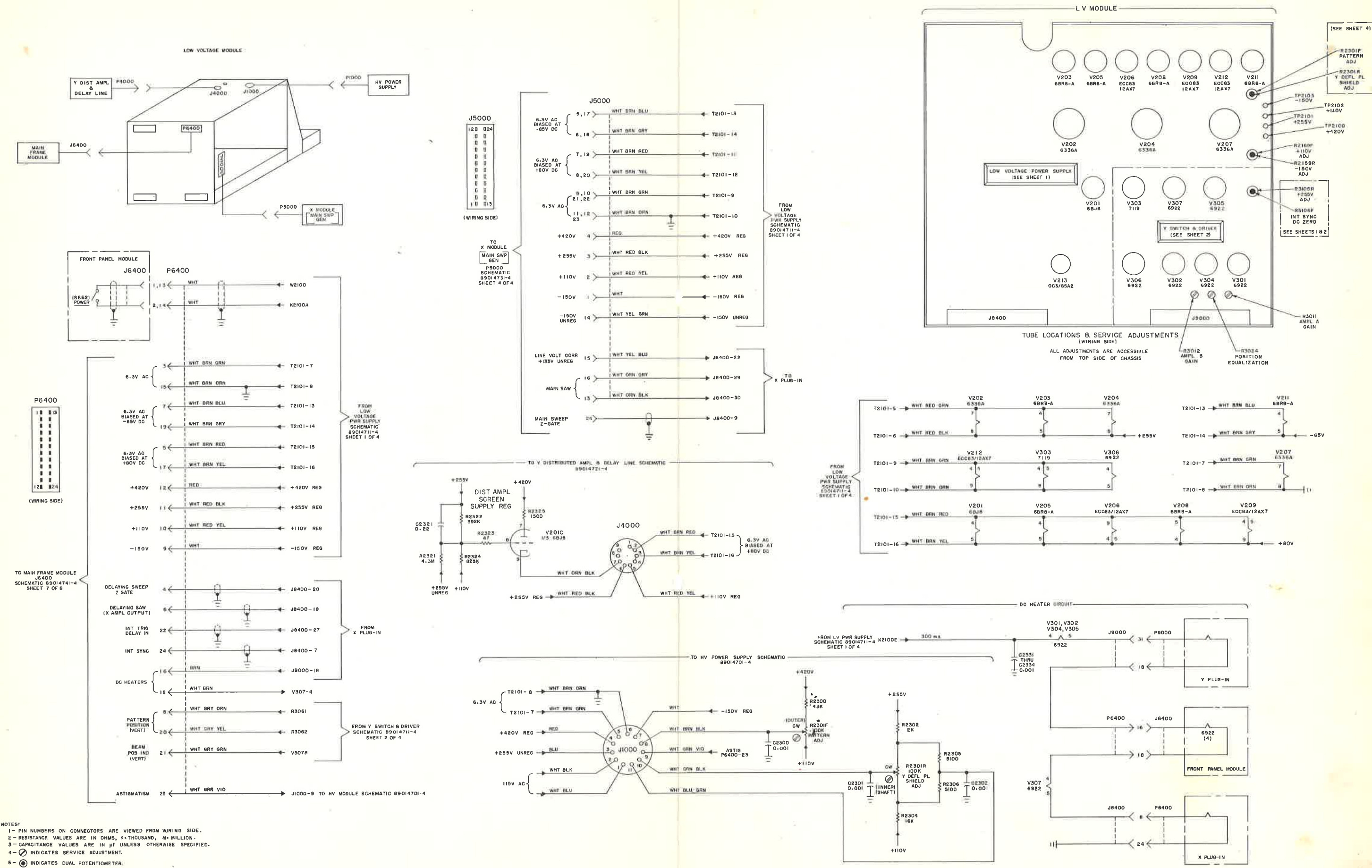


Figure 3-4. SCHEMATIC, CONNECTORS; LOW VOLTAGE MODULE  
 DU MONT TYPE 425 OSCILLOSCOPE  
 (Reference Drawing 8901 4711-4, Sheet 3 of 4)



**Figure 3-5. SCHEMATIC, CONNECTORS, TUBE LOCATIONS AND ADJUSTMENTS; LOW VOLTAGE MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4711-4, Sheet 4 of 4)**

**WAVEFORMS**  
(Taken With Controls Set As Follows:)

MAIN FRAME

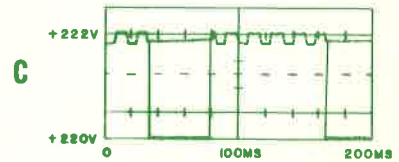
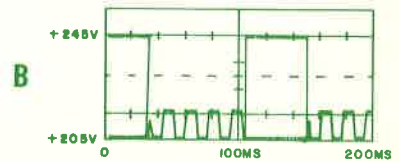
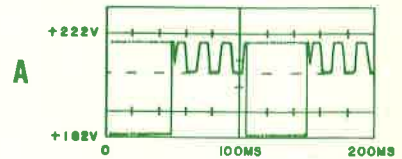
<u>Control</u>	<u>Setting</u>
Digital Read Out	999
Index Positioning	Center dot
Pattern Positioning	Center display with base line on center line
Polarity	+
Trigger Source	+ Int
Trig Level	Preset
Trig/Rec	Preset
Trigger Mode	Armed AC
Sweep Rate	1 Ms/Cm
Switch Mode	Alternate (out)
Display Logic	RO

DUAL TRACE

<u>Control</u>	<u>Setting</u>
Input Selector	Channel A
Volts/Cm	Cal
AC/DC	DC
Polarity	Normal
Read Out	Normal

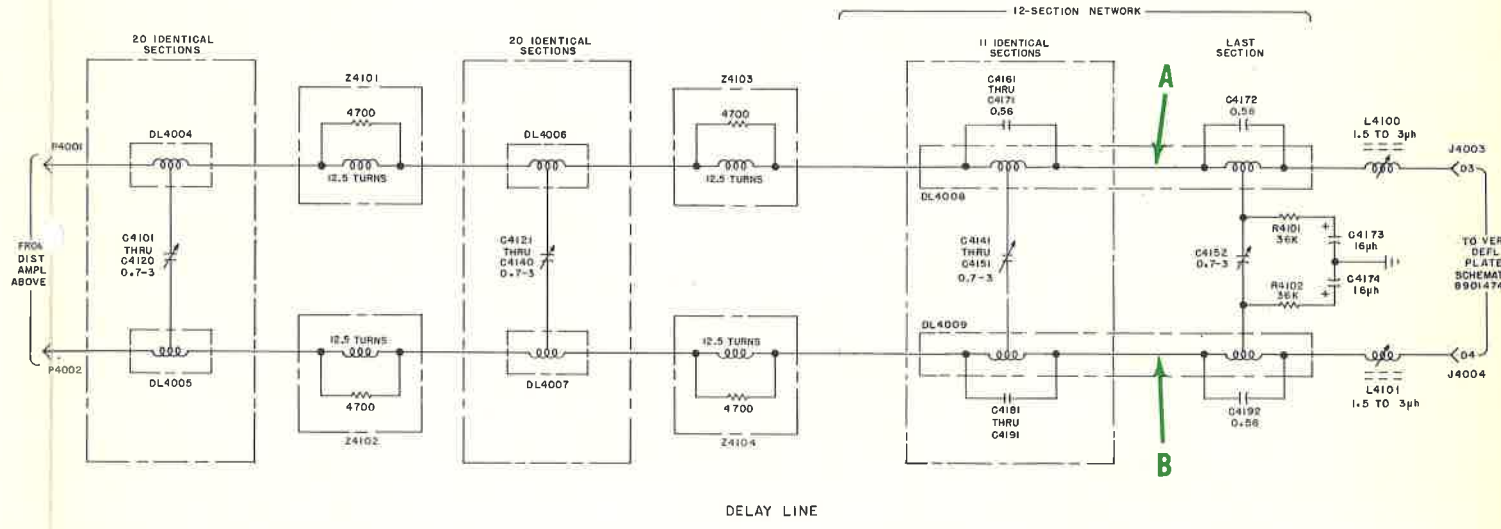
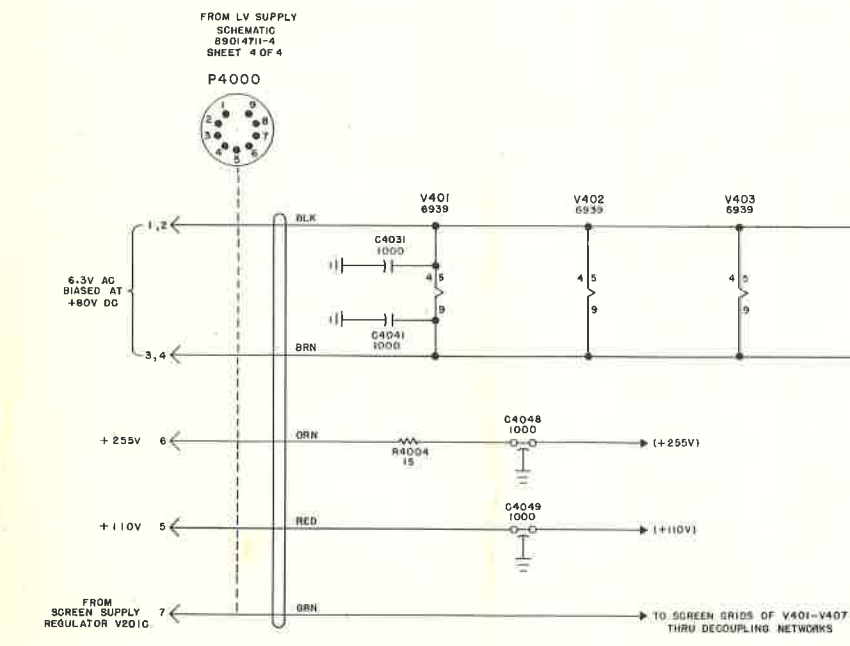
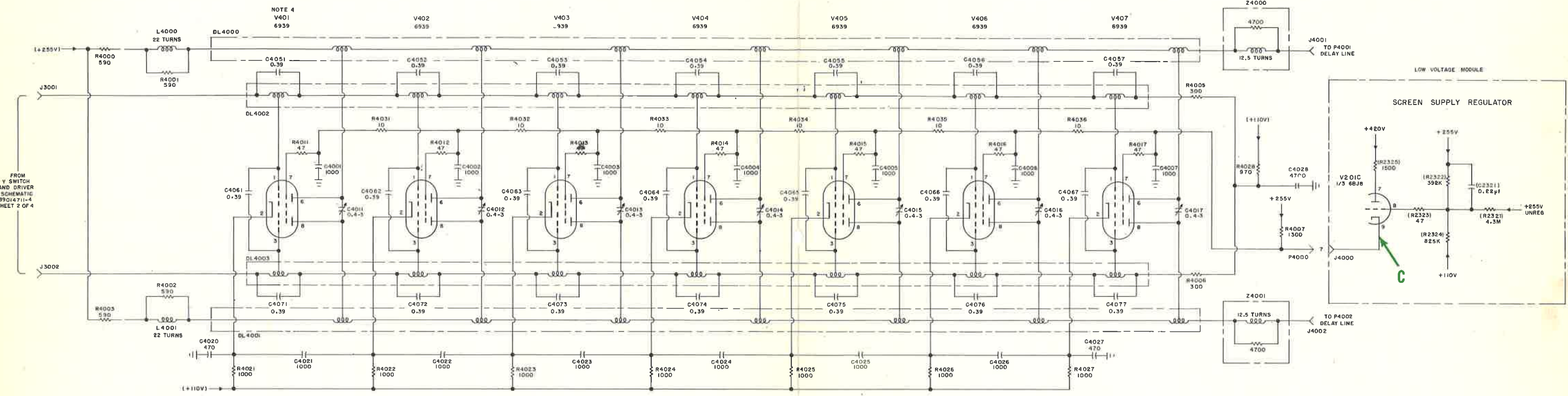
DELAYING SWEEP

<u>Control</u>	<u>Setting</u>
Trigger Mode	AC
Trig/Rec	Preset
Trig Level	Preset
Trigger Source	+ Line
Pick-Off Source	Del Swp
Delay Zero	Fully cw
Sweep Rate	5 Ms/Cm
Length and Delay Multiplier	Adjust these controls to agree with waveform





DISTRIBUTED AMPLIFIER



- NOTES:  
 1 - RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.  
 2 - CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE SPECIFIED.  
 3 - PIN NUMBERS ON CONNECTORS ARE VIEWED FROM WIRING SIDE.  
 4 - V401 THRU V407 ARE SHIELDED.

Figure 3-6. SCHEMATIC, Y DISTRIBUTED AMPLIFIER AND DELAY LINE MODULE  
 DU MONT TYPE 425 OSCILLOSCOPE  
 (Reference Drawing 8901 4721-4, Sheet 1 of 1)

WAVEFORMS  
(Taken With Controls Set As Follows:)

MAIN FRAME

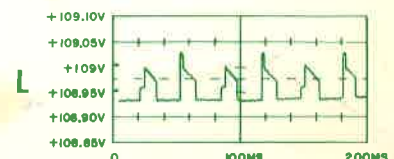
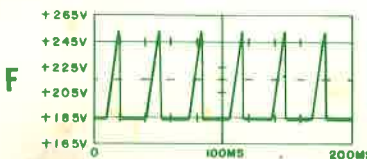
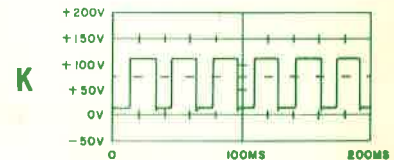
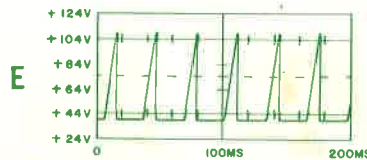
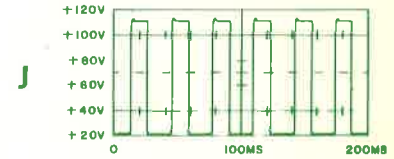
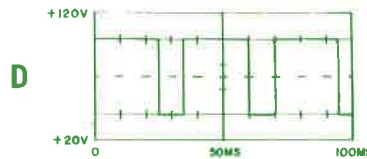
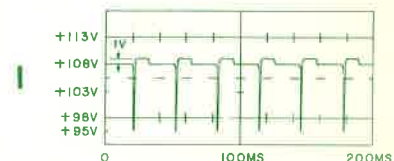
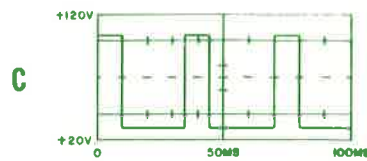
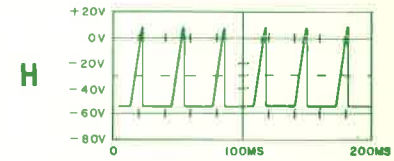
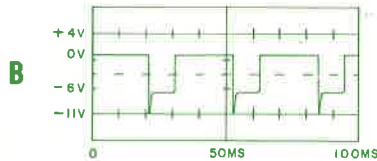
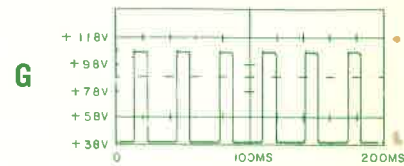
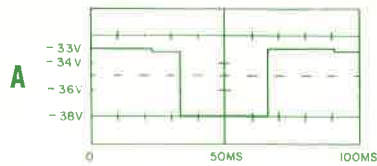
<u>Control</u>	<u>Setting</u>
Digital Read Out	999
Index Positioning	Center dot
Pattern Positioning	Center display with base line on center line
Polarity	+
Trigger Source	+ Int
Trig Level	Preset
Trig/Rec	Preset
Trigger Mode	Armed AC
Sweep Rate	1 Ms/Cm
Switch Mode	Alternate (out)
Display Logic	RO

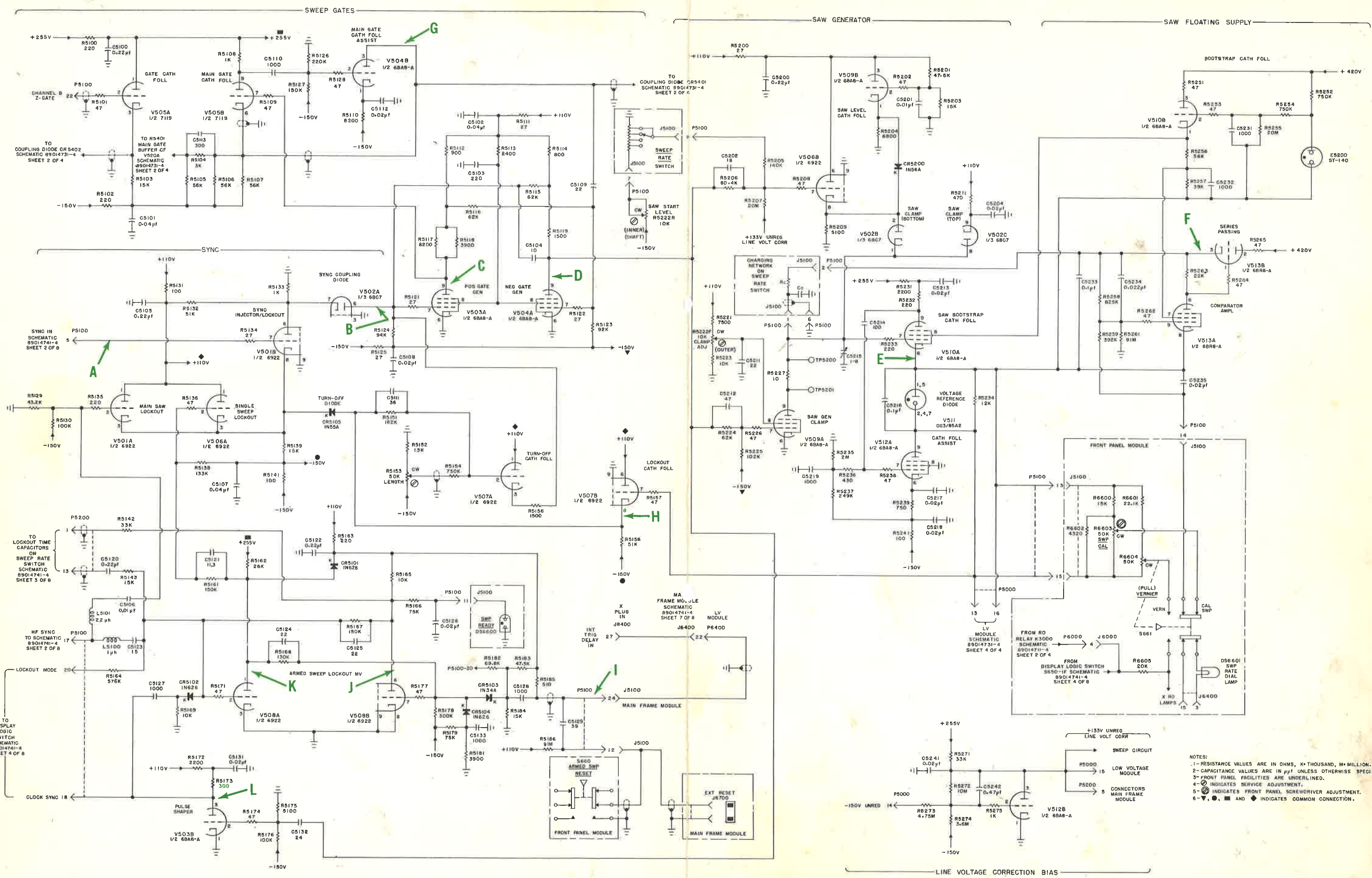
DUAL TRACE

<u>Control</u>	<u>Setting</u>
Input Selector	Channel A
Volts/Cm	Cal
AC/DC	DC
Polarity	Normal
Read Out	Normal

DELAYING SWEEP

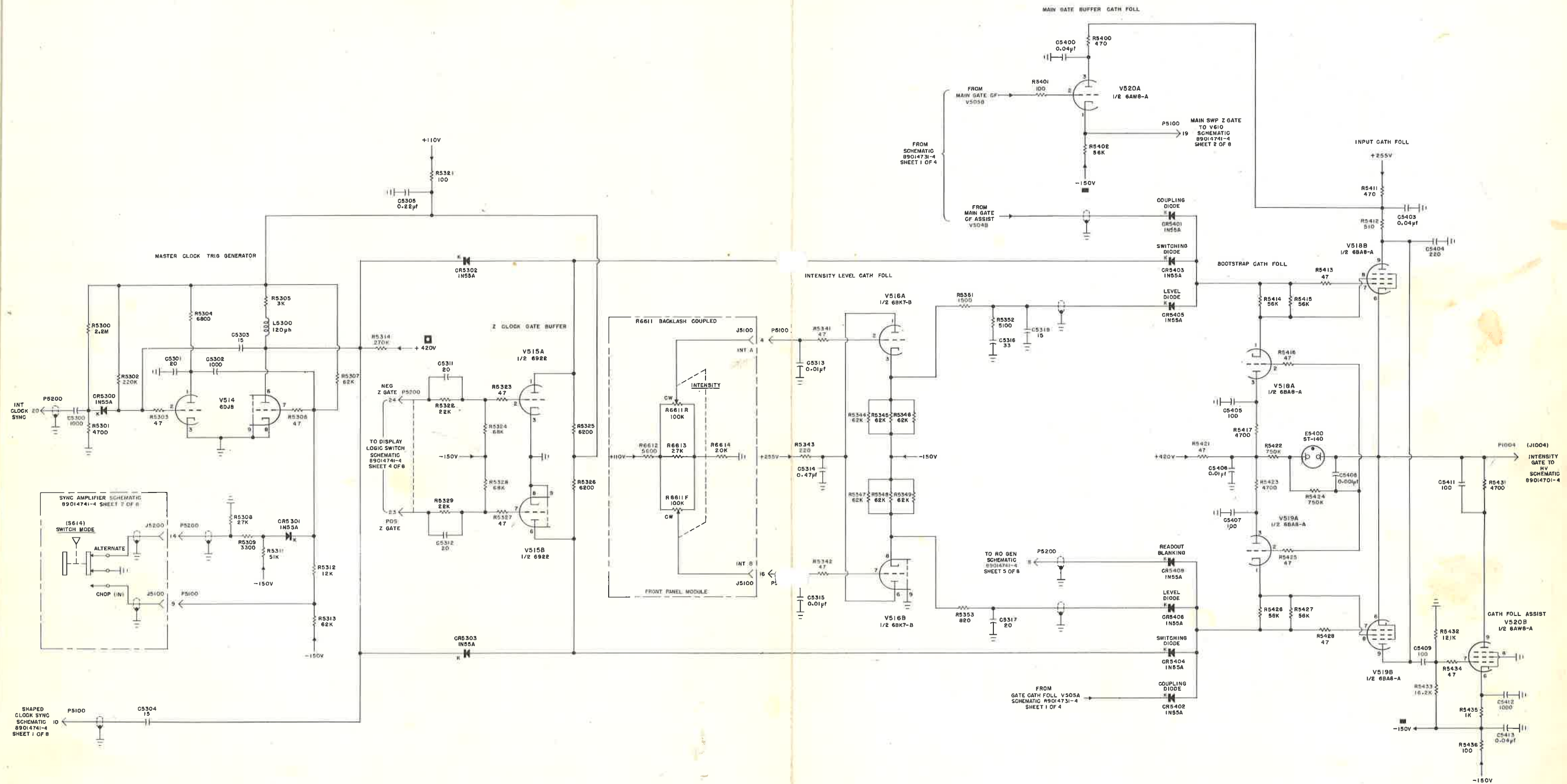
<u>Control</u>	<u>Setting</u>
Trigger Mode	AC
Trig/Rec	Preset
Trig Level	Preset
Trigger Source	+ Line
Pick-Off Source	Del Swp
Delay Zero	Fully cw
Sweep Rate	5 Ms/Cm
Length and Delay Multiplier	Adjust these controls to agree with waveform





- NOTES:
- 1- RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.
  - 2- CAPACITANCE VALUES ARE IN pF UNLESS OTHERWISE SPECIFIED.
  - 3- FRONT PANEL FACILITIES ARE UNDERLINED.
  - 4- ⊕ INDICATES SERVICE ADJUSTMENT.
  - 5- ⊕ INDICATES FRONT PANEL SCREWDRIVER ADJUSTMENT.
  - 6- ▽, ●, ■ AND ◆ INDICATES COMMON CONNECTION.

Figure 3-7. SCHEMATIC, MAIN SWEEP GENERATOR; X MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4731-4, Sheet 1 of 4)



NOTES:  
 1- RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.  
 2- CAPACITANCE VALUES ARE IN PPF UNLESS OTHERWISE SPECIFIED.  
 3- FRONT PANEL FACILITIES ARE UNDERLINED.  
 4- ■ INDICATES COMMON CONNECTION.  
 5- □ INDICATES COMMON CONNECTION (SEE SHEET 3).

Figure 3-8. SCHEMATIC, Z AXIS CIRCUIT; X MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4731-4, Sheet 2 of 4)

**WAVEFORMS**  
(Taken With Controls Set As Follows:)

MAIN FRAME

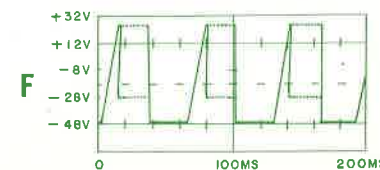
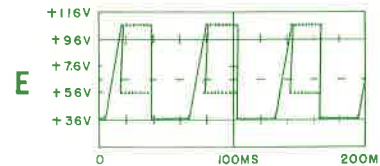
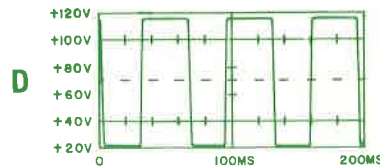
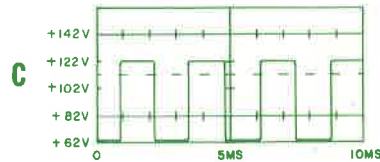
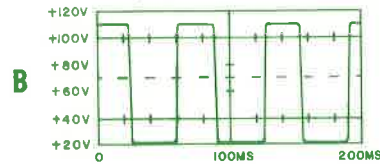
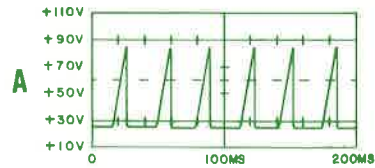
<u>Control</u>	<u>Setting</u>
Digital Read Out	999
Index Positioning	Center dot
Pattern Positioning	Center display with base line on center line
Polarity	+
Trigger Source	+ Int
Trig Level	Preset
Trig/Rec	Preset
Trigger Mode	Armed AC
Sweep Rate	1 Ms/Cm
Switch Mode	Alternate (out)
Display Logic	RO

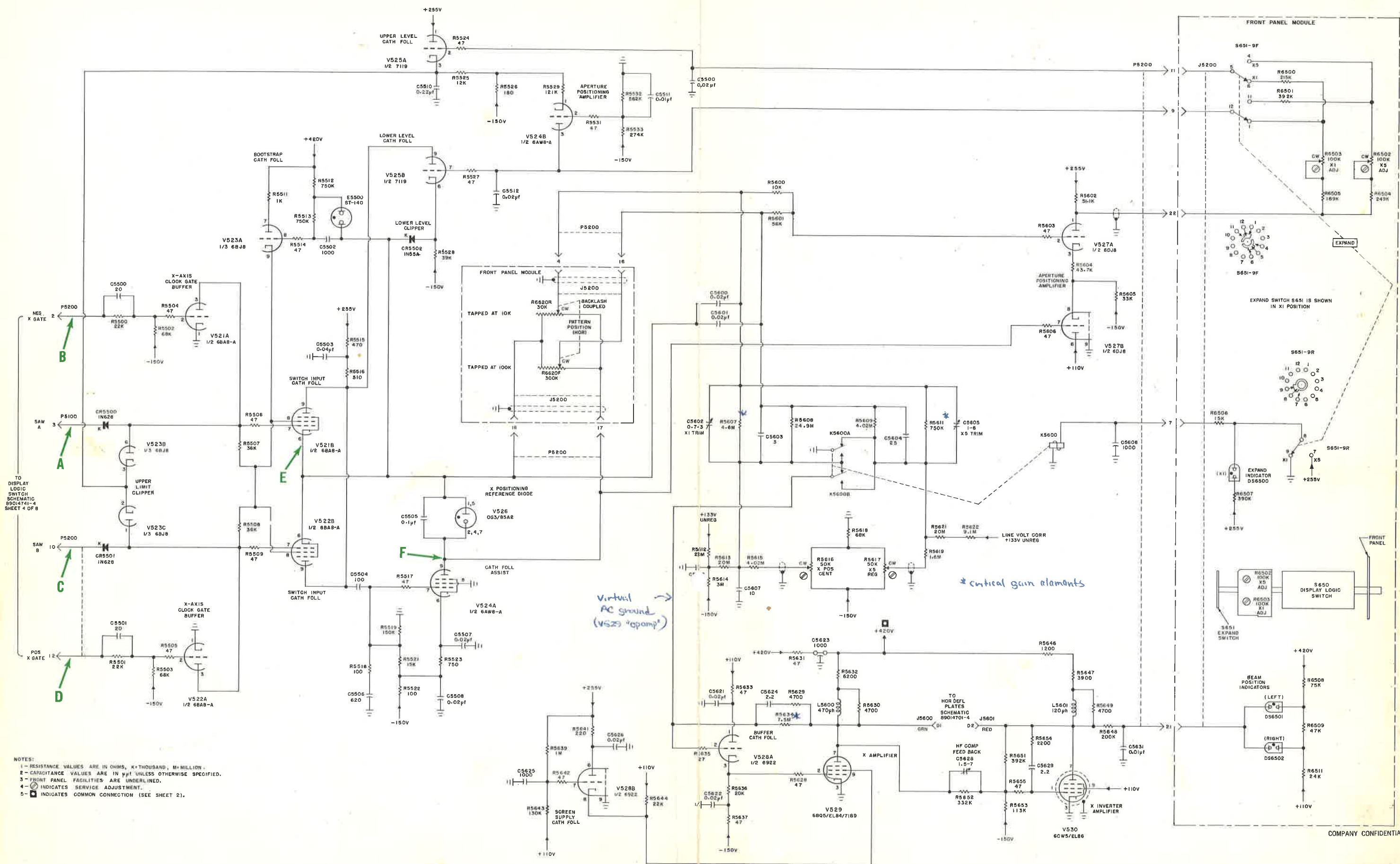
DUAL TRACE

<u>Control</u>	<u>Setting</u>
Input Selector	Channel A
Volts/Cm	Cal
AC/DC	DC
Polarity	Normal
Read Out	Normal

DELAYING SWEEP

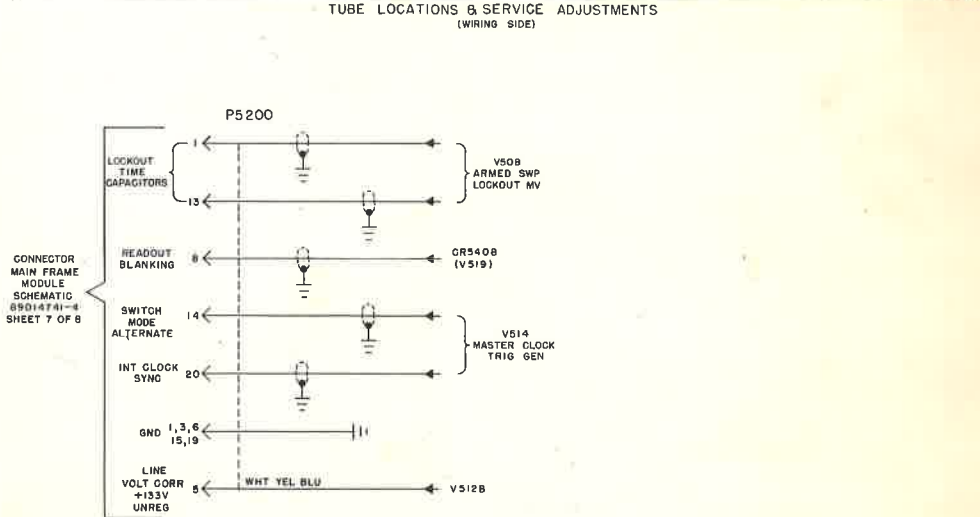
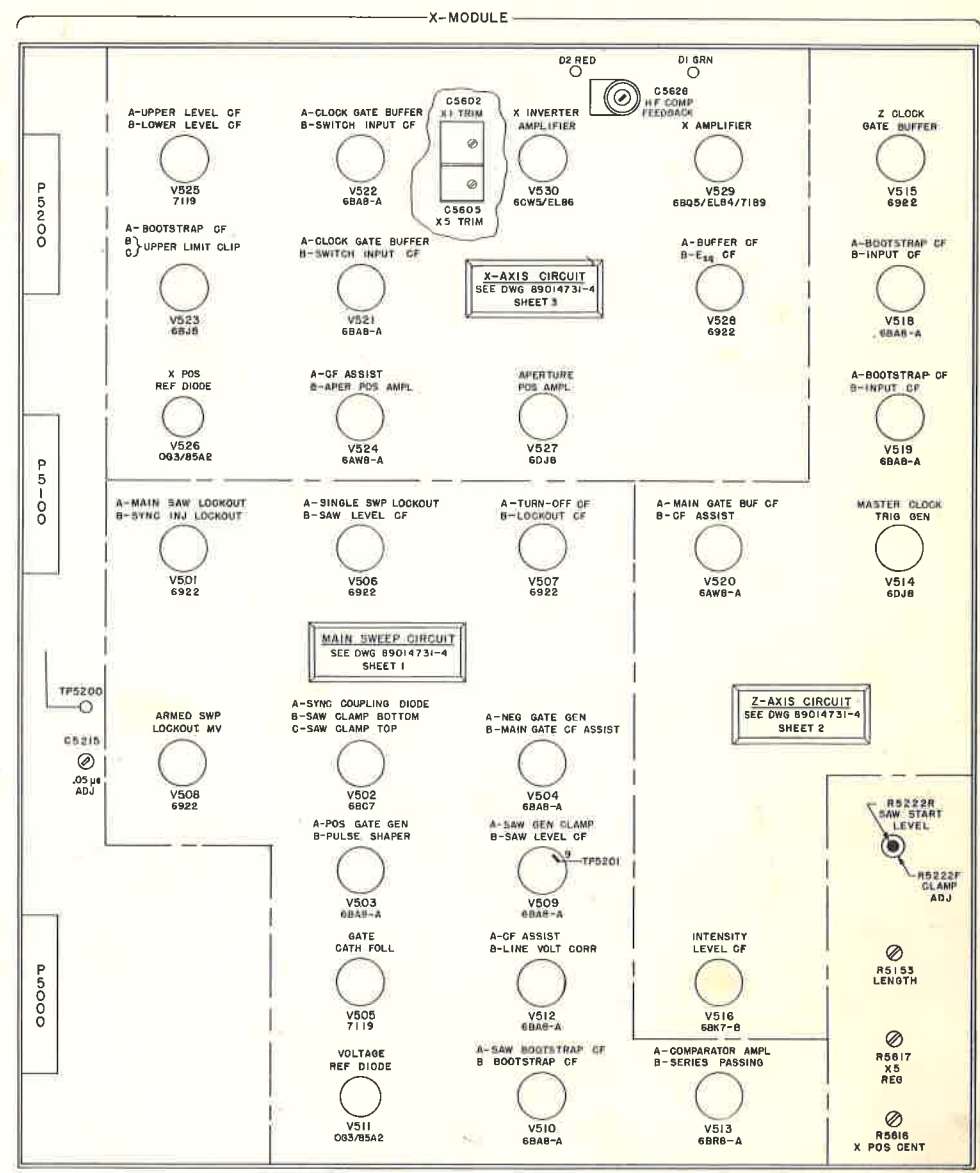
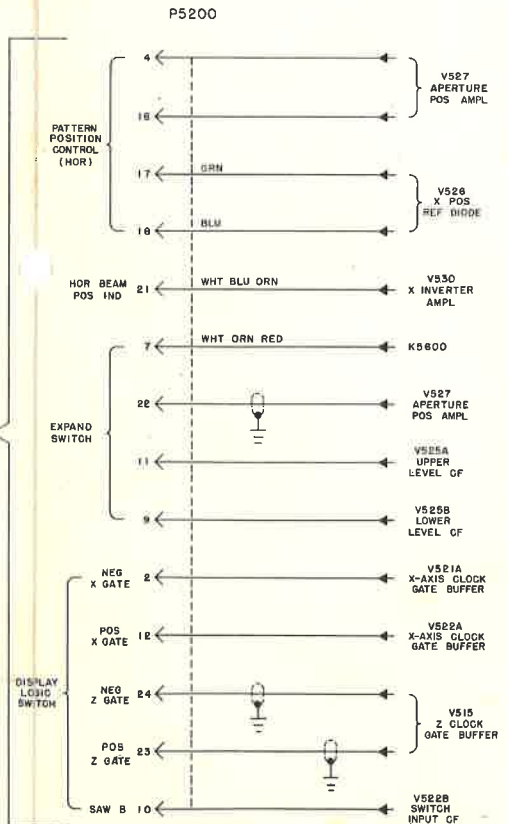
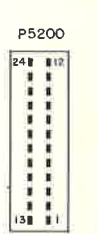
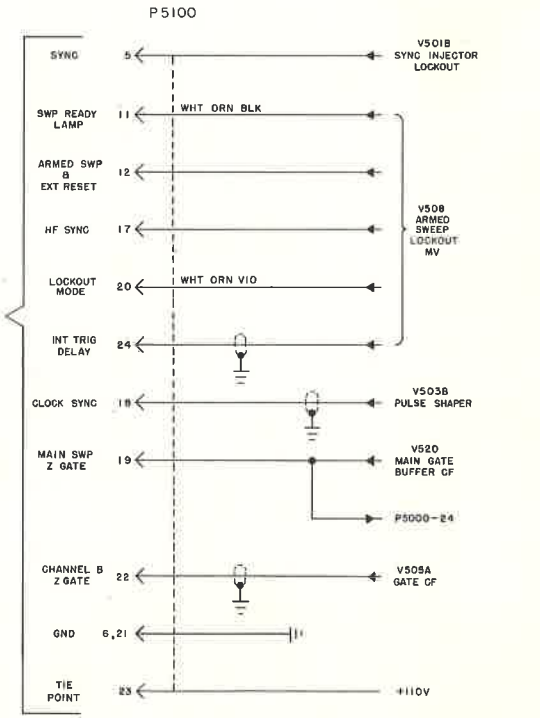
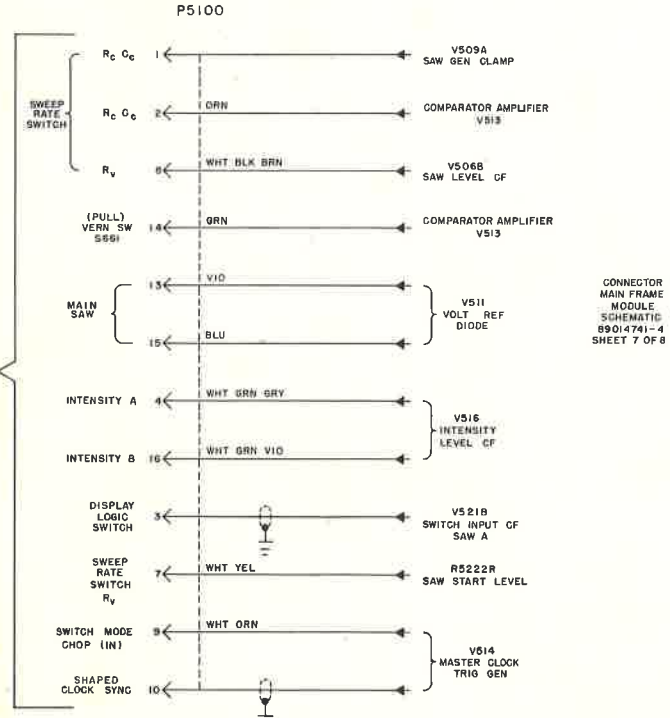
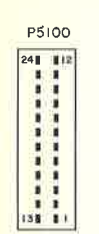
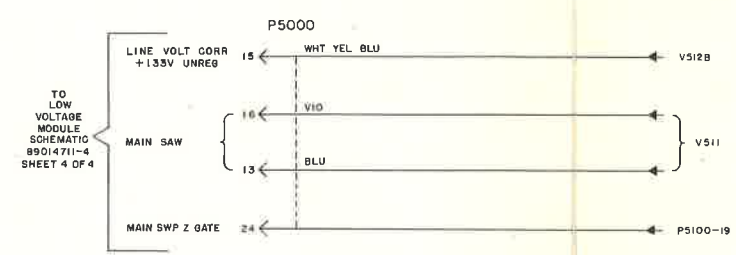
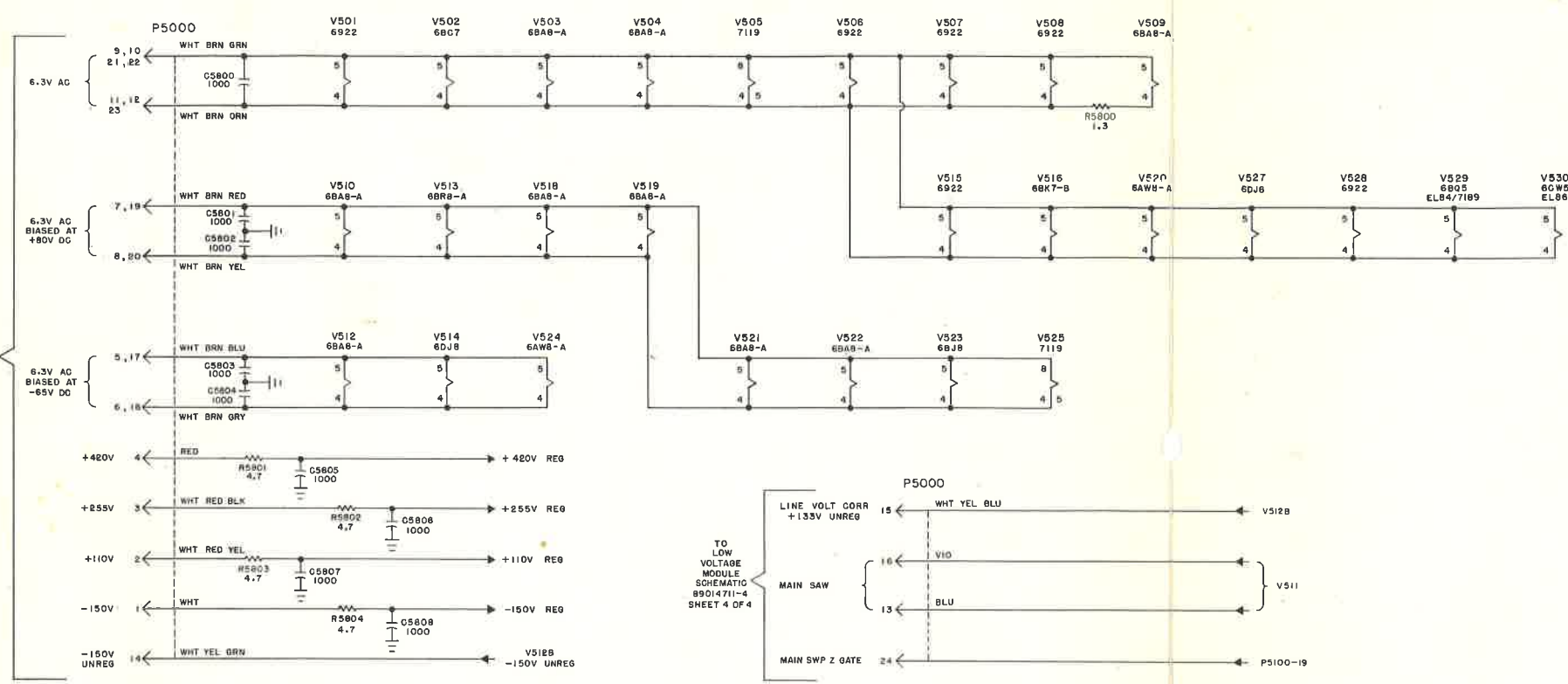
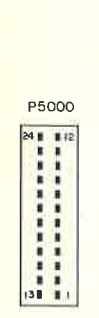
<u>Control</u>	<u>Setting</u>
Trigger Mode	AC
Trig/Rec	Preset
Trig Level	Preset
Trigger Source	+ Line
Pick-Off Source	Del Swp
Delay Zero	Fully cw
Sweep Rate	5 Ms/Cm
Length and Delay Multiplier	Adjust these controls to agree with waveform





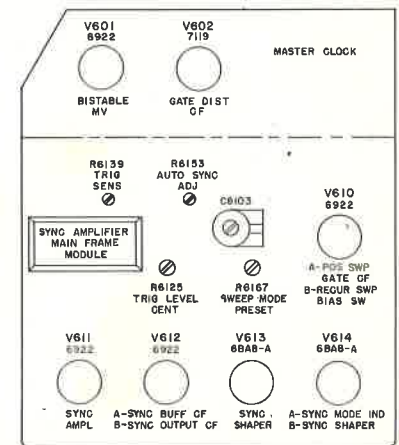
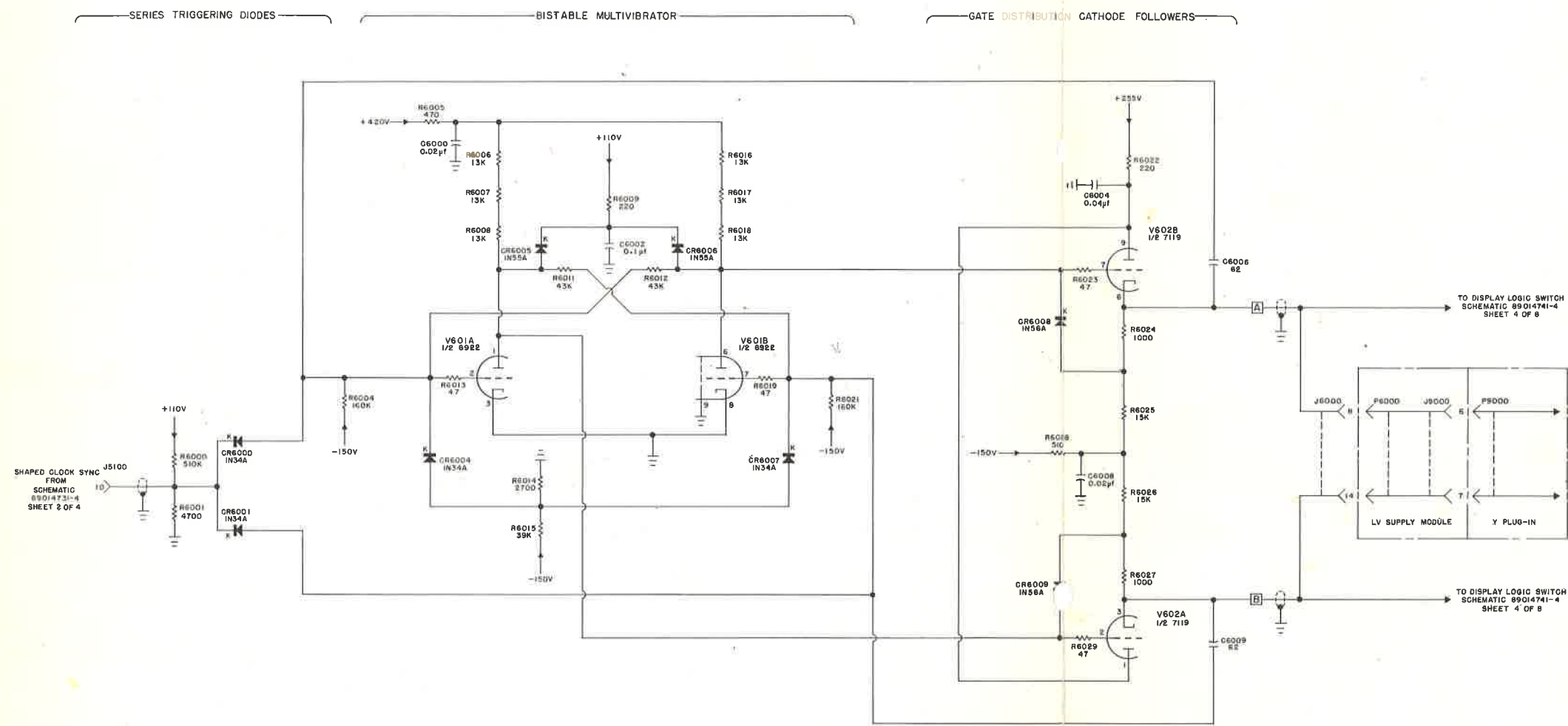
NOTES:  
 1 - RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.  
 2 - CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE SPECIFIED.  
 3 - FRONT PANEL FACILITIES ARE UNDERLINED.  
 4 -  $\odot$  INDICATES SERVICE ADJUSTMENT.  
 5 -  $\square$  INDICATES COMMON CONNECTION (SEE SHEET 2).

Figure 3-9. SCHEMATIC, X AXIS CIRCUIT; X MODULE  
 DU MONT TYPE 425 OSCILLOSCOPE  
 (Reference Drawing 8901 4731-4, Sheet 3 of 4)

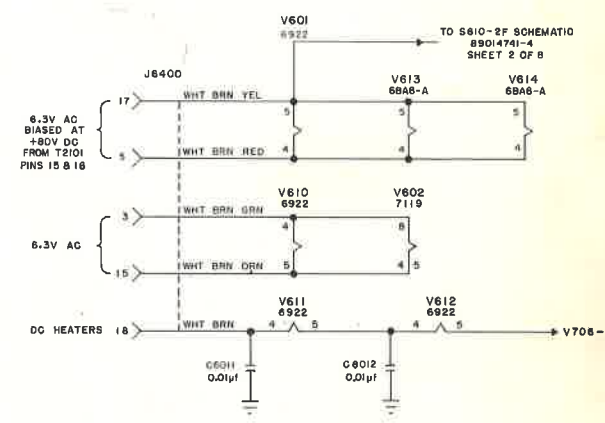


NOTES:  
 1 - RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.  
 2 - CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE SPECIFIED.  
 3 - PIN NUMBERS ON CONNECTORS ARE VIEWED FROM WIRING SIDE.

Figure 3-10. SCHEMATIC, CONNECTORS, TUBE LOCATION AND ADJUSTMENTS; X MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4731-4, Sheet 4 of 4)



TUBE LOCATIONS & SERVICE ADJUSTMENTS (TUBE SIDE)



NOTES:  
 1-RESISTANCE VALUES ARE IN OHMS, K=THOUSAND, M=MILLION.  
 2-CAPACITANCE VALUES ARE IN pF UNLESS OTHERWISE SPECIFIED.

Figure 3-11. SCHEMATIC, MASTER CLOCK; MAIN FRAME MODULE  
 DU MONT TYPE 425 OSCILLOSCOPE  
 (Reference Drawing 8901 4741-4, Sheet 1 of 8)



**WAVEFORMS**  
(Taken With Controls Set As Follows:)

MAIN FRAME

Control

Digital Read Out  
Index Positioning  
Pattern Positioning

Polarity  
Trigger Source  
Trig Level  
Trig/Rec  
Trigger Mode  
Sweep Rate  
Switch Mode  
Display Logic

Setting

999  
Center dot  
Center display with base  
line on center line  
+  
+ Int  
Preset  
Preset  
Armed AC  
1 Ms/Cm  
Alternate (out)  
RO

DUAL TRACE

Control

Input Selector  
Volts/Cm  
AC/DC  
Polarity  
Read Out

Setting

Channel A  
Cal  
DC  
Normal  
Normal

DELAYING SWEEP

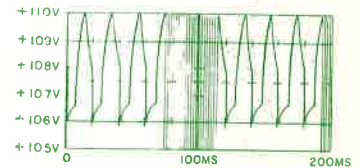
Control

Trigger Mode  
Trig/Rec  
Trig Level  
Trigger Source  
Pick-Off Source  
Delay Zero  
Sweep Rate  
Length and  
Delay Multiplier

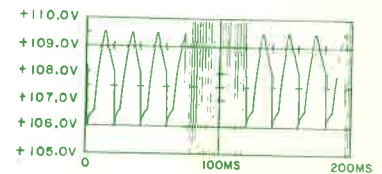
Setting

AC  
Preset  
Preset  
+ Line  
Del Swp  
Fully cw  
5 Ms/Cm  
Adjust these controls to  
agree with waveform

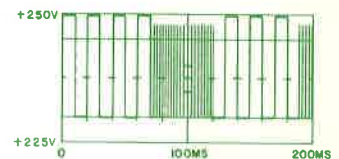
**A**



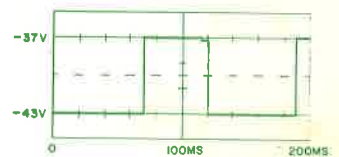
**B**



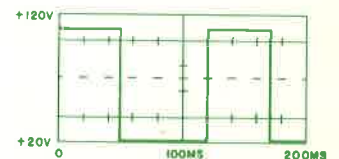
**C**

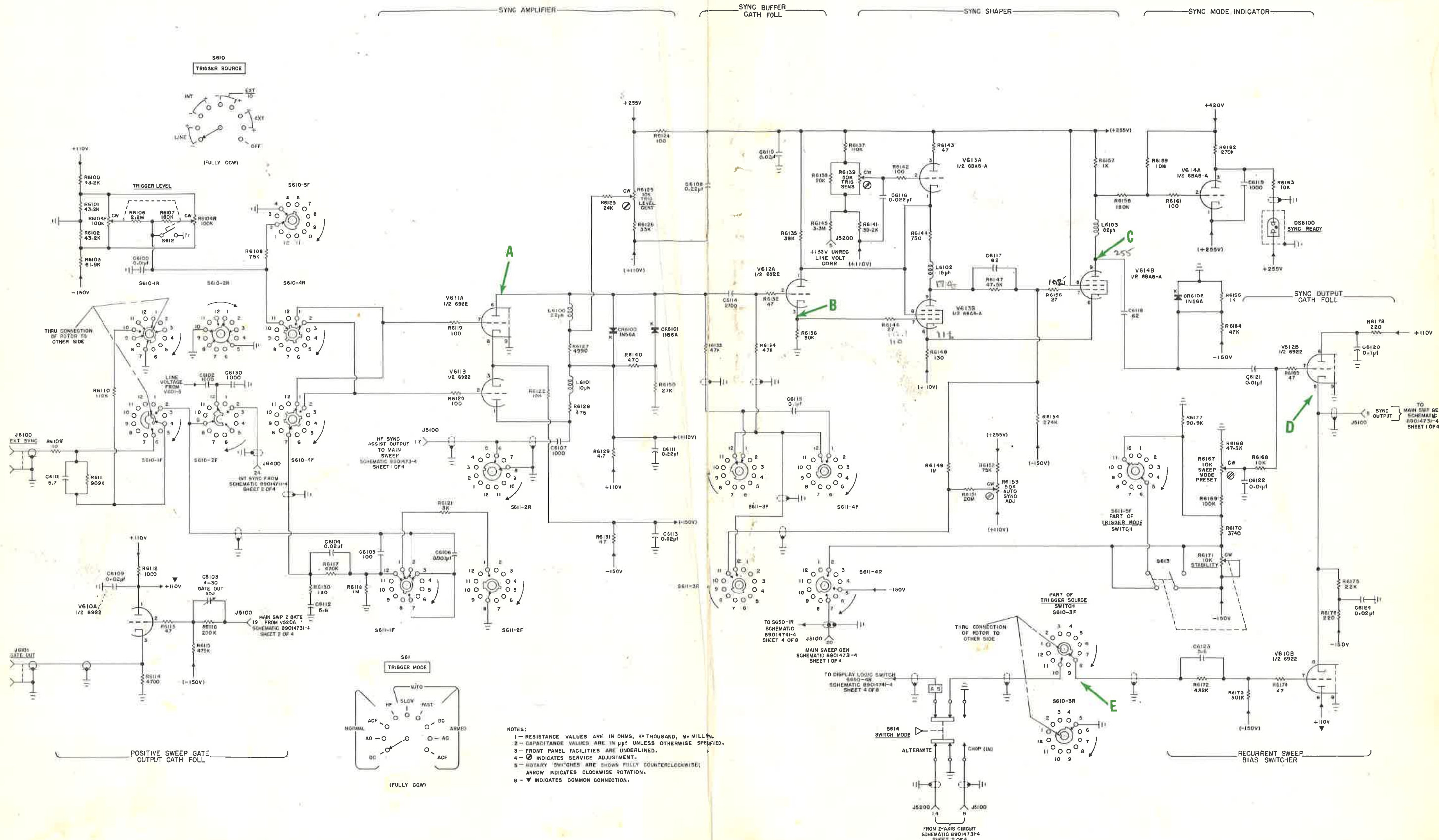


**D**



**E**





**Figure 3-12. SCHEMATIC, SYNC AMPLIFIER; MAIN FRAME MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4741-4, Sheet 2 of 8)**

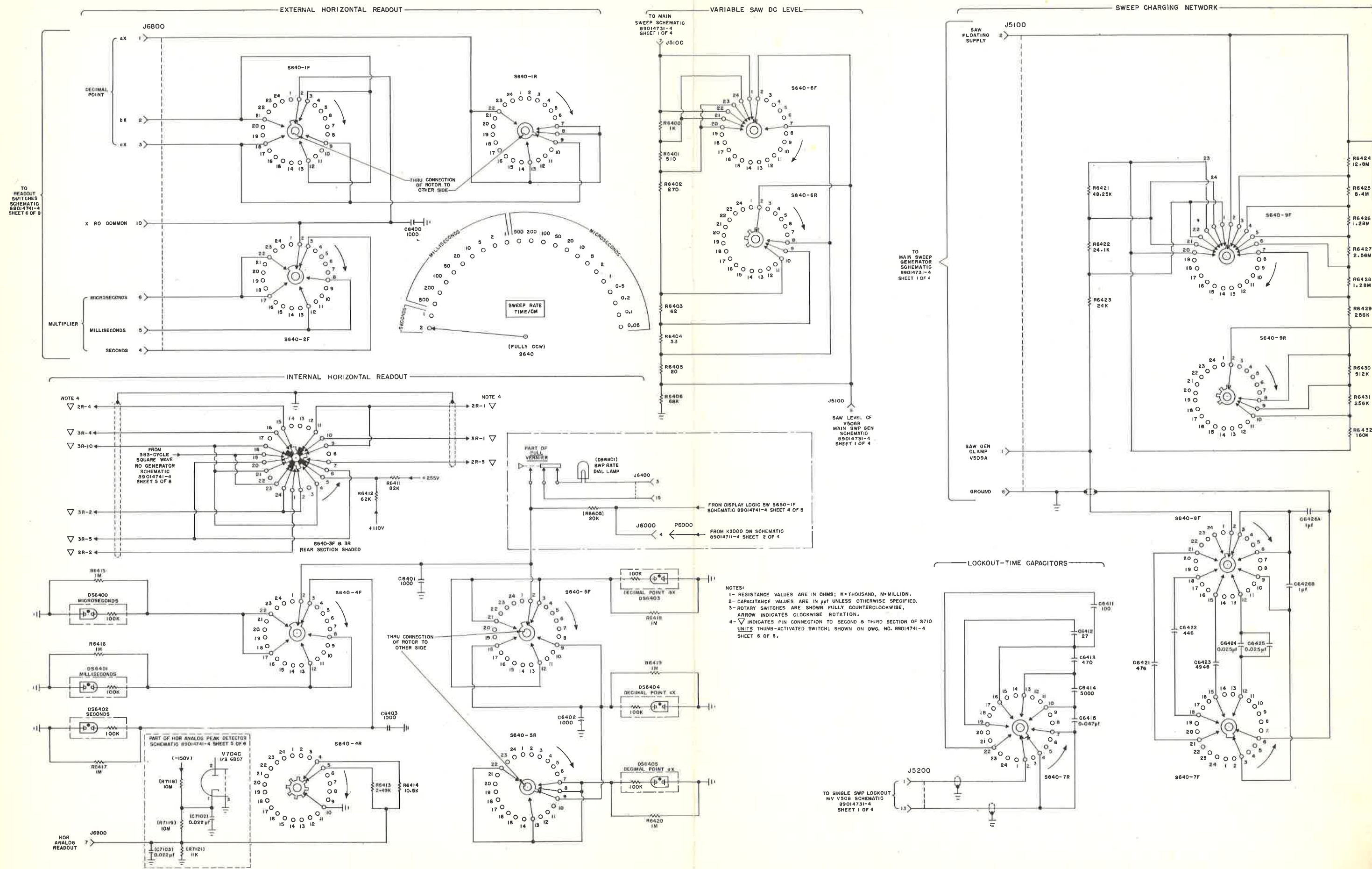


Figure 3-13. SCHEMATIC, SWEEP RATE SWITCH; MAIN FRAME MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4741-4, Sheet 3 of 8)

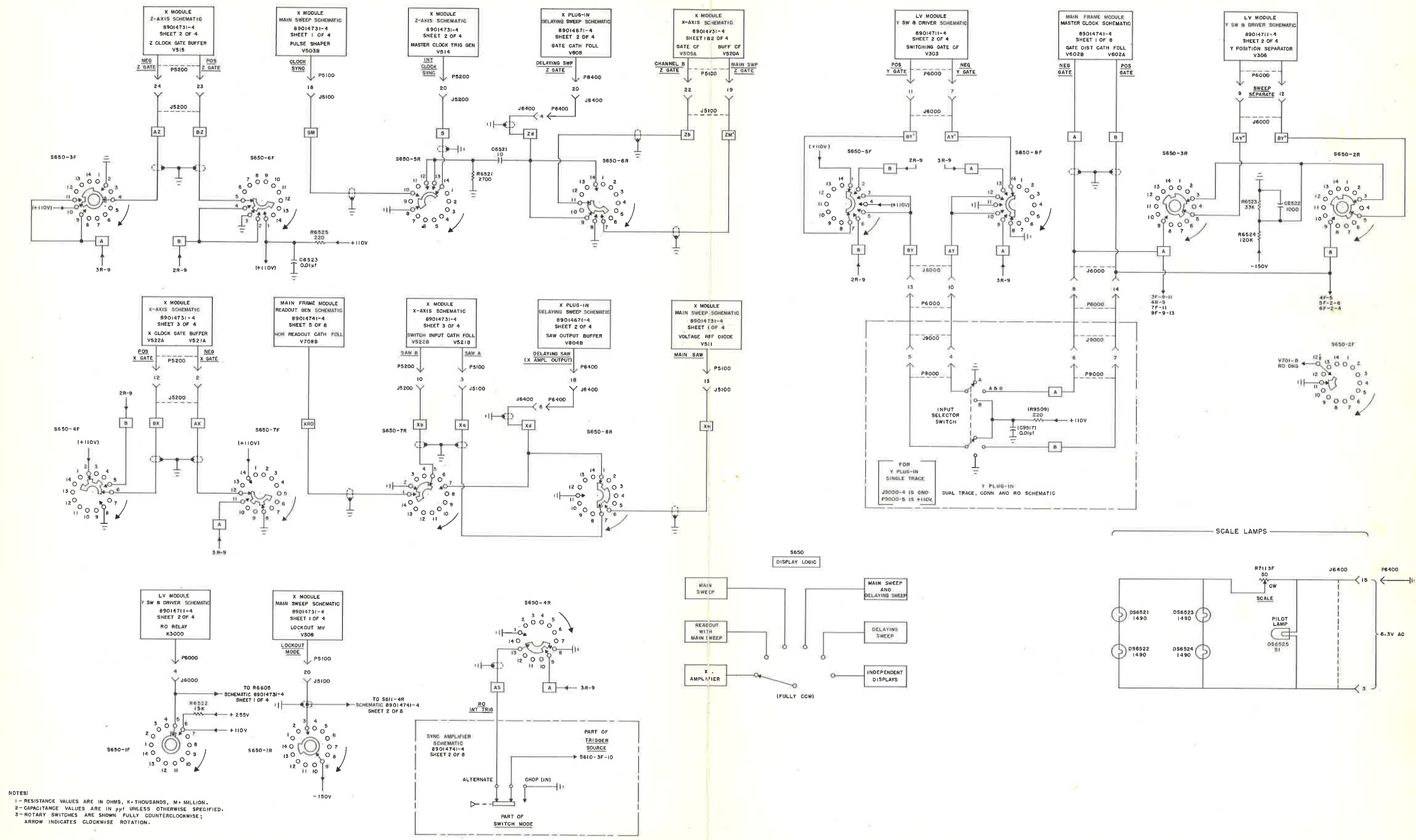


Figure 3-14. SCHEMATIC, DISPLAY LOGIC SWITCH AND SCALE LAMPS; MAIN FRAME MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4741-4, Sheet 4 of 8)

**WAVEFORMS**  
(Taken With Controls Set As Follows:)

MAIN FRAME

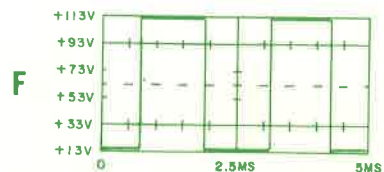
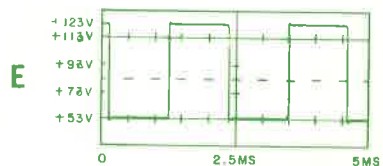
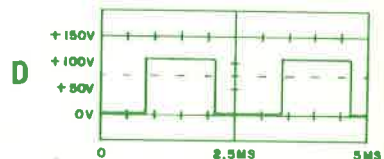
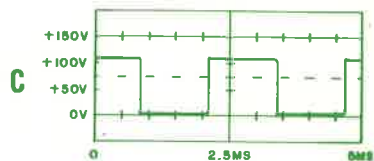
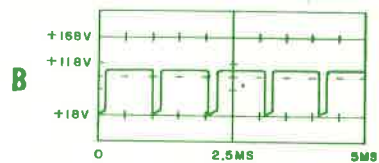
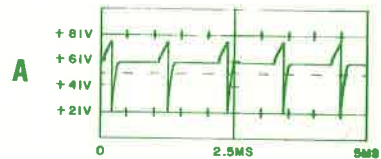
<u>Control</u>	<u>Setting</u>
Digital Read Out	999
Index Positioning	Center dot
Pattern Positioning	Center display with base line on center line
Polarity	+
Trigger Source	+ Int
Trig Level	Preset
Trig/Rec	Preset
Trigger Mode	Armed AC
Sweep Rate	1 Ms/Cm
Switch Mode	Alternate (out)
Display Logic	RO

DUAL TRACE

<u>Control</u>	<u>Setting</u>
Input Selector	Channel A
Volts/Cm	Cal
AC/DC	DC
Polarity	Normal
Read Out	Normal

DELAYING SWEEP

<u>Control</u>	<u>Setting</u>
Trigger Mode	AC
Trig/Rec	Preset
Trig Level	Preset
Trigger Source	+ Line
Pick-Off Source	Del Swp
Delay Zero	Fully cw
Sweep Rate	5 Ms/Cm
Length and Delay Multiplier	Adjust these controls to agree with waveform



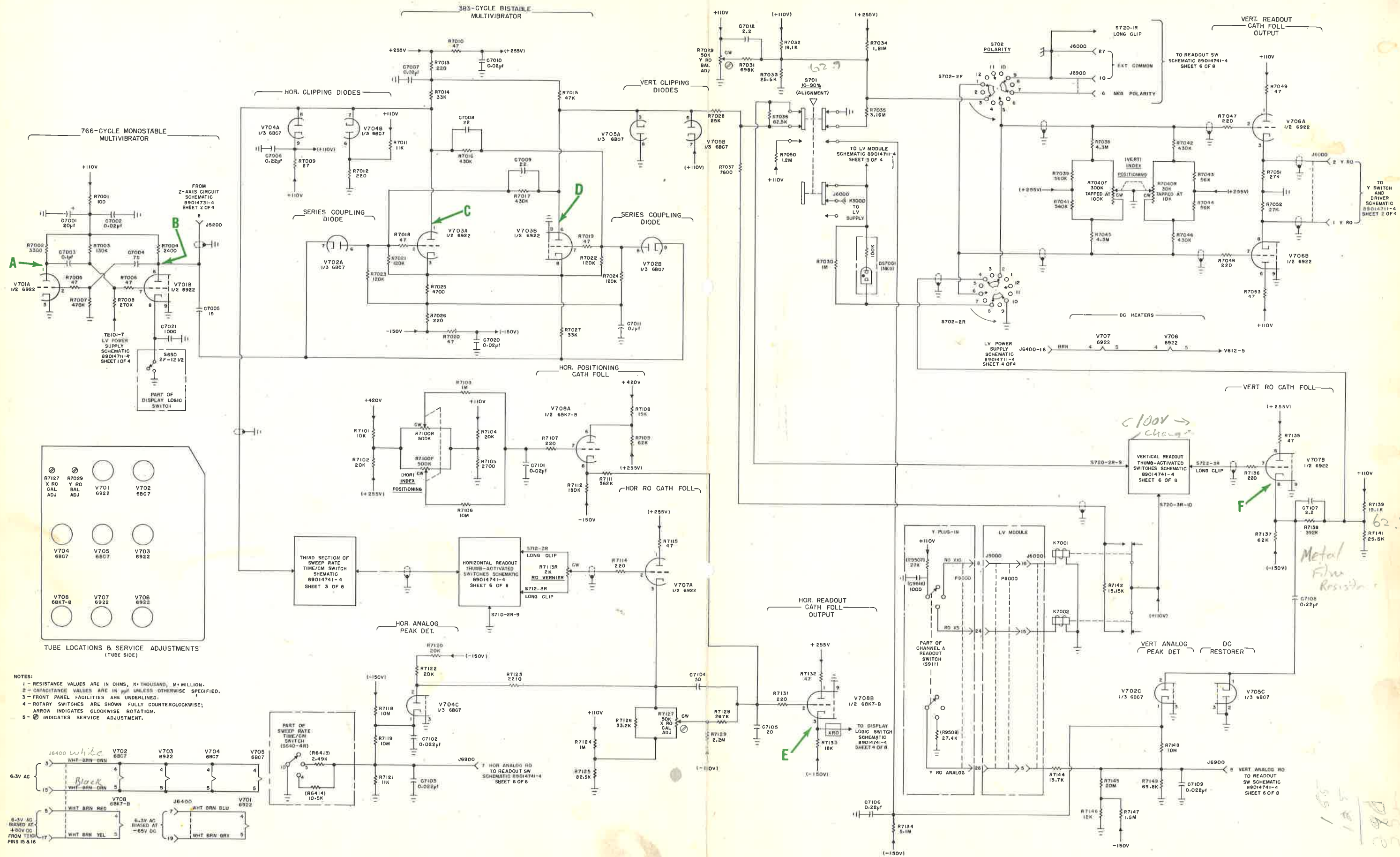


Figure 3-15. SCHEMATIC, READOUT GENERATOR; MAIN FRAME MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4741-4, Sheet 5 of 8)



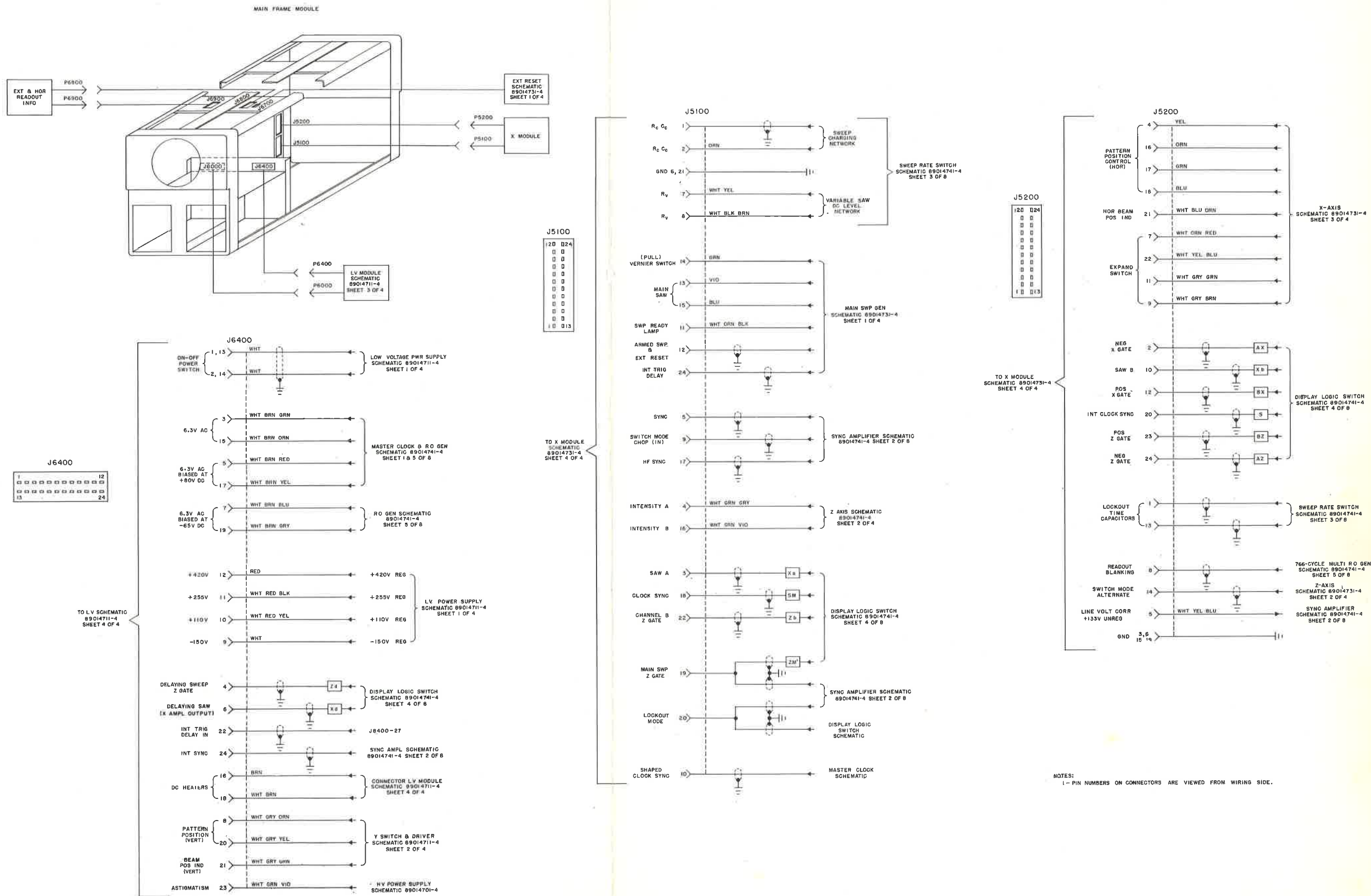


Figure 3-17. SCHEMATIC, CONNECTORS; MAIN FRAME MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4741-4, Sheet 7 of 8)



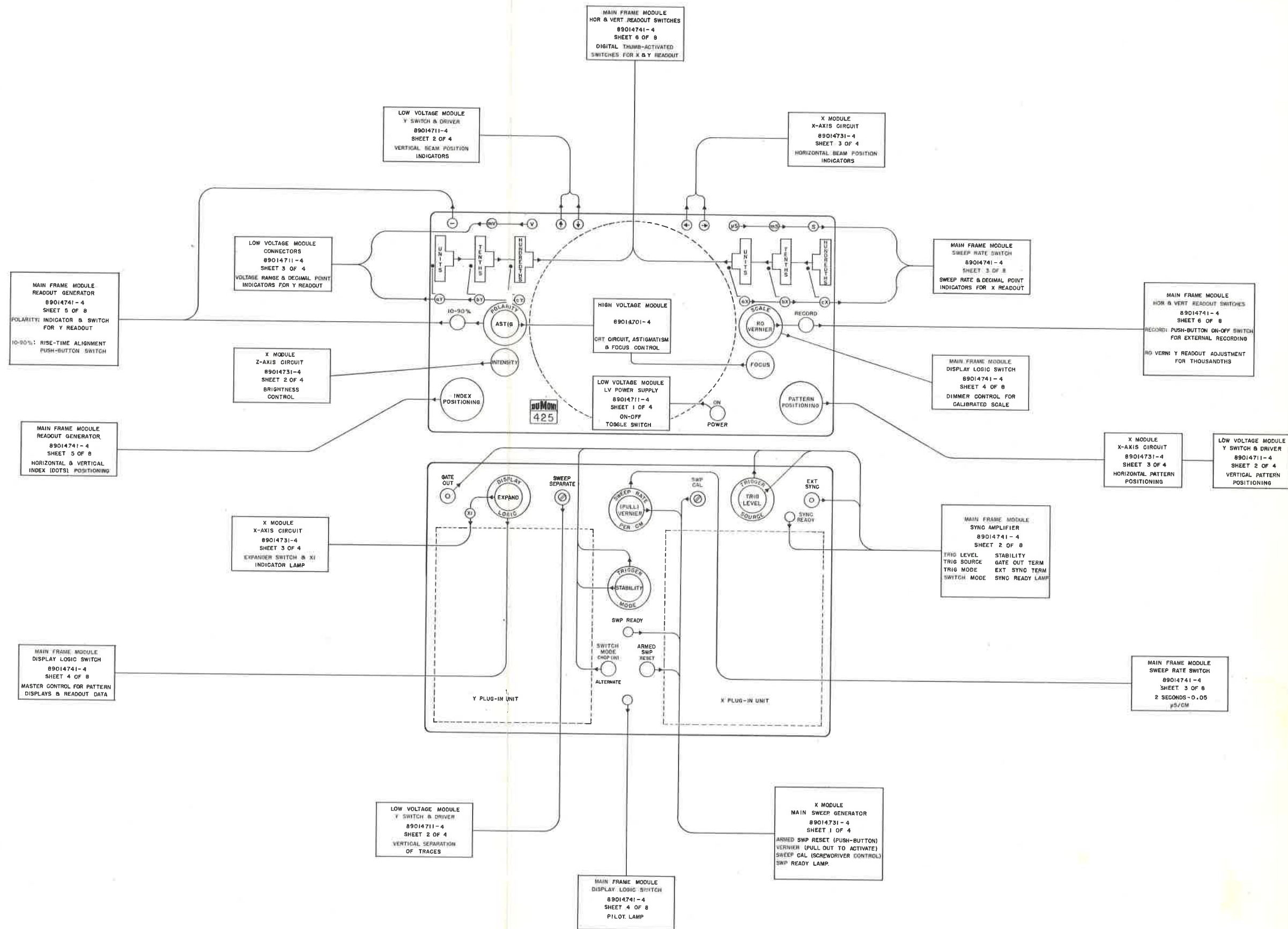


Figure 3-18. SCHEMATIC, FRONT PANEL; MAIN FRAME MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4741-4, Sheet 8 of 8)

SIMPLIFIED SCHEMATIC, DISPLAY LOGIC SWITCH

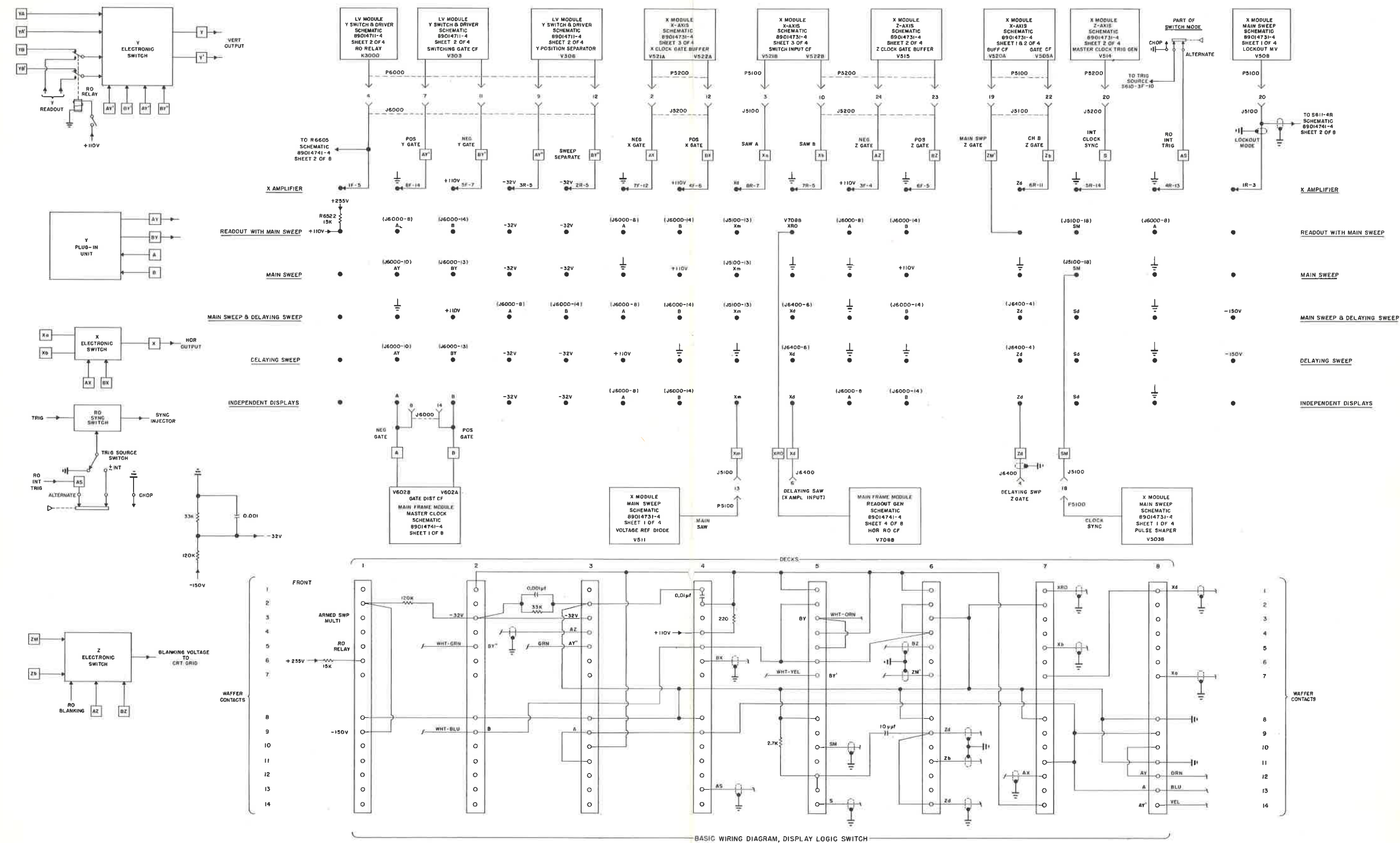


Figure 3-19. SIMPLIFIED WIRING DIAGRAM OF THE DISPLAY LOGIC SWITCH; MAIN FRAME MODULE DU MONT TYPE 425 OSCILLOSCOPE (Reference Drawing 8901 4741-6, Sheet 1 of 1)