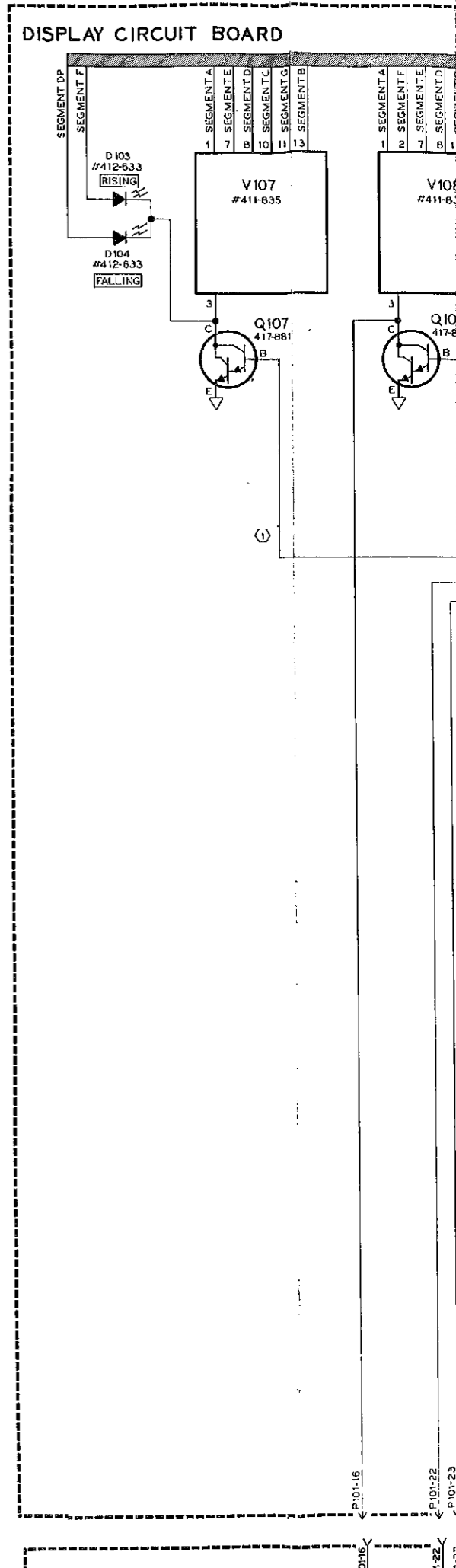
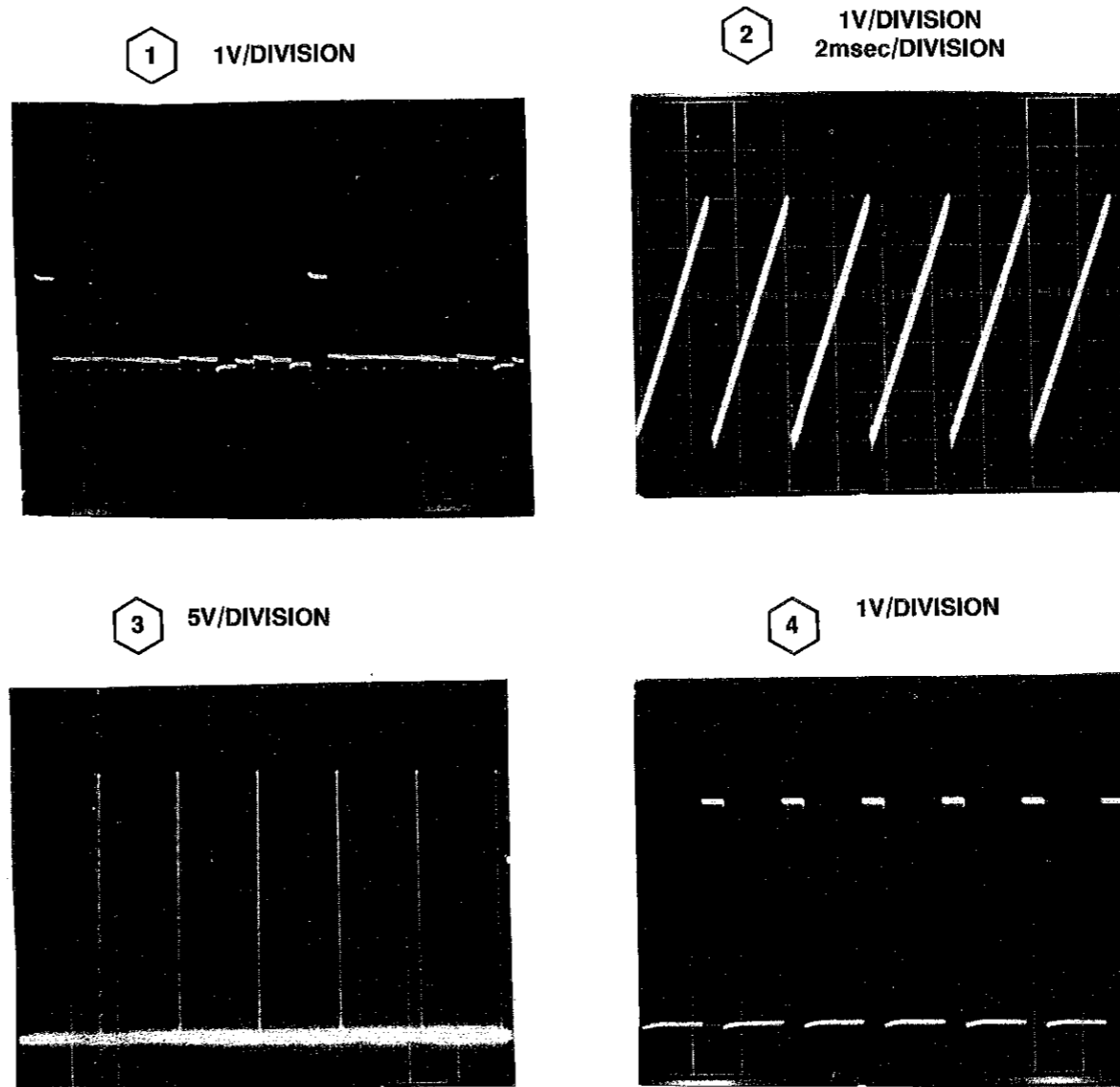


**SCHEMATIC OF THE  
HEATHKIT®  
DIGITAL BAROMETER  
MODEL ID-1990**

**NOTES:**

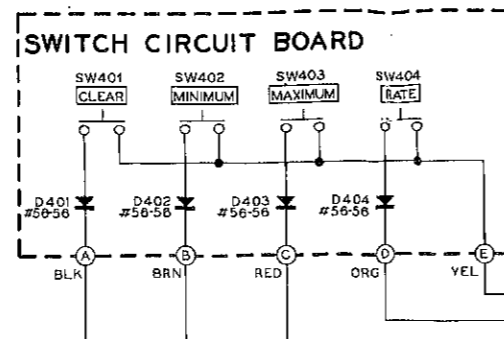
1. COMPONENTS ON THE CIRCUIT BOARDS AND REAR PANEL ARE IN THE FOLLOWING GROUPS:  
 1- 99 PARTS ON THE REAR PANEL.  
 101-199 PARTS ON THE DISPLAY CIRCUIT BOARD.  
 201-299 PARTS IN THE OVEN ASSEMBLY.  
 301-399 PARTS ON THE ANALOG CIRCUIT BOARD.  
 401-450 PARTS ON THE SWITCH CIRCUIT BOARD.
2. RESISTORS ARE 1/4-WATT, 5%, UNLESS MARKED OTHERWISE. VALUES ARE IN OHMS (k=1000).
3. CAPACITOR VALUES LESS THAN 1 ARE IN  $\mu$ F. CAPACITOR VALUES MORE THAN 1 ARE IN  $\mu$ F UNLESS MARKED OTHERWISE.
4. ○ THIS SYMBOL INDICATES A DC VOLTAGE MEASURED FROM THE POINT INDICATED TO GROUND. MEASUREMENTS WERE MADE WITH A HIGH INPUT IMPEDANCE VOLTMETER.
5. \*\* VOLTAGES SUBJECT TO CHANGE WITH PRESSURE TRANSDUCER VARIATIONS.
6. ▽ THIS SYMBOL INDICATES A CIRCUIT BOARD GROUND.
7. ≡ THIS SYMBOL INDICATES A REAR PANEL GROUND.
8. → THIS SYMBOL INDICATES A PLUG-TO-SOCKET CONNECTION. THE NUMBER FOLLOWING THE PLUG NUMBER INDICATES THE PARTICULAR PIN NUMBER. FOR EXAMPLE: P101-1 MEANS PLUG P101 PIN 1.
9. ○ THIS SYMBOL INDICATES A WAVEFORM DISPLAY AT THAT POINT. THE WAVEFORM FREQUENCY AND AMPLITUDE ARE SHOWN ON EACH DISPLAY.
10. PARTS IN THE SHADED AREA ARE CRITICAL TO CONTINUED SAFETY. REPLACE ONLY WITH THE SAME RATED PART, OR WITH THE HEATH COMPANY PART NUMBER, IF SHOWN.

**WAVEFORMS**

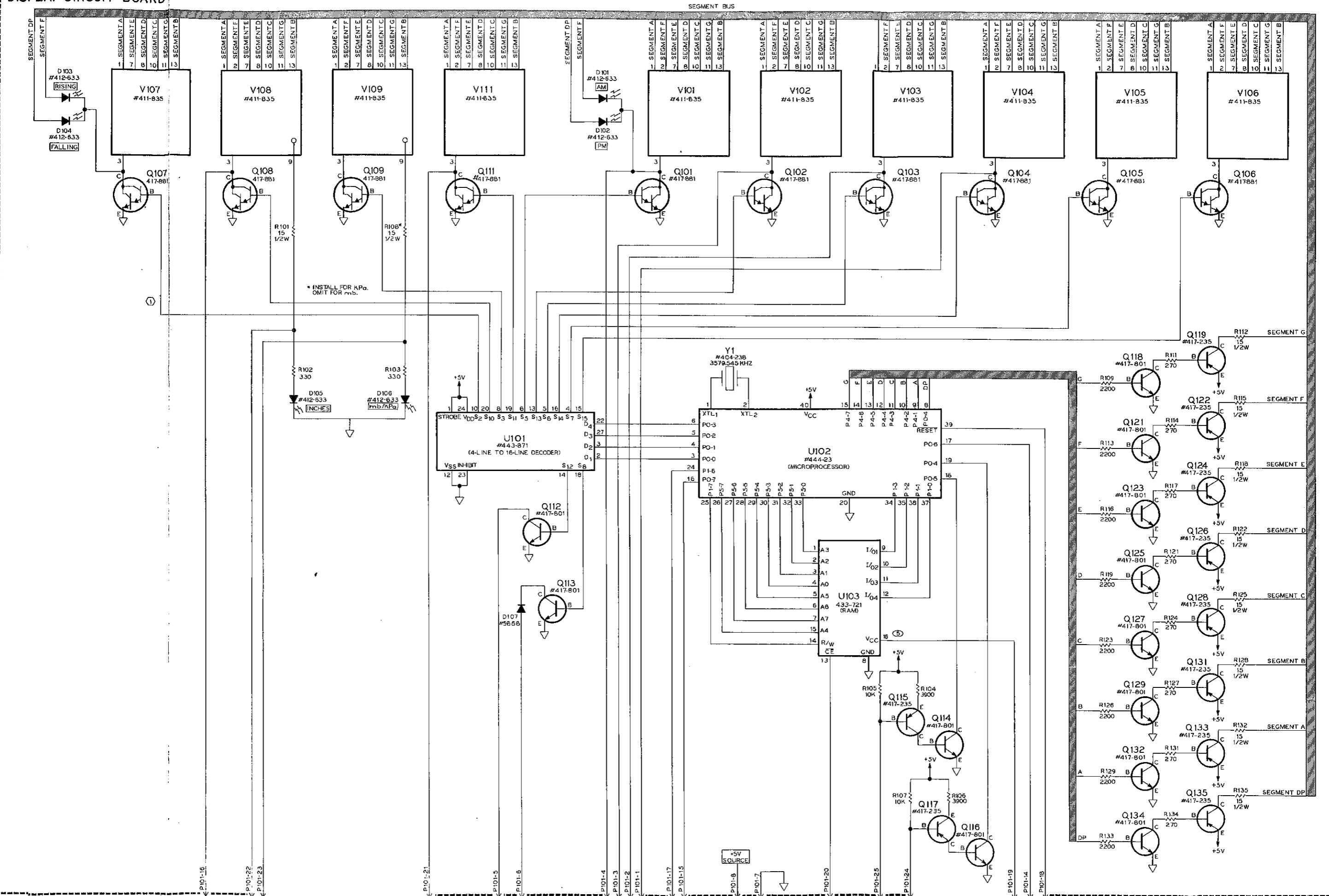


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# DISPLAY CIRCUIT BOARD



\* INSTALL FOR KPa.  
OMIT FOR mb.

SEGMENT BUS

U101  
#443-871  
(4-LINE TO 16-LINE DECODER)

U102  
#444-23  
(MICROPROCESSOR)

U103  
#433-721  
(RAM)

+5V SOURCE

P101-16

P101-22

P101-23

P101-21

P101-5

P101-6

P101-4

P101-3

P101-2

P101-1

P101-17

P101-15

P101-20

P101-25

P101-24

P101-19

P101-14

P101-18

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

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P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

P101-15

P101-14

P101-13

P101-12

P101-11

P101-10

P101-9

P101-8

P101-7

P101-6

P101-5

P101-4

P101-3

P101-2

P101-1

P101-16

NUMBER INDICATES THE PARTICULAR PIN NUMBER. FOR EXAMPLE: P101-1 MEANS PLUG P101 PIN 1.

9. THIS SYMBOL INDICATES A WAVEFORM DISPLAY AT THAT POINT. THE WAVEFORM FREQUENCY AND AMPLITUDE ARE SHOWN ON EACH DISPLAY.

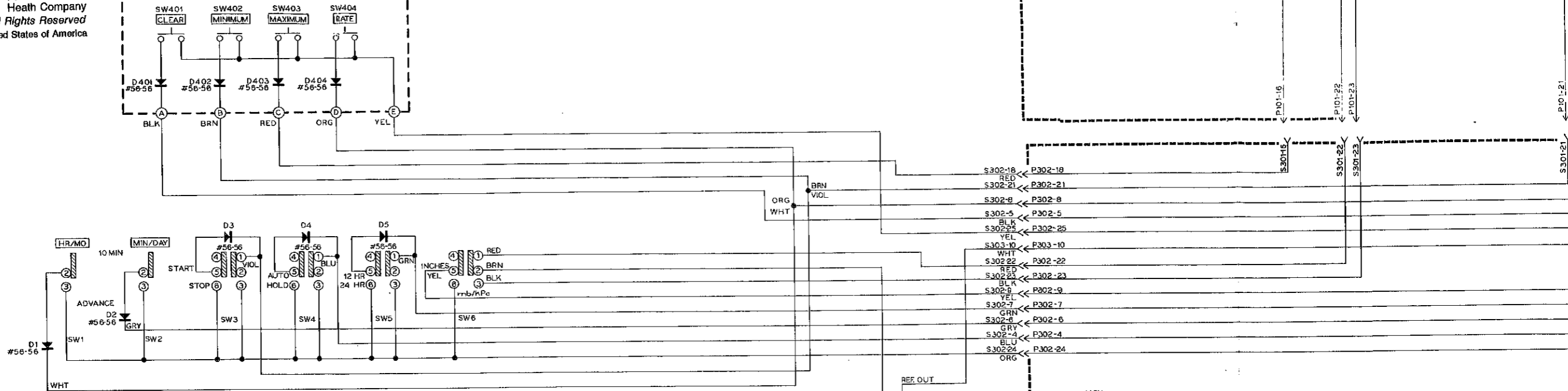
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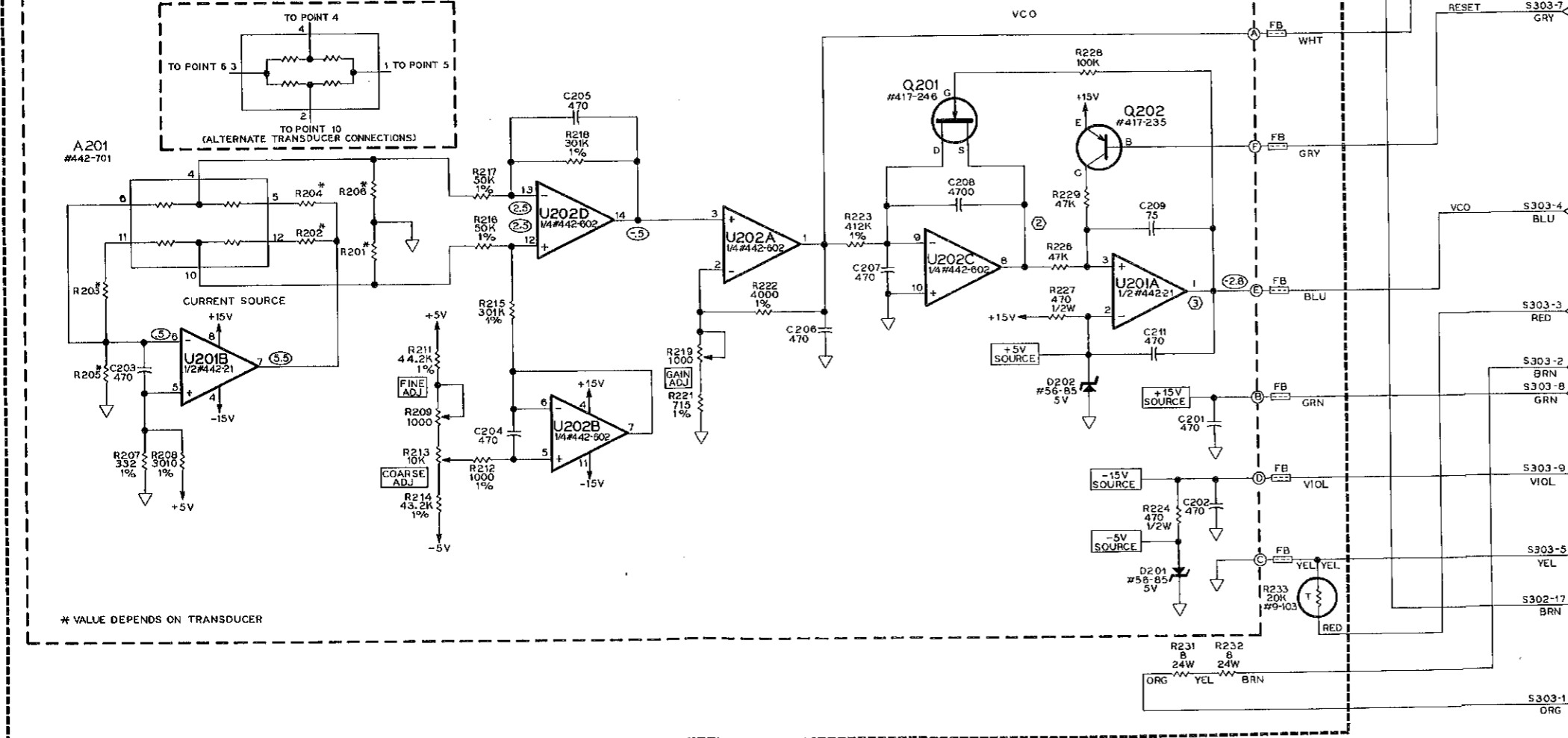
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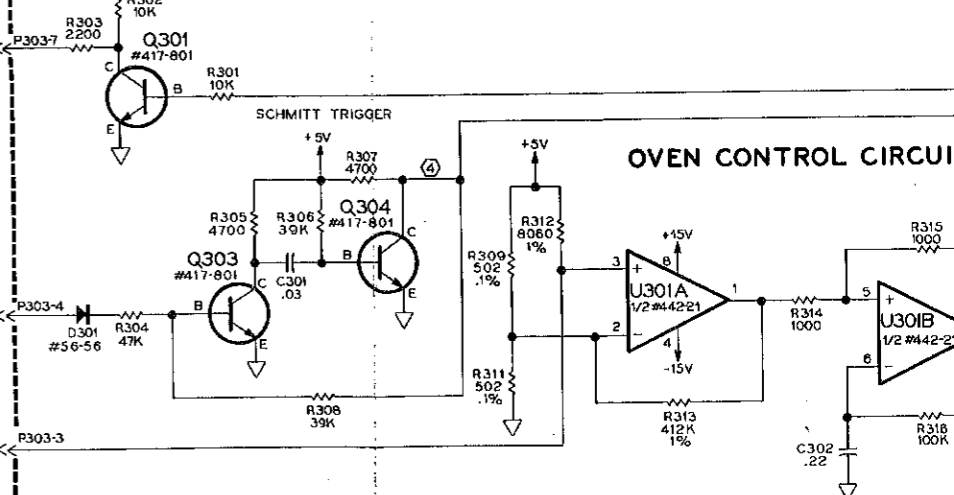
### SWITCH CIRCUIT BOARD



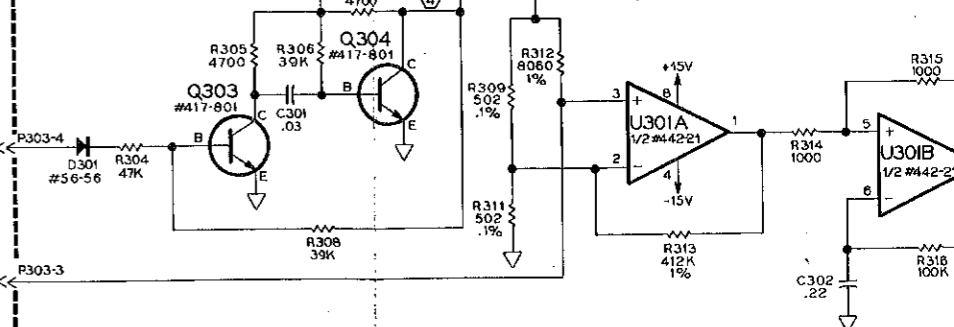
### OVEN CIRCUIT BOARD



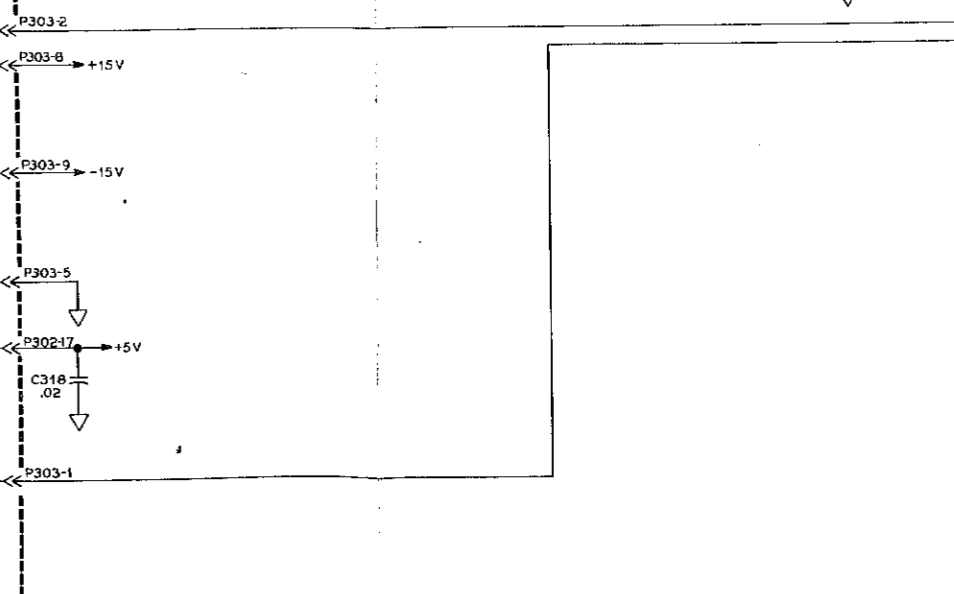
### RESET CIRCUIT

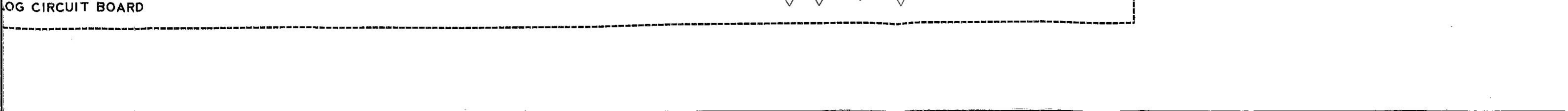
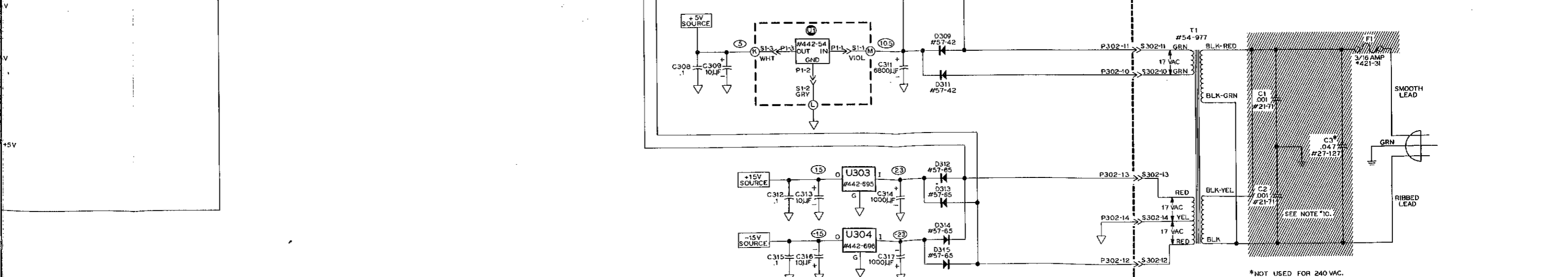
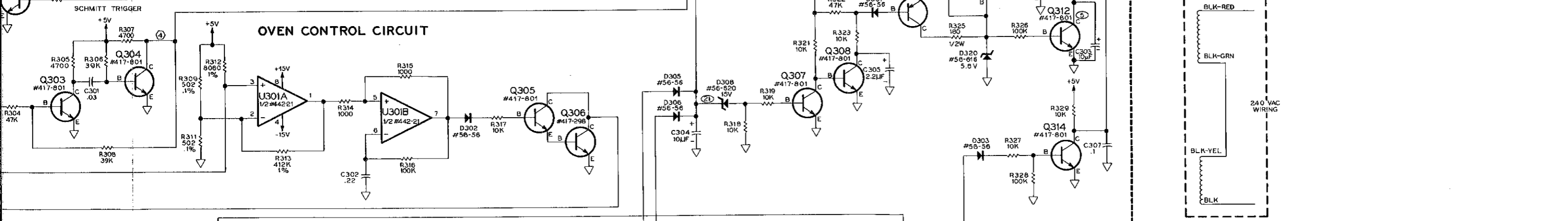
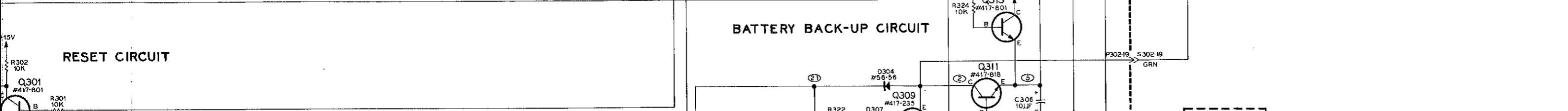
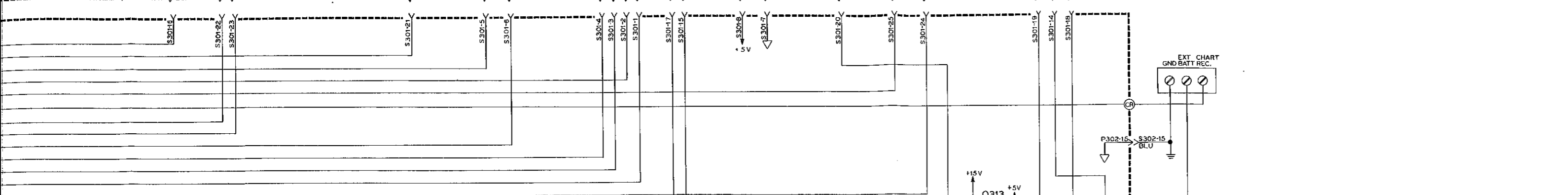
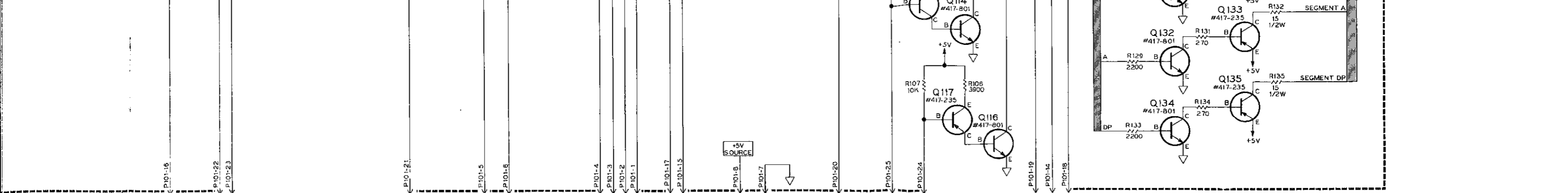


### OVEN CONTROL CIRCUIT



### ANALOG CIRCUIT BOARD





OG CIRCUIT BOARD

\*NOT USED FOR 240 VAC.

