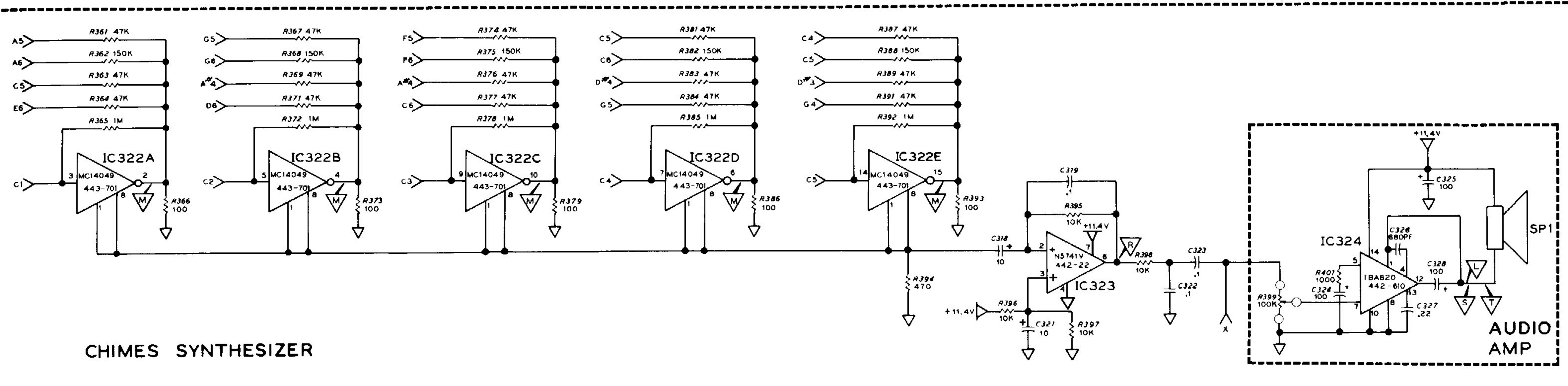
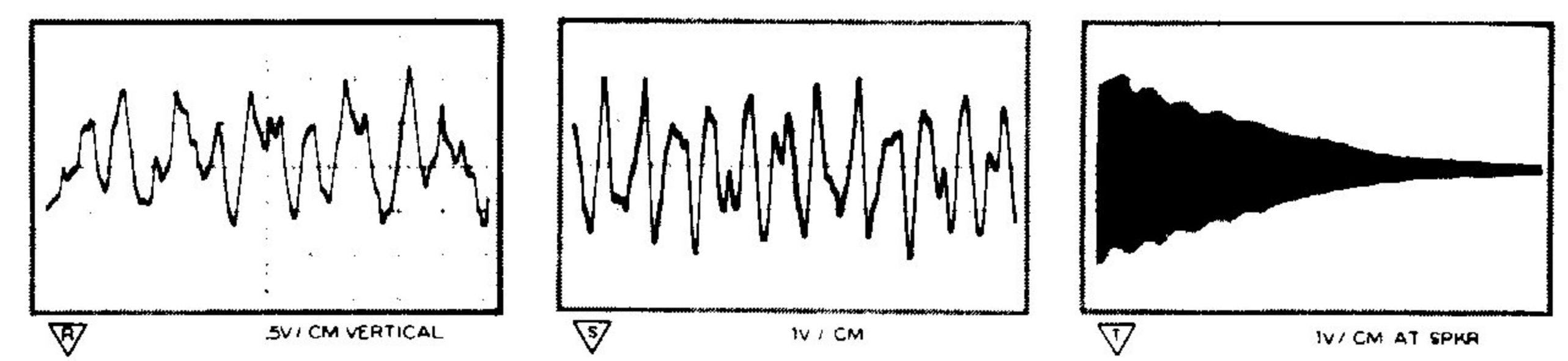
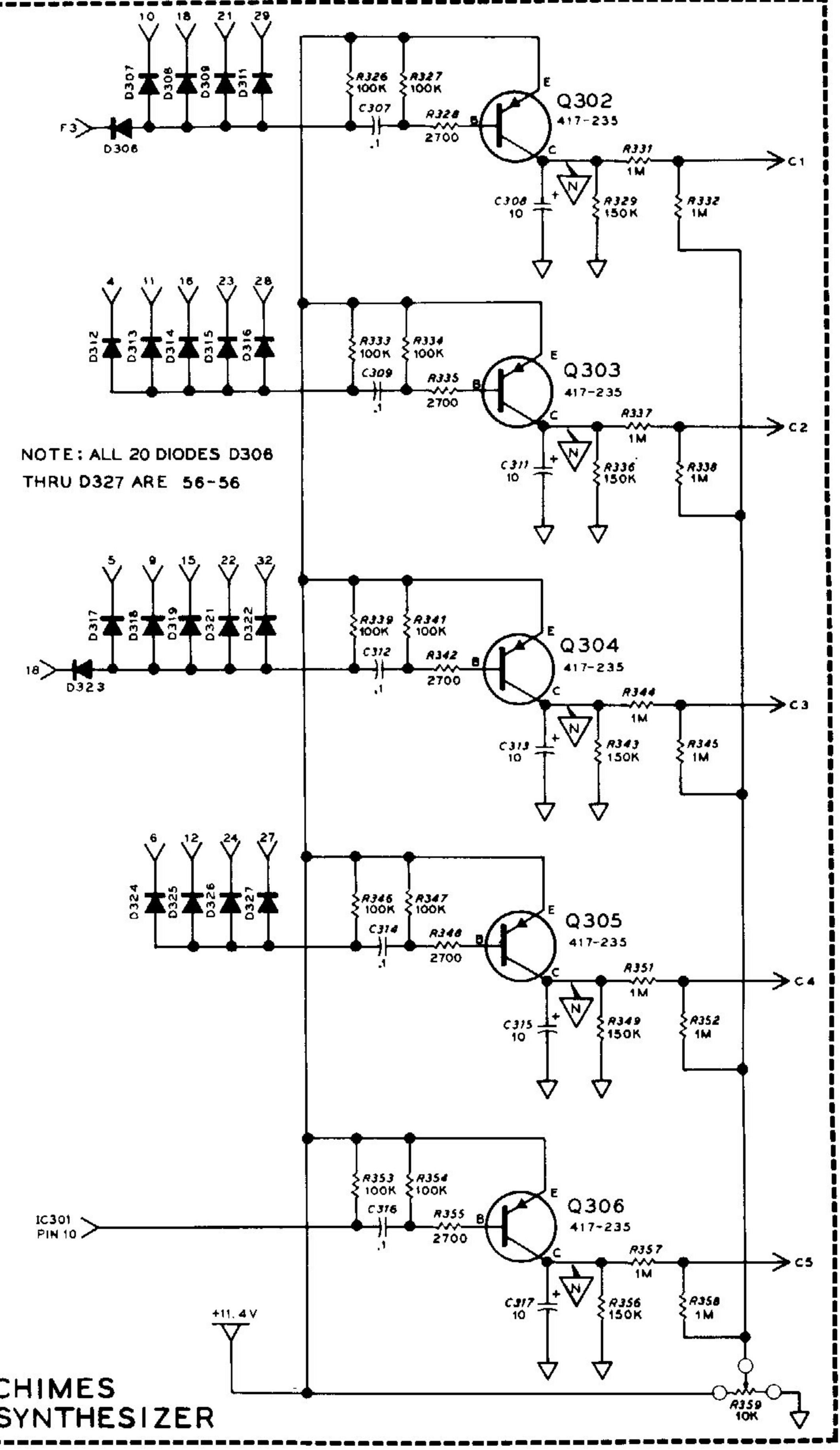


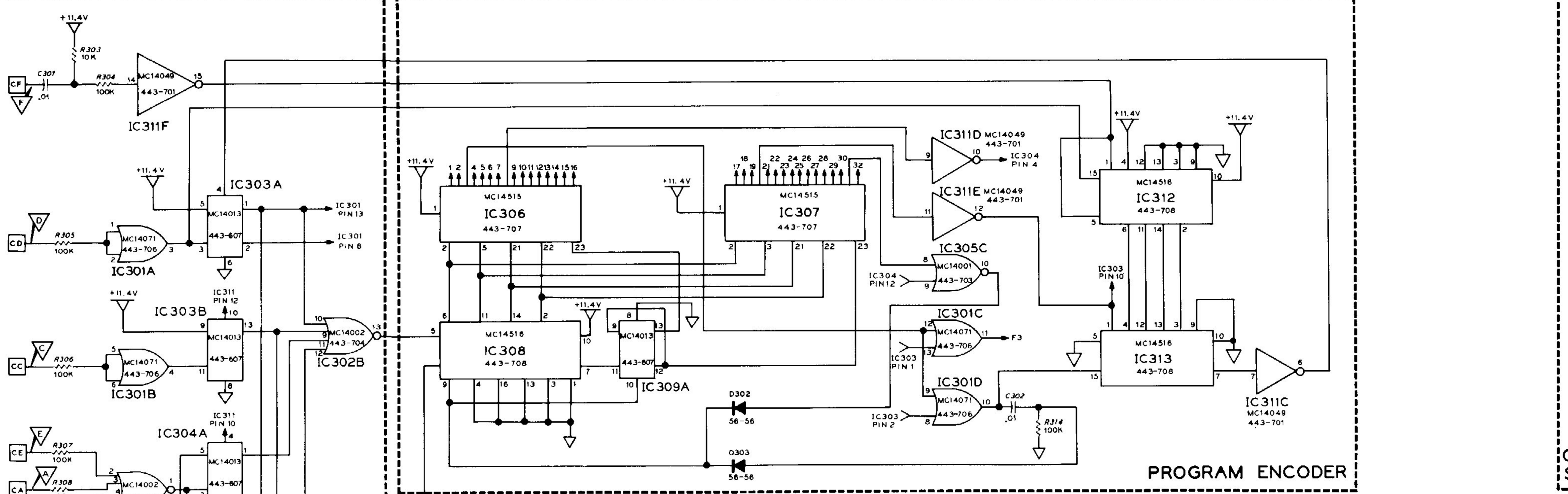
WAVEFORMS



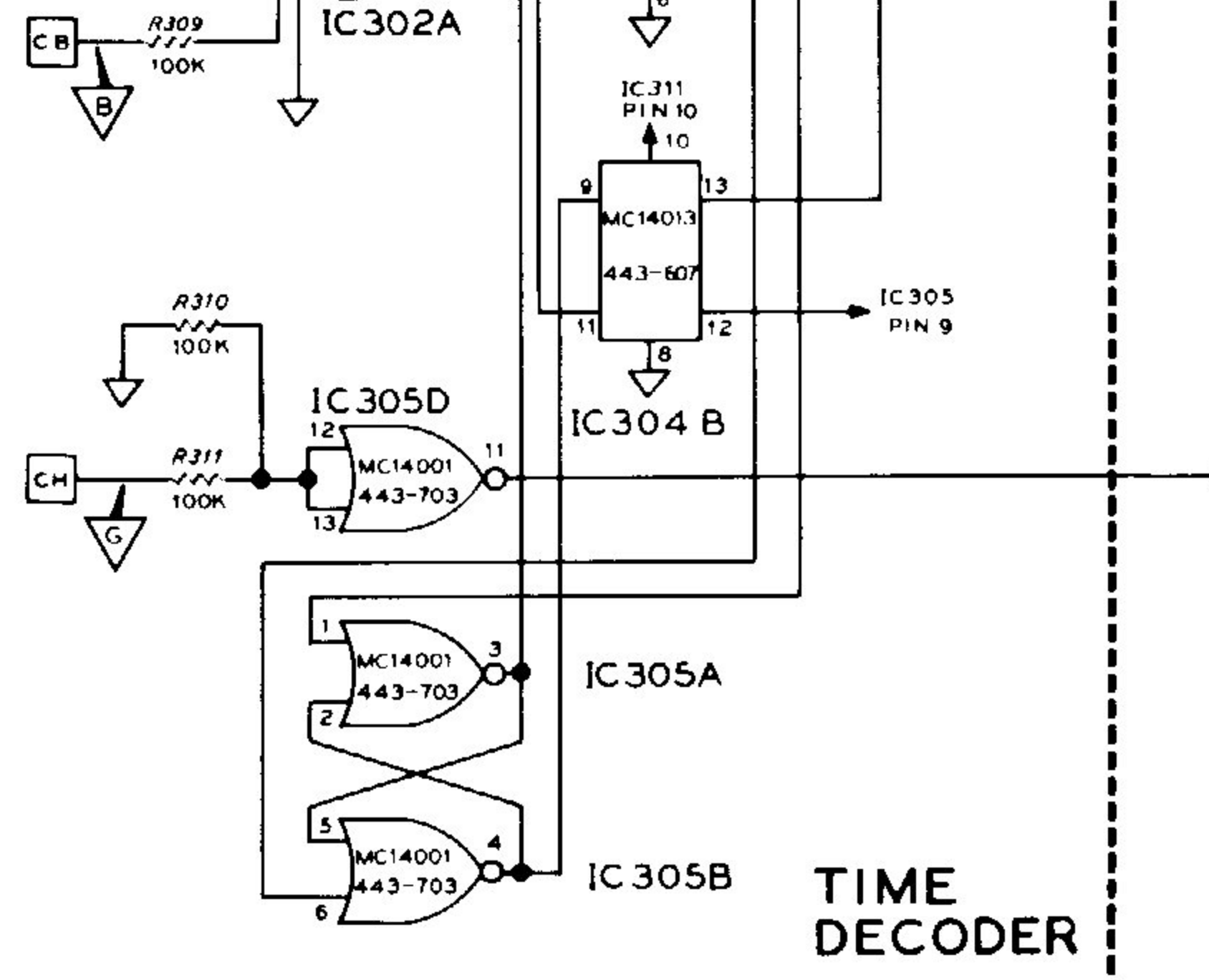
CHIMES SYNTHESIZER



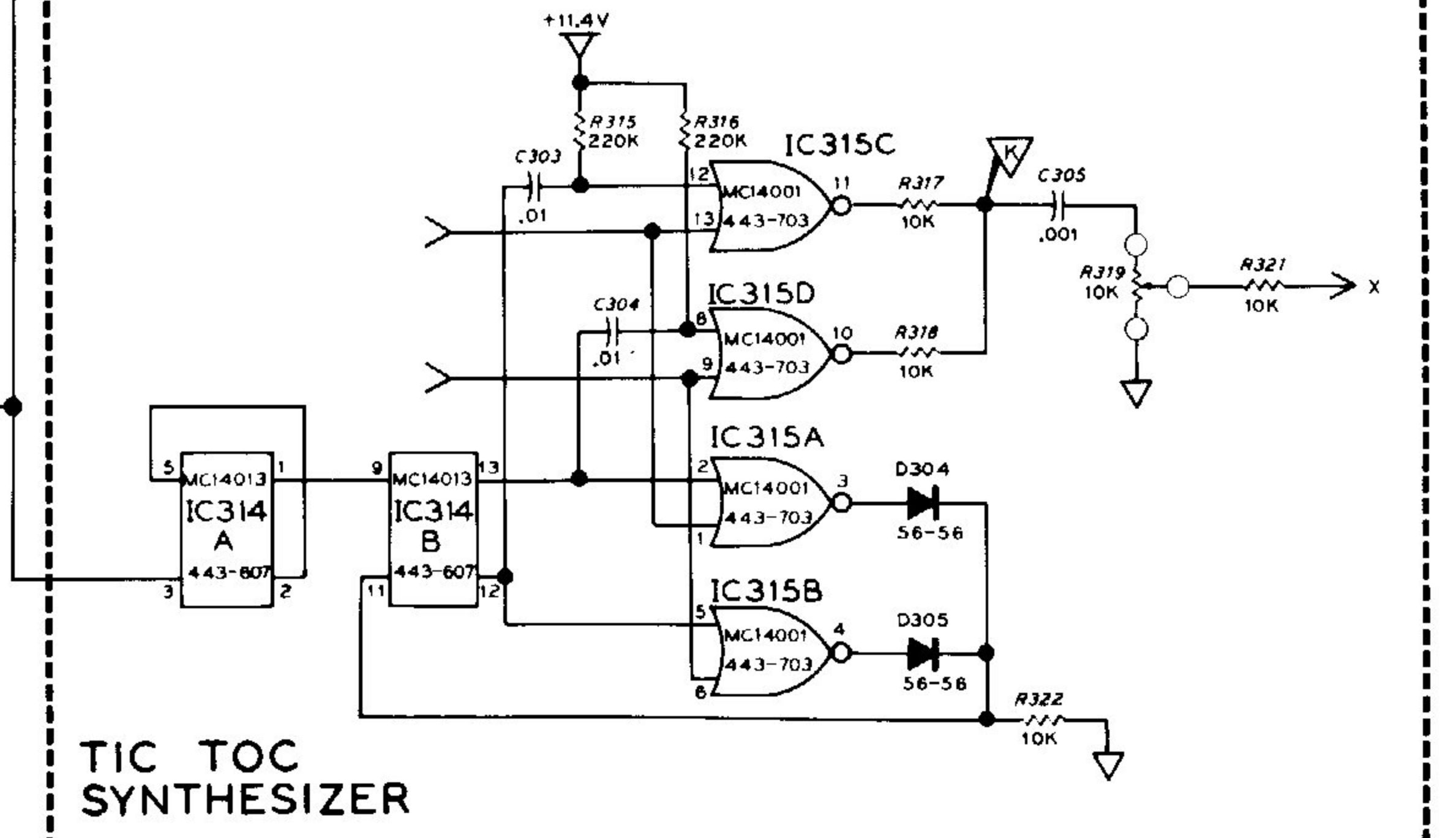
CHIMES SYNTHESIZER



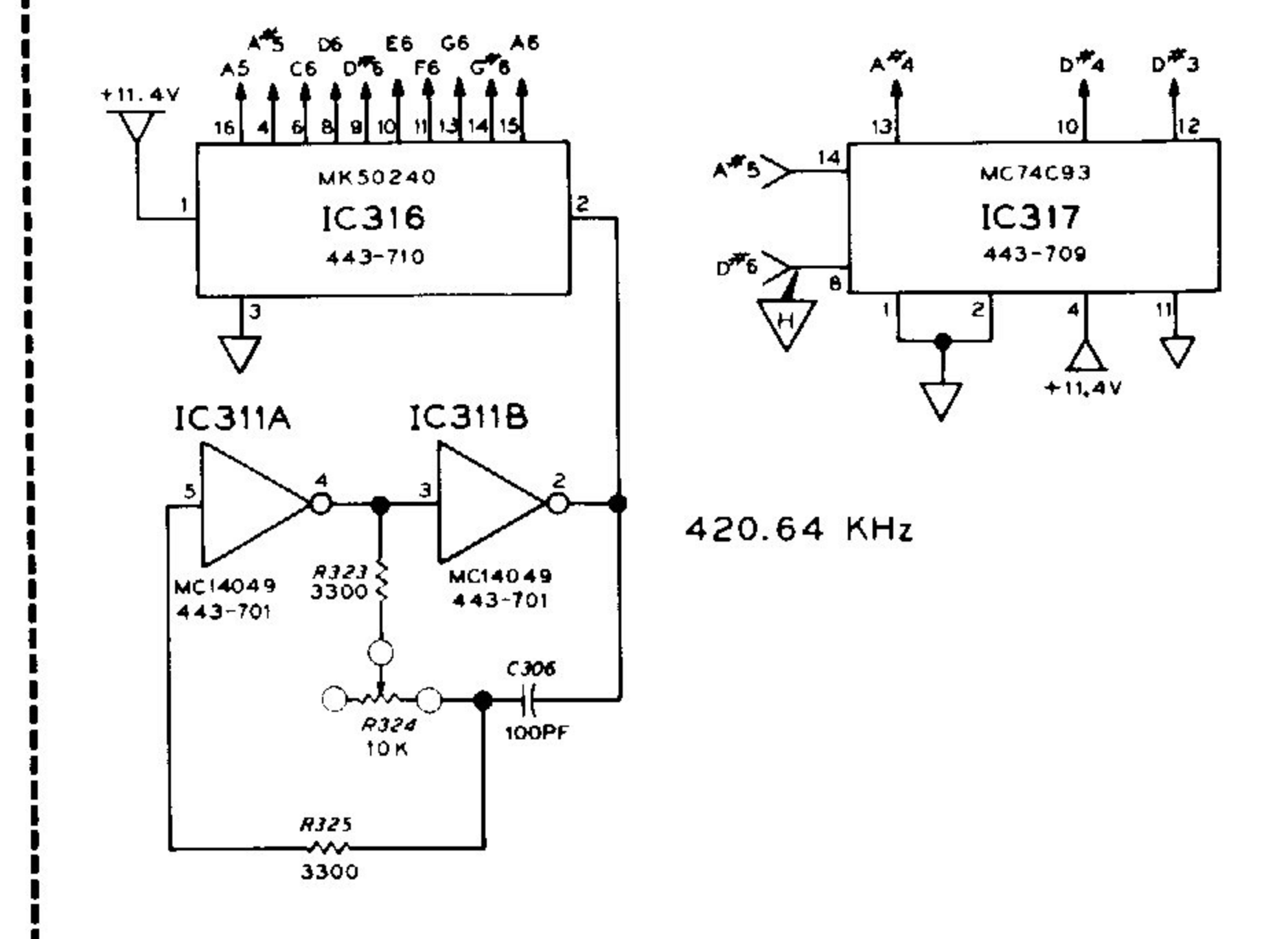
PROGRAM ENCODER



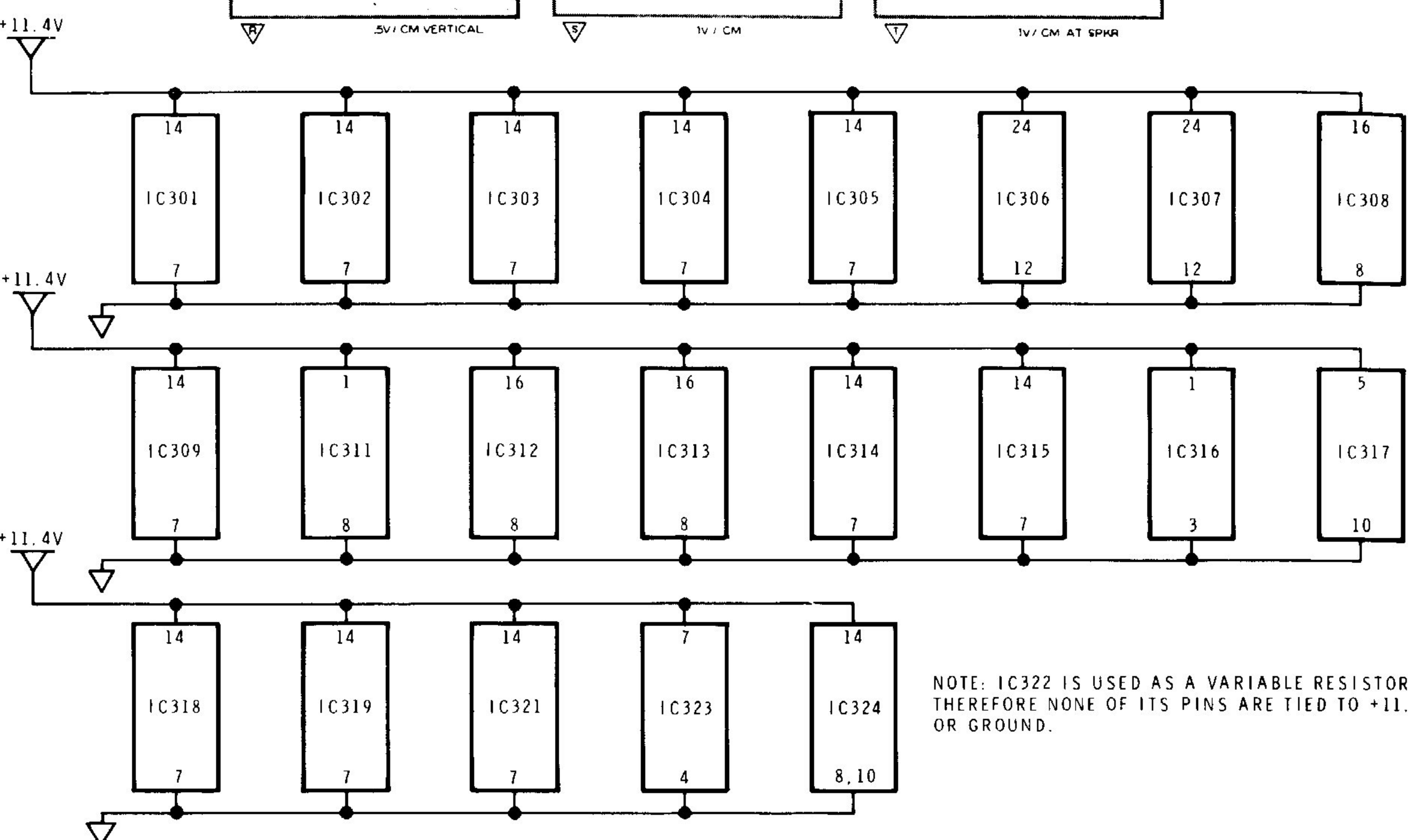
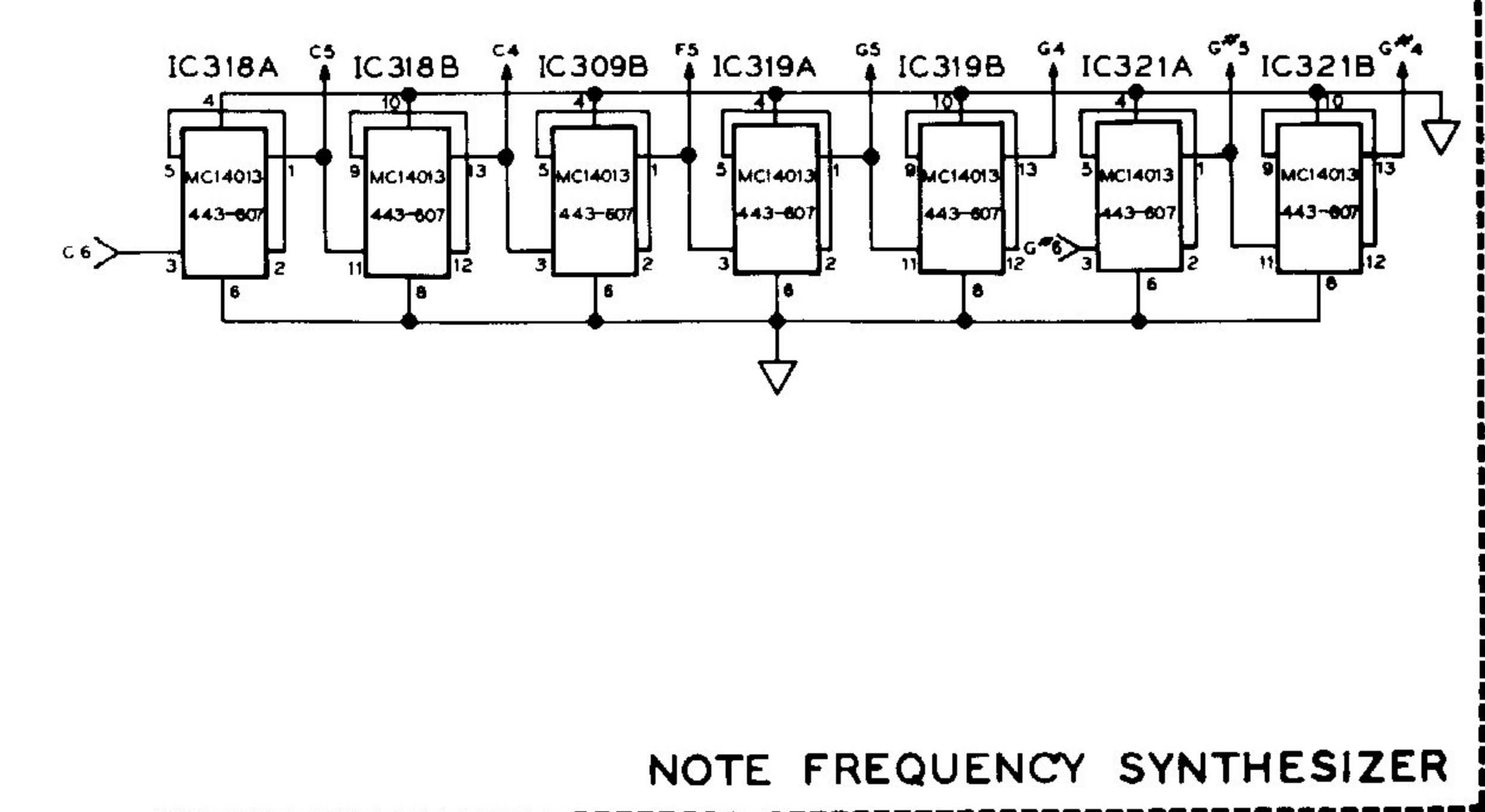
TIME DECODER



TIC TOC SYNTHESIZER



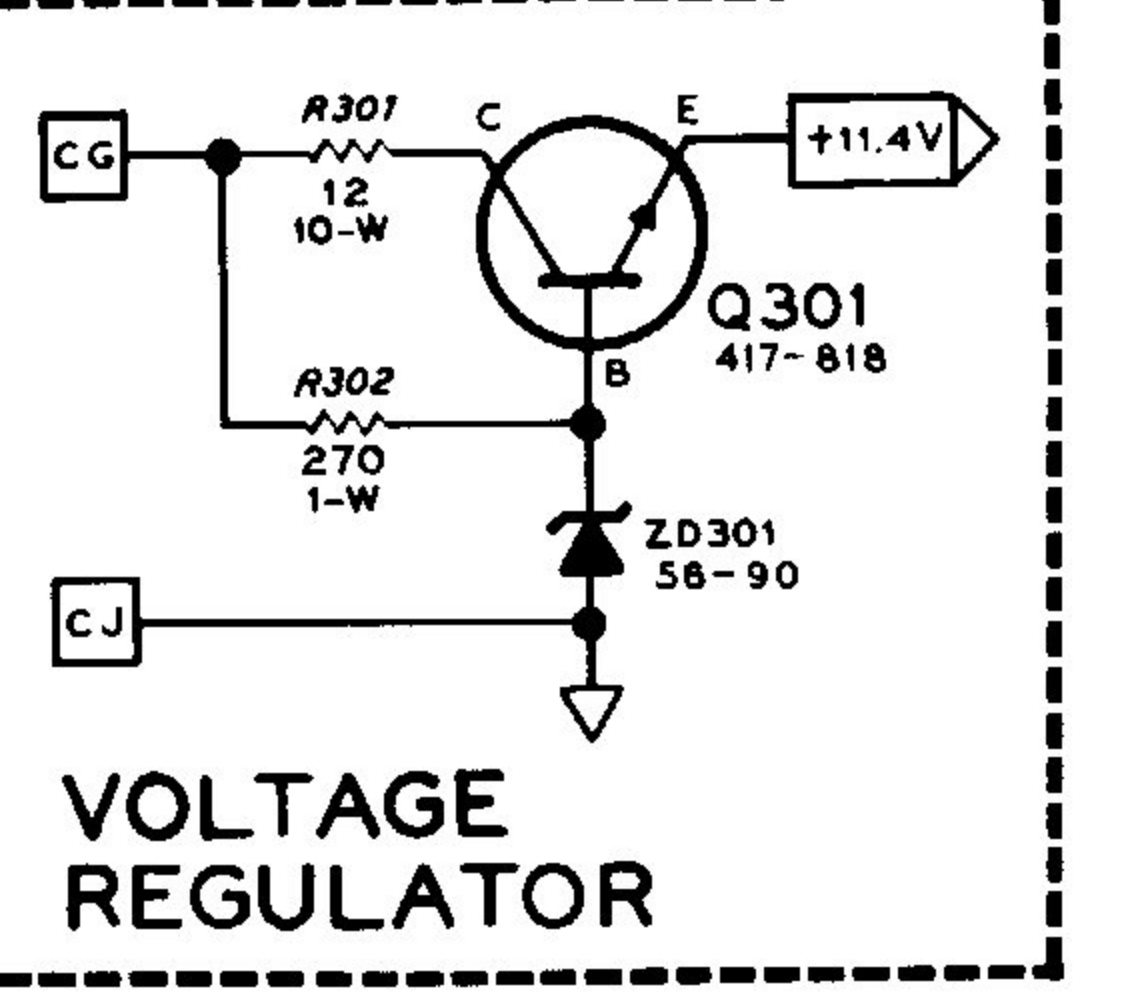
NOTE FREQUENCY SYNTHESIZER



VOLTAGE REGULATOR

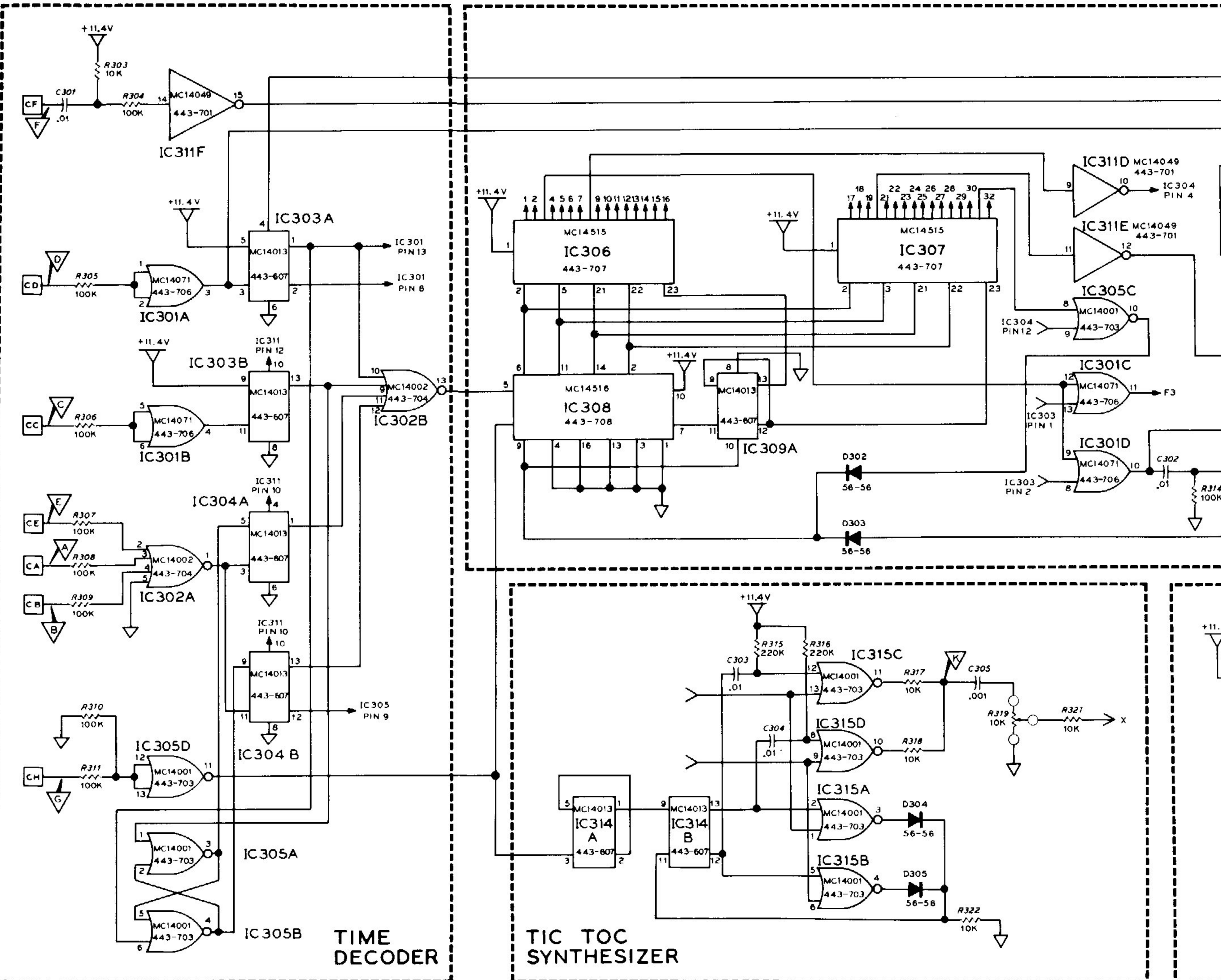
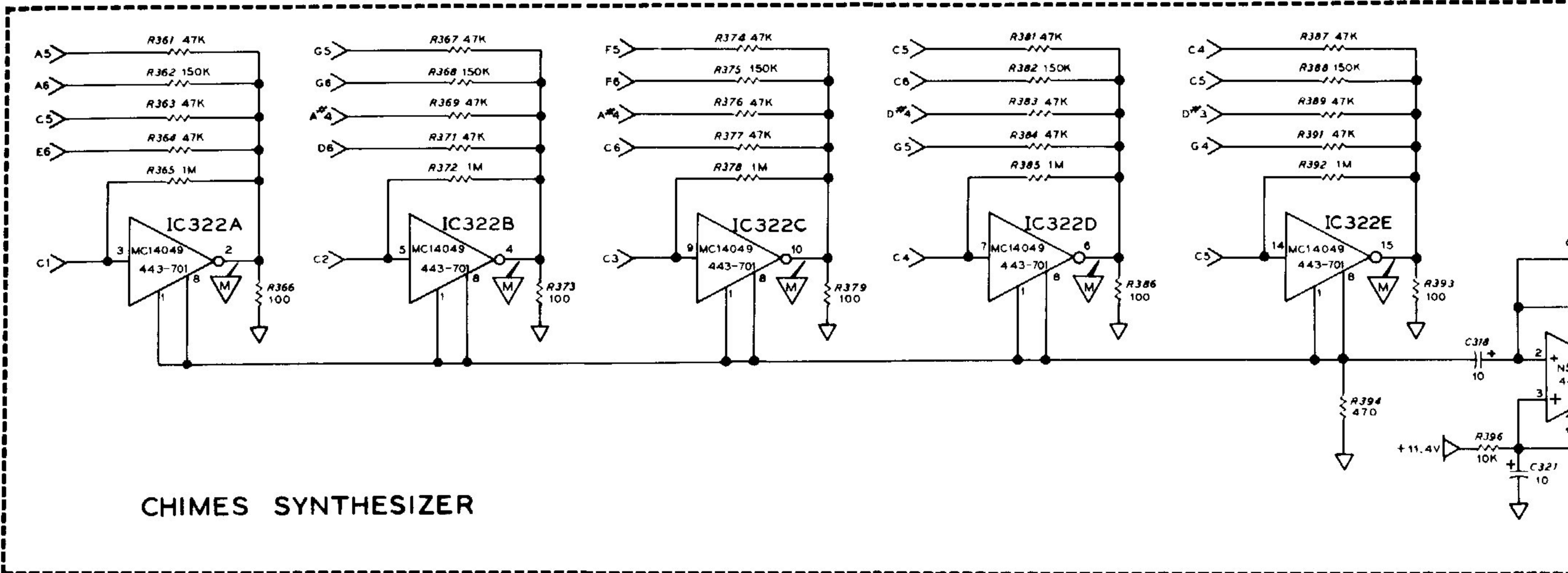
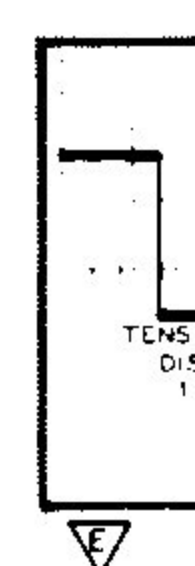
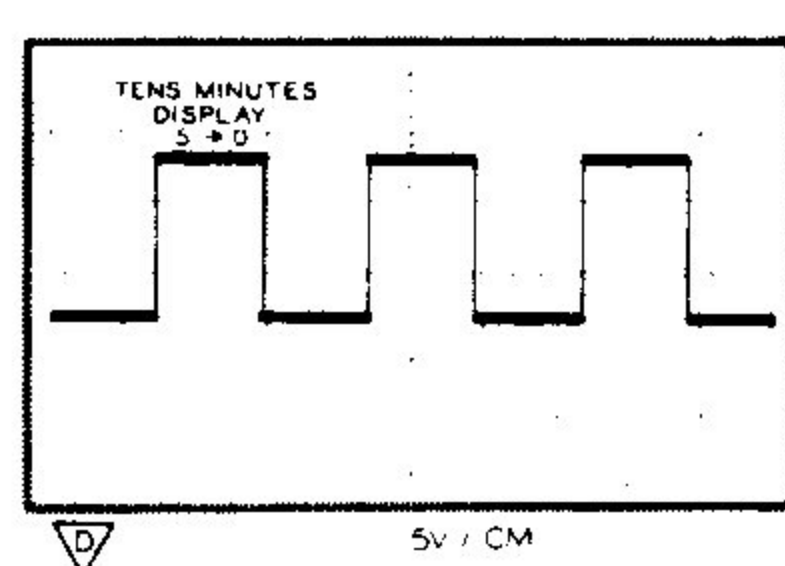
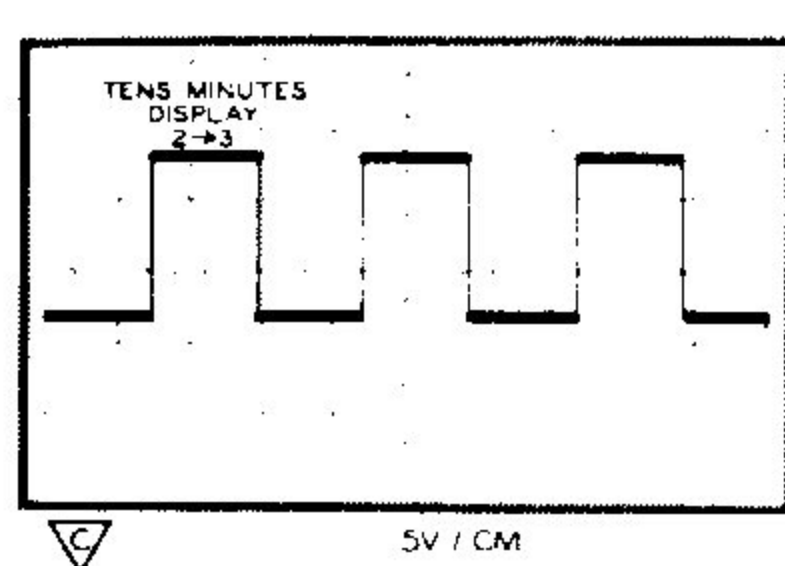
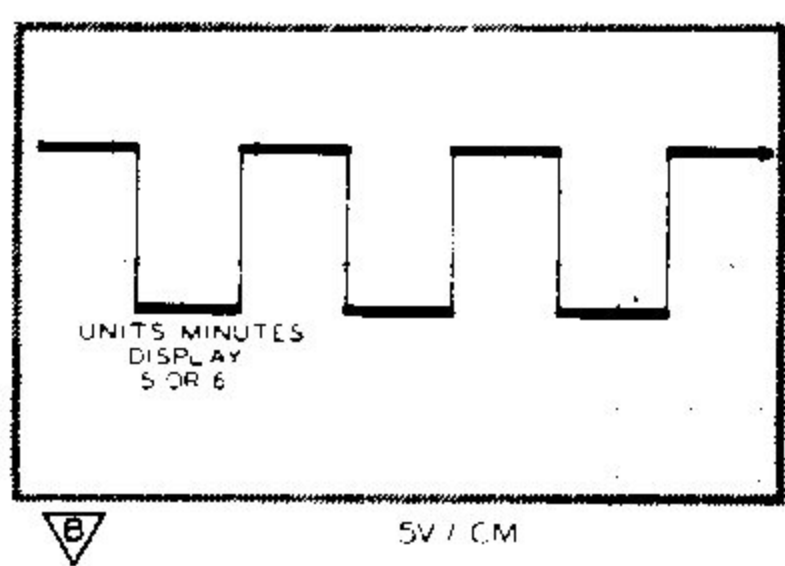
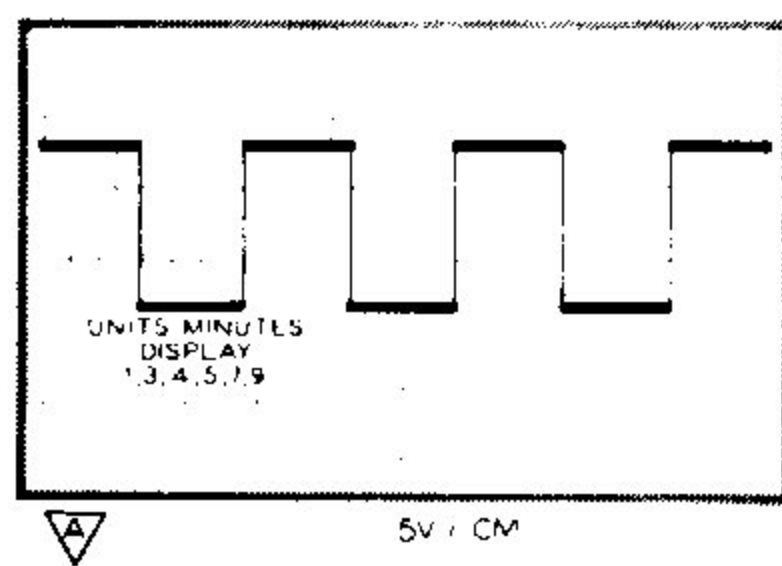
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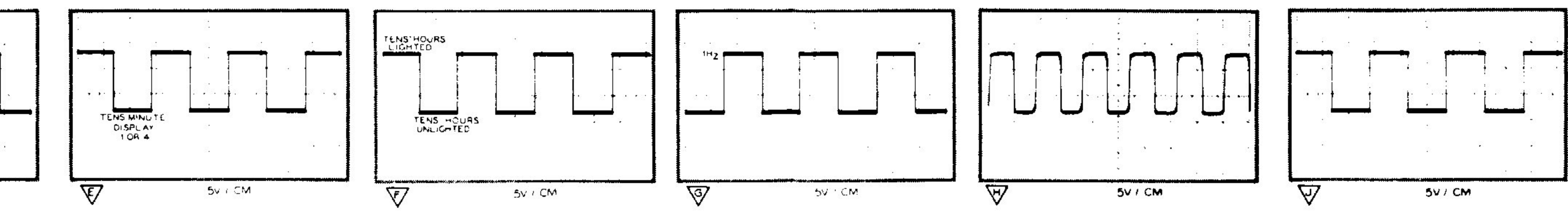
SCHEMATIC OF THE
HEATHKIT®
ELECTRONIC
CLOCK CHIMES
MODEL GCA-1195-1



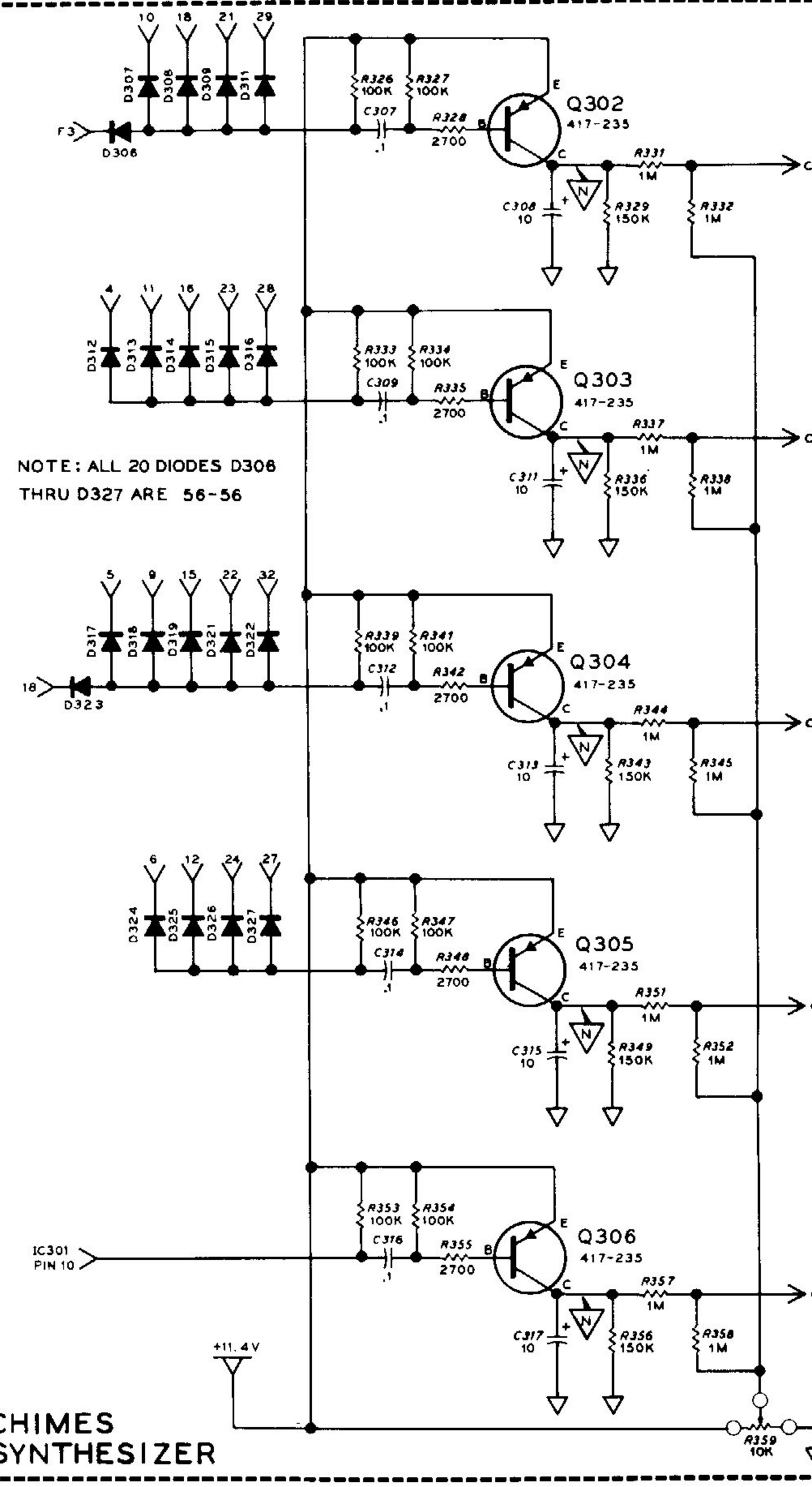
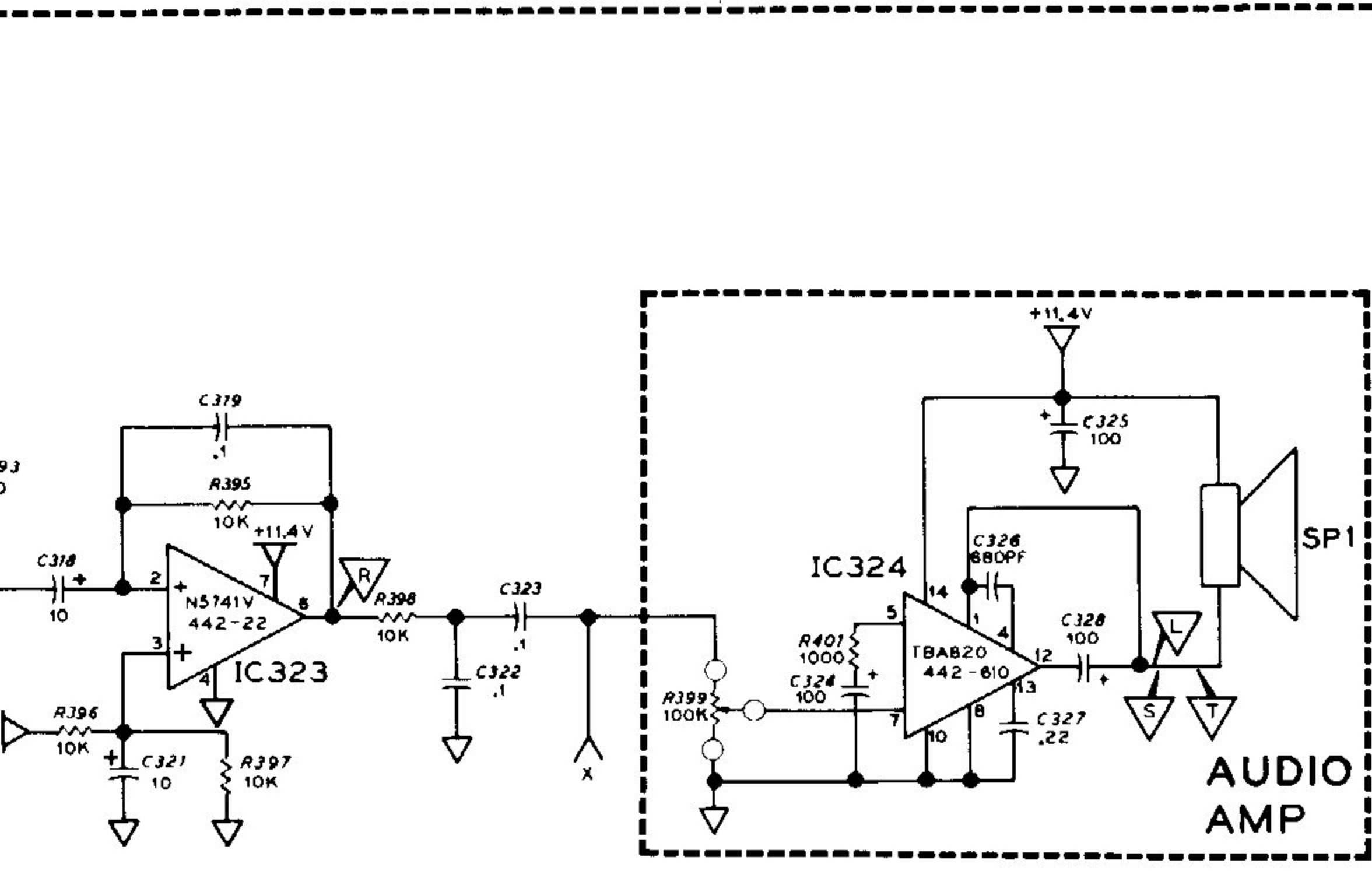
TEST CIRCUIT

- NOTES:
- ALL RESISTORS ARE 1/2-WATT, UNLESS MARKED OTHERWISE. VALUES ARE SHOWN IN OHMS (K=1,000, M=1,000,000).
 - CAPACITOR VALUES ARE SHOWN IN MICROFARADS, UNLESS MARKED OTHERWISE.
 - SYMBOLS: □ LETTERED CIRCUIT BOARD HOLE.
▽ CIRCUIT BOARD GROUND.
▽ WAVEFORM.
 - WAVEFORM J IS TYPICAL OUTPUT OF IC'S IN NOTE FREQUENCY SYNTHESIZER.
 - WAVEFORM L IS TIC-TOC SYNTHESIZER OUTPUT.
 - WAVEFORM S IS EXPANDED VIEW OF A SINGLE CHIME NOTE.
 - WAVEFORM T IS COMPOSITE VIEW OF A SINGLE CHIME NOTE.

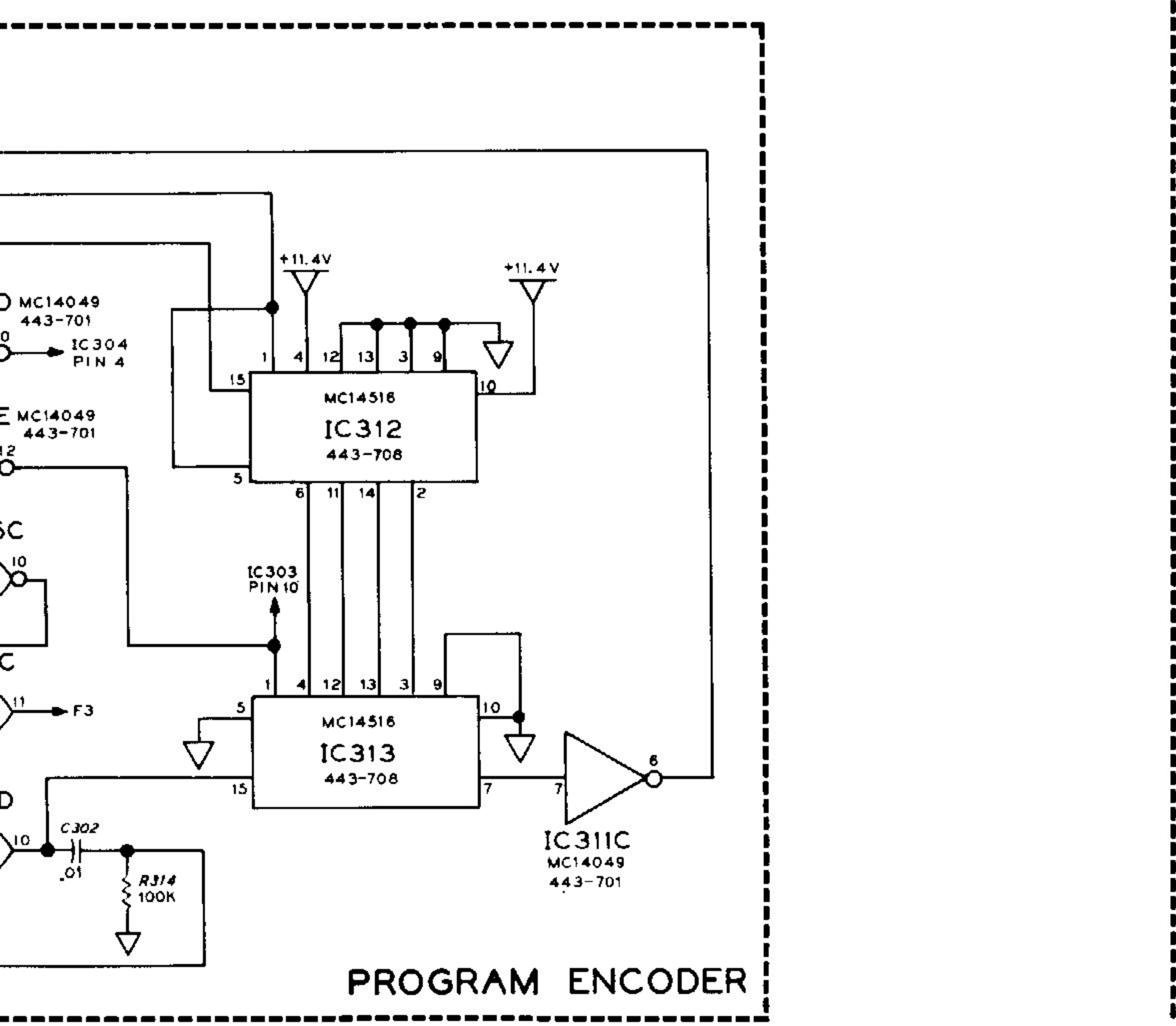




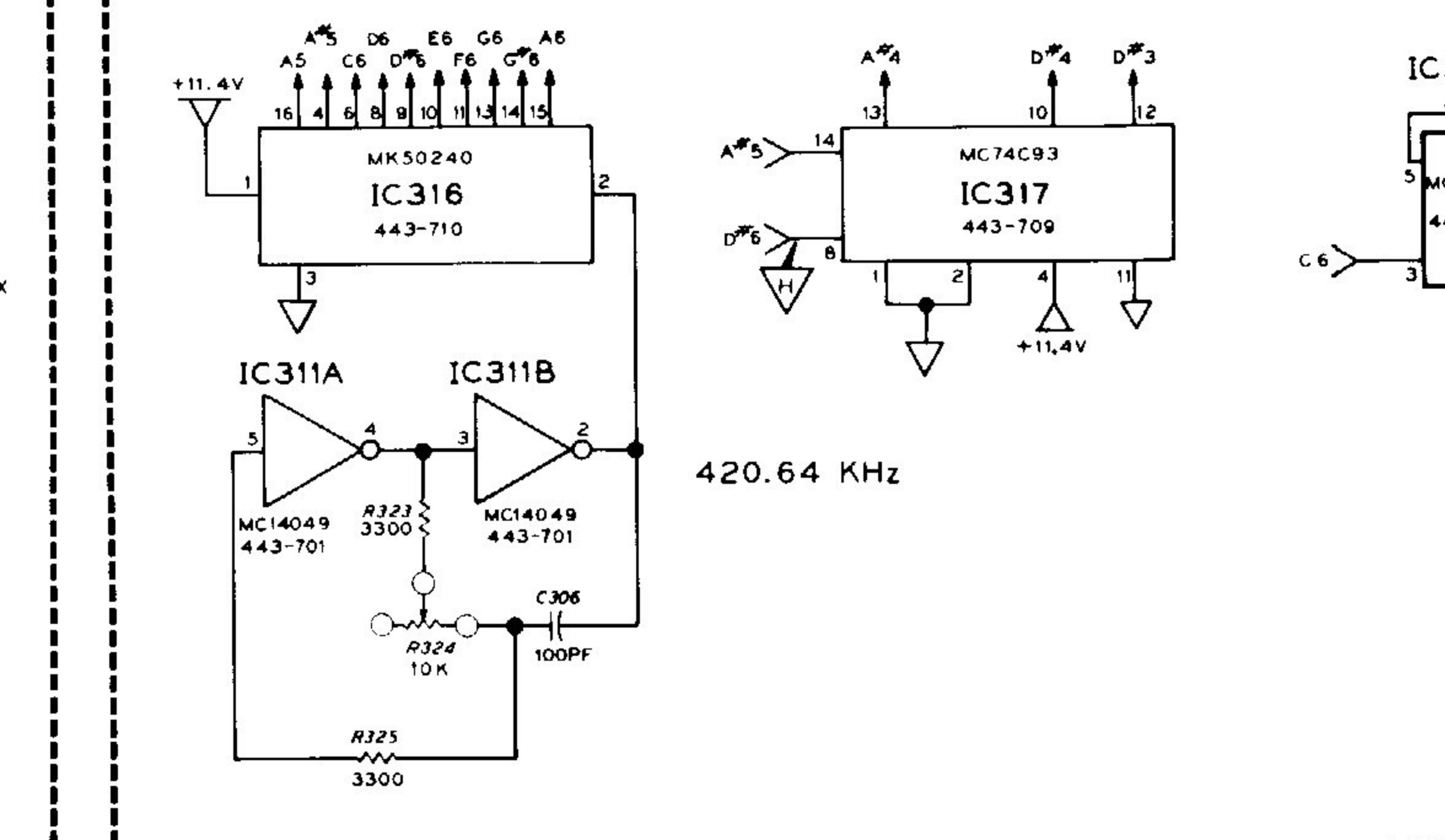
WAVEFORMS



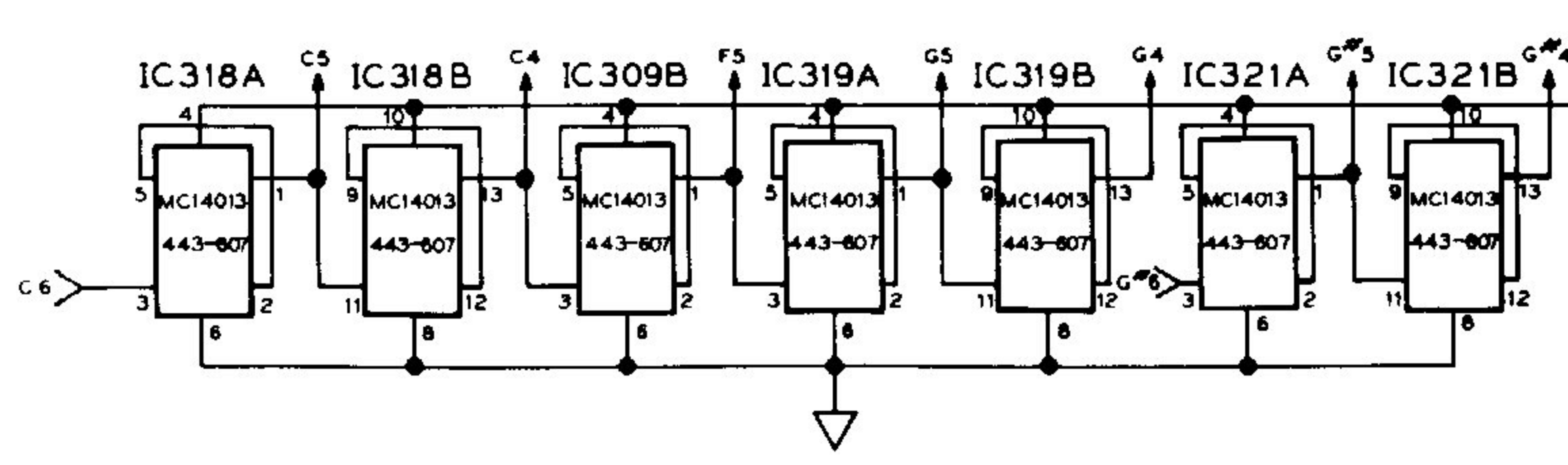
CHIMES SYNTHESIZER



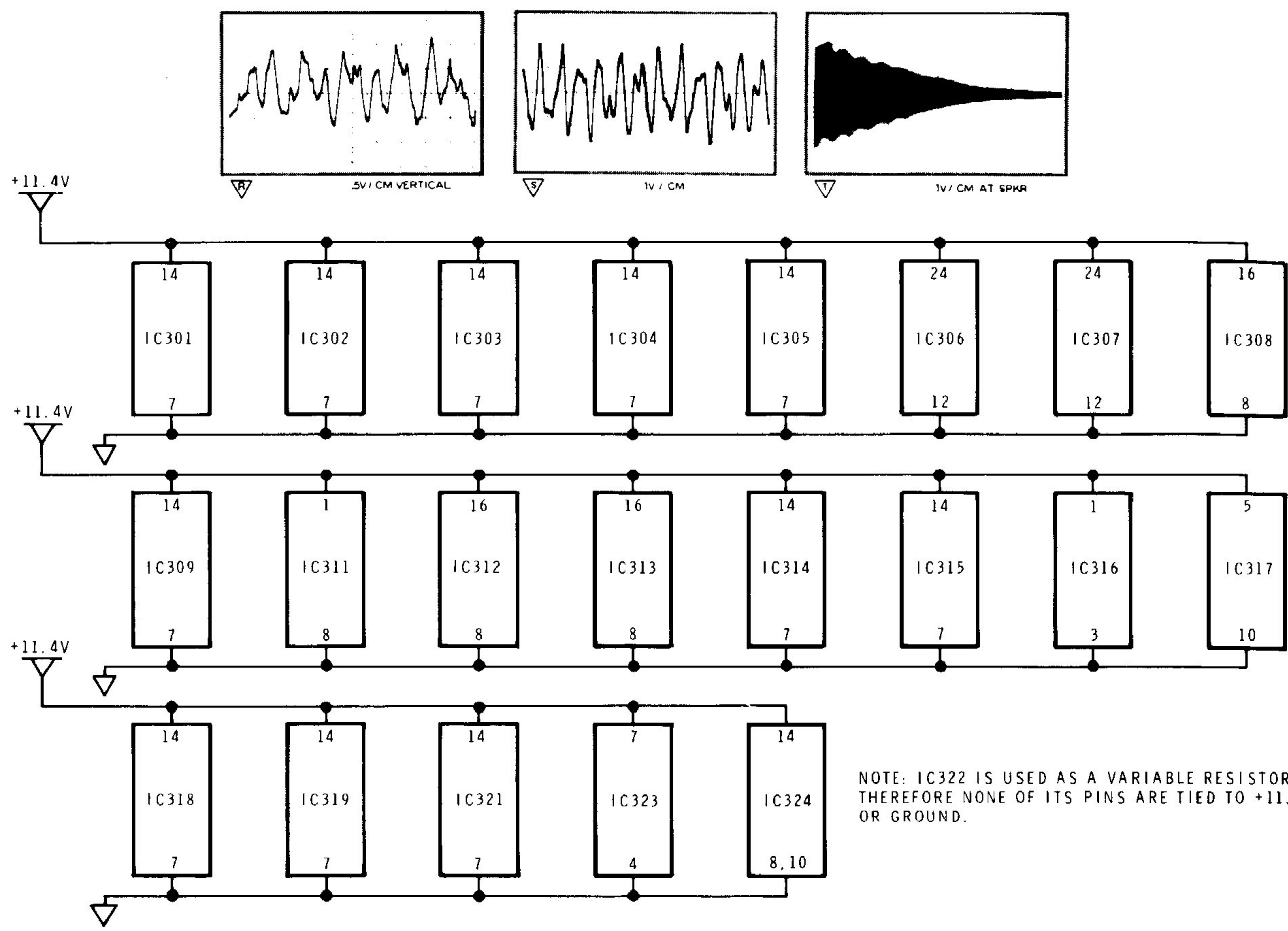
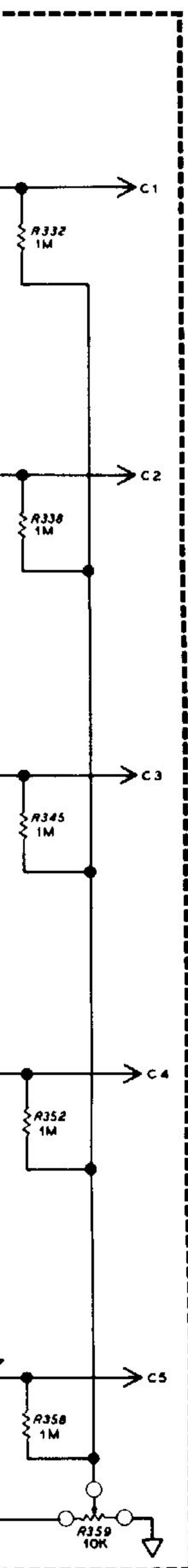
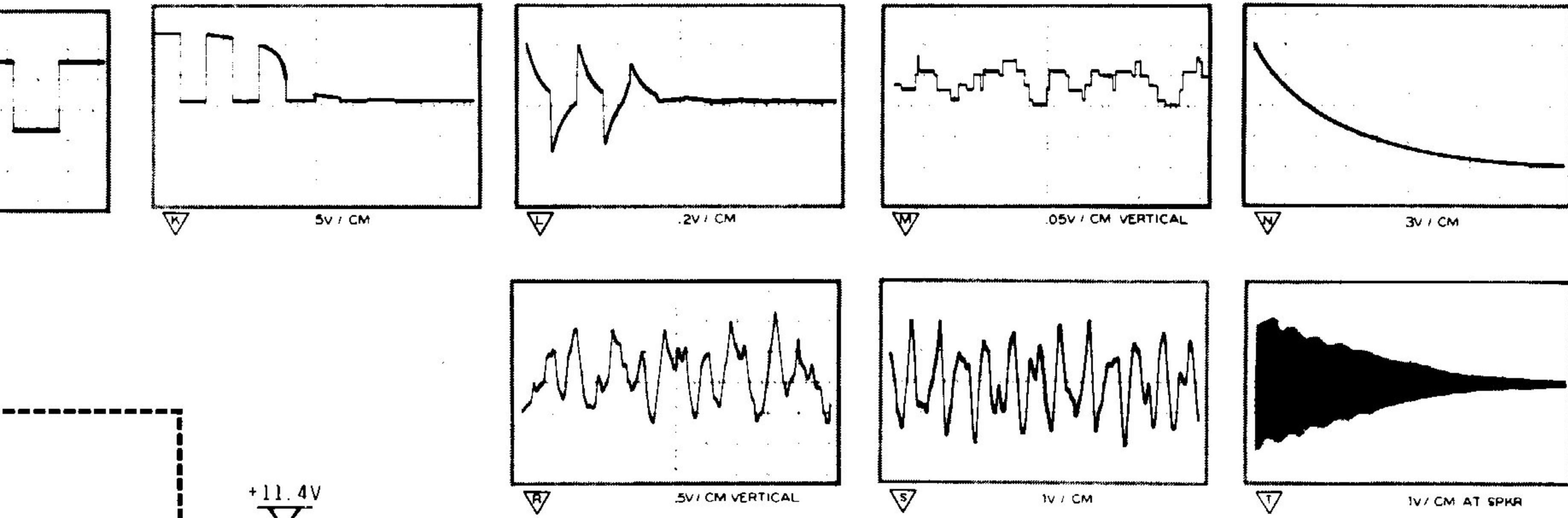
PROGRAM ENCODER



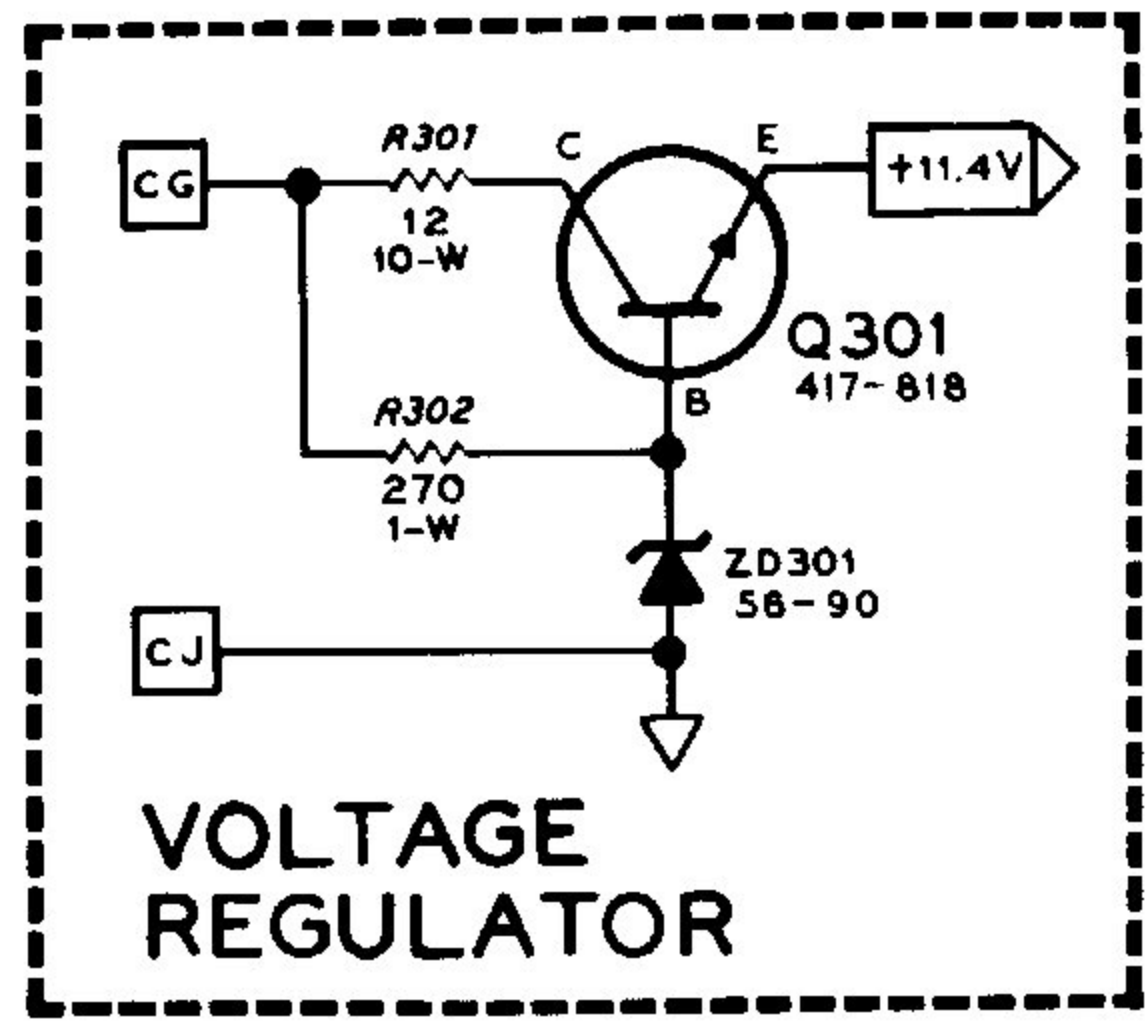
420.64 KHz



NOTE FREQUENCY SYNTHESIZER



NOTE: IC322 IS USED AS A VARIABLE RESISTOR; THEREFORE NONE OF ITS PINS ARE TIED TO +11.4V OR GROUND.

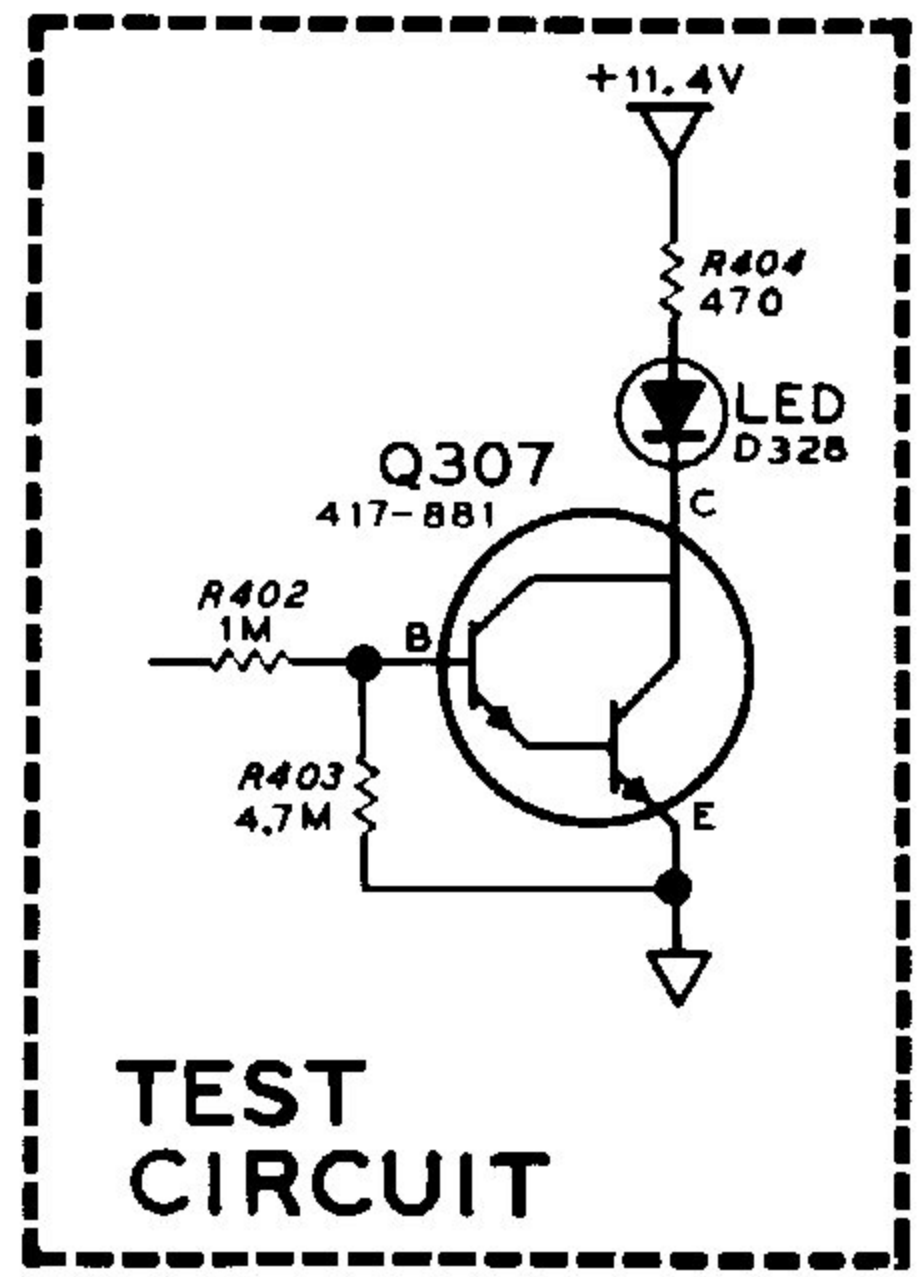


VOLTAGE REGULATOR

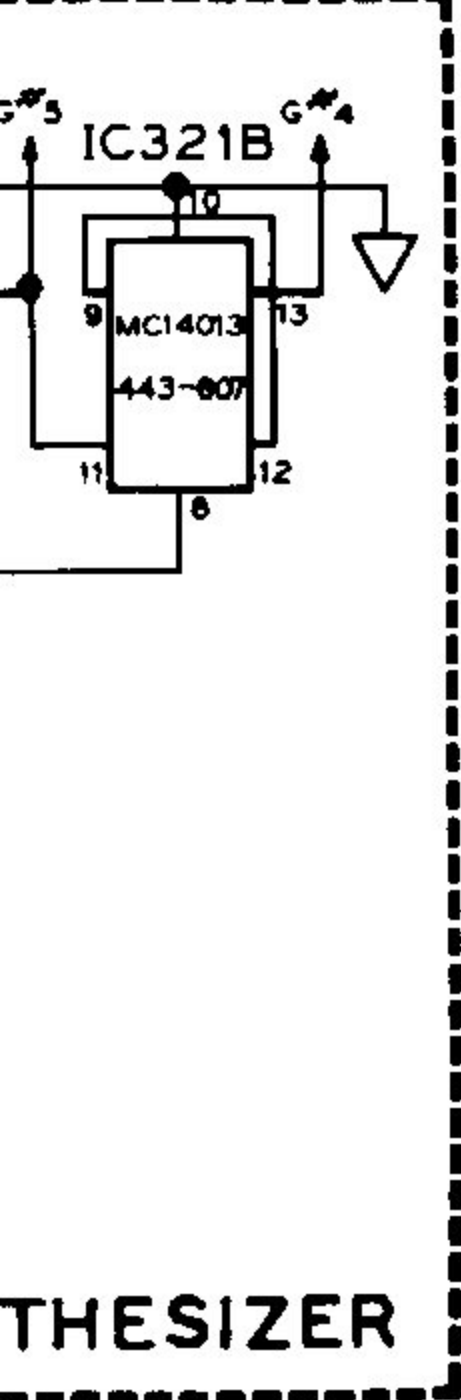
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TEST CIRCUIT



NOTES:

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