

Fig. 36-1. Digital musical notes.

Parts list

T1—HEP S0014

T2—HEP S0019

IC1, IC2—HEP C2004P

IC3—MC789P

C1, C2—10µF, 6V electrolytic

C3—0.02µF

R1—10kΩ, linear pot, 1W

R2—6.8kΩ, 1/2W

R3—3.9kΩ, 1/2W

R4, R5, R6, R7—100kΩ 1/2W

R8, R9, R10, R11—250kΩ,

linear pot, 1W

R12—390Ω, 1/2W

R13—22kΩ, 1/2W

R14—500Ω, linear taper pot, 1W

R15—4.7kΩ, 1/2W

B1—Two 1-1/2V C-cells in series

S1, S2, S3, S4—SPST switch

(optional for R8, R9, R10, R11),

Lafayette 34P02302V

S5, S6—SPDT switch Lafayette 99P64164V

J1—RCA type phono jack

Digital musical notes.

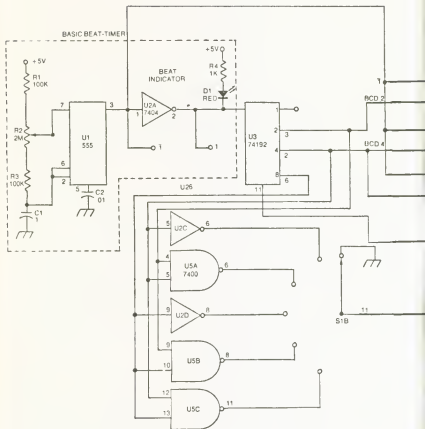
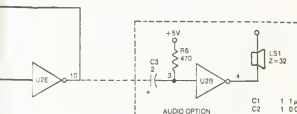
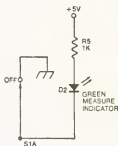
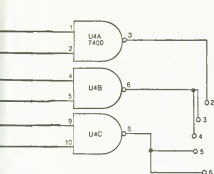


Fig. 36-2. The basic visual metronome is enclosed by the dashed-in area at the upper left. If another indication is desired for every second through sixth beat, the remaining circuits must be added, except for the audio operation. It can be added with either configuration.



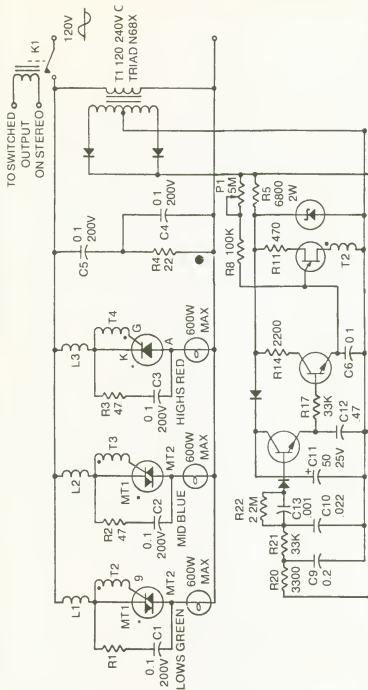
AUDIO OPTION

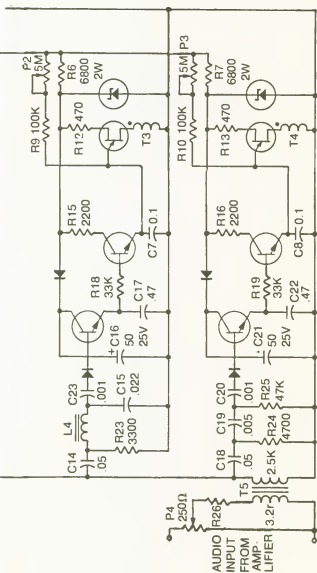
- C1 1 1  $\mu$ F, 12V
- C2 1 0.01  $\mu$ F
- \*C3 1 2  $\mu$ F, 12V
- D1 1 LED, LARGE GREEN DIFFUSED LENS
- D2 1 LED, LARGE RED DIFFUSED LENS
- \*LS1 1 32 OHMS MINIATURE
- R1, R3 2 100,000 OHMS, 1/8 WATT
- R2 1 2 MEGOHM POTENTIOMETER
- R4, R5 2 1000 OHMS, 1/8 WATT
- \*R6 1 470 OHMS, 1/8 WATT
- S1 1 6 POSITION, 2 POLE, WITH KNOB
- U1 1 555 TIMER
- U2 1 7404 HEX INVERTERS
- U3 1 74192 BCD/DECADE COUNTER
- U4, U5 2 7400 QUAD, 2-INPUT NAND

UNLESS OTHERWISE SPECIFIED  
 A ALL RESISTANCE IN OHMS  
 B ALL CAPACITANCE IN  $\mu$ F

REF DESIG	+5V	GND
U1	4, 8	1
U2	14	7
U3	16	8
U4, 5	14	8

\* FOR AUDIO OPTION ONLY





\*ON HEAT SINKS, THESE UNITS HAVE INTERNAL ISOLATION FOR TABS

Fig. 36-3. Schematic of the high performance color organ.