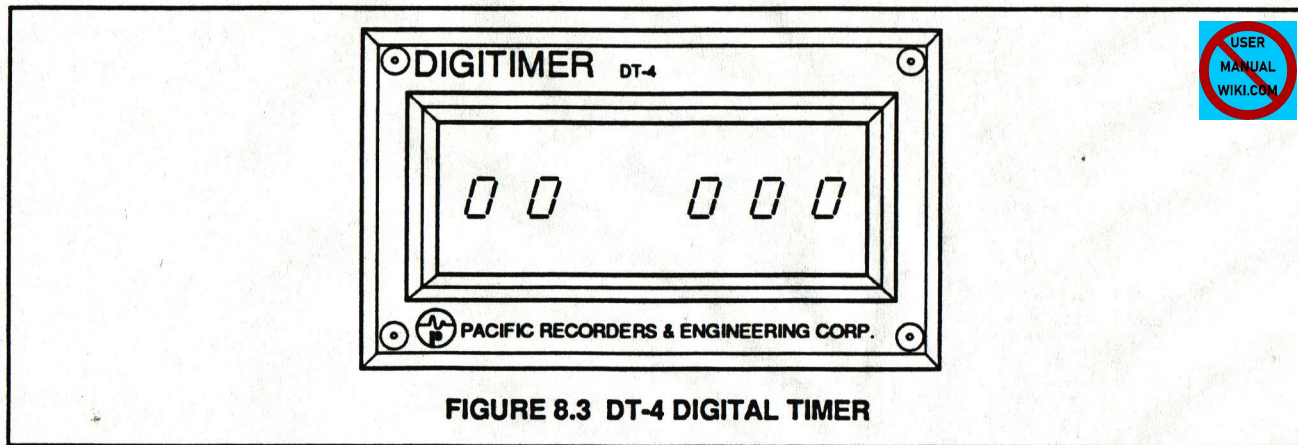


### 8.1.3 DT-4 Digital Timer

The DT-4 is a five-digit (minutes, seconds, tenths-of-a-second) digital timer which is controlled by either the Timer Control Panel (PR&E #99-27) or the console timer reset bus.



**NOTE:** A four-pin timer reset Molex connector is provided for connection to an external timer, if desired. This free-hanging connector is located in the console meter panel, immediately behind the timer position.

The Timer Control Panel is located in the narrow far right console position which would otherwise be occupied solely by the headphone jack, and functions as follows:



- When AUTO is selected on the Timer Control Panel, the switch will be illuminated and the timer will reset and restart whenever a Stereo Line Input Module with the "timer reset" function enabled is turned ON (reference Section 2.9.2).
- The RSET button resets the timer to zero.
- The HOLD button will hold the timer display at the present time count while the running time count continues internally. Releasing the HOLD button will display the running time count.
- The STRT button starts the timer.
- The STOP button stops the timer.
- Console headphone jack location.

## CIRCUITRY

The DT-4 is designed around MK50397 timer integrated circuit U4. The time base and display multiplex frequency is provided by crystal oscillator/divider circuit Y1 and U1. The segments of displays DS1 through DS5 are driven by transistors Q1 through Q7, while the digits are selected by transistors Q8 through Q12.

Power-up circuit R13, CR1 and C9 resets U4 to zero, and sets start/stop flip-flop U2A and U2C so that the NOT RUN line is high. An external START command causes the flip-flop to change state to the RUN condition. An external STOP command via U2C will set the flip-flop back to the STOP condition. An external RESET command via U2B will reset U4 to zero. An external HOLD command via U3D will momentarily hold the display at the present time count, while the real time count continues internally.

A READ or RUN command is routed via U3C, U3B and U3A to enable the tenth of second display, and, via Q13, to turn on the decimal point. Strapping J1 pin E to J1 pin F continuously enables both the tenth of second display and decimal point. A BLANK command to U4 allows the entire display to be blanked.

**NOTE:** In some cases it may be desirable to disable the tenth of second and decimal point indicators. This can be accomplished by cutting the strap between pins E and F (.1 SEC LOCK) on the timer connector.

