Instructions

IPC ELECTRONICS LTD.

DIGITAL MILLISECOND STOPCLOCK
IPC-3750-T

IMPORTANT
Please read these instructions carefully
before using apparatus

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Digital Millisecond Stopclock
IPC-3750-T

Introduction
The Digital Millisecond Stopclock is capable of timing to 9999 seconds with a max. resolution of 0.001s on an auto-ranging 4 digit display. The Stopclock has Start/Stop and Reset/Latch functions controlled by two push button switches on the front panel and also two 4mm sockets for starting and stopping the timing from external switches or timing gates.

Start/Stop Switch
Press the Start/Stop switch to start the timing and again to stop the timing, pressing the switch again will start the timing again adding to the time already displayed, press again to stop. This may be repeated as required.

Reset/Latch Switch
The function of this switch depends on whether the Stopclock is stopped or timing. If the Stopclock is stopped, pressing this switch will reset the display to 0.000. If the Stopclock is timing, pressing this switch will freeze the display at the time when the switch was pressed but keeping the timer counting, indicated by the display flashing. Pressing this switch again will un-freeze the display to show the time elapsed since the timer was started.

External Start/Stop
On the sides of the Stopclock there are two 4mm sockets, one red and one black. Each time these sockets are connected together the Stopclock will start or stop in the same manner as using the Start/Stop switch. An IPC Photo Timing Gate (IPC-3210-T) may be connected to these sockets to start and stop the timing. When using this Timing Gate the sockets should be connected red to red and black to black. Two IPC Photo Timing Gates can be connected in series, one to start the timer and the other to stop the timer.
By default the operation of the external start/stop is by a rising edge (an opening switch) this may be changed to a falling edge (a closing switch) if the reset/latch switch is kept pressed while the Stopclock is switched on.
Note: When a mechanical switch is used to trigger the timer care must be taken to ensure that switch 'bounce' does not cause spurious starts/stops. A 0.1μF capacitor connected across the switch contacts will usually cure this problem.

Battery
The digital Stopclock requires a 9V (PP3) type battery. Access to the battery compartment can be obtained by removing the four screws securing the base.