

Pro Timer III

Operating Instructions

BATTERY INSTALLATION

The Pro Timer III will operate with either a 9 volt ALKALINE battery or a 9 volt rechargeable battery. To install your battery, simply push the battery compartment latch and remove lid. Connect the 9 volt battery to the battery clip and reinstall lid.

BASIC OPERATION

The shot mode of operation will be automatically selected when turned on. To select the plate mode, simply insert the 1/8" plug wired to your stop plate into the hole marked "PLATE" on the back of the timer. Pushing the Power Switch on the bottom of the case to its mid position "INSTANT" will select an Instant Start. If it is pushed to the second position "DELAY", a random delayed start of 3 to 5 seconds will occur. To determine if the Pro Timer III is "on", simply look at the display. There will always be something in the display when it is "on". To start the Pro Timer III, simply press the "START" push button. The mode of operation selected will begin at the start beep.

If there appears to be a problem with the Pro Timer III, replace the battery with another new battery. This will tell you if there is a problem with the battery or with the Pro Timer III itself. Almost all problems are due to the battery.

MODES OF OPERATION

The Pro Timer III has four modes of operation. They are Shot Mode, Shot Mode with Par Time, Plate Mode and Plate Mode with Par Time. They are described in the following paragraphs.

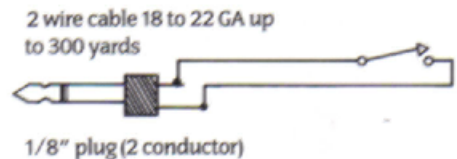
—Shot Mode use

The Pro Timer III will automatically be in the Shot Mode when the power switch is first turned on to the "DELAY" or "INSTANT" start position. Make sure the "HORN" switch is in the "ON" position, otherwise the buzzer will not sound. Push the "START" push button and the unit will provide a start beep. The time from the beginning of the start beep to your last

shot is frozen in the display. After your last shot, you can look at any other shot by pressing the Review button (REV). The shot number is displayed as long as you hold down the Review button (REV). When you let off the button the time from the start beep to that shot is displayed. By pressing the Display Time Difference button (DIF), you have the time from the shot you just displayed to the previous shot. To check, for example, your reload time, press the Review button (REV) until you get to the shot after the reload. Then press and hold the Display Time Difference button (DIF). This displays the reload time. To check which shot you are presently displaying, press and hold the Display Shot Number (NO) button. An important feature of this device is that it remembers the last shot you displayed in this sequence. For example, to check your reload time again, fire a new shot string. Then press the Review button (REV) once and then push and hold the Display Time Difference button (DIF). You now have your new reload time displayed with only two key strokes.

—Plate Mode use

To select this mode of operation, simply insert the 1/8" plug that is wired to the stop plate into the "PLATE" jack in the bottom of the Pro Timer III. Its presence in the jack is sensed by the Pro Timer III and the Plate Mode is then automatically selected. This mode operates the same as the shot mode except it uses a normally closed switch for a sensor. The switch can be a vibration type or a standard normally closed switch of any kind. Because the use of a vibration sensor is allowed, the minimum time between each hit is 2.5 seconds. A simple wiring diagram is shown in figure 1.



Switch must be closed when the plate is ready to be hit.

Figure 1

A unique feature of this mode is the ability of the Pro Timer III to detect an open circuit in the sensor line. If a line is shot in half, the word "OPEN" will be displayed and the Pro Timer III will be disabled so the next firing sequence cannot be started.

—Par Time use

In the Par Time mode a second "stop" beep will occur at the time set. The Par Time mode operates the same in the Shot mode or the Stop Plate mode.

The first thing you will want to do is set the Par Time desired. To do this press the "PAR SET" push button switch and the display will show a preset time of .00 seconds. To change this, simply press the push button for the digit you desire to change (.1, 1, 10) while holding down the "PAR SET" push button switch. Either hold the digit push button down for automatic increment or press the digit push button as many times as needed to achieve your desired par time. The digit will advance to 9 and then go back to zero and advance forward again. Releasing the "PAR SET" push button will save the time selected.

To run the Par Time sequence, simply push the "START" button and the buzzer will sound at a random time or instantly depending on your Power Switch selection. The display will show zeros at this time. The Par Time will begin at the start of the tone and a stop tone will occur at

the time previously set. After the stop beep has occurred, the time to the last shot will show in the display and the shots may be reviewed. The review capability is useful in determining how many shots occurred after the stop beep. Note that the BEGINNING of the stop beep occurs at the time set and has a duration of .3 seconds. If you have forgotten the time you set for the par time, simply push the "PAR SET" push button switch. The par time will appear in the display. Releasing the "PAR SET" push button and pushing the other push buttons will still allow reviewing of the shot string.

—Man on man operation

The man on man operation is accomplished by coupling two Pro Timer III's together to start simultaneously. Then by using the plate inputs on both timers, the times for the two contestants can be recorded. The timers are coupled together using a 2 wire cable wired to 1/8" jacks. Make sure the wire colors are wired to the same points on the 1/8" jacks. They are then plugged into the "START" jack on the bottom of each timer.

—Remote start operation

To remote start a Pro Timer III, simply wire a remote normally open switch to an 1/8" jack using a 2 wire cable. The 1/8" plug is inserted into the "START" jack on the bottom of the timer. The switch can be mounted under a start plate to start the timer when the plate is knocked off. It can also be connected to a switch that simultaneously starts a moving target.

OPERATING CONSIDERATIONS

The normal operating time for a fully charged rechargeable battery is 4 hours minimum. A Mallory Duracell 9 volt alkaline battery will give a minimum of 10 hours continuous operation. The extended operating time option will give 10 hours of operating time for a rechargeable battery and 25 hours for an ALKALINE battery.

The indication that the battery is too low is the first period is shown on the LCD display.

If the Pro Timer III is left on a flat surface in hot sun, the display may turn black. This is only a temporary condition and is a warning that the device is close to its

maximum temperature limit. A few minutes in the shade will usually restore the display.

The shot sensor is located in back of the holes in the front of the case. While pressing the start button, be careful not to cover the shot sensor with your hand. Doing this may couple the buzzer noise into the shot sensor and record it as a shot. If this should happen, the first recorded time would be less than 0.3 seconds, which is the buzzer duration.

Also, during operation, make sure that there are no obstructions between the shot sensor and the person firing. This includes other persons or the operators hand or clothing. For optimum operation the front of the case should be pointed at the shot being recorded and within 6 feet. The official holding the timer should stay on the contestant's left side so that ejected cases do not strike the timer and cause a false reading. If the contestant is firing at steel plates, the front of the Pro Timer III should not be in line with the shooter and the plates. Otherwise, the sound of the plate being hit may be recorded.

Multiple timers may be used to time events with about 50 ft. between contestants. Also it helps if the official keeps himself between the Pro Timer III and the other contestant in order to block the sound of the shot.

RELAY DRIVER

This option enables the Pro Timer III to run a large horn for a start signal. The relay is pulled in at the same time the internal buzzer beeps. The cost for this is \$75.00. The "RELAY" jack is provided as standard on the Pro Timer III so the timer does not have to be sent back to be able to use this option. The "HORN" switch is normally used to disable the internal buzzer of the Pro Timer III.

FUTURE ENHANCEMENTS

The Pro Timer III is controlled by a micro-processor. This means that any future enhancements or operation variations are easily made by a memory change. CEI will offer these changes for a reasonable fee as they become available.

SPECIFICATIONS

Operating temperature range: 20° F to 110° F. Accuracy: Quartz crystal controlled (within 1/100 second)

RETURN SHIPPING ADDRESS

Competition Electronics, Inc.
3469 Precision Drive
Rockford, IL 61109
United States of America



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Electronics, Inc.**

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3469 Precision Drive
Rockford, IL 61109
United States of America