

TRACEABLE® BENCH TIMER INSTRUCTIONS

SPECIFICATIONS

Display:	1/2" 8-digit LED
Timing capacity/resolution format:	
Seconds:	0.001 to 99999.999 sec
Minutes:	0.0001 to 9999.9999 min
Hours:	0.00001 to 999.99999 hr
Clock:	0.01 sec to 99 hr, 59 min, 59 sec, 99 hundredths
Accuracy:	0.001% at 25°C
Formats:	Seconds, minutes, hours, clock
Modes:	Start/Stop, cumulative, interval, time-out
Channels:	12 simultaneous timings
Alarms:	4 alarms
Size/Weight:	6 ^{5/8} x 4 ^{3/4} x 3 ^{1/2} " / 12 oz

CONTROLS/INDICATORS

ON/OFF button turns unit on and off.

FORMAT/(ALM↑) button permits timing in four different formats:

decimal seconds, decimal minutes, decimal hours and clock.

Illuminated LED indicates the current timing format. During alarm operation, **FORMAT/(ALM↑)** button allows user to advance digits.

DISPLAY/(ALARM) button allows user to view the running time of the internal clock while unit is in Cumulative or Interval Timing mode.

During alarm operation, **DISPLAY/(ALARM)** button permits setting, changing and deleting an alarm.

MODE/(ALM→) button permits timing in four different modes: start/stop, cumulative, interval, and time-out. Illuminated LED indicates the current timing mode. During alarm operation, **MODE/(ALM→)** button allows user to select each digit on display for individual digit advancement.

RESET button resets the internal clock and display to zero.

START/STOP button permits starting and stopping timing operations, performs time-outs and resets display to zero, depending on current mode and number of times pressed.

TIMING OPERATION

Single action timing

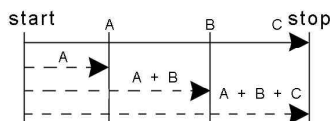
In Single Action Timing mode, unit times uninterrupted single events.



1. Press **MODE/(ALM→)** button until **START/STOP** light illuminates.
2. Press **FORMAT/(ALM↑)** button until desired format light illuminates.
3. If display is not at zero, press **RESET** button to return display to zero.
4. Press **START/STOP** button to begin timing.
5. Press **START/STOP** button a second time to stop clock for a readout.
6. Press **START/STOP** button a third time to automatically reset the internal clock and return the display to zero. This action also restarts clock.

Cumulative Timing

In Cumulative Timing mode, unit records any number of cumulative timing breaks while internal clock continues.

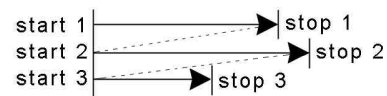


NOTE: Blinking digits on display indicate the internal clock continues.

1. Press **MODE/(ALM→)** button until **CUMULATIVE** light illuminates.
2. Press **FORMAT/(ALM↑)** button until desired format light illuminates.
3. If display is not at zero, press **RESET** button to return display to zero.
4. Press **START/STOP** button to begin timing.
5. Press **START/STOP** button a second time to "freeze" display for recording a time while the internal clock continues to run.
6. Successive presses of **START/STOP** button "freezes" and shows the accumulated time from the original start while the internal clock continues to run.
7. Press **DISPLAY/(ALARM)** button to "unfreeze" display and show the cumulative running time.

Interval Timing

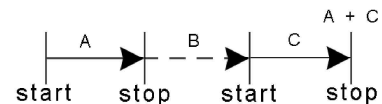
In Interval Timing mode, unit records any number of noncumulative timing breaks.



1. Press **MODE/(ALM→)** button until **INTERVAL** light illuminates.
2. Press **FORMAT/(ALM↑)** button until desired format light illuminates.
3. If display is not at zero, press **RESET** button to return display to zero.
4. Press **START/STOP** button to begin timing.
5. Press **START/STOP** button a second time to "freeze" display while the internal clock automatically resets to zero and begins timing.
6. Successive presses of **START/STOP** button "freezes" the display and shows the elapsed time since the previous press.
7. Press **DISPLAY/(ALARM)** button to "unfreeze" display and show the interval running time.

Time-Outs

In Time-out mode, unit permits any number of stops to be performed. Unit stops and restarts internal clock upon user command. Total cumulative time will not include time-outs.



1. Press **MODE/(ALM→)** button until **TIME OUT** light illuminates.
2. Press **FORMAT/(ALM↑)** button until desired format light illuminates.
3. If display is not at zero, press **RESET** button to return display to zero.
4. Press **START/STOP** button to begin timing.
5. Press **START/STOP** button again to stop timing for a time-out (both internal clock and display will be halted).
6. Press **START/STOP** button a third time to resume timing from the point at which it was stopped.

Simultaneous Timing

Up to 12 events may be timed using any combination of the available timing modes (start/stop, cumulative, interval, time-out) and timing formats (decimal seconds, decimal minutes, decimal hours, clock). To view the status of any timed event, simply use **MODE/(ALM→)** and **FORMAT/(ALM↑)** buttons to enter appropriate timing mode and format.

WARNING: When an attempt is made to set more than 12 different event times or more than 4 alarms, unit emits a signal and the display will not respond to the keyboard.

Continuous Timing

For events lasting longer than the unit's maximum timing capacity, unit instantly rolls over to zero and continues timing.

TRACEABLE® BENCH TIMER INSTRUCTIONS (continued)

ALARM OPERATION

Up to four alarms may be set. When an alarm time is reached, an audible alarm sounds while timing continues.

WARNING: Turning off unit clears all preset alarms.

Setting an Alarm

1. Press MODE/(ALM→) button until desired mode light illuminates.
2. Press FORMAT/(ALM↑) button until desired format light illuminates.
3. If display is not at zero, press RESET button to return display to zero. Alarms may not be set unless display is at zero or timing is stopped.
4. Press DISPLAY/(ALARM) button. The far lefthand digit will blink, indicating the alarm is ready to be set.
5. Press MODE/(ALM→) button to select each digit on display until desired digit begins blinking.
6. With desired digit blinking, press FORMAT/(ALM↑) button to advance digit to desired setting.
7. Repeat steps 5 and 6 until desired alarm setting is displayed.
8. Press DISPLAY/(ALARM) button to return to normal timing operation. The alarm is now set.
9. Press START/STOP button to begin countdown.
10. Press DISPLAY/(ALARM) button to silence a sounding alarm. (Any button may be pressed to silence a sounding alarm, but DISPLAY/(ALARM) button will not accidentally turn off or reset unit.
11. Press START/STOP button to end timing.
12. To restart preset countdown, press START/STOP button again.

Viewing an Alarm

1. To view an alarm setting, press MODE/(ALM→) and FORMAT/(ALM↑) buttons until the appropriate lights are illuminated.
2. Press DISPLAY/(ALARM) button. The far lefthand digit will blink, indicating the alarm is ready to be set. The current alarm setting will be displayed.
3. Press DISPLAY/(ALARM) button to return to normal timing operation.

Deleting an Alarm

1. To remove a preset alarm, press MODE/(ALM→) and FORMAT/(ALM↑) buttons until the appropriate lights are illuminated.
2. Press DISPLAY/(ALARM) button. The far lefthand digit will blink, indicating the alarm is ready to be set. The current alarm setting will be displayed.
3. Press RESET button to clear display.
4. Press DISPLAY/(ALARM) button to return to normal timing operation.

Adjusting Alarm Volume

The unit features a Volume Adjustment Screw that controls the volume of sounding alarms and the audible “click” produced when any button is pressed.

1. Turn unit over to expose its four rubber feet.
2. Using a small screwdriver, turn Volume Adjustment Screw, located in hole on bottom of case, clockwise to increase alarm and “click” volume. A counterclockwise turn decreases alarm and “click” volume.

WARNING: Do NOT insert anything into the sound transducer hole located at the rear of the unit. The alarm speakers within may be damaged.

Default Alarm Sounds

When a preset alarm setting is reached, unit will sound an alarm and the corresponding mode/format lights will illuminate to indicate which alarm is sounding. If more than one alarm sounds, the first alarm heard will sound one beep per second. The next alarm will sound two beeps per second, etc.

AC CONNECTION

Connect the power supply to a 120-volt, 60 Hz AC electrical outlet and insert the DC power plug into the jack located at the rear of the digital timer. Use only the power supply supplied with the unit. When plugged into an outlet the power supply is normally warm to the touch.

CLEANING

Clean the membrane switch with a clean, lint-free cloth. A damp cloth may be used to clean a spot. Do NOT use cleaning fluids or solvents.

BATTERY BACKUP

The unit has a 9-volt alkaline backup battery for uninterrupted operation during brownouts or power failures. Replace battery annually. A fresh battery will maintain timing continuously for over one week.

NOTE: During power outages, all timing operation will be maintained by the backup battery. However, the digital and LED displays will NOT function and the buttons will NOT respond when pressed.

1. Verify unit is unplugged, turn unit over and remove the four rubber feet.
2. Using a screwdriver, remove the screw from each of the rubber foot positions.
3. Remove lower portion of case to expose battery compartment.
4. Attach the supplied 9 volt alkaline battery to the battery clip. Replace battery Cat. No. 1112.
5. Reposition lower portion of case and reattach the case by inserting and tightening the four screws removed in step 2. Replace rubber feet.

WARRANTY, SERVICE OF RECALIBRATION

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