# TRACEABLE® 60-MEMORY STOPWATCH INSTRUCTIONS

# **SPECIFICATIONS**

Display: 3-line 3/16" 7-digit LCD

Range: 9 hr, 59 min, 59 sec, 99 hundredths

**Resolution:** 0.01 sec **Accuracy:** 0.001%

Size / Weight:  $2^{1/4} \times 2^{5/8} \times {}^{3/4}$ ", 2 oz

Features: Single action, time-out, interval split, cumulative split and

continuous rollover timing; memory recall; time-of-day clock;

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S 0:0 7 43 18

0:08 2528

Figure 1 Traceable® 60-Memory Stopwatch

time-of-day alarm; date

# QUICK REFERENCE (Figure 1)

A. LAP/SL/FS - Permits recording of up to 99 separate interval split (lap) times and cumu-lative split times while in Chronograph mode. If Memory Recall function is activated, LAP/SL/FS button recalls the fastest and slowest lap times recorded. RESET - In Chronograph, Timer and Pacer modes, permits resetting display to zero.

**SELECT** - Selects each digit for programming while in Clock and Timer modes.

PACE SET - In Pacer mode, permits setting pacer frequency.

B. START - Begins count-up while in Chronograph and Pacer modes. Begins count-down while in Timer mode.

STOP - Halts count-up for a time-out while in Chronograph and Pacer modes. Halts count-down while in Timer mode.

**AVERAGE** - Permits viewing the average lap time of laps traversed while in Chronograph mode and the Memory Recall function is activated. **SET** - Advances each selected digit while in Clock and Timer modes.

- C. RECALL Activates/deactivates time-of-day alarm while in Clock mode. Permits viewing all time-outs, interval split (lap) times, cumulative split times and the total elapsed time recorded while in Chronograph mode. In Timer mode, permits a 30-second time-out count-down.
- D. MODE Permits switching between Clock, Chronograph, Timer and Pacer modes

# **OPERATIONS**

# Clearing the Display to Zero

- In Chronograph mode, verify timing operation is stopped and press RESET button to clear display to zero.
- In Timer mode, verify timing operation is stopped and press RESET button. The first press clears display to previously set time. The second press clears display to zero.
- In Pacer mode, verify timing operation is stopped and press RESET button to clear display to zero.

# **Clock Operation**

- 1. Press MODE button until alarm time, date and time of day are displayed.
- Press SELECT button to select digits for setting in the following order: Alarm time, year, month, date, day, 12/24 hour, hours, minutes and seconds.
- Press SET button to advance digits. Press and hold SET button for rapid advancement.
- 4. Continue pressing SELECT and SET buttons until the alarm, time of day and date are set as desired.

**NOTE**: Day indicators appear in the upper left corner and are abbreviated as follows: Monday (MO), Tuesday (TU), Wednesday (WE), Thursday (TH), Friday (FR), Saturday (SA), Sunday (SU).

 Once all settings are entered as desired, press SELECT button to end clock setting process and to return to normal Clock mode. Or, press MODE button at any time while setting the clock to return to normal Clock mode.

#### Time-of-Day Alarm

Follow steps 1-5 of "Clock Operation" section to set the time-of-day alarm. The alarm is auto-matically activated when an alarm time is set.

To deactivate the time-of-day alarm, press RECALL button while in Clock mode. "AL" indicator, in the upper right corner of display, flashes to indicate time-of-day alarm is activated. "AL" indicator does *not* flash when alarm is deactivated.

When the alarm time is reached, three short beeps sound for 15 seconds. If the unit is *not* in Clock mode when the alarm time is reached, three short beeps sound once only.

# Chronograph (Stopwatch) Operation

Unit records up to 99 time-outs, interval split (lap) times and cumulative split times taken. With 60 memories available, it also permits recalling up to 59 timing events taken and total elapsed time recorded during chronograph operation.

#### Time-In/Time-Out Timing

- Press MODE button until "Lap, Split, Chrono" appear on the display. Unit is in Chronograph mode.
- Press START button to begin count-up. The bottom row begins recording total elapsed time.
- Press STOP button to stop count-up for a time-out. "Stop" appears on the right side of bottom row to indicate a time-out is in progress.
- Press START button to restart count-up. The bottom row resumes count-up from the point at which it was stopped. "Stop" no longer appears

**NOTE**: Any number of time-outs may be taken by repeating steps 3 and 4 listed previously.

To reset chronograph, press the RESET button while count-up is stopped. This will clear the display to zero.

#### **Continuous Timing**

For timing that lasts over 10 hours, the unit will instantly roll over to zero when the maximum display is reached and will continue timing. Simply make note of how many units of 10 hours have elapsed.

## Cumulative and Interval Split (Lap) Timing

Cumulative split timing measures partial times while the stopwatch continues to run and measure total elapsed time.

Interval split (lap) timing measures each round of timing (non-cumulative).

- Press MODE button until "Lap, Split, Chrono" appears on display. Unit is in Chronograph mode.
- Press START button to begin count-up. The bottom row begins recording total elapsed time.
- Press LAP button to record an interval split (lap) time and a cumulative split time. Interval split (lap) time is shown on the top row while the middle row shows cumulative split time.
- Each press of the LAP button records a new interval split (lap) time and a new cumulative split time. Lap counter, located on left side of top row, keeps track of the number of interval split (lap) and cumulative split times taken.

**NOTE**: Up to 99 interval split (lap) times, cumulative split times and timeouts may be recorded but, since there are 60 memories, only the first 59 and the total elapsed time are shown during recall.

- When all desired interval split (lap) and cumulative split times have been recorded, press STOP button to halt the count-up.
- 6. While count-up is stopped press RESET button to clear display to zero.

#### Recalling Cumulative Splits, Interval Splits (laps) and Time-Outs

Unit is equipped with a Memory Recall function that permits viewing up to 60 previously recorded interval split (lap) times, cumulative split times and time-outs when either running or stopped in the Chronograph mode.

- Verify unit is in Chronograph mode and at least one time-out or lap time has been recorded.
- 2. Press RECALL button to access Memory Recall function. At this point, count-up may be running or stopped. "Recall" appears on left side of middle row. Interval split (lap) records are shown on the top row and cumulative split records are shown on the middle row. The lap counter indicates which lap record is being viewed. Time-outs are shown on the bottom row with a "STOP" indicator.
- With each press of the RECALL button, unit cycles through all time-out, interval split (lap) and cumulative split records. Once all recorded memories have been displayed, the next press of the RECALL button returns unit to normal chronograph mode and "Recall" no longer appears.
- At any time, the memory Recall function may be halted by pressing the MODE button. This action returns display to normal Chronograph mode and "Recall" no longer appears.

**NOTE**: Up to 99 interval split (lap) times, cumu-lative split times and timeouts may be recorded but, since there are 60 memories, only first 59 and total elapsed time are shown during recall.

After stopping count-up, clear the display to zero by pressing RESET button.

## TRACEABLE® 60-MEMORY STOPWATCH INSTRUCTIONS (Continued)

## Recalling Average/Fastest/Slowest Lap Times

At any time the Memory Recall function is activated, while the unit is in Chronograph mode, the fastest, slowest and average lap times recorded are available for viewing.

- Verify unit is in Chronograph mode and a number of laps have been recorded (see "Cumulative and Interval Split (Lap) Timing" section).
- Verify Memory Recall function is activated by ensuring "Recall" is on the left side of the middle row or press RECALL button to activate the Memory Recall function.
- While Memory Recall function is activated, press the LAP/SL/FS button to view the fastest lap time recorded. "FS" is displayed. A second press of the LAP/SL/FS button displays the slowest lap time recorded. "SL" is displayed.
- 4. While Memory Recall function is activated, press AVERAGE button to view an average of all lap times recorded. "AV" is displayed.

**NOTE**: If the lap counter exceeds 99, or if a lap or split time is greater than 9 hours, 59 minutes, 59 seconds, the power of the computer has been exceeded and the "AV" information will be disabled. "AV——" is displayed. If a lap or split time is greater than 9 hours, 59 minutes, 59 seconds, the power of the computer has been exceeded and "SL" and "FS" information will be disabled.

- 5. Press RECALL button to return to normal Memory Recall function.
- Press MODE button at any time to return to normal Chronograph mode. "Recall" will no longer be displayed.

#### **Timer Operation**

Unit permits setting any count-down time from 1 second to 9 hours, 59 minutes and 59.99 seconds. Unit automatically recycles upon com-pletion of count-down and tracks the number of cycles completed. A preset 30-second time-out period is also available at the touch of a button.

- Press MODE button until "TR" appears on left side of top row. Unit is in Timer mode.
- Press SELECT button to select the far left digit along the top row for setting. Each press of the SELECT button will cause the next digit to begin flashing, indicating it is ready to be set.
- After selecting the appropriate digit (indicated by flashing) for setting, press SET button to advance the digit. Press and hold SET button for rapid advancement.
- 4. Repeat steps 2 and 3 until top row indicates the desired setting.
- 5. Press SELECT button to complete the setting process. The current setting will be shown in both the top and middle rows.
- Begin count-down by pressing START button. At this time, the middle row begins counting down while the top row maintains the current setting.
- 7. When zero is reached, the alarm sounds, the count-down immediately begins again and the counter on the bottom row advances by one. Two short beeps sound for 15 seconds if the unit is in Timer mode. If the unit is any other mode when zero is reached, two short beeps sound once.

**NOTE**: If count-down is set for 29 seconds or less, two short beeps sound once when zero is reached even if the unit is in Timer Mode.

- Press either RECALL, MODE, or RESET button to silence the sounding alarm.
- Press STOP button to halt the count-down. "Stop" appears on right side of bottom row.
- 10. While count-down is halted, press RECALL button to activate a 30-second time-out on top row of display. At zero, a single beep will sound and the display will return to the point at which it was stopped. Pressing RECALL at any time during the 30-second time-out will return the display to the point at which it was stopped.
- While count-down is halted, press RESET button to return to the previously set count-down time and to return bottom row to zero.
- 12. A second press of the RESET button resets the display to zero.

#### **Pace Operation**

- Press MODE button until "Pace" appears along top of display Unit is in Pacer mode.
- Advance the pacer frequency (beeps per minute) by pressing the PACE SET button. Pacer frequency will advance in the follow-ing order: 10, 20, 30, 40, 60, 80, 120, 160, 240, 320. The pacer frequency indicates how many beeps will sound per minute.
- Press START button to begin counting up. A beep will sound the exact number of times per minute set in the pacer frequency. The top row displays total elapsed time, the middle row counts the number of times a beep is sounded and the bottom row displays the preset pacer frequency.

NOTE: The counter has a limit of 9999.

- Press STOP button to halt pacer for a time-out. Press START button to continue count-up at the point in which it was stopped. An unlimited number of time-outs may be taken.
- 5. Reset the pacer by pressing RESET button while count-up is stopped.

NOTE: The pacer will automatically reset if there is a mode change.

#### ALL OPERATIONAL DIFFICULTIES

If this unit does not function properly for any reason, replace the battery with a new high-quality battery (see "Battery Replacement" section). Low battery power can occasionally cause any number of "apparent" operational difficulties. Replacing the battery with a new fresh battery will solve most difficulties.

## **BATTERY REPLACEMENT**

A faint display, incorrect display or no display are all indicators that the battery must be replaced To replace the battery, remove the screws on the back of the unit. Remove the back cover.

CAUTION: Take care to avoid dislodging parts inside.

Unscrew and remove battery contact. Replace the exhausted battery with a new lithium battery. Screw down the battery contact and replace the back cover, tighten and secure the screws. Replacement battery Cat. No. 1005.

Test Equipment
Depot

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