



## CP 540 CHRONOPRINTER 540

### Innovation and avant-garde give rise to excellence

TAG Heuer has gathered all its timing know-how and professionalism to produce this new timing device, resolutely dedicated to the future, combining high technology and precision.

The CHRONOPRINTER CP 540 is the culmination of many unique design advantages, confirming TAG Heuer's extensive knowledge and experience in the field of highly precise time measurement for sport.

#### ➤ FLEXIBILITY

The numerous integrated timing modes will satisfy the most demanding timekeeper. The CP 540 is able to accommodate the majority of sports disciplines operating as a stand-alone unit. When connected to a PC running TAG Heuer's extensive range of race management softwares, it is also the ideal time base for all professional sports-timing.

#### ➤ PRECISION

The CP 540's precision time base and buffered inputs guarantee measurements accurate to 1/100,000 of a second.

#### ➤ SIMPLICITY

The hallmark of TAG Heuer timing philosophy. The operator has only a few essential keystrokes to master. Mistakes are kept to a minimum, and recovery from errors quick and painless.

#### ➤ CONFORT

The large graphic LCD display with backlighting affords very clear vision of the timing information in all situations. The ergonomic, intuitive, snap-action keyboard provides well-spaced and extremely precise keys. The timekeeper will easily navigate the keyboard, even with gloves on.

#### ➤ DESIGN

The originality of the design of the CP 540 is obvious. The choice of the materials with its robust ergonomics have been carefully studied and developed for durability in any environment.

#### ➤ EXPANDABILITY

The CP 540 can be programmed with future and even custom timing modes through its exclusive bi-directional connection with a PC.



# avant-garde



# CP 540

## CHRONOPRINTER 540

### Integrated Timing Modes

- **PTB SEQUENTIEL**  
Sequential recording of Time-of-Day on 4 channels with an external PC. Using bi-directional communication with a PC running TAG Heuer Software, it is possible to print all net times, current ranking and even the competitor name and affiliation directly on the CP 540 printer.
- **NET TIME**  
Stand-Alone net timing using Start and Finish times with automatic or manual numbering.  
Keypad shortcuts for corrections and RECALL of memorized times for identification or modification. Ranking list and total time results, even if several runs are added. BIBO available in Alpine Ski mode.
- **NET TIME + 2 INTER**  
Start, with two intermediate times and finish time. Automatic or manual numbering. Ranking list (as with NET TIME mode).
- **PARALLEL SEQUENTIAL**  
Independent Start and Finish times on parallel race courses with competitor numbers. Ranking and addition of runs.
- **PARALLEL DIFFERENTIAL**  
Time difference at the finish on parallel race courses. Penalty and listing of runs.
- **TRAINING**  
Start with two intermediate and finish times (automatic numbering). Run ranking and listing for each competitor in different runs.
- **SPLIT & SPLIT/LAP**  
Split times, partial times or lap times with competitor numbering. Ranking or listing of a competitor's lap times.
- **SPEED**  
Four speed calculations on four channels.  
Selectable units [Km/h – meter/sec – Miles/h and Knots], and selectable distances between 1 to 10'000 meters).  
Speed measurements available in all timing modes.

### Communication

- **RS 232**  
Bidirectional communication with a PC (ON LINE) or OFF LINE for downloading the memory to a PC. Uploading of new software versions. DISPLAY mode to drive external line displays.
- **ETHERNET**  
10 Mbps, TCP/IP protocol.  
Connection on a network (LAN) of several CP 540's, PC or other peripherals.

### Innovative feature:

The CP 540 provides a visual (on the LCD) and audio alarm if an external input remains in short-circuit. This feature allows you to observe the status of TAG Heuer's new "direct-response" photocells. (HL2-31, & HL2-35) and allows the timekeeper to instantly determine if a photocell is out of alignment.



Connections are secure, reliable and accessible



The back-lighted LCD display affords a very clear vision of the timing information.

### CP 540 – TECHNICAL SPECIFICATIONS

- **General**
  - Stand-alone multi-sport timing system.
  - Timing calculation (Speed) to the 1/1'600'000 sec.
  - Timing resolution (printer – PC) from 1 sec to 1/100'000 sec
  - Memory of 25'500 times and 99 timing sessions
  - Sequential N°/ competitors N° from 1 to 9'999
- **Inputs / Outputs**
  - Four Inputs with banana jack for Timing impulses (working contact or closing contact without potential / short-circuit, open collector)
  - COMPUTER / Bidirectional RS232 or to drive external display.
  - ETHERNET
  - Extension port for Docking
- **Keyboard**
  - One key to turn ON the device
  - Numerical keyboard
  - Three keys UP, DOWN and ENTER
  - Four validation keys (E1 – E4)
  - RECALL key
  - Paper feed key
  - Four manual triggering buttons with blocking and unblocking of the external Input.
- **Display**
  - Matrix LCD display with backlighting
  - Eight information lines with 21 characters
  - Adjustable contrast and brightness
- **Printer**
  - Continuous rapid thermal printer
  - 24 characters per line
  - Control and switch off of the printer in case of discharged batteries
- **Time base**
  - Thermo-compensated quartz 12.8 MHz
  - Precision : +/- 0.5 ppm at 25° C
  - Precision : +/- 1.5 ppm between -30°C and +75°C
- **Operating temperature**
  - From -20°C to + 60°C
  - Docking recommended for low temperature
- **External power supply**
  - Five alkaline 1.5V batteries (UM3 – Energizer LR6)
- **External power supply**
  - 12 V DC by adaptor (HL540-1) or 12 V batteries
- **Autonomy**
  - 6'000 printed times with one battery set
- **Case**
  - Polyester P66 with Fibreglass / Santoprene
- **Dimensions / Weight**
  - 270 x 100 x 65 mm
  - CP 540 without transport case : 860g
  - [with battery set and 1 paper roll]
  - CP 540 with transport case and power supply : 1'800g



## CP 540 DOCKING

The CHRONOPRINTER 540  
can be plugged in a DOCKING station.

Three versions of Docking are proposed

- **DOCKING (HL 540 – BATT)**  
This docking station is equipped with a built in Lithium-Ion rechargeable battery which ensures the autonomous operation of the CP 540 for long-duration timing sessions even at low temperatures (-20°C).
- **DOCKING (HL 540 – GPS)**  
This docking station is recommended for an absolute precision and professional timing.  
It comprises the following avant-garde features:
  - A GPS satellite module which allows the automatic setting of the CP 540 to the exact time-of-day and the monitoring of the time-base precision relative to the GPS master during the entire timing session.
  - An Input and Output “MASTER – SLAVE” which allows the connection and synchronization of several CP 540’s together. In this way, the same time’s-of-day are guaranteed on several devices.
  - A “TOP MINUTE” impulse is available for synchronizing any timing device connected to the docking station.
  - Internal rechargeable Lithium-Ion Battery.
- **DOCKING (HL 540 – GSM/CDMA)**  
All the features of the GPS version, with addition of a GSM / CDMA module that gives you the possibility to transmit the timing information by wireless telephony.

# innovation

