



## MICRO**SYNC**

### SATELLITE SYNCHRONIZATION

**MICROSYNC** is the new Microgate GPS synchronizer. It is the state-of-the-art in synchronization systems based on the reception of UTC from the GPS satellite system.

**MICROSYNC** has been created with the dual characteristic of being both a GPS synchronizer and a system with a built-in time base. This feature together with perfect integration with the REI2 stopwatch make it a system that is unique of its kind.

### MICROSYNC performs three main functions without requiring any configuration:

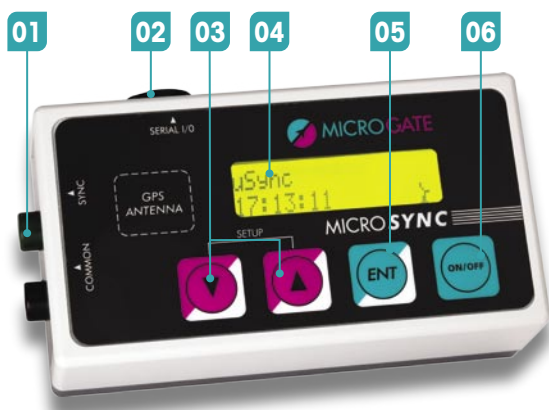
- Normal: Once it has been switched on and the signal has been acquired from GPS satellites, every minute **MICROSYNC** gives a closing signal on the sockets. The synchronization signal is compatible with all the timing devices on the market.
- Synchronizes with REI2: simultaneously with synchronization, on the **MICROSYNC** serial there will be sent a string with the time and date to which the stopwatch will be synchronized and a following closing contact. No configuration or setting needs to be made, either on **MICROSYNC** or on REI2.
- Synchronizes the GPS time base with REI. If enabled, this function allows the stopwatch time base to remain constantly connected up with the **MICROSYNC** GPS signal, creating a stopwatch aligned with UTC time with an accuracy of  $\pm 1 \mu s$  without integral error.

### MICROSYNC also makes it possible:

- to set the synchronization period at 10s, 30s, 1min and 10 min;
- to synchronize manually by setting the time and using the internal time base;
- to activate a NMEA output on serial;
- to activate DCF77 mode (compatible with old Digitech synchronizers).

### The main features of MICROSYNC are:

- base times from GPS module using self-synchronization every second (PPS) with the ZDA protocol;
- internal time base with a temperature compensated oscillator at  $\pm 1$  ppm between  $-20$  e  $+70^{\circ}C$ ;
- NO output on 4mm banana plug (earth and signal);
- serial output with NO signal on Amphenol socket for connection to REI2;
- NMEA serial output available on Amphenol socket.



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- 01** Output for synchronization
  - 02** RS 232 serial input/output
  - 03** Arrow keys for input and selection of configuration menu (if pressed together)
  - 04** Backlit alphanumeric display
  - 05** ENTER key
  - 06** ON/OFF key
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## MICROSYNC - TECHNICAL DATA

<b>Weight</b>	250g, including batteries
<b>Dimensions</b>	120 x 65 x 40 mm
<b>GPS time base</b>	GPS module always on with resynchronization on PPS signal (Pulse Per Second) every second. Synchronization signal precision $\pm 1 \mu s$
<b>Internal time base</b>	12.8 MHz oscillator, stability $\pm 1$ ppm between $-20^{\circ}$ and $+70^{\circ}C$
<b>Display</b>	Backlit alphanumeric display, 2 lines of 16 characters each <ul style="list-style-type: none"> <li>• Character size: 5x3 mm</li> </ul>
<b>Internal base precision</b>	$\pm 0.0864$ s/day for external temperatures between $-20^{\circ}$ and $+70^{\circ}C$
<b>Operating temperature</b>	$-20^{\circ}C$ / $+70^{\circ}C$
<b>Power supply</b>	Li-ion internal batteries; functioning also with c.c. 9~20V external power supply
<b>Battery recharge</b>	Built-in smart recharge device
<b>Autonomy</b>	> 48 hours
<b>Microprocessor</b>	16-bit C-MOS microprocessor
<b>Keyboard</b>	Keyboard with waterproof film cover <ul style="list-style-type: none"> <li>• 1 ON/OFF key</li> <li>• 1 ENTER key</li> <li>• 2 arrow keys for input and selection of configuration menu</li> </ul>
<b>Connections</b>	<ul style="list-style-type: none"> <li>• Output for synchronization on 4mm NO green and black banana plugs (input if the device must be synchronized for only internal base no GPS function)</li> <li>• RS 232 serial input/output for connection to REI2 stopwatch and Master Digitech.</li> <li>• Possibility of using the serial as standard NMEA protocol output</li> <li>• Jack power supply input</li> </ul>