



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:

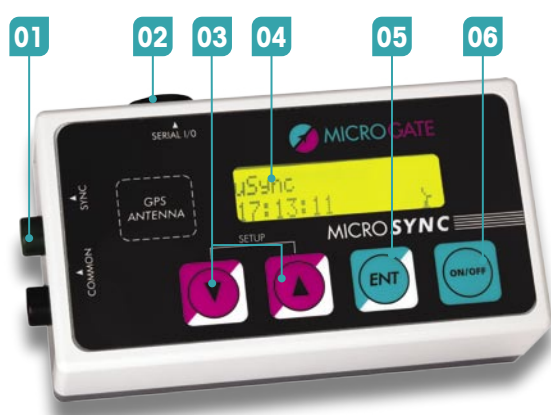
- Normal: Once it has been switched on and the signal has been acquired from GPS satellites, every minute **MICROSYNC** gives a closing signal on the sockets. The synchronization signal is compatible with all the timing devices on the market.
- Synchronizes with REI2: simultaneously with synchronization, 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 $\pm 1 \mu\text{s}$ 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 ± 1 ppm between -20 e $+70^\circ\text{C}$;
- 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

Weight	250g, including batteries
Dimensions	120 x 65 x 40 mm
GPS time base	GPS module always on with resynchronization on PPS signal (Pulse Per Second) every second. Synchronization signal precision $\pm 1 \mu\text{s}$
Internal time base	12.8 MHz oscillator, stability ± 1 ppm between -20° and $+70^\circ\text{C}$
Display	Backlit alphanumeric display, 2 lines of 16 characters each <ul style="list-style-type: none">• Character size: 5x3 mm
Internal base precision	± 0.0864 s/day for external temperatures between -20° and $+70^\circ\text{C}$
Operating temperature	$-20^\circ\text{C} / +70^\circ\text{C}$
Power supply	Li-ion internal batteries; functioning also with c.c. 9~20V external power supply
Battery recharge	Built-in smart recharge device
Autonomy	> 48 hours
Microprocessor	16-bit C-MOS microprocessor
Keyboard	Keyboard with waterproof film cover <ul style="list-style-type: none">• 1 ON/OFF key• 1 ENTER key• 2 arrow keys for input and selection of configuration menu
Connections	<ul style="list-style-type: none">• 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)• RS 232 serial input/output for connection to REI2 stopwatch and Master Digitech.• Possibility of using the serial as standard NMEA protocol output• Jack power supply input