

## MICROMUX



Designed specifically for horse racing (trot and gallop) and track (light athletics) races, it allows optimal management of the intermediate times coming from the photocells or other types of sensor positioned along the course connected to the **LINKGATE** EncRadio MF transmitters.

The main features of this product are:

- Automatic or manual management of the EncRadio activation sequence (combined with any sensor).
- Automatic blocking of a photocell (or other sensor) after the first impulse has been taken.
- Management of 8 photocells or sensors (on the single MicroMux).
- Up to 4 MicroMuxes connected to each other for a total of 32 photocells.
- Powered directly by the unit it is connected to (stopwatch, displayboard, etc.)

DATA	MICROMUX
Weight	675g
Dimensions	200 x 140 x 50 mm (l x h x d)
Operating temperature	-25°C / +70°C
Radio frequency	From 433.875 MHz to 434.650 MHz
Type of receiver	Double superheterodyne PLL synthesizer
Reception mode	FSK decodifying
Form of communication	Monidirectional RX
Number of channels	32 (with frequency step between the 25KHz channels)
Power supply	5 VDC, supplied directly from the stopwatch
Microprocessor	8-bit C-MOS microprocessor
Keyboard and controls	<ul style="list-style-type: none"> <li>• DISABLE key to disable radio reception</li> <li>• MODE key to select Manual - Remote – Manual/Remote functioning</li> <li>• 8 RADIO CHANNEL keys to manually select a reception frequency</li> </ul>
Connections	<ul style="list-style-type: none"> <li>• 5-pole nucletron connector: "RS232" for connection to stopwatch</li> <li>• 9-pole D Sub connector: "RS485" for connection to stopwatch</li> <li>• 6-pole amphenol connectors: "INPUT" and "OUTPUT" for tiling connection of up to 4 MicroMuxes</li> <li>• TNC connector: "ANTENNA" for connection to antenna</li> </ul>

## DECRADIO MF AND SF

**LINKGATE** DecRadio, available in the MF and SF versions, receives the impulses sent by the EncRadio modules. It can be connected directly to the REI2 and Racetime2 stopwatches, to the MicroTab and MicroGraph displayboards, and to the Lynx Photofinish.

On the multifrequency model, as for the EncRadio modules, it is possible to select one of the 32 work frequencies available.



DATA	DECRADIO	
	MF	SF
Weight	110 g	
Dimensions	90 x 50 x 25 mm (l x h x d)	
Operating temperature	-25°C / +70°C	
Radio frequency	Frequency range from 433.875 MHz to 434.650 Mhz	434.075 MHz
Type of receiver	Double Superheterodyne PLL synthesizer	Double Superheterodyne, PLL Controlled Fixed channel
Reception mode	FSK decodifying	
Form of communication	Monidirectional RX	
Number of channels	32 (with frequency step between the 25KHz channels)	1
Power supply	5 Vcc, supplied directly from the stopwatch	
Connections	Cable with 5-pole connector for connection to stopwatch	



## LINKGATE

### SECURE AND COMPACT

Completely innovative in concept, the **LINKGATE** radio transmission system is a state-of-the-art device for wireless transmission of timing impulses.

**LINKGATE** can be used in combination with Racetime2 and REI2 stopwatches and allows remote control of MicroTab alphanumeric displayboards, MicroGraph graphic displayboards and Lynx photofinish systems.

The system consists of a very small EncRadio (for impulse transmission) that can be connected to any normally open or closed sensor (start gates, photocells, pressure sensors, start buttons, transducers, etc.) and by a DecRadio (receiving device).

**LINKGATE** is available in two models: **LINKGATE MF** (multifrequency) and **LINKGATE SF** (single frequency).

## ENCRADIO SF



- 01** Bib selection / Channel selection / Transmission type (long-short)
- 02** On – Off / Charge status check
- 03** Input – Start signal
- 04** Display – Bib number display / Channel display / Transmission type display (long-short) / Charge status display

### Every EncRadio is available in two versions:

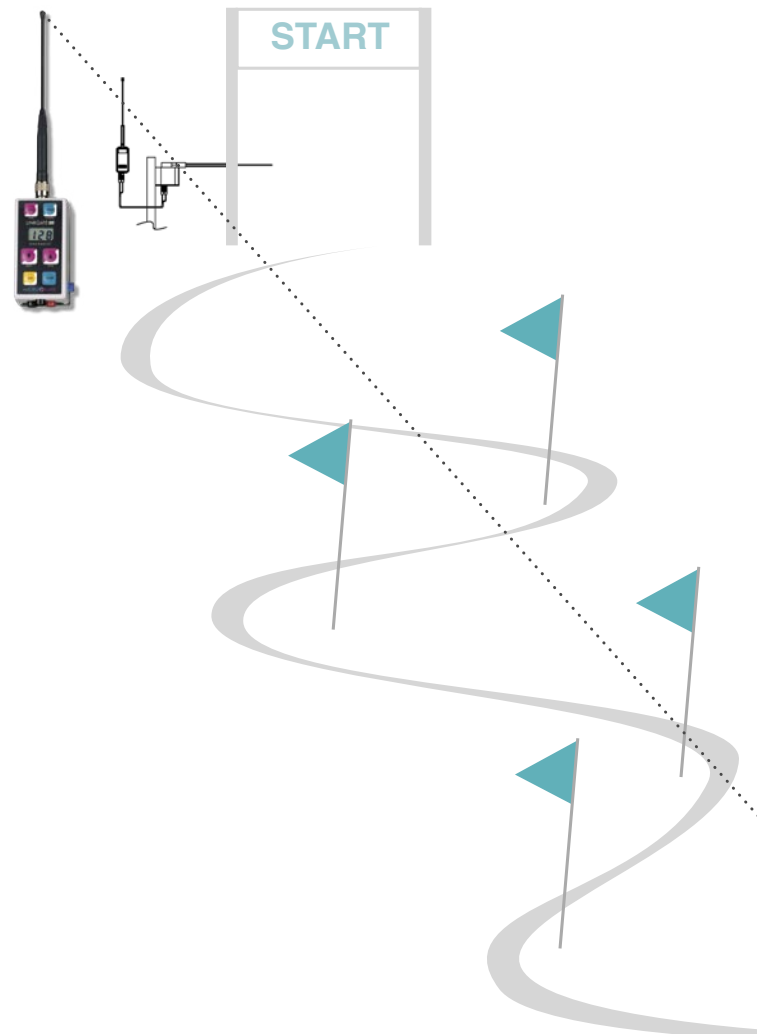
- with 10 mW radio module, transmits to over 2 km in normal conditions
- With 500 mW radio module, transmits to over 9 km in normal conditions

DATA	ENCRADIO SF single frequency
Weight	206 g
Dimensions	110 x 50 x 40 mm
Reception mode	FSK digital decodifying
Radio frequency	434.075 Mhz
Operating temperature	-25°C / +70°C
Power supply	5 Vcc, supplied directly from the stopwatch
Connections	Cable with 5-pole connector for connection to stopwatch

## FREE ALONG THE COURSE

LINKGATE EncRadio SF (single frequency) is the only system that makes it possible:

- To transmit via radio not only the event taken but also the bib number to associate it with.
- To transmit start impulses
- To move freely along the race course. So wherever they are, the timekeeper or trainer can receive all the times and speeds via radio.
- To guarantee maximum reliability and accuracy ( $\pm 0.4$  thousandths of a second) even when transmission disturbance is particularly severe, thanks to its exclusive high redundancy transmission code with error correction.
- To check battery status on the display
- To set different transmission channels
- To periodically send the battery status and signal quality to the stopwatch.
- To manage the battery charge and discharge cycles.



## ENCRADIO MF

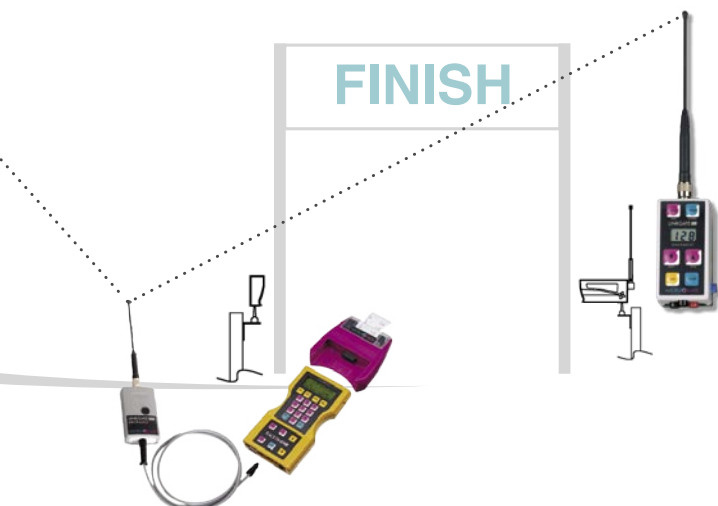


- 01** Manual sending of pre-selected impulse / SYNC function for synchronization
- 02** Bib selection / Channel selection / Transmission type selection (long-short) / Impulse type selection (start, stop, LAP) / Annulment of stored data (reset) / Transmission of stored data (times, bibs and speeds) to the stopwatch
- 03** 2nd function – For access to extra functions
- 04** Inputs – Timing and speed lines
- 05** Key for delayed transmission of last impulse taken / Modern function activation
- 06** Display – Display of bib number / Display of channel / Display of transmission type (long-short) / Display of charge status / Display of signal type (start, stop, LAP)
- 07** On – Off / Charge status check
- 08** RS232 / TTL input – For modem function

## SECURE AND RELIABLE TRANSMISSION

**LINKGATE EncRadio MF** (multi frequency) is the only system that makes it possible to:

- To transmit via radio not only the event taken but also the bib number to associate it with
- To transmit start and finish impulses and also 14 individually identified intermediate impulses or an unlimited number of unidentified intermediate times
- To acquire via radio up to 16 passing speeds from the same number of timing zones
- To move freely along the racecourse. So wherever they are, the timekeeper or trainer can receive all the times and speeds via radio
- To guarantee maximum reliability and accuracy ( $\pm 0.4$  thousandths of a second) even when transmission disturbance is particularly severe, thanks to its exclusive high redundancy transmission code with error correction
- To retransmit an unreceived signal repeatedly even after a long time lapse, simply by pressing the repeat key
- To automatically store all the start, intermediate and finish times, which can later be transferred and assigned to the RACE-TIME2 and REI2 stopwatches. This mode makes it possible to obtain net race times even when radio functioning is poor, thus guaranteeing high reliability of the **LINKGATE** system.
- To send via radio the data coming from a serial with "modem" function (from stopwatch to displayboards, from PC to displayboards, etc.)
- To check battery status on the display
- To send a time event impulse, also manually
- To set different frequencies and transmission channels
- To periodically send the battery status and signal quality to the stopwatch.
- To manage the battery charge and discharge cycles.
- To synchronize with the stopwatch manually or automatically.



DATA	ENCRADIO MF multi frequency
<b>Weight</b>	206 g
<b>Dimensions</b>	110 x 50 x 40 mm
<b>Reception mode</b>	FSK digital decodifying
<b>Radio frequency</b>	Frequency range from 433.875 MHz to 434.650 Mhz on 32 selectable radio channels
<b>Operating temperature</b>	-25°C / +70°C
<b>Power supply</b>	5 Vcc, supplied directly from the stopwatch
<b>Connections</b>	Cable with 5-pole connector for connection to stopwatch