



*Some functions can be programmed via Browser, Wireless, Ethernet, Internet, mobile phone, smartphone or tablet. Can store 1.000 melodies.
Manages up to 24 relays via twisted pair or via radio (optional)
Guided instructions on a 7" LCD display*

FUNCTIONING CHARACTERISTICS

Easy user instructions on a 7" LCD display.
Multilingual menu. Automatic daylight saving time. Perpetual liturgical calendar.

TIME PROGRAMMING:

Perfect synchronism to manage all types of time programming requirements.
Automatic programming of all fixed and variable holy days, automatic daily programming, weekdays, pre-holidays, holidays, weekly, periodic, yearly programming. Modify/checking of any programming. Automatic cancelling of programs which will no longer be repeated. Random and cyclical bell sound execution. Quick function buttons for immediate playing. Just the simple touch of a button to view the daily events on the display.

BELL SOUND PROGRAMMING:

Up to 1.000 bell sounds can be programmed from the display, internal keypad or (optional) external keyboard.
Ability to program melodies, tolls, Angelus, peals, bell sounds in sequence selected by number and playing time, etc.
Each bell sound can be repeated, copied, modified, relocate its speed and manipulated in any possible way as well as being played in sequence for a certain amount of minutes and times. Guided instructions which do not require particular abilities, accessible to all.

TOWER CLOCK (optional circuit board RL085)

Full management of clock tower hands. Automatic gaining after power cut.
Power supply at 24, 110 or 220 Volts. Impulse every 30, 60 or 1 sec.

SECONDARY CLOCK (optional circuit board RL085)

Full management of secondary clock hands. 12 or 24 hour clock. Adjustable voltage from 12 to 24 Volts 1A. Impulse every 30 or 60 sec.

BELLS (optional circuit board RL085)

Using twisted pair, fibre optic (optional) or radio connections (optional) the device can manage up to 24 outputs for real bells as well as service programs (turning on lights, opening of doors, etc.).

HOUR STRIKE (optional circuit board RL085)

All types of hour strikes available : regional, national and international types according to local traditions.
Hour strike repetitions can be personalised. Automatic Westminster clock with the ability to play any type of melody or bell program before or after hours/quarters strikes.

SERVICES (optional circuit board RL085):

Automatic lighting of clock faces, door openings, alarms systems, heating/air-conditioning, luminous crosses, enable/inhibit time programming, etc. even by remote control.

QUICK FUNCTION KEYS

10 keys for playing recurring bell sounds and for enabling/inhibiting time programmed bell sounds and clock strike.

SAFETY MEASURES:

Access codes can be programmed to prevent tampering.
Hammers individually inhibited when the real bell motors are activated according to the momentum time of each bell peal.

SPECIAL FUNCTIONS/ ACCESSORIES:

- Ability to enable/inhibit time programming, amplifier output, etc. using the remote control.
- All time programming of bell sounds are stored on inerasable un-volatile memory (no power necessary).
- The 10Mb LAN Ethernet port is integrated inside the machine and enables you to gain access to the LAN or Internet network by means of an IP address and a gateway which allow you to transmit and receive data via IP just as if you were using a normal server to gain access to various menus inside the machine.
- GSM remote control. Allows start-up of a melody or service program by means of a tone telephone or GSM mobile phone.
- Ability to reset clock via radio (optional DCF) or satellite (via optional GPS system) or NTP internet server (Network Time Protocol requires internet connection).
- Receiver mod. RST-86 for radio time synchronization by means of DCF atomic clock via radio
- Receiver mod. GPS-3600 for radio time synchronization by means of GPS atomic clock via satellite
- GSM-3600 remote control. To start a melody or service program by means of a tone telephone or GSM mobile phone.
- 10.000 channels remote control mod. TX-3500. Functioning range from 300 mts. to 1Km. Frequency: 433 Mhz
- 4 channel remote control mod. TX-4CH. Functioning range up to about 100 mts.
- 61 note dynamic midi keyboard mod. MD61 to play melodies and/or save them.
- Relay board with 8 relays (RL085) to manage tower clock, secondary clock or hammers/motors/service programs, etc
- TCS-3500 Interface to detect power failure (blackout) in the bell tower.

TECHNICAL CHARACTERISTICS:

Container : Metal box
 Menu viewing : LCD 7" display
 Multilingual menu : Italian, English, French, Spanish, Portuguese, Polish, German Portuguese, Russian, Romanian.
 Min. time programming time between two melodies : 1 minute
 Clock precision : +/- 0,1 seconds/day
 Clock precision adjustment : VIA SOFTWARE +/- 0,1 seconds/month
 Absolute clock precision adjustment : VIA RST Receiver (DCF or GPS)
 Clock memory keeping : By means of lithium type battery (10 year life)
 Time & melody programming memory keeping : Indefinite on volatile flash memory
 Functioning temperature : From -10 to + 50 degrees centigrade
 Lan-Ethernet Port : 10 MBit/s speed
 MD61 Keyboard input : Rear Dsub 15 pole midi standard
 Rear 6 poles socket : IN/OUT RS485 data (interface for RL085 circuit board)
 2 Rear Mini-Din 4 pole sockets : DCF - GPS input signal (time & calendar automatic reset), 4 ch. & 1.000 ch. remote control receiver input or GSM
 Operating power supply : Internal Power supply with transformer. Input 240vac or 115 (on request) 47-63Hz.
 Power consumption : Max. 4 Watt.
 Data backup : Internal on flash – external on standard SD memory-card
 Number of relay outputs : 22+2 (max. 3 RL085)
 Management max. of hammers,motors, service prg. : Max. 22 hammers, max. 9 peals, max. 6 service programs

AVAILABLE VERSIONS:

GM- 870 - Cast bell controller with (optional) base
GM- 870R - Cast bell controller rack standard 19" with side supports (optional)

DIMENSIONS & WEIGHTS :

Version with base	Version with side supports for Standard RACK 19" 4U mounting
Size (l x h x d):	Size (l x h x d):
330 max x 210 x 138	482 x 176 x 52 mm
Weight of base:	Weight of side supports for rack mounting:
1,25 kg.	0,65 kg.
Weight GM 870	Weight GM 870R
2 kg.	2 kg.
Total weight :	Total weight :
3,2 kg.	2,7 kg.

REGULATIONS:

This unit has been manufactured according to the safety and immunity rules in force and bears the EEC mark foreseen by EEC directives 89/336.

