elmes® electronic

3 - CHANNEL UNIVERSAL CONTROL RECEIVER
ST100H-3K

ST100H-3K receiver is designed to control up to 3 independent 230VAC devices such as lamps or electric inductive motors. The receiver features *KEELOQ*® code-hopping Microchip Technology Inc., USA security system. Each radio transmission is encrypted which provides the highest level of system security. Following, are main ST100H-3K features:

- operation with 1, 2 or 3 keyfob transmitter's buttons
- independent or sequential control of 2 or 3 devices,
- ON / OFF mode – bistable mode,
- ON / OFF mode with automatic set OFF after programmed time (from 0.5 sec to 4 hours) – monostable mode.

The ST100H-3K receiver is compatible with all Elmes hand remote control (keyfob) transmitters operating at 433.92 MHz. 4 , 8, 32 channel remotes will control all 3 channels of the receiver (see point 2 below for details). One channel remote UMB100HT controls one device (one receiver's channel) or 3 devices (3 receiver's channels) but in the sequential mode (see point 3 below). The ST100H-3K receiver includes 3 wired inputs marked with symbols OP, CL and RS that enable wired control of the unit via, for example, a wall switch.

Four different operation modes can be selected with jumpers JP1 and JP3 as below:

1. Jumper **JP1** shorted, **JP3** shorted – keyfob's buttons / wired inputs number 1 and 2 control channels 1 and 2 respectively
2. Jumper **JP1** shorted, **JP3** opened – as above, plus keyfob's button / wired input number 3 controls receiver's channel number 3
3. Jumper **JP1** opened – sequential mode activated both for the keyfobs and wired control – see chart below for details:

	JP3 shorted			JP3 opened		
Device / channel number :	1	2	3	1	2	3
Stand-by mode	O	O		O	O	O
Keyfob button / wired switch is pressed for the first time	X	O		X	O	O
Keyfob button / wired switch is pressed for the second time	X	X		X	X	O
Third …	O	X		X	X	X
Fourth…	O	O		O	X	X
Fifth…				O	O	X
Sixth…				O	O	O

X – means the device / receiver's channel is ON

O – means the device / receiver's channel is OFF

The receiver can automatically turn off your device after pre-programmed time. This monostable output operation function is activated only when procedure point 2 at the Programming Procedure section below is completed. The countdown timer is activated when keyfob's button or wired switch is pressed. Point 3 at the Programming Procedure below deactivates the sequencing mode and sets the receiver to ON/OFF mode – bistable output operation.

WARNING!
Control unit and electric motor connection to 230VAC mains voltage require personal safety care procedures to be taken and mains voltage line be in off state at installation. 230VAC supply LIVE wire must be connected to L terminal and NEUTRAL wire must be connected to N terminal. Wire control terminals **COM, OP, CL** and **RS: NO ANY VOLTAGE ALLOWED!**

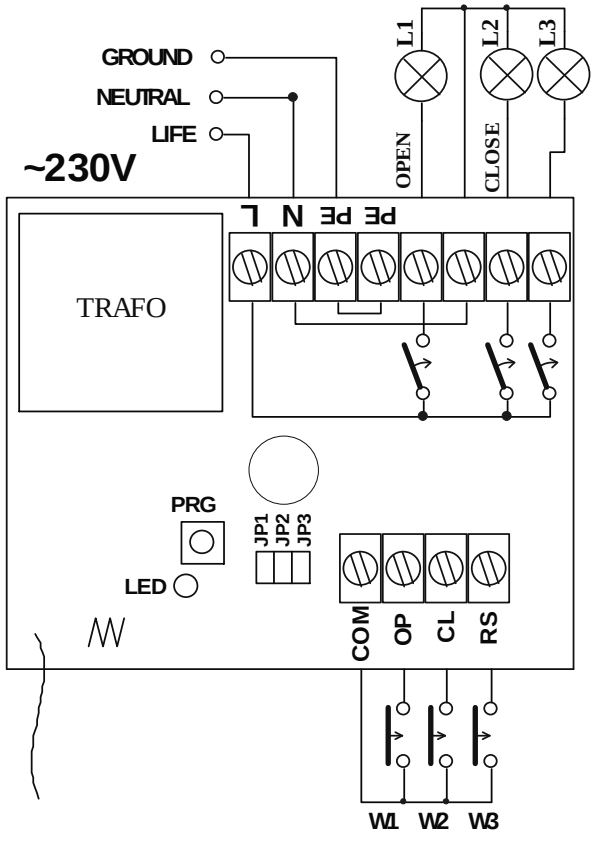
Installation diagram :

ST100H-3K control unit 230VAC wiring terminals:

L - 230VAC mains supply **LIVE** wire terminal
N - 230VAC mains supply **NEUTRAL** wire terminal
PE - 230VAC mains supply **GROUND** wire terminal
PE - **GROUND** wire terminal
OPEN - **LIVE** wire terminal for device number 1
Middle - **NEUTRAL** wire terminal
CLOSE - **LIVE** wire terminal for device number 2
⊗ - **LIVE** wire terminal for device number 3 – if in use please open JP3 jumper

No voltage terminals:

COM - common wiring terminal,
OP - wire switch of device number 1
CL - wire switch of device number 2
RS - wire switch of device number 3



Installation hints
The control unit is designed strictly for indoor installation with 230VAC wiring terminals in upwards direction and antenna wire let loose downwards (not glued or fitted to wall). Care should be taken not to expose the control unit to harsh environmental conditions such as very low/high temperatures or high humidity. The unit includes radio receiver therefore any metal screening or interference with other electric/radio equipment operating in close distance should be avoided as may seriously shorten operating range of transmitter - receiver set.

ST100H-3K CONTROL UNIT PROGRAMMING PROCEDURES

1. Learning transmitter(s) to receiver's memory - max 12 (up to 112 on option):

a) press control unit **PRG** switch for less than 2 seconds (PRG LED lights on). Releasing the switch LED continues to light indicating entering programming procedure,
b) press any transmitter button twice - PRG LED switches off and starts blinking confirming end of the procedure. The transmitter is learned to the control unit memory. Number of transmitters in memory is limited to 12 (up to 112 on option), learning 13th will remove the first, learning 14th will remove second, etc. Removing one transmitter from control unit memory requires removing all transmitters and learning the remaining ones again.

2. Automatic OFF time programming procedure:

a) press control unit **PRG** switch for more than 2 and less than 8 seconds (PRG LED lights on). Releasing the switch PRG LED sets off
b) press on hand transmitter button or wired wall switch (PRG LED lights on)
c) when required time has lapsed (max. 4 hours) press the hand transmitter button or wired wall switch again (PRG LED lights off)
d) after 2 seconds PRG LED starts blinking several times confirming end of the procedure

3.ON/OFF mode programming procedure (the automatic OFF mode is not active):

a) press control unit **PRG** switch for more than 2 and less than 8 seconds (PRG LED lights on). Releasing the switch PRG LED sets off.
b) press on hand transmitter's button or wired wall switch 3 times in less than 2 seconds intervals
c) the PRG LED starts blinking several times confirming end of the procedure.

4.Deleting all transmitters from control unit memory:

a) press receiver's **PRG** switch (PRG LED lights on) and hold for more than 8 seconds, until the receiver LED starts blinking confirming end of the procedure.
b) The control unit memory is cleared.
c) The programmed times will not be changed.

Procedures 2 and 3 above can be performed with the use of wired wall switch or keyfob transmitter learned to control unit memory.

Specification:

- mains supply 230VAC (2VA) control panel with superheterodyne receiver for 433,92MHz band
- relay outputs 1 and 2 max 16A/250VAC
- relay output 3 max 5A/250VAC,
- automatic OFF time: 1 sec ÷ 4 hrs, common for all three channels
- control panel external dimensions (l/w/h) 87/87/39mm

Manufacturer

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Manufacturer's Limited Warranty:
Elmes Electronic remote control sets carry one-year manufacturer's warranty as from date of purchase. The warranty is limited to the replacement of faulty original parts or repair defects of improper manufacture. Damage, faulty use or improper handling by the user or installer as well as any changes in product's hardware or software caused by the user violets the warranty and all due repair costs will be charged. Elmes Electronic shall not be responsible for any damage human or material caused by its products failure to operate correctly.

Elmes Electronic reserves the right to change product specification without prior notice.
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