elmes® electronic

WIRELESS DYNAMIC CODE CONTROL SETS TYPE: UMB, AN, DW, DWB, DWM
INSTRUCTION MANUAL (EN)

Basic set consists of radio receiver and one (AN and DW sets) or two (UMB, DWB & DWM sets) hand transmitters designed for use in radio remote control and access control systems. Dynamic encoding of control transmissions use the *KEELOQ*® code hopping technology ensuring highest level of security with encryption keys and code combination programmable but read-protected. The keys can only be verified by receiver after programming operation. Number of transmitters used in one set is limited to 12 and learning 13th will delete 1st, etc. Deleting lost or stolen transmitters from the receiver's memory requires deleting all transmitters (in one simple programming operation step described further) and learning all of the remaining transmitters by the receiver again.

The receiver provides programmable and galvanic separated NO/NC relay outputs and external sounder/beeper control output S delivering two shorting to ground pulses on relay set and one pulse on relay reset. The relay outputs may be individually programmed for time lapse (0,5s up to 4 hours) or latched (on/off) mode of operation. Programming steps and channel 1 relay output status are indicated by receiver's bi-colour LED shining green on channel 1 set and shining red on relay reset. Low battery warning in hand transmitters is indicated either by its LED illumination blinking (UMB, DWB, DWM) or setting off (AN, DW).

Receiver should be installed indoors and high from floor level, on non-metal or non-screening dry surface. Due to the nature of very low power radio practical operating range is highly dependant on place of receiver's installation. Operating range may be limited by walls, metal screens, iron-concrete construction and local radio or electric interference. Prior to firm installation practical operating range tests are recommended. The level of received radio signals may be evaluated with the use of Elmes RFM monitor connected to receiver.

The sets are delivered ready to install with pre-programmed hand transmitters and receiver in time lapse operation mode and short reset time of the relays. Changing operation mode to latched or learning/deleting transmitters requires performing one or more of programming procedures.

PROGRAMMING PROCEDURES

1. Learning transmitter(s) to receiver's memory (maximum 12):

a) press shortly (<2 seconds) receiver's **PRG** switch (LED lights green). Releasing the switch LED continues to light green indicating entering the programming mode of the decoder,
b) press shortly hand transmitter switch once and LED changes colour to red,
c) press shortly hand transmitter switch again and after two seconds LED flashes green ending the procedure.

2. Setting channel/s to time-lapse (pulse) output mode and reset time:

a) press receiver's **PRG** switch (LED lights green) for more than 2 and less than 8 seconds. Releasing the switch LED light changes to red indicating entering this programming mode,
b) press once hand transmitter switch (the one of the selected channel in two channel sets). Corresponding relay in the receiver switches on and counting of reset time is started,
c) when desired reset time has lapsed (up to 4 hours) press the same transmitter switch shortly again. The relay switches off and after 2 seconds the receiver's LED flashes green confirming end of the procedure.

3. Setting selected channel/s to latched (on/off) output mode:

a) press receiver's **PRG** switch (LED lights green) for more than 2 and less than 8 seconds. Releasing the switch LED light changes to red indicating entering this programming mode,
b) press three times transmitter switch (the one of the selected channel in two channel sets) in less than 2 seconds intervals. Corresponding relay in the receiver switches on and off and the receiver's LED flashes green confirming end of the procedure.

4. Deleting all transmitters from receiver's memory:

press receiver's **PRG** switch (LED lights green) for more than 8 seconds until the receiver LED starts flashing green then release the switch. The receiver's memory is cleared but the channels' programmed modes of operation remain unchanged. To learn new transmitter(s) to the receiver's memory follow procedure 1 above.

Important! Procedures 2 and 3 can be performed with the use of transmitter learned to the receiver's memory.

SPECIFICATION:

* CE 433,92 MHz radio frequency band and up to 200m (AN200H, DW200H)) operation range in open field,
* one or two relay NO or NC outputs galvanic separated and handling up to 1A/30VDC or 0,5A/125VAC,
* receiver relay outputs fully programmable for time lapse (pulse) or latched (on/off) operation,
* bicolour LED (red/green) programming/status indication and TAMPER switch,
* S terminal (open collector type 1A/60V) delivering pulses to external sounder on relay action,
* receiver power supply is 12VDC ±15%, 20mA standby plus 20mA on each relay set.

Meaning of JP1 and JP2 settings in receivers:

One channel UMB, AN receivers: **JP1 off -** receiver's LED pulses red at channel 1 output off (**JP1 on** – lights red continuously).
Two channel DW, DWB, DWM receivers: **JP1 on -** output S delivers pulses on any relay switch-over (**JP1 off** – on output 1 switch-over only).
One & Two channel receivers: **JP2 off** – double prolonged signal pulse timming at output S (**JP2 on** – pulses timing is 0,25s).

WARNING! Output S (open collector type) **must not** be connected directly to (+) of the supply voltage!

Manufacturer's Limited Warranty. This product carries one year warranty as from the date of purchase. The warranty is limited to the replacement of faulty original parts or repair defects of improper manufacture. Damage, misuse or improper handling by the user or installer as well as any alterations in product's hardware or software caused by unauthorized person violet warranty obligations and all due repair costs will be charged. Elmes Electronic shall not be liable for any personal or material damage or loss resulting from any of its products direct, indirect or partial use or failure to operate properly.

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