Eurotronic EOSX1/EOSX16

Communication protocol by ESBI s.r.l. November 2019

Feactures

- Frequency: 433.92 MHz
- Modulation: OOK
- Encoding: PWM
- Packet length: 64 bits
- Bit duration: 800 us (1250 bps)

Description

The long press of one of the buttons is transmitted a sequence of frames, each frame corresponds to a different command.
For example, pressing and holding the UP key produces a sequence with the following frames:
1. t = 0: Go up blind (0x0B)
2. t = 1 s: Go up blind (the command is repeated)
3. t = 1.5 s: The blind continues to rise automatically (Code 0x8B)
4. t = 3 s: Remote control learning (Code 0x55)

A package contains 8 bytes:

- Start bytes: Always 0x22
- S.N. (3 bytes)
- Receiver (2 bytes LSB first).Each bit corresponds to one of the receivers:

1: 0x0001, 2: 0x0002, 3: 0x0004, 4: 0x0008, 5: 0x0010, 6: 0x0020, 7: 0x0040, 8: 0x0080,
9: 0x0100, 10: 0x0200, 11: 0x0400, 12: 0x0800, 13: 0x1000, 14: 0x2000, 15: 0x4000, 16: 0x8000,
all (CC on the display): A bit mask according to the maximum number of channels:
e.g. If the maximum is 16: 0xFFFF; if the maximum is 11 : 0x07FF

- Command code (1 byte) See command table.
- CRC (1 byte). It is calculated by adding the previous bytes, without counting the initial byte and considering only the least significant byte.

Commands

Command Code and Description

UP 0x0B “UP”
START UP 0x8B Pressing and holding the “UP” key for 1.5 s
DOWN 0x43 “DOWN”
START DOWN 0xC3 Pressing and holding the “DOWN” key for 1.5 s
STOP 0x23 “STOP”
RELEASE 0x24 when you release the buttons “UP” o “DOWN”
? 0x5A when you release the “STOP” key during 2 s
PROGRAMMING 0x50 by pressing “STOP” during 5 s
DISCONNECT 0x53 by pressing “reset”
CONNECT 0x55 Programming of the remote control “UP” for 3 s
ERASE 0x2B Press the button “reset” for 7 s

Example

- Press STOP button, commands sent to the product 1:

22 2F A7 79 01 00 23 73

- Press UP button, commands sent to the product 3:

22 2**F A7 79** 04 00 0B 5E

Note: The bytes highlighted contain the s.n.