



PROGRAMMING
BUTTON

USERS MANUAL FOR PROGRAMMING THE MOB.IQ EZRS, EZRS2 MOTORS



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1. DESCRIPTION

The **mob.iq [M35 EZRS]** tubular motors are complex solution for demanding users - electronic limit switch, integrated radio Z-Wave receiver, overload protection and obstacle detection (SENSO technology, 230V~).

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

2. MOB.IQ EZRS – TECHNICAL CONDITIONS OF INSTALLING THE TUBULAR MOTORS

The proper functioning of SENSO Motor depends on manufacturing the roller and its correct installation. The shutter should move smoothly, without any obstacles along the slides. Pay careful attention to:

- The vertical fitting of the slides,
- Smooth work of the shaft bearing,
- Deflection of the shaft (of the roll tube) caused by exceeding the width or weight of the shutter,
- The high quality of shutter, especially of profile's work in locks – shutter's beam cannot rub against the box or its elements, e.x. thermal insulation (polystyrene) in the top-mounted roller shutters,
- Using of high quality coat hangers which do not become deformed while using the roller.

Using of the **mob.iq [M35 EZRS]** motors requires fulfilling the additional conditions. This is a consequence of using the 40 mm octagonal roll tubes in which between roller-tube and the motor's housing there is a small space. There are some instructions that should be followed:

- Pipe's seam cannot rub against motor's housing,
- We recommend using pipes with the outer seam,
- Motor's position in the octagonal roll tube should enable the hanger's installation in the largest space between pipe and motor's housing,
- The most safest is the hanger with the low catch.

Shutter assembled not according to the good roller's installation practice that doesn't show any tendency to going down /rolling can be the cause of disturbance of the obstacle detection system in the **mob.iq [M35 EZRS]** tubular motor.

Pay careful attention to: Ovalization of the shutter's beam. Situation when the shutter's oval is located directly over the slide's intakes is the most optimal option for correct work of the tubular motor. The negative factor can be eliminated by using proper rings making the diameter bigger or by ballasting the endslat.

The **mob.iq [M35 EZRS]** tubular motor enables setting the end limit switches in the automatic mode – using the buffers is required. In this case, following issues have to be taken into consideration:

- The most profitable is using of the inside buffers installed in the down endslat,
- In case of using the outer buffers that are installed in the down endslat, they should be located on the right side of shutter. The point-intake designed for screwing should be located in the distance not larger than 100 mm from the shutter's edge.

3. INCLUDING MOB.IQ EZRS MOTOR TO Z-WAVE NETWORK

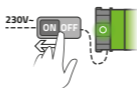


fig. 3.1

1. Plug **mob.iq [M35 EZRS]** motor to the power supply according to schema at the end of instruction. Green diode in PROGRAMMING BUTTON is on. In the other case you need to exclude motor from Z-Wave network according to point 4 of this instruction.
2. Turn your controller into **INCLUDE** mode (see instruction of your controller).
3. Press the **PROGRAMMING BUTTON** on **mob.iq [M35 EZRS]** motor.
4. Motor is detected by controller and included into Z-Wave network – the led diode is off.

4. EXCLUDING MOBIQ EZRS MOTOR FROM Z-WAVE NETWORK

1. Turn your controller into exclude mode (see instruction of your controller).
2. Press the **PROGRAMMING BUTTON** on **mob.iq [M35 EZRS]** motor.
3. Motor is detected by controller and excluded from Z-Wave network – the led diode is on.

5. ASSOCIATION GROUPS

There are following association groups in **mob.iq EZRS** motor:

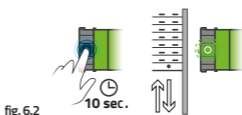
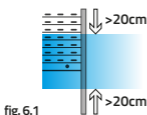
I ASSOCIATION GROUP – allows to send information about failures, errors and alarms directly to the controller (max. 5 devices).

II ASSOCIATION GROUP – allows to send direct steering commands between SLAVE devices without participation of PRIMARY controller (max. 5 devices).

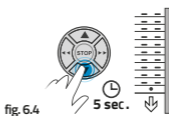
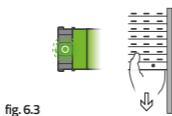
III ASSOCIATION GROUP – allows to send direct steering commands (BASIC_SET with value 0xFF) to other devices if error is detected (max. 5 devices).

6. SETTING OF THE LIMIT SWITCHES

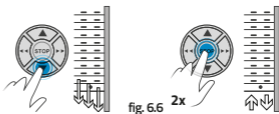
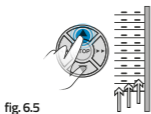
For setting the limit switches you need controller operating both dimmers and casual **ON/OFF** switches.



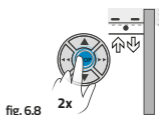
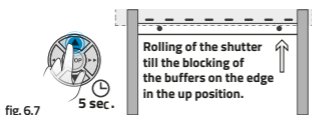
1. Set the shutter at half-height (in the area of min. 20 cm from the upper and lower edge) - fig. 6.1.
2. Enter the setting mode of limit switches – press the **PROGRAMMING BUTTON** for 10 seconds on **mob.iq [M35 EZRS]** motor. The motor will make UP/DOWN motion in order to check nominal engine speed. The led diode will start blinking with green light - fig. 6.2.



3. Stretch the shutter by pulling down the endslat - fig. 6.3.
4. Press and hold the **DOWN** button for about 5 seconds on your Z-Wave controller - the roller will go down and stop in the low position - fig. 6.4.



5. Pressing shortly **DOWN** button allows you to precisely regulate low end position – motor makes micro motions.
6. Press twice with the interval of max 1 second the **STOP** button on your controller – the **mob.iq [M35 EZRS]** motor will register the low end position and will make a slow **DOWN/UP** motion. If your controller doesn't have the **STOP** button, you need to wait about 15 seconds – motor will register low end position by itself and make a slow **DOWN/UP** motion - fig. 6.6.
7. Press and hold the **UP** button for about 5 seconds on your Z-Wave controller – the roller will start to go up.
 - If the buffers are installed – the **mob.iq [M35 EZRS]** motor will roll up the shutter till the buffer's block in the up position. Then the motor will unstretch the shutter with a slow **DOWN** drive motion.
 - If there's a lack of buffers please stop the shutter with the **STOP** button on your controller – before reaching the required up end position. In order to correct the up position you can use micro motions.



8. Press twice with the interval of max 1 second the **STOP** button on your controller – the **mob.iq [M35 EZRS]** motor will register the up end position and will make a slow **DOWN/UP** motion. The led diode is off. If your controller doesn't have the **STOP** button, you need to wait about 15 seconds – motor will register low end position by itself and make a slow **DOWN/UP** motion and the led diode will go.

7. SETTING UP THE LIMIT SWITCHES WITH THE SWITCH

1. Please connect the switch according to the power supply scheme.
2. Check the rotation direction of the **mob.iq [M35 EZRS]** motor (ATTENTION: the correct connection: purple wire – UP, orange wire – DOWN).
3. If the change of the direction is necessary please:
 - a) Switch on and off the **mob.iq [M35 EZRS]** motor's power supply twice - fig. 7.1a - the motor will make two short UP and DOWN moves.
 - b) Press and hold the UP button (purple wire) – the tubular motor will confirm the direction's change with the short UP/DOWN moves and diode in the tubular motor's head will go off. - fig. 7.1b.

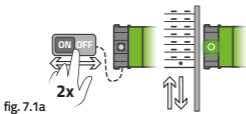


fig. 7.1a

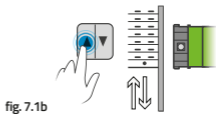


fig. 7.1b

4. Please put the shutter in the halfway position (in the area of min. 20 cm from upper and lower edge - fig. 6.1).
5. Switch on and off the **mob.iq [M35 EZRS]** motor's power supply twice - fig. 7.2 – the tubular motor will make some short UP/DOWN moves and the diode will light up with the green light.
6. Press and hold the DOWN button for about 5 seconds – the tubular motor will make some DOWN/UP moves - fig. 7.3.

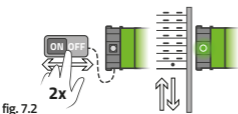


fig. 7.2

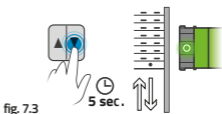


fig. 7.3

7. Please put the shutter in the halfway position (in the area of min. 20 cm from upper and lower edge - fig. 7.4).
8. Press and hold the DOWN button – after 5 seconds lowering the roller blind please let the button go – the tubular motor will stop near around the low limit switch (after reaching the bottom/window sill - fig. 7.4).
9. Potential adjustment of the upper limit switch is possible by short pressing of the UP/DOWN buttons.

After 15 seconds inactivity the tubular motor will confirm the current position as a low limit switch and the roller blind will start to go up:

 - If the buffers are installed – the **mob.iq [M35 EZRS]** motor will roll up the shutter till the buffer's block in the up position. Then the motor will unstretch the shutter with a slow DOWN drive motion;
 - If there's a lack of buffers please stop the shutter with the STOP button on your controller – before reaching the required up end position - fig. 7.5;

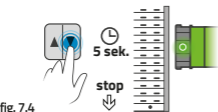
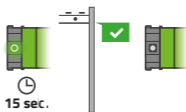


fig. 7.4



fig. 7.5

10. Potential adjustment of the DOWN limit switch is possible by short pressing the UP/DOWN buttons.
11. After 15 seconds inactivity the tubular motor will confirm the current position as an UP limit switch and will enter the work mode (the diode in the tubular motor's head will go off).



8. RESET OF THE TUBULAR MOTOR – RESTORE PRESETS

1. Put the **mob.iq [M35 EZRS]** motor into programming mode – two ways:
 - Press the programming button on the **mob.iq [M35 EZRS]** motor for about 5 sec.
 - Switch on and off twice the motor's power supply.
2. Press and hold the programming button in the **mob.iq [M35 EZRS]** motor for about 5 seconds until it makes some UP/DOWN moves.

It means that reset of the **mob.iq [M35 EZRS]** motor was successfully completed and the motor is ready to learn – green diode is blinking.

The reset procedure resets only motor's settings. It means that Z-Wave settings are not changed – motor is still included to network.

9. CONFIGURATION

The **mob.iq [M35 EZRS]** tubular motor utilizes 2 configuration parameters:

Parameter 12 - allows to change motor state (normal mode/calibration mode/discalibration mode) [1byte]

0 - normal mode (default)

1 - calibration mode

2 - discalibration mode (reset of the tubular motor - restore presets)

Parameter 13 - allows to change motor behavior after receiving BASIC_SET with value 0xFF [1 byte]

0 - last known non-zero position (default)

1 - max open

10. SWITCH ALL

By default **mob.iq [M35 EZRS]** tubular motor accepts ALL ON and ALL OFF commands. This setting can be changed by sending SWITCH_ALL_SET command.

11. NOTIFICATION

mob.iq [M35 EZRS] tubular motor can send alarm notification to nodes associated first and third group. By default notification are enable. After detecting obstacle or current overload tubular motor will send alarm (0x09 - hardware failure) to associated nodes.

12. COMMAND CLASSES LISTED IN NIF

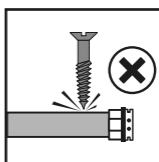
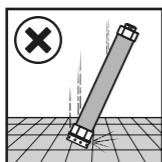
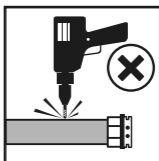
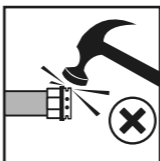
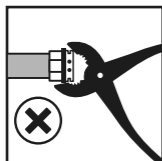
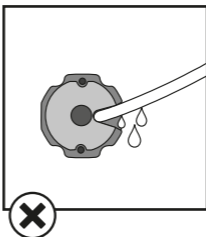
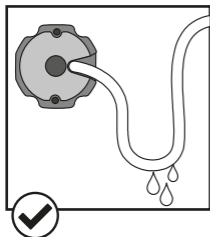
- COMMAND_CLASS_NODE_NAMING (version 1)
- COMMAND_CLASS_SWITCH_MULTILEVEL (version 3)
- COMMAND_CLASS_SWITCH_ALL (version 1)
- COMMAND_CLASS_SWITCH_BINARY (version 1)
- COMMAND_CLASS_MANUFACTURER_SPECIFIC (version 1)
- COMMAND_CLASS_VERSION (version 1)
- COMMAND_CLASS_ASSOCIATION (version 2)
- COMMAND_CLASS_POWERLEVEL (version 1)
- COMMAND_CLASS_CONFIGURATION (version 1)
- COMMAND_CLASS_NOTIFICATION (version 4)

13. WARNINGS

- Approaching to the moving curtain is not allowed till it is completely closed.
- Special caution must be taken by manual emergency service because the open curtain can suddenly fall down due to the weak or broken hangers.
- Switching on the awnings is not allowed if near around takes place the maintenance of the building (e.x. washing the windows).
- Disconnecting of the tubular motor's supply of the automatic awning is demanded if near around takes place the maintenance of the building (e.x. washing the windows).
- The minimum horizontal distance of 0,4 m between completely unrolled awning and any object is demanded.

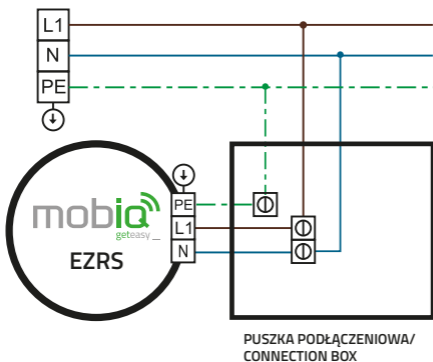
The technical data of the tubular motor are given on its data plate.

The minimal pipe diameter in which the installation of the tubular motor is possible is 40 mm.



14. POWER SUPPLY SCHEME

230V~ 50Hz



L - (FAZA) - BRĄZOWY / (PHASE) - BROWN

N - (ZERO) - NIEBIESKI / (NEUTRAL) - BLUE

PE - (UZIEMIENIE) ŻÓŁTO-ZIELONY / (GROUND) YELLOW-GREEN

↓ - WYŁĄCZNIK „DÓŁ” - POMARAŃCZOWY / SWITCH „DOWN” - ORANGE

↑ - WYŁĄCZNIK „GÓRA” - FIOLETOWY / SWITCH „UP” - PURPLE

230V~ 50Hz

