



**PORTOS TR7**  
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# USER MANUAL OF BD MOTOR

# BD



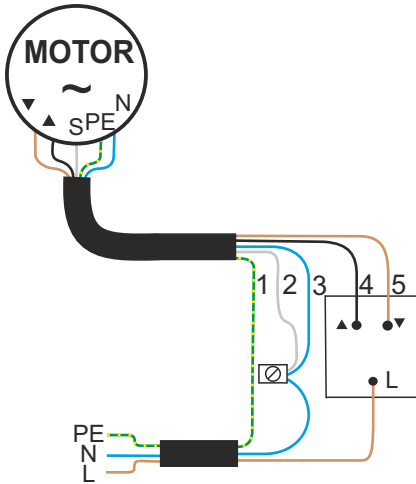
## Technical data:

<b>Power Supply:</b>	230V 50Hz
<b>Operating temperature:</b>	from -10 °C to +50 °C
<b>Length of the motor cable:</b>	2 m
<b>Number of wires in a cable:</b>	5
<b>Rated power:</b>	40/10 - 144 W 60/10 - 113 W 60/20 - 161 W



*Portos BD motor is a radio drive provided with electronic end limits and with obstacle detection, that can self-adjust its end limits. Proper operation of the motor requires blockade hooks and side guides/buffers in the bottom slat.*

## 1. CONNECTION:



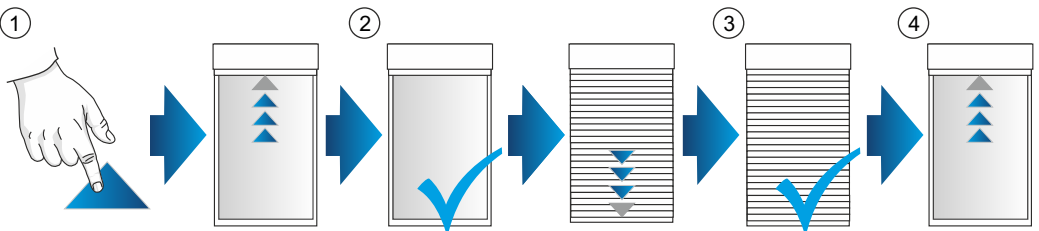
- 1 = PE - (Protective Earth) wire (**green-yellow**)
- 2 = S - setup wire (**white**)
- 3 = N - neutral wire (**blue**)
- 4 = UP (**black**)
- 5 = DOWN (**brown**)

- The PE (green-yellow striped) and N (blue) wires shall be properly connected to the grid, to PE and N wires respectively.
- The brown and black wires are responsible for the roller shutter movement direction and shall be connected to the roller shutter switch.
- The white wire is used for the motor programming - when current is supplied to the wire, the motor reaction is the same as if the service button were pressed. This allows for carrying out any maintenance works without the need to open the roller shutter casing. During normal operation, the white wire shall be insulated or connected to the neutral wire (blue).

## 2. AUTOMATIC SETUP OF END LIMITS.

**!!! Note!** - before starting any autocalibration, set the roller shutter in the mid position.

1. Press and hold a relevant button on the assembly wire or switch, which will activate the up movement of the roller shutter. The button must be pressed during the entire learning process.
2. The drive will stop in the upper end limit of the roller shutter and will automatically start moving down.
3. Reaching the lower end limit, the motor will start moving up.
4. Reaching the upper end limit, the motor will stop, which means it has successfully learnt its end positions.

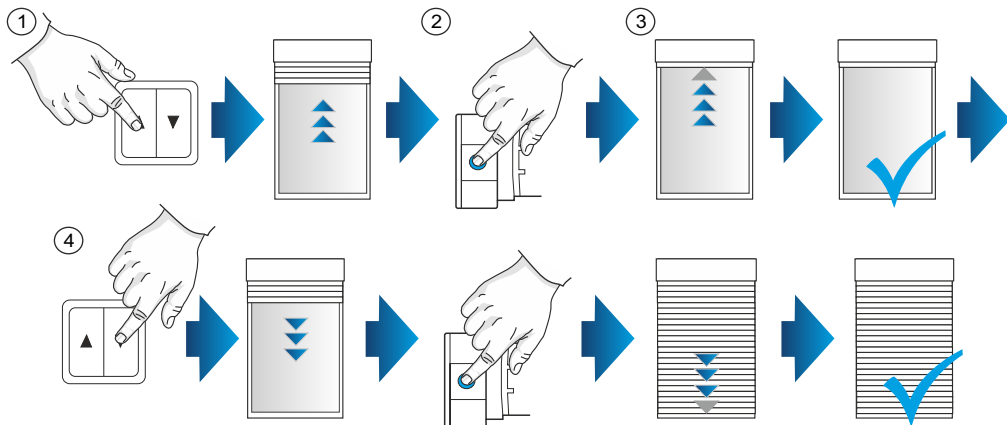


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### 3. MANUAL SETUP OF END LIMITS.

**!!! Note!** - before starting any autocalibration, set the roller shutter in the mid position.

1. Start the roller shutter movement towards the planned end position.
2. When the roller shutter is in motion, press and hold the service button on the motor (or alternatively supply voltage to the white wire extending from the drive).
3. Keep the service button pressed until the planned end position is reached (if the roller shutter has already passed the desired position, do not reverse it) and release the service button - the end limit position is set.
4. Repeat the procedure for the other end limit.



**!!! Advice:** In case of any error, repeat the procedure - end limit positions can always be set manually.

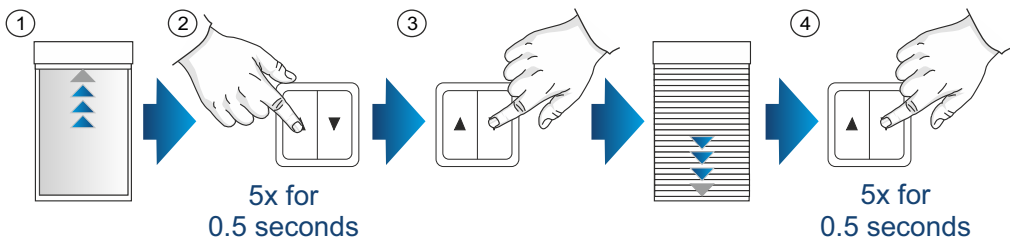
**Advice:** It is possible to set up one end limit position automatically and the other manually. Setting shall be carried out in accordance with the order up -> down. If the selected end limit position is reached and the motor is stopped in the overload protection mode, the end limit is automatically set.

### 4. MOTOR RESETTING.

1. Set the roller shutter in the end limit position.
2. Press the UP button 5 times on the switch. Do not make the press actions too quickly - each shall take half a second at the minimum. Make sure there is a half-second interval between each press.
3. Using the DOWN button, move the roller shutter to its lower end limit.
4. Once the roller shutter has reached its lower end limit, press the DOWN button 5 times on the switch. Do not make the press actions too quickly - each shall take half a second at the minimum. Make sure there is a half-second interval between each press.

**!!! Note!** - the last press action shall take longer so that the drive could confirm the reset with a short up movement. Once the roller shutter stops, release the button.

5. Wait for about 10 seconds until the motor memory is deleted. Over that time, the drive will not respond to commands.



**!!! Advice:** If the currently set end limit positions are outside the maximum movement range of the roller shutter, to simplify the procedure, end limits can be set manually in a shorter distance from one another (see point 3 of the user manual).

## 5. OBSTACLE (OVERLOAD) DETECTION SETUP.

### Reaction to detected obstacles:

**Mode 1** (default) - The motor will stop upon detection of an obstacle.

**Mode 2** - The motor will make a short move in the opposite direction upon detection of an obstacle.

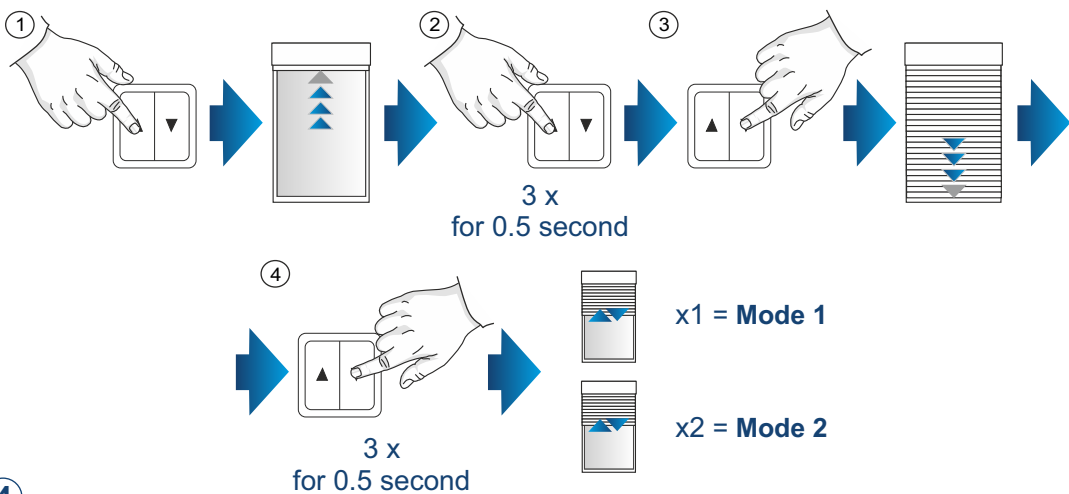
1. Move to the upper end limit position of the roller shutter.
2. Each time press the button for about half a second and make a half-second interval between each press, press the UP button 3 times.
3. Immediately (maximum half-second after the previous step) move the roller shutter down to its lower end limit.
4. Each time press the button for about half a second and make a half-second interval between each press, press the DOWN button 3 times. The last press action shall take longer so that the motor could confirm the setup:

A single short up/down movement:

**Mode 1**

A double short up/down movement:

**Mode 2**



## Obstacle detection sensitivity reduction:

**Mode 1** (default) - Reduced sensitivity of obstacle detection in the range of about 20 cm from the upper end limit.

**Mode 2** - Reduced sensitivity of obstacle detection in the range of about 4 cm from the upper end limit.

**Mode 3** - Reduced sensitivity of obstacle detection across the entire roller shutter range.

**!!! Note!** During this procedure, the motor must not be in the end limit position.

1. Press and hold the service button on the motor (alternatively supply the white wire with voltage).
2. Supply voltage to any direction of the motor, holding the service button pressed all the time for 5 seconds at the minimum. Wait for confirmation.
3. The motor should confirm the currently selected mode with short up/down movements:

A single short up/down movement:

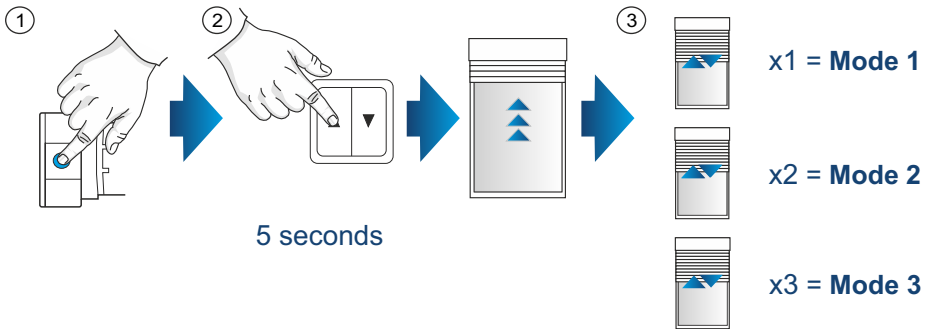
**Mode 1**

A double short up/down movement:

**Mode 2**

A triple short up/down movement:

**Mode 3**





**WARNING - FOR THE SAFETY OF PEOPLE,  
IT IS IMPORTANT TO FOLLOW THIS USER MANUAL.  
KEEP THIS USER MANUAL AT ALL TIMES.**



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