PROGRAMING MANUAL FOR DM MOTORS, SERIES BD

Failure to comply with this Manual may result in injury or death. Keep the Manual for reference.

1. TECHNICAL SPECIFICATIONS



Power supply: 230 VAC / 50 Hz Limit swiches: Electronic Operating temperature: $\sim -10^{\circ}\text{C} - \sim +50^{\circ}\text{C}$

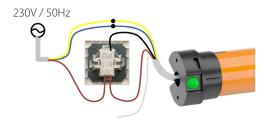
Protection degree: IP44

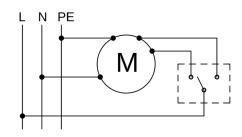
The motors can be connected in parallel for operation with a single control switch and without any additional power and control systems.

Obstacle detection,

Company reserves the tolerance of catalog data due the different conditions usage.

2. ELECTRICAL CONNECTIONS





NOTE

- Installation of the motor should be carried out by authorized persons.
- -The motor is designed for use in dry rooms and should not be exposed to direct weather conditions.
- -The motor should be powered by a separate circuit and protected by a quick fuse for example: circuit breaker type B10 $\,$
- The maximum number of motor units connected in parallel depends on the making capacity of the control switch and the long-term withstand load of the power supply line (the maximum is 10 drive units).

For the system to work properly:

- security springs WB or WL&P, W OCTOEASY must be used







- side locks or stoppers in the endslat must be used,







- adjust the maxiumum torque of the motor (Nm) to the weight of the curtain,,
- upper and lower limit position sholud be set up



In accordance with the provisions of the Directive of the European Parliament and of the Council 2012/19 / EU of 4 July 2012 on waste electrical and electronic equipment (WEEE), it is prohibited to place of used equipment together with other wastes, marked with crossed out wheeled bin symbol. The users are obliged to transfer their used equipment to a designated collection point for proper processing. The marking means, at the same time, that the equipment was put on the market after 13 August 2005. These legal obligations have been introduced to reduce the amount of waste generated from waste electrical and electronic equipment and to ensure an appropriate level of collection, recovery and recycling. The equipment does not contain any dangerous components, which would have any particularly negative impact on the environment and human health.





3. CONNECTING THE MOTOR WITH A SETUP CABLE



4. MANUAL SETTINGS OF LIMIT POSITIONS

I. With the setup cable

UPPER



Start the motor "UP".



The shutter will go up



Each press of the programming button on the setup cable tool increases range of the top limit position by a fixed increment. OK

Release the programming buton when the shutter is at the desiere upper limit position.

LOWER



Start the motor "down".



The shutter will go down



Each press of the programming button on the setup cable tool increases range of the bottom limit position by a fixed increment. OK

Release the programming buton when the shutter is at the desiere upper limit position.



If the motor doesn't accept programming, proceed to step 6.



II. With switch on the motor unit head

UPPER



Start the motor "UP".



The shutter will go up



Each press of the programming switch on the motor unit head increases range of the top limit position by a fixed increment. OK

Release the programming buton when the shutter is at the desiere upper limit position.

LOWER



Start the motor "DOWN".



The shutter will go down



Each press of the programming switch on the motor unit head increases range of the bottom limit position by a fixed increment. OK

Release the programming buton when the shutter is at the desiere upper limit position.



If the motor doesn't accept programming, proceed to step 6.

5. AUTOMATIC SETTING OF LIMIT POSITIONS

To enable the automatic settings of limit positions it is necessary to use security springs WB, WL&P or WOCTOEASY and side lock or stoppers in the endslats Program the top limit position first. - Option of the automatic settings of limit positions doesn't work with motor DM45BD – 40/15 Before using the automatic limit position setting function, verify that the motor unit's memory has no saved limit positions. If it does, you need to delete them (see "Deleting saved limit positions").

Procedure for automatic limit position setting:

- 1. Start the motor up.
- 2. When the motor unit senses an increasing rotation resistance at the top position of the shutter, it will stop and reverse down.
- 3. When the motor unit senses an increasing rotation resistance at the bottom position of the shutter, it will recycle the up and down motion to verify the positions.
- 4. Finally, the drive unit will stop at the top limit position. Now, the limit positions are set.

Next, verify that the limit position settings have been saved.



6. ERASING THE LIMIT POSITIONS



Start the motor up.



At the upper limit position, start and stop the motor unit power supply every 0.5 s (do this 5 times) in the upward direction.



Start the motor down.



At the bottom limit position, start and stop the motor unit power supply every 0.5 s (do this 5 times) in the downward direction.



The shutter will go up for a bit. The limit positions have been deleted.



This function deletes from the motor memory previously saved transmitters and limit positions.

7. THE RESISTANCE AND REBOUND FUNCTION



Start the motor up.



At the upper limit position, start and stop the motor unit power supply every 0.5 s (do this 3 times) in the upward direction.



Start the motor down.



At the bottom limit position, start and stop the motor unit power supply every 0.5 s (do this 3 times) in the downward direction.

OK

If the shutter operated with the motor unit moves up and down once at a short distance, the motor unit will sense an obstacle and reverse by 1/4 of turn.

If the shutter operated with the motor unit moves up and down twice at a short distance, the drive unit will sense an obstacle and stop.



To change the function please repeat the procedure.



8. OBSTACLE DETECTION MODE SELECTION

Mode I – (average sensitivity - set at the factory) - the detection sensitivity is decreased by one rotation of the motor from the end position.

Mode II – (the highest sensitivity) - the detection sensitivity decreased by 1/5 shaft rotation from the end position.

Mode III – (the lowest sensitivity) - the detection sensitivity decreased over the entire working height.



When the motor is not running, press and hold the programming buton located on the motor head



Press and hold for about 5 seconds the "UP" button

OK

If the mode I is active the motor performs **one** single slight movement in both directions.

If the mode II is active the motor performs **two** slight movements in both directions

If the mode III is active the motor performs **three** slight movements in both directions.

To change the function please repeat the procedure.





