

# **40/45**SERIES Motors

Quick & easy instructions for hardwired 40/45SERIES motors

## **Setting up your blind motor**

Setting	Steps	
Pairing a handset to your motor	<ol> <li>On the motor hold down P1 button for 2s, the motor will jog x 1 and beep x 1.</li> <li>On the handset hold the Stop button for 2s, the motor will jog x2 and beep x 3.</li> </ol>	
Setting the upper & lower travel limits	<ol> <li>Setting the Upper limit</li> <li>On the handset press the Up button to the limit you require.</li> <li>Hold down the Up &amp; Stop for 2s, the motor will jog x 2 and beep x 3.</li> </ol>	
	<ol> <li>Setting the Lower limit</li> <li>On the handset press the Down button to the limit you require.</li> <li>Hold down the Down &amp; Stop for 2s, the motor will jog x 2 and beep x 3.</li> </ol>	

<sup>\*</sup> If the direction of the motor is running the wrong way, you will need to Switch the motor direction.

#### Other features

Setting	Steps	
Switching motor direction	1. On the handset hold down the Up and Down button at the same time for 2s, the motor will jog x 1.  On the handset hold down the Up and Down button at the same time for 2s, the motor will jog x 1.	

Setting	Steps	
Add / remove a preferred position	<ol> <li>Remove the back of the handset.</li> <li>Press the P2 Button the motor will jog x 1 and beep x 1.</li> <li>Press the Stop button the motor will jog x 1 and beep x 1.</li> <li>Press the Stop button the motor will jog x 2 and beep x 3.</li> <li>Press Stop button for 2s, the motor will move to the preferred position.</li> <li>Repeat the above instructions.</li> </ol>	
Jog Mode & Running Mode Switch	<ol> <li>On the handset press and hold the Up &amp; Down button for 5s, the motor will jog x 1.</li> <li>Press the Stop button the motor will jog x 1 and beep x 1.</li> </ol>	
Adjust limits	<ol> <li>Adjust the Upper Limit</li> <li>On the Handset press and hold the Up &amp; Stop button for 5s, the motor will jog x 1 and beep x 1.</li> <li>Move the blind to the new limit</li> <li>Hold down the Up &amp; Stop for 2s, the motor will jog x 2 and beep x 3.</li> <li>Adjust the Lower Limit</li> <li>On the Handset press and hold the Down &amp; Stop button for 5s, the motor will jog x 1 and beep x 1.</li> <li>Move the blind to the new limit</li> <li>Hold down the Down &amp; Stop for 2s, the motor will jog x 2 and beep x 3.</li> </ol>	
Pair additional handsets	<ol> <li>Remove the back of the handset.</li> <li>On the existing handset press the P2 button, the motor will jog x 1 and beep x 1.</li> <li>On the existing handset press the P2 button, the motor will jog x 1 and beep x 1.</li> <li>On the new handset press the P2 button the motor will jog x 2 and beep x 3.</li> </ol>	

Setting	Steps	
Pair additional handsets	<ol> <li>Remove the back of the handset.</li> <li>On the existing handset press the P2 button, the motor will jog x 1 and beep x 1.</li> <li>On the existing handset press the P2 button, the motor will jog x 1 and beep x 1.</li> <li>On the new handset press Stop for 2s, the motor will jog x 2 and beep x 3.</li> </ol>	
	<ol> <li>On the existing handset press the P1 button for 2s, the motor will jog x 1 and beep x 1.</li> <li>On the new handset press Stop button for 2s, the motor will jog x 2 and beep x 3.</li> </ol>	
Unpair additional handsets	<ol> <li>Remove the back of the handset</li> <li>On the existing handset press the P2 button, the motor will jog x 1 and beep x 1.</li> <li>On the existing handset press the P2 button, the motor will jog x 1 and beep x 1.</li> <li>On the new handset press the P2 button the motor will jog x 2 and beep x 3.</li> </ol>	
	<ol> <li>Press and hold the P1 button, the motor will jog x 1 and beep x 1.</li> <li>On the handset press Stop button for 2s, the motor will jog x 2 and beep x 3.</li> </ol>	
Speed Degulation / setting restor Slave	<ol> <li>Remove the back of the handset.</li> <li>Press the P2 button and the motor will jog x 1 and beep x 1.</li> <li>Press Up button and the motor will jog x 1 and beep x 1.</li> <li>Press Up button and the motor will jog x 2 and beep x1.</li> </ol>	
Speed Regulation / setting motor Slow Stop Operation Mode.	<ol> <li>Reduce the Speed</li> <li>Remove the back of the handset.</li> <li>Press the P2 button and the motor will jog x 1 and beep x 1.</li> <li>Press Down button and the motor will jog x 1 and beep x 1.</li> <li>Press Down button and the motor will jog x 2 and beep x1.</li> </ol>	

Setting	Steps	
Factory Setting	Press and hold the P1 button, the motor will jog x     4 and beep.	
	1. Press and hold the P1 button for 6s, the motor will Jog x 2 and beep.	
Sleep Mode / remove Sleep Mode	To Remove	
	1. Press the P1 button Once.	

# Lifting capacity of the motors

Motor Type	Nm	
40SERIES (BM25.4042)	1.5Nm	6.5kg
45SERIES (BM28.4020)	2Nm	8.5kg

#### **Handsets**

- BMTR.9050 & BMTR.9070 Single Channel.
- BMTR.9055 & BMTR.9075 15 Channel.

Setting	Steps	
Set Number of Channels	<ol> <li>Press and hold Channel + &amp; channel - at the same time until "C" (for change) will be displayed on the screen.</li> <li>Press Channel + or channel - to select the max number of channels you need to your remote.</li> <li>Press the Stop button, "o" (for ok) will be displayed on the screen.</li> <li>Handset will now only show that number of channels.</li> </ol>	
Switch Between One-way & Two-way Mode	Remote default is two-way (Bi- Directional)  1. Remove the back of the handset. 2. Remove the battery. 3. Press and hold the P2 button, while putting the battery back in.  For step 3, try to hold the handset with the screen facing you.  If "1" is displayed = one-way.  If "2" is displayed = two-way.	

#### **Locking/Unlocking Handset**

Once you have done the installation, you may want to lock your handset to avoid any mishandling by the user.

- 1. Press & hold the Stop button until "I" (for locked) or "U" (for unlocked) is displayed on the screen.
- 2. Press the Stop button, "o" (for ok) will be displayed on the screen.
- 3. Handset is now locked or unlocked.

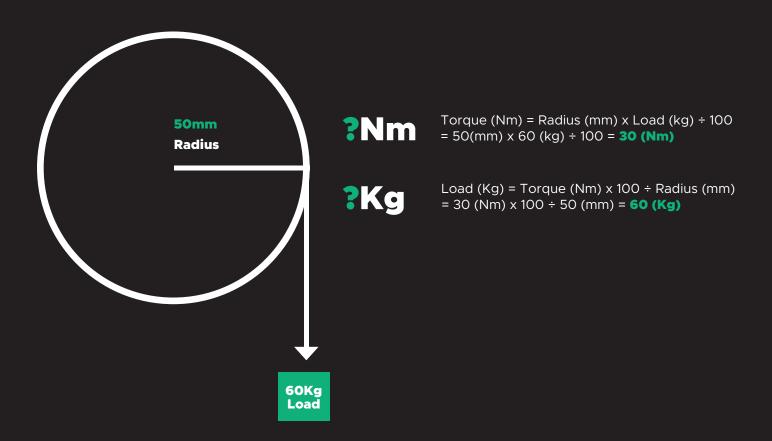
## **Troubleshooting**

ssues	Possible Causes	Solution
The Motor has no response	Power failure or incorrect connection.	Double check power and cable connections.
	Handset battery is low capacity.	Replace battery.
	Radio interference / shielding.	Check antenna on the motor is intact and not hidden. Check for possible source of radio interference.
	Out of radio control range.	Try control within closer range.
The handset can't control single motor	Multiple motors are paired to the same channel.	Pair single motor per channel.
		Try to use multi-channel handset to control multi-motors projects, ensure each channel is paired per motor.
Pairing Issues	Remote won't pair with Motor.	Check the remote is compatible with the motor.
		If the motor is a Uni-Directional motor and using Bi- Directional handset you can change the Direction of the motor, see handset instructions.
Problem setting limits		Handset is not paired to the motor.
	Remote won't set limits.	The remote is in locked mode, see handset instructions.
The motor doesn't run or starts to slowly or make loud noise.	Connections are incorrect.	Check connections.
	Installation is not correct or overload.	Check installation or overload.
The motor stops during the up and down running.	The motor has reached the lower limit.	Adjust the new limit.
	Running time has exceeded 5/6 minutes	Let the motor cool down for about 20 minutes

#### **Deciding the correct Nm and Torque**

When choosing the right roller door motor for blinds (or roller shutters), it's important to calculate two key parameters:

- 1. Torque (in Newton-meters, Nm) this determines the motor's ability to rotate the blind with enough force.
- 2. Lifting capacity (usually in kg) this indicates how much weight the motor can lift, which must match or exceed the weight of your blind.



Calculation in diagram based on Newton's Law. (1 inch = 25.4mm | 1 pound = 0.454Kg)

- 1. Measure the Load of the Blind (Kg) You need to know the total weight that the motor must lift. This includes the curtain (slats/material), the bottom bar and any additional accessories mounted on the shaft.
- 2. Measure the radius of the roller tube (not diameter), in millimetres (mm). This is the distance from the centre of the shaft to the point where the force is applied (typically where the blind rolls onto the shaft).
- 3. To calculate torque, use the following calculation: Radius  $x \text{ Load} \div 100 = \text{Torque}$ .
- 4. To calculate lifting capacity, use the following calculation: Torque x 100 ÷ Radius = Lifting Capacity.