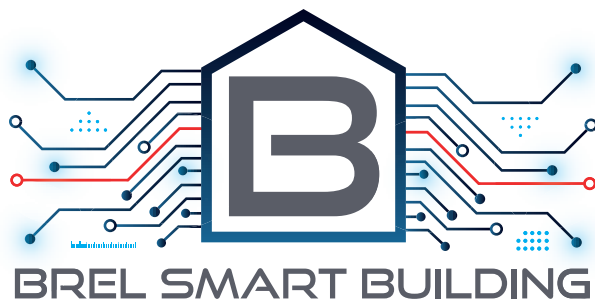




INSTALLATION MANUAL

Penta Motors

This manual is suitable for the following motor types:

- PLE45-20

Read the manual before starting the installation. Failure to follow the instructions may result in defects that are not covered by the warranty.

Visit our website www.brelsmartbuilding.com for more information.



Scan the QR code to view the manual and instruction videos.

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Warnings

Declaration of Conformity

This product complies with the essential requirements of the following European Directives:

Radio Equipment Directive (RED) 2014/53/EU: Complies with the requirements for radio communication, including safety, health and efficient use of the radio spectrum.

Electromagnetic Compatibility Directive (EMC) 2014/30/EU: Complies with standards for electromagnetic emissions and immunity to prevent interference.

Restriction of Hazardous Substances Directive (RoHS) 2011/65/EU: The product complies with the requirements regarding the use of hazardous substances.

Machinery Directive (MD) 2006/42/EC: Complies with the safety requirements for the design and manufacture of machinery, including mechanical and electrical safety.

Note: This document is a summary. Please refer to the full Declaration of Conformity for detailed information.



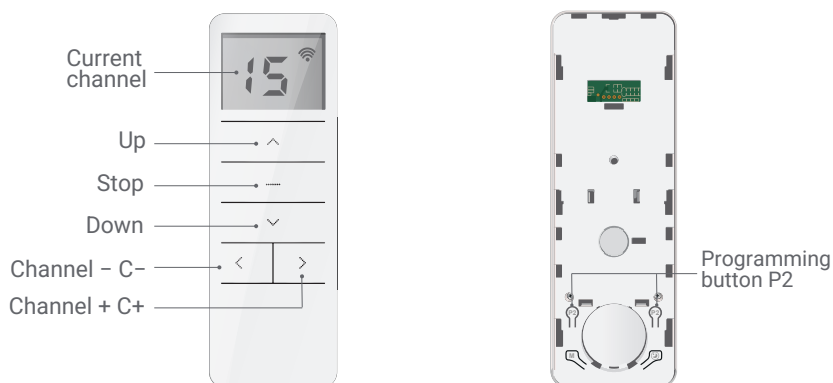
Technical Data of the Motor

	PLE45-20
Connector	DIN 3.4 female
Operating voltage	12V
Charging voltage	12.6V
Power	50W
Current	4.10A
Torque (Nm)	20
Speed (rpm)	10
Motor length (mm)	660
Motor diameter (mm)	45
Motor head diameter (mm)	60
Antenna (mm)	170
Cable (mm)	170
IP-Class	IP44

The following specifications apply to all Penta motors:

Frequency	433 MHz
Range	25 m indoors to 100 m outdoors
Capacity	10 channels or transmitters
Operating temperature	10 °C to +55 °C
Low battery indication	10 beeps

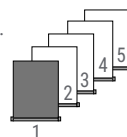
Remote Control Functions



There are two P2 buttons. It does not matter which one you use.

Programming the First Remote Control/Channel

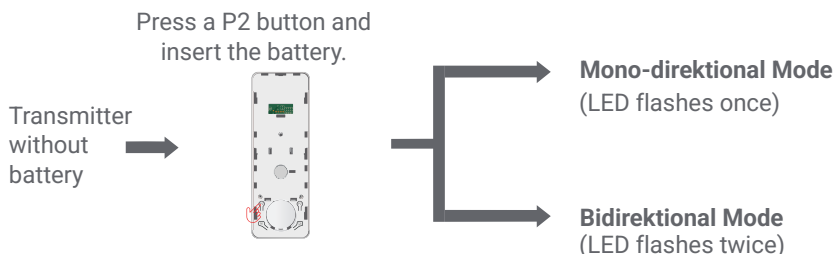
-  The remote control can transmit on 15 channels and can therefore control multiple motors. First select the desired channel for the respective remote control/motor. Choose an available channel. We recommend one motor per channel.
-  The remote control has channel 0. All motors programmed on channels 1–15 are automatically also assigned to channel 0.
-  If you discover after installation that you have programmed a product on the wrong channel, go to, **Reset to Factory Settings**.



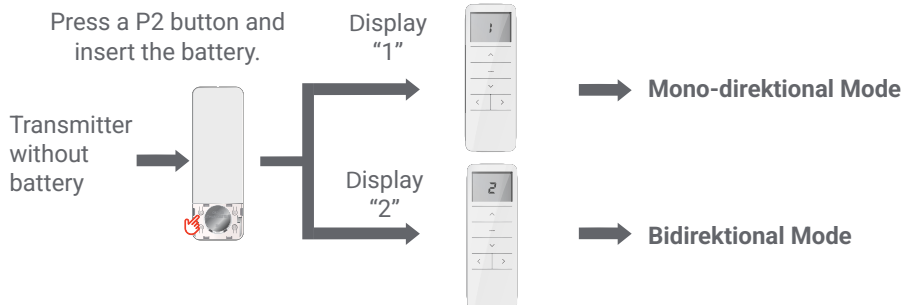
► Select the desired channel

Step 1 Switch the Transmitter to Unidirectional Mode

THW2001 + TWW2001

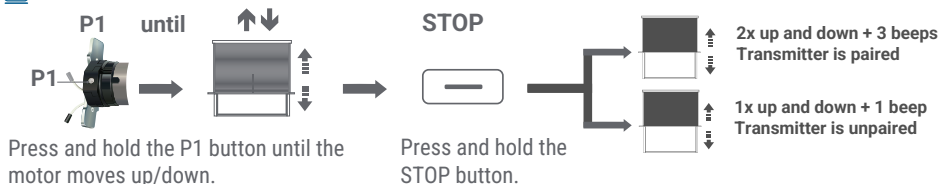


THW2015 + TWW2015



Step 2 Establish Connection

-  If you do not start programming within 10 seconds, the motor will exit programming mode.
-  During programming, press the button briefly each time. If you hold it down for too long, this will be interpreted as a command.
-  The motor confirms each completed step by moving up and down. (‡)
-  If a procedure does not go as planned, wait 20 seconds and start again.



-  If NO end limits have been set, the motor will operate in jog mode. Proceed to step 3.
- If end limits have already been set, check the end limits. If they are not correct for the installation:
Warning: If the end limits are not correct, go to page 6, "Changing Settings".

Step 3 Reverse the Direction of Rotation (only if incorrect)

Only possible if no end limits have been set.

▲ + ▼



1x up and down



Press the UP and DOWN buttons simultaneously until the motor moves up/down.

The motor's direction of rotation has been changed.

 If there is no response, check whether the remote control is locked.

Step 4 Setting the End Limits

-  o move the motor step by step: Briefly press the **UP** or **DOWN** button.
-  To move the motor continuously: Press the **UP** or **DOWN** button for 3 seconds (**ATTENTION!** Press STOP in time).

1. Setting the Desired Upper Position



Use the control buttons to move the motor to the desired upper position.

Press the **UP** and **STOP** buttons simultaneously until the motor moves up and down.

2. Setting the Desired Lower Position



Use the control buttons to move the motor to the desired **lower** position.

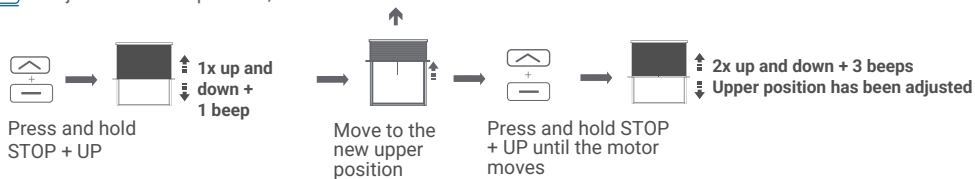
Press the **STOP** and **DOWN** buttons simultaneously until the motor moves up and down.

 **The motor is now ready for use.**

Changing Settings

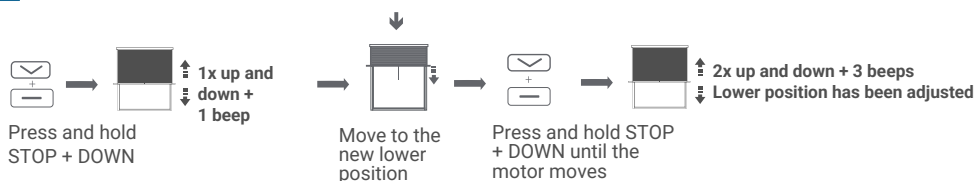
Adjusting the Upper Position

 If adjustment is not possible, check the lock function or reset the motor.

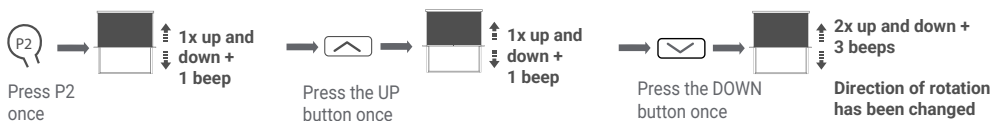


Adjusting the Lower Position

 If adjustment is not possible, check the lock function or reset the motor.



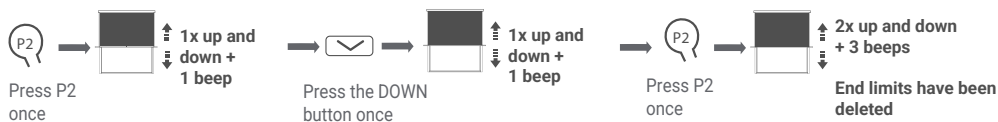
Changing the Direction of Rotation



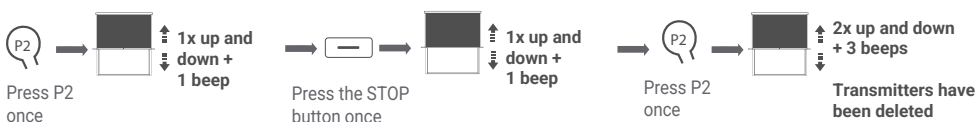
Changing Settings

Deleting End Limits

Only possible if the end limits have been set



Deleting All Transmitters



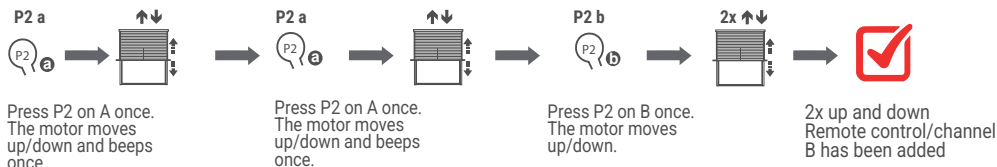
Adding an Additional Remote Control/Channel

Only possible if the end limits have been set

a = Existing remote control/channel

b = New remote control/channel

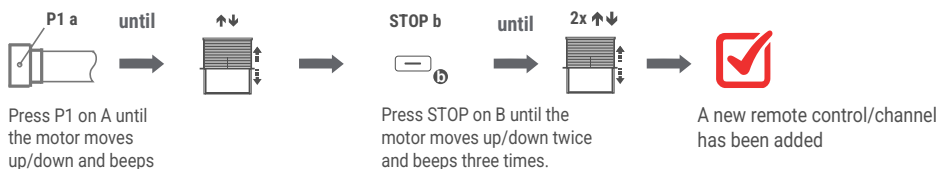
Via the Existing Transmitter



i Start with the remote control or channel on which the motor is programmed.

i To remove a remote control/channel, repeat the procedure.

Via the P1 Button (if the Old Remote Control Is Defective)



i Start with the remote control or channel on which the motor is programmed.

i To remove a remote control/channel, repeat the procedure.

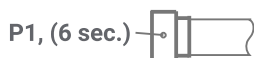
P1 Button Functions Can Be Used as an Emergency Control Button



The motor moves up, stops or moves down when you press the P1 button..

Briefly press the P1 button once.

Switching Off the Receiver



Press and hold the P1 button until the motor moves up/down twice.

The receiver is switched off.

To reactivate the receiver, briefly press P1 once.

Changing the Direction of Rotation



Press and hold the P1 button until the motor moves up/down three times.

The direction of rotation has been

Resetting to Factory Settings



Press and hold the P1 button until the motor moves up/down four times.

The motor has been reset to factory settings.

 To reprogram the motor, go to step 2.