

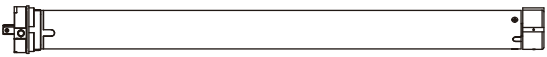
SAFETY NOTE

1. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
2. Children shall not play with the appliance.
3. Cleaning and user maintenance shall not be made by children without supervision.
4. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
5. WARNING: the drive shall be disconnected from its power source during cleaning, maintenance and when replacing parts.
6. The instructions shall state that the A-weighted emission sound pressure level of the drive is equal to or less than 70 dB(A), e.g. by writing $LpA \leq 70 \text{ dB(A)}$.
7. The mass and the dimension of the driven part shall be compatible with the rated torque and rated operating time.
8. The type of driven part the drive is intended for.
9. WARNING: Important safety instructions. It is important for the safety of persons to follow these instructions. Save these instructions.
10. Do not allow children to play with fixed controls. Keep remote controls away from children.
11. Frequently examine the installation for imbalance and signs of wear or damage to cables and springs. Do not use if repair or adjustment is necessary.
12. Watch the moving shutter and keep people away until the shutter is completely closed.
13. WARNING: Important safety instructions. Follow all instructions, since incorrect installation can lead to severe injury.
14. Before installing the drive, remove any unnecessary cords and disable any equipment not needed for powered operation.



DM35ECB/F

Instruction | A-02



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

Features

- Z-Wave Plus S2 Device
- Position Feedback
- Precise Limit Setting
- Jog & Tilt
- Switch Direction
- Stall Protection
- Reset to Factory Mode
- Sun-sensor Compatible
- Built-in Receiver
- Electronic Limit
- Preferred Stop Position
- Limit Fine Adjustment

Fields of Application



The motor is suitable for motorization of roller blinds.

Specifications

Working Temperature: -5°C ~ +50°C	Radio Frequency: 433.92MHz; 868.4MHz
Rated Voltage: 230V/50Hz	Thermal Protection time: > 4 minutes

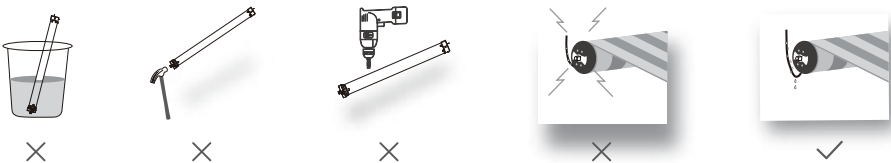
Following data for reference

Model	Rated Torque (N.m)	Rated Speed (rpm)	Rated Current (A)
DM35ECB/F-6/28	6	28	0.63
DM35ECB/F-10/17	10	17	0.63

* For reference only.

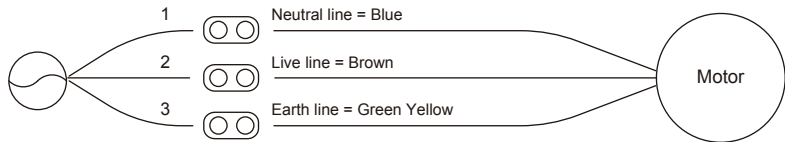
Attention

Never drop, knock, drill or submerge the motor. Keep the power cable in right position as following. Important safety instructions to be read before installation. Incorrect installation can lead to serious injury and will void manufacturer's liability and warranty.

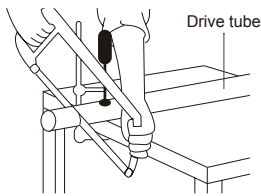


Wiring

Three wires: 230V/50Hz



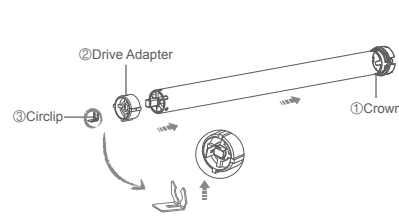
Motor Installation



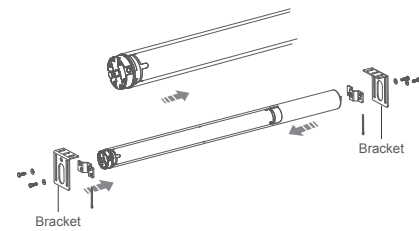
Step 1 Cut drive tube to required length.



Step 2 Ensure tube edge is clean and burr-free.



Step 3 Mount correct crown & drive adapter on the motor. Make sure drive adapter fits firmly and crown rotates freely.



Step 4 Align the notches on the crown and drive adapter with the drive tube, slide and fit the motor into drive tube. Mount idler and bracket on both ends.

Caution

1. Do not expose motor to humid, damp or extreme temperature conditions.
2. Do not drill into motor.
3. Do not cut the antenna and keep it clear from metal objects.
4. Do not allow children to play with this device.
5. If power cable or connector is damaged, do not use.
6. Ensure correct crown and drive adaptor are used.
7. Ensure power cable and aerial is clear and protected from moving parts.
8. Cable routed through walls shall be properly isolated.
9. Motor is to be mounted in horizontal position only.
10. Before installation, remove unnecessary cords and disable equipment not needed for powered operation.
11. Installation and programming to be performed by a qualified professional, use or modification outside the scope of this instruction may void warranty.



Important Safety Instructions To Be Read Prior To Operation.

Setting Notice

Please read following points of attention carefully before setting.

1. Please use accessories kits to protect the wires which are not used.
2. Operating:
 - ① The valid interval of the emitter button is 6s, the emitter will quit the set after 6s.
 - ② The motor will run or beep for hint, please do the next step after the hint.
3. Set limit position:
 - ① After the upper/lower limit setting, and the upper/lower limit position can't at the same position.
 - ② After limit setting, with power off and memory function.
 - ③ Limit delete will clear all limit memory.
 - ④ It will exit limit setting when program there is no operation for 2 minutes.
4. If the emitter lost, please setting up again with new emitter.
5. One motor can store maximum 20 channels; after fully stored, if pair new channels, only the last one will be covered circularly.

Z-Wave Configuration

Z-Wave Plus: Yes
Security S2 Classes: S2 Unauthenticated
SmartStart Compatible: No
Z-Wave hardware platform: ZM5202
Z-Wave version: 6.71.01
Z-Wave library type: Enhanced 232 Slave
Z-Wave Device Type: Window Covering - Pos/End Aware
Z-Wave Role Type: Always On Slave
Product Type ID: 0x0103
Product ID: 0x0090

Association Capabilities:

This product supports 2 association groups; each group supports max 5 associated nodes.

GROUP 1 is lifeline service that assigned to curtain motor position. It enables the curtain motor to send reports to Z-Wave Controller or Z-Wave Gateway whenever the motor is starting or stopped.

The Group Support:

SWITCH_MULTILEVEL_REPORT_V3

DEVICE_RESET_LOCALLY_NOTIFICATION

GROUP 2 allows for Send Multilevel Report to associated devices in this group.

This Group Support:

SWITCH_MULTILEVEL_REPORT_V3

Supporting Command Classes:

Command class	Version	Secure S2 supported
COMMAND_CLASS_BASIC	V1	Yes
COMMAND_CLASS_ZWAVEPLUS_INFO	V2	
COMMAND_CLASS_VERSION	V2	Yes
COMMAND_CLASS_MANUFACTURER_SPECIFIC	V2	Yes
COMMAND_CLASS_SWITCH_MULTILEVEL	V3	Yes
COMMAND_CLASS_SWITCH_BINARY	V1	Yes
COMMAND_CLASS_DEVICE_RESET_LOCALLY	V1	Yes
COMMAND_CLASS_ASSOCIATION	V2	Yes
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION	V3	Yes
COMMAND_CLASS_ASSOCIATION_GRP_INFO	V1	Yes
COMMAND_CLASS_CONFIGURATION	V1	Yes
COMMAND_CLASS_POWERLEVEL	V1	Yes
COMMAND_CLASS_TRANSPORT_SERVICE	V2	
COMMAND_CLASS_SECURITY	V1	
COMMAND_CLASS_SECURITY_2	V1	
COMMAND_CLASS_SUPERVISION	V1	Yes
COMMAND_CLASS_FIRMWARE_UPDATE_MD	V4	Yes

Basic Mapping:

Basic Set = 255 maps to Multilevel Switch = 255

Basic Set = 0 maps to Multilevel Switch = 0

Basic Set = 1-99 maps to Multilevel Switch = 1-99

Basic Get/Report maps to Multilevel Switch Get/Report

③ Advanced configuration:

1. Set the direction: This parameter can be used to set the motor rotation direction, the motor direction is forward

(Configuration Value set to 0) or the opposite direction (Configuration Value set to 1). The default value is 0.

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_SET	1	1	0~1	0

2. Set to start holding hands: This parameter can be used to set the motor open hand start function (Configuration Value set to 0) or closed (Configuration Value set to 1). The default value is 0.

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_SET	2	1	0~1	0

3. Configure weak electric switch mode: This parameter can be used to set the need of weak electric switch mode.

Provide 4 kinds of weak electric switch mode is optional, respectively: Double-button reboundable switch (Configuration Value set to 1), Double-button not reboundable switch (Configuration Value set to 2), DC24V switch (Configuration Value set to 3), Single-button cyclic switch mode (Configuration Value set to 4). The default value is 1.

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_SET	3	1	1~4	1

4. Configure strong electric switch mode: This parameter can be used to set the need of strong electric switch mode.

Provide 3 kinds of weak electric switch mode is optional, respectively: Double-button not reboundable (Configuration Value set to 0), Hotel mode (Configuration Value set to 1), Double-button reboundable mode (Configuration Value set to 2). The default value is 0.

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_SET	4	1	0~2	0

5. Read whether the total limit is set: This parameter can be used to read the motor's total limit is already set. Not set the limit (Read into the Configuration Value is 0); Already set the limit (Read into the Configuration Value is 1)

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_GET	5			

6. Read the device type: This parameter can be used to read the type of the motor. Motor types are divided into curtain motor (Read into the Configuration Value is 0x01), shutter (Read into the Configuration Value is 0x11), Venetian blinds (Read into the Configuration Value is 0x12)

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_GET	6			

7. Read the motor power supply type: This parameter can be used to read the motor power supply type. The power of motor is classified into: Mains power supply (Read into the Configuration Value is 0), battery power (Read into the Configuration Value is 1).

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_GET	7			

8. Manually set / cancel open borders: Manually set the open boundary of the curtain (Configuration Value set to 1), cancel manually open the border of the curtain (Configuration Value set to 0).

9. Manually set / cancel close borders: Manually set the close boundary of the curtain (Configuration Value set to 1), cancel manually close the border of the curtain (Configuration Value set to 0).

Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_SET	8	1	0~1	

10. Delete the limit: This command can delete the limit that has been set for the motor.

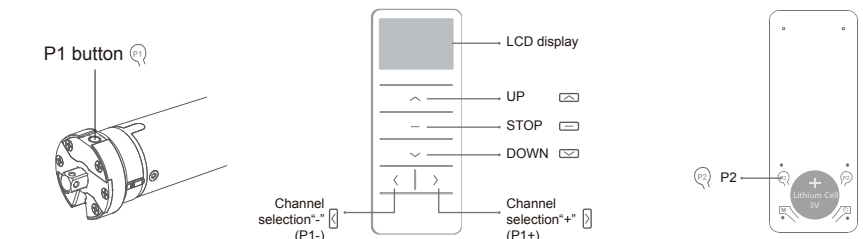
Command	Parameter Number	Size	Configuration Value	Default
CONFIGURATION_SET	A	1	7F	

④ This device is a security-enabled Z-Wave Plus product that is able to use encrypted Z-Wave Plus messages to communicate to other security-enabled Z-Wave Plus products

⑤ This device must be used in conjunction with a Security Enabled Z-Wave Controller in order to fully utilize all implemented functions.

⑥ 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.

Button Instructions



Functions of P1 button

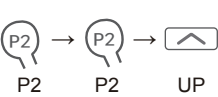
1. Z-Wave Network Inclusion/Exclusion: Press P1 button 3 times within 1.5S, motor beeps once for each press and jog once for last press. motor is ready for Z-Wave Network Inclusion/Exclusion.
2. Pairing: Press P1 button for 2S, if no pairing, motor long beeps once and jog once; if paired, motor beeps three times, release P1 button, the motor enters pairing status.
3. Pair Additional Emitter: Press P1 button for 2S, motor beeps 3 times and jog once, motor is ready to pair additional emitter.
4. Switch Direction: Press and hold P1 button for 5S, motor beeps 3 times and jog once, the running direction of the motor has been changed.
5. Reset to Factory Mode / Forced Z-Wave Exclusion: Press and hold P1 button for 10S, motor beeps 3 times and jog once, release button and jog once, then motor beeps 16 times and jog once, the motor has been reset to factory mode.



Essential Settings

Step 1 to 3 must be completed to ensure proper operation.

1 Emitter Pairing



Press P1 button for 2S (beeps 3 times for the code, if the code is not aligned, make a long noise and 1 jog), or repower, within 7S, press P2 (1 beep and 1 jog), P2 again (1 beep and 1 jog), and UP (3 beeps and 1 jog), motor is paired with emitter.

2 Switch Rotating Direction (Optional)

Press UP and motor runs downwards, try below to switch direction.



Press and hold UP and DOWN buttons simultaneously for 2S (1 jog), the direction has been switched successfully.

*The motor needs to be in the reversing operation without limit.

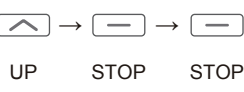
3 Upper and Lower Limits Setting

1 Initiate limit setting



Press P2 (1 beep and 1 jog), UP (1 beep and 1 jog), and P2 (3 beeps and 1 jog), motor is ready for limit settings.

2 Set upper limit



Press UP, operate the motor to desired upper position, press STOP once, then press STOP for 5 times (3 beeps and 1 jog), upper limit is set.

3 Set lower limit

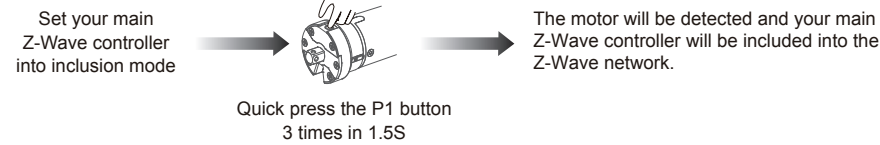


Press DOWN, operate the motor to desired lower position, press STOP once, then press STOP for 5 times (3 beeps and 1 jog), lower limit is set.

*In the no-limit state, the limit setting can be completed without entering the setting state; When setting the limit, press UP or DOWN to run the motor. At this time, press P2 to enter the jogging state, the position of the limit can be precisely set, and press STOP to exit the jogging state. It's freely to set the upper limit or lower limit firstly;

4 Z-Wave Network Inclusion / Exclusion

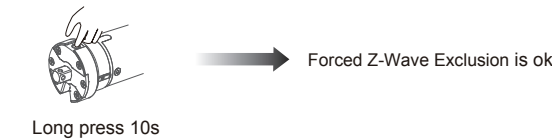
1 Including/Excluding motor to a Z-Wave network:



*Press P1(1 beep), Press P1(1 beep), Press P1(1 beep and 1 jog); Repeat the same operation will exclude the Z-Wave Network.

2 Foreced Z-Wave exclusion:

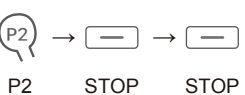
Please use this procedure only when the network primary controller is missing or otherwise inoperable.



*Press and hold P1 for 10S (Press and hold P1 button for 2S, the motor will long beep once and jog once; for 5S, 3 beeps and jog once if no limits; for 10S, 3 beeps and jog once; release the P1 button, 16 beeps and jog once.

5 Add A Preferred Position

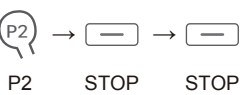
1 Set preferred position



Check both upper and lower limits are set. Operate the product to desired preferred position. Press P2(1 beep and 1 jog), press STOP(1 beep and 1 jog), STOP again (3 beeps and 3 jogs), the preferred position is set.

*Press STOP for 2S, the motor moves to preferred position automatically.

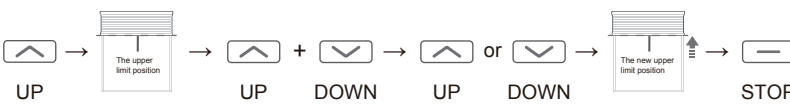
2 Remove preferred position



Press P2 (1 beep and 1 jog), press STOP(1 beep and 1 jog), STOP again (1 long beep and 1 jog), the preferred position is deleted.

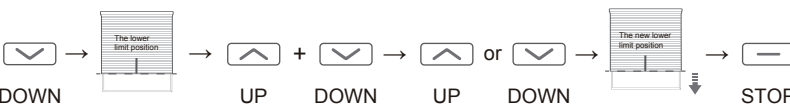
6 Adjust Limits

1 Adjusting the upper limit position



Operate product to upper limit position. Press and hold Up and Down buttons for 5S (3 beeps and 1 jog), operate the product to desired new upper limit position, press and hold STOP for 5S(3 beeps and 1 jog), the new upper limit is programmed successfully.

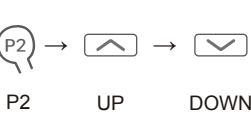
2 Adjusting the lower limit position



Operate product to lower limit position. Press and hold Up and Down buttons for 5S (3 beeps and 1 jog), operate the product to desired new upper limit position, press and hold STOP for 5S(3 beeps and 1 jog), the new lower limit is programmed successfully.

*After entering the limit fine adjusting status, short press UP or DOWN to jog the motor, press UP or DOWN for more than 2S, the motor continues run; Within 30S of entering the fine adjustment mode, if the new limit is not confirmed and there is no other operation, exit the fine adjustment mode and restore the original limit.

7 Activate / Deactivate Jog / Tilt Mode

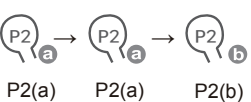


Press P2 (1 beep and 1 jog), UP (1 beep and 1 jog), and DOWN (make a long noise and 1 jog), Jog / tilt mode is deactivate. If motor beeps 3 times and jogs 3 times, Jog / tilt mode is activated.

*When the Jog / tilt mode is activated, press UP or DOWN for 2S, the motor will be continuously running.

8 Pair / Unpair Additional Emitter

Method one



Press P2 (1 beep and 1 jog) and P2 (1 beep and 1 jog) on existing emitter, press P2 on new emitter to add (3 beeps and 1 jog), new emitter is paired to the motor.

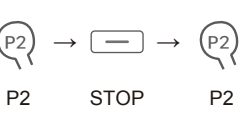
Method two



Press P1 button for 2S (3 beeps and 1 jog), press STOP on new emitter for 2S to add (3 beeps and 1 jog), new emitter is paired to the motor.

* (a) as existing emitter, (b) as new emitter to pair/unpair; Repeat Method 1 to remove the newly added emitter.

9 Deleting All Emitters



Press P2 (1 beep and 1 jog), STOP (1 beep and 1 jog), and P2 (3 beeps and 1 jog), all emitters are deleted.

*After deleting all emitters, keep the original limit information.

10 Deleting All Limits



Press P2 (1 beep and 1 jog), DOWN (1 beep and 1 jog), and P2 (3 beeps and 1 jog), all limits are removed.

*This operation is deleted along with the preferred position.

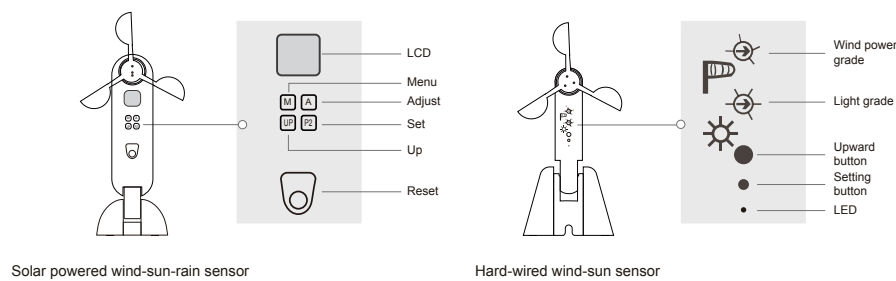
11 Enable / Disable Power-on Prompt Function



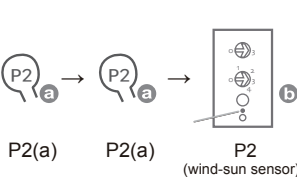
Press P2 (1 beep and 1 jog), UP (1 beep and 1 jog), and STOP (make a long noise and 1 jog), the motor turn off power-on prompt function. If motor beeps 3 times and jogs 3 times, the motor turn on power-on prompt function.

*The factory default mode is ON.

Pair With Wind-sun Sensor For Roller Blinds.



12 Adding Wind-sun Sensor



Press P2 (1 beep and 1 jog) and P2 (1 beep and 1 jog) on existing emitter, press P2 on the wind-sun sensor (3 beeps and 1 jog), wind-sun sensor is paired to the motor.

*Add multiple wind-sun sensors only currently valid, other are covered; Turn on the sun detection function after the sensor is successfully added.

13 Enable / Disable Sun Detection

1 Enable sun detection



Press UP and STOP simultaneously (3 beeps and 3 jogs), Sun detection is enabled.

2 Disable sun detection



Press DOWN and STOP simultaneously (1 long beep and 1 jog), Sun detection is disabled.

14 Wind-sun Sensor Control

If the motor has already set the upper and lower limits, when the wind is strong or the light is weak, the sensor sends signal to motor to run to the upper limit, when the light is strong, the sensor sends signal to motor to run to the lower limit.

Quick Index

Settings	Steps
1 Emitter Pairing	P1(hold down 2S) → P2 → P2 → Up
2 Switch Rotating Direction	Up + Down (hold down 2s)
3 Upper and Lower Limits Setting	Initiate limit setting P2 → Up → P2 Set upper limit Up → Stop → Stop (hold down 5s) Set lower limit Down → Stop → Stop (hold down 5s)
4 Z-Wave Network Inclusion / Exclusion	P2 → P2 → P2 (Press P2 3 times in 1.5S)
5 Forced Z-Wave Network Exclusion	Press and hold P2 for 10S
6 Add / Remove Preferred Position	P2 → Stop → Stop
7 Adjust Limits	Adjusting the upper limit position Up → Up + Down (hold down 5s) → Up or Down → Stop (hold down 5s) Adjusting the lower limit position Down → Up + Down (hold down 5s) → Up or Down → Stop (hold down 5s)
8 Activate / Deactivate Jog / Tilt Mode	P2 → Up → Down
9 Pair / Unpair Additional Emitter	Method one P2(a) → P2(a) → P2(b) Method two P1(hold down 2S) → Stop(b) (hold down 2S)
10 Deleting All Emitters	P2 → Stop → P2
11 Deleting All Limits	P2 → Down → P2
12 Enable / Disable Power-on Prompt Function	P2 → Up → Stop
13 Adding Wind-sun Sensor	P2(a) → P2(a) → P2 (wind-sun sensor)
14 Enable / Disable Sun Detection	Enable sun detection Up + Stop Disable sun detection Down + Stop

Troubleshooting

Issues	Possible causes	Solution
The motor has no response	Power Failure Or Incorrect Connection	Double check power and cable connections, follow wiring instructions.
	emitter battery is low capacity	Replace battery
	Radio interference / shielding	Check antenna on motor is intact and exposed. Check for possible source of radio interference.
	Out of radio control range	Try control within closer range
The emitter can't control single motor	Multiple motors are paired to the same channel.	Always reserve an individual correctly (refer to motor functions) Try to use multi-channel emitters to control multi-motor projects, ensure each channel to control one single motor
	Connections are incorrect.	Check connections
The motor doesn't run or starts too slowly or make loud noise	Incorrect installation or overload	Check installation or overload
	The motor has reached the lower limit	Adjust the new lower limit
The motor stops during the going up or going down.	Running time exceeds 4 min	Consult the sales for more information