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 status 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 ≤ 70 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.
15. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
16. Children should be supervised to ensure that they do not play with the appliance.
17. Disconnect the drive from the supply or switch off the automatic controls when maintenance, such as window cleaning, is being carried out in the vicinity.

R-type motor

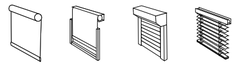
Radio+

Instruction | A-00

Features

- Built-in Receiver
- Jog & Tilt
- Switch Direction
- Wind-sun Sensor Compatible
- Radio Lock

Fields of Application



For motorized roller shutter, zip screen, metal rolling shutter window and wood venetian blinds.

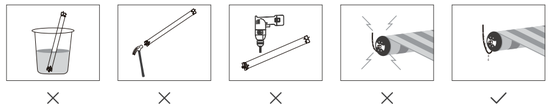
Specifications

Working Temperature: -20℃ ~ +65℃	Radio Frequency: 433.92MHz
Rated Voltage: 230VAC,50Hz; 220VAC,60Hz; 120VAC,60Hz	Thermal Protection Time: 4 minutes

* For more motor models and specific torque, please refer to the nameplate.

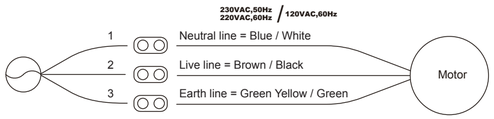
Attention

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.

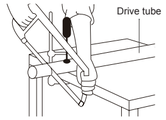


Wiring

Three wires: 230VAC,50Hz; 220VAC,60Hz; 120VAC,60Hz

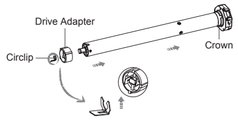


Motor Installation

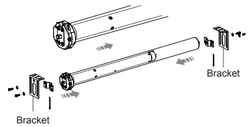


Step 1 Cut drive tube to required length.

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 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.

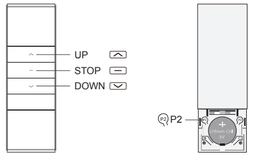
Important Safety Instructions To Be Read Prior To Operation.

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 10s, the emitter will quit the set after 10s.
   ② The motor will jog or beep for hint, please do the next step after the hint.
3. If the emitter lost, please pairing again with new emitter.
4. One motor can store maximum 10 channels; after fully stored, if pair new channels, only the last one will be covered circularly.

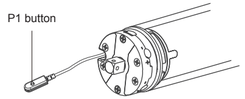
Button Instructions



DD1600H
Single-channel emitter

DD1600H
Back

Functions of P1 Button



Functions of P1 button

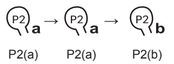
- Press P1 button once, the motor will run UP → STOP → DOWN → STOP… in cycles.
- P1 button features:

1. **Pairing or Pairing Additional Emitter or Delete Emitter**: Press P1 button for 2S, motor jogs once, release button and the motor long beeps once. If no limits, the motor is ready for pairing; if with limits, the motor is ready for pairing additional emitter or deleting emitter.
2. **Radio Lock**: Press and hold P1 button for 6S, motor jogs twice, release button and the motor beeps twice, the motor enters into radio lock status, the motor won't receive any signal; press P1 button once or the motor is powered on again to disable Radio Lock.
3. **Switch Direction**: Press and hold P1 button for 10S, motor jogs 3 times, release button and the motor beeps 3 times, the running direction of the motor has been changed.
4. **Reset to Factory Mode**: Press and hold P1 button for 14S, motor jogs once, beeps 4 times, the motor has been reset to factory mode.

Essential Settings
Step 1 to 2 must be completed to ensure proper operation.

1 Pairing / Deleting Additional Emitter

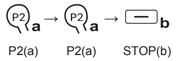
Method one



Press P2 (1 jog and 1 beep) and P2 (1 jog and 1 beep) on existing emitter, press P2 on new emitter (2 jogs and 3 beeps), new emitter has been paired to the motor successfully.

• Repeat same procedure will delete newly added emitter.

Method two



Press P2 (1 jog and 1 beep) and P2 (1 jog and 1 beep) on existing emitter, press STOP on new emitter for 2S (2 jogs and 3 beeps), new emitter has been paired to the motor successfully.

Method three

Power on again (1 jog and 1 long beep), or press P1 button of the motor for 2S (1 jog and 1 long beep), press STOP on new emitter for 2S (2 jogs and 3 beeps), the motor has been paired successfully.

• Repeat same procedure will delete newly added emitter.

* (a) as existing emitter, (b) as new emitter to pair/delete.

2 Switch Rotating Direction (Optional)

If press UP, the motor runs downward, try below to switch direction

UP + DOWN

Press and hold UP and DOWN buttons simultaneously for 5S (1 jog), the direction has been switched successfully.

3 Switch Between Jog Mode & Running Mode

P2 → UP → DOWN

Press P2 (1 jog), press UP (1 jog), press DOWN (2 jog and 3 beeps), the motor has been switched to running mode.

• Repeat same procedure will switch to jog mode.

* In jog mode, short press UP or DOWN, the motor will jog running; Press UP or DOWN for more than 2S, the motor will run continuously.

4 Delete All Emitters

P2 → STOP → P2

Press P2 (1 jog and 1 beep), press STOP (1 jog and 1 beep), and P2 (2 jogs and 3 beeps), all emitters are deleted.

5 Learning / Removing Virtual Percentage Limits

1 Learning virtual percentage limits

UP + STOP

When the motor stops at any position, press and hold UP and STOP buttons simultaneously for 2S, the motor will run upwards and downwards once automatically once, and then run to the upper limit position. The motor will jog twice and beeps 3 times. At this time, the percentage of limit operation can be adjusted.

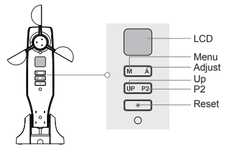
* Before learning virtual percentage limits, it is necessary to set the mechanical limits first; If you want to adjust the mechanical limit position, you need to first removing the virtual percentage limits.

2 Remove virtual percentage limits

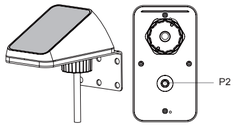
DOWN + STOP

Press and hold DOWN and STOP buttons simultaneously for 2S (2 jogs and 3 beeps), removed virtual percentage limits successfully.

Pair With Wind-Sun Sensors and Rain Sensors



Solar powered wind-sun sensor DD118B



Rain sensor DD1909H

6 Adding / Deleting Wind-sun Sensor

P2(a) → P2(a) → P2(b) (wind-sun sensor)

Press P2 (1 jog and 1 beep) and P2 (1 jog and 1 beep) on existing emitter, press P2 on the wind-sun sensor (2 jogs and 3 beeps), wind-sun sensor is paired to the motor.

• Repeat same procedure will delete newly added sensor.

* (a) as existing emitter, (b) as new wind-sun sensor to pair/delete. Add multiple wind-sun sensors only currently valid,other are covered.

7 Enable / Disable Wind-sun Sensor Detection Function

P2 → UP → STOP

Press P2 (1 jog and 1 beep), press UP (1 jog and 1 beep), press STOP (1 jog and 1 long beep), wind-sun sensor detection function is disabled, even if no response signal is received within 30 minutes after the function is disabled, it can still work normally; If motor jogs twice and beep 3 times, wind-sun sensor detection function is enabled.

* The factory default wind-sun sensor detection function is enabled. When this function is disabled, if the controller does not receive a response signal from the wind-sun sensor within 30 minutes, it will automatically retract and enter a jog status until it receives a response signal from the wind-sun sensor and is released.

8 Enable / Disable Sun Detection

P2 → P2 → UP

Press P2 (1 jog and 1 beep), press P2 again (1 jog and 1 beep), press UP (1 jog and 1 long beep), sun detection is disabled. If motor jogs twice and beep 3 times, sun detection is enabled.

* The factory default sun detection is enabled.

9 Enable / Disable Rain Detection

P2 → P2 → DOWN

Press P2 (1 jog and 1 beep), press P2 again (1 jog and 1 beep), press DOWN (1 jog and 1 long beep), rain detection is disabled. If motor jogs twice and beep 3 times, rain detection is enabled.

* The factory default rain detection is enabled.

10 Wind-sun Sensor Control

When there are limits, if 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. Once the strong wind command is received, the emitter cann't control the sensor within 8 minutes

11 Dry Contact Switch Mode

1 Dual button pushbutton switch mode (Factory default)

P1 → UP + DOWN → UP

Press P1 button for 2S (1 jog), release button and long beep once, within 10S, press and hold UP and DOWN buttons simultaneously for 2S (1 jog), within 10S, press UP (2 jogs and 3 beeps), switch to dual button pushbutton switch mode.

2 Dual button interlock switch mode

P1 → UP + DOWN → STOP

Press P1 button for 2S (1 jog), release button and long beep once, within 10S, press and hold UP and DOWN buttons simultaneously for 2S (1 jog), within 10S, press STOP (2 jogs and 3 beeps), switch to dual button interlock switch mode.

3 DC246 switch mode

P1 → UP + DOWN → P2

Press P1 button for 2S (1 jog), release button and long beep once, within 10S, press and hold UP and DOWN buttons simultaneously for 2S (1 jog), within 10S, press P2 (2 jogs and 3 beeps), switch to DC246 switch mode.

4 Single pushbutton switch mode

P1 → UP + DOWN → DOWN

Press P1 button for 2S (1 jog), release button and long beep once, within 10S, press and hold UP and DOWN buttons simultaneously for 2S (1 jog), within 10S, press DOWN (2 jogs and 3 beeps), switch to single pushbutton switch mode.

• Dual button pushbutton switch mode:
In running mode, press UP of the switch, release button to make the motor run upwards, then press UP again, and release the button to make the motor stop running; If press DOWN of the switch, the motor will stop running first and then run downwards after releasing button.
Press DOWN of the switch, release button to make the motor downwards. Press DOWN again, and release the button to make the motor stop running; If press UP of the switch, the motor will stop running first and then run upwards after releasing button.
In jog running mode, press UP of the switch, release button, the motor will run upwards and jog once; Press DOWN of the switch, release the button, the motor will run downwards and jog once.
• Dual button interlock switch mode:
Press UP of the switch, and the motor will run upwards. Release the UP button, and the motor will stop running. Press DOWN of the switch, and the motor will run downwards. Release the DOWN button, and the motor will stop running.
• DC246 switch mode:
In running mode, press the UP/DOWN/STOP button, release button and the motor will run upwards/downwards/stop.
In jog running mode, press UP or DOWN button, the motor will jog running, long press for more than 1 second, the motor will running continuously, press STOP button, the motor will stop running.
• Single pushbutton switch mode:
Press the button of switch, and the motor will run in the order of upward → stop → downward → stop.
If the motor is operated through other operations, the status will be updated synchronously, such as when the emitter controls to run upwards and stops running, pressing the switch will run downwards.

External switch wiring method: Red line = STOP button (only applicable to DC246 switches);
Black line = Common button (COM); Yellow line = UP button; Green line = Down button

* The motor needs to complete the limits setting successfully before the dry contact control is effective.
The factory reset operation does not modify the switch mode.

RF exposure statement

This equipment complies with the FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Warning
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Quick Index

	Settings	Steps	
1	Pairing / Deleting Additional Emitter	1 Pairing / deleting additional emitter	P2(a) → P2 (a) → P2(b)
		2 Pairing additional emitter	P2(a) → P2 (a) → Stop(b) (hold down 2s)
		3 Pairing / deleting additional emitter	Stop (hold down 2s)
2	Switch Rotating Direction	Up + Down (hold down 5s)	
3	Switch Between Jog Mode & Running Mode	P2 → Up → Down	
4	Delete All Emitters	P2 → Stop → P2	
5	Learning / Removing Virtual Percentage Limits	1 Learning virtual percentage limits	Up + Stop (hold down 2s)
		2 Remove virtual percentage limits	Down + Stop (hold down 2s)
6	Adding / Deleting Wind-sun Sensor	P2(a) → P2(a) → P2(b) (wind-sun sensor)	
7	Enable / Disable Wind-sun Sensor Detection Function	P2 → Up → Stop	
8	Enable / Disable Sun Detection	P2 → P2 → Up	
9	Enable / Disable Rain Detection	P2 → P2 → Down	
10	Dry Contact Switch Mode	1 Dual button pushbutton switch mode	P1 (hold down 2s) → Up + Down (hold down 2s) → Up
		2 Dual button interlock switch mode	P1 (hold down 2s) → Up + Down (hold down 2s) → Stop
		3 DC246 switch mode	P1 (hold down 2s) → Up + Down (hold down 2s) → P2
		4 Single pushbutton switch mode	P1 (hold down 2s) → Up + Down (hold down 2s) → Down

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 cann'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
The motor doesn't run or starts too slowly or make loud noise	Connections are incorrect.	Check connections
	Incorrect installation or overload	Check installation or overload
The motor stops during the going up or going down.	The motor has reached the lower limit	Adjust the new lower limit
	Running time exceeds 4 min	Let the motor cool for about 20 minutes

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.
NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.