

Declarations

U.S. Radio Frequency FCC Compliance

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.
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:
• 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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ISED RSS Warning:

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
IC Radiation Exposure Statement/Déclaration d'exposition aux radiations:
The device is compliance with RF field strength limits, users can obtain Canadian information on RF exposure and compliance. Le présent appareil est conforme de ce matériel aux conformités ou aux limites d'intensité de champ RF, les utilisateurs peuvent sur l'exposition aux radiofréquences et la conformité d'acquérir les informations correspondante.
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
CAN ICES-003 (B)/NMB-003(B)

Quick Index

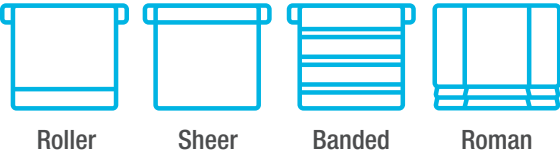
Settings	Steps
1 Pairing	P1 (hold down for 2s) > Stop (hold down for 2s)
2 Switch Rotating Direction	Up + Down (hold down for 2s)
3 Setting Upper & Lower Limits	Upper Limit: Up (hold down for 2s) > Up + Stop (hold down for 2s) Lower Limit: Down (hold down for 2s) > Down + Stop (hold down for 2s)
4 Add / Remove Favorite Position	P2 > Stop > Stop
5 Roller Mode & Sheer Mode Switch	Up + Down (hold down for 5s) > Stop
6 Adjust Limits	Upper Limit: Up + Stop (hold down for 5s) > Up or Down > Up + Stop (hold down for 2s) Lower Limit: Down + Stop (hold down for 5s) > Up or Down > Down + Stop (hold down for 2s)
7 Pair / Unpair Additional Emitter	P2 (existing) > P2 (existing) > P2 (new)
8 Speed Regulation	Acceleration: P2 > Up > Up Deceleration: P2 > Down > Down

Troubleshooting

Issues	Possible Causes	Solution
The motor is not responding	External battery pack is depleted	Recharge with compatible AC adaptor and check connection and positioning of solar PV panel
	Insufficient charging from Solar PV Panel	Check connection and orientation of solar PV panel
	Remote control battery is discharged	Replace battery
	Battery is inserted incorrectly into remote control	Check battery polarity
	Radio interference / shielding	Ensure remote control and the antenna on the motor are positioned away from metal objects
	Receiver is far away from Remote Control	Move remote control to a closer position
	Power failure	Check power supply to motor is connected and active
Motor beeps 10 times when in use	Incorrect wiring	Check that wiring is connected correctly (refer to motor installation instructions)
	Battery voltage is low / PV (solar panel issue)	Recharge with AC adapter or check connection and positioning of solar PV panel
Cannot program a single motor (multiple motors respond)	Multiple motors are paired to the same channel.	Always reserve an individual channel for programming functions SYSTEM BEST PRACTICE - Provide an extra 15 channel remote in your multi-motor projects that provides individual control for each motor for programming purposes Place all other motors into sleep mode (ref to P1 button instructions)



Fields of Application



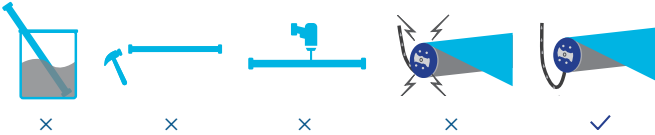
Specifications

Working temperature: -10° C ~ +50° C	Radio Frequency: 433.925 MHz
Input Voltage: USB 5V 1A / USB 5V 2A	Maximum Running Time: 6 minutes
The motor is suitable for motorization of roller shades, sheer shades, roman shades, and revolve shades.	

Model	Rated Torque (N.m)	Rated Speed (RPM)	Rated Power (W)
AMP28BDC - 2.0/28	2.0	28	22

Attention

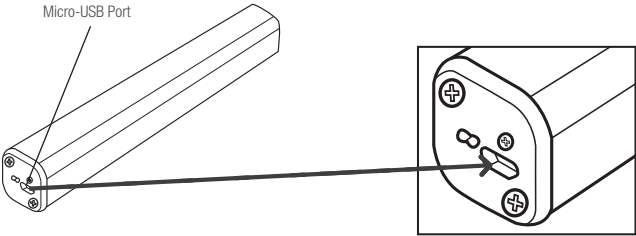
Never drop, knock, drill or submerge the motor. Keep the power cable in the proper position as shown below.
Read all safety instructions before installation.
Incorrect installation can lead to serious injury and will void manufacturer's liability and warranty.



Safety Instructions

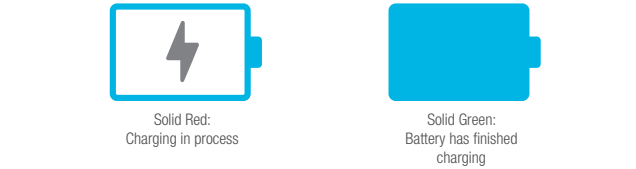
1. Do not expose motor to humid, damp, or extreme temperature conditions.
2. Do not drill into motor.
3. Do not cut the antenna. Keep it clear from metal objects.
4. Do not allow children to play with this device.
5. If the power cable or connector is damaged, do not use.
6. Ensure the correct crown and drive adaptor are used.
7. Ensure the power cable and aerial is clear and protected from moving parts.
8. Cable routed through walls should 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 should be performed by a qualified professional. Use or modification outside the scope of these instructions may void warranty.

Charging Instructions



This motor connects with an external Li-ion battery pack with integrated charge management.
Max power input for recharging: 5V 2A.
Before first use please charge motor for 6 hours using a 5V charger.
During operation, if the voltage is detected to be too low, the battery stops running and needs to be recharged.

Rechargeable Battery



P1 Button Instructions

1 Test Motor

Happening as you press for 1 second

when released

Press P1 Less than 1 sec.

Motor Response: Wakes & Runs

2 Activate Pairing Mode

Happening as you press for 2 seconds

when released

Press P1 Approx. 2 sec.

Until Shade: Jog x1

Motor Response: Beep x1

3 Sleep Mode

Happening as you press for 6 seconds

when released

Press P1 Approx. 6 sec.

Until Shade: Jog x2

Motor Response: Beep x2

4 Reverse Direction

Happening as you press for 10 seconds

when released

Press P1 Approx. 10 sec.

Until Shade: Jog x3

Motor Response: Beep x3

5 Reset To Factory Settings

Happening as you press for 14 seconds

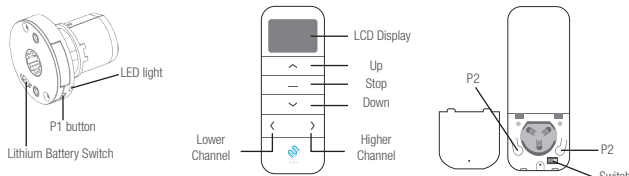
when released

Press P1 Approx. 14 sec.

Until Shade: Jog x4

Motor Response: Beep x4

Button Instructions

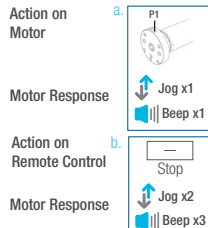


Essential Settings

The steps in factory mode must be completed to ensure proper operation.

1. Pair / Unpair Remote Control

- a. Press **"P1"** button (about 2 sec) on the motor head until motor jog x1 and beep x1.
- b. In the next 10 secs, press and hold **"Stop"** button on the remote control until motor jog x2 and beep x3.

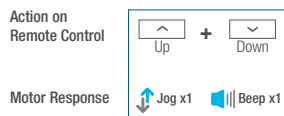


* Repeat the same procedure to unpair remote control.

2. Change Motor Direction (if necessary)

Press **"Up"** or **"Down"** button to check if the shade moves in the desired direction.

If you need to reverse the direction, press and hold (about 2 sec) **"Up"** and **"Down"** buttons simultaneously until motor jog x1 and beep x1.

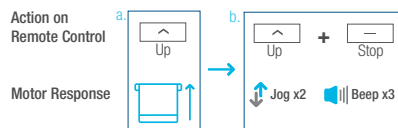


*The operation is only valid when there are no limits. If the motor has already set the upper and lower limit, then you can only switch direction by pressing P1 button (See P1 button instructions).

3. Setting the Upper and Lower Limits

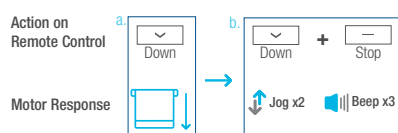
3.1 Set Upper Limit

- a. Press **"Up"** button to raise the shade, then press **"Stop"** button when it is in the desired upper limit.
- b. Press and hold (about 5 sec) **"Up"** and **"Stop"** buttons simultaneously until motor jog x2 and beep x3.



3.2 Set Lower Limit

- a. Press **"Down"** button to lower the shade, then press **"Stop"** button when it is in the desired lower limit.
- b. Press and hold (about 5 sec) **"Down"** and **"Stop"** buttons simultaneously until motor jog x2 and beep x3.

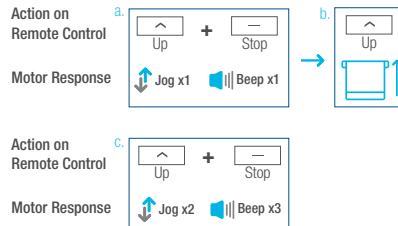


*If you exit the limit setting status before you finish the limit settings, the motor will take the previous existing limits.

4. Adjust Limits

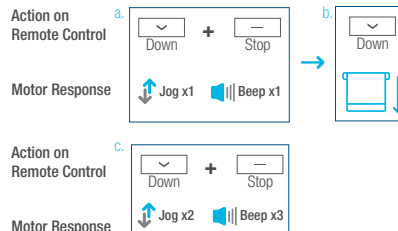
4.1 Adjust the Upper Limit

- a. Press and hold (about 5 sec) **"Up"** and **"Stop"** buttons simultaneously until motor jog x1 and beep x1.
- b. Use **"Up"** button to raise the shade to the desired highest position, and use **"Up"** or **"Down"** button to do the final adjustment if necessary.
- c. Press and hold (about 5 sec) **"Up"** and **"Stop"** buttons simultaneously until motor jog x2 and beep x3.



4.2 Adjust the Lower Limit

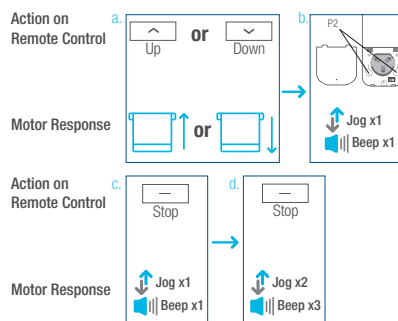
- a. Press and hold (about 5 sec) **"Down"** and **"Stop"** buttons simultaneously until motor jog x1 and beep x1.
- b. Use **"Down"** button to lower the shade to the desired lowest position, and use **"Up"** or **"Down"** button to do the final adjustment if necessary.
- c. Press and hold (about 5 sec) **"Down"** and **"Stop"** buttons simultaneously until motor jog x2 and beep x3.



5. Favorite Position

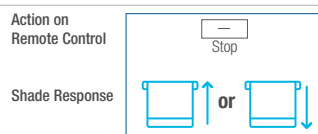
5.1 Set Favorite Position

- a. Use **"Up"** or **"Down"** button to move the shade to desired Favorite position.
- b. Press and hold (about 2 sec) one **"P2"** button on the back of remote control until motor jog x1 and beep x1.
- c. Press and hold (about 2 sec) **"Stop"** button until motor jog x1 and beep x1.
- d. Once more, press and hold (about 2 sec) **"Stop"** button until motor jog x2 and beep x3.



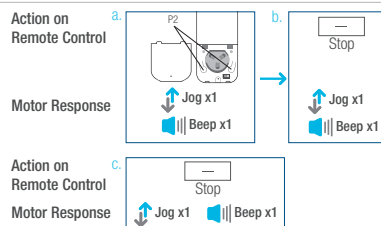
5.2 Send Shade to Favorite Position

Press and hold (about 2 sec) **"Stop"** button, motor will move to Favorite position.



5.3 Delete Favorite Position

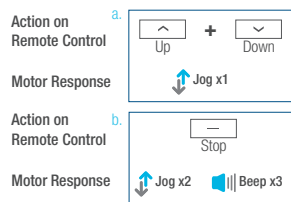
- a. Press and hold (about 2 sec) one **"P2"** button until motor jog and beep x1.
- b. Press and hold (about 2 sec) **"Stop"** button until motor jog and beep x1.
- c. Once more, press and hold (about 2 sec) **"Stop"** button until motor jog x1 and long beep x1.



6. Roller Mode and Sheer Mode

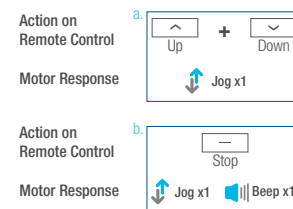
6.1 Roller Shade Mode - continue movement after a short press - Default Mode

- a. Press and hold (about 5 sec) **"Up"** and **"Down"** buttons simultaneously until motor jog x1.
- b. Press and hold (about 2 sec) **"Stop"** button until motor jog x2 and beep x3.



6.2 Sheer Shade Mode - jog movement after a short press (continue movement after a long press)

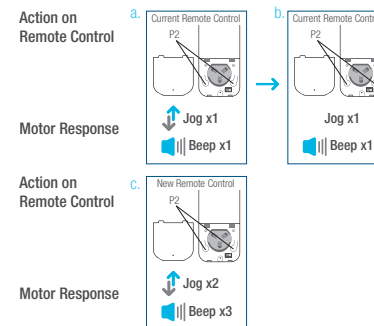
- a. Press and hold (about 5 sec) **"Up"** and **"Down"** buttons simultaneously until motor jog x1.
- b. Press and hold (about 2 sec) **"Stop"** button until motor jog x1 and beep x1.



7. Add or Remove Additional Remote

7.1 Using Current Remote Control

- a. On the **current** remote control, press and hold (about 2 sec) one **"P2"** button until motor jog x1 and beep x1.
- b. Once more, on the **current** remote control, press and hold (about 2 sec) one **"P2"** button until motor jog x1 and beep x1.
- c. On the **New** remote control, press and hold (about 2 sec) one **"P2"** button until motor jog x2 and beep x3.



*Repeat the same procedure to remove additional remote control.

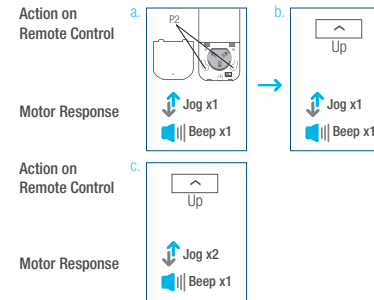
7.2 New Remote Control

Follow instructions under the section 1. **Pair / Unpair Remote Control**

8. Adjust Motor Speed

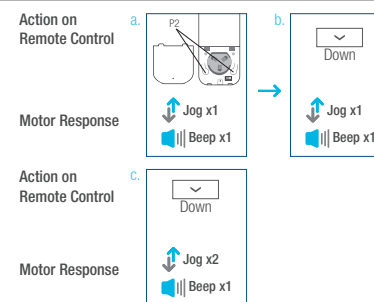
8.1 Acceleration Speed

- a. Press one **"P2"** button until motor jog x1 and beep x1.
- b. Press **"Up"** button until motor jog x1 and beep x1.
- c. Once more, press **"Up"** button until motor jog x2 and beep x1.



8.2 Deceleration Speed

- a. Press one **"P2"** button until motor jog x1 and beep x1.
- b. Press **"Down"** button until motor jog x1 and beep x1.
- c. Once more, press **"Down"** button until motor jog x2 and beep x1.



*If the motor has no response, it already has a Maximum or Minimum speed.