## 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. This equipment des 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.

#### **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.

Qu		

	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	$\label{eq:constraint} \begin{array}{llllllllllllllllllllllllllllllllllll$
7	Pair / Unpair Additional Emitter	P2 (existing) > P2 (existing) > P2 (new)
8	Speed Regulation	Acceleration: P2 > Up > Up Deceleration: P2 > Down > Down

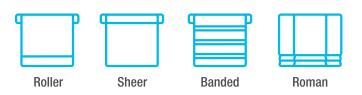
### Troubleshooting

Issues	Possible Causes	Solution
	Built in battery 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
The motor is not responding	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
	Incorrect wiring	Check that wiring is connected correctly (refer to motor installation instructions)
Motor beeps 10 times when in use	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 ESST 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 <b>P1</b> button instructions)

# AMP28B



# Fields of Application



### Specifications

Working temperature: -10° C ~ +50° C	
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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	Rated Speed	Rated Power
	(N.m)	(RPM)	(W)
AMP28B-2/28	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.

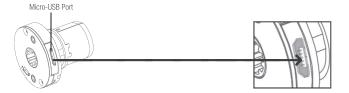
Incorrect installation can lead to serious injury and will void manufacturer's liability and warranty.



# 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.
- 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 has a built in 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, when the motor starts, the buzzer will beep 10 times, indicating a low-voltage alarm and needs to be charged.

During operation, if the voltage is detected to be too low, the battery stops running and needs to be recharged.

# Rechargeable Battery



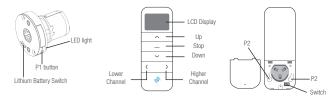
#### Solid green: Battery has finished charging

# P1 Button Instructions

(1) Test Motor Happening as you press for 1 second Press P1 Less than 1 sec.	when released Motor Response: Wakes & Runs
Activate Pairing Mode  Happening as you press for 2 seconds  Press P1  Approx. 2 sec.  Until Shade:   Jog x1	when released Motor Response:
3 Sleep Mode Happening as you press for 6 seconds Press P1 Approx. 6 sec. Until Shade: Jog x2	when released Motor Response:
Approx. 10 sec. Until Shade: \$\overline{1}{0} Jog x3	when released Motor Response:
5 Reset To Factory Settings Happening as you press for 14 seconds Press P1 Approx. 14 sec. Until Shade: Jog x4	when released Motor Response:



# Button Instructions



# **Essential Settings**

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

# Pair / Unpair Remote Control

a. Press "P1" button (about 2 sec) on Action on the motor head until motor iog x1 and Motor beep x1. b. In the next 10 secs, press and hold 🗊 Jog x1 Motor Response "Stop" button on the remote control until motor iog x2 and beep x3. Eeep x1 Action on \_ Remote Control Stop Jog x2 \* Repeat the same procedure to unpair Motor Response 📢 Beep x3

remote control.

# 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).

#### Setting the Upper and Lower Limits 3.1 Set Upper Limit Action on ^ ~ Remote Control +Up a. Press "Up" button to raise the shade, then press "Stop" button when it is in the desired upper limit. Motor Response 🗊 Jog x2 🛛 🚺 Beep x3 b. Press and hold (about 2 sec) "Up" and "Stop" buttons simultaneously until motor jog x2 and beep x3. 3.2 Set Lower Limit Action on $\sim$ $\sim$ +Remote Control a. Press "Down" button to lower the Down Down shade, then press "Stop" button when it is in the desired lower limit. Motor Response b. Press and hold (about 2 sec)"Down"

and "Stop" button's 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.



**Factory Mode Complete** User Mode Begins

#### 4. Adjust Limits 4.1 Adjust the Upper Limit Action on Remote Control

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Up

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Stop

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🖞 Jog x1 🛛 📢 Beep x1

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Eeep x1

l Beep x1

Down

Up

 Press and hold (about 5 sec) "Un" and "Stop" buttons simultaneously until motor iog 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.

Press and hold (about 2 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 iog 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 2 sec) "Down" and "Stop" buttons simultaneously until motor jog x2 and beep x3.

# 5. Favorite Position

#### 5.1 Set Favorite Position

Remote Control a. Use "Up" or "Down" button to move the shade to desired Favorite position. b. Press one "P2" button on the back of

remote control until motor jog x1 and Motor Response heen 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 nosition

Shade Response

**5.3 Delete Favorite Position** Action on Remote Control a. Press one "P2" button until motor jog and beep x1. b. Press and hold (about 2 sec) "Stop" Motor Response

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 Motor Response "Down" buttons simultaneously until motor jog x1. Action on

b. Press and hold (about 2 sec) "Stop" button until motor jog x2 and beep x3.

Motor Response 👔 Jog x2 🛛 🚺 Beep x3 6.2 Sheer Shade Mode - jog movement Action on after a short press (continu **Remote Control** movement after a long press)

a. Press and hold (about 5 sec) "Up" and Motor Response "Down" buttons simultaneously until motor jog x1.

b. Press and hold (about 2 sec) "Stop" button until motor jog x1 and beep x1.

	🗘 Jog x1	
b.	 Stop	

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Down

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Motor Response

Action on

Remote Control



# Add or Remove Additional Remote

7.1 Using Current Remote Control Action on rrent Remote Cont Remote Control a. On the current remote control, press one "P2" button until motor jog x1 and 0 S b. Once more, on the current remote 🗊 Jog x1 Jog x1 Motor Response control, press one "P2" button until Eeep x1 l Beep x1 motor jog x1 and beep x1. c. On the New remote control, press Action on one "P2" button until motor jog x2 and Remote Control  $\boxtimes$ \*Beneat the same procedure to remove 🗊 Jog x2 Motor Response additional remote control. Eeep x3

#### 7.2 New Remote Control

beep x1.

beep x3.

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 iog 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.

Motor Response

Action on

Remote Control

Action on

Action on

Remote Control

Motor Response

**Remote Control** 

#### 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 iog x2 and beep x1.

🗊 Jog x1 Motor Response eep x1 Action on  $\sim$ **Remote Control** Down

\*If the motor has no response, it already has a Maximum or Minimum sneed



-👔 Jog x1 Eeep x1

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Down

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Jog x1

EII Beep x1

<u>S</u>

🗊 Jog x1

eep x1

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Up

🗊 Jog x2

Eeep x1