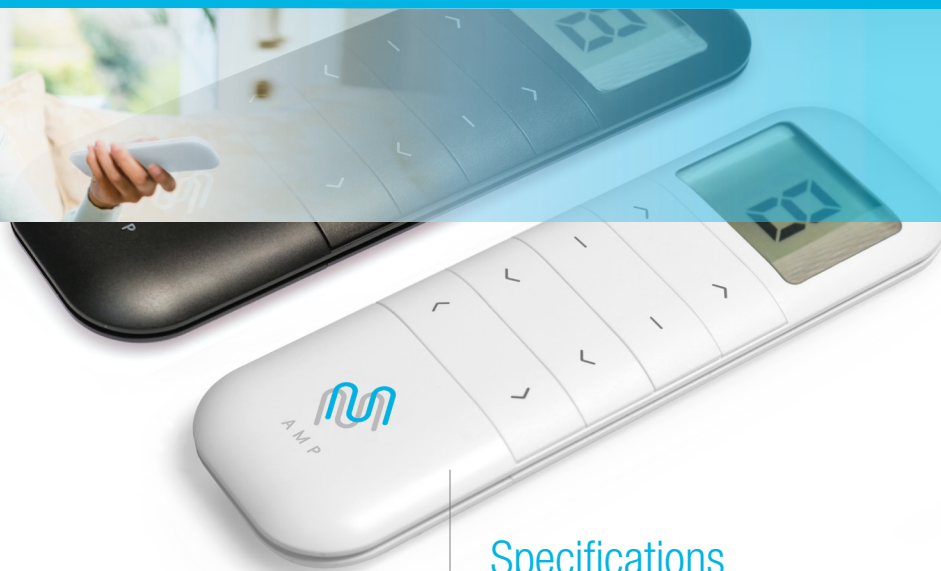




Upgrade to the industry's most advanced Motor Program:  
**AMP™ Motorization** features 2-way technology with superior value  
and innovation paired with a smart, seamless user interface.



## RF 2W 15 Channel TDBU Remote Control

Programming Guide

### Specifications

- Up to 15 channels with 3V (CR2450) battery, magnetic holder included
- Channel 0 controls all shades assigned to remote; ability to hide extra channels
- Favorite position activated by quick touch of a button
- Locking feature prevent unwanted configuration changes



# AMP™ Motorization Table of Contents

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Please scan QR code to watch videos  
for product programming



## 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.

### ISED RSS Warning:

This device complies with Innovation, Science and Economic Development Canada license-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.

### Coin Battery Warning

 <b>WARNING</b>	
<ul style="list-style-type: none"><li>• <b>INGESTION HAZARD:</b> This product contains a button cell or coin battery.</li><li>• <b>DEATH</b> or serious injury can occur if ingested.</li><li>• A swallowed button cell or coin cell battery can cause <b>Internal Chemical Burns</b> in as little as <b>2 hours</b>.</li><li>• <b>KEEP</b> new and used batteries <b>OUT OF REACH OF CHILDREN</b>.</li><li>• <b>Seek immediate medical attention</b> if a battery is suspected to be swallowed or inserted inside of the body.</li><li>• CR 2032, 3V</li></ul>	

- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children.
- Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- CR2032 is the compatible battery type.
- The nominal battery voltage is 3.0V.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above 60° or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

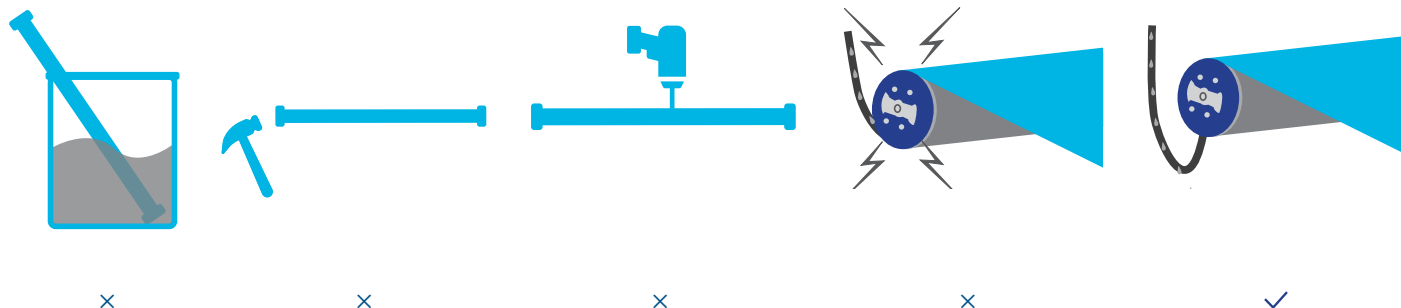
## Safety Instructions

### 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.



### Important 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.



Do not dispose of in general waste.

Please recycle batteries and damaged electrical products appropriately.

## 1. Fields of Application



Cellular/Honeycomb  
TDBU

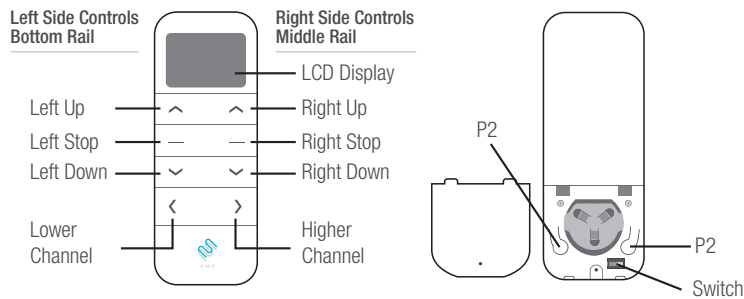


Cellular/Honeycomb  
Day/Night

## 2. Specification

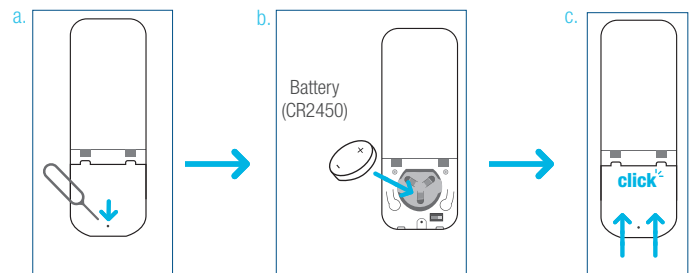
<b>Voltage</b>	3V (CR2450)
<b>Radio Frequency</b>	433.92 MHz Bi-directional
<b>Transmitting Power</b>	10 milliwatt
<b>Operating Temperature</b>	14°F to 122°F (-10°C to 50°C)
<b>RF Modulation</b>	FSK
<b>Lock Function</b>	Yes
<b>IP Rating</b>	IP20
<b>Transmission Distance</b>	up to 200m (outdoor)

## 3. Remote Button Instructions



## 4. Replace/Install CR2450 Battery

- Gently insert the included ejector tool into the small pinhole opening and apply a small amount of pressure to the cover and slide the cover off.
- Install battery (CR2450) with positive (+) side facing up.
- Gently slide the cover back on until a “click” sound is heard.



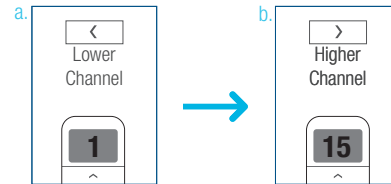
## 1. Channel Options

### Select A Channel

- Press “<” button on the remote to select a lower channel.
- Press “>” button on the remote to select a higher channel.

Action on Remote Control

Remote Response

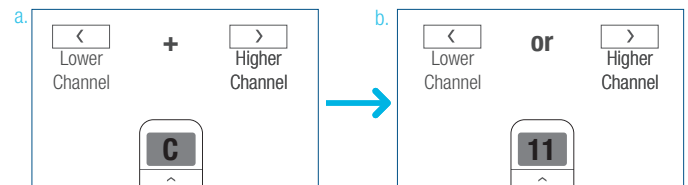


### Hide Unused Channels

- Press and Hold (about 3 sec) “<” and “>” buttons simultaneously until remote control displays “C” (channel).
- Press “<” or “>” button to select required quantity of channel (between 1 to 15).
- Press “Stop” button to confirm selection (the example shows a 5-channel selection). The LED will display “o” (OK) once to confirm selection.

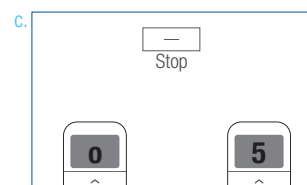
Action on Remote Control

Remote Response



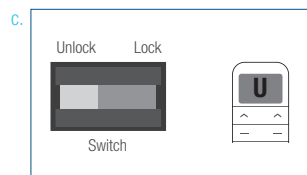
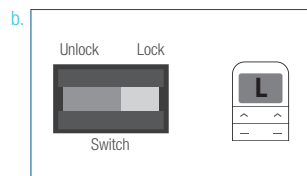
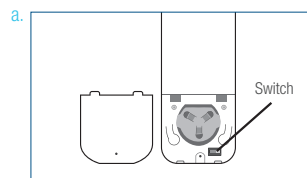
Action on Remote Control

Remote Response



## 2. Advanced Setting - Disable Limit Setting

- Remove the cover from the backside of remote, the lock switch is in the right corner.
- Move the switch to the “Lock” position to disable the following commands, remote will show “L” (lock):
  - Change Motor Direction
  - Setting the Upper and Lower Limit
  - Adjust Limit
  - Roller Mode or Sheer Mode
- Move the switch to “Unlock” position to assess all remote functions, remote will show “U” (unlock).



\*This advanced feature is intended to be used after all shade programming is completed. User Mode will prevent accidental or unintended changing of limits.

## P1 Button Instructions

### 2. P1 Button Location



AMPTDBU

### 2. P1 Button Instruction

#### ① Test Motor

Happening as you press for 1 second



Press P1  
Less than 1 sec.

when released

Motor Response: Wakes & Runs

#### ② Activate Pairing Mode

Happening as you press for 2 seconds




Press P1  
Approx. 2 sec.

Until Shade:



Jog x1

when released

Motor Response:  Beep x1

#### ③ Sleep Mode

Happening as you press for 6 seconds




Press P1  
Approx. 6 sec.

Until Shade:



Jog x2

when released

Motor Response:  Beep x2

#### ④ Reverse Motor 1 with Motor 2

Happening as you press for 10 seconds




Press P1  
Approx. 10 sec.

Until Shade:



Jog x3

when released

Motor Response:  Beep x3

#### 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:  Beep x4

## Initial Set-up

### 1. Pair / Unpair Remote Control

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

\* Repeat the same procedure to unpair remote control.

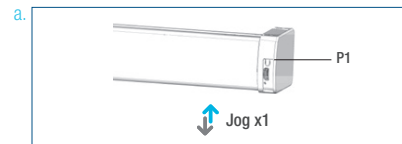
Action on Endcap

Motor Response

Action on Remote Control

Motor Response

\* All setup needs to be done using LEFT SIDE of the remote.



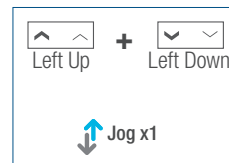
### 2. Change Motor Direction (if necessary)

Press **Left "Up"** or **Left "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) **Left "Up"** and **Left "Down"** buttons simultaneously until motor jog x1.

Action on Remote Control

Motor Response



\*The operation is only valid when there are no limits.

### 3. Setting the Upper and Lower Limits

#### Set Upper Limit

- Press **Right "Up"** button to raise the Middle Rail, then press **Right "Stop"** button when it is in the desired upper limit.
- Press **Left "Up"** button to raise the Bottom Rail, then press **Left "Stop"** button when it is in the desired upper limit.
- Press and hold (about 2 sec) **Left "Up"** and **Left "Stop"** buttons simultaneously until motor jog x2.

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

Action on Remote Control

Middle Rail Response

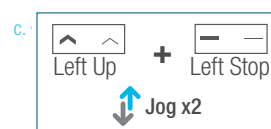
Action on Remote Control

Motor Response



Action on Remote Control

Bottom Rail Response



#### Set Lower Limit

- Press **Left "Down"** button to lower the Bottom Rail, then press **Left "Stop"** button when it is in the desired lower limit.
- Press **Right "Down"** button to lower the Middle Rail, then press **Right "Stop"** button when it is in the desired lower limit.
- Press and hold (about 2 sec) **Left "Down"** and **Left "Stop"** buttons simultaneously until motor jog x2.

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

Action on Remote Control

Bottom Rail Response

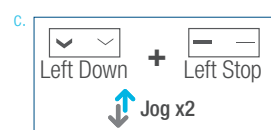
Action on Remote Control

Motor Response



Action on Remote Control

Middle Rail Response

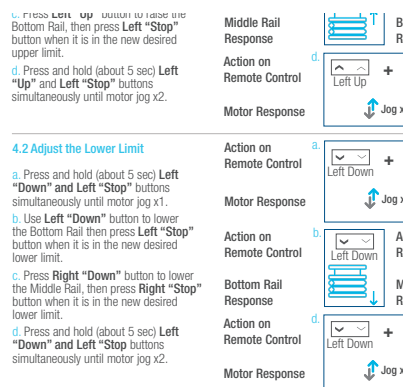
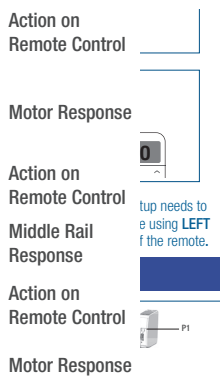




# Adjust Limits

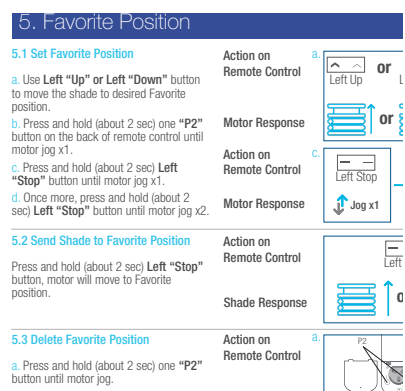
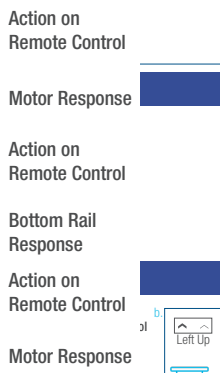
## 1. Adjust the Upper Limit

- Press and hold (about 5 sec) **Left “Up”** and **Left “Stop”** buttons simultaneously until motor jog x1.
- Use **Right “Up”** button to raise the Middle Rail, then press **Right “Stop”** button when it is in the new desired upper limit.
- Press **Left “Up”** button to raise the Bottom Rail, then press **Left “Stop”** button when it is in the new desired upper limit.
- Press and hold (about 2 sec) **Left “Up”** and **Left “Stop”** buttons simultaneously until motor jog x2.



## 2. Adjust the Lower Limit

- Press and hold (about 5 sec) **Left “Down”** and **Left “Stop”** buttons simultaneously until motor jog x1.
- Use **Left “Down”** button to lower the Bottom Rail, then press **Left “Stop”** button when it is in the new desired lower limit.
- Press **Right “Down”** button to lower the Middle Rail, then press **Right “Stop”** button when it is in the new desired lower limit.
- Press and hold (about 2 sec) **Left “Down”** and **Left “Stop”** buttons simultaneously until motor jog x2.



## Favorite Position

### 1. Set Favorite Position

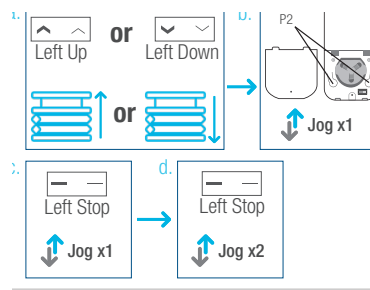
- Use **Left “Up”** or **Left “Down”** button to move the shade to desired Favorite position.
- Press **Right “P2”** button on the back of remote control until motor jog x1.
- Press and hold (about 2 sec) **Left “Stop”** button until motor jog x1.
- Once more, press and hold (about 2 sec) **Left “Stop”** button until motor jog x2.

Action on  
Remote Control

Motor Response

Action on  
Remote Control

Motor Response

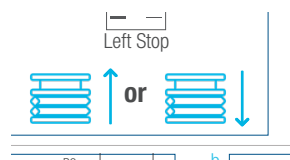


### 2. Send Shade to Favorite Position

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

Action on  
Remote Control

Shade Response



### 3. Delete Favorite Position

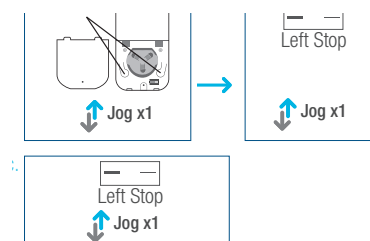
- Press **Right “P2”** button until motor jog x1.
- Press and hold (about 2 sec) **Left “Stop”** button until motor jog x1.
- Once more, press and hold (about 2 sec) **Left “Stop”** button until motor jog x1.

Action on  
Remote Control

Motor Response

Action on  
Remote Control

Motor Response



## Add or Remove Additional Remote

### 1. Using Current Remote Control

a. On the **current** remote control, press **Right “P2”** button until motor jog x1.

b. Once more, on the **current** remote control, press **Right “P2”** button until motor jog x1.

c. On the **New** remote control, press **Right “P2”** button until motor jog x2.

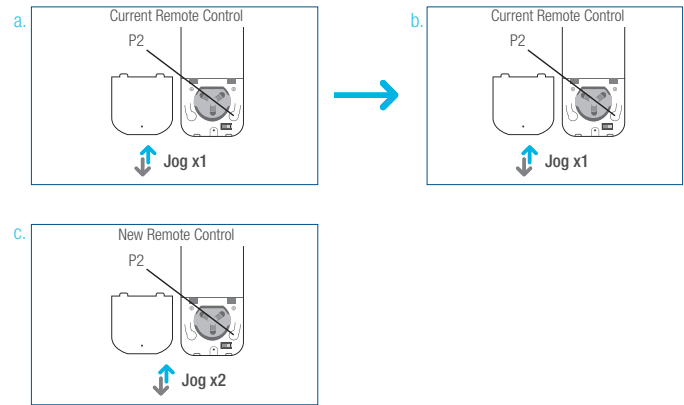
\*Repeat the same procedure to remove additional remote control.

Action on  
Remote Control

Motor Response

Action on  
Remote Control

Motor Response



### 2. New Remote Control

Follow instructions under the section 1.

**Pair / Unpair Remote Control**

## Adjust Motor Speed

### 1. Acceleration Speed

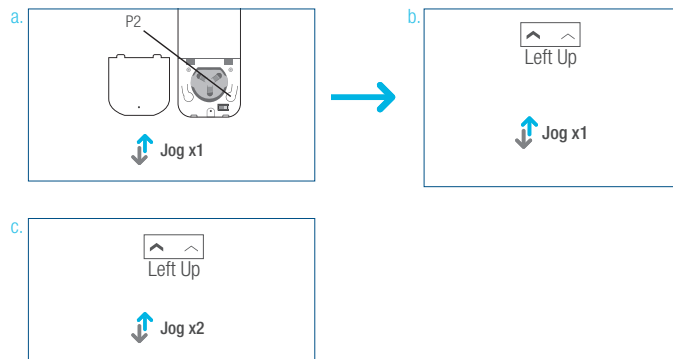
- Press **Right “P2”** button until motor jog x1.
- Press **Left “Up”** button until motor jog x1.
- Once more, press **Left “Up”** button until motor jog x2.

Action on  
Remote Control

Motor Response

Action on  
Remote Control

Motor Response



### 2. Deceleration Speed

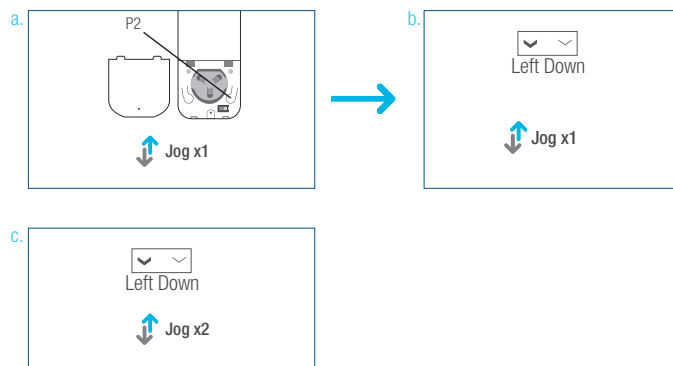
- Press **Right “P2”** button until motor jog x1.
- Press **Left “Down”** button until motor jog x1.
- Once more, press **Left “Down”** button until motor jog x2.

Action on  
Remote Control

Motor Response

Action on  
Remote Control

Motor Response



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

# Roller or Sheer Mode

## 1. Roller Shade Mode - continue movement after a short press - Default Mode

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

Action on Remote Control

Left Up

Left Down

+

Left Up

Left Down

Motor Response

↑↓

Jog x1

a.

Left Stop

Motor Response

↑↓

Jog x2

## 2. Sheer Shade Mode - jog movement after a short press (continue movement after a long press)

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

Action on Remote Control

Left Up

Left Down

+

Left Up

Left Down

Motor Response

↑↓

Jog x1

a.

Left Stop

Motor Response

↑↓

Jog x1

## Quick Index

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

## Troubleshooting

The motor has no response	Battery in motor 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 distance is too far 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)
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 <b>P1</b> button instructions)

## Turnils Contact Information

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 Buford, GA 30518  
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 1.800.341.3600  
 Amp@Turnils.com