## AMP ${ }^{\text {TM }}$ Motorization Table of Contents

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## 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 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.

## 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.
12. Do not dispose of in general waste.

L-Hon Please recycle batteries and damaged electrical products appropriately.

AMP ${ }^{\text {m }}$ Surface Mounted Wall Switch Overview

1. Fields of Application


| Voltage | 3 V (CR2430) |
| :--- | :--- |
| Radio Frequency | 433.92 MHz Bi-directional |
| Transmitting Power | 10 milliwatt |
| Operating Temperature | $14^{\circ} \mathrm{F}$ to $122^{\circ} \mathrm{F}\left(-10^{\circ} \mathrm{C}\right.$ to $\left.50^{\circ} \mathrm{C}\right)$ |
| RF Modulation | FSK |
| Lock Function | Yes |
| IP Rating | IP20 |
| Transmission Distance | up to 200 m (outdoor) |

## 3. Wall Switch Button Instructions


*For AMPTМ Drapery, press "Up" for open; press "Down" for close.

## 4. Replace/Install CR2430 Battery

a. Unlock the battery cover and take the cover out.
b. Install battery (CR2430) with positive (+) side facing up.
c. Gently put the cover back and switch to lock position.
a.

b.

C.


## AMP ${ }^{\text {T }}$ Surface Mounted Wall Switch Overview

## 1. Channel Options

## Select A Channel <br> a. Press "-" button on the wall switch to select a lower channel.

b. Press "+" button on the wall switch to select a higher channel.

Hide Unused Channels
a. Press and Hold (about 3 sec ) "-" and "+" buttons simultaneously until wall switch displays "C" (channel).
b. Press "-" or "+" button to select required quantity of channel (between 1 to 15).
c. Press "Stop" button to confirm selection. The LED will display "0" (OK) once to confirm selection.

## 2. Advanced Setting - Disable Limit Setting

a. Press and hold "Stop" button more than 15s. Wall switch will show "L" (lock).
b. In the next 10s, press one "P2" button on ghe back of the wall switch. Wall switch will show " 0 ", then the wall switch switches to "Lock" mode to disable the following commands:

- Change Motor Direction
- Setting the Upper and Lower Limit
- Adjust Limit
- Roller Mode or Sheer Mode
c. Press and hold "Stop" more than 15s. Wall switch will show "U" (unlock).
d. In the next 10s, press one "P2" button on ghe back of the wall switch. Wall switch will show " 0 ". The wall switch now switches to "Unlock" mode, you can now access all control functions.

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

Wall Switch
Response

Action on Wall Switch

Wall Switch Response

Action on Wall Switch

Wall Switch Response

Action on Wall Switch

Wall Switch Response

## Action on Wall Switch <br> Wall Switch Response

Action on
Wall Switch

Wall Switch Response

Action on Wall Switch

Wall Switch Response

a:


## P1 Button Instructions

2. P1 Button Location

3. P1 Button Instruction

AMPCEL and AMPTILT motors DO NOT BEEP
©
Test Motor
Happening as you press for 1 second

when released

Motor Response: Wakes \& Runs

## (2) Activate Pairing Mode

Happening as you press for 2 seconds

when released

Motor Response: $\triangle||\mid$ Beep x1

## (3) Sleep Mode

Happening as you press for 6 seconds

when released

Motor Response: $\quad||\mid$ Beep x2
when released

Motor Response: $\quad||\mid$ Beep x3

## (5) Reset To Factory Settings

Happening as you press for 14 seconds

when released

Motor Response: $\triangle||\mid$ Beep x4

## 1. Pair / Unpair Wall Switch 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 wall switch until motor jog x2 and beep x3.

* Repeat the same procedure to unpair wall switch.


## 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

## 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.

## 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.

Action on Motor

Motor Response

## Action on

 Wall SwitchMotor Response

Action on Wall Switch

Motor Response


## Action on

 Wall SwitchMotor Response

## Action on Wall Switch

Motor Response



## Adjust Limits

1. Adjust the Upper Limit
a. Press and hold (about 5 sec) "Up" and "Stop" buttons simultaneously until motor jog x 1 and beep x 1 .
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 x 3 .

## 2. Adjust the Lower Limit

a. Press and hold (about 5 sec ) "Down" and "Stop" buttons simultaneously until motor jog x 1 and beep x 1 .
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.

Action on
Wall Switch

Motor Response

Action on Wall Switch

Motor Response

## Action on Wall Switch

Motor Response

Action on Wall Switch

Motor Response


## Favorite Position

## 1. Set Favorite Position

a. Use "Up" or "Down" button to move the shade to desired Favorite position.
b. Press one "P2" button on the back of wall switch control until motor jog x 1 and beep x 1 .
c. Press "Stop" button until motor jog x1 and beep x1.
d. Once more, press "Stop" button until motor jog x2 and beep x3.

## 2. Send Shade to Favorite Position

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

## 3. Delete Favorite Position

a. Press one "P2" button until motor jog and beep $\times 1$.
b. Press "Stop" button until motor jog and beep x1.
c. Once more, press "Stop" button until motor jog x1 and long beep x1.

Action on Wall Switch

Motor Response

Action on Wall Switch

Motor Response

## Action on Wall Switch

Shade Response

## Action on

 Wall SwitchMotor Response

## Action on

 Wall SwitchMotor Response


## Add or Remove Additional Wall Switch



## 2. New Wall Switch

Follow instructions on page 8 under the section Pair / Unpair Wall Switch

## Adjust Motor Speed

## 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 $x 1$.
c. Once more, press "Up" button until motor jog x2 and beep x1.

## 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.
Action on
Wall Switch

Motor Response
Action on
Wall Switch

Motor Response


## Roller or Sheer Mode

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 x .
b. Press and hold (about 2 sec ) "Stop" button until motor jog x2 and beep x3.
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 $x 1$.
b. Press and hold (about 2 sec ) "Stop" button until motor jog x1 and beep x1.

## Action on Wall Switch

Motor Response

Action on Wall Switch

Motor Response

Action on Wall Switch

Motor Response

Action on Wall Switch

Motor Response


## 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) <br> 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) <br> 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 <br> Deceleration: P2 > Down > Down |

## Troubleshooting

| Issues | Possible Causes | Solution |
| :---: | :---: | :---: |
| 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 |
|  | Wall switch battery is discharged | Replace battery |
|  | Battery is inserted incorrectly into wall switch | Check battery polarity |
|  | Radio interference / shielding | Ensure wall switch and the antenna on the motor are positioned away from metal objects |
|  | Receiver distance is too far from wall switch | Move wall switch 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 BEST PRACTICE - Provide an extra 15 channel wall switch 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) |

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