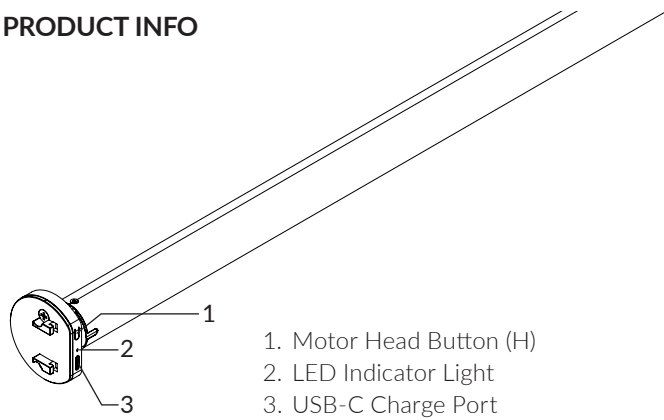# R-TEC Automation Li-ion Battery Motors
USB-C Charging

PRODUCT INFO

1. Motor Head Button (H)
2. LED Indicator Light
3. USB-C Charge Port

Motor Operating Temperature Range: 131°F / 14°F

Power Options:
- Standard USB-C charging cable
- Magnetic charging cord with USB-C adapter.
- Fully Charge the motor for 6-8 hours

NOTE: If the USB-C magnetic charging cord & adapter is desired, leave the adapter plugged into the motor head for future re-charging convenience.

R-TEC Automation Li-ion DC Motor 1-Way

MOTOR MODELS	MOTOR DIAMETER	TORQUE	BATTERY	CHARGING	SPEED
RTA25L2C1WA	25mm	1.1Nm	Li-ion 2-Cell	USB-C	20/25/30rpm
RTA25L3C1WA	25mm	2Nm	Li-ion 3-Cell	USB-C	20/24/28rpm
RTA28L3C1WA	28mm	2Nm	Li-ion 3-Cell	USB-C	20/24/28rpm

⚠️ **WARNING:** Important safety and operation instructions to be read before installation and use.

1. This product is for indoor use only, do not use outdoors or in humid environments.
2. This motor has a built-in rechargeable Li-ion battery pack with integrated charge management. Max input voltage: 5V/2A.
3. Fully charge the motor's battery before first use. (6-8 hours). Only use the recommended R-TEC Automation USB-C Charging Cable to charge the motor battery.
4. When the battery voltage is low the LED light will flicker 8 times and give a low-voltage alarm when the motor starts.
5. The motor will jog in operation, please do not proceed to the next step until it complete.
6. The duration of button transmission on the remote is 10s. If there is no operation within 10s the remote will automatically exit the current mode.
7. The motor can be paired with max 10 controllers.
8. Do not use motor when charging.
9. Upper&Lower limits cannot be set at the same position, limits saved even power off.
10. Use or modification outside the scope of this instruction manual will void warranty.
11. Installation and programming to be performed by a suitably qualified installer.

MOTOR HEAD FUNTION AT A GLANCE
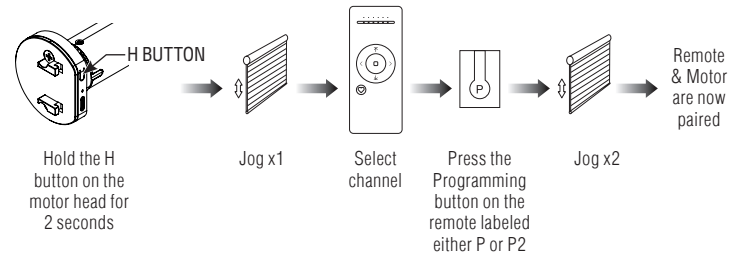
Motor head H button functions

FUNCTIONS	OPERATION	JOGGING TIME	LED LAMP FLICKERS	NOTE
Control the UP/STOP/DOWN of the Shade	Short press	/	/	Can only operate after the limits are set and motor is not in sleep mode
Adding/Removing Controller	Hold for 2s	Jog*1	Flicker*1	Operation needs be done within 10s
Sleep mode, RF Control Inactive	Hold for 6s	Jog*2	Flicker*2	Hold H button for 6 seconds, jog twice to make the motor RF control inactive; Hold H button for 2 seconds, the RF control is active again
Direction Reverse	Hold for 10s	Jog*3	Flicker*3	All settings saved after direction reversed
Reset	Hold for 16s	Jog*4	Flicker*4	All setting deleted

BEFORE SET UP: Locate the H button on the Motor. Also check the remote battery compartment to install batteries or remove the insulation tab before use. Keep the cover removed to allow access to the programming P or P2 buttons until after set up is completed.

STEP 1: PAIRING MOTOR WITH REMOTE

Before pairing, see remote instructions on how to select the desired channel in order to add your motor(s).

To add a new remote:

Hold the H button on the motor head for 2 seconds → Jog x1 → Select channel → Press the Programming button on the remote labeled either P or P2 → Jog x2 → Remote & Motor are now paired
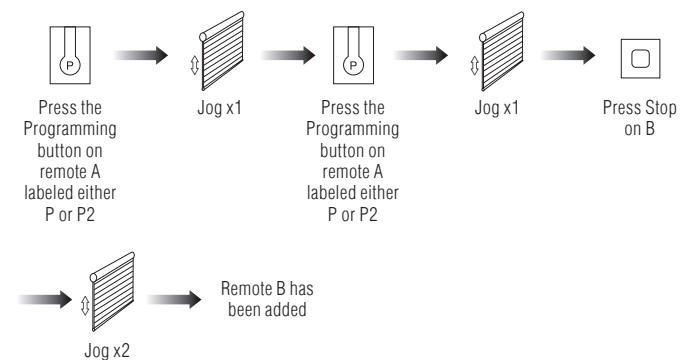
Note: A maximum of 15 motors can be added to one channel.
All motors added to the same channel will operate simultaneously.

To add an additional motor B:

To add an additional motor to the same channel follow the steps above for motor B.

To add an additional motor to a different channel, toggle remote to new channel then follow the steps above for motor B.
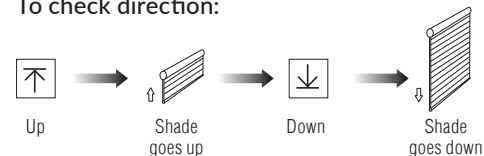
To add an additional Remote B via pre-existing Remote A

Press the Programming button on remote A labeled either P or P2 → Jog x1 → Press the Programming button on remote A labeled either P or P2 → Jog x1 → Press Stop on B → Jog x2 → Remote B has been added
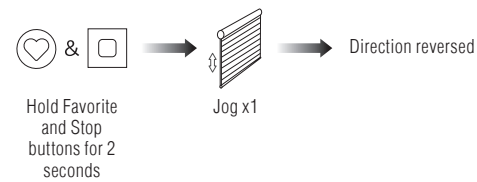
Note: A maximum of 15 motors can be added to one channel.
All motors added to the same channel will operate simultaneously.
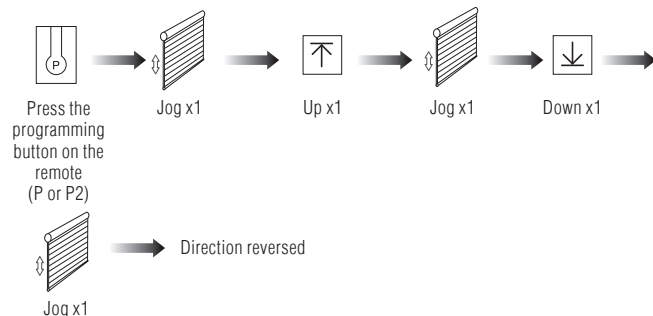
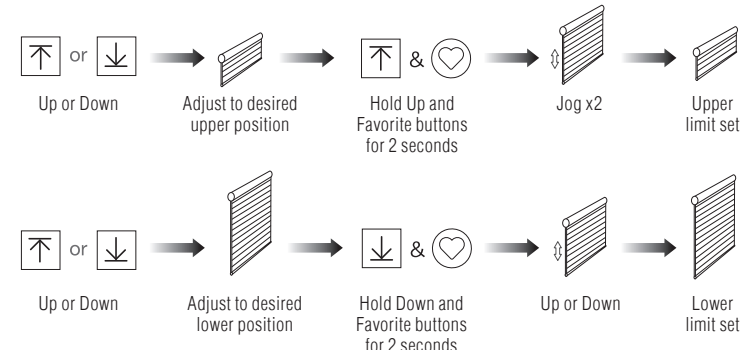## STEP 2: CHECK OR REVERSE DIRECTION OF MOTOR

To check direction:

Up → Shade goes up → Down → Shade goes down

To reverse direction if the limits are not set:

Hold Favorite and Stop buttons for 2 seconds → Jog x1 → Direction reversed

To reverse the direction if the limits are set:

Press the programming button on the remote (P or P2) → Jog x1 → Up x1 → Jog x1 → Down x1 → Jog x1 → Direction reversed

STEP 3: SETTING UPPER & LOWER LIMITS

Up or Down → Adjust to desired upper position → Hold Up and Favorite buttons for 2 seconds → Jog x2 → Upper limit set

Up or Down → Adjust to desired lower position → Hold Down and Favorite buttons for 2 seconds → Up or Down → Lower limit set
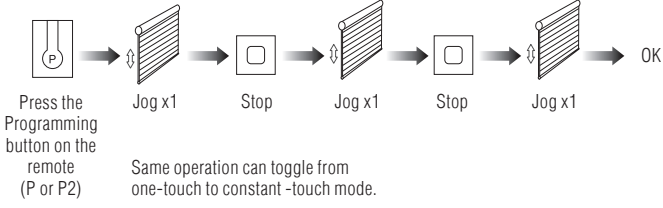
R-TEC Automation Li-ion Battery Motors
USB-C Charging

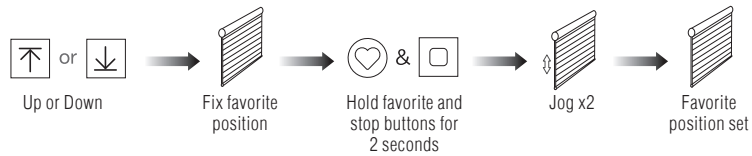**STEP 4:** ONE-TOUCH OR CONTINUOUS-TOUCH MODES

Continuous Touch ➡ One Touch

Note: One touch mode allows the user to press the remote button once to make the shade operate.
Continuous touch mode will require the button to be held on the remote to operate the shade.
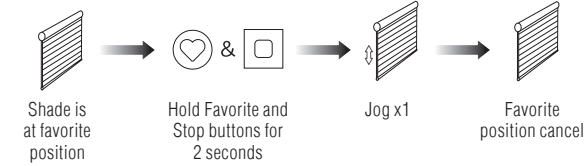
Press the Programming button on the remote (P or P2) ➡ Jog x1 ➡ Stop ➡ Jog x1 ➡ Stop ➡ Jog x1 ➡ OK

Same operation can toggle from one-touch to constant -touch mode.

Note: When motor is in one-touch mode, hold Up or Down for more than 2s, it will run in continuous-touch mode.

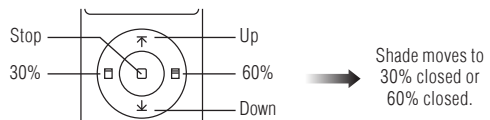**STEP 5:** TO SET A FAVORITE POSITION

To set a favorite position:

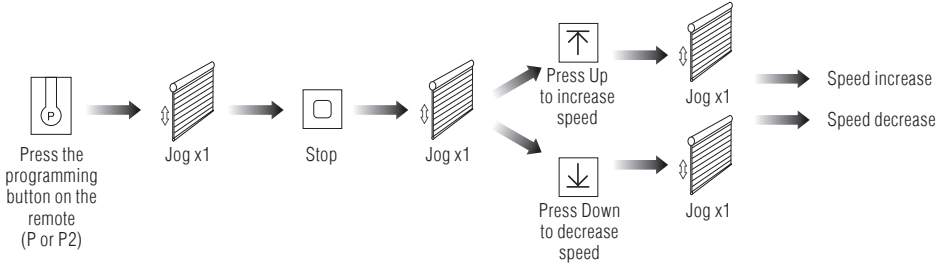Up or Down ➡ Fix favorite position ➡ Hold favorite and stop buttons for 2 seconds ➡ Jog x2 ➡ Favorite position set

To cancel a favorite position:

Shade is at favorite position ➡ Hold Favorite and Stop buttons for 2 seconds ➡ Jog x1 ➡ Favorite position cancel

Go to favorite position:

♡ ➡ Shade moves to favorite position

30% and 60% Shade Down Buttons:

Stop — Up
30% — 60%
Down
➡ Shade moves to 30% closed or 60% closed.

Note: 30% and 60% Shade Down Buttons only available on select remotes.

STEP 6: ADJUSTING MOTOR SPEED

Press the programming button on the remote (P or P2) ➡ Jog x1 ➡ Stop ➡ Jog x1 ➡ Press Up to increase speed ➡ Jog x1 ➡ Speed increase
➡ Press Down to decrease speed ➡ Jog x1 ➡ Speed decrease

Note: If motor doesn't jog, the max/min speed has already been reached. Motor has 3 adjustable speeds.

STEP 7: HIDE UNUSED CHANNELS ON REMOTE

Refer to the remote instructions for further guidance.

STEP 8: LOCK DOWN SETTINGS

Refer to the remote instructions for further guidance.
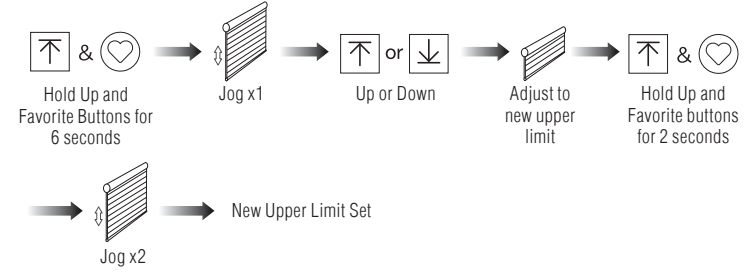
STEP 9: CHARGING THE MOTOR

Low Battery Indication and Recharge:

When the battery voltage is low the LED light will flicker 8 times and give a low-voltage alarm when the motor starts. Only use the recommended R-TEC Automation USB-C Charging Cable to charge the motor battery for 6-8 hours.
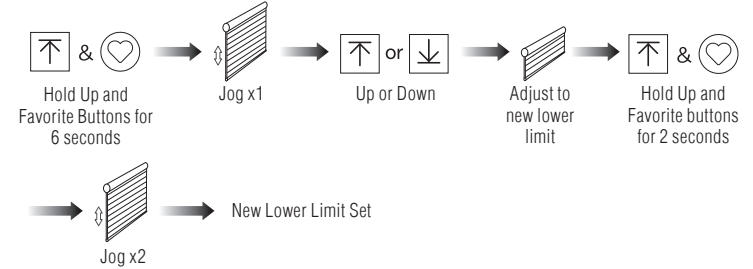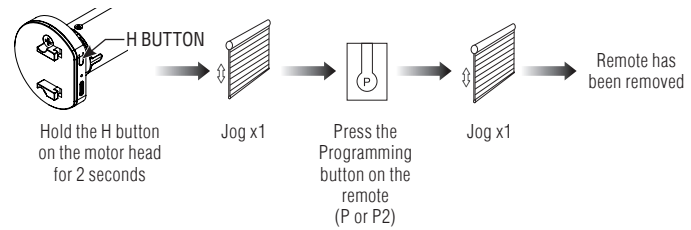
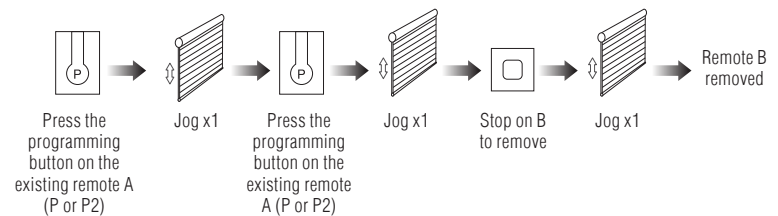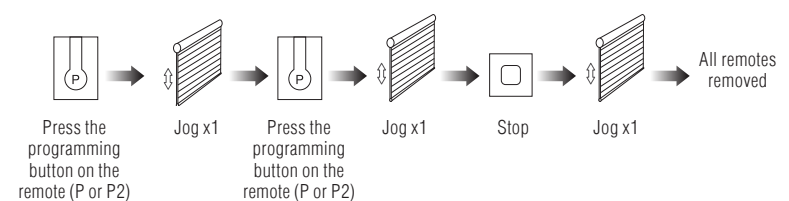**OTHER OPERATIONS**

Adjusting Limits

UPPER LIMITS

Hold Up and Favorite Buttons for 6 seconds ➡ Jog x1 ➡ Up or Down ➡ Adjust to new upper limit ➡ Hold Up and Favorite buttons for 2 seconds
➡ Jog x2 ➡ New Upper Limit Set

LOWER LIMITS

Hold Up and Favorite Buttons for 6 seconds ➡ Jog x1 ➡ Up or Down ➡ Adjust to new lower limit ➡ Hold Up and Favorite buttons for 2 seconds
➡ Jog x2 ➡ New Lower Limit Set

To Remove a Single Remote

H BUTTON

Hold the H button on the motor head for 2 seconds ➡ Jog x1 ➡ Press the Programming button on the remote (P or P2) ➡ Jog x1 ➡ Remote has been removed

Remove a remote by using another paired remote

Press the programming button on the existing remote A (P or P2) ➡ Jog x1 ➡ Press the programming button on the existing remote A (P or P2) ➡ Jog x1 ➡ Stop on B to remove ➡ Jog x1 ➡ Remote B removed

Remove all remotes

Press the programming button on the remote (P or P2) ➡ Jog x1 ➡ Press the programming button on the remote (P or P2) ➡ Jog x1 ➡ Stop ➡ Jog x1 ➡ All remotes removed

TROUBLESHOOTING

FAULT	CAUSE	SOLUTION
Motor does not work	1. Controller not paired 2. Motor inactive 3. Low battery	1. Add controller 2. Hold H button for 2 seconds to activate motor 3. Fully charge the motor for 6-8 hours
Motor stops suddenly	1. Upper & Lower limit set incorrectly 2. Shade exceed rated load 3. Low battery	1. Re-set Upper & Lower limits 2. Contact the shade fabricator 3. Fully charge the motor for 6-8 hours
LED flickers 8 times on motor head when motor starts	Low battery	Fully charge the motor for 6-8 hours