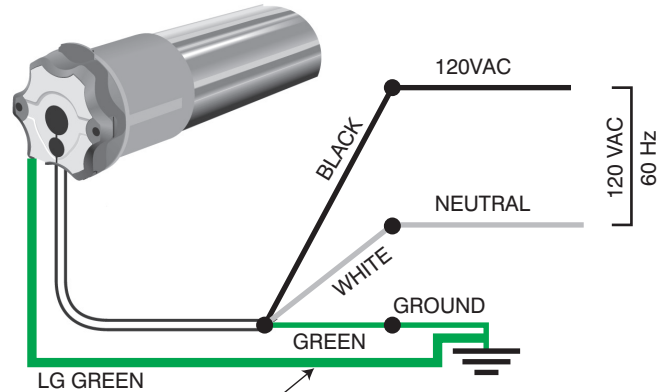# Wiring Diagram and
Limit Setting Instructions for
RTS (Radio Frequency Controlled) Motors

POWER SUPPLY   120 VAC / 60 Hz

A. For installation by a qualified electrician in accordance with national and local electrical codes, and the following instructions.

B. Risk of electrical shock. Disconnect power before installing. Never wire energized components.

C. Only RTS motors can be wired in PARALLEL A means of disconnecting the power at each motor independently should be provided.

D. Power only needs to be supplied to the motor. The receiver is completely contained inside the motor tube.

E. Motor warranty is subjet to CANCELLATION if wiring recommendations are not followed.

This extra ground wire is to ensure that the shutter is properly grounded to prevent electrical shock. Connect this wire to the same ground as the motor ground in the motor cable.

MOTOR WIRING COLOR CODE

COLOR	MOTOR LEADS
BLACK	120VAC
WHITE	NEUTRAL
GREEN	GROUND
LG GREEN	SHUTTER GROUND

INSTALLATION REQUIREMENTS

- If the installation is made up of several RTS motors,only one RTS motor must be powered during the programming.

  All other motors must be disconnected. This will avoid interferences during the initial programming of each motor.

- The mounting distance between the 2 motor heads should not be less than 19 inches between RTS motor heads, to avoid possible interference.

- Use only factory approved radio controls and accessories.

- In order to avoid water penetration, form a "drip loop" with the power cable.

- **NOTE:** Our motors conform to IP44 requirements and as such must be protected against direct weather elements such as rain, sleet,…etc.

TRANSMITTERS

Pictured below are compatible transmitters for RTS (Radio Frequency Controlled) motors.

- A motors memory capacity is a maximum of 12 transmitters.
- Transmitter range is up to 65 feet (20 meters) from the motor.
- The master channel on a 4/5 channel transmitter can be used as an individual channel for a total of 5 channels, in lieu of a master control of all motors.

1 Channel Handheld	4/5 Channel Handheld	1 Channel Wall Mount	4/5 Channel Wall Mount	Digital Keypad	7 Day Timer

PROGRAMMING MODE

Before you begin: Motors are shipped without limit settings and transmitter ID's. Steps 1 to 7 must be completed to ensure proper motor programming and functionality. Power should ONLY be connected to current motor being programmed. All other motors should be disconnected from their respective power while programming.

Step 1: Connect power
Connect 120V power to the motor to be programmed

Step 2: Initiate programming
Press both $\wedge$ and $\vee$ **at the same time** until the motor jogs. A jog is a brief up and down motion. In **Programming Mode**, the shutter will move only when the $\wedge$ or $\vee$ is held. (Note: after every command, the motor will jog to confirm)

Step 3: Check directions
Press $\wedge$ or $\vee$. When pressing $\vee$: shutter should go down. To change direction press and hold my (Stop) until the shutter jogs.

Step 4: Set the limit
Bring the shutter to desired **upper** limit stop point. Press both my (Stop) $\vee$ and until the motor moves, then release. (If the motor stops when the buttons are released take it back to the **upper** limit and repeat) Stop the motor when reaching the desired **lower** limit by pressing my (Stop). You can adjust by pressing $\wedge$ or $\vee$.

Step 5: Set the limit
Press both my (Stop) $\wedge$ at the same time until the shutter moves, then release. The shutter will stop at the original upper limit.

Step 6: Confirm limit setup
Press and hold my (Stop) until the shutter jogs to confirm the limit settings.

Programming Button

Step 7: Set user mode
Press and hold the programming button on the back of the transmitter until the shutter jogs. The shade is now in User Mode. In User Mode, the shade will operate with a brief press on $\wedge$ or $\vee$ Double check limit settings as a precaution.

IMPORTANT: The programming button in step 7 will not work until the limits have been confirmed as per step 6.

## ADJUSTING THE LIMITS AFTER THE MOTOR HAS BEEN PROGRAMMED

To change the upper limit run the motor to its **upper limit and let it stop.** Press the **UP** and **DOWN** buttons simultaneously until the motor jogs. Run the motor to the new desired upper limit. Press and hold the **STOP** button until the motor jogs. Check the new limit.

To change the lower limit run the motor to its **lower limit and let it stop.** Press the **UP** and **DOWN** buttons simultaneously until the motor jogs. Run the motor to the new desired lower limit. Press and hold the **STOP** button until the motor jogs. Check the new limit.

SETTING AN INTERMEDIATE (MIDDLE) STOP POSITION

Setting

Press the ⌃ or ⌄ to operate shutter. At the desired intermediate (preferred) position press (my) (Stop) to stop the shutter.

Once the desired intermediate position is reached, press and hold (my) (Stop) until the shutter jogs. The intermediate position is now added to memory.

Using

Send the shutter to the intermediate position by pressing (my) (Stop) from ANY shutter position.

Note: Shutter should be stationary prior to activating intermediate position function.

Note:
If shutter is actively moving (in-motion), (my) should be pressed twice.
To Delete: Activate shutter to intermediate position, then press and hold (my) (Stop) for 5 seconds. Shutter will jog to confirm deletion.

ADDING OR DELETING A TRANSMITTER OR CHANNEL

Programmed Transmitter

- To add or delete a remote, press the programming button on the back of an already programmed remote until the motor jogs. (On multi-channel transmitters, use the button below the red lights to select the correct channel **BEFORE** pressing the programming button or you will do all channels at once.)

- Next press the programming button on the back of the remote you wish to add or delete until the motor jogs.

  (**Note:** On multi-channel transmitters, use the button below the red lights to select the correct channel **BEFORE** pressing the programming buttons or you will add/delete all channels on the transmitter.)

Programming Button

RESETTING THE MOTORS MEMORY

NOTE 1:

RESETTING MOTORS BACK TO USER MODE

WARNING: This type of power cut affects all the RTS motors on the same power line. To avoid resetting of non-concerned motors, disconnect the power supply of non-concerned motors before performing a double power cut.

NOTE 2:

A double power cut cannot be achieve if the motor is still in FACTORY or INSTALLER mode. First program a transmitter into the memory of the motor. The motor is in FACTORY or INSTALLER mode if the shutter responds to the transmitter in a momentary (constant pressure required) fashion.

A. Perform a power cut in the following sequence:
1. Power-off - 2 sec. minimum
2. Power-on - 5 to 15 seconds
3. Power-off - 2 sec. minimum
4. Power on

The shutter moves for 5 seconds in one direction to indicate that the double power cut has been recorded. The motor is in a PROGRAMMING STATE for 2 minutes. Proceed to STEP B or C depending on the desired result.

B. **Reprogramming the limits**

Press the programming button on the NEW RTS transmitter for 1 second max. Release it after the shutter jogs briefly UP/DOWN indicating that the transmitter has erased all previous transmitters and recorded the NEW one.

Go to page 2 of these instructions and the directions under the heading 'PROGRAMMING MODE'

C. **Restoring to factory mode**
(with a new transmitter after losing the 1st one)

Press and **HOLD** the programming button for more than 7 seconds of the NEW RTS transmitter. The shutter will jog briefly UP/DOWN twice. Once after 1 second and again after 7 seconds. This indicates the RTS motor has been completely cleared.

Go to page 2 of these instructions and the directions under the heading 'PROGRAMMING MODE'