



Motor Cable Positioning

Depending on the application, the motor cable can pass through the center or side of the motor head. In the LT50/60 versions simply raise the yellow cover plate slightly, reposition the cable and then press the cover plate into place.

Mounting the Motorized Tube

LS40 and LT50 RH

The motor brackets for the LS40 and LT50 RH are screwed directly into the head of the motor as illustrated at left.

LT50/60

The motor brackets for the LT50/60 are equipped with a spring ring. This spring ring must be used and does not have to be removed for installation. You can press the motor axially into the motor bracket in any of 6 positions, so that the limit switch adjustment buttons are always easily accessible. When the motor engages the motor bracket, the spring ring makes a click sound. The spring ring keeps the motor head securely seated in the bracket for even torque distribution. For higher torque applications a locking spring ring with screw must be used in place of the standard spring ring.

Testing the Motor - Test Run 1

- Connect the motor tester cable (Cat. No. 6020086) to the motor cable, match the wire colors and connect to power.
 - Remove yellow protective cap from limit switch adjustment buttons.
 - Press both limit switch adjustment buttons in (they will automatically remain locked).
- When the limit switch adjustment buttons are pushed in, the motor has no stop position shut-off points. The number of revolutions is unlimited.

Attaching Rolling Shutter, Awning, Screen...

Now you can attach the interior, or exterior window treatment to the tube.

Caution! Never drill in the vicinity of the motor, or use screws that could penetrate the motor.

Adjustment of Upper and Lower Positions for LT50/60 motors

- Both limit switch adjustment buttons have been depressed since Test Run 1.

Stop Position 1

- Bring end product into the desired stop position 1 (direction of rotation 1)
 - Release the limit switch adjustment button that lies in the direction of rotation 1 by pressing it down again.
- Stop position 1 is now set.

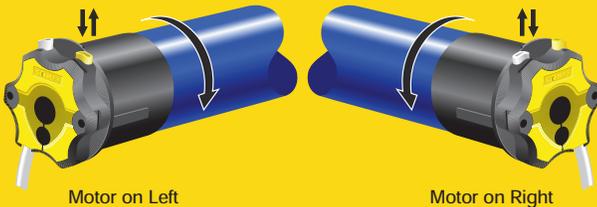
LT50/60 and LT50RH

Stop Position 1

Depending upon type of installation



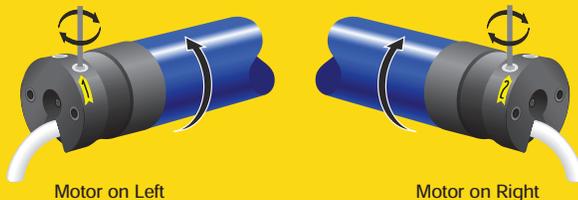
Position 2



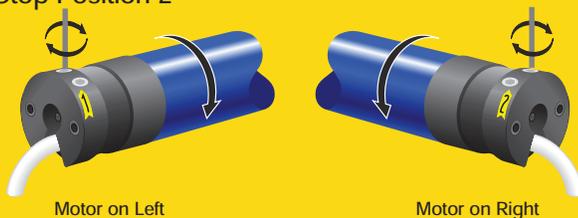
LS40

Stop Position 1

Depending upon type of installation



Stop Position 2



Stop position 2

- Bring end product into stop position 2 (direction of rotation 2)
 - Release the limit switch adjustment button that lies in the direction of rotation 2 by pressing it down again.
- Stop position is now set.

Always attach protective cap over limit switch adjustment buttons.

NOTE: It is important to note that SOMFY motors are weatherproof, but NOT WATERPROOF and therefore the motor head should not be exposed to direct rainfall.

Test Run 2

Allow the motor to run in both directions, until it shuts off in the stop positions. Because of the built-in thermal protection feature, the motor may shut off automatically after running without interruption for an extended period of time. Please wait until the motor has cooled off and is ready for operation again (approximately 10-15 minutes).

Changing a Set Stop Position...

- Press the limit switch adjustment button that lies in the direction of rotation.
- Bring the end product into the desired stop position.
- Release the limit switch adjustment button by pressing it down again.

Adjustment of Upper and Lower Positions for the LS40 Motor

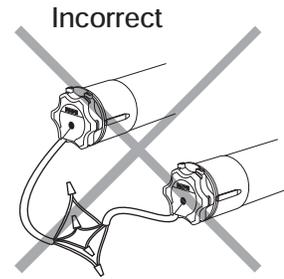
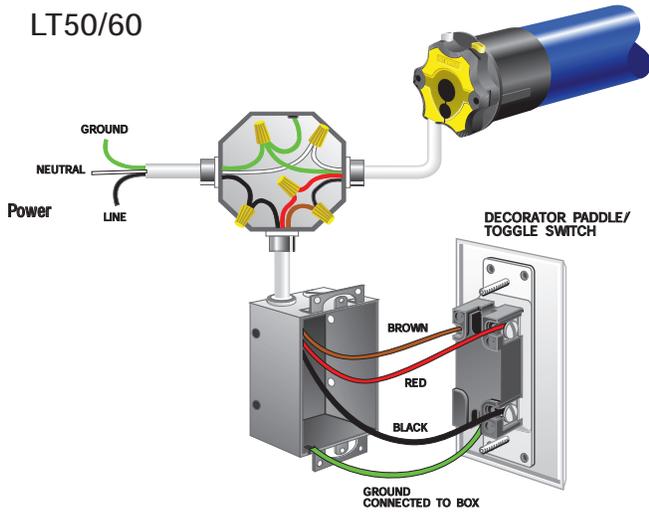
- Connect the motor tester cable (Cat. No. 6020086) to the motor cable, match the wire colors and connect to power.
- Identify the UP recessed limit screw by finding the arrow on the motor head which points in the direction that retracts (rolls up) the system.
- Turn the power on to ensure that the switch is operating properly (UP-raises, DOWN-lowers). If not, turn the power off and simply reverse the black and red motor leads.
- Flip the tester cable switch in the UP direction. If the system stops before its UP limit, turn the UP screw to "+" until necessary. If the system does not stop at its UP limit, flip the tester cable switch off and turn the UP screw to "-". Repeat this until correct setting is achieved.

NOTE: 7 Turns of Hex Screws equals 1 turn of roller tube.

- Flip the tester cable switch in DOWN direction. If the system stops before its DOWN limit, turn the DOWN limit screw to "+". If not, flip the tester cable switch off and turn the DOWN limit screw to "-". Repeat this until correct setting is achieved.

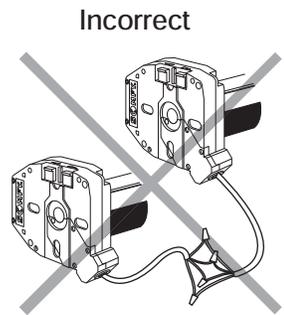
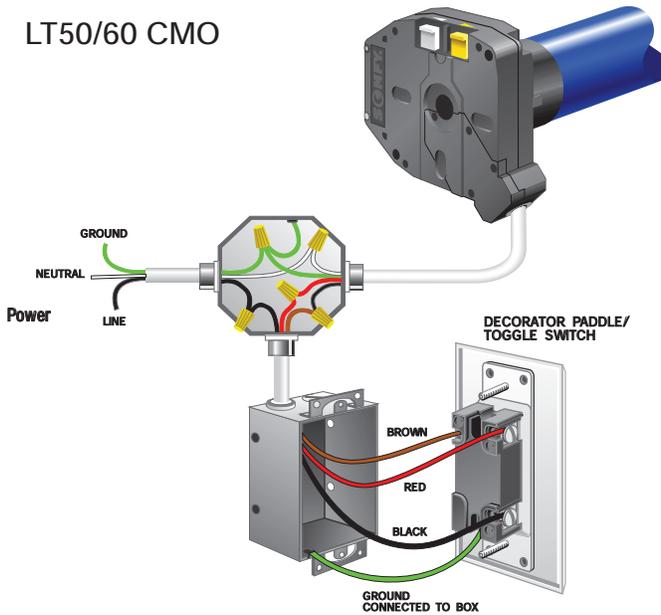
NOTE: Recessed thumbscrews can accommodate a flat head screwdriver, SOMFY's Allen wrench or Flexible limit switch adjuster.

LT50/60



WARNING:
Do not wire two or more LT operators to one single pole switch. This will cause the motors to malfunction.

LT50/60 CMO

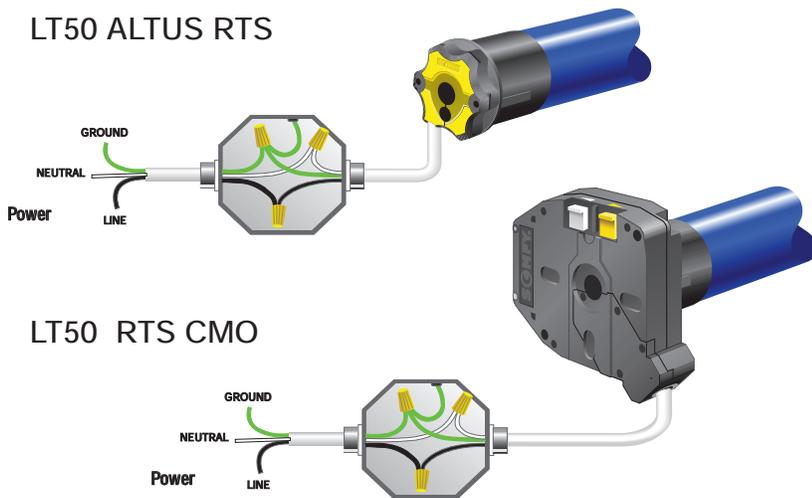


LT MOTOR WIRING COLOR CODE

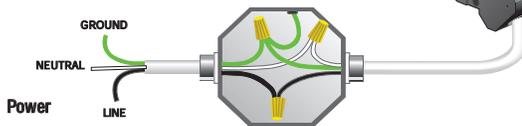
| 120V AC | CODE |
|---------|--------------------|
| BLACK | WHITE PUSH-BUTTON |
| RED | YELLOW PUSH-BUTTON |
| WHITE | (C) COMMON |
| GREEN | (G) GROUND |

Note: Only RTS and ILT motors can be wired in parallel.

LT50 ALTUS RTS



LT50 RTS CMO



LT50 ALTUS RTS AND LT50 RTS CMO MOTOR WIRING COLOR CODE

| 120V AC | CODE |
|---------|-------------|
| BLACK | (H) HOT |
| WHITE | (N) NEUTRAL |
| GREEN | (G) GROUND |

Because of the type of motor (Asynchronous with built-in capacitor) and the built-in limit switches, it is important to follow two important recommendations to assure proper operation of the motorized systems - SOMFY Operators are not universal motors.

| SYMBOLS | | | |
|---------|--------------|-----|-------------------|
| M1 | Microswitch | W2 | Motor Winding |
| M2 | Microswitch | TP | Thermal Protector |
| C | Capacitor | GND | Ground |
| W1 | Motor Wiring | | |

The operator is connected to a 120V-60HZ power source through a single pole (or double pole), double throw, center off switch.

1. Do Not Wire SOMFY Operators in Parallel (Does not apply to RTS or ILT motors). Parallel Wiring Means: Several Operators are Wired to Only One Electrical Contact Per Direction of Rotation. There will be constant feedback from one motor to another, so stopping points will not be stable and there is a risk of motor burn out.

Correct:
Correct wiring solution is to use a double pole, double throw, center off switch which would isolate both motors.

Incorrect:
Motor A stops at its limit in direction 2 before Motor B. Current in Motor B feeds back to motor A through capacitor C2 and microswitches M3 and M1. Both operators keep rotating in opposite directions at reduced power.

2. Do Not Control One SOMFY Operator from Several Locations Without Using Proper Controller.

Correct:
Possible problem: When switch (1) is turned on, the motor will begin running in direction 1. As it reaches its limit, the microswitch M1 will open. If, at the same moment in time switch (2) is turned on, the motor will operate in the opposite direction. This is why we recommend the use of momentary switches with the Multi-Switch Command (MSC).

Incorrect:
The microswitch M1 closes, shortcircuiting the capacitor which is loaded at its maximum voltage (180V). As a result the microswitch M1 is damaged.
Solution: Use relays to build priorities between controls sending opposite signals. Do not use a standard "light" switch as a motor control.

NOTE: SOMFY Control Systems are designed to comply with these two basic criteria and assure reliable operation of motorized systems. Non-compliance to these two basic principles voids the SOMFY warranty.

