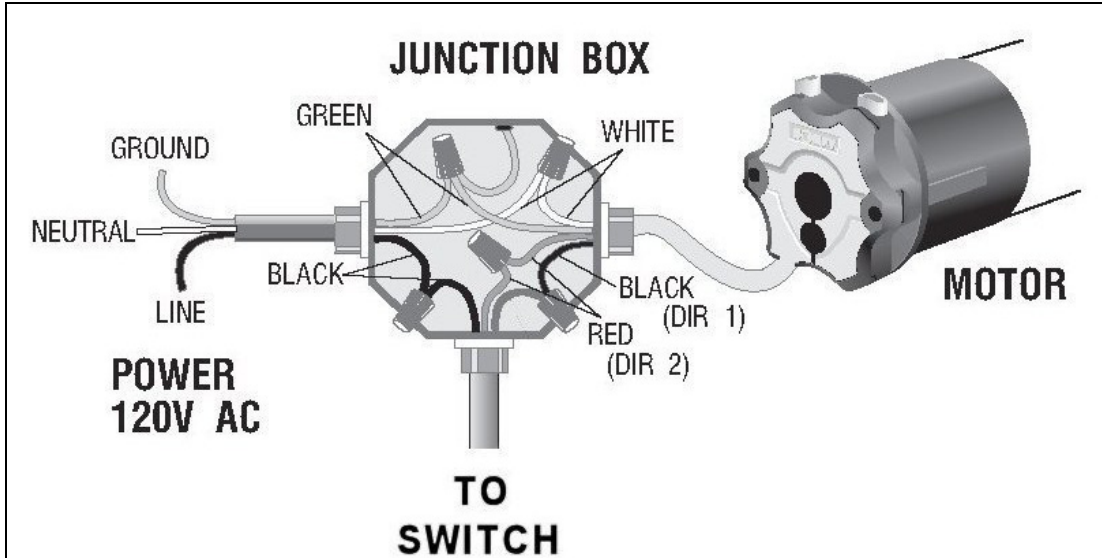


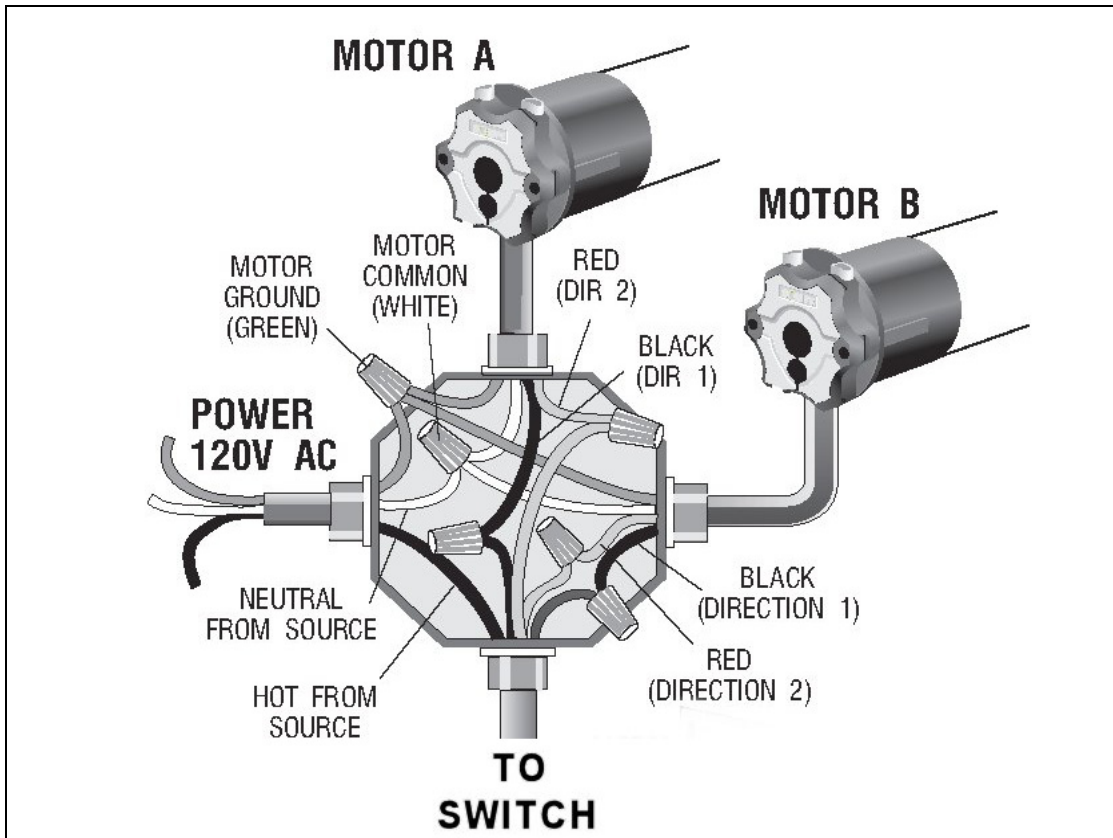
# Motorization Diagrams and Instructions

Junction Box Wiring, Switch Wiring, Limit Switch Setting

## Junction Box Wiring—One Motor, Single Pole Switch



## Junction Box Wiring—Two Motors, Double Pole Switch



## Switch Wiring Diagrams

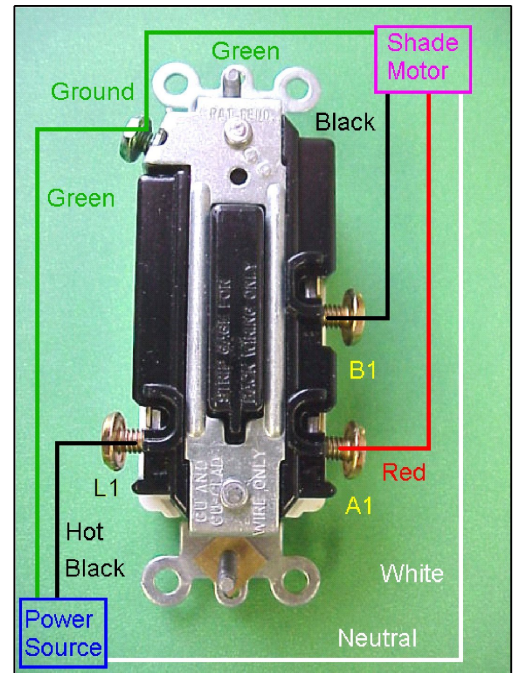
### Momentary or Maintained Contact Switches

**Warning:** To avoid fire, shock, or death, turn off power at circuit breaker or fuse. Test that power is off before wiring. Use these devices only with copper or copper clad wire. With aluminum wire, use only devices marked CO/ALR.

#### Single Pole, Double Throw, Center Off

Connect wires per diagram as follows:

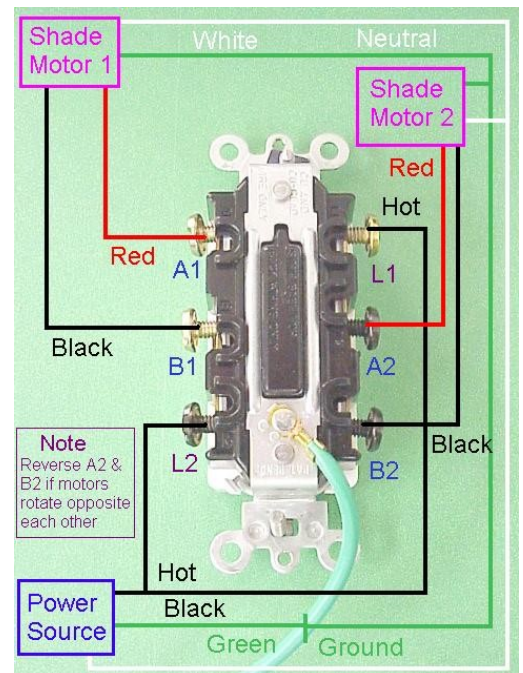
- **Black** (hot) wire from power source to the **(L1)** screw
- **Black** wire from the shade motor to the **(B1)** screw
- **Red** wire from the shade motor to the **(A1)** screw
- **White** (neutral) wire from the shade motor to the **white** (neutral) wire from power source
- **Green** or **bare** (ground) wires from power source and from shade motor to green hex screw, and then attach to a ground



#### Double Pole, Double Throw, Center Off

Connect wires per diagram as follows:

- **Black** (hot) wire from power source to the **(L1)** and **(L2)** screws (this can also be done by connecting the black (hot) wire to either (L1) or (L2) and using a jumper to connect (L1) and (L2) together)
- **Black** wire from shade motor 1 to the **(B1)** screw
- **Red** wire from shade motor 1 to the **(A1)** screw
- **Black** wire from shade motor 2 to the **(B2)** screw
- **Red** wire from shade motor 2 to the **(A2)** screw
- **White** (neutral) wire from both shade motors to **white** (neutral) wire from power source
- **Green** or **bare** (ground) wires from power source and from both shade motors to **green** (ground) wire attached to switch, and then attach to a ground



## Setting Limit Switches

**Note:** Motorized shades are shipped with the motor limit switches preset at the factory. Follow the instructions below only as far as needed to test and adjust the limit switch settings.

### To set limit switches on LS40 Series motors

**Note:** The recessed limit screws (see Figure 1) are adjusted using a small flat head screwdriver or an Allen wrench. Seven turns of the screw equal one turn of the motor.

- 1 Ensure the motor tester is unplugged and the switch is in its neutral position. Connect the tester to the motor by matching the color-coded wires. Then plug the motor tester into an electrical outlet.
- 2 Lower and raise the shade as far as it will go, and check that it operates correctly. If it does not stop at the desired upper and lower limits, proceed with step 3.
- 3 Identify the limit screw for the upper limit by finding the arrow on the motor head which points in the direction that rolls up the shade (see Figure 2).



Figure 1—LS40 Series Limit Switch Screws

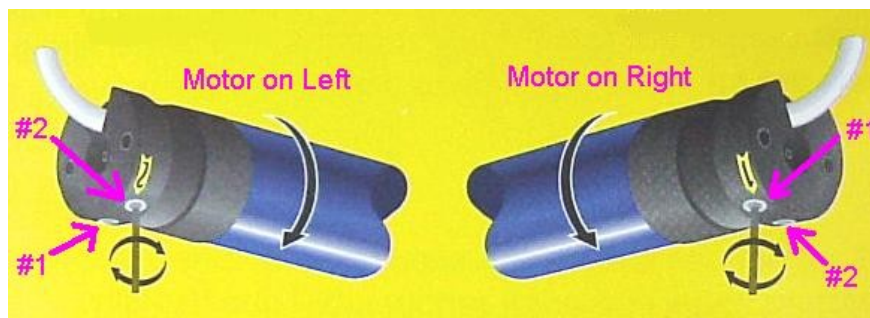


Figure 2—LS40 Series Motor Direction and Limit Switch Placement

- 4 Raise the shade to its upper position. The ideal upper limit is usually set so that the bottom rail of the shade is just off the roll.
  - If the shade stops before reaching the desired limit: leave the motor tester switch in the up position, and turn the limit screw in the plus (+) direction (see Figure 1) until the shade jogs up to the desired height.
  - If the shade goes beyond the desired limit: lower the shade back below the correct position, and then put the motor tester switch in the neutral position. Turn the limit screw several turns in the minus (-) direction and retest the limit until it is set a little too low. Then put the motor tester switch in the up position and turn the limit screw in the plus (+) direction until the shade jogs to the desired position.
- 5 Repeat this procedure (reversed) for the lower limit. Turning the limit screw in the plus (+) direction makes the motor turn longer. Turning it in the minus (-) direction makes the motor stop sooner.
- 6 Test the shade to see that the limits are now correctly set. Adjust if necessary.

## To set limit switches on LT50 Series motors

- 1 Ensure the motor tester is unplugged and the switch is in its neutral position. Connect the tester to the motor by matching the color-coded wires. Then plug the motor tester into an electrical outlet.
- 2 Lower and raise the shade as far as it will go, and check that it operates correctly. If it does not stop at the desired upper and lower limits, proceed with step 3.
- 3 Remove the cover for the limit switch controls on the motor, and use a small flat head screwdriver to press each of the limit switches so they lock in the down position (no limits are set).
- 4 Use the motor tester to raise the shade to its correct upper position. The ideal upper limit is usually set so that the bottom rail of the shade is just off the roll. Note the limit switch that controls the direction of motion that raises the shade. The limit switches are flat on one side and rounded/pointed on the other, appearing to point in the direction of motion that they control (see Figure 3).

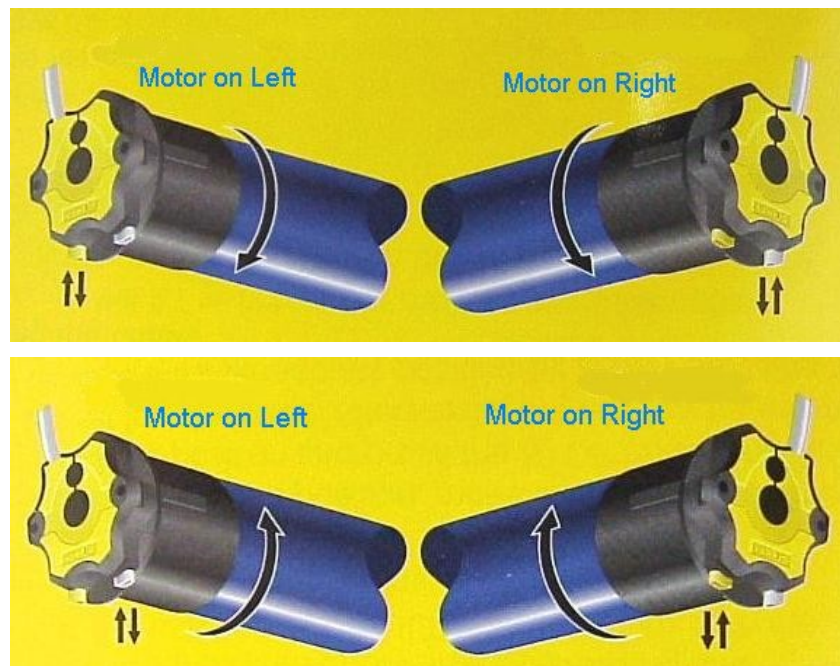


Figure 3—LT50 Series Motor Direction and Limit Switches

- 5 When the shade is in its correct raised position, put the motor tester switch in the neutral position, and then push the applicable limit switch button so that it pops out. The upper limit is now set.
- 6 Lower the shade slightly and then raise it to test that it stops at the correct position.
- 7 Repeat this procedure (reversed) for the lower limit, and test that the lower limit is now correctly set.
- 8 Replace the cover on the limit switch controls and disconnect the motor tester.