

3nm | 6nm | 8nm | 20nm | 50nm Smart Motor Programming with Multiple Limit Settings



**IMPORTANT: Read through all instructions
BEFORE beginning programming.**



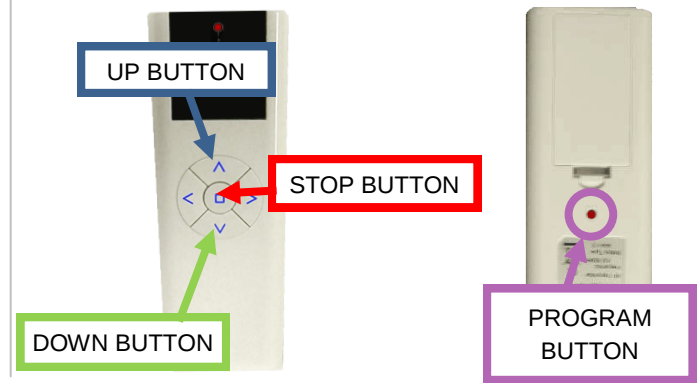
Main Features

- Motor is programmable with a remote control
- Manual Mode and Continuous Mode Operation
- Maximum six different limit positions, including UP / DOWN limit position, another 4 middle limit positions are optional
- Surge protected
- Compatible with all transmitters
- Set limit positions are auto-corrected
- Original limit positions and functions remain even with power outage

You can operate the motor in two modes, Manual or Continuous. When set in Manual Mode the motor will STOP when you let go of the UP or DOWN button. When set in Continuous Mode each time the UP or DOWN button is hit the motor will STOP at each set limit. Instructions on setting and changing the modes is explained in Step D.

FRONT OF REMOTE

BACK OF REMOTE



A. Program Preparation

1. Turn Power off to the motor
2. Push **Up** button for 3 seconds
3. While pushing **Up** button, turn power to the motor on
4. Motor will jog, release the Up button

MOTOR IS NOW READY FOR PROGRAMMING

You must set your UP and DOWN LIMITS next. Do not wait more than 10 seconds after program preparation to do the next step. If you wait longer than 10 seconds you will have to do the program preparation again. Below are the instructions on setting the limits, if you have difficulty getting the exact limits set you can later fine tune them with Step D.

B. Program Up Limit (this is an approximate UP LIMIT, you can later fine tune the limits with Step D.)

5. Push the **Up** button, the motor will jog
6. On the back of the remote push the Program button, the motor will jog
7. Push the **Up** button, motor will run up
8. When you have reached your approximate UP LIMIT push the **Stop** button to stop the motor
9. Use the **Up** or **Down** buttons to adjust limit if necessary. Remember you can fine tune the limit later if necessary.
10. Push Program button, the motor will jog **CONTINUE TO STEP 11**

C. Program Down Limit (this is an approximate DOWN LIMIT, you can later fine tune the limits with Step D.)

11. Push the **Down** button, motor will move downwards
12. When you have reached your approximate DOWN LIMIT push the **Stop** button to stop the motor
13. Use the **Up** or **Down** buttons to adjust limit if necessary. Remember you can fine tune the limit later if necessary.
14. On the back of the remote push the Program button, the motor will jog. Push the Program button AGAIN, motor will jog AGAIN

If you choose to leave the upper and the lower limits exactly where you just placed them and do not want intermediate limits, programming is complete. If you want to fine tune the upper and lower limits or add additional limits in-between the upper and the lower limits, continue to Step D.

D. Manual Mode is used to fine tune the UP and DOWN limits OR it is used to operate the motor by simply releasing the UP and DOWN buttons at any point to stop the motor.

Set Motor into Manual Mode (use Manual Mode to fine tune UP and DOWN limits)

1. Turn the power off to the motor
 2. Push the Up button for 3 seconds
 3. While pushing the Up button, turn the power to the motor on and the motor will jog
 4. Release the Up button
 5. Now push the Stop button and the motor will jog. You are now in Manual Mode
- You now can remain in Manual Mode for operation or set the intermediate limits in Manual Mode and change motor back to Continuous Mode for operation.

Adjust and Fine Tune the UP and DOWN Limits

1. Start with the motor in the LIMIT you want to adjust or fine tune
2. On the back of the remote push the Program button, the motor will jog
3. Adjust the limit by pressing and HOLDING the Up and Down button, release the Up or Down button when desired limit is reached and the motor will stop
4. On the back of the remote push the Program button, the motor will jog

STOP HERE IF YOU HAVE CHOSEN TO REMAIN IN MANUAL MODE WITHOUT INTERMEDIATE LIMITS.

Set Motor Back Into Continuous Mode without Intermediate Limits

1. Turn power off to the motor
2. Push the Up button for 3 seconds
3. While pushing the Up button turn the power to the motor on and the motor will jog
4. Release the Up button and push the Stop button and the motor will jog. You have now back into Continuous Mode operation.

Setting Intermediate Limits

1. Start with the motor in the UP LIMIT
2. Push and hold the Down button the motor will run down until you have reached your desired intermediate limit
3. When you have reached your desired intermediate limit release the Down button to stop the motor.
4. On the back of the remote push the Program button, the motor will jog.
5. Push the Program button AGAIN, motor will jog AGAIN

This process can be repeated for each intermediate limit you would like to set, with a maximum of 4 intermediate limits. After intermediate limits are set, when the motor is in the full up position and the down button is pushed on the remote control, the motor will stop at the first set intermediate limit.

Every down button push will lower the shade to the next set intermediate limit until the full down limit is reached.

If the down button is pushed two times with 1 second in between button pushes, the intermediate limits will be bypassed and the shade will run to the full down limit.

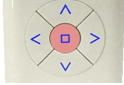
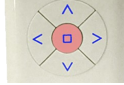
Adjust and Fine Tune the Intermediate Limits

1. Start with the motor in the LIMIT you want to adjust or fine tune
2. On the back of the remote push the Program button, the motor will jog
3. Adjust the limit by pressing and HOLDING the Up or Down button, release the Up or Down button when desired limit is reached and the motor will stop
4. On the back of the remote push the Program button, the motor will jog
5. Turn power off to the motor
6. Push the Up button for 3 seconds
7. While pushing the Up button turn the power to the motor on and the motor will jog
8. Release the Up button and push the Stop button and the motor will jog. You have now set the Intermediate Limits and are back into Continuous Mode operation.

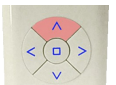
Delete an Intermediate Limit

1. Run motor to the limit to be deleted
2. On the back of the remote push and HOLD the Program button, the motor will jog within one second.
3. Continue HOLDING the Program button for another seven seconds, the motor will jog again.

Change Motor Direction (you only need to do this step if your motor is mounted on the right side)

	1. Motor Power is turned on		2. Press and Hold the Stop button until motor jogs		3. Release the Stop button		4. Push the Down button and the motor will jog
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Delete All Programs From Motor

	1. Turn Power off to the motor		2. Push Up button for 3 seconds		3. While pushing Up button, turn power to the motor on		4. Motor will jog, release the Up button		5. Push and hold Program button for 7 seconds, after 1 second motor will jog		6. Continue holding up button for 6 more seconds, motor will jog 2 times
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Adding Another Remote Control

	1. Push and Hold the Stop button		2. Motor will jog		3. Release the Stop button		4. Using remote control to be added, select channel to be programmed		5. Push the Up button, motor will jog
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Delete Channel on Remote From Motor (use remote that is to be erased)

	1. Put remote on channel to be erased		2. Turn Power off to the motor		3. Press and hold Up button for 3 seconds		4. While holding the Up button, turn the power On to the motor		5. Motor jogs, release the Up button		6. Push the Program button, motor will jog
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***IMPORTANT:** Warranties do not cover any damage to MaestroShield® products that result from improper installation, accident, abuse, misuse, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions, lightning or any unauthorized disassembly, repair or modification. Warranties do not apply to any product on which the original identification information has been altered, obliterated or removed, has not been handled or packaged correctly, has been sold second hand or has been sold contrary to the United States export regulations without consent from MaestroShield®. 05-2012

Smart Silent DC 1nm Motor with Built In Battery

Programming with Multiple Limit Settings

IMPORTANT: Read through all instructions
BEFORE beginning programming.



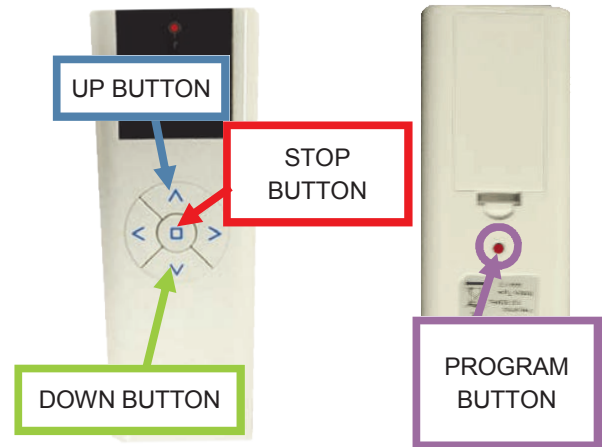
Main Features

- Motor is programmable with a remote control
- Manual Mode and Continuous Mode Operation
- Maximum six different limit positions, including UP / DOWN limit position, another 4 middle limit positions are optional
- Surge protected
- Compatible with all transmitters
- Set limit positions are auto-corrected
- Original limit positions and functions remain even with power outage

You can operate the motor in two modes, Manual or Continuous. When set in Manual Mode the motor will STOP when you let go of the UP or DOWN button. When set in Continuous Mode each time the UP or DOWN button is hit the motor will STOP at each set limit. Instructions on setting and changing the modes is explained in Step D.

FRONT OF REMOTE

BACK OF REMOTE



MOTOR PROGRAMMING BUTTON



A. Program Preparation



1. Press the Motor Program Button, the motor will jog

MOTOR IS NOW READY FOR PROGRAMMING

You must set your UP and DOWN LIMITS next. Do not wait more than 10 seconds after program preparation to do the next step. If you wait longer than 10 seconds you will have to do the program preparation again. Below are the instructions on setting the limits, if you have difficulty getting the exact limits set you can later fine tune them with Step D.

B. Program Up Limit (this is an approximate UP LIMIT, you can later fine tune the limits with Step D.)



3. Push the **Up** button, the motor will jog



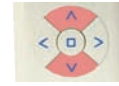
4. On the back of the remote push the Program button, the motor will jog



5. Push the **Up** button, motor will run up



6. When you have reached your approximate UP LIMIT push the **Stop** button to stop the motor



7. Use the **Up** or **Down** buttons to adjust limit if necessary. Remember you can fine tune the limit later if necessary



8. Push Program button, the motor will jog
CONTINUE TO STEP 11

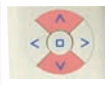
C. Program Down Limit (this is an approximate DOWN LIMIT, you can later fine tune the limits with Step D.)



9. Push the **Down** button, motor will move downwards



10. When you have reached your approximate DOWN LIMIT push the **Stop** button to stop the motor



11. Use the **Up** or **Down** buttons to adjust limit if necessary. Remember you can fine tune the limit later if necessary

12. On the back of the remote push the Program button, the motor will jog. Push the Program button AGAIN, motor will jog AGAIN

If you choose to leave the upper and the lower limits exactly where you just placed them and do not want intermediate limits, programming is complete. If you want to fine tune the upper and lower limits or add additional limits in-between the upper and the lower limits, continue to Step D.

Smart Silent DC 1nm Motor with Built In Battery Programming with Multiple Limit Settings

D. Manual Mode is used to fine tune the UP and DOWN limits OR it is used to operate the motor by simply releasing the UP and DOWN buttons at any point to stop the motor.

Set Motor into Manual Mode (use Manual Mode to fine tune UP and DOWN limits)

1. Push the Motor Programming Button, motor will jog
2. Now push the Stop button and the motor will jog. You are now in Manual Mode

You now can remain in Manual Mode for operation or set the intermediate limits in Manual Mode and change motor back to Continuous Mode for operation.

Adjust and Fine Tune the UP and DOWN Limits

1. Start with the motor in the LIMIT you want to adjust or fine tune
2. On the back of the remote push the Program button, the motor will jog
3. Adjust the limit by pressing and HOLDING the Up and Down button, release the Up or Down button when desired limit is reached and the motor will stop

STOP HERE IF YOU HAVE CHOSEN TO REMAIN IN MANUAL MODE WITHOUT INTERMEDIATE LIMITS.

Set Motor Back Into Continuous Mode without Intermediate Limits

1. Push the Motor Programming Button, motor will jog
2. Now push the Stop button and the motor will jog. You are now in Continuous Mode

You are now back into Continuous Mode operation.

Setting Intermediate Limits

1. Start with the motor in the UP LIMIT
2. Push and hold the Down button the motor will run down until you have reached your desired intermediate limit
3. When you have reached your desired intermediate limit release the Down button to stop the motor.
4. On the back of the remote push the Program button, the motor will jog.
5. Push the Program button AGAIN, motor will jog AGAIN

This process can be repeated for each intermediate limit you would like to set, with a maximum of 4 intermediate limits. After intermediate limits are set, when the motor is in the full up position and the down button is pushed on the remote control, the motor will stop at the first set intermediate limit.

Every down button push will lower the shade to the next set intermediate limit until the full down limit is reached.

Adjust and Fine Tune the Intermediate Limits

1. Start with the motor in the LIMIT you want to adjust or fine tune
2. On the back of the remote push the Program button, the motor will jog
3. Adjust the limit by pressing and HOLDING the Up and Down button, release the Up or Down button when desired limit is reached and the motor will stop
4. On the back of the remote push the Program button, the motor will jog
5. Push the Motor Programming Button, motor will jog
6. Now push the Stop button and the motor will jog. You are now in Continuous Mode

You have now set the Intermediate Limits and are back into Continuous Mode operation.

Delete an Intermediate Limit

1. Run motor to the limit to be deleted
2. On the back of the remote push and HOLD the Program button, the motor will jog within one second.
3. Continue HOLDING the Program button for another seven seconds, the motor will jog again.

Smart Silent DC 1nm Motor with Built In Battery Programming with Multiple Limit Settings

Change Motor Direction (you only need to do this step if your motor is mounted on the right side)



1.
Press the Motor Programming
Button, motor will jog



4.
Push the **Down** button and the
motor will jog

Delete All Programs From Motor



1.
Press the Motor Programming
Button, motor will jog



2.
Push and hold Program button for 7
seconds, after 1 second motor will jog



3.
Continue holding the Program button
on the Remote for 6 more seconds,
motor will jog **2** times

Adding Another Remote Control



1.
Press the Motor Programming
Button, motor will jog

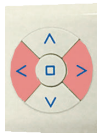


2.
Using remote control to be added,
select channel to be programmed



3.
Push the **Up** button, motor will jog

Delete Channel on Remote From Motor (use remote that is to be erased)



1.
Put remote on
channel to be erased



2.
Press the Motor Programming Button,
motor will jog



3.
Push the Program button,
motor will jog

Program Preparation Method 2 (this method is helpful when Motor Programming Button can not be reached)

1. Once the remote is already programmed using the original Program Preparation you can use this method to edit the programming.
2. Press the Stop button on the programmed remote for 5 seconds, the motor will jog, you are now in programming mode. Please note that the same applies as original Program Preparation, you must continue with the programming within 10 seconds or you will have to redo the Program Preparation.

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Home Automation Interface

Main Features

- Enjoy the ease of controlling your MaestroShield devices wirelessly, from your own home automation system
- The MaestroShield Home Automation System Interface is the perfect link between your MaestroShield devices and any home automation system.
- Now it is possible to have remote control of awning systems, hurricane and security shutters and interior shading using the same controller as your lighting, fans and watering systems.
- The Interface receives commands from your home automation system via RS232 serial communication and uses RF signals to wirelessly connect to your MaestroShield systems
- Internal RF transmitter that communicates with MaestroShield's RF motors and receivers
- Up to 15 programmable channels (plus one Master channel, channel 16)
- Operated via RS232 serial communication
- Powered by 12VDC power pack

Connectors

- 1x 12VDC input voltage connection
- 1x RJ45 connector for RS232 connection



Connecting the Home Automation Interface

Connect the plug pack to the mains voltage and the power jack to the interface. The unit is now powered up.

Connect a standard RS232 cable to the interface and the third party home automation controller.

The interface unit is now ready to use.

Configuration Commands

UX (U1-U15) Latches motor X to move up

DX (D1-D15) Latches motor X to move down

SX (S1-S15) Stops motor X

Channel 15 is an ALL channel and will move all motors at the same time E.g.: - U5 = Motor 5 will begin moving up

Electronics are covered by a Full 2-Year 100% Replacement Warranty.



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Home Automation Interface

Programming the Receivers thru a third party Home Automation System

This may require the user manual for the third party home automation controller.

1. Power up the Home Automation Interface.
2. Plug the desired receiver into a power point and switch it on. The receiver should begin beeping.
3. Immediately from the third party controller send the command "UX", where X is the desired channel number (e.g. U1 for channel 1).
4. If the beeping stops but does not change to a different beep first, then the receiver should be switched off and step 2-3 repeated.
5. Send the command UX. The receiver should receive the signal and take an appropriate action.
6. Send the command DX. The receiver should reverse the action.
7. Send the command SX. The receiver should stop.

Using Hyperterminal

1. Turn Interface on. If using Hyperterminal, "MAESTROSHIELD HOME AUTOMATION INTERFACE" should appear in the window.
2. Plug the desired receiver into a power point and switch it on. The receiver should begin beeping.
3. Immediately in the Hyperterminal window type "UX" and hit enter, where X is the desired channel number (e.g. U1 for channel 1).
4. If the beeping stops but does not change to a different beep first, then the receiver should be switched off and step 2 -3 repeated.
5. Type UX and press enter. The receiver should receive the signal and take an appropriate action.
6. Type DX and press enter. The receiver should reverse the action.
7. Type SX and press enter. The receiver should stop.

Note: If the receiver does not beep as described, follow the instructions in the receiver manual.

Manual Programming of Receivers

1. This procedure is only required if all the above instructions fail and the receivers cannot be programmed via your home automation system or HyperTerminal.
2. Open the unit and you should see the standard LCD transmitter board without an enclosure. This red board as 5 metal pads and one LCD.
3. To program the unit to the receivers (motors) please refer to the MaestroShield's Programming Hand Held Remotes to program the receiver.
4. Instead of using the buttons on a normal remote please use a metal object, such as a pen to touch the programming pads on the board.
5. Please make sure the unit is powered up and the LCD lights up when you touch them.

Vibration Sensor Programming for 3,6,8,20, 50 nm Smart Motors

**IMPORTANT: Read through all instructions
BEFORE beginning programming.**

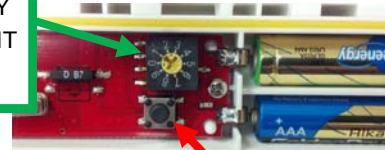


Main Features

- Wireless Vibration Sensor works with MaestroShield receivers to retract screens and awnings when the force of the wind vibrates the sensor
- 9 sensitivity levels lets you adjust how much vibration enables retraction
- 3D wireless data output for more exact sensitivity
- Two 1.5v batteries allow for low watt loss and high level performance.
- ABS plastic housing resists ultraviolet light
- Waterproof IP65 class, suitable for outdoor applications

Open the back of the Vibration Sensor to access the Program Key and Sensitivity Adjustment Dial.

SENSITIVITY
ADJUSTMENT
DIAL

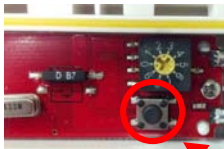


PROGRAM KEY

How To Put Into Program Mode | Method 1 (motor programmed to a remote control)



1.
Turn Power
Off to the
motor



2.
Push Program Key on
Vibration Sensor for 2
seconds



3.
While still holding the
Program Key, turn power
to motor back on



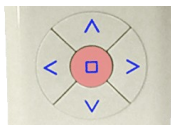
4.
Motor will jog,
release Program Key,
motor will jog again

***You MUST start Programming within 10 seconds of putting remote into program mode. If you wait longer than 10 seconds, even between each step, you will have to delete all programming and then put into program mode again.**

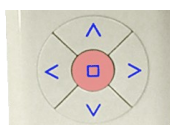
How To Put Into Program Mode | Method 2 (motor programmed to a remote control)



1.
Turn power
On to the
motor



2.
Push and hold the **Stop**
button on the remote for
at least 5 seconds, motor
will jog



3.
Release the **Stop** button
on the remote

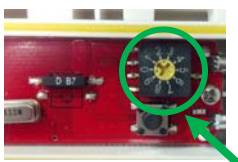


4.
Push the Program Key
on the Vibration Sensor,
motor will jog



5.
Release the Program
Key on the Vibration
Sensor

Adjust Sensitivity of the Vibration Sensor



1.
Turn the Sensitivity
Adjustment Dial on
the Vibration Sensor

2.
Number 1 is the **MOST**
sensitive position

3.
Number 9 is the **LEAST**
sensitive position

Electronics are covered by a Full 2-Year 100% Replacement Warranty.



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Setting Motor Limits

Manually Set (Harmony Series Motors)

- YOU WILL NEED THE MOTOR STOP HEX WRENCH
- YOU WILL NEED A TEST SWITCH OR REMOTE CONTROL
- YOU WILL NEED Site specific permitting as well as properly licensed contractors (electrical) to connect the motor.

Thermal Cut Off

- Each motor has a Thermal Cut Off to prevent motor from over heating. Factory set limit is about 4 minutes of operation.

NOTE: This is a thermal setting and not a timed setting. The environmental condition of the job site will shorten the operating time before the Thermal Cut Off will activate.

- Allow at least 20 minutes of cooling time (it may take up to 45 minutes) before the motor will return to regular operation.
- The motor will resume motion from last signal provided to the mini receiver.

NOTE: Never leave a cooling motor unattended and energized electrically.

Quick Reference Guide

NOTE: Arrows on Manual Override show movement of the Motor Tube which is opposite from the curtain

Left Side Motor Mount

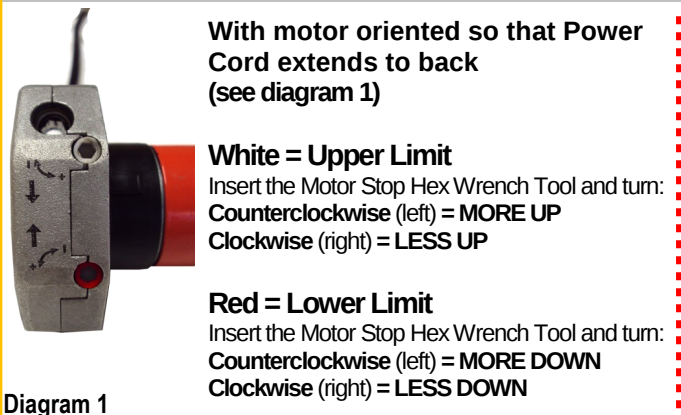


Diagram 1

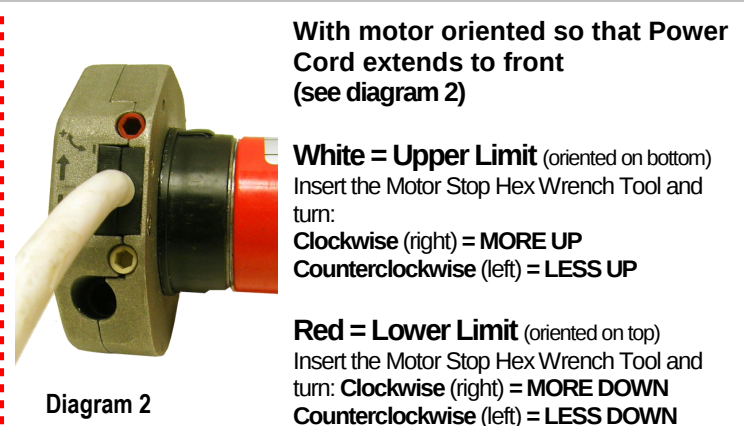


Diagram 2

Right Side Motor Mount

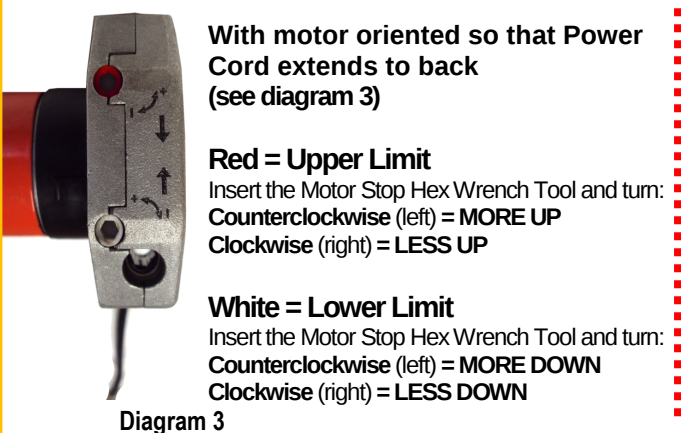


Diagram 3

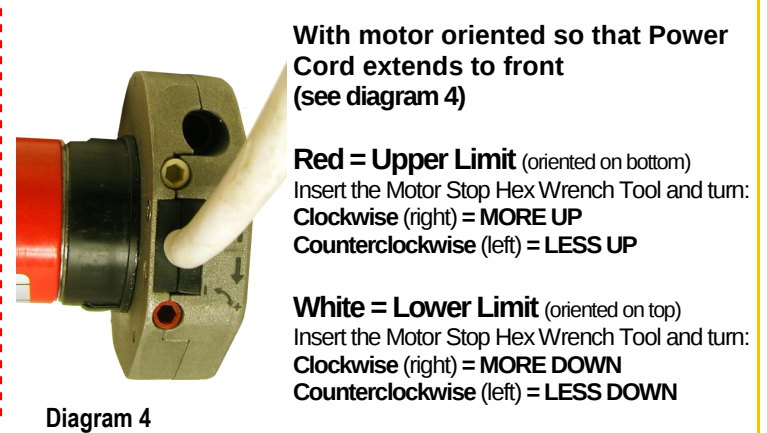


Diagram 4

Setting Lower Motor Limits

(Left Side Motor Mount—Non-Standard)

CAUTION

- Motors stops are not set when initially installed
- The slat curtain can be over extended when lowered causing damage to the system. Alternatively, slat curtain can be wound up inside the hood pulling the slats out of the side rails.
- Be prepared to stop the motor at any moment while setting the motor stop limits.
- DO NOT run the motor limits all the way to the top or bottom before attaching the curtain to the motor tube.

Setting Lower Motor Limit

(Left Side Motor Mount - MaestroShield Standard)

Finding the Lower Limit

1. Power the motor in the down direction and stop within 12" of the bottom
2. If the motor stops prior to the 12" you have found the Lower Limit; Proceed to **Setting the Lower Limit**
3. If the motor did not stop prior to reaching 12" from the bottom, Insert the Hex Wrench into the Red Limit Switch and rotate either:
 - A. **CLOCKWISE** several times for motor oriented with power cord to rear (See diagram 5)
 - OR
 - B. **COUNTERCLOCKWISE** several times for motor oriented with power cord to front (see diagram 6)
4. Power the motor in the down direction again. If it does not move you have found the Lower Limit. Proceed to **Setting the Lower Limit**
5. If the motor/curtain move, STOP 
6. Complete step 3 and 4 until the Lower Limit is found

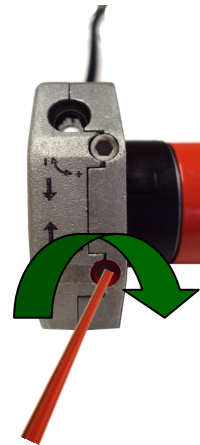


Diagram 5
Rotate Clockwise for motor oriented with power cord to rear

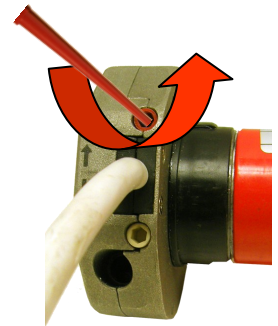


Diagram 6
Rotate Counterclockwise for motor oriented with power cord to front

Setting the Lower Limit

1. Once the limit has been found, the limit must be set

NOTE: Make sure the motor is still powered in the down direction. If motor is left in a state of rest for more than 4 minutes, power has been cut off and the limits cannot be set. In this case power the motor in the down direction to restart electrical current.

2. Insert the Motor Stop Hex Wrench in to the Red Limit Switch
3. To lower the curtain until the curtain is in the fully closed position Rotate the Hex Wrench:
 - A. **COUNTERCLOCKWISE** for motor oriented with power cord to rear (See diagram 7)
 - OR
 - B. **CLOCKWISE** for motor oriented with power cord to rear (See diagram 8)
4. Remove the Hex Wrench Tool. The Lower Limit is Set!



Diagram 7
For motor oriented with power cord to rear, rotate hex wrench:

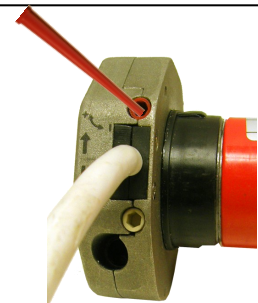
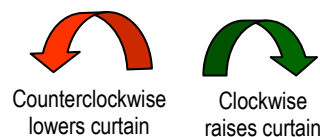


Diagram 8
For motor oriented with power cord to front, rotate hex wrench:



Setting Upper Motor Limits

(Left Side Motor Mount—MaestroShield Standard)

Finding the Upper Limit

1. Power the motor in the down direction and stop within 12" of the top
2. If the motor stops prior to the 12" you have found the Upper Limit; Proceed to **Setting the Upper Limit**
3. If the motor did not stop prior to reaching 12" from the top, Insert the Hex Wrench into the White Limit Switch and rotate either:
 - A. **CLOCKWISE** several times for motor oriented with power cord to rear (See diagram 9)
 - OR
 - B. **COUNTERCLOCKWISE** several times for motor oriented with power cord to front (see diagram 10)
4. Power the motor in the down direction again. If it does not move you have found the Upper Limit. Proceed to **Setting the Upper Limit**
5. If the motor/curtain move, STOP 
6. Complete step 3 and 4 until the Upper Limit is found

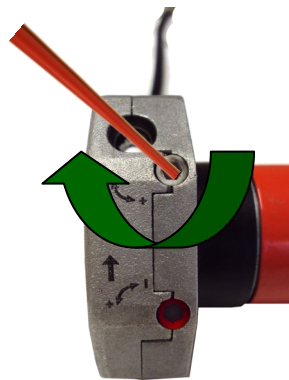


Diagram 9
Rotate Clockwise for
motor oriented with
power cord to rear

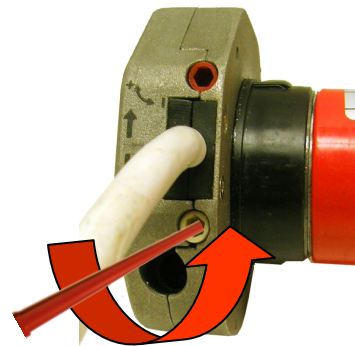


Diagram 10
Rotate Counterclockwise
for motor oriented with
power cord to front

Setting the Upper Limit

1. Once the limit has been found, the limit must be set
- NOTE:** Make sure the motor is still powered in the up direction. If motor is left in a state of rest for more than 4 minutes, power has been cut off and the limits cannot be set. In this case power the motor in the down direction to restart electrical current.
2. Insert the Motor Stop Hex Wrench in to the White Limit Switch
 3. To raise the curtain until the curtain is in the fully open position Rotate the Hex Wench:
 - A. **COUNTERCLOCKWISE** for motor oriented with power cord to rear (See diagram 11)
 - OR
 - B. **CLOCKWISE** for motor oriented with power cord to rear (See diagram 12)
 4. Remove the Hex Wrench Tool. The Upper Limit is Set!

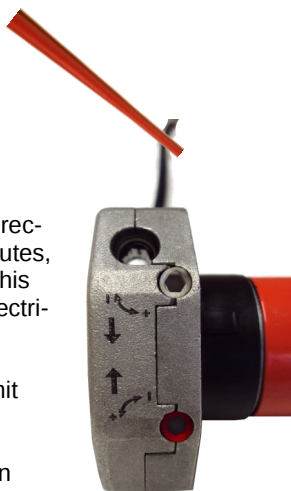


Diagram 11
For motor oriented with
power cord to rear,
rotate hex wrench:

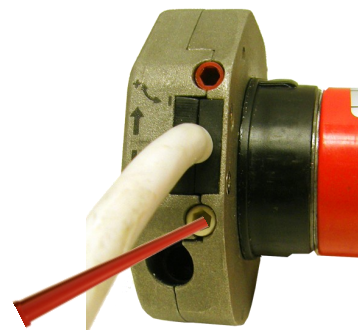


Diagram 12
For motor oriented with
power cord to front,
rotate hex wrench:


Counterclockwise
lowers curtain


Clockwise
raises curtain


Counterclockwise
raises curtain


Clockwise
lowers curtain

Setting Lower Motor Limits (Right Side Motor Mount—Non-Standard)

Finding the Lower Limit

1. Power the motor in the down direction and stop within 12" of the bottom
2. If the motor stops prior to the 12" you have found the Lower Limit; Proceed to **Setting the Lower Limit**
3. If the motor did not stop prior to reaching 12" from the bottom, Insert the Hex Wrench into the White Limit Switch and rotate either:
 - A. **CLOCKWISE** several times for motor oriented with power cord to rear (See diagram 13)
 - OR
 - B. **COUNTERCLOCKWISE** several times for motor oriented with power cord to front (see diagram 14)
4. Power the motor in the down direction again. If it does not move you have found the Lower Limit. Proceed to **Setting the Lower Limit**
5. If the motor/curtain move, STOP
6. Complete step 3 and 4 until the Lower Limit is found

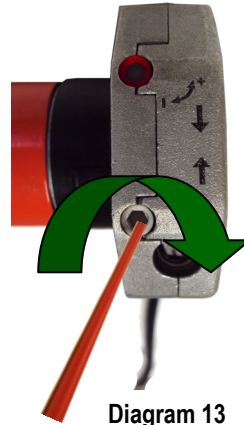


Diagram 13
Rotate Clockwise for
motor oriented with
power cord to rear

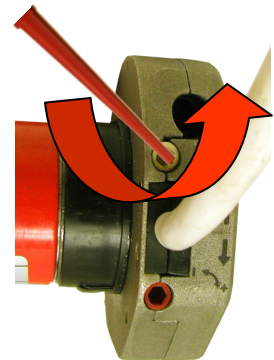


Diagram 14
Rotate Counterclockwise
for motor oriented with
power cord to front



Setting the Lower Limit

1. Once the limit has been found, the limit must be set
- NOTE:** Make sure the motor is still powered in the down direction. If motor is left in a state of rest for more than 4 minutes, power has been cut off and the limits cannot be set. In this case power the motor in the down direction to restart electrical current.
2. Insert the Motor Stop Hex Wrench in to the White Limit Switch
 3. To lower the curtain until the curtain is in the fully closed position Rotate the Hex Wrench:
 - A. **COUNTERCLOCKWISE** for motor oriented with power cord to rear (See diagram 15)
 - OR
 - B. **CLOCKWISE** for motor oriented with power cord to rear (See diagram 16)
 4. Remove the Hex Wrench Tool. The Lower Limit is Set!

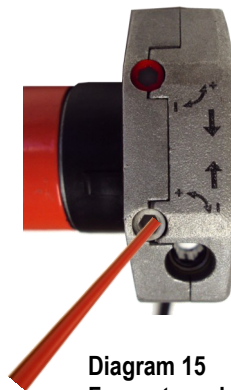


Diagram 15
For motor oriented with
power cord to rear,
rotate hex wrench:



Counterclockwise
lowers curtain



Clockwise
raises curtain

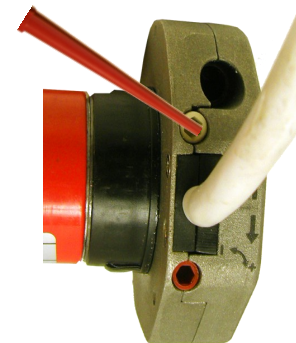


Diagram 16
For motor oriented with
power cord to front,
rotate hex wrench:



Counterclockwise
raises curtain



Clockwise
lowers curtain

Synchronizes up to four motors to operate in the same direction on a single momentary switch.

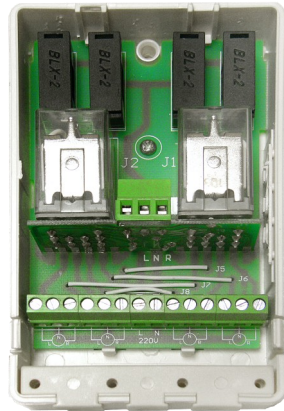


Diagram 1- shows configuration for all motors mounted on the right (clockwise = up); for all motors mounted on the left (counterclockwise = up), reverse the Black Line (L) and the Red Reverse (R)



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4-Channel Motor Synchronizer Wiring Procedures

Diagram 2—If some motors are right mount (clockwise = up) and some are left mount (counterclockwise = up); reverse the Black Line (L) and the Reverse Red (R) on the left mount motor input.

KEY

Green (E) – Ground
White (N) – Neutral
Black (L) – Line
Red (R) – Reverse

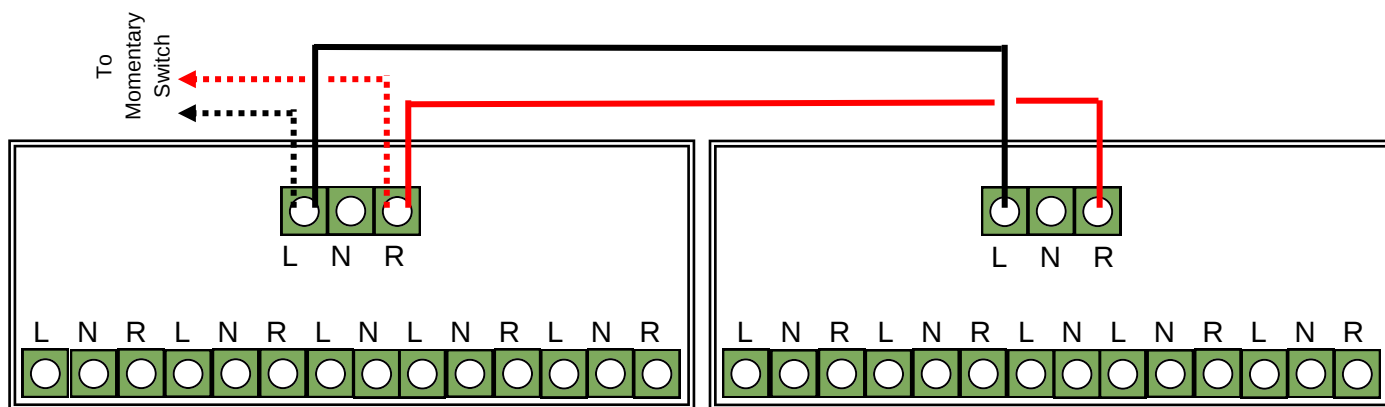
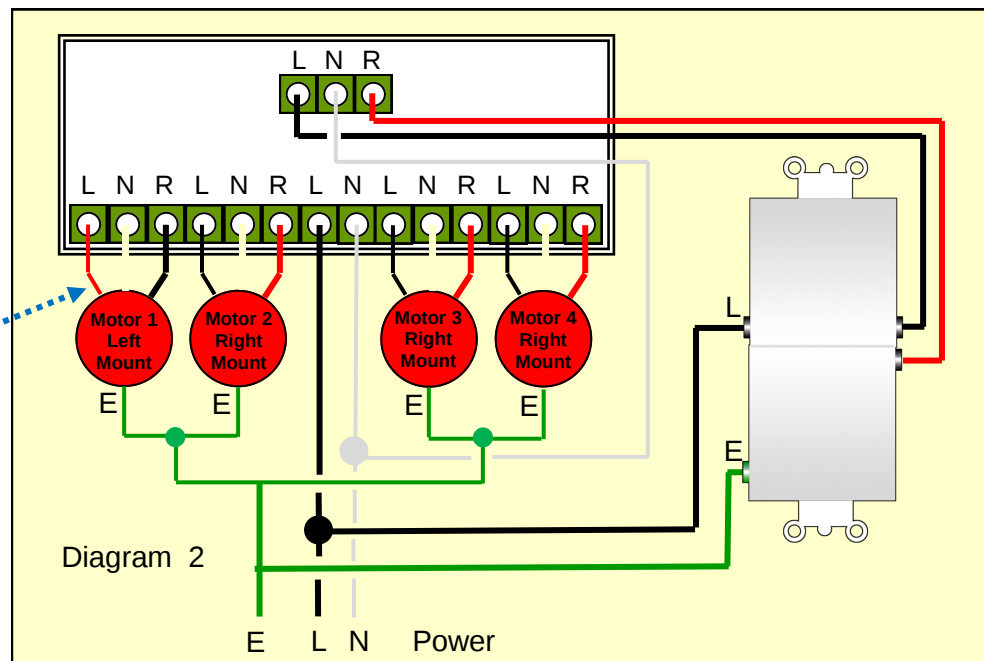


Diagram 3—Wiring two or more Motor Synchronizers together

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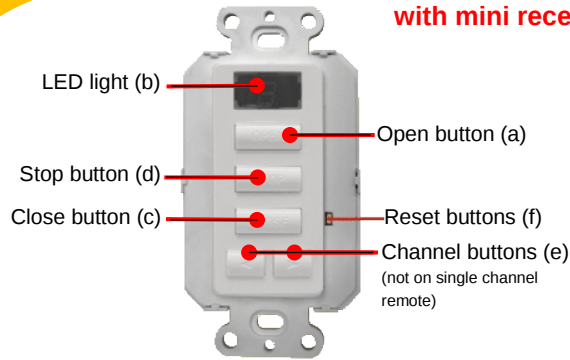


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IMPORTANT: Read through all instructions BEFORE beginning programming

Programming Wall Mount Remotes

with mini receiver OR Silent Series Motor



Single Channel
Wall Mount Remote
EL03-10WM01

6 Channel
Wall Mount Remote
EL03-10WM06

16 Channel
Wall Mount Remote
EL03-10WM16

IMPORTANT: DO NOT connect receiver to power source prior to programming instruction #1

1. Programming Wall Mount remote to operate with mini receiver or Silent Series motor built-in receiver.

For single channel remote, skip step A and proceed to step B.

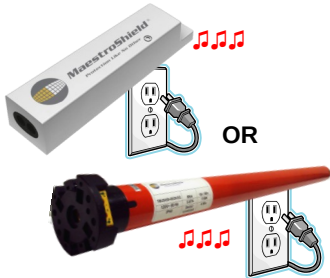
A. For multi channel remote, select channel on remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



B. To Place Receiver in Programming Mode: Press and hold Open button (a).



Continuing to hold Open button (a), connect receiver to power supply.



C. Within 3-5 seconds, motor will start beeping.

When beeping begins, release Open button (a).

1. Programming Wall Mount remote (cont.)

D. While receiver is still beeping, press Open Button (a) again; you will hear 3 consecutive beeps confirming programming.



Single channel remote or selected channel is now programmed

Check if motor direction is operating correctly. If not, proceed to step 2

2. Change Motor Direction (open and close function in reverse)

A. While receiver power is connected, press and hold Stop button (d) until beeping sounds;



B. While receiver is beeping (approx. 5 seconds), press Close button (c).



Operating direction is now changed

B. To change motor direction back, repeat steps 2A and 2B

Proceed to step 3, 4, and 5 as needed

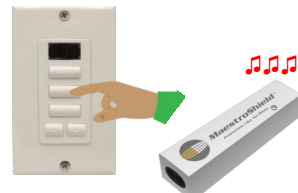
3. Delete Wall Mount Remote from operating with mini receiver or Silent Series Motor

For single channel remote, skip step A.

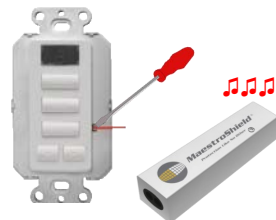
A. For multi channel remote, select channel on remote to be deleted by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. With receiver power connected, press and hold Stop button (d) until beeping sounds;



C. While receiver is beeping (approx. 5 seconds), using a small screwdriver, press Reset button (f) on remote; hold until you hear 3 beeps



Single channel remote or selected channel is now deleted

4. Change between Continuous Mode & Step Mode

A. With receiver power connected, press and hold Stop button (d) until beeping begins



B. While receiver is beeping, release Stop button (d) and Re-Press stop button



Operation Mode is now changed

C. To change back to original mode, repeat steps 4A and 4B

5. Lock out unused channels on 16-channel remote ONLY

A. Select last channel on remote to be utilized by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. Hold Left Channel button (e) and Stop button (d) at same time until last channel number flashes on LED screen.

Remaining channels are now locked out and won't display on remote. Repeat Steps 5A and 5B to unlock unused channels



See reverse side for instructions on Operating Wall Mount Remotes



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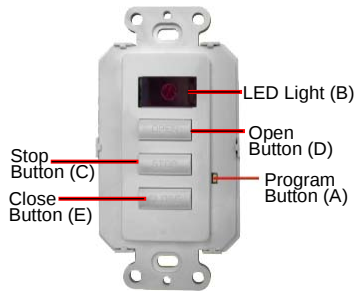


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Programming Wall Mount Remotes with Wall Mount Receiver

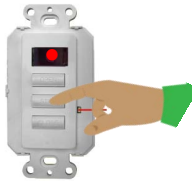
1. Programming Wall Mount remote to operate with wall mount receiver



A. Using a small screwdriver, push program button (A) on receiver. LED light (B) will blink;



B. Push Stop button (C) on receiver;



Receiver is now in **Programming Mode**. LED light will remain lit while in programming mode (approx. 5 seconds)

C. For single channel remote, skip this step. For multi channel remote, select channel on remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



D. While receiver is in programming mode, press Open button (a) on remote.



Single channel remote or selected channel is now programmed

2. Change Motor Direction (open and close function in reverse)

Check if motor direction is operating correctly. If not, continue with step 2

A. While receiver power is connected, press and hold Stop button (d) until LED light on receiver stays on.



B. While receiver light is lit (approx. 5 seconds), press Close button (c) on remote.



Operating direction is now changed

B. To change motor direction back, repeat steps 2A and 2B

Proceed to step 3 and 4 as needed

3. Delete Programming of Wall Mount remote that operates with Wall Mount receiver

A. Place receiver in **Programming Mode**, see steps 1A and 1B

B. For single channel remote, skip this step. For multi channel remote, select channel on remote to be deleted by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



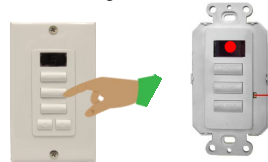
C. While receiver is in programming mode, press Close button (c) on remote.



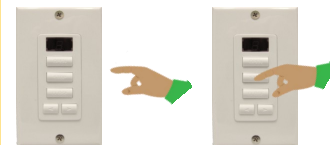
Single channel remote or selected channel is now deleted

4. Change between Continuous Mode & Step Mode

A. With receiver power connected, press and hold Stop button (d) until receiver LED light is lit



B. While receiver light is on, release Stop button (d) and **Re-Press** stop button



Operation Mode is now changed

C. To change back to original mode, repeat steps 4A and 4B

5. Operating Hand Held Remote

When in Continuous Run Mode

A. If using a multi-channel remote, first select channel on remote by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. Press and release Open button (a) to fully open curtain



C. Press Stop button (d) any time while curtain is opening to stop curtain from opening further



D. Press and release Close button (c) to fully close curtain



5. Operating Wall Mount Remote (cont.)

E. Press stop button (d) any time while curtain is closing to stop curtain from closing further



When in Step Mode

A. If using a multi-channel remote, first select channel on remote by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. Press and release Open button (a) to open curtain to next preset step



C. Press and release Close button (c) to close curtain to next preset step

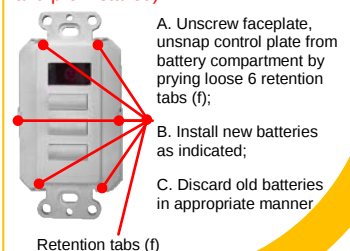


D. Press and hold Open button (a) or Close button (c) to override step mode



5. Changing Batteries

Operates on 2 AAA Batteries (included and pre-installed)



Key Switch Wiring Procedure

Installation of Key Switch should be done by licensed electrician ONLY.



Surface Mount Key Switch

EL03-16



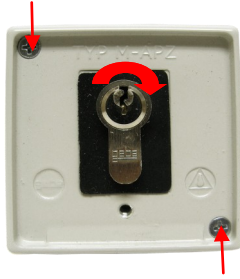
Flush Mount Key Switch

EL03-18

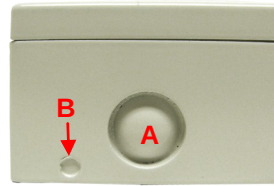
Mounting the EL03-16 Surface Mount Key Switch



1. Using Phillips Screwdriver, remove screw; remove faceplate.



2. Using Phillips Screwdriver, remove two screw; insert key and turn 45° right; separate outer plate from housing unit



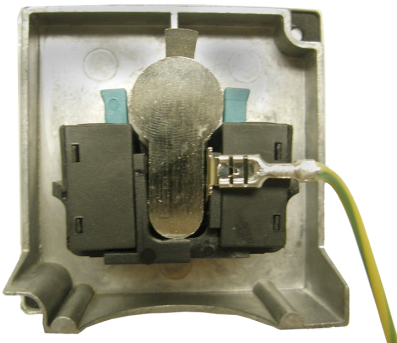
3. Using hammer and screwdriver, remove wire knockout (A) from housing unit; using drill, remove waterhole (B) from using unit.



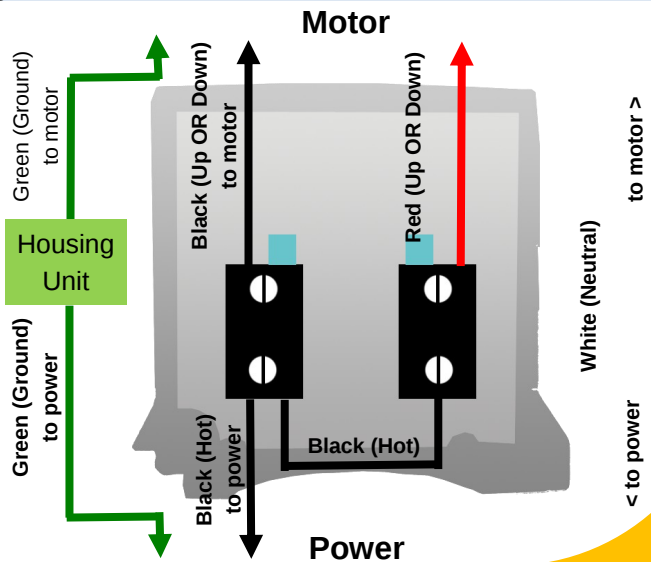
4. Drill knock outs for mounting anchors. Mount housing unit to a flush surface, making sure that the waterhole faces downward.

Wiring the EL03-16 Surface Mount Key Switch

Method 1: if power is run directly to switch



See reverse side for alternative wiring instructions



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Key Switch Wiring Procedure

Mounting the EL03-18 Flush Mount Key Switch



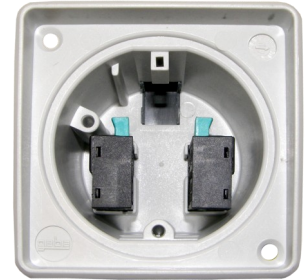
1. Using Phillips Screwdriver, remove screw; remove faceplate.



2. Insert key and turn 45° right; separate outer plate from housing unit



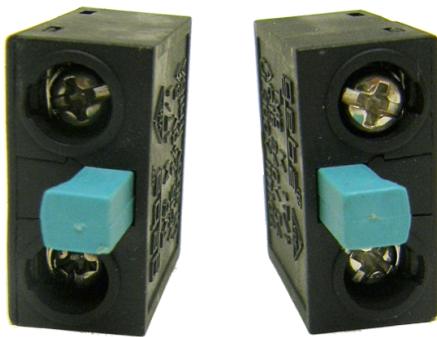
3. Snap off cover to wire access on back of housing unit.



4. Remove the wire connection units from housing unit. Pull pre-run wires through housing unit and mount unit into prepared recess in wall.

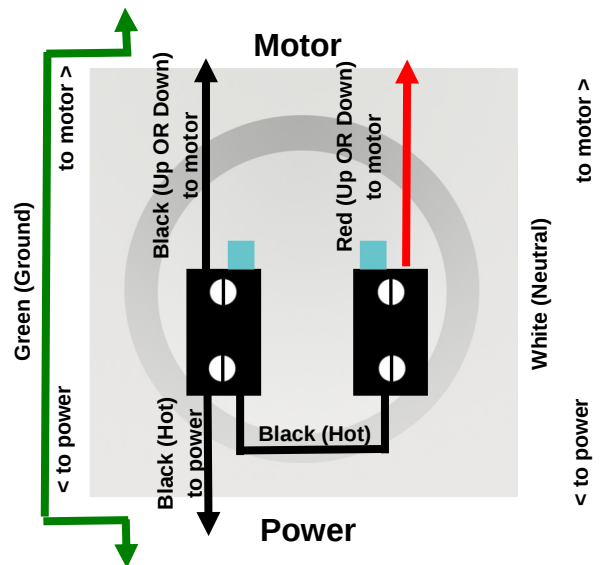
Wiring the EL03-18 Flush Mount Key Switch

Method 1: if power is run directly to switch



Prior to wiring, remove wire connection units from housing unit for easier access.

After wiring, replace wire connection units into housing unit before reassembling the switch.

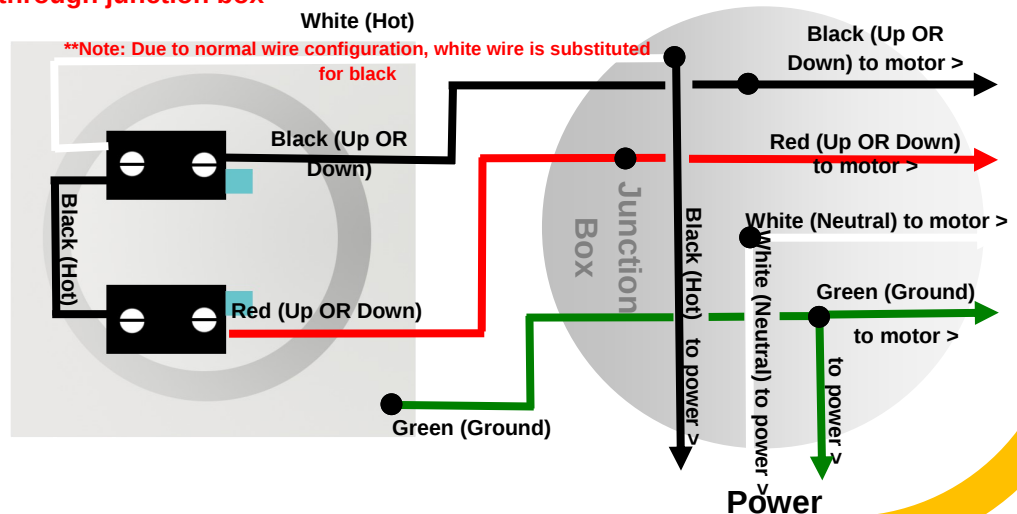


Wiring the Mount or Flush Mount Key Switch

Method 2: if power is run through junction box

Prior to wiring, remove wire connection units from housing unit for easier access.

After wiring, replace wire connection units into housing unit before reassembling the switch.



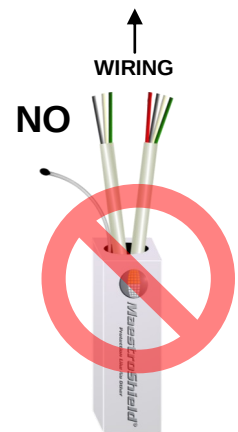
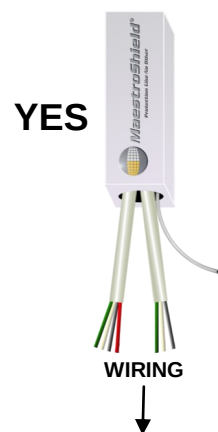
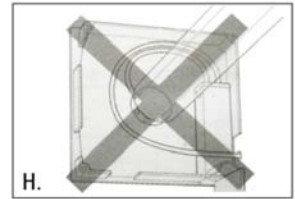
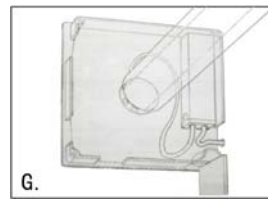
Mini-Receiver Wiring Procedures



EL03-10MR10
EL03-12

Wiring Instructions: The receiver is compatible with standard AC tubular motors operating on the same voltage as the receiver. When connecting this receiver, local building codes should be followed together with the following protocol:

1. Power from the building supply must be disconnected whenever service or installation is being performed.
2. Standard practices should be followed to discharge static charges from all components as well as from the installer before touching the open unit or connecting components. Receiver contains static sensitive devices.
3. Flexible wires must be used for connection to receiver.
4. No tension should be on wires when connected to the terminal strip.
5. Make sure that all Earth (Ground) wires are connected as shown.
6. Do not puncture the plastic housing.

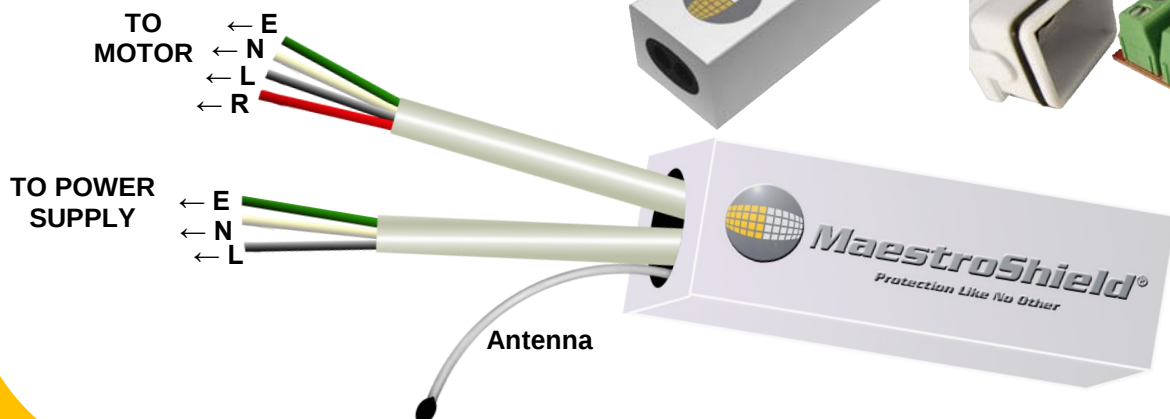


Motor Connection

Green (E) – Ground
White (N) – Neutral
Black (L) – Line
Red (R) – Reverse

Power Supply

Green (E) – Ground
White (N) – Neutral
Black (L) – Line



Mini-Receiver Wiring Procedures

General Considerations

- The receiver should be mounted in a dry location. As a precaution against stray moisture, the cables should be installed facing towards the earth.
- Metal in the building structure and furnishings may reduce the sensitivity of the receiver. Please avoid metal-intensive locations when installing the receiver.
- The receiver should be mounted at least 150cm / 59" above the floor, and 30cm / 11.8" below the ceiling.
- A minimum of 20cm / 8" should be maintained between receivers.
- Operating temperature is +10° to +50°C / (50°F to 122°F).
- This is a radio frequency controller operating at 433MHz.
- Wiring must be completed by properly trained authorized personnel.

Time Saving Technical Tips

Receivers retain all programming when power is lost or taken away from the unit. To avoid unnecessary delays in-field, it is recommended that all programming be done prior to taking the units to the installation site. PLEASE NOTE: to prevent loss or confusion of the units, insure that each Receiver is clearly labeled and packaged with its corresponding Remote Controllers.

When preparing on-site locations for installation of Receiver, have electrician install power outlets near motor locations and use a cable with a 3-prong power plug to wire the Receiver. Bring power to the unit by simply plugging the plug into the pre-installed power outlet.

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Wiring and Limit Setting Instructions 140nm—300nm Tubular Motors



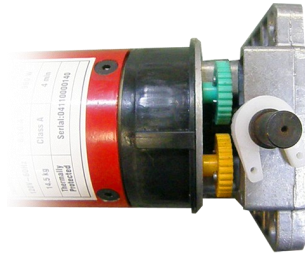
Encore Series Motors
without override:

- TMUS92S-140/12
- TMUS92S-180/12
- TMUS92S-230/12
- TMUS92S-300/8

Encore Series Motors
with manual override:

- TMUS92M-140/12
- TMUS92M-180/12
- TMUS92M-230/12
- TMUS92M-300/8

Wiring Instructions

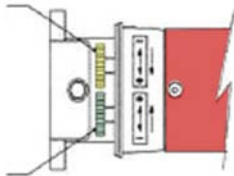


Blue = Neutral
Black = Direction 1
Brown = Direction 2
Green/Yellow = Earth

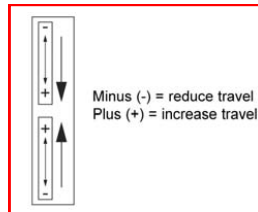
Note: After wiring motor, attach to power source to test motor direction. If operating in wrong direction, switch the black and brown directional wires.

Setting Limits: Left Side Mount

Yellow limit
setting wheel



Green limit
setting wheel



Note: For left side mount, Yellow setting wheel adjusts upper limit and Green setting wheel adjusts lower limit

To set lower limit for left side mount:

1. Press DOWN Button on remote to lower the curtain
2. **If curtain stops automatically before reaching desired position**, turn **GREEN** setting wheel in PLUS (+) direction until curtain reaches desired lower limit. Lower limit is now set. (IMPORTANT: DO NOT PRESS STOP PRIOR TO ADJUSTING **GREEN** SETTING WHEEL.)
3. **If curtain does not stop automatically before reaching desired position**, press STOP when it reaches the desired lower limit.
4. Rotate **GREEN** setting wheel toward Minus (-).
5. Press UP Button on remote raising curtain approximately half way and press STOP. Press DOWN Button to test lower limit again, making sure to press STOP at lower limit if curtain does not stop automatically before reaching lower limit.
6. Repeat steps #4 and #5 until curtain stops automatically BEFORE REACHING LOWER LIMIT. Once curtain stops before reaching the lower limit, repeat step #2

To set upper limit for left side mount:

7. Press UP Button on remote to raise the curtain
8. **If curtain stops automatically before reaching desired position**, turn **YELLOW** setting wheel in PLUS (+) direction until curtain reaches desired upper limit. Upper limit is now set. (IMPORTANT: DO NOT PRESS STOP PRIOR TO ADJUSTING **YELLOW** SETTING WHEEL.)
9. **If curtain does not stop automatically before reaching desired position**, press STOP when it reaches the desired upper limit.
10. Rotate **YELLOW** setting wheel toward Minus (-).
11. Press DOWN Button on remote lowering curtain approximately half way and press STOP. Press UP Button to test upper limit again, making sure to press STOP at upper limit if curtain does not stop automatically before reaching upper limit.
12. Repeat steps #10 and #11 until curtain stops automatically BEFORE REACHING UPPER LIMIT. Once curtain stops before reaching the upper limit, repeat step #8



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Tubular Motors with built-in receivers are covered
by a Full 3 Year 100% Replacement Warranty.

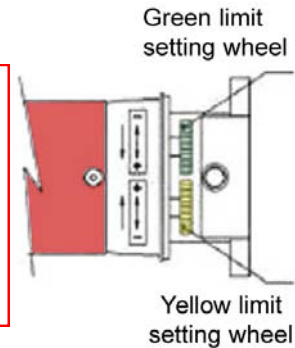
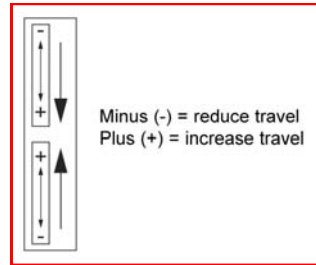


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Wiring and Limit Setting Instructions 140nm—300nm Tubular Motors

Setting Limits: Right Side Mount

Note: For right side mount, Green setting wheel adjusts upper limit and Yellow setting wheel adjusts lower limit



To set lower limit for right side mount:

1. Press DOWN Button on remote to lower the curtain
2. **If curtain stops automatically before reaching desired position**, turn **YELLOW** setting wheel in PLUS (+) direction until curtain reaches desired lower limit. Lower limit is now set. (IMPORTANT: DO NOT PRESS STOP PRIOR TO ADJUSTING **YELLOW** SETTING WHEEL.)
3. **If curtain does not stop automatically before reaching desired position**, press STOP when it reaches the desired lower limit.
4. Rotate **YELLOW** setting wheel toward Minus (-).
5. Press UP Button on remote raising curtain approximately half way and press STOP. Press DOWN Button to test lower limit again, making sure to press STOP at lower limit if curtain does not stop automatically before reaching lower limit.
6. Repeat steps #4 and #5 until curtain stops automatically BEFORE REACHING LOWER LIMIT. Once curtain stops before reaching the lower limit, repeat step #2

To set upper limit for right side mount:

7. Press UP Button on remote to raise the curtain
8. **If curtain stops automatically before reaching desired position**, turn **GREEN** setting wheel in PLUS (+) direction until curtain reaches desired upper limit. Upper limit is now set. (IMPORTANT: DO NOT PRESS STOP PRIOR TO ADJUSTING **GREEN** SETTING WHEEL.)
9. **If curtain does not stop automatically before reaching desired position**, press STOP when it reaches the desired upper limit.
10. Rotate **GREEN** setting wheel toward Minus (-).
11. Press DOWN Button on remote lowering curtain approximately half way and press STOP. Press UP Button to test upper limit again, making sure to press STOP at upper limit if curtain does not stop automatically before reaching upper limit.
12. Repeat steps #10 and #11 until curtain stops automatically BEFORE REACHING UPPER LIMIT. Once curtain stops before reaching the upper limit, repeat step #8

IMPORTANT SAFETY INSTRUCTIONS FOR THE USER

- Caution! Non-compliance can result in serious injury.
- Any work on the electrical installation including servicing may only be performed by a qualified electrician.
- Do not allow children to play with the controls.
- Check shutter or sun-blind system regularly for signs of wear and damage. Damaged systems should not be used under any circumstances until such time as they have been repaired.
- Observe shutter or sun-blind system carefully whilst in operation.
- Switch off shutter or sun-blind system and disconnect from mains supply, if any servicing or cleaning has to be done either on the system itself or in its immediate vicinity.
- Ensure that the motor is accessible after installation.
- Ensure sufficient room (at least 40 cm) is left between any moving parts and nearby objects.
- Ensure system cannot trap or cut persons and secure relevant parts.

Warning !

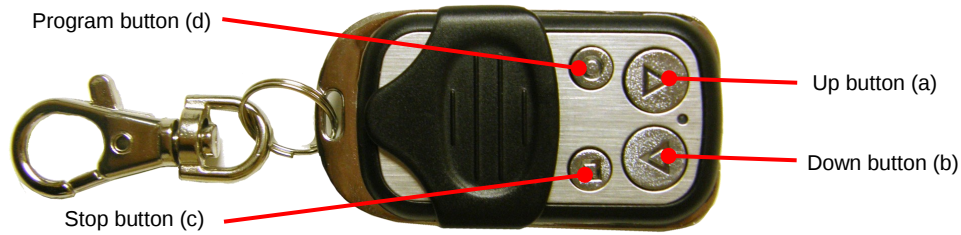
- Do not use too long screws to attach the roller shutter to the tube.
- Do not use the manual override (if applicable) prior to setting the limit switches.
- Do not use power tools to adjust the limit position. Only use supplied tool.
- The clearance between the drive adapter and the inside diameter of the tube should not exceed 1mm.
- Do not hose the motor with water.
- Do not use excessive force to insert the tube motor into the roller tube.
- If your tube motor stops working, wait for approx. 20 mins. to allow the motor to cool before further operation.

IMPORTANT: Read through all instructions BEFORE beginning programming

Programming Key Chain Remote

EL03-52

with mini receiver OR Silent Series motor



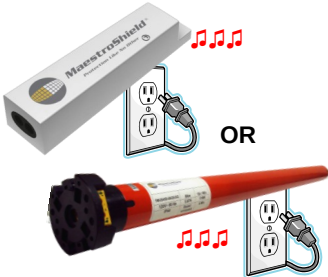
IMPORTANT: DO NOT connect receiver to power source prior to programming instruction #1

1. Programming Key Chain remote to operate with mini receiver or Silent Series motor built-in receiver.

A. To Place Receiver in Programming Mode: Press and hold Up button (a).



Continuing to hold Up button (a), connect receiver to power supply.



B. Within 3-5 seconds, receiver will start beeping. When beeping begins, release Up button (a).



1. Programming Key Chain remote (cont.)

C. While receiver is still beeping, press Up Button (a) again; you will hear 3 consecutive beeps confirming programming.



Remote is now programmed

Check if motor direction is operating correctly. If not, proceed to step 2

2. Change Motor Direction (open and close function in reverse)

A. While receiver power is connected, press and hold Stop button (c) until beeping sounds;



B. While receiver is beeping (approx. 5 seconds), press Down button (d).



Operating direction is now changed

B. To change motor direction back, repeat steps 2A and 2B

Proceed to step 3, 4, and 5 as needed

3. Delete Key Chain Remote from operating with mini receiver or Silent Series Motor

A. With receiver power connected, press and hold Stop button (c) until beeping sounds;



B. While receiver is beeping (approx. 5 seconds), press program button (d); hold until you hear 3 beeps



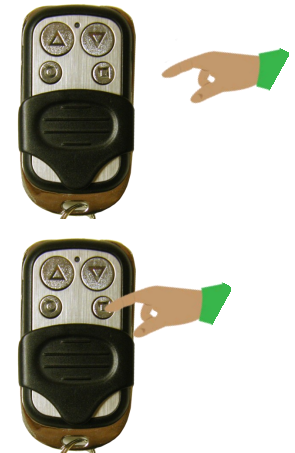
Single channel remote or selected channel is now deleted

4. Change between Continuous Mode & Step Mode

A. With receiver power connected, press and hold Stop button (c) until beeping begins



B. While receiver is beeping, release Stop button (c) and Re-Press stop button



Operation Mode is now changed

C. To change back to original mode, repeat steps 4A and 4B

See reverse side for instructions on Operating Key Chain Remotes



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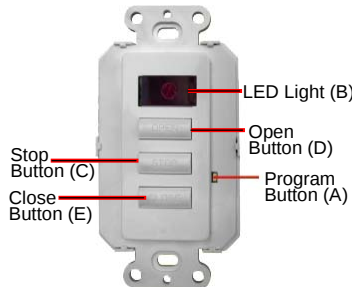
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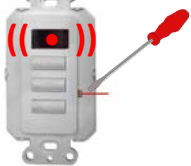
Programming Key Chain Remote with Wall Mount receiver

1. Programming Key Chain remote to operate with wall mount receiver

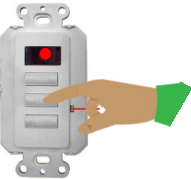
Place receiver into programming mode:



A. Using a small screwdriver, push program button (A) on receiver. LED light (B) will blink;



B. Push Stop button (C) on receiver;



Receiver is now in **Programming Mode**. LED light will remain lit while in programming mode (approx. 5 seconds)

C. While receiver is in programming mode, press Up button (a) on remote.



Remote is now programmed

2. Change Motor Direction (open and close function in reverse)

Check if motor direction is operating correctly. If not, continue with step 2

A. While receiver power is connected, press and hold Stop button (c) until LED light on receiver stays on.



B. While receiver light is lit (approx. 5 seconds), press Down button (b) on remote.



Operating direction is now changed

C. To change motor direction back, repeat steps 2A and 2B

Proceed to step 3 and 4 as needed

3. Delete Programming of Key Chain remote that operates with Wall Mount receiver

A. Place receiver in **Programming Mode**, see steps 1A and 1B

B. While receiver is in programming mode, press Down button (b) on remote.



Remote is now deleted

4. Change between Continuous Mode & Step Mode

A. With receiver power connected, press and hold Stop button (c) until receiver LED light is lit



B. While receiver light is on, release Stop button (c) and **Re-Press** stop button



Operation Mode is now changed

C. To change back to original mode, repeat steps 4A and 4B

5. Operating Key Chain Remote

When in Continuous Run Mode

A. Press and release Up button (a) to fully open curtain



B. Press Stop button (c) any time while curtain is opening to stop curtain from opening further



C. Press and release Down button (b) to fully close curtain



5. Operating Key Chain Remote (cont.)

D. Press stop button (c) any time while curtain is closing to stop curtain from closing further



When in Step Mode

A. Press and release Up button (a) to open curtain to next preset step



B. Press and release Down button (b) to close curtain to next preset step



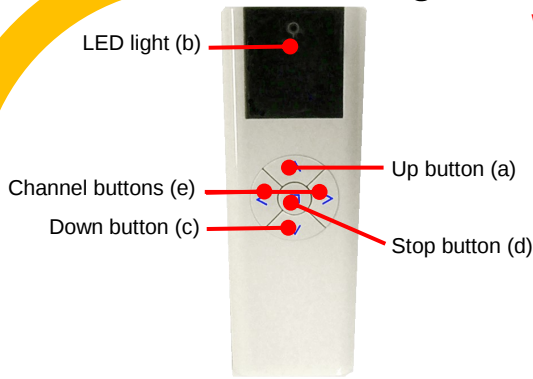
C. Press and hold Up button (a) or Down button (b) to override step mode

Hold "UP" OR "Down"



Programming Hand Held Remotes

with **Smart Series** motor



**Single Channel
Hand Held Remote**
#EL03-10HH01

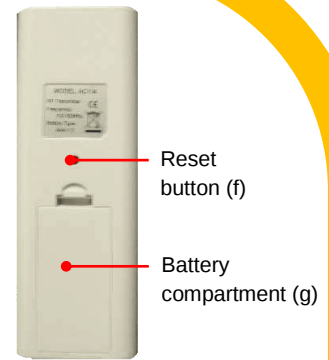
**6 Channel
Hand Held Remote**
#EL03-10HH06

**16 Channel
Hand Held Remote**
#EL03-10HH16

Replacing Batteries

Operates on 2 AAA Batteries
(included)

- Remove battery compartment (g) cover on back of remote;
- Install new batteries as indicated;
- Discard old batteries in appropriate manner.



1. Programming hand held remote to operate with Smart Series motor built-in receiver.

For single channel remote, skip step A and proceed to step B.

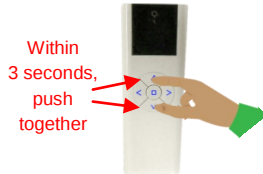
A. For multi channel remote, select channel on remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



B. Apply power to motor



C. Within 3 seconds of applying power, push Up button (a) and Down button (c) together;



Motor will jog back and forth



1. Programming hand held remote (cont.)

D. Within 3 seconds of motor jog, using a paperclip press Reset button (f) on the back of the new remote.

Press within
3 seconds



Single channel remote or selected channel is now programmed

Check if motor direction is operating correctly. If so, proceed to step 3. If not, proceed to step 2

2. Change Motor Direction (open and close function in reverse)

A. Hold Stop button (d) until motor jogs back and forth



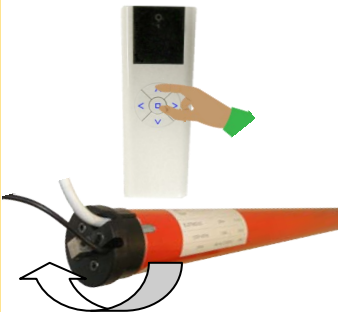
Operating direction is now changed

B. To change motor direction back, you must first delete programming (see directions above) and repeat step 1

Proceed to step 3

3. Setting the Upper Limit

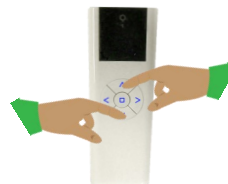
A. Press and hold Up button (a) and Stop button (d) at the same time until motor starts operating in the "Up" direction; then release buttons.



B. When curtain is in desired position, press the Stop button (d);

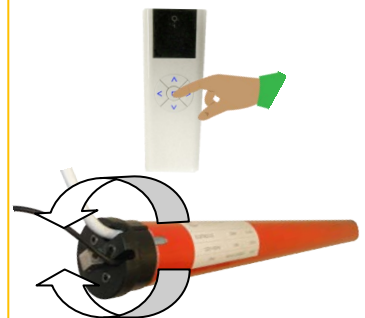


C. If curtain is not in exact desired position, use Up button (a) or Down button (c) to adjust curtain height slightly until in exact desired position.



3. Setting the Upper Limit (cont.)

D. When curtain is in EXACT desired position, press and hold Stop button (d) for 2 seconds



Motor will jog back and forth confirming upper limit has been set

Proceed to step 4

4. Setting the Lower Limit

NOTE: Set Upper Limit BEFORE setting Lower Limit

A. Using a paperclip, press Reset button (f) on the back of remote until motor jogs back and forth



Step 4 continued on back



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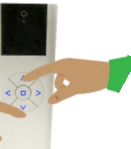
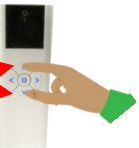
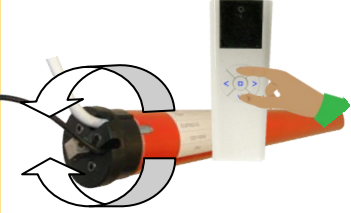
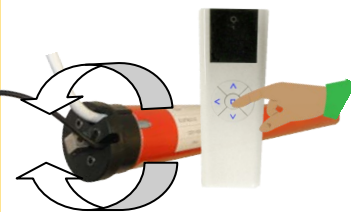
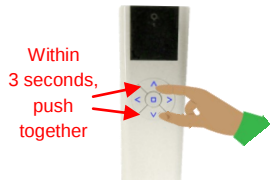


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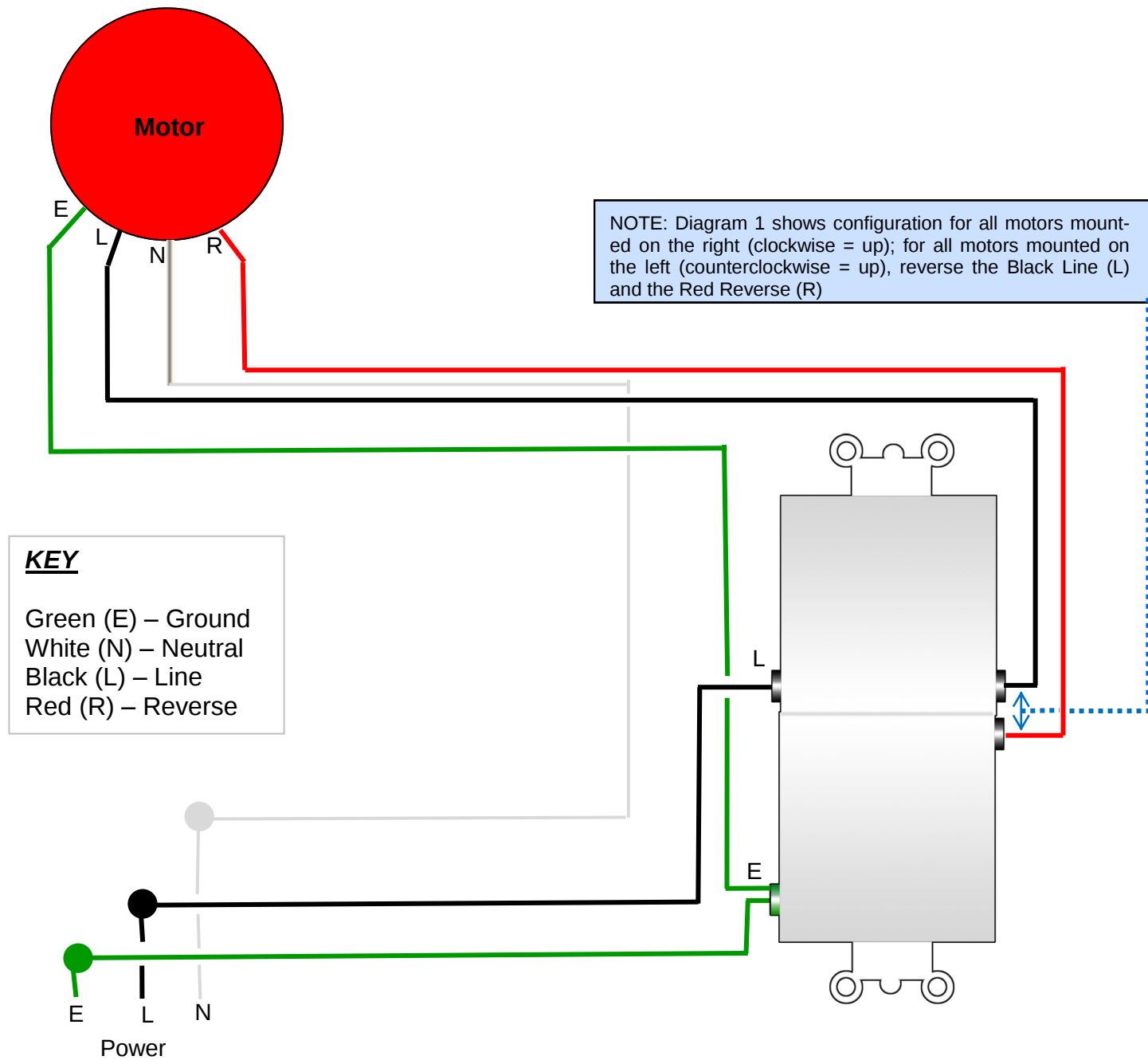
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Programming Hand Held Remotes

with Smart Series motor

4. Setting the Lower Limit (cont.)	5. Delete Programming of hand held remote that operates with Smart Series motor built-in receiver.	6. Lock out unused channels on 16-channel remote ONLY	8. Adding additional remote(s)
B. Press and hold Down button (c) and Stop button (d) at the same time until motor starts operating in the "Down" direction; then release buttons.  C. When curtain is in desired position, press the Stop button (d);  D. If curtain is not in exact desired position, use Up button (a) or Down button (c) to adjust curtain height slightly until in exact desired position.  E. When curtain is in EXACT desired position, press and hold Stop button (d) for 2 seconds  Motor will jog back and forth confirming lower limit has been set  Continue to steps 5, 6, 7 and 8 as needed	For single channel remote, skip step A. A. For multi channel remote, select channel on remote to be deleted by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)  B. Remove motor from power supply for 10 seconds then reconnect to power supply  C. Within 3 seconds of reconnecting power supply, push Up button (a) and Down button (c) together  Within 3 seconds, push together Motor will jog back and forth  D. Within 3 seconds of motor jog, using a paperclip press reset button (f) on the back of the remote; hold for 7 seconds  Press within 3 seconds; Hold for 7 seconds Motor will jog again, confirming deletion of single OR selected channel  Note: If you have multiple remotes programmed to a single motor, all remotes will be deleted when performing step 5. You must re-program remote(s) to remained programmed with this motor.	A. Select last channel on remote to be utilized by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);  B. Hold Left Channel button (e) and Stop button (d) at same time until last channel number flashes on LED screen.  Remaining channels are now locked out and won't display on remote. Repeat Step 4 to unlock unused channels 7. Adjusting Limits After Motor has been programmed A. Run Motor to the limit that needs adjusting. Hold Up (a) and Down (c) buttons together until motor jogs.  B. Use Up (a) or Down (c) button to adjust upper or lower limit until it reaches correct position .  C. Press and hold Stop button (d) until motor jogs back and forth.  Limit is now changed	For single channel remote, skip step A. A. For multi channel remote, select channel on old remote to be copied AND channel on new remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)  B. Apply power to motor  C. Within 3 seconds of applying power, push Up button (a) and Down button (c) together on old remote;  Within 3 seconds, push together Motor will jog back and forth  D. Within 3 seconds of motor jog, using a paperclip press Reset button (f) on the back of the new remote.  Press within 3 seconds Single channel remote or selected channel is now programmed

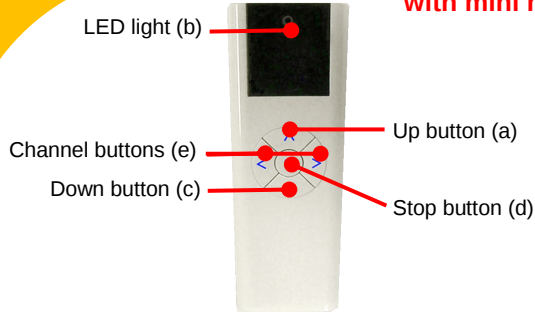
Momentary and Maintain Switch Wiring



IMPORTANT: Read through all instructions BEFORE beginning programming

Programming Hand Held Remotes

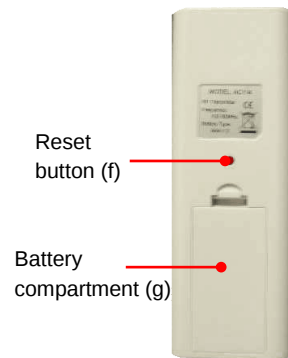
with mini receiver OR Silent Series Motor



**Single Channel
Hand Held Remote**
#EL03-10HH01

**6 Channel
Hand Held Remote**
#EL03-10HH06

**16 Channel
Hand Held Remote**
#EL03-10HH16



IMPORTANT: DO NOT connect receiver to power source prior to programming instruction #1

1. Programming hand held remote to operate with mini receiver or Silent Series motor built-in receiver.

For single channel remote, skip step A and proceed to step B.

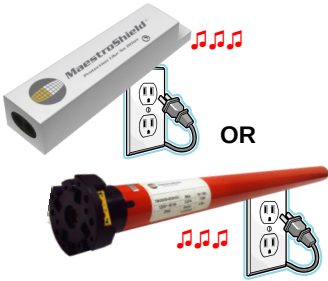
A. For multi channel remote, select channel on remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



B. To Place Receiver in Programming Mode: Press and hold Up button (a).



Continuing to hold Up button (a), connect receiver to power supply.



C. Within 3-5 seconds, motor will start beeping.

When beeping begins, **release** Up button (a).

1. Programming hand held remote (cont.)

D. While receiver is still beeping, press Up Button (a) **again**; you will hear 3 consecutive beeps confirming programming.

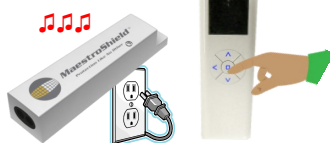


Single channel remote or selected channel is now programmed

Check if motor direction is operating correctly. If not, proceed to step 2

2. Change Motor Direction (open and close function in reverse)

A. While receiver power is connected, press and hold Stop button (d) until beeping sounds;



B. While receiver is beeping (approx. 5 seconds), press Down button (c).



Operating direction is now changed

B. To change motor direction back, repeat steps 2A and 2B

Proceed to step 3, 4, and 5 as needed

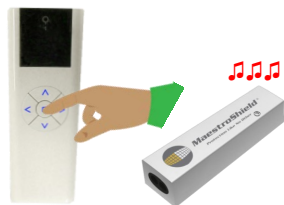
3. Delete Hand Held Remote from operating with mini receiver or Silent Series Motor

For single channel remote, skip step A.

A. For multi channel remote, select channel on remote to be deleted by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. With receiver power connected, press and hold Stop button (d) until beeping sounds;



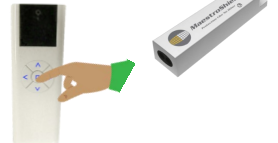
C. While receiver is beeping (approx. 5 seconds), press reset button (f) on back of remote with a paperclip; hold until you hear 3 beeps



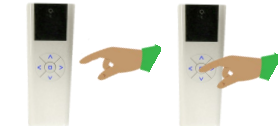
Single channel remote or selected channel is now deleted

4. Change between Continuous Mode & Step Mode

A. With receiver power connected, press and hold Stop button (d) until beeping begins



B. While receiver is beeping, release Stop button (d) and **Re-Press** stop button



Operation Mode is now changed

C. To change back to original mode, repeat steps 4A and 4B

5. Lock out unused channels on 16-channel remote ONLY

A. Select last channel on remote to be utilized by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. Hold Left Channel button (e) and Stop button (d) at same time until last channel number flashes on LED screen.

Remaining channels are now locked out and won't display on remote. Repeat Steps 5A and 5B to unlock unused channels



See reverse side for instructions on Operating Hand Held Remotes



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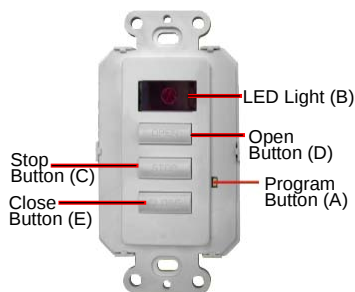
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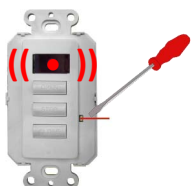
Programming Hand Held Remotes

with Wall Mount receiver

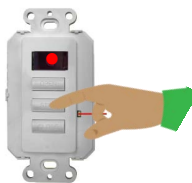
1. Programming hand held remote to operate with wall mount receiver



A. Using a small screwdriver, push program button (A) on receiver. LED light (B) will blink;



B. Push Stop button (C) on receiver;



Receiver is now in **Programming Mode**. LED light will remain lit while in programming mode (approx. 5 seconds)

C. For single channel remote, skip this step. For multi channel remote, select channel on remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



D. While receiver is in programming mode, press Up button (a) on remote.



Single channel remote or selected channel is now programmed

2. Change Motor Direction (open and close function in reverse)

Check if motor direction is operating correctly. If not, continue with step 2

A. While receiver power is connected, press and hold Stop button (d) until LED light on receiver stays on.



B. While receiver light is lit (approx. 5 seconds), press Down button (c) on remote.



Operating direction is now changed

B. To change motor direction back, repeat steps 2A and 2B

Proceed to step 3 and 4 as needed

3. Delete Programming of hand held remote that operates with Wall Mount receiver

A. Place receiver in **Programming Mode**, see steps 1A and 1B

B. For single channel remote, skip this step. For multi channel remote, select channel on remote to be deleted by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



C. While receiver is in programming mode, press Down button (c) on remote.



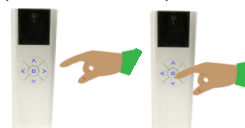
Single channel remote or selected channel is now deleted

4. Change between Continuous Mode & Step Mode

A. With receiver power connected, press and hold Stop button (d) until receiver LED light is lit



B. While receiver light is on, release Stop button (d) and **Re-Press** stop button



Operation Mode is now changed

C. To change back to original mode, repeat steps 4A and 4B

5. Operating Hand Held Remote

When in Continuous Run Mode

A. If using a multi-channel remote, first select channel on remote by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. Press and release Up button (a) to fully open curtain



C. Press Stop button (d) any time while curtain is opening to stop curtain from opening further



D. Press and release Down button (c) to fully close curtain



5. Operating Hand Held Remote (cont.)

E. Press stop button (d) any time while curtain is closing to stop curtain from closing further



When in Step Mode

A. If using a multi-channel remote, first select channel on remote by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



B. Press and release Up button (a) to open curtain to next preset step



C. Press and release Down button (c) to close curtain to next preset step



D. Press and hold Up button (a) or Down button (c) to override step mode



OR Hold "UP" "DOWN"

5. Changing Batteries

Operates on 2 AAA Batteries (included)



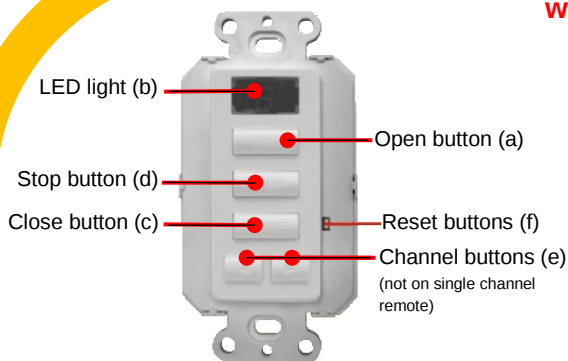
- Remove battery compartment (g) cover on back of remote;
- Install new batteries as indicated;
- Discard old batteries in appropriate manner.

Battery compartment

IMPORTANT: Read through all instructions BEFORE beginning programming

Programming Wall Mount Remotes

with Smart Series motor



**Single Channel
Wall Mount Remote**
#EL03-10WM01

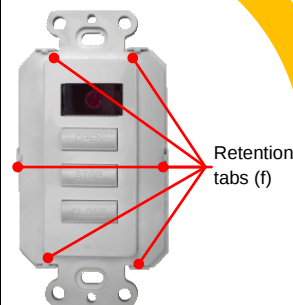
**6 Channel
Wall Mount Remote**
#EL03-10WM06

**16 Channel
Wall Mount Remote**
#EL03-10WM16

Replacing Batteries

Operates on 2 AAA Batteries
(included and pre-installed)

- Unscrew faceplate, unsnap control plate from battery compartment by prying loose 6 retention tabs (f);
- Install new batteries as indicated;
- Discard old batteries in appropriate manner



1. Programming hand held remote to operate with Smart Series motor built-in receiver.

For single channel remote, skip step A and proceed to step B.

A. For multi channel remote, select channel on remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



B. Apply power to motor



C. Within 3 seconds of applying power, push Open button (a) and Close button (c) together;



Motor will jog back and forth



1. Programming hand held remote (cont.)

D. Within 3 seconds of motor jog, using a small screwdriver press Reset button (f) on remote.

Press within 3 seconds

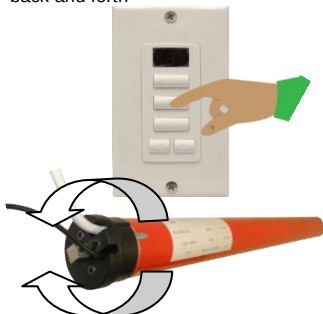


Single channel remote or selected channel is now programmed

Check if motor direction is operating correctly. If so, proceed to step 3. If not, proceed to step 2

2. Change Motor Direction (open and close function in reverse)

A. Hold Stop button (d) until motor jogs back and forth



Operating direction is now changed

B. To change motor direction back, you must first delete programming (see directions above) and repeat step 1

Proceed to step 3

3. Setting the Upper Limit

A. Press and hold Open button (a) and Close button (d) at the same time until motor starts operating in the "Up" direction; then release buttons.



B. When curtain is in desired position, press the Stop button (d);



C. If curtain is not in exact desired position, use Open button (a) or Close button (c) to adjust curtain height slightly until in exact desired position.



3. Setting the Upper Limit (cont.)

D. When curtain is in EXACT desired position, press and hold Stop button (d) for 2 seconds



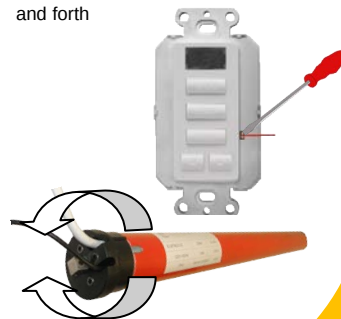
Motor will jog back and forth confirming upper limit has been set

Proceed to step 4

4. Setting the Lower Limit

NOTE: Set Upper Limit BEFORE setting Lower Limit

A. Using a small screwdriver, press Reset button (f) until motor jogs back and forth



Step 4 continued on back



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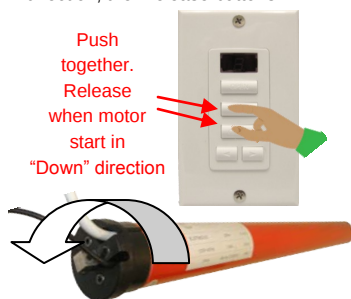
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Programming Wall Mount Remotes

with Smart Series motor

4. Setting the Lower Limit (cont.)

B. Press and hold Close button (c) and Stop button (d) at the same time until motor starts operating in the "Down" direction; then release buttons.



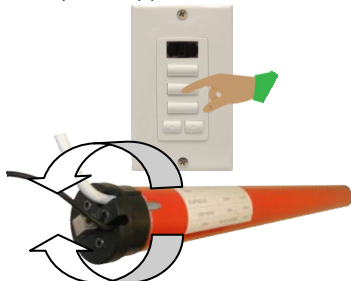
C. When curtain is in desired position, press the Stop button (d);



D. If curtain is not in exact desired position, use Open button (a) or Close button (c) to adjust curtain height slightly until in exact desired position.



E. When curtain is in EXACT desired position, press and hold Stop button (d) for 2 seconds



Motor will jog back and forth confirming lower limit has been set

Continue to steps 5, 6, 7 and 8 as needed

5. Delete Programming of hand held remote that operates with Smart Series motor built-in receiver.

For single channel remote, skip step A.

A. For multi channel remote, select channel on remote to be deleted by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



B. Remove motor from power supply for 10 seconds then reconnect to power supply



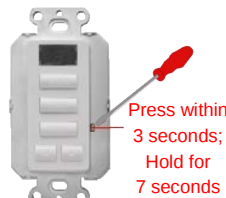
C. Within 3 seconds of reconnecting power supply, push Open button (a) and Close button (c) together



Motor will jog back and forth



D. Within 3 seconds of motor jog, using a small screwdriver press reset button (f) on remote; hold for 7 seconds



Motor will jog again, confirming deletion of single OR selected channel



Note: If you have multiple remotes programmed to a single motor, **all** remotes will be deleted when performing step 5. You must re-program remote(s) to remained programmed with this motor.

6. Lock out unused channels on 16-channel remote ONLY

A. Select last channel on remote to be utilized by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b);



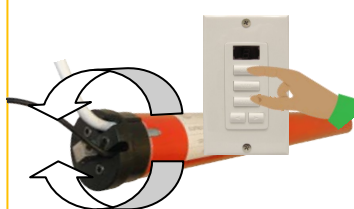
B. Hold Left Channel button (e) and Stop button (d) at same time until last channel number flashes on LED screen.



Remaining channels are now locked out and won't display on remote. Repeat Step 4 to unlock unused channels

7. Adjusting Limits After Motor has been programmed

A. Run Motor to the limit that needs adjusting. Hold Open (a) and Close (c) buttons together until motor jogs.



B. Use Open (a) or Close (c) button to adjust upper or lower limit until it reaches correct position .



C. Press and hold Stop button (d) until motor jogs back and forth.



Limit is now changed

8. Adding additional remote (s)

For single channel remote, skip step A.

A. For multi channel remote, select channel on remote to be programmed by pressing channel buttons (e) right or left until desired channel is displayed in LED window (b)



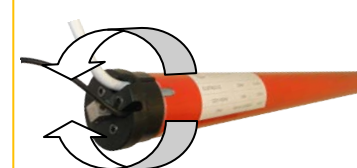
B. Apply power to motor



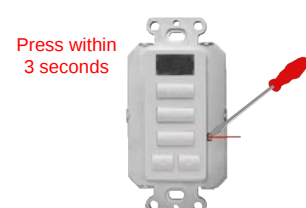
C. Within 3 seconds of applying power, push Open button (a) and Close button (c) together;



Motor will jog back and forth



D. Within 3 seconds of motor jog, using a small screwdriver press Reset button (f) on remote.

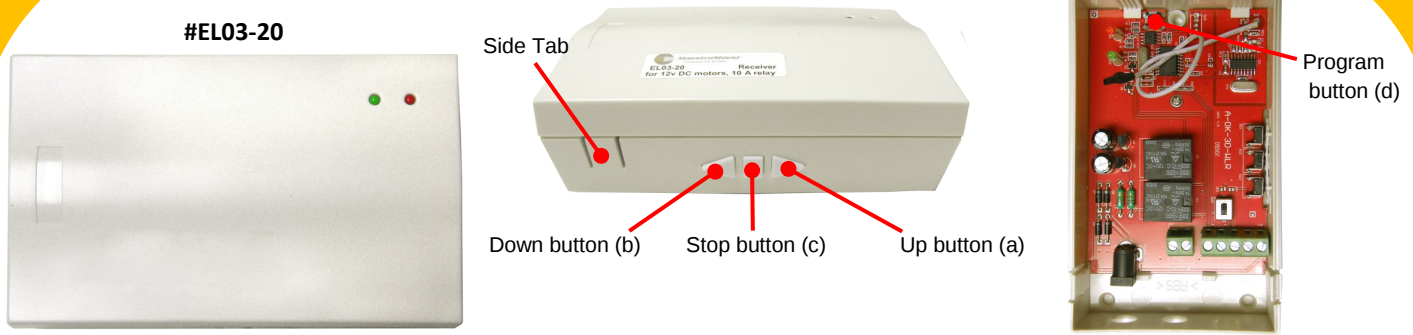


Single channel remote or selected channel is now programmed

IMPORTANT: Read through all instructions BEFORE beginning programming

Programming 10amp DC Receiver

with Hand Held Remote, Wall Mount Remote, or Key Chain Remote



1. Programming 10A DC Receiver to operate with hand held, wall mount or keychain remote

For single channel remote, skip step A and proceed to step B.

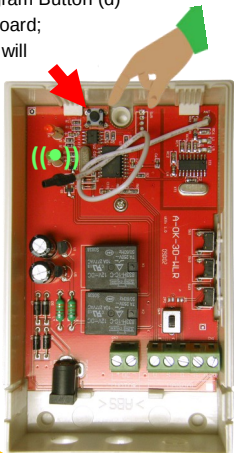
A. For multi channel remote, select channel on remote to be programmed by pressing channel buttons right or left until desired channel is displayed



B. Connect receiver to power source



C. Remove cover on receiver by pressing tabs on two sides, exposing circuit board; Press Program Button (d) on circuit board; green light will begin to flash



1. Programming 10A DC Receiver (cont.)

D. Press Stop button (c) on receiver; green light will stop flashing



E. Press Up button on remote



Remote is now programmed to operate with receiver

Check if motor direction is operating correctly. If not, proceed to step 2

2. Change Motor Direction (open and close function in reverse)

A. Press and hold both Up button (a) and Down button (b) on receiver for approx. 7 seconds until green light flashes; release buttons



Motor direction is now reversed

3. Delete Programming 10A DC Receiver to operate with hand held, wall mount or keychain remote

For single channel remote, skip step A and proceed to step B.

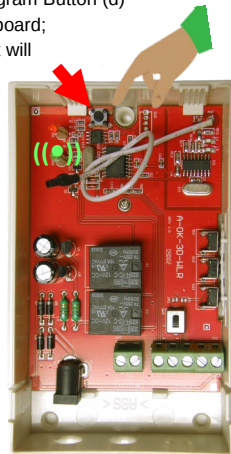
A. For multi channel remote, select channel on remote to be deleted by pressing channel buttons right or left until desired channel is displayed



B. Make sure receiver is connected to power source



C. Remove cover on receiver by pressing tabs on two sides, exposing circuit board; Press Program Button (d) on circuit board; green light will begin to flash



4. Change between Continuous Mode & Step Mode

D. Press Stop button (c) on receiver; green light will stop flashing



E. Press Down button on remote



Remote programming is now deleted from receiver

5. Change between Continuous Mode & Step Mode

A. Press and hold both Stop button (c) and Down button (b) on receiver for approx. 7 seconds until green light flashes; release buttons



Mode is now changed; repeat to change back



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Setting Upper Motor Limits

(Right Side Motor Mount—MaestroShield Standard)

Finding the Upper Limit

1. Power the motor in the down direction and stop within 12" of the top
2. If the motor stops prior to the 12" you have found the Upper Limit; Proceed to **Setting the Upper Limit**
3. If the motor did not stop prior to reaching 12" from the top, Insert the Hex Wrench into the Red Limit Switch and rotate either:
 - A. **CLOCKWISE** several times for motor oriented with power cord to rear (See diagram 17)
 - OR
 - B. **COUNTERCLOCKWISE** several times for motor oriented with power cord to front (see diagram 18)
4. Power the motor in the down direction again. If it does not move you have found the Upper Limit. Proceed to **Setting the Upper Limit**
5. If the motor/curtain move, STOP 
6. Complete step 3 and 4 until the Upper Limit is found

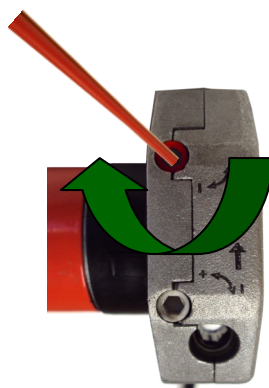


Diagram 17
Rotate Clockwise for
motor oriented with
power cord to rear

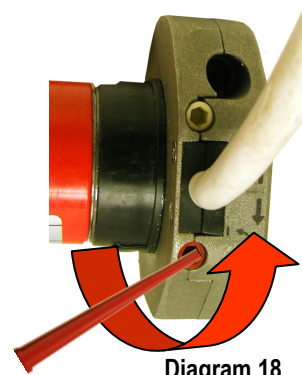


Diagram 18
Rotate Counterclockwise
for motor oriented with
power cord to front

Setting the Upper Limit

1. Once the limit has been found, the limit must be set

NOTE: Make sure the motor is still powered in the up direction. If motor is left in a state of rest for more than 4 minutes, power has been cut off and the limits cannot be set. In this case power the motor in the down direction to restart electrical current.

2. Insert the Motor Stop Hex Wrench in to the Red Limit Switch
3. To raise the curtain until the curtain is in the fully open position Rotate the Hex Wrench:
 - A. **COUNTERCLOCKWISE** for motor oriented with power cord to rear (See diagram 11)
 - OR
 - B. **CLOCKWISE** for motor oriented with power cord to rear (See diagram 12)
4. Remove the Hex Wrench Tool. The Upper Limit is Set!

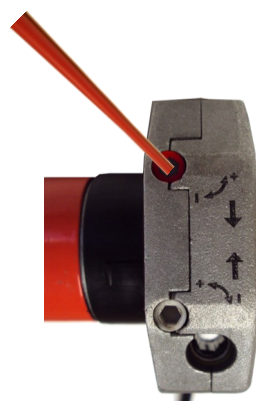


Diagram 11
For motor oriented with
power cord to rear,
rotate hex wrench:

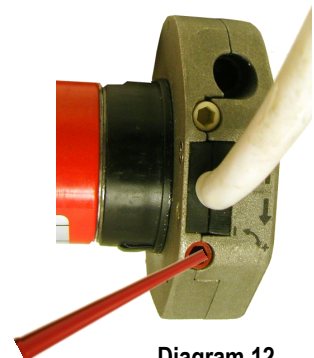


Diagram 12
For motor oriented with
power cord to front,
rotate hex wrench:

