

MIGHTY MULE FM143 Automatic Gate Lock



MIGHTY MULE FM143 Automatic Gate Lock User Manual

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MIGHTY MULE FM143 Automatic Gate Lock



Product Information

Specifications:

- Automatic Gate Lock
- **Parts Included:** Refer to manual
- Mounting hardware not provided

Product Usage Instructions

Before You Begin

Ensure your gate is level, moves freely on its hinges, and does not bind or drag against the ground.

Installing The Gate Lock

Single Gate Installation

1. Ensure the gate closes firmly against a positive stop and engage the lock catch against the lock receiver.
2. Adjust gate opener settings if needed for optimal closure.
3. Spray the locking mechanism with silicone spray initially to help the latch move freely.

Dual Gate Installation

If installing on a Push-to-Open gate, place the lock on the outside of the gate. The gate posts may need adjustments.

Manual Lock Release

Refer to the manual for instructions on manual lock release if needed.

Wiring the Automatic Gate Lock

Follow the wiring instructions provided in the manual to connect the lock to the gate opener control boards.

Troubleshooting

If you encounter any issues during installation or usage, refer to the troubleshooting section in the manual or contact technical support at (800) 421-1587.

FAQ

- **Q: What if my gate does not close properly against the stop?**

A: Adjust the gate opener settings and make sure the lock catch engages the lock receiver properly.

- **Q: Where can I obtain mounting hardware for the Automatic Gate Lock?**

A: Mounting hardware can be acquired from your local hardware store as it is not provided with the product.

IMPORTANT:

Before you install the automatic gate lock be sure your gate is level, moves freely on its hinges, and does not bind or drag against the ground.

PLEASE NOTE:

Because of the various mounting applications, mounting hardware is not provided with the Automatic Gate Lock. All necessary mounting hardware can be obtained from your local hardware store; all other hardware is provided.

This manual shows two examples of the most common installations and should provide insight into most other applications. If you have any questions during installation, please call (800) 421-1587 for technical support.

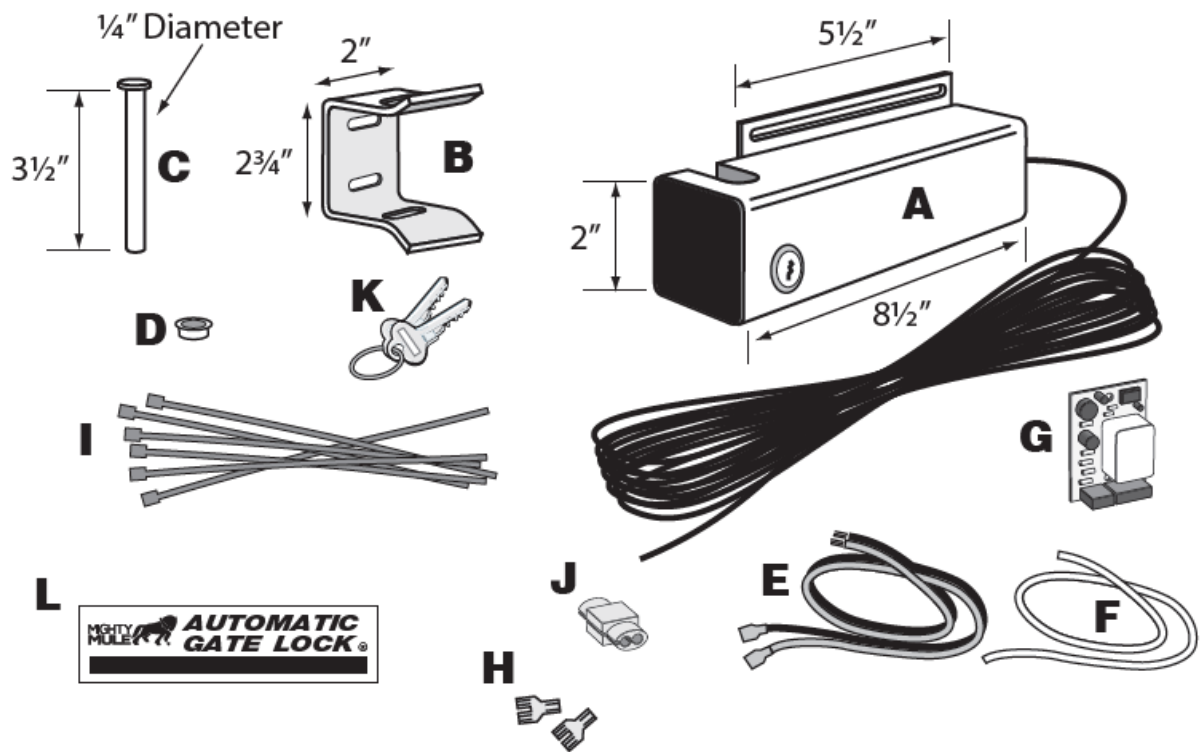
Before You Begin

- For the Automatic Gate Lock to work properly, the gate must close firmly against a positive stop and engage the lock catch against the lock receiver. Achieving optimal closure may require slight adjustments to the gate opener settings.
- Installing the lock with the Gate Opener may require adjusting limits and stall force.
- Refer to your individual gate opener installation manual for information on these adjustments.
- Set the limits so that the arm holds the gate snugly against the stop in the closed position.
- If you are installing the lock on a Push-to-Open gate (gate opens out), the lock must be installed on the outside of the gate. Depending upon the installation, the gate post may need to be "pocketed" to accommodate the lock receiver. Contact the Technical Service Department at (800) 421-1587 for assistance if needed.
- **NOTE:** Positive stops are required for dual gate applications.

Parts Included

- A – Lock with 20' of low-voltage wire
- B – Lock Receiver
- C – Clevis Pin
- D – Locking Cap
- E – Lock Board Battery Lead Wires
- F – White Wire (motor lead to lock board)
- G – Lock Control Board (Lock PCB) (Not required for most systems)
- H – 2 Double Spade Tongue terminals
- I – 6 Nylon Cable Tie
- J – Wire Connector

- K – Lock Keys (for manual release)
- L – Lock Decal



What else do you need?

Mounting hardware is NOT included. Read these instructions completely and review the installation examples to determine the mounting hardware required for your application.

NOTE:

The Automatic Gate Lock is designed to use mounting hardware up to 5/16" in diameter. For a more secure installation, use lock washers and lock nuts on all mounting hardware.

- For most IRON or ALUMINUM TUBE gates, you will need Carriage bolts, washers, and nuts for the lock and receiver. (see Illustration B, page 4)
- For most CHAIN LINK gates you will need U-Bolts, saddles or carriage bolts, washers and nuts for the lock. Bolts, washers, and nuts for the receiver. (see Illustration C, page 4)

The installation has two parts:

1. Mounting The Lock and Lock Receiver
2. Connecting the Control Boards

Once you have the necessary mounting hardware, you can begin the installation.

Installing The Gate Lock

NOTE:

The Automatic Gate Lock can be installed on single and dual gate systems. Use the appropriate instructions for the system you have – SINGLE GATE (below) or DUAL GATES (page 6).

Single Gate Installation

Turn the power switch OFF on the bottom of the control box. Disconnect the gate opener by removing the hairpin clip and clevis pin from the gate bracket end of the opener. Disconnecting the opener will allow the gate to swing freely during the installation of the gate lock.

- **Step 1:** With the gate in the closed position, determine the best location for the lock and lock receiver. The lock and receiver must be level and aligned with the opener. Also, the lock should have a solid surface or cross member to provide stability (see Illustration A below).
- **Step 2:** Clamp the receiver and lock together (with the receiver pin hole and lock slot aligned) against the gate post, and mark their positions to drill receiver holes (see Illustration B and C, page 4). The receiver must be mounted with carriage bolts, not U-bolts, to allow the lock to seat properly. Fasten the receiver to the gate post.
- **Step 3:** Hold the latch open with a key to operate the gate and check the closed limit and lock alignment. Drop the pin in the receiver but don't put the cap on. Recheck the lock's position and alignment, then mark its position for drilling holes.
- **Step 4:** Drill the holes on gate supports through the slots in the lock bracket. U-bolts and saddles can be used to mount the lock on chain link gate supports. Secure the lock to the gate. Install the clevis pin and locking cap by placing the clevis pin through slots in the lock receiver and hammering the clevis pin into the locking cap (see Illustration D), secure the lock bracket and check the alignment again.

Illustration A

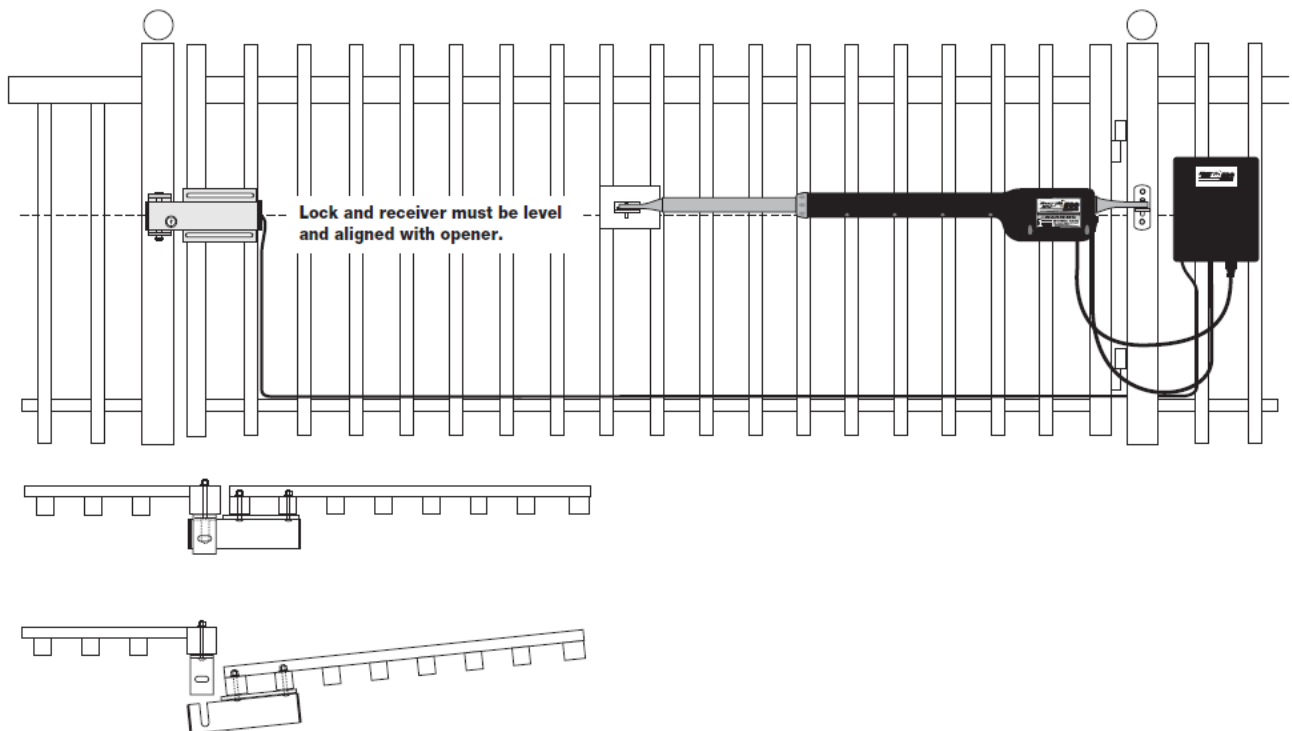


Illustration B

Iron or Aluminum Tube Fence and Gate Installation

Remember to check the alignment and mark positions before drilling holes in fence post and gate.

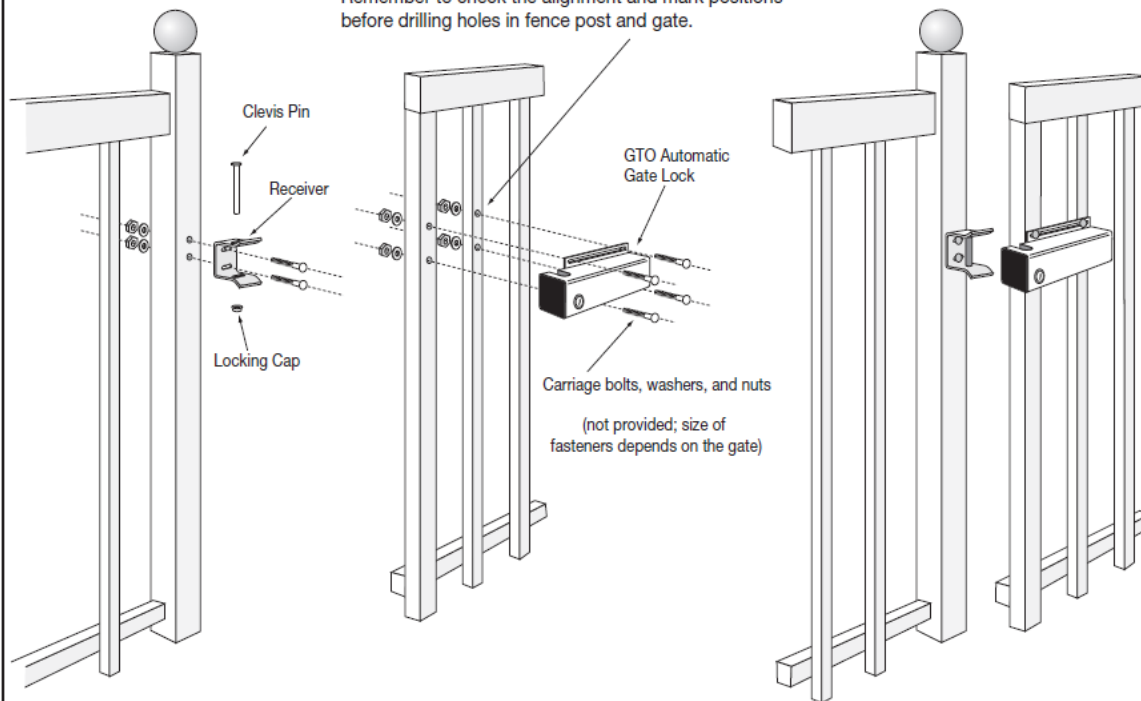


Illustration C

Chain Link Fence and Gate Installation

Remember to check the alignment and mark positions before drilling holes in fence post.

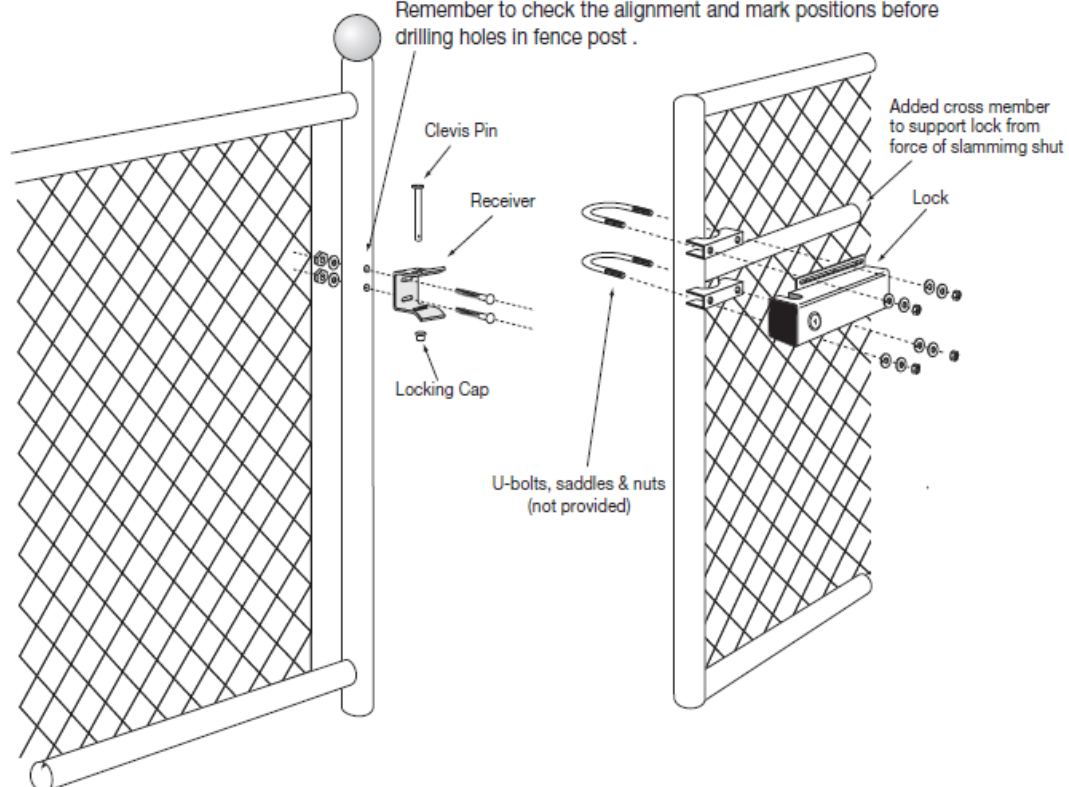
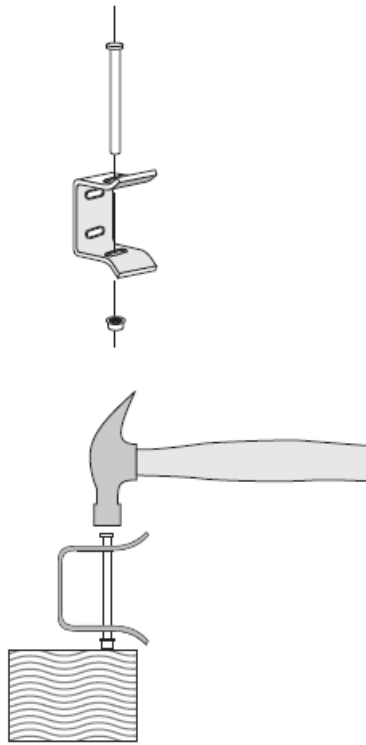


Illustration D

Locking Cap Assembly



Dual Gate Installation

Turn the power switch OFF on the bottom of the control box. Disconnect gate openers by removing the hairpin clip and clevis pin from the gate bracket end of the openers. Disconnecting the openers will allow the gates to swing freely during the installation of the gate lock.

NOTE:

In a DUAL GATE INSTALLATION, the gate opener on the same side of the driveway as the control box is known as the PRIMARY GATE OPENER and that gate is referred to as the PRIMARY GATE. Conversely, the gate opener on the other gate is referred to as the SECONDARY GATE OPENER and the gate is referred to as the SECONDARY GATE.

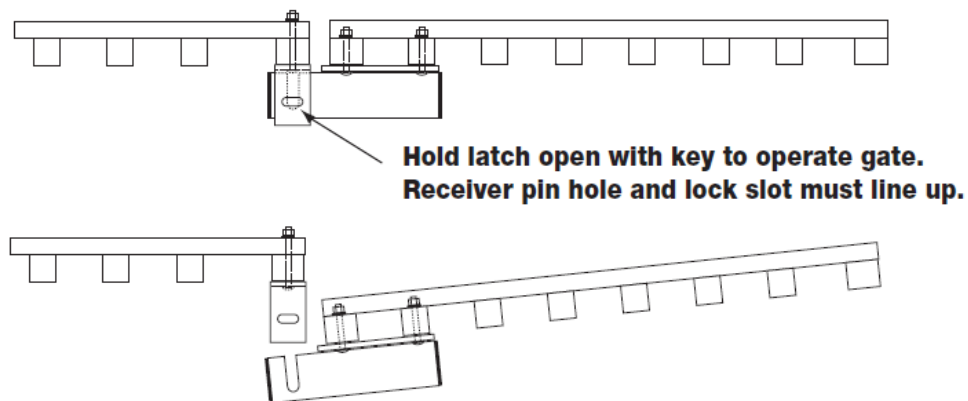
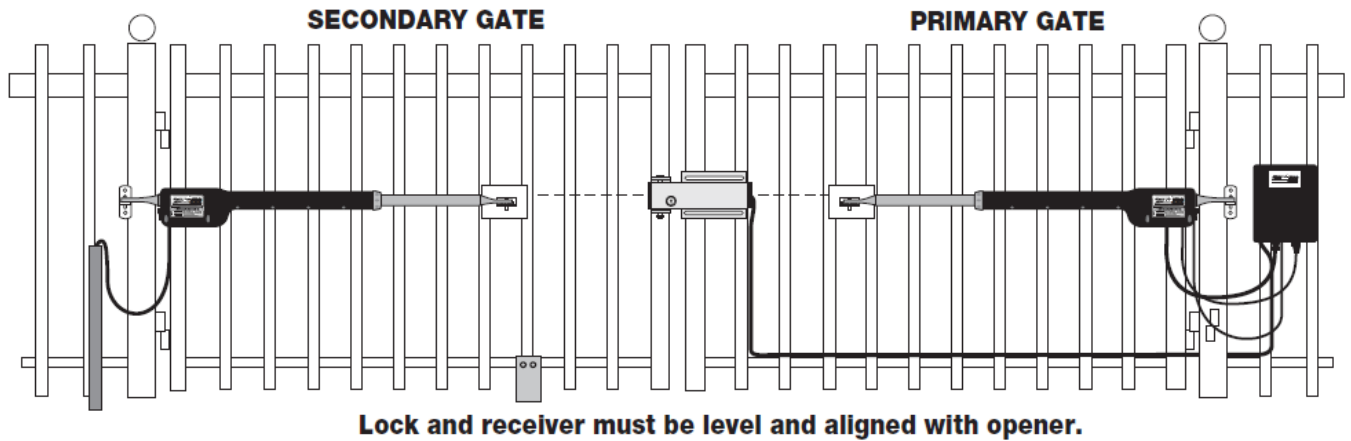
IMPORTANT:

To use the gate lock on a dual gate system, the gate sequencing must be set so the PRIMARY GATE opens first and closes last, and the gate lock has to be mounted on the PRIMARY GATE and the lock receiver is mounted on the SECONDARY GATE. Some Linear and Mighty Mule gate operators are preprogrammed with this functionality. The secondary gate requires a positive stop. If your gates are not sequenced in a manner that works like this, you'll have to change the sequencing on your gate opener. Follow the instructions in your gate opener installation manual for programming dual gate sequencing.

- **Step 1:** With the gate in the closed position, determine the best location for the lock and lock receiver. The lock and receiver must be level and aligned with the opener. Also, the lock should have a solid surface or cross member to provide stability (see illustration below).
- **Step 2:** Clamp the receiver and lock together (with the receiver pinhole and lock slot aligned) to the gates, and mark their positions to drill holes. The receiver must be mounted on the SECONDARY GATE with carriage

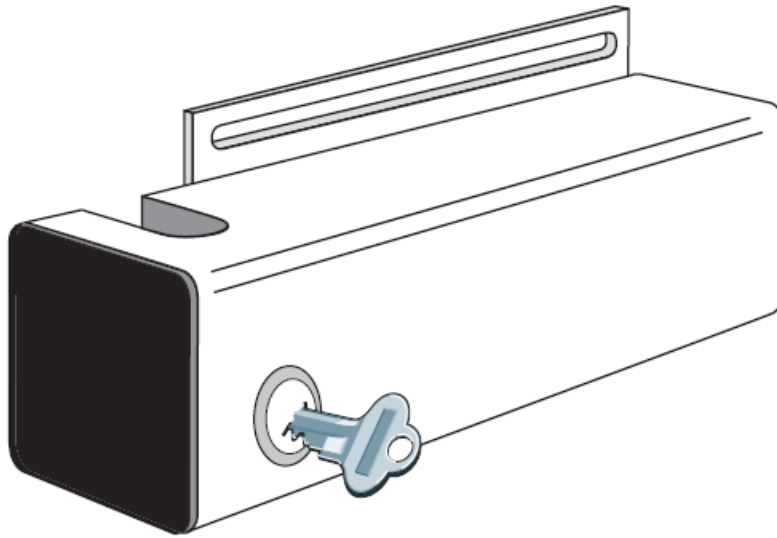
bolts, not U-bolts, to allow the lock to seat properly.

- **Step 3:** Recheck the lock's position and alignment. Hold the latch open with the key and operate the gate. Drill the holes on gate supports through the slots in the lock bracket. U-bolts and saddles can be used to mount the lock on chain link gate supports. Secure the lock to the PRIMARY GATE. Install the clevis pin and locking cap by placing the clevis pin through slots in the lock receiver and hammering the clevis pin into the locking cap, secure the lock bracket and check the alignment again.



Manual Lock Release

- The Automatic Gate Lock is keyed for manual release. Should the electronic release be disabled for any reason, simply use the key to manually open the lock.
- Keys are unique for security purposes and can not be replaced by Nice North America. A locksmith will be required if all copies of the keys are lost.

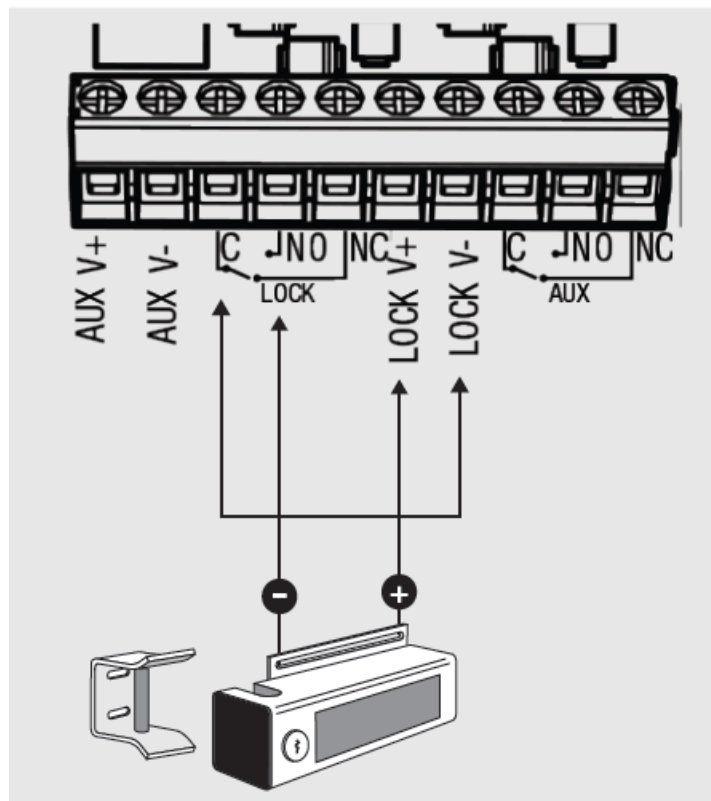


Wiring the Automatic Gate Lock

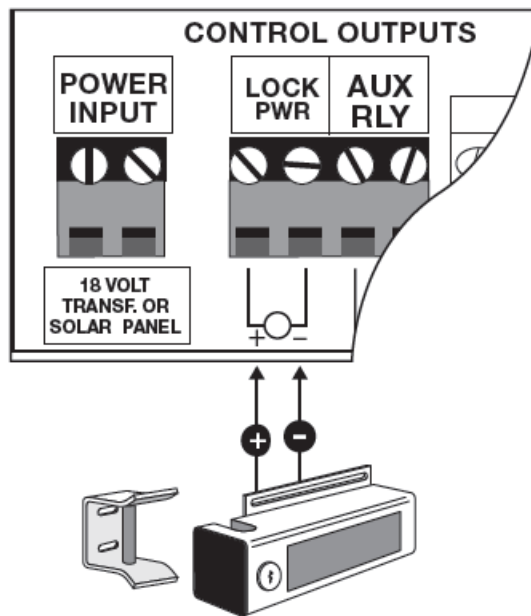
Wiring the lock to MM371, MM372, MM571, MM572 and TS571 Operators

NOTE:

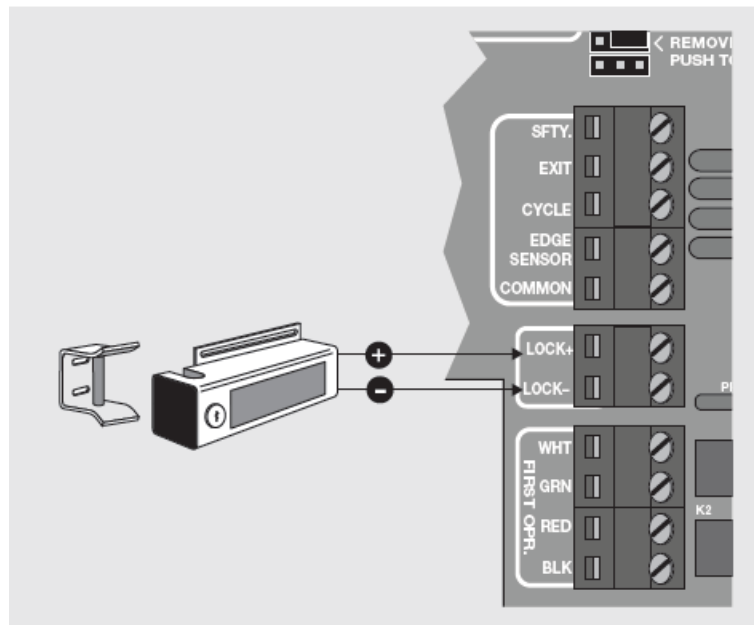
A wire jumper is required between 'LOCK V-' and 'LOCK Relay Common'.



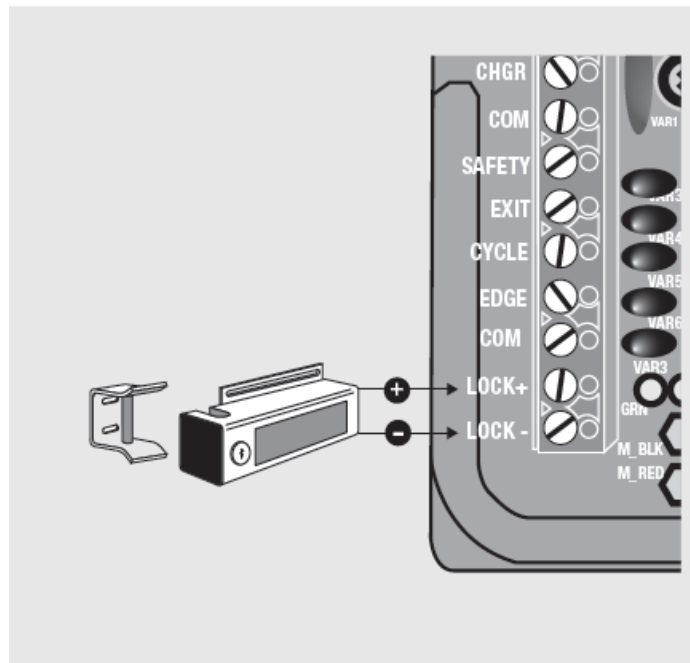
Wiring the lock to MM560, MM562, Linear Pro 3000XLS and 4000XLS Series Operators.



Wiring the lock to MM272, HD272, MM262, MM362, MM462 Operators and Linear Pro 2000XLS Series.

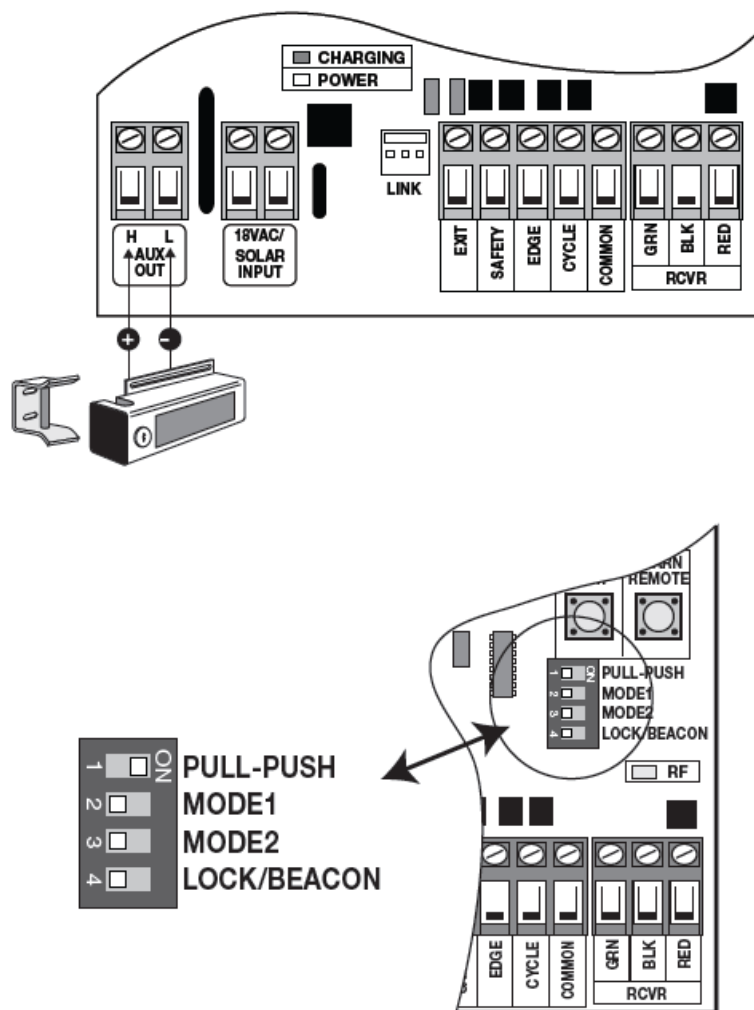


Wiring the lock to MM271 and MM260 Operator



Wiring the lock to MM360 Operators.

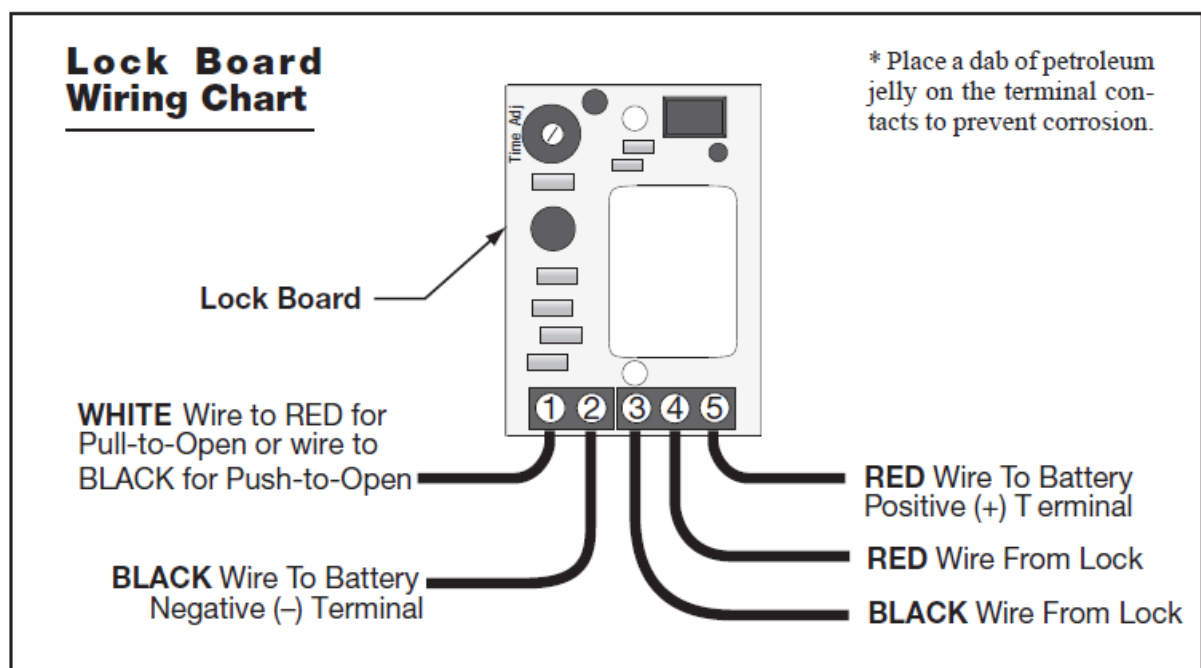
NOTE: Dip switch 4 must be set to LOCK (OFF).



Wiring the Lock to Gate Opener Control Boards

Manufactured before 2006. Call Technical Support at (800) 421-1587 for verification if needed.

- **Step 1:** Turn the control box power switch OFF and unplug the transformer or disconnect the solar panel. Remove the control box cover and disconnect battery lead wires from the battery terminals before wiring the lock board to the opener control board.
- **Step 2:** Connect the WHITE wire (included) to Terminal #1 on the lock board. Connect the RED battery lead wire (included) to Terminal #5 on the lock board.
- **Step 3:** Attach the RED control board battery lead wire to one spade tongue on a double spade tongue connector (included). Attach the BLACK control board battery lead wire to one spade tongue on the other double spade tongue connector (included).
- **Step 4:** Pull RED and BLACK wires from the gate lock through the strain relief and into the control box. Attach the BLACK wire to Terminal #3 on the lock board. Attach the RED wire to Terminal #4 on the lock board (see Lock Board Wiring Chart, below).
- **Step 5:** Attach the RED lock board battery lead wire to the double spade tongue terminal with the RED control board lead wire. Attach the BLACK lock board battery lead wire to the double spade tongue connector with the BLACK control board Lead Wire.
- **Step 6:** Connect the WHITE wire from the lock board directly to the PRIMARY OPERATOR terminal block along with the power cable wire from the opener arm. Connect the WHITE wire to the RED terminal for a Pull-to-Open installation or connect the WHITE wire to the BLACK terminal for a Push-to-Open installation.
- **Step 7:** Reconnect the opener to the gate bracket. Connect the BLACK Battery lead wire (included) to Terminal #2 on the lock board. (See Lock Board Wiring Chart, below). Connect the RED wires (with double spade tongue terminal) to the POSITIVE (+) battery terminal and the BLACK wires (with double spade tongue terminal) to the NEGATIVE (-) battery terminal. Plug the transformer in or rewire the solar and turn the control box power switch ON. Test the opener and lock to make sure it functions properly and make adjustments if necessary.



NOTE: It is recommended that the time adjustment knob is turned to the right.

Troubleshooting

If the lock hangs up and does not latch properly try the following steps before contacting Technical Support:

- Reset the closed position limit so the gate is snug against the op plate
- Lubricate the latch with silicone spray to help the latch operate freely
- Check the alignment of the lock by using the key to hold the latch open while operating the gate opener

If the lock still does not operate properly, contact Technical Support:

- Technical Support: (800) 421-1587

IMPORTANT:

For optimum service and safety, find the ideal stall force sensing setting for your gate opener. Depending on the weight of your gate, the ideal setting will be just enough to move your gate without self-obstruction (stopping or reversing due to its weight), yet sensitive enough to reverse and stop when it meets with an obstruction such as a car. See the Gate Opener Installation Manual for information on obstruction settings.

NOTE:

Be sure your gate moves freely on its hinges without binding or dragging.

Mighty Mule Limited Warranty

This product is warranted to the original consumer ("You") by Nice North America against defects in material and workmanship for twelve (12) months from the date of purchase. This limited warranty only extends to you if the item was purchased directly from Nice North America or through an authorized sales partner.

Nice North America will, at its option, either repair or replace any product that it confirms is defective and eligible for service under this warranty and will return the repaired or replaced product to you at Nice North America's cost. This warranty does not apply to damage to the product from negligence, abuse, abnormal usage, misuse, accidents, acts of god, normal wear and tear, failure to follow the manufacturer's instructions, or arising from improper installation, storage or maintenance. Some states do not allow the exclusion or limitation of incidental and consequential damages, so the above limitation or exclusion may not apply.

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state. To be protected by this warranty, a copy of the receipt or other valid proof of purchase must be provided with any product that is being repaired or replaced under this warranty. To initiate warranty service for your product, please contact Tech Services at (800) 421-1587 for a Return Authorization Number ("RA") and other important details.

Mighty Mule Technical Service: 800-421-1587

For more information about the full line of Mighty Mule Automatic Gate Operators, Gate Openers and Access Controls visit www.mightymule.com.

Niceforyou.com

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FM143 Automatic Gate Lock, FM143, Automatic Gate Lock, Gate Lock, Lock

References

-  [Find Smart Gate Opener Solutions - Automatic Electric Gate Openers – Mighty Mule](#)
- [User Manual](#)

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