

GATE OPENER GUIDE

Which automatic gate opener is right for you?

SINGLE SWING:

- FM350 - Light duty swing gate opener
- FM500 - Heavy duty swing gate opener

DOUBLE SWING:

- FM502 - Heavy duty dual gate opener

SLIDE:

- MM-SL1000B - Light duty slide gate opener
- MM-SL2000B - Heavy duty slide gate opener

1 How will you open your gate from your vehicle?

- FM135 - Single button transmitter
- FM134 - Two-button transmitter
- RB743 - Three-button transmitter
- RB709 - Garage door receiver - enables GTO transmitter to open garage door and gate.

2 How will you provide secure access for your gate?

- FM137 - Digital keypad
- FM136 - Wireless intercom keypad
- FM100 - Mounting post for your keypad

3 Would you like hands-free exit from the property?

- FM138 - 50 ft. gate opening sensor
- FM140 - 100 ft. gate opening sensor
- FM141 - 150 ft. gate opening sensor

4 How will you secure the gate?

- FM143 - Automatic gate lock - Secures gate in closed position
- FM133 - Pin lock - Secures the gate opener to gate
- FM145 - Bulldog gate lock - Secures walk-through gates

5 How will you keep the gate opener battery charged?

(Kit includes AC transformer, solar power is optional)

POWER EQUIPMENT:

- FM121 - 5 watt solar panel
- FM123 - 10 watt solar panel
- RB509 - Wire needed for installation
- FM150 - Replacement battery for models FM500, FM502

Special Considerations

- Does your gate open away from property?
Gates opening away from property, require an optional bracket per gate leaf. (FM148)
- AC power source is more than 1000 ft. from gate?
Solar power is required. (FM121 or FM123)
- Require livestock containment?
An Automatic Gate Lock (FM143) is recommended.
- Windy conditions?
An Automatic Gate Lock (FM143) is recommended.

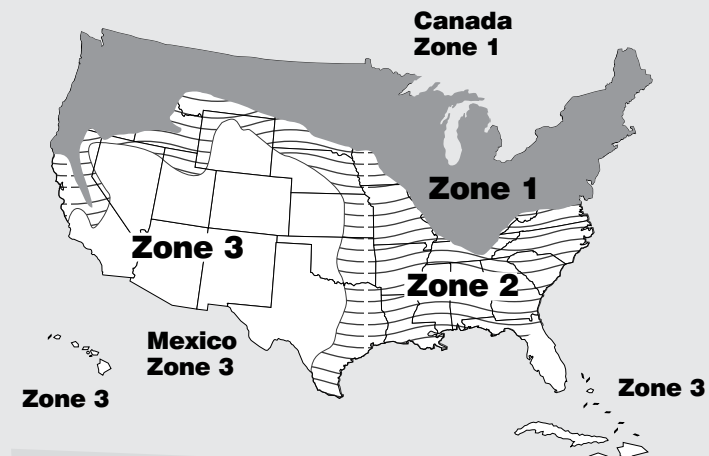


POWERING GUIDE

There are two ways the Mighty Mule's battery can be charged.

1. Transformer (18V included with kit)

All Mighty Mule E-Z Gate Openers come with a transformer for maintaining the battery charge. You can run up to 1000 ft. of low voltage wire (RB509 *not included*) from the opener control box to the 110 V AC outlet where the transformer is plugged. If your gate is more than 1000 ft. from an AC power source, or you just prefer to use solar power, you can use the optional Mighty Mule solar panel(s) to maintain the Mighty Mule battery backup.



2. Optional Solar Power Kits.

The solar option will have some limits. The table and map illustrate the maximum number of gate cycles to expect per day in a particular area when using 5 to 30 Watts of Mighty Mule solar panels. The figures shown are for winter (minimum sunlight) and do not account for the use of any accessory items. Accessories connected to your system will draw additional power from the battery.

Solar Panel Application Charts Mighty Mule® Automatic Gate Openers

Model #	Watts	Zone 1	Zone 2	Zone 3
FM350/500	5	4	8	13
FM350/500	10	8	16	26
FM350/500	15	11	20	30
FM350/500	20	14	28	38
FM350/500	25	17	36	46
FM350/500	30	20	44	54

(estimated number of cycles per day)

Model #	Watts	Zone 1	Zone 2	Zone 3
FM502	10	4	8	13
FM502	15	7	13	20
FM502	20	10	18	27
FM502	25	13	23	34
FM502	30	16	28	41

(estimated number of cycles per day)

Dual gates require a minimum of 10 Watts solar charging power

NOTE: A maximum of 30 Watts of solar charging power can be connected to Mighty Mule E-Z Gate Openers.

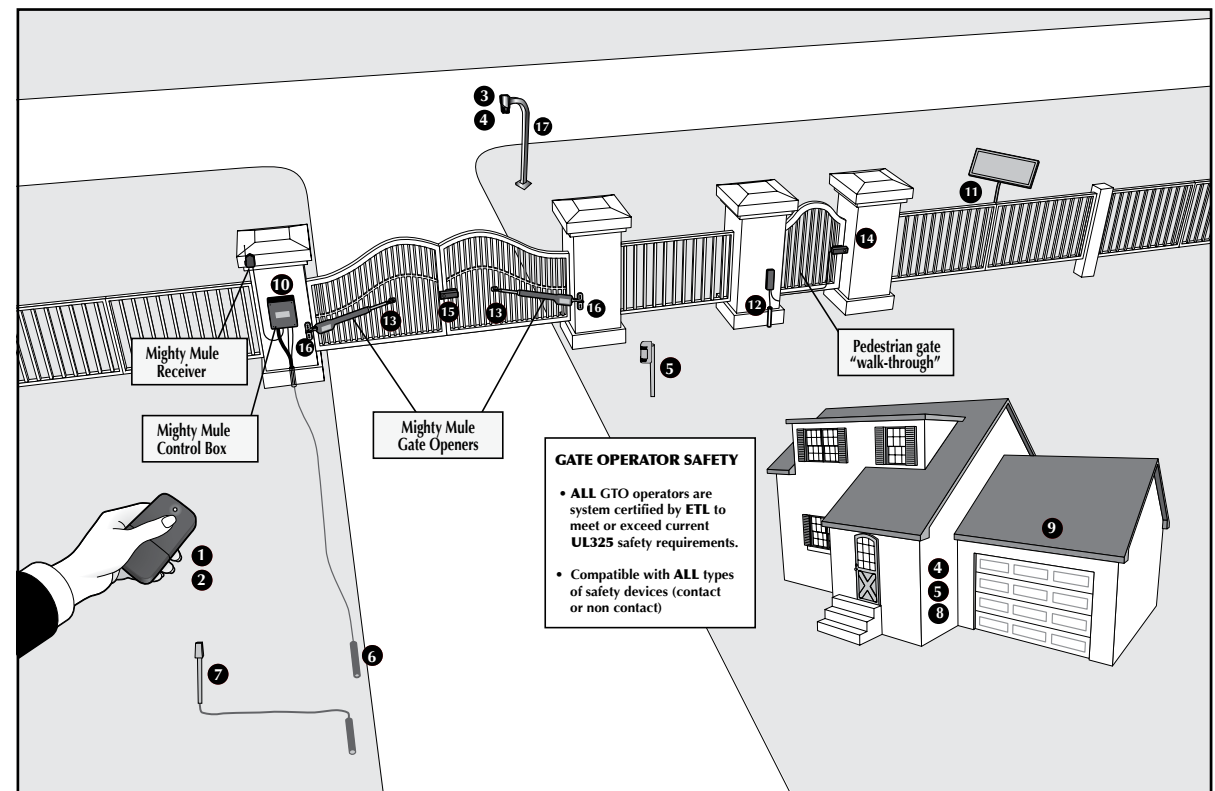
Special Considerations:

- For solar applications using Mighty Mule models FM500 & FM502, it is recommended that you purchase an optional second battery (FM150) for back up cycles during overcast days. The control boxes are prewired for the optional second battery.
- Dual gate require 10 Watts of solar charging power. Use two 5 watt panels (FM121) or one 10 Watt solar panel (FM123) available by



ACCESSORIES

FOR GATE OPENERS



ENTRY / EXIT ACCESSORIES

- 1 Single Button Entry Transmitter (FM135)**
The Mighty Mule entry transmitter includes a visor clip and has adjustable code settings. This is the standard transmitter included in every Mighty Mule gate opener kit. (Battery is included)

- 2 Dual Button Key Chain Transmitter (FM134)**
This transmitter is the same as Mighty Mule entry transmitter with the addition of a key chain and a second button. Both buttons are programmable to control multiple gate openers on different gates and / or garage door openers. [see Garage Door Receiver] (Battery is included)

- 3 Digital Keypad (FM137)**
The digital keypad can be easily installed as a wireless or wired keypad. It can be programmed to use up to twenty-five different personal identification number (PIN) codes. This used in combination with the Mighty Mule automatic gate lock (see automatic gate lock) adds an additional layer of security for your property.

- 4 Wireless Intercom/Keypad (FM136)**
This versatile digital intercom with keypad system is ideal for any residential application, and can accept up to four base units for maximum flexibility. The intercom provides superior range with crystal clear two-way communication up to 500 ft. (152.4 m) wireless or 1,000 ft. (304.8 m) wired.

- 5 Wireless Driveway Alarm (FM131)**
Keep track of who enters your property with this electromagnetic sensor alert system. When a vehicle passes the sensor, the receiver emits an audible tone and lets you know someone's there.

- 6 Gate Opening Sensor (FM138)**
The gate opening sensor is an electromagnetic sensor, which offers 'hands free' operation of the Mighty Mule Gate Opener with a 12 ft. (3.7 m) radius of detection of vehicles in motion.
- 7 Wireless Gate Opening Sensor (FM130)**
The wireless gate opening sensor does the same thing as the Gate Opening Sensor (FM138) but requires no trenching between the Sensor and the Gate Opener.

- 8 Push Button Control (FM132)**
- 9 Garage Door Receiver (RB709)**

POWERING ACCESSORIES

- 10 Replacement Battery (FM150)**
For models: FM500 / FM502 use (FM150) which is a standard 12 Volt, 7.0 amp-hour, maintenance-free battery for the Mighty Mule® gate opener systems. For model FM350 please use a 12 Volt marine or automotive battery that is not provided in kit.
- 11 Solar Panel 5 Watt (FM121) or 10 Watt (FM123)**
The solar panel is for use for up to 30 Watts of solar charging power for Mighty Mule® models FM350, FM500 and FM502. Each solar panel comes with tubular steel support, mounting clips, wire connectors, and 8 ft. of Low Voltage Wire. NOTE: Dual gates require a minimum of 10 Watts.

- 12 Low Voltage Wire (RB509)**
The 16 gauge, multi-stranded, dual conductor Low Voltage Wire is for connecting the AC powered transformer, or the solar panel to the control board. Also used for the connection of accessories, such as automatic gate lock (FM143), digital keypad (FM137, FM136), Push Button (FM132) and other wired control devices. This specially designed wire is UV treated, PVC coated and ready for direct burial. Available in 1000 ft. (304.8 m) rolls or special lengths.

LOCKING ACCESSORIES

- 13 Pin Lock (FM133)**
The Pin Lock is a substitute for the clevis pin at the front mounting point of all models of SWING Mighty Mule gate openers and the chains of the Mighty Mule SLIDE Gate Openers to help prevent theft of the opener.
- 14 Bulldog Pedestrian Gate Lock (FM145)**
Designed for horizontal use on "walk-through" gates. An affordable solution for protecting swimming pool areas, playgrounds, tennis courts, boat docks, etc., from unwanted access. Can be used with the digital keypad (FM137 or FM136) and is solar compatible.

- 15 Automatic Gate Lock (FM143)**
A MUST for added security. Unlocks and locks automatically as gates open and close. Used with Mighty Mule systems for maximum stability and security. Comes with a keyed manual release. Recommended for gates over 8 ft. (2.4 m) long. Ideal for animal enclosures or high wind areas. (Not compatible with MM-SL1000B/MM-SL2000B)

HARDWARE ACCESSORIES

- 16 Push to Open Bracket (FM148)**
Required when a Mighty Mule swing gate opener(s) must push a gate open, such as on a sloping driveway or where space prevents gate(s) from opening into the property (pulled open). Order 2 brackets for a dual gate installation.
- 17 Keypad Mounting Post (FM100 / FM110)**
For mounting the digital keypad, available with stand or direct burial.