

MAGLOCK WIRING GUIDE



0E-MAG600LB
0E-MAG1200LB
0E-MAG600DS
0E-MAG1200DS
0E-MAG600DB
0E-MAG1200DB

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Note: The maglocks are factory set to 24 VDC. If required, adjust the setting to match power source:

1. Remove Phillips head screw to access wiring compartment.
2. Toggle the 12V/24V slide switch to select the desired voltage.



TECHNICAL SUPPORT

info@wboxtech.com

ORDERS

US: 1.800.233.6261

Canada: 1.877.234.7378

WEBSITE

US: adiglobal.com/wbox

Canada and PR: adiglobal.com



WIRING DIAGRAMS

SINGLE DOOR MAGLOCK

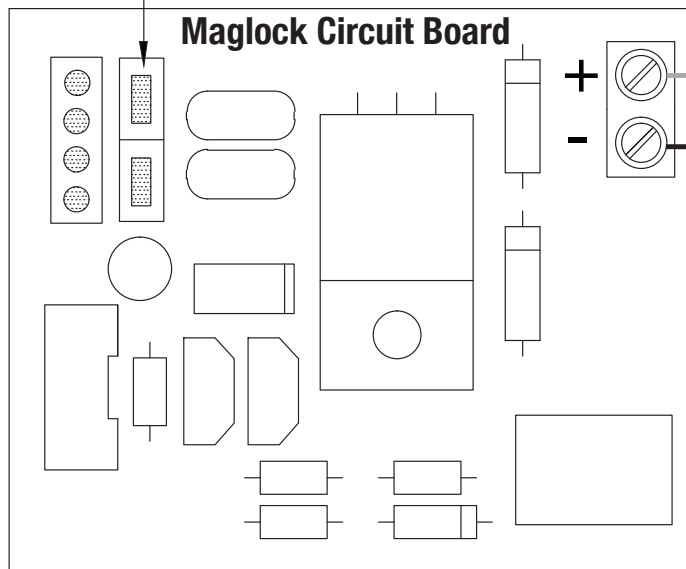
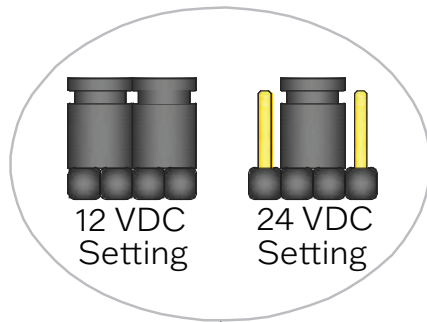
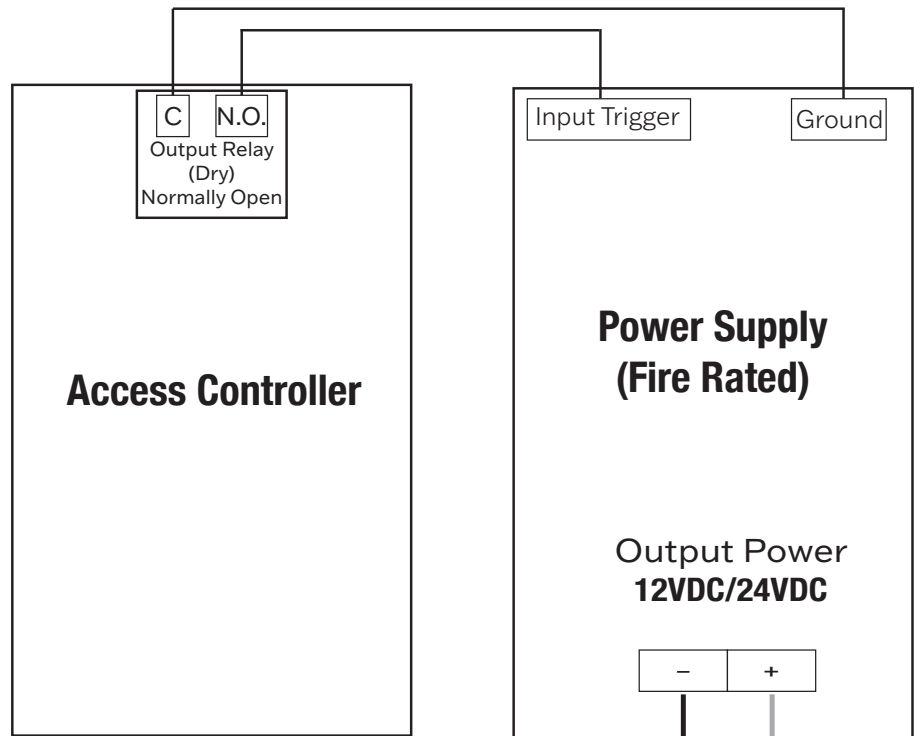
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Access Controller

To cut off power to the maglock for the duration of the output, the access controller will send a dry contact closure to the input of the fire-rated power supply.

IMPORTANT

Maglock is factory set to 24 VDC. Ensure the power input matches voltage before powering on. To change voltage, refer to page 1.



WIRING DIAGRAMS

DOUBLE DOOR MAGLOCKS

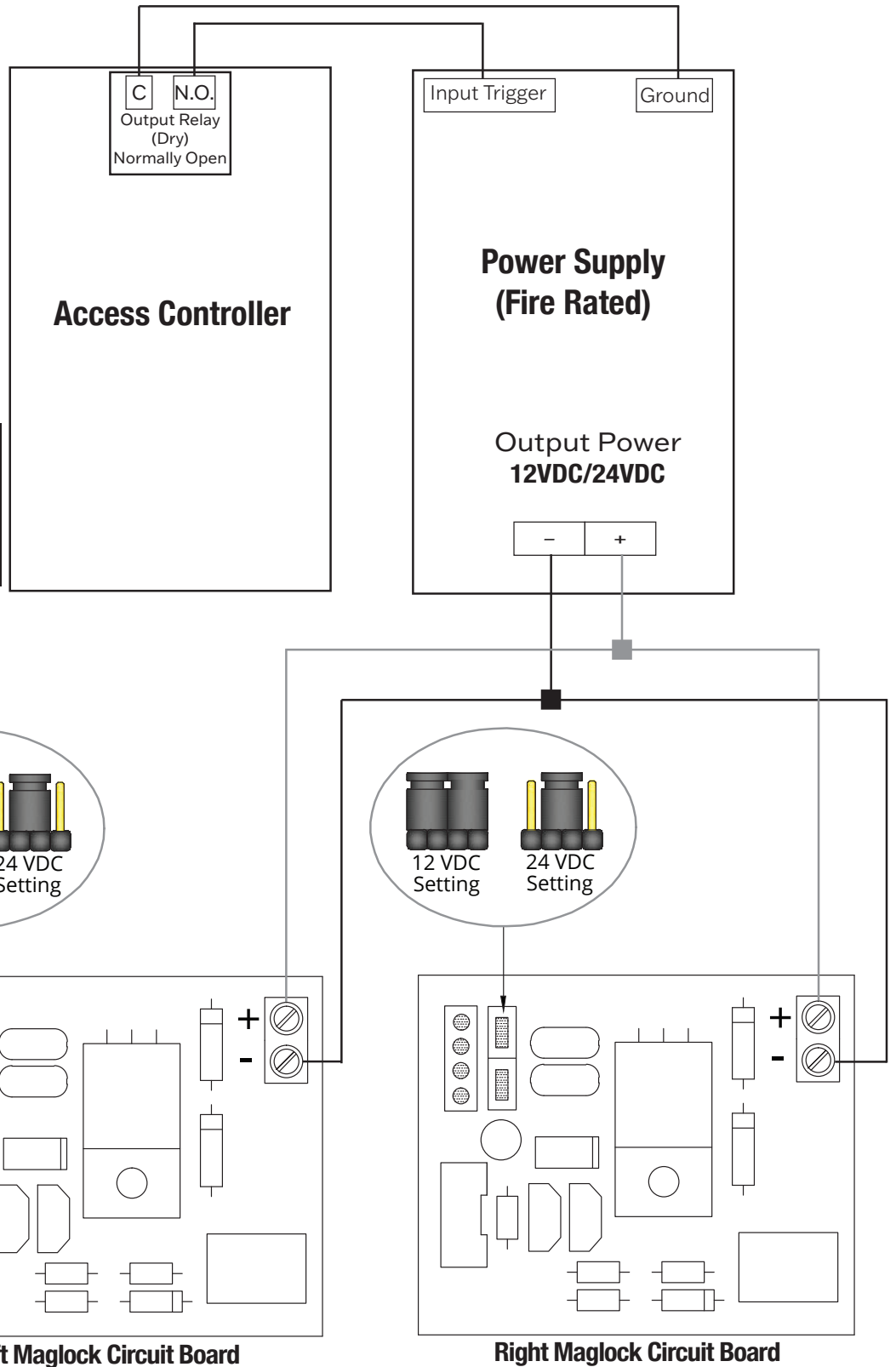
0E-MAG600DB
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Access Controller

To cut off power to the maglock for the duration of the output, the access controller will send a dry contact closure to the input of the fire-rated power supply.

IMPORTANT

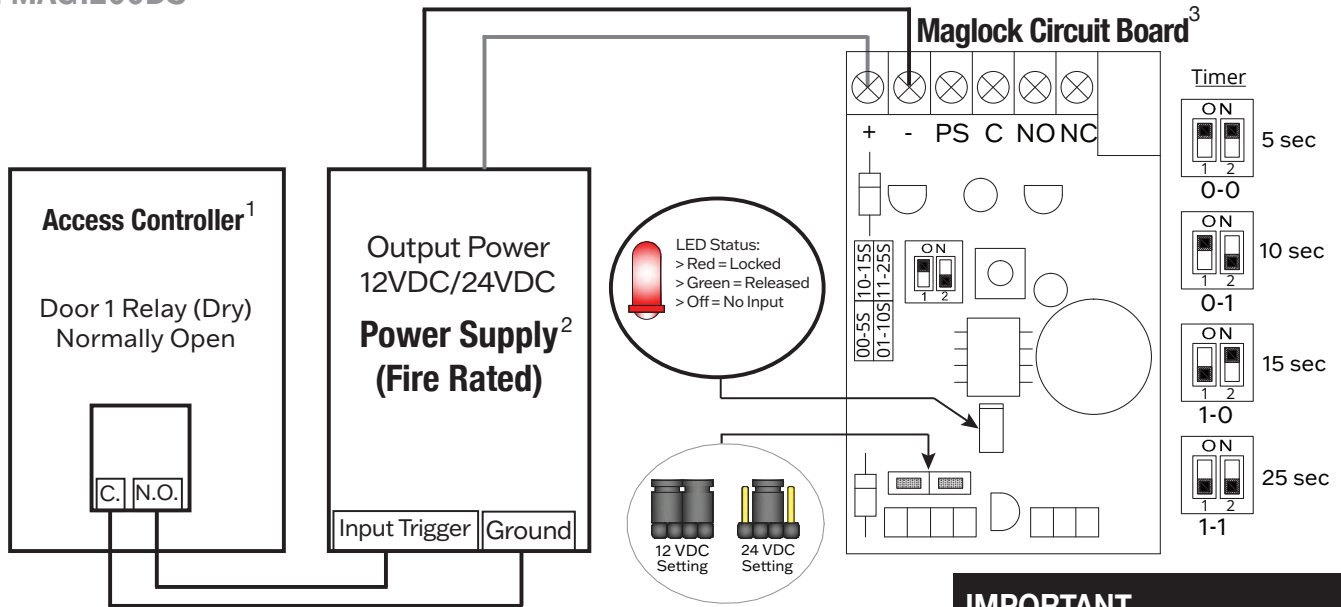
Maglock is factory set to 24 VDC. Ensure the power input matches voltage before powering on. To change voltage, refer to page 1.



WIRING DIAGRAMS

SINGLE DOOR MAGLOCK WITH BOND SENSOR

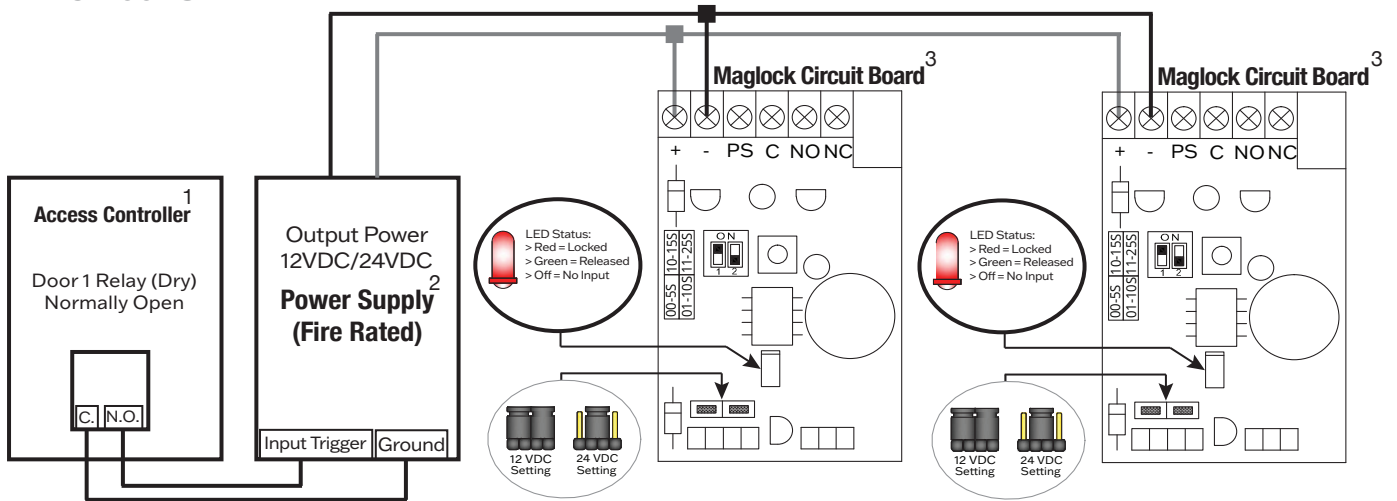
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IMPORTANT
Maglock is factory set to 24 VDC. Ensure the power input matches voltage before powering on. To change voltage, refer to page 1.

2 SINGLE DOOR MAGLOCKS WITH BOND SENSOR

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IMPORTANT
Maglock is factory set to 24 VDC. Ensure the power input matches voltage before powering on. To change voltage, refer to page 1.

DS Models: Additional Notes

1. Access Controller

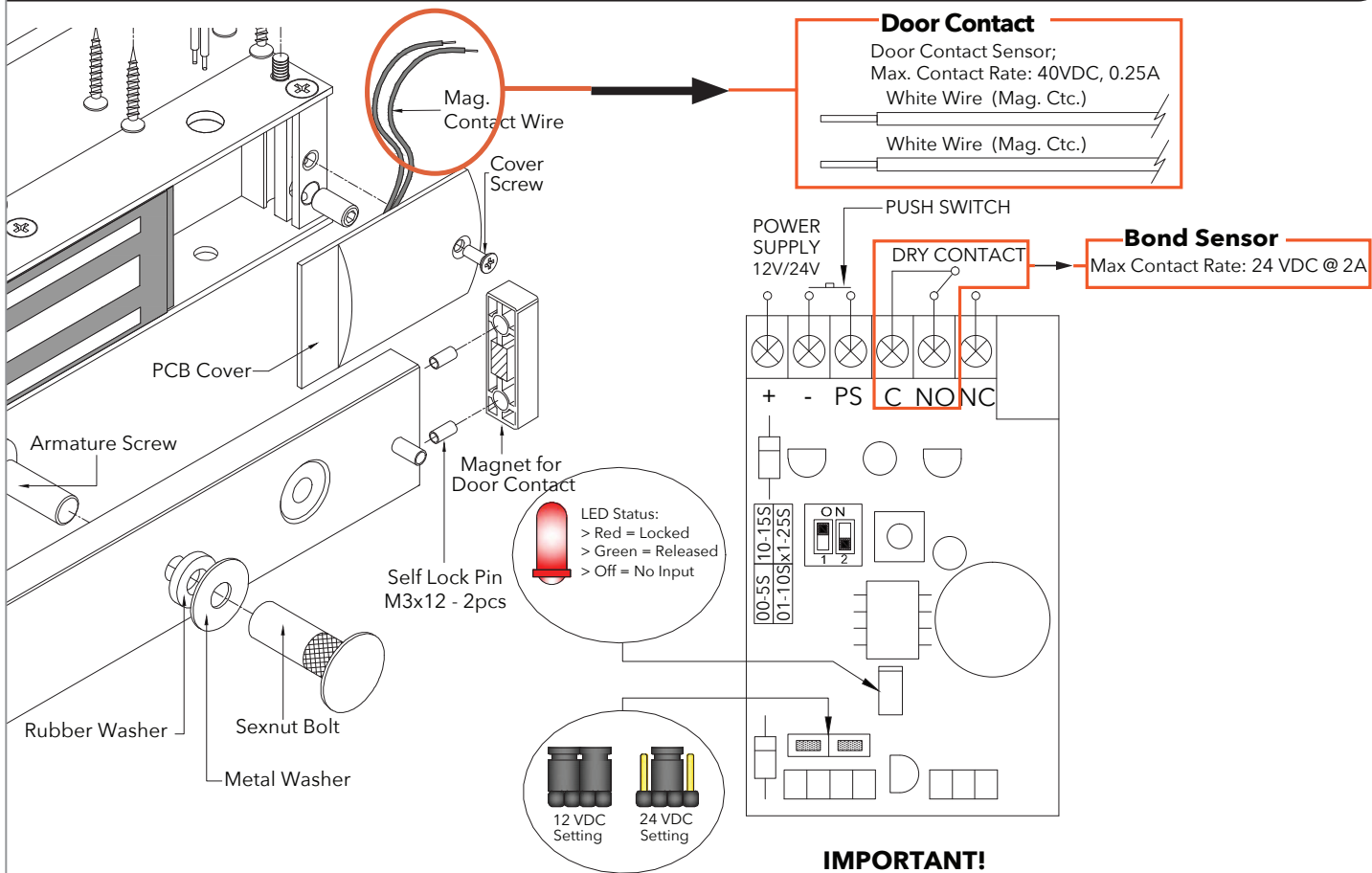
Access controller wiring to trigger the fire-rated power supply to remove power to the maglock.

2. Power Supply (Fire Rated) Ensure the correct output is used to remove power when a closure is on the Input Trigger point.

3. Maglock Circuit Board

PS (Push Switch) input is not to be used when another system is controlling the unlocking and locking of the doors. It is simply for stand-alone operation only. A momentary closure on the PS input to ground will remove power as per the switch settings.

DS MODELS: CONTACT AND BOND SENSOR



1) Door Contact

Contact connections are on the removable access door, and the mating magnet is on the right hand side of the armature plate. When the door leaf closes and the magnet on the armature plate is directly aligned with the door contact behind the access door, the contact will close. This is to be wired to the access controller boards door contact input. This will let the access controller know that the door leaf is physically in the closed position. When the door leaf is opened breaking, this contact, it will let the access controller know the door is opened.

2) Bond Sensor (a.k.a. Hall Effect Sensor)

The bond sensor will change its state whenever power is applied to the maglock or taken away. This bond sensor is physically inside the magnetic lock and will only change state when it detects enough current flow to sense it has full coverage of the armature plate.

Note: If the armature plate is incorrectly aligned and not drawing the proper amount of current, the bond sensor will not change state.

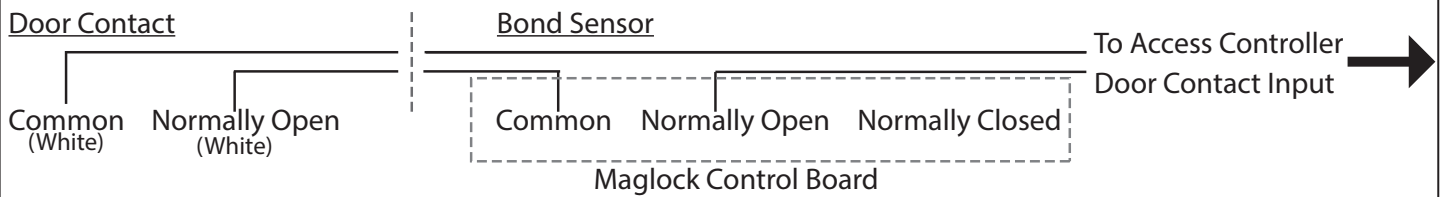
DS MODELS: CONTACT AND BOND SENSOR

High Security Applications

Some high-security applications will specify that not only will the maglock provide a change of state to show the door position in or out of the frame, but to also provide feedback that the maglock has energized and it is locked.

For these applications, both the bond sensor and door contact will be wired in series. In this layout, the door contact will provide a closure when the door is within the frame and the bond sensor will provide a closure only when the armature plate is correctly aligned and the maglock is drawing enough current to change the contact to a closure. The access system will know the door is within the frame and the maglock is energized when both are wired in series as if normally closed.

Wiring of the Door Contact and Bond Sensor in Series



TROUBLESHOOTING

Problem Statement	Solution
Low holding force	<ul style="list-style-type: none"> • Maglock is set to 24VDC; however, the power supply is 12VDC • The armature plate is misaligned and does not provide complete coverage. • Unregulated/unfiltered power supply with AC ripple (fluctuating voltage level)
Maglock is extremely hot to the touch	<ul style="list-style-type: none"> • Maglock is set to 12VDC; however, the power supply is 24VDC • Induced power along the cable run
The maglock secures, but neither the door contact nor the bond sensor change state	<ul style="list-style-type: none"> • Magnet on the armature plate is on the wrong side and not mating up to the door contact behind the maglock access door. • The armature plate is not making complete contact to draw enough current to change the bond sensor.
The maglock is not securing	<ul style="list-style-type: none"> • Confirm that the armature plate can be moved from side to side without causing the guide pins to come out of their mated guide holes in the door leaf. The armature plate should move to conform to the maglock and not be solidly in place.
Maglock secures at the power supply, but not in the installed location	<ul style="list-style-type: none"> • Cable runs for power should always be 18-gauge solid wire. Thinner cable gauges like 22, 24, and CAT5/6 are not large enough to provide power over longer distances. May also have a break in the wire.
Maglock does not drop power during a fire test or fire event	<ul style="list-style-type: none"> • Ensure you are using a fire-rated power supply connected to the fire alarm panel. Fire rated supplies drop power by providing a closed contact on the trigger input to drop its output. The fire panel will also do this when correctly wired to the fire panel using the supplied end-of-line resistors.
Varistor (what it is and how to use it)	<ul style="list-style-type: none"> • A maglock is a large coil, and when down powered, it will try to lose the built up energy (residual power stored in the coil of the maglock). This will send residual voltage down the line back to the controlling device and cause intermittent operation. • The varistor is installed directly on the power inputs of the maglock (between positive and negative end). In this layout, the varistor will try to act as a load to get rid of any residual power left when power is dropped.