

DOUBLE DOOR MAGNETIC LOCK

INSTALLATION INSTRUCTIONS



ENGLISH

USER MANUAL

0E-MAG600DB (600 lbs.)

0E-MAG1200DB (1200 lbs.)

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Special Locking Arrangement Component
Electric Locking Mechanism
Access Control Accessory



ADI PRO TECHNICAL SUPPORT

1.833.574.9124

ORDERS

US: 1.800.233.6261

Canada: 1.877.234.7378

WEBSITE

US: adiglobal.com/adiexclusivebrands

Canada and PR: adiglobal.com



UL 1034 / UL 294
Standard for Burglary-Resistant
Electric Locking Mechanisms

INTRODUCTION

THIS PACKAGE INCLUDES

2 - Parts Kits

1 - Installation Template

2 - Armature Plates

1 - User Manual

DESCRIPTION

ADI PRO double door magnetic locks are the perfect solution for securing buildings in a cost-effective way. These locks are vandal resistant and compatible with all access/egress systems, making them easy to integrate into your existing security setup. The lock's field selectable 12/24 VDC operation also provides added flexibility, allowing you to choose the power source that best suits your needs. Our double door magnetic locks come equipped with on-board MOV power surge protection, which prevents damage to the lock in case of electrical surges or spikes.

KEY FEATURES

- Vandal resistant
- Compatible with all access/egress systems
- Field selectable 12/24 VDC operation
- On-board MOV power surge protection prevents damage to the magnetic lock

SPECIFICATIONS

	0E-MAG600DB	0E-MAG1200DB
Static Strength	600 lbs. (Factory Tested) 500 lbs. (UL Verified)	1200 lbs. (Factory Tested) 1000 lbs. (UL Verified)
Dynamic Strength	50 ft-lb	70 ft-lb
Voltage Input	12VDC / 24VDC	12VDC / 24VDC
Current Draw	480mA / 240mA	420mA / 210mA
Dimensions (Body)	19-11/16" W x 2-3/16" H x 1-1/8" D (500mm x 56mm x 29mm)	20-15/16" W x 2-15/16" H x 1-9/16" D (532mm x 75mm x 39mm)
Dimension (Armature Plate)	2 x 7-5/32" W x 1-3/4" H x 15/32" D 2 x (182mm x 44mm x 12mm)	2 x 7-9/32" W x 2-13/32" H x 11/16" D 2 x (185mm x 61mm x 17mm)
Endurance	250,000 cycles	250,000 cycles
Performance Level	- Destructive Attack: Level I - Line Security: Level I - Standby Power: Level I - Endurance: Level IV	

SAFETY AND COMPLIANCE

READ ALL INSTRUCTIONS BEFORE INSTALLING THE MAGNETIC LOCK

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.



NOTICE:

All models are recognized to:

UL 294 : Standard for Access & Egress.

Models are listed to:

UL 1034, Standard for Burglary-Resistant Electric Locking Mechanism.

UL 294, Access Control System Units.

Remark:

All drawings shown are for illustration purpose only.

Actual product may vary due to product enhancement

The electromagnetic lock must be installed in accordance with the following:

- Life Safety Code ANSI / NFPA 101.
- Local Authority having Jurisdiction.
- Manufacturer's installation instructions provided with each unit.
- The power supply units must be mounted inside the secured or protected area.

The typical wiring method should be in accordance with CSA C22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Section 32.

INSTALLATION AND MAINTENANCE

IMPORTANT NOTES

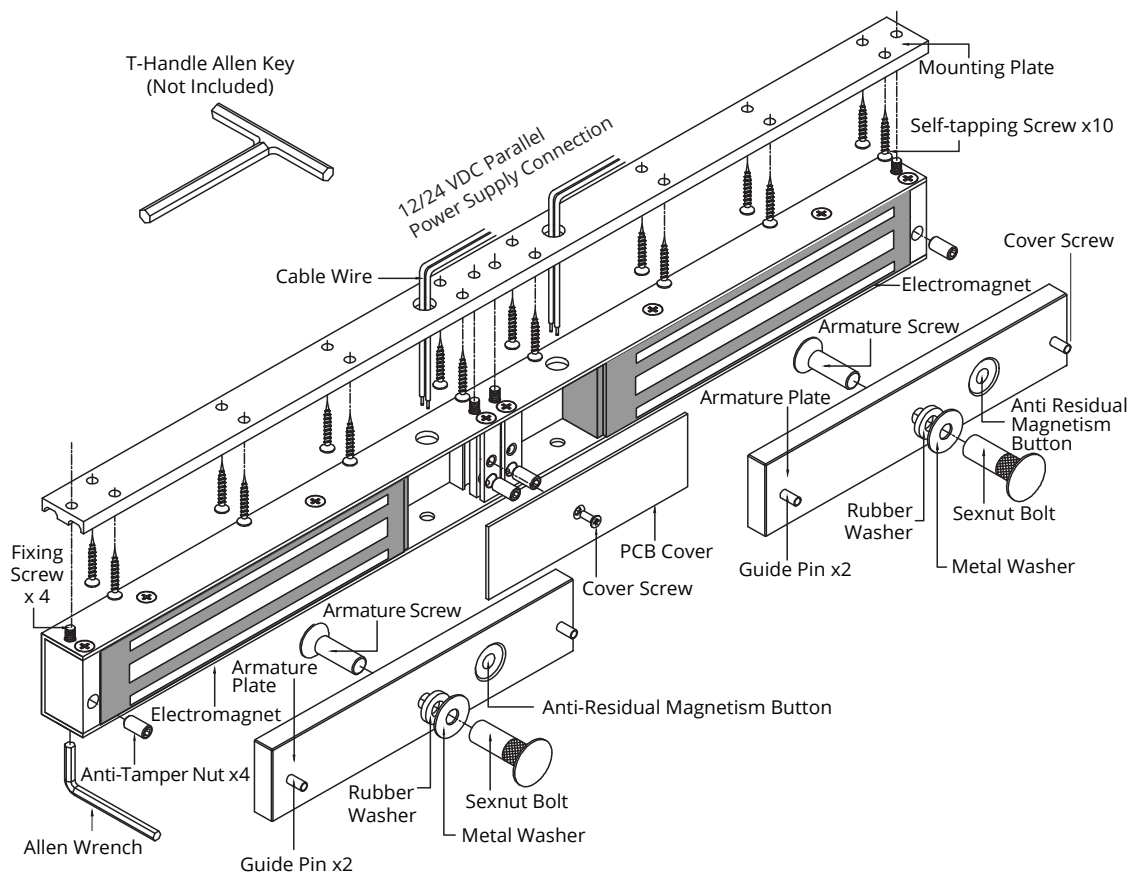
- Install in an indoor dry location.
- Use caution when changing factory default setting and ensure the power input matches voltage before powering on.
- It is recommended to apply a light coat of silicone lubricant to the mating surface on a monthly basis to prevent rust.

Distance from 24VDC power supply to lock unit

Distance from 12VDC power supply to lock unit

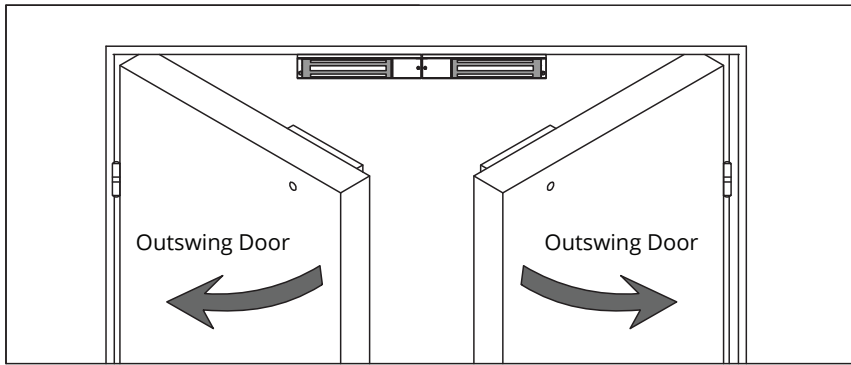
Distance (feet)	AMPS						Minimum Wire Gauge (AWG)	Distance (feet)	AMPS						Minimum Wire Gauge (AWG)
	0.25	0.50	0.75	1.00	1.50	2.0			0.25	0.50	0.75	1.00	1.50	2.0	
25ft	18	18	18	18	18	16	Minimum Wire Gauge (AWG)	25ft	18	18	18	18	18	16	Minimum Wire Gauge (AWG)
50ft	18	18	18	18	18	16		50ft	18	18	18	16	14	14	
75ft	18	18	18	16	16	14		75ft	18	18	16	14	12	12	
100ft	18	18	18	16	14	14		100ft	18	16	14	14	12		
150ft	18	18	16	14	14	12		150ft	18	16	14	12			
200ft	18	16	14	14	12			200ft	16	14	12				
250ft	18	16	14	12				250ft	16	12					
300ft	18	14	12	12				300ft	14						
400ft	16	14	12					400ft	14						
500ft	16	12						500ft	12						
1000ft	16						1000ft								

EXPANDED VIEW



INSTALLATION AND MAINTENANCE

INSTALLATION INSTRUCTIONS



1 Installation Template

Fold the OE-MAG Template along the dotted line upto 90°.

2 Door Frame
Door Template

Close the door, position the EM lock mounting location as close to the door upper corner with gap 3/8" (10mm).

3 Door Frame
Door

Place the template against the door & frame and drill holes according to template indications.

4 Door Frame
Door

Drill 2 holes on Frame and 3 holes on door as indicated on the template.

5 Armature Screw
Armature Plate
Sexnut Bolt
Metal Washer
Rubber Washer

Install the Armature Plate to the door.
Note: Actual installation may vary according to door configuration.

Wooden Door

6 Door
Rubber Washer

This allows the armature plate to pivot around the armature screw to compensate for door misalignment.

7

Secure the mounting plate on the door. Mount on the door frame by screwing in the self tapping screw on the holes as indicated on template.

8

Once position is correct, screw in other screws to permanently mount the plate; and drill the wire cable access hole.

9 Cable Wire
Cover Screw
Fixing Screw x2
PCB Cover
Anti Tamper Nut x2
Allen Wrench
** T Handle Allen Key 3mm
Not Included

Use an Allen key wrench to unscrew the anti tamper nut and tighten the fixing screws on the mounting plate.

10 Door Frame
Door
EM Lock
Holding Force

Connect to power supply and test unit.

WIRING

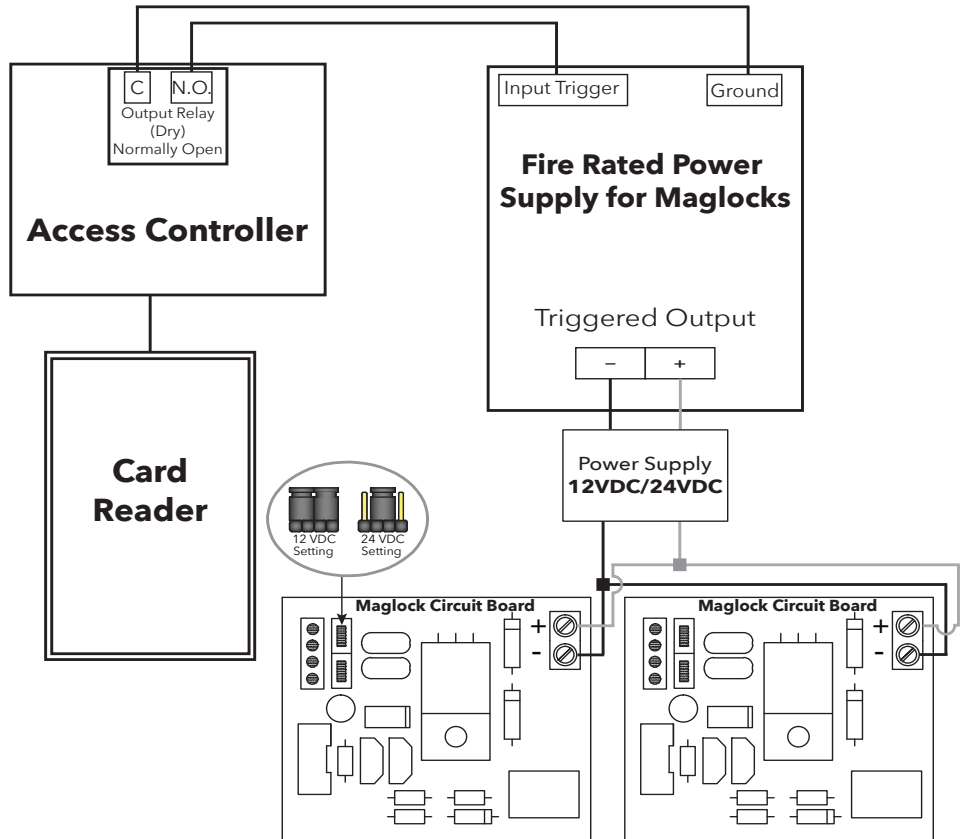
CARD ACCESS

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.

Card Reader

When using a valid card at the reader the access controller will close its relay (typically for 5 seconds). During this time, the fire-rated power supply will receive a closure on its trigger input to ground and the power supply will drop the power to the maglock to unlock it.



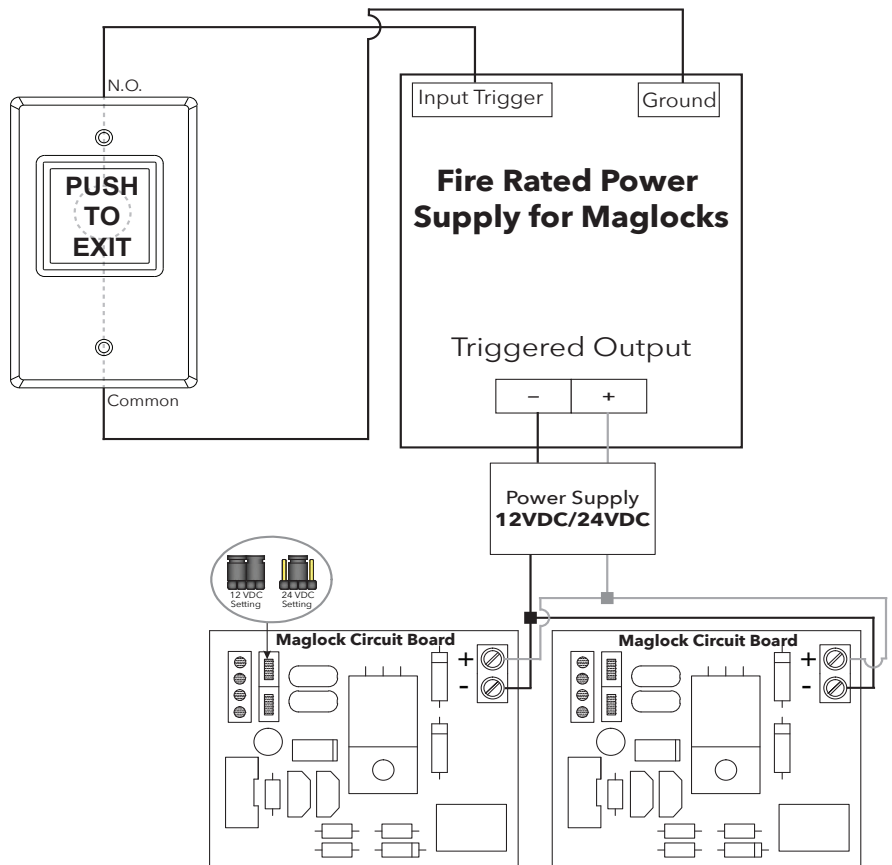
IMPORTANT

Maglock is factory set to 24 VDC. Ensure the power input matches voltage before powering on.

PUSH TO EXIT BUTTON

Push to Exit Button

When the Push to Exit button is pressed, it will change its normally open contact to a closed contact and trigger the power supply to drop the output power to the maglock for as long as the Push to Exit button is being pressed.



IMPORTANT

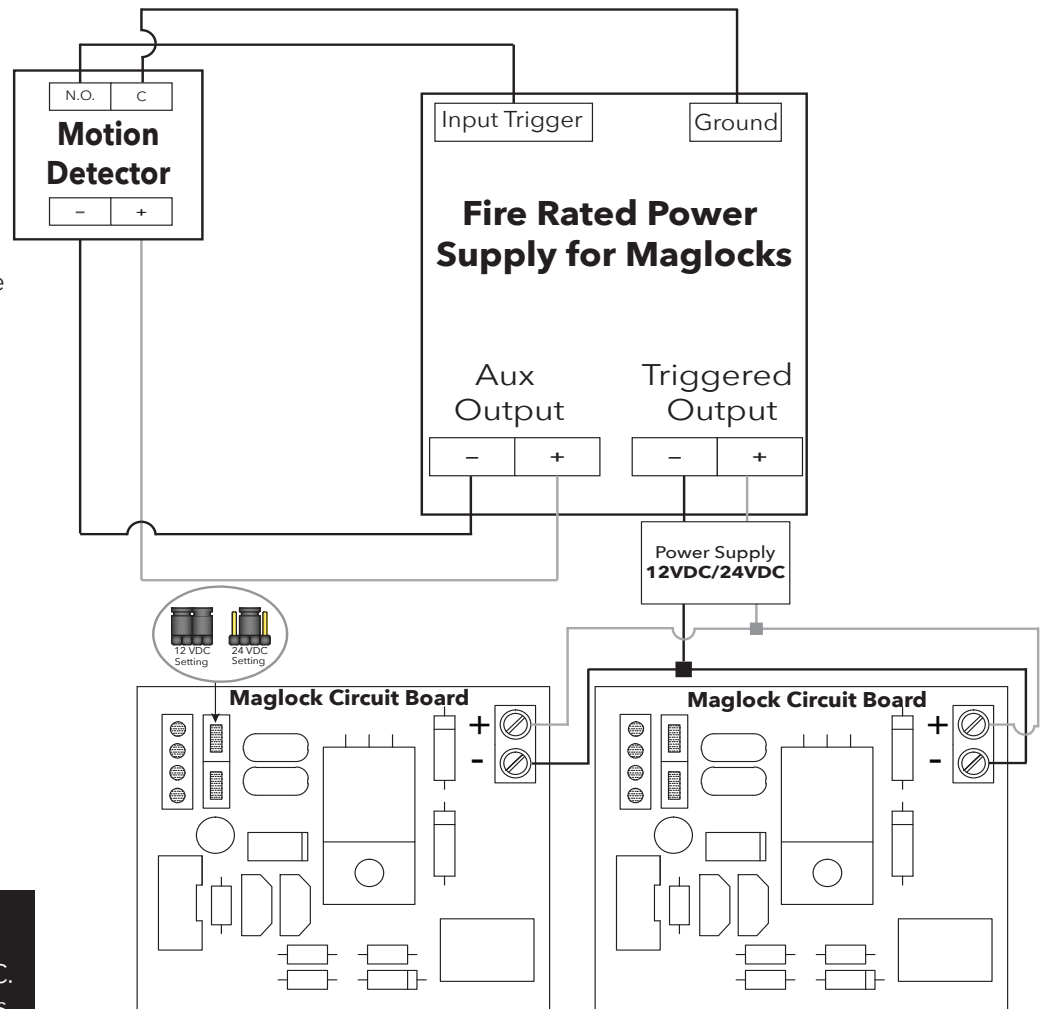
Maglock is factory set to 24 VDC. Ensure the power input matches voltage before powering on.

WIRING

MOTION DETECTOR

Motion Detector

When the motion detector detects a presence its normally open contacts go closed and trigger the fire-rated power supply to unlock the maglock. The maglock will be unlocked for the output duration set in the motion detector.



IMPORTANT

Maglock is factory set to 24 VDC. Ensure the power input matches voltage before powering on.

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 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.

WARRANTY

1. Limited Warranty

a. General

Subject to the terms and conditions of this Limited Warranty, from the date of sale through the period of time for product categories specified in Section 1(b), ADI warrants its ADI PRO products to be free from defects in materials and workmanship under normal use and service, normal wear and tear excepted. Except as required by law, this Limited Warranty is only made to Buyer and may not be transferred to any third party.

ADI shall have no obligation under this Limited Warranty or otherwise if:

- (i) The product is improperly installed, applied or maintained;
- (ii) The product is installed outside of stated operating parameters, altered, or improperly serviced or repaired;
- (iii) Damage is caused by outside natural occurrences, such as lightning, power surges, fire, floods, acts of nature, or the like.
- (iv) Defects resulting from unauthorized modification, misuse, vandalism, or other causes unrelated to defective materials or workmanship, or failures related to batteries of any type used in connection with the products sold hereunder.

ADI only warrants those products branded as ADI PRO products and sold by ADI. Any other products branded by third parties are warranted by the third-party manufacturer for a period as defined by the third party manufacturer, and ADI assigns to Buyer those warranties and only those warranties extended by such third party manufacturers or vendors for non-ADI branded products. ADI does not itself warrant any non-ADI branded product and sells only on an as is basis in accordance with ADI's terms and conditions of sale.

b. Specific Warranties for product categories are as follows:

Product Categories	Warranty Period
Magnetic Locks	2-year warranty

2. EXCLUSION OF WARRANTIES, LIMITATION OF LIABILITY

THERE ARE NO WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO CASE SHALL ADI BE LIABLE TO ANYONE FOR ANY (I) CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES ARISING OUT OF OR RELATING IN ANY WAY TO THE PRODUCT AND/OR FOR BREACH OF THIS OR ANY OTHER WARRANTY OR CONDITION, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY ADI'S OWN NEGLIGENCE OR FAULT AND EVEN IF ADI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES. Any product description (whether in writing or made orally by ADI or ADI's agents), specifications, samples, models, bulletin, drawings, diagrams, engineering sheets, or similar materials used in connection with the Buyer's order are for the sole purpose of identifying ADI's products and shall not be construed as an express warranty or condition. Any suggestions by ADI or ADI's agents regarding use, applications or suitability of the products shall not be construed as an express warranty or condition unless confirmed to be such in writing by ADI. ADI does not represent that the products it sells may not be compromised or circumvented; that the products will prevent any personal injury or property loss by burglary, robbery, fire or otherwise, or that the products will in all cases provide adequate warning or protection. Buyer understands and will cause its customer to understand that a properly installed and maintained product is not insurance or guarantee that such will not cause or lead to personal injury or property loss. CONSEQUENTLY ADI SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR OTHER LOSS BASED ON ANY CLAIM AT ALL INCLUDING A CLAIM THAT THE PRODUCT FAILED TO GIVE WARNING. However, if ADI is held liable whether directly or indirectly for any loss or damage with respect to the products it sells, regardless of cause or origin, its maximum liability shall not in any case exceed the purchase price of the product, which shall be fixed as liquidated damages and not as a penalty and shall be the complete and exclusive remedy against ADI.

WARRANTY

3. Limitation on Liability to Buyer's Customers.

Buyer agrees to limit liability to its customers to the fullest extent permitted by law. Buyer acknowledges that ADI shall only be deemed to give consumers of its products such statutory warranties as may be required by law and at no time shall Buyer represent to its customers and/or users of ADI products that ADI provides any additional warranties. By accepting the products, to the fullest extent permitted by law, Buyer assumes all liability for, and agrees to indemnify and hold ADI harmless against and defend ADI from, any and all suits, claims, demands, causes of action and judgments relating to damages, whether for personal injury or to personal property, suffered by any person, firm, corporation or business association, including but not limited to, Buyer's customers and/or users of the products because of any failure of the products to detect and/or warn of the danger for which the goods were designed or any other failure of the products whether or not such damages are caused or contributed to by the sold or joint concurring negligence or fault of ADI.

4. Returns

Subject to the terms and conditions listed below, during the applicable warranty period, ADI will replace Product or provide a credit at purchase at its sole option free of charge any defective products returned prepaid. Any obligations of ADI to replace Limited Lifetime warranty products pursuant to this warranty which result from defect are limited to the availability of replacement product. ADI reserves the right to replace any such products with the then currently available products, or provide a credit in its sole discretion. In the event Buyer has a problem with any ADI product, please call your local ADI branch for return instructions:

For US call 1-800-233-6261

For Canada call 877-234-7378

For Puerto Rico call 787-793-8830

Be sure to have the model number and the nature of the problem available. In the event of replacement, the return product will be credited to Buyer's account and a new invoice issued for the replacement item. ADI reserves the right to issue a credit only in lieu of replacement.

If any ADI PRO product is found to be in good working order or such product's inability to function properly is a result of user damage or abuse, the product will be returned to Buyer in the same condition as received and Buyer shall be responsible for any return freight changes.

5. Governing Law

The laws of State of New York apply to this Limited Warranty.

6. Miscellaneous

Where any term of this Limited Warranty is prohibited by such laws, it shall be null and void, but the remainder of the Limited Warranty shall remain in full force and effect.