

# MODEL 600LB

## 600 POUND SINGLE MAGNETIC LOCK WITH LED, BOND SENSOR & DOOR STATUS SENSOR



### SPECIFICATIONS

- U.L. LISTED, LISTING NUMBER R16759
- 600 POUND MINIMUM HOLDING FORCE
- MAGNET SIZE 9-7/8" L x 1-11/16" H x 1" W
- ARMATURE SIZE 5-1/2" L x 1-1/4" W x 7/16" D
- 12 OR 24 VOLT DC OPERATION, JUMPER SELECTABLE
- CURRENT DRAW 400 MA @ 12 VDC, 200 MA @ 24 VDC
- BI-COLOR LED, S.P.D.T. 3A. RELAY CONTACTS
- SIGNALS A POWERED AND SECURELY SEALED DOOR
- ALL METAL NON-ALUMINUM PARTS ARE PLATED
- CLEAR ANODIZED US 28 FINISH STANDARD
- DURONIC US 40 FINISH AVAILABLE
- DRESS-UP COVERS IN POLISHED CHROME AND BRASS ARE AVAILABLE
- LIFETIME WARRANTY



**ALARM CONTROLS CORPORATION**

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# MAGNETIC LOCK INSTALLATION INSTRUCTIONS

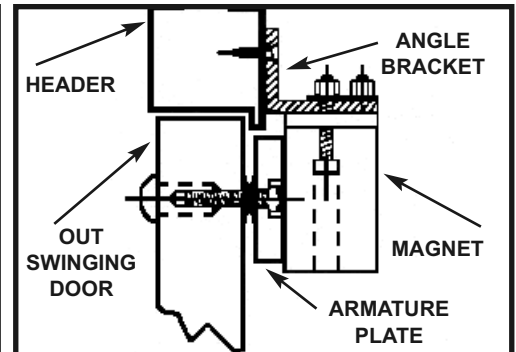
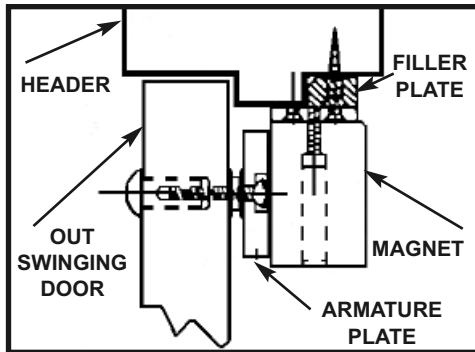
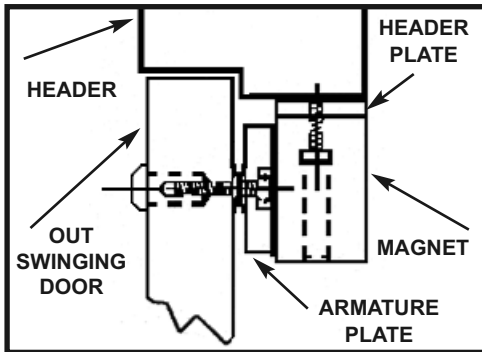
## PLEASE READ BEFORE INSTALLATION

ALARM CONTROLS CORPORATION OFFERS A COMPLETE LINE OF MAGNETIC LOCKS AND ACCESSORY ITEMS TO ASSIST THE INSTALLER IN MANAGING EVERY APPLICATION.

THE MAGNETIC LOCK IS DESIGNED TO MOUNT TO THE DOOR FRAME ON THE STOP SIDE OF THE DOOR IN A TYPICAL OUTSWINGING DOOR INSTALLATION, (SEE PAGE 2 FOR INSWINGING DOOR INSTALLATION). SUFFICIENT HEADER SPACE MUST BE AVAILABLE TO MOUNT THE MAGNETIC LOCK TO INSURE A SAFE AND SECURE INSTALLATION.

1. NOTE TYPE OF DOOR FRAME HEADER AND INSTALL FILLER PLATE OR ANGLE BRACKET AS REQUIRED TO PROVIDE A FLAT MOUNTING SURFACE ON THE DOOR HEADER THE ENTIRE LENGTH OF THE MAGNETIC LOCK.

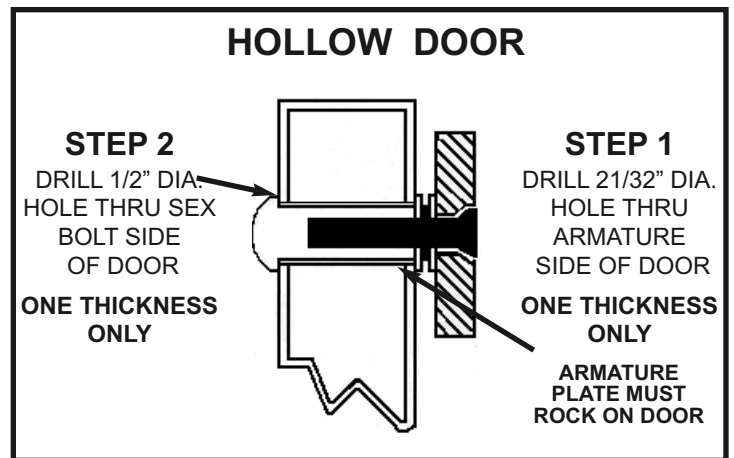
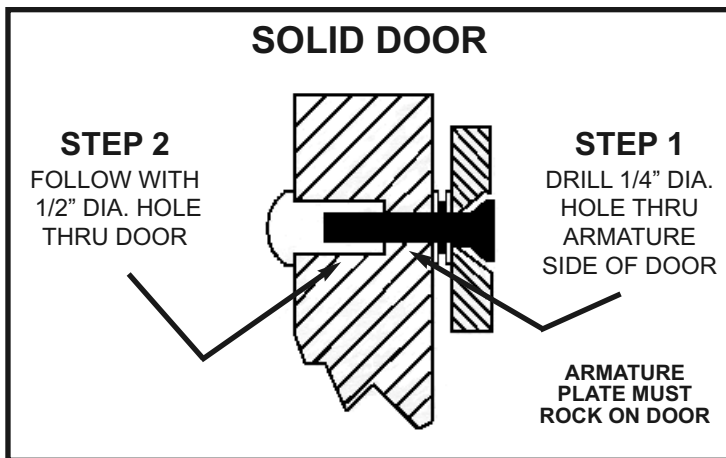
## OUTSWINGING DOOR INSTALLATION



2. FOLD TEMPLATE ON DOTTED LINE TO FORM A 90 DEGREE ANGLE. TAPE TEMPLATE AGAINST DOOR HEADER WITH DOOR IN A CLOSED POSITION 1" FROM DOOR FRAME OPPOSITE HINGE SIDE OF DOOR JAMB. FOR A PAIR OF DOUBLE DOORS PLACE TEMPLATE AT THE CENTER OF THE DOOR OPENING. TRANSFER HOLE LOCATIONS TO DOOR AND FRAME HEADER, (SEE TEMPLATE INSTRUCTIONS).
3. FOLLOW TEMPLATE INSTRUCTIONS FOR HOLE SIZES. USE THE ILLUSTRATIONS BELOW TO DETERMINE THE PROPER HOLE PREPARATION FOR THE ARMATURE PLATE ACCORDING TO THE DOOR TYPE IN THE INSTALLATION.

THE INCLUDED HARDWARE PACKAGE CONTAINS ALL NECESSARY ITEMS TO COMPLETE THE INSTALLATION.

**TO REMOVE THE HEADER PLATE INSERT HEX KEY INTO HOLES LOCATED AT THE BOTTOM OF LOCK ON THE RIGHT AND LEFT SIDE AND UN-SCREW THE CAP SCREWS**



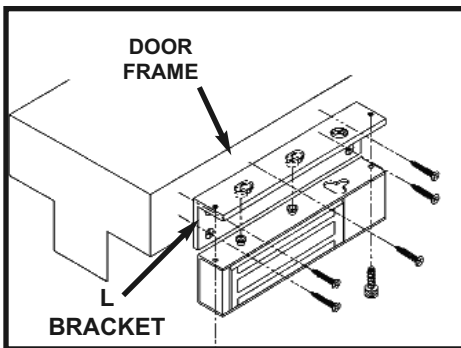
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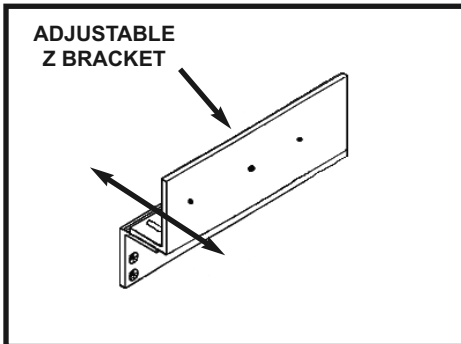
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# INSWINGING DOOR INSTALLATION WITH L- Z BRACKET



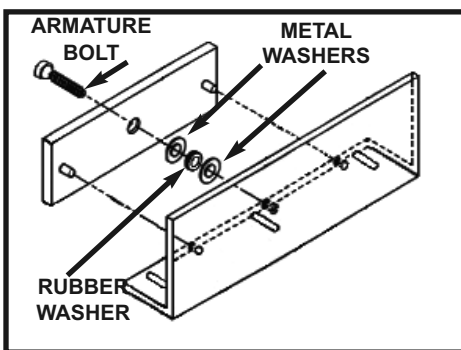
## STEP 1

FASTEN THE L BRACKET ON THE DOOR FRAME IN A SUITABLE LOCATION.  
MOUNT THE MAGNETIC LOCK TO THE L BRACKET.  
MAKE SURE THAT THE MAGNETIC LOCK DOES NOT OBSTRUCT THE CLOSING OF THE DOOR.  
CONNECT THE CORRECT VOLTAGE TO THE MAGNET.



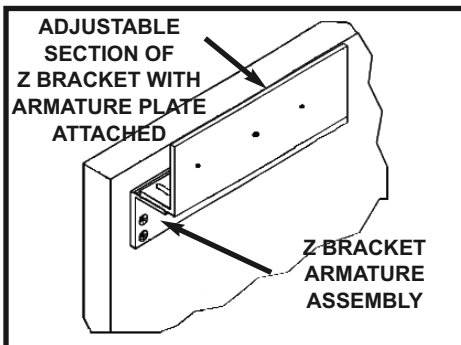
## STEP 2

ASSEMBLE THE Z BRACKET WITH THE SOCKET HEAD CAP SCREWS PROVIDED. DO NOT TIGHTEN THE CAP SCREWS AT THIS TIME. THE Z BRACKET MUST BE ADJUSTABLE.



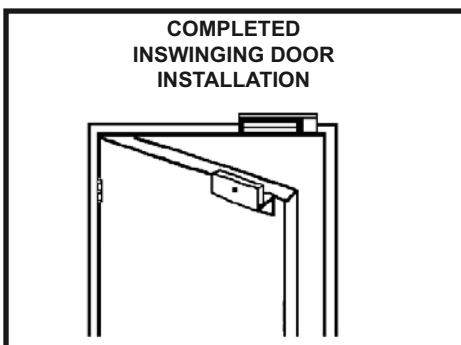
## STEP 3

MOUNT THE ARMATURE PLATE TO THE ADJUSTABLE SECTION OF THE Z BRACKET WITH THE ARMATURE BOLT. DO NOT REMOVE THE RUBBER WASHER ATTACHED TO THE ARMATURE BOLT. USE ONE RUBBER WASHER BETWEEN TWO METAL WASHERS ON THE ARMATURE BOLT. THE WASHER ASSEMBLY MUST BE BETWEEN THE ARMATURE PLATE AND THE ADJUSTABLE SECTION OF THE Z BRACKET. APPLY THE SCREW LOCKING AGENT TO THE ARMATURE BOLT. **DO NOT OVER TIGHTEN. ARMATURE MUST ROCK TO ALIGN WITH THE MAGNET.**



## STEP 4

CLOSE THE DOOR AND ALIGN THE ARMATURE PLATE TO THE MAGNET AND APPLY POWER TO THE MAGNET. LET THE ARMATURE PLATE BOND TO THE MAGNET. BE SURE THE Z BRACKET ASSEMBLY IS FIRMLY AGAINST THE CLOSED DOOR.  
TIGHTEN THE CAP SCREWS HOLDING THE Z BRACKET ARMATURE PLATE ASSEMBLY.  
FASTEN THE Z BRACKET ASSEMBLY TO THE DOOR WITH THE SCREWS SUPPLIED.



## STEP 5

CHECK THE COMPLETED ALIGNMENT AND INSTALLATION OF THE MAGNET AND ARMATURE PLATE BY OPENING AND CLOSING THE DOOR BY ENERGIZING AND DE-ENERGIZING THE MAGNETIC LOCK SEVERAL TIMES.  
THIS WILL INSURE THAT THE CORRECT OPERATION AND ALIGNMENT OF THE MAGNETIC LOCK HAS BEEN PROPERLY INSTALLED.

## MAGNETIC LOCK L / Z BRACKETS FOR INSWINGING DOORS

AM2370 FOR 300 POUND MAGNETIC LOCK

AM3370 FOR ALL 600 POUND MODELS OF SINGLE MAGNETIC LOCKS

AM6370 FOR ALL 1200 POUND MODELS OF SINGLE MAGNETIC LOCKS

AM3375 FOR ALL 600 POUND MODELS OF DOUBLE MAGNETIC LOCKS

AM6375 FOR ALL 1200 POUND MODELS OF DOUBLE MAGNETIC LOCKS

## MAGNETIC LOCK CARE AND MAINTENANCE

MAGNETIC LOCKS HAVE NO INTERNAL MOVING PARTS AND REQUIRE A MINIMUM AMOUNT OF MAINTENANCE.

IT IS RECOMMENDED THAT THE FACE OF THE ARMATURE PLATE AND MAGNET BE WIPED CLEAN AND A LIGHT COATING OF A SUITABLE SILICONE LUBRICANT BE APPLIED TO EACH SURFACE TO PREVENT RUST ALTHOUGH THE MATING SURFACES HAVE BEEN PLATED. THIS ONLY NEEDS TO BE DONE WHEN DIRT BUILD-UP IS NOTICED.

THE ARMATURE PLATE BOLT AND THE HEX HEAD SCREWS HOLDING THE MAGNET TO HEADER PLATE SHOULD BE CHECKED EVERY THREE MONTHS TO INSURE A SAFE AND SECURE INSTALLATION.

## MAGNETIC LOCK ELECTRICAL SPECIFICATIONS

300 POUND MODEL SINGLE MAGNETIC LOCK, 250 MA. @ 12 VDC, 130 MA. @ 24 VDC

ALL 600 POUND MODELS OF SINGLE MAGNETIC LOCK, 400 MA. @ 12 VDC, 200 MA. @ 24 VDC

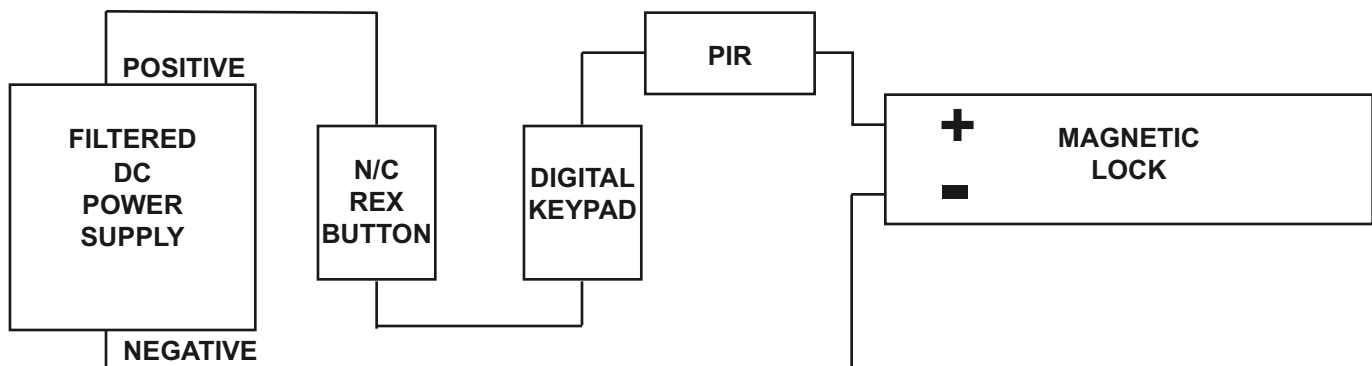
ALL 1200 POUND MODELS OF SINGLE MAGNETIC LOCK, 400 MA. @ 12 VDC, 200 MA. @ 24 VDC

ALL 600 POUND MODELS OF DOUBLE MAGNETIC LOCKS, 400 MA. @ 12 VDC, 200 MA. @ 24 VDC, EACH LOCK

ALL 1200 POUND MODELS OF DOUBLE MAGNETIC LOCKS, 400 MA. @ 12 VDC, 200 MA. @ 24 VDC, EACH LOCK

**ALL MAGNETIC LOCKS ARE SET AT THE FACTORY FOR 24 VDC**

## TYPICAL MAGNETIC LOCK WIRING



# WIRE GAUGE CHART

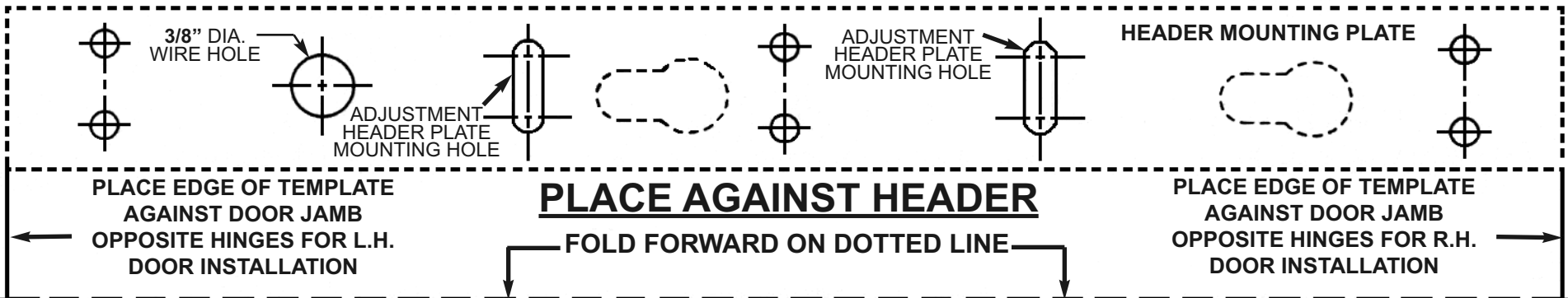
## DISTANCE FROM POWER SUPPLY TO MAGNETIC LOCK

D C  C U R R E N T	12 VDC	50 FEET	100 FEET	150 FEET	200 FEET	300 FEET	400 FEET	500 FEET	750 FEET	1000 FEET
	24 VDC									
200 MA.	24 GA.	22 GA.	22 GA.	22 GA.	22 GA.	20 GA.	18 GA.	18 GA.	16 GA.	14 GA.
	24 GA.	24 GA.	24 GA.	24 GA.	22 GA.	22 GA.	22 GA.	20 GA.	20 GA.	18 GA.
300 MA.	24 GA.	22 GA.	22 GA.	22 GA.	20 GA.	18 GA.	18 GA.	16 GA.	14 GA.	14 GA.
	24 GA.	24 GA.	24 GA.	22 GA.	22 GA.	22 GA.	20 GA.	20 GA.	18 GA.	16 GA.
400 MA.	22 GA.	22 GA.	20 GA.	18 GA.	18 GA.	16 GA.	14 GA.	14 GA.	14 GA.	12 GA.
	24 GA.	22 GA.	22 GA.	22 GA.	22 GA.	20 GA.	18 GA.	18 GA.	16 GA.	14 GA.
600 MA.	22 GA.	20 GA.	18 GA.	18 GA.	16 GA.	14 GA.	14 GA.	14 GA.	12 GA.	10 GA.
	24 GA.	22 GA.	22 GA.	22 GA.	20 GA.	18 GA.	18 GA.	16 GA.	14 GA.	14 GA.
800 MA.	22 GA.	18 GA.	18 GA.	16 GA.	14 GA.	12 GA.	10 GA.	10 GA.	10 GA.	8 GA.
	22 GA.	22 GA.	20 GA.	18 GA.	18 GA.	16 GA.	14 GA.	14 GA.	14 GA.	12 GA.
1 AMP.	20 GA.	18 GA.	16 GA.	14 GA.	14 GA.	12 GA.	10 GA.	10 GA.	10 GA.	8 GA.
	22 GA.	20 GA.	20 GA.	18 GA.	16 GA.	14 GA.	14 GA.	12 GA.	12 GA.	10 GA.

# TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
LOCK BUZZES	AC VOLTAGE CONNECTED TO LOCK AC RIPPLE IN POWER SUPPLY	SUPPLY DC VOLTAGE TO LOCK REPLACE POWER SUPPLY
INSUFFICIENT HOLDING FORCE	INCORRECT INPUT VOLTAGE  LOW INPUT VOLTAGE  MISALIGNMENT OF ARMATURE PLATE  ARMATURE PLATE SCREWED TIGHT TO DOOR  WRONG HARDWARE ASSEMBLY	CHECK VOLTAGE JUMPER POSITION FOR CORRECT VOLTAGE SETTING <b>LOCK SET AT FACTORY FOR 24 VDC</b>  CHECK POWER SUPPLY VOLTAGE WIRE GAUGE INCORRECT FOR WIRE RUN  ARMATURE PLATE MUST COVER ALL MAGNETIC POLES OF LOCK  ARMATURE PLATE MUST ROCK ON DOOR TO ALIGN WITH LOCK  A METAL WASHER, RUBBER WASHER AND METAL WASHER MUST BE BETWEEN DOOR AND ARMATURE PLATE
DOOR DOES NOT LOCK	NO POWER TO DOOR	CHECK POWER AT LOCK CHECK POWER SUPPLY CHECK ALL CONNECTIONS
DOOR STATUS SENSOR NOT WORKING (APPLICABLE MODELS)	MAGNET IN ARMATURE PLATE NOT ALIGNED WITH LOCK	ALIGN MAGNET IN ARMATURE PLATE WITH DOOR STATUS SENSOR DOT ON LOCK

# MODEL 600 SERIES SINGLE DRILL TEMPLATE



## MOUNTING INSTRUCTIONS

### STEP 1

#### LOCATING MOUNTING HOLES

- FOLD TEMPLATE AT DOTTED LINE.
- PLACE BOTTOM PORTION OF TEMPLATE AGAINST THE DOOR.
- LOCATE AND MARK THE THREE HOLES ON ARMATURE PLATE.
- LOCATE AND MARK THE TWO ADJUSTMENT HEADER PLATE HOLES AND WIRE HOLE ON THE HEADER MOUNTING PLATE.

### STEP 2

#### INSTALLING ARMATURE PLATE

- DRILL A LEVEL 1/4" DIA. HOLE THRU THE DOOR. FOLLOW WITH A 1/2" DIA. DRILL. **THIS IS FOR A SOLID DOOR ONLY!**
- DRILL TWO 1/4" HOLES FOR THE ANTI-ROTATION PINS 3/4" DEEP.
- MOUNT THE ARMATURE PLATE TO THE DOOR WITH THE SEX BOLT.
- PLACE A METAL WASHER A RUBBER WASHER AND A METAL WASHER ON BOLT BETWEEN DOOR AND ARMATURE.
- ARMATURE MUST ROCK ON DOOR.

### STEP 3

#### HEADER MOUNTING PLATE

- MOUNT HEADER PLATE TO JAMB USING THE TWO ADJUSTMENT HOLES.
- RUN THE CONTROL CABLE THRU THE WIRE HOLE.
- SLIDE MAGLOCK ON HEADER MOUNTING PLATE.
- ADJUST THE POSITION OF MAGLOCK TO CONTACT THE ARMATURE.
- REMOVE MAGLOCK AND SECURE HEADER MOUNTING PLATE WITH THE SIX REMAINING SCREWS.

### STEP 4

#### INSTALLING MAGNET

- SLIDE MAGLOCK ON HEADER PLATE.
- FASTEN MAGLOCK TO HEADER PLATE WITH THE ALLEN HEAD CAP SCREWS LOCATED AT EACH END OF THE LOCK.
- AFTER CHECKING FOR PROPER OPERATION AND ALIGNMENT APPLY THE SCREW LOCKING AGENT TO HEADER MOUNTING PLATE SCREWS, ARMATURE BOLT AND ALLEN CAP SCREWS.



# MAGNETIC LOCK WIRING INSTRUCTIONS

## MODELS WITH BOND SENSOR AND DOOR STATUS SENSOR

### 600LB, 600DLB, 1200LB, 1200D

To remove the header plate, it may be necessary to remove the wiring compartment screw. A long wiring compartment screw can be used to increase security by limiting access to the header plate mounting screw from below the lock.

#### LED AND BOND SENSOR STATUS

LED	BOND SENSOR RELAY*	DOOR	MAGLOCK
OFF	OFF	OPEN OR CLOSED	NOT POWERED
GREEN	ON	CLOSED**	POWERED
RED	OFF	OPEN	POWERED

\*The bond sensor detects the holding force of the maglock and the Bond Sensor Relay will remain off until the sensor detects over 90% of the rated holding force.

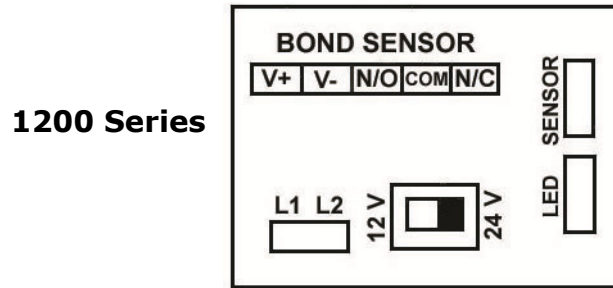
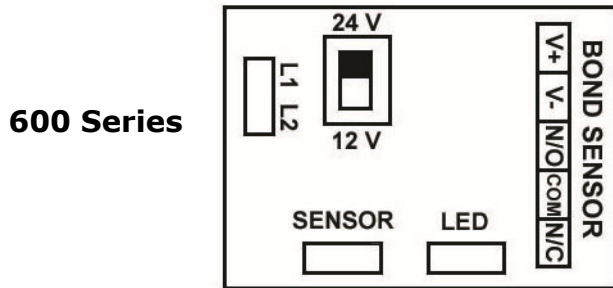
\*\*Closed and locked. Maglock and armature plate properly installed and operational.

#### DOOR STATUS SENSOR SWITCH STATUS

DOOR	WHITE AND GREEN FLYING LEADS
OPEN	OPEN
CLOSED	CLOSED

#### WIRING INSTRUCTIONS

**VOLTAGE IS FACTORY SET FOR 24VDC OPERATION.** For 12VDC operation, access the voltage selection switch via the wiring compartment.

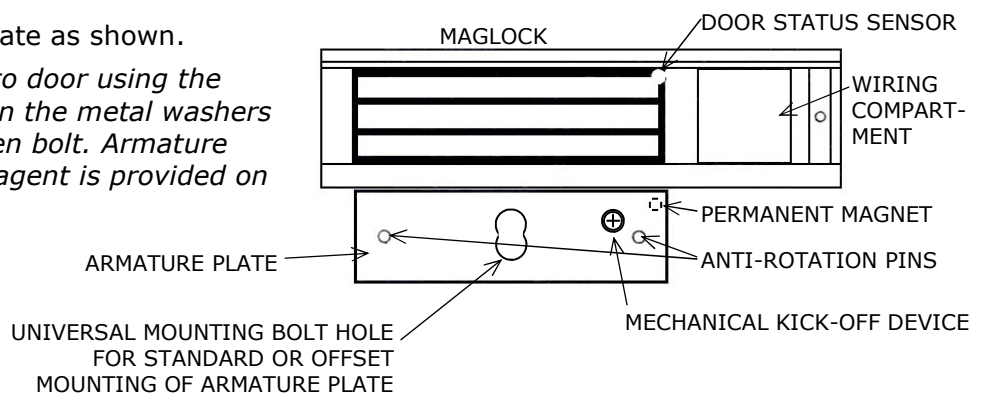


A terminal block is provided for wiring the maglock to the power supply and for the Bond Sensor Relay outputs. A pair of flying leads are provided for the Door Status Sensor (Reed Switch). These are the Green and White wires. It may be necessary to lift up the board to get to the Green and White wires.

#### ALIGNMENT OF THE MAGLOCK AND ARMATURE PLATE

Align the maglock and armature plate as shown.

Armature plate must be mounted to door using the rubber washer sandwiched between the metal washers provided. Do not excessively tighten bolt. Armature must float on door. Screw locking agent is provided on each screw.



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ASSA ABLOY, the global leader  
in door opening solutions

# DESCRIPTION OF DOOR STATUS SWITCH BOND SENSOR AND LED

## DOOR STATUS SWITCH

THE DOOR STATUS SWITCH IS AN INTERNAL REED SWITCH THAT OPENS WHEN THE DOOR IS OPEN AND CLOSSES WHEN THE DOOR IS CLOSED. THE DOOR STATUS SWITCH CAN BE USED INSTEAD OF A SEPERATE MAGNETIC CONTACT ON THE DOOR.

## STATUS LED

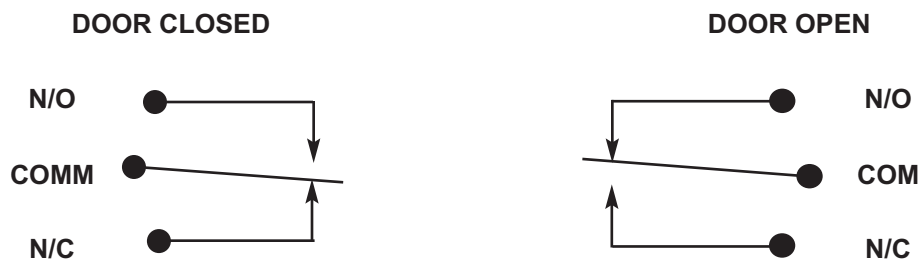
LED GREEN DOOR CLOSED AND MAGNETIC LOCK ENERGIZED.

LED OFF NO POWER TO LOCK.

LED RED DOOR OPEN AND MAGNETIC LOCK ENERGIZED.

## BOND SENSOR

THE BOND SENSOR UTILIZES A HALL EFFECT SENSOR THAT DETECTS A MAGNETIC FIELD. WHEN THE MAGNETIC LOCK IS ENERGIZED AND THE DOOR IS CLOSED A S.P.D.T. RELAY TURNS ON. WHEN THE DOOR IS OPEN THE RELAY DOES NOT TURN ON.



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