

Z8, Z4 & Z2 Single Series Electro Magnetic Locks

PRODUCT INFORMATION

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Product Specification:

- Holding force (approx)- Z8 series : 1200 lbs
Z4 series : 600 lbs
Z2 series : 300 lbs
- 12 & 24 volts DC operation (selectable).
Note: Factory default setting is 12VDC.
- Current draw:**
Z8 series : 410mA at 12VDC; 210mA at 24VDC
Z4 series : 460mA at 12VDC; 230mA at 24VDC
Z2 series : 300mA at 12VDC; 150mA at 24VDC

Product Type:

- Besides un-monitored version, all product series have either armature position sensing (APS) or door position sensing (DPS) or both.
- For Z8 and Z4 series, armature position sensing uses hall effect sensor; For Z2 series, this uses change-over reed switch sensor.
- For Z8 and Z4 series, door position sensing uses change-over reed switch sensor.

Z8 and Z4 series with APS:

- The LED operation colour can be field set. The colours can be reversed simply by reversing the 2 pin plug connection on the PCB.
- For Z2 series, there is no LED for APS model.
- The factory default setting is as follow:
LED indicator off (No power to the magnet)
LED indicator red (Power on magnet, door open)
LED indicator green (Power on magnet, door closed)
- Note: where the EML has both APS and DPS, the LED indicates as per the APS model.

Product Dimensions (L x W x H):

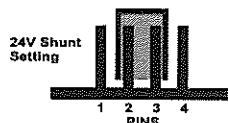
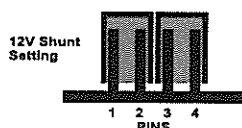
Z8 series - 266 mm x 72 mm x 40 mm
Z4 series - 238 mm x 48 mm x 26.5 mm
Z2 series - 170 mm x 41.4 mm x 22.8 mm

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PRODUCT INSTALLATION AND WIRING

Installation Requirements:

- Adjust onboard PCB shunt settings for correct operating voltage prior to applying power to the EML.
For 12 volts two shunts must be installed:
- First shunt joining pins 1 & 2
- Second shunt joining pins 3 & 4.
For a 24 volt system only one shunt is required, joining pins 2 & 3.



Product Power Input Wiring:

For Z8 and Z4 series, this can be wired directly onto the PCB terminal block that has label + and -.
For Z2 series, this is flying leads. Red wire is + and black wire is -.
(NO NEED TO REMOVE COVER PLATE FOR Z2)

Wiring for models with APS:

For Z8 and Z4 series, the signal is given out from SPDT relay. Wiring can be done through PCB 3-block terminal labels NC, COM and NO.
For Z2 series, there are 3 flying leads for this model. Black wire is COM, green wire is NO and white wire is NC.

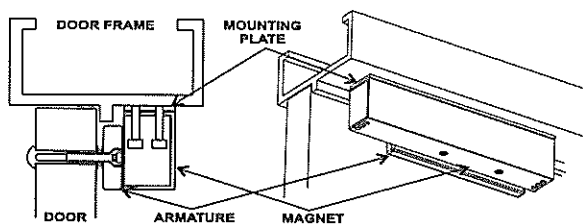
Wiring for models with DPS:

For Z8 series, the signal is given out from the 3 block terminal (NC, COM, NO) that is labelled Reed on the PCB. For Z4 series, there are 3 flying leads. Black is COM, green is NO and white is NC.

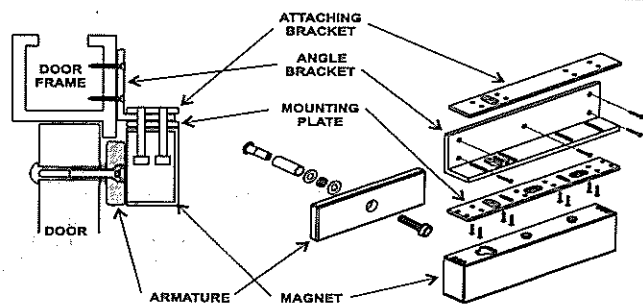
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MOUNTING OF THE ELECTRO MAGNETIC LOCKS

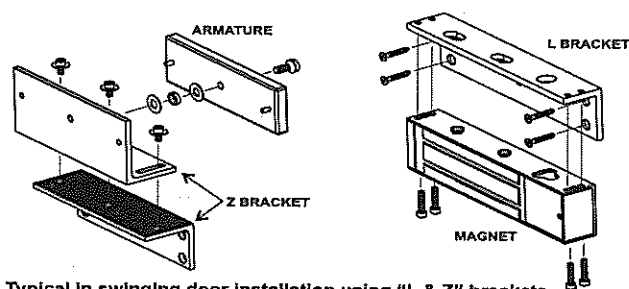
The following diagrams indicates possible installation methods. Determine whether optional "L" or "Z" brackets are required to complete the installation. Suits door thickness 32 to 45mm, (Z8 Model shown)



Out swinging door using the standard mounting plate.



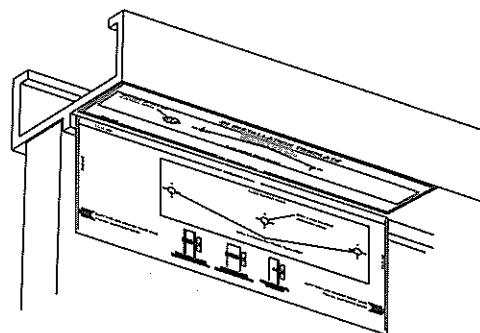
Out swinging door using an "Angle" bracket to extend the header depth.



Typical in swinging door installation using "L & Z" brackets.

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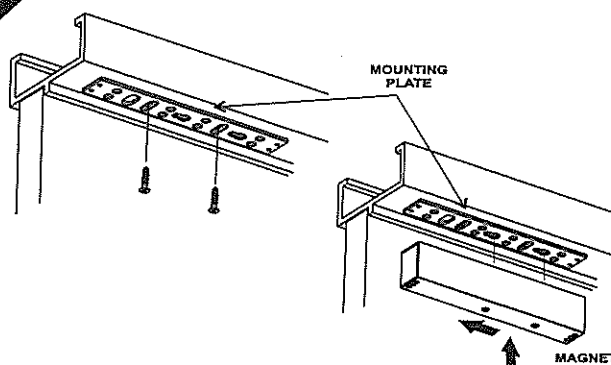
MOUNTING OF THE ELECTRO MAGNETIC LOCKS



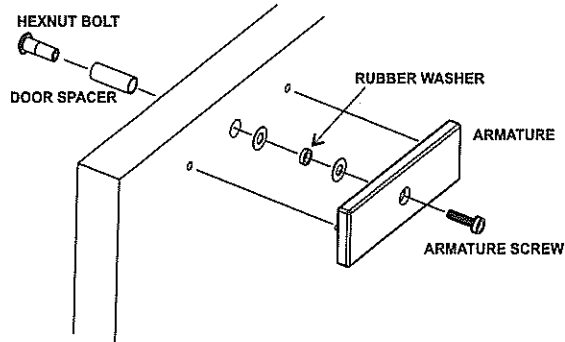
- Use the supplied template to determine the correct location and size of mounting holes for both the door and frame header. Ensure that the door opens away from the EML. In the case of a single door, the EML is positioned as close as possible to the vertical section of the door jamb.

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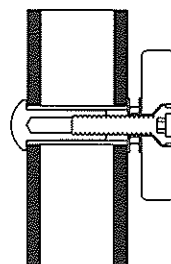
ATTACHING THE MOUNTING PLATE



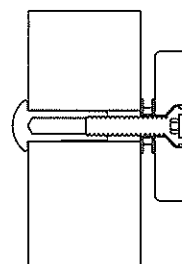
- Loosely install the mounting plate using two of the supplied philips head mounting screws in the elongated slots. Attach the EML to the mounting plate.



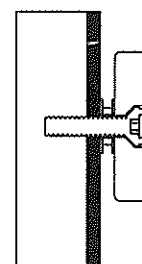
- Align the armature plate on the door using sight or the template supplied.
- Mark and drill holes then mount the armature to the door. Make sure that the armature plate is not over tightened and that it is installed as shown in the following diagram. The armature plate must be free to self align with the door.



HOLLOW CORE
DOOR ENLARGE
HOLE TO Ø16mm



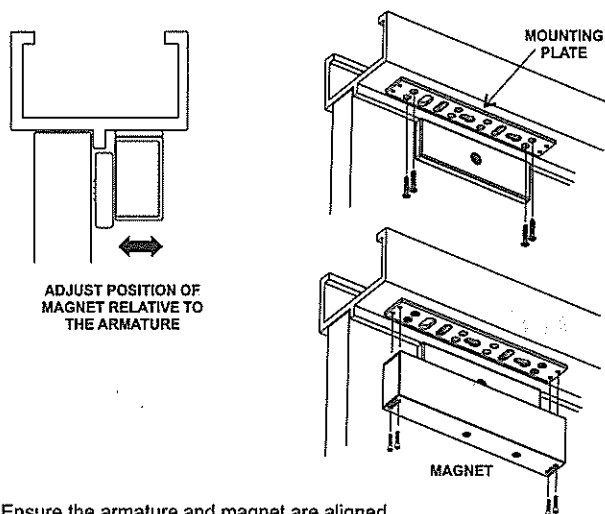
SOLID CORE
DOOR ENLARGE
HOLE TO Ø12mm



REINFORCED
DOOR
TAP M6X1.0 for Z2, Z4
TAP M8X1.25 for Z8

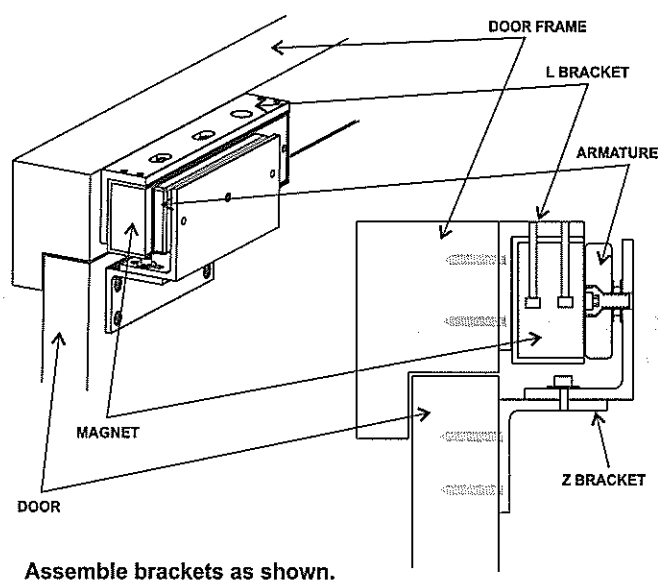
MOUNTING ARMATURE ON DIFFERENT DOOR TYPES

MOUNTING OF THE MAGNET



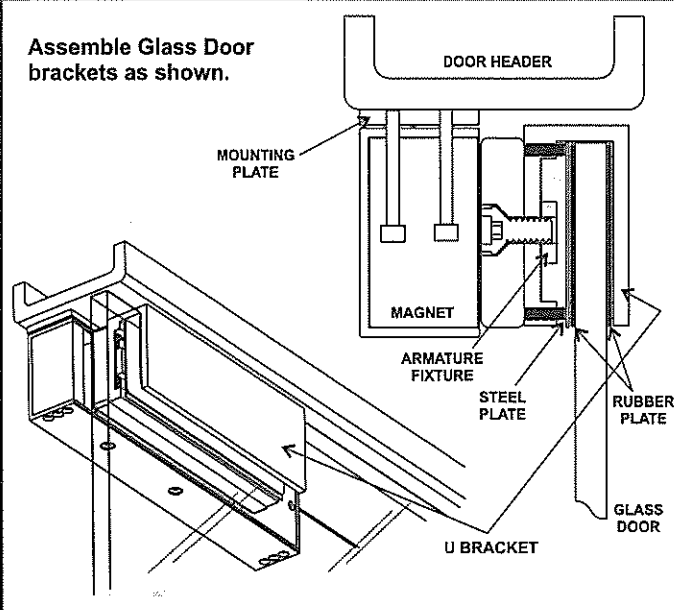
- Ensure the armature and magnet are aligned. Adjust the mounting plate to suit and then drill the appropriate sized holes in the door header for the remaining attachment screws.

MOUNTING WITH L & Z BRACKETS



MOUNTING ON GLASS DOORS

Assemble Glass Door
brackets as shown.



ELECTRICAL CONNECTION

- Connect electrical wiring according to the local appropriate wiring rules. Make sure the correct voltage on the PCB has been selected prior to turning on the power. Failure to do this could damage the unit. Factory default voltage is set to 12volts DC.
- Note:** If a door closer has been fitted then adjust it so that the armature closes lightly against the magnet. This will avoid damage to the magnet and will also make the door operation quieter.

MAINTENANCE

- The electro magnetic lock does not require much ongoing maintenance. The customer should be advised to keep the mating faces of the armature and magnet clean making sure that no abrasive materials are used to clean the faces.
- Do not spray the magnet or armature with any chemicals such as lacquer as the release of the electro magnet may be compromised.