

Z8 & Z4 Double Series Electro Magnetic Locks

1

PRODUCT INFORMATION

Product Specification:

- Holding force (approx) - Z8D series : 1200 lbs x 2
Z4D series : 600 lbs x 2
- 12 & 24 volts DC operation (selectable).
Note: Factory default setting is 12VDC.
- **Current draw:**
Z8D series : 820mA at 12VDC; 420mA at 24VDC
Z4D series : 920mA at 12VDC; 460mA 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 Z8D and Z4D series, armature position sensing uses hall effect sensor.
- For Z8D and Z4D series, door position sensing uses change-over reed switch sensor.

Z8D and Z4D 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.
- 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):

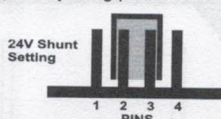
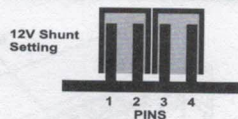
Z8D series - 532 mm x 72 mm x 40 mm
Z4D series - 476 mm x 48 mm x 26.5 mm

2

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 Z8D and Z4D series, this can be wired directly onto the PCB terminal block that has label + and -.

Wiring for models with APS:

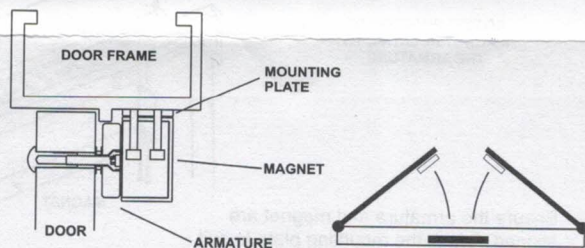
For Z8D and Z4D series, the signal is given out from SPDT relay. Wiring can be done through PCB 3-block terminal labels NC, COM and NO.

Wiring for models with DPS:

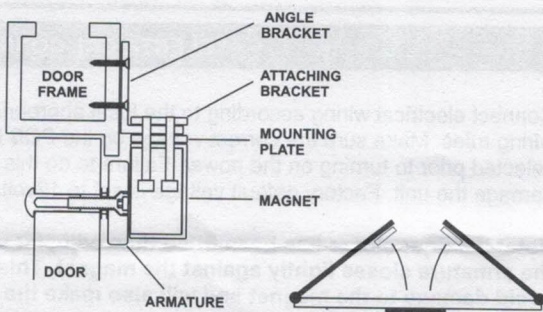
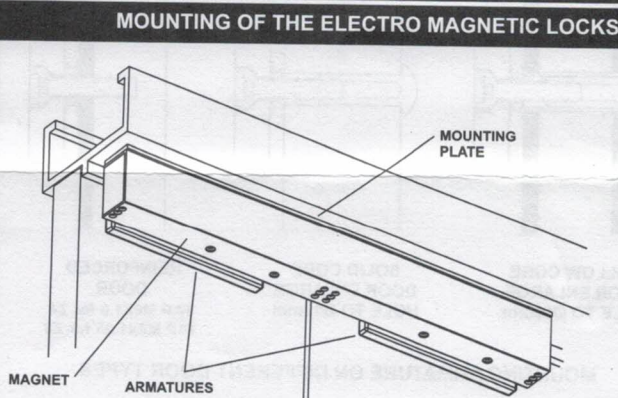
For Z8D series, the signal is given out from the 3 block terminal (NC, COM, NO) that is labelled Reed on the PCB. For Z4D series, there are 3 flying leads. Black is COM, green is NO and white is NC.

3

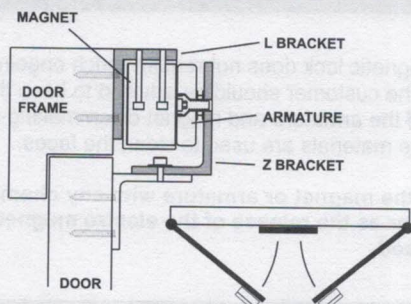
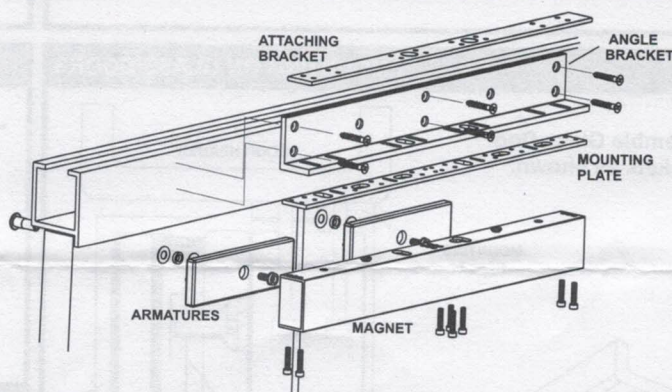
The following diagrams indicates possible installation methods. Determine whether the optional "L" or "Z" brackets are required to complete the installation. Suits door thickness 32 to 45mm, (Z8 Model shown)



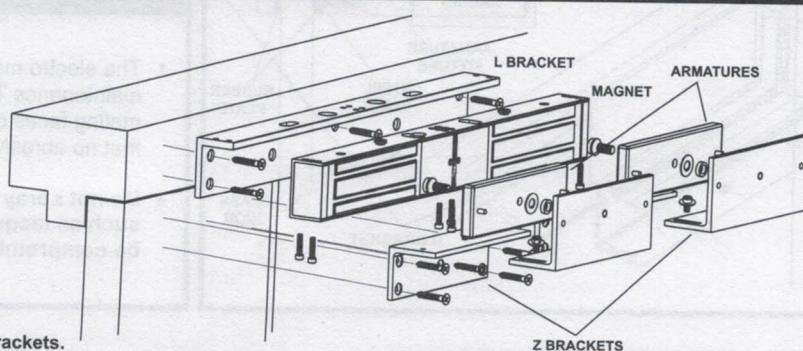
Out swinging door using the standard mounting plate.



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

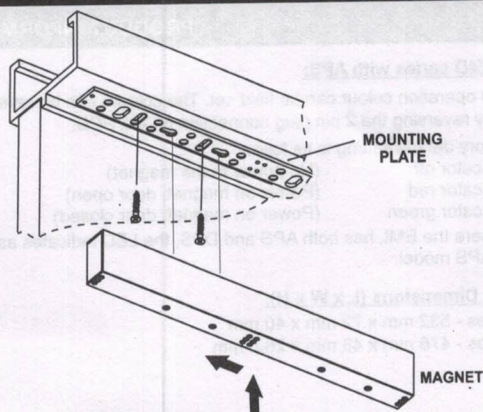


Typical in swinging door installation using "L & Z" brackets.



4

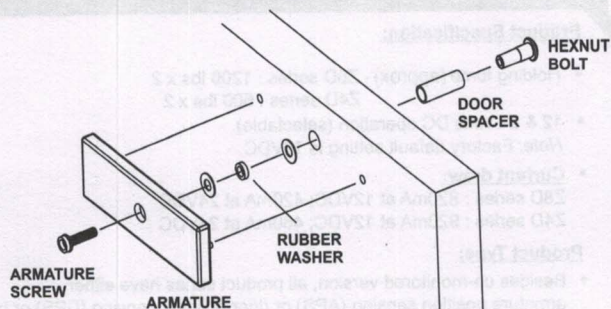
ATTACHING THE MOUNTING PLATE



- 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.
- 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.

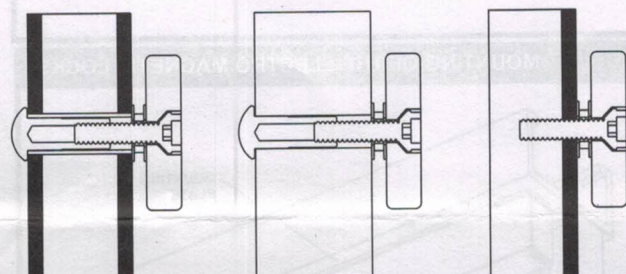
5

MOUNTING OF THE ARMATURE



- 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.

6



HOLLOW CORE
DOOR ENLARGE
HOLE TO Ø16mm

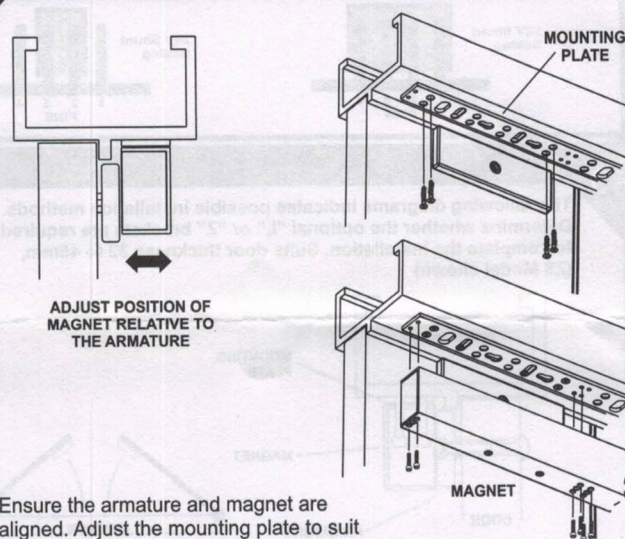
SOLID CORE
DOOR ENLARGE
HOLE TO Ø12mm

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

MOUNTING ARMATURE ON DIFFERENT DOOR TYPES

7

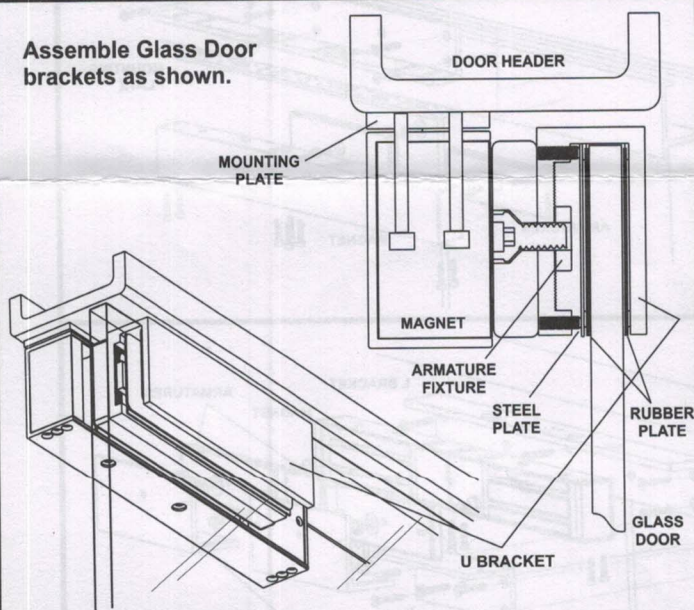
MOUNTING OF THE MAGNET



- 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 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.