MEM2400LP Mechanical Electro Magnetic Lock

Introduction
The patented MEM2400LP Mechanical Electro Magnet locking device is designed for securing all types of outward opening side hung hinged doors. The MEM Lock has a holding force of more than 680Kg and is equipped with a long distance Light Panel (LP) for Secure (green) / Insecure (red) local monitoring indication on the device. The MEM2400LP has been Fire Tested for up to 4 hours to both AS & BS Standards. The MEM2400LP locking device is capable of releasing under door back pressure (pre-load) of up to 70KG.

Monitoring
The MEM2400LP lock is provided with a number of unique monitoring features for either local or remote indication:

i. Door Status Signal (DSS) 1 set of normally open contacts (N/O -- blue).
   
ii. Lock Status Signal (LSS) 1 set of normally open contacts (N/O -- yellow).

iii. Early Warning (EW) x 2. 2 sets of single throw double pole switches.

   EW1: (N/O -- purple); (COM -- orange); (N/C -- pink).
   
   EW2: (N/O -- gray); (COM -- brown); (N/C -- white).

Functions
The MEM2400LP Mechanical Electro Magnetic Lock operates on either 12 or 24 VDC. It is set ex-factory on 24VDC and can be changed over to 12V DC by voltage jumper selection. When power is applied to the lock and the door is in the closed position the Armature Plate is magnetically attracted to the MEM device and both the DSS & LSS switches change status to NC.

When pressure is applied to the door in an attempt to open it unauthorised, the MEM Lock provides the patented local or remote “Early Warning” (EW) security alarm indication.

Power supply
The operating switch or controlling contacts must be installed directly from the power source across the MEM Lock. The DC output of the power supply must NOT be connected to earth but floating to prevent shock and possible damage to the unit.

Wiring and Power Input

NOTE:
Ensure that wiring is connected correctly before supplying power to the MEM Lock to prevent damage to the unit.
Installation diagram

Armature Plate Installation Instructions

The armature plate (B) is screw fixed onto and through the Anti-Tamper-Bracket (C), with the countersunk fixing Allen screw (A). The armature plate must remain flexible to allow surface alignment with the MEM magnet face. The MEM Lock will lose holding force without this floating alignment.

1. Drill a 12mm diameter clearance hole (timber door) or 12.5mm diameter clearance hole (metal door) through the door at the armature plate center fixing location position.
2. Screw fix the Anti-Tamper Bracket (C) directly to the face of the door with the self-tapping screws provided.
3. Install armature plate (B) with countersunk Allen screw (A) into and through the Anti-Tamper-Bracket (C).
   Ensure that the 2 flat washers and 1 rubber washer are in place and tighten the screw into the tapped hole of the Anti-Tamper-Bracket(C).
   Note: The armature plate, when tightened, must remain flexible and be allowed to float as mentioned above.
4. Install the one way security dome nut (D) through the clearance hole in the door and tighten onto the Countersunk Allen screw (A).
MEM2400LP Output and Indication Status Table

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Condition</th>
<th>DSS</th>
<th>EW1</th>
<th>EW2</th>
<th>LSS</th>
<th>Indication on Lock (LP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power OFF Door Open</td>
<td>BLU</td>
<td>PINK PUR</td>
<td>WHITE GRAY</td>
<td>YEL</td>
<td>Power Off No LP Indication</td>
</tr>
<tr>
<td>2</td>
<td>Power OFF Door Closed</td>
<td>BLU</td>
<td>PINK PUR</td>
<td>WHITE GRAY</td>
<td>YEL</td>
<td>Power Off No LP Indication</td>
</tr>
<tr>
<td>3</td>
<td>Power On Door Open</td>
<td>BLU</td>
<td>PINK PUR</td>
<td>WHITE GRAY</td>
<td>YEL</td>
<td>Red LP ON</td>
</tr>
<tr>
<td>4</td>
<td>Power On Door Closed</td>
<td>BLU</td>
<td>PINK PUR</td>
<td>WHITE GRAY</td>
<td>YEL</td>
<td>Green LP ON</td>
</tr>
<tr>
<td>5</td>
<td>Power On Door Closed &amp; Tampered</td>
<td>BLU</td>
<td>PINK PUR</td>
<td>WHITE GRAY</td>
<td>YEL</td>
<td>Green LP ON</td>
</tr>
</tbody>
</table>

Light feature

MEM2400LP model (Light Panel)
Installation dimension

Important Safety Precaution
Using the template provided, secure the MEM2400LP MEM Lock firmly on the door frame with the provided screws and have it checked periodically for any possible screw loosening.

Maintenance
Contacting surfaces of the Mechanical Electro Magnetic Lock and Armature Plate must be kept free of contaminating materials. Surfaces should be cleaned periodically with a non-abrasive cleaner. Do not spray the MEM Lock or Armature Plate surface with any lacquer chemicals. This will cause serious problems with the release of the Armature plate from the Mechanical Electro Magnetic Lock leading to possible serious safety problems.

Trouble Shooting

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door will not lock</td>
<td>Incorrect voltage.</td>
<td>Check voltage jumper setting.</td>
</tr>
<tr>
<td></td>
<td>No DC voltage to lock</td>
<td>Check power and loose wiring.</td>
</tr>
<tr>
<td></td>
<td>Incorrect wiring connection.</td>
<td>Check wiring, refer to wiring instruction.</td>
</tr>
<tr>
<td></td>
<td>Security top sleeve nut higher than</td>
<td>Screw fix the security top sleeve nut level with surface</td>
</tr>
<tr>
<td></td>
<td>magnet surface.</td>
<td>with the provided key screw and apply thread-locker-glue.</td>
</tr>
<tr>
<td>Too much back pressure when</td>
<td>Back pressure exerted on the MEM lock</td>
<td>Avoid applying continuous pressure on the door when closed. Realign the</td>
</tr>
<tr>
<td>power is off</td>
<td>not allowing the magnetic lock to</td>
<td>door.</td>
</tr>
<tr>
<td></td>
<td>retract back to its original position.</td>
<td></td>
</tr>
</tbody>
</table>


Accessories and Applications

MEM2400L (has to be ordered separately)
Adjustable L-Bracket for installation on outward opening doors with narrow header frames or in conjunction with Glass-Door-Bracket U-Profile.
Adjustable L-Bracket for narrow header door frame

PRODUCT DESCRIPTION
The Adjustable L-Bracket is used where there is not enough space to install the MEM device directly to the door frame header. The L-Bracket acts as an extension of the door frame. The Adjustable L-Bracket is also used in combination with the Glass-Door Bracket “U-Profile” when the lock has to be installed onto a frameless glass header.

AMGB24-12 (has to be ordered separately)
Glass-Door U-Bracket for installation on outward opening glass doors

PRODUCT DESCRIPTION
The Glass-Door U-Bracket is used to clamp-on the MEM Lock as well as the Armature Plate to either a frameless glass door or a frameless glass header. As mentioned above, the adjustable L-Bracket has to be ordered separately and can be used on frameless glass headers. The product No. AMGB24-12 has one unit in the box. Frameless glass door and frameless glass frame as one door element would require 2 units of AMGB24-12 as well as 1 unit Adjustable L-Bracket MEM2400L.

MEM2400 Anti-Tamper-Bracket
Glass-Door “stick-on” mounting with MEM2400 Anti-Tamper-Bracket

PRODUCT DESCRIPTION
The MEM2400 Anti-Tamper-Bracket comes with the MEM2400LP MEM Lock as a standard fitting.
The bracket can be used for glass door “stick-on” mounting. We recommend 3M self adhesive tape (e.g. 4910VHB or equivalent) and FSH dress plate AMAB4-BC.