**IMPORTANT NOTE**

Please adhere to ALL guidelines in these instructions on the fitting and adjustment of Shearlocks. Our instructions clearly state that Shearlocks must be fitted horizontally (please see fitting diagrams on reverse of this sheet). When making adjustments to the armature plate, please follow all instructions and ensure that the armature plate is kept as truly horizontal as possible. This will ensure correct alignment/locking. Under NO circumstances should our Shearlocks be fitted vertically. Failure to fit Shearlocks correctly/horizontally will invalidate the warranty.

**Fitting and alignment - Ensure that**

The magnet attached to the Armature lines up with the corresponding switch element on the Shearlock Body. To identify look for small rectangular blocks on the underside of Armature / Shearlock Body. The door is fitted with a quality positive centring closer to ensure the door returns to the same position every time it closes.

**Door gap - Ensure that**

Maximum Pull In @ 12vDC is no more than 4mm between Magnet Face and Armature Plate

Maximum Pull In @ 24vDC is no more than 5mm between Magnet Face and Armature Plate

Ensure Minimum distance between Shear Pins and Armature is 1mm

When adjusting armature ensure plate maintains flat horizontal positioning – do not over adjust either end tilting plate

**Power supply - Ensure that**

Minimum 2 amp PSU is used per Shearlock

Place the PSU as near as possible to the Shearlock

DO NOT - use AC Transformer and Rectifier due to power loss

**Cable - Ensure that**

If extra length required following use of supplied 3m cable - Connections are made with stranded alarm cable, using suitable insulated electrical connector blocks.

Allow extra cores to double/treble the cable should reduced voltage occur at the Shearlock because of distance from Shearlock to PSU

DO NOT - use solid telephone cabling for connections.

**Push Button Release**

The EMS1200 has a built in push button release feature. Simply connect a volt-free normally open momentary push button between the white wire and the black wire. When the button is pressed the magnet will unlock, releasing the button will relock the magnet. To improve the function of the feature it is recommended that you also set a delayed lock time using dip switches mentioned below.

**Auto Relock – 100 times**

The EM 1200 will automatically re lock up to 100 times in the event of misalignment. Once positioned correctly the Shearlock will engage and lock. If after 100 attempts door remains unlocked, the use of the push button (white wire) will not work, the door needs to be opened (move armature away from the magnet) and close the door again to re-engage and lock.

**Dimensions**

Magnet - 163mm(L) x 30mm(W) x 37mm(D)

Armature – 163mm(L) x 30mm(W) x 32mm(D)

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<thead>
<tr>
<th>Current Draw</th>
<th>Activating Current</th>
<th>Holding Current</th>
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<tr>
<td>12v DC</td>
<td>1150mA</td>
<td>290mA</td>
</tr>
<tr>
<td>24v DC</td>
<td>1550mA</td>
<td>160mA</td>
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</table>

**Wiring Connections**

EMS1200 is configured to operate on 12 or 24vDC

Built in transient and reverse polarity protection

- RED + Positive Power Input
- BLACK - Negative Power Input
- WHITE Push Button (see note – Push Button Release)
- GREEN NC
- YELLOW NO
- BLUE COM

**NOTE Monitoring**

Mounting Brackets supplied are for use on metal applications. It is recommended they are used to stop Reed Switch being compromised by ferrous frame / door materials. It is further suggested to use separate independent DPS (Door Position Switch) on steel door sets.

**Switch Activated Timer Delay**

By selection / positioning of appropriate switch – time delay at 0 - 30 seconds can be selected

Ensure switches are fully selected and pushed to top or bottom of travel position

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<th>2.5 Sec.</th>
<th>5.0 Sec.</th>
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</table>

**CURRENT DRAW**

- Activating - 1150mA
- Holding - 290mA

- Activating - 1550mA
- Holding - 160mA
Read all instructions before starting installation

**Mounting Options for Metal Applications**

- **Height Adjustment**: Hex screws in face of armature only. The bolts protruding through base are not for adjustment.
- **3mm LED Indicator**: Off = No Power, Red = Powered but not fully locked, Green = Powered and fully locked.

**Mounting Instructions for Metal/UPVC with Auxiliary Bracket**

- **This assumes the thickness Aluminium/UPVC are 3.2mm**
- **Auxiliary bracket is specially used for ferrous metal frame as the magnet to operate door monitoring reed switch function may be compromised.**

**Mounting Instructions for Timber Applications**

- **Height Adjustment**
- **3.5mm LED**

**WARNING**: Height adjustment is made by hex screws in face of armature only. The bolts protruding through base are not for adjustment.
Read all instructions before starting installation

SURFACE MOUNT INSTALLATION INSTRUCTIONS

For Aluminium/UPVC/Ferrous Metal Door - Flush Magnet & Surface Armature

Surface Magnet & Armature

For Glass Door - Flush Magnet & Glass Fixed with Surface Armature

Glass Fixed Magnet & Armature

IMPORTANT NOTE: Glass Mount Brackets
One bracket used on a glass door or glass transom = 5mm door gap. 3mm for the bracket and 2mm for the gap.
Two brackets used = 8mm door gap. 3mm x 2 for the brackets plus 2mm for the gap.
1. Ensure that the door is fitted with a quality positive centering closer to ensure the door returns to the same position every time it closes. Failure to ensure consistency with door closing could lead to misalignment of the unit, which could in turn create problems with the operation of the magnet.

2. Some doors have a habit of not stopping in exactly the same position every time they close. This may only be a difference of a couple of millimetres but it could be enough to stop the lock lining up. This can be caused by door seals (rubber or brush), changes in air/wind pressure caused by other doors/windows being opened/closed, door closers not being correctly adjusted.

3. There are 2 small Allen key bolts on the face of the armature plate. They adjust the height of the armature, which should be as close to the magnet face as possible without actually touching it, when the door closes. Once these are adjusted and the magnet is working, they need to be re-sealed using a Thread Seal adhesive, otherwise they can drift over time.

4. There are 2 cross head screws in the receiving holes in the middle of the armature plate. These also need to be tightened up once the magnet is working correctly. There are locking nuts under the armature so no glue is required just a spanner.

5. The armature plate will need to be removed from the door to do this.

6. There is a timer delay on the magnet, controlled by dip switches (see instructions). Setting a delay of 1 or 2 seconds may improve the applications function, as it may allow the door to settle before the lock fires.

7. Ensuring that the PSU is positioned as close to the shearlock unit as possible to ensure no major voltage drops.

8. Ensure that a good quality 2amp PSU per shearlock is used.

9. If additional length of cable is required above the 3m length supplied, connections should be made with standard alarm cable, using suitable insulated electrical connector blocks.

10. Do not lubricate this product. DO NOT lubricate this product.

WARRANTY
This product is guaranteed for a period of 5 years against defects in manufacture, workmanship or materials provided that all electrical and mechanical installation requirements are adhered to as per this instruction sheet.

All third party and consequential claims are expressly excluded from this warranty.

CE Approved / SGS Tested to 500,000 cycles.

The EMS1200 is not designed or approved for external use where it’s fully open to the weather.

Read all instructions before starting installation.