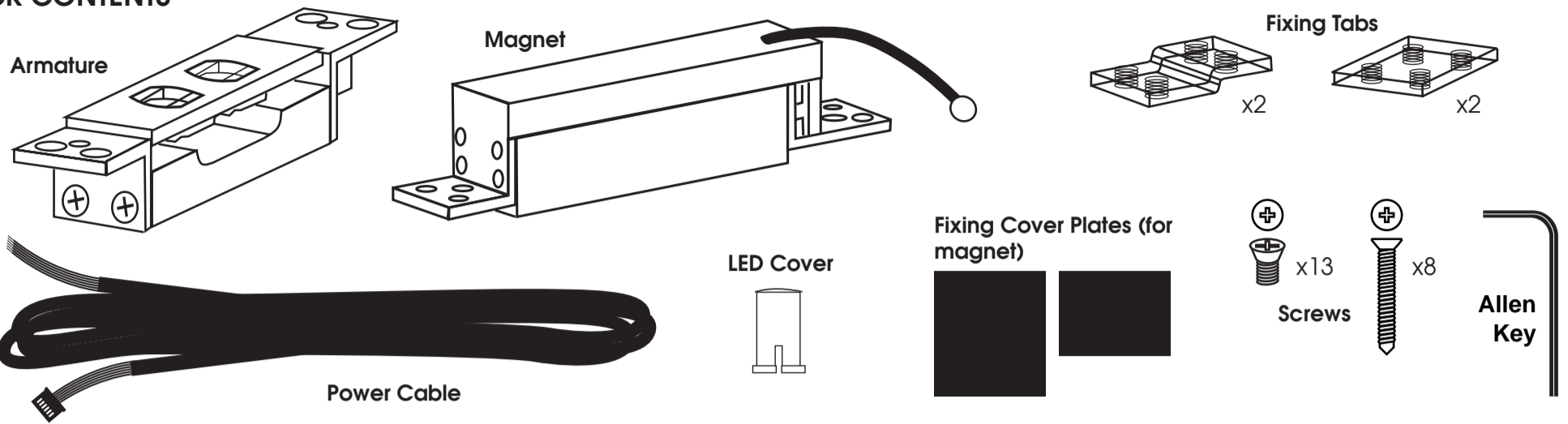


PACK CONTENTS



Read all instructions before starting installation

GENERAL INSTALLATION INSTRUCTIONS

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.

1 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

2 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

3 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

4 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.

Dimensions

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

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

Current Draw	Activating Current	Holding Current
12v DC	1150mA	290mA
24vDC	1550mA	160mA

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.

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.

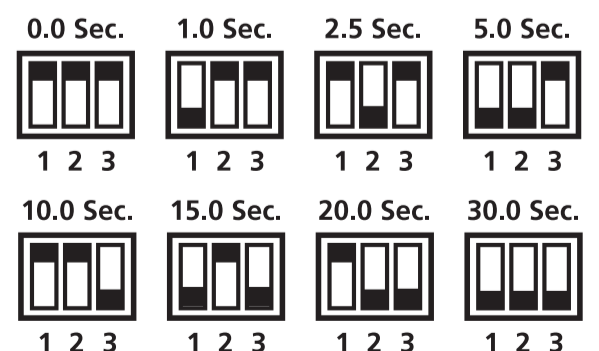
Auto Relock – 100 times

The EM 1200 will auto 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.

Switch Activated Timer Delay

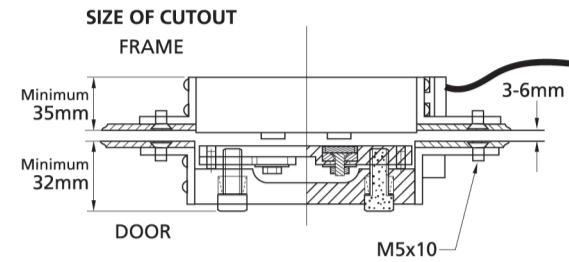
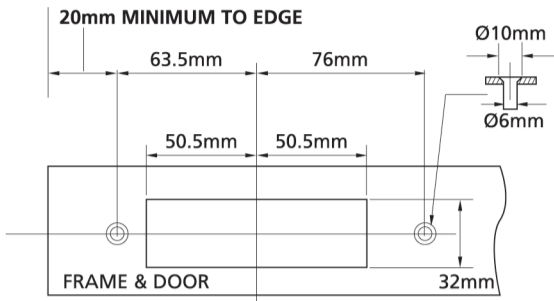
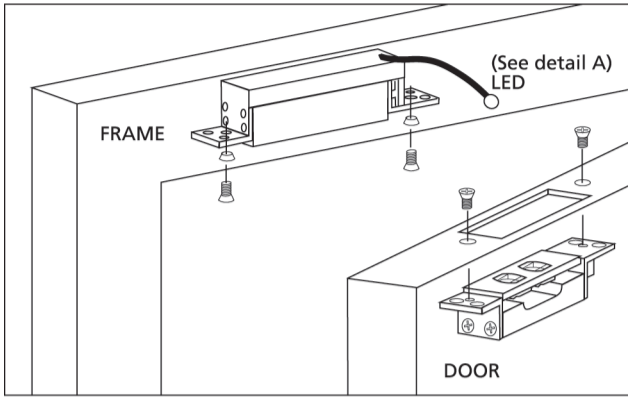
By selection / positioning of appropriate switch – time delay of 0 – 30 seconds can be selected

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



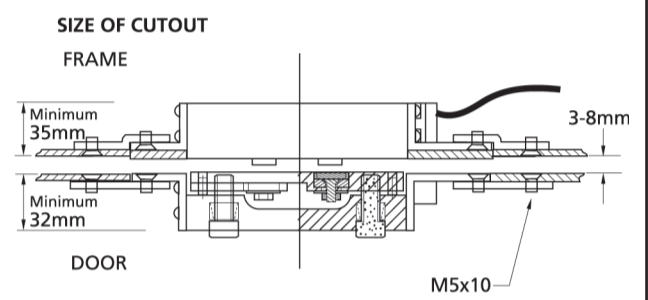
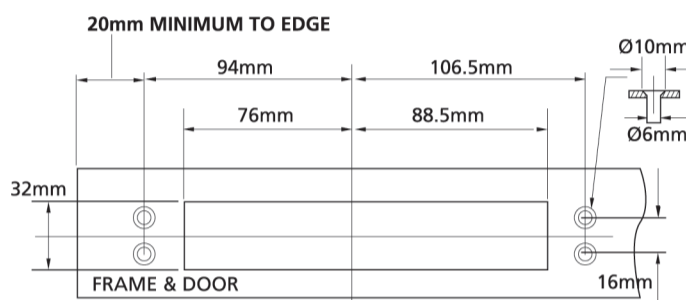
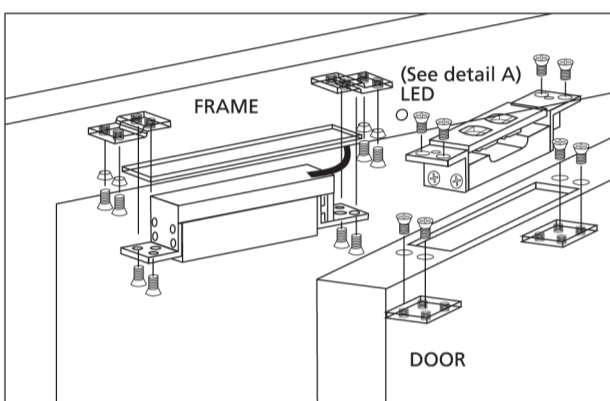
Read all instructions before starting installation

MOUNTING OPTIONS FOR METAL APPLICATIONS



This assumes the thickness Aluminium/UPVC are 3.2mm

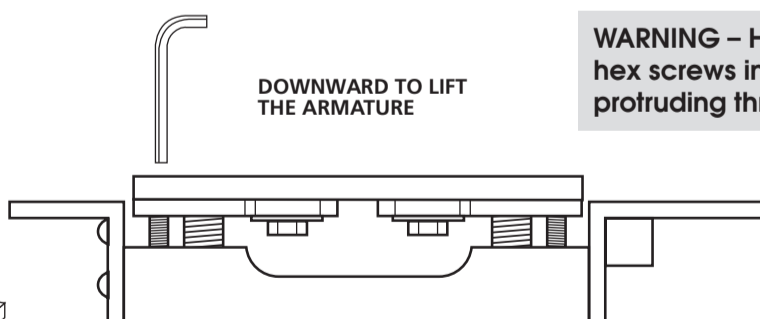
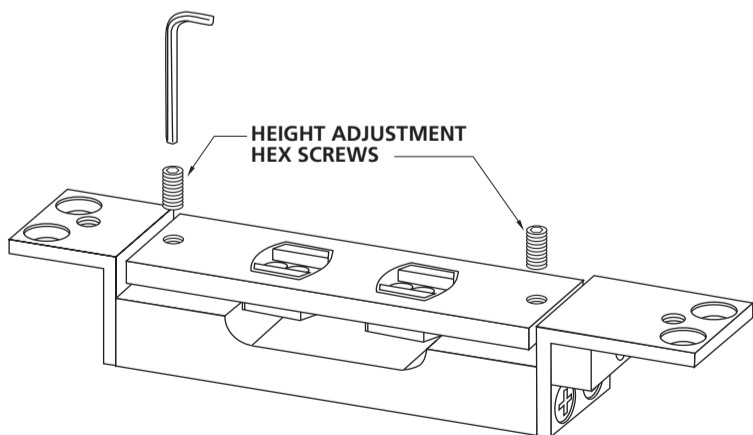
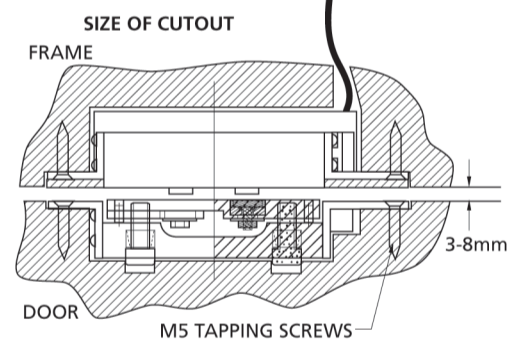
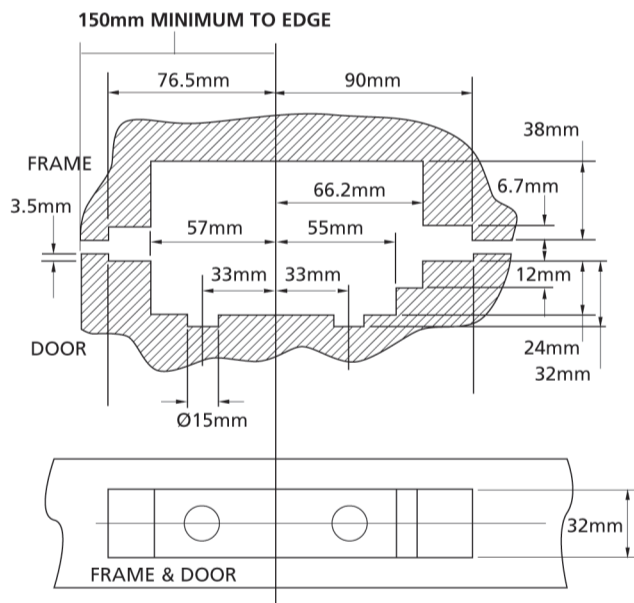
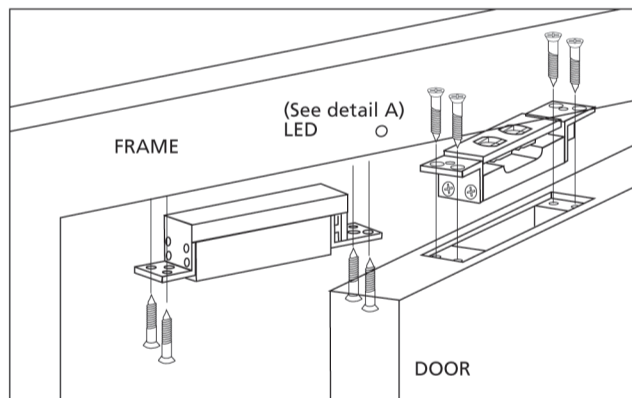
MOUNTING INSTRUCTIONS FOR METAL/UPVC WITH AUXILIARY BRACKET



This assumes the thickness Aluminium/UPVC are 3.2mm

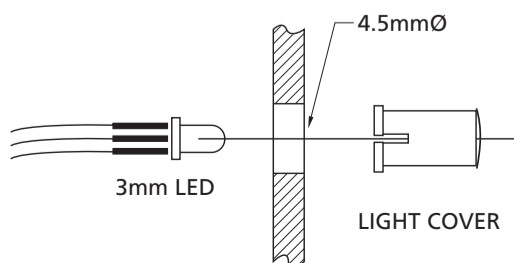
Auxiliary bracket is specially used for ferrous metal frame as the magnet to operate door monitoring reed switch function may be compromised.

MOUNTING INSTRUCTIONS FOR TIMBER APPLICATIONS



WARNING – Height adjustment is made by hex screws in face of armature only. The bolts protruding through base are not for adjustment.

DETAIL A

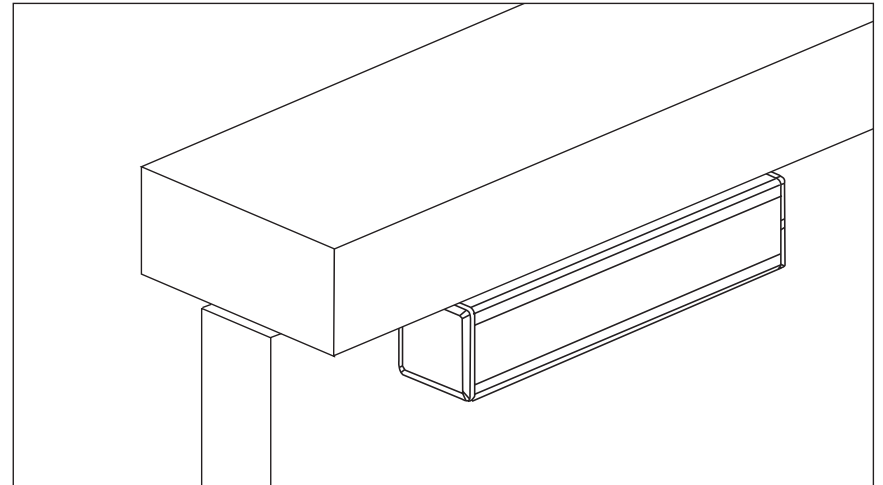
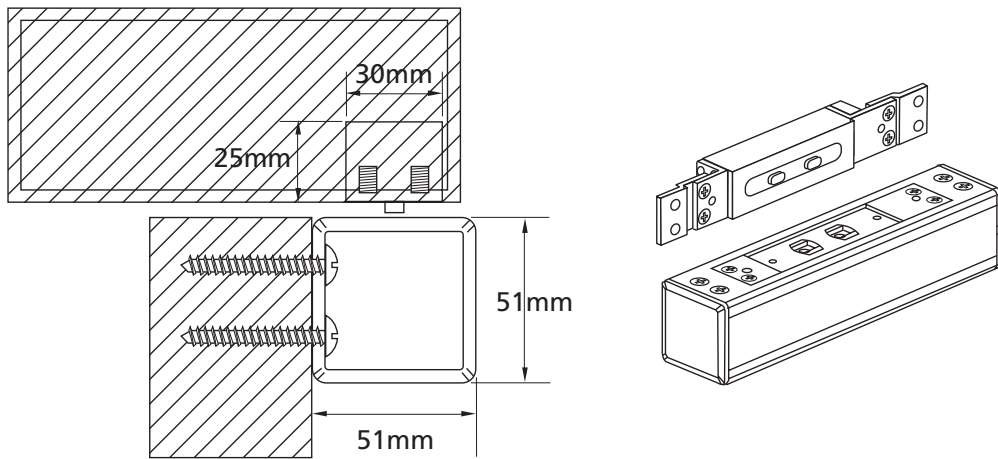


LED Indicator
Off = No Power
Red = Powered but not fully locked
Green = Powered and fully locked

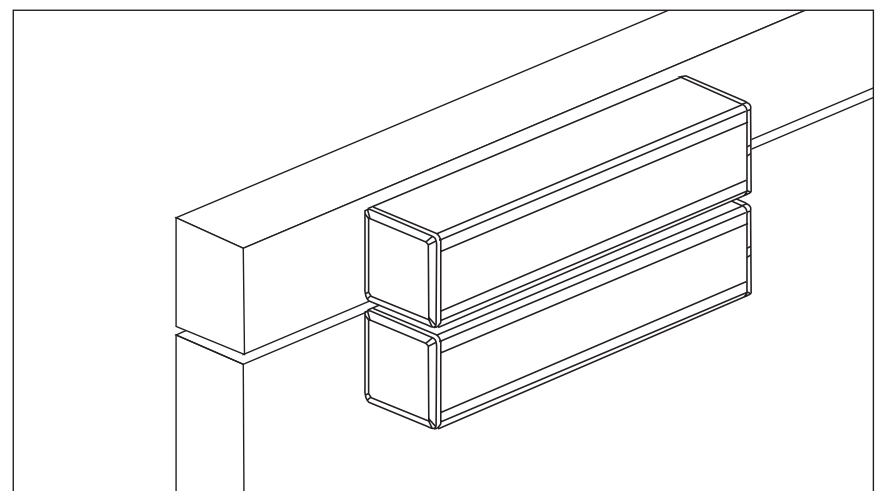
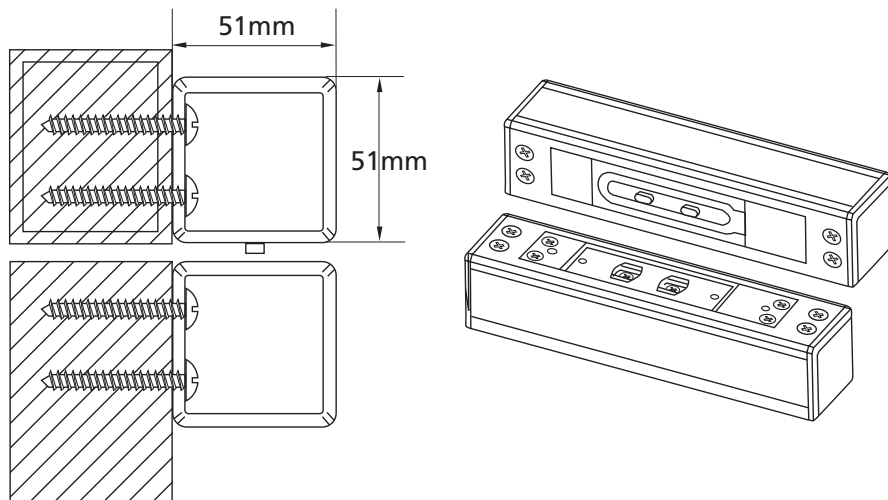
Read all instructions before starting installation

SURFACE MOUNT INSTALLATION INSTRUCTIONS

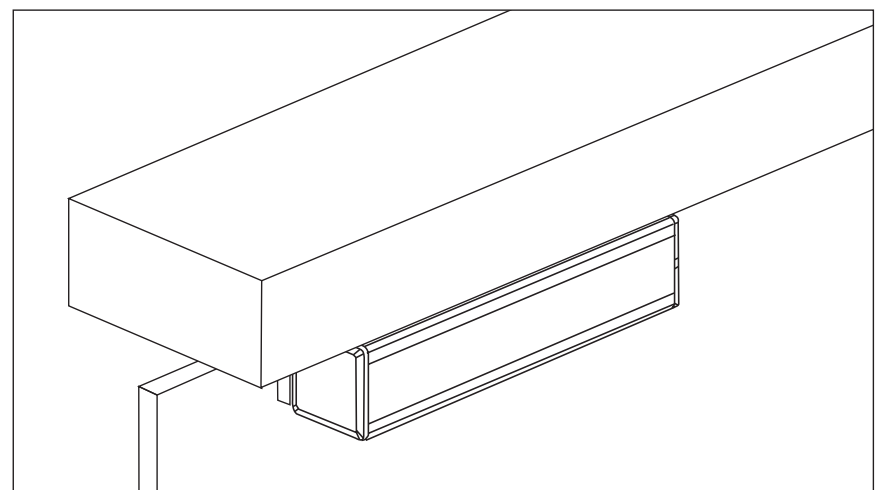
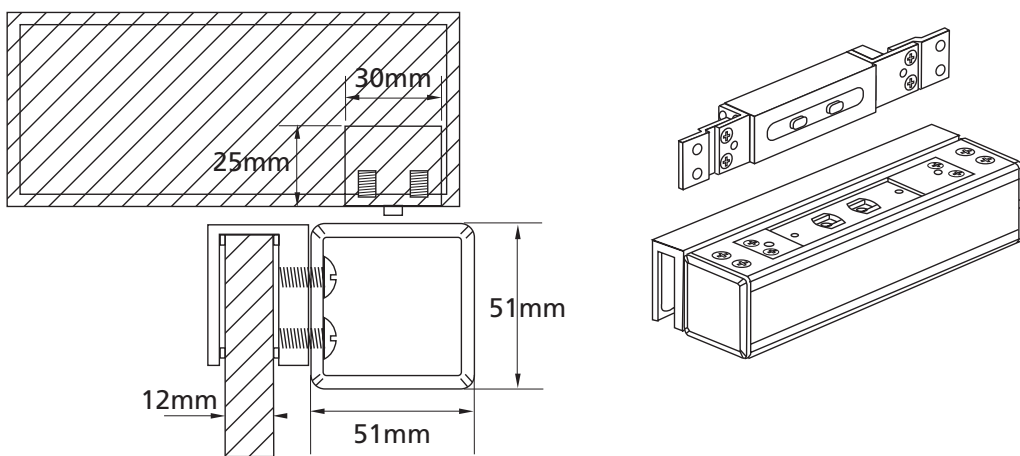
For Aluminium/UPVC/Ferrous Metal Door - Flush Magnet & Surface Armature



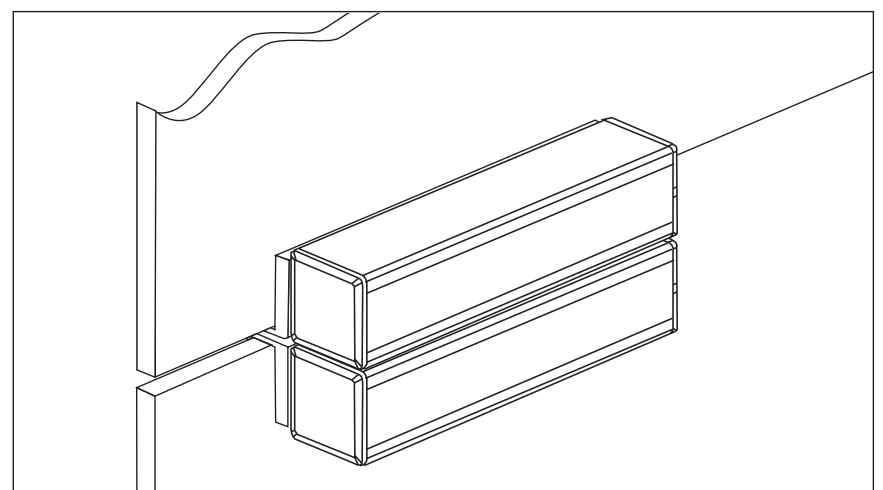
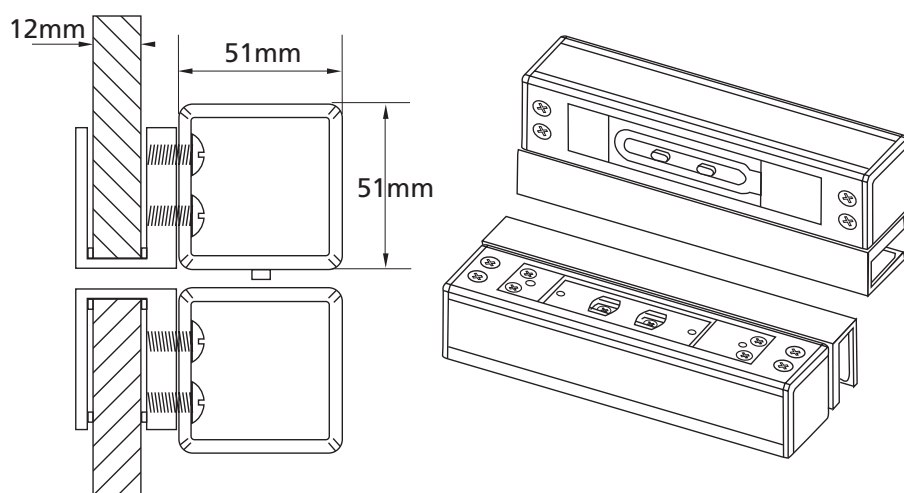
Surface Magnet & Armature



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



Glass Fixed Magnet & Armature

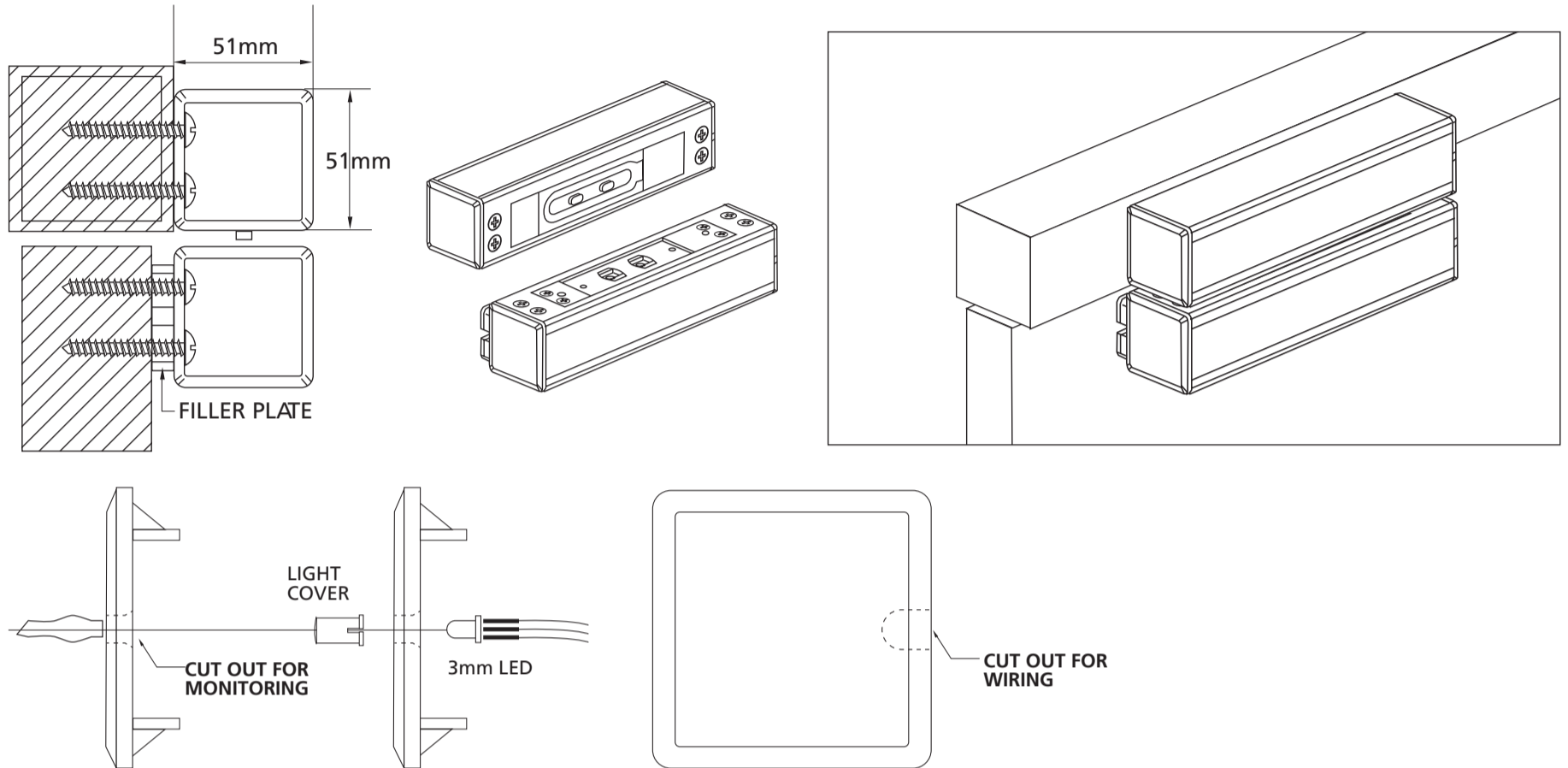


IMPORTANT NOTE: Glass Mount Brackets
One bracket used on a glass door or glass transom = 5mm door gap. 3mm for the bracket and 2mm for the gap.
Two brackets used = 8mm door gap. 3mm x 2 for the brackets plus 2mm for the gap.

Read all instructions before starting installation

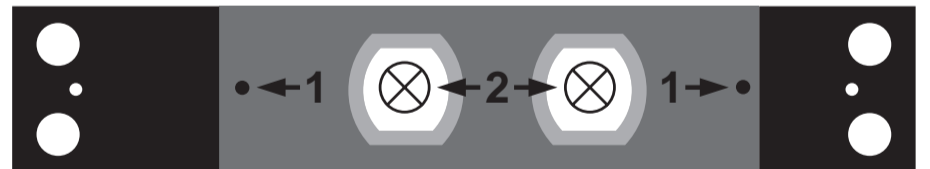
SURFACE MOUNT INSTALLATION INSTRUCTIONS

For Aluminium/UPVC/Ferrous Metal Glass Door with Filler Plate
Surface Magnet & Surface Armature with Filler Plate
1mm/2mm/6mm Thickness filler plates available upon request. Please specify when ordering



ADDITIONAL INSTALLATION INFORMATION

- 1 POWER** - The power supply may say it is capable of supplying the correct voltage/current, but it may not be doing so. The voltage must be checked at the lock, while the lock is trying to lock. This is when the red LED is lit and the lock is making a clicking sound, it may be partly lifting the armature then dropping off. Only then can you tell the actual voltage the lock is receiving. Current peaks quickly and is difficult to measure.
- 2 ALIGNMENT** - 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 ARMATURE ADJUSTMENT HOLES 1** - 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 ARMATURE ADJUSTMENT 2** - 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 TIMER DELAY** - 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.



TROUBLE SHOOTING

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. The magnet attached to the armature must line up with the corresponding switch element on the shearlock body. To identify this look for small rectangular blocks on the underside of the armature/shearlock body.
3. Door gaps are extremely important, ensure that maximum pull in @ 12vDC is no more than 4mm between armature face and armature plate and @ 24vDC is no more than 5mm between the surfaces. minimum distance between shear pins and armature is 1mm.
4. When adjusting the armature ensure that plate maintains flat horizontal positioning and do not over adjust, either end which could result in the plate tilting.
5. The PSU should be positioned as close to the shearlock unit as possible to ensure no major voltage drops.
6. Please ensure that a good quality 2amp PSU per shearlock is used.
7. 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.
8. Allow extra cores to double/treble the cable should reduced voltage occur at the shearlock because of the distance of the PSU from the shearlock.
9. Do not under any circumstances use solid telephone cabling for connection.
10. 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.

DO NOT lubricate this product.