

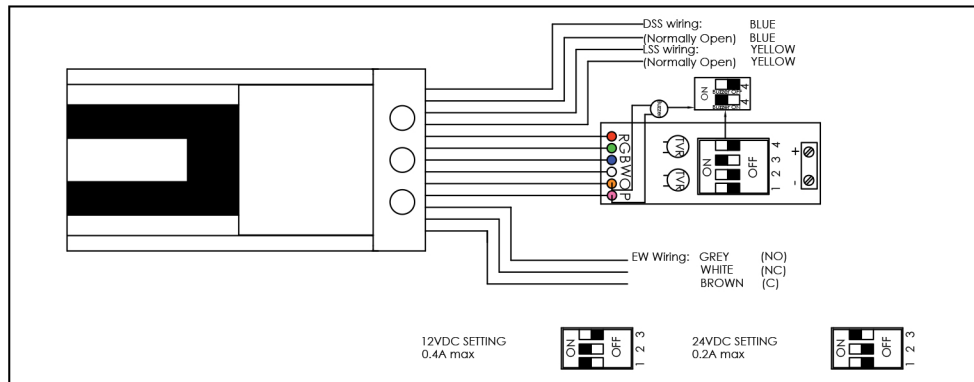
# BM 1982 35.5 v.3 - INSTALLATION

## Description:

The **BM 1982 35.5** Vortex used on mortise type of installation, requiring a filtered and regulated DC Power source of correct voltage to attract the Armature plate and when external pressure is applied to break that hold, the pivoting pin head fitted into the Mechanical Electro Magnet slot holes will initiate a second locking attempt from the upward movement of the magnet within the lock body to drag out the six ball bearings to clasp firmly on the pivoting pin head with a superb holding force of 15 000 N (~1 500 Kgf) and when power is removed the Mechanical Electro Magnet would release its hold on the Armature plate and retract to its original position as the bearing would roll back to release the clasp on the pivoting pin <sup>2</sup>.

The **BM 1982 35.5** operates on 24 VDC or 12VDC, with two built-in SPST reed switch sensor for remote lock monitoring status (Normally Open) on two non polarity **YELLOW** output wires, and a remote door monitoring status (Normally Open) on two non polarity **BLUE** output wires. The BM 1982 35.5 consists of an **EARLY WARNING ALARM** output C/NC/NO, Brown/White/Grey and a built-in buzzer <sup>3</sup>, to initiate warning before attempted break-in. The DC output of the power supply must **NOT** be connected to earth ground, but isolated to prevent shock and possible damage to the unit.

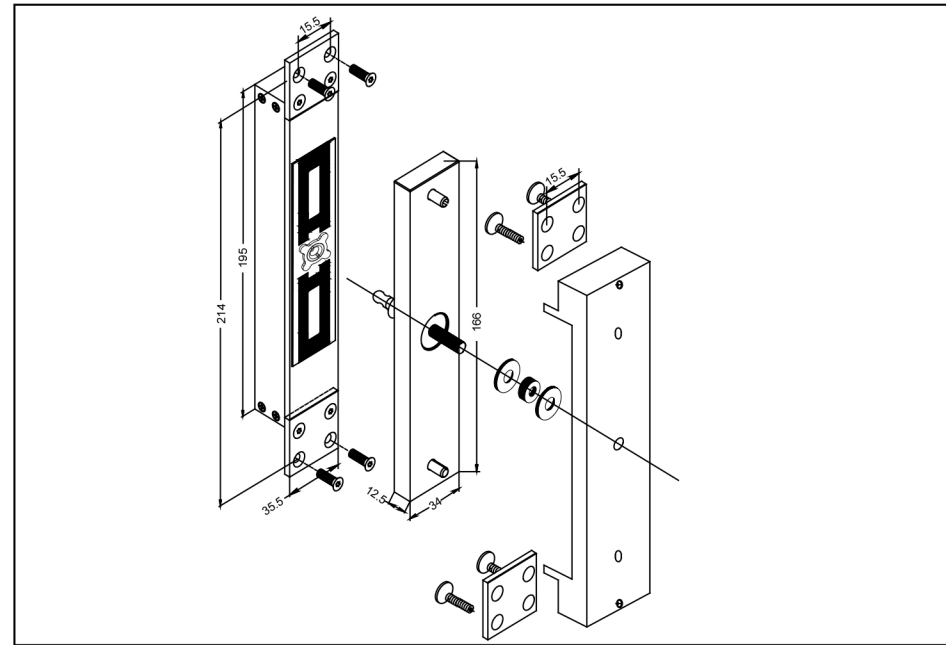
## Wiring and Power Input 24 VDC or 12 VDC:



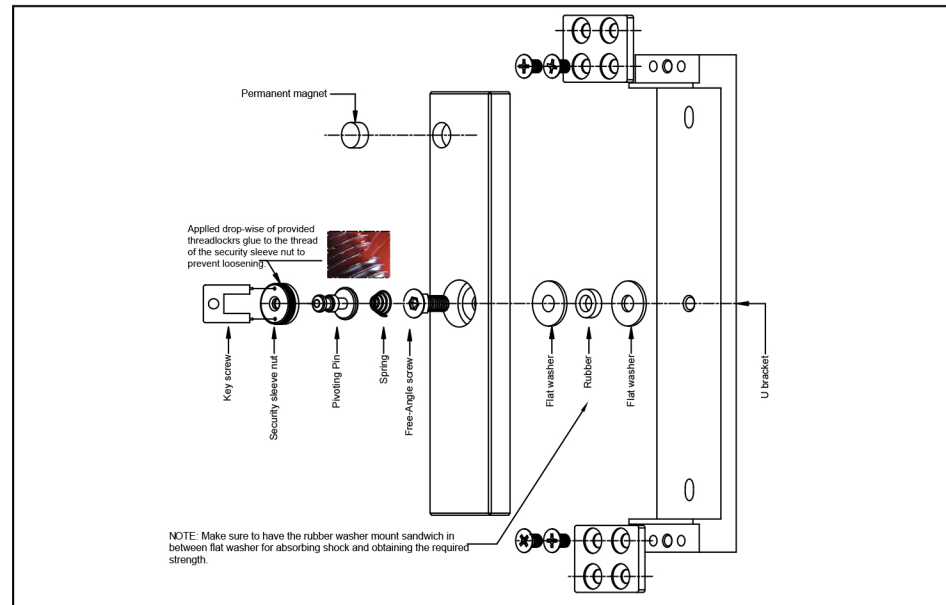
**Wiring must be connected correctly before on a 24 VDC power source is supplied to Vortex to prevent damage to the unit.**

- <sup>1</sup> – 12 VDC is not authorized for exit doors
- <sup>2</sup> – Even a preload of 1 000N is applied on the system
- <sup>3</sup> – Buzzer can be disabled with the dip switch 4

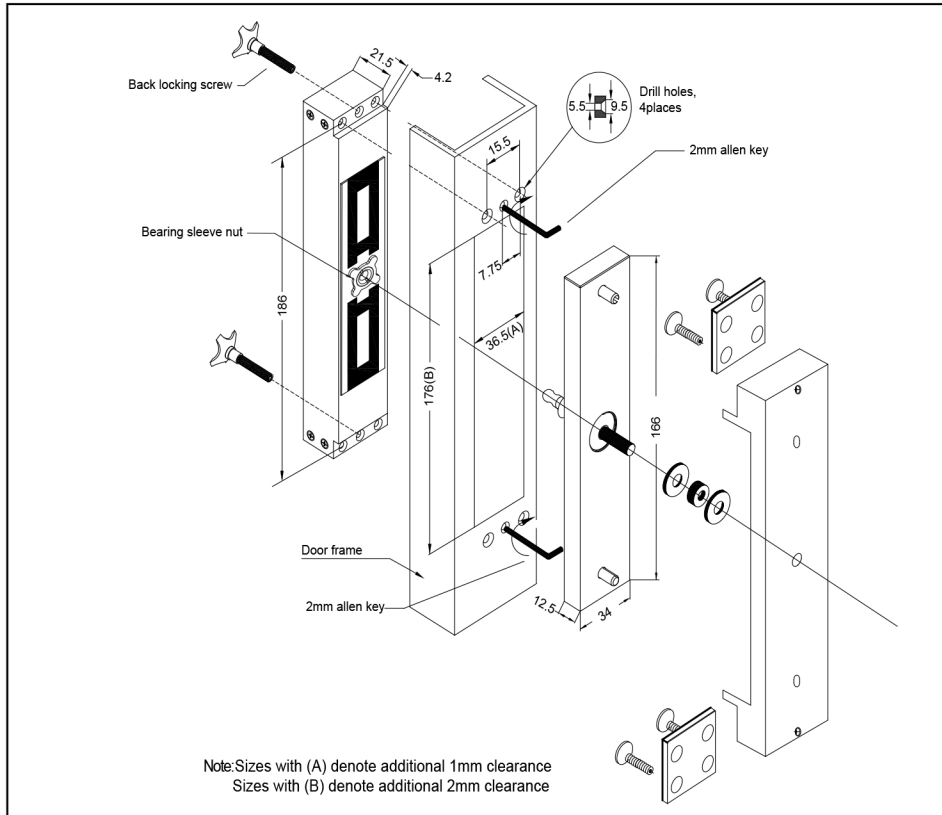
## Typical installation 1:



## Pivoting Pin Assembly:



## Typical installation 2:



### Instruction

Scribe for the **cut-out area**, follows wiring instruction and position the BM 1982 35.5 into the scribe area, use allen key to turn clockwise the back locking screw mount up the unit tight against the door frame (refer to installation diagram). The top piece sleeve nut must be screw tight and glue and must not pop up higher than the flat armature surface.

### Important safety precaution

Secure firmly the **BM 1982 35.5** mechanical electro magnet on the door frame. The provided screws must be used in accordance with the frame or support material.

## Maintenance

Contacting surface of the Mechanical Electro Magnet and Armature plate must be kept free of contaminating materials. Surfaces should be cleaned periodically with a non-abrasive cleaner. Do not spray the Mechanical Electro Magnet or Armature plate surface with any lacquer chemicals. This will cause serious problems with the release of the Mechanical Electro Magnet and its Armature plate that would result to serious safety problems.

## Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Door will not lock	No DC voltage to lock.	Check power and loose wiring
	Wrong wire connection.	Check wiring, refer to wiring instruction.
	Bearing sleeve nut rise higher than magnet flat surface.	Screw in the bearing sleeve nut at level with surface with the provided security screw.
Holding Force reduced	Bad physical contact between armature plate and magnet surface.	Make sure than surface contact is cleaned and well aligned with the armature plate
There is a delay in door release when power off.	The power switch-off is disturbed by the power supply stabilisation.	The power cut must be done between the PSU and lock. Not at the AC input of the PSU.