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THE LOCKSHOP
LOCKING SINCE 1975
Distributors of locks, door handles,
door closers, access control, panic,
exit and other hardware for doors

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CELEBRATING OUR 40th YEAR OF DEDICATION TO SECURITY IN SOUTHERN AFRICA!

SECURITY INFORMATION WITHOUT ROCKET-SCIENCE

MAGNETIC LOCKS – THE PROS & CONS

THE PRINCIPLE

A magnetic lock is basically an electromagnet – a magnet that is energised only while it has power. The magnetic lock consists of two basic parts: the lock (electromagnet – the larger part illustrated below) and the thick steel striking plate, which is attracted to the magnetic lock while it is energised. When the power is interrupted, the magnet releases it's grip on the striking plate, and the door or gate becomes "unlocked".



The electromagnet is usually attached rigidly to the door frame, and the striking plate is attached flexibly to the door. When the door is closed, the striking plate is close enough to be attracted, and held in position, by the electromagnet.

Since the door and the frame are often not on the same plane, a variety of brackets are offered which assist the installer to align the electromagnet and the striking plate. **The striking plate must never be welded or fixed rigidly**; it needs a certain amount of movement to allow it to line up accurately and touch the whole surface of the magnetic lock. For this reason it is fixed with only ONE central "wobbly bolt" that allows the striking plate to move sufficiently to be attracted to, and to touch, the ENTIRE surface of the (rigidly mounted) electromagnet. Two "guide pins" usually help to keep the loosely mounted striking plate in horizontal alignment with the electromagnet.

Whenever the power is interrupted, the electromagnet releases its grip on the striking plate – and the door is thereby allowed to be opened.

ADVANTAGES

- Relatively quicker to fit
- Requires less skill to fit
- Relatively forgiving of slight misalignment
- Relatively forgiving of slight warping of door.

DISADVANTAGES

- **NO MANUAL MEANS OF ESCAPE (i.e. not a fire escape)!**
- Requires power (24/7) to stay locked – more backup power needed
- The lock releases the striker (unlocks) when power is interrupted
- Power goes to the lock
(if the lock is fitted outside the door, the wire may be vulnerable to attack)

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