




Electric DoorLock Comparison

FACTOR	 EM Locking System	 Electric Drop Bolt System	 Electric Door Strike System
Introduction	<p>The electromagnet locks uses the magnetic force generated from the electromagnet to secure the doors. The system has a built-in safety feature which will disable the lock during emergencies. In addition to that the emergency break-glass switch is provided to enable the indoor users to release the locking mechanism to ensure that there are no unnecessary lock-ins occurrences. The designs and type of electromagnetic locking systems varies with the type and usage of the doors on which they are installed.</p>	<p>The Electric Drop Bolt System consists of a locking system which can be installed either on the floor or on the top of the door frame. When the electricity power is applied, a bolt protrudes from the lock and lodges itself into the strike plate which is mounted on the door frame. Optional brackets are available for installers to mount the system on different types of doors. The electric drop bolt is designed to retract during a power failure or when the emergency break-glass switch is activated.</p>	<p>The electric door strike system replaces the locking plate on the existing door locking system. When electricity power is applied to the door strike system, it functions as an ordinary door locking plate to secure the door lock (on a permanent locked position); the door strike disengages itself to enable the door to be pushed open when there is a power failure or when the emergency break-glass switch is activated.</p>
Advantages	<ul style="list-style-type: none"> • Low maintenance as there are no moving parts on the locking system. • It is easy to install compared to the other two systems, hence lower installation charges. • The system can be easily replaced hence the access control system will experience very limited down time due to equipment failure. 	<ul style="list-style-type: none"> • The lock is mounted flush into or onto the frame with nothing protruding outwards. This is a preferred system for glass doors and glass doorframes. • The electric drop bolt will not retract unless the push button is triggered or the emergency break-glass switch is activated, hence it is a very secured locking system. • The doors can open in both inward and outward directions. 	<ul style="list-style-type: none"> • Existing locking mechanism can be used and this is important if the user has a preference to the design of the existing lock which has been installed at the doors.
Disadvantages	<ul style="list-style-type: none"> • The doors on which the locks are installed can only be opened in one direction, which is either inwards or outwards only. • The lock will protrude from the top door frame or the LZ bracket. 	<ul style="list-style-type: none"> • A door closer mechanism has to be installed onto the door system to ensure that proper alignment of the lock and the strike plate. • Higher installation charges compare to the EM lock to mount the lock and strike plate. The locking system has to be properly aligned to ensure proper operation of the system. • Regular maintenance is needed to ensure the system is properly aligned and that the locks are clear of dust and grime (instances when the locks are installed onto the floor). • The end-user should purchase an extra set of drop bolt system as spares because the mounting positions of different brands of drop bolt system differs and thus replacement of the locking systems due to equipment failure can be troublesome if the end user cannot source the same brand of locking system installed at their premise. 	<ul style="list-style-type: none"> • Higher installation charges as it involves carpentry or metal work to install the strike at the locking plate position of the door. The locking system is very sensitive to the alignment of the door lock as well as the strike plate to ensure proper operation of the system. • Regular maintenance is needed to ensure that the system is properly aligned. The lifespan of the door strike is dependent on the proper alignment of the door system. • The market for door strike systems is relatively very small compared to EM lock and electric drop bolt systems and the spare part issue can be a problem over a long period of time. The mounting positions of different brands of door strikes differs and thus replacement of the locking systems due to equipment failure can be troublesome if the user cannot source the same brand of locking system installed at their premise.