

1) Description

The Auto-Locking System (model 8070) is designed to secure sectional doors in conjunction with a model 800 or 8800 Motor Controller.

When the door motor is operated the solenoid bolt will automatically retract and automatically engage to lock the door a few seconds after the door stops. The system is fail secure in the event of a power failure. If it necessary to open the door during a power failure the solenoid bolt may be held in the unlocked/retracted position using the locking pin, which is attached to the "U" bracket by a chain.

2) Installation

Mounting The Lock Assembly

Three holes must be drilled through the centre of the roller-wheel track to accommodate the auto-lock (two counter-sunk 6mm (1/4") holes to fix the assembly to the door, and one 10.5mm (7/16") hole for the locking-bolt). The holes are best drilled from the inside of the track. The solenoid bolt extends through the roller-wheel track and is designed to obstruct the passage of any roller-wheel. The bolt requires at least 10mm (3/8") clearance above the wheel to allow it to retract in time when the door is operated. Select a roller-wheel suitable for the bolt to lock against mark a centre for the 10.5mm hole at least 16mm (5/8") above the top of the wheel. It is recommended that a roller wheel is selected near the top of the door as the Auto-Lock will arrest the fall of the door in the event of a spring braking while the door is in the open position. With the door raised out of the way, drill the bolthole. Offer the lock assembly (with the solenoid at the BOTTOM of the "U" bracket) to the outside of the track such that the bolt is centred and extends through it. Mark the positions for the 6mm (1/4") fixings holes. Drill the 6mm (1/4") fixing holes and counter-sink the trackside of the holes so that the counter-sunk fixing screws lie flush with the track. The lock assembly can now be offered to the outside of the track and securely fixed in place. See Figure 1.

Wiring

The solenoid should be connected to the Lock Control module using low voltage twin cable rated at 2 Amps. Two crimp terminals and sleeves are provided for terminating the twin wire to the Solenoid terminals. Terminate the solenoid's wiring into the grey 2-way terminal block and plug this into the **SOLENOID** terminal socket. The module plugs into the DC controller onto its 10-way pin header TB15

(this is located next to the OPEN-STOP-CLOSE push-button input header). When fitting the module, line up its header-socket with the motherboards header-terminal, and firmly push it onto the pins; **ensure that the socket lines up correctly with all of the headers pins.**

3) Operation

Once fitted, the solenoid will extend into the roller-wheel track and obstruct the selected-roller wheel if the door is forced. When the open button is pressed the solenoid will energise and clear the path of the roller-wheels. The solenoid will remain energised until just after the door has stopped. As the door starts to close, the solenoid will again energise and remain clear of the roller-wheels until just after the door is fully closed. It will then release to the locked position.

Power Failure

In the event of loss of power the solenoid will remain in its locked state. If the door is to be opened under these circumstances, a spring-pin is provided which can be located through a hole near the end of the solenoid bolt – once it has been retracted by hand – to hold it in an unlocked position. If the supply is reinstated whilst the solenoid bolt is held retracted, no damage will be caused to the system; however, the pin must be removed for automatic operation.

4) Problem Diagnosis

The controller is protected against damage to the solenoid or its loom that may cause a short circuit. In the event of this the OVER-LOAD LED will illuminate. The power supply to the controller should be disconnected. Once the damage has been repaired and the power supply reinstated, normal operation of the module should automatically continue.

