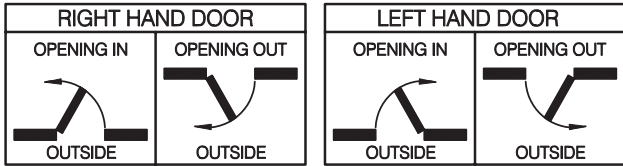


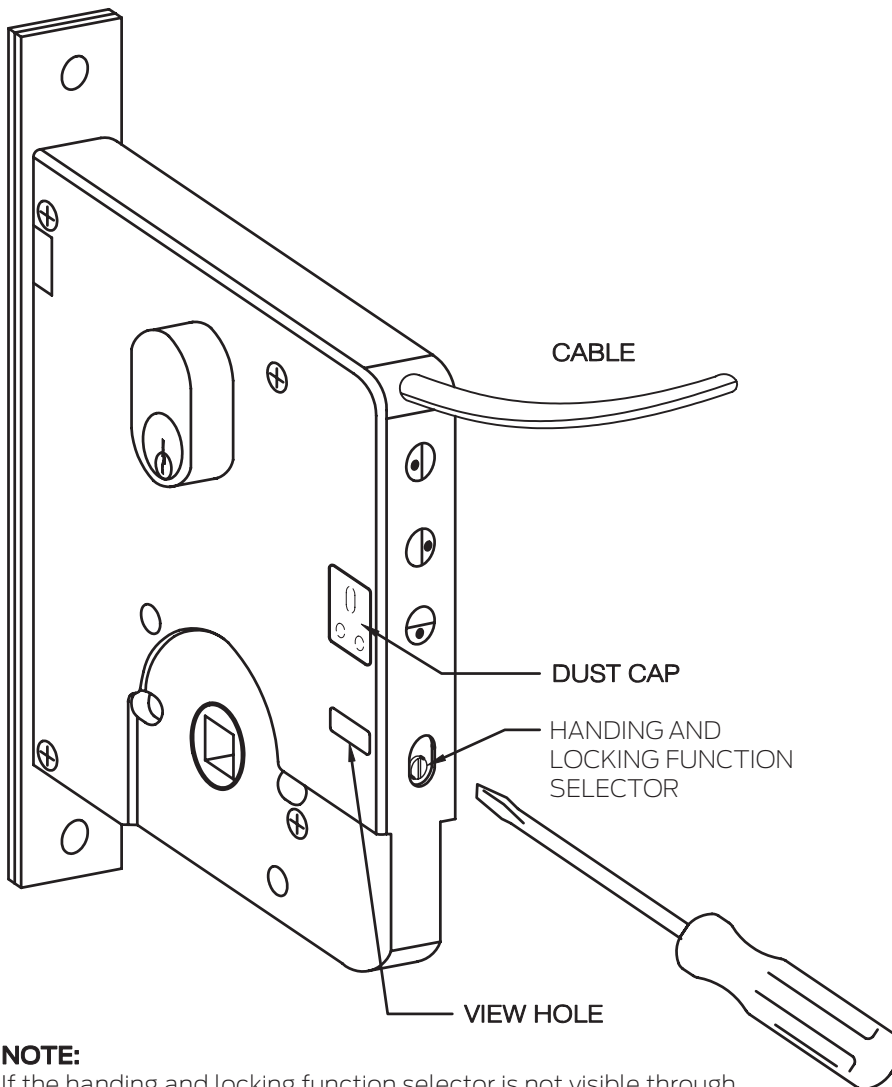
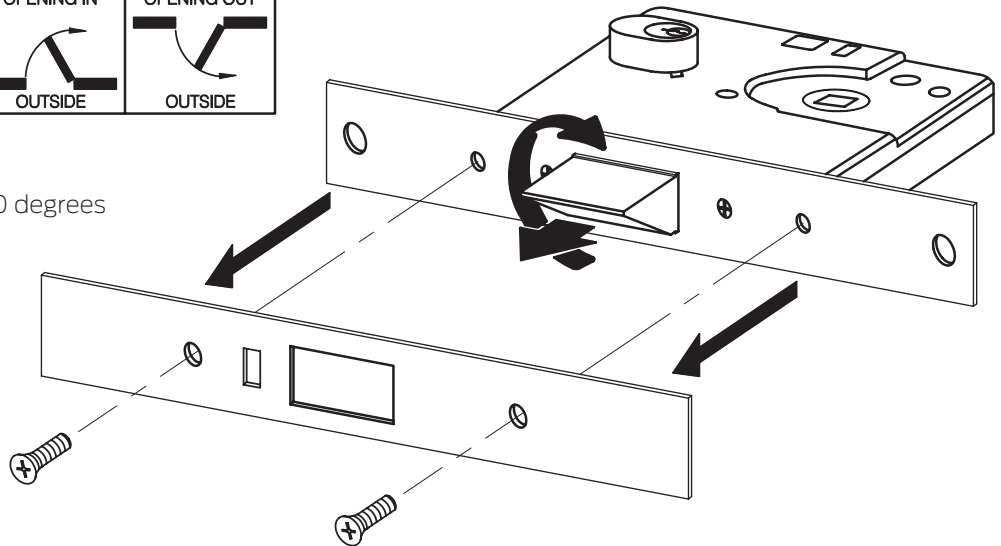


# FEL990 Series Electric Mortise Lock Installation Instructions



### TO REVERSE LATCH BOLT

1. Remove outer Face Plate
2. Pull & Rotate Latch Bolt 180 degrees clockwise



## HANDING AND LOCKING FUNCTION SELECTION

**For left hand VESTIBULE**  
Push in and turn clockwise

Set selector as shown



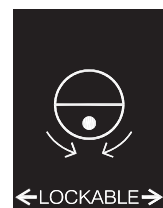
**For right hand VESTIBULE**  
Push in and turn anti-clockwise

Set selector as shown



**To set for COMBINATION**  
(Both handles lockable)

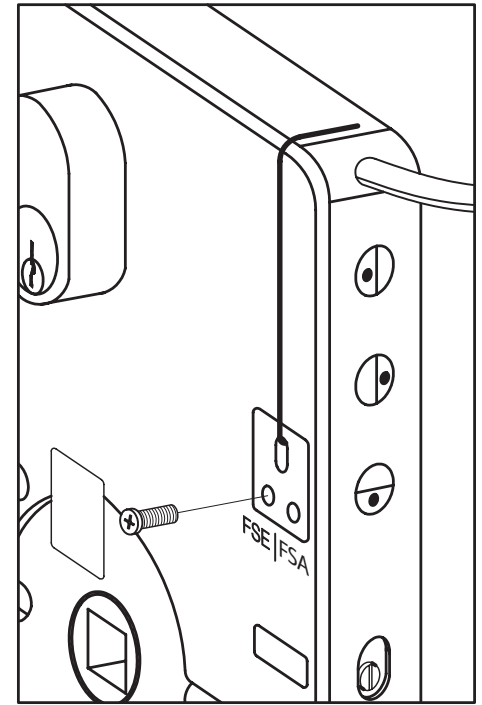
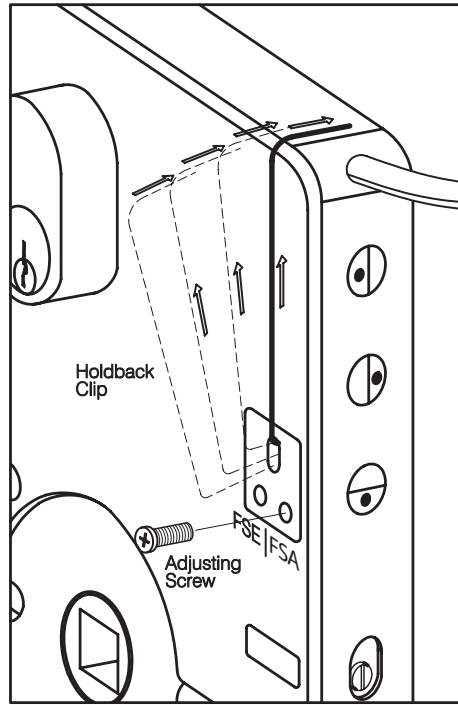
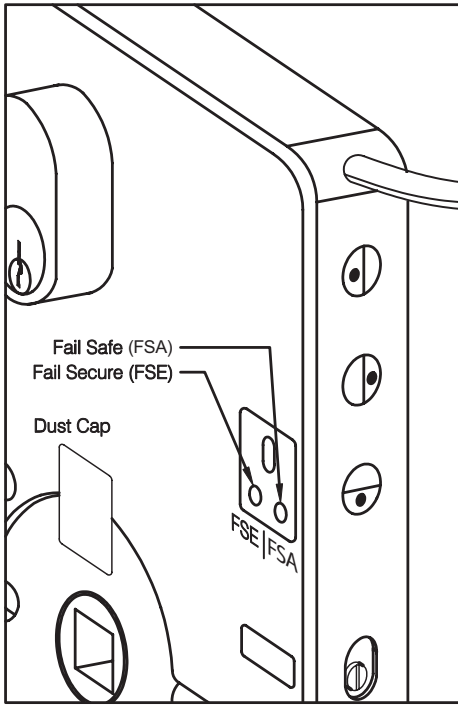
Set selector as shown



### NOTE:

If the handing and locking function selector is not visible through the view hole - the lock is set for Fail Secure (FSE). To make the handing and locking function selector visible, use the holdback clip - see overleaf for Fail Safe (FSA) Fail Secure (FSE) selection.

# FAIL SAFE (FSA) / FAIL SECURE (FSE) SELECTION



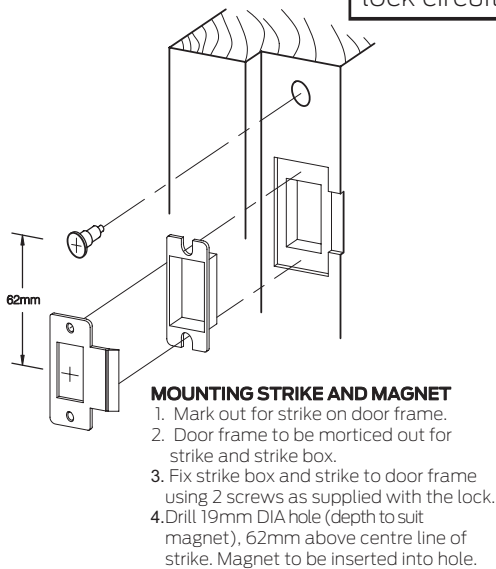
Check that Fail Safe (FSA) / Fail Secure (FSE) function is set to your requirements by first removing the dust cap. The correct FSA / FSE function must be set before setting the vestibule / combination handing function - see detail.

To adjust FSA to FSE, unscrew the adjusting screw and using the FSA / FSE handing holdback clip position the sharp right-angled wire into the lock cap holdback slot and gently pull back the FSA | FSE mechanism to the end of the slot and position the opposite (radius) and of the holdback clip over the lock case.

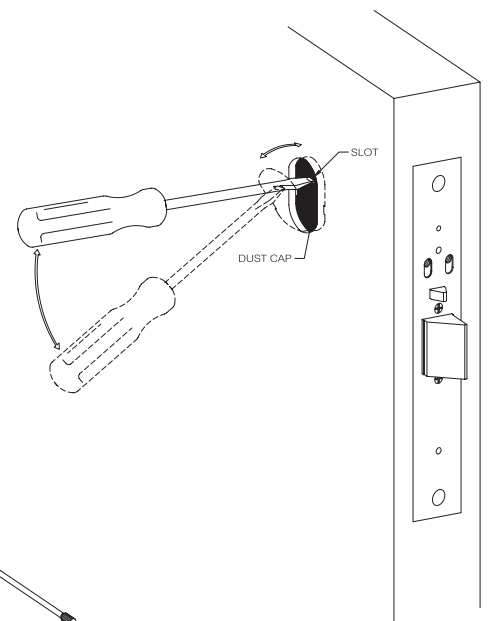
The FSE adjusting screw position is now exposed. Lightly nip the adjusting screw into its new FSE position. Adjust the vestibule / combination handing function to your requirements following the instructions on the back of the lock case - see detail. Unclip the FSA / FSE handing holdback clip and replace the dust cap. FSA / FSE - lock handing function adjustment is now complete.

**WARNING** - Do not use instruments such as screw drivers to retract the latch bolt through the cylinder hole. Damage to the lock circuitry could occur.

Reverse the sequence of operations to adjust FSE to FSA - lock handing adjustment.



**SECURING THE CYLINDER**  
Use only the Cylinder Retaining Screw supplied, ensuring the Retaining Screw Head is flush with the Inner Forend Face.



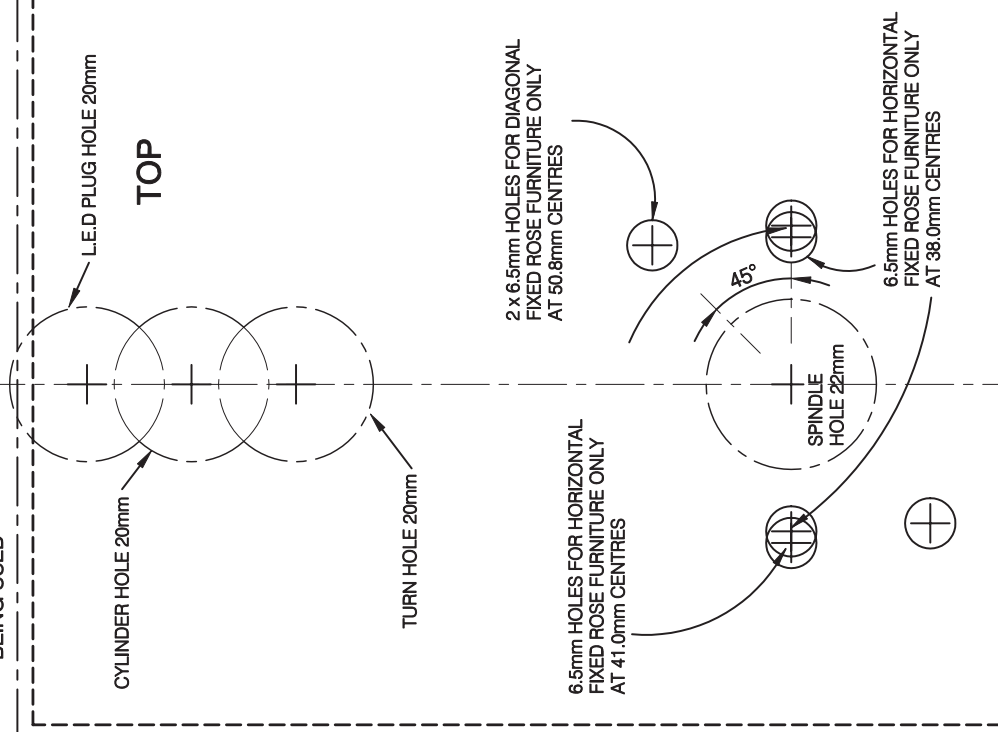
**LOCK INSTALLATION**  
When installing the lock, leave the plastic cylinder dust covers covering the cylinder hole to prevent particles from entering the lock. Where a cylinder is required, extract the dust cover as shown in the illustration.

# MORTICE INSTRUCTIONS

1. CUT MORTICE SLOT USING TEMPLATE FOR CORRECT SIZE
2. FIT LOCK INTO MORTICE, SCRIBE AROUND FOREND AND REMOVE WOOD TO ALLOW FLUSH FIT TO DOOR
3. REMOVE LOCK AND USE TEMPLATE TO MARK AND DRILL HOLES TO SUIT LOCK AND FURNITURE BEING USED

- 127mm Backset
- 89mm Backset
- 70mm Backset
- 60mm Backset

**IMPORTANT**  
A MAXIMUM CLEARANCE OF 5mm IS RECOMMENDED BETWEEN LOCK FOREND AND STRIKER PLATE FOR SECURITY REASONS



**DEPTH OF MORTICE IS 125mm FOR 60mm BACKSET**

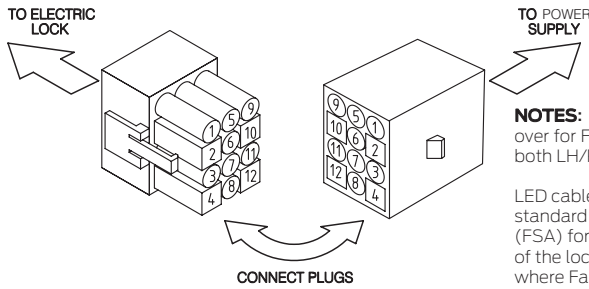
- 60mm Backset
- 70mm Backset
- 89mm Backset
- 127mm Backset

**CHECK CAREFULLY:**  
DO NOT DRILL HOLES RIGHT THROUGH DOOR. THE FURNITURE MAY NOT COVER ANY HOLES THAT ARE INCORRECTLY DRILLED

**DEPTH OF MORTICE IS 125mm FOR 60mm BACKSET**

FEL990 SERIES LOCKS ARE DESIGNED FOR USE WITH SPRUNG DOOR FURNITURE. THE USE OF **UNSPRUNG** DOOR FURNITURE IS NOT RECOMMENDED

## 12 PIN PLUG CONNECTION (3m of cable supplied as standard)



**NOTES:** Swapping LED wires over for Fail Secure (FSE) for both LH/RH sides of lock.

LED cables are supplied as standard to suit Fail Safe (FSA) for both LH/RH sides of the lock. On the occasion where Fail Secure is selected where Fail Secure is selected the red and green wires on the LED cable will have to be swapped over to suit LH/RH sides of the lock.

## FEL990 Series Monitoring Functions

**Door Position Monitoring** by Reed Switch

**Lock Status Monitoring** by a combination of 3 locking perimeters

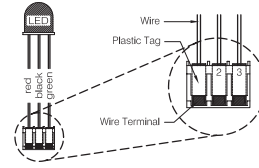
- Locking Bar (Hub/Handle/s locked)
- Deadlatching Bolt (suppressed)
- Latchbolt (out)

**Dual Key Override Monitoring (KOM)**

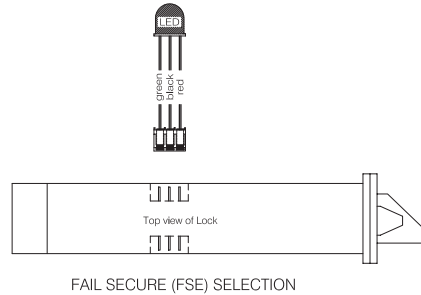
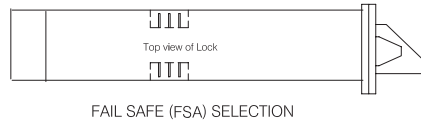
**Request to Exit (REX)** via Hub/Handle(s)

**LED Indication**

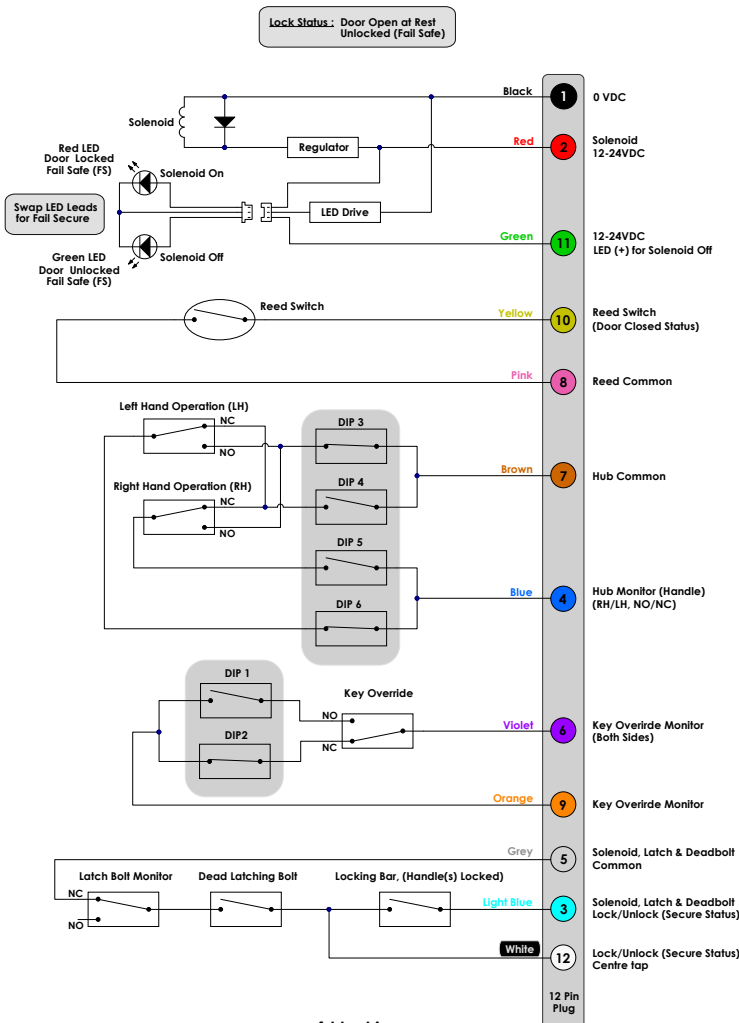
## LOCK INSTALLATION (swapping LED wires)



**SWAPPING WIRES**  
Gently lift plastic tag holding terminal & slide wire terminal from plug. To insert wire terminal, slide back into plug.



## FEL990M (12 Pin) Wire Connection Diagram



## Electrical Specifications

### Solenoid Activation

12-24V DC 350mA momentary, 100mA max operating Including LED if applicable

### Lock Secure Status/Key Override Monitor

Microswitch max. rating 500mA @30V DC

### Door Status Monitor

Magnetic Reed Switch 100mA operating

### Plug arrangement

12 pin plug with 3m cable

### Request to Exit (REX) Switches

Microswitches max. rating 1A @125VAC

| PIN | Colour     | Function                                 |
|-----|------------|--|
| 1   | Black      | 0 VDC                                    |
| 2   | Red        | Solenoid black                           |
| 3   | Light Blue | Solenoid, latch and deadbolt lock/unlock |
| 4   | Blue       | Hub monitor (handle) (RH/LH, NO/NC)      |
| 5   | Grey       | Solenoid, latch and deadbolt common      |
| 6   | Violet     | Key override monitor (both sides)        |
| 7   | Brown      | Hub common                               |
| 8   | Pink       | Reed common                              |
| 9   | Orange     | Key override monitor                     |
| 10  | Yellow     | Reed switch (door closed status)         |
| 11  | Green      | LED (+) for solenoid off 12-24VDC        |
| 12  | White      | Lock/unlock (secure status) centre tap   |

### DIP Switch Settings

| HUBS*  | Switch No. |     |     |     |     |     |
|--------|------------|-----|-----|-----|-----|-----|
|        | 1          | 2   | 3   | 4   | 5   | 6   |
| LH NC  | -          | -   | OFF | ON  | OFF | ON  |
| LH NO  | -          | -   | ON  | OFF | OFF | ON  |
| RH NC  | -          | -   | OFF | ON  | ON  | OFF |
| RH NO  | -          | -   | ON  | OFF | ON  | OFF |
| KOM NC | OFF        | OFF | -   | -   | -   | -   |
| KOM NO | -          | -   | -   | -   | -   | -   |

\*Hub monitoring is exit side only

This product is the subject of any one or more of the following patents, NZ2299577, AU717917, NZ529951, NZ535262, NZ534706, NZ534938, NZ537284, NZ534626.



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