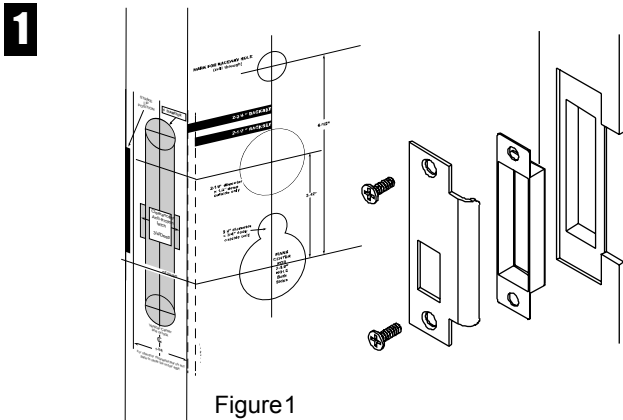




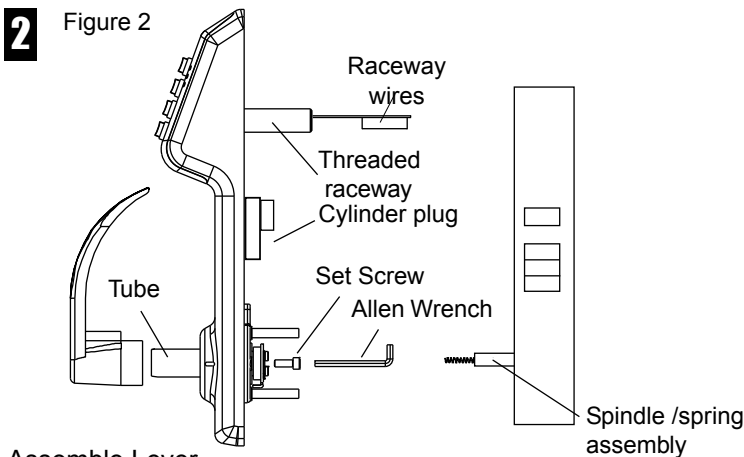
2003 INTERNATIONAL ELECTRONICS, INC.
427 TURNPIKE STREET, CANTON, MA 02021
(781) 821-5566 www.ieib.com
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LS SERIES MORTISE LOCKSET

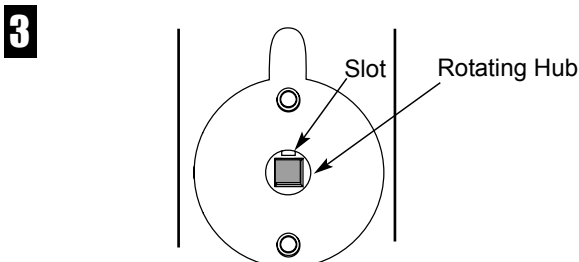
Installation Instructions



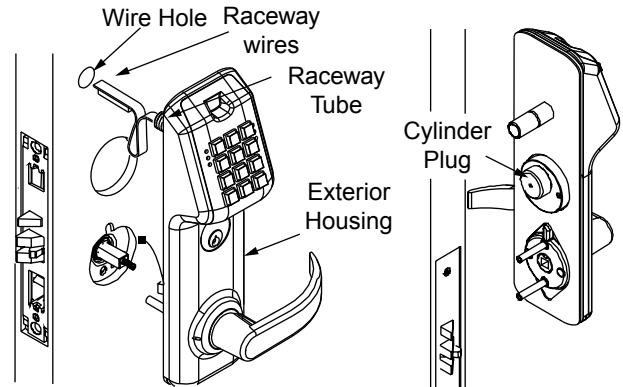
See template for measurements. See page 3 for instructions on installing the lock body.
Affix template to door and follow template instructions in preparing door as illustrated in Figure 1. Install strike correct for handing and dust box.



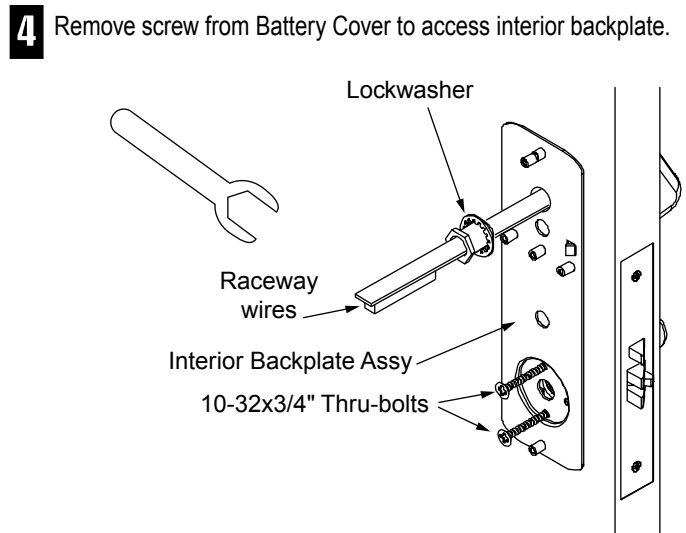
1. Assemble inside and outside levers on shafts for correct handing, using screw inside shaft to secure levers.
2. Locks auto adjust for 1 3/4" to 2 1/2" thick doors.
3. Locks are supplied either with 1 1/8" cylinder, or prepped for a 1 1/8" cylinder (customer supplied). For other options several purchased collar required.



1. VERY IMPORTANT
Align outside rotating hub in exterior housing so the slot is facing up. Insert spindle spring assembly into outside lock hub.



2. Pass the Raceway wires through the wirehole, then mount exterior housing through door preparation. Make sure the spindle engages with the rotating hub in the correct orientation, and the cylinder plug enters cylinder hole in mortise lock.

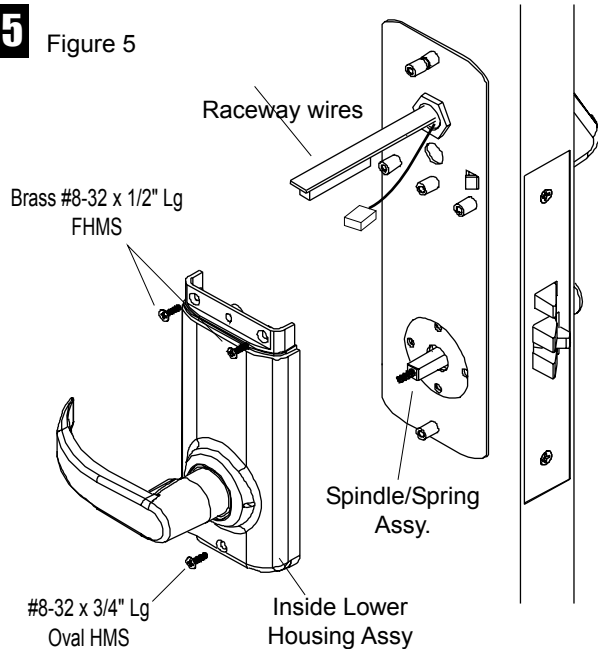


1. While holding the interior backplate in position, loosely install the raceway nut first, then the two screws through backplate and into posts.
2. Tighten the raceway nut on the raceway tube using wrench supplied. When this connection is firm, secure the thru-bolts.

Raceway wires- see separate instructions. LS-1 series require motor cable connection to battery. LS-2 & LS-2P series require motor cable connection; flex circuit connection; and optional REX and door position switch connections.

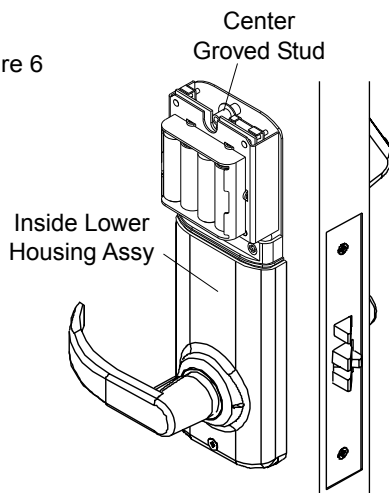
Installation Instructions

5 Figure 5



1. Assemble the inside lower housing on backplate, while engaging the spindle in lock hub. (Be sure wires are not pinched.)
2. Fasten with two brass #8 screws and the finished #8 screw at the bottom.

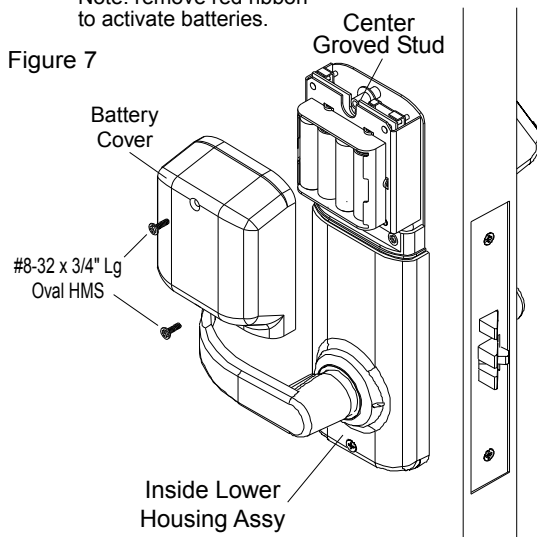
6 Figure 6



NOTE: DUE TO PREDETERMINED POWER SETTINGS IN THE LOCK, USE ONLY ALKALINE BATTERIES

1. View Raceway wiring instructions included in package.
2. Place the battery holder over the center grooved stud.
3. When properly aligned, push down on the battery holder assembly, engaging the upper part of the hole into the groove of the stud. Battery holder will be held between tabs.

7 Figure 7
Note: remove red ribbon to activate batteries.



PUSH ALL EXCESS WIRE LENGTHS DOWN THROUGH THE OPENING AT THE TOP OF THE INSIDE LOWER HOUSING.

1. Attach the battery cover with two finished #8 screws. Battery cover has a lip which engages the lower inside housing. It is important that this lip be seated properly to insure correct alignment.

Deadbolt Function

Turnpiece

Tailpiece

1-3/4" Cylinder

Cylinder set screw

Insert tailpiece into slot in turnpiece. Snap ring on turnpiece will hold tailpiece in place.

Deadbolt functions may use 1-1/8 inch cylinder integrated with trim OR can use optional 1-3/4 inch cylinder directly engaged with mortise lock. With 1-3/4 inch cylinder screwed into mortise lock, tighten set screw then replace lock front.

Lock Body Installation

Knob or Lever Mortise

PREPARING THE DOOR

Note: If the strike already exists in the door frame, position lock using strike as reference. (See strike position on template)

1. Draw horizontal line on both sides and edge of door at the desired height of knob above floor
2. Draw vertical center line on door edge.
3. Draw vertical line on each side at the proper backset to align the templates.
4. Position template on edge and side of door. Mark holes ONLY for each side, and top and bottom holes of mortise cavity on door edge.
5. Remove template; place lock face against door edge. Trace outline of faceplate as guide for faceplate routing.

MORTISE THE DOOR

1. Mortise door for lock body and faceplate per instructions on template.

INSTALLING THE LOCK BODY

1. Insert the lock into the cavity.
2. Mark & drill faceplate holes. Fasten with faceplate screws to hold lock in place.

INSTALLING THE STRIKE

Select correct strike for handing.

1. Refer to template to determine strike location on jamb.
2. Using strike as template, mark and chisel recess. Drill screw holes and fasten.

TO BEVEL LOCK

1. Loosen adjustment screws at top and bottom of case.
2. Turn front to desired bevel.
3. Re-tighten adjustment screws.

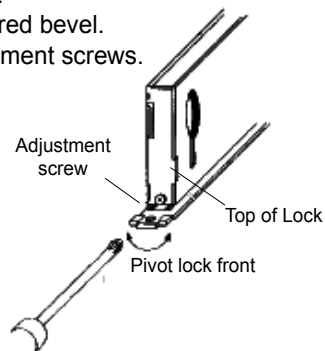


Figure 3.5

LUBRICATION

All locks come lubricated from the factory with a lithium based grease. We recommend, however, periodic lubrication of internal moving parts with commercial quality grease. This can add years to the life of the lockset reducing excessive wear. For more severe environments, lubrication be applied more frequently.

Trouble Shooting

| ELECTRICAL | | |
|--|--|---|
| SYMPTOM | PROBABLE CAUSE | CORRECTION |
| 1. Beeping after assembly is completed (4 long beeps) | Low Voltage | Replace Batteries |
| 2. Solid green LED, no motor action | Control Module not sending lock/unlock pulse | Verify continuity of wire harness and replace if necessary |
| 3. Yellow LED flashes and sounder chirps after install | Unit not initialized | Contact IEI |
| 4. Motor locks but will not unlock | REX loop is shorted (Brown and Orange on P 4 wire harness) | Inspect connection and remove short |
| 5. Unable to change system default | Various | Various |
| 6. Does not read proximity cards | Unit may not be an LS-2P | Check the FCC Label. If the label does not refer to model LS-2P then it is an LS-2 and not an LS-2P. |
| MECHANICAL | | |
| SYMPTOM | PROBABLE CAUSE | CORRECTION |
| 1. Key bypass does not work | a. Cylinder is not straight b. Wrong cam on mortise | a. Loosen cylinder retaining nut and straighten cam. b. Use straight cam on 1 1/4" cylinder and clover cam on 1 3/4" cylinder. |
| 2. Handle rests in down position | Lockset is binding | Check holes in the door for clearance |
| 3. Cannot tighten the raceway by hand | Race threads are damaged | Use thread chaser to clean threads or contact IEI |
| 4. LED goes green, units does not unlock | Hub outside trim is out of alignment | Refer to page 1 #3 of this manual |

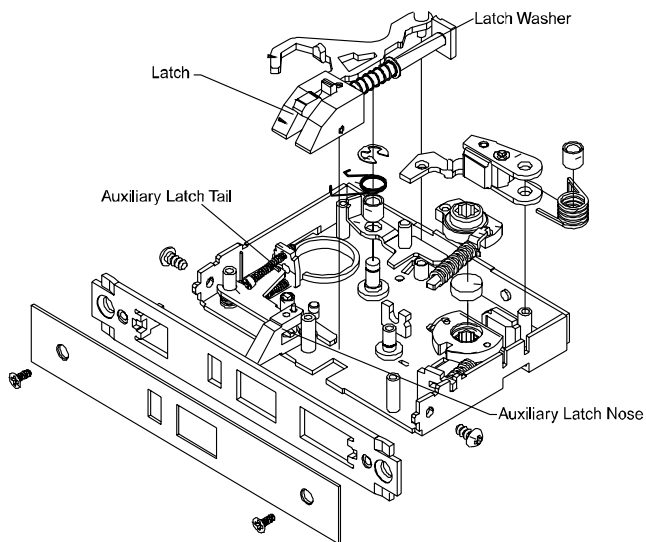
To Reverse Handing

Note on reverse handing:
Unit is shipped from factory set for right or left handing and with correct strike (see external label which indicates handing). If handing is reversed



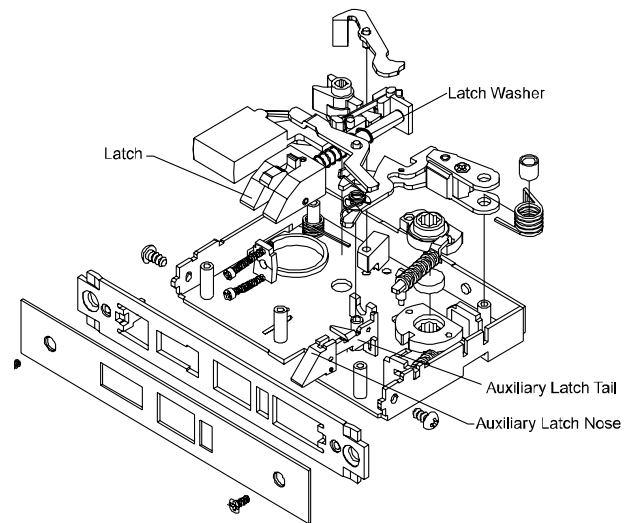
1. Remove the 5 screws securing the lock body cover.
2. Remove the latch, turn it over, and re-insert it. Make sure the latch washer is in the position indicated, or the latch will not function properly.
3. Remove auxiliary latch. Detach nose from auxiliary latch tail and reattach in opposite direction. Make sure the orientation of the auxiliary latch is the same as the orientation of the latch.
4. Replace all parts and re-fasten the cover.
5. Install dust box and appropriate strike - see note above.

With Auxiliary Latch without Deadbolt



Assembly shown is for a right hand door.

With Auxiliary Latch with Deadbolt



Assembly shown is for a right hand door.