Installation Instructions for the ESL10/20 Electronic Safe Locks

This ESL series lock is a retrofittable electronic safe lock that will replace any conventional mechanical safe combination lock having a footprint similar to that of the U.L. Listed Group 2 Mechanical locks. Before starting the installation, become familiar with the operation of the ESL10 or ESL20 safe lock you are installing, see the included Operating Instructions.

***Note**: Failure to follow these instructions carefully may result in a lockout. AMSEC takes no responsibility nor offers warrantee support for parts damaged during installation. The lock is a sealed unit, there is no reason to open it. Breaking the seal voids the manufacturer's warrantee. If you choose to break the seal and open the lock, be sure to disconnect the cable to the keypad prior to disassembly or the electronics may be damaged. Use only the parts and fasteners included in this kit. The solenoid lock of the ESL10/20 is not capable of pulling any auxiliary devices. Do not attach a bolt extension or other hardware to this lock.*

Tools required:

Phillips Head Screw Driver
$^{3}/_{16}$" Hex Allen Wrench or Driver
Non-permanent Thread Locking Compound, like Blue Locktite®

Supplied Parts:

[1] ESL10/20 Lock Assembly	
[2] 8-32 x $^{3}/_{8}$" Self Tap Flat Head Phillips Screws	(for Keypad Base mounting)
[3] ¼-20 Socket Head Screws	(for Lock mounting)
[3] ¼" Nylon Washers	(for Lock mounting)
[2] 8-32 x $^{5}/_{16}$" Phillips Head Screws	(for Relock Trigger mounting)

1. **Lock the safe in the OPEN POSITION.** Do Not close the safe door until the installation is complete and the lock is tested and in good working order.
2. **Remove the original hardware**, including the Boltwork Cover, Lock, Dial and Dial Ring. If the safe uses a back cover mounted Relock Trigger, save it for attachment to the ESL Lock later in the assembly. Allow the relocking device to engage the boltwork for now.
3. **Mounting Preparation.** Clear the lock mounting surface of any obstructions, dirt and oil. Check the spindle hole front and rear for burrs or sharp edges. The cable requires a ½" diameter hole through the door to pass the connector. Drill or ream the hole if necessary. Remove any sharp edges or burrs with a file, emery cloth, Dremel tool or other tool such that the opening has a nice smooth chamfer at both ends of the hole to avoid wire damage. Check the lock mounting screw holes for obstructions, clean and chase with a ¼-20 tap if necessary. Check the dial mounting screw holes for obstructions, clean and chase with a 8-32 tap if necessary.
4. **Lock Preparation.** Remove the keypad base from the keypad by twisting it approximately 1/8 turn counter clockwise. Unplug the lock cable from the keypad by tripping the small tab on the underside of the connection inside the keypad.
5. **Mount the Keypad Base.** Place the Base over the spindle hole lining up the two screw holes over the old dial ring mounting holes. Use the 8-32 x $^{3}/_{8}$" Flat Head Screws to mount the base firmly in place. Some safes have very thin face plates, so be careful not to strip the threads by using only a hand screw driver.
6. **Mount the Lock.** Put a dab of thread locking compound in the lock mounting screw holes. Pass the lock cable, connector first, through the door from the inside and place the lock in position such that the cable makes a loop into the channel underneath the lock. If the mount plate is thin, less than ¼", the nylon washers will be necessary under the head of the screws to insure firm mounting of the lock. With a $^{3}/_{16}$" hex driver, snug the 3 socket head screws. Do Not Over-tighten, the thread locking compound will insure permanent installation when cured. Check to see that when the boltwork is in the locked position, the bolt has daylight clearance around it, at least $^{1}/_{16}$" on all sides. If it does not, then modify the opening to provide this clearance or intermittent lock opening will result.
7. **Connect the Keypad.** Plug in the Keypad Assembly and snap it into the Base taking care to coil the cable in a gentle loop.
8. **Test the lock** several times (C-1-2-3-4-5-6-#) to ensure proper connection and function. The bolt should snap sharply into the unlocked position for 3 seconds and then release. Be sure that the red LED lamp flashes and a beep is sounded with each keystroke. The LED lamp will remain lit for the duration of the lock hold time.
9. **Mount any relocking device** that was installed. Use only a hand screwdriver and the 8-32 x $^{5}/_{16}$" screws provided for mounting. Snug it securely in position, but don't over tighten or the threads may strip.
10. **Test the lock** several times (C-1-2-3-4-5-6-#) to ensure proper function. The bolt should snap sharply into the unlocked position for 3 seconds and then release. Cycle the boltwork when open to be sure that the lock interacts properly with the locking mechanism and the relock is securely held so it doesn't block or drag on or block the mechanism.
11. **Replace any boltwork cover** and finish assembly. Test the lock several more times before trying to close and lock the door of the safe.
12. **Teach the Customer!** Statistically, more that 85% of service calls are due to incomplete training of the user of the safe on proper operation. Please take the time to show the customer how to change the battery, change the combination and proper operation of the lock.

Be the professional you are. Some important things to remember and instruct your valued customer:

⇒ ALWAYS turn the handle into the fully locked position to avoid bolt side pressure and allow reliable opening. The lock bolt will not pull in if it is impeded by the locking mechanism.

⇒ When the lock fails to open, try a fresh 9V Alkaline Battery. Show the customer how to change it! Take care no to pull on the cable when changing the battery. Tuck the cable in neatly when replacing the keypad on the base, don't force it.

⇒ Teach the customer how to set a private combination. Our experience shows that many times locks are left on the Factory Combination. Coach the user through the routine until you feel they understand it completely. See the Operating Instructions. Remember to leave the Operating Instructions with the customer!

⇒ Four (4) bad combination keying attempts causes a 15 minute lockout. The lock responds to any keystroke with a rapid succession of beeps and flashes when in lockout. Just WAIT for it to clear when it happens. Disconnection of power only re-starts the lockout clock.

⇒ Don't record a combination on paper and leave it near or inside the safe. If you must write it down, keep it somewhere away from the safe in a secret location. Sounds obvious, but it happens all the time.

⇒ Liquids and Electronics don't get along. Use a soft damp rag to clean it up. Don't use caustic cleaning fluids, sprays or abrasives to clean.

⇒ Use only your fingers to press keys. Sharp objects will eventually damage the keypad. This is not covered under the warrantee.

⇒ If there is a concern about someone seeing the combination while opening, the last numeric keystroke of the combination can be any number of keystrokes as long as the proper key is pressed before the "#" key. For example, the factory code is **"C-1-2-3-4-5-6-#"**. You can key **"C-1-2-3-4-5**-7-3-8-2-4-7-**6-#"** and the lock will still open.

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