

## Installation Instructions



SARGENT AND GREENLEAF®

# 6600 and 6700 Series Safe Locks

## 3-Wheel and 4-Wheel Standard Size Locks

- Für Anweisungen auf **Deutsch** besuchen Sie bitte die folgende Website:
- Para obtener instrucciones en **español**, visite la siguiente página web:
- Pour obtenir les instructions en **français**, veuillez consulter le site ci-dessous:
- Per istruzioni in lingua **italiana**, visitare il sito web seguente:
- 如果要获取中文版的说明, 请访问以下网址:

[www.sargentandgreenleaf.com/OPinstr.php](http://www.sargentandgreenleaf.com/OPinstr.php)

### NOTE: READ COMPLETE INSTRUCTIONS BEFORE INSTALLATION

These instructions should be followed when installing Sargent & Greenleaf 6600 and 6700 Series mechanical safe locks.

**Caution:** Lock mounting and dial ring mounting surfaces must be parallel. Dial ring center line must be precisely aligned with lock spindle center line, as illustrated at right in Figure 1.

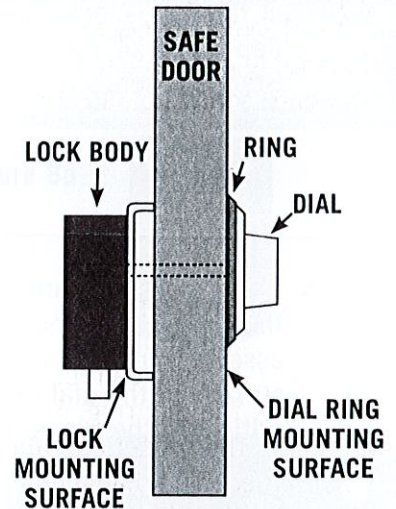


Figure 1

## INSTALLATION INSTRUCTIONS

1. Remove the lock's two cover screws and cover. Place the lock bolt in the extended position, and lift out the drive cam to prevent it falling out of the lock case during mounting.
2. Mount the lock in place with four attaching screws (provided). Use either ¼-20 or M6 screws, depending on the hole dimensions in the lock mounting surface provided by safe manufacturer. Arrows in Figure 2 show the mounting screw locations. Tighten to 30 to 40 inch-pounds (3,39 to 4,52 Nm).
3. Insert the plastic dial ring bearing into the back side of the dial ring. When installed correctly, the bearing and back surface of the ring should be flush.

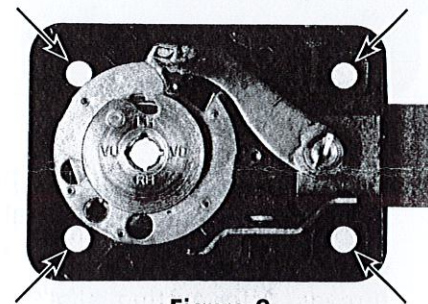


Figure 2

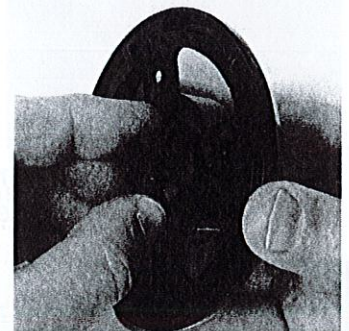


Figure 3

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4. Attach the dial ring to the front of the container door or drawer by loosely installing the two provided attaching screws to hold the dial ring in place for alignment. The dial ring opening index should be at the 12 o'clock center position. Use either 8-32 or M4 screws, depending on the hole dimensions provided by the safe manufacturer. Standard screw hole locations are indicated by the two arrows in Figure 4.

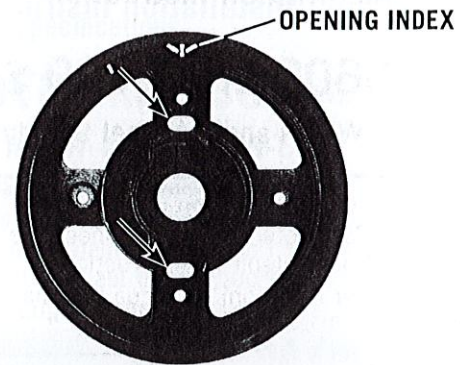


Figure 4

5. Place the drive cam back into the lock's wheelpost, then hold the drive cam in place with one hand and thread the dial/spindle assembly into the cam until the dial comes to a stop against the surface of the dial ring. The alignment of the dial within its ring is critical to the proper operation of the lock. Perfect alignment must be obtained. The dial should be flush and centered with the surface of the dial ring for true centering. Make small adjustments in the position of the dial ring until the dial is precisely centered, then use masking tape or similar material to hold the dial ring in place.



Figure 5

6. Mark the dial spindle flush with the top of the drive cam (Figure 6), then un-thread the dial from the drive cam so that you can cut the excess spindle at your mark. Be careful to avoid distorting the spindle threads. After cutting, slightly chamfer the end of the freshly cut spindle so that it can easily thread back into the drive cam.

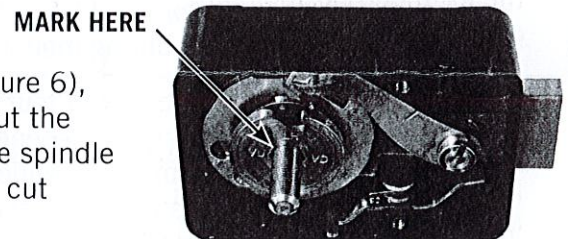


Figure 6

7. While the dial is removed from the lock, tighten the dial ring attaching screws, being careful to maintain the precise alignment accomplished in Step 5. Tighten to no more than 15 inch-pounds (1,695 Nm). After tightening, remove the masking tape or other material used to temporarily hold the dial ring in position.

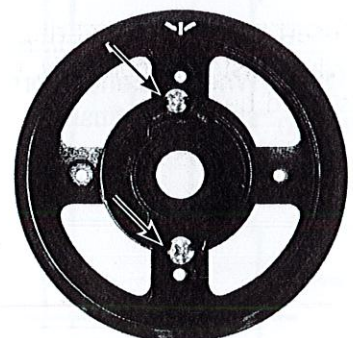


Figure 7

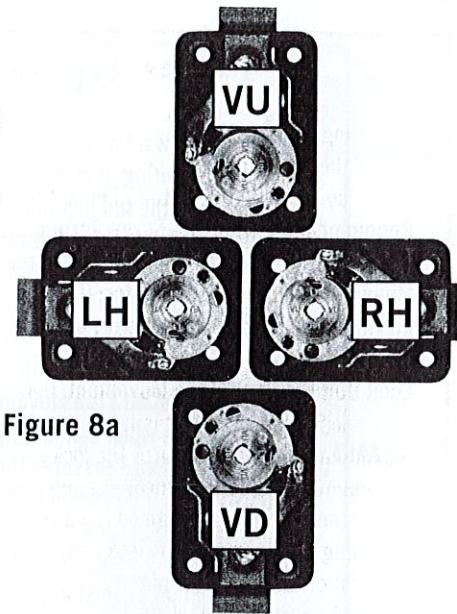


8. This lock can be mounted right-hand (RH), left-hand (LH), vertical-up (VH), or vertical-down (VD). Looking at your lock mounted on the inside of the container, note its orientation and determine its handing from Figure 8a. You will also note that the lock's drive cam has four splining locations, marked with one of four designations: RH, LH, VU, or VD. In Figure 8b, the dial spindle has been threaded into the drive cam with the spindle spline aligned with the RH spline keyway in the cam. This is the proper orientation to use with a lock that is mounted right-hand (RH).

Figure 8b

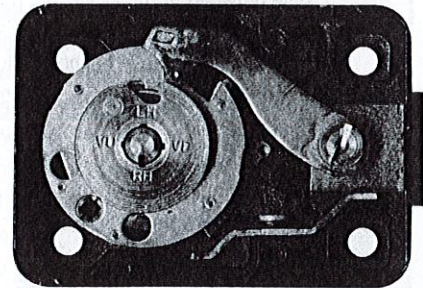


Figure 8a



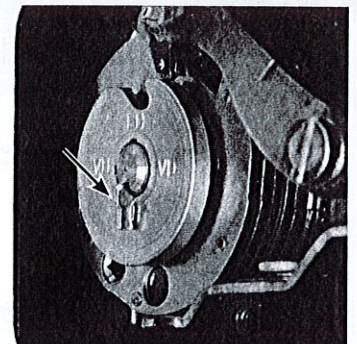
9. Thread the dial spindle through the dial ring and into the drive cam until the dial comes to a stop against the surface of the dial ring. Now back the spindle out of the drive cam at least  $\frac{1}{2}$  turn until the spindle spline aligns with the correct drive cam spline keyway for the hand of mount of your lock. For a right-hand (RH) mounted lock, the correct orientation will look like the spindle and cam relationship in Figure 9.

Figure 9



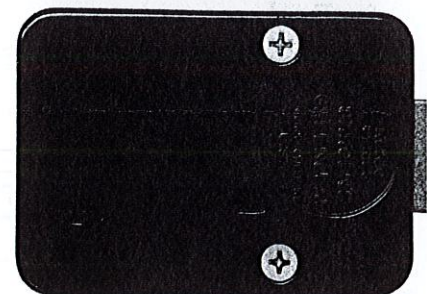
10. Insert the spline key as shown in Figure 10. Use a small, lightweight hammer to seat the spline key until its underside is just barely touching the top of the drive cam. Make sure the flag of the spline key is facing away from the center of the spindle. After seating the spline key, turn the dial in both directions to make sure there is no binding of the dial against the ring. If so, remove the spline key, check dial-to-ring alignment, and if necessary back the spindle out of the drive cam one full revolution. Then use a new spline key to connect the drive cam to the spindle.

Figure 10



11. Place the cover on the lock body and attach it using the screws you removed in Step 1. Refer to the lock's operating instructions to set a combination and operate the lock.

Figure 11





## Sargent & Greenleaf 6600 and 6700 Series Mechanical Safe Lock Specifications

**Attaching Screws:** Use only the screws provided with the lock. Screws will be ¼-20 or M6, depending on the application. They must engage the mounting plate by at least four full threads. Do not use lock washers or thread sealing compounds unless specifically directed to do so in the full installation instructions.

**Recommended Attaching Screw Torque:** 30 to 40 inch-pounds (3,39 to 4,52 Nm) for the lock body. No more than 15 inch-pounds (1,695 Nm) for the dial ring attaching screws.

**Minimum Spindle Hole Diameter:** 0.375 inch (9,5 mm) round opening

**Maximum Spindle Hole Diameter:** 0.5 inch (12,7 mm) round opening

**Lock is Designed to Move:** 0 lbs. (0 Newtons) continuous or maximum

**Lock Bolt Maximum Free Movement:** 0.461 inch (11.7 mm). At least 0.109 inch (2,77 mm) of the lock bolt remains outside the edge of the lock case when bolt is fully retracted.

**Maximum Bolt End Pressure:** The lock is designed to withstand at least 225 lbs. (1000 Newtons)

**Maximum Bolt Side Pressure:** The safe and container boltwork or locking cam designs must never apply more than 225 lbs. (1000 Newtons) of side pressure on the lock bolt.

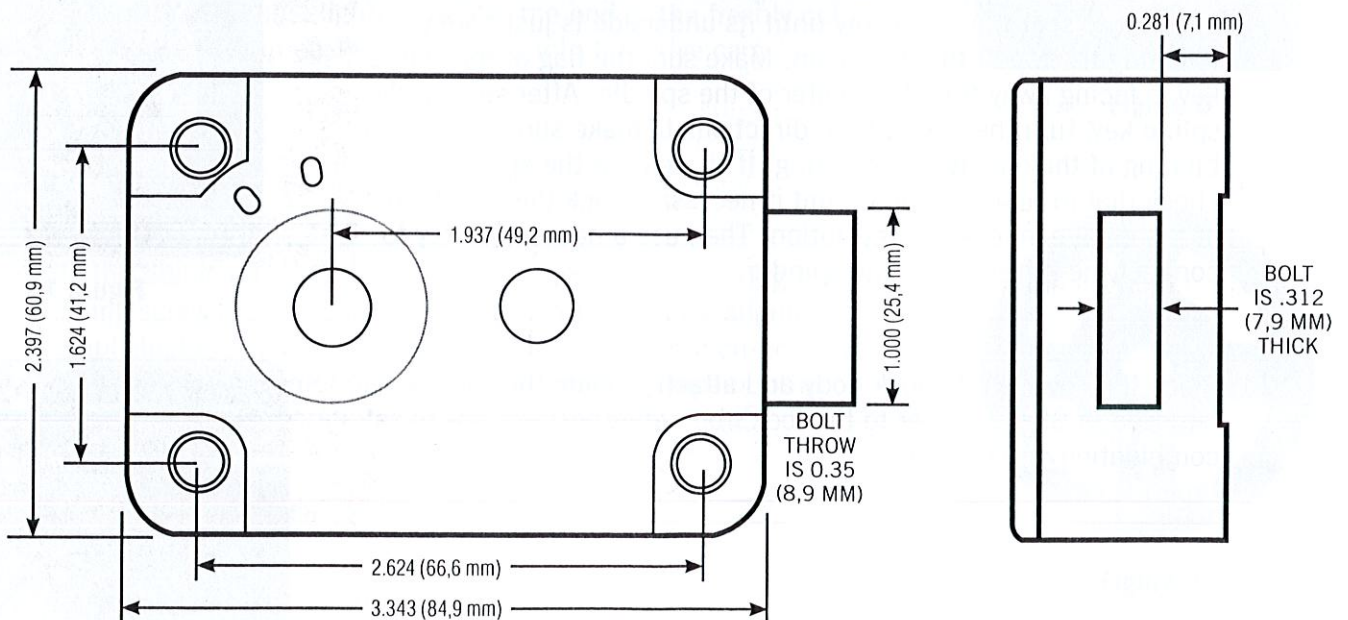
**Mounting Environment:** The lock body is designed to be mounted inside a secure container. The container must be constructed to offer protection against physical attack directed at the lock. The amount of protection is dependent on the desired level of security for the system as a whole. Lock protection may include barrier materials, relock devices, thermal barriers, thermal relock components, or any combination of these. Relock device attaching screws must **NOT** be longer than the depth of the tapped attaching screw hole provided in the lock case. A minimum distance of .150 inch (3,8 mm) is recommended between the end of the lock case and the closest approach of the safe's blocking bar or cam plate (which is normally blocked by the extended lock bolt). Maintaining this clearance will allow the lock to deliver optimum performance. The container should be constructed to prevent access to the combination lock without the use of tools when the container door or drawer is left open.

**Handing and Splining:** The lock is designed to be mounted right-hand, left-hand, vertical-up, and vertical-down only. The dial spindle and lock drive cam must be aligned for the hand of mount dictated by the application and connected to each other in this alignment by use of an included friction-fit spline key.

**Combination Restrictions:** Personal data that can be related to a code holder, such as a birth date, street number, or phone number, should not be used in creating a lock code. Avoid codes that can be easily guessed.

**Note:** Every installation of this product must comply with these requirements and those in the product installation instructions to qualify for the manufacturer's warranty and to comply with EN1300 requirements.

## DIMENSIONS—STANDARD SIZE MECHANICAL LOCK CASE



THE DIMENSIONS LISTED ABOVE ARE VALID FOR ALL  
6600 AND 6700 SERIES LOCKS.