

Figure 1 - Dead Bolt Lock Parts

The installation instructions are the basis for Security Agency Approvals. The lock installation must be done in accordance to these instructions in order to maintain the labeled approval level.

Design Parameters for Auditcon 2 Series Locks

1. Bolt dimensions (nominal): .312 inches x 1.000 inches/8 x 25.4mm
2. Bolt movement (nominal) : .465 inches/11.8mm
3. Bolt extension: .465 inches/11.8mm
4. Maximum load movable by the bolt: 5 lbs. (22N)

Note: *Auditcon 2 dead bolt locks may not open if more than 5 lbs. (22N) of force is applied to the end or side of the bolt.*

5. Maximum load against bolt when thrown (all directions): 224.8 lbs. (1kN)
6. The lock can be fitted to safes or vault doors of any material.

Note: *As is the case with all mechanical and electronic locking devices, the container and boltworks must be designed to protect the lock.*

Prepare for New Installation of the Lock (If Required)

1. Use the template provided to establish the exact locations (relative to the spindle hole) of the mounting holes for the lock assembly.
2. The spindle hole diameter can be a minimum of .406" (10.3mm) to a maximum of .438" (11.1mm). The .406" (10.3mm) diameter is recommended. Spindle hole must be deburred.
3. The keypad/base assembly mounting screws require drilled and tapped holes to 3/8" (9.5mm) depth if possible (minimum 1/4" or 6.4mm depth required.) Drill either the two horizontal mounting holes or the two vertical holes.

Basic Tools and Materials Needed

- Medium Phillips head screwdriver (#2) (recommend magnetized tip)
- Fine pitch hacksaw (32 teeth/inch)
- Small flat file
- All-purpose scissors
- Tape measure or ruler
- ESD wrist band

Recommended, but not required:

- Torque screwdriver (30 inch-pounds/3.4 newton-meters capacity)
- Small vise grip
- Needle-nosed pliers
- Loctite® 262 (Red) for use on lock case mounting screws

WARNING: Kaba Mas locks are protected from 25,000 V Electrostatic Discharge (ESD) damage when correctly installed. Follow these precautions to avoid ESD damage when installing the lock:

- Handle the keypad assembly by the outer edge only.
- Use an ESD wrist band grounded to the lock or container during installation.

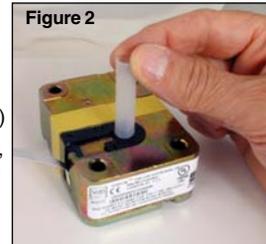
4. When mounting the lock unit (i.e., integrating it in a boltwork), make sure that the lock bolt has clearance to freely move to its end positions and that the shifting force works only in the axial direction (direction of movement). Lateral forces should not be exerted on the lock.

5. If other parts of the boltwork are to be connected to the lock unit (e.g., for activating a blocking device), corresponding adapters can be fixed with screws (#10-32 or M4) to the front of the lock bolt (tightening torque for 15mm screwing depth: 200Ncm maximum).

Part I: Install Lock Case Assembly

WARNING: Do not take the lock case assembly apart. There are no field servicable parts inside lock case.

1. Insert a cable shield into the deburred spindle hole from the back side of the container door.
2. Place the protective tube over the tube retainer on the lock case. (Figure 2)
3. While holding the lock case assembly, guide the tube through the spindle hole and place the lock case flush against the inside of the container door.
4. Mark the tube flush to the outside of the container door (to within 1/16" or 1.6mm).
5. Remove lock case assembly from door and cut the tube just inside your mark.



6. Plug one end of the ribbon cable into the connector on the bottom of the lock case. (Figure 3)

7. Lay the ribbon cable in the cable routing path on the lock case and tape the cable to the outside of the tube with the insulator tape provided. (Figure 3)

8. Hold the lock case assembly and carefully guide the loose end of the ribbon cable and the tube through the spindle hole so that they are accessible outside of the container door.

9. Mount the lock case assembly to the inside of the container door using the four 1/4-20 (or M6-1) lock case mounting screws. (Torque 25-30 lbs., 2.8-3.4 N-M)

Note: *It is recommended that you use Loctite® 262 (Red) on the lock case mounting screws.*

10. Insert the end of the spindle with the screw hole into the lock case assembly until the spindle is properly seated. The grooved side of the spindle should be oriented so that the grooves in the spindle align with the grooves in the drive cam. Turn the spindle so that the grooves are facing toward the bolt and the bolt is extended.

11. Mark the spindle shaft 1 1/4" (31.8mm) from the outside of the container door (plus or minus 1/8" or 3.2mm allowed). (Figure 4)

12. Remove the spindle from the lock case to prevent damage to the cable while cutting.

13. Cut the spindle on the mark, deburr, and lay aside.

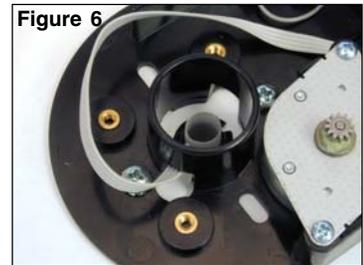
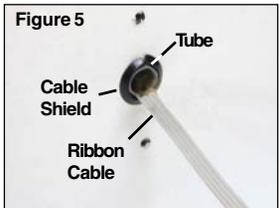
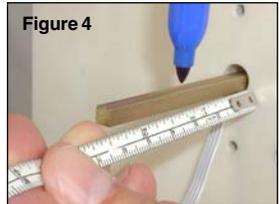
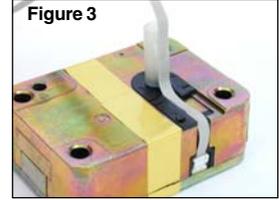
14. Insert the second cable shield into the spindle hole from the front of the container with the cable feeding through the center of it. (Figure 5)

Part II: Install Front Housing Assembly

1. Remove the front cover from the keypad/base assembly.

2. Hold the keypad/base assembly in the upright position (keypad positioned at the top). Guide the ribbon cable through the appropriate cable receiving hole on the back of the keypad/base assembly (Figure 6), based on the orientation of the ribbon cable to the spindle.

3. Place the keypad/base assembly flush against the container door and align so that the dial bushing (Figure 6) is centered over the spindle.



4. Attach the keypad/base assembly to the container door using the two #8-32 (or M4-0.7) mounting screws. (Figure 7) Do not fully tighten screws.

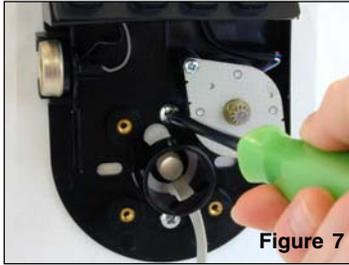


Figure 7

5. Route the ribbon cable toward the keypad so that the cable will not be pinched by the generator. Gently lift the keypad board assembly and guide the cable up through the cable receiving hole in the keypad/base assembly. (Figure 8)

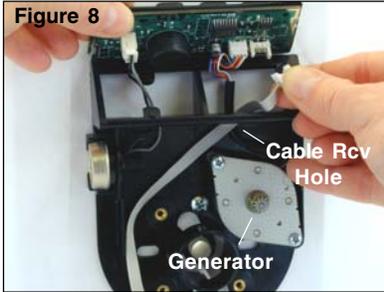


Figure 8

6. Insert the keyed Picoflex connector on the end of the ribbon cable into the connection header on the keypad. (Figure 9)

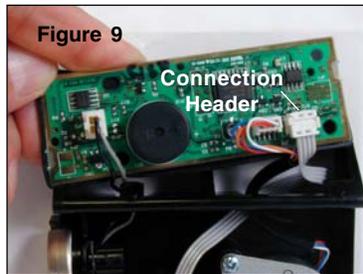


Figure 9

7. Fold the excess cable accordian style and place under the keypad assembly, positioning the cable and the keypad so that they will not be pinched when the front cover is snapped into place.

8. Center the front cover over the keypad/base assembly and gently snap into place.

9. Mount the front cover to the keypad/base assembly using the round mounting holes on the cover and the three #6-32 front cover mounting screws. (Torque 14-16 lbs., 1.6-1.8 N-M) (Figure 10)

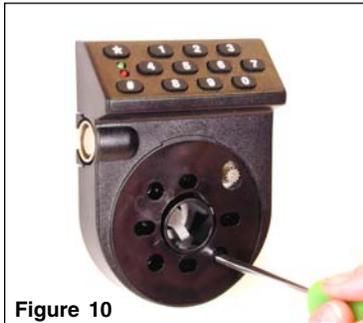


Figure 10

10. Re-insert the spindle. Refer to Step 10 in the previous "Install Lock Case Assembly" section for proper positioning.

11. Hold the dial and orient the lip of the dial in the upright position so that it will cover the red bar on the front cover once placed onto the spindle. This is referred to as the "HOME" position. (See correct dial position in Figure 11.) Place the dial onto the spindle and seat into the dial bushing. Push gently on the dial so that the gear on the generator seats properly into the gear teeth on the dial.

12. While holding the dial in place, insert the #6-32 spindle mounting screw through the back of the lock case and into the end of the spindle. (Figure 12) Turn the screw until it is securely attached to the spindle. (Torque 14-16 lbs., 1.6-1.8 N-M) Verify that the spindle grooves are still facing toward the bolt and that the bolt is still extended.

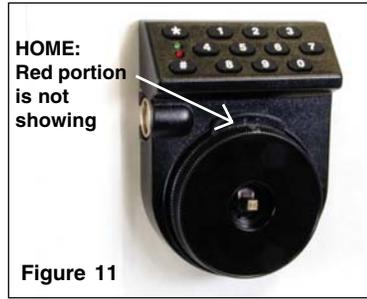


Figure 11

13. Test the operation of the lock before completing the installation of the front cover by verifying the following:

- Ensure that the dial turns freely without scraping. If necessary, re-adjust the keypad/base assembly mounting screws, the position of the spindle, or replace the spindle completely.
- Power the lock by turning the dial briskly in any direction until simultaneous green and red flashes display and two beeps sound to indicate the lock is powered. Position the lock dial to the **HOME** position and key in the Factory Combination. (For a Model 52 or T52, enter "502550". For a Model 252 or 552, enter a two-digit number in the range from 01-20, followed by "502550".) If the combination is entered successfully, one green flash displays to indicate the lock is ready to open. To open, turn the dial right (clockwise) until the lock bolt is retracted. Then turn the dial back to the left to return the bolt to the extended position.

Note: After correctly entering a valid combination, you must retract the bolt within 4-6 seconds.

14. After successfully testing lock operation, hold the cover assembly in place and remove the dial.

15. Tighten the keypad/base assembly mounting screws. (Torque 17-20 lbs., 1.9-2.25 N-M) (Figure 13)

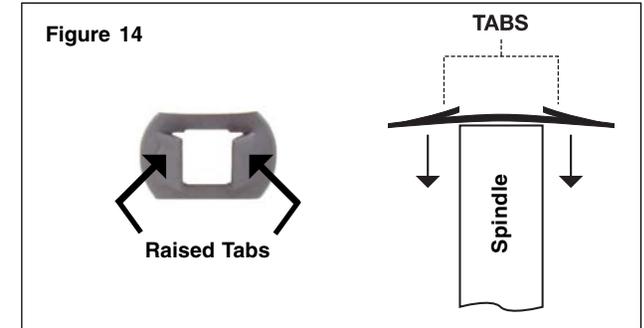
16. Apply a small amount of lubricant to the gear on the generator, the bearing surface of the dial (the portion that fits into the dial bushing of the base assembly), and the teeth around the edge of the dial.

17. Place the dial onto the spindle and seat into the dial bushing. Push gently on the dial so that the gear on the generator seats properly into the gear teeth on the dial.



Figure 12

18. Position the spindle mounting clip (Figure 14) over the spindle in the center of the front of the dial. The raised tabs should be facing out, away from the container. (The concave side of the clip should be facing toward the container.) Slide the clip down the spindle until the clip stops against the center portion of the dial. Check to make sure the outward dial movement (away from the container) has been held to a minimum.



Caution: To meet the requirements of certain approval agencies, a tamper evident dial label may have been included with your lock. It is important that the next step of the installation be completed very carefully, allowing the dial label to be applied correctly on the first attempt. If the tamper evident dial label is removed after initial application, a part of the label will stay on the dial. A new label would then be required for reapplication.

19. Orient the lip of the dial to the HOME position and apply the dial label to the dial. The Kaba logo should be aligned horizontally (Figure 15).

20. If your lock includes the Battery Assist option, you should now mount the battery clip inside the door near the lock and install a fresh 9 Volt Alkaline battery.



Figure 15

Note: To remove any excess cable or if you choose not to use the Battery Assist option, wrap and tie the battery assist cable. (Figure 16) If you do not ever plan on using the Battery Assist option, you can cut the cable next to the lock case to remove it.

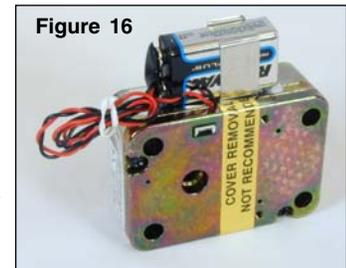


Figure 16

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Product warranty information can be found at: www.kaba-mas.com

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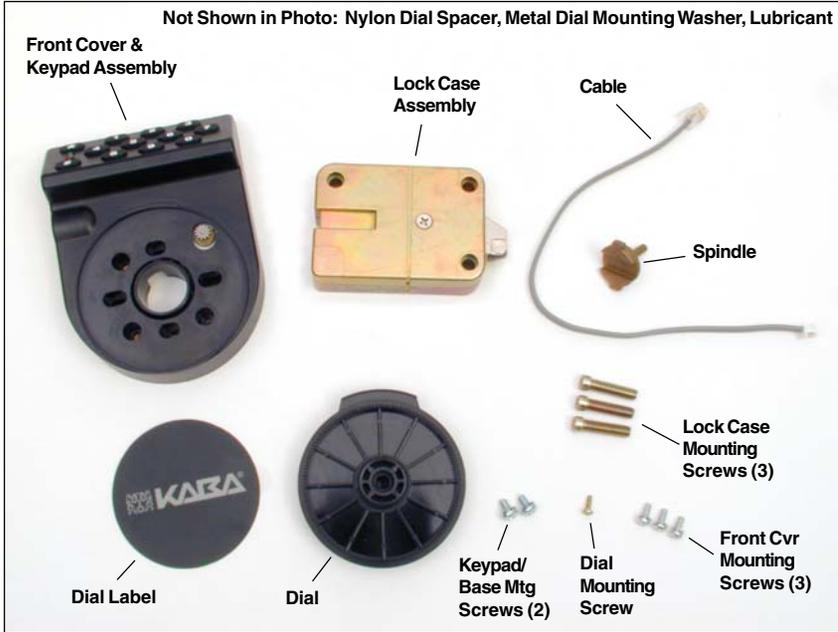


Figure 1 - Slide Bolt Lock Parts

The installation instructions are the basis for Security Agency Approvals. The lock installation must be done in accordance to these instructions in order to maintain the labeled approval level.

In order to maintain VdS Class 2/EN 1300 Class B lock approval levels in a container where multiple locks are required, special considerations must be observed. The Auditcon 2 Series lock must be the first one secured by the boltworks. Check the locked status of the container with the handle of the boltworks.

Design Parameters for Auditcon 2 Series Locks

1. Bolt dimensions (nominal): .312 inches x 1.000 inches/8 x 25.4mm
2. Bolt movement (nominal) : .465 inches/11.8mm
3. Bolt extension:
 - Square Nose Slide Bolt is .465 inches/11.8mm
 - Roller Slide Bolt is .495 inches/12.6mm
4. Maximum load movable by the bolt: None

Note: Auditcon 2 slide bolt locks will not open if force is applied to the end or side of the bolt.

5. Maximum load against bolt when thrown (all directions): 1kN (224.8 lbs.)
6. The lock can be fitted to safes or vault doors of any material.

Note: As is the case with all mechanical and electronic locking devices, the container and boltworks must be designed to protect the lock.

Basic Tools and Materials Needed

- Medium Phillips head screwdriver (#2) (recommend magnetized tip)
- ESD wrist band

Recommended, but not required:

- Torque screwdriver (30 inch-pounds/3.4 newton-meters capacity)
- Loctite® 262 (Red) for use on lock case mounting screws

WARNING: Kaba Mas locks are protected from 25,000 V Electrostatic Discharge (ESD) damage when correctly installed. Follow these precautions to avoid ESD damage when installing the lock:

- Handle the keypad assembly by the outer edge only.
- Use an ESD wrist band grounded to the lock or container during installation.

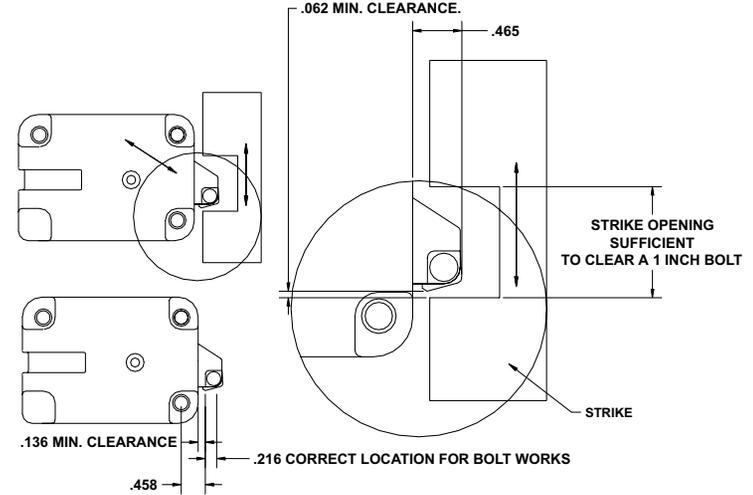


Figure 2 - Square Nose Slide Bolt Clearances and Positioning

Prepare for New Installation of the Lock

(If Required)

1. Using the lock parts along with the template provided, establish the exact location for the drilled and tapped holes.

Caution: The lock case must be mounted exactly according to the template if mounted over the cable routing hole. Otherwise, the lock case must be mounted so that no part of the case covers the cable routing hole.

2. The spindle hole diameter can be a minimum of .406" (10.3mm) to a maximum of .438" (11.1mm). The .406" (10.3mm) diameter is recommended. Spindle hole must be deburred.

3. The keypad/base assembly mounting screws require drilled and tapped holes to 3/8" (9.5mm) depth if possible (minimum 1/4" or 6.4mm depth required.) Drill either the two horizontal mounting holes or the two vertical holes.

4. When mounting the lock unit (i.e., integrating it in a boltwork), make sure that the lock bolt has clearance to freely move to its end positions and that the shifting force works only in the axial direction (direction of movement). Lateral forces should not be exerted on the lock. A minimum clearance of 1/16" (1.6mm) is required between the bolt roller/nose and the inside edge of the strike. Refer to Figures 2 and 3.

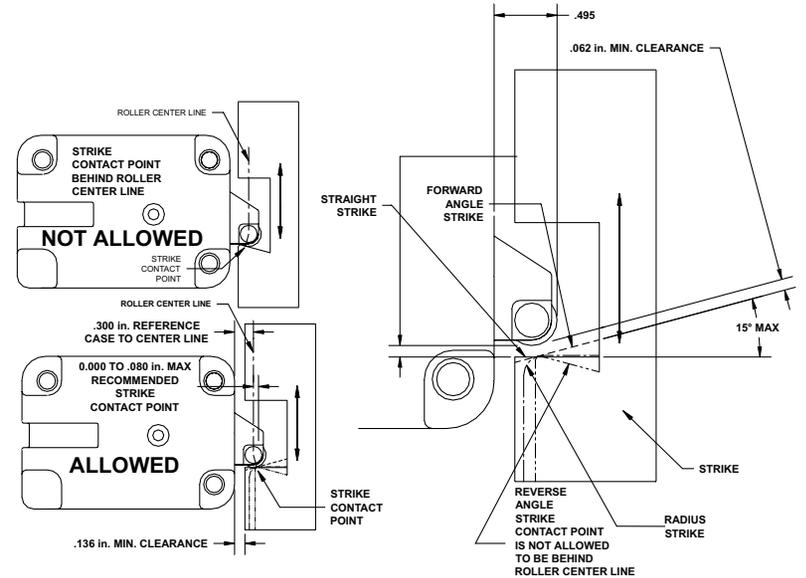
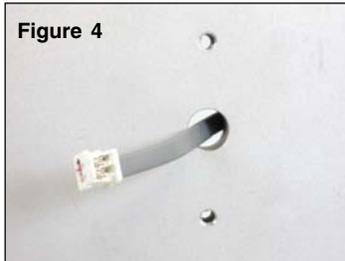


Figure 3 - Roller Slide Bolt Clearances, Strike Types & Contact Points

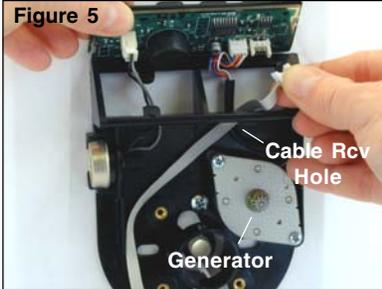
Part I: Install Front Housing Assembly

1. Route the end of the lock cable with the Picoflex connector from the back of the container door through the cable routing hole. (Figure 4)



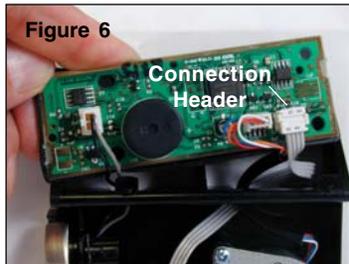
2. Remove the front cover from the keypad/base assembly.

3. Hold the keypad/base assembly in the upright position (i.e., the keypad is positioned at the top) and hold the keypad in place. Guide the cable through the cable receiving hole from the back of the keypad/base assembly. (Figure 5)



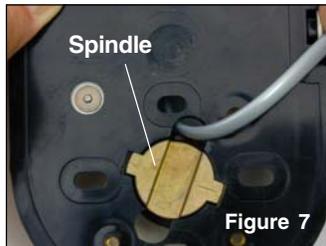
4. Route the lock cable toward the keypad so that the cable will not be pinched by the generator. Gently lift the keypad board assembly and guide the cable up through the cable receiving hole in the keypad/base assembly. (Figure 5)

5. Insert the Picoflex connector on the end of the ribbon cable into the header on the keypad with proper orientation. (Figure 6)



6. Insert the spindle from the back of the keypad/base assembly. (Figure 7)

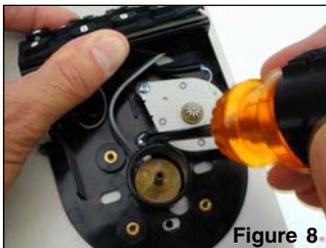
7. Position the keypad/base assembly firmly against the container door and attach it to the container door using the two #8-32 (or M4-0.7) keypad/base assembly mounting screws. (Figure 8) Do not fully tighten screws.



8. Position the cable and the keypad so that they will not be pinched when the front cover is snapped into place.

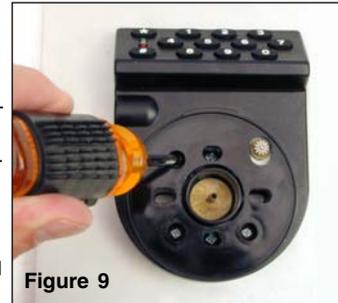
9. Pull excess cable through to the inside of the container.

10. Tighten the keypad/base assembly mounting screws. (Torque 17-20 lbs., 1.9-2.25 N-M) (Figure 8)



11. Center the front cover over the keypad/base assembly and gently snap into place.

12. Mount the front cover to the keypad/base assembly using the round mounting holes on the cover and the three #6-32 mounting screws. (Torque 14-16 lbs., 1.6-1.8 N-M) (Figure 9)



13. Place the nylon dial spacer over the spindle.

14. Place the dial onto the spindle and seat into the dial bushing. Push gently on the dial so that the gear on the generator seats properly into the gear teeth on the dial.

15. Plug the RJ11 end of the cable into the lock case in order to test the lock.

16. Test the operation of the lock before completing the installation of the front cover by verifying the following:

- Ensure that the dial turns freely without scraping.
- Power the lock by turning the dial briskly in any direction until simultaneous green and red flashes display and two beeps sound to indicate the lock is powered. Key in the Factory Combination. (For a Model 52 or T52, enter "502550". For a Model 252 or 552, enter a two-digit number in the range from 01-20, followed by "502550".) If the combination is entered successfully, continuous green flashes display to indicate that the lock is ready to open. Rotate the container handle to unlock. Then rotate the handle back to the locked position.

Note: After correctly entering a valid combination, you must retract the bolt within 4-6 seconds.

17. Unplug the RJ11 end of the cable from the lock case and lay the case aside.

18. After successfully testing lock operation, hold the cover assembly in place and remove the dial.

19. Apply a small amount of lubricant to the gear on the generator, the bearing surface of the dial (the portion that fits into the dial bushing of the base assembly), and the teeth around the edge of the dial.

20. Place the dial onto the spindle and seat into the dial bushing. Push gently on the dial so that the gear on the generator seats properly into the gear teeth on the dial.

21. Insert the #4-40 dial mounting screw through the metal dial mounting washer. Then insert the dial mounting screw/washer assembly into the spindle and tighten the dial mounting screw.

Caution: To meet the requirements of certain approval agencies, a tamper evident dial label may have been included with your lock. It is important that the next step of the installation be completed very carefully, allowing the dial label to be applied correctly on the first attempt. If the tamper evident dial label is removed after initial application, a part of the label will stay on the dial. A new label would then be required for reapplication.

22. Orient the lip of the dial to the upright position and apply the dial label to the dial. The Kaba logo should be aligned horizontally (Figure 10).

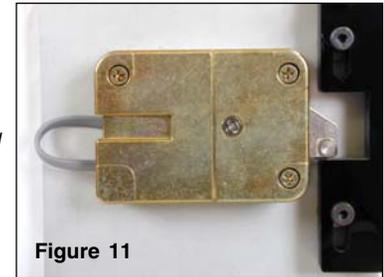


Part II: Install Lock Case Assembly

WARNING: Do not take the lock case assembly apart. The lock will not operate if the back cover has been removed.

1. Ensure that the cable lays in the cable channel as you mount the lock case assembly to the inside of the container door using the three 1/4-20 (or M6-1) screws (Torque 25-30 lbs., 2.8-3.4 N-M), allowing 1/16" (1.588mm) clearance between the lock bolt and the container locking bar. (See Figure 2 for proper clearances and positioning when installing a square nose slide bolt. See Figure 3 for proper clearances, strike types and contact points when installing a roller slide bolt.)

Note: The lock case assembly can be mounted in bolt roller up position or bolt roller down position (Figure 11) for all mounting locations. It is recommended that you use Loctite® 262 (Red) on the lock case mounting screws.



2. If your lock includes the Battery Assist option, you should now mount the battery clip inside the door near the lock and install a fresh 9 Volt Alkaline battery.

Note: To remove any excess cable or if you choose not to use the Battery Assist option, wrap and tie the battery assist cable. (Figure 12) If you do not ever plan on using the Battery Assist option, you can cut the cable next to the lock case to remove it.



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