

Subject: Preventative Maintenance and Cleaning Procedure for SM Bill Validator

Objective:

To outline a procedure to ensure your Cashcode bill validator continues to operate as per factory specifications for the **Cashcode SM Bill Validator**. Dust and particles of dirt can accumulate on the sensors and rollers during normal operation, negatively impacting the performance of the device (both speed and acceptance rate).

Tools required:

- Compressed air (clean and dry supply)
- Plastic scraper
- Cotton swabs
- Tweezers
- Soft moist cloth
- Isopropil Alcohol (in the case of extremely contaminated parts, use it with the cloth)

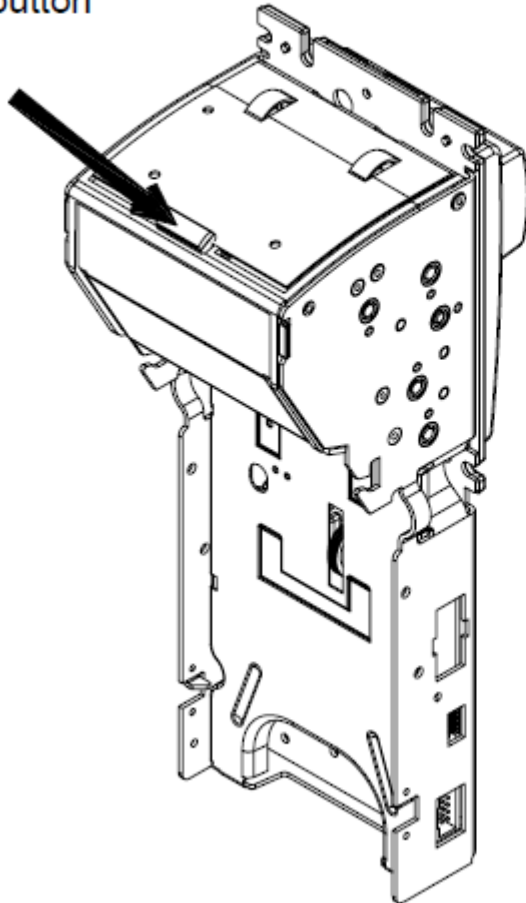


Frequency Required:

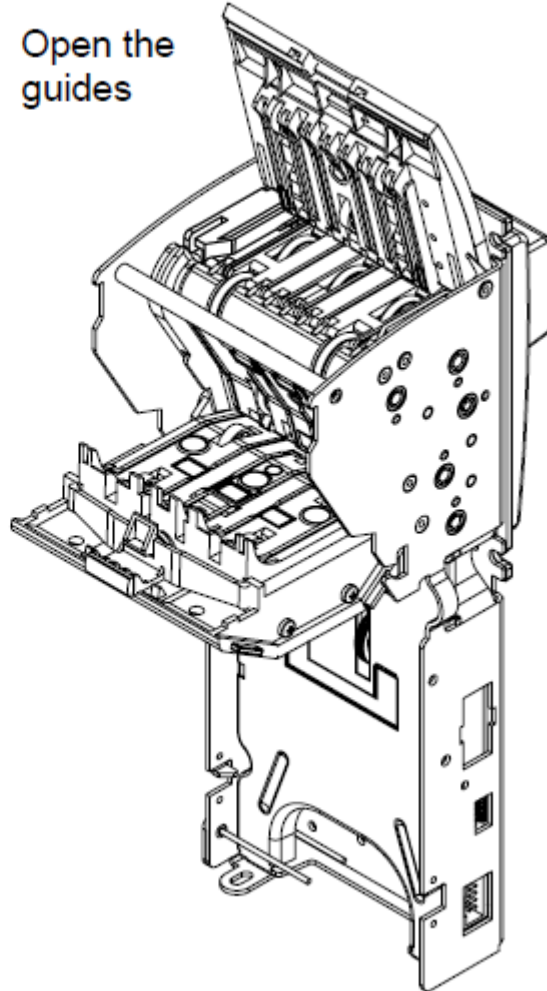
Every 6 months or 60,000 bills whichever comes first.. In adverse conditions (high humidity, dusty environment, temperature) increase frequency of cleaning.

Procedure:

Push the
button



Open the
guides



WARNING!

DO NOT USE ACETONE OR MINERAL OIL BASED SOLVENTS AS THEY WILL DAMAGE THE LENSES, PLASTIC DETAILS AND VOID THE WARRANTY.

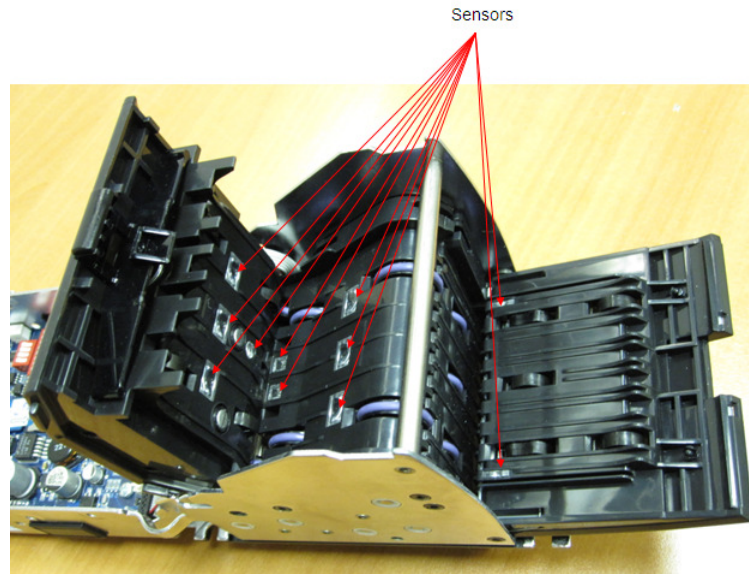
Cleaning Procedure:

1. Opening covers of Bill Validator

- a. Remove the cassette
- b. Open the clamshell to expose bill path and sensors by pushing the button as shown above

2. Sensor Cleaning

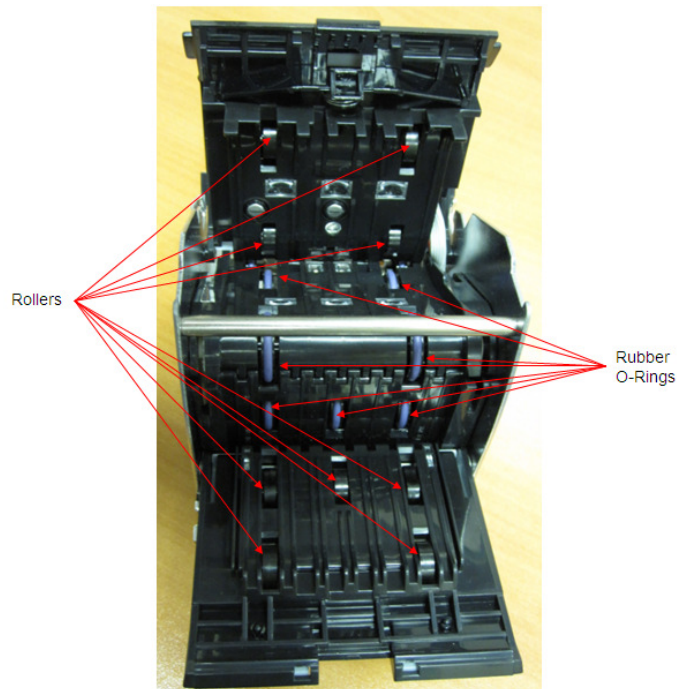
- a. Using the compressed air, remove all fine dust and loose particles
- b. Clean sensors using the soft moist cloth (moisten cloth with **clean water only**)
- c. See photos below



Be sure there is no dust accumulation, scratches or other mechanical damage.
Performance will be greatly impacted.

3. Transport Drive Mechanism

- a. First blow entire bill path with compressed air, special attention to wheels and rollers
- b. Use the soft moist cloth to remove contaminants still remaining
- c. In the case of extremely contaminated rollers and rubber o-rings, use the cloth with isopropyl alcohol



4. Inspection**a. Self Test Functionality:**

CashCode's SM Bill Validator is equipped with a self-diagnostic feature to aid in repair and maintenance. When the power to the Bill Validator is restored, the unit begins its self-diagnostic operation. If the self-diagnostic test is passed, then the status light will turn green. If an error is detected, then the status light on the front of the Bill Validator will blink red. Please refer to the Diagnostic section of the manual for a complete list of error codes and corrective actions.

b. Visual Inspection:

Open the guide assembly to access the bill path

Ensure:

No scratches present on the guides and optical sensors

No dirt or cracks present on the surface of the transport rollers and rubber o-rings.

No dirt on the surface of the optical sensors

The entire bill path is clean of paper debris or residue

## of flashes	Malfunction
1 red on black	Cassette is removed from bill acceptor
3 red on black	Cassette is full
4 red on black	Failure of stacker mechanism
5 red on black	Failure of capacitance sensors
6 red on black	Failure of optical sensors
7 red on black	Failure of magnetic sensors
8 red on black	Transporting motor failure (timeout)
9 red on black	Speed of transporting motor is too fast
11 red on black	Bill pathway is not empty (bill is jammed)
12 red on black	Fail rejecting a bill. Bill is in the entry slot of the cassette.
1 green on red	COM port CRC Error
2 green on red	Internal CRC Error
3 green on red	Improper CCMS format
4 green on red	CCMS is absent
5 green on red	Improper type of CCMS
6 green on red	Download Error

5. Cassette Maintenance with locking features installed.

It is recommended to check and tighten locks of both the inside and outside security lock every four (4) months by tightening the screw and nut as showed on below procedure.

Needed Tools

Phillips screwdriver

15mm socket and driver

Optional: Torque screwdriver to accommodate Philips screwdriver bit and 15mm socket (torque 12kg-cm/11 in-lbs for the M3 screw, and 20kg-cm/18 in-lbs for the nut)

Step 1 - Outside locking mechanism

To remove the Outside Locking Mechanism, turn the lock to the open position and proceed with removal of the push rivets according to below figures 1 and 2

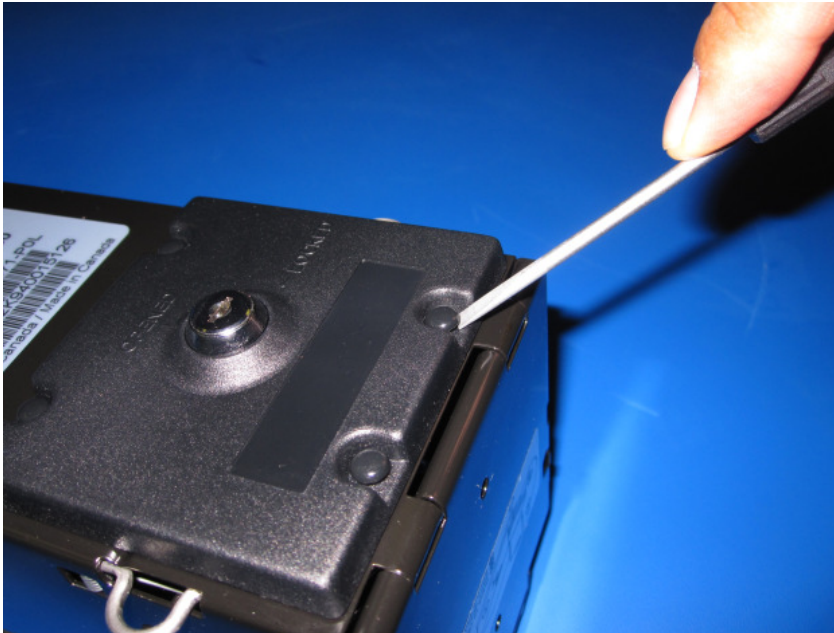


Figure 1

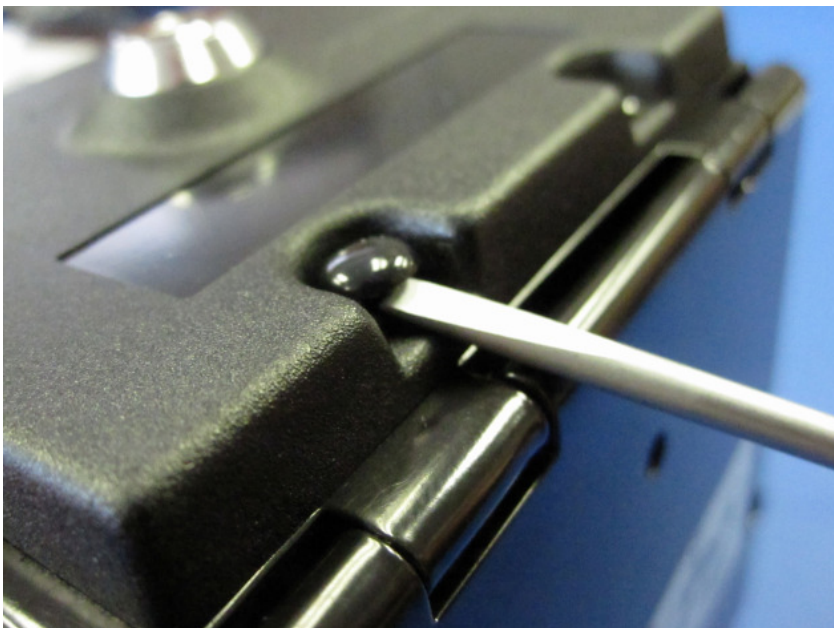
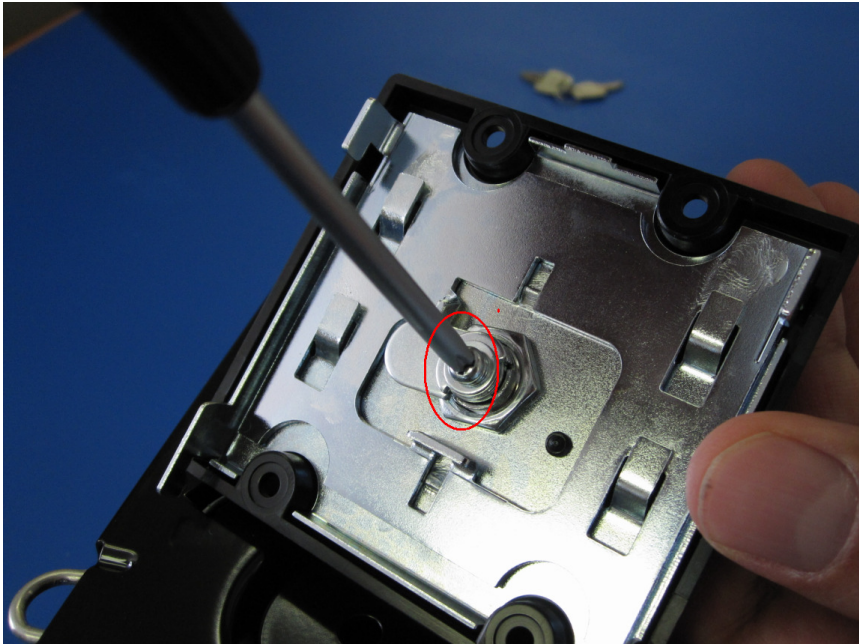


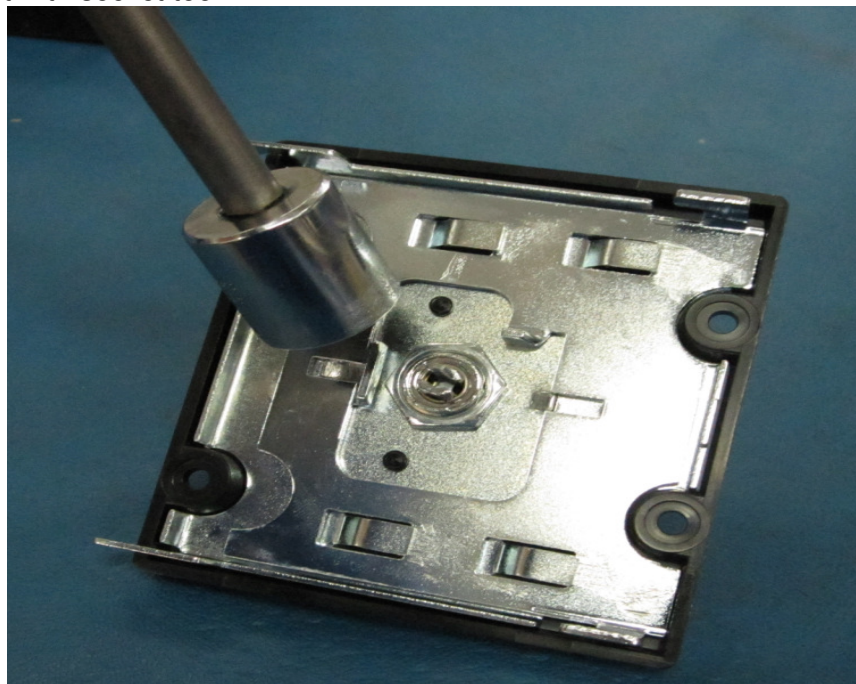
Figure 2

Step 2 – Lift outside locking mechanism off cassette to proceed

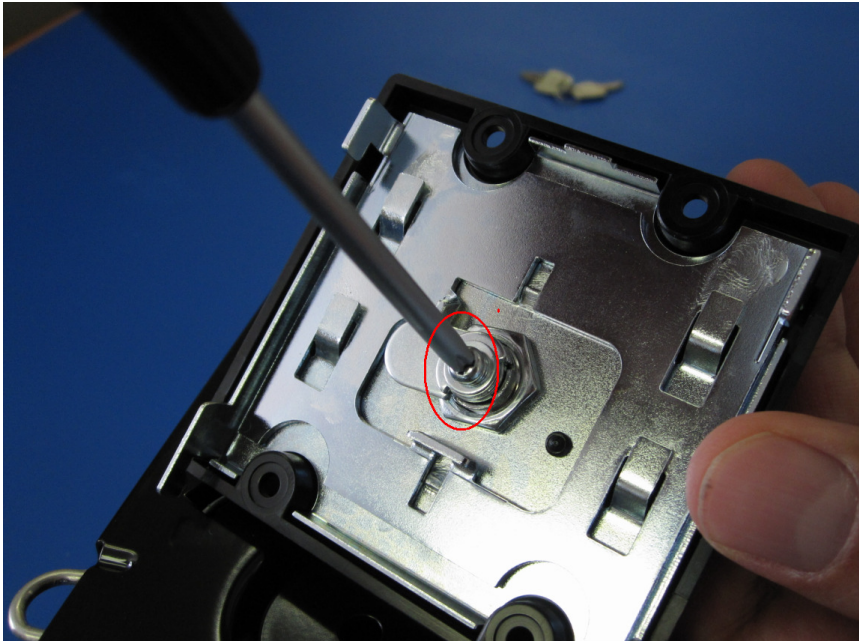
Unscrew the assembly (Reference Assembly)



Tighten the nut with socket tool

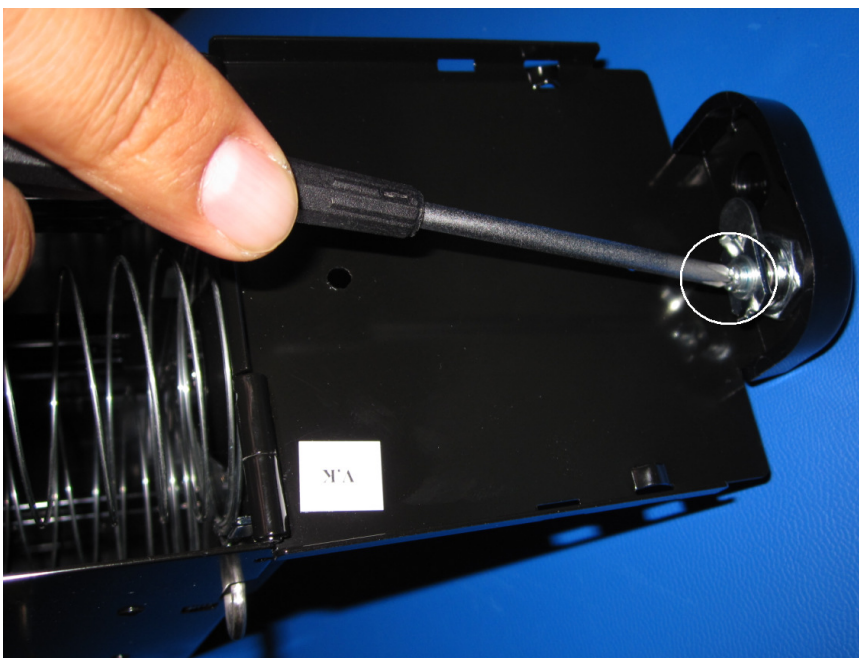


Screw the assembly back on (Reference Assembly) and tighten down the screw.



Step 3 – Inside locking mechanism (on cassette door)

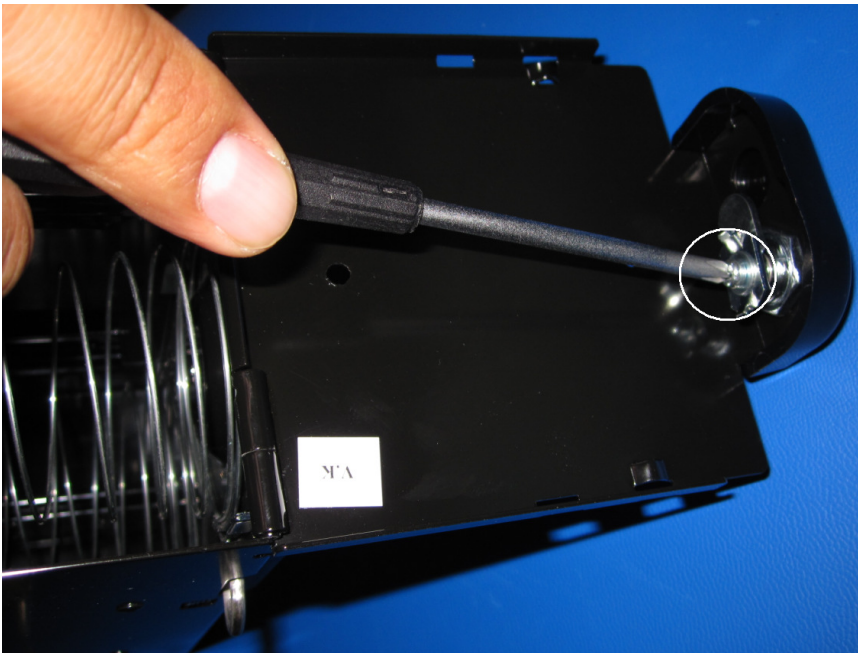
Unscrew the assembly (Reference Assembly)



Tighten the nut with socket tool



Screw the assembly back (Reference Assembly) on and tighten down the screw.

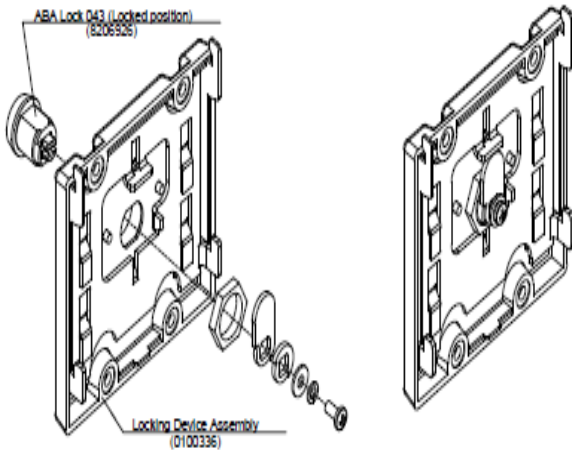


Reference Assembly

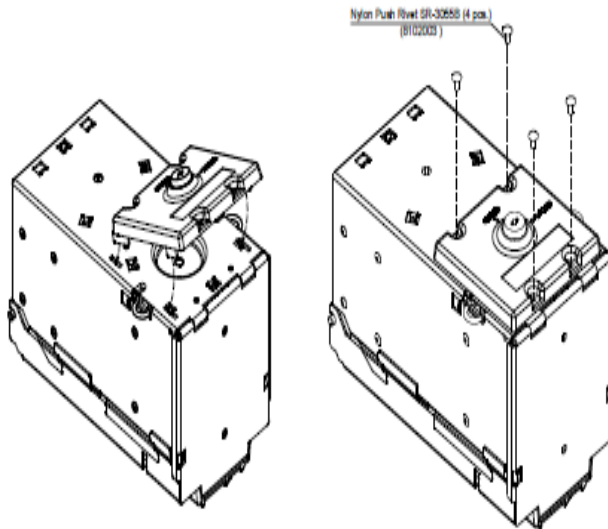
**Vault Security Locks Installation
 Instruction for Regular Cassette**

**1. Installation of the Outside Security Lock with Mounting Kit
 OPT-MKCST-SL1**

1. Assemble lock parts into kit as indicated:

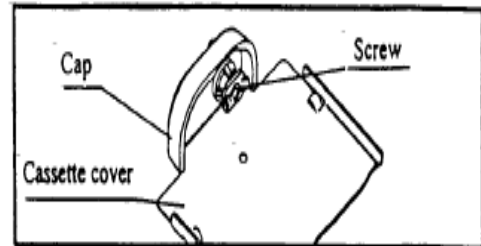


2. Fasten lock kit to the cassette.

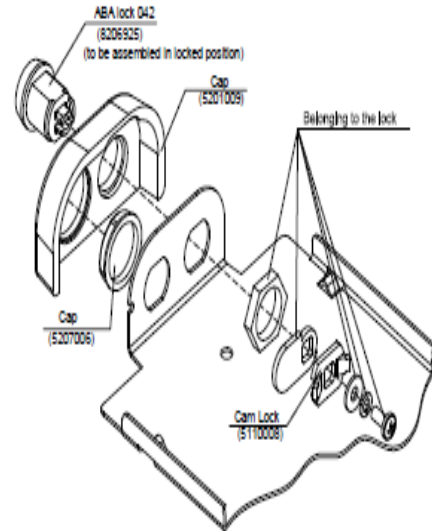


2. Installation of the Inside Security Lock

1. Remove the screw and disassemble the cap of the cassette cover.



2. Assemble the cassette cover and the cap with the lock as shown at the picture. Pay your attention on the orientation of the lock and its cam.



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