Subject: Preventative Maintenance and Cleaning Procedure for FLS(ONE) Bill Validator

Objective:

To outline a procedure to ensure your Cashcode bill validator continues to operate as per factory specifications for the **Cashcode FLS(ONE) 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).
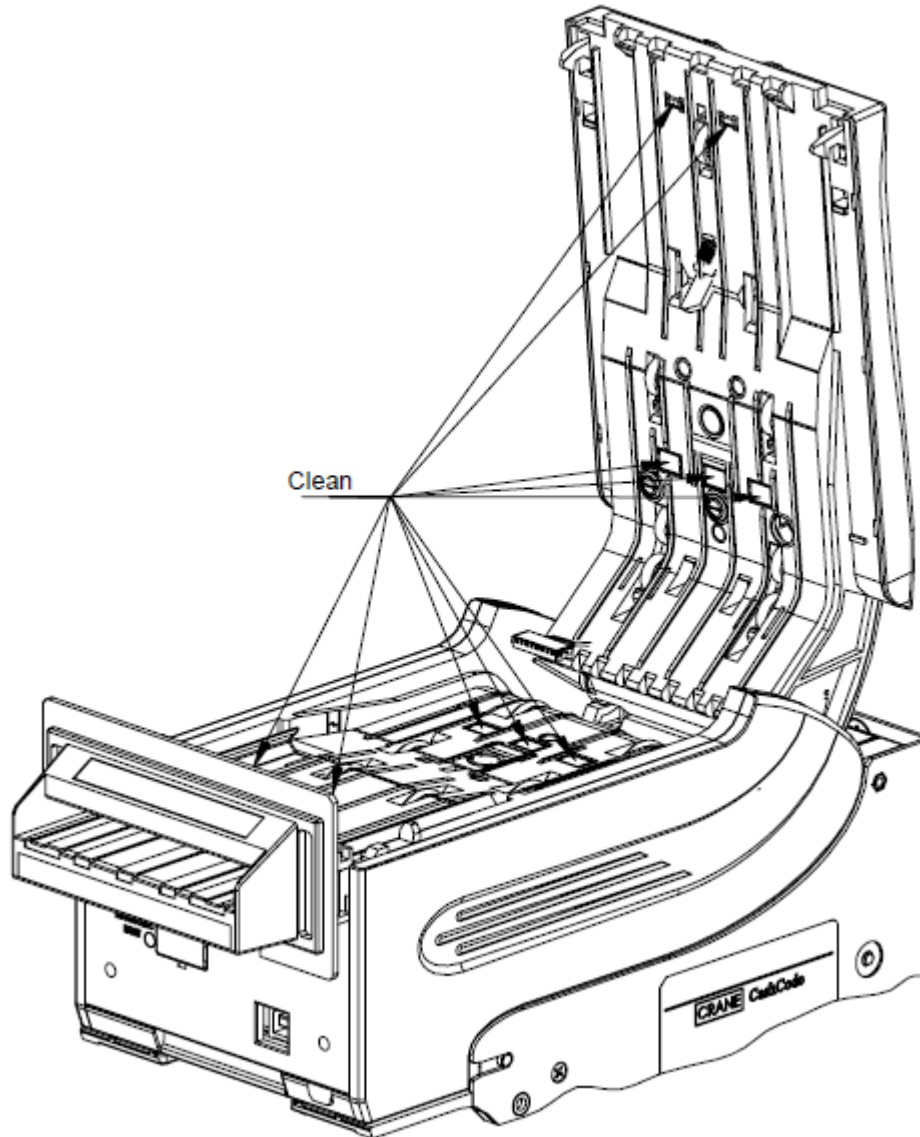
Tools required:

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. In adverse conditions (high humidity, dusty environment, temperature) increase frequency of cleaning.

Procedure:

Clean

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. **Remove Bill Validator from Housing**
   a. Lift tab and pull validator forward
   b. Place on a clean, dry surface
   c. Open door latch to expose bill path and sensors

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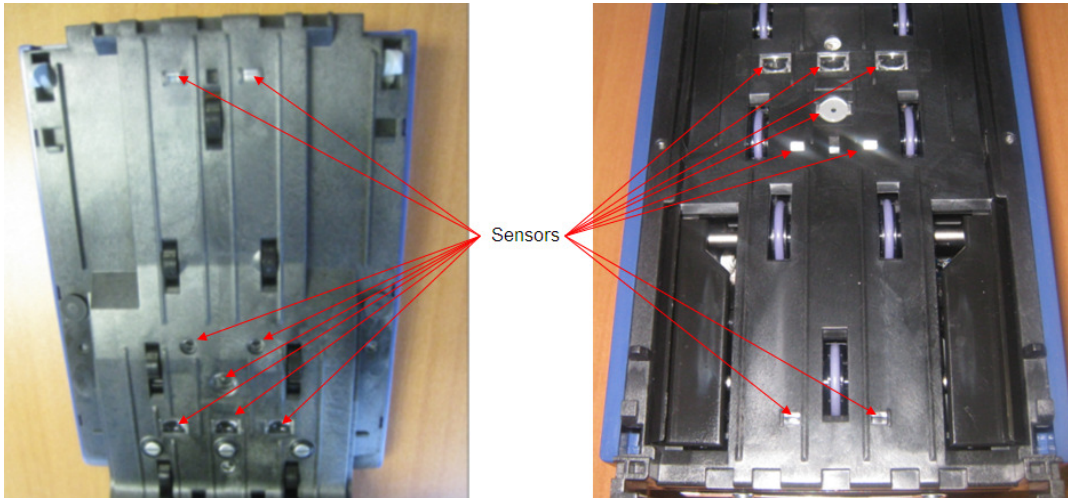
Be sure there is no dust accumulation, scratches or other mechanical damage.
Performance will be greatly impacted.

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

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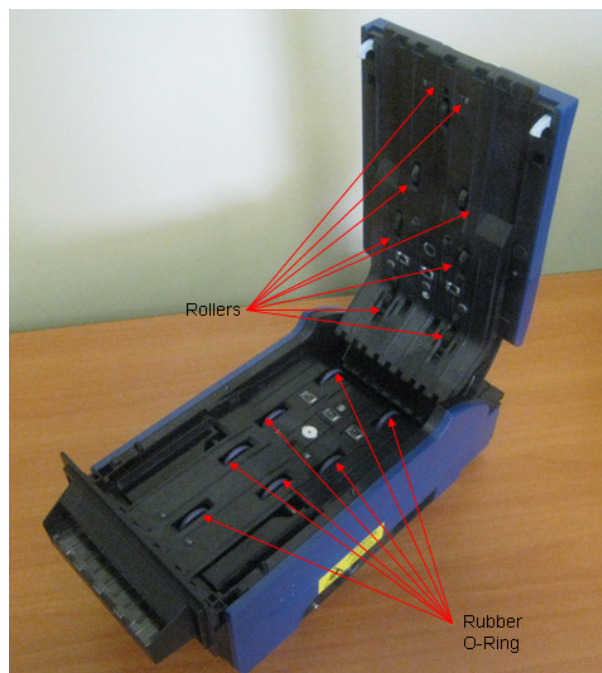
4. **Inspection**
   a. **Self Test Functionality:**

CashCode's FLS(ONE) Bill Validator is equipped with a self-diagnostic feature to aid in repair and maintenance. When the power to the Bill Validator is restore, the unit begin 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

	Number of Status Light Flashes	Error Description
HARDWARE	1 red on black	Cassette is removed from bill validator
	2 red on black	An error occurred during CPU exchange with magnetic board
	3 red on black	Cassette is full
	4 red on black	Mechanical jam in the cassette or stacker motor failure
	5 red on black	Failure of dielectric sensors
	6 red on black	Failure of optical sensors
	7 red on black	Failure of inductive sensors
	8 red on black	Failure of transporting motor
	9 red on black	Speed of transporting motor is too fast
	10 red on black	Failure in alignment mechanism
	11 red on black	Bill pathway is not empty
	12 red on black	Bill jammed in entry slot of the cassette. No credit given
	13 red on black	Overload of transport motor
	14 red on black	System error
SOFTWARE	1 green	Unable to write program memory
	2 green	Firmware integrity error
	3 green	Wrong memory card
	4 green	Security error