



MEI CASHFLOW SC® / SC Advance®
Operation & Maintenance Manual



TABLE OF CONTENTS

OVERVIEW

Model Number	3
Serial Number.....	4
Main Components of CASHFLOW SC® and SC Advance®	5
Power Requirements.....	5

UPDATING SOFTWARE

Using the CASHFLOW® Portable Programing Module (PPM).....	6-8
Replacing the PROM.....	9-11

MAINTENANCE

Cleaning the Acceptor Module	12
Calibration	12

TROUBLESHOOTING

Diagnostic Codes.....	13
Universal Diagnostic BEG Codes	13
MMI Diagnostic LED Codes	13-14

OVERVIEW

Model Number:

Product	Cassette Size	Bill Path Width		Interface Option		Description
SC						CASHFLOW SC
SCN						SC ADVANCE
	(NONE)					600 Note Cassette
	M					900 Note Cassette
	L					1,200 Note Cassette
	XL					2,000 Note Cassette
		66				66mm Bill Path
		76				76mm Bill Path (SC Only)
		83				83mm Bill Path
		85				85mm Bill Path
			0			Gaming Down Stacker
			1			Gaming Up Stacker
			2			Retail
			4			Four Way Barcode (SCN Only)
				1		RS-485
				2		Optically Isolated with Netplex Harness
				4		Optically Isolated with EBDS Harness
				7		RS-232
				8		USB
					B	BNF
					E	EASITRAX Soft Count
					G	GDS
					N	No Cashbox
					P	PROM
					R	Retail Kit
					RL	Retail Kit with Cassette Lock
					S	Short Harness (4 Inches)
					U	Dual Port Harness: USB
					W	Tri-Port Harness: RS-232 and SPC USB
					X	Deep Cashbox
					Y	Tri-Port Harness: RS-232 and GDS USB
Note 1:	Retail models ending in 21, 27, and 28 do not incorporate a barcode sensor.					
Note 2:	EASITRAX model types will ultimately be available on most variants.					
Note 3:	Additional USB model types incorporating IGT-Specific, GSA-Specific, and MEI-Specific protocols may be developed					
Note 4:	V2.2 and CCTalk added with software (no need for additional model numbers).					
Example: SCNXL6627B						Description
SCN						SC Advanced
	XL					2000 Note Cashbox
		66				66mm Bill Path
			2			Retail
				7		RS-232 Communication
					B	With BNF

OVERVIEW

Serial Number:

1.02 Serial Number Codification

Example Serial Number: 27480369806	Description
27	Week Manufactured (0-52)
4	Year manufactured (Last Digit of Year)
8	Manufacture Location
03	Configuration Code
69806	Sequential Production Number

OVERVIEW

Main Components of CASHFLOW SC® and SC Advance®

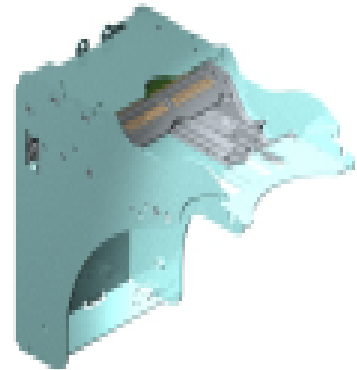
The note acceptor consists of three main components:



Cashbox/LRC



Acceptor Module



Chassis

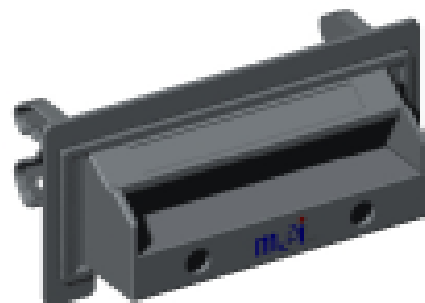
The acceptor module and cashbox are interchangeable with other identical CASHFLOW SC® and SC Advance® models.

Bill Entry Guides for CASHFLOW SC® and SC Advance®:

Not all bill entry guides fit in every machine. Your choice regarding bill entry guides will depend on machine specifications. Below are two examples of bill entry guides we currently manufacture. For customers who prefer to tool their own bill entry guide, please contact our technical department.



Platform Bill Entry Guide



Universal Bill Entry Guide

Power Requirements:

Standby:	10 Watts
Acceptance:	Peak 30 Watts
Stacking: Peak:	70 Watts
Input Voltage:	+12-28 VDC

UPDATING SOFTWARE

There are two ways to perform software updates on the CASHFLOW SC® or SC Advance® note acceptor:

- 1) By using the CASHFLOW® Portable Programming Module (PPM) handheld device.*
- 2) By replacing the programmed PROM (chip change).**

Using the PPM:

Connecting the PPM:

1. Locate the two USB ports at the top of the PPM (see fig. 1).
2. Plug the Type A end of your USB cable into the Type A port of the PPM. Plug the Type B end of the same USB cable into the Type B port of the note acceptor (see fig.2).

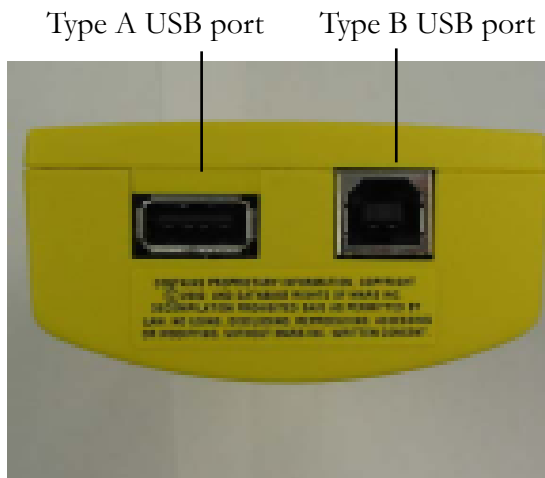


fig.1 (PPM)



fig.2 (Connecting PPM to note acceptor)

* Note: For use with SC Advance®, the CASHFLOW® Portable Programming Module must be updated with Application V2.02, which is available with STS 7.03.

** Note: Installing a PROM (chip) fully disables the note acceptor from downloading software files with the PPM, and any future software changes can only be made by installing a new PROM (chip change).

UPDATING SOFTWARE

Using the PPM (Continued):

PPM Download Procedure:

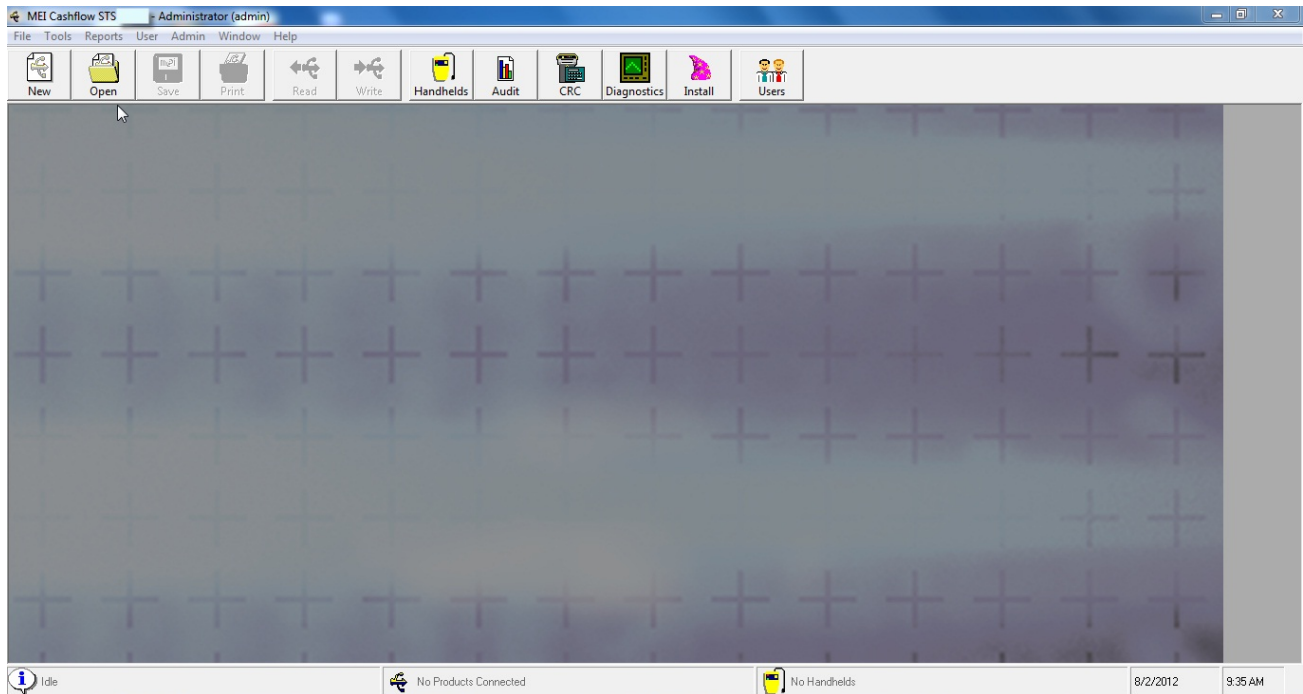
After connecting the PPM to the note acceptor with the USB cable, you may begin downloading.

1. Press the square download button located on the front of the PPM. (see fig.2 on previous page).
2. While downloading, a solid green LED and flashing red LED on the front of the PPM will indicate the device is busy.
3. Both green and red LEDs on the PPM will light up solidly when the download has finished successfully. The note acceptor will then perform a run and stack, and the LEDs on the PPM will turn off. At this point, the USB cable may be disconnected from the note acceptor.
5. Following a successful download, the diagnostic LEDs on the note acceptor will flash green until communication between the note acceptor and the machine is re-established.

UPDATING SOFTWARE

Using the PPM (Continued):

CASHFLOW® STS support tool:

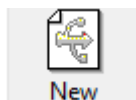


The CASHFLOW® STS (support and test systems) software program supports CASHFLOW SC® and SC Advance® note acceptors and CASHFLOW® Portable Programming Module (PPM) with a full range of configuration, software update and performance management tools.

The enabled functions will depend on your license and may include:



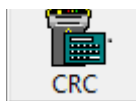
Handhelds – allows you to manage handheld devices, download files for devices, change audit settings and upgrade PPM firmware.



Configuration – allows you to load and save configurations to or from a file that can be loaded directly to the note acceptor.



Audit – allows you to view stored audit data and retrieve new audit data from the note acceptor.



CRC – allows you to perform CRC checks on a connected note acceptor.



Diagnostics – allows you to run tests on and troubleshoot a connected note acceptor.

UPDATING SOFTWARE

Replacing the Programmed PROM:

Replacing the PROM is only necessary in applications that occur in jurisdictions that require the installation and use of PROMs.

Note: Installing a PROM (chip) fully disables the note acceptor from downloading software files with the PPM, and any future software changes can only be made by installing a new PROM (chip change).

1. Remove the acceptor module from the chassis.
2. As shown in the diagram below, open the acceptor module by placing the palm of your hand on the front of the module and your fingers around the top of the yellow cover as shown in the diagram to the right. Pull the cover toward your hand and then lift up, opening the module head fully.



3. Remove the yellow cover from the acceptor module by turning the acceptor module so that the top of the cover is facing you. Wedge the tips of your fingers underneath the left and right front top corners of the yellow cover. Lift the corners out and then back toward you. The cover will be released once it has cleared the back ramps, as shown in the diagram below:

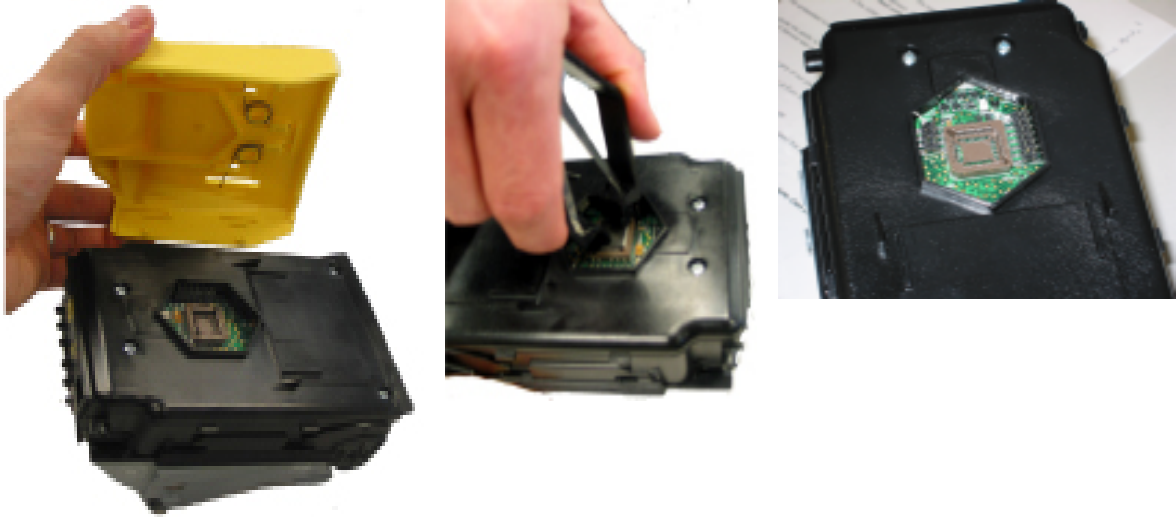


Once the yellow cover is released in the front, slide it back and remove it.

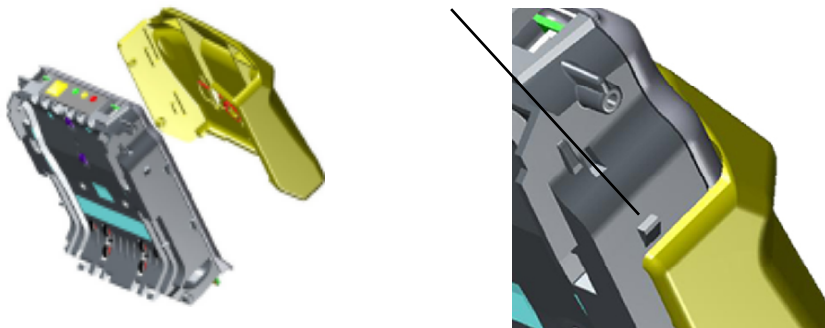
UPDATING SOFTWARE

Replacing the Programmed PROM (Continued):

4. Remove the PROM using a PLC puller.
5. Insert the new PROM.



6. To reinstall the yellow cover, the acceptor module must remain open. Position the back of the cover as shown below:



7. Once the yellow cover is in the correct position, move it forward (as though you were opening the acceptor module) until the cover locks into place.

UPDATING SOFTWARE

Replacing the Programmed PROM (Continued):

8. Close the acceptor module and reinstall it into the chassis.
9. If the power is on, the note acceptor will power up and then perform a run and stack.



MAINTENANCE

Note: Maintenance should be performed by a properly trained service technician.

Periodic maintenance can improve the performance and extend the working life of a note acceptor. Additional attention may be required if the note acceptor becomes inoperable due to a jammed object or if acceptance rates fall below normal.

Cleaning the Acceptor Module:

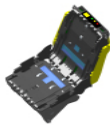
Note: You must remove the acceptor module from the chassis to open the front sensor area. Forcing the note path open without removing the acceptor module from the chassis will damage the unit. Remember to turn off the machine (as per machine manufacturer) before performing any cleaning.



1. Remove the acceptor module from the chassis.



2. Open the acceptor module by placing the palm of your hand on the front of the module and your fingers around the top of the yellow cover as shown in the diagram to the right. Pull the cover toward your hand and then lift up, opening the module head fully.



3. Clear the note path area of any foreign objects.

4. Wipe the note path and sensor areas as needed with a soft damp cloth. Be sure to also wipe the side walls of the optics housing. For stubborn dirt, a small amount of mild non-abrasive soap may be added to the water before dampening the cloth. Make sure no streaks or residual soap remain on the note path.

Note: CASHFLOW SC[®] and SC Advance[®] do not require the use of a cleaning card. Never use a petroleum-based product to clean this device! Petroleum based products will damage the note path. Mild non-abrasive soap is preferred over alcohol.

Calibration:

CASHFLOW SC[®] and SC Advance[®] were designed not to require calibration.

TROUBLESHOOTING

Universal BEG Diagnostic Codes:

Bezels* on the CASHFLOW SC® and SC Advance® have two green LEDs above the opening of the bill path. These LEDs will flash at a rate of once per second when ready to accept a bill. The LEDs will be off once a bill has been inserted, the acceptor is in calibration mode or the unit is in software download mode. The LEDs will repeat a flash code in a fixed pattern (half second blinks separated by a two seconds off) to signal a particular code. These codes are listed below.

Flash Code	Reason for Flash Code
2	Acceptor is disabled or waiting for interface
4	Bill path is jammed
5	Cashbox removed or cashbox not home
Rapid Blinking	Cassette full

* Note: LEDs not available on units that have straight feed bezels or shelf bezels. The Out of Service line will toggle in concert with the flash codes.

MMI Diagnostic LED Codes:

- Red conditions - Hard Fault. One of the note acceptor components needs to be replaced.
- Yellow conditions - Soft Fault. The operator can correct the issue at the machine.
- Green conditions - No Fault. No problem with the note acceptor.

EASITRAX Soft Count Diagnostic Codes (MMI LED)		
LED Indicator	Status	You need to...
Green(Left) - Off Yellow(Center) - Off Red(Right) - 4 Flashes	Asset number mismatch between machine and cashbox RF tag	Insert cashbox with matching or blank asset number.
Green(Left) - Off Yellow(Center) - Off Red(Right) - 5 Flashes	RF tag not found	Insert cashbox with an RF tag.
Green(Left) - Off Yellow(Center) - Off Red(Right) - 6 Flashes	RF tag communication error	Reseat cashbox or replace with a cashbox that has another RF tag.
Green(Left) - Off Yellow(Center) - Off Red(Right) - 7 Flashes	Asset number not found	Enter an asset number into the acceptor head using STS.
Green(Left) - Solid Yellow(Center) - Solid Red(Right) - Solid	Checking tag status	Wait 5 seconds to determine if Antenna PCB is found. If not found, replace Antenna PCB.
Green(Left) - Flash Yellow(Center) - Flash Red(Right) - Flash	Checking tag status	Wait 5 seconds to determine if Antenna PCB is found. If not found, replace Antenna PCB.

TROUBLESHOOTING

MMI Diagnostic LED Codes (Continued):

SC Advance and CASHFLOW SC Diagnostic Codes (MMI LED)		
LED Indicator	Status	You need to...
Green(Left) - Solid Yellow(Center) - Off Red(Right) - Off	Normal	Take no action.
Green(Left) - 1 Flash Yellow(Center) - Off Red(Right) - Off	Disabled by machine interface	Fix the machine interface (i.e. check connection).
Green(Left) - Solid Yellow(Center) - Solid Red(Right) - Off	Normal and cashbox cleaning recommended	Replace with a clean cashbox
Green(Left) - 1 Flash Yellow(Center) - 1 Flash Red(Right) - Off	Disabled by machine interface and cashbox cleaning recommended	Fix the machine interface (i.e. check connection) and replace with a clean cashbox.
Green(Left) - Off Yellow(Center) - Solid Red(Right) - Off	Cashbox not seated or not present	Reseat the cashbox.
Green(Left) - Off Yellow(Center) - 1 Flash Red(Right) - Off	Poor acceptance	Clean the acceptor head.
Green(Left) - Off Yellow(Center) - 2 Flashes Red(Right) - Off	Jam in the acceptor	Clear the jam from the note acceptor.
Green(Left) - Off Yellow(Center) - 3 Flashes Red(Right) - Off	Jam in the cashbox	Remove the acceptor head and clear the jam from the cashbox.
Green(Left) - Off Yellow(Center) - 4 Flashes Red(Right) - 4 Flashes	Cashbox cleaning required	Replace with a clean cashbox.
Green(Left) - Off Yellow(Center) - 8 Flashes Red(Right) - 8 Flashes	Security timeout	Wait for timeout to expire.
Green(Left) - Off Yellow(Center) - Off Red(Right) - Solid	Cashbox full	Replace with an empty cashbox.
Green(Left) - Off Yellow(Center) - Off Red(Right) - 1 Flash	Acceptor hardware fault	Replace the acceptor head with a programmed spare.
Green(Left) - Off Yellow(Center) - Off Red(Right) - 2 Flashes	Interface board hardware fault	Replace the interface board.
Green(Left) - Off Yellow(Center) - Off Red(Right) - 8 Flashes	Note timeout	Wait for timeout to expire.
Green(Left) - Solid Yellow(Center) - Solid Red(Right) - Solid	Unprogrammed unit/Generic unit	Program unit with a service tool.
Green(Left) - Flash Yellow(Center) - Flash Red(Right) - Flash	Unprogrammed unit/Generic unit	Program unit with a service tool.