

EC6000i Gen2 and EC7000i Series Installation Guide (Updated 2-16-06)





This manual, the EC6000i Gen2 and EC7000i Series Installation Guide, is intended for all units belonging to the EC6000i Gen2 and EC7000i family of products.

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Compliance Statements

FCC Compliance Statement NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

If an internal modem is present: RDM's EC6000i Gen2 and EC7000i are designed to be used on standard device telephone lines. It connects to the telephone line by means of a standard jack (USOC RJ-11C). An FCC compliant telephone cord with modular plug is provided to connect the equipment to the telephone network or premises wiring using a Part 68 compliant compatible jack. Connection to telephone company provided coin service is prohibited. Connection to party line service is subject to state tariffs.

Telephone company procedures: The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations or procedures. If these changes might affect your services or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service. In certain circumstances, it may be necessary for the telephone company to request information from you concerning the equipment that you have connected to your telephone line (FCC registration number and ringer equivalence number – REN. See underside of the EC6000i Gen2 or EC7000i unit). In order to assure proper service from the telephone company, the sum of all REN's on each telephone line should be five or less. In some cases, a sum of five REN's may not be useable on a given line.

If problems arise: If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm in the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC. Contact your telephone company if you have any questions about your phone line. In the event repairs are ever needed to the EC6000i Gen2 or EC7000i, they should be performed by RDM Corporation or an authorized representative of RDM Corporation.

For information contact: RDM Corporation, 608 Weber Street North, Waterloo, Ontario, Canada N2V 1K4

Introduction

The EC6000i Gen2 and the EC7000i are cost effective, feature rich, imaging solutions. Utilizing RDM's industry leading progressive MICR method and imaging technology, the EC6000i Gen2 and the EC7000i are ideal for Check Electronification, Check Cashing, and Walk-in Bill Payment applications.

Requirements

- ◆ The EC6000i Gen2 and the EC7000i units are for indoor use only. Keep the EC6000i Gen2 and the EC7000i **dry** and avoid areas of high humidity.
- ◆ The EC7000i requires a higher current power supply (RDM P/N# 302671). The EC6000i Gen2 can use its supplied power supply or the higher current power supply. See **Specifications** on page 21 for power supply details.
- ◆ **Do not remove any cabinetry** other than the areas specified in this guide; removing cabinetry other than the areas specified in this guide will void the warranty.

Recommendations

- ◆ This unit may be installed and programmed by a distributor (reseller) other than the original manufacturer. Record all distributor contact information for future reference.
- ◆ Save the original box and packing material. Re-use them if the unit must be shipped to a new location.
- ◆ Position the unit so that the operator has easy access to the check path and a clear view of the LED. Do not put the unit close to a heat source, in direct sunlight, or close to any device that can emit electromagnetic interference such as a computer monitor or power adapter. Do not use the unit near water, including a sink, swimming pool, or damp basement.

Setting Up the EC6000i Gen2 or EC7000i

To set up the EC6000i Gen2 or EC7000i, follow steps A – F.

A. Choose a Location

Locate your scanner in a place that:

- has a flat surface, such as a countertop or table
- is convenient for the scanner operator
- offers adequate ventilation and protection from elements such as heat, dust, oil or moisture
- is close to a telephone line or network connection (depending on your unit) and power connections.

B. Unpack the Shipping Box

1. Open the top of the box.
2. Remove and unwrap the items.
3. Save the box and wrapping for future use.

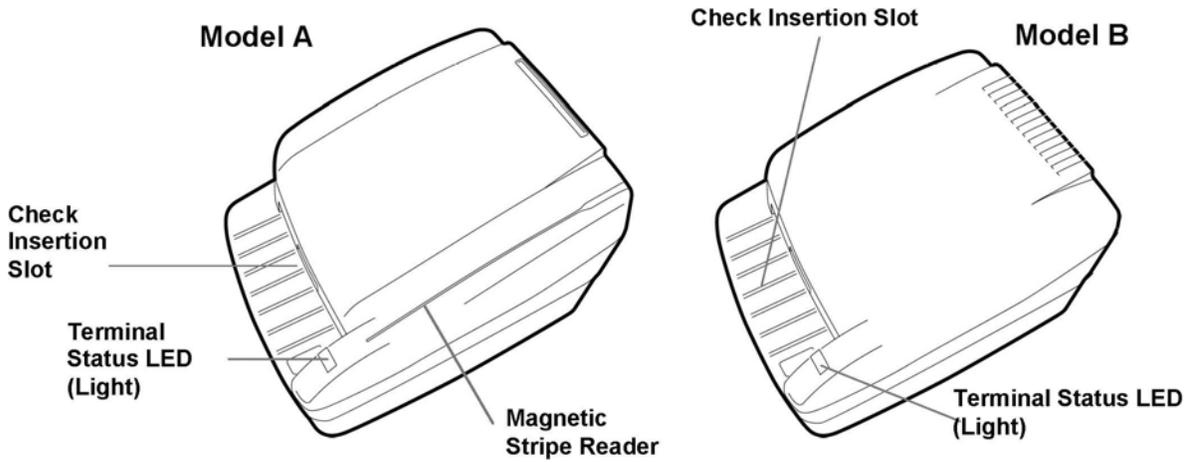
NOTE: Before unpacking the box, examine it for damage received during shipping. If the scanner, or any component, appears damaged, do not use it. File a claim with the shipping company and contact your distributor.

Your EC6000i Gen2 or EC7000i product package includes the following:

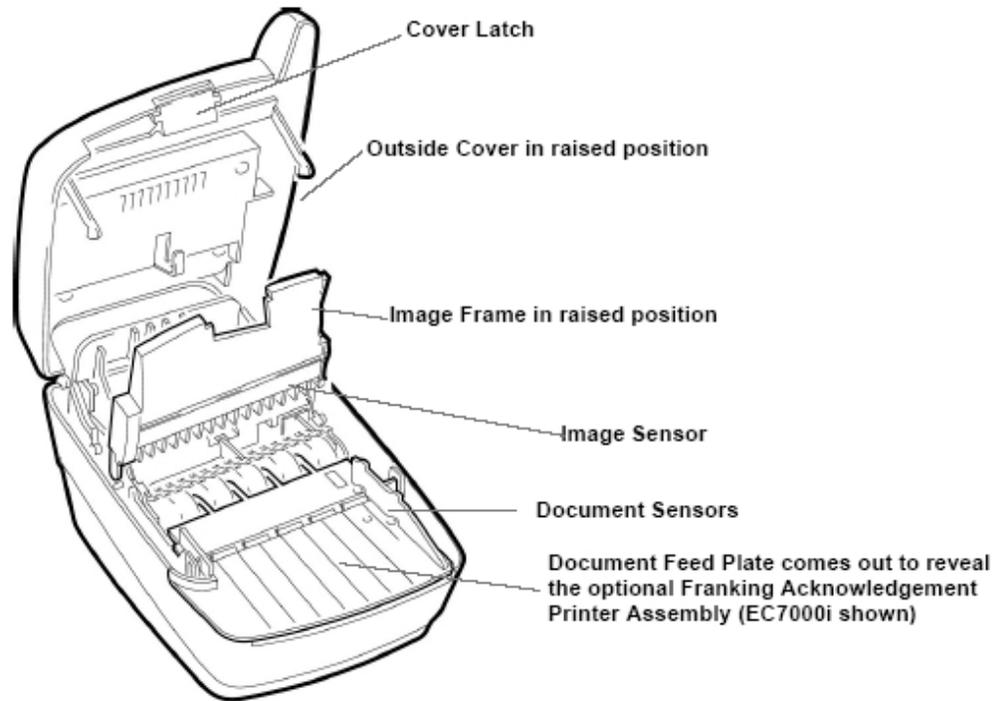
- The EC6000i Gen2 or EC7000i scanner
- Power adapter
- Telephone line (optional with modem)
- Franking Acknowledgement Printer Cartridge (optional)

C. Inspect the Unit's Features

The EC6000i Gen2 and the EC7000i are provided in two models. Model A below has an integrated Magnetic Stripe Reader (MSR). Model B below does not include an MSR. Scanner Model A will be graphically represented throughout this manual for consistency. All other features of the EC6000i Gen2 and EC7000i are available as standard or optional on either model.



Inside Components:



Connection Ports:

RDM's EC6000i Gen2 and EC7000i can be installed in different configurations. These configurations are set and programmed by the distributor (reseller) to suit your unique needs. Follow instructions provided by your distributor (reseller).

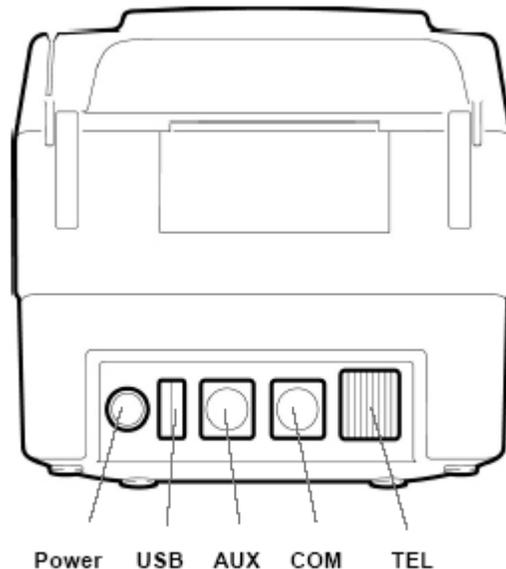
Power: Red: Connect the power adaptor to this port.

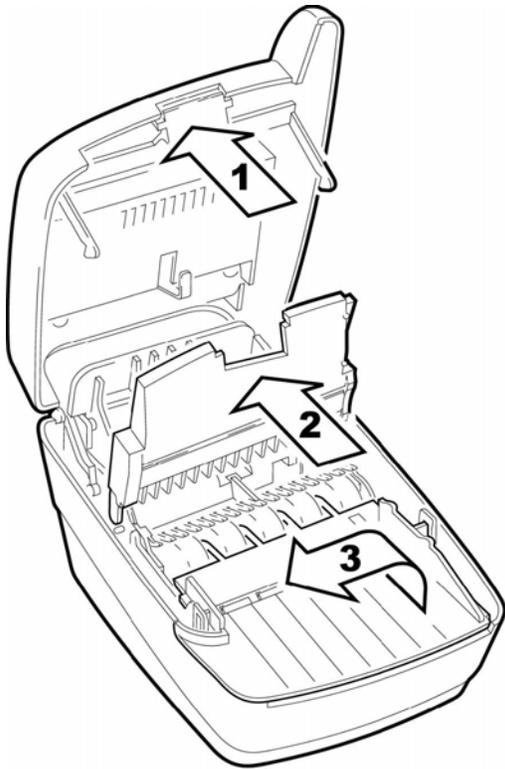
USB: Orange. Use this port to connect to a PC.

AUX: Yellow. Use this port to connect optional peripheral devices such as a pass through printer

COM: Green. Use this port to connect to a PC or terminal

TEL: Purple. This port offers an optional modem, to be connected to a telephone line. Some scanners may not contain a TEL Port.



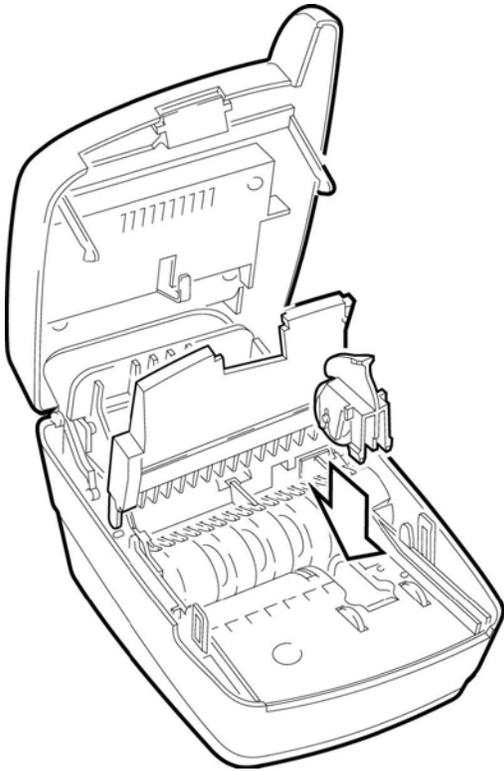


D. Insert the Franking Acknowledgement Printer Cartridge (Optional)

The Franking Acknowledgement Printer Cartridge is an optional ink stamp, which marks the front of each check to read “Electronically Presented” or a customized message. If you have purchased this option, follow these directions to insert the printer cartridge into the unit.

I. Access the Printer Assembly:

1. Press the latch and lift the cover to access the imaging frame.
2. Lift the imaging frame to access the feed plate.
3. Locate the blue tab on the side of the unit.
 - a. With your thumb on the outside of the unit, apply enough pressure to pull the blue tab towards the outside of the unit and hold it there.
 - b. While holding the blue tab, lift the document feed plate up and to the left or up and to the right to free it from the opposite side.
 - c. Remove the plate completely. (continued...)



II. Insert the Franking Acknowledgement Printer Cartridge into the Printer Assembly:

1. Insert the Franking Acknowledgment Printer Cartridge straight into the printer assembly.
2. Apply pressure to the widest part of the flat top until the cartridge clicks into place.
3. Replace the document feed plate by pressing down firmly until it clicks into place.
4. Close the imaging frame.
5. Close the outside cover.

CAUTION:

Avoid contact with the main drive roller to prevent ink transfer to documents. See **Cleaning the Imager** for details.

Ink may be harmful if swallowed.

Avoid contact with eyes.

Damage to the unit or the cartridge resulting from modifying the cartridge is not the responsibility of RDM.

The ink cartridge is intended for single use only.

Not licensed for modifications.

RDM may change product designs, features, or specifications at any time.

E. Connect to a Telephone Line

FOR TEL: If you have purchased the EC6000i Gen2 or the EC7000i with the optional modem...follow these directions to connect the telephone line:

1. Insert the end of the telephone line into the “TEL” port on the back of the scanner.
2. Insert the other end of the telephone line into the telephone company wall jack.

CAUTION: Plug the telephone line into an “outside line” analog phone jack only; the modem will not work if plugged into a PBX digital line.

Test the Telephone Line and Third-Party Line:

1. Call the third-party line to ensure that it is working properly.
2. If the third-party line is not working, contact your local telephone company for repair.
3. If the telephone line works, contact your distributor to have the EC6000i Gen2 or the EC7000i serviced.

F. Connect the Power Cord

1. Insert the round end of the power cord into the “power” port on the back of the scanner.
2. Align the flat side of the power connector facing up.
3. Plug the metal-pronged end of the power cord into an electrical power outlet.
4. When you connect to power, the LED will light up. Your unit is now turned on.

CAUTION: Disconnecting the power source while the terminal is processing a transaction may cause data files stored in the unit’s memory to be lost.

NOTE: The EC6000i Gen2 and EC7000i power adaptor contains a locking mechanism that securely connects the power cord to the scanner. To prevent cord damage, do not pull on the cord. Firmly slide back the locking mechanism before disconnecting the power cord from the unit.

Operating the EC6000i Gen2 or the EC7000i

Preparing Checks

To reduce the possibility of errors and damage to the unit, you should:

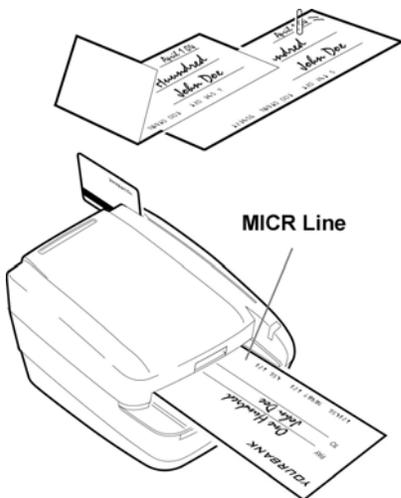
- Remove all folds and creases in the check.
- Remove any paper clips and staples from the check.

Feeding Checks

The EC6000i Gen2 or the EC7000i unit is ready to accept checks when the LED is green.

As shown below, insert the check...

- Flush to the left side of the EC6000i Gen2 or the EC7000i.
- Information side facing up.
- MICR line to the inside right.
- Slide the check all the way to the right.
- Gently push the check forward into the scanner until the scanner grasps the check.



Swiping Magnetic Stripe Cards (Optional)

Swipe the credit card with the black, magnetic stripe facing downward, and to the left.

CAUTION: Do not open the cover or otherwise try to access the inside of the unit while it is in the process of scanning a document.

Understanding Status Signals

The EC6000i Gen2 or EC7000i comes equipped with default light and sound signals described below.

Default Light Signals:

The unit's status is shown through a single, multi-state LED (light emitting diode)—the light on the top, front, right-hand side of the unit. The table below details typical status signals and their meanings:

LED	Meaning...What To Do
Green Solid	The unit is ready to accept a check...insert a check.
Green Flashing	The unit is busy , processing the last check...wait for the job to finish.
Amber Solid	The unit is idle ...start the next job with a command from the terminal
Amber Flashing	The unit is sending or receiving information from the terminal...wait.
Red / Green / Amber Flashing	The unit is starting up or performing diagnostics ...wait.
Red Solid	The unit failed during a self-test... check the terminal display for instructions / refer to your local procedures / call you distributor (reseller).
Red Flashing	An error occurred during processing. See “Sound Signals” on the next page for details... check the terminal display for instructions / refer to your local procedures / call your distributor (reseller).
Green with short Red Flashes	The unit has detected excessive electromagnetic interference that may impact MICR reading performance. Move the unit or source of interference until the LED glows solid green

Default Sound Signals:

Several conditions are also signaled by a pattern of tones in addition to the LED display:

Tone	Meaning
One short beep LED is flashing green	The unit was successful in reading the MICR line.
Three short beeps LED is flashing red	The unit was not successful in reading the MICR line.
One long beep LED is flashing red	An error occurred during processing or storing of the captured image.

A Typical Check Processing / LED Cycle:

1. The unit is on and idle...the LED is **Solid Amber**.
2. The LED turns to **Solid Green** when the scanner is ready to accept a check.
3. A check is run through the unit...the LED turns OFF (3-4 seconds) then **Flashes Green**. The unit emits a short “beep” sound.
4. The LED returns to **Solid Amber** when the transaction is complete.

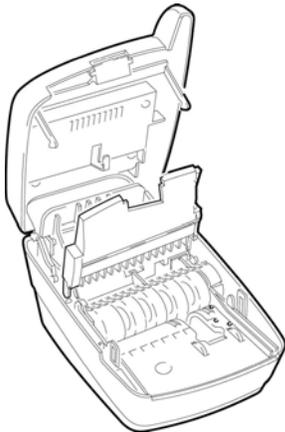
Maintaining the EC6000i Gen2 or EC7000i

The EC6000i Gen2 or EC7000i performs best when all working surfaces are clean and free of foreign material.

Cleaning the Scanner

CAUTION:

- Prior to cleaning, always disconnect the power.
- Solvents or harsh cleaners may damage or discolor the cabinetry.



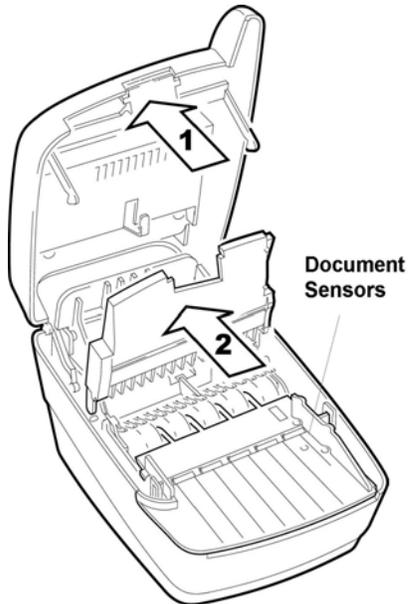
To clean the outside cabinetry: Use a damp cloth and mild soap.

To clean the inside of the unit: To remove dust and debris inside the unit, open it by following the steps below. Use a dusting brush designed for use on electronic equipment, or use a compressed air duster. To clean the inside:

1. Press the latch and lift the cover to access the imaging frame.
2. Lift the imaging frame to access the document feed plate.
3. Locate the blue tab on the side of the unit. With your thumb positioned on the outside of the unit, apply enough pressure to pull the blue tab towards the outside of the unit and hold it there.
4. While holding the blue tab, lift the document feed plate up and to the left or up and from the right to free it from the opposite side.

5. Remove the plate.
6. Ensure that the black fingers on the baffle move freely (EC7000i only).

Cleaning the Imager



Occasionally, it may be necessary to clean the image sensors and remove dust or debris from the interior of the EC6000i Gen2 or the EC7000i.

To locate and access the document sensors, follow the instructions below.

1. Press the latch and lift the cover to access the imaging frame.
2. Lift imaging frame to access the document sensors.
3. Use a lens cleaning tissue or a damp lint-free cloth:
 - to remove any ink or dust from the document sensors.
 - to remove any ink or dust from the main drive roller.

Troubleshooting

In the course of everyday operations, you may encounter minor malfunctions in the EC6000i Gen2 or the EC7000i unit. Before calling for service, review the troubleshooting steps below.

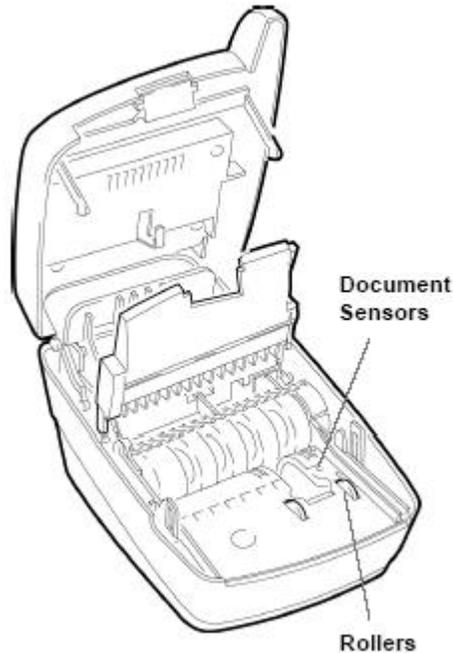
Modem Does Not Function

1. Examine the telephone line cord and all telephone connections to ensure that they are still connected properly.
2. Ensure the telephone line is working by removing the connection from the EC6000i Gen2 or the EC7000i and connecting it to a telephone base unit.
3. If the telephone line is not working, contact your local telephone company for repair.

Peripheral Device Does Not Respond

1. Ensure that the scanner's cable is still properly connected to the correct port on the back of the unit (according to instructions provided by your distributor).
2. If the problem persists, contact your distributor.
3. Ensure that the correct power adaptor is connected to the unit and change adaptors if necessary.

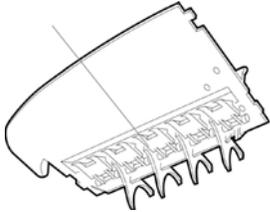
Check Feeder Does Not Function Properly



1. Press the latch and lift the cover to access the imaging frame.

Black Rollers

2. Lift the imaging frame to access ^{Fingers} the document feed plate.
3. Clear any paper or debris from the imaging frame and document feed plate.
4. Ensure that the black fingers on the baffle move freely (EC7000i only).

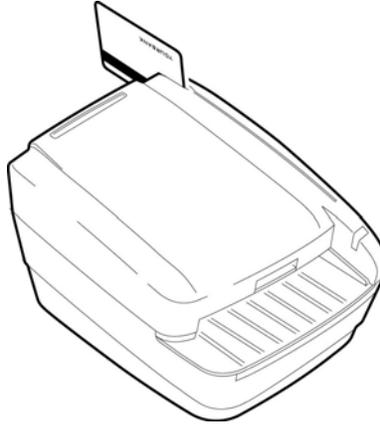


5. Use a lens cleaning tissue or a damp lint-free cloth to remove any ink or dust from the document sensors.
6. Ensure that the rollers under the baffle are clean (EC7000i only).
7. Re-close the imaging frame and cover.

Card Transactions Do Not Function Properly

Test the Card Swipe Mechanism:

1. Ensure that you are swiping the card properly: The black, magnetic stripe on the back of the card must face downward and to the left.
2. Try using another card to ensure the first card was not defective.



Specifications

EC6000i Gen2 and EC7000i Specifications	
Unit Size	Without MSR 10.2" long x 6.2" wide x 4.8" high 22.5 cm long x 15.5 cm wide x 12 cm high With MSR 10.2" long x 6.2" wide x 5.3" high 22.5 cm long x 15.5 cm wide x 13.5 cm high
Unit Weight	EC6000i Gen2: 3.1lbs. / 1.4 Kg EC7000i: 3.4 lbs. / 1.5 Kg
Unit Orientation	For proper operation, place unit on a level, horizontal surface.
EC6000i Gen2 and EC7000i Connectors	Power: Red. Mini-DIN 3-pin. USB: Orange. USB-A. (1.1) AUX: Yellow. Mini-DIN 8-pin. COM: Green. Mini-DIN 9-pin. TEL: Purple. RJ11 plug. Modem (optional).

Environmental	
Operating Temperature	32 to 104 degrees F (0 to 40 degrees C).
Operating Humidity	10 to 85% relative humidity (non-condensing).
Document Specifications	
Document Size and Weight	Nominal: 2.16" W x 4.4" L (5.5 cm x 11.2 cm) Maximum: 4" W x 9" L (10.16 cm x 22.86 cm) Weight Range: 8 lb to 100 lb (thermal paper to business card stock)
Font	E13B MICR Character Set Alphanumeric OCR A and B font recognition (optional)
Electrical Power Requirements for Power Adapter	
	Use an RDM-supplied power adaptor.
EC6000i Gen2 Power Supply (RDM P/N # 302493)	Input: 120V 60Hz 0.4A Output: 24VDC 0.5A
EC7000i Power Supply (RDM P/N #302671)	Input: 100-240VAC, 50-60Hz 1.2A Output: 24VDC 1.5A

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Optional Modem Specifications	
Supports	V.34bis, V.34 V.F.C, V.32bis, V.32, V.22bis, V.22A/B, V.23, V.21, Bell 212A and 103
Error Correction	V.42 LAPM and MNP 2-4
Data Compression	V.42bis and MNP 5
(Optional) Magnetic Stripe Reader (MSR) Specifications	
MSR Specifications	3 track, bi-directional

Warranty Information

LIMITED WARRANTY:

The EC6000i Gen2 and EC7000i are warranted against defects in materials and workmanship under normal use and service for a period of one year after the date of receipt by you. This warranty is extended only to the original purchaser.

The entire liability of RDM Corporation (the Corporation), distributors of the EC6000i Gen2 and EC7000i and manufacturers of auxiliary equipment used with the EC7000i and your exclusive remedy shall be, at the Corporation's option either (a) return of the price paid, or (b) repair or replacement of the EC7000i that does not meet this limited warranty and which is returned to the Corporation with a purchase receipt or other proof of date of original purchase which will be required in order to exercise your rights under this warranty.

The limited warranty is void if failure of the EC6000i Gen2 or EC7000i has resulted from accident, abuse or misapplication. Any replacement of the EC6000i Gen2 or the EC7000i will be warranted for the remainder of the original warranty period.

The equipment is sold with the understanding that neither the Corporation, such distributors nor such manufacturers will be liable for any damages whatsoever (including, without limitation, direct or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use the EC6000i Gen2 or the EC7000i, even if the Corporation, such distributors and/or such manufacturers have been advised of the possibility of such damages.

In any case, the entire liability of the Corporation, such distributors and such manufacturers with respect to the EC6000i Gen2 or the EC7000i shall be limited to the amount actually paid by you for the EC6000i Gen2 or the EC7000i.

The Corporation, such distributors and such manufacturers disclaim all other warranties, express or implied, including, without limitation, implied warranties of merchantability and fitness for a particular purpose with regard to the EC6000i Gen2 or the EC7000i and the accompanying written materials.

Although every effort has been made to ensure the accuracy of the information contained in this guide, no warranty or representation to that

effect is made. Due to product improvements, specifications are subject to change without notice.

WARRANTY SPECIFICS:

This warranty only covers failures due to defects in materials or workmanship, which occur during normal use. It does not cover the following:

- Damage, which occurs in shipment,
- Failures which are caused by products not supplied by RDM or failures which result from accident, misuse, abuse, neglect, excessive dirt or dust caused by lack of preventive maintenance measures, mishandling, misapplication, alteration or modification; service by anyone other than RDM, or damage that is attributable to acts of nature including but not limited to:
 - .- Flood, lightening, power surges or static electricity, water damage, falls, theft, or vandalism,
 - .- Spillage of liquid or objects that have fallen into the equipment,
 - .- Equipment that has been exposed to excessive heat or unstable environmental conditions,
 - .- Consumables such as Franking Acknowledgement Printer Cartridge or Franker Assembly, or other EC6000i Gen2 or EC7000i consumables or accessories such as cables.

RDM's EC6000i Gen2 or EC7000i units with problems found to be caused by incorrectly set configuration parameters (IRN #, Owner Code, Merchant ID, etc.) are not considered defective and will not be serviced under warranty.

Warranty is void if any of the external case of the unit has been opened or removed or the unit has, in RDM's opinion, been damaged through misuse or improper care.

Units returned to RDM for warranty repair will be re-configured with factory defaults and returned to customers. All stored images in the scanner will be cleared. Customers will have the option of having the images uploaded to RDM's Image & Transaction Management System (ITMS) for archiving or e-mailed to them prior to being cleared from the scanner.



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