Installation and Operations Guide

SmartSource® Micro Elite
SmartSource® Micro Elite SE

January 2017 8227 5087-002

NO WARRANTIES OF ANY NATURE ARE EXTENDED BY THIS DOCUMENT. Any product or related information described herein is only furnished pursuant and subject to the terms and conditions of a duly executed agreement to purchase or lease equipment or to license software. The only warranties made by Digital Check Corp., if any, with respect to the products described in this document are set forth in such agreement. Digital Check cannot accept any financial or other responsibility that may be the result of your use of the information in this document or software material, including direct, special, or consequential damages.

You should be very careful to ensure that the use of this information and/or software material complies with the laws, rules, and regulations of the jurisdictions with respect to which it is used.

The information contained herein is subject to change without notice. Revisions may be issued to advise of such changes and/or additions.

Notice to U.S. Government End Users

This is commercial computer software or hardware documentation developed at private expense. Use, reproduction, or disclosure by the Government is subject to the terms of Digital Check standard commercial license for the products, and where applicable, the restricted/limited rights provisions of the contract data rights clauses.

FCC Statement

The statement below is included in this document to comply with a Federal Communications Commission (FCC) regulation. The FCC is an agency of the United States government; thus, the statement below applies to computing equipment installed in the United States of America. Digital Check is taking appropriate steps to be in compliance with FCC regulations and similar regulations of other countries.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution

Changes or modifications not expressly approved by Digital Check could void your authority to operate this equipment.

Canadian Regulatory Statement

CAN ICES-3(B)/NMB-3(B)

Trademarks

Digital Check is a registered trademark licensed to Digital Check Corp. in the United States and other countries. SmartSource is a registered trademark of Digital Check Corp. All other brands and products referenced in this document are acknowledged to be the trademarks or registered trademarks of their respective holders.

Table of Contents

Introduction 5
Capabilities overview 5
Section 1 6
Setting up the Unit 6
Choose a Location 6
Power Supply 6
Need Help? 6
Opening the Box – Checking box contents 7
Connecting cables and powering on the unit 9
Section 2 12
Operating the Unit 12
Powering on the Unit 12
Using the power/start-stop button, and the meaning of the status light 12
Preparing for Document Flow 12
Document / card preparation 13
Inserting documents and aligning them for proper flow 14
Processing documents 15
Removing items from output area 15
Stopped-document conditions 16
Clearing stopped documents in the track using the 'SmartClear' function 16
Manually removing stopped documents 16
Section 3 18
Cleaning the unit 18
Detailed cleaning of the unit 18
Cleaning the track 18
Cleaning the image cameras 20
Cleaning track sensors 21
Section 4 22

Solving problems 22
Jams in track 22
Poor feeding 22
Poor quality images 22
Detailed troubleshooting chart 23
Section 5 26
Replacement parts 26

Introduction

Capabilities overview

The SmartSource Micro Elite is a compact, table-top document scanner that can feed, read and image a wide range of financial documents, as well as rigid cards such as driver's licenses and ID cards.

SmartSource Micro Elite machines include the following capabilities:

- A single manual feed document input
- An alternate front-entry document input path for processing and imaging both faces of a single rigid card, or a single document that is outside the normal feeder/track specification
- A Magnetic Ink Character Recognition (MICR) reader capable of automatically identifying and reading ANSI-standard E13B and CMC7 MICR encoding
- Front and rear 300 dpi color image cameras (Not available on SmartSource Micro Elite SE)
- Easy-opening track covers for speedy cleaning and maintenance
- Easy maintenance
- No operator replaceable consumable parts
- One-touch power/start-stop button, with Light Emitting Diode (LED) status indicator
- Retractable document floor to minimize desktop footprint when not in use
- USB 2.0 connectivity to a host PC

Note – The SmartSource Micro Elite operates in conjunction with a document-processing software application. This guide describes all of the available functions of the SmartSource Micro Elite. Different software applications may use these functions in different ways, and may not implement all of the functions described. This guide cannot describe all of the possible function permutations which a software application may use. Your IT service or application provider should supply details of the exact operation of your software application.

Section 1

Setting up the Unit

Choose a Location

- The unit is for indoor use only
- The location should be clean, dry, well-ventilated and out of direct sunlight
- Select a flat, stable location
- A suitable USB port on the host PC must be within 6 feet (1.8 meters) of the rear of the unit
- A suitable AC outlet (100-240 VAC, 50/60 Hz) must be with 6.5 feet (2 meters) of the rear of the unit
- Provide adequate clearance on all four sides of the unit to load/unload documents, insert rigid cards, open covers for cleaning, and make power and USB connections

Power Supply

Your SmartSource Micro Elite unit may be affected by surges or dips in the electrical power supply. These may cause the unit to pause, or stop working, or require the user to restart the unit. Such surges and dips will generally not harm the unit.

Surge and dips are usually the result of other large electrical loads on the same branch circuit, such as air-conditioners or heaters.

If such problems occur, try connecting the unit to a different branch circuit outlet that does not supply other large electrical loads. If problems persist, it may be necessary to isolate the unit from the power supply outlet using a line conditioning device or an Uninterruptible Power Supply (UPS), both of which are available from Digital Check.

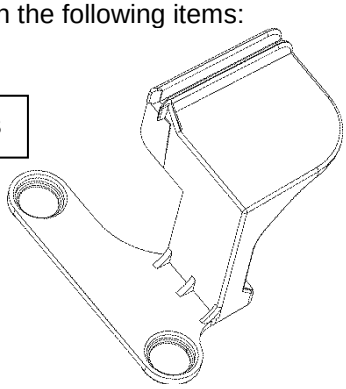
Need Help?

- In the USA, you can call the Digital Check Help Desk at 1-847-446-2285 for live customer support, 24 hours a day, 7 days a week.
- For help outside the USA contact you authorized service provider.
- Online, go to www.digitalcheck.com for general product information, manuals, drivers and downloads and training/support videos.
- For replacement , service and support parts, visit www.digitalcheck.com

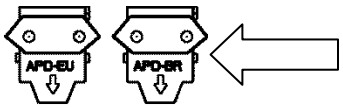
Opening the Box – Checking box contents

In addition to your SmartSource Micro Elite unit, the shipping box should contain the following items:

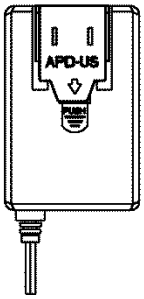
Rear Extender for longer documents



USB Cable



Interchangeable adapter plugs



Power supply

Check scanner cleaning card

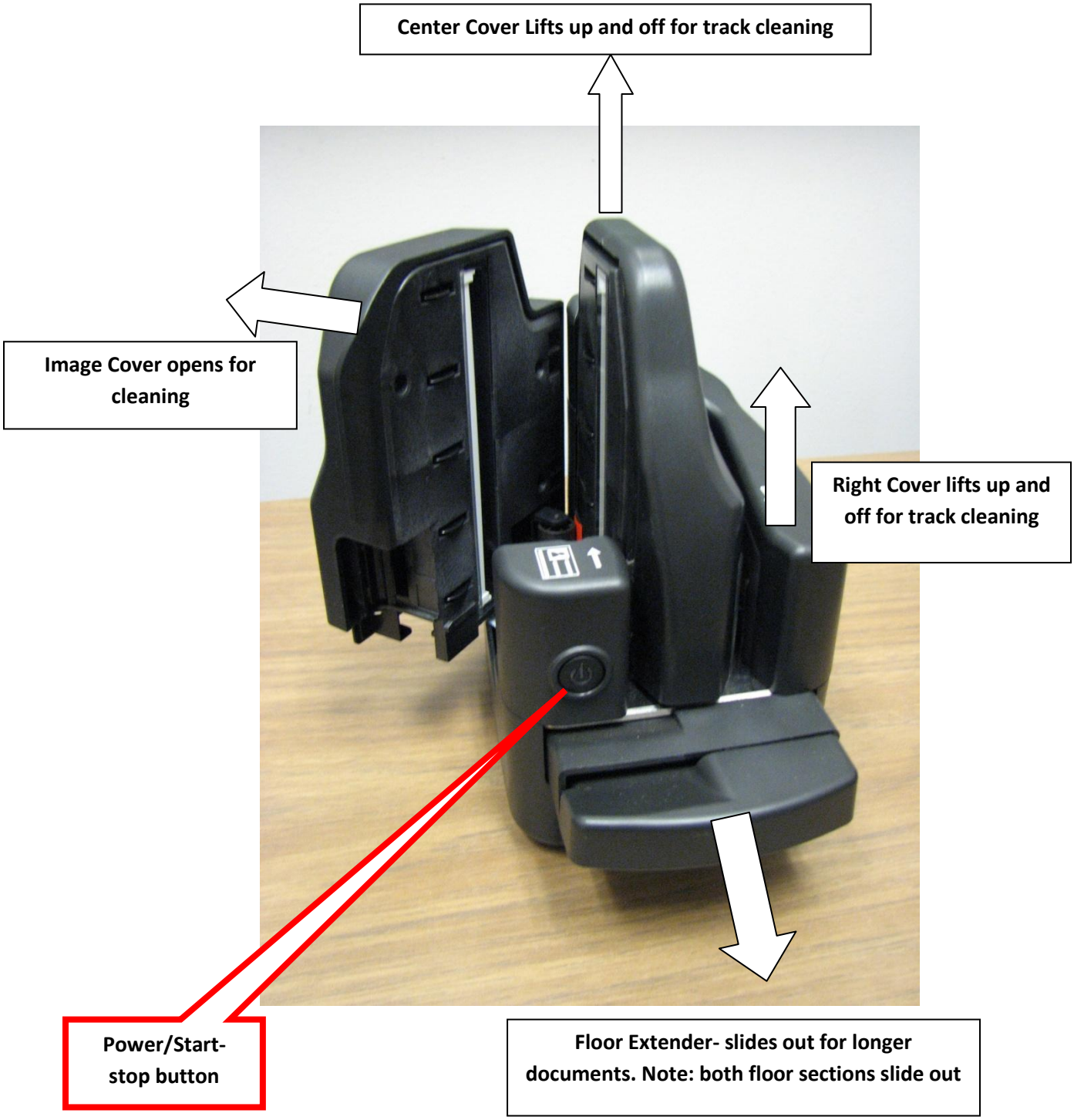
Also included in the package are the following documents:

Item	Description
Box contents checklist	Ensures correct packing of box contents
Service information/extended warranty sheet	Describes product warranty and service details and how to obtain more service and support information
Arrival Quality Report form	Use to report arrival quality of product – please complete and return as shown
Micro Elite Setup & Operations	For initial setup and overview of machine functions

For the Micro Elite only (not the Micro Elite SE), once you have unpacked the contents of the package, **do not connect the USB cable or any power cords**. Device driver software **must** be loaded onto the host PC before connecting your SmartSource Micro Elite to the PC.

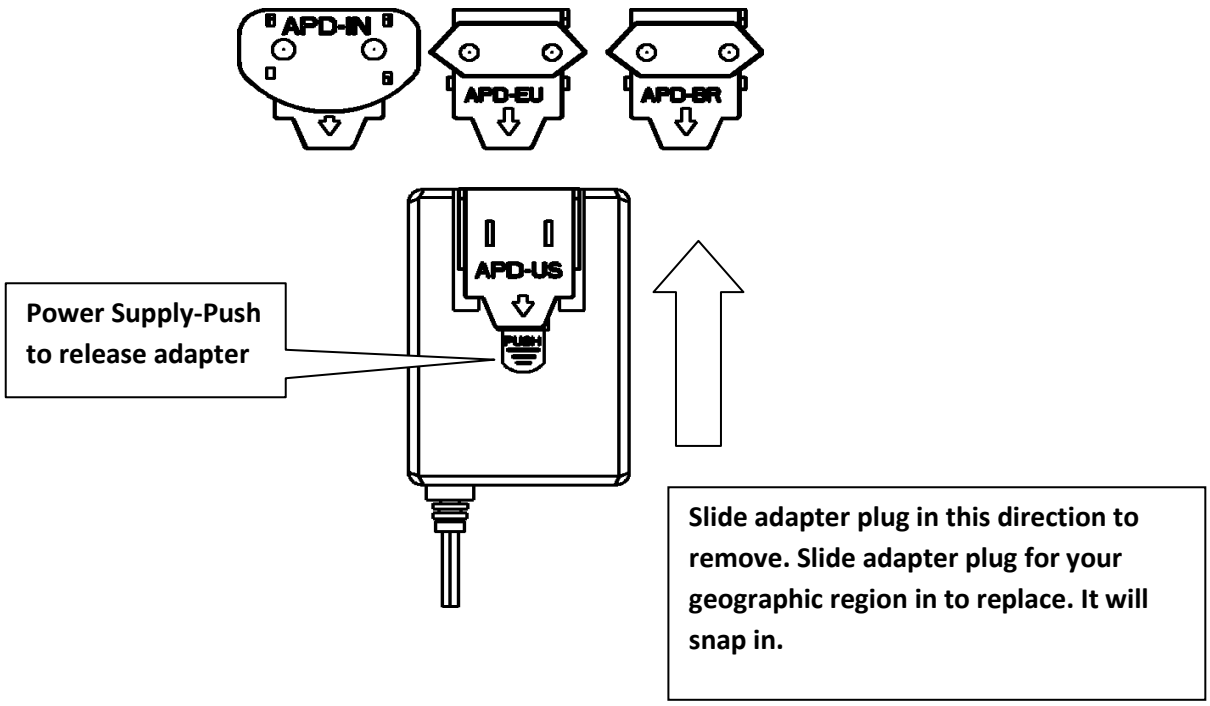
Consult your IT service provider or application provider to be sure that the correct device driver software and application software is loaded before connecting and powering your SmartSource Micro Elite unit.

Basic layout of your SmartSource Micro Elite



Connecting cables and powering on the unit

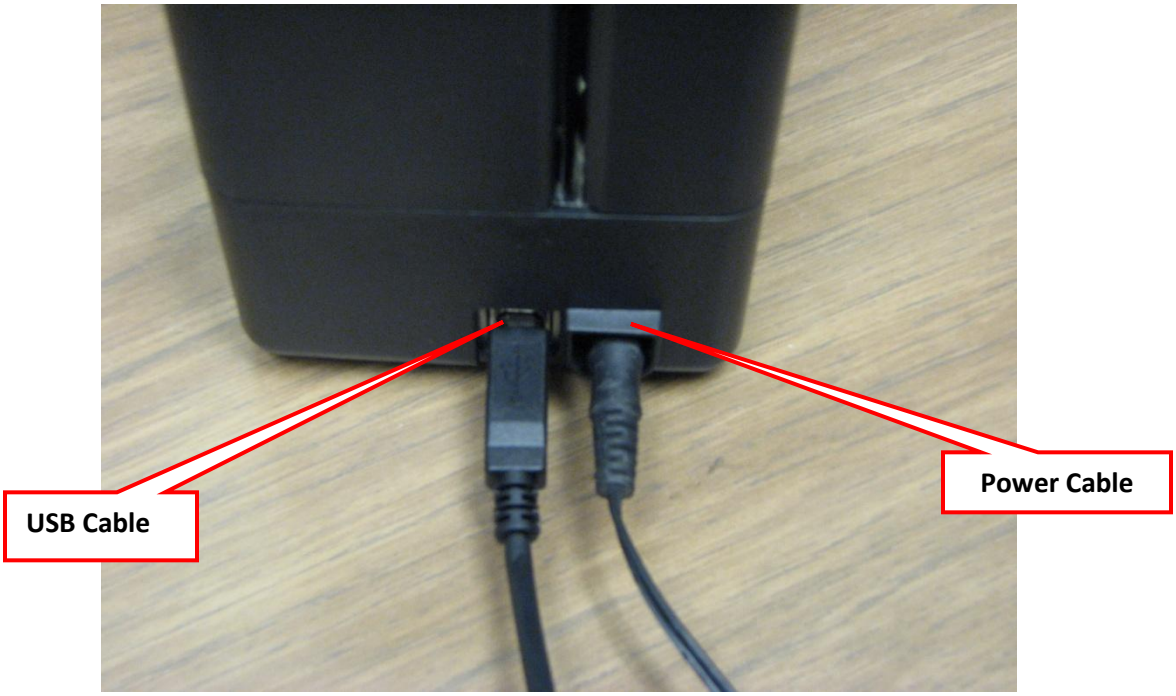
1. Locate the power supply and AC power plug for your country. Note: the United States Adapter plug is assembled on the power supply as the default. Please select the correct adapter plug for your country or AC outlet and assemble like this:



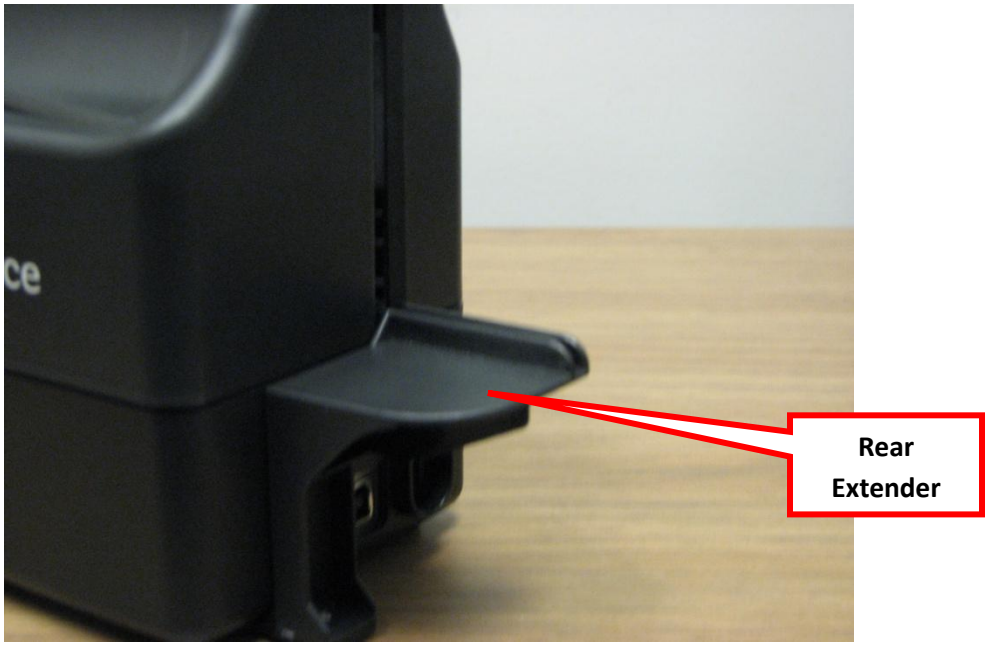
Note: Use only the power supply that was packed with your SmartSource Micro Elite. Do not exchange power supplies between units, or use non-Digital Check-supplied power supplies, even if they look similar.

2. Plug the power cable connected to the power supply into the SmartSource Micro Elite, and then plug the power supply into an AC outlet.

3. Locate the USB cable and connect it to the SmartSource and to a suitable USB outlet on the host PC.
    a. Use only the USB cable that was supplied with the unit, or a similar USB cable, rated for USB 2.0 or better.
    b. Do not use USB cable extenders, hubs or plug adapters, as these may degrade USB performance.



Rear Extender shown installed. This may be required for consistent operation when scanning longer documents through the "ID-Card" secondary feeder. The extender locates on two rear round feet on the underside of the lower cover and snaps in.



Section 2

Operating the Unit

Powering on the Unit

Press the power button. The blue status light within the button will light. When the unit is ready for use, the light will start to blink slowly.

Using the power/start-stop button, and the meaning of the status light

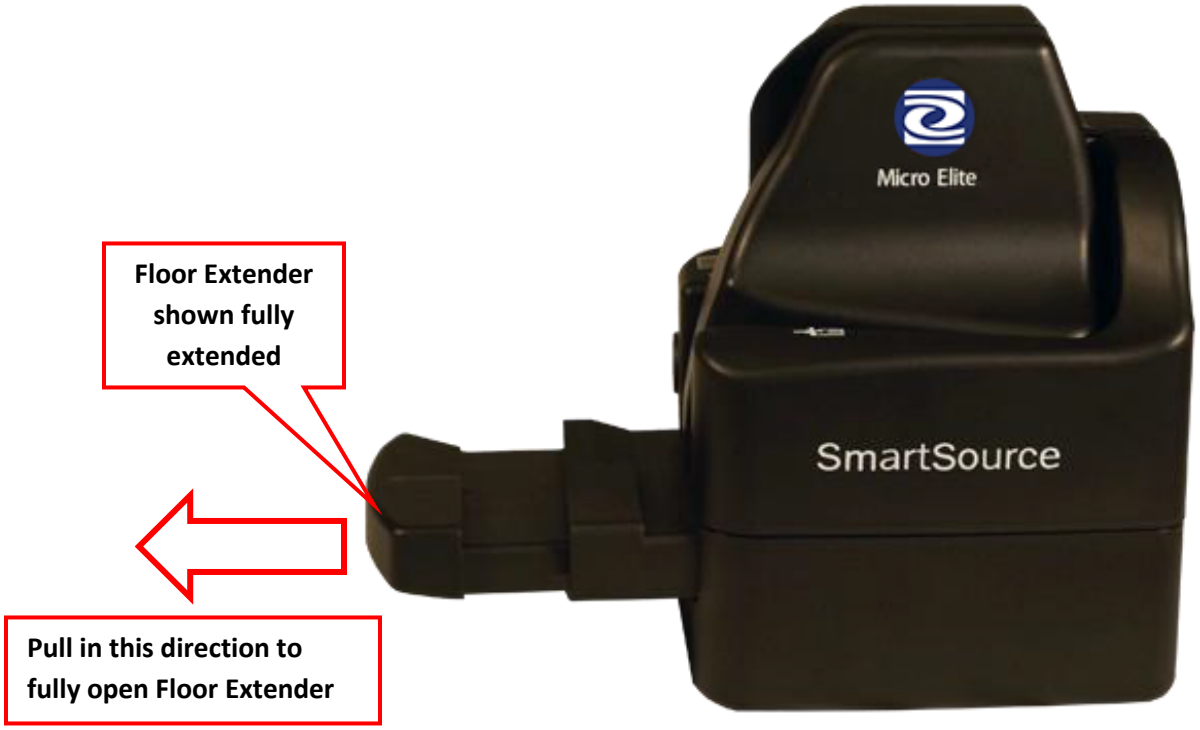
The power/start-stop button has various functions when the machine is working. The blue status light within the button tells you the condition of the machine.

Function	Operation of button	Status light condition
Power on	Press and hold the button for more than 2 seconds	Turns on continuously until the unit is ready, then blinks slowly
Power off	Press and hold the button for more than 5 seconds	Blinks slowly, then more quickly, then turns off
Start document flow (if enabled)	Press the button for less than 1 second	Stops blinking slowly and stays on continuously
Stop document flow	Press the button for less than 1 second	Starts blinking slowly
Clear document from track – 'SmartClear' function	Press the button for more than 1 second and less than 5 seconds, then release the button. The track will start and eject the stopped document, then stop.	After 1 second, light will blink more quickly to show that 'SmartClear' function has been selected.

Preparing for Document Flow

1. Adjust the Floor Extender to match the length of the documents to be fed by sliding it out, as shown below.

2. For proper feeding, the Floor Extender should be extended to support the documents in the feed hopper and prevent them from tipping or skewing.



Document / card preparation

The SmartSource Micro Elite is optimized to work with the majority of normal financial documents. However, the unit will function acceptably with a wide range of paper weights and thicknesses, from thicker tab-cards to thin multipart form stock, as well as specialty items like ATM envelopes.

If you process such documents, you may notice minor degradations in performance, degraded stop rate or increased noise while running.

1. For trouble-free operation, documents and cards should be clean, dry and free of attached objects such as staples, paper clips, sticky tape or rubber bands.

2. Smooth out creases, folds and dog-eared corners.
    a. Creased and folded documents may cause shadows or other defects in document images.
    b. Dog-eared corners may cause the machine to stop because it appears that part of the document is missing. This is not an error, but a deliberate feature to prevent the processing of incomplete documents.

3. Torn documents should be removed, or placed in a carrier envelope for proper processing
    a. A torn document may be further damaged if it is processed again.

The unit is designed to fully process documents with the following length and height limits:

Condition	Minimum	Maximum
Document length	2.9 inches (74 mm)	9.25 inches (235 mm)
Document height	2.0 inches (51 mm)	4.25 inches (108 mm)

Documents longer or shorter than the specified limits should be removed. Documents which are too long or too short may cause jams or feeding problems, and can cause the application to stop processing.

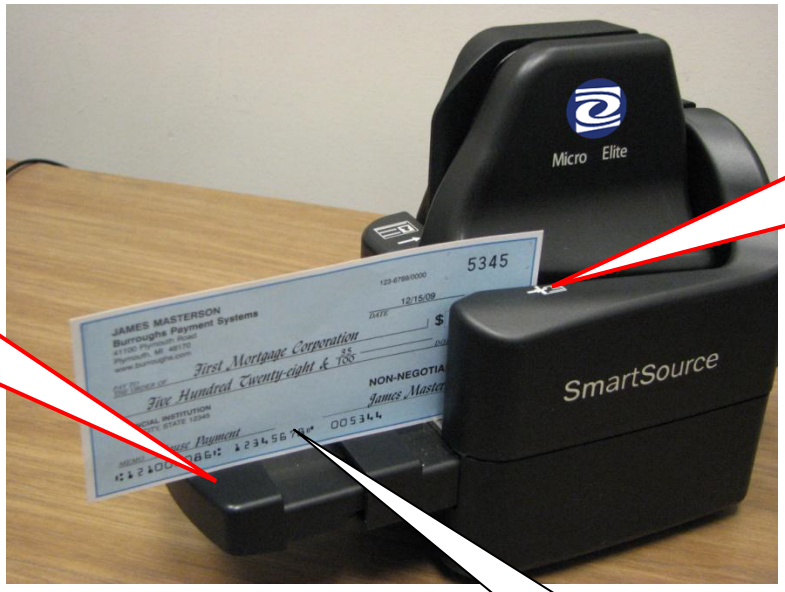
Documents as tall as 5.8 inches (148 mm) or A5 size can be fed and processed normally, **but they will not be fully imaged. Only the lowest 4.25 inches (108mm) of the document will be imaged.**

ID card track:
The SmartSource Micro Elite will feed and image both sides of a flat, rigid card, such as a driver's license or ID card. The maximum card thickness is 0.030" (0.75 mm). Thicker cards, or credit cards with embossed characters, can be fed, however, they may jam in the unit depending on the card thickness, and the image quality may be degraded. A4 and 8.5" X 11" (portrait orientation) can be fed through the ID card track with some operator attention. The ID card track can image documents up to 11" in length, however the image height is 4.25 inches. The Rear Extender is **required** for longer and tall documents run through this alternative track.

To optimize the design of documents to be processed with the SmartSource Micro Elite, and financial document processing system in general, refer to Digital Check Document Design Guidelines 4326 6808.

Inserting documents and aligning them for proper flow

Documents with encoding should be inserted with the code line facing forward, as shown.



Note document bottom edge flat on base and Floor Extender for best performance

Leading edge of document aligned to line printed on cover

Main Track: MICR Reading, Front and Rear Image Checks and documents only-No hard cards

Code line faces forward

For best performance and fewest problems, the document should be inserted into the feed area with the leading and lower edges aligned as consistently as possible, and with the leading edge aligned with the line printed on the cover.

If the bottom edge is not aligned, the unit may not be able to read the code line, and document images may be skewed.

Processing documents

When a document is placed in the feed area, the unit may begin processing automatically, or you may need to press the start-stop button briefly to start processing. How this works depends on your document processing software application. The document will be fed singly from the feed area and stopped in the output area. To continue processing, place another document in the feed area. Depending upon your application, the unit may resume processing automatically, or you may need to press the start-stop button again to resume.

Removing items from output area

Pull document out of the output as shown. The document will stop in the last pinch of the drive.

Pull out document in direction shown

Stopped-document conditions

If the unit stops with a document in the track (between the feeder input and the output area), first refer to the application to determine the cause of the stoppage. Many stoppages are not the result of any problem with the unit, but may be caused by application delays or other non-physical errors. Follow the instructions on the application screen to decide how to handle the stopped document.

Clearing stopped documents in the track using the 'SmartClear' function

To remove a stopped document from the track, first use the 'SmartClear' function (see Using the power/start-stop button, above). This will cause the unit to drive the stopped document out of the track.

Manually removing stopped documents

If the stopped document is not ejected, then open the front and image covers (see Basic layout of your SmartSource Micro Elite above) and remove the stopped document by pulling it parallel to the track, as shown below. Avoid pulling the document straight up and out of the track, if possible.

Pull out stopped document from the front-parallel to the track

Pull out stopped document-open Image cover & pull out parallel to the track

Processing ID Cards or Longer/ Taller documents

When prompted by your application, insert the ID card into the alternate entry at the front of the unit, as shown. The direction in which the ID card faces is determined by your application. The track will start and the ID card will be fed, imaged on both sides, and returned to the front of the unit.

The alternate entry can also be used in the same way to feed and image single paper documents which are too thick or too damaged to be fed through the normal feed hopper and track. **Note that a MICR code line on any document fed in this way will not be read.** Refer to your application for the correct direction to feed a document through the alternate entry.

ID card or alternative feeder: scans front and rear of card or document. The front of the card or document is at the left side as shown. Application configures scanner to start feeding on auto-sense or by application start.

Section 3

Cleaning the unit

Rapid cleaning of the unit:

To clean light build-up of dust and dirt out of the track, use a Check Scanner Cleaning Card, one of which came with the machine. Follow the instructions on the packaging. Regular use of track cleaning cards will minimize the accumulation of dust and dirt.

Detailed cleaning of the unit

Before performing any cleaning, turn off power to the unit and unplug the AC power cord.

For general cleaning of the outside covers of the machine, any mild water-based cleanser, used sparingly, is appropriate.

For cleaning sensors, image cameras and track walls, a mild solvent such as isopropyl alcohol, preferably diluted 50% with water, may be used. Cleansing wipes pre-soaked with suitable solvent are available from the Digital Check Store, www.digitalcheck.com, part number 75-1804-907.

Do not use aggressive solvents such as gasoline, petrol, kerosene, paraffin, acetone or MEK, and use no abrasive cleansers at all.

As a general rule, use the least amount of the least-aggressive cleanser required to clean the machine.

Cleaning the track

Cleaning the track generally involves two issues, which are

- General dust and dirt in the track
- Foreign objects such as staples, paper clips and rubber bands.

How often the track should be cleaned depends on the quantity and quality of documents being processed and the amount of dust, dirt and foreign objects that accumulates. The track should be cleaned whenever dust is visible on the track walls and rollers, on the documents, or on the images.

The more-frequently and more-thoroughly the track is cleaned, the fewer processing problems you will experience due to dust and dirt. Excessive accumulation of dust and dirt will cause processing problems such as jams, document damage and poor image quality, and may degrade the life of the unit. It is easier to avoid these problems by cleaning the track regularly so that dust, dirt and foreign objects do not accumulate.

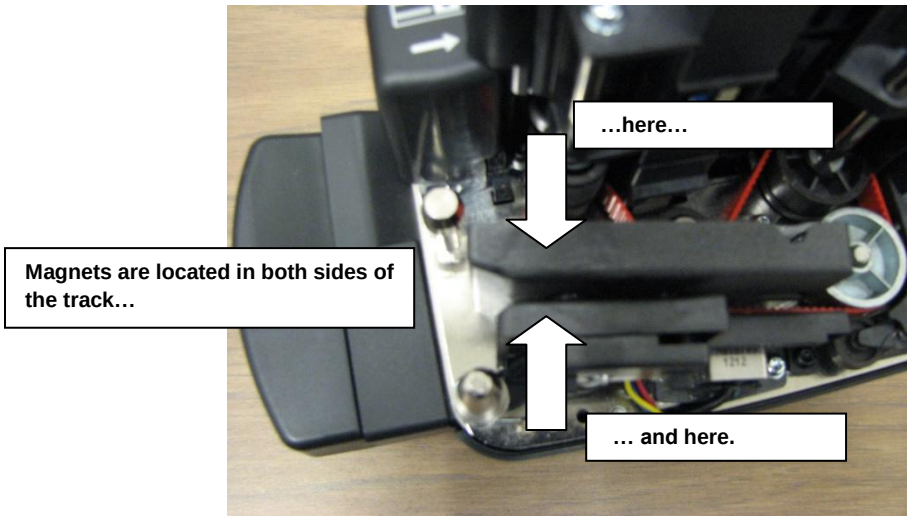
For heavier accumulations of dust and dirt, which a cleaning card will not remove, use canned compressed air, or piped compressed air where available. Air should be regulated to no more than 30 psi (2.0 bar, 200 kPa). Open the front cover and image cover, and blow the track and surrounding walls and rollers clear of dust and debris. (Canned compressed air and additional cleaning cards are available from the Digital Check Store, www.digitalcheck.com, part numbers 75-0501-900 and 75-7200-995 respectively)

If foreign objects cannot be blown out with compressed air, you can attempt to remove them using a non-metallic tool or probe such as the Digital Check track-cleaning tool (available from the Digital Check Store, www.digitalcheck.com, part number 75-0381-907).

Do not use any metallic tool or probe, as damage to the track walls and other parts may result.

Do not use any magnetic tool, as damage to the MICR read head may result.

The track contains two powerful magnets which are located about ¾" in from the document entry as shown.



Foreign objects such as staples and paper clips will often stick to these magnets, making them easier to find and remove.

Cleaning the image cameras

Be especially careful when cleaning around the image cameras. The image cameras have glass faces which can be easily broken if a metal probe is used.

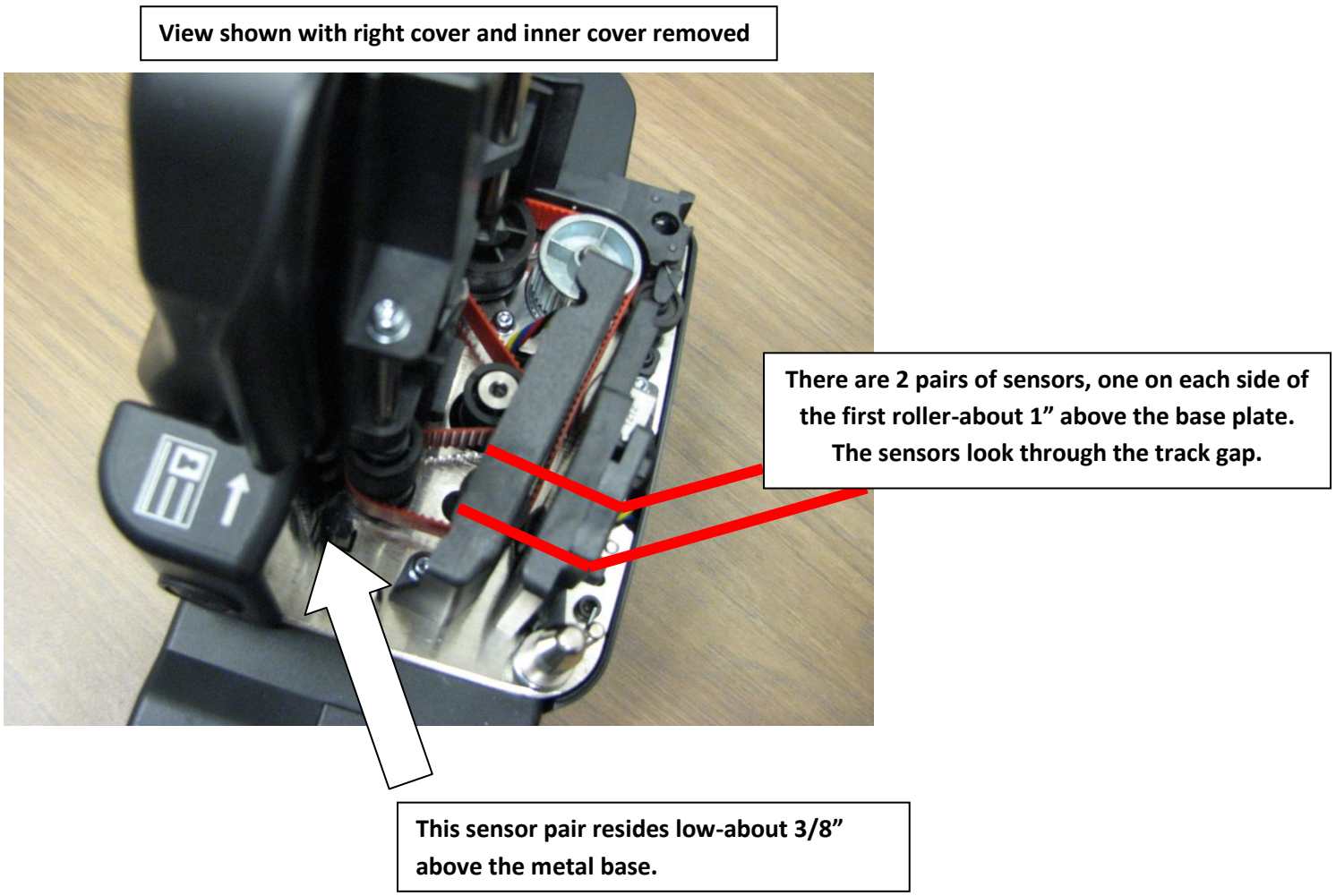
The glass faces of the image cameras may acquire a build-up of dirt and paper dust from the passing documents, which affects image quality. If streaks, lines or a loss of image quality are seen, the image cameras should be cleaned.

Open the image cover to expose the glass faces of the image cameras, as shown.

Clean the glass faces using a soft cloth moistened with water. For stubborn stains, a solvent such as isopropyl alcohol may be used. Cleansing wipes pre-soaked with suitable solvent are available from the Digital Check Store, www.digitalcheck.com, part number 75-1804-907. **Ensure that any cleanser or solvent has been completely wiped off or dried before closing the image cover.**

Cleaning track sensors

The unit includes three sensors, as shown. If dirt or dust accumulates on these sensors, errors may result.



Clean these sensors using canned or compressed air, or a soft cloth moistened with isopropyl alcohol. Cleansing wipes pre-soaked with suitable solvent are available from the Digital Check Store, www.digitalcheck.com, part number 75-1804-907.

Section 4

Solving problems

Jams in track

Documents jamming in the track are usually the result of

- Poor document quality – documents with tears, creases, folds or dog-ears
- Foreign objects attached to the documents – tape, staples, adhesives, etc
- Documents which are stapled or taped together
- Foreign objects in the track – staples, paper clips, rubber bands etc.
- Documents that are too big, or too small – see document size limits above.

Poor feeding

Most feeding problems (poor feeding, skewed documents) are caused by poor document quality or preparation.

Other causes of feed problems

- Feeder sensor requires cleaning – see section 3, above
- Foreign objects attached to the documents – tape, staples, adhesives, etc.
- Documents which are stapled or taped together
- Foreign objects in the track – staples, paper clips, rubber bands etc.
- Documents which are poorly-aligned,
- Documents that are too big, or too small

Poor quality images

Poor-quality images are usually caused by

- Poor document quality – documents with tears, creases, folds or dog-ears.
- Foreign objects attached to the documents – tape, staples, adhesives, etc.
- Dirt build-up on image cameras – see Cleaning the image cameras, above

Detailed troubleshooting chart

For more-detailed descriptions of how to resolve operating errors, please refer to the following troubleshooting chart.

Problem Topic	Condition/Problem	Possible Cause	Corrective Action
Power Supply	Scanner will not power up. Blue LED in function switch is not lit, scanner is off.	Not plugged into AC outlet,	Plug into a known-good AC outlet
		Non-functioning AC outlet	Verify AC outlet is OK, try a different AC outlet
		Defective power supply	Replace power supply
USB Issues	Host PCB does not recognize the scanner as a USB device	Incorrect or defective USB cable	Check USB cable for damage. Cable should be to USB 2.0 standard or better – replace if in doubt.
		Excessive cable length	Maximum length for any single USB 2.0 cable is 15 feet (5 meters). The use of USB extension cables and/or USB hubs and/or plug/cable adapters may cause USB failures.
		PC has lost or failed to maintain the USB connection	Re-initialize the USB system by shutting down the host PC (Note – the 'restart' function of the host PC will not complete this process, the PC must be shut down entirely.) **This should be an isolated event** – if this correction is required repeatedly, there may be a defect in the host PC.
	Unit is not recognized as Digital Check SmartSource Micro Elite	Unit was connected to PC before USB driver software was loaded (This does not apply to Micro Elite SE)	Disconnect unit, then install SmartSource Micro Elite driver software
		SmartSource driver for Micro Elite may not be installed/loaded (This does not apply to Micro Elite SE)	In Device Manager, ensure "SmartSource Pro/Value" appears/disappears from Jungo folder when unit is turned on/off. Update or reinstall SmartSource Micro Elite software as needed.
		RDC USB serial port driver for Micro Elite SE may not be installed/loaded	In Device Manager, ensure "RDC USB serial port" appears/disappears from "Ports (COM & LPT)" folder when unit is turned on/off. Update or reinstall SmartSource Micro Elite SE software as needed.
Track Noise	Clicking or ticking noises as document travels in track	Obstruction in document track	Inspect track, remove debris.

Problem Topic	Condition/Problem	Possible Cause	Corrective Action
Indicators / Controls	Power light does not come on	Multiple causes	See 'Power Supply' conditions, above. Also, refer to 'Using the power/stop-start button'
	Items do not feed when button is pressed	Button is not being operated correctly	Refer to 'Power Button Function' Using the power/start-stop button / meaning of the status light
		Application is not ready	Consult application documentation
Frequent Jams or Stops	Track stops frequently with the same error message	Error message will indicate the cause of the repeated problem	Use error message to identify the appropriate problem area
	Track stops/fails to start with a 'document in track' message	Document or debris is stopped in track and blocking track sensor	Inspect and clear as required.
		Several different jams are "mapped" into this single message, a "decoding" effort will reveal what area of the track reported the jam	Consult with your IT or application provider to analyze error codes.
	Items do not feed correctly	Multiple causes	See "Feeder" conditions below
	Items feed into the track but then stop suddenly and have leading edge damage	Debris/obstruction in paper path	Examine paper path to locate small bits of paper, tape, staples, etc. Remove debris gently using the spatula tool.
	Item stops in curved portion of track	Item is too thick or too stiff-run through ID card track.	Card stock, envelopes, carriers will not travel correctly if they are too thick or too stiff.
	Items skew as they are fed	Inadequate document preparation	Ensure document is properly aligned on base-floor bottom
Readers	MICR reader has an excessive reject rate	Items have poor MICR print quality, or are worn/soiled	Frequently-reused items (like cash tickets or batch headers) should be replaced with a fresh supply. If possible, ask document provider to correct print quality problems.
		Inadequate work preparation	Ensure work is properly aligned, and loaded correctly in the feed area so it is presented properly to the MICR read head
		Staple/Debris near reader	Inspect reader area for staple on magnet or debris lodged at MICR head, remove if found.
		Incorrect track speed	Depot service required
		Reader affected by electrical "noise"	Depot service required

Problem Topic	Condition/Problem	Possible Cause	Corrective Action
Readers (cont'd)	OCR reader has an excessive reject rate	Items have poor OCR print quality	May be a particular document type or work source. If other documents read well suspect print quality issues with the problem documents.
		Inadequate work preparation	Ensure work is properly aligned, and loaded correctly in the feed to reduce skew as documents pass the image cameras
		OCR scan band incorrectly defined, reader is not looking at correct area of the document	Application issue – refer to your IT or application provider
Image	Documents in images are skewed	Multiple causes	See "Feeder" conditions for skewed items
	Dark images or lines through images	Dirt-paper dust or debris on camera glass	Clean image glass-see page 20.

Section 5

Replacement parts

To obtain replacement parts, call 1-847-446-2285, visit the Digital Check Store at www.digitalcheck.com, or contact your authorized service provider.

The following replacement parts are available:

Item	Part Number	Description
Power supply	82275229-000	Does not include Adapter Plug
United States adapter plug	82275232-000	
European Union adapter plug	82275234-000	
Brazil adapter plug	82275233-000	
Great Britain adapter plug	82275234-000	
Australia adapter plug	82275236-000	
USB 2.0 cable	16-1308-994	6 foot / 2 meter
Return shipping carton	82275228-000	Approved shipping packing for return shipment of complete unit

The following cleaning supplies are available:

Item	Part Number	Description
Canned compressed air	75-0501-900	Carton of 4 cans
Track cleaning spatula	75-0381-907	Pack of 5
Track cleaning card	75-7200-995	Package of 15
Track cleaning wipes	75-1804-907	Package of 80