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RTE8000
Getting Started Guide

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1 INTRODUCTION

The RTE8000 is a family of versatile multi-function scanner, designed to read the full page of passports, visas and other travel documents and capture multiple images for use in document authentication and biometric analysis. A fully integrated RFID reader can be included to completely read the ePassport chip at the same time as the camera scans the document.

Their small footprint makes them ideal for use on airline check-in desks and immigration control booths. The scanners have no motorised moving parts ensuring maximum reliability and low maintenance.

The RTE8000 has a semi-enclosed hood to hold the document and give high quality UV images regardless of the ambient light. The RTE8000 SSD is designed for use in self-service kiosks and automated border control systems and has a half-length hood making it very easy to place a document. Because of this simplicity the RTE8000 SSD is great for self-service kiosks where a large number of un-initiated passengers will be checking in for international flights.

APPLICATIONS

- APIS data capture with cross checking of FAA watch list.
- Scanning full colour or greyscale images of travel documents.
- Electronic manifests with traveller photo images.
- Airline ticket fraud detection.
- Travel document authentication.
- Border control.

FEATURES

- Reads passports, visas and all other ICAO standard travel documents plus airline tickets (TAT and ATB), national ID cards and bank cheques. Optional reading of 1D and 2D barcodes.
- ePassport reader (RFID option) fully integral with scanner so operator can read the OCR and smartcard chip in one operation. All data groups, hashings, validations, BAC and Active Authentication supported.
- Captures full colour or greyscale images of all travel documents including non-ICAO passports.
- Uses multiple light sources for image capture and document authentication - Visible, infra red (IR), ultra violet (UV) plus optional coaxial visible and IR for validation and tamper checking of retroreflective security laminates.
- Auxiliary USB2.0 interface for webcam, fingerprint scanner or other biometric device.
- “Lay on” scanner, with or without flap, single handed operation.
- Accepts documents in any orientation.
- Simple, intuitive operation by passengers.
- Automatic document detection.
- Small footprint, no moving parts, robust construction.
- Supports remote monitoring in kiosk and networked environments.
- SDK. Flexible software interface allows host application to select which illumination sources to use, image type, image compression, photo extraction, etc.

2 YOUR SCANNER CONFIGURATION

Options
- ❑ 250dpi Colour Camera
- ❑ 400dpi Colour Camera
- ❑ B900 Infra-red illumination
- ❑ Colour Visible Illumination
- ❑ UV-A Illumination
- ❑ Retro-reflective Laminate Detection
- ❑ 1d Barcode Engine
- ❑ 2d Barcode Engine
- ❑ ePassport RFID Option
- ❑ QA Verification

Configuration
- ❑ Sends All Data
- ❑ Sends Basic Data
- ❑ Compression ____
- ❑ Image Size ____
- ❑ Send Barcodes
- ❑ Checksum Test
- ❑ Read US Visa HRZ
- ❑ Security Check IR / UV dull
- ❑ ePassport Data Groups _____

3 WARNINGS, CAUTIONS AND NOTICES

This manual contains important information regarding the operation of the RTE8000 Family readers. For safe and reliable operation of the readers all users must ensure that they are familiar with and fully understand all instructions contained herein.

Warnings provide information which is important for your health or for preventing personal injury, property damage, or endanger life.

Cautions provide information to prevent damage to the equipment, other systems or loss of data and may invalidate your warranty.

Notes indicate important information that helps you make better use of your scanner.

4 NOTICES

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5 REFERENCES

[1] RTE8000 Software Guide, RT part number 97-0183-10.

[2] RTE8000 Self-Service Integration Manual, RT part number 97-0183-21.

6 ELECTROMAGNETIC COMPATIBILITY (EMC)

These units are designed to be immune to levels of interference generated within an office environment and not to interfere with other equipment. In order to provide this level of compatibility the unit, its cabling and PSU or its installations, must not be modified in any way.

Caution Modifications or changes to this equipment, its cabling or its power supply, not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For further regulatory information or copies of certificates contact your distributor or the manufacturer at repairs@rte.co.uk.

This equipment meets the following European Council Directives:

Scanner: EMC (89/336/EEC), RFID Option R&TTE (1995/5/EC)
PSU: EMC (89/336/EEC), LVD (73/23/EEC)

FCC Notices (U.S. only)
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.

RFID Option - This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

7 DISPOSAL

Do not dispose of this equipment in domestic or general waste. These devices can be recycled and should be disposed of in accordance with your local and national regulations.

8 TRANSPORTATION

When packing this product for repair or shipment carefully disconnect all cables and PSU and pack in the original carton.

9 GENERAL INSTALLATION INFORMATION

Warning Before use check that the power cord is suitable for use in your country and the local power supply. Substitution of the provided power cord and / or accessory PSU may void any regulatory approvals that the equipment may have. If in doubt contact your distributor or manufacturer. The equipment must be installed near an easily accessible socket outlet.

Warning For indoor use only.
Dangerously high voltages are present inside the scanner and the PSU. Do not open or take apart either unit. No user serviceable parts inside, refer all servicing to qualified personnel or contact your supplier.

The scanner is designed to operate in a standard office environment.

- It should not be exposed to extremes of temperature or humidity.
- It is not protected against dust or liquid ingress.
- Consideration must be given to the optimum position for operator access. Guidance should be sought from national regulations for ergonomic layout of office equipment.
- Do not site near to generators of electro-magnetic fields such as monitors, power supplies, motors, fluorescent light banks, mobile phones, two-way radios, etc.

Caution Do not connect the scanner to the PC prior to installing the drivers and software on the PC.

10 SOFTWARE INSTALLATION

Note The PC must be Windows 2000 SP4 or Windows XP SP1 or SP2.
You must have a properly installed High Speed USB2.0 port available.
See the readme.wri file on the Installation CD for full details of the processor and memory requirements.

Place the Installation CD into the drive and if it doesn't auto-start then run setup.exe on the root directory of the CD. Follow the on-screen instructions to install all the drivers, software, demonstration programs and SDK.

Ensure that DirectX is loaded and up to date, this is on the installation CD or visit www.microsoft.com.

11 CONNECTING YOUR SCANNER

The scanner must be connected as shown in the diagram adhering to all instructions. Note the warnings and cautions in the Installation section above.

PC must run Windows XP SP1 or Windows 2000 SP4.
1
Install the drivers BEFORE connecting the scanner.
You must use a USB 2.0 port.
4
Connect the cables to a USB port on the PC. Follow the instructions for the Found New Hardware wizard.
2
Plug the power and USB2.0 cable in the scanner
Check the Voltage and Plug is suitable for your local supply. The PSU requires 100-240Vac at 1.5A. Use a location near the equipment.
3
Now plug the reader in and check the red LED comes on.

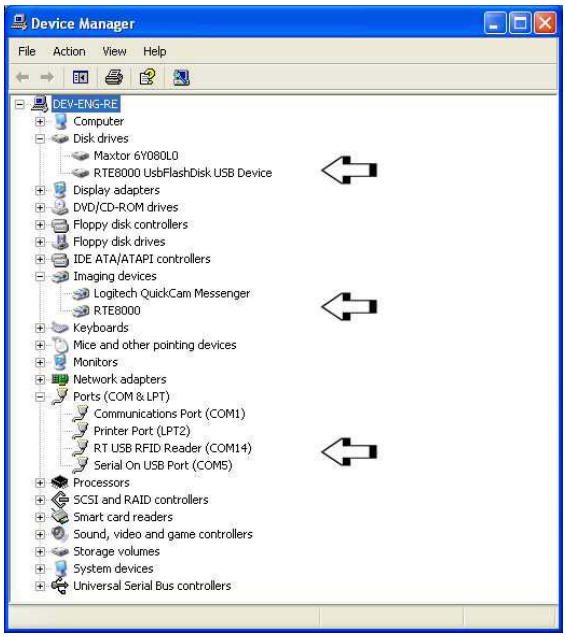
The first time the scanner is switched on it will require Windows to go through the “New Hardware Wizard”. The drivers will then start to install, there are two types of drivers one for the scanner and the other for the e-passport chip reader. On Windows XP SP2 select "No, not this time" to the question "Can Windows connect to Windows Update to search for software?".

When prompted for the e-passport chip reader drivers (these will be called "RT USB RFID Reader") follow the on-screen instructions. Select the "Install the software automatically" or "search for best driver" option if prompted.

If warned that the drivers have not passed Windows Logo testing then click on "Continue Anyway". Note you have two drivers to install and this happens each time you connect the reader to a new USB port.

When prompted for the scanner drivers (these will be called "Rochford Thompson Unconfigured Device" and "RTE8000") follow the on-screen instructions. Select the "Install the software automatically" or "search for best driver" option when prompted. If warned that the drivers have not passed Windows Logo testing then click on "Continue Anyway". Note you have two drivers to install and this happens each time you connect the reader to a new USB port.

12 TO CHECK THAT THE SCANNER IS PLUGGED IN AND WORKING



Windows XP only - Open the "My Computer" icon on the desktop or from the start menu. Check that you see an RTE8000 Passport reader in the Scanners and Cameras section and a new Removable Drive labelled RTE8000MSD.

Windows 2000 only - Go to the "control panel" from the start menu. Select "system" and go to the "device manager". Check that you see an RTE8000 Passport reader in the "Imaging Devices" section and a "RTE8000 UsbFlashDisk" or similar (e.g. "USB 2.0 FlashDisk USB Device") drive in the disk drive section.

RFID Option – Check Device Manager as shown in the picture.

If you can't see these items then consult the troubleshooting section of the RTE8000Software Guide found on the CD.

Start an appropriate demonstration program, see the Software Guide if you're not sure which to use.

Documents can be scanned by simply inserting them as shown below.