TellerScan™ - 210E
Countertop Check Scanner

User's Guide

July, 2005

TellerScan 210E System Requirements

In order to operate the TellerScan 210E the requirements for your PC are:

Recommended	Minimum
▪ 2 GHz Pentium IV processor 256 MB RAM	▪ 1GHz Pentium III processor 128MB RAM
▪ 200 MB free disk space	▪ 100 MB free disk space
▪ Windows XP, SP2	▪ Windows 2000 & XP
▪ USB 2.0 port	▪ USB port 1.1

Radio Frequency Interference

The TellerScan 210E generates, uses, and can radiate radio frequency energy. If the unit is not installed and used properly that is, in strict accordance with the instructions in this manual it may cause harmful interference to radio communications. It has been tested and found to comply with the limits for Class digital devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against harmful interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference, in which case, the user (at their own expense) will be required to take whatever measures may be required to correct the interference. The use of shielded cables is required when connecting this device to any/all peripheral or host devices. Failure to do so may violate FCC rules.

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About the TellerScan 210E

The TellerScan 210E Countertop Check Scanner is an easy-to-use, compact, scanner that connects to a personal computer (PC). The TellerScan 210E automatically scans the front and/or back of a check and also reads the MICR (Magnetic Ink Character Recognition) code line. The images and data are then transmitted through a Universal Bus Interface (USB) to the PC. This is a single check feed mechanism, where only one check or document at a time is manually inserted into the entry path and then slid forward into the rollers.
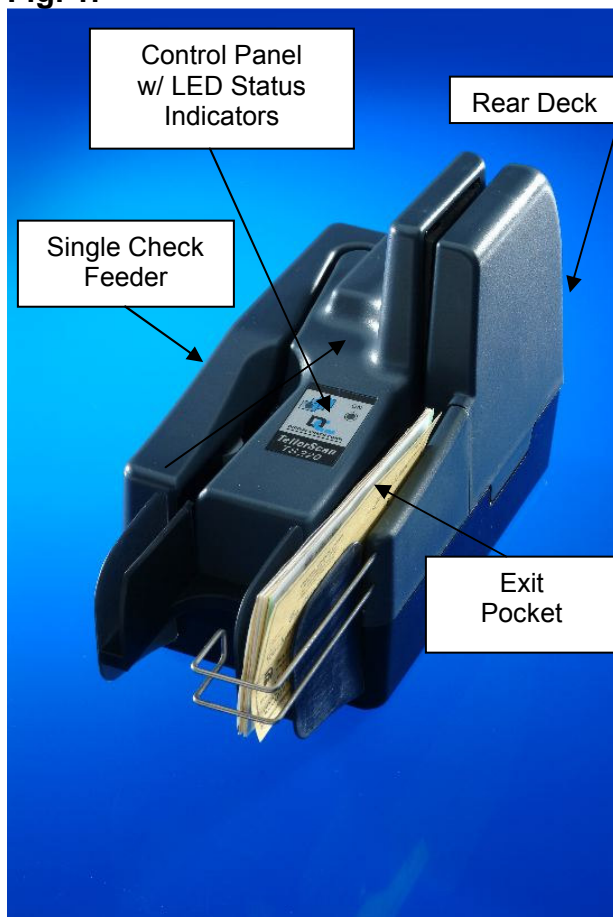
Options include:
- Ink-jet endorser – to print characters on the backside of checks

Features of the TellerScan 210E

Outside the TellerScan 210E
Fig. 1.

Control Panel w/ LED Status Indicators

Rear Deck

Single Check Feeder

Exit Pocket

Rear Deck of TellerScan 210E

Fig. 2

Power Connector

USB Port

ON/OFF Switch

Inside the TellerScan 210E

Fig. 3

Main Drive Rollers

Exit Stop Wire

Ink Jet (Optional)

Entry Sensor

Entry / Exit Tray
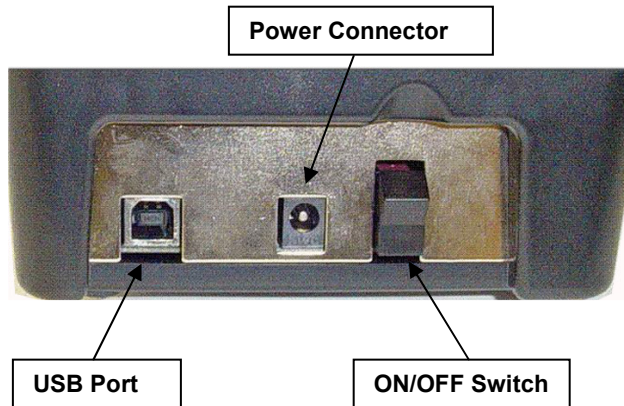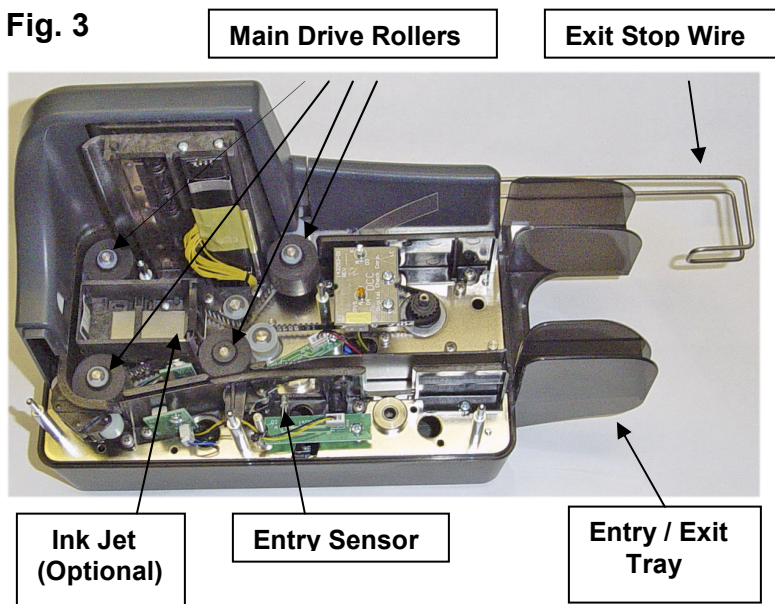
TellerScan TS 210E Equipment List

The TellerScan 210E package includes the following pieces:
- TellerScan 210E scanner unit
- USB cable
- Modular power supply
- Ink Jet cartridge (if printer is included)

TellerScan 210E Installation

To set up the scanner and verify proper operation: install the scanner, connect the TellerScan 210E Scanner to the PC, and install the demo software.

WARNING: before connecting the scanner to a power outlet, make sure that the unit power supply input rating (as shown on label) corresponds to the voltage at your location.

1. Locate the unit on a flat surface near PC and away from direct light.
2. Verify that the modular power supply rating corresponds to the voltage of your power source.
3. Connect the power cord from the modular power supply to the power connector on the scanner rear deck. (See Fig. 2).
4. Locate the modular power supply in a ventilated area several feet away from the scanner and connect to an appropriate source of power.
5. Make sure the TellerScan is turned off. Verify that the green power indicator on the Control Panel is **not** lit; power switch is on the rear deck. (See Fig. 2).
6. Connect the USB cable by plugging it into the port on the rear deck.

Installing the Driver Files (XP Certified Driver)
Windows 2000 & XP - Drivers
1) Download the **TS210-220E** auto or manual certified driver files from the web site into the TS220 directory. **http://www.digitalcheck.com/l2_ss_downloads.html**
2) The XP Certified driver will work on W2000. Follow the instructions in the install document included with the driver files.
3) Unzip the file and run the driver auto install program to automatically install the firmware and place the driver files into a newly created folder so you can point to it during the install process. (C:\Program Files\TellerScan\Drivers)
4) Turn ON the unit. Windows detects a new hardware device. For first time installations, you can manually point to the TSUSB2.inf file in the folder it was unzipped in. If you ran the auto install, select the TSUSB2.inf file in the 'Drivers' folder and continue until finished.
5) Sample screens are included in the certified driver zipped file.
6) Both LEDs on the control panel should now be lit.

While the scanner will run on a USB 1.1 port, it is recommended that a USB 2.0 port be used to provide better overall performance.

Getting Started with the TellerScan 210E

Install the Demo Software Program (*Download from the Digital Check web site***)**
   http://www.digitalcheck.com/l2_ss_downloads.html

The demo software is a basic scan program that allows you to operate the scanner, change different scanner settings, view images, and store them on your PC's hard disk. The demo program is not the software to run the system. Additional application software is required. Scanlite is a easier demo program to use and is recommended that it be used when cleaning the scanner.

NOTE: In most cases, your scanner will operate under the application provided by the company that installed it. If so, this operation may not be necessary.

1. Create a sub directory, i.e. "TS210E" on the PC.
2. Copy the scanlite files into the directory.
3. Launch the scanlite.exe to open the demo application.

How to Load Checks
Checks are loaded into the Single Check Feeder in transactions one check at a time.

1. Remove all rubber bands, staples, paper clips, pins, etc.

2. Load the items into the Single Check Feeder with the front of the item facing away from the scanner.

NOTE: Checks must not have folded corners, a bent or curled leading edge and should be seated down onto the base plate as the document is slid into the path.

TellerScan 210E Operator Maintenance

Cleaning the TellerScan 210E

Ink, dirt and dust small particles can get onto the rollers and into the track area. Clean the path area as follows using the Scanlite demo program:
1. Remove center cover and check the entire track area from beginning to end. A flashlight will greatly facilitate the visual inspection between the scan heads.
2. Remove any staples, paper clips, and rubber bands that may have accumulated during use.
3. If there appears to be dust or small debris in the path area, use a can of compressed air to blow out the path.
4. On a regular basis, use a Cleaning Card from the Cleaning Kit (#130007-03). Run several scan cycles using Scanlite while holding the card to 'scrub' the entry rollers, flipping the card between cycles. (Note, the other applications have to be shut down before Scanlite will launch).
5. Once the entry rollers no longer deposit dirt onto the card, allow the card to scan through the entire path. Run this through several times while flipping the card end to end and top to bottom. Every three to four cleanings use the special Swabs which come with the Cleaning Kit to 'scrub' the four drive rollers under the center cover.
6. Drive rollers can be wiped with the Swabs or hold the cleaning card at several places in the track. Use the scanlite program from the web site to run the eject function. This runs the rollers at a reduced speed and will scrub surfaces while holding the card in place.

Replacing the Inkjet Cartridge - Hewlett Packard ink jet cartridge part# C6602A
When the endorsement print becomes light and difficult to read, replace the ink jet cartridge. When changing the ink jet cartridge, follow these steps:
1. Turn off the power to the scanner
2. Open the cover
3. Remove the ink-jet cartridge by and then pulling it up and out of its holder
    *   Gently lifting up on the tab at the rear of the cartridge.
    *   Pull the entire cartridge up and out of its holder.
    *   Discard the used cartridge.
4. Get a new ink jet cartridge (see note below)
    *   Take the new cartridge out of its packaging.
    *   Remove the protective tape from the cartridge.
    *   Take care not to touch the exposed metal chip or the cartridge could be damaged.
5. Place the front of the cartridge down and into its holder.
6. Push down on the rear tab until it snaps into place.

TellerScan 210E Troubleshooting

The TellerScan 210E transport is designed to scan millions of items without trouble. On board diagnostics power-on self-testing and an easy-to-service modular design ensure reliable, problem-free operation. However, here are some troubleshooting tips in case you do have problems.

Clearing Jams

If a jam occurs, the paper path must be cleared. To do this, try to advance the jammed document by pressing the EJECT button in your application program. In case the document does not move, you can grab the document with both
hands and carefully wiggle it back and forth as you lift it vertically:

1. Remove the central cover, if needed to remove the document.

2. Clear the path of any jammed document and make sure that the rollers are free of paper and debris. Rotate the mechanism, if necessary, by manually turning the main drive roller located on the right side (See Fig. 3).

3. Replace the covers.

LED Status Indicators

The standard sequence to observe with the two top cover LEDs is the following:
1. When the scanner is powered on, the left LED will light up.
2. If the firmware and drivers have been properly loaded, a few seconds later the right LED will light up.
3. Having both LEDs lit is the normal ready condition. The scanner is now waiting to be acquired by an imaging application.
4. When an imaging application acquires the scanner the left LED goes off.
5. Now, the Left LED is used to detect the presence of documents in the entry pocket.

Document Feeding Problems

The TS210E does not have any user available adjustments to make. If you notice feeding problems, check the documents for bent of folded edges and check for debris in the path. If you still have feeding problems, be sure the entry rollers have been cleaned using the cleaning cards and the procedures described above.

Check Image Has Streaks or Fades

If you notice that the check image fades, clean the Scanheads. See Fig 5 below for details. If after cleaning, items are still not scanned properly, contact your qualified service technician.

Fig. 5

Scanhead Assembly - Cleaning

#1 - Remove power to the unit.
Pull out the wire exit stop and remove the left side cover &the rear right side cover from the scanner and set aside.
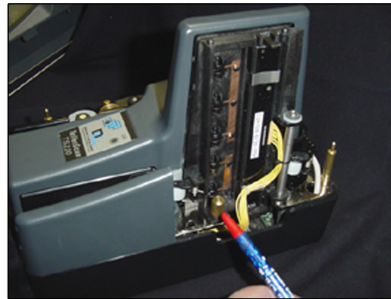
#2 - Unscrew the large brass thumb screw indicated by the pointer.

#3 - Carefully swing open the outer scanhead in the direction indicated by the pointer.
The scanhead will open to about a 45 degree angle, but do not force it further than that or damage to the head assembly could occur.

#4 -The front & rear optics are the white vertical bars shown in the picture. Clean off or remove any dirt or debris from the optics and scanhead area. A clean tissue can be used to wipe down the optics to remove any build up.

TellerScan 210E Service Features

Power-on Self Test (POST)

At power-up, the scanner automatically runs a self test to verify that various components of the electronics on the main CPU board are working properly. If something fails, the ERROR LED on the control panel starts flashing. After performing the POST, the scanner drives the motor in order to eject any document that may be present in the path

TellerScan 210E Specifications

Paper Size	H. min. 2.12" – max. 4.17" (54-106 mm.) L. min. 2.91" – max 11.81" (80-300 mm.)
Scanning Method	Concurrent two-sided Duplex Image Creation: 2 x 850 cell, 108mm CIS Light Source: Tricolor LED
Transport Speed	50 cm./sec
Image resolution	200 dpi
Image Format	B/W, 16 or 256 gray levels
MICR Recognition	MICR recognition firmware for E13B or CMC7 standards
Diagnostics	On-Board Diagnostics: Tests the functionality of the scanner
Power-On Self Test	Automatic self-testing when switching on the unit
Software Tools	API Toolkit 32 bit
Options	Ink jet printer (Rear endorse)
Part #130007-03	Digital Check Corporation Cleaning Kit (25 cards + 6 Swabs)
Electrical	Consumption: 30 VA Voltage: 230 VAC, 50 Hz. 110 VAC, 60 Hz.
Product life	Designed for useful life of 5.000.000 checks
	MTTR: 15 minutes
	Temperature Operating: 60°- 90° F Storage: 0° - 40° C
	Humidity Operating: 35-85% (non condensing)
Dimensions	H. 17 cm. – L. 21.7 cm. (27.9cm incl. I/O trays) – D. 13 cm. (6.6"x8.6"x5.1")
Weight	4.4 lbs. (2 kg.)
Certifications	UL – FCC – CE

Specifications subject to change
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