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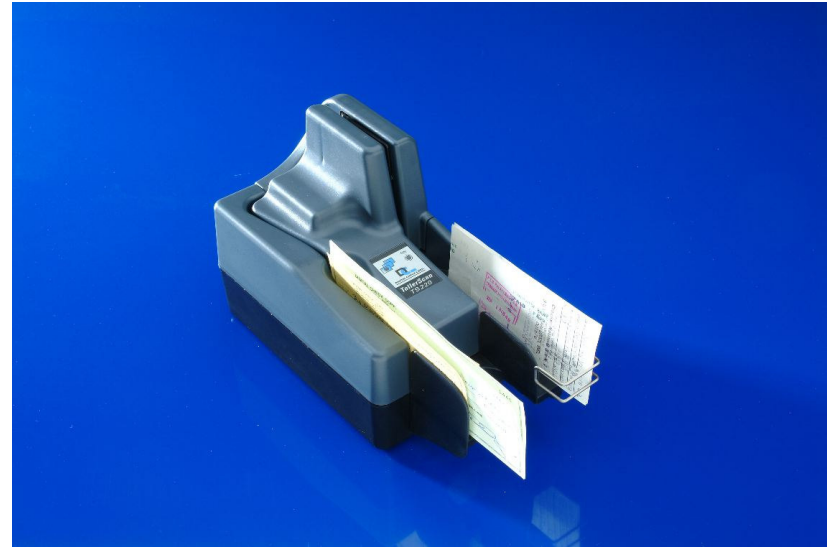
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# TellerScan™ - 220

## Countertop Check Scanner



## User's Guide

October, 2004

## System Requirements

In order to operate the TellerScan 220 the requirements for your PC are:

Recommended	Minimum
<ul style="list-style-type: none"> <li>▪ 2 GHz Pentium IV processor</li> <li>▪ 256 MB RAM</li> </ul>	<ul style="list-style-type: none"> <li>▪ 1GHz Pentium III processor</li> <li>▪ 128MB RAM</li> </ul>
<ul style="list-style-type: none"> <li>▪ 200 MB free disk space</li> </ul>	<ul style="list-style-type: none"> <li>▪ 100 MB free disk space</li> </ul>
<ul style="list-style-type: none"> <li>▪ Windows 2000 &amp; XP</li> </ul>	<ul style="list-style-type: none"> <li>▪ Windows 2000 &amp; XP</li> </ul>
<ul style="list-style-type: none"> <li>▪ USB 2.0 port</li> </ul>	<ul style="list-style-type: none"> <li>▪ USB port 1.1</li> </ul>

## Radio Frequency Interference

The TellerScan 220 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 his 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.

v. 1/1.00

### About the TellerScan 220

The TellerScan 220 Countertop Check Scanner is an easy-to-use, compact, scanner that connects to a personal computer (PC). The TellerScan 220 automatically scans the front and/or back of checks 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.

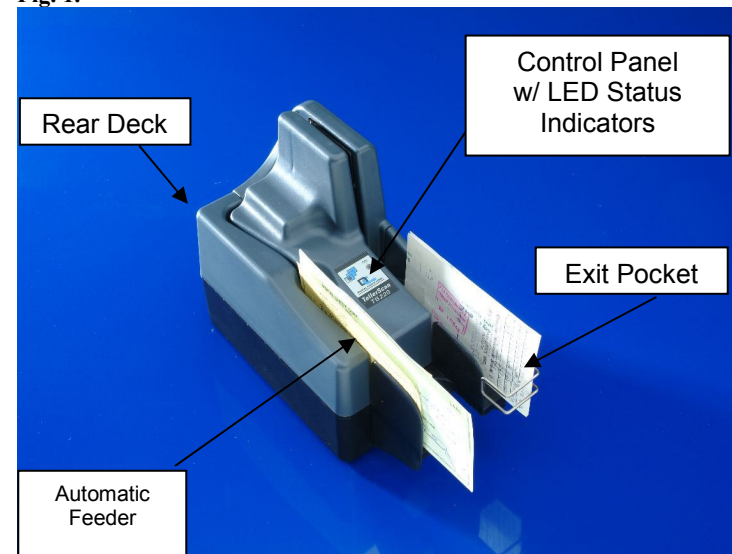
Options include:

- Ink-jet endorser – to print characters on the backside of checks

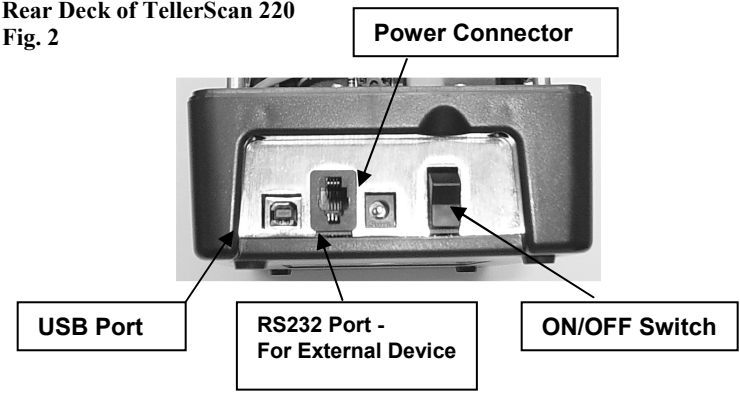
### Features of the TellerScan 220

#### Outside the TellerScan 220

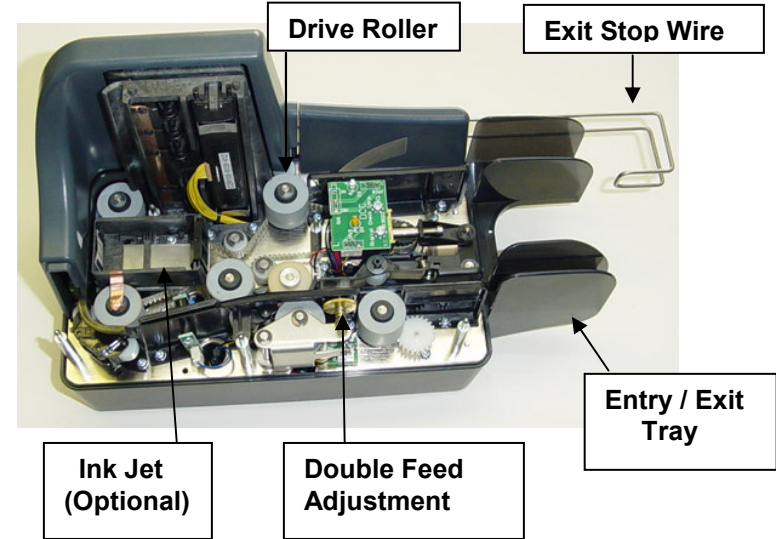
Fig. 1.



Rear Deck of TellerScan 220  
Fig. 2



Inside the TellerScan 220  
Fig. 3



## Equipment List

The TellerScan 220 package includes the following pieces:

- TellerScan 220 scanner unit
- USB cable
- Modular power supply
- Ink Jet cartridge (if printer is included)

## Install the Scanner

To set up the scanner and verify proper operation: install the scanner, connect the TellerScan 220 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

### Windows 2000 & XP - Drivers

- 1) Download the TS210 Driver file from the web site into the TS210 directory.  
**[http://www.digitalcheck.com/l2\\_ss\\_downloads.html](http://www.digitalcheck.com/l2_ss_downloads.html)**
  - 2) Unzip the file and run the driver auto install program. This will automatically install or update all of the TS210 driver files on your PC.
  - 3) Turn ON the unit. Windows detects a new hardware device. Select the request for the installation of the best driver. It should find the TS210.inf file. Select it and continue until finished.
  - 4) Under XP, the USB device will install and then the TS210 will install.
  - 5) 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

### Install the Demo Software Program *(Download from the Digital Check web site)*

[http://www.digitalcheck.com/l2\\_ss\\_downloads.html](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.

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. "TS210" on the PC.
2. Copy the scandemo files and the driver folder into the directory.
3. Launch the scandemo.exe to open the demo application.

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### How to Load Checks

Checks are loaded into the Automatic Feeder in transactions of up to 25 items.

1. Remove all rubber bands, staples, paper clips, pins, etc.
2. Load the items into the Automatic Feeder with the front of the items facing away from the scanner.

NOTE: Checks must be jogged properly in order to feed correctly. The bottom and left leading edges of the transaction stack must align to one another.

## Operator Maintenance

### Cleaning the TellerScan 220 unit

Dust, lint and small particles can get into the track area between the front and rear scan heads. Clean this area as follows:

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. Using a container of canned air and nozzle, spray the area around the photo detectors and check entrance.
4. Spray the area between the two scan heads starting at the top and working downward to remove any debris and dust that may be caught.
5. Continue to spray around the remainder of the track all the way to the exit.
6. Drive rollers can be wiped with the cleaning card or hold the cleaning card at several places in the track and use the scandemo program 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 no. C6602A

When it's hard to read the endorsement, replace the ink jet cartridge. Here's how:

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.

## Troubleshooting

The TellerScan 220 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. Close the cover. Some earlier TS220 models have an interlock switch under the center cover so be sure that cover is fully seated.

### 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.

### Feed Roller Adjustments

If excessive misfeeds, jams, piggybacks, or multiple feeds are occurring at the Automatic Feeder station, the Feed Roller should be adjusted. Perform as appears in Fig. 4.

If after making the proper adjustments, you are still experiencing Feed Roller problems, contact your qualified service technician.

## Double Feed - Brass Wheel Adjustment



#1 - To get to the double feed adjustment, remove the left side cover by lifting straight up.



#2 - This is the Brass Adjustment Wheel. There is a black dot on the wheel to assist with identifying how far the wheel has turned. Turn in  $\frac{1}{4}$  increments at a time and then retest.



#3 - Turn the wheel 'top' to right,  $\frac{1}{4}$  turn to loosen the double feed setting.



#4 - Turn the wheel 'top' to left,  $\frac{1}{4}$  turn to tighten the double feed setting.

**Note: Perform the adjustments turning the wheel only  $\frac{1}{4}$  turn at a time, then run several documents to test the setting. Once properly set, no further adjustments are typically needed.**

### Check Image Has Streaks or Fades

If you notice that the check image fades, clean the Scanheads. See Fig 5 below for details.

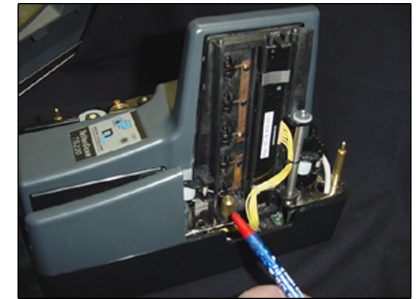
If after cleaning, items are still not scanned properly, contact your qualified service technician.

**Fig. 5**



#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.

### Scanhead Assembly - Cleaning



#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.

### 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

## Specifications

<b>Paper Size</b>	H. min. 2.12" – max. 4.17" (54-106 mm.) L. min. 2.91" – max 11.81" (80-300 mm.)
<b>Scanning Method</b>	Concurrent two-sided Duplex Image Creation: 2 x 850 cell, 108mm CIS Light Source: Tricolor LED
<b>Transport Speed</b>	50 cm./sec
<b>Image resolution</b>	200 dpi
<b>Image Format</b>	B/W, 16 or 256 gray levels
<b>MICR Recognition</b>	MICR recognition firmware for E13B or CMC7 standards
<b>Diagnostics</b>	On-Board Diagnostics: Tests the functionality of the scanner
<b>Power-On Self Test</b>	Automatic self-testing when switching on the unit
<b>Software Tools</b>	API Toolkit 32 bit
<b>Options</b>	Ink jet printer (Rear endorse)
<b>Part #IS0028</b>	Digital Check Corporation Cleaning Kit (25 cards)
	Front Crossing Stamp
<b>Electrical</b>	Consumption: 30 VA Voltage: 230 VAC, 50 Hz. 110 VAC, 60 Hz.
<b>Product life</b>	Designed for useful life of 10.000.000 checks MTTR: 15 minutes
	Temperature Operating: 60°- 90° F Storage: 0° - 40° C
	Humidity Operating: 35-85% (non condensing)
<b>Dimensions</b>	H. 17 cm. – L. 21.7 cm. (27.9cm incl. I/O trays) – D. 13 cm. (6.6"x8.6"x5.1")
<b>Weight</b>	4.4 lbs. (2 kg.)
<b>Certifications</b>	UL – FCC – CE

Specifications subject to change

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