Verifi
Fingerprint Products

P5500

Fingerprint and SmartCard Combo

User Manual

Windows 7 Compatible

Next Generation FingerPrint Security

QAS 098 022505 PG1 RB

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USER MANUAL

A Guide to Installing and Using Your P5500 SmartCard and Fingerprint Reader.

Zvetco Biometrics
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Orlando, FL 32807

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This product may have possibility (of less than 0.1% according to our measurements) of granting access to persons other than those who have registered their fingerprints. In no event shall Zvetco or our representatives be liable for any incidental, consequential, or special loss arising from granting an access to persons from other than those who have registered their fingerprints. In no event shall our corporation or our representatives be liable for any incidental, consequential or special loss arising from any use, defect, malfunction, or fault of this product.

When sending the fingerprint data via communication line or storing such data in a computer, sufficient security control is required to avoid abuse of the data.

Thank you for purchasing the Verifi P5500 Fingerprint and SmartCard Reader combo. The P5500 is a combined fingerprint and smart card reader, benefiting from the best in both technologies. This reader is ideal for commercial and governmnet user, providing secure and convenient two-factor authentication.

Please be sure to read through this User Manual completely, and pay special attention to the section entitled "About the Fingerprint Reader".

Here are some of the advantages of using a P5500 Verifi Combo Reader:

Two Factor Authentication - Using two factors as opposed to one delivers a much higher leve of authentication assurance. The P5500 combines a fingerprint and a ISO 7816 smart card reader for strong authentication.

High Resolution - Greater than 500 d.p.i. resolution and 8-bits of grayscale imaging.

Robust Packaging - Solid aluminum construction with commercial grade powder coat finishing provides scratch resistance, durability, and protection.

HSPD-12 - Smart Card Reader approved with US government specifications for HSPD-12 and PICV.

Large Area Sensor - Sporting a 12.8mm X 18.0mm active sensing area, the P5500 can capture the large amount of fingerprint and minutia data needed to perform solid 1:1 verification and 1:N identification.

Continuing the Verifi Line of Rugged Biometrics Readers . . .

the P5500 has a solid metal powder coated enclosure for superior performance and durability.

System Requirements

Operating System
- Windows XP
- Windows Server 2003
- Windows Vista
- Windows 7
- Linux (2.4, 2.6)

Available USB Port

About your Fingerprint Reader

The P5500 offers the larget silicon-based fingerprint sensor on the market. Especially proficient with one-to-many applications this ergonomic USB device is perfect for large database installations. Leaning upon the proven and reliable UPEK TCS1 large area sensor this reader works well in virtually any application.

How It Works

The P5500 utilizes silicon technology which is more secure, easy to use, cost-effective, compact, and power-efficient than alternatives such as optical and thermal technology.

The active capacitive pixel sensing technology provides a higher immunity to parasitic effects than passive capactive sensing, delivering a high signal-to-noise ratio and the ability to capture fingerprints from the widers range of sking types.

Each sensor cell (pixel) contains an active capacitive feedback circuit sensitive to the presence of live skin close to the surface of the sensor.

Each pixel has its own amplifier for highest possible signal-to-noise ratio.

High sensitivity allows a thick protective coating to be applied to the surface of the sensor for environmental robustness.

Software Compatiblity

Imprivata OneSign
Integrated Platform
Sun Solaris
Identity Manager , SunRay, Access Manager
Actividentity
Card Managment System, ActivClient, SecureLogin (SSO)
SAP Realtime BioLock
... Much More

Cleaning the Fingerprint Reader

Regular cleaning and maintenance is not required for your fingerprint reader. However, for proper operation the finger sensor must stay free from excessive debris. If your fingerprint sensor needs cleaning gently wipe the sensor with a dry soft cloth.

Warning

To protect against risk of damage to the fingerprint reader:

Do not pour glass cleaner directly on the fingerprint reader window.

Never submerge the reader in liquid (except for the waterproof edition)

Never rub the fingerprint reader sensor with an abrasive material, including paper.

Do not poke the sensor with your fingernail or any other item, such as a pen.

About your Smart Card Reader

The P5500 utilizes the SCM Microsystems state-of-the-art SCR33XX series Smart cards reader. This USB smart card reader is ISO 7816 compliant and can be used for cards in ID 1 card format.

Smart Cards

Smart cards can be used for identification, authentication, and data storage. They also can provide a means of effecting business transactions in a flexible, secure, standard way with minimal human intervention. A Smart card can provide strong authentication for single sign-on or enterprise single sign-on to computers, laptops, data with encryption, enterprise resource planning platforms such as SAP, etc.

Typical Applications

The P5500 SmartCard reader is suitable for a wide range of applications for government applications as well as for enterprise and home usage.

Typical applications areas of the P5500 are electronic ID, social security and loyalty programs, e-Couponing, secure network log on, e-Banking as well as online shopping and gaming activities.

Feature OverView

1. SmartCard Reader
   SCM based ISO 7816 contact reader government approved.

2. Fingerprint Reader
   UPEK based Large Area Silicon based (12.8mm X 18mm) fingerprint sensor.

3. Ready Light Indicator
   LED illuminated when powered on by USB and ready for operation. Light will be off during USB communication or when in standby.

4. SmartCard Communication Indicator
   LED illuminated solid when smartcard is powered, and blinking during communication to PC.

5. Scratch Resitant Aluminum Housing
   Powder coated and laser engraved for superior durability

6. One-Hand Card Removal
   Smartcard area is designed for simple one-handed operation for both insertion and removal.

7. Large Area Feet (Bottom)
   Made of high quality slip resistant rubber for solid operation.

Installing Device Drivers

Please contact Zvetco technical support to obtain the most current driver installation package for your specific operating system.

Using the Fingerprint Reader

Learning Fingerprint Basics

Successful use of the fingerprint reader depends primarily on proper and repeatable placement of the user's finger. Proper care should be given to the fingerprint enrollment process. The enrollment image(s) captured will be used as a comparison for all future verification usage. A high quality enrollment greatly increases the ease of use for the user.

ATTENTION:
Fingerprint verification is highly dependent upon how well you enroll your fingerprint.

The fingerprint enrollment process usually consists of multiple placements of the finger to acquire several images for fingerprint template creation. Placing the core of your fingerprint in the active sensor area increases the quality of the enrollment template.

Fingerprint Placement

Placing your finger flat to the sensor area is important to creating a proper fingerprint image.

However, placement of the extreme tip of the finger results in poor template creation.

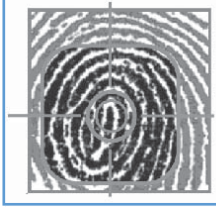
PROPER FINGER PLACEMENT
Finger is flat to surface and centered in sensor area.

IMPROPER FINGER PLACEMENT
Finger is not flat to surface and/or not placed in center of sensor area.

Fingerprint Alignment

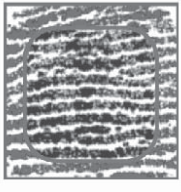
Successful use of the fingerprint reader depends primarily on proper and repeatable placement of the user's finger. Proper care should be given to the fingerprint enrollment process.

The user should use the finger core as a target for the center of the sensor. However, slight variations in the placement of the core is acceptable during use.



FINGERPRINT CORE
Center of finger swirl patterns placed in sensor area.

GOOD IMAGE



FINGERPRINT CORE
No core found from extreme placement of finger.

BAD IMAGE

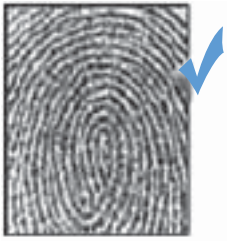
Fingerprint Repeatability

The fingerprint enrollment process usually consists of multiple placements of the finger to acquire several images for fingeprrint template creation. Repeatability placing the center (core) of your fingerprint in the sensor area increases the quality of your fingerprint enrollment.

Three Samples Match

Three Samples DO NOT Match

Skin Condition



IDEAL

Moderate pressure and normal skin condition generate ideal fingerprint images.

DRY or LIGHT

Light fingerprint images are generally caused by two condtions: Not pressing hard enought on the sensor or dry fingers. A dry finger condtion can be remedied by lotion or hand washing.

WET or DARK

Dark images are generally caused by two conditions: Pressing too hard, or having wet or oily fingers. A wet finger condtion can be remedied by hand washing.

Using the SmartCard Reader

Insert SmartCard face up. Insert completely until the card indicator light illuminates. Removal of smart card can be accomplished by using the thumb and index finger and pushing against the smartcard extraction platform located in the backside of the device.

Problem:

Power indicator light not illuminated?

Check to make sure dev is prop plugg into the usb port. Ensure the USB port has not entered a no poer state. If neccessary return the PC from hibernate mode.

Problem:

Card indicator light not illuminated?

There are usually three reasons the card indicator light is not illuminated. One is the card is not fully inserted or incorrectly inserted. Another possible reason may be the software controlling the smartcard has powerd the card to an off state. Lastly, check that the smartcard drivers are installed properly..

Problem:

Why is the fingerprint reader not recognizing my fingerprint when I try to enroll or use the device?

Be sure…

the Fingertouch unit's cable is firmly plugged into the PC's USB port and that your fingerprint is correctly placed on the device (see Section 3).

if your finger is very dry, moistening your finger will help the sensor to correctly read the ridges and valleys of your fingerprint.

if your finger is very moist, dry your finger and then place your finger on the unit.

Or ...

the sensor may be dirty. For cleaning instructions please see section 2 "Cleaning the Fingerprint Sensor"

Device Specifications

Sensor	UPEK TCS1, high resolution: 508 d.p.i., 256 X 360 pixels, 12.8mm X 18mm
Power Requirements	Voltage: 4.5V - 5.25V Current Consumption: ~100mA during fingerprint acquisition
Regulatory Compliance	FCC (Part B), WHQL, RoHS (Lead Free), CE
Environmental	ESD Resistance: + /- 15KV Temperature Range: 0-40 degrees Celcius
Size and Weight	2.3 inches X 3.7 inches X 1.5 inches, 4.5 ounces
Communication	USB 1.1/2.0
Smart Card Reader	ISO/IEC 7816 T=0 and T=1, 3V and 5V cards supported Support for up to 8 MHz smart cards Up to 250 kbit/s communication speed
Cable	A 6 ft. USB cable.

Customer Support

If you have any problems with your Fingerprint Reader or Software, need more information on other Zvetco products, or have specific questions relating to your installation, please contact Zvetco via the information below.

- Technical Support

  email: technical.support@zvetco.com

  or call 407-567-7360

- Zvetco Sales

  email: gen.sales@zvetco.com

  or call 407-567-7358

Product Information and Software Updates

For general product information and software updates, go to the Zvetco Biometrics website at:

www.zvetcobiometrics.com

Regulatory Information

DECLARATION OF CONFORMITY

Zvetco Biometrics, 6820 Hanging Moss Rd Orlando, FL 32807 USA 407-681-0111, declares under our sole responsibility that the product Verifi P5500 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.

For home or office use. Not intended for use in machinery, medical or industrial applications. Any changes or modifications not expressly approved by Zvetco could void the user's authority to operate this device.

This product is for use with NRTL Listed (UL, CSA, ETL, etc.) and/or IEC/EN 60950 compliant, (CE marked) Information Technology equipment. No serviceable parts included.

Limited Warranty Statement

Zvetco LLC. (“Zvetco”) warrants this computer hardware product (“Product”) against defects in materials or workmanship for the time periods and subject to the terms and conditions set forth below. In the event of a defect, these are your exclusive remedies.

Labor: For a period of twelve (12) calendar months from the original date of purchase, Zvetco will repair defects in the Product at no charge. After the applicable period you must pay for all labor charges.

Parts: For a period of twelve (12) calendar months from the original date of purchase from a Zvetco authorized dealer, Zvetco will supply, at no charge, new or rebuilt, at Zvetco’s option, replacement parts in exchange for parts. Any replacement parts will be warranted for the remainder of the original warranty period or ninety (90) calendar days from installation by Zvetco’s authorized personal computer service facility, whichever is longer. All parts replaced under this Limited Warranty will become the property of Zvetco.

THIS PRODUCT MAY HAVE POSSIBILITY (OF LESS THAN 0.1% ACCORDING TO OUR MEASUREMENTS) OF GRANTING ACCESS TO PERSONS OTHER THAN THOSE WHO HAVE REGISTERED THEIR FINGERPRINTS. IN NO EVENT SHALL ZVETCO OR OUR REPRESENTATIVES BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL LOSS ARISING FROM GRANTING AN ACCESS TO PERSONS FROM OTHER THAN THOSE WHO HAVE REGISTERED THEIR FINGERPRINTS. IN NO EVENT SHALL OUR CORPORATION OR OUR REPRESENTATIVES BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL LOSS ARISING FROM ANY USE, DEFECT, MALFUNCTION, OR FAULT OF THIS PRODUCT.

WHEN SENDING THE FINGERPRINT DATA VIA COMMUNICATION LINE OR STORING SUCH DATA IN A COMPUTER, SUFFICIENT SECURITY CONTROL IS REQUIRED TO AVOID ABUSE OF THE DATA.

This Limited Warranty covers only the hardware components packaged with the Product. It does not cover technical assistance for hardware or software usage and it does not cover any software products whether or not contained in the Product; any such software is provided “AS IS” unless expressly provided for in any enclosed software Limited Warranty. Please refer to End User License Agreements included with the Product for your rights and obligations with respect to the software.

There may be a parts exchange program for this product. Proof of purchase in the form of a bill of sale (which is evidence that the Product is within the warranty period) may be required to obtain warranty service.

In addition, if replacement parts are required and you wish to receive the most expedient service available, you will be required to provide Zvetco with a credit card authorization to bill your credit card in the event that you fail to return the original parts to the address we provide. The credit card will only be charged for Zvetco's list price for the part if the part has not been returned within thirty days.

This Limited Warranty does not cover any consumable items supplied with this Product; cosmetic damages; damage or loss of any software programs, data or removable storage media or damage due to (1) acts of God, accident, misuse, abuse, negligence, commercial use or modifications of this Product; (2) improper operation or maintenance of this product; (3) connection to improper voltage supply; (4) attempted repair by any party other than a Zvetco authorized personal computer service facility; (5) tampering with internal components; or (6) direct damage to the fingerprint sensor. This Limited Warranty is valid only in country of purchase, either the United States of America or Canada.

This Limited Warranty is invalid if the factory applied serial number has been altered or removed from the product.

Repair or replacement of parts or hardware as provided under this Limited Warranty is the exclusive remedy of the consumer. ZVETCO SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER LEGAL THEORY RELATED TO THIS PRODUCT. SUCH DAMAGES INCLUDE BUT ARE NOT LIMITED TO, LOSS OF PROFITS, LOSS OF REVENUE, LOSS OF DATA, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, DOWN TIME AND PURCHASER'S TIME. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

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Technical Support: For a limited time technical support may be provided free of charge under this Limited Warranty, Zvetco has established a telephone number for technical support. Prior to placing your call, please have available the model and serial number of your Product, date of purchase, a list of all options installed in your Product and a detailed description of the problem. For Product information, service assistance, resolution of a service problem, or technical assistance, call: (407) 681-0112.

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Zvetco LLC grants the purchaser of this product the rights to reproduce (1) copy of the enclosed "User Manual" and Quick Start Guide" for your records.

www.zvetcobiometrics.com

ZVETCO Tech Support
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