EyeD OptiMouse (MFDU01-C2)

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FCC NOTICE

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC FULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITION:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDERSIRED OPERATION.

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
communication. 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 difference from that to which the receiver is connected.
- Consult the dealer of an experienced radio/T V technician for help.

NOTE : The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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Serial Number:

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■ Biometrics overview

Biometrics is an automated method of recognizing a person based on physical or behavioral characteristics. Examples of human traits and behaviors used in biometrics include fingerprint, voice, face, retina, iris, handwriting, and hand geometry.

There are two key functions offered by a biometric system. One is identification, a one-to-many matching process, in which a biometric sample is compared against a database of stored users. The other is verification, a one-to-one matching process, in which the biometric system will verify whether or not an individual's biometric sample matches a previously enrolled data.

Using biometrics for identifying and authenticating human beings offers some unique advantages over traditional and current methods. Only biometrics authentication is based on the identification of an intrinsic part of a human being. Tokens, such as smart cards, magnetic stripe cards, and physical keys, can be lost, stolen, duplicated, or left at home. Passwords can be forgotten, shared, or unintentionally observed by a third party. On the other hand, biometrics technology provides both security and convenience.

With an increasing reliance on online technology and other shared resources, the information age is quickly revolutionizing the way transactions are completed. Everyday actions are increasingly being handled electronically, and this growth in electronic transactions has resulted in greater demands for fast and accurate user identification and authentication methods. Biometrics technology is the way to achieve fast and convenient authentication with a high level of accuracy.

■ Advantages of using fingerprints

The advantages of using a fingerprint are its acceptance, convenience, and reliability. It takes little time and effort to acquire one's fingerprint with a fingerprint identification device. Ancient officials used thumbprints to seal documents over two thousand years ago, and law enforcement agencies have been using fingerprint identification since the late 1800s. Many studies have also found that using fingerprints as an identification source is the least intrusive of all biometrics techniques. In addition, there is a great amount of scientific data supporting the idea that no two fingerprints are alike.

■ SecuGen company

SecuGen develops and markets biometrics authentication solutions that enable individuals or groups to protect their valuable resources. The technology focuses on hardware and software products based on advanced fingerprint identification and verification methods.

■ SecuGen's Technology Overview

SecuGen's products are the result of endless dedication to high standards in technology, engineering and design. The fingerprint recognition module boasts outstanding features over other existing fingerprint recognition products.

□ EXCELLENT IMAGE QUALITY

High quality fingerprint images are generated using advanced, patent-pending optical methods.

☐ DURABILITY

Mechanical strength tests show resistance to impact, shock and scratches.

☐ POWERFUL SOFTWARE

Precise, fast processing algorithm ensures efficiency and reliability.

☐ RUGGEDNESS AND VERSATILITY

Careful engineering and superior material quality allows for use under extreme conditions.

☐ ERGONOMIC DESIGN AND INTEGRATION

Modular design for seamless integration into small devices, ease of use, and compatibility make it ideal for a broad range of applications.

☐ LOW COST

Products are developed and engineered to deliver high performance at very affordable prices for general as well as industrial use.

1. MFDU01-C2 EyeD OptiMouse

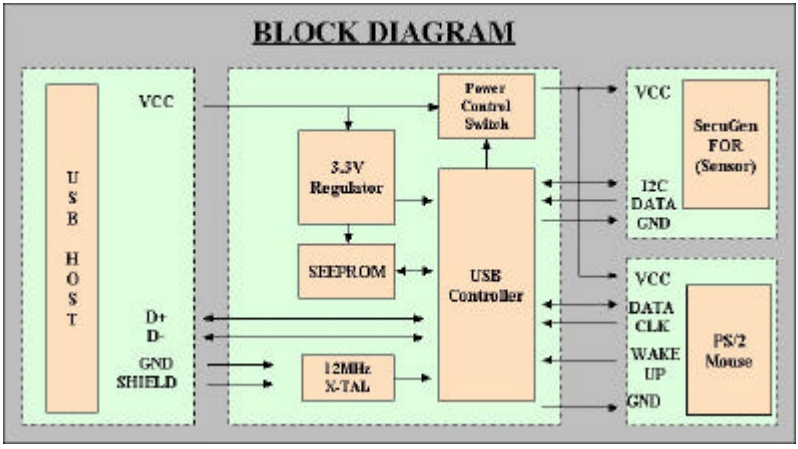
1.1 Features

Based on unique technologies (patent pending), the Fingerprint device is able to capture fingerprint images with very high contrast and extremely low distortion. It is also able to accurately capture dry fingerprints, a known challenge for optical fingerprinting systems.

The module may be applied to a wide range of applications thanks to the following features :

- Integration-readiness
- Durability : impact- and scratch-resistance
- Fine image quality: extremely low distortion, superior performance
- Competitively low price
- Pass-through provided
- Compatibility : Works with any Windows 95/98 system that supports the Parallel

1.2 Block Diagram



2. H/W Installation

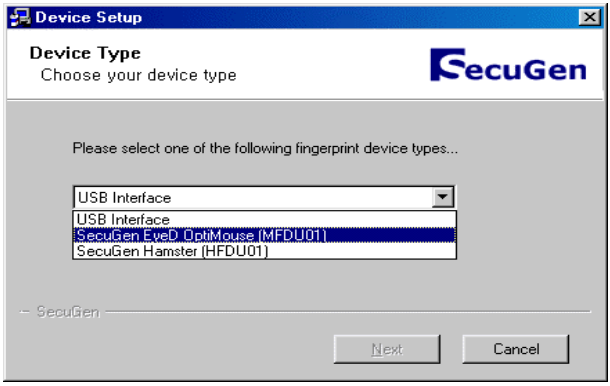
2.1 Testing System Requirements

■ USB Driver

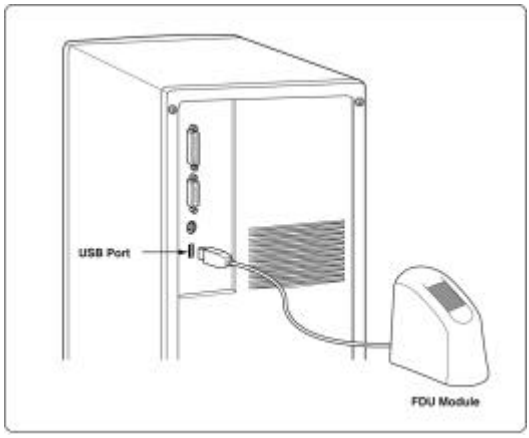
☐ IBM compatible models PC586 or later
☐ CD-ROM (Or 1.44MB FDD)
☐ Parallel ports (EPP or ECP mode-EPP mode recommended)
☐ PS/2 port (mouse jack port)
☐ 16 MB RAM
☐ 20 MB hard disk empty space
☐ MS Windows 98 or Windows 2000

2.2 Installing USB Driver

1)After executing Windows, insert the installation CD or execute the driver installation program. Setup should start automatically.



2)When the driver installation is finished, connect the USB cable to the USB port on the host computer as shown below.



3)The Add New Hardware Wizard will appear when the device is connected. This will search for the new driver for "USB Composite Device". Click <Next>.

Note: It can be a little different according to the OS type.

4)Choose "Search for the driver that is the most appropriate for the device (Recommended)", then click <Next>.

5)Select the CD-ROM drive and then click <Next>.

6)“USB composite device” dialog box appears, click <Next>.

7)When “USB human interface device” dialog box appears, click <Next>. The next screen to appear will be same as 4, 5, and then click <Next> to continue.

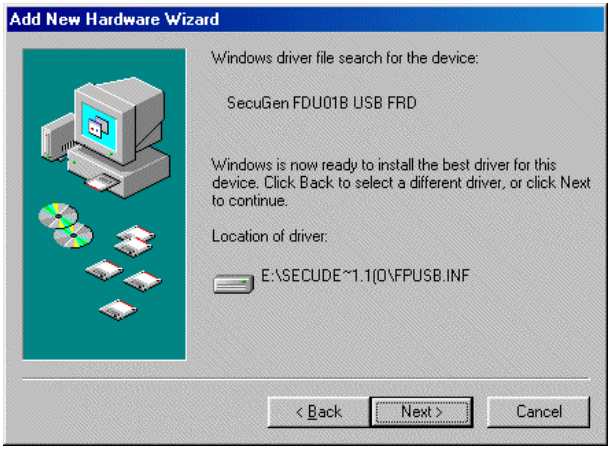
note: In case of USB Hamster, installation is now completed.

8)When “SecuGen USB” wizard dialog appears, click <Next>.

9)Choose “Search for the driver that is the most appropriate for the device (Recommended)”, then click <Next>.

10) Click the CD-ROM drive check box, and then click <Next>.

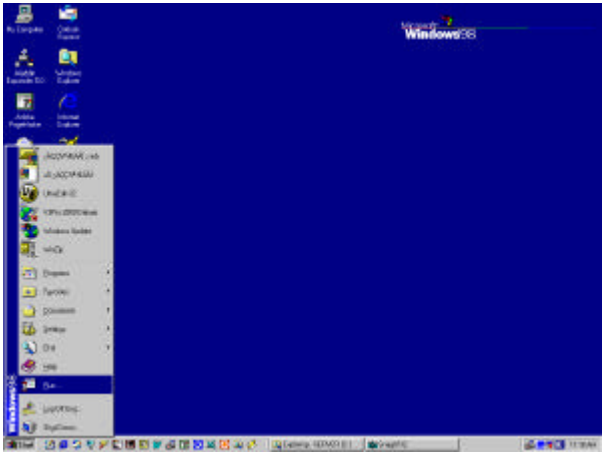
11) When the “SecuGen FDU*** USB FRD” dialog appears, click <Next>.



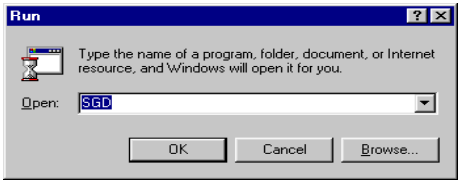
12) Click <Finish>. The installation is now finished.

2.3 Executing Diagnostic Tools

1)Click “Run” to open the Run Box in start menu.



2)Type “SGD” as shown below, then click <OK>.



2.4 Check System Status

Drivers installed

If parallel type has been checked, it indicates that a driver for parallel type device has been installed. And, if USB type has been checked, a driver for USB has been installed. If both have been checked, both types of drivers have been installed.

Parallel Port Status

It appears only when parallel type driver has been installed. It indicates the printer port connected to the current system's parallel port.

USB Device

It appears only when a USB type driver has been installed. It shows the device version and type of the USB device connected to current system.

2.5 View of Fingerprint Image

1) Select a fingerprint device you want to use.

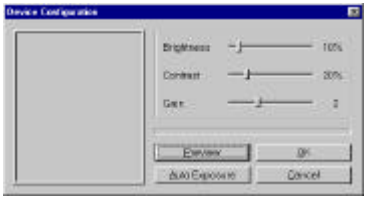
2) Click <Init> button to initialize the device.

3) Click <Capture> button, then the captured fingerprint image appears in the window.

4) If you click <Start> after selecting check box “Continuous Capture”, then fingerprint image appears continuously. At this time, information about the action state of the device appears below.

2.6 Brightness and Contrast Controls

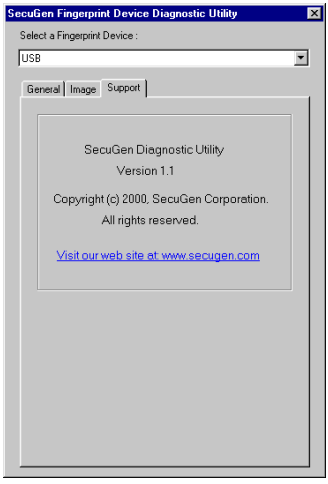
1)If you click <Auto Adjust> button, Device Configuration window appears as shown below.



2)If you click <Preview>, the fingerprint image is captured. If it appears too bright as below, adjust 'Brightness' or 'Contrast'. If it is still bright, increase 'Gain' value one level at a time.

3)To recover the previous setup, click <Cancel>. If you click <OK>, the newly setup value gets applied.

4) If you click <Auto Exposure>, it will automatically find the most optimum setup value.

2.7 Others

In Support tab, there are information of the program's version and the homepage address.