



Sentinel - PC Access Control

Installation & User Manual Version 2.0

August 2007



Manual Part Number: 62-14840000, V2.0

This page is intentionally blank

Table of Contents

PREAMBLES	4
Copyright	4
Disclaimer	4
Trademarks	4
Technical Prerequisites	4
Trademark Recognition	4
Components Used	4
INTRODUCTION TO PC ACCESS CONTROL.....	5
Basic Components.....	5
Overview	5
System Requirements.....	5
USING PC ACCESS CONTROL	6
Enhanced Windows Security via Sentinel PC Access Control.....	7
INSTALLATION METHODS – CD OR DOWNLOAD, READ FIRST	8
Important Notes - Please Read	8
Prerequisites for Installation – CD or Download.....	8
INSTALLING PC ACCESS CONTROL FROM A DOWNLOAD.....	9
Installation Process	9
INSTALLING PC ACCESS CONTROL FROM THE RINGDALE CD	15
Prerequisites	15
Contents – PC Access Control Media Kit	15
Installation Process	15
Installation Process	16
INSTALLING A MICROSOFT KEYBOARD WITH FINGERPRINT READER.....	18
Overview	18
Installation Process, from a Download or a CD.....	18
Ringdale Driver Verification	21
INSTALLING A MICROSOFT KEYBOARD WITH FINGERPRINT READER - after PC Access Control has been installed.....	22
Overview	22
Prerequisites	22
Installation Process from a CD	22
Ringdale Driver Verification	27
INSTALLING THE RINGDALE FINGERPRINT READER.....	28
Overview	28
Installation process – continuation of the installation of PC Access Control	28
INSTALLING THE RINGDALE FINGERPRINT READER - after PC Access Control has already been installed	30
Important Information.....	30
Installation process	30
CONFIGURING PC ACCESS CONTROL	31
OVERVIEW: PC ACCESS CONTROL & “Ctrl-Alt-Del”.....	32
INSTALLING & USING A RINGDALE PROXIMITY CARD READER	33
FINGERPRINT READER - CARE AND MAINTENANCE.....	34
Cleaning Procedures	34
Caution.....	34
TROUBLESHOOTING.....	35
Fingerprint Recognition Troubleshooting.....	35
Fingerprint Sensor Troubleshooting	35
General Problems.....	35
TECHNICAL SPECIFICATIONS.....	36
Ringdale USB Optical Fingerprint Reader.....	36
Ringdale Proximity Card Reader	36
Microsoft Keyboard With Fingerprint Reader	37
TECHNICAL SUPPORT	38
Ringdale Technical Support Overview	38
Ringdale Inc.	38
Ringdale (UK) Ltd.....	38
Ringdale GmbH (Germany)	38
Before you call Technical Support.....	38
Where to address any comments about this manual	38

PREAMBLES

Copyright

Copyright 2007 © Ringdale[®] Inc. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or any computer language, in any form or by any third party, without prior permission of Ringdale Inc.

Disclaimer

Ringdale Inc. reserves the right to revise this publication and to make changes to the contents hereof without obligation to notify any person or organization of such revision or changes. Ringdale Inc. has endeavored to ensure that the information in this publication is correct, but will not accept liability for any error or omission.

Trademarks

All trademarks are hereby acknowledged.

Technical Prerequisites

This Installation and User Guide for the Ringdale PC Access Control System assumes that the installer is familiar with the basic operation of the following:

- ❑ Microsoft[®] Windows[®] desktop operating systems (Windows 98/ME/NT/2000/2003/XP)
- ❑ Microsoft[®] Windows[®] Servers (Windows NT/2000/2003/XP)
- ❑ Ethernet topology, TCP/IP protocols
- ❑ Ethernet routers, switches and hubs

Trademark Recognition

Windows[®] is a trademark of Microsoft Corporation.

DigitalPersona[®] is a registered trademark of DigitalPersona[®], Inc. in the United States and/or other countries.

Components Used

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration.

INTRODUCTION TO PC ACCESS CONTROL

Basic Components

Welcome to the Ringdale[®] Sentinel PC Access Control system. There are three basic components to the system, as follows:

1. The Ringdale PC Access Control software that resides on the target PC or PC's.
2. A Human Interface Device (HID), such as a Ringdale Optical Fingerprint Reader, a Ringdale Swipe Reader, a Ringdale Proximity Card Reader or the Microsoft[®] Keyboard Fingerprint Reader.
3. The Ringdale Sentinel Server software that manages and authenticates the enrolled users.

This manual focuses on the installation and end-user functionality of PC Access Control as listed in items (1) and (2) above. Please note that the Sentinel Server portion of the system is covered in a separate Sentinel manual.

Overview

Ringdale's PC Access Control system raises the traditional Microsoft logon process (user name and password) to the highest level of security and privacy. PC access control and user authentication are now centrally managed using a more secure method of logon, such as fingerprint ID, proximity card or swipe card. And if an existing Facilities Access Control system is in place, these same ID cards can be integrated and used with Ringdale's PC Access Control system.

From the end-user's perspective the PC logon process is now an even simpler one-step process because the traditional PC logon method (user name and password) is replaced by Ringdale's PC Access Control user authentication method.

For example, with Ringdale's PC Access Control and if a fingerprint ID reader is the chosen method, users logon to their PC's simply with the touch of a finger.

This logon information is then processed by the Sentinel Access Control server database and if validated against the enrolled user's information, the user is automatically logged onto their PC or any PC that they have been given access to and are using; it's that quick and that simple.

If an unauthorized user attempts to logon to the PC, access is always denied, in exactly the same way as if an incorrect password had been entered in the traditional Window's method.

System Requirements

Ringdale's PC Access Control software (Client and Server) run on most Microsoft Windows platforms and has been tested to successfully run under the following operating systems:

Client Platform:	Windows NT/2000/2003/XP
Server Platform:	Windows 98/ME/NT/2000/2003/XP
Client Product Number:	00-13-1484-xxxx (PC Access control - different extensions dependant upon quantity of client licenses required)

USING PC ACCESS CONTROL

This section of the manual assumes that PC Access Control, Sentinel Server and the selected authentication method have all been correctly installed and configured. In this example, a Fingerprint Reader is the authentication method of choice.

NOTE: To ensure that users with PC Access Control can log onto their PCs at any time using fingerprint authentication, it is crucial to have the pertinent Sentinel Server running at all times.

When a PC with PC Access Control is first powered on, or after an existing user has logged out, the following panel will be displayed:



From this panel, logging onto the PC is a simple one-step process that requires scanning any enrolled finger at the fingerprint reader. If the scan is valid and successful, then the user is automatically logged on to the PC and the PC **Desktop** is displayed.

If the user wants to explore the full logon process, they can press **Ctrl-Alt-Del** at any time and the following panel will be displayed:



This panel indicates that a Fingerprint Reader has been configured and the user can logon to the PC simply by using their fingerprint for authentication. It also indicates that the Face Recognition and Card Reader **have not** been configured for this PC. The higher level of security offered by Ringdale's PC Access Control system assumes that the individual user does not know their password and that access to the PC only requires the selected method of user verification (fingerprint or proximity reader, etc). In this example the user should not enter a User Name or Password as the system has been configured to recognize the user solely from a valid fingerprint scan.

However, if the Administrator needs to log onto the PC locally, or if there are network problems and the PC cannot communicate with the Sentinel server, it is at this panel that the Administrator can log onto the PC using the Administrator or user name and appropriate password.

Enhanced Windows Security via Sentinel PC Access Control

If at any time users are logged onto their PC's and the key sequence **Ctrl-Alt-Del** is invoked, the following Sentinel PC Access Control version of the Windows Security panel is displayed:



The function of each selection is self explanatory, or you can refer to the section **OVERVIEW: PC ACCESS CONTROL & "Ctrl-Alt-Del"** on page 30 for a more detailed description of each selection.

INSTALLATION METHODS – CD OR DOWNLOAD, READ FIRST

There are two methods of installing Ringdale's PC Access Control software:

1. Installing via a software download from the Ringdale website, or
2. Installing from a Ringdale-supplied CD.

Since there are some subtle but important differences between these two installation methods, and to ensure a successful installation and configuration process, both methods are explained in detail in the following sections.

Important Notes - Please Read

1. **DO NOT** INSTALL THE RINGDALE PC ACCESS CONTROL CLIENT SOFTWARE ONTO THE CLIENT PC UNTIL ALL OF THE PREQUISITES LISTED BELOW HAVE BEEN COMPLETED, INCLUDING THE REGISTERING AND ENROLLING OF EACH USER ON THE RINGDALE SENTINEL SERVER.
2. Please note that the installation of PC Access Control from Version 1.0.2.12 and higher has been greatly simplified with the incorporation of an installation Wizard. All of the requisite Ringdale drivers for the supported Fingerprint Readers are now included with both the PC Access Control download version and CD version, so it does not matter if the Fingerprint Reader has been installed prior to PC Access Control, or not. The installation Wizard now takes care of managing and installing the drivers for you, just follow the installation panels.

Prerequisites for Installation – CD or Download

- a) A copy of Ringdale's Sentinel Server software must be installed, configured and running on a server that is accessible by the client PC over a LAN or WAN.
- b) A client PC with the appropriate Microsoft operating system (see list on previous page).
- c) The client PC must already be configured for the intended user or users of the PC (name and password), including each user having an assigned unique password. NOTE: for the obvious reason of ensuring the integrity and security of the PC Access Control system, the user passwords **must not** be divulged to the individual users.
- d) Each user must be registered on both the Sentinel Server and the PC with the same identical logon name and password.
- e) Each user must be enrolled at the Sentinel Server using the selected security method (fingerprint, proximity card, swipe card, etc).
- f) Temporarily disable or shutdown any antivirus or spyware protection software.
- g) If you are going to use a Microsoft Keyboard and Fingerprint Reader combination or a Ringdale standalone Fingerprint Reader for user authentication, ensure that the reader of choice is already plugged into an available USB port on the client PC.
- h) The ability to download the PC Access Control software from the Ringdale website.

INSTALLING PC ACCESS CONTROL FROM A DOWNLOAD

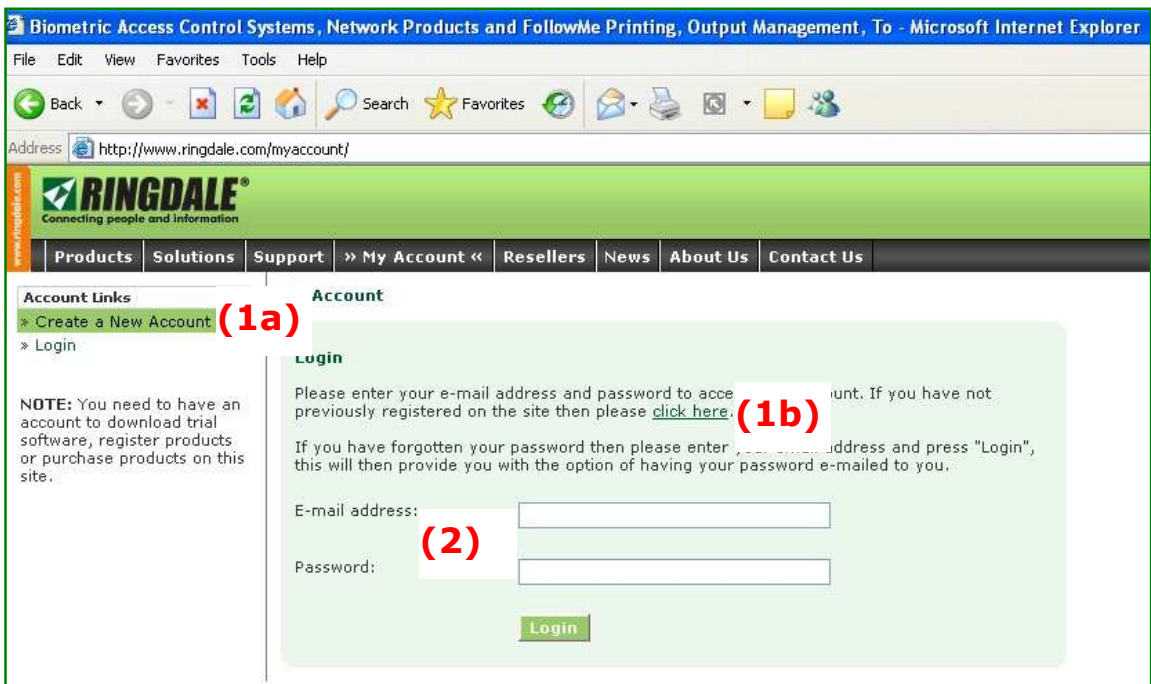
Installation Process

To download software from the Ringdale web site (www.ringdale.com), you will first need to register as a user.

1. Go to the Ringdale home page.
2. Select the **Support** tab and then select **Download Software (1)** in the navigation bar.

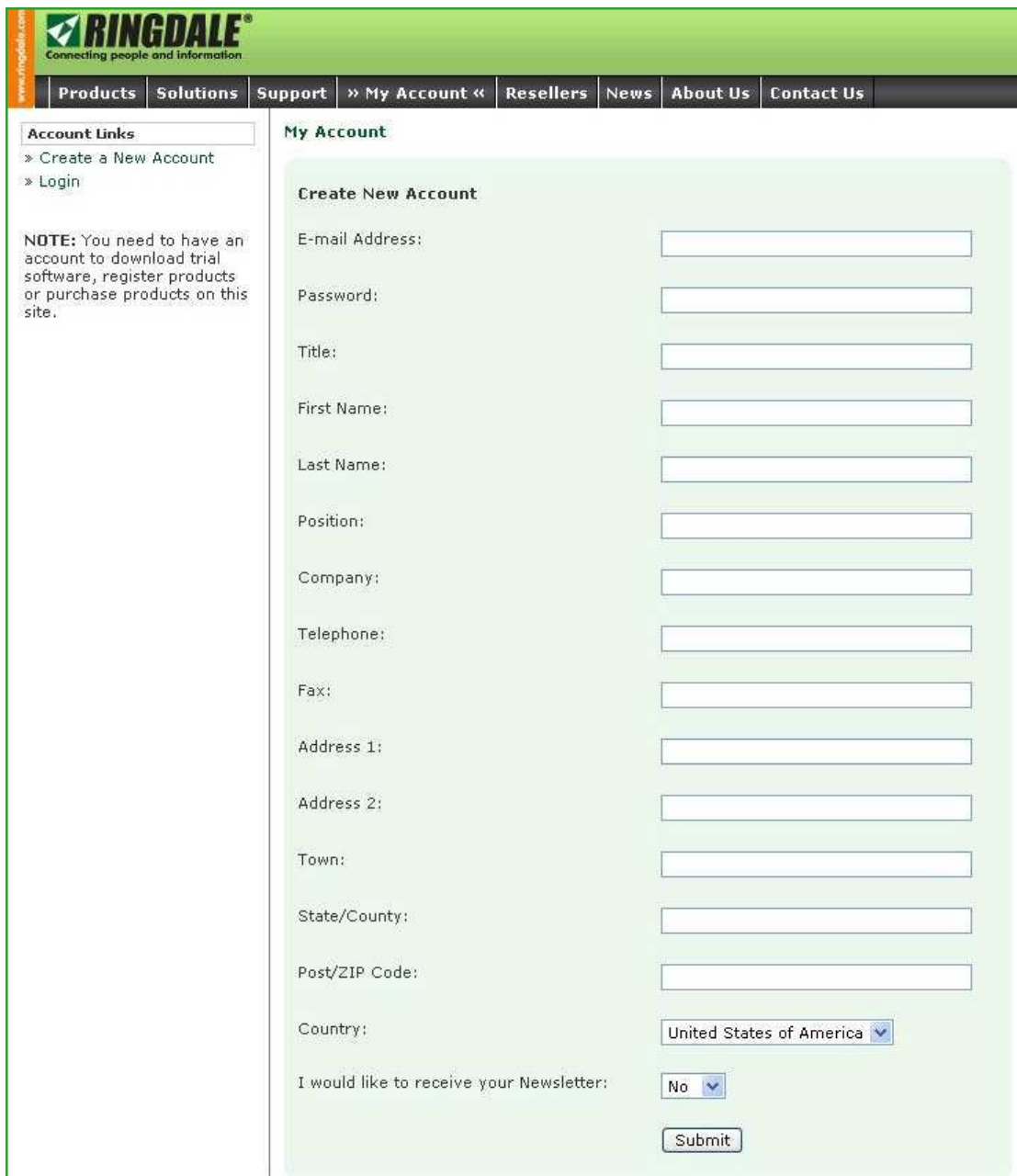


3. If you have not previously registered on the Ringdale site, you will need to register. Select either **Create a New Account (1a)** in the navigation bar or **click here (1b)** in the main body of the window or to register and the Registration panel that is on the next page of this manual will appear.



NOTE: If you already have a registered Ringdale account, just enter your **E-mail address** and **Password (2)** and then click on **Login** at the bottom of the above panel.

- 4. As explained in the navigation panel of this form, you need to be registered with Ringdale (have an account) before you can download trial software, register products or purchase products on-line from the Ringdale web site. Complete this registration form to create a new Ringdale account and then click on **Submit** at the bottom of the panel.



Account Links

- > Create a New Account
- > Login

NOTE: You need to have an account to download trial software, register products or purchase products on this site.

My Account

Create New Account

E-mail Address:

Password:

Title:

First Name:

Last Name:

Position:

Company:

Telephone:

Fax:

Address 1:

Address 2:

Town:

State/County:

Post/ZIP Code:

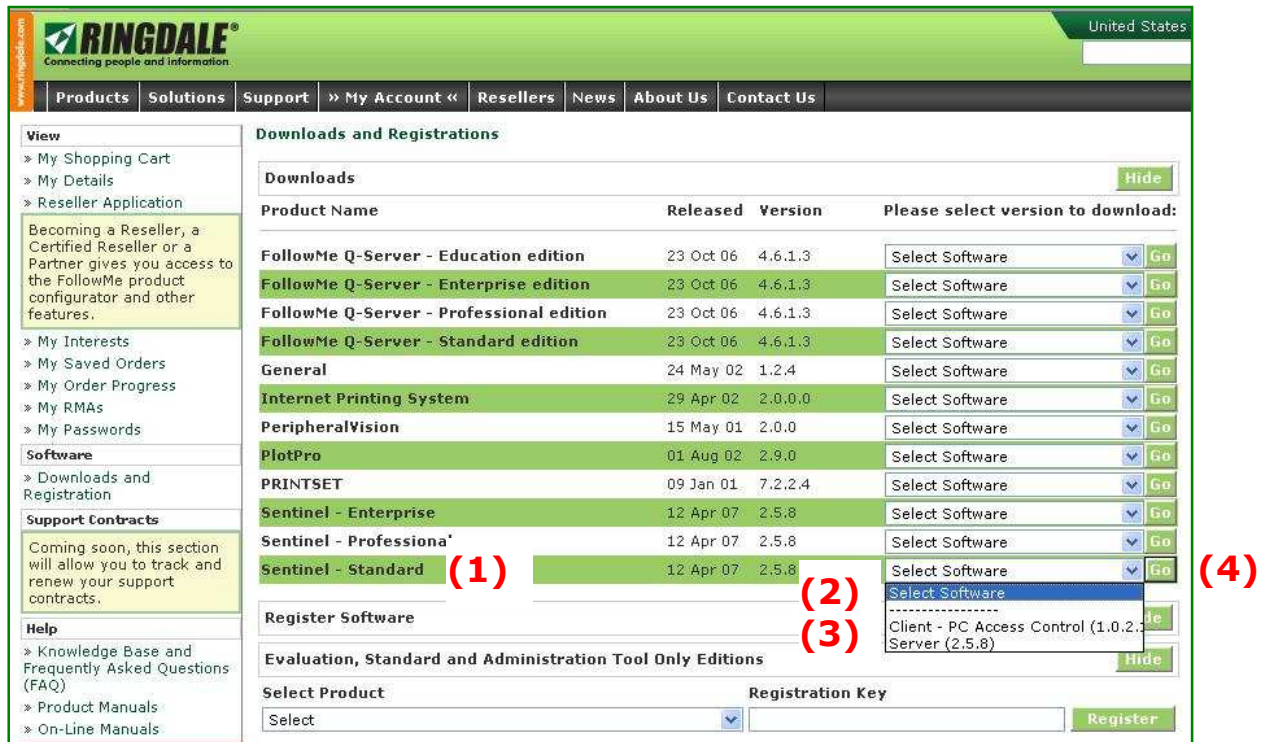
Country:

I would like to receive your Newsletter:

- After you have successfully registered or logged onto the Ringdale resources as explained in the previous step, the Resources panel will reappear. Click on **Download Software (1)** to access the software selections.



- From the Downloads and Registrations panel select **Sentinel – Standard. (1)** At the **Select Software** drop-down panel to the right **(2)**, select **Client – PC Access Control (3)**.



Click **Go (4)** to start the software download process.

NOTE: The downloadable file is approximately 1.5MB in size.

- 7. Depending upon what version of Windows® is installed on the target PC, the following **Security Warning** panel may or may not appear. Click **Run**.



- 8. While the Sentinel Client file is being downloaded, this status panel will be displayed.



- 9. Depending upon what version of Windows® is installed on the target PC, the following Security Warning may or may not appear. Click **Run**.

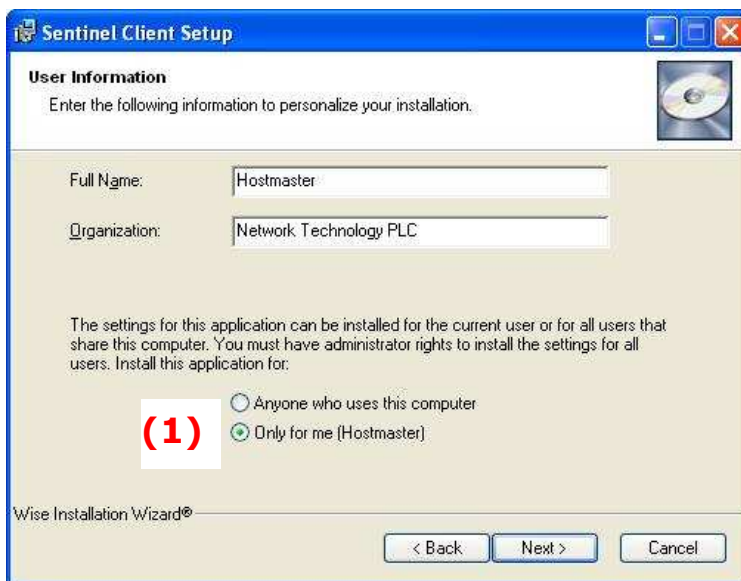


10. The **Sentinel Client Setup** Installation Wizard will now appear. Carefully read the directions and warnings and then click on **Next** to continue the installation process.



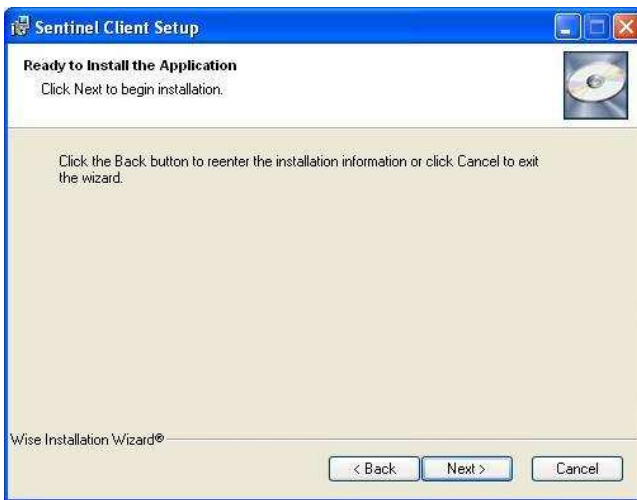
11. This is the **Sentinel Client Setup – User Information** panel. Enter your full name and organization details.

Decide whether to allow just the current user or anyone who wants to use the PC to have access to the PC and click the setting as appropriate **(1)**.

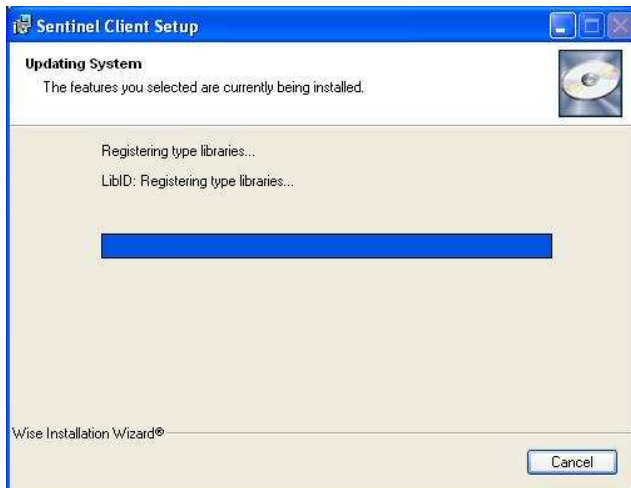


Click **Next** and the Sentinel Client will continue the installation/setup process.

12. This is the **Sentinel Client Setup – Ready to Install the Application** panel and it gives you the option to either go back to the previous panel and reenter the installation information, or click **Next** to continue the installation process.



13. The **Sentinel Client Setup – Updating System** panel will be displayed momentarily.



14. If everything has proceeded correctly, the **Successfully Installed** pop-up panel appears.



Click on **Finish** to exit the PC Access Control installation process.

INSTALLING PC ACCESS CONTROL FROM THE RINGDALE CD

NOTE: Before you begin the installation process, you must have the Ringdale Sentinel Server software installed and configured on your network prior to installing the PC Access Control software on any target PC.

Prerequisites

- a) A copy of Ringdale's Sentinel Server software installed, configured and running on a server that is accessible by the client PC over a LAN or WAN.
- b) A client PC with the appropriate Microsoft operating system (see list on previous page).
- c) The client PC must already be configured for the intended user or users of the PC (name and password), including each user having an assigned unique password. NOTE: for the obvious reason of ensuring the integrity and security of the PC Access Control system, the user passwords **must not** be divulged to the individual users.
- d) Each user must be registered on both the Sentinel Server and the PC with the same identical logon name and password.
- e) Each user must be enrolled at the Sentinel Server using the selected security method (fingerprint, proximity card, swipe card, etc).
- f) Temporarily disable or shutdown any antivirus or spyware protection software.
- g) If you are going to use a Microsoft Keyboard and Fingerprint Reader combination or a Ringdale standalone Fingerprint Reader for user authentication, ensure that the reader of choice is already plugged into an available USB port on the client PC.

Contents – PC Access Control Media Kit

The Ringdale PC Access Control Media Kit includes a Jewel case containing a CD with all of the requisite files to successfully install PC Access Control and the various optional readers.



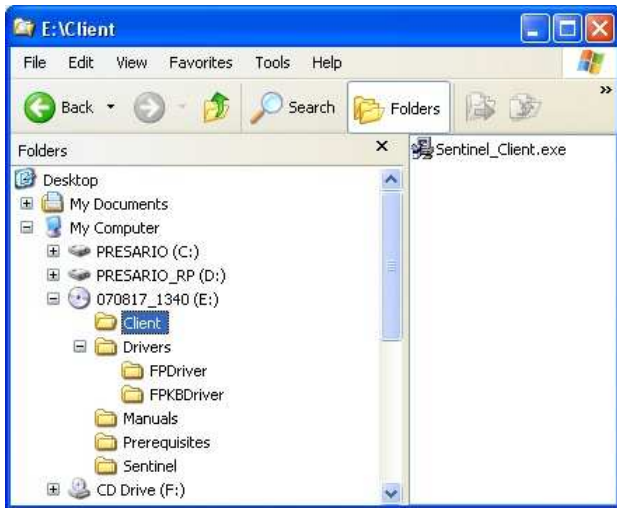
Installation Process

You can install the PC Access Control software from the Ringdale CD onto any Windows 95/98/ME/NT4/2000/XP PC. The CD includes the following folders:

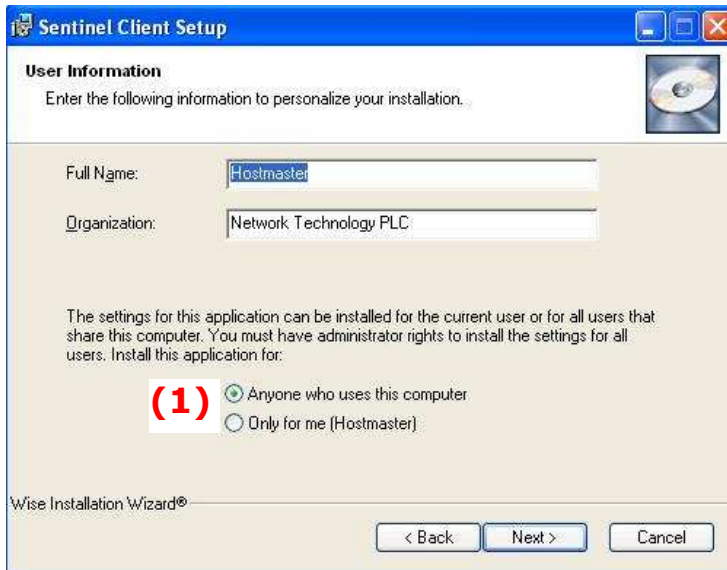
- a) Client Folder: includes the executable for installing PC Access Control Client.
- b) Drivers Folder: includes the required drivers for the Ringdale & Microsoft fingerprint readers.
- c) Manuals Folder: includes the installation, hardware and software manuals in PDF format.
- d) Prerequisites Folder: executables that are required during the installation process.
- e) Sentinel Folder: includes the Sentinel Standard Server executable.

The installation steps are as follows:

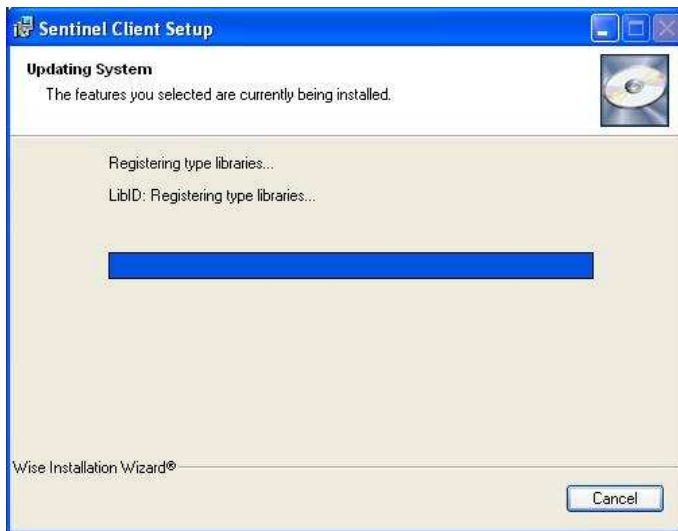
- 1) Load the "Sentinel PC Access Control" CD into the PC's CD drive.
- 2) From the PC Desktop, go to **My Computer**, and double-click on the **PC Access CD**.



- 3) In the Client folder double-click on the **Sentinel_Client.exe** executable. The Sentinel Client Setup window appears.
- 4) Click **Next** and the following **Sentinel Client Setup** screen appears. Enter your name and organization. Decide whether to allow anyone who uses the PC or just the current user to have access to the PC **(1)** and click the setting as appropriate. Click **Next**.



- 5) The **Sentinel Client Setup – Updating System** panel appears momentarily, indicating that the Sentinel Client install / setup process is in progress.



- 6) If everything has proceeded correctly, the **Sentinel Client has been successfully installed** panel appears. Click **Finish** to complete the installation process.



This completes the installation process for Ringdale’s PC Access Control client.

You will now need to **power-cycle** the PC in order for PC Access Control to be initiated. A **Reset** will accomplish the same result.

NOTE: before you power-cycle the PC, check one more time that all of the Prerequisites mentioned earlier in this section are in place, including having the user configured on the Sentinel Server, otherwise the user may be locked-out from accessing their PC and, by definition, the network resources.

INSTALLING A MICROSOFT KEYBOARD WITH FINGERPRINT READER

Overview

If you already have the Microsoft Keyboard with Fingerprint Reader attached and installed on the PC and you are in the process of installing PC Access Control (Sentinel Client), this section describes how to install the correct Ringdale drivers for the keyboard/reader combination.

Depending on the configuration of the PC and the installed version of Windows, the installation of the Microsoft Keyboard with Fingerprint Reader Combo will either follow-on automatically from the last step of the installation of the Sentinel client to the “**Found New Hardware Wizard**” panel shown below, or the PC will need to have the power cycled in order for this panel to appear. Whichever method is used to get to the **Found New Hardware Wizard** to appear, the following section takes you step-by-step through this specific installation process.

Installation Process, from a Download or a CD

1. After you have clicked on **Finish** from the previous **Sentinel Client Installed** panel, or after power-cycling the PC, the following **Found New Hardware Wizard** will be displayed. Select **No, not this time (1)** and click **Next**.



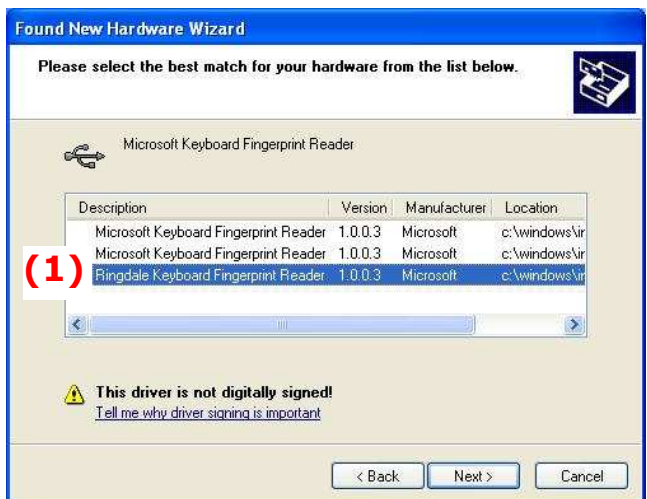
2. When the following panel appears, select **Install the software automatically (Recommended) (1)** and click **Next**.



- 3. The **Hardware Update Wizard** panel appears momentarily.



- 4. When the **Found New Hardware Wizard** panel appears, highlight the **Ringdale Keyboard Fingerprint Reader (1)** option and click **Next**.



- 5. Depending upon what version of Windows is installed on the target PC, this Security Warning may or may not appear. Click **Continue Anyway**.



- The **Found New Hardware Wizard** panel appears, reporting on the progress of the installation process, you do not need to take any action.



- The **Completing the Found New Hardware Wizard** panel appears, indicating that the installation of the Ringdale drivers for the Microsoft Keyboard with Fingerprint Reader combination has been successfully completed. Click **Finish**.



This completes the installation process for Ringdale’s PC Access Control client complete with the Microsoft Keyboard with Fingerprint Reader, you will now need to **power-cycle** the PC in order for PC Access Control to be initiated. A **Reset** will accomplish the same result.

NOTE: before you power-cycle the PC, check one more time that all of the Prerequisites mentioned earlier in this section are in place, including having the user configured on the Sentinel Server, otherwise the user may be locked-out from accessing their PC and, by definition, the network resources.

Ringdale Driver Verification

You can always verify that the correct Ringdale driver for the Keyboard and Fingerprint Reader by checking the **Driver** panel from the **Windows Device Manager**, it should be displayed as per the example below **(1)**.



INSTALLING A MICROSOFT KEYBOARD WITH FINGERPRINT READER - after PC Access Control has been installed

Overview

The drivers that are supplied by Microsoft or Digital Persona for the Microsoft Keyboard with Fingerprint Reader need to be replaced with the Ringdale supplied drivers in order for PC Access control to perform correctly. If for whatever reason the Ringdale drivers did not get correctly installed during the installation process, or you are installing the Microsoft Keyboard Fingerprint Reader after installing and configuring PC Access Control, then the URU or Digital Persona software drivers **MUST** be replaced by the equivalent Ringdale drivers. For your reference, the names of the drivers in question are listed below:

- USB_FP.inf
- USB_FP.sys
- USB_KBFP.inf
- USB_KBFP.sys

Prerequisites

You must have the Ringdale Sentinel Server software installed and configured on your network for the PC user prior to installing the Ringdale PC Access Control software, otherwise you will lock-out the user from logging onto the PC and they will not be able to authenticate.

Installation Process from a CD

Please note that, depending upon what version of Microsoft Windows you are using, there may be some minor differences between your PC and its version of Windows and the panels in this section, but the installation process is virtually identical.

- 1) If the Microsoft "Combo" keyboard is not already attached to the PC, power off the PC, unplug the existing keyboard and plug the Combo keyboard into an available USB port.
- 2) Power the PC back on and log on as an Administrator. If or when the **Found New Hardware** wizard appears, select **No**.
- 3) Go to the Device Manager and:

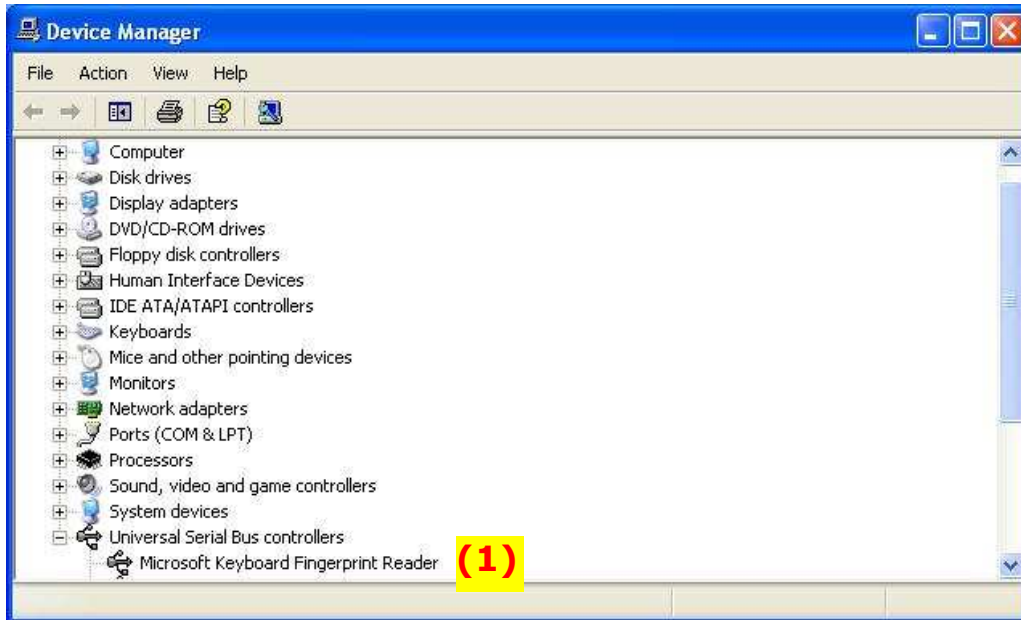
Either:

- a. Right-click on **My Computer** and select **Manage**.
- b. When the **Computer Management** window comes up, select **Device Manager**.

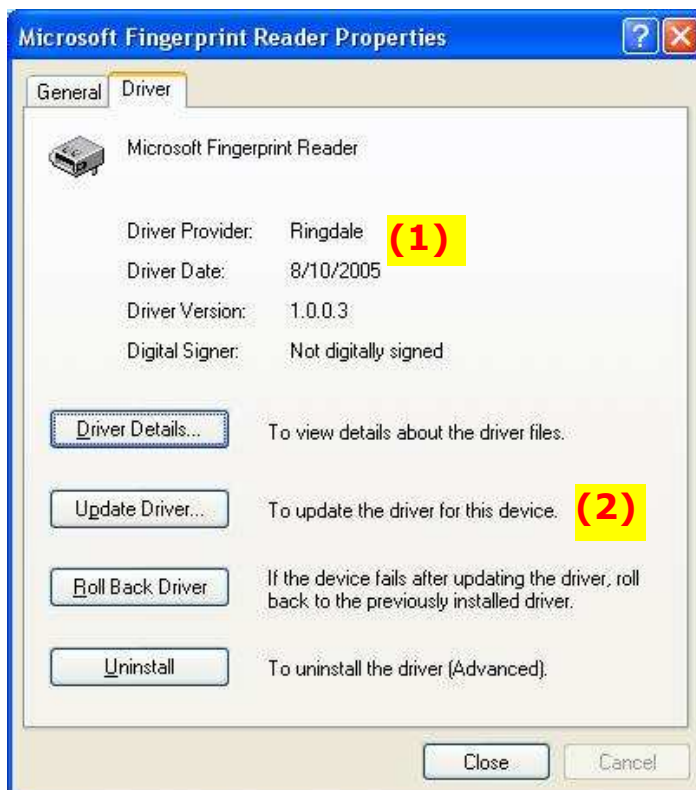
Or:

- a. Right-click on **My Computer** and select **Properties**.
- b. When the **System Properties** window comes up, select the **Hardware** tab.
- c. Select **Device Manager**.

- 4) Within the **Device Manager**, locate the entry for **Microsoft Keyboard Fingerprint Reader**. Depending on what version of Microsoft Windows you are running, this entry could be under **Keyboards**, **Universal Serial Bus controllers** or **Biometric Devices**. Once you have found the entry for **Microsoft Keyboard Fingerprint Reader (1)** **Double-click** on it to bring up its **Properties**.



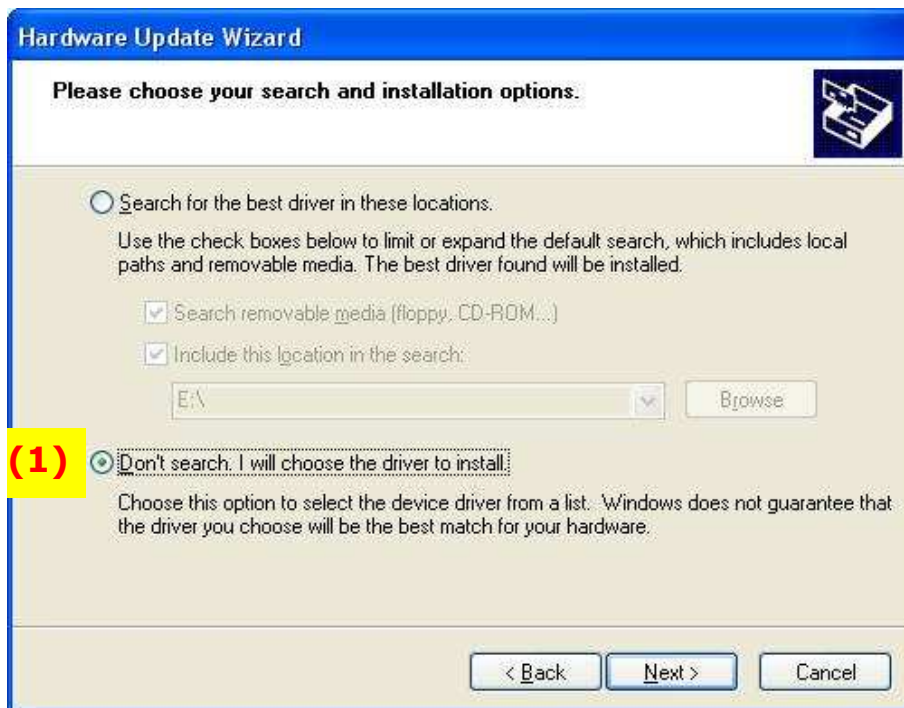
- 5) Click on the **Driver** tab and if the panel does not show **Driver Provider: Ringdale (1)**, click on **Update Driver (2)**.



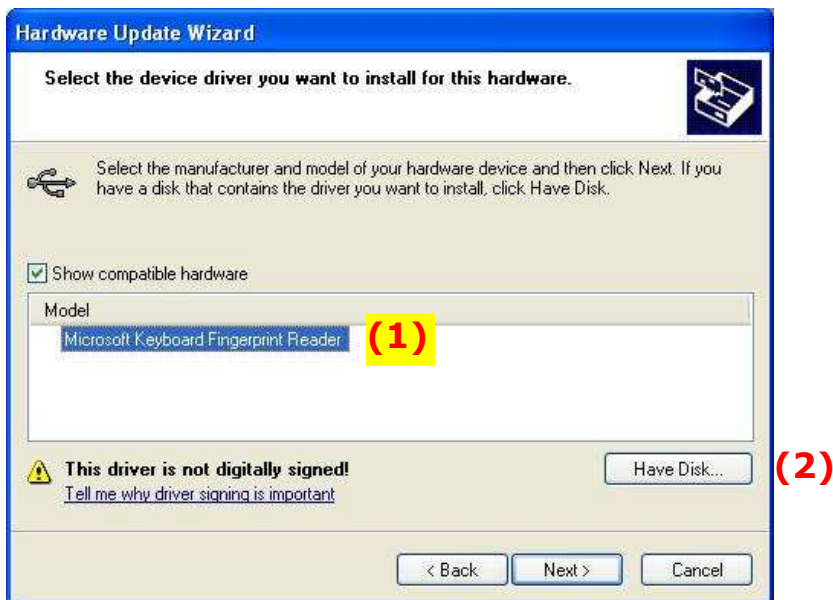
- 6) At the **Found New Hardware Wizard**, select **Install from a list or specific location (Advanced)** (1) and click **Next**.



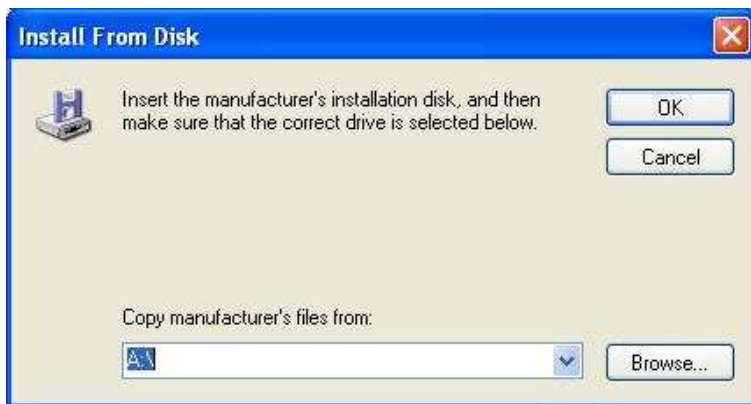
- 7) From the following panel select **Don't search, I will choose the driver to install** (1) and click **Next**.



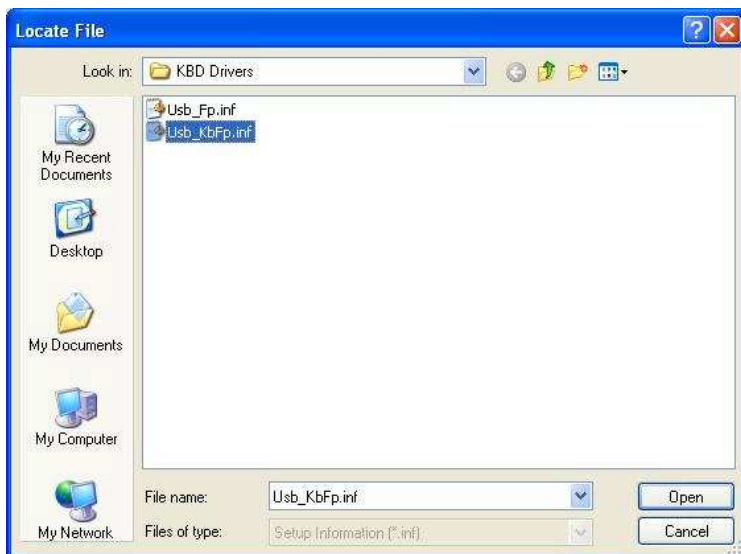
- 8) Highlight the **Microsoft Fingerprint Reader (1)** and click on **Have Disk... (2)**



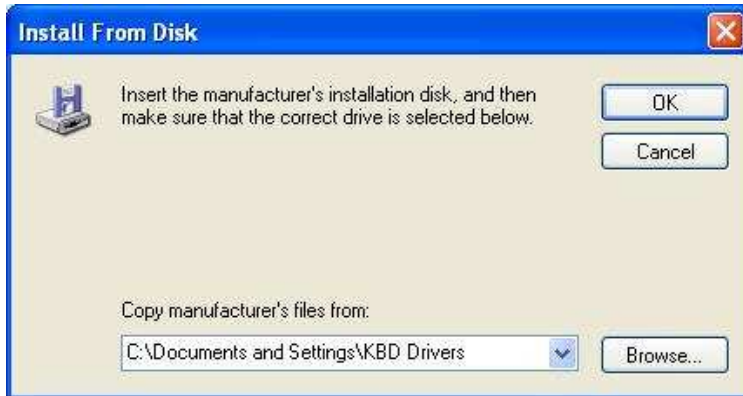
- 9) Click on **Browse** and either go to your copy of the Ringdale PC Access Control CD or the folder where you saved the Ringdale PC Access Control download:



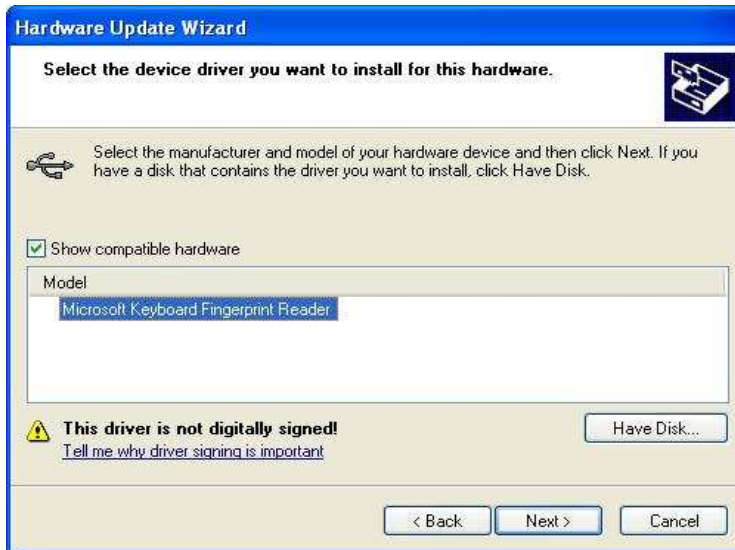
- 10) Select the Ringdale **Usb_KbFp.inf** driver and click **Open**.



- 11) The **Install From Disk** window appears with the file location populated with your selection. Click **OK**.



- 12) The **Hardware Update Wizard** panel appears with **Microsoft Keyboard Fingerprint Reader** highlighted, click **Next**.



- 13) You will get a message about Windows Logo testing; this is a normal part of the PC Access Control installation process. Click **Continue Anyway**.



14) The Upgrade Device Driver Wizard panel appears, confirming that the installation process has been completed. Click **Finish**.



Ringdale Driver Verification

If the installation process for the Keyboard Combo has been successful, the driver details should look like the following panel (1):



Now reboot the PC. If the installation process is successful, there will be no error messages and the sensor pad of the Fingerprint Reader will show red.

INSTALLING THE RINGDALE FINGERPRINT READER

Overview

If you already have the Ringdale Fingerprint Reader attached and installed on the PC, this section describes how to install the correct Ringdale drivers for the Ringdale Fingerprint Reader during the PC Access Control (Sentinel Client) installation process.

Depending on the configuration of the PC and the installed version of Windows, the installation of the Ringdale Fingerprint Reader will either follow-on automatically from the last step of the PC Access Control software installation to the “**Found New Hardware Wizard**” panel shown below, or the PC will need to have the power cycled in order for this panel to appear. Whichever method is used to get to the **Found New Hardware Wizard** to appear, the following section takes you step-by-step through the installation process.

Installation process – continuation of the installation of PC Access Control

1. After you have clicked on **Finish** from the previous **Sentinel Client Installed** panel, or after power-cycling the PC, the following **Found New Hardware Wizard** will be displayed. Select **No, not this time (1)** and click **Next**.



2. When the following panel appears, select **Install the software automatically (Recommended) (1)** and click **Next**.



- 3. This **Hardware Update Wizard** panel appears momentarily.



- 4. Depending upon what version of Windows is installed on the target PC, the **Hardware Installation - Security Warning** may or may not appear. Click **Continue Anyway**.



- 5. The **Completing the Found New Hardware Wizard** panel indicates that the installation of the Ringdale Fingerprint Reader has been successfully completed. Click **Finish**.



INSTALLING THE RINGDALE FINGERPRINT READER - after PC Access Control has already been installed

Important Information

You must have the Ringdale Sentinel Server software installed and configured on your network prior to installing the PC Access Control software or it will lock your PC and you will not be able to authenticate.

Installation process

1. Log on to the PC as an Administrator or Power User.
2. Insert the Ringdale PC Access Control CD with the drivers for the Ringdale Fingerprint Reader into the PC's CD drive.
3. Plug the Ringdale Fingerprint Reader in any open USB slot, make a note of the slot that you are using.
4. The **Found New Hardware** wizard will come up. Click **Next**.
5. Select **Search for a suitable driver for my device** and click **Next**.
6. Remove any other checks and put a check in **CD-ROM drives** then click **Next**.
7. It will show you the Microsoft Fingerprint Reader 1.0.0.3. e:usb-fp.inf, click **Next**.
8. You will get a message about Windows Logo Testing. Click **Continue Anyway**.
9. Click **Finish**.

Your Ringdale Fingerprint Reader has been successfully installed.



CONFIGURING PC ACCESS CONTROL

The following procedure needs to be completed on the first restart of the PC (powering off and back on) after installing the Sentinel PC Access Control software.

- 1) When the PC restarts, the following messages appear:

Sentinel - PC Access Control – Welcome To Windows – Processing, followed by the logon screen **Sentinel - PC Access Control - Welcome To Windows**.



- 2) This Sentinel panel is in place of the traditional Windows logon screen. As instructed, press the key sequence **Ctrl-Alt-Del**.
- 3) The message **None of the listed servers are present. Unable to connect. Do you want to log on locally?** appears. Click **Yes**.
- 4) You can now use valid Administrator logon credentials (user name and password) to logon. The PC will then power-cycle.
- 5) After Windows comes back up, complete the **Ctrl-Alt-Del** sequence once again and the **Sentinel – PC Access Control – Windows Security** panel appears:



- 6) Click on **Options** in the lower left of this screen.
- 7) At the next panel, click on **Add IP** and key in the IP Address of your Sentinel Access Server, and then click **OK**.
- 8) When you next logon, you will get to a screen that has three Human Interface Device (HID) options. If you do not have an HID device installed the panel will show the red circle with a slash through it (see next page). Your Fingerprint Reader should have a **Status: Waiting**. When you use your fingerprint to logon and authenticate, it will either log you on, or give a message that says: **No match found**. If you get the No Match Found, simply try again.

This is the **Sentinel - PC Access Denied** symbol that will be displayed if an invalid fingerprint or invalid User Name/Password combination is entered.



NOTE: Only users that are registered in the Sentinel Server database with a name, password, and fingerprint will be able to use the Human Interface Devices that are installed on the PC.

OVERVIEW: PC ACCESS CONTROL & "CTRL-ALT-DEL"

With PC Access Control installed and configured on a PC, when you process the key-sequence **Ctrl-Alt-Del**, the Sentinel PC Access Control version of the Microsoft Windows Security panel appears:



The following is a description of the functionality of each of the available selections:

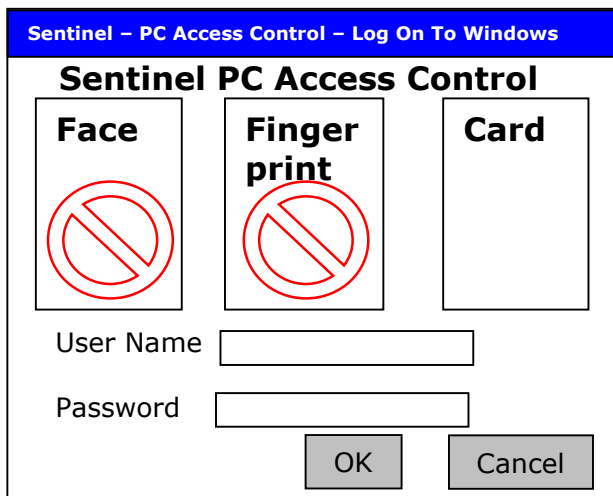
- Lock Computer** – This option allows you to lock the screen / PC without having to shut-down or log-off.
- Log Off** – This option enables you to log-off the PC so that another user can log on. Or for security purposes when you are going to be away from the PC for an extended period of time.
- Shut Down...** – This is the normal Windows power-down option.
- Options...** – This option is only for Administrators. It allows you to configure the Sentinel Server IP Address(s) and port. It also allows you to configure the optional Card Swipe.
- Task Manager** – This brings up the Windows Task Manager, where you can view what applications are running and then manage the tasks accordingly.
- Cancel** – Takes you back to your Windows session.

INSTALLING & USING A RINGDALE PROXIMITY CARD READER

The Ringdale HiTag USB Proximity Card Reader (part number 00-16-0541-0100) is ideal for use with PC Access Control where the preferred method of identification and verification is a Proximity Reader. For example, the same proximity cards that are used for physical access and/or security identification can also be used for PC Access Control, all managed from the same or a different database.

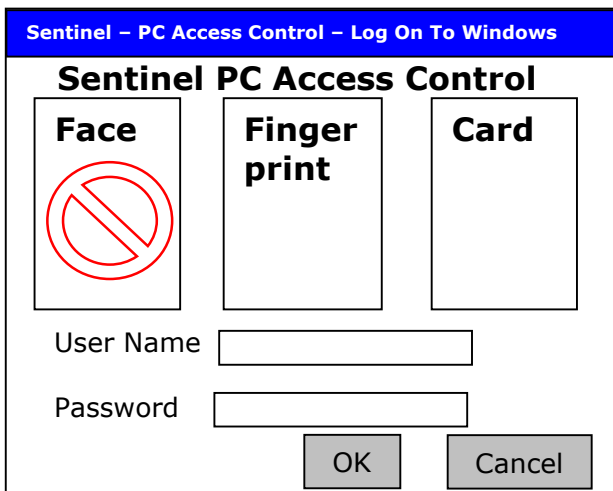
The Ringdale Proximity Reader has a standard USB interface and so is easy to install and configure. Simply plug it into any open USB connector on the target PC and PC Access Control will automatically recognize and interface with the reader, it is as simple as that! The only consideration is to ensure that the card details have been configured into the Sentinel server, along with the user’s name and password details.

To use a Proximity card to log onto the target PC, simply pass the proximity card over the reader. This can be done either when the **Ctrl+Alt+Del** pop-up panel is displayed, or after you have processed the **Ctrl+Alt+Del** sequence and the following panel is displayed.



In the above example, PC Access Control has been configured to only accept a card (proximity) swipe as the method of logging on to the PC via PC Access Control.

If PC Access Control has been configured to accept Fingerprints and/or Card swipes, then the following panel will be displayed after you have processed the **Ctrl+Alt+Del** sequence.

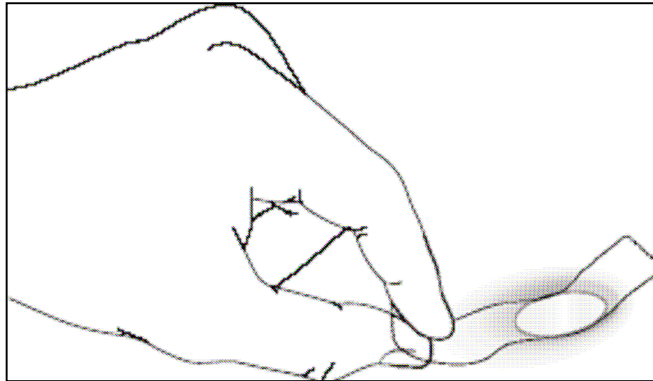


FINGERPRINT READER - CARE AND MAINTENANCE

To assure the proper performance of any fingerprint reader (Ringdale or Microsoft), it is important to keep the aperture (window) of the fingerprint reader clean

Cleaning Procedures

- ❑ To remove dust, debris and smears from the aperture you can take a piece of cellophane / transparent / Scotch tape (NOT masking tape, NOT duct tape), apply the sticky side to the aperture of the fingerprint reader and then peel it away.



- OR -

- ❑ Carefully wipe the fingerprint reader aperture with a soft cloth that will not scratch the aperture coating. Do not use paper. The soft cloth can be moistened with a mild ammonia-based (not alcohol-based) glass cleaner.
- ❑ Under heavy usage, the coating of the aperture on some sensors may turn cloudy from the salt in perspiration. In this case, gently wipe the aperture with a soft cloth (not paper) dampened with a mild ammonia-based glass cleaner.

Caution

- If you are going to clean the fingerprint reader, unplug it first.
- Do not rub the aperture with an abrasive material, even paper will scratch the surface.
- Do not scratch the aperture coating with a fingernail or any hard object.
- Do not use glass cleaner on the fingerprint reader.
- Do not use alcohol or alcohol-based cleaners on the reader.
- The unit is not waterproof. Do not immerse in water.

TROUBLESHOOTING

Fingerprint Recognition Troubleshooting

If the fingerprint sensor is having difficulty acquiring an image of your finger, refer to this list for a possible solution.

- ❑ The sensor aperture may need cleaning, as described in "Cleaning the Sensor" (previous page).
- ❑ You may not be touching the sensor correctly. For the sensor to acquire a good image of your finger, you must place the pad of your finger—not the tip—in the center of the oval aperture, and apply gentle, even pressure. Do not "roll" your finger.
- ❑ Pressing too hard will distort your fingerprint.
- ❑ Pressing too lightly will not expose a large enough area of your finger.
- ❑ Make sure to hold your finger on the sensor until you see the red sensor light blink; then lift your finger. This may take longer for dry fingers. Although you may use any finger with the sensor, typically your index finger of either hand works best.
- ❑ If the sensor is capturing your finger image (as indicated by the sensor blink) and you have tried all the above suggestions but are still experiencing problems, you may need to re-register (re-enroll) your fingerprint(s) at the Sentinel Server.

Fingerprint Sensor Troubleshooting

There are just two known sensor-related issues:

- ❑ If you activate your PC power saver function - but a third-party component installed in the PC does not support it - the PC will not go into sleep mode but the sensor will. To reactivate the sensor, unplug it from the USB port and then plug it in again.
- ❑ If the sensor does not light up when you plug it in, try unplugging it and then plugging it in again. Also, make sure it is plugged in to a self-powered USB port.

General Problems

PROBLEM 1:

The Fingerprint Reader no longer functions. I cannot logon.

SOLUTION 1:

- 1) Disconnect the LAN connection.
- 2) Reboot
- 3) When it comes up you will get a message "**None of the listed servers are present. Unable to connect. Do you want to log on locally?**" Select **Yes**.
- 4) The administrator will then need to logon using Name and Password.

PROBLEM 2:

The PC Access Control menus did not come up when I restarted the PC.

SOLUTION 2:

Disable your virus and/or spyware protection software and reinstall. You can choose the Repair option to correct the installation.

PROBLEM 3:

I want to move PC Access Control to a different machine, how do I uninstall the software?

SOLUTION 3:

- 1) Start / Settings / Control Panel.
- 2) Select Add/Remove Programs.
- 3) Select the Sentinel Client and then Remove.

TECHNICAL SPECIFICATIONS

Ringdale USB Optical Fingerprint Reader



Resolution: 3D, 500 dpi
Grey-scales: 256
Fingerprint Capture area: 15mm x 20 mm (0.6" x 0.8")
Connection: USB Type A
Dimensions: 65 x 58 x 21 mm (2.6" x 2.3" x 0.83")
Part Number: 00-16-0482-0024

Ringdale Proximity Card Reader



Card Reader method: Smart Card/RF Transponder
Connection: USB Type A
Dimensions: 50 x 70 x 27mm
Part Number: 00-16-0541-0100
Reading Distance: 35mm (1½ inch)
Part number: 00-16-0541-0100
Very low power (less than 0.25 watts) - suitable for solar powered and battery back-up applications.
For use with Ringdale's Access Controller & PC Access Control product range.

Microsoft Keyboard With Fingerprint Reader

Microsoft part number BZ5-00002



TECHNICAL SUPPORT

Ringdale Technical Support Overview

Ringdale Technical Support services help to ensure that Ringdale products and pertinent networks operate efficiently and benefit from the most up-to-date system and application software. Ringdale offers a flexible suite of support services designed to meet individual business needs and assists in effectively installing and maintaining products and networks to maintain high-quality network performance.

Telephone Technical Support for Ringdale Access Control Systems is available for the Ringdale subject matter items covered in this installation guide and is provided free-of-charge for the duration of the original warranty period.

Technical Support from Ringdale is also available for all of the prerequisites listed at the beginning of this manual. The current terms, conditions and rates for Technical Support are available on request. The minimum Technical Support time is two hours.

Ringdale Inc.

(8:00 a.m. to 5:00 p.m. CST, Monday to Friday)
Phone: 512-288-9080
Fax: 512-288-7210
Toll-free: 888-288-9080
support@ringdale.com

Ringdale (UK) Ltd

(0900 to 1700 GMT, Monday to Friday)
Phone: +44 (0) 1444 871349
Fax: +44 (0) 1444 870228
support@ringdale.com

Ringdale GmbH (Germany)

Phone: +49 (0) 621 7186-0
Fax: +49 (0) 621 7186-20
support@ringdale.com

Before you call Technical Support

Please have the following information ready

- ✓ Product Model type.
- ✓ Serial number of the unit.
- ✓ Pertinent network Information.
- ✓ If relevant, IP addresses of unit, Server and Default Gateway.
- ✓ What options are installed, if any?
- ✓ The symptoms of the problem.
- ✓ History of the Problem;
 - * Did the device work for a period of time or fail immediately after installation?
 - * Was any PC option changed (hardware / software) prior to the problem occurring?

Where to address any comments about this manual

Ringdale Inc.
Technical Support
101 Halmar Cove
Georgetown
Texas 78628, USA

Phone: (512) 288-9080
URL: www.ringdale.com
Contact: support@ringdale.com