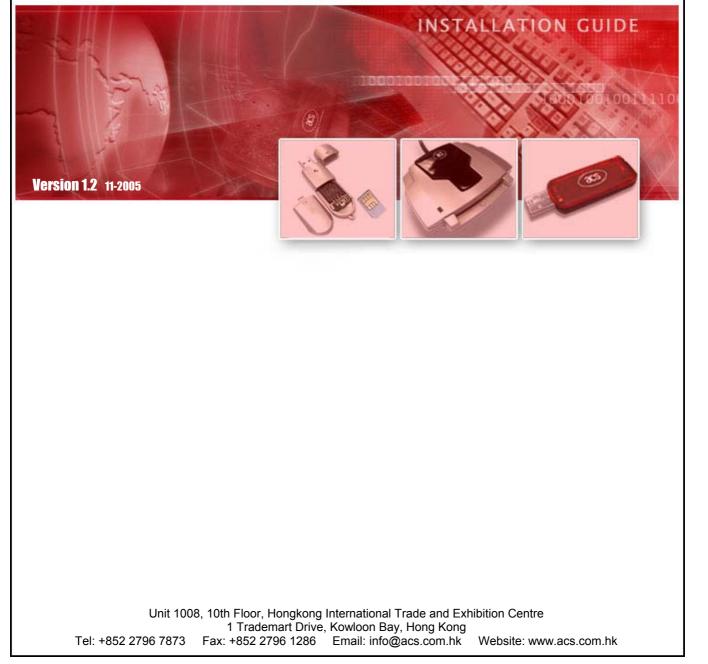


ACR38 Smart Card Reader Series



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1. Driver Installation

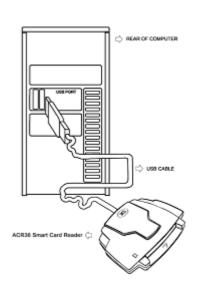
Drivers are available from the ACR38 Software Development Kit CD-ROM or from the ACS Drivers Download website, <u>http://www.acs.com.hk/Download.asp</u>. Drivers can also be installed online for Windows XP and Windows Update for Windows XP and 2000. It is strongly recommended that the user installs/uninstalls the driver by using device driver installer.

1.1 Driver Auto-Download (with Internet Connection)

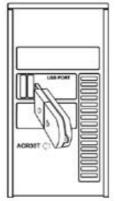
It performs the first-time driver installation when the computer is connected to the Internet. If the driver is later updated, it will not automatically update the driver for the user. This feature is available for Windows XP only.

1. Connect ACR38, ACR38T or ACR38DT to your PC

ACR38



ACR38T or ACR38DT



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2. Leave the "Install software automatically	Found New Hardware Wizard
(Recommended)" option selected then click "Next >".	Welcome to the Found New Hardware Wizard This wizard helps you install software for: ACR38 USB Reader
	If your hardware came with an installation CD or floppy disk, insert it now.
	What do you want the wizard to do? Install the software automatically [Recommended] Install from a list or specific location (Advanced)

3. Please wait while the wizard searches the driver for your device.

Found New Hardware Wizard			
Please wait while the wizard search	nes		E Contraction of the second se
ACR38 USB Reader	3		
	< Back	Next >	Cancel

Click Next to continue.

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Please wait while the wizard installs the driver. 4. Found New Hardware Wizard Please wait while the wizard installs the software... E. ACR38 Smart Card Reader usbr38.dll To C:\WINDOWS\System32 < Back Next > Cancel 5. Click "Finish" to close the wizard. Found New Hardware Wizard Completing the Found New Hardware Wizard The wizard has finished installing the software for: ACR38 Smart Card Reader Click Finish to close the wizard. < Back Finish Cancel

1.2 Microsoft Windows Update

It performs update to system components ALREADY installed on the computer. The user has to make the first installation either manually or through automatic driver download. Once the driver information exists in Windows database, Windows Update will look for its update and download it if driver update exists.

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1.3 Windows Driver Installer

Please download the latest driver installer from the ACS Drivers Download website, <u>http://www.acs.com.hk/Download.asp</u>.

1.3.1 How to Install

There are two sets of device driver for Windows: PC/SC Driver and ACS Synchronous API driver (Proprietary Driver).

A. PC/SC Driver Installation

A.1 Windows XP/2000

1. Run the **"SETUP.EXE"** and the **"PC/SC Driver Installation Wizard"** window will open, and then click on **"INSTALL"**.

To check the driver version or read installation tips, click on **"VIEW README"**.

2. When prompted whether you want to install the drivers, click "**Yes**".

3. Please disconnect the reader from your PC if you haven't done so.

Then click "OK".

4. Connect the ACR38 device into an available USB port. The Found New Hardware dialog will appear at the bottom right corner. Do NOT click "**OK**" until the dialog disappears.



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5. When you are prompted that the Operation is Complete, click **"FINISH"**.

æs	Operations Complete
	please visit
	Click 'Finish' to exit the Wizard.

A.2 Windows 98/ME

1. Run the **"SETUP.EXE"** and the **"PC/SC Driver Installation Wizard"** window will open, and then click on **"INSTALL**".

To check on the driver version or read installation tips, click on "**VIEW README**".

as	Welcome	
	This will install ACS smart your computer. The drivers support the follo	
	ACR38, ACR38T	un.
	To uninstall, click uninstall	
VIEW README	INSTALL UNINST.	ALL CANCEL
Confirm		×
Doy	you want to install the drivers	\$?
(<u>Y</u> e	s <u>N</u> o	
Warning		×
Plea	ase make sure the USB read	der is disconnected!
Plea		der is disconnected!
Plea	ase make sure the USB read	der is disconnected!
Plea		der is disconnected!
Information		

2. When prompted whether you want to install the drivers, click "**Yes**".

3. Please disconnect the reader from your PC if you haven't done so.

Then click "OK".

4. Connect the ACR38 device into an available USB port. The New Hardware Found dialog will appear. Do **NOT** click "OK" until the dialog disappears.

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 The driver installer will automatically install the Microsoft Smart Card Base Components. Click "Yes" to accept license agreement. 	Please read the following license agreement. Press the PAGE DOWN key to see the rest of the agreement.
Note: PC/SC components are already installed on Windows XP/2000 so you will not encounter this instruction during installation.	Microsoft Smart Card Base Components END-USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE IMPORTANT - READ CAREFULLY: This Microsoft End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and Microsoft Corporation for the Microsoft software product identified above, which includes computer software and may include associated media, printed materials, and "online" or electronic documentation ("SOFTWARE PRODUCT"), go installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this Do you accept all of the terms of the preceding License Agreement? If you choose No, Install will close. To install you must accept this agreement. <u>Yes</u> <u>No</u>
6. When asked to restart the computer, click " Yes " to complete the installation.	Confirm X You must restart your system for the configuration changes made to the reader to take effect. Click Yes to restart now or No if you plan to restart later. Yes No

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B. ACS Synchronous API driver (Proprietary Driver) Installation

B.1 Windows XP/2000

1. Run the driver "SETUP.EXE" and the "Proprietary Driver Installation Wizard" window will open, click "INSTALL".

To check the driver version or read installation tips, click on "VIEW README".

2. When prompted whether you want to install the drivers, click "**Yes**".

3. Please disconnect the reader from your PC if you haven't done so.

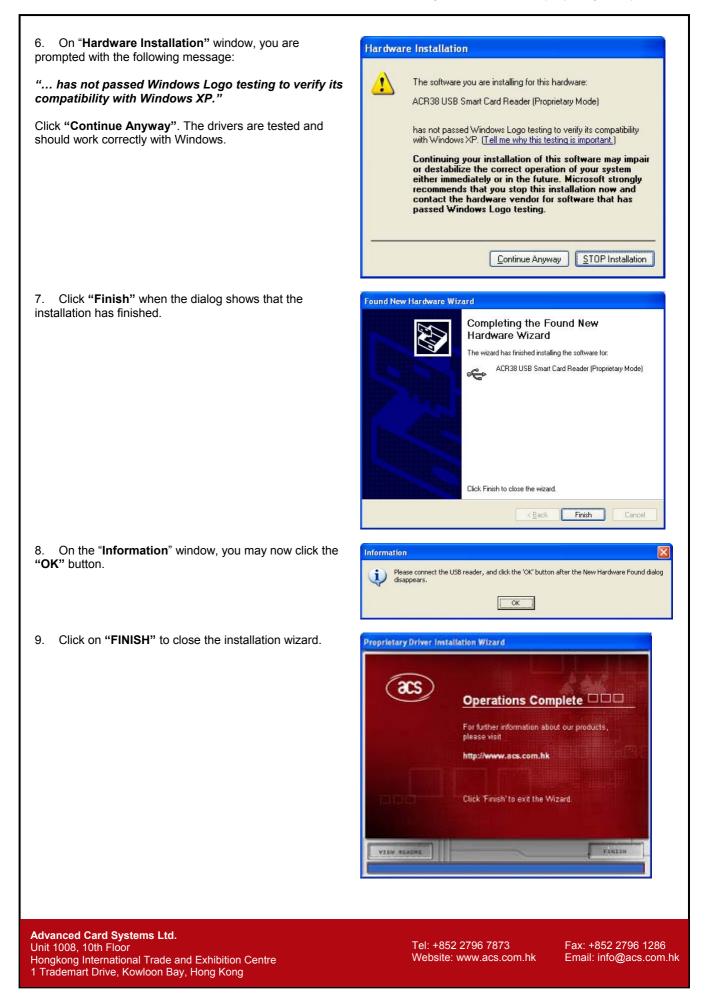
Then click "OK".

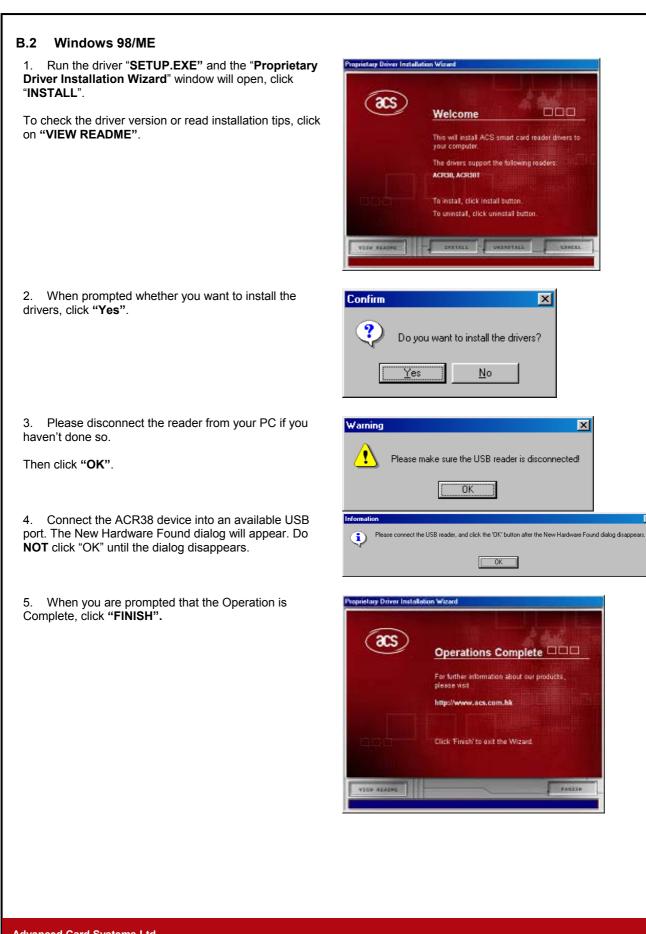
4. Connect the ACR38 device into an available USB port. The Found New Hardware dialog will appear at the bottom right corner. Do **NOT** click "OK" until the dialog disappears.

5. Choose **"Install the software automatically (Recommended)"** option. Then click **"Next >**".



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1.3.2 How to Check your Installation

To check if you have properly installed your ACR38 smart card reader, you can either make use ACS Diagnostic Tool – QuickView or the Device Manager in MS Windows to check the status.

A. Using ACS Diagnostic Tool - QuickView

ACS QuickView is available at the ACS Card Utility/Tool Download website, http://www.acs.com.hk/CU.asp.

Connect the ACR38, ACR38T or ACR38DT to your PC. ACS OuickVie Run QuickView.exe. Click "Initialize" to start the driver Main Log Help diagnosis. SMART CARD READERS READERS DETAILS This program will examine smart card readers on your system Click on Initialize to proceed. ADVANCED Initialize Quit If the ACR38 driver is successfully installed into your PC, 🝩 ACS QuickViev the name of corresponding driver (PC/SC or ACS Synchronous) will be displayed. SMART CARD READERS READERS DETAILS - ACS USB 0 ADVANCED QuickView is applicable for both PC/SC driver and ACS Synchronous API Driver (Proprietary Driver) <u>R</u>eset Save Log Quit Using Device Manager В. Windows XP/2000 ACS Driver Installer m Properties Aut atic Updates Hardware Computer Na To start the Device Manager on Windows XP/2000, select Start \rightarrow Settings \rightarrow Control Panel. Double-click on ice Manage The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the propetties of any device. System, click the Hardware tab, and then click the Device Z Manager. Device Manager Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers. 2 Driver Signing Windows Update Hardware Pro rofiles provide a way for you to set up and store dware configurations. Hardware Profiles OK Cancel Appl For PC/SC Driver E 🍣 Smart card readers The Windows Device Manager should list the ACR38 Smart Card Reader device under the Smart card readers' 🍓 ACR38 Smart Card Reader device type. Advanced Card Systems Ltd. Tel: +852 2796 7873 Fax: +852 2796 1286 Unit 1008, 10th Floor Website: www.acs.com.hk Email: info@acs.com.hk Hongkong International Trade and Exhibition Centre 1 Trademart Drive, Kowloon Bay, Hong Kong

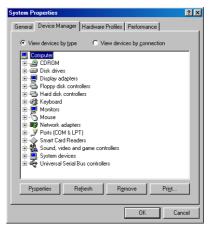
For ACS Synchronous API driver (Proprietary Driver)

The Windows Device Manager should list the ACR38 USB Smart Card Reader (Proprietary Mode) under the Universal Serial Bus controllers' device type.

Windows 98SE/ME ACS Driver Installer

To start the Device Manager on Windows 98/ME, select Start \rightarrow Settings \rightarrow Control Panel. Double-click on System, and then click the Device Manager tab.

는 육 Universal Serial Bus controllers - 육 ACR38 USB Smart Card Reader (Proprietary Mode)



Smart Card Readers

ACR38 Smart Card Reader

For PC/SC Driver

The Windows Device Manager should list the ACR38 Smart Card Reader device under the Smart Card Readers' device type.

For ACS Synchronous API driver (Proprietary Driver)

The Windows Device Manager should list the ACR38 USB Smart Card Reader (Proprietary Mode) under the Universal Serial Bus controllers' device type. ⊟ ♣ Universal Serial Bus controllers
♣ ACR38 USB Smart Card Reader (Proprietary Mode)

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1.3.3 How to Update

Driver updates are available from our Drivers Download website, <u>http://www.acs.com.hk/Download.asp</u>. Same thing on how to install the device driver, simply run the "**SETUP.EXE**" of the driver installer and follow the on-screen instructions. No need to uninstall current driver installed.

1.3.4 How to Check your Update

To check if you have successfully updated the device driver, check the driver version on the Device Manager. To do this:

- 1. Start the Device Manager. To start the Device Manager on Windows XP/2000, select Start → Settings → Control Panel. Double-click on System, click the Hardware tab, and then click the Device Manager. On Windows 98/ME, select Start → Settings → Control Panel. Double-click on System, and then click the Device Manager tab.
- 2. In the Device Manager, expand the device type (Smart card readers for PC/SC and Universal Serial Bus controllers for Proprietary Platform), and then double-click the name of the device to open its **Properties** window.
- 3. In the device's Properties window, click the **Driver** tab, and then click the **Driver Details** ... button. You may now compare the displayed File version number in the Driver File Details screen to the version number on the driver installer's ReadMe.

1.3.5 How to Uninstall

1. To uninstall the driver, run the "SETUP.EXE " of your driver installer. Click "UNINSTALL" .	Welcome This will install ACS smart card reader drivers to your computer. The drivers support the following readers: ACR38, ACR38T To install, click install button. To uninstall, click uninstall button. VYEW READRE VEXTALL
2. When prompted whether you want to uninstall the drivers, click "Yes" .	Confirm X Image: Object of the second seco
3. Click " No " when asked if you want to remove Smart Card Base Components, so you won't need to reinstall the smart card base components the next time you install a smart card reader.	Microsoft Smart Card Base Components Image: Component State Image: Component State Image: Component State Image:
You will not encounter this instruction on Windows XP or Windows 2000 system.	Yes No
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4. When asked to restart the computer, click "Yes".

Microsoft Smart Card Base Components

You must restart your computer before the new settings will take effect.

Do you want to restart your computer now?

1.3.6 How to Check your Uninstall

To check if you have properly uninstalled your device, run the ACS QuickView, and then click on "**Initialize**".

This Diagnostic Tool will list all installed ACS Readers (either ACS Synchronous API driver (Proprietary Driver) or PC/SC Driver).

n Log Help	
SMART CARD READERS	READERS DETAILS
	ADVANCED View Log Initialize Reset Save Log Quit

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2. Troubleshooting

Q1: What interface do the ACR38 readers support?

The ACR38, ACR38T and ACR38DT are available on USB interface only.

Q2: I get no response from my USB Reader.

The USB drivers provided by ACS will work for the following Operating Systems: Windows 98, Windows ME, Windows 2000 and XP. The USB reader will not run under: DOS, Windows 95, and Windows NT.

Please check if your USB port is functioning properly. It is possible that there is a physical damage with your USB port. Plugging in any USB device to the port will make Windows react.

Make sure you installed the correct USB driver. Check on Windows Device Manager if "ACR38 USB Smart Card Reader (Proprietary Mode)" or "ACR38 USB Smart Card Reader" is listed.

Q3: ACR38's green LED keeps blinking, while ACR30's doesn't. Is this normal? Yes.

Q4: An error message says the reader insertion monitor error retry threshold reached. Cause: The ACR38 USB smart card reader was disconnected in the middle of a session on Windows 98/ME. The Microsoft Smart Card System dialog prompts the following message: Reader insertion monitor error retry threshold reached. The parameter is incorrect.

If you click **OK** to close the message box, another dialog might pop-up saying: Reader monitor 'ACS ACR38U 0' received uncaught error code. The parameter is incorrect.

If one or both of these messages appear, the ACR38 smart card reader will not work on the current Windows session, even if you reconnect the device.

Solution: You need to reconnect the ACR38 smart card reader and reboot the system. On Windows 98 and ME, the Smart Card Resource Manager detects the ACR38 USB smart card reader only upon bootup.

Q5: Does ACR38 ACS Synchronous API driver (Proprietary Driver) support auto-download capability?

No

- Q6: Does ACR38 PC/SC Driver support auto-download capability? Yes
- Q7: Does ACR38 ACS Synchronous API driver (Proprietary Driver) support Microsoft Windows Update capability? No
- Q8: Does ACR38 PC/SC Driver support Microsoft Windows Update capability? Yes

Q9: Which is a better platform? PC/SC or Proprietary? Depends on your requirements. Proprietary drivers and its API's are easier to use. If your applications require PC/SC-compliance, (or if you want your application to run on different reader brands) then you should use PC/SC. For beginners, Proprietary is a better choice.

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3. Support

Support is available from the Technical Support website, <u>http://www.acs.com.hk/contactTechSupport.asp</u> or email us at <u>info@acs.com.hk</u>.

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