Information Manual

Ricochet Monitor

INS550-2

RICOCHET® mesh technology

RICOCHET® SECURITY **MT2**

Contents

Introduction

The most advanced diagnostics tool is the PC-based RICOCHET Monitor software. This software, when installed on a laptop and connected to a RICOCHET enabled wireless expander, provides greater visibility and control over the wireless system performance than ever before.

From a simple, intuitive menu screen all device status is available at a glance, with clear graphics hilighting signalling performance. Device attributes can be configured and distributed across the network in seconds thanks to an innovative 'global poll' function that communicates to all devices within moments.

Where the RICOCHET Monitor software really excels is with the graphical representation of the mesh-networking system. The system literally 'comes alive' when the graphical function is selected. Each device is shown on screen, in real time, placed according to where the device communicates across the network. It is instantly visible and clear which routes communication signals are taking the overall network performance is demonstrated.

With the power of the graphical user interface, even complex systems can be diagnosed simply, providing confidence that the communication platform is robust and reliable.

For further detailed information about Texecom's Ricochet Technology please visit our website http://www.texe.com/ricochet

Installation

Ricochet Monitor is compatible with:-

Microsoft Windows™ XP, 2000, Vista x86 & x64, 7 x86 & x64.& The programme will be installed by default in C:\Programme Files\Texecom (where C is your default Windows installation folder)

Mac OS X 10.6 Intel Only,& includes the drivers for USB-Com

Windows is a registered trademark of Microsoft Corporation

Language Selection

When the programme is launched for the first time you will be presented with the following screen allowing you to select the required language for operation.

NOTE For guidance on Translating Ricochet Monitor please see page 19

Connect/Disconnect

When the programme is opened you will be presented with the connection screen. You can connect either by USB Com locally with a laptop/PC, or over IP remotely providing a COMIP module is fitted to the Premier 8XP-W/32XP-W Com Port.

Choose your connection method by clicking the relevant box. The connection type will be green when selected. For USB connections enter the Com port number and press Connect.

For connection via IP you will need to enter the Host Address (IP address) and the port number.

NOTE The Com Port number can be found in Device Manager under Ports (Com & LPT) and will be listed as USB serial port (COM?)

USB Connection
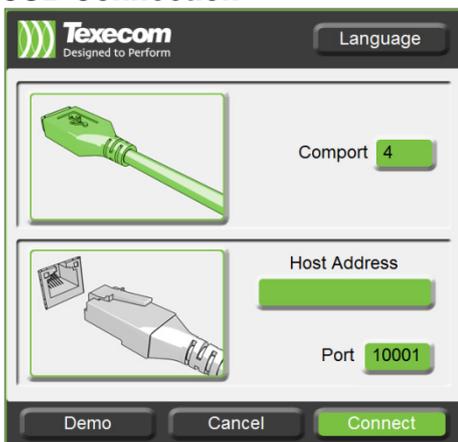
IP Connection
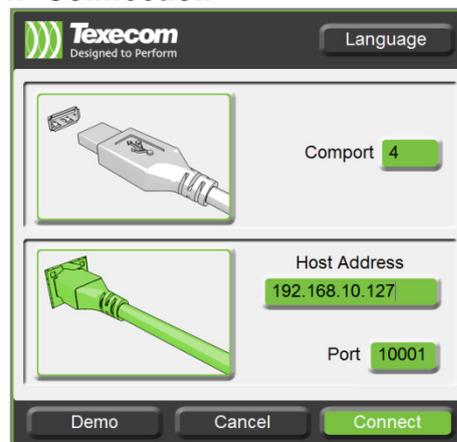
Connect/Disconnect from Wintex™

When using Ricochet™ MT2 compatible expanders and control panels it is possible to launch the programme, and connect through Wintex™. When connected to the control panel with Wintex™, a Ricochet icon will appear in the toolbar, clivcking on this will launch the programme and establish the connection

Host & Port information

To connect through Wintex™ the correct information must be entered in the IP connection field. The host address must be set as detailed, and the port number MUST match that eneterd into the Wintex™ connection setup tab, in both cases the default port number is 10010.
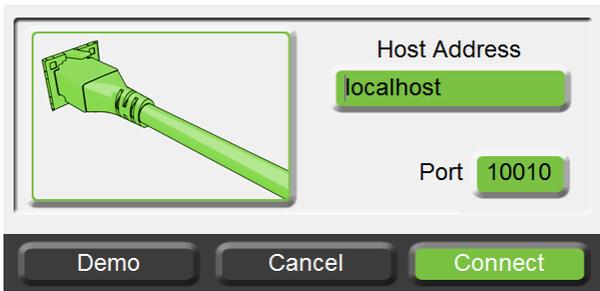
Connect/Disconnect from within the programme

Connect button press to open the connection window and select your connection method

When you hover over the connect button with your mouse it will turn green

The button will momentarily look like this when pressed

The disconnect button will look like this when you are connected to the receiver

When you hover over the disconnect button it will turn green

When pressed the disconnect button will look like this

Demo Mode

Demo

Ricochet Monitor includes a Demo Mode which allows you to view the full capabilities of the system without being connected to a Premier 8XP-W/32XP-W.

A list of available demos and their description will be shown
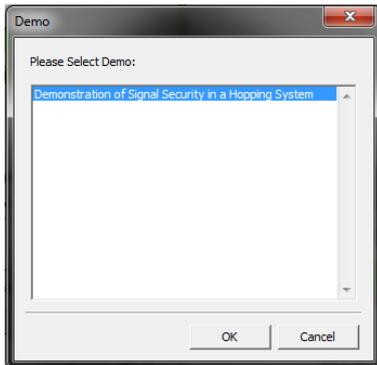

Click OK to run the demo
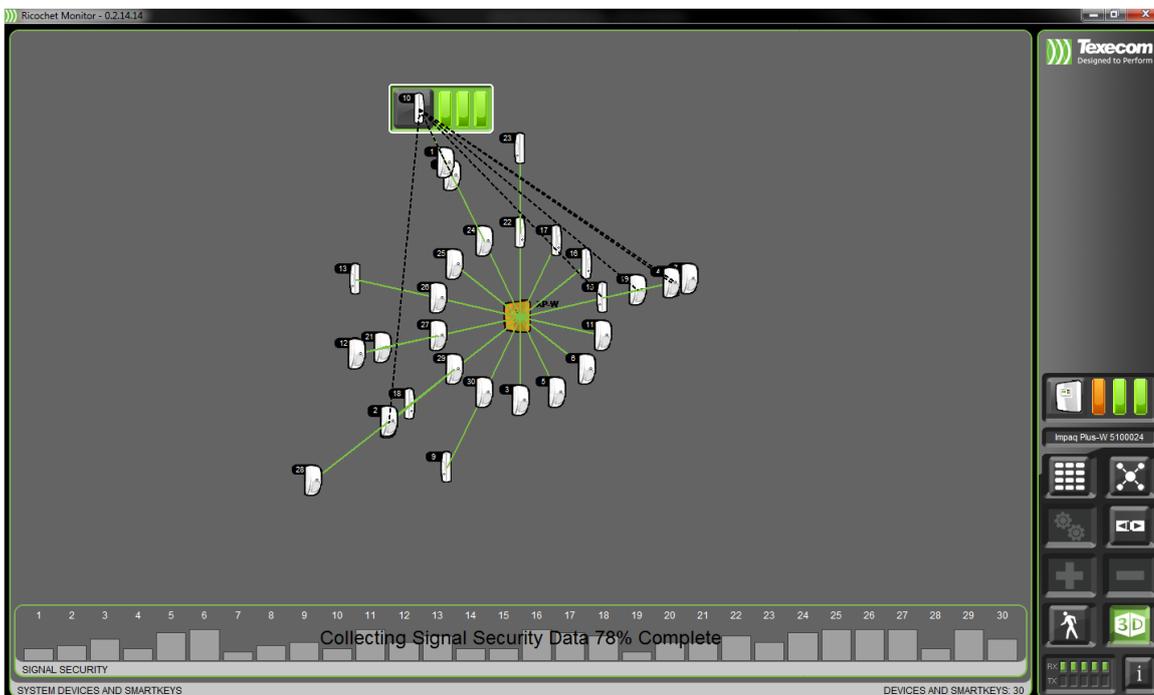
Once the Demo has loaded and run, you can play it again by pressing the restart button. Restart

To end the demo press disconnect

Premier 8XP-W/32XP-W Icons

	The Premier 8XP-W/32XP-W status can be seen as indicated, the three LED's indicate the status of the device, all green is GOOD.
Premier 32XP-W Version 1.2.7 Frequency 868MHz Network No: 19 Panel Number: 1 Mode: Operational	Clicking on the Premier 8XP-W/32XP-W icon expands the information window to give more detail about the device status, and also shows the model, firmware version installed and the frequency. The Network ID number is the Wireless Network that the device is using, there are 32 options and this is chosen randomly by the receiver when powered up. The Receiver will scan the airwaves to make sure there are no other receivers using the same network within its range, this allows for multiple receivers to exist on the same site. Although they must be connected to their own control panel. Mode can be either Operational or Commission mode, commission mode is entered automatically when the receiver is in tamper.
	The orange Icon indicates a receiver tamper, and also that the receiver is in Commission mode.
	Jamming is indicated by the Icon changing colour to Purple
	Polling errors are indicated by the Icon changing colour to Blue

Expander Selection (Ricochet MT2 Systems)

Expanders: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	The Expander pane shows the number of expanders on the system and allows you to select which expander you want to view devices on.
1	Indicates that this expander is selected
2	This expander is available but is not selected
4	There is no expander available

Views

Network View
The network View shows devices on the system, and their Routeing, when in commission mode as shown in Fig1, signal security information for each device will be shown.Fig 2 shows an MT2 System with expander selection.

Fig 1 V1 System
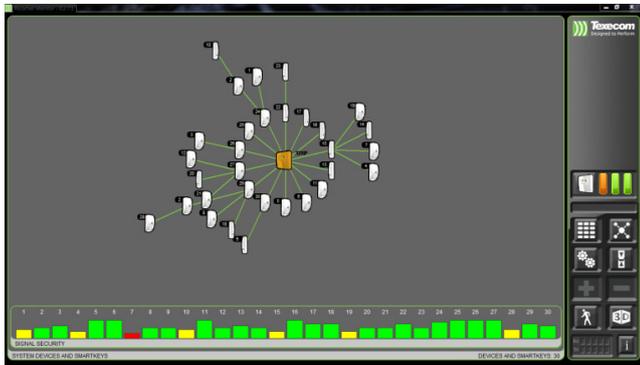
Fig 2 Ricochet MT2 System
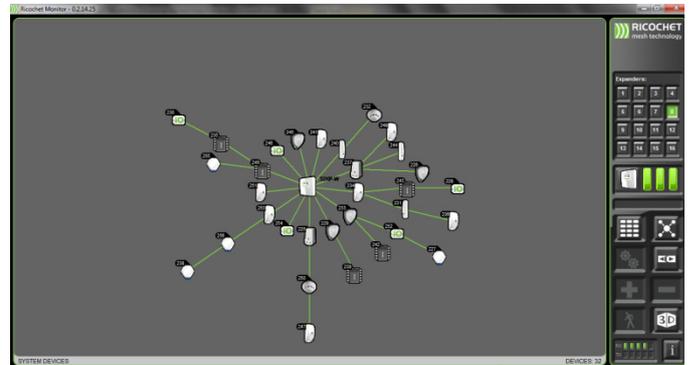
Device numbers shown are the device slots on the receiver; they are not the zone/circuit numbers on the control panel. In some cases you will see a device listed on more than one occasion, this will happen when that device is supporting more than one route for different devices, in the example shown below device 2 is supporting more than one route and is therefore shown twice on the screen..

NOTE SmartKey™ information is only shown in Network View when the SmartKey™ is powered on. It is only possible to see one SmartKey™ in Network View, the last one powered on will be the one that is shown.

To see all possible communication paths for a device simply hover over the device. This is only available when the receiver is in Commission mode.
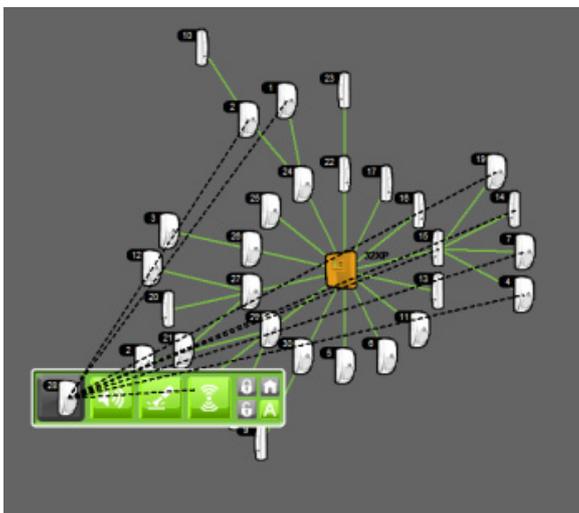
3D View

Pressing the 3D button allows you to move the network view on its access; this is useful when trying to see Routeing information for individual devices where connecting lines may be crossed over.

When green this indicates that you are in 3D view mode.

You are in Matrix view and the 3D option is not available.

Matrix View

When in Matrix view the top half of the window shows devices that have been learned to the receiver, the bottom half of the window shows the free slots available for further devices.

Device numbers shown are the device slots on the receiver; they are not the zone/circuit numbers on the control panel.

SmartKey™ learned to the system are shown in this view regardless of whether they are on or off.

Fig 1 V1 System

Fig 2 Ricochet MT2 System

Device Views/Status Indications

Device status and attributes will be seen in either Matrix or Network View.

Status indication is given by colour coding the device as follows. For more detailed information about any indication please see the section covering the expanded view on page

Standard View

Matrix View	Network View	Meaning
		Indicates the device is secure
		Flashing Indicates a device is in alarm
		Indicates a device either has an internal fault, or a power fault (low battery)
		Indicates a device polling error
		Indicates a device has failed to poll but is retrying
		Indicates a device tamper
		Flashing Device is polling or communicating with the system
	Not shown	SmartKey™ is allocated to a slot on the receiver, but is turned off.
		Area(s) of the system are disarmed, in network view the SmartKey™ will flash between grey and green when communicating with the system
		Area(s) of the system are armed, in network view the SmartKey™ will flash between grey and green when communicating with the system
		Area(s) of the system are part armed, in network view the SmartKey™ will flash between grey and green when communicating with the system
		Area(s) of the system are in alarm, for a system alarm the icons will all flash simultaneously, for a PA activation from the SmartKey™, the icons will flash in sequence. In network view the SmartKey™ will flash between grey and green when communicating with the system
		An unknown device has been learned to the system, if this happens, delete the device from the system, remove the battery and re-learn the device, if the problem persists replace the device.

Hover View

Hovering over a device in either view will show the following. For more detailed information about any indication please see the section covering the expanded view.

	Device is secure
	Device in alarm
	Device has an internal fault (in the case that the device has a fault and a low battery this will be shown)
	Device has a battery fault (low battery)
	Device polling error
	Device has failed a poll but is retrying
	Device tamper
	Device is in "Auto Mode"
	Device is "Always Awake
	SmartKey™ switched off (not shown in Network View)
	SmartKey™ ON Area(s) of system disarmed
	SmartKey™ ON Area(s) of system Part-armed, flashing means the system is Part-arming
	SmartKey™ ON Area(s) of system armed, flashing means the system is Arming
	SmartKey™ ON Area(s) of system in alarm, for system alarm all icons will flash simultaneously, for a PA activation icons will flash in sequence.
	SmartKey™ Default setting, feedback LED's are switched on, additional button functions are off.
	SmartKey™ feedback LED's and additional button functions are on.
	SmartKey™ feedback LED's are off and additional function buttons are on
	SmartKey™ feedback LED's and additional function buttons are off

When clicked in either Network or Matrix view, more detailed information can be seen for each device,

Expanded Device Status Indications in addition to the hover view

Icon Label	OK	Problem	Device Type			Description of problem	Solution
		Icon Indication	Prestige QD-W & XT-W	Impaq Contact-W	Impaq Contact-W		
Front Tamper	🟩	🟧	✓	✓	✓	Tamper Circuit Open	Close the tamper circuit
Rear Tamper	🟩	🟧	✓	✓	✓	Tamper Circuit Open	Close the tamper circuit
Power Fault	🟩	🟨	✓	✓	✓	Low battery or battery failure	Replace the battery
Device Fault	🟩	🟨	✓	✓	✓	Internal device Fault	Delete the device from the system, remove the battery & relearn the device, if the problem still exists replace the device
PIR	🟩	🟥	✓	✓		The PIR is active	Remove the source of the activation
Shock	🟩	🟥			✓	The Shock sensor is active	Remove the source of the activation
Reed	🟩	🟥		✓	✓	The reed switch is open	Close the reed switch
Input 1	🟩	🟥		✓		The device connected to Input 1 is active	Remove the source of the activation
Input 2	🟩	🟥		✓		The device connected to Input 1 is active	Remove the source of the activation
Poll	🟩	🟦 🟨	✓	✓	✓	The device has failed to poll	The blue icon indicates a poll failure; the yellow icon indicates the device is retrying, wait for 15 minutes to see if the error resolves itself, if not open the device and use the LED indication to make sure the signal is being received, the Premier 8XP-W/32XP-W should be in commission mode when doing this. If LED indication does not work, check the battery.
Status	🟩						Shows if the device is currently awake or asleep
*Zone	N/A	N/A	N/A	N/A	N/A	N/A	Shows the Zone number on the Panel
*Zone Text	N/A	N/A	N/A	N/A	N/A	N/A	Shows the Zone Text (if programmed)
*XPxx,xx							Shows the expander number and device slot

NOTE *Only shown on MT2 Systems

Device attributes buttons shown in expanded view (Only applicable to V1 systems)

Type	Icon	Description
Auto Mode	A	Auto mode is not selected, the device is in Always Awake Mode
	A	Displays when you hover over the Auto Mode button
	A	The device is in Auto Mode, or Auto Mode has been selected, in the case that the device attribute has been changed the Update Device button should be pressed
Always Awake	θ♠ϐ	Always Awake is not selected, the device is in Auto Mode
	θ♠ϐ	Displays when you hover over the Always Awake Button
	θ♠ϐ	The device is in Always Awake Mode, or Always Awake Mode has been selected, in the case that the device attribute has been changed the Update Device button should be pressed
Update Device	✓	Update device button un-pressed, this button should be pressed if you change the device attributes from the default
	✓	Update device button hover over
	✓	Update device button pressed

Additional Smartkey information

 SmartKey™ switched off, only available in Matrix View

 SmartKey™ switched on showing full details of the SmartKey™ settings and system status

Default Icon Label	Alternative Text	Colour	Meaning
Area(s) Alarming	Area(s) Panic Alarm		No alarm in any Areas
			Alarm or Panic Alarm in any Area (flashing)
Area(s) Disarmed			Area(s) Armed, Part-armed or Alarming
			Area(s) Disarmed
Area(s) Armed	Area(s) Arming		Area(s) Disarmed, Part-armed or Alarming
			Area(s) Armed (Solid) or Arming (Flashing)
Area(s)Part-armed	Area(s) Part-arming		Area(s) Armed, Disarmed or Alarming
			Area(s) Part-arming (solid) or Part-arming (flashing)
Power Fault			Battery OK
			Low Battery
None			SmartKey™ switched on but no buttons pressed
	Arm		The text next to this Icon records the last key press on the SmartKey™ in the current session
	Disarm		
	Part-arm		
	Panic Alarm		
	Aux 1		
	Aux 2		
	Aux 3		
LED,s			Details the status of the LED & Aux function buttons on the SmartKey™
	Aux Mode		
	LED,s & Aux Mode		
	No LED,s or Aux		
Session Time			Counts down the current session for the SmartKey™ from 25s to 0. Each key press will put the timer back to 25s.
*XPxx,xx			Shows the expander number and device slot
*Userxxx			Shows the User number on the panel
*User Text			Shows the User Text (if programmed)

NOTE *Only shown on MT2 Systems

Change more than one devices attributes at the same time (V1 only)

Note: *It is only possible to change the attributes of multiple devices when in Matrix view.*

	Device attributes button Un-pressed
	Device attributes button Hover
	Device attributes button Pressed. When pressed the menu bar above Expander icons will expand, simply click on the devices which you want to change the attributes for, the number of devices selected will be counted up, and each device window for the selected device will have a white border.
	Menu bar image showing 4 devices selected. The default for the Device attributes window is Auto Mode, even if devices you have selected are in Always awake mode, the window will show Auto mode by default on first use, however if the device attributes change button has been used before, the window will show the last used attribute. Device windows should be expanded prior to making changes so that you can observe the current device state.
	Shows a device that has been selected for an attributes change with a white border. In expanded view the device will also have white border.

Walktest

|	
	Walktest Button Un-pressed
	Walktest Button pressed.
	When the Walktest button is pressed this image will appear in the menu bar asking you to confirm that you wish to enter Walktest mode
	Pressing the Tick button will confirm your choice to enter Walktest mode, the Walktest message will be transmitted to each device as shown, pressing the X button will leave Walktest mode.
	Once the devices have been told to enter Walktest mode the menu bar will show that walk test is enabled and the countdown timer will show, the timer counts down from 60 minutes to 0 minutes when walk test mode will be left and the devices automatically put back to their normal state.
	Whilst in Walktest the button will change as shown, pressing this button at anytime during the Walktest will leave Walktest mode and update all of the devices.
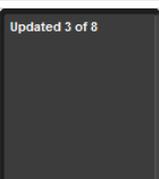
Broadcast Progress

When changing device attributes (on the panel in MT2) or entering Walktest mode, and when arming the system in MT2 a broadcast message is sent to the affected devices. To ensure that the message has been received by the devices, a progress chart will appear in the main software window as shown.
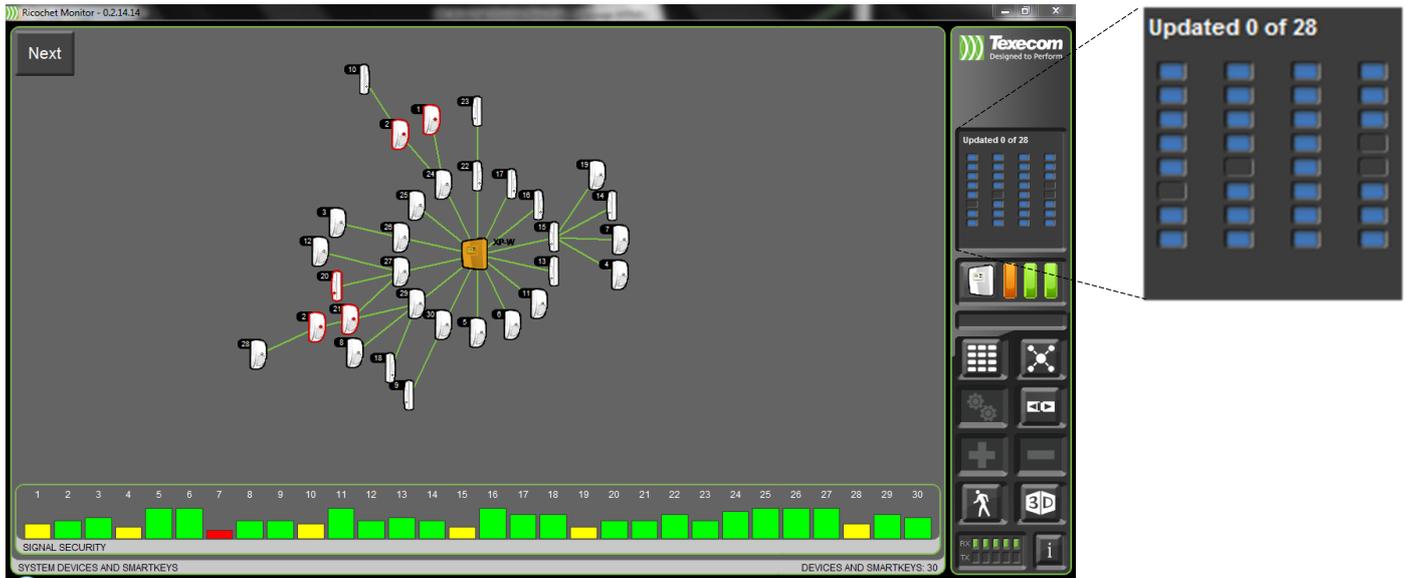
As devices are successfully updated they turn green.

If the broadcast finishes with devices not updated they will be shown in RED
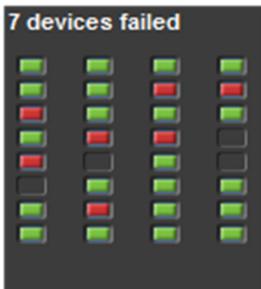
Adding and Deleting Devices (V1 only)

It is only possible to Add and Delete devices in Legacy Mode and in Matrix view, with a ***Ricochet*™** enabled control panel all devices must be learnt and deleted either via the control panel, or the engineer's keypad, please see the Premier 8XP-W/32XP-W installation manual for more details.

	Shows when the Control Panel is Ricochet Enabled or a Legacy Panel is connected and you are in Network View
	Shows when the Control Panel is Ricochet Enabled, or a Legacy Panel is connected and you are in Network View
	Press to learn a device
	Select a device from the Free device slots window, hold down the learn switch and insert the battery, in the case of a SmartKey™ simply power the device on. The device will appear in the upper window, the Learn button is still pressed so you can simply select the next device to be learnt. Press the button again to leave learn mode.
Learning: 15s left	You will have 20 seconds to learn the new device as shown by the countdown window in the menu bar, if the timer runs out you will need to start the procedure again.
	Press the button and then select a device from the System devices window
Are you sure?	The following menu bar will appear, asking you to confirm that you want to delete the device, press the tick to confirm and the X to exit the menu.
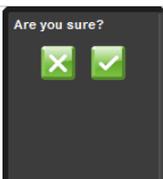
RX & TX LED's

RX TX	The RX & TX LED's indicate transmissions to and from the receiver by devices, the level of indication will vary, and greater numbers of LED's lit do not indicate a better system.

Signal Security

Signal security is far more important than signal strength. Signal security indicates on a system how many possible communications paths devices have with the receiver the more paths the better the signal security, however this will vary from system to system dependant on system size, he number of hopping devices, the environment and how the radio waves propagate through a building. The Signal Security is indicated by colour and a bar graph as detailed below.

	The green bar indicates excellent signal security; the height of the bar will be dependent on the number of possible communications paths, if devices are hopping and the total size of the system and location of devices.
	The yellow bar indicates good signal security; the height of the bar will be dependent on the number of possible communications paths, if devices are hopping and the total size of the system and location of devices, improvements may be made to these devices by adding additional devices between the device and the receiver.
	The red bar indicates poor signal security and is a warning that a device could have a potential problem, if the environment changes the device my lose communication with the system and generate a polling error, or in a worse case where alterations have been made to the physical layout of the building lost completely. Devices should be placed in locations relevant to the security needs, and not because the signal strength is good. To resolve issues where devices are shown as Red, additional devices should be placed between the device and the receiver to provide additional communications paths.

Signal Strength

Signal strength, whilst not the critical factor in a Mesh Networking system is shown on the expanded device window. In the case of hopping devices the signal strength for each device in the communications path is shown and also details the route that is being used by the device.

	The device signal strength meter details the strength of signal between the device and the receiver, or the device and another device on the system which it is hopping through.
	In the example shown device 28 is hopping through devices 2 and then 29 before its signals reach the receiver.

Routeing & Hopping

The system dynamically determines the best routes for the signals to reach the receiver, whilst watching the devices in Ricochet Monitor you may see devices change their communications paths, for what may appear to be no particular reason, however the device will know its best and strongest route back to the receiver, and if that path becomes compromised due to a change in the environment, the device will use the next best path. Once the obstruction or reason for the change is removed, the device may then change route again, back to the original route, or an alternate route.

It is not possible to tell any device on the system which route to take, what may seem logical on site, may in reality due to environmental conditions, and the physical makeup of the building not actually be the best route, therefore the Routeing of signals is completely automated and cannot be controlled.

Information

	Pressing the information button accesses the Help pages, a local copy of the Ricochet website and the installation manuals for all devices

FAQ's

Problem	Solution
I don't know what my com port number is?	The Com Port number can be found in Device Manager under Ports (Com & LPT) and will be listed as USB serial port (COM?)
Is Ricochet Monitor compatible with all versions of Windows?	Ricochet Monitor is compatible with Windows XP, Windows 2000, and Windows Vista/7 x86 & x64.
I cannot connect?	Check you have the correct COM port number listed in the connect window, and also make sure the USB connection is green and the picture of the cable plugged in
Can I use Radioplus devices Ricochet Monitor?	No Radioplus devices are not compatible with Ricochet Monitor
Can I tell devices which route to take?	No the system decides which is the best route for devices
The device numbers are different from the zone numbers on the control panel	This is correct, the numbers shown next to each device are the device slot numbers on the receiver, each device can be mapped to any zone on the control panel, however this must be done on the control panel keypad and cannot be done through Ricochet Monitor
Why does a device appear more than once in Network View?	Some devices on large and complex systems may be supporting more than one route for other devices, therefore it is possible that a device will appear more than once in network view
Signal security does not seem to work	It takes about 20 minutes for the data to be gathered and for the information to appear

Translating Ricochet Monitor

Ricochet Monitor uses a different translation scheme to other Texecom PC software and uses a program called Poedit.

Windows version can be installed from here. http://sourceforge.net/projects/poedit/files/latest/download?source=directory Versions for other systems are also available.

Translating
To translate Ricochet Monitor, Poedit is used to edit .po files (French.po, Italian.po) which are 'source' files. When saved, Poedit generates the equivalent .mo files (French.mo, Italian.mo). It is these .mo files that Ricochet Monitor uses and are distributed with the software.

Editing
Any of the .po files can be downloaded into Poedit for editing.

To create a 'new' translation, request a new .po file from Technical Support, rename it and start translating! Please select the correct language and country settings for the new translation by selecting Catalog->Settings and then changing the Language and Country drop-down selection boxes within Poedit.
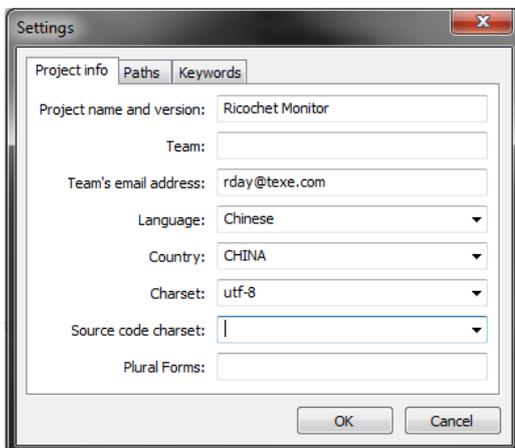
NOTE there are special characters in the string which **must** be left in place, for example: 'Collecting Signal Security Data %u%% Complete'

The '%u%%' must be left in place as it will be replaced by the percentage value at run-time. So whatever the translation for 'Collecting Signal Security' is should appear before the '%u%%' and whatever the translation for 'Complete' should appear afterwards.
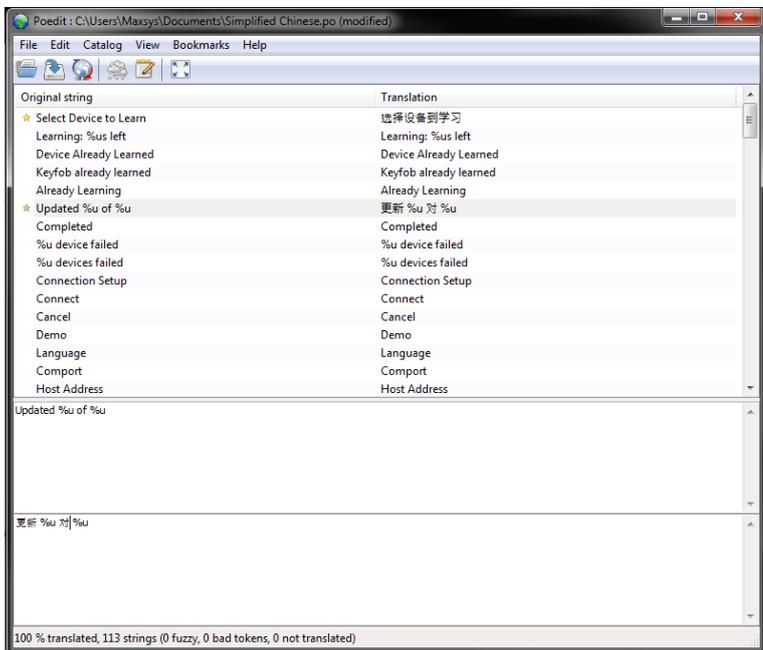
All translated files MUST be complete, and should be sent to techsupport@texe.com

Diagnostics

The system can be logged using a diagnostic function. To enable the logging function, you can hold down the Ctrl key when clicking connect, or double click on the Wireless logo when connected.

The log file is outputted as a .txt file and will be found in the documents folder for the User logged on to the computer.

Double Clicking the Wireless Logo again will stop the function.

Open the file generated and you will see the following
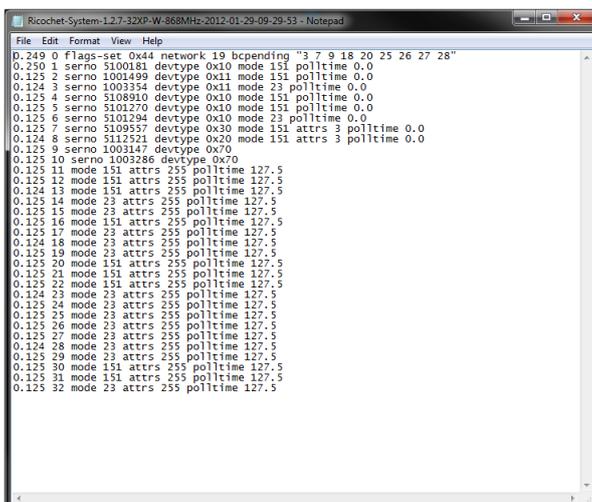
The file may be requested by Tech Support for interrogation if you are having issues on a particular site.

Texecom
Designed to Perform

bsia
british security industry association

UKAS
QUALITY
MANAGEMENT
003

Certificate Number : FM 35285