



**QUICK START Windows 98 DRIVER and
HARDWARE REFERENCE CARD**

**RocketPort 550 Range
RocketPort 550 Universal Range**



This Guide.

Control Europe Ltd Document Number COM22598
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Windows 98 Driver release V2.00 and above

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1. Before you begin

!IMPORTANT!

Prior to installing this version of the RocketPort 550 PCI device driver, any earlier installed versions MUST BE REMOVED including all device information files and registry entries. If you have earlier RocketPort 550 PCI drivers installed then refer to Appendix A before continuing.

If you are installing a RocketPort 550 driver for the first time on the target PC then continue below.

The Windows 98 device driver for the RocketPort 550 & RocketPort 550 Universal controllers is supplied as a single self extracting file.

Prior to installing the RocketPort 550/RocketPort 550 Universal controller, the driver files must be extracted to a folder on your PC's hard disk.

2. Extracting the driver files to the PC's hard disk

Using Windows Explorer locate the self extract file.

If you have a Control supplied CD then open the folder **\Win98** (on the CD) then double click the file **Win98drv.exe**

(If you have downloaded the driver from Control's FTP site then you should open the folder containing the downloaded self extract file. NOTE: The filename may differ from the above.)

The self extractor dialog will appear. The default target folder (for the extracted files) is **c:\Comtrol\Installations\RP550W98** and will be displayed in the **'Unzip to folder'** box

You may change the target folder as you wish, but note that the remainder of this document **assumes** that the extracted driver files are located in **c:\Comtrol\Installations\RP550W98**. If you have changed the target folder you must remember to specify this path when required during installation.

Now that the files are extracted, you should shutdown Windows 98 in preparation for the physical controller installation.

3. Installing Your RocketPort 550/ RocketPort 550 Universal hardware



Take care when you handle the RocketPort 550 & RocketPort 550 Universal PCI cards, like any electronic device, they are sensitive to static electricity. Use normal static precautions such as wearing an earth ground strap.

Hardware Installation

Power down the host PC and disconnect its mains input.

Follow the host PC manufacturer instructions describing how to access the PC in order to install additional cards.

You may install up to 4 RocketPort 550 PCI in one PC

Ensure the RocketPort 550 back plate retaining screws are fitted.

Follow the host PC instructions for re assembly of the host PC its cabling and re-fitting of safety covers.

Re-connect the host PC mains input and power up the PC.

4. Installing the RocketPort 550/RocketPort 550 Universal Windows 98 Device Driver

1. In the previous section you installed the RocketPort 550 and powered up the PC
2. Windows will detect the new hardware at power up and display the: "Add New Hardware Wizard" dialog Window
3. Click **Next**
4. The next dialog window asks :
Search for the best driver for your device. (*Windows Default*)
or
Display a list of all the drivers in a specific location, so you can select the driver you want.

ENSURE THAT SEARCH IS SELECTED

Click **Next**

5. The next dialog window asks where to search for the Driver.

Select **Specify a location**

Enter **c:\Comtrol\Installations\RP550W98** into the dialog Window

If you extracted the driver files to an alternative folder then replace the above path with the alternative path for the driver files.

6. Windows will search the folder for the Driver

When found, the dialog displays the path to the file **RCKT550.INF**

Click **Next** to start the installation
7. Windows will briefly display the progress of the Driver installation.

Windows will display the Finished Installing dialog window

Click **Finish**.

Windows will now locate and install the individual ports. The time taken to complete this depends on the number of boards and ports to be located.

Your RocketPort 550 Windows 98 Driver is now installed

5. View the COM names allocated to the RocketPort 550/RocketPort 550 Universal

Windows allocates the COM port names. To view the allocated COM ports proceed as follows:-

1. **Right Click** the My Computer icon of the desktop
2. Select **Properties** from the pop up menu
3. Click the **Device Manager** tab
4. Click **+Ports (COM & LPT)**. You can now see the allocated COM ports
5. Click **OK** to close the window

6. Verifying operation

A test application, called WCOM32 will have been extracted to the folder **c:\Control Programs\RP550W98** Simply double click the WCOM32 icon to run the program.

WCOM32 is a Windows 32 MDI application and may be used as a confidence test of the COM ports.

WCOM32 allows you to open a com port, send and receive data, toggle O/P modem signals and view the status of I/P modem signals.

On line help is available.

Please note that WCOM32 was originally written for use with the original RocketPort ASIC based controllers. It can be used with the UART based RocketPort 550 range but features specific to the RocketPort ASIC based controllers are not supported.

Note for Hyperterminal users

The Hyperterminal communications program, supplied with Windows 98, will only work With COM1 to COM4. This is a restriction of the Hyperterminal implementation.

7. RocketPort 550/RocketPort 550 Universal Removal

If a card is no longer required then perform the following procedure:-

Note: Device Manager difference between the RocketPort 550 controller and RocketPort 550 Universal controller.

Each installed RocketPort 550 card will have two multifunction device entries that can be viewed from the 'Device Manager'. Each entry will include the string "**Control Europe RocketPort 550**".

However the RocketPort 550 Universal card has only one 'Device Manager' multifunction device entry which includes the string "**Control RocketPort Universal 550**".

1. From the Windows desktop, use the mouse to right click on 'My Computer'.
2. Using the mouse left click 'Properties' from the pop up menu.
3. The 'System Properties' window will appear. Click the 'Device Manager Tab' and expand the 'Multifunction adapters' entry.
(ensure that the 'View devices by type option is selected' otherwise 'Multifunction Adapters will not appear in the display window. If not then click the 'View devices by type radio button').
4. Highlight each Rocket Port 550 or RocketPort 550 Universal entry *(for the card that you wish to remove)* and click remove.
5. The 'Confirm Device Removal' dialog will appear, Click **OK** to confirm removal
6. Click **OK** to exit 'System Properties'
7. Shutdown and remove power from the PC.
8. Remove the RocketPort 550 controller(s). Remember to follow your PC manufacturers instructions regarding the removal of PCi bus adapter cards from the PC.

There is generally no need to remove the device driver *files (.vxd file)* or the device information files *(.inf files)* unless you need to upgrade from a V1.xx driver to a V2.00, or later, version of the device driver.

If there are no longer any installed RocketPort 550/RocketPort 550 Universal controllers installed then Windows 98 will not load the driver. However, the driver files will remain installed on the system's hard disk.

At a later time the RocketPort 550 card(s) can be re-installed and the computer restarted. During boot, Windows 98 will detect the RocketPort 550/RocketPort 550 Universal and load the drivers.

8. RocketPort 550/RocketPort 550 Universal Cable Types

RocketPort 550 4 Quad

RocketPort 550 Universal 4 Mini

RocketPort 550 4 RJ45, RocketPort 550 Universal 4 RJ45

RocketPort 550 8 OCTA, RocketPort 550 Universal 8 OCTA

RocketPort 550 8 RJ11, RocketPort 550 Universal 8 RJ11

RocketPort 550 8 Port (with dedicated interface box)*

RocketPort 550 16 Port (with dedicated interface box)*

*Includes RocketPort 550 Universal 4, 8 & 16 Port

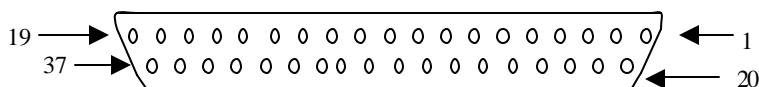
RocketPort 550 4 Quad Cable - 37 way D type fan out to 4 DB25 Male

DB37 pin	DB25 pin	RS232 Signal/Port	DB37 pin	DB25 pin	RS232 Signal/Port
35	2	TxD Port 0	26	2	TxD Port 2
34	3	RxD Port 0	25	3	RxD Port 2
16	4	RTS Port 0	7	4	RTS Port 2
17	5	CTS Port 0	8	5	CTS Port 2
15	6	DSR Port 0	6	6	DSR Port 2
37	7	Signal Gnd Port 0	28	7	Signal Gnd Port 2
33	8	DCD Port 0	24	8	DCD Port 2
36	20	DTR Port 0	27	20	DTR Port 2
18	22	RI Port 0	9	22	RI Port 2
12	2	TxD Port 1	3	2	TxD Port 3
11	3	RxD Port 1	2	3	RxD Port 3
30	4	RTS Port 1	21	4	RTS Port 3
31	5	CTS Port 1	22	5	CTS Port 3
29	6	DSR Port 1	20	6	DSR Port 3
14	7	Signal Gnd Port 1	5	7	Signal Gnd Port 3
10	8	DCD Port 1	1	8	DCD Port 3
13	20	DTR Port 1	4	20	DTR Port 3
32	22	RI Port 1	23	22	RI Port 3

Pin 19 of the 37 way connector is not used

Pins 1, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 24 and 25 of each 25 way connector are not used.

The cable shields and connector metal bodies should be connected.

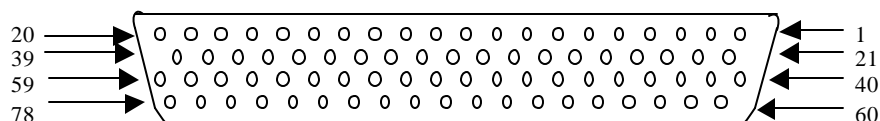


RocketPort 550/RocketPort 550 Universal 8 OCTA Cable - 78 way D type fan out to 8 DB25 Male

DB78 Pin	DB25 Pin	RS232 Signal/Port	DB78 Pin	DB25 Pin	RS232 Signal/Port
30	2	TxD Port 0	40	2	TxD Port 4
55	3	RxD Port 0	28	3	RxD Port 4
51	4	RTS Port 0	21	4	RTS Port 4
16	5	CTS Port 0	25	5	CTS Port 4
54	6	DSR Port 0	5	6	DSR Port 4
71	7	Signal Gnd Port 0	75	7	Signal Gnd Port 4
35	8	DCD Port 0	43	8	DCD Port 4
49	20	DTR Port 0	22	20	DTR Port 4
36	22	RI Port 0	44	22	RI Port 4
50	2	TxD Port 1	2	2	TxD Port 5
17	3	RxD Port 1	8	3	RxD Port 5
31	4	RTS Port 1	41	4	RTS Port 5
53	5	CTS Port 1	4	5	CTS Port 5
34	6	DSR Port 1	42	6	DSR Port 5
72	7	Signal Gnd Port 1	76	7	Signal Gnd Port 5
33	8	DCD Port 1	23	8	DCD Port 5
32	20	DTR Port 1	3	20	DTR Port 5
15	22	RI Port 1	24	22	RI Port 5
11	2	TxD Port 2	63	2	TxD Port 6
37	3	RxD Port 2	46	3	RxD Port 6
12	4	RTS Port 2	62	4	RTS Port 6
59	5	CTS Port 2	9	5	CTS Port 6
58	6	DSR Port 2	29	6	DSR Port 6
73	7	Signal Gnd Port 2	77	7	Signal Gnd Port 6
39	8	DCD Port 2	48	8	DCD Port 6
13	20	DTR Port 2	61	20	DTR Port 6
20	22	RI Port 2	47	22	RI Port 6
10	2	TxD Port 3	64	2	TxD Port 7
56	3	RxD Port 3	27	3	RxD Port 7
14	4	RTS Port 3	60	4	RTS Port 7
57	5	CTS Port 3	45	5	CTS Port 7
38	6	DSR Port 3	26	6	DSR Port 7
74	7	Signal Gnd Port 3	78	7	Signal Gnd Port 7
18	8	DCD Port 3	6	8	DCD Port 7
52	20	DTR Port 3	1	20	DTR Port 7
19	22	RI Port 3	7	22	RI Port 7

Pin 67 of the 78 way connector is not used. Pins 65, 66, 68, 69 and 70 are Signal Ground. Pins 1, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 24 and 25 of each 25 way connector are not used.

The cable shields and connector metal bodies should be connected.

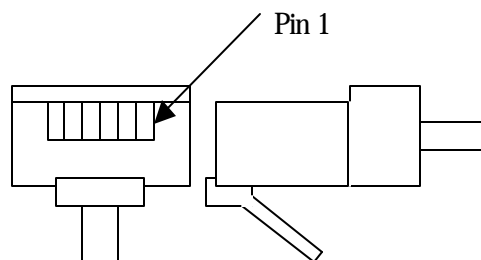


RocketPort 550 Universal 4 MINI Cable - 44 way HD type fan out to 4 DB9 Male

DB44 pin	DB9 pin	RS232 Signal/Port	DB44 pin	DB9 pin	RS232 Signal/Port
2	3	TxD Port 0	25	3	TxD Port 2
17	2	RxD Port 0	39	2	RxD Port 2
32	7	RTS Port 0	9	7	RTS Port 2
18	8	CTS Port 0	40	8	CTS Port 2
1	6	DSR Port 0	24	6	DSR Port 2
19	5	Signal Gnd Port 0	41	5	Signal Gnd Port 2
31	1	DCD Port 0	8	1	DCD Port 2
33	4	DTR Port 0	10	4	DTR Port 2
3	9	RI Port 0	26	9	RI Port 2
36	3	TxD Port 1	13	3	TxD Port 3
5	2	RxD Port 1	28	2	RxD Port 3
21	7	RTS Port 1	43	7	RTS Port 3
6	8	CTS Port 1	29	8	CTS Port 3
35	6	DSR Port 1	12	6	DSR Port 3
7	5	Signal Gnd Port 1	30	5	Signal Gnd Port 3
20	1	DCD Port 1	42	1	DCD Port 3
22	4	DTR Port 1	44	4	DTR Port 3
37	9	RI Port 1	14	9	RI Port 3

RocketPort 550/RocketPort 550 Universal 8 RJ11 Cable Pin Out

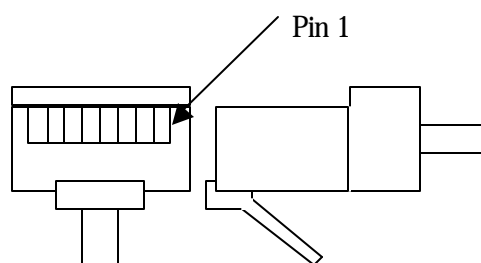
RJ11 pin	RS232 Signals
1	DTR
2	Signal Ground
3	TxD
4	RxD
5	DCD
6	CTS



RJ11 Plug front and side view

RocketPort 550/RocketPort 550 Universal 4 RJ45 Cable Pin Out

RJ45 pin	RS232 Signals
1	RTS
2	DTR
3	Signal Ground
4	TxD
5	RxD
6	DCD
7	DSR
8	CTS

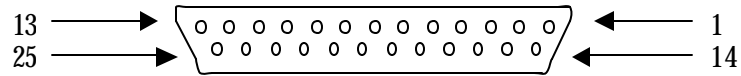


RJ45 Plug front and side view

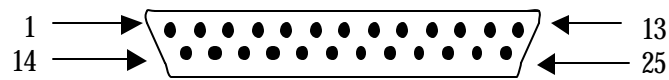
**RocketPort 550/RocketPort 550 Universal 8 Port - with 8 DB25 Female RS232
dedicated interface box**

and

**RocketPort 550/ RocketPort 550 Universal 16 Port - with 16 DB25 Female RS232
dedicated interface box**



DB25 Female Interface Box Connector



DB25 Male Connector

Rocket Port Interface Box DB25 Signals

DB25 Pin	RS232 Signal	RS422 Signal (RocketPort RS232/422 version only)	Universal Interface
2	TxD	*See note	See UI manual
3	RxD	*See note	See UI manual
4	RTS	*See note	See UI manual
5	CTS	*See note	See UI manual
6	DSR	*See note	See UI manual
7	Signal Gnd	*See note	See UI manual
8	DCD	*See note	See UI manual
20	DTR	*See note	See UI manual
15	Not used	RxD+ RxD(B)	See UI manual
17	Not used	RxD- RxD(A)	See UI manual
19	Not used	TxD+ TxD(B)	See UI manual
25	Not used	TxD- TxD(A)	See UI manual

*Note : All RS232 signals are present in RS422 mode.

The RocketPort interface box can only be used with the RocketPort 550-8 and RocketPort 550-16. These controllers have a single DB25F mounted on the backplate which connects via the RocketPort cable to the interface box. Alternatively the RocketPort 550-8 and 550-16 controllers may connect to the Control Universal Interface (UI). Refer to the UI manual for connector pin-outs.

The Quad, Octa, RJ11 and RJ45 RocketPort versions do not support RS422 mode.

Pins 1, 9, 10, 11, 12, 13, 14, 21, 22, 23 and 24 of each 25 way connector are not used.

9. Technical Support

Comtrol has a staff of support technicians available. Telephone support is available daily, Monday through Friday (except holidays) on the US (Central Time) or UK number listed below. Before you call please have the following information available :

Item	Your System Information
RocketPort 550 model number	
RocketPort 550 serial number	
RocketPort 550 device driver version	
Interface type	
Operating system type and release	
PC make, Model and speed	
Details of other cards configured in the PC	

The Comtrol Corporation Headquarters are at

6655 Wedgwood Road
Suite 120
Minneapolis
MN 55311-3646
USA
Phone : +1 763 494 4100
Fax : +1 763 494 8992
Email : support@comtrol.com
Web site : <http://www.comtrol.com>
FTP site : ftp.comtrol.com
telnet : www.comtrol.com

The Comtrol Europe Ltd Headquarters are at

Unit 2, Avonbury Business Park
Howes Lane
Bicester
Oxfordshire
OX26 2UA
Great Britain
Phone : +44 (0) 1869 323220
Fax : +44 (0) 1869 323211
Email : support@comtrol.co.uk
Web site : <http://www.comtrol.co.uk>

10. Specifications

RocketPort 550 & RocketPort 550 Universal	Specification
Baud rate :	
RS 232 (4 RJ45 and Quad)	50 to 460.8K baud
RS 232 (8 RJ11 and Octa)	50 to 115.2K baud
RS 232/422 (8 and 16 Port with interface box)	50 to 230.4K baud
RS232 (UNIVERSAL RJ45/RJ11/OCTA/MINI)	50 to 115.2K baud
RS232 /422 (UNIVERSAL 8 & 16 Port with I/F box)	50 to 230.4K baud
Note : Baud rate is dependant upon hardware and operating system configuration	
Bus interface	PCI
Control by device driver	
Data bits	5,6, 7 or 8
Parity	Odd, Even,Mark, Space or None
Stop bits	1, 1.5, or 2
Note: Certain combinations of data bits, parity or stop bits may not be allowed by some operating systems.	

Environmental Condition	Specification
Air temperature :	
System on	0 to 40°C
System off	-20 to 85°C
Humidity (non-condensing)	
System on	8 to 80%
System off	20 to 80%
Altitude	0 to 10,000 feet
MTBF	Greater than 30 years

Product	5V Current	+12V Current	-12V Current
RocketPort 550 4 Quad	210 mA	20 mA	20 mA
RocketPort 550 4 RJ45	190 mA	20 mA	20 mA
Universal 550 4 Port	190mA	N/A	N/A
RocketPort 550 8 OCTA	140 mA	120 mA	120 mA
RocketPort 550 8 RJ11	250 mA	80 mA	80 mA
RocketPort 550 8 Port See note*	215 mA	0 mA	0 mA
RocketPort 550 16 Port See note*	300 mA	0 mA	0 mA
Product	5V Current	+12V Current	-12V Current

RocketPort 550 Universal 4 RJ45	260mA	200mA	200mA
RocketPort 550 Universal 4 Mini	280mA	200mA	200mA
RocketPort 550 Universal 8 OCTA	400mA	400mA	400mA
RocketPort 550 Universal 8 RJ11	315mA	260mA	260mA
RocketPort 550 Universal 8 Port See note*	400mA	0 mA	0 mA
RocketPort 550 Universal 16 Port See note*	600mA	0 mA	0 mA

***Note the current figures are for the card only and do not include the attached interface box. Refer to the manual for the RocketPort or Universal interface boxes for current consumption figures and add to the above.**

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Appendix : A

Removal of the Windows 98 RocketPort 550 device driver files.

Background

Windows 98 is a plug and play (PnP) operating system and plays an important role in installing kernel device drivers.

During installation, Windows 98 detects new hardware and starts its *own* installation program (*there is no NT style setup program*) which installs the device driver, including updating the registry, processing user's response to dialog box questions and entries in device information files (.INF files).

The .INF files are supplied with the driver. They are ASCII text files and can be viewed with Notepad. (*it's worth remembering this – you will need it later*).

When it comes to un-installation, the PnP philosophy means that the hardware is simply removed. On restart Windows 98 will not load the drivers and the device manager entries will not be created. *It's as if the H/W and driver were never installed.*

Later, if the hardware is re-installed, then on restart, the PnP system will reload the driver, update the device manager and re-create any dynamic registry entries.

However under certain circumstances it may be necessary to 100% remove the driver and all supporting files from the W2K system. Here's how:-

Procedure

Section 1 assume that the H/W and driver are installed and working. Proceed to direct section 2, if you desire to remove files and registry entries following an installation problem.

1. Removal of device manager entry

1.1 Start the 'Device Manager'. The quickest way is to right click on my computer and select 'Properties' from the pop-up menu. When the 'System Properties' dialog appears, left click the 'Device Manager' tab.

The device manager displays device information as a 'tree structure'. To expand the entries, click the '+' icon.

1.2 Locate the 'Multifunction adapters' entry and expand.

1.3 Right click each 'Comtrol Europe RocketPort 550.....' entry in turn and select 'Remove' from the pop-up menu (*or highlight the entry and click the 'remove' button*). When the confirmation dialog appears, click OK.

The device manager RocketPort 550 parent device entry will be removed along with attached COM ports. NOTE that this operation may take some time to complete. You must be patient as the dialog may appear to freeze.

When finished, close the device manager.

2. Removal of driver setup information files

These files must be removed to allow a subsequent *'from the beginning'* installation.

2.1 Start Windows Explorer. Open the **Windows\inf folder**. Locate and remove the following four files:-

Rckt550.inf
Rckt550b.inf
Rckt550.PNF
Rckt550b.PNF

Note WINDOWS\inf is by default a hidden folder. You can display it and it's contents by clicking on the Explorer menubar 'View' menu item, then select 'Folder Options' from the drop down menu. From the displayed 'Folder Options' dialog select 'View' in order to display the 'Advanced Settings'. From 'Advanced settings – Files and Folders' select 'Show all files'. Click OK to finish. After completing the removal it's a good idea to reset the option to it's original setting.

2.2 Windows 98 creates a copy of **Rckt550.inf**, renames it as **'Control EuropeRCKT550.INF'** and saves it in the folder **Windows\inf\other** them. This file must also be removed.

3. Removal of driver and supporting files

You do not necessarily need to remove these files. If left alone then they just take up a small amount of disk space. The files will simply be overwritten by later installations. However, if you wish to remove them then:-

3.1 Using Windows Explorer open the folder **Windows\system**

3.2 remove the following files

Rcktser.vxd
Rcktmf.vxd

The driver files (*.vxd*) and setup information files (*.inf and .PNF*) are now removed. After restart, assuming that RocketPort 550 and/or RocketPort 550 Universal cards are physically installed then Windows 98 will detect these cards as new hardware and initiate the 'Add New Hardware' wizard.