



Console Server & Power Switch USR4204



User Guide

R24.0792.00
Rev 1.2 10/16

Contents

Contents	2
Symbols Used In This User Guide	4
Important Safety Instructions	5
Introduction	6
Overview of Main Features	6
Package Contents	7
Physical Features	8
Getting Started – Local Access.....	10
Physical Installation.....	11
Standalone.....	11
Rack Mounting.....	11
Connecting Network Devices	12
Connecting to Network Device Console Ports	12
Connecting To Power Ports.....	12
Remote Access	13
Setting Up.....	13
Remotely connecting and managing using dialup	14
Product Operation	15
User interface.....	15
Security features	26
Flashing the firmware	32
Adding More Ports.....	33
Attaching a Slave USR4204	33
Addressing the Slave USR4204	33
Security Considerations	33
Technical Specifications	34
Electrical.....	34
Environmental	34
Product Dimensions and Weights	35
FAQs and Troubleshooting.....	36
General.....	36
Configuring the USR4204	36
Remote Management.....	36

USR4204 User Guide

Flashing firmware 36

Clearing A Forgotten or Disabled Administrator Name and Password..... 36

Suggested Security Guidelines 37

What are "displayable characters"? 37

What are programmable characters? 37

Temporarily disabling Security 37

Is there a maximum number of slave units that can be attached to a master
USR4204? 38

Rackmounting the USR4204 with the back panel facing out 38

Support 39

Appendix A..... 41

 Terminal Port and Serial Port RJ45 Pinout 41

 RS-232 Adaptor Pinouts 42

 Straight and Rollover Cables..... 44

Legal Notice 45

Warranty 46

Regulatory Information 50

 FCC Compliance..... 50

 UL Listing/CUL Listing 50

 Industry Canada (IC)..... 50

 CE Compliance..... 51

 WEEE Compliance 51

Copyright Information 52

Symbols Used In This User Guide



This symbol alerts the user to important operating and maintenance instructions.



This symbol warns the user that there are hazardous voltages within the product enclosure.



This symbol invites the user to read more technical details.



This symbol identifies helpful user information.



This symbol warns the user to stop, read, and understand critical information.



This symbol denotes supplemental information.

Important Safety Instructions

SAVE THESE INSTRUCTIONS



This manual contains instructions and warnings that should be followed during the installation, operation, and storage of this product. Failure to heed these instructions and warnings may affect the product warranty.



WARNING: Hazardous Voltage! To reduce the risk of personal injury from electric shock, do not remove the cover. There are no field-serviceable or user-serviceable components inside.

- Disconnect mains power from the product by unplugging the power cord from either the electrical outlet or the product. The AC inlet is the main disconnect for removing power to the product. For products that have more than one AC inlet, to remove power completely, all AC line cords must be disconnected. The socket-outlet shall be installed near the equipment and shall be easily accessible.
- Disconnect mains power from the USR4204 before servicing equipment powered by the USR4204.
- Do not connect the product to an ungrounded outlet or to extension cords or adapters that eliminate the connection to ground.
- Before installing and using the product, check it for any external damage. If the product is damaged, do not install or operate the product and contact your service representative.
- The product is designed for indoor use only in a controlled environment away from excess moisture, temperature extremes, conductive contaminants, dust, or direct sunlight.
- DO NOT operate the product in an explosive atmosphere or in the presence of flammable gases or fumes.
- For continued protection against fire, replace the line fuse(s) only with fuse(s) of the same voltage and current rating and type.
- The total power requirement for equipment connected to the product must not exceed the maximum output load rating(s).

Introduction

Overview of Main Features

Out-of-Band Remote Management

Out-of-band remote management uses a secondary communications channel, typically a pair of dial-up modems, to connect to the management ports of remote equipment and to control outlets that supply power to the remote equipment. With one USR4204 a single channel can control up to four management ports and two power ports. The USR4204 allows a remote manager to select and control ports via a simple menu-driven interface.

Security

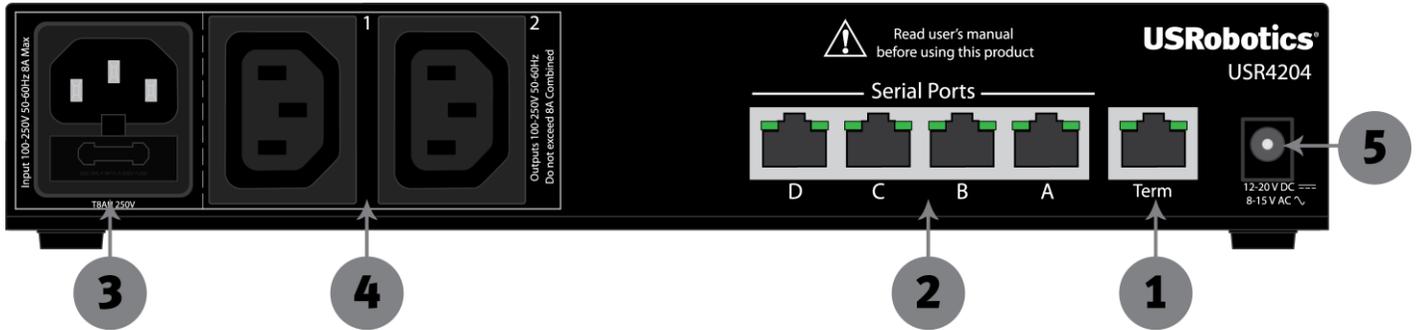
The USR4204 allows for one administrator and fifteen user accounts. The administrator can create, delete, or edit user accounts, and has access to all USR4204 configuration menus. The administrator can also assign access privileges for individual ports to each user. To deter unauthorized access the USR4204 is configured to lockout user or administrator accounts and display a security notification to users and the administrator in the event of three consecutive failed attempts to log in as a user or administrator.

Package Contents



- 1 USR4204
- 1 VersaPower Kit – Universal Power Supply
- 1 6-foot RJ45 rollover cable
- 1 RJ45-to-DB25M adaptor
- 1 RJ45-to-DB9F adaptor
- 2 Rackmount brackets
- 6 Bracket mounting screws
- 4 Rubber feet
- 1 Reference Guide

Physical Features



1. **Terminal Port** - RS-232 port for connection to modem or computer serial port to configure and manage the USR4204 and connected devices.

The terminal port supports an RS-232 asynchronous serial DTE connection via an RJ45 jack. See appendix A for pinout details. Terminal port activity can be monitored using the two adjacent LEDs. Both LEDs light when the terminal or modem connected to this port signals that it's ready to receive or transmit data. For a terminal it is the DTR signal, for a modem it is the DCD signal. The left LED flickers when data is transmitted from the terminal port, the right LED flickers when data is received by the terminal port.

2. **Serial Ports** - Connect RS-232 network devices with RJ45 cables for device management.

The four serial ports are RS-232 asynchronous serial DCEs presented on RJ45 jacks. See appendix A for pinout details. Each serial port is represented by two adjacent LEDs, which light when the port is selected. The left LED flickers when data is transmitted from the serial port, the right LED flickers when data is received by the serial port.

3. **Mains Input Port** - Connect a C13 power cord from a nearby power outlet to the mains input port to provide power to additional network devices.

The mains power input port is an IEC C14 fused inlet, rated for 8 amps maximum.

4. **Power Output Ports** - Connect power cords from up to two network devices (rated for a total of 8 amps combined) for individual power management.

The power out ports are IEC C13 outlets, individually rated for 8 amps maximum.



WARNING: The combined power requirement of the equipment connected to all the USR4204 outputs must not exceed the USR4204 maximum input rating of 8 Amps.

5. **External Power Supply Input** - Connect the included Versa Power Kit to power the USR4204.

The external power supply input delivers operating power to the USR4204 from the external low voltage power supply that is included with the product.

Getting Started – Local Access

This section describes how to verify the unit is operational. Once installed, this is also the setup process for local access. For detailed unit configuration and advanced operating features see [Physical Installation](#), [Remote Access](#), or [Product Operation](#).

Step 1: Confirm package contents and check system requirements:

- Computer terminal with a COM port
- Terminal emulation application

Step 2: Connect the VersaPower™ Kit to the USR4204

Use the included VersaPower power supply to power the USR4204. The VersaPower power supply includes blade clips compatible with mains power outlets in North America, UK, and Europe. Remove the plastic protector from the VersaPower base unit, and slide in the region-specific clip until it locks into place. Plug the power supply into a mains power outlet and connect the VersaPower output jack to the USR4204 external power supply input.

Step 3) Open a Terminal Emulation Application

Open a terminal emulation window on the computer and select the COM port corresponding to the computer's serial port (usually COM1). Set the port parameters for 9600bps, 8 data bits, no parity, 1 stop bit.



Refer to the terminal emulation application documentation for details on setting parameters. Please set your application's font for Courier, Courier New, or another fixed character width font to properly display the menus.

Step 4) Connect a PC to the USR4204

Plug the included RJ45-to-DB9F adaptor into the computer's DB9M serial port. Then connect the adaptor's RJ45 socket to the USR4204 terminal port using the included rollover cable.



If the terminal application raised the RS-232 DTR signal during initialization, the USR4204 terminal port LEDs will light and the USR4204 will automatically send its Main Menu screen to the terminal at 9600bps, 8N1 when you plug into the terminal port.

Step 5) Confirm communication with the USR4204

In the terminal emulation window hit **ENTER** to show the Main Menu screen. If the Main Menu does not appear on the terminal, remove power from the USR4204 and check the Troubleshooting section.

You can now see the USR4204 parameter settings or enter any command displayed in the Main Menu screen.

Congratulations!

The USR4204 is operational and ready to be installed at the equipment site.

Physical Installation

Standalone

To use the USR4204 on a flat, horizontal surface, affix the four adhesive rubber feet to the bottom of the housing in the four corners.

Rack Mounting

To mount the USR4204 in a 19" rack, securely fasten the two rackmount brackets to the sides of the USR4204 using the supplied hardware and mount the USR4204 in a 1U space in a 19" rack.



CAUTION: When the USR4204 is installed in a closed or multiunit rack assembly, be aware of these potentially hazardous situations:

- Elevated Ambient Operating Temperature – A USR4204 installed in a closed or multi-unit rack assembly may be subjected to an ambient operating temperature that exceeds room ambient temperature. Installing the equipment in an environment compatible with the maximum ambient temperature (Tmax) specified by the manufacturer is recommended.
- Reduced Air Flow – Ensure that the amount of airflow required for safe operation of the equipment is not compromised when a USR4204 is installed in a rack assembly.
- Mechanical Loading – Do not create a hazardous condition by mounting the USR4204 in a rack that results in uneven or unbalanced mechanical loading.
- Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Careful assessment and awareness of equipment nameplate ratings should be used.
- Reliable Earthing/Grounding - Reliable earthing/grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

Connecting Network Devices

Connecting to Network Device Console Ports

When connecting network device console ports the type of device will determine the type of cable required.

Console Port	Cable
RJ45 DTE	Straight Ethernet Cable
RJ45 DCE	Rollover Cable

Additional adapters may be required when connecting to console ports that use DB9 or DB25 connectors.

Connecting To Power Ports

Mains Input Port

The mains power input port is the source of power to both of the USR4204 power out ports. Connect an IEC C13 power cord with an 8A or better rating to this input. Connect the other end of the power cord to the AC mains power service outlet.



WARNING: For continued protection against fire, replace the line fuse only with a fuse of the same voltage, current rating, and type.

Power Out Ports

The power out ports provide power to attached equipment, and provide a means to measure the load current of each output port and to remove power from each port. Connect IEC C14 power cords with an 8A or better rating to these outputs. Connect the other end of the power cords to the equipment.



WARNING: The combined power requirement of the equipment connected to all the USR4204 outputs must not exceed the USR4204 maximum input rating of 8 Amps.

The power from these ports is 'on' by default, even when the USR4204 is unpowered. When a power port is switched 'off', both the LINE and NEUTRAL conductors are opened. If the USR4204 loses power while a port is 'off', the port will turn 'on', but when power is restored to the USR4204, the port will return to the 'off' state.

The AC current being sourced from each of the output ports is monitored by the USR4204 and the RMS value is displayed on the Main Menu. To update the value refresh the Main Menu by hitting the spacebar, ENTER key or by using the '-' command.

Remote Access

Setting Up

Confirm requirements:

- Computer terminal with a COM port
 - Terminal emulation application
 - Modem at the management site
 - Modem at the equipment site
- Access to phone line (analog connection only) or Cellular service (cellular connection only) at both locations

To remotely connect to the USR4204, the modem must be configured before connecting it to the USR4204 at the equipment site.

Configuring the Modem

The modem connected to the USR4204 must be pre-configured for result codes disabled, local echo disabled, auto-answer enabled, AT commands disabled ("Dumb mode"), and a fixed DTE rate of 9600bps, 8N1. To set the modem DTE rate, use a terminal set at 9600bps, 8N1 to send commands to the modem to establish the modem DTE rate. Disable result codes, disable local echo, enable auto-answer, and then store the updated settings into modem memory. Then disable AT commands, which is normally done by flipping a physical switch on the modem. Consult the modem's user guide for details.



The modem should not override the Carrier Detect signal and Error Correction should be enabled, which are typically default modem settings.



If the equipment being managed through the USR4204 uses serial rates different from 9600bps, XON/XOFF flow control may need to be enabled in the USR4204 and in the modem to prevent buffer overflow.

Connecting the Modem

Once the modem has been properly configured, it may be attached to the USR4204 terminal port and telephone line.

Modem Connector	Adaptors and Cables Needed
DB25F	Provided DB25 Adapter and provided RJ45 rollover cable.
DB9F	Select one of the following: <ul style="list-style-type: none"> • Purchase a RJ45-to-DB9M null modem adaptor and use the provided RJ45 rollover cable. • Purchase a RJ45-to-DB9M adaptor and use a straight Ethernet cable. • Purchase a DB25F-to-DB9M adaptor and use the provided RJ45-to-DB25M adaptor and RJ45 rollover cable. • See appendix A for the wiring diagrams for all options.

The attached equipment is now ready to be remotely managed.

Remotely connecting and managing using dialup

To connect to the USR4204 and manage the attached devices at the equipment site, the user will need a terminal emulation application, a connected modem, and a phone line at the management site.

From the terminal, dial the phone number of the modem at the equipment site.

Once the modems connect, the USR4204 will send the Main Menu or login prompt to the management terminal.



If the Main Menu or login prompt does not automatically appear hit **ENTER**. If the Main Menu or login prompt still does not appear on the terminal check the Troubleshooting section.

Product Operation

User interface

The USR4204 user interface is organized into menus. See Figure 1 for a map of all menus. Each menu contains commands, text, and status where appropriate. Commands listed on the following pages are shown within single quotes ('), programmable names are shown within double quotes ("). Commands are single characters that either perform an action or provide navigation to another menu. Commands are not case-sensitive. Text can be any alphanumeric or punctuation characters.



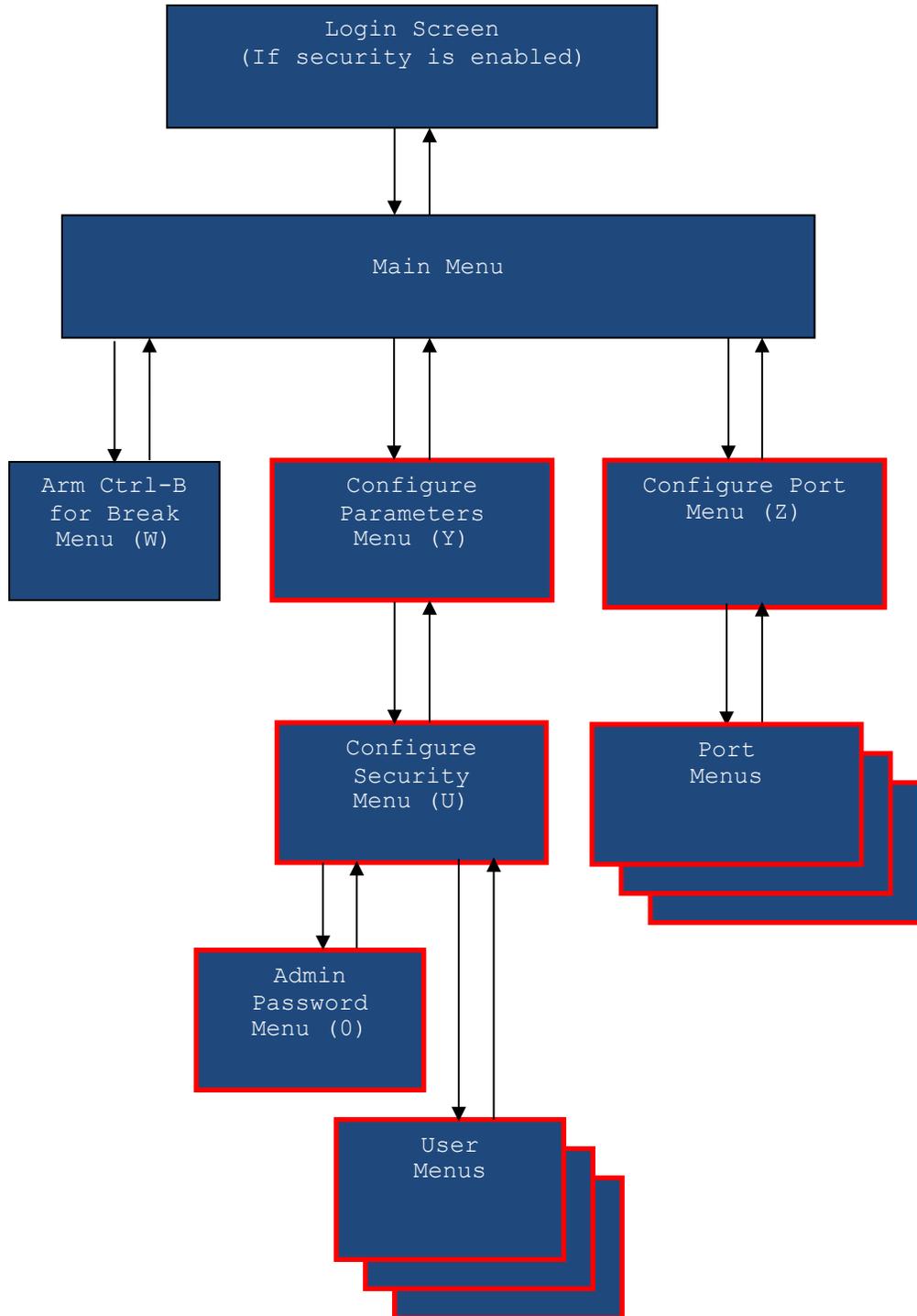
Alphanumeric and punctuation include all ASCII characters from 20h to 7Eh.

To access the User Interface open a terminal emulation window on a computer (using Courier or other fixed-width font) and connect to the USR4204 remotely via modem or locally via the terminal port using a rolled RJ45 cable. Hit **ENTER** to show the Main Menu screen. If security is enabled the login prompt will appear.



Hit the spacebar or the Enter key to refresh any Menu within the User Interface.

Figure 1



Note: Menus with red borders are not available to users if security is enabled

Command Reference

Command	Keystrokes	Availability
Connect to Port	Mm <i>PL</i>	NS, A, AU
Toggle Power Port On or Off	Mm P# (Y,N)	NS, A, AU
Arm Ctrl-B for Break	Mm W <i>PL</i>	NS, A, AU
Configure Port Parameters	Mm Z <i>PL</i>	NS, A
Rename Power Port	Mm Z P#	NS, A
Rename Console Port	Mm Z <i>PL</i> R	NS, A
Copy Baud Rate and Parity to all Console Ports	Mm Z <i>PL</i> C	NS, A
Change Console bps rate	Mm Z <i>PL</i> (1-9)	NS, A
Change Console parity	Mm Z <i>PL</i> (NEOMS)	NS, A
Configure Parameters	Mm Y	NS, A
Change Inactivity Timeout	Mm Y T	NS, A
Customize USR4204 Name	Mm Y R	NS, A
Change Char for Escape	Mm Y S	NS, A
Change Char for Menu	Mm Y M	NS, A
Change Char for Xon	Mm Y N	NS, A
Change Char for Xoff	Mm Y X	NS, A
Toggle Cellular Mode	Mm Q	NS, A, AU
Enter Login Banner	Mm Y W	NS, A
Enter Security Banner	Mm Y Y	NS, A
Toggle S/W Flow Control	Mm Y F	NS, A
Toggle Xon/Xoff Pass Thru	Mm Y P	NS, A
Toggle Command Echo	Mm Y E	NS, A
Toggle Auto CR	Mm Y A	NS, A
Toggle DCD Override	Mm Y D	NS, A
Toggle Security Banner	Mm Y B	NS, A
Config Security (Manage Users and turn on Security)	Mm Y U	NS, A
Load Factory Parameters	Mm Y &	NS, A
Flash New Code	Mm Y !	NS, A
Turn on Security/Create an Admin	Mm Y U 0	NS, A
Change Admin Username	Mm Y U 0 Y	NS, A
Change Admin Password	Mm Y U 0 Z	A
Create/Manage a User	Mm Y U <i>UID</i>	A
Change User Username	Mm Y U <i>UID</i> Y	A
Change User Password	Mm Y U <i>UID</i> Z	A
Remove all User Accounts including Admin. Turn off Security.	Mm Y U &	A
Change User Port Permissions	Mm Y U <i>UID</i> <i>PL/P#</i>	A
Deny Access to all Ports	Mm Y U <i>UID</i> W	A
Grant Access to all Ports	Mm Y U <i>UID</i> S	A
Turn User on or off	Mm Y U <i>UID</i> T	A
Toggle Administrator Privileges	Mm Y U <i>UID</i> P	A
Delete User	Mm Y U <i>UID</i> X	A
Return to parent menu	-	NS, A, AU
Logout	Mm X	A, AU

NOTE: Italics indicate that a specific port or user must be selected.
 Parentheses indicate multiple options – verify choice on screen.

Key:

Mm Main Menu

PL Console Port Letter (A-D)

P# Power Port Number (1-2)

NS No Security

A Admin

AU Approved user

UID User account number or letter (1-9, A-F)

Main Menu

```
T/O Esc Menu Xon Xoff Flow Pass Echo AutoCR DCD Banr
005 - - ^Q ^S OFF OFF ON ON OFF OFF
-----
MAIN Menu "USR4204 " Logged In: "Admin Username "

CMD
'A' Connect "Console A " ( 9600 None )
'B' Connect "Console B " ( 9600 None )
'C' Connect "Console C " ( 9600 None )
'D' Connect "Console D " ( 9600 None )

'1' Toggle "Power 1 " (ON 0.0 Amps)
'2' Toggle "Power 2 " (ON 0.0 Amps)

'Q' Toggle Cellular Mode (OFF)
'W' Arm Ctrl-B for Break
'X' Logout
'Y' Config Parameters
'Z' Config Ports

'- ' Refresh MAIN Menu
```

At the top of the Main Menu is a banner that displays the current system parameters. Below the banner are the menu name, the user-programmable device name, and the current login name (if security is enabled). Next is a list of valid commands, text, and status. Invalid commands are ignored.



Commands listed in this guide are shown within single quotes ('), programmable names are shown within double quotes (")

'A'-'D' Connect to Console

A Connect command creates a full duplex data connection between the USR4204 terminal port and one of its serial ports. The terminal port is fixed at 9600bps, 8N1. The rate and format of serial ports are programmable to match the console port of the attached equipment. The current serial port parameters are shown in parentheses next to the port name.



To close a connection to a serial port, use the Escape Sequence. The Escape Sequence consists of three identical characters typed rapidly without surrounding characters. The default Escape character is "-" and is shown in the banner on the Main Menu.

'1'-'2' Toggle Power Port

A Toggle command controls a power port. When a Toggle command is entered, power from the mains power input is disconnected or reconnected to the corresponding output after

entering a 'Y' at the "Are you sure?" prompt. The current power port state (ON or OFF) and RMS load current are shown in parentheses next to the port name.

To update the value refresh the Main Menu by hitting the spacebar, ENTER key, or by using the Refresh Menu (default '-') command.

'Q' Toggle Cellular Mode

Each press of the 'Q' command cycles from 0 (OFF) through 7.

OFF: The Escape Sequence behaves normally for analog modem connections. Three consecutive characters (default '-') causes a disconnect from a Serial Port connection. There is a one second maximum guard time allowed between the characters.

1-7: These settings are for Cellular (packet) connections, where large variations in latency may occur. The specified number (1 thru 7) of the programmed escape sequence characters (default '-') causes a disconnect from a Serial Port connection. The one second maximum guard time limit is disabled.

'W' Arm Ctrl-B for Break

Navigate to the Arm Ctrl-B for Break Menu for selection of which serial port will enable and send a break signal.

'X' Logout

The Logout command ends a secure session and sends the Login screen to the terminal. It is only available when security is on.

'Y' Configure Parameters

Navigate to the Configure Parameters Menu with this command.

'Z' Configure Ports

Navigate to the Configure Ports Menu with this command.



The Configure Parameters and Configure Ports commands are available only to the administrator, or if security is off.

'-' Refresh MAIN Menu

Refresh Main Menu banner with current system parameters and update current status for each port with this command.



The spacebar or the Enter key may also be used to refresh the Main Menu.

Arm Ctrl-B for Break Menu (Main Menu → W)

```
'W' Arm      Ctrl-B for Break - Select Port:

CMD
'A' Connect "Console A      " ( 9600 None )
'B' Connect "Console B      " ( 9600 None )
'C' Connect "Console C      " ( 9600 None )
'D' Connect "Console D      " ( 9600 None )

'- ' Refresh MAIN Menu
```

At the top of the Arm Ctrl-B for Break Menu is the menu name. Below that is a list of valid commands, text, and status. Invalid commands are ignored.

'A'-'D' Connect to Console

A Connect command creates a full duplex data connection between the USR4204 terminal port and one of its serial ports, and arms a control-B character. While connected to the selected port, the user must manually send a RS-232 break signal by hitting the Ctrl-B keys at the appropriate time. Once Ctrl-B has been entered any subsequent Ctrl-B characters will be recognized as ordinary data instead of breaks.

The current serial port parameters are shown in parentheses next to the port name.



To close a connection to a serial port, use the Escape Sequence. The Escape Sequence consists of three identical characters typed rapidly without surrounding characters. The default Escape Sequence command is "---".

Configure Ports Menu (Main Menu → Z)

```

Configure Ports Menu "USR4204"

CMD
'A' Config "Console A" ( 9600 None )
'B' Config "Console B" ( 9600 None )
'C' Config "Console C" ( 9600 None )
'D' Config "Console D" ( 9600 None )

'1' Rename "Power 1" (ON 0.0 Amps)
'2' Rename "Power 2" (ON 0.0 Amps)

'- ' Return to MAIN Menu
    
```

At the top of the Configure Ports Menu are the menu name and the user-programmable device name. Below that is a list of valid commands, text, and status. Invalid commands are ignored.

'A'-'D' Config Console Port

Navigate to the Port Menu of the corresponding serial port to change the rate, format, or name of the selected port with this command. The current serial port parameters are shown in parentheses next to the port name.

'1'-'2' Rename Power Port

Navigate to the Rename screen of the corresponding power port to change the name of a power port with this command. The port name may be up to 32 (displayable) characters in length. The current power port state (ON or OFF) and RMS load current are shown in parentheses next to the port name.

'-' Return to MAIN Menu

Navigate back to the Main Menu with this command.

Port Menus (Main Menu → Z → Port Letter or number)

```

Menu for "Console A" ( 9600 None )

CMD          CMD
'1'   300 bps  'N' 8 Data Bits, Parity None
'2'   1200 bps 'E' 7 Data Bits, Parity Even
'3'   2400 bps 'O' 7 Data Bits, Parity Odd
'4'   4800 bps 'M' 7 Data Bits, Parity Mark
'5'   9600 bps 'S' 7 Data Bits, Parity Space
'6'  19200 bps
'7'  38400 bps
'8'  57600 bps
'9' 115200 bps

'R' Rename "Console A"
'C' Copy This Baud/Parity to All Console Ports

'- ' Return to Configure Ports Menu

```

At the top of the Port Menu are the menu name, the user-programmable port name, and the current serial port parameters. Below that is a list of valid commands and text. Invalid commands are ignored.

'1'-'9' Change bps

Use a bps command to change the rate of the selected serial port.

'N', 'E', 'O', 'M', 'S' Change Parity

Use a Parity command to change the format of the selected serial port.

'R' Rename

Rename the serial port with this command. It navigates to the Rename screen. The port name may be up to 32 (displayable) characters in length.

'C' Copy This Baud/Parity to All Console Ports

Set all serial ports to the rate and format of the selected port with this command.

'-' Return to Configure Ports Menu

Navigate back to the Configure Ports Menu with this command.

Configure Parameters Menu (Main Menu → Y)

```

T/O Esc Menu Xon Xoff Flow Pass Echo AutoCR DCD Banr
005 - - ^Q ^S OFF OFF ON ON OFF OFF
-----
Configure Parameters Menu Ver 1.12 09/18/13 S/N: 1ME4Z7PM0004

CMD                                CMD
'T' Change Inactivity Timeout      'R' Rename System
'S' Change Char for Escape          'M' Change Char for Menu
'N' Change Char for Xon             'X' Change Char for Xoff
'W' Enter Login Banner              'Y' Enter Security Banner

'F' Toggle S/W Flow Control         'P' Toggle Xon/Xoff Pass Thru
'E' Toggle Command Echo             'A' Toggle Auto CR
'D' Toggle DCD Override             'B' Toggle Security Banner
'U' Config Security                 '&' Load Factory Parameters

'-' Return to MAIN Menu             '!' Flash New Code
    
```

At the top of the Configure Parameters Menu is a banner that displays the current system parameters. Directly below the banner are the menu name, the user-programmable device name, the firmware version number and date, and the serial number of the USR4204. Below that is a list of valid commands and text. Invalid commands are ignored.

'T' Change Inactivity Timeout

The USR4204 will close a serial port if no data passes in or out of the terminal or serial port before this inactivity time lapses. If security is enabled, the session will also logout.

Valid range: 0 to 255 minutes (0 disables the timer)

Default: 005

'R' Rename

Rename the USR4204 with this command. It navigates to the Rename screen. The USR4204 name may be up to 32 (displayable) characters in length.

Default: USR4204

'S' Change Char for Escape

Change the Escape Sequence character with this command. It navigates to the Change Character screen.

The Escape Sequence may be disabled by programming this character to a control-\. To enter control-\ in the Change Character screen, hold down the Ctrl key and press \

Default: "-"



Hexadecimal 1Ch is ASCII character ^\ (Ctrl-\\).

'M' Change Char for Menu

Change the character for the View Menu command with this command. It navigates to the Change Character screen.

Default: "-"

'N' Change Char for Xon

Change the character used for Xon flow control with this command. It navigates to the Change Character screen.

Default: 11h



Hexadecimal 11h is ASCII character ^Q (Ctrl-Q).

'X' Change Char for Xoff

Change the character used for Xoff flow control with this command. It navigates to the Change Character screen.

Default: 13h



Hexadecimal 13h is ASCII character ^S (Ctrl-S).

'W' Enter Login Banner

When security is enabled, the USR4204 will present this greeting followed by a login prompt. This command navigates to the Change Banner screen. The banner may be up to 64 (displayable) characters in length.

Default: **USRobotics Console Server & Power Switch**

'Y' Enter Security Banner

If security and the security banner are enabled, the USR4204 will present a security banner prior to the login banner. This command is only available when security is on and navigates to the Change Banner screen. The banner may be up to 256 (displayable) characters in length. Each occurrence of '\n' (newline) will be replaced with a carriage return/line feed pair.

Default: empty (nulls)

The security banner is enabled or disabled by the 'B' command in the Configure Parameters Menu.

'F' Toggle S/W Flow Control

Enable or disable Xon/Xoff flow control for the terminal port and all serial ports with this command.

Default: Off



If S/W flow control is desired, it must be enabled on both the USR4204 and the modem.

'P' Toggle Xon/Xoff Pass Thru

Xon/Xoff flow control characters are allowed to pass through the terminal port and all serial ports with this command.

Default: Off

'E' Toggle Command Echo

The terminal port can echo back to the terminal all valid commands and text it received. Disable or re-enable echoing with this command.

Default: On

'A' Toggle Auto CR

The terminal port can accept single digit commands without an explicit carriage return (0Dh). Disable or re-enable Auto CR with this command.

Default: On

'D' Toggle DCD Override

The terminal port can monitor the incoming DCD (or DTR) signal. When DCD is not overridden, a rising edge will cause the terminal port to send the main menu or the login prompt. A falling edge will close any open serial port, and logout the session if security is enabled. Enable or disable DCD override with this command.

Default: Off

'B' Toggle Security Banner

If security is enabled, the USR4204 may present a security banner ahead of the login prompt. Enter the security banner text with the 'Y' command in the Configure Parameters

Menu. Enable or disable the security banner with this command, which is available only when security is on.

Default: Off

'U' Config Security

Setup and manage Administrator or User accounts with this command. It navigates to the Configure Security Menu.

'&' Load Factory Parameters

Restore factory defaults to all system parameters shown in the banner with this command.

'-' Return to MAIN Menu

Navigate back to the Main Menu with this command.

'!' Flash New Code

The USR4204 erases current firmware and prepares for new firmware file to be installed. See [Flashing the Firmware](#) for detailed instructions.

Security features

The USR4204 defaults to security disabled. To enable security create an Admin user. From the Main Menu go to the Configure Parameters Menu ('Y'), then Config Security ('U'), then Select Admin ('0'), and enter an Administrator name and password.

When security is enabled:

- The Administrator has access to all ports and menus. Users have access to ports allowed by the Administrator.
- Up to fifteen User accounts may be created, edited, or deleted by the Administrator. Each User may be granted or denied access to each serial and power port.
- Only the Administrator has access to configuration menus.
- Individual Users may be granted Administrator privileges
- The USR4204 will generate a notification if three consecutive login attempts fail. The notification is displayed prior to the Main Menu Screen following a successful login. A successful Administrator login clears the notification.
- If the three consecutive failed login attempts match a registered username, that user account will be disabled until the administrator re-enables it.
- Disable security by deleting the admin account. The administrator account can only be deleted by removing all accounts in the Configure Security Menu.



If the three consecutive failed login attempts match the administrator name, the administrator account will be disabled. The administrator account can only be re-enabled from the remote site with the

USR4204. See "[Clearing A Forgotten or Disabled Administrator Name and Password](#)" for details.

See [FAQs and Troubleshooting](#) for suggested security guidelines.

Config Security Menu (Main Menu → Y → U)

```

Configure Security Menu (current enabled state in parentheses below)

CMD                                CMD
'0' Select "Admin Username " Admin '8' Select " " (OFF)
'1' Select " " (OFF) '9' Select " " (OFF)
'2' Select " " (OFF) 'A' Select " " (OFF)
'3' Select " " (OFF) 'B' Select " " (OFF)
'4' Select " " (OFF) 'C' Select " " (OFF)
'5' Select " " (OFF) 'D' Select " " (OFF)
'6' Select " " (OFF) 'E' Select " " (OFF)
'7' Select " " (OFF) 'F' Select "User 15 " (ON )

'-' Return to Config Parameters Menu '&' Remove ALL Accounts
    
```

At the top of the Configure Security Menu is the menu name. A list of valid commands, text, and status follows. Invalid commands are ignored.

Use a Select command (see below) to set up the Administrator and up to 15 User accounts.

'0' Select Admin

Navigate to the Administrator Menu with this command. It is the only command available if security is off. Use this command to setup the Administrator account and turn on security.

'1'-'9' and 'A'-'F' Select User

Navigate to the corresponding User Menu with this command. The current User status (ON/OFF) is shown in parentheses next to the User name. Use this command to setup a User account.



NOTE: To re-enable a disabled or locked out user, select the user then Toggle the User Enable status to 'ON'.

'-' Return to Configure Parameters Menu

Navigate back to the Configure Parameters Menu with this command.

'&' Remove ALL Accounts

Disable security and clear all user accounts including the Administrator with this command. There is a confirmation prompt before deletion.

Administrator Password Menu (Main Menu → Y → U → 0)

```
"Admin Username " Admin Password Menu
CMD
'Y' Change Username
'Z' Change Password
'- ' Return to Configure Security Menu
```

At the top of the Administrator Password Menu is the programmable Administrator name and the menu name. Below that is a list of valid commands. Invalid commands are ignored.

'Y' Change Username

This command navigates to the Change Administrator username screen. The username may be up to 16 (displayable) characters in length.

'Z' Change Password

Use the Change Password command to enter the Administrator password on the Change Password screen. The password may be up to 13 (displayable) characters in length.

The Change Password command appears only after a Username is entered.



Administrator username and password are case-sensitive.



Security is enabled by entering an Administrator username and password.

'-' Return to Configure Security Menu

Navigate back to the Configure Security Menu with this command.



Do not forget the administrator name and password! Record and store all Administrator and User information in a secure location. The recovery method requires you to be at the physical location of the USR4204. See "[Clearing A Forgotten or Disabled Administrator Name and Password](#)" for details.

User Menu (Main Menu → Y → U → number or letter of user)

```
"User 15          " User Menu (current permissions in parentheses below)
CMD
'A' Toggle  "Console A           " (ON )
'B' Toggle  "Console B           " (ON )
'C' Toggle  "Console C           " (ON )
'D' Toggle  "Console D           " (ON )

'1' Toggle  "Power 1             " (ON )
'2' Toggle  "Power 2             " (ON )

'Y' Change  Username
'Z' Change  Password
'W' Deny    All Permissions
'S' Grant   All Permissions
'T' Toggle  User Enable (ON )
'P' Toggle  Admin Privil (OFF)
'X' Delete  User

'-' Return  to Configure Security Menu
```

At the top of the User Menu are the programmable User name and the menu name. Below that is a list of valid commands, text, and status. Invalid commands are ignored.

Only the Change Username command ('Y') appears until a Username is entered.

'A'-'D', '1'-'2' Toggle Port Permissions

Grant or deny access to the corresponding port for the selected User.

'Y' Change Username

This command navigates to the Change Username screen. The username may be up to 16 (displayable) characters in length, but may not be blank. Usernames are case-sensitive.

'Z' Change Password

Use the Change Password command to enter the password on the Change Password screen. The password may be up to 13 (displayable) characters in length. Passwords are case-sensitive.



A User account password is optional. If no password is entered, the User can hit the enter key to skip the password prompt in the Login Screen.

'W' Deny All Permissions

Deny the selected User access to all ports with this command.

'S' Grant All Permissions

Grant the selected User access to all ports with this command.

'T' Toggle User Enable

Enable or disable the selected User's login with this command. Current status is indicated in parentheses.

'P' Toggle Administrator Privileges

Enable or disable Administrator privileges to a User with this command. Current status is indicated in parentheses.

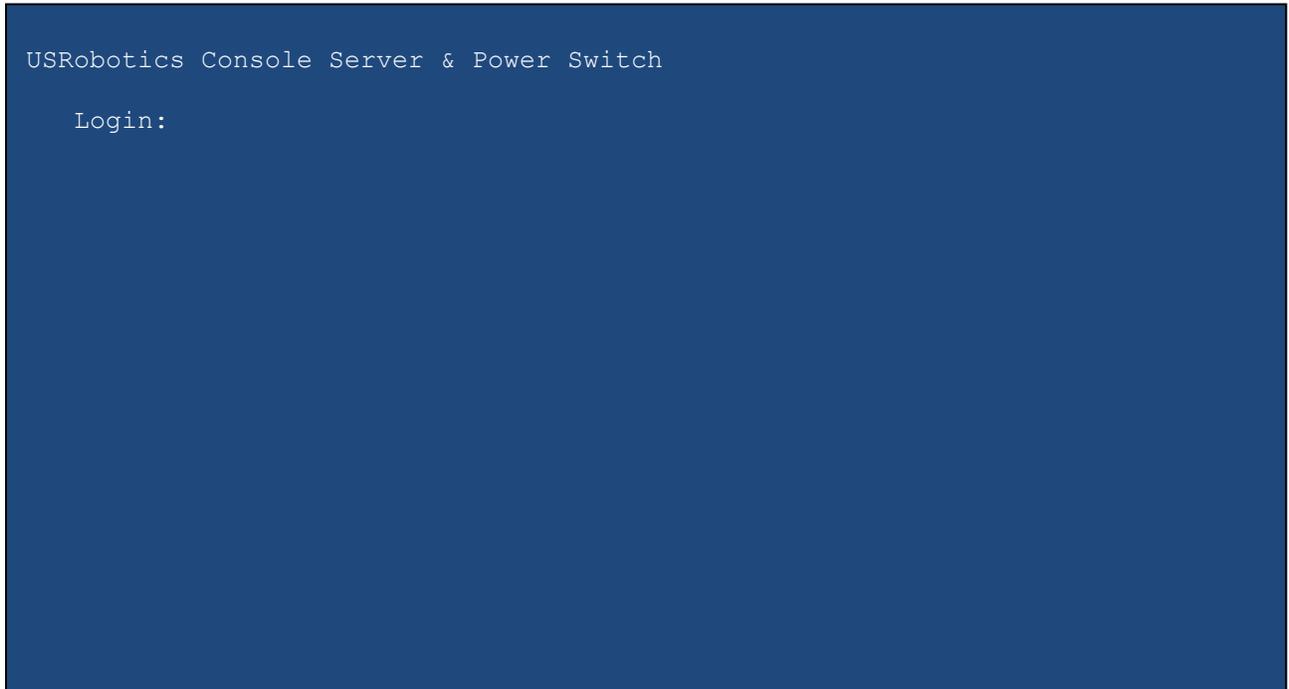
'X' Delete User

Remove all User information including permissions, username, and password with this command. Delete users with this delete command or the Remove All Accounts command in the Configure Security Menu.

'-' Return to Configure Security Menu

Navigate back to the Configure Security Menu with this command.

Login Screen



Once security is enabled the user interface will always first display the Login Screen until security is disabled. The Administrator or any enabled User may login from this screen.

Flashing the firmware

The USR4204 uses two pieces of flash memory for its operation – boot code and system code. Flashing the firmware replaces the system code.

Before flashing, the firmware file must already be downloaded from the USR4204 support webpage to a hard drive accessible from the management terminal. **Note the location of the file. Also, be sure to note how to send files with the terminal application being used. Read all steps for flashing the firmware before you begin.**

Step 1: Choose the *Flash New Code* command ('!') from the Configure Parameters Menu to put the USR4204 into Boot Mode.

Step 2: At the "Are you sure?" prompt, type 'Y'.



NOTE: To abort or to exit Boot Mode without flashing, type '!' at the Boot> prompt. The USR4204 restarts and goes to Main Menu (or Login screen if security is on).



WARNING: Step 3 erases system code. The system will no longer be operational until firmware is uploaded.

Step 3: Type '#\$%' at the Boot> prompt. "Please wait" will appear while the system code is erased. When complete, "LOAD HEX FILE" appears. The USR4204 is now in file receive mode.



NOTE: File upload must be started within 30 seconds or you will be returned to the Boot> prompt. To continue the upload process from the Boot> prompt, repeat step 3.

Step 4: Use an application (HyperTerminal, ProComm Plus, etc.) to send the .hex file (in ASCII) to the USR4204. The process will take about 30 seconds. When complete, the USR4204 restarts and goes to Main Menu (or Login screen if security is on).



If upload is interrupted or the file is corrupt, the USR4204 will return to the Boot> prompt. Check the Troubleshooting Section for possible causes.

Adding More Ports

If more serial or power ports are needed, purchase an additional USR4204 (slave) and connect it to the master USR4204.

Attaching a Slave USR4204

Use a straight Ethernet cable (see appendix A) to connect any available USR4204 serial port to the terminal port of the slave USR4204. The serial port parameters must be 9600bps, 8N1.

Addressing the Slave USR4204

To access the menus of the slave USR4204, select the serial port that connects it to the master USR4204 from the Main Menu. Enter any command in the slave USR4204 Main Menu, including the View Menu command (hit **ENTER**). To return to the master USR4204 Main Menu, type the USR4204 escape code (default "---").



NOTE: It is recommended to rename each USR4204 to a unique name for easier identification.



If the slave USR4204 has a serial port selected, the escape code will close the port, exit from the slave USR4204, and return to the master USR4204 Main Menu.

Security Considerations

If the master USR4204 has security enabled, the administrator should choose whether security is disabled or enabled in the slave USR4204.

If the administrator chooses to allow users access to all menus and ports in the slave USR4204, security must be disabled in the slave USR4204. Users that log in to the master USR4204 and have permission to access the serial port connected to the slave USR4204 will then have access to all menus and ports in the slave USR4204.

If the administrator chooses to restrict users from accessing configuration menus and certain ports in the slave USR4204, the slave USR4204's security must be enabled. The administrator must create additional user accounts in the slave USR4204, and set each of those user's permissions to access ports. Users that log-in to the master USR4204 and have permission to the serial port connected to the slave USR4204 will have to enter a valid username and password into the slave USR4204 to access its ports.

Technical Specifications

Electrical

RS-232 DTE Terminal Port

- Data rate: 9600 bps
- Asynchronous data format: 8 data bits, no parity, 1 stop bit
- 4-wire interface: RXD, TXD, DTR, DSR (See appendix A for pinout)

RS-232 DCE Serial Ports

- Supported data rates: 115200, 57600, 38400, 19200, 9600, 4800, 2400, 1200, and 300 bps
- Supported asynchronous data formats:
 - 8 data bits, no parity, 1 stop bit
 - 7 data bits, odd parity, 1 stop bit
 - 7 data bits, even parity, 1 stop bit
 - 7 data bits, mark parity, 1 stop bit
 - 7 data bits, space parity, 1 stop bit
- 2-wire interface: RXD, TXD (See appendix A for pinout)

Mains Power Input Port

- Connector: IEC C14
- Voltage: 250 Vac maximum
- Current: 8A maximum continuous
- Fuse: 8A, 250 Vac, 5 x 20mm, time-delay, ceramic (IEC type T8AH250V)

Power Output Ports

- Connector: IEC C13
- Voltage: 250 Vac maximum
- Current: 8A maximum continuous
- Switching: 2-pole, normally closed (2 Form B)
- Current measurement range: 0-8.5 A (RMS)
- Current measurement accuracy: ± 0.2 A

Power supply input

- Voltage: 12-20 Vdc (either polarity), or 8-15 Vac
- Plug dimensions: 5.5mm o.d. x 2.5mm i.d. x 9.5mm length

Power Consumption

- 1.5 W (typical)
- 1.8 W (maximum)

Environmental

Temperature

- Operating Temperature conditions: 0 to 50 degrees C,
- Non-Operating Temperature conditions: -20 to 70 degrees C

Humidity

- Operating Humidity conditions: 20% to 80% non-condensing,
- Non-Operating Humidity conditions: 5% to 95% non-condensing

Product Dimensions and Weights

Dimensions

- W x H x L: 9.96 x 1.71 x 7.75 in (25.3 x 4.34 x 19.7 cm) (without rubber feet)
- W x H x L: 9.96 x 1.94 x 7.75 in (25.3 x 4.92 x 19.7 cm) (with rubber feet)
- 1U 19" rack space (with rack brackets attached)

Weight

- 2.25 lbs (1.02 kg)

FAQs and Troubleshooting

General

If you have trouble with the USR4204 first try the following:

- Try removing the power and repeating the setup process.
- Make sure the correct COM port was selected.
- Make sure the modem was setup properly.
- Make sure the power supply is plugged in to an operational power outlet, and that the power supply is also securely plugged into the unit.
- Verify all cables and adaptors are correct for the type of ports.
- When connected hit **ENTER** to see if the Main Menu appears on the terminal.

Configuring the USR4204

How to configure flow control in a setup with added ports:

To enable flow control on a slave USR4204, both the slave and the modem need to have flow control enabled, but the master must have flow control turned OFF. When two or more slave USR4204s are chained to a single master serial port, enable flow control in the modem and only the last slave USR4204 in the chain.

Remote Management

Management modem fails to connect to remote modem:

- Refer to your modem troubleshooting documentation.
- Check modem phone numbers

Modems connect but fail to show USR4204 interface on the management terminal:

- Check for carrier detect override (hit **ENTER**)
- Try general USR4204 troubleshooting.

Flashing firmware

Possible Causes for firmware flash failure:

- Phone line was disconnected. Confirm it is connected and functional, then reconnect and try firmware flash again.
- File was corrupt. Re-download file and try firmware flash again.
- Firmware flash continues to fail. Try firmware flash again using previous working version or original firmware available from usr.com.

Clearing A Forgotten or Disabled Administrator Name and Password

Disconnect the low voltage power supply from the USR4204, connect a straight Ethernet cable from the USR4204 terminal port to serial port A, and then re-apply power to the USR4204. The USR4204 will clear the administrator name and password. You may then connect a terminal to the USR4204 terminal port to enter a new administrator name and password. User accounts are unaffected.

Suggested Security Guidelines

Creating usernames and passwords

- Create Usernames and Passwords that are not easy to guess.
- Use at least 8 characters.
- Use upper/lowercase letters, numbers, and punctuation characters.
- Consider using 2 spaces instead of 1 between words.
- Consider beginning with a space, a number, or a punctuation character.
 - Example: "John Smith" might be better as " J0hn \$m!Th"

Hacker consequences

- If someone tries to hack in with a valid Username three consecutive times, that user will be locked out until the administrator re-enables the account.
- If the hacked Username is the Administrator's, the above procedure (**Clearing a Forgotten or Disabled Administrator Name and Password**) will be required on-site. (i.e. don't use "admin")

Security Features to use or enable

- Don't disable the Inactivity Timer. This ensures that the system is available for users who are actually using it.
- Program the Security Banner. Use warning text appropriate for your installation.

What are "displayable characters"?

"Displayable characters" are all chars from 20h thru 7Eh.

What are programmable characters?

All 4 of the programmable characters (escape sequence, return to parent menu, Xon, Xoff) can be any of the following displayable characters:

% () * - / @ [\] _ { | } ~

Or any of the following control characters: A B C D E F G I K L N O P Q R S T U V W X Y Z \] ^ _

Temporarily disabling Security

There is no way to temporarily disable security. The Admin must be deleted using the "Remove all Accounts" command, which will turn off security and remove all accounts that were created. To turn security back on, a new Admin must be created as well as any other accounts and permissions.

Is there a maximum number of slave units that can be attached to a master USR4204?

No, there is no maximum. But as the hierarchy grows, the path can become more complicated - especially if security is on, as each step in the path would require a separate username and password.

Rackmounting the USR4204 with the back panel facing out

When rackmounted, the USR4204 front panel will face out by default, but it can be rackmounted with the back panel facing out.

1. WARNING: Remove all power cords from the USR4204 to prevent shock hazard.
2. Unscrew and remove the rackmount brackets if necessary.
3. Unfasten the top housing by unscrewing the six (6) Phillips-head screws. Save the screws for step 5.
4. Remove the top housing and position it so the bracket mounting holes are near the rear panel.
5. Replace the top housing and fasten it with the six (6) Phillips-head screws.
6. Follow the instruction in the Physical Installation section to attach the rackmount brackets to the USR4204 and install in a rack.

If these troubleshooting tips did not solve your issue contact USRobotics technical support.

Support

1. Be prepared to provide model and serial numbers.

Product	Model Number
USRobotics Console Server & Power Switch	4204

The USR4204 serial number is on the side of the package, bottom of the unit, and listed in the user interface at the top right of the Configure Parameters Menu.

2. Visit the Support section of the USRobotics Web site at www.usr.com/support/4204

Many of the most common issues that users experience have been addressed in the FAQ and Troubleshooting Web pages for the USR4204. The Support Web pages also contain information on the latest firmware and documentation updates.

3. Submit a technical support question to the USRobotics Technical Support Department using an online form:

Country	Webmail
United States & Canada	http://www.usr.com/emailsupport

Country	Webmail
Austria	www.usr.com/emailsupport/de
Belgium (Flemish)	www.usr.com/emailsupport/nl
Belgium (French)	www.usr.com/emailsupport/be
Czech Republic	www.usr.com/emailsupport/cz
Denmark	www.usr.com/emailsupport/ea
Finland	www.usr.com/emailsupport/ea
France	www.usr.com/emailsupport/fr
Germany	www.usr.com/emailsupport/de
Greece	www.usr.com/emailsupport/gr
Hungary	www.usr.com/emailsupport/hu
Ireland	www.usr.com/emailsupport/uk
Italy	www.usr.com/emailsupport/it
Luxembourg	www.usr.com/emailsupport/be
Netherlands	www.usr.com/emailsupport/nl
Norway	www.usr.com/emailsupport/ea
Poland	www.usr.com/emailsupport/pl

USR4204 User Guide

Country	Webmail
Portugal	www.usr.com/emailsupport/pt
Russia	www.usr.com/emailsupport/ru
Spain	www.usr.com/emailsupport/es
Sweden	www.usr.com/emailsupport/se
Switzerland	www.usr.com/emailsupport/de
Turkey	www.usr.com/emailsupport/tk
United Kingdom	www.usr.com/emailsupport/uk

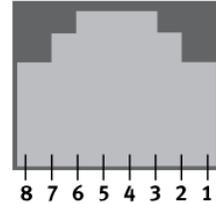
For additional current support contact information, go to: www.usr.com/international.asp

Appendix A

Terminal Port and Serial Port RJ45 Pinout

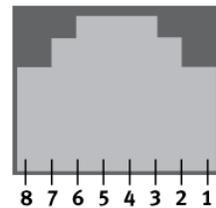
Terminal Port RJ45 Pinout

RJ45 Pin	Symbol	Description	Direction
1	RTS	Loop to pin 8	Output
2	DTR	Data Terminal Ready	Output
3	TXD	Transmit Data	Output
4	GND	Ground	-
5	GND	Ground	-
6	RXD	Receive Data	Input
7	DSR	Data Set Ready	Input
8	CTS	Loop to pin 1	Input



Serial Port RJ45 Pinout

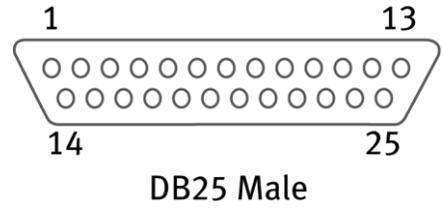
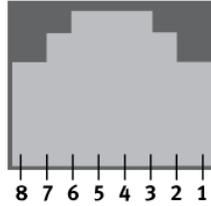
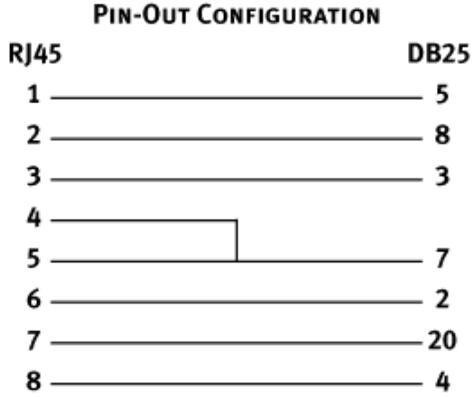
RJ45 Pin	Symbol	Description	Direction
1	CTS	Loop to pin 8	Input
2	DTR	Loop to pin 7	Input
3	RXD	Receive Data	Input
4	GND	Ground	-
5	GND	Ground	-
6	TXD	Transmit Data	Output
7	DSR	Loop to pin 2	Output
8	RTS	Loop to pin 1	Output



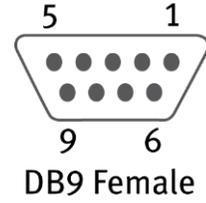
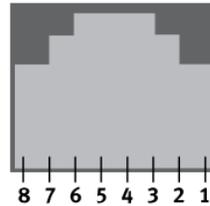
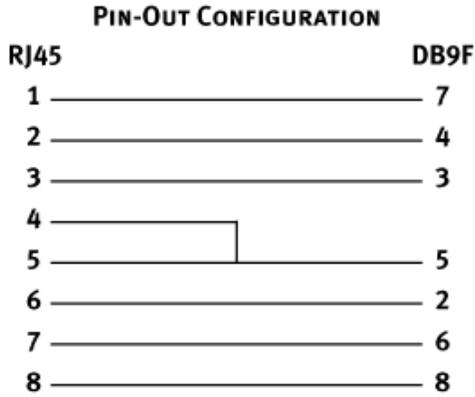
RS-232 Adaptor Pinouts

RS-232 Adaptors

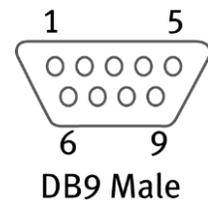
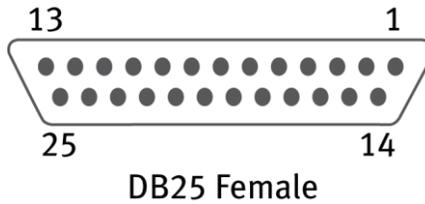
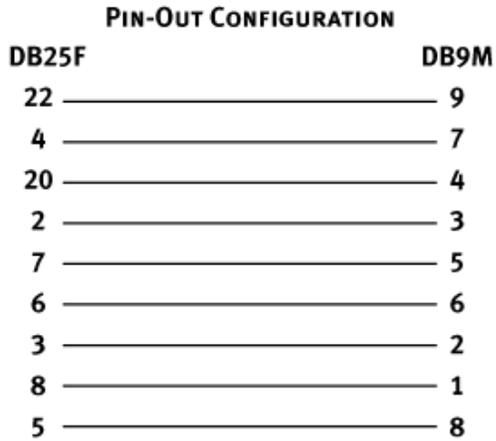
RJ45-to-DB25M



RJ45-to-DB9F

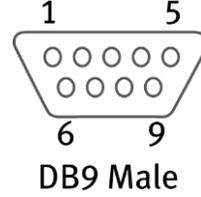
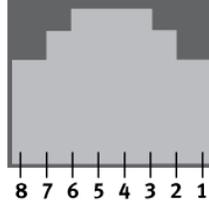
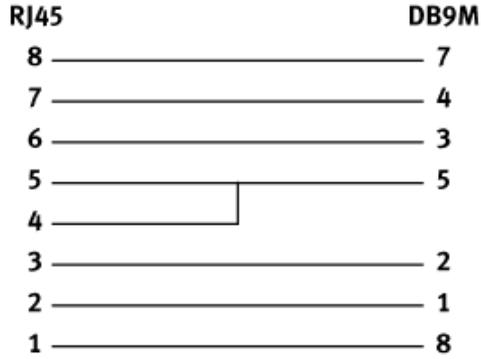


DB25F-to-DB9M



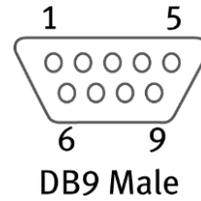
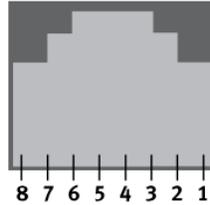
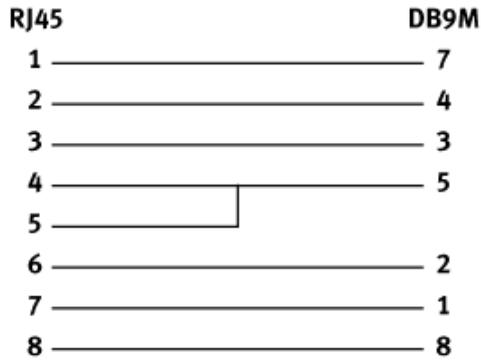
RJ45-to-DB9M Null Modem

PIN-OUT CONFIGURATION



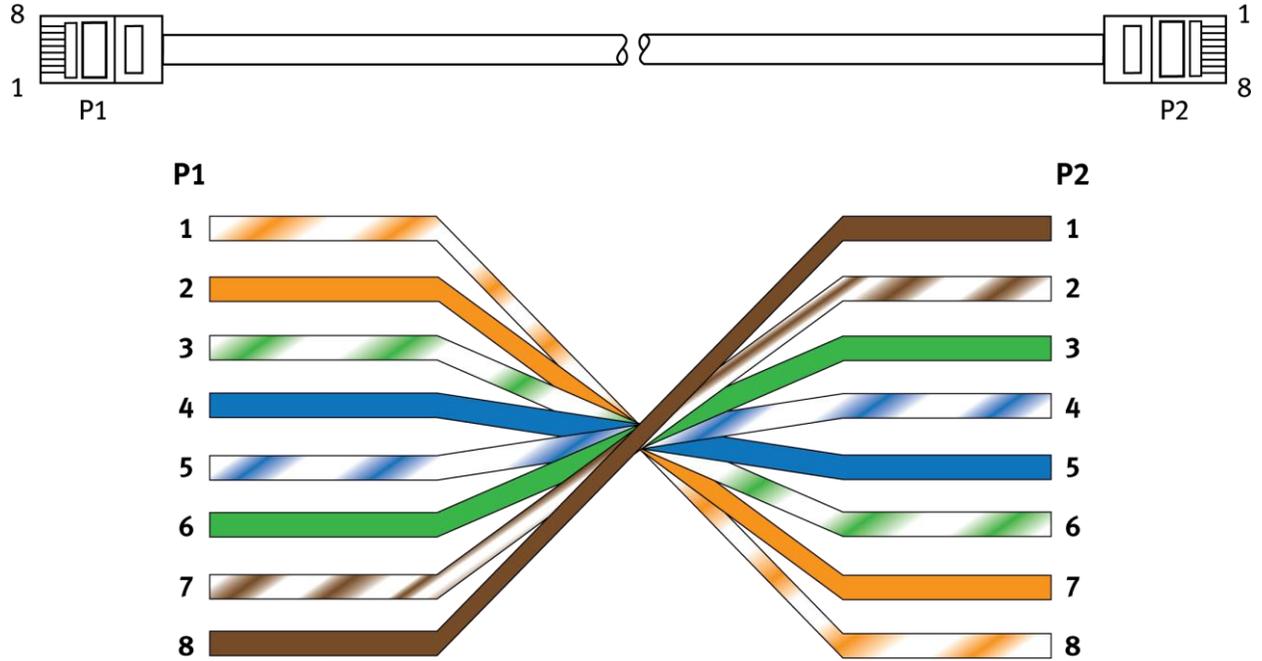
RJ45-to-DB9M

PIN-OUT CONFIGURATION

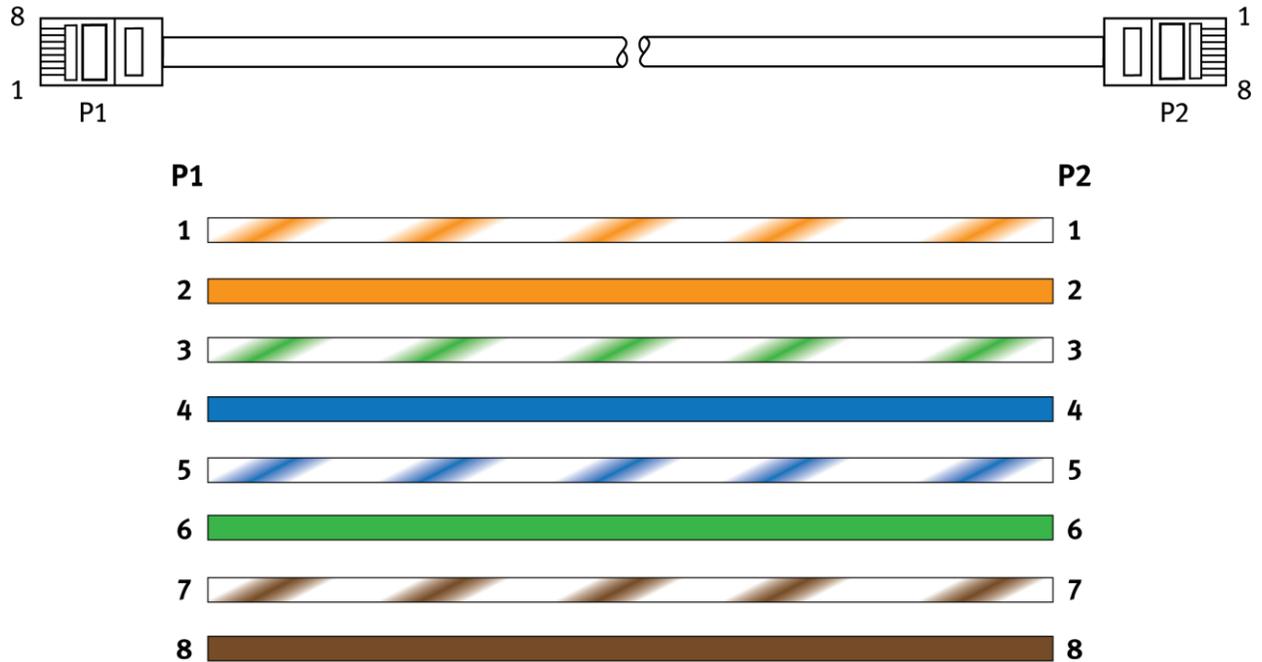


Straight and Rollover Cables

Rollover Cable



Straight Cable



Legal Notice

The information in this publication is subject to change without notice and is provided "AS IS" WITHOUT WARRANTY OF ANY KIND. THE ENTIRE RISK ARISING OUT OF THE USE OF THIS INFORMATION REMAINS WITH RECIPIENT. IN NO EVENT SHALL U.S.ROBOTICS BE LIABLE FOR ANY DIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE OR OTHER DAMAGES WHATSOEVER (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION OR LOSS OF BUSINESS INFORMATION), EVEN IF U.S.ROBOTICS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This publication does not constitute an endorsement of the product or products that were tested. The configuration or configurations tested or described may or may not be the only available solution. This test is not a determination of product quality or correctness, nor does it ensure compliance with any federal state or local requirements.

The safety precautions listed in this user guide must be observed at all times. Failure to comply with these precautions may result in injury and property damage. **U.S. Robotics assumes no liability for the customer's failure to comply with these requirements.**



WARNING!

YOU ARE EXPRESSLY PROHIBITED FROM USING THIS PRODUCT IN HIGH RISK APPLICATIONS AND SUCH USE SHALL BE AT YOUR SOLE RISK. AS USED IN THIS PARAGRAPH, "HIGH RISK APPLICATIONS" REFERS TO USAGE IN OR IN CONJUNCTION WITH EQUIPMENT FOR WHICH FAILURE OF THE USR PRODUCT MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, EMOTIONAL INJURY OR LOSS OF LIFE, INCLUDING BUT NOT LIMITED TO ATOMIC ENERGY CONTROL EQUIPMENT, AIRCRAFT OR SPACECRAFT EQUIPMENT, TRAFFIC CONTROL EQUIPMENT, TRANSPORTATION EQUIPMENT, COMBUSTIBLE CONTROL EQUIPMENT, MEDICAL OR DIAGNOSTIC EQUIPMENT, AND ALL TYPES OF MANUFACTURING AND SAFETY DEVICES.

Warranty

U.S. Robotics Corporation Two (2) Year Limited Warranty

1.0 GENERAL TERMS:

1.1 This Limited Warranty is extended only to the original end-user purchaser (CUSTOMER) and is not transferable.

1.2 No agent, reseller, or business partner of U.S. Robotics Corporation (U.S. ROBOTICS) is authorized to modify the terms of this Limited Warranty on behalf of U.S. ROBOTICS.

1.3 This Limited Warranty expressly excludes any product that has not been purchased as new from U.S. ROBOTICS or its authorized reseller.

1.4 This Limited Warranty is only applicable in the country or territory where the product is intended for use (As indicated by the Product Model Number and any local approval stickers affixed to the product).

1.5 U.S. ROBOTICS warrants to the CUSTOMER that this product will be free from defects in workmanship and materials, under normal use and service, for TWO YEARS from the date of purchase from U.S. ROBOTICS or its authorized reseller.

1.6 U.S. ROBOTICS' sole obligation under this Limited Warranty shall be, at U.S. ROBOTICS' sole discretion, to repair the defective product or part with new or reconditioned parts; or to exchange the defective product or part with a new or reconditioned product or part that is the same or similar; or if neither of the two foregoing options is reasonably available, U.S. ROBOTICS may, at its sole discretion, provide a prorated refund to the CUSTOMER of the purchase price of the product, as evidenced by the proof of purchase, less any applicable service fees in accordance with the following schedule:

Months 0- 3:	100%
Months 4 – 12:	50%
Year 1 – 2:	25%

1.7 A product or part that is repaired or replaced under this Limited Warranty shall be covered for the remainder of the original warranty period applying to the product or part, or for NINETY (90) days, whichever is longer. All products or parts that are exchanged for replacement will become the property of U.S. ROBOTICS.

1.8 U.S. ROBOTICS makes no warranty or representation that this product will meet CUSTOMER requirements or work in combination with any hardware or software products provided by third parties.

1.9 U.S. ROBOTICS makes no warranty or representation that the operation of the software products provided with this product will be uninterrupted or error free, or that all defects in software products will be corrected.

1.10 U.S. ROBOTICS shall not be responsible for any software or other CUSTOMER data or information contained in or stored on this product.

1.11 U.S. ROBOTICS products are not designed for any "critical applications." "Critical applications" shall mean life support systems, medical applications, connections to implanted medical devices, commercial transportation, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or property damage.

2.0 CUSTOMER OBLIGATIONS:

2.1 CUSTOMER assumes full responsibility that this product meets CUSTOMER specifications and requirements.

2.2 CUSTOMER is specifically advised to make a backup copy of all software provided with this product.

USR4204 User Guide

2.3 CUSTOMER assumes full responsibility to properly install and configure this product and to ensure proper installation, configuration, operation and compatibility with the operating environment in which this product is to function.

2.4 CUSTOMER must furnish U.S. ROBOTICS or its authorized reseller a dated Proof of Purchase (copy of original, dated purchase receipt from U.S. ROBOTICS or its authorized reseller) for any warranty claims to be authorized.

3.0 OBTAINING WARRANTY SERVICE:

3.1 CUSTOMER must contact U.S. ROBOTICS Technical Support within the applicable warranty period to obtain warranty service authorization.

3.2 For information on how to contact U.S. ROBOTICS Technical Support please see the U.S. ROBOTICS corporate Web site at: www.usr.com

3.3 CUSTOMER should have the following information/items readily available when contacting U.S. ROBOTICS Technical Support:

Product Model Number

Product Serial Number

Dated Proof of Purchase

CUSTOMER contact name & telephone number

CUSTOMER Computer Operating System version

U.S. ROBOTICS Installation CD-ROM

U.S. ROBOTICS Installation Guide

4.0 WARRANTY REPLACEMENT:

4.1 In the event U.S. ROBOTICS Technical Support determines the product or part has a malfunction or failure attributable directly to faulty workmanship and/or materials; and the product is within the TWO (2) YEAR warranty term; the CUSTOMER will include a copy of the dated Proof of Purchase (original purchase receipt from U.S. ROBOTICS or its authorized reseller) with the returned product or part, then U.S. ROBOTICS will issue CUSTOMER a Return Material Authorization (RMA) and instructions for the return of the product to the authorized U.S. ROBOTICS Return Center.

4.2 Any product or part returned to U.S. ROBOTICS without an RMA issued by U.S. ROBOTICS prominently displayed on the exterior of the return packaging will be returned.

4.3 CUSTOMER agrees to pay shipping charges to return the product or part to the authorized U.S. ROBOTICS Return Center; to insure the product or assume the risk of loss or damage which may occur in transit; and to ship the product in the original packaging.

4.4 Responsibility for loss or damage does not transfer to U.S. ROBOTICS until the returned product or part is received as an authorized return at an authorized U.S. ROBOTICS Return Center.

4.5 Authorized CUSTOMER returns will be unpacked, visually inspected, and matched to the Product Model Number and Product Serial Number for which the RMA was authorized. The enclosed Proof of Purchase will be inspected for date of purchase and place of purchase. U.S. ROBOTICS may deny warranty service if visual inspection of the returned product or part does not match the CUSTOMER supplied information for which the RMA was issued.

4.6 U.S. ROBOTICS retains the final decision whether products are within warranty conditions. In the event U.S. ROBOTICS determines that the product is not within warranty conditions, or is without the original packaging and accessories, CUSTOMER will not be entitled to repair or a refund and the product will be returned to CUSTOMER.

USR4204 User Guide

4.7 Once a CUSTOMER return has been unpacked, visually inspected, and tested U.S. ROBOTICS will, at its sole discretion, repair or replace the product, using new or reconditioned product or parts, to whatever extent it deems necessary to restore the product or part to operating condition.

4.8 U.S. ROBOTICS will make reasonable efforts to ship the repaired or replaced product or part to CUSTOMER, at U.S. ROBOTICS expense, not later than TWENTY ONE (21) DAYS after U.S. ROBOTICS receives the authorized CUSTOMER return.

4.9 U.S. ROBOTICS shall not be liable for any damages caused by delay in delivering or furnishing repaired or replaced product or part.

5.0 LIMITATIONS:

5.1 THIRD-PARTY SOFTWARE: This U.S. ROBOTICS product may include or be bundled with third-party software, the use of which is governed by separate end-user license agreements provided by third-party software vendors. This U.S. ROBOTICS Limited Warranty does not apply to such third-party software. For the applicable warranty refer to the end-user license agreement governing the use of such software.

5.2 UNAUTHORIZED PRODUCTS: To the extent permitted by applicable law, this U.S. ROBOTICS Limited Warranty does not apply to distressed, "grey market" or liquidated inventory and all such products are sold "as is" without any warranty. Further, this U.S. ROBOTICS Limited Warranty does not apply and U.S. ROBOTICS assumes no responsibility or liability for counterfeit products or for products sold by auction or by parties who are not specifically authorized by U.S. ROBOTICS.

5.3 DAMAGE DUE TO MISUSE, NEGLIGENCE, NON-COMPLIANCE, IMPROPER INSTALLATION, AND/OR ENVIRONMENTAL FACTORS: To the extent permitted by applicable law, this U.S. ROBOTICS Limited Warranty does not apply to normal wear and tear; damage or loss of data due to interoperability with current and/or future versions of operating system or other current and/or future software and hardware; alterations (by persons other than U.S. ROBOTICS); damage caused by operator error or non-compliance with instructions as set out in the user documentation or other accompanying documentation; damage caused by acts of nature such as lightning, storms, floods, fires, and earthquakes, etc. Products evidencing the product serial number has been tampered with or removed; misuse, neglect, and improper handling; damage caused by undue physical, temperature, or electrical stress; damage or loss of data caused by a computer virus, worm, Trojan horse, or memory content corruption; failures of the product which result from accident, abuse, misuse (including but not limited to improper installation, connection to incorrect voltages, and power points); electrical transients or disturbances in the line power (mains) connected to the device or in a telephone network connected to the device, including any transient phenomenon due to the cross connected nature of a device between these two networks, failures caused by products not supplied by U.S. ROBOTICS; damage cause by moisture, corrosive environments, high voltage surges, shipping, abnormal working conditions; or the use of the product outside the borders of the country or territory intended for use (As indicated by the Product Model Number and any local telecommunication approval stickers affixed to the product).

5.4 TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. U.S. ROBOTICS NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, WARRANTY, OR USE OF ITS PRODUCTS.

5.5 LIMITATION OF LIABILITY. TO THE FULL EXTENT ALLOWED BY LAW, U.S. ROBOTICS ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF U.S. ROBOTICS OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT,

USR4204 User Guide

OR REFUND OF THE PURCHASE PRICE PAID, AT U.S. ROBOTICS OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

6.0 STATUTORY RIGHTS OF CUSTOMER:

Some countries, states, territories or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers or the limitation of liability for personal injury, so the above limitations and exclusions may be limited in their application to CUSTOMER. When the implied warranties are not allowed by law to be excluded in their entirety, they will be limited in scope and duration to this written Limited Warranty. This Limited Warranty gives CUSTOMER specific legal rights. CUSTOMER may also have other rights that may vary from state to state or from country to country. CUSTOMER is advised to consult applicable state or country laws for full determination of its rights. If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

7.0 GOVERNING LAW:

This Limited Warranty shall be governed by the laws of the State of Illinois, U.S.A. excluding its conflicts of laws principles and excluding the United Nations Convention on Contracts for the International Sale of Goods.

U.S. Robotics Corporation
1300 East Woodfield Road, Suite 506
Schaumburg, IL, 60173
U.S.A.

Regulatory Information

FCC Compliance



U.S. Robotics Corporation
1300 E. Woodfield Rd. Suite 506
Schaumburg, IL 60173
U.S.A.

declares that this product conforms to the FCC's specifications:

Part 15, Class A

This equipment complies with Part 15, Class A for use in a commercial, industrial, or business environment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at one's own expense.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

UL Listing/CUL Listing



This information technology equipment is UL Listed and C-UL Listed for both the US and Canadian markets respectively for the uses described in this User Guide. Use this product only with UL Listed Information Technology Equipment (ITE).

Industry Canada (IC)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled Digital Apparatus, ICES-003 of Industry Canada.

Customer Information

Notice: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

CE Compliance



Declaration of Conformity

We, U.S. Robotics Corporation of 1300 E. Woodfield Rd. Suite 506, Schaumburg, Illinois, 60173-5446 USA, declare under our sole responsibility that the product, USRobotics model USR4204, to which this declaration relates, is in conformity with the following standards and/or other normative documents.

- EN60950-1
- EN55022
- EN55024
- EN61000-3-2
- EN61000-3-3

We hereby declare that the above named product is in conformity with the essential requirements and other relevant provisions of **Directive 2011/65/EU**.

The conformity assessment procedure referred to in Article 10(3) and detailed in Annex IV of Directive 1999/5/EC has been followed.

An electronic copy of the original CE Declaration of Conformity is available at the U.S. Robotics website: www.usr.com

WEEE Compliance

CONSUMER NOTICE

For the following Countries:



Austria	Estonia	Iceland	Netherlands	Slovenia
Belgium	Finland	Ireland	Norway	Spain
Croatia	France	Italy	Poland	Sweden
Cyprus	Germany	Latvia	Portugal	Switzerland
Czech Republic	Greece	Luxemburg	Romania	Turkey
Denmark	Hungary	Malta	Slovakia	United Kingdom

This product is subject to Directive 2002/96/EC of the European Parliament and the Council of the European Union on waste electrical and electronic equipment (WEEE) and, in jurisdictions adopting that Directive, is marked as being put on the market after August 13, 2005 and should not be disposed of as unsorted municipal waste. Please utilize your local WEEE collection facilities in the disposition of this product and otherwise observe all applicable requirements. For further information on the requirements regarding the disposition of this product and collection facilities that maybe available to you, please visit www.usr.com/weee.

Copyright Information

U.S. Robotics Corporation
1300 E. Woodfield Road, Suite 506
Schaumburg, Illinois
60173-5446
USA

No part of this documentation may be reproduced in any form or by any means or used to make any derivative work (such as a translation, transformation, or adaptation) without written permission from U.S. Robotics Corporation. U.S. Robotics Corporation reserves the right to revise this documentation and to make changes in the products and/or content of this document from time to time without obligation to provide notification of such revision or change. U.S. Robotics Corporation provides this documentation without warranty of any kind, implied or expressed, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. If there is any software on removable media described in this documentation, it is furnished under a license agreement included with the product as a separate document, in the hard copy documentation, or on the removable media in a directory named LICENSE. If you are unable to locate a copy, please contact U.S. Robotics and a copy will be provided to you.

UNITED STATES GOVERNMENT LEGEND If you are a United States government agency, then this documentation and the software described herein are provided to you subject to the following:

All technical data and computer software are commercial in nature and developed solely at private expense. Software is delivered as "Commercial Computer Software" as defined in DFARS 252.227-7014 (June 1995) or as a "commercial item" as defined in FAR 2.101(a) and as such is provided with only such rights as are provided in U.S. Robotics standard commercial license for the Software. Technical data is provided with limited rights only as provided in DFAR 252.227-7015 (Nov 1995) or FAR 52.227-14 (June 1987) whichever is applicable. You agree not to remove or deface any portion of any legend provided on any licensed program or documentation contained in, or delivered to you in conjunction with, this User Guide.

Copyright © 2012 U.S. Robotics Corporation. All rights reserved. U.S. Robotics and the U.S. Robotics logo are registered trademarks of U.S. Robotics Corporation. Other product names are for identification purposes only and may be trademarks of their respective companies. Product specifications are subject to change without notice.