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1-Port RS232 Serial Over IP Device Server

Actual product may vary from photos

User Manual

SKU#: I13-SERIAL-ETHERNET / I13P-SERIAL-ETHERNET

For the latest information and specifications visit
www.StarTech.com/I13-SERIAL-ETHERNET / www.StarTech.com/I13P-SERIAL-ETHERNET

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Compliance Statements

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

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Safety Statements

Safety Measures

- Wiring terminations should not be made with the product and/or electric lines under power.
- Cables (including power and charging cables) should be placed and routed to avoid creating electric, tripping or safety hazards.

Mesures de sécurité

- Les terminaisons de câblâge ne doivent pas être effectuées lorsque le produit et/ou les câbles électriques sont sous tension.
- Les câbles (y compris les câbles d'alimentation et de chargement) doivent être placés et acheminés de façon à éviter tout risque électrique, de chute ou de sécurité

安全対策

- 電源が入っている状態の製品または電線の終端処理を行わないでください。
- ケーブル（電源ケーブルと充電ケーブルを含む）は、適切な配置と引き回しを行い、電気障害やつまづきの危険性など、安全上のリスクを回避するようにしてください。

Misure di sicurezza

- I terminiali dei fili elettrici non devono essere realizzate con il prodotto e/o le linee elettriche sotto tensione.
- I cavi (inclusi i cavi di alimentazione e di ricarica) devono essere posizionati e stesi in modo da evitare pericoli di inciampo, rischi di scosse elettriche o pericoli per la sicurezza.

Säkerhetsåtgärder

- Montering av kabelavslutningar får inte göras när produkten och/eller elledningarna är strömförda.
- Kablar (inklusive elkablar och laddningskablar) ska dras och placeras på så sätt att risk för snubblingsolyckor och andra olyckor kan undvikas.

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Table of Contents

Product Diagram

Front View

Component		Function
1	Status LED	• Refer to **LED Chart**
2	DB-9 Serial Port	• Connect an **RS-232 Serial Device**
3	Serial Communication LED Indicators	• Refer to **LED Chart**
4	Mounting Bracket Holes	• Install the **DIN Rail Kit** or **Wall Mounting Bracket** using the included **Mounting Bracket Screws** • Two on each side and four on the bottom of the **Serial Device Server**

Rear View

	Component	Function
1	DC Power Input	• **I13-SERIAL-ETHERNET:** Connect the included **Power Adapter** • **I13P-SERIAL-ETHERNET:** (Optional) Connect a **Power Adapter** (sold separately) if **PoE Power** is unavailable
2	Ethernet Port	• Connect an **Ethernet Cable** to the **Serial Device Server** • Supports 10/100Mbps • **Link/Activity LEDs:** Refer to **LED Chart** • I13P-SERIAL-ETHERNET: Supports **802.3af** to power the **Serial Device Server**

Product Information

Package Contents

I13-SERIAL-ETHERNET:

- 1-Port Serial Over IP Device Server x 1
- DIN Rail Kit x 1
- Mounting Bracket x 1
- Mounting Bracket Screws x 4
- Universal Power Adapter x 1
- Quick-Start Guide x 1

I13P-SERIAL-ETHERNET:

- 1-Port Serial Over IP Device Server x 1
- DIN Rail Kit x 1
- Mounting Bracket x 1
- Mounting Bracket Screws x 4
- Quick-Start Guide x 1

Installation

Default Settings

Out of the Box Settings

- IP Address: DHCP
- Password: admin
- Network Protocol Mode: Telnet Server (RFC2217)
- Serial Mode: RS-232

Factory Default Button Settings

- IP Address: 192.168.5.252
- Password: admin
- Network Protocol Mode: Telnet Server (RFC2217)
- Serial Mode: RS-232

Hardware Installation

(Optional) Configure DB-9 Pin 9 Power

By default, the **Serial Device Server** is configured with the **Ring Indicator (RI)** on **Pin 9,** but it can be changed to **5V DC**. To change the **DB9 Connector Pin 9** to 5V DC output, please follow these steps:

> ***WARNING!*** *Static Electricity can severely damage electronics. Ensure that you are adequately Grounded before you open the device housing or touch the change the jumper. You should wear an Anti-Static Strap or use an Anti-Static Mat when opening the housing or changing the jumper. If an Anti-Static Strap isn't available, discharge any built-up static electricity by touching a large Grounded Metal Surface for several seconds.*

1. Ensure the **Power Adapter** and all **Peripheral Cables** are disconnected from the **Serial Device Server.**
2. Using a **Phillips Screwdriver**, remove the **Screws** from the **Housing**.

   Note: *Save these to re-assemble the housing after changing the jumper.*
3. Using both hands, carefully open the **Housing** to expose the **Circuit Board** inside.
4. Identify **Jumper #4 (JP4)**, located inside the **Housing** next to the **DB9 Connector.**
5. Using a pair of fine-point tweezers or a small flat-head screwdriver, carefully move the jumper to the **5V** position.
6. Re-assemble the **Housing**, ensuring the **Housing Screw Holes** align.
7. Replace the **Housing Screws** removed in **Step 3**.

(Optional) Mounting The Serial Device Server

1. Determine the mounting method that best suits the installation environment (DIN Rail or Wall Mount).
2. Align the bracket with the Bracket Mounting Holes on the bottom or sides of the Serial Device Server.

3. Using the included **Mounting Bracket Screws**, secure the **DIN Rail** or **Mounting Bracket** to the **Serial Device Server**.

4. Mount the **Serial Device Server** as follows:

   - **DIN Rail:** Insert the **DIN Rail Mounting Plate** at an angle starting from the **Top**, then **Push** it against the **DIN Rail**.
   - **Wall Mount:** Secure the **Mounting Bracket** to the **Mounting Surface** using the appropriate **Mounting Hardware** (i.e., wood screws).

Install the Serial Device Server

1. Connect the included **Power Supply** to the **Serial Device Server**. This is only required for the I13-SERIAL-ETHERNET.

   Note: *The Serial Device Server can take up to 80 seconds to startup.*

2. Connect an **Ethernet cable** from the **RJ-45 Port** of the **Serial Device Server** to a **Network Router**, **Switch**, or **Hub**.

   Note: *The I13P-SERIAL-ETHERNET must be connected to a Power Sourcing Equipment (PSE) to receive Power over Ethernet (PoE). If PoE power is not available, a 5V, 3A+, Type M power adapter (sold separately) must be used to ensure proper operation.*

3. Connect an **RS-232 Serial Device** to the **DB-9 Port** on the **Serial Device Server**.

Software Installation

1. Navigate to:
   www.StarTech.com/I13-SERIAL-ETHERNET
   or
   www.StarTech.com/I13P-SERIAL-ETHERNET

2. Click the Drivers/Downloads tab.

3. Under Driver(s), download the Software Package for Windows Operating System.

4. Extract the contents of the downloaded .zip file.

5. Run the extracted executable file to start the software installation.

6. Follow the on screen prompts to complete the installation.

Operation

Note: *The devices support features which secure and protect the devices and its configuration using standard/best practices but as these are intended to be used in controlled environments using proprietary software (virtual COM port) and open communication standards (Telnet, RFC2217) which do not encrypt the data they should not be exposed to an unsecure connection.*

Telnet

Using Telnet to send or receive data works with any operating system or host device that supports the Telnet protocol. The software for the connected serial peripheral device may require a COM Port or mapped hardware address. To configure this, the StarTech.com Device Server Manager is required, which is only supported on Windows operating systems.

To communicate with the connected **Serial Peripheral Device** via Telnet, perform the following:

1. Open a terminal, command prompt, or third-party software that connects to a Telnet server.

2. Type the IP address of the Serial Device Server.

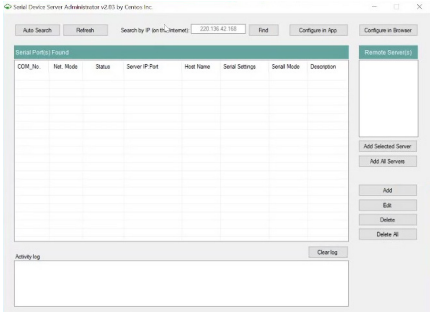
   Note: *This can be found using the StarTech.com Device Server Manager for Windows, or by viewing the connected devices on the local network router.*

3. Connect to the Serial Device Server.

4. Type in the terminal, command prompt, or third-party software to send commands/data to the Serial Peripheral Device.

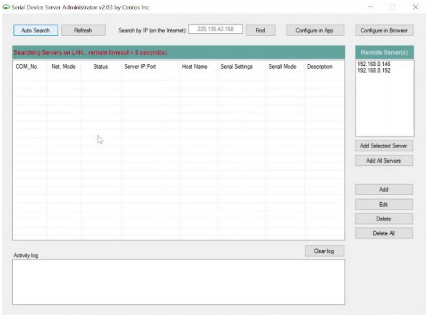
Use the Software to Discover the Serial Device Server

1. Launch the StarTech.com Device Server Manager.

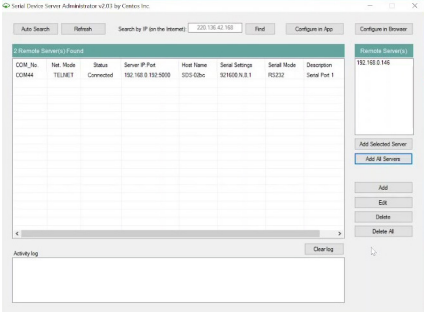


2. Click **Auto Search** to initiate the process of discovering **Serial Device Servers** on the local network.

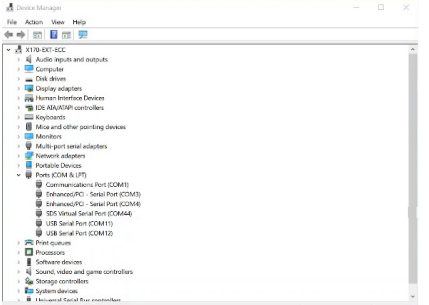
3. Discovered **Serial Device Servers** will appear in the "Remote Server(s)" list in the right pane.



4. Select "Add Selected Server" to add a specific **Serial Device Server** or "Add All Servers" to add all discovered **Serial Device Servers**.



5. The **Serial Device Servers** will be mounted in Device Manager as "SDS Virtual Serial Port" with an associated COM port number.



Configure the Serial Port Settings

Available Serial Port Options

Setting	Available Options
Baud Rate	• 300 • 600 • 1200 • 1800 • 2400 • 4800 • 9600 • 14400 • 19200 • 38400 • 57600 • 115200 • 230400 • 921600
Data Bits	• 7 • 8
Parity	• None • Even • Odd • Mark • Space
Stop Bits	• 1 • 2
Flow Control	• Hardware • Software • None

In the Software

1. Open the StarTech.com Device Server Manager.
2. Select "Configure in App" or double click the **Serial Device Server** in the list.
3. When the **Settings Window** opens, use the drop down menus to change Baud Rate, Data Bits, COM Port Number, and more.

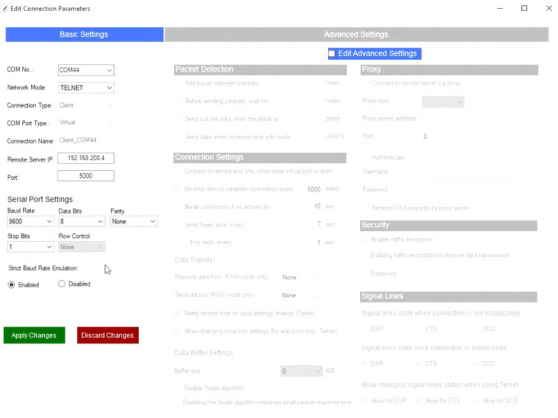
Note: *If changing the COM Port Number, see "Changing COM Port or Baud*

Rate in Windows" on Page 15.

4. Select "Apply Changes" to save the settings.

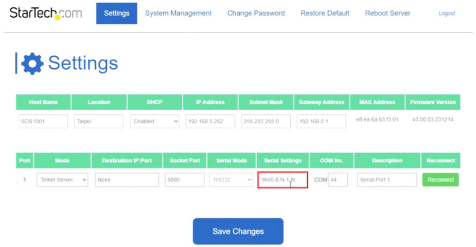
In the Web Interface

1. Open a web browser.

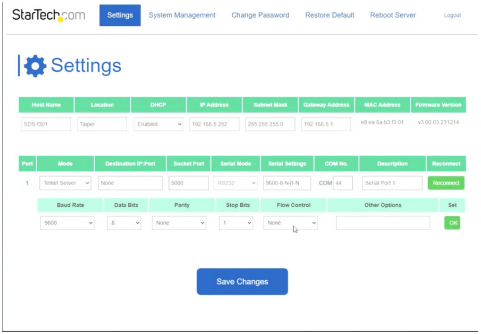


2. Type the IP address of the **Serial Device Server** into the address bar.
3. Enter the password and select "Login". See Default Password on Page 6.
4. Select the "Serial Settings" to expand the options.
5. Use the drop down menus to change Baud Rate, Data Bits, COM Port Number, and more.
6. Under "Set", select "OK" to set the serial settings to the port.

7. Select "Save Changes" to save the settings to the **Serial Device Server**.



Changing COM Port or Baud Rate in Windows



To change the **COM Port** number or **Baud Rate** in **Windows**, the device must be

deleted and re-created in the StarTech.com Device Server Manager.

Note: *This is not necessary when using macOS or Linux which use Telnet to communicate with the Serial Device Server and do not map the device to a COM port or hardware address.*

1. Open a web browser and navigate to the IP address of the **Serial Device Server** or click "Configure in Browser" in the StarTech.com Device Server Manager.
2. Enter the **Serial Device Server** password.
3. Under "COM No.", change it to the desired **COM Port** number or change the **Baud Rate** to match the **Baud Rate** of the connected **Serial Peripheral Device**.

   Note: *Ensure the COM port number you assign is not already in use by the system, otherwise it will cause a conflict.*
4. Click **Save Changes**.
5. In the StarTech.com Device Server Manager, click the **Serial Device Server** which should still have the old **COM Port** number, then click Delete.
6. Re-add the **Serial Device Server** using "Add Selected Server" to add a specific **Serial Device Server** or "Add All Servers" to add all discovered **Serial Device Servers**.
7. The **Serial Device Server** should now be mapped to the new **COM Port** number.

LED Chart

	LED Name	LED Function
1	Link/Activity LEDs (RJ-45)	• **Steady Green:** Indicates Ethernet connection has established, but no data activity • **Blinking Green:** Indicates data activity • **Off:** Ethernet is not connected
	PoE LED (RJ-45)	I13P-SERIAL-ETHERNET Only: • **Steady Amber:** Device is receiving PoE Power • **Off:** Not receiving PoE Power

2	Serial Port LEDs (DB-9)	• **Blinking Green:** Indicates serial data is being transmitted and/or received
		  • **Top LED:** Transmit Data Indicator
		  • **Bottom LED:** Receive Data Indicator
		• **Off:** No serial data is being transmitted or received

3	Power/Status LED	• **Steady Green:** Power is On • **Off:** Power is Off • **Blinking Green:** Restoring to Factory Defaults

Warranty Information

This product is backed by a two-year warranty.

For further information on product warranty terms and conditions, please refer to www.startech.com/warranty.

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