Setup Overview

Use this overview to identify the steps required to set up the Digi device. This overview provides a simple method for accomplishing common tasks. For information on alternative methods and other configurable features, see the online documentation.

Step A: Set the Line Interface with the DIP Switches

See the following table for information on switch settings.

Function	Switch Settings			
	1	2	3	4
EIA-232	Up	Dn	Dn	Dn
EIA-422/485 Full-duplex	Dn	Up	Dn	Up -- Termination enabled. Down--Termination disabled
EIA-485 half-duplex	Dn	Dn	Up	

Step B: Set Up the Hardware

1. Connect the device to the power supply, the power supply to an outlet, and the device to the network.
2. Connect peripherals to serial ports.

   For cabling information, see the *Terminal Server Cable Guide* on the Access Resource CD.

Step C: Install and Set Up DPA-Remote

This step is not required if you do not intend to use DPA-Remote to configure the IP address or to monitor ports.

Notes: (1) DPA-Remote cannot be used to change the IP address; it can only be used to configure the initial IP address (2) This method will not work if a DHCP server is active on the network.

To install DPA-Remote from the Digi Access Resource CD, do the following:

1. If you are using a Unix system, mount the CD. See the Access Resource CD Card for information.
2. Choose an operating system.
3. Choose the Hardware product name.
4. Choose Digi Port Authority - Remote.
5. Choose Install Software.
6. Follow the prompts.
7. Reboot your system if necessary.

For information on installing DPA-Remote after downloading it from the Digi web site, see the online *Digi Port Authority - Remote Device Monitor Setup Guide*.

Step D: Configure an IP Address

The following are 4 methods for configuring an IP address. Use the one that is most convenient for you.

Method 1: Using DPA-Remote
1. Run DPA-Remote.
2. If DPA-Remote is not set for ADDP, choose ADDP as the Discovery Protocol.
3. Choose Discover.

   A list of Digi devices with IP addresses of 0.0.0.0 appears.
4. Select a Digi One TS/PortServer TS 2/4 from the list and then choose Configure.
5. Supply an IP address, subnet mask and default gateway and then choose OK.

   DPA-Remote configures the IP address, subnet mask and default gateway.

Method 2: Using Ping-ARP
Use this section to configure an IP address by manually updating a server's ARP table and then pinging the Digi One TS/PortServer TS 2/4.
1. Record the MAC address of the Digi One TS/PortServer TS 2/4. It is on the back of the unit.
2. Access a server on the same subnet as the Digi One TS/PortServer TS 2/4.
3. Manually update the server's ARP table using the Digi One TS/PortServer TS 2/4's MAC address and the IP address you want assigned to the Digi device. The following is an example of how this is done on a Windows NT 4.0 system:

   ```
   arp -s 143.191.2.1 00-40-9d-22-23-60
   ```
4. Ping the Digi device using the IP address just assigned. The following is an example:

   ```
   ping 143.191.2.1
   ```

   The ping will probably time out before there is a response.
5. Wait a few seconds and then ping again.

   The Digi One TS/PortServer TS 2/4 replies to the ping, indicating that the IP address has been configured.

Method 3: Using DHCP or RARP
1. Record the MAC address of the Digi One TS/PortServer TS 2/4, which is located on the back of the unit.
2. Set up an entry for an address on a DHCP or RARP server. If you intend to use RealPort, do the following:
   • Reserve a permanent IP address.
   • Record the IP address. You will need it when you configure the RealPort driver.
3. Power on the Digi device.

Method 4: Using the Command Line
1. Connect a laptop or PC to a serial port on the Digi One TS/PortServer TS 2/4. For a Windows Hyperterminal connection, use the cable that came in the package.

2. Configure the parameters of the terminal emulation software to work with the Digi serial port. The default port settings are:

   • VT 100 emulation   • 1 stop bit
   • 9600 baud   • No parity
   • 8-bit character

3. Log into the Digi One TS/PortServer TS 2/4 as root by entering the following commands: (You may have to press the Enter key to get a Login prompt.)
   • At the login prompt, type `root`.
   • At the password prompt, type `dbps` (which is the default password. If the password has been changed, use the new password.)

   See the newpass command in the online *Command Reference* for information on changing the root password.
4. Configure an IP address with the following command:

   ```
   set config dhcp=off ip=ip-addr submask=mask
   ```

   where `ip-addr` is the IP address to configure and `mask` is the subnet mask used by the network

   Example

   ```
   set config dhcp=off ip=192.10.7.3
   submask=255.255.255.0
   ```
5. Reboot at the reboot prompt with the following command:

   ```
   boot action=reset
   ```

Step E: Configure Ports Using the Web Interface

1. Access the Digi One TS/PortServer TS 2/4 from a web browser by specifying the device's IP address in the URL window.
2. Log into the Digi One TS/PortServer TS 2/4 as root by entering the following :
   • At the login prompt, type `root`.
   • At the password prompt, type `dbps` (which is the default password. If the password has been changed, use the new password.)
3. Use the web interface to configure ports. See the online help for information on configuration fields.
4. If you intend to use RealPort, install RealPort software on a server. See the online RealPort library for more information.

Step F: Configure other Features as Required

See "Where to Find Information" on this card for ideas on additional features to configure and directions as to where to find setup information.

Step G: Troubleshoot Setup Problems

Ensure that your setup works as you intend. If you encounter setup problems, see the troubleshooting section in the *Digi One TS/PortServer TS 2/4 Configuration and Administration Guide*.

About This Card

Use this card for a brief introduction to your Digi One TS/PortServer TS 2/4 and as a guide to more detailed information required for setup.

Package Contents

The package contains the following items:
• One Digi One TS/PortServer TS 2/4
• Power supply unit with North American, EU or UK power cords
• One RJ-45 to DB-9 crossover cable. This is intended for connecting a laptop or PC to a serial port so that you can configure your Digi device from a serial-port connection

   Note: For additional cables, contact your dealer or distributor.

• A single loopback plug that works with EIA-232, EIA-422, and EIA-485 line interfaces
• Access Resource CD that contains the following:
   • DPA-Remote software, a management tool for Microsoft and Unix environments
   • RealPort drivers, which provide COM/TTY ports
   • Complete Digi One TS/PortServer TS 2/4 documentation
   • Digi proprietary SNMP MIBs
• This card, an Access Resource CD card, and associated paperwork

Where to Find Information

To set up...	See...
An IP address	• The web interface and associated help. Note: The device's initial IP address cannot be set up with the web interface. • The set config command in the online *Command Reference* • The section on configuring the Ethernet interface in the online *Configuration and Administration Guide*
autoconnection	• The web interface and associated help • The set user and set ports commands in the online *Command Reference* • The section on configuring autoconnection in the online *Configuration and Administration Guide*
DPA - Remote	• The online *Digi Port Authority - Remote Device Monitor Setup Guide*
Menus	• The web interface and associated help • The set menu command in the online *Command Reference*
Ports	• The web interface and associated help • The set ports, set flow, and set line commands in the online *Command Reference* • The sections on configuring ports for RealPort, modems, terminals, and printers in the online *Configuration and Administration Guide*
PPP	• The web interface and associated help • The set user command in the online *Command Reference*
RealPort	• The web interface and associated help • The set ports command in the online *Command Reference* • The online RealPort library
SNMP agent	• The set snmp command in the online *Command Reference* • The section on configuring the SNMP agent in the online *Configuration and Administration Guide*
Users	• The web interface and associated help • The set user and newpass commands in the online *Command Reference* • The section on configuring users in the *Configuration and Administration Guide*.
User Data	• The web interface and associated help • The set socketid command in the online *Command Reference*

Specifications

WARNING: To prevent electric shock, do not remove the cover of this module. There are no user-serviceable parts inside. Refer servicing to qualified personnel.

Power Requirements	
2-contact barrel connector	+9 to +30 VDC 500 mA (max) external power supply
RJ-45 Powered Ethernet	+30 to +60 VDC 100 mA (max)

Environmental	
Ambient temperature	0 to 55 degrees Celsius 32 to 131 degrees Fahrenheit
Relative humidity	5% to 90% non-condensing
Altitude	0 to 12,000 feet 0 to 3,658 meters

Mechanical	
Length	13.33 centimeters 5.25 inches
Width	8.25 centimeters 3.25 inches
Height	1.90 centimeters .75 inches
Weight	.227 Kilos 8 ounces

FCC Part 15 Class A

Radio Frequency Interference (RFI) (FCC 15.105)

This equipment has been tested and found to comply with the limits for Class A digital devices pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential 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. 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 and correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and the 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.

Labeling Requirements (FCC 15.19)

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifications (FCC 15.21)

Changes or modifications to this equipment not expressly approved by Digi may void the user's authority to operate this equipment.

Cables (FCC 15.27)

Shielded cables *must* be used to remain within the Class A limitations.

ICES 003 Class A

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

Key Features

Here are some of the key features of Digi One TS/PortServer TS 2/4:
• Switchable line interface (EIA-232/422/485)
• Configurable from a web browser, a Telnet connection, or a serial port connection to a laptop or PC
• Remote monitoring through Digi Port Authority--Remote, a network-based, monitoring tool capable of monitoring the network interface and serial port activity
• Local TTY and COM port functionality using Digi RealPort software
• Connection to other network devices with PPP
• Upgradable firmware using TFTP or HTTP
• Auto-sensing 10/100 TX Ethernet connection
• Industry standard surge suppression and ESD protection to 15 kilovolts on all signal pins
• LED indicators to display network information