BLACK BOX®
NETWORK SERVICES

REMOTE CONSOLE PORT MANAGERS

8 Port Remote Console Port Manager

ACTIVITY

CLEAR ON   SET RDY NET
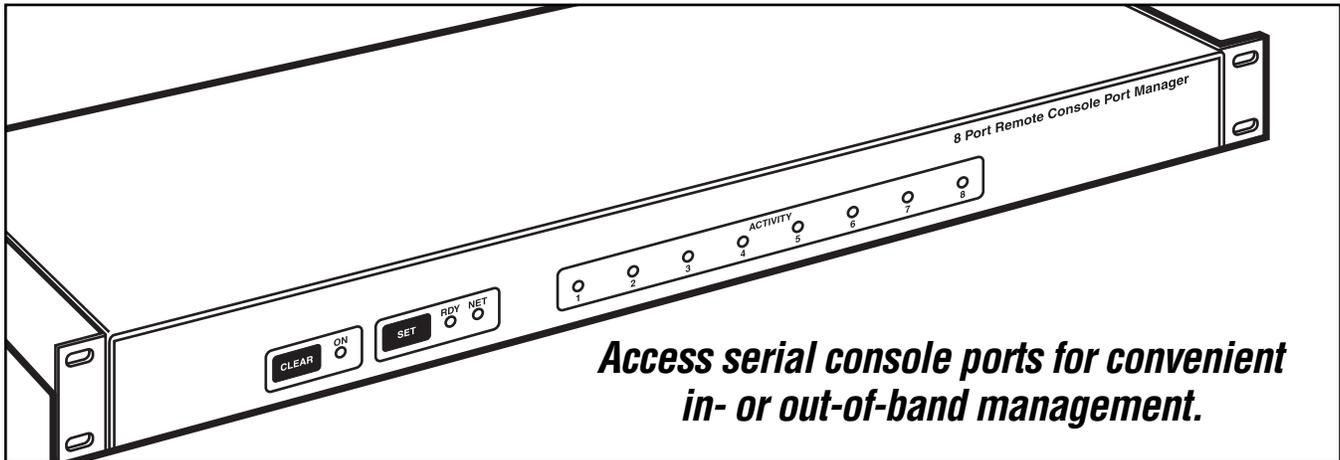
Access serial console ports for convenient in- or out-of-band management.

Key Features

▶ ***Telnet console manager.***

▶ ***For local or remote serial-port switching.***

▶ ***Eight or sixteen RS-232 serial ports and one Ethernet port.***

▶ ***Up to 115-kbps throughput.***

▶ ***Port-specific password protection.***

▶ ***Menu-driven control. No software required.***

▶ ***User-definable modem auto-setup command strings.***

▶ ***Any-to-any port switching.***

▶ ***Rackmount ears included.***

These versatile switches provide secure, in-band and/or out-of-band access to RS-232/V.24 console ports as well as maintenance ports on UNIX® servers, routers, and other networking equipment.

You can use the BLACK BOX® Remote Console Port Manager for:

• local or remote console port switching,
• UNIX serial console management,
• Telnet or dial-up access to consoles at your remote sites, or
• sharing multiple console ports through a single VT100™ terminal or PC.

The amount of control on the switch is impressive. You can access remote devices in order to change configuration parameters, connect users to restricted ports, collect buffered data, and perform a variety of other administrative functions.

Each port on the switch can be individually accessed by number, name, or group without having to navigate a complex procedure in the process. You can individually configure ports using simple, menu-driven commands, whether you want to set passwords, data rates, parity, flow control, or other operating parameters.

You can connect up to 8 or 16 different devices to the Remote Console Port Manager. And this can be done without having to select a common baud rate, handshaking, or parity for the connected devices. The Remote Console Port Manager converts the devices' data rates and other parameters. Each port can be individually configured for various options, and the switch will still provide communication between the dissimilar devices.

Want to limit access to important commands? The switch is designed to do just that, making it ideal for co-location applications. It has two security levels that allow each port to function as a Supervisor Port or a User Port, depending on the password entered during login. Users on Supervisor Ports can change configuration and display status,

and connect to any other port. User Port users, however, are only allowed to connect to the ports provided by their password.

Each individual port can be assigned its own unique, user-defined password, up to 16 characters long. With its non-volatile memory, the switch retains information relating to port connections even if the unit loses power or is interrupted.

The full matrix capability of the Remote Console Port Manager enables you to connect any port to any other port on the device. Ports can also be connected or disconnected by a third party with supervisor rights. For example, systems managers can swap various RS-232 devices between ports on a terminal server at a remote location. Configuration and Status screens within the menu display port parameters and connection activity for one or all ports.

When you want individual ports to capture and store incoming data, you can set the

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Sample Application Using 16-Port Model

Port Password: *COLOCATION1*
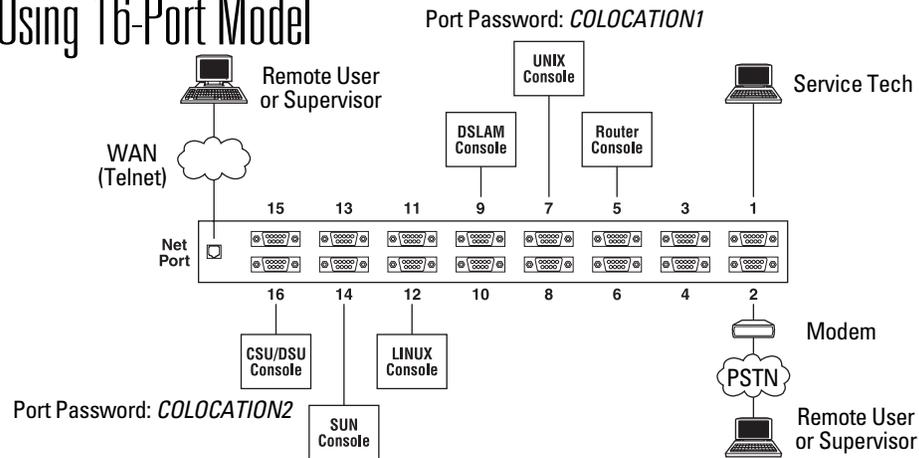
This is just one of many possible installation configurations for the Remote Console Port Manager. In this example, ports have been configured as follows:

- **Network Port:** This port enables Telnet access by remote supervisors and/or users. When a Telnet connection is established, the switch prompts the caller to enter a password. If the supervisor password is entered, the unit recognizes supervisor-level commands; if a port password is entered, it only recognizes user-level commands. Supervisors are allowed to adjust port configuration, connect to any port, or review unit status. Users, however, are only permitted to review status and connect to ports that are allowed by their port password.
- **Port 1 (System Set-Up Port):** In this application, this port has been left open so on-site service personnel can access the switch's Command Mode without disrupting other ports. Because Port 1 is the System Set-Up Port, the service tech is allowed password-protected access to supervisor-level commands, and is able to connect to any port, change configuration, or display unit status.
- **Port 2 (Modem Port):** An external modem has been installed here, and the port has been configured for Modem Mode. This mode allows definition of a modem reset string, initialization string, and hang-up string. When a caller contacts the Remote Console Port Manager via a modem, a password prompt is displayed. If the supervisor password is entered, the switch permits access to supervisor-

level commands; if a port password is entered, the unit only recognizes user-level commands. As noted earlier, supervisors are allowed to adjust port configuration, connect to any port, or review unit status, but users are only allowed to review status and connect to the ports allowed by their port password.
- **Ports 5, 7, and 9 (User Ports):** The port password *COLOCATION1* has been assigned to these three ports. If the Remote Console Port Manager is contacted via the Network Port or Modem Port, and this password is entered at login, users are only able to review status and connect to the devices that are attached to Ports 5, 7, and 9.
- **Ports 12, 14, and 16 (User Ports):** The port password *COLOCATION2* has been assigned to these three ports. If the switch is contacted via the Network Port or Modem Port, and this password is entered at login, users are only able to review status and connect to the devices that are attached to Ports 12, 14, and 16.

NOTE: In this example, Ports 3 through 16 could also be a mixture of ports connected to external modems and ports connected to devices such as file servers or archives. This set-up would enable remote users to dial in and access a specific file server or archive as long as they enter a valid port password at login.

(continued from page 1)

switch to operate in Buffer Mode. This "snapshot" of the last 32K of received data is stored in non-volatile memory and can be viewed, saved, or erased at any time. This feature is particularly useful when alarm information, or other critical data, is sent to a specific port during non-connect periods.

You're also provided with several control options. The Remote Console Port Manger can be controlled by a local PC (communicating with the switch via cable) or controlled remotely via an external modem or Telnet connection. Just use a terminal emulation or Telnet program to send commands for connecting ports or displaying status.

Once you configure the Remote Console Port Manager for your application, you can save your parameters and options to

an ASCII text file on your PC. Doing this enables you to quickly restore user-selected parameters if the unit configuration is accidentally altered or deleted. You can even upload saved parameters to other Remote Console Port Manager units—a useful function when you want to quickly set up several units that are configured with identical or similar parameters.

Ports and switches.

There are two types of ports on the back panel: a Network Port and eight or sixteen RS-232 Ports.

The Network Port is an RJ-45 Ethernet port (a 10BASE-T interface) for connection to your TCP/IP network. To communicate via a network, you need only to specify an IP address, subnet mask, and gateway address.

Standard DB9 connectors configured as DTE ports, the RS-232 Ports are used for connecting to console ports on

Specifications

Compliance: FCC Subpart B, Part 15, Class A; UL®; CSA; TUV; CE

Communications Chip: 16654 UART with FIFO and flow control

Connectors:
Both (1) RJ-45 10BASE-T;
8-port: (8) DB9 M (DTE);
16-port: (16) DB9 M (DTE)

Data Format: ASCII

Flow Control: RTS/CTS, X-ON/X-OFF, or both

Indicators: Front-panel LEDs: (1) ON (power), (1) RDY (ready), (1) NET (network connection); (8) or (16) ACTIVITY numbered (data activity per corresponding port)

Interface: RS-232, Ethernet

Leads Supported: 1–5, 7, 8

Memory: Stores parameters and captured data; non-volatile 512K SRAM buffer memory; statically allocated

Modem Control: User-defined password, initialization, and hangup strings

Passwords: Individual, assigned to each port

Processor: Motorola® 68EC000, 16 bit, 12 MHz

Protocol: Asynchronous

Speed: 300 bps to 115.2 kbps (all standard rates)

Switching Commands: Menu text via terminal

Operating Temperature Tolerance: 32 to 113ºF (0 to 45ºC)

Humidity Tolerance: 10 to 90%, noncondensing

Power: 115/230 VAC, 50/60 Hz, 5 watts

Size: 1.75"H x 17"W x 6.5"D (4.5 x 43.2 x 16.5 cm)

Weight: 6 lb. (2.7 kg)

your devices and are similar to a serial port on a PC. When connecting a modem, use a standard serial cable. But when you want to connect a PC or other DTE device, use the (included) null-modem cable.

Two of the RS-232 Ports on both the 8-port and 16-port models serve as the switch's System Set-Up Ports, which are used for communicating during initial set-up and configuration. You can connect these ports either to a PC or a modem. By connecting to a modem, you can control the device from a remote PC.

The Remote Console Port Manager also has "option switches" on its back panel. These eight DIP switches are used to set the default baud rate, handshake,

message type, and duplex mode. Though the option switches are by default set to be compatible with most applications, you can easily change them to suit your needs.

Monitoring activity is a matter of observing the instrument front panel on the unit. The RDY LED flashes to indicate that the Remote Console Port Manager is operational; the NET LED lights when a network connection is present; and the ACTIVITY LEDs light to indicate data activity on their corresponding ports.

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Package Includes

- 8- or 16-port switch
- Rackmount ears
- (1) 6-ft. (1.8-m) DB9 female to female null-modem cable
- (1) power cord
- User's manual

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Ordering Information

ITEM	CODE
Remote Console Port Manager	
8-Port	SW547A
16-Port	SW548A
For optimum performance, order…	
AT Serial Printer (CL2) Cable, DB9 Female/DB25 Male,	
10-ft. (3-m)	EVMBPC-0010
AT Modem Cable, Premium, DB9 Female/DB25 Male,	
9-Conductor, 10-ft. (3-m)	EVMBMC-0010

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Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.

- It's 9 p. m. and you need help, but your vendor's tech support line is closed.

According to a survey by Data Communications magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay

anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support.

You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

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