



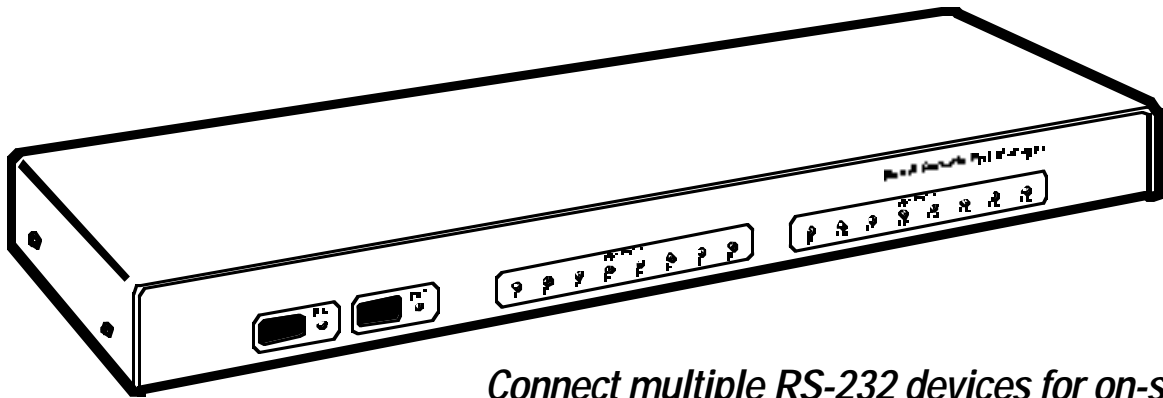
BLACK BOX[®]

NETWORK SERVICES

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SERIAL CONSOLE PORT MANAGER



Connect multiple RS-232 devices for on-site and dial-up remote communications.

Key Features

- ▶ **Any-to-any port switching.**
- ▶ **Available with 8 or 16 RS-232 ports.**
- ▶ **Access each port individually by port number or by assigned name.**
- ▶ **Password protection on each port.**
- ▶ **Data throughput up to 115 kbps.**
- ▶ **Use with external modems or order a switch that has the modem built in.**
- ▶ **Full modem and data flow control.**

For reliable high-speed connections between PCs, modems, and other devices that use dissimilar baud rates, parity, and handshaking, order the BLACK BOX[®] Serial Console Port Manager.

Depending on the model you order, up to 8 or 16 different devices can be connected to the Port Manager without the need to select a common baud rate or parity. This flexibility means each port can be individually configured for specific baud rates, parity, handshaking, and various other parameters and options. Its fast 115.2-kbps throughput makes the Serial Console Port Manager a great serial data matrix switch for high-speed communications applications.

You're also given flexibility in how you control the Serial Console Port Manager; it can be controlled directly via an attached

local PC or remotely through a modem. A network administrator, for instance, needs only a single line with a single modem to communicate with numerous hardware devices at a remote site. As long as the remote device has an RS-232 port, it can be reached. And no software is required!

You can use the Serial Console Port Manager a number of ways. You can perform local or remote console port switching, manage a UNIX[®] serial console, establish dial-up access to consoles at remote locations, set up out-of-band network management, or share multiple console ports via a single VT100[™] terminal or PC.

Available with or without a modem.

The compact Serial Console Port Manager takes only one unit (1.75", 4.4 cm) of vertical rack space and is available in three

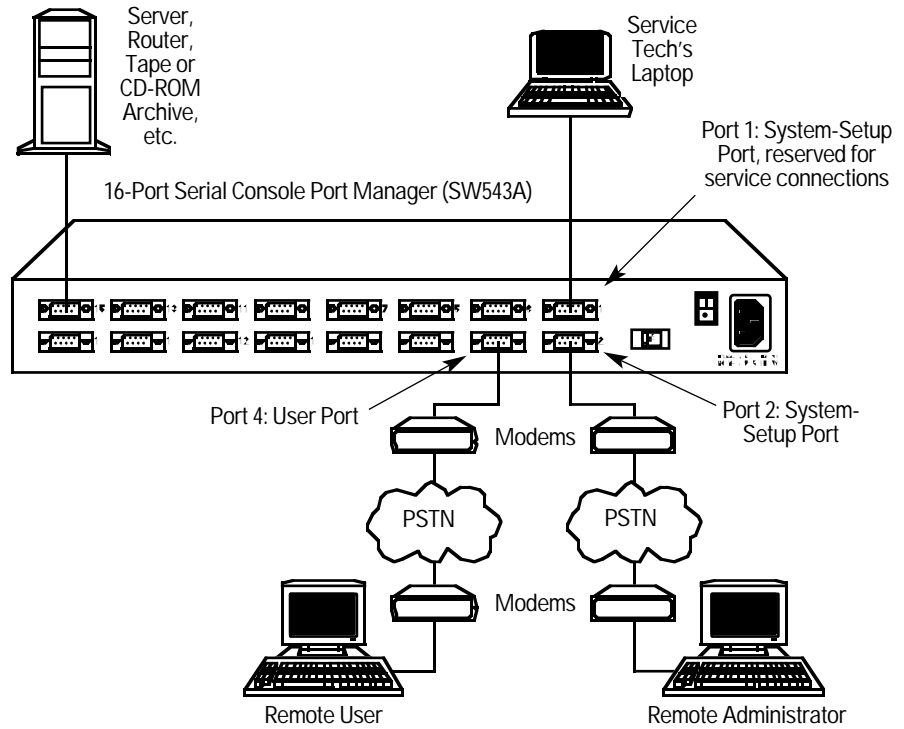
versions. We offer 8- and 16-Port Serial Console Port Managers (SW542A and SW543A) and an 8-Port Serial Console Port Manager with Integral Modem (SW544A-M).

The SW544A-M, as its name implies, has a built-in 33.6K modem (which occupies Port 8 on its front panel) and an internal processor that ensures that the internal modem is always set to answer. (NOTE: The SW544A-M is for North American use only.)

The other two models are designed to work with external modems. Just plug the modem into any of its serial ports.

The RS-232 serial ports on all three models are standard DB9 connectors that work as DTE ports, just like a standard serial port on a PC. These jacks provide quick, easy connection to PCs, modems, and other networking hardware. To connect a device to

In this application, a serial connection to a major data source is maintained at all times. Remote management is done through Port 2, remote use through Port 3, local troubleshooting through Port 1, and all remaining ports are available for local use.



the Serial Console Port Manager, run a DB9 cable between the two. **Easy to configure, manage, and monitor.**

The Serial Console Port Manager can be easily adapted to the requirements of almost any data-communications application, and configuring it is easy. Menus guide you through selecting communications parameters and enabling or disabling options; use rear-panel DIP switches to configure the RS-232 ports.

By default, the Serial Console Port Manager ships with port baud and parity configured to allow its operation in most applications, but you can reset them to match the parameters of your control device.

You can also configure the way ports communicate with one another. The Serial Console Port Manager offers two modes of operation for doing this:

Any-to-Any Mode enables communication between connected ports. If you need to connect a modem, terminal

server, or local PC to a number of asynchronous control ports, you'd use this mode.

Passive Mode enables connection to other ports but doesn't allow access to command functions.

A third port operation mode, *Buffer Mode*, enables you to collect data from up to 14 different devices and store that data for later retrieval. Each port on the Port Manager includes 32K of buffer memory. Use this mode, for example, to get a detailed snapshot of important data or error messages that are sent to a specific port when you're not there to monitor communications.

To configure your modem connections, just access the Serial Console Port Manager's *Modem Mode*. In this mode, you can define hang-up, reset, and initialization strings. Ports set in Modem Mode are password-protected and use a data timeout to reset themselves if the modem line disconnects or locks up.

You can also create hunt groups with the Serial Console

Port Manager by assigning identical or similar names to two or more ports. The Port Manager can then scan a group of ports and connect to the first available port in the group.

The Serial Console Port Manager also has a convenient password feature that can restrict access to specific ports (each individual port can be assigned its own unique password up to 16 characters long) or restrict access to command functions. You can set the Port Manager up so an administrator has access to all commands and users are afforded access to basic commands only.

To send commands to connected ports on the Serial Console Port Manager, simply use a standard communications program.

Through this interface, you can also get detailed information on each port. Just go to the Port Manager's Port Diagnostic Screen, which shows each port's user-defined name, connection status, and baud rate, as well as the data bits, parity, and stop bits

selected for each port. The screen also shows flow control and mode of operation for the each port and the amount of data currently stored in the buffer for a particular port.

To go further and learn the specifics of individual ports, just pull up a Port Parameters Screen, which lists all defined parameters for each port.

Once you've configured the Serial Console Port Manager to fit your application, parameters and options can be copied to other Port Managers or sent to an ASCII text file and saved for future retrieval. If configuration is altered or deleted, parameters can be reloaded via your communications program.

If AC power to the Serial Console Port Manager is lost or interrupted, the unit's nonvolatile memory will retain your defined parameters and port connections.

Specifications

Interface: EIA/TIA RS-232 serial, DTE, pinned according to TIA-574

Protocol: Asynchronous

Data Format: ASCII: 7 or 8 data bits; even, odd, or no parity; 1 or 2 stop bits (user-selectable)

Flow Control: XON/XOFF, RTS/CTS, both, or none (user-selectable)

Data Rate: Any standard rate from 300 bps to 115.2 kbps (user-selectable)

Timeout: No-activity timeout disconnects port: 1, 5, 10, 15, or 30 seconds, or 1, 5, 15, 30, or 90 minutes (user-selectable)

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

Break Handling: Accept Break or Refuse Break (user-selectable)

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

Communications Chip: 16C654 UART with FIFO and flow control

Memory: 512 KB of statically allocated nonvolatile SRAM buffer memory stores parameters and captured data

User Controls: (8) DIP switches ("Setup Switches") determine default parameters for baud rate, flow control, response-message format, and command echo

Connectors: SW542A, SW544A-M: (8) DB9 male; SW543A: (16) DB9 male

Indicators: Front-mounted LEDs: (10) for SW542A, SW544A-M and (18) for SW543A: (1) Power On, (1) Ready, and (1) Data Activity for each port

Ventilation: Through side vents; maintain adequate clearance at all times

Temperature Tolerance: 32 to 113°F (0 to 45°C)

Humidity Tolerance: 10 to 95% noncondensing

Power: Through IEC 320 inlet: 115/230 VAC, 50/60 Hz, 5 watts

Size: 1.75"H (1U) x 17"W x 6.5"D (4.4 x 43.2 x 16.5 cm)

Weight: 8 lb. (3.6 kg)

Ordering Information

ITEM	CODE
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Serial Console Port Manager

8-PortSW542A

8-Port with Integral ModemSW544A-M

16-PortSW543A

You might also need...

AT® Style Serial-Printer Cable, DB9 F to DB25 M, specify lengthEVMBPC

AT Style Modem Cable, DB9 F to DB25 M, specify lengthEVMBMC

AT Style Null-Modem Cable, DB9 F to DB9 F, specify lengthEYN257H-FF

Serial-Port Adapter, DB9 M to DB25 FFA520A-R2

RS-232 Data-Line Surge Protector

DB9SP361A-R2

DB25SP360A

Call Black Box Tech Support for help determining your best options for AC-power backup and protection.