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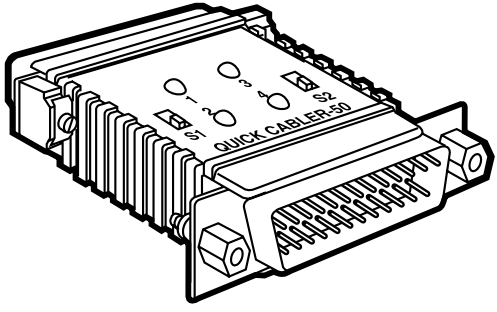
BLACK BOX®
NETWORK SERVICES

MARCH 2004
TS125A-R2

Quick Cabler-50



CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)
FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**
Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018
Web site: **www.blackbox.com** • E-mail: **info@blackbox.com**

FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

TRADEMARKS USED IN THIS MANUAL

Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

Contents

1. Specifications

Transmission Format: Asynchronous

Transmission Speed: Up to 19.2 kbps

Handshake: X-ON/X-OFF, RTS/CTS, DTR/DSR, and other RS-232 signal combinations

Switches: (2): SW1 and SW2

Interface Standard: RS-232

Connectors: DB25 female on computer side and DB25 male on peripheral side

Indicators: (4) LEDs: 1, 2, 3, and 4

Enclosure: High-impact ABS DM plastic

Power: No AC power or batteries required; gets its power from RS-232 data and control signals

Size: 0.6"H x 2"W x 2.2"D (1.5 x 5.1 x 5.6 cm)

2. Introduction

2.1 Overview

The Quick Cabler-50 is a semi-automatic RS-232 interface adapter designed to solve problems normally associated with the use of the RS-232 interface standard. They contain logic circuitry which automatically reconciles RS-232 data and handshake lines, dramatically reducing the time spent in designing and troubleshooting a connection between a computer and a peripheral.

The Quick Cabler is well suited for use in micro-, mini-, or mainframe-computer environments—wherever the RS-232 interface is used and there is a need for a temporary or permanent connection. It's ideal for quick and reliable connections for a variety of products. This intelligent RS-232 interface can replace a costly custom-made cable and eliminate hours of troubleshooting of a malfunctioning RS-232 channel.

The Quick Cabler-50 has one male and one female DB25.

2.2 Features

- Semi-automatic, universal computer/peripheral matching.
- Reduces the time and cost of making special cables.
- Automatically matches data, handshake, and control lines.
- Data rates up to 19.2 kbps.
- Transparent to protocol, word length, or character format.
- Requires no AC power or batteries.

3. Operation

The Quick Cabler requires no configuration and is easy to use. The steps below demonstrate how to operate the unit.

1. Plug the Quick Cabler's female connector into the computer's serial port male connector. Plug the peripheral cable's female connector into the Quick Cabler.

2. Power-up the equipment.

3. Set SW1 (on the left) in the down position. If LED 2 (lower left) glows, slide SW1 up.

4. If both LED 3 and LED 4 (on the right) glow, the Quick Cabler is configured for communications.

5. If only one LED glows, then change switch SW2 (on the right) to see if data can be transmitted in either position. Both data indicators must be on for full-duplex operation.

6. If transmission is still not possible, check LED 1 (upper left). If it glows permanently, then your equipment requires non-standard connection.

NOTE

Sometimes only LED 3 or 4 will glow whether switch S2 is in the up or down position. This is usually the case with receive-only peripherals, such as some printers. In this case, the correct position of switch S2 has to be determined experimentally by trying to send data with switch S2 in both positions.

LED 1 is the handshake indicator. It usually flickers during data transmission, indicating active handshake operation of the RS-232 interface. If the light stays on, it signals that the transmission is disabled on either the peripheral or computer side.

4. Troubleshooting

4.1 Tips

Most application problems associated with the use of this intelligent RS-232 interface arise from mismatched data rates or character formats. Software problems, such as data being sent to a wrong port or not being sent at all, mismatched transmission modes (for example full duplex and half-duplex), etc., are also responsible for many difficulties.

If transmission is disabled either by software or by the peripheral being off-line (LED 1 will be permanently lit), use the Quick Cabler's diagnostic capabilities to determine the source of the problem.

1. Disconnect the cable from one piece of equipment and check LED 1.

2. If the light is on, then the device still connected is causing the problem.

3. If the light is off, then the device which is now disconnected was probably causing the problem.

4.2 Calling Black Box

If you determine that your Quick Cabler-50 is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

4.3 Shipping and Packaging

If you need to transport or ship your Quick Cabler-50:

- Package it carefully. We recommend that you use the original container.

- If you are shipping the Quick Cabler-50 for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Authorization (RA) number.

Appendix. Pin Configurations

These four versatile pin configurations will reconcile 90% of all asynchronous connections. Once you've found the switch setting which works for your application, you can order the proper cable or cable adapter by specifying the switch positions on your Quick Cabler-50. Now you can put your Quick Cabler-50 to work on another application.

When you are ordering these cables or adapters or making your own, note that none of the pin diagrams shown on the next page are symmetrical. (You will need to associate the gender of each side of the cable with the computer or peripheral side of the Quick Cabler-50.)

NOTE

In these diagrams, the left side is the computer side or female connector on the Quick Cabler. The right side is the peripheral side or male connector on the Quick Cabler.

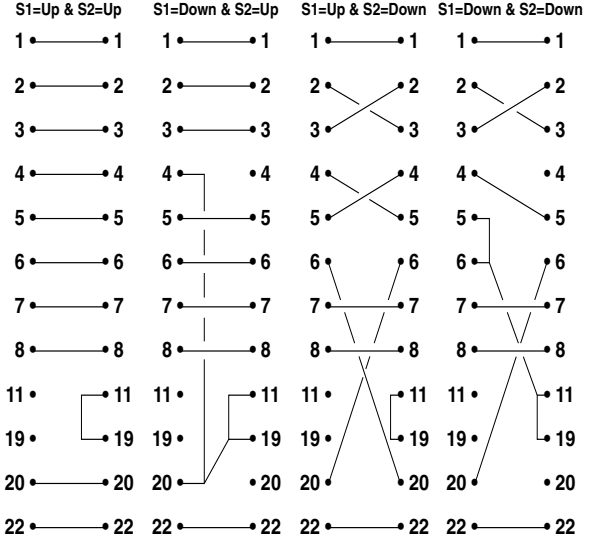


Figure 1. Pinout diagram with associated switch settings.