BLACK BOX®
NETWORK SERVICES

Tail-Circuit Buffer (TCB-422)
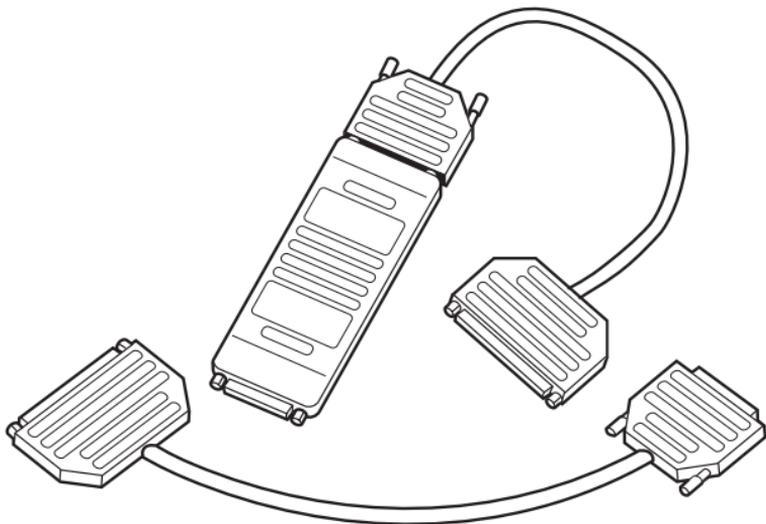
TRADEMARKS USED IN THIS MANUAL

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

1. Specifications

Protocol —   Transparent to protocol

Speed —   Up to 2048 kbps

Operation —   Full duplex

Interface —   RS-422/CCITT V.36, wired as
                           DTE, provides DCE to DCE
                           cross cable function

Connectors —   MC126A-F: (2) DB25 female
                           [(2) adapter cables are
                           included, each with (1) DB25
                           male and (1) DB37 female
                           connector]; MC126A-M:
                           (2) DB25 female [(2) adapter
                           cables are included, each with
                           (1) DB25 male and (1) DB37
                           male connector]

DCE-to-DCE Buffering — Two 512-bit buffers set to
                           256 bits in case of overflow
                           or underflow

Temperature — 32 to 122°F (0 to 50°C)

Humidity Tolerance — Up to 95%, noncondensing

Power — No AC power required;
Derives power from RS-422
data and clock signals

Size — 5.3"H x 1.2"W x 2"L
(13.5 x 3 x 5 cm)

Weight — 0.26 lb. (0.12 kg)

2. Introduction

2.1 Description

The TCB-422 is used as an interface between two internally clocked synchronous devices. It synchronizes the clocking signals between two independently clocked DCE devices when neither DCE device can be clocked externally. A typical modem tail-circuit application is shown in Figure 1.

Two 512-bit buffers reduce errors caused by drift between the two clocks of the DCE devices.
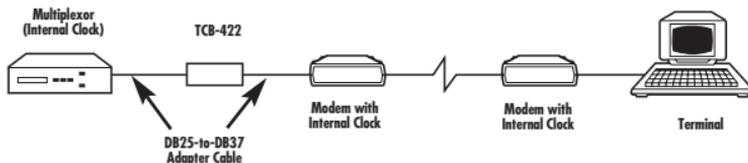

Multiplexor
(Internal Clock)   TCB-422

DB25-to-DB37
Adapter Cable

Modem with
Internal Clock

Modem with
Internal Clock

Terminal

Figure 1. Typical Application.

2.2 What's Included

- (1) TCB-422

- (2) DB25-to-DB37 adapter cables

- This users' manual

3. Installation

To install the TCB-422:

1. Remove power from the two devices that you want to connect to the TCB-422.

2. Locate the two DB25-to-DB37 adapter cables that were included in your TCB-422 package. Plug the DB25 male connectors of each adapter cable into the DB25 female connectors on the Tail-Circuit Buffer.

3. Connect the DB37 connectors of each adapter cable (male or female, depending on your model) to your RS-422 devices.

NOTE
If the adapter cables are not long enough and you must add additional cables to reach your equipment, the total cable length from the TCB-422 to each device must not exceed 6.6 feet (2 m).

4. Apply power to the two RS-422 devices connected to the TCB-422.
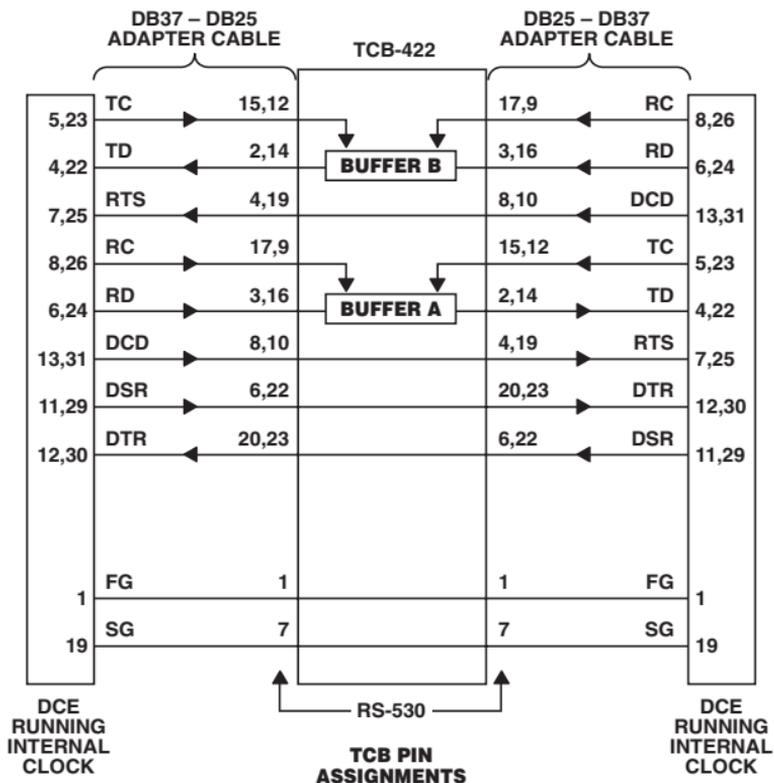
The TCB-422 is now ready for operation.

Figure 2. Data Flow Schematic Diagram.

BLACK BOX®
NETWORK SERVICES