FREE 24-hour Tech Support: 724-746-5500
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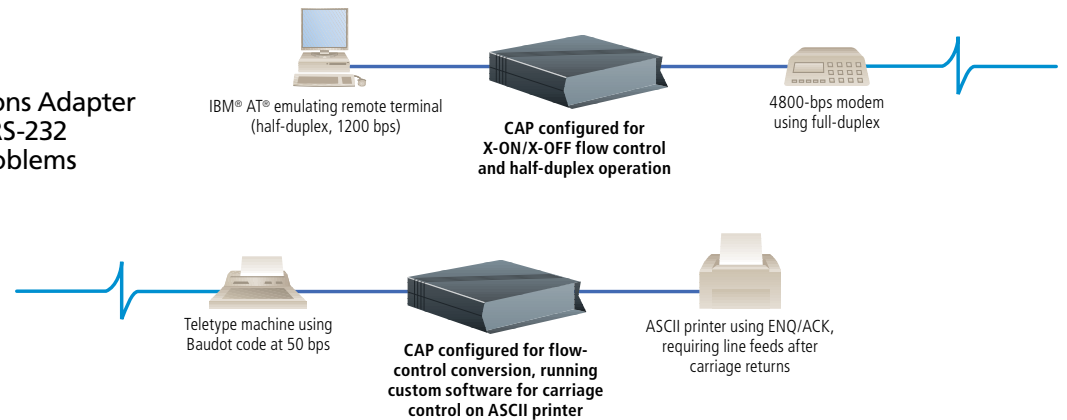Communications Adapter Plus (CAP) • User-Programmable Communications Adapter Plus (CAP)

Our all-purpose async RS-232 communication device: versatile, affordable, and can be customized to your unique needs.

FEATURES

» Supports word structure, flow control, character set, data rate, and transmission mode conversions.
» Connects devices that communicate from 45.5 bps all the way up to 38.4 kbps without losing data.
» Supports hardware or software flow control.
» Custom software or hardware is available for a wide variety of special requirements.
» User-programmable model available.

The Communications Adapter Plus makes async RS-232 incompatibility problems disappear.

IBM® AT® emulating remote terminal
(half-duplex, 1200 bps)

**CAP configured for
X-ON/X-OFF flow control
and half-duplex operation**

4800-bps modem
using full-duplex

Teletype machine using
Baudot code at 50 bps

**CAP configured for flow-
control conversion, running
custom software for carriage
control on ASCII printer**

ASCII printer using ENQ/ACK,
requiring line feeds after
carriage returns

OVERVIEW

Tired of trying to get your basically incompatible RS-232 machines to talk to each other? Your problems may be over. Our Communications Adapter Plus (CAP) allows you to link two mismatched asynchronous RS-232 devices for data communication by converting protocols in any of the following areas:

• **Character Set.** Though ASCII, EBCDIC, Baudot code, transcode, and ticker tape are mutually unintelligible, the CAP can take data sent in any of these formats and translate it into any of the others.

• **Word Structure.** Machines looking for different word lengths can chop each other's messages to bits, but with the CAP, 5-, 6-, 7-, and 8-bit words can be freely interchanged. And parity is no problem—set the CAP for even, odd, mark, space, or no parity checking.

• **Transmission Mode.** The CAP can be set to automatically adjust to the one-way or two-way demands of each port for simplex, half-duplex, and full-duplex modes.

• **Flow Control.** The CAP has 32K of buffer RAM and uses it to play data-stream traffic cop expertly. It prevents tie-ups between X-ON/X-OFF, ENQ/ACK, and DTR/CTS flow control.

• **Data Rate.** Another good thing about the CAP's spacious buffer is that it gives even very slow machines time to play catch-up with very fast ones. The CAP can mediate exchanges between devices working at all common speeds between 45.5 bps and 38.4 kbps.

Choose the User-Program-mable Communications Adapter Plus (CAP) if you want to program your own character/ character-string conversions.

Typical applications for the standard model or the user-programmable model include:

• Connect a mini computer sending straight async EBCDIC with a printer set to receive even parity, ENQ/ACK, ASCII data.

• Bring a 300-bps half-duplex machine into a 19.2-kbps full-duplex conversation.

• Connect a PC with a 2400-bps-maximum communications card to a 9600-bps modem while checking for mark parity.

If there's something you don't see here, call us. We can make a customized CAP just for your application. (See Technically Speaking for more about customizing the CAP).

Technically Speaking

• Each of the two ports on the CAP can be easily configured to match the settings of the attached device with internal DIP switches.

• The CAP can control the RS-232 interface leads to provide hardware-based DTR/CTS flow control.

• If you have a special application (for example, adding line feeds after carriage returns for printers or time-delay signal generation), we can tailor-craft software to the situation.

• Our Special Products Group can add hardware features as well. For example, the CAP can be modified to run on DC power at 12 V, 24 V, or 48 V, or the board can be fitted with a piezo alarm and/or a relay modification for a normally open/normally closed switch at 3 A, both of which can be controlled via custom software.

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CMA005A

TECH SPECS

Specs Text Roman — Flow Control — Hardware X-ON/X-OFF, ENQ/ACK, DTR/CTS

Memory — 8 KB EPROM, 32 KB RAM

Processor — Z-80 CPU

Protocol — Asynchronous only

Speed — 45.5 bps to 38.4 kbps

Controls — Reset

MTBF — 58,000 hours in a ground-benign environment

Interface — CMA02A, CMA02C: RS-232/V.24, configured as DTE; CMA005A, CMA005C: RS-232, configured as DTE

Connectors — (2) DB9 female

Indicators — RX and TX for each port, and Power

Enclosure — High-impact plastic

Power — CMA02A, CMA005A: 115 VAC, 60 Hz, 95 mA, 11 watts; CMA02AE, CMA005AE: 230 VAC, 50 Hz, 48 mA, 11 watts

Size — CMA02A, CMA005A: 1.8"H x 5.5"W x 8.5"D (4.6 x 14 x 21.6 cm); CMA02C, CMA005C: 4.7"H x 7.4"L (11.9 x 18.8 cm)

Weight — CMA02A, CMA005A: 1 lb. (0.5 kg)

Item	Code
Communications Adapter Plus (CAP)	
Standalone, 115-VAC	**CMA02A**
Standalone, 230-VAC	**CMA02AE**
Rackmount Card	**CMA02C**
User-Programmable Communications Adapter Plus	
Standalone, 115-VAC	**CMA005A**
Standalone, 230-VAC	**CMA005AE**
Rackmount Card	**CMA005C**
For your CMA02C or CMA005C cards, order…	
12-Card Rack	**RM010-CAP**
You may also need…	
DB9 Male to DB25 Female Adapter	**FA521A-R2**
Remember to order cable…	
9-Pin to Modem Cable (DB25 Male), 10-ft. (3-m)	**EHM024-0010**
9-Pin to AT Cable (DB9 Female), 10-ft. (3-m)	**EHM025-0010**
9-Pin to DTE Cable, 10-ft. (3-m)	**EHN023-0010**
(For other lengths or genders, call our FREE Tech Support.)	

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.

Don't waste time and money—call Black Box today.

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