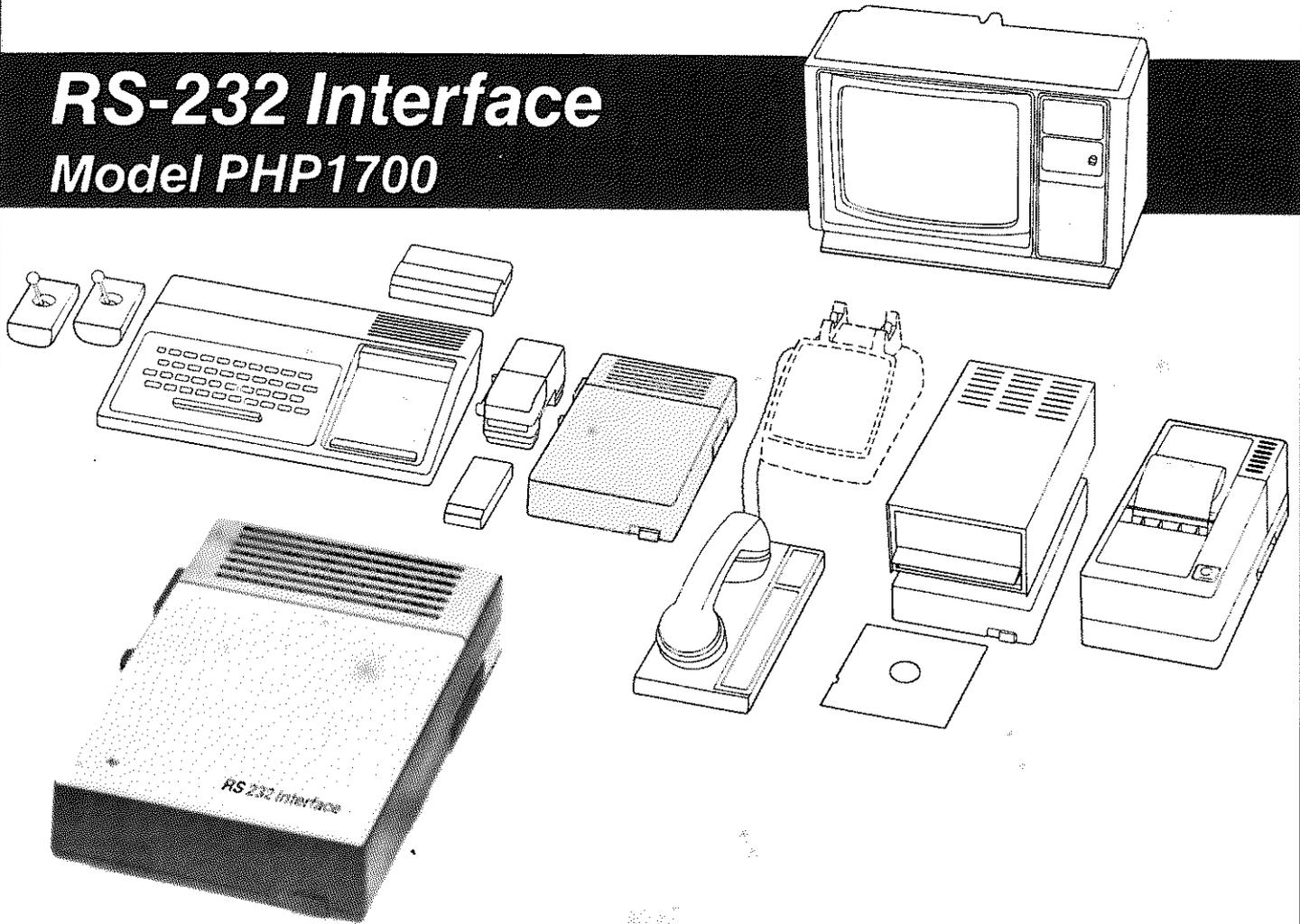


**Texas Instruments**  
**TI-99/4 Home Computer Accessory**



# RS-232 Interface

## Model PHP1700



The Texas Instruments RS232 Interface is a communications adapter that enables you to connect a wide range of serially formatted accessory devices, including those from other manufacturers, to your TI-99/4 Home Computer. It is not required for the use of TI-99/4 peripherals manufactured by Texas Instruments (with the exception of the Telephone Coupler [Modem], where it is required). With the RS232 Interface connected to your Home Computer you can list programs on a printer, send and receive data from a terminal, exchange TI BASIC programs directly between TI Home Computers, and much more.

With the addition of the Telephone Coupler (Modem), or other standard modem or acoustic coupler, and the RS232 Interface, a whole new world of computer versatility becomes available to you. Your Home Computer can now "talk" with other computers and

terminals over ordinary telephone lines. You can access your office computer or time sharing network from the comfort and convenience of your own home, using your TI Home Computer as a remote terminal to send and receive data\*. This two-way communications permits interactive programming and distributed processing functions to be performed between two or more TI-99/4 Home Computers or by utilizing the TI-99/4 as a remote terminal for another computer system.

The RS232 Interface is programmable to let you exchange data with a variety of serially formatted devices. Using TI BASIC, you can select baud rate, the number of bits, parity, and the number of stop bits. This flexibility permits you to interface with both low and high-speed peripherals including printers, plotters, video display terminals, and other computers.

\*Requires the Terminal Emulator Software Package for this function.

# Specifications

## Functional capabilities.

All functions are programmable from a BASIC program.

## Software programmable hardware functions.

**Baud rates:** 110, 300, 600, 1200, 2400, 4800, or 9600.

**Number of data bits:** 7 or 8.

**Parity:** none, odd, or even.

**Number of stop bits:** 1 or 2.

## Software programmable software functions.

**Carriage return:** Automatically added to the end of all output records unless disabled. If disabled forces Nulls and Linefeed below to be disabled also.

**Nulls:** Normally disabled but if enabled will automatically add 6 null characters between the carriage return and the linefeed characters.

**Linefeed:** Automatically added after carriage return character above unless disabled.

**Echo:** Automatically echoes all received data on a particular port back to the device connected to that port. Also enables the remote terminal device to edit the data record before the console receives it.

**Parity:** Normally disabled but if enabled will check for parity errors and generate an error code if any are found.

## BASIC language interface.

The RS232 Interface contains all the software necessary to interface with the TI Home Computer File Management System and is controlled from TI BASIC. The OPEN, CLOSE, INPUT, PRINT, OLD, and SAVE statements can be used to input and output data through the two ports of the RS232. The INPUT and PRINT statements can input and output data to a terminal.

The LIST command can produce a printed copy of a TI BASIC program. The OLD and SAVE commands can transfer a copy of a TI BASIC program from one TI Home Computer to another. In all cases, modems can be used to extend the range of these functions via telephone lines.

## Peripheral connection.

Two serial ports (Electronic Industries Association RS-232C standard). Connection is by means of cables using EIA RS232C standard 25-pin male connectors.

Seven signals are used:

SERIAL DATA IN  
SERIAL DATA OUT  
CLEAR TO SEND  
DATA SET READY  
DATA CARRIER DETECT  
DATA TERMINAL READY  
SIGNAL GROUND

## Format.

### EIA data.

Data is serialized and shifted to EIA (RS232C) levels with baud rate selectable under program control.

### Protocol.

ASCII.

## Power requirements.

**Voltage:** 115 vac. **Frequency:** 60 Hz. **Power:** 20 W.

## Physical characteristics.

**Length:** 25.9 cm (10.2-  
inches).

**Width:** 17.0 cm (6.7-  
inches).

**Height:** 7.1 cm (2.8-  
inches).

**Weight:** 1.0 kg (2.2 lbs).

## Limited warranty.

The Texas Instruments RS232 Interface Model PHP1700 is covered by a 90-day limited warranty against defects in materials and workmanship. This warranty covers only the hardware portion of the TI RS232 Interface. See *User's Reference Guide* for complete warranty text. TI cannot and does not warrant that the TI Home Computer programs and book materials will be free from error or will meet the specific requirements of the user. The user assumes complete responsibility for any decisions made or actions taken based on information obtained using these programs and book materials, which are made available solely on an "as-is" basis (see owner's manual).

Texas Instruments reserves the right to make changes in materials and specifications without notice

*Texas Instruments technology—bringing affordable electronics to your fingertips.*

**TEXAS INSTRUMENTS**  
INCORPORATED