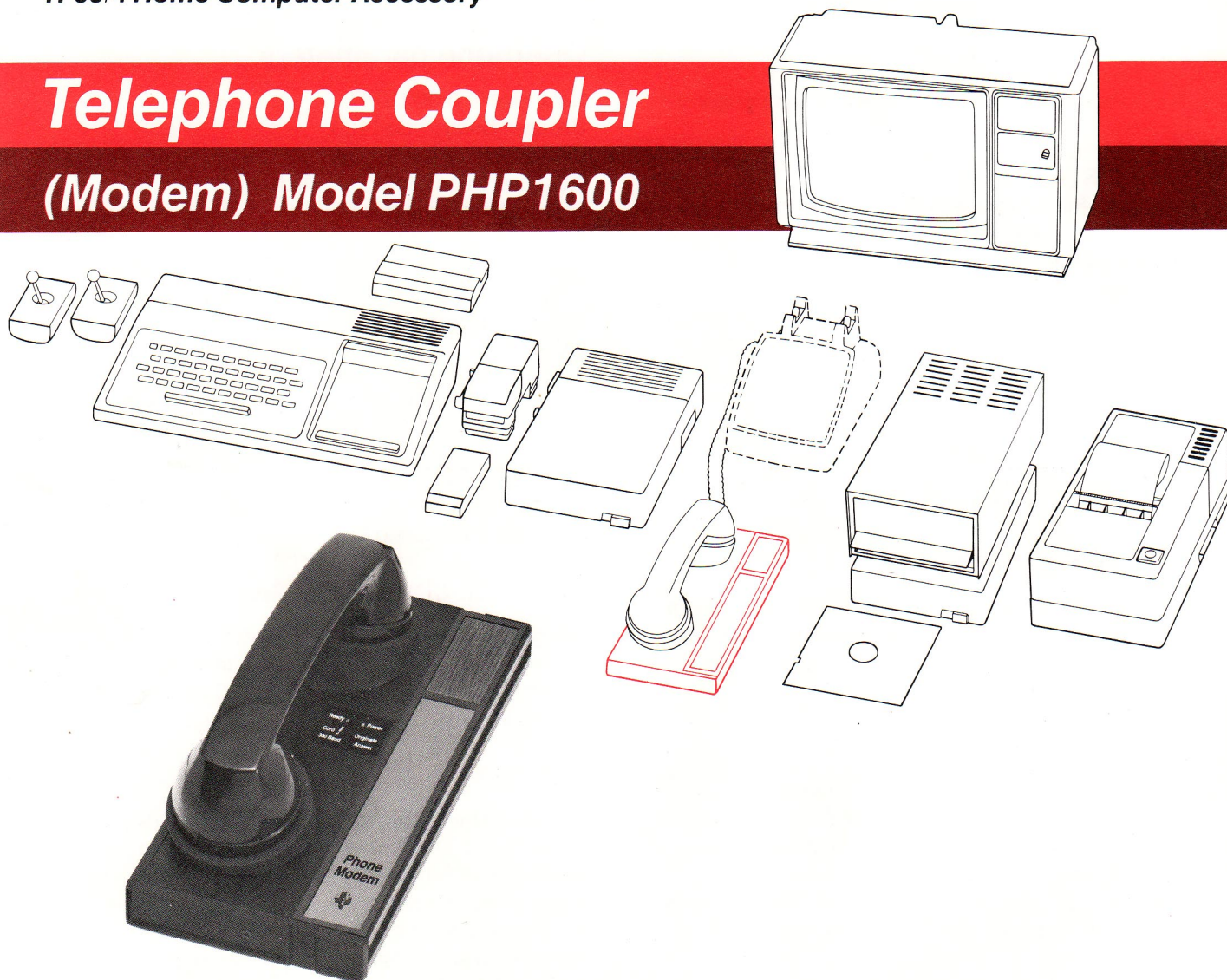**Texas Instruments**
TI-99/4 Home Computer Accessory

Telephone Coupler
(Modem) Model PHP1600

The Texas Instruments Telephone Coupler (Modem) enables your TI-99/4 Home Computer to send and receive messages through a standard telephone. Use of the Telephone Coupler requires an RS232 interface unit, such as the Texas Instruments RS232 Interface Model PHP1700. (See RS232 Interface Data Sheet CL458 for additional information on this unit.)

With your Telephone Coupler and RS232 Interface, your Home Computer can communicate directly with other similarly equipped computers at distant locations via the telephone system. You can send and receive messages, transfer programs and data between computers, and much more.

The Telephone Coupler functions as a modulator to convert the data you enter on the Home Computer console into signals that can be sent over telephone lines. It also functions as a demodulator to convert data received over telephone lines back to its original form. Using the Telephone Coupler is easy. It is powered by a UL-listed low voltage tansformer (included). A handy, built-in cable connects the Telephone Coupler to the RS232 Interface. Your standard telephone handset simply inserts into the flexible acoustic couplers on the Telephone Coupler.

The Telephone Coupler may be used with many RS232 compatible terminals or computer systems for communication over standard telephone lines.

Specifications

Controls.

The Telephone Coupler has the following operator-set controls:

FULL/TEST/HALF
Full: Sets full duplex operation (characters typed on keyboard are sent out of the Home Computer without being displayed or printed).
Test: Sets up audio self-test mode.
Half: Sets half duplex operation (characters typed on keyboard are not only sent out but also appear on your monitor or printer).

ANS/OFF/ORIG
Ans: Sets Answer mode.
Off: Turns unit power off.
Orig: Sets Originate mode.

Operating modes.

When the Telephone Coupler is in the *Originate* mode, you are the party who begins all conversations with the remote terminal. In the *Answer* mode, the remote terminal originates the conversation.

Originate mode.

Set ANS/OFF/ORIG control to ORIG and FULL/TEST/HALF control as required. Dial remote number. When you hear the answering tone, insert the telephone handset into the flexible acoustic couplers on the Telephone Coupler. When the READY indicator lights up you may proceed with communication.

Answer mode.

You manually answer the telephone and will hear an answering tone. Switch ANS/OFF/ORIG control to ANS. Insert the telephone handset into the flexible acoustic couplers. When READY indicator turns on you may proceed with the data exchange. To terminate a call, switch control to OFF and hang up the telephone.

Operating parameters.

Data rate: 0-300 BPS.
Compatibility: Bell 103.
Interface: EIA-RS232C.
Receiver sensitivity: −45 dBm.
Transmit frequencies:

Originate—	Answer—
Mark: 1270 Hz.	Mark: 2225 Hz.
Space: 1070 Hz.	Space: 2025 Hz.

Receive frequencies:

Originate—	Answer—
Mark: 2225 Hz.	Mark: 1270 Hz.
Space: 2025 Hz.	Space: 1070 Hz.

Power requirements.

24 VAC/150 mA supplied by a UL listed transformer with 6-foot cord. (Included.)

Physical characteristics.

Length: 25.9 cm (10.2 inches).	**Height:** 5.8 cm (2.3 inches).
Width: 11.9 cm (4.7 inches).	**Weight:** 0.68 kg (1.5 lbs).

Limited warranty.

The Texas Instruments Telephone Coupler (Modem) Model PHP1600 is covered by a 90-day limited warranty against defects in materials and workmanship. This warranty covers only the hardware portion of the Telephone Coupler. 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).

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