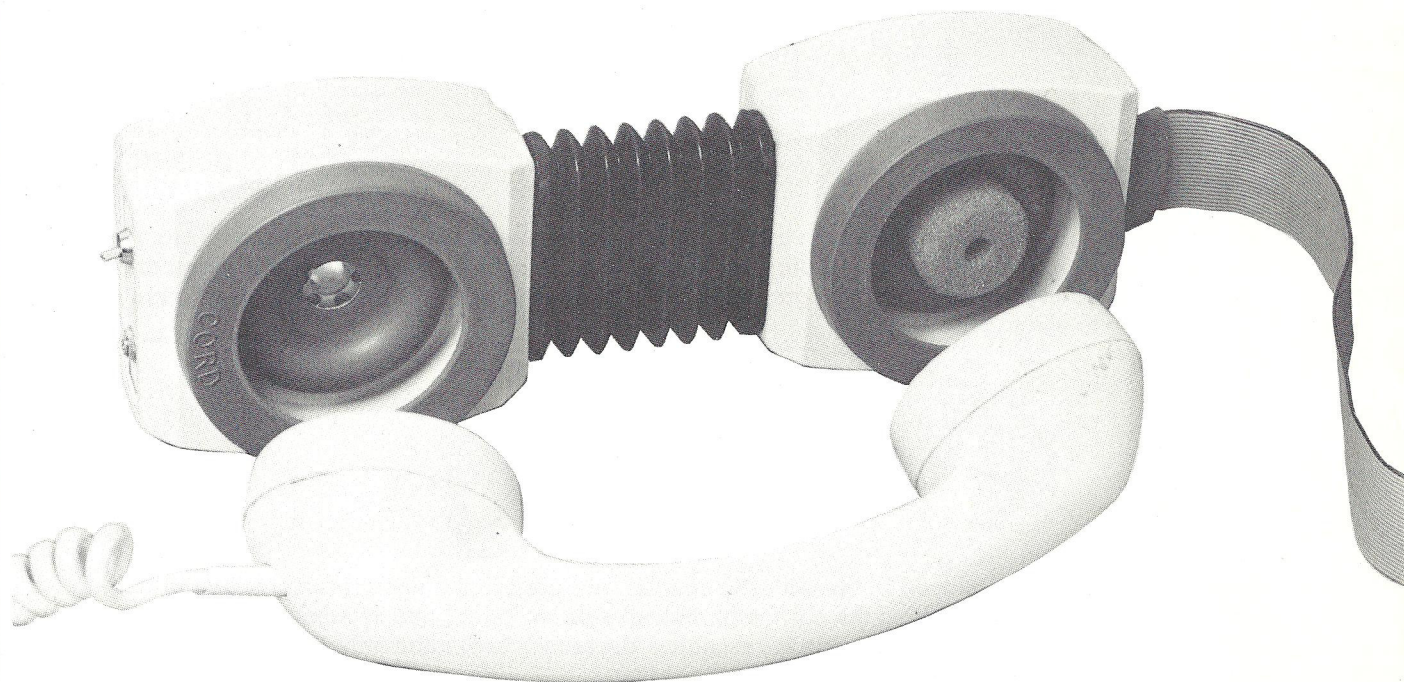


300 baud Duplex Acoustic Modem



The X-3270 is an acoustically coupled modem which allows digital data to be transmitted and received over the normal switched telephone network, at rates of up to 300 baud. It therefore makes it possible for computers and data terminals to communicate using standard telephones, and for computer/terminal owners to access remote data bases.

Designed and manufactured in Australia, the coupler is compatible with most telephone handsets in use throughout the world. The transmitter and receiver of the telephone handset are simply fitted into the coupler's rubber-lined receptacles, after dialing up and establishing the required telephone connection.

The X-3270 coupler provides a standard of performance and reliability hitherto unavailable from acoustic-type data modems. This is due to the use of newly-designed circuitry throughout, including a stable phase-coherent modulator, bandpass filters with carefully aligned and controlled phase characteristics, and a phase-locked loop decoder which incorporates active post detection filtering. In addition, special care has been taken with the design of the transducers, coupling cavities and seals.

The coupler is designed for full duplex operation, so that data may be transmitted and received simultaneously. It is also switchable between "Answer" and "Originate" mode, so that communication between two X-3270 units is just as easy as between one unit and a fixed "Answer" modem (when two duplex modems are communicating, one must be set for "Answer" mode, and the other for "Originate").

Power for the X-3270 is normally provided by a 9V DC "plug pack" supply (M-9525 or similar), but provision is also made for supply from the computer/terminal.

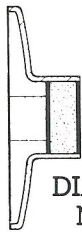
The X-3270 is suitable for use with both the Exidy Sorcerer computer (X-3000/1) and the expanded Dick Smith System 80 computer (X-4003/5 with X-4010). It is also suitable for virtually any other computer or terminal with a standard RS-232C serial data interface.

Cat. X-3270
\$399⁰⁰

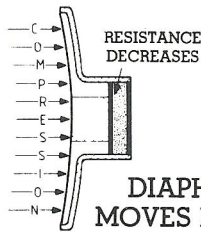
Dick Smith Electronics Data Sheet

IMPORTANT USER INFORMATION

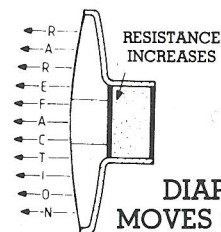
For best results when using your coupler with telephone handsets containing carbon granule microphones please consider the following:-



DIAPHRAGM
NORMAL

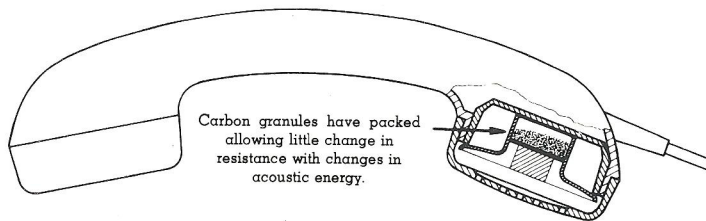


DIAPHRAGM
MOVES INWARDS



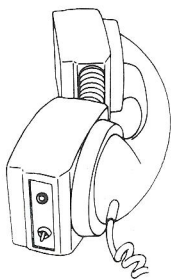
DIAPHRAGM
MOVES OUTWARDS

Most telephone handsets are fitted with carbon granular transmitters like those depicted above. When you speak into the mouthpiece the sound waves strike a diaphragm causing it to compress and release a chamber filled with carbon granules. The change in density of the granules causes a change in circuit resistance resulting in a change from acoustic energy to electrical energy.

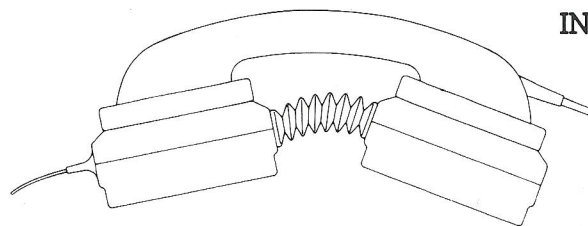


When the telephone handset is placed in the acoustic coupler and used in the normal rest position of the handset then after a short period of time the carbon granules begin to "pack" and reliability decreases dramatically. As the granules pack the change in resistance decreases until ultimately this resistance does not accurately convey the change in acoustic energy.

CORRECT



INCORRECT



For best results the coupler should be used on its side thus orientating the telephone transmitter in the correct plane and thus preventing carbon granule packing.

These comments are valid — you can demonstrate to yourself when next you are using the telephone by tilting your head to one side so that the telephone microphone has its axis vertical. Within a matter of moments your opposite number will be asking you to repeat what you have said. From this graphic demonstration you can easily imagine why the preceding comments are important.

REMEMBER if there is any doubt as to whether your telephone has a carbon microphone or not, do not risk difficulties — use the coupler correctly as illustrated, ON ITS SIDE.

OPERATING FREQUENCIES

Operating Mode	Mark	Space
Originate — Transmit	980Hz	1180Hz
	— Receive	1650Hz 1850Hz
Answer — Transmit	1650Hz	1850Hz
	— Receive	980Hz 1180Hz

The X-3270 acoustic modem conforms to CCITT V.24 interface recommendations, and is fully approved by Telecom Australia Permit No. C81/8/589.

DICK SMITH ELECTRONICS

SHOP 4, 399 LONSDALE ST.,

MELBOURNE VIC. 3000

PHONE No. 67-0004

INTERFACE CONNECTIONS

The cable provided on the X-3270 acoustic modem is provided with a standard DB-25 connector, as used on the majority of RS-232C interfaces. The primary connections for this connector are:

- Pin 1: Protective earth
- Pin 2: Transmit data
- Pin 3: Receive data
- Pin 7: Signal earth
- Pin 8: Carrier detect

NOTE: The coupler may be provided with power by connection to certain other pins, if desired, as an alternative to the plug-pack input. Further information on this is available from our technical department.

PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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