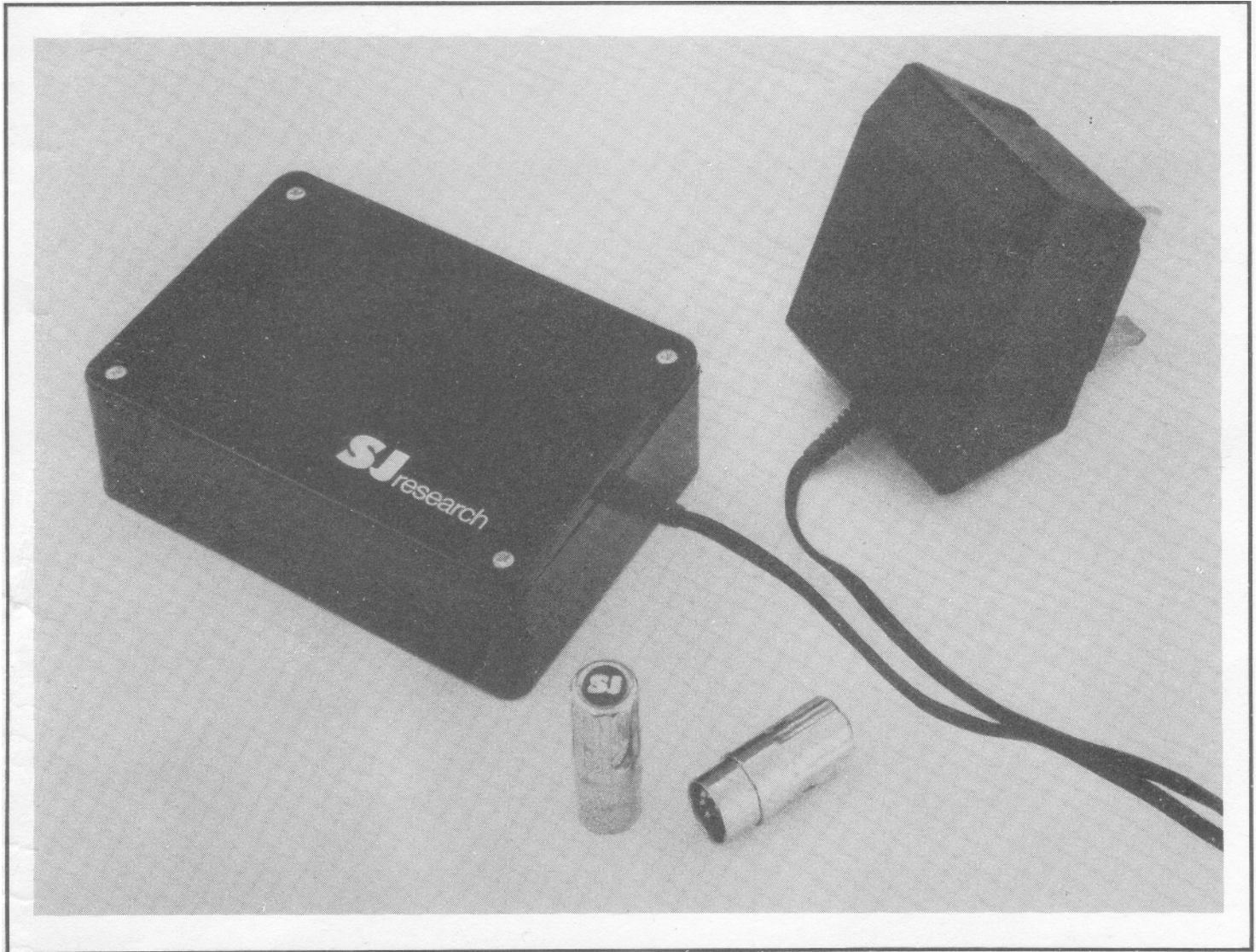


# Econet<sup>®</sup> Clock and Terminators



## Econet Clock and Terminator Set

The SJ Research clock and terminator set provides all the hardware necessary to implement an Econet<sup>®</sup> installation, except for the cable and connectors.

- Asymmetric clock waveform allows higher data rates
- Clock rate and waveform are easily adjusted
- Self-powered terminators means only one power supply
- Easy installation — just plugs into network
- Complete with power supply
- Fully documented

## Clock Box

The clock box provides the signal which synchronises data transfer on the network. The SJ Research design allows proper termination of the clock lines giving a clean waveform for reliable communication. Independent drivers supply the clock signal to the two halves of the network and a crystal controlled oscillator is used for maximum stability. The period and the 'mark' time are separately programmable which allows a higher data rate than with a square wave (see the graph below).

## Terminators

The terminators are special 5-pin DIN Plugs designed to absorb signals which would otherwise be reflected back from the cable ends. They also bias the data lines when no stations are transmitting, indicating that the network is free. The terminators are plugged into sockets at the two ends of the net, deriving their power through the network from the clock box.

## Technical Specification

Clock Frequency Range 63.5 kHz to 4MHz

Clock Period Range 250ns to 15.75µs in 250 ns steps

Clock Mark Range 125ns to 7.875µs in 125 ns steps

Theoretical maximum network length at slowest speed 2.2 kilometres

Maximum network length for BBC machine's maximum clock speed 600 metres

Maximum clock speed at 1000 metres network length 167 kHz

## Power Supply

Clock 13 Amp mains adaptor (included)

Terminators Powered via network from clock box

## Dimensions

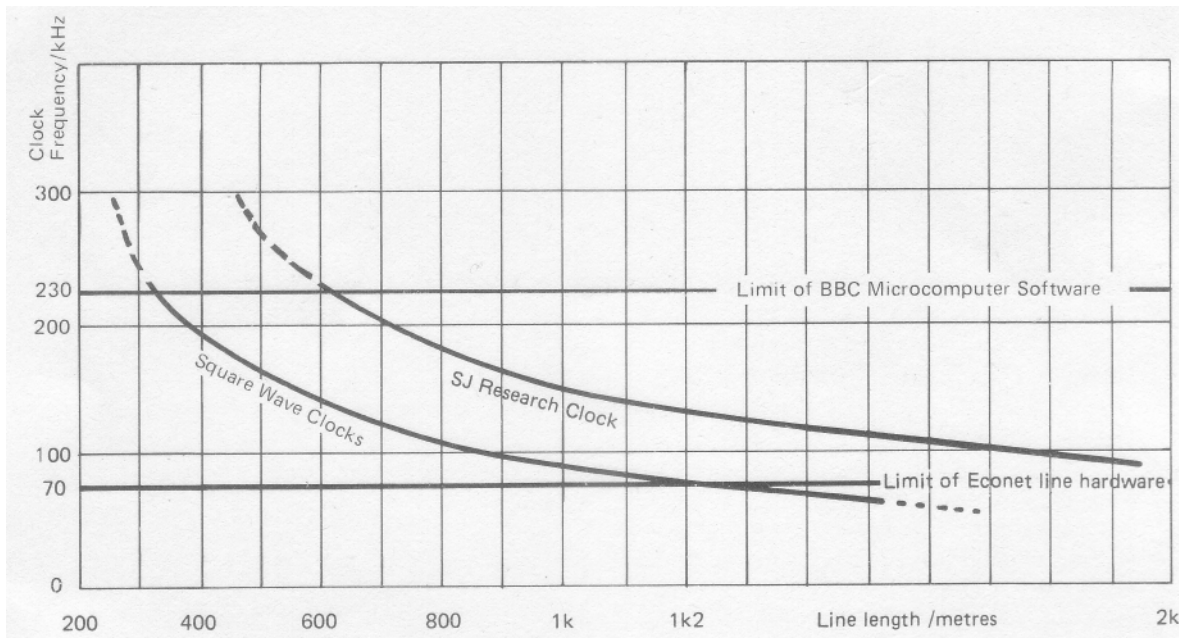
Clock Box 120 x 80 x 35 mm Power Supply 70 x 65 x 55 mm

Terminators 35 x 15 mm diameter Power Lead 1.8 metres long

Package 230 x 210 x 90 mm Package Weight 580g

## Export Model

A special version of the clock box is available with a socket for power input, allowing use of other mains adaptors. Contact SJ Research for further details.



Graph of Maximum Clock Frequency against Network Length

SJ Research has a policy of continual improvement, and for this reason the accuracy of the information in this brochure cannot be guaranteed.

Econet is a registered trademark of Acorn Computers Ltd.

**SJ** research

108 Mill Road, Cambridge CB1 2BD  
Telephone: (0223) 69927