



Analogue and ISDN Simulators.

Analogue Line simulators.

The ideal line simulator will act just like a miniature public telephone network. The simulator should provide an accurate dial tone, audible ring, and busy signals to the telephones and other devices connected to them. Some simulators will include features associated with a PBX such as hunt groups, dial 9 outside line access, transferring and conferencing. They can be programmed with primary and secondary numbers for each line. It is also possible to set dial delays and network response delays. The Betterbox MD9940 is a small size mains powered unit with twin, UK style, telephone sockets. The integral sockets for the connection of any two dial-up devices, modems or telephones, for hardware and software demonstration, training, development, installation and maintenance work. The operation of the MD9940 is fully automatic. It is self contained and pocket sized. It provides a convenient tool for workshops, laboratories, demonstrations and training centres with different variants for a variety of country telephone standards. The first device coming off-hook is supplied with a dial tone for about 5 seconds during which it may dial any number either with pulses or tones. The other socket then rings automatically until it is answered; the two devices are then connected. Speech or data may pass between them until they ring-off. The unit has an audio option which, when fitted, provides an off-hook switch, and a standard audio socket for connection to an audio source or recording equipment.

Subscriber Loop Simulator.

These devices are used to precisely and accurately emulate all the characteristics of the subscriber loop. The device should be able to emulate all the subscriber loop impairments. These will include multi-frequency interference, loop noise and impulse noise, also the frequency response and impedance characteristics. Generally these units provide pre-defined standard test loops and user-programmable custom test loops that go beyond the standards' requirements.

ISDN Simulators.

During the early 1990's the ISDN network simulator was developed. These devices needed to simulate the operation of a Central Office Switch. They can provide either BRI (Basic Rate Interface) presented as either U (2-wire) or S (4-wire) or PRI (Primary Rate Interfaces) (E1 or T1) via RJ45 sockets or both. These may be used in the same way as the regular ISDN lines or may be used for testing and diagnostic work. Most ISDN simulators have the ability for features to be individually customised. For instance the entire directory number structure can be changed. Network conditions such as User Busy or Call Rejected may be activated and line power can be switched on or off. Some simulators will provide indication on the unit so that the state of each terminal can be ascertained. Further some provide software to give protocol analyses and simple device configuration. There are many variants of ISDN used in a whole range of different countries. These include BTNR 191 (UK), VN3 (France), ETSI (Europe), ITR6 (Germany), AT&T 5ESS, National-ISDN & Nortel DMS100 (USA). There are also network supplementary services that need to be supported.

Betterbox offer a range of ISDN simulators covering both BRI and PRI interfaces. The products come from companies with a long presence in the market. They have supplied simulators to all parts of the industry. The EMUTEL range covers from the Emutel Lite with two BRI interfaces to the Emutel Ultra with the capability of 15 Primary rate lines and 9 Basic rate lines plus analogue support. As an alternative there is the Simline 2 or 6 BRI testers.

Call us on 01908 561400 if you have any further questions or require help selecting the correct unit.

Betterbox Communications Ltd , 43 Burners Lane South, Kiln Farm, Milton Keynes, MK11 3HA
Phone: +44 (0) 1908-560200, Fax: +44 (0) 1908-565533, www.betterbox.co.uk

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