CABLE CHECKING

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Although they may not be visible, all buildings contain internal structured cabling. Even though some of this may be in constant use, there will be a number of wires that will be redundant. In the case of the UK telephone system, up to 3 pairs of wires in one telephone cable may never be used in the operation of the telephone equipment. A buggist only has to connect a simple microphone at a suitable point along the length of this cable and with an amplifier or recorder attached to the other end, room monitoring can easily be carried out.

Due to the nature of modern businesses, old redundant cabling, i.e. obsolete computer networks, old telephone cabling which may have been replaced during an upgrade of the communications system, old power wiring etc is usually not removed during refurbishment. Rather, the new cables are installed and the old ones merely disconnected. This presents anyone wishing to evesdrop on your conversation, with a number of ready to use cables. Checking these is very labour intensive but nevertheless an important task for any sweep operator to perform.

Typical bugging equipment which may utilise such cables are:

- Mains carrier transmitters. An example of these is a baby monitor where the AC power wiring is used to carry the radio transmission from the target area to the listening post at the same time as providing a constant power source for the bug itself.

- Hidden microphones

- Telephone taps

- Infinity transmitters. A modification to the telephone equipment to conceal a room monitor which uses the public telephone system to relay the audio to the buggist. Advantages of this type of device is that the evesdropper may be situated anywhere in the world.

Countermeasure Equipment

Because of the relative ease with which cabling within a building may be exploited for bugging purposes. And because of the diversity of the devices which may be installed, cable are one of the most difficult areas to secure. Quality cable checking equipment therefore should be a serious consideration for the sweep operative.

Cable checking equipment may range from something as simple as an AC/DC voltmeter, purpose designed tester such as the Audiotel TCM-03 through to specialist equipment like a time domain reflectometer.
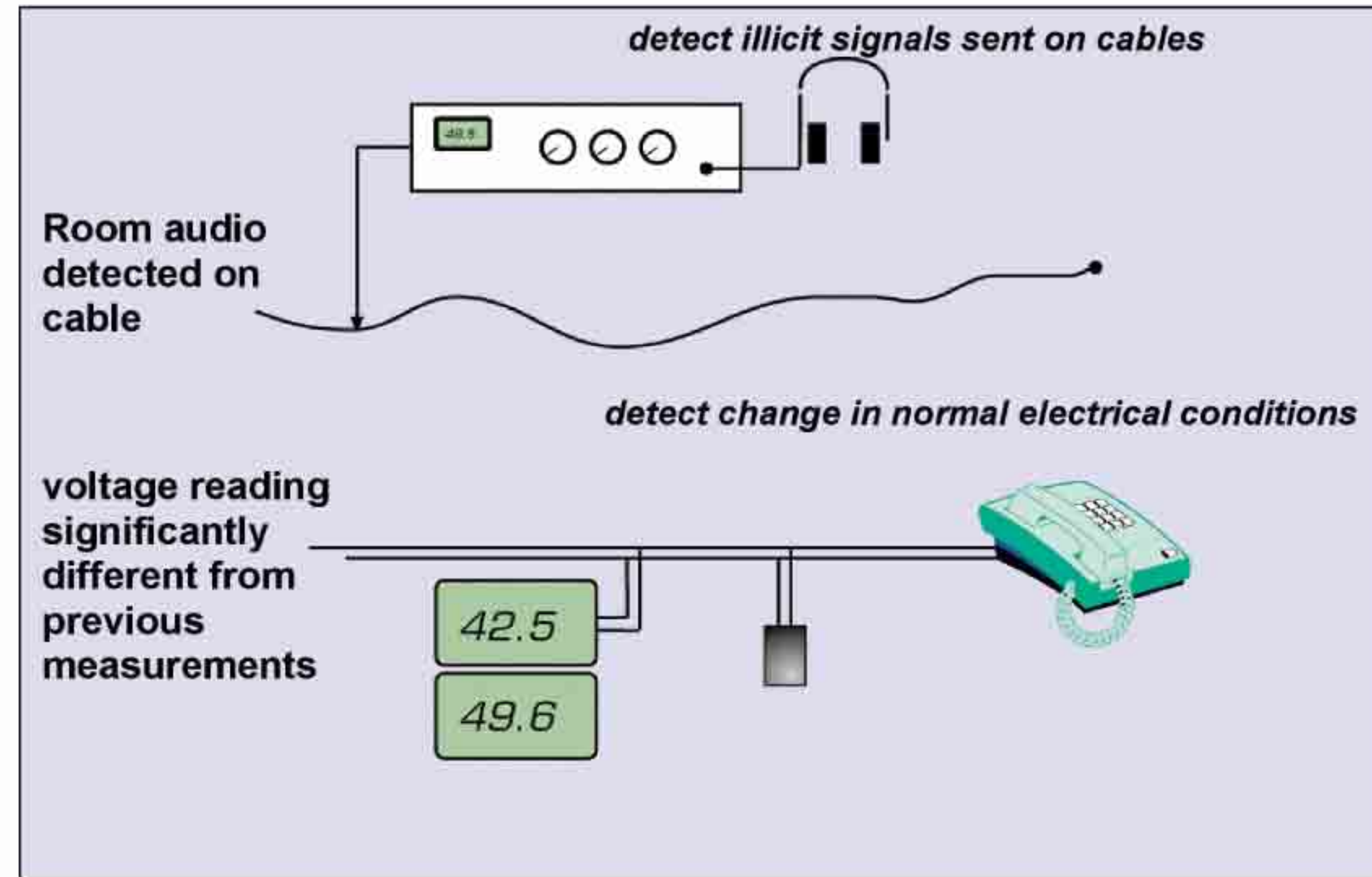
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Figure 1

Figure 1 shows two typical scenarios of the Audiotel TCM-03 being used: to check for already installed microphones or bugs, and using the equipment to provide reference measurements which can later be used to confirm the integrity of the line.

Once a cable run has been identified and it has been determined that the cable is free of any eavesdropping device it should be security sealed. This may take the form of simple ultra violet marking on all access points or may involve something more tamperproof such as unique security seals.

For the most important communications, investment in specialist high quality encryption methods may be the only answer.

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