

The *IMdigital* -T Installers Meter

Makes measuring Analogue and digital signals painless

Before digital terrestrial transmissions had begun Swires Research saw the difficulties that would be encountered:

- Firstly, analogue meters would be unsuitable for measuring digital signals.
- Secondly, poor or misleading information could lead to confusion.

Swires therefore designed a meter specifically aimed at Digital signals that would also measure Analogue signals - the *IMdigital* -T, (Analogue/Digital Terrestrial)

Being the only British manufacturer of television test equipment, Swires has been in the unique position of being able to provide a digital instrument proved during field experience gained in the UK.

This exercise was implemented for the digital terrestrial (DTT) market at the end of 1998. Since then several of Britains largest television retailers have bought their digital test meters from Swires.

Installer's Meter *type IMdigital* -T

- The hand held *IMdigital* -T designed to make the testing of analogue and digital signals as straightforward as possible.
- The *IMdigital*-T has an in-built channel plan, Stepping through the preset channels giving the average signal reading for digital channels (peak detection for analogue) in 'dBuV' within the measured 8 MHz channel. The instrument **Automatically detects** whether the selected channel is Analogue or Digital. For digital only, pushing the "**test**" button, the meter scans the noise floor and gives the Signal-to-Noise Ratio (SNR), for the selected channel. Swires Research undertook extensive testing to ensure that



this reading is conclusive in assessing the quality of a digital signal.

The results of the SNR and level tests are presented as the level and SNR values, and then as a simple read-out of "Pass" (>26dB), "Marginal"(23-25dB) or "Fail" (< 23dB).

- A Master unit usually held by the Service manager can reprogram the Slave units to measure all the Standard UHF channels .
One Master can program many Slaves, the download taking less than a minute. The number of preset channels downloaded to the slave units can also be selected from 21 to 68.
- With microprocessor control, the *IMdigital-T* offers a typical accuracy of ± 1 dB, but guaranteed better than ± 2 dB, over the whole 470 - 860 MHz frequency band.
- An LCD display indicates both the channel being scanned and the signal level simultaneously, making recording of both parameters quick and easy. The dynamic range is 15 to 80 dB μ V, with readings outside this range being indicated by “Hi” or “Lo”, respectively.
- Environmental ruggedness and operating reliability are ensured through the use of a glass fibre, reinforced polycarbonate case and advanced surface mount technology in circuit construction. Gold plated interconnection reduces the risk of oxidisation.
- The *IMdigital-T* was designed and is exclusively manufactured at the Swires factory in Basildon, Essex.
- Specifications
 - Frequency range: 470 to 860 MHz.
 - Number of presets: 21 to 68 channel frequencies preloaded..
Cloning of ‘slave’ units via a ‘master’ unit.
 - Level accuracy: Typically ± 1 dB. Guaranteed $< \pm 2$ dB.
 - Input range: 15 to 70 dB μ V.
 - Input connector: ‘F’ type, 75ohm female
 - Weight: 0.5 kg.
 - Dimensions: 275 mm \times 115 mm \times 63 mm.
 - Power source: NiCad batteries.
 - Power sources: Charging from either the mains or 12 V dc car battery.
Full charge gives 5 hours continuous use.
 - Included with: Mains charger, connection lead for cloning (master unit only), instruction sheet.
 - ‘Optional’ extras: Ever-ready case, car charging lead.

For further information or a demonstration, please, call:

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