

# The 2001AD-C Installers Meter

*Makes measuring analogue and digital signals painless*

Before digital cable 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 Research therefore designed a meter specifically aimed at Cable Digital signals that would also measure analogue signals - the **2001 AD-C**, (Analogue/Digital Cable).

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.

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

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## Installer's Meter type 2001AD-C

- The hand held **2001AD-C** designed to make the testing of analogue and digital signals as straightforward as possible.
- The **2001 AD-C** has an in-built channel plan, for cable networks, stepping through the channels giving the average signal reading for digital channels ( peak detection for analogue) in 'dBmV' or dBuV (whichever you prefer) within the measured 8 MHz channel. The instrument **automatically detects** whether the selected channel is analogue or digital. **For digital only**, by pushing the "**test**" button, the meter scans the noise floor and gives the Signal-to-Noise Ratio (SNR), for the selected digital 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", "Marginal" or "Fail".

- A Master unit usually held by the Network Supervisor /service manager can reprogram the Slave units to measure all the Standard cable channels - (or only three if you prefer, LOW, MIDDLE and HIGH.)  
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 1 to 99.
- With microprocessor control, the 2001AD-C offers a typical accuracy of  $\pm 1$  dB, but guaranteed better than  $\pm 2$  dB, over the whole 25 - 860 MHz frequency band. New for the 2001 ADF-C is the facility to remember the last used channel. ie. when you next switch on the instrument it will be set to the last channel used.
- 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 -45 to +20 dBmV, with readings outside this range being indicated by “LO” or “HI” respectively.
- Environmental ruggedness and operating reliability are ensured through the use of a polycarbonate reinforced glass fibre case and advanced surface mount technology in circuit construction. Gold plated interconnections reduce the risk of oxidisation.
- The 2001AD-C was designed and is exclusively manufactured at the Swires factory in Wickford, Essex.
- Specifications
  - Frequency range: 25 to 860 MHz.
  - Number of presets: Up to 99 preset frequencies.  
Units are pre-programmed with an 8 MHz channel plan.  
Cloning of slave units via a master unit.
  - Level accuracy: Typically  $\pm 1$  dB. Guaranteed  $< \pm 2$  dB.
  - Input range: -45dBmV to +20dBmV (15 to 80 dB $\square$ V.)\*optional factory set
  - Input connector: ‘F’ type, 75ohm female
  - Weight: 0.5 kg.
  - Dimensions: 275 mm  $\square$  115 mm  $\square$  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.

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