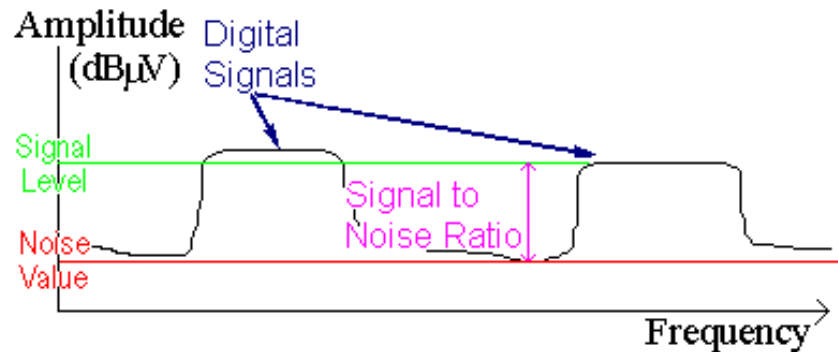


## Technical Background



The 2001AD-C quickly and accurately tests Analogue & digital signals. When measuring Analogue signals the RF level is all that is displayed. When measuring Digital it gives three pieces of information, which together will allow the installer to be confident that pictures will be received in all situations:

1. Signal Level
2. Signal-to-Noise Ratio (SNR)
3. Pass/Marginal/Fail indication

The Set-Top Box (STB) will only accept a certain range of signals. These should be obtained from your Network Supervisor. If the meter reads outside these values there could be a fault with the system.

Once the signal is in the range of the STB, the Signal to Noise Ratio (SNR) must be checked. The SNR indicates how high the signal is, in comparison to the noise on the cable network.

As a final check, the meter assesses the SNR and flashes up "Pass" or "Fail". Occasionally the signal could be close to failing, then "Marginal" will appear.

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# swires research



## Operators Manual For Cable TV Analogue/Digital Installers Meter type - 2001AD - C

revised Nov2K4 - Slave

## Using the Meter

After the start up screen when the instrument initialises itself the display will show a channel number, ie 1, on the top line. The meter automatically senses the TV standard and displays either ANALOG or DIGITAL on the second line of the screen. The signal level is then measured according to the requirements of the detected standard.

Should the signal be very low the meter will display SIG LOW.

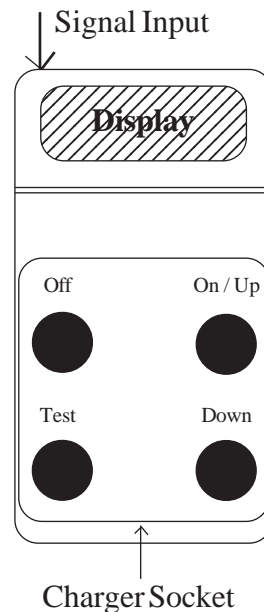
The preset channels are on a continuous loop. Each press of the "Up" or "Down" will select the next preset channel.

To reach a channel quicker, hold either button down, and after a couple of seconds, the meter will scan the preset channels more quickly.

## Meter Layout

The meter has Four buttons:

- **"Off"** switches it off.
- **"On/Up"** switches it on, and steps up the preset frequency plan.
- **"Down"** steps down the preset frequency plan.
- **"Test"** performs the SNR quality test.



## Testing an Installation

**The procedures set out below assumes you have the correct preset frequencies and the 'Noise' comparison point is acceptable.**

With the meter switched on, select the first preset frequency you wish to check. Look at the signal level, **measured in dBmV**. It needs to be in the range acceptable to the set-top box. This information should be provided by your Network Supervisor. If it is outside this range or if the display shows "High" or "Low" then there is a fault with the installation, which must be remedied first.

**For Digital Only**, press the "Test" button, to check the signal to noise ratio (SNR). The unit will measure the selected noise frequency.

The display will show the SNR value in dB's. The number is important for fault finding so you may be asked to write it down.

nb. If >32 appears this indicates a SNR of 'greater than' 32dB (which is a good pass figure).

After a slight pause the display shows "Pass", "Fail" or "Marginal".

- If it indicates "Pass", the signal is acceptable (SNR 'greater than' > 26 dB).
- If it indicates "Marginal" (SNR 23 - 25 dB) or "Fail" (SNR less than < 23 dB) then further work needs to be done on the installation.

## Charging the 2001AD -C

An overnight charge will fully charge the meter, giving approximately 5 hours of continuous use. The meter can also be charged from a car cigarette lighter socket using the **optional** lead. To conserve the batteries, the meter switches off automatically after 5 minutes.