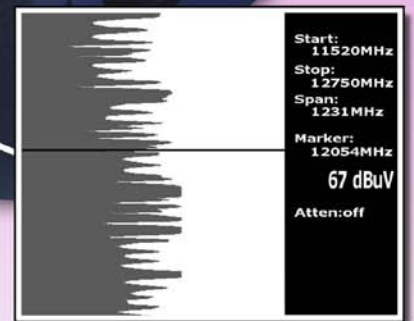
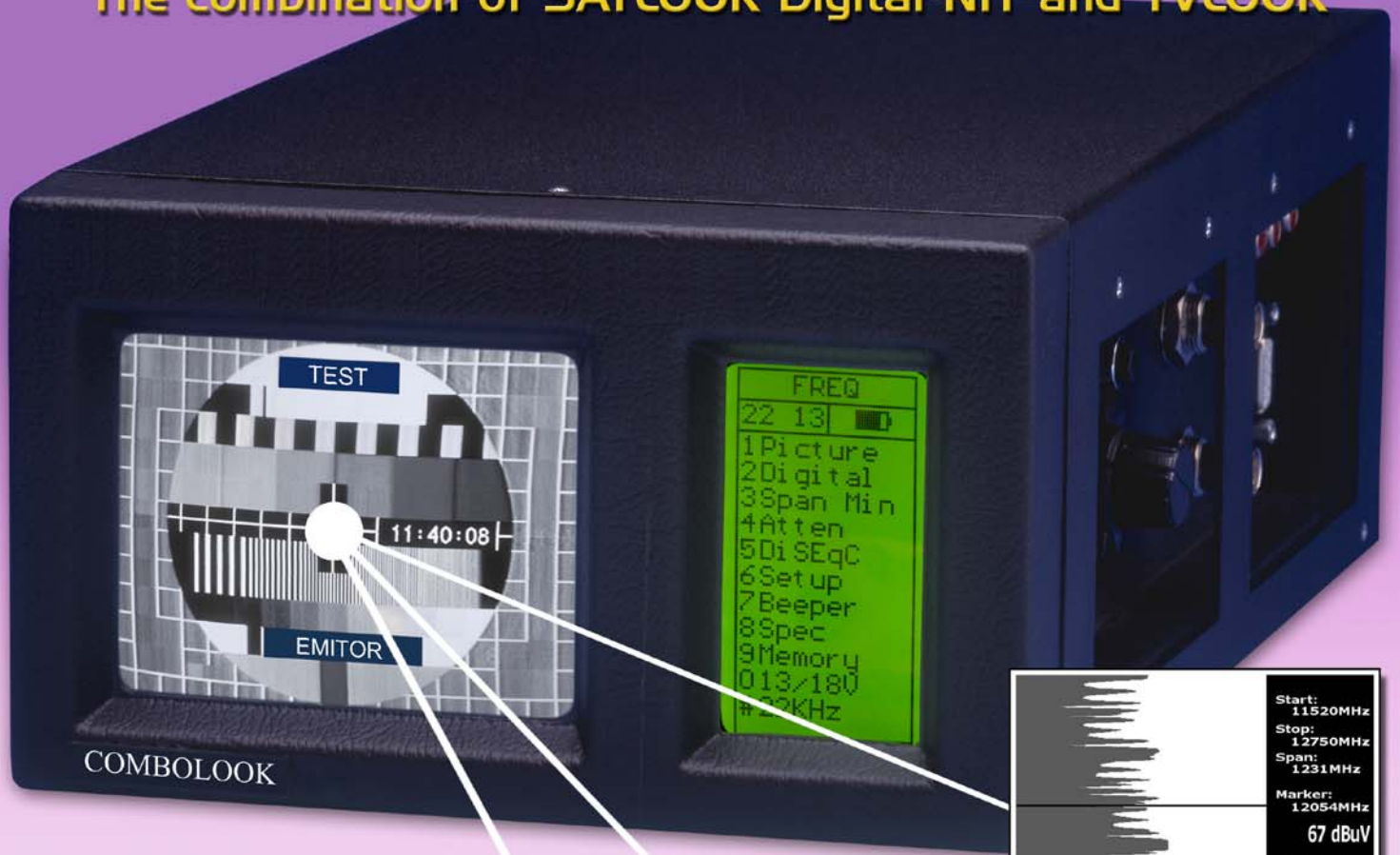
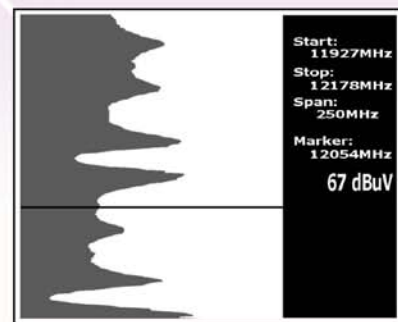


# COMBOLOOK

The combination of SATLOOK Digital-NIT and TVLOOK



Full spectrum (TV/SAT)



Expanded spectrum

## COMBOLOOK:

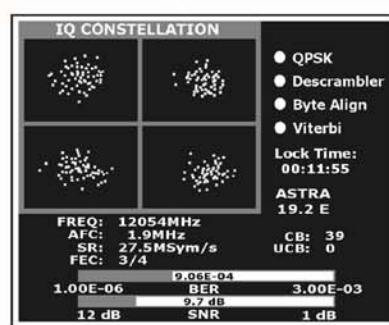
- ▶ Input frequency: 2-900MHz and 920-2150MHz
- ▶ 4.5" B/W monitor for PAL/NTSC/SECAM
- ▶ Lots of memory positions for spectrum pictures
- ▶ RS232 for PC-connection
- ▶ Built in, rechargeable battery
- ▶ Only 7kg complete with carrying case

## TV-part:

- ▶ 2-900MHz spectrum analyzer
- ▶ Presents full range spectrum (and expanded)
- ▶ Very high accuracy,  $\pm 1$ dB (at 20° C)

## SAT-part:

- ▶ 920-2150MHz spectrum analyzer
- ▶ Digital BER, QPSK and S/N-ratio
- ▶ Satellite-ID and TV/Radio-channel info (NIT)
- ▶ Tuneable audio bandwidth 5.5-8.5MHz
- ▶ LNB voltage 13/18V, 22KHz tone switch
- ▶ DiSEqC according to level 1.0, 1.1, 1.2
- ▶ KU- and C-band (normal/inverted video)



Digital and NIT information



# COMBOLOOK

There are today a lot of different and interesting TV-signals. With the COMBOLOOK-instrument it's easy to work with them all!

The COMBOLOOK is a swedish made SAT-TV/CATV instrument and spectrum-analyzer. The unit is made for exact alignment and adjustment of satellite-dishes, aerial antennas. It is also an excellent tool for working with Cable-TV networks. It is intended for professional use when high accuracy and precise information are needed.

It's easily operated without a lot of unnecessary buttons and knobs. The basic functions are easy to get a hold on and takes only minutes to learn.

The instrument is provided with a 4.5" B/W-monitor which either shows normal TV-channel, the frequency spectrum 2-2150 MHz (or parts thereof) alt. Digital data. Menus/help-displays are shown on the LCD-screen (64x128) beside the monitor.

Both analog SAT-TV and CATV channels can be tuned in and viewed upon.

The COMBOLOOK is able to work with the return-path signals in Cable-TV networks (5-65 MHz). according to the EN50083 standard. The TV-part presents the full range spectrum of 2-900 MHz which can be zoomed into smaller parts (min 13 MHz-span). The TV-part is very sensitive and accurate. It presents signals  $\pm 1$  dB (at  $+20^{\circ}$  C).

The SAT-part also has very high resolution and accuracy. It presents measured data  $\pm 2$  dB (at  $20^{\circ}$  C). The Sat-TV spectrum can be expanded (zoom in) for correct adjustment of the polarisation ("cross-polarisation").

The SAT- part presents, under one of the sub menus, digital information like BER (bit error rate), constellation-diagram (QPSK) and S/N (signal/noise ratio).

The NIT function of the SAT-part can identify the various TV-satellites by reading out the NIT in the Bitstream (NIT = Network Information Table). The NIT also contains info about the transponders TV and Radio-channels.

COMBOLOOK can handle a lot of memory-positions and both spectrum-pictures and certain frequencies can be saved (both analog and digital transponders). The power of the instrument is supplied by a built in and rechargeable battery.

## Technical specification.

<b>Input frequency:</b>	5-900 Mhz and 920-2150MHz.
<b>Sat-TV min level in:</b>	About 35 dBuV (noise).
<b>Sat-TV max level in:</b>	About 90 dBuV.
<b>CATV max input level, picture:</b>	110 dBuV.
<b>Spectrum:</b>	120 dBuV.
<b>Sat-TV attenuation:</b>	15 dB attenuator on/off.
<b>CATV attenuation:</b>	45 dB in 1 dB step.
<b>Display of signallevel (analog):</b>	dB on LCD/monitor. Pitch-tone.
<b>Sat-TV accuracy:</b>	$\pm 2$ dB (at $+20^{\circ}$ C)
<b>CATV accuracy:</b>	$\pm 1$ dB (at $+20^{\circ}$ C)
<b>CATV resolution bandwidth:</b>	1 MHz or 300 kHz.
<b>CATV video bandwidth:</b>	100, 10, 1 kHz or 100Hz
<b>Sat-TV Digital display of signallevel:</b>	S/N (signal/noise-ratio) BER (bit error rate) Constellation (QPSK)
<b>Satellite-indentification:</b>	<b>Yes, by reading out the NIT in the Bitstream. Info about the TV and Radio channels.</b>
<b>TV standard:</b>	Multi TV/ (PAL, NTSC, SECAM).
<b>CATV text-TV (CEEFAX):</b>	Yes.
<b>KU- C-band:</b>	Yes, selectable.
<b>Input impedance:</b>	75 Ohm, BNC-con.
<b>Picture-screen:</b>	4.5"-monitor, B/W
<b>Menus:</b>	On LCD 64x128.
<b>Memory:</b>	Lots of spectrum pictures can be stored with name. Stored spectrum can be mixed for easy identification of satellite. -"Maxhold"-function.
<b>Favouritechannels:</b>	Both analog and digital frequencies can be stored (with name).
<b>PC-connection:</b>	RS232-output and PC-software.
<b>Sat-TV power out:</b>	Yes, 13-18V.
<b>CATV power out:</b>	On/off. 15-24 volt.
<b>Sat-TV control:</b>	22 kHz, DiSeqC, DiSeqC/SatScan/ SatSelect-positioner.
<b>DiSeqC</b>	Yes, all 1.0 and 1.1. Also Toneburst on/off.
<b>DiSeqC actuator:</b>	Built in positioner for DiSeqC 1.2, SatScan and SatSelect.
<b>Battery:</b>	Rechargeable 12v, 7 amp/hour.
<b>Weight:</b>	About 7 kg incl.battery.
<b>Accessories:</b>	Nylon carrying-case. Power-supply of 220v/13.5v, 1.7amp. Car-charger, BNC/F-adapters.

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