R.O.V.E.R. INSTRUMENTS

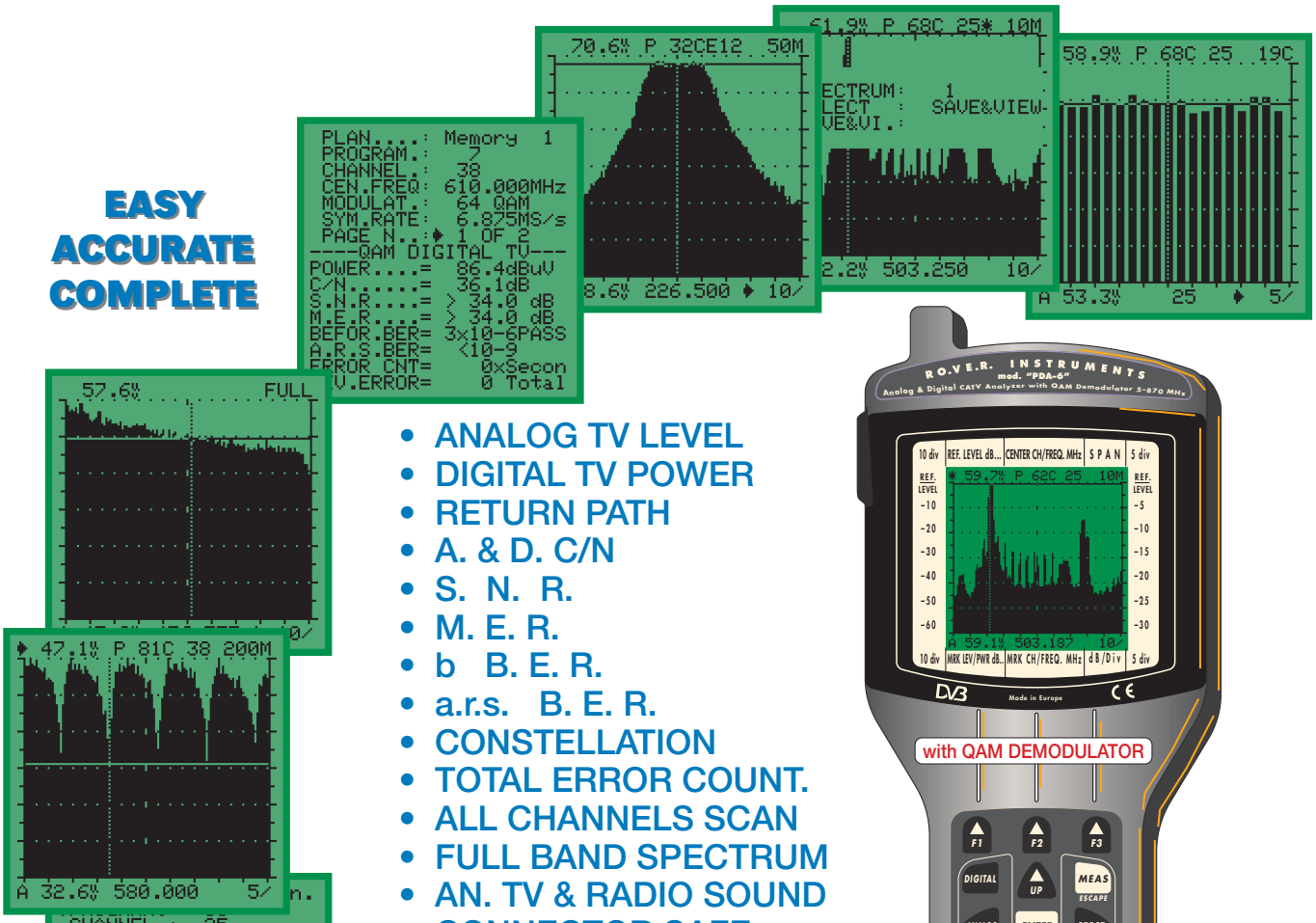
NEW!
PRELIMINARY INFORMATIONS

INTRODUCES: **"PDA - 5-6"**

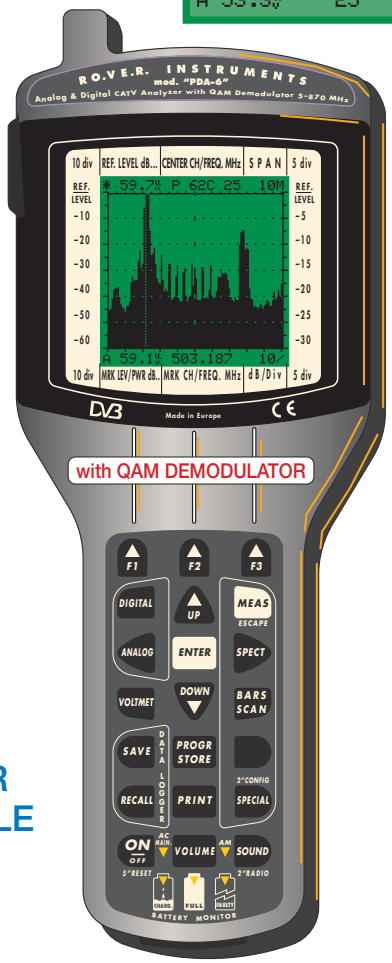
PROFESSIONAL ANALOG & DIGITAL CABLE "QAM•DVB-C" PALM-TOP ANALYZERS

FREQUENCY: 5/47-870 MHz • LEVEL/POWER: 15 to 120 dBµV (-45 to 60 dBmV)

EASY
ACCURATE
COMPLETE



- ANALOG TV LEVEL
- DIGITAL TV POWER
- RETURN PATH
- A. & D. C/N
- S. N. R.
- M. E. R.
- b B. E. R.
- a.r.s. B. E. R.
- CONSTELLATION
- TOTAL ERROR COUNT.
- ALL CHANNELS SCAN
- FULL BAND SPECTRUM
- AN. TV & RADIO SOUND
- CONNECTOR SAFE
- 3 TO 6 hrs BATTERY
- COAX CABLE MEASURE
- CABLE REFLECTOMETER
- RS 232 F.W. UP-GRADABLE



LIGHT
ROBUST
COMPACT

MAIN TECHNICAL SPECIFICATIONS

ANALOG TV & RD

- **Frequency band:** TV & Radio: 5–870 MHz
- **Prog./Channel/Freq. reading:** on graphics display
- **Frequency resolution:** TV e Radio: 62,5 KHz
- **Input impedance:** 75 Ω, interchangeable "F" connector (BNC - IEC - N opt.)
- **Measurement dynamic range at RF input:** from 15 to 126 dBµV, or –45 to +66 dBmV, or –93 to +18 dBm selectable
- **Measurement resolution:** 0.1 dB
- **Level measurement accuracy at 20°C:** 1 dB typ. (2 dB max.) (with software correction after 5 minutes' warm up)
- **C/N & A/V ratio measurement accuracy at 20°C:** A/V ratio = 1.5 dB typ. (2 dB max.) C/N ratio = 2 dB typ. (4 dB max.) (with 60 dBµV minimum level, 45/50 dB C/N max. reading)
- **Measurement filter band width:** 100 KHz @ –3 dB
- **Level measurement stability versus temperature between –10 and 50°C:** 0.02 dB/°C
- **Program/Channel plan:** by standard channel or frequency selection, storable memory, AUTO SCAN and relative data logger, up to 600 memory positions
- **Multi-standard:** PAL–SECAM–NTSC M–N–B–G–I–D–K (L optional)

AUDIO/RADIO

- **Audio demodulation:** from 4.5 to 6.5 MHz
- **Radio demodulation:** Tunable from 47 to 870 MHz
- **Demodulation filter bandwidth:** 100 KHz @ –3 dB Built–in loudspeaker: 0,5 W volume adjustable

AUTOMATIC OR MANUAL SPECTRUM ANALYSIS & BAR SCAN

Analog & Digital TV-RADIO

- The spectrum measurement is completely automatic or manual and can be selected by program or channel.
- Simply passing from Measurement (MEAS) to Spectrum (SPECT) you can immediately see the spectrum of the prog./chan. received perfectly and automatically aligned to the reference level.
- These parameters are automatically set with the following values (in auto mode):
  - *Reference level: at the top and with level/power value indication on the display*
  - *Span: 10 MHz*
  - *dB/division: 10 dB*
  - *Frequency/level marker position on the analog TV video carrier (at center band for all digital TV) with level and frequency indication on the display related to MRK position*
  - *Analog "LEVEL" or digital "POWER"signal measurement indication is already correlated: "A/D" on display.*
  - *Indication of the selected program & chan.: on the display*
- Obviously all the spectrum parameters can be selected and varied manually by simply navigation with the cursor on the display and, if you are in auto, each time you change from measurement to spectrum the meter automatically resets all the default spectrum parameters.
  - **Frequency range:** 5–870 MHz
  - **Dynamic range:** ≥60 dB
  - **Resolution bandwidth:** 100 KHz
  - **Reference level:** TV from 15 dBµV to 126 dBµV, or –45 to +66 dBmV, or –93 to +18 dBm (selectable)
  - **Span:** 2–5–7–10–20–50–100–200–500– 1000, VHF–UHF–FULL–Return path (5–65 MHz) with L.P.F.
  - **Marker frequency:** 5–870 MHz
  - **Marker level:** from 15 dBµV to 126 dBµV or dBmV, dBm
  - **Marker analog level measurement:** automatic when selecting ANALOG and with indication on display (A)
  - **Marker digital power measurement:** automatic when selecting DIGITAL and with indication on display (D)
  - **Bar scan:** from 19 to 120 channels (selectable)
  - **Storable spect. & bar scan:** up to 20 pictures

DVB–Cable *with QAM demodulator*

ONLY "PDA-6"

- **QAM frequency band:** 47–870 MHz
- **Prog./Channel/Freq. reading:** on graphics display
- **Power measurement dynamic range at RF input:** from 25 to 116 dBµV , or –35 to +56 dBmV, or –73 to +8 dBm (selectable)
- **SNR/MER measurement/ratio at 20 °C** with QAM demodulator:
  - 64 QAM up to 34 dB (power > 39 dBµV ±2)
  - 128 QAM up to 36 dB (power > 42 dBµV ±2)
  - 256 QAM up to 38 dB (power > 45 dBµV ±2)
- **QAM symbol rate selection** (with automatic generation of the pre–memorized selection table): 2000 to 7000 MS/s (with 1 KHz steps)
- **BER measurement:**
  - bBER up to $<2x10^{-8}$
  - aBER (after R.S.) up to $<2 \times 10^{-9}$
  - Error counter, per second
  - Severe error counter, total
- **Signal quality test:** PASS–MARG–FAIL
- **Spectrum invertion:** automatic
- **Full constellation:** 64–128–256 (on graphics display)

DVB–Cable & Terrestrial

(Emulated digital measurement, in STANDARD CHANNEL only)

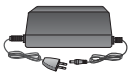
- **Frequency band:** 47–870 MHz
- **Power measurement dynamic range at RF input:** from 25 to 116 dBµV , or –35 to +56 dBmV, or –73 to +8 dBm (selectable)
- **BER measurement:** bBER up to $2x10^{-8}$
- **Digital signal quality test on adjacent channel:** PASS–MARG–FAIL (based on C/N measurements)
- **Digital signal quality test on nearest free channel:** PASS–MARG–FAIL (based on C/N measurements)
- **Multiplex flatness analysis:** DIGITAL–DEGRADED–ANALOG
- **Digital power limit indication:** to indicate that the signal power is respectively too low or too high

OTHERS

- **Voltmeter function:** AC (square wave), DC, 0 to 100 V
- **Buzzer with selection of related parameter**
- **Channel plan master copy function** (optional or via PC)
- **Power supply:**
  - Built–in NI–MH rechargeable batteries: 8 batt. 8Vx 2,1A
  - External power supply: 17 Vac or 20 Vdc 1A, (conn. Ø5.5 x 2.2 on power pack)
  - AC/AC adapter: 230 Vac (117 V opt.), 17 Vac output
- **Battery duration at 25°C:** 4 - 6 hours in analog TV mode & 3 - 4 hours in digital (depending on the backlight display)
- **Low battery indicator:** on the graphics display
- **Fast batt. recharge time:** 4 hrs approx. with electronic control and led monitoring
- **Instrument size:** H 30 x W 11 X D 6 cm
- **Instr. weight:** 0,8 Kg with batteries
- **Casing structure:** plastic–coated
- **RS232 standard serial interface port** available for: –downloading and/or printing stored data from PDA to PC –the possibility of up-grading the PDA software via internet, which will lengthen the life of your meter.
- **Back light graphic display:** 128 x 128 pixel, 3" for measurement & spectrum
- **Auto off timer:** after 5 minutes without use (selectable)
- **Auto test menu:** to check the main digital circuit
- **Temperature meter indication:** in °C or °F
- **Clock calendary indicaton**
- **Belt bracket**

INCLUSIVE ACCESSORIES

N.1 mod. "TRASF–R142–230S"
AC/AC Adapter
(mains transformer)
– input 230 or 117 Vca,
– output 17 V, 1 A



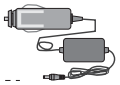
N.1 mod. "BORSA–PDA"
Protective bag rain & schock proof for instrument with side pocket for accessories,shoulder strap for transport purposes

N.2 mod. "CNN–F–0150"
Interchangeable F–F double female input connector

N.1 mod. "CAVO–DD–FF–2000"
RS 232 female/female (Null modem) cable to connect PDA to PC, for software upgrades via internet

OPTIONAL ACCESSORIES

- **mod. "VCA–1224"**
  DC/DC cigarette lighter charger adapter VIN=12V VOUT=24V for batterie recharge



- **mod. "TRA–FFEM-IECFEM"**
  Interchangeable "F" female / "IEC" female input connector

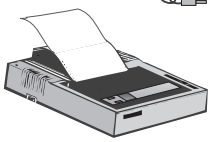
- **mod. "TRA–BNFC-FFEM"**
  Interchangeable "F" female / "BNC" female input connector

- **mod. "TRA–FFEM-NFEM"**
  Interchangeable "F" female / "N" female input connector

- **mod. "ATT–F–6 or 10 or 20"**
  RF attenuator, 6-10-20 dB interchangeable F–F double female connector with dc transit

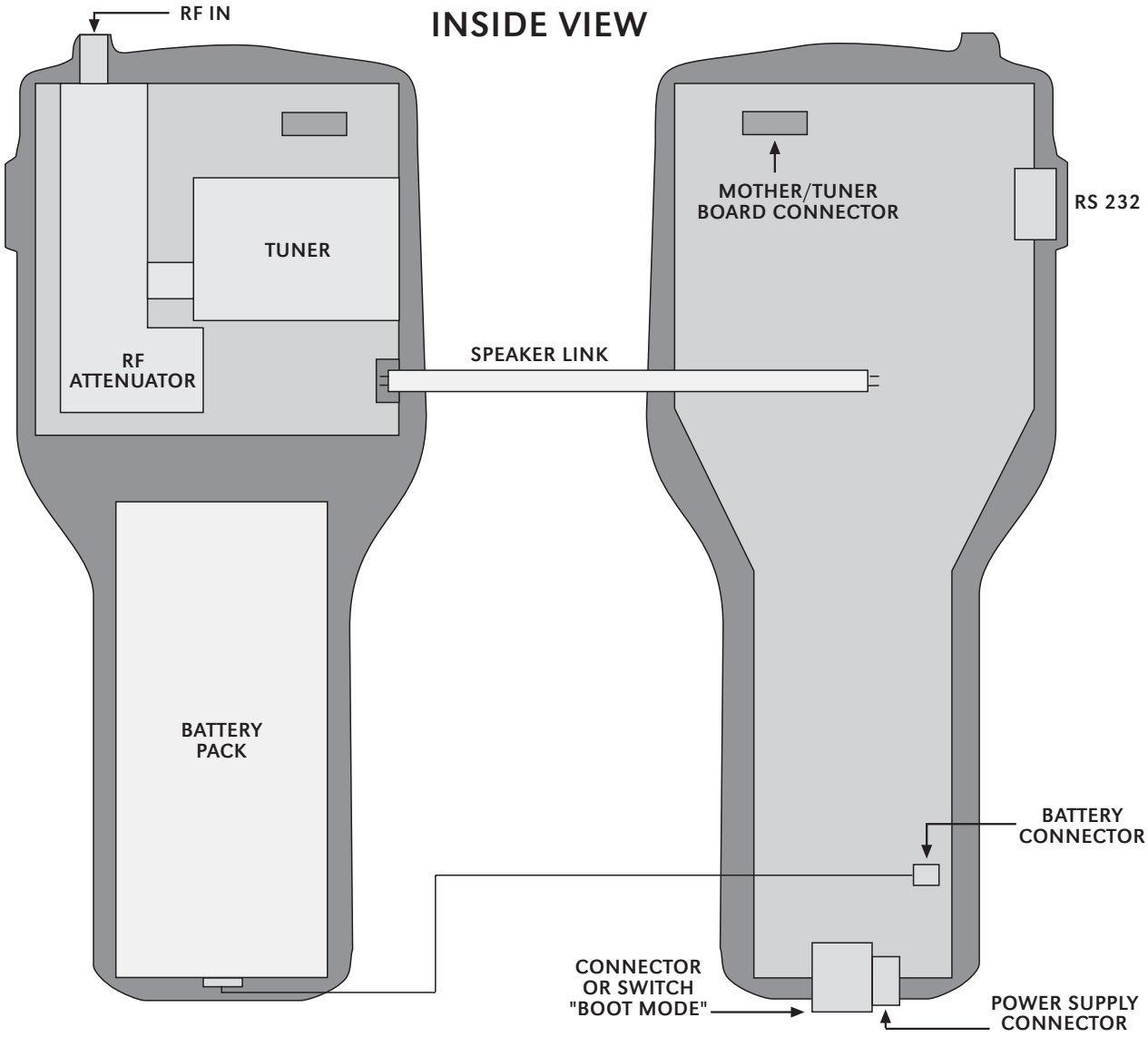
- **mod. "VE-14/18"**
  RF input DC inserter from 5Vdc to 14/18 Vdc

- **mod. "PRINT–TERM–40"**
  Portable printer with built–in rechargeable batteries and RS232 connection cable (See user manual for printer accessories) P.S.U. 6 Vdc, 2 A



- **mod. "CNG–80–M"**
  Calibrated noise generator for cable measurement & reflectometer

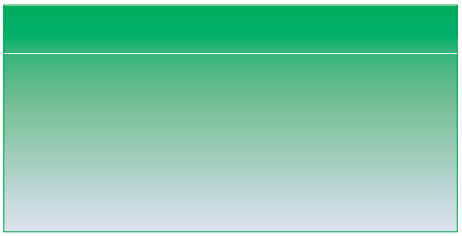
INSIDE VIEW



FEATURES CROSS–REFERENCE	PDA 1	PDA 2	PDA 3	PDA 4	PDA 5	PDA 6	PDA 7
Frequency 5–47 MHz		•	•	•	•	•	•
Frequency 47–870 MHz	•	•	•	•	•	•	•
Level Accuracy (dB)	1.5	1.5	0.9	0.9	0.9	0.9	0.9
Tuning by Channel or Frequency	•	•	•	•	•	•	•
IN Connector Save (F–BNC–IEC)	•	•	•	•	•	•	•
Built–in Input Preamplifier				•	•	•	•
Unit selection (dBµV/dBmV)	•	•	•	•	•	•	•
Channel V/A Level & delta	•	•	•	•	•	•	•
Live C/N	•	•	•	•	•	•	•
Tilt Mode	•	•	•	•	•	•	•
Cloning			•	•	•	•	•
FM Radio Sound & Level	•	•	•	•	•	•	•
TV Stereo Sound Carrier Measurement	•	•	•	•	•	•	•
Selectable Country Standard	•	•	•	•	•	•	•
Customised Channel Plan	•	•	•	•	•	•	•
All Channel SCAN					•	•	•
Stores all measurement results (DATA LOGGER)			•	•	•	•	•
Stored results view & print			•	•	•	•	•
Current Data Prints (Live)			•	•	•	•	•
DC & AC Voltmeter	•	•	•	•	•	•	•
Aural Identification of H. Synchro Pulse			•	•			
AM/FM Sound demodulator selection			•	•	•	•	•
Back Light Timer (60 seconds)	•	•	•	•	•	•	•
Meter Shut-off Timer (5 minutes)			•	•	•	•	•
Battery Time (with timer) in hours	8	8	16	14	8	8	8
Battery Charge Time in hours	10	10	2	2	2	2	2
Fast Battery Charge Monitor (CHARGE–FULL–FAULTY)			•	•	•	•	•
Leakage Upgrade				•	•	•	•
5–65 MHz Input SCAN					•	•	•
Spectrum Scan & Print					•	•	•

EMULATED DIGITAL MEASUREMENTS: 8 VSB • 64–128–256 QAM or OFDM	PDA 1	PDA 2	PDA 3	PDA 4	PDA 5	PDA 6	PDA 7
Average Power	•	•	•	•	•	•	•
Multiplex cTEST: FAIL–MARGINAL–PASS (C/N measure in the adj. Ch.)	•	•	•	•	•	•	•
Multiplex wTEST: FAIL–MARGINAL–PASS (C/N measurement in nearest free Channel)	•	•	•	•	•	•	•
Evaluation BER	•	•	•	•	•	•	•
Multiplex Flatness	•	•	•	•	•	•	•
Multiplex Analysis: (DIGITAL–ANALOG–DEGRADED)	•	•	•	•	•	•	•

DEMODULATED DIGITAL MEASUREMENTS: 64–128–256 QAM DVB or COFDM	PDA 1	PDA 2	PDA 3	PDA 4	PDA 5	PDA-6 CATV QAM	PDA-7 TV COFDM
SNR						•	•
BER						•	•
MER						•	•
Constellation						•	•


The functions, specifications & accessories are subject to change without notice • *Le funzioni, le specifiche e gli accessori possono essere cambiati senza preavviso*

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