

# BTPRO-7000 S

## INSTRUCTION MANUAL

**7"**  
TFT 16:9



Blonder  
Tongue

[www.blondertongue.com](http://www.blondertongue.com)

# - NOTES -

A series of horizontal dashed lines for writing notes.

# TABLE OF CONTENTS

4	-	GET TO KNOW YOUR BTPRO-7000 S
6	-	HOME AND NAVIGATION
11		VOLUME & CONFIGURATION
15		SAT: ANALYZE SATELLITE TELEVISION SIGNALS
17		TV: ANALYZE TERRESTRIAL TELEVISION & RADIO SIGNALS
20		CATV: ANALYZE CABLE TELEVISION SIGNALS
21		SPECT: SPECTRUM ANALYZER
23		LIST: SHOW AND SELECT AVAILABLE MPEG TS SERVICES
23		BARSCAN: CHECK ALL CHANNELS LEVEL/POWER
24	-	LTE INTERFERENCE AUTOTEST
25		HELP: INSPECT THE PARAMETERS OF AN UNKNOWN SIGNAL
25		SPECIAL FUNCTIONS
27		MEMORY: CHANNEL PLANS AND LOG FILES
29	-	LI-ION POLIMER BATTERIES
30	-	BATTERY TEST & BATTERY REGENERATION
31	-	POWER SUPPLY (MAINS) & BATTERY CHARGE (CHRG) LED STATUS
31	-	WARNINGS
32	-	METER MAINTENANCE
33		DISPOSAL OF ELECTRONIC EQUIPMENT
33	-	SUGGESTED VALUES
34	-	ACCESSORIES SUPPLIED

# GET TO KNOW YOUR BTPRO-7000 S

## FRONT PANEL



### • POWER



TO TURN ON  
PRESS THE  
'HOME' KEY,



TO TURN OFF  
PRESS AND HOLD  
THE 'HOME' KEY,

### • WHEEL USE THE WHEEL TO NAVIGATE ACROSS THE SCREEN AND VARY THE VALUES:



ROTATE TO  
SELECT A MENU  
ITEM OR TO  
CHANGE A VALUE



PRESS TO  
SELECT A MENU  
ITEM OR A  
NUMERIC FIELD,



SELECT A  
MENU ITEM,  
PRESS AND  
HOLD 2" TO  
DISPLAY THE  
POP-UP MENU.

### • RESET HARDWARE



WITH INSTRUMENT ON,  
KEEP THE "HOME" KEY  
PRESSED FOR 10" AND  
TURN ON AGAIN.



+



FROM INSTRUMENT OFF, SWITCH  
ON THE METER, IMMEDIATELY  
AFTER KEEP THE "VOLUME" KEY  
PRESSED UNTIL A BEEP IS HEARD.



### • LEFT SIDE

- 1 = RJ 45 CONNECTOR FOR REMOTE CONTROLL
- 2 = USB SOCKET FOR SW UPGRADES AND MEMORY PLANS
- 3 = POWER SUPPLY INPUT CONNECTOR (12 V DC - 1A)



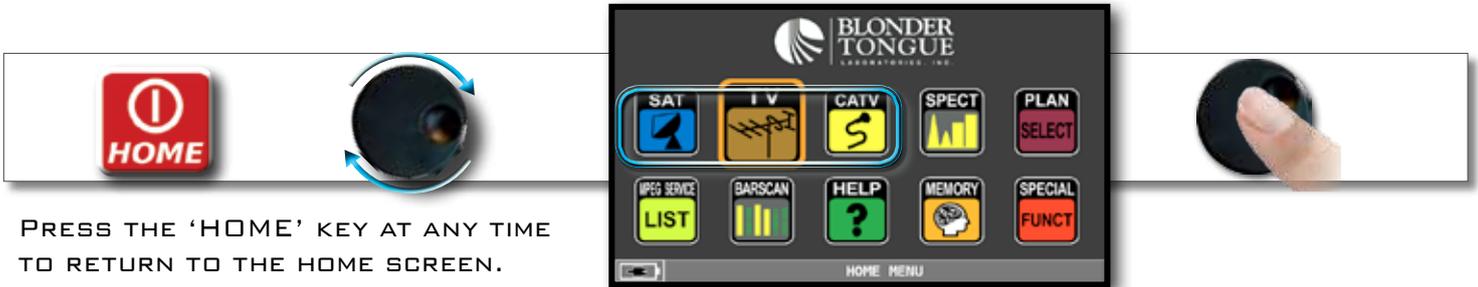
### • RIGHT SIDE

- 4 = IF/RF INPUT CONNECTOR, "F" TYPE, 75  $\Omega$
- 5 = VIDEO INPUT CONNECTOR
- 6 = FAN VENTILATOR.

# HOME AND NAVIGATION

## 'HOME' SCREEN

PRESS THE 'HOME' KEY TO GO TO THE HOME SCREEN THEN ROTATE THE WHEEL TO NAVIGATE IN THE 'SAT', 'TV' OR 'CATV' ICONS AND PRESS THE WHEEL TO SELECT THE MEASUREMENT MODE REQUIRED:



PRESS THE 'HOME' KEY AT ANY TIME TO RETURN TO THE HOME SCREEN.

## NAVIGATION

USE THE TOUCH SCREEN AND THE WHEEL TO NAVIGATE ACROSS THE SCREEN AND TO CHANGE VALUES:

### • DISPLAY ZONES

- 1 TUNING PARAMETERS
- 2 LIVE PICTURE
- 3 MEASUREMENTS
- 4 CHANNEL INFO
- 5 TRANSPORT STREAM INFO
- 6 CONTEXT SENSITIVE MENU



## NAVIGATION USING MECHANICAL COMMANDS

HOW TO SELECT FROM THE MENUS AND ADJUST THE VALUE:

- ROTATE THE WHEEL AND SELECT FROM THE MENU REQUIRED (FIG. 1)
- PRESS THE WHEEL (FIG. 2)
- ROTATE THE WHEEL TO ADJUST THE VALUE (FIG. 3)
- PRESS THE WHEEL AND CONFIRM THE SELECTION (FIG. 4)

EXAMPLE OF TV/CATV CHANNEL SELECTION:



EXAMPLE OF SATELLITE TRANSPONDER SELECTION (TP/TS):



EXAMPLE OF REMOTE TV-CATV POWER SUPPLY SELECTION (DC&RF):



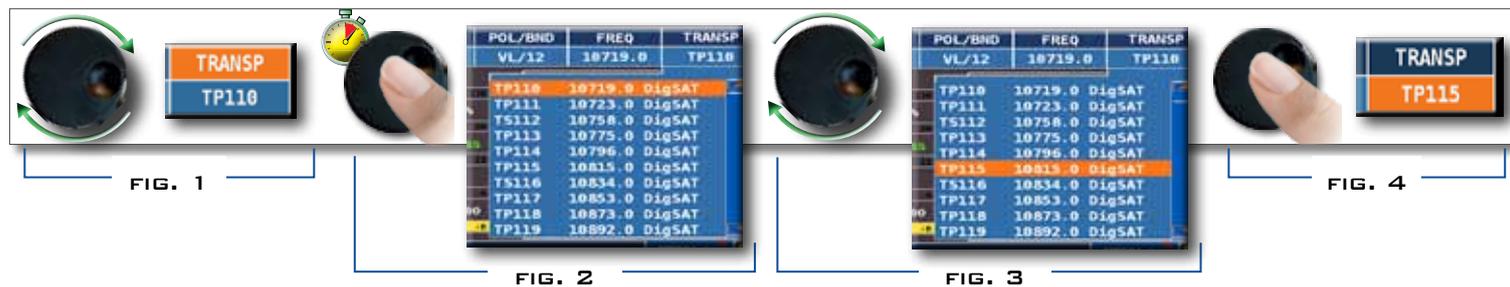
**HOW TO SELECT FROM THE MENUS AND CHANGE A VALUE USING THE DROP DOWN MENUS:**

- ROTATE THE WHEEL AND SELECT THE MENU REQUIRED (FIG. 1)
- KEEP THE WHEEL PRESSED FOR 2" TO VISUALIZED THE DROP DOWN MENU (FIG. 2)
- ROTATE THE WHEEL TO ADJUST THE VALUE (FIG. 3)
- PRESS THE WHEEL AND CONFIRM THE SELECTION (FIG. 4)

**EXAMPLE OF TV/CATV CHANNEL SELECTION:**



**EXAMPLE OF SATELLITE TRANSPONDER SELECTION (TP/Ts):**



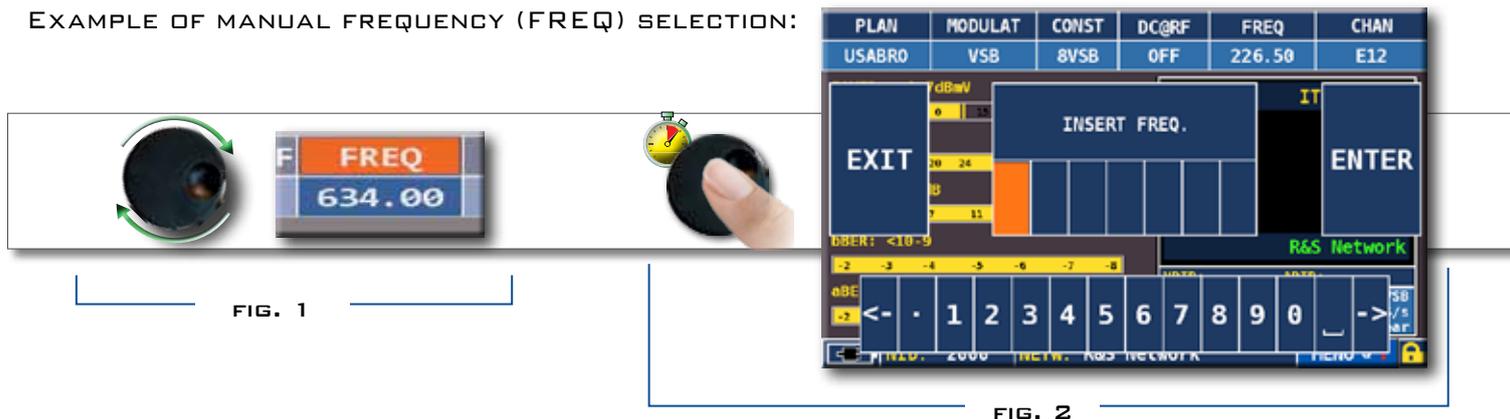
**EXAMPLE OF TV- CATV REMOTE POWER SUPPLY SELECTION (DC & RF):**



**HOW TO SELECT THE FREQUENCY AND SET THE VALUE USING THE NUMERICAL KEYBOARD:**

- ROTATE THE WHEEL AND SELECT FREQUENCY (FREQ) (FIG. 1)
- KEEP THE WHEEL PRESSED FOR 2" TO VISUALIZE THE KEYBOARD (FIG. 2)
- PRESS THE RELATIVE NUMBER KEYS TO DIGIT THE FREQUENCY VALUE REQUIRED, ROTATE THE WHEEL TO NAVIGATE WITHIN THE WINDOW (FIG. 3)
- FINALLY ROTATE THE WHEEL AND SELECT ENTER (FIG. 4)
- PRESS THE WHEEL AND CONFIRM THE SELECTION (FIG. 5)

**EXAMPLE OF MANUAL FREQUENCY (FREQ) SELECTION:**



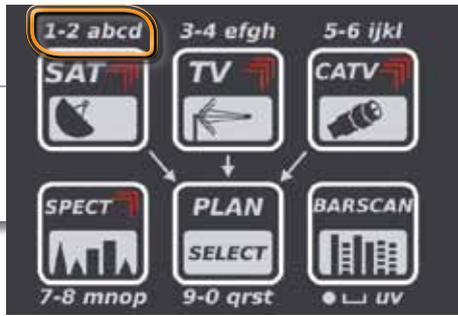


FIG. 3

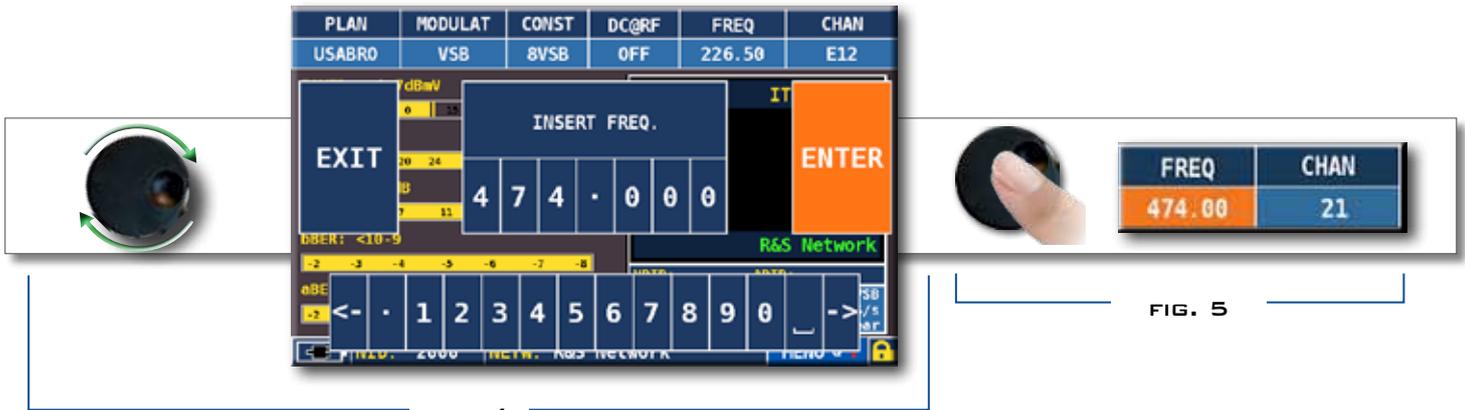


FIG. 4

FIG. 5

## NAVIGATION USING MIXED COMMANDS: MECHANICAL & TOUCH

- TOUCH A VALUE IN THE MENU (FIG. 1)
- ROTATE THE WHEEL TO ADJUST THE VALUE (FIG. 3) OR TOUCH THE VALUE REQUIRED (FIG.2)
- PRESS THE WHEEL AND CONFIRM THE SELECTION (FIG.3) OR TOUCH THE MONITOR OUTSIDE THE DROP DOWN MENU (FIG.3)

EG. TV/CATV CHANNEL SELECTION:



FIG. 1

FIG. 2

EG. SATELLITE TRANSPONDER SELECTION (TP/TS):



FIG. 1

FIG. 2

EXAMPLE OF TV- CATV REMOTE POWER SUPPLY SELECTION (DC & RF):



FIG. 1

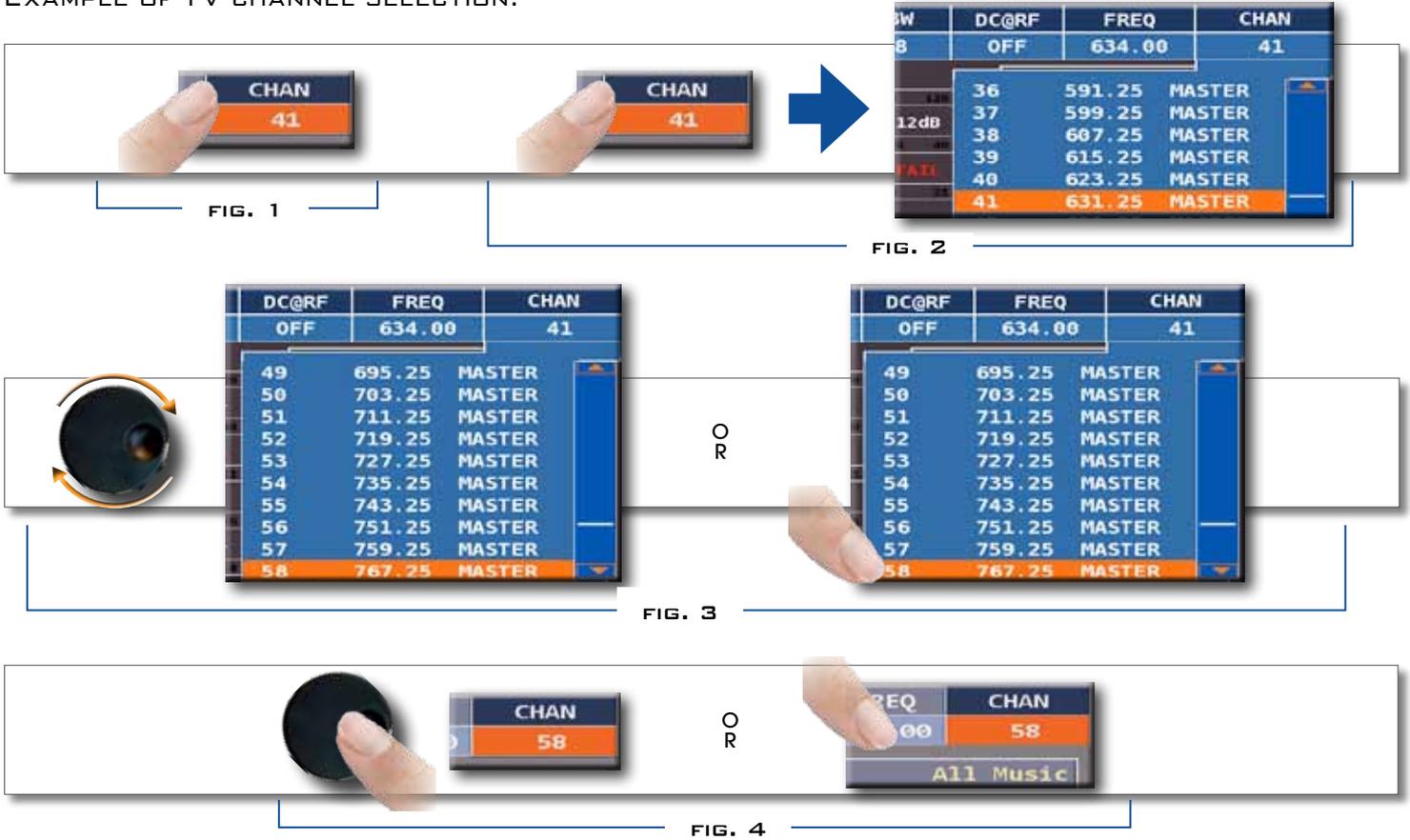
FIG. 2

FIG. 3

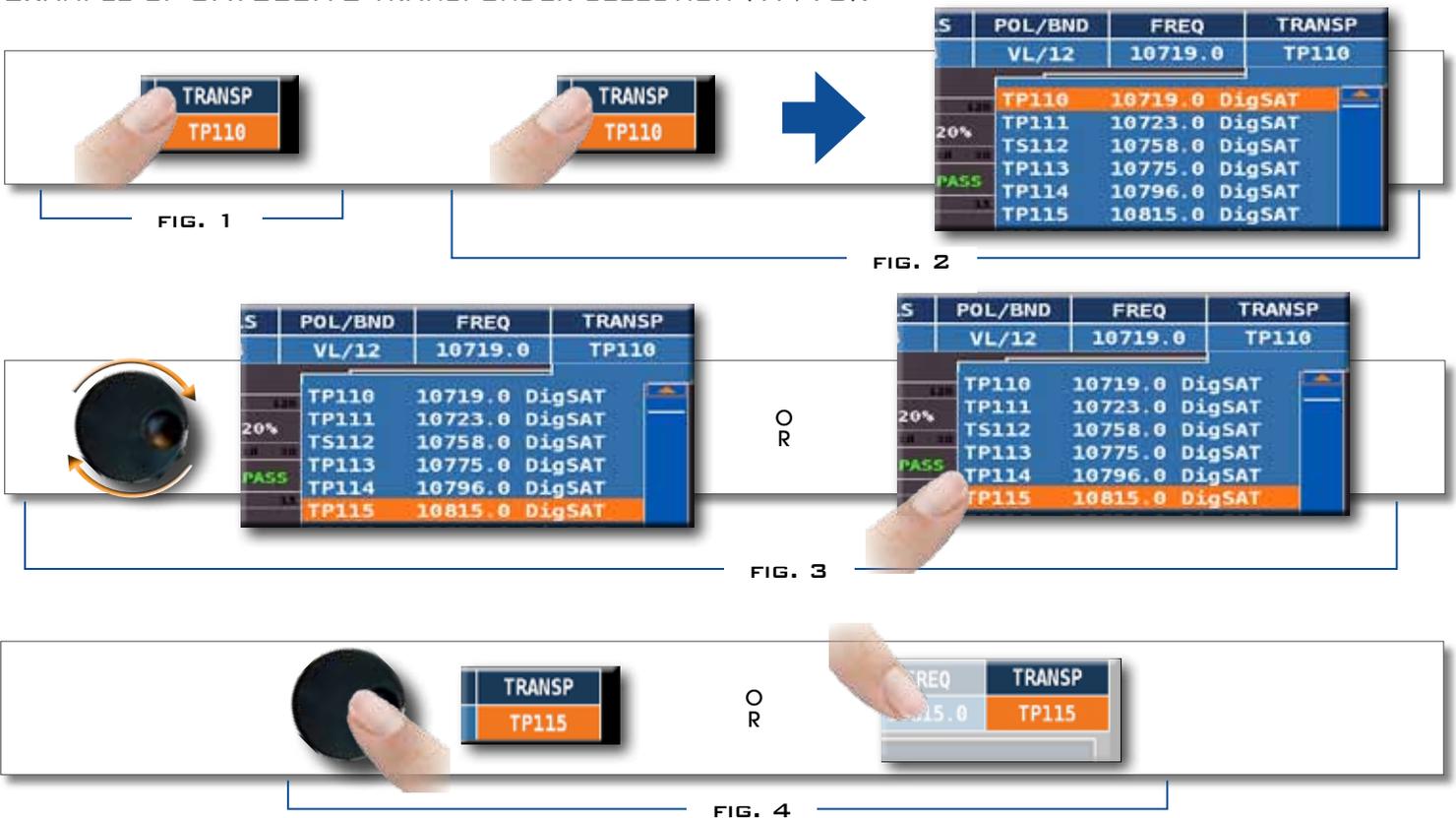
SELECT FROM THE MENUS AND ADJUST THE VALUE USING THE DROP DOWN MENU:

- TOUCH A VALUE IN THE MENU (FIG. 1)
- TOUCH AGAIN TO VISUALIZE THE DROP DOWN MENU (FIG. 2)
- ROTATE THE WHEEL TO ADJUST THE VALUE (FIG. 3) OR TOUCH THE VALUE REQUIRED (FIG. 3)
- PRESS THE WHEEL AND CONFIRM THE SELECTION (FIG. 4), OR TOUCH THE MONITOR OUTSIDE THE DROP DOWN MENU (FIG. 4)

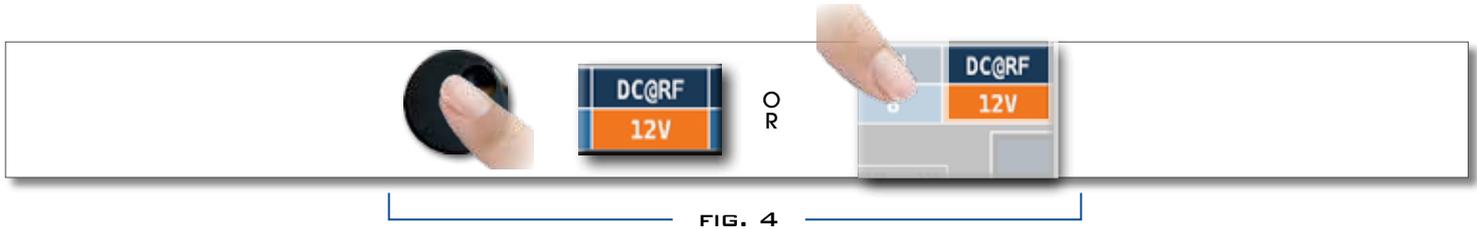
EXAMPLE OF TV CHANNEL SELECTION:



EXAMPLE OF SATELLITE TRANSPONDER SELECTION (TP/TS):



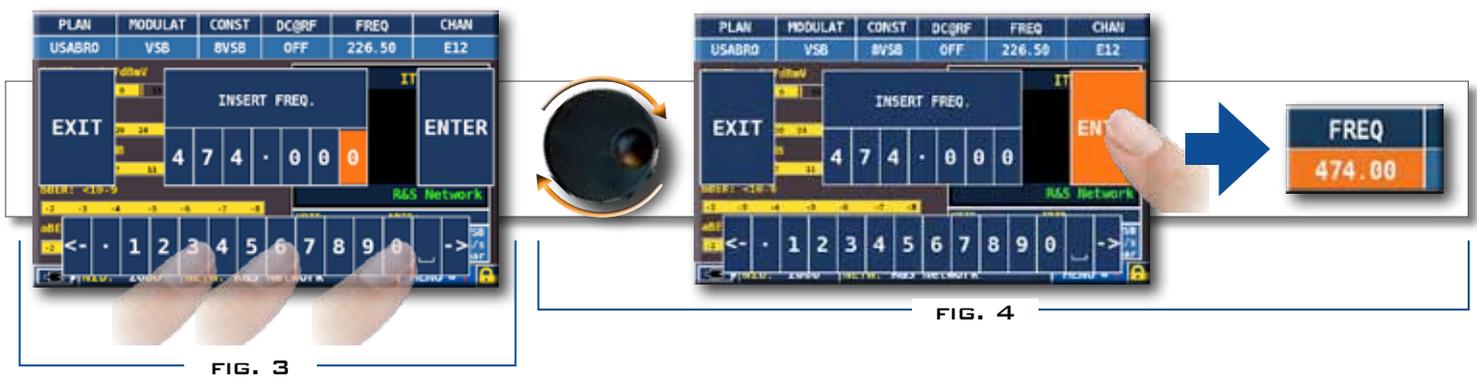
EXAMPLE OF REMOTE TV - CATV POWER SUPPLY SELECTION (DC & RF):



SELECT THE FREQUENCY AND SET THE VALUE USING THE NUMERICAL KEYBOARD:

- TOUCH FREQ (FIG. 1)
- TOUCH AGAIN TO SHOW THE MENU “INSERT FREQ.” (FIG. 2)
- TOUCH THE NUMBERS TO DIGIT THE REQUIRED FREQUENCY VALUE (FIG. 3)
- FINALLY TOUCH ENTER AND CONFIRM THE SELECTION (FIG. 4)

EXAMPLE OF MANUAL FREQUENCY SELECTION (FREQ):





# VOLUME & CONFIGURATION



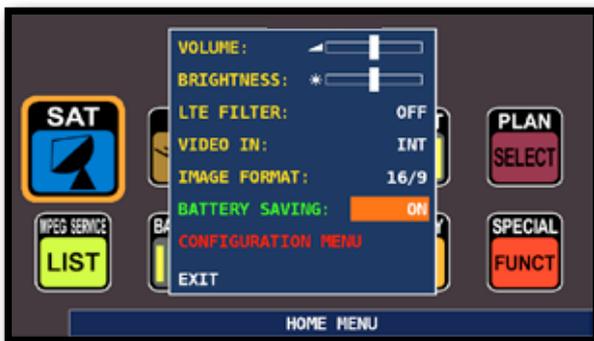
VOLUME SELECTION IS IMMEDIATELY ACTIVE, PRESS “ENTER” FOR THE DISPLAY CONFIGURATION AND OTHER IMPORTANT SETTINGS.

## VIDEO IN

- “VIDEO IN” (CONNECTOR 5 ): SELECT “EXT” TO VISUALIZE AN EXTERNAL VIDEO SOURCE.

## BATTERY SAVING AND TIMER OFF

SETTINGS FOR BATTERY SAVE MODE:



CHOOSE “BATTERY SAVING” FROM THE VOLUME SCREEN. IN ON MODE, IF NO KEY IS PRESSED, AFTER 30 SECONDS, THE DISPLAY BRIGHTNESS IS REDUCED AND AFTER 5 MINUTES THE METER AUTOMATICALLY TURNS OFF. PRESS ANY KEY TO TEMPORARILY RESET THE BATTERY SAVE MODE,



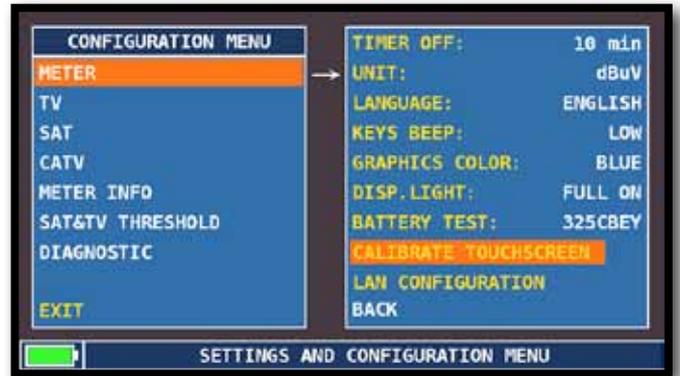
NAVIGATE IN “CONFIGURATION MENU” THEN “METER” IN THE VOLUME SCREEN AND SET THE “TIMER OFF” VALUE REQUIRED. THE METER WILL TURN OFF AFTER 5 OR 10 MINUTES OF INACTIVITY. PRESS ANY KEY TO INTERRUPT THE AUTOMATIC TURN-OFF.

# TOUCHSCREEN CALIBRATION

IF THE TOUCHSCREEN DOES NOT RESPOND TO THE COMMANDS, IT MAY BE NECESSARY TO CALIBRATE:



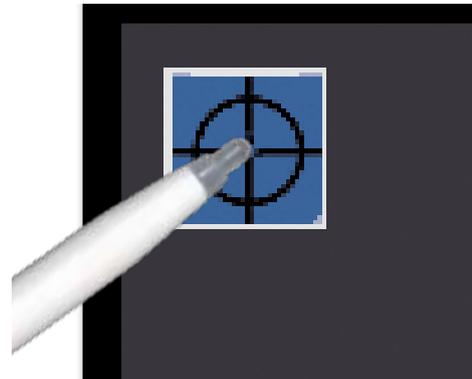
NAVIGATE IN "CONFIGURATION MENU"  
FROM THE VOLUME WINDOW;



SELECT "METER"  
THEN "CALIBRATE TOUCHSCREEN";



NOW TOUCH THE CENTER OF THE SQUARES THAT  
APPEAR IN THE CORNERS OF THE SCREEN,  
REPEAT FOUR TIMES.



**N.B.:** USE THE PEN AND TOUCH THE  
THE SCREEN EXACTLY IN THE CENTER OF  
THE CIRCLE. IF YOU DO NOT CARRY OUT  
THIS PROCEDURE CORRECTLY THE TOUCH  
COMMANDS MAY BE INACCURATE.

# DISCOVERY

IDENTIFIES THE MODULATION OF A TUNED TV CHANNEL IN THE TV MASTER PLAN:



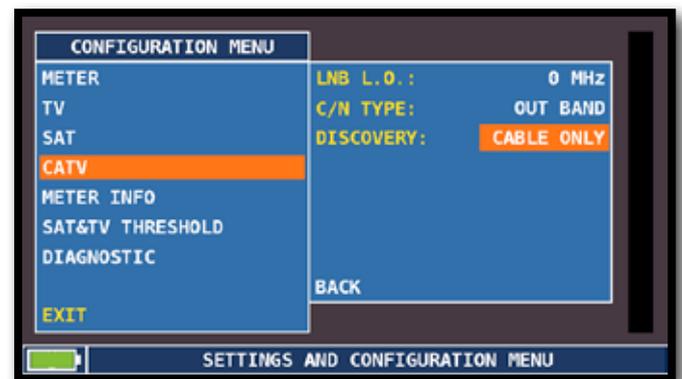
NAVIGATE IN THE “CONFIGURATION MENU”  
IN THE VOLUME WINDOW.

## TV MODE



NAVIGATE IN “TV” AND THEN “DISCOVERY”  
AND SET THE IDENTIFICATION MODE:  
- TERR ONLY.

## CATV (CABLE) MODE



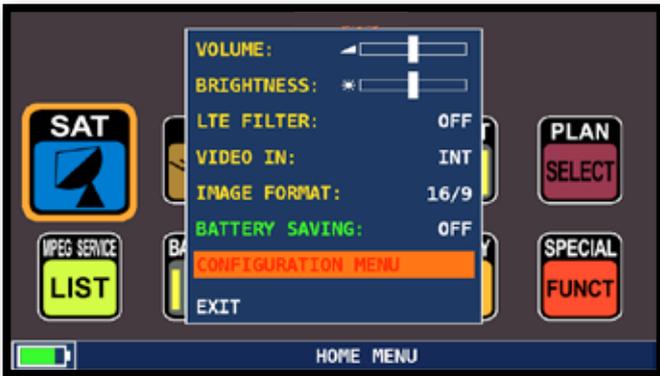
NAVIGATE IN “CATV” AND THEN  
“DISCOVERY” AND SET THE IDENTIFICATION  
MODE:  
- CABLE ONLY.

### NOTES:

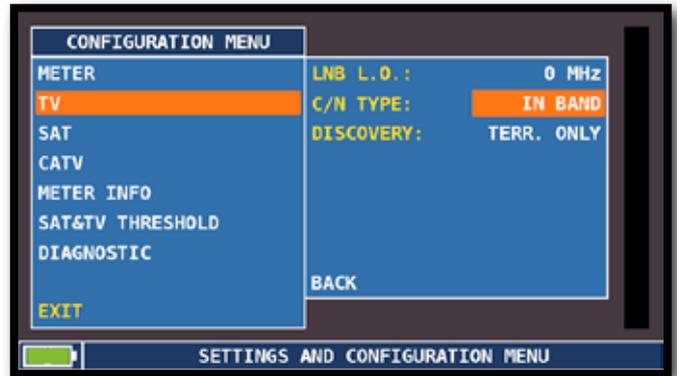
- DISCOVERY MODE IS ACTIVE ONLY IF THE ANTENNA CABLE IS CONNECTED TO THE INSTRUMENT,
- DISCOVERY MODE IS NOT ACTIVE IF YOU USE A MANUAL MEMORY PLAN (MANUMEMORY MIX) OR AUTOMATIC (AUTOMEMORY TV).

# C/N TYPE

SET THE MEASUREMENT MODE OF THE CARRIER NOISE RATIO "C/N" (IN BAND-OUT BAND):



NAVIGATE IN "CONFIGURATION MENU" FROM THE VOLUME SCREEN,



NAVIGATE IN "TV" THEN "C/N TYPE",



C/N MEASUREMENT MODE "IN BAND" THE SIGNAL/NOISE RATIO IS MEASURED BETWEEN THE SIGNAL LEVEL OF THE VIDEO CARRIER (SIGNAL/CARRIER, RED MARKER) AND THE NOISE LEVEL, ESTIMATED IN THE BAND BETWEEN THE COLORED SUBCARRIER AND THE AUDIO CARRIER (WHITE MARKER),



C/N MEASUREMENT MODE "OUTSIDE THE BAND" THE SIGNAL/NOISE RATIO IS MEASURED BETWEEN THE SIGNAL LEVEL OF THE VIDEO CARRIER (SIGNAL/CARRIER, RED MARKER) AND THE NOISE LEVEL ESTIMATED IN THE GUARD BAND (-1.250 MHz FROM THE VIDEO CARRIER, WHITE MARKER).



## SWITCH TO SAT MODE



SAT CHANNEL PLAN SCREEN

"SATELLITE INFORMATION (MUX DATA) IS PROVIDED IN COOPERATION WITH LYNGSAT WWW.LYNGSAT.COM"

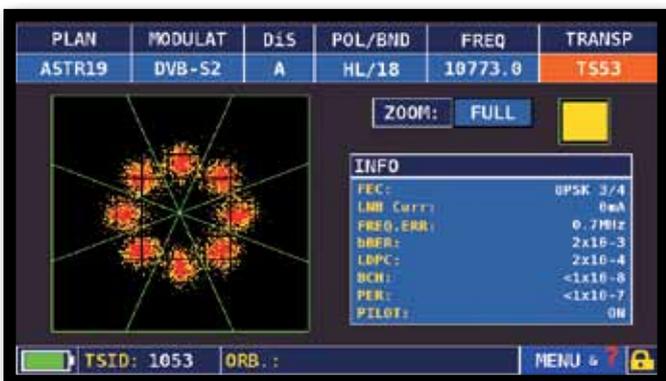
## DIGITAL SAT MEASUREMENT DISPLAYS DVB-S AND DVB-S2



MAIN MEASUREMENTS & LIVE PICTURE



NAVIGATE IN THE PICTURE TO ZOOM, PRESS AGAIN TO RETURN TO THE MEASUREMENT.



BPSK CONSTELLATION

**ZOOM:** NAVIGATE IN "ZOOM" AND SELECT THE CONSTELLATION SQUARE WINDOW TO ENLARGE.



PRESS TO CYCLE THROUGH SAT MEASUREMENT SCREENS



NAVIGATE IN “MENU&?” FROM THE MAIN MEASUREMENTS & PICTURES SCREEN AND SELECT “VISUALIZE NIT”.

### EXAMPLE 1:

NIT INFO VISUALIZATION					
FREQ	POL	SYM.RATE	MODE	TYPE	FEC
11376.5	vert	22000.00	DVB-S2	8PSK	2/3
11170.8	hor	22000.00	DVB-S2	8PSK	2/3
11597.0	vert	22000.00	DVB-S	QPSK	5/6
11038.0	vert	22000.00	DVB-S	QPSK	5/6
11156.0	vert	22000.00	DVB-S	QPSK	5/6
12692.2	hor	22000.00	DVB-S	QPSK	5/6
12640.0	vert	22000.00	DVB-S	QPSK	5/6
11685.5	vert	22000.00	DVB-S	QPSK	5/6
12581.0	vert	22000.00	DVB-S	QPSK	5/6
10979.0	vert	22000.00	DVB-S	QPSK	5/6
10876.5	vert	22000.00	DVB-S	QPSK	5/6

“NIT INFO VISUALIZATION” REFERRING TO AN ASTRA 19 EAST TRANSPONDER

### NOTE:

- THE FUNCTION VISUALIZE NIT IS AVAILABLE ALSO IN TV & CATV MODE

## RELATED FUNCTIONS



SAT  
SPECTRUM  
ANALYZER



SAT  
CHANNEL  
PLAN  
SELECTION



MPEG  
SERVICE  
LIST



IDENTIFIES  
THE TUNING  
PARAMETERS  
OF A DIGITAL  
SIGNAL

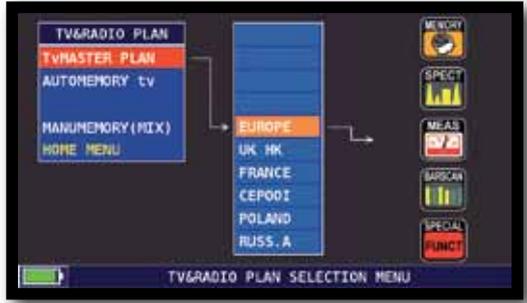


## SWITCH TO TV MODE (ALL CHANNELS RECEIVED AT THE ANTENNA)

OR



THEN PRESS

TV CHANNEL PALN

## ANALOG RADIO MEASUREMENT DISPLAY



NAVIGATE IN "CHAN" & SELECT "FMH" OR "FML",  
 NAVIGATE IN "MODULAT" & SELECT "FM RADIO",  
 NAVIGATE IN "FREQ" AND SELECT THE FREQUENCY REQUIRED.

## ANALOG TV MEASUREMENT DISPLAY

NAVIGATE IN "CHAN" AND SELECT THE CHANNEL REQUIRED. IF IT IS ANALOG YOU WILL SEE THE FOLLOWING DISPLAYS:



LEVEL MEASUREMENT AND PICTURE



OTHER MEASUREMENTS



PRESS TO CYCLE THROUGH THE TV MEASUREMENTS SCREENS

# 8VSB MEASUREMENT DISPLAYS

NAVIGATE IN "CHAN" AND SELECT THE CHANNEL REQUIRED.  
IF IT IS DIGITAL YOU WILL SEE THE FOLLOWING DISPLAYS:



MAIN MEASUREMENTS AND PICTURE



8VSB CONSTELLATION



NAVIGATE IN "ZOOM" AND SELECT THE CONSTELLATION SQUARE WINDOW TO ENLARGE



PRESS TO CYCLE THROUGH TV MEASUREMENT SCREENS

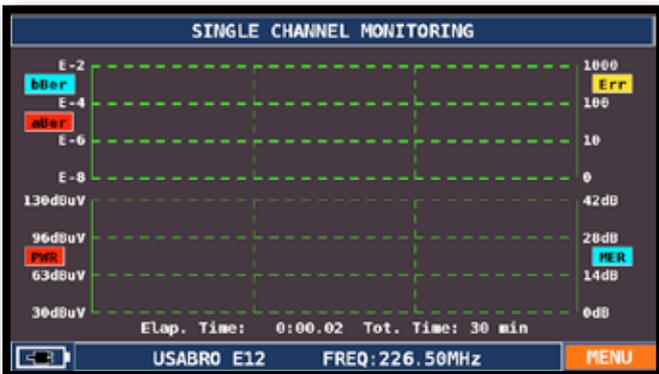
# CHANNEL LOGGER



NAVIGATE IN “MENU” ON THE MAIN MEASUREMENTS AND PICTURE SCREEN



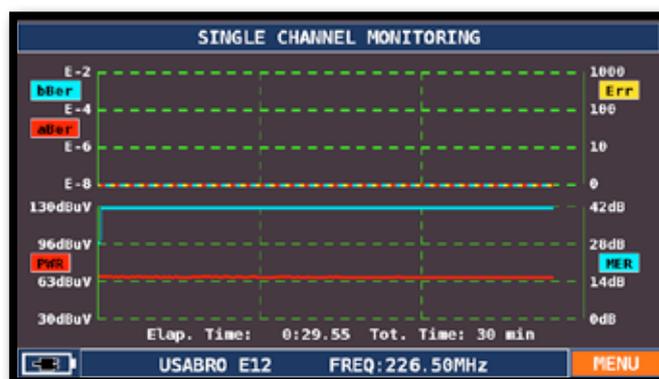
NAVIGATE IN “CHANNEL LOGGER”



NAVIGATE IN “MENU” AND PRESS ENTER



SELECT THE TIME INTERVAL (TIME INTVL)



SINGLE CHANNEL MONITORING (FOR EXAMPLE 30 MINUTES)

## NOTE:

- THE FUNCTION CHANNEL LOGGER IS AVAILABLE ALSO IN SAT & CATV MODE



## SWITCH TO CATV MODE (ALL ANTENNA AND S BAND CHANNELS)



## DIGITAL CATV DVB-C MEASUREMENT DISPLAY



MAIN MEASUREMENTS & LIVE PICTURE



NAVIGATE IN THE THE PICTURE TO ENLARGE  
PRESS AGAIN TO RETURN TO THE  
MEASUREMENTS



256 QAM CONSTELLATION



PRESS TO CYCLE THROUGH  
CATV MEASUREMENT SCREENS

**ZOOM:** NAVIGATE IN "ZOOM" AND SELECT THE CONSTELLATION SQUARE TO ENLARGE.

## RELATED FUNCTIONS



CATV SPECT



CATV CHANNEL PLAN SELECTION



BARSCAN



MPEG SERVICE LIST



FINDS THE TUNING PARAMETERS OF A DIGITAL SIGNAL



## SWITCH TO SPECT MODE



OR



## SPECTRUM ANALYZER SCREENS

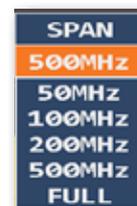


FAST SPECTRUM

NAVIGATE IN "SPAN" TO MODIFY THE VALUE OR DIRECTLY SELECT THE ACTIVE SPAN VALUE:



OR



ROTATE TO NAVIGATE,



ENTER TO CONFIRM.

PRESS THE SPECTRUM KEY AGAIN TO ACTIVATE THE "MAX HOLD" FUNCTION.



FAST SPECTRUM WITH PEAK MEMORY "MAX H"



PRESS TO CYCLE THROUGH SPECTRUM ANALYZER SCREENS

# RBW FILTER

THE RBW (RESOLUTION BANDWIDTH) FILTER FUNCTION DETERMINES THE BANDWIDTH OF THE BANDPASS FILTER, WHICH IS USED TO GENERATE THE SPECTRUM OF THE INPUT SIGNAL (IF).

THIS BANDPASS FILTER WORKS LIKE A WINDOW: THE SMALLER THE BANDWIDTH, THE MORE DETAILED IS THE REPRESENTATION OF THE SPECTRUM. HOWEVER, A SMALLER VALUE RBW PROVIDES A SLOWER REFRESH RATE OF THE SPECTRUM

YOU CAN CHOOSE (HIGH RESOLUTION, SLOWER REFRESH RATE) BETWEEN THE RBW FILTER BETWEEN A BANDWIDTH OF 1 MHz OR 5 MHz (LOWER RESOLUTION, FAST REFRESH RATE).

## EXAMPLE 1:



VISUALIZATION OF AN SCPC TRANSPONDER WITH SETTINGS:

“RBW FILTER 5 MHz” AND “dB DIV 5dB” (SPAN 50 MHz)

## EXAMPLE 2:



NAVIGATE IN “MENU&?” FROM THE SAT SPECTRUM SCREEN, SELECT “DB DIV 2DB” AND “RBW FILTER 1 MHz”.



VISUALIZATION OF A SAT SCPC TRANSPONDER (SPAN 10 MHz).

**N.B.:** YOU CAN ONLY SELECT RBW FILTER IN SAT MODE.

# RELATED FUNCTIONS



NAVIGATE IN “MENU” TO VISUALIZE THE ADDITIONAL SPECTRUM FUNCTIONS



FINDS THE TUNING PARAMETERS OF A DIGITAL SIGNAL

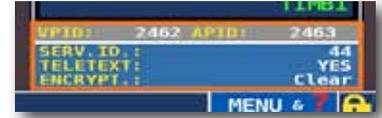


# LIST (MPEG SERVICE)

SHOW AND SELECT AVAILABLE MPEG TS SERVICES



OR NAVIGATE IN VPID - APID IN THE MEASUREMENT WINDOWS TV-CATV-SAT AND PRESS ENTER.



MPEG SERVICE LIST



PRESS ENTER THAN ROTATE TO NAVIGATE,

PRESS ENTER, NAVIGATE IN VPID - APID & PRESS ENTER TO RETURN TO THE MEASUREMENTS OR PRESS THE SAT/TV/CATV MEASUREMENT KEY.



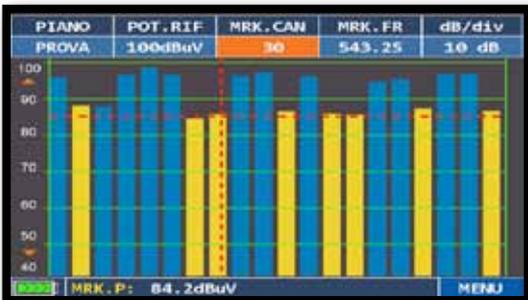
# BARSCAN LEVEL GRAPH

CHECK ALL CHANNELS LEVEL/POWER

IN THE TV STANDARD CANALIZATION THE METER DISPLAYS THE LEVEL/POWER OF ALL CHANNELS. IN AUTOMEMORY OR MANUMEMORY PLAN THE METER DISPLAYS THE MEMORIZED CHANNELS AND DISTINGUISHES ANALOG AND DIGITAL SIGNALS USING 2 DIFFERENT COLOURS:



OR



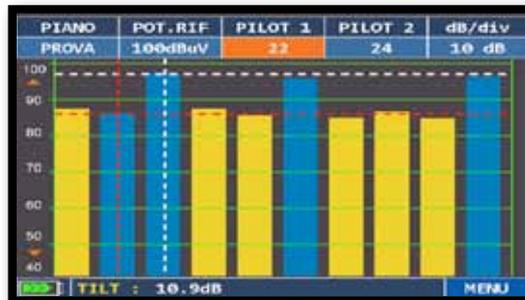
BARSCAN (GRAPHIC LEVEL)



ANALOG CHANNELS



DIGITAL CHANNELS



**MENU**

NAVIGATE IN "MENU" TO CHOOSE THE BARGRAPH MODE: "LEVEL" OR "TILT",

NAVIGATE IN "PILOT 1" AND "PILOT 2" TO SELECT THE TWO CHANNELS TO BE USED FOR THE TILT MEASUREMENT (LEVEL DIFFERENCE).

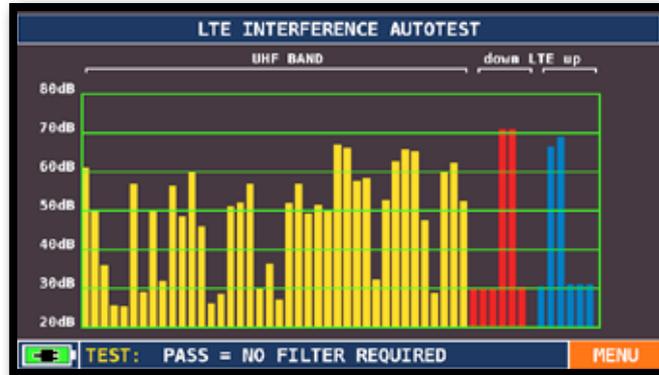
**NOTE:** FUNCTION AVAILABLE ONLY IN TV OR CATV MODE.

# LTE INTERFERENCE AUTOTEST



PRESS THE “BARSCAN” KEY TWICE TO GO TO THE LTE INTERFERENCE AUTOTEST FUNCTION.

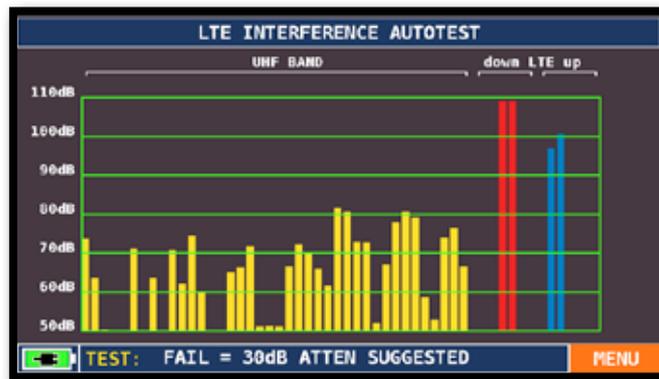
## EXAMPLE 1:



LOW LTE INTERFERENCE.

THE LOWER PART OF THE DISPLAY SHOWS THE FOLLOWING INFORMATION:  
PASS = NO FILTER REQUIRED

## EXAMPLE 2:



HIGH LTE INTERFERENCE.

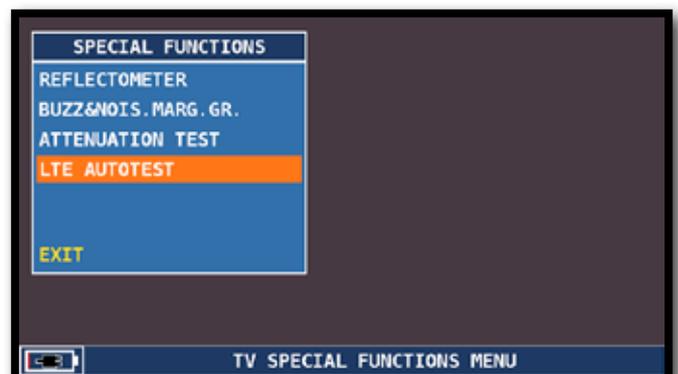
THE LOWER PART OF THE DISPLAY SHOWS THE FOLLOWING INFORMATION:  
FAIL = 30dB ATTEN SUGGESTED  
(THE INSTRUMENT SUGGESTS ATTENUATING THE INTERFERING LTE SIGNALS BY 30 DB)

**N.B.:**

YOU CAN REACH LTE AUTOTEST DIRECTLY FROM THE SPECIAL FUNCTIONS.



PRESS THE HOME KEY AND NAVIGATE IN “SPECIAL FUNCT”



NAVIGATE IN “LTE AUTOTEST” AND PRESS ENTER



# HELP INSPECT THE PARAMETERS OF AN UNKNOWN SIGNAL

THE "HELP" FUNCTION IDENTIFIES THE TUNING PARAMETERS OF A DIGITAL TV OR SAT SIGNAL:

## HOW TO USE THE "HELP" FUNCTION

SPECTRUM MODE MOVE THE "MRK. FR" TO THE CENTER OF A DIGITAL CARRIER,



OR



IN MEASUREMENT MODE WHEN THE LOCK ICON IS OPEN (THE SIGNAL IS NOT LOCKED),

NAVIGATE IN "HELP" ON THE MAIN MENU,



PRESS TO START THE SEARCH,



THE "HELP" FUNCTION WILL TRY TO IDENTIFY THE TUNING PARAMETERS OF THE SELECTED DIGITAL CARRIER,

AT THE END OF THE SEARCH (THE WORD "FOUND" WILL BE SHOWN IN THE 3 BOXES) THE METER AUTOMATICALLY SHOWS THE MEASUREMENT DISPLAY AND THE PICTURE OF THE SELECTED CARRIER (IF AVAILABLE).



## SPECIAL FUNCTIONS

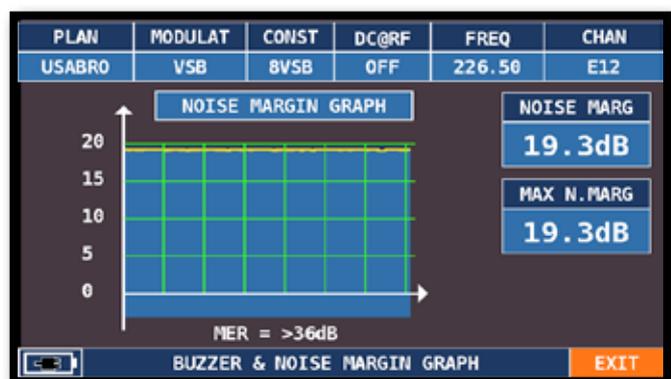


N.B.: THE SPECIAL FUNCTIONS DEPEND ON THE ACTIVE OPERATING MODE: TV SAT OR CATV.

## TV: BUZZER & NOISE MARGIN GRAPH



NAVIGATE IN:  
BUZZ&NOIS.MARG.GR



BUZZER & GRAPHIC OF THE PROGRESS OF THE NOISE NOISE MARGIN OF THE TUNED CHANNEL ACCORDING TO TIME. HIGH TONES = THE BEST NOISE MARGIN LEVEL DEEP TONES = THE WORST NOISE MARGIN LEVEL NOISE MARG = REAL TIME NOISE MARGIN MAX N.MARG = MAXIMUM STORED NOISE MARGIN

N.B.: THE FUNCTION IS ALSO AVAILABLE IN CATV AND SAT MODE

## SAT: SAT SCR

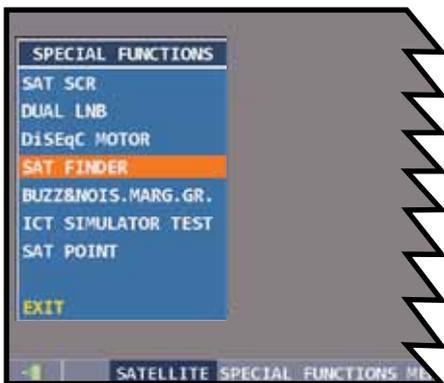


NAVIGATE IN "SAT SCR":



NAVIGATE IN "LNB TYPE" AND CHOOSE THE LNB/MULTISWITCH MODEL,  
NAVIGATE IN "SCR USER", AND CHOOSE THE USER NUMBER TO TEST (USER 1-8),  
PRESS "SPECT" TO DISPLAY THE SPECTRUM OR "MEAS" TO START MEASURING,  
OR NAVIGATE IN "SCR CABLE TEST" TO PERFORM IN SPECTRUM MODE THE SCR LNB/ MULTISWITCH 8 FREQUENCIES CHECK (USER 1-8).

## SAT: SAT FINDER



NAVIGATE IN "SAT FINDER":



TO CHANGE THE DISPLAYED TRANSPONDERS MANUALLY, TOUCH "STOP" AND SELECT THE WANTED TP/TS. NAVIGATE IN "START SEARCH" TO START,

IF THE CHOSEN SATELLITE IS FOUND THE BUZZER WILL START, IF THIS DOES NOT HAPPEN, CONTINUE LOOKING FOR THE RIGHT SATELLITE. OPTIMIZE THE DISH ALIGNMENT AND SKEW TO OBTAIN THE MAXIMUM NSMAR VALUE (NOISE MARGIN).

### NOTE:

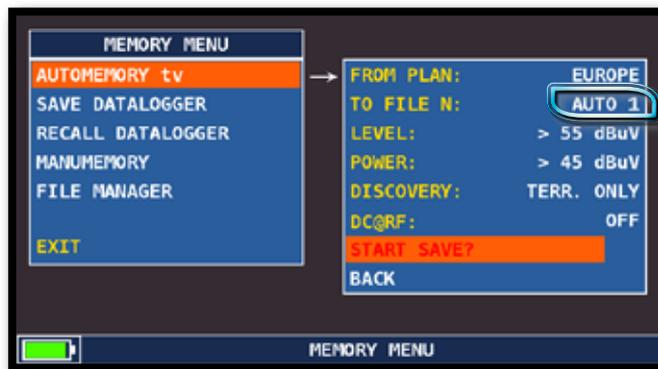
FOR A PROPER USE OF THE "SAT FINDER" FUNCTION, VERIFY THE TUNING PARAMETERS FOR ALL THREE TRANSPONDERS (FREQUENCY, POLARITY, BAND, AND SYMBOL RATE) AND THE TYPE OF LNB YOU ARE USING (UNIVERSAL OR QUATRO).

GO TO THE [WWW.LYNGSAT.COM](http://WWW.LYNGSAT.COM) SITE FOR MORE INFORMATION.



## AUTOMEMORY (TV)

TO AUTOMATICALLY STORE ALL THE EXISTING CHANNELS IN A CITY OR BUILDING. NAVIGATE IN “AUTOMEMORY TV” AND PRESS THE WHEEL:



SET THE DESIRED PARAMETERS:

NAVIGATE IN “TO FILE N” AND SELECT THE DESTINATION FILE “AUTO” WHERE THE SEARCH MUST BE SAVED,

NAVIGATE IN “LEVEL” AND SET THE MINIMUM LEVEL THRESHOLD OF THE ANALOG CHANNELS SEARCHED,

NAVIGATE IN “POWER” AND SET THE MINIMUM POWER LEVEL OF THE DIGITAL CHANNELS SEARCHED,

NAVIGATE IN “DISCOVERY” AND SET THE CHANNEL SEARCH MODE,

- TERR ONLY (TERRESTRIAL ONLY),
- TERR & CABLE (TERRESTRIAL & CABLE),

NAVIGATE IN “START SAVE” TO CREATE A NEW CHANNEL PLAN AND TO ACTIVATE THE SEARCH,

**NOTE:** IF THE WORDS “START OVERWRITE” APPEAR, THE SELECTED FILE WILL BE OVERWRITTEN,

WAIT A FEW MINS, THE METER INDICATES THE RECORDED ANALOG & DIGITAL CHANNELS.



UPON AUTOMEMORY COMPLETION THE NEW PLAN IS AUTOMATICALLY SELECTED.

# LOGGER SAVE

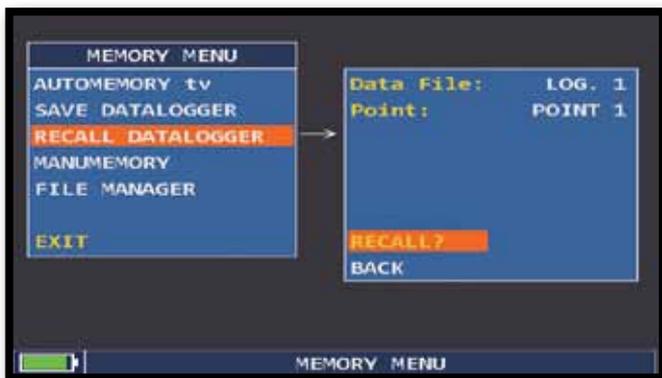


NAVIGATE IN “SAVE DATALOGGER” AND SET THE PARAMETERS REQUIRED. TOUCH “START SAVE” TO CREATE A NEW LOG FILE

DATA LOGGER RUN

**NOTE:** IF THE MANU PLAN HAS MIXED TV AND SAT PROGRAMS, THE STOP&GO FUNCTION WILL ASSIST WHEN RUNNING A LOGGER ASKING TO MOVE THE CABLE LEAD FROM A TV TO A SAT SIGNAL SOURCE OR VICE-VERSA.

# LOGGER RECALL



NAME	TYPE	PWR LVL	MER C/N	bBER A/V	aBER PER
s1	FN	-53.3			
s1	FN	-50.9			
s1	FN	-50.3			
F12	VSB	10.8	35.8	<E-09	<E-09
s21	DVB-C	12.0	>36	<E-09	<E-09
s24	An TV	5.3	33.0	11.4	
PR 1	DVB-S	-7.7	11.7	2.0E-04	<E-08
PR 2	DVB-S	0.7	14.2	5.0E-06	<E-08
PR 3	DVB-S	-5.6	12.5	1.0E-04	<E-08

NAVIGATE IN “RECALL DATALOGGER” AND SET THE LOG FILE PARAMETERS. TOUCH “RECALL?” TO SEE THEM,

BROWSE THROUGH MEASUREMENTS SAVED IN THE LOG FILE,



ROTATE TO NAVIGATE.

# LI-ION POLIMER BATTERIES

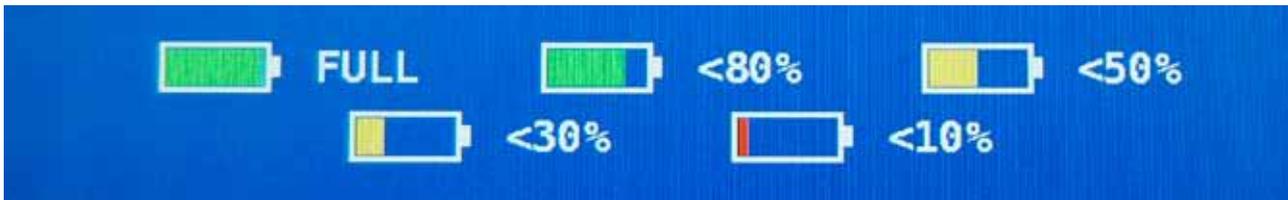
## IMPORTANT:

- ALWAYS TURN THE INSTRUMENT OFF BEFORE CONNECTING THE BATTERY CHARGER;
- DO NOT LEAVE THE BATTERIES DISCHARGED FOR LONG PERIODS;
- ALWAYS CHARGE THE BATTERIES AT NIGHT FOR AT LEAST 7 HOURS, EVEN IF THEY ARE NOT COMPLETELY DISCHARGED.

## USEFUL INFORMATION:

1. The batteries supplied are high quality and tested individually, the autonomy depending on the following conditions:
  - the LNB power consumption: Single, Dual or Quadruple;
  - the external temperature: with temperatures of less than 10°C, 20% of the capacity is lost;
  - the age of the batteries: a 10% loss in efficiency each year;
  - Remember that the TIMER OFF function, that automatically turns off the Meter after 5 or 10 minutes of inactivity saves up to 30%.
2. The battery indicator has a tolerance ( like all battery powered electronic devices ) according to the following factors:
  - the battery's charging percentage;
  - external temperatures;
  - battery wear and tear;
  - +/- 2%.

## ICONS SHOWING THE BATTERY CHARGE STATUS:



## BATTERY AUTONOMY:

The battery autonomy is 4 hours maximum.

# BATTERY TEST & BATTERY REGENERATION

THIS PROCEDURE EXPLAINS HOW TO REGENERATE/CHECK YOUR BATTERIES AND CALIBRATE THE BATTERY CHARGE INDICATOR

## USEFUL ADVICE:

- CHARGE THE BATTERIES EVERY NIGHT AFTER USE, EVEN IF THEY ARE NOT COMPLETELY DISCHARGED;
- ALWAYS USE THE “BATTERY SAVE” & “TIMER OFF” FUNCTIONS TO INCREASE YOUR METER’S AUTONOMY;
- THE MAXIMUM CAPACITY OF THE BATTERIES AND BATTERY CHARGE INDICATOR’S ACCURACY IMPROVES BY UP TO 20% IF YOU CARRY OUT MANY BATTERY TEST CYCLES;
- DO NOT REPLACE THE BATTERIES: FIRST CARRY OUT 3 TO 5 BATTERY TEST CYCLES UNTIL YOU RECOVER THE MAXIMUM CAPACITY OF THE BATTERIES.

## “BATTERY TEST” INSTRUCTIONS & PROCEDURE:

1. BEFORE CARRYING OUT THE TEST CONNECT THE METER TO THE ORIGINAL BATTERY CHARGER:
  - TURN ON THE METER;
  - PRESS THE VOLUME KEY AND SELECT “CONFIGURATION MENU” (FIG. 1);
  - SELECT THE WORD “METER” AND PRESS “ENTER” (FIG. 2) & PRESS “ENTER” TO CONFIRM;
  - SELECT “BATTERY TEST” AND SELECT “ON” (FIG. 2);
  - PRESS “ENTER” TO CONFIRM;
  - CAREFULLY READ THE VARIOUS SCREENS, PRESSING “ENTER” IN SUCCESSION;
  - IN THE LAST INSTRUCTIONS WINDOW, SELECT “START” AND PRESS “ENTER” TO START THE TEST.

**WARNING:** THE PROCEDURE WILL BE CANCELLED IF YOU SELECT “EXIT” ON ANY SCREEN.



FIG. 1\*



FIG. 2\*



FIG. 3\*

## IMPORTANT ADVICE:

- DO NOT CONNECT ANY TYPE OF LOAD TO THE “F” INPUT CONNECTOR (LNB, TV HEAD-END, AMPLIFIERS, ETC.).
  - EXTRACT THE CONDITIONAL ACCESS MODULE (CAM), IF IT IS PRESENT IN YOUR METER.
2. THE BATTERY TEST TAKES APPROX. 12/18 HOURS ACCORDING TO THE MODEL (CHARGING/DISCHARGING/RECHARGING ACTIVITIES AND MEASUREMENT OF THE BATTERY AUTONOMY), DURING THIS TIME THE METER MUST NOT BE USED. AT THE END OF THE TEST THE METER WILL TURN OFF AUTOMATICALLY. IN ORDER TO MAKE SURE THAT THE TEST HAS BEEN CARRIED OUT CORRECTLY, ALL THE METER’S COMMANDS ARE BLOCKED EXCEPT FOR THE RESET FUNCTION, WHICH REMAINS ACTIVE SO THAT THE METER CAN BE TURNED OFF IF NECESSARY.
  3. THE BATTERIES WILL BE COMPLETELY CHARGED AT THE END OF THE TEST.
  4. TO CHECK THE BATTERY TEST RESULTS, ENTER ONCE AGAIN INTO “METER” IN THE “CONFIGURATION MENU” AND READ THE RESULTS (FIG. 3):
    - FOR EXAMPLE 380CHLY (FIG.3B) = 380 MINUTES.THE “Y” OF YES CONFIRMS THAT THE BATTERY IS STILL GOOD ENOUGH, WHEREAS AN “N” FOR NO INDICATES THAT IT COULD BE FAULTY, TOO DETERIORATED OR THAT THE CYCLE WAS INTERRUPTED.

## IMPORTANT NOTES:

IF THE TEST IS INTERRUPTED USING “RESET”, THE BATTERY CHARGE INDICATOR MAY PROVIDE INCORRECT INDICATIONS, THEREFORE REPEAT THE BATTERY TEST PROCEDURE.

\* THE DISPLAYS SHOWN IN THIS GUIDE MAY CHANGE ACCORDING TO THE MODEL AND ARE SUBJECT TO CHANGE WITHOUT NOTICE. IF YOU CONNECT YOUR METER, USING THE S.M.A.R.T. PRO PROGRAM, FROM THE USB PORT TO THE PC, YOU CAN DOWNLOAD THE SCREENS SHOWN ABOVE.

# POWER SUPPLY (MAINS) & BATTERY CHARGE (CHRG) LED STATUS



INSTRUMENT	CONNECTED TO THE MAINS POWER SUPPLY	▼ LED MAINS	▼ LED BATT CHRG	NOTES
OFF	YES	ON	ON	Batteries in fast charge
OFF	YES	ON	OFF	Battery charge completed
OFF	YES	ON	Flashing 0.5 SECONDS OFF 0.5 SECONDS ON	Abnormal battery temperature. The recharge cycle has been suspended temporarily and will automatically reset.



## WARNINGS



### RECHARGEABLE BATTERY

This device contains a built-in Li-PO (Lithium polymer) battery that can be recharged many times. The battery contains chemicals that might wear with time even if not used. Please dispose of batteries properly.

Do not take the battery pack apart or expose it to extreme temperatures (over 50°C). If the device has been exposed to very low or high temperatures let it rest at room temperature before use.

### RECHARGING THE BATTERY

The Battery must be recharged at room temperature (about 20°C) with the device turned off. To avoid premature failure of the battery never leave the device with an empty battery for prolonged periods.

# METER MAINTENANCE

## CLEANING THE METER

Cleaning the meter from dust and dirt is easy and helps maintaining it in optimal work conditions through the years. The cleaning procedure is simple and quick and requires only minor attention.

Never use chemical aggressive products (diluent) and/or abrasive or rough clothes which may damage plastics and displays.

Always use a soft cloth, dampened with a simple water and alcohol solution or a de-greasing not abrasive liquid soap.

Keyboard and display should be gently cleaned. Rubbing the keyboard and/or the display(s) may seriously damage their functions.

## MAINTENANCE AND CARE OF THE METER

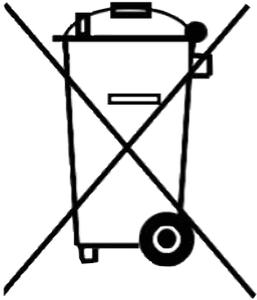
This meter has been designed to withstand severe conditions of use. Even so, its life may be prolonged by respecting some simple and effective rules:

- The meter has not been designed to withstand high temperatures (over 60°C or 140° F). Those temperatures can be easily reached when the meter is left in a car, especially behind the windshield, or in the trunk. The LCD display and/or other details may easily be damaged by the extreme temperature.
- The internal battery may rapidly lose its efficiency if exposed to high or low temperatures. This will result in reduced autonomy of the meter when powered by internal battery.
- When recharging the internal battery, do allow a good air circulation around the meter and the adapter: do not cover it with clothes and do not recharge the battery when the meter is contained in its transport case
- The meter is not waterproof, even if it is protected against incidental water drops. In case of contact with water, electronic circuits may be damaged, allow the meter to dry thoroughly before trying to turn it on. Do not use hairdryer or other strong heating sources, but just leave the meter in quiet air. If possible, contact Rover Laboratories S.p.A. Technical Assistance.

# DISPOSAL OF ELECTRONIC EQUIPMENT

Disposal of electric/electronic equipment (applicable in all CEE countries and wherever separate waste collection system is applied).

This symbol on the packaging indicates that the product should not be considered as domestic waste. The product, at the moment of disposal, should be brought to a waste collection point with the proper facilities to manage electrical/electronic appliances.



Electric/electronic appliances, if not disposed of correctly, may have negative consequences on your health and environment.

Furthermore, a proper recycling procedure helps maintaining natural resources.

For more information about the correct disposal of this product, please refer to your local waste management offices or the shop where this product was bought.

## SUGGESTED VALUES

THIS TABLE SHOWS THE SUGGESTED MEASUREMENTS AT A USER'S SOCKET FOR THE MAIN DIGITAL MODULATIONS.



**SUGGESTED VALUE TO:** SUBSCRIBER SOCKET, KUNDEN ANTENNEN DOSE, PRESA UTENTE, PRISE DE L'ABONNE', TOMA FINAL DE USUARIO, АБОНЕНТСКИЙ РАЗЪЕМ

DVB-S QPSK			DVB-S2 8PSK			DVB-T-H & GB COFDM			DVB-T2 & GB COFDM			ATSC (USA) 8VSB		
PARAM.	MIN	TYP.	PARAM.	MIN	TYP.	PARAM.	MIN	TYP.	PARAM.	MIN	TYP.	PARAM.	MIN	TYP.
AVG PWR	40 dB $\mu$ V	50 dB $\mu$ V	AVG PWR	40 dB $\mu$ V	50 dB $\mu$ V	AVG PWR	40 dB $\mu$ V	50 dB $\mu$ V	AVG PWR	40 dB $\mu$ V	50 dB $\mu$ V	AVG PWR	-15 dBmV	-5 dBmV
NOISE MARG.	3 dB	6 dB	NOISE MARG.	3 dB	6 dB	NOISE MARG.	6 dB	9 dB	NOISE MARG.	6 dB	9 dB	NOISE MARG.	2 dB	9 dB
aBER post Viterbi	2x10 <sup>-6</sup>	2x10 <sup>-8</sup>	PER 8PSK	<1x10 <sup>-7</sup>	<1x10 <sup>-8</sup>	aBER post Viterbi	2x10 <sup>-6</sup>	2x10 <sup>-8</sup>	PER	1x10 <sup>-7</sup>	1x10 <sup>-8</sup>	bBER pre Trellis	1x10 <sup>-3</sup>	<1x10 <sup>-6</sup>
MER QPSK 2/3 FEC	9 dB	12 dB	MER 8PSK 2/3 FEC	11 dB	14 dB	MER 64 QAM 2/3 FEC	25 dB	28 dB	MER 256 QAM 2/3 FEC	25 dB	28 dB	bBER post Trellis	3x10 <sup>-6</sup>	<1x10 <sup>-8</sup>
MER QPSK 3/4 FEC	10 dB	13 dB	MER 8PSK 3/4 FEC	12 dB	15 dB	MER 16 QAM 2/3 FEC	20 dB	23 dB	MER 256 QAM 3/4 FEC	26,5 dB	29,5 dB	aBER pre R.S.	3x10 <sup>-6</sup>	<1x10 <sup>-8</sup>
MER QPSK 5/6 FEC	11 dB	14 dB	MER 8PSK 5/6 FEC	13 dB	16 dB	MER QPSK 2/3 FEC	14 dB	17 dB	MER 256 QAM 5/6 FEC	28,5 dB	31,5 dB	MER	16 dB	23 dB

# ACCESSORIES SUPPLIED

## LIST OF PROVIDED ACCESSORIES:

- SOFT BAG
- REMOVEABLE SIDE POCKET FOR TOOLS AND ACCESSORIES
- SHOULDER STRAP
- SAFETY ANTENNA MAST ATTACHMENT STRAP
- USB 2.0 CABLE FOR PC CONNECTION
- BATTERY CHARGER POWER SUPPLY
- VEHICLE BATTERY CHARGER ADAPTER
- PLASTIC PEN FOR TOUCH SCREEN DISPLAY
- USER GUIDE
- QUICK GUIDE
- F FEMALE - F FEMALE CONNECTOR
- BNC FEMALE - F FEMALE CONNECTOR
- IEC FEMALE - F FEMALE CONNECTOR
- QUICK F MALE - F FEMALE CONNECTOR

### **N.B.:**

THIS LIST OF ACCESSORIES IS SUBJECT TO CHANGE WITHOUT NOTICE AND DEPENDS ON THE METER'S CONFIGURATION.

**- NOTES -**

A series of horizontal dashed lines for writing notes.



[www.blondertongue.com](http://www.blondertongue.com)

UG-BTPRO7000-S-EN-V1,2

DESIGNED IN EUROPE, ASSEMBLED IN EUROPE

ONE JAKE BROWN ROAD, P.O. BOX 1000 OLD BRIDGE, NJ 08857-1000 USA (800) 523-6049 • (732) 679-4000 • FAX: (732) 679-4353 PRODUCT SPECIFICATION ARE SUBJECT TO CHANGE WITHOUT NOTICE . ALL TRADEMARKS USED ARE PROPERTIES OF THEIR RESPECTIVE OWNERS.