

Labgear

S601b Multiplatform Meter and Analyser

User Guide

4K
H.265
HEVC
COMPATIBLE



NEW
WIDEBAND LNB
SHORTCUT
SEE PAGE 5

Contents

1	Safety warnings and important information.....	2
2-5	Introduction, Key Features, Pack Contents & Battery Charging	3
6	Product Overview	4
7-8.1	Connections & Main Menu	5
8.1	DVB-S2 Setup and Installations	6-7
8.2	DVB-T2 Setup and Installations	8
8.3	DVB-C Setup and Installations	9
8.4	Spectrum	10
8.5	Loop Search.....	11
8.7	Others Menu.....	11-15
8.8	System Setting.....	12
9	Troubleshooting.....	13
10	Specifications	14-15

1 Warning:

Do not disassemble the meter. Do not submerge in water.

Do not leave it unattended when charging.

Do not leave unused for extended periods of time. Routinely check the charge status of the meter, and charge accordingly.

Lithium-ion batteries can explode, or cause injury if disassembled, short circuited, or exposed to high temperature. The meter is powered by a 7.4V/800mAh Li-Ion rechargeable battery pack and must be treated with caution and care.

To prevent the risk of fire, electrical shock and personal injury, avoid using any mains charger or 12V car charger other than the one supplied with the product and avoid handling the battery improperly. Always make sure the meter is disconnected from any power sources, and the battery removed when performing any routine cleaning. Do not try to repair the unit or charger yourself.

Important Information:

- Do not dispose of the battery with domestic waste, please use an appropriate recycling facility
- Do not charge the battery in a high temperature environment
- Do not let the battery become wet or immerse the battery in water
- Avoid exposing the battery to excessive shock or vibration
- Do not use a damaged battery
- Keep the battery away from children
- When charging has completed the charger must be switched off and disconnected from the mains and the meter
- Do not pull the lead of the charger when disconnecting it from the mains power supply
- Do not use an extension lead. Plug the charger directly into an electrical socket
- Never use a damaged charger or a charger with a damaged lead. Dispose of the damaged charger safely at your local recycling centre in the Waste Electrical and Electronic Equipment (WEEE) disposal area, where facilities exist. Check with your local authority for recycling advice. Contact our Customer Care line for a replacement.
- If the charger fails to operate dispose of it safely at your local recycling centre in the Waste Electrical and Electronic Equipment (WEEE) disposal area, where facilities exist. Check with your local authority for recycling advice. Contact our Customer Care line for a replacement.
- Charging temperature range: 0°C to 45°C
- Operating temperature range: -20°C to 60°C

2 Introduction

Thank you for choosing the Labgear S601b, a comprehensive instrument for analysing setting up and testing all types of satellite and terrestrial signal receiver and distribution systems, pre-loaded with masses of data and tools to make your job simpler and quicker. The S601b has been modified

Before you start please take time to read through this instruction leaflet which we hope will help you get the most out of your meter.

3 Key Features

- Compatible with DVB-S/S2, DVB-T/T2, DVB-C and DiSEqC 1.0/1.1/1.2 and 22kHz tone
- Fully compatible with 4k H.265 HEVC format signals
- Large 7 Inch High Definition TFT LCD display with audio output
- Spectrum analyser for DVB functions
- TV recording function in receiver format
- Media playback for videos and photos
- HDMI, AV IN/OUT and USB ports
- LED indicator and tone alarm for locking onto best signal
- Digital metering for signal strength and quality
- Supports Auto, Blind, Manual and NIT scans
- Auto calculates dish and LNB alignment (Az, El, Pol)
- Pre-loaded with data on 100 satellites
- LNB short protection
- Bright LED torch light on the back
- Software upgrades via USB port (cable supplied)
- Rechargeable 7.4V/5000mAh Li-Ion battery (mains & car charger adaptors supplied)
- Easy to carry - supplied with silicon holster and rugged protective shoulder bag
- Supports software upgrades from a PC via USB port - cable supplied

4 Pack Contents

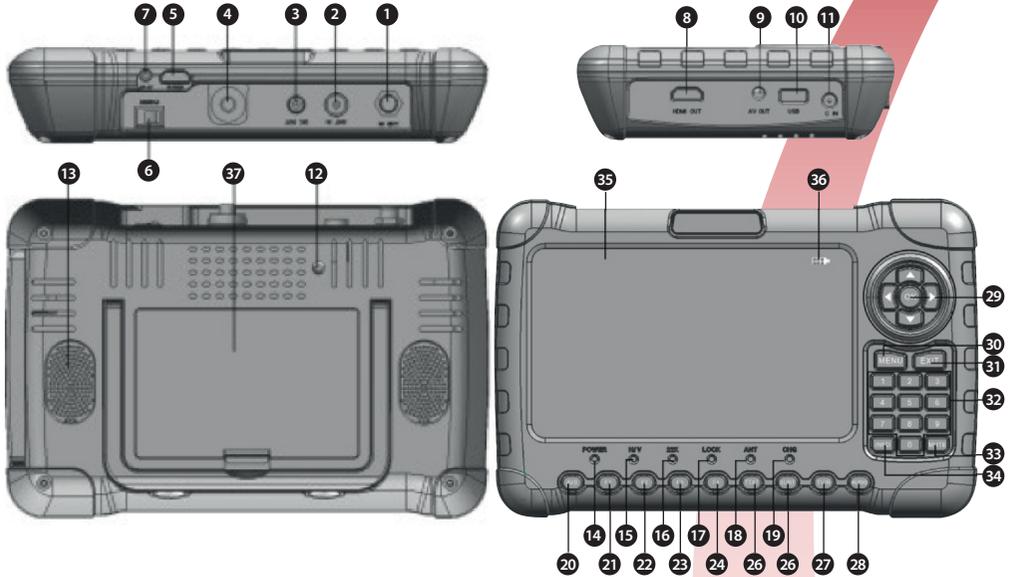
- 1x Multiplatform meter and analyser
- 1x Silicon holster
- 1x Rugged protective shoulder bag
- 1x Mains Charger/PSU
- 1x Car Charger
- 1x Charger extension cable
- 1x Jack to 3 Phono AV Lead
- 1x BNC Adaptor
- 1x Optical adaptor
- 1x User Guide



5 Battery Charging

1. Ensure that the meter is switched off. Connect the charger plug to the charging socket (11) on the right hand side of the meter.
2. Plug the charger into a mains socket the charging LED indicator (19) will light up green.
3. When the battery is fully charged, the charging LED indicator (19) will go out.
4. Unplug the charger from the mains socket and disconnect the charger from the meter. Do not leave the meter unsupervised when charging is taking place.

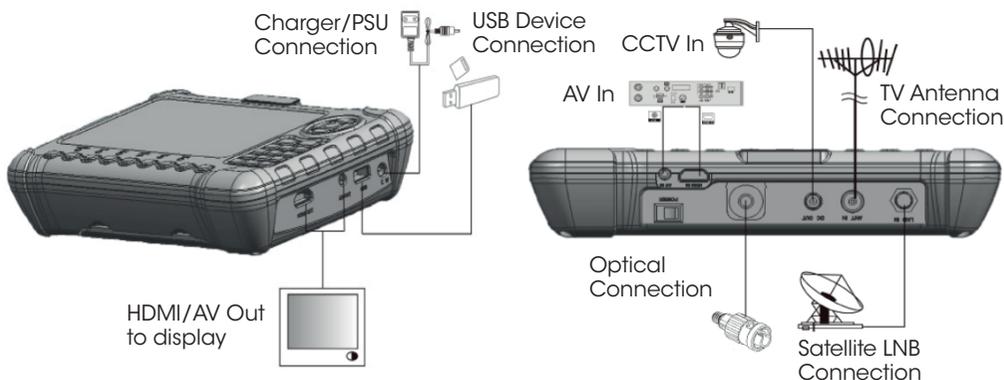
6 Product Overview



No	Description	Function
1	LNB In	Connect to satellite antenna cable
2	ANT IN	Connect to antenna of DVB-T/T2 signal
3	DC OUT	DC 12V output for external equipment
4	Optical fibre port	Connect optical devices
5	Power Switch	Turns meter On/Off
6	HDMI IN	Use HDMI cable to connect for HDMI IN
7	AV IN	Connect to AV port for meter
8	HDMI OUT	Use an HDMI cable to connect to a TV
9	AV OUT	Use AV cable to connect to a TV
10	USB	Connect to USB media
11	DC IN	Connect to charger / PSU
12	Torch LED	Bright LED light
13	Speaker	Integrated speaker
14	Power	Power indicator light
15	H/V	Vertical /Horizontal polarization voltage output light
16	22kHz	22kHz indicator light
17	LOCK	Signal lock indicator light
18	ANT	DC 12V OUT indicator light
19	CHG*	Charger indicator light (On when charging switches off when charged)

No	Description	Function
20	AV-S	Switch AV mode: AV Normal/AV IN/AV OUT (In AV out mode, speaker is off)
21	F1	Auxiliary function key
22	F2	Auxiliary function key
23	F3	Auxiliary function key
24	F4	Auxiliary function key
25	Red & TTX	Red KEY & Teletext interface
26	Green & SUBT	Green key & Subtitle interface
27	Orange & TV/R	Orange key & TV and radio switch
28	Blue & AUDIO	Blue key & Audio interface
29	Navigation Keys	Volume control or move cursor/channel or change, confirm etc.
30	MENU	Show main menu or return to previous menu in sub-menu setting mode
31	EXIT	Leave present menu and save settings
32	INFO	INFO key
33	MUTE	MUTE
34	0-9	Number keys select channels or enter numbers
35	LCD	TFT LCD Screen
36	Battery Indicator	Shows battery level when power is on
37	Battery Cover	Removable Battery

7 Connections



8 Main Menu

Make the required connections as above, switch the power ON and you will enter the main Menu which shows battery status and has the following options:

- DVB-S2
- DVB-T2
- DVB-C
- Spectrum
- Loop Search
- Optical Power
- Others
- System Setting

Use the ◀ ▶ ▲ ▼ keys to move the cursor and navigate the menu interface, then use the OK key to make a selection.



8.0.1 Setting Location

Before you use your meter it is recommended that you enter your location first. Select System Setting from the Main Menu and scroll down to **Set Location** press OK. Press ▶ to select **Manual**, scroll down and use the number keys to enter **Latitude** and **Longitude** then press Exit.

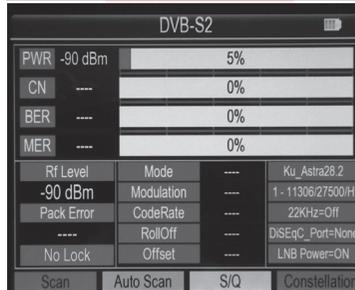
LNB Type with new "WideBand" shortcut



8.1 DVB-S2

Now has a menu Shortcut for WIDEBAND LNB's (UK spec). This makes setup easier when installing WIDEBAND LNB's for Sky-Q™ reception

1. From the Main Menu select DVB-S2
2. Scroll through Satellites to select - Astra 28.2
3. Scroll down to LNB Type
4. Then scroll right to select WideBand
5. Press OK to enter the DVB-S2 Scan menu.



8.1.1 Satellite

Press ► to enter the **Satellite List** and scroll ▼ to find the satellite you want and press **OK**.



8.1.2 Local Frequency

Scroll down to **Local Frequency** press ► to enter the **LNB List** and scroll ▼ to find the LNB type you want and press **OK**.



8.1.3 Transponder

Scroll down to **Transponder** press ► to enter the **TP List** and scroll ▼ to find the TP you want and press **OK**.



8.1.4 Frequency

use the number keys to enter the frequency.

8.1.5 Symbol rate

use the number keys to enter the symbol rate.

8.1.6 Polarity

use the ◀ ▶ keys to select vertical or horizontal polarization

8.1.7 Tone

use the ◀ ▶ keys to turn the 22khz tone switch on or off.

8.1.8 Beep tone

Use the ◀ ▶ keys to turn the beep tone on or off. If switched on you will hear the tone when you enter the search screen.

8.1.9 DiSeqC mode

Use the ◀ ▶ keys to set the port type as DiseqC 1.0/1.1, DiseqC 1.2/USALS or Unicable.

8.1.10 DiSeqC Type & Input

For diSeqC 1.0 or 1.1 scroll to DiSeqC 1.0/1.1 and use the ◀ ▶ keys to set the port number or if Unicable is selected use the ▲ ▼ to go to IF Channel, use the ◀ ▶ keys to select channel and the number keys to set Center Frequency.



8.1.11 Quick Search

In the **Satellite Find** menu when **Satellite** is selected if you press **OK** the screen to the right opens, press **OK** again to start quick search. If you have set the Longitude and Latitude in Angle Calculation, the angle of LNB, the orientation and elevation of antenna will all be displayed on the screen.

Also displayed:

PWR: Signal Level

CN: Carrier to Noise Ratio

BER: Bit Error Rate

MER: Modulation Error Rate

- **TP Scan:** Press **OK** to search the current TP.

- **Auto Scan:** Press the **Red** key to auto blind search the current satellite.

- **S/Q:** Press the orange key to enlarge signal strength and quality readings.

- **Constellation:** Press the blue key to view the satellite constellation.

1: Ku-Hispasat 30W
 LNB: 5150 Power: 13/18V Sat Longitude: W 030.0
 Freq: 03680 MHz Symb: 27500 K My Longitude: W 000.0
 DISEqC1.0: 3/4 DISEqC1.1: None My Latitude: S 000.0
 Polar: V 22K: NONE
 090.0 055.0 -000.0

PWR: 62 dBuV 51%
CN: 11.1 dB 38%
BER: 1.0E-9 100%
MER: 11.7 dB 40%

TP Scan Auto Scan S / Q Constellation

SAT TP Scan

Satellite Name: Ku-Hispasat 30W
 Transponder Searching

Frequency: 03680 27500 1/1 C band
 TV ID: 5:0000
 DUBAI Total Get 4 TV, 0 Radio Channel
 DUBAI
 GCH
 ALKASS TWO

Automatic SAT Scan

Satellite Name: Ku-Hispasat 30W
 Progress: 13%

No.	Frequency	Symbol Rate	Polarity
002	4133	10587	H
003	4115	18398	H
004	4097	4936	H
005	4042	29718	H
006	4002	28125	H
007	3962	30000	H
008	3886	7199	H

Satellite Find

Strength 51 **Quality** 80

PWR: 62 dBuV BER: 1.0E-9
 CN: 11.4 dB MER: 12.0 dB
 S Q

LNB: 5150 Freq: 03680 MHz DISEqC1.0: 3/4 51 80
 Power: 13/18V Symb: 27500 K DISEqC1.1: None
 Polar: V 22K: NONE
 Mode Constellation
 DVB-S QPSK
 Code Rate Rolloff
 3/4 0p35
 PWR: 62 dBuV
 CN: 11.4 dB
 BER: 1.0E-9
 MER: 12.0 dB
 S Q

8.2 DVB-T2

In the **Main Menu** select DVB-T2, Press **OK** to enter **Scan Setup**.
Scroll down to adjust the settings below:

8.2.1 Country Setting

Use the ◀ ▶ keys to select country.

8.2.2 Channel No.

Use the ◀ ▶ keys to change channel number.

8.2.3 Frequency

Use the number keys to enter frequency.

8.2.4 Bandwidth

Use the ◀ ▶ keys to change the bandwidth, you can select 5, 6, 7 or 8M

8.2.5 Mode

Use the ◀ ▶ keys change the DVB standard you can select T/T2/T+T2.

8.2.6 Beep Tone

Use the ◀ ▶ keys to turn the beep tone on or off. If switched on you will hear the tone when you enter the search screen.

8.2.7 Antenna Power Setting

This is only applicable to terrestrial aerials with built in or masthead amplifiers. Use the ▶ key to set the required voltage: 5V/12V/24V.

8.2.8 Antenna Power Setting

If aerial amplifier present use the ▶ key to select power ON.

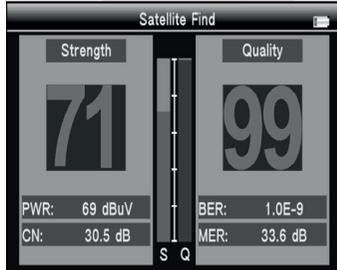
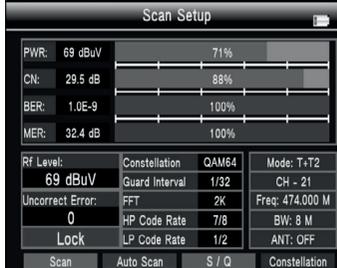
8.2.9 Quick Search

When you have completed the above settings. Press **OK** to enter the **Scan Setup** Menu.

- **Manual Scan** - Press **OK** again or the **Red** key to start a manual search of the current channel.
- **Auto Scan**: Press the **Green** key to auto search the current channel.

Please Note: The following prompt will appear "Database will be cleared! Continue?" If you are sure you want to go ahead press **OK**.

- **S/Q**: Press the **Orange** key to enlarge signal strength and quality readings.



- Constellation: Press the **Blue** key to view the TV constellation.

8.3 DVB-C

In the **Main Menu** select DVB-C, Press **OK** to enter **Scan Setup**.

Scroll down to adjust the settings below:

8.3.1 Country Setting

Use the ◀ ▶ keys to select country.

8.3.2 Channel No.

Use the ◀ ▶ keys to change channel number.

8.3.3 Frequency

Use the number keys to enter frequency.

8.3.4 Beep Tone

Use the ◀ ▶ keys to turn the beep tone on or off. If switched on you will hear the tone when you enter the search screen.

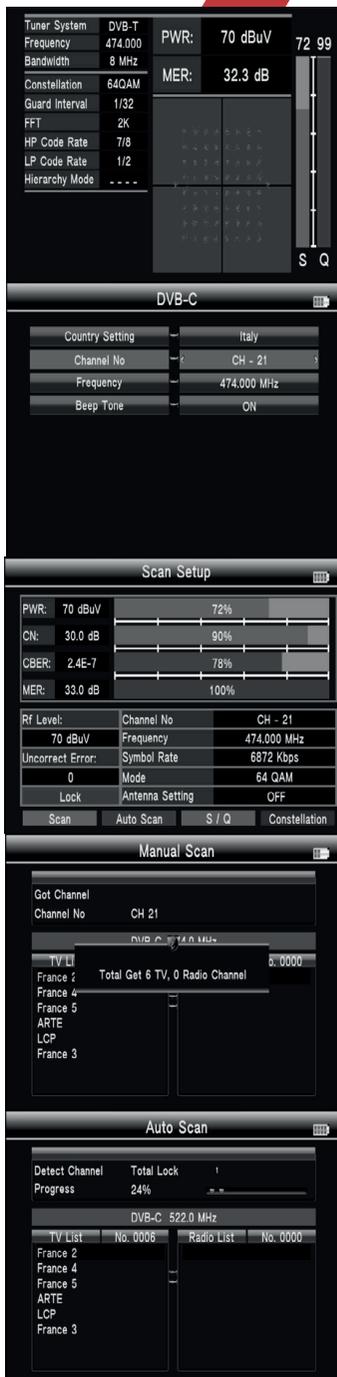
8.3.5 Quick Search

When you have completed the above settings. Press **OK** to enter the **Scan Setup** Menu.

- **Manual Scan** - Press **OK** again or the **Red** key to start a manual search of the current channel.

- **Auto Scan**: Press the **Green** key to auto search the current channel.

Please Note: The following prompt will appear "Database will be cleared! Continue?" If you are sure you want to go ahead press **OK**.



- **S/Q**: Press the **Orange** key to enlarge signal strength and quality readings.

- **Constellation**: Press the **Blue** key to view the satellite constellation.

8.4 Spectrum

- Satellite-Spectrum
- Terrestrial-Spectrum
- Cable-Spectrum

8.4.1 Satellite Spectrum

Use the ◀ ▶ keys to change Center Frequency; Press OK to enter Spectrum press the **Red** key to change bandwidth; Press the **Green** key to change Vertical/Horizontal polarization; Press **Orange** key to switch 22K on or off; Press **Blue** key to change mode: Show IF/RF; Use function keys to navigate spectrum: **F1** Back TP, **F2** Forward TP, **F3** TP Find, **F4** Service Find.

8.4.2 Terrestrial Spectrum

Use the ◀ ▶ keys to scan through the spectrum for information.

- **Full/Ch**: Press **Red** key to look at all the frequency points on the terrestrial band or look at individual channels.
- **Zoom**: Press the **Green** key to zoom in to the frequency selected, press again to zoom out.
- **Locked**: Press the **Orange** key to lock all the current frequency points, and remain unchanged points you have so far scanned, press the **Orange** key again to unlock.
- **Scan**: When the frequency points have been locked, you can press the **Blue** key to scan the signals of the selected points.

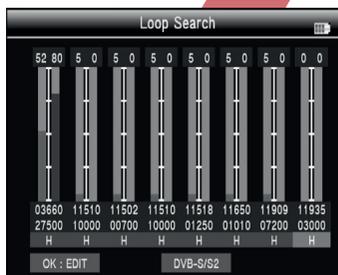
8.4.3 Cable TV Spectrum

Can be viewed in the same way as the terrestrial TV spectrum.



8.5 Loop Search

Select **Loop Search**, then press **OK** in Loop Search. 8 TPs will be shown. Press **OK** then use the **◀▶** keys to select a TP to monitor and then press **OK**. The meter will then scan continuously through the 8 TPs.



8.6 TV Optical Power

Make an optical connection to the optical port, then you can test the optical power after selecting **Wave Length** and **PWR (power) Unit**.



8.7 Others

Please **OK** to enter Others.



8.7.1 Channel

• **S2<<>T2_T_C**

Press the **OK** key three times to enter the **S2-S All Service** screen. Then press the **Red** key to switch between **DVB-S2** (satellite) and **DVB-T2/T/C** (terrestrial) all service lists.

Once you have made the change press the **Menu** key to return to the **Main Menu** and go to **Others** and then **Channel** to start editing channels.

• To **Edit** channels press the **Red** key then press:

KEY **FUNCTION** **ACTION**

Red **Name** Edit channel name using keyboard

Green **Move** Use the **▲▼** keys to select channel, press the **Green** key then use the **▲▼** keys to select new position then press the **Orange** key, then **OK** twice.

Orange **Sort (by)** Use the **▲▼** keys to select A-Z, Transponder, Pay-Free or Default then press **OK** twice.

Blue **Skip** Use the **▲▼** keys to select a channel then press **Blue** then press **OK** twice.



- To **Lock** channels use the ▲▼ keys to select a channel, press the **Green** key  icon will appear. Press the **Green** key again to unlock.

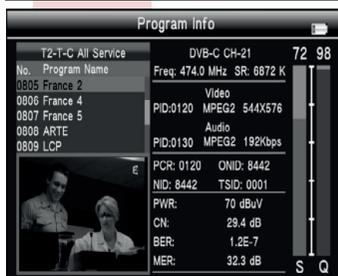


- To **Delete** channels use the ▲▼ keys to select a channel, press the **Orange** key, use the ▲▼ keys to select "Delete Select" or "Delete ALL" the  icon will appear against channels then press the **OK** key to confirm.



8.7.2 PROGRAM INFO

The **Program Info** screen displays the details of the current TV program.



8.7.3 EPG

Use the ▲▼ keys to select a program. If EPG information is available for the current program, it will appear in the righthand window. Use the ◀▶ keys to change the EPG date.



8.7.4 Media Playback - Video, Music and Photos

To playback media files you will need to connect a USB device holding the the media files you want to play to the USB socket.

- **Movie** - select the movie from the Main Menu

Press the **Green** key to change the folder file view to show a detailed list, press **Green** again to return to the folder view. Press the **Orange** key to change to change folder icon size. Use the **▲▼◀▶** keys to move the cursor, then press to open the file.

In the play menu press:

F1 Key: for Normal play.

F2 Key: for Pause.

F3 Key: for Fast backward. Press F1 key return.

F4 Key: for Fast forward. Press F1 key return.

- **Music & Photos**

Select and play in the same way as for movie.



8.7.5 Satellite Setting

In the all **Satellites Setting**:

Press the **Blue** key to clear all of the selected satellites.

Press the **Orange** key to select all satellites.

Press the **Green** key to enter the Auto Scan menu.

Press the **Red** key to enter the Transponder menu.

Use the **▲▼** keys to move the cursor, then press **OK** to select or unselect the satellite.

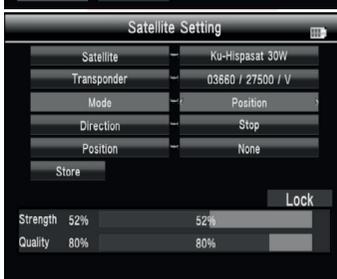
Use the **◀▶** keys to set the single satellite setting.

In the setting interface:

1. **TP Manage:** press the **Red** key into TP manager.
2. **Auto Scan:** press the **Green** key into auto scan.
3. **LNB:** Use the **◀▶** keys to change the LNB frequency.
4. **Transponder:** Use the **◀▶** keys to change the current TP.
5. **DiSEqC1.0:** Use the **◀▶** keys to change the DiSEqC port.
6. **DiSEqC1.1:** Use the **◀▶** keys to change the DiSEqC port.
7. **Motor:** Use the **◀▶** keys to change the DiSEqC port.

If you select DiSEqC1.2/USALS, press **OK** to enter the motor menu.

- **Transponder:** Press **OK** to change the current TP.
- **Mode: A, Position - A1 Direction:** Use the **◀▶** keys to move the direction of the dish from west to east.
A2 Position: Set the satellite save position.
A3 Store: Save the satellite position set in A2 above.
- **Mode: B, Drive to Zero** - Move the cursor to **GO**, then press **OK**, the motor will go to the zero position.
- **Mode: C, Drive to the stored position** - Move the cursor to **GO**, then press **OK**, the motor will go to the position previously saved in mode A2/A3 Position.



- Mode: D, **Drive to Satellite** - Move the cursor to GO, then press **OK** the motor will go to the auto calculated position.
- Mode: E, **Recalculate**
E1 Direction: Use the ◀▶ keys to change direction from West to East.
E2 Recalculate: Recalculate the satellite position.
- Mode: F, **Set East Limit** or **Set West Limit**
Limit the motor movement to East or to West.
F1 Direction: Use the ◀▶ keys to move the dish direction West or East.
F2 Store: Save the satellite dish Limit East or Limit West.
- Mode: G, **Set Enable Limit** or **Disable Limit** Set limit enable or disable.

8. Unicable: Use the ◀▶ keys to select Unicable then press **OK** to enter the Unicable settings menu.

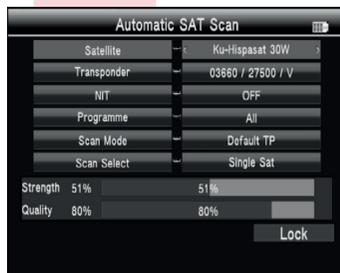
- **Transponder:** Use the ◀▶ keys to change the current TP.
- **IF Channel:** Use the ◀▶ keys to change SCR channel.
- **Center Frequency:** Use the number keys to input number.
- **Store:** Store the setting.



8.7.6 Auto Scan

In the **Others** submenu, select **Auto Scan** to enter the **Automatic SAT Scan** menu.

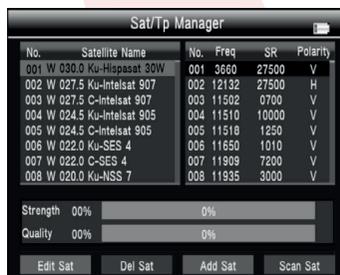
- **Satellite:** Use the ▶ to enter the satellite list. Use the ▲▼ keys to move the cursor, then press **OK** to select the satellite of your want.
- **Transponder:** Use the ▶ to enter the TP list. Use the ▲▼ keys to move the cursor, then press **OK** to select a satellite.
- **NIT:** Use the ◀▶ keys to switch the network searcher **ON/OFF**.
- **Programme:** Use the ▶ key to select **ALL/Free Only TV** search.
- **Scan Mode:** Use the ◀▶ keys to select the scan mode: **Default TP/One TP/Blind**.
- **Scan Select:** Use the ◀▶ keys to select scan **All Sat** or **Single Sat**.



8.7.7 SAT/TP MANAGER

Use the ▲▼ keys to select the current satellite.

- **Edit Sat**
Press the **Red** key to edit the selected satellite.
NO.: Satellite number.
W-E: Use the ◀▶ keys to switch the satellite longitude from West to East.
Longitude: Use the number keys to input a value.
Satellite Name: Press ▶ to open the keyboard, use the arrow and **OK** keys input a satellite name.
- **Del Sat:** Press the **Green** key to delete a satellite, then press **OK** to confirm or press **MENU** to cancel.
- **Add Sat:** Press the **Orange** key to add a satellite.



• Scan Sat

Press the **Blue** key to enter the Automatic SAT scan menu.

In **Sat/Tp Manager** press **►** key to enter the Tp list.

• Edit Tp: Press the **Red** key to edit TP.

NO.: TP number.

Frequency: Use the number keys to input a value.

Symbol Rate: Use the number keys to input a value.

Polarity: Press **►** key to change polarity.

• Del Tp: Press the **Green** key to delete TP, then press **OK** to confirm or press **MENU** to cancel.

• Add Tp: Press the **Orange** key to add a TP. Refer to TP edit instructions above.

• Scan Tp: Press the **Blue** key to enter the TP scan menu.

No.	Satellite Name	No.	Freq	SR	Polarity
001	W 030.0 Ku-Hispasat 30W	001	3350	27500	V
002	W 027.5 Ku-Intelsat 907	002	12132	27500	H
003	W 027.5 C-Intelsat 907	003	11502	0700	V
004	W 024.5 Ku-Intelsat 905	004	11510	10000	V
005	W 024.5 C-Intelsat 905	005	11518	1250	V
006	W 022.0 Ku-SES 4	006	11650	1010	V
007	W 022.0 C-SES 4	007	11909	7200	V
008	W 020.0 Ku-NSS 7	008	11935	3000	V

Strength 51% 51%
Quality 76% 76%

Edit Tp Del Tp Add Tp Scan Tp

8.7.8 Compass

• Sat Longitude: Use the **◀▶** and **▲▼** keys to locate a satellite and press **OK**.

• Location: If you select Manual, you will need to manually input **Longitude** and **Latitude** using the number keys. Alternatively you can use the **▲▼** keys to find a city location press **OK** to confirm. The appropriate data will appear below.

• Calibration: Press the Red key then press **OK**, a message will appear slowly rotate the meter until the message closes. Your compass should now be calibrated.



8.8 System Setting

• Country Setting: Use the **◀▶** keys to change the country.

• OSD Language: Use the **◀▶** keys to change the OSD language.

• TV Format: Use the **◀▶** keys to change the TV format.

• Video Output: Use the **◀▶** keys to change the video output format.

• TV Resolution: Use the **◀▶** keys to change the TV resolution.

• Digital Audio Output: Use the **◀▶** keys to change the digital audio output format.

• Time Zone: Use the **◀▶** keys to change the Time Zone.

• Channel Lock: Press the **►** key to switch the channel lock **ON/OFF**.

• PWR Unit: Use the **◀▶** keys to select the units for PWR.

• Speaker: Press the **►** key to switch the speaker **ON/OFF**.

• Flashlight: Press the **►** key to switch Flashlight **ON/OFF**.

• 12V: Press the **►** key to switch DC 12V output **ON/OFF**.

• KB-BackLight: Use the **◀▶** keys to select the amount of time the backlight stays on: 5/10/20 seconds.

• Set Location: Press the **►** key or **OK** to set Location, Longitude or Latitude. Use the **►** and **◀▶** keys to select Manual or a city. If you select **Manual**, you will need to manually input **Longitude** and **Latitude** with the number keys.

Country Setting	Italy
OSD Language	English
TV Format	16:9 FIT
Video Output	HDMI
TV Resolution	AUTO
Digital Audio Output	LPCM
Time Zone	+ 01:00
Channel Lock	OFF
PWR Unit	dBuV

Speaker	ON
Flashlight	ON
12V	OFF
KB-BackLight	OFF
Set Location	Select
Upgrade	Select
Factory Setting	Select

- **Upgrade:** Copy the upgrade file to a USB memory device and insert the USB device in to the meter's USB socket. Select upgrade and press **OK**. Use the arrow keys to navigate through the folders on the USB device to find the upgrade file and press **OK**.

Warning: Please don't turn power off or disconnect the USB device before the upgrade is complete as this can, damage the meter's software, and prevent the meter booting up.

- **Factory Setting:** Press **OK** key, then press **OK** again to confirm **Set Default**.

NOTE: if you perform a factory reset, all the user settings and the database will be reset.

- **System Info:**In the system setting, press the **INFO** key to check the system version.

Problem	Possible Causes	Action
No display light up	Power switch is off or battery is low	Check to make sure power is on. Charge meter with PSU/Charger
No sound or picture, but the front panel power light is ON.	AV IN/HDMI cable connected, but no video input	Check AV IN/HDMI cable connection, check AV source connection and AV signal
No sound or picture	The satellite dish is not pointing at the satellite.	Adjust the dish. Check the Signal Level in the Antenna Setup Menu
Bad picture/ Blocking Error	No signal or weak signal	Check the cable connections. LNB and other equipment connected between the LNB and the meter and adjust the dish.
	The satellite dish is not pointing at the satellite	Adjust the dish.
	Signal is too strong	Connect a signal attenuator to the LNB input
	Satellite dish is too small	Change to a larger dish
	LNB noise factor too high	Change to an LNB with a lower noise factor
	The LNB is faulty	Change the LNB
AV out No picture (Video)	The system is connected by SCART cable and TV is not in AV mode.	Check AV IN cable connection, check AV source connection and signal
The keys are not working	Battery is low	Charge meter with PSU/Charger

For further information or any queries please contact

Technical Support:
www.labgear.co.uk/support

Transmission Standards

DVB-S2/S, DVBT/T2, DVB-C

Satellite Input/Demodulation

Connector Type	F Type
Input Frequency	950 to 2150 MHz
Signal Input Level	- 65 to -25 dBm
Band Switch Control	22KHz
LNB Supply	13V/18V, IMax 400mA
Demodulation Type	QPSK, 8PSK, 16APSK
Symbol Rate	2<Rs<45Mband(SCPC/MCPC)

DVB-T/T2/C Input/Demodulation

Connector Type	Female Type
Input Frequency	48 to 862 MHz
Signal Input Level	-79.5dBm (MAX)
ANT Supply	5V, 12V/24V Imax 100mA
Demodulation Type	QPSK, 16QAM, 64QAM, 256QAM

LCD Features

LCD Type	TFT Transmissive
Number of Dots	800 x 3(RGB) x 480
Active area (WxH)	154.08 x 85.92 mm2

AV Output Interface

Connector Type	3.5 mm jack
Video Output	CVBS
Audio Output	Stereo Audio L/R output

HDMI Output Connector

Format	HDMI 1.3a
--------	-----------

AV Input Interface

Connector Type	3.5 mm jack
Video Input	CVBS
Audio Input	Stereo Audio L/R input

Audio/Video Processing	
Video decompression	MPEG-2 MP@HL, MPEG-1 Decoding, MPEG-4 ASP@L5 HD resolution, H.265 HEVC MPEG-H, H.264 MP&HP@L4, HW JPEG decoding
Resolving rate	PAL-25 frame@720*576, NTSC-30 frame@720*480
Signal compatibility	Support conversion for different video formats
Video Format	4:3, 16:9, By Pan & Scan and Letter Box conversion
Audio Decompression	MPEG-1 Layer I/II, MPEG-2 Layer I/II
Audio Output Mode	Stereo, Mono, R/L
Data Service Port	
Connector	USB
Data Protocol	USB 2.0 interface
File Management System	NTFS, FAT32, FAT16
File Formats	wma, mp3, mp4, avi, jpg, jpeg, bmp, img
Microprocessor	
Microprocessor	NOVATEK
Clock Frequency	500MHz
SDRAM Memory	1Gbit DDR3
Power Supply	
Li-Ion Battery	7.4V/5000mAh
Charger/Adaptor	Output :DC12V \approx 1.5A, Input :100-240V-50/60Hz, 0.5A
Power Consumption	Max. 10W
Physical Characteristics	
Size (W x D x H)	250 x 156 x 40mm
Net Weight	1kg

For further information or any queries
please contact

Technical Support:
www.labgear.co.uk/support



Waste electrical and electronic products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority for recycling advice.