

SetSat

Professional Satellite Installation Meter

Operators Manual

ENGLISH VERSION (UK) 11.2010





Introduction to your new meter.

The Setsat DVB-S meter is the latest in a range of easy to use professional satellite installation meter's. It is made by one of the leading professional meter manufacturers in the World.

Please follow the easy to use instructions in this user guide to give you a perfect installation of your satellite dish antenna every time. Should you need any further instruction or want to see more images, visit our website. WWW.Setsat.com

What can this meter do ?

You can make an installation of a satellite antenna and optimise the signal to show professional results. The meter is fully editable by hand ,meaning complete future proofing for adding or editing new satellite data. Very simple to use in any situation with lightweight design and long life battery.

Before you get Started: Section: 1 Page 3

1. Battery charging.
2. Vehicle charging.
3. Storage.
4. Care and service.
5. Safety
6. Warranty

Getting started Section: 2

- | | |
|----------------------------|-----------|
| 1. Installation guide..... | Page 4 |
| 2. Edit guide..... | Page 5 |
| 3. Terminology..... | Page 6—8 |
| 4. Keys explained..... | Page 9—10 |



Section 1

1. Battery Charging:

Your new meter is supplied uncharged from manufacture and must be charged using the mains charger for an initial time of 5 hours. This will optimise the life of the battery for future use. Subsequent charges may be less. Full charge is shown on the mains charger indicator light on the main housing RED light indicates full charge. GREEN indicates charging in progress. The meter may be used for short periods of time with the mains charger attached. However we do not recommend prolonged use. The meter can be left on mains charge and will automatically shut down when it is fully charged. After the first few initial charges the batteries working time will be optimised.

2. Vehicle Charging.

You can charge the meter from the vehicle cigarette lighter outlet using The Vehicle charging cable ,which can be purchased as an extra option.

3. Storage.

We recommend that the meter is stored in this box when not in use. Keep it stored in a dry area away from sources of water.

4. Care and Service.

Here at Setsat we care about our customers and service. We will work As fast as possible to fix any problems you may have. Service is available from many of our outlets world wide. You can purchase spare parts and have your meter serviced at any time, from dedicated professionals.

5. Safety.

Please observe standard working practices when using our products. We advise that you follow all of your local health and safety regulations.

6. Warranty.

Your purchase carries a 1 year return to base warranty on the meter. This is provided at the point of purchase. Consumable parts are not included in this warranty.



Getting Started : Section 2

INSTALLATION GUIDE

POWER ON



After power on , you will see list of entries on the screen. Use the up and down arrow key to select the entry you want to use to make the installation.

SELECT ENTRY



Now press the right arrow on the navigation button



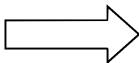
You are now in the search screen with two Bars shown on the screen .

SEARCH



The two Bars represent signal strength and quality . S & Q
You need the highest values achievable when moving the antenna dish. After you have found the signal and see the OK lock indicator you can fine tune the signal.

FINE TUNE



Use the up and down arrows of the navikey to see the results screens , which show the levels as numerical values. You can now adjust the LNB and dish to see the highest signal possible . Use the arrow left to go back to the channel list start point.



EDIT GUIDE

POWER ON



SELECT ENTRY



EDIT DETAILS



NEXT LINE S

Use the up and down arrow keys to select the entry position to edit, or select a Null entry to add a new channel . Press the Edit key F1 to start to edit.

With the first line of data highlighted press the enter key to edit or add the name you want .Use the keypad letter buttons to write.
When finished pres s the enter key and down arrow to move to the next line of data to edit.

Edit the next lines of data the same as the top line . Make sure the data is all correct to ensure the signal can be found. You can use the save and delete keys F2 and F3 if required.

Your meter will come with some preset entries in the list for various satellite s. You can edit add or delete these entries , unlike most other meters which require a computer connection. Setsat are not responsible for the content of this list or the data provided , which may or may not be current working data. Satellite data changes periodically which is why your meter has the ability to be edited by hand easily . There are many websites on the world wide web were satellite data can be found and setsat are not responsible for providing this information in any way , via any media.



Section 2 Item 3

Terminology

For any new user to satellite meter's this section gives a brief description of some of the words and terms used, It explains the terms in an easy to understand format and tries not to be so technical. For a more technical understanding, we advise you to search for the words on the internet.

BER (BIT ERROR RATE) This unit of measure refers to the amount of errors found in the incoming satellite signal. It is the amount of errors found in a certain amount of bits of information.

VBER – POST (VITERBI ERROR RATE) This is the amount of errors in the bits of information after the errors have been corrected by the receiving device. These are corrected by the Meter or the Set top box used. You will need to have largest Number after the 'E' to have the best signal.

CBER – PRE (CHANNEL BIT ERROR RATE) This is the amount of errors in the bits of information, before any device has corrected these errors. You will need to have largest Number after the 'E' to have the best signal.

S (SIGNAL STRENGTH) This is the strength of the overall signal being seen by the meter. This is expressed as % in the search screen

Q (SIGNAL QUALITY) This represents the Quality of the Digital signal being seen by the meter. This is expressed as % in the search screen and should be as high as possible when making an installation.

C/N (CARRIER TO NOISE RATIO) This unit of measure represents the amount of background dirty signal (noise) that is present next to the digital carrier (transponder) Aim for the highest figures available.

POWER LEVEL .(DIGITAL CARRIER POWER) This is the averaged power of the incoming signal. Shown in the search screen as large numbers in the centre of the screen. The higher the number, the stronger the signal.

DISEQC SWITCH. These are electronic switches, that allow multiple dishes or LNB's to be attached to a single receiving device. Example: 1 x set top box, attached to 4 different dishes, which will automatically switch signals when the TV Channel is changed. These switches come in various sizes. 2 way, 4 way, and 8 way switches can be controlled.

These commands are known as Diseqc 1.0 and Diseqc 1.1



DISEQC 1.2 AND USALS (UNIVERSAL SATELLITE AUTO LOCATING SYSTEM)

This is a system used for moving a Diseqc motor with a dish attached. This enables tracking of numerous satellites above the earth, which can be controlled by the set top box or by the meter. Diseqc 1.2 commands are sent to the motor and the motor will move left or right and then can be stopped. USALS commands rely on the receiving device to send an automatic command which moves the motor to the exact correct position, calculated by the meter or set top box, by simply entering your local longitude and latitude into the correct menu. Other commands are also available which includes a reset to zero command to send the motor to its central position (reset/zero)

UNICABLE LNB. These are a special type of LNB which allows up to 4 set top boxes to be connected to one single dish and cable with cascading splitters. Special commands are needed to operate the switches inside the LNB

UNIVERSAL LNB. Available in various formats. Most common are : Single output, twin output, quad output (4) , octo output (8). Each output gives the full frequency band and requires a cable running to each receiving device.

MONOBLOCK LNB. Available in various formats. Most common are: Single monoblock 6 degree and 4.3 degree spacing's between satellites. These are also available in twin output formats. This type of LNB has a built in Diseqc switch and a dual feed horn (2 inputs for signals). The LNB is attached to 1 dish and can see 2 satellites which are a certain distance apart, example: 6 degrees or 4.3 degrees apart.

QUATRO LNB. These LNB's have the frequency band split into 4 sections. With 4 outputs, each having different settings. The correct bands can be selected in you meter to make an installation with this type of LNB.

LO (LOCAL OSCILATOR FREQUENCY) This parameter is used to select different bands from the frequency range within an LNB. It must be set correctly to be able to see a signal . When using a universal LNB some simple rules must be followed. If the channel frequency to be used is 11700 MHz or higher then set the LO to 10600. If the frequency is below 11700 MHz then set the LO to 9750. Other types of LNB may need other settings.



22KHz Tone switch. This parameter is used in conjunction with the LO settings. It is used to switch the band of the LNB. When the frequency is 11700 MHz or above the switch must be on , below 11700 MHz the switch must be off, when used with a single universal LNB.

FR. (FREQUENCY) . This is shown on screen as a number. This number is always allocated to a group of digital TV channels , collectively these channels all within the same frequency number and are know as Transponders. Sometimes these are referred to as TP's .These figures are ranged within the 10700 MHz to 12750 MHz frequency band.

POL. (POLARITY). This setting is for voltage switching within the LNB. Some of the frequencies use Horizontal polarity in the LNB (H) which uses 18 volts and some use Vertical polarity in the LNB (V) which uses 13 volts. This needs to be selected correctly to view the signal.

SR . (SYMBOL RATE) This is the rate of transfer of the digital signal. Various rates are used by different transponders. You must have the correct rate set in the entry to give a correct signal reading.

dBuV . The unit of measurement which is the signals Power . Your meter would normally be set to this unit of measurement.

dBmV The unit of measurement expressed as microvolt's.

dBm The unit of measurement which is above one milliwatt.

Test Values Explained:

The CBER (Channel Bit Error Rate) gives you an idea of the quality of the signal. Depending on its value you can tell how good your reception is: -

- CBER <= E-4: this is optimal and you can feel confident with the quality of the signal. - CBER = E-03: is slightly low and will decrease more when it starts to rain heavily. Either the dish is too small or incorrectly positioned - CBER >= E-02: is too weak to give a clear uninterrupted TV picture.

The VBER (Viterbi Bit Error Rate) which is the error rate after correction.

This with a high CBER result will give a signal reading < E-08 , this is the highest value.

S Strength- Is the power of the whole signal and can vary from each satellite that is tested, dependant on the satellites power. 50 % is normal, with a good signal reaching 90 % or higher.

Q Quality - This is more important than the Strength reading. A minimum of around 60 % will give a good picture in good weather.

Aim for the highest quality reading possible.



Section 2 Item 5 Function Buttons Explained

F1 -F4

F1 , F2, F3, and F4 buttons correspond with the prompts as they appear at the bottom of the LCD screen. F4 acts as the battery test indicator.

POWER KEY

POWER button switches the meter on and off . Press this key once. (you will hear a 'beep' sound) wait for the screen to boot up.

ENTER KEY

NEXT or **ENTER** Used to finalise a text or number edit, or used to move to the next step or screen in the sequence flow of an installation.

BACK

Acts as the same function as the navikey left arrow , takes the user back to the install start point channel list.

UP

UP and **DOWN** button. Used to move to the numerical results screen from the two bar search screen.

DOWN

LIST

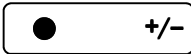
LIST button .Used to go directly to the list of entries screen to begin an installation.



Section 2 Item 5 Continued Functions Buttons Explained

NUMBERS 0-9

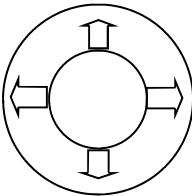
0-9 are text and number keys, with upper case and lower case function. Used when editing in menus.



The full stop button when pressed will add an audible beep sound, which will rise in pitch when a signal is stronger and decrease in pitch when a signal becomes weaker. Pressing a second time switches this function of.

The +/- button will switch on the meters backlight on and of.

NAVI-KEY



The 4 way multi direction button is used to Move the cursor when editing and to move to the next function in the sequence of an installation. Also to move back to the start point to begin the next installation.



SatCatcher Ltd

The Old Magistrates Court

High Street

Barton Upon Humber

North Lincolnshire

United Kingdom

DN18 5PA

Phone: 0044(0)1652 40 8191

www.setsat.com

E-mail: sales@satcatcher.com