

What are those holes for?

The user can buy spare batteries from Lacuna and install them in the battery compartment at the bottom, on the back of the meter. The other case screws must not be removed or the warranty will be invalidated,

On one side of the meter there is a removable 'F' connector. Spares are available from Lacuna.

On the other side of the meter there are two sockets. One is the connector for the battery chargers, and the other is a data input socket for use by Lacuna only.

Care of your Satmeter

Clean the meter casing with a soft cloth slightly moistened with water or a mild detergent solution. Do not use any type of abrasive, scouring powder or solvent such as alcohol or benzene as it may mar the finish of the casing and screen.

Additional information

Do not put any foreign objects in any of the meter sockets.

Never use the meter where it will be subjected to excessive heat or light, moisture or vibration.

The meter cannot be used for installations while the mains or car battery chargers are connected.

The meter will power off if it is not used for 5 minutes.

Warranty

The meter, **apart from the battery**, is protected by a 12 months parts and labour guarantee from the time of purchase, provided it has not been subjected to misuse, neglect, or accidental damage.

If any repair, or attempt to repair has been carried out by anyone other than our authorised service staff or agents, the warranty will be invalidated. This does not alter your statutory rights.

Several of our domestic and international distributors have been trained and authorised to repair the Satmeter. If your meter needs repair check first with the distributor who sold you the meter.

The Lacuna Satmeter can be updated to offer additional languages, different datasets etc. for use throughout the world.

Address and contact details

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Lacuna Satmeter operating instructions

What's in the box:

These instructions!, a Satmeter, a mains charger, a car charger and a protective case.

These instructions will guide you through the operation and care of your meter.

The meter is controlled using the three button panel and these instructions will show which to press and what you should see on the screen when you do.

Getting started

To turn the meter ON, press and release the **Up** and **Down** buttons at the same time.



The start-up screen will display 4 modes.

At the SET BACKLIGHT option choose to suit conditions by pressing **Up** then **mode** for on, and just **mode** to leave it off.

DSB Sat. Locator Software version 4.0.7 UK Multisat	Battery Contents eeeeeeee 93%	SET BACKLIGHT (Mode exits)	Searching Astra 28E H SS 00 PQ 00
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To turn the meter OFF press and hold the **Up** button. The sounder will beep.



Charge the battery

The battery will need to be charged for about 12 hours before its first use and whenever it fails to last enough time to perform installations.

Plug the charger into the mains, switch on the supply and turn the meter on. The meter will analyse the state of the battery and

Analysing charge ...	Boost charging	Trickle charging	Charge complete
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BOOST or **TRICKLE** charge until the battery is ready for use. During normal charging, the charger and meter may become warm. After several charge and discharge cycles, the battery will reach full capacity.

Use only the charger supplied with the Satmeter. The warranty will be invalidated if the meter is damaged through the use of a different charger.

The meter protects the battery from over charging. Spare batteries for extended use in the field can be supplied by Lacuna.

Datasets and languages

Some meters are programmed with several datasets, or instructions in different languages. The meter starts up in the setting last used but this is easily changed if there is extra data stored.

Immediately after the meter is started press and hold the **mode** and **Up** buttons together, for about three seconds. The current language or data group setting will display.



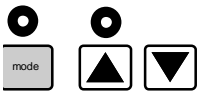
Use the arrow buttons to scroll through the available settings and press the **mode** button to choose the one you want. If you scroll to a location without data you will see 'NOT AVAILABLE' or 'N/A' on the display. Go to a location with a name.

Identifying satellites

When you first use the meter it may find and uniquely identify the satellite, but show readings of signal strength or picture quality that are either too high or low. This means that it must be calibrated for the satellite. **See the section 'Calibrating the meter'** for a description of the procedure.

Set your dish to the approximate position of the satellite you are to identify.

If your required satellite is not the default start-up satellite, select the correct one by pressing and holding the **mode** button and scrolling through the dataset using the arrow buttons. Using a fly lead, preferably fitted with a push fit connector, connect between the meter's 'F' connector and the dish LNB. Turn the meter on and move through the satellites to the correct one by pressing and holding the mode button and the arrows to move through the list.



```
Searching
Astra 28 E—H
SS          00
PQ          00
```

Slowly swing the dish until the position is correct when the meter beeps and shows Found Sat.

Swing through the arc

```
Found Sat.
Astra 28 E—H
SScccccc   55
PQcccccc   40
```

The meter has uniquely identified the satellite you are installing the system to receive. It will have ignored any other satellites it has passed on the way to the correct one.

It may show signal strength as you pass some satellite positions, but until you are at the correct one, it will not display Found Sat.

You should now optimize the installation.

Many satellites transmit in two polarities and, when possible, the meter will have information for both so that the dish can be accurately set to avoid cross polarity.

Switch between the polarities using either of the arrow buttons. The satellite name will remain the same but the letter V and H, or L and R will change to show the selection of the other polarity

Maximize the signal strength in both polarities where they are available, switching between them with the arrow buttons.

For a perfectly aligned, balanced installation you should fine tune the dish in both polarities using the Picture Quality (BER) readings, to maximise the received signal.

Gently move the dish to and fro in its initial found position, watching the bar display rise and fall as you approach, reach and pass through the sweet spot. Inch back slowly to the reading that showed the best figures

```
Found Sat.
Astra 28 E—V
SScccccccccc 85
PQcccccccccc 65
```

```
Found Sat.
Astra 28 E—H
SScccccccccc 87
PQcccccccccc 66
```

Remember, if the bar display is giving you readings that are too high or low, you should calibrate the meter for that satellite. See the section '**Calibrating the meter**'

The pre-programmed satellites in the meter can be added to or changed to suit the installer's needs, from C-band to broadband internet installations, the data is available to program the meter. Contact Lacuna for details.

Calibrating the meter

The Lacuna Satmeter has the facility to calibrate the meter's data settings for each transponder stored.

At the time of manufacture, the meter is programmed with default settings. These may not suit your local conditions and you may have to calibrate the meter for a satellite.

The meter can store individual calibration settings for every satellite in its dataset for both signal strength and picture quality, avoiding the 'one size fits all' problem that many other meters have.

Time taken to calibrate the meter will improve installation quality and speed.

You will know that calibration is necessary if you have found a satellite but the readings for Signal Strength (SS) or Picture Quality (PQ) are too low or too high.

To start the calibration for a satellite, **the dish must be set and the meter showing Found Sat.**

To enter the calibration process, press and hold the **mode** button for about 10 seconds. You will see:



```
User Cal. Set-up
Level Cal
```

This first step will allow you to calibrate for Signal Strength levels. If you wish to calibrate for Picture Quality (BER) press the **Down** arrow and you enter that area:



```
User Cal. Set-up
Level Cal
```

We will use the Picture Quality calibration as an example.

To change the stored data, press **mode** when you are in the correct area and the data adjustment screen will show. The current value stored is shown in the brackets (in this case 50). Use the **Up** arrow to change this value until you maximise the bar reading.

Setting the bar to 99 will not help. Use a setting below 99 so that you can see the bar rise to its maximum, and fall away again, when moving the dish to the optimized position.



```
BER Cal
Sig Adj <> [050]
PQc          15
```

```
BER Cal
Sig Adj <> [125]
PQcccccccccc 65
```

When you have the setting you want, press the **mode** button and you will be invited to save the setting you have entered. Press **mode** again to do so.



```
Exit Cal:
Save setting
```

If you do not wish to save the setting, press the **Down** arrow and you will be offered three more options.

Restore data for all satellites- restores the last setting for all

Restore data for this satellite- restores the last setting for this one

Abort setting - cancels any calibration settings in this session.

When you have scrolled to the one you want, press the **mode** button to select it.