

Using the MENU settings

```
Signal View
Receiver View
Dish Control
Flip Screen
Contrast  ◀ 20 ▶
```

```
Receiver View

E0 10 38 C0
⌚ 12.00 Port 1 
```

By switching from Signal View to Receiver View, you can see directly the receiver parameters plus any DiSEqC switching information: the middle line gives a readout in hex for Dish Control commands.

```
Signal View
Receiver View
Dish Control
Flip Screen
Contrast  ◀ 20 ▶
```

```
Dish Control

Off      Port 3
```

In Dish Control mode, use the arrow buttons to select the choice of Port for each LNB.

```
Signal View
Receiver View
Dish Control
Flip Screen
Contrast  ◀ 20 ▶
```

```
Signal View
Receiver View
Dish Control
Flip Screen
Contrast  ◀ 20 ▶
```

```
Receiver View
Dish Control
Flip Screen
Contrast  ◀ 20 ▶
Sleep  ◀ 3 mins ▶
```

The remaining MENU options allow you to Flip the Screen (to operate with the keypad above or below the screen, as you prefer), to set the display's Contrast for best visibility, and to set the Sleep timer to switch the meter off after a pre-set time (to preserve batteries), or to keep it on.

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MiniSAT Version 2 - April 2006

- Thank you for choosing our low cost dual satellite finding meter and satellite receiver test equipment.
- The MiniSAT is an easy to use tool for the alignment of satellite antennas, and can display the signal level from two independent satellites simultaneously, also sending 22kHz tone and DiSEqC commands to each LNB independently.
- It can be charged from a receiver while running from its internal battery pack (rechargeable NiMH AA cells supplied).
- *n.b.* Before starting, please be aware that this meter will display RF level from any satellite in range, but will not identify which satellite you have found. Use the compass supplied to find the general direction of the satellite you wish to acquire, making your satellite finding easier.

Specifications

Battery pack (6 cells)	AA NiMH 1600mAh (7.2V 1.6Ah)
Charger	12VDC; charge time 12 hours
LNB supply voltage	13VDC (vert.), 18VDC (horiz.)
LNB supply current	600 mA max
LNB s/c protection	600 mA automatic limiter
RF input range	950 - 2150 MHz
Input level	20 - 110 dBuV
Battery run time	>2 hours / single LNB
DiSEqC compatibility	Read 2.0, write switch commands

In the box



MiniSAT meter with fitted NiMH battery pack



Leather case



220/240VAC mains charger



2 x 1.8m F-F fly lead



Compass

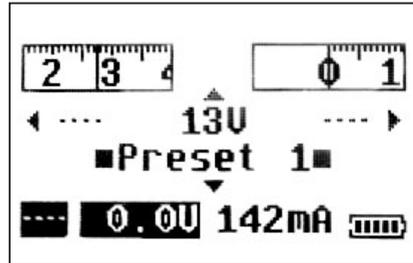


In-car charger

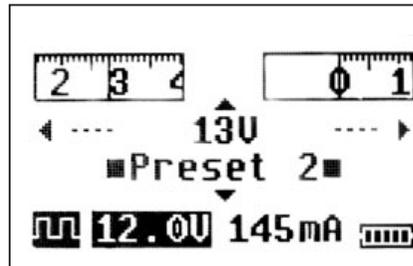
Understanding your meter



This screen shows that an LNB is connected on the left; polarisation is vertical (13V setting), 22kHz tone is on, and the speaker is on for audible signal strength.



The 3 Presets can be used to store different settings for later use; polarisation is again vertical here, 22 KHz tone is off, and the speaker is off. To store settings, confirm using the middle button.



Here, a receiver is connected with 12V feed and 22 kHz tone (in highlighted areas). The meter will block the tone, as the area under the signal display is not highlighted.

Remember, you use the UP arrow button to step through Vertical (13V), Horizontal (18V) and "mimic receiver" modes. The DOWN arrow button selects Preset or Free Style modes. Left and Right arrow buttons step through Tone on, Tone off, and mimic receiver mode for each LNB. The SELECT/STORE button confirms any changes made to Preset settings. The SPEAKER button allows you to monitor signal strength audibly from the left LNB, the right LNB, or neither. The MENU button gives access to different Screen modes, Dish Control options, and Sleep setting for battery life.

LIMITED WARRANTY

Horizon will, at our option, repair or replace any Horizon MiniSAT found defective in manufacture within the warranty period (1 year).

The warranty period is determined by the date of purchase if the receipt is available, or by date of manufacture if not. Please keep your receipt as proof of purchase.

This warranty does not cover damage caused by accident, misuse, or tampering. Your statutory rights are not affected.

Signal peaking - single or twin LNB

Connect an F to F fly lead to either port of the meter (or both ports for dual feed) and plug the other end to the LNB.

Select Free Style on the configuration list (DOWN arrow).

The display will show the current drawn by the LNB. We recommend using Vertical (13V setting) polarisation in stand-alone mode, as this draws less current and gives you longer use of the batteries.

Adjust your antenna with slow left/right (AZIMUTH) and up/down (ELEVATION) movements for best signal strength. Finish by slow rotation (SKEW) of the LNB to maximise the signal (move hands away from the dish when measuring).

For extended user information with tips for getting the best out of your MiniSAT, please go to our website at www.horizonhge.com



Charging the batteries

THE SUPPLIED BATTERY PACK WILL NOT BE CHARGED WHEN YOU RECEIVE YOUR METER. YOU WILL NEED TO CHARGE THE MiniSAT FOR AT LEAST 12 HOURS BEFORE USE.

Note: it's not possible to use the meter when the batteries are being charged. The battery pack should be replaced if it fails to hold the recommended charge; replace only with an approved battery pack from Horizon or its agents. **USING OTHER TYPES OF PACK MAY CAUSE DAMAGE TO THE METER OR THE BATTERIES.**

Charging with the mains charger

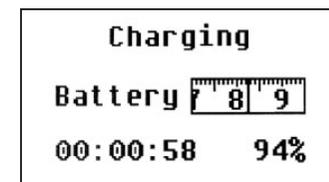
Plug the charger's DC power plug into the MiniSAT. Connect charger to the mains supply and switch on.

Charging from your vehicle

Plug the lead's DC power plug into the MiniSAT. Plug the lead into the vehicle's lighter socket (12VDC only!)

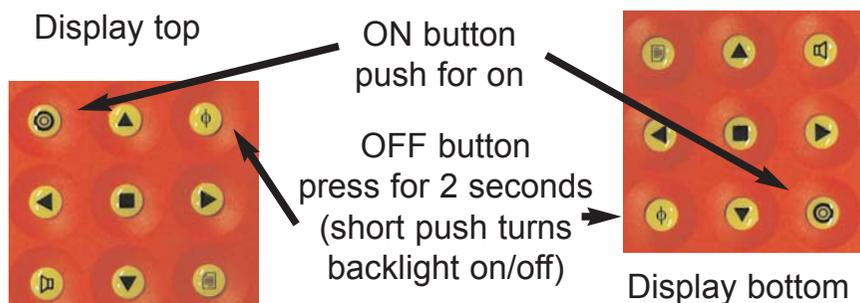
Charging times

The meter needs a 12 hour charge when the batteries are exhausted. It is recommended the charge is topped up after each use. Charging progress is shown on an elapsed timer, and there is a direct reading of voltage and percentage of full charge. When the meter is in use, the battery symbol indicates state of charge on 5 vertical bars.



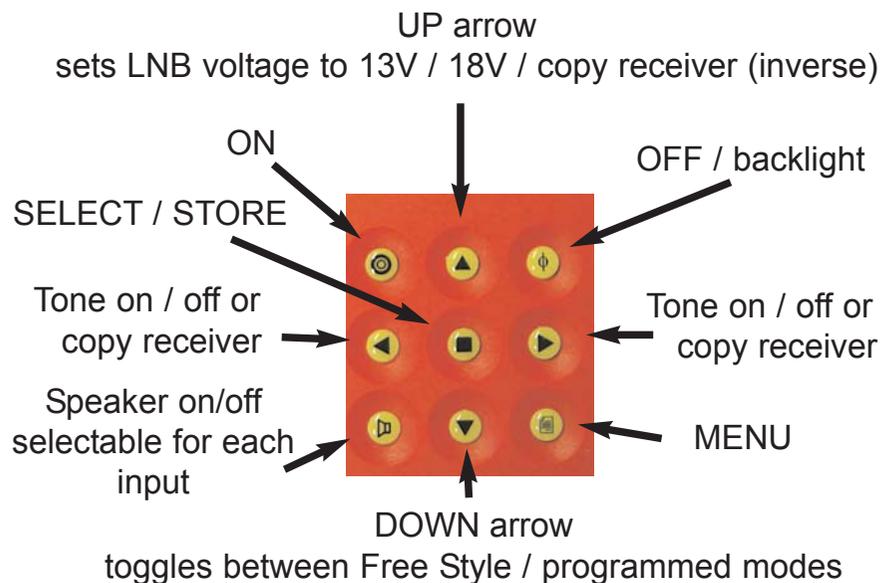
Starting up

The MiniSAT starts automatically when wired to a powered receiver, or it can be operated from its internal battery pack.



To flip the display as shown, press MENU (see below), use up/down arrows to highlight Flip Screen, press SELECT to flip, up/down to highlight Signal View, and SELECT again.

Button functions



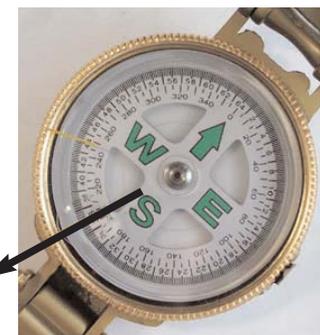
Use MENU to access Contrast adjustment. Items displayed in inverse show receiver parameters, when connected.

Finding your satellite

Before starting, you will need to know the satellite's orbital position (in degrees West or East of your position) and the elevation (in degrees from the horizontal). Roughly locate the right area in the sky, and make sure that there are no obstacles in the way to prevent good reception. Seat the antenna securely to avoid unwanted movement and start the AZIMUTH adjustment. Remember to allow for the difference between magnetic and true North (in the UK, you need to align to about 23 degrees East of South for Astra 2 on 28.2 degrees East). Now use your compass to set the AZIMUTH.



Line up your compass to North as shown. Turn the marker to the satellite's bearing - 20 degrees West in the example.



Keeping the compass stable and level, you should be able to line up the marker without shifting the position of the North pointer. Sight along the marker, noting where on the horizon it points, and direct the antenna at the same place. Tighten the antenna mount enough to stop further rotation.

The angle of ELEVATION will also depend on where you are. The further North or South, the shallower the angle of the dish (in the UK, this ranges from about 27 degrees above the horizon in the South to 21 degrees in the North). At the Equator, the dish should be pointing straight up.

For a list of satellites and their positions plus an informative user guide, please go to our website at www.horizonhge.com