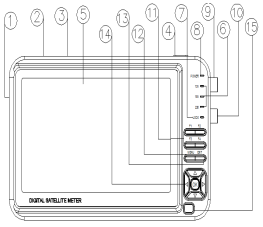
USER'S MANUAL

Digital satellite Meter

SH-500

SatheroMeters.com

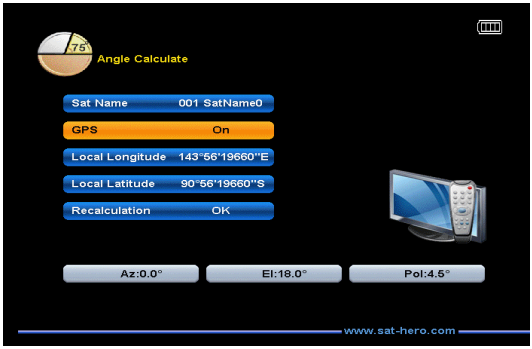
We operate a policy of technical change without prior notice,
the picture of outlook and color is for a reference only, the actual item is the standard.



No.	Item	Description
1	USB-Port	USB port for PC connection and power supply connection
2	AV In	Input audio and video signal
3	AV Out	Output audio and video signal
4	POWER-button	Switch meter on/off
5	LCD-Display	Display the TV program, the operation menu and the detailed parameters.
6	22K/13V/18V-LEDs	LED lights when 22K/13V/18V switch on
7	LOCK-LED	LED lights when satellite signal is locked
8	POWER-LED	Operation: Red: the finder is on. Off: the finder is off. Charging: Green: The battery is being charged. Orange: The battery is full.
9	LNB-IN	Satellite signal input
10	Test-Port	Tested cable input
11	Function -button	F1: Switch LCD on/off F2: Mute F3: Switch the display F4: Turn on GPS(SH-500G)
12	Menu-button	Display the main menu
13	Exit-button	Leave the current menu, cancel operation

14	Navigation-cross OK button	Navigation through menus, switching programs ▲, ▼ volume control ◄, ► OK button: confirmation of a selection
15	IR	Receive the infrared signals

- Charging:
  - If the finder is being used for the first time, it may be necessary to charge for about 12 hours. If the battery runs low during use, you should recharge it for 5 to 6 hours，it will be full when the power light turns to orange from green. Fully rechargeable Li-on battery can last approximately 3.5 hours.
  - It may be necessary to turn off the finder while charging. Universal charger operating on 110vac/60Hz or 220vac/50Hz makes it usable anywhere.
- Turn on/off
  - Press and hold the POWER button for 2 seconds, the meter will turn on
  - Press and hold the POWER button for 2 seconds again to turn off.
- Enter registration code
  - It's necessary to enter the registration code when you first start_up or restart after updating the softwares and parameters. You can find the code item in the manual and enter it into the meter by pressing the direction buttons, [◄][►]: move the cursor to the alteration location, [▲][▼]： choose numbers or letters. After that, press OK button to confirm.
  - Registration code is the security and after-sale guarantee, please keep it safely.
- Language setting
  - From the system setting menu, you can find the language setting item. select you favourable language and press OK button.
- Restore factory setting
  - From the system setting menu, you can find the reset setting item. Press OK button and input the password. You can choose factory type. You can choose “delete CA channels” “delete radios channels” “delete all channels” and “restore to factory”. Press OK button to confirm.
  - After factory resetting, all modified and saved contents will be lost
- Angle Calculate



Press the [▲][▼] button to select the following points:

Sat Name	GPS	Local Longitude	Local Latitude	Recalculation

Sat Name: Select the desired satellite

GPS: Select the GPS On or Off, (The meter will load the longitude and latitude of your position automatically if GPS on, or you input them by yourself)

Local Longitude: Input your local longitude

Local Latitude: Input your local latitude

Recalculation: After the completion of all values, press OK button to angle calculation

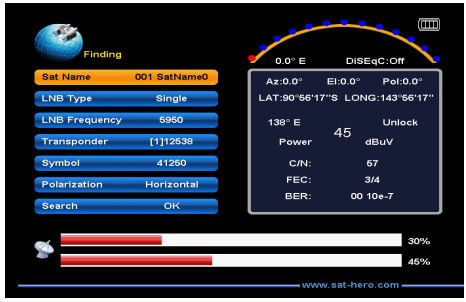
---

Az: show the azimuth angle of the chosen satellite

El: show the elevation angle of the chosen satellite

Pol: show the polarity angle of the chosen satellite

➢ Satellite Finding



➢ 1). Select Satellite

From the finding menu, move cursor to Sat Name, you can browse the satellites list, use [◄][►] buttons to switch between different satellites, select the one you want, press OK button.

2). Select LNB

➢ From the finding menu, move cursor to LNB Type, Use [◄][►] buttons to

- choose LNB Type between single and double local oscillator, then move cursor to next bar, Use [◄][►]buttons to select the default LNB frequency. The LNB frequency must be the same as on the antenna.
  If no default frequency, press OK button to edit, you can key in the
- LNB frequency by using direction buttons and press OK button in the end.

➢ 3). Select parameter

- From the finding main menu, move cursor to TP, Use [◄][►] buttons to select
  the parameter what you want.
- If no default parameters, press OK button to edit, you can key in the frequency, symbol rate and switch the polarization by using direction buttons and press OK button in the end.

➢ 4). Detect satellite signal

- After signal detected, the finder show the signal bar and beeps, View the PWR、C/N、FEC、a.BER and NIT on the screen, the value of POWER is higher, the strength of signal is better and stronger. You can also search the satellite channel list by pressing OK button

Value

0.0°E： show the longitude of the chosen satellite

DiSEqC：show the DiSEqC port of the chosen satellite

Az：show the azimuth angle of the chosen satellite

El： show the elevation angle of the chosen satellite

Pol：show the polarity angle of the chosen satellite

LAT：show the local latitude of the chosen satellite

LONG：show local longitude of the chosen satellite

NIT：show the longitude of the locked satellite

C/N：show the C/N value of the locked satellite

FEC：show the FEC value of the locked satellite

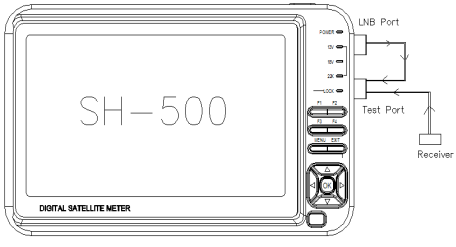
a.BER：show the a.BER value of the locked satellite

➢ Upgrade：

- Download the latest software, parameters and update tools from our Website：
- The satellite parameters need to be updated every three months.

➢ Notice:

- Before using the finder, make sure that the cable is properly connected through the testing port of finder first. Take the LNB in port of finder or In port of digital satellite receiver as the output of tested cable. Turn on the finder and receiver (if used), the test light on the finder panel will be lit as soon as the cable is well connected.
  While installing the antenna, make sure that the LNB in port of finder is well connected to the tuner of the antenna with tested cable. Turn the antenna in the approximate direction, the finder will light the LED bar and beep when the antenna is close to the satellite. Continue to turn the antenna in the direction that makes the finder lights more LED and beep quicker. View the PWR value on the screen, continue to turn the antenna until the finder shows the maximum value of PWR, lock in the best position of antenna.
- Through this function, user can quickly and easily find the right satellite and accurately set the dish.



➢ Warning

- Only qualified personnel may dismantle device and charger.
- Do not drop device and charger into water or fire.
- Do not shock or vibrate the device and charger.
- Make sure that the battery is full charged while upgrading. Do not switch off the device or pull out the cable while upgrading. The device will restart automatically after upgrading.

➢ Battery & charger：

- Only use original batteries and chargers. The use of any other types may be dangerous or damage to device
- Dispose of batteries according to local regulations.
- Do not crush, puncture the battery. Avoid extreme temperatures and high pressure.
- If left unused, a full charged battery will lose it's charge over time, please recharge before using.
- Unplug the charger from the electrical plug when not in use.

Product Certificate

Product Serial Number：_____

Registration Code：_____

After purchased, please read out the product serial number and register code form the back of battery cover, fill in the relevant form on the top, and register code on the official site to register.

Official Site： http://www.satherometers.com

Technical Specifications

LNB input	
F-type connector	IEC 169-24
Frequency range	950 MHz ~ 2150 MHz
Input level	-65dBm -25dBm
Input Impedance	75Ω
LNB power supply	14/18V, max. 650mA
LNB switch control	22 kHz
Demodulator	
Demodulator front end	QPSK
Symbol rate	2Mbps~45 Mbps
Measurement Unit	dBm, dBuV
Connectors	
Serial data interface	MINI USB
Video/audio interface	3.5mm
Power supply	
Supply voltage	DC14.5V 1.5A
Li-on battery	2550mA
Working time	about 3 hours
Supply voltage (charger)	AC 110~250V 50/60 Hz
Temperature	
Operating temperature	0°C to +40°C
Storage temperature	-10°C to +50°C
Dimensions	
Length x width x height	21 x 12.5 x 3.5 cm
Weight	
Weight	0.58Kg
Gross weight	0.98Kg