

DIGITAL SATELLITE METER

THE PROFESSIONAL EQUIPMENT
USER'S MANUAL

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Please read this manual carefully before using your meter for the first time. The technical specifications and operating methods included in this manual are subject to changes without notice. In case of any inquires after a period of usage, please contact the manufacturer.

Please charge the battery before using your meter for the first time. (Recommend 5 hours)

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Chapter I Introduction

This meter is simple and convenient for setting and aligning a satellite dish.

Using the parameters of satellite, you can set and align a satellite dish quickly, easily and accurately.

Chapter II Function

A. Front Panel



- (1) LNB INPUT: Satellite signal input port, connects directly to satellite antenna using coaxial cable.
- (2) LCD Screen: Shows MENU and Programs clearly
- (3) Lock Light: This light will be on when signal is locked.
- (4) 22K/13V/18V light: Indicate the 22K/13V/18V
- (5) Power Light: Indicate the power status.
Normally,
Green: the meter is power on
Dim: the meter is power off
Charge,
Red: the battery is being charged,
Green: the battery is full.
- (6) Function Key: Made of four keys, F1-F4.
(Tip) F1: turn on or off the LCD screen
F2: Mute
F3: To show information about the current program
F4: To choose TV or Radio
- (7) Arrow Key and OK key: Use the Arrow key to select the right item, OK key to confirm.
- (8) MENU Key: To enter or exit the main menu.quickly.
- (9) EXIT Key: To exit from the present menu and move to the previous menu
- (10) Numerical Key: To enter numerical settings directly.
- (11) FIND Key: Go to the easy satellite find menu, can set and align a satellite dish quickly
- (12) Scan Key: Go to auto scan menu and scan channels
- (13) ANGLE Key: Go to the AZ, EL and Polarity calculation

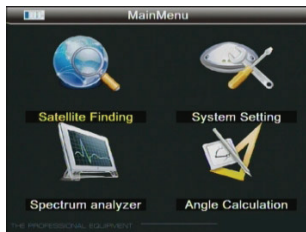
menu

- (14) **⏻**: Press to switch between Operation and power off modes
- (15) **SYSTEM** Key: To set all system parameters.
- (16) **Battery ON/OFF** button: To switch the battery on or Off
- (17) **USB Port**: Connect to PC to upgrade.
- (18) **Charge port**: To connect with the charger cord.

B. Detailed Operation Guide

Turn on the equipment

Press and hold **POWER** button for 2 seconds to turn on the satellite meter, after 6-7 seconds later, the main menu will appear <Figure2-1>.



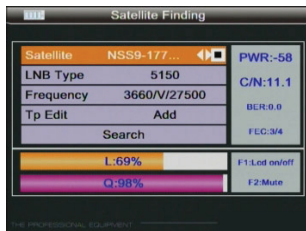
<Figure2-1>

1. Satellite Finding

Go to main menu, Use [**◀**][**▶**] button to select "Satellite Finding", and press OK, then following window will appear

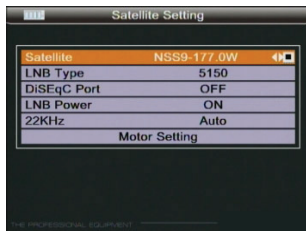
<Figure2-2>.

- (1) Use [▲][▼] button to move cursor
- (2) Use [◀][▶] button to select the satellite, and select the item that you want to edit, and set its parameters as desired.



<Figure2-2>

- (3) LNB Type: Press OK button, the Dish Set-up menu will appear <Figure 2-3>.



<Figure2-3>

- a. Use [▲][▼] to move cursor
- b. Use [◀][▶] button to select the item you want.

LNB Type: Use [◀][▶] button to choose LNB Type between UNIVERSAL/5150/9750/10750/11300/10700/Customised

L.O. LOW: Use digital button to input the LOW L.O.F once the LNB Type is Customized

L.O. HIGH L: Use digital button to input the High L.O.F once the LNB Type is Customized

22K: choose among AUTO/OFF/ON

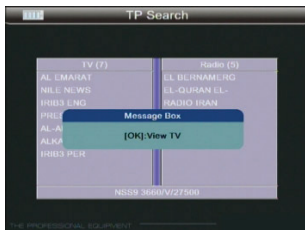
LNB POWER: choose among AUTO/13V/18V/OFF

SWITCH TYPE: choose NONE/DiSEqC1.0/ DiSEqC1.1

SWITCH INPUT: choose from 1/2/3/4 input

Motor: Choose among Fixed/DiSEqC 1.2/USALS/

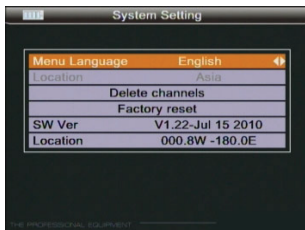
- (4) Frequency: Use [◀][▶] button to select the TP frequency you want. FREQUENCY set its parameters, can input numerically SYMBOL RATE set its parameters, can input numerically
- (5) POL: POLARITY Select between Vertical and horizontal.
- (6) When signal finding: you can see the bar meter of the LEVEL and QUALITY, and the numerical of C/N ,FEC, a.BER (after BER) at the same time the LOCK light will come on and the speaker will notify.
- (7) Adjust the dish slightly to get the strongest signal
- (8) Go to "SERACH" and press "OK" to scan for channels. the menu will appear <Figure 2-4>.



<Figure2-4>

2. System Setting

Go to main menu, Use [◀][▶] button to select "System Setting", and press OK, then following window will appear <Figure2-5>.

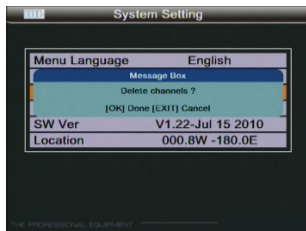


<Figure2-5>

Use [▲][▼] to move cursor

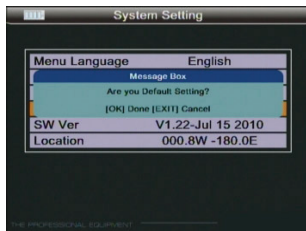
Use [◀][▶] button to select the item you want

Language select: Choose the desired language which you want
Delete Channels: press OK button then you will delete all channels.the menu will appear <Figure 2-6>.



<Figure2-6>

Factory Reset: this sub menu allows you to restore the factory default value. Erase all channels and restore the factory default settings.the menu will appear <Figure 2-7>.



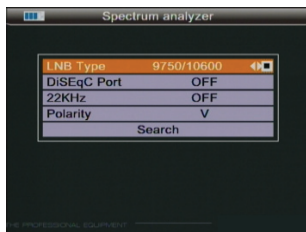
<Figure2-7>

SW Ver: You can check the current information about your satellite meter such as meter Soft ware version.

Note: This information is useful to see if there is a newer software available.

3. Spectrum Analyzer

Go to MAIN MENU, Use [◀][▶] button to select "SPECTRUM ANALYZER", and press OK, then following window will appear <Figure3-1>.



<Figure3-1>

Use [▲][▼] to move cursor

Use [◀][▶] button to select the item you want

LNB Type Use [◀][▶] button to choose LNB Type among UNIVERSAL/5150/9750/10750/11300/10700/Customised.

LOW L.O.F: Use digital button to input the LOW L.O.F once

the LNB Type is Customized

HIGH L.O.F: Use digital button to input the High L.O.F once the LNB.Type is customized.

22K: choose among AUTO/OFF/ON

POL: POLARITY Select between Vertical and horizontal.

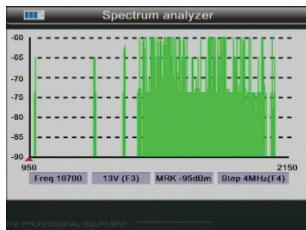
Search: press OK, you will see the spectrum

You can choose the Spectrum step between 4 MHz and 16MHz (Tip: 16MHz will be faster)

F3: press F3 to choose 13V and 18V

Use [▲][▼] button to choose the Frequency you want

Use [◀][▶] signal strength showing (-70dBm----10dBm)



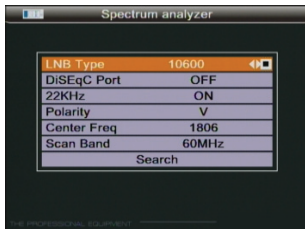
<Figure3-2>

4. Real time Spectrum Analyzer Operation Guide

(For the model which has Real time Spectrum Analyzer function only)

Go to main menu, Use [◀][▶] button to select "SPECTRUM ANALYZER", and press OK, then following window will ap-

pear <Figure4-1>.

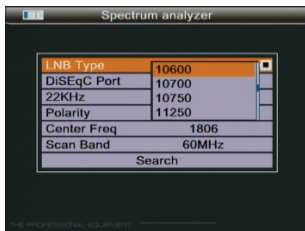


<Figure4-1>

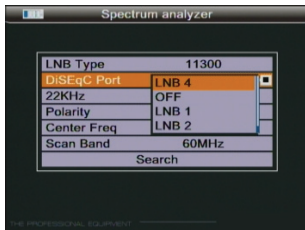
Use [▲][▼] to move cursor

Use [◀][▶] button to select the item you want

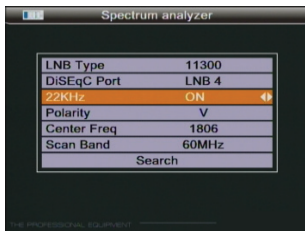
LNB Type: use [◀][▶] button to choose LNB Type among UNIVERSAL / 5150 / 9750 / 10750 / 11300 / 10700 Customised



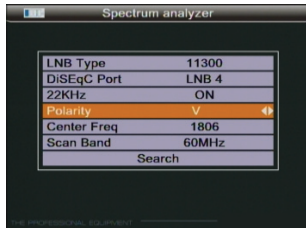
DiSeqc Port: Use [◀][▶] button to Choose among OFF/
LNB 1/LNB 2/LNB 3



22KHz: choose among AUTO/OFF/ON



POL: POLARITY Select between Vertical and horizontal.



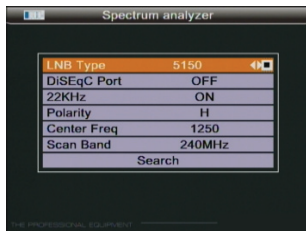
Center Freq: Use digital button to input the center Frequency according the required parameters (From 950~2150MHz)

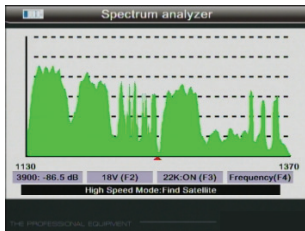
For example:

LNB frequency: 5150, enter center frequency: 1250

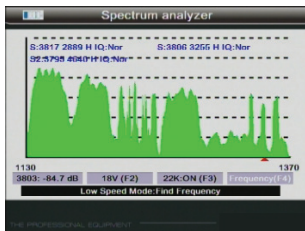
So, Center frequency spectrum image corresponding to the next of satellite frequency: $5150-1250=3900\text{MHz}$

On the picture X Coordinate, $1370-1130=240\text{MHz}$, that is Scan Band value show



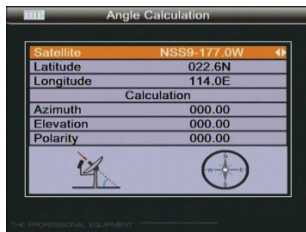


Press [▲][▼] choose Scan Band, press [◀][▶] to correct (60/120/180/240/300/360/420/480/540/600MHz)
 Press [▲][▼] choose Search, press OK button, Quick scan shows the spectrum. Show, Press button F4, Display cursor near to satellite parameters, press [◀][▶] move the cursor press MENU, EXIT and Finish.



5. Angle Calculation

Go to main menu, Use [◀][▶] button to select "Angle calculation", and press OK, then following window will appear <Figure 4-1>.



<Figure 4-1>

SATELLITE: choose the satellite you want

Longitude: input your local longitude

Location: input your local location

Latitude: input your local latitude

Hemisphere: input your local Hemisphere

Azimuth: shows the azimuth of the chosen satellite.

Elevation: shows the elevation of the chosen satellite.

Polarity: shows the polarity angel of the chosen satellite

Chapter III Specifications

System capabilities	Fully DVB compliant	Yes
LNB/Tuner input	Connect	F type,male
	Frequency range	950MHz~2150MHz
	Signal level	-65dBm~-25dBm
	LNB supply	13/18V, Max 400mA
	LNB switch control	22KHz
	DiSEqC	Ver 1.0
Demodulator	Front end	QPSK, 8PSK
	Symbol rate	2Mbps~45Mbps
	SCPC and MCPC Capable	Yes
	Spectral in version	Auto conversion
System resource	Processor	32bit processor (200MHz)
	SDRAM	64Mbyte
	FLASH	16Mbyte
	EEPROM	8Kbyte
Video decoder	MEPG2	Main Profile@Main Level
	Data Rate	up to 15M bits/s
	Resolution	720x576, 720x480
	Video format	PAL/NTSC/SECAM
MPEG Audio	MPEG 1 layer 1&2	
	Type	Mono
	Sampling rates	32,44.1 and 48KHz
Serial data interface	Connector	USB type
Power supply	Li-oN Battery	1950mA
	Supply voltage	12.6Volt
	Charger	90-240V
Panel connectors	Digital tuner input	F type, male

Handling Precautions and Prohibitions of Battery in Sat Meter

Warning:

You are using Lithium ion batteries or Nickel metal hydride batteries in the machine now, so please don't work under high temperature or high pressure conditions. If the following items happened, abnormal chemical reaction may occur which will lead to the battery overheat, emit smoke, ignite and/or burst.

- (1) incinerate and dispose the battery in fire or heat it;
- (2) pierce the battery with a nail or other sharp objects, strike it with a hammer, or step on it;
- (3) immerse the battery with water or connect the positive(+) and negative(-) terminals with a metal objects such as necklaces, hair pins, etc.

Notice:

The battery is only applicable to the charger which supplied or appointed by the manufacturer of this machine.

The charging time should be minimum 5 hours for the first time, and it should not be charged over 12 hours after the first time.

Please keep your machine off when the battery is charging.

The battery should be stored within a temperature range of 0°C to 40°C.

When stored for a long period, charge the battery at least

once per half month so as to prevent over discharge.
The battery is expendable.

Handling:

Improper setting of new battery may lead to the battery burst.

Please use the battery only supplied by the manufacturer if you want to change a new battery.

Please do not put the battery in fire or dispose it together with garbage.

Please contact the waste administrative institute in your place to get the nearest battery collection station.

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