DIGITAL UHD COMBO METER USER'S MANUAL

Precautions

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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GENERAL SAFETY:

Topics to be considered:

Please strictly follow the below mentioned instructions so as to prevent damage that can happen to you or your device.

Before cleaning your device, pull the power cord and turn it off via Key of Power on/off and clean it with dry cloth.

Do not use accessories or additional apparatus that are not recommended by manufacturer as they may damage the device and may void the guarantee. When moving your device, protect it against impacts and falls otherwise the device may be damaged. Carry your device certainly in its bag and never carry it in boxes such as toolkit and together with the equipment that may possibly damage the device; otherwise, device will not be covered by guarantee.

Do not use your device outdoor so as to protect your device against liquid contact during rainy and snowy weather. Liquid contact may damage your device and device is not covered by guarantee.

When connecting your device with LNB, please be careful against short circuit; otherwise, LNB and your device may be damaged.

Service-related topics :

Do not attempt to repair your device on your own. When you open the cover of your device, it will not be covered by guarantee. For all services related to device, keep in contact with your seller or technical service.

INTRODUCTION

Digital satellite finder is simple and convenient for setting and aligning a satellite dish. With the parameters of satellite, you can set and align a satellite dish quickly, easily and accurately.

Accessories

- 1. User's manual
- 2. Power Adapter
- 3. Power Cable
- 4. In-vehicle lighter charger adapter
- 5. Remote control
- 6.AV IN/OUT cable
- 7. BNC connector (Female)
- 8. Power convert cable



Due to your electrical charger adapter with 14 volt of output, you can ensure device to remain charged continuously and thanks to that, you can use your device in environments that do not have electricity. You can easily charge your device during your travel due to your lighter charger adapter in car. Keep lighter charger adapter away from situations such as compression, impact and overloading. Do not open it for the purpose of repair and examination.



Remote Control keys actions are same as the key on the device

A. Front panel



1. LCD Screen:

Shows menus and programs clearly

2. Flash light:

Torch light on the rear, by clicking once power key to turn on.

3. Battery Light:

Light is Red indicates the meter is being charge now. Light is Green indicates the meter is full charged

4. Power Light:

Indicates the Power status

Normally:

Green: the meter is power on Dim: the meter is power off

5. 5V-T/ 12V-T/ 24V-T Light:

Indicates ANT 5V ON/12V ON / 24V ON/OFF

6. LOCK-T/C:

This light will be on when Terrestrial signal or cable signal is locked.

7. LOCK-S:

This light will be on when Satellite signal is locked.

8. 22k/13v/18v light:

Indicates the mode of 22k/13v/18v

9. Spectrum:

Spectrum analyzer

10. 0/22K:

A quick key to switch 22K output on the DISH SETUP menu

11. H/V:

A quick key to switch 13/18V output on the DISH SETUP menu

12. FIND key:

Accesses easy satellite find menu that sets and aligns a satellite dish quickly.

13. Mute:

Quickly mute the beep alarm when signal is locked.

14. Screenshot:

Store the displayed as an image when USB disk connecting.

15. Function key:

Consist of 2 keys, F1-F2

F1: Changes the signal bar on DISH SETUP menu

F2: Actives DiSEqC 1.2 function on the DISH SETUP menu

16. T/R:

Selects and plays TV/RADIO channel in playing mode.

17. Arrow key and OK key:

Use Arrow key to browse the item, press OK key to select

18. EXIT key:

Exits from the present menu and backs to the previous on the device **19. MENU key :**

Enters and exits the main menu

20. POWER key:

For turn-on/ turn-off. To press and hold for 3 seconds to power

21. AHD:

For entering CCTV mode to receive the AHD signal.

22. Numerical key:

Enters numerical settings directly.

23. SAT>IP:

Receive the channel over an IP network from a SAT>IP sever.

24. LNB INPUT:

Satellite signal input port; connect directly to satellite antenna with coaxial cable

25. RF IN:

Antenna input connection port

26. HDMI :

Audio and video output socket for the high definition television set

27. AV IN/OUT :

Audio and video input/output socket

AV IN Audio L+ video

AV OUT Audio L+ Audio R+ video

28. HW OFF :

Reset. Turn off the device from hardware.

29. Charge port :

Connects with the charger cord.

30. 12V OUT :

12 Voltage output, can be used for CCTV camera

31. USB port :

Connects with USB disk for upgrade. Backup channel list.

32. Ethernet port :

For connecting the network to receive IPTV

33. Battery Cover :

Battery can be replaced easily

B. Shortcut key operation

1) 0/22K

A quick key to switch AV IN/OUT on the channel display.

A quick key to switch 22K output on the DVB-S/S2 Setup menu

2) H/V

A quick key to switch $13V\!/\!18V$ output on the DVB-S/S2 Setup menu

3) Spectrum

A quick key to display the spectrum information

4) FIND

A quick key to enter the S/S2 setup menu

5) T/R

Press TV/RADIO key in the playing mode to shift

6) **F1:**

 $\label{eq:F1} Press <\!\!F1\!\!> button to check the signal information when broadcasting program. The bar meter of Level , BER and C/N will display on the screen.$

 $Press <\!\!F1\!\!>$ again, Level and C/N value will display on the screen.

7) F2:

Press <F2> button when broadcasting program. The following picture will be displayed:

ContextMenu Satellite Audio Sound Stereo Sattery indicator On Sieep Ott	Satellite Audio ound Stereo attery indicator On	Satellite Audio
Sound Stereo Satlery indicator On	ound Stereo attery indicator On	
Sattery indicator On	attery indicator On	und Stereo
Sleep Of	eep Of	ttery indicator On
		ep Of

- Select the satellite, then the satellite information will be displayed.
- Select the Sound by pressing LEFT/RIGHT button to choose the sound
- Select the battery indicator by pressing LEFT/RIGHT button to display the battery information on the right top corner of the screen
- Select the Sleep by pressing LEFT/RIGHT button to setup the sleeping time.

8) Volume:

Press the <Left/Right> button to adjust the volume.

9) Screen shot

With the screen shot function you could store the device displayed measured values as an image file.

To save images, a USB disk must be connected to the device. Press screenshot button, The image will be saved as a JPG file in the USB Disk

10) Mute

Press mute button to mute the beep of lock alarm when signal is locked.

11) AHD

Press AHD button to enter the CCTV function for receiving AHD signal quickly.

12) SAT>IP

Press SAT>IP button to receive the channel over an IP network from a SAT>IP sever.

13) Torch light

Click power button once for lighting the torch. Click power button once again for turning off the torch

C. Power ON/OFF the equipment

This finder meter is designed for using as a portable equipment, it does not require any previous installation.

Power on:

- Press and hold the Red power button for three seconds.
- When the boot-up logo displayed on the screen, then release the power button.
- The boot-up image will be keeping displayed.
- After the system loading, the language selecting menu appears.

Power off:

- Press and hold the Red power button for three seconds.
- When the screen and green indicator (POW) goes off, then release the power button, which returns to its rest position.

Reset:

• Press the HW OFF button on the top of the equipment, it will be turned off automatically. Use only in case of system crash or fast shutdown.

D. Menu Operation Guide

Press Menu key on the Keypad to display the main menu. The Main menu consists of 9 menu options as shown below .



Use the arrow keys to move the cursor in the menu.

Use OK key to confirm the selection.

To escape the menu system at anytime, press EXIT key.

1. DVB-S/S2 SETUP

Press OK on **DVB-S/S2 setup**, then the following menu appears.

DVB-S	S/S2 SETUP
Satellite	(ChinaSat 6B)
LNB 5,150 GHz	LNB 5
Dish Position	DiSEqC Input 1
Frequency	3892 V 4420
Network Search	Off
TP Scan	All
Sat Scan	All
Level	57.2%
	um T/R: Mute DiSEqC V1.0: 1 Instellation G MULTI TP

 Satellite: Press <OK> button to display the satellite list. Search the satellite by pressing <Left/Right> button and press <Up/Down> to select the satellite. Press <OK> to confirm your selection.

DVB-S/	S2 SETUP
Satellite	Satellite
LNB 5,150 GHz	1 NSS 9/Yamal 3177.0W
Dish Position	2 Star One C2/C4 70.0W
Frequency	3 Star One C2/C4I 70.0W
Network Search	4 AMC 4Ku 67.0W
TP Scan	5 Star One C1 65.0W
Sat Scan	6 Star One C1Ku 65.0W
our court	7 Telstar 14RKu 63.0W
	8 EchoStar 12/16/61.5W
	9 Amazonas 2/3/4 61.0W
Rename	Delete

2) LNB: Press <Left/Right> button to select proper LNB type according to your physical LNB type.

Press<OK> button to setup LNB configuration as below picture

LNB	LNB 5		
L.O. Frequency	5,150 GHz		
LNB Voltage	13/18		
LNB Dish	Fixed		
DiSEqC Switch	V1.0		
DiSEqC Input	14		
DISEqC Repeat	1		
22KHz Switch	0/22K		

- a. LNB: Use <Left/Right> button to select the LNB
- **b. L.O. Frequency:** Enter the proper LNB frequency referring to your LNB by using the numeric key on the keypad.
- c. LNB Voltage: Use <Left/Right> button to select the LNB power.
- **d.** LNB Dish: Use <Left/Right> button to select the dish type, Fixed or Moved
- e. DiSEqC Switch: Use <Left/Right> button to select DiSEqC type
- f. DiSEqC Input: Use <Left/Right> button to select the port number to get the RF signal from the LNB ,which is connected .to DiSEqC switching box .Range 1~4.
- g. DiSEqC Repeat: Number of repeat of the DiSEqC command.
- h. 22KHz Switch: Use <Left/Right> button to select switch 22KHz

3) Dish Position: First press OK button on LNB to enter LNB CONFIGURATION. Select LNB Dish to Moved by using LEFT/RIGHT button as below picture.

LNB	LNB 1	
L.O. Frequency	9,750/10,600	GHz
LNB Voltage	13/18	
LNB Dish	 Moved 	1
DiSEqC Switch	Off	
DiSEqC Input	2	
DiSEqC Repeat		
22KHz Switch	0/22K	

And then return to DVB-S/S2 SETUP menu, press OK button on Dish Position to setup DiSEqC 1.2/USALS, as below Picture



Satellite		•	ChinaSa	at 6B)	
Transpond	ar 🛛		3840 H 2	27500	
Continuous	ly Move				
Move Steps	6	1			
Step Size					
Limit Set		Disable			
Other Com	nands	GOTO nn			
USALS		Off			
Level				51,4%	
Quality	C			74.9%	

Satellite:	Use < Left/Right> button to select the satellite			
	or Press OK button to select the Satellite			
Transponder:	Use< Left/Right> button to select the			
	transponder. Press OK button to display TP list.			
Continuously	Use < Left/Right> button to move positioner			
Move:	and press OK button to save current position.			
Move Steps:	Use< Left/Right> button to move positioner			
	by step and press OK button to save current			
	position.			
Step Size:	Use< Left/Right>button to setup one step size.			
Limit Set:	Use< Left/Right>button to select East/West			
	limit or disable limit.			
Other Commands:	Use <left right="">button to select the command</left>			
	and press OK button to execute command.			
USALS:	Use <left right="">button to select ON/OFF and</left>			
	press OK button set user position.			

4) Frequency : Press <OK> button to display the Frequency list .Select the Frequency you want by pressing LEFT/RIGHT button or UP/DOWN button. Press <OK> to confirm your selection . You also can Edit, Add, Delete and PID the stored frequency very easily, as following picture shows.

DVB-S/S	2 SETU	JP		
Satellite	TP	Freq	Pol	SR
LNB 5,150 GHz	1	3600	V	27500
Dish Position	2	3640	V	27500
Frequency	3	3680	v	27500
Network Search	4	3709	н	10920
TP Scan	5	3740	٧	27500
Sat Scan	6	3750	H	10490
Jai Joan	7	3769	H	13400
	8	3780	٧	27500
	9	3796	H	6930

 Edit: Press <Red(0/22K)> button to edit Frequency using the numeric keys. Press UP/DOWN key to select "Pol". Press <OK> button to confirm the operation and save the result

DVB-S/	S2 SETL	JP		
Satellite	TP	Freq	Pol	SR
LNB 5,150 GHz		3880	H	27500
Dish Position	21	3885	V.	4340
Frequency	22	3892	V.	4420
Network Search	23	3903	V.	9300
TP Scan	24	3913	v	6400
Sat Scan	25	3920	H	27500
Ser Starr	26	3929	v	8840
	27	3940	v	5948
	28	3950	H	11406
F1: MULTI TP, Press F2	to coloct T	8		

(2) Add: Press <Green (H/V)> button to add Frequency using the numeric keys .Press UP/DOWN key to select "Pol". Press <OK> button to confirm the operation and save the result

18 April 2017 / 09 : 51	= 87.7%
DVB-S/S	S2 SETUP
Satellite LNB 5,150 GHz Dish Position Frequency Network Search TP Scan Sat Scan	TP Freq Pol SR 44 4192 V 6000 0 H 0
F1: MULTI TP. Press F2 Edit GAdd	to select TP Delete PID

③ Delete: Press LEFT/RIGHT or UP/DOWN button to select Delete option. Press <Yellow(Spectrum)> button to set delete status. You will see a confirmation massage ,Please <OK> to delete or <EXIT> to cancel the operation and save the result.

	DVB-	S/S2 S	ETL	IP		
Satellite		-	тр	Frea	Pol	SR
LNB		- m	- Wi			27500
Dist	An	e vou su	ne ?			27500
Fred		104.00				27500
Netv	OK:Del	ete, EXIT	Can	:ef		10920
TP 1						27500
Sat Scan			6	3750	H	10490
Ser Scan				3769	H	13400
			8	3780	V	27500
		1	9	3796	н	6930
F1: MULTI	TP. Press	F2 to se	lect T	p.		
	Add		elete		PID	

 (4) PID: Press the <Blue(Find)>button to show the PID information for the frequency

- 5) Network search: Use <Left/Right>button to choose ON/OFF
- 6) **TP SCAN:** Scan transponders one by one. Press OK to start scan channel.

P	rogram Search
TV:0000	Radio:0000
	1.1.1.W
474MHz BW[8M	Hz] 1 / 1

7) SAT SCAN: Scan all the transponders in one satellite (these transponders have been set)

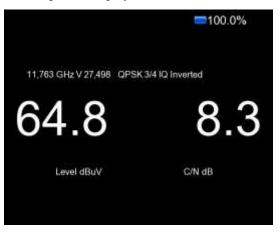
Note: In the course of signal searching, you can see the bar meter of the LEVEL and QUALITY, at the same time the LOCK light will come on with the speaker notification. DiSEqC will indicate which port is connected to the DiSEqC 1.0 switch

8) Signal Information

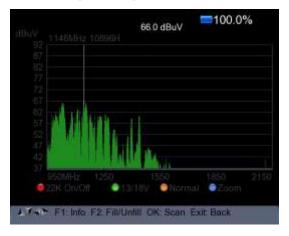
Press F1 to display the signal information
 You can see the bar meter of the LEVEL and C/N.
 Use <Left/Right> or mute button to adjust beep alarm volume.

Level	77 dBuV	70%
C/N.	1152-5 dB	80%
aFER	BER	1.22E-04 32.019dB

> Press F1 again to display the Level and C/N value.



> Press F2 to display the spectrum information

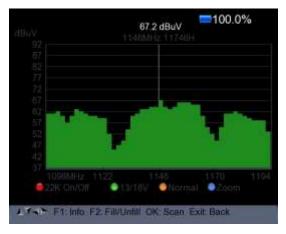


- 1) Press <Red(0/22K) button to turn on / turn off the 22KHz control.
- 2) Press<Green (13/18V)> button to shift between 13/18V.
- 3) Press<Left/Right>button to move Frequency
- 4) Press <Yellow(Spectrum)> button to display following picture:

87 82 77 72 67 67 67 57 57 57 47 47 47	End Freq	950 MHz 20150 MHz 2 ~ 2150MHz	
		1550 18V ONormal	2160

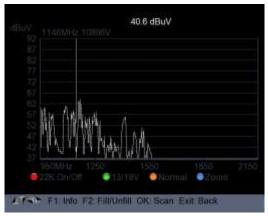
You can change parameters such as Start frequency and end frequency by using the numeric keys

5) Press <Blue(Find)> button to zoom in/out the frequency as following picture:

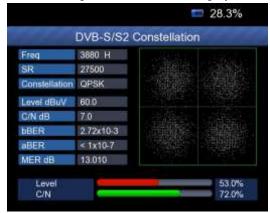


6) Press F1 button to display the info of the signal

7) Press F2 button to fill or unfill the spectrum display as following picture.



Press <Yellow(Spectrum)> button to display the constellation



9) MULTI TP: Press the <Blue(Find)> button to display multi TP

Fri	an/MHz	Symbol	Pol	Modulatio	n Level(dBu	V/C/N/dB	x
20	3880	27500	Н	DVB-S	57.6	0.0	
21	3885	4340	v	DVB-S	53.8	9.6	¥
22	3892	4420	v	DVB-S	54.4	6.2	*
23	3903	9300	v	DVB-S	54:2	8,4	*
24	3913	6400	v	DVB-S	56.0	7.8	¥
25	3920	27500	н				
26	3929	8840	v				
27	3940	5948	N				

2. DVB-T/T2 SETUP

Press OK on **DVB-T/T2 setup** then the following window appears.

DVB-T	T2 SETUP
Frequency	4 E21 474MHz)
Band Width	8MHz
Antenna setting	Power Off
Network Search	On
TP Scan	All
Auto Scan	All
64QAM Guard=1/4 Mc	ode=2K FEC=7/8
Level C/N	77dBuV 30.6dB
F1: Mode F2: Spectru	um T/R: MUTE Constellation

1) Frequency:

Press <Left/ Right> button to select the frequency and the corresponding bandwidth will be showed on the screen.

Press <OK> button to enter the Frequency list. Press <Up/Down> button to select frequency one by one, press <Left/Right> button to select page by page.

DVB-	T/T2 SETU	IP	
Frequency	CH	Freq	Band Width
Band Width	E21	474	8MHz
Antenna setting	E22	482	8MHz
Network Search	E23	490	8MHz
TP Scan	E24	498	8MHz
Auto Scan	E25	506	8MHz
	E26	514	8MHz
	E27	522	8MHz
	E28	530	8MHz
	E29	538	8MHz
Sedit Add	Delete		PID

Edit frequency: Press <Red (Edit)> button to edit the frequency by numeric numbers. Press <Up/Down> button to select the Band Width. And then Press <OK> button to confirm the operation and save the result. Or press< EXIT> button to cancel the operation.

	DVB-	T/T2 SETU	P	
Frequ	ency	CH	Freq	Band Width
Band	Width	E62	802	8MHz
Anten	na setting	E63	810	8MHz
Netwo	rk Search	a service of	818	8MHz
TP Sc	an	E65	826	8MHz
Auto S	Scan	E66	834	8MHz
		E67	842	8MHz
		E68	850	8MHz
		E69	858	8MHz
e Edit	🖷 Add	Delete		PID

Add frequency: Press <Green (Add)> button to add the frequency by numeric numbers. Press <Up/Down> button to select the Band Width. And then Press <OK> button to confirm the operation and save the result. Or press< EXIT> button to cancel the operation.



Delete frequency: Press <Left/ Right> button to select option, and then press <Yellow (Delete)> button, you will see the confirm message. Press <OK/EXIT> button to delete or cancel this operation.

DVP	2MUR OF CHARMEN	100	
DVD-	T/T2 SETU	P	
Ξ¥.	CH	Frea	Band Width
			8MHz
An	e you sure ?		8MHz
			8MHz
OK:Del	ete, EXIT:Cano	el	8MHz
			8MHz
Add	Delete	•	210
	Ar OK:Del	Are you sure ? OK:Delete, EXIT:Canc	Are you sure ? OK:Delete, EXIT:Cancel

PID infomation: Press <Blue(PID)> button to check the PID information of the Frequency.

Band Width Antenna setting	2H =67 /-PID	Freq 760	Band Width
Antenna setting	Contract of	787	OLILIA
The second s	/-PID		
Network Search		8191	MPEG2
	A-PID	8191	MPEG
TP Scan	P-PID	8191	
	E62 E63 E64	802 810 818	8MHz 8MHz 8MHz
	65	826	8MHz

2) Antenna setting:

Press <Left/Right> button to select antenna power 5V/12V/24V

3) Network Search:

Press <Left/Right> button to select Network Scan mode ON/OFF.

4) Scan the possible frequency and bandwidth to receive the programs, then Press <Up/Down> button to TP Scan or Auto Scan.

Note: In the course of signal searching, you can see the bar meter of the LEVEL and C/N, at the same time the LOCK light will come on with the speaker notification

• TP Scan:

Scan transponders one by one on default frequency and bandwidth.

- Press <Up/Down> button to TP Scan.
- Press <Left/Right> button to select TP Scan mode.
- Press <OK> button, one message box will be displayed

	DVB-T/T	2 SETUP		
Frequency	1	E21	4740	//Hz
Band Wetth	2		10MHz	
Antenna Network TP Scal	OK: Scan;	Exit Abort		жя •
Auto Scan	Auto Scan		All	
64QAM Guard	d=1/4 Mode	=2K FEC=7/8	30	
Level C/N	0			77dBuV 32.0dB
F1: Mode F2	Spectrum	T/R: MUTE	on i	

Press <OK> button to delete the existing program and start the TP Scan. Or press <Exit> button to save the existing program and start the TP Scan.

P	rogram Search	10000
TV 0000	Radio:0000	
474MHz BW[8MH	Hz]	1/1
EXIT: Cancel Scan, OK	C Skip	

• Auto Scan:

Scan all range of frequency and bandwidth.

It costs time to do Auto Scan, user can press <OK> to skip or <EXIT> to exit at anytime

- Press <Up/Down> button to Auto Scan.
- Press <Left/Right> button to select Auto Scan mode.
- > Press <OK> button, one message box will be displayed

01114	SETU	P	
	E	21 474	MHz
		RAAHZ	4
			Diff
K: Scan; E:	kit: Abort	i.	
			1
	4	All	
/4 Mode=2	K FEC*	7/8	
		-	77dBuV
			32.5dB
	/4 Mode=2	K: Scan; Exit: Abor 4 Mode=2K FEC= bectrum T/R: MUT	C Scan, Exit: Abort

Press <OK> button to delete the existing program and start the TP Scan. Or press <Exit> button to save the existing program and start the Auto Scan.

-11		
P	rogram Search	10000
TV 0000	Radio:0000	
474MHz BW[8M	Hz]	1/1
EXIT: Cancel Scan, Of	< Skip	

5) Signal information:

Press F1 to display the signal information. You can see the bar meter of the LEVEL and C/N. Press <Left/Right> button to change volume, T/R button to mute.

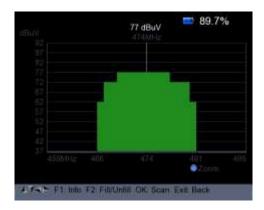
RMATION	1000
77 dBuV	70%
32.2 dB	79%
BER	< 10E-07
	31.219dB 52MHz
	32.2 dB BER

6) Spectrum:

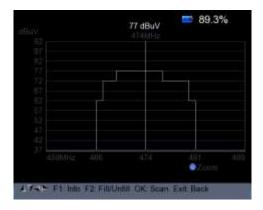
> Press F2 to display the spectrum information

67		
67		
÷0.		
47.		
42		
177.5 -220.5 474MF	074M	neemala
		●Zoom
A FAIL F1 Into F2 FilbUn	an Dir Senn Se	a llack

Press <Blue (Zoom)> button to zoom in/out the frequency



> Press F2 button to fill or unfill the spectrum as following picture.



7) Constellation:

Press <Yellow> button to display the constellation as below

1	DVB-T/T2	Curk	atto	liai		-		
Freq	474 MHz							
Band Width	8MHz							
Constellation	54QAM							
Level dBuV	67	- f.						
C/N dB	26.8							
bBER.	< 1x10-7							
BER	< 1x10-7							
MER dB	29.819							
Level C/N							146 146	

3. DVB-C SETUP

Press OK on the **DVB-C setup**, then the following figure appears.

DVB-0	CSETUP
Frequency	E24 498MHz
Symbol Rate	6875 Ksps
Constellation	64QAM
Network Search	On
TP Scan	All
Auto Scan	All
Level C/N	68dBuV 39.8dB
F1: Mode F2: Spectrur 0/13V	n T/R: MUTE

1) Frequency:

Press <Left/ Right> button to select the frequency and the corresponding Symbol rate and Constellation will be showed on the screen automatically.

Press <OK> button to enter the Frequency list. Press <Up/Down> button to select frequency one by one, press <Left/Right> button to select page by page

DVB	-C SET	UP		
Frequency	CH	Freq	SR	Constellat
Symbol Rate	E24	498	6875	64QAM
Constellation	E25	506	Auto	Auto
Network Search	E26	-514	Auto	Auto
TP Scan	E27	522	Auto	Auto
Auto Scan	E28	530	Auto	Auto
	E29	538	Auto	Auto
	E30	546	Auto	Auto
	E31	554	Auto	Auto
	E32	562	Auto	Auto
Sedit Sedit	Dele	fe.	e Pit	i

Edit frequency: Press <Red (Edit)> button to edit the frequency by numeric numbers. Press <Up/Down> button to select the Band Width. And then Press <OK> button to confirm the operation and save the result. Or press< EXIT> button to cancel the operation.

Frequency	- P.1	CH	Freq		Constellati
Symbol Rate		21		6875 Auto	
Constellation		22		Auto	
		Z3	136.5	Auto	Auto
Network Search		Z4	142.5		
TP Scan		Z5	149.5		
Auto Scan		Z6 DS6		Auto	Auto
		DSS	170.5	Auto	Auto

Add frequency: Press <Green (Add)> button to add the frequency by numeric numbers. Press <Up/Down> button to select the Band Width. And then Press <OK> button to confirm the operation and save the result. Or press <EXIT> button to cancel this operation.

DV	B-C SET	UP	-	
Frequency	СН	Fred	SR	Constella
Symbol Rate Constellation Network Search	E69	858 0	Auto 6875	
TP Scan Auto Scan				
🖲 Edit 🛛 🖨 Add	Dele	te	• PI	1

Delete frequency: Press <Left/ Right> button to select option, and then press <Yellow (Delete)> button, you will see the confirm message. Press <OK/EXIT> button to delete or cancel this operation.

	DVD	CET	10		
-	DVB	-C SET	JP		in particular
Frequency	i.	CH	Frea	SR C	onstellat
Sym					Auto
Con	Are	you sure '	?		Auto
Netv					Auto
TP 5	OK:Dele	ste, EXIT:C	ancel		Auto
Auto					Auto
		S03	115	Auto	Auto
		S04	123	Auto	Auto
		S05	131	Auto	Auto
		S06	139	Auto	Auto
Edit	a Add	Delet	te	PID	

Press <Blue(PID)> button to check the PID information of the Frequency.

DVB	-C SETUP	
Frequency	CH Freq	SR Constella
Symbol Rate	S.6 526	Auto Auto
Constellation	V-PID 81	91 MPEG2
Network Search	A-PID 81	91 MPEG
TP Scan	P-PID 81	91
Auto Scan	525 1/25	1 10100 1 10110
	S03 115	Auto Auto
	S04 123	Auto Auto
	S05 131	Auto Auto
	S06 139	Auto Auto
Edit 🔹 Add	Delete	PID

2) Network Search:

Press <Left/Right> button to select Network Scan mode ON/OFF.

3) TP Scan:

Scan transponders one by one on default frequency and bandwidth.

- Press <Up/Down> button to TP Scan.
- Press <Left/Right> button to select TP Scan mode.
- > Press <OK> button, one message box will be displayed

	DVB-C	SETUP		
Frequency		S-6	52.5M	Hz
Symbol Pate			Auto	_
Constel				
Network	OK: Scan;	Exit Abort		
TP Scal				
Auto Scan			All	
Level C/N	-			0dBuV 0.0dB

Press <OK> button to delete the existing program and start the TP Scan. Or press <Exit> button to save the existing program and start the TP Scan.

18 April 2017 / 14 : 26	+77.73C	100.0%
INFO	ORMATION	1000
Lovel	67 dBuV	60%
C/N	39.8 dB	94%
PER < 10E-07	BER	< 10E-07
498MHz	64QAM 6875 I	Ksps
F1 Mode OK Scan	Exit: Block:	T/R MUTE

4) Auto Scan:

Scan all range of frequency and bandwidth.

It costs time to do Auto Scan, user can press <OK> to skip or <EXIT> to exit at anytime

- > Press <Up/Down> button to Auto Scan.
- Press <Left/Right> button to select Auto Scan mode.
- > Press <OK> button, one message box will be displayed

	DVB-C	SETU			
Frequency			E24 498MHz		
Symbol Rate	2	RR75 Ksps		0 5	
Constel			on a subsection of the section of th	A.	
Network	OK: Scan;	Exit: Abd	irt		
TP Scal					
Auto Scan		4	All		
Level C/N				72dBuV 39.3dB	
F1: Mode F2	: Spectrum	T/R: ML	TE		
0/13V		Conste	llation		

Press <OK> button to delete the existing program and start the TP Scan. Or press <Exit> button to save the existing program and start the TP Scan.

	📼 20.2% 🍠	
P	rogram Search	
TV:0000	Radio:0000	
498MHz	171	
EXIT: Cancel Scan, OK	Skip	
TRANSPORT STREET		

5) Signal information:

Press F1 to display the signal information. You can see the bar meter of the LEVEL and C/N. Press <Left/Right> button to change volume, T/R button to mute.

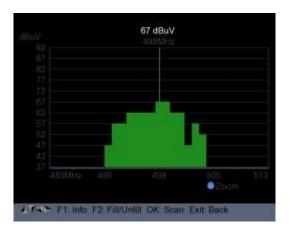
18 April 2017 / 14 : 26	+77.73C	100.0%
INFO	ORMATION	
Level	67 dBuV	60%
CN	39.8 dB	94%
PER < 10E-07	BER	< 10E-07
498MHz	64QAM 6875	Ksps
F1 Mode OK Scan E	Exit Back	T/R MUT

6) Spectrum:

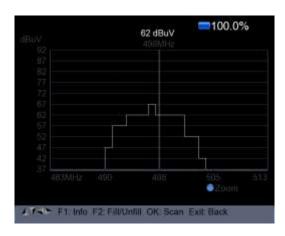
	408MHz	
		868MH Cocim
	OK: Scan Ex	

> Press F2 to display the spectrum information

Press <Blue (Zoom)> button to zoom in/out the frequency as following picture



Press F2 button to fill or unfill the spectrum as following picture.



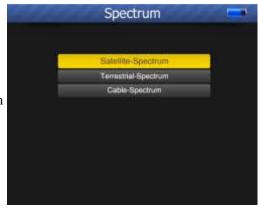
7) Constellation:

Press <Yellow(constellation)> button to display the constellation diagram as following picture.

Freq	498 MHz				
SR	6875 Ksps				
Constellation	64QAM				
Level dBuV	72				
C/N dB	39.8				
bBER	<1x10-7				
aBER	<1x10-7				
	30.019				

4. SPECTRUM

- Satellite Spectrum
- Terrestrial Spectrum
- Cable Spectrum



Reference the spectrum function in the DVB-S/S2, DVB-T/T2 and DVB-C SETUP menu.

Satellite - Constellation
Satellite - Constellation
DVB-S/S2 Constellation
DVB-T/T2 Constellation
DVB-C Constellation
Cable - Constellation

Reference the Constellation function in the DVB-S/S2, DVB-T/T2 and DVB-C SETUP menu.

6. CCTV MONITOR

Press AV IN/OUT button to activate the CCTV monitor function when the camera is connecting with the meter.

The following diagram is the connecting instruction.



NOTE: This function just can be working when the camera is connecting.

7. NETWORK

Ethernet cable must be connected when using this fucntion. Press OK on NETWORK to enter the network setting.

Net	work Setting
Device	Wired Ethernet
Mode	On
Туре	Static IP
IP Address	192 168 6 .117
Subnet Mask	255 255 255 0
Gate Way	192 168 6 1
DNS1	202.96 .128.68
DNS2	0 0 0
MAC	00 00 DE AD BE E
	Unplug !

Network will be connected after your correct setting. As following picture displayed.

Device	Wired Ethernet
Mode	On
Туре	DHCP
IP Address	192 168 6 116
Subnet Mask	255 . 255 . 255 . 0
Gate Way	192 168 6 .1
DNS1	192 168 6 .1
DNS2	0 0 0
MAC	00 : 00 : DE: AD: BE: EI
	Connected !

7.1 SAT>IP

After the network setting, you can exit from the main menu, and then press SAT>IP button to enter the SAT>IP channel watching, as following picture displayed.



Press <Blue(Find)> button to enter the server information interface.

ICON	
X_SATIPCAP	
UDN und	48353835 3132-3736-3538-28578EED1488
sarialNumber	0420160323AACH585127668WCVU
modelNumber	DS-7804HGH-F1/M
modelName	DS-7804HGH-F1/M
modelDescription	Digital Video Recorder
manufacturerURI,	http://www.hikvision.com
manufacturer	hikvision
friendlyName	DS-7804HGH-F1/M 192.168.6.113
deviceType	urn schemas-upnp-org device EmbeddedN
LOCATION	http://192.168.6.113.80/upripdevicedesc.xm

And then press OK button to search the SAT>IP channel list. In this moment, also you can connect a USB disk to the meter. After the channel list searching, there is a copy file of the list will be created in the USB disk with the name of M3U.



Also the meter can read the channel list from the USB disk if you have ever stored or created a list in the USB disk before, and the list should be with file name M3U or file suffix m3u.

8. OTHERS

Press OK on OTHERS then the following window appears. The menu consists of 7 menu options as shown below:



Note: Some menu options relate to the USB and PVR function, external Hard-Disk-Drive must be connected to the USB port of the device.

8.1 MEDIA PLAYER



Check the information from the external hard drive which you connected to the meter.

Use <Up/Down> and OK button to select the recorded program for playing back and view the pictures.

8.2 HDD MANAGE

Select the **HDD MANAGE** in main menu and press OK. The following picture will be displayed.



1) Press the $\langle \text{Red}(0/22\text{K}) \rangle$ button to unmount the external hard drive

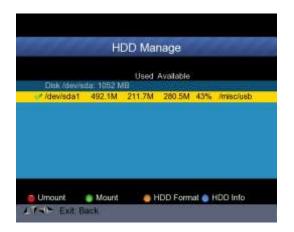
2) Press the <Green(H/V)> button to mount the external hard drive again.

3) Press the <Yellow(Spectrum)> button to format the external hard drive. A warning bar will be displayed as following picture.

HD)D Manage
Disk /de	Used Available
	ise Umount first I

4) After unmount the external hard drive, press the YELLOW button again to format.

5) Press the <Blue(Find)> button to display the information of the hard drive. As following picture shown.



8.3 UPGRADE

This function can be used to store and update satellite data, Also can be used to upgrade main program of the meter.

8.3.1 Satellite information update

Connect a USB disk to the meter first, then you can enter the **UPGRADE** function. The following picture will be displayed.



1) Press the <Blue(Find)> button to backup the satellite information, satellite list, channel data and so on.

2) Press the $\langle \text{Red}(0/22\text{K}) \rangle$ button to display the firmware in the hard drive and press OK button to upgrade the firmware .

3) Press the <Green(H/V)> button to display the channel data in the hard drive and press OK button to upgrade the channel data.

4) Press the <Yellow(Spectrum)> button to display the all data including the firmware and channel data.

8.3.2 Main Program upgrade

After receiving the main software from supplier, put the software (IMX format) into the USB disk and connect to the device. Select the UPGRADE in the menu, following picture will be shown

Move the cursor to the IMX file and press OK, then the device starting to upgrade. After upgrading, the device will be power off automatically. You can power on the device again. Also, there is another way to upgrade the main software. Upgrade Software via USB port automatically.

1) Press $\langle ON/OFF \rangle$ Button ,turn off the device Then Insert USB disk .

2) Press <ON/OFF> button ,turn on the device ,The device will automatic identification the Software.

3) The LOCK light flashed, that is software upgrading now .

4) The LOCK light constant light. Software upgrade have been completed .

5) Press <ON/OFF> Button ,turn off the device, Pull out the USB disk. Upgrade was completed.

8.4 CHANNEL LIST EDIT

There are two types of program.One is TV and the other is Radio. The operation of the List and Guide at TV and Radio are the same. Press Menu button to display main menu. Select the Edit Channel List and press OK, If there are some programs stored in the Device. User will see the TV list menu as below :





You can manage the stored channels ,TV and Radio Channels. Sort, Fav, Edit and Delete them very easily.

1) To sort a channel:

(1) Locate the channel you want to sort. Press the $\langle \text{Red}(O/22K) \rangle$ button. You will get four ways to sort the channel by Name, Table, LCN and Manual .

(2) Press <Blue(FIND)> button, one message box will be displayed.



Input the serial number by using the numeric keys . Press the <OK> button .The channel will change sequence.

2) To set favorite channels : Press <Green(H/V)> button to set your favorite channes in Fav 1,2,3,4



3) To Edit Channels: Press <Yellow(Spectrum)> button to edit channels by Lock, Skip, Rename and Modify PID.



4) To delete channel: Press <Blue(FIND)> Button to delete the channel, the following picture will be displayed.



①Press Left /Right button to select page turning, Press Up/Down button to select the channel.

(2)Locate the channel you want to delete, and press $\langle \text{Red}(\text{O}/22\text{K}) \rangle$ button, the channel will be marked with the symbol "X".

③Repeat step 2 with those channels you want to delete.

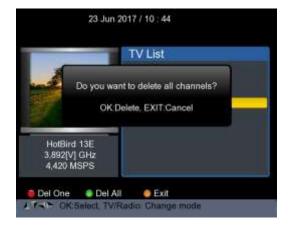
4 To confirm the deletion . Press EXIT twice, You will see a confirmation message .

⑤ Press OK key to confirm the deletion .or Press EXIT to cancel.



 $\label{eq:ress} $$ Press < Green(H/V) > button to delete all of the channels, You will see a confirmation message .$

Press OK key to confirm the deletion .or Press EXIT to cancel.



5) Channel Information

Use <UP/DOWN> or <LEFT/RIGHT> keys to move the cursor. In the meantime, Channel information: Satellite name, transponder information will be displayed on the left side .

8.5 TS RECORD

Connect the USB disk to the device, select the TS RECORD menu.

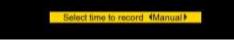


Press 0/22k red button start to record the program in TS format. Press H/V green button to stop the recording and the program will be saved to the USB disk automatically.

8.5.1 PVR function.

With the same function as the receiver, this Finder also has time shift and program recording function. USB memory device must be connected before using this function.

1. Press 0/22K button ,you will see the picture as below.



2. Then press <Right/Left> keys to select the recording time. And then press OK button to confirm the time for recording.



3. When the program is on recording, press H/V button, you will see the picture as below.



4. Then press the OK button to stop the recording. The recorded program will be saved to USB memory automatically.

5. Press AN/DG button to enter the recorded program menu. The following picture will be displayed.



Use <Up/Down> and OK button to select the recorded program for playing back.

NOTE: During recording you have the option to watch another channel, but it must be provided on the same TP. Otherwise, the following picture will be displayed.



The recording will be stopped when press OK button.

CAUTION: Do not disconnect the external hard drive while recording . It may cause damage to the recorded programs. The Finder will not display anything while the recording is on Terrestrial and Cable Program.

8.6 PARENTAL CONTROL

Select PARENTAL CONTROL to set a password to the device



8.7 ANGLE CALCULATION

Press OK on Angle Calculation then following window appears.

ANGLE CALC	omonioses e san es
Satellite	NSS 9/Yamal 300K
Sat longitude	177.0
East/West	West
User latitude	47.0
North/South	North
User longitude	2.5
East/West	East
ANGLE CALCULATION	OK

- Satellite: Use LEFT/RIGHT button to select the satellite or Press OK button to select the Satellite.
- 2) Sat longitude: Use numerical button to enter satellite position.

- East/West:Use LEFT/RIGHT button to select satellite position is East or West.
- 4) User latitude: Use numerical button to enter latitude of your position.
- 5) North/South: Indicate if latitude is North or South.
- 6) User longitude: Use numerical button to enter longitude of your position.
- 7) East/West: Indicate if longitude is East or West.
- 8) ANGLE CALCAULATION: Press OK button to calculate azimuth and elevation of dish.

9. SYSTEM SETUP

Press OK on SYSTEM then the following window appears.

SYSTE	M SETL	IP	
Menu language	•	English)
Transparency	1	0	
Time zone		GMT+2	
Display Format		Ignore	
HDMI Video Format	1080		
LCN Switch		On	
Factory Reset		OK	
Model:UHD-STC FINDER	H/W 1.0	0.	
S/W: 1.1-8002-17.4.22.11	Uptime: 4	16m43s	

- 1) Menu language: Press <Left/Right> button to Select the desired language for menu
- 2) Transparency: Press <Left/Right> button to adjust the OSD transparency of all the menu of the receiver.
- **3) Aspect Ratio:** Press LEFT/RIGHT button to choose 4:3, 16:9 (wide screen) and auto.

4) Display Format: If you select the display aspect ratio as "4:3", then also the preferred aspect ratio conversion scheme for cases in which the transmitted Programme is in "16:9" format can be chosen.

The options are:

- Pan & Scan: The receiver interprets pan & scan vectors encoded in the Programme and crops the 16:9 input signal for display on 4:3 TV.
- ② Letterbox: In this mode the original aspect ratio of the 16:9 input video signal is preserved, thus there are vertical black bars on the top and bottom of the screen.
- ③ Ignore: Use this setting, if your TV set handles the aspect ratio conversion.
- 5) Video Format: Please choose from the available resolutions 1080p / 1080i, 720p or 576p.
- 6) Factory reset: Select Factory reset and Press <OK>button to start reset, You will see a dialog box display on the screen ,The default password is 0000, When the correct password is entered. The device factory reset automatically .All Parameters are reset to Factory Programming.

SYSTE	M SETUP
Menu language	English
Transpi Time zc Enter PIN	2
Display HDMI Video Format	1080i
LCN Switch Factory Reset	On OK
Model UHD-STC FINDE Last Update: 2017 4 17	
	R S/W:1.0-8001 H/W:1.0 10 Uptime: 23m10s

E. Itelinical S	pecifications			
System capabilities	Fully DVB compliant	Yes		
	Connector	F type		
	Frequency Range	950MHz-2150 MHz		
LNB/TUNER	Signal Level	-65dBm~~-25dBm		
Input	LNB supply	13/18V.,max500mA		
	LNB Switch control	22KHz		
	DiSEqC	Ver 1.0 / Ver 1.1/Ver 1.2		
	Front End	S: QPSK		
6/62	Front End	S2: QPSK, 8PSK		
S/S2	Symbol Rate	1 <rs<45m band<="" td=""></rs<45m>		
Demodulator	SCPC and MCPC	Yes		
	Spectral inversion	Auto conversion		
	Connector	F type		
RF TC/TUNER	Frequency Range	48MHz-862 MHz		
Input	Signal Level	-87dBm~~-20dBm		
	ANT supply	5V/12V/24V., max50mA		
		T2: QPSK,16QAM,64QAM,256		
	Front End	T: QPSK, 16QAM,64QAM		
T/C Demodulator		C: 16,32,64,128,256QAM		
	Channel Bandwidth	6,7,8MHz		
	Symbol Rate	C: 0.2Mbps~~7.2Mbps		
	Processor	751MHz		
System resource	SDRAM	512Mbyte DDR3		
	FLASH	1MBytes SPI + 128MBytes Nand		
Video Decoder	H.265/HEVC/AVC/AVS+, AVC/H.264, MPEG-2, MPEG-4 Part 2, DivX, Xvid, MPEG-1/H.261/H.263, AVS			
	Resolution	HDMI2160P,1080P,1080i.720P,576P, 576I		
Audio Codec		E, WMA/WMApro, MPEG I Layer 1, 2, MP3, 3D SRS		
Serial interface	Connector	USB type		
Power Supply	Li-oN Battery	2600 mAh		
	Supply voltage	14 Volt		
	Charger	90-240V		
Panel connectors	Digital tuner input	F type		

E. Technical Specifications

F. Physical Specifications

Size	210 x 130 x 48mm	
Weight	0.75 kg	
Operating temperature	0 to 45° C	
Storage relative humidity	5 to 90%	
		_

Weight and dimensions are not absolutely exact values. The battery life will be shorten if using in the extremely cold or hot weather.

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.

The battery should be stored within a temperature range of 0^* to 40^* .

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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