

# CT-IT09 COMBO

Digital Satellite &  
Terrestrial Combo Meter

THE PROFESSIONAL EQUIPMENT  
**USER'S MANUAL**

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## Product Description

It is a battery powered hand held Satellite adjustment meter demodulating DVB-S and DVB-T Signal. It's very convenient for installer to catch the signal quickly and accurately and adjust the antenna to the best position.

It's with microprocessor controller, reliable and stable performance. When it's turned on, channel picture, Signal Strength and Signal Quality can be showed on LCD Screen after you set up your local DVB-S or DVB-T Parameter. Also, it enables you to select large menu window for data figure which is helpful for adjustment.

It shows Azimuth and Elevation, CBER/VBER, Singal Quality, Signal Strength and signal lock sound for DVB-S, And for DVB-T channel picture, Signal Strength and Signal Quality can be showed on LCD Screen after you set up your local DVB-T Parameter. Also, it can at most show five channels' signal at the same menu which is very helpful for adjustment.

For DVB-S it can detect very faint signal, and supports antenna power OFF/13V/18V selectable and it's with auto-protection for LNB short-circuit.

For DVB-T it can detect very faint signal, and supports antenna power OFF/5V/12V/15V/18V/24V selectable and it's with auto-protection for antenna short-circuit.

It includes both AV IN and AV OUT for Camera, monitor...etc

It's used with 12V Power Adaptor when you need to use external power.

It includes high capacity Lithium Battery 8.4V 3000mAh which works for more than 4 hours after it's fully charged.

# 1.GUIDE

## 1.1Face Panel & Button



NO.	Name	Function
1	MENU	To show main menu or return to previous menu
2	F1	Function Button
3	F2	Function Button
4	F3	Function Button
5	F4	Function Button
6	EXIT	To cancel selection or exit from current menu
7	▲▼▶▶ OK	Arrow for Cursor Moving OK for Confirming
8	Mute	Sound On/Off Switching
9	SCAN	Quick search for DVB-S
10	M.INFO	Show 5 channels signal information for DVB-T
11	TV/Radio	Switch between TV Channel and Radio Channel
12	B.Light	For LCD Screen on or off switching
13	+/-	To turn on or off the sound for signal quality
14	INFO	Show information of current program
15	Antenna IN	Connecting to the antenna for DVB-T
16	Power Switch	Power Switch for machine power
17	USB Port	Port for Upgrading or connecting to multimedia
18	LNB IN	Connecting to the dish for DVB-S
19	Power Connection port	Port for power charging
20	Power Indicator Light	The light is on when meter is turned on
21	22K Switch Indicator Light	22K Switch is on when it lights
22	13/18V Indicator Light	To show H/V switch output
23	Signal Lock Indicator Light	Locked signal when it lights
24	Charging Indicator Light	The light is on when it's charging and off when charging is completed.
25	0-9 Numerical Button	To input numer for setting parameters
26	LCD Screen	Show menu and TV program...etc

## 1.2 Power On/Off

To turn on the meter when Power Switch moves to I position.

To turn off the meter when Power Switch moves to 0 position.

Please turn off the meter to charge the meter in time when system information for showing low power pops up.

## 1.3 Power Supply and Battery

It's used with 12V 1.5A Power Adaptor. It charges through external power when battery is out of power.

It's used with 8.4V 3000 mAH Lithium Battery. It needs 6 hours charging time by connecting power adaptor with external power or car charging. After it's full charge, it works for more than 5 hours (It also depends on the load of external antenna).

**Notice:** For initial charge, please make battery fully-charged(We suggest it charge for 8 hours).

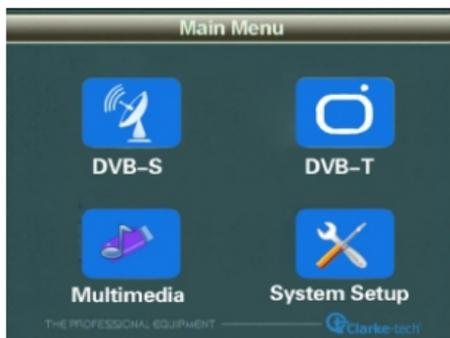
## 2.MENU

Press “MENU” key to enter into main menu, and

use Arrow key to move cursor, and then press “OK” key to select sub-menu.

## 2.1 DVB-S

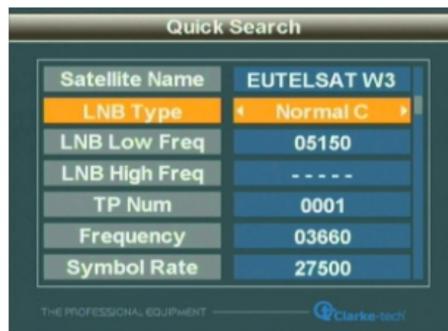
select DVB-S and press OK to enter DVB-S system



### 2.1.1 Quick Search



Press OK to the sub-menu



### 2.1.1 .1 Satellite Name

To select the satellite name for receiving signal

### 2.1.1.2 LNB Type

Select LNB Type

### **2.1.1.3 LNB Low Freq/ LNB High Frequency**

Use the numerical button to input Freq Value of LNB

### **2.1.1.4 Frequency**

Use the numerical button to input Freq Value of Frequency.

### **2.1.1.5 Symbol Rate**

Use the numerical button to input Value for  
SYMBOL RATE

### **2.1.1.6 Polarity**

Choose Polar Mode(OFF/13V/18V)

### **2.1.1.7 LNB Power**

Choose LNB Power type (OFF/13V/18V)

### **2.1.1.8 22K Tone**

Choose 22K TONE(ON/OFF)

### **2.1.1.9 Longitude**

Use the numerical button to input Longitude of Satellite

### **2.1.1.10 My Longitude**

Use the numerical button to input Longitude of  
Local Region

### **2.1.1.11 My Latitude**

Use the numerical button to input Latitude of Local Region

**2.1.1.12** Set parameters, and press “OK” button to enter the Sub-menu, and then adjust the dish according to the interface parameters.



### 2.1.1.13 TP Scan

Scan all programs of the current frequency, and automatically store them after scanning, and then return back to the previous menu.



#### 2.1.1.14 Scan All

Scan all programs of all channels, and automatically store them after scanning, and then return back to the previous menu.

#### 2.1.1.15 Zoom

Use ◀ ▶ button to select Zoom, and press “OK” button to enter the Sub-menu, and then adjust the dish to the best direction.



## 2.2 Satellite Install



### 2.1.2.1 Sat Manager

Press “OK” button to enter the Sub-menu, and then set the state of the dish

#### 2.1.2.1.1 Switch Type

Press ◀ ▶ button to choose Switch Type(NONE, DiSeqC1.0/1.1, DiSeqC 1.2/USALS)

##### 1、DiSeqC 1.0/1.1

Use ◀ ▶ button to select LNB1/LNB2/LNB3/LNB4



Press “OK” button to enter the Sub-Menu, Press “▲▼” Edit parameter.



Press “F1” button to enter the Sub-Menu, select satellite.



Press OK to finish setting DiSeqC1.0/1.1

## 2. DiSEqC 1.2/USALS.

Press “F1” button to enter the Sub-Menu, and then make operations according to the instructions , Edit parameter.



Press “F2” button to enter the Sub-Menu, and then make operations according to the instructions , Edit parameter.



Use ▲▼ button to select Postion 01/Postion 02/Postion 03/  
Postion 04



### 2.1.2.1.2 Toneburst

Press ◀ ▶ button to choose Toneburst mode (OFF/ON).

- 1、 Switch Type on NONE



## 2、 Switch Type on DiSEqC 1.0/1.1



### 2.1.3 TP Manager

Press “OK” button to enter the Sub-Menu, and then make operations according to to the instructions.



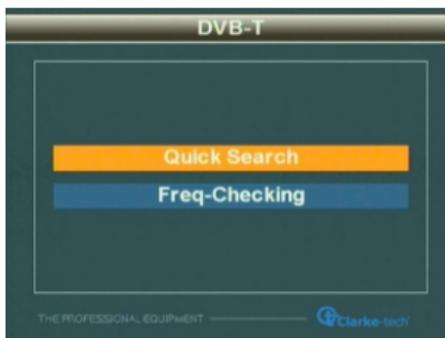
## 2.2 DVB-T

Press “MENU” to enter into main menu, and use Arrow key to move cursor, and Select DVB-T, and then press “OK” enter DVB-T system.

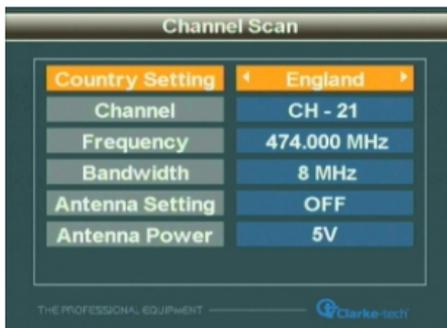


### 2.2.1 Quick search

Press OK to enter the sub-menu



## 2.2.1.1 Quick Search



### 2.2.1.1.1 Country Setting

To select country to receive signal

### 2.2.1.1.2 Channel

To select channel type to be received

### 2.2.1.1.3 Frequency

To set frequency for receiving signal by inputting frequency value with numerical keys

### 2.2.1.1.4 Bandwidth

To Select Bandwidth 6M/7M/8M based on your local region.

### 2.2.1.1.5 LCN

Select LCN ON or LCN Off

### 2.2.1.1.6 Antenna Setting

To select antenna power ON/OFF

### 2.2.1.1.7 Antenna Power

To select antenna power voltage (OFF/5V/12V/15V/18V/24V)

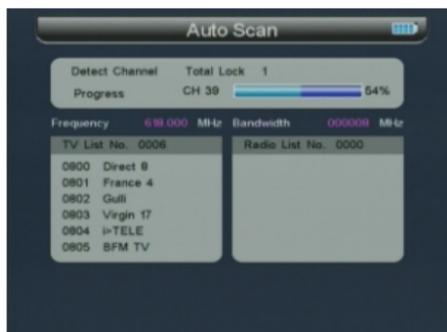
### 2.2.1.1.8

To set parameter, and press “OK” to enter into sub-menu.



#### 2.2.1.1.8.1 Scan

To scan all the channels of current frequency, and it auto-restores the scanned channels, and then return to previous menu.



### 2.2.1.1.8.2 Scan All

To scan all channels, and it auto-restores the scanned channels, and then return to previous menu.

### 2.2.2 Freq-Checking



### 2.2.2.1 Move

Press ▲▼ button to move Cursor

### 2.2.2.2 Select

Press ◀▶ button to local channel, and tick the box to select it.

### 2.2.2.3

Press OK button to enter into multichannel display.

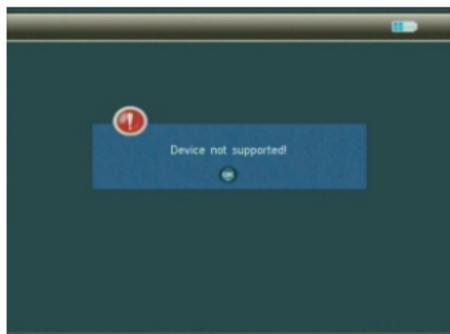
Each screen display signal indicators of five channels, and press ◀▶ button to PGUP or PGDOWN.



## 2.3 Multimedia



For Multimedia, the external memory should be inserted into USB port. Otherwise, “Device not supported” will pop up on the window.



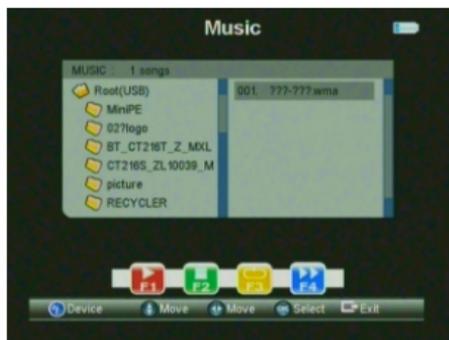
### 2.3.1 Photo

Previewing the pictures in JPG format, and make operations according to its instructions.

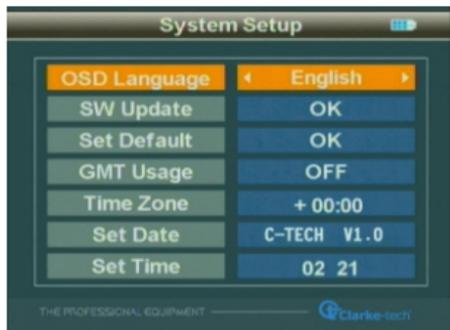


### 2.3.2 My Music

Play the Music in MP3 format, and then make operations according to its instructions.



## 2.4 System Setup



### 2.4.1 OSD Language

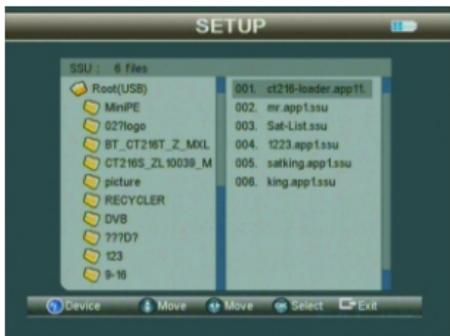
Set OSD Language

### 2.4.2 SW Update

To upgrade SW or Data through USB port.

To store the upgrading file in the external memory, and insert it into USB port, and then enter upgrade menu.

To select the file, it will automatically return back to the previous menu after upgrade.



### 2.4.3 Set Default

Press “OK” button to set Factory Default.

### 2.4.4 GMT Usage

Set the GMT parameter

## 2.5 Shortcut Buttons

2.5.1 Press “OK” button to enter the Sub-menu when it's playing programs, and make operations according to its instructions.



2.5.2 Press “F1” button to enter the Sub-menu when playing programs, and make operations according to its instructions.



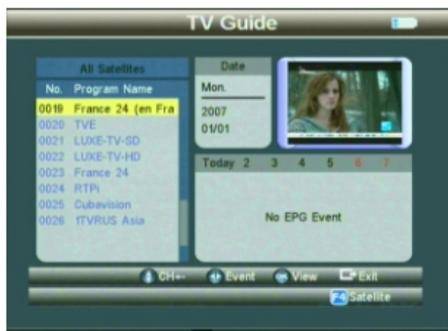
2.5.3 Press “F2” button to enter Sub-menu when playing programs, and make operations according to its instructions.



2.5.4 Press “F3” button to enter the Sub-menu when it's playing programs, and make operations according to its instructions.



2.5.5 Press “F4” button to enter the Sub-menu when it's playing programs, and make operations according to its instructions.



## Specifications

System Capabilities		Fully DVB-S & DVB-T Compliant	Yes
Antenna input	DVB-S	Connector	F type, Female
		Frequency Range	950MHz-2150MHz
		Signal Level	-65dBm--25dBm
		LNB Powewr	13/18V,Max350mA
		LNB Switch Control	22KHz
		DiSEqC	Ver 1.0/ 1.2
	DVB-T	Connector	IEC Female 9.5mm
		Frequency range	VHF and UHF
Bandwith		8/7/6MHz	
Input impedance		75 ohm	
Demodulator	DVB-S	Front end	QPSK
		Demodulation Range	2Mbps-45Mbps
		SCPC and MCPC Capable	Yes
	DVB-T	Modulation	COFDM
		Constellation	QPSK,16QAM,64QAM
		Transmission mode	2K, 8K
		Guard interval	1/2,1/4,1/8,1/16,1/32
		FEC	1/2,2/3,3/4,4/5,5/6,7/8
System Resources		Processor	32bit processor (133MHz)
		FLASH	8Mbyte
		SDRAM	4*16Mbyte
Video Decoder		MPEG 2	MP@ML
		Data Rate	Max15M bits/s
		Resolution	720*576,720*480
		Video format	PAL/NTSC/SECAM
Audio		MPEG	MPEG-1&2
		Type	Single
		Sampling Rate	32,44.1 & 48KHz
Data Transfer		Connector	USB
Power Supply		LI-ION battery	3000 mAH/8.4V Max
		Power Adaptor	In AC 100-220V
			Out DC 12V
Physical characteristics		Size	9.5x15.5x4.5 (cm)
		Net Weight	0.5KG

## **Handling Precautions and Prohibitions of Battery in Sat Meter**

### **Warning:**

You are using Lithium ion batteries and 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.

## Product Standard Package



Car charger cable



AV cable



Power



Carrying case



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