

Matchmaster

TV Reception Systems

For the Best

12MM-DSTM1 INSTRUCTION MANUAL

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SAFETY USE

1. Consumers who using the product for the first time should read this manual carefully.
2. The LCD is not a touch screen.
3. Do not place heavy items on the device.
4. Do not leave the device near to heat sources, in direct sunlight, in places with strong mechanical vibration or dusty environments.
5. Please place the device in ventilated surroundings.
6. The device should be fully charged before using for the first time (recommend 6 hours for the first charge).
7. Contact Matchmaster Communications Pty Ltd if malfunction of the device happens.
8. Damaging the device on operation without following the guideline will not be warranted.

WARNING

1. Avoid using batteries near heat sources.
2. Do not get wet.
3. Avoid charging in heated locations or direct sunlight.
4. Charge using only charging accessories supplied.
5. When the battery is being charged by vehicle charger please ensure the polarity of the charging connection is correct.

NOTE

1. Antistatic: The battery is equipped with a protective circuit to avoid the occurrence of various accidents. Do not use the battery in the generation of static electricity as static electricity (100V or above) will easily damage the protection circuit which may lead to battery failure or damage, heat causing smoke/fire or deformation of the battery pack.
2. Charge temperature range: Recommended charge temperature range is 0-45. Charging in an environment beyond this range may cause a decrease in battery performance and reduce the life span.
3. Charging mode: Please use the supplied charger in the recommended environment for the battery charge. After discharge of the battery, please charge the battery in time. * Due to the special characteristics of the car charging, the battery cannot reach the saturation state when the vehicle is used to charge the battery.
4. First use: With the first use of the battery, if the battery is not clean or an abnormal smell or other abnormal behavior is noted, please discontinue charging and return to Matchmaster Communications Pty Ltd.
5. When the meter is not in use for a long period of time it is best to remove the battery from the device and place in a low temperature and humidity environment for optimal preservation.
6. Battery period of guarantee: The warranty period is 6 months from the date of shipment. However, if the problem is not due to the failure of the manufacturing process, but instead due to improper use or storage warranty will not be applied.

1 OVERVIEW

The 12MM-DSTM1 is an HD digital signal meter and portable device for installation and adjustment of satellite and terrestrial receiving antennas.

1.1 Features

- Combination of DVB-S/S2 and DVB-T/T2
- High resolution 5" TFT LCD
- Multi-lingual OSD and use-friendly user interface
- Supports Spectrum function
- Real time constellation display
- Support TP search and blind search
- USB 2.0 for software update/media play back
- Supports time shift
- Supports TP PVR
- Supports program edit (move/skip/lock/delete/rename)
- Supports electronic program guide (EPG)
- Supports HDTV video/audio output
- Supports AV input for monitor/camera installing
- Supports DC+12V out for monitor installing/Amplifier testing
- Ease of use via shortcut keys
- Supports RCU
- Built in loudspeaker for audio playback
- Visual and audible signal when signal received
- Built in LED light
- Large lithium battery capacity(4000mAh)

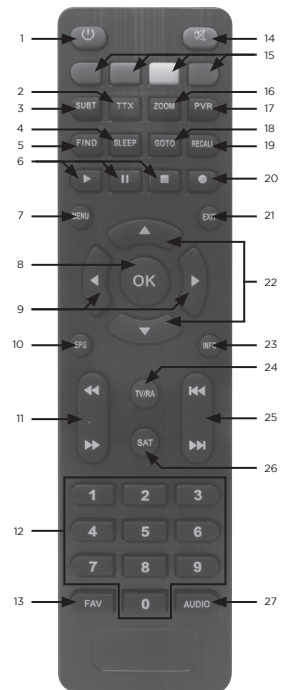
1.2 Accessories

- | | |
|------------------------------|----------------------------|
| 1x Manual | 1x Power Adapter |
| 1x Power Line | 1x Car Adaptor |
| 1x Connector F to F type | 1x Connector F to IEC type |
| 1x Connector BNC to AV | 2x AV Cable |
| 1x Remote Control Unit (RCU) | 1x Carry Bag |

2 INTRODUCTION OF PANEL FUNCTIONS

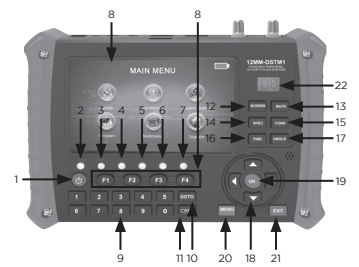
2.1 Remote Control

1. Power
2. Show the teletext content if teletext is transmitted
3. Subtitle language
4. Sleep
5. Find
6. Play, stop and pause
7. Main menu
8. Confirm the highlighted menu item. Open the channel list
9. Left and right
10. EPG
11. Fast backward and fast forward
12. Numeric key (0-9)
13. Favorite channel
14. Mute
15. Multi-coloured buttons
16. Zoom
17. PVR
18. Photo grid show
19. Recall
20. Start recording
21. Exit
22. Up and down
23. Display information
24. TV/radio
25. Play previous item and play next item
26. Satellite list
27. Audio language



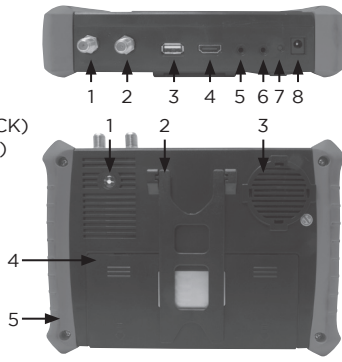
2.2 Front Panel Introduction

1. Long press for 3-4 seconds to switch the device power on/off
2. Power indicator
3. Battery indicator (Red light for charging, green light for fully charged)
4. 13V indicator
5. 18V indicator
6. 22KHz indicator
7. Signal Locked indicator
8. F1-F4: shortcut keys
9. Numeric keys
10. GOTO: Select satellite or transponder
11. DOT: use for input data, Long press 3-4seconds for turn on LED floodlight
12. SCREEN: Turn on or turn off the screen display (Long press close backlight)
13. MUTE: turn on or turn off the voice
14. SPEC: shortcut key for spectrum analyzer
15. CONS: shortcut key for constellation analyzer
16. FIND: shortcut key for satellite finding
17. ANGLE: Shortcut key for Angle calculation
18. Navigation keys: The keys offer the movement of cursor to desired position
19. OK: confirm key
20. MENU: Show main menu
21. EXIT: exit menu (main menu or sub menu)
22. Digitron : Show the current signal quality
23. LCD screen



2.3 Top Panel Introduction

1. F connector male for LNB IN
2. F connector male for ANT IN
3. USB connector
4. HD TV connector
5. AV OUT connector (3.5 PHONE JACK)
6. AV IN connector (3.5 PHONE JACK)
7. Reset key
8. DC jack (for charger)

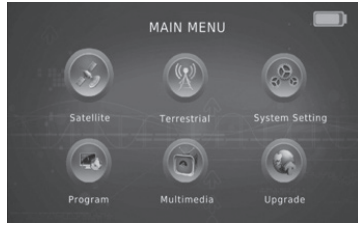


2.4 Rear Panel Introduction

1. LED floodlight
2. Stand
3. Loudspeaker
4. Battery
5. Protective rubber edge

3 DETAILED OPERATION GUIDE

When you turn on the device, you will see the main menu which consists of Satellite, Terrestrial, System Setting, Program, Multimedia and Upgrade.

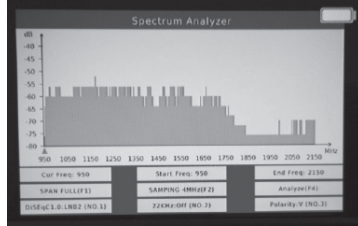


3.1 Satellite

3.1.1 Spectrum Analyzer

Move cursor to "Spectrum Analyzer" and press "OK", then you can enter the "Parameter Setting" interface.

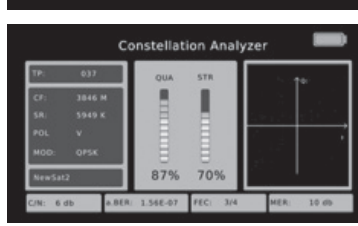
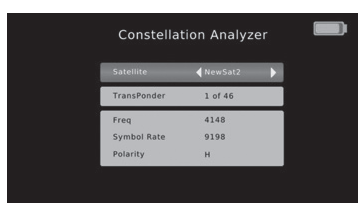
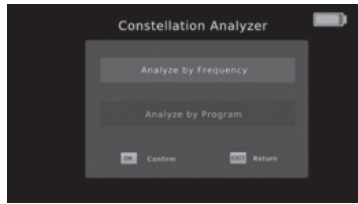
1. Press [F1] to switch SPAN of spectrum frequency, FULL as default. The smaller span will show clearer signal status of frequencies.
2. Press [F4] to pause current status.
3. Press [▲/▼] to move vertical coordinate's position.
4. Press [◀/▶] to move cursor to select frequency, the signal strength of the selected frequency will be displayed on the left-top corner.



3.1.2 Constellation Analyzer

Move cursor to "Constellation Analyzer" and press "OK", then you can enter the "Constellation Analyzer" interface.

1. Press [▲/▼] to move cursor to choose "Analyze by Frequency" and press "OK", then you can see this interface.
2. Press [◀/▶] to select satellite and you can see the Transponder changes correspondingly.
3. Press [◀/▶] to select Transponder and you can see TP frequency, Symbol Rate and Polarity change correspondingly.
4. Press "OK", then you can see the quality bar and the strength bar.
5. Under Constellation Analyzer interface (by Frequency), press [▲/▼] to switch between other Frequency of selected satellite
6. Press "EXIT" and press [▲/▼] to move cursor to choose "Analyze by Program" and press "OK", then you can see this interface.
7. Under Constellation Analyzer interface (by Program), press [▲/▼] to switch between all the searched program.
8. When a frequency with signal is detected(not locked yet), the signal strength bar will be displayed on LCD.
9. When the signal is locked, The signal quality bar will be displayed on the LCD. Meanwhile, the LOCK LED will light up.



3.1.3 Satellite Setting

Move cursor to "Satellite Setting" and press "OK", then you can enter the "Dish Setup" interface.

1. Under the Satellite list page, you can press [▲/▼] to select the satellite.
2. Press [F1] to add a new satellite through setting Satellite Name, Longitude Direction, Longitude Angle or Band.



3. Press [F2] to edit existed satellite, which is including Satellite Name, Longitude Direction, Longitude Angle and Band.

4. Press [F3] to delete existed satellite. If you press OK, the satellite will be deleted or you can press "EXIT" to exit.



5. Press [F4] to Begin Scan, with Default, Blind Scan, Network these three scan modes. When the signal is locked, the buzzer will sound with the fastest repetition. The signal quality bar will also be displayed on the LCD. Meanwhile, the LOCK LED will light up. (Press "MUTE" to close the buzzer sound if you don't want to hear it.)

6. Press [GOTO] to get into the TP list, you can also use [F1] [F2] [F3] [F4] to add, edit, delete or begin to scan the selected TP, and Press [GOTO] to return to the satellite list.



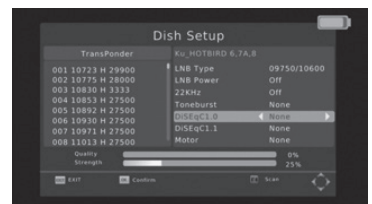
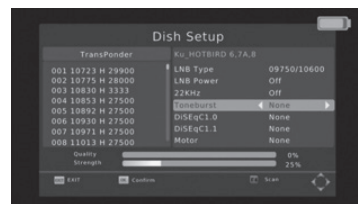
7. Select one of the satellites and press [◀/▶] to get into the LNB TYPE setting.

8. LNB Type: Press [▲/▼] to choose LNB Type between 9750/10600, 9750/10750, 05150, 05750, 09750, 10600, 10700, 10750, 11300 and 11475.



9. LNB Power: Press [◀/▶] to choose between Off/13V/(13V/18V)/18V.

10. 22K: Choose AUTO/ON/OFF.



11. Toneburst: Press [◀/▶] to choose between None/BurstA/BurstB.

12. DiSeqC1.0: Press [◀/▶] to choose between None/LNB1/LNB2/ LNB3/LNB4.



13. DiSeqC1.1: Press [◀/▶] to choose between None/LNB1-LNB16.

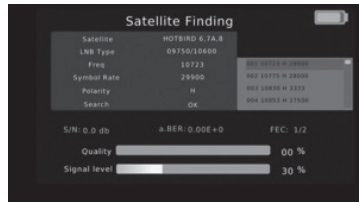
14. Motor: Press [◀/▶] to choose between None/DiSeqC1.2/DiSeqC1.3.

3.1.4 Satellite Finding

Move cursor to "Satellite Finding" and press "OK", then you can enter the "Satellite Finding" interface.



1. Press "OK" on the Satellite option, then you can see the following window. Press [▲/▼] to select the existed satellite and you can press "OK" to confirm.



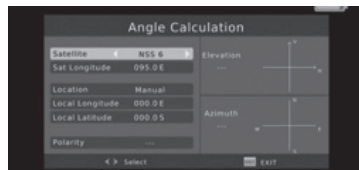
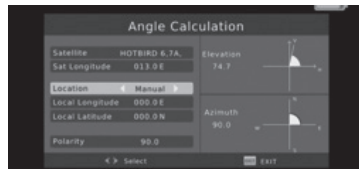
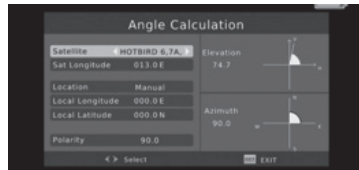
2. Press "OK" on the Freq Symbol Rate Polarity option, then you can see the following window.
3. Use the digital button to input the Frequency, Symbol Rate and Polarity manually, then you can press "OK" to confirm.
4. When a frequency with signal is detected (not locked yet), the buzzer will sound according to the signal strength, the signal strength bar will also be displayed on LCD.
5. When the signal is locked, the buzzer will sound with the fastest repetition. The signal quality bar will also be displayed on the LCD. Meanwhile, the LOCK LED will light up. (Press "MUTE" to close the buzzer sound if you don't want to here it.)
6. Press "OK" on the Search option, and the satellite finder will begin to search the channel according to the TP you select or input manually. It will switch to the Program page after the search (if there is a program on the Transponder).



3.1.5 Angle Calculation

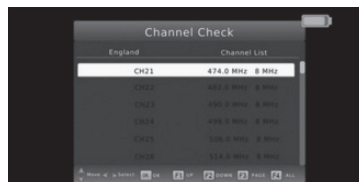
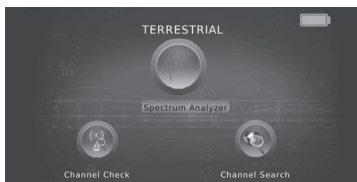
Move cursor to "Angle Calculation" and press "OK", then you can enter the "Angle Calculation" interface.

1. Press [▲/▼] on Satellite option to select the existed satellite, the longitude of the satellite will be changed correspondingly.
2. Press [▲/▼] on Sat Longitude option, then you can use the digital button to input the satellite longitude you want.
3. If you select Manual, then you can move cursor to the Local Longitude and the Local Latitude and use the digital button to input the number you want. (Press [◀/▶] to select east or west local longitude, south or north Hemisphere).
4. When a parameter has changed, the system will calculate the result and will show the picture on the screen automatically.

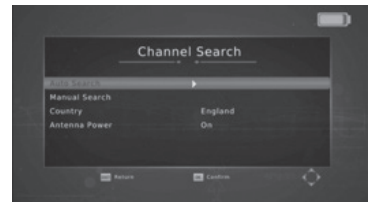
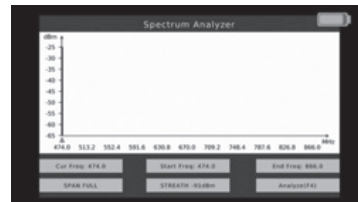


3.2 Terrestrial

Move cursor to "Terrestrial" and press "OK", then you can enter the "Terrestrial" interface.



1. Press [◀/▶] on Channel Check and press "OK", then you can see the following menu.
2. Press [◀/▶] on Spectrum Analyzer and press "OK", then you can see the following menu.



3. Press [◀/▶] on Channel Search and press "OK", then you can see the following window.

4. Press [▲/▼] on Manual Search and press "OK", then you can see the following menu.



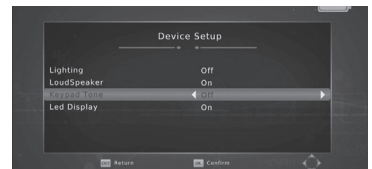
3.3 System Setting

Move cursor to "System Setting" and press "OK", then you can enter the "System Setting" interface.



3.3.1 Device Setup

1. Press [▲/▼] on "Device Setup" option and press "OK", then you can see the following menu.
2. Press [▲/▼] on Lighting, Loud Speaker or Keypad Tone option, then press [◀/▶] to choose Lighting, Loud Speaker, Keypad Tone or Led Display between "On" & "Off".

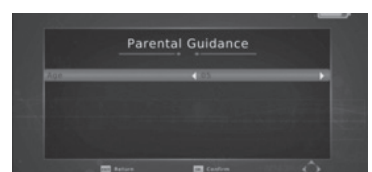


3.3.2 Time

1. Press [▲/▼] on Time option and press "OK", then you can see the following menu.
2. Press [◀/▶] to select Auto or Manual for Time Offset adjustments
3. Choose Time Zone, Date or Time when [Time Offset] is set to Manual.



3.3.3 System



1. Press [▲/▼] on System and press "OK", then you can see the following menu.
2. Press "OK" to get into the Parental Guidance (the default password is 000000).



3. Press "OK" on Set Password option to reset the user password.
4. Press "OK" on Restore Factory Default to Factory Reset.
5. Press "OK" on information option to get the hardware or software version.



3.3.4 Option

1. Press [▲/▼] on Option and press“OK”, then you can see the following menu.
2. Press [▲/▼] to choose OSD Language, Subtitle Language or Audio Language you want.



3.4 Program

Move cursor to “Program” and press “OK”, then you can enter the “program” interface.

1. Press [▲/▼] on Program Edit option and press“OK”, then you can see all the TV list.



Move

1. Press [▲/▼] on channel list, select the channels which you want to edit in channel list by press [Red/F1] Key.
2. Press [▲/▼] move the cursor to the position you want and press the [OK] key.
3. Press [EXIT] Key to save the settings.



Lock (Password: 000000)

1. Press [▲/▼] on channel list, select the channel which you want to edit in channel list by press [Yellow/F3] Key.
2. Press [Yellow/F3] Key to lock or unlock the channel.
3. Press [EXIT] Key to save the settings.



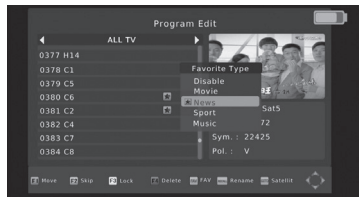
Delete

1. Press [▲/▼] on channel list, select the channels which you want to edit in channel list by press [Blue/F4] Key.
2. Press the [OK] key to sure delete the channel.
3. Press [EXIT] Key to save the settings.



FAV

1. Press [▲/▼] on channel list, select the channels which you want to edit in channel list by press [FAV] Key.
2. Press [▲/▼] choose what you want “Favorite Type” and press the [OK] key.
3. Press [EXIT] Key to save the settings.

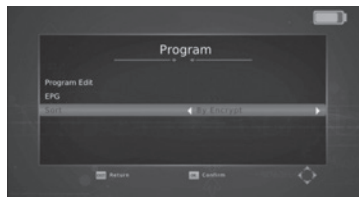


Skip and Rename

1. Follow the same way you can set the channel's Skip or give the new name.



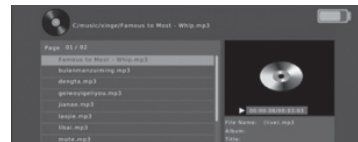
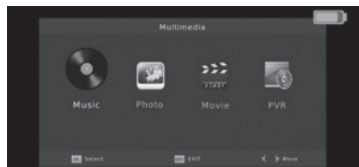
2. Press [▲/▼] on EPG option and press“OK”, here you can see the all the program guide.



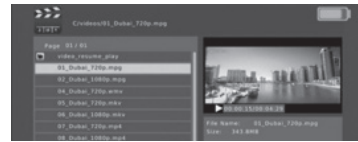
3.5 Multimedia

Move cursor to “Multimedia” and press “OK”, then you can enter the“USB” interface.

1. Press [▲/▼] on Multimedia and press “OK”, then you can see the following menu.
2. Press [◀/▶] to select the item you want to get into and press “OK” to select the file you want to play.



Music

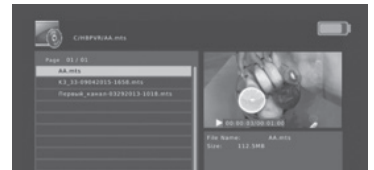


Movie

3. Press [◀/▶] to select PVR and press “OK”, press [▲/▼] to select the [HBPVR] file and press “OK”, then you can see the program you have recorded.



Photo



4. Press [▲/▼] on Photo Configure and press“OK”, then you can see the following menu. In this submenu, you can set some parameters for photo play, like slide time/mode and so on.

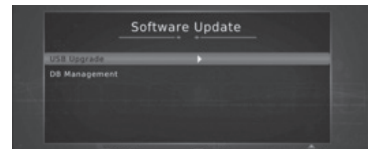
5. Press [▲/▼] on Movie Configure and press“OK”, then you can see the following menu. In this submenu, you can set some parameters for movie play, like subtitle display function and so on.

6. Press [▲/▼] on PVR Configure and press “OK”, then you can see the following menu. In this submenu, you can get the information about the USB device you insert and set the correct format for PVR.

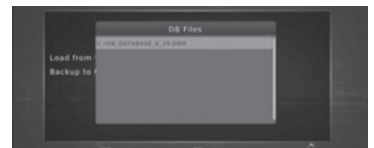
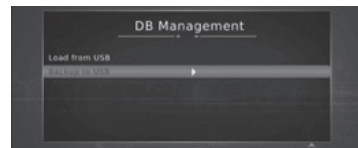


3.6 Upgrade

Move cursor to “Upgrade” and press “OK”, then you can enter the “Software Update” interface.



1. The next time if you want to restore the factory default and keep the satellites' information, you can press Backup to USB. After reset, you can see the satellites you have added.



4 TECHNICAL SPECIFICATIONS

System Resources	
Main Processor	600MHz based CPU
Flash Memory	64M Bits
DDR SDRAM	1024M Bits
Tuner/Front-end	
Tuner Type	DVB-S/DVB-S2
Input Connector	F-type, Connector, Male
Frequency Range	950MHz-2150MHz
Signal Level	-65~-25dBm
Impedance	75Ω
LNB Power & Polarization	Vertical: +13V Horizontal: +18V
	Current: Max.500mA Overload Protection
DiSEqC Control	Version 1.0/1.1/1.2/1.3, USALS Available
22KHz Tone	Frequency: 2231KHz
Demodulation	QPSK,8PSK
Symbol Rate	2-45Mpsps
Tuner Type	DVB-T/DVB-T2
Input Connector	IEC-type, Connector, Male
Input Frequency	(UHF) 470-866MHz, (VHF) 170-230MHz
Signal Level	27~-129dBμV
Impedance	75Ω
Demodulation	QPSK,16-QAM, 64-QAM, 256-QAM
Bandwidth	6,7,8 MHz
Power Supply	
Input Voltage	Free Voltage
Adapter	(100-240V AC 50/60Hz)
Power Consumption	11W MAX
Power charger	14V DC 3.0A
Battery	12.6V/4000mAh

Battery charging time	3-6H
Battery standard discharging time	>5H
A/V Data input/output	
A/V IN/OUT	Video CVBS AHD TVI CVI input/CVBS output Audio L/R input/output
Audio output	Built-in Loudspeaker
HD TV	VERI.3 interface, up to 1080p
USB	1*USB 2.0 slot Compatible for Host
Transport Stream	MPEG-2/4, H.264
Physical Specification	
LCD Display	5 inch
Size (W*H*D)	210x150x52mm
Net Weight	0.93kg
Operating	0°C - +45°C
Temperature	
Storage Temperature	-10°C ~ +70°C
Storage Humidity	5%-95% RH (Non-Condensing)