

PENTAGRAM Vanquish FM RT User's Manual

(20-04-2007)

Product number: **P 5100**

The newest versions of manual, drivers and applications are available to download on www.pentagram.eu

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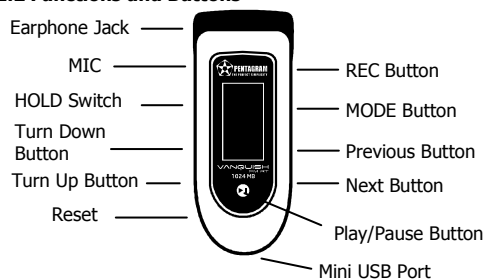
1. Introduction

Thanks for purchasing PENTAGRAM Vanquish FM RT. MP3 Player is a new type of portable digital music player, perfectly combines digital music playing, FM transmission, recording, FM tuner and removable disk, etc.

1.1 Features

- FM transmission function
- Dichromatic OLED display
- Rechargeable battery
- Support intelligent (forced) charge
- Support MP3, WMA file
- Support A-B repeat, multiple sound/playback modes
- Synchronously Lyric (LRC file) display
- Perfectly combines MP3 Player with stereo set
- Built-in FM tuner
- Support VOICE (optional) and FM recording
- Built-in flash memory
- Effectively prevent misoperation with **HOLD** switch
- Built-in Mini USB port
- No driver installation required (except on Windows 98/98SE)
- Firmware update

1.2 Functions and Buttons



2. Usage on the Computer

2.1 Connecting with the Computer

PENTAGRAM Vanquish FM RT connects with the computer through USB cable. Connect standard port of USB cable to the computer, Mini port to PENTAGRAM Vanquish FM RT.

2.2 Utilities Installation

PENTAGRAM Vanquish FM RT Utilities includes Windows 98/98SE driver and Firmware Download tools.

The installation steps of Utilities are as the following:

- 1) Download the installation file from PENTAGRAM website.
- 2) Double click the installation file "Setup.exe", the system would install Utilities automatically. The tool would appear in "Programs" of "Start" after installation.

2.3 Data Transferring

- 1) Boot your computer, connect Vanquish FM RT with the computer.
- 2) The OLED screen displays "READY" to prompt the connection status after connected.

- 3) **Windows 98/98SE/Me/2000/XP/Server 2003:** Double click "My Computer", you would find a new icon named "Removable Disk", representing PENTAGRAM Vanquish FM RT. A new icon would appear at the taskbar on Windows Me/2000/XP/Server 2003, representing Vanquish FM RT.

Mac OS 10.2 or above (Mac OS 10.3.2 e.g.): A new icon named "NO_NAME" would appear on the desktop of your computer, representing Vanquish FM RT.

Linux 2.4.2 or above: Enter the system by user "root" and input the command "mount /dev/sda /mnt". This command is to create a directory where Vanquish FM RT would be mounted.

Note: "sda" is an unfixed input item, please make relevant changes according to Linux operating discipline.

- 4) Then you can copy, delete, or edit data, just as on a traditional hard disk.

2.4 Disconnecting

Please refer to the following steps to unplug Vanquish FM RT after data transferring:

- 1) **Windows 98/98SE:** The OLED of Vanquish FM RT would display "READY" when finished data transferring, then you can disconnect Vanquish FM RT from USB port of the computer.
- 2) **Windows Me/2000/XP/Server 2003** (Windows 2000 e.g.): Click the icon at the taskbar, click the prompt menu "Stop USB Mass Storage Device - Driver", and click "OK" in the pop-up window "The 'USB Mass Storage Device' device can now be safely removed from the system", then you can disconnect Vanquish FM RT from the computer safely.
- 3) **Mac OS 10.2 or above** (Mac OS 10.3.2 e.g.): Select the icon representing Vanquish FM RT, and click "File" to select "Exit NO NAME", then disconnect Vanquish FM RT from the computer.
Tips: Drag Vanquish FM RT icon into Trash, and then disconnect it from the computer.
- 4) **Linux 2.4.2 or above:** Input the command "umount /mnt" before unplugging Vanquish FM RT, The "/mnt" directory is corresponding with the "/mnt" mentioned above.

3. Basic Operations

3.1 Battery

Charge: You can charge the battery of Vanquish FM RT by connecting it with the computer through USB cable, or connecting it with the cigar-lighter adapter of your car. When charged through adapter, Vanquish FM RT supports all operations mentioned in "4. Usage of Vanquish FM RT".

Intelli-charge: If the voltage is higher than 3.5V, you can also charge by lock the **HOLD** key after connected with the computer or the cigar-lighter of cars. PENTAGRAM Intelli-charge technology enhances the battery's life.

Note: When charge by adapter, please keep Vanquish FM RT power on, otherwise it couldn't charge!

When using the battery, please pay attention to the following:

- 1) When start using Vanquish FM RT, please fully charge and discharge for the battery about 2 ~ 3 times to ensure maximum battery life.
- 2) Please don't dispose Vanquish FM RT into fire to avoid the battery exploding.
- 3) Please don't disassemble any part of Vanquish FM RT, any unauthorized disassembling will cause termination of PENTAGRAM official warranty.

3.2 Power On/Off

To power on Vanquish FM RT, please hold **▶||** button, Vanquish FM RT enters MUSIC menu after power on. To power off Vanquish FM RT, please hold **▶||** button. Vanquish FM RT would power off automatically if no operation based upon preset time (Please refer to "4.5 SET -> Power Set" for details).

3.3 HOLD

This function is used to prevent the buttons from being operated accidentally. To lock all buttons please lock the **HOLD** switch, and the OLED prompts the lock status. To release the lock function, please unlock the **HOLD** switch. If the HOLD switch was open when power on, Vanquish FM RT would power off automatically shortly after display "Key Hold", please unlock the **HOLD** switch and then power on again.

3.4 Reset

In case Vanquish FM RT doesn't response to any operation, poke the Reset hole on the Vanquish FM RT to reboot system. You need to restart Vanquish FM RT after

rebooting, the settings of Vanquish FM RT would return to the last effective settings before rebooting and all files saved in Vanquish FM RT may lose.

3.5 Firmware Update

You can download the latest update tool from our website to update Vanquish FM RT.

The update steps are as the following:

- 1) Please uninstall "Vanquish FM RT" in your computer first, then double click the downloaded file "Setup.exe", new Vanquish FM RT Utilities would be installed automatically.
- 2) Run "Start -> Programs -> PENTAGRAM Vanquish FM RT -> Firmware Download" to update firmware for Vanquish FM RT, click "Start" button to begin update on the window of "Firmware Download". It would prompt "Complete" after updated, click "Close" button, then unplug Vanquish FM RT from the computer to finish.
- 3) You can also click the check box of "Format Data Area" in "Firmware Download" window, click "Yes" button in the pop-up window "Formatting the data area will erase all files stored on the media, Continue?". Format Vanquish FM RT would delete all data stored in Vanquish FM RT, please get backup first!
- 4) Click "Start" button to format Vanquish FM RT. It would show "Complete" upon format finished, click "Close" to finish.

Warning:

- 1) *Firmware update can improve and optimize the performances of Vanquish FM RT, but Vanquish FM RT also can work properly without firmware update.*
- 2) *Vanquish FM RT can not work properly due to misoperation! Please read this manual in detail before operating firmware update, and ask for help from the computer engineer.*
- 3) *This firmware update program is only available to Vanquish FM RT.*

4. Usage of Vanquish FM RT

Vanquish FM RT includes the following menus: MUSIC, TRAN, VOICE (optional), FM, SET, DELETE, ABOUT and EXIT. The operations and settings would be introduced as the following.

- Press **MODE** button to enter the MAIN MENU of Vanquish FM RT.
- Press **◀||▶** button to select the menu.
- Press **MODE** button to enter.

The operations of FM recording and VOICE (optional) menu please refer to "4.3 RECORD".

4.1 MUSIC

- Play/Pause/Stop:
Press **▶||** button to play a track.
Press **▶||** button to pause the playing track.
Hold **▶||** button to stop playing in playing/pause status.
Note: Vanquish FM RT can support 480 tracks/recorded files for all.
- Rewind/Forward: Hold **◀||▶** button to rewind or fast forward the track in playing/pause/stop status.
- Selecting Track: Press **◀||▶** button to select the track in playing/pause/stop status.
- Turn up/down: Press **+/-** button to adjust the volume.
- A-B repeat: Press **REC** button twice to decide A (start) spot and B (end) spot while in playing status, Vanquish FM RT would play the track between A and B repeatedly. Press **REC** button again to exit A-B repeat.

Note: Vanquish FM RT can't implement A-B repeat when the spare playing time is less than 3 seconds.

- Lyric showing: Vanquish FM RT would automatically search the lyric file (LRC format, you can make by yourself, download from Internet, etc.).
 - 1) Copy the track and the lyric file (LRC format) into the same folder.
 - 2) Make sure the name of the lyric file is the same as the name of the track, otherwise the lyric can't be displayed.
 - 3) Lyric will be shown synchronously in the Track Info / Lyric Shows area of the OLED during playing.

Tips:

- 1) *When there is VOICE menu in Vanquish FM RT, Hold **REC** button to switch to VOICE menu in stop status of MUSIC menu.*
- 2) *Press **REC** button to switch play mode in stop status.*

4.2 TRAN

Vanquish FM RT can send the playing music to FM radio, so you can enjoy the music in Vanquish FM RT through FM radio.

• **Operations of FM transmission** (FM radio on cars e.g.)

- 1) Open the FM radio of car, turn to the FM frequency in 88MHz ~ 90MHz. (Please choose the frequency without FM program for better effect.)
- 2) Connect the earphone or antenna (optional) with Vanquish FM RT. Under MUSIC menu, hold **▶||** button to enter transmission status. Under other menu, press **MODE** button to enter MAIN MENU, select and enter TRAN menu.
- 3) Press **▶||** button to turn Vanquish FM RT to playing/pause status, press **+/-** button to adjust the frequency, make it the same as the FM radio of car.
- 4) Now you can enjoy the music in Vanquish FM RT through the FM radio of car.
- 5) Please refer to "4.1 MUSIC" for the operations of playing music, except for the operations of adjust the volume, please adjust the volume through the stereo set of car.

• **Exit FM transmission:** HOLD **MODE** button to exit FM transmission.

Note: The earphone can be used as antenna if you don't purchase the antenna.

4.3 RECORD

- 1) Before recording, please refer to "4.5 SET" to set the parameters of recorded file.

Recorded Mode	Source
VOICE (optional)	MIC
FM	FM

- 2) **FM Recording:** Press **REC** button to record in Radio status. **VOICE Recording** (optional): Press **REC** button to record. Vanquish FM RT can record via MIC, and play the recorded file(s) under VOICE (optional) menu.
- 3) Press **▶||** button to pause/resume recording, and press **REC** button to end recording.
- 4) Vanquish FM RT can rename and save for the recorded file when finish recording.

Location of Saving	Playing Menu
"VOICE" folder under root directory	VOICE menu
"FM" folder under root directory	MUSIC menu

Note: It does not support A-B repeating during recorded files played.

4.4 FM

Vanquish FM RT can receive and record the FM programs under FM menu. Press **MODE** button to switch among "Radio", "Scan", "Store" and "Exit" under FM menu. The Operations are as the following:

- 1) Radio: You can switch channel by pressing **◀||▶** button, if there is more than one channel saved. Press **+/-** button to adjust the volume.
- 2) Scan: Vanquish FM RT can save maximum 30 channels. Automatic Scanning: Press **▶||** button to enter auto-scanning under Scan status, Vanquish FM RT would save the searched channel in sequence automatically. Manual Scanning: Press **◀||▶** button to search channel ahead/backwards by 0.1MHz manual in receiving status.
- 3) Store: Press **▶||** button to save channel(s), the OLED displays "Station Saved".
- 4) Exit: Press **▶||** button to return to MAIN MENU.

Note: Vanquish FM RT would search and save channel(s) automatically when enter FM menu for the first time. The earphone can be used as an antenna, connect it with Vanquish FM RT would make better effect while searching channels.

4.5 SET

- Press **◀||▶** button to select the item, press **MODE** button to enter.
- Press **◀||▶** button to set the value, press **MODE** button to confirm and return to SET menu.

You can set the following items in "SET" menu:

Items	Descriptions
EQ	There are 6 equalizer modes: NORMAL, ROCK, JAZZ, CLASSIC, POP, BASS.
PlayMode	There are 6 play modes: NORMAL, REPEAT ONE, REPEAT ALL, SHUFFLE, SHUF & REPE, INTRO. Note: Under "INTRO" mode, you can switch to "NORMAL" mode by pressing ▶ button.
Screen Saving	Vanquish FM RT would start screen savings if there is no operation during the time which is set as 5, 10, 20, 30, 40,

	50 seconds and ∞. You can press any button to exit the screen savings. "∞" presents the screen savings isn't started.
Power Set	Vanquish FM RT would power off automatically if there is no operation in stop status during the time which is set as DISABLE, 2MINS, 5MINS and 10MINS. "DISABLE" presents Vanquish FM RT can not power off automatically.
Record Set	Press ◀ ▶ button to select item, and press MODE button to select value. Source: To set the source as MIC (optional) or FM. Press ▶ button to enter "Encoder" value. Encoder: To set the encoder as IMADPCM, MSADPCM or PCM. Press ▶ button to enter "Channel" value. Channel: To set the channel as Stereo or Mono. Press ▶ button to enter "Sample" value. Note: The Channel can be only set as "Mono" when "Source" is set as "MIC". Sample: To set the sample as 8000Hz, 11025Hz, 16000Hz, 22050Hz or 32000Hz. Press ▶ button to enter "Exit" value. Exit: Press MODE button to exit "Record Set" menu.
Language	The display language of menu & lyric: ENGLISH&GBK, ENGLISH&BIG5, ENGLISH&KOR, ENGLISH&JNP and ENGLISH&EUR, select EXIT to return to SET menu.
Exit	Select "Exit", and press MODE button to return to MAIN MENU.

4.6 DELETE

- Press **MODE** button to enter, press **◀||▶** button to select where the files you want to delete are in:
- Music or Voice (optional).
- Press **MODE** button to enter sub menu, press **◀||▶** button to select "Yes" or "No".
- Select "Yes", and press **MODE** button to delete, the OLED would display "SUCCESS".
- Select "No", press **MODE** button to choose the file until last one.
- Select "Exit", press **MODE** button to return to sub menu.

4.7 ABOUT

Press **MODE** button to enter to browse the system information, which includes VER (version), INT (the capacity of Vanquish FM RT), FREE (the spare capacity). Press any button (except for **▶||** button) to exit.

4.8 EXIT

Select "EXIT" in MAIN MENU, and press **MODE** button to exit MAIN MENU.

5. Others

5.1 Remarks

1. "V***.WAV/F***.WAV" are titles for VOICE (optional) and FM recorded files in Vanquish FM RT. "***" presents as "0~9".
2. It is suggested not to delete the system file named as "SETTINGS.DAT" under root directory of Vanquish FM RT, because it saved the latest settings, otherwise the settings will be return to original settings when next power on.

5.2 Specifications

* The actual useable capacity may not be identical as labeled. PENTAGRAM reserves the rights to make changes on any specification without prior notice.

Items	Descriptions	
Dimension	78.7mm x 32mm x 17.5mm	
Weight	31g approximately	
OLED	Dichromatic OLED (128 X 64)	
Capacity *	128MB ~ 1GB	
Power Supply	Powered by lithium battery, USB port or electrical adapter charged for it	
MP3, WMA	Earphone Output	11mW + 11mW, 32ohm
	MP3 Bit Rate	8Kbps~320Kbps
	WMA Bit Rate	32Kbps~192Kbps

FM Transmission	Frequency Response	20Hz~20KHz
	Stereo Imbalance Degree	+/-0.5dB
	Stereo Separate Degree	>80dB
Radio FM	Transmitting Frequency Range	88MHz~90MHz
	Transmitting Power	<10mW, zasięg ok. 5m
Files Format	Radio Frequency Range	76MHz~108MHz
	Preservable Stations	30
Working Temperature	-10°C~55°C	
Storage and Transportation Temperature	-40°C~70°C	
Relative Humidity under Working	20%~98% (40°C)	
Relative Humidity under Storage and Transportation	20%~90% (40°C)	
Atmospheric Pressure	86KPa~106KPa	
Menu display Language	English, Simplified Chinese, Traditional Chinese	
Computer	IBM PC, Compatible Notebook or Mac with USB port.	
Operating System	Windows 98/98SE/Me/2000/XP/Server 2003, Mac OS 10.2 or above, Linux 2.4.2 or above.	

5.3 FAQ

If you meet any of the following difficulties in using Vanquish FM RT, use the following guide for help. Should any problem persist, contact with PENTAGRAM Customer Service.

Symptoms	Possible Reasons Analysis	Remedy
Fail to power on.	Low battery.	Charge battery.
	Power off shortly after power on.	Low battery. HOLD switch locked.
No sound output.	The volume is 0.	Turn up the volume.
	Earphone isn't connected well.	Connect earphone correctly.
Keystroke void.	HOLD switch locked.	Unlock the HOLD switch.
Fail to connect with the computer.	USB Cable isn't connected correctly.	Connect USB Cable correctly.
	Driver hasn't been installed on Windows 98/98SE.	Install the driver (refer to "2.2 Utilities Installation").
Fail to download.		Check the system settings whether be accordance with requirements. Format Vanquish FM RT and try again.
Cannot record.	Low battery.	Charge battery.
	Space insufficient.	Delete some files.