

# Operation Manual

**VTA-240F II**

**VTA-360F II**

**VTA-480F II**

**VTA-600F II**

6 zones MP3/Tuner/BT Mixer Amplifier With Volume Control



# ***Thinuna***

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## Welcome


A personal welcome to you from the management and employees of Thinuna global.

Thanks you for choosing PA and HPA series power amplifier, we will always provide innovative, advanced, reliable products like before.


We are sincerely trust these products will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.

Welcome to thinuna again, and thank you for becoming part of our worldwide extended family!

## Warning




**CAUTION**  
RISK OF ELECTRIC SHOCK DON'T OPEN



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,  
DO NOT REMOVE COVER (OR BACK).  
NO USER-SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Atentions: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant on une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

**WARNING**

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

\* Do not install this equipment in a confined space such as a book case or similar unit.  
\* The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such vases, shall be placed on the apparatus.  
\* Worded: "WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING-WATER AND MOISTURE: Unit should not be used near water(e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so than objects do not fall and liquids are not spilled into the enclosure through openings."  
**Service Instructions**  
\* Worded: "Caution: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so."  
\* Location: Instruction Manual.

**NOTE** : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Installation Environment

Installation this system is not difficult and complex. But you still need to spend some time to read this manual and ensure the connection and installation is exact.

Never place this product in an environment which could alter its performance or reduce its service life. Such environments usually include high levels of heat, dust, moisture, and vibration.

## Important Safety Instructions



1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

### - Avoid excessive heat, humidity, dust and vibration

Keep the unit away from locations where it is likely to be exposed to high temperatures or humidity-such as near radiators, stoves, etc. Also avoid locations which are subject to excessive dust accumulation, or to vibration that could cause mechanical damage.

### - Avoid physical shocks

Strong physical shocks to the unit may cause damage. Handle the unit with care.

### - Do not open the case or attempt repairs or modifications yourself

This product contains no user-serviceable parts. Refer all maintenance to qualified Thinuna service personnel. Opening the case and/or tampering with internal circuitry voids the warranty.

### - Always power off before making connections

Always turn the AC mains OFF before connecting or disconnecting cables. This is important to prevent damage to the unit itself as well as other connected equipment.

### - Handle cables carefully

Always plug and unplug cables (including the AC mains power cord) by gripping the connector, not the cord.

### - Clear with a soft dry cloth

Never use solvents such as benzine or paint thinner to clean the unit. Wipe clean with a soft, dry cloth.

## Features:

- \* 6 zones speaker output with individual volume control;
- \* Built-in MP3 player, support Mp3, WMA and WAV format, USB flash disk input port;
- \* Built-in FM tuner;
- \* BT wireless audio function;
- \* Built-in Chime and Siren;
- \* 2 Aux, 3 Mic input and 1 Aux output;
- \* Mic 1 input has priority (Mute other audio input);
- \* Power, Signal and Clip LED indicator;
- \* Volume control for each input and master output volume control;
- \* Treble and bass control;
- \* 100V high impedance output and 8ohms low impedance output;
- \* 128\*64 LCD display for MP3 and FM tuner operation;
- \* 4 repeat mode for MP3 player: random, repeat one, repeat all in a file and repeat all;
- \* 5 EQ sound effector for MP3 player and FM tuner audio output;
- \* LCD display can display name of music, playing time and remain time;
- \* With dynamic spectrum display, more dynamic design;
- \* Perfect power amplifier protection mechanism;

## Accessories

One FM antenna is provided for using with this product.

## Operation

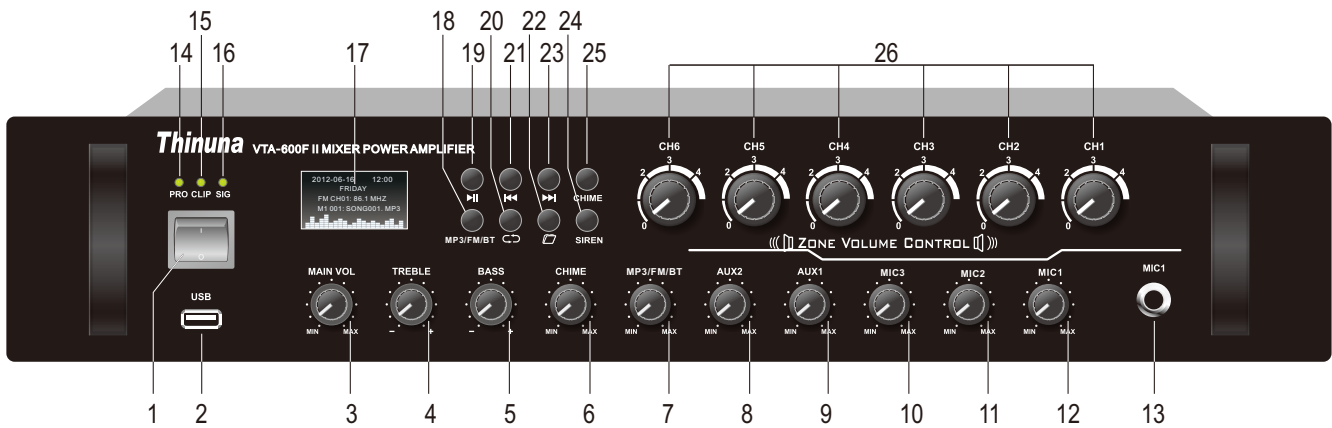
Make certain that speakers and input sources are properly connected before power on.

Keep volume levels turned down before switching on.

NOTE: The system's operation is delayed by approximately three seconds after pressing the power switch.

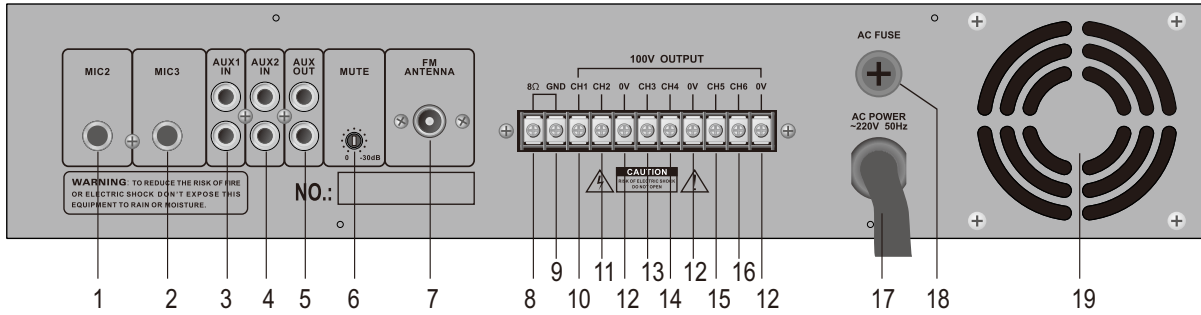
This is due to the built-in protection circuitry, designed to protect speakers and other system components.

## Front Panel



1. POWER SWITCH
2. USB DISK INPUT PORT  
Connect USB disk here, support MP3/WMA format.
3. MASTER OUTPUT VOLUME CONTROL
4. TREBLE OF MASTER OUTPUT
5. BASS OF MASTER OUTPUT
6. "CHIME" VOLUME CONTEOL
7. MP3/FM/BT VOLUME CONTROL
8. AUX2 VOLUME CONTROL
9. AUX1 VOLUME CONTROL
10. MIC3 VOLUME CONTROL
11. MIC2 VOLUME CONTROL
12. MIC1 VOLUME CONTROL  
Mic 1 input has priority (Mute other audio input);
13. MIC1 INPUT PORT  
Unbalanced 6.3mm TS microphone connector;
14. PROTECTION LED INDICATOR  
This LED indicates the state of the amplifier's protection circuitry. When the Protection LED is on (illuminated), the protection circuitry is active, indicating that the unit is not operating normally. This is typically due to overheating or power limiting. Please check the Input and Output condition of the amplifier.
15. CLIP LED  
The LED indicate that you need to turn down the amplifier's output volume. Do not operate the unit with the CLIP RED LED continuously on (illuminated).
16. OUTPUT LEVEL LED
17. LCD DISPLAYER  
128\*64 LCD can display name of music, playing time and remain time.
18. MP3/FM/BT SWITCHER
19. "▶||" PLAY/PAUSE, FM AUTO SCAN  
NOTE: when playing MP3, press ▶|| to change play or pause status;  
When playing FM tuner, press ▶|| for 3 seconds to scan FM station and memory. When finishing, use ◀◀ or ▶▶ to choose the favorite station.
20. "◀◀" REPEAT MODE FOR MP3 PLAYER  
4 repeat mode for MP3 player: random(R), repeat one(1), repeat all in a file(F) and repeat all(A).
21. "◀◀" In MP3 mode, press to prev music;  
In FM Mode, press to prev station; and pressing for 3 seconds scan to prev station.
22. "◻" FOLDER BUTTON OF MP3 PLAYER  
In MP3 Mode, press to select the music in the folder.
23. "▶▶" In MP3 mode, press to next music;  
In FM Mode, press to next station; and pressing for 3 seconds scan to next station.
24. "SIREN" BUTTON (Only Control By "M.VOL" Knob)
25. "CHIME" BUTTON (Controlled by "CHIME" and "M.VOL" knobs)
26. ZONE1~6 OUTPUT VOLUME CONTROL  
Control the volume of zone1~6 speakers here.

## Rear Panel



1. MIC2 INPUT PORT  
Unbalanced 6.3mm TS microphone connector.
2. MIC3 INPUT PORT  
Unbalanced 6.3mm TS microphone connector.
3. AUX1 INPUT PORT  
Stereo RCA unbalanced input port for AUX1.
4. AUX2 INPUT PORT  
Stereo RCA unbalanced input port for AUX1.
5. AUX OUTPUT PORT  
Stereo RCA unbalanced output port for external amplifier or recording device.
6. MUTE CONTROL KNOB FOR MIC1 PAGING
7. FM ANTENNA TERMINALS  
The FM terminal accepts a 75 Ohm Coaxial cable that terminates at an FM antenna. Antenna position may affect performance so it may be necessary to reposition the antenna for the best reception.  
  
Note: The ability to receive an FM signal may be diminished by terrain, area buildings, and the construction materials of the building housing the receiver. Keep these circumstances in mind when selecting the type of FM antenna and its mounting position.  
  
An indoor FM antenna is provided and should be suitable for most applications. Repositioning the antenna may be necessary to identify the optimum mounting location. If greater signal strength is required, replace the supplied antenna with a large outdoor FM antenna using 75 Ohm coax as the lead wire.
8. 8Ω SPEAKER OUTPUT TERMINAL  
Connect "8Ω" to the "+" of 8ohms speaker.
9. 8Ω SPEAKER OUTPUT TERMINAL  
Connect "GND" to the "-" of 8ohms speaker.
10. ZONE(1) 100V SPEAKER OUTPUT TERMINAL  
Connect to the "+" of zone(1) 100V speaker.
11. ZONE(2) 100V SPEAKER OUTPUT TERMINAL  
Connect to the "+" of zone(2) 100V speaker.
12. "COM" TERMINAL FOR ZONE1~6 OUTPUT  
Connect to the "-" of zone1~6 100V speaker.
13. ZONE(3) 100V SPEAKER OUTPUT TERMINAL  
Connect to the "+" of zone(3) 100V speaker.
14. ZONE(4) 100V SPEAKER OUTPUT TERMINAL  
Connect to the "+" of zone(4) 100V speaker.
15. ZONE(5) 100V SPEAKER OUTPUT TERMINAL  
Connect to the "+" of zone(5) 100V speaker.
16. ZONE(6) 100V SPEAKER OUTPUT TERMINAL  
Connect to the "+" of zone(6) 100V speaker.  
  
Note: the power capacity for each zone can reach the rated power of amplifier. But make sure that the total power of zone 1~5 can not exceed the rated power.
17. AC POWER CORD  
Connect only to an proper AC mains power source.
18. AC FUSE HOLDER  
The fuse holder contains the AC overload protection fuse. If the fuse has blown out, replace it with a fuse of the same specifications. If the fuse continues to blow, refer servicing to a qualified service technician.
19. FAN VENTS  
These vents provide hot air flow out of the unit. It is important to keep them free of obstructions, to prevent the unit from overheating. It is also important to operate the unit in a dust-free environment.

## Quick Installation Guide

### 1. Play FM tuner (Connect the FM antenna first)

#### 1.1 Auto scan FM station

- Press "MP3/FM/BT" button to switch input to FM tuner.
- Press ►|| for 3 seconds to scan FM station and memory.
- When finishing, use ◀◀ or ▶▶ to choose the favorite station.

#### 1.2 Manual scan FM station

- Press "MP3/FM/BT" button to switch input to FM tuner.
- Press ◀◀ or ▶▶ for 3 seconds to scan next or prev FM station
- When finishing scan, it will stop and memory current station and play.

### 2. Play MP3 from USB disk

- Plug the USB flash disk(Support MP3/WMA/WAV files).
- Power on the amplifier.
- Press "MP3/FM/BT" button to switch input to MP3.
- Press ►||, ◀◀, ▶▶ button to play, pause or choose the next or prev song.
- Using "↺" button on the front or using "↻" button on the IR remote can select the repeat mode: random(R), repeat one(1), repeat all in a file(F) and repeat all(A).
- Select the suitable EQ sound effects for MP3 player audio output.

Note: The MP3 player will play the music from last playing when power on this amplifier again.

### 3. BT playback function

- Press "MP3/FM/BT" button to switch input to BT.
- Turn on the BT function of the mobile phone.
- Search for the BT of the amplifier to connect.
- Play music on your mobile phone.

### 4. Play Aux1 or Aux2 audio input

- Connect Aux audio source to the Aux input port, such as CD player, Computer, iPad and other external audio device.
- Turn the Aux volume control knob to get the suitable level.

### 5. Paging with microphone

- Connect microphone to the Mic input port.
- Turn the Mic volume control knob to get the suitable.



## Specifications

Model No.	VTA-240F II	VTA-360F II	VTA-480F II	VTA-600F II
Rated Power	240W	360W	480W	600W
Mic Input	-60dB, 600Ω, unbalanced, 6.3mm TS port			
Aux Input	-20dB, 10k Ω, unbalanced, Stereo RCA port			
Aux Output	0dB, 600Ω, unbalanced, Stereo RCA port			
Speaker Output	High Impedance: 100V; Low Impedance: 8Ω;			
Volume Control for Each Zone	6 zones speaker output with individual volume control; Note: the power capacity for each zone can reach the rated power of amplifier. But make sure that the total power of zone 1~6 can not exceed the rated power.			
Protection	AC fuse, overheating, overvoltage, overcurrent, short, DC, and muting during power on protections			
EQ for Master Output	Treble: ± 12dB at 10kHz; Bass: ± 12dB at 100Hz			
Frequency Response	20~20kHz (±3dB)			
S/N	Microphone input >66dB; AUX input >75dB			
T.H.D	<0.5% at 1kHz, at 1/3 rated power.			
Power Source	220~240VAC, 50/60Hz			
Power Consumption	350W at rated power	500W at rated power	700W at rated power	850W at rated power
Temperature / Humidity	-10°C ~ +40°C, <95%			
Weight	12kg	14kg	16kg	18kg
Dimensions	482(W) × 88(H) × 350(D) mm			
Shipping Weight	14kg	16kg	18kg	20kg
Shipping Dimensions	0.0382CBM, 58(W) x 47(H) x 14(D) cm			

## Common Faults And Solutions

No.	Fault	Cause	Solutions
01	No power	A: power supply poor contact	Use a good power supply outlet or sequence power supplier.
		B: fuse has failed	Replace with the same specifications fuse.
02	Power on but unwork	A: Audio Input error	Check the correct audio signal.
		B: wrong speaker load	Connect the speakers correctly
03	Distortion	A: excessive audio output	Set the correct output volume level
		B: wrong input level	Connect the right audio input, don't connect microphone signal into this amplifier.
		C: total speaker power is not correct	Connect the speaker correctly, and the total power of speakers can't exceed the rated power of these amplifier. And need to excess power for long distance transmission.
		D: incorrect speaker cable	Use a correct speaker cable.
04	Protected activation	A: shorted speaker cable or excessive power	Turn the power off, check the speaker cable and make the correct connection. Turn the power on.
		B: other problems	Check other problems which may cause protected. If still has problem, please contact Thinuna directly or the authorized distributor for your specific country or region.

## Service

### Procedures

Ensure the problem is not related to operator error, or external system devices, Once it is certain that the problem is related to the product contact your warranty provider as described in the warranty section of this manual.

### Schematic

A Schematic is available by contacting your warranty provider.

### Parts List

A Parts List is available by contacting your warranty provider.

### Variations

Variations of this product exist to reflect the variations in AC power requirements throughout the world. Product supplied through local sources are compatible with local AC power requirements.

### Options

No optional items are available for this product.

### Warranty

Warranty terms and conditions vary by country and may not be the same for all products. Terms and conditions of warranty for a given product may be determined first by locating the appropriate country which the product was purchased in, then by locating the product type.

To obtain specific warranty information and available service locations contact Thinuna directly or the authorized Thinuna distributor for your specific country or region.

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Notice: Thinuna Technology makes every effort to ensure the accuracy of information on this manual. The documents, graphics, and other information included in this manual may include technical inaccuracies, typographical, or other errors.

Specifications are subject to change without notice.