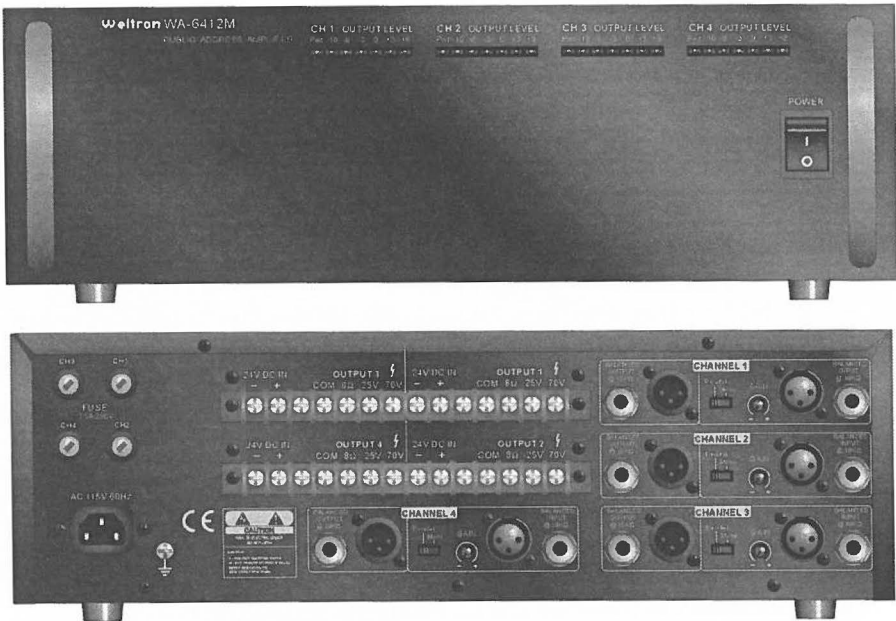


# USER MANUAL

## WA-6412M

### 4-CH BOOSTER AMPLIFIER





# 1. Security Precautions

- ⦿ Carefully to **READ** the instruction in this manual before use.
- ⦿ Certainly to **OBSERVE the INSTRUCTION** in this manual regard convention of safety symbols and messages.
- ⦿ Please **KEEP** this user **MANUAL** nearby for anytime reference.

## Safety symbol and Message Conventions

Below-described safety symbol and messages are to prevent bodily injury and property damage. Before operating the amplifier, read this manual first so you completely knowing the potential safety hazard and understanding the meaning of the safety symbols and messages.

 <b>WARNING</b>	Indicates a potentially hazardous situation, which, if mishandled, could result in death or serious body injury, and / or property damage.
 <b>CAUTION</b>	Indicates a potentially hazardous situation, which, if mishandled, could result in moderate or minor body injury, and/or property damage.



### ■ When Installing the Amplifier

- **DO NOT** installing or mounting the amplifier in unstable locations, such as on the rickety table or the slanted surface. It may result in the amplifier falling down and causing body injury and/or property damage.
- **Be sure to ground** to the safety ground (earth) terminal to avoid electric shock. Never to ground to a gas pipe for tragic disaster may occur.
- Use the amplifier only with the voltage specified on the amplifier. Using the voltage higher than specified may cause fire or electric shock.
- **DO NOT** cut, twist, damage, nor modify the power supply cord. In addition, avoid using the power cord close to heaters, and don't place heavy object, including the amplifier itself, on the power cord, for it may cause fire or electric shock.
- **DO NOT** expose the amplifier to rain or the environment where it may be splashed by water or other liquids, for doing so, it may cause fire or electric shock.

## ■ When using the Amplifier

When found following irregular situation during amplifier is in use, immediately switch off the power, disconnect the power supply plug from the AC outlet. Don't try to operate the amplifier again. Contact your local dealer to check the amplifier.

- ✓ The amplifier falls.
  - ✓ Amplifier is malfunction.
  - ✓ Water or any metallic object gets into the amplifier.
  - ✓ The smoke or strange smell coming from the amplifier.
  - ✓ The power supply cord is damaged, such as exposure of the core, disconnection etc..
- 
- **DO NOT** put cups, bowls, or other containers with liquid or metallic object in it on the top of the amplifier. If they spill accidentally into the amplifier, it may result in fire or electric shock.
  - **DO NOT** touch the power supply plug during thundering and lightning, for it may result in electric shock.
  - **DO NOT** insert or drop the metallic objects or flammable materials into the ventilation slots of the amplifier, for it may result in fire or electric shock.
  - **DO NOT** open nor remove the amplifier cover to prevent fire or electric shock, for there are high voltage components inside the amplifier.



## ■ When Installing the Amplifier

- **DO NOT** remove nor plug in the power supply plug with wet hands, for it may cause electric shock.
- When unplug the power supply cord, be sure to grasp the power supply plug. **DO NOT** pull on the cord itself. Operating the amplifier with damaged power supply cord may cause fire or electric shock.
- **Avoid** installing the amplifier in humid or dusty places, the area exposed to the direct sunlight, locations generating smoke or steam, or the spot near the heaters. It may result in fire or electric shock.
- When moving the amplifier, be sure to remove its power supply cord from the wall outlet. Moving the amplifier with the power cord connected to the outlet may cause damage to the power cord, and resulting in fire or electric shock. When removing the power cord, be sure to grasp its plug to pull.
- **DO NOT** block the ventilation slots of the amplifier chassis. It will cause the temperature rising and result in fire.

## ■ When Using the Amplifier

- Make sure that the volume control is turned to minimum position before power is switched on. Loud sound produced at high volume when power is switched on may impair hearing.
- **DO NOT** place heavy objects on the amplifier, for it may cause it fall and may result in body injury and/or property damage. Besides, the object itself may cause damaged or body injury.
- **DO NOT** operate the amplifier for the extended period of time with the sound distorting. It is an indication of malfunction, which can cause heat and result in fire.
- Switch the power off, and unplug the power supply plug from the AC outlet for safety purposes, when cleaning or leaving the amplifier unused for 7 days or more. Fire or electric shock may occur.
- If the dust accumulates on the power supply plug or in the wall AC outlet, fire may result in. Clean it periodically. In addition, make sure the plug is inserted in the wall outlet securely.
- Contact your local dealer to clean the dust, if the dust has accumulated in the amplifier for a long period of time. Dust accumulation may result in fire or damage.

## 2. Description

WA-6412M series is 4 channels booster amplifier designed for 4 zones application.

Each channel has XLR and phone jack input with its own gain control. And there is one slide switch to select "Mono" or "Parallel"

Each channel is equipped with XLR and phone jack output for connecting to another amplifier.

The speaker output is the screw terminal for low impedance 8 ohm, or high level 25V and 70V screw terminal. Choose only one of these output connections to match the speaker.

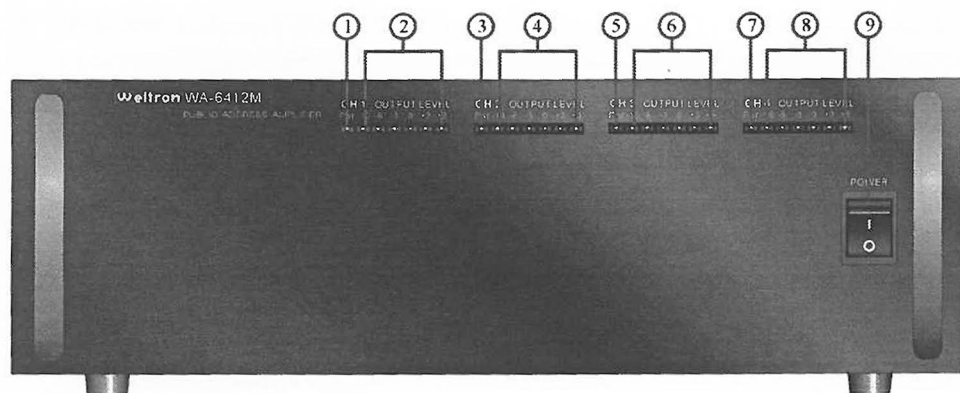
Besides AC power source, WA-6412M series booster amplifier also accept DC 24V power source from the battery

To ensure the amplifier working normally, it has speaker short, over temperature, and overload protection function.

WA-6412M series booster amplifier is ideal model for multi -zone application.

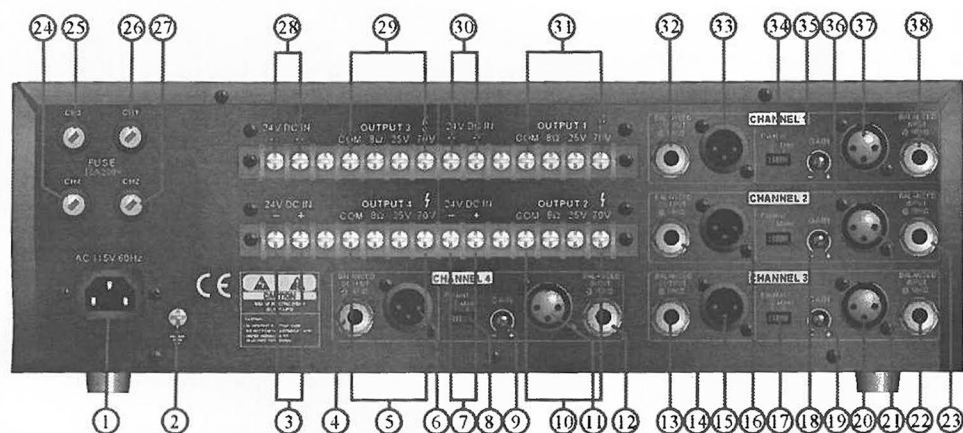
## 3. Panel Description

### FRONT PANEL DESCRIPTION



- |                                   |                                   |                                   |
|-----------------------------------|-----------------------------------|-----------------------------------|
| 1. CH1 Power On Indicator LED     | 4. CH2 Output Level Indicator LED | 7. CH4 Power On Indicator LED     |
| 2. CH1 Output Level Indicator LED | 5. CH3 Power On Indicator LED     | 8. CH4 Output Level Indicator LED |
| 3. CH2 Power On Indicator LED     | 6. CH3 Output Level Indicator LED | 9. Power On / Off Switch          |

### REAR PANEL DESCRIPTION



- |   |   |   |
|---|---|---|
| 1. AC Power Input Socket                | 14. Booster Output Phone Jack (CH2)     | 27. Fuse (CH4)                          |
| 2. Earth Connection Screw               | 15. Booster Output XLR (CH3)            | 28. DC Power Supply Terminal (Output 3) |
| 3. DC Power Supply Terminal (Output 4)  | 16. Booster Output XLR (CH2)            | 29. Speaker Output Terminals (Output 3) |
| 4. Booster Output Phone Jack (CH4)      | 17. Parallel/Mono Selector Switch (CH3) | 30. DC Power Supply Terminal (Output 1) |
| 5. Speaker Output Terminals (Output 4)  | 18. Parallel/Mono Selector Switch (CH2) | 31. Speaker Output Terminals (Output 1) |
| 6. Booster Output XLR (CH4)             | 19. Gain Control (CH3)                  | 32. Booster Output Phone Jack (CH1)     |
| 7. DC Power Supply Terminal (Output 2)  | 20. XLR Jack Input (CH3)                | 33. Booster Output XLR (CH1)            |
| 8. Parallel/Mono Selector Switch (CH4)  | 21. XLR Jack Input (CH2)                | 34. Parallel/Mono Selector Switch (CH1) |
| 9. Gain Control (CH4)                   | 22. Phone Jack Input (CH3)              | 35. Gain Control (CH1)                  |
| 10. Speaker Output Terminals (Output 2) | 23. Phone Jack Input (CH2)              | 36. Gain Control (CH2)                  |
| 11. XLR Jack Input (CH4)                | 24. Fuse (CH2)                          | 37. XLR Jack Input (CH1)                |
| 12. Phone Jack Input (CH4)              | 25. Fuse (CH3)                          | 38. Phone Jack Input (CH1)              |
| 13. Booster Output Phone Jack (CH3)     | 26. Fuse (CH1)                          |   |

## 4. Features

- 4 channels booster Amplifier
- Individual gain control of each input
- 8 ohm, 25V and 70V speaker output
- XLR and phone jack output
- Over load, over temperature, and speaker short protection.
- AC or DC power in
- 3U height
- 19" rack or table mounted

## 5. Power Source

### ● AC Power Source

The supply transformer has been designed for use AC 115V( $\pm 10\%$ ) 60 Hz.

### ● DC Power Source

#### Battery Connection (24Vdc)

When using external batteries, ground the amplifier via the screw terminal. (Electrical stability of the system will be improved by providing a good earth ground.) When connecting batteries, please ensure correct polarity.

## 6. Connection

### ● Input Connection

Each input has XLR and Phone jack input. Use the one you want.

### ● Speaker Output Connection

The output terminal is on the rear panel. The terminal connection can connect low impedance 8 ohm, or high-level 25V or 70V speaker. Use only one of these output connections for corresponding speaker.

### ● Booster Output Connection

Use XRL (female) or phone jack to connect booster output to other amplifier.

### ● Parallel / Mono Switch

Put the switch on Mono position when it does not connect other amplifier. When it is connected to other amplifier, put the switch on Parallel position to maintain maximum gain.

## 7. Operation

After all connections are completed, turn on the power. If necessary, turn the gain control on the rear panel to what you desire. Suggest to turn the gain control at maximum level always.

## 8. Technical Specification

Type	<b>Booster Amplifier</b>	
Model	<b>WA-6412M</b>	
Output Power:	120W (RMS) x 4	
Power Supply	Main Voltage	115V 60Hz
	Battery Voltage	DC 24V
Total Harmonic Distortion	< 1% @ 1KHz, rated power	
Sensitivity	XLR, Phone Jack (balanced) 1v @ 10K ohm	
Outputs	8Ω, 25V, 70V	
Signal to Noise Ratio	86 dB	
Indicator	Power On, Level	
AC Power Consumption (per Channel)	320W	
DC Power Consumption (per Channel)	8A	
Dimensions	132 (H) x 425 (W) x 420 (D) mm	
Weight	25 Kgs	
Mounting options	Table top or 19" rack mountable	

WARNING: THIS APPLIANCE MUST BE EARTHED

