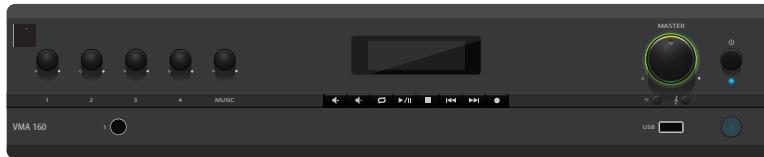


**VMA160**  
**VMA1120**  
**VMA1240**  
**VMA260**  
**VMA2120**

Commercial Series  
1 Channel & 2 Channel Mixer-Amplifier  
**Operation Manual**



# Contents

# IMPORTANT SAFETY INFORMATION



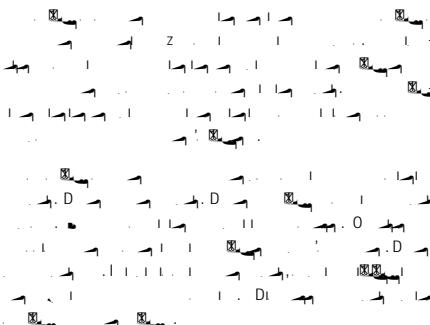
## WARNING

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**AVERTISSEMENT:** RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

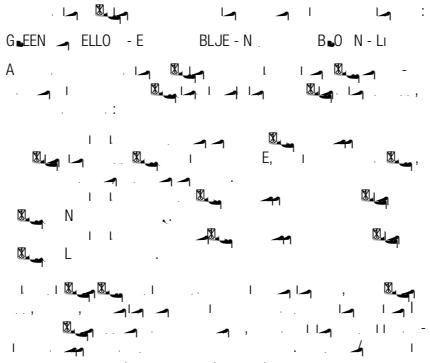
**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE



## SAFETY INSTRUCTIONS

NO ICE FO<sub>2</sub>CJ OME<sub>2</sub>. IF OJ<sub>2</sub>JNI I EQIPPED I HAPO E<sub>2</sub> CO<sub>2</sub>D.

ANING: HI APPLIANCE HALL BE CONNEC ED O A MAIN OCKE OJ LE I HAPO EC I EEA HING CONNEC ION.







ANING:

## WARNING FOR YOUR PROTECTION READ THESE INSTRUCTIONS:

KEEP HE E IN JC ION

HEED ALL ANING

FOLLO ALL IN JC ION

HE APPA A J HALL NO BE E PO ED O DIPPING O PLA HING LIQJD AND NO OBJEC FILLED I H LIQJD, JCH A A E, HALL BE PLACED ON HE APPA A J

CLEAN ONL I HAD CLO H.

DO NO BLOCK AN OF HE EN ILA ION OPENING .IN ALL IN ACCODANCE I H HE MANFAC JE' IN JC ION .

DO NO IN ALL NEA AN HEA OJCE JCHA NADIA O ,HEA LEGI E , O E,O O HE APPA A J (INCLIDING AMPLIFIE ) HA P OJDICE HEA .

ONL J EA ACHMEN /ACCE OJIE PECIFIED B HE MANFAC JE.

JNPLJG HI APPA A J DJUNG LIGH NING OM O HEN JNJ ED FO LONG PEIOD OF IME.



PO E ON/OFF I CH: F DOE NO

MAIN DI CONNEC :

FO JNI EQIPPED I H E EN ALL ACCE IBLE FJ E

MJL IPLE-INPJ OL AGE:

240 C A/JL

# IMPORTANT SAFETY INFORMATION

## U.K. MAINS PLUG WARNING

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## ELECTROMAGNETIC COMPATIBILITY

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## USE GROUNDED OUTLET ONLY!

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## MAGNETIC FIELD

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.



## FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## FCC CAUTION

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## IMPORTANT NOTE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## CANADA STATEMENT

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## CAUTION EXPOSURE

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

## THE FINAL END PRODUCT MUST BE LABELLED IN A VISIBLE AREA WITH THE FOLLOWING

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

IC: 6132A-MB8811 MA

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z B1362.

# EC - DECLARATION OF CONFORMITY

**Brand:** JBL  
**Equipment Type:** C ~~XX~~ | Mi ~~-A~~  
**Model names:** VMA160, VMA1120, VMA1240, VMA260, VMA2120

We, Harman International, declare under our sole responsibility that the product, to which this declaration relates, is in conformity with the following standards.

Report No.	Description
EN 55103-1:2009 +A1:2012	EMC C <del>II</del>   III . P . F <del>II</del>   A   , I , A   - L E   <del>II</del>   L   C   A   .. P   ..   J , P   1: <del>E</del>
EN 55103-1:2009 +A1:2012	F   <del>E</del>   A   A @ 10 <del>2</del>   20 <del>2</del>
EN 61000-3-2:2014	L <del>II</del>   H <del>II</del>   C   <del>E</del>   (   <del>II</del>   ..   ..   ..   ..   16A)
EN 61000-3-3:2013	L <del>II</del>   ..   F   ..   F   ..   ..   ..   ..   C   ..   16A
EN 55022:2010	L <del>II</del>   M   M   <del>II</del>   ..   D   C   ..   E   6(C)   11.04   EMC C <del>II</del>   III . P & C   , C   B L <del>II</del>   ( <del>II</del>   H <del>II</del>   C   E   6(C)   11.04   EMC C <del>II</del>   III . P

6-3-2:2014rEEC €, Harfor Professio&uctual OJ Disbur

Due to line current harmonics, we recommend that you contact your supply authority before connection.

We certify that the product identified above conforms to the requirements of the EMC Council Directive 89/336/EEC as amended by 92/31/EEC, and the Low Voltage Directive 73/23/EC as amended by 93/68/EEC.

## 1.0 Welcome

### 1.1 Features

## 1.2 Front Panel Controls & Indicators

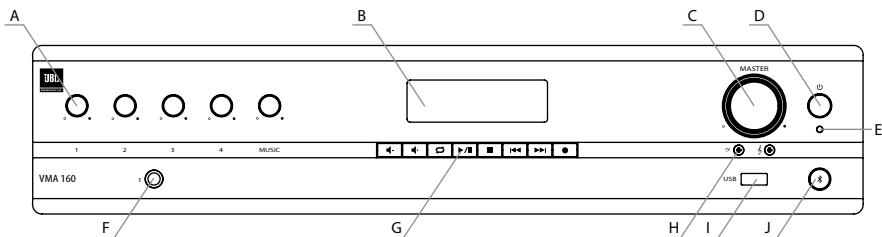
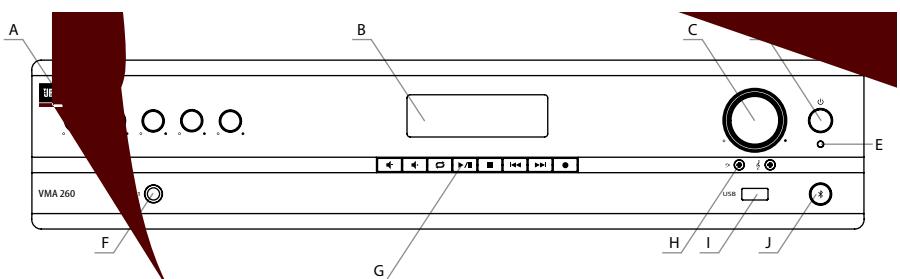


Figure 1.2.1 Front Panel, 1 Channel Model

**B:**  







## 1.4 Rear Panel Controls & Connectors (VMA260 & VMA2120)

## 2.0 Setup

### 2.1 Unpacking Your Amplifier

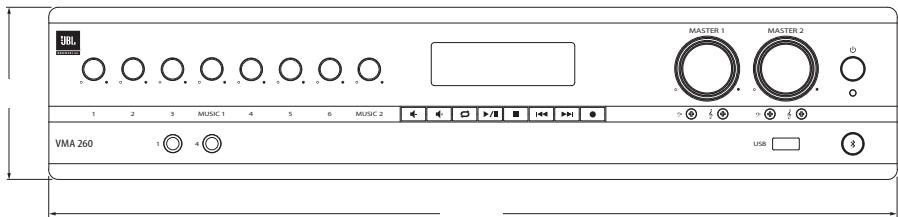
**WARNING:**

### 2.2 Installing Your Amplifier

**CAUTION:**

**Note:**

## FRONT VIEW



## SIDE VIEW

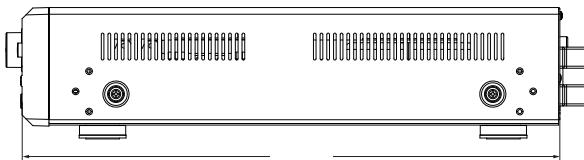
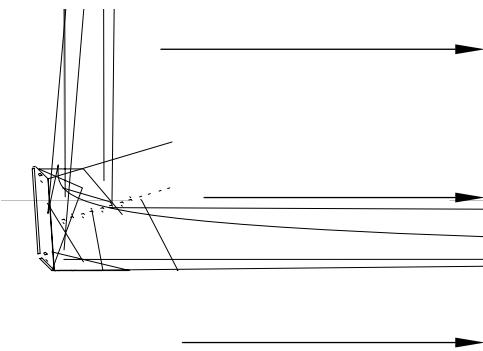


Figure 2.2.1 Dimensions





## 2.3 Ensuring Proper Cooling

## 2.4 Choosing Input Wire & Connectors

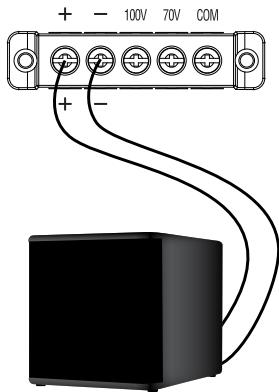
**NOTE:** *Custom wiring should only be performed by qualified personnel.*



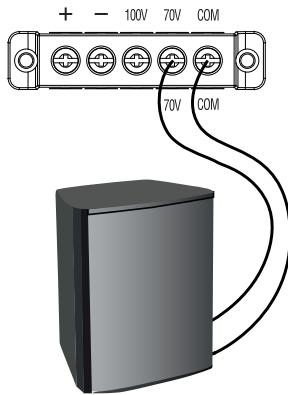
## 2.5 Output Wiring & Connectors

**Distance**

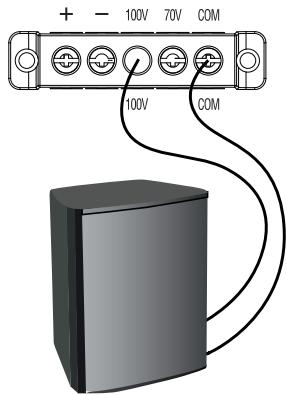
**Wire Size**



8 Ohm Speaker

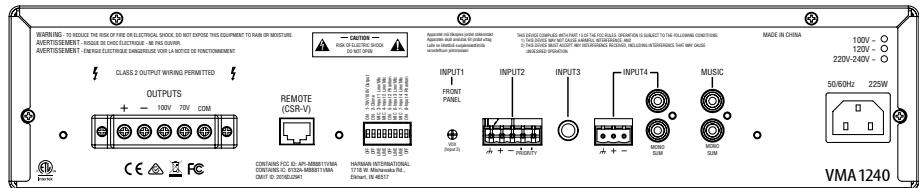


70V Speaker System



100V Speaker System

## 2.6 Wiring Your Audio System



## 2.7 Connecting to AC Mains

**WARNING:** *The third prong of this connector (ground) is an important safety feature. Do not attempt to disable this ground connection by using an adapter or other methods.*

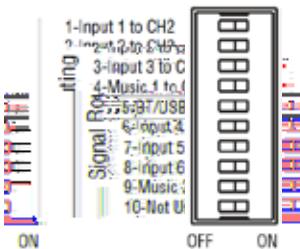
## 3.0 Operation

### 3.1 Precautions

#### **WARNING:**

**CAUTION: JBL is not liable for damage that results from overdriving other system components.**

## 3.2 Input Routing



## 3.3 Configuration Settings

### 3.3.1 70V/100V Output Selection

### 3.3.2 Chime Function

CH1 Settings	1-70V/100V Output	OFF	ON
	2-Chime	OFF	ON
	3-Input 1 Line/Mic	LINE	MIC
	4-Input 2 Line/Mic	LINE	MIC
	5-Input 2 Phantom	OFF	ON
	6-Input 3 Line/Mic	LINE	MIC
	7-Input 3 Phantom	OFF	ON
	8-Not Used	NC	NC

### 3.3.3 Line/Mic Gain Switch

### 3.3.4 Phantom Power



### **3.4 VOX Function**

### **3.5 Priority Muting**

## 3.7 Media Player

### 3.7.1 Bluetooth Operation

**Note:**

**Note:**

**Note:**

**Note:** *Bluetooth signal is muted when broadcasting the chime tone.*

### 3.7.2 USB Operation

**Note:**

### **3.7.3 Additional Media Player Information**

### **3.7.4 Firmware Upgrade Procedure**

## 4.0 Troubleshooting

**CONDITION:** No power to the mixer-amplifier so that the power LED is not illuminated.

**CONDITION:** No sound or low sound.

**CONDITION:** Distorted sound.

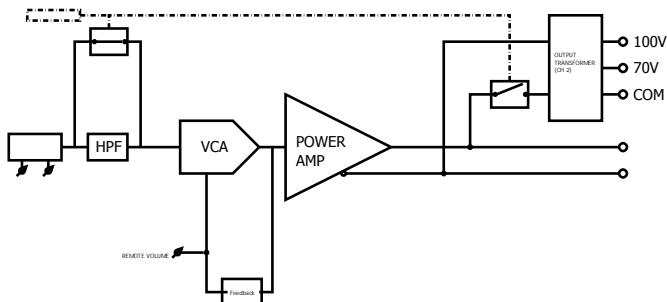
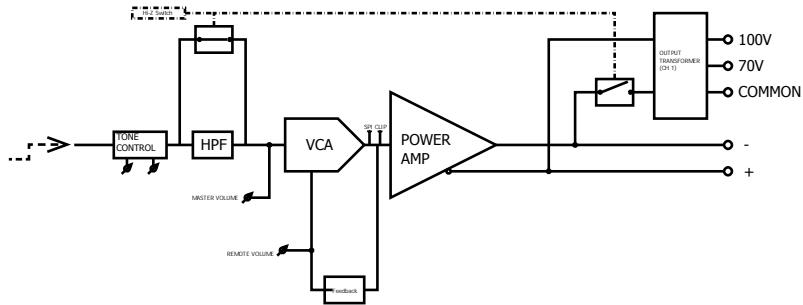
## Appendix A: Target Performance Specifications

Performance	VMA160	VMA1120	VMA1240	VMA260	VMA2120
<b>Max Output Power per Channel</b> Ω      Ω      ≤					
<b>Insertion Loss</b>					
<b>Number of Input Channels</b>					
<b>Number of Output Channels</b>					
<b>Tone Controls</b>					
<b>Input Sensitivity</b>					
<b>Frequency Response</b> (measured at 2.83V into rated load impedance at any output)					
<b>Total Harmonic Distortion (THD)</b>					
<b>Signal-to-Noise Ratio</b>					
<b>Input Impedance</b>					
<b>Phantom Power</b>					
<b>Crosstalk</b>					

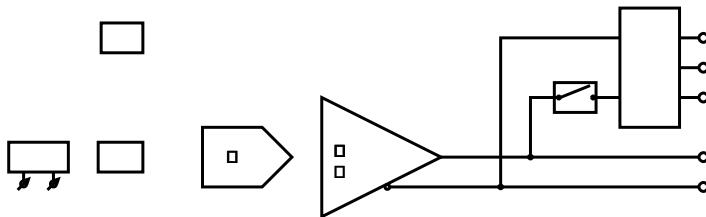
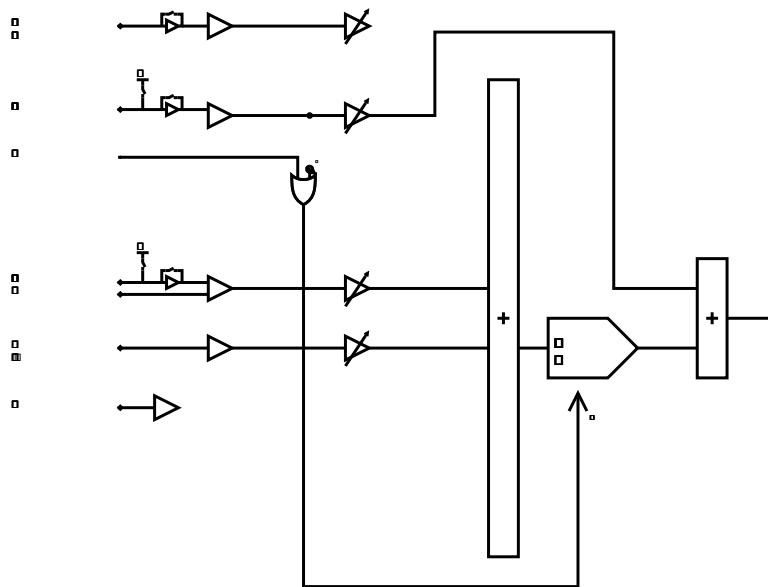
## **Appendix B: Block Diagrams**

**VMA260 & VMA2120**

## VMA260 & VMA2120 Continued



F F F

**VMA160, VMA1120 & VMA1240**

## Appendix C: Contact Information

**On The World Wide Web:**

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**Professional Contacts, Outside the USA:**

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