PULSEAUDIO™

6X6 AUDIO DISTRIBUTION
AMPLIFIER

POWER

ZONE 1   ZONE 2   ZONE 3   ZONE 4   ZONE 5   ZONE 6

VANCO PART NUMBER PA66AMP, PA66KIT

6x6 audio matrix with 6 bridgeable zones to accomodate 1 or 2 speakers per zone

Integrated wifi adapter + Android and IOS app allows for effortless control via smartphone or tablet

pulseaudio1.com | vanco1.com | 800.626.6445

DEAR CUSTOMER

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

THIS PRODUCT IS 100% INSPECTED AND TESTED IN THE UNITED STATES TO VERIFY PERFORMANCE PARAMETERS.

WARNING

1. Do not expose this unit to water, moisture, or excessive humidity.

2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.

3. To prevent risk of electrical shock or fire hazard, due to overheating do not obstruct unit's ventilation openings.

4. Do not install near any source of heat, including other units that may produce heat.

5. Do not place unit near flames.

6. Only clean unit with a dry cloth.

7. Unplug unit during lightening storms or when not used for an extended period of time. A surge protector is strongly recommended.

8. Protect the power cord from being walked on or pinched, particularly at the plugs.

9. Use unit only with accessories specified by the manufacturer.

10. Refer all servicing to qualified personnel.

CAUTION

INSTRUCTIONS PER TAINING TO A
RISK OF FIRE, ELECTRIC SHOCK,
OR INJURY 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.

CAUTION AVIS
RISK OF ELECTRIC SHOCK
DO NOT OPEN
RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR

○ FEATURES

The PA66AMP/PA66KIT is a functional, easy-to-install, highly compatible, expandable, and user-friendly audio distribution system. It provides up to 25W @ 8 Ohm Power by Class D amplifier to up to 18 zones which at can be controlled by packaged keypads (included with PA66KIT), RS232, IR, or via Wifi with the iOS and Android apps. Overall the distribution system is easy-to-install, so every audiophile can enjoy the powerful audio wherever they are.

6x6 AUDIO DISTRIBUTION AMPLIFIER
Part #   PA66AMP
PA66KIT (includes 6 keypads)

- 6 x 6 Audio Matrix with 6 Bridgeable zones to accommodate 1 or 2 speakers per zone
- Provides a Whole House Audio Control System - expandable up to 3 units for 18 Zones of distributed audio
- Integrated Wifi Adapter and Android and IOS app allows for effortless control via smartphone or tablet
- Optional keypads with modern design fit seamlessly into any room. Keypads are POE with Built-in IR Receivers (Keypads and 1 Cat5e/Cat6 Connection Hub included with Part # PA66KIT)
- High efficiency Class D amplification
- Stereo/Bridge mono output
- Stereo/Bridge mode adjustable
- IR remote controller for source select/volume/treble/bass
- RS-232 port allows 2-way communication with the Home Automation
- Power 230V and 115V adjustable
- Ext. Mute & System on 3.5mm Mono Mini Phone Jacks
- 6 IR Emitter 3.5 mm Mono Mini Phone Jacks + 1 IR Emitter 3.5mm Mono for All Output Jack
- 1 PA Input Jack to set all Zone to Source 1
- 3 Zone Pre-AMP Outputs to connect external Power amplify

○ SPECIFICATIONS

Watts @8ohms ....25W x 2 per zone

Watts @4ohms ....50W x 2 per zone

Watts Bridge 8 Ohms......................................100W per zone

S/N...>85dB A WTD

THD..<0.1%

Frequency Response.......................................20Hz-20KHz

Input Impedance...>47 K Ohm

Input Sensitivity..250 mv

Protection Function...Overload Protection, Short Circuit Protection, Over Temperature Protection

System on Voltage ....DC +12V

External Mute Voltage.....................................DC +12V

Power Supply AC115V/60Hz, 230V/50Hz

Output Connection ....Terminal Block

Dimension...16.9"W x 3.5"H x 16.4"D

Weight ....25 lbs

○ PACKAGE CONTENTS

PA66AMP:

- 6x6 Amplifier
- Remote Control
- Expansion Ribbon Cable
- Rack Mounting Ears – 2 (Installed on Amp)
- Speaker Terminal Blocks – 6 (Installed on Amp)
- AC Power Cable
- Product Manual

PA66KIT:

- 6x6 Amplifier
- Remote Control
- Expansion Ribbon Cable
- Rack Mounting Ears – 2 (Installed on Amp)
- Speaker Terminal Blocks – 6 (Installed on Amp)
- Keypad Connection Hub and Decora Wall-plate
- POE Keypads with built-in IR RX and Decora Wall-plates – 6
- AC Power Cable
- Product Manual

PANEL DESCRIPTIONS

1. Power ON/OFF Switch

2. PEAK LED indicates if a connected source level is too high. If the PEAK LED is RED, reduce the zone input or output level.

3. Standby/Zone ON LED- When this LED is BLUE this indicates a zone is not on or in Standby mode. When this LED is WHITE it indicates that a zone is on.

1. Stereo line-level Pre-Amp outputs (Zones 1-3)

2. Mode Switch: Mono/Bridge

3. Speaker Outputs: 50w @ 4 Ohms-Stereo, 25w @ 8 Ohms-Stereo, 100w @ 8 Ohms-Bridge

4. Integrated Wifi Adapter and Antennae

5. Zone Status: Used to control external Zone Devices

6. Source Inputs (Input 1/PA)

7. IR Outputs to control Sources

8. A) PA Trigger IN (Source 1)
   B) MUTE In/Control Out: This input can temporarily mute the system by connecting this unit to a relay closure switch on home automation system or phone system etc. When switch is on, it will short-circuit the input and mute the unit.

9. Expansion IN/OUT Port: Connects up to 3 units' total

10. RS232 Port

11. Voltage Selector (115v in US)

12. AC Input

13. Keypad Hub Input

14. ACG (Automatic Gain Control): brings low input levels up to a preset-level

15. Unit ID Switch

○ KEYPAD

1. Numeric LED Display

2. IR Receiver Target

3. Selection and Status LED's

4. Power/Status. Press and Hold to Turn Zone ON/OFF. When ON, Press to toggle through settings

5. Increase Volume, Treble or Bass

6. Decrease Volume, Treble or Bass

7. Source Select

⊙ REMOTE CONTROL

1. Power: switches power (On/Off) for the certain zone.

2. Mute: allows you to mute a certain zone.

3. BAL: These L & R buttons can adjust the balance of L/R channel in stereo mode.

4. VOL: Volume adjustment

5. Source: Used to select signal input.

6. Treble: This allows you to enhance or reduce Treble of signal in individual zone.

7. Bass: This allows you to adjust the Bass for the individual zone

○ CONNECT AND OPERATE

Before you begin to install the PA66AMP/KIT, it is important to implement good installation practices:

1. Make sure that AC power is disconnected before making ANY connections to the main unit and attached devices.
2. Install in a well-ventilated environment
3. Ensure any vents are not blocked to allow for proper circulation
4. Do not install above or below sources of heat
5. Use good quality cabling
6. The unit can be installed within a rack using the provided mounting rack ears

○ CONNECTING THE SOURCES

Up to 6 sources can be connected to a single PA66AMP/KIT. Using RCA cables connect each source into one of the available Source Inputs.
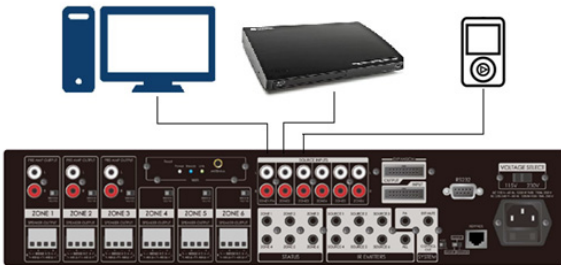
Some sources such as MP3 players and Cell Phones may require a 3.5mm Stereo to RCA Cables in order to connect to the PA66AMP/KIT.

NOTE: Input 1 can be used as a global input for all zones when a source is connected to Input 1 and the 12VDC is applied to the PA-IN jack (tip is positive) then source 1 will broadcast to all zones. If no 12VDC is applied, then the first input will be operating under normal conditions.

CONNECTING THE SPEAKERS

The PA66AMP/KIT can work with speakers that are 4-8 Ohm. There are two modes that can be set for different setups: Stereo or Bridge. An 8 Ohm speaker can only be used when in Bridge mode. To choose between modes, use the mode switch to determine modes for each zone (Number 2 Panel Descriptions, page 5)

Once you have properly identified the desired mode, strip about ¼" of insulation and twist the copper strands. Connect the speaker wire to there screw down terminal as indicated on the amp. To loosen the terminal turn counterclockwise and to tighten the terminal turn clockwise. For better quality, we recommend used 12-14 AWG stranded copper speaker wire.
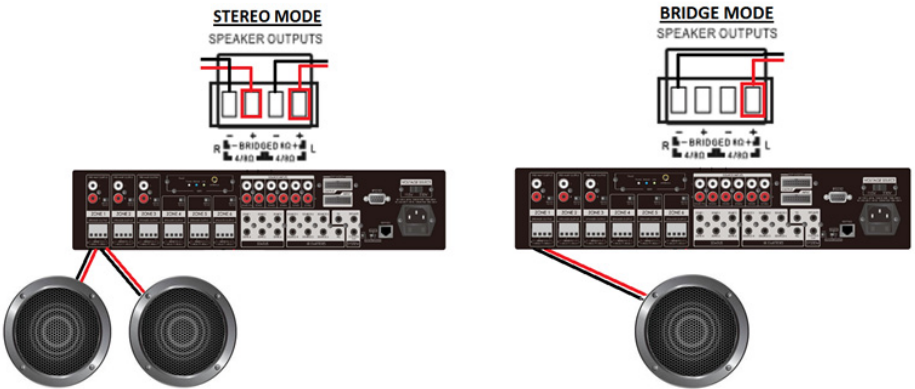
USING THE PRE-AMP OUTPUTS

There are 3 unbalanced, line level Pre-Amp outputs that correspond to the first 3 Outputs. These can be used to connect an additional amplifier, expand zones, or to connect a powered subwoofer. The Pre-amp output levels are not fixed and are able to be controlled via IR, RS232, keypads (PA66KIT) and Wifi.

○ CONNECTING THE KEYPADS

The PA66KIT comes with 6 POE enabled keypads. This allows for source control from each specific zone as well as IR routing to the appropriate source devices once selected. The PA66KIT also comes with a hub that allows for all 6-keypads to be connected to the amp via Cat5e/6.
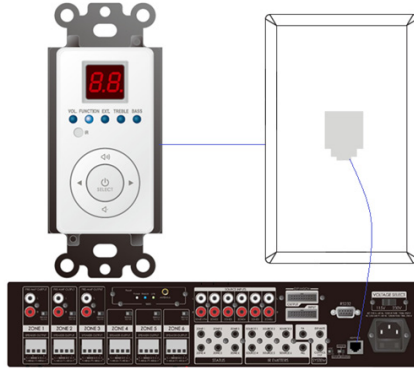

Without power being connected, connect a Cat5e/6 cable to the RJ45 port labeled KEYPADS on the back of the PA66AMP/KIT. We recommend terminating the Cat5e/6 using the 568B standard.
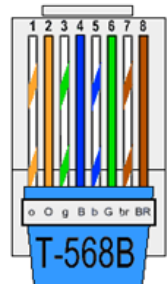
At this point it is also important to address your keypads. Refer to the chart below which is also found on the PCB board of the back of the keypad to set the dip switches according to the zone you would like it to control.

Connect the other end of the Cat5e/6 to the lone RJ45 port found on the front side of the Keypad Hub. The front is what fits into the provide decora plate. Note that the Cat5e/6 between the unit and the hub should only be between 7-10ft. The RJ45 ports on the back of the Keypad Hub are not assigned but the single RJ45 port isolated on the bottom of the hub is reserved for cascading units.


RESERVED FOR CASCADING UNITS

FRONT   BACK
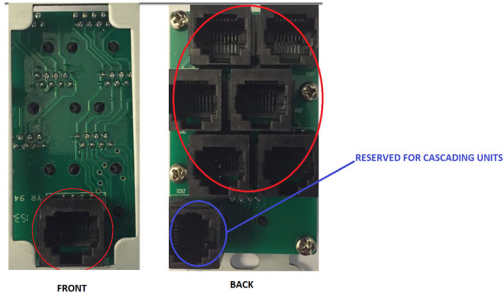
Connect the other end of the terminated Cat5e/6 to the RJ 45 port on the back of the assigned keypad and installation is complete. Complete zone and source control as well as IR and power are provided through the single Cat5e/6.

CONNECTING AND USING THE ZONE STATUS PORTS

12VDC Trigger for Zone 1-Motorized Projector Screen

12VDC Trigger for Zone 2-External Amplifier
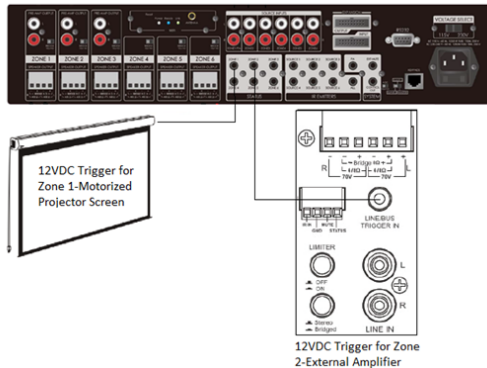
There are six 12Vdc trigger outputs which correspond to the six output zones. When a zone is powered ON by the PA66AMP/KIT keypad, the corresponding zone sends 12Vdc to the trigger output jack. The triggers can be used to automatically switch peripheral equipment ON or OFF.

WIRING: 3.5mm Mono
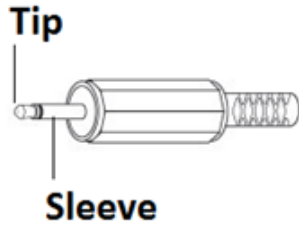
Plug: Tip is Positive (+)

Trigger Outputs for Zones 1 ~ 6: Zone ON; 12Vdc applied to the TRIGGER OUTPUT, Zone OFF; 12Vdc removed from the TRIGGER OUTPUT.
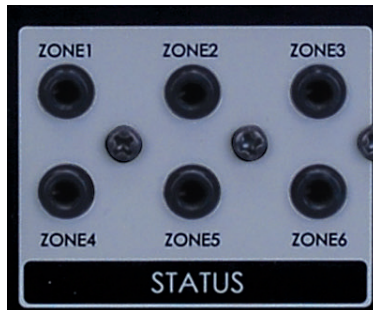
CONTROL: When any zone is on, 12Vdc applied to the CONTROL OUT. When All zones are OFF, 12Vdc removed from the CONTROL OUT

Trigger Inputs:

PA- IN: Apply 12Vdc for input #1 override on all six zones.

MUTE – IN: Apply 12Vdc to mute all zones.

○ IR EMITTERS

When being used with keypads, the PA66AMP/KIT can receive IR signals from each zone, and routed back through the Cat5e/6 and Keypad up to the Amplifier to control the selected source. For example, if Source 2-DVD is selected in Zone 1, the user will be able to control the DVD player to power the device on/off, change settings ect. Since the amplifer has discreet routing, ONLY the Source that is selected on each zone can be controlled. This prevents other sources from accidently be controlled when selected on other zones.
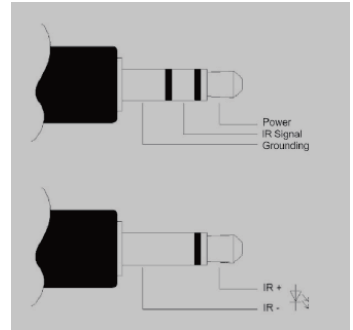
○ CASCADING SOURCES INTO ADDITONAL ZONES

The PA66AMP/KIT can allow 6 sources to be distributed to up to 18 zones on 3 different units using the provided ribbon cable to connect between units. To do this first each unit needs to be addressed according using the MASTER/ SLAVE switch. There are 3 positions for this, Master, Slave 1, and Slave 2 which help identify each unit.

Once each unit is correctly addressed, use the provided ribbon cables to connect the OUTPUT of the original MASTER unit into the INPUT of Slave 1. To cascade the sources into a third unit, using the provided expansion ribbon cable, go out of the OUTPUT port from the device addressed as SLAVE 1 into the INPUT port of the device addressed as SLAVE 2.
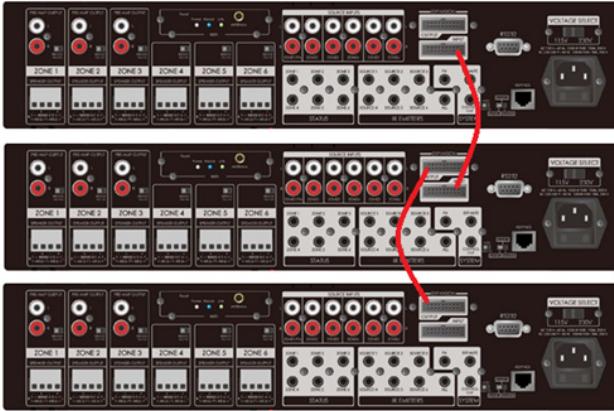

○ CONFIGURING THE INTEGRATED WIFI ADAPTER

The PA66AMP/KIT comes equipped with an integrated Wi-Fi adapter that along with the iOS or Android App provides wireless control of the audio system from a connected tablet or phone. There are 2-applications that are required to download for Wi-fi control.   See separate app document that was included in the packaging for more detailed information on downloading the apps needed for installation and control.

After downloading both apps from the appropriate mobile app marketplaces, open the Install app to begin linking your wireless device to the PA66AMP/KIT.

NOTE: YOUR WIRELESS DEVICE MUST BE ON THE SAME WIRELESS NETWORK YOU INTEND ON USING AFTER SETUP.

Once the PA66-WIFI app is opened, press on the + icon.
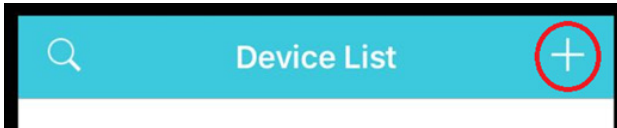
Next, ensure that the SSID of the network your wireless device is the same as it is found on the app. Enter the Wi-fi password
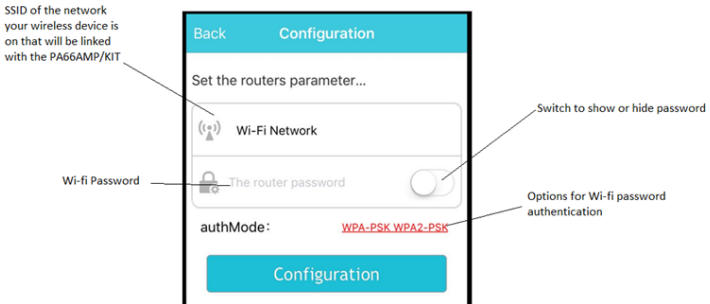
Once all of the information has been entered correctly, press on the Configuration button. A window will appear as it is searching for a wireless network to connect to. Once the unit(s) have been identified, it will be shown within the window.
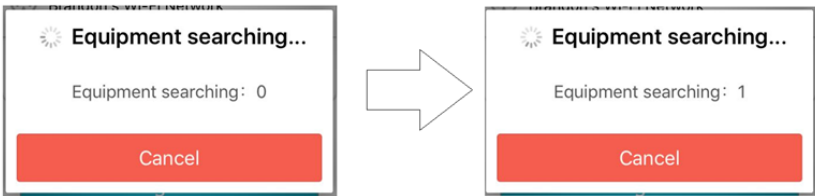
After the equipment search is complete, the window will go away and you will e on the Configuration screen again. Press/Select the BACK button to return to the DEVICE LIST menu where your device(s) will be listed with their provided IP address.
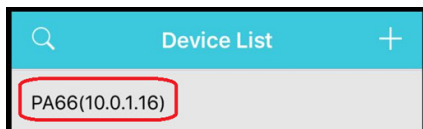

 NOTE: IF NOTHING WAS FOUND THEN YOU MAY NEED TO CHECK TO MAKE SURE YOUR PASSWORD IS ENTERED CORRECTLY OR THE AUTHMODE IS CORRECT. THIS CAN USUALLY E DETERMINED BY ACCESSING YOU NETWORK'S SETTINGS.

USING THE CONTROL APP

Now that the integrated Wi-Fi adapter has been configured to the network, you can now access and use the PA66 App.


1. Zone numbered 1-6: touch to select a different zone to control

2. Name of zone being controlled. This can be customized by touching the label.
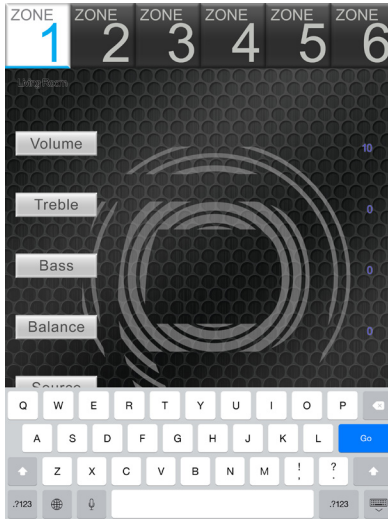

3. Touch to control volume. Volume status is indicated on the right.

4. Adjusts treble. Status shown on right

5. Adjusts bass. Status is shown on right

6. Adjusts left and right balance in Stereo mode

7. Press to change the source being played on the current zone. The name of the zone is shown on the right but is customizable once the Source button has been selected.
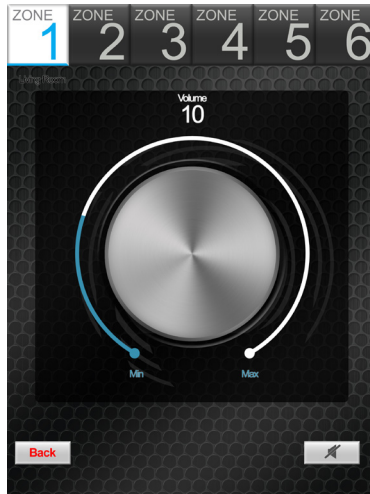
8. Turns all zones on

9. Turns all zones off

10. Party Mode: changes all zones that are ON to be one the same source. The source that is currently on the zone being controlled is the source that will be selected on all other zones. For example, if Zone 1's page is up and Source 1 is selected on Zone 1, once Party Mode is selected ALL other zones will then be on Source 1.

11. Name of the source that is selected

12.   Turns the current zone OFF/ON

13.   Mutes the current zone
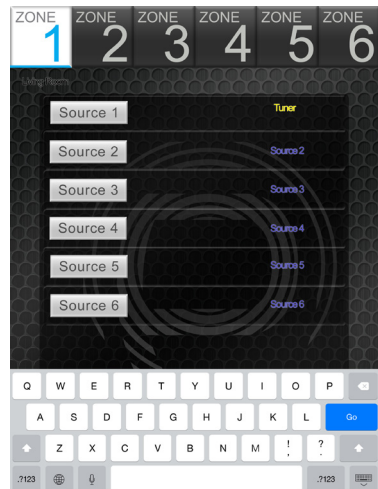
○ TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445. You can also email technical support issues to info@vanco1.com When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call. Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation. All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

○ LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

○ LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or an uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period, the purchaser will be required to provide a sales receipt/sales invoice or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

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