

**NūVō**<sup>®</sup>  
Whole Home Audio



**NV-WA40W**

**Installation and User Guide**

## Introduction

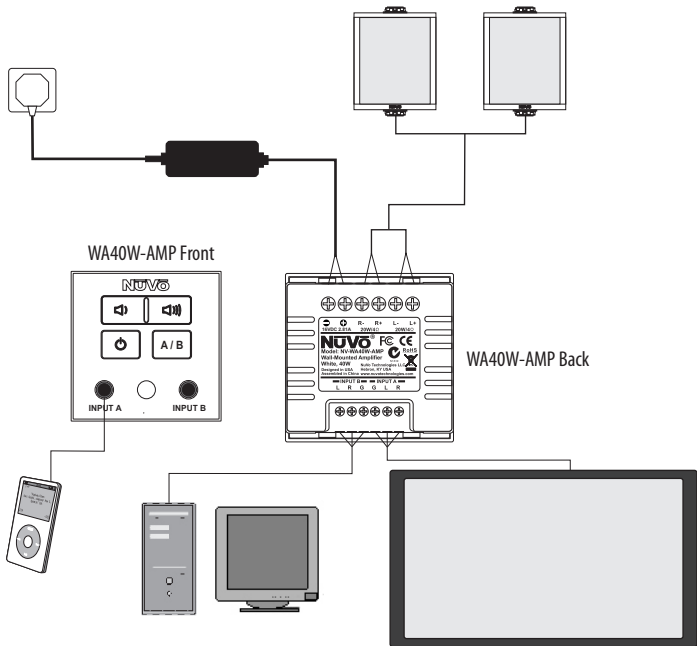
The NV-WA40W-AMP is a versatile 40-watt in wall zone amplifier perfectly suited to a variety of tasks. Its design allows two line level sources to be permanently wired into the back panel as a switchable input A or B, and two optional front panel stereo mini inputs allows any local source to be easily amplified to dedicated speakers.

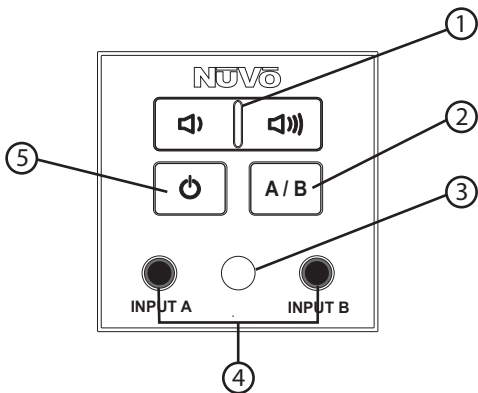
The WA40W-AMP fits in educational classroom settings, doctors' offices, hotels, and many other installations where a compact, inexpensive amplifier solution is needed.

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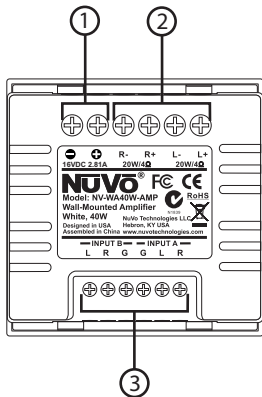
## NV-WA40W Wiring Diagram





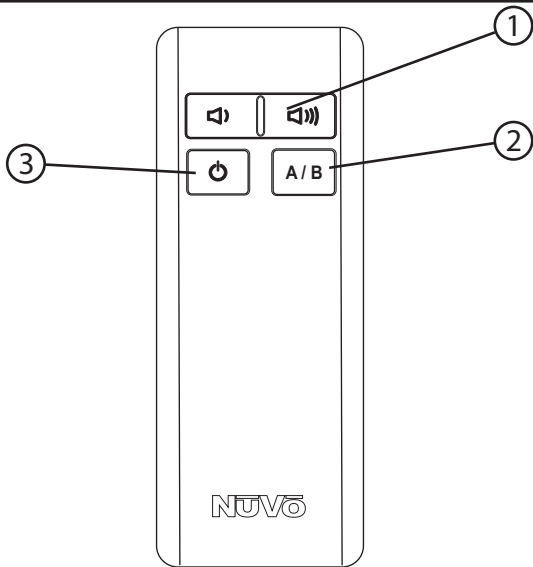
## NV-WA40W-AMP Front Panel features

- 1. Volume:** These buttons increase and decrease the signal output of the amplifier.
- 2. A/B:** This button toggles between the A and B hardwired inputs on the back panel or the individual front panel inputs. Use of the front panel inputs will override those on the back panel.
- 3. IR Sensor:** The WA40W-AMP is capable of receiving IR (Infrared) light signals from the NuVo wireless remote control. This enables the power, volume and A/B source selection to be done wirelessly.
- 4. Audio Inputs:** Two stereo inputs are available for front panel use with any device that provides a stereo line level signal.
- 5. Power:** This button turns the amplifier on and off as a toggle function.



## NV-WA40W-AMP Back Panel Features

- DC Input:** This 16V DC, 2.81A input connects to the included power supply. Once connected, the power supply can plug into any AC power source.
- Speaker Output:** The speaker output section terminates with standard audio wire. This provides the amplified audio signal to the attached speakers. The NV-WA40W-AMP is designed for a pair of 4-ohm speakers or a single stereo speaker rated at 4-ohms per channel.
- Audio Inputs A and B:** These inputs allow up to two line level sources to be permanently hardwired into the back panel. Selection for source playback is made through from the front panel **A/B** button or the wireless remote control. The inputs are automatically overridden when one of the front panel audio inputs is used.



### **NV-WA40W-RC Remote Control (sold separately)**

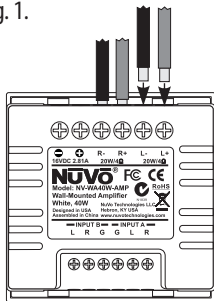
- 1. Volume:** These buttons increase and decrease the signal output of the amplifier.
- 2. A/B:** This button toggles between the A and B hardwired inputs on the back panel or the individual front panel inputs. Use of the front panel inputs will override those on the back panel.
- 3. Power:** This button turns the amplifier on and off as a toggle function.

## Installing the NV-WA40W-AMP

**Step 1:** Choose the desired location of the WA40W-AMP. It is designed to fit into a standard 35mm deep UK back box. The WA40W-AMP dimensions are a standard 50 x 50mm UK size, and has a screwless trim plate kit included in the package. Make the appropriate cutout for the mounting back box. The amplifier itself is compatible with standard 50 x 50mm wall plates. Note that a standard size Decora®\* trim plate is available in regions where the standard Decora mounting box is installed, such as North America.

**Step 2:** Define the best location for the speakers that will be connected to the WA40W-AMP amplifier. These can be in wall, in ceiling, floor standing, or bookshelf speakers, but should not present less than an 4-ohm load to the amplifier. 16-gauge speaker wire, either two or four conductor, is recommended for this purpose. The wire should be routed to the cutout for the WA40W-AMP for termination into the back of the component, as shown in fig. 1.

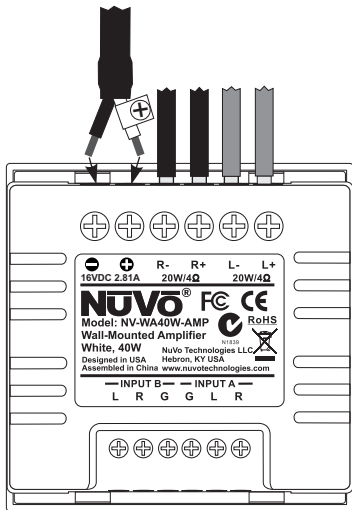
**Fig. 1**



\* Decora is a registered trade mark of the Leviton Corporation.

**Step 3:** Along with the speaker wire, route the power supply to the same cutout and terminate the positive and negative leads at the back of the WA40W-AMP, as shown in fig. 2.

**Fig. 2**





**Step 4:** Connect the optional back panel audio inputs. There are two hardwired audio inputs on the back of the WA40W-AMP. They are labeled **Input A** and **Input B**. Two individual audio sources can be wired to these inputs simultaneously. The actual source for playback is selected from the front Panel **A/B** button, or from the **A/B** button on the wireless remote control.

To make the termination, strip the left, right and ground leads on the input side of a stereo RCA or stereo mini, 3.5mm audio cable. Terminate those leads into the appropriate screw down terminals on the WA40W-AMP.

**Step 5:** When the desired inputs on the WA40W-AMP are complete, screw the mounting plate into the installed back box.

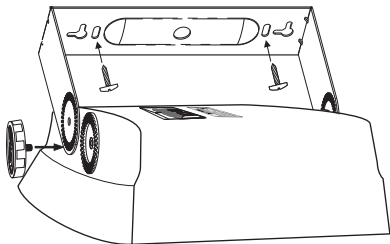
**Step 6:** Snap the WA40W-AMP into the installed mounting plate and install the screwless trim plate over the entire assembly.

The WA40W-AMP is now ready for operation. When it is turned on, the **ON** LED will light. Any incoming signal wired to the back panel will be amplified to the attached speakers. When an audio source is plugged into one of the front panel 3.5mm inputs, it will automatically override the back panel inputs.

### The WA40W-SPK Speakers

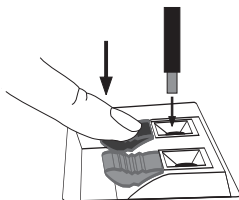
The NV-WA40W package includes a pair of On-wall speakers. These are easily mounted to any wall using the included brackets, as shown in fig. 3.

**Fig. 3**



To properly terminate the speaker, strip about 5 to 6mm of insulation, exposing the inner copper wire. Press the desired speaker terminal and insert the stripped portion of the speaker wire, as shown in fig. 4. Be careful to terminate the positive and negative conductors the same at the speakers as you did at the WA40W-AMP amplifier.

**Fig. 4**



## NV-WA40W-AMP

### Power Amplifier Output

Continuous Average Output Power	40W (20W x 2)
Both channels	1kHz / 1% THD
Rated Distortion (½ power)	0.40%
Rated Impedance	4 Ohms
Frequency Response (20-20kHz)	±2 dB

### Source Input

Front	3.5mm Stereo Jack
Input Impedance	20K Ohms
Input Sensitivity for Rated Power	300mV RMS

### Back

Variable Input	Screw Terminal
Input Impedance	20K Ohms
Input Sensitivity for Rated Power	300mV RMS
Fixed Input	Screw Terminal
Input Impedance	20K Ohms
Input Sensitivity for Rated Power	300mV RMS

### Power Requirements

Power Supply	16VDC
Power Consumption at maximum available output	45W
Power Consumption with music (typical)	10W
Power Consumption no signal	2.1W
Power Consumption standby	0.5W
Auto Shut-off Time	20mins

### WA40W-AMP Approvals

CE-EMC (EU), FCC (USA and Canada)

### Physical Specifications

Unit Size	50mm x 50mm x 29mm 1.97" x 1.97" x 1.14"
Shipping Size	424mm x 306mm x 395mm 16.7" x 12" x 15.5"
Unit Weight	0.11 Kg / 0.24 lbs
Shipping Weight	7.0 Kg / 15.4 lbs

## NV-WA40W-SPK Speaker

### Electrical

Power	10 ~50W
Impedance	4 Ohms

### Physical Specifications

Unit Size	190mm x 160mm x 90mm 7.5" x 6.3" x 3.54"
Shipping Size	400mm x 350mm x 245mm 15.75" x 13.78" x 9.65"

## NV-WA40W-RC Remote Control

### (sold separately)

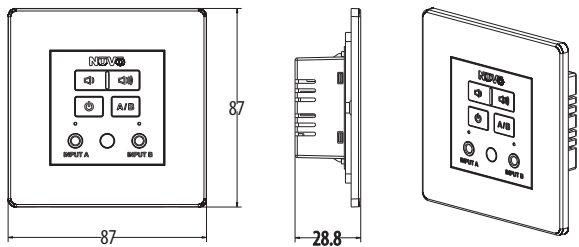
### Electrical

IR Frequency	38.7 kHz
Batteries	AAA x 2

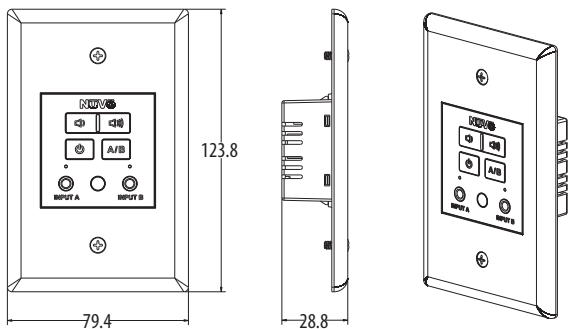
### Physical Specifications

Unit Size	110mm x 42mm x 14mm 4.33" x 1.65" x 0.55"
Shipping Size	296mm x 245mm x 280mm 11.65" x 9.65" x 11"

NuVo reserves the right to change specifications without notice.



**NV-WA40W-AMP-UK**



**NV-WA40W-AMP-DC**

EC Declaration of Conformity

We: NuVo Technologies, LLC.  
3015 Kustom Drive  
Hebron, KY USA 41048



Declare that the Product model numbers: NVWA40W-UK/NVWA40W-AMP-UK/NVWA40W-DC/NVWA40W-AMP-DC/NVWA40W-SPK/NVWA40W-RC

Power adaptor: NVWA40W-PS-UK/NVWA40W-PS-NA/NVWA40W-PS-EU/NVWA40W-PS-AU  
to which this declaration relates is in conformity with the following standards:

EN55013: 2001+/A1: 2003+/A2: 2006: Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment.

En55020: 2007: Electromagnetic immunity of broadcast receivers and associated equipment.

EN 61000-3-2: 2006: Limits for harmonic current emissions (equipment input current  $\leq 16A$  per phase)

EN61000-3-3: 2008: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current  $\leq 16A$

Following the provisions of EU Council: EMC Directive (2004/108/EC)

Year CE mark affixed: 2011

We the undersigned, hereby declare that the equipment specified above conforms to the aforementioned directive(s).

Name of authorized person: Rick Kukulies  
Chief Technical Officer

Signature:

A handwritten signature in black ink, appearing to read 'Rick Kukulies', written over a horizontal line.

Date: 11/23/11

NuVo Technologies, LLC.  
3015 Kustom Drive  
Hebron, KY USA 41048

## FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux normes CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.

## Industry Canada Statement

Complies with the Canadian ICES-003 Class B specifications.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## ENERGY STAR® Compliance



As an ENERGY STAR® partner, NuVo has determined that product meets the ENERGY STAR® guidelines for energy efficiency. The ENERGY STAR® program is a partnership with electronic equipment manufacturers to promote energy-efficient products.

For more information about ENERGY STAR®, visit: [www.energystar.gov](http://www.energystar.gov)

NuVo Technologies LLC Hebron, KY USA  
[www.nuvotechnologies.com](http://www.nuvotechnologies.com)



WA40W 1215