



DPA602 / DPA1202 / DPA2402 Digital Power Amplifiers



DPA602 / DPA1202 / DPA2402

Owner's Manual

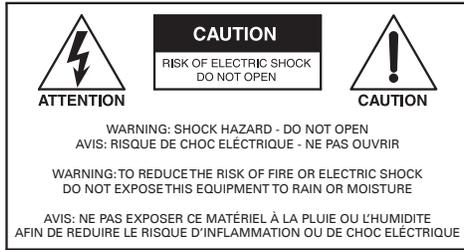
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Important Safety Instructions



The lightning flash with arrowhead symbol within an equilateral triangle, 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.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this device 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 device 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 device.
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 device. When a cart is used, use caution when moving the cart / device combination to avoid injury from tip-over.



13. Unplug this device during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the device 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 device, the device has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
16. **WARNING:** To reduce the risk of fire or electric shock, this device should not be exposed to rain or moisture and objects filled with liquids, such as a vase, should not be placed on this device.
17. To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the receptacle.
18. The mains plug of the power supply cord shall remain readily operable.
19. Protective earthing terminal. The apparatus should be connected to a mains socket with a protective earthing connection.

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WARNING - When The Device Is In Use

- WARNING: For the terminals marked with symbol of ⚡ may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the used of ready-made leads or cords.
- WARNING: The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.
- WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.
- To prevent electric shock, do not remove the product cover as there are high voltage components inside. Refer all servicing to AtlasIED.
- Should any of the following irregularities occur during use, immediately switch off the power, disconnect the power cord from the AC outlet and contact AtlasIED. Do not to attempt to continue operation with the product as this may cause fire or electric shock:
 - Smoke or strange smell coming from the unit.
 - If the product falls or the case is damaged.
 - If water or any metallic objects falls into the product.
 - If the power supply cord is damaged in any way.
 - If the unit is malfunctioning.
- Do not insert or drop metallic objects or flammable materials into the ventilation holes of the product's cover, as this may result in electric shock or fire.
- Do not place any containers with liquid or metallic objects on the top of the product. If any liquid spills into the unit, fire or electric shock may result.
- Never operate this product or touch the power supply cord during an electrical storm, electric shock may result.
- Never exceed the power rating on the product when connecting equipment. Fire and/or property damage may result.
- Operate the product only with the voltage specified on the unit. Fire and/or electric shock may result if a higher voltage is used.
- Do not modify, kink, or cut the power cord. Do not place the power cord in close proximity to heaters and do not place heavy objects on the power cord, including the product itself, doing so may result in fire or electrical shock.
- Ensure that the safety ground terminal is connected to a proper ground. Never connect the ground to a gas pipe as a catastrophic disaster may result.
- Be sure the installation of the product is stable, avoid slanted surfaces as the product may fall and cause injury or property damage.



CAUTION - When Installing The Product

- Plugging in or unplugging the power cord with wet hands may result in electric shock.
- Never move the unit with the power cord plugged into the wall, as damage to the power cord may result.
- When unplugging the cord from the wall, grasp the plug, NOT the cord.
- Never install this product in humid or dusty locations, nor in direct sunlight, near sources of heat, or in areas where sooty smoke or steam are present. Fire and electric shock may result.
- Keep all sides of the unit at least 3 1/2" away from objects that may obstruct air flow to prevent the unit's internal temperature rise.



CAUTION - When The Product Is In Use

- Never place heavy objects on the product, causing it to fall and/or break, resulting in personal injury and property damage. In addition, the product itself may fall and cause injury and property damage.
- Contact AtlasIED for instructions on cleaning the inside of the unit. Large accumulations of dust inside the unit may result in heat buildup and fire.
- Ensure that the power supply plug is securely plugged into the wall outlet. Never allow dust to accumulate on the power plug or inside the wall outlet.
- When cleaning the unit or the unit is not to be operated for an extended period, unplug the power cord from the wall.

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Introduction

The AtlasIED DPA amplifier series features a combination of flexibility, performance and control to provide high value features for applications that require more than just great sound. The network based DPA602, DPA1202 and DPA2402 are DSP controlled 4-channel amplifiers that can be configured in three different amplification arrangements to meet the design requirements of any installation. These DPA models are factory preconfigured in a two-channel 70V mode. If the design requires four channels of low impedance amplification, the DPA amplifiers can be configured as 4-channel models with either 4-Ohm or 8-Ohm load impedances. Many system designs require both low and high impedance amplification. These DPA models can be configured to deliver 70V / 100V for a paging / background system on a single channel plus two additional 4/8-Ohm amplifier channels for a foreground stereo application.

These DPA models come standard with four balanced line inputs and an accessory slot for an optional DPA-DAC4 4-channel Dante™ receiver card or a DPA-AMIX (2) mic / line, (2) AUX input card, giving the DPA602, DPA1202 and the DPA2402 a total of 8 inputs. All inputs can be mixed and routed to any of the four amplifier channels. All four amplifier channels have an assortment of DSP tools including level controls, EQ's, limiters, high & low pass filters, and delay to provide flexibility for a range of applications.

DPA Series amplifiers feature either local or network control making them a true “game changer” with amplifiers in the commercial audio world. The output level can be assigned to either the front panel potentiometers or to the on board GUI. Wired remote level control and input select can be configured to allow simple control for the end user. Each unit also features GUI based input and output level metering along with assignable mute functions that are triggered via an audio signal or contact closure. Access to the DSP settings is accomplished via computer, tablet or mobile device using a web browser. All settings can be password protected.

The DPA series amplifiers also include PC based site manager software that automatically searches within a specific network for all DPA amplifiers on the network. It will list them and allow a single click access to any unit. The DPA Site Manager software can do a variety of functions besides locating IP addresses such as; fault reporting, input & output status, standby status and remote activation via a scheduler timer.

The DPA602, DPA1202 and the DPA2402 is ready to use, out of the box for two channel 70V / 100V mode, with no configuration or network connectivity required making them a cost effective solution even for applications that do not require processing or network control.

Key Features

DPA602 configuration levels

- 2 x 300 Watt 70V / 100V
- 4 x 150 Watt @ 4Ω
- 1 x 300 Watt 70V / 100V & 2 x 150 Watt @ 4Ω

DPA1202 configuration levels

- 2 x 600 Watt 70V / 100V
- 4 x 300 Watt @ 4Ω
- 1 x 600 Watt 70V / 100V & 2 x 300 Watt @ 4Ω

DPA2402 configuration levels

- 2 x 1200 Watt 70V / 100V
- 4 x 500 Watt @ 4Ω
- 1 x 1200 Watt 70V / 100V & 2 x 500 Watt @ 4Ω

- No computer required to use
- Configurable DSP
- PC, iOS®, & Android® controllable
- User page with assignable input & output level control
- Site manager software with network auto-discovery fault reporting, input & output status, standby status and remote activation via a scheduler timer
- On board web GUI for remote monitoring of status & levels
- Mute assignments triggered via audio signal or contact closure
- Audio sense, turn-on/off
- 4 balanced inputs (up to 8 inputs with optional accessory card)
- Optional accessory card slot for a DPA-DAC4 4-channel Dante™ receiver card or a DPA-AMIX (2) mic / line, (2) AUX input card
- Assignable level controls, on board GUI (security password protected) or by front panel pots with tamper deterring covers
- Wired remote level control when used with optional WPD-VC10K
- Wired remote input select & level control when used with optional WPD-RISRL

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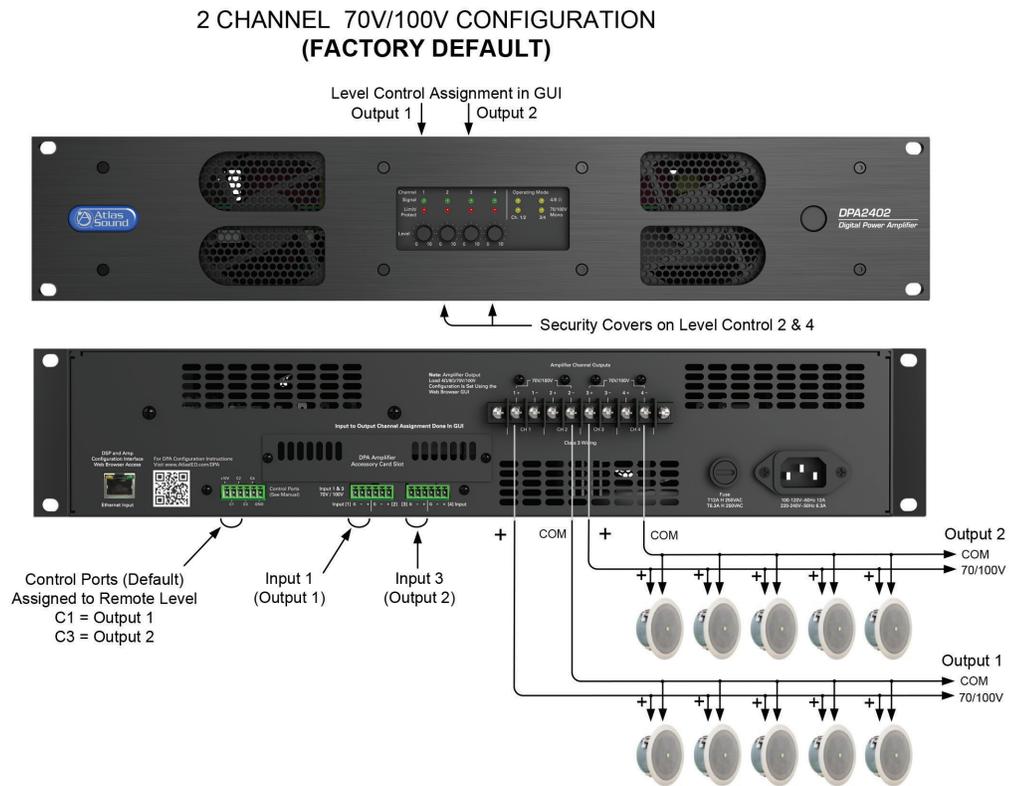
Applications

The flexible DSP, remote web monitoring, and control of the DPA Series amplifiers makes them the perfect choice for presentation rooms, classrooms, conference rooms, and retail background / foreground music applications.

DPA Amplifier Configurations

Note: For illustration purposes, model DPA2402 is used for all examples. The DPA602 and DPA1202 will be wired and configured just like the DPA2402. All DPA models have the same features and panel layout. The differences between models are in the output power levels and the physical size, models DPA602 and DPA1202 are 1RU height while the DPA2402 is 2RU height.

Configuration #1 2-Channel 70V / 100V (Factory Default)

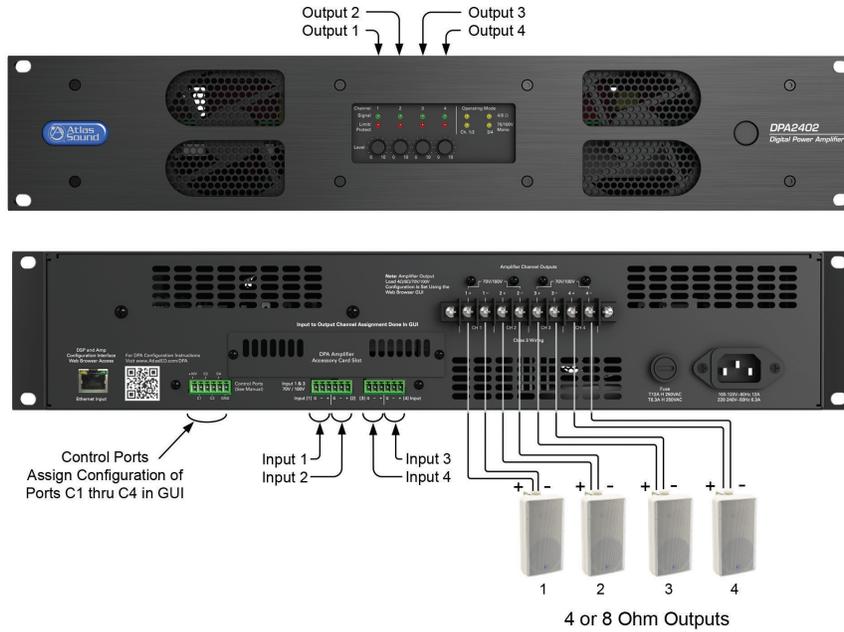


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Configuration #2 Four-Channel 4/8-Ohm

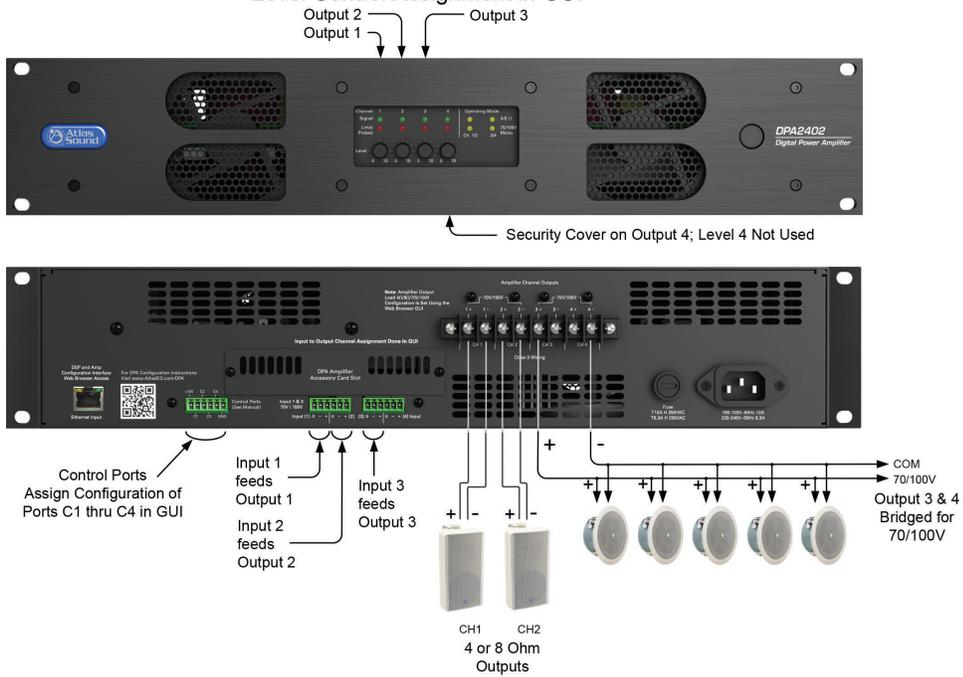
4 CHANNEL 4 or 8 Ohm CONFIGURATION (Set in GUI)



Configuration #3 1-Channel 70V / 100V & 2-Channel 4/8-Ohm

Split System Configuration Output 1&2 = 4/8 Ohm; Outputs 3&4 = 70/100V

Level Control Assignment in GUI



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Front Panel



1. Power Switch

This toggles the amplifier between Active Mode or Sleep Mode. Refer to section "Understanding the 3 Amplifier Idle States"

2. Power Indicator

The DPA amplifier has three states of Idle power that are indicated as follows:

- A. Idle Active Mode - When the LED outer ring of the power switch illuminates a steady state blue color, the amplifier is in Active Mode and is ready to pass audio.
- B. Sleep Mode - When the outer ring LED is Off, the amp is in Sleep Mode. In Sleep Mode, the Ethernet is active for access to the amplifiers on board GUI. The amplifier output stage and DSP is off. Audio will not pass in Sleep Mode.
- C. Standby APD Mode - When the amplifier Auto Power Down (APD) is enabled and the amplifier is in the APD mode, the LED outer ring will blink blue once every 5 seconds.

For further information refer to section "Understanding the 3 Amplifier Idle States" on page 35.



3. Operating Mode Indicators

The DPA 19" rack models are four-channel amplifiers that can be configured three ways. The LED's in this area indicate the configuration of the amplifier. These indicators illustrate if Channels 1/2 and 3/4 can be operated separately in 4/8Ω mode or if they are combined making a 70V / 100V output. Amplifier operation mode setting is completed using the internal DSP GUI.

- A. 2-Channel High impedance 70V / 100V mode
- B. 4-Channel Low impedance 4Ω or 8Ω mode
- C. 1-Channel High impedance 70V / 100V mode & 2-Channel Low impedance 4/8Ω mode

4. Channel 1, 2, 3, 4 Signal LED

The Signal LED will illuminate green if audio signal is present at the Output of the amplifier.

5. Channel 1, 2, 3, 4 Limit/Protect/Mute LED

The Limit / Protect LEDs will illuminate Red if one of the following conditions occurs.

- A. Any channel of the DPA amplifier reaches maximum output power. The DPA features an adjustable amplifier OUTPUT limiter which helps prevent the amplifier from hard clipping. An occasional flash of the LED is OK but if the LED illuminates continuously reduce the input level of the amp. If the Clip LED remains On after reducing the input level, recheck the load connected to the amplifier.
- B. The OUTPUT has been Muted in the GUI.
- C. A fault is detected within the amplifier. Once the fault is corrected, it may be required to reset the AC Mains power to reset the amplifier protect mode.

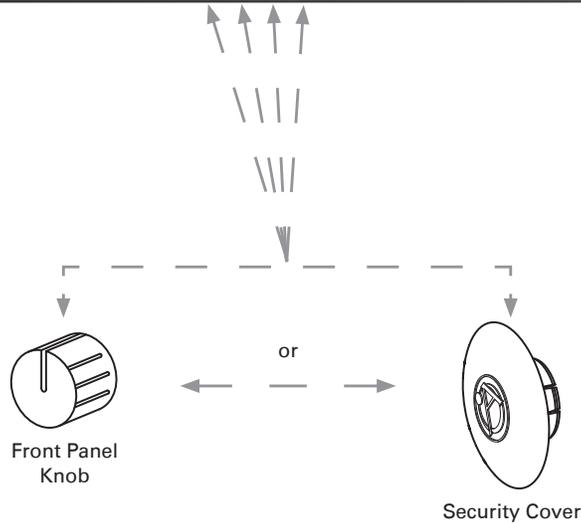
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Front Panel

6. Channel 1, 2, 3, 4 Level Controls

Each model has four potentiometer level controls on the front panel, one level control for each of the four amplifier channels. Each model is shipped factory pre-configured for 2- CH 70V / 100V mode. CH 1/2 & 3/4 are combined to make two High Impedance 70V / 100V channels. The potentiometer for CH 1 controls the level for the CH 1/2 70V / 100V amplifier output, while the CH 3 potentiometer controls CH 3/4 70V / 100V amplifier output. Pots 2 & 4 are disabled. **Note:** The front panel level controls ship enabled but can be defeated in the DSP GUI. If the front panel level controls are used, knobs can be placed on the potentiometer shaft for ease of operation or can be removed and replaced with the included security covers to prevent tampering.



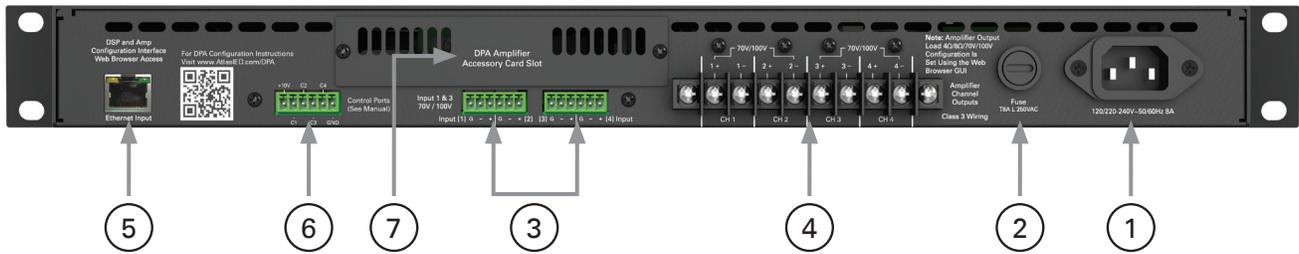
7. Air Exhaust

Each model includes convection cooling with dynamic fan assist for extreme conditions. If the unit is not being used or in Standby mode, the fan is not needed for cooling and remains Off until the unit is in heavy use. As heat is generated in the amplifier during use, the fan activates at a low speed and increases as needed to keep the amplifier at safe operating temperature. This cooling method eliminates the need for air filters that can become clogged and require maintenance. The DPA amplifier's air flow is from rear to front.

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Rear Panel



1. IEC AC Receptacle

The DPA amplifier can operate from 110V - 120V & 220V - 240V. The amplifier will automatically sense the AC Mains voltage and will automatically change voltage settings. **Note:** The DPA602 & DPA1202 use the same fuse for 120V or 230V operation. The DPA2402 will need the fuse changed. For 120V operation the fuse rating is 12A and for 230V the fuse rating is 6.3A. The included IEC cord is designed to work with 110 - 120VAC. A separate IEC cord will need to be purchased for 220 - 240VAC operation.

2. AC Mains Fuse

- DPA602 T4AL 250v, 4A ,Slow Blow, 5mm x 20mm, Glass, LITTELFUSE #: 0218004.HXP for 120V & 230V Operation
- DPA1202 T8AL 250v, 8A, Slow Blow, 5mm x 20mm, Glass, LITTELFUSE #: 0218008.HXP for 120V & 230V Operation
- DPA2402 T12AL 250v, 12A, Slow Blow, 5mm x 20mm, Ceramic, LITTELFUSE #: 0215012.MXP for 120V Operation
- DPA2402 T6.3AL 250v, 6.3A, Slow Blow, 5mm x 20mm, Ceramic, LITTELFUSE #: 21506.3P for 230V Operation

3. Input Connections

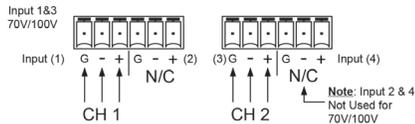
Inputs 1 - 4 accept balanced input signals via the removable 3.5mm Phoenix type connector. For wiring follow the labeling on the rear of the amp.

For unbalanced signals connect the (-) and (GND) pins together.

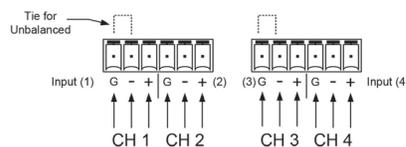


Note: Amplifier Configuration and I/O Routing are done in the GUI. Any Input can be routed to any Output. The DPA is factory shipped preconfigured in a two-channel 70V / 100V mode. The I/O Router is configured as follows: Input 1 is routed to Outputs 1/2 and Input 3 is routed to Outputs 3/4.

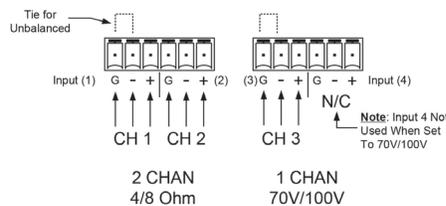
2 CHANNEL 70V/100V CONFIGURATION (FACTORY DEFAULT)



4 CHANNEL 4 or 8 ohm CONFIGURATION



HYBRID SPLIT CONFIGURATION

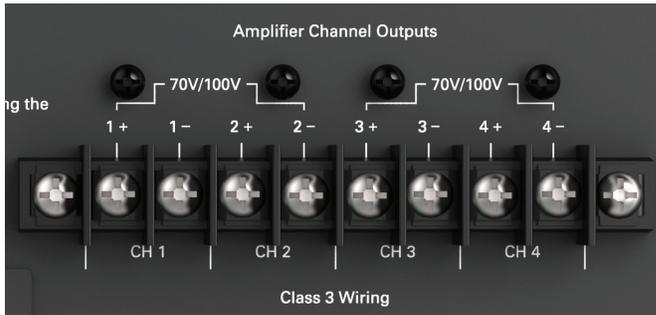


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4. Speaker Connection

A screw terminal block connector is supplied to connect your speakers to the DPA amplifier. It is recommended to use Class 3 rated, 14-gauge wire or lower for speaker wiring. Amplifier output channel configurations are done in the amplifier GUI. The DPA is shipped with two speaker output terminal covers. AtlasIED recommends placing the security covers on the amplifier after wiring and before turning the amplifier on for configuration. Included in the carton are 8 (QTY) spade crimp terminals that accept 12-gauge wire and 4 (QTY) security cover screws (M3 x 8mm). Terminal block screws are M4.



Note: The DPA amp is preconfigured at the factory for two-channel 70V / 100V mode. Follow the manual wiring information to connect the distributed audio system.

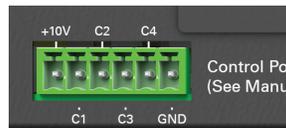
5. Ethernet Port

Connect the amplifier to the network, local computer, or router/switch using CAT5 cable to access the amplifier's DSP and control settings.

6. Control Ports

The DPA Series allows you to assign / configure the four control ports located on the rear of the DPA amplifier to perform Remote Level or Mute functions. **Note:** Each Control Port pin can only be assigned to one function such as Mute or Level, but not both. Control Port assignment is done in the DPA GUI "Mute, Link, Port Assignment Page." See page 20 for details on how to connect / assign a Remote Level and a Contact Closure Mute.

Note: The factory default assignments for the DPA Amplifier Control Ports are as follows:



Control Port Factory Default Settings (Refer to Remote Level Control)

- C1 Controls CH 1/2 70V / 100V Output Remote Level
- C2 Not Assigned
- C3 Controls CH 3/ 4 70V / 100V Output Remote Level
- C4 Not Assigned

7. Accessory Card Slot

The DPA602, DPA1202, and DPA2402 offer 4 additional inputs that can be routed to any of the four output channels. Optional accessory cards DPA-DAC4 (Four-Channel Dante™ Digital Audio Input Card) and DPA-AMIX (Four-Channel Analog Mic / Line, Auxiliary Input Card) are available. Contact AtlasIED for a list of accessory cards. See section "Accessory Card Installation" on Page 34 for information on installation or damage may occur.

Note: Accessory card installation must be done by a qualified technician.



Note: In standby mode there are DC voltages present at the accessory card port. The the DPA amp must be removed from the AC Mains source in order to prevent damage to the card or amplifier.

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Accessing the GUI Control Panel

DPA amplifiers include a unique set of features and configurations. All DPA amplifiers are configured from the factory out of the box to operate as traditional commercial power amplifiers. Ethernet connectivity is not required for operation of a DPA amplifier. However, to take full advantage of the DSP settings such as, EQ, High & Low Cut filters, level control / assignment and limiter settings, the DPA Control Panel must be accessed via the network or local computer. External software is not required to operate the DPA amplifier; the software is embedded onto the amplifier in what is called the web browser GUI Control Panel interface. To access the onboard control panel, follow one of the five methods listed below.

Accessing the GUI Control Panel

- I. Direct Connection via Ethernet
- II. Web Browser via Network Router
- III. AtlasIED DPA Site Manager Software
- IV. Smartphone or Tablet
- V. Accessing the DPA Outside the Local Network

I. Direct Connection via Ethernet

Use this method if there is no network access available.

1. Connect an Ethernet cable from a laptop or desktop computer to the Ethernet Input on the DPA amplifier. Most computers will allow direct connection from the DPA amplifier using a standard CAT5 cable. Some older computers may require the use of a Crossover cable to connect to the DPA amplifier. If a connection cannot be made using a CAT5 cable, use a Crossover cable.
2. Turn OFF the computer's Wi-Fi.
3. Open a Web browser, AtlasIED suggests using Google Chrome or Mozilla Firefox.
4. In the Web Browser address bar, type in the following: `http://DPA602` and hit enter. For this example we are connecting to the DPA model DPA602. An example is shown in Figure 1.

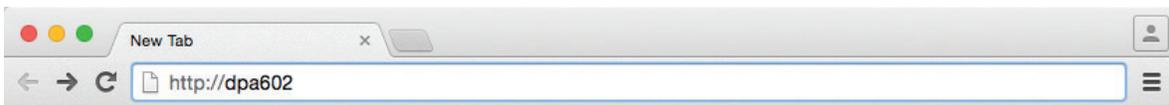


Figure 1

5. Out of the box the amplifier's model number is all that is needed to connect. It is not case sensitive, but the full exact name is required.

Note: During configuration, the amplifier's name can be changed. As an example at a school the amp may be renamed "ROOM1". After the name is changed, follow the same process to log onto the amp as outlined above, but change the name from "http://dpa602" to "http://room1".
6. The amplifier will be discovered and the DPA User PC Control Page will launch after pressing the "Enter" key. An example of the DPA User PC Control Page GUI web page is shown in Figure 2.
7. The DPA amplifier's IP address can be directly entered into the Web Browser to access the DPA GUI. Example: "http://192.168.1.110"

Note: It is required to enter the Administrator Name and Password to access the home page. Factory default for User Name is "admin" and the password is "admin". The first time you login you will be required to change the default password. See page 17. If the username and password become lost, performing an IP reset will also reset the username and password to defaults. This reset will does not alter amplifier settings other than the network configuration and username/password.

Note: When on the Mobile Page, on the Setup page, the faders will not function. To make setting changes the value of change must be entered in the data box. In the amp configure page the Level faders can be linked together for stereo level adjustment.

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II. Web Browser via Network Router

This method is very similar to the Direct Connection method covered in Section 1, but using a web browser on your local network to find the DPA amp.

1. Connect the DPA Amplifier using a standard Ethernet cable to a Router. Make sure the Router is in DHCP mode, the usual default.
2. Connect your computer to the same Router via an Ethernet cable or Wi-Fi.
3. Open a Web browser, AtlasIED suggests using Google Chrome or Mozilla Firefox.
4. In the Web Browser address bar, type in the following: `http://DPA602` and hit enter. For this example we are connecting to the DPA model DPA602. An example is shown in Figure 1.
5. Out of the box the amplifier's model number is all that is needed to connect. It is not case sensitive, but the full exact name is required.
Note: Once connected, the name of the amplifier can be changed to meet the install's naming orientation.
6. The amplifier will be discovered and the DPA User PC Control Page will launch after pressing the "Enter" key. An example of the DPA User PC Control Page GUI web page is shown in Figure 2.
7. If the DPA Amplifier's IP address is known, enter the IP number into the Web Browser to access the DPA GUI. Example: "`http://192.168.1.110`"

III. AtlasIED DPA Site Manager Software

This method is the easiest way to find and connect to any DPA Amplifiers on the Network. See Figure 3.

1. Download the DPA Amplifier Site Manager software at www.atlissound.com/dpa.
2. The DPA Amplifier Software is a small zip file and can be emailed but has to remain a zip file because it has an executable (.exe) file to launch the software. Most Internet security software will block any .exe file unless it is in zip file format. Also download the DPA Amplifier PC IP Site Manager Software user guide to make installation easier.
3. The DPA Site Manager software can do a variety of functions besides locating IP addresses such as; fault reporting, input & output status, standby status and remote activation via a scheduler timer. Refer to the DPA Site Manager instructions for the complete capabilities of the software.

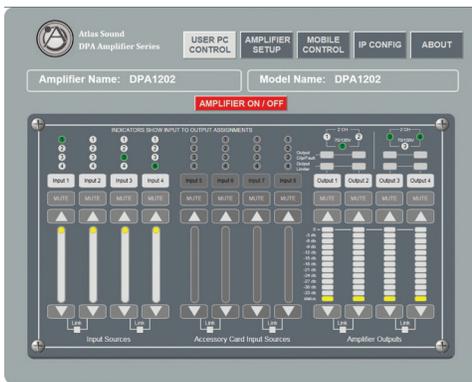


Figure 2

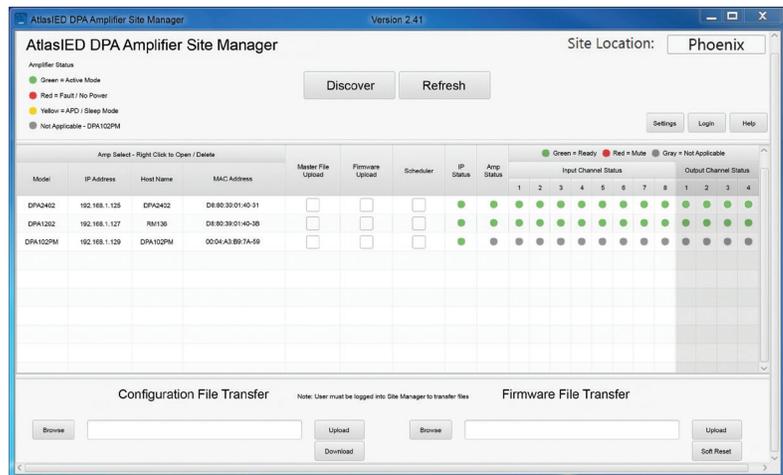


Figure 3

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IV. Smartphone or Tablet (Wi-Fi)

1. DPA amplifiers can be accessed remotely using a smartphone or tablet device using the IP address for the amplifier being accessed. Use method 1, 2, or 3 to create the initial DSP configurations and then access the amplifiers using the mobile device interface.
2. To access a DPA amplifier on a network using a smartphone or tablet requires that the smartphone or tablet be able to access the same network via Wi-Fi.
3. Open the Smartphone's or Tablet's Browser and enter the IP address in the address bar. Example: "192.168.1.110/mt1.html"
Note: Some network firewalls may block access. If this occurs consult an IT technician for firewall setting adjustment.
4. The GUI will open to a Mobile page as shown in Figure 4. Mobile access will allow for volume level adjustment and home page access once the administrator user name and password are accurately entered when prompted.
5. On the Mobile page of the GUI, the amplifier output level and mute can be adjusted and the Home page can be accessed. The page resolution size has been created to fit mobile devices when accessing via a mobile device.

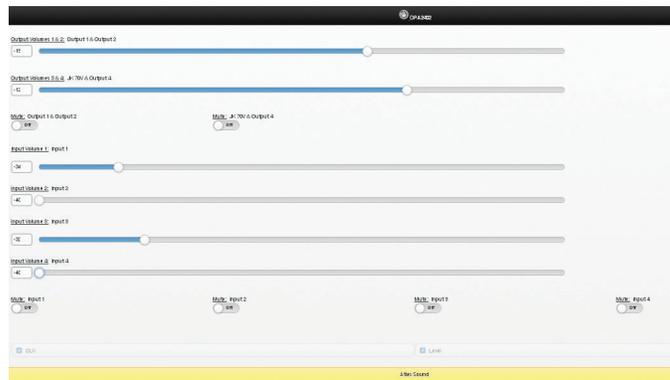


Figure 4

Note: It is required to enter the Administrator Name and Password to access the home page. Refer to Page 17 for Password Login.

Note: When on the Mobile Page, on the Setup page, the faders will not function. To make setting changes the value of change must be entered in the data box. In the amp configure page the Level faders can be linked together for stereo level adjustment.

6. After accessing the Mobile web page, the IP connection can be saved to the device's screen as APP ICON short cut where its name can be changed to reflect its location or other description.

Apple® iOS

- Open the DPA amplifier mobile web page using Safari.
- At the bottom of the screen select the box with the arrow.
- Select "Add to Home Screen"
- Open the DPA amplifier mobile web page using the Safari browser.
- Press the Menu button and select Bookmarks.
- Select the top left thumbnail labeled Add.
- Press OK to add it.

DPA602 / DPA1202 / DPA2402

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V. Static IP - Accessing the DPA Outside the Local Network

Follow these instructions in order to access a particular DPA amplifier from outside of the Network the DPA is connected to. **Example:** An amplifier is in a school in Los Angeles and the volume in the classroom is not loud enough. The installer has the maximum level set via the limiter. Instead of the installer having to drive to the school which is three hours away, he can access the amplifier from his desk or phone. During the installation of the amp, the amplifier can be configured with a static IP address and a specific port assigned by the school's IT manager. This enables the installer access only to the specific DPA amplifier that needs the level adjusted. Below is a safe convenient way to allow limited access to a specific product via a protected network. Setting up an external IP address eliminates the requirement to VPN into a network to gain access to the LAN. This allows the person needing to maintain the device a single point of entry and keeps the LAN secure.

1. Plug DPA amp into local network, determine the IP address assigned to the amp, and change it to a static IP address.
2. Create a NAT (Network Address Translation) on the WAN router or firewall using port 80. An external static IP address will be needed for this process to work.
3. Once the external IP address is translated to the internal IP address, go to another Internet connection outside the Local Network where the DPA amp is present and try connecting to the external IP address. Verify correct NAT has been established.

Resetting the DPA IP to Factory DHCP

1. Remove AC power from the DPA amplifier and wait 1 minute.
2. Apply AC power. The blue power indicator will turn solid after 1 - 2 seconds. Immediately press and hold the power switch until the blue power indicator turns off then back on. All of the front panel LEDs will blink a few times. After the LEDs stop blinking, release the power switch. After the power indicator illuminates solid blue, you are now able to log in using "admin" for the Username & Password.
3. DHCP will be reset and both the username and password will be reset to "admin." **Note:** The DSP settings will not be affected.
4. Follow standard login procedures. See page 17.

IP Config Page

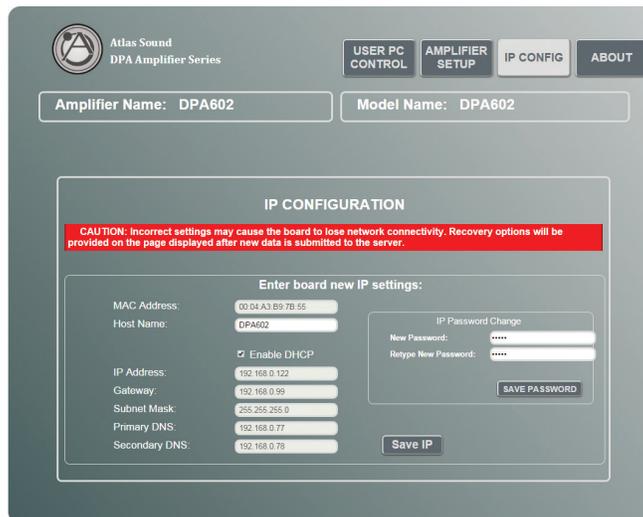


Figure 5

DPA602 / DPA1202 / DPA2402

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Identifying the Firmware Version

1. About Page - To gain access to feature enhancements or bug fixes, it may be required to update the firmware on the amp. The About Page contains information such as the MAC address and firmware versions. There are 2 types of firmware that may need upgrading, **Host (HEX)** firmware and **Web (BIN)** firmware. This is illustrated in Figure 6.

Visit www.atlassound.com/dpa, choose the DPA model being updated, and click the "support files" tab in the center of the page. Click the "About" page in the Control Panel and it will list the firmware versions installed on the amplifier. Compare these to the firmware versions available for download on the Atlas website. If they don't match, download the firmware versions that need to be updated. Read the DPA Amplifier Firmware Update Guide for instructions on how to install the firmware updates.

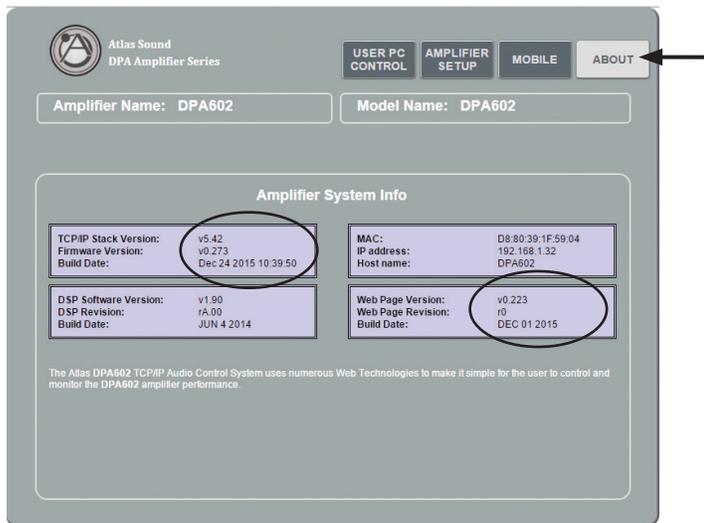


Figure 6

2. Update Page - As features and updates are created it may be required to update the firmware on the amp. This page provides directions on how to perform a firmware update as shown in Figure 7.

For a more detailed description on firmware upgrades visit www.atlassound.com/dpa to download the DPA amplifier upgrade Reference Guide and up-to-date firmware files.

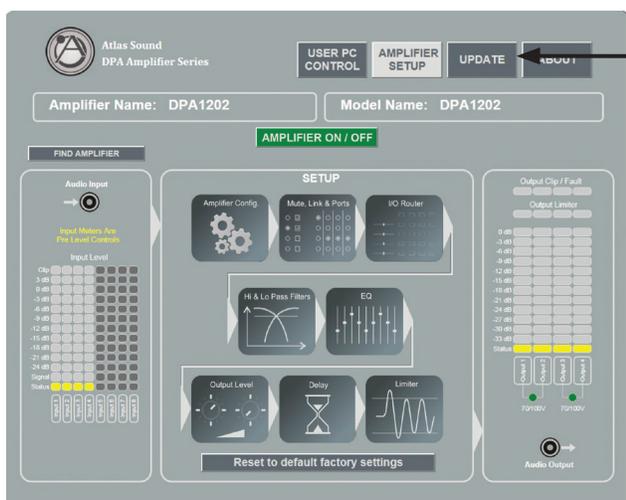


Figure 7

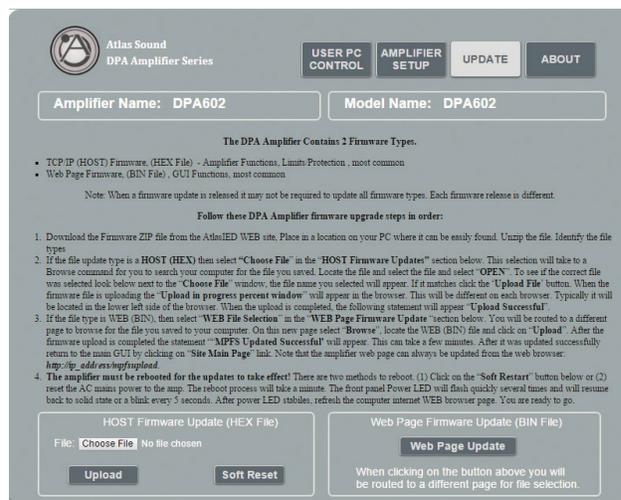


Figure 8

DPA602 / DPA1202 / DPA2402

Owner's Manual

DPA GUI Pages Defined

User / Home Page

When the DPA GUI is accessed for the first time, the DPA amplifier is configured as a 2-channel 70V / 100V mode amplifier with the front panel level controls active and the USER level control on the GUI page deactivated. **Note:** The DPA amp Output Level can be controlled by either the front panel Level or by the GUI, but not both at the same time. To use the GUI User Level Control, the amp needs to be configured for that operation.

If the DPA amp GUI is open and looks like Figure 9, the front panel level controls are active. Notice the fader controls are invisible. This is the factory shipping default mode. If the Amplifier Activation Switch is illuminated red, the amplifier is on Sleep or APD Mode. If the switch is illuminated green, the amplifier is in Active Mode. Click to select between modes.

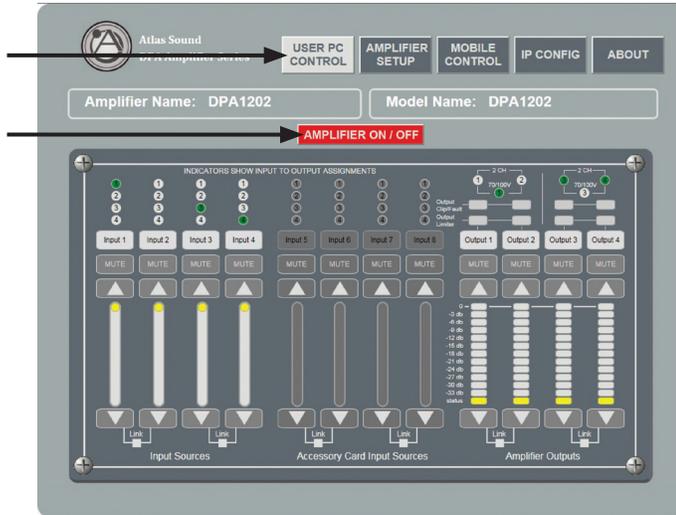


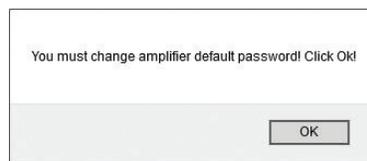
Figure 9



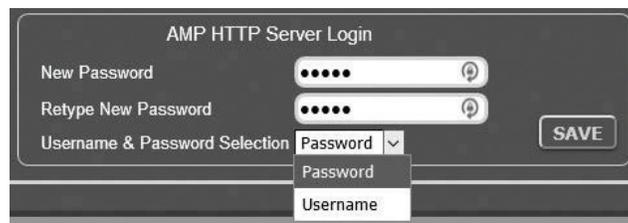
Figure 10

Password Log In

To access the full command of the DPA GUI, click on the Setup tab and enter the user name and password. Factory Default for User Name is **“admin”** and the Password is **“admin”**. This is shown in Figure 10. **Note:** When you first connect to your DPA series amplifier’s WEB interface, you will be prompted to change the default username and password.



The amplifier will present a username and password selection screen. Please use the drop menu below for the username or password to select which option you would like to change.



When you have entered and retyped your new username and password, it is recommended you record your new credentials in accordance with your site security policy and click SAVE within the Server Login dialog box. The DPA Amplifier username and password are now updated.

If the username and password become lost, performing an IP reset will also reset the username and password to defaults. This reset does not alter amplifier settings other than network configuration and username / password. See page 15 for Reset procedure.

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Setup Page

From the Setup Page the user can view and access the following:

1. Access the Home, Update and About page
2. Access the Amp Config, Mute Port & Link, I/O Route, HP & LP Filters, EQ, Output Level, Delay and Limiter control pages.
3. View Input Meters - Input Meter readings are Pre all Level Controls
4. Input Status Indicator - Located at the bottom of the Input meters.
 - A. Blue indicator means ready and active.
 - B. Red indicator means the channel is muted.
 - C. Grayed Out means not enabled (applies to inputs 5 - 8)
5. Output Level Meters
6. Output Status Indicator - Located at the bottom of the Output meters.
 - A. Blue indicator means ready and active.
 - B. Red indicator means the channel is Muted
7. Output Limiter - Illuminates yellow when the limiter is engaged.
8. Output Clip / Fault Indicator
 - A. Clip illuminates red when the amplifier output has reached its maximum output power.
 - B. Fault illuminates red when the channel has a fault condition such as an improper load applied for the configuration setting, short on the output or failed output channel. **Note:** It may be necessary to reset the AC Mains Power to clear the amplifier from protect mode.
9. Amplifier On/Off Status and Activation Switch - If illuminating red the amplifier is in Sleep or APD Mode. If illuminating green the amplifier is in Active Mode. Click to select between modes.

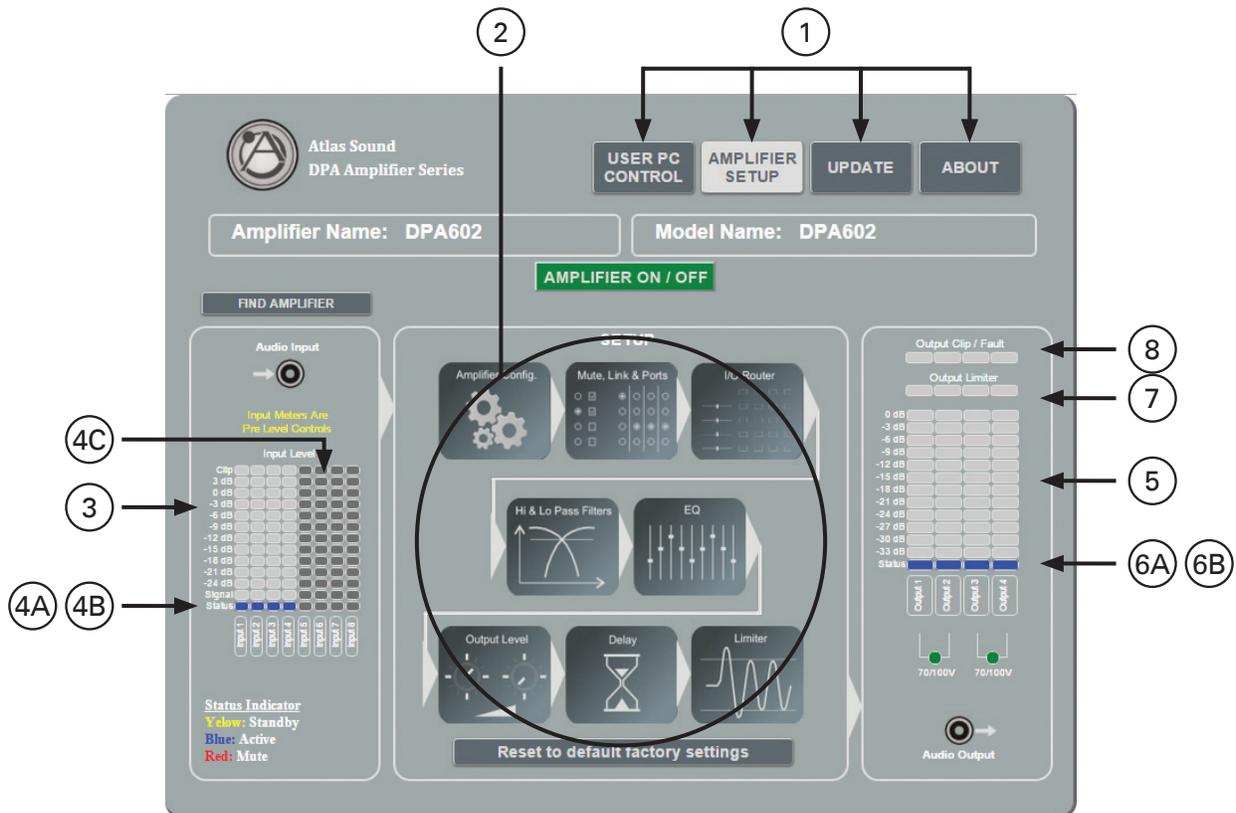


Figure 11

DPA602 / DPA1202 / DPA2402

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Amp Configuration Page

1. Password Name
2. Name Inputs and Outputs
3. Accessory Inputs - Enable / Disable **Note:** Factory default accessory inputs are not engaged.
4. Auto Power Down (APD) Enable / Disable. When this box is checked the amp is in Auto Power Down (APD) mode. After 30 minutes with no audio signal at the amplifier, the DPA amp will enter Standby APD Mode. In Standby Mode the amp will draw less power. The DPA amplifier has three states of idle power consumption to meet installation energy power consumption requirements. Refer to the amplifier specification page for power consumption data. Refer to the section on "Understanding the 3 AC Power Consumption Idle States" for a definition on how each idle state operates. When the amplifier senses signal on any of the 8 inputs, the amplifier will automatically switch from APD Mode to Active Mode. **Note:** Factory default APD is **not** engaged.
5. Level Control Assignment - Check the appropriate box for desired mode of output level control method. The DPA output level can be controlled by either Front Panel pots or by the GUI, but not both at the same time. **Note:** Factory default Front Panel Level Control is engaged.
6. Amplifier Output Configuration - Configure the amplifier outputs to be either 70V / 100V or 4Ω / 8Ω. **Note:** Factory default is CH 1/2 & CH3/4 are 70V
7. Front Panel Power Disable Box - When selecting this box the front panel power switch is disabled. The amplifier can only be turned On/Off by removing the power cord. **Note:** Factory default Front Panel Power Button is engaged.

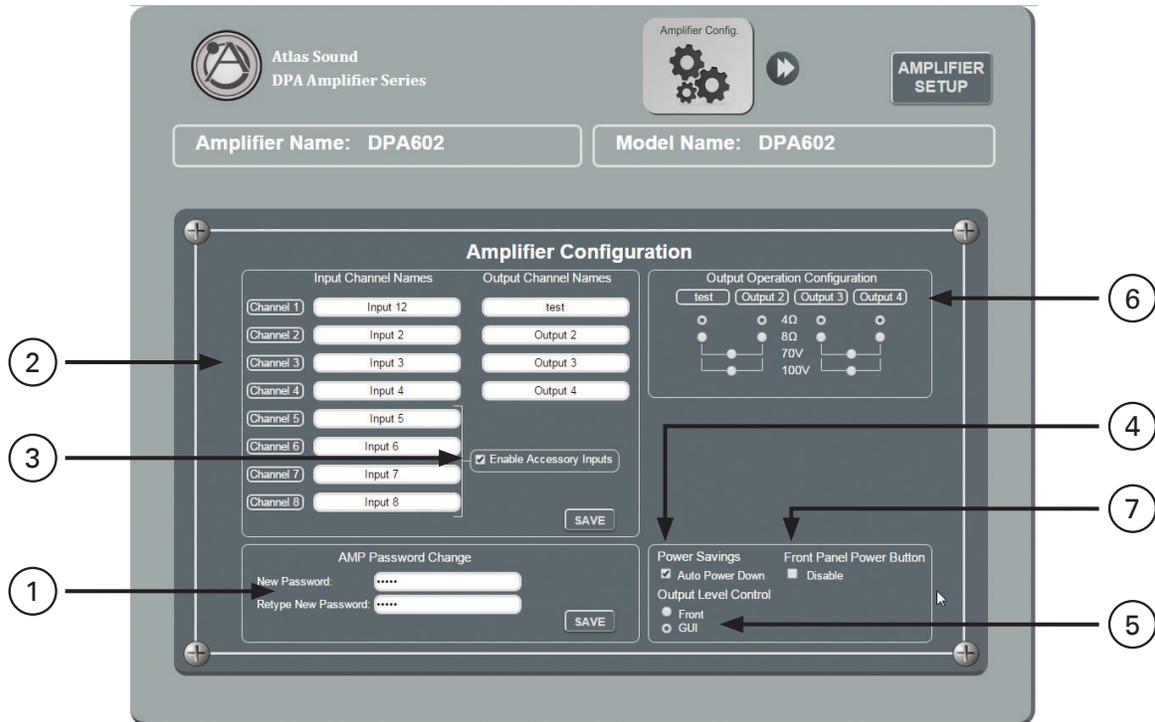


Figure 12

DPA602 / DPA1202 / DPA2402

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Mute, Link & Port Assignment Page

This page allows you to view the amplifiers configuration and assign VOX Mute & Contact Closure Mute, Remote Level and link Level Faders.

1. Output Configuration Indicators - This section is a visual aide to see how the amplifier is configured. This is important information to know when assigning a Remote Level or Linking Faders.
2. Remote Level Assign - This section allows the user to assign the Control Port on the rear of the amplifier to control the amplifier output selected by the user. **Note:** Factory Default C1 is assigned to control Outputs 1/2 70V and C3 is assigned to control Outputs 3/4 70V. Refer to Page 27 for information on configuring and wiring a remote level control.
3. Auto Sense Input Mute (VOX) - This section allows the user to assign a selected input to be a Mute Send trigger when it senses an input signal. It will then send a Mute command to other inputs that are assigned to receive the mute command. There are two levels of priority that can be assigned. Refer to Page 32 for information on how to set up a VOX Auto Sense Mute.
4. Audio Sense Trigger Threshold - Audio levels vary and are dependent on the source material. Levels from a CD vary from a microphone. In the GUI the level to activate or trigger the Mute can be selected in 1mV increments up to 50mV. When setting the trigger level you need to allow for noise on the audio line and set the level high enough to avoid false triggers. The level sent applies to Mute Send #1 / Mute Receive #1 and Mute Send #2 / Mute Receive #2.
5. Mute / Duck Hold Time - How long or how much the selected input needs to be muted and reduced in level (Duck) will depend on the application. In the GUI there are four selections to choose from. Refer to Page 32 for information on selections. **Note:** This setting applies to both the Audio Sense Trigger and the Contact Closure Mute.
6. Contact Closure Input Mute - A rear panel control port can be assigned to mute any Input as seen in the Mute, Link, and Port Assignment GUI page shown below. A remote switch can be used to control the mute trigger as shown in the illustration below. Refer to Page 33 for setup.
7. Input Level Control Link Assign - The DPA amp has 4 line inputs with an additional optional 4 inputs. Some of the Inputs or Outputs may be used for stereo applications. For control convenience you can assign two faders to be linked together.
8. Level Control Assignment Indicators - This section displays a combination of settings gathered from other pages. This allows the user to see which Inputs are assigned to what Output, Input Names and if faders are linked together while making other configuration settings. The below example shows you that Input 1 is assigned to Output 1/2 and Input 3 is assigned to Output 3/4. The amps are configured as 2 CH 70V / 100V amplifier and no Inputs are linked together. This is also the factory default setting.

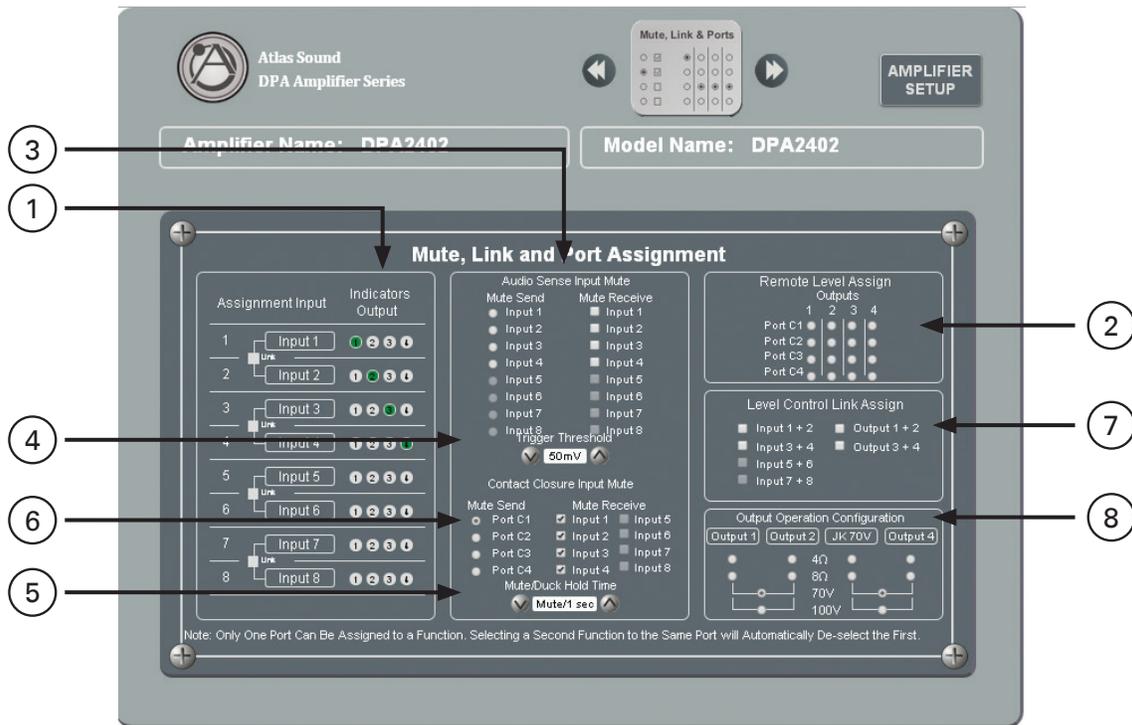


Figure 13

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Owner's Manual

Input / Output Router Page

Any of the DPA 4 Line or optional 4 inputs can be mixed to any output. Select the channel and assign the input levels desired to go to the amplifiers output stage. If more than one Input is assigned to the same Output the signal will be summed.

1. Input Channel Level Faders - Inputs 5 - 8 need to be enabled in the Amp Configure page if you have an accessory card installed. The fader buttons for Inputs 5 - 8 are not visible because the inputs are not enabled. See Figure 14.
2. Output Channel Select Button - Click on the Output Channel and assign Input Levels 1 - 8. **Note:** Each Output Channel has its own independent Input level mix.
3. Input Mute Button - This button will turn red when selected, indicating the input is muted.
4. Amplifier Output 70V / 100V Indicator - When this indicator is Green it means that CH 1/2 or CH 3/4 are in 70V / 100V configuration mode. When in the 70V / 100V mode, Outputs 1 & 2 or 3 & 4 are connected together and whichever Input is assigned to the Output will be fed to both outputs. Output Meters 1/2 or 3/4 will show the same levels. If the box is not Green it means the amplifier is in 4Ω / 8Ω mode and CH 1/2 and 3/4 are independent from each other. Amplifier Output configuration is done in the Amp Config page.



Figure 14

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High / Low Pass Filter Page

Each Output Channel has a High Pass and Low Pass filter. Filter slope and frequency can be assigned by dragging the fader or typing a value.

1. High Pass Filter Frequency Fader - Slide the Fader to the desired Frequency the filter should start at. The data window indicates the frequency selected, which can be adjusted by clicking on the display window and entering the desired frequency.
2. High Pass Filter Frequency Display - This window will indicate the frequency of the filter that the fader has been set to. Click on the window and entering the desired frequency to change.
3. Low Pass Filter Frequency Fader - Slide the Fader to the desired Frequency the filter should start at. The data window indicates the frequency selected, which can be adjusted by clicking on the display window and entering the desired frequency.
4. Low Pass Filter Frequency Display - This window will indicate the frequency of the filter that the fader has been set to. Click on the window and entering the desired frequency to change.
5. Filter Slope Select - Click on the desired filter slope of 6dB, 12dB, 18dB or 24dB. **Note:** this setting will apply to both the High and Low Pass Filters.

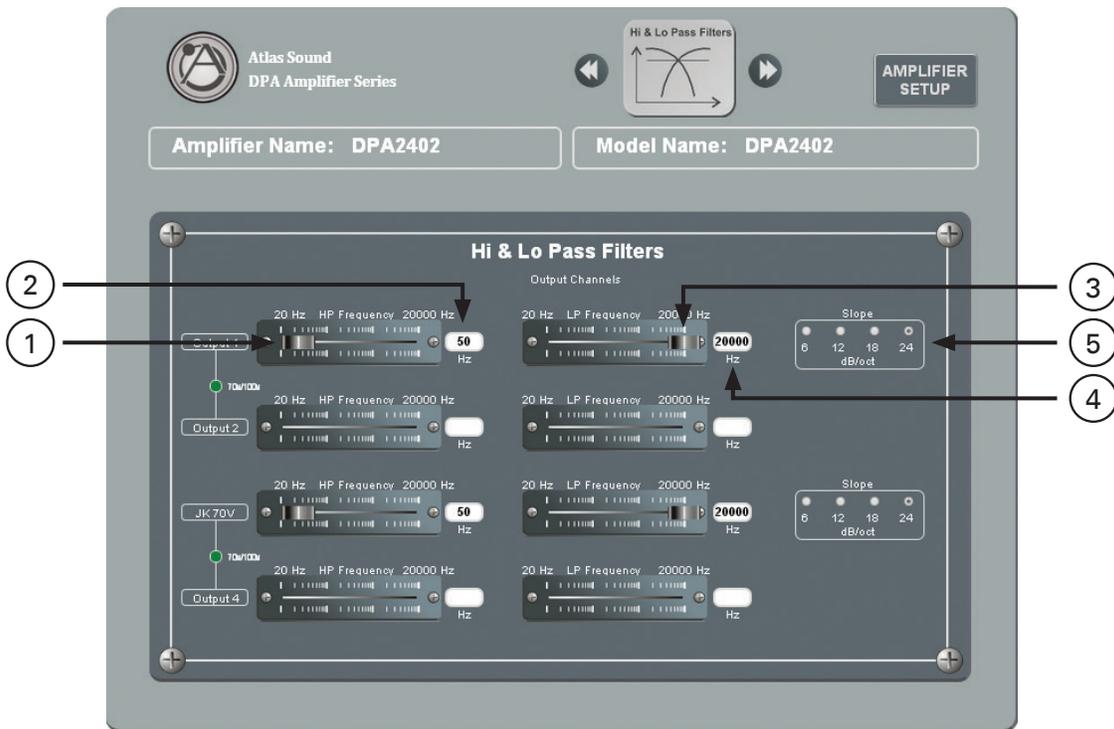


Figure 15

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Output EQ Page

Each output channel has 5 parametric filters available.

1. Output Channel Select - Select the Output Channel and apply the EQ setting. Each Output has independent settings.
2. Frequency, Q, Gain Fader - Adjust all three the Faders to configure the desired filter. The data window indicates the frequency selected. Click on the window and enter the desired frequency to change.
3. Frequency, Q, Gain Display - This window will indicate the numerical values for each setting applied to the filter. Click on the window and enter the desired frequency to change.

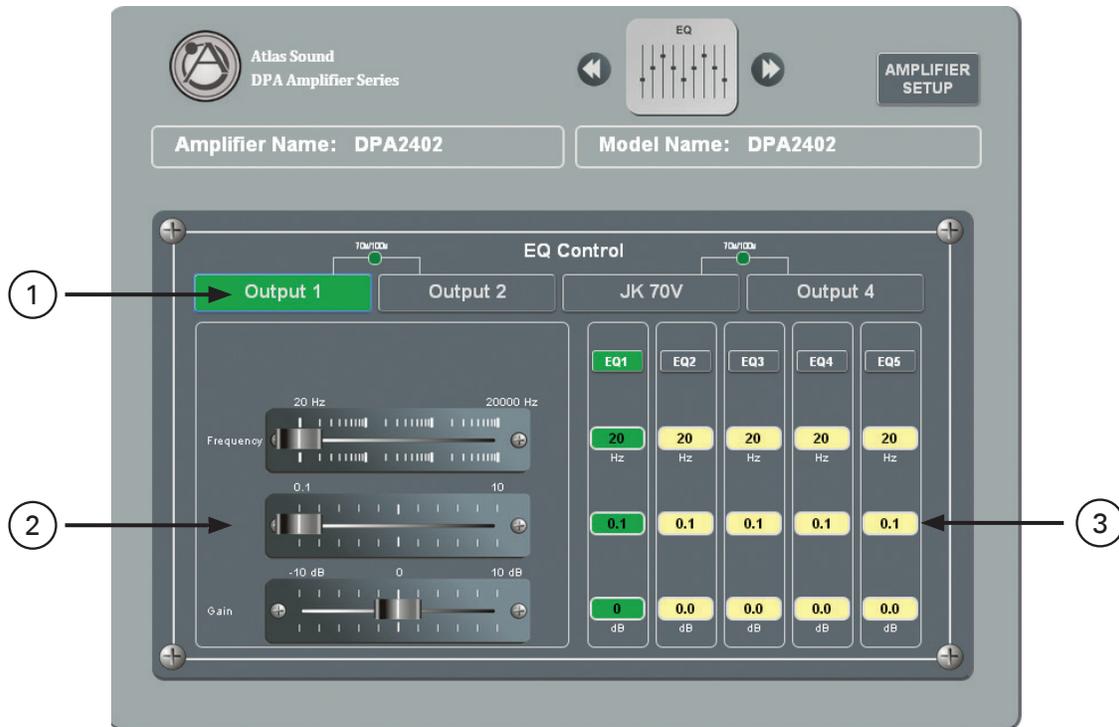


Figure 16

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Owner's Manual

Output Level Page

The output level controls have the accumulations of all the settings except the limiter. The output level is PRE limiter. **Note:** The output level is the same levels as the Home Page User Level Control.

1. Output Level Faders - Set the maximum level of the amplifier channel.
2. Output Mute - Illuminates red when in Mute mode. Click on it to release the mute.
3. Output Level Meters - Same meter as in the Setup Page
4. Output Status Indicator
 - A. Blue indicates ready & active.
 - B. Red indicates the channel is muted.
 - C. Yellow indicates the limiter is engaged.
5. Output Clip / Fault Indicator
 - A. Clip illuminates red when the amplifier output has reached its maximum output power.
 - B. Fault illuminates red when the channel has a fault condition such as an improper load applied for the configuration setting, short on the output or failed output channel. **Note:** It may be necessary to reset the AC Mains Power to clear amplifier from protect mode.

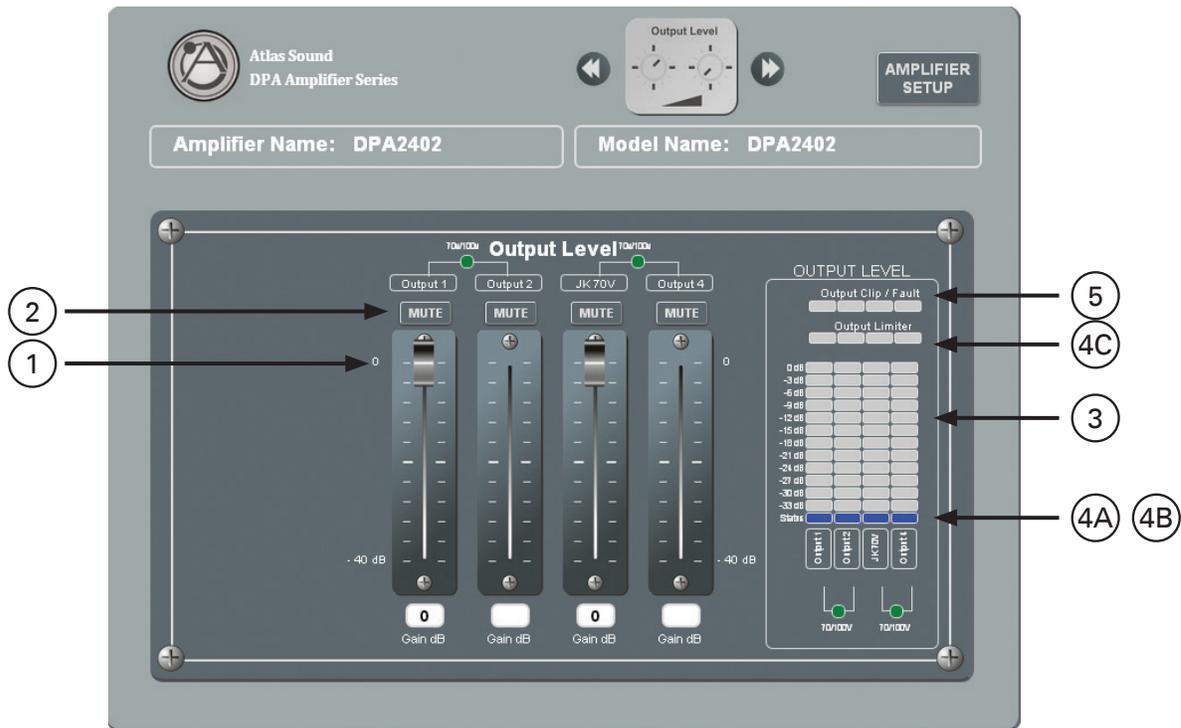


Figure 17

DPA602 / DPA1202 / DPA2402

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Output Delay Page

Each Output channel has up to 60mS of assignable delay.

1. Delay Fader - Adjust the fader for the desired amount of Delay.
2. Delay Data Display - Show the amount of Delay being applied to that specific Output. Double Click on the box and enter the desired time frame to change.

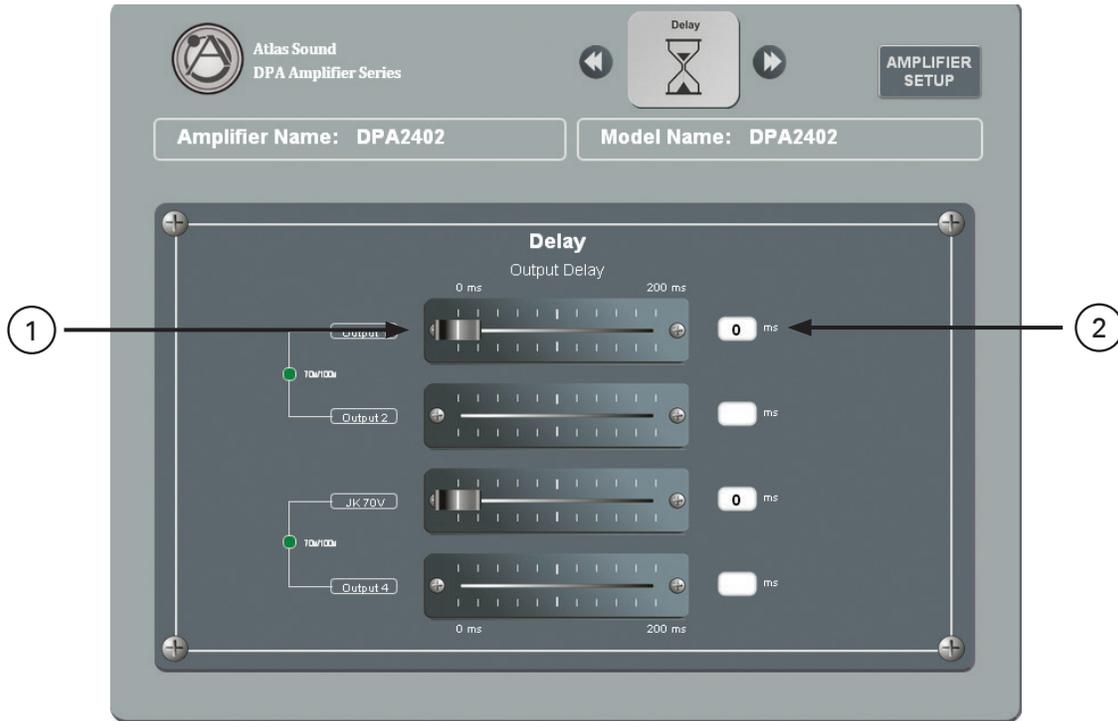


Figure 18

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Output Limiter Page

Each output channel has up to -12dB of limiting to be assigned. **Note:** The limiter threshold is fixed and is designed to be a hard limiter. All gain controls are PRE limiter.

1. Output Limit Faders - Set the maximum level of the amplifier channel.
2. Output Level Meters - Same meter as in the Setup Page
3. Output Status Indicator
 - A. Blue indicates ready & active.
 - B. Red indicates the channel is Muted.
 - C. Yellow indicates the limiter is engaged.
4. Output Clip / Fault Indicator
 - A. Clip illuminates red when the amplifier output has reached its maximum output power.
 - B. Fault illuminates red when the channel has a fault condition such as an improper load applied for the configuration setting, short on the output or failed output channel. **Note:** it may be necessary to reset the AC Mains Power to clear the amplifier from protect mode.

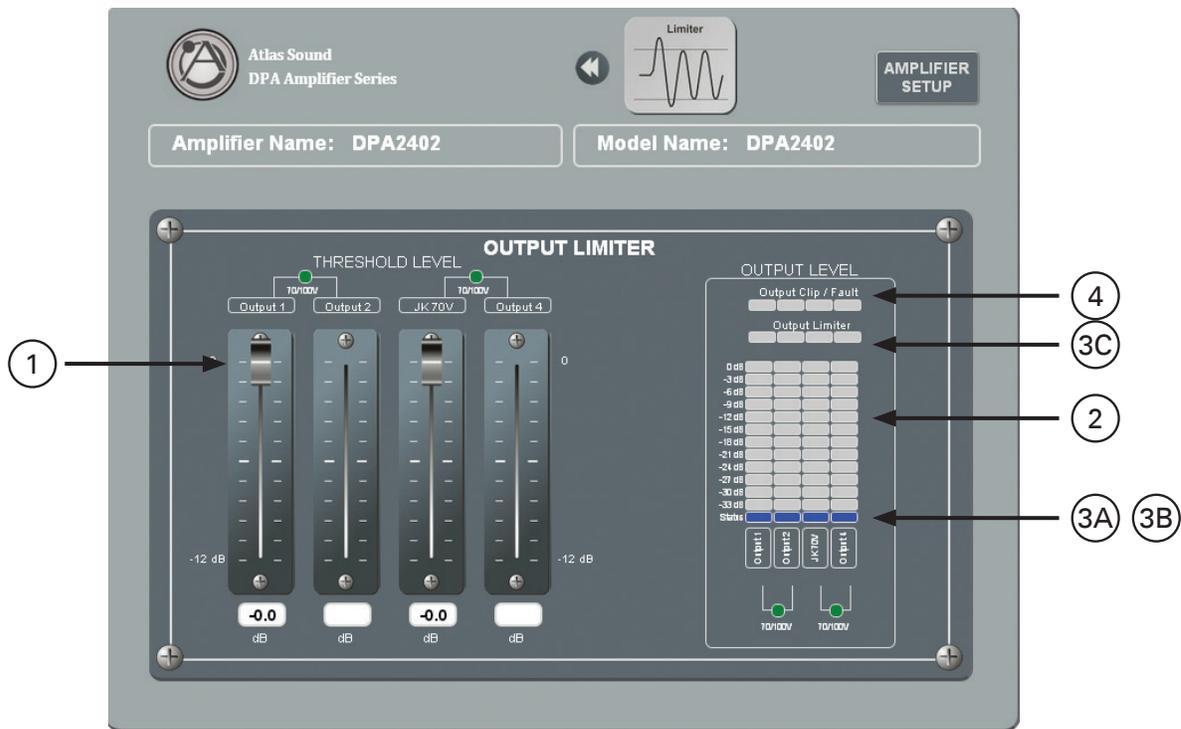


Figure 19

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Owner's Manual

Remote Level Control Port Assignment & Wiring

Remote level control can be accomplished by wiring an external 10k potentiometer to the Control Port on the rear of the DPA Amplifier. Assign a Control Port pin to the amplifier channels that need to be level controlled remotely. The Remote Level topology is a VCA +10VDC based system. AtlasIED recommends using the optional AtlasIED WPD-VC10K wall control. Set the system's maximum levels using the amplifiers internal level controls and then use the remote 10KΩ potentiometer as an attenuator from the amplifiers preset level that was set on the front panel level controls or the internal GUI levels. Each WPD-VC10K will require using three conductor wire connecting the WPD terminals to the amp Control Port. Maximum distance can be up to 500 feet. Follow these steps before starting.

1. Decide how the amplifier output channels are to be configured for the install. There are three different amplification arrangements to meet your design requirements. Refer to the section on "How to Configure The DPA Amplifier Output Channels"

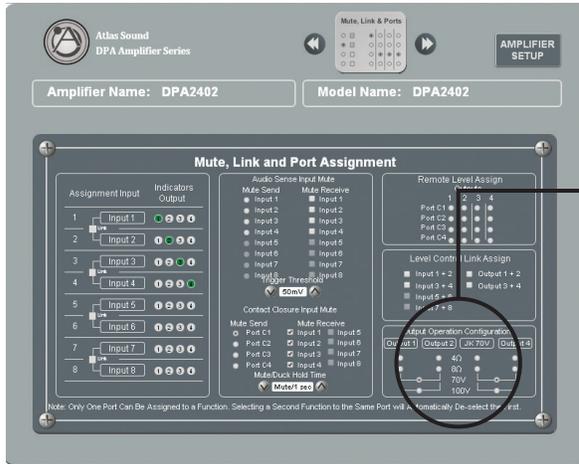


Figure 20

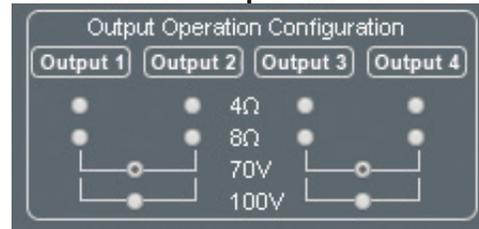


Figure 20

2. After configuring the amplifier output channels choose which channels to remotely control. This will be dependent on the amplifier configuration and installation requirements. If the factory default settings do not meet the installation requirements, configure / assign the output channels desired to control in the "Mute, Link & Port Assignment" page in DPA GUI. Select the Port and Output Channel desired to remotely control.

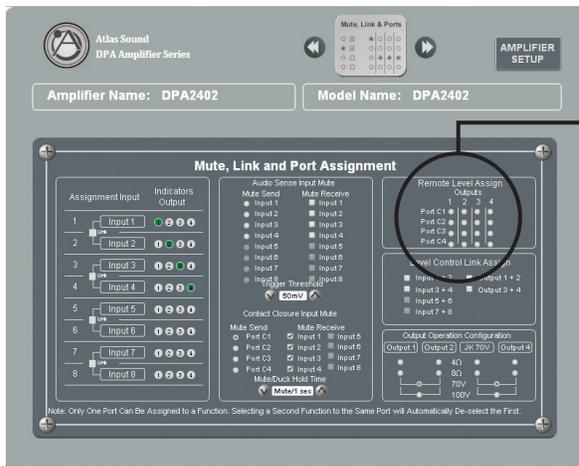


Figure 22

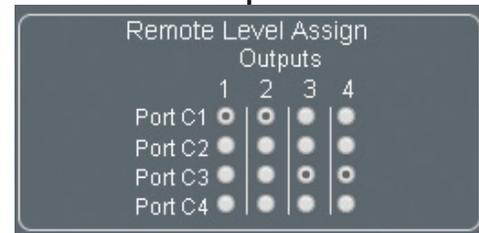


Figure 23

3. **Note:** Each channel of the DPA can have separate remote levels or all channels combined together onto one level control.

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Remote Level Example for 2 Channel 70V/100V Zone

The DPA Amplifiers are factory preconfigured in a two-channel 70V / 100V mode. Control Port Pin 1 is factory preconfigured to remotely control the Output level of CH 1 & 2 (combined to achieve 70V) . Control Port Pin 3 is preconfigured to remotely control the Output level of CH 3 & 4. The illustrations below show the factory settings in the Mute, Link & Port Assignment Page and how to wire the Remote Level.

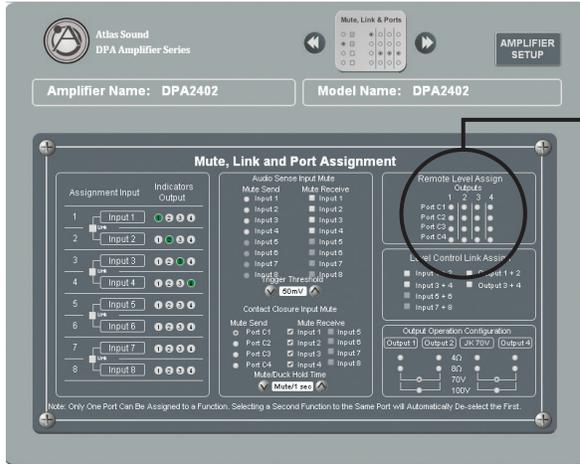


Figure 24

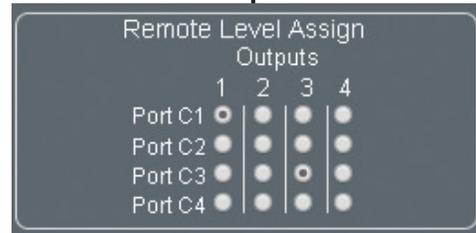
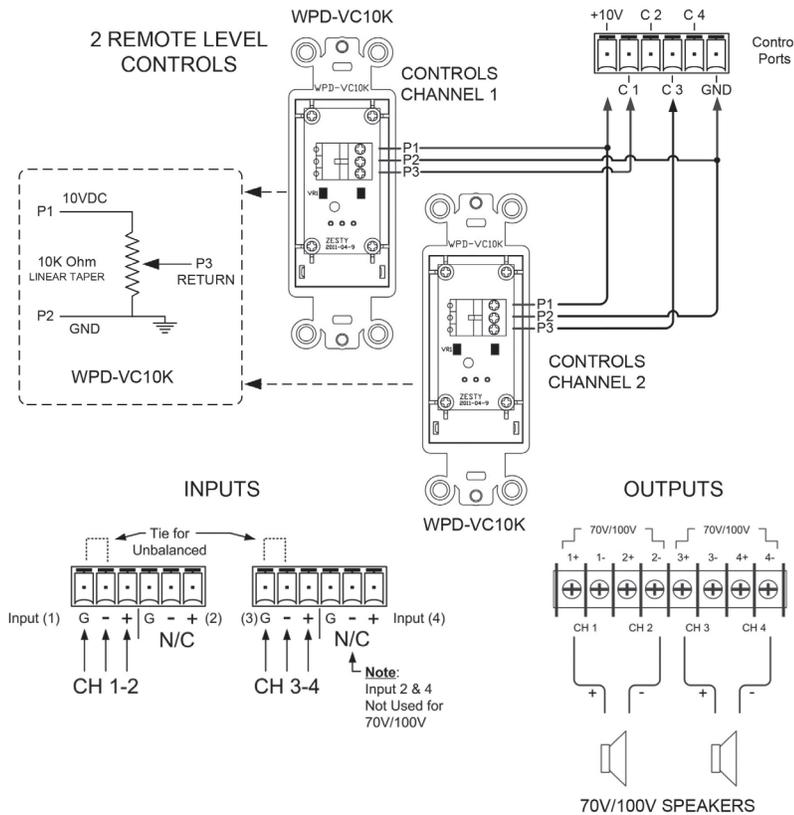


Figure 25



Factory Default Control Port Setting

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Remote Level Example for 4 Channel Zone

The DPA amplifier can be configured as a four-channel, low impedance 4Ω / 8Ω amplifier. The control ports can be assigned so each channel can have a separate remote level for each of the four channels. To do this it requires the use of all four control ports on the DPA amp or one remote level to control two, three or all four amplifier channels, assign the amplifier channels desired to control to the same Control Port. Below are illustrations of a single Remote Level Control assigned to one Control Port controlling all four amplifier channels and 4 Remote Level controls connected to four Control Ports controlling four amplifier channels separately. The illustrations below shows the settings in the Mute, Link & Port Assignment Page and how to wire the Remote Level

Option A – One External Remote Level Pot controlling all four amplifier output channels

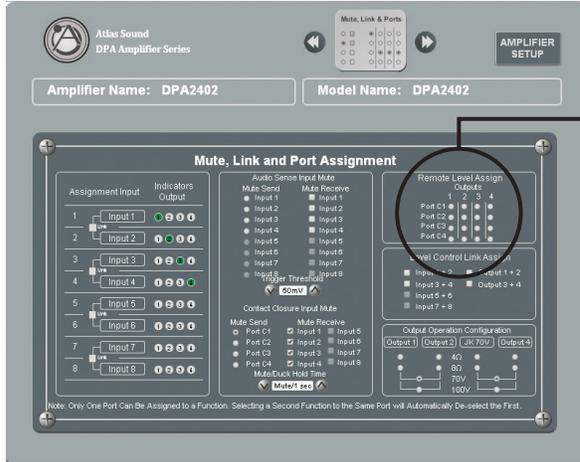


Figure 26

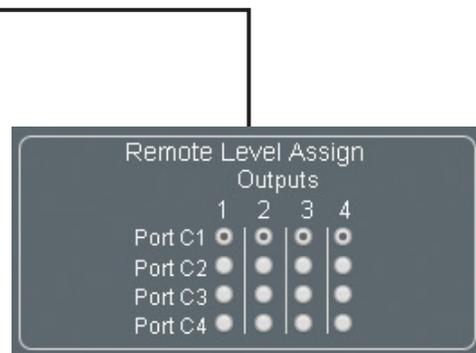
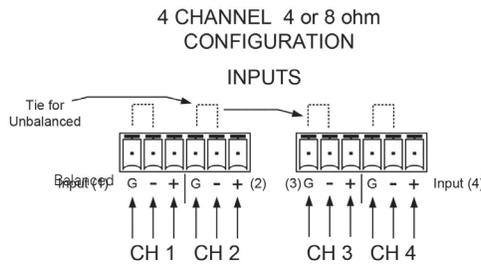
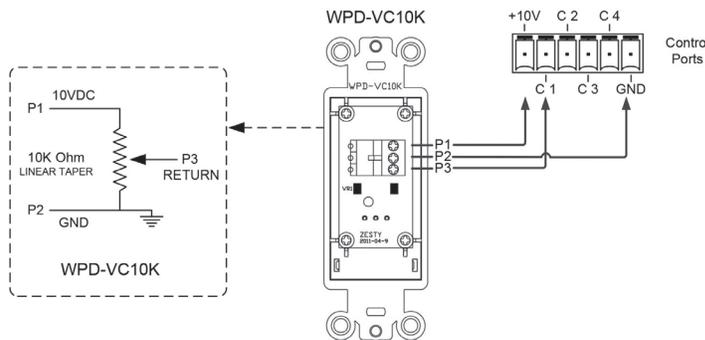
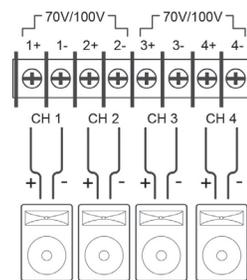


Figure 27



4 CHANNEL 4 or 8 ohm CONFIGURATION OUTPUTS



4 OR 8 Ohm SPEAKERS

DPA602 / DPA1202 / DPA2402

Owner's Manual

Remote Level Example for 4 Channel Zone

Option B – Each Amplifier Output Channel has a Remote Level Pot



Figure 28

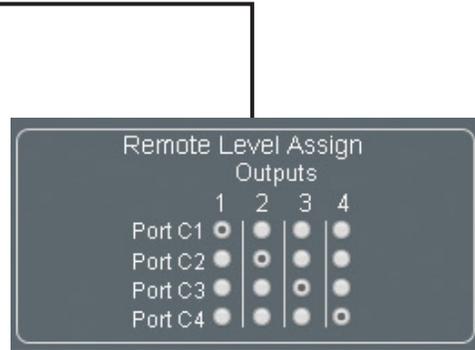
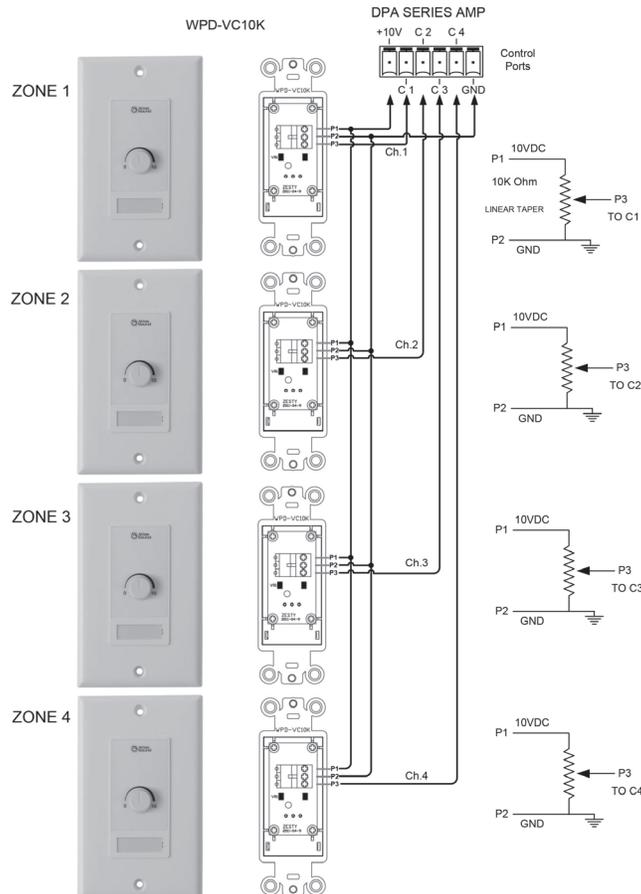


Figure 29

4 ZONE REMOTE VOLUME CONTROLS

DPA CONFIGURED IN
4 CHAN 4 Ohm MODE



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Remote Level Example 70V / 100V Zone with Stereo Zone

DPA amplifiers can be configured to deliver 1 channel High Impedance 70V / 100V for a paging / background audio system plus two channels amplification of Low Impedance 4/8-Ohm for foreground stereo applications. Below is an illustration on how to configure this application.

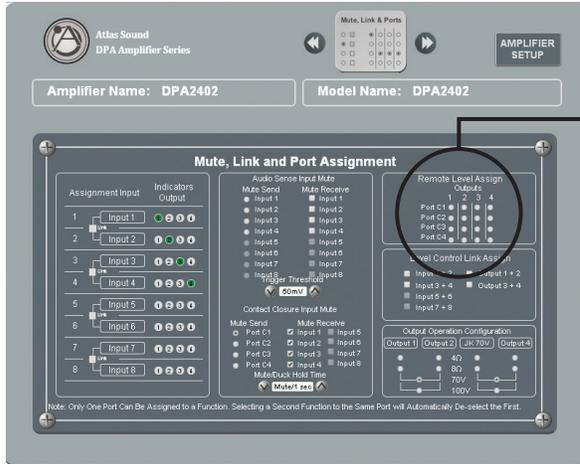


Figure 30

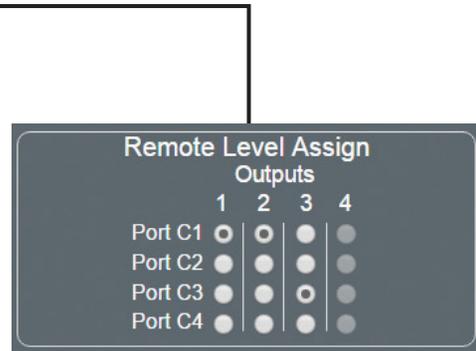
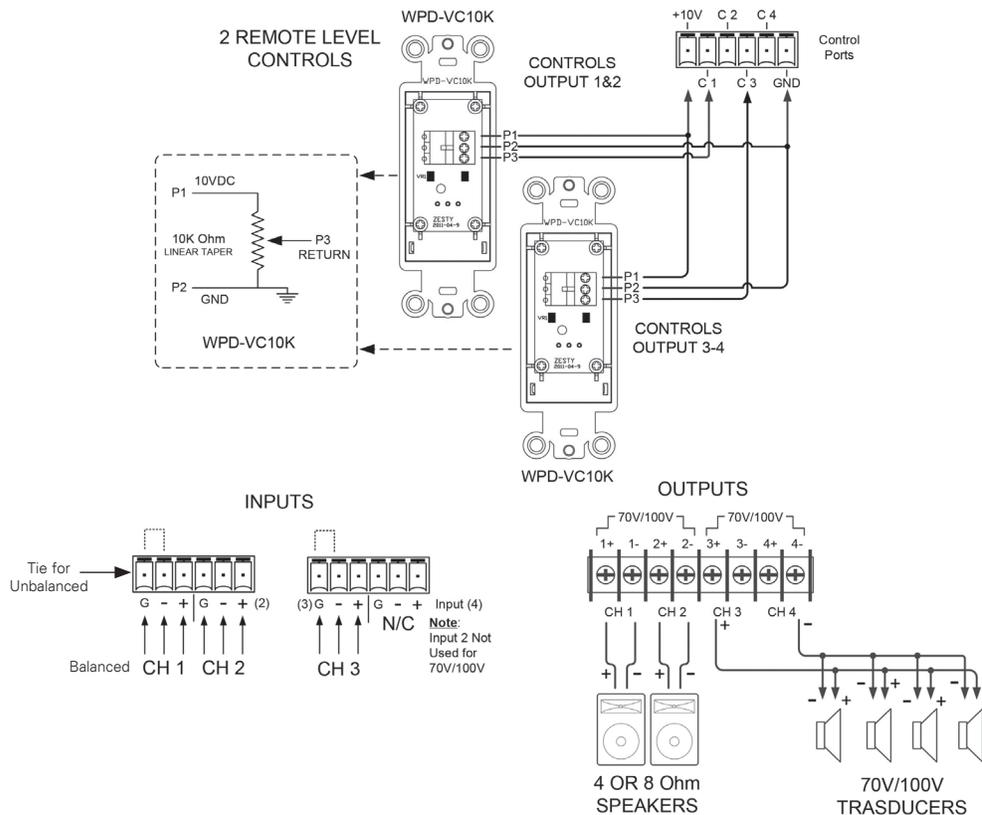


Figure 31



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Input Mute Assignment

The DPA Amplifier Series offers two methods to trigger or activate an Input Mute. Combining the features of the Input Mute assignment with the I/O router allows the ability to assign paging or make announcements to a particular zone or multiple zones. Many installations require an emergency override, requiring all inputs to be muted except for the emergency page. Mute trigger or activation can be accomplished via an external Contact Closure (CC) or by sensing the audio signal on a particular assigned input.

- A. **Audio Signal Sensing Mute (VOX):** The DPA Series offer two priority levels of VOX muting. The Send or Receive assignment is done in the Mute, Link and Port Assignment GUI page as shown below. Any Input can be assigned to Mute any other input. Follow the steps below on how to set up VOX mute.

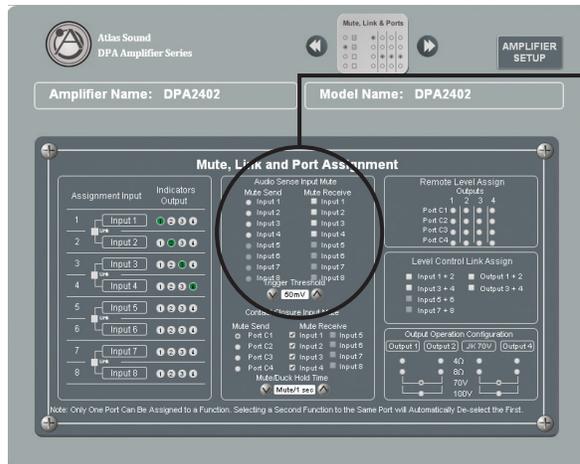


Figure 32

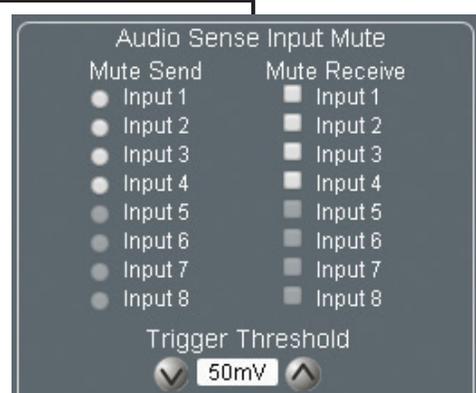


Figure 33

- Assigning the Audio Sense Mute Send** - Select the Input desired to be the trigger input. This is known in the GUI as Audio Sense Mute Send. Usually this input is the main paging input. The DPA offers two levels of Mute Send and Mute Receive assignment. **Note:** Only select one Mute Send per priority of #1 or #2. Start by selecting the Input you want to be Mute Send #1 audio signal trigger.
- Assigning the Audio Sense Mute Receive** - Select the Inputs desired to receive the Mute command from the Input selected the Audio Sense Mute Send. All channels can be selected to receive the Mute command except for the same associated Input. In other words Mute Send #1 Input 1 cannot be assigned to Mute Receive #1 Input 1. **Note:** Mute Send #1 / Mute Receive #1 and Mute Send #2 / Mute Receive #2 correspond to each other.
- Setting the Audio Sense Trigger Threshold** - Audio levels vary and are dependent on the source material. Levels from a CD vary from a microphone. In the GUI the level in which to the Mute to activate or trigger can be selected in 1mV increments up to 50mV. When setting the trigger level allow for noise on the audio line and set the level high enough to avoid false triggers. The level set applies to Mute Send #1 / Mute Receive #1 and Mute Send #2 / Mute Receive #2.
- Setting the Mute / Duck Hold Time** - In the GUI there are four selections to choose from for the mute duration and level reduction. **Note:** This setting applies to both the Audio Sense Trigger and the Contact Closure Mute.
 - Full Mute with a hold time of 1 Second
 - Full Mute with a hold time of 5 Seconds
 - 10dB Duck with a hold time of 1 Second
 - 10dB Duck with a hold time of 5 Seconds

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Input Mute Assignment

B. Mute (Contact Closure) Port Assignment - A rear panel control port can be assigned to mute any Input as seen in the Mute, Link, and Port Assignment GUI page shown below. A remote switch can be used to control the mute trigger as shown in the illustration below. Follow the steps below to set up a Contact Mute function.

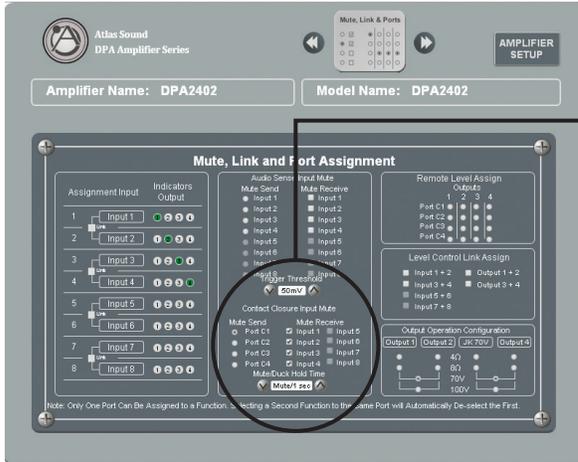


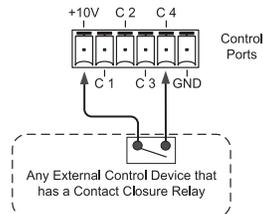
Figure 34



Figure 35

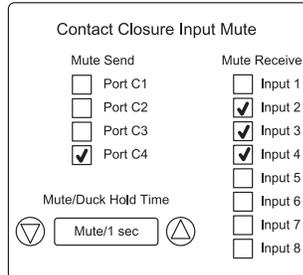
- Assigning the Contact Closure Mute Send** - Select the Control Port to be the Mute Send trigger to Mute the inputs that are assigned Mute Receive inputs. This is known in the GUI as Contact Closure Mute Send.
- Assigning the Contact Closure Mute Receive** - Select the Inputs that are to receive the Mute command from the Control Port selected Mute Send. All channels can be selected to receive the Mute command.
- Setting the Mute / Duck Hold Time** - In the GUI there are four selections to choose from for the mute duration and level reduction. **Note:** This setting applies to both the Audio Sense Trigger and the Contact Closure Mute.
- Control Port Wiring** - After the Control Port has been assigned in the GUI, match the assign port to the corresponding Control Port Pin on the rear panel of the DPA. To activate the Mute Send trigger Control Port Pins P1 – P4, a +10V source needs to be applied to it. This can be done by connecting a switch between the +10V to the assigned Mute Send P1 – P4 Control Port on the rear panel of the DPA as shown below. If you want to use a remote +V source you may be required to connect the ground of the two devices together. Wiring for this is shown below. Current requirements are very low 2mA. Maximum wiring distances will vary with the wire gauge size used. It is typical to use 22-gauge wire to achieve distances over 500 ft.

REMOTE ACTIVATION OF MUTE OR PRIORITY USING A CONTACT CLOSURE EXAMPLE



Note: See Manual for GUI Port Assignment Configuration Settings

Factory Default = No Mute Assignments Activating a Function must be done in GUI



Note: Illustration represents, Port C4 to mute inputs 2,3,4, when C4 is activated by connecting C4 to +10V.

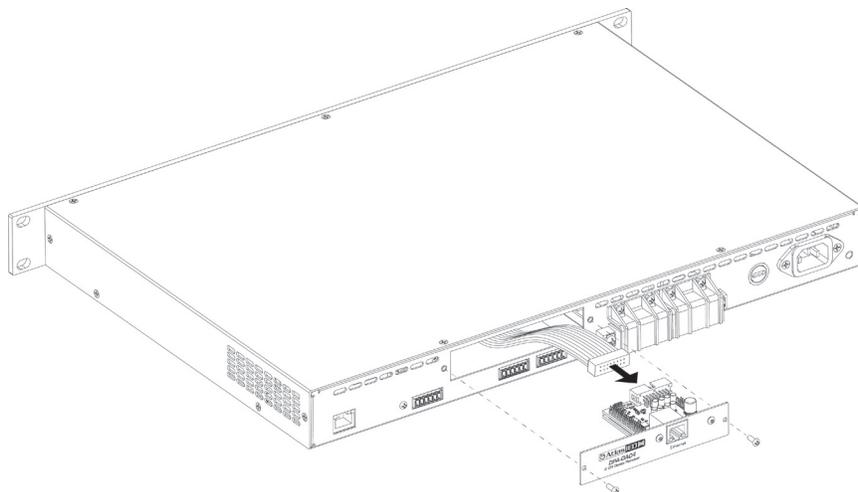
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Accessory Card Installation

The DPA602, DPA1202, and DPA2402 offer 4 additional inputs that can be routed to any of the four output channels. Optional accessory cards DPA-DAC4 (4 Channel Digital Audio Input Card) and DPA-AMIX (4 Channel Analog Mic/Line, Auxiliary Input Card) are available. Contact AtlasIED for a list of accessory cards. **Note:** Accessory card installation must be done by a qualified technician.

1. **Remove the DPA Amplifier from the AC Mains source.**
2. Remove the two screws (M3 x 8mm Pan Head Black) holding the DPA Accessory blank panel.
3. Remove the ribbon cable from the cover plate.
4. Connect the accessory card to the ribbon cable by carefully aligning the ribbon cable connector to the mating PCB connector. Do not force. If aligned correctly the cable will mate easily.
5. Carefully guide the accessory card into the slot without forcing the PCB or cable.
6. After the card is inserted and the accessory panel is flush to the chassis, align the two screws holes and secure them together by using the M3 x 8mm screws.



Installation and Considerations

Cabling - The DPA Series can be used with either balanced or unbalanced sources, provided the proper cabling is used. A balanced line is defined as two-conductor shielded cable with the two center conductors carrying the same signal but of opposite polarity when referenced to ground. An unbalanced line is generally a single-conductor shielded cable with the center conductor carrying the signal and the shield at ground potential.

Balanced Input - Use 20-22-gauge, 2 conductor shielded wire for low level signals. Maintain the proper polarity, + to +, - to - and shield to ground. For unbalanced signals using the Phoenix connector connect the (-) pin of the amplifier input to the GND center pin and the (+) pin to positive.

Speaker Outputs - Use 2 conductor unshielded wire of the appropriate gauge. The DPA Series is approved for Class 3 wiring. Contact AtlasIED Tech Support at 1-800-876-3333 if issues arise.

Placement And Mounting - Turn off all equipment before making connections. The amplifier can be mounted in a standard width 19" rack. It can be mounted above or below anything that does not generate excessive heat. Although the unit's chassis is shielded against radio frequency and electromagnetic interference, extremely high fields of RF and EMI should be avoided.

Ventilation - The amplifier should be situated so that its location or position does not interfere with its proper ventilation. For example, the DPA Series Amplifiers should not be situated in a sealed cabinet or on a shelf with obstacles that may impede the flow of air through the ventilation openings.

Heat - The DPAs should be installed away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce excessive heat. Ambient temperatures should not exceed 113° F (45°C)

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Understanding the 3 AC Power Consumption Idle States

The DPA amplifier has three states of Idle power consumption to meet the installation energy power consumption requirements. Refer to the amplifier specification page for power consumption data. Below is the definition how each idle state operates.

- A. Idle Active Mode - When the LED outer ring of the power switch illuminates a steady state blue color, the amplifier is in Active Mode and is ready to pass audio.
- B. Sleep Mode - If the outer ring LED is Off, the amp is in Sleep Mode. Sleep Mode allows the Ethernet to be active for access to the amplifiers on board GUI. The amplifier output stage and DSP is off. Audio will not pass audio in Sleep Mode. Press the front panel power switch to activate Idle Active Mode or press the AMP ON button in the amplifiers GUI to activate the amplifiers Active Mode. The LED outer ring of the power switch will illuminate a steady state blue color indicating the amplifier is in Active Mode. **Note:** The DPA Site Manager software has a weekly scheduler timer that can toggle the DPA amplifier between Active Mode and Sleep Mode. Sleep Mode is the most efficient power consumption mode of the DPA amplifier.
- C. Standby APD Mode - When the amplifier Auto Power Down (APD) is enabled and the amplifier is in the APD mode, the LED outer ring will blink blue once every 5 seconds. When the amplifier is in the APD state the amplifier can be toggled into Active Mode by pressing the front panel power switch, selecting the AMP ON button in the GUI, or applying input signal. When the amplifier is activated, the LED outer ring of the power switch will illuminate a steady state blue color.



120V & 220V Operation

The DPA Series is designed to operate from 110V - 120V & 220V - 240V. All amplifiers will sense the AC Mains voltage and automatically change voltage internal settings. There are no internal or external switches for AC Mains voltage change over.

- A. DPA602 and DPA1202 use the same fuse for both 120V & 230V operation. No need to change the fuse type.
- B. DPA2402 - Use the fuse T12AL 250v, 12A, Slow Blow, 5mm x 20mm, Ceramic, LITTELFUSE #: 215012 for 120V Operation. This fuse ships installed in the amplifier.
- C. DPA2402 - Change the fuse to T6.3AL 250v, 6.3A, Slow Blow, 5mm x 20mm, Ceramic, LITTELFUSE #: 21506.3P for 230V Operation. This fuse is included in the shipping carton.

Note: All fuses must be changed by a qualified technician. Always remove the amplifier from the AC mains before changing the fuse.

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| System | | | |
|--|---|-------------|-------------|
| Type | 4 Channel Configurable Network Digital Commercial Power Amplifier | | |
| Power Supply Type | Universal Switch Mode, DPA2402 has Power Factor Correction (PFC) | | |
| Amp Topology | Class AB Switching Hybrid | | |
| Number of Fixed Inputs | 4 | | |
| Accessory Inputs | 4 (Optional Accessory Card Required) | | |
| DSP Internal | Yes | | |
| Network | Ethernet | | |
| Optional Accessory Card Slot | Yes x 1 | | |
| Output Power (Note 1) | DPA2402 | DPA1202 | DPA602 |
| 70V x 2 CH (Factory Default) | 1200W | 600W | 300W |
| 100V x 2 CH | 1200W | 600W | 300W |
| 4Ω x 4 CH | 500W | 300W | 150W |
| 8Ω x 4 CH | 300W | 150W | 75W |
| 70V 1 CH + 4Ω x 2 CH | 1200W / 600W | 600W / 300W | 300W / 150W |
| 100V 1 CH + 4Ω x 2 CH | 1200W / 600W | 600W / 300W | 300W / 150W |
| Factory Default Settings (As Shipped) | | | |
| Amplifier Configuration | 2 CH 70V Mode (CH 1/2 = 70V, CH 3/4 = 70V) | | |
| Level Controls Assignment | Front Panel Assigned, CH 1 & 3 Levels Active | | |
| I/O Matrix | Input 1 Routed to Output CH 1/2, Input 3 Routed to Output CH 3/4 | | |
| Level Position | DSP Level Set to 0dBu | | |
| EQ & Filters | DSP Hi Pass Filters set to -3dB 50Hz, EQ Filters Flat | | |
| Limiter | 0dB (Max Power) | | |
| GPIO Control Ports (Rear Panel) | Remote Level, C1 Assigned to Output 1, C2 to Output 2, C3 to Output 3, C4 to Output 4 | | |
| Auto Power Down (APD) | Disabled | | |
| Inputs | | | |
| Input Quantity | 4 Balanced Inputs, Expandable to 8 via Accessory Card | | |
| Input Type (Line Balanced or Unbalanced) | Balanced | | |
| Input Impedance, Ω | 40kΩ | | |
| Input Sensitivity | 750mV Balanced, 0dBu | | |
| Maximum Input Level dBu & Vrms | 14dBu, 3.82V | | |
| Input Connectors Type | 3.5mm Euro Block | | |
| Accessory Slot | Four Input Dante™ Digital Card (DPA-DAC4) or Four Input Analog Mic / Line Analog (DPA-AMIX) | | |
| Level Control | | | |
| Front Panel Manual (Enable-Disable in GUI) | Removable Knobs and Security Cover | | |
| GUI Control | PC (Requires Ethernet Cable), iPhone®, Android® Using a Standard Web Browser | | |
| Status Indicators | | | |
| Power | Blue Indicator | | |
| Standby (Remote Turn ON) | Blinking Blue Indicator, Front Panel Only | | |
| Output Signal | Green | | |
| LED Bar Meter | GUI Only | | |
| Output Limit / Protect | Red | | |
| 4/8 Ohm | Yellow, CH 1/2 & CH 3/4 | | |
| 70V / 100V Operation | Yellow, CH 1/2 & CH 3/4 | | |
| Output Mute Status | Flashing Red | | |

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| DSP Elements | |
|--|--|
| IO Routing | Matrix Mixer |
| Hi & Low Pass Filters | One Per Output, Adjustable Slopes and Frequencies |
| EQ | 5 Parametric Filters Per Output |
| Delay | 60mS Per Output |
| Limiter | Each Output up to 12dB of Assignable Limiting |
| DSP Frequency Type | 48k, 24bit |
| Interface Control Ports | |
| USB | No |
| Ethernet | GUI Access, RJ45 Rear Panel |
| WiFi | No |
| Bluetooth | No |
| GPIO Ports | |
| Location | Rear |
| GPIO Ports | QTY 4, Remote Level & Mute Functions, Assignable, PHX Connector |
| Connection | Euro Block PHX Type 3.5mm, 6 Pins, Ground, +10VDC, C1, C2, C3, C4 |
| Functions | Mute, Remote Level (Assignable) |
| Factory Setting | C1 = Remote Level for CH 1 / 2 70V Output C3 = Remote Level for CH 3 / 4 70V Output C2 & C4 Not Assigned |
| Output Terminals (Speaker) | |
| Output Connectors Type | Screw Terminal Barrier Strip with Cover |
| Output Connectors Number of Terminals | 8, M4 Thread |
| Output Connectors Fixed or Removable | Fixed |
| Wire Size | 18-10 AWG When Using Yellow Spade Lug .250 Terminal, QTY 8 Included (Class 3 Wiring Required) |
| Terminal Spacing | .300" (7.62mm) |
| Current Rating | 25A per Terminal |
| Cooling | |
| APD Standby, Active Idle | Convection Cooled |
| In Use | Signal Sense Variable Speed Fan Assist |
| Cooling Air Flow Direction | Rear to Front |
| Filters | No |
| Electrical Specifications (General) | |
| Total Harmonic Distortion 1 kHz and 1 dB Below Rated Power | Typical, .2% |
| Frequency Response | -3dB 20Hz @ 20kHz (DSP Filters Set to Flat) |
| Signal to Noise Ratio | -100dB Below Rated Output (A-weighted) |
| Damping Factor (20Hz to 400Hz) | 78.46 (78) |
| Slew Rate | >6V/μS |
| Crosstalk | 70dB @ 1KHz |
| Protection | Thermal, Short, Signal Limiter |
| Max Output Peak Voltage 8Ω Mode | DPA602: 36V DPA1202: 52V DPA2402: 55V |
| Max Output Peak Current 4Ω Mode | DPA602: 7.2A DPA1202: 8.8A DPA2402: 11.5A |

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| AC Power Requirements | | | |
|--|--|-------|----------|
| Operating Voltage | 110V - 120V & 220V - 240V 50/60Hz, Auto Voltage Sense | | |
| Mains Interface | IEC 15A Receptical | | |
| Power Cord (Included) | 1.5m, IEC C13 to NEMA 5-15P Plug, 18AWG DPA602 & DPA1202, 16AWG DPA2402 | | |
| AC Mains | 15A (120V), 7.5A (240V) See Power Consumption Chart Below | | |
| DPA602 Power Consumption / Current Draw (Note 5) | Amps | Watts | BTU |
| Sleep Mode | 94mA | 3.5W | 12 BTU |
| Standby / APD Mode (Note 2) | 210mA | 14W | 48 BTU |
| Idle Active Mode (Note 2) | 473mA | 38W | 130 BTU |
| Average Power 4Ω, All Channels Driven (Note 3) | 2.2A | 285W | 700 BTU |
| Average Power 70V, All Channels Driven (Note 3) | 2.0A | 224W | 546 BTU |
| Max Power 4Ω, All Channels Driven (Note 4) | 6.19A | 718W | 1085 BTU |
| Max Power 70V, All Channels Driven (Note 4) | 7.4A | 704W | 390 BTU |
| DPA1202 Power Consumption / Current Draw (Note 5) | Amps | Watts | BTU |
| Sleep Mode | 94mA | 3.5W | 12 BTU |
| Standby / APD Mode (Note 2) | 210mA | 14W | 48 BTU |
| Idle Active Mode (Note 2) | 473mA | 38W | 130 BTU |
| Average Power 4Ω, All Channels Driven (Note 3) | 5.13A | 544W | 1173 BTU |
| Average Power 70V, All Channels Driven (Note 3) | 3.94A | 462W | 941 BTU |
| Max Power 4Ω, All Channels Driven (Note 4) | 14.9A | 1680W | 3178 BTU |
| Max Power 70V, All Channels Driven (Note 4) | 13.2A | 1511W | 2450 BTU |
| DPA2402 Power Consumption / Current Draw (Note 5) | Amps | Watts | BTU |
| Sleep Mode | 94mA | 2.2W | 8 BTU |
| Standby / APD Mode (Note 2) | 199mA | 19W | 65 BTU |
| Idle Active Mode (Note 2) | 246mA | 26W | 88 BTU |
| Average Power 4Ω, All Channels Driven (Note 3) | 3.2A | 375W | 426 BTU |
| Average Power 70V, All Channels Driven (Note 3) | 3.5A | 415W | 446 BTU |
| Max Power 4Ω, All Channels Driven (Note 4) | 10.2A | 1189W | 775 BTU |
| Max Power 70V, All Channels Driven (Note 4) | 9.5A | 1245W | 1818 BTU |
| Dimensions and Weight | | | |
| Rack Mount Requirements | 1 RU, 19" (DPA602 / DPA1202) 2 RU, 19" (DPA2402) | | |
| Dimensions - Unit | W 19" x H 1.77" x D 14.5" (483mm x 45mm x 368mm) (DPA602 / DPA1202) W 19" x H 3.5" x D 14.5" (483mm x 89mm x 368mm) (DPA2402) | | |
| Dimensions - Shipping | W 24.5" x H 3.5" x D 18.7" (635mm x 89mm x 477mm) (DPA602 / DPA1202) W 24.5" x H 5" x D 18.7" (635mm x 127mm x 477mm) (DPA2402) | | |
| Weight - Unit | 13 lbs (5.92kg) (DPA602 / DPA1202) 20.8 lbs (9.53kg) (DPA2402) | | |
| Weight - Shipping | 17.4 lbs (7.94kg) (DPA602 / DPA1202) 26 lbs (11.8kg) (DPA2402) | | |
| Agency Approvals | | | |
| North America Agency | TUV | | |
| Testing Standard North America | 60065 | | |
| FCC Class A (Conducted & Radiated Emissions) | Part 15 of the FCC Rules | | |
| RoHS / WEEE Compliant | Yes | | |
| CE | Yes | | |

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| Optional Accessories | |
|---------------------------|---|
| DPA Site Manager Software | |
| AA-YSUM | Stereo Signal Passive Summing Cable |
| WPD-VC10K | Potentiometer on Wall Plater for Remote Level Control |
| DPA-DAC4 | 4 CH Dante™ Receiver |
| DPA-AMIX | Analog 4 CH Mic / Line / AUX Input Card |

NOTES:

1. Power level measurement is define as follows: 1Hz Sine wave signal burst of 20 cycles (20mS) at 1% THD+N, followed by 480 cycles of a 1kHz sine wave at 10% of the max power. Other power measurements are available upon requests.
2. Power measurement with Ethernet connected. Without Ethernet connected deduct .2W
3. Average Power is defined as Pink Noise input signal applied to achieve 1/4 of the 4 Ohm or 70.7V power rating.
4. Max Power is defined as 1 KHz input signal applied to achieve the maxium power output before clipping into a 4 Ohm or 70.7V load.
5. BTU is calculated by the AC Mains Power consumed minus the total power output measured at the specified load and condition, multiplied by 3.412.
Example: 785 Watts from the AC Source - 600 Watts Total Output power = 185 x 3.412 = 631 BTU

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Owner's Manual Limited Warranty

All products manufactured by AtlasIED are warranted to the original dealer / installer, industrial or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. This warranty shall extend from the date of purchase for a period of three years on all AtlasIED products, including SOUNDOLIER brand, and ATLAS SOUND brand products except as follows: one year on electronics and control systems; one year on replacement parts; and one year on Musician Series stands and related accessories. Additionally, fuses and lamps carry no warranty. AtlasIED will solely at its discretion, replace at no charge or repair free of charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage, misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lightning discharge, or malfunctions when products have been modified or operated in excess of rated power, altered, serviced or installed in other than a workman like manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our returns policy set forth below. When products returned to AtlasIED do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is included with the returned product(s) a written request for an estimate of repair costs before any nonwarranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transportation charges collect.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLASIED SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

AtlasIED does not assume, or does it authorize any other person to assume or extend on its behalf, any other warranty, obligation, or liability. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

Service

Should your DPA Series Digital Power Amplifier require service, please contact the AtlasIED warranty department through the online warranty claim process.

Online Warranty Claim Processes

1. Warranty submissions are accepted at: https://www.atlasied.com/warranty_statement where the type of return Warranty or Stock return can be selected.
2. Once selected, you will be prompted to enter your login credentials. If you do not have a login, register on the site. If already logged-in, navigate to this page by selecting "Support" and then "Warranty & Returns" from the top menu.
3. In order to file a Warranty Claim, you will need:
 - A. A copy of the invoice / receipt of the purchased item
 - B. Date of Purchase
 - C. The product name or SKU
 - D. The serial number for the item (if no serial number exists, enter N/A)
 - E. A brief description of the fault for the claim
4. Once all required fields are completed, select the "Submit Button." You will receive 2 emails:
 1. One with a confirmation of the submission
 2. One with a case# for your reference should you need to contact us.

Please allow 2-3 business days for a response with a Return Authorization (RA) number and further instructions.

AtlasIED Tech Support can be reached at 1-800-876-3333 or atlasied.com/support.

Visit our website at www.AtlasIED.com to see other AtlasIED products.