



# **APX1000**

**QUICKSTART GUIDE**  
ENGLISH

# QUICKSTART GUIDE (ENGLISH)

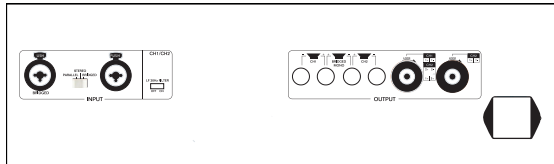
## BOX CONTENTS

- APX1000
- Power cable
- Quickstart Guide
- Safety & Warranty Information Booklet

## QUICK SETUP

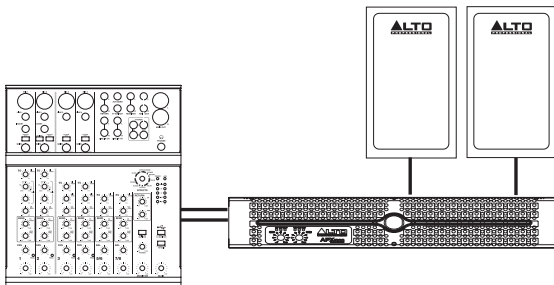
1. Make sure all items listed in the BOX CONTENTS section are included in the box.
2. **READ SAFETY & WARRANTY INFORMATION BOOKLET BEFORE USING THE PRODUCT.**
3. Study the connection diagram in this guide.
4. Place all devices in an appropriate position for operation.
5. Make sure all devices are turned off and all faders and gain knobs are set to "zero."
6. Connect all sound sources' outputs to amplifier inputs as indicated in the diagram.
7. Connect the amplifier outputs to speakers.
8. Plug all devices into an appropriate power source.
9. Switch everything on in the following order:
  - Sound sources (i.e. microphones, turntables, CD players, etc.)
  - Mixer
  - Amplifier
  - Speakers
10. When turning powering down, turn everything off in the following order:
  - Speakers
  - Amplifier
  - Mixer
  - Sound sources

## CONNECTION DIAGRAM

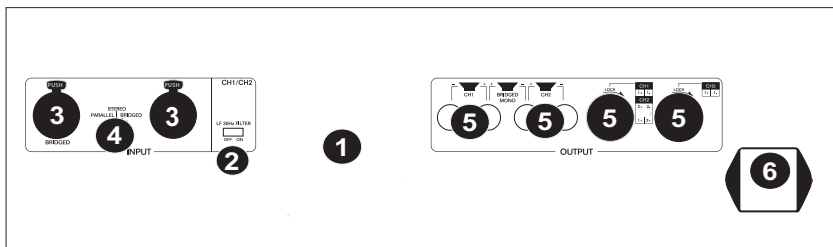


**Do NOT** make any connections when any device is powered on.

**Note** Please see the **SPEAKER CONNECTION** section for important setup information.



## REAR PANEL DIAGRAM



- COOLING FAN** - This fan secures cooling for the amplifier. The airflow is from front to rear. The fan speed is electronically regulated depending on the temperature of the power devices. Do not block these fan grills or mount the amplifier in an enclosed rack, which could cause the amplifier to overheat.
- LOW PASS FILTER** – This switch activates the built-in low cut filter. All audio below 30 Hz will be removed from the output signal.
- BALANCED COMBO INPUTS** – Connect your mixer to the balanced XLR or balanced 1/4" input for that channel.
- OUTPUT MODE SWITCH** – The APX 1000 presents three operating modes:

### **Stereo Mode**

In this mode, CH 1 and CH 2 operate independently (as a normal stereo amplifier) The CH 1 input signal will be output from the CH 1 output connector, and CH 2 input signal will be output from the CH 2 output connector.

### **Parallel Mono Mode**

In this mode, CH 1 input signal will be output from the output connectors of both channels.

### **Bridged Mode**

In this mode, CH 1 input signal will be output from the bridge-mono output connector.

- CHANNEL OUTPUTS** – Connect your speakers' input jacks to these outputs.

- For the binding posts, red is the positive signal and black is the negative signal. Please make sure to respect the speaker polarity when using binding post. Turn off the unit before connecting an audio signal to the binding post to avoid any electric shock!
- The SPEAKON outputs are specifically designed to connect to high power speakers. The correct polarity is secured automatically. They prevent shock hazard and they lock-in securely. Please see the SPEAKER CONNECTION section to properly and safely connect your speakers.

- POWER IN** – Connect the cable to a standard wall outlet. Be sure the supplied voltage matches the required voltage of the amplifier. Do not connect the amplifier to an outlet that does not match the required voltage; doing so could damage the amplifier.

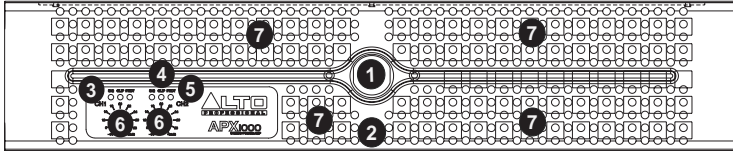
How do I know if my 1/4" cables are balanced?

BALANCED  
 UNBALANCED

**WARNING** Do **not** adjust the STEREO/MONO BR DGE SWITCH when the amplifier is on.

**WARNING** Do **not** allow any wires of adjacent terminals to come in contact with each other. Also, do **not** connect either positive (red) output to chassis ground.

## FRONT PANEL DIAGRAM



1. **POWER SWITCH** – Turns the amplifier on/off.
2. **POWER LED** – Illuminates when the amplifier is on.
3. **LED METERS** – Indicates the audio signal level. This LED will light up when the signal at the output is at least -20 dB.
4. **CLIP** – The red "Clip" light indicates the signal is distorting or "clipping," which occurs when the volume exceeds the amplifier's maximum output. This LED will flash when distortion reaches a level of 0.5%. Consistent clipping can damage your amplifier and speakers. If the signal is regularly clipping, reduce the volume of the amplifier. If it is lit about half the time, the amplifier channel's thermal protection will cause the channel to shut down within a few minutes.
5. **PROT** – The red "Prot" light indicates the output for that channel has turned off to protect your amplifier and speakers, which can be damaged by excessive volume resulting in clipping. If the meters' red lights are illuminating, decrease the levels of your CHANNEL GAIN knobs.
6. **CHANNEL GAIN** – This knob controls the channel's output signal.
7. **COOLING VENTS** – These vents help to cool the internal parts of the amplifier when in use. Do not block these vents, and keep the vents clean at all times.

## SPEAKER CONNECTION

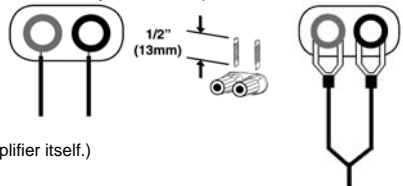
### WARNING

- Do **not** make any connections when any device is powered on.
- Do **not** allow the wires from terminals to come in contact with each other.
- Do **not** connect either positive (red) output to chassis ground.

### SHORT CIRCUIT PROTECTION

Output short circuit protection protects the output devices of the amplifier from short circuits and stressful loads. If your speaker lines short, the amplifier automatically detects this problem and discontinues operation for that channel. (If one channel's short circuit protection is activated, the other channel will continue to operate normally.) During short circuit protection, the "Clip" and "Protect" LEDs will light simultaneously, and all output from that channel will stop.

Short Circuit Protection can often be traced back to the signal output line (i.e., the speaker line). Check the line from the output terminal of the amplifier to the speaker. If this line is still good, check the internal speaker connections and components. (A short circuit can often be traced to a bad cable or a bad speaker component and is rarely traced to the amplifier itself.)



### Bare Wire Connections

When connecting your speakers to the amplifier using bare wires, follow these steps:

1. Unscrew the red and black caps of the binding posts. (Be sure not to completely remove or unscrew the red and black caps.)
2. Strip back the wire insulation 1/2" (13mm).
3. Insert the bare wire into the hole exposed under the binding post cap.
4. After inserting the wire, screw the binding post cap down on the wire.

### Spade Connector

When connecting your speakers to the amplifier using spade connectors, follow these steps:

1. Unscrew the red and black caps of the binding posts. (Be sure not to completely remove or unscrew the red and black caps.)
2. Insert the spade connectors into the binding posts.
3. Tighten the caps down on the spade connectors.

### Banana Connectors

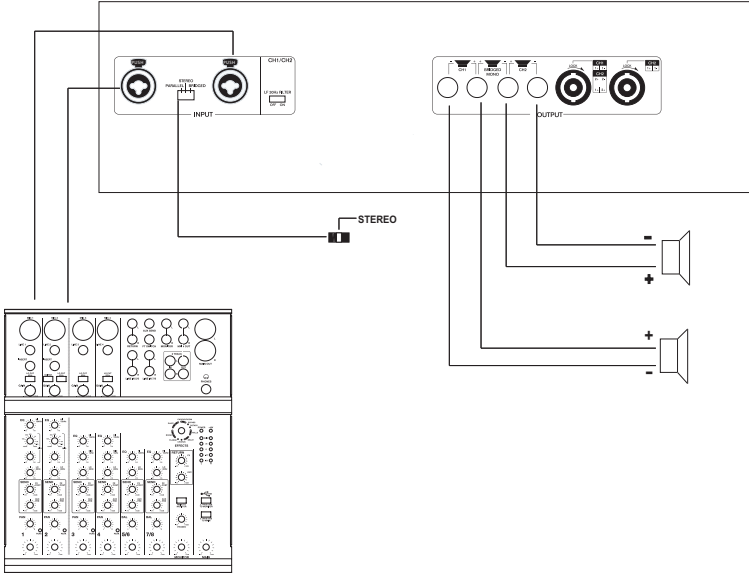
When connecting your speakers to the amplifier using banana connectors, follow these steps

1. Be sure that the red and black caps of the binding posts are tightened completely.
2. Insert the banana connectors into the caps of the binding posts. Be sure that the connectors are inserted securely.

## OPERATION IN STEREO MODE

The APX1000 provides three operating modes: stereo mode, parallel (mono) mode and bridged mode, you can decide each specific operating mode according to your actual application circumstance.

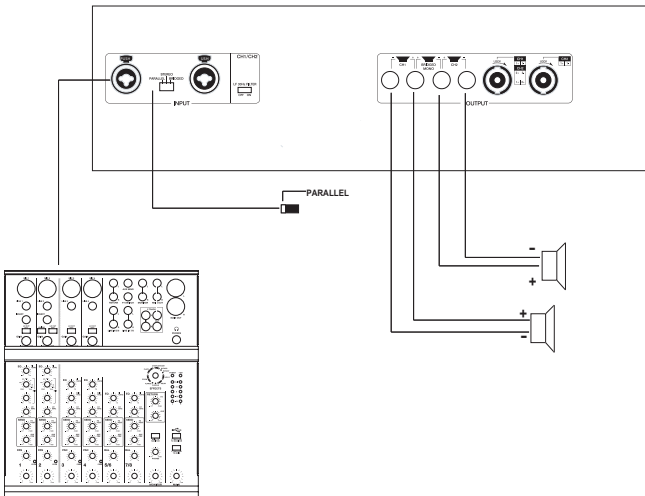
In STEREO MODE, channel 1 and channel 2 operate independently (as a conventional stereo amplifier). The channel 1 input signal will be output from the channel 1 output connectors, and the channel 2 input signal will be output from the channel 2 output connectors.



## OPERATION IN PARALLEL MODE

In this mode, the channel 1 input signal will be output from the output connectors of both channels. The channel 2 input jack is not used; the channel 1 and 2 volumes can be adjusted independently. Use the Parallel Mode when you want to drive two speakers with only one input signal keeping separate control of the volume of the two channels.

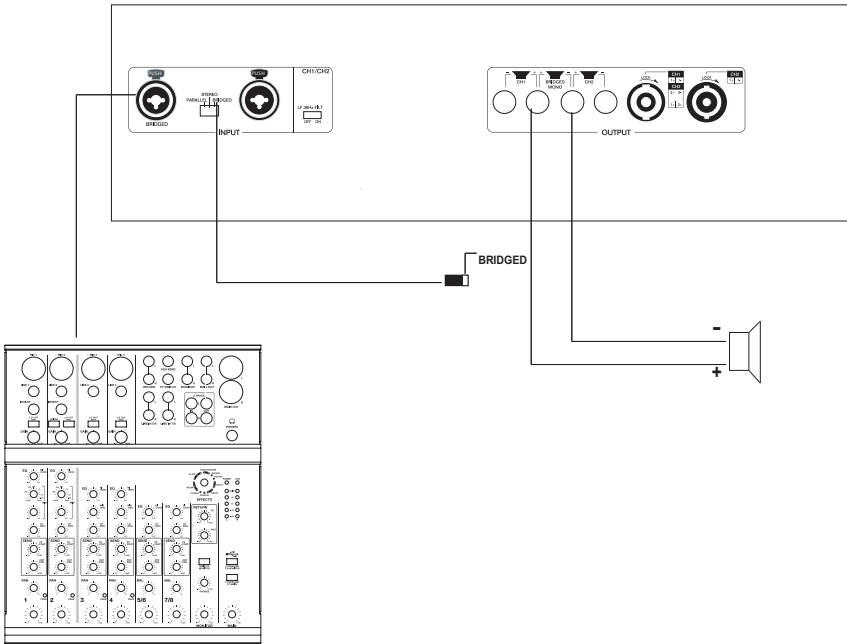
**NOTE** Since you are not using the channel 2 input you can use this socket to "daisy-chain" to another amplifier.



## OPERATION IN BRIDGED MODE

In this mode, the channel 1 input signal will be output from the bridge output connectors. (The 2 binding posts) In this case, use the channel 1 volume control to adjust the volume, keep the volume control of channel 2 turned completely down (counter clockwise). Bridged mode is intended for driving loads with a total impedance of 8 ohms or greater.

In Bridge Mode you will combine the power of both channels into one speaker. You will have a large amount of power available so carefully check the power handling of your speaker before operation.



## RACKMOUNTING TIPS

- It is a good idea to mount this in the bottom of a rack frame. Supporting the back of the unit may be necessary for portable or road use. The APX1000 mounts into a standard 19u rackmount.
- ALTO amplifiers are well shielded; however, mounting low-level electronics some distance away from power amplifiers is common practice to reduce the possibility of electromagnetic interference into the low level units, which may sometimes be unusually susceptible to picking up such interference.
- When wiring a rack, it is good installation practice to route all AC wiring along one side of the rack and all audio wiring along the other side to avoid coupling AC-borne interference into the audio.

## SPECIFICATIONS

### POWER SPECIFICATIONS

- Continuous power @ 0.5% THD: 4 Ohms 390W\*2
- Both channels driven: 8 Ohms 250W\*2
- Power EIAJ @ 1% THD 4 Ohms 500W\*2
- Both channels driven: 8 Ohms 270W\*2
- Bridge Mono Mode: 8 Ohms 1000W\*1  
20Hz-20kHz 16 Ohms 520W\*1

### ELECTRICAL SPECIFICATION

- **INPUT SENSITIVITY:** 1.0V
- **INPUT IMPEDANCE:** 10 K ohm unbalanced
- **FREQUENCY RESPONSE:** (at 10dB below rated output power) 20 Hz~25 KHz (+0/-3 dB)
- **VOLTAGE GAIN:** 32 dB
- **DISTORTION:** (SMPTE-1M) <0.5%
- **S/N ratio:** >110 dB
- **Inrush Current at initial switch on:** 5.85A
- **Inrush Current after power supply interruption:** 6.95A

### GENERAL SPECIFICATIONS

- **PROTECTIONS:** ON/OFF, muting, DC-fault load grounding relay. Internal fault fuses
- **CONTROLS Front:** AC switch
- **CONTROLS Rear:** Low pass filter, mode selector
- **SIGNAL INDICATORS:** 2 green LED CLIP: 2 red LED
- **POWER INDICATORS:** 1 Blue LED PROTECTION: 1 red LED
- **INPUT CONNECTORS:** Balanced combo
- **OUTPUT:** "Touch-proof" binding posts and speak-on jacks

### DIMENSIONS

- **(WxLxH)** 483mm x 285mm x 88.8mm; 19" x 11.2" x 3.5"

### WEIGHT

- 12.1 lb; 5.4kg

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MANUAL VERSION 1.1