

# Big Bang

Power Amplifiers

 SpeakerCraft®



## BB275

### Owner's Manual

# SAFETY INSTRUCTIONS

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION:</b> To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.		

<b>APPLICABLE FOR USA, CANADA OR WHERE APPROVED FOR USAGE</b>
<b>CAUTION:</b> TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT, INSERT FULLY.
<b>ATTENTION:</b> POUR EVITER LES CHOCES ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

## ■ Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you 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 you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

- 1. Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
- 2. Retain Instructions** - The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
- 4. Follow Instructions** - All operating and other instructions should be followed.
- 5. Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
- 6. Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.

PORTABLE CART  
WARNING



- 7. Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
- 8. Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

**9. Heat** - The appliance should be situated away from heat sources such as radiators, stoves, or other appliances that produce heat.

**10. Power Source** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

**11. Power-Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

**12. Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.

**13. Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

**14. Object and Liquid Entry** - Care should be taken so that objects do not fall into and liquids not spilled into the inside of the appliance.

**15. Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen onto, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped, or the cabinet damaged.

**16. Servicing** - The user should not attempt to service the appliance beyond those means described in the operating instructions. All other servicing should be referred to qualified service personnel.

**17. Grounding or Polarization** - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.

Thank you for purchasing the SpeakerCraft BB275 power amplifier. The BB275 contains the excellent performance and reliability that SpeakerCraft products have been recognized for. For best performance please carefully read the instructions in this manual.

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## INSTALLATION CONSIDERATIONS

### Placement

#### DO:

- Place the amplifier with the feet resting on a solid flat level surface.
- Place the amplifier in a well-vented area to provide proper cooling. Allow at least 4" of space above amplifier. In areas that lack proper ventilation, such as tight cabinets or racks, it may be necessary to install small fans to create air movement.

#### DON'T:

- Don't block the ventilation holes on the top or bottom of the amplifier. Never place it on carpeting or similar material
- Don't place the amplifier in any other position other than horizontal with the feet down. Never place on its side or resting on the back where the terminals are located.
- Don't place the amplifier near heat sources, or in an area that it would be exposed to moisture.

#### YOU SHOULD KNOW

- The power supply is very large and therefore may cause a hum to be heard in some components if they are placed very close to the amplifier.

## Power Mode Selection

There are three ways to turn the amplifier on and off. Use the following list to decide which mode will work best for your application.

**Constant:** Use this selection when you wish to manually turn the amplifier on and off by using the front mounted power button.

**Trigger:** Use this selection if you wish the amplifier turn on when it receives voltage (3-30V A/C or D/C) from an external source and turn off once that voltage has stopped. Some components have voltage outputs that are designed for this use. In addition there are devices that can be used as part of an automated system that will provide voltage to enable the mode. The voltage source must be connected to the trigger-input jack on the back of the amplifier.

**Audio Sense:** Use this selection when you want the amplifier to turn on when the amplifier's main input receives an audio signal. At the moment that either the left or right input jacks receive a signal the amplifier is turned on. Once the signal stops the amplifier waits 3 minutes and then turns off.

**See Diagram#1**

## Power Mode Selection

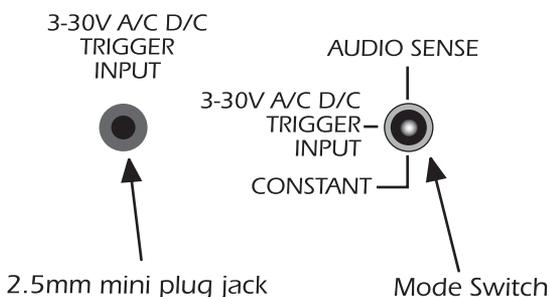


Diagram #1

### Operating Multiple Speakers

Because it is very stable, multiple pairs of speakers can be connected directly to the amplifier's outputs (**see Diagram #2**) as long as the total impedance presented to the amplifier does not drop below 2.67 ohms. As an example, 3 pairs of 8 ohm speakers could be connected. If excessive demands are placed on the amplifier the protection circuitry may be engaged, temporarily shutting down the amplifier.

When speakers are connected directly to the amplifier they will all play at the same time. If you wish to control speaker pairs independently of each other we recommend that you use one of SpeakerCraft's multi-room speaker selectors. Depending on the model, up to eight pairs of speakers can be turned on or off independently of each other, while providing protection to your amplifier at the same time. Your SpeakerCraft dealer can provide you with details on the selectors available.

## Installation

### Select the Power Mode Selection

Refer to the Power Mode Selection area under installation considerations to determine which setting to use to turn the amplifier on. Once you have determined which mode you will be using set the switches as outlined in the following chart.

Selection Mode	Switch Settings	Active Light
Constant	Power Mode Selection = Set to "Constant" Master Power Button = Push to "In" position to turn amplifier "On", out position is "Off"	Will light up when the amplifier is "On/Active" and will go off when it is "off"
Trigger	Power Mode Selection = Set to "Trigger" Master Power Button = Leave in the "On" position (Button in).	Will light up only when the amplifier receives a voltage indicating the amplifier is "On/Active". Will turn off once the voltage has stopped.
Audio Sense	Power Mode Selection = Set to "Audio Sense" Master Power Button = Leave in the "On" position (Button in).	Will light up only when the amplifier receives an audio signal to the main inputs indicating the amplifier is "ON"/active. Will turn off three minutes after the signal has stopped.

### Control Output

The 12V output jack on the back of the amplifier can be used to turn on a variety of components equipped to be activated when they receive a 12V DC output. Voltage is only delivered to the jack when the amplifier is "on" or active. When the amplifier turns off the voltage ceases.

Before connecting another device to the 12 output please make sure that the device can accept 12V DC at 150ma. To connect the output to another device you must access the output jack with a two-conductor plug that fits into the 3.5mm jack. Be aware that the tip of the plug will be (+). If you are unsure about using this feature please contact an authorized SpeakerCraft dealer for assistance.

# Front and Rear

Active LED indicates that the amplifier is working

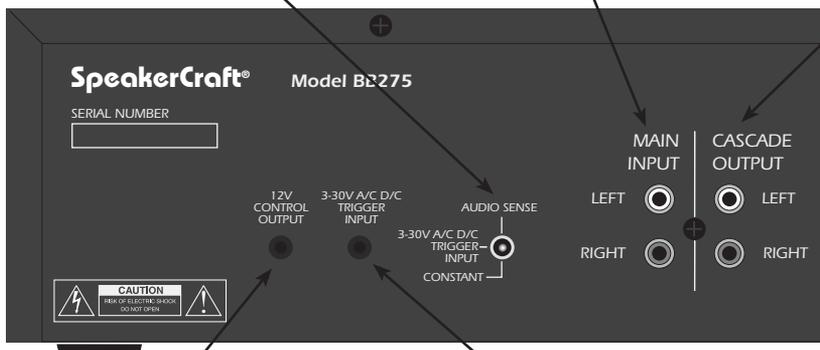


Master power switch. Turns off power to amplifier and Power Mode Circuitry

Protection LED indicates that either a fault in the wiring, the speaker, or the amplifier has caused the amplifier to shut down.

Power Mode Selection switch

Main Input Jacks. To connect line level stereo sources



2.5mm Mini Plug socket for 12VDC control output

2.5mm Mini Plug socket for voltage input

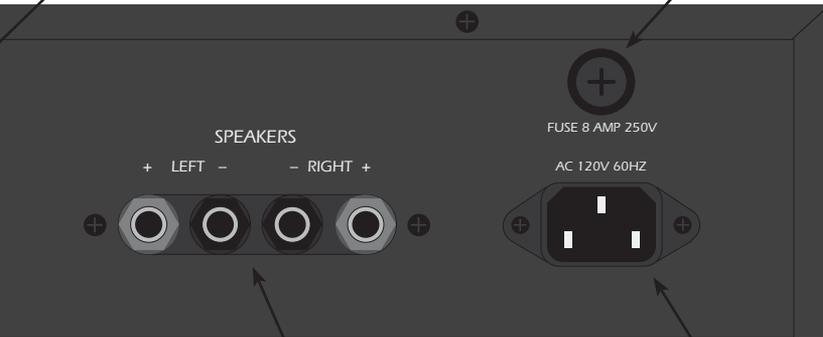
# Front Panel Detail



Level Adjustment Screws are used to adjust the level of the amplifier output so that you can match the output levels of other amplifiers in your system.

Cascade Audio Output Jacks. Connects to the line level inputs of other amplifiers. Allows daisy chaining of up to 5 SpeakerCraft® amplifiers

8 Amp A/C Fuse



Binding posts for speaker connections

Receptacle for A/C power cord

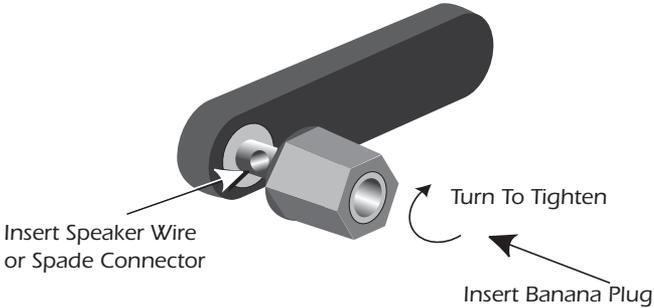
Diagram#2

## Connecting the Speaker Wires

Caution: Only make connections when the amplifier is turned off.

For best performance use high quality speaker cables. The binding post outputs on the back of the amplifier allow for a variety of ways to connect your speakers to the amplifier (refer to Diagram #3 for options on connecting speaker wire).

### Binding Post Detail



**Diagram #3**

## Connecting the Line Level Audio Inputs

Caution: Only make connections when the amplifier is turned off.

Connect the source component's (ie. CD player, VCR, etc) audio output jacks to the corresponding Input jacks on the back of the amplifier. Make sure that the left and right outputs are connected to the matching inputs.

## Cascade Audio Outputs

The amplifier is equipped with line level audio outputs labeled "Cascade Audio Outputs" (see Diagram #2). By using standard audio patch cables, you can connect these outputs to the inputs of another amplifier. Up to 5 SpeakerCraft amplifiers can be daisy-chained together.

## AC Power

Plug the socket of the AC cord supplied with the amplifier into the receptacle on the rear of the amplifier. Plug the 3 prong plug directly into a 120V 60 Hz wall outlet. Caution! Do not plug the amplifier into the preamplifier or receivers switched or unswitched outlet. If you wish to have the amplifier turn on once the preamplifier or receiver is activated, use one of the turn on modes, voltage or audio.

## Operation

See **Diagram #2** for the location of the following.

### **Power Switch**

The switch marked "Power" on the front panel of the amplifier will turn off all amplifier circuitry no matter which turn on mode is selected. Refer to the "Power Mode Selection" section for further information.

### **Active LED**

When lit, the Active LED indicates that the amplifier is operating. Refer to the "Power Mode Selection" section of this manual for further information.

### **Protection LED**

When lit the "Protection" LED located on the front of the amplifier indicates that either a fault in the wiring, the speaker, or the amplifier has caused the amplifier to shut down.

### **Level Adjustment Screws**

Level Adjustment Screws are used to adjust the level of the amplifier output so that you can match the output levels of other amplifiers in your system. Use a small slotted screwdriver to adjust the screws. If you have no other amplifiers in the system it is best to leave the adjustments at their factory default position (turned fully clockwise).

## Troubleshooting

The amplifier is designed to function trouble-free. Most problems occur because of operating errors. If you have a problem please check the troubleshooting list first. If the problem persists, contact your authorized SpeakerCraft dealer or SpeakerCraft customer service at 800-448-0976.

The Problem	Possible Causes And Solutions
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No Sound Heard	Audio cable to the source component is not connected properly or the cable is bad. use another cable that you know is good.
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No Sound Heard from the one side	The speaker wires or audio cables are not wired correctly or are bad.  The front mounted level adjustment on one side is turned all the way down.  A speaker is not working. Make sure by connecting the channel to a speaker that you know to be working.
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Hum or buzzing Sound is Heard	The sound may be caused by a ground loop in the system. Try to eliminate this by reversing the AC plugs of other components in the system.  Other causes may include faulty cables.
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Amplifier will not turn on.	The amplifier must be plugged into a live outlet. The power switch on the front panel must be on.
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## Specifications BB275

**Power Output:**

75 Watts per channel RMS at 8 ohms

100 Watts per channel RMS at 4 ohms

**Input Sensitivity:**

.77V for 8 ohm rated output

**Input Impedance:**

33K ohms

**Total Harmonic Distortion:**

.08% 20Hz to 20kHz @ 8 ohms

.1% 20Hz to 20kHz @ 4 ohms

**Power Consumption:**

500 Watts @ 120VAC, 60Hz

**Dimensions:**

Width = 17", Height = 4", Depth = 15" (including rear panel connectors)

**Weight**

21lbs



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