

# Operation Manual

## PCS Series

Professional Rackmount Power Amplifiers



PCS1100  
PCS1500  
PCS2500

PCS3400  
PCS3400D

PCS4000  
PCS4000D

PCS5000  
PCS5000D

PCS6000  
PCS6000D

VER. 3.0





## CAUTION

RISK OF ELECTRONIC SHOCK!  
DO NOT OPEN!



Terminals Marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electronic shock. Use only high-quality professional speaker cables with ¼" TS or twist-locking plugs pre-installed. All other installation or modification should be performed by a qualified professional.



This Symbol wherever it appears alerts you to the presence of un-insulated dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.



This symbol wherever it appears, alerts you to important operation and maintenance instructions in the accompanying literature. PLEASE READ THE MANUAL.



### CAUTION

To reduce the risk of electrical shock, do not remove the top cover or rear cover section (Metal Housing). No user serviceable parts inside. Refer servicing to qualified and authorized personnel.



### CAUTION

To reduce the risk of electronic shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on or near the apparatus.

1. Familiarize yourself with the product by reading the instruction manual
2. Keep the instruction Manual and all warranty information (is applicable) in a safe place
3. Heed all warnings
4. Follow All Instructions
5. Do not use this apparatus near water or liquids
6. Clean only with dry cloth
7. Do not obstruct and ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat source such as radiators, heat registers, stoves, or other apparatus (including Amplifiers) 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 is 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 receptacle, and the point where they exit from the apparatus.
11. Use only attachments / accessories specified by manufacturer.
12. Use only with a cart, stand, tripod, bracket or table specified capable of withstanding the weight and size of this product.

13. Unplug this apparatus during lightning or when unused for long periods of time.
14. Refer all servicing to qualified and authorized service personnel. Servicing is required when the apparatus 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 apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. The apparatus shall be connected to a MAINS socket outlet with a protective grounding connection.
16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

### LEGAL DISCLAIMER:

At SOUND BARRIER®, we do our best to ensure the accuracy of all of our product descriptions, specifications or other information (collectively, "information") we provide. However, it is possible that some of the information may contain errors and omissions. To the full extent permitted by law, SOUND BARRIER® expressly disclaims all warranties of any kind, whether express, implied, or statutory (including, but not limited to, any implied or statutory warranties of merchantability, fitness for a particular use or purpose, title, and non-infringement of intellectual property rights). Furthermore, and to the fullest extent permitted by law, SOUND BARRIER® shall not bear any liability for such errors or omissions. Any electronics, audio equipment, laptops, CD's, LP's or other gear displayed in conjunction with, upon, within or near our products are shown solely for illustration and demonstration purposes. Any trademark, trade names or brand names appearing herein that do not belong to SOUND BARRIER® are the property of their respective owners and/or companies, and such appearance does not and shall not constitute or imply endorsement, sponsorship or recommendation by SOUND BARRIER®. Models and specifications are subject to change without notice. SOUND BARRIER® is a registered trademark of Sound Barrier, Corp. © 2014. All Rights Reserved.

## Before you get started

Congratulations on your purchase of this Sound Barrier product! This product was carefully packaged in our factory to ensure transport. We recommend that you carefully examine the packaging and its contents for any signs of physical damage that may have occurred during transit.

- If the unit is damaged, please **DO NOT RETURN IT TO US**, but notify the authorized dealer from which you purchased the product from, otherwise claims for damage or replacement may not be guaranteed.
- Always use the original packaging to avoid damage due to storage or shipping.
- Never let unqualified persons tamper with or operate this product or its packaging.
- Please dispose of all packaging materials in an environmentally responsible fashion.

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## Initial Operation

Be sure that there is enough space around the unit allow to for proper cooling ventilation. To avoid overheating please do not place you mixing console on high-temperature equipment such as radiators or power amplifiers.

- Please make sure that all units have a proper ground connection. For your safety, never remove or disable the ground conductor from the unit or on the AC power cord. The unit should always be connected to a mains socket outlet with a protective grounding connection.
- When installing the product, ensure the appliance coupler or power cord is easily accessible for disconnection the unit from mains.

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## Rack Mounting

This amplifier is designed for standard 19" rack mounting as well as "Stack" mounting without a cabinet. Use 4 screws and washers for mounting to the front rack rails. It is highly recommended that the amplifiers weight is supported in the rear, especially for mobile use where the amplifier will be subjected to strong vibrations.

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## Repair Service

Read the terms and conditions of the warranty (included in the packaging) carefully.

Should your Sound Barrier equipment malfunction, it is our intention to have it repaired as quickly as possible. To arrange for warranty service, please contact the authorized Sound Barrier dealer from which you purchased the equipment from. If the original dealer cannot be located you may contact us via email at [techhelp@soundbarrier.com](mailto:techhelp@soundbarrier.com) so we may put you in contact with nearest authorized Sound Barrier repair center. A list of authorized Sound Barrier dealers can be found on our web site at [www.soundbarrier.com](http://www.soundbarrier.com)

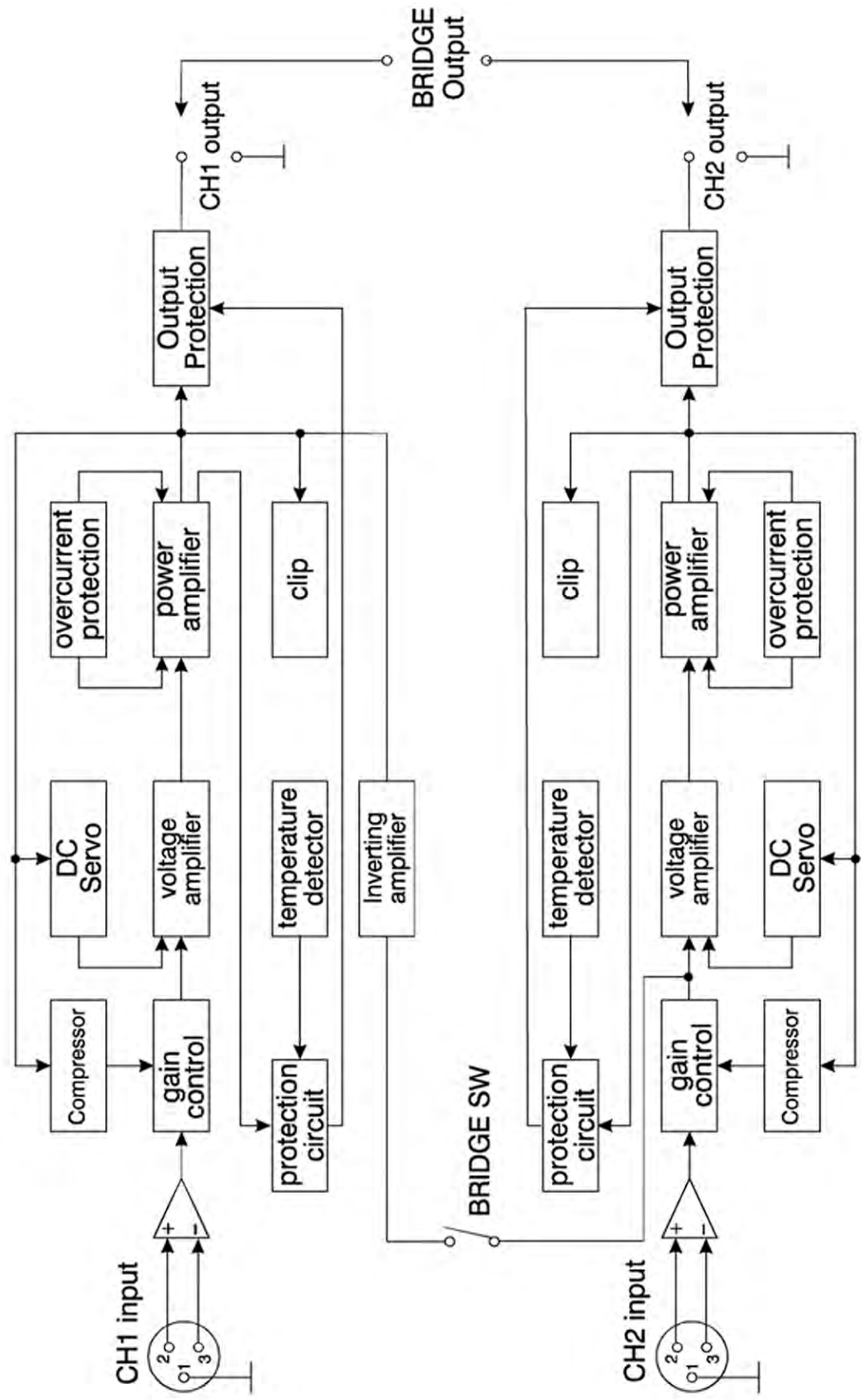
## Equipment Features:

Full Product Specifications and Features are available for each individual model within this manuals. Please continue reading the rest of this booklet to familiarize yourself with this product.

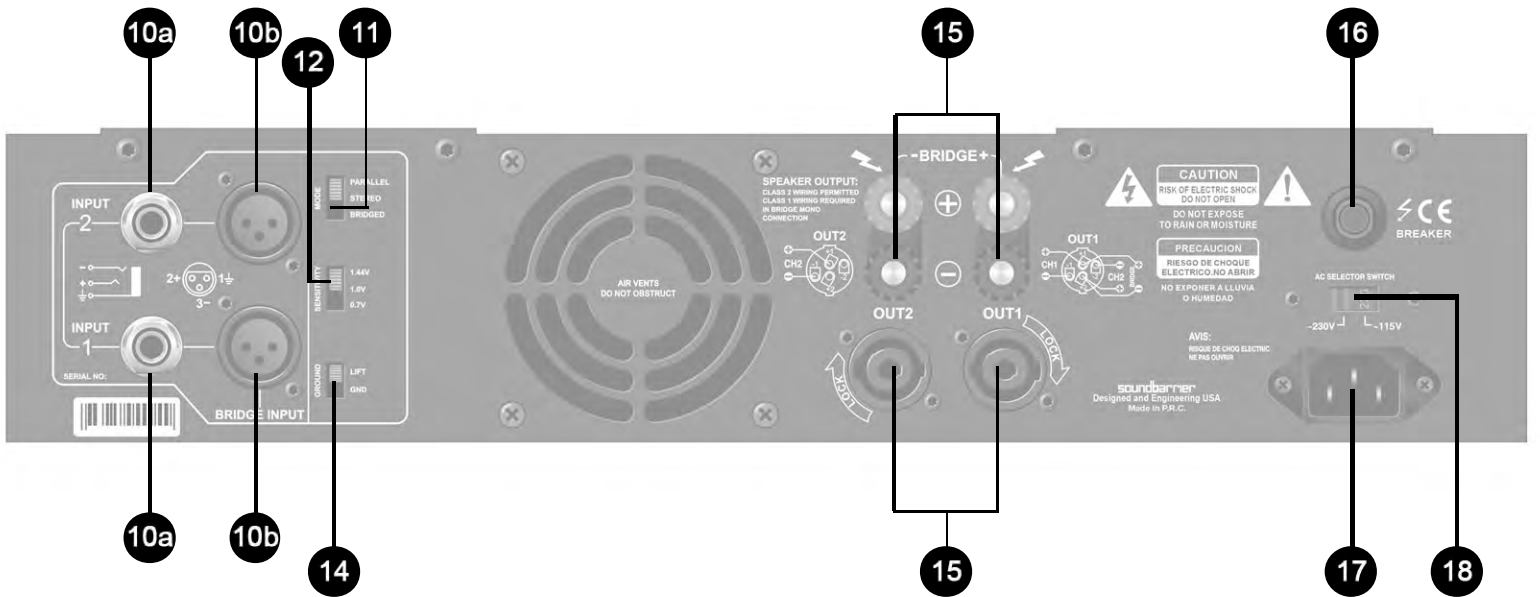
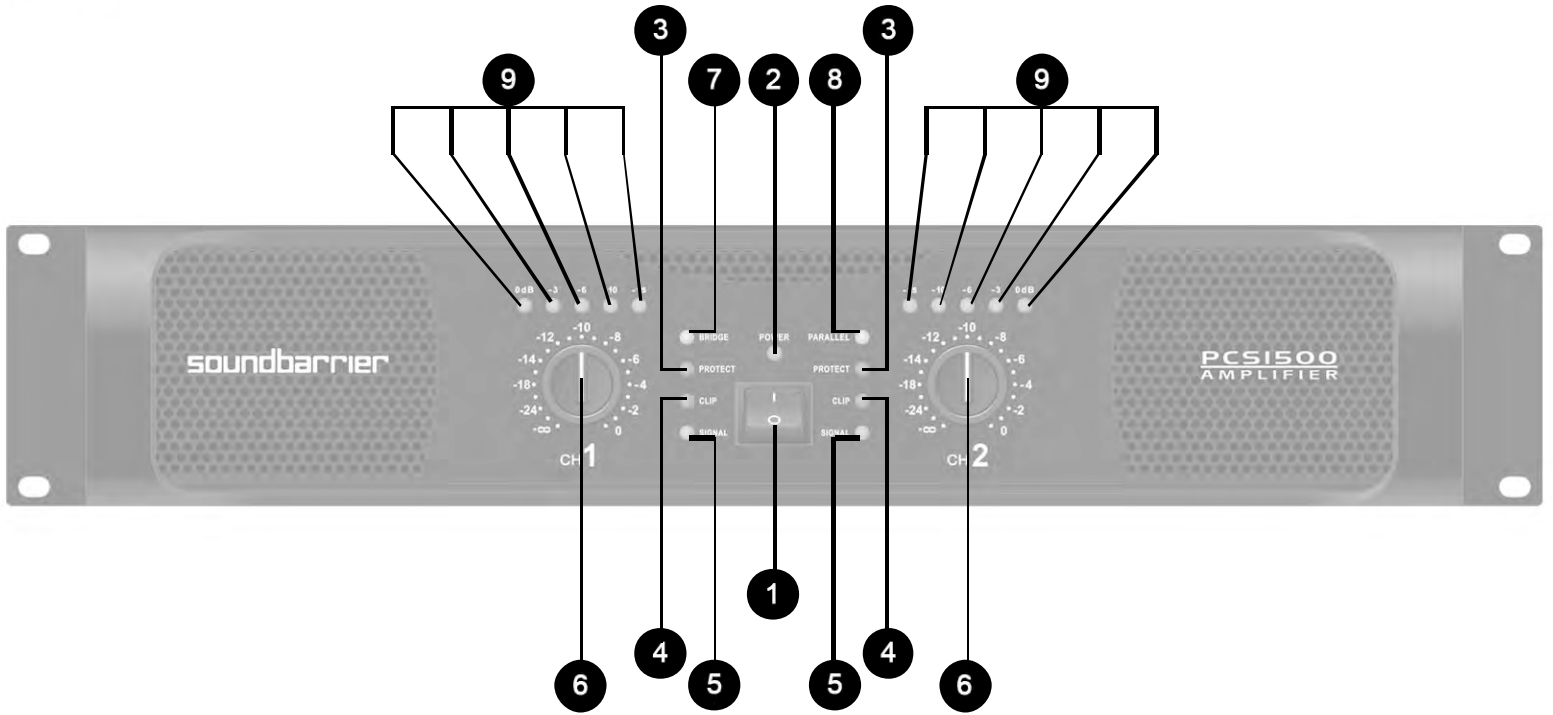
## Technical Specs

	PCS1100	PCS1500	PCS2500	PCS3400/3400D	PCS4000/4000D	PCS5000/5000D	PCS6000/6000D
2 Ohm Dual (Per Ch.)	480W	800W	1350W	1800W	2200W	2400W	2800W
4 Ohm Dual (Per Ch.)	300W	450W	1050W	1350W	1700W	1900W	2100W
8 Ohm Dual (Per Ch.)	205W	310W	600W	800W	1000W	1200W	1400W
4 Ohm (Bridge / Mono)	900W	1400W	2300W	2900W	3800W	4400W	5600W
8 Ohm (Bridge / Mono)	560W	900W	1750W	2300W	2900W	3000W	3100W
Amplifier Type	Class H						
Frequency Response	± 25dB from 15Hz-25kHz (+0/-1dB)						
Total Harmonic Distortion (THD)	<0.03%						
Intermodulation Distortion (IMD) (60Hz & 7kHz @ 4:1)	<0.04%						
Slew Rate (Input Filter Limited)	40V/us						
Damping Factor	Greater Than 400:1						
Input Sensitivity	0.77V - 1.0V - 1.44 Selectable						
Input Impedance (Balanced)	10K Ohm Balanced to Ground						
Power Supply	115V/230V Switchable		115/60Hz (220V/50Hz available upon request)				
Dimensions	482mm x 383mm x 88mm (Standard 19" Rackmount Width + 2U)				482mm x 383mm x 132mm (Standard 19" Rackmount + 3U)		
Net Weight	31 lbs (14 kg)	36 lbs (16 kg)	51 lbs (23 kg)	57 lbs (26 kg)	70 lbs (32 kg)	73 lbs (33 kg)	77 lbs (35 kg)


Block Diagram




PCS1100  
PCS1500



**1) POWER SWITCH:** To turn the unit ON or OFF, press the upper or lower portion of this switch. Before turning on the amplifier, check all connections and turn down the level controls. Momentary muting is normal when turning the amplifier on ON or OFF.

 **CAUTION:** Make sure all your equipment is connected prior to powering ON your amplifier.

 **CAUTION:** Make sure all your equipment is powered OFF prior to powering OFF your amplifier.

**2) POWER LED INDICATORS:** These LED's illuminate when the amplifier power is turned ON.

**3) PROTECT LED INDICATORS:** These LED's illuminate if the amplifier's output connection is shorted, the load impedance is too low or if there is an internal malfunction. When either of these LED's is illuminated, turn off the power and check the output's connections to verify that everything is installed and connected correctly.

**4) CLIP LED INDICATORS:** The LED's illuminate if any section of the power amplifier's outputs are within 3dB of clipping. Occasional blinking of the LED's are acceptable but if they illuminate more than intermittently you should turn down either the amplifier's level or reduce the output level of the connected audio devices to avoid audible distortion.

**5) SIGNAL LED INDICATORS:** These LED Indicators illuminate to confirm the presence of an input signal greater than 100mV on that specific channel.

**6) LEVEL CONTROLS:** Controls the level of signal coming into each channel. The actual voltage attenuation is shown in dB's. Turn the controls counter clockwise if the CLIP LED's illuminate more than intermittently.

**7) BRIDGE LED INDICATORS:** These LED's illuminate when the amplifier is in BRIDGE MODE.

**8) PARALLEL LED INDICATORS:** The LED's illuminate when the amplifier is in PARALLEL MODE.

**9) -4dB LED INDICATORS:**


**10a) 1/4" TRS INPUT CONNECTORS**


**10b) XLR INPUT CONNECTORS:** The 1/4" TRS and XLR connectors are compatible with balanced inputs. Since the 1/4" TRS and XLR connectors are internally wired in parallel, you can parallel this unit with another amplifier by using the 1/4" TRS or the XLR output the signal to the input connectors of another amplifier.

The 1/4" TRS jacks can also be used for unbalanced inputs. Balanced connections are recommended as they are less prone to AC hum (1/4" connectors are NOT BALANCED). For long cable runs a source output impedance of less than 600 ohms is needed to avoid signal loss. For short cable runs an unbalanced signal input should be suitable. For stereo (two-channel) operation, use the inputs for both CH-1 and CH-2; for parallel or bridged mono operation, use only CH-1 input. ( See MODE SELECTOR SWITCH below for more explanation.)

**11) MODE SELECTOR SWITCH:** The PCS series amplifiers offer 3 modes of operation: PARALLEL, STEREO & BRIDGED. Slide the switch to one of the three positions for your application.


PARALLEL (MONO) INPUT - This mode allows both channels to operate in parallel with the same signal and without requiring a Y-cord. In this mode the inputs for both channels are internally connected, so that you only need to feed a signal into one of the channels. This still allows independent level control of each channel. It also enables easy "daisy-chaining" with other amps by using the other channel of input connectors.


 **WARNING:** Do not select this "Parallel" mode when feeding the amplifier with 2 separate signals.

 **WARNING:** Do not use both unbalanced and balanced cables in the same set-up as that can unbalance all the connections when daisy-chaining, resulting in hum.

STEREO INPUT-This is the most common mode generally used, and allows independent control of 2 separate signals such as stereo playback, main and monitor live mixes, and bi-amp operation (highs frequencies in one channel and low frequencies in the other).

BRIDGED MONO- This mode combines the power of both channels to drive a single speaker. In this mode the amp produces 4 times the peak power and 3 times the sustained power into a 4 or 8 ohm speaker than each channel can deliver separately in stereo or parallel mode. Connect the input signal to CH-1 input for bridged mono Operation.

 **WARNING:** In this mode the amplifier can deliver high power into a speaker. Make sure that the speaker, connectors and wiring can handle this output.

 **WARNING:** For prolonged overdriven outputs into a 4 ohm speaker the mains fuse may blow, so care must be taken not to overload the amplifier in such operation.

**12.) SENSITIVITY SELECTOR:** A switch on the rear of the amplifier allows the maximum amplification attainable to be set directly in the input stage. The amplifier has a 1.0V and 0.7V voltage gain setting along with a 1.4V sensitivity setting.

**14) GROUND LIFT SWITCH:** Switch to LFT position to disconnect the chassis from the ground. if necessary to eliminate any humming sounds caused by ground loops.

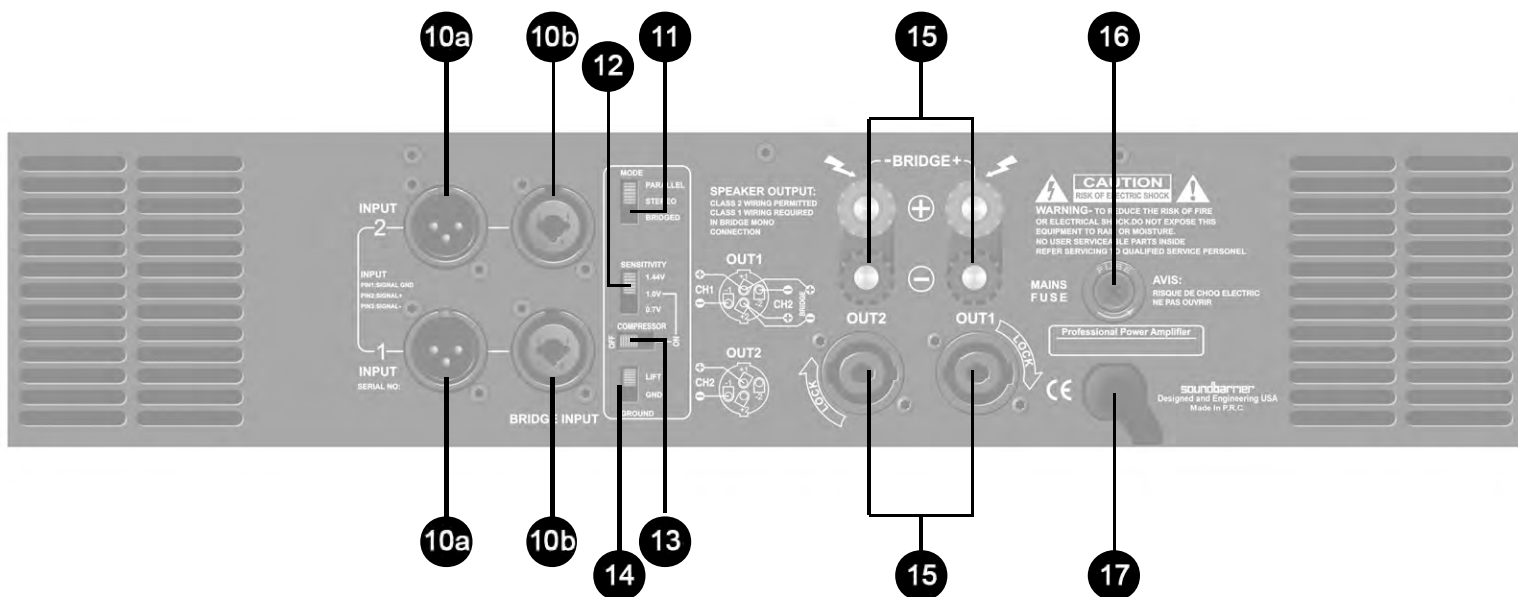
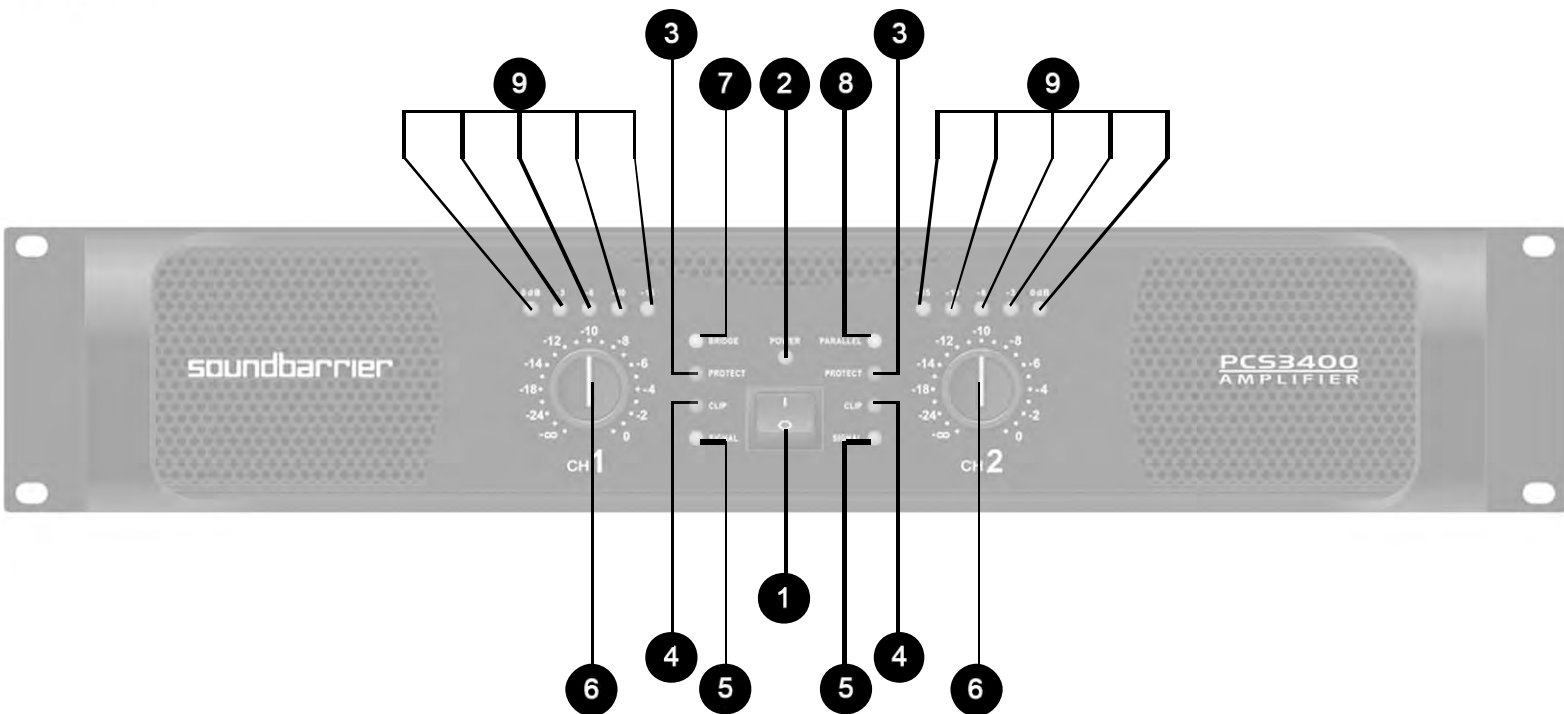
**15) L/R CHANNEL OUTPUT CONNECTORS:** Connections are as described on the rear panel and in the CONNECTIONS section of this manual.

**16) CIRCUIT BREAKER:** AC circuit breaker. If the breaker continuously blows or trips, shut off the unit and have it serviced by qualified service personnel.

**17) POWER CONNECTOR:** The cord connector is used to connect the AC power source to your power amplifier. Use the AC Power cable included.


**18) AC SELECTOR SWITCH:** This amplifier has been designed to adapt to both American voltage standard (110VAC-120VAC.60HZ) and European Standard (220VAC-240VAC.50HZ). Originally, the voltage switch is set to adapt to American voltage standard. If you want to plug into a European standard voltage, simply move the switch to the 220V position. To prevent damaging your system or yourself please ensure that the unit is disconnected prior to setting the unit to the proper voltage.


PCS2500  
PCS3400





**1) POWER SWITCH:** To turn the unit ON or OFF, press the upper or lower portion of this switch. Before turning on the amplifier, check all connections and turn down the level controls. Momentary muting is normal when turning the amplifier on ON or OFF.

 **CAUTION:** Make sure all your equipment is connected prior to powering ON your amplifier.

 **CAUTION:** Make sure all your equipment is powered OFF prior to powering OFF your amplifier.

**2) POWER LED INDICATORS:** These LED's illuminate when the amplifier power is turned ON.

**3) PROTECT LED INDICATORS:** These LED's illuminate if the amplifier's output connection is shorted, the load impedance is too low or if there is an internal malfunction. When either of these LED's is illuminated, turn off the power and check the output's connections to verify that everything is installed and connected correctly.

**4) CLIP LED INDICATORS:** The LED's illuminate if any section of the power amplifier's outputs are within 3dB of clipping. Occasional blinking of the LED's are acceptable but if they illuminate more than intermittently you should turn down either the amplifier's level or reduce the output level of the connected audio devices to avoid audible distortion.

**5) SIGNAL LED INDICATORS:** These LED Indicators illuminate to confirm the presence of an input signal greater than 100mV on that specific channel.

**6) LEVEL CONTROLS:** Controls the level of signal coming into each channel. The actual voltage attenuation is shown in dB's. Turn the controls counter clockwise if the CLIP LED's illuminate more than intermittently.

**7) BRIDGE LED INDICATORS:** These LED's illuminate when the amplifier is in BRIDGE MODE.

**8) PARALLEL LED INDICATORS:** The LED's illuminate when the amplifier is in PARALLEL MODE.


**9) dB LED INDICATORS:** Indicated the signal level of each channel shown in dB's.


#### 10a) XLR INPUT CONNECTORS

**10b) COMBI (XLR & 1/4") INPUT CONNECTORS:** The XLR & COMBI connectors are compatible with balanced inputs. Since the XLR and COMBI connectors are internally wired in parallel, you can parallel this unit with another amplifier by using the XLR or COMBI to output the signal to the input connectors of another amplifier. Balanced connections are recommended as they are less prone to AC hum (1/4" connectors are NOT BALANCED). For long cable runs a source output impedance of less than 600 ohms is needed to avoid signal loss. For short cable runs an unbalanced signal input should be suitable. For stereo (two-channel) operation, use the inputs for both CH-1 and CH-2; for parallel or bridged mono operation, use only CH-1 input. ( See MODE SELECTOR SWITCH below for more explanation.)

**11) MODE SELECTOR SWITCH:** The PCS series amplifiers offer 3 modes of operation: PARALLEL, STEREO & BRIDGED. Slide the switch to one of the three positions for your application.


PARALLEL (MONO) INPUT - This mode allows both channels to operate in parallel with the same signal and without requiring a Y-cord. In this mode the inputs for both channels are internally connected, so that you only need to feed a signal into one of the channels. This still allows independent level control of each channel. It also enables easy "daisy-chaining" with other amps by using the other channel of input connectors.


 **WARNING:** Do not select this "Parallel" mode when feeding the amplifier with 2 separate signals.

 **WARNING:** Do not use both unbalanced and balanced cables in the same set-up as that can unbalance all the connections when daisy-chaining, resulting in hum.

STEREO INPUT-This is the most common mode generally used, and allows independent control of 2 separate signals such as stereo playback, main and monitor live mixes, and bi-amp operation (highs frequencies in one channel and low frequencies in the other).

BRIDGED MONO- This mode combines the power of both channels to drive a single speaker. In this mode the amp produces 4 times the peak power and 3 times the sustained power into a 4 or 8 ohm speaker than each channel can deliver separately in stereo or parallel mode. Connect the input signal to CH-1 input for bridged mono Operation.

 **WARNING:** In this mode the amplifier can deliver high power into a speaker. Make sure that the speaker, connectors and wiring can handle this output.

 **WARNING:** For prolonged overdriven outputs into a 4 ohm speaker the mains fuse may blow, so care must be taken not to overload the amplifier in such operation.

**12.) SENSITIVITY SELECTOR:** A switch on the rear of the amplifier allows the maximum amplification attainable to be set directly in the input stage. The amplifier has a 1.0V and 0.7V voltage gain setting along with a 1.4V sensitivity setting.

**13.) COMPRESSOR SELECTOR:** When the switch is in the OFF position the compressor is bypassed. The compressor only works when the sensitivity switch is set to 1.0V.

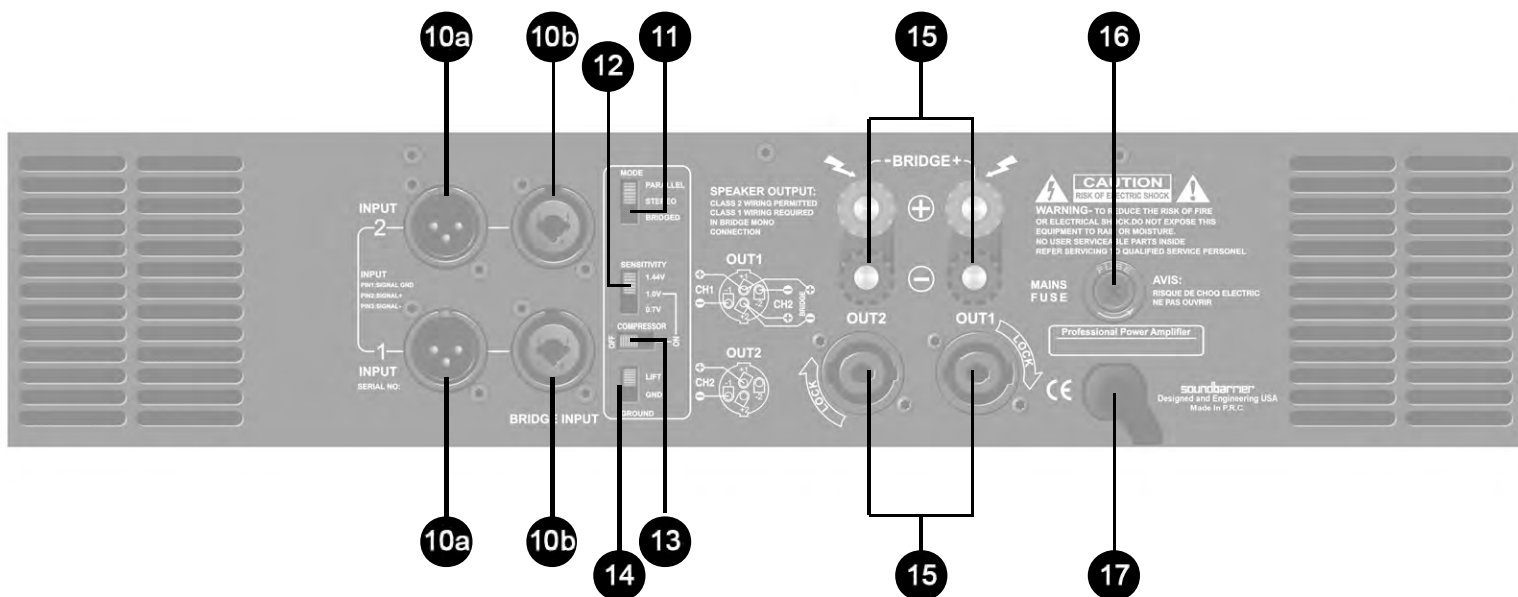
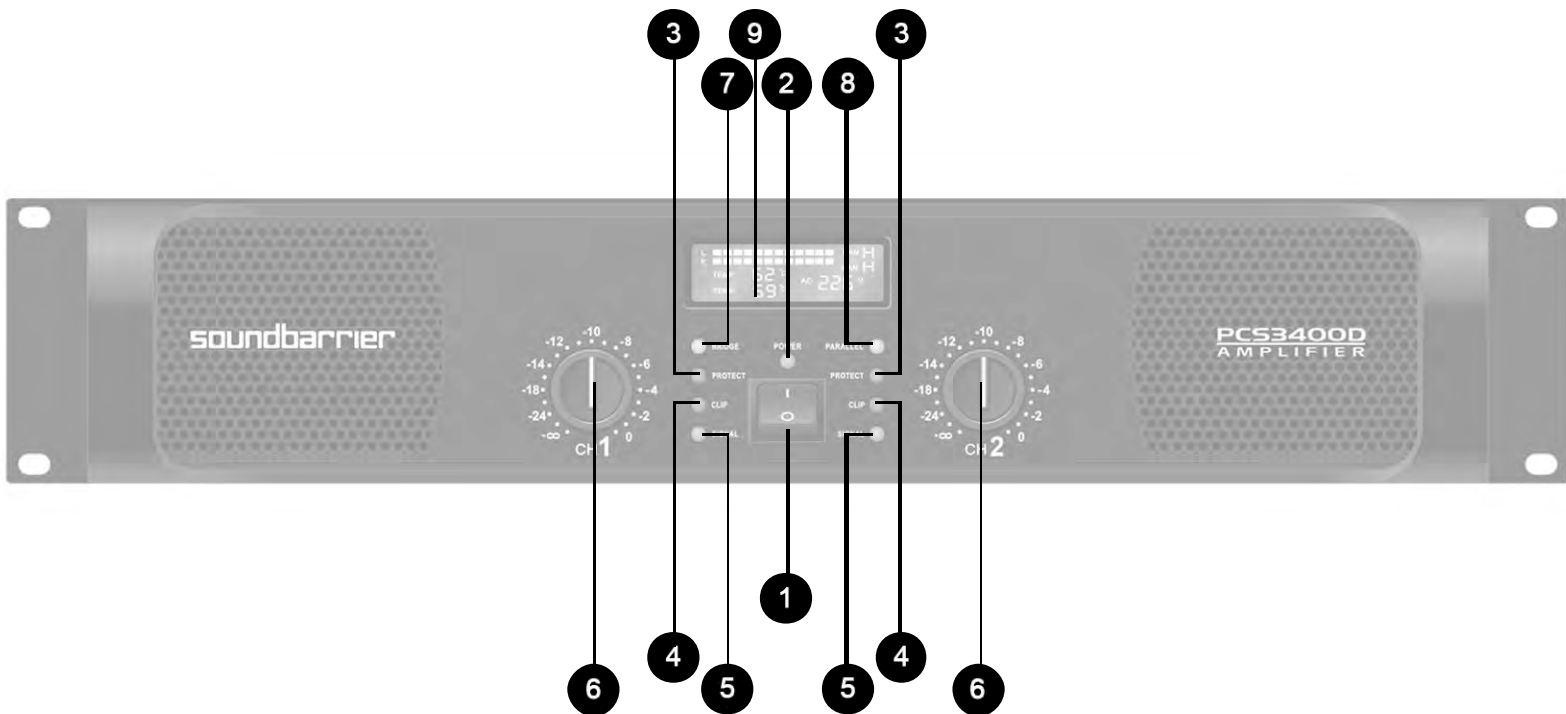
**14) GROUND LIFT SWITCH:** Switch to LFT position to disconnect the chassis from the ground. if necessary to eliminate any humming sounds caused by ground loops.

**15) L/R CHANNEL OUTPUT CONNECTORS:** Connections are as described on the rear panel and in the CONNECTIONS section of this manual.


**16) CIRCUIT BREAKER:** AC circuit breaker. If the breaker continuously blows or trips, shut off the unit and have it serviced by qualified service personnel.


**17) POWER CONNECTOR:** The cord connector is used to connect the AC power source to your power amplifier.

# PCS3400D



**1) POWER SWITCH:** To turn the unit ON or OFF, press the upper or lower portion of this switch. Before turning on the amplifier, check all connections and turn down the level controls. Momentary muting is normal when turning the amplifier on ON or OFF.

 **CAUTION:** Make sure all your equipment is connected prior to powering ON your amplifier.

 **CAUTION:** Make sure all your equipment is powered OFF prior to powering OFF your amplifier.

**2) POWER LED INDICATORS:** These LED's illuminate when the amplifier power is turned ON.

**3) PROTECT LED INDICATORS:** These LED's illuminate if the amplifier's output connection is shorted, the load impedance is too low or if there is an internal malfunction. When either of these LED's is illuminated, turn off the power and check the output's connections to verify that everything is installed and connected correctly.

**4) CLIP LED INDICATORS:** The LED's illuminate if any section of the power amplifier's outputs are within 3dB of clipping. Occasional blinking of the LED's are acceptable but if they illuminate more than intermittently you should turn down either the amplifier's level or reduce the output level of the connected audio devices to avoid audible distortion.

**5) SIGNAL LED INDICATORS:** These LED Indicators illuminate to confirm the presence of an input signal greater than 100mV on that specific channel.

**6) LEVEL CONTROLS:** Controls the level of signal coming into each channel. The actual voltage attenuation is shown in dB's. Turn the controls counter clockwise if the CLIP LED's illuminate more than intermittently.

**7) BRIDGE LED INDICATORS:** These LED's illuminate when the amplifier is in BRIDGE MODE.

**8) PARALLEL LED INDICATORS:** The LED's illuminate when the amplifier is in PARALLEL MODE.


**9) DIGITAL DISPLAY:** Displays Audio Output Levels for both channels, internal temperature & Fan Speed.


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**10b) COMBI (XLR & 1/4") INPUT CONNECTORS:** The XLR & COMBI connectors are compatible with balanced inputs. Since the XLR and COMBI connectors are internally wired in parallel, you can parallel this unit with another amplifier by using the XLR or COMBI to output the signal to the input connectors of another amplifier. Balanced connections are recommended as they are less prone to AC hum (1/4" connectors are NOT BALANCED). For long cable runs a source output impedance of less than 600 ohms is needed to avoid signal loss. For short cable runs an unbalanced signal input should be suitable. For stereo (two-channel) operation, use the inputs for both CH-1 and CH-2; for parallel or bridged mono operation, use only CH-1 input. ( See MODE SELECTOR SWITCH below for more explanation.)

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 **WARNING:** Do not select this "Parallel" mode when feeding the amplifier with 2 separate signals.

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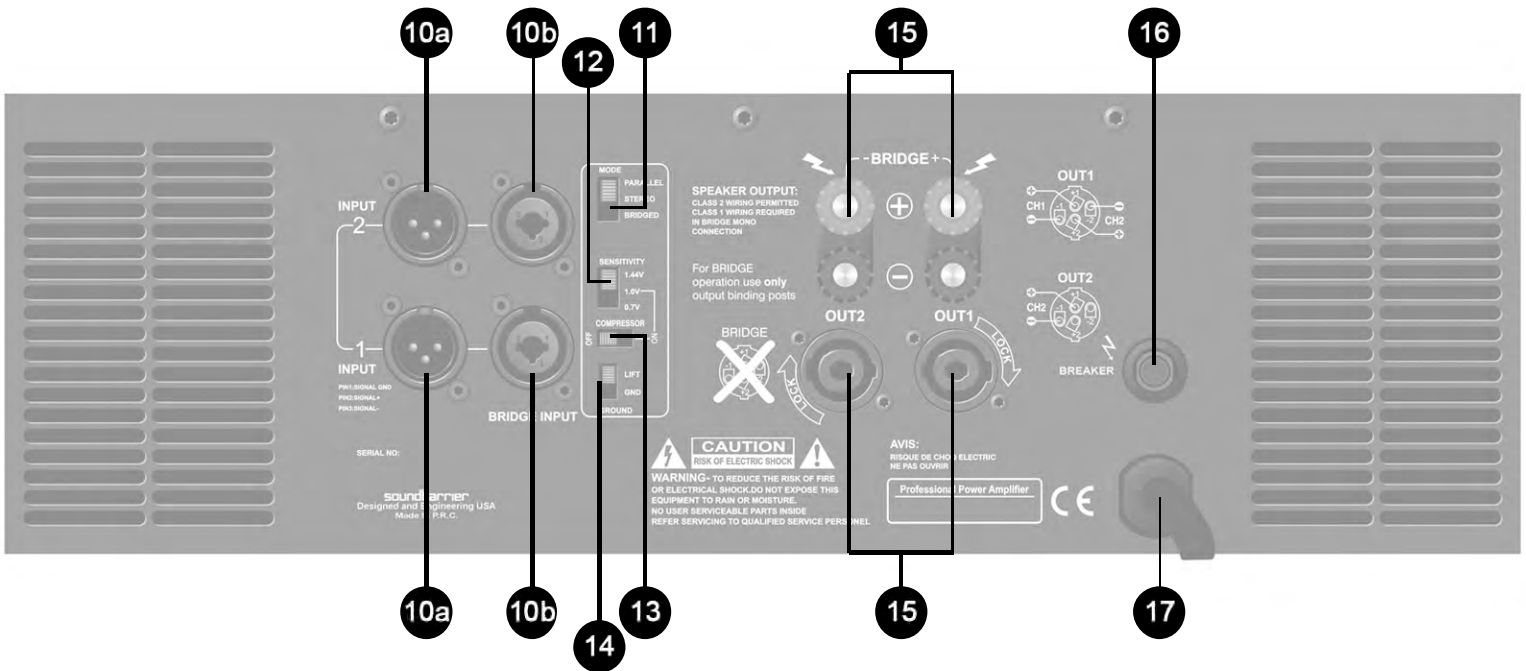
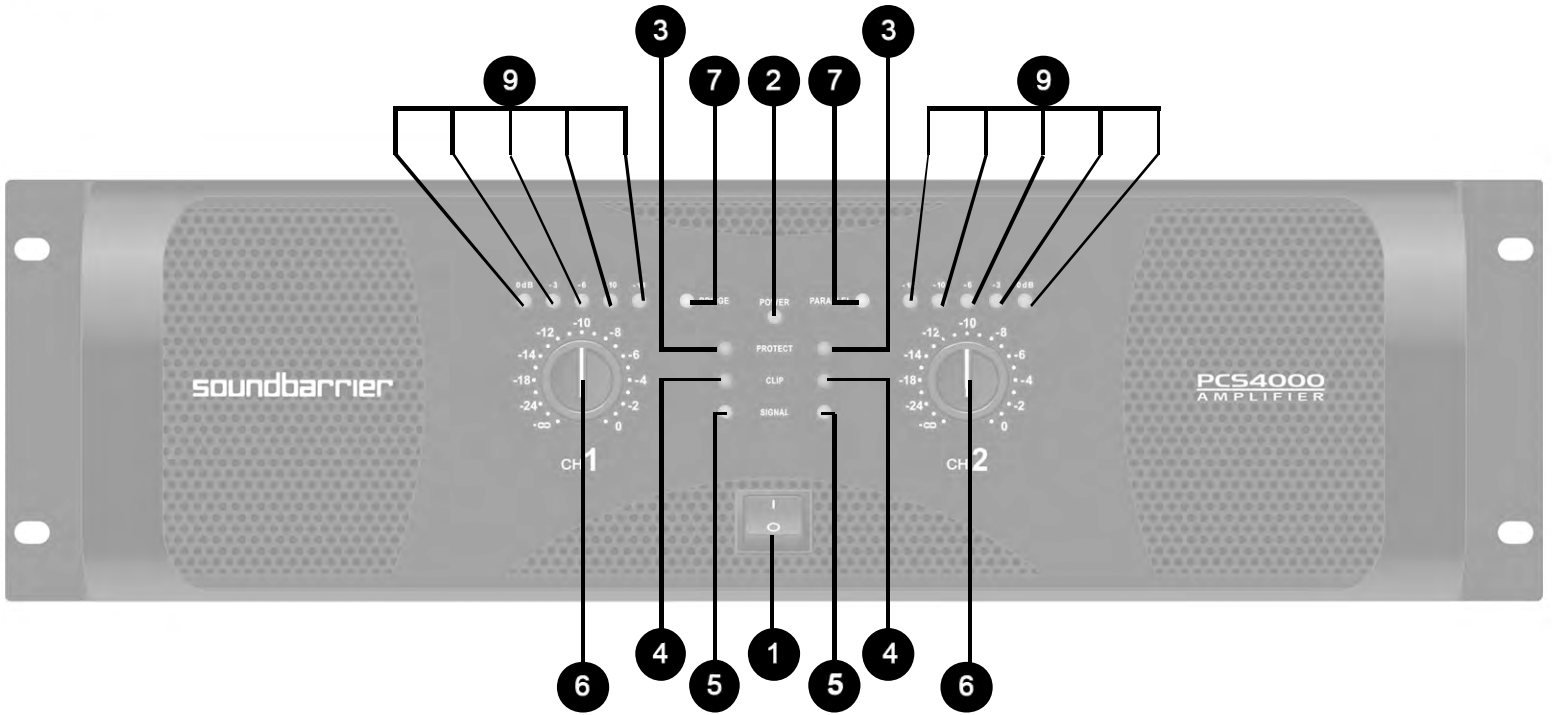
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PCS4000  
PCS5000



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**13.) COMPRESSOR SELECTOR:** When the switch is in the OFF position the compressor is bypassed. The compressor only works when the sensitivity switch is set to 1.0V.

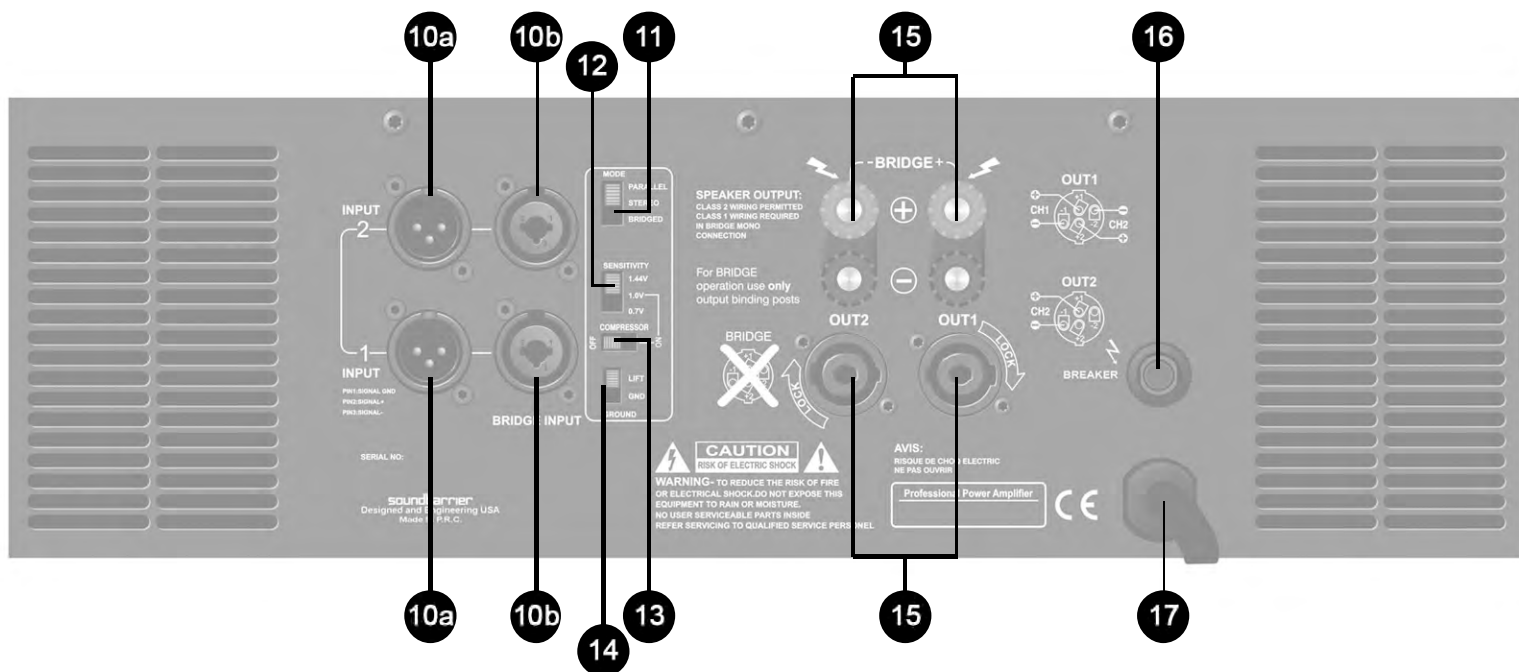
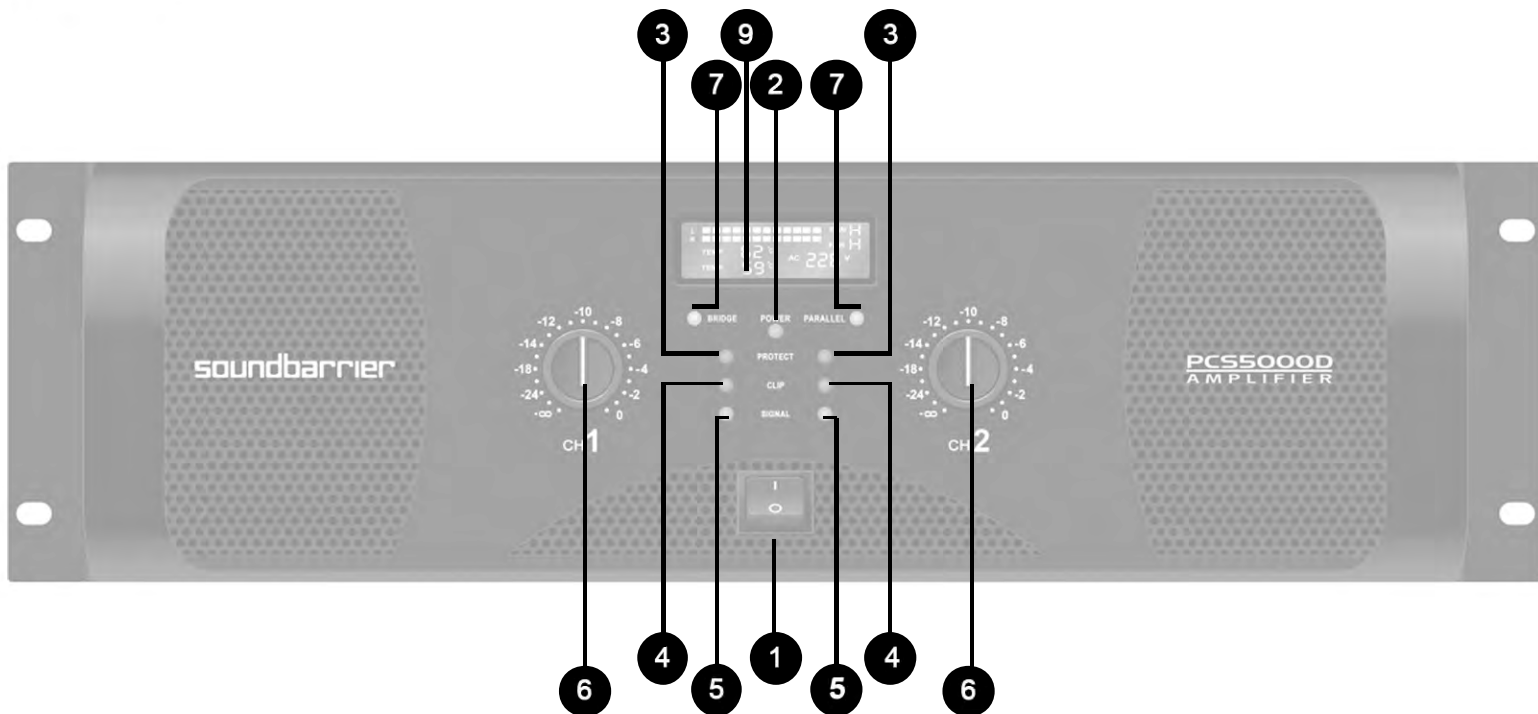
**14) GROUND LIFT SWITCH:** Switch to LFT position to disconnect the chassis from the ground. if necessary to eliminate any humming sounds caused by ground loops.

**15) L/R CHANNEL OUTPUT CONNECTORS:** Connections are as described on the rear panel and in the CONNECTIONS section of this manual.


**16) CIRCUIT BREAKER:** AC circuit breaker. If the breaker continuously blows or trips, shut off the unit and have it serviced by qualified service personnel.


**17) POWER CONNECTOR:** The cord connector is used to connect the AC power source to your power amplifier.

PCS4000D  
PCS5000D



**1) POWER SWITCH:** To turn the unit ON or OFF, press the upper or lower portion of this switch. Before turning on the amplifier, check all connections and turn down the level controls. Momentary muting is normal when turning the amplifier on ON or OFF.

 **CAUTION:** Make sure all your equipment is connected prior to powering ON your amplifier.

 **CAUTION:** Make sure all your equipment is powered OFF prior to powering OFF your amplifier.

**2) POWER LED INDICATORS:** These LED's illuminate when the amplifier power is turned ON.

**3) PROTECT LED INDICATORS:** These LED's illuminate if the amplifier's output connection is shorted, the load impedance is too low or if there is an internal malfunction. When either of these LED's is illuminated, turn off the power and check the output's connections to verify that everything is installed and connected correctly.

**4) CLIP LED INDICATORS:** The LED's illuminate if any section of the power amplifier's outputs are within 3dB of clipping. Occasional blinking of the LED's are acceptable but if they illuminate more than intermittently you should turn down either the amplifier's level or reduce the output level of the connected audio devices to avoid audible distortion.

**5) SIGNAL LED INDICATORS:** These LED Indicators illuminate to confirm the presence of an input signal greater than 100mV on that specific channel.

**6) LEVEL CONTROLS:** Controls the level of signal coming into each channel. The actual voltage attenuation is shown in dB's. Turn the controls counter clockwise if the CLIP LED's illuminate more than intermittently.

**7) BRIDGE LED INDICATORS:** These LED's illuminate when the amplifier is in BRIDGE MODE.

**8) PARALLEL LED INDICATORS:** The LED's illuminate when the amplifier is in PARALLEL MODE.


**9) DIGITAL DISPLAY:** Displays Audio Output Levels for both channels, internal temperature & Fan Speed.


#### 10a) XLR INPUT CONNECTORS

**10b) COMBI (XLR & 1/4") INPUT CONNECTORS:** The XLR & COMBI connectors are compatible with balanced inputs. Since the XLR and COMBI connectors are internally wired in parallel, you can parallel this unit with another amplifier by using the XLR or COMBI to output the signal to the input connectors of another amplifier. Balanced connections are recommended as they are less prone to AC hum (1/4" connectors are NOT BALANCED). For long cable runs a source output impedance of less than 600 ohms is needed to avoid signal loss. For short cable runs an unbalanced signal input should be suitable. For stereo (two-channel) operation, use the inputs for both CH-1 and CH-2; for parallel or bridged mono operation, use only CH-1 input. ( See MODE SELECTOR SWITCH below for more explanation.)

**11) MODE SELECTOR SWITCH:** The PCS series amplifiers offer 3 modes of operation: PARALLEL, STEREO & BRIDGED. Slide the switch to one of the three positions for your application.


PARALLEL (MONO) INPUT - This mode allows both channels to operate in parallel with the same signal and without requiring a Y-cord. In this mode the inputs for both channels are internally connected, so that you only need to feed a signal into one of the channels. This still allows independent level control of each channel. It also enables easy "daisy-chaining" with other amps by using the other channel of input connectors.


 **WARNING:** Do not select this "Parallel" mode when feeding the amplifier with 2 separate signals.

 **WARNING:** Do not use both unbalanced and balanced cables in the same set-up as that can unbalance all the connections when daisy-chaining, resulting in hum.

STEREO INPUT-This is the most common mode generally used, and allows independent control of 2 separate signals such as stereo playback, main and monitor live mixes, and bi-amp operation (highs frequencies in one channel and low frequencies in the other).

BRIDGED MONO- This mode combines the power of both channels to drive a single speaker. In this mode the amp produces 4 times the peak power and 3 times the sustained power into a 4 or 8 ohm speaker than each channel can deliver separately in stereo or parallel mode. Connect the input signal to CH-1 input for bridged mono operation.

 **WARNING:** In this mode the amplifier can deliver high power into a speaker. Make sure that the speaker, connectors and wiring can handle this output.

 **WARNING:** For prolonged overdriven outputs into a 4 ohm speaker the mains fuse may blow, so care must be taken not to overload the amplifier in such operation.

**12.) SENSITIVITY SELECTOR:** A switch on the rear of the amplifier allows the maximum amplification attainable to be set directly in the input stage. The amplifier has a 1.0V and 0.7V voltage gain setting along with a 1.4V sensitivity setting.

**13.) COMPRESSOR SELECTOR:** When the switch is in the OFF position the compressor is bypassed. The compressor only works when the sensitivity switch is set to 1.0V.

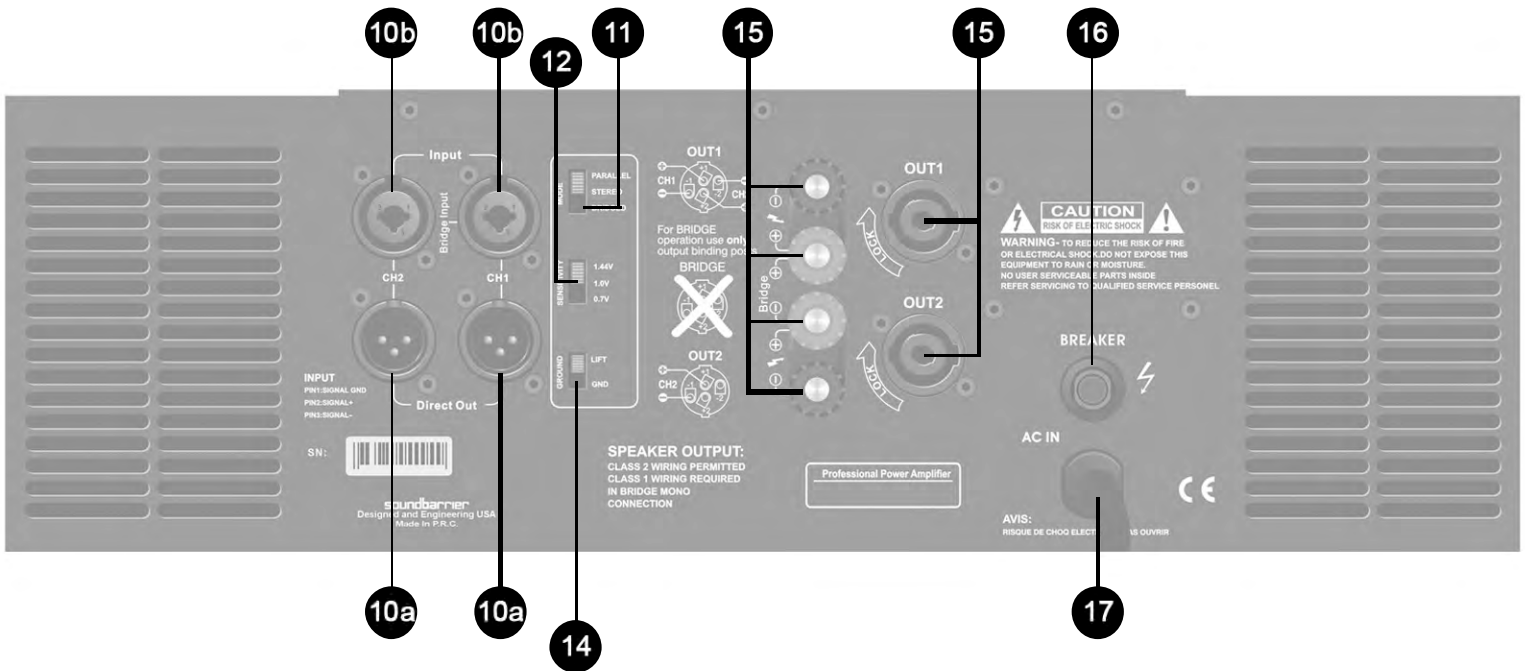
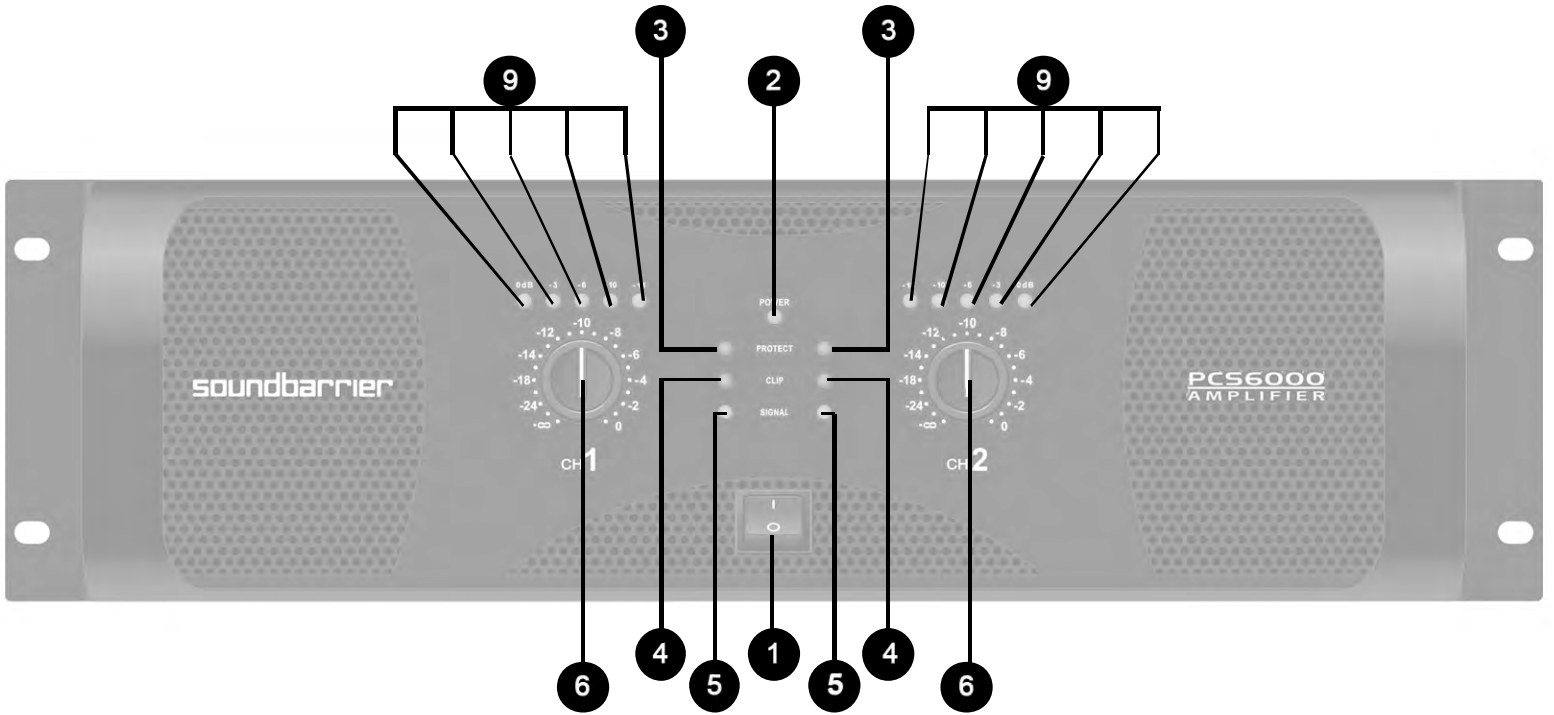
**14) GROUND LIFT SWITCH:** Switch to LFT position to disconnect the chassis from the ground. if necessary to eliminate any humming sounds caused by ground loops.

**15) L/R CHANNEL OUTPUT CONNECTORS:** Connections are as described on the rear panel and in the CONNECTIONS section of this manual.

**16) CIRCUIT BREAKER:** AC circuit breaker. If the breaker continuously blows or trips, shut off the unit and have it serviced by qualified service personnel.


**17) POWER CONNECTOR:** The cord connector is used to connect the AC power source to your power amplifier.


PCS6000





**1) POWER SWITCH:** To turn the unit ON or OFF, press the upper or lower portion of this switch. Before turning on the amplifier, check all connections and turn down the level controls. Momentary muting is normal when turning the amplifier on ON or OFF.

 **CAUTION:** Make sure all your equipment is connected prior to powering ON your amplifier.

 **CAUTION:** Make sure all your equipment is powered OFF prior to powering OFF your amplifier.

**2) POWER LED INDICATORS:** These LED's illuminate when the amplifier power is turned ON.

**3) PROTECT LED INDICATORS:** These LED's illuminate if the amplifier's output connection is shorted, the load impedance is too low or if there is an internal malfunction. When either of these LED's is illuminated, turn off the power and check the output's connections to verify that everything is installed and connected correctly.

**4) CLIP LED INDICATORS:** The LED's illuminate if any section of the power amplifier's outputs are within 3dB of clipping. Occasional blinking of the LED's are acceptable but if they illuminate more than intermittently you should turn down either the amplifier's level or reduce the output level of the connected audio devices to avoid audible distortion.

**5) SIGNAL LED INDICATORS:** These LED Indicators illuminate to confirm the presence of an input signal greater than 100mV on that specific channel.

**6) LEVEL CONTROLS:** Controls the level of signal coming into each channel. The actual voltage attenuation is shown in dB's. Turn the controls counter clockwise if the CLIP LED's illuminate more than intermittently.


**9) dB LED INDICATORS:** Indicated the signal level of each channel shown in dB's.


#### 10a) XLR INPUT CONNECTORS

**10b) COMBI (XLR & 1/4") INPUT CONNECTORS:** The XLR & COMBI connectors are compatible with balanced inputs. Since the XLR and COMBI connectors are internally wired in parallel, you can parallel this unit with another amplifier by using the XLR or COMBI to output the signal to the input connectors of another amplifier. Balanced connections are recommended as they are less prone to AC hum (1/4" connectors are NOT BALANCED). For long cable runs a source output impedance of less than 600 ohms is needed to avoid signal loss. For short cable runs an unbalanced signal input should be suitable. For stereo (two-channel) operation, use the inputs for both CH-1 and CH-2; for parallel or bridged mono operation, use only CH-1 input. ( See MODE SELECTOR SWITCH below for more explanation.)

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 **WARNING:** Do not select this "Parallel" mode when feeding the amplifier with 2 separate signals.

 **WARNING:** Do not use both unbalanced and balanced cables in the same set-up as that can unbalance all the connections when daisy-chaining, resulting in hum.

STEREO INPUT-This is the most common mode generally used, and allows independent control of 2 separate signals such as stereo playback, main and monitor live mixes, and bi-amp operation (highs frequencies in one channel and low frequencies in the other).

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 **WARNING:** In this mode the amplifier can deliver high power into a speaker. Make sure that the speaker, connectors and wiring can handle this output.

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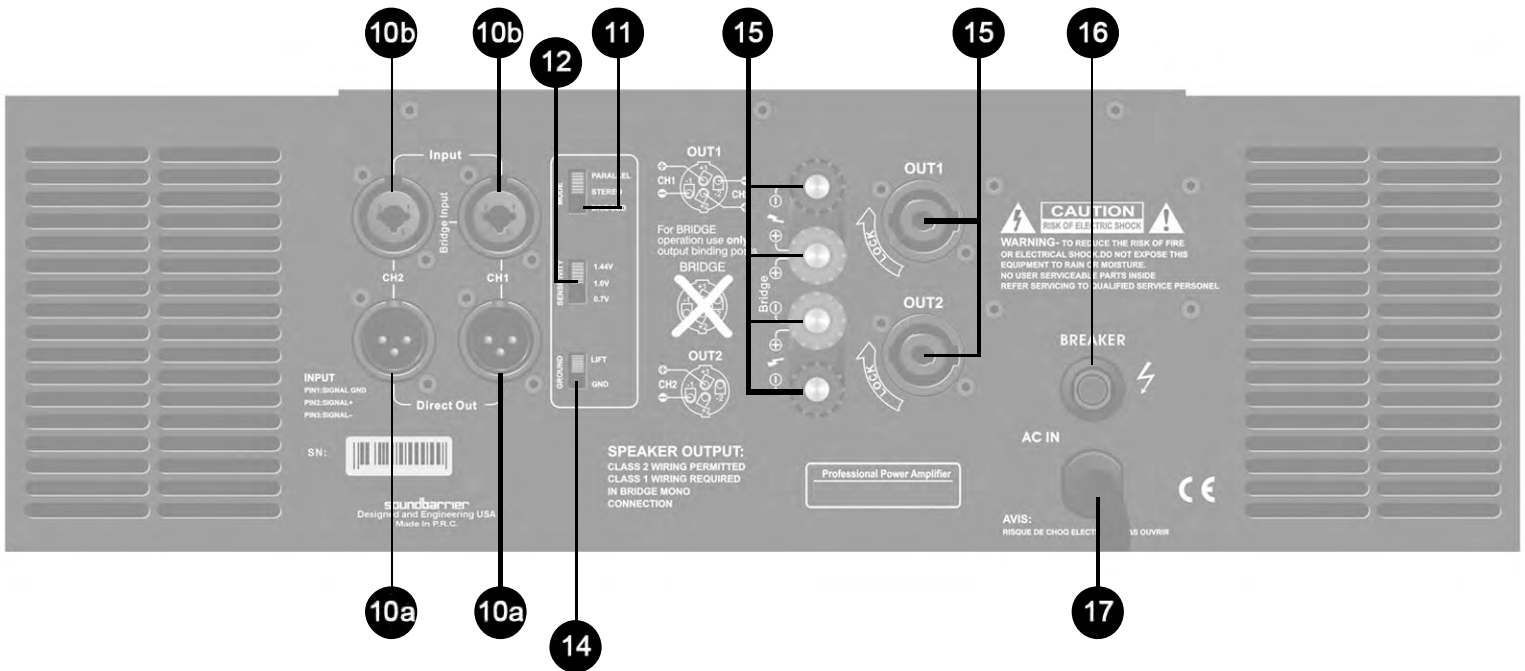
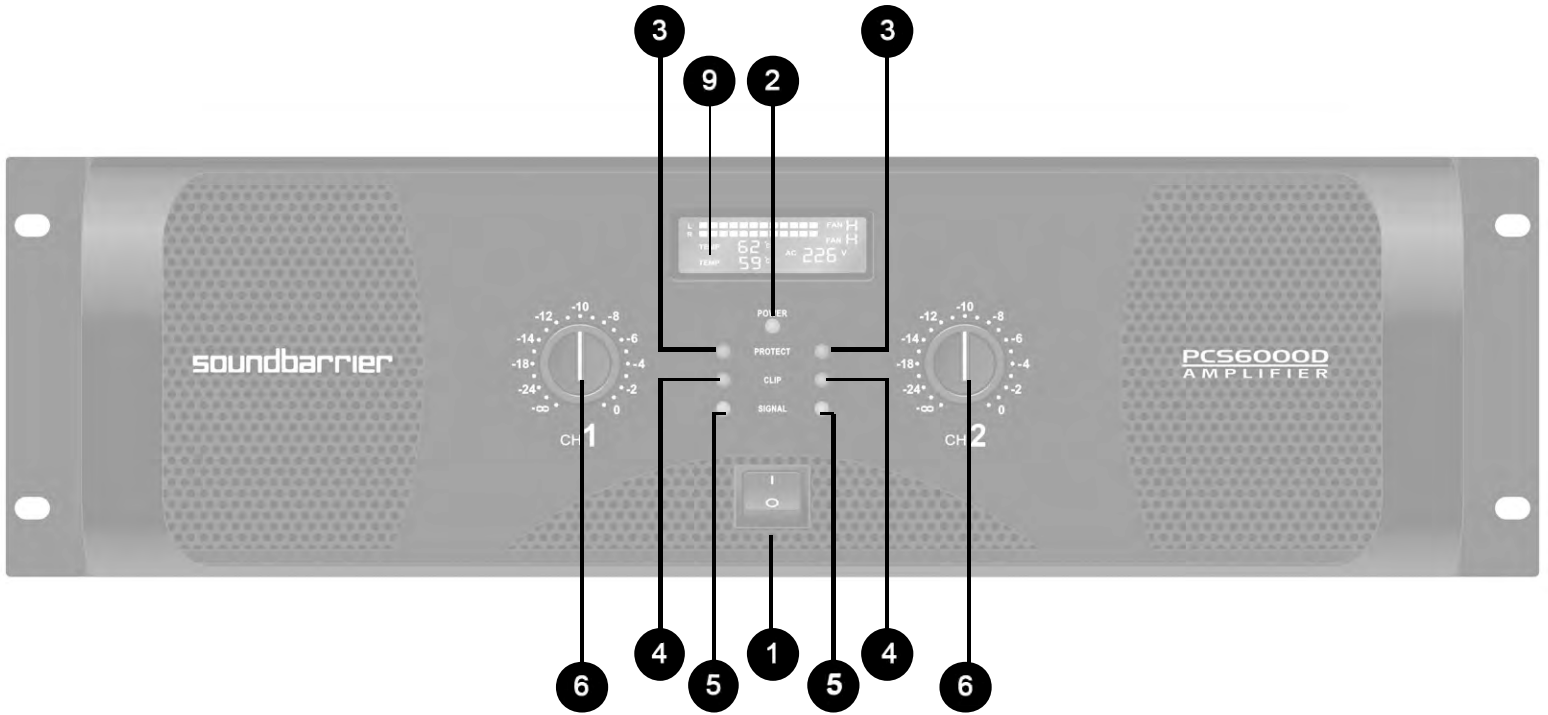
**14) GROUND LIFT SWITCH:** Switch to LFT position to disconnect the chassis from the ground. if necessary to eliminate any humming sounds caused by ground loops.

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**16) CIRCUIT BREAKER:** AC circuit breaker. If the breaker continuously blows or trips, shut off the unit and have it serviced by qualified service personnel.


**17) POWER CONNECTOR:** The cord connector is used to connect the AC power source to your power amplifier.

PCS6000D



**1) POWER SWITCH:** To turn the unit ON or OFF, press the upper or lower portion of this switch. Before turning on the amplifier, check all connections and turn down the level controls. Momentary muting is normal when turning the amplifier on ON or OFF.

 **CAUTION:** Make sure all your equipment is connected prior to powering ON your amplifier.

 **CAUTION:** Make sure all your equipment is powered OFF prior to powering OFF your amplifier.

**2) POWER LED INDICATORS:** These LED's illuminate when the amplifier power is turned ON.

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**6) LEVEL CONTROLS:** Controls the level of signal coming into each channel. The actual voltage attenuation is shown in dB's. Turn the controls counter clockwise if the CLIP LED's illuminate more than intermittently.


**9) DIGITAL DISPLAY:** Displays Audio Output Levels for both channels, internal temperature & Fan Speed.


#### 10a) XLR INPUT CONNECTORS

**10b) COMBI (XLR & 1/4") INPUT CONNECTORS:** The XLR & COMBI connectors are compatible with balanced inputs. Since the XLR and COMBI connectors are internally wired in parallel, you can parallel this unit with another amplifier by using the XLR or COMBI to output the signal to the input connectors of another amplifier. Balanced connections are recommended as they are less prone to AC hum (1/4" connectors are NOT BALANCED). For long cable runs a source output impedance of less than 600 ohms is needed to avoid signal loss. For short cable runs an unbalanced signal input should be suitable. For stereo (two-channel) operation, use the inputs for both CH-1 and CH-2; for parallel or bridged mono operation, use only CH-1 input. ( See MODE SELECTOR SWITCH below for more explanation.)

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 **WARNING:** Do not use both unbalanced and balanced cables in the same set-up as that can unbalance all the connections when daisy-chaining, resulting in hum.

STEREO INPUT-This is the most common mode generally used, and allows independent control of 2 separate signals such as stereo playback, main and monitor live mixes, and bi-amp operation (highs frequencies in one channel and low frequencies in the other).

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 **WARNING:** In this mode the amplifier can deliver high power into a speaker. Make sure that the speaker, connectors and wiring can handle this output.

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**12.) SENSITIVITY SELECTOR:** A switch on the rear of the amplifier allows the maximum amplification attainable to be set directly in the input stage. The amplifier has a 1.0V and 0.7V voltage gain setting along with a 1.4V sensitivity setting.

**14) GROUND LIFT SWITCH:** Switch to LFT position to disconnect the chassis from the ground. if necessary to eliminate any humming sounds caused by ground loops.

**15) L/R CHANNEL OUTPUT CONNECTORS:** Connections are as described on the rear panel and in the CONNECTIONS section of this manual.

**16) CIRCUIT BREAKER:** AC circuit breaker. If the breaker continuously blows or trips, shut off the unit and have it serviced by qualified service personnel.

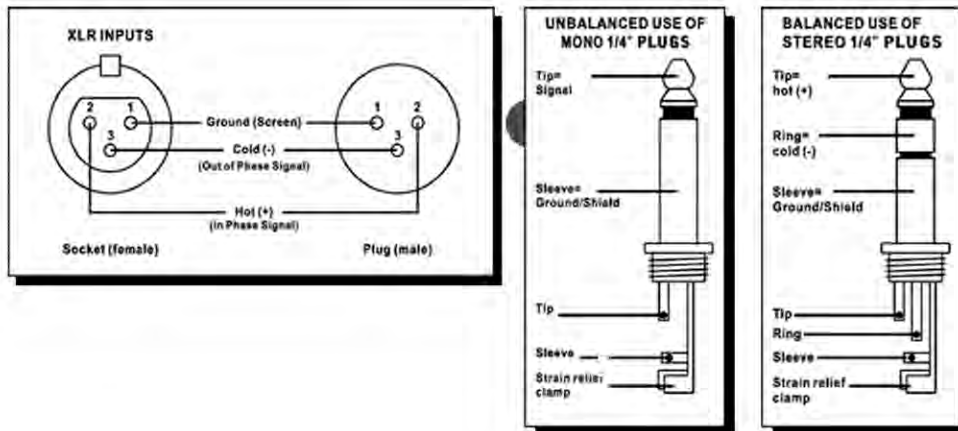
**17) POWER CONNECTOR:** The cord connector is used to connect the AC power source to your power amplifier.

## Connections

The following instructions describe the most common ways to install you amplifier into a sound system.

- 1) Turn OFF the amplifier power switch before making any connections.
- 2) The PCS series amplifiers may be operated in one of three modes: Stereo, Bridged-mono or Parallel mono. Refer to the following wiring diagrams for the speaker connections you wish to make.

**NOTE:** Sound Barrier USA assumes no liability for damaged speakers resulting from improper wiring, careless amplifier use or over powering.



### STEREO (2 Channel) MODE

To put the amplifier into stereo mode, first make sure that the amplifier is OFF. Then slide the mode selector switch to the "Stereo" position and properly connect the input / output wiring as shown in diagram (1A).

**WARNING:** DO NOT connect a speaker load less than 4Ω as it can damage you amplifier.

### PARALLEL (MONO) MODE

To put the amplifier into parallel-mono mode, first make sure that the amplifier is OFF. Then slide the mode selector switch to the "Parallel" position and properly connect the input / output wiring as shown in diagram (2A). A signal into any input connector will drive both channels directly. You can patch the input signal on to any other amps using any of the remaining input jacks.

**WARNING:** DO NOT connect a speaker load less than 4Ω as it can damage you amplifier.

**WARNING:** DO NOT use the "Parallel" switch when feeding the amp 2 separate signals

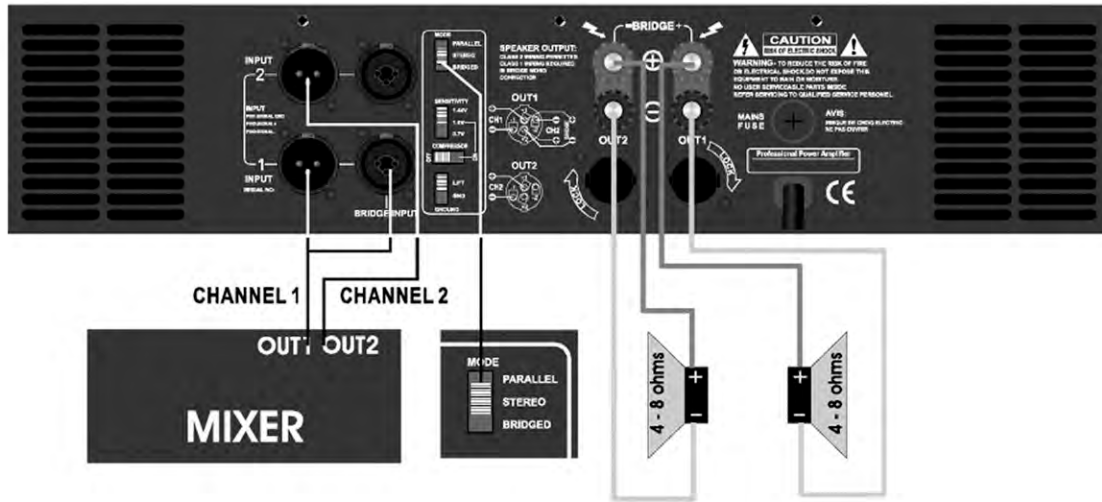
### BRIDGED (MONO) MODE

To put the amplifier into bridged-mono mode, first make sure that the amplifier is OFF. Then slide the mode selector switch to the "Bridged" position and properly connect the input / output wiring as shown in diagram (3A). The signal is put into input Channel 1. Keep the level control of Channel 2 turned completely OFF (counter clockwise).

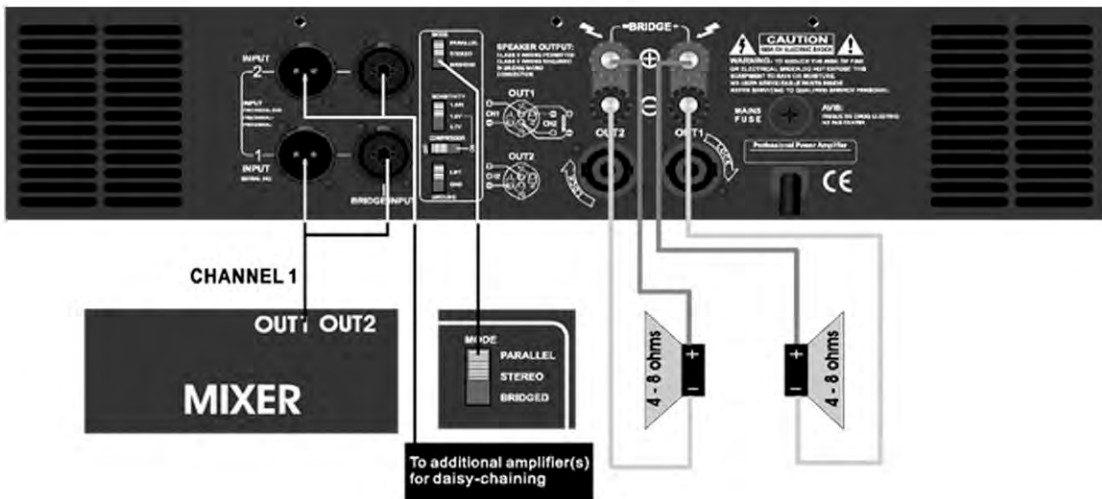
**WARNING:** DO NOT connect a speaker load less than 4Ω as it can damage you amplifier.

**WARNING:** This mode produces excessive power. Be sure that your wiring and speaker can handle it.

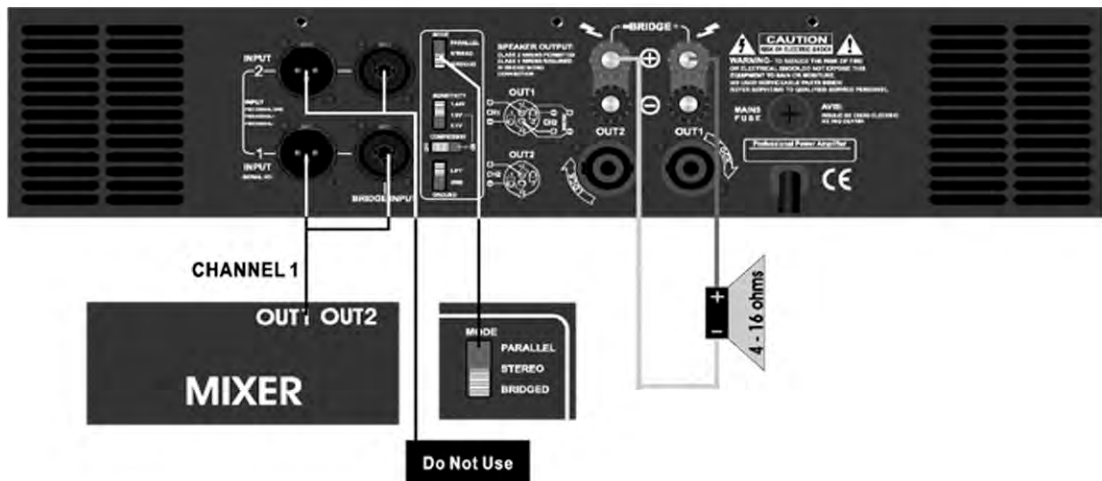
1A



2A



3A



## Digital Display



**1) SIGNAL INDICATORS:** These LCD Indicators illuminate to confirm the presence of an input signal on the Left (CH1) and Right (CH2) channels.

**6) TEMPERATURE INDICATORS:** Displays the internal temperature on each channel. I

**1) FAN SPEED:** Displays internal cooling fans speed (High or Low)

**6) VOLTAGE INDICATOR:** Displays the voltage on the power source.

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