

# OPERATING MANUAL

and becoming familiar with its many features and how to use them. Please take a great care in unpacking your set and do not discard the crates and other packing materials. They may be needed when moving your system and required if it ever becomes necessary to return your set for service. Never place the set near radiators, in front of heating vents, in direct sun light, in excessive humidity or dusty location to avoid early damage and for your years of quality use. Connect your complementary components as illustrated in the following page.

PROFESSIONAL SOUND REINFORCED




# AMPLIFIER

## PSR-2000/PSR-3200

**interM**

# Unpacking and Installation

Although it is neither complicated to install nor difficult to operate your power Amplifier, a few minutes of your time is required to read this manual for a properly wired installation and becoming familiar with its many features and how to use them. Please take a great care in unpacking your set and do not discard the carton and other packing materials. They may be needed when moving your set and are required if it ever becomes necessary to return your set for service. Never place the unit near radiators, in front of heating vents, to direct sun light, in excessive humid or dusty location to avoid early damage and for your years of quality use. Connect your complementary components as illustrated in the following page.

 <p style="text-align: center;"><b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN</p> <p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	 <p>This symbol 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.</p>  <p>This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.</p> <p>Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.</p> <p>Attentions: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.</p>
<p><b>WARNING</b></p> <p>To prevent fire or shock hazard, do not expose the unit to rain or moisture.</p>	

Caution: **FOR THE OPTIMIZED USE UNDER HEATING**  
Use in rack installed with auto blower, Model PF-9302, and the similar environments as well, as illustrated in the following.

- Operating Temperature ..... Less than 85°C
- If using Fan
  - Operating Speed ..... 2600 RPM
  - Air Flow ..... Max. 2.33m<sup>3</sup>/Min
  - Power Source ..... DC +24V



# 2

## Features

### ■ HIGH POWER AND HIGH FIDELITY

The designed sound level can be obtained without using the full power output. To insure stability and fidelity against various protection circuitary is provided.

### ■ DUAL POWER

PSR series amplifier has to be separated power. If one channel is break down, this amplifier can be perform well by another channel.

### ■ VARIOUS DISPLAY

To confirm the operating status, LED display of TEMP-PROT, CLIP-LIM, SIGNAL and POWER are provided of front panel.

### ■ INPUT PARALLEL AND BRIDGED MONO FUNCTION

These stereo amplifiers can be used for bridged mono and input parallel function by selecting the mode switch.

### ■ HIGH EFFICIENCY OUTPUT CIRCUIT

To perform of high efficiency, these amplifier be used to 2 or 3 step output circuit. (3 step-PSR3200), 2 step-PSR2000)

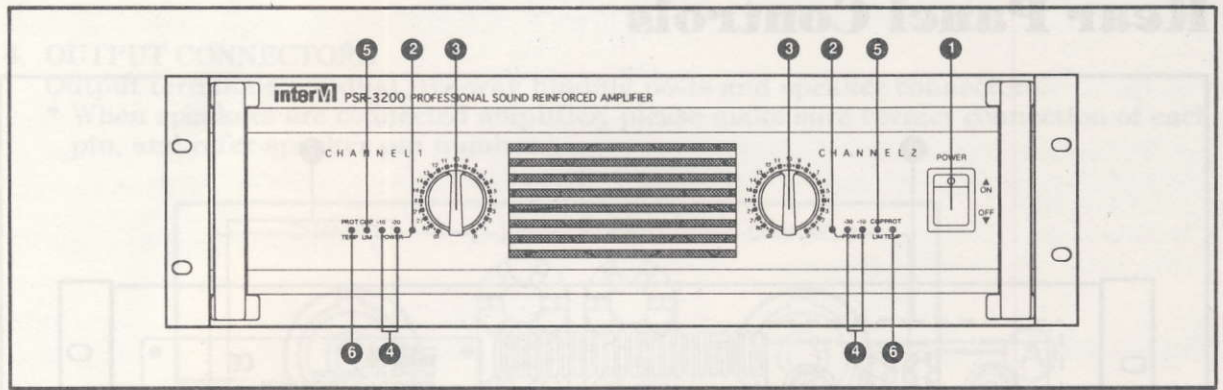
### ■ VARIOUS PROTECTION CIRCUIT

To insure stability and reliability against over current, overheating, output short, DC fault detection, clip-limiter, output fuse and RF protection circuitary is provided.

### ■ FAN COOLING METHOD

These amplifier has continuously variable speed fan and air flow is front-to-rear.

# Front Panel Controls



## 1. POWER SWITCH

The power switch is used to turn on and off the AC main power.

## 2. POWER INDICATORS

Power indicating LED is driven by power switch, and the LED illuminates when the amplifier is powered ON.

## 3. LEVEL CONTROLS

Separate level controls are provided for channel one and channel two input, clockwise rotation of the controls increase level.

## 4. OUTPUT LEVEL INDICATORS

Output level indicating LEDs indicate the output level of this amplifiers. These LEDs illuminate when the outputs are -30dB and -15dB of rated power.

## 5. CLIP-LIMITER INDICATORS

The CLIP-LIMIT circuit permits the amplifier to reach the point of clipping without premature limiting, for full "rock and roll" headroom capability. These indicator illuminates when distortion reaches about 1% to 10%.

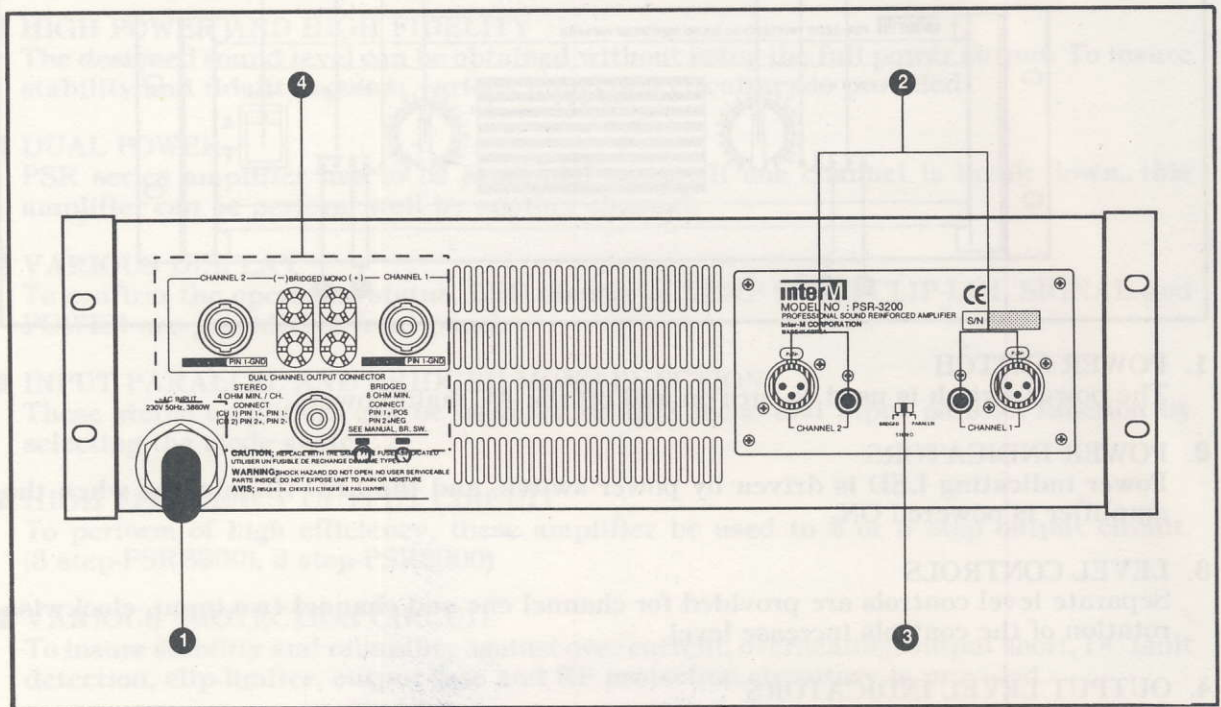
## 6. PROTECTION INDICATORS

Protection indicating LEDs indicate the condition of the protection circuit.

- Thermal protection——When heatsink and power transformer temperature has exceeded 100°C, protection circuit is operated.
- Full short protection——This circuit permits full output current up to 25 amps peak (120V AC-up to 50 amps peak), but if the output is shorted, the current is cut back to a safe level of about 25%.
- Compressor-limiting——These amplifier will be reached maximum long-term power by the compressor-limiting. (without distortion)
- RF protection——As noted in the specifications, the amplifier is guaranteed to deliver rated power up to 15KHz. Maximum available power is gradually limited at frequencies above 15KHz without affecting the frequency response at normal signal levels. This feature is intended to protect high frequency drivers from accidental burnout due to high frequency system oscillators, etc.
- DC fault protection——DC detection circuitry is provided to protect the loudspeaker. A DC fault voltage is  $\pm 3V$  or greater.
- Turn on/off muting——Turn on/off muting blocks transients from the amplifier or preceding devices from reaching the speakers. The turn on delay has been extended somewhat, and turn off muting.
- Inrush current protection——Inrush current is limited by an NTC resistor (Negative Temperature Coefficient) which starts at a high resistance and then diminishes after turn-on to avoid loss of power.



## Rear Panel Controls

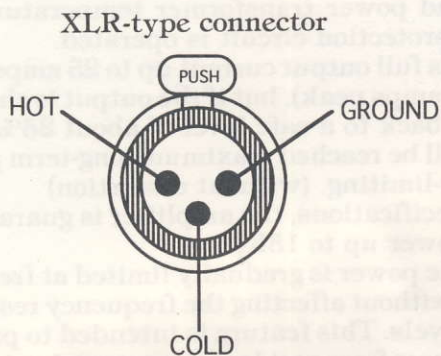


### 1. AC INPUT

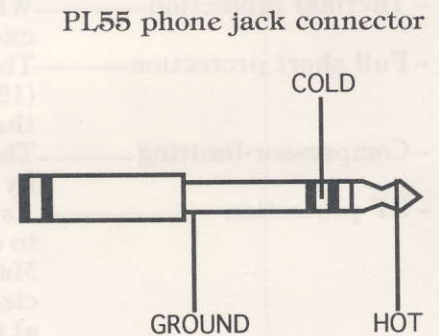
Plug this AC input cord into AC outlet.

### 2. INPUT CONNECTORS

Input connectors are provided both balanced XLR, and phone jacks. When used to bridged mono, input signal is connected only channel one.



They are wired 1-ground, pin 2-hot(+), and pin 3 cold(-).



They are wired tip-hot(+), ring-cold(-), and sleeve-ground.

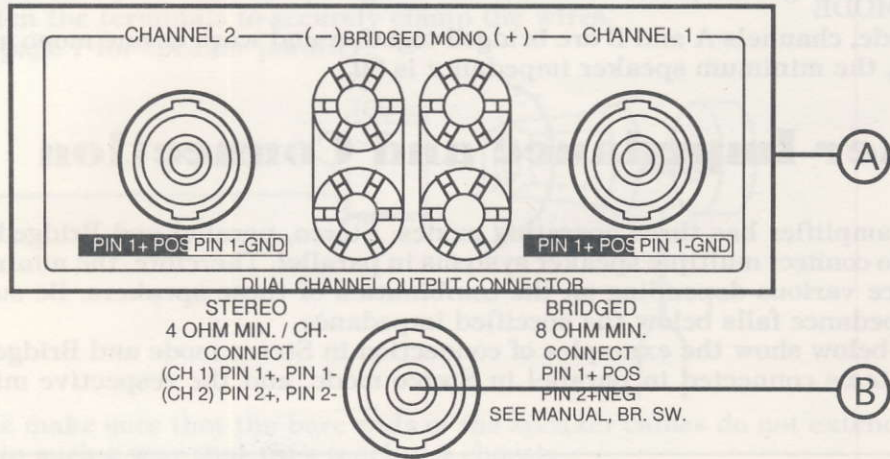
### 3. MODE SELECTOR

By the mode selector switch, these amplifier can be used for stereo, input parallel and bridged mono function.

4. OUTPUT CONNECTORS

Output terminals are dual five-way binding posts and speaker connectors.

\* When speakers are connected amplifier, please make sure correct connection of each pin, and refer speaker pin number.

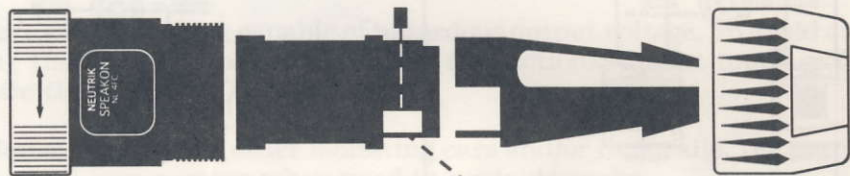


1) BINDING POST

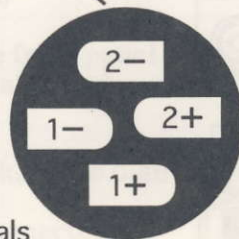
- ST MODE    RED: HOT  
                  BLACK: GROUND
- BRIDGED MONO MODE    RED(CH1): HOT  
                                  BLACK(CH2): COLD

2) SPEAKON

- (A) PIN 1 + : HOT  
      PIN 1 - : GROUND  
      PIN 2 + , 2 - : NOT CONNECTED
- (B) STEREO MODE                                BRIDGED MONO  
      PIN 1 + : CH1 HOT                            PIN 1 + : HOT (POSITIVE)  
      PIN 1 - : CH1 GROUND                      PIN 2 + : COLD (NEGATIVE)  
      PIN 2 + : CH2 HOT  
      PIN 2 - : CH2 GROUND



Exploded View(side)



Connection Terminals