

# OWNERS MANUAL

## GENZ·BENZ

### *Black Pearl 30*®



The *Black Pearl 30*® is a classic, all-tube, EL 84, Class A design combined with upgrades, enhancements and tone you would expect from Genz Benz. This amplifier is built for those that know tone and feel are inseparable.

The Black Pearl 30® is meticulously designed with an all-tube signal path, component selection and custom transformers that add up to responsive, thick, rich tone. Inside there are beautifully crafted black military spec PCB's with robust, precision routed direct-to-point gold-flashed signal traces, neatly dressed wiring and custom tube sockets and retainers; all to ensure that every amp built delivers the Black Pearl 30's® boutique tone yet will withstand the rigors of the road.

They say "Tone is in your fingers", but it's our tube rectifier design, custom wound transformers and choice of Eminence® Alnico speakers that lets your tone come through, from the bell-like chime of single coils to the warm purr of humbuckers.

# THE GENZ BENZ Black Pearl 30® DESIGN

The Black Pearl 30® is based on the classic Class A, EL84, 30 watt platform.

In the development of this guitar amplifier we referenced the most sought after vintage and “boutique” amps available for our performance and tone standard. We then added a design feature set and GENZ BENZ build quality that makes the Black Pearl 30® a versatile and “tour-tough” tone source for the most discriminating professional musician.

**CLASS A:** The Black Pearl 30® operates in cathode biased, Class A mode. This method of power tube operation eliminates harsh, zero-crossing distortion and generates warm, lush, musical output tube breakup.

Another hallmark of Class A operation is it’s exemplary dynamics. The Black Pearl 30® is highly touch-sensitive; every subtlety and nuance of the player’s technique are reproduced making the amplifier an extension of the guitar and the player’s hands.

**NO FEEDBACK / OPEN-ENDED:** In order to stabilize the tone of an amplifier, most designs include a significant amount of global feedback in their power amplifier signal path. It is an easier way to design a power amplifier, but unfortunately it dampens dynamics and desirable harmonics resulting in a lifeless tone and feel.

With the Black Pearl 30® we’ve taken painstaking time in creating a carefully executed design and layout that remains stable without the use of global feedback. Incredibly rich harmonics, musical output tube breakup and a wonderful feel is the result. Just the right amount of sag and soft, tube compression is present to let your notes respond and sing.

**EMINENCE® RED FANG™ ALNICO SPEAKERS:** Alnico speakers contributed greatly to the wonderful tones produced by vintage, Class A designs. Their sensitivity was partly responsible for these amps dynamic response as well. Due to Alnico’s expense, speakers using this magnet material fell out of wide use in the 1970’s and they are now only found in premium speakers such as the Eminence® Red Fang™.

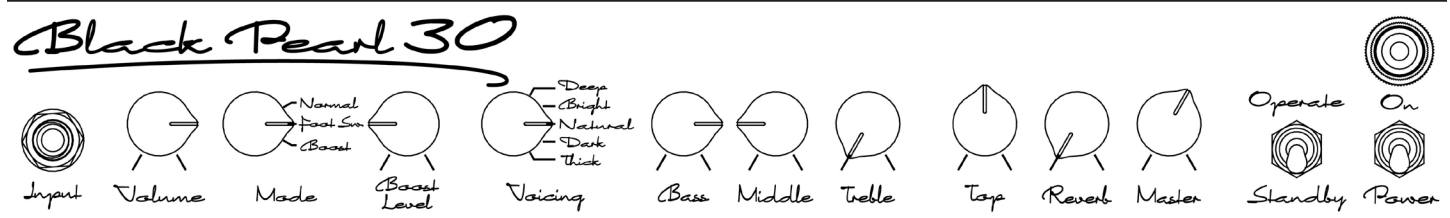
We conducted blindfold tests in a room full of speakers made with different magnetic and cone materials from several respected manufacturers and we chose the Red Fangs™. They bring a perfect combination of warmth, bite and thickness with a very musical midrange to the Black Pearl 30®. They are also highly touch-sensitive.

The BP30-112 and BP30-212 models use the 12” Eminence® Alnico Red Fang™ loudspeakers and the BP30-310 utilizes a newly developed 10” version of this premium speaker. We worked closely with Eminence® in developing this 10” Red Fang™, assuring its tonal match to the Black Pearl 30® amplifier.

The Red Fang™ 10” reproduces wonderful punch and chime along with a stellar focused midrange vocal quality.

The tight triangular configuration of the speakers in the BP30-310 enhances the big tonal foot print of this design.

## FRONT PANEL OVERVIEW:



**INPUT JACK** – The ¼” input is unbalanced and high impedance to allow for the correct matching of the instrument’s pick-ups with the amplifiers tube buffered input circuitry.

**VOLUME CONTROL** – This control sets the preamp volume/gain of the input stage. Use this control in conjunction with the Master Volume control. The Volume control also interacts with the Boost level settings.

**MODE** – The Mode switch selects the level of gain for the single channel of the Black Pearl 30®. A position for the foot switch is provided so that the Boost function can be accessed through the single button foot switch that is included with each amp.

**BOOST LEVEL** – Controls the amount of gain boost and/or volume boost when engaged. This control works in conjunction with the preamp Volume control and reacts differently depending upon the preamp Volume control settings. With the preamp Volume set at lower settings the Boost function acts more like a volume boost. With the preamp Volume control set at higher settings the Boost level control adds more gain to the signal.

**VOICING CONTROL** – This 5 position voicing network provides a tonal foundation within the preamp gain stages, unlike a normal EQ network. Located in this position of the design, the Voicing filters add a unique flavor to the varying gain settings of the preamp. The voicing filters are (from bottom to top): Thick, Dark, Natural, Bright and Deep. These allow the Black Pearl 30® to deliver a variety of moods from dark to fat to spanky.

This feature is very useful in optimizing the Black Pearl 30's® performance for your personal guitar pick up selection; fatten up your single coils and add some chime to your humbuckers. It is also great for adding some brightness to the amp when operating in the naturally darker triode mode.

*Hint: Experiment with the voicing control for adding extra gain as well.*

**PASSIVE 3 BAND EQUALIZATION** – The Black Pearl 30® design incorporates a customized passive EQ network that provides surprisingly responsive tone enhancements with no interaction between the Bass, Middle and Treble filters. This provides for more precise tone shaping and easily repeatable settings. The important Middle filter is very powerful. It changes the feel and character of the amp as it actually adds gain and sustain to the signal path when placed in the 2 o'clock to 5 o'clock positions.

*Hint: Put Middle control at the 3 o'clock position to fatten your single coils and add vocal-like sustain.*

**TOP** – This control is more like the classic “presence” network within the power tube stage, controlling high frequency content and clarity within the critical phase inverter stage.

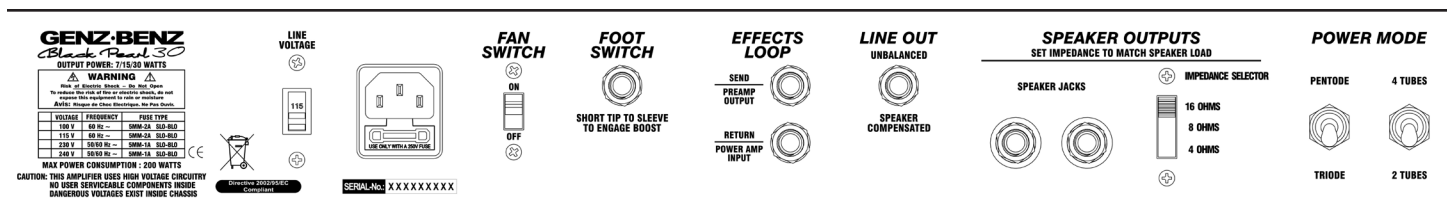
**REVERB** – Adjusts the amount of return from the all tube driven reverb network. The Black Pearl 30® comes with a long pan 3 spring Ruby Tubes™ reverb pan for extra-lush reverb texture.

**MASTER VOLUME** – Controls the overall volume of the tube output stage. Running the amplifier with the Master Volume control wide open essentially takes the control out of the signal path.

**STANDBY SWITCH** – The Standby switch removes the high voltage power supply from the plate circuit of the output tubes to protect the tubes from “cathode stripping” when first powering up the amplifier. The recommended start-up procedure is to place the Standby switch to the Standby position, turn on the Power switch and allow the amplifier to warm up for at least 30 seconds before switching the Standby switch to the operate position. This will help to prolong the life of your output tubes.

**POWER SWITCH** – The Power switch turns on the AC power to the amp. When this switch is turned on, power is applied to the heater circuits of all tubes, the high voltage power supplies are allowed to stabilize and the low voltage power supplies are energized. Power should be switched on only with the Standby switch in the standby position.

## REAR PANEL OVERVIEW:



**POWER MODE** – The Black Pearl 30® design offers several options for attenuating the power level for more flexibility and tonal splendor. This section consists of a “4/2 tube” selector switch and a Pentode/Triode switch. With these switches the BP30 power level can be adjusted to 30W, 15W or 8 watts.



The warmth and character of output tube break-up is an essential part of the Class A “sound” and the Black Pearl 30® provides for this with its adjustable power levels, which enhance the amp's performance for both lower power bedroom/studio use and higher output stage applications.

**4 Tube/2 Tube Switch** – Turns off the 2 outer power tubes, thus lowering the output level to ½ power (15 watts or 8 watts depending upon the position of the Pentode/Triode switch) allowing for more power tube distortion at lower output levels. It is not necessary to turn the amp off to use this switch.

**Pentode/Triode Switch** – This switch easily and safely reduces the output power of the amp from 30 watts to 15 watts (or 15 watts to 8 watts when using in the 2 tube position). Changing the parameters by which the power tubes function (Pentode or Triode) the amplifier takes on an entirely new set of tonal characteristics. In the Pentode mode the amp responds with its “spanky” rich clean tone and classic overdriven sustain. In the Triode mode the BP30 produces a fuller tone with a more dynamic response and increased power tube break-up with a darker complexity. It is not necessary to turn the amp off to use this switch.

**PENTODE/TRIODE BACKGROUND INFORMATION** – The native mode for virtually all power tubes in guitar amplification is the power pentode. In conventional pentode connected power amplifiers, the screen grid connects to the screen supply via screen resistors and the screen potential varies (somewhat) with the audio signal thus increasing the efficiency of the amplifying process and maintaining more controlled linear high frequency response. There is a sonic difference that is added by these additional control elements though, and some may prefer alternate modes of operation.

Power triodes do have a mellowness and warmth that is a desirable character for some players. A true power triode has only an anode, cathode and one control grid. Without suppressor grids there is a lack of control of the electron stream, which can cause electrons to stray from the intended path and collide with unintentional targets. This wastes energy and efficiency but provides a unique tonal character that some players seek. Fortunately, several methods exist that allow us to operate a pentode power tube in triode mode by fixing the screen grid more solidly to the plate supply (with the Triode/Pentode switch), effectively eliminating the screen's “useful” effect from the circuit. This design effectively makes the circuit (including the tube itself) behave as a power triode. The high frequency character, output impedance changes, and the circuit's efficiency is decreased just as one would expect from a power triode output circuit, causing the mellower/darker complexity of the amp in the triode mode. This is a personal choice that is available to you on the Black Pearl 30® and provides you the flexibility for further experimentation in tone.

**IMPEDANCE SELECTOR SWITCH** – This 3 position switch is designed to easily select the appropriate output transformer impedance tap for the desired cabinet load used. It is important to know the impedance of the guitar cabinet or cabinets being used with your amp. It is critical for amplifier performance, tube life and output transformer protection to select the correct impedance for your chosen guitar cabinet.

**CABINET IMPEDANCE** – The Black Pearl 30® is offered in 3 combo configurations. The BP30-112 is an 8 ohm cabinet impedance and the BP30-212 is a 16 ohm cabinet impedance. The BP30-310 cabinet impedance is slightly lower than 8 ohms. It will accept a 16 ohm extension cab. These models ship from the factory with the Impedance Selector switch set to the correct location for the speaker configuration.

**SPEAKER JACKS** – These parallel speaker jacks are provided for connecting the guitar cabinet of choice. Always confirm that the speaker impedance matches the impedance selected on the back of the amp.

#### **WARNINGS:**

- NEVER UNPLUG THE SPEAKER CABLE FROM THE GUITAR CABINET WHEN THE AMP IS ON!
- DO NOT OPERATE THIS AMP WITHOUT A SPEAKER LOAD PLUGGED INTO ONE OF THE SPEAKER JACKS. THE BP30 DOES OFFER SOME PROTECTION AGAINST DAMAGE BUT IT IS NEVER A GOOD IDEA TO OPERATE ANY TUBE AMP WITHOUT A SPEAKER LOAD ATTACHED.

**LINE OUT** – This ¼” jack provides an unbalanced signal that is derived after the power amp and output transformer. This signal level is dependent upon the Preamp and Master Volume settings. This output jack can be used for sending the Black Pearl 30’s® signal to another amplifier or recording device. The signal is frequency compensated to emulate a similar tone coming through the amplifier’s speaker cabinet. It is ideal for feeding a passive transformer isolated direct box for effective connection to a PA system, or for recording use.

**EFFECTS LOOP** – This is a serial effects loop, meaning that the signal exits the send jack passes through the attached processing device like a compressor or effect processor, and returns through the return jack. There is a “normaling” switch built into the return jack that interrupts the “normal path” signal from the preamp to allow the signal from the effects loop to enter the power amplifier. The send jack can be used as a preamp out and the return jack can be used as a power amp in.

**FOOTSWITCH JACK** – This ¼” jack is where the BP30’s single button foot switch is connected. A 20 foot cable is attached to the heavy-duty steel footswitch. **IMPORTANT:** The front panel selector switch must be in the FOOT SWITCH position for the footswitch to function.

**FAN SWITCH** – Traditionally, Class A designs normally run hotter thus reducing power tube life. The Black Pearl 30® offers a whisper quiet fan externally mounted on the bottom of the chassis. This fan reduces the heat around the tubes and inside the chassis by approx 50 °F. A fan switch is provided for those who may prefer to not use this feature.

**IEC RECEPTACLE AND FUSE HOLDER** – The detachable power cord should be inserted here before the cord is plugged into an AC power source. Within the bottom portion of this receptacle is a small drawer that holds the mains power fuse. An extra fuse is included in this plastic housing. It may be necessary to use a small tool to pry the small drawer open. Be sure to use the appropriately rated fuse for your AC mains voltage conditions.

**WARNING:**

- NEVER OPEN THIS FUSE HOLDER WITH THE POWER CORD PLUGGED IN.
- USE ONLY THE FUSE VALUE AS INDICATED IN THE VOLTAGE CHART.
- NEVER ATTEMPT TO DISABLE THE MAINS POWER FUSE.

**LINE VOLTAGE SELECTOR SWITCH** – Changes the voltage of the AC power with which the amp will operate. 115 volts is the standard in the USA and Canada. 230 volts is the standard for most of Europe and South America. Consult the voltage chart if you plan to use this amp for a voltage other than how it was shipped from the factory, so that the proper fuse can be inserted. The BP 30 is rated for operation from both 50 HZ and 60 HZ power sources.

**SPEAKER CABINET (COMBO VERSION)**

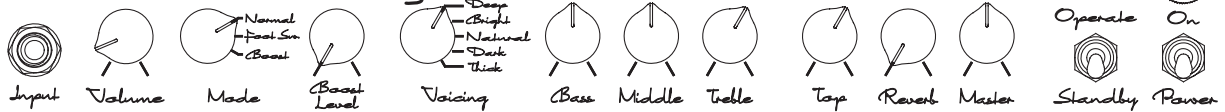
- The Black Pearl 30® cabinet is constructed from 9 ply and 13 ply birch plywood. The cabinetry construction is precise and designed to enhance the rich rounded tone of the amplifier and the Eminence® Alnico Red Fang™ loudspeaker.
- The open-back cabinet design further enriches the Black Pearl 30’s® classic tone.

**GETTING STARTED**

- The Black Pearl 30® ships with all tubes installed. There is no need to remove any packaging around the tubes.
- After un-boxing the amp verify that the AC input voltage selector switch matches the power in your area.
- Make sure you send in your warranty registration card.
- Read your owners manual. There is valuable information and safety tips in this manual and the knowledge you learn here will translate into enjoyable quality tone for years to come.

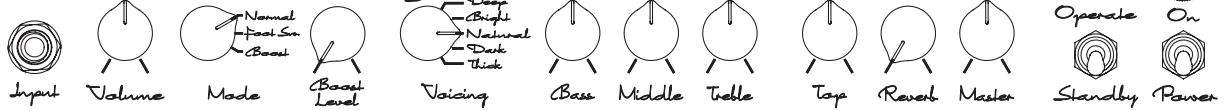
# OPERATING EXAMPLES

## Black Pearl 30



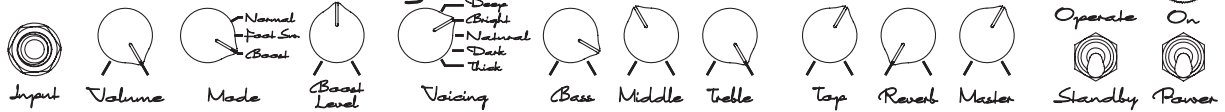
Setting Name: Clean Pick-up Recommendation: Humbucker / Single Coil

## Black Pearl 30



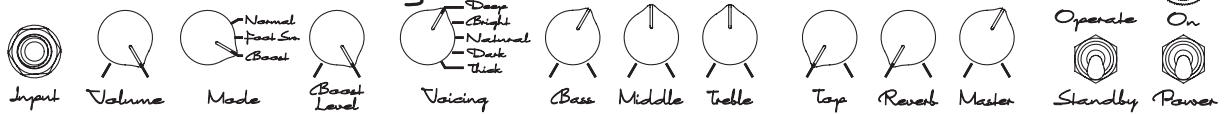
Setting Name: British Class A Pick-up Recommendation: Humbucker - Neck

## Black Pearl 30



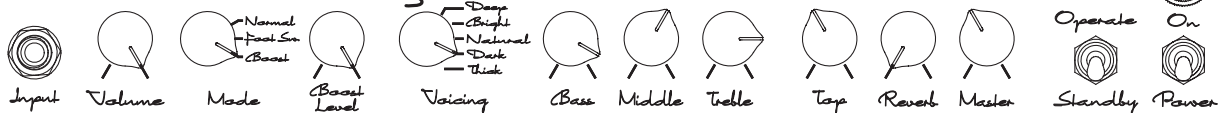
Setting Name: Black Angus Pick-up Recommendation: Humbucker - Bridge

## Black Pearl 30



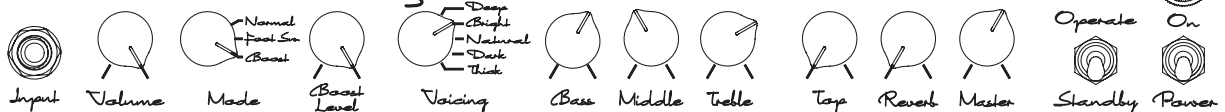
Setting Name: Texas Blues Pick-up Recommendation: Single Coil

## Black Pearl 30



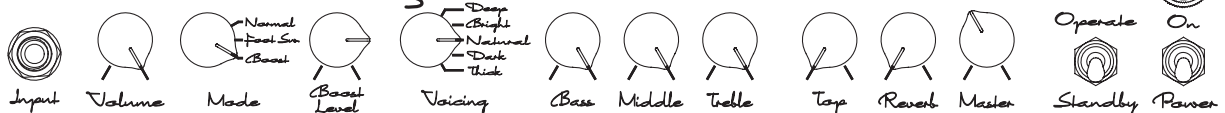
Setting Name: Black Magic Woman Pick-up Recommendation: Humbucker - Neck

## Black Pearl 30



Setting Name: Rat Strat Pick-up Recommendation: Single Coil

## Black Pearl 30



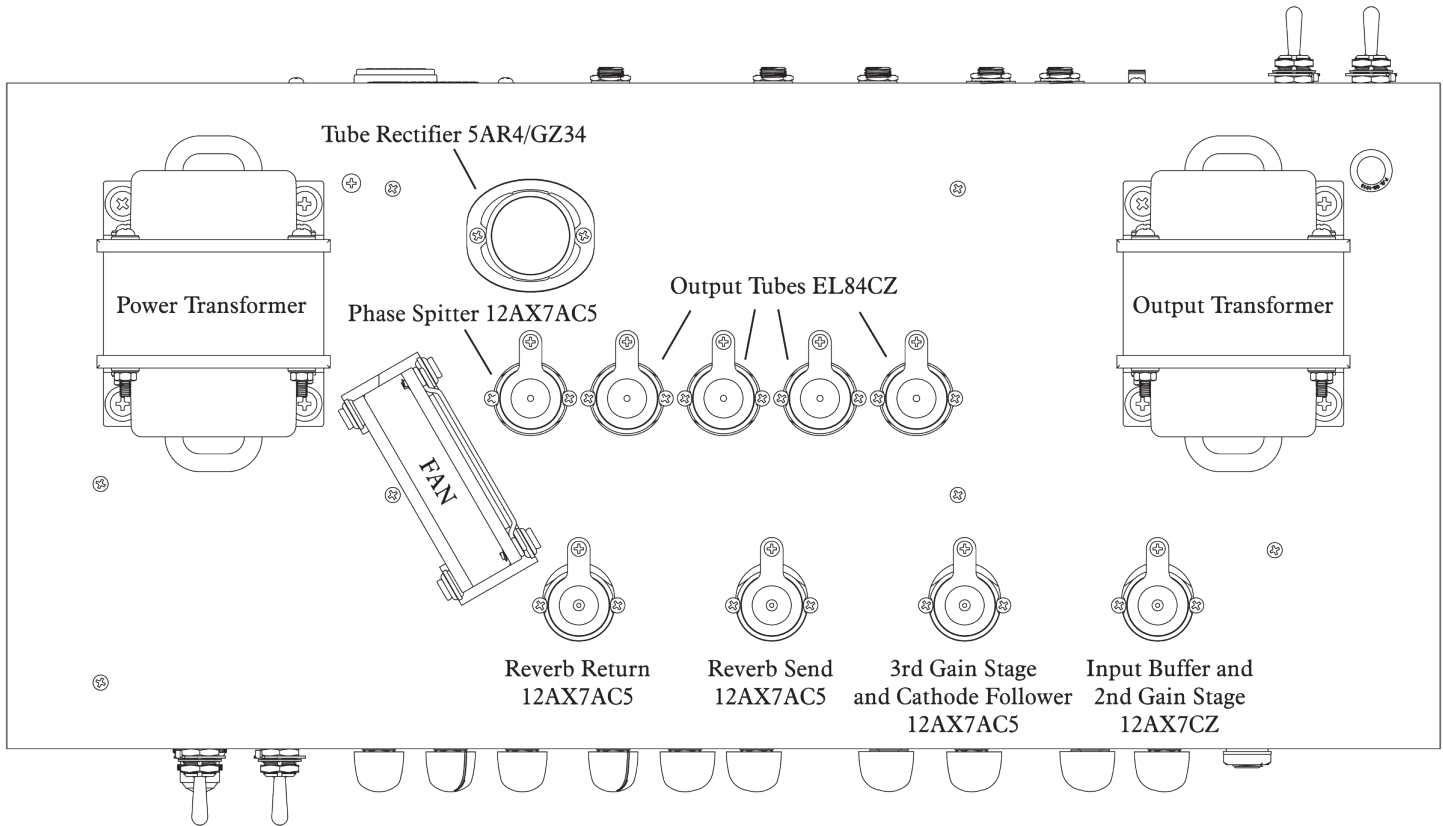
Setting Name: Searing Slide Pick-up Recommendation: Single Coil

**NOTE: All examples shown are with the amp power mode in 30 watt Pentode mode. When using the amp in the Triode mode, due to the inherent darker tonality, increase Treble or Top to your personal taste to achieve these settings.**

## SPECIFICATIONS (all models):

BP30 (Head)	11"H x 22"W x 12"D	38 Lbs
BP30-112	20 1/2"H x 22"W x 12"D	53 Lbs
BP30-212	20 1/2"H x 27"W x 12"D	68 Lbs
BP30-310	25 1/2"H x 27"W x 12"D	80 Lbs

## TUBE COMPLIMENT



**RATED OUTPUT POWER:** 30 watts / 15 watts / 8 watts

### POWER OPTIONS:

- 30 watts – 4 tubes / Pentode mode
- 15 watts – 2 tubes / Pentode mode
- 15 watts – 4 tubes / Triode mode
- 8 watts – 2 tubes / Triode mode

**POWER CONSUMPTION:** 200 WATTS MAXIMUM

**CHANGING POWER & PREAMP TUBES:** Always use caution when changing tubes. The Power switch on the amplifier should be turned off and the power cable unplugged from the source.

The tubes should be cool. Each tube is secured with a special tube retainer that keeps the tube seated properly and also helps to counter-act unwanted tube microphonics. A small Phillips screw-driver will be needed to unscrew the round tube retainer. After this retainer has been removed, rock the tube slightly and gently while pulling up on the tube and remove it carefully. When re-installing tubes, note that the pin positions are “keyed” to the socket. Make sure that you seat the tube pins properly in the socket and carefully push it tight into the socket. Reattach the round tube retainer. Make sure the rubber grommet inside the tube retainer securely holds down the tube.

**NOTE: Dangerous and/or lethal high voltages are present inside the amplifier chassis. Refer all servicing to qualified service persons.**

## THREE YEAR LIMITED TRANSFERABLE WARRANTY

Genz Benz warrants the Black Pearl 30® to be free from defects in materials and workmanship, for a period of 3 years from the date of purchase, when purchased from an authorized Genz Benz dealer.

**Tubes are warranted for a period of 6 months from the date of purchase.**

**Visit [www.genzbenz.com](http://www.genzbenz.com) for complete warranty information.**

### WARNING!

- The use and operation of this device constitutes an agreement of full release of any and all liability connected with its use. Only persons familiar with the operation of high-powered professional audio equipment should attempt to operate this device.
- In addition, by use of this device, the user agrees to hold Genz Benz and its designers, sales agents, and all other affiliates and related parties harmless in the event of any accident, injury, damage or loss resulting from such use.
- Manufacturer's sole responsibility is to provide a warranty on the specified performance of the product under normal operating conditions for a period of 3 years.

### SAFE OPERATING REQUIREMENTS

- Never set an amplifier on anything that will tip over or collapse under its weight.
- Provide a minimum distance of 25.4 mm (1 inch) around all sides of the amplifier for sufficient ventilation. The ventilation should not be impeded by covering the amplifier's vent openings with items such as newspapers, table cloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the Black Pearl 30® amplifier.
- This amplifier should not be exposed to dripping or splashing and no objects filled with liquids, such as vases or drinks, should be placed on this product.
- The Black Pearl 30® amplifier should be connected to a mains socket outlet (power receptacle) with a protective earth (ground) connection at all times.
- The amplifier's mains plug (power plug) is considered the disconnect device and the connection must remain accessible at all times.
- This amplifier is capable of producing sound pressure levels that may cause hearing loss.
- There are no user serviceable parts and hazardous operating voltages are present inside this unit. Always consult a qualified repair facility for service.

### Declaration of Conformity (89/336 EEC-EMC Directive)

**Manufacturer's Name:** Genz Benz, a division of KMC Music Corporation

**Manufacturer's Address:** 7811 East Pierce Street, Scottsdale, AZ 85257, U.S.A.

**Product Type:** Audio Amplifier

**Model Number:** Black Pearl 30®

**Operating Power Condition:** 115/230 V, 50/60 Hz

**Effective Date:** 05/15/2006

#### Conforms to the Following Standards:

EN 55013: 2001 + A1: 2003

EN 55020: 2002 + A1: 2003

EN 60065

IEC 61000-3.3: 1994 + A1: 2001

IEC 61000-4.2

IEC 61000-4.3

IEC 61000-4.4

FCC 47CFR Part 15-B, Class B

RoHS Directive 2002/95/EC

WEEE Directive 2002/96/EC

CE Mark LV Directive 73/23 EEC

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