

SPECIFICATIONS SP™ 6BX



Frequency response, 1 meter on-axis, swept-sine in anechoic environment:
50 Hz to 15 kHz (± 3 dB)

Usable low frequency limit (-10 dB point):
42 Hz

Power handling:
Full range:
1,000 watts continuous
2,000 watts program
4,000 watts peak
Low frequency section:
1,000 watts continuous
2,000 watts program
4,000 watts peak
Passive mid/high frequency section:
150 watts continuous
300 watts program
600 watts peak

Sound pressure level, 1 watt, 1 meter in anechoic environment:
Full range:
99.0 dB SPL (2.83 V input)
Low frequency section:
100 dB SPL (2.80 V input)
Mid/high frequency:
98 dB SPL (2.0 V input)

Maximum sound pressure level (1 meter):

Full range:
129 dB SPL continuous
135 dB SPL peak
Low frequency section:
130 dB SPL continuous
136 dB SPL peak
Passive mid/high frequency section:
121 dB SPL continuous
127 dB SPL peak

Radiation angle measured at -6 dB point of polar response:
90° horizontal by 40° vertical; axis of the vertical main polar lobe is angled down 10° with respect to straight ahead being +10, -30°

Transducer complement:
Low frequency section:
2 x 15" woofer, vented Black Widow® 1508-8 HE SF
Mid frequency section:
1 x 6.5" exit /51 mm voice coil RX™ 22 on an asymmetrical quadratic throat CD horn
High frequency section:
1 x .875" exit /51 mm voice coil RX22 on an asymmetrical quadratic throat CD horn

Box tuning frequency:
Low frequency section: 52 Hz

Crossover frequency (internal passive):
Bottom woofer: 250 Hz
Low/mid frequency: 650 Hz
Mid/high frequency: 2,100 Hz

Recommended active crossover frequency region and slope:
Low/high frequency:
500 Hz at 12 dB/octave

Time offset:
Low frequency: 0.0 ms
High frequency: 0.58 ms

Impedance (Z):
Full range:
Nominal: 4.0 Ω
Minimum: 3.5 Ω

Low frequency:
Nominal: 4.0 Ω
Minimum: 3.2 Ω

Passive MF/HF:
Nominal: 4.0 Ω
Minimum: 3.7 Ω

Input connections:
Full range: two 1/4" phone jacks and one four-pin twist lock connector; bi-amp capability provided via an internal wiring jumper.

Enclosure materials and finish:
Hardwood panel coated with Peavey's heavy-duty HammerHead™ finish. Casters are incorporated for improved portability.

Mounting provisions:
This unit is not designed for overhead suspension. Four large rubber feet on bottom for floor use.

Dimensions (H x W x D):
Front:
53.75" x 20.5" x 24.25"
1365.25 mm x 520.7 mm x 615.96 mm
Rear:
53.75" x 12.75" x 24.25"
1365.25 mm x 323.85 mm x 615.96 mm

Net weight:
144.5 lbs. (65.55 kg)

- Features**
- Quasi four-way full-range/ bi-ampable sound reinforcement system
 - RX™ 22 compression driver with ferrofluid cooling
 - 6.5" Pro midrange with phase plug and ferrofluid cooling
 - Two 15" BWX Black Widow® 4" VC woofers
 - 2,000 watts program and 4,000 watts peak
 - Patented Quadratic Throat Waveguide™ technology
 - Asymmetrical horn aims the sound down 10° toward the audience, not over their heads
 - Sound Guard™ III tweeter and midrange protection
 - Full-range inputs include a four-pin twist lock connector and two 1/4" phone jacks
 - Bi-amp capability via internal wiring jumper
 - Trapezoidal enclosure
 - Casters have been incorporated for improved portability



SPECIFICATIONS

SP™ 6BX

Description

The new SP 6BX features the new Quadratic Throat Waveguide™ in a dual-horn arrangement. The SP 6BX is a quasi four-way speaker system comprised of two 15" Black Widow® BWX SF woofers with a Kevlar®-impregnated cone, a horn loaded 6/12" pro midrange and an RX™ 22 compression driver loaded onto the patented constant directivity waveguide.

The SP6BX has a trapezoidal-shaped enclosure, which reduces the buildup of standing waves inside the enclosure to minimize mid-bass and midrange coloration. The enclosure is constructed of a hardwood panel coated with Peavey's heavy-duty HammerHead™ UV stabilized polyurea finish for increased durability and ruggedness. Casters are incorporated to improve portability. A full-length, wrap-around perforated steel grille protects the front of the enclosure.

The quasi four-way system consists of the following driver components: two 15" Black Widow BWX SF woofers with Kevlar-impregnated cones and dust caps. Capable of over 1,000 watts continuous power handling (AES Std 2-1984), the woofer section can handle a lot of power. The midrange is carried by a 6-1/2" professional-grade, horn-loaded speaker with a phase plug and ferrofluid cooling, providing high articulation in the vocal range. The high frequencies are handled by a 2" RX™ 22 titanium diaphragm compression driver utilizing ferrofluid cooling. Both the midrange and the high frequency drivers are coupled to a Quadratic Throat Constant Directivity Waveguide (U.S. patent #6,059,069), with smooth, even response, low distortion and good high frequency dispersion. These horns both have an asymmetrical vertical polar response, aiming the main energy lobe down 10° so it is aimed at the audience instead of over their heads. This helps reduce ceiling reflections for greater clarity and gain before feedback. The RX 22 driver features the Radialinear Planar Phase Correction System (U.S. patent #6,064,745), which provides smooth and extended

high frequency response.

Full-range input connection to the system is made via two 1/4" phone jacks and a four-pin twist lock connector in parallel, with bi-amping flexibility provided via an internal jumper that can be accessed by unscrewing and removing the input cup. The internal passive crossover features Peavey's exclusive Sound Guard™ protection circuit for both the tweeter and the mid-range speaker, and an advanced topology crossover with high performance components to provide high power handling and reliability. Sound Guard provides long- and medium-term driver overload protection when the system is used to full-range or when it is bi-amped without impairing musical transients or dynamics on either the mid-range or the tweeter. The crossover provides driver roll-off and protection, as well as driver EQ for the woofers, midrange and horn, for clean, clear, smooth response. High-quality, reliable crossover components include polypropylene capacitors and high-current inductors. The optimal integration of the crossover with the selected drivers results in a smooth frequency response from 50 Hz to 15 kHz.

This extremely high power handling system can put out some very serious sound levels, but with control and precision for high articulation and long-term reliability.

Frequency response

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the SP 6BX is measured at a distance of 1 meter using a 1 watt (into the nominal impedance) swept-sine input signal. As shown in figure 1, the selected drivers in the SP 6BX combine to give a smooth frequency response from 50 Hz to 15 kHz.

Power handling

There are many different approaches to power handling ratings. Peavey rates this loudspeaker system's power handling using a full-range form

of the AES Standard 2-1984. Using audio band 20 Hz to 20 kHz pink noise with peaks of four times the RMS level, this strenuous test signal assures the user that every portion of this system can withstand today's high technology music. This rating is contingent upon having a minimum of 3 dB amplifier headroom available.

Harmonic distortion

Second and third harmonic distortions vs. frequency are plotted in figures 3 & 4 for two power levels. Ten percent (10%) of rated input power and either one percent (1%) of rated input power or 1 watt, whichever is greater. Distortion is read from the graph as the difference between the fundamental signal (frequency response) and the desired harmonic. As an example, a distortion curve that is down 40 dB from the fundamental is equivalent to 1% distortion.

Mounting

This unit is not designed for overhead suspension. Four large rubber feet are included on the bottom for floor use.

SPECIFICATIONS SP™ 6BX

Architectural & engineering specifications

The loudspeaker system shall have an operating bandwidth of 50 Hz to 15 kHz. The nominal output level shall be 99.0 dB when measured at a distance of one meter with an input of 1 watt. The nominal impedance shall be 8.0 ohms.

The maximum continuous power handling shall be 1,000 watts, with maximum program power of 2,000 watts, peak power input of at least 4,000 watts and a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90 degrees symmetrical about the center axis in the horizontal plane, and +10, -30 degrees about the center axis in the vertical plane. The outside dimensions shall be 53.75 inches high by 20.5 inches wide by 24.25 inches deep. The weight shall be 144.5 lbs. The loudspeaker system shall be a Peavey model SP™6.

3 + 2 Year Limited Warranty

NOTE: For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P.O. Box 2898, Meridian, Mississippi 39301-2898.

Amplitude Response (1W 1m On-Axis)

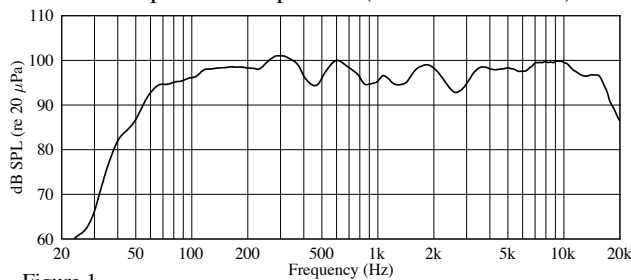


Figure 1

Harmonic Distortion : 1% Rated Power

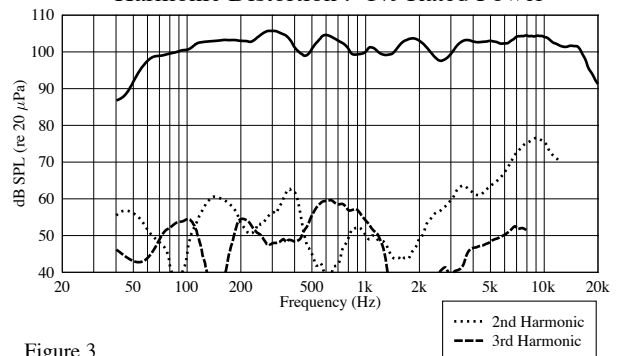


Figure 3

Impedance

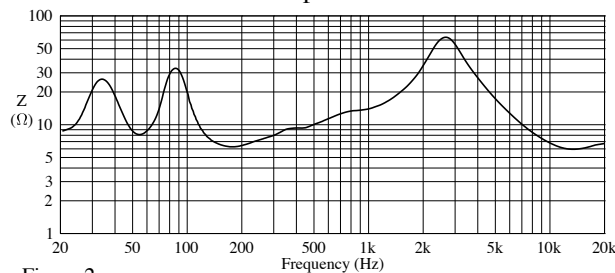


Figure 2

Harmonic Distortion : 10% Rated Power

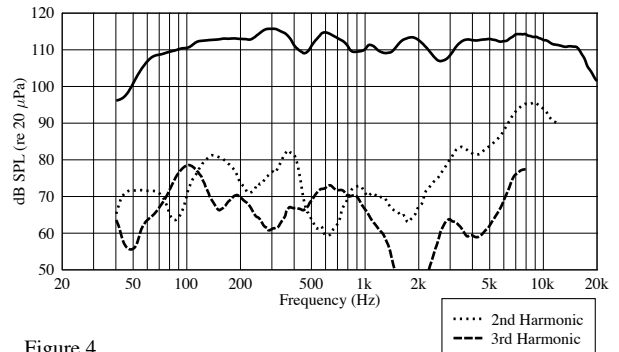


Figure 4

SP 6BX Input Plate

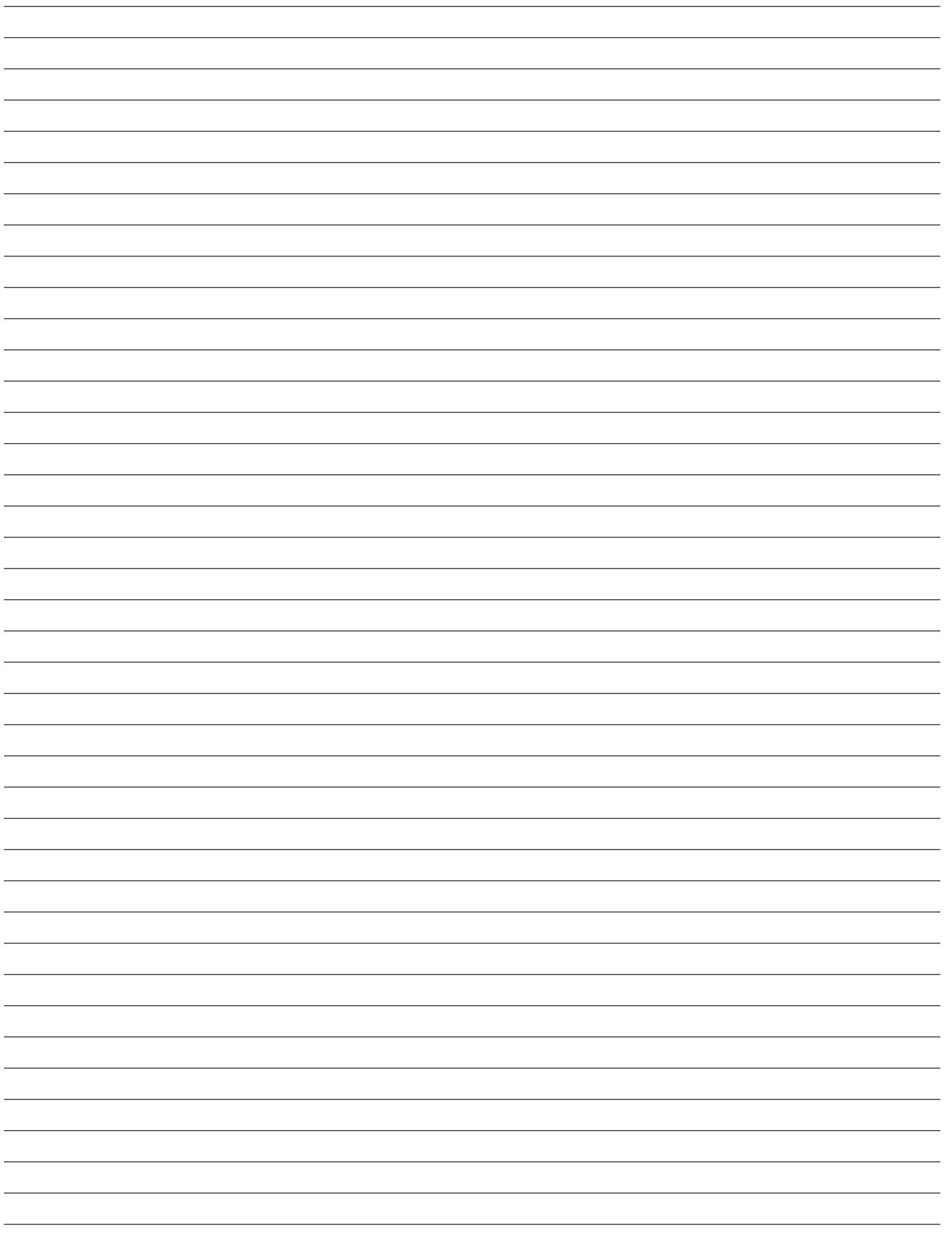


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Features and specifications are subject to change without notice.

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PEAVEY ELECTRONICS CORPORATION LIMITED WARRANTY

Effective Date: 11/01/2011

What This Warranty Covers

Your Peavey Warranty covers defects in material and workmanship in Peavey products purchased and serviced in the U.S.A. and Canada.

What This Warranty Does Not Cover

The Warranty does not cover: (1) damage caused by accident, misuse, abuse, improper installation or operation, rental, product modification or neglect; (2) damage occurring during shipment; (3) damage caused by repair or service performed by persons not authorized by Peavey; (4) products on which the serial number has been altered, defaced or removed; (5) products not purchased from an Authorized Peavey Dealer.

Who This Warranty Protects

This Warranty protects only the original purchaser of the product.

How Long This Warranty Lasts

The Warranty begins on the date of purchase by the original retail purchaser. The duration of the Warranty is as follows:

Product Category	Duration
Guitars/Basses, Amplifiers, Preamplifiers, Mixers, Electronic Crossovers and Equalizers	2 years *(+ 3 years)
Drums	2 years *(+ 1 year)
Enclosures	3 years *(+ 2 years)
Digital Effect Devices and Keyboards and MIDI Controllers	1 years *(+ 1 year)
Microphones	2 years
Speaker Components (incl. Speakers, Baskets, Drivers, Diaphragm Replacement Kits and Passive Crossovers)	1 year
Tubes and Meters	90 Days
Cables	Limited Lifetime
AmpKit Link, Xport, Rockmaster Series, Strum'n Fun, RetroFire, GT & BT Series Amps	1 year
Marvel Jr. Guitar	90 Days

[* Denotes additional Warranty period applicable if optional Warranty Registration Card is completed and returned to Peavey by original retail purchaser within 90 days of purchase.]

What Peavey Will Do

We will repair or replace (at Peavey's discretion) products covered by Warranty at no charge for labor or materials. If the product or component must be shipped to Peavey for Warranty service, the consumer must pay initial shipping charges. If the repairs are covered by Warranty, Peavey will pay the return shipping charges.

How To Get Warranty Service

- (1) Take the defective item and your sales receipt or other proof of date of purchase to your Authorized Peavey Dealer or Authorized Peavey Service Center.
- OR
- (2) Ship the defective item, prepaid, to Peavey Electronics Corporation, International Service Center, 412 Highway 11 & 80 East, Meridian, MS 39301. Include a detailed description of the problem, together with a copy of your sales receipt or other proof of date of purchase as evidence of Warranty coverage. Also provide a complete return address.

Limitation of Implied Warranties

ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

Some states do not allow limitations on how long an implied Warranty lasts, so the above limitation may not apply to you.

Exclusions of Damages

PEAVEY'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AT PEAVEY'S OPTION. IF WE ELECT TO REPLACE THE PRODUCT, THE REPLACEMENT MAY BE A RECONDITIONED UNIT. PEAVEY SHALL NOT BE LIABLE FOR DAMAGES BASED ON INCONVENIENCE, LOSS OF USE, LOST PROFITS, LOST SAVINGS, DAMAGE TO ANY OTHER EQUIPMENT OR OTHER ITEMS AT THE SITE OF USE, OR ANY OTHER DAMAGES WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you have any questions about this Warranty or services received or if you need assistance in locating an Authorized Service Center, please contact the Peavey International Service Center at (601) 483-5365.

Features and specifications are subject to change without notice.



Logo referenced in Directive 2002/96/EC Annex IV (OJ(L)37/38, 13.02.03 and defined in EN 50419: 2005)
The bar is the symbol for marking of new waste and is applied only to equipment manufactured after 13 August 2005

Optional Product Extended Warranty Registration

Give us some information and put your extended warranty into effect!

Please take a few minutes to fill out this information/survey sheet to help us get to know and serve you better.

To save time, submit your warranty registration online at www.peavey.com/support/warrantyregistration

1.

First Name _____ Initial _____ Last Name _____

Street Address _____

City _____ State/Province _____ Postal Code _____

() _____
Telephone Number _____ E-mail Address _____

() _____
Fax Number _____ Date of birth _____

Gender M F

2.

Model _____ Serial # _____

Date of Purchase _____ Price Paid _____

3.

Name of store where purchased _____

City _____ State _____

4. Top two (2) reasons why you purchased from this store/dealer:

- | | |
|---|--|
| <input type="checkbox"/> Availability of product | <input type="checkbox"/> Past favorable experience |
| <input type="checkbox"/> Friend/Relative's recommendation | <input type="checkbox"/> Best price |
| <input type="checkbox"/> Store credit card | <input type="checkbox"/> Advertised special |
| <input type="checkbox"/> Knowledgeable staff | <input type="checkbox"/> Convenient location |
| <input type="checkbox"/> Availability of lessons | <input type="checkbox"/> Received as a gift |
| <input type="checkbox"/> Technical instruction | <input type="checkbox"/> Other _____ |

5. Where do you most often shop for music and sound products?

- | | |
|---|---|
| <input type="checkbox"/> Independent retailer | <input type="checkbox"/> Newspaper ads |
| <input type="checkbox"/> Mass market retailer | <input type="checkbox"/> Internet/Web sites |
| <input type="checkbox"/> Mail order magazines | <input type="checkbox"/> Other _____ |

6. What two (2) factors most influenced your purchase of this product?

- | | |
|--|---|
| <input type="checkbox"/> Peavey brand name | <input type="checkbox"/> Product appearance |
| <input type="checkbox"/> Craftsmanship | <input type="checkbox"/> Durability |
| <input type="checkbox"/> Features for price | <input type="checkbox"/> Prior experience with Peavey |
| <input type="checkbox"/> Bundled accessories | <input type="checkbox"/> Packaging |
| <input type="checkbox"/> Sound quality | <input type="checkbox"/> Other _____ |

7. How did you learn about this Peavey product? (select best answer)

- | | |
|---|---|
| <input type="checkbox"/> Magazine review | <input type="checkbox"/> Teacher's recommendation |
| <input type="checkbox"/> Newspaper review | <input type="checkbox"/> Catalog or flyer |
| <input type="checkbox"/> Radio advertisement | <input type="checkbox"/> Saw in store |
| <input type="checkbox"/> Advertised special | <input type="checkbox"/> Use by professional |
| <input type="checkbox"/> Friend/Relative's recommendation | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Salesperson's recommendation | |

8. Which other brands/models did you consider?

9. How would you describe your level of musicianship/technical expertise?

- Beginner - Never played or taken less than one (1) year of lessons
 Intermediate - One (1) to five (5) years of lessons or playing
 Advanced - More than five (5) years of lessons or playing; play professionally

10. Education: (select best answer)

- High school
 Some college
 Completed college
 Graduate school

11. Which best describe your family income? (select best answer)

- | | |
|--|--|
| <input type="checkbox"/> Under \$15,000 | <input type="checkbox"/> \$75,000 - \$99,999 |
| <input type="checkbox"/> \$15,000 - \$24,999 | <input type="checkbox"/> \$100,000 - \$149,999 |
| <input type="checkbox"/> \$25,000 - \$34,999 | <input type="checkbox"/> Over - \$150,000 |
| <input type="checkbox"/> \$35,000 - \$49,999 | |
| <input type="checkbox"/> \$50,000 - \$74,999 | |

12. Which of the following is your primary source of information on musical products: (select best answer)

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Television | <input type="checkbox"/> Mail order catalogs |
| <input type="checkbox"/> Radio | <input type="checkbox"/> Direct mail |
| <input type="checkbox"/> Internet | <input type="checkbox"/> Literature from manufacturer |
| <input type="checkbox"/> Newspaper | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Magazines | |

13. What is your main motivation for buying new equipment?

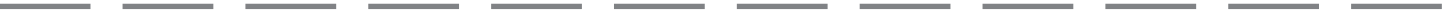
- | | |
|--|--|
| <input type="checkbox"/> Replacing old product | <input type="checkbox"/> Impulse |
| <input type="checkbox"/> Want new and leading edge equipment | <input type="checkbox"/> Need for improved performance |
| <input type="checkbox"/> Fulfill a specific need | <input type="checkbox"/> New technology |
| <input type="checkbox"/> Supplement existing products | <input type="checkbox"/> Availability of product |
| <input type="checkbox"/> Value | <input type="checkbox"/> Other _____ |

14. Please list your three most frequently visited Web sites.

1. http:// _____
 2. http:// _____
 3. http:// _____

15. In your opinion, what could Peavey do to improve its products and/or service? Please use the space below to tell us your answer.





Peavey Electronics Corporation
Attn: Warranty Department
P.O. Box 5108
Meridian, Ms 39302-5108



Place
Postage
Here

FROM: