



# Vortex 1™ & 2™

## OPERATING GUIDE

**WARNING: TO PREVENT ELECTRICAL SHOCK OR FIRE HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. BEFORE USING THIS APPLIANCE, READ BACK COVER FOR FURTHER WARNINGS.**



**VORTEX 1**

**FEATURES:**

- Graceful, balanced body design.
- 25 $\frac{1}{2}$ " scale.
- 22 18% nickel silver jumbo frets.
- 12" fingerboard radius.
- Polyglide™ polymer fingerboard.
- Two P-12 adjustable pole piece humbucking pickups.
- Three-position pickup selector switch.
- One volume control.
- One tone control.
- Shocksorb™ switch and output jack mounting.
- Black hardware.
- Premium Kahler™ locking tremolo.
- Graphlon™ topnut



**VORTEX 2**

### CONTROLS:

- 1. Volume Control:** The volume control acts as a master volume in that it controls the total signal level delivered from both pickups to the output jack. Rotating the control knob clockwise will increase volume; rotating counterclockwise will reduce volume.
- 2. Tone Control:** The tone control, like the volume control, operates as a master control. Rotating clockwise will result in more treble (high frequencies) and a brighter tonality. Rotating counterclockwise will result in less treble and a "bassier" type sound.
- 3. Pickup Selector Switch:** This three-position switch determines which pickup is operational. With the guitar suspended in normal playing position, moving the switch handle upward activates the rhythm (neck) pickup; the extreme downward position activates the lead (bridge) pickup; the middle position activates both pickups simultaneously in a humbucking mode.



### NOTE:

**CARE MUST BE TAKEN TO MAINTAIN ADEQUATE CLEARANCE BETWEEN THE PICKUPS AND STRINGS. INADEQUATE CLEARANCE WILL RESULT IN LOSS OF SUSTAIN AND POSSIBLE STRING BUZZING WHEN PLAYING ON THE UPPER FRETS.**

### Pickup Adjustment:

The volume level between pickups can be adjusted by raising or lowering each pickup with its height adjusting screws. Raising the pickups closer to the strings will increase the output and volume. Lowering the pickups away from the strings will decrease output and volume.

The 12 individual polepiece screws on each pickup allow critical pickup adjustment for each string. Raising or lowering screws closest to the bridge will increase or decrease treble sensitivity. Raising or lowering screws closest to the neck will increase or decrease low end sensitivity.

**Adjustments:**

Your instrument has been carefully adjusted for accurate intonation and playing ease at the Peavey factory. However, your playing style or playing requirements may necessitate additional adjustments at some time in the future. These adjustments should be made by your Peavey Dealer. However, with a little care and by adhering closely to the following instructions, you may attempt these adjustments yourself.

**CAUTION:**  
**PLEASE READ AND UNDERSTAND INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING ANY ADJUSTMENTS.**

**Adjusting Torsion Rod:**

All guitar necks must have a slight amount of bow to keep the strings from buzzing on the frets. To set the "straightness" of the neck, a Peavey torsion rod wrench No. 75031001 must be used (available from a Peavey Accessory Center).

1. Tune the instrument to standard (A-440) pitch.
2. Fret the sixth string (E) at the first and last frets.
3. Check for clearance between the string and the eighth fret.
4. Clearance should be no less than .012" and no more than .025".
5. To increase clearance, loosen (counterclockwise) the torsion rod nut. Less clearance (straightening of the neck) is accomplished by tightening the nut.

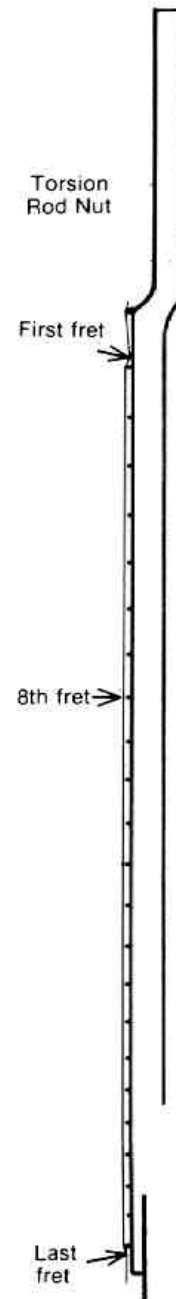
**CAUTION**  
**IT IS NOT USUALLY NECESSARY TO ROTATE THE TORSION ROD NUT MORE THAN ONE FULL TURN IN EITHER DIRECTION. ONE-QUARTER TO ONE-HALF TURN IS NORMALLY SUFFICIENT TO MAKE MOST ADJUSTMENTS. EXCESSIVE ROTATION MAY CAUSE DAMAGE TO NECK AND TORSION ROD. IF EXCESSIVE FORCE IS NECESSARY TO ROTATE TORSION ROD NUT, YOU SHOULD CONSULT YOUR PEAVEY DEALER OR THE FACTORY BEFORE ANY FURTHER ADJUSTMENT IS MADE.**

6. Repeat Steps 1 through 5 until proper clearance has been reached.

**Neck Tilt:**

The neck tilt adjustment works in conjunction with the bridge height adjustment to set the overall string playing height. This adjustment should be used whenever possible to set string height rather than the bridge height adjustment.

1. Relieve string tension slightly by detuning guitar (approximately 1 to 2 full steps).
2. Loosen two neck screws (closest to headstock of guitar) approximately 1 turn.
3. Loosen remaining two neck screws (closest to bridge) approximately 2 turns.
4. String height may now be adjusted with the neck tilt screw which is located inside the fifth hole in the neck plate. A  $\frac{1}{8}$ " allen wrench is used to make this adjustment. Turning the screw clockwise lowers the strings closer to the fingerboard. String height should be adjusted to fit your own particular playing style. It should be noted that setting the string height too low will result in excessive string buzz and rattle, especially with a "heavy" playing technique. Excessively high action will result in intonation problems and decreased playability.
5. After adjustment, securely tighten all four neck attaching screws.
6. Tune guitar to standard pitch. Check strings for correct height and playability. If necessary, repeat steps 1 through 5 until action is correct.



**Saddle Height Adjustment:**

All saddle height and intonation adjustments must be made prior to tightening string lock. Refer to enclosed Kahler literature package.

**String Intonation:**

Accurate string intonation settings insure that your instrument will play in tune at any point on the neck. Although "perfect intonation" is a physical impossibility with a fretted instrument, the correct settings will maximize the accuracy of individual notes up and down the neck.

Intonation is set by comparing the pitch of an open string to the pitch of the same string when it is played one octave higher at the 12th fret. The actual "vibrating length" of that string is varied until the notes are both at the right pitch. The "vibrating length" of the string is altered by adjusting the bridge saddle either forward or backward, depending on whether the fretted note is sharper or flatter in pitch than the open note. If the fretted note is sharper than the open note, the vibrating length of the string must be increased; move the bridge saddle to the rear, away from the pickups. If the fretted note is flat, the vibrating length must be shortened; move the bridge saddle forward, toward the pickups, to shorten the length.

**NOTE:**

**IT IS OFTEN DIFFICULT FOR THE UNTRAINED EAR TO DETERMINE WHEN THE OPEN NOTE AND THE FRETTED NOTE ARE AT PRECISELY THE SAME PITCH. SOME PLAYERS FIND THAT COMPARING THE 12TH FRET HARMONIC OF THE STRING (RATHER THAN THE OPEN NOTE) TO THE FRETTED NOTE IS MUCH EASIER. A HARMONIC IS PLAYED BY PLUCKING THE STRING WITH THE RIGHT HAND WHILE TOUCHING THE STRING WITH THE LEFT INDEX FINGER (AS LIGHTLY AS POSSIBLE) DIRECTLY ABOVE THE TWELFTH FRET. THE LEFT INDEX FINGER IS DRAWN AWAY AS QUICKLY AS POSSIBLE AFTER THE STRING IS PLUCKED, PRODUCING A "CHIME" EFFECT. THIS CHIMED NOTE IS THEN COMPARED TO THE FRETTED NOTE.**

For even greater ease and high degree of accuracy, we recommend one of the many types of electronic guitar tuners that are available from most music stores. The tuners which use either a meter or a moving LED display are usually easier to use than the type with a numerical frequency readout.

**NOTE:**

**BOTH TORSION ROD AND STRING HEIGHT SETTINGS INTERACT CLOSELY WITH STRING INTONATION. THESE ADJUSTMENTS MUST BE COMPLETED BEFORE ANY ATTEMPT IS MADE TO SET STRING INTONATION AT THE BRIDGE.**

1. Insure that torsion rod and string height settings are accurate.
2. Tune guitar standard (A-440) pitch.
3. Hold the instrument in a normal playing position or place the guitar on a clean flat surface so that only the body is in contact with the work surface. Any pressure on the neck will affect intonation settings.
4. Play the 1st string open and compare it to the pitch of the same string when it is played at the 12th fret. These notes should be the same (one octave apart).
5. Using wrench supplied with Kahler tremolo unit, adjust the string saddle so that both the fretted and open notes are the same (see adjusting the Kahler tremolo).

**NOTE:**

**IT WILL OFTEN BE NECESSARY TO RETURN THE OPEN STRING TO STANDARD PITCH AFTER THE BRIDGE POSITION IS ALTERED.**

6. Repeat steps 4 and 5 for the remaining strings.
7. Repeat steps 1 through 6 as necessary until intonation of all the strings are accurately adjusted.

**Care For The Instrument:**

This is a high quality musical instrument constructed from the finest materials and with the most up-to-date production methods available. With reasonable care, it should provide many, many years of service and outstanding playability.

**Temperature and Humidity:**

It is important that your instrument be protected from any extremes of sudden changes in either temperature or humidity. The instrument should be stored in its case whenever it is not in use.

**Strings:**

String life may be greatly extended by frequent cleaning and wiping after use. Dirt and perspiration tend to build up on the underside of the strings, so it is often necessary to slide a rag between the strings and the fingerboard. Dirt-laden strings cause tuning and intonation problems, as well as rust and corrosion.

For best performance, strings should be changed approximately once a month or every twenty-four playing hours. Some players may find that they prefer to change strings more often.

**Finish:**

Your instrument has a polyurethane finish which is both durable and weather-resistant, but nevertheless needs care. Automotive-grade waxes will protect, clean, and shine it. Between waxings, the instrument should be wiped with a dry, soft cloth.

## KAHLER™ TREMOLO WARRANTY INFORMATION

The Kahler™ tremolo system used on this instrument is warranted by American Precision Metal Works (manufacturer of Kahler tremolos) and covers such usage as is specifically outlined in the warranty and instructions included in the packet provided with the tremolo to which the buyer is directed. Due regard must be observed that this individual warranty may require that no one except American Precision Metal Works can make adjustments or repairs without creating the danger of voiding the individual Kahler warranty. Any inquiries for information concerning warranty service or replacement parts for the Kahler tremolo should be directed to American Precision Metal Works, P.O. Box 9305, Anaheim, California 92802.

### PEAVEY GUITAR ONE-YEAR LIMITED WARRANTY/REMEDY

PEAVEY ELECTRONICS CORPORATION ("Peavey") warrants this Guitar to be free from defects in material and workmanship for a period of one year from date of purchase; PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions and limitations hereinafter set forth.

#### CONDITIONS, EXCLUSIONS AND LIMITATIONS OF LIMITED WARRANTY

This limited warranty shall be VOID and of NO EFFECT if:

1. The first purchase of the product is for the purpose of resale; or
2. The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER; or
3. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship.

This limited warranty shall not extend to or cover guitar strings. Replacement of guitar strings is deemed to be reasonable and necessary maintenance.

Purchaser's exclusive remedy for breach of this limited warranty is repair of the defect or replacement of the guitar, at Peavey's option. Service work may be performed by any Peavey Authorized Service Center, or if the service center is unable to provide the necessary warranty service, you will be directed to the nearest other Peavey Authorized Service Center which can provide such service. Or... you may return the guitar, postage prepaid and insured, along with a description of the problem, proof of purchase, and a complete return address to:

PEAVEY ELECTRONICS CORPORATION  
711 "A" Street  
Meridian, MS 39301

If the defect is remedial under this limited warranty, and the other terms and conditions expressed herein have been complied with, Peavey will repair or replace the product and will return it, freight collect, to the purchaser. Other than the postage and insurance requirement, no charge will be made for such repair or replacement.

Peavey's liability to the purchaser for any cost whatsoever, and regardless of the form of action, whether in contract or in tort, including negligence, shall be limited to actual damages up to an amount equal to the greater of the purchase price of the product causing the damage or \$500.00. UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, ANY INCIDENTAL DAMAGES OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF OR INABILITY TO USE THE GUITAR, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

The foregoing limitation of remedy will not apply to the payment of cost and damage awards for personal injury or damage to real property or tangible personal property caused by negligence on Peavey's part.

THIS LIMITED WARRANTY IS IN LIEU OF ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESS, LIMITED WARRANTY, AS HEREINABOVE STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE ONE-YEAR PERIOD FROM DATE OF PURCHASE OF THIS GUITAR.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THIS LIMITED WARRANTY IS THE ONLY EXPRESS WARRANTY ON THIS GUITAR, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY OR AGREEMENT BY ANY PERSON SHALL BE VALID AS TO OR BINDING UPON PEAVEY.

THE WARRANTY REGISTRATION CARD AND A LEGIBLE COPY OF THE PROOF OF PURCHASE SUPPLIED TO YOU BY THE AUTHORIZED PEAVEY DEALER IN CONNECTION WITH YOUR PURCHASE FROM HIM OF THIS GUITAR SHOULD BE ACCURATELY COMPLETED, MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.

Should notification become necessary for any condition that would require correction, the registration card will help insure that you are contacted and properly notified.

If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Peavey of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.

The WARRANTY REGISTRATION CARD and subsequent notices of change of address should be mailed to:

PEAVEY ELECTRONICS CORPORATION  
P.O. Box 2898  
Meridian, Mississippi 39301

In the event any modification or disclaimer of express or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

The limited warranty is given by Peavey Electronics Corporation with respect to equipment purchased in the United States of America.

#### DANGER

ALL AMPLIFICATION ACCESSORIES, MICROPHONES, MIXERS, ETC., MUST BE PROPERLY GROUNDED AND SHOULD BE UTILIZED WITH A 3-WIRE MAINS SYSTEM IN ORDER TO AVOID ELECTRICAL SHOCK.

#### DANGER

DO NOT COME INTO CONTACT WITH OTHER ELECTRICAL APPARATUS WHEN PLAYING (OR TOUCHING) YOUR INSTRUMENT. THE METAL PARTS OF THIS INSTRUMENT ARE GROUNDED ACCORDING TO PROPER AND ACCEPTED INDUSTRY PRACTICE, BUT IT IS POSSIBLE TO ENCOUNTER AN ELECTRICAL SHOCK WHEN COMING INTO CONTACT WITH ANOTHER ELECTRICAL APPARATUS IF IT HAS IMPROPER GROUNDING FACILITIES.

#### WARNING

DO NOT USE IMPROPER OR POORLY DESIGNED GUITAR STRAPS OR OTHER MEANS OF SUPPORT. POSSIBLE INJURY COULD RESULT IF IMPROPER, INFERIOR, ILL FITTING OR WORN OUT STRAPS ARE USED. THE INSTRUMENT COULD POSSIBLY FALL, CAUSING BODILY INJURY OR DAMAGE TO THE INSTRUMENT OR ASSOCIATED EQUIPMENT IF THE HOLDING DEVICES FAIL FOR ANY REASON.

#### DANGER

GUITAR STRINGS ARE MADE FROM VERY STRONG STEEL ALLOYS. THEY ARE DESIGNED TO BE USED UNDER TENSION AND, UNDER CERTAIN CONDITIONS, THEY MAY BREAK AND SPRING AWAY FROM THE GUITAR. DO NOT TUNE OR PLAY THIS INSTRUMENT WITH YOUR FACE IN CLOSE PROXIMITY TO THE STRINGS, AS SERIOUS INJURY COULD RESULT IF A STRING SHOULD BREAK.

#### WARNING

BASS GUITAR STRINGS ARE UNDER CONSIDERABLE TENSION WHEN THEY ARE TUNED TO CONCERT (A-440) PITCH. EXERCISE EXTREME CARE WHEN TUNING (ESPECIALLY ABOVE CONCERT PITCH) OR WHEN EMPLOYING STRING BENDING OR "POPPING" PLAYING TECHNIQUES. THE POSSIBILITY OF STRING BREAKAGE AND PERSONAL INJURY EXISTS UNDER THESE CONDITIONS.

#### NOTE

THE PATCH CORD BETWEEN THE GUITAR AND THE AMPLIFIER IS AN EXTREMELY IMPORTANT LINK. FOR OPTIMUM PERFORMANCE, A HIGH QUALITY WELL SHIELDED CORD SHOULD BE USED IN THIS APPLICATION.



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