



Milestone™ 12

OPERATING GUIDE

CAUTION
TO PREVENT ELECTRICAL SHOCK OR FIRE HAZARD, DO NOT EXPOSE THIS INSTRUMENT TO RAIN OR MOISTURE.
BEFORE USING THIS INSTRUMENT, READ BACK COVER FOR FURTHER WARNINGS.

NECK

The neck is carved from select hard-rock maple utilizing our patented (U.S. Patent No. 4,237,544) bilamination construction to prevent twisting and warping. Internally housed between the bilamination of rock maple is a fully adjustable steel torsion rod with rolled threads. This steel torsion rod is firmly attached at the body end of the neck and is adjustable at the nut end with our special truss rod adjustment tool. The guitar utilizes a **slant peg head** design with all six tuning machines in a straight line configuration for each side.

BODY

The body is made from the finest hand selected hardwood, which is finished in a gloss custom color. The new Naturalite™ body shape offers greater access to cutaways and all 24 frets. The special **rib-cage-contour** allows ease of handling and more comfort when the instrument is used with a guitar strap. (See Care For The Instrument)

PICKUPS

The pickups are high output full-range humbucking designs with 12 fully adjustable pole pieces utilizing a unique dual/single coil circuit (U.S. Patent No. 4,164,163) allowing humbucking or single coil operation of either or both pickups through rotation of the tone controls (See Circuit Explanation and Controls). The pickups are fully shielded and potted to reduce unwanted microphonics and noise and to allow pickups to remain intact for many years without vibrating loose in transport or use. Note: Because of this potting it is virtually impossible to disassemble the pickup without totally destroying the unit. Any attempt to disassemble the pickup will void any warranty on the electronics of your instrument.

CIRCUIT

The circuit utilized in the guitar is virtually unparalleled for its ability to obtain maximum tonal variations without the use of an active preamp built in. The pickups are very conventional humbucking designs and operate through a three-way toggle switch, which allows each pickup independently or both pickups simultaneously to be employed. The center position of the three-way toggle switch allows both pickups to function and their tonalities may be blended with the tone controls. There's only one volume control which operates the output level of both pickups and there are two tone controls, one for each pickup. These tone controls allow the unique capabilities of selecting between full humbucking response or single coil tonalities. (See Description of "How the Circuit Works").

PHASING

Phasing between pickups is controlled by a two-position switch. **Phasing works only when both pickups are in use.**

FRETS

The fret wire material for the guitar is classed as medium heavy. The frets are high crowned, 18% nickel silver and provide excellent intonation/compensation characteristics and superb string bending techniques. Eighteen percent nickel provides a degree more hardness than material used typically and should provide years of trouble-free performance.

HARDWARE

The heavy-duty 13 gauge steel bridge is triple chrome plated and utilizes fully adjustable steel saddles for maximum sustain and string stability. The saddles allow for string height, tilt and intonation/compensation. (See Adjustments - Height and Intonation for instructions). Durable Graphlon™ top nut, premium die cast tuning machines (14 to 1 ratio) and clear acrylic control knob with elastomer gripping. All switches are military grade toggles.

NECK TILT

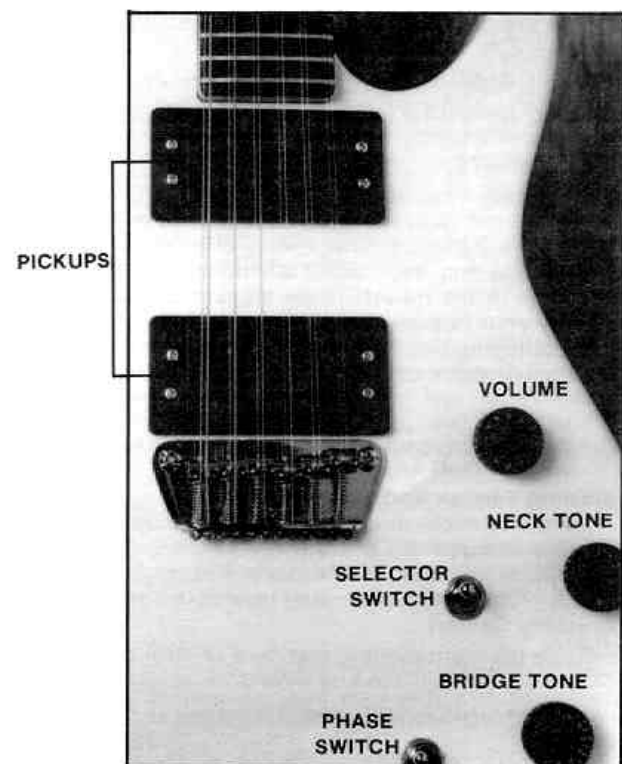
The neck tilt feature controls the all important playing angle of the neck while at the same time allows critical string fret clearance to be adjusted accurately. When used in conjunction with the torsion rod adjustment the guitar should be easily set up to exact playing specifications for many different styles and personal tastes. (See Adjustments - Neck Tilt)

SCALE

This instrument features a "full" scale length which is 24-3/4" and there are 24 frets (two full octaves).

CONTROLS

1. **Volume.** The volume control is the element for regulating the output of both pickups and the level is increased by rotation clockwise while a counterclockwise motion will decrease the output signal. It is also compensated so that there is a minimal loss of high frequencies with reduced volume; however, optimum performance is at a maximum setting. A clear acrylic control knob with elastomer grip is used for comfort and smoothness.



2. Tone. Each pickup has its own tone circuit which operates independently. When the selector switch is in the center position and both pickups are employed, each tone control affects the overall tone by altering its own pickup tonality. The single/dual coil circuit will be explained under "How the Tone Circuit Works". (See Pickup Selector)

3. Pickup Selector. The Pickup Selector Switch (a 3-position switch) operates in a fashion customary on most guitars. With the guitar suspended in normal playing position, moving the switch upward activates the neck pickup and downward movement places the instrument in the bridge pickup mode. The middle position activates both pickups.

4. Phase Switch. The phase switch is a two position switch which reverses the coil relationship in the lead (bridge) pickup only. The out-of-phase sound is a hollow sound and is available **only** when the **pickup switch** is in the **middle position**. This is logical since the switch is there to put one pickup out-of-phase in relation to the other pickup. The **up** position is **in phase**, while the **down** position places the pickups **out-of-phase**. In this mode the volume and tone controls can be used to alter the tone of the instrument by controlling cancellation.

HOW THE CIRCUIT WORKS

Our unique tone circuitry enables dual or single coil operation of each pickup independently through the rotation of the pickup tone control. Rotating the tone controls fully clockwise (position 10) achieves the single coil mode and produces a greater degree of highs from the instrument. Rotating the tone control counterclockwise to approximately the number 7 position brings the **second** coil into operation for "humbucking tonalities". Further counterclockwise rotation of the tone control allows tone control action typical to humbucking pickups and the instrument is full humbucking all the way back to the zero position. (Full counterclockwise) When rotating the tone control from full counterclockwise to fully clockwise you will notice as you pass the number 7 the overall tonality from each individual pickup becomes much thinner and more highs are apparent, note that one of the coils is being slowly removed and from setting of 7 to 10 on the control knob produces single coil operation.

CASE

The custom, hardshell case is contoured to fit the guitar and includes a large storage area, secure latches, and lock system.

ADJUSTMENTS

Your guitar has been carefully adjusted for accurate intonation and playing ease at the Peavey factory. However, your playing style, choice of strings 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 THE 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 or relief of the neck, Peavey torsion rod wrench #75031001 must be used (available from a Peavey Accessory Center).

1. Tune the instrument to standard (A-440) pitch.
2. Fret the sixth string (BIG 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 THE NECK AND TORSION ROD. IF EXCESSIVE FORCE IS NECESSARY TO ROTATE THE 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:

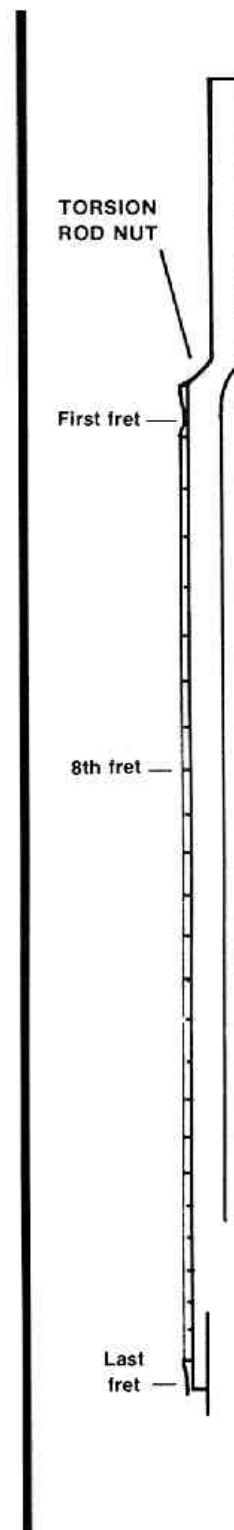
The neck tilt adjustment works in conjunction with the bridge height adjustment to set the overall string playing height. This adjustment should be used whenever possible to set string height rather than the bridge height adjustment.

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 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 neckplate. A 1/8" allen wrench is used to make this adjustment. Turning the screw clockwise lowers the strings closer to the fingerboard.

NOTE:
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.

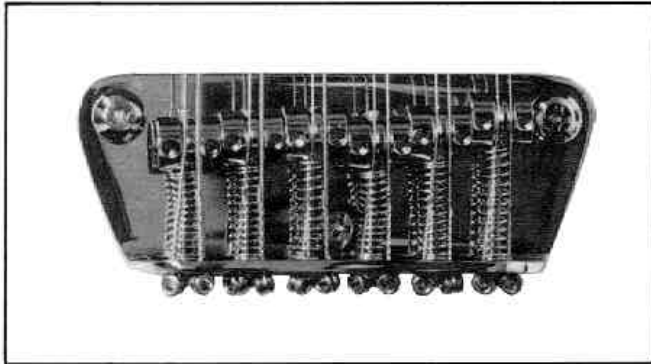
5. After adjustment, securely tighten all four neck attaching screws.

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

The guitar features individual bridge saddles which work in conjunction with the neck tilt adjustment to determine the overall string height. Ordinarily, the neck tilt should be used to set the string height. However, individual string saddles can be adjusted to follow the curvature (12" radius) of the neck to maximize string/fret distance. Use a 3/64" Allen wrench to make the adjustment for each string. Note: 12 string bridge saddles are compensated for octave string height. Use normal setup procedure described above.



String Intonation:

Accurate string intonation settings ensure that your instrument will play in tune at any point on the neck. Although "perfect intonation" is a physical impossibility with any fretted instrument, the correct settings will maximize the accuracy of the 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 (EXACTLY ONE OCTAVE APART). 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 12th FRET. THE LEFT INDEX IS DRAWN AWAY AS QUICKLY AS POSSIBLE AFTER THE STRING IS PLUCKED, PRODUCING A "CHIME" EFFECT. THIS CHIME NOTE IS THEN COMPARED TO THE FRETTED NOTE. FOR EVEN GREATER EASE AND A 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.

Setting Intonation:

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 THE STRING INTONATION AT THE BRIDGE.

1. Insure that the torsion rod and string height adjustments are accurate.

2. Tune the guitar to standard (A-440) pitch.
3. Hold the instrument in a normal playing position or place the guitar on a clean flat surface. Any pressure on the neck will effect intonation settings.
4. Play the first 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 a Phillips head screwdriver adjust the length of the string saddle so that the open note and the fretted note (or harmonic) are the same.

NOTE:

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

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

Care of the guitar:

The guitar is a high quality musical instrument constructed from the finest materials and with the most modern production methods available. With reasonable care, it should provide many years of service and outstanding playability.

Temperature and Humidity:

It is important that your instrument be protected from any extremes or 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 24 hours of playing. Some players may find that they prefer to change strings more often.

NOTE:

YOUR GUITAR IS EQUIPPED WITH HIGH QUALITY PEAVEY STRINGS. THE INTONATION AND ACTION OF YOUR INSTRUMENT HAS BEEN CAREFULLY ADJUSTED FOR MAXIMUM PLAYABILITY WITH THESE STRINGS. WHEN STRING REPLACEMENT BECOMES NECESSARY, WE RECOMMEND OUR HIGH QUALITY AND LONG LASTING PEAVEY STRINGS. OUR STRINGS ARE MANUFACTURED TO EXACTING TOLERANCES UTILIZING THE FINEST COMPOUNDED AND REFINED MATERIALS. THE RESPONSE CHARACTERISTICS OF OUR STRINGS ARE UNMATCHED FOR REPRODUCING THE TONALITIES AND TEXTURES FOR COUNTRY, ROCK, JAZZ/ROCK AND OTHER "CROSSOVER" STYLES.

Finish:

Your instrument has a polyester-urethane 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.

Case:

The case may be cleaned with a damp cloth with or without soap. Care should be taken to avoid wetting the plush lined interior.

NOTE:

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

**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.



Due to our efforts for constant improvement, features and specifications are subject to change without notice.