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Introduction

Thank you for purchasing the Peavey Millennium™ DK-20 home keyboard. The Millennium DK-20 offers unmatched sound quality and real piano “feel” in a beautiful hardwood cabinet. The piano sounds used in the Millennium DK-20 were selected from the renowned McGill University collection of Steinway® grand piano samples.

The Millennium DK-20 offers 32-note polyphony, allowing you to play up to 32 notes simultaneously, sixteen sounds, three effects settings, three tone settings, and much more!

The best way for you enjoy your Millennium DK-20 home keyboard is to begin playing. However, we suggest taking a few moments to read the rest of this manual to become familiar with the Millennium DK-20 functions and care instructions.

Enjoy!

Steinway is registered trademark of Steinway, Inc.

Features

32-note polyphony

Steinway Grand Piano samples

88-key, piano action, fully weighted keyboard

Sixteen sounds including Pianos, Electric Pianos, Organs, Harpsichord, Strings, Ethereal, and Vibes

Three effect settings: Reverb1, Reverb2, Chorus

Three tone settings: Bright, Normal, Mellow

Transposing capabilities

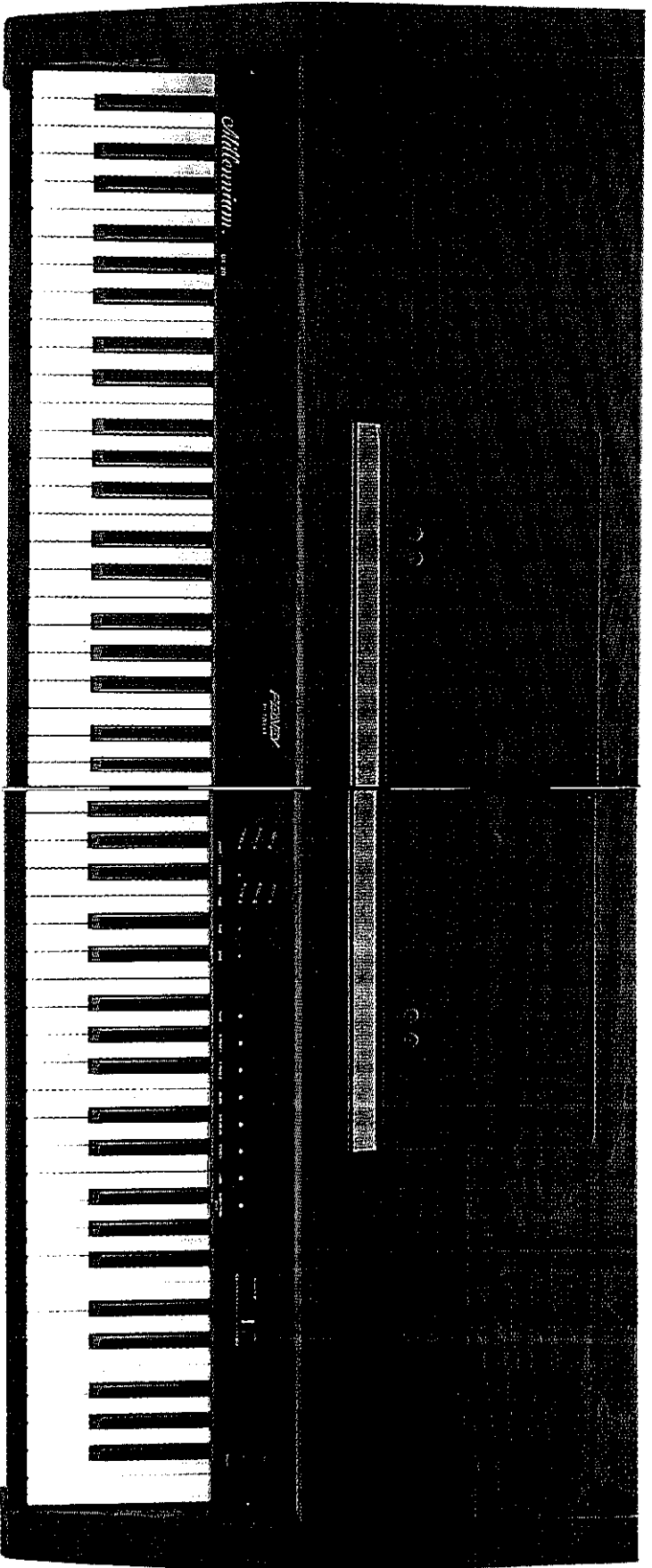
Stereo 35 watt speaker system

MIDI compatible

Headphone jack

Beautiful hardwood cabinet

Dual pedals



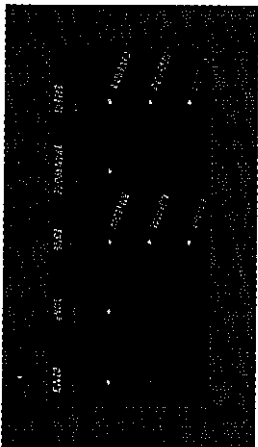
Care and Maintenance

The finish on the Millennium DK-20 requires special care and treatment. In order to keep your DK-20 looking its best for years to come, follow these simple rules:

1. Only use a soft, clean, slightly damp cloth for cleaning the cabinet and keys. *Never* use abrasive cleaners, waxes, solvents or chemical dust cloths. These products could damage the finish of the DK-20.
2. *Never* place vinyl products on the DK-20. Some vinyl products can cause irreversible damage to the finish.
3. Do not set-up the DK-20 in direct sunlight. Keep it away from excessive heat and humidity.
4. *Never* open the case and touch or tamper with the internal circuitry.
5. *Always* turn the power switch *off* after use.
6. *Never* use more force than is necessary on the controls, connectors or other parts of the DK-20.

Controls

All of the control buttons for the Millennium DK-20 keyboard are located at (or near) your fingertips for ease of use. None of the buttons described here are out of your sight. Everything is where you can see (and reach) it and is clearly labeled.



Effect Button

The **Effect** button allows you to select the effect you want. Press this button until the desired effect is obtained. There are three effects to choose from:

Reverb 1 – an effect that simulates room ambience.

Reverb 2 – simulates a larger room than Reverb 1.

Chorus – a sweeping, doubling effect.

Each effect has an LED that will light when selected. If no effect is selected, none of the LEDs will be lit.

Transpose Button

This button is used to transpose (shift) the keyboard to another key. It is also used to do some advanced functions when used with other buttons or keys. See the Keyboard Transposition section.

Tone Button

This button is used to change the tone of the sound. The Normal setting does not affect the sound. The Bright setting adds more treble, or crispness, for a sharper tone. The Mellow setting decreases the treble for a warmer, rounder sound.

Tune Button

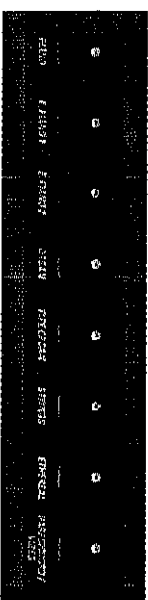
This button is used to adjust the tuning of the keyboard. For more details see the Keyboard Tuning section.

Demo Button

Each sound on the DK-20 has its own demonstration song. Pressing this button starts the demonstration song for the sound selected. Pressing this button a second time stops the demonstration song.

6. Sound Select Buttons (1 – 8)

The DK-20 has sixteen sounds from which to choose (two per button). Each button has an LED associated with it that lights red for one sound and green for the other. Pressing a button repeatedly will toggle between the two sounds associated with it. For more advanced applications, two sounds can be layered by pressing two Sound Select buttons at the same time. For more details on how to layer sounds, see the Layered Sounds section.



7.

Volume Control

This is the slider that is used to control the overall volume of the keyboard. All the volumes are controlled by this slider: the built-in speakers, the headphones, and the outputs on the back of the keyboard. Also, the volume of any external signal plugged into the DK-20 rear inputs will be controlled by this slider.

8. Power Switch

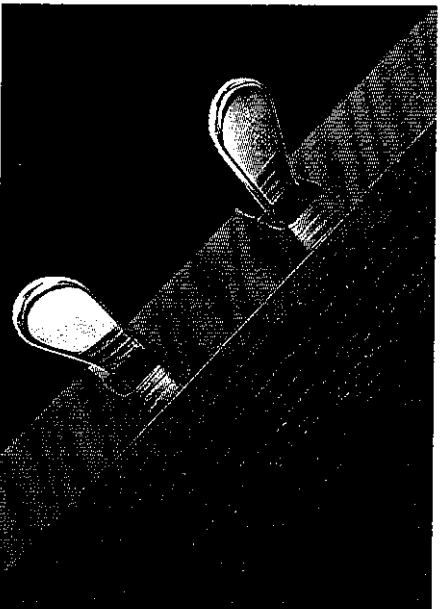
This turns the keyboard on or off.

Pedals/Connections

These pedals have different functions, depending on which instrument is selected. The connections discussed are located on the rear of the DK-20.

1. Soft/Rotary Speed Pedal (Left)

If one of the Organ sounds (not the Pipe Organ) is in use, this pedal will toggle the speed of the rotary speaker

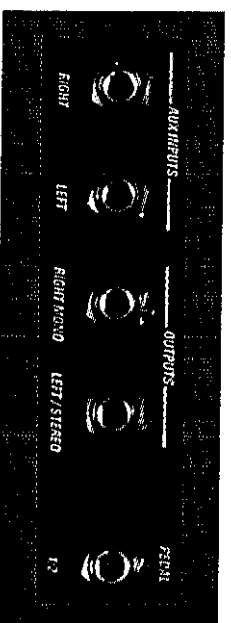


emulation from slow to fast and back to slow. Each time the pedal is depressed, the speed will begin changing until reaching its final value a few seconds later.

If any sound other than an Organ sound is in use, this pedal will act as a "soft pedal." Any notes played while the pedal is down will sound softer than they were actually played.

2. Damper (Sustain) Pedal (Right)

This works like the damper pedal on an acoustic piano. Notes being held when the pedal is depressed, and notes played after the pedal is held down will sustain (keep playing) as if the keys were not released. When the pedal is released, the sustained notes will also be released.



3. Auxiliary Inputs

These allow the DK-20 to mix another sound source, such as a tape deck or CD player, or another keyboard with the DK-20 stereo outputs. Connect the line outputs (not the speaker outputs) of the source to these jacks. The sound of the external source will be mixed with the sound of the DK-20. If a different connector is needed, an adapter may be found at any electronics store.

4. Outputs

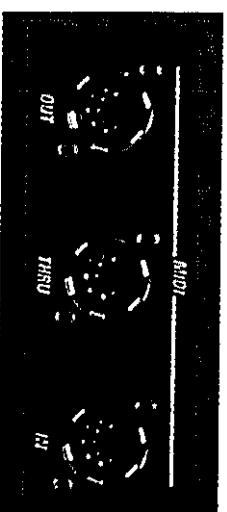
Use the outputs of the DK-20 to connect to an external power amplifier or stereo system.

5. Foot Pedal Jack

Connect the cord provided for the dual foot pedals to this jack.

6. MIDI Jacks (Out/Thru/In)

This provides the DK-20 with MIDI (Musical Instrument Digital Interface) capability. MIDI messages can be received with the MIDI In jack, sent with the MIDI Out jack, and echoed with the MIDI Thru jack. This is explained later in the manual.



Using the Millennium DK-20

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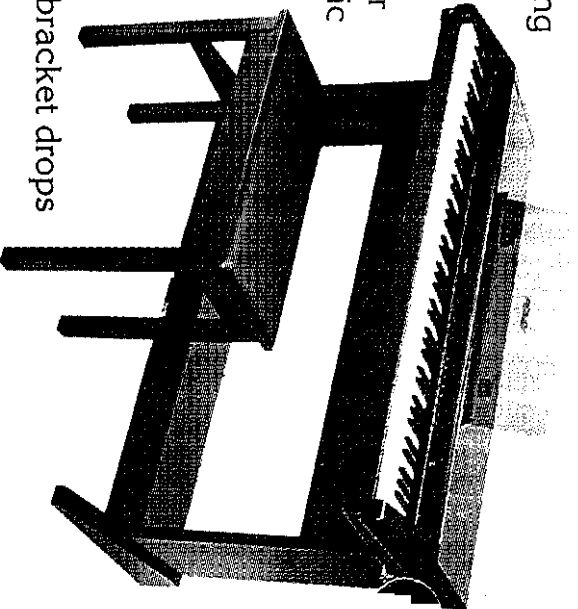
Refer to the insert that came with the Millennium DK-20 for assembly instructions, then return here to continue. If you have already completed the assembly of the DK-20, let's get started.

Check your power supply

Make sure that your local AC mains voltage matches the voltage specified on the rear of the unit.

The music stand

If you will be using sheet music, raise the built-in music stand by lifting the rear edge of the music stand. You should notice the brackets sliding into place—a slight click will be heard when the bracket drops into place.



To lower the stand, slightly tilt the stand toward the front of the keyboard and lift up on the brackets (there are two of them) so that they clear the rear edge of the hinge. Then lower the music stand to its original position.

Demo Songs

The DK-20 comes with several demonstration songs, each composed to showcase a different type of sound. Use the following procedure to listen to the demos.

Let's say you want to listen to the demo song for the piano sound:

1. Press the **Piano** button. Remember, each button has two sounds associated with it, so you will get a different demo depending on the color of the LED (red or green).
2. Press the **Demo** button.

That's it! You should be listening to the demo song for the piano sound.

To listen to a demo for any of the other sounds, simply substitute the name of that sound for piano in the above sequence.

Layering Sounds

Two of the DK-20's sounds can be played simultaneously (layered) by pressing two sound buttons at the same time. Try layering different sounds with the piano. Hold the **Piano** button and press the **Strings** button to layer those sounds. Continue to hold the **Piano** button and press the **Strings** button again to toggle to the other string sound (red or green). Experiment with different combinations to find new and interesting sounds.

Note: When layering sounds, the volume balance between the two sounds can be slightly adjusted by how much time expires between the first and second button press. If the buttons are pressed at the same time, both sounds will be at their full volume level. If you wait between 1/4 second and 1 full second before selecting the second (layered) sound, its volume will be slightly reduced. If you wait more than 1 second, the volume of the layered sound will be reduced even more.

Touch Sensitivity

One of three different touch sensitivities (soft, medium, and hard) can be chosen to adapt to different playing styles. While the Normal setting provides an average sensitivity, Hard requires heavier playing for loud volumes, and Soft allows loud volumes with a lighter touch.

Note: Some sounds are not touch sensitive (e.g., organs, harpsichord). These sounds will be unaffected by this setting.

While holding the **Transpose** button, press the **Effect** button until the correct LED is lit:

Chorus = Hard
Reverb 2 = Normal
Reverb 1 = Soft

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Keyboard Transposition

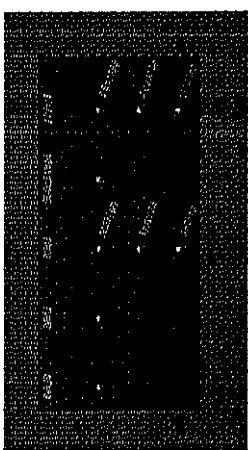
The DK-20 can be transposed in semitone steps to a maximum of 12 semitones (1 octave) in either direction. While holding the **Transpose** button (the LED will blink while you're holding it), press a note within one octave above or below C4. When you release the **Transpose** button, the keyboard will play in the key of the note you pressed. The LED will stay lit to show that the transposition is in effect (unless the note that was pressed was C4, which resets the transposition).

After the transposition is set, pressing the **Transpose** button repeatedly will toggle back and forth between the transposition and normal pitch.

Keyboard Tuning

The DK-20 can be tuned in 2-cent steps. While holding the **Tune** button (the LED will blink while you're holding it), all the notes of the keyboard will play the same note with a slightly different pitch (C4 if no transposition is in effect). Each key above C4 will add 2 cents to the pitch. Each key below C4 will decrease the pitch by 2 cents. When you release the **Tune** button, the keyboard will play with the altered tuning. The LED will stay lit to show that the altered tuning is in effect (unless the note pressed was C4, which resets the tuning to normal).

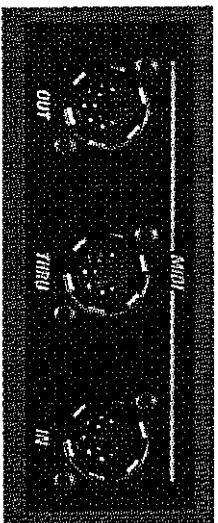
After the tuning is set, pressing the **Tune** button repeatedly will toggle back and forth between the altered tuning and normal tuning.



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Using MIDI

If you have a MIDI sound module or synthesizer, you would probably like to play it with the superb action of the DK-20's keyboard. To do so, connect the DK-20's MIDI OUT jack to the MIDI IN jack of the synthesizer. Make sure the MIDI Receive channel of the synthesizer matches the MIDI Transmit channel of the DK-20.



To play the DK-20's sounds from another MIDI keyboard, just reverse the process. Connect the MIDI OUT of that keyboard to the MIDI IN of the DK-20, and make sure the MIDI channels match.

The MIDI information that is transmitted and recognized by the DK-20 is as follows:

Note On / Note Off with Velocity

These messages tell the receiving unit which notes were pressed and released, and how hard they were played, allowing touch-sensitive control of the external module.

The DK-20 will send these messages out whenever its keyboard is played. It will also respond to these messages so that you can play the DK-20's sounds from another source.

Program Changes

MIDI Program Changes 0–15 are sent by the DK-20 whenever the local sound is changed. (If a layer is selected, the sound that is chosen first determines the Program Change number.) The order is PIANO(red), PIANO(green), E.PIANO 1(red), etc.

The DK-20 will change sounds automatically when it receives a MIDI Program Change message between 0 and 15. Higher numbers are ignored.

Control Changes

MIDI Control Change messages are sent by the DK-20 when the footswitches are pressed and/or released. The Damper pedal will always cause a transmission of a Damper Pedal control message (#64) with maximum value (sustain on) when depressed. Releasing the pedal will cause transmission of the same message with a zero value (sustain off).

The Soft/Rotary Speed Pedal will send out a Soft Pedal control message (#67) if neither ORGAN sound is being used. If one of the ORGAN sounds is used, Modulation Wheel messages (#1) will be sent out when the pedal is pressed. If the current speed is slow and the pedal is pressed, messages of increasing value will be transmitted until a maximum value is reached. This will affect the external sound generator's modulation the same way it does the DK-20's local sound—ramping it up and down to simulate a rotary speaker.

The DK-20 will respond to these messages as if they originated locally. (For example, if a Damper Pedal message with maximum value is sent to the DK-20's MIDI port, all notes will sustain until a similar zero valued message is sent.)

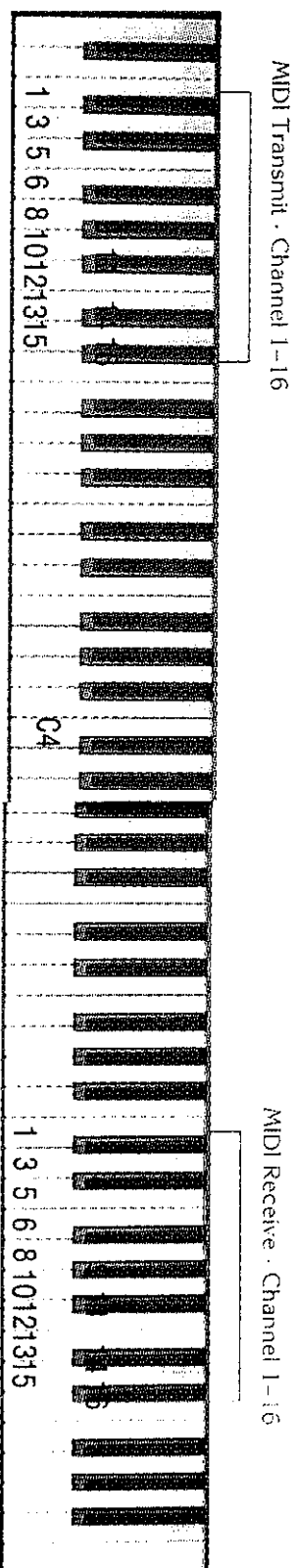
Turning Local Sound Off

Local sound is the internal sound of the DK-20 when you play the keyboard. This is normally on. However, sometimes it is desirable to turn the local sound off when playing another MIDI sound module with the DK-20 keyboard. If you want to hear just the other sound device, turn local sound off. If you want to hear the DK-20 along with the other sound device, leave the local sound on.

Press and hold the Transpose button. The Tune LED will be lit if local sound is on. Press the Tune button to turn it off (or back on if it was off).

Setting MIDI Transmit and Receive Channels

Hold the **Transpose** button down and press the appropriate key on the keyboard according to the following diagram.
(MIDI Transmit Channel 1–16 on keys C1–D#2, MIDI Receive Channel on C6–D#7)



Troubleshooting

If you encounter a problem with the DK-20 keyboard, please check the following before assuming your keyboard is defective.

1. *No sound when the power is turned on*
 - Make sure the AC plug is properly connected to the AC wall outlet.
 - Make sure the volume is turned up to a reasonable listening level.
2. *Interference from radio and/or television signals*

This can occur if there is a high-power transmitter in your area. Contact your Peavey dealer.
3. *Intermittent static noise*

This is usually due to turning on or off a household product or other electronic equipment that is on the same AC mains as your DK-20.
4. *Interference appears on radio and/or television sets located near the DK-20*

The DK-20 contains digital circuitry which can generate radio-frequency noise. The solution is to move the DK-20 further away from the affected equipment, or vice versa.
5. *Distorted sound when the DK-20 is connected to an external amplifier/stereo system*

If the DK-20 is connected to a stereo system or power amplifier and the sound is distorted, reduce the setting of the DK-20 volume control to a level at which the distortion ceases. It might also be necessary to reduce the setting of the external equipment volume.

Important Safety Instructions

Warning: When using electric products, basic cautions should always be followed, including the following:

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. This product should not be operated near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
5. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
6. Connect only to a power supply of the type marked on the back of the unit adjacent to the power supply cord.
7. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
8. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
9. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
10. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
11. This unit should be checked by a qualified service technician if:
 - a. The power supply cord or plug has been damaged.
 - b. Anything has fallen or been spilled into the unit.
 - c. The unit does not operate correctly.
 - d. The unit has been dropped or the enclosure damaged.
12. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
13. This unit should be used only with a cart or stand that is recommended by Peavey Electronics.

Specifications

Keyboard: 88 weighted keys (A0 – G8)

Effects: Reverb 1, Reverb 2, Chorus

Tone: Mellow, Normal, Bright

Panel Controls: Effects Select, Tone Select, Tune, Transpose, Demo Start/Stop, Voice Select master, Volume

Voice Selections: Piano 1/2, Electric Piano 3/4, Organ 1/2, Organ 3/4, Ethereal 1/2, Strings 1/2, Harpsichord/Vibes

Pedal Controls: Damper, Soft/Rotary Speaker Speed

Inputs/Outputs: Left and Right Auxiliary Outputs, Left and Right Auxiliary Inputs, Pedal Inputs, MIDI In, Thru, Out, Stereo Headphone Output

Input/Output Specs: Aux. outputs: 500 ohm/3V RMS

Impedance/Level: Aux. inputs: 10K ohm/1V RMS (for nominal output level)

Power Amplifiers: 35W x 2

Speakers: 5.5" x 2, 1.5" x 2

One Year Limited Warranty: For details, refer to the warranty statement packed with this product. Copies may be obtained by contacting Peavey Electronics Corporation, P.O. Box 2898, Meridian, MS 39302-2898

Warranty

THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY.

PEAVEY ONE-YEAR LIMITED WARRANTY/REMEDY

PEAVEY ELECTRONICS CORPORATION ("PEAVEY") warrants this product, EXCEPT for covers, footswitches, patchcords, tubes and meters, to be free from defects in material and workmanship for a period of one (1) 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:

PEAVEY 90-DAY LIMITED WARRANTY ON TUBES AND METERS

If this product contains tubes or meters, Peavey warrants the tubes or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase. PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is also subject to the conditions, exclusions, and limitations hereinafter set forth.

CONDITIONS, EXCLUSIONS, AND LIMITATIONS OF LIMITED WARRANTIES

These limited warranties shall be void and of no effect, if:
The first purchase of the product is for the purpose of resale; or The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER. 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; or The serial number affixed to the product is altered, defaced, or removed.

In the event of a defect in material and/or workmanship covered by this limited warranty, Peavey will: In the case of tubes or meters, replace the defective component without charge. In other covered cases (i.e., cases involving anything other than covers, footswitches, patchcords, tubes or meters), repair the defect in material or workmanship or replace the product, at Peavey's option; and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser. THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED AND MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE. In order to obtain service under these warranties, you must: Bring the defective item to any PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED PEAVEY DEALER in connection with your purchase from him of this product if the DEALER or SERVICE CENTER is unable to provide the necessary warranty service you will be directed to the nearest other PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER which can provide such service.
Ship the defective item, prepaid, to:

PEAVEY ELECTRONICS CORPORATION
International Service Center
Highway 80 East
MERRIDAN, MS 39301

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Peavey's receipt of these items: If the defect is remedial under these limited warranties and the other terms and conditions expressed herein have been complied with, Peavey will provide the necessary warranty service to repair or replace the product and will return it, FREIGHT COLLECT, to you, the purchaser. Peavey's liability to the

purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of \$500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. Peavey does not assume liability for personal injury or property damage arising out of or caused by a non-Peavey alteration or attachment, nor does Peavey assume any responsibility for damage to interconnected non-Peavey equipment that may result from the normal functioning and maintenance of the Peavey equipment. UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES, OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE 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 EXPRESSED, LIMITED WARRANTIES, AS HEREBY STATED, HAVE BEEN COMPLETED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR OR NINETY-DAY PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT. 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. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE. THESE LIMITED WARRANTIES ARE THE ONLY EXPRESSED WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY. In the event of any modification or disclaimer of expressed 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. Your remedies for breach of these warranties are limited to those remedies provided herein and Peavey Electronics Corporation gives this limited warranty only with respect to equipment purchased in the United States of America.

INSTRUCTIONS — WARRANTY REGISTRATION CARD
Mail the completed WARRANTY REGISTRATION CARD to:
PEAVEY ELECTRONICS CORPORATION
POST OFFICE BOX 2898
MERRIDAN, MISSISSIPPI 39302-2898

Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. There will be no identification card issued by Peavey Electronics Corporation. IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESSES. Completion and mailing of WARRANTY REGISTRATION CARDS — Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified. Notice of address changes — 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. You may contact Peavey directly by telephoning (601) 483-5365.