

Ovation guitars are played
by countless musicians
around the world including:

Joan Armatrading

Dj Ashba

Charlie Benante - Anthrax

Chad Benekos - HED(PE)

Glen Campbell

Julian Coryell

Kevin Cronin - REO Speedwagon

Al Di Meola

Melissa Etheridge

Robert Fripp

Nick Hexum - 311

J'Anna Jacoby

Davey Johnstone - Elton John

Patrick Kennison - Union Underground

Kittie

Lenny Kravitz

Cyndi Lauper

Adrian Legg

Steve Lukather

Yngwie J. Malmsteen

Preston Reed

Ruben Ruiz

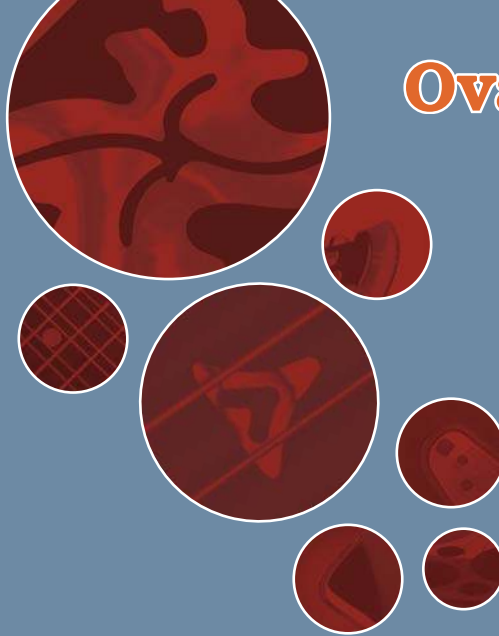
Shakira

Matt Smith

Aaron Tippin

Shania Twain

Ovation®



OWNER'S MANUAL



OvationGuitars.com

Ovation Instruments
Division of Kaman Music Corporation
37 Greenwoods Rd., New Hartford, CT 06057

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990157-L 8/04

Congratulations on buying an Ovation Roundback™ Guitar. Since its introduction in 1966, the Ovation Roundback™ has been acclaimed the world over for its dramatic technical advances and musical refinements that literally changed the shape of music.

This owner's manual has been prepared to acquaint you with details of the special features found on your Roundback, and to provide you with the facts and tips you will need to maintain your guitar. More detailed information concerning the design, manufacture, and materials used in the making of your Ovation Roundback™ can be found in Ovation literature available from your Authorized Ovation Dealer or by writing to us here at Ovation.

**Kaman Music Corporation
Mission Statement**

We are dedicated to maintaining a position of industry leadership by offering a wide range of music products and the highest quality service to our customers.

Address service correspondence to-
Ovation Instruments
37 Greenwoods Road, New Hartford, CT 06057
1-800-552-4681

For your records, we suggest you make a note of Model, Serial Number, and the date you purchased your Ovation guitar:

Model# _____ Serial# _____ Date of Purchase ____ / ____ / ____

Care And Maintenance

Like all fine instruments, Ovation Roundback™ guitars require periodic care and maintenance. Your instrument will perform best if it is kept clean. A routine cleaning of the instrument using a clean lint-free cloth and a light coat of a quality guitar polish will keep your Roundback looking and performing at its peak. Gold-plated parts especially should be wiped clean after each playing to prevent corrosion from body acids.

We strongly recommend the purchase and use of an Ovation Roundback™ molded guitar case. Specially designed to accommodate Roundback Ovation guitars, it offers the best possible protection against damage. The inside of the case is plush-lined and form-fitted to hold the guitar snugly and securely. An inside case pocket allows storage of strings and small accessories.

The guitar is held firmly in the case by a pad in the lid which presses lightly against the top of the guitar when the lid is closed. The pad can sometimes absorb polish from the guitar, leaving a dull area on it. This can quickly be restored to a high gloss finish with a quality guitar polish. Any marks on the bowl where it has been in contact with the lining of the case can be removed in the same way.

Always store the instrument at room temperature, avoiding any excessively hot, cold, damp or dry conditions. The delicate woods used in instrument construction are greatly affected by changes in humidity and temperature. A neck warp or top crack can render any fine guitar unplayable. You may wish to purchase a humidity/moisture packet that can be carried in your case to compensate for any changes in these climatic conditions. Check with your Ovation dealer for availability.

Keep your instrument tuned to concert pitch under normal playing and storage situations. However, if the instrument is to be stored for a long period of time, reduce the string tension slightly; one or two turns of each tuning machine will be adequate.

There are a few simple precautions that you can take while transporting your Ovation guitar that will minimize the chances of damage. When transporting the guitar in a car, always keep the case on the floor so that it will not move around inside the car in case of a sudden stop. Also, avoid storing the guitar in the trunk of a car, where it will be exposed to extremes of heat and cold. Always avoid freezing temperatures, as this can result in the top finish cracking.

When travelling by air, always loosen the strings slightly before checking the guitar as baggage. The airlines will not be liable for instruments damaged as a result of their being tuned to full concert pitch.

The Ovation family grows

The original Roundback guitar was developed in the mid 1960's. Since then, the family of instruments bearing the Ovation name has grown significantly. Rapid new electronic developments have given you, the buyer many options. This owners manual covers general maintenance and set-up. For specific information regarding each preamp for your instrument you will need to reference the accompanying preamp-specific, owners manual.

The families of Ovation include . . .

Standard Balladeer . . . Featuring . . .

- Our lowest priced, USA made, solid top Roundback
- OP-30, thinline pickup
- Solid sitka spruce top
- Mahogany neck

Legend

- Most features, without all the gingerbread
- OP-40 preamp
- Tru-Balance pickup
- Mahogany & maple 5-piece neck
- AA grade solid sitka spruce top

Custom Legend

- Our best center soundhole guitar, with abalone ornamentation
- OP-50 preamp
- Ovation high output pickup
- Abalone rosette, position markers, purfling
- Ebony fingerboard
- AAA sitka spruce top

Elite

- Adamas multi-soundhole design with a solid spruce top
- OP-40 preamp
- AA solid sitka spruce top
- Ebony fingerboard
- Mahogany & maple 5-piece neck
- Multi-soundhole design with exotic wood epaulets

Custom Elite

- Adamas multi-soundhole design with a solid spruce top
- OP-50 preamp
- AAA solid sitka spruce top
- Ebony fingerboard
- Mahogany & maple 5-piece neck
- Multi-soundhole design with exotic wood epaulets

Adamas

- Our best professional 6 and 12 string guitars
- OP-50 preamp
- Carbon graphite top
- Multi-soundhole and center soundhole design
- Woven and straight grain carbon fiber

Elite Basses

- A truly professional acoustic bass
- OP-40 preamp
- 34" scale length
- 4 and 5 string option
- Solid sitka spruce top
- 24-fret ebony fingerboard

Folklore/Country Artist

- Wideneck fingerpicker reissue and 14-fret narrow neck nylon
- OP-40 preamp
- 1 $\frac{7}{8}$ " steel and nylon string neck (width at nut)
- Mid-depth cutaway body
- Inlaid rosette
- 21-fret ebony fingerboard

Mandolin & Mandocello

- Plug it in on stage or in the studio
- OP-30 preamp... Mandolin
- OP-50... Mandocello
- Solid sitka spruce top
- 21-fret ebony fingerboard

Long Neck

- Totally new sound for acoustic players
- OP-50 preamp
- Extra long, 28.35" scale length
- Tuned a whole step lower
- Solid sitka spruce top
- Multi-soundhole design with rare wood epaulets

Viper

- Solid body feel, acoustic sound
- Custom thinline graphic E.Q.
- Steel or nylon string option
- Six, twelve and bass option

Collectors' Series

- Limited production run... ground breaking features
- Breakthrough electronics
- Collectible since 1982

NEW! LX

The new Ovation USA LX models offer some exciting new ideas plus some great enhancements to our proven ideas.

- Lightweight GS body
- Advanced neck system
- Ovation original painted pickup
- OP Pro preamp
- Scalloped LX bracing

Ovation Preamps

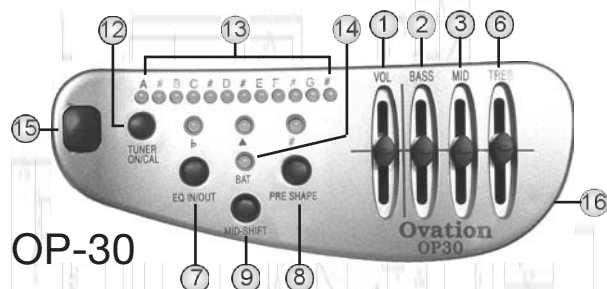
The famous Ovation acoustic electric sound has set new standards for players in a wide variety of styles. Ovation continues to lead the industry in professional acoustic electric applications. There are different electronic systems available on Ovation guitars, mandolins, basses and solid body acoustics. The details regarding your system are available in the specific electronics owners manual accompanying your instrument. In summary, the systems include . . .

**Visit OVATION online at
www.OvationGuitars.com**

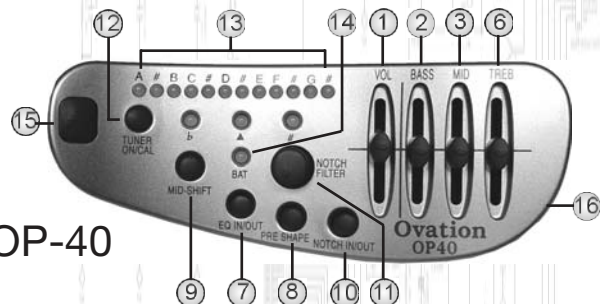
Your new Ovation guitar is equipped with the latest in a series of preamps that have provided musicians with leading-edge performance designed specifically to complement the unique character of Ovation guitars.

Please refer to the appropriate diagram on the following pages to help acquaint yourself with the features and functions of your instrument.

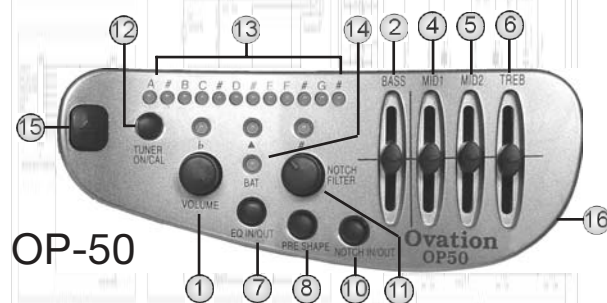
- ① **VOLUME:** Adjusts the overall output level of the preamp.
- ② **BASS:** Adds or subtracts the low frequency content of the signal.
- ③ **MID:** Controls the amount of a broad range of frequencies in the middle of the sound spectrum of the guitar.
- ④ **MID1:** Controls the amount of power in lower middle frequencies.
- ⑤ **MID2:** Controls the amount of power in upper middle frequencies.
- ⑥ **TREBLE:** Adds or subtracts the high frequency content of the signal.
- ⑦ **EQ IN/OUT:** Engages or bypasses the EQ controls.
- ⑧ **PRESHAPE:** Engages or bypasses a fixed tone enhancement circuit.
- ⑨ **MID SHIFT:** Moves the center frequency of the midrange control.
- ⑩ **NOTCH SW:** Enables or disables the Notch Filter (see ⑪).
- ⑪ **NOTCH POT:** This control is used to tune a very sharp and deep filter designed to reduce feedback when using high-gain amplification. At a high volume level, your guitar may "feedback" causing a low, steady tone to come from your speakers. With the notch filter enabled, slowly tune this control to the feedback frequency (CW=higher frequency, CCW=lower frequency) until the feedback is reduced.
- ⑫ **TUNE/CAL:** This switch turns on the built-in tuner for approximately 60 seconds. Press a second time while playing a note and this pitch will become the calibration point for operation (handy when tuning to an "out-of tune" instrument). During the tuning operation the guitar output will be muted. If you finish tuning prior to the 60 second timer returning the tuner to idle (and un-mute), you may press this button again to manually return the preamp to normal operation.
- ⑬ **TUNER LEDs:** These LEDs indicate the note being played and whether it's sharp or flat. Tune string up or down until the ▲ LED lights.
- ⑭ **BAT:** When steadily illuminated, indicates that the battery is low and should be changed soon. Also intermittently flashes when plug is inserted into jack to confirm normal operation.
- ⑮ **RELEASE:** Pressing this button will release the module from its receptacle. Use this button to access to the battery compartment.
- ⑯ **MODULE:** The preamp is housed within this module and mates to the receptacle mounted in the body. Remove this module to gain access to the battery compartment. See the illustration on the last page for instructions on replacing the battery.



OP-30



OP-40



OP-50

Ovation Factory Set-up . . . and Stringing Guideline

Ovation guitars, basses, mandolins and LongNecks go through numerous detailed steps to ensure that our instruments play to the highest standards possible.

The following standard factory setting, saddle height, action adjustment and tension rod adjustments represent the tolerances when your instrument is shipped.

Set-up

Action Setting - The following standard factory actions are in 32nds of an inch measured from the top of the 12th fret to the bottom of the string.

		Bass	Treble	Recommended Kaman String Sets
Acoustic & acoustic electric steel string, LongNeck	Minimum	2-1/2	2	1818-6 strg
	Nominal	3	2	Long Neck
	Maximum	3-1/2	2-1/2	1616-12 strg
Classic	Minimum	4	3-1/2	
	Nominal	4-1/2	4	
	Maximum	5	4-1/2	
Acoustic Bass	Minimum	3	2-1/2	5300-4 strg
	Nominal	3-1/2	3	5305
	Maximum	4	3-1/2	5-string
Mandolin	Minimum	2	1-1/2	8080
	Nominal	2-1/2	2	Ball-end
	Maximum	3	2-1/2	mandolin set
Mandocello	Minimum	3	2-1/2	9090
	Nominal	3-1/2	3	Ball-end
	Maximum	4	3-1/2	mandocello set

Saddle Height

The maximum distance from the bottom of the strings to the top of the bridge is 6/32"

The minimum distance from the bottom of the strings to the top of the bridge is 2/32".

Tension Rod Adjustment

From .005" to .015" of warp is acceptable.

Shims For Action Adjustment

Acoustic/Acoustic-Electric guitars have a minimum of two (2) shims and a maximum of four (4) shims.

The Hand Rubbed Urethane Oil Neck

This neck finish is available on some Ovation models. If your guitar has it, you will notice a natural wood feel on the neck. It requires a higher level of maintenance than a gloss finished neck.

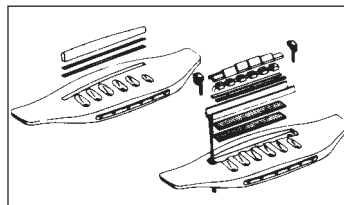
Approximately once a month, if you play daily, you will want to apply a commercially available wax. We recommend...

- ❖ Trewax
- ❖ Lundmark's Clear Paste Wax
- ❖ Butcher's Bowling Alley Paste Wax

They are available at most hardware stores.

The Ovation Bridges

The Ovation bridges found on our Roundback guitars are designed to take full advantage of the unique construction of our instruments. Thinner in design, the bridges help transmit the string vibrations more efficiently.



"Standard action" for all Ovation steel string guitars is 6/64" at the bass E string and 4/64" at the treble E string (measured as the distance between the bottom of the string and the top of the 12th fret). This action is normally achieved with 1-3 shims beneath the saddle. These settings were chosen to suit the requirements of a broad range of players. If you wish to change the action, however, use the following procedures:

1. Loosen or remove the strings.
2. Remove the saddle carefully. This is a delicate operation particularly if you have an acoustic-electric model. Be certain not to pull or force the wiring beneath the saddle.
3. For lower than standard action, remove the shim beneath the saddle. Removing one shim will lower the action by 1/64" at the 12th fret.

Depending on your playing style, an extremely low action setting may contribute to fret buzz. When occurring because of low action, this is not considered to be a defect in the instrument. If you are in doubt about the action setting of your Roundback, consult your Ovation Dealer.

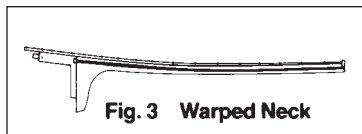
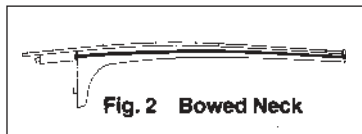
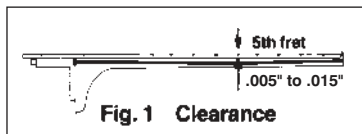
Adjusting The Neck

All Ovation guitars feature an adjustable steel tension rod. The tension rod serves two purposes. It counterbalances string tension, giving the neck additional strength. And it permits adjustment of the neck should changes in humidity, string tension, or changing the string gauge cause the neck to warp or bow.

If you wish to adjust the tension rod of your Ovation, please use the procedure which applies to your particular model from among the following. We do, however, recommend that you contact your Authorized Ovation Dealer if you are unsure about any part of the procedure.

To Check For Warp Or Bow In The Neck:

1. Hold the 6th string, E, between the nut and first fret with your left hand; with your right hand, hold the string against the fingerboard at the 13th fret.



2. Check the clearance between the bottom of the string and the top of the 5th fret.

3. The clearance should be a minimum of .005" to .015" depending on the string gauge. It should not be more than .032" ($\frac{1}{32}$ "), or the neck has a "warped" condition and must be adjusted at the tension rod.
4. Check the clearance of the first string, E, in the same manner.
5. If either E string touches the 5th fret, the neck has a "bowed" condition and must be adjusted at the tension rod.

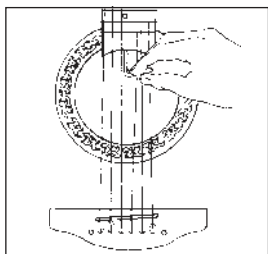
Headstock Adjustment:

Ovation necks are reinforced with a low-mass steel truss rod that is adjustable from the access hole under the cover on the face of the peghead. The rod moves the neck forward and backward in response to the changing seasonal humidity. As the humidity in the air increases (as in the Spring and Summer), the fingerboard will swell slightly, creating a slight backwards bow. This will result in fret buzz that increases in intensity closer to the nut. Conversely, when the humidity is low (as in Winter), the fingerboard loses moisture, causing the neck to "bow" forward. This results in a high action towards the middle of the neck. If buzzing occurs with this condition, it is usually on the end towards the bridge.

When adjusted correctly, there should be a slight forward bow in the neck. The proper amount of bow can be determined by holding the low E string down at the first and last frets at the same time, and viewing the gap between that string and the top of the 7th fret. There should be a gap of about .010" (.25mm), or about the thickness of your high E string. If the gap is less than that, you need to loosen the truss rod to move the neck forward. If the gap is more than .010" (.25mm), you may want to tighten the truss rod.

If Your Ovation Has A Kaman Bar™:

1. To adjust a Roundback with a Kaman Bar, find the Kaman Bar adjustment located at the heel of the neck on the inside of the bowl.
2. Reaching inside the guitar, place the Ovation Adjustment Wrench (#950033-X, available from your Dealer) on the tension rod adjustment nut. The adjustment socket is located just beneath the guitar top. Be certain the adjustment wrench is securely in position.



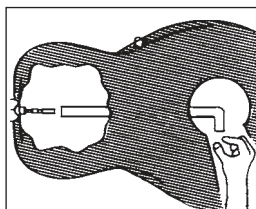
3. Clockwise rotation of the tension rod adjustment will tighten the tension rod to correct a warped condition. Use the previously outlined procedure to check your adjustment. Make sure that you do not overtighten the tension rod and lose the clearance at the 5th fret.

4. Counterclockwise rotation of the adjustment nut will loosen the tension rod until the proper clearance can be seen at the 5th fret.

***SPECIAL NOTE:** The Kaman Bar adjustment is very sensitive. One half turn on the nut when the rod is under tension will produce a significant change at the first fret, so turn it conservatively and check the neck frequently as you adjust it.*

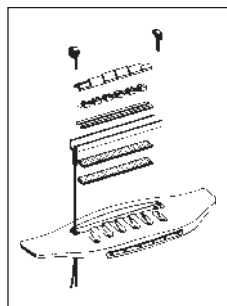
Rear Access Models:

For Rear Access models, access is via the door in the back of the bowl. In all other respects proceed as for other Kaman Bar models. These models require a longer handle adjustment wrench, (#950059-X). Your Rear Access guitar has a screw in the center of the access door. Loosen the screw until the door can first be slid to one side, then to the other, to remove it. Take care not to completely remove the screw. Reverse the procedure to replace the door.



The Ovation Acoustic-Electric

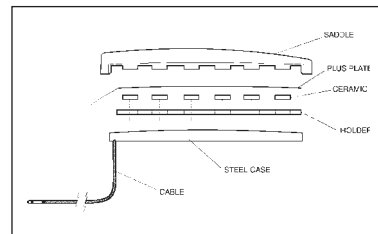
Many Ovation Roundback™ guitars come with the now famous built-in acoustic-electric pickup and preamplifier system. Located directly beneath the Celcon saddle which automatically compensates for intonation, six piezo electric transducers amplify not only the vibrations of the strings from the top of the saddle, but also transmit their mechanical action on the guitar top.



The preamplifier used in the Ovation Acoustic-Electric guitar obtains its power from a single, 9-volt battery found in the battery box inside the bowl. For optimum performance, we recommend using a 9-volt alkaline battery. Current is drawn only when a cord is plugged into the guitar, so frequency of battery replacement will depend on how often the acoustic electric feature is used. Always remember to unplug your guitar when

not in use. This will extend the battery life considerably. Noise or distortion detected in the output is usually a sign that a new battery is required.

Some Ovation guitars use the Ovation Thin Line piezo saddle pickup. Similar in operation to the original Ovation pickup, the vibration of strings over the saddle creates small changes in the pressure exerted on the six small piezo crystal elements located under each saddle section (one per string). This change in pressure on the piezo crystal causes an electrical charge to appear at



the output terminals of each element. The output of each crystal is then added to the others resulting in an electrical signal corresponding to the vibrations of all strings. As in all Ovations, this signal is amplified and processed with onboard electronics and finally connected to a P.A. system or amplifier. The Ovation Thin Line offers a more traditional look as well as the rugged construction which make Ovation guitars the guitars for use on the road.

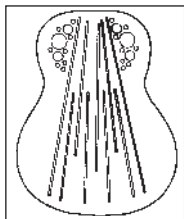
To Replace The Battery:

The battery on all OP30, OP40, OP50 and OP Pro preamps is located behind the preamp module. Release the preamp by pushing the button on the left side. Simply slide the cover on the back in the direction of the arrow to gain access to the battery.

Please do not discard batteries or electronic parts into municipal waste stream. Dispose of all potentially hazardous material properly.

The Adamas Top

The single feature that sets Adamas guitars apart from other Ovation Roundbacks and especially from the other acoustic guitars, is the top.



A guitar top should be strong, yet light and resonant. It's the flexibility of the top that largely determines the sound output. Even the best spruce tops have their limitations. Too thick, and the tone is weak and harmonically limited. Too thin, and the top can warp and crack. The Adamas top solves both of these problems.

Called a Fibronic soundboard, the Adamas top is built with two .005" carbon-graphite outer layers with a .030" layer of birch veneer in the center bonded together under high temperature.

Fans and braces have been developed specifically for the Fibronic soundboard to achieve the design goal of $\pm 3\text{db}$ amplitude response over the entire playing range of the guitar.

Contributing to the thin, resonant top are the unique and highly recognizable soundholes of the Adamas. By substituting the one large center hole of a traditionally designed guitar with the symmetrical series of holes in the upper bout, the strength of the top has been greatly increased and the sound dramatically improved. The pattern and size of the holes were designed to minimize feedback when playing at extremely high gain or high volume conditions.

The Roundback Mandolin & Mandocello

The first acoustic electric Roundback Mandolin and Mandocello on the market, the Ovation model MM68 and MC868 afford the mandolinist an easy answer for recording or amplifying on stage.

We recommend Genz • Benz Acoustic Amplifiers, which have been designed to complement our pickup and preamp system, for Mandolins, Guitars and Basses.

Maintenance and set up of the Mandolin is similar to that of Roundback guitars. However, there are a few points you should know.

Action Adjustment

Factory settings for the Mandolin are :

5/64" on the low G

4/64" on the treble E

Measurements are the distance between the bottom of the string and the top of the 12th fret. You can adjust your action settings by adding or removing shims. See details on shim adjustments in the guitar section of this manual.

Strings

The Ovation Mandolin and Mandocello are strung in a non-traditional way, which makes restringing quicker and easier. Our bridge design also contributes to a strong, clear sound, both acoustically and acoustic electrically.

The stringing method requires that you use strings with ball-ends. Ovation ships these instruments with the following gauges of phosphor bronze strings.

MANDOLIN

(2) .038-G

(2) .024-D

(2) .016-A

(2) .011-E

MANDOCELLO

(2) .074-C

(2) .048-G

(2) .034-D

(2) .022-A

Kaman Musical String also offer an Adamas Mandolin string set number "8080" for Mandolin and "9090" for Mandocello, which feature ball ends.

Limited Lifetime Warranty

Neck Adjustment

The Ovation Mandolin features a five piece neck with graphite reinforcement which will not require adjustment. If you have further questions regarding the necks, contact our Service Department.

The Mandocello has a traditional Kaman bar and is adjusted in the same fashion as a roundback guitar

Service And Warranty

If for any reason your Ovation Roundback™ should require repair, we have a Factory Service Department staffed with craftspeople who are familiar with every method of construction used in our instruments. We also have an established network of Authorized Ovation Dealers and Service Centers located throughout the world, a listing of which is supplied separately with your purchase. All are trained and equipped to handle any problem that might arise with an Ovation guitar. Because of the unique construction employed in Ovation Roundbacks we recommend that only an Authorized Ovation Dealer or Service Center service your instrument. Only in this way can we be certain that your problem is handled correctly and that lasting satisfaction is achieved. Our customers are very important to us at Ovation. That's why so many guitar players around the world turn to Ovation for product quality and after-sale service.

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The manufacturer of this product limitedly warrants to the original retail purchaser that this product shall be free from defects in material and workmanship at the time of delivery. This limited warranty shall be valid for the lifetime of the product and shall not apply to the following components and properties of the product where present: strings, electronic components, amplifying devices, normal fret wear, other normal wear, and any parts not made by the manufacturer, which parts shall be subject to their individual warranties where applicable. Additionally, tone, because it is a subjective matter, is not warranted. The obligation of the manufacturer hereunder is limited to the repair of such product manufactured by it and claimed to be defective (through the use of standard materials and processes in effect at the time of repair) f.o.b. the manufacturer's place of business provided that: (1) **At purchase the buyer completes and returns the attached warranty card with the required information thereon (either in writing or via electronic means) as described on the warranty registration card;** (2) The Buyer (through the authorized dealer/distributor either in writing or by telephone explains to the Manager or Assistant Manager of the manufacturer's Customer Service Department the nature of such defect and obtains return authorization from the manufacturer prior to returning the product or component; (3) At the Buyer's expense, the Buyer returns the product claimed to be defective, through his authorized dealer/distributor, to the manufacturer at the Buyer's expense with shipping expenses prepaid both to and from the manufacturer; (4) The manufacturer shall be satisfied that such defect is not the result of misuse or abuse; and (5) The model number and serial number on both the registration card and the product shall not have been altered; and the manufacturer shall perform its warranty obligation as set forth herein free of charge for labor and materials for the first two (2) years after the original retail purchase. Thereafter, the manufacturer shall be responsible for all materials used in the performance of this warranty and the Buyer shall be responsible for all service and labor charges incurred in such performance at standard manufacturer's rates in effect at that time. This warranty shall not apply to products which shall have been subjected to misuse, negligence, alteration or accident, including exposure to extreme heat, cold, or high or low humidity. The manufacturer shall not be liable for any property damage or for any consequential damages (including loss of use or profits) nor shall the manufacturer's liability on any claim for damages arising out of or connected with the manufacture, sale, delivery or use of any goods delivered under this order exceed the purchase price paid therefor. In the event of unexpected loss by fire, theft, or damage of the Buyer's product while in the manufacturer's possession such loss shall not be a liability of the manufacturer in excess of the replacement with a new product of the same or most similar available style. Excess value (collector's value) insurance must be carried by the Buyer at Buyer's expense. The same is true with shipping insurance since many carriers place limits on their liability. The manufacturer assumes no liability in the event of loss or damage to the owner's product while it is in transit to or from the manufacturer's place of business and the owner shall be responsible for all risk of loss. Any action for breach of this warranty or any other action under this Agreement must be commenced within one (1) year after such cause of action arises; (6) Proof of original retail purchase satisfactory to the manufacturer.

This product is distributed through a network of authorized distributors and dealers who are identified by an "authorized dealer" decal plaque. Your authorized dealer/distributor will act as the agent of the manufacturer and will be responsible for handling all warranty claims under this warranty in accordance with the manufacturer's direction. Purchase of this product from other than an "authorized dealer" may lead to difficulty or delay in obtaining warranty service.

THIS WARRANTY IS EXCLUSIVE AND IS MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, ALL SUCH WARRANTIES BEING SPECIFICALLY DISCLAIMED AND EXCLUDED. IN NO EVENT WILL THE MANUFACTURER OR DISTRIBUTOR BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR ANY NATURE WHATSOEVER, REGARDLESS OF HOW ARISING.