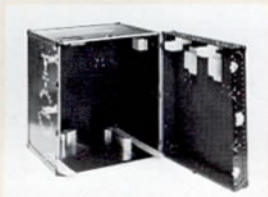


Ludwig®



Timpani Owner's Manual

Timpani Accessories



Timpani Trunks

Solid five-ply wood, custom-fitted timpani trunks supply ultimate protection. Reinforced with galvanized steel bottom panels and steel corners.



Full Drop Covers

Protect your timpani head, kettle and pedal assembly with full drop covers. Ideal for storing or on-the-move use.



Shallow Drop Covers

Ideal for in-use service when only a "hands off" protection is required.



Timpani Third Wheel

- P1423 for Grand Symphonic, Professional, and Standard Models
- P1424 for Universal Models
- Easy Timpani transport
- Add-On Feature / Attaches easily



No. P-1501-1 Timpani Key

A timpani tuning key is supplied with all timpani models. Keep one handy in your trap case, stick/mallet bag and accessory kit.



No. P-41 Drum Key

Ludwig's standard drum key is used for adjusting the pedal pressure control on Professional and Standard model timpani.



No. P-1579B Tuning Handle

A hand crank for use on Machine and Marching timpani includes set screw for quick securing to master tuning rod.



No. P-1445 (Standard Model) No. P-1447 (Pro/Symp Models) Locking Caster

Three-inch Caster supplies maximum movement of kettle on stage area.



William F. Ludwig, Jr.

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Introduction

Whether you have just purchased an entire set of Ludwig timpani or added an additional size to your existing set, you have purchased the finest timpani available for both educational and professional performance purposes. Ludwig has been the leader and the inventor of many leading principals in the construction and manufacture of pedal timpani.

The Ludwig family business was built upon a long-standing heritage of timpani know-how and playing expertise within the Ludwig family. William F. Ludwig, Sr. began his timpani studies in 1899 under the direction of the timpanist of the Theodore Thomas Symphony, later to be called the Chicago Symphony Orchestra. He held a variety of professional performing positions in many leading orchestras. William F. Ludwig, Jr. carries on this personal interest and love for timpani. Having performed as a percussionist and timpanist with various civic and community orchestras as early as 1932, Bill Ludwig continues to involve himself in the performing field as a timpanist.

All Ludwig model timpani are designed with a multiple purpose in mind, to give the performer superb musical tonality and outstanding service for many years.

The purpose of this booklet is to introduce you to the many features of your timpano, as well as the care and maintenance of your particular model. Like any fine musical instrument a timpano as well requires preventative maintenance and player care both during performance and in the rehearsal hall.

Ludwig Industries' entire staff and work force stand behind the Ludwig timpani that you have purchased. It is our desire and intention to manufacture the finest percussion instrument available.

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Tuning Gauge

An option for any Ludwig model timpani is the installation of a tuning gauge mechanism. The procedure in adjusting the Ludwig timpani gauge is as follows:

- (1) Release pointer on gauge by loosening set screw located just below the pivoting point on the frame.
- (2) Move pedal or crank to the lowest position and adjust the head to the proper fundamental pitch by means of the key rods.
- (3) Set the pointer to correspond with the lowest note on this kettle and move the movable letters to match the pointer. Use the set screw to lock the pointer.
- (4) Tune the instrument to the next higher note with the pedal and move the corresponding letters to match the location of the pointer for that individual pitch.

Tuning gauges mounted on timpani having the extended Profile Heads (now on all Ludwig timpani) require a Spacer Block (No. P-13991) and a pair of mounting screws (No. P-236).



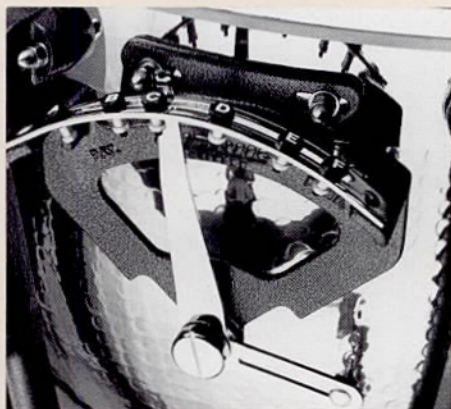
Professional Model Tuning Gauge

- No. LK-G20 – Gauge for 20" kettle.
- No. LK-G23 – Gauge for 23" kettle.
- No. LK-G26 – Gauge for 26" or 25" kettle.
- No. LK-G29 – Gauge for 29" or 28" kettle.
- No. LK-G32 – Gauge for 32" or 30" kettle.



Optional Tuning Gauge

- No. LK-H20 – Gauge for 20" kettle.
- No. LK-H23 – Gauge for 23" kettle.
- No. LK-H26 – Gauge for 26" or 25" kettle.
- No. LK-H29 – Gauge for 29" or 28" kettle.
- No. LK-H32 – Gauge for 32" or 30" kettle.



The gauge is now set and ready for use. Once this procedure is established by the player, this will allow a presetting almost automatically and will enable the player to rely on the indicator for all pitches.

Replacement Parts

All Ludwig model timpani have predetermined replacement part numbers assigned to every part in each model. Replacement parts can be ordered through any authorized Ludwig dealer and are clearly illustrated for each timpani model in Ludwig's Replacement Parts Catalog, AV1453. These catalogs are available from your Ludwig dealer at no cost. It is important to read each specification on each requested part to determine model, size, length and any other specifics in ordering a replacement part.

Selection of Heads – Reordering

With the introduction of the Profile Head Collar on all Ludwig timpani models, the ordering of the proper size and style head has been greatly simplified. Ludwig's Profile Collar Timpani Heads extend the heads beyond the edge of the bowl, thus giving it greater resonance, pitch definition and range. Just order your correct kettle size (20", 23", 26", 29", 32") and select between clear or white heads which is entirely up to the player's personal preference.

Up to 1978 only the Professional and Dresden models offered the extended Profile Head Collar. The other models, Standard, Universal and Machine model timpani, still came with the *regular* collar heads. For the benefit of the owners of these older timpani models, the *regular* (smaller) timpani heads are still made available and are listed below as well as in our catalog. Ludwig also still lists heads for even earlier model timpani, sizes 25", 28" and 30" diameter kettles, for the convenience and service of owners of such earlier models.

Ludwig Timpani Heads

Sizes:	Inch Sizes:	20"	23"	25"	26"	28"	29"	30"	32"
	Approximate Metric (cm) Sizes:	51	59	64	66	71	74	76	81
WEATHERMASTER®, Extended – Clear		C8120	C8123	–	C8126	–	C8129	–	C8132
WEATHERMASTER®, Extended – White		C8220	C8223	–	C8226	–	C8229	–	C8232
WEATHERMASTER®, Regular – Clear		C9120	C9123	C9125	C9126	C9128	C9129	C9130	C9132
WEATHERMASTER®, Regular – White		C9220	C9223	C9225	C9226	C9228	C9229	C9230	C9232
RINGER – Clear		C8152	C8158	C8164	–	C8172	–	C8178	–
RINGER – White		C8252	C8258	C8264	–	C8272	–	C8278	–

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The Care, Tuning and Maintenance of Your Ludwig Timpani

Know Your Timpani

In order to thoroughly understand the mechanical aspects and workings of your timpano as a musical instrument, it is advantageous to know the proper names for the various parts of your timpani. This will assist you with proper service and correct maintenance procedures for your model timpano.

– PLEASE NOTE –
DO NOT WAX

All Ludwig Timpani Kettles have been improved with the application of a "slick no drag" Teflon tape coating, allowing the head to move more freely over the bearing edge.

Periodically clean the back of the head and bearing edge to remove grit and dirt, but **DO NOT** lubricate the area with paraffin wax.



1. Balanced Action Foot Pedal

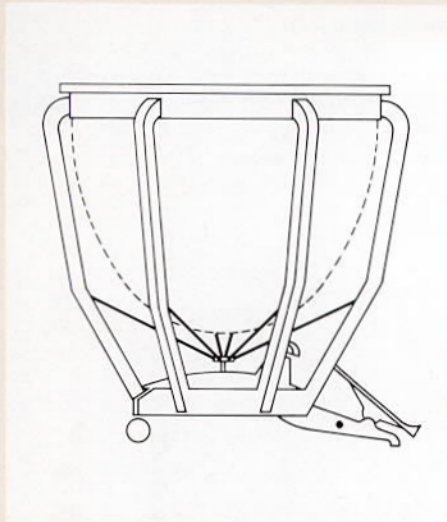
*(Professional, Standard and
Universal Model Timpani)*

Ludwig's exclusive floor-mounted "Balanced Action" tuning pedal moves effortlessly and smoothly through the range. No locks or ratchets are required to hold the pitch. Floor pedal placement offers the player a balanced, comfortable playing position without an awkward stance. The "Balanced Action" mechanism allows instant pitch changes which ideally suits it for the rapid tunings found in more contemporary music.



2. Pedal Pressure Adjustment

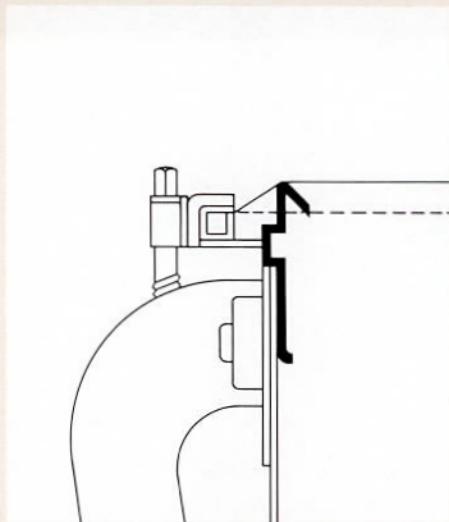
Friction type brass shoes straddle the main horizontal pull rod within the base assembly and act upon it to increase or decrease the foot pedal pressure to your liking. Simply insert a standard drum key into opening at right side of base below the pedal and turn key: clockwise to firm pedal pressure, counterclockwise to ease pedal pressure.



3. Free Floating Kettle Suspension

(Professional Model Timpani)

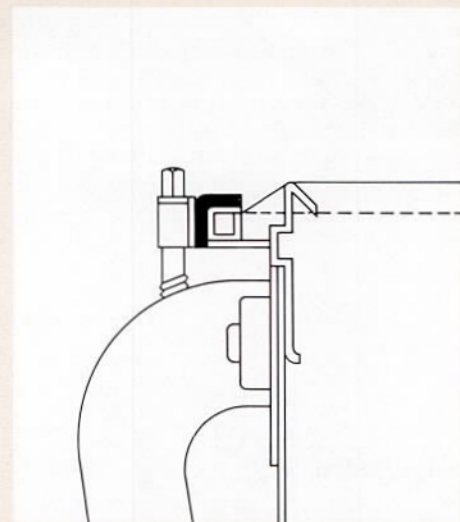
A double ring suspension system provides complete kettle (bowl) suspension in an insulated heavy steel support ring, allowing for maximum kettle resonance and projection.



4. Profile Head Collar

(On all Ludwig Timpani)

The profile collar further extends the head beyond the edge of the bowl providing greater resonance, pitch definition, range and ease of tuning. This innovation allows the head collar to flex over the bowl edge easily, instead of being forcibly drawn downward.



5. Angle Steel Counterhoop

(On all Ludwig Timpani)

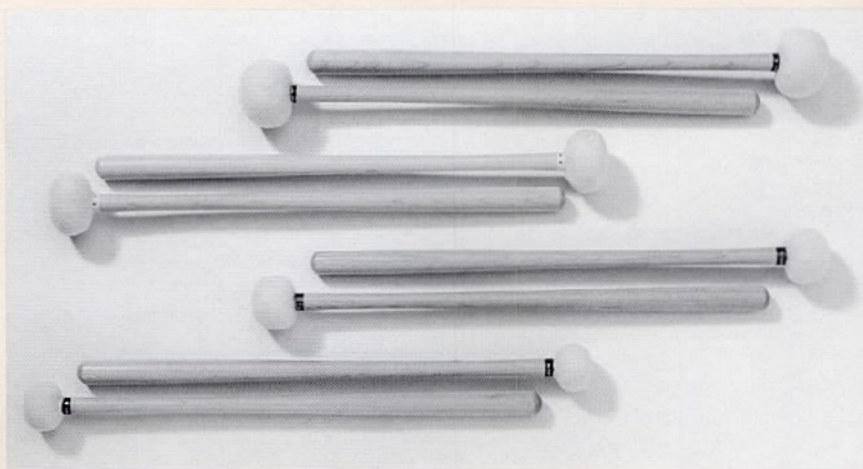
The angle steel counterhoop is roll-formed of heavy gauge steel with a 90 degree angle edge, providing improved strength and rigidity to maintain balanced pressure on the head at all points.

Mallet Selection

Each timpanist should have a minimum of three pairs of mallets designated soft, medium and hard. It is recommended that the timpanist investigate the professional model mallets which are available and engineered with specific effects in mind.

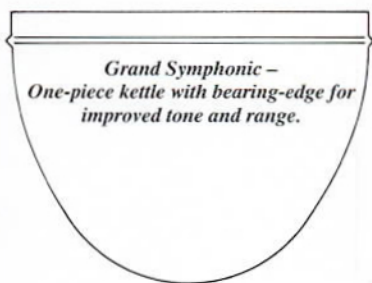
Model #	Description
<i>Ludwig/Payson Timpani Mallets</i>	
L304	Ultra-Soft Felt
L305	Soft Felt
L306	Medium Felt
L307	Hard Felt

Ludwig Timpani are supplied with one pair of suitable mallets for the initial use of this instrument. The actual selection of timpani mallets is based upon the preference of the player and the effect that is desired from a total orchestral standpoint. Varieties may include metal shafts or wood shafts in selected woods of hickory or maple. Variances may also be considered in mallet ball covering material as well as mallet core and type of ball seaming. Care should be taken to protect the mallets from excess wear and dirt.



Ludwig Big Sound Kettles

Contemporary bowl sizes are 20", 23", 26", 29", and 32". To further enhance the resonance and projection for the timpanic voice in support of contemporary as well as classical music, Ludwig has lead the industry again with the introduction of larger, deep-drawn parabolic shaped bowl sizes. The era of large orchestras and expansive concert halls has antiquated the once widely



accepted 25" and 28" timpani bowl from past years. The contemporary bowl sizes are available in all Ludwig Model Timpani.

The bowls are offered in three types; highly polished copper, hand hammered copper, or copper satin finished fiberglass. It is widely known that copper kettles offer a

more brilliant resonance and tone, sought after by the professional timpanist. Fiberglass kettles, on the other hand, provide a number of advantages, especially for the school market. The more robust fiberglass kettles take more abuse and resist denting. If timpani are moved in or around schools and are taken on tour, the lesser weight of fiberglass kettles is a definite advantage.

Travel & Storage

Instruments that are constantly moved could create problems. No matter how carefully timpani are handled by the performer,

someone always manages to pull on the tension rods, release the pedal action or do something to disturb the head in its set position. If the head should move sideways over the bowl in transportation, you will have to recenter it and check the pitch very carefully at each tension rod point. Do this several times around the circumference of the head. It is important to make these adjustments only when absolutely necessary.

All Ludwig model timpani have suitable custom fit trunks available for each size and model. Fiber cases are also available for the Machine model timpani. It is advisable when the timpani are not in use that the fiber head protectors supplied with each model be used. It is recommended that each timpano be covered with a full-length cloth drop cover. If these are not available, a quilted blanket or mover's cover will supply protection.



Portability

The Universal Model features a detachable base, enabling kettle and pedal base to be packed separately. Remove all tension from head and spring, place instrument upside down and detach ball from socket to disconnect. The wide-angle roller legs fold conveniently for packing.

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6. Protective Bowl Support Struts

(Professional Model Timpani)

Heavy cast metal support struts are used to suspend the timpani bowls, assuring the rigidity and stability of the instrument.

Bowl sizes 26", 29" and 32" have eight support struts while bowl sizes 20" and 23" have six support struts.

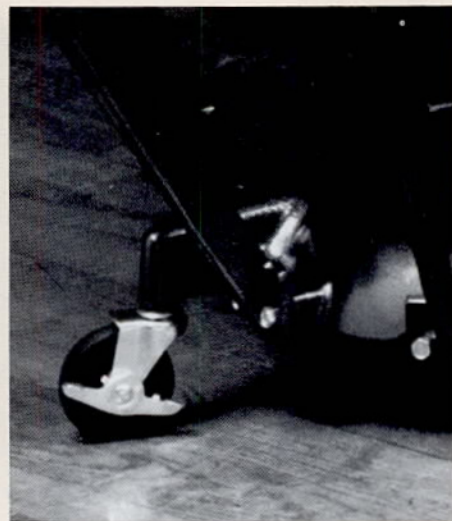


7. Head Tension Transfer Rods

(Professional Model Timpani)

Ludwig's PATENTED strut protected linkage system prevents accidental damage to the tuning mechanisms at the inside of the strut.

The tuning mechanism of these models are placed on the outside and underside of the parabolic bowl to assure undistorted and undisturbed sound reflection.



8. Lock Set Casters

Ludwig Timpani are supplied with two sturdy hard rubber roller casters for ease of moving the instrument. Each caster has a foot-operated locking brake which, when applied, will stop the timpani from moving during a performance.

Know Your Timpani

3. Free Floating Kettle Suspension

4. Profile Head Collar

5. Angle Steel Counterhoop



Once again place the head and the hoop on the kettle, making certain that your original marks coincide with each other. Be certain that the head is centered on the bowl so that the area between the lip of the bowl and the counter hoop is the same for the entire circumference of the kettle. This is commonly referred to as "truing the head."



Continue by applying the tension rods while being particularly careful that each rod is tensioned with the same amount of pressure at each point around the circumference of the head. Proceed in adjusting each tension rod so that you can feel the resistance equal to the increasing tension. Check your sense of feel by striking the head at each point to check that the tuning and pitch has been equally achieved around the head. Begin to bring the head into the playing range and follow the same procedures in balancing the head pedal tension as previously mentioned in topic "Adjustment of Ludwig Balanced Action Pedal Timpani." For Machine model timpani, crank the master tuning handle to the desired fundamental pitch. (See photo E.)



Keep the "fine fussing" to a minimum for the first few days. The head tends to improve after several days of playing due to its seating and flexing inside the counter hoop. Once the head is properly adjusted, balanced and seated, the instrument is ready for playing. It is recommended that initially the timpani be kept in high tension when not in use. This assists the seating of the head on the kettle.

Care & Maintenance

Any quality musical instrument requires periodic maintenance and care. Timpani are no exception to this rule. By following a few simple procedures, your timpano can provide years of quality service.

When removing the head, make certain that the foot pedal does not snap forward. To prevent this, place a block of wood under the front of the pedal while it is in the heel-down position. Before unscrewing the tension rods, mark the head, hoop and later, the kettle edge for relative location. This will facilitate reinstallation of these parts in their original position. (See photo A.)

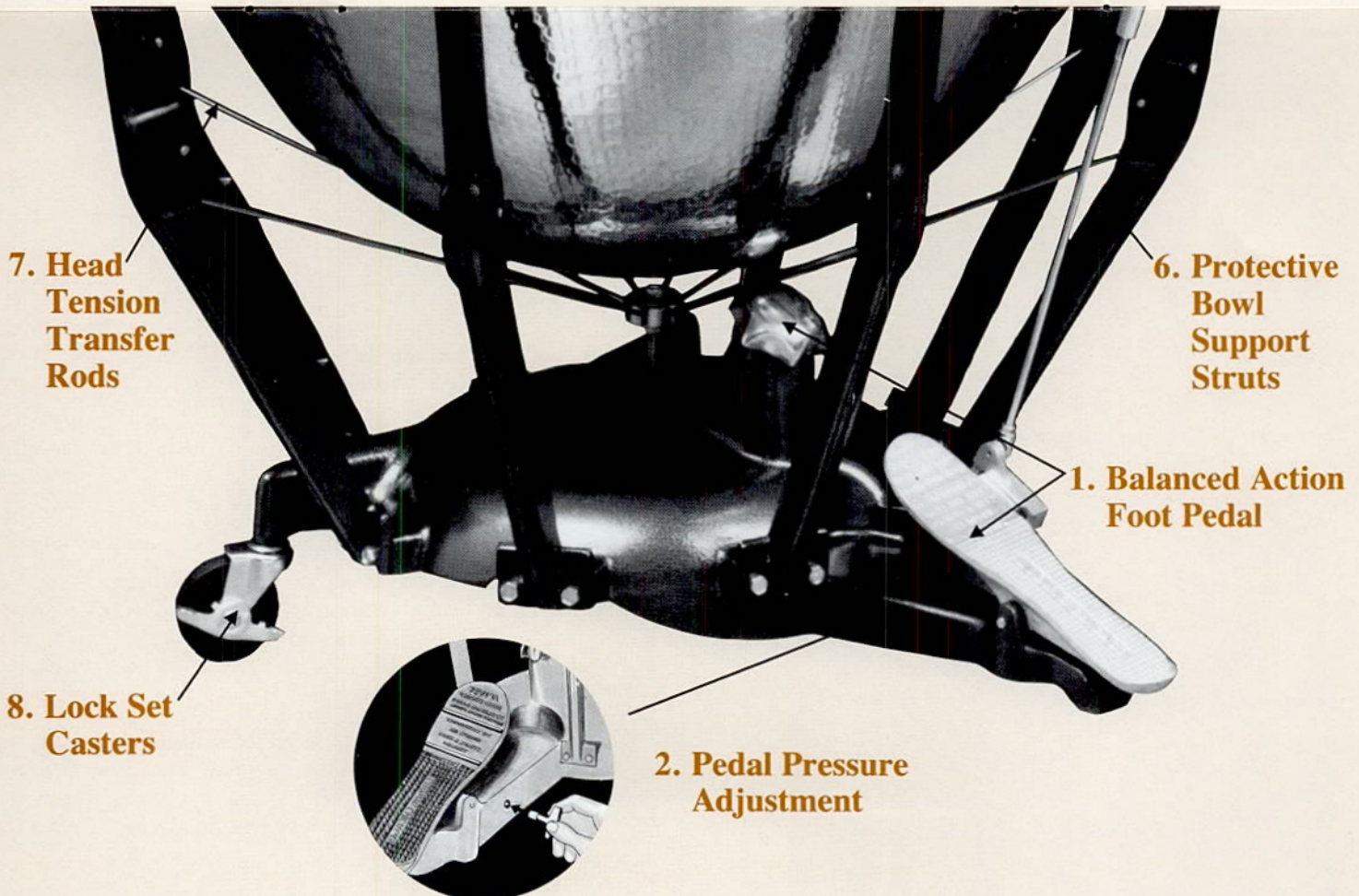
All Ludwig timpani kettles have been improved with the application of a "slick no drag" Teflon tape coating, allowing the head to move more freely over the bearing edge.

Periodically clean the back of the head and bearing edge to remove grit and dirt, but do not lubricate the area with paraffin wax. Inspect teflon tape, check for wear, replace if necessary. (See photo B.)

While the head is removed, clean the underside of the head with a solvent or alcohol. Remove all particles or wax buildup from the underside to insure easy movement of head over edge of kettle. (See photo C.)

Before replacing the head, inspect all internal and external moving parts for proper lubrication. If lubrication is needed, a light waterproof grease may be used on these moving parts. The points to inspect are the tension transfer rods as well as each of the individual tension rod threads and seats. The tension rod nuts and pivot points must also be inspected. (See photo D.)

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Head Tuning

All Ludwig timpani models are equipped with Ludwig's own WEATHERMASTER® line of timpani plastic heads. Keeping the head in tune with the pedal balanced action, begin by bringing the head under even tension to its fundamental pitch by turning the key rods and tapping around the circumference of the head two to three inches from the rim at each tension rod. Then determine the highest pitch on the head at a tension rod point and even out the lower pitches to equal this higher pitch. After the head is in tune with "itself" apply hand pressure to the center of the head several times to seat the head properly onto the kettle edge.

In order to help seat the head correctly raise and lower the pitch of the kettle with the foot pedal or crank several times. This will stretch the head and conform it to the seating area on the kettle edge.

Once again, go through the operation of tuning the head at each tension rod. This should give you a properly balanced and tuned head.

The range of each individual size timpano is designated by the size of the kettle. Although most common literature indicates specific tunings and sizes of timpani, it is important for you to know the approximate range of each size when tuning your timpani.



Timpani Range

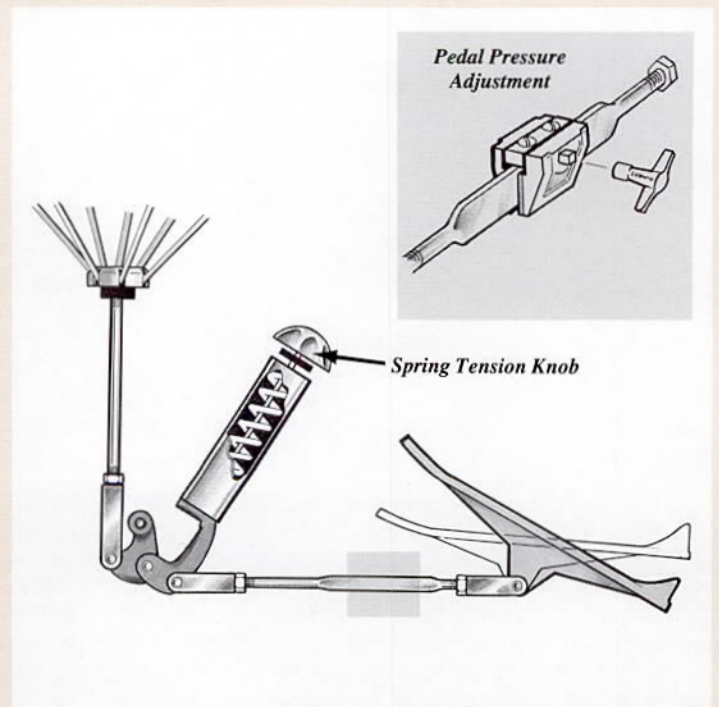
20"	23"	26"	29"	32"
F-D	D-B	A-F	E-C	D-B

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Adjustment of Ludwig Balanced Action Pedal Timpani

The procedure for balancing the tension on the Professional, Standard and Universal model timpani follows some simple steps which, once understood, insure the proper action and tuning of your pedal timpani:

- (1) Place the foot pedal in the "heel-down" position. Then tune the head to its proper fundamental pitch using the key tension rods. If the pedal has a tendency to move partially or totally to the "toe-down" position, turn the spring tension knob in a counter-clockwise direction, two or three half-turns.
- (2) If the pedal refuses to hold upper pitches, turn the spring tension knob located at the base of your timpani in a clockwise direction, two or three half-turns. Make additional adjustments if necessary.
- (3) Should the pedal still not function properly after making these adjustments, carefully repeat the above procedures. Minor slippage of the foot pedal can be easily adjusted by using a regular drum key, tightening the pedal pressure and adjustment screw at the base.
(See feature No. 2 on page 2)



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