



## ADAMS PHILHARMONIC TIMPANI BERLIN PEDAL AND CLOYD DUFF MODELS

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### USER INSTRUCTIONS AND FEATURES

Thank you for purchasing Adams Philharmonic timpani. These state of the art instruments feature some of the best advancements in timpani design and sound in the world today. Please take a moment to familiarize yourself with their unique features in order to fully understand the proper way to make adjustments, transport the drums, and make full use of their technical and musical capabilities.

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### FEATURES

#### A. FLOATING STAR OR SPIDER

The star or spider of an Adams Philharmonic has a round nut securing it to the center piston as well as an oversized center hole. This enables the star to move more freely on an unrestricted horizontal plane. Although this movement is very slight, it is just enough to ensure that your timpani heads will pull down straight and not to any one side.

#### B. SPLIT ROCKER ARM

The split rocker arm essentially serves three important functions. First, it contributes to the smoothness and lightness of the pedal feel. Second, it contributes to the smoothness and ease of turning the fine tuner, and third, it re-distributes the system of leverage employed to the center piston, thereby relieving some of the stress to the frame. An added extra to the rocker arm system is the use of the spring under the star. This makes changing your timpani heads as easy as changing a tom-tom head because the rocker arm is suspended in place, never falling to the floor and requiring a block or jack to raise it up.

#### C. FINE TUNER

The fine tuner utilizes a universal joint near its base. This is to ensure smoothness in turning, even in the very high registers of the drums, as all struts must bend a few millimeters in extreme high ranges. This again compensates for any angle changes and re-distributes stress forces instead of fighting them.

#### D. TILTING DEVICE AND STABILIZING DEVICE

These two devices operate in essentially the same manner. The piston on the front of the drum can act as a tilter for the drum or as a stabilizer for the drum if you play with the drums level or if flat. The piston in the back nearest the pedal only acts as a stabilizer for added solidity to the feel of the drum on the floor. With both pistons in the UP position, the drum is conveniently lowered to the level of its casters for easy maneuverability.

#### E. SPRING TENSION MECHANISM

This device assists greatly in the evenness of pedal feel and resistance throughout the entire pedal range. You will find this particularly useful when switching from calf to plastic heads. The player can select the desired amount of pedal resistance from very light and even, to near natural head resistance with pedal resistance increasing as you move it into higher pitch ranges.

F. FULLY ADJUSTABLE TUNING GAUGE

The Adams tuning gauge system offers the player a wide range of choices in viewing angle without ever binding or making contact with other frame parts.

G. HEAD CENTERING DEVICES

These are positioned at four places on each drum, and prevent the head from being pulled off center during transport or when being moved improperly via the counter hoop. They are also fully adjustable and provide great protection while again offering the unrestricted movement of the tension rods.

H. UNI-LOCKING CASTERS

The caster system locks positively in two directions at once ensuring that the wheel will not turn AND the entire caster cannot move in any direction so as not to rattle or generate any noise while playing. They are easily accessed and easy to lock and release.

I. ADJUSTABLE TRANSFER BAR

There are three different positions that the transfer bar can be placed in. These adjustments are to facilitate the transition from calf to plastic heads, so that the pedal feel can be maintained and the proper range of the instruments can be achieved without damaging plastic heads.

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PHILHARMONIC TIMPANI ADJUSTMENT INSTRUCTIONS

A. MOVING THE DRUMS AND ADJUSTING THE CASTERS

WARNING! Always be sure that both the stabilizer piston and the tilting devices are in their "UP" positions, and of course that your casters are unlocked before moving the timpani. When rolling the timpani, be sure to "drive" the drums from the player's side because of the third wheel which is built into the leg of the frame base and acts as a "rudder" to help steer and guide the drum. When you are in position and ready to play, point your casters toward you for easy access of the break release. (see diagram A number 1 and 2)

B. USING THE TILTING DEVICE AND STABILIZER PISTON

If you wish to tilt the timpani, simply lift the drum from the front by grasping the suspension ring (never the counter hoop!) and raise to the desired height while depressing the tilting piston from the top with your foot. This will lock in place automatically. Note, when lowering the timpani from a tilted position, repeat this process in reverse order to drop the drum back down to caster level gently! To engage the stabilizing piston next to the pedal, simply depress from the top with your foot in exactly the same manner as above. To disengage either of these devices, simply flip the round black toe release lever on the side of either piston downward with your toe. (see diagram B)

C. ADJUSTING THE SPRING TENSION MECHANISM

You may adjust the amount of pedal resistance to your desired taste. As they come from the factory, the pedal "feel" should be very even throughout the entire range, that is, almost no increased resistance as you move to higher registers. To change the feel, simply turn the hand knob on the spring tension mechanism clockwise for INCREASED TENSION or counterclockwise for DECREASED TENSION until you achieve the pedal feel you desire. We suggest turning in increments of four full turns at a time, and then testing the feel of the pedal before going too far in either direction. (see diagram C number 1)

D. ADJUSTING THE TUNING GAUGE

The tuning gauge can be adjusted to your preference of viewing angle. Simply loosen the two large socket head screws on each side of the gauge to position the gauge where you like, then adjust the position of the indicator rod receiver near the base of the drum until you achieve a full range out of your pointer from top to bottom without making metal contact at either end. (see diagram D number 1 and 2)

E. ADJUSTING TRANSFER BAR POSITION

The position of the transfer bar can be manipulated if necessary when switching from calf to plastic heads. Without this feature, you would experience too minimal a pitch range when using calf heads, and too wide a range when using plastic, possibly damaging the heads. If your drums were purchased with calf heads you need not adjust anything until you switch to plastic. Likewise, if you purchased your drums with plastic, you need not adjust anything until you switch to calf. When making a switch to one or the other, be sure to move the transfer bar to the hole closest to the audience or "front" of the drum for calf skin heads, and closest to the player or the "back" of the drum for plastic heads. You will need only an adjustable wrench and an allen wrench to do this procedure. It is easiest when elevating the drum on some chairs or a work table and make sure the pedal is on the lowest note possible. **note: no diagram available**

F. ADJUSTING THE HEAD CENTERING DEVICES

Make sure your heads are centered over the bowl and that your tension rods are equidistant from each strut. Make sure the star is also equidistant from each strut as well. Loosen the socket head screw which secures the centering device to the suspension ring and position it so that the tension rod does not touch on either side.

G. CHANGING HEADS (removal and replacement)

Place the pedal in the lowest register or "all the way back" and turn the fine tuner counter clockwise until it stops. Unscrew each tension rod completely and remove. Remove the counter hoop and head. Before placing the new head on the bowl, check the cleanliness of the lip and clean and re-lubricate if necessary. We recommend using simple "naptha" based solvents to clean, and a dry Teflon spray as a superior lubricant. Mount the new head, place counter hoop on top and re-insert tension rods. Before screwing in the tension rods make sure that the star is relatively LEVEL, and that its points are equidistant from each strut. Next, begin to screw in the tension rods and bring them down about one inch above their respective eye hole. **DO NOT BRING RODS TOO FAR DOWN, BE PATIENT!** Once all rods are equally about one inch from each hole, place a small lightweight level (or commercially available timpani measuring device) near the lip of the bowl facing in toward the center of the head and pointing at your first tension rod. Begin screwing down each rod SLOWLY until it is just seated in the hole without causing ANY head tension whatsoever. Repeat this on each rod moving to the opposite rod across the drum in that order. Next, make sure the head is perfectly centered and turn the fine tuner clockwise until the head reaches a recognizable pitch (for example on a 26" drum the note C) and listen to the head. If the tone is good and the pitch is relatively clear, unscrew the fine tuner again and tighten the tension rods until reaching the bottom range of the drum, again do this in opposites always turning in complete and even HALF TURNS and moving across the drum. The optimum range should be obtained by a combination of tightening the tension rods AND tightening the fine tuner until it is approximately one third of the way down. It is this relationship of tension rod tension and fine tuner tension that will determine the drums correct range and pedal feel. It is always recommended to SLOWLY bring the rods and fine tuner up to range rather than over shooting.

## SUGGESTED SCALE RANGES, FROM LOWEST NOTE TO HIGHEST NOTE:

- 20" from E up to B
- 23" from D up to A
- 26" from Bb up to F#
- 29" from E up to D
- 32" from C up to B

These ranges are relative and are subject to the age and condition of the head used, particularly calf. Adams timpani can frequently achieve a full octave range on each drum, however it is not suggested that you adjust your drums in this manner as it may damage your plastic heads. It is however very common to achieve a SLIGHTLY wider range than the suggested scale range. A NOTE ABOUT HEADS:

Timpani heads, both plastic and calf, are very sensitive and never perfect. You should always use the best calf available, and plastic heads that are perfectly flat, round, and devoid of wrinkles or any defects. BEFORE you blame the drum, we suggest you try another head. Often, one must try two, or even three heads before finding one that sounds beautiful right away. With very high quality calf, this is much less frequent. On occasion, you may have a perfect "looking" plastic head without wrinkles, which is flat, and devoid of any visible defects that simply do not sing.

For a more in depth approach to "clearing" the heads, or "fine tuning" , please refer to Pearl's head clearing literature.

## TROUBLESHOOTING

- A. PEDAL FEELS TOO TIGHT/TOO LOOSE  
Read above instructions regarding SPRING TENSION MECHANISM. Turn counterclockwise for less pedal resistance, and clockwise for increased pedal resistance.
- B. PEDAL FALLS FORWARD  
Check position of transfer bar relative to type of head. Check relationship of tension rods to fine tuner distance. Make sure drum is tuned to its proper range.
- C. CANNOT ACHIEVE THE RANGE I NEED  
Check position of transfer bar relative to type of head. Check relationship of tension rods to fine tuner distance. Make sure drum is tuned to its proper range. Try another head.
- D. STAR IS NOT LEVEL  
Head is tuned improperly. Follow instructions for mounting a head and check to see star is level before screwing in tension rods. Do not over tighten tension rods on one side of the drum, follow the above instructions.
- E. HEAD IS NOT PULLING ON CENTER  
Star is not level due to extremely uneven head tensioning. Start over, following above instructions on mounting a head. Check to make sure tension rods are pulled down perfectly even.
- F. DRUM SOUNDS DULL AND NOT A CLEAR PITCH  
Try another head.