

PRELIMINARY REMARKS

- Save the carton and all internal fillers and plastic bags. If you should ever need to carry or ship the HW-19 Mk. 4 any distance, there is much less chance of it suffering damage in transit if it is properly packed in its original carton.
- **Electrical Requirements:** HW-19's are designed to run on 115 VAC 60 Hz, or 230 VAC 50 Hz. The shipping carton shows which is the correct voltage for your unit.

CAUTION: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

1. UNPACKING

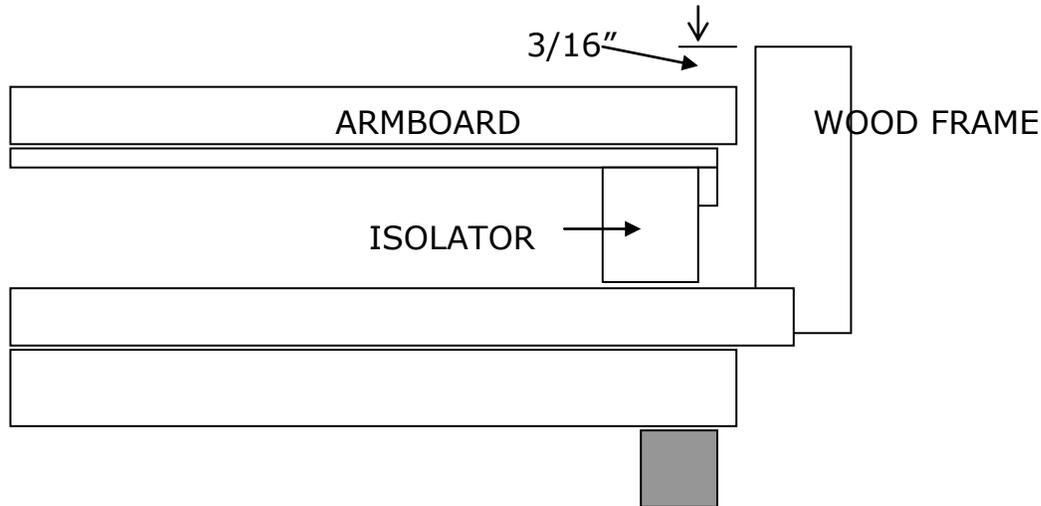
- Remove the small green foam pieces. Lift the sub-chassis out of the box and place it on its side leaning against the shipping carton or other suitable object. If you lean it against a piece of furniture or a wall, be careful that the edge of the chassis does not scratch it.
- **NOTE:** Never rest the chassis either on the arm spindle or on the bearing shaft, which protrudes above the chassis.
- Once again, there is a corrugated sheet to remove. Do so and you will see the HW-19 base. Take the base out of the carton by grasping it on opposite sides and lifting straight up. The four plastic corner blocks should fall off into the carton. If any remain on the base, take them off and set them aside. They should be kept along with all the other fillers.
- Place the base on a solid surface to assemble the turntable. Now, remove the plastic bag from the base.
- Be careful not to damage the pulley and motor shaft.
- Be careful not to dislodge any of the isolators at the base's Four Corners.

2. **ASSEMBLING THE HW-19 MK-4**

YOUR SUB-CHASSIS HAS AN ACRYLIC MOTOR BOARD, DO NOT PEEL OFF THE PROTECTIVE PAPER COVERING UNTIL DIRECTED.

- The next step is to place the sub-chassis in the base. The base should be arranged so that as you face it, the motor pulley is at the left rear. Be especially careful when putting the chassis in place to allow the pulley to fit through the hole. If the chassis comes to rest on top of the pulley or if the edge of the hole catches the pulley, the pulley and motor shaft may be damaged.
- As you have discovered, the chassis is quite heavy. It is important to lower it into the base carefully. The best way to lift the chassis is to use the Motor Cover Plate and the right side of the sub-chassis. Lift the sub-chassis up and lower it straight down into the base.
- Center the top plate within the base by sliding it about as necessary. There should be an even clearance on all four sides. This is not super-critical. So long as no side of the chassis touches the base, satisfactory performance will be obtained.
- Remove the Motor Cover Plate by unscrewing the three caps on top. There is an internal tooth lock washer atop each of the cover's support posts (beneath the plate). Be sure not to lose these caps.
- If you have not done so already, remove the final corrugated sheet from the carton. Carefully take out the Mk.-4's platter and slip its plastic bag off. Place the platter on a clean, flat surface for now.
- Your sub-chassis has an acrylic motor board, peel off the protective paper covering it. Hold the platter and lower it so that the spindle goes through the platter's center hole. Please be very careful when doing this. Resist the temptation to drop the platter onto the spindle.
- Give the platter a good spin by hand. It should spin freely as if there were no friction but there should be some resistance caused by the lubrication grease. If, on the other hand, you feel noticeable friction and the platter does not revolve freely, please contact your dealer or the factory for advice. DO NOT try to free up the platter and bearing, as this will only make matters worse.
- Locate the plastic envelope containing the drive belt. Remove the belt, shaking it as you do so to deposit the excess powder back into the bag. Shake off all loose powder. Do not discard the bag. It contains sufficient extra powder to allow re-powdering the belt many more times.

- Fit the belt around the outside of the platter. Next, pull the portion of the belt that is adjacent to the motor pulley and stretch it to fit around the motor pulley's top (smaller diameter) groove. Replace the Motor Cover Plate. Make sure each post has a lock washer atop it before putting the Cover Plate in place. Making the caps finger-tight is all that is required.



4. **LEVELING THE HW-19 MK-4**

- The MK-4's on/off switch is on the left front of the base's "skirt." It is a push-push type switch with two positions, "in" and "out." Push it a couple of times and make sure that it is in the "out" position.
- Plug the MK-4 power cord into the motor assembly socket and into an outlet that provides the required voltage as indicated on the carton.
- Depress the on/off switch. The turntable should start and come up to speed. Please note that the MK-4 is not a broadcast turntable and does not come up to speed within one revolution. The type of high-torque motor that is required for such a rapid start would degrade the audio performance of the turntable.
- In the unlikely event that the motor does not start, first check to make sure that the wall outlet is "live" by plugging in a lamp or some other device known to be working. If the outlet is live and the MK-4 does not work, please contact your dealer or the factory for advice and needed repair.

NOTE: The motor will take from 5-6 hours to "break in." In other words, the MK-4's performance will subtly improve during this time as the motor bearings reach their operating norm.

Place the MK-4 on the shelf on which it will be used. With the turntable running at 33, the belt will run parallel to the chassis and within the middle 1/3 of the platter. You do not have to be fanatical about this, leveling by eye is sufficient. However, if you do want to be a fanatic, put a bubble level on the platter. Center the bubble by rotating the base's rubber feet to raise or lower each corner as needed.

5. **FINAL ASSEMBLY**

- Now that you have completed assembling your new MK-4, please take a few moments to fill out and mail the warranty registration card. In the unlikely event that you need warranty service, our having the card on file will make it easier for us to help. If you take the additional step of sending a photocopy of your dealer's sales receipt along with the card, handling any warranty claim will be made even easier for both of us.

6. **SPEED CHANGE**

- The MK-4 offers speeds of 33 1/3 and 45 RPM. Speed is changed by moving the belt from one groove on the motor pulley to another as follows: Turn off the motor, remove the Motor Cover Plate, and with a clean finger, pull gently on the belt and move it to the other groove. The smaller diameter groove is for 33 1/3 RPM and the larger for 45 RPM.
- Replace the Motor Cover Plate and turn on the turntable. Make sure each post has a lock washer atop it before putting the Cover Plate in place. Making the caps finger-tight is all that is required.

7. **USE OF THE RECORD CLAMP**

- The MK-4's platter is made from materials that effectively damp vinyl disk resonance's. Using a mat on the turntable's platter will be of no benefit and will, in fact, degrade performance. To take full advantage of the platter's damping effect, it is necessary to use the supplied record clamp.
- The record clamping system consists of TWO pieces: a rubber washer, a specially machined knurled Delrin™ screw-down clamp.
- **NOTE:** Clamping brittle polystyrene or shellac records is not recommended. If you want to clamp these disks, do not use the rubber washer beneath them. In addition, clamp them very lightly to avoid the possibility of cracking the record.
- Place the rubber washer over the spindle and gently push it down so that it rests flat on the center of the platter.

- Take the clamp and screw it down enough that the periphery of the record is brought in contact with the platter. You will notice that over tightening will sometimes result in the periphery lifting off again. Do not over tighten.
- After using the clamp system for a while, the proper amount of tightening will become pretty much automatic.
- The action of the clamp system is to provide uniform compression of the record at the outer edge of the label area. First, the periphery of the record is forced into contact with the platter. Then, the rest of the grooved area is pushed into contact.

8. ***ADDITIONAL TIPS***

- Keep the platter scrupulously clean. Since no mat is used on the MK-4, any dirt can easily be transferred to the record—especially since the clamp holds the record down under pressure.
- We recommend that the dust cover be off when playing records. Under most circumstances this will result in cleaner sound since the cover acts as a “sail” catching acoustic feedback.
- However, when the turntable is not in use, having the dust cover on is strongly recommended. Remember that it is very important that the platter be kept clean so that dirt is not transferred to the record.
- In choosing a location for your MK-4, bear in mind that wall mounting is generally preferred. Placing the turntable on a shelf mounted on a sturdy wall is usually the best way to isolate the turntable from footfalls and other shock and vibration. Alternatively, one of the steel and lead turntable stands may be used if the floor is firm and does not bounce when you walk. There are a number of stands on the market and your dealer will be able to advise you concerning which ones meet your particular requirements.
- If the MK-4 must be placed on a piece of furniture or in an equipment cabinet which is not perfectly stable, things can be improved by wedging something reasonably hard between the furniture or cabinet and the wall against which it is placed. Please be aware that doing so may mar the wall and /or the back of the piece of furniture or cabinet. Under most circumstances, you will then be able to walk around while a record is playing with out the arm hopping around.

9. **POSSIBLE PROBLEMS**

- Hum—A low buzzing or humming sound heard whenever the amplifier or receiver is switched to, “phono”, varies with the volume control setting, and is heard when no record is being played. If hum is heard only when playing a record, the hum is recorded on the record. This is actually a cartridge/arm/turntable problem. Usually all that is needed to eliminate the hum is to run a ground wire from the turntable chassis to the chassis of the amplifier or receiver. Simply attach a suitable length of thin, flexible wire (test probe wire is ideal) to any convenient screw on the underside of the MK-4 chassis. Connect the other end to the ground connector on the amplifier or receiver (if in doubt, check the amplifier or receiver’s manual or call its manufacturer).
- Depending upon the tonearm you are using, it may also be possible to run a short wire from the turntable chassis to the arm’s ground connection under the arm board. If this does not cure the hum, disconnect the short wire and run a separate ground wire as above. If running a ground wire from the chassis does not eliminate the hum, there may be a more complex problem involving the particular arm/cartridge combination. VPI will attempt to provide assistance, but please understand that it is not possible for us to be familiar with all the numerous arm/cartridge combinations. You may also want to contact both the arm and cartridge manufacturers.
- Motor overheating—synchronous motors, such as the one used in the HW-19 Mk 4, normally show a 30 degree to 40 degree C rise in temperature after they have been running for a while. Therefore, you can expect that the motor pulley will become hot to the touch. It’s perfectly normal. Relax and forget about it.
- Motor does not turn smoothly—when they are turned off, synchronous motors do not turn as easily as Induction motors. If you attempt to rotate the motor pulley by hand, you will feel some resistance. You will notice that it “jumps” from position to position as it turns. This is the result of the multiple-pole internal permanent magnet. Again, it’s perfectly normal. Keep relaxing.
- Noisy motor—some noise is normal from the type of synchronous motor used on the MK-4. You needn’t be concerned unless: 1) you can hear motor noise through the loudspeakers while playing records (make sure it’s not just with one or two records); or 2) you can hear the noise from across the room when no record is being played (not through the loudspeakers). If either of these conditions is apparent, please contact your dealer or the factory for assistance.

10. **MAINTENANCE**

- The drive belt on the HW-19 Mk. 4 is made of Pyrothane and, under ordinary conditions, will provide long service. Dusting the belt every three months with talcum powder will provide for a smoother start up and turn off. For optimum performance we recommend installing a new drive belt every two years.
- The main bearing of the turntable and the bearing of the motor should both be lubricated using white lithium grease.
- **NOTE:** Compounds containing silicones are not recommended for use on or near any electronic equipment. While silicone polishes give a high-luster finish, another property of silicones is migration. The tiniest amount can spread itself in an extremely thin layer, degrading electrical contacts. Once a contact has been contaminated with silicone, it is nearly impossible to clean it completely off.
- The MK-4's dust cover and acrylic chassis may be cleaned with glass cleaner. Do not use solvents, abrasives, or other glass cleaners of any sort. Make sure not to drip any cleaning solution on the turntable or its base.
- The platter should be kept scrupulously clean so that no dirt is transferred to the record being played. Windex™ is the best cleaner we have found. Note: any cleaner must be completely dried off before placing a record on the platter. Be sure to use a clean, lint-free cloth to wipe with.
- The natural finish wood base has a hard lacquer finish. No care is needed beyond a periodic dusting with a clean, soft cloth. The piano black finish base may be cleaned only with Windex™. Do not use solvents, abrasives, or other cleaners of any sort.

WARRANTY

VPI INDUSTRIES, INC. LIMITED WARRANTY OF THE HW-19 MK-4 TURNTABLE

VPI Industries, Inc. (VPI) warrants this unit against defects in materials and/or workmanship for two (3) years from the date of purchase by the original retail purchaser. VPI's sole obligation under this warranty is limited to the repair or replacement, at VPI's option, of any part(s) found to be defective. VPI's obligation to repair or replace defective parts is the purchaser's sole and exclusive remedy, and VPI shall not be liable for any direct or indirect injury and/or property damage arising out of the use of the product or defect in or failure of the product.

This warranty does not extend to any unit whose serial number has been defaced or altered. Any product that VPI determines contains a defect or malfunction due to incorrect installation, modification, misuse, or servicing by the purchaser, or service technician not authorized by VPI to perform such service will not be warranted. This warrantee does not cover trivial or cosmetic defects that do not impair the unit's normal function.

VPI reserves the right to make changes in this product without assuming any obligation to install such change in any product previously manufactured. This warranty to repair or replace defective parts is in lieu of all other express or implied warranties of merchantability or fitness for a particular purpose. There are no warranties that extend beyond the description herein.

Some states do not allow exclusion of implied warranties or limitation of incidental or consequential damages, so the above exclusion or limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

***THE HW-19 MK-4
TURNTABLE***

***SETUP AND INSTRUCTION
MANUAL***

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