

VPI Classic Turntable Manual



Setup and Instruction Manual



VPI Industries, Inc., 77 Cliffwood Ave. #5D, Cliffwood, NJ 07721

<http://www.vpiindustries.com>

Classic Turntable Packing List

Serial #: _____

Classic Chassis	
Record Clamp	
Azimuth Rod	
Gauge	
Cartridge Hardware	
Instruction Manual	
Drive Belt	
Power Cord (115V Only)	
Alignment Jig	
Platter	
Tonearm	

Date: _____

Final Check by: _____

A- Important: Read Before Proceeding!

- Read and follow the B- Safety Instructions below.
- Save all packing materials. The Classic should only be moved or shipped in its original packaging to reduce the risk of damage in transit.
- The Classic must be placed on a flat, level surface. This will make setup easy, provide better sound quality, and put less strain on the main bearing.

B- Safety Instructions



Follow the instructions below to reduce risk of electrical hazard or injury.

1. To avoid electrical shock, do not open the motor cover.
2. If the power cord provided with the Classic does not reach an outlet, use a heavy-duty, grounded extension cord.
3. To avoid electrical shock, always plug the Classic into a grounded outlet.
4. Do not expose the Classic to rain or excessive moisture.
5. Do not touch the male pivot point of the tonearm assembly. It is extremely sharp.

C- Introduction

The Classic turntable is a precision instrument. It has been thoroughly tested and run for at least 4 hours. The speed accuracy, wow, flutter, and rumble have been checked, and this unit meets all of our specifications.

Minimum Specifications

- Wow and flutter — Less than .02%.
- Rumble — Greater than 80db down.
- Speed accuracy — Within .1%.
- Total weight — 55 pounds.
- Platter run out — +/- .001 inch.

D- Unpacking the Box

The turntable and tonearm are packed very carefully to avoid damage during shipping. It is important that you save the packing materials and boxes to use for shipping or moving the Classic.

- Set aside the bag containing the drive belt.



Complete and return the warranty card. The warranty does not take effect until the warranty card is returned.

- Remove and set aside the following items:
 - Alignment Jig.
 - Record clamp.
 - Power cord.
 - Bag containing screwdrivers and screws for mounting the cartridge.
 - Shure Stylus Force Gauge
 - JMW-Classic tonearm wand
- Remove the large foam top packaging piece and place it on the side.
- Make room for the turntable, it will be ready to place in its final destination immediately.
- Grab the turntable on the sides where the foam is cut out and lift straight up. Be careful, the turntable is very heavy (40 pounds) **if you need help, get it.** Place the turntable on a flat sturdy surface that will support the weight.
- Lift the aluminum turntable platter from the smaller box, remove the plastic bag, and peel off the tape covering the bearing hole. Be very careful not to hit or damage the motor pulley when sliding the platter on to the spindle shaft. It measured +/- .0005" when it was tested at the factory. Try not to disturb it at all. The platter can be damaged if it is hit, be careful.
- The VPI slip mat on the platter can be used as a mat if you are not comfortable with the record sitting on the bare aluminum platter.

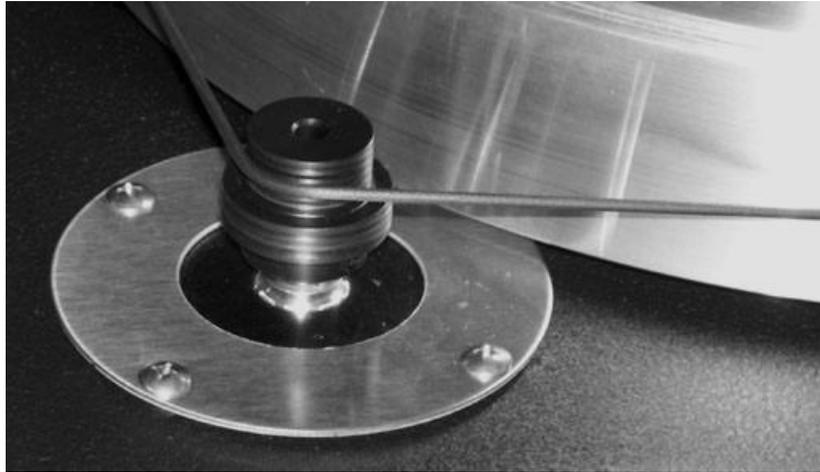


E- Setting up the Classic

The Classic must be placed on a flat, level surface. This will make setup easy, provide better sound quality, and put less strain on the main bearing.

- Place the turntable chassis on the shelf or stand where it will be used. The Classic has very good isolation so it simply requires a good solid shelf on a rack that doesn't sway in the breeze. You can get very good sound by placing the Classic on a maple butcher block board about 2" thick.

- The platter bearing is lubricated; no additional lubrication is needed for at least one year.
- Place the drive belt around the platter and around the pulley on the motor. The belt does not have to be level on the platter. It will self-level when the platter starts rotating. You can powder the belt with baby powder or talc for even better sound.
- For 33 RPM operation, place the belt on the upper part of the pulley. For 45 RPM operation, place the belt on the lower, wider part of the pulley. The center groove in each diameter is usually the correct speed.



- Connect the supplied power cord to the Classic in the fused rear socket.
- Verify the turntable is level by using a 9" or 12" bubble level front-to-back and side-to-side on the platter. If it is not level, rotate the Classic feet up or down. If you must turn the Classic feet more than three full turns, level the shelf or platform the table sits on first.
- The power button is on the left front, it is recessed for protection. Turn on the Classic by pushing the power button and allowing 3 seconds for the platter to get up to speed.
- If you bought the Classic with a pre-installed cartridge at the factory or your dealer you simply have to drop the arm on the bearing assembly.

BEFORE YOU BEGIN

- Be very careful when handling the tone arm. The internal arm wire is exposed at the headshell and at the rear of the arm. The wire is very delicate and physical damage to the wire is not covered by the warranty after the arm is removed from its box.
- When you remove the black tube covering the unipivot male bearing assembly be very careful it is sharp, do not touch it, you will get punctured or cut.
- There are a number of setscrews on the JMW Memorial Tone Arm. The Allen wrenches that come with your arm will only fit the setscrews that you will need to adjust. All

other screws are factory set and should not be adjusted, except by our trained technicians. Resetting any of the factory settings is not covered by the warranty.

F- Installing and Aligning the Cartridge

- Remove the protective cover from the male pivot point on the arm base assembly.



To avoid injury, do not touch the male pivot point. It is extremely sharp. In addition, skin oils can blemish and cause corrosion to the assembly.

- For cartridges with threaded mounting holes, use the screws supplied by the cartridge manufacturer. Other screws may not fit properly and may cause damage to the threads and cartridge.
- To avoid damage to the tonearm, do not tighten the screws too tight.
- For cartridges with pass-through mounting holes, use the hardware supplied with the tonearm. Be sure to use washers or the tonearm finger lift under the screw heads.
- The tonearm wires are color-coded as follows:

Red — right hot

White or Black — left hot

Green — right ground

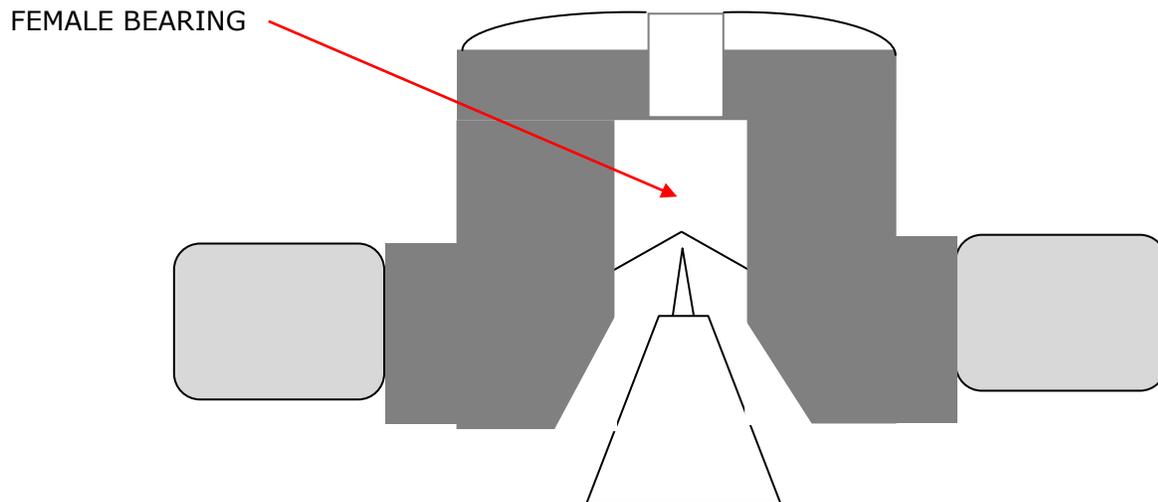
Blue — left ground.

If your phono section inverts phase, the hot color becomes the ground color.

- Using tweezers or fine-tipped pliers, grip the center of the red wire's connector — **not** the wire itself — and push it onto the cartridge's right hot terminal pin. Connect the remaining connectors in the same way. To avoid damage to the cartridge, do not push the connectors all the way on.
- Place the Alignment Jig on the spindle with the V-groove against the base of the male bearing shaft. Tighten the screws of the jig so it fits snugly against the male bearing shaft and over the record spindle.
- Place the arm tube assembly on the male pivot point, using caution. Set the arm in its rest. If the cartridge has a guard, remove it.



MAKE SURE THE MALE POINT IS IN THE CENTER OF THE FEMALE CUP, IT SHOULD FEEL SOLID BUT YOU SHOULD BE ABLE TO SLIDE IT SIDWAYS AND THE ARM RAISES AS YOU GO FROM THE CENTER TO THE SIDES OF THE FEMALE BEARING. IT IS AN INVERTED CONE.



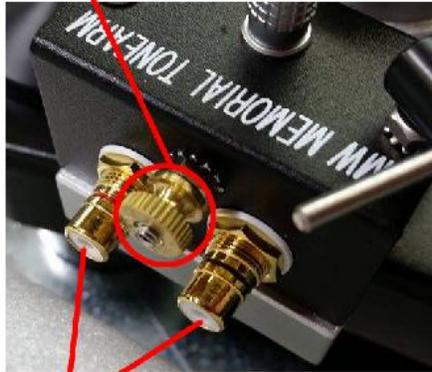
Use the arm rest all the time when not playing a record!!

- Line up the red dot on the Lemo connector with the red dot on the receptacle on the junction box. The Lemo connector can plug in only one way and should not be forced.



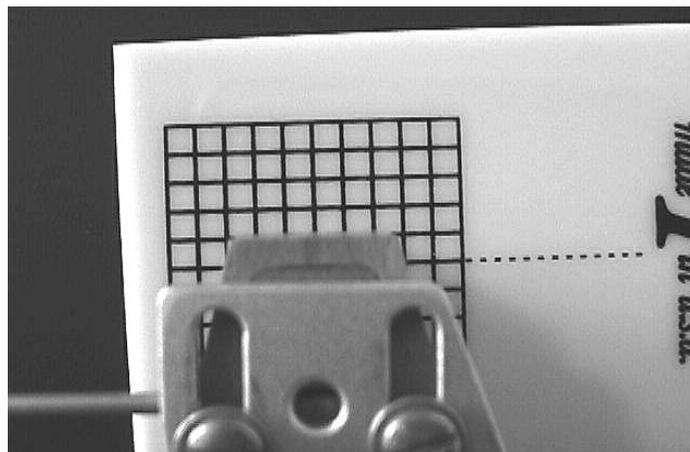
Line up the red dot on your lemo and the red dot on your junction box when connecting your tonearm.

Ground Connection

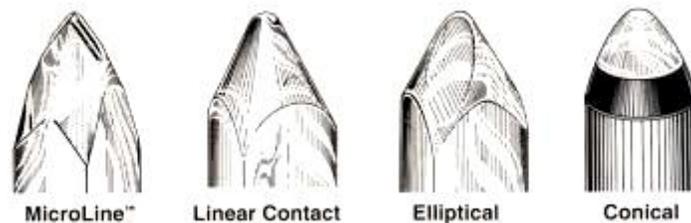
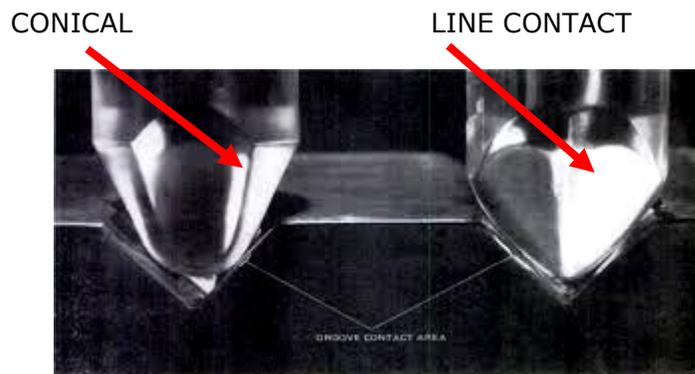


RCA Connection

- Swing the tonearm over the jig so the stylus is as close as possible to the dot in the center of the grid. Set the counterweight for enough downward force to keep the stylus from moving when resting on the jig.
- Look down at the cartridge and align it between the lines of the grid. You should have the diamond stylus on the white dot and the cantilever lined up with the lines on the grid. Use a flashlight to look from the front and line up the cantilever with the grid lines. That is the only alignment that matters, the cantilever lined up with the white lines and the diamond on the white dot. The angle of the cartridge is irrelevant.
- Adjust the cartridge mounting screws and the counterweight as needed until the cartridge is centered between the grid lines and the stylus is resting on the dot of the grid. The picture below shows the setup, the jig is in white for clarity, yours is black.
- When the cartridge is properly positioned, tighten the cartridge mounting screws and remove the alignment jig. Do not make them overly tight, you can damage the surface of the arm and the cartridge by over tightening.



VIEW OF CONICAL AND LINE CONTACT STYLI AND WHY ALIGNMENT MATTERS MORE WITH THE LINE CONTACT.



G- Setting the Tracking Force and Tonearm Height

Tracking force is adjusted by moving the tonearm counterweight forward and back on its shaft. If your cartridge is overly heavy and the counterweight is all the way back, you can order a heavier weight from your dealer. Half way back is fine as is the middle third of the stub.

The JMW Tonearm does not have a built-in tracking force gauge but we have supplied you with a quality digital tracking force gauge if we did not mount a cartridge for you.

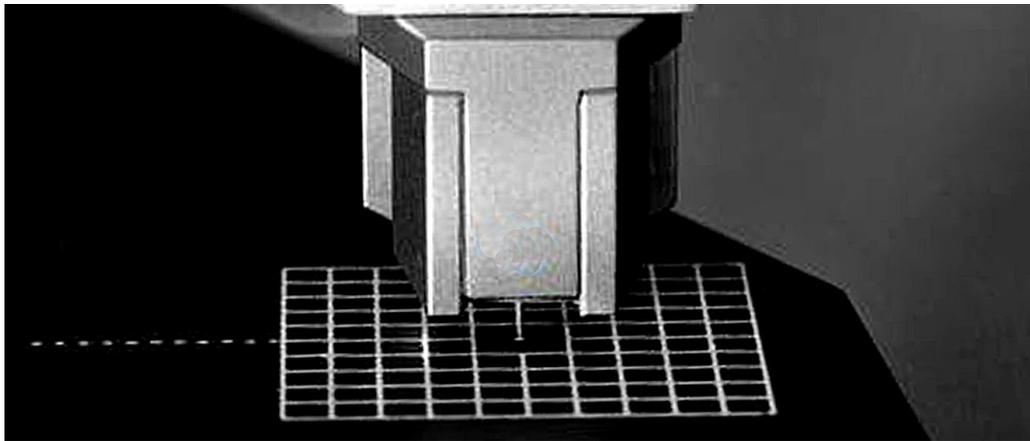
- Place the gauge on the platter (no record).
- Loosen the two black thumb screws in the base of the tonearm and raise the arm so it looks parallel to the platter when it is on the stylus force gauge. When the arm is at the desired height, lightly tighten the thumbscrews.
- **If you do not make the arm parallel when doing this you will be between .2 to .4 grams light or heavy when you are on the record. THIS IS VERY IMPORTANT!!**
- Set the tracking force according to the cartridge manufacturer's recommendation. We recommend always going to the high side of tracking force. High frequency vibrations on a light-tracking cartridge can cause more damage to the grooves of a record than running a cartridge at a heavy setting. We usually recommend .1 gram higher than the max tracking force if you are not using anti-skate (recommended

way of setting). This does not apply to Lyra cartridges that sound best at 1.73 to 1.76 grams tracking force with or without anti-skate.

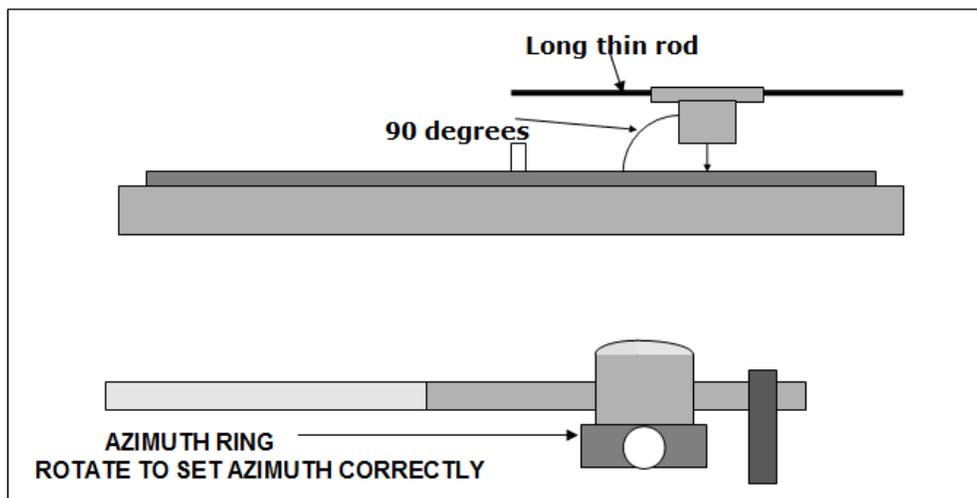
- Put a record on the platter and using the VTA adjustment lower the arm so it is parallel to the record. Now you will be tracking at the force you set and not a lighter force.

H- Setting the Azimuth

- Using the supplied aluminum rod or a fireplace match or coffee stirrer (something light and about 6" long) place one of them into the groove behind the mounting screws on the tonearm headshell.
- If it is not level loosen the screw on the drop counterweight and rotate the counterweight around the shaft until the headshell is parallel to the record. Be careful not to change the tracking force setting.



YOU CAN USE THE AZIMUTH RING OR THE COUNTERWEIGHT FOR FINE AZIMUTH ADJUSTMENT



I- Anti-Skating

REMEMBER: A JMW 10 ARM NEEDS VERY LITTLE ANTI-SKATING FORCE

- Anti-skating is one of the least understood forces acting on a tonearm. Skating force is created by friction between the stylus and the record, causing a force vector in a direction towards the center of the record when the headshell of the tonearm has an offset angle. Putting a stylus down on a flat, groove less record will cause the arm to move toward the center of the record. Arm manufacturers have tried to compensate for this force, but that is impossible because the force is constantly changing as the music and velocity change.
- VPI has conducted careful listening tests and determined that every tonearm we tried sounded better with its mechanical anti-skating disabled and the tracking force very slightly increased.

VPI has a unique solution to anti-skating: the coiled wire of the JMW Memorial Tonearm acts as a spring and pushes the arm back without affecting the sound quality.

You now have the option of using a mechanical anti-skate for those that want it.

If you try adjusting the anti-skate with a groove less record, you will ruin the twist in the tonearm wire and void your warranty. Do this with the mechanical anti-skate if you want that much anti-skate.

IF ADDITIONAL ANTI-SKATE IS NEEDED FOR WORKING WITH TEST RECORDS YOU CAN GO TO THE MECHANICAL ANTI-SKATE SUPPLIED.



J- Arm Height

- Place a record on the turntable. Loosen the two setscrews in the base of the arm (right side and rear of base). Lower the arm onto the record and make the arm tube parallel to the record surface by rotating the wheel with the 4 prongs sticking out.
- This is a good initial setting. You may wish to vary it depending on the cartridge you are using and or the particular record being played.
- Remember to always retighten those two setscrews when listening. If they are left loose the sound will be unfocused.

K- Connections

- ONLY USE INTERCONNECTS THAT ARE SHIELDED AND PROPERLY GROUNDED. NON-SHIELDED INTERCONNECTS CAN HUM AND PICK UP RF.
- The ground connection is available to eliminate hum if necessary. If hum is present, first connect a ground lead from the connector block to the preamplifier or amplifier to which the output cable is connected. If this does not eliminate the hum, run a ground wire from the turntable chassis to the connector block as well. The block's connector will accept bare wires, spade lugs, or ring tongue connectors.

L- Playing Records

- Before playing a record, make sure that the two setscrews in the arm base are tight.
- You can use the VPI Mat, or no mat at all on your Classic. They sound different and one may work better in your system than the other.



Rubber Washer

- Press the power button on the motor. Sit down and enjoy listening to your records!
- Place the rubber washer on the platter spindle, then the record on the platter, then screw the clamp onto the spindle. The clamp will lock the rim of the record down first forcing the air out and acting like a vacuum.
- Press the power button and sit down and enjoy listening to your records!

M- General Use

- Allow at least 20 hours of break-in time.
- The motor will make some low-level noise. This will not get into the system. The motor and bearings will become quieter as you use your Classic 1.
- After at least one year of use, the platter bearing will need to be lubricated. Use 1/4 teaspoon of white lithium grease placed on the ball.

Additional Items Available from Your Dealer

- The VPI Synchronous Drive System power supply provides a major increase in musicality by feeding the synchronous motor a perfectly stable wave form at the frequency you choose. The SDS lets you change speed electronically and makes the motor speed much more accurate. You will have to change the motor capacitor to a .68 from the standard .5 to use the Classic with the SDS.
- The HR-X periphery record clamp will fit the platter of the Classic 1 and provide a vacuum-like grip on the record. The clamp removes all warps and damps the record to prevent ringing.
- JMW 3D Arm.
- VTA on the fly arm base.

O- Possible Problems:

- **Noise in the system, a hum or buzz:**

- The answer is to ground the motor and system properly. A line filter that floats the grounds will not allow proper grounding of the phono system, the phono system must be grounded!!!!!! Phono is not like CD and if this is your first table or your return to vinyl after a decade or so you must remember that phono amplification can be 1000 times higher than CD or streaming so any noise that gets into the system will be amplified much, much more. Kill the noise with proper grounding and your system will sound much better.

- **A pop on motor turn on or turn off:**

- In some systems the phono section is not well shielded and will pick up the EMF created by the switch opening to turn off the turntable. If your system is like that you can get into the habit of muting (the preferred method as you should really do that) or you can experiment with capacitors across the on-off switch. We supply the table with a .001 microfarad cap, you can change it to a .01 microfarad cap and it may eliminate or lower the problem to a tolerable level. BTW, judicious grounding will many times solve this problem also.

- **Trembling of tonearm when playing records:**

- You have a uni-pivot tonearm, it sits on one point and is constantly moving with the record grooves; spiraling in and out as the record center changes and moving up and down with minute warps. It is perfectly normal and inaudible.

- **Sibilance and distortion in both channels:**

- Azimuth not set correctly or diamond stylus misaligned on cartridge. This is usually a setup or cartridge issue, not a tonearm issue. It can also be caused by a tracking force that is too light even if it reads correctly. Tracking force needed is determined by the temperature in the room, below 70 degrees requires greater tracking force. We have found almost all cartridges work and sound best at 72 degrees.
- A 60 watt light put above a turntable in a cold room will heat up the cartridge just enough to make it much more compliant and track better.

- Before going crazy try a slightly higher tracking force, it usually solves all the problems and zero in on the azimuth adjustment.
- Another possibility is probably not as bad as the next photo but will definitely cause distortion and sibilance even in small amounts.



- **Distortion in left channel:**
 - Too much anti-skate.
- **Distortion in right channel:**
 - Too little anti-skate.
- **Noise at startup:**
 - We used to ship all tables pre 9-11 with talc powder in the bag with the belt. After 9-11 and the Anthrax scares we discontinued this. If you get a screeching sound on startup just powder the drive belt and you will be fine.

VPI Industries, Inc. Limited Warranty

VPI Industries, Inc. (VPI) warrants this unit against defects in materials and/or workmanship for three (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 causes 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 warranty 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 not 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.

Register your Product Online:

<http://vpiindustries.com/warranty/>

