



## VORTEX

### Introduction

Thank you for purchasing the Patented Harmonic Resolution Systems Vortex (US Patent No.: 10,187,712). When used properly, it will give you many years of superior musical or video signal reproduction. The HRS Vortex is designed to significantly reduce the negative impact of air and structure-borne vibration on your audio or video component performance. The Vortex is specifically designed for use with components that have stiffer (plate and billet) metal chassis construction and yields targeted performance improvements when used in conjunction with the HRS Isolation Bases. The HRS Vortex was designed specifically for use with HRS Isolation Bases. Using the HRS Vortex in conjunction with another shelf that does not have the same capabilities as the HRS Isolation Bases can limit the performance benefits achieved by the Vortex. The Vortex can also be used in combination with HRS Damping Plates. While the Vortex significantly reduces bottom chassis noise, the Damping Plates will work to reduce top chassis noise in the component.

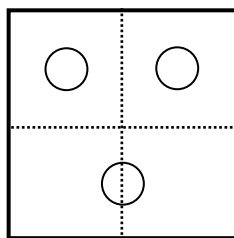
### Safety Instructions **IMPORTANT!**

Do not place the Vortex over ventilation holes of any electronic component. The ventilation holes will be blocked and the internal operating temperature of the component may be increased.

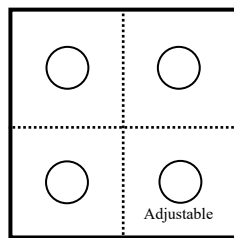
### Setup Instructions

The HRS Vortex should be placed directly on the HRS Isolation Base supporting your component. HRS recommends using a pattern of at least three Vortexes to support a component. If the component's base is over 100 square inches in area, using four or five Vortexes can significantly improve performance. The HRS Vortex is designed to provide exceptional performance on a standard size component using a four Vortex setup. HRS recommends that every Vortex beyond the third unit be a model with adjustable height (e.g. V150A). All adjustable models have "A" at the end of their model number. The bottom chassis (not the feet) of the component should be placed in direct contact with the HRS Vortex. The point of the Vortex is to be placed in contact with the HRS Isolation Base surface. Proper setup and contact with the chassis will control bottom panel resonance and transfer energy from the chassis into the Vortex energy dissipation system. Refer to the diagrams below for recommended initial Vortex locations, then move the Vortexes in small increments and perform listening tests to find the optimal setup for your components. If there is a drive, motor, or other noise source inside the unit, moving the closest vortex directly under the noise source will often improve performance.

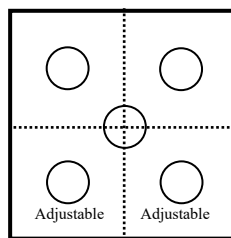
When setting up adjustable Vortexes, HRS recommends placing them near the front of the component for easy access. Start with the adjustable Vortex slightly shorter than the fixed model and place the component on top of all the Vortexes. Insert the 1/8" T-wrench provided by HRS into one of the four catch holes on the adjustable center element and turn it clockwise (when viewed from above) to raise the adjustable Vortex until it contacts the chassis. Push on the outside diameter of each Vortex and observe the resistance to movement relative to the chassis. If the resistance to motion differs, alter the height of the adjustable Vortex to achieve equal pressure in all locations. Always keep at least three threads engaged (stay three full rotations away from removing the screw).



3 Vortexes (All Fixed)



4 Vortexes (1 Adjustable)



5 Vortexes (2 Adjustable)



Adjusting the V-150A model using a 1/8" T-wrench

### Care and Maintenance

The HRS Vortex is a very low maintenance item that will provide many years of trouble free performance by applying these basic care instructions. Clean the HRS Vortex using a lint-free soft (non-abrasive) cloth. Use a damp cloth with water or mild soap if required. Do not spray with or immerse in water.

### Warnings!

Do not place objects with sharp or pointed feet directly on the HRS Vortex as they may cause nicks, scratches or tear the custom HRS materials used in the Vortex.

Do not use an abrasive cleaner or abrasive sponge to clean the HRS Vortex, as they may scratch the metallic surface.

Do not wash with any solvent based cleaning solutions.

## Limited Warranty



Harmonic Resolution Systems warrants the product designated herein to be free of manufacturing defects in material and workmanship, subject to the conditions herein set forth, for a period of 90 days from the date of purchase by the original purchaser. **The purchaser is required to register the unit with Harmonic Resolution Systems by visiting <https://avisolation.com/company-warranty/> and completing the limited warranty registration, within 14 days upon receipt of any HRS product. Scan QR code to register for HRS 5-year limited warranty.**

**The limited warranty extends the 90 days to a period of 5 years from the date of purchase by the original purchaser, or no later than 6 years from the date of shipment to the authorized Harmonic Resolution Systems dealer, whichever comes first.**

This limited warranty is subject to the following conditions and limitations.

1. The limited warranty is void and inapplicable if the product has been used or handled other than in accordance with the instructions in the owner's manual, abused or misused, damaged by accident or neglect or in being transported, or the defect is due to the product being repaired or tampered with or modified by anyone other than Harmonic Resolution Systems. The product must be packed and returned to Harmonic Resolution Systems by the customer at his or her sole expense. A written description of the defect and a photocopy of the original purchase receipt must accompany a returned product. This receipt must clearly list the model and serial number, the date of purchase, the name and address of the purchaser, the authorized HRS dealer, and the purchase price. Harmonic Resolution Systems reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products, and to change the prices or specifications of any product, without notice or obligation to any person. This warranty is void and inapplicable if the product has been handled other than in accordance with the instructions specified within this document, abused or misused, damaged by accident or neglect or in being transported, or the defect is due to the product being tampered with, modified or repaired by anyone other than Harmonic Resolution Systems.
2. The limited warranty does not cover normal recommended care and maintenance. Harmonic Resolution Systems Inc. shall not be responsible in any way for consequential or indirect damages or liabilities resulting from the use of the product covered herein, or, resulting from any breach of this warranty or any implied warranty relating to said product.
3. Harmonic Resolution Systems shall not be responsible in any way for damage to finishes resulting from normal use, or exposure to sunlight or the environment, even within the normal and extended limited warranty period.

During the limited warranty period, Harmonic Resolution Systems will repair or replace any defective components free of charge. A Return Authorization Number (RA Number) obtained directly from Harmonic Resolution Systems is required before any product is returned to Harmonic Resolution Systems for any reason. This number must be visible on the exterior of the shipping container(s) for Harmonic Resolution Systems to accept the return.

Units shipped to Harmonic Resolution Systems Inc. without a visible RA Number on the exterior of the shipping container(s) are subject to be returned to the sender, freight collect.

Units to be repaired by Harmonic Resolution Systems must be sent shipping and insurance prepaid by the original purchaser in the original packaging material. A returned product should be accompanied by a written description of the defect.

Repaired units will be returned by Harmonic Resolution Systems shipping, and insurance will be prepaid by the customer.

All other warranties or conditions, either written or implied, are void.

(MADE IN USA)

All Harmonic Resolution Systems Inc. products are 100% Made in The United States of America by skilled craftsmen using only the finest materials and our personal dedication to the highest workmanship standards.

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