

# HUMBUSTER

---

Dual Channel Hum Eliminator

User Manual



**kopul**<sup>TM</sup>

**HMX-2**



## Thank you for choosing Kopul.

Kopul's HMX-2 Humbuster is an effective yet cost-effective way to eliminate the 60 cycle buzz and noise caused by ground loops. By inserting it into the line level signal path (+ 4dBu or -10dBv), the HMX-2 eliminates the ground loop while leaving your signal intact.

A humming or buzzing sound is often a telltale sign of a ground loop caused by the formation of a connection path between the grounds of two or more pieces of equipment. The Humbuster offers a fast and direct solution to this problem by breaking the ground loop without degrading the signal.

The Humbuster features inputs and outputs for both 1/4" and XLR plugs that can be used in any combination (see diagrams on page 5). It automatically converts unbalanced signals to balanced signals and vice versa. This is advantageous when using a long length of unbalanced cable, which can pick up interference, by converting it to a balanced signal before it reaches the mixer input. The Humbuster can also be used as a DI box to connect the unbalanced output of a musical instrument directly to a mixing console's balanced input.

Ideal for studio, home, or stage use, the Humbuster is designed with high-quality internal components and gold-plated XLR connectors for superb noise reduction and flawless signal transfer.

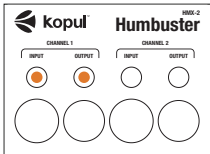
## Instructions

1. Disconnect, turn off, and remove the power cords of all equipment except for one piece – such as the mixer.
  2. Connect one piece of equipment at a time, making audio connections first, then plug in the power cord, and turn on the power. Listen for noise.
  3. Continue this process until you have identified the piece of equipment causing the noise.
  4. Plug in the Humbuster between this piece of equipment and the rest of the system.
- **Example #1**—If you hear hum and buzz when plugging a guitar into a guitar amp: Plug a guitar into the input of the Humbuster, and connect the output of the Humbuster to a guitar amplifier.

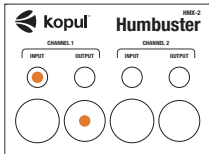
- **Example #2**—If there is hum coming out of powered speakers that are connected to a mixer: Plug the mixer outputs into the inputs of the Humbuster, and the outputs of the Humbuster into the inputs of powered speakers.
- **Example #3**—If you experience hum and noise when connecting the unbalanced output of a computer sound card to a mixer: Plug the outputs of the sound card into the inputs of the Humbuster, and the outputs of the Humbuster to the inputs of the mixer.
- Also great for live sound and recording studios, long runs of unbalanced cables across a stage, DJ mixers, home theaters, and broadcast and video studios.

IMPORTANT: Do not use the Humbuster between an amplifier and speakers. Doing so can damage the equipment. Use the Humbuster only on non-powered, line-level signals.

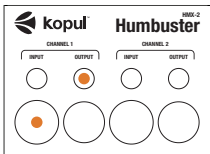
## Use your Humbuster in any of these configurations



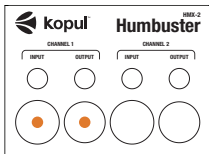
1/4" in to 1/4" out (TS or TRS on either end)



1/4" (TS or TRS) in to XLR out



XLR in to 1/4" (TS or TRS) out



XLR in to XLR out

## Specifications

|                                 |   |
|---------------------------------|---|
| <b>Inputs</b>                   | 2 × 1/4" TRS / TS<br>2 × XLR              |
| <b>Outputs</b>                  | 2 × 1/4" TRS / TS<br>2 × XLR              |
| <b>Frequency Response</b>       | 20 Hz to 70 kHz                           |
| <b>Distortion</b>               | < 0.005 THD @ 1 kHz                       |
| <b>Crosstalk</b>                | > -97 dB                                  |
| <b>Maximum source impedance</b> | 1k $\Omega$                               |
| <b>Minimum load impedance</b>   | 10k $\Omega$                              |
| <b>Dimensions (H × W × D)</b>   | 1.4" × 4.5" × 3.25" (3.5 × 11.4 × 8.3 cm) |
| <b>Weight</b>                   | 15.2 oz. (431 g)                          |

## Two-Year Limited Warranty

This KOPUL product is warranted to the original purchaser to be free from defects in materials and workmanship under normal consumer use for a period of two (2) years from the original purchase date or thirty (30) days after replacement, whichever occurs later. The warranty provider's responsibility with respect to this limited warranty shall be limited solely to repair or replacement, at the provider's discretion, of any product that fails during normal use of this product in its intended manner and in its intended environment. Inoperability of the product or part(s) shall be determined by the warranty provider. If the product has been discontinued, the warranty provider reserves the right to replace it with a model of equivalent quality and function.

This warranty does not cover damage or defect caused by misuse, neglect, accident, alteration, abuse, improper installation or maintenance. EXCEPT AS PROVIDED HEREIN, THE WARRANTY PROVIDER MAKES NEITHER ANY EXPRESS WARRANTIES NOR ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty provides you with specific legal rights, and you may also have additional rights that vary from state to state.

To obtain warranty coverage, contact the Kopul Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to Kopul along with the RMA number and proof of purchase. Shipment of the defective product is at the purchaser's own risk and expense.

For more information or to arrange service, visit [www.kopulcables.com](http://www.kopulcables.com) or call Customer Service at 212-594-2353.

Product warranty provided by the Gradus Group.  
[www.gradusgroup.com](http://www.gradusgroup.com)



KOPUL is a registered trademark of the Gradus Group. © 2015 Gradus Group LLC. All Rights Reserved.