

## The Humdinger Manual

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### 1. Introduction

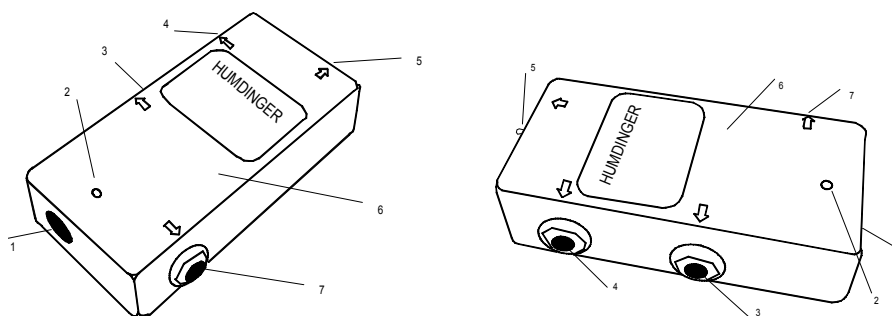
I would personally like to thank you for purchasing TheGigRig Humdinger and would also like to congratulate you on having such great taste!

TheGigRig Humdinger is the ultimate Driver and isolator aiding in pure hum free tone.

Using the HumDinger you have:

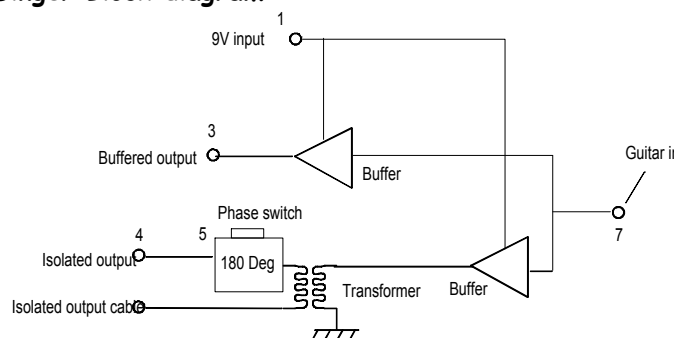
- One Buffered output to drive the primary amplifier and compensate for long leads
- One isolated Output to drive a second amplifier without earth loops or ground hum.
- One Phase correction switch to ensure brilliant tone when using two amplifiers.

### 2. The Humdinger Diagram



- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. 9V input</li> <li>2. On indicator</li> <li>3. Buffered out</li> <li>4. Isolated output</li> <li>5. Phase switch</li> <li>6. Strong case</li> <li>7. Guitar input</li> </ol> | <p>(Standard 9V centre negative 100mA)</p> <p>(LED showing power is connected)</p> <p>(Buffers signal to compensate for long cables)</p> <p>(Transformer isolated to kill hum)</p> <p>(Reverses phase of isolated output 180°)</p> <p>(Dye cast alloy)</p> <p>(Standard Jack Socket)</p> |
|---|--|

### 3. The HumDinger Block diagram



### 4. Buffered output

This is a 'in' phase class A buffered output, ideal for driving long leads or other equipment. This buffering may improve your tone as it will drive long leads or the poor input impedance of some effects pedals.

## 5. Isolated output... Output 2

If you have one Guitar into one effects pedal into one amp, you won't get hum. Although your effects power supply is connected to the mains, it won't be connected to the mains earth. Therefore, your precious guitar signal has just one path to ground. Through the screen of your lead into your amp and through to the mains ground.

The hum problem occurs when you have more than one path to ground for your signal. Using two amplifiers has always been an issue, because they both MUST be connected to mains ground; however, you only want one signal ground for your audio!

TheGigRig HumDinger has a very special output for your second amplifier, or any other earthed equipment you need to feed with your signal.

Only use the isolated output when you have already used the Buffered output, or when you have some other earth to your pedals. Normally the Buffered output will provide your signal ground.

## 6. Phase Switch

With the same sound going to two amplifiers of different models, the amplifier speaker cones could be both moving forward at the same time (in phase) or one may be moving forward whilst the other is moving back (out of phase). If your amplifiers are out of phase the sound waves can cancel at some positions in the room giving a reduced tone.

To Change the Phase to match your amplifiers:

Just flick the switch.

When the switch is UP everything is in Phase with your input. When the switch is down the buffered out remains in phase with the input; however, the isolated output is reversed in phase.

## 7. Important Safety information

TheGigRig HumDinger is a low voltage device and so it is completely electrically safe; however, this is not true for some older guitar amplifiers.

The GigRig HumDinger is NOT for use with old two pin mains plug amplifiers.

Your amplifier must have an earth connection. Some vintage amplifiers were fitted with a Ground switch to reduce earth loops and reduce hum. This switch is now commonly known as the **DEATH** switch. If your amplifier has such a switch, GET IT SERVICED NOW!

*Epix Ltd will not be held responsible for electrical shock or damage caused by high voltages from other equipment.*

If the HumDinger accidentally gets wet, it should be left in a warm dry place for 24 hours before it is used or stored.

## 8. The HumDinger Technical Specification:

AC output impedance of Buffered output 500 Ohm

Isolated out

Flat to 30KHz.

Compensates for cable capacitance.

External power supply: minimum 200mA regulated at 9V.

The Epix Power-Station is a suitable supply for this and all your effects.

See web site for details. Current consumption = approximately 100mA.



### Physical size:

Taking into account the switch etc.

Dimensions of 110mm X 57mm X 32mm.

All values are approximations. No responsibility will be taken for errors or omissions in the above specification.

This specification is subject to change without notice. Consult our Web site for

Amendments. [www.thegigrig.com](http://www.thegigrig.com)

### Legal Stuff:

This product is protected under patents for TheGigRig

Protected by copyright, moral rights, patent and design registration.

Patent Pen 0321552.2

USA Patent Pending US10/937,997

Design Registration # 3014412

'GigRig' is a stylised trademark. No 2343300

Any individual or company found copying the functionality, look or feel, circuits, circuit function or software functions for commercial gain will be liable for legal action. Licences may be granted to non-competing companies.

### Warranty:

TheGigRig HumDinger is covered by a standard warranty of one year from the purchase date; however, Epix Ltd will abide by the warranty period for electrical and electronic equipment stated within your country.

**(We support our customers, not just our products.)**