



## ZOURMAN CONVERSION MODULE FOR ATV™ aD-H14/aD-H12 HI-HAT & 2BOX™ DRUMIT THREE/FIVE MKI/MKII MODULE

We'd first like to take a moment and thank you for purchasing a Zourman hi-hat conversion kit!

The 2box module has become popular among e-drummers, mostly for its real samples and open-source approach. And while the module is compatible with triggers from other manufacturers, users have largely been restricted to 2box's proprietary hi-hat controller. Our first product from Zourman enabled 2box owners to use existing non-2box hi-hats – particularly the popular Roland range. Our newest conversion module combines the best of both worlds: the ATV aD-H14 & aD-H12 hi-hat together with the 2box DrumIt Three or Five MKI/MKII modules.

The Zourman hi-hat conversion module replaces a standard 2box hi-hat (hall effect sensor-based) with your favourite optical based ATV hi-hat. The solution is 100% plug and play (only 2box hi-hat calibration needed) and handles both a ATV hi-hat pad (bow/edge) and the hi-hat control pedal through the two input connectors. The Zourman electronics and intelligence combine the trigger signals and deliver the output into a standard 2box hi-hat input (single stereo jack).

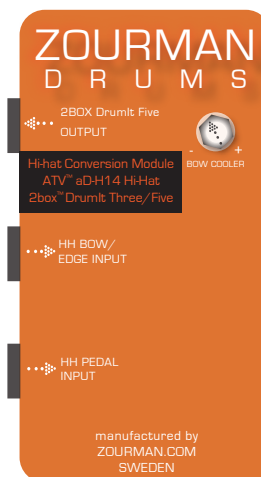
**Note:** The ATV aD-H14/aD-H12 will not work on **2box DrumIt Three/Five MKII** directly through the built in universal trigger support for Roland hi-hats. (ATV normally emulates Roland VH-13) The reason for this is that the active optical hi-hat control sends out different voltage levels between open/closed pedal instead of plain resistance. This fools the hi-hat input on 2box DrumIt Three/Five MKII. **DrumIt Five MKI** can only handle 2box hi-hats natively - so a Zourman Drums hi-hat conversion for aD-H14 is required for all DrumIt Modules.

The Zourman solution is the result of extensive research, development and rigorous testing with a range of equipment. Our testing has found that ATV hi-hats are very similar to 2box hi-hat response, but more reliable, more exact and better drum feeling. To further enhance the playability and response, the bow sensor (piezo) may need to be "cooled down" slightly with a variable resistor – an additional feature built into the Zourman hi-hat conversion kit.

## SETUP AND CALIBRATING THE ATV HI-HAT WITH THE 2BOX MODULE.

When you connect the hi-hat for the first time, you must perform a calibration. If the 2box module is not configured, a message appears on the 2box module asking you to calibrate the hi-hat. The normal setup scenario:

1. Connect the ATV hi-hat to the Zourman device, plugging in stereo (TRS) cable for both the pedal and hi-hat pad.
2. Connect the Zourman device output to the 2box module hi-hat input A, using a stereo cable, TRS.\*
3. Turn the ATV Hi-hat pedal power on with power adapter attached.
4. Do the calibration on the 2box module according to the 2box manual.
  - Press the UNIT button and go to the HCAL page using the PAGE buttons.
  - As soon as you have accessed the HCAL page, the calibration process will start automatically or press the DATA button to the left if it doesn't.
  - Now you see the flashing icon of a closed hi-hat and can proceed.
  - Now "Close" the hi-hat by releasing the clutch so that the pad rests on the bottom by it's own weight.
  - Press the left DATA button again and the flashing icon will change once more to resemble an open hi-hat.
  - Now mount the hi hat pad at the desired height, just like an acoustic hi-hat-cymbal.
  - Complete the calibration procedure by pressing the DATA button a third time.
  - If the calibration is successful, you will see "Done" in the display.
  - You will get a RAW value between e.g. 800 (open) and 700 (closed) - with the raw adjuster potentiometer the max to the left. (You will get lower numbers if turning to the right)
5. If you feel that the hi-hat get too loose and is not closing in a distinct way - Try to increase the PFACT value 5-10 steps.
6. Set your 2box module to KIT mode to keep the latency at a low level.
7. Note that the calibration switch on the hihat conversion box is optional step. Not required.



If the behaviour of the hi-hat, concerning playability and reaction, does not meet your expectations, you can repeat the process and alter the settings by varying the height of the hi-hat pad. You can also make further adjustments to the hi-hat. These are explained on page 51 in the 2box manual. If the display reads "NoChg", there was a problem with the calibration. Check the setup and perform the procedure again.

### General Notes for 2box Five/Three tweaking tip for ATV aD-H14:

- Connect the ATV Power Supply to the aD-H14 Pedal controller
- Always upgrade to the latest 2box firmware/OS. [1.34 or later] for Five and Three.
- Please note that a wrongly connected cable could seriously damage your 2box module.
- Don't try using the Zourman Drums Conversion Module with a native 2Box hi-hat e-cymbal!
- Beware of attaching/mounting a 2box module directly to a hi-hat stand so it electrically could lead power from ATV hi-hat, through the hi-hat stand to the 2box module. This could result in trigger errors.
- The extra tight HH function which are part of the ATV aD-H14 performance is not natively supported by the 2box module – it can be adressed if the samples are adjusted using the SDSE or similar tools.

## RECOMMENDATIONS ON 2BOX HI-HAT SETTINGS (for DrumIt Three/Five MKII)

To find your best hi-hat settings on 2box is very much about to capture your own best preference and feeling. So the 2box settings could be tweaked in various ways. We would like to just share a good starting point of settings for your 2box using the Zourman conversion kit. This could of course be changed to better suite your playstyle or preference!

TYPE	XTALK	LEVEL	T
HIHAT	Off		R
GAIN	THRES	CURVE	I
2	-36	Norm	G

CALIB	RAW	LEVEL	H
--=	796		C
HTYP	POFF	FFACT	A
2BXHH	22824	93	L

HHPOS	SENS	CURVE	H
Off	-4	Ne92	S
			E
			T

GAINR	LXTR		S
Off	N/A		P
MASK			E
Off			C

### 2box hi-hat sample tweaking tip:

If you think the 2box hi-hat footchick samples has a too sharp cut when closing the hats - try adjusting the "hold" and "decay" paramater of the hi-hat sample. Just make some pedal chicks and dial it up until you are satisfied.

SOUND	LAYER	VOICE	E
+++	Var	POLY	N
ATTACK	HOLD	DECAY	V
0	.043	∞	

### ATV aD-14H HI-HAT

Please check the ATV hi-hat manuals/documentation at [www.atvcorporation.com](http://www.atvcorporation.com) for details. Adjust until you are satisfied with the relationship between the hi-hat's opening and closing action and the change in tone.

**Note:** Roland FD-7, FD-8, FD-9, VH-11, VH-12 or VH-13 hi-hats will not work with the ATV aD-H14 version of the Zourman Drums Conversion Module.

### THE BOW (PIEZO) ADJUSTMENTS for ATV Hi-hats.

The piezo cooler on the Zourman is simply an adjuster that makes it possible to adjust the intensity of the signal sent from the hi-hat bow sensor. It is added because some e-cymbals are "hotter" than others. The Roland hi-hats, in general, need to be cooled down. Twisting the knob towards "+". The recommended value is about 60%, e.g. about 30K Ohm for a ATV aD-H14. The adjustment is only necessary if your e-cymbal PAD peaks out (seen on 2Box module in the unit mode) the velocity meter when the sensitivity is set to 0 on the module. This adjustment may not be necessary, depending on the e-cymbal type. Note: There is a correlation between the piezo cooler and how hard/easy you are able to make a hi-hat chick. A too high cooler value will impact the chick. You'll know when it feels right!

## MOUNTING THE HI-HAT KIT

Included in kit there is two tape pads which could be used to mount the hi-hat kit box on the side of the 2box module. There is also a mounting point (M6 nut) on top of the box using a camera mount or a standard cymbal mount.



Please secure the two hi-hat cables in place with the cable clip, (included) while leaving some slack in the cables. If not, the cables could start jumping and create false triggering or may interfere with the chick sound.

## Support & Limited Warranty

Please submit any questions or suggestions via the <http://www.zourman.com> site or search for the zourman area at the <http://www.2box-forum.com>. The limited return to base warranty for all Zourman equipment is 12 months from purchase date. Note: A broken serial number seal on the kit's rear side will void warranty.

## Links

<http://www.2box.se>  
[www.atvcorporation.com](http://www.atvcorporation.com)  
<http://www.2box-forum.com>  
<http://www.zourman.com>

digitalDrummer  
[www.digitaldrummermag.com](http://www.digitaldrummermag.com)

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## More information

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FB: <http://www.facebook.com/zourmandrums>

This manual can be downloaded from [zourman.com](http://www.zourman.com)