

HH Combo Humidifier - Operating Instructions

Assembly

The HH Combo has two parts. The upper part is a digital hygrometer/thermometer and the bottom part is a humidifier that holds the polyvinyl acetate (PVA) sponge. First, remove the sponge from the plastic bag and place it in a coffee cup or similar container holding **distilled water**. If the sponge is soft and pliable, it will absorb water in a few minutes. If the sponge is hard and dried out, it may take 10 minutes to absorb the water. If, after placing the sponge in water, it still feels hard in spots, continue to soak it. Once saturated, the sponge will have absorbed 40 ccs or more of **distilled water**. Tap water will fill the sponge with minerals dramatically shortening the useful life of the sponge. The sponge holds 10-12 times its dry weight in **distilled water**. While the PVA sponge is significantly more absorbent and drip resistant than a kitchen sponge, you still need to hold up the sponge and squeeze out the excess moisture so that it does not drip at all. Do not wring it out completely unless you don't care about how often you need to recharge the sponge.

With the saturated sponge placed in the humidifier, press the clips (**located on the side of the humidifier**) inward and insert the humidifier into the bottom part of the hygrometer. When the clips are released, they will lock into the hygrometer, holding the two parts together. To re-saturate the sponge, separate the two parts by pressing the clips inward and holding them while separating the hygrometer from the humidifier.

When the top and bottom sections of the HH Combo are connected, it is ready for insertion between the 3rd and 4th strings of your guitar. Separate the two strings and insert the HH Combo, with the humidifier first, between the strings until the flange at the bottom of the hygrometer meets the strings. At that point, you will feel the strings snap into the indentation between the upper and lower parts holding the HH combo in place. Do the same when removing the humidifier.

Increasing Humidity Output

You will note that there are 8 vent holes on the front and the back of the humidifier. 4 of the vent holes on each side are open. 4 more vent holes on each side are closed, but can be opened individually, if necessary, by removing the plastic piece that keeps each one closed. Using only the open 4 vent holes on each side, the humidifier will provide a similar amount of humidification as the OH-1 humidifier). During the humidification season, if the average room relative humidity is 20-40%, the unit will provide sufficient humidification without any changes to the vent holes. If you are located in a drier area, some or all of the vent holes can be opened to provide additional humidification. When all of the vent holes are open, the unit will provide the similar humidification as the OH-5. **Most users will not need to use this feature. Caution is advised when opening the vent holes. Once they are opened, the process cannot be reversed. Vent holes can be opened by punching them with a flathead screwdriver smaller than the size of the punch out openings. Once removed there will be pieces of plastic from the punch holes inside the humidifier which need to be removed. A metal nail file or similar device will be needed to remove the burrs remaining from the punched out plastic. Make sure the inside surface is smooth so you don't damage the sponge.**

Duration of Humidification

The humidifier is designed to be effective with the guitar in a closed case. It cannot be effective if your guitar is left out on a stand during the humidification season since it cannot humidify an entire room.

Without any extra vent holes being open, the humidifier can provide up to 20 days humidification before needing to be re-saturated. With all of the vent holes open, the humidifier will provide 10-15 days of humidification before needing to be re-saturated with distilled water.

Digital Thermometer / Hygrometer

Start Up & Battery Replacement

1. Insert the included CR2032 battery into the battery compartment to start the unit.
2. For battery replacement, open the battery lid and replace the dead battery with a new 3.0V CR2032 battery cell. Insert the

battery according to the polarity shown and close the battery lid. The unit will resume working again after a few seconds.
Replacement batteries can be obtained from the Oasis website: <http://www.oasishumidifiers.com/product/cr2032-battery/>

Operations:

button	Descriptions
Min/Max	Shows the maximum values of the temperature and humidity after the last reset of the memory by pressing Min/ Max button once.
Min/Max	Shows the minimum values of the temperature and humidity after the last reset of the memory by pressing Min/ Max button twice.
Min/Max	To reset the memory of min/ max values, press and hold the button for 2 seconds To clear Max. value, press button when showing the max. value. To clear the min. value press button when showing the min value
°C/°F	Select measurement unit of Celsius (°C) or Fahrenheit (°F) by pressing °C/°F button
SET	Activate the calibration mode by pushing and holding the SET button for 2 seconds. H0 will be shown on the display, press Min/ Max button to select / adjust the hygrometer by 0, 1, 2, 3, 4, 5, 6, -6, -5, -4, -3, -2, -1..... (i.e. select 1 means to increase the existing humidity with Relative Humidity 1% higher than the original reading). Then press set to confirm.

Accuracy:

Temperature: +/-1°C (-20 to 50°C); +/-2F (-4°F to 122°F)

Humidity: +/-3% (40-60%, at 25°C); +/-3% (40-60%, at 77°F)

Please note that the unit will need some time to adapt to changes of humidity / temperature

Warning

Do not expose the unit to high temperature, water, extreme force, shock or AC power.

Do not attempt to open the case of the unit

Do not insert any used batteries nor any other battery type except CR2032

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