



**SOUND
PARTICLES**

Air

Reference Manual

February 2021
v 1.1



Welcome Note

Welcome to Air!

I still recall doing a presentation at Paramount (Technicolor) and having a user ask if Sound Particles applied Equalization (EQ) based on distance. Although Sound Particles didn't have this feature, that idea lingered in my mind, especially for passing-by sounds.

Later on, when we created the Doppler plugin, we decided to add it – having the exact frequency response you get from distance attenuation. We liked the result so much, we decided to create a specific plugin for it, and “Air” was born

Enjoy! And if you have any question or suggestion, don't hesitate to contact us. We REALLY love to receive feedback from our users.

Nuno Fonseca, PhD

CEO

nuno.fonseca@soundparticles.com

Contents

Welcome Note	2
Contents	3
Air	4
1.1 Display	6
1.2 Some Location	8
1.3 Presets	10
Additional Notes	11
EULA	13

Air

The "Air" plug-in simulates the frequency response you get from far away sounds.

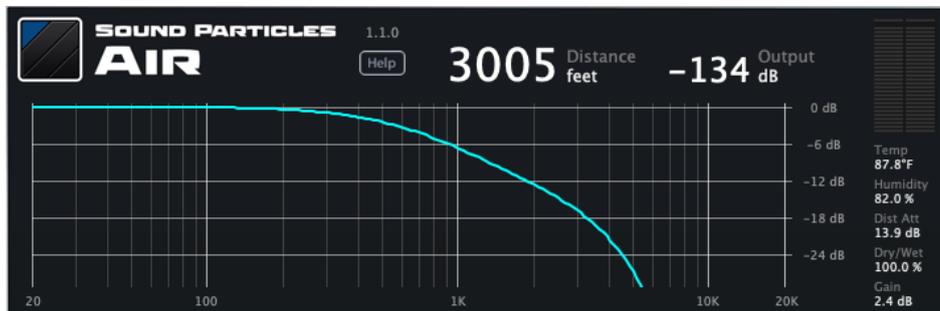


- The main knob is the **Distance**, and the most important parameter.
- **Temperature/Humidity**: controls the parameters of the air. Since most people are not aware of typical humidity values, we provide a dropdown menu ("Location"), with several locations around the world.
- **Foot/Meter**: the switch that interchanges between the units you prefer to use, between foot/miles/°F (imperial) or meter/km/°C (metric).

- **Distance Attenuation:** controls the amount of additional attenuation due to *Distance*. If you want to use "Air" with automation to animate a moving sound, changing not only the *EQ* but also the *Gain*, use the *Distance Attenuation* to control the variation of the audio gain. The value entered here controls the amount of attenuation that you get every time that you double the distance. For instance, a 3dB value means that if you get a -20dBFS signal at 10 meters, you will get -23dBFS signal at 20 meters, -26dBFS signal at 40 meters, and so on.
- **Dry/Wet:** this controls how much effect do you want to apply: 0% equals bypass, 100% equals full effect, like any other audio effect. Please, don't confuse this with humidity of the air (yes, the "dry/wet" may create some confusion).
- **Gain:** The final gain of the plug-in's output.

1.1 Display

The display will show you additional information to help you with your task.



On the top area, you can see:

- The version of the plug-in (e.g. 1.1.0)
- A “**Help**” button that will open this manual
- The **Distance** from the subject, with its value according to the preferred unit of measurement.
- The **Output** value that represents how much the audio output gain is affected according to the *Distance*, *Distance Attenuation* and *Gain* values considered altogether.
- If there is an update available for *Doppler*, the message “New update available at my.soundparticles.com” will appear, and by clicking it you will be redirected to my.soundparticles.com to further get the new update.
- [Trial Version] (1) A message regarding the remaining time of the trial mode or (2) a message that the trial has expired.

On the center, you can see:

- The **EQ plot**, a graph of the frequency response (20 – 20.000 Hz), with the light-blue line representing the frequencies attenuation being applied to the input audio.

On the right side, you have the *VU Meters*:

- **Output VU**, with the level of each output channel. The number of channels shown on the VU correspond to the number of outputs of the plug-in.
- **Temp**, which represents the *Temperature* value (according to the unit of measurement).
- **Humidity**, which represents the *Humidity* value (according to the unit of measurement).
- **Dist Att**, which represents the *Distance Attenuation* value.
- The **Dry/Wet** percentage.
- The **Gain** value.

1.2 Some Locations

	Spring / Autumn		Summer		Winter	
	Temp.	Humidity	Temp.	Humidity	Temp.	Humidity
African Savana	27 °C 81 °F	79%	28 °C 82 °F	70%	22 °C 72 °F	77%
Alaska	10 °C 50 °F	55%	19 °C 66 °F	62%	-15 °C 5 °F	69%
Amazon Forest	32 °C 90 °F	82%	31 °C 88 °F	82%	31 °C 88 °F	82%
Amsterdam	13 °C 55 °F	85%	20 °C 68 °F	80%	5 °C 41 °F	90%
Antarctica	-59 °C -75 °F	1%	-29 °C -20 °F	1%	-61 °C -78 °F	1%
Athens	25 °C 77 °F	65%	31 °C 88 °F	54%	12 °C 54 °F	70%
Bahamas	27 °C 81 °F	78%	30 °C 86 °F	80%	25 °C 77 °F	79%
Barcelona	20 °C 68 °F	70%	27 °C 81 °F	71%	14 °C 57 °F	73%
Beijing	23 °C 73 °F	48%	30 °C 86 °F	76%	5 °C 41 °F	45%
Cape Town	20 °C 68 °F	76%	27 °C 81 °F	71%	17 °C 63 °F	80%
Death Valley	30 °C 86 °F	23%	38 °C 100 °F	21%	12 °C 54 °F	56%
Dubai	34 °C 93 °F	61%	40 °C 104 °F	59%	25 °C 77 °F	65%
Gibraltar	21 °C 70 °F	72%	27 °C 81 °F	70%	16 °C 61 °F	74%
Greenland	-11 °C 12 °F	80%	5 °C 41 °F	81%	-24 °C -11 °F	78%
Hawaii	28 °C 82 °F	70%	30 °C 86 °F	65%	26 °C 79 °F	72%
Hong-Kong	24 °C 75 °F	81%	30 °C 86 °F	80%	18 °C 64 °F	77%
London	14 °C 57 °F	74%	21 °C 70 °F	64%	7 °C 45 °F	80%
Los Angeles	23 °C 73 °F	70%	29 °C 84 °F	71%	20 °C 68 °F	60%
Madrid	21 °C 70 °F	59%	33 °C 91 °F	44%	11 °C 52 °F	75%
Mexico City	26 °C 79 °F	44%	24 °C 75 °F	69%	23 °C 73 °F	50%
Monaco	19 °C 66 °F	78%	26 °C 79 °F	77%	14 °C 57 °F	77%
Mont Blanc	8 °C 46 °F	65%	16 °C 61 °F	68%	-2 °C 28 °F	79%

Moscow	15 °C 59 °F	70%	22 °C 72 °F	65%	-3 °C 27 °F	83%
Mt. Everest	-26 °C -15 °F	56%	-18 °C 0 °F	77%	-36 °C -33 °F	65%
Mumbai	31 °C 88 °F	70%	28 °C 82 °F	85%	29 °C 84 °F	70%
Nagasaki	20 °C 68 °F	70%	30 °C 86 °F	80%	10 °C 50 °F	70%
New York	17 °C 63 °F	59%	27 °C 81 °F	63%	4 °C 39 °F	60%
Niagara Falls	14 °C 57 °F	73%	25 °C 77 °F	76%	1 °C 34 °F	85%
Quebec	11 °C 52 °F	52%	23 °C 73 °F	59%	-4 °C 25 °F	68%
Reykjavik	8 °C 46 °F	79%	12 °C 54 °F	80%	2 °C 36 °F	80%
Rio de Janeiro	28 °C 82 °F	80%	30 °C 86 °F	80%	25 °C 77 °F	79%
Rome	20 °C 68 °F	77%	28 °C 82 °F	72%	13 °C 55 °F	79%
Sahara	36 °C 97 °F	38%	38 °C 100 °F	35%	20 °C 68 °F	50%
San Francisco	19 °C 66 °F	73%	21 °C 70 °F	77%	15 °C 59 °F	79%
Seattle	16 °C 61 °F	72%	23 °C 73 °F	70%	10 °C 50 °F	81%
Sydney	22 °C 70 °F	69%	26 °C 79 °F	70%	17 °C 63 °F	73%
Tokyo	21 °C 70 °F	62%	29 °C 84 °F	72%	9 °C 48 °F	52%
Venice	16 °C 61 °F	73%	25 °C 77 °F	71%	6 °C 43 °F	80%
Wellington	15 °C 59 °F	78%	20 °C 68 °F	79%	12 °C 54 °F	80%

1.3 Presets

	Distance	Location	Temp.	Humidity
In the other side of the road	20 m 65.6 ft	Los Angeles (Spring)	23 °C 73.4 °F	70%
Spring in San Francisco	100 m 328.1 ft	S. Francisco (Spring)	19 °C 66.2 °F	75%
Concert at Central Park	300 m 984.3 ft	New York (Spring)	17 °C 62.6 °F	59%
1000 feet away in the jungle	304.8 m 1000 ft	Amazon Forest	31 °C 87.8 °F	82%
Thunders 3 seconds away	1 km 3280.8 ft	Tokyo (Winter)	21 °C 69.8 °F	62%
One mile in Antarctica	1.6 km 1 mi	Antarctica (Summer)	-29 °C -20.2 °F	1%
3 miles in the desert	4.8 km 3 mi	-	25 °C 77 °F	38%
Far, far, far away	30 km 18.6 mi	Los Angeles (Spring)	23 °C 73.4 °F	70%

Additional Notes

Knobs

- Drag the knobs to change their value.
- Dragging up or right to increase their values; dragging down or left to decrease their values.
- Use *Shift* or *Control* or *Command* key (*cmd* / *⌘*) during dragging, to fine tune its value.
- Use *alt*/*option* + click, to reset to its default value.

Avid S6 Support

Air (AAX) can have their parameters controlled through various control surfaces, included AVID S6.

Check for updates

If the plug-in is running on a computer with internet access, it is able to detect if a newer update is available, informing the user of the existence of a new update, by showing a blinking phrase on the top of the display.

To achieve that, Sound Particles Air plugin tries to access a simple XML file located at <https://www.soundparticles.com>.

SOUND PARTICLES AIR DOES NOT SEND ANY INFORMATION FROM THE USER ONTO THE INTERNET.

Support

If you detect a bug, if you got a crash, if you believe something is not perfect, or even if you have ideas for future versions, don't hesitate, and email us at support@soundparticles.com. We REALLY want to hear from you. Sometimes a bug lives on for too much time, simply because we haven't detected ourselves and we didn't receive any feedback from the affected users. Besides that, your feedback is very important for us.

"Help us help you"

EULA

END USER LICENSE AGREEMENT OF SOUND PARTICLES – JANUARY 2020

I. GENERAL

The following End User License Agreement ("EULA") represents an agreement between you ("Licensee") and "Sound Particles, S.A.", with head office at IDD, Rua da Carvalha, 570, 2400-441 Leiria, Portugal (hereinafter "Sound Particles") for the use of software including related media documentation (for example, program descriptions and manuals) and other documents and materials manufactured by Sound Particles (the "Product(s)"). By installing the software on your computer, you declare yourself in agreement with these conditions. If you do not agree with these conditions, you must not install the software or use it.

II. SCOPE OF USE

The Products are intellectual property of Sound Particles and are protected by law. Licensee, as purchaser of the Products, acquires only a limited, non-exclusive and non-transferable license to use, personally or professionally, the Products. Any other use or exploitation not explicitly granted to Licensee in this EULA shall not be allowed without prior written consent from Sound Particles. Specifically, Licensee is not entitled to copy, decompile, reverse engineer the Product or parts thereof, create derivative works from the Products or sublicense or provide the Products as "software as a service". Licensee must ensure by appropriate and reasonable steps that third parties, including its own employees, cannot make unauthorized use of the Product. Licensee shall be liable to Sound Particles for any loss or damage in this context.

The Software is being licensed to you and you hereby acknowledge that no title or ownership in the Software is being transferred or assigned and this EULA is not to be construed as a sale of any rights in the Software. Sound Particles retains all right, title and interest in the Products, including, but not limited to, all copyrights, trademarks, trade secrets, trade names, proprietary rights, patents, titles, computer codes, audiovisual effects, themes, settings, artwork, sound effects, musical works, and moral rights whether registered or not and all applications thereof.

1. Sound Particles grants Licensee the non-exclusive right without restrictions in time or place to use the Products. Sound Particles is not obliged to disclose the Products' software underlying source code, including the associated development documentation.
2. Licensee may either:
 - a) Install and use the licensed Products' software on several devices (e.g. one laptop, one desktop), provided that the said software is used only by the same single person - Per user licensing. Simultaneous use on more than one hardware device is not permitted.
 - b) Install the licensed Products' software on a single device, allowing its use by several users on the device (e.g. studio computer) - Per seat licensing.

3. Licensee may copy the licensed Products' software, only if such reproduction is necessary for the contractually agreed use. Licensee is authorized to create a backup, only if this is necessary to secure the future use.
4. Licensee is not authorized to modify the Products' software.
5. Licensee shall not attempt to develop any software that contains the "look and feel" of any of the Products' or is otherwise derivative of its software.

6. Third Parties

a) Renting or lending the licensed Products' software to a third party is expressly forbidden. Apart from that and if not provided otherwise within this EULA, Licensee may leave the software to a third party for a certain amount of time, if the third party agrees to the terms of this EULA and Licensee does not use the software during this period.

b) Except if otherwise stated within this EULA, Licensee may resell the software to a third party or transfer the software permanently free of charge, provided the third party agrees in writing with this EULA and Licensee ceases all use of the software, completely removes all installed copies of the software from its computer and – if the software was not purchased via download – deletes or transfers the original data storage to the third party (if Licensee is not obliged to a longer storage by law). In addition, Licensee is required to de-register the purchased software with Sound Particles. Following respective request from Licensee via its email address registered with Sound Particles, the serial number of the Product will be transferred by Sound Particles to the third party, and at the same time the registration of Licensee for the Product purchased will be deleted.

c) Licensee may not (i) distribute, lease, license, sell, rent, lend, convey or otherwise transfer or assign the Products or any copies thereof, (ii) make publicly available or available on a network for use or download by multiple users, (iii) remove, obscure or modify any copyright, trademark or other proprietary rights notices, marks or labels contained on or within the Products, falsify or delete any author attributions, legal notices or other labels of the origin or source of the material

7. In addition, for certain Products from Sound Particles the following shall apply:

a) Bundles (product bundles consisting of hardware and software or software-only bundles) can only be resold / transferred as a whole. The individual components of a bundle must not be resold / transferred separately.

b) Any Products from Sound Particles labeled or otherwise provided to you as "NFR" (Not For Resale) shall only be used for demonstration, testing and evaluation purposes. NFR Products must not be used for commercial purposes, and must not be resold or transferred. NFR Products are exempt from update, upgrade or crossgrade offers and cannot be purchased with or exchanged for vouchers or coupons.

c) Any Products from Sound Particles labeled or otherwise provided to you as an EDU (Educational) version shall only be used by students or those working in educational institutions. This definition includes students, faculty, staff and administration attending and / or working at an educational institutional facility: private / public schools, training facilities, colleges, universities and similar. EDU Products must not be used for commercial purposes, and must not be resold or transferred. EDU Products are exempt from update, upgrade or crossgrade offers, and cannot be purchased with or exchanged for vouchers or coupons.

d) Any Products from Sound Particles labeled or otherwise provided to you as "Demo Versions" or similar, shall only be used for demonstration, testing and evaluation

purposes. Demo Versions must not be used for commercial or public purposes, and must not be resold or transferred.

If you are not sure which license type you own – (FULL / NFR / EDU) – please contact our Support Team.

III. THIRD PARTY RIGHTS

Some content included in Sound Particles software Products, as well as any associated intellectual property rights and titles, belongs to third parties. This content may be protected by copyright or other intellectual property laws and treaties and may be subject to terms and conditions from the third party providing the content.

FFmpeg Notice - The Software utilizes the FFMpeg video application and its included libraries. FFMpeg is a trademark of Fabrice Bellard (originator of the FFMpeg project - FFMpeg project, <http://www.ffmpeg.org>) licensed under the [GNU Lesser General Public License 3.0](#) and its source can be downloaded [here](#).

IV. DUTIES TO PROTECT

Copyright notices, serial numbers and other identification features of the program may not be removed from the software or altered in any way.

V. WARRANTY, LEGAL LIABILITY, DAMAGES

DISCLAIMER OF WARRANTIES: YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF THE SOFTWARE IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, AND ACCURACY IS WITH YOU. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE SOFTWARE IS PROVIDED "AS IS," WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND SOUND PARTICLES HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE SOFTWARE PRODUCT, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR A PARTICULAR PURPOSE, OF ACCURACY, OF QUIET ENJOYMENT, AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. SOUND PARTICLES DOES NOT WARRANT AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE SOFTWARE, THAT THE FUNCTIONS CONTAINED IN THE SOFTWARE WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE SOFTWARE WILL BE CORRECTED. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY SOUND PARTICLES OR A SOUND PARTICLES AUTHORIZED REPRESENTATIVE SHALL CREATE A WARRANTY. SHOULD THE SOFTWARE PROVE DEFECTIVE, SOUND PARTICLES MAY CHOOSE TO REPLACE THE LICENSEE'S COPY OF THE SOFTWARE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATION ON APPLICABLE STATUTORY RIGHTS OF A CONSUMER, SO THE ABOVE EXCLUSION AND LIMITATIONS MAY NOT APPLY TO YOU. THIS LIMITATION OF WARRANTY SHALL NOT BE APPLICABLE SOLELY TO THE EXTENT THAT ANY SPECIFIC PROVISION OF THIS LIMITATION OF LIABILITY IS PROHIBITED BY ANY LAW, WHICH CANNOT BE PRE-EMPTED.

LIMITATION OF LIABILITY: TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL SOUND PARTICLES OR ITS AFFILIATES BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE OR DEFECT IN OR CAUSED BY THE SOFTWARE, INCLUDING BUT NOT LIMITED TO COMPROMISING THE SECURITY OF YOUR COMPUTER, OPERATING SYSTEM OR FILES, OR THE PROVISION OF OR FAILURE TO PROVIDE SUPPORT SERVICES, EVEN IF SOUND PARTICLES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY CASE, SOUND PARTICLES ENTIRE LIABILITY UNDER ANY PROVISION OF THIS EULA SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU FOR THE SOFTWARE OR REPLACEMENT OF THE SOFTWARE WITH PRODUCT OF COMPARABLE RETAIL VALUE, AS SOUND PARTICLES MAY ELECT IN ITS SOLE DISCRETION. IF SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY, THE ABOVE LIMITATION MAY NOT APPLY TO YOU IN PART OR WHOLE. THIS LIMITATION OF LIABILITY SHALL NOT BE APPLICABLE SOLELY TO THE EXTENT THAT ANY SPECIFIC PROVISION OF THIS LIMITATION OF LIABILITY IS PROHIBITED BY ANY LAW, WHICH CANNOT BE PRE-EMPTED.

Licensee agrees to indemnify, defend and hold harmless Sound Particles and its affiliates and their respective officers, employees, directors, agents, licensees (excluding you), sublicensees (excluding you), successors and assigns from and against any and all liability, costs, losses, damages, and expenses (including reasonable attorneys' fees and expenses) arising out of any claim, suit, or cause of action relating to and/or arising from (a) your breach of any term of this EULA; (b) your violation of any rights of any third party; or (c) your use or misuse of the Software. Your indemnification obligations set forth in the immediately preceding sentence shall survive the termination of this EULA.

VI. CLOSING PROVISIONS

1. If any stipulation of this EULA should be or become invalid, either completely or in part, this shall not affect the validity of the remaining stipulations. The parties undertake instead to replace the invalid stipulation with a valid regulation which comes as close as possible to the purpose originally intended.
2. **TERMINATION:** This EULA will terminate automatically if you fail to comply with its terms and conditions. In such event, you must destroy all copies of the Product and all of its component parts (including the software) and cease and desist from accessing any Products.
3. This Agreement shall be governed and construed by the laws of Portugal. The United Nations Convention for the International Sale of Goods shall not apply. The exclusive place of jurisdiction with respect to all disputes based on or in connection with this Agreement shall be Leiria, Portugal. However, Sound Particles reserves the right to sue Licensee at Licensee's place of residence or place of business.

Should you have any queries concerning this EULA, please write to this address:

Sound Particles S.A.
IDD, rua da carvalha, 570,
2400-441 Leiria
Portugal



**SOUND
PARTICLES**

www.soundparticles.com