Enceintes amplifiées 10/12/15 pouces 2 voies bass reflex avec DSP Caissons de basses amplifiés 15/18 pouces bass reflex avec DSP





ATOM 10A **ATOM** 12A T **DM**15A T T **ATOM** 15ASUB ATOM 18ASUB

GUIDE DE L'UTILISAT 10779/10780/10781/10782/10783 - Version 1 / 01-2018

(🖉 əudiophon)

1 - Safety information

Important safety information



This product contains non-isolated electrical components. Do not undertake any maintenance operation when it is switched on as it may result in electric shock.



This unit is intended for indoor use only. Do not use it in a wet, or extremely cold/hot locations. Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to this product or other property.



Any maintenance procedure must be performed by a CONTEST authorised technical service. Basic cleaning operations must thoroughly follow our safety instructions.

Symbols used



This symbol signals an important safety precaution.



The CAUTION symbol signals a risk of product deterioration.

The WARNING symbol signals a risk to the user's physical integrity. The product may also be damaged.

Instructions and recommendations

1 - Please read carefully :

We strongly recommend to read carefully and understand the safety instructions before attempting to operate this unit.

2 - Please keep this manual :

We strongly recommend to keep this manual with the unit for future reference.

3 - Operate carefully this product :

We strongly recommend to take into consideration every safety instruction.

4 - Follow the instructions:

Please carefully follow each safety instruction to avoid any physical harm or property damage.

5 - Avoid water and wet locations :

Do not use this product in rain, or near washbasins or other wet locations. 6 - Installation :

6 - Installation

We strongly encourage you to only use a fixation system or support recommended by the manufacturer or supplied with this product. Carefully follow the installation instructions and use the adequate tools.

Always ensure this unit is firmly fixed to avoid vibration and slipping while operating as it may result in physical injury.

7 - Ceiling or wall installation :

Please contact your local dealer before attempting any ceiling or wall installation.

8 - Ventilation :

The cooling vents ensure a safe use of this product, and avoid any overheating risk. Do not obstruct or cover these vents as it may result in overheating and potential physical injury or product damage. This product should never been operated in a closed non-ventilated area such as a flight case or a rack, unless cooling vents are provided for the purpose.

9 - Heat exposure :

Sustained contact or proximity with warm surfaces may cause overheating and product damages. Please keep this product away from any heat source such as a heaters, amplifiers, hot plates, etc...



WARNING : This unit contains no user-serviceable parts. Do not open the housing or attempt any maintenance by yourself. In the unlikely even your unit may require service, please contact your nearest dealer.

In order to avoid any electrical malfunction, please do not use any multi-socket, power cord extension or connecting system without making sure they are perfectly isolated and present no defect.

Sound levels



Our audio solutions deliver important sound pressure levels (SPL) that can be harmful to human health when exposed during long periods. Please do not stay in close proximity of operating speakers.

Recycling your device



• As HITMUSIC is really involved in the environmental cause, we only commercialise clean, ROHS compliant products.

 When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

10 - Electric power supply :

This product can only be operated according to a very specific voltage. These information are specified on the label located at the rear of the product. **11 - Power cords protection:**

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at lugs, convenience receptacles and the point where they exit from the fixture. 12 - Cleaning precautions :

12 - Oleaning precautions.

Unplug the product before attempting any cleaning operation. This product should be cleaned only with accessories recommended by the manufacturer. Use a damp cloth to clean the surface. Do not wash this product.

13 - Long periods of non use :

Disconnect the unit's main power during long periods of non use.

14 - Liquids or objects penetration :

Do not let any object penetrate this product as it may result in electric shock or fire. Never spill any liquid on this product as it may infiltrate the electronic components and result in electric shock or fire.

15 - This product should be serviced when :

Please contact the gualified service personnel if :

- The power cord or the plug has been damaged
- Objects have fallen or liquid has been spilled into the appliance.
- The appliance has been exposed to rain or water.
- The product does not appear to operate normally.
- The product has been damaged.
- 16 Inspection/maintenance :

Please do not attempt any inspection or maintenance by yourself. Refer all servicing to qualified personnel.

17 - Operating environment :

Ambient temperature and humidity: +5 - +35°C, relative humidity must be less than 85% (when cooling vents are not obstructed).

Do not operate this product in a non-ventilated, very humid or warm place.

2 - Introduction

The ATOM Series speakers and subwoofers are the ideal solution for your live performances.

With 300W for the ATOM10A, 400W for the ATOM12A, 400W for the ATOM15A, 600W for the ATOM15ASUB subwoofer and 600W for the ATOM18ASUB subwoofer, the ATOM series products deliver a powerful, clear and warm sound, suitable for both voice and live or recorded music.

All equipped with an adjustable DSP, the elements of this series allow you to tune the sound reproduction in an ideal way whatever the configurations of your performances.

Fast installation, lightweight and space-saving, they will quickly become the partners of your nomadic services, without compromising quality, power or possibilities.

3 - Technical information of the full range speakers

	ATOM10A	ATOM12A	ATOM15A
Bi-amplification	250W RMS Class D for LF 50W RMS Class AB for HF	350W RMS Class D for LF 50W RMS Class AB for HF	350W RMS Class D for LF 50W RMS Class AB for HF
Total power output	1200W dynamic / 300W RMS	1600W dynamic / 400W RMS	1600W dynamic / 400W RMS
Frequency response	60 Hz - 20 KHz	50 Hz - 20 KHz	45 Hz - 20 KHz
Power supply	SMPS		
H x V Dispersion	90° x 60°		
Filter cutoff frequency	2,8 KHz	2,8 KHz	3,4 KHz
Sound Pressure Level	121 dB max.	123 dB max.	124 dB max.
Woofer	10" 2" coil 4 Ohms - 250W AES	12" 3" coil 4 Ohms - 350W AES	15" 3" coil 4 Ohms - 350W AES
Tweeter	1" compression 8 Ohms 50 W RMS	1,35" compression 8 Ohms 50 W RMS	
Input	1 entrée MIC/LINE1 COMBO XLR/JACK MIC/LINE input / 1 RCA/3.5 mini Jack input		
Output	1 XLR line output		
Settings	Multiple settings DSP (refer to paragraph 5 for more details)		
Protection	Short-circuit, thermal and limiter		
Construction and fastenings	2 monitor-specific 45° angles 1 top handle (ATOM10A / ATOM12A / ATOM15A) 1 side handle (ATOM12A et ATOM15A) 2 M10 rigging points (on top) 1 insert M10 derrière 36mm dual positions mounting plate for a speaker stand (0° and 7,5°)		
Dimensions	516 x 300 x 291 mm	619 x 360 x 351 mm	778 x 430 x 402 mm
Net weight	13 Kg	17 Kg	21 Kg

4 - Module d'amplification des enceintes



1 Power input socket

Allows you to connect the speaker to an electrical outlet. Use the supplied IEC cord, and make sure the voltage delivered by the outlet is in adequation with the value indicated by the voltage selector before turning on the built-in amplifier.

2 Power switch

Allows you to turn ON/OFF the built-in amplifier.

3 XLR LINE OUT socket

Allows you to retrieve the sum of each incoming signal and transmit it to another amplified speaker, mixing desk, or speaker/amplifier system.

4 MIC/LINE input via COMBO plug

The COMBO plug allows you to connect either a male XLR plug or male stereo/mono Jack plug.

5 LINE/MIC Selector

Allows you to adapt the impedance of the socket to the type of signal detected.

When pressed, the entry level is adapted to a microphone, when released it is adapted to a line level signal.

6 Integrated DSP diplay

Displays the settings of the built-in DSP.

The different settings of the DSP will be explained in paragraph 5.

7 **DSP** settings button

Press this button to access the available settings or to enter the different submenus.

Then turn this knob to scroll through the values of each sub-menu.

Press again to confirm your settings.

8 Channel 1 input level

Make sure that the input level is not too high to avoid distorted sound.

9 Channnel 2 input level 2

Make sure that the input level is not too high to avoid distorted sound.

10 Auxiliary Input

Stéréo 3.5 jack. This input is used to connect a tablet, a mobile phone, an MP3 player... etc.

11 RCA line input

This input is used to retrieve a signal from a CD player, a mixer, etc...

ATOM10A/12A/15A input setting

- 1 Connect the loudspeaker to the mains via IEC plug / 2-pin + earth. Leave the power switch (2) in the OFF position.
- 2 Set all LEVEL potentiometers (8 and 9) to the -∞ position.
- 3 Connect your microphone or line level source or both. L'entrée ligne est accessible par le branchement The line input can be accessed via a 3-pin 6.35 mm (TRS) jack, RCA LINE IN or AUX input. To acces to the microphone preamplifier, use the XRL plug
- 4 Switch on the line level source.
- 5 Switch on the ATOM speaker.
- 6 While you are speaking in a microphone or an audio signal is being played from your line-level source, turn the input level knob (s) until the display shows "Limit Signal", then turn it down just below that level.
- 7 If you use a microphone, be careful not to stand too close to the speaker as this may result in feedback. If you do not use both inputs, it is recommended that you leave the level knob on the unused input at the -∞ position to prevent noise from entering the signal circuit.

5 - Full range speaker menu



6 - Caractéristiques techniques des caissons

Γ	ATOM15ASUB	ATOM18ASUB	
Amplification	Class D / 2000W dynamic / 600W RMS	Class D / 2000W dynamic / 600W RMS	
Frequency response	45 Hz - 160 KHz	35 Hz - 150 KHz	
Power supply	SMPS / 100-240V ~ 50-60Hz		
SPL	126 dB max.	127 dB max.	
Woofer	15" 18" 8 Ohms - 600W AES	18" Bobine de 3" 8 Ohms - 600W AES	
Entrées	2 x COMBO 6.35 XLR		
Sortie	2 XKR output		
Réglages	multiple settings DSP (refer to paragraph 8 for more details)		
Protection	Short-circuit, thermal and limiter		
Construction et accrochages	5mm Cubic plywood housing Integral grid 35mm mounting plate for speaker coupling rod 2 side handles Ground stacking device		
Dimensions	612 x 430 x 595 mm	662 x 510 x 615 mm	
Poids net	32 Kg	38 Kg	

7 - Subwoofer amplifier modèle



Note : The power input and power button are the same as on the full range speakers.

1 Sorties 1 et 2

These line level outputs are used to retrieve the input signals and re-inject them to another amplification system (see OUTPUT menu on page 8).

Output 1 corresponds to input 1 and output 2 corresponds to input 2.

2 Entrée 1 et 2

Line-level left and right inputs via COMBO sockets. COMBO sockets allow you to either connect a mono/ stereo male XLR or male Jack plug. These are balanced inputs.

3 Integrated DSP diplay

Displays the settings of the built-in DSP.

The different settings of the DSP will be explained in paragraph 8.

4 DSP settings button

Without pressing this button, you adjust the subwoofer level.

Press this button to access the available settings or to enter the different submenus.

Then turn this knob to scroll through the values of each sub-menu.

Press again to confirm your settings.

8 - Subwoofers DSP Menu

MENUS	MENU OPTIONS
LEVEL menu NORMAL 150 Hz NORMAL NONE ATOM15ASUB 0 dB	This menu appears when the subwoofer is initialized and allows you to adjust the subwooer's amplification level. It is not necessary to press the button to make this setting. The value varies from MUTE (no amplification) to +10dB.
MODE menu NORMAL 150 Hz NORMAL NONE ATOM15ASUB MODE LOCATION DELAY Push to Save and Return	This menu allows you to choose the behavior of the cabinet according to how it is positionedNORMAL : Choose this option when using the cabinet in front of the sound systemENFORCE :Choose this option when using the cabinet in front of the sound system.
Menu LOCATION NORMAL HF:0dB POLE LF:0dB ATOM15ASUB Image: Comparison of the state	 This menu allows you to optimize the response of ATOM15S and ATOM18S when used alone or in groups. -NORMAL : Choose this option when using the subwoofer in nongroup mode. -CARDIOID : Choose this option for a cardioid effect with the pedestals in grouped mode. -ENDFIRE : Choose this option when using two subwoofers in longitudinal radiation one behind the other.
Menu DELAY NORMAL 150 Hz NORMAL NONE ATOM15ASUB 0.25m TION DELAY PolARITY XD Push to Save and Return	This menu allows you to add a delay time to the subwoofer to align it over time. The value of the delay is expressed in metres. By default no delay time is applied.
Menu POLARITY NORMAL 150 Hz NORMAL 0.25 m ATOM15ASUB Reverse YDELAY POLARITY YOU YOU	This menu allows you to reverse the polarity of the sum of the signals present at the input
Menu X-OVER NORMAL 150 Hz NORMAL 0.25 m ATOM15ASUB OLARITY X-OVER OUTPU> Push to Save and Return	This menu is used to set the upper limit of the frequency range of the subwoofer. The optimum setting is the minimum value of the frequency range correctly reproduced by the full range speakers. Among the available values for this setting you will find each of the ATOM series full range speakers.
Menu OUTPUT NORMAL 150 Hz NORMAL 0.25 m ATOM15ASUB ✓Y X-OVER OUTPUT UN> Push to Save and Return	This menu is used to set the low limit of the frequency range sent to outputs 1 and 2.

Menu UNIT NORMAL 150 Hz NORMAL 0.25 m ATOM15ASUB VER OUTPUT UNIT LED REP Push to Save and Return	This menu allows you to select the unit used by the DELAY menu : meter or foot.
Menu UNIT	This menu is used to adjust the behaviour of the LED on the front panel.
NORMAL 0.25 m Front Panel LED OF ATOM15ASUB "Black Out" ON	 OFF : The LED never lights up. ON : LED is constantly lit in blue. LIMIT : The LED lights blue and red when the limiter is switched
ROUTPUT UNIT LED RESET Push to Save and Return	on.
NORMAL 150 Hz Are you sure ? NORMAL 0.25 m Restore the device to the factory default settings OUTPUT UNIT LED RESET Push to Save and Return	This menu is used to reset all settings to the original values.
Menu INFO NORMAL 150 Hz ATOM15ASUB NORMAL 0.25 m Firmware Ver 2.1.0 ATOM15ASUB Copyright(C) 2018 Audiophony All right reserved Push to Return	This menu is used to display the internal software version.

Different positions of the LOCATION menu







Normal

Cardioid



9 - Principle diagram



10 - Connectors

10.1 - Balanced

The COMBO sockets are symetrical. This type of connectors allows you to transmit a signal over long runs of cables without altering its quality, that is why we recommend to use symetrical signals.

The figures opposite describe the balanced wiring of the XLR or Jack 6.35 plugs.



10.2 - Unbalanced

If you do not have any source with symetrical signal, please do not use cables longer than 1.5 m. The figures opposite describe the unbalanced wiring of the XLR or Jack 6.35 plugs.



Tip Signal

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