

# TENSOR-SOLO

## USER MANUAL



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## **TENSOR-SOLO OVERVIEW**

The Tensor-SOLO all-in-one column PA delivers a superior audio experience from an ultra portable system. The 8" subwoofer and six 2.75" drivers allow for crystal clear audio coverage for 100+ people. With its simple 4-piece 'slot together' design, the Tensor-SOLO can be set up swiftly and effortlessly. Microphones or line level devices such as keyboards can connect to the Tensor-SOLO simultaneously via the 4-channel mixer. Bluetooth enabled devices can also connect for wireless audio streaming and with integrated True Wireless Stereo technology (TWS), two Tensor-SOLO systems can be linked for stereo audio transmission wirelessly. The on-board DSP provides 4 EQ presets for different voicings as well as comprehensive audio protection to prevent the system being overloaded. Carry bag and slip cover are included, and its super-lightweight - weighing just 13Kg, 29lbs; the Tensor-SOLO is the ultimate wireless audio solution.

## **FEATURES**

- Ultra-lightweight 4 piece design weighing only 13Kg
- Impressive audio performance - perfect for 100+ people
- High power ensuring impressive coverage without compression
- 4-channel mic/line mixer with built-in reverb
- Bluetooth connectivity including TWS system linking
- 4x DSP presets for swift and effortless setup
- Available in black (Tensor-SOLO-BK) or white (Tensor-SOLO-WH)

## **WHAT'S INCLUDED**

- Main Subwoofer unit
- 1x top column loudspeaker
- 2x top column spacers
- Padded slip cover for subwoofer
- Padded 3 piece column carry bag
- IEC power cable

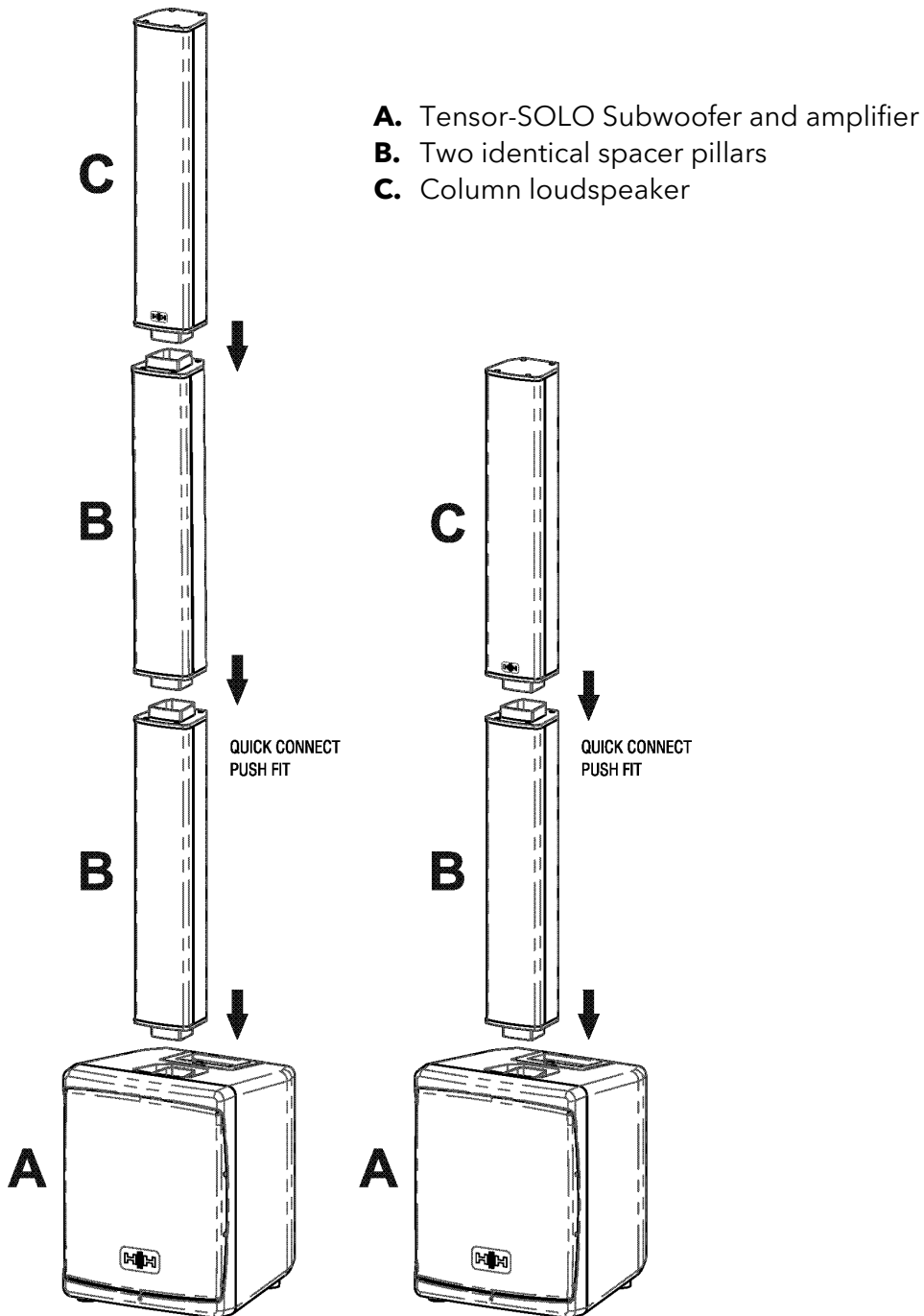


## **SETUP**

The Tensor-SOLO may be used with either one or two spacer units depending on the unit's position and your chosen usage. For floor mounted operation, two spacers are recommended.

Position the subwoofer on a stable surface in the desired location, then proceed to fit the spacer columns by firmly pressing them into position. Finally insert the column loudspeaker, ensuring all joints are firmly pushed into position.

Care must be taken to position the unit to avoid causing a hazard, ensuring it cannot be knocked or tripped over. If in doubt the unit should be secured in place.



## CONTROLS

### CHANNELS 1/2

#### 1. LEVEL CONTROL

Controls the input level individually for channels 1 and 2. Set to minimum when first setting up your inputs and gradually increase to a suitable volume.

#### 2. LINE/MIC SWITCH

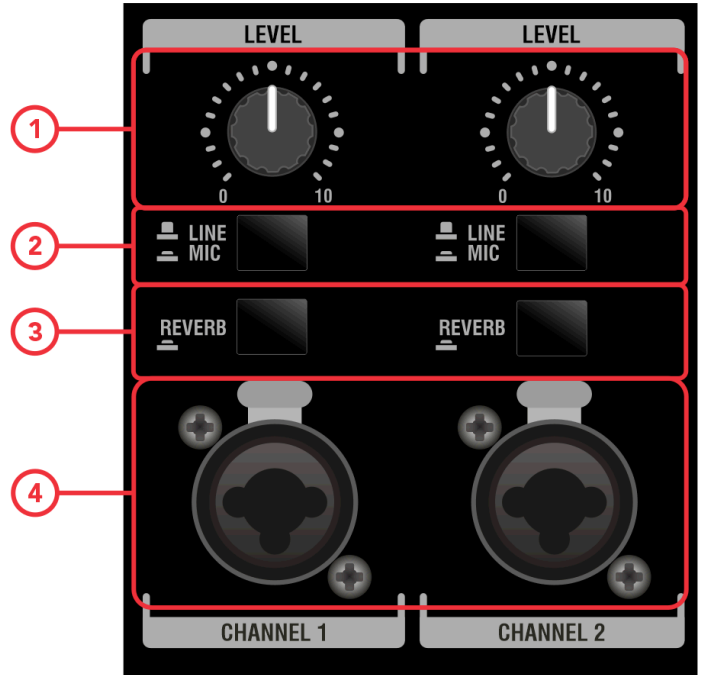
Switch to adjust gain for each channel. 40dB added in the MIC setting for lower level inputs. 0dB added in LINE mode.

#### 3. REVERB SWITCH

Toggle the internal reverb for each channel individually. Reverb level is controlled separately.

#### 4. XLR/6.3mm COMBI JACKS

Channel 1 and 2 inputs take either XLR or 6.3mm jack. Can connect balanced or unbalanced signals.



### CHANNELS 3/4

#### 5. LEVEL CONTROL

Set the input level for both line level channels 3 & 4. Set to minimum when first setting up your inputs and gradually increase to a suitable volume.

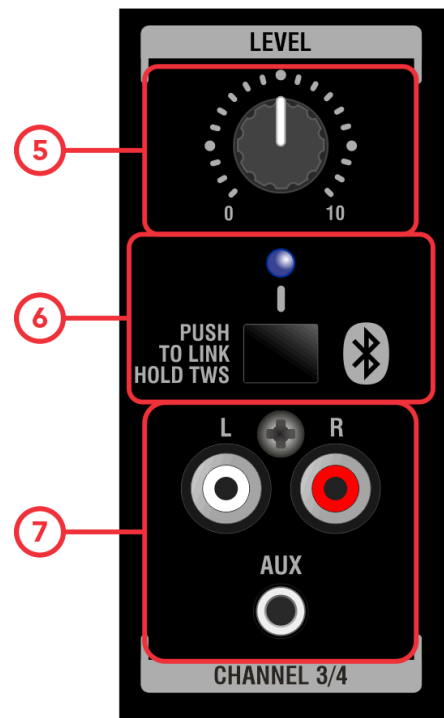
#### 6. BLUETOOTH INDICATOR

The blue LED indicates the Bluetooth status. Flashing indicates attempting to connect and a solid blue light indicates a connection. Short press the button to connect to your device - it will show as 'HH-Tensor'.

To connect a second system, hold the TWS button with a device already connected. Then hold the TWS button on your second system that will then auto pair.

#### 7. AUX AND RCA INPUTS

A pair of RCA phono sockets and a single 3.5mm stereo socket for auxiliary audio. Intended for line level audio use. Both inputs may be used simultaneously.





## MASTER CONTROLS

### 8. MASTER VOLUME

Control the overall volume of all 4 channels. Set to minimum when setting up inputs and gradually turn up to a suitable volume.

Power LED will light green when the system is powered on. The same LED will turn red when the signal is being limited by the onboard limiters. Occasional flashing of red is ok however avoid continuous illumination of red limit light. Turn the master volume down if so.

### 9. REVERB LEVEL

Set the reverb level for channel 1/2 reverbs. Will only work if the reverb switches (3) are on.

### 10. DSP PRESET SELECT

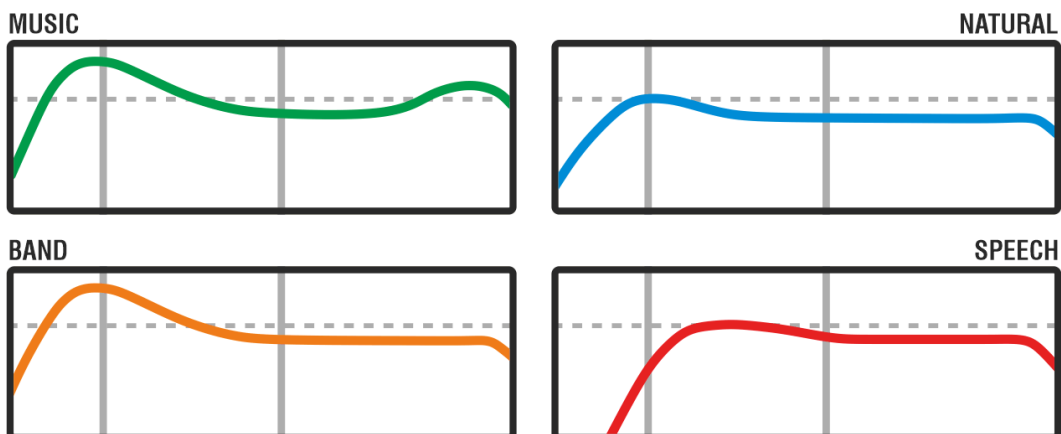
4 EQ presets are loaded onto the Tensor-SOLO to enhance your sound depending on the use case. Use the button to cycle through each preset. The 4 green LEDs will light one at a time to signal the corresponding preset that is currently selected. The 4 green LEDs indicate which preset is currently active.

**MUSIC** - Bass and treble lift with flat mids

**BAND** - Bass lift, flat mids and a slight treble cut off

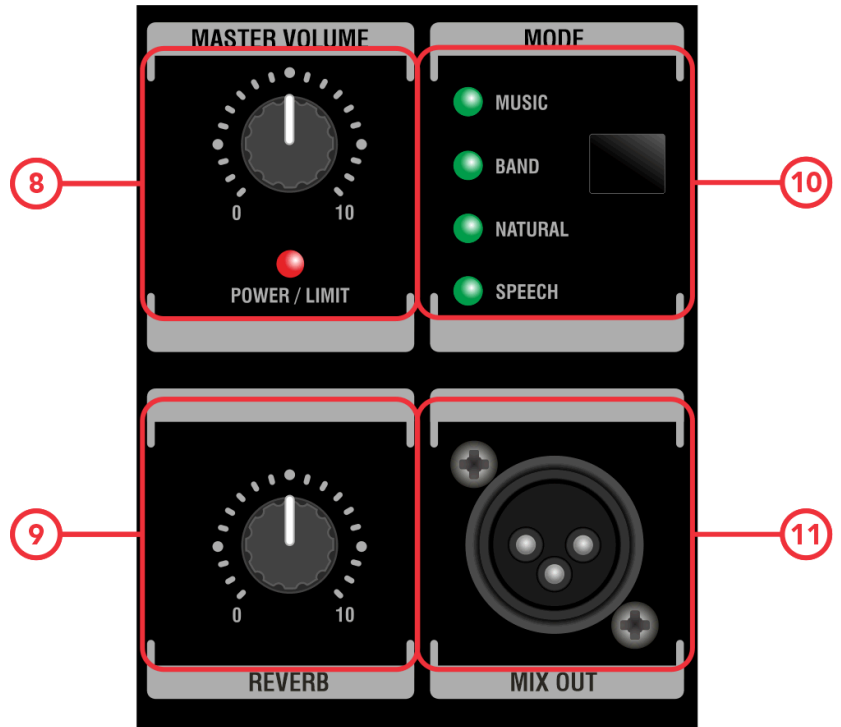
**NATURAL** - Mostly flat with a slight bass and treble cut off

**SPEECH** - Large bass roll off and otherwise flat - intended for use with microphones

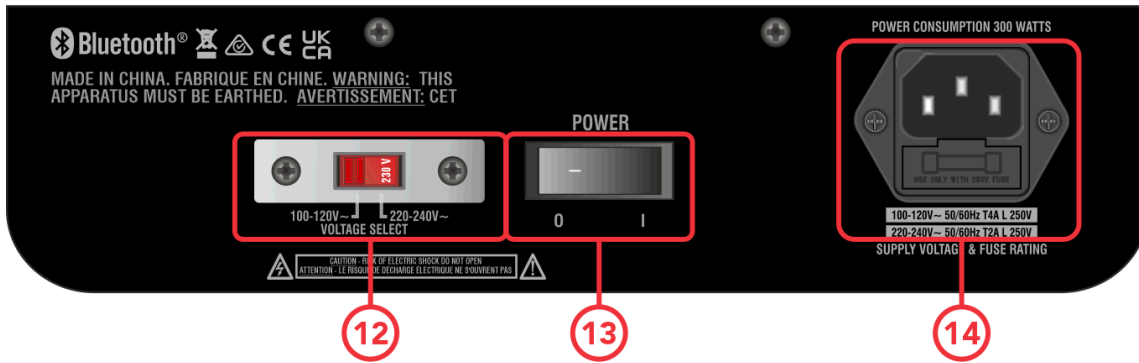


### 11. MIX OUT

Line level output that includes all 4 channels and is pre master volume.



## MAINS INLET



### 12. VOLTAGE SELECT SWITCH

The Tensor-SOLO is a dual voltage device, capable of being used around the world.

This switch should be correctly set for your country already. Although every effort has been made to select the correct voltage for the region of use, it is advised that this is checked before first powering on. Damage could occur if the voltage is incorrectly set.

Only change this setting with the mains cord unplugged and ensure it is set correctly before powering on. Fuse change (14) will be required if the voltage is switched.

### 13. POWER SWITCH

Turns the system on and off. It is good practice to keep the master volume at minimum when switching on and off.

### 14. MAINS INLET SOCKET

IEC input to connect the provided mains lead.

The safety fuse is included in the pull out drawer. Only replace the fuse with the type and value indicated on the rear panel.



## SPECIFICATIONS

### BLACK

Model	Tensor-SOLO:BK
Colour	Black
System Type	Ultra Portable Column PA System
Frequency response	50-20kHz
Max SPL (1M) (Peak)	123 dB SPL
Power Rating	300W RMS, 1200W Peak
Amplifier Type	Class D
Power Supply	User Switchable SMPS 100-120 or 220-240V~ 50/60HZ
Protection	Short circuit, Thermal overload, multi band limiter
Inputs	2x Combo (XLR/Jack) balanced/unbalanced input with Mic/Line preset switch. 3.5mm Stereo Aux in, 2x RCA, Bluetooth V5.0 Audio Receiver
Outputs	Balanced XLR mix out.
Controls	CH1-3 Level, CH1-2 Reverb on/off switch, Master Volume, Bluetooth Pairing, EQ preset
LF Driver	8" HH Long Throw Woofer
Hi/Mid Drivers	6x 2.75"
Cabinet	Robust Polypropylene Enclosure (Sub), ABS (Sat)
Accessories	1x Padded Subwoofer Slip Cover, 1x Padded 3 Piece Column Carry Bag included
Other	Illuminating HH Logo
Dimensions	
Overall Height (assembled)	1975mm, (77.8")
Overall Weight (assembled)	14.1Kg, 31.1 lbs
Top Unit dimensions (HWD)	560 x 105 x 105mm, 22" x 4.1" x 4.1" (560 x 105 x 105mm, 22" x 4.1" x 4.1" Spacers)
Top Unit Weight	1.7Kg, 3.7 lbs (1.1Kg, 2.4 lbs Spacers)
Sub Unit dimensions (HWD)	403 x 320 x 300mm, 15.9" x 12.6" x 11.8"
Sub Unit Weight	9Kg, 19.8 lbs
Carton dimensions (HWD)	660 x 510 x 420mm, 26" x 20.1" x 16.5" (0.142 M3)
Packed Weight (Inc Accessories)	17.1Kg, 37.7 lbs
EAN13	5060109458626

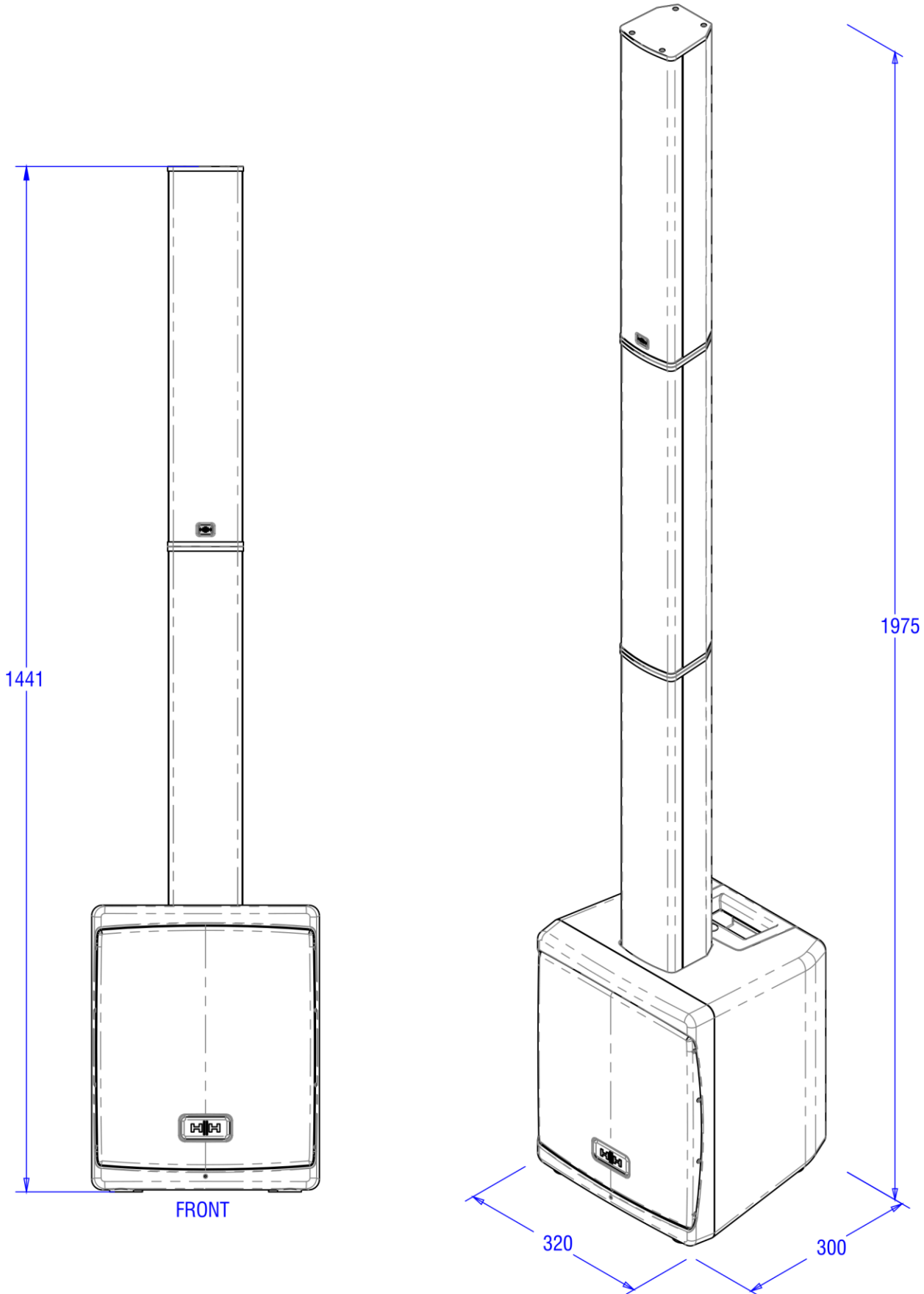




## WHITE

Model	Tensor-SOLO:WH
Colour	White
System Type	Ultra Portable Column PA System
Frequency response	50-20kHz
Max SPL (1M) (Peak)	123 dB SPL
Power Rating	300W RMS, 1200W Peak
Amplifier Type	Class D
Power Supply	User Switchable SMPS 100-120 or 220-240V~ 50/60HZ
Protection	Short circuit, Thermal overload, multi band limiter
Inputs	2x Combo (XLR/Jack) balanced/unbalanced input with Mic/Line preset switch. 3.5mm Stereo Aux in, 2x RCA, Bluetooth V5.0 Audio Receiver
Outputs	Balanced XLR mix out.
Controls	CH1-3 Level, CH1-2 Reverb on/off switch, Master Volume, Bluetooth Pairing, EQ preset
LF Driver	8" HH Long Throw Woofer
Hi/Mid Drivers	6x 2.75"
Cabinet	Robust Polypropylene Enclosure (Sub), ABS (Sat)
Accessories	1x Padded Subwoofer Slip Cover, 1x Padded 3 Piece Column Carry Bag included
Other	Illuminating HH Logo
Dimensions	
Overall Height (assembled)	1975mm, (77.8")
Overall Weight (assembled)	14.1Kg, 31.1 lbs
Top Unit dimensions (HWD)	560 x 105 x 105mm, 22" x 4.1" x 4.1" (560 x 105 x 105mm, 22" x 4.1" x 4.1" Spacers)
Top Unit Weight	1.7Kg, 3.7 lbs (1.1Kg, 2.4 lbs Spacers)
Sub Unit dimensions (HWD)	403 x 320 x 300mm, 15.9" x 12.6" x 11.8"
Sub Unit Weight	9Kg, 19.8 lbs
Carton dimensions (HWD)	660 x 510 x 420mm, 26" x 20.1" x 16.5" (0.142 M3)
Packed Weight (Inc Accessories)	17.31Kg, 38.2 lbs
EAN13	5060109458633

# DIMENSIONS









## SAFETY AND WARNINGS

To take full advantage of your new product and enjoy long and trouble-free performance, please read this owner's manual carefully, and keep it in a safe place for future reference.

- 1) Unpacking: On unpacking your product, please check carefully for any signs of damage that may have occurred whilst in transit from the HH factory to your dealer. In the unlikely event that there has been damage, please re-pack your unit in its original carton and consult your dealer. We strongly advise you to keep your original transit carton, since in the unlikely event that your unit should develop a fault, you will be able to return it to you dealer for rectification securely packed.
- 2) Amplifier Connection: To avoid damage, generally it is advisable to establish and follow a pattern for turning on and off your system. With all system parts connected, turn on source equipment, mixers, effects processors etc, BEFORE turning on your amplifier. Many products have large transient surges at turn on and off which can cause damage to your speakers. By turning on your amplifier LAST and making sure its level control is set to a minimum, any transients from other equipment should not reach your loudspeakers. Wait till all system parts have stabilised, usually a couple of seconds. Similarly, when turning off your system always turn down the level controls on your amplifier and then turn off its power before turning off other equipment.
- 3) Cables: Never use shielded or microphone cable for any speaker connections as this will not be substantial enough to handle the amplifier load and could cause damage to your complete system. Use good quality shielded cables everywhere else.
- 4) Servicing: The user should not attempt to service these products. Refer all servicing to qualified service personnel.
- 5) Heed all warnings.
- 6) Follow all instructions.
- 7) Do not use this apparatus near water.
- 8) Clean only with a dry cloth.
- 9) Do not block any of the ventilation openings. Install in accordance with manufacturer's instructions.
- 10) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 11) An apparatus with Class I construction shall be connected to a mains socket outlet with a protective connection. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 12) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
- 13) Only use attachments/accessories provided by the manufacturer.
- 14) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 15) The mains plug or appliance coupler is used as the disconnect device and shall remain readily operable. The user should allow easy access to any mains plug, mains coupler and mains switch used in conjunction with this unit thus making it readily operable. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 16) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 17) Never break off the ground pin. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
- 18) If this product is to be mounted in an equipment rack, rear support should be provided.
- 19) Note for UK only: If the colours of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:
  - o The wire that is coloured green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, coloured green or coloured green and yellow.
  - o The wire that is coloured blue must be connected to the terminal that is marked with the letter N or the colour black.
  - o The wire that is coloured brown must be connected to the terminal that is marked with the letter L or the colour red.
- 20) This electrical apparatus should not be exposed to dripping or splashing and care should be taken not to place objects containing liquids, such as vases, upon the apparatus.
- 21) Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures: According to OSHA, any exposure more than the above permissible limits could result in some hearing loss. Earplugs or protectors to the ear canals or over the ears must be worn when operating this amplification system to prevent a permanent hearing loss, if exposure is more than the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.
- 22) If your appliance features a tilting mechanism or a kickback style cabinet, please use this design feature with caution. Due to the ease with which the amplifier can be moved between straight and tilted back positions, only use the amplifier on a level, stable surface. DO NOT operate the amplifier on a desk, table, shelf or otherwise unsuitable non-stable platform.
- 23) The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Headstock Distribution Ltd is under license. Other trademarks and trade names are those of their respective owners. HH Electronics Ltd. is a registered trademark of Headstock Distribution Ltd.
  - o INCORPORATED RADIO EQUIPMENT DEVICE TECHNICAL SPECIFICATION:
  - o Frequency Range: 2402-2480MHz
  - o Transmit Power: +2dBm (1.6mW)
  - o Receiver Sensitivity: -91dBm
  - o Operating Protocol: Bluetooth Class 2
  - o Bluetooth V5.0
- 24) Symbols & nomenclature used on the product and in the product manuals, intended to alert the operator to areas where extra caution may be necessary, are as follows:

Duration Per Day in Hours	Sound Level dBA, slow response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ ou inférieur	115

 <b>CAUTION:</b>	<p>Intended to alert the user to the presence of uninsulated 'Dangerous Voltage' within the products enclosure that may be sufficient to constitute a risk of electrical shock to persons.</p> <p>Ce symbole est utilisé pour indiquer à l'utilisateur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique.</p> <p>Este símbolo tiene el propósito de alertar al usuario de la presencia de '(voltaje) peligroso' que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.</p> <p>Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.</p>
 <b>WARNING:</b>	<p>Intended to alert the user of the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.</p> <p>Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.</p> <p>Este símbolo tiene el propósito de alertar al usuario de las presencias de instrucciones importantes sobre la operación y mantenimiento en la literatura que viene con el producto.</p> <p>Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.</p>
<p>CAUTION:</p> <p>ATTENTION :</p> <p>PRECAUCION:</p> <p>VORSICHT:</p>	<p>Risk of electrical shock - DO NOT OPEN. To reduce the risk of electrical shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified personnel.</p> <p>Risques de choc électrique - NE PAS OUVIRIR. Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien à un personnel qualifié.</p> <p>Riesgo de descarga eléctrica - NO ABRIR. Para reducir el riesgo de descarga eléctrica, no quite la cubierta. No hay piezas reparables por el usuario en el interior. Remita el servicio a personal calificado.</p> <p>Risiko - Elektrischer Schlag! Nicht offen! Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vor Anwender repariert werden konnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.</p>
<p>WARNING:</p> <p>ADVERTISSEMENT :</p> <p>ADVERTENCIA:</p> <p>ACHTUNG:</p>	<p>To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, please read the operating instructions for further warnings.</p> <p>Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil à la pluie ou à l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplémentaires situés dans le guide.</p> <p>Para evitar descargas eléctricas o peligro de incendio, no exponga este aparato a la lluvia ni a la humedad. Antes de usar este aparato, lea las instrucciones de funcionamiento para conocer más advertencias.</p> <p>Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.</p>
	<p>This device complies with Part 15 of the FCC rules Operation is subject to the following two conditions:</p> <ol style="list-style-type: none"> <li>1) This device may not cause harmful interference.</li> <li>2) This device must accept any interference received, that may cause undesired operation.</li> </ol> <p>Warning: Changes or modification to the equipment not approved by Laney can void the user's authority to use the equipment.</p> <p>Note: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures. Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.</p>
	<p>This product conforms to the requirements of the following European Regulations, Directives &amp; Rules: CE Mark (93/68/EEC), Low Voltage 2014/35/EU, EMC (2014/30/EU), RoHS (2011/65/EU), RED (2014/30/EU), ErP 2009/125/EU</p> <p>SIMPLIFIED EU DECLARATION OF CONFORMITY</p> <p>Hereby, HH Electronics declares that the radio equipment is in compliance with Directives 2014/53/EU, 2011/65/EU, 2009/125/EU</p> <p>Full text of the EU declaration of conformity is available at the following internet address:</p> <p><a href="http://support.hhelectronics.com/approvals">http://support.hhelectronics.com/approvals</a></p>
	<p>The object of the declaration described above is in conformity with the relevant statutory requirement Radio Equipment Regulations 2017, The Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, The Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations 2012.</p>
	<p>In order to reduce environmental damage, at the end of its useful life, this product must not be disposed of along with normal household waste to landfill sites. It must be taken to an approved recycling centre according to the recommendations of the WEEE (Waste Electrical and Electronic Equipment) directive applicable in your country.</p>

HH ELECTRONICS LTD.  
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HH ELECTRONICS PART OF HEADSTOCK GROUP  
FOR THE LATEST INFORMATION PLEASE VISIT

[WWW.HHELECTRONICS.COM](http://WWW.HHELECTRONICS.COM)

**IN THE INTEREST OF CONTINUED DEVELOPMENT, HH RESERVES THE RIGHT TO AMEND PRODUCT SPECIFICATION  
WITHOUT PRIOR NOTIFICATION.**

V1.2