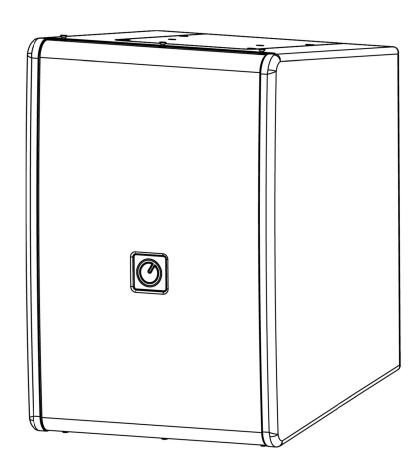
# INTUSONIC



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INTUSONIC is a brand of Universal Technical Industries Co. Ltd.

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Concept, Design & Distribution by

# **INTUCAB 6FP100T**

6.5" + 1" Passive 2-Way Multi-Purpose Speaker System



#### Welcome

Thank you for choosing INTUSONIC for your sound system. To make sure that this product meets your expectations and provides long-term, reliable performance, please read and follow this instruction manual carefully.

# Manual language

- **UK** This user manual is written in English. For other languages, please use an auto-translation service of your choice.
- **FR** Ce guide est écrit en anglais. Pour les autres langues, veuillez utiliser un service de traduction automatique de votre choix.
- **DE** Diese Anleitung ist in Englisch verfasst. Für andere Sprachen verwenden Sie bitte einen automatischen Übersetzungsdienst Ihrer Wahl.
- ES Este manual está escrito en Inglés. Para otros idiomas, utilice un servicio de traducción automática de su elección.
- **PT** Este manual está escrito em Inglês. Para outros idiomas, use um serviço de tradução automática de sua escolha.
- IT Questo manuale è scritto in inglese. Per altre lingue, utilizza un servizio di traduzione automatica a tua scelta.

# Important safety instructions

- Read these instructions and all markings on the product. Keep these instructions.
- Heed all warnings and instructions, both in this manual and on the product.
- Clean only with a dry cloth. Unplug the unit or its power adaptor/charger from AC supply before cleaning.
- Do not use this product near water and avoid any exposure to water.
- Before connecting this product to any AC supply (if any), make sure to check whether the AC mains voltage and frequency match the indication on the product and its packaging.
- Only connect this product or its power adaptor/charger to an AC supply (if any) with sufficient power handling, protective earth connection, ground-fault (earth-fault) protection and overload protection.
- Disconnect the product or its power adaptor/charger from the AC supply (if any) during thunderstorms or longer periods of being unused.

# **EC Declaration of Conformity**

#### The manufacturer

Adelto Industries, Unit 4 Britannia Business Park, Comet Way, Southend-on-Sea, Essex, SS2 6GE, United Kingdom

Declares at his sole responsibility that the equipment

#### **INTUSONIC 6FP100T**

is in conformity with the following directives/standards/regulations:

EMC Directive 2014/30/EU

EN55035:2017

LVD Directive 2014/35/EU

EN62368-1

ROHS2 Directive 2011/65/EU & 2015/863/EU

EN63000:2018

And is marked as follows:

 $\epsilon$ 

Southend-on-Sea, 19<sup>th</sup> March 2021

Authorized Signature

#### **Technical Data**

Frequency response (-3dB)	75Hz-16.5kHz
Sensitivity (1W/1m)/Max SPL	92dB / 116.5dB
Impedance	8 Ω
Power handling	80W (AES)
Drivers / Design	6.5" (vented) & 1"CP
Material	12mm MDF/PLW
Surface	paint
IP Rating	20
Dimensions WxDxH	225x252x325mm
Weight	8.15 kg



### Warranty

This product is guaranteed to be free of defects in material and workmanship at the time of purchase. Send-in warranty repair is granted for a period determined by

- A period of at least 6 months (from the date of purchase), or the minimum period required by law in the territory of sale, whichever is longer.
- A period of no longer (from the date of purchase) than the specified average lifetime of a component by the component's manufacturer.

- Make sure any heat sink or other cooling surface, or any air convection slot, is exposed sufficiently to free air circulation and is not blocked.
- Do not operate this product in environmental temperatures exceeding 35 degrees Celsius and/or 85% relative humidity.
- Position the product in a safe and stable place for operation, out of reach of unauthorized persons.
- Make sure any cable connections to and from the product are neither subject to potentially destructive mechanical impact nor present any risk of stumbling or other accident risk to people.
- Audio equipment may generate sound pressure levels sufficient to cause permanent hearing damage to persons. Always start up at low volume settings and avoid prolonged exposure to sound pressure levels exceeding 90dB.
- Do not open this product for service purposes. There are no user-serviceable parts inside.
- Warranty will be void in any case of unauthorized service by the user or other not authorized persons.
- Take any precaution required by local law, applicable regulations or good business practice to avoid injury of people or material damage by use of this product.



### Symbols used in this manual



**DANGER!** Safety hazard. Risk of injury or death.



**ATTENTION!** Read manual before installation and operation.



**WARNING!** Hazardous voltage. Risk of severe or fatal electric shock.



**WARNING!** Fire hazard.



### **Health Advice**

This unit may produce and absorb electromagnetic radiation. The strength of radiation and the sensitivity for disturbing interference matches the CE and FCC requirements. A corresponding sign is printed on the backside of the unit. Any change or modification may affect the behavior of the unit concerning electromagnetic radiation, with the CE and FCC requirements eventually not to be met any more. The manufacturer takes no responsibility in this case.



#### Functional Advice (only for powered products)

This unit is immune to the presence of electromagnetic disturbances – both conducted and radiated - up to a certain level. Under peak conditions, the unit is classified to show a "class C" performance criteria and may encounter temporary degradation or loss of function which may need manual help to recover. In such case, switch the unit off and back on to recover.



#### **Environmental Advice**

This unit is built to conform to the ROHS-2 standard according to directive 2011/65/EU and the WEEE directive 2012/19/EU of the European Parliament and of the Council of the European Union. Under these regulations, the product shall not be discarded into regular garbage at the end of its life, but shall be returned to authorized recycling stations.



### Battery Advice (only for battery-powered products)

- Some products may contain a battery. Refer to the further chapters of this manual to determine whether this product contains a battery, and whether this is removable and/or rechargeable.
- Where applicable, adhere to the relative regulations in aviation transport.
- If the battery is rechargeable, the battery might not be fully charged or partly discharged at the time of purchase. Recharge before use. Only use recommended or included chargers with appropriate voltage/current rating.

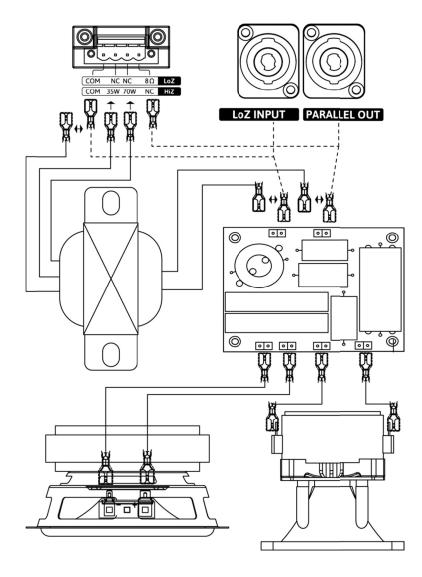


WARNING! Fire hazard. Batteries might heat up during charging. Only charge in a place with sufficient air convection.



#### **Wireless Advice**

- Some products may contain a wireless transmitter, receiver or transceiver. Refer to the further chapters of this manual to determine whether this product contains a wireless function, and in which frequency this operates.
- Make sure the frequency of operation does not require a specific license in the territory you operate the product in. If it does, obtain such license prior to any operation.
- Certain wireless technologies are designed for short distance operation. The actual distance will depend on how jammed the



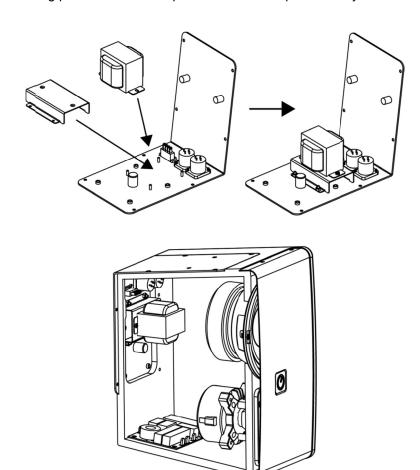


Note: When the transformer is installed the two parallel Speakon™compatible connectors will be disabled, and low impedance operation via the 5.08mm terminal strip is disabled as well.

To begin the transformer installation, remove the L-shaped back panel as described in the chapter "configuration". All cables from the back panel to the internal crossover PCBA shall be removed.

Mount the transformer bracket and the transformer itself via the accessories included in the UTK60 transformer kit as shown. Fix all internal screws with screwlock glue.

Rewire the connection from the 5.08mm terminal strip to the transformer input and from the transformer output to the internal crossover as shown in the cabling plan. Refit the rear panel to the main speaker body.



frequency band is at the location of use. In adverse cases, operational distances might be as low as 5m. In normal circumstances, 10m can be assumed. Test the operational distance prior to relying on the wireless functionality in a specific application.

# Unpacking

Please check that the box contains the following items:

- 1 pc. main unit
- 1 pc. plug-in terminal block 4-pole P=5.08mm
- 2 pcs. M6 safety lug
- 1 pc. M10 safety lug
- 1 pc. instruction manual

If any part is missing, please contact your dealer immediately for replacement.

# A

## About this product

The 6FP100T is a multi-purpose passive 2-way low-impedance loudspeaker system for commercial applications. Due to its compact size owed to the 6.5" woofer, it fits into most background music systems, but due to its powerful high frequency compression driver and horn, it can play louder than many background music speakers. This makes it a perfect choice for multi-purpose venues. By means of its extremely flexible mounting options, it can be:

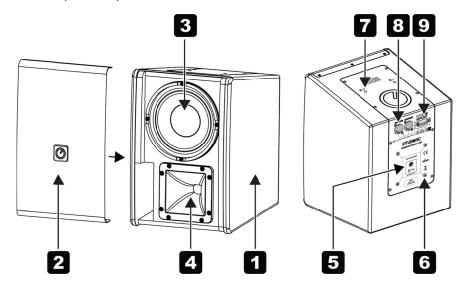
- Flown by the use of the M6 and M10 lug mounting points;
- Wall or ceiling mounted with any 75mm VESA compatible mount;
- Suspended down-facing from its M10 lug mounting point as a pendant speaker;
- Be directly attached to trussing or other tubes via a coupler attached to its M10 lug mounting point.

The 6FP100T can further be retrofitted with a 100V line transformer kit (Ref. UTK60) for the use in 100V line systems.



# **Structural Design**

**Note:** This speaker is supposed to be operated with the high frequency driver pointing downwards. The following illustration shows the normal vertical operation position.



- **Wooden Cabinet.** This is the main body of the speaker. Due to the wooden base material, this speaker is only suitable for indoor use.
- **Grille.** This metal mesh grille protects the drivers from mechanical impact and also from dust by the inner foam layer. Keep the grille mounted unless rotation of the HF horn is required during installation.
- **LF Driver (woofer).** This is 6.5" / 8 Ohm low/mid frequency loudspeaker.
- HF Driver (compression driver & horn). This is a 1" voice coil compression driver mounted to a 90°x60° horn. The horn can be turned for horizontal mounting (refer to the chapter below).
- M10 mounting point. This is a rear-welded closed M10 thread insert, which can be used for both lug mounting and coupler mounting. Make sure the inserted screw's thread length is longer than 10mm and shorter than 16mm.
- M4 VESA mounting point. These are 4 points of M4 threaded holes with pre/fitted M4x10 screws. Do not remove the screws even if no VESA mount is fitted, as the screw holes need to be closed for air sealing purposes. Only use supplied screws for VESA mounting, do not use longer screws to avoid damage to the speaker structure.



**Danger** - risk of injury: Flown (hanging) installation requires extensive experience, like calculating working load limits, knowledge of installation materials, and periodic safety inspection of all installation material and the flown product. If you lack such qualifications, do not attempt the installation yourself. Improper installation can result in injury of people.

Make sure to adhere to following rules:

- The product shall be installed out of reach of people and outside of areas where persons may walk by or be seated.
- The installation area shall be able to hold a minimum point load of 10 times the product's weight.
- The installation is secured with an appropriate safety cable where necessary or required by law. The installer and user are obliged to survey applicable local safety regulations prior to installation and operation. Always use a certified safety cable according to DIN56927 that can hold 12 times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- The installation place is free from unwanted persons during installation, de-installation or servicing.
- The safety-relating and machine-technical installations are approved by an expert before using them for the first time.
- The cooling requirements are met (if any). Note that warm air is ascending, making the area below a rooms' ceiling potentially warmer than lower locations.



### Transformer fitting (for 100V line operation)

The 6FP100T can be fitted with an addition, optional line transformer for 100V line operation. The transformer, including a suitable cabling kit, can be obtained as an accessory (item code UTK60)



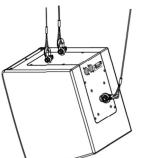
**Danger:** Fitting the line transformer requires internal recabling. Only expdite this work if you hold applicable qualifications and certificates. Work on 100V line systems can be hazardous due to the voltages involved.





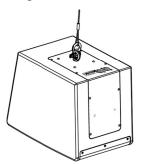
#### **VESA** mounting (rear)

- Use the speaker with the L-shaped rear panel mounted to point backwards with the VESA mount points and connectors.
- Attach the VESA mount with 4 screws tightly to the rear of the speaker.
- Use a certified safety cable attached to one of the M6 threads if required by law.



#### **FLOWN** mounting

- Use the speaker with the L-shaped rear panel mounted to point backwards with the VESA mount points and connectors.
- Attach M6 screw lugs to the top mounting points and an M10 screw lug to the rear mounting point.
- Use fail-safe hanging cables to suspend the speaker from the ceiling or other structures



#### **PENDANT** mounting

- Use the speaker with the L-shaped rear panel mounted to point backwards with the VESA mount points and connectors.
- Attach an M10 screw lug to the rear mounting point and suspend from ceiling or other structure.
- Use a certified safety cable attached to one of the M6 threads if required by law.



#### **COUPLER** mounting (top)

- Use the speaker with the L-shaped rear panel mounted to point topwards with the VESA mount points and connectors.
- Attach an M10 truss coupler to the M10 mounting point and affix to truss.
- Use a certified safety cable attached to one of the M6 threads if required by law.

- M6 mounting point. This is a rear-welded closed M6 thread insert, which can be used for both lug mounting and Coupler mounting. Make sure the inserted screw's thread length is longer than 8mm and shorter than 11mm.
- Speakon<sup>™</sup>-Compatible input connectors. These are two connectors cabled in parallel.
- **Terminal Strip connector.** This is 4-pin terminal strip connector allowing to establish a screw/plug connection via the included connector. Be aware that this is a 5.08mm pin distance connector, do not use 5mm plugs.



**DANGER!** Using the M4 (VESA), M6 and M10 mounting points, it is important that the screw thread length inserted into the mounting points is as close as possible but not exceeding the stated insertion length. Threads too short pose the danger of insufficient grip; threads too long will impose torsion forces on the mounting point's welding lines. Both may lead to the screw connection becoming loose. It is the installers/users responsibility to make sure the correct screw thread length is adhered to.



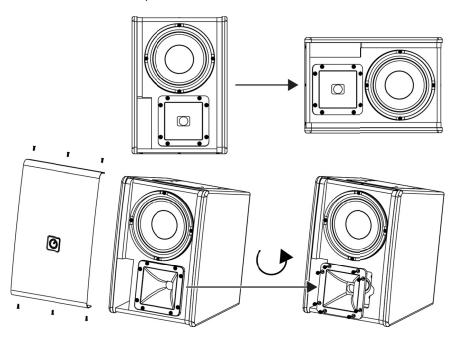
### Configuration

The 6FP100T can be installed vertically or horizontally. Wherever possible, vertical installation is recommended. Do to the high frequency driver unit working with a HxV 90°x60° dispersion, horizontal operation will require the horn/driver unit to be turned. The factory default horn orientation is for vertical operation. If a change of horn direction is required due to horizontal operation, the following steps are to be expedited:

- Remove the 6 screws holding the front cover grille.
- Carefully lift off the front cover grille.
- Remove the 4 screws holding the horn/driver assembly.
- Lift the horn/driver assembly and turn it by 90 degrees.
- Re-fit the 4 screws holding the horn/driver assembly.
- Re-fit the front cover grille.
- Re-fit the 6 screws holding the front cover grille.

During any of these operations, make sure no screws of other materials touch the cone of the woofer or the diaphragm of the high frequency driver. Do not apply excessive screw torque and always use matching screw drivers to avoid damage to screws.

If being at doubt about the current configuration of the high frequency horn/driver assembly, check the bottom of the high frequency horn. The bottom of the horn is rectangular, and the wider side indicates the 90 degrees horizontal dispersion, the shorter side the 60 degrees vertical dispersion. The speaker shall be mounted in a way that the longer side of the horn's bottom is in parallel to the floor.



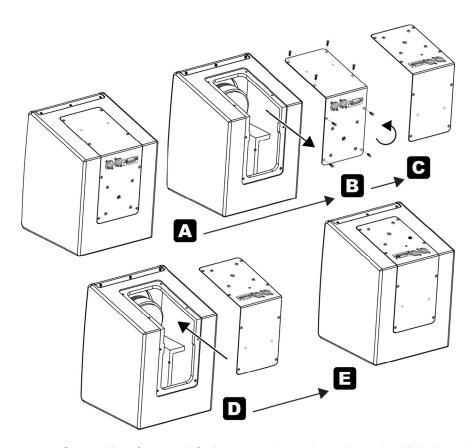


Note: This speaker is supposed to be operated with the high frequency driver pointing downwards.

Further to the adjustment of the HF horn/driver assembly direction based on vertical or horizontal mounting, the 6FP100T can be further modified for different vertical mounting situations:

- M10 and VESA mounting side with connectors to the rear
- M10 and VESA mounting side with connectors to top

To modify the direction of the rear mounting points and connectors, follow the following procedure:



- Start with a factory-default mounted speaker where the M10 thread insert, the VESA mounts and the connectors point to the back of the speaker (step A)
- Remove the 8 screws which hold the L-shaped rear panel to the main speaker body, and lift the rear panel off (step B)
- Turn the rear panel by 180 degrees, making sure to not damage or stretch the internal cabling (step C)
- Reposition the rear panel on the speaker body and refit the 8 mounting screws (step D)
- End up with a speaker where the M10 thread insert, the VESA mounts and the connectors point to the top of the speaker (step E)



Danger: All mounting screws need to be fixed with the factory default torque. Loose or overtorqued screws are a safety risk, and speakers with such screws are prohibited from further installation.