



**TAGA**  
HARMONY

# COMMERCIAL AUDIO

## **TCW / TOW / TBS / TOS series**

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100V IN-WALL & IN-CEILING / ON-WALL / ON-CEILING  
AUDIO DISTRIBUTION SPEAKERS



User manual

# Introduction

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Thank you for purchasing TAGA Harmony Speakers.

TAGA Harmony installation speakers provide superior sound performance and amazing value.

They utilize very rigid and strong cabinets, which minimize distortion, vibrations or resonances and specialized mounting brackets that make installation very easy.

With built-in transformers they are ideal solutions for paging and background music systems in halls, conference rooms, restaurants and other commercial applications.

The TBS ball speakers are ideal for retail, warehouse and open plan commercial applications, where traditional ceiling mounted speakers are difficult or impractical to install.

The sound is clear, natural, dynamic and provides wide dispersion throughout a listening area, without occupying your valuable floor space!

The frames and grilles of most models may be painted to blend with any decor.

## **Cleaning**

Do not use strong or abrasive cleaners. Use a damp, soft cloth for cleaning.

## **Specifications and the latest instruction manual edition**

Full technical specifications and the latest edition of the instruction manual are available on [www.TagHarmony.com](http://www.TagHarmony.com).

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# Important remarks

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An exclamation mark in a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## **PLEASE READ THIS INSTRUCTION MANUAL CAREFULLY BEFORE INSTALLATION AND KEEP IT FOR FUTURE REFERENCE**

- If not clearly specified otherwise in the product specifications (available on the [www.TagHarmony.com](http://www.TagHarmony.com) website), this speaker is intended for indoor use only.
- Please do not dismantle any parts of the speaker as this may void your warranty – servicing should be performed only by a qualified TAGA Harmony repair center.
- When connecting the speaker make sure to power off your audio equipment (amplifier, power mixer, sound processor etc.).
- Make sure that all connections are done according to this manual and a manual provided with your audio equipment.
- Make sure that your audio equipment output power (and working impedance for low-impedance connection) are compatible with this speaker. Using unsuitable audio equipment may damage the speaker and / or audio equipment and void your warranty.
- The speaker may be damaged by too high output power as well as by an underpowered output signal [distortion of sound].
- Do not use very high-volume levels for a long period of time – this may damage the speaker and void your warranty.
- When switching on and off your audio equipment, turn down the volume to avoid strong electrical impact to be delivered to the speaker.
- Position the speaker in ventilated and dry atmosphere and do not expose it to sun or other heat sources (does not apply to outdoor speakers).
- Install the loudspeaker on a stable and hard surface.
- We recommend having a licensed professional engineer or designer reviewed the design and installation of the system focusing on safety and performance of the application.
- To protect the drivers do not remove the protective grille (if provided).

# Speaker Placement

Please spend some time considering placement prior to installing the speaker. Once it is installed, it is not to be easily moved or repositioned. Each room has its specific acoustics but there are some general rules:

## Location

TAGA Harmony speakers can be installed almost anywhere thanks to our unique sound characteristic which is strong and detailed, and has a wide dispersion field.

## General notes

In-wall / On-wall	In-ceiling / On-ceiling
Placing the speakers near a corner will tend to increase their bass output, but may result in "boomy" or "muddy" sound and voice broad-casting.	Corner placement close to the walls provides a good balance of bass output and accuracy.
Placing the speakers further into the room will tend to decrease their bass output, but may result in improved articulation and clarity of sound and voice broadcasting.	
Place the speakers at least 60 cm (2 feet) away from corners and other surfaces which may interfere or reflect sound (like tall furniture).	
To add extra bass and definition to your system we recommend TAGA Harmony Custom Instal-lations or traditional subwoofers.	

## Placement for entertainment listening or background music (1 or more speakers)

In-wall / On-wall	In-ceiling / On-ceiling
In rectangular smaller space [below 30 square meters (320 square feet)] usually 1 or 2 spe-akers should work fine. If you use 2 – place them near opposite corners. If you use 1– place it on the most empty and biggest wall.	In rectangular smaller space [below 30 square meters (320 square feet)] usually 1 or 2 spe-akers should work fine. If you use 2 – place them near opposite corners. If you use 1– place it in the central position.
In irregular or larger space use more than 2 speakers and place them evenly across the space for good sound dispersion.	

## Placement for voice broadcasting

Depending on the area size use 1 or more speakers. For irregular or larger space use more speakers and place them evenly across the space for good voice coverage.
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# Connections

This speaker has connections for different 100V power options. Select the wattage according to the application and use only one wattage option for connecting your speaker line / amplifier (never connect different wattage wires simultaneously).

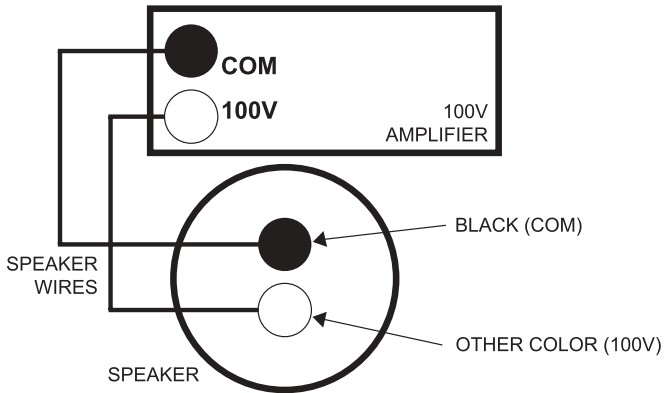


This speaker should be connected only to one speaker line / amplifier. Before connecting the speaker make sure that your 100V speaker line or amplifier is switched off.

Failure to follow the above-mentioned instructions may burn the amplifier and / or damage the speakers. This may void your warranty.

Use a good quality speaker wire to connect your speaker.

## 100V CONNECTION (DIAGRAM)



## TCW / TOW SPEAKERS (100V CONNECTION)

The speaker has 2 power options (check specifications on the [www.TagHarmony.com](http://www.TagHarmony.com) website).

The speaker is equipped with 3 spring clip wire terminals coded with colors: BLACK is common; RED is a transformer output power tap for the Higher power; WHITE is a transformer output power tap for the Lower power.

Each wire terminal can accommodate a speaker wire up to 14 AWG.

**BLACK** terminal: connect it to the common output of your speaker line / amplifier (usually marked as COM).

**RED** or **WHITE** terminal: select the one according to the application and the power you require. Connect the selected one to the 100V power output of your speaker line / amplifier (usually marked as 100V).



Never connect both wires (RED and WHITE) simultaneously.



Make sure to use a 100V speaker line / amplifier - otherwise you may damage the speaker and / or amplifier. This may void your warranty.

# Speaker Mounting

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## **TBS SPEAKERS [100V CONNECTION]**

The speaker has 4 power options (check specifications on the [www.TagaHarmony.com](http://www.TagaHarmony.com) website).

The speaker is equipped with 5 input wires coded with colors: BLACK is common and other 4 colors are used for different transformer output power taps: BLUE is 30W, RED is 20W, YELLOW is 10W, GREEN is 5W.

**BLACK** wire: connect it to the common output of your speaker line / amplifier (usually marked as COM).

**BLUE** or **RED** or **YELLOW** or **GREEN** wire: select the one according to the application and the power you require. Connect the selected one to the 100V power output of your speaker line / amplifier (usually marked as 100V).



Never connect more than a single wire (BLUE, RED, YELLOW and GREEN) simultaneously.

Please refer to your amplifier instruction manual for more information.

The input wires are short and should be extended with a speaker wire – all connections should be firmly made and isolated.



Make sure to use a 100V speaker line / amplifier - otherwise you may damage the speaker and / or amplifier. This may void your warranty.

## **TOS SPEAKERS (100V and LOW-IMPEDANCE connection)**

The speaker can be connected to 100V speaker line / amplifier [100V mode] or an amplifier suitable to work with low-impedance speakers [low-impedance mode].

The speaker is equipped with a selector (usually on the rear panel) for choosing the working mode (100V or low-impedance) and 2 wire terminals coded with colors (BLACK and RED).

Each wire terminal can accommodate a speaker wire up to 10 AWG - for selected models different types of plugs and connectors can be used.

### **100V mode – connection (check the diagram on page 6)**

The 100V mode selection usually has different selectable power options (check specifications on the [www.TagaHarmony.com](http://www.TagaHarmony.com) website).

Depending on your application and speaker line / amplifier power set the suitable power on the selector.

Wire terminals: BLACK is common, and RED is transformer output power tap.

**BLACK** terminal: connect it to the common output of your speaker line / amplifier (usually marked as COM).

**RED** terminal: connect it to the 100V power output of your speaker line / amplifier (usually marked as 100V).



Make sure to use a 100V speaker line / amplifier for this mode - otherwise you may damage the speaker and / or amplifier. This may void your warranty.

### **Low-impedance mode – connection**

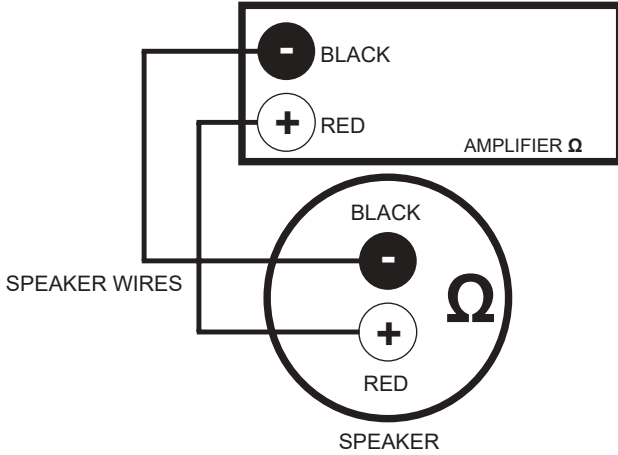
The low-impedance mode selection is marked with  $\Omega$  sign (usually 8 $\Omega$  or 6 $\Omega$  or 4 $\Omega$ ).

Choose this mode if you intend to use an amplifier suitable to work with low-impedance speakers.

Pay attention to connecting the polarity of the speaker wire terminals correctly with the amplifier speakers output terminals (RED + with RED +, BLACK - with BLACK -).

# Speaker Mounting

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Make sure that an amplifier suitable to work with low-impedance speakers and compatible with the speaker impedance, is used for this mode - otherwise you may damage the speaker and / or amplifier. This may void your warranty.

Please refer to your amplifier's instruction manual for more information.



# Speaker Mounting

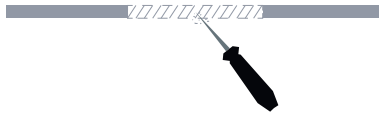
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Run the speaker cable to location where the speaker is to be installed. Leave about 30 cm (1.64 feet) of extra cable (if the speaker cable is hidden in a wall or ceiling make a hole in the center of the location of the speaker).

## **IN-WALL & IN-CEILING SPEAKERS (TCW)**

The below mounting procedure applies to drywall walls, drywall ceilings and dropped ceilings or similar.

You will have to cut a hole in a wall or ceiling. With the right tools and a little extra care and preparation, installing the speaker can be both quick and easy.



There are 2 types of paper templates which are helpful to cut out a hole for installing the speaker. Your speaker is supplied with one of the templates.

**Type #1** a template, in which a hole along the drawn line should be cut out.

- Carefully cut out the hole drawn on the template.
- Position the template in the place you wish to mount the speaker, and draw a line on the wall / ceiling along the inside edges of the hole.

**Type #2** a template in the shape of a hole which has to be cut out in the wall / ceiling.

- Position the template in place you wish to mount the speaker, and draw a line on the wall / ceiling along the outside edge of the template.

Make your cuts along the line in the wall / ceiling. Try to keep the cuts neat, however the frame of the speaker will overlap the hole to hide any rough edges.

Place the speaker cable in the hole.

Connect the speaker cable to the speaker terminals.

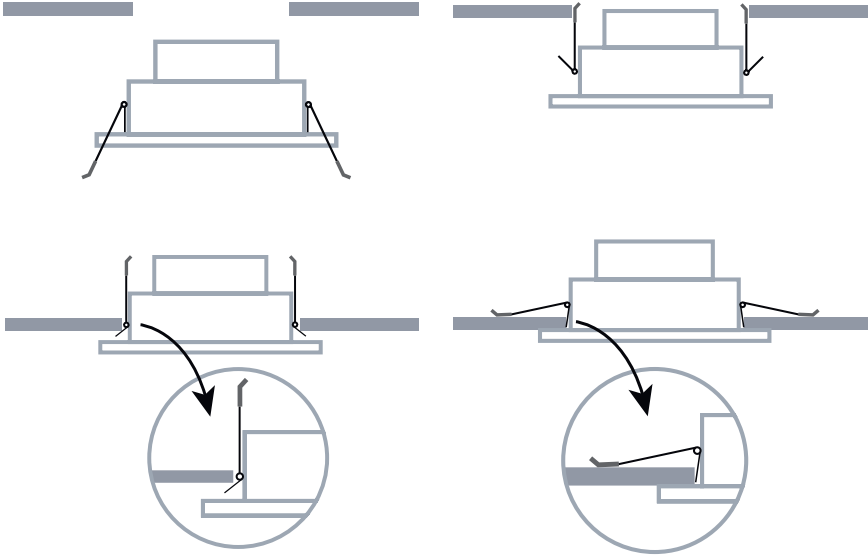
## **Models equipped with the screw type clamps**



- Remove the speaker grille by pressing the mounting screws from the back of the speaker.
- With grille removed, insert the speaker into the mounting hole.
- Use a screwdriver to turn the mounting screws slowly clockwise.
- The cut edges of the wall or ceiling will be sandwiched firmly between the mounting clamps and the speaker frame.

# Speaker Mounting

## Models equipped with the spring clamp mechanism



- Press and hold the spring clamps in the upward position.
- While holding insert the speaker into the mounting hole.
- Make sure that the longer spring clamps are inserted into the mounting hole (in the upright position) while the shorter spring clamps remain outside of the mounting hole. Push the speaker into the hole – in this way the spring clamp mechanism is sandwiched in the mounting hole.

## ON-WALL SPEAKERS (TOW)

- Screw a hook in the wall where you want to mount the speaker.



Depending on the mounting surface use appropriate screws or wall anchors (ask your local dealer or installer for advice).  
Make sure that the hook and its installation are compatible with the weight of your speaker.

- Connect the speaker cable to the speaker terminals.
- Hang the speaker on the hook.

# Speaker Mounting

## ON-CEILING SPEAKERS (TBS)

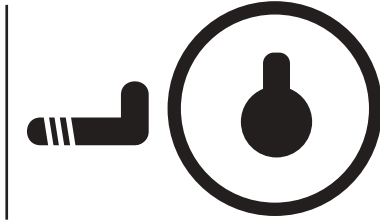
- Screw a ceiling hook in the ceiling where you want to mount the speaker.



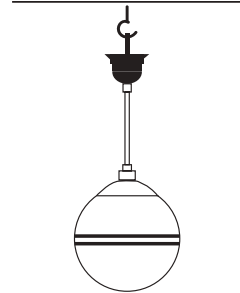
Depending on the mounting surface use appropriate screws or wall anchors (ask your local dealer or installer for advice).  
Make sure that the hook and its installation are compatible with the weight of your speaker.

- Adjust the height of the speaker.
- Connect the speaker cable to the speaker terminals.
- Hang the speaker on the hook and cover the mounting place with the ceiling rose (provided with the speaker).

## ON-WALL SPEAKERS (TOW)



## ON-CEILING SPEAKERS (TBS)



## TOS SPEAKERS

The speaker is equipped with the U mounting bracket.

### **TOS using U mounting bracket with horizontal regulation:**

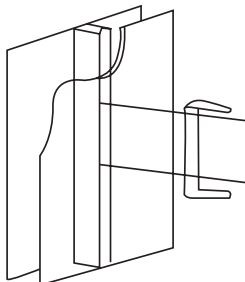
- Run the speaker wire through an installation hole in the middle of the U bracket.
- Position the bracket on the wall or ceiling where you want to mount the speaker, and mark places of mounting the screws.
- Screw the U mounting bracket onto the wall or ceiling where you want to mount the speaker.



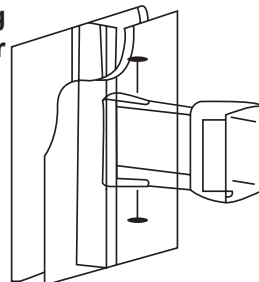
Depending on the mounting surface use appropriate screws or wall anchors (ask your local dealer or installer for advice).

- Connect the speaker wire to the wire terminals.
- Slide the speaker into the U bracket and screw top and bottom bracket knobs to the speaker to secure the speaker in the bracket.
- Adjust the horizontal position of the speaker and fasten (screw in firmly) the knobs.  
In the future the knobs can be loosen to adjust the speaker horizontal position.

**Mounting  
the bracket**



**Installing  
the speaker**



# Speaker Mounting

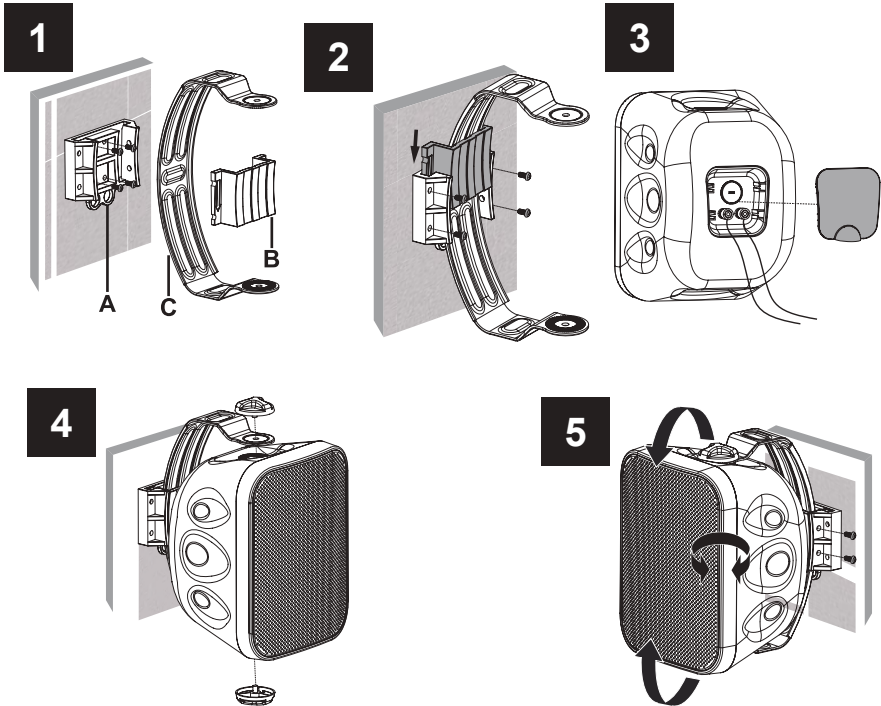
## TOS using U mounting bracket with horizontal and vertical regulation:

- Using 4 screws install the wall mount (A) on the wall or ceiling where you want to mount the speaker (fig. 1).



Depending on the mounting surface use appropriate screws or wall anchors (ask your local dealer or installer for advice).

- Attach the U bracket (C) to the wall mount (A), slide in the locking cover (B) and secure it with 4 screws (fig. 2).
- Remove the speaker terminal box cover, connect the speaker wire to the wire terminals and firmly place the cover back (fig. 3).
- Slide the speaker into the U bracket and screw top and bottom bracket knobs to the speaker to secure the speaker in the bracket (fig. 4).
- Adjust the horizontal position of the speaker and fasten (screw in firmly) the knobs. In the future the knobs can be loosened to adjust the speaker horizontal position (fig. 5).
- Adjust the vertical position of the speaker and secure the chosen position by installing 2 screws on the side of the wall mount (A). In the future the side screws can be removed to adjust the speaker vertical position (fig. 5).



**Note!** Screws, hooks and wall anchors may not be included with your speakers.

# Painting

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In the selected models the grille and the frame, may be painted to match your room decoration.

In-wall / in-ceiling speakers: if you want to paint the speaker frame use the part of the template remaining after the hole has been cut out. With the grille removed, protect the speaker with this part and paint the frame.

When painting the grille, make sure to remove the protective internal fabric (if your speaker is equipped with it) and to not plug the grille holes with paint or repaint it after the paint has dried. If your speaker was equipped with the protective internal fabric make sure to place it on the grille after the paint has dried.

# Installing the Grille

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Before installing the grille run your amplifier and check whether there are no vibrations audible from the speaker. If you hear any, it may be caused by the loose screws - tighten them up.

Install the grille and your speaker is ready to use!

**We strongly advise to contact a professional installer or dealer in order to install TAGA Harmony products.**

**We recommend using high quality TAGA Harmony cables and other installation accessories.**



Your product is marked with the symbol as showed on the left.  
For EU (European Union) member users:  
This product has been tested and found in compliance with requirements of the European Community 2014/30/EU (EMC) directive.



### **IMPORTANT!**

Your product is marked with the symbol as showed on the left.  
For EU (European Union) member users:

According to the WEEE (Waste electrical and electronic equipment) Directive, do not dispose of this product as household waste or commercial waste. Waste electrical and electronic equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

#### **TAGA EUROPE**

POLPAK POLAND Sp. z o.o.  
AL.JEROZOLIMSKIE 331A  
05-816 REGULY k/WARSZAWY, POLAND  
Email: Sales@tagaharmony.com

**[www.Tagaharmony.com](http://www.Tagaharmony.com)**

# Notes

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# Notes

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