

# **Turbosound TMS Series Full Range Loudspeakers and Subwoofers User Guide**

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**Turbosound TMS Series Full Range Loudspeakers and Subwoofers** 



#### **Product Information**

#### **Specifications**

• Model: TVX/TMS Series

Models: TVX122M, TVX152, TVX118B, TMS122M, TMS152, TMS153, TMS118B, TMS218B

• Type: Full Range Loudspeakers and Subwoofers

· Applications: Portable PA and Installation

# **Product Usage Instructions**

# **Important Safety Instructions**

- Terminals marked with the symbol carry electrical current of sufficient magnitude to constitute a risk of electric shock.
- Use only high-quality commercially-available speaker cables with pre-installed plugs.
- All installations or modifications should be performed by qualified personnel.

#### **Caution Instructions**

- Do not remove the top cover or rear section to reduce the risk of electric shock.
- Avoid exposing the appliance to rain and moisture to prevent fire or electric shock.
- Do not block ventilation openings and install according to manufacturer's instructions.
- Protect the power cord from being walked on or pinched at plugs.

#### **Additional Instructions**

- Read and keep the instructions for future reference.
- Clean the product only with a dry cloth.
- Use only attachments specified by the manufacturer.
- Unplug during lightning storms or long periods of non-use.
- Refer servicing to qualified personnel in case of damage or abnormal operation.

#### Frequently Asked Questions (FAQ)

#### Q: Can I use any type of speaker cables with the product?

 A: It is recommended to use high-quality commercially-available speaker cables with pre-installed plugs to ensure safety and optimal performance.

#### Q: What should I do if the product gets exposed to moisture?

 A: If the product gets exposed to moisture, immediately disconnect it from power and refer servicing to qualified personnel to avoid any risks of electric shock or damage.

#### • Q: Can I clean the product with a damp cloth?

A: No, it is advised to clean the product only with a dry cloth to prevent any damage due to moisture.

# **Important Safety Instructions**

#### **CAUTION**

RISK OF ELECTR IC SHOCK! DO NOT OPEN

Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock. Use only high-quality commercially-available speaker cables with plugs pre-installed. All other installation or modification should be performed only by qualified personnel.

This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.

This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.

### Caution

To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.

#### Caution

To reduce the risk of fi re or electric shock, do not expose this appliance to rain and moisture.

The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.

#### Caution

These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.

- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. 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 the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Use only attachments/accessories specified by the manufacturer.
- 12. Use only with the 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.
- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as 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.
- 15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.
- 16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- 17. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law.

This product should be taken to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources.

For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.

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#### **LIMITED WARRANTY**

For the applicable warranty terms and conditions and additional information regarding MUSIC Group's Limited Warranty, please see complete details online at <a href="mailto:music-group.com/warranty">music-group.com/warranty</a>. Thank you for choosing a TURBOSOUND loudspeaker product for your application. If you would like further information about this or any other product, please visit our website at <a href="mailto:turbosound.com">turbosound.com</a>.

## **Unpacking the Loudspeaker**

After unpacking the unit, please check carefully for damage. If damage is found, please notify your supplier at once. You, the consignee, must instigate any claim. Please retain all packaging in case of future return shipment.

# **System Requirements**

- TVX122M, TVX152, TMS122M, TMS152 and TMS153 are switchable passive / bi-amp 2-way loudspeakers.
   Passive operation (full range or with a subwoofer) requires 1 amplifier channel and 1 controller channel. The input signal is divided between the low-frequency and high-frequency drivers internally with a passive crossover.
- Bi-amp operation (full range or with a subwoofer) requires 2 amplifier channels and 2 controller channels, one for low frequencies one for high frequencies. The input signal is divided between the low frequency and high frequency drivers in the controller and the individual amplified signals are fed to the speaker input.
- TVX118B, TMS118B and TMS218B subwoofers have a switchable input to allow operation with the satellite speakers using a single four core cable run. Operation requires 1 amplifier channel and 1 controller channel.
- Correct controller settings for all models operation and with subwoofers can be downloaded from turbosound.com and are also available as presents for the LMS series controllers. To avoid wasting amplifier power, you should use heavy-duty speaker cable with a minimum wire size of 1.5 mm² (16 AWG), and preferably 2.5 mm² (14 AWG) for longer runs. For the TMS153 and TMS218B, use 4.5 mm² (10-12 AWG) where possible. For extreme cable lengths, be aware of cable impedance and resistive losses. Always observe the correct polarity.
- The TVX122M and TMS122M 2-way systems double effectively as wedge monitors. The TVX122M and the TMS122M both provide 30° and 60° wedge angles from the stage.

# **Amplifier Considerations**

The TVX and TMS series loudspeakers are optimized for use with the TURBOSOUND T series amplifiers with the LMS series controllers. A full range of DSP settings to suit any configuration are provided for download on the TURBOSOUND website. The use of third party amplification and processing is only advised using the matrix of manual settings as well as the limiter calculator provided on the TURBOSOUND website. The TVX and TMS series loudspeaker enclosures should be driven by high quality power amplifiers designed for true professional use. Power amplifiers should be capable of delivering long term broadband power equal to half the loudspeaker's peak power rating at its stated nominal impedance. The use of underpowered amplifiers must be avoided as heavily clipped signals can cause permanent loudspeaker damage. Limiters, crossovers and equalization points must be set in accordance with the settings provided on the TURBOSOUND website. This will ensure the optimum sound quality and long-term reliability as well as protection from damage.

Neutrik speak ON\* NL4 locking input connector(s) are provided, allowing options for input and link, passive, and bi-amp operation.

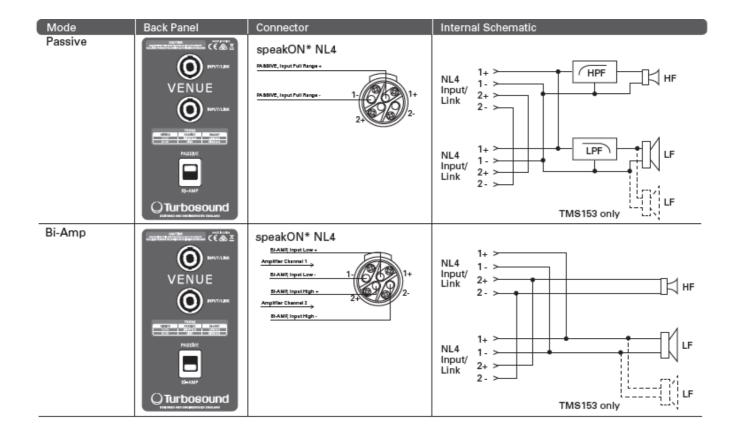
Model		TVX122M			TVX152			TVX118B
Mode		Passive	Bi-amp LF	Bi-amp H F	Passive	Bi-amp LF	Bi-amp H F	Sub
Impedance		8 W	8 W	6 W	8 W	8 W	6 W	4 W
Minimum A mplifier Po wer	Continuous RMS	500 W	500 W	40 W	500 W	500 W	40 W	600 W
	Peak	2000 W	2000 W	400 W	2000 W	2000 W	400 W	2400 W

Model		TMS112M			TMS152		
Mode		Passive	Bi-amp LF	Bi-amp HF	Passive	Bi-amp LF	Bi-amp HF
Impedance		8 W	8 W	6 W	8 W	8 W	6 W
Minimum A mplifier Po wer	Continuous RMS	800 W	800 W	75 W	800 W	800 W	75 W
	Peak	3200 W	3200 W	750 W	3200 W	3200 W	750 W

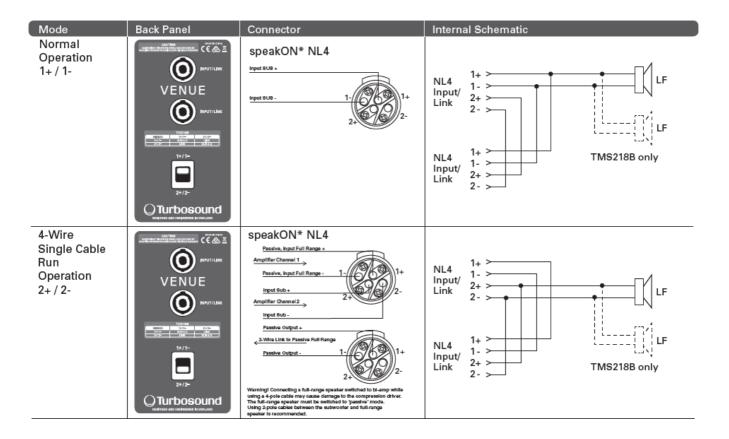
Model		TMS153		TMS118B	TMS218B	
Mode		Passive	Bi-amp LF	Bi-amp HF	Sub	Sub
Impedance		4 W	4 W	6 W	8 W	4 W
Minimum Am plifier Power	Continuous R MS	1200 W	1200 W	75 W	800 W	1600 W
	Peak	4800 W	4800 W	750 W	3200 W	6400 W

# Connections

 $\textbf{Models}{:}\ \mathsf{TVX122M},\ \mathsf{TVX152},\ \mathsf{TMS122M},\ \mathsf{TMS152},\ \mathsf{TMS153}$ 



Models: TVX118B, TMS118B, TMS218B



# **Mounting and Fixing**

TVX and TMS full-range series cabinets are designed with multiple internal rigging points to suit many possible mounting methods in permanent installations.



# Suspending with Eyebolts

- TVX and TMS cabinets can be suspended using optional eyebolts coupled to the internal rigging points provided on the top, bottom and sides and back. The simplest method is to use the two rigging points on the top and a single pull-back rigging point in the centre of the rear panel.
- Remove the appropriate countersunk screws and replace them with shoulder eyebolts, which must have a thread length of at least 18 mm.
- Use the rear rigging point to angle the cabinet for optimum room coverage. Cabinets may be hung upside down if required.

**IMPORTANT NOTE:** The mounting of a permanently installed sound system may be dangerous unless undertaken by qualified personnel with the required experience and certification to perform the necessary tasks.

- Walls, floors or ceilings must be capable of safely and securely supporting the actual load. The mounting
  accessory used must be safely and securely fixed both to the loudspeaker and to the wall, floor or ceiling.
- When mounting rigging components on walls, floors or ceilings, ensure that all fixings and fasteners used are of an appropriate size and load rating. Wall and ceiling claddings, and the construction and composition of walls and ceilings, all need to be taken into account when determining whether a particular fixing arrangement can be safely employed for a particular load. Cavity plugs or other specialist fixings, if required, must be of an appropriate type, and must be fitted and used in accordance with the maker's instructions.
- The operation of your speaker cabinet as part of a fl own system, if installed incorrectly and improperly, can potentially expose persons to serious health risks and even death. In addition, please ensure that electrical, mechanical and acoustic considerations are discussed with qualified and certified (by local state or national authorities) personnel prior to any installation or flying.
- Make sure that speaker cabinets are set up and fl own by qualified and certified personnel only, using dedicated equipment and original parts and components delivered with the unit. If any parts or components are missing please contact your dealer before attempting to set up the system.
- Be sure to observe the local, state and other safety regulations applicable in your country. MUSIC Group, including the MUSIC Group companies listed on the enclosed "Service Information Sheet", assumes no liability for any damage or personal injury resulting from improper use, installation or operation of the product. Regular checks must be conducted by qualified personnel to ensure that the system remains in a secure and stable condition. Make sure that, where the speaker is fl own, the area underneath the speaker is free of human traffic. Do not fl y the speaker in areas that can be entered or used by members of the public.
- Speakers create a magnetic field, even if not in operation. Therefore, please keep all materials that can be affected by such fields (discs, computers, monitors, etc) at a safe distance. A safe distance is usually between 1 and 2 metres.

# **Technical Specifications**

	TVX122M	TVX152	TMS122M	TMS152	TMS153
System					
Frequency response	85 Hz - 20 kHz ±3 dB 55 Hz - 20 kHz -10 dB	60 Hz – 20 kHz ±3 dB 50 Hz – 20 kHz -10 dB	65 Hz – 18 kHz ±3 dB 50 Hz – 20 kHz -10 dB	55 Hz – 20 kHz ±3 dB 45 Hz – 20 kHz -10 dB	50 Hz – 20 kHz ±3 dB 37 Hz – 20 kHz -10 dB
Nominal dispersion	nal dispersion   70° H x 70° V @   70° H x 70° V @   -6 dB points   -6 dB points		90° H X 50° V @ -6 dB points	70° H X 50° V @ -6 dB points	75° H x 50° V @ -6 dB points
Directivity factor (Q)	9.4	9.4	10.4	12.8	12.8
Directivity index (DI)	9.7	9.7	10.2	11.1	11.1
Power handling (IEC)					
Passive	500 W continuous, 2,000 W peak	500 W continuous, 2,000 W peak	800 W continuous, 3,200 W peak	800 W continuous, 3,200 W peak	1,200 W continuous, 4,800 W peak
Bi-amp	LF: 500 W continuous, 2,000 W peak HF: 40 W continuous, 160 W peak	LF: 500 W continuous, 2,000 W peak HF: 40 W continuous, 160 W peak	LF: 800 W continuous, 3,200 W peak HF: 75 W continuous, 300 W peak	LF: 800 W continuous, 3,200 W peak HF: 75 W continuous, 300 W peak	LF: 1,200 W continuous, 4,800 W peak HF: 75 W continuous, 300 W peak
Sensitivity	97 dB (1 W @ 1 m)	97 dB (1 W @ 1 m)	96 dB (1 W @ 1 m)	97 dB (1 W @ 1 m)	99 dB (1 W @ 1 m)
Maximum SPL					
Passive	124 dB continuous, 130 dB peak	124 dB continuous, 130 dB peak	125 dB continuous, 131 dB peak	126 dB continuous, 132 dB peak	130 dB continuous, 136 dB peak
Bi-amp	LF: 124 dB continuous, 130 dB peak HF: 122 dB continuous, 128 dB peak	LF: 124 dB continuous, 130 dB peak HF: 122 dB continuous, 128 dB peak	LF: 125 dB continuous, 131 dB peak HF: 128 dB continuous, 134 dB peak	LF: 126 dB continuous, 132 dB peak HF: 128 dB continuous, 134 dB peak	LF: 130 dB continuous, 136 dB peak HF: 128 dB continuous, 134 dB peak
Impedance					
Passive	8 Ω	8 Ω	8 Ω	8 Ω	4 Ω
Bi-amp	LF: 8 Ω HF: 6 Ω	LF: 4 Ω HF: 6 Ω			
Crossover type	Passive / Bi-amp, switchable				
Components	1 x 12" (316 mm) LF driver 1 x 1" (25 mm) HF compression driver	1 x 15" (394 mm) LF driver 1 x 1" (25 mm) HF compression driver	1 x 12" (316 mm) LF driver 1 x 1.4" (36 mm) HF compression driver	1 x 15" (394 mm) LF driver 1 x 1.4" (36 mm) HF compression driver	2 x 15" (394 mm) LF driver 1 x 1.4" (36 mm) HF compression driver
Enclosure					
Connectors	2 x Neutrik speakON* NL4				
Wiring					
Passive	Pins 1+ / 1- input, Pins 2+ / 2- link	Pins 1+ / 1- input, pins 2+ / 2- link	Pins 1+ / 1- input, pins 2+ / 2- link	Pins 1+ / 1- input, pins 2+ / 2- link	Pins 1+ / 1- input, pins 2+ / 2- link
Bi-amp	Pins 1+ / 1- LF, Pins 2+ / 2- HF	Pins 1+ / 1- LF, pins 2+ / 2- HF	Pins 1+ / 1- LF, pins 2+ / 2- HF	Pins 1+ / 1- LF, pins 2+ / 2- HF	Pins 1+ / 1- LF, pins 2+ / 2- HF
Dimensions (HWD)	634 x 381 x 370 mm (25.0 x 15.0 x 14.6")	701 x 432 x 470 mm (27.6 x 17.0 x 18.5")	566 x 349 x 283 mm (22.3 x 13.7 x 11.1")	716 x 432 x 406 mm (28.2 x 17.0 x 16.0")	1219 x 533 x 508 mm (48.0 x 21.0 x 20.0")
Net weight	21.1 kg (46.5 lbs) 26.4 kg (58.1 lbs)		18.2 kg (40.0 lbs)	27.7 kg (61.0 lbs)	46.9 kg (103.5 lbs)
Construction	15 mm ( <sup>5</sup> / <sub>8</sub> ") birch plywood	15 mm (5/8") birch plywood	15 mm (5/8") birch plywood	15 mm ( <sup>5</sup> / <sub>8</sub> ") birch plywood	15 mm ( <sup>5</sup> / <sub>8</sub> ") birch plywood
Finish	Semi-matt black paint	Semi-matt black paint	Semi-matt black paint	Semi-matt black paint	Semi-matt black paint
Grille	Powder-coated perforated steel				
Flying hardware	ing hardware M10 x 12 M10 x 12		M10 x 2 M10 x 12		_

	TVX118B	TMS118B	TMS218B	
System				
Frequency response	40 Hz – 200 Hz ±3 dB 32 Hz – 200 Hz -10 dB	38 Hz – 200 Hz ±3 dB 32 Hz – 200 Hz -10 dB	33 Hz – 200 Hz ±3 dB 27 Hz – 200 Hz -10 dB	
Nominal dispersion	Half space	Half space	Half space	
Power handling (IEC)	600 W continuous, 2,400 W peak	800 W continuous, 3,200 W peak	1,600 W continuous, 6,400 W peak	
Sensitivity	97 dB	97 dB	100 dB	
Maximum SPL	125 dB continuous, 131 dB peak	126 dB continuous, 132 dB peak	132 dB continuous, 138 dB peak	
Impedance	4 Ω	8 Ω	4 Ω	
Components	1 x 18" (460 mm) LF driver	1 x 18" (460 mm) LF driver	2 x 18" (460 mm) LF drivers	
Enclosure				
Connectors	2 x Neutrik speakON* NL4	2 x Neutrik speakON* NL4	2 x Neutrik speakON* NL4	
Wiring				
Switch position 1+/1-	Pins 1+ / 1- input, pins 2+ / 2- link	Pins 1+ / 1- input, pins 2+ / 2- link	Pins 1+ / 1- input, pins 2+ / 2- link	
Switch position 2+/2-	Pins 1+ / 1- link, pins 2+ / 2- input	Pins 1+ / 1- link, pins 2+ / 2- input	Pins 1+ / 1- link, pins 2+ / 2- input	
Dimensions (HWD)	553 x 533 x 700 mm (21.8 x 21.0 x 27.6")	513 x 597 x 750 mm (20.2 x 23.5 x 29.5")	1067 x 602 x 838 mm (42.0 x 23.7 x 33.0")	
Net weight	34.8 kg (76.6 lbs)	39.8 kg (87.6 lbs)	82.3 kg (181.4 lbs)	
Construction	18 mm (¾,") birch plywood	18 mm (³/₄") birch plywood	18 mm (3/4") birch plywood	
Finish	Semi-matt black paint	Semi-matt black paint	Semi-matt black paint	
Grille	Powder-coated perforated steel	Powder-coated perforated steel	Powder-coated perforated steel	
Flying hardware	_	_	_	
Accessories				
		TPOLE60-20, 60 cm pole with a 20 mm thread TPOLE90-20, 90 cm pole with a 20 mm thread TPOLE120-20, 120 cm pole with a 20 mm thread		

TR//C110D

TMC210D

# Other important information

T\/V110D

# Important information

- Register online. Please register your new MUSIC Group equipment right after you purchase it by visiting turbosound.com. Registering your purchase using our simple online form helps us to process your repair claims more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.
- 2. Malfunction. Should your MUSIC Group Authorized Reseller not be located in your vicinity, you may contact the MUSIC Group Authorized Fulfiller for your country listed under "Support" at <u>turbosound.com</u>. Should your country not be listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at turbosound. com. Alternatively, please submit an online warranty claim at turbosound. com BEFORE returning the product.
- 3. Power Connections. Before plugging the unit into a power socket, please make sure you are using the correct mains voltage for your particular model. Faulty fuses must be replaced with fuses of the same type and rating without exception.

# turbosound.com

#### **Documents / Resources**



Turbosound TMS Series Full Range Loudspeakers and Subwoofers [pdf] User Guide TVX122M, TVX152, TVX118B, TMS122M, TMS152, TMS153, TMS118B, TMS218B, TMS Seri es Full Range Loudspeakers and Subwoofers, TMS Series, Full Range Loudspeakers and Subwoofers, Loudspeakers and Subwoofers

# References

- O Turbosound | Home
- Σ Профессиональная акустика Активные акустические системы.
- User Manual

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