

CMAR(T) series

Instruction manual

CMAR(T) series manual



Introduction

Please read this manual before using the product in order to give you the necessary product and installation instructions to assure a seamless installation and non compromised overall sound quality.

Thanks for purchasing our Apart Marine speaker. We have put great care and effort in the design in order to bring you high quality sound, even in the most difficult humid places. In humid environments the selection of speaker components is limited to just a few, mostly not the best in audiophile performance. However we have achieved to solve the material challenge and are able to bring you a marine speaker that offers you superb sound for application in yachts, sauna, cruise ships, . . . This range of speakers is offered in 5¼inch, 6½inch and 8inch in order to deliver you a speaker that matches your needs.

Each speaker from this range has a nominal impedance of 8Ω , allowing you to connect up to 2 speakers in parallel per 4Ω stable amplifier channel.

Safety precautions

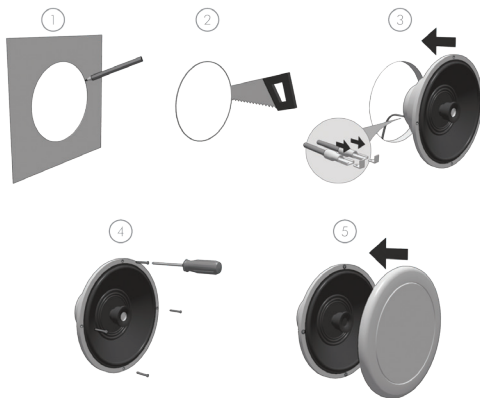
- Keep this manual for future reference.
- When making the hole in your mounting panel to mount the Apart CMAR speaker, make sure there is sufficient clearance behind the panel (no obstructions like A/C channels, power lines etc.,)

- Take care of your speaker wires, they should be free of damage. Damaged speaker wires may result in poor sound quality and can damage amplifiers.
- Only use accessories specified by the manufacturer.
- Make sure the mounting panel can support the speaker's weight.
- Use a sufficient amount of speakers to avoid death-spots.
- No main power shall be connected to the loudspeakers, doing so will damage the speaker.
- This apparatus should only be serviced by qualified personnel. If not serviced by qualified personnel, warranty may be void.
- Use cable of the right gauge, certainly for long runs.
- Use cables with clear color indication and maintain polarity throughout the whole system.
- Avoid loud feedback from microphones, this can damage your speaker.
- Please check the unit's condition after unpacking. If the outside of the carton box has been damaged, inform your shipper immediately.
- Please note that this speaker is a marine type, suitable for use in saunas, boats, yachts, cruise ships, outside areas,.. but it is not intended for being completely submerged in liquid.

Features and benefits

- Superb sound and efficiency, even in humid environments.
- 8 Ω voice coil allows to connect up to 2 Apart CMAR speakers to a 4 Ω stable amplifier channel.
- Stylish grill and mesh that will add a great visual detail to your application without being obvious and drawing too much attention.
- Sealing ring included for watertight mounting on flat surfaces.
- Specially designed fully plastic basket that protects against vertically dropping liquids.
- Stainless steel grille with high resistance against corrosion.

Using the cutout template



Note: when making the hole in your mounting panel, double check if there are no cables or any other obstructions behind the mounting panel. Cutting the mounting panel without this check might result in damaged infrastructure or power lines.

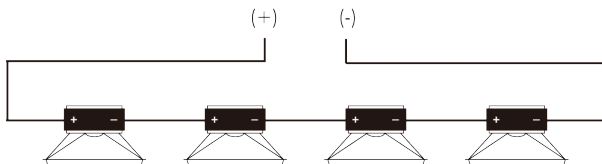
Important: While the front side of the Apart CMAR speaker line is waterproof, care should be taken to keep the backside free from humidity. We have added a rubber sealing gasket in order to seal the backside of the speaker to your mounting panel. This seal should always be used! Warranty will be void when you do not use this seal.

Connecting the speaker

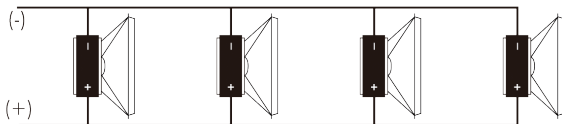
Use the correct polarity when daisy chaining speakers! When a mistake occurs in your daisy chain, it can severely impact speaker performance as there will be audio-cancellation.

The daisy chain options are endless and the setup will depend on the capabilities of your amplifier. Make sure when daisy chaining speakers that the total impedance is not lower than the lowest specified impedance of your amplifier. Not following this rule may result in distorted sound and may even damage your amplifier.

Series wiring speaker diagram:



Parallel wiring speaker diagram:



$$\text{Total resistance} = \frac{1}{\frac{1}{R1} + \frac{1}{R2} + \frac{1}{R3} + \frac{1}{R4} + \dots}$$

R1 = Resistance of speaker 1

R2 = Resistance of speaker 2

R3 = Resistance of speaker 3

R4 = Resistance of speaker 4

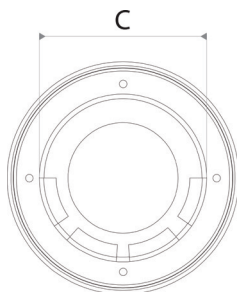
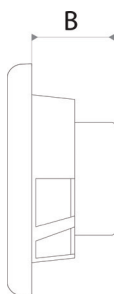
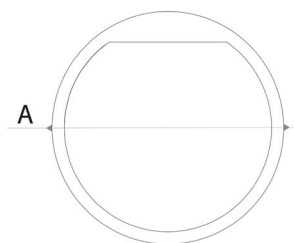
Specifications

Specification / Type	CMAR5(T)-W	CMAR6(T)-W	CMAR8(T)-W
Shape	Round	Round	Round
Rated RMS power	25W	30W	50W
Music power	50W	60W	100W
Impedance	80hm	80hm	80hm
Frequency response	100Hz to 20KHz	70Hz to 20KHz	50Hz to 20 KHz
SPL 1W/1m in dB	85dB	88dB	88dB
Dispersion (at 1kHz, 2kHz, 4kHz, 8kHz in degrees)	180°,120°,120°	180°,180°,90°	180°,100°,60°
HP filter built-in	Yes, HP on tweeter	Yes, HP on tweeter	Yes, HP on tweeter
Woofer/Tweeter size	5 1/4 inch	6 1/2 inch	8 inch
Color	White	White	White
Chassis Type	Plastic	Plastic	Plastic
Grille material	Stainless Steel	Stainless Steel	Stainless Steel
IP classification	IP65	IP65	IP65

Max operating temp	95°C	95°C	95°C
Removable grille	Yes	Yes	Yes
Fixing type	Screws	Screws	Screws
Cut-out dimensions	110mm	146mm	186mm
Outside dimensions	152mm	190mm	221mm
Mounting depth	55mm	61mm	76mm
Net Weight	0.6kg	1kg	1.5kg
Gross Weight	0.8Kg	1.3Kg	2Kg

Dimensions

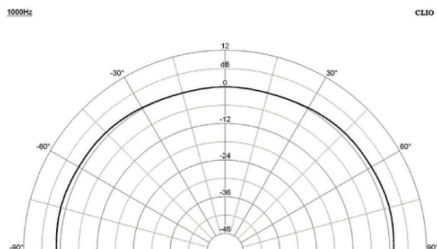
Specification / Type	CMAR5(T)-W	CMAR6(T)-W	CMAR8(T)-W
A	152	190	220
B	54	60	75
C	110	145	180



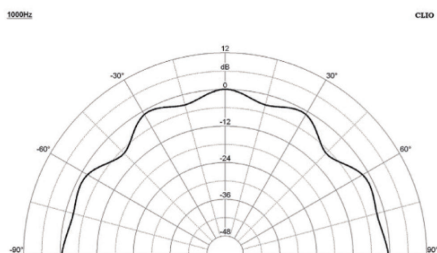
Polar diagram

1000Hz

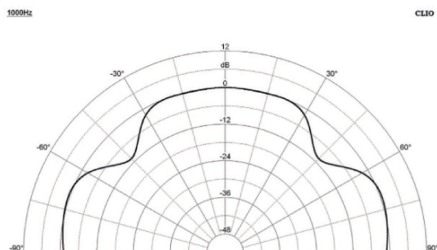
CMAR5(T)

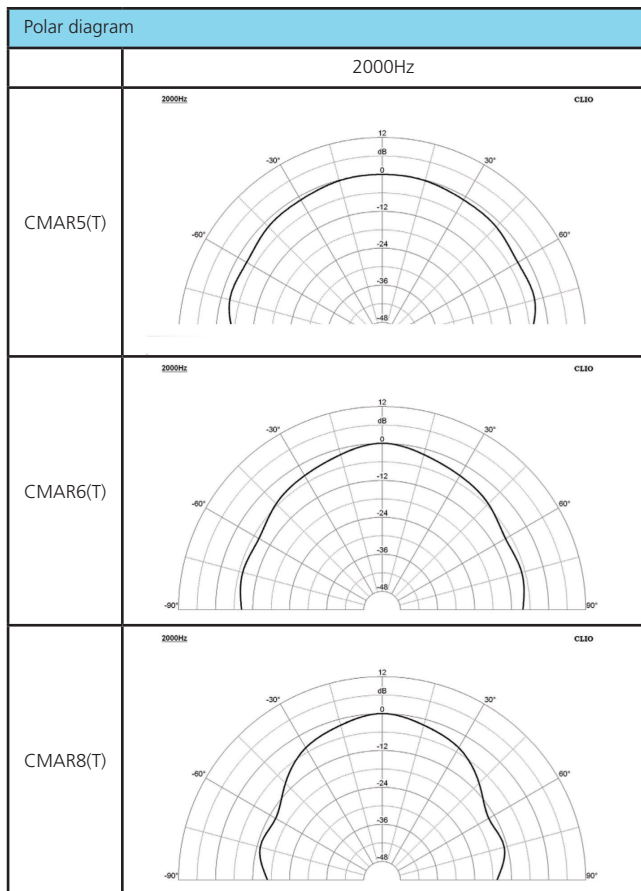


CMAR6(T)



CMAR8(T)

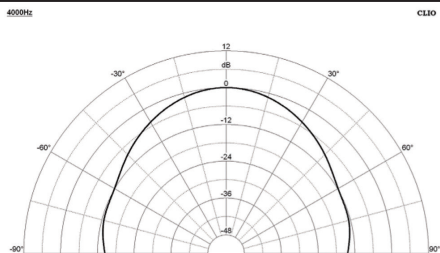




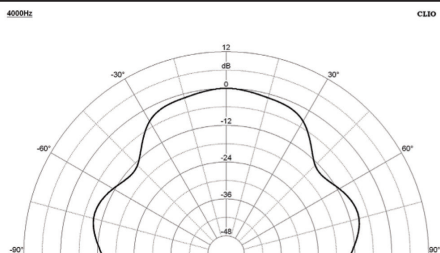
Polar diagram

4000Hz

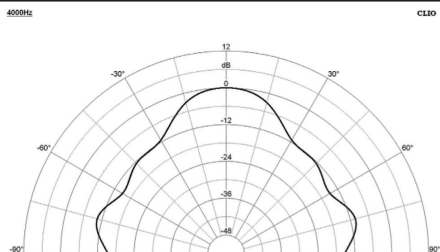
CMAR5(T)

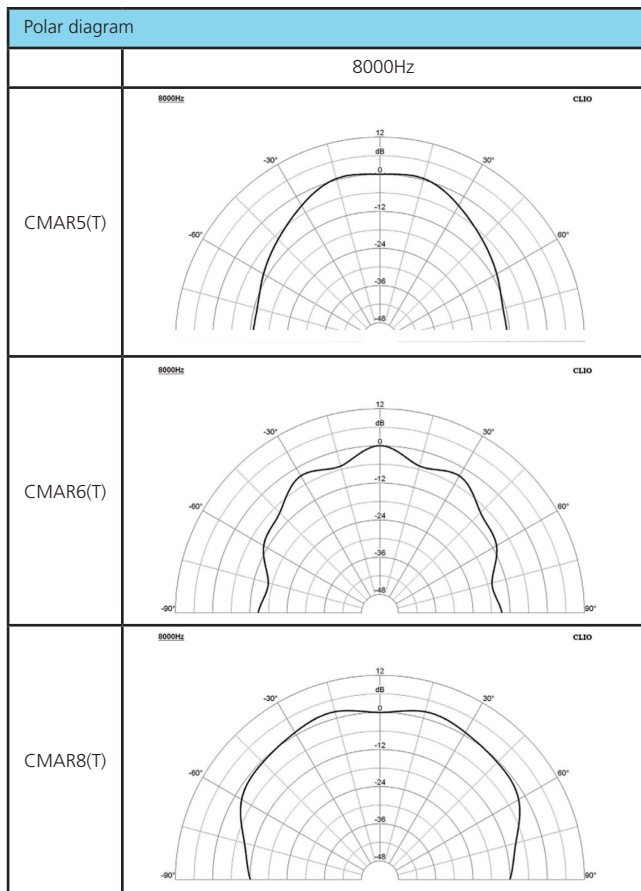


CMAR6(T)



CMAR8(T)





Warranty info

Apart-Audio warrants this product to be free of defects in material and workmanship for a period of one year for parts and for a period of one year for labor from the date of original end-user purchase. This warranty is valid only for the original end-user and cannot be transferred.

During the warranty period Apart-Audio or one of its authorized service partners shall either repair or replace any product, free of charge, that proves to be defective on inspection by Apart-Audio or its authorized service representative.

This warranty does not include, damages or product faults due to abuse, misuse or faulty installation.