



Column Series
Instruction manual

Column loudspeakers



Safety instructions

- Keep this manual for future reference.
- Take care of your speaker wires, they should be free of damage. Damaged speaker wires might result in poor sound quality and can damage amplifiers.
- Only use accessories specified by the manufacturer
- Make sure the mounting panel can support the speakers weight.
- Use sufficient amount of speakers to avoid dead spots.
- No mains power shall be connected to the loudspeakers, doing so will damage the speaker.
- This apparatus should only be serviced by qualified personnel. If not warranty might 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 units condition after unpacking. If the outside of the carton box has been damaged, inform your shipper immediately.

Introduction

The Apart COL series speakers are more than just nice looking columns speakers: COL series speakers have been designed as highly effective line array speakers, featuring excellent vertically controlled directivity, wide horizontal directivity, high sensitivity and high power handling. COL series speakers offer you very clear and natural speech reproduction, while music performs very pleasing too.

Drastically improved audio directivity results in wider coverage range over longer distance. This means that they cover a wider area than conventional column speakers, so less speaker-cabinets are needed for achieving the same sound pressure level in a certain area. Also there will be reduced problems with microphone feedback that is easily generated in reverberant locations. The especially developed drivers with extended frequency response and low distortion give much better speech intelligibility. COLS series acoustic response has been specifically tailored for speech where COLW series are ideal for speech and music reproduction.

Thanks to their unobtrusive appearance and excellent acoustic directivity, COL series speakers can be used in highly reverberant spaces, such as churches, houses of worship, railway stations, as well as conference rooms, recreational areas or sports facilities. The speaker cabinets are made of a sturdy extruded aluminum, and all material and construction has been adapted to be used for both indoor as outdoor, so weather proof and even impact proof (f.e. footballs).

Features and benefits

- Optimized sound dispersion.
- Improved speech intelligibility.
- Timeless design.
- Suited for indoor and outdoor applications.
- High sound pressure level.
- Applicable in 100 volt, 70 volt and low impedance systems.
- Standard wall mounting bracket included.

warranty info

Warranty claims and claims for hidden defects can be considered only if the defects appear within the warranty period of 24 months and are notified within 8 days following their appearance per registered letter. The warranty is not valid in case of an incident, wear, for moving parts, power surges, inadequate packing or shipping, improper use or storage and the disregard of recommendations of Apart Audio. The warranty only concerns the spare parts and not the involved labor, transportation or any other costs. The product must be returned in the original packaging with the proof of purchase by an Apart Audio authorized reseller.

The general terms and conditions can be found here:

http://www.apart-audio.com/conditions/General_Terms_and_Conditions_Apart_Audio.pdf

Installation

Both 100 (70) volt and low impedance (Lo-Z) connections are provided for increased installation flexibility. 100 (70) V line with several transformer power taps as well as low impedance connectors are hidden inside the cabinet. To access the connector, open the cabinet: remove the two philips screws at the bottom of the enclosure, see picture below. In normal indoor situations you can feed the cable(s) through



the rubber cable sleeves, for IP66 compatibility, use the supplied cable entries and washers provided in the accessory kit. A second cable entry point is present for easily looping the cable through.



Installation

Mounting these speakers has never been easier. An adjustable stainless steel mounting bracket with extension is included in the packing. The extension piece can be used to mount the speakers under an angle. Attach the brackets according to the picture: you can mount the speaker under a certain angle from the wall by extending the top bracket with the supplied bracket extender.

To obtain the best performance, it is VERY important to position the column correctly, this means that the center point of the column must be precisely directed towards the height of the listeners (or just above it) in the appointed area. For advise in acoustics, contact your dealer.

For improved security, a special mounting rail is incorporated at the back of the cabinet. You can use M6 flat head carriage or T-bolts to attach additional safety cables or special mounting brackets (not included).



Connecting the loudspeaker

Colour code internal connector

Low impedance applications:

Common: black

Lo-Z connection: white

100 volt applications:

Common: black

Brown: DO NOT USE!

Highest power tap: red

Medium power tap: yellow

Low power tap: green

70 volt applications:

Common: black

Highest power tap: brown

High power tap: red

Medium power tap: yellow

Low power tap: green

NOTES: You can only use 1 power tap at the same time: never connect the speaker to a Lo-Z and 100 volt amplifier simultaneously and never use multiple 100 volt taps at the same time. Connect the speaker correctly as required and don't connect the unused wires. Example: for use as a lo-Z speaker, connect the black (negative) and white (positive) wire.

Technical specifications

model name	COLS41	COLS81	COLS101
full range woofers	4 x 2"	8 x 2"	10 x 2"
tweeter	1 x 1"	1 x 1"	1 x 1"
100V transformer power tabs (W)	20 - 10 - 5	30 - 15 - 6	40 - 20 - 10
70V transformer power tabs (W)	20 - 10 - 5 - 2.5	30 - 15 - 7.5 - 3	40 - 20 - 10 - 5
impedance (ohms)	8	16	8
low impedance dynamic power (W)	30	40	60
SPL 1 W / 1 m (db)	95	96	97
max SPL 1 m (db)	100	104	106
frequency range (Hz)	250 - 20 k	220 - 20 k	200 - 20 k
dispersion at 1 kHz (hor / ver)	180° / 110°	180° / 50°	180° / 40°
construction material	aluminium	aluminium	aluminium
IP rating	66	66	66
dimensions (h x w x d) (mm)	400 x 66 x 66	614 x 66 x 66	721 x 66 x 66
weight (kg)	2.0	2.9	3.3
colour	white	white	white

model name	COLW41	COLW81	COLW101
full range woofers	4 x 3.3"	8 x 3.3"	10 x 3.3"
tweeter	1 x 1"	1 x 1"	1 x 1"
100V transformer power tabs (W)	40 - 30 - 15	80 - 40 - 30	100 - 60 - 40
70V transformer power tabs (W)	40 - 20 - 15 - 7.5	80-40-20-15	100 -50 - 30 -20
impedance (ohms)	16	8	8
low impedance dynamic power (W)	60	120	140
SPL 1 W / 1 m (db)	97	98	99
max SPL 1 m (db)	110	116	118
frequency range (Hz)	190 - 20 k	170 - 20 k	160 - 20 k
dispersion at 1 kHz (hor / ver)	180° / 50°	180° / 25°	180° / 65°
construction material	aluminium	aluminium	aluminium
IP rating	66	66	66
dimensions (h x w x d) (mm)	555 x 100 x 83	974 x 100 x 83	1180 x 100 x 83
weight (kg)	3.9	6.7	7.7
colour	white	white	white

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