

# **CS10, CS10T, C10.1R, C10.1C**

## **User's Guide**



**The Martin Experience**



# User Guide

## CS10 & CS10T ceiling subwoofers

## C10.1R & C10.1C full-range 10" ceiling loudspeakers (including transformer versions C10.1RT and C10.1CT)



### Unpacking

Thank you for purchasing a Martin Audio ceiling loudspeaker system. Every Martin Audio loudspeaker is built to the highest standard and thoroughly inspected before it leaves the factory. After unpacking the system, examine it carefully for any signs of transit damage and inform your dealer if any such damage is found. It is suggested that you retain the original packaging so that the system can be repacked at a future date if necessary. Please note that Martin Audio and its distributors cannot accept any responsibility for damage to any returned product through the use of non-approved packaging.

### Compliance



These products conform to the requirements of the EMC Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC

### Safety warning

**Do not allow these ceiling loudspeakers to be supported by the ceiling grid alone. These ceiling loudspeakers must be attached to a secure part of the building.**

## CS10 ceiling subwoofer



### Introduction

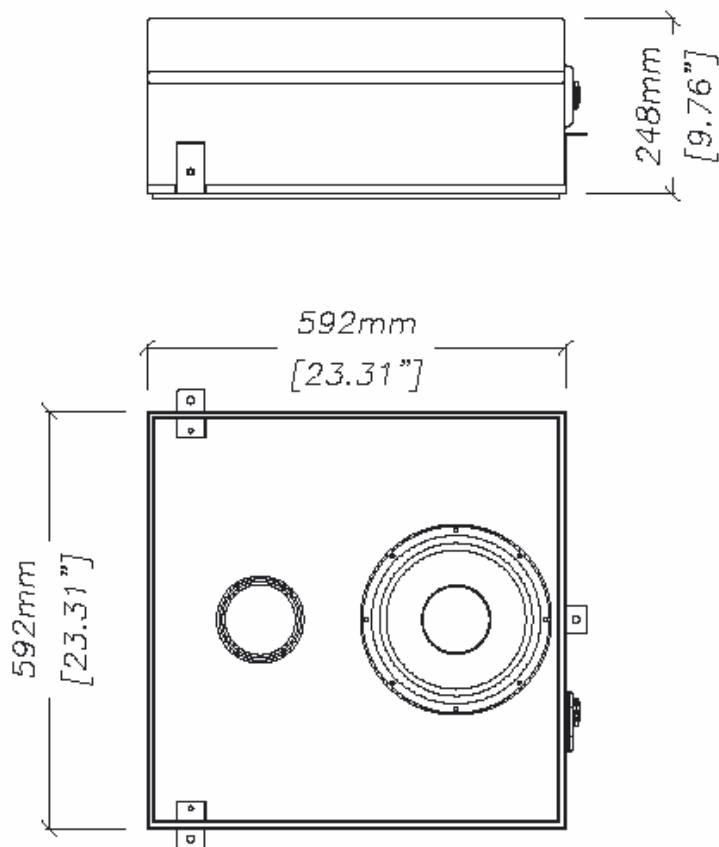
The CS10 is a self-contained subwoofer, utilising an 8ohm 10" (250mm) low frequency driver, designed specifically to be mounted above a suspended ceiling replacing one 600mm x 600mm tile. The enclosure is made from fire retardant MDF and the grille is perforated steel, painted RAL9010 white with a 20% gloss finish to blend in with most white suspended ceilings.

The subwoofer is fixed via three wrap-around brackets.

### CS10 specifications

TYPE	Ceiling mounted, subwoofer
FREQUENCY RESPONSE (1)	48Hz-150Hz $\pm$ 3dB -10dB @ 32Hz
DRIVERS	10" (250mm) bass driver
RATED POWER (2)	200W AES, 800W peak
SENSITIVITY (3)	94dB
MAXIMUM SPL (4)	115dB continuous, 121dB peak
NOMINAL IMPEDANCE	8 ohms
DISPERSION (-6dB)	180° conical
CROSSOVER	
ENCLOSURE	Fire retardant MDF
FINISH	Grille – white RAL9010 with 20% gloss Overpaintable
PROTECTIVE GRILLE	Perforated steel
CONNECTORS	Rising clamp plug and socket
ACCESSORIES (included)	Mounting brackets
DIMENSIONS	(W) 592mm x (H) 592mm x (D) 248mm (W) 23.1ins x (H) 23.1ins x (D) 9.8ins
WEIGHT	15.5kg (34.2lbs) 18kg (39.7lbs) with transformer fitted

## CS10 dimensions



### Transformer version CS10T

The CS10 ceiling subwoofer is available with an optional high power transformer. The transformer coupled version is called the CS10T.

### Voltage & power settings available

Model	Direct (200W AES 800W pk)	100V operation (Transformer versions – suffix T)	70V operation
CS10	8 ohms	150W, 75W	150W, 75W, 37W

CS10T ceiling subwoofers have a transformer power selector switch on the connector panel (location arrowed)



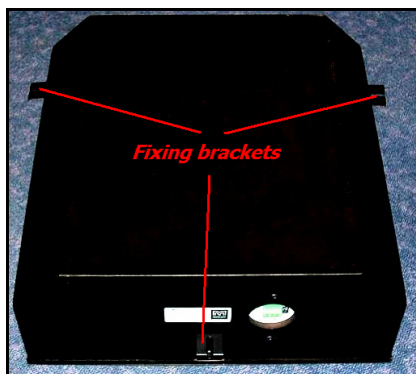
## CS10 Installation notes

### Note carefully!

- Martin Audio ceiling loudspeakers must be installed by experienced ceiling loudspeaker installation technicians
- It is the installer's responsibility to ensure that all relevant local, national and international electrical, fire and building safety regulations are complied with
- Threaded steel rods or steel eyebolts must be permanently attached to the brackets provided using aircraft style locking nuts so that they cannot loosen under vibration. **Do not simply hang this product from "hooks" as it could escape from them when driven with low frequency signals at high volume**
- Your chosen fixing method must be designed for a 10:1 safety factor. As a CS10T weighs 18Kg, this means that your chosen fixture must be designed for suspending 180Kg without damage or distortion
- Check with the architectural authorities before attaching these ceiling loudspeakers to the building structure

The CS10 subwoofer must be fixed to a load-bearing part of the building structure via the three right-angled fixing brackets.





These brackets and their associated M8 socket head bolts are supplied with the unit. The brackets will accept either eyebolts, or 8mm threaded rod.

Brackets may be mounted either vertically (for hanging) or horizontally (for side fixing).



Bracket mounted vertically



Bracket mounted horizontally

One of brackets bolts directly to the bass unit adding further to the safety of the installation in case of fire. All three brackets must be used.

**Do not allow the CS10 or CS10T to be supported by a suspended ceiling grid. These ceiling loudspeakers must be attached to a secure part of the building.**

The subwoofer grille may be positioned so that it visually replaces a ceiling tile in a suspended ceiling but, we repeat - **the subwoofer must not rely on the suspended ceiling structure for its support.**

*Hint: It is easier to install your CS10 above a suspended ceiling structure if you temporarily remove surrounding ceiling tiles for better access and light.*

**We must repeat; threaded rods or eyebolts must be permanently attached to the brackets provided using aircraft style locking nuts so that they cannot loosen under vibration.**

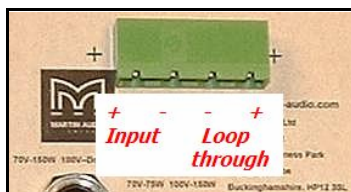
**Do not simply hang this product from “hooks” as it could escape from them when driven with low frequency signals at high volume.**

If height adjustment is required, we recommend that you use locking adjustment nuts either side of the three brackets or turnbuckles (200Kg rating) between the building structure and the CS10 brackets.

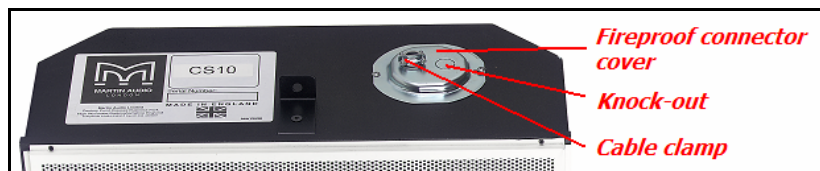
Anti-vibration gasket strip (supplied) may be placed around the edge of the grille for a snug fit without vibration.

## Connections

Amplifier power input is via a 4-pin rising clamp plug providing **+ and – Inputs** and **+ and – Loop Through** connections.



The CS10 input and loop connector must be fireproofed using the steel cover and screws provided. This cover has a 19mm (0.75") knockout and a clamped cable entry.



## C10.1R and C10.1C full-range ceiling loudspeakers



### Introduction

Martin Audio C10.1R (rectangular) and C10.1C (circular) ceiling loudspeakers have been designed for high ceilings or where greater SPL is required. Both models employ a proprietary 16ohm coaxial 10" (250mm) bass driver with a well damped, fire retardant, fibre cone and a through-the-pole firing 1" (25mm) compression driver.

The C10.1R and C10.1C are designed to fit enclosures manufactured by Atlas or Lowell. The C10.1R fits a rectangular enclosure whilst the C10.1C fits a cylindrical enclosure.

### Nominal spacing for smooth broadband coverage

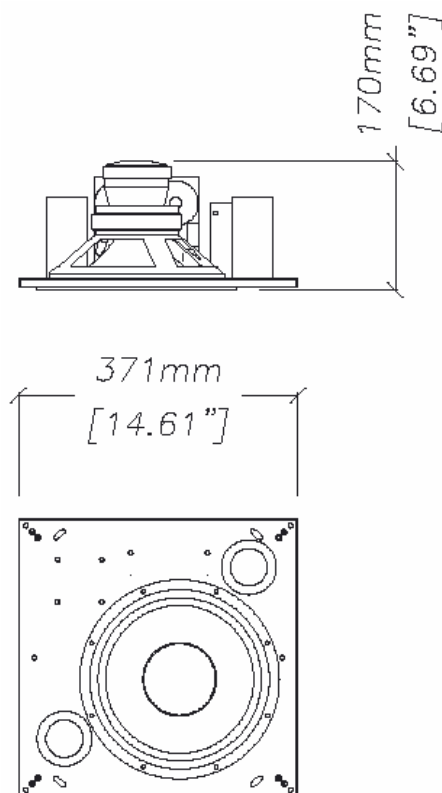
The C10.1R and C10.1C have a very controlled 90° dispersion giving a nominal spacing of 2 x (ceiling height – 1.4m (4'7")).

### C10.1R specifications

TYPE	Ceiling mounted, two-way vented
FREQUENCY RESPONSE (1)	For a 39 litre rectangular enclosure 60Hz-19kHz $\pm$ 3dB -10dB @ 40Hz
DRIVERS	10" (250mm) bass driver 1" (25mm) exit HF compression driver
RATED POWER (2)	200W AES, 800W peak
SENSITIVITY (3)	94dB
MAXIMUM SPL (4)	115dB continuous, 121dB peak
NOMINAL IMPEDANCE	16 ohms
DISPERSION (-6dB)	90° conical up to 10kHz
CROSSOVER	2kHz passive
ENCLOSURE	User provided
FINISH	Black paint
PROTECTIVE GRILLE	User provided
CONNECTORS	Rising clamp plug and socket
OPTIONS	150W 70/100V line transformer
DIMENSIONS	371mm x 371mm x (D) 170mm 14.6ins x 14.6 x (D) 6.7ins
WEIGHT	5.5kg (12.1lbs) 8kg (17.6lbs) with transformer fitted



## C10.1R dimensions



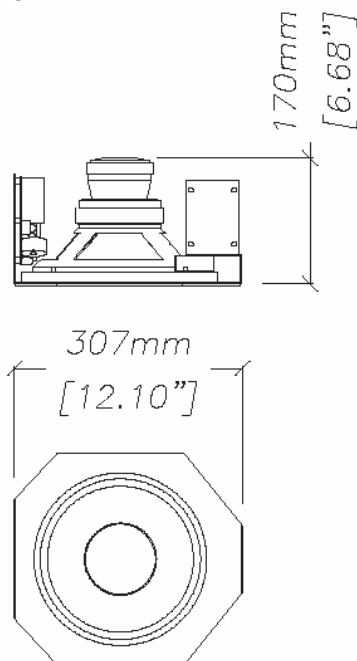
## Rectangular enclosures

Suitable rectangular Atlas enclosures include the Q4412, the Q4612, the Q4712 and the Q4812 – all with the Atlas 164-12A grille or the Lowell DX1312, DX1512, DX1612 or DX1712 and their associated grilles.

## C10.1C specifications

TYPE	Ceiling mounted, two-way
FREQUENCY RESPONSE (1)	For an 18 litre cylindrical enclosure 80Hz-19kHz $\pm$ 3dB -10dB @ 58Hz
DRIVERS	10" (250mm) bass driver 1" (25mm) exit HF compression driver
RATED POWER (2)	200W AES, 800W peak
SENSITIVITY (3)	94dB
MAXIMUM SPL (4)	115dB continuous, 121dB peak
NOMINAL IMPEDANCE	16 ohms
DISPERSION (-6dB)	90° conical up to 10kHz
CROSSOVER	2kHz passive
ENCLOSURE	User provided
FINISH	Black paint
PROTECTIVE GRILLE	User provided
CONNECTORS	Rising clamp plug and socket
OPTIONS	150W 70/100V line transformer
DIMENSIONS	307mm x 285mm x (D) 170mm 12.1ins x 11.2 x (D) 6.7ins
WEIGHT	5.5kg (12.1lbs) 8kg (17.6lbs) with transformer fitted

## C10.1C dimensions



## Cylindrical enclosures

Suitable cylindrical enclosures include the Atlas 95-12 with the Atlas 61-12W grille or the Lowell XCP1210 with the Lowell RS12-AW or WB-12 grille

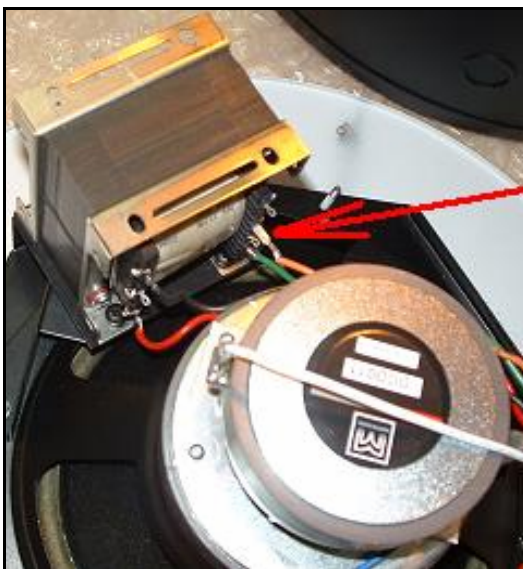
## Transformer versions C10.1RT and C10.1CT

C10.1R and C10.1C ceiling loudspeakers are available with optional high power transformers. These transformer coupled versions are called C10.1RT and C10.1CT.

## Voltage & power settings available

Model	Direct (200W AES 800W pk)	100V operation (Transformer versions – suffix T)	70V operation
C10.1R	16 ohms	150W, 75W	150W, 75W, 37W
C10.1C	16 ohms	150W, 75W	150W, 75W, 37W

C10.1RT and C10.1CT full-range ceiling loudspeakers are supplied in chassis form so transformer power can be selected using the push-fit connectors on the transformer. Taps ratings are printed on the transformer winding cover next to each push-fit tag (arrowed).



**Please note:**

The HF compression driver sections of the C10.1R and C10.1C ceiling loudspeakers are protected with a PTC (positive temperature coefficient) device and will quieten if overdriven. The PTC device will reset itself once the signal is reduced to a more sensible level.

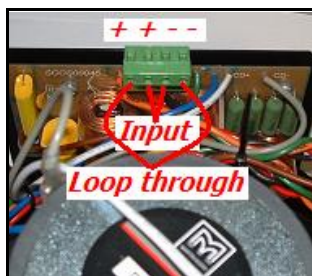
## Installation notes

**Note carefully!**

- Ceiling loudspeakers must be installed by experienced ceiling loudspeaker installation technicians
- Martin Audio C10.1R and C10.1C loudspeakers are designed to be used with either Atlas or Lowell enclosures (see earlier). **These enclosure must be installed in accordance with the manufacture's instructions**
- Do not allow these ceiling loudspeakers to be supported by the ceiling grid alone. These ceiling loudspeakers must be attached to a secure part of the building using the seismic anchor points on the relevant enclosure
- It is the installer's responsibility to ensure that all relevant local, national and international electrical, fire and building safety regulations are complied with
- We suggest that your chosen fixing method should be designed for a 10:1 safety factor. As a C10.1RT or C10.1CT weighs 8Kg, this means that your chosen fixture must be designed for suspending 80Kg without damage or distortion
- Check with the architectural authorities before attaching these ceiling loudspeakers to the building structure

## Connections

Amplifier power input is via a 4-pin rising clamp plug providing **+ and – Inputs** and **+ and – Loop Through** connections.



**Input & Loop through**

## Warranty

Martin Audio ceiling loudspeaker products are warranted against manufacturing defects in materials or craftsmanship over a period of 5 years from the date of original purchase.

During the warranty period Martin Audio will, at its discretion, either repair or replace products which prove to be defective provided that the product is returned in its original packaging, shipping prepaid, to an authorised Martin Audio service agent or distributor.

Martin Audio Ltd. cannot be held responsible for defects caused by unauthorised modifications, improper use, negligence, exposure to inclement weather conditions, act of God or accident, or any use of this product that is not in accordance with the instructions provided by Martin Audio. Martin Audio is not liable for consequential damages.

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