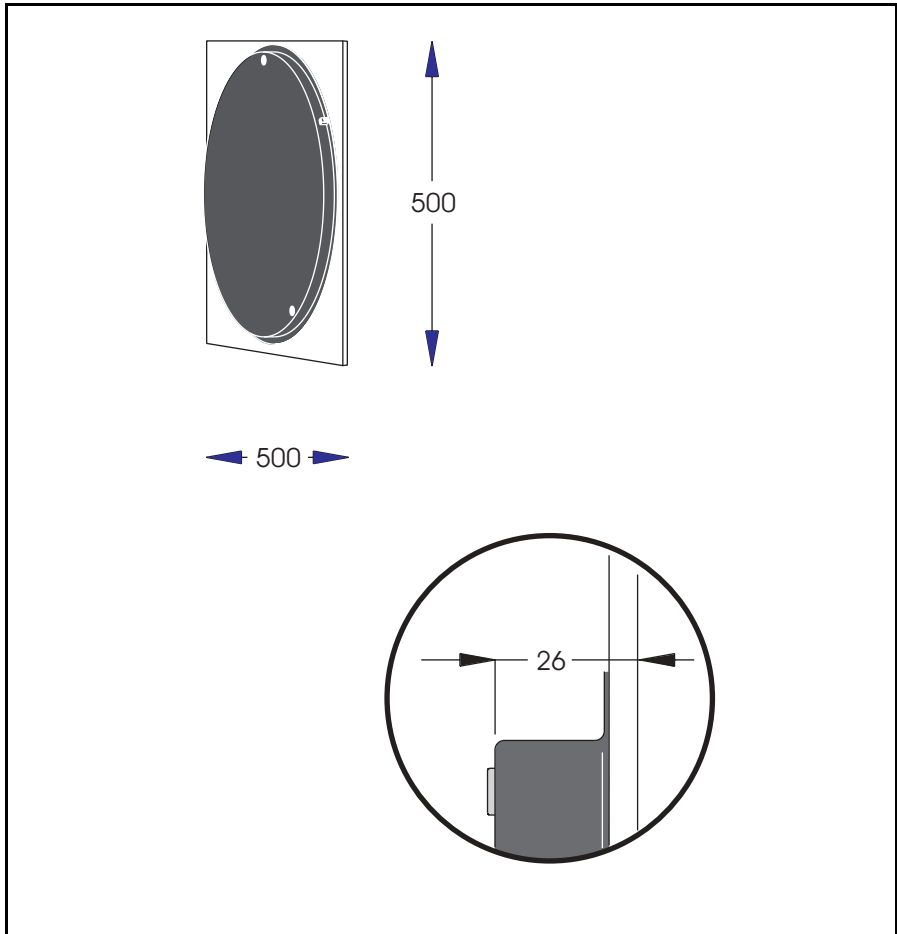


Flat Panel

user manual

Measurements are in millimeters



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P/N 35020013, Rev A

Introduction

Thank you for selecting the Flat Panel. The Flat Panel is a square flat panel speaker designed for indoor venues where professional high quality in-fill sound is required.

Flat Panel offers a "disguised" solution to delivering sound, useful in applications where elegant atmospheric audio is needed. The Flat Panel uses unique flat panel loudspeaker technology that has been designed with very light, extremely thin materials. The panels therefore offer a uniform dispersion, which blends in extremely well with the sounds of the surrounding environment.

Four exciters mounted on carefully calculated positions on the back of the panel vibrate the panel and generate the sound which, compared to conventional loudspeakers, provide a linear decrease in sound pressure, which results in a very uniform sound pressure throughout the venue.

Flat Panels can be supported either by the ViroSub sub-woofer or by the bass output from a main PA in the installation.

Features

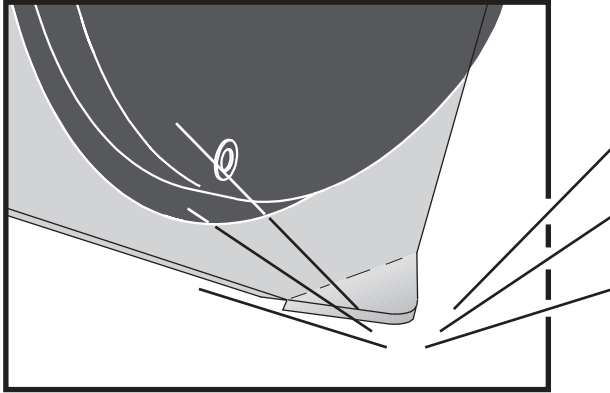
- Wall mountable, plus many other mounting options with the broad range of Viro mounting accessories
- Light reflecting capability
- Sturdy mechanical cabinet
- Based on NXT* technology
- Patented board material laminate

Safety information

Read this manual before powering or installing the Flat Panel, follow the safety precautions listed below and observe all warnings in this manual and on the Flat Panel. If you have questions about how to operate the Flat Panel safely, please contact your Martin dealer or call the Martin Professional 24-hour service hotline at +45 70 200 201.

- Do not install the Flat Panel outdoors.
- Do not open the Flat Panel. There are no user-serviceable parts inside.
- When installing the Flat Panel above ground level, verify that the structure can hold at least 10 times the weight of all installed devices.
- Block access below the work area whenever installing or removing the Flat Panel.
- Do not modify the Flat Panel or install other than genuine Martin parts.
- Refer all service to a Martin service technician.

Warning *Ensure that the Flat Panel is not dropped as it can be easily damaged.*



Installation

This section describes in general terms how to mount the Flat Panel and connect it to an amplifier. These procedures shall be performed by qualified professionals.

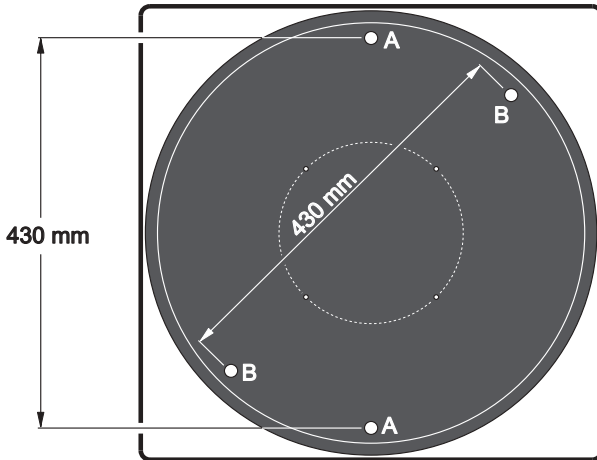
Viro installation accessories

In addition to simple wall mounting, a range of mounting accessories enable the Flat Panel to be installed in a myriad of ways.

Consult your Martin dealer for information about the range of currently available mounting accessories.

Wall mounting

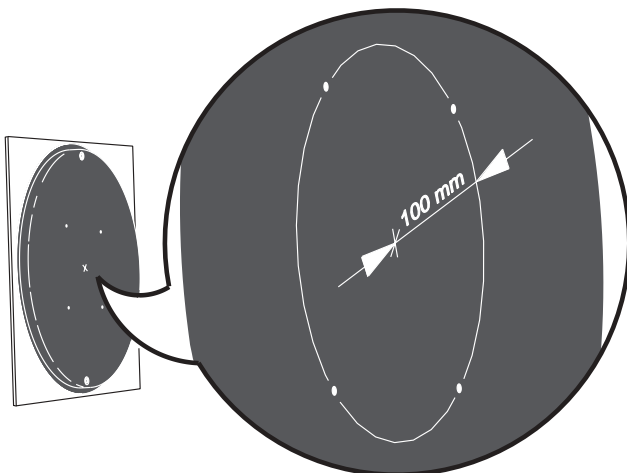
The Flat Panel can be hung on two screws, 430 mm (16.9 in.) apart, on a wall using two of the four holes at the back of the Flat Panel. Two screws are needed as the weight in the Flat Panel is not evenly distributed. The holes marked with an A in the following diagram are used to mount the Flat Panel in a square orientation, while the holes marked B are used to mount the Flat Panel in a diamond orientation.



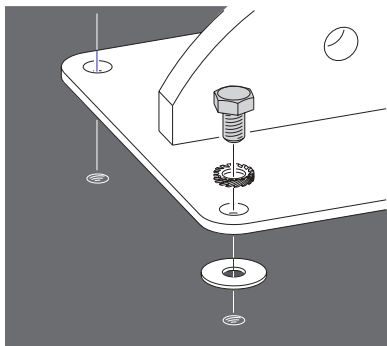
Use of a mounting bracket

The Flat Panel can be placed on a mounting bracket.

Mounting holes are located at the four points of a square located inside a 100 mm radius circle from the center of the Flat Panel.



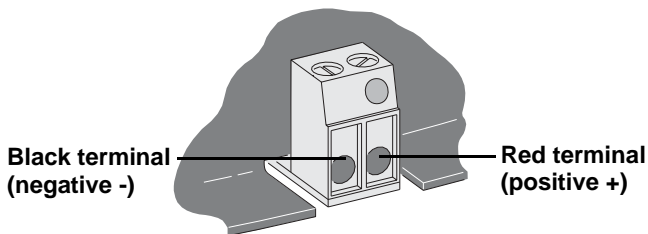
A mounting bracket can be attached using four M6 x 10 screws and rubber spacers (to prevent vibration during operation).



Connections

Always use high quality speaker cables. Poor cables will reduce the sound quality and the reliability of the amplifier and speakers.

The Flat Panel is easily connected to an amplification system through the cable terminal. For correct polarity always ensure that the positive terminal (red or +) on the amplifier is connected to the positive terminal on the speaker. Likewise, make sure that negative terminal (black or -) on the amplifier is connected to the negative terminal on the speaker.



Note: *If one speaker is operated in reverse polarity, the result is a strong decrease in bass output and lack of focus in the mid/high frequencies.*

Operation with a ViroSound sub woofer

For additional sub-bass output, the Flat Panel can be supported by the ViroSound sub woofer. This sub woofer features a stereo amplifier, which enables it to power two Flat Panels.

Note that only one Flat Panel can be connected to each output channel.

The ViroSound sub woofer can be ordered from your Martin dealer.

Overload protection

The Flat Panel contains a protection circuit that reduces the current to the panel when the sound pressure is so high as to be damaging.

The audible result is a decrease in the output from the Flat Panel. If this happens, do not increase the high frequency level on the EQ or the tone control on the mixer, as this might cause damage to the panel. At this time the panel has reached its maximum power handling and if higher output is required, more or larger speakers are needed.

When volume is decreased and current returns to a safe level, the protection circuit automatically restores full signal to the panel and the audio output returns to normal.

Specifications

Physical

Height	50 cm (19.7 in)
Width	50 cm (19.7 in)
Panel depth	26 mm (1 in)
Weight	2.5 kg (5.5 lbs)
Color	white

Power

Peak power handling	100 W
Power rating IEC26830W (24dB high pass filter / 240Hz)	30 W
Power rating IEC26830W (24dB high pass filter / 160Hz)	15 W
Max SPL, calculated long term	100 dB
Sensitivity 1W/1m	85 dB
Frequency range +/-4 dB	160 Hz - 20 KHz

Recommended amplification

60W into 13 ohms (100 W into 8 ohms) / 24dB high pass filter / 240Hz

Ordering information

Flat PanelP/N 93101108

Included items

User manualP/N 35020013

