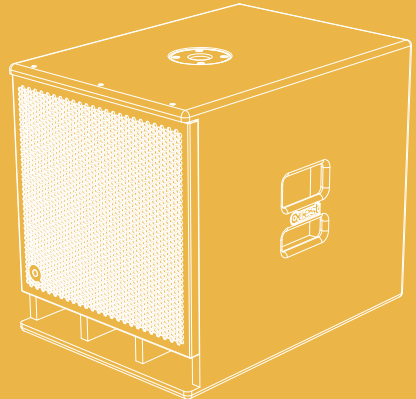


User Manual

MODEL: QM600ASi



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Safety Precautions

Please read the instructions in this section carefully before use.

Ensure all instructions in this manual are observed as all information contained within is very important.

It is also highly recommended that this manual is retained for future reference.

Safety Symbol and Message Conventions

The safety symbols described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating this product, please read this manual first, in full so you that you are thoroughly aware of any risks.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in serious personal injury or death.





General Caution

- Do not expose the unit to any moisture whether rain, water or other liquids. Exposure to moisture could result in damage to the internal components, corrosion of the steel protective grill or electrocution/circuit failure.
- Do not cut, kink, otherwise damage or modify the speaker cable. Ensure a speaker cable with a core diameter of at least 1.5mm is used for correct performance.
- Do not install or place speaker cables or devices near heaters, high traffic areas or any area where the cables or devices can be damaged.
- Avoid installing or mounting speaker boxes, amplifiers, electronics or cabling in unstable locations.
- When flying or installing speakers only use the hardware specifically designed for this product and install to a secure wall.
- When installing amplifiers and/or other electronics only use the hardware specifically designed for this product and install to a secure wall.
- In the event of storms and/or lightning, ensure all devices are disconnected from power supplies in order to prevent damage to any of the units in the system.
- When cleaning the unit, ensure it has been disconnected from any power source and that only a dry cloth is used. Do not use any aerosol or liquid based cleaners.
- Ensure all electronics are electronically grounded (earthed) to a safety ground terminal in order to avoid electric shock. Do not ground any device to a gas pipe as this may result in disaster.
- Never hang a speaker from only one rigging point. Always use multiple points and attach a safety line to a point rated highly enough to support the weight of the speaker box.
- Ensure all installation, flying and/or rigging is carried out by licensed professionals and adheres to your countries safety standards.
- Servicing of all electronics should only be carried out by a certified Quest technician. Please consult your original place of purchase to find the location of your nearest Quest service centre.





When the Unit is in Operation

- Ensure all amplifiers and mixers are turned down before switching the system on.
- If there is no sound, ensure all cabling in the signal path is correct and where applicable, the speaker connectors are locked into place correctly.

Should any of the following irregularities be found during use, immediately switch off all electronics, disconnect all power supplies and contact your original place of purchase:

- If you detect smoke or a burning smell coming from any device
- If the unit is physically damaged in any way
- If the unit is malfunctioning (eg: no HF or LF output, failing switches or intermittent operation etc.)

Make no further attempt to operate the unit if it is found to be in any of the above conditions as this may result in fire or electric shock.

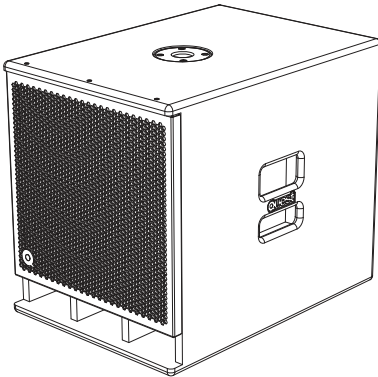
NOTE: Quest Engineering is not responsible for any incorrectly flown, installed or poorly positioned devices.

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1. Product Overview

The QM600ASi is a versatile powered system and can be integrated into any of the Quest family of speakers or any third party powered speaker if connected and set up correctly.

(When using with third party powered speakers, see the section: "Checking the phase")



2. Best Practice Operation

POWERING THE SYSTEM CORRECTLY

Before switching on any part of the system, ensure the mixer and any other signal processors are turned on. The power input and output for the QM600ASi are lockable Powercon NA3 series power in/out connectors. Firstly, connect the power supply cable and then the XLR signal cable. Before turning on the internal sub amplifier, set the volume control to the minimum level. It is important that the mixer is already ON before turning on the speaker. This will avoid damage to the speakers and possible loud noises on start up.

It is best practice to switch on powered speakers last and turn them off first when packing down.

Once the signal path has been checked and all volume controls are set to zero, turn the on speaker then adjust the volume control to the desired level.



SETTING LEVELS AND OPERATING TIPS

A speaker system sounds best when there is no distortion occurring. All parts of the system need to be set so that they are operating within their designed operational range. This means no part of the signal chain is showing red clip lights or is likely to have sudden large volume changes.

To ensure this is the case, firstly ensure there are no overloaded inputs. At the mixer side, it is best practice to set the levels so the channel and master volumes at the input gain are at a level that will provide ample headroom before clipping. This will allow for large volume changes at the signal input side.

Do not run the system with the mixer and/or speaker showing peak lighting (usually red lights on or flashing) while the box is turned down.

Once there are red clip lights on in the signal chain, the system is operating beyond full power. Increasing volume at either the input or output side of the system will only risk causing damage.

The QM600ASi has an input limiter to help protect the system however even these protection mechanisms can be driven too hard. Like any speaker system, if they are driven into continuous distortion, there is real risk of damaging the system.

TUNING THE BASS CROSSOVER

Tuning the crossover high/low pass filter will give you more control over the resulting sound. The high pass filter should be set between 80-125Hz for best results. At 90-100Hz the system will sound like a "classic sub". Setting the low pass above this frequency range will deliver a mid-bass sound. This may be suitable for certain pre-recorded music but is not generally used for live music.

The standard setting for live sound is 100Hz.

SETTING THE HIGH PASS CROSS-OVER

The high pass switches are for connecting a powered satellite speaker. These can be set to full range/80Hz and 125Hz. In cases where a 10" powered boxes are being connected to the cross-over output, the 125Hz setting is recommended. If connecting 12" or 15" powered boxes, the 80Hz setting should be used. In some cases with 15" speakers, the full range (through) setting will allow more bass from the satellite speakers. When running the satellite speakers in full range, check that they are in phase with the sub bass.

CHECKING THE SYSTEM PHASE (POLARITY)

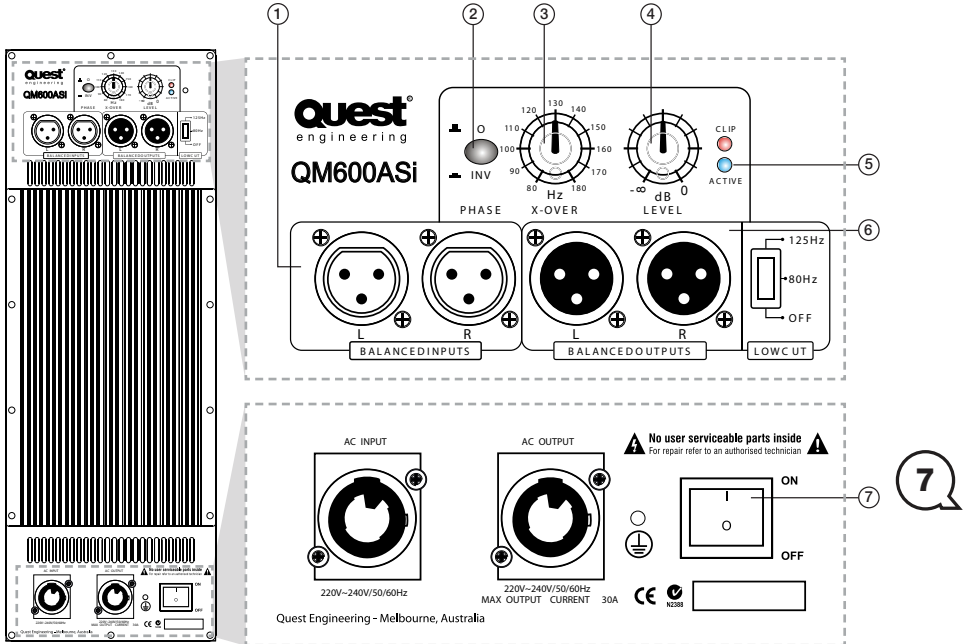
A simple method of checking the polarity of your powered satellite speakers can be carried out as follows:

1. Turn down both the QM600ASi and the satellite speaker.
2. Place a satellite speaker next to the QM600ASi and connect it to the signal output on the sub.
3. Run some music into the sub input and turn up the volume.
4. Turn up the satellite speaker. If the bass is louder, the system is in phase. If the bass drops in level or sounds unusual, push the phase reversal button on the sub amplifier and listen again. If the bass level increases, the system is now in phase.

Once the phase relationship between the sub and satellite boxes has been established, set the rest of the speakers in the system to the same volume.

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3. Rear Panel and Connections Diagram



1. FULL RANGE INPUTS

Female XLR-type connectors that accept a balanced line-level signal from a mixing console or other signal source

2. PHASE

This switch reverses the polarity of the system. Depending on the placement of the sub relative to the full-range speakers

3. X-OVER

Combination Through (full range) or high pass cross-over line level output

4. SUBWOOFER I/O CONTROL

Adjusts and sets the subwoofer level

5. POWER ON INDICATOR

Indicates when the subwoofer is turned on

6. BALANCED OUTPUTS

Male XLR-type connectors to either daisy-chain several QM600ASi together or for the connection of powered satellite boxes

7. POWER

Power switch

4. Specifications

Freq.Range(-10dB):	45Hz~200Hz
Freq.Response(-3dB):	50Hz~180Hz
Max Calculated SPL:	131dB
Amplifier Power:	1000W
LF Transducer:	15" /100mm
Crossover Frequency:	80Hz~180Hz Adjustable
Input Connector:	Line XLR
Output Connector:	Pre output XLR
AC Input:	AC220~240V 50Hz/60Hz
Net Weight:	33.5 Kg
Dimensions (WxHxD):	540mm x 450mm x 640mm
Shipping Weight:	35.5 Kg
Carton Size (WxHxD):	615mm x 525mm x 710mm



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Registering your Quest Engineering product will:

- CONFIRM YOUR WARRANTY
- REGISTER YOUR PRODUCT
- PROTECT YOUR NEW PRODUCT

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