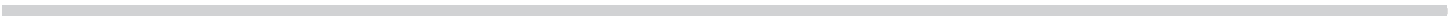


User Guide

QLA SEROES PA SPEAKER SYSTEMS



Active 2-way Speaker Systems for PA and DJ Applications

Model: QLA108MP3,QLA210MP3,QLA412MP3,QLA515MP3

- Built-in audio player with SD card slot, USB input and Bluetooth function
- Stream music wirelessly from your mobile devices (e.g. smartphone, tablet) via Bluetooth
- Class D circuitry: optimum sound and power at low weight and compact dimensions
- LCD display indicates audio source and replay status
- 2-way bass-reflex system
- 1 mic input, XLR/6.3 mm jack
- Line input, RCA
- Master control with 2-way tone control, limit and power LED
- Line output for linking further active speaker systems
- Stable plastic housing with protective grille and handles
- Flange for stand installation
- Can be used as floor monitor, standing, on a speaker stand or wall holder
- For mobile live and DJ applications



Inhaltsverzeichnis

EINFÜHRUNG	3
SICHERHEITSHINWEISE	3
BESTIMMUNGSGEMÄSSE VERWENDUNG	5
BEDIENELEMENTE UND ANSCHLÜSSE	6
INSTALLATION	8
ANSCHLÜSSE HERSTELLEN	9
Steckerbelegung	9
Netzanschluss	9
BEDIENUNG	9
Bedienung des Audioplayers	10
Bluetooth-Verbindung mit mobilen Geräten herstellen	10
REINIGUNG UND WARTUNG	11
Sicherungswechsel	12
TECHNISCHE DATEN	12
KONFORMITÄT	13

1

INTRODUCTION

Thank you for having chosen an QQAN speaker system. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time. Please keep this manual for future needs.



For your own safety, please read this user manual carefully before your initial start-up.

Every person involved with the installation, operation and maintenance of this device has to

- be qualified
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

2

SAFETY INSTRUCTIONS



CAUTION!

Keep this device away from rain and moisture!



CAUTION!

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!



DANGER TO LIFE!

A crashing speaker system can cause deadly accidents. All safety instructions given in this manual must be observed.



DANGER TO LIFE!

This speaker system must never be suspended.
This speaker system must never be stacked.



DANGER OF BURNING!

The materials used in this speaker system are normally flammable. If B1 is required at the installation place, the surface must be treated with an appropriate fire retardant in regular intervals.



WARNING!

Speaker systems must only be operated by trained persons. Danger of Life due to crashing speaker systems or hearing loss due to excessive sound pressure levels! The different local conditions have to be considered in terms of safety rules.

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

Unpacking

Please make sure that there are no obvious transport damages. Should you notice any damages on the connection panel or on the casing, do not take the speaker system into operation and immediately consult your local dealer.

Protection Class

This device falls under protection class I. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.

Power Cord

Always plug in the power plug least. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet. Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution! Never touch them with wet hands, as this could lead to mortal electrical shock. Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock. The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal damage. Make sure that the power cord is never crimped or damaged by sharp edges. Check the device and the power cord from time to time. If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords. Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains. If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.

Liquids

There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a minimal amount of liquid may have entered the device, it must immediately

be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.

Foreign Objects

There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.

Secure Setup

Please note that speaker systems could move due to bass beats and vibrations. Furthermore, unintended pushes from DJs, musicians or the audience present further risk. This is why the speaker system must always be secured against moving or the respective area has to be blocked.

Prior to Switching on

Before the speaker system is switched on all faders and volume controls have to be set to zero or minimum position.

Children and Amateurs

Keep away children and amateurs!

Maintenance and Service

There are no serviceable parts inside the speaker system. Maintenance and service operations are only to be carried out by authorized dealers!

OPERATING DETERMINATIONS

The speaker systems of the **QLA** series are high-performance active speaker systems in light-weight and rugged plastic cabinets. They can be flexibly used for permanent installations and professional live applications. The speakers are designed as 2-way systems with connectors for microphones, line sources and for coupling with other active speakers. Models with built-in audio player allow for streaming music wirelessly from smartphones or tablets via Bluetooth. They also offer slots for USB storage devices and SD(HC) memory cards. All speaker systems are equipped with a mounting flange for stand installation.

Power Supply

This product is allowed to be operated with an alternating current of 100-240 V, 50/60 Hz and was designed for indoor use only. The occupation of the connection cables is as follows:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

The earth has to be connected! If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation. The device must only be connected with an electric installation carried out in compliance with the IEC standards. The electric installation must be equipped with a Residual Current Device (RCD) with a maximum fault current of 30 mA.

Public and Industrial Use

Operating an amplification system in public or industrial areas, a series of safety instructions have to be followed that this manual can only give in part. The operator must therefore inform himself on the current safety instructions and consider them.

Maximum Power

The maximum power of the speaker system must never be exceeded. When operating the speaker system, please make sure that the loudspeakers always sound well. When distortions can be heard, either the amplifier or the loudspeaker is overloaded. Overloads can quickly lead to amplifier or speaker damage. In order to avoid damage, please reduce the volume immediately when distortions can be heard. When speaker systems are destroyed by overload, the guarantee becomes void.

Admissible Temperatures

The ambient temperature must always be between -5° C and +45° C. Keep away from direct insulation (particularly in cars) and heaters.

Operation

Operate the speaker system only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the speaker system. Most damages are the result of unprofessional operation.

Transport

This product is not designed for rigorous road use. Move it carefully and without force. Please use the original packaging if the device is to be transported.

Cleaning

Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

Installation

This speaker system must only be installed at a solid, plane, anti-slip, vibration-free, oscillation-free and fire-resistant location. Before installing the system, make sure that the installation area can hold a minimum point load of 5 times the system's load (e.g. weight 20 kg - point load 100 kg). The speaker system must never be installed higher than 100 cm without secondary attachment. The speakers can be installed on top of a subwoofer (satellite system). The carrying capacity of the distance tube must never be exceeded. The satellite system must always provide enough stability. The subwoofer's base surface must always be sufficiently dimensioned in relation to the top speaker in order to prevent tilting over.

Modifications and Guarantee

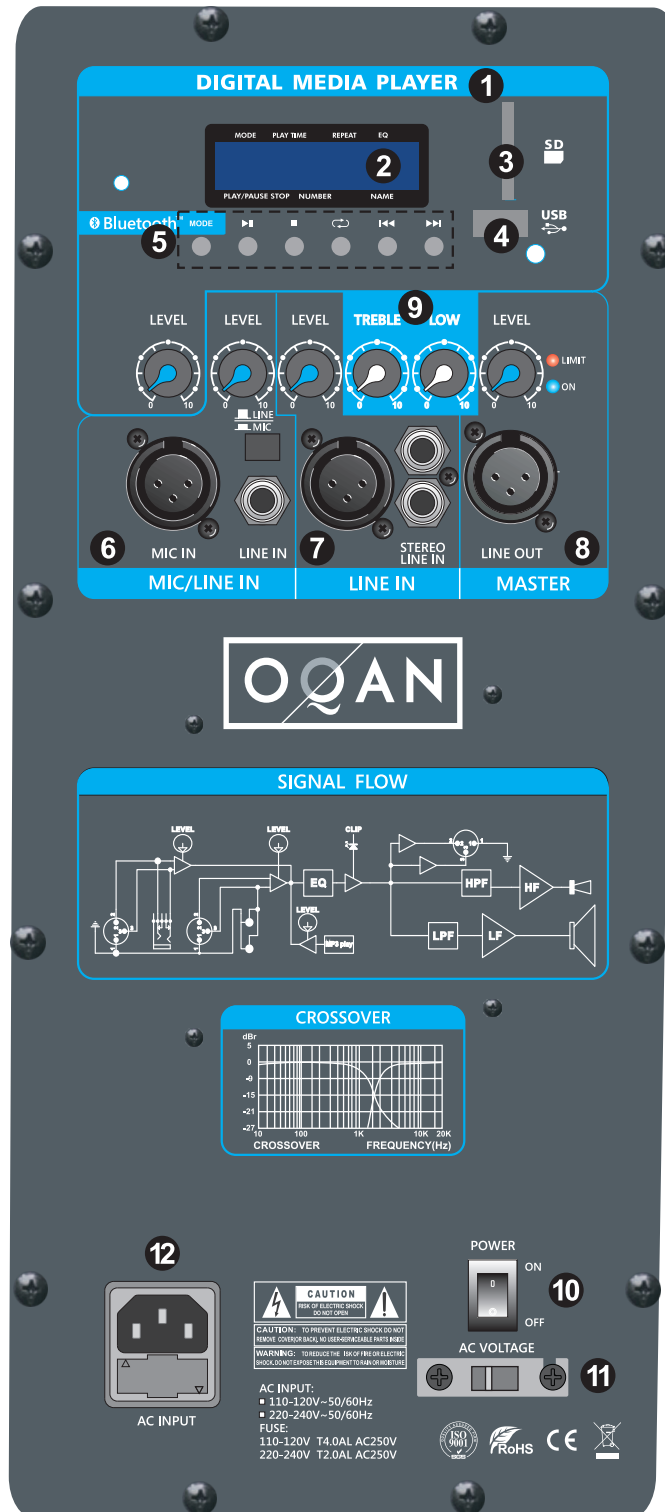
Please consider that unauthorized modifications on the speaker system are forbidden due to safety reasons! If this speaker system will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like crashes, hearing loss etc.

Approval

Bluetooth operation in the 2.4 GHz range and is license-free and generally approved in EU and EFTA countries.

OPERATING ELEMENTS & CONNECTIONS

This user manual describes the rear panel of model QLA515MP3 as a reference. Illustrations and features of the other models are comparable.



1	AUDIO PLAYER Allows playback of audio files from USB devices, SD(HC) cards or mobile devices via Bluetooth.
2	LCD DISPLAY Indicates audio source, replay mode and file name.
3	Memory card slot Allows playback of audio files from an SD(HC) card.
4	USB port Allows playback of audio files from an USB storage device.
5	USB/SD DIGITAL PLAYER [MODE]: For switching between the data carriers USB and SD. [▶]: For switching between play and pause. [■]: Stops the playback. [↺↻]: For selecting random play and repeat functions. [◀◀/▶▶]: For title selection (short actuation) and fast forward/reverse(long actuation).
6	MIC INPUT and LINE INPUT: Plug a MIC directly into this port for public address usage and let your voice be heard. (No phantom power)
7	LINE INPUT RCA input for connecting audio units with line level output(e.g. mixer, CD player). device.
8	LINE INPUT XLR output of the master signal of all input sources for connection to a line input of a mixer, amplifier or a further active speaker.
9	Tone controls TREBLE and LOW Adjusts treble and low frequencies of the master signal.
10	POWER SWITCH This power switch turns on the system. Remember to adjust the volume level to the lowest setting before turn on the power switch.
11	VOLTAGE SELECTOR This selector is use to select either AC115V or AC230V power input.
12	AC INPUT CONNECTOR Connect the included power cord to the AC input connector before push on the power switch.

5

INSTALLATION

The speaker systems can be placed as desired.

- The location must be solid, plane, anti-slip, vibration-free, oscillation-free, and fire-resistant. The installation area must hold a minimum point load of 5 times the system's load (e.g. weight 20 kg - point load 100 kg). The speakers must never be installed higher than 100 cm without secondary attachment.
- This speaker system may only be installed on top of another speaker system if both systems are lashed up with each other via appropriate clamping belts and protected against flipping over.
- Always install the speaker systems in a way that a minimum distance of three meters to the audience is kept. This is the only way to avoid hearing damage for unreasonable listeners. Block the area in front of the speaker systems with appropriate means.
- Extreme levels like feedback, bass-hum or the beats of a dropping microphone can destroy the loudspeakers within very short time and produce immediate hearing damage. Such extreme levels must be avoided at any rate. We recommend using appropriate equalizers and compressors/limiters.
- For transport, the speaker systems feature two carrying handles. The speaker system should be carried without force by two persons of the same size. Carrying the speaker system as one person alone should be avoided as the high weight and the strain could lead to back damages and torsions. Please note that all speaker systems with more than 25 kg weight must be transported with two persons. Models **QLA412MP3** and **QLA515MP3** feature two wheels for convenient transport.

Stands

It is possible to put the speaker systems onto a PA speaker stand via the stand flange on the lower side.

- Stands must only be installed on a plane area with a maximum inclination angle of 5°.
- When using stands or satellite systems under the influence of horizontal forces, e.g. through wind, the standing safety can be impaired. This is why additional safety measures like attaching ballast weights have to be taken.
- If inclined tension cables or prolonged outriggers are used, the area of danger has to be marked or even be blocked.
- Before lifting or lowering the telescopic tubes, you must always block a safety area around the stand or satellite system. This safety area must have a diameter of 1.5 times the maximum height.
- Lifted telescopic tubes always have to be secured with a secondary securing!
- The total weight of the installation (=total weight of all individual parts) must never exceed the maximum load of the installation area.
- The stand has to be installed out of the reach of people.
- An unintended movement of the load has to be avoided - also in case of fire!
- The installer is responsible for adhering to the carrying capacity given by the manufacturer, the safety requirements and the qualification of possible co-workers.
- When people are located below the load, all necessary safety measures have to be taken in order to avoid injury.
- The personnel have to be instructed on the content of the user manual and on the dangers related with operating stands.
- Depending upon the individual installation spot, all necessary measures against movement and for securing the standing safety have to be created.
- The installation is only allowed on carrying areas. In some cases, an appropriate substructure, e.g. via a balancing foot, has to be created. When choosing the installation material, optimum dimensions have to be chosen in order to secure maximum safety.
- Speaker systems installed on stands or satellite systems may cause severe injuries when crashing! If installing on slippery surfaces, the legs must be secured with screws or nails via the provided holes or an anti-slippery mat has to be used.

Satellite Systems

It is possible to mount the speaker systems on top of a subwoofer system. For this, insert a distance tube of 35 mm (accessory) into the flange on the upper side of the subwoofer; then fasten the speaker system on top.

- The speakers have to be installed out of the reach of people. An unintended movement of the load has to be avoided - also in case of fire!
- The installation is only allowed on carrying areas. In some cases, an appropriate substructure, e.g. via a balancing foot, has to be created.
- Depending upon the individual installation spot, all necessary measures against movement and for securing the standing safety have to be taken.

6

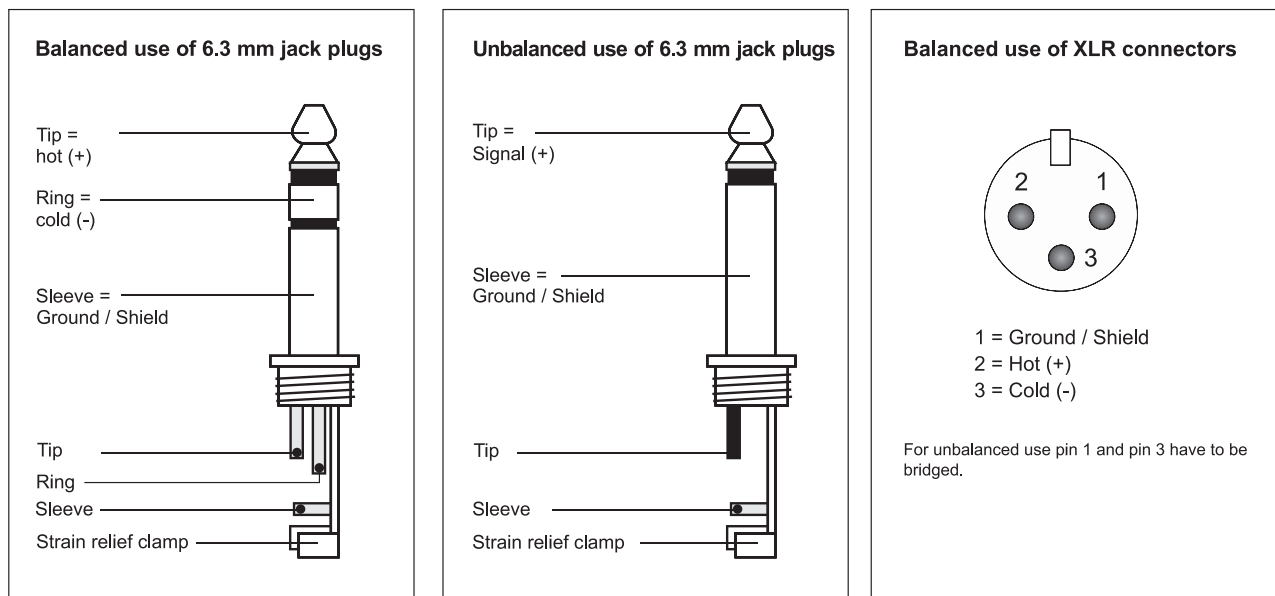
MAKING THE CONNECTIONS

Switch off the speaker system and the units to be connected before making or changing the connections.

- 1 Audio units with line level (e.g. mixer or CD player) can be connected via the unbalanced RCA L/R input **LINE INPUT**.
- 2 A microphone can be connected via XLR or 6.3 mm plug at the input **MIC INPUT** both balanced and unbalanced.
- 3 At the RCA output **LINE OUTPUT** the master signal of all channels is available. This output allows connecting e.g. the input of another active speaker system for additional PA applications.

A good cable run improves the sound quality remarkably. Signal cables should be short and direct, since high frequencies will mostly be absorbed if cables are unnecessarily long. Besides that a longer cable may lead to humming and noise trouble. If long cable runs are unavoidable, you should use balanced cables. In order to obtain highest sound quality, only use high-quality cables for connecting the devices. Make sure that the cables are properly fixed.

Connector Configuration



Connection to the Mains

Finally, connect the supplied power supply cable to the corresponding input and the mains plug to an outlet.

7

OPERATION

- 1 Prior to switching on, turn the control **MASTER LEVEL** to minimum to avoid a possible switching-on noise. Then switch on the speaker system with the power switch. The **POWER** indicator lights.
- 2 Turn up the control **MASTER LEVEL** so that the mixing ration of the signal sources can be adjusted in an optimum way.
- 3 Use the button **LINE/MP3** to define which signal source is mixed to the master signal: button pressed: signal of the built-in audio player, button not pressed = signal of the jacks LINE INPUT.
- 4 Adjust the desired volume ratio for the signal sources with the level controls **MIC LEVEL** and **LINE/MP3 LEVEL**.
- 5 Adjust the desired sound with the tone controls. By adjusting the tone controls, the high frequencies (control **HI**) and the low frequencies (control **LOW**) can be boosted or attenuated. With the controls in mid-position, the frequency response is not affected.
- 6 Adjust the definite level of the overall volume with the control **MASTER LEVEL**. In case of overload, the CLIP indicator lights up. In this case, reduce the volume correspondingly.
- 7 When operating the speaker system, please make sure that the loudspeakers always sound well. When distortions can be heard, either the amplifier or the loudspeakers are overloaded. Overloads can quickly lead to amplifier or speaker damage. In order to avoid damage, please reduce the volume immediately when distortions can be heard. When speaker systems are destroyed by overload, the guarantee becomes void. Always check the sound pressure level with a meter in order to keep to the threshold.
- 8 After operation, set the control **MASTER LEVEL** to minimum, then switch off the speaker system with the power switch. The power indicator extinguishes.

Audio Player Operation

- 1 Engage the button **LINE/MP3** to assign the signal of the audio player to the master signal.
- 2 Insert a USB device into the USB port and/or a memory card into the card slot.
- 3 After loading a data carrier, it is selected as the playback medium and the playback will start automatically. The display indicates "►". During the playback, the display indicates the elapsed time of the current title in minutes and seconds. Additionally, the file name will be scrolling across the display.
- 4 Adjust the desired volume for the audio player with the **LINE/MP3 LEVEL** control.
- 5 To interrupt the playback, press the button [►II]. The display indicates "II". To stop the playback, press the button [■]. The display indicates "■". After pressing the button [►II], playback will start from the beginning of the title.
- 6 By short actuation of the buttons [◀◀] and [▶▶] you can skip titles in forward or backward direction. By long actuation of the buttons, fast forward and reverse is activated.
- 7 With the button [↺↻], you can activate random play and repeat functions.
 - indication "**NOR**": normal play
 - indication "**RALL**": continuous repeat of all titles of the data carrier (basic setting)
 - indication "**RONE**": continuous repeat of the selected title
 - indication "**FOLD**": continuous repeat of the selected folder (not available)
 - indication "**RAN**": the titles are played in random order
- 8 To remove a USB device, disconnect it from the USB port. To eject a memory card, slightly press it into the slot until it comes out and can be removed. Prior to removing a device, always terminate the playback with the buttons [►II] or [■]. Otherwise damage or loss of data may occur.

Setting up a Bluetooth Connection with Mobile Devices



The built-in audio player features a Bluetooth receiver allowing you to stream music wirelessly from your mobile devices such as smartphones, tablets and notebooks.

- 1** Press the MODE button (repeatedly) on the audio player or the remote control until the display indicates **"BT NOT LINK"**.
- 2** Activate the Bluetooth function on your mobile device and keep it at hand to pair it to the receiver. The Bluetooth receiver is indicated by **"Bluetooth"** on the display of your mobile device and has a range of approx. 10 meters.
- 3** Once the Bluetooth receiver is connected to your mobile device, the audio player's display indicates **"BT CONNECTING"** and is ready to play music. Just play music on your mobile device as you normally would and the sound will come out of the speaker system.
- 4** To interrupt or continue the playback, press the button **[▶||]**.
- 5** With the buttons **[▶▶]** and **[◀◀]** you can skip titles in forward or backward direction.
- 6** To switch over to playback of a USB device or a memory card press the button **[MODE]** (repeatedly).

8

CLEANING AND MAINTENANCE



DANGER TO LIFE!

Disconnect from mains before starting maintenance operation!

The operator has to make sure that safety-relating and machine-technical installations are inspected by an expert after every four years in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- 1) All screws used for installing the speaker systems or parts of the speaker system have to be tightly connected and must not be corroded.
- 2) There must not be any deformations on housings, fixations and installation spots (ceiling, suspension, trussing).
- 3) The electric power supply cables must not show any damages, material fatigue (e.g. porous cables) or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.
- 4) If the speaker system is installed overhead, the inspection must include if the eye-bolts are still well tightened. Otherwise the eye-bolts have to be tightened handtight again.

We recommend a frequent cleaning of the speaker system. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents!

There are no serviceable parts inside the speaker system. Maintenance and service operations are only to be carried out by authorized dealers.

If the speaker system distorts, one of the loudspeakers may be defective. Test the speaker system once more with another amplifier. If the sound remains distorted, the speaker system should not be operated any more in order to prevent further damage. Please contact your dealer.

If clacking sounds are heard from the speaker system, screws may have loosened due to the continuous vibrations. The speaker system should be checked by a specialist. Especially for public use, the speaker system should be checked before every operation so that the speaker system and the speakers in the systems are always well fixed.

Should you need any spare parts, please use genuine parts. Should you have further questions, please contact your dealer.

Replacing the Fuse

If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating.

Before replacing the fuse, unplug mains lead.

Procedure:

Step 1: Open the fuseholder on the rear panel with a fitting screwdriver.

Step 2: Remove the old fuse from the fuseholder.

Step 3: Install the new fuse in the fuseholder.

Step 4: Replace the fuseholder in the housing.

9

TECHNICAL SPECIFICATIONS

Model	QLA108MP3	QLA210MP3	QLA412MP3	QLA515MP3
Power supply:	100-240 V AC, 50/60 Hz	100-240 V AC, 50/60 Hz ⁴	100-240 V AC, 0/60 Hz	100-240 V AC, 50/60 Hz
Rated power:	80 W RMS	90 W RMS	250 W RMS	250 W
Program power:	160 W	180 W	500 W	500 W
LF speaker:	20 cm woofer (8") with 40 mm voice coil	25 cm woofer (12") with 40 mm voice coil	30 cm woofer (12") with 50 mm voice coil	38 cm woofer (15") with 50 mm voice coil
HF speaker:	25 mm compression driver	25 mm compression driver	34 mm compression driver	34 mm compression driver
Storage media:	USB devices and SD(HC) cards	USB devices and SD(HC) cards	USB devices and SD(HC) cards	USB devices and SD(HC) cards
File system:	FAT32	FAT32	FAT32	FAT32
Playback format:	MP3, WAV	MP3, WAV	MP3, WAV	MP3, WAV
Number of files:	max. 999	max. 999	max. 999	max. 999
Inputs:				
Mic:	combination XLR/ 6.3 mm jack	combination XLR/ 6.3 mm jack	3-pin XLR or 6.3 mm jack	3-pin XLR or 6.3 mm jack
Line:	stereo RCA	stereo RCA	stereo RCA	stereo RCA
Outputs:				
Line:	stereo RCA	stereo RCA	3-pin XLR or	3-pin XLR or
Max. SPL:	111 dB (1 m)	115 dB (1 m)	120 dB (1 m)	122 dB (1 m)
Frequency range:	75 Hz - 20 kHz	45 Hz - 20 kHz	50 Hz - 20 kHz	45 Hz - 20 kHz
Dimensions (HxWxD):	438 x 295 x 245 mm	545 x 360 x 295 mm	630 x 420 x 342 mm	740 x 480 x 395 mm
Weight:	5.5 kg	7 kg	10 kg	15 kg