

PMA1020

PRECISION 2-WAY WIRELESS ACTIVE PA SYSTEM

USER MANUAL

RevA 06-2014

Welcome

Thank you for choosing Hill Audio for your sound system. To make sure that this product meets your expectations and provides long-term, reliable performance, please read and follow this instruction manual carefully.

Manual Language

UK	This user manual is written in English. For other languages, visit	www.hill-audio.com
FR	Ce guide est écrit en anglais. Pour les autres langues, visitez:	www.hill-audio.com
DE	Diese Anleitung ist in Englisch verfasst. Für andere Sprachen:	www.hill-audio.com
ES	Este manual está escrito en inglés. Para otros idiomas, visite:	www.hill-audio.com
PT	Este manual está escrito em inglês. Para outros idiomas, visite:	www.hill-audio.com
IT	Questo manuale è scritto in inglese. Per altre lingue, visitare:	www.hill-audio.com

Important safety instructions

- Read these instructions and all markings on the product. Keep these instructions.
- Heed all warnings and instructions, both in this manual and on the product.
- Clean only with a dry cloth. Unplug from AC supply before cleaning.
- Do not use this product near water and avoid any exposure to water.
- Before connecting this product to any AC supply, make sure you check whether the AC mains voltage and frequency match the indication on the product and its packaging.
- Only connect this product to an AC supply with sufficient power handling, protective earth connection, ground-fault (earth-fault) protection and overload protection.
- Disconnect the product from the AC supply during thunderstorms. Also disconnect from the mains supply if the product is not being used for long periods.
- Make sure any heat sink or other cooling surface, or any air convection slot, is exposed sufficiently to free air circulation and is not blocked.
- Do not operate this product in environmental temperatures exceeding 35 degrees Celsius and/or 85% relative humidity.
- Position the product in a safe and stable place for operation, out of reach of unauthorized persons.
- Make sure any cable connections to and from the product are neither subject to potentially destructive mechanical impact nor present any risk of stumbling or other accident risk to people.
- Audio equipment may generate sound pressure levels sufficient to cause permanent hearing damage to persons. Always start up at low volume settings and avoid prolonged exposure to sound pressure levels exceeding 90 dB.
- Do not open this product for service purposes. There are no user-serviceable parts inside. Warranty will be void in any case of unauthorized service by the user or other unauthorized persons.
- Take any precaution required by local law, applicable regulations or good business practice to avoid injury to people or material damage by use of this product.

Explanation of symbols used in this manual and on the product:



ATTENTION!
Read manual
before installation
and operation.



DANGER!
Safety hazard.
Risk of injury or death.



WARNING!
Hazardous voltage.
Risk of severe or fatal
electric shock.



WARNING!
Fire hazard.

Description

The Tempo PMA1020 portable PA system is a completely self-contained, battery-powered mobile sound system. The 10" woofer and a separate compression driver offer pristine sound quality. The internal wireless microphones offer a plurality of hosting and presentation possibilities, while the built-in media player offers comprehensive playback from USB and SD media. The Tempo PMA1020 is a superior choice for all presenters, promoters, fitness instructors and anyone else who needs ultimate mobility without compromising on sound and built quality.

Health advice

This unit produces and absorbs electromagnetic radiation. The strength of radiation and the sensitivity for disturbing interference matches the CE and FCC requirements. A corresponding sign is printed on the backside of the unit. Any change or modification may affect the behavior of the unit concerning electromagnetic radiation and it may not then meet CE requirements. The manufacturer takes no responsibility in this case.

Functional advice

This unit is immune to the presence of electromagnetic disturbances – both conducted and radiated - up to a certain level. Under peak conditions, the unit is classified to show a "class C" performance criteria and may encounter temporary degradation or loss of function which may need manual help to recover. In such case, disconnect the AC power from the unit and reconnect it again to recover.

Environmental advice

This unit is built to conform to the ROHS standards and the WEEE directive 2002/96/EC of the European Parliament and of the Council of the European Union. Under these regulations, the product shall not be discarded into regular garbage at the end of its life, but shall be returned to authorized recycling stations.

Unpacking

Please check that the box contains the following items:

Main parts: 1 pc. PMA1020 main unit
 1 pc. Mains cable
 1 pc. Handheld microphone or beltpack transmitter
 1 pc. FM antenna
 1 pc. Operation manual

If any part is missing, please contact your dealer immediately.



After unpacking, and before plugging the AC cord into the wall outlet, check whether the AC mains voltage and frequency are compatible with this product (see rear panel of the product). If the specified voltage or your AC plug do not match the local conditions, do NOT plug the AC cord into the wall outlet and contact your dealer immediately.

Setting Up & Transport

When choosing a location for the PMA1020 PA system, keep the following in mind:

- During transport or setup, avoid touching the cones of the loudspeakers with any object or with your hands, as this could cause irreparable damage. Do not remove the protection grille.
- Avoid pointing microphones in the direction of the speaker, as this could result in annoying feedback, which can damage the speaker drivers.
- When placing the system in an upright (vertical) position, make sure that the surface is flat to avoid the PA system from tumbling or unintentionally moving due to rolling of the casters.
- Avoid resonating floor positions for a better sound.

To use the telescopic handle for transport, press the button at the center of the handle to release it

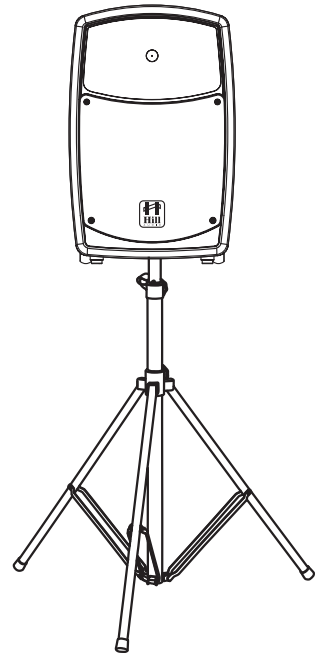
and pull the handle out. The handle has two positions, choose the one that suits you best. To push the handle back down, press the button again.

Stand Mounting

The PMA1020 PA system is equipped with a 1-3/8 inch [35mm] stand mount, to allow mounting on tripod stands. Make sure that:

- The speaker stand is certified for being capable of supporting the weight of the system.
- The speaker stand is placed on a flat, stable surface and the tripod legs are fully extended.
- The speaker stand legs and any cables are out of the way of any persons who may accidentally trip over the stand or cables and pull the PA system over.

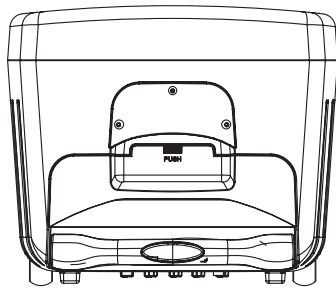
Before lifting the PMA1020 onto the stand, make sure you can handle the weight safely without injury to yourself, others, or damage to the system.



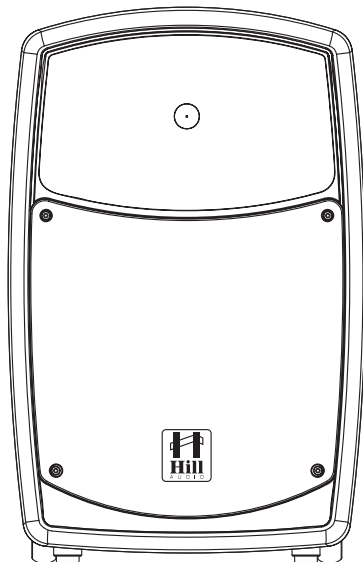
Functional Description

The PMA1020 is a portable, two-way, active PA system featuring three channels and up to two wireless microphones, plus a built-in media player with clear text display, which allows you to play MP3 files from a USB memory key or SD card [see specific notes on media compatibility and file structure in the “Files, folders and data conventions” section]. The PMA1020 also features a two-band EQ, a reverb processor and a three-jingle spot announcer, as well as a telescopic handle and casters for easy transport, which make it an all-around yet simple solution for mobile performers of all kinds.

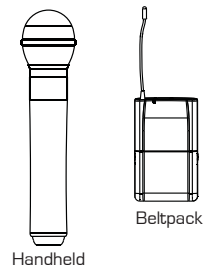
Top view



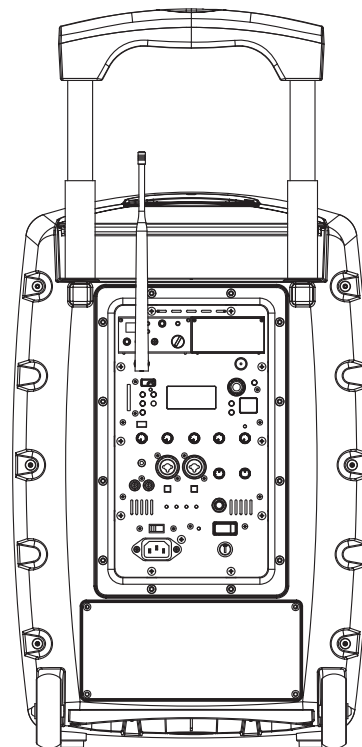
Front view



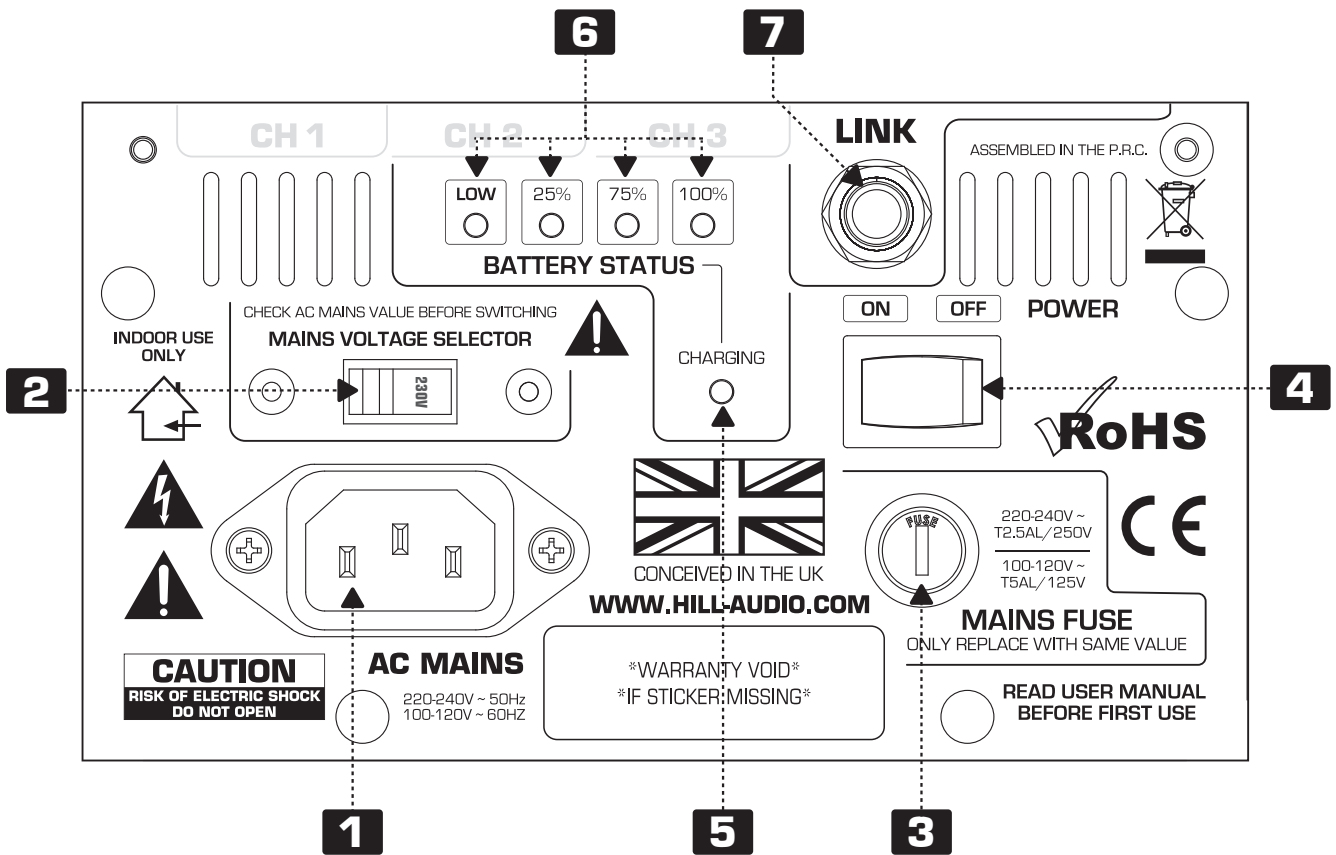
Wireless transmitters



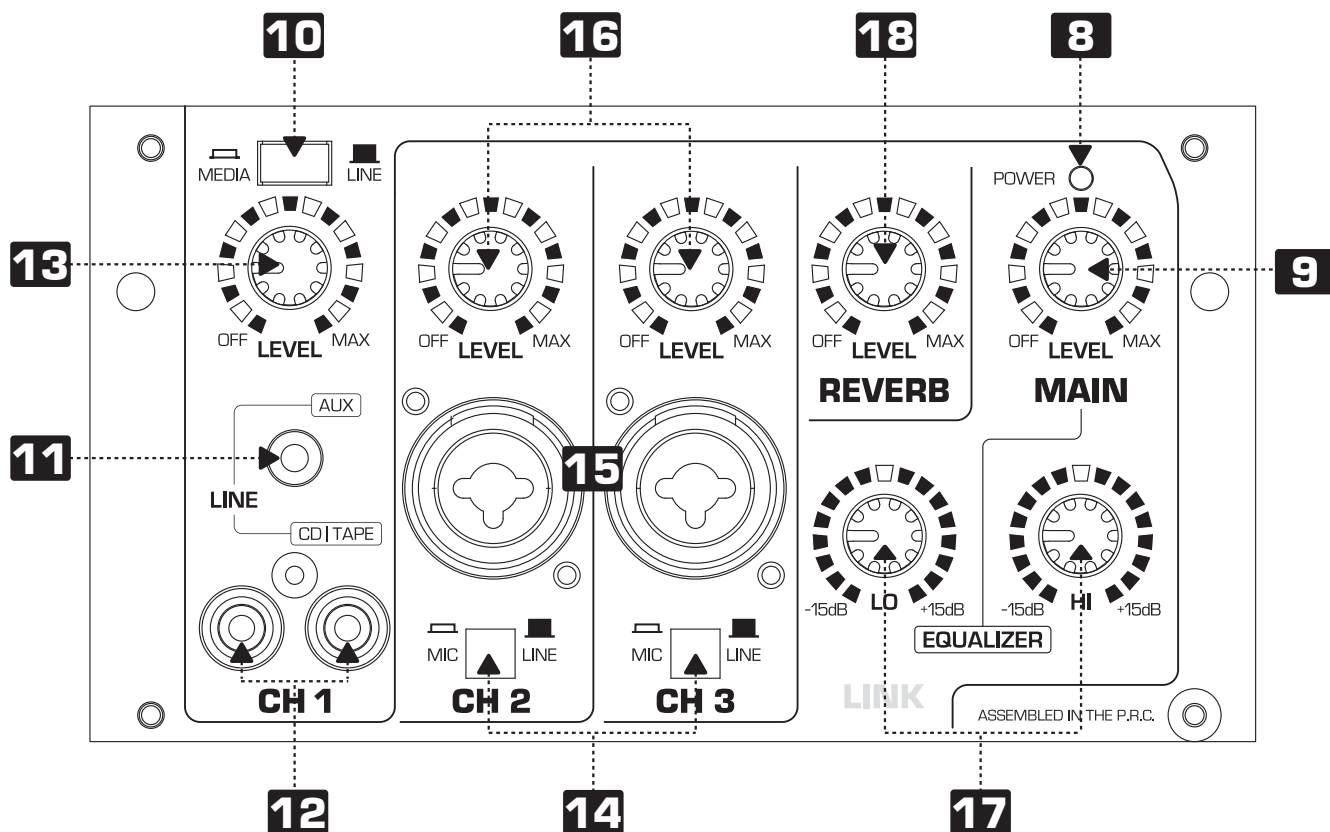
Rear view



Controls and Connections

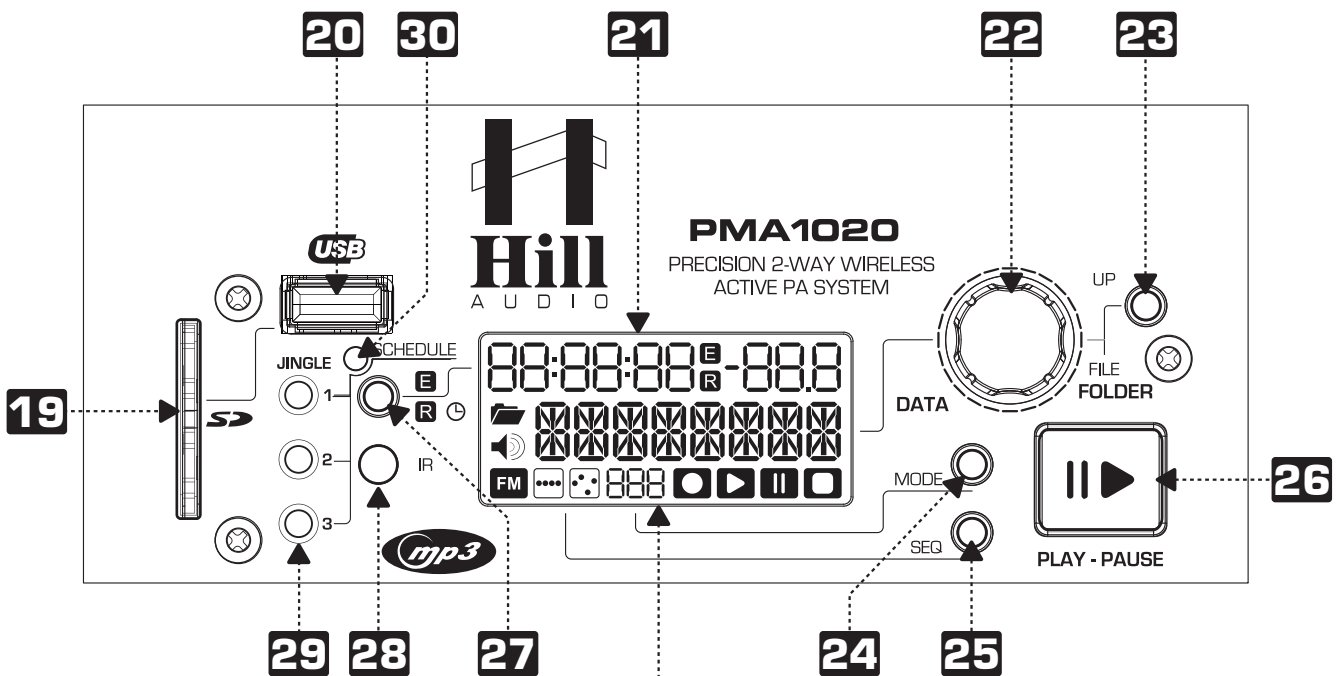


- 1** AC inlet. Use the supplied AC cord to connect the unit to AC mains. Make sure voltage and frequency stated and set on the unit comply with your local AC supply.
- 2** AC Voltage Selector Switch. Switches the AC supply voltage between 110/115V and 220/230V AC. The product ought to be preset to the voltage of your location, but it is recommended to check this before first operation. Available settings are 230V and 115V.
- 3** FUSE holder. The fuse can be removed and exchanged by turning the holder and pulling out the holder tray. Switch the unit off and disconnect the AC supply before doing so. Replace fuses only with same value and rating. If the fuse blows a second time, submit product for repair.
- 4** POWER switch. Turns the product on and off. Make sure you switch the unit off when not in use.
- 5** Battery CHARGING indicator. This LED illuminates red when the internal battery is being charged. It takes approximately eight hours to fully charge the battery. Before using the PMA1020 with the battery for the first time, charge the battery eight hours.
- 6** These four LEDs indicate the status of the internal battery. 100% indicates that the battery is fully charged, providing up to 10 hours of battery life, depending on the usage. LOW indicates that the battery life is not enough for the system to keep on working properly, in which case the battery ought to be charged.
- 7** LINK output connector. This is a 1/4" TRS jack to supply a line-level balanced audio signal to external speakers, like the Andante series.

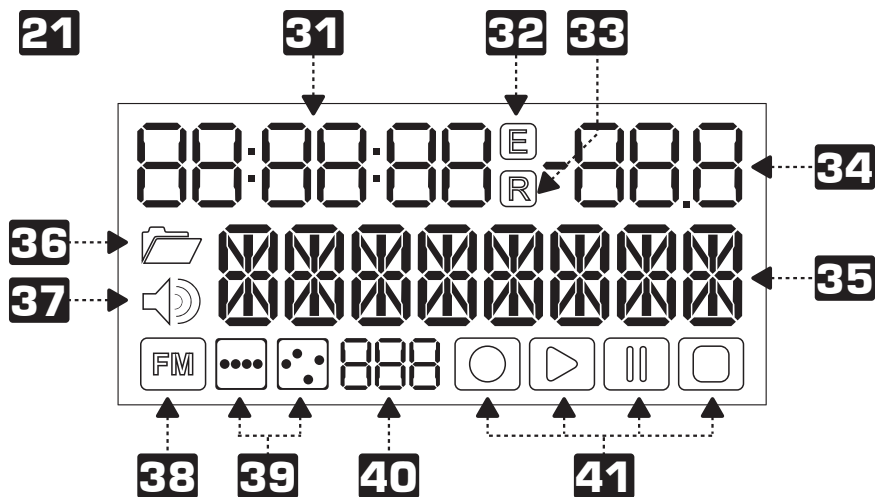


- 8** POWER indicator. This LED indicates whether the product is switched on or off.
- 9** The MAIN LEVEL knob determines the overall volume of the system. Always verify that it is in the OFF position before switching on or off the unit to avoid any unexpected thumps.
- 10** CH 1 source selector. This switch determines whether the signal of Channel 1 is taken from the Line inputs **11** or **12** or the media player.
- 11** CH 1 AUX input. This stereo minijack input is meant for line-level audio outputs but it can also be driven by headphone outputs.
- 12** CH 1 CD|TAPE audio input. This RCA inputs are meant for consumer level audio signals. Note that this input is disabled when a plug is inserted into the CH 1 AUX input **11**.
- 13** CH 1 LEVEL control. Turning this control completely counterclockwise will reduce the respective signal to its minimum, while turning it clockwise increases the volume of the respective signal. To avoid any unexpected thumps and other noises, always verify that it is in the OFF position before connecting any device into audio inputs **11** or **12** and before switching on or off the unit.
- 14** CH 2 & CH 3 LINE/MIC sensitivity switches. Depending on the signal level supplied to the audio inputs of channel 2 and 3 **15**, the sensitivity can be selected between Line (released position) and Microphone (pressed position) level. If the output of the feeding source is unknown, set the sensitivity to Line first and try whether the audio level is sufficient.
- 15** CH 2 & CH 3 Audio input. These are electronically balanced inputs that accept either 1/4" TRS or male XLR plugs. If you connect a microphone into this input, it must be a dynamic-type microphone that does not require phantom power.

- 16** CH 2 & CH 3 LEVEL controls. Turning these controls completely counterclockwise will reduce the respective signal to its minimum, while turning them clockwise increases the volume of the respective signal. To avoid any unexpected thumps and other noises, always verify that they are in the OFF position before connecting any device into the respective audio inputs **[15]** and before switching on or off the unit.
- 17** Master EQUALIZER. This two-band shelving EQ provides frequency response shaping of up to $\pm 15\text{dB}$ to the mix of channels 1, 2 and 3. When set to the detented center position, the EQ has no effect on the respective frequency band (LO or HI).
- 18** REVERB. This reverb processor affects only the wireless microphone signal of channel 1 and the microphone signals of channels 2 and 3. Turning the REVERB control completely counterclockwise will disable the effect, while turning it clockwise increases the amount of effect added to the microphone signal.



Display - Elements



- 19** SD Card slot. Insert here a FAT32-formatted SD card of max. 16GB with a one-level folder structure to play back MP3 files. If a USB memory stick is already inserted into **[20]**, the SD card will be given priority.
- 20** USB port. Insert here a FAT32-formatted USB memory stick of max. 16GB with a one-level folder structure to play back MP3 files. If a SD card is inserted into the respective slot **[19]**, the SD card will be given priority. Note that this port does NOT support USB hard drives, neither for memory size nor for power requirements.
- 21** Media player DISPLAY. Shows track/folder and time information, play status, playback mode settings and play sequence settings. Details are described under items **[31...41]**.
- 22** DATA dial. Turn the control to choose a song or folder and press it to activate your selection.
- 23** FOLDER level button. Press to go UP to folder level, then navigate using the data dial **[22]**.
- 24** Playback MODE selector. There are four different modes available, the active one being indicated on the display **[21]**:
- SPL = Single Play. The player stops after playing the current song once. The next song is manually chosen by the dial **[22]** and determined by the chosen play sequence.
 - SLO = Single Loop. The player loops the current song endlessly. The next song is manually chosen by the dial **[22]** and is determined by the chosen play sequence.
 - ACO = All Continuous. The player plays back all songs determined by the chosen sequence and stops after the sequence is executed once.
 - ALO = All Loop. The player plays back all songs determined by the chosen sequence and repeats the sequence endlessly.
- 25** Playback SEQUENCE selector. Selects between
- Straight sequence: The next song is determined by alphanumerical sorting. The left sequence mode indicator [**•••**] is lit on the display **[39]**.
 - Random sequence: The next song is determined by random choice. The right sequence mode indicator [**••.**] is lit on the display **[39]**.
- 26** Media PLAY/PAUSE/STOP button. Press briefly to toggle between PLAY (backlight steadily lit) and PAUSE (backlight flashing) mode. Press for longer than two seconds to switch to STOP status (backlight off). Restart by pressing the button again, this will commence playback from the last known position when in PAUSE mode or from the beginning of the chosen track when in STOP mode. The selected status is displayed on the display **[41]**.
- 27** TIME Display selector. Selects between elapsed [E] and remaining [R] time display. The time display choice is shown on the display **[32]** and is always related to the track currently playing.
- 28** IR Receiver sensor. If using the optional IR remote control (see page 12), make sure an unobstructed line of sight is available between the remote control and the IR receiver sensor.
- 29** JINGLE buttons. Provided that the inserted media contains a folder named “Jingles” in its root directory, and that the files in this folder follow certain naming conventions, up to three of these files can be activated by the respective buttons (1, 2 or 3). When a jingle is activated, the current program is muted and the jingle is played instead; however, the program progresses in the background. A further scheduled jingle play mode is available by pressing and holding the JINGLE 1 button for more than two seconds. The LED **(30)** will indicate that the scheduled jingle play mode is active. To de-activate the scheduled jingle pay mode, press again the JINGLE 1 button for more than two seconds. For more details, please see the “Jingle player” section on page 9.

- 30** Scheduled Jingle Play Mode Indicator. This LED is lit when the scheduled jingle play mode has been activated by pressing the JINGLE 1 button **(29)** for more than two seconds.

Display Elements

- 31** Time Display. Depending on the setting of the Time Display selector **(27)**, either the remaining or elapsed time are displayed in HH:MM:SS format.
- 32** Time Mode Display (Elapsed): This icon indicates that the time displayed is the elapsed time of the current track, according to the setting of the Time Display selector **(27)**.
- 33** Time Mode Display (Remaining): This icon indicates that the time displayed is the remaining time of the current track, according to the setting of the Time Display selector **(27)**.
- 34** Numeric data display. This element of the display is not used in this product. This is NOT a malfunction.
- 35** 8-Digit Clear Text Readout. The file name of the current track is shown, with its first 30 characters scrolling through the display. All characters beyond 30 characters will be discarded. Note that this is NOT an ID3 tag readout, but a file name readout, so files must be named properly to yield a sensible displayed content. The display will show the file name and alternate with the folder name the current file is located in. Whether at a specific time the file or the folder name is displayed, is indicated by the respective symbols, **(36)** and **(37)**.
- 36** Folder Name Display Indicator. This icon indicates that the current content of the Clear text readout **(35)** is a folder name.
- 37** File Name Display Indicator. This icon indicates that the current content of the Clear text readout **(35)** is a file name.
- 38** Source Mode Indicator. This element of the display is not used in this product. This is NOT a malfunction.
- 39** Playback Sequence Indicator. This icon indicates whether the playback mode is set to straight or random. The setting can be modified using the Playback SEQUENCE selector **(25)**.
- 40** Playback Mode Indicator. Depending on the selection made with the Playback MODE selector **(24)**, this element of the display shows the letters "SPL," "SLO," "ACO," or "ALO."
- 41** Transport status indicators. Three standard symbols indicate whether the unit is in PLAY, PAUSE or STOP status. The first (leftmost) indicator is not used in this product; this is NOT a malfunction.

Notes on files, folders and data conventions

Due to the PMA1020 player's hardware nature, it is subject to various restrictions, which are useful to be aware of:

- Media Memory types. The PMA1020 player works only with SD cards and USB sticks of up to 16GB formatted in FAT32 file system and containing maximum 2000 files. The player does NOT support larger memory sizes, external hard disks or any media with NTFS formatting.
- Media File types. The PMA1020 can only read MP3 files in MPEG 1 Layer 3, MPEG 2 Layer 3, MPEG 2.5 Layer 3 standard, with sample rates of 128/160/192/224/256/320 kbps + VBR from solid-state memory media. Any other files existing on the solid-state memory media will be ignored and are not available for playback.

- **File/Folder Structure.** The PMA1020 only allows a two-layer folder structure on the solid state media memory, meaning a root layer and a folder layer, but not cascaded folder-in-folder structures. Such subfolders will be ignored and their content is not available for playback. Playable files located in the root layer are displayed in a folder named “ROOT” although this folder does not physically exist on the solid-state memory media.
- **Folder Sorting.** Folders are displayed in the sequence of their creation date on the solid-state memory media. If a specific sequence is needed, then the folder shall be created in this sequence on the memory media before copying any MP3 files into them.
- **File Sorting.** Files are sorted alphanumerically, but due to file system limitations, the sorting is limited to the first eight characters. This may, in some cases — where the first eight characters are identical — lead to a seemingly random, non-alphabetical sequence.
- **File system cache.** In order to allow a relatively quick access to the file directory during navigation, the PMA1020 loads a copy of the file directory into its own memory upon insertion of the solid-state memory media. This loading process requires some time, during which the display shows a countdown. The time required is about four seconds per 100 tracks with a maximum of 2000 tracks (meaning max. 80 seconds loading time).
- **Displayed File/Folder names.** The display scrolls the first 30 characters of the MP3 file names; any characters beyond the first 30 will be ignored. Note that the display data is the file name and NOT the ID3 tag of the file. Folders are displayed with the first 10 characters of their names, any exceeding characters will be ignored.

Jingle Player

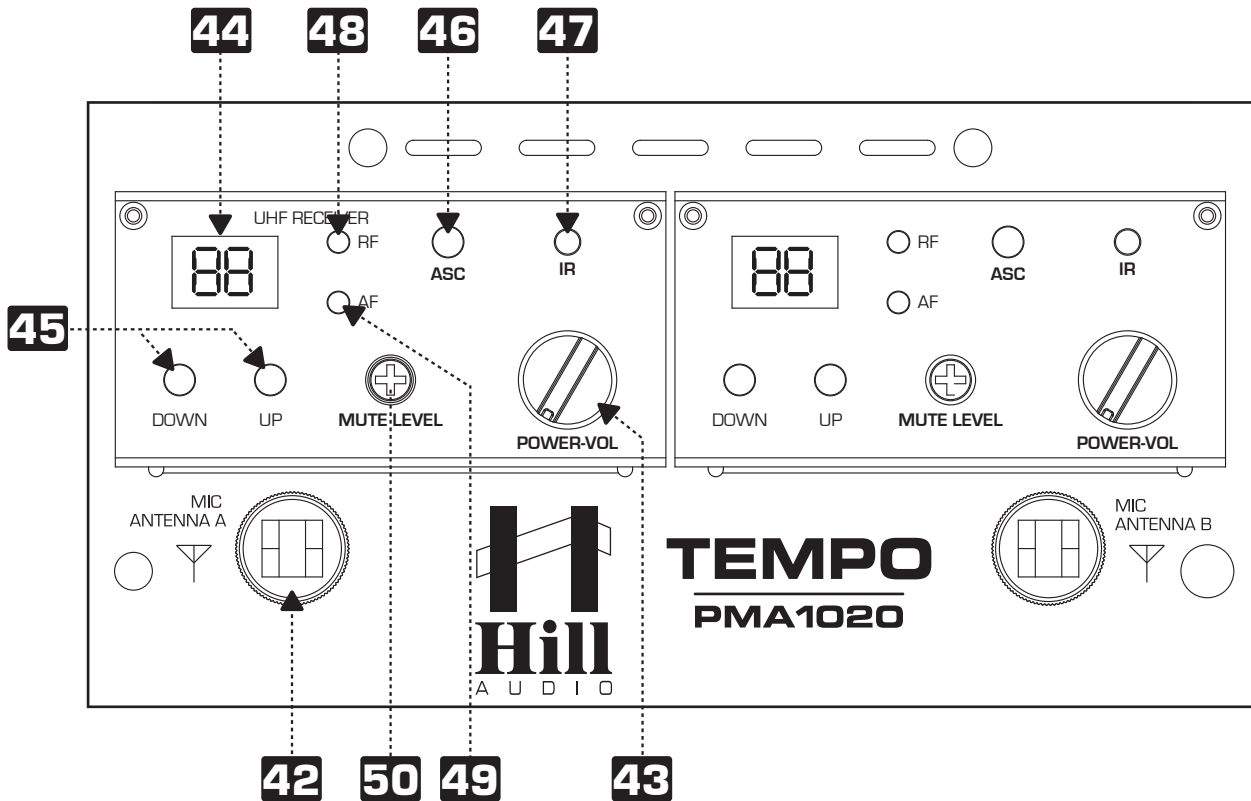
The PMA1020 features a jingle player with a one-shot mode for teasers and a scheduled mode for commercial purposes (like playing advertisements in a certain sequence). To make use of the feature, the user must create a folder named “Jingles” on the solid-state memory media. The folder must have exactly this name (with capital J followed by lowercase letters) and will not be available for selection during normal playback.

The jingle files stored in this folder have to be prepared with specific names as well, and have to follow the structure jx_yy, where x is a number from 1 to 3 and yy a number from 00 to 99. In this format, x defines the jingle number (with a maximum of three jingles allowed) and yy the number of minutes of background music the jingle is followed by in scheduled jingle play mode. For example, were there to be three jingles named j1_01.mp3, j2_04.mp3 and J3_05.mp3. These three jingles would be available for direct, one-shot playback pressing the jingle buttons **(29)**, with each jingle assigned to the respective button.

Scheduled jingle play mode can be activated by pressing and holding the J1 button for more than two seconds. The jingles are, thus, inserted into the program in an automatic sequence with a certain duration of background music in between. In the above example, Jingle 1 would start to play back immediately followed by one minute of background music, then Jingle 2 followed by four minutes of background music, then Jingle 3 followed by five minutes of background music. This sequence would loop endlessly. If less jingles are stored in the Jingles folder, the loop runs after the last available jingle. This means, for example, that if there is only one jingle named j1_02 stored in the Jingles folder, the jingle would play every two minutes in Scheduled Jingle play mode.

Wireless Receiver

- 42** MIC ANTENNA connector. This BNC connector is meant for the wireless antenna supplied.
- 43** POWER-VOL control. Use this dial to turn on and off the receiver and to adjust the volume of the wireless transmitter. To switch on the receiver and increase the transmitter volume, turn the control clockwise. To switch off the receiver, turn the control fully counterclockwise until you hear a click.

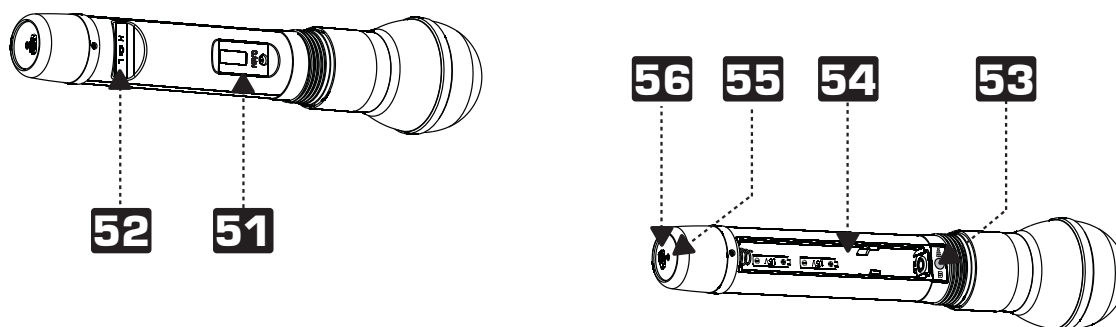


- 44** Channel display. The number of the current channel is indicated here.
- 45** Channel UP & DOWN buttons. Press UP to increase the receiver's channel and DOWN to decrease it. There are 16 channels available. Once you select a channel for the receiver, you must synchronize receiver and transmitter with the Auto-Sync Channel function **46**.
- 46** ASC function. Once you have selected the channel for wireless transmission with the UP and DOWN buttons **45**, press the ASC button to automatically synchronize transmitter and receiver. Align the infrared window of the handheld **53** or beltpack transmitter **62** with the infrared window of the receiver **47**.
- 47** Receiver IR window. This sensor sends infrared signals to the transmitter for channel synchronization. For the synchronization to take place, the infrared window of the microphone **53** or beltpack transmitter **62** must be aligned with the infrared window of the receiver.
- 48** RF indicator. This LED indicates whether the module receives a radio frequency signal (RF signal) from the transmitter.
- 49** AF indicator. This LED indicates whether an audio signal is being received.
- 50** MUTE control. This control is used to adjust the squelch threshold for noise reduction whenever the transmitter is turned off or its signal is not strong enough. The mute level of the receiver is preset from factory and, normally, no further adjustment is required. However, should a readjustment be necessary, set the squelch threshold so that no noise is generated in the receiver when the transmitter is off.

Handheld Transmitter

The PMA1020 comes with a wireless handheld or beltpack transmitter (and an optional second one) that syncs with the built-in RF receiver(s). To access the handheld microphone, open the storage compartment on the top of the PMA1020 by pushing down the compartment lid where indicated. To close the compartment, simply press again until the compartment lid locks into place.

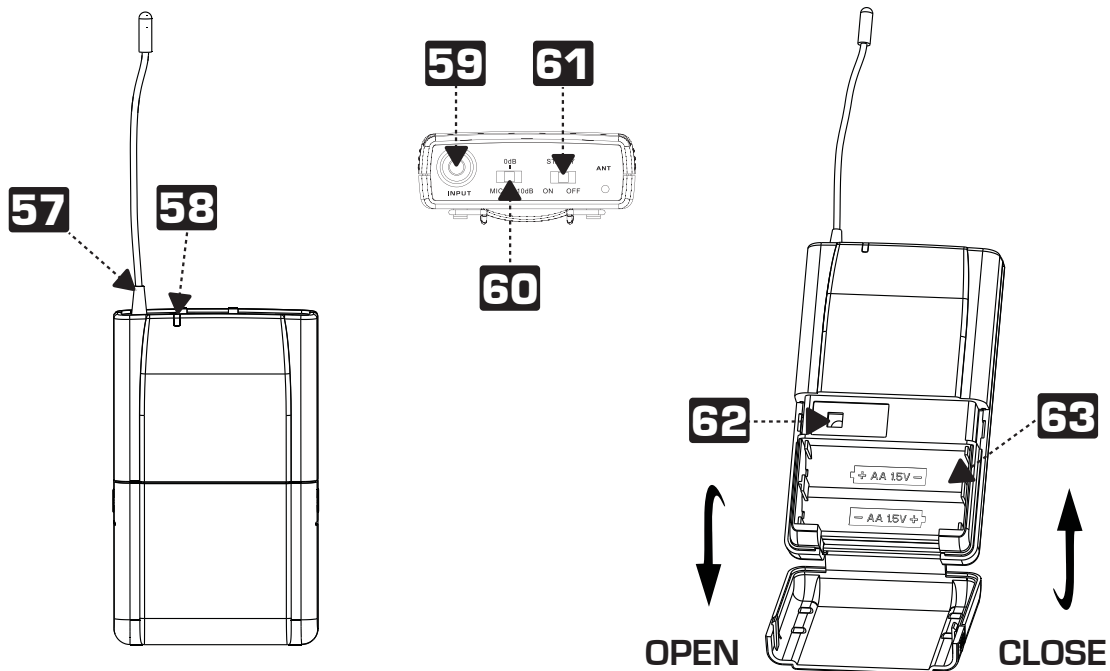
Always switch off the transmitter and keep it safely stored in the compartment when not in use.



- 51** GAIN control. This control determines the sensitivity of the microphone, which is preset from factory to the optimum value for standard applications. If you need to modify this setting, turn the control to the left to reduce the sensitivity or to the right to increase it.
- 52** RF switch. Use this switch to set the strength of the transmitter's radio frequency signal. Set to High for weak signals and Low for strong signals.
- 53** Transmitter IR window. This sensor serves to synchronize transmitter and receiver. For channel synchronization, unscrew the body of the microphone and align the infrared window of the transmitter with the infrared window of the receiver **[47]**.
- 54** Battery compartment. The handheld transmitter uses two "AA" alkaline batteries (LR6, 1.5 V) for an expected life of up to ten hours. To install or replace the batteries, unscrew the body of the microphone and slide the batteries into position observing the polarity indicated. When the BATTERY/ASC indicator **[55]** flashes red, replace the batteries immediately.
- 55** BATTERY/ASC indicator. This LED indicates whether the microphone is on and has enough battery (green LED permanently lit) or if the batteries are too low (the LED flashes red), in which case you should replace them immediately. Further, the LED flashes green whenever Auto-Sync Channel is taking place.
- 56** ON/OFF switch. Switches the transmitter on and off. Make sure you switch the microphone off when not in use to extend battery life.

Beltpack Transmitter

- 57** Antenna.
- 58** Power/Battery indicator. This LED illuminates green when the transmitter is on and has enough battery to operate normally; otherwise, it lights up yellow when the battery is low. When the LED flashes, it is indicative that infrared transmission is taking place.
- 59** Microphone INPUT. Use this mini-XLR plug to connect a dynamic microphone or a musical instrument to the beltpack transmitter.

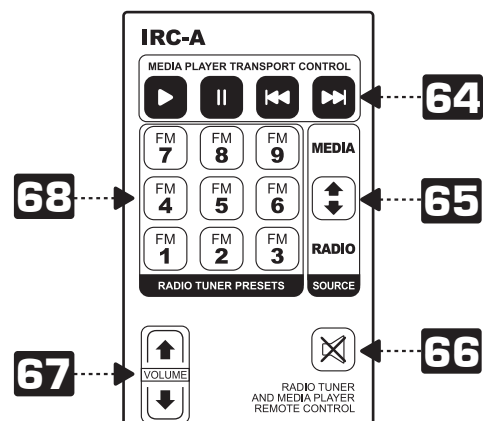


- 60** Input gain control. Select the input sensitivity according to the connected source:
 - MIC for dynamic microphones,
 - 0dB for guitars with passive pickups,
 - -10dB for guitars with active pickups.
- 61** Power switch. Three-way control to switch ON/OFF the beltback transmitter and put it in STANDBY mode [i.e. the output is muted].
- 62** Beltback transmitter IR window. This sensor serves to synchronize transmitter and receiver. For channel synchronization, open the battery compartment **[63]** of the beltback transmitter and align the infrared window of the transmitter with the infrared window of the receiver **[47]**.
- 63** Battery compartment. The beltback transmitter uses two "AA" alkaline batteries (LR6, 1.5 V) for an expected life of up to ten hours. To install or replace the batteries, pull the compartment lid down and slide the batteries into position observing the polarity indicated. When the power/battery indicator **[58]** lights up yellow, replace the batteries immediately.

Remote Control (optional)

The PMA1020 can be used together with an optional IR (infrared) remote control. For proper operation, a line of sight between the remote control and the sensor on the PMA1020 **(28)** is required. The IR remote controls only the basic functions of the PMA1020 and, as such, adds convenience to the operation, but does not replace the front panel control on the unit itself.

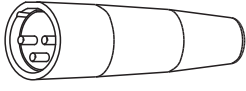
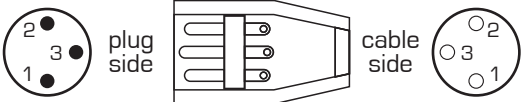
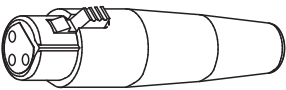
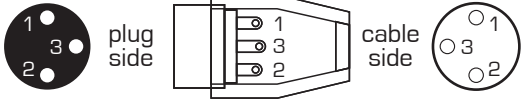

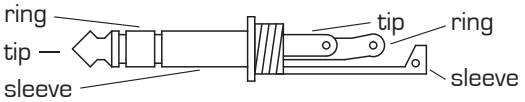

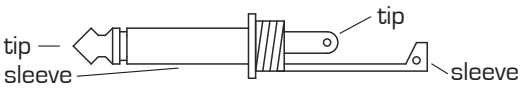
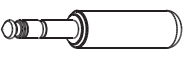
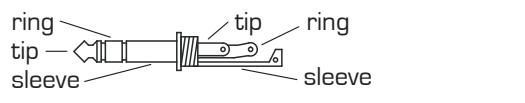
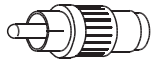
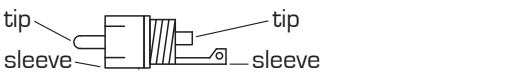
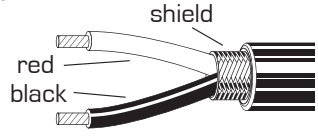
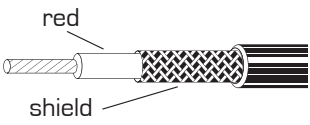
- 64** Transport Controls. The four transport control buttons allow you to start and pause a track, skip to the next track or go back to the beginning of the current track.



- 65** Source button. This element is not used in this product. This is NOT a malfunction.
- 66** Mute button. Mutes and unmutes the output of the PMA1020 player.
- 67** Volume control (up/down). Allows you to set the required audio volume.
- 68** FM preset station buttons. This element is not used in this product. This is NOT a malfunction.

Connections

The PMA1020 uses the connection types shown below. The pin convention must be followed. Always make sure to use good connectors and cables to ensure proper operation. Balanced connections are to be preferred over unbalanced connections where applicable and feasible. Avoid unbalanced connections exceeding 2m of cable length.

	Structure	Balanced connection	Unbalanced connection
XLR male 		red = 2 black = 3 shield = 1	red = 2 shield = 1+3
XLR female 		red = 2 black = 3 shield = 1	red = 2 shield = 1+3
6.35mm TRS-stereo 		red = tip black = ring shield = sleeve	red = tip shield = sleeve+ring
6.35mm TRS-mono 		red = tip black = sleeve shield = uncon.	red = tip shield = sleeve
3.5mm TRS-stereo 		red = tip black = ring shield = sleeve	red = tip shield = sleeve+ring
RCA 		red = tip black = sleeve shield = uncon.	red = tip shield = sleeve
CABLE Types	 <p>2-conductor shielded cable (for balanced connections)</p>	 <p>1-conductor shielded cable (for unbalanced connections)</p>	



Technical Specifications

Main system specifications	Inputs	Channel 1: RCA & 3.5mm line inputs Channels 2 & 3: 6.35mm TRS/XLR combo line/mic inputs
	Outputs	6.35mm TRS link output
	LF amplifier	80 W into 4 ohms
	HF amplifier	40 W into 8 ohms
	LF driver	10" with 2" VC 40 oz. magnet
	HF driver	1" ferrite compression driver
	Freq. response	60 Hz - 20 kHz
	Maximum SPL	118 dB
	Player	USB/SD MP3 player (MPEG 1 Layer 3, MPEG 2 Layer 3, and MPEG 2.5 Layer 3 at 128, 160, 192, 224, 256, 320 kbps + VBR)
	EQ	Shelving filters at 80 Hz (Low) and 12 kHz (High), ± 15 dB
	Pole socket	35 mm stand pole
	Handle	Die-cast telescopic top handle
	Dimensions (WxHxD)	360 x 560 x 303 mm
	Net weight	17.5 kg
Receiver and transmitters	Channels	16
	Carrier frequency range	863 - 865 MHz
	Audio bandwidth	60 Hz - 16 kHz
	SNR (receiver)	> 100 dB
	THD (receiver)	<1%
	Modulation	FM
	Capsule type	Dynamic (handheld)
	Polar pattern	Cardioid (handheld)
	Output power	10 mW (handheld and belt-pack)
	Maximum input level	6 mV (belt-pack)
	SNR (transmitter)	> 102 dB (handheld and belt-pack)
	Dimensions	235 x 54 mm (handheld), 85 x 65 x 24 mm (belt-pack)
	Net weight	280 g (handheld), 80 g (belt-pack)
	Power req. (transmitter)	2 x "AA" batteries (handheld and belt-pack)
Battery life (transmitter)	Approximately 10 hours (handheld and belt-pack)	

Maintenance and warranty

While we have chosen the best components to make this product as rugged and reliable as possible, some parts in audio products (potentiometers, faders, switches) are subject to wear, which is a matter of operation cycles, not of time. While we provide a full time-based warranty on the electronic circuitry according to the legal requirements of the country of purchase, we limit the warranty on such electromechanical parts to 90 days from the date of purchase.

In many cases, malfunction of electromechanical parts occurs due to dust contamination, which may require cleaning of such parts. As the inside of such parts is not accessible, a common practice is to use cleaning fluids in the shape of sprays. Please be reminded that many of such fluids contain chemicals which may wash away the dust but, at the same time, corrode or damage contact surface and may cause cosmetic damage to other parts. We hence explicitly exclude any claims for exchange of damaged parts due to mechanical or chemical impact.

EC Declaration of Conformity

Manufacturer: Adelto Technologies Limited
Address: Vanguard Way, Shoeburyness, Essex SS3 9QY, UK

We declare on our own responsibility, that the equipment

Hill Audio PMA1020

is in conformity with the following directives and standards or regulations:

R+TTE Directive 1999/5/EC

EN301489-1:2011
EN301489-9:2007
EN301489-17:2012
EN300422-1: 2011
EN300422-2: 2011
EN62479:2010

EMC Directive 2004/108/EC

EN55022:2010 (Emissions)
EN55024:2010 (Immunity)
EN61000-3-3:2008
EN61000-4-2 /-3 /-4 /-5 /-11

LVD Directive 2006/95/EC

EN60065:2002 A1:2009 + A11:2008 + A2:2010 + A12:2011

ROHS Directive 2002/95/EC

and is marked as follows:



Shoeburyness, 2. May 2014
Place and date of issuing


Authorized Signature



www.hill-audio.com

Hill Audio products are developed, manufactured and distributed by
Adelto Technologies
Vanguard Way, Shoeburyness, Essex SS3 9QY, UK
www.adelto.com | sales@adelto.com