

MPZ-6241

MULTI-ZONE AMPLIFIER WITH
BT/USB/SD/MP3/FM PLAYER

INSTRUCTION MANUAL



FONESTAR

We take this opportunity to thank you for buying this product.

We recommend you read the instruction manual before switching on the machine and follow the instructions that are given. Keep the manual for future reference.

SECURITY AND THE ENVIRONMENT

ELECTRICAL SECURITY

Check that the current in the mains connection where the machine is to be installed corresponds to the power supply of the machine.

To avoid damaging the equipment, electrical shocks, fire or physical injury when you connect or disconnect the equipment from the power supply, pull the plug firmly out of the mains socket holding the plug, never the cable.

Always do this with dry hands.

Keep the power supply cable far from sources of heat. Do not put heavy objects on top of it or change it.

Clean dust and dirt off the power supply cable regularly.

Do not open the machine; you could get an electric shock.

CAUTION

While installing the machine, make sure it is switched off and unplugged.

Do not open the machine. Touching the internal parts is dangerous and you could receive an electric shock.

The machine must not be splashed or dripped on. Never place recipients with liquid inside on the machine.

Do not place anything inside the machine.

LOCATION

Place the equipment on a horizontal surface with enough space around it to allow ventilation.

Avoid direct sunlight, heat sources and excessive dust.

Do not place the machine near magnetic fields or static electricity.

Do not use surfaces which vibrate or receive impact.

Do not pile machines on top of one another.

VENTILATION

Never block or cover the ventilation slits on the machine.

Do not expose it to direct sunlight or place it near sources of heat.

PERIODS OF INACTIVITY

When the machine is not going to be used for a long period of time, disconnect it from the mains.

If you are using an adapter, take into account that it will continue using electricity even if the machine is switched off. If it is not going to be used for a long period of time, disconnect it from the mains.

THE ENVIRONMENT

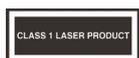
To save energy, switch the machine off when you are not going to use it for a long time. The machine could contain substances that are harmful to the environment or human health. To minimize the effect of these substances the machine must be correctly managed and recycled when you decide to dispose of it.

When you dispose of it remember: it cannot be thrown into a conventional rubbish bin.

If it contains or uses batteries, these must be disposed of separately.

The machine (without batteries) must be disposed of correctly. Put it in a container specially intended for the collection of electronic and electrical appliances, at the dump or hand it over to the dealer when you purchase similar equipment, so that the dealer can dispose of it correctly (at no added cost).

SIGNIFICANCE OF THE SYMBOLS ON THE MACHINE*



The symbol formed by the expression “Class 1 laser product” written in a rectangle indicates that visible or invisible laser radiation could be produced. Avoid direct expose to the laser.



The symbol formed by a ray of lightening inside a triangle shows that the machine has connection terminals or a circuit with areas with a current which could cause an electric shock, even in normal working conditions.



The symbol formed by an exclamation mark in a triangle shows that the instruction manual must be referred to for information on how the machine works and its use.



The symbol formed by one square inside another square shows that the machine has double electrical insulation.



The European Community symbol shows that the machine complies with the current European Union legislation, as well as its transposition to local legislation.



The symbol of a rubbish bin crossed out and over a horizontal line shows that when the product is disposed of it must be done properly, placing it in a special selective electronic and electrical equipment container or through a dealer when purchasing a similar product, at no additional cost. It also shows that the machine was put on the market after 13th August 2005 (European Community Directive 2002/96/CE of Electrical and Electronic recycling, and its Spanish equivalent R.D.208/2005).

In accordance with what is set out in the aforementioned decree, FONESTAR is registered in the RAEE (Registro de Aparatos Eléctricos y Electrónicos) in a special section REI (Registro de establecimientos Industriales), with the entry number 001851.

*It is possible that some of these symbols do not appear on the machine.

EXEMPTION OF LIABILITY

The characteristics of the equipment and the content of the manual can change without forewarning.

FONESTAR, S.A. does not assume responsibilities regarding the inappropriate use of the equipment or the information supplied in this instruction manual, and specifically disclaims any implied liability for marketability or fitness for any other use.

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DESCRIPTION

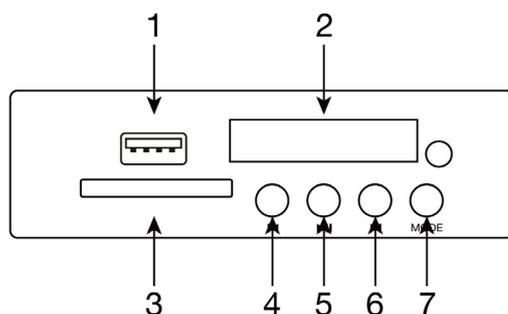
Zone Amplifier with 6 output zones with independent volume control, BT/USB/SD/MP3 player, and digital FM tuner.

Possibility of paging and message playback in zones using microphone with zone selector **M-62**.

Suitable for commercial installations consisting of several zones, each equipped with loudspeakers with piped music and the need to page in the various zones.

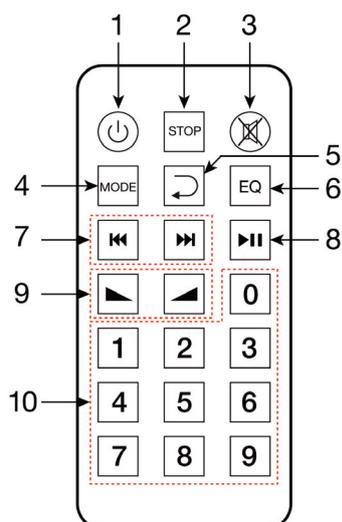
CONTROLS AND FUNCTIONS

BT/USB/SD/MP3/FM MODULE



- 1.- **USB:** USB storage device connection port.
- 2.- Information screen.
- 3.- **SD:** SD memory card connection port.
- 4, 6.- **⏮ ⏭:** in BT/USB/SD/MP3 playback mode, a short press of these buttons allows you to skip to the previous/next song, a long press allows you to decrease/increase the volume. In radio mode, a short press of these buttons allows you to switch to the previous/next FM station.
- 5.- **⏸:** In playback mode, a short press of this button allows you to start/pause playback. A long press starts the recording mode. Pressing the MODE button during recording allows you to end/save the audio track. In radio mode, a short press allows you to automatically scan for stations.
- 7.- **MODE:** you can select among bluetooth, USB/SD/MP3 storage device, or FM radio tuner mode.

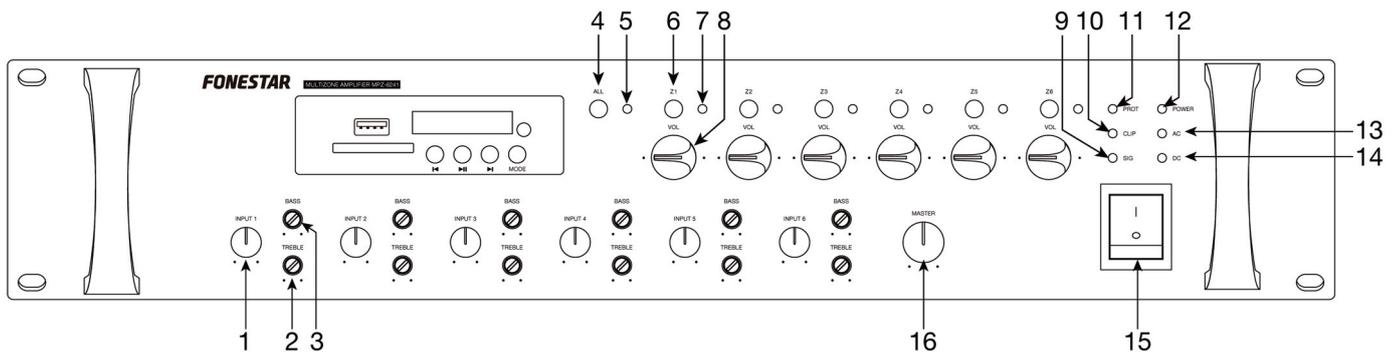
REMOTE CONTROL



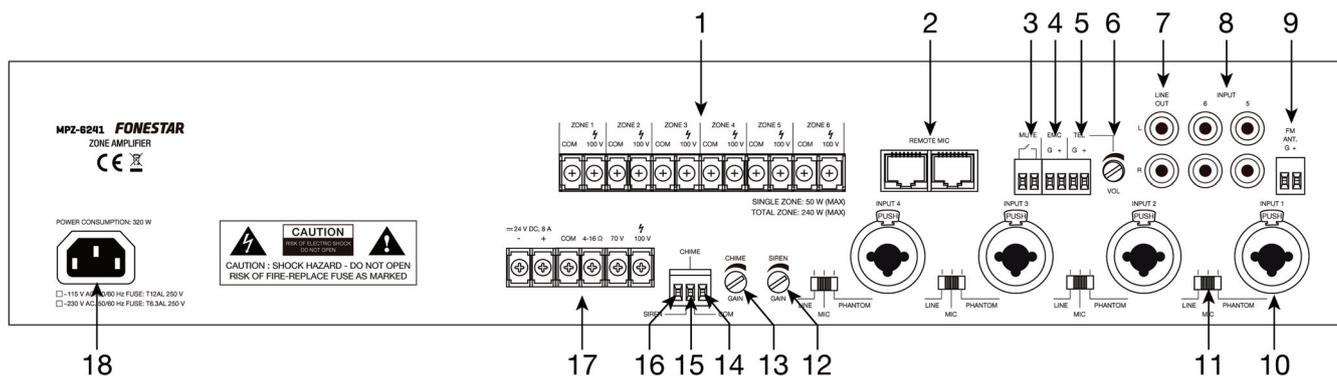
- 1.- **⏻:** switches the BT/USB/SD/MP3/FM module on/off.
- 2.- **STOP:** in playback mode, stops playback.
- 3.- Enables/disables the audio output of the BT/USB/SD/MP3/FM module.
- 4.- **MODE:** allows you to select between bluetooth mode, USB/SD/MP3 storage device or the FM radio tuner.
- 5.- In playback mode, allows you to switch between the following playback modes: ONE (repeat a song), Fod (repeat folder), Nor (normal playback), Rdo (random playback) and ALL (repeat all).

- 6.- **EQ**: equalization control.
- 7.- **⏮/⏭**: in playback mode, a short press of these buttons allows you to skip to the previous/next song, a long press allows you to do a quick rewind/advance. In radio mode a press of these buttons allows you to skip to the previous/next preset station.
- 8.- **▶||**: in playback mode, a short press of this button allows you to start and pause playback. A long press starts the recording mode. Pressing the MODE button during recording allows you to end/save the audio track. In FM mode a short press allows you to perform an automatic station scan.
- 9.- BT/USB/SD/MP3/FM module volume.
- 10.- **0-9**: numeric selection buttons.

FRONT PANEL



- 1- Dial that regulates the volume of the corresponding input channel.
- 2.- **TREBLE**: high pitch control that regulates the high pitches of the corresponding input channel.
- 3.- **BASS**: low pitch control that regulates the bass of the corresponding input channel.
- 4.- Activation/deactivation button for all zones
- 5- Activation indicator light for all zones.
- 6.- Output zone activation/deactivation button.
- 7.- Output zone activation indicator light.
- 8- Output volume control for each zone.
- 9- **PROT**: protection indicator light to signal excessive temperature or overload
- 10- **CLIP**: peak signal indicator light. If dimly lit, or occasionally lit, the output volume should be reduced. If the indicator light remains on continuously it is due to the high level of the input signal. The volume of the input signal, therefore, should be reduced.
- 11- **SIG**: light indicator for the presence of a general output signal.
- 12- **POWER**: power indicator light.
- 13- **AC**: light indicator for alternating current (AC) operation.
- 14- **DC**: light indicator for direct current (DC) operation.
- 15- **POWER**: device on/off switch.
- 16- **MASTER**: MASTER output volume control.



- 1.- **ZONES 100 V OUTPUTS:** to turn zones on/off use the front switches. Only loudspeakers with a 100 V line transformer should be used with the zone selection terminals. Connect the positive terminal of each zone to the corresponding ZONE 1 to ZONE 6 terminal and the common terminal of each zone to the COM terminal. Maximum power of each zone is 50 W. The total power connected to the loudspeakers must not exceed the power of the amplifier, 240 W.
- 2.- **REMOTE MIC:** input terminals **M-62** microphones. It allows you to connect up to 6 microphones in cascade in one terminal or 3 microphones in cascade in each terminal.
- 3.- **MUTE:** all inputs and the BT/USB/SD/MP3/FM modules are muted when the contacts of these two terminals are closed.
- 4.- **EMC:** emergency signal input connection terminals. This activates all zones and has the highest priority.
- 5.- **TEL:** telephone input connection terminals. These allow you to connect to a telephone switchboard to make pages from the switchboard with priority over the other inputs. Consult the characteristics of the switchboard to adjust to the input level of the amplifier. This has priority over inputs INPUT 1-6..
- 6.- **TEL VOL:** adjusts the volume of the TEL input.
- 7- **LINE OUT:** line level output, 2 x RCA connectors.
- 8- **INPUT 5, 6:** line level inputs. Allows you to connect audio sources, 2 x RCA connectors.
- 9- **FM ANT.:** FM antenna input connection terminals.
- 10- **INPUTS:** microphone/line inputs, XLR combo connector and 6.3 mm jack. Supports balanced and unbalanced microphone signals and balanced electret condenser microphones requiring 48 V phantom power. High level, balanced or unbalanced line signals from mixers, CDs, tape, tuners, etc. are supported.
- 11- **PHANTOM/LINE/MIC:** These switches have 3 positions:
 - LINE: At this position, LINE 1 to LINE 4 inputs can be connected to line-level audio sources, such as a pre-amplified desktop microphone or the line-level output of a mixer.
 - MIC: In this position, balanced or unbalanced, dynamic or electret condenser microphones can be connected to the LINE 1 to LINE 4 inputs, powered by a battery that does not require phantom power.
 - PHANTOM: in this position, electret condenser microphones requiring phantom power (48 V between pins 3 and 1, 2 and 1 of the XLR connector) can be connected to the LINE 1 to LINE 4 inputs. Use this switch at minimum volume to avoid damage.
- 12- **SIREN GAIN:** control that regulates the volume level of the alarm.
- 13- **CHIME GAIN:** control that regulates the volume level of the CHIMES.
- 14- **COM:** common terminal which activates the warning tone or the alarm via contact closure.
- 15.- **CHIME:** contact closure that activates chime sound.
- 16- **SIREN:** contact closure that activates the siren sound.
- 17- **24 V DC, 8 A:**
 - +/-: 24 V DC supply terminals. For amplifier operation with 24 V DC power supply, batteries, emergency power supply system, etc. Connect with 2.5 mm section cable to the - negative and + positive terminals.
 - Note:** when using a 24 V DC amplifier, the output power is reduced by approximately 20%.

COM: common connection terminal.

4-16Ω: output for low impedance loudspeakers 4-16Ω.

70 V/100 V: terminals for connecting loudspeakers with 70 or 100 V line transformer. Connect the positive terminal of each zone to the corresponding 70 or 100 V terminal and common terminal to the COM terminal.

18- AC power socket.

USE INSTRUCTIONS

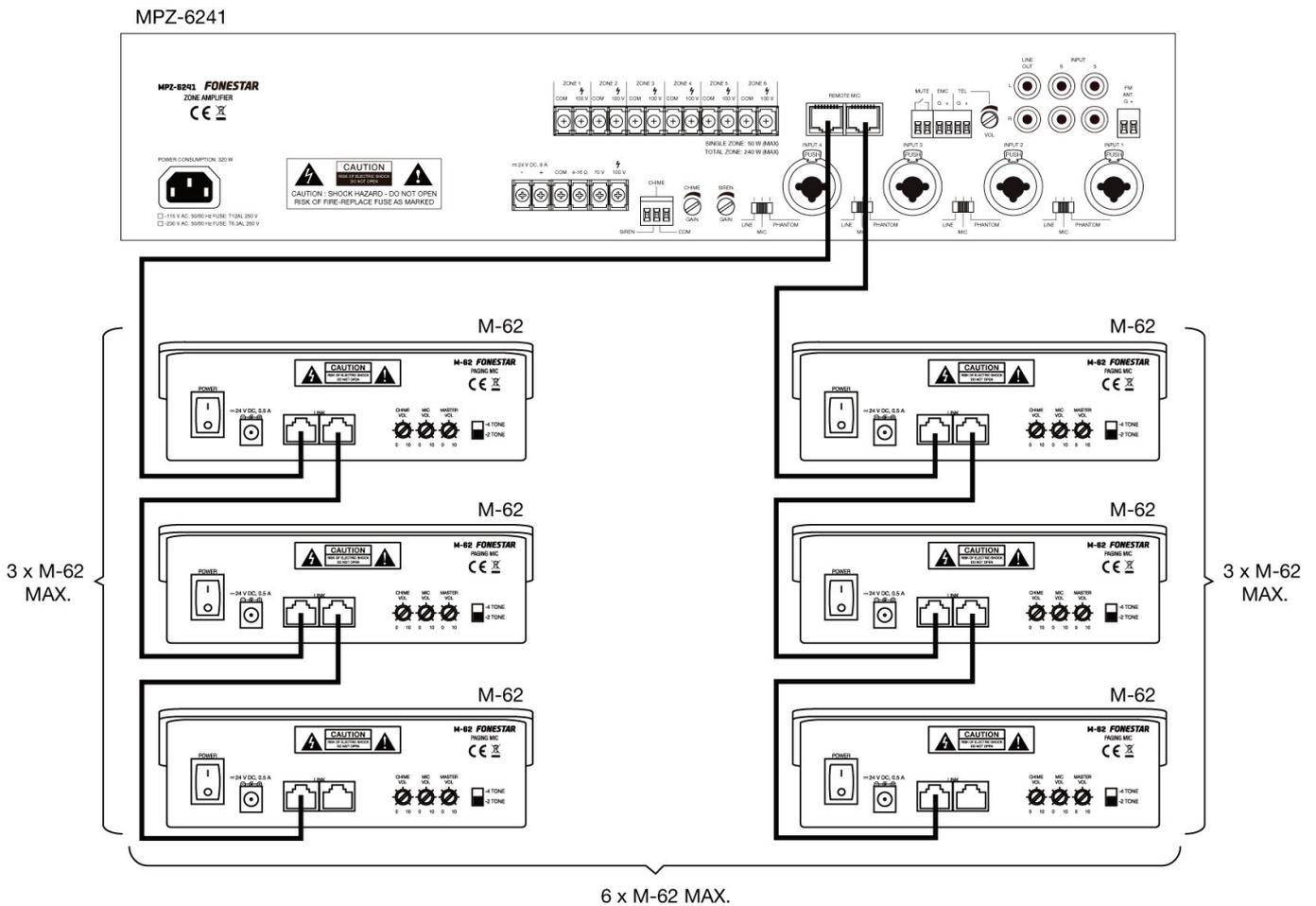
M-62 MICROPHONE CONNECTION

This system allows you to connect a maximum of 6 **M-62** microphones in total, with a maximum of 3 microphones on each line.

Each microphone must be assigned an ID when it is connected for the first time. Please note that this ID cannot be repeated within the same system.

To assign an ID to **M-62**, microphone, with the microphone turned off, press and hold one of the ZONE buttons on the microphone itself while turning the microphone on (switch located on the back of the **M-62**). You can be certain that the ID configuration is correct when the LED zone being pressed flashes several times and finally remains lit, at which point you can stop pressing the ZONE button. Each ZONE button identifies a different ID: ID: ZONE 1 equals ID 1, ZONE 2 equals ID 2, etc. The microphone identified by ID 1 will have priority to send messages over any other mics.

Connect the LINK output of the **M-62** microphone to the REMOTE MIC input of amplifier **MPZ-6241** using the supplied data cable. Interconnect **M-62** microphones using the LINK connectors..



PAGING WITH THE M-62 MICROPHONE

Press the TALK button on **M-62**, microphone to begin an announcement, press the TALK button again to end the announcement.

If there is no other microphone emitting a message, the TALK and microphone LEDs will be green. If, on the other hand, the TALK indicator light turns red, this indicates that there is another microphone sending a message at that moment. The system will create a waiting queue for all microphones requesting to send a message (the TALK indicator will appear as a red light) and will activate them in the same order in which the requests were made.

If the message is interrupted by the microphone with ID 1 (priority), the system will wait to re-activate the microphone that was interrupted until the ID1 (priority) microphone has completed its announcement.

CONNECTION

The amplifier and all system components should be disconnected from the power supply before making any connections.

Connect microphone or line-level sound sources via INPUT 1 to INPUT 6, ensuring that input gain is regulated. If a condenser microphone is connected, select phantom power (48 V) on the rear panel of the amplifier.

If your system consists of **M-62**, microphones, connect these via the REMOTE MIC port. The maximum number of **M-62** microphones is 6 with a cascade connection.

Use the 4 Ω low impedance output or the 100 or 70 V high impedance line output, depending on the type of speakers you are connecting. Do not use both output types at the same time.

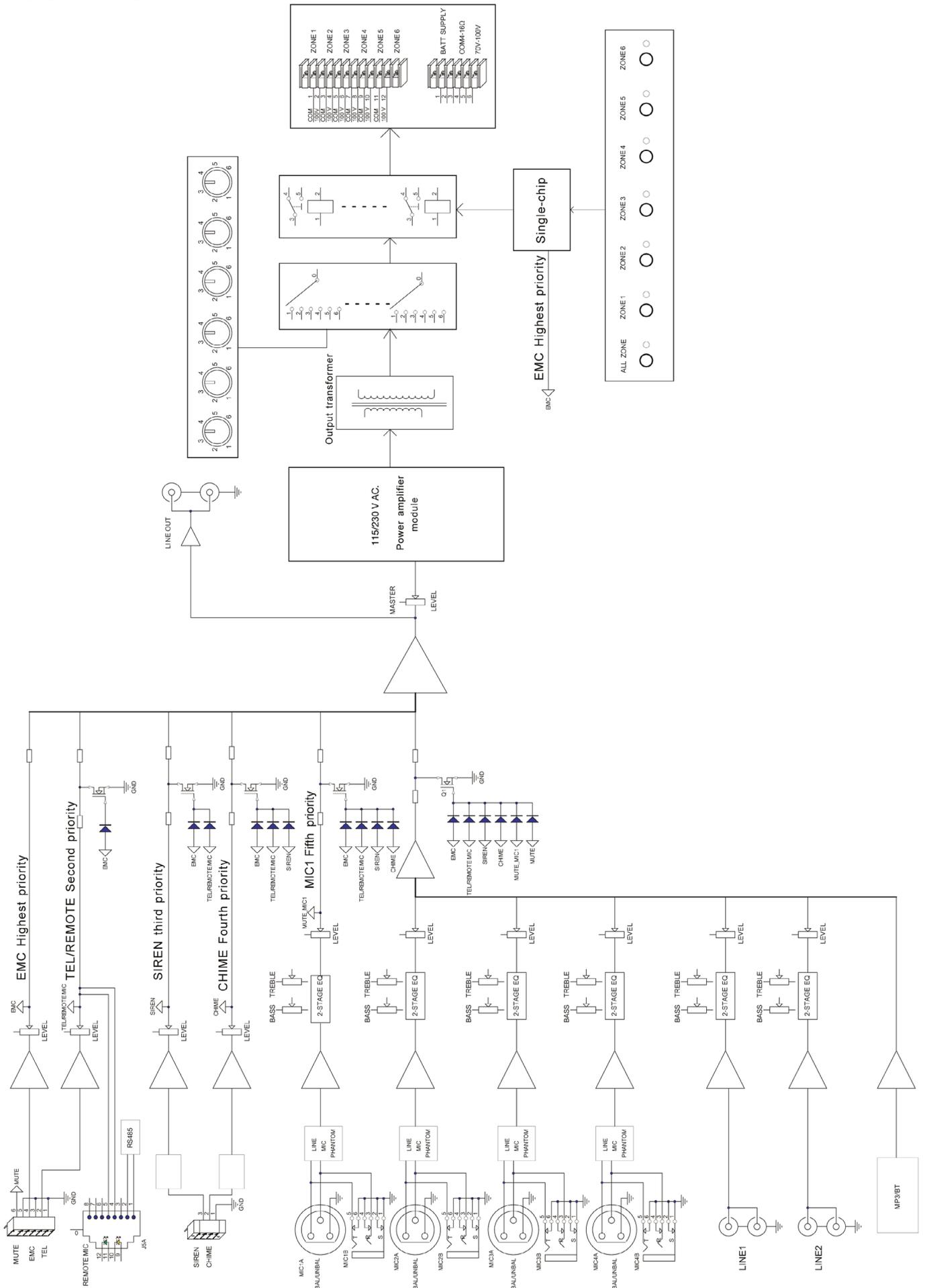
To connect low-impedance speakers, you must make serial/parallel connections so that the load impedance of the speakers equals the output impedance of the amplifier and the power supplied by the amplifier does not exceed the power supported by the speakers.

To connect 100V line speakers, you must make parallel connections. The **MPZ-6241** amplifier has several 100V line output zones with independent volume control.

NOTE: The maximum power of each zone is 50 W RMS and the total sum of the power of all speakers must not exceed the maximum power supplied by the amplifier, 240 W RMS.

Once the connections have been made according to your needs, connect the devices to the power outlet and turn them on. After use, do not forget to turn off and disconnect the appliance from the power outlet.

BLOCK DIAGRAM



TECHNICAL SPECIFICATIONS

	MPZ-6241
CHARACTERISTICS	Class D zone amplifier. 6 selectable loudspeaker zones with independent volume control, 50 W maximum per zone. BT/USB/SD/MP3 recorder/player. Digital FM radio tuner. Phantom power supply. Priority paging. Chimes. Connection of up to 6 paging microphones with zone selector M-62 . Remote control for player.
POWER	240 W RMS
RESPONSE	80-16.000 Hz ± 3 dB
DISTORTION	Harmonic: < 0.1%
INPUTS	4 balanced mics/lines, combo (XLR and 6.3 mm jack) 600 Ω 5 mV RMS and 10,000 Ω 350 mV RMS, switchable 2 aux, 2 x RCA 47,000 Ω 150 mV RMS 1 TEL, 10,000 Ω 700 mV RMS screw terminals 1 EMC, 10,000 Ω 700 mV RMS screw terminals 2 mics with zone selector, RJ-45
OUTPUTS	1 aux, 2 x RCA 1 V
CONTROLS	Inputs 1 to 6: bass, treble and volume TEL: volume Siren: volume Chime: volume Zones 1 to 6: volume
S/N RATIO	Mic > 65 dB Line > 70 dB
PROTECTION	Temperature and overload
PHANTOM	48 V on mics 1 to 4, selectable
PRIORITY	EMC, siren, TEL and M-62 announcements, chime and Mic 1
IMPEDANCE	4 -16 Ω 100 and 70 V lines, screw terminals
POWER SUPPLY	230 V AC, 320 W maximum and 24 V DC, 8 A
DIMENSIONS	484 x 88 x 353 mm depth. 2 U 19" rack
ACCESSORIES	FM antennae
OPTIONAL	M-62: microphone with zone selector

WARRANTY

This product has been tested and has passed the corresponding quality control prior to being put on the market. **FONESTAR** guarantees the suitability of the product for its specified use during a period of 2 years from the delivery date and commits itself to repair or substitute the goods as expressed in the Spanish law 'La Ley General para la Defensa de los Consumidores y Usuarios, Real Decreto Legislativo 1/2007 16 Noviembre.

The lack of conformity in the first six months after purchase, due to a manufacturing defect, will be rectified with no more than showing the proof of purchase. After six months **FONESTAR** reserves the right to demand proof of the product being sold with that problem.

This warranty does not include damage produced by: inappropriate use or negligence, accidents, worn out parts due to use, breakages, burns, spilt liquids or other substances, excessive humidity, battery deterioration and internal manipulation of the device, the software or its components by unauthorized persons, and in general any use that is unrelated to the nature and purpose of the product.

If any service is needed during the warranty period because of lack of conformity, please contact the business or distributor where the product was purchased in no more than 2 months after being conscious of the problem. It is only necessary to contact **FONESTAR** if it is impossible or imposes an undue burden for them to solve it. To benefit from this warranty it is necessary to show the proof of purchase with the date clearly visible, with no corrections or crossing out.

This document adds information, and never decreases the consumers' rights, which in all cases are protected by the Spanish law 'La Ley General para la Defensa de los Consumidores y Usuarios, Real Decreto Legislativo 1/2007 16 Noviembre'.



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