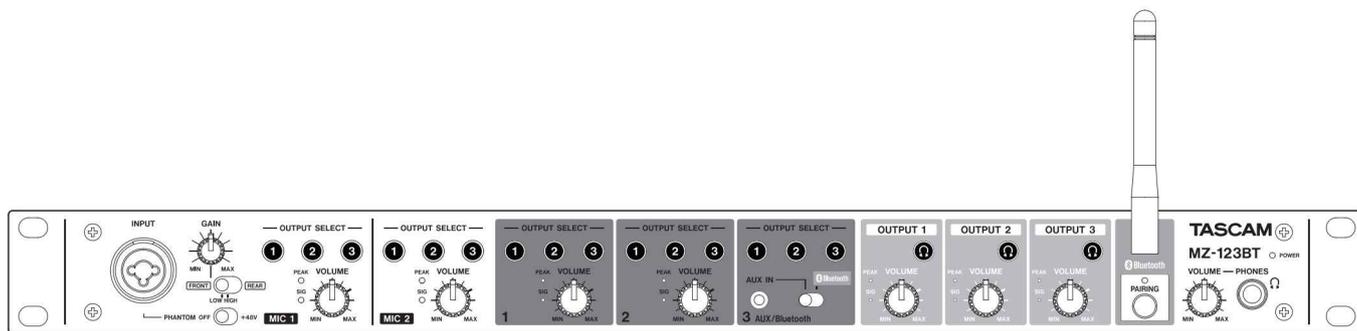


TASCAM

OPZM100TEA04

MZ-123BT

INSTALLATION MIXER



OWNER'S MANUAL ENGLISH

MODE D'EMPLOI FRANÇAIS

MANUAL DEL USUARIO ESPAÑOL

BEDIENUNGSANLEITUNG DEUTSCH

MANUALE DI ISTRUZIONI ITALIANO

取扱説明書 日本語

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OWNER'S MANUAL

IMPORTANT SAFETY INSTRUCTIONS

 CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN 	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	The lightning flash with arrowhead symbol, within equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IN USA/CANADA, USE ONLY ON 120 V SUPPLY.

For U.S.A.

Declaration of Conformity

Model Number: MZ-123BT

Trade Name: TASCAM

Responsible party: TEAC AMERICA, INC.

Address: 10410 Pioneer Blvd. Suite #1, Santa Fe Springs, California 90670, U.S.A.

Telephone number: 1-323-726-0303



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

INFORMATION TO THE USER

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.

For Canada

THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMERIQUE DE LA CLASSE B EST CONFORME A LA NORME NMB-003 DU CANADA.



This product complies with the European Directives request and the other Commission Regulations.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- The apparatus draws nominal non-operating power from the AC outlet with its POWER or STANDBY/ON switch not in the ON position.
- The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.
- Caution should be taken when using earphones or headphones with the product because excessive sound pressure (volume) from earphones or headphones can cause hearing loss.
- If you are experiencing problems with this product, contact TEAC for a service referral. Do not use the product until it has been repaired.

WARNING

- Products with Class I construction are equipped with a power supply cord that has a grounding plug. The cord of such a product must be plugged into an AC outlet that has a protective grounding connection.

WARNING

- To prevent possible hearing damage, do not listen at high volume levels for long periods.

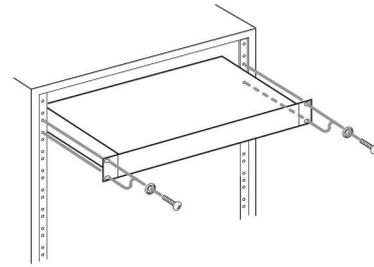


CAUTION

- Do not expose this apparatus to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus should be located close enough to the AC outlet so that you can easily grasp the power cord plug at any time.
- If the product uses batteries (including a battery pack or installed batteries), they should not be exposed to sunshine, fire or excessive heat.
- CAUTION for products that use replaceable lithium batteries: there is danger of explosion if a battery is replaced with an incorrect type of battery. Replace only with the same or equivalent type.

RACK-MOUNTING THE UNIT

Use the supplied rackmount screw kit to mount the unit in a standard 19-inch rack, as shown below.



ATTENTION

- Leave 1U of space above the unit for ventilation.
- Allow at least 10 cm (4 in) at the rear of the unit for ventilation.

For European Customers

Disposal of electrical and electronic equipment and batteries and/or accumulators

- (a) All electrical/electronic equipment and waste batteries/accumulators should be disposed of separately from the municipal waste stream via collection facilities designated by the government or local authorities.
- (b) By disposing of electrical/electronic equipment and waste batteries/accumulators correctly, you will help save valuable resources and prevent any potential negative effects on human health and the environment.
- (c) Improper disposal of waste electrical/electronic equipment and batteries/accumulators can have serious effects on the environment and human health because of the presence of hazardous substances in the equipment.
- (d) The Waste Electrical and Electronic Equipment (WEEE) symbols, which show wheeled bins that have been crossed out, indicate that electrical/electronic equipment and batteries/accumulators must be collected and disposed of separately from household waste. 
- (e) Return and collection systems are available to end users. For more detailed information about the disposal of old electrical/electronic equipment and waste batteries/accumulators, please contact your city office, waste disposal service or the shop where you purchased the equipment.

Wireless equipment precautions

Compliance of radio transmitter and interference

This product has the function of broadband transmitter using 2.4GHz Band.

Use frequency range: 2400 MHz - 2480 MHz

Maximum output power: Bluetooth® Class 2 (less than 2.5 mW) Please use only in the country where you purchased the product. Depending on the country, restrictions on the use of Bluetooth wireless technology might exist.

Model for USA

Declaration of Conformity

Responsible party: TEAC AMERICA, INC.
Address: 10410 Pioneer Blvd. Suite #1, Santa Fe Springs, California 90670, U.S.A.
Telephone number: 1-323-726-0303



This device complies with Part.15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Labeling of authorization

FCC ID: XEG-MZ123BT

Model for Canada

Compliance of radio transmitter

This device complies with Industry Canada's licence-exempt RSSs.

Operation is subject to the following two conditions:

- 1) This device may not cause interference
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Labeling of authorization

IC: 1559C-MZ123BT

Modèle pour le Canada

Conformité de l'émetteur radio

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes:

- 1) Le dispositif ne doit pas produire de brouillage préjudiciable, et
- 2) Ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Référence d'autorisation

IC: 1559C-MZ123BT

Compliance of interference

This Class B digital apparatus complies with Canadian ICES-003.

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20 cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

Conformité de brouillage

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Cet équipement est conforme aux limites d'exposition au rayonnement fixées par la FCC/IC pour un environnement non contrôlé, et répond aux Directives d'exposition aux fréquences radio (RF) de la FCC et aux Règles CNR-102 d'exposition aux radiofréquences de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation de l'exposition maximale autorisée. Cependant, cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le dispositif rayonnant et le corps (à l'exception des extrémités : mains, poignets, pieds et chevilles).

Référence d'autorisation

CAN ICES-3(B)/NMB-3(B)

Model for EEA (European Economic Area)



Hereby, TEAC Corporation declares that the radio equipment type is in compliance with Directive 2014/53/EU, and the other Directives, and Commission Regulations.

The full text of the EU declaration of conformity is available at the following internet address: Please contact us by e-mail.

<https://www.tascam.eu/en/kontakt.html>

EU Importer: TEAC Europe GmbH

Bahnstrasse 12, 65205 Wiesbaden-Erbenheim, Germany

Radiation Exposure requirements

This equipment meets the regulation, which is recognized internationally, for the case of human exposure to radio waves generated by the transmitter.

Statement of compliance

Model for USA

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency Exposure Guidelines.

Model for Canada

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

Model for USA/Canada

This Class B digital apparatus complies with Canadian ICES-003.

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20 cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

Model for EEA (European Economic Area)

This equipment complies with EN.62311; Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields; the harmonised standard of DIRECTIVE 2014/53/EU.

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Introduction

Thank you very much for purchasing the TASCAM MZ-123BT. Before using this unit, read this Owner's Manual carefully so that you will be able to use it correctly and enjoy working with it for many years. After you have finished reading this manual, please keep it in a safe place for future reference.

You can also download this Owner's Manual from the TEAC Global Site (<http://teac-global.com/>).

Features

- Rackmount mixer that enables assignment of background music and mic announcements to three zones
- Provides convenient background music playback setup
 - Built-in Bluetooth® receiver enables music input from smartphones, tablets and other devices
 - Built-in AUX input enables music input from portable music players and other devices that do not support Bluetooth®
- Necessary controls for daily use have been carefully selected and placed on the front, making operation also easy for endusers
- The Bluetooth® antenna on the front makes stable Bluetooth® connection possible even in environments with many obstacles
- Different input sources can be assigned to each of the three sets of outputs
 - Each output has a mono/stereo switch ¹
 - Euroblock terminals are ideal for permanent installations
- Three sets of line input channels
 - Channel 1: line input (RCA, unbalanced)
 - Channel 2: line input (RCA, unbalanced)
 - Channel 3: AUX input/Bluetooth® ²
- Two mic input channels ideal for announcements
 - Mic 1 can be connected to the XLR/TRS combo jack on the front or the Euroblock terminal for installed use on the back
 - Talkover function automatically lowers background music volume according to mic volume
 - Flexible audio tone adjustment is possible using the 3-band equalizer and high-pass filter
 - +48V phantom power supported
- Headphone jack can be used to monitor every output
- Compact 1U rackmount size

1 When mono output is selected, a stereo input source will be output as a mono mix.

2 During operation, select AUX input or a Bluetooth® source.

Included items

This product includes the following items.

Take care when opening the package to avoid damaging the items. Keep the box and packing materials for transportation in the future.

Please contact the store where you purchased this unit if any of these items are missing or have been damaged during transportation.

- Main unitx 1
- Power cord set.....x 1
- Bluetooth antenna.....x 1
- Euroblock plug.....x 8
- Cable band kitx 1
- XLR cover.....x 1
- Rackmount screw kit.....x 1
- Owner's Manual (this document) including warranty.....x 1

Conventions used in this manual

- Computers, portable audio devices and other equipment connected to this unit using Bluetooth are called "Bluetooth devices".
- As necessary, additional information is provided under TIP, NOTE and CAUTION headings.

TIP

These are tips about how to use the unit.

NOTE

These provide additional explanations and describe special cases.

ATTENTION

Failure to follow these instructions could result in damage to equipment or lost data, for example.

CAUTION

Failure to follow these instructions could result in injury.

Precautions for placement and use

- The operating temperature range of this unit is 0 - 40 °C.
- Do not install this unit in the following types of locations. Doing so could make the sound quality worse or cause malfunction.
 - Places with significant vibrations
 - Next to a window or in another location exposed to direct sunlight
 - Near heaters or other extremely hot places
 - Extremely cold places
 - Very humid or poorly ventilated places
 - Very dusty places
- To enable good heat dissipation, do not place anything on top of the unit.
- Do not place this unit on top of a power amplifier or other device that generates heat.

Notes about power supply

- Insert the included power cord all the way into the AC IN connector.
- Do not connect a power supply other than one that is AC100V - 240V (50/60Hz).
- Hold the power cord by its plug when connecting or disconnecting it.

Beware of condensation

Condensation could occur if the unit is moved from a cold place to a warm place, it is used immediately after a cold room has been heated or it is otherwise exposed to a sudden temperature change.

To prevent this, or if this occurs, let the unit sit for one or two hours at the new room temperature before using it.

Cleaning the unit

Use a dry soft cloth to wipe the unit clean. Do not wipe with chemical cleaning cloths, thinner, alcohol or other chemical agents. Doing so could damage the surface or cause discoloration.

Bluetooth®

This unit has a built-in Bluetooth audio receiver, and can input sound played on a computer or portable audio device that supports Bluetooth (Bluetooth device).

ATTENTION

The Bluetooth function of this unit is not guaranteed to enable connection or operation with all Bluetooth devices.

Profiles

This unit supports the following Bluetooth profiles.

- A2DP (Advanced Audio Distribution Profile)

In order to transfer audio by Bluetooth, the Bluetooth device must support A2DP.

Even if a Bluetooth device supports the same profiles, though, its functions might differ according to its specifications.

Codecs

This unit supports the following codecs. It will automatically select one of them during audio transfer.

- SBC
- AAC
- Qualcomm®aptX™ audio

The unit will select the appropriate codec to use according to the codec compatibility of the other Bluetooth device and communication conditions.

NOTE

- You cannot select the codec to be used by pressing a button, for example.
- Due to characteristics of Bluetooth wireless technology, playback from this unit will be slightly delayed compared to playback from the Bluetooth device.

Content protection

This unit supports SCMS-T as a form of content protection when transmitting audio, so it can play protected audio.

Transmission security

This unit supports security functions during Bluetooth transmission in accordance with the Bluetooth standard specifications, but it does not guarantee the privacy of such transmissions.

TEAC CORPORATION will bear no responsibility should an information leak occur during transmission by Bluetooth.

Using the TEAC Global Site

You can download updates for this unit from the TEAC Global Site:

<http://teac-global.com/>

In the TASCAM Downloads section, select the desired language to open the Downloads website page for that language.

Product registration

Customers in the USA, please visit the following TASCAM website to register your TASCAM product online.

<https://tascam.com/us/>

About TASCAM customer support service

TASCAM products are supported and warrantied only in their country/region of purchase.

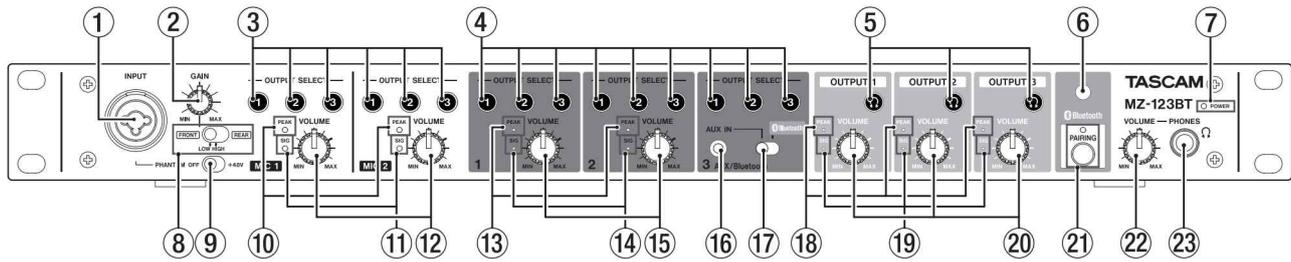
To receive support after purchase, on the TASCAM Distributors list page of the TEAC Global Site (<http://teac-global.com/>), search for the local company or representative for the region where you purchased the product and contact that organization.

When making inquiries, the address (URL) of the shop or web shop where it was purchased and the purchase date are required.

Moreover, the warranty card and proof of purchase might also be necessary.

Names of parts

Front panel



① INPUT jack

This is an XLR/TRS combo jack for mic input.

- XLR (1: GND, 2: HOT, 3: COLD)
- TRS (Tip: HOT, Ring: COLD, Sleeve: GND)

Use the INPUT GAIN knob (②) to set the input level.

To send the mic input from the front INPUT jack (①) to the mic input channel 1 input source switch (⑧) to FRONT LOW or FRONT HIGH.

② INPUT GAIN knob

Use to adjust the mic input level from the INPUT jack (①).

③ Mic input OUTPUT SELECT switches/indicators

These select the mic buses to which the mic input sounds from the rear mic input connectors (⑳) and the INPUT jack (①) are sent.

The indicators for the selected outputs light.

④ Line input OUTPUT SELECT switches/indicators

These select the stereo busses to which the line input signals from the rear line input connectors (㉑) and the AUX IN jack (⑰) or a paired Bluetooth device are sent.

The indicators for the selected outputs light.

⑤ Monitoring switches/indicators

Use these to set whether signals are output from the PHONES jack (㉒).

The indicators for the selected outputs light.

⑥ Bluetooth antenna connector

Connect the included Bluetooth antenna here.

⑦ POWER indicator

This shows the status of the unit.

When the POWER (㉓) switch on the back of the unit is on, the POWER indicator lights.

⑧ Mic input channel 1 input source switch

Use this to select the input source for mic input channel 1.

This is set to REAR when shipped new from the factory.

Option	Meaning
FRONT LOW (PAD ON)	This selects input from the front INPUT jack (①). Use this setting when the connected mic input level is high. (24dB attenuation)
FRONT HIGH (PAD OFF)	This selects input from the front INPUT jack (①).
REAR	This selects input from the rear mic input connector (㉓).

⑨ PHANTOM switch for the INPUT jack

Use this switch to supply +48V phantom power to the INPUT jack (①) on the front of the unit.

The PHANTOM switch for the INPUT jack provides +48V phantom power. (See "Connecting microphones" on page 14)

This is set to OFF when shipped new from the factory.

⑩ Mic input PEAK indicators

These light when signals from mic input channels 1-2 are about to distort.

Adjust the rear mic GAIN knobs (㉔) so that the mic input PEAK indicators do not light.

If a connected mic input level is high, set the PAD switches (㉕) to ON, and then adjust the mic GAIN knobs (㉔).

When using INPUT jack (①), adjust the INPUT GAIN knob (②).

If the connected mic input level is high, set the mic input channel 1 input selection switch (⑧) to FRONT LOW, and then adjust the INPUT GAIN knob (②).

NOTE

Adjusting the mic input VOLUME knobs (㉖) will not change the level that these light. Adjust the MIC gain knobs (㉔) or the INPUT GAIN knob (②).

⑪ Mic input signal (SIG) indicators

These light when signals are input through mic input channels 1-2.

NOTE

Adjusting the mic input VOLUME knobs (㉖) will not change the level that these light.

⑫ Mic input VOLUME knobs

These adjust the levels of mic input channel 1-2 signals sent to the mic bus.

NOTE

The thick line indicates approximately 0dB gain.

⑬ Line input PEAK indicators

These light when signals from line input channels 1-2 are about to distort (+3 dBV or higher).

Adjust the rear input GAIN knobs (㉗) so that the line input PEAK indicators do not light.

NOTE

Adjusting the line input VOLUME knobs (㉘) will not change the level that these light. Adjust the line input GAIN knobs (㉗).

14 Line input signal (SIG) indicators

These light when signals are input through line input channels 1-2.

NOTE

Adjusting the line input VOLUME knobs (15) will not change the level that these light.

15 Line input VOLUME knobs

These adjust the levels sent to the line input channel 1-2 stereo bus.

NOTE

The thick line indicates approximately 0dB gain.

16 AUX IN jack (stereo mini jack)

This stereo mini jack is a line input jack.

Use this to connect with the line output jack of a tablet or other external device.

CAUTION

- Before connecting another device to the AUX IN jack, minimize the volume of that device. Failure to do so could result in a sudden loud noise that could harm hearing, for example.
- Turn the unit off before connecting or disconnecting with the AUX IN jack.

17 AUX IN - Bluetooth switch

This sets the input for line input channel 3 to the AUX IN jack (16) or a Bluetooth device.

This is set to Bluetooth when shipped new from the factory.

NOTE

- The input signal cannot be set to both the AUX IN jack (16) and a Bluetooth device at the same time.
- Setting this switch to AUX IN will end connection with a Bluetooth device.
- This switch must be set to Bluetooth in order to pair with a Bluetooth device.
- When this is set to Bluetooth, it will automatically try to connect with the Bluetooth device to which it was previously connected. In this case, pairing will automatically end if connection is not possible because that Bluetooth device is not turned on or its Bluetooth function is turned off.

18 Analog output PEAK indicators

These light when signals output from the analog output jacks (26) are about to distort (+20 dBu or higher).

Use the VOLUME knobs (20) to adjust so that the mic input PEAK indicators do not light.

19 Analog output signal (SIG) indicators

These light when sound is being output through the rear analog output jacks (26).

20 Line output VOLUME knobs

Use to adjust the output levels of the rear analog output jacks (26).

NOTE

The thick line indicates approximately 0dB gain.

21 PAIRING button and indicator

Press and hold this button to activate Bluetooth pairing mode.

Press when pairing to end pairing. (See "Connecting with Bluetooth devices" on page 14)

22 PHONES VOLUME knob

Use this to adjust the headphone output level.

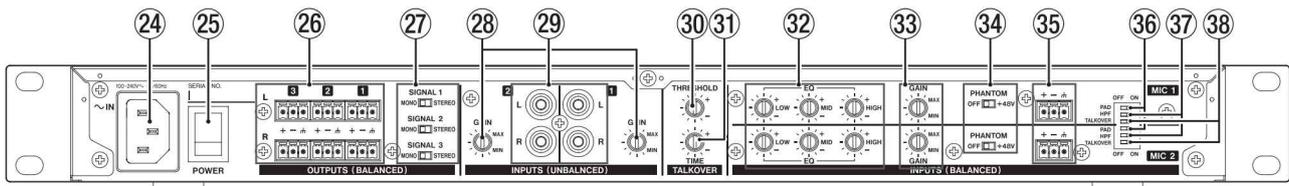
CAUTION

Before connecting headphones, minimize the volume with the PHONES knob. Failure to do so could result in a sudden loud noise that could harm hearing, for example.

23 PHONES jack

Use this standard stereo jack to connect stereo headphones. Use an adapter to connect headphones with a mini plug.

Rear panel



24 AC IN connector

Connect the included power cord here.

25 POWER switch

Press to turn the unit on and off.

When on, the POWER (7) indicator lights on the front of the unit.

⚠ CAUTION

Before turning the unit on, lower the volumes of connected equipment to their minimum levels. Failure to do so might cause sudden loud noises, which could harm your hearing or result in other trouble.

26 Analog output connectors

These are balanced Euroblock analog output connectors. (HOT, COLD, GND from the left)

Mono signals will be output if MONO - STEREO (27) switches are set to MONO.

27 MONO - STEREO switches

Set whether the signals output from the analog output jacks (26) are stereo or mono.

Set it to STEREO for stereo output or MONO for mono output.

During mono output, the same signal is output on both left and right channels. Stereo input sources will be mixed to mono signals and output.

Output channels that are set to MONO will be mono when monitored with headphones.

These are set to MONO when shipped new from the factory.

28 Line input GAIN knobs

Use to adjust the levels of the line input jacks (29).

NOTE

Use a small flathead screwdriver to adjust these.

29 Line input jacks

These RCA pin jacks are analog line inputs.

Use RCA cables to connect CD players and similar devices to these jacks.

30 TALKOVER THRESHOLD knob

Set the input sensitivity (threshold level) for the talkover function. (See "Using the talkover function" on page 16)

NOTE

This cannot be set separately for mic input channels 1-2.

31 TALKOVER TIME knob

Use this to set the time until the talkover function deactivates (release time). (See "Using the talkover function" on page 16)

NOTE

This cannot be set separately for mic input channels 1-2.

32 Mic input EQ knobs

This is a 3-band equalizer (HIGH/MID/LOW) for the mic input sound.

Setting range: ± 15 dB

NOTE

Use a small flathead screwdriver to adjust these.

33 Mic input GAIN knobs

Use to adjust the input levels of the mic input connectors (35, Euroblock).

NOTE

Use a small flathead screwdriver to adjust these.

34 Mic input connector PHANTOM switches

Use these switches to supply +48V phantom power to the mic input connectors (35, Euroblock).

The PHANTOM switches for the mic input connectors provide +48V phantom power. (See "Connecting microphones" on page 14)

These are set to OFF when shipped new from the factory.

35 Mic input connectors

These are balanced Euroblock mic input connectors. (HOT, COLD, GND from the left)

Use the mic input GAIN knobs (33) to set the input levels.

To send mic input from the mic input connectors (35) to mic input channel 1, set the front mic input channel 1 input source switch (8) to REAR.

36 PAD switches

Use to switch the input levels of the mic input jacks (35, Euroblock). (24dB attenuation)

Set to ON if a connected mic input level is high.

This can be set for each input channel independently.

These are set to OFF when shipped new from the factory.

37 HPF switches

Setting these switches to ON enables high pass filters that cut noise and other sounds at low frequencies.

These are set to OFF when shipped new from the factory.

NOTE

When the MIC1 HPF switch is turned ON/OFF, the high pass filter affects not only the rear mic input connectors (35, Euroblock) but also the front INPUT jack (1).

38 TALKOVER switches

These turn the talkover function on/off. (See "Using the talkover function" on page 16)

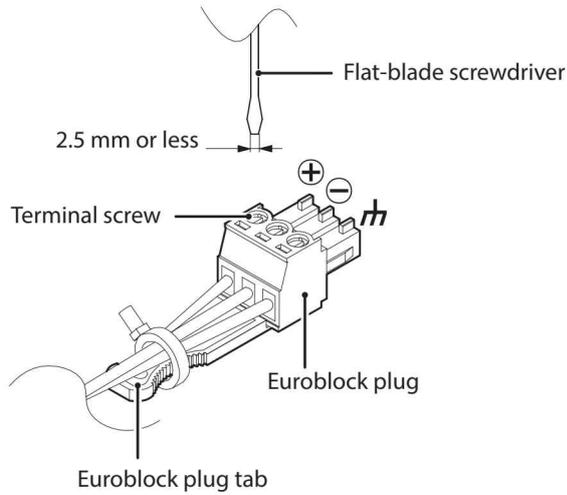
These are set to OFF when shipped new from the factory.

NOTE

When the MIC1 TALKOVER switch is turned ON/OFF, the talkover function affects not only the rear mic input connectors (35, Euroblock) but also the front INPUT jack (1).

Preparation

Connecting Euroblock plugs



1. Loosen the Euroblock plug terminal screws.

NOTE

Use a flat-blade screwdriver with a width of 2.5mm or less.

2. Insert wires.

NOTE

AWG16-AWG28 wires are compatible with the included Euroblock plugs. Using wires within the compatible range, trim about 7 mm of the protective sheaths from their ends.

3. Tighten the Euroblock plug terminal screws.

NOTE

Confirm that the wires cannot be pulled out.

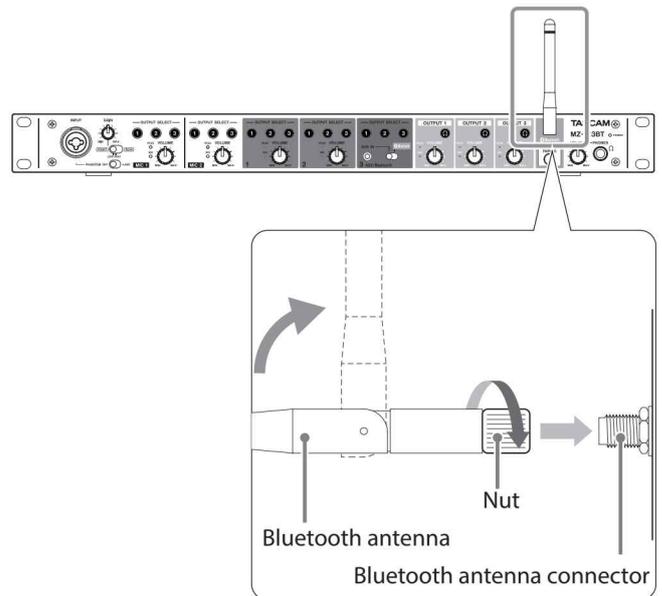
4. Use an included wire band to attach the wires to the Euroblock plug tab.

Attaching the Bluetooth antenna

Before connecting to a Bluetooth device, follow these procedures to attach the included Bluetooth antenna.

NOTE

When this unit is shipped new, a cap is attached to the Bluetooth antenna connector. Remove the cap before attaching the Bluetooth antenna.



1. Attach the included Bluetooth antenna to the Bluetooth antenna connector.
2. Turn the Bluetooth antenna nut to secure it to the antenna connector.
3. Raise the Bluetooth antenna.

ATTENTION

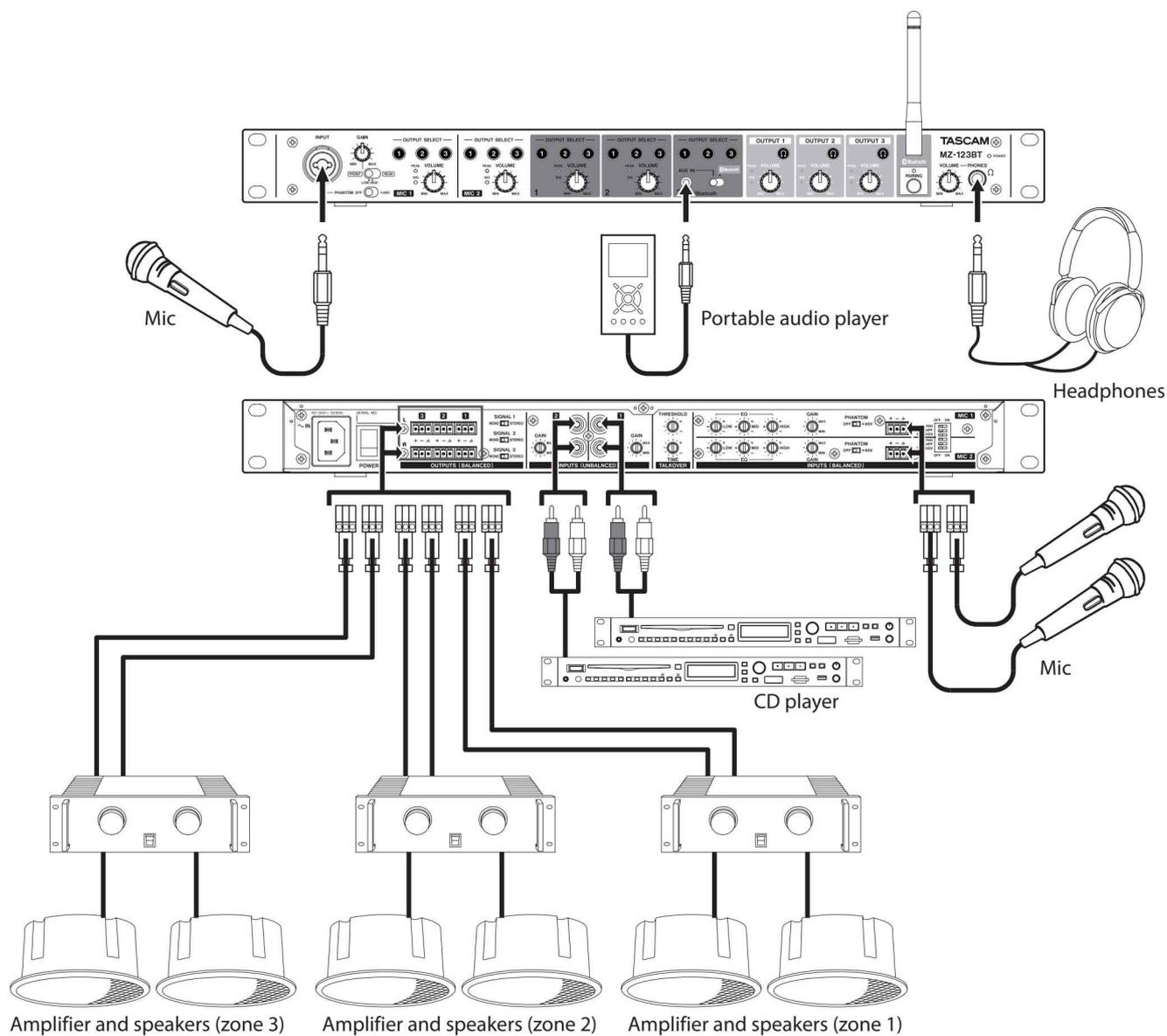
- Use the included antenna, which was designed for use with the MZ-123BT.
- Be careful to bend the antenna in the correct direction.
- Do not forcefully bend the antenna.

Connecting other equipment

This is an example of MZ-123BT connections.

Precautions before making connections

- Carefully read the operation manuals of the devices to be connected and then connect them correctly.
- Before making connections, turn this unit and all equipment to be connected off (standby).
- Install all connected devices, including this unit, so that they are powered from the same line. When using a power strip or similar device, be sure to use one that has high current capacity (thick cable) in order to minimize fluctuations in power voltage.
- Before connecting audio equipment, set the following knobs to their lowest values.
Failure to do so could cause sudden loud noises from monitoring equipment, and this could damage the equipment or harm hearing.
 - INPUT GAIN knob (2)
 - Mic input VOLUME knobs (12)
 - Line input VOLUME knobs (15)
 - Line output VOLUME knobs (20)
 - PHONES VOLUME knob (22)
 - Line input GAIN knobs (28)
 - Mic input GAIN knobs (33)
- Set the front and rear PHANTOM switches to OFF.



Examples of connections to an MZ-123BT

Connecting microphones

Dynamic mics

Connect these to the front INPUT jack (①) or the rear mic input connectors (③⑤).

Condenser mics

When using a condenser mic that requires phantom power, connect it to the front INPUT jack (①) or the rear mic input connectors (③⑤).

When connecting one to the front INPUT jack (①), set the INPUT jack PHANTOM switch (⑨) to +48V.

When connecting one to a rear mic input connector (③⑤), set that mic input connector PHANTOM switch (③④) to +48V.

⚠ CAUTION

Set the following knobs to their minimum values before changing an INPUT jack PHANTOM switch (⑨) or mic input connector PHANTOM switch (③④) setting.

Depending on the connected mics, sudden loud noises from monitoring equipment could occur, and this could damage the equipment or harm hearing.

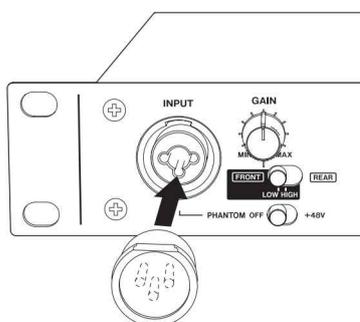
- INPUT GAIN knob (②)
- Mic input GAIN knobs (③③)
- Mic input VOLUME knobs (⑫)
- Line output VOLUME knobs (⑳)
- PHONES VOLUME knob (㉒)

ATTENTION

- Before connecting condenser mics, turn this unit and all equipment to be connected off (standby).
- PHANTOM switches can be set for each channel separately. Do not set a switch to +48V when connecting a mic that does not require phantom power.
- Do not connect or disconnect mics when a PHANTOM switch is +48V. Doing so could cause a loud noise and might damage this unit and connected equipment.
- Set a PHANTOM switch to +48V only when using a condenser mic that requires phantom power. Setting a PHANTOM switch to +48V when a dynamic mic or other mic that does not require it is connected could damage this unit and connected equipment.
- Supplying phantom power to some ribbon mics could break them. If unsure, check the specifications of the ribbon mic.

NOTE

If not using the INPUT jack (①) for a long time, attach the included XLR cover to it.



Connecting electronic devices and other audio equipment

Connect electronic devices, audio devices and other equipment to the rear line input connectors (⑳) or the front AUX IN jack (⑯).

When connecting to the AUX IN jack, set the AUX IN - Bluetooth switch (⑰) to AUX IN.

Connecting headphones

Connect headphones to the PHONES (㉒) jack (standard stereo). Sound can be monitored before output through the analog output connectors (㉔).

Use the monitoring switches (⑤) to select the outputs that you want to monitor.

⚠ CAUTION

Before connecting headphones, minimize the volume with the PHONES VOLUME (㉒) knob. Failure to do so might cause sudden loud noises, which could harm your hearing or result in other trouble.

Connecting stereo amplifiers

When connecting stereo amplifiers, connect them to the analog output connectors (㉔).

The outputs of the connectors are independent and have their own dedicated line output VOLUME knobs (㉔), so you can set their output levels separately.

Connecting with Bluetooth devices

This unit can input sound from a computer, portable audio device or other equipment that supports Bluetooth (A2DP).

To input audio from Bluetooth, set the AUX IN - Bluetooth switch (⑰) to Bluetooth.

Pairing

Follow the procedures below to enable communication with a Bluetooth device.

NOTE

Pairing also requires operation of the Bluetooth device.

Refer to the operation manual of the Bluetooth device for procedures.

1. Set the AUX IN - Bluetooth switch (⑰) to Bluetooth.
2. Press and hold the PAIRING (㉑) button for at least 3 seconds.
The PAIRING indicator blinks.
3. Select "MZ-123BT" (this unit) on the other Bluetooth device.
When pairing succeeds, the PAIRING indicator will stop blinking and remain lit, and connection with the other device will be complete.

NOTE

- Some older Bluetooth devices require the input of a passkey. Enter "0000" in such cases.
- Pairing will automatically end if connection is not confirmed within two minutes.
- This unit will automatically try to connect with the Bluetooth device to which it was previously connected if the AUX IN - Bluetooth switch (⑰) is set to Bluetooth when the unit is on or if it is turned on when the switch is set to Bluetooth. At this time, pairing will automatically end after five minutes if connection is not possible because that Bluetooth device is not turned on or its Bluetooth function is turned off.

Unpairing

The Bluetooth device that is currently connected can be unpaired from the unit.

1. Press and hold the PAIRING (21) button for at least 3 seconds.
2. This ends the pairing with the device. The PAIRING (21) indicator will start blinking and the unit will be ready to pair.

Turning the power on and off

CAUTION

- Turn down the volume of the sound system connected to the unit before starting up or shutting down the unit. Loud noises could damage the speakers or harm your hearing.
- Do not wear connected headphones when turning the unit on and off. Loud noises could damage the headphones and harm your hearing.

Before turning the power on

1. Make the following settings on the front and rear of the unit.
 - Front panel knobs → MIN
 - Rear GAIN knobs → MIN
 - Rear TALKOVER knobs → center values
 - Rear EQ knobs → center values
 - OUTPUT SELECT switches → off (not pushed in)
 - Monitoring switches → off (not pushed in)
 - PHANTOM switches → OFF
2. Minimize the output levels of audio sources and input levels of amplifiers connected to this unit.

Turning the power on

1. Turn connected input audio source devices on.
2. Use the POWER (25) switch on the back of the unit to turn its power on.
The POWER (7) indicator on the front of the unit will light when on.
3. Finally turn amplifiers on.

Turning the power off

Follow the procedures above in reverse when turning the power off.

Failure to follow the correct order could result in clicking noises, for example, that might damage equipment.

Operation procedures

After turning the power on, adjust the levels of the input signals.

Adjusting line input channels 1-2

1. Set the line input GAIN knobs (28) and the line input VOLUME knobs (15) to their center values.
2. Press the line input OUTPUT SELECT switches (4) to select whether their input signals are sent to those stereo buses.
3. Adjust the line output VOLUME knobs (20) to low volumes.
4. Start playback on the connected audio device.
Use the rear input GAIN knobs (28) to adjust the input levels so that the line input PEAK indicators (13) do not light.
5. Follow the above procedures to adjust other input channels with connected audio devices.

NOTE

The level sent from the line input channel 3 AUX IN jack (16) or Bluetooth device cannot be adjusted.

Adjusting the input of a mic connected to a mic input connector (rear panel)

1. Set the mic input channel 1 input source switch (8) to REAR.
2. Set the mic input GAIN (33), EQ (32) and VOLUME (12) knobs to their center values.
3. Press the mic input OUTPUT SELECT switches (3) to select which stereo buses their input sounds are sent to.
4. Adjust the line output VOLUME knobs (20) to low volumes.
5. Try speaking into the mic.
Use the mic input GAIN knobs (33) to adjust the input levels so that the mic input PEAK indicators (10) do not light.
6. Use the mic input EQ knobs (32) to adjust the 3-band (HIGH/MID/LOW) equalizers.

NOTE

- If a connected mic input level is high, set its PAD switch (36) to ON.
- The HPF switch (37) can be set to ON as necessary to enable the high-pass filter, which will cut low-frequency noise and other sounds.

Adjusting input from the mic connected to the front INPUT jack

1. Set the mic input channel 1 input source switch (8) to FRONT HIGH.
2. Set the INPUT GAIN (2), mic input EQ (32) and mic input VOLUME (12) knobs to their center values.

NOTE

- The front INPUT jack (1) and the rear MIC 1 input connectors (35) cannot be used at the same time.
- If the input level from the connected mic is high, set the mic input channel 1 input source switch (8) to FRONT LOW.

Output channels

Output signals are sent to the analog output connectors (26) from the stereo bus.

Adjusting analog outputs

Use the line output VOLUME knobs (20) to adjust the output levels so that the analog output PEAK indicators (18) do not light.

NOTE

Mono signals will be output if MONO - STEREO (27) switches are set to MONO.

Using the talkover function

The signal levels from the stereo bus can be automatically attenuated when the sound levels of connected mics exceed the level set by the TALKOVER THRESHOLD knob (30), making the sound from the mics easier to hear.

This only attenuates the levels of output channels to which that mic is assigned.

Examples

If MIC 2 OUTPUT SELECT switch 3 (3) is on while switch 1 and 2 are off, when MIC 2 exceeds the set level, the other inputs to output channel 3 will be automatically attenuated before the sound of MIC 2 is mixed in and output. Output channels 1 and 2 will not be attenuated and the sound of MIC 2 will not be mixed into them.

1. Enable the talkover function for the desired mic input channels by setting their TALKOVER switches (38) to ON.
2. Select the output channels that will be affected by the talkover function by setting the mic input OUTPUT SELECT switches (3).
3. Use the TALKOVER THRESHOLD knob (30) to set the input sensitivity (threshold level) for the talkover function.
4. Use the TALKOVER TIME knob (31) to set the time until the talkover function deactivates (release time).

Monitoring

Stereo headphones can be used to monitor the signals from the output channels of this unit.

Turn on the monitoring switches on for output channels 1–3 (5) to enable monitoring of the signals output from the analog output connectors (26).

1. When the monitoring switches (5) for the output channels to be monitored are pressed, their switch indicators (5) will light.
2. Use the PHONES VOLUME (22) knob to adjust the monitoring output level.

NOTE

- When multiple monitoring switches (5) are on, a mix of those signals can be monitored.
- Signals after the levels have been adjusted using the line output VOLUME knobs (20) will be output.
- Mono signals will be output for output channels that have their MONO - STEREO (27) switches set to MONO.

Troubleshooting

If you are having trouble with the operation of this unit, please try the following before seeking repair.

If these measures do not solve the problem, please contact the store where you purchased this unit or TASCAM customer support service.

The unit will not turn on.

- Confirm that the power plug and other connectors are inserted completely.

Sound is not output from speakers connected to the analog output jacks.

- Check the settings and volume of the connected amplifier.
- Are the line output VOLUME knobs (20) turned up?
- Confirm that the input sound source is connected properly.

The volume is low even when VOLUME knobs are turned up.

- Are the line input GAIN (28) knobs set properly?
- Are the INPUT GAIN knobs (2) and mic input GAIN knobs (33) set properly?
- Is the output volume of the audio device connected to the AUX IN jack (16) raised?
- Is the output volume of the paired Bluetooth device raised?

The sound is distorted.

- Are the input channel GAIN knobs set too high?
Are the input source levels too high?
- Are the mic input GAIN knobs (33) set too high?
- Are the line output VOLUME knobs (20) set too high?
- Is the monitoring level too high, causing the monitoring system to distort?
- Is the output volume of the audio device connected to the AUX IN jack (16) set too high?
- Is the output volume of the paired Bluetooth device set too high?

No sound is output from headphones.

- Use the monitoring switches (5) to select the outputs to monitor.

Sound via Bluetooth breaks up or is noisy.

- Are there any wireless LAN devices, other Bluetooth devices, microwave ovens or similar equipment nearby?
Keep such devices as far away as possible during use.
- Try reducing the distance between this unit and the other Bluetooth device. Try changing the positions of this unit and the other Bluetooth device.
- The operation of apps other than for music playback on the smartphone could cause the sound to break up. In this case, stop operation of apps other than the one used for music playback.

Cannot connect or communication is interrupted when using Bluetooth.

- Confirm that the other Bluetooth device power is on and that its Bluetooth function is on.
- Confirm that the other Bluetooth device is not too far away. Are there walls or other obstacles, for example, between this unit and the other Bluetooth device?
Try changing the positions of this unit and the other Bluetooth device.
- Turn OFF and restart the MZ-123BT.
- Remove the "MZ-123BT" pairing record from the other Bluetooth device, and try pairing the unit with that Bluetooth device again. (See "Connecting with Bluetooth devices" on page 14)

Cannot pair with another Bluetooth device.

- Confirm that the other Bluetooth device supports A2DP.
- Confirm that the other Bluetooth device is in a state that allows transmission. For details, check the operation manual of that Bluetooth device.
- Turn the power off for both this unit and the other Bluetooth device once, turn them both on again and try pairing them.
- Turn off Bluetooth devices other than the one that you are trying to pair with.
- Remove the "MZ-123BT" pairing record from the other Bluetooth device, and try pairing the unit with that Bluetooth device again. (See "Connecting with Bluetooth devices" on page 14)

Specifications

Audio inputs

MIC INPUT (BALANCED) jack (front)

Connector:

XLR-3-31 equivalent
(1: GND, 2: HOT, 3: COLD)
6.3mm (1/4") standard TRS jack
(Tip: HOT, Ring: COLD, Sleeve: GND)

Rated input level:

-26 dBu (0.039 Vrms, when FRONT HIGH)
-2 dBu (0.616 Vrms, when FRONT LOW)

Maximum input level:

-10 dBu (0.245 Vrms, when FRONT HIGH)
+14 dBu (3.884 Vrms, when FRONT LOW)

Minimum input level:

-65 dBu (0.0004 Vrms, when FRONT HIGH)
-41 dBu (0.007 Vrms, when FRONT LOW)

Gain adjustment range: 39 dB

Input impedance: 2.2 k Ω

MIC IN 1-2 (BALANCED) connectors (rear)

Connectors: Euroblock (balanced) 3.81mm pitch

Rated input level:

-26 dBu (0.039 Vrms, when PAD switch OFF)
-2 dBu (0.616 Vrms, when PAD switch ON)

Maximum input level:

-10 dBu (0.245 Vrms, when PAD switch OFF)
+14 dBu (3.884 Vrms, when PAD switch ON)

Minimum input level:

-65 dBu (0.0004 Vrms, when PAD switch OFF)
-41 dBu (0.007 Vrms, when PAD switch ON)

Gain adjustment range: 39 dB

Input impedance: 2.2 k Ω

LINE INPUTS 1-2 (UNBALANCED) connectors (rear)

Connectors: RCA pin jacks

Nominal input level: -10 dBV (0.316 Vrms)

Maximum input level: +6 dBV (2.0 Vrms)

Gain adjustment range: \pm 16 dB

Input impedance: 10 k Ω or higher

AUX IN (UNBALANCED) jack (front)

Connector: 3.5mm (1/8") stereo mini jack

Nominal input level: -20 dBV (0.1 Vrms)

Maximum input level: -4 dBV (0.63 Vrms)

Input impedance: 10 k Ω or higher

Audio outputs

OUTPUTS (BALANCED) connectors

Connectors: Euroblock (balanced) 3.81mm pitch

Rated output level:

+4 dBu (1.228 Vrms, when VOLUME knob at 0 dB)

Maximum output level:

+24 dBu (12.282 Vrms)

Output impedance: 200 Ω

PHONES jack

Connector: 6.3mm (1/4") standard stereo jack

Maximum output: 80 mW + 80 mW or higher
(THD+N 0.1% or less, into 32 Ω load)

Audio performance

Frequency response

MIC INPUT → LINE OUTPUT

20 Hz - 20 kHz: +0.5 dB/-1.0 dB

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

LINE INPUT → LINE OUTPUT

20 Hz - 20 kHz: ±0.5 dB

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

Distortion

MIC INPUT (front) → LINE OUTPUT

0.02% or less

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

MIC INPUT (rear) → LINE OUTPUT

0.01% or less

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

LINE INPUT → LINE OUTPUT

0.01% or less

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

S/N ratio

MIC INPUT → LINE OUTPUT

90 dB or higher

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

LINE INPUT → LINE OUTPUT

90 dB or higher

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

Crosstalk

MIC INPUT → LINE OUTPUT

80 dB or higher

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

LINE INPUT → LINE OUTPUT

80 dB or higher

(when GAIN knob at minimum, VOLUME knob at 0 dB, JEITA)

Mic amp EIN (equivalent input noise)

MIC INPUT → LINE OUTPUT

-125 dB or less

(150Ω, 20kHz LPF, A-weight)

- JEITA: indicates compliance with JEITA CP-1301A

Bluetooth

Bluetooth version: 4.2

Output class: 2 (about 10m* unobstructed transmission distance)

Supported profile: A2DP

Supported A2DP codecs: SBC, AAC, Qualcomm®aptX™ audio

Supported A2DP content protection: SCMS-T

- * The transmission distance is only an estimate and might vary depending on the surrounding environment and radio wave conditions.

Other

Power

AC100-240 V, 50/60 Hz

Power consumption

25 W

Dimensions

483 × 46.5 × 274.8mm (W x H x D, including protrusions, excluding Bluetooth antenna)

Weight

3.0 kg

Operating temperature range

0 - 40°C (32 - 104°F)

- Illustrations in this manual might differ in part from the actual product.
- Specifications and external appearance might be changed without notification to improve the product.