TOA

OPERATING INSTRUCTIONS

AUDIO INTERFACE WITH USB AND BLUETOOTH®
MW-42BT

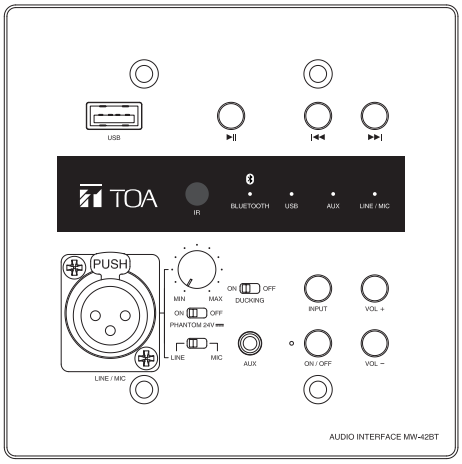


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Thank you for purchasing TOA's Audio Interface with USB and Bluetooth®.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

TOA Corporation

1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.
- To prevent electrostatic buildup/discharge, TOA recommends that the MW-42BT be grounded during Installation and operation.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

⚠ WARNING

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

⚠ CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.
- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
  - · If you detect smoke or a strange smell coming from the unit.
  - · If water or any metallic object gets into the unit.
  - · If the unit falls, or the unit case breaks.
  - · If the power supply cord is damaged (exposure of the core, disconnection, etc.).
  - · If it is malfunctioning (no tone sounds.).
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not touch the power supply plug during thunder and lightning, as this may result in electric shock.
- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- Use the AC adapter supplied with the unit. Note that the use of an adapter other than specified may cause a fire.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

EMC PRECAUTIONS

L'appareil ne doit pas être exposé aux éclaboussures ou écoulements et tous objets remplis de liquide, tels que vases, ne doivent pas être sur l'appareil.

Note: 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 instructions, 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 to an experienced radio/TV technician for help.

Note: 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; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.
The device should be installed and used within a distance of at least 20 cm between the radiator and the body.

Cet appareil est conforme aux CNR exempts de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:
(1) Ce dispositif ne peut causer des interférences; et
(2) Ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.
Déclaration d'exposition aux radiations Cetéquipementestconforme Canada.
limitesd'exposition aux radiations dans un environnement non contrôlé. Cetéquipementdoitê treinstallé et utilisé à distance minimum de 20cm entre le radiateur et votre corps.

2. GENERAL DESCRIPTION

MW-42BT is TOA's third generation of audio input panels. It is equipped with Line, Microphone, Aux (3.5mm), USB and Bluetooth® inputs, and one Stereo/Monaural balanced output. The in-wall design and elegant appearance make it ideal for saving space and integration to various facilities.
The microphone input has the highest priority over the other inputs. Any active input will be ducked by 20dB once a microphone signal is detected.
The panel fits in a standard 2-Gang Electrical box (not included), and it requires a power supply (included).

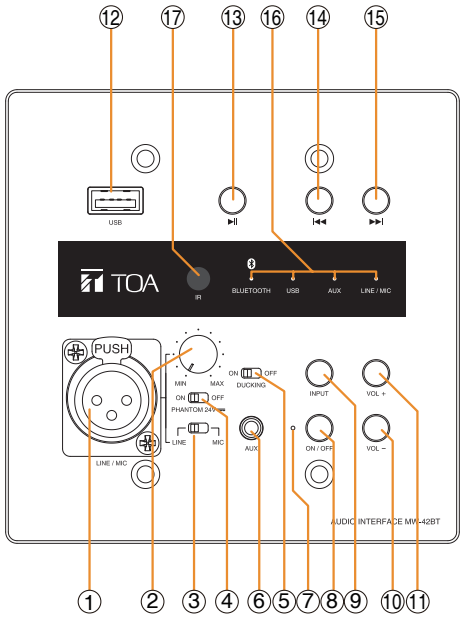
3. FEATURES

- Line/MIC level inputs
- 24V Phantom Power on the Mic input
- USB input (compatible with MP3 and WAV)
- Bluetooth® input
- Stereo/Monaural balanced line output
- Input Selection Button
- Volume Control
- Priority on the MIC input
- AC Adapter included
- 2-Gang Electrical box required (not included)

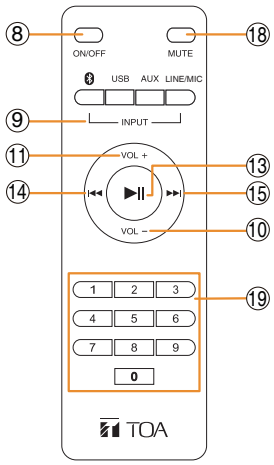
4. NOMENCLATURE AND FUNCTIONS

Bluetooth® name: MW-42BT (default)
Pairing password: 4242 (default)
Note: If multiple interfaces are installed in the same location, you can modify the name of MW-42BT on the audio playback device to distinguish it after the Bluetooth® pairing is successful.

[Front Panel]



[Remote Controller]



1. Line/Microphone Input Terminal
Line: -10 dBV, 10kΩ/Microphone: -60 dBV, 600Ω, electronically balanced, female XLR type connector.
Line or Microphone level can be selected by the Line/Microphone selector switch (3).

2. Line/Microphone Volume Control
Adjust the Line/Microphone volume level.
Note: When the Line/Microphone is not in use, turn down the volume control to reduce the noise.

3. Line/Microphone Selector Switch
Selects the input sensitivity of Line or Microphone as follows:
Line: –10 dBV
Microphone: –60 dBV

4. Phantom Power Switch
Turns ON or OFF depending on whether or not the microphone connected to the MIC input requires phantom power.
ON: Supplies phantom power (24 V DC) to the microphone.
OFF: Turns off the phantom power supply.
Note: This function is only available when the Line/Microphone selector switch(3) is switched on the Microphone side.

5. Microphone Ducking Selector Switch
ON: The microphone has the highest priority.
When the microphone is turned on and the system detects a microphone signal, the sound of the source being used will be reduced by 20dB. When the microphone is turned off, its volume is automatically restored.
OFF: Microphone input and other inputs mix outputs.

6. AUX Input Terminal
-10 dBV, 10 kΩ, unbalanced, stereo 3.5 mm (1/8") mini-jack.
Note: For monaural input and monaural output, the L/R channel of the AUX input plug needs to be shorted.

7. Power Indicator
Lights blue when power is switched on.

8. Power Switch
Press ON/OFF to turn on the power.
Press again to turn off the power.

9. Input Channel Selection Button
Press the Input button to select the input channel, and ensure input channel indicator (16) is on.
When the device is connected to a Bluetooth® player, press and hold for 4 seconds or press and hold the Bluetooth® button on the remote controller for 4 seconds to disconnect the device from the Bluetooth® player.

10. Volume Down Button
The volume decreases by one level when short press, and decreases quickly when long press. When the volume is reduced to the minimum, the system will prompt you with a beep sound.

11. Volume Up Button
The volume increases by one level when short press, and increases quickly when long press. When the volume is increased to the maximum, the system will prompt you with a beep sound.

12. USB Card Input
Socket for USB Input.
Audio formats: MP3, WAV.
Format: FAT16, FAT32, Max. 32GB.
Note: not recommended for charging.

13. Play/Pause
Press this button to toggle between Play and Pause.
Note: If Bluetooth® or USB input is selected, this button will play and pause the music source. If AUX input is selected, this button will mute and unmute the music source.

14. Skip to Last Track
Press this button to skip to previous track.
Note: Operates while Bluetooth®/USB is active.

15. Skip to Next Track
Press this button to skip to next track.
Note: Operates while Bluetooth®/USB is active.

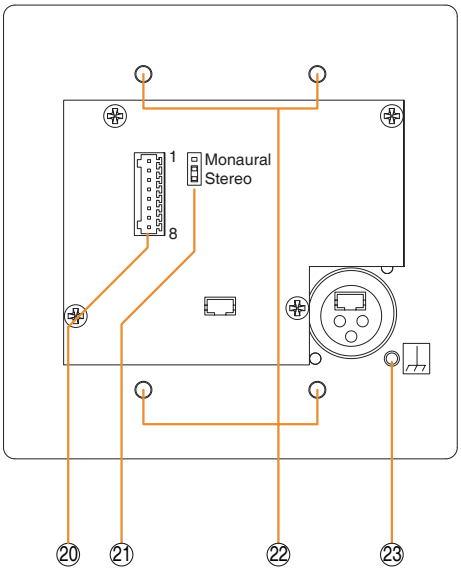
16. Input Channel Indicator
Lights blue when the input channel is selected.
Note: The Bluetooth® indicator flashes while waiting for pairing and is always on when Bluetooth® is connected.

17. IR Receiver
Signal receiver from accessory remote control.

18. Mute
Press this button while playing to mute sound, press again to recovery sound.

19. 0-9
Operates while USB is active, press this keys to select the track directly.

[Rear]



Audio Output

Stereo:

IN		OUT
L CH	→	L CH
R CH	→	R CH

Monaural:

IN		OUT
L CH	→	CH 1
R CH	→	CH 2

20. DC Power Input And Audio Output Connector
Removable terminal block.

• Audio Output (Stereo / Monaural)
0 dBV, 10 kΩ, electronically balanced, Stereo/ Monaural output can be selected via jumper(21), connect to an amplifier.
Stereo:
Left channel: Pin1 Hot, Pin2 Cold, Pin3 Earth
Right channel: Pin4 Hot, Pin5 Cold, Pin6 Earth
Monaural:
Channel 1: Pin1 Hot, Pin2 Cold, Pin3 Earth
Channel 2: Pin4 Hot, Pin5 Cold, Pin6 Earth

• DC Power Input (Pin7 24V+, Pin8 24V-)
Connects to the accessory AC adapter.

Note: For optimal audio quality, we recommend using a shielded balanced audio cable along with a separate DC power cable. Alternatively, CAT5e or higher cable is acceptable if required, provided the total cable length does not exceed 100 meters (323 ft).

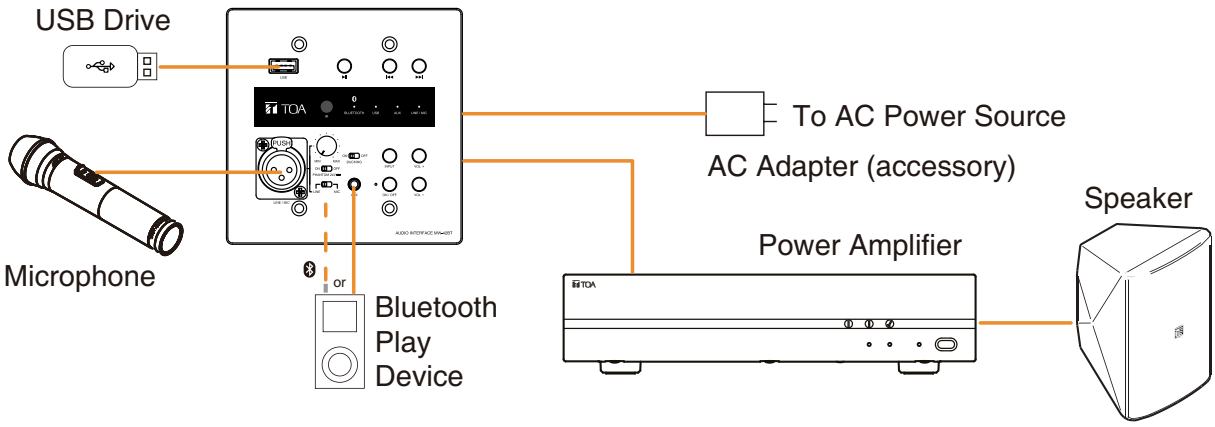
21. Stereo/Monaural Switch Jumper
Stereo/Monaural output can be selected via jumper.

22. Mounting Holes
Use the accessory screws to install the interface to the 2 gang box. (Refer to p.6.)

23. Functional Ground Terminal
Please ground the functional ground terminal to avoid static electricity damaging the equipment or causing the equipment to work abnormally.

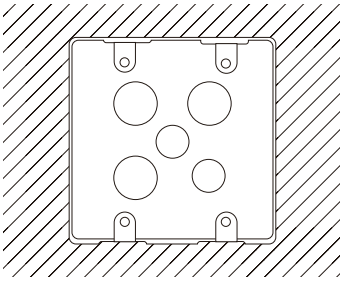
5. CONNECTIONS

Example of external equipment connections.

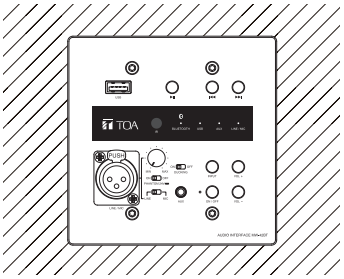


6. INSTALLATION

1. Embed 2 gang box on the wall first and tighten it with screws.



2. Connect DC power input, audio output and functional ground cable, then install the panel into the 2 gang box and tighten it with accessory screws.



3. First connect the power amplifier and the AC adapter, and then connect the AC adapter to the AC power source.

Power ON/OFF Sequence

Power on

Source → Audio Interface → Power Amplifier

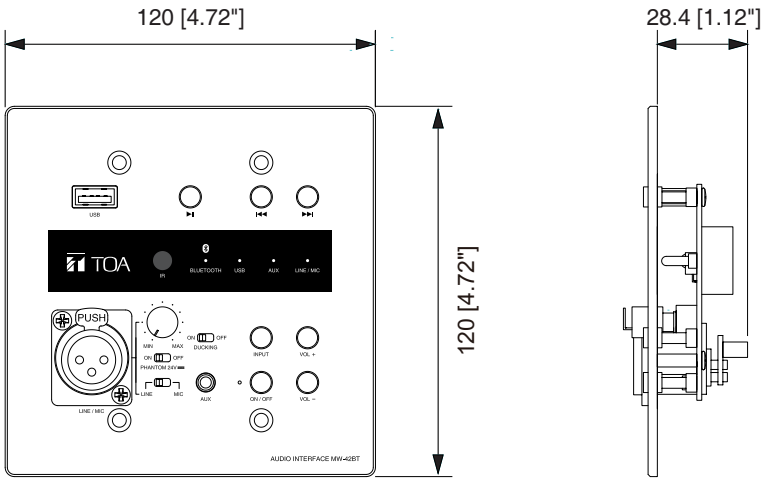
Power off

Power Amplifier → Audio Interface → Source

NOTE: For high-power systems, power on/off sequence is very important. Failure to follow the sequence is likely to damage the equipment.

7. DIMENSIONAL DIAGRAM

Units : mm [inches]



8. SPECIFICATIONS

Power Source	100-240V AC 50/60Hz
Power Consumption	3 W
Audio Input	Line/Microphone input : -10 dBV, 10 kΩ / -60 dBV, 600 Ω, electronic balanced, female XLR Connector AUX input : -10 dBV, 10 kΩ,unbalanced, stereo 3.5 mm(1/8") mini-jack USB input : Audio formats: MP3, WAV Format: FAT16, FAT32, Max. 32GB Bluetooth® input : Ver. 5.4, Max. 10m
Audio Output	Stereo/Monaural output, 0 dBV, 10 kΩ, electronic balanced, removable terminal block
Frequency Response	20 - 20,000 Hz, ±3 dB
Total Harmonic Distortion	< 0.1%
S/N Ratio	> 90dB (A weighted)
Phantom Power	+24 VDC, switchable, MIC input
Operation	Microphone Ducking selector switch, Stereo/Monaural switch jumper
Indicators	Power (Blue) x 1, LINE/MIC (Blue) x 1, AUX (Blue) x 1, USB (Blue) x 1, Bluetooth® (Blue) x 1
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	90 % RH or less (no condensation)
Finish	Panel: Aluminum, Sandblasting, Silver Decorative sheet: Acrylic, Black
Dimensions	120 (W) x 120 (H) x 40.2 (D) mm (4.72" x 4.72" x 1.58")
Weight	0.2 kg (0.44 lbs)
Accessory	AC Power adapter ...1, Remote control ...1, Box mounting screw (6-32UNC) ...4 Grounding screws ...1, Flat gasket ...2, Fixed gasket ...1 Removable terminal plug (8 pins) ...1

Note: The design and specifications are subject to change without notice for improvement.
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