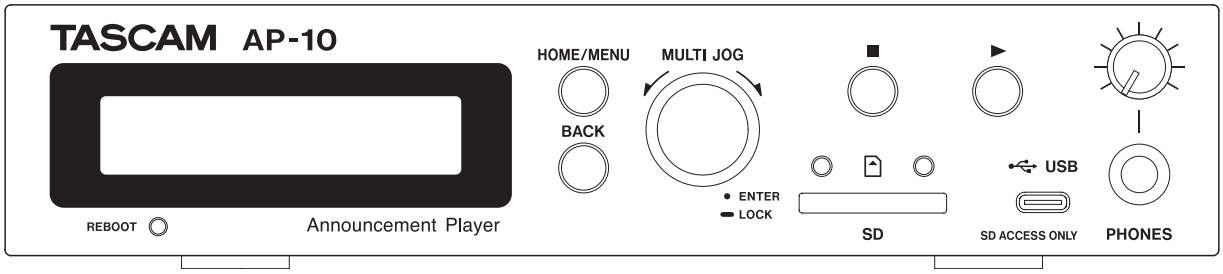
TASCAM

D01463520A

AP-10

Announcement Player

OWNER'S MANUAL



IMPORTANT SAFETY INSTRUCTIONS

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

Model for USA

Supplier's Declaration of Conformity

Model Number: AP-10
Trade Name: TASCAM
Responsible party: TEAC AMERICA, INC.
Address: 14525 Valley View Ave., Suite I, 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 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 or an experienced radio/TV technician for help.

Model for Canada

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

Model for Europe

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

Model for UK

This product complies with applicable UK regulations.

CAUTION

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

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. 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.



12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. 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.

- If the plug is used as the disconnect device, the disconnect device shall remain readily operable.
- If you are experiencing problems with this product, contact the store where you purchased the unit 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



Avoid using this product with earphones or headphones at high volume for long amounts of time because excessive sound pressure (volume) could lead to hearing damage.

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 reach the power cord plug at any time.
- 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.

For Customers in Europe

Disposal of waste electrical and electronic equipment, batteries and accumulators



If a crossed-out wheeled bin symbol is shown on the product, on its packaging, or in the accompanying documentation, the product is subject to European directives and/or regulations as well as national waste disposal laws.

Directives and laws stipulate that waste electrical and electronic equipment must not be disposed of with household waste (general waste). To ensure proper disposal, treatment, and recycling, you are obliged to dispose of old equipment through government-approved facilities.

By disposing of such equipment properly, you help save valuable raw materials and prevent potentially harmful effects to human health and the environment that can result from improper waste disposal. Disposal is free of charge for you.



If a battery or accumulator contains more lead (Pb) or cadmium (Cd) than the amount specified in Regulation (EU) 2023/1542, the corresponding chemical abbreviation is shown in addition to the trash bin.

For more information on recycling and reuse, please contact the local government, the waste disposal company responsible for your area, or the store where you purchased the product.

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1 - Introduction

Thank you very much for purchasing the TASCAM AP-10 Announcement Player.
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 TASCAM website.

AP-10
https://tascam.jp/int/product/ap-10/docs

● **This unit is professional audio equipment.**

Features

Following use practices for audio playback systems that have been utilized for many years in public facilities and professional applications, this equipment enables audio playback using simple contact control, in which one input corresponds to one sound source and only operates external equipment during playback. This unit enables the following uses, which have been implemented by previous audio playback systems with contact control, at equivalent or more advanced levels using contact control with a GPIO connector.

- One-shot playback
- Playback in order of priority
- Control of external equipment, including amplifiers, during playback only

In addition, L and R channels can be used for independent output, enabling playback of two streams of different audio simultaneously.
This enables audio playback applications with a single unit that normally require two units.
Although this unit does not include a MIDI interface, by using it in combination with external control equipment capable of contact output or open collector output, it can be used in place of numerous contact-controlled audio playback systems.
This unit supports the playback of 48kHz/24-bit WAV files.
We recommend using the editor software to convert audio files to be used for playback to the format supported by this unit.
The editor software is also necessary to use the functions shown below.

Function	Settable using hardware	Hardware menu item	Settable using the editor software	PPL tag	Note
Playback area setting	✔	Playback Area	-	-	
Playback mode setting	✔	Playback Mode	-	-	
Playback equalizer setting	✔	Playback EQ	-	-	
Output mode setting	✔	Output Mode	-	-	
Output volume setting	✔	Output Att.	-	-	
Output equalizer	✔	Output EQ	-	-	
Busy out setting	✔	Busy-out	-	-	
Input volume setting	✔	Input → Volume	-	-	
Input fade in/out setting	✔	Input → Ducking	-	-	
File conversion	-	-	✔	-	Format conversion
Playlist creation	-	-	✔	-	
Playback order setting	-	-	✔	<outnumber><fname>	Hardware uses ASCII code order
Display name editing	-	-	✔	<sname>	
Playback volume setting	-	-	✔	<gain>	
Playback interval setting	-	-	✔	<offset>	
Playback file fade in/out setting	-	-	✔	<fade>	
Trigger playback start delay setting	-	-	✔	<delay>	
Repeat count setting	Interval playback time, no limit	-	✔	<track_repeat>count	

Function	Settable using hardware	Hardware menu item	Settable using the editor software	PPL tag	Note
Repeat interval setting	Interval playback time, fixed by pin unit	-	✔	<track_repeat>interval	
A-B repeat interval setting	-	-	✔	<ab_repeat>in, out	
A-B repeat count setting	-	-	✔	<ab_repeat>count	
Control out setting	-	-	✔	<control_out>	

✔: Supported, -: Not available

Included items

This product includes the following items.
Take care when opening the package to avoid damaging the items. Keep the 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 unit × 1
- AC adapter (TASCAM PS-P1220E) × 1
- SD card protector kit × 1
- Euroblock plug × 2
- Cable bands × 3
- TASCAM ID registration guide × 1
- Owner's Manual – Quick Guide (this document including warranty) × 1

ATTENTION

To operate with an AC adapter, always use the included TASCAM PS-P1220E. Never use the included AC adapter with any other device. Doing so could cause damage, fire or electric shock.

Conventions used in this manual

In this manual, we use the following conventions:

- SDHC/SDXC memory cards are referred to as "SD cards".
- The folder that is currently selected is called the "current folder".
- Additional information is introduced in the styles below when needed:

TIP

These are tips about how to use the card.

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.

Trademarks and copyrights

- Copying, broadcasting, theatrical exhibition, cable broadcasting, public performance and rental (with or without charge) of protected contents without permission is prohibited by law.
- TASCAM is a registered trademark of TEAC Corporation.
- SDXC Logo is a trademark of SD-3C, LLC.



- Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
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  Tiny OSC

  Copyright (c) 2015, Martin Roth

  https://github.com/mhroth/tinyosc

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  Title: OSC_logo.png

  Author: Contributors to opensoundcontrol.org

  Source: Center for New Music and Audio Technologies

  https://github.com/CNMAT/OpenSoundControl.org/blob/master/OSC_logo.png

  License: CC BY 4.0

Information is given about products in this manual only for the purpose of example and does not indicate any guarantees against infringements of third-party intellectual property rights and other rights related to them. TEAC Corporation will bear no responsibility for infringements on third-party intellectual property rights or their occurrence because of the use of these products.

Properties copyrighted by third parties cannot be used for any purpose other than personal enjoyment and the like without the permission of the right holders recognized by copyright law. Always use this equipment properly. TEAC Corporation will bear no responsibility for rights infringements committed by users of this product.

Precautions for placement and use

- The operating temperature range of this unit is 0 – 40 °C.
- The guaranteed operating humidity range of this unit is 25–85% RH (at 32°C without condensation).
- Install the unit in a location that meets the following conditions.
  - Stable, level location indoors
  - Location not exposed to direct sunlight with good ventilation
  - Location with sufficient space for heat dissipation around the unit
- Do not install this unit in the following types of locations. Doing so could make the sound quality worse or cause malfunction.
  - Locations with strong vibrations
  - Next to a window exposed to direct sunlight
  - Near heating equipment or other heat sources or in other environments where temperatures exceed 40°C
  - Unheated rooms in winter and other environments where temperatures are less than 0°C
  - 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 supplies

- Insert the cord of the dedicated AC adapter (TASCAM PS-P1220E), which is included, all the way into the DC IN 12V connector.
- To use an external power supply with the EXT DC IN, see "Notes about external power supplies" on page 13.
- The apparatus draws nominal non-operating power from the AC outlet with its POWER or STANDBY/ON switch not in the ON position.

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.

About SD cards

This unit uses SD cards for playback.
This unit can use SD cards that are Class 10 or higher and compatible with SD, SDHC or SDXC standards.
A list of SD cards that have been confirmed for use with this unit is available on the TASCAM website (https://tascam.jp/int/product/ap-10/docs). Please use SD cards included in this list. You can also contact TASCAM customer support.

NOTE

When using external media (SD cards) with our products, we strongly recommend using media confirmed to work with them.

Media that has not been confirmed to work with this product can be used, but unexpected problems could occur.

- In case of the failure of the Product caused by the tapes or other media ("Media") you used, the repair for the failure shall not be covered by the warranty of the Product and must be done at your own expense.
  - It is highly recommended that you shall avoid using the Media such as those not used for years or used after a long period of use or those with mold, blots, stickiness, folds, creases or twists.
- TEAC shall never be responsible for any damages due to the Media including but not limited to the corruption or breakage of the Product or the Media, dragging the tapes into the Product, and/or loss of data in whole or in part that arises out of or related to the use of the Media. That is the same for any damages such as lost profit, indirect or consequential damages, and/or special damages.
  - It is highly recommended that you shall take appropriate measures to prepare for the unexpected loss of data along with the Copyright Act of your country or region.

Precautions for use

SD cards are delicate media.
In order to avoid damaging SD cards, please take the following precautions when handling them.

- Do not leave them in extremely hot or cold places.
- Do not leave them in extremely humid places.
- Do not let them get wet.
- Do not put things on top of them or twist them.
- Do not hit them.
- Do not remove or insert them during playback, data transmission or other card access.
- When transporting them, put them into cases, for example.

SD cards are consumable items. Use over a long time as well as repeated writing and erasing could result in data writing errors, playback issues and other problems. To maintain stable operation, regularly conduct erase formatting and replace SD cards with new ones as necessary.

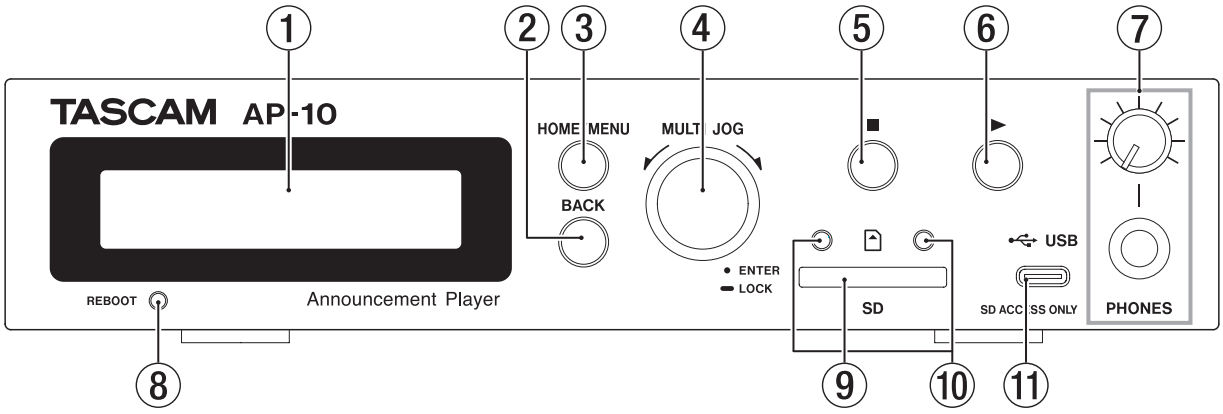
SD card write protection

This unit writes track information to the media in order to improve operation performance. Since, for example, setting information cannot be written to SD cards that are write-protected, settings will not be retained when the unit is restarted and performance will be otherwise affected.

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 (https://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.

Front panel



① Display

Displays a variety of information.

This is a liquid crystal display (LCD).

② BACK button

- When the Menu Screen is open, press this to return to the Home Screen.
- When a Menu Setting Screen is open, press this to go up one menu level.

TIP

Pressing the MULTI JOG dial (ENTER button) while pressing the BACK button during playback will move the playback position to 3 seconds before the end of the file. This function is convenient for checking and auditioning the parts when files switch.

③ HOME/MENU button

- When the Home Screen is open, press this to open the Menu Screen.
- When the Menu Screen or a menu item settings screen is open, press this to return to the Home Screen.

④ MULTI JOG dial

This dial functions as a dial when turned and as a button when pressed.

Dial functions

- Turn this when the Home Screen is open to select files.
- When the Menu Screen is open, use this to select items and change setting values.

Button functions

- When the Menu Screen is open, press this to confirm selections and settings (ENTER button function).
- The panel lock function can be turned on/off by pressing and holding this when the Home Screen is open.

⑤ ■ [STOP] button

Press to stop playback.

⑥ ► [PLAY] button

Playback starts.

ATTENTION

This function can only be used when in manual playback mode. This cannot be used for playback of files that have been specified with external control. (See "Using the unit for playback operations (manual playback mode)" on page 23.)

⑦ PHONES jack and knob

Use this standard stereo 6.3mm jack to connect stereo headphones.

Use a commercially-available adapter to connect headphones with a 3.5mm stereo mini plug.

Use the PHONES knob 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.

⑧ REBOOT button

Reboot the unit if operation becomes unstable or restarting it becomes necessary. This will restart it.

NOTE

Unit setting values will be retained even after rebooting (restarting).

⑨ SD card slot

Insert SD cards in this slot. (See "Preparing an SD card for use" on page 20.)

⑩ SD card protector attachment points

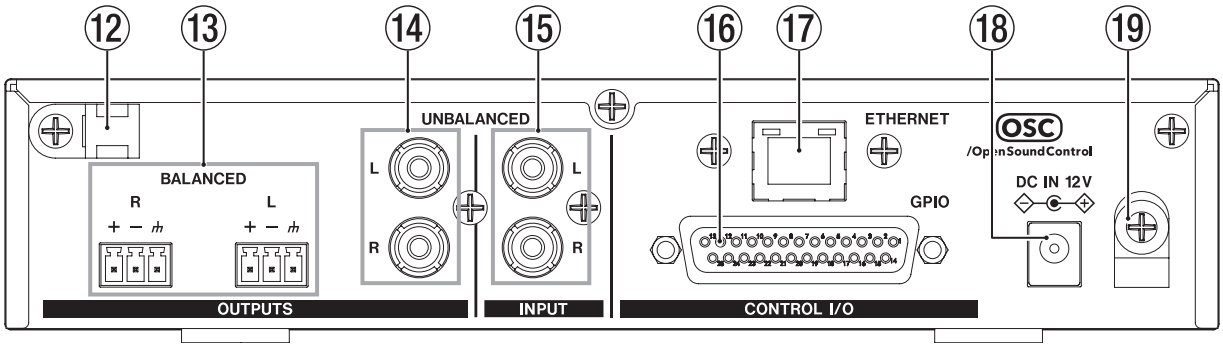
The included SD card protector can be attached here. (See "Using control input and output connectors" on page 17.)

⑪ USB connector

This is a Type-C USB port.

This port is only for connecting to computers so the SD card can be accessed as mass storage. (See "Activating USB mass storage use" on page 48.)

Rear panel



⑫ Cable holder

Use the included cable band with cables that need to be prevented from disconnecting, for example, Euroblock. (See "Using the cable holder" on page 19.)

⑬ ANALOG OUTPUT (BALANCED) L/R connectors

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

⑭ ANALOG OUTPUT (UNBALANCED) L/R jacks

These are analog RCA pin output jacks.

⑮ ANALOG INPUT (UNBALANCED) L/R jacks

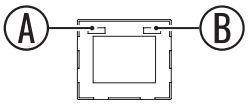
These are analog (RCA pin) input jacks.

⑯ GPIO connector

This is a 25-pin DIN control input/output connector. (See "GPIO connector" on page 11.)

⑰ ETHERNET connector

This control input/output connector is for OSC (Open Sound Control) only.



Ⓐ: Link status indicator

This shows whether a link is established between the devices.

Ⓑ: 100Mbps link status/activity indicator

This indicates whether a 100Mbps or 10Mbps Ethernet link has been established.

Blinking indicates that signals are being transmitted between the devices.

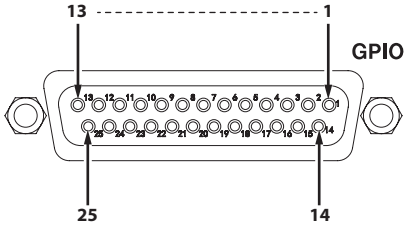
⑱ DC IN 12V connector

Connect the included AC adapter (TASCAM PS-P1220E) here.

⑲ Power cord holder

Attach the power cord of the included AC adapter (TASCAM PS-P1220E) here to prevent accidental disconnection.

GPIO connector



Playback Mode	Direct/Single/Interval		Binary		Program
Dual Mono D-SUB ASSIGN	Common	Dual	Common	Dual	Common/Dual

Pin number	Signal					Assignment
1	1	1	Bit8	Bit8	INC	Control input
2	2	2	Bit7	Bit7		Control input
3	3	3	Bit6	Bit6	DEC	Control input
4	4	4	Bit5	Bit5		Control input
5	5	5	Bit4	Bit4	EXCHANGE	Control input
6	6	6	Bit3	Bit3		Control input
7	7	7	Bit2	Bit2		Control input
8	8	8	Bit1	Bit1		Control input
9	9	STOP (odd)	START	START	START	Control input
10	STOP	STOP (even)	STOP	STOP*	STOP	Control input
11	COM (GND)					
12	COM (GND)					
13	BUSY OUT					Control output
14	NC					
15	CONT OUT					Control output
16	GND					
17	BUSY OUT					Control output
18	CONT OUT					Control output
19	NC					
20	NC					
21	DC OUT (+5V, Max: 100mA)					
22	GND					
23	GND					
24	EXT DC IN (+12–24V)					
25	EXT DC IN (+12–24V)					

NOTE

STOP types

STOP signals stop all audio output.

When STOP (odd) or STOP (even) is shown, audio output will only be stopped for files that have odd or even pin numbers.

If the number specified immediately before STOP* is odd, audio output will only be stopped for files that have odd numbers. If it is even, audio output will only be stopped for even-numbered files.

ATTENTION

Do not connect anything to the NC pins because doing so could cause malfunction.

Control input

- Start format: volt-free make contact or open collector output (20ms or longer pulse width)
- Contact point capacity: DC24V, 0.1A or more
- Input method: photocoupler

Control output

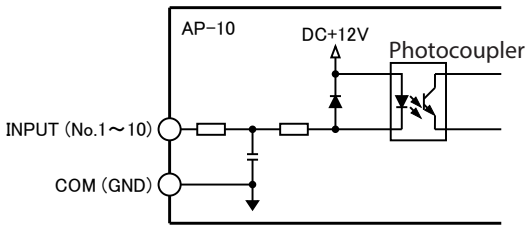
- Signal format: volt-free make contact
- Contact point capacity: Maximum DC30V, 3A

NOTE

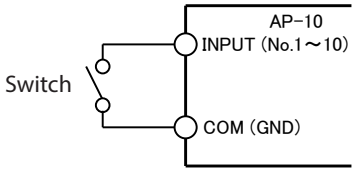
Contact life could vary depending on the connection load conditions.
Electrical contact life (reference values)

- 30V 3A load: 25,000 times
- 30V 1A load: 500,000 times

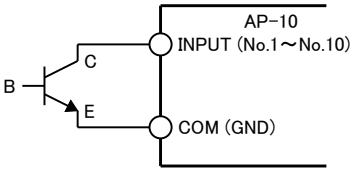
Control input circuit



Connection examples

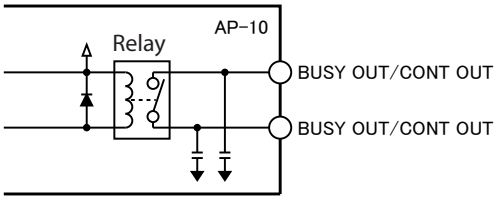


Volt-free make contact

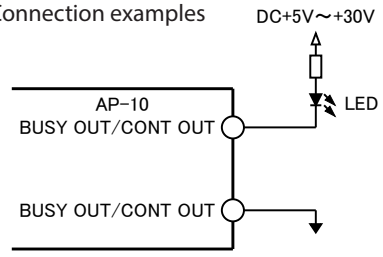


Open collector output

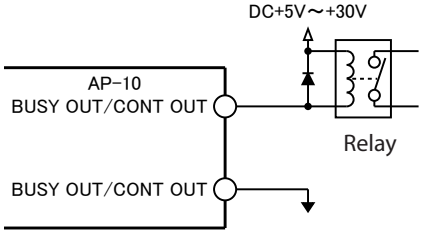
Control output circuit



Connection examples



Example of making an LED light



Example of making a relay operate

The maximum contact point capacity for output connectors is DC30V, 3A.
Be careful not to exceed this value.

Notes about external power supplies

In addition to the included AC adapter, power can also be supplied to this unit from an external power source (DC power supply).
When using an external power supply, use the EXT DC IN pins (D-sub, 24-25) and GND pins.

Power specifications

Voltage: DC 12–24 V
Current: 700 mA (at DC 12 V), 500 mA (at DC 24 V)

NOTE

Pin number 21 (DC OUT) can be used to supply power to a sensor, for example.
Output: +5 V, maximum 100 mA

ATTENTION

Safety precautions (in accordance with IEC/UL 62368-1)

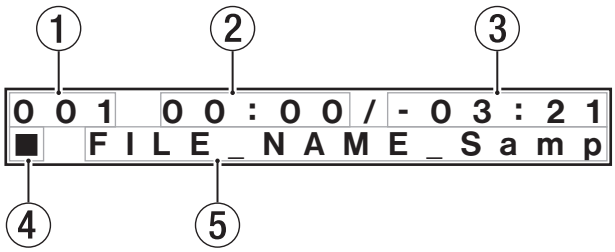
- Do not short GPIO pins 21 (DC OUT) or 24–25 (EXT DC IN) with GND pins.
- When using pin 21 (DC OUT), be careful not to exceed the maximum rating (100 mA).
- Do not supply power to multiple connectors or pins at the same time.
- Only connect DC 12–24V power supplies to the EXT DC IN connector.
- Use power supplies that have DC 12–24V output voltages and conform to Limited Power Source (LPS) with the EXT DC IN connector.

NOTE

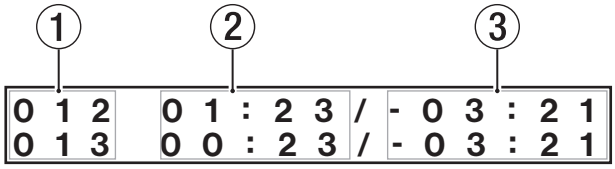
Limited Power Sources (LPS) are power supplies that have the following characteristics in particular.

- Power that can be supplied at unusual times is limited.
- Excessive current protection is included.
- Power is suppressed to prevent the ignition of wiring and terminals.

Home Screen



Home Screen



Home Screen when output mode is "Dual Mono"

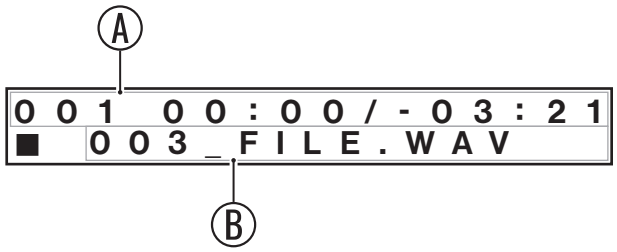
① File number
This shows the number of the currently playing file.

② Elapsed time
This shows the elapsed time from the file beginning (minutes: seconds).

③ Remaining time
This shows the remaining time (minutes: seconds).

④ Transport status
The ■ (stop) and ► (play) icons show the status.
These are not shown when the output mode is "Dual Mono".

⑤ File name
This shows the file name. If the file name is long, it will scroll continuously from right to left while shown.
This is not shown when the output mode is "Dual Mono".



Ⓐ When playback is started with the unit's MULTI JOG dial ENTER function, file selection is confirmed and the top line updates with the file number and playback time.
Ⓑ When the unit's MULTI JOG dial is used, file names are switched for file browsing. The file number and playback time are not updated.

NOTE

The name shown when the unit is operated is the name of the WAV file. When operated using external control signals, the display name set using the editor software will be shown if one has been set.

TIP

A single sound source can be handled as multiple files by editing a WAV file and giving it different display names. For example, "A" could be duplicated as "A1" and "A2".

Menu structure

Press the main unit HOME/MENU button to open the Menu Screen.
The menu items are as follows.

Menu item	Function	Page
Playback Area	Playback folder selection	page 24
Playback Mode	Playback mode setting	page 26
Trigger Type	Setting for playback operation when control signals are input continuously	page 36
Playback EQ	Playback equalizer settings	page 38
Output Mode	Output mode setting	page 39
Output Att.	Output attenuation setting	page 41
Busy-Out	Busy out signal setting	page 42
Output EQ	Output equalizer settings	page 43
Input	Line input settings	page 44
Network Set.	Network settings	page 45
Backlight	LCD backlight setting	page 48
USB	Switch to USB mass storage mode	page 48
Format SD	Format the SD card	page 20
Firmware Up.	Update unit firmware	page 48
System Backup	Backup unit settings to the SD card	page 49
Factory Preset	Restore factory default settings	page 49
Information	Show information about the unit	page 48

NOTE

The settings for all menu items are retained even when the unit is turned off.
Unit setting values will be retained even after rebooting (restarting) by pressing the REBOOT button on the front of the unit.

Basic Menu Screen operations

Operations are conducted on the Menu Screen as follows.

Selecting an item:

Turn the MULTI JOG dial on the main unit.

Confirming a selected item:

Press the MULTI JOG dial on the main unit.

Opening a submenu from a page:

Press the MULTI JOG dial on the main unit.

Selecting an item in a submenu:

Turn the MULTI JOG dial on the main unit.

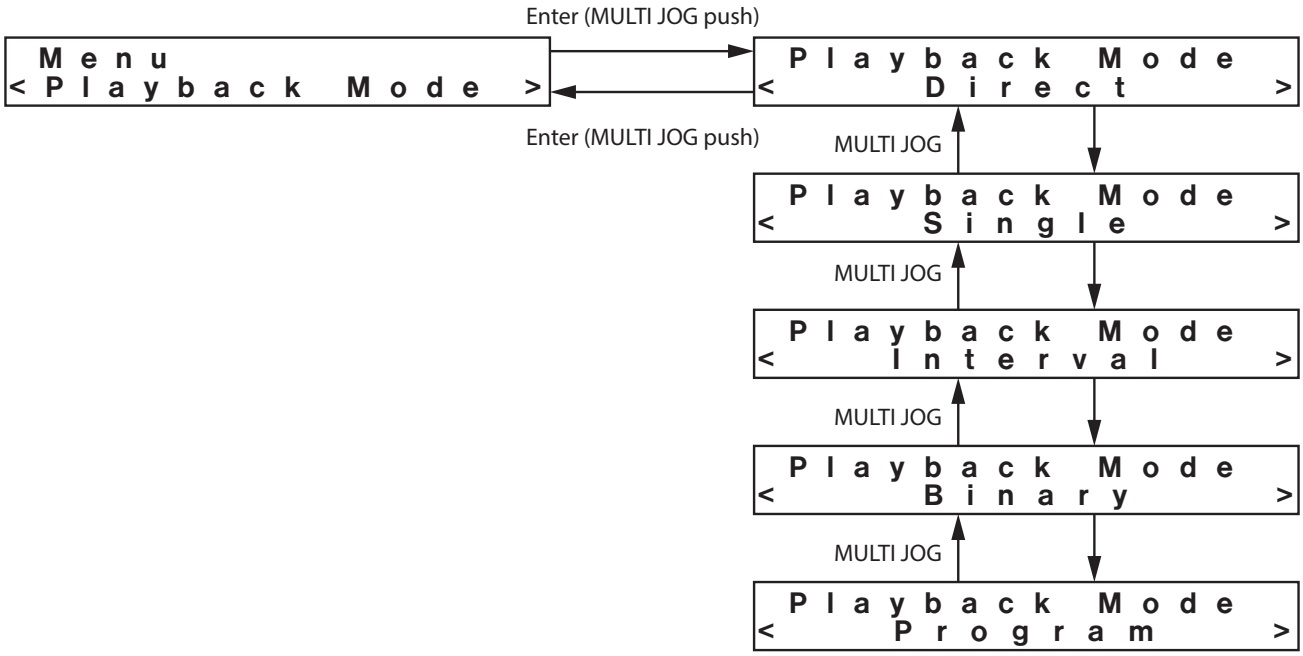
Going back one Menu level:

Press the main unit BACK button.

Returning directly to the Home Screen when the Menu Screen is open:

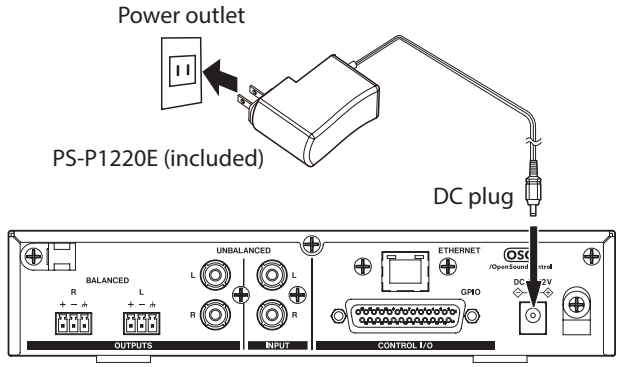
Press the main unit HOME/MENU button.

Operation example: Selecting a "Playback Mode" from the Menu Screen

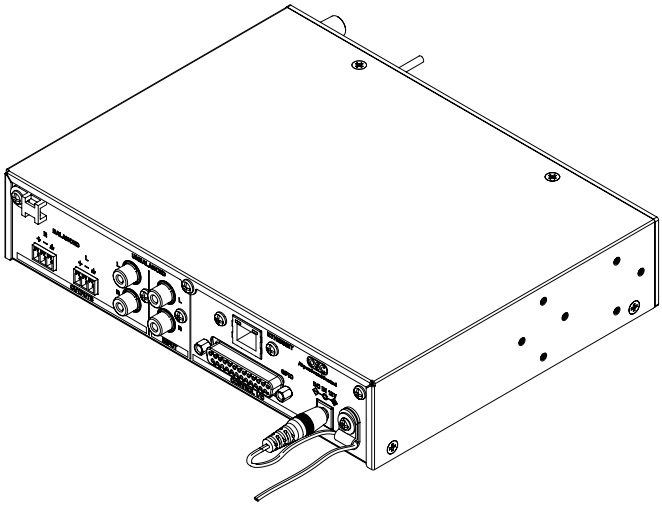


Connecting the power

Use the AC adapter (PS-P1220E) included in the package to connect a power supply to the unit as shown below.



In order to prevent the power cord from becoming disconnected during use, wrap it around the cord holder (⑲)when connecting it.



ATTENTION

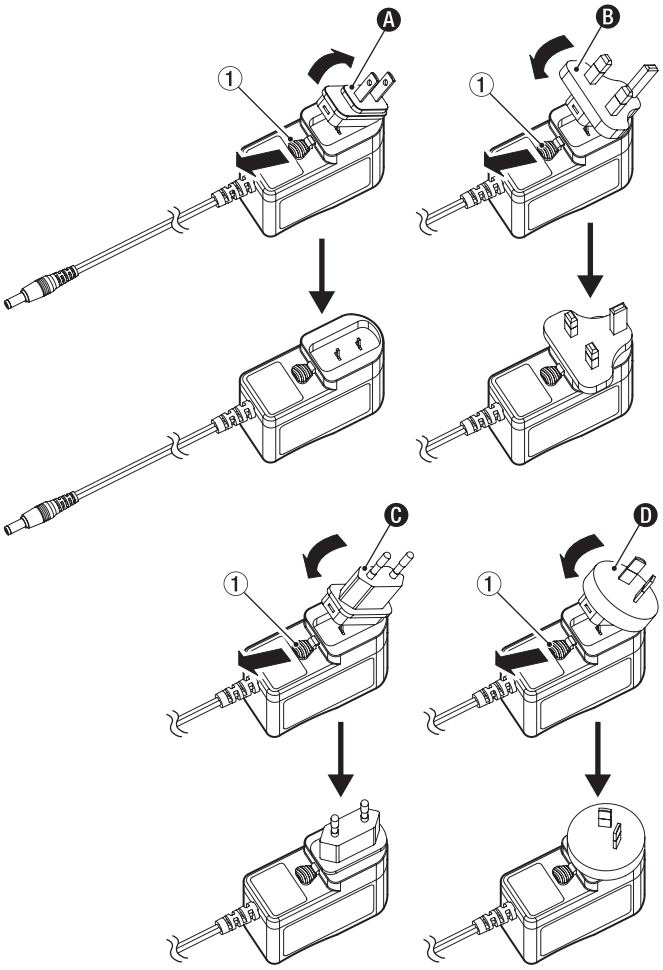
Always use the AC adapter (PS-P1220E) that was included in the unit package. Using a different AC adapter could cause malfunction, overheating, fire or other problems.

NOTE

The AC adapter for the unit includes 4 types of outlet plugs. Attach the type of plug that matches the power outlet that you are using.

Attaching an outlet plug

1. Select the plug that matches the AC outlet from the 4 types included (Ⓐ, Ⓑ, Ⓒ or Ⓓ).
2. Move the knob (①) in the direction of the arrow, and attach the outlet plug to the AC adapter.



This completes changing the outlet plug.

After changing the outlet plug, confirm that it is not loose or crooked and that everything is normal before plugging it into an outlet.

ATTENTION

Do not use the adapter if there is anything abnormal about the plug after changing it. Use when the plug is abnormal could cause fire or electric shock.

Contact the retailer where you purchased the unit or a TEAC service center (on the back cover) to request repair.

Connecting other equipment

This is an example of AP-10 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 headphones, minimize the volume with the PHONES knob (⑦). Sudden loud noises could be output from the headphones, and this could damage the equipment or harm hearing.

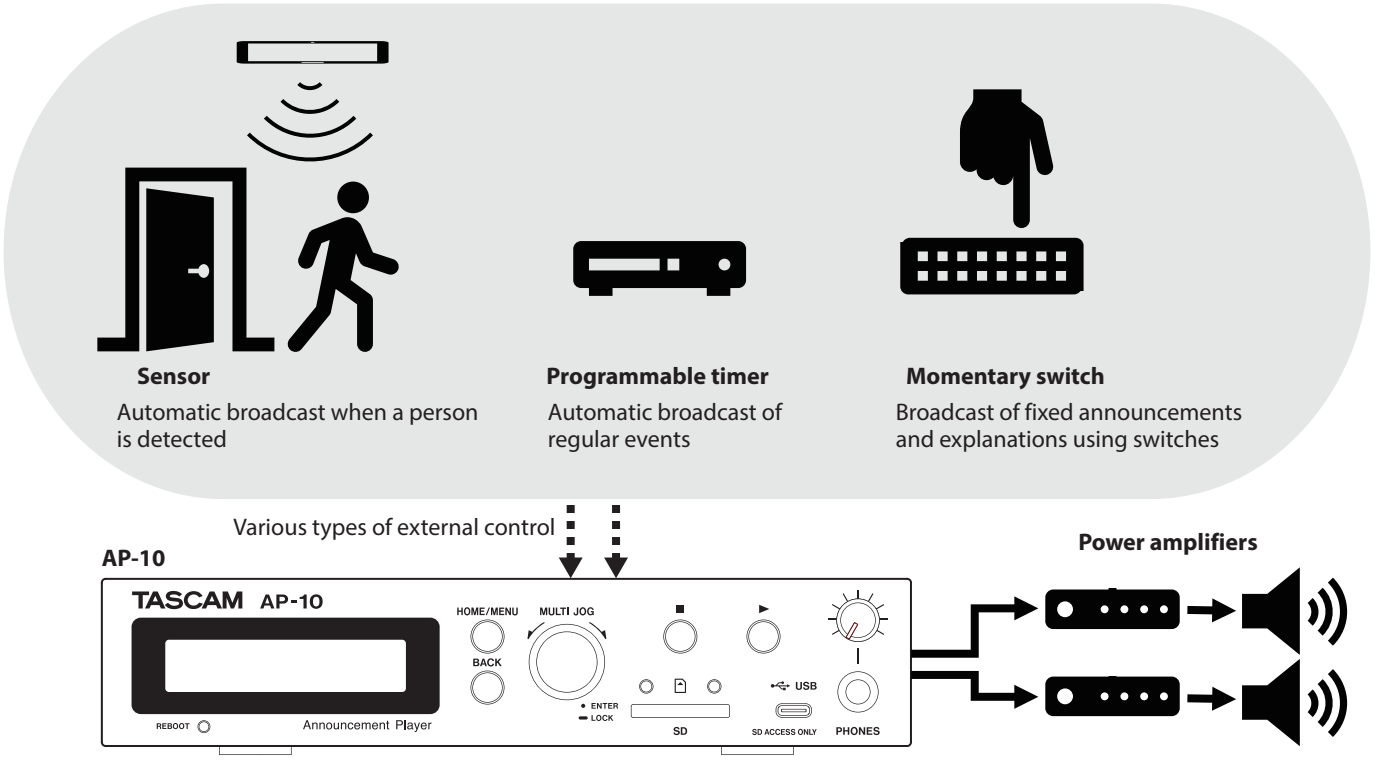
Using control input and output connectors

Control input

Announcements, explanations, warnings, advertisements, effect sounds and other sounds can be played back at high quality in response to control signals from sensors, buttons and switches, for example.

Operation examples

- **For applications at amusement facilities and theme park attractions**
  By linking with a sensor that detects people, audio announcements can be played automatically when visitors arrive.
  When this unit receives control signals output from the sensor, announcements recorded in advance can be broadcast automatically. This contributes to enhancing experiences while reducing personnel numbers.
- **For broadcasting at fixed schedules in commercial facilities, offices and factories**
  Daily broadcasts at fixed schedules can be automated by connecting a programmable timer.
  When control signals are received from a timer at set times, recorded chimes can be broadcast. This reduces operational burdens and provides consistent broadcasting.
- **For exhibition explanations, including at art and history museums**
  Audio explanations can be provided when visitors operate momentary switches used with the unit
  Recorded audio exhibition explanations can be played automatically when control signals are received from switches, providing support for more understandable explanations.



A variety of playback possibilities are possible according to application and purpose, from simple operation with a single sound assigned to each contact, to repeat broadcasts at regular intervals and broadcasts with predetermined orders and other programs using multiple audio sources.
The best playback method can be selected for the intended application at a location, enabling use in a variety of situations.

See the playback mode explanations for details. (See "Playback modes" on page 26.)

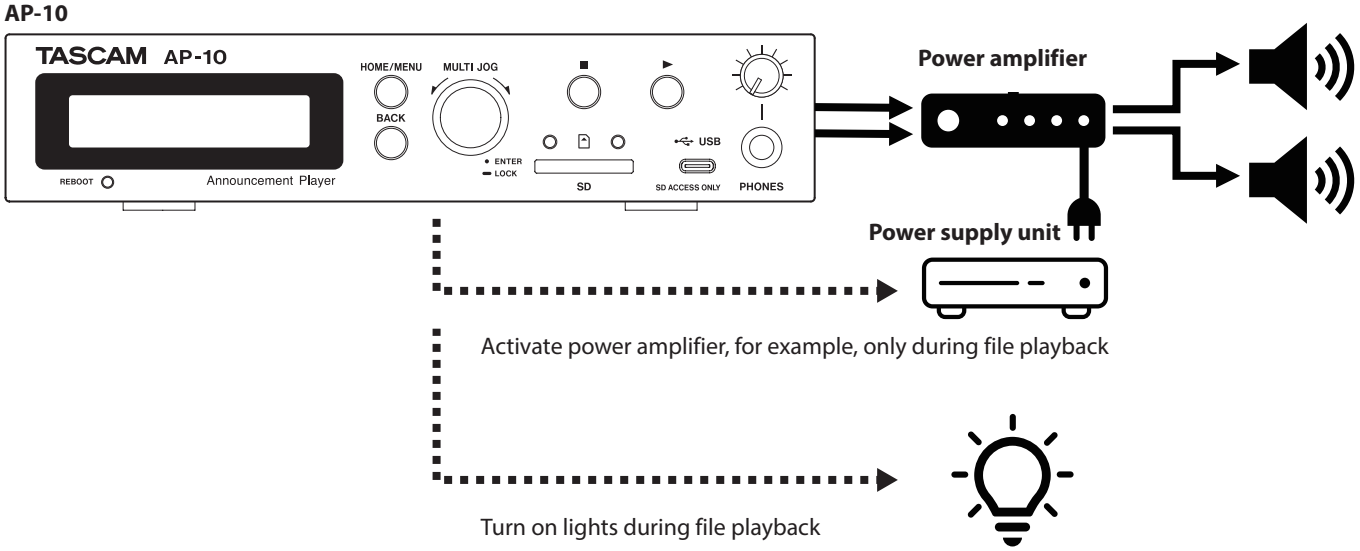
Control output

During playback output and after playback completes, control signals can be output to control other devices.

Busy out

"Busy out" signals, which can be set for playback, playback delays and intervals between repeat playback, can be used to control other devices. (See "Activating other devices (busy out)" on page 42.)

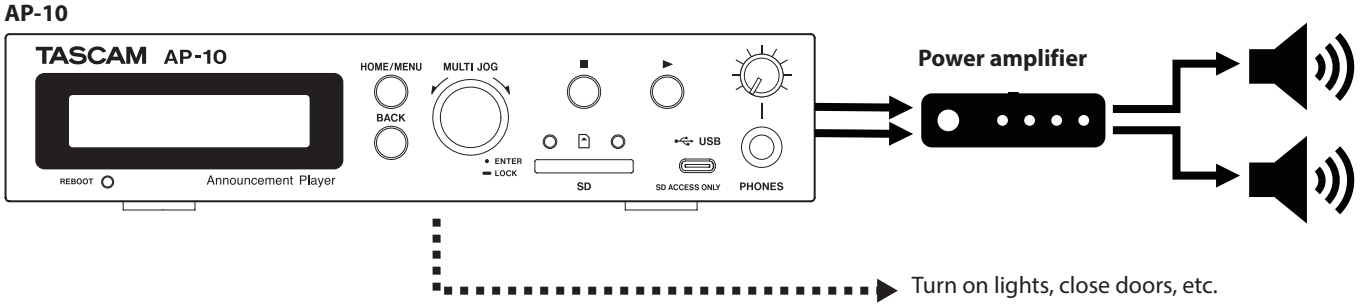
AP-10



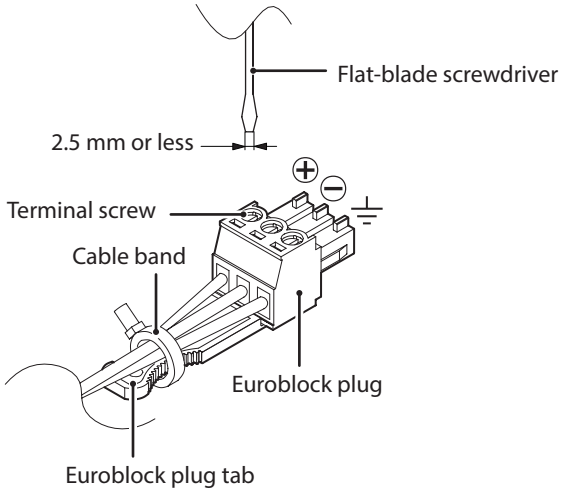
Control out

"Control out" signals can be set for playback completion to control other devices. (See "Controlling other devices (control out)" on page 43.)

AP-10



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.

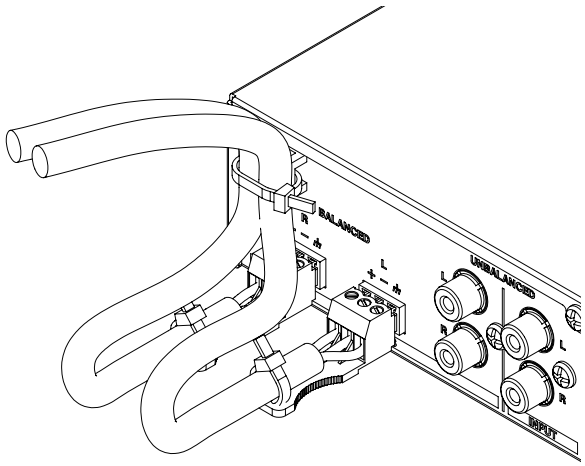
NOTE

Confirm that the wires cannot be pulled out.

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

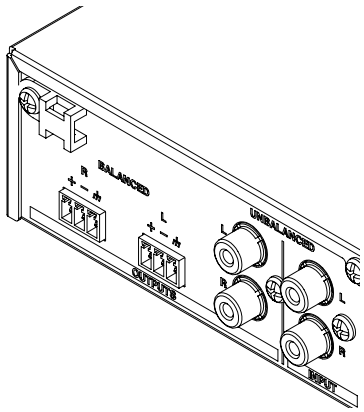
Using the cable holder

In order to prevent cables from being disconnected during use, use an included cable band to attach them to the cord holder (⑫) when connecting them.

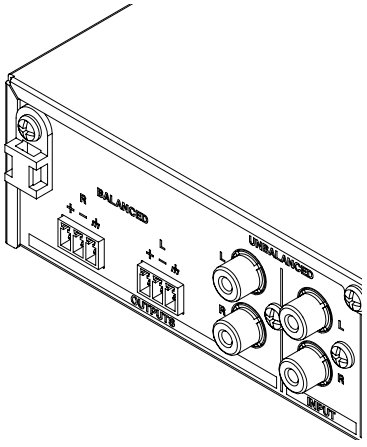


NOTE

By loosening the screw that attaches the cable holder (⑫), the angle of the holder itself can be adjusted freely.



Cable holder with horizontal orientation



Cable holder with vertical orientation

Preparing an SD card for use

Always use this unit to format SD cards to be used with it.

ATTENTION

Formatting an SD card erases all the data on it.

Formatting SD cards

Use "Format SD" to format an SD card.

MENU → Format SD

1. Select the "Format SD" Item on the Menu Screen, and press the MULTI JOG dial.

```
  M e n u
<   F o r m a t  S D    >
```

This opens the Format SD Screen.

```
  F o r m a t  S D
<   E r a s e  F o r m a t  >
```

2. Turn the MULTI JOG dial to select the formatting method.

Option	Explanation
Quick Format	Quickly format the card.
Erase Format	Erase and format the card.

- "Quick Format" conducts formatting in a short time. Since this only initializes file management data, this is suitable for simple operations and when replacing saved data.
- "Erase Format" formats the entire SD card. Since this completely erases all the data on the card, optimizing recording conditions, use this option when playback issues or recording errors occur, as well as to refresh SD cards that have been used for a long time. "Erase Format" takes some time to complete.

3. Press the MULTI JOG dial.
A confirmation message will appear.

NOTE

Press the BACK button to cancel formatting.

4. Press the MULTI JOG dial to start formatting.
When formatting is complete, the display will change.

ATTENTION

Never remove an SD card when the unit is formatting it or operating (including playing back).

NOTE

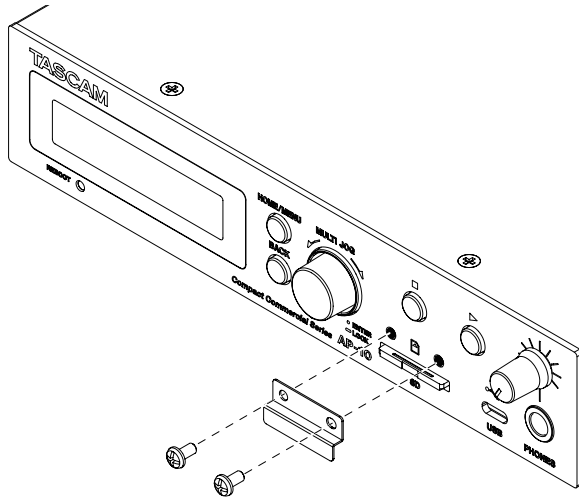
- Insert cards with the correct orientation, label facing up and contacts facing in.
- To remove an SD card, press it in gently to make it come forward. Then, pull it out by hand.
- We recommend using "Erase Format" when formatting SD cards before using them with this unit for the first time.
- Using the "Erase Format" option might improve writing performance that has decreased due to repeated use. If a "Media Error" message appears, use the "Erase Format" option.

  "Erase Format" checks the memory for errors while formatting, so it takes more time than the "Quick Format" option.

Using the SD card protector

By attaching the included SD card protector, accidental removal of SD cards can be prevented.

After confirming that the SD card is securely installed in the SD card slot, use the screws in the SD card protector kit to attach it.



Panel lock function setting

Press and hold the MULTI JOG dial for five seconds while the Home Screen is open to turn on/off the panel lock function, which disables operation of buttons on the front panel.

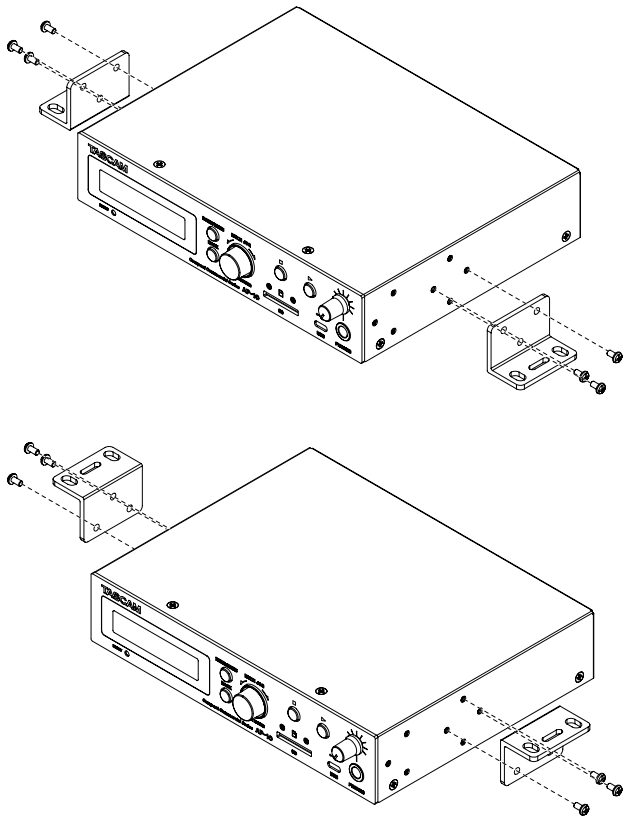
When the panel is locked, "Panel Locked" will appear on the display when a button is operated.

NOTE

- Even when the panel is locked, external control operations will still be received through the GPIO and ETHERNET connectors on the back of the unit.
- The panel lock function on/off setting is retained even when the unit is turned off.

Using an AK-RM05 kit (sold separately) to attach the unit above or below a desktop

Use TASCAM AK-RM05 rackmount ears (sold separately) to attach the unit above or below a desktop.



Rack-mounting the unit

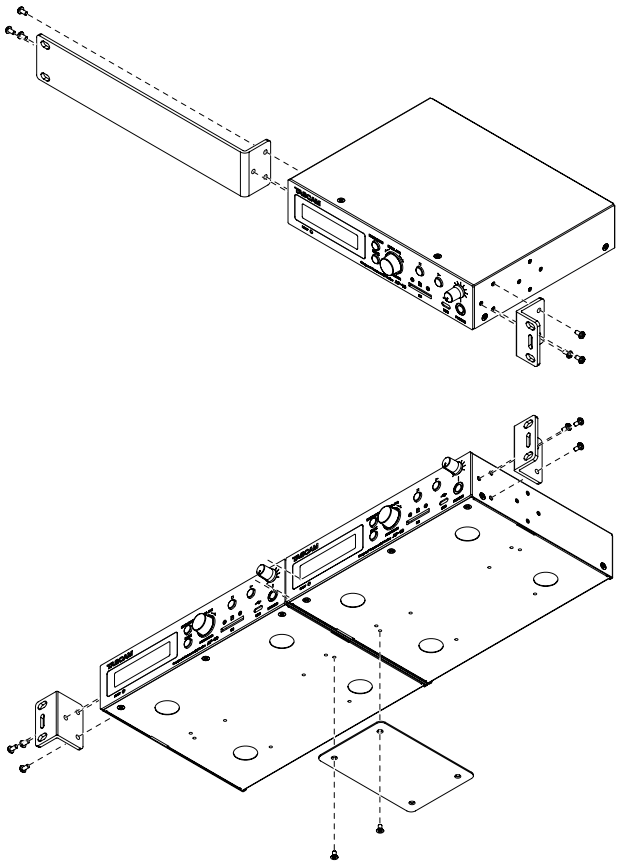
To mount this unit in a rack, use a TASCAM AK-RM05 rackmount kit or TASCAM AK-RS1 1U rack shelf (both sold separately) to install it.

Rack-mounting using an AK-RM05 (sold separately)

Use the rack angles in a TASCAM AK-RM05 rackmount kit (sold separately) to install it as shown in the illustration below.
See the TASCAM AK-RM05 rackmount kit manual for details about installation.

ATTENTION

Remove the rubber feet from unit before mounting it.

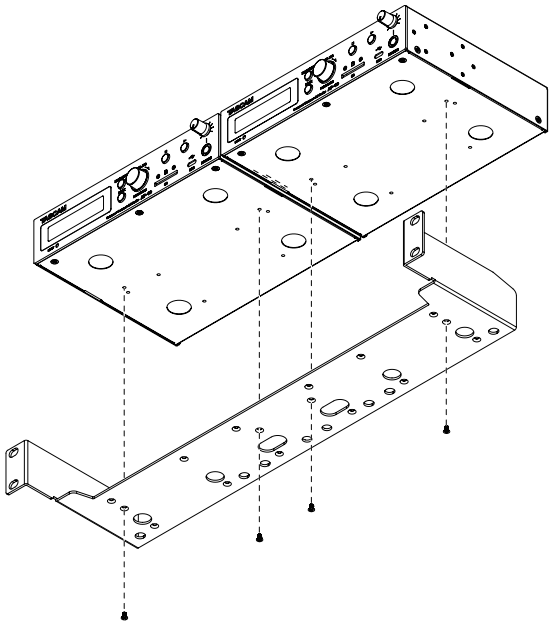


Rack-mounting using an AK-RS1 (sold separately)

Use a TASCAM AK-RS1 1U rack shelf (sold separately) to install it as shown in the illustration below.
See the TASCAM AK-RS1 1U rack shelf manual for details about installation.

ATTENTION

Remove the rubber feet from unit before mounting it.



Files that can be played back

This unit can only play stereo and mono files that are 48kHz/24-bit WAV (.wav extension) format.
To use files with other formats, convert them with the editor software.

NOTE

- This display of this unit can only show half-width (ASCII) alphabet letters and numbers.
- Playback will not be possible if a file name uses Japanese, Chinese or other non-ASCII characters.
- WAV files are recognized by the ".wav" extension. Always add the ".wav" extension to file names. This unit cannot play WAV files without the ".wav" extension. Furthermore, this unit cannot play files that have the ".wav" extension if they are not in the WAV data format.
- Depending on the media condition, playback might skip or not be possible.
- This unit cannot play files that are larger than 2 GB.
- This unit cannot play BWF files.

Preparing playlists using the editor software

The editor software can be used to create playlists that support the various playback modes of the unit.
The following items can be set for playlists.

Playback order setting	The playback order can be set as desired. (The playback order when operating the unit follows the file name ASCII order.)
Display name editing	The display name can be set to something different from the file name as desired.
Playback volume setting	The playback volume can be set as desired for each file individually.
Playback interval setting	Playback intervals can be set as desired for each file individually.
Fade in/out setting	Fade ins and outs can be set as desired for each file individually.
Trigger playback start delay setting	The delay time until playback actually starts after receiving a playback trigger can be set individually for each file.
Repeat count setting	The number of repetitions can be set as desired for each file individually.
Repeat interval setting	The repeat interval can be set as desired for each file individually.
A-B repeat interval setting	The A-B repeat interval can be set as desired for each file individually.
A-B repeat count setting	The number of A-B repetitions can be set as desired for each file individually.
Control out setting	Whether control out contact output is on or off and the delay until output can be set.

NOTE

- Download the editor software from the TASCAM website.
  https://tascam.jp/int/product/ap-10/support
- Playback is also possible without using playlists created with the editor software.

Using the unit for playback operations (manual playback mode)

The front panel of the unit can be used to play files and check their contents.
Audio signals are output from both the headphone and output jacks.

1. Load an SD card that has files on it into the unit.
2. When the Home Screen is open, turn the MULTI JOG dial to select the file to play.
3. Press the ► (PLAY) button to start playing the file.

ATTENTION

Only files saved on the SD card can be selected and played using manual playback mode. Files prepared with PPLs (playlists) created with the editor software cannot be played.
Moreover, file numbers shown on the main unit screen are provided in the ASCII order of the file names in each folder. This is not the same as the PPL playback order set with the editor software.
To listen in PPL order, use external control for playback.
In manual playback mode, only the original files saved on the SD card can be recognized.

Playback area

Files in the selected folder on the SD card can be played.
Use the "Playback Area" setting to set this.

MENU → Playback Area

- Use the ENTER and BACK buttons to move between folder levels.
- Press and hold the MULTI JOG dial to set the current folder.

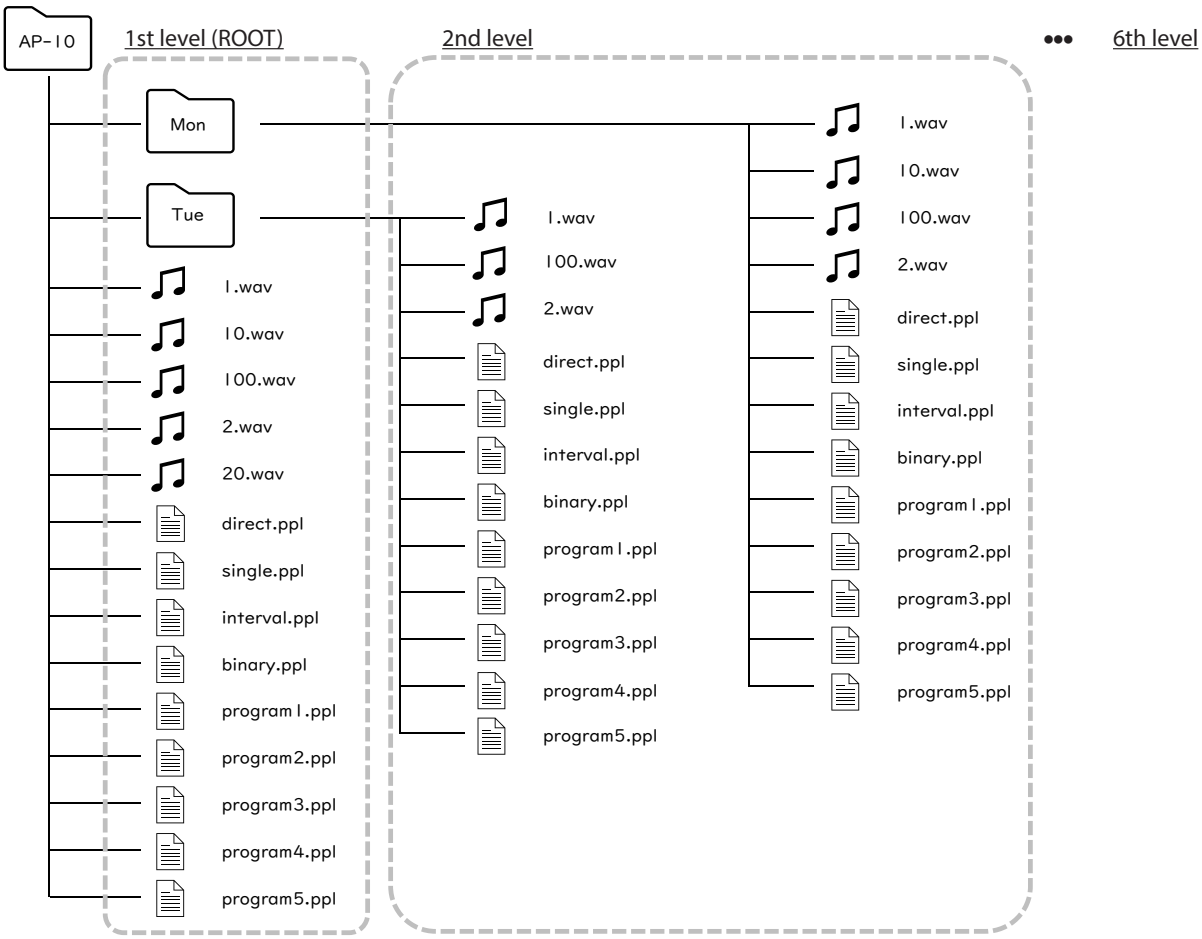
NOTE

Folders can be used down to 6 levels.

ATTENTION

Loading will not be possible if a folder name uses Japanese, Chinese or other non-ASCII characters.

Folder structure example



ATTENTION

When using external control, the files saved in a folder specified as the playback area will be played back.
This folder might not be a folder that can be accessed or selected from the Home Screen.
Always select the folder that contains the files to be used as the playback area.

Example: When "ROOT" is specified as the Playback Area, the file order and display names when the content of "direct.ppl" is as follows

direct.ppl (root)

File number	File name	Display name
001	20.wav	test
002	100.wav	100 Hz
003	2.wav	2 kHz
004	1.wav	1 kHz
005	10.wav	10 kHz
006	20.wav	test2

File number	Main unit operation		External control (direct.ppl)	
	File name	Display name	File name	Display name
001	1.wav	1.wav	20.wav	test
002	10.wav	10.wav	100.wav	100 Hz
003	100.wav	100.wav	2.wav	2 kHz
004	2.wav	2.wav	1.wav	1 kHz
005	20.wav	20.wav	10.wav	10 kHz
006			20.wav	test2

ATTENTION

- The files that correspond to the file numbers and their file names are different during main unit and external operation.
- When "Tue" is specified as the Playback Area and the content of "direct.ppl" is as follows, files with file numbers 001, 004 and 006 are not in the "Tue" folder, so "No file" will be shown when they are specified and playback will not occur.

direct.ppl (Tue)

File number	File name
001	20.wav
002	1.wav*
003	2.wav**
004	10.wav
005	100.wav***
006	20.wav

Audio files in the "Tue" folder

File name
1.wav*
100.wav***
2.wav**

Playback modes

This unit has 5 playback modes.
Select the best mode for the application.
Use the "Playback Mode" setting to set this.

MENU → Playback Mode

Option	Playback mode	Use example/purpose	Feature
Direct (default)	Direct playback	Use to directly play desired audio files with buttons and sensors	Audio will be played back as is in response to corresponding input
Single	Single playback	Use to play multiple signals with an order of priority (for unscheduled broadcasts, etc.)	Playback is in order of priority
Interval	Interval playback	Use to play the same audio repeatedly at a fixed interval	Automatically repeat at a fixed interval
Binary	Binary playback	Use to select multiple audio sources in response to switch on/off combinations	Up to 250 files can be specified
Program	Program playback	Use to play audio in a predetermined order (for guidance, procedures, etc.)	Order control and progress management are possible

Typical use examples for each mode

● **Direct playback**

Audio will be played back as is in response to corresponding input signals.
The latest input status will always be applied.

Use examples

- Play desired audio files with button operations
- Guidance in response to sensor input
- Exhibition and experience content

● **Single playback**

Only the highest priority audio is played even when there are multiple inputs.

Use examples

- Emergency broadcasts during fires and earthquakes, etc.
- Factory problem alerts
- Guidance broadcasts for trains and other facilities

● **Interval playback**

Audio can be played back automatically at set time intervals repeatedly.
Playlist creation is unnecessary.

Use examples

- Sales promotion announcements in shops
- Repeat broadcast of precautionary warnings

● **Binary playback**

Play up to 250 different audio files using on/off combinations
No computer or other complicated control device is necessary.

Use examples

- Changing audio using multiple switch inputs
- Broadcast coordinated with simple controls

● **Program playback**

Play audio sequentially in order set in advance.
Progress control using single contact input from outside is possible, making this suitable for work procedures and managing guidance progress.

Use examples

- Exhibition tours
- Factory visit guides
- Work procedure guidance

NOTE

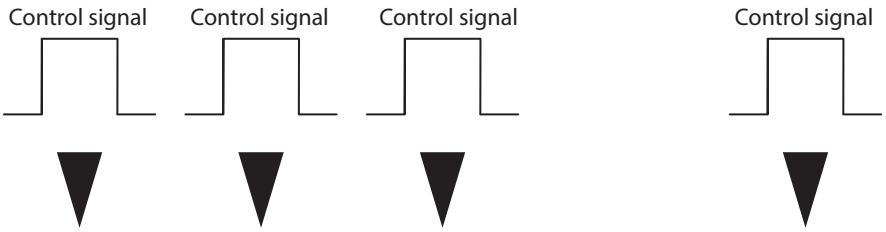
- Different playback modes cannot be used at the same time.
- The playback modes reflect playback operations from external control.

Operation specifications

	When a new control signal is input just once when stopped	When a new control signal is input during file playback
Direct playback	Stop after the designated file plays back	Interrupt and play the designated file after
Single playback	Stop after the designated file plays back	Only when a control signal is input that has a higher priority than the file currently playing, interrupt and play the designated file
Interval playback	Repeat playback	Interrupt and play the designated file after
Binary playback	Stop after the designated file plays back	Disabled
Program playback	Stop after the designated file plays back	Disabled

Direct/single/interval playback

By directly inputting control signals through GPIO connector pin numbers 1–9, the files assigned to those pin numbers can be played.
A maximum of 9 files can be played.
Files 001–009 are assigned to pin numbers 1–9 in advance.
Use switches, relays and sensors, for example, to directly specify the desired files.



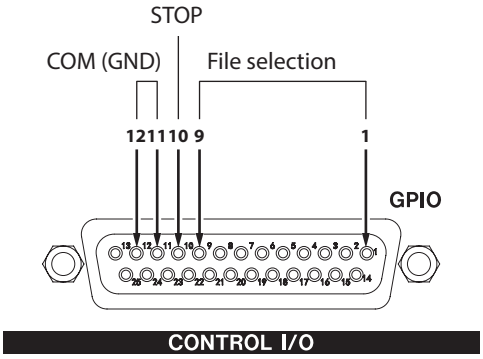
Pin number	1	2	3	• • •	9
File	001	002	003	• • •	009

NOTE

In direct playback and interval playback modes, playback is prioritized by the most recent input regardless of the pin number.
In single playback mode, lower pin numbers have higher priority, so when a higher priority signal is input, file playback will stop and playback of the specified file will start.

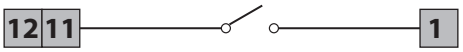
Pin numbers used with direct/single/interval playback

- Pin numbers 1–9: Playback is started when the terminal number corresponding to the file is connected to COM (GND).
- Pin number 10 (STOP): Playback is stopped when the terminal is connected to COM (GND).
- Pin numbers 11–12 (COM (GND)): Playback is started and stopped when these terminals are connected.

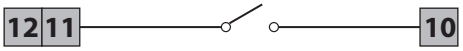


Control examples

By shorting GPIO connector pin numbers 1 and 11 or 12 (COM (GND)) the file assigned to pin number 1 can be played.



By shorting GPIO connector pin numbers 10 (STOP) and 11 or 12 (COM (GND)) the file assigned to pin number 1 can be stopped.



Play: Connect pin number 1–9 to 11–12 (COM (GND)).

→ The file assigned to that pin will start playing.

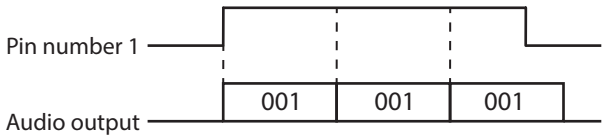
Stop: Connect pin number 10 (STOP) to 11–12 (COM (GND)).

→ The file will stop playing.

While pin number 1–9 is continuously input as a control signal, the same file will play repeatedly. When the control signal stops being input, the file will play to its end and then stop.

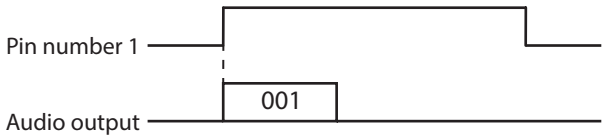
When pin number 1–9 is continuously input as a control signal

- When the Trigger Type item is "Continuous"
  The same file will play repeatedly. When the control signal stops being input, the file will play to its end and then stop.



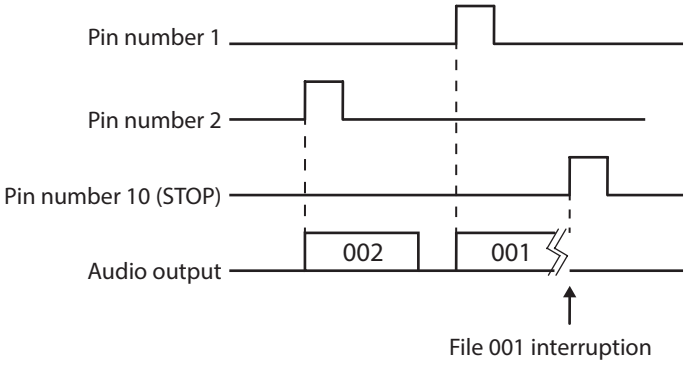
Timing diagram

- When the Trigger Type item is "One-shot"
  Playback will stop after the designated file completes playing.
  If a repeat count is set using PPL, playback will stop after the set number of times.



Timing diagram

Basic operation in direct and single playback modes



Timing diagram

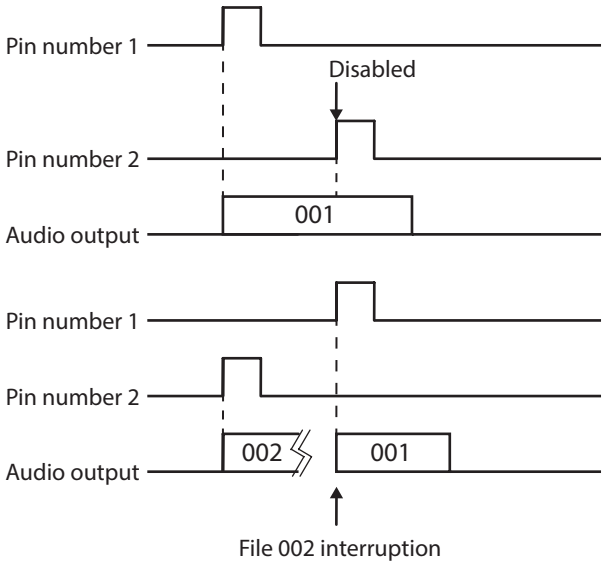
Priority order (single playback mode only)

GPIO connector pin numbers 1–9 have a priority order.



File 001 > 002 > 003 > 004 > 005 > ... > 009

During playback, when a new control signal is input that has a higher priority, the file currently playing will be interrupted and the designated file will start playing.



Timing diagram

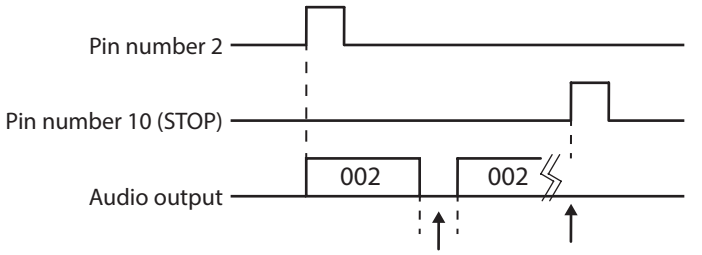
NOTE

When a control signal is input that has a lower priority than the file currently playing, the designated file will not be played.

Basic operation in interval playback mode

In interval playback mode, the time interval between when playback ends and starts again is set as follows according to the pin number.

Pin number	Interval time
1	1 second
2	5 seconds
3	10 seconds
4	15 seconds
5	30 seconds
6	1 minute
7	5 minutes
8	15 minutes
9	30 minutes



Timing diagram

Selecting the control input playback mode

- Always select the suitable playback mode from the unit menu settings.
- Operation will occur in every playback mode even if a PPL file created in the editor software is not saved in the current folder. If a PPL file is saved in the current folder, however, the settings of that file will be used for operation.

ATTENTION

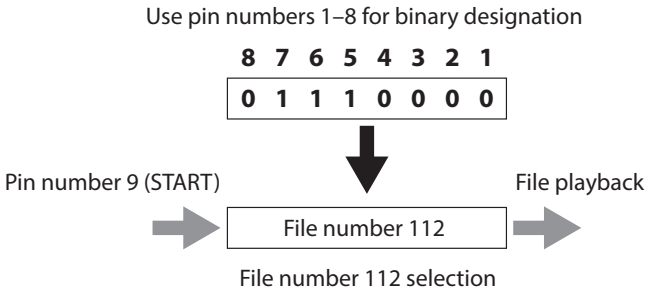
- PPL file names must be as follows. Files with different names cannot be loaded.
  - For direct playback: "direct.ppl" (half-width lower case letters only)
  - For single playback: "single.ppl" (half-width lower case letters only)
  - For interval playback: "interval.ppl" (half-width lower case letters only)
- When no PPL file is available in interval playback mode, playback will occur at the fixed value determined by the pin number. When a PPL file is available, playback will occur with the count and interval set in that file.

Binary playback

Files are selected by inputting binary (base 2) signals through GPIO connector pin numbers 1–8, and selected files are played by inputting a control signal through pin number 9 (START).

A maximum of 250 files can be selected and played.

Using on/off control signals, including switches, 250 files can be specified without using a computer or another complicated device.



NOTE

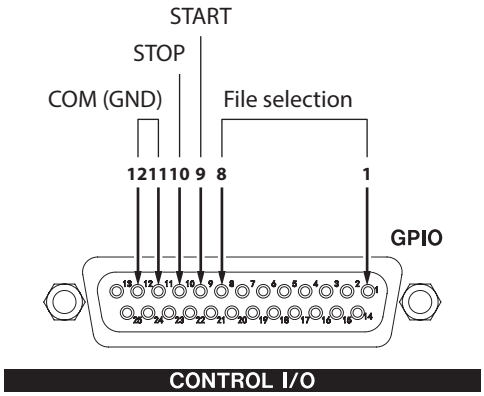
To use binary playback, preparation of a control device that can generate binary signals is necessary.

ATTENTION

In order to prevent the wrong file number from being specified, complete input of signals for file numbers within 50 msec of starting.

Pins used for binary playback

- Pin numbers 1–8: Specify files using binary combinations of 0s (off) and 1s (on).
- Pin number 9 (START): Playback is started when this pin is connected to COM (GND).
- Pin number 10 (STOP): Playback is stopped when this pin is connected to COM (GND).
- Pin numbers 11–12 (COM (GND)): Playback is started and stopped when these terminals are connected.



NOTE

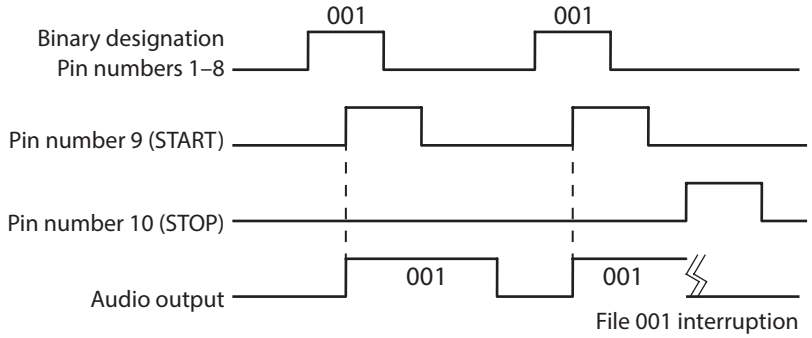
Binary playback is possible even without connecting all eight pins for binary selection.

The number of files that can be specified is 1 less than 2x (with x being the number of connected pins).

Basic operations for binary playback

- **Play**
  Connect (1/on) and disconnect (0/off) GPIO connector pin numbers 1–8 with pin numbers 11–12 to select the file. The selected file is played by inputting a control signal through pin number 9 (START).
- **Stop**
  When the selected file is playing, input a control signal to pin number 10 (STOP) to stop playback.

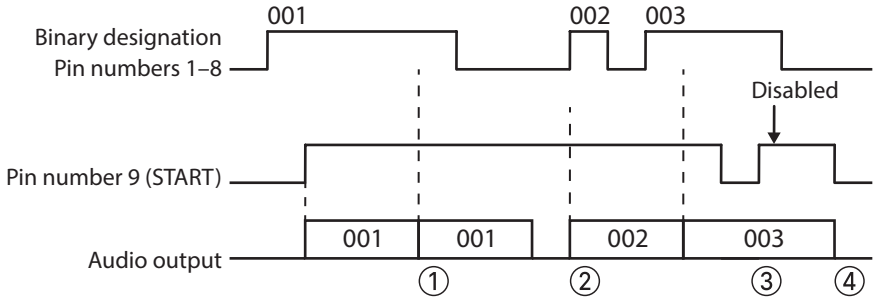
Operation example 1



Timing diagram for operation example 1

Operation example 2

① When the Trigger Type item is "Continuous", while a control signal is input continuously to pin number 9 (START), playback will repeat without intervals. When the Trigger Type item is "One-shot", playback will stop after it completes.
② While a control signal is input continuously to pin number 9 (START), file playback can be started by using a binary specification.
③ During file playback, inputting a new control signal to pin number 9 (START) will have no effect.
④ If the control signal input to pin number 9 (START) turns off, playback will stop after the file currently playing back completes.



Timing diagram for operation example 2 when the Trigger Type item is "Continuous"

Selecting the control input playback mode

Select the binary playback mode from the unit menu settings.

MENU → Playback Mode → Binary

Operation will occur in every playback mode even if a PPL file created in the editor software is not saved in the current folder. If a PPL file is saved in the current folder, however, the settings of that file will be used for operation.

ATTENTION

PPL file names must be as follows. Files with different names cannot be loaded.

- For binary playback: "binary.ppl" (half-width lower case letters only)

File numbers and corresponding binary signals

File number	Binary (pins 8–1)	File number	Binary (pins 8–1)	File number	Binary (pins 8–1)	File number	Binary (pins 8–1)	File number	Binary (pins 8–1)
001	00000001	051	00110011	101	01100101	151	10010111	201	11001001
002	00000010	052	00110100	102	01100110	152	10011000	202	11001010
003	00000011	053	00110101	103	01100111	153	10011001	203	11001011
004	00000100	054	00110110	104	01101000	154	10011010	204	11001100
005	00000101	055	00110111	105	01101001	155	10011011	205	11001101
006	00000110	056	00111000	106	01101010	156	10011100	206	11001110
007	00000111	057	00111001	107	01101011	157	10011101	207	11001111
008	00001000	058	00111010	108	01101100	158	10011110	208	11010000
009	00001001	059	00111011	109	01101101	159	10011111	209	11010001
010	00001010	060	00111100	110	01101110	160	10100000	210	11010010
011	00001011	061	00111101	111	01101111	161	10100001	211	11010011
012	00001100	062	00111110	112	01110000	162	10100010	212	11010100
013	00001101	063	00111111	113	01110001	163	10100011	213	11010101
014	00001110	064	01000000	114	01110010	164	10100100	214	11010110
015	00001111	065	01000001	115	01110011	165	10100101	215	11010111
016	00010000	066	01000010	116	01110100	166	10100110	216	11011000
017	00010001	067	01000011	117	01110101	167	10100111	217	11011001
018	00010010	068	01000100	118	01110110	168	10101000	218	11011010
019	00010011	069	01000101	119	01110111	169	10101001	219	11011011
020	00010100	070	01000110	120	01111000	170	10101010	220	11011100
021	00010101	071	01000111	121	01111001	171	10101011	221	11011101
022	00010110	072	01001000	122	01111010	172	10101100	222	11011110
023	00010111	073	01001001	123	01111011	173	10101101	223	11011111
024	00011000	074	01001010	124	01111100	174	10101110	224	11100000
025	00011001	075	01001011	125	01111101	175	10101111	225	11100001
026	00011010	076	01001100	126	01111110	176	10110000	226	11100010
027	00011011	077	01001101	127	01111111	177	10110001	227	11100011
028	00011100	078	01001110	128	10000000	178	10110010	228	11100100
029	00011101	079	01001111	129	10000001	179	10110011	229	11100101
030	00011110	080	01010000	130	10000010	180	10110100	230	11100110
031	00011111	081	01010001	131	10000011	181	10110101	231	11100111
032	00100000	082	01010010	132	10000100	182	10110110	232	11101000
033	00100001	083	01010011	133	10000101	183	10110111	233	11101001
034	00100010	084	01010100	134	10000110	184	10111000	234	11101010
035	00100011	085	01010101	135	10000111	185	10111001	235	11101011
036	00100100	086	01010110	136	10001000	186	10111010	236	11101100
037	00100101	087	01010111	137	10001001	187	10111011	237	11101101
038	00100110	088	01011000	138	10001010	188	10111100	238	11101110
039	00100111	089	01011001	139	10001011	189	10111101	239	11101111
040	00101000	090	01011010	140	10001100	190	10111110	240	11110000
041	00101001	091	01011011	141	10001101	191	10111111	241	11110001
042	00101010	092	01011100	142	10001110	192	11000000	242	11110010
043	00101011	093	01011101	143	10001111	193	11000001	243	11110011
044	00101100	094	01011110	144	10010000	194	11000010	244	11110100
045	00101101	095	01011111	145	10010001	195	11000011	245	11110101
046	00101110	096	01100000	146	10010010	196	11000100	246	11110110
047	00101111	097	01100001	147	10010011	197	11000101	247	11110111
048	00110000	098	01100010	148	10010100	198	11000110	248	11111000
049	00110001	099	01100011	149	10010101	199	11000111	249	11111001
050	00110010	100	01100100	150	10010110	200	11001000	250	11111010

Program playback

Start playing files in the order set in advance by inputting a control signal to GPIO connector pin number 9 (START).
Using program playback, up to 100 files can be added to each of 5 programs (1–5).
Since the order and times of the files being played back are predetermined, this mode is convenient when only one timer, switch or other contact point for triggering the unit is available.

1. Use the editor software to set playlists for program playback.
2. Select the program playback mode from the unit menu settings. (See "Playback modes" on page 26.)
3. Load an SD card with a set playlist into the unit.

NOTE

Use the control input and output connectors to control program playback.

- Connect pins 9 (START) and 11–12 (COM (GND)) to play files in the set order.
- Connect pins 1 (INC) and 11–12 (COM (GND)) To advance in the file order.
- Connect pins 3 (DEC) and 11–12 (COM (GND)) to go backward in the file order.
- Connect pins 5 (EXCHANGE) and 11–12 (COM (GND)) to switch between programs 1–5.
- Connect pins 10 (STOP) and 11–12 (COM (GND)) to stop file playback.

Selecting the control input playback mode

- Select the program playback mode from the unit menu settings.

  MENU → Playback Mode → Program

- Operation will occur in every playback mode even if a PPL file created in the editor software is not saved in the current folder. If a PPL file is saved in the current folder, however, the settings of that file will be used for operation.

ATTENTION

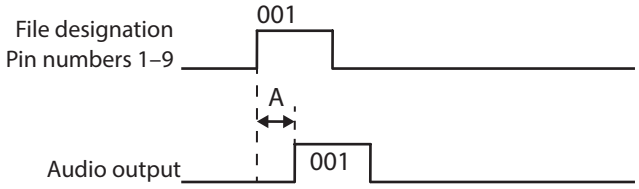
PPL file names must be as follows. Files with different names cannot be loaded.

- "program1.ppl" for playback program 1
- "program2.ppl" for playback program 2
- "program3.ppl" for playback program 3
- "program4.ppl" for playback program 4
- "program5.ppl" for playback program 5

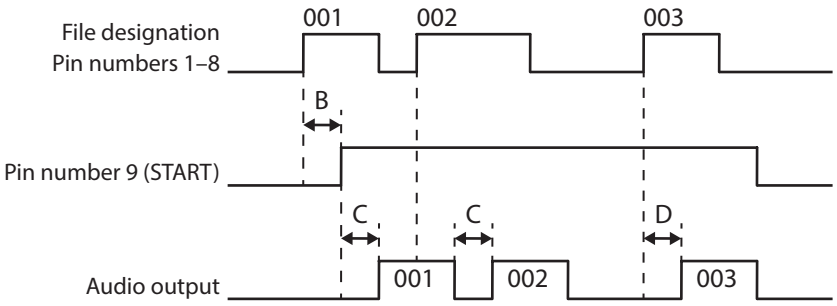
Half-width lowercase letters must be used for "program" and the numbers must also be half-width.

Timing diagrams for each playback mode

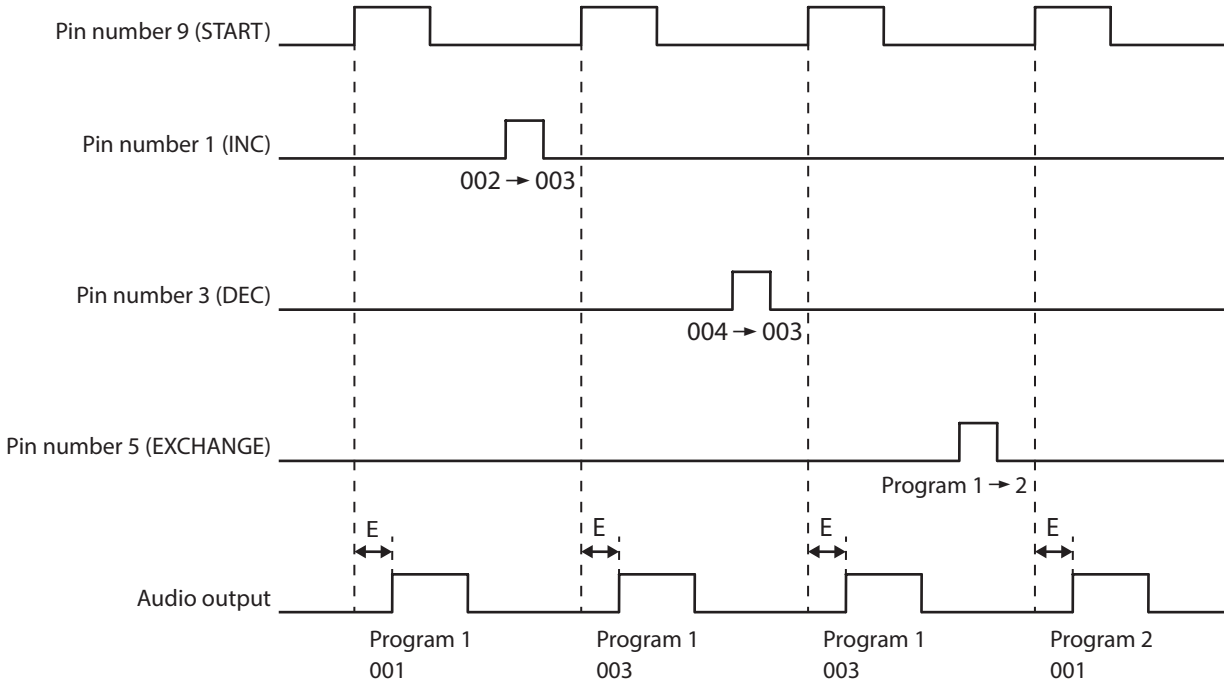
Direct/single/interval playback



Binary playback



Program playback



Unit (msec)

	A	B	C	D	E
D-SUB control signals	max 100	min 200	max 100	max 300	max 100

Playback operation settings

Playback operation can be set for when control signals are input continuously.
Use "Trigger Type" to set the playback operation.

MENU → Trigger Type

Option	Function
Continuous	During program playback, files in the program will be played in order and the program will repeat. In other playback modes, the specified file will be played repeatedly.
One-shot	Playback will stop after the repeat count set in the PPL. If there is no PPL, playback will stop after the designated file completes playing.

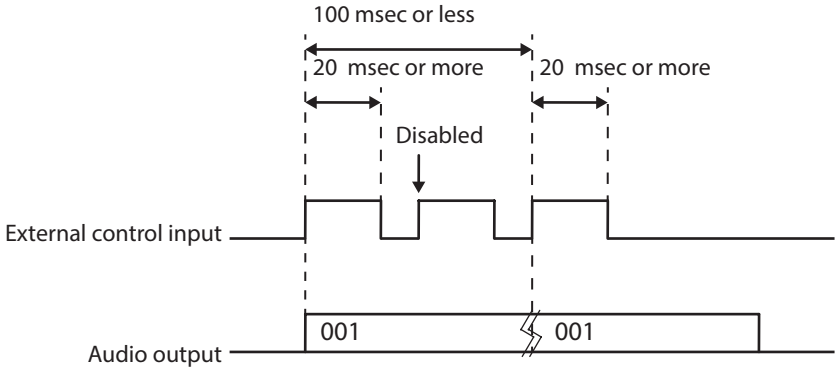
Playback Mode	Direct				Single			
PPL (playlist)	No		Yes		No		Yes	
Trigger Type	Continuous	One-shot	Continuous	One-shot	Continuous	One-shot	Continuous	One-shot
When a control signal is input just once	Stop after the designated file plays back	Stop after the designated file plays back	Stop playback after the repeat count set in the PPL	Stop playback after the repeat count set in the PPL	Stop after the designated file plays back	Stop after the designated file plays back	Stop playback after the repeat count set in the PPL	Stop playback after the repeat count set in the PPL
When control signals are input continuously	Repeat playback after the designated file completes playing	Stop after the designated file plays back	Repeat playback after the designated file completes playing	Stop playback after the repeat count set in the PPL	Repeat playback after the designated file completes playing	Stop after the designated file plays back	Repeat playback after the designated file completes playing	Stop playback after the repeat count set in the PPL

Playback Mode	Interval				Binary			
PPL (playlist)	No		Yes		No		Yes	
Trigger Type	Continuous	One-shot	Continuous	One-shot	Continuous	One-shot	Continuous	One-shot
When a control signal is input just once	Repeat playback after the designated file completes playing	Repeat playback after the designated file completes playing	Stop playback after the repeat count set in the PPL	Stop playback after the repeat count set in the PPL	Stop after the designated file plays back	Stop after the designated file plays back	Stop playback after the repeat count set in the PPL	Stop playback after the repeat count set in the PPL
When control signals are input continuously	Repeat playback after the designated file completes playing	Repeat playback after the designated file completes playing	Repeat playback after the designated file completes playing	Stop playback after the repeat count set in the PPL	Repeat playback after the designated file completes playing	Stop after the designated file plays back	Repeat playback after the designated file completes playing	Stop playback after the repeat count set in the PPL

Playback Mode	Program			
PPL (playlist)	No		Yes	
Trigger Type	Continuous	One-shot	Continuous	One-shot
When a control signal is input just once	After the designated file plays back, advance to the next file and stop	After the designated file plays back, advance to the next file and stop	After playing for the repeat count set in the PPL, advance to the next file and stop	After playing for the repeat count set in the PPL, advance to the next file and stop
When control signals are input continuously	After the designated file plays back, advance to the next file and continue playing	After the designated file plays back, advance to the next file and stop	After playing for the repeat count set in the PPL, advance to the next file and continue playing	After playing for the repeat count set in the PPL, advance to the next file and stop

Examples when using Direct, Single or Interval playback mode

Continuous

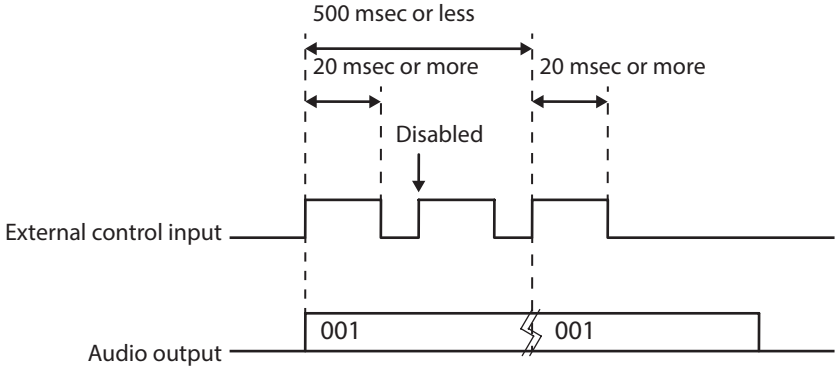


Timing diagram

ATTENTION

Be sure that the connection times of pulse signals for external control input are at least 20 msec.
After making connection once, additional connection signals input within 100 msec will have no effect.

One-shot



Timing diagram

ATTENTION

Be sure that the connection times of pulse signals for external control input are at least 20 msec.
After making connection once, additional connection signals input within 500 msec will have no effect.

Playback equalizer settings

The playback tone of audio files on SD cards can be adjusted.
Use the "Playback EQ" settings to set this equalizer.

MENU → Playback EQ

Option	Range	Default
Function	OFF, ON	OFF
Low Freq	32 Hz – 1.6 kHz	400 Hz
Low Gain	–12 dB – +12 dB	0 dB
Low Mid Freq	32 Hz – 18 kHz	1.7 kHz
Low Mid Gain	–12 dB – +12 dB	0 dB
Low Mid Q	0.25 – 16	2
High Mid Freq	32 Hz – 18 kHz	1.7 kHz
High Mid Gain	–12 dB – +12 dB	0 dB
High Mid Q	0.25 – 16	2
High Freq	1.7 kHz – 18 kHz	5.5 kHz
High Gain	–12 dB – +12 dB	0 dB

NOTE

- Low and High are shelving filters, while Low Mid and High Mid are peak filters.
- The values set on the unit are applied to all files.
- These settings are retained even when the unit is turned off.

Output mode setting

This unit has 3 output modes.
Use the "Output Mode" setting to set this.

MENU → Output Mode

Option	Explanation
Stereo (default)	This outputs stereo audio files to the L and R channels.
Mono	This outputs mono audio files to both the L and R channels.
Dual Mono	This outputs separate audio files from the L and R channels.

NOTE

When mono and stereo files are played back, they are output in each output mode as follows.

Output Mode: Stereo

			Output	
			L channel	R channel
Playback file	Stereo	L	✔	-
		R	-	✔
	Mono		✔	✔

Output Mode: Mono

			Output	
			L channel	R channel
Playback file	Stereo	L	✔*	✔*
		R		
	Mono		✔	✔

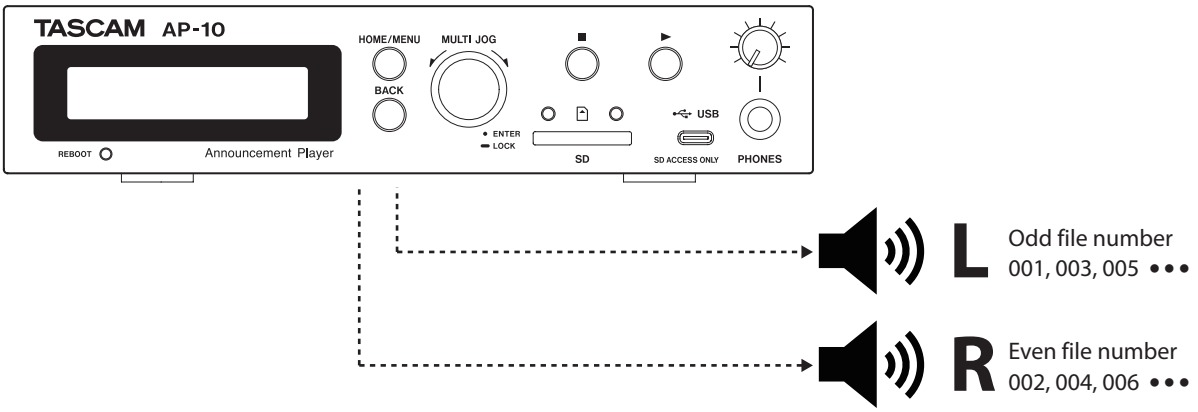
Output Mode: Dual Mono

			Output	
			L channel	R channel
Playback file	Stereo	L	✔* + ✔**	✔* + ✔**
		R		
	Mono		✔**	✔**

✔: Supported, -: Not supported
✔*: Stereo files are converted to mono and output.
✔**: If the pin number or file number is odd, it will be output from the L channel. If it is even, it will be output from the R channel.

Doubling the output capabilities using the L and R channels (Dual Mono mode)

The "Dual Mono" function uses L and R channels independently to play separate mono audio files.
By outputting files with odd numbers (001, 003, etc.) from the L channel and files with even numbers (002, 004, etc.) from the R channel, a single unit can play as many files as two units.
Separate files can be played simultaneously or at different times from L and R channels.



NOTE

Only files set using the editor software can be used for this.
When the output mode is "Dual Mono", manual playback using the unit is not possible.
Only the ■ (STOP) button on the front of the unit can be used for stopping in an emergency.
Only when "Dual Mono" is selected as the output mode, the functions assigned to control input/output pin numbers 9 and 10 can be selected from "Dual" and "Common" options.

Output Mode	Stereo, Mono, Dual Mono Mode		
	Stop: Common		
Pin number	Direct/ Single/ Interval	Binary	Program
#1	1	Bit8	INC
#2	2	Bit7	
#3	3	Bit6	DEC
#4	4	Bit5	
#5	5	Bit4	EXCHANGE
#6	6	Bit3	
#7	7	Bit2	
#8	8	Bit1	
#9	9	START	START
#10	STOP	STOP	STOP

Output Mode	Dual Mono Mode		
	Stop: Dual		
Pin number	Direct/ Single/ Interval	Binary	Program
#1	1	Bit8	INC
#2	2	Bit7	
#3	3	Bit6	DEC
#4	4	Bit5	
#5	5	Bit4	EXCHANGE
#6	6	Bit3	
#7	7	Bit2	
#8	8	Bit1	
#9	STOP (odd)	START	START
#10	STOP (even)	STOP*	STOP

Different STOP types

STOP signals stop all audio output.
When STOP (odd) or STOP (even) is shown, audio output will only be stopped for files that have odd or even pin numbers
If the binary number specified immediately before STOP is odd, audio output will only be stopped for files that have odd numbers. If it is even, audio output will only be stopped for even-numbered files.

ATTENTION

When Playback Mode is set to "Program" and Output Mode is set to "Dual Mono", if odd files are specified they will be output from the L channel while even files will be output from the R channel, but output from both channels at the same time is not possible.

Output attenuation setting

The level of the sound output from this unit can be attenuated to suit the maximum input level of connected equipment.
Use the "Output Att." (Output Attenuation) setting to set this.

MENU → Output Att.

Options: OFF (0 dB, default), –0.5 dB – –24.0 dB (in 0.5dB intervals)

NOTE

- The attenuation value set on the unit is applied to all audio output.
- The output attenuation setting is retained even when the unit is turned off.

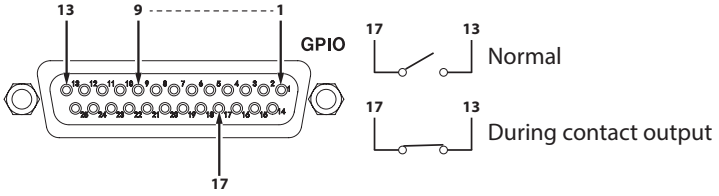
Activating other devices (busy out)

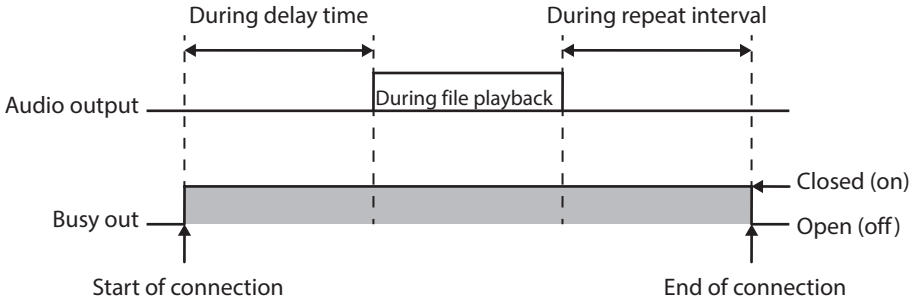
"Busy out" is a function that causes contact output from the GPIO connector Busy Out pins during file playback.
Using this contact output, amplifiers and other connected equipment can be activated in coordination with file playback.
Use "Busy Out" to set this. (See "Busy out" on page 18.)

MENU → Busy-Out

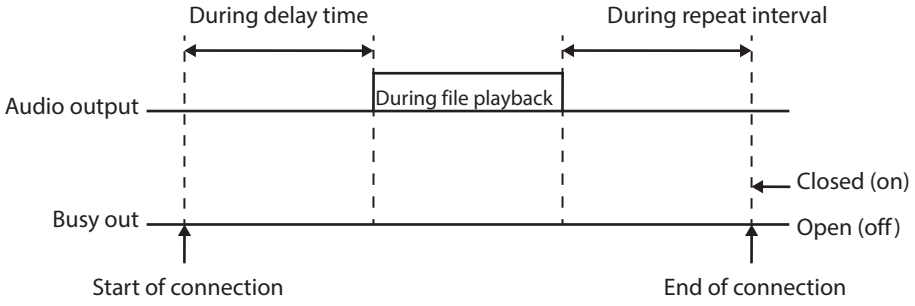
Option	Explanation
Wait Time	This sets whether or not busy out contact output occurs while waiting. (default: ON)
Playback	This sets whether or not busy out contact output occurs while playing. (default: ON)
Rep. Interval	This sets whether or not busy out contact output occurs during repeat intervals. (default: ON)

Use the GPIO connector on the back of the unit to control devices connected to this unit.
The busy out specifications include volt-free make contact with a contact capacity maximum of DC30V, 3A.
During busy out contact output, pin numbers 13 and 17 are connected.





When Wait Time, Playback and Rep. Interval are all on (default settings)



When Wait Time, Playback and Rep. Interval are all off

NOTE

The wait time and repeat settings cannot be set on the AP-10 unit itself.
Use the editor software.

Busy out signals in "Dual Mono" output mode

During playback in "Dual Mono" output mode, contact output of busy out signals for the L channel are from the Busy Out pins and for the R channel are from the Control Out pins.

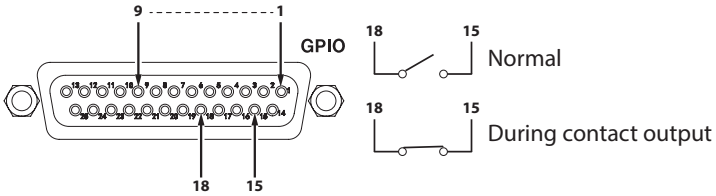
Controlling other devices (control out)

Control out signals are contact output for one second from the Control Out pins when file playback completes.
This can time control of connected devices to file playback completion.
The delay after file playback completion before contact output can be set from 0 seconds up to 59:59. (See "Control out" on page 18.)
This setting is made per file.

NOTE

- The default value is "off".
- This cannot be set on the AP-10 unit itself. Use the editor software.

Use the GPIO connector on the back of the unit to control devices connected to this unit.



The control out specifications include volt-free make contact with a contact time of 1 second and a contact capacity maximum of DC30V, 3A.
During control out contact output, GPIO connector pin numbers 15 and 18 are connected.

ATTENTION

- If file playback is interrupted in the middle, contact output of a control out signal will not occur.
- During the time between the end of file playback and contact output, if playback of another file completes as a result of the next playback instruction, operation will follow the setting data of the file that was played later. Be aware that the settings of the first file will be ignored.

Control out signals in "Dual Mono" output mode

During playback when the output mode is "Dual Mono", contact output of control out signals will not occur. Be aware of this. (The control out setting will be ignored.)
In this case, if contact output of busy out signals is set, they will be output for the L channel from the Busy Out pins and for the R channel from the Control Out pins.

Output equalizer settings

The playback tone of line input and audio files on SD cards can be adjusted to suit the conditions of the installation location.
Use the "Output EQ" settings to set this.

MENU → Output EQ

Option	Range	Default
Function	OFF, ON	OFF
Low Freq	40 Hz – 2.0 kHz	100 Hz
Low Gain	–15 dB – +15 dB	0 dB
High Freq	2.0 kHz – 18 kHz	10 kHz
High Gain	–15 dB – +15 dB	0 dB

NOTE

- Low and High are shelving filters.
- The values set on the unit are applied to all files.
- These settings are retained even when the unit is turned off.

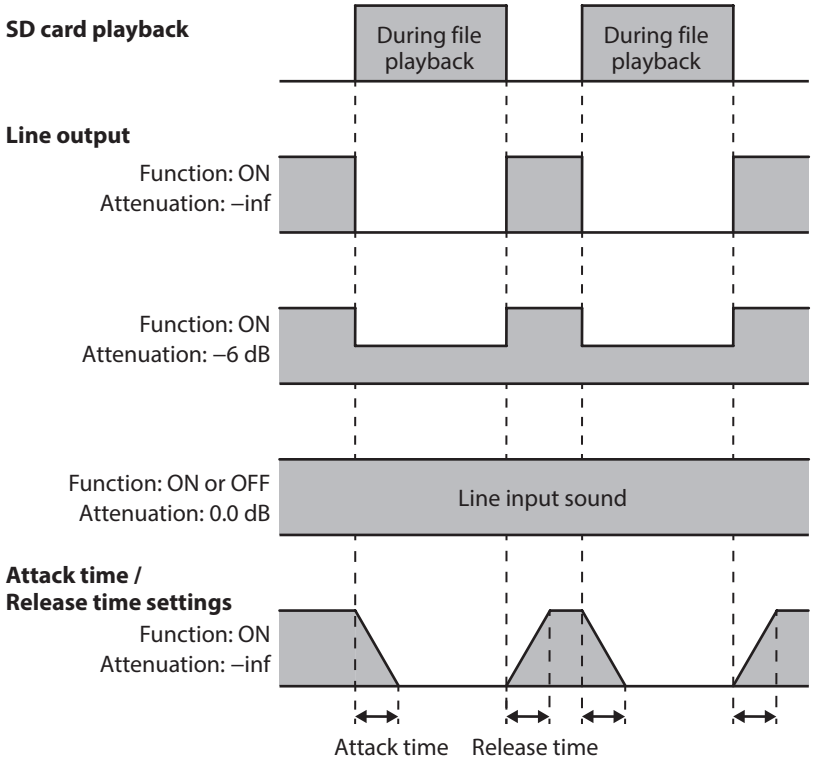
Line input settings

Line input volume can be adjusted, and the output of line input can be temporarily attenuated using SD card playback as the trigger.
This is useful for using line input as background music and overlaying narration files, for example.
The line input sound can also be faded in and out.
Use the "Input" settings to set these.

MENU → Input

Option	Explanation	Range	Default
Volume	This sets the volume of the line input.	–Inf – 0.0 dB	0.0 dB
Ducking	Using audio playback from the SD card as a trigger, this function can automatically attenuate the line output level of external input.		

Setting item		Range	Default
Function	This turns on/off the ducking function.	ON, OFF	OFF
Attenuation	This sets the attenuation value for the line input. Setting this to "–inf" will mute the line input.	–Inf – 0.0 dB	–Inf
Attack time	This sets the time until the line input is attenuated after file playback begins.	0.1 sec – 5.0 sec	0.1 sec
Release time	This sets the time until the line input returns to its original volume after file playback ends.	0.1 sec – 5.0 sec	3.0 sec



Timing diagram

External control of this unit is possible with OSC (Open Sound Control) using its Ethernet connector.
Use the Network Set. Item on the Menu Screen to make network settings.

ATTENTION

Network settings are not applied immediately. After changing settings, turn the power off once and on again.

OSC function setting

The OSC function can be enabled or disabled. The default value is OFF (disabled).

MENU → Network Set. → OSC Function

1. Select the Network Set. item on the Menu Screen and open the Network Set. Screen.



2. Select the OSC Function item on the Network Set. Screen and open the OSC Function Screen.



3. Set the OSC Function.

   Options: ON, OFF (default)

4. Confirm the setting and return to the Menu Screen.

NOTE

This setting is retained even when the unit is turned off.

IP mode setting

The IP address mode can be set.

MENU → Network Set. → IP Mode

When set to "Static", the IP Address, Subnet Mask and Gateway items are set manually.
When set to "Auto (DHCP)", the IP Address, Subnet Mask and Gateway items are set automatically.
Use this setting if there is a DHCP server on the network.

1. Select the Network Set. item on the Menu Screen and open the Network Set. Screen.



2. Select the IP Mode item on the Network Set. Screen and open the IP Mode Screen.



3. Set the IP mode.

   Options: Auto (DHCP) (default), Static

4. Confirm the setting and return to the Menu Screen.

NOTE

The IP Mode setting is retained even when the unit is turned off.

Setting the IP address (IP Address)

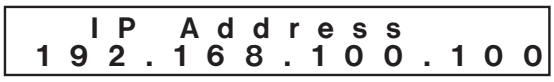
The IP address can be set.

MENU → Network Set. → IP Address

1. Select the Network Set. item on the Menu Screen and open the Network Set. Screen.



2. Select the IP Address item on the Network Set. Screen and open the IP Address Screen.



3. Use the MULTI JOG dial on the unit to input values.
   The blinking character is the cursor location (editing position). After turning the MULTI JOG dial to change the value as desired, press ENTER (MULTI JOG dial) to input the value and advance to the next character.

4. Press and hold the MULTI JOG dial to confirm the setting.
   After confirmation, the Menu Screen will reopen.

NOTE

- This cannot be set when the IP address setting mode (IP Mode) is set to "Auto (DHCP)".
- IP address settings are retained even when the unit is turned off.

Setting the subnet mask (Subnet Mask)

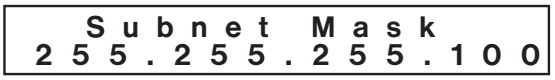
Set the subnet mask.

MENU → Network Set. → Subnet Mask

1. Select the Network Set. item on the Menu Screen and open the Network Set. Screen.



2. Select the Subnet Mask item on the Network Set. Screen and open the Subnet Mask Screen.



3. Use the MULTI-JOG dial on the unit to input values.
   The blinking character is the cursor location (editing position). After turning the MULTI JOG dial to change the value as desired, press ENTER (MULTI JOG dial) to input the value and advance to the next character.
4. Press and hold the MULTI JOG dial to confirm the setting.
   After confirmation, the Menu Screen will reopen.

NOTE

- This cannot be set when the IP address setting mode (IP Mode) is set to "Auto (DHCP)".
- IP address settings are retained even when the unit is turned off.

Setting the default gateway (Gateway)

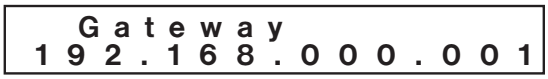
The default gateway can be set.

MENU → Network Set. → Gateway

1. Select the Network Set. item on the Menu Screen and open the Network Set. Screen.



2. Select the Gateway item on the Network Set. Screen and open the Gateway Screen.



3. Use the MULTI JOG dial on the unit to input values.
   The blinking character is the cursor location (editing position). After turning the MULTI JOG dial to change the value as desired, press ENTER (MULTI JOG dial) to input the value and advance to the next character.
4. Press and hold the MULTI JOG dial to confirm the setting.
   After confirmation, the Menu Screen will reopen.

NOTE

- This cannot be set when the IP address setting mode (IP Mode) is set to "Auto (DHCP)".
- IP address settings are retained even when the unit is turned off.

Checking the MAC address (MAC Address)

The MAC address can be checked.

MENU → Network Set. → MAC Address

1. Select the Network Set. item on the Menu Screen and open the Network Set. Screen.



2. Select the MAC Address item on the Network Set. Screen and open the MAC Address Screen.



3. Press the MULTI JOG dial (ENTER button) or BACK button to return to the Menu Screen.

Remote control

Remote control of this unit using OSC (Open Sound Control) is possible through the Ethernet connector by port 5000.

Required settings for OSC connection

The following settings are necessary to connect to this unit by OSC.

- IP address: The IP address of the unit is shown on the IP Address Screen.
- Port number: 5000
- IP version: IPv4

NOTE

- If a Network Set. item setting is changed while connected, the connection will be interrupted.
- Download the OSC command protocol specifications from the TASCAM website (https://tascam.jp/int/product/ap-10/support).

Operations available using OSC

Start/stop playback, select files, change playback mode, monitor unit status (transport state, file information, etc.)

ATTENTION

OSC does not have certification, encryption or any other security features by design.

This product is anticipated to be used in fixed applications in public transportation and professional facilities The OSC Control functions are assumed to be used in trusted closed network environments under the administration of specialists.

To ensure safe operation, use this in an environment that is isolated from external networks and the Internet.

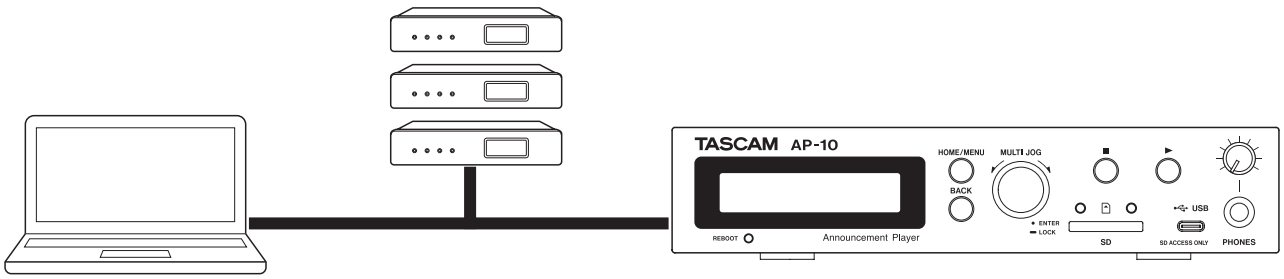
This is not intended for use on public networks or networks that allow connection by unknown parties.

Connection examples

Connection type	Recommended mode
Via router (corporate LAN, etc.)	Auto (DHCP)
Direct connection between computer and unit	Static (recommended)

Auto (DHCP)

On a network with a router or another DHCP server, setting the IP mode to "DHCP" enables the unit to automatically acquire an IP address.



Static

When connecting a computer and the unit directly, since there is no DHCP server, set the IP addresses of both manually.
Communication is enabled by setting the controller and the unit to the same IP address.



Setting the LCD backlight

The brightness of the LCD backlight can be adjusted.
Use "Backlight" to adjust the brightness.

MENU → Backlight

Option	Explanation
off	This turns the backlight off.
Low	This dims the brightness of the backlight.
Normal (default)	This is the normal backlight brightness.

Activating USB mass storage use

By enabling the USB mass storage setting, when this unit (AP-10) is connected to a computer using a USB cable, the content of the SD card installed in the unit can be recognized by the computer as an external storage device (in the same way as a USB flash drive).
This allows direct access to the audio files and folders on the SD card from the computer, enabling files to be copied and deleted, their names to be changed and other editing tasks.
Use the "USB" menu item on the unit to activate USB mass storage use.
When activated, connecting the unit to a computer by USB will allow the SD card to be shown on that computer as a removable disk.

MENU → USB → USB mass storage / Ok?

ATTENTION

- Do not interrupt the power during USB mass storage use.
- After completing file editing, select "Disconnect" on the unit. Then, end the connection on the computer.
- Other operations are disabled while the USB mass storage function is being used.

Checking the firmware version

Before starting update procedures, check the firmware version of the unit.

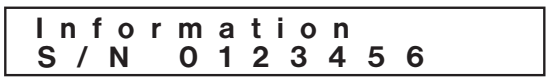
MENU → Information

1. Select the Information item on the Menu Screen to open a firmware version confirmation screen.



The firmware version confirmation screen shows information about the system firmware version.
Turn the MULTI JOG dial on the unit to cycle through the MAIN, SUB and serial number information.





2. Press the MULTI JOG dial (ENTER button) or BACK button to return to the Menu Screen.

Updating the firmware

Use an SD card for updating.

ATTENTION

Do not turn off the power during an update.
Doing so will corrupt the firmware, making updating and ordinary operation impossible.

1. Download the latest firmware from the TASCAM website (https://tascam.jp/int/product/ap-10/support).
Decompress the downloaded file if it is in ZIP format or another compressed file type.
2. Copy the "AP-10.XXX" ("XXX" is the the version number) firmware file to the root folder of the SD card. (Do not change the file name.)
3. Insert the SD card into the unit.
4. Select the Firmware Up. item on the Menu Screen to open the Version Up message.



5. Turn the MULTI JOG dial on the unit to select OK and press it.
The current and update versions are shown.



6. Press the ► (PLAY) button to start the update.



When the update completes, the following message will appear.



7. Press the REBOOT button on the front of the unit to restart the unit power (reboot).

NOTE

If the SD card has multiple firmware files, the "AP-10.XXX" file with the highest XXX version number will be selected automatically.

System backup

System settings can be exported from the unit to and imported from the SD card.

Use the "System Backup" "Export" and "Import" items to do this.

MENU → System Backup → Export / Import

- The following settings are backed up.
  Playback Area
  Playback Mode
  Playback EQ
  Output Mode
  Output Att.
  Busy-out
  Output EQ
  Input
  Backlight
- The following settings are not backed up.
  Network Set.
  Information

ATTENTION

- Do not turn off the power while importing or exporting. Media must be formatted using the AP-10 hardware.
- When moving settings data from a different unit, importing might not be possible if the system version used to create the data was different.
  - Settings data created with an older system version can be imported to a unit with a newer system version.
  - Settings data created with a newer system version cannot be imported to a unit with an older system version.
    (In this case, "Invalid Sys-File" will appear on the display.)
    To share settings data with multiple units, use units with firmware versions that are the same or newer than the unit used to prepare the data.

Factory default settings

The various settings stored in the backup memory of the unit can be restored to their factory default values.

Use "Factory Preset" for the factory default settings.

MENU → Factory Preset

1. Select the Factory Preset item on the Menu Screen.
2. Press the MULTI-JOG dial on the main unit.
   A confirmation message will appear.

```
Factory Preset
OK
```

NOTE

To cancel, press the main unit BACK button.

3. Press the MULTI JOG dial on the unit again to restore the factory default settings.
   Turn the power off and on again.

NOTE

The various Network settings, including external control (OSC) settings will be reset.

Display message list

Message	Explanation	Corrective Action
No Media	No SD card is installed.	Insert an SD card.
Protected Media	Write-protection is enabled on the SD card.	Disable SD card write protection.
Cannot Execute	The operation cannot be done during playback, for example.	Stop playback and try again.
Card Error	The SD card could not be read properly.	Reinsert the SD card. Reformat or replace it if necessary.
No System File	The system file is missing.	Check the system file. Contact TASCAM support if necessary.
Sys-File Error	Loading the system file failed.	Reboot the unit. Contact TASCAM support if the error persists.
Invalid Sys-File	The system file is invalid.	Verify file compatibility. Contact TASCAM support if necessary.
File Not Found	The specified file does not exist.	Check the file name and playback area settings.
Card slow	The media loading speed has become slow.	Use a recommended SD card. Reformat the card if necessary.
Non-Supported	The file is a format that cannot be played.	Convert the file to a supported 48 kHz / 24-bit WAV format.
Player Error	The playback function is not working properly.	Reboot the unit and check the SD card and audio file.
Fatal Error! XX Please Power Off	A serious error has occurred. Reboot the unit. (XX is a number.)	Reboot the unit. Contact TASCAM support if the error persists.
Initialize error XX	Initialization failed. Reboot the unit. (XX is a number.)	

7 - 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 AC adapter plug and the power cable, for example, are securely connected.
- If supplying power from an external power unit (DC power supply), confirm the specifications of that unit and the connections with the GPIO connector EXT DC IN and GND pins.
- The supported power supply specifications for external power supply units (DC power supplies) that can be used are as follows.
  - Voltage: DC 12–24 V
  - Current: 1200 mA

The SD card is not recognized

- Confirm that the SD card is loaded completely.
- Confirm that the SD card is one that has been confirmed for operation with the unit.
- Confirm that it has been formatted with the AP-10 hardware.

The unit does not function

- Confirm that the panel lock function is not on.

Playback is not possible

- Confirm that it is a WAV file with the sampling frequency (48 kHz) and bit depth (24-bit) supported by this unit.
- This unit cannot play files that are larger than 2 GB. Try a file that is smaller than 2 GB.
- Does the folder or file name use Japanese, Chinese or other non-ASCII characters?

No sound is output

- Check connections with the monitoring system again.
- Check the power and volume of the connected amplifier.

There is noise

- Confirm that the connection cables do not have contact issues.

Nothing appears on the display or it is dim

- Confirm that the display brightness setting is not set to "off". (See "Setting the LCD backlight" on page 48.)

A computer does not recognize the unit

- This unit cannot be used with USB 1.1. Use a port that supports at least USB 2.0 or 3.0.
- Do not use a USB hub for connection. Always connect the unit directly to a USB port on the computer.
- If the above methods do not resolve the problem, connect the unit to a different USB port on the computer.
- Is the cable being used designed only for charging? Use a cable that can transmit data.

8 - Specifications and ratings

General

Supported media

SD cards (512 MB – 2 GB, Class 10 or higher)
SDHC cards (4 GB – 32 GB, Class 10 or higher)
SDXC cards (64 GB – 512 GB, Class 10 or higher)

- Media must be formatted by the AP-10 hardware. (FAT16 for up to 2 GB, FAT32 for more than 2 GB up to 4GB, and exFAT for more than 4 GB)
- We strongly recommend using media confirmed to work with this product.

Playback file formats

WAV 48kHz, 24-bit (LPCM)
Maximum size per file: 2 GB
Maximum number of files: 999 (including folders)

Number of channels

2 channels (stereo)
1 channel (mono)

Input and output ratings

Analog audio input and output ratings

ANALOG OUTPUT (BALANCED) jacks

Connectors: Euroblock (balanced) 3.81mm pitch
Rated output level: +4 dBu (1.23 Vrms, when output attenuation set to off)
Maximum output level: +24 dBu (12.3 Vrms, when output attenuation set to off)
Output impedance: 100 Ω

ANALOG OUTPUT (UNBALANCED) jacks

Connectors: RCA pin jacks
Rated output level: –10 dBV (0.316 Vrms, when output attenuation set to off)
Maximum output level: +6 dBV (2.0 Vrms, when output attenuation set to off)
Output impedance: 210 Ω

Analog INPUT (UNBALANCED) jacks

Connectors: RCA pin jacks
Rated input level: -10 dBV (0.316 Vrms)
Maximum input level: +6 dBV (2.0 Vrms)
Input impedance: 10 kΩ or higher

PHONES jack

Connector: 6.3mm (1/4") standard stereo jack
Maximum output: 20 mW + 20 mW or higher (THD+N 0.1% or less, into 32Ω load)
Recommended impedance: 16–600 Ω (With low-impedance headphones, sufficient volume might not be achieved even if they are in the recommended range.)

Control input and output ratings

USB port

Connector: USB Type-C
Standard: USB 2.0 HIGH SPEED (480 Mbps)
Device class: mass storage

ETHERNET connector

Connector: RJ-45
Transmission protocol: OSC (Open Sound Control)
Port number: 5000
Ethernet standard: 100BASE-TX
Cable: category 5e or faster

GPIO connector

Connector: D-sub 25-pin female (Locking screws: No. 4-40 UNC (inch type))

Audio performance

Frequency response

20 Hz – 20 kHz: ±1.0 dB(SD playback to analog output, JEITA)

Distortion

0.008% or less (SD playback to analog output, JEITA)

S/N ratio

93 dB or higher (SD playback to analog output, JEITA)

Dynamic range

90 dB or higher (SD playback to analog output, JEITA)

Channel separation

90 dB or higher (SD playback to analog output, 1 kHz sine wave, JEITA)

Other

Power

Dedicated AC adapter (TASCAM PS-P1220E)

Power consumption

4 W

Dimensions

214.0 × 44.2 × 165.2 mm (W x H x D, excluding protrusions)
214.0 × 46.5 × 181.7 mm (W x H x D, including protrusions)

Weight

1.2 kg

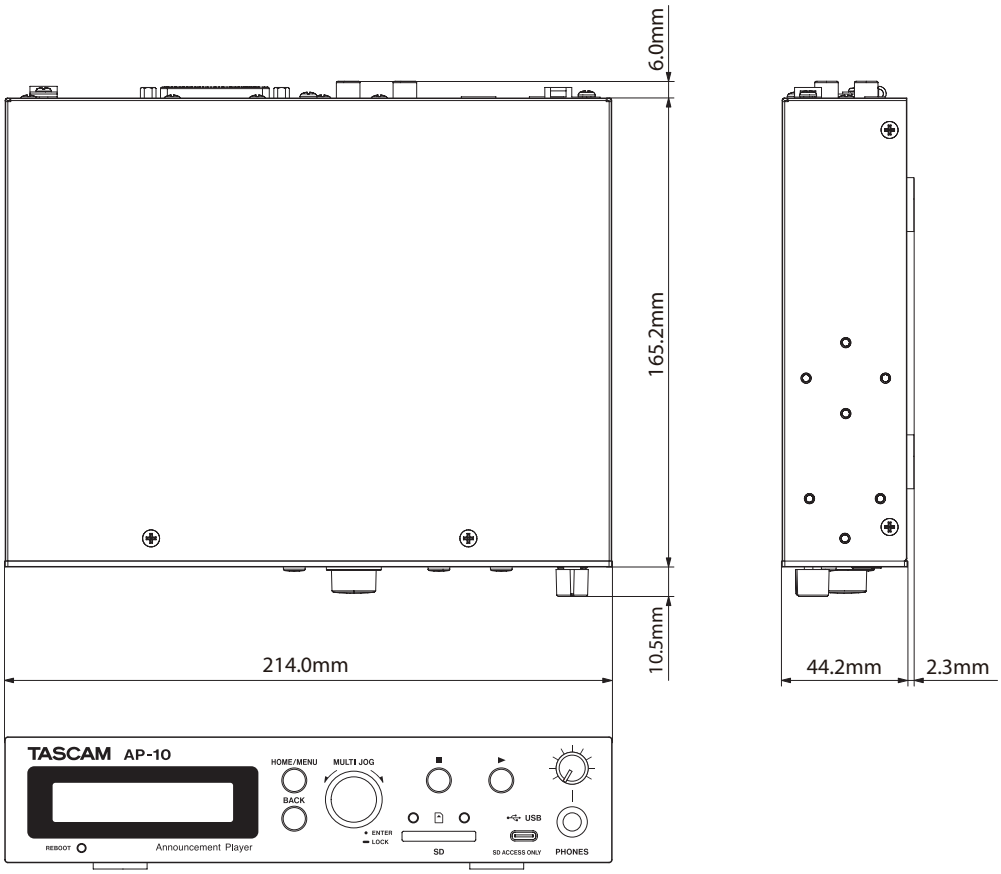
Operating temperature range

0 – 40°C (32 – 104°F)

Operating humidity range

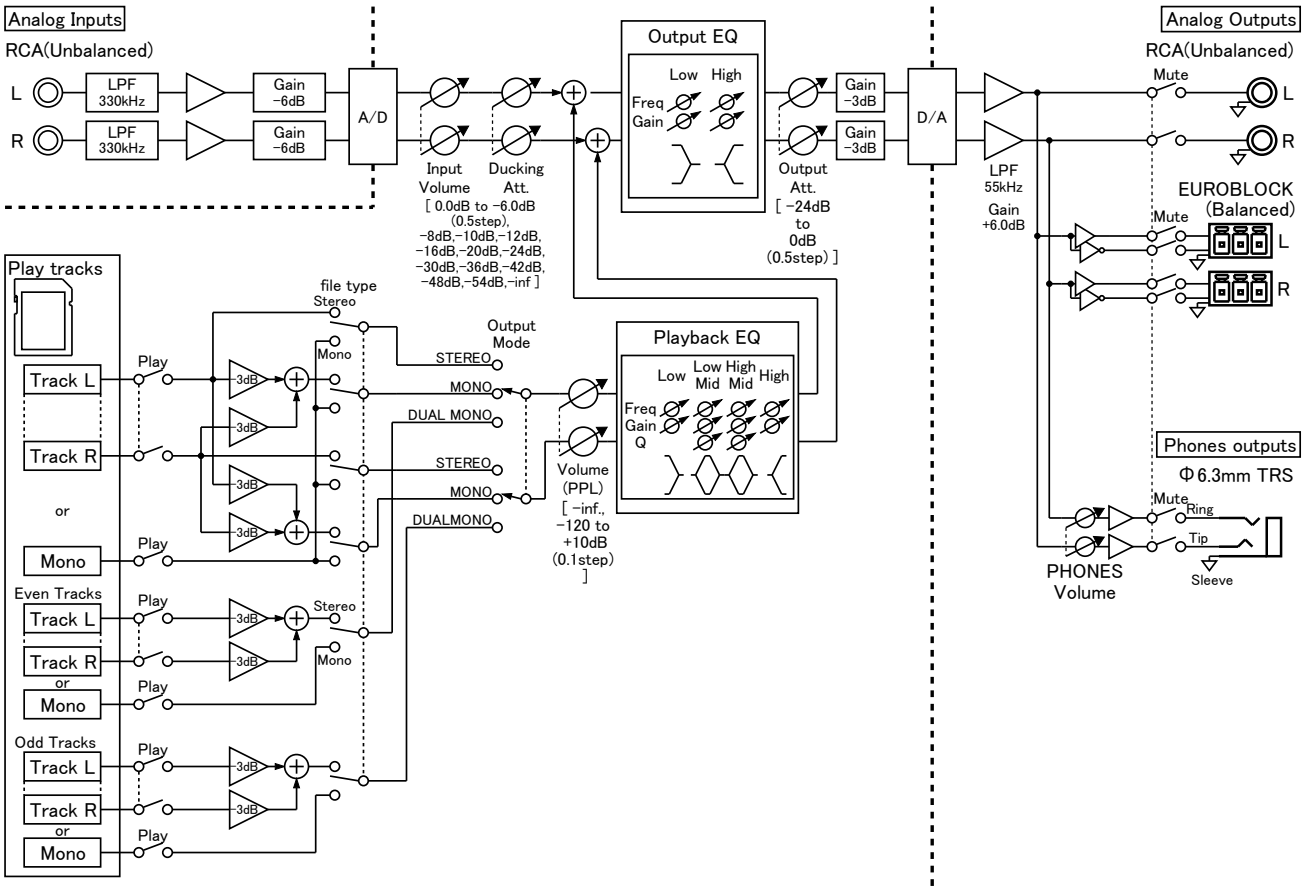
25 – 85%RH (at 32°C, without condensation)

Dimensional drawings



- 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.

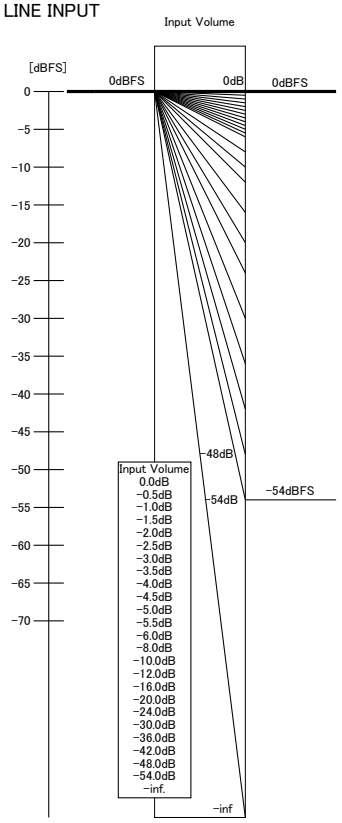
Block diagram



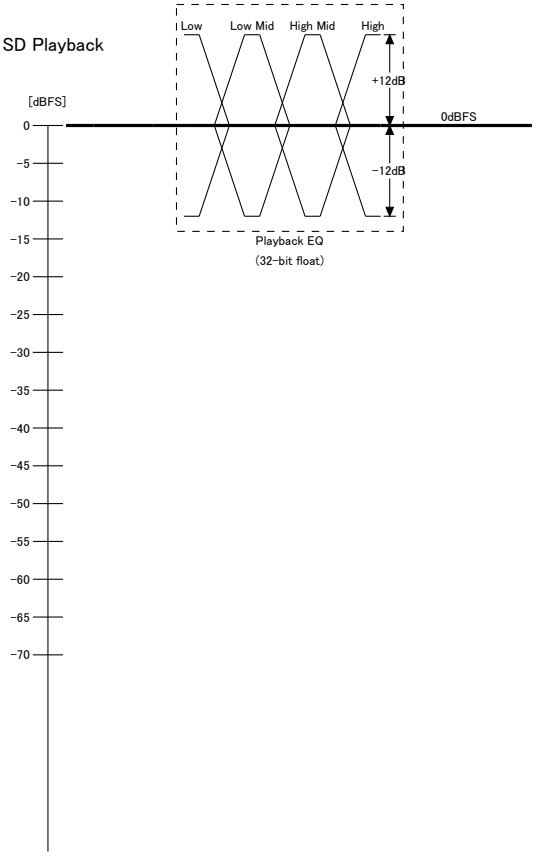
Level diagram

DSP (1/2)

LINE INPUT

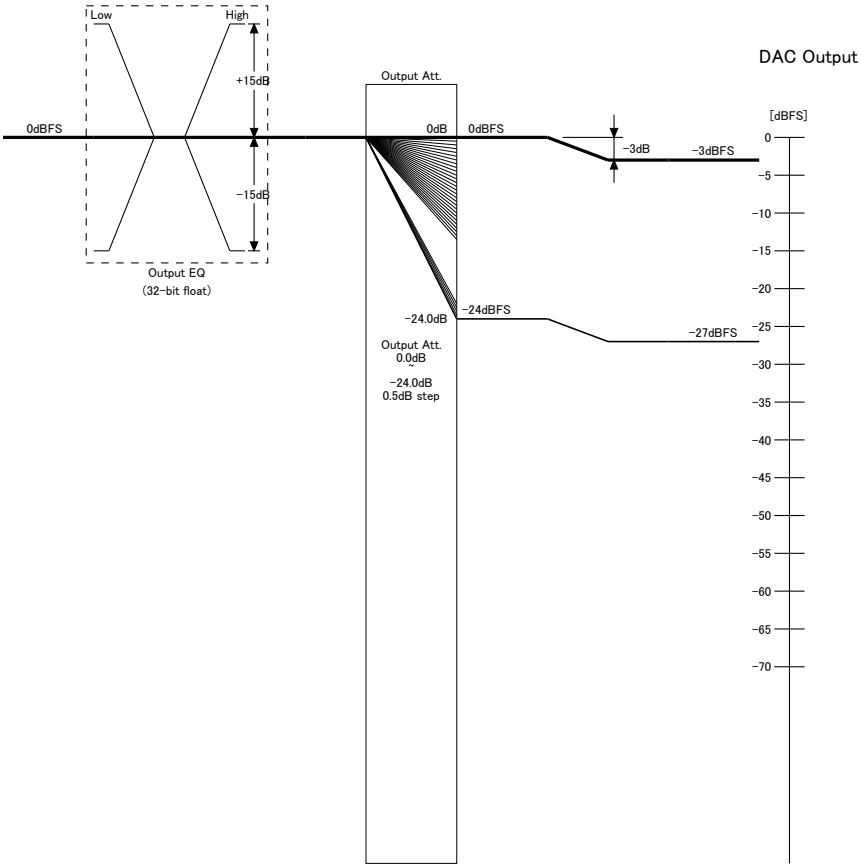


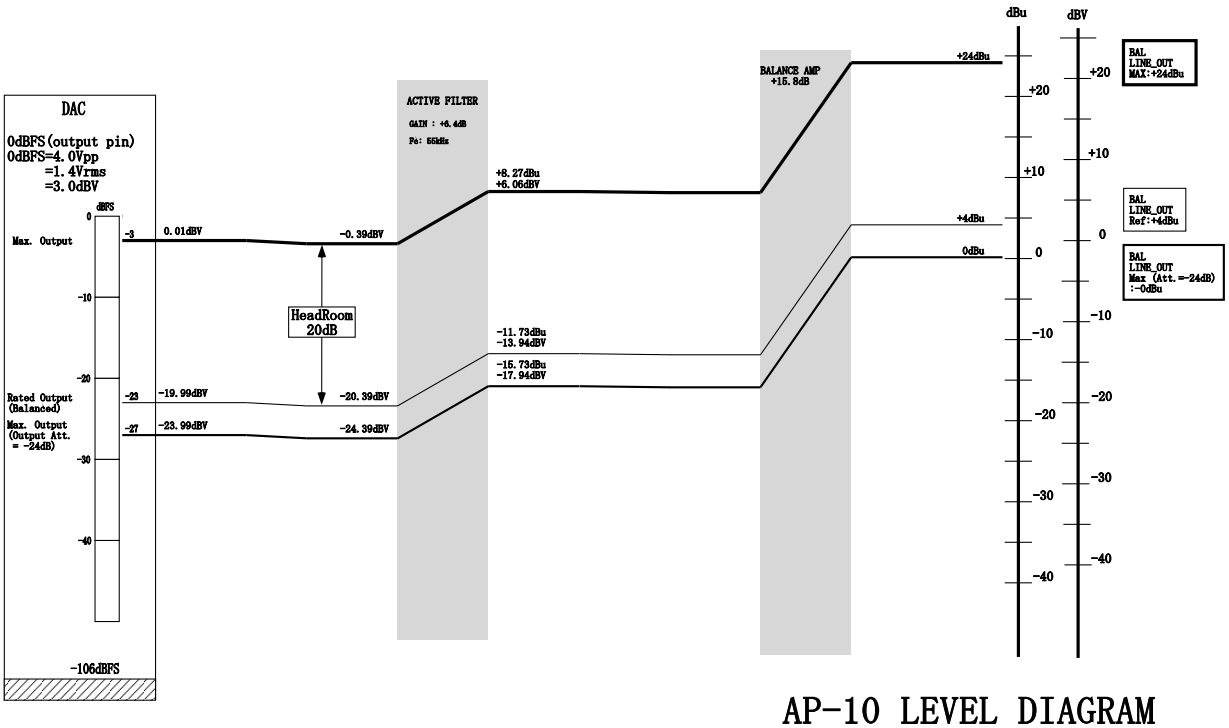
SD Playback



DSP (2/2)

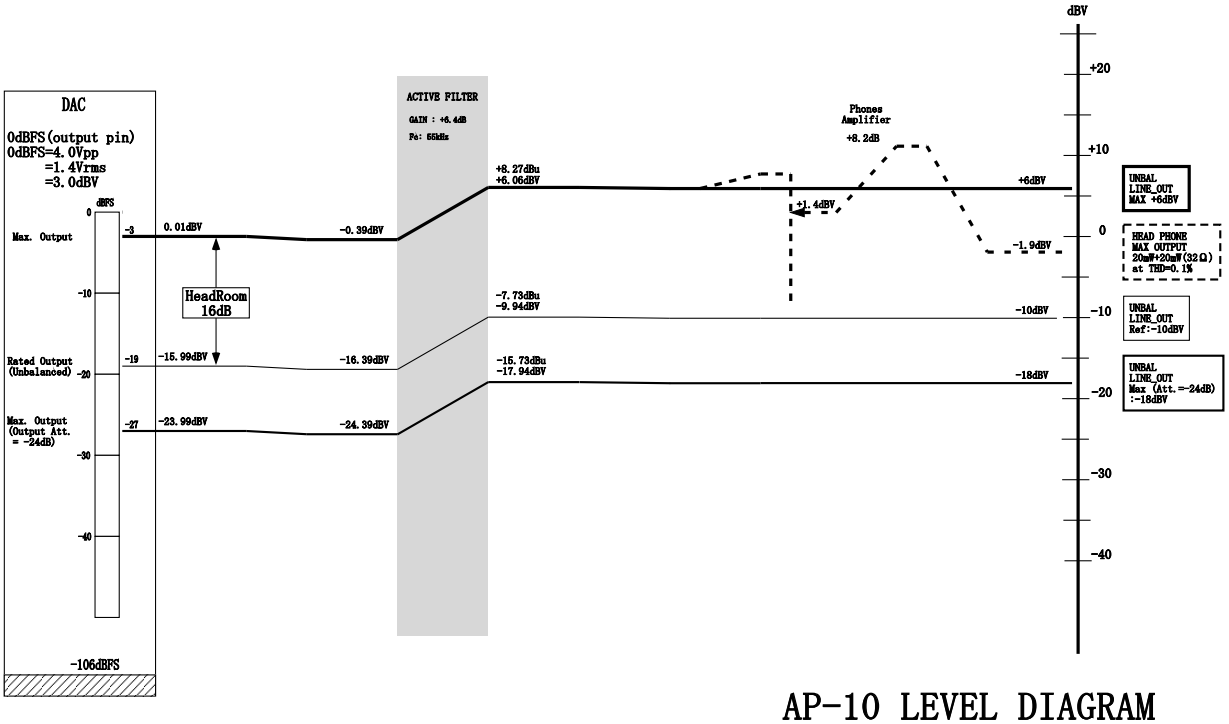
LINE INPUT & SD Playback Mixed
(32-bit float)





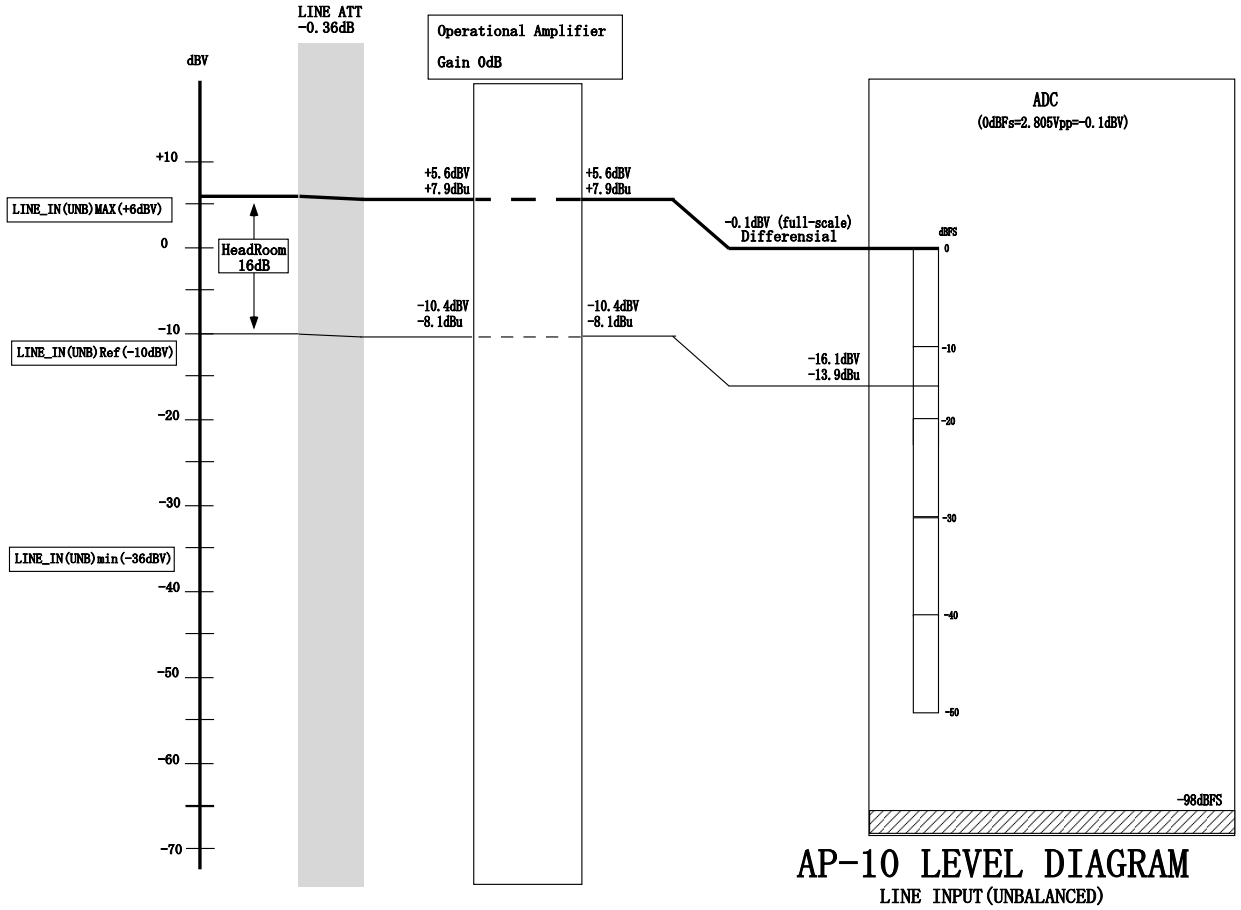
AP-10 LEVEL DIAGRAM

LINE OUT (BAL)



AP-10 LEVEL DIAGRAM

LINE OUT(UNBAL) PHONE OUTPUT


LINE ATT
-0.36dB
Operational Amplifier
Gain 0dB
ADC
(0dBFs=2.805Vpp=-0.1dBV)
dBV
+10
0
-10
-20
-30
-40
-50
-60
-70
LINE_IN(UNB)MAX(+6dBV)
LINE_IN(UNB)Ref(-10dBV)
LINE_IN(UNB)min(-36dBV)
HeadRoom
16dB
+5.6dBV
+7.9dBu
+5.6dBV
+7.9dBu
-10.4dBV
-8.1dBu
-10.4dBV
-8.1dBu
-0.1dBV (full-scale)
Differensial
-16.1dBV
-13.9dBu
dBFS
0
-10
-20
-30
-40
-60
-98dBFS
AP-10 LEVEL DIAGRAM
LINE INPUT(UNBALANCED)

9 - PPL file specifications

Parameters

Tag	Tag explanation	FORMAT	Sub-parameter	Values	min	max	def.	step	unit	Sub-parameter explanation	Note
<language>	Character code	Free text		UTF-8			-	-			
<version>	Version	x.x		1.0			1.0	0.1			
<date>	Creation date	yyyy-mm-dd		yyyy - year CE, mm - month, dd - day			-	day			
<time>	Creation time	hh:mm:ss		hh- hour, mm -minute, ss - second			-	sec			
<title>	Title	Free text					-	-			Max256byte
<type>	Playlist type	Select from the values at right		direct/single/interval/binary/program1/program2/program3/program4/program5			direct	-			
<items>	Number of items in the ppl	xxx		Direct/single/interval: 0 – 9 Binary: 0 – 250 program1/program2/program3/program4/program5: 0 – 100	0	250	0	1			
<maker>	Maker name	Free text						-			
<product>	Product name	Free text						-			
<comment>	Comment	Free text					-	-			Max256byte
<outnumber>	Item number	Axxx		direct/single/interval: A001 – A009 binary: A001 – A250 program1/program2/program3/program4/program5: A001 – A100			-	1			
<fname>	File name	../nnnnn									
<sname>	Alternate item name	Free text					-	-			Character string shown during playback Max256byte
<offset>	Playback range	in=xxxxx	in	0 to audio sample size	0	file end fs	0	1	sample	Playback start position	
		out=xxxxx	out	"in" to audio sample size	in	file end fs	file end fs	1	sample	Playback end position	
<fade>	Fade in/out times	in=xx.xxx	in	0.000 – 59.99	0	2880000	0	1	sample	Fade in time	
		out=xx.xxx	out	0.000 – 59.99	0	2880000	0	1	sample	Fade out time	
<gain>	Playback gain	x.x	gain	10.0 – –120.0/–150.0 (equivalent to –inf)	–150.0 (equivalent to –inf)	10.0	0.0	0.1	dB	Playback volume	
<delay>	Delay	xx.xxx		0.000 – 59.999	0.000	59.999	0.000	0.001	sec		
<ab_repeat>	AB repeat parameters	in=xxxxx	in	0 to audio sample size	0	file end fs	0	1	sample	Repeat start position	
		out=xxxxx	out	"in" to audio sample size	in	file end fs	file end fs	1	sample	Repeat end position	
		count=x	count	0 – 100/–1 (equivalent to inf)	–1	100	0	1	times	Repeat count	
<track_repeat>	Track repeat parameters	interval=x.xxx	interval	0.000 – 3600.000	0.00	3600	0.00	0.001	sec	Repeat interval	
		count=x	count	0 – 100/–1 (equivalent to inf)	–1	100	0	1	times	Repeat count	
<control_out>	Control out parameter	x		–1 (equivalent to OFF) / 0–3600	–1	3600	–1	1	sec		
<ftype>	File type	Select from the values at right		POLY/MONO			POLY	-			

Text example

```
<ppl>
    <head>
        <language>UTF-8</language>                                  Character code
        <version>1.0</version>                                      Version
        <date>2025-07-01</date>                                     Creation date
        <time>00:03:45</time>                                       Creation time
        <title></title>                                             Title
        <type>direct</type>                                         Playlist type
        <items>9</items>                                            Number of items in the ppl
        <maker></maker>                                             Maker name
        <product></product>                                         Product name
        <comment></comment>                                         Comment
    </head>
    <body>
        <item>
            <outnumber>A001</outnumber>                             Item number
            <fname>/audio_file1.wav</fname>                         File name
            <sname>disp_name1</sname>                               Alternate item name
            <offset>in=1000,out=2880000</offset>                    Playback range
            <fade>in=10.000,out=20.000</fade>                       Fade in/out times
            <gain>0.0</gain>                                        Playback gain
            <delay>0.000</delay>                                    Delay
            <ab_repeat>in=48000,out=480000,count=1</ab_repeat>      AB repeat parameters
            <track_repeat>interval=0.000,count=1</track_repeat>     Track repeat parameters
            <control_out>0</control_out>                            Control out parameter
            <ftype>POLY</ftype>                                     File type
        </item>
        <item>
            <outnumber>A002</outnumber>                             Item number
            <fname>/audio_file2.wav</fname>                         File name
            <sname>disp_name2</sname>                               Alternate item name
            <offset>in=1000,out=2880000</offset>                    Playback range
            <fade>in=1.000,out=2.000</fade>                         Fade in/out times
            <gain>1.1</gain>                                        Playback gain
            <delay>0.000<delay>                                     Delay
            <ab_repeat>in=0,out=480000,count=1</ab_repeat>          AB repeat parameters
            <track_repeat>interval=0.000,count=1</track_repeat>     Track repeat parameters
            <control_out>0</control_out>                            Control out parameter
            <ftype>POLY</ftype>                                     File type
        </item>
        <item>
            <outnumber>A003</outnumber>                             Item number
            <fname>/audio_file3.wav</fname>                         File name
            <sname>disp_name3</sname>                               Alternate item name
            <offset>in=1000,out=2880000</offset>                    Playback range
            <fade>in=1.000,out=2.000</fade>                         Fade in/out times
            <gain>1.0</gain>                                        Playback gain
            <delay>1.000</delay>                                    Delay
```

<ab_repeat>in=48000,out=960000,count=2</ab_repeat>	AB repeat parameters
<track_repeat>interval=1.000,count=2</track_repeat>	Track repeat parameters
<control_out>0</control_out>	Control out parameter
<ftype>POLY</ftype>	File type
</item>	
<item>	
<outnumber>A004</outnumber>	Item number
<fname>/audio_file4.wav</fname>	File name
<sname>disp_name4</sname>	Alternate item name
<offset>in=1000,out=2880000</offset>	Playback range
<fade>in=1.000,out=2.000</fade>	Fade in/out times
<gain>1.0</gain>	Playback gain
<delay>1.000</delay>	Delay
<ab_repeat>in=96000,out=1440000,count=3</ab_repeat>	AB repeat parameters
<track_repeat>interval=2.000,count=3</track_repeat>	Track repeat parameters
<control_out>0</control_out>	Control out parameter
<ftype>POLY</ftype>	File type
</item>	
<item>	
<outnumber>A005</outnumber>	Item number
<fname>/audio_file5.wav</fname>	File name
<sname>disp_name5</sname>	Alternate item name
<offset>in=1000,out=2880000<//offset>	Playback range
<fade>in=1.020,out=2.020</fade>	Fade in/out times
<gain>1.0</gain>	Playback gain
<delay>2.000</delay>	Delay
<ab_repeat>in=144000,out=1920000,count=4</ab_repeat>	AB repeat parameters
<track_repeat>interval=3.000,count=4</track_repeat>	Track repeat parameters
<control_out>0</control_out>	Control out parameter
<ftype>POLY</ftype>	File type
</item>	
<item>	
<outnumber>A006</outnumber>	Item number
<fname>/audio_file6.wav</fname>	File name
<sname>disp_name6</sname>	Alternate item name
<offset>in=1000,out=2880000</offset>	Playback range
<fade>in=2.000,out=4.000</fade>	Fade in/out times
<gain>1.0</gain>	Playback gain
<delay>0.000</delay>	Delay
<ab_repeat>in=192000,out=2400000,count=5</ab_repeat>	AB repeat parameters
<track_repeat>interval=4.000,count=5</track_repeat>	Track repeat parameters
<control_out>0</control_out>	Control out parameter
<ftype>POLY</ftype>	File type
</item>	
<item>	
<outnumber>A007</outnumber>	Item number
<fname>/audio_file7.wav</fname>	File name
<sname>disp_name7</sname>	Alternate item name
<offset>in=1000,out=2880000</offset>	Playback range
<fade>in=2.100,out=4.100</fade>	Fade in/out times

<gain>1.0</gain>	Playback gain
<delay>1.000</delay>	Delay
<ab_repeat>in=240000,out=2880000,count=6</ab_repeat>	AB repeat parameters
<track_repeat>interval=5.000,count=6</track_repeat>	Track repeat parameters
<control_out>0</control_out>	Control out parameter
<ftype>POLY</ftype>	File type

```
        </item>
        <item>
```

<outnumber>A008</outnumber>	Item number
<fname>/audio_file8.wav</fname>	File name
<sname>disp_name8</sname>	Alternate item name
<offset>in=1000,out=2880000</offset>	Playback range
<fade>in=2.100,out=4.100</fade>	Fade in/out times
<gain>1.0</gain>	Playback gain
<delay>2.000</delay>	Delay
<ab_repeat>in=288000,out=3360000,count=7</ab_repeat>	AB repeat parameters
<track_repeat>interval=6.000,count=7</track_repeat>	Track repeat parameters
<control_out>0</control_out>	Control out parameter
ftype>POLY</ftype>	File type

```
        </item>
        <item>
```

<outnumber>A009</outnumber>	Item number
<fname>/audio_file9.wav</fname>	File name
<sname>disp_name9</sname>	Alternate item name
<offset>in=1000,out=2880000</offset>	Playback range
<fade>in=2.030,out=4.030</fade>	Fade in/out times
<gain>1.0</gain>	Playback gain
<delay>3.000</delay>	Delay
<ab_repeat>in=336000,out=3840000,count=8</ab_repeat>	AB repeat parameters
<track_repeat>interval=7.000,count=8</track_repeat>	Track repeat parameters
<control_out>0</control_out>	Control out parameter
<ftype>POLY</ftype>	File type

```
        </item>
    </body>
</ppl>
```

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