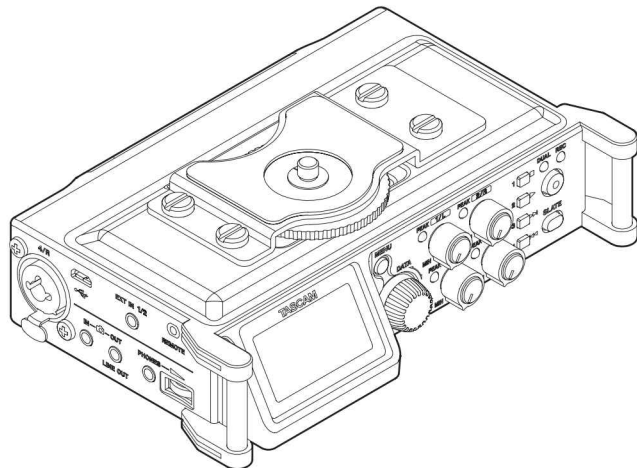


TASCAM

DR-70D

Linear PCM Recorder for DSLR



D01244000E

OWNER'S MANUAL

ENGLISH

MODE D'EMPLOI

FRANÇAIS

MANUAL DEL USUARIO

ESPAÑOL

BEDIENUNGSANLEITUNG

DEUTSCH

MANUALE DI ISTRUZIONI

ITALIANO

取扱説明書

日本語

Blackfin
PROCESSOR
by
Analog Devices

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Owner's Manual

IMPORTANT SAFETY PRECAUTIONS

For U.S.A.

INFORMATION TO THE USER

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

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

CAUTION

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

For Canada

THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.
CET APPAREIL NUMERIQUE DE LA CLASSE B EST CONFORME A LA NORME
NMB-003 DU CANADA.

Declaration of Conformity

Responsible party : TEAC AMERICA, INC.

Address : 10410 Pioneer Blvd. Suite #1 and #4,
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.



DECLARATION OF CONFORMITY

We, TEAC EUROPE GmbH, Bahnstrasse 12, 65205 Wiesbaden-Erbenheim, Germany declare in own responsibility, the TEAC product described in this manual is in compliance with the corresponding technical standards.



IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or

the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
 - 11 Only use attachments/accessories specified by the manufacturer.
 - 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
 - 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
 - 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The apparatus draws nominal non-operating power from the AC outlet with its POWER or STANDBY/ON switch not in the ON position.
 - The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.
 - Caution should be taken when using earphones or headphones with the product because excessive sound pressure (volume) from earphones or headphones can cause hearing loss.
 - If you are experiencing problems with this product, contact TEAC for a service referral. Do not use the product until it has been repaired.



CAUTION

- Do not expose this apparatus to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus should be located close enough to the AC outlet so that you can easily grasp the power cord plug at any time.

- If the product uses batteries (including a battery pack or installed batteries), they should not be exposed to sunshine, fire or excessive heat.
- CAUTION for products that use replaceable lithium batteries: there is danger of explosion if a battery is replaced with an incorrect type of battery. Replace only with the same or equivalent type.

CAUTIONS ABOUT BATTERIES

This product uses batteries. Misuse of batteries could cause a leak, rupture or other trouble. Always abide by the following precautions when using batteries.

- Never recharge non-rechargeable batteries. The batteries could rupture or leak, causing fire or injury.
- When installing batteries, pay attention to the polarity indications (plus/minus (+/-) orientation), and install them correctly in the battery compartment as indicated. Putting them in backward could make the batteries rupture or leak, causing fire, injury or stains around them.
- When you store or dispose batteries, isolate their terminals with insulation tape or something like that to prevent them from contacting other batteries or metallic objects.
- When throwing used batteries away, follow the disposal instructions indicated on the batteries and the local disposal laws.
- Do not use batteries other than those specified. Do not mix and use new and old batteries or different types of batteries together. The batteries could rupture or leak, causing fire, injury or stains around them.
- Do not carry or store batteries together with small metal objects. The batteries could short, causing leak, rupture or other trouble.
- Do not heat or disassemble batteries. Do not put them in fire or water. Batteries could rupture or leak, causing fire, injury or stains around them.
- If the battery fluid leaks, wipe away any fluid on the battery case before inserting new batteries. If the battery fluid gets in an eye, it could cause loss of eyesight. If fluid does enter an eye, wash it out thoroughly with clean water without rubbing the eye and then consult a doctor immediately. If the fluid gets on a person's body or clothing, it could cause skin injuries or burns. If this should happen, wash it off with clean water and then consult a doctor immediately.
- The unit power should be off when you install and replace batteries.
- Remove the batteries if you do not plan to use the unit for a long time. Batteries could rupture or leak, causing fire, injury or stains around them. If the

battery fluid leaks, wipe away any fluid on the battery compartment before inserting new batteries.

- Do not disassemble a battery. The acid inside the battery could harm skin or clothing.

■ For European Customers

Disposal of electrical and electronic equipment

- All electrical and electronic equipment should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
- By disposing of the electrical and electronic equipment correctly, you will help save valuable resources and prevent any potential negative effects on human health and the environment.
- Improper disposal of waste equipment can have serious effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.
- The crossed out wheeled dust bin symbol indicates that electrical and electronic equipment must be collected and disposed of separately from household waste.
- The return and collection systems are available to the end users. For more detailed information about disposal of old electrical and electronic equipment, please contact your city office, waste disposal service or the shop where you purchased the equipment.



Disposal of batteries and/or accumulators

- Waste batteries and/or accumulators should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
- By disposing of waste batteries and/or accumulators correctly, you will help save valuable resources and prevent any potential negative effects on human health and the environment.
- Improper disposal of waste batteries and/or accumulators can have serious effects on the environment and human health as a result of the presence of hazardous substances in batteries and/or accumulators.
- The crossed out wheeled dust bin symbol indicates that batteries and/or accumulators must be collected and disposed of separately from household waste.

If the battery or accumulator contains more than the specified values of lead (Pb), mercury (Hg), and/or cadmium (Cd) defined in the Battery Directive (2006/66/EC), then the chemical symbols for lead (Pb), mercury (Hg) and/or cadmium (Cd) will be indicated beneath the crossed out wheeled dust bin symbol.



Pb, Hg, Cd

- The return and collection systems are available to the end users. For more detailed information about disposal of waste batteries and/or accumulators, please contact your city office, waste disposal service or the shop where you purchased them.

Contents

Introduction	6
Items included with this product	6
Note about the Reference Manual	7
Precautions for placement and use	7
Beware of condensation	7
Cleaning the unit	7
Using the TEAC Global Site	7
User registration	7
About TASCAM customer support service	7
Names of Parts	8
Front panel	8
Rear panel	8
Left side panel	8
Right side panel	9
Top panel	9
Bottom Panel	9
Home Screen	9
Preparation	10
Powering the unit	10
Turning the unit on	10
Setting the built-in clock	10
Turning the unit off (putting it in standby)	11
Inserting SD cards	11
Camera connection and attachment	11
Connecting external mics and monitoring equipment	11
Basic operation procedures	12
Menu structure	12
Recording	12
Recording Screen	12
Menu structure	13

Setting input destinations	13
Adjusting the input level	14
Using the limiter	14
Setting the low-cut filter	14
Recording formats	15
Recording (MONO/STEREO/2MIX)	15
Playback	16
Adjusting the playback volume	16
Playing recordings	16
Selecting files for playback (skipping)	16
Connecting with a Computer	16
Connecting with a computer using USB	16
Exchanging files with a computer	16
Disconnecting from a computer	16
Other settings and information	16
System Settings	16
Quick reference for using various functions	17
Message	19
Troubleshooting	20
Specifications	21
Ratings	21
Inputs and outputs	21
Audio performance	21
Recording times (in hours: minutes: seconds)	21
Requirements for connected computers	22
General	22

Introduction

Thank you very much for purchasing the TASCAM DR-70D.

Before connecting and using this unit, please take time to read this manual thoroughly to ensure you understand how to properly set it up and connect it, as well as the operation of its many useful and convenient functions.

After you have finished reading this manual, please keep it in a safe place for future reference. This Owner's Manual explains the main functions of this unit. Please see the Reference Manual for information about all the unit's functions.

This product has a Blackfin® 16/32-bit embedded processor made by Analog Devices, Inc. This processor controls the unit's digital signal processing. Inclusion of this Blackfin® processor in the product increases its performance and reduces its power consumption.

Items included with this product

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
- USB cable × 1
- Camera attachment bracket
 screw hole covers × 6
- Owner's Manual (this document)
 including warranty × 1

Note about the Reference Manual

This Owner's Manual explains the main functions of this unit. Please see the Reference Manual for information about all the unit's functions. You can also download this Owner's Manual and the Reference Manual from the TEAC Global Site (<http://teac-global.com/>).

1. Open the TEAC Global Site (<http://teac-global.com/>).
2. In the TASCAM Downloads section, click the desired language to open the Downloads website page for that language.

NOTE

If the desired language does not appear, click Other Languages.

3. Click the product name in the "Search by Model Name" section to open the Downloads page for that product.
4. Select and download the Owner's Manual and the Reference Manual that are needed.

Precautions for placement and use

- The environmental temperature operating range of this unit is 0–40°C (32–104°F).
- Do not install this unit in the following types of locations. Doing so could degrade the sound quality and/or cause malfunctions.

Places with significant vibrations

Near windows or other places exposed to direct sunlight

Near heaters or other extremely hot places

Extremely cold places

Places with bad ventilation or high humidity
Very dusty locations

Places exposed directly to rain or other water

- Do not place this unit on top of a power amplifier or other device that generates heat.
- If this unit is placed near a power amplifier or other device with a large transformer, it could cause a hum. If this occurs, increase the distance between this unit and the other device.
- This unit could cause color irregularities on a TV screen or noise from a radio if used nearby. If this occurs, use this unit farther away.
- This unit might produce noise if a mobile phone or other wireless device is used nearby to make calls or send or receive signals. If this occurs, increase the distance between this unit and those devices or turn them off.
- To enable good heat dissipation, do not place anything on top of this unit.
- Do not place this unit on top of a power amplifier or other device that generates heat.

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.

Using the TEAC Global Site

You can download updates for this unit from the TEAC Global Site:<http://teac-global.com/>In the TASCAM Downloads section, select the desired language to open the Downloads website page for that language.

User registration

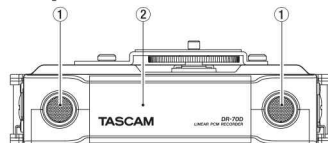
Customers in the USA, please visit the TASCAM website (<https://tascam.com/us/>) to register as a user online.

About TASCAM customer support service

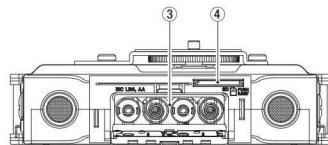
TASCAM products are supported and warranted only in their country/region of purchase. To receive support after purchase, on the TASCAM Distributors list page of the TEAC Global Site (<http://teac-global.com/>), search for the local company or representative for the region where you purchased the product and contact that organization. When making inquiries, the address (URL) of the shop or web shop where it was purchased and the purchase date are required. Moreover, the warranty card and proof of purchase might also be necessary.

Names of Parts

Front panel

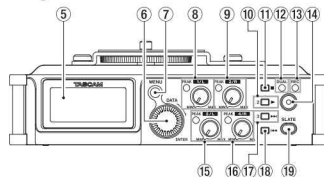


- ① Built-in stereo microphone
- ② Front cover



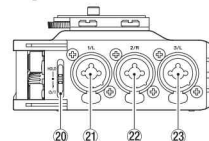
- ③ Battery compartment
- ④ SD card slot

Rear panel



- ⑤ **Display**
- ⑥ **DATA dial (ENTER)**
Turn to select items and change values on setting screens.
- ⑦ **MENU button**
- ⑧ **1/L knob and PEAK indicator**
- ⑨ **2/R knob and PEAK indicator**
- ⑩ **2/▶ button**
- ⑪ **1/■ button**
- ⑫ **DUAL indicator**
This lights when dual recording mode is selected.
- ⑬ **REC indicator**
This lights red when recording.
- ⑭ **Record (●) button**
- ⑮ **3/L knob and PEAK indicator**
- ⑯ **4/R knob and PEAK indicator**
- ⑰ **3/▶▶ button**
- ⑱ **4/◀◀ button**
- ⑲ **SLATE button**
Use to record slate tones.

Left side panel

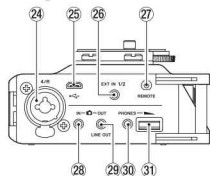


NOTE

When connecting and using plugs from external devices, do not apply excessive force to the plugs. Doing so could damage the equipment.

- ⑳ **HOLD/⏻ / | switch**
- ㉑ **1/L connector (XLR/TRS)**
- ㉒ **2/R connector (XLR/TRS)**
- ㉓ **3/L connector (XLR/TRS)**

Right side panel

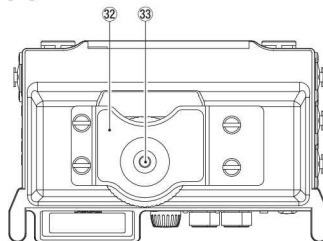


NOTE

When connecting and using plugs from headphones and other external devices, do not apply excessive force to the plugs. In particular, be careful not to apply too much force when using a standard to mini plug adapter. Doing so could damage the equipment.

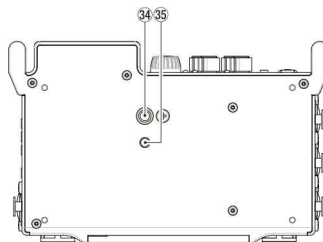
- 24 4/R connector (XLR/TRS)
- 25 Micro USB port
- 26 EXT IN 1/2 connector (3.5mm stereo mini jack)
- 27 REMOTE connector (2.5mm TRS jack)
- 28 IN connector (3.5mm stereo mini jack)
- 29 OUT/LINE OUT jack (3.5mm stereo mini jack)
- 30 PHONES jack (3.5mm stereo mini jack)
- 31 PHONES volume control

Top panel



- 32 DSLR camera attachment bracket
- 33 DSLR mounting screw (1/4-inch)

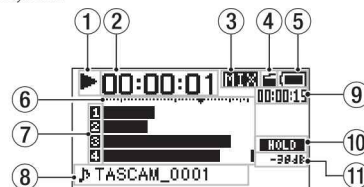
Bottom Panel



- 34 Tripod mounting threads (1/4-inch)
- 35 Video pin hole

Home Screen

This is the screen that is usually shown during playback.



CAUTION

When the monitoring function is on, some meters, icons and other items will change to recording screen appearance.

1 Recorder operation status

This icon shows the recorder operation status.

Indicator	Meaning
■	Stopped
	Paused
▶	Playing back
▶▶	Searching forward
◀◀	Searching backward
▶▶	Skipping to the beginning of the next track
◀◀	Skipping to the beginning of the previous track

② Elapsed time

This shows the elapsed time (hours: minutes: seconds) of the current file.

③ Monitoring mode

This shows what audio is now being monitored.

Indicator	Meaning
MIX	Mix of channels 1-4
CAM	 IN jack sound input

④ Auto tone function status

No icon: Auto tone off

: Auto tone on

⑤ Power supply status

When a battery is being used, a battery icon shows the amount of power remaining with 10 levels ( →  → ).

The battery is almost dead and the power will soon turn off (enter standby) if the  icon appears empty and blinks.

When using the PS-P515U AC adapter (sold separately) or USB bus power,  appears.

⑥ Level meters

These show the levels of the input and playback signals.

⑦ Recording status

: Recording off

: Recording on

⑧ Project name

This shows the name of the project playing back.

A project is a group of files used for recording/playback.

⑨ Remaining time

This shows the elapsed time (hours: minutes: seconds) of the current file.

⑩ HOLD/⏻ / I switch status

: HOLD switch off

: HOLD switch on

⑪ Peak value in decibels (dB)

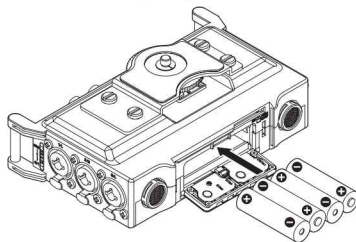
The maximum level that occurs in a fixed period of time is displayed in decibels.

Preparation

Powering the unit

■ Using AA batteries

1. Open the front cover on the front of the unit.
2. Pull the lever on the battery compartment cover down to open it.
3. Install 4 AA batteries with their  and  marks as shown in the battery compartment.
4. Close the battery compartment cover.



- Use the BATTERY TYPE item of the OTHERS menu to set the type of battery in order to allow the unit to accurately show the amount of power

remaining and determine whether enough power is available for proper operation. (By default, this is set to "ALKAL" for alkaline batteries.)

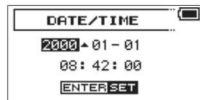
Turning the unit on.

To start the unit when off (in standby), slide the **HOLD/⏻ / I** switch toward **⏻ / I** until **TASCAM DR-70D** (start-up screen) appears on the display. The Home Screen appears after the unit starts up.



Setting the built-in clock

When the unit is started up for the first time (or when the built-in clock is reset after being left unused without batteries), the **DATE/TIME** screen appears before the start-up screen to allow the date and time to be set.



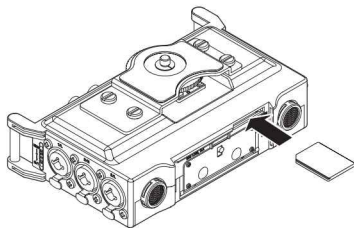
Turning the unit off (putting it in standby)

When on, slide the **HOLD/⏻ / I** switch toward **⏻ / I** until **LINEAR PCM RECORDER** appears on the display.

The unit turns off (enters standby) after it completes its shutdown process.

Inserting SD cards

1. Open the front cover on the front of the unit.
2. Insert an SD Card into the slot as shown in the illustration until it clicks into place.



NOTE

A list of SD cards that have been confirmed for use with this unit can be found on our web site.

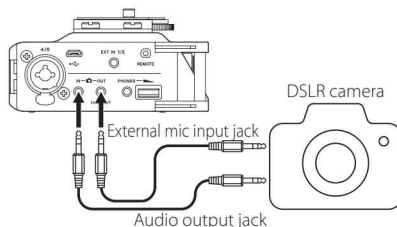
Please access to a product page of this product from the TEAC Global Site (<http://teac-global.com>) to find the list or contact the TASCAM customer support service.

Camera connection and attachment

In order to output the sound from this unit to a DSLR camera and monitor sound from the camera with this unit, you must connect them with commercially-available 3.5mm stereo mini plug cables.

1. If you want to record audio from this unit with a camera, connect the **OUT** jack on the right side of this unit with the external mic input on the camera.

If you want to input audio from the camera and monitor it with this unit, connect the **IN** jack on the right side of this unit with the audio output jack on the camera.



NOTE

Refer to the camera's operation manual to identify connectors on the camera.

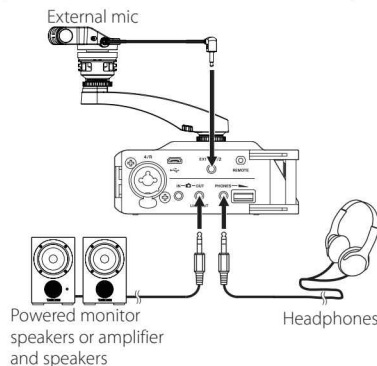
2. Use the **OUTPUT LEVEL** item on the **MONITOR SETTING** screen to adjust the volume output to the camera.
3. To mount the camera on this unit, use the camera attachment screw on the top of the unit.

Connecting external mics and monitoring equipment

Connect an external stereo mic to the **EXT IN 1/2** jack on the right side of the unit.

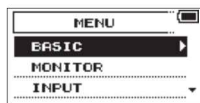
To listen with headphones, connect them to the **PHONES** jack.

To listen with an external monitoring system (powered monitor speakers or an amplifier and speakers), connect it to the **OUT/LINE OUT** jack.



Basic operation procedures

1. Press the **MENU** button to open the MENU Screen.



2. Turn the **DATA** dial to select a menu item (highlighted), and press the **DATA** dial to open various settings screens.
3. Turn the **DATA** dial to select an item (highlighted) to be set.
4. Press the **DATA** dial to move the cursor to (highlight) the value of the setting.
5. Turn the **DATA** dial to change the setting.
6. Press the **DATA** dial to set a different item in the same menu.
This enables selection of a different item. Turn the **DATA** dial to select an item to be set.
7. Repeat step 3 to 6 as necessary to set other items.
8. Press the **MENU** button to return to the MENU screen (or OTHERS screen). Press the **1/■** button to return to the Home Screen.



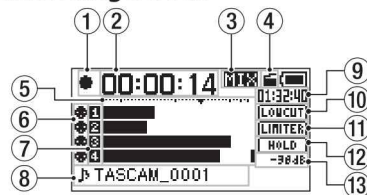
Menu structure

MENU

- BASIC Make recording settings
- MONITOR Set monitoring output
- INPUT Make input settings
- RECORD Make recording format settings
- SLATE Make slate tone settings
- MIC Make mic settings
- BROWSE Work with files and folders on the SD card
- OTHERS Open the OTHERS submenu
 - SYSTEM Make system settings for the unit
 - BATTERY Set the type of batteries
 - INFORMATION View information
 - FILE NAME Make file name settings
 - DATE/TIME Set the date and time
 - REMOTE Make remote control settings

Recording

Recording Screen



① Recorder operation status

This icon shows the recorder operation status.

Indicator	Meaning
●	Recording

② Elapsed recording time

The elapsed recording time of the file appears as hours: minutes: seconds.

③ Monitoring mode

This shows what audio is now being monitored.

Indicator	Meaning
MIX	Mix of channels 1-4
CAM	📷 IN jack sound input

④ Auto tone function status

No icon: Auto tone off

🔊: Auto tone on

⑤ Level meters

The input signal levels are shown.

⑥ Phantom power status

No icon: Phantom power off

: Phantom power on

⑦ Recording status

: Recording off

: Recording on

⑧ Project name

This shows the name of the project for the recorded files.

⑨ Remaining recording time

The remaining recording time on the SD card is shown in hours: minutes: seconds according to the recording mode, sampling frequency and recording format settings.

⑩ Low cut filter on/off status

: Low cut filter off

: Low cut filter on

⑪ Limiter function status

: Limiter off

: Limiter on

⑫ HOLD switch status

: **HOLD** switch off

: **HOLD** switch on

⑬ Peak value in decibels (dB)

Peak input level values are shown in decibels.

Menu structure

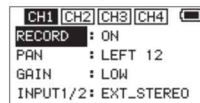
Various settings can be made using the **BASIC** item of the **MENU** screen.

BASIC

RECORD	Recording setting OFF, ON
PAN	Set the left-right balance (applied to stereo files during 2MIX recording and to monitoring output) LEFT 12 – CENTER – RIGHT 12
GAIN	Set the input gain LOW, MID, HIGH, HI+PLUS
INPUT 1/2	Set for the channel 1 and 2 input connectors EXT_STEREO, EXT_POWER, XLR/TRS
INPUT 3/4	Set for the channel 3 and 4 input connectors MIC, XLR/TRS

Setting input destinations

1. Connect external mics to the **EXT IN 1/2** or **1/L, 2/R, 3/L** and **4/R** jacks.
2. Press the **MENU** button to open the **MENU** Screen.
3. Turn the **DATA** dial to select **BASIC**, and press the **DATA** dial.
The **BASIC** screen opens.

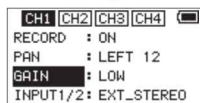


CH1 BASIC screen

4. Turn the **DATA** dial to select **INPUT 1/2** or **INPUT 3/4**, and press the **DATA** dial.
5. Turn the **DATA** dial to select the input destination.
Options
INPUT 1/2: EXT_STEREO (default), EXT_POWER, XLR/TRS
INPUT 3/4: MIC (default), XLR/TRS
6. When finished, press the **MENU** button to return to the Home Screen.

Adjusting the input level

1. Press the **MENU** button to open the MENU screen.
2. Turn the **DATA** dial to select **BASIC**, and press the **DATA** dial.
The **BASIC** screen opens.
3. Press the **1/■**, **2/▶**, **3/▶▶** or **4/◀◀** button to select the channel for input level adjustment.
4. Turn the **DATA** dial to select the **GAIN** for the selected channel, and press the **DATA** dial.



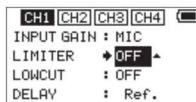
CH1 BASIC screen

5. Turn the **DATA** dial to set the mic input gain.
Options LOW (default), MID, HIGH, HI+PLUS
6. Repeat step 3 to 5 as necessary to set the mic input gain for each channel.
7. When finished, press the **MENU** button to return to the Home Screen.
8. Use the **1/L**, **2/R**, **3/L** and **4/R** knobs on the front of the unit to adjust the input levels.
The level meters have a ▼ mark as a guide at -16dB. Set the input levels so that they move centered around this mark without causing the **1/L**, **2/R**, **3/L** and **4/R** knob **PEAK** indicators to light red.

Using the limiter

When the limiter is on, the mic input gain will be adjusted automatically according to the input level to set the recording level so that distortion does not occur even when loud sounds are input.

1. Press the **MENU** button to open the MENU screen.
2. Turn the **DATA** dial to select **INPUT**, and press the **DATA** dial.
The **INPUT** screen opens.
3. Press the **1/■**, **2/▶**, **3/▶▶** or **4/◀◀** button to select a channel to use the limiter on.
4. Turn the **DATA** dial to select the **LIMITER** for the selected channel, and press the **DATA** dial.



Ch1 INPUT screen

5. Turn the **DATA** dial to set the limiter for mic input.

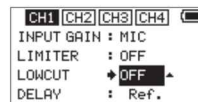
Options	Meaning
OFF (default value)	Limiter off
MONO	Limiter on only for selected channel
LINK	Limiter on for both selected and linked channels

6. Repeat step 3 to 5 as necessary to set the limiter for each channel.
7. When finished, press the **MENU** button to return to the Home Screen.

Setting the low-cut filter

Use the low-cut filter if you want to cut noise and other sounds at low frequencies. This function can be used to reduce air-conditioning noise and unpleasant wind noise, for example.

1. Press the **MENU** button to open the MENU screen.
2. Turn the **DATA** dial to select **INPUT**, and press the **DATA** dial.
The **INPUT** screen opens.
3. Press the **1/■**, **2/▶**, **3/▶▶** or **4/◀◀** button to select a channel to use the low-cut filter on.
4. Turn the **DATA** dial to select the **LOWCUT** for the selected channel, and press the **DATA** dial.



Ch1 INPUT screen

5. Turn the **DATA** dial to select the cut off frequency of the low cut filter for mic input.
Options: OFF (default value), 40Hz, 80Hz, 120Hz, 180HZ, 220Hz
6. Repeat step 3 to 5 as necessary to set the low-cut filter for each channel.
7. When finished, press the **MENU** button to return to the Home Screen.

Recording formats

You can select the format of files created by this unit.

■ MONO recording

The channels selected for recording will be recorded as mono files.

A file will be made for each channel selected for recording.

■ STEREO recording

Stereo files will be recorded.

Examples:

If only channel 1 is selected for recording, a stereo file with channel 2 silent will be created.

If only channels 1 and 3 are selected for recording, stereo files with channels 2 and 4 silent will be created.

■ 2MIX recording

The input signals set on the BASIC screen will be recorded as a stereo file.

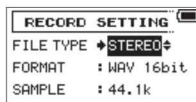
Even if all four channels are selected for recording, a stereo file will be created.

Recording (MONO/STEREO/2MIX)

■ Make recording settings

1. Press the **MENU** button to open the MENU screen.
2. Turn the **DATA** dial to select **RECORD**, and press the **DATA** dial.
The **RECORD SETTING** screen opens.
3. Turn the **DATA** dial to select **FILE TYPE**, and press the **DATA** dial.
4. Turn the **DATA** dial to select the recording format.

Options: MONO, STEREO (default), 2MIX



5. Press the **DATA** dial to enable selection of other items.
6. When finished, press the **MENU** button to return to the Home Screen.

■ Setting where to save files

1. Press the **MENU** button to open the MENU screen.
2. Turn the **DATA** dial to select **BROWSE**, and press the **DATA** dial.
The **BROWSE** screen opens.
3. On the **BROWSE** screen, select the folder where you want to save recorded files, and press the **DATA** dial.

This opens the browse menu pop-up.

4. Turn the **DATA** dial to select **SELECT**, and press the **DATA** dial.
5. The Home Screen reopens, and the selected folder is where recorded files will be saved.

■ Starting recording

1. Press the **record (●)** button to start recording.



When recording starts, the **REC** indicator lights and the display shows the project name, elapsed recording time and remaining recording time.

2. Press the **record (●)** or **1/■** button to stop recording.
- 3.

Playback

Adjusting the playback volume

Use the **OUTPUT LEVEL** item on the **MONITOR SETTING** screen to adjust the volume output from the **OUT/LINE OUT** jack.

Use the **PHONES** volume control to adjust the volume output from the **PHONES** jack.

Playing recordings

When the Home Screen is open and playback is stopped, press the **2/▶** button to start playback.

■ Pausing playback

When the Home Screen is open and a track is playing back, press the **1/■** button to pause playback at the current position.

■ Stopping playback

When the Home Screen is open and a track is playing back, press the **1/■** button to pause playback, and press the **1/■** button again to return to the beginning of the file and stop playback.

■ Searching backward and forward

When the Home Screen is open and a track is playing back or stopped, press and hold the **4/◀◀** or **3/▶▶** button to search forward or backward.

■ Changing the playback position

Turn the **DATA** dial while the Home Screen is open during playback or when paused or stopped to change the position where the slate tone will be inserted.

After changing the playback position, playback will resume. If playback had been stopped or paused, though, it will be paused instead.

Selecting files for playback (skipping)

When the Home Screen is open, use the **4/◀◀** and **3/▶▶** buttons to select a file for playback.

Press the **4/◀◀** button when at the beginning of a file to skip to the beginning of the previous file.

Press the **3/▶▶** button when at the beginning or middle of a file to skip to the beginning of the next file.

Connecting with a Computer

You can transfer audio files on the SD card in the unit to a computer, as well as transfer audio files from the computer to the unit.

Connecting with a computer using USB

1. Use the included USB cable to connect the unit to a computer. If the unit is off, turn it on.
2. On the **USB SELECT** screen, select **STORAGE**, and press the **DATA** dial to connect this unit to the computer. "USB connected" will appear on the display.
3. This unit appears on the computer as an external drive named "DR-70D" (if the card has been formatted by this unit).

Exchanging files with a computer

After following the instructions in the previous section, click the "DR-70D" drive on the computer screen to show the "MUSIC" and "UTILITY" folders. To transfer files to the computer, open the "MUSIC" folder and drag and drop the desired files to destinations of your choice.

To transfer files from the computer, drag and drop the audio files on the computer that you want to the "MUSIC" folder.

Disconnecting from a computer

Before disconnecting the USB cable, use the proper procedures for the computer to unmount this unit. The unit turns off after it completes its shutdown process.

See the computer's operation manual for instructions about how to unmount an external volume.

Other settings and information

System Settings

Use the **SYSTEM** menu to make various settings to use the unit as you like. You can also initialize settings and format SD cards, for example.

1. Select **MENU** → **OTHERS** → **SYSTEM**, and press the **DATA** dial.
2. Make the necessary settings using the various functions.

Quick reference for using various functions

- Button names are shown like this: **MENU**.
- Instructions are abbreviated. For example, "On the Home Screen, press the **MENU** button. Select the **BASIC** menu, and then select the **RECORD** item" becomes: Home Screen → **MENU** → **BASIC** → **RECORD**.
- Not all steps are given for complex operations. For detailed operation procedures, see the Reference Manual.

Category	Desired action	Function name	Procedures, buttons used and explanation
Basic functions	Return to the Home Screen		1/■ Return to the Home Screen if you become unsure about how to proceed.
	Record		Record (●) Recording will start using the current settings.
	Play a recording		Home Screen → 2/▶ Play the file shown (selected).
	Adjust the playback volume		PHONES volume, MENU → MONITOR → OUTPUT LEVEL Adjust the volume of headphones, speakers, etc.
	Select a file for playback		Home Screen → 1/◀◀ and ▶▶1 If there are many files, using the browse function might be more convenient.
Recording	Change the file format		Home Screen → MENU → REC SETTING → FORMAT Set the file format (BWF, WAV, etc.) used for recordings.
	Set the low-cut filter	Low cut filter	Home Screen → MENU → INPUT SETTING → LOW CUT This function removes noise and other sounds at low frequencies. Set the cutoff frequency.
	Set the input gain		Home Screen → MENU → BASIC → GAIN Sets the input gain.
	Adjust the input level manually		1/L, 2/R, 3/L, 4/R Watch the meters and set the recording level so that they do not peak.
	Adjust the input level automatically	Limiter	Home Screen → MENU → INPUT SETTING → LIMITER This function compresses only loud sounds to prevent overloads and does not change the recording level.
Other recording features	Create a new file manually while recording	Manual track incrementation	Recording Screen → ▶▶1 Use this function if you want to create a new file without interrupting recording when, for example, the song changes.
	Add a slate tone		When recording → SLATE You can add slate tones to recorded files at the points you want.

Category	Desired action	Function name	Procedures, buttons used and explanation
File operations	Check file information		Home Screen → MENU → BROWSE → DATA → INFO Use this function to check the date of recording and file size, for example.
	Delete a file		Home Screen → MENU → BROWSE → DATA → DELETE You can delete files that you do not need.
	Delete all files in a folder at the same time		Home Screen → MENU → BROWSE → DATA → ALL DEL You can delete all the files in a folder at the same time.
Unit settings	Set the date and time		Home Screen → MENU → OTHERS → DATE/TIME Use this function to set the internal clock, which is used for the recording dates written to files, for example.
	Turn plug-in power on		Home Screen → MENU → BASIC → INPUT 1/2 SELECT → EXT POWER Make this setting when using an external mic that requires plug-in power connected to the EXT IN 1/2 jack.
	Check information about the unit or card		Home Screen → MENU → OTHERS → INFORMATION Use this function to check the unit firmware version and the amount of remaining space on the card, for example.
	Change the automatic power saving function	Automatic power saving	Home Screen → MENU → OTHERS → SYSTEM → AUTO PWR SAVE This function automatically turns the unit off when it is not used for some time.
	Change the backlight setting		Home Screen → MENU → OTHERS → SYSTEM → BACKLIGHT Use this to change the display backlight setting.
	Adjust the display contrast		Home Screen → MENU → OTHERS → SYSTEM → CONTRAST Use this to set the contrast of the characters on the display.
	Set the battery type		Home Screen → MENU → OTHERS → BATTERY Select the type of battery being used. This setting affects the accuracy of the remaining battery display.
	Set the phantom power voltage		Home Screen → MENU → MIC → PHANTOM VOLT Sets the phantom power voltage.
	Restore the unit to its default settings	Initialize	Home Screen → MENU → OTHERS → SYSTEM → INITIALIZE Use this function to restore all settings to their factory defaults.
	Format an SD card	Format	Home Screen → MENU → OTHERS → SYSTEM → FORMAT Use this function to format cards.
Unit settings	Set the file name format		Home Screen → MENU → OTHERS → FILE NAME You can change the characters used in the file names that are automatically assigned.

Message

The following is a list of the pop-up messages.

Refer to this list if one of these pop-up messages appears on the DR-70D and you want to check the meaning or determine a proper response.

If the error message continues to appear frequently, please contact the store where you purchased this unit or a TASCAM customer support service.

Message	Meaning and response
Battery Empty	The batteries are almost out of power. Replace the batteries.
Card Error	The SD card could not be recognized properly. Change the card.
Card Full	The SD card has no remaining space. Erase unnecessary files or move them to a computer to make open space.
File Full	The total number of folders and files exceeds the limit of 5000. Erase unnecessary folders and files or move them to a computer.
File Not Found	A file cannot be found or a file might be damaged. Please check that file.
File Not Found Make Sys File	The system file is missing. This unit requires a system file for operation. When this message appears, press the DATA dial to automatically create a system file.
File Protected	The file is read only and cannot be erased.
Format Error Format CARD	The SD card is not formatted properly or the card is broken. This message also appears if the card was formatted using a computer connected by USB or if an unformatted card is inserted in the unit. Always use the DR-70D to format cards to be used with it. Change the card or press the DATA dial while this message is being shown to format the card. Formatting will erase all the data on the SD card.
Invalid Card Change Card	Something might be wrong with the SD card. Change the SD card.

Message	Meaning and response
Invalid SysFile Make Sys File	The system file required to operate this unit is invalid. When this message appears, press the DATA dial to automatically create a new system file.
Layer too Deep	Folders can be created down to two layers. You cannot create a new folder inside the current folder.
MBR Error Init CARD	The SD card is not formatted properly or the card is broken. Change the card or press the DATA dial while this message is being shown to format the card. Formatting will erase all the data on the SD card.
No Card	No SD card is loaded in the unit. Insert a recordable SD card.
No PB File	There is no file that can be played back. The file might be damaged.
Non-Supported	The audio file is not a supported format. Please see "Connecting with a Computer" in the Reference Manual for file formats that this unit can use.
Switched To Internal Battery	The power source has switched from USB bus power to the batteries in the unit.
Write Timeout	Writing to the SD card timed out. Backup files on the card to a computer, and format the card.
Not Possible Check INPUT3/4	The setting cannot be changed. Check the INPUT 3/4 setting.
Not Possible Check Rec Chs.	The setting cannot be changed. Check the recording channels.
Not Possible Set DUAL-REC OFF	The setting cannot be changed. Turn DUAL REC mode off.
No Rec Channels Selected	No recording channels have been selected (all are off).

If any other error occurs, turn the unit off and restart it.

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 batteries are not dead.
- Confirm that the batteries are installed with the correct $\oplus/\ominus$ orientation.
- Confirm that the AC adapter (TASCAM PS-P515U, sold separately) is securely connected to both the outlet and the unit.
- When using USB bus power, confirm that the USB cable is securely connected.
- When using USB bus power, confirm that it is not connected via a USB hub.

■ The unit turns off automatically.

Is the automatic power saving function on? (See "Setting the automatic power saving function" in "Settings and Information" of the Reference Manual.)

- Since this unit complies with the European Standby Power Regulations (ErP), the automatic power saving function operates regardless of whether the unit is being powered by an AC adapter or batteries. If you do not want to use the automatic power saving function, set it to "OFF". (The factory default setting is "30min".)

■ The unit does not function.

- Confirm that the **HOLD**/ ⏻ / I switch is not set to **HOLD**.
- Is the unit connected to a computer by a USB cable? (Does "USB connected" appear on the display?)

■ The SD card is not recognized.

- Confirm that the SD card is inserted completely.

■ Playback is not possible.

- If you are trying to play a WAV file, confirm that the sampling frequency is supported by this unit.

■ No sound is output.

- Check the connections with the monitoring system.
- Is the volume of the monitoring system minimized?
- Is the output level setting of the unit minimized?

■ Recording is not possible.

- Check connections with other equipment again.
- Check the input settings again.
- Confirm that the input level is not too low.
- Confirm that the SD card is not full.
- Confirm that the number of files has not reached the maximum that the unit can handle.

■ The input level is low.

- Confirm that the input level setting is not too low.
- Confirm that the output level of any connected device is not too low.

■ The sound I am trying to record sounds distorted.

- Confirm that the input level setting is not too high.

■ Adjust the input knobs so that the PEAK indicators do not light.

- Lower the volumes of the sound sources being input to this unit.

■ I cannot erase a file.

- Confirm that you are not trying to erase a file that has been copied from a computer after being write-protected.

■ This unit's files do not appear on the computer.

- Confirm that the unit is connected to the computer using its USB port.
- Confirm that no USB hub is being used.
- Confirm that the unit is not recording.

Specifications

Ratings

■ Recording media

SD cards (64 MB – 2 GB), SDHC cards (4 GB–32 GB)
SDXC cards (48 GB – 128 GB)

■ Recording/playback formats

WAV: 44.1/48/96kHz, 16/24-bit
BWF: 44.1/48/96kHz, 16/24-bit

■ Number of channels

4 maximum (stereo × 2)

Inputs and outputs

■ 1/L, 2/R, 3/L, 4/R jacks (can provide phantom power)

Connector: XLR-3-31, 6.3mm (1/4") standard TRS jack

■ EXT IN 1/2 jack (can provide plug-in power)

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

■ IN connector

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

■ PHONES jack

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

■ OUT/LINE OUT jack

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

■ USB port

Connector type: Micro-B
Format: USB 2.0 HIGH SPEED mass storage class

■ REMOTE jack

Connector: 2.5mm (3/32") TRS jack

Audio performance

■ Frequency response

20 Hz – 20 kHz +0.5/–2 dB
(LINE IN or MIC IN to LINE OUT, Fs 44.1/48 kHz, JEITA)
20 Hz – 20 kHz +0.5/–3 dB
(LINE IN or MIC IN to LINE OUT, Fs 96kHz, JEITA)

■ Distortion

0.02 or less (LINE IN or MIC IN to LINE OUT, Fs 44.1/48/96kHz, JEITA)

■ S/N ratio

92 dB or more (LINE IN or MIC IN to LINE OUT, Fs 44.1/48/96kHz, JEITA)

■ Equivalent input noise (EIN)

–120 dBu or less

Note: based on JEITA CP-2150

Recording times (in hours: minutes: seconds)

File format (recording setting)		SDHC card capacity
		4 GB
WAV/BWF 16-bit (STEREO)	44.1 kHz	6:44:00
WAV/BWF 24-bit (STEREO)	96kHz	2:04:00

- The recording times shown above are estimates. They might differ depending on the SD/SDHC/SDXC card in use.
- The recording times shown above are not continuous recording times, but rather they are the total possible recording times for the SD/SDHC/SDXC card.
- If recorded in mono WAV format, the maximum recording time will be double the figures above.
- When using dual/4-channel recording in WAV/BWF format, the maximum recording time will be about half the figures above.

Requirements for connected computers

Check the TEAC Global Site (<http://teac-global.com/>) for the latest information about supported operating systems.

■ Supported operating systems

Windows XP, Windows Vista, Windows 7, Windows 8 (including 8.1)
Mac OS X 10.2 or newer

General

■ Power

4 AA batteries (alkaline or NiMH)
USB bus power from a computer
AC adapter (TASCAM PS-P515U, sold separately)
Using an external battery pack (TASCAM BP-6AA, sold separately)

■ Power consumption

5.0W (maximum)

■ Current consumption

1 A (maximum)

■ Battery operation time (continuous operation)

- Using alkaline batteries (EVOLTA)

Format	Operation time (in hours: minutes: seconds)	Note
Recording 2ch 44.1 kHz/16-bit WAV files	About 6:00:00	When XLR/TRS input selected (phantom power not used)
Recording 2ch 44.1 kHz/16-bit WAV files	About 11:00:00	When 3/4 MIC input selected

- Using NiMH batteries (eneloop)

Format	Operation time (in hours: minutes: seconds)	Note
Recording 2ch 44.1 kHz/16-bit WAV files	About 6:15:00	When XLR/TRS input selected (phantom power not used)
Recording 2ch 44.1 kHz/16-bit WAV files	About 10:30:00	When 3/4 MIC input selected

NOTE

When using phantom power, the operation time might be reduced depending on the mic being used.

■ Dimensions

169 × 55.2 × 106.5 mm (W × H × D with top adapter attached)

■ Weight

625 g / 530 g (including batteries / not including batteries)

■ Operating temperature range

0°C–40°C (32°F–104°F)

- Illustrations in this manual might differ in part from the actual product.
- Specifications and external appearance might be changed without notification to improve the product.
- Detailed specifications are provided in the Reference Manual.