# TASCAM
TEAC Professional Division

CD-BT1
Portable CD Bass Trainer
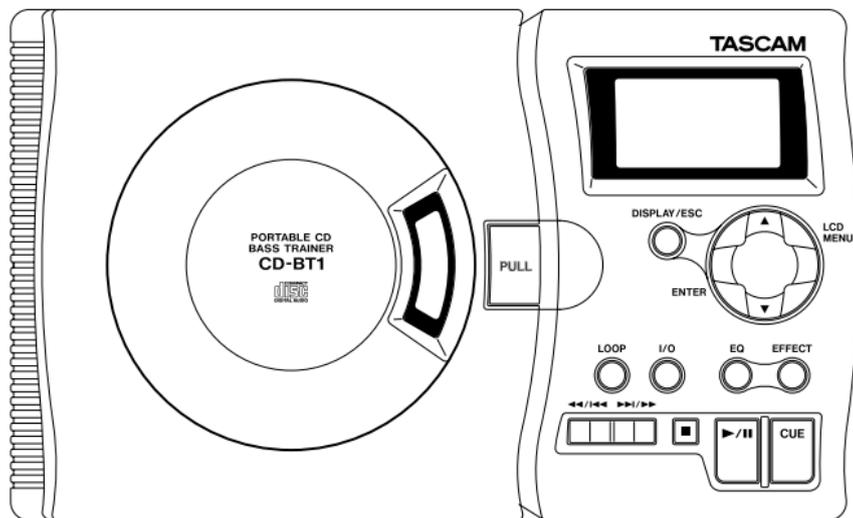
This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number _____

Serial number _____

OWNER'S MANUAL

Important safety precautions

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 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.

• 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 draws nominal non-operating power from the AC outlet with its POWER switch in the off position.

Safety Information

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings. The label required in this regulation is shown here.

CAUTION

- DO NOT REMOVE THE PROTECTIVE HOUSING USING A SCREWDRIVER.
- USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
- IF THIS PRODUCT DEVELOPS TROUBLE, CONTACT YOUR NEAREST QUALIFIED SERVICE PERSONNEL, AND DO NOT USE THE PRODUCT IN ITS DAMAGED STATE.

Optical pickup: Type KSM-900AAA
Manufacturer: SONY CORPORATION
Laser output: <1 mW play on the objective lens
Wavelength: 775—816 nm

CERTIFICATION
THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.
TEAC CORPORATION
3-7-3, NAKA-CHO, MUSASHINO-SHI, TOKYO, JAPAN
MANUFACTURED :   DTA

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

First steps with your CD-BT1

About this manual

When we refer to a key or connector or control on the CD-BT1, we write it like this: **PLAY**.

When we refer to an item shown on the display, we write it like this: MENU.

Inserting batteries

The CD-BT1 uses four AA (SUM-3) batteries (not supplied). We recommend the use of rechargeable Ni-MH batteries (alkaline batteries may also be used).

- Always use batteries of the same type.
- Always replace all batteries together.
- If you are not going to use the CD-BT1 for some time, remove the batteries.
- Place the batteries following the **+** and **–** markings inside the battery compartment.

- Maximize battery life by using the unit in the following temperature range: 10˚C to 30˚C (50˚F to 86˚F). Nickel-hydride batteries may exhibit reduced performance in an environment under 10˚C (50˚F). Also, if these batteries are not used for some time after charging, they may also exhibit reduced performance.

- The performance of alkaline batteries also depends on temperature and time since manufacture (low temperatures and longer periods mean shorter battery life, regardless of the battery indicator as shown on the display). Bear this in mind when operating the unit, and use freshly recharged nickel-hydride batteries, new alkaline batteries or use an AC adapter if battery life seems inadequate.

- Always dispose of used batteries as recommended by your local authorities.

When the battery level drops, the unit automatically shuts down and must be restarted with the **POWER** switch after the batteries have been replaced.

Note that the battery indicator on the display only provides a rough estimate of remaining battery life, and under some circumstances, there may not be enough power in the batteries to power the CD-BT1, despite the battery power indication on the display.

Using an AC adapter

Only use a TASCAM PS-PS5 adapter (not supplied). Using another type of AC adapter may damage your CD-BT1.

Always make sure that the AC voltage matches the voltage written on the AC adapter.

NOTE

Always remove batteries when operating the unit with an AC adapter. If batteries are accidentally left in the unit when it is operated with an AC adapter, always switch off the unit before changing from AC adapter to battery power or switching from battery to AC adapter operation.

Switching on the unit

The CD-BT1 has two power switches. Use the first **POWER** switch (sliding switch) to turn the power to the whole unit on and off.

The second switch, **BASS**, controls the power to the **BASS IN** jack and effect unit. If this section is off, you cannot use this jack, or use any of the instru-

ment-related menu systems (effect and tuner).
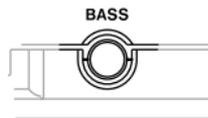
Also note the **HOLD** switch that locks the CD-BT1's controls and keys when it is in the **ON** position (HOLD appears in the display when this switch is on).
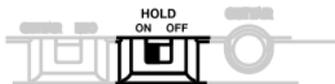
Auto power-save

If the unit is powered using batteries for more than 5 minutes in stop mode or with no disc loaded or opened, the CD player shuts down (display shows CD OFF), but you can still use the bass section.

Restart the CD player alone by using the ►/II key (or use the **POWER** switch if both the CD and bass sections are turned off).

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Making connections

Inputs
Connecting a bass

To connect a bass to the unit, simply connect one end of the bass cord to the bass , and connect the other to the **BASS IN** jack of the CD-BT1.

If you use effects pedals or stomp boxes, you can connect the output of these to the CD-BT1 (remember that the CD-BT1 has its own effects).

If you are using an active bass, set the **BASS IN** slide switch on the side to **ACTIVE**, else set this switch to **PASSIVE**.

Make sure the **BASS** power button is pushed to activate the effects, etc.
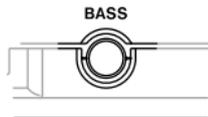
WARNING

NEVER connect a bass or guitar amplifier to the CD-BT1's **BASS IN** *input, as you will damage your equipment if you do this.*

Connecting a stereo line source

You can also connect a stereo line source such as the outputs from a synthesizer, a guitar preamplifier or rackmount effects unit or a cassette deck, etc. to the CD-BT1. Use the **LINE IN** mini-jack beside the **BASS IN** jack. This unit will not be able to use the effects and EQ of the CD-BT1.

WARNING

You should NEVER connect the speaker outputs of a bass or guitar amplifier to anything except speakers. If you are in any doubt at all about what you can connect to your CD-BT1, ask someone who knows.

Connecting a footswitch

You can connect a footswitch to the CD-BT1 to step through the effect slot settings, or to cue the CD player "hands-off" (see later in this manual for details).

To avoid problems with your CD-BT1, use only a TASCAM RC-30P footswitch (or similar non-latching "push-to-make" footswitch) connected to the **FOOT** jack.

Outputs

Connect the unit to a stereo system's AUX input, or mixer input, etc. using a suitable stereo cable (not supplied), connected to the CD-BT1's **LINE OUT** stereo mini-jack.

Connect a pair of headphones (not supplied) to the **PHONES** stereo mini-jack for private listening.
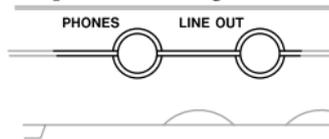
Adjusting the balance
Inputs

The CD-BT1 has three input sources:

- the CD being played
- the bass connected to the **BASS IN** jack
- any stereo input connected to the **LINE IN** jack.

The first and last of these cannot have their input levels changed by the CD-BT1 (but see below for details of how to balance the CD with the input).

- Use the level control of the device connected to **LINE IN** to adjust the level of this source (remember that this source cannot be effected by the CD-BT1's effects).

- Use the CD-BT1's **INPUT** control to adjust the level of the bass before it is sent to the effect.

- When a menu is not selected, you can use the ▲ and ▼ keys to set the relative balance of the bass (but not the **LINE IN** source) compared to the output from the CD

The CD plays at a fixed level, but the MIX feature (▲ and ▼ keys outside menu mode) adjusts the balance between input and CD

Use the INPUT control to adjust the BASS IN level

Use the CD-BT1's menu system to set the output level of the internal effect
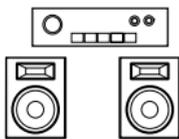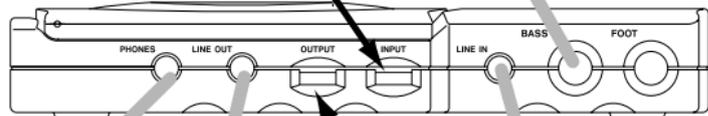
Use the OUTPUT control to adjust the overall level to the LINE OUT and headphones
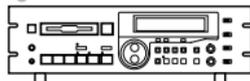
You can't adjust the input level of LINE IN from the CD-BT1

player. This MIX value can be set to between –5 and +5.

Remember that this is only possible when not in menu mode.

- Use the CD-BT1's menu system to adjust the output level of the effect.

Outputs

There are two outputs: the line and the headphones. These cannot have their levels set separately—use the **OUTPUT** control to set the overall output level.

Using the menu system

See the table on this page for details of the different menus and their settings.

To enter the menu system, press the **LCD MENU** key until the menu you want appears (shown in a flashing reversed box) and the first menu item is shown on the main part of the screen.

Use the "up" or "down" keys (▲ and ▼) to set the value of the first menu item.

Note that you do not need to press **ENTER** to set the values. The settings change as soon as the key is pressed.

Press **ENTER** to move to the next menu item in the list.

Press **MENU** to move to the next menu and its first menu item.

Exit the menu system using the **DISPLAY/ESC** key.

NOTE

The TUNER *menu requires you to press* **ENTER** *after the* TUNER *menu is shown on screen (as the effect sound is cut when the tuner is operational).*

Menu	Menu item	Values	Notes
EFFECT	EFF	ON/OFF	turns effect on or off
	LIB	00 to 15	preset number
	Parameter(s)	—	depends on effect type—there may be more than one parameter
	MIX1 and/or MIX2	00 to 20	The ratio of effect to "dry" signal for the different units in the effect chain
	LVL	0 to 64	effect output level
PITCH	PIT	0 to −50% (pitch) or 0, −8, −16, −32 and −50 (SSA)	sets pitch control or slow speed audition values
	SSA	SSA ON/OFF	Sets slow speed audition on or off
KEY	KEY	♭6 to ♯6 (or SSA)	sets key change in semitones
	FINE	−50 to +50 (or SSA)	sets key change in cents
MENU	BEE	OFF, BST, ENH, CUT	Bass Enhancement Effect (affects CD playback – see below for details)
	PLAY	ALL/SGL	all or single play
	CUE	CUE/FLS	cue or "flash play" operation
	FOOT	EFF/CUE	sets footswitch mode: either step through the effect slots, or cueing

	AT/MT	B0 to E5(when tuning)	
TUNER	MODE	AT/MT	Automatic or manual tuning
	CAL	435 to 445	calibration in Hz

NOTES

The EFFECT *menu can also be accessed by pressing and holding the* **EFFECT** *key.*

Depending on the effect chosen, there may be more than one MIX *setting available, as well as a different number of individual effects*

Using the CD player

The CD-BT1's CD player works in much the same way as other CD players, with a few minor differences and special features, as explained on this page.

Load CDs label side up (shiny side down) in the CD-BT1. Open and close the player door by hand by lifting the door tab (marked **PULL**).

NOTE
The CD-BT1 cannot play unfinalized CD-R/RW discs. In addition, some finalized CD-R/RW discs may be unplayable on the CD-BT1.

Playback

Press the play/pause (►/II) key to start playback and to pause playback.

Press the stop key (■) to stop playback.

Display

Use the **DISPLAY/ESC** key to change the display between: track elapsed time, track remaining time and total remaining time (you cannot do this in menu mode).

Skipping between tracks

Use the two skip/search keys (marked as ◄◄/I◄◄ and ►►I/►►) to move back and forward a track at a time, by pressing and releasing the appropriate key.

Searching within tracks

Use the skip/search keys to search within the disc, by pressing and holding the appropriate key.

The CUE key

The **CUE** key is a special feature of the CD-BT1. When you press this key, the playback position returns to the last point where playback started.

What happens next depends on the CUE menu item setting (in the MENU menu). If this is set to CUE, playback is paused at the cue point, but if it is set to FLS, playback restarts from the cue point.

TIP
*With a footswitch connected, you can use this instead of the **CUE** key for hands-free operation (set the FOOT menu item to CUE).*

Looping (track)

Using the PLAY menu item, set SGL (single play). Press the **LOOP** key so that you see LOOP 1 on the display (bottom left). The current track will repeat.

Looping (disc)

Using the PLAY menu item, set ALL (play all the disc). Press the **LOOP** key so that you see LOOP alone on the display (bottom left). The whole disc will repeat.

Looping (I/O points)

Use the **I/O** key to set the start (in) point of the loop, then use the key to set the end (out) point. The section between the points will repeat seamlessly.

Pressing the **I/O** key again clears the loop points and cancels loop mode.

With these points set (I-O shown on the display), you can restart the I/O loop mode (if it has been canceled) using the **LOOP** key.

Canceling looping

Press the **LOOP** key so that LOOP does not show on the display (bottom left).

Bass Enhancement Effect (BEE)

This Bass Enhancement Effect feature (BEE from the MENU menu) allows you to change the bass response from the CD playback, so that you can pick out the bass part easily when you come to learn new bass lines, or reduce the level of the existing bass line so that you can concentrate on your own playing. There are three settings, excluding OFF.

BST boosts the bass region

ENH boosts and enhances the bass region

CUT cuts the bass region without affecting the treble region

Remember that these settings have no effect on the sound of the bass instrument plugged into the CD-BT1.

Pitch and tempo changes

There are three modes for changing the way a CD is played back.

NOTE
Only one of these modes can be active at a time.

These modes help you to play along at a different key or a different tempo so that you can learn your favorite riffs and licks.

TIP
Use these together with the looping function to help your practice.

KEY mode

The "key" mode changes the key of the music by six semitones up or down. The tempo does not change.

The value is set in semitones and cents (1/100ths of a semitone) shown as ♭6 to #6. When both semitones and cents are 0, the KEY mode is off (if SSA is on, this is also off).

When this mode is on, the display

shows KEY.

Use this mode when you find the key of the CD track difficult to play.

SSA mode

The SSA (Slow Speed Audition) mode slows down the tempo without changing the key. The settings are 0 (off), –8, –16, –32 and –50 (all percent).

When this mode is active, the display (left side) shows SSA and PITCH. Use this mode to practice difficult fast licks.

PITCH mode

The pitch mode changes both pitch and tempo in 1% steps, down to –50%. 0% is the "off" setting.

When this mode is active, the display shows PITCH.

Making settings

Use the menu system to turn SSA on or off (PITCH menu) and then set the value for the pitch or SSA settings (PITCH menu again), *or* with SSA off, choose KEY from the next (KEY) menu and make the KEY (semitone) and

FINE settings.

Remember!

- Shift pitch alone= KEY
- Slow down and keep pitch = SSA
- Slow down and drop pitch = PITCH

How effects work

There are five "slots" numbered from 1 through 5 where you can store your own effect settings.

Effects are created from the 16 preset effects available. When a slot is selected, if a preset effect is recalled and edited, that slot is automatically filled with the edited effect.

Storing your own effect settings in a slot

Press the **EFFECT** key to select the slot (1 through 5) as shown on the display.

Press and hold the EFFECT key, or press the **LCD MENU** key until EFFECT appears on the display.
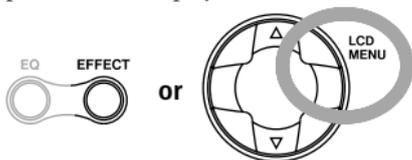
Use the ▲ key to turn the effect ON.

Press **ENTER**, and then select the preset effect (00 through 15) with the ▲ and ▼ keys.
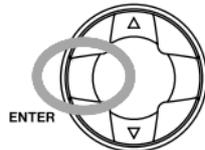
NOTE

If there were any settings in the selected slot to start with, they will be overwritten when you recall a library entry.

Press **ENTER** once more to start editing the parameters with the the ▲ and ▼ keys (see the table for details of these parameters).

The last parameter is always **LVL** (the output level from the effect unit (0 to 64). This is only available when the ef-

fect is active, and is bypassed with the effect off.

Set the level and then press the **DISPLAY/ESC** key to exit the effect settings. The effect settings you have made are automatically stored in the slot you first chose.

Recalling an effect with your settings

When you have stored the effect settings in a slot as described above, you can recall them simply pressing the **EFFECT** key to select the appropriate slot (you should also make sure that the effect is switched on).

TIP

If you have a footswitch connected and the FOOT *menu item is set to* EFF, *you can step through the slots by pressing the footswitch.*

Effect presets and parameters

The different presets have different parameters as shown here:

00	Delay (DLY)	DLY, MIX2
01	Flanger (FLA) +Delay	FLA, MIX1, DLY, MIX2
02	Chorus (CHO) + Delay	CHO, MIX1, DLY, MIX2
03	Auto-wah (WAH) + DLY	WAH, MIX1, DLY, MIX2
04	Low Compressor (CMPL) + High Compressor (CMPH)	CMPL, CMPH
05	Low Compressor + High Compressor + Delay	CMPL, CMPH, DLY, MIX2
06	Low Compressor + High Compressor + Flanger + Delay	CMPL, CMPH, FLA, MIX1, DLY, MIX2
07	Low Compressor + High Compressor + Chorus + Delay	CMPL, CMPH, CHO, MIX1, DLY, MIX2
08	Low Compressor + High Compressor + Auto-wah + Delay	CMPL, CMPH, WAH, MIX1, DLY, MIX2
09	Low Compressor + High Compressor + Octave doubler (OCT) + Delay	CMPL, CMPH, OCT, MIX1, DLY, MIX2
10	Low Compressor + High Compressor + Techno (TECH) + Delay	CMPL, CMPH, TECH, MIX1, DLY, MIX2
11	Distortion (DIST) + High Cut (HCUT)	DIST, HCUT
12	Distortion + High Cut + Delay	DIST, HCUT, DLY, MIX2
13	Distortion + High Cut + Flanger + Delay	DIST, HCUT, FLA, MIX1, DLY, MIX2
14	Distortion + High Cut + Chorus + Delay	DIST, HCUT, CHO, MIX1, DLY, MIX2
15	Distortion + High Cut + Auto-wah + Delay	DIST, HCUT, WAH, MIX1, DLY, MIX2

The parameters

CMPH Compressor gain for high frequencies

CMPL Compressor gain for low frequencies

CHO Chorus setting

DIST Distortion gain

DLY Delay setting

FLA Flanger setting

HCUT Amount of high cut (low-pass filter)

OCT Octaver setting

TECH "Techno" setting

WAH Auto-wah setting

MIX1 and MIX2 refer to the mix levels at that particular point in the signal chain

(the amount sent to the next stage).

All presets also have a LVL (level) setting from 0 to 64.

The CD-BT1 provides you with an internal 5-band equalizer with two memories to help you shape your instrument's sound. Use this in the following way:

Press the **EQ** key to show one of the EQ memories: A or B (or select no EQ memory). The settings currently stored in that memory will be recalled.

Edit the selected memory by pressing and holding the **EQ** key (if no memory is selected, you cannot make any EQ settings). The display shows EQ L (low). Adjust the level of this from –15 to +15 using the ▲ and ▼ keys.

Press the **ENTER** key to cycle through the other four bands and adjust them in the same way: LM (low mid), M (mid), HM (high-mid) and H (high). The changes you make are automatically stored in the selected EQ memory.

Display	Meaning	Center frequency
L	Low	80 Hz
LM	Low-mid	200 Hz
M	Mid	500 Hz
HM	High-mid	1.25 kHz
H	High	3.15 kHz

The last parameter is the mid shaper (displayed as MID) which performs subtle operations on the midrange of the bass instrument in order to emphasize the bass tones of your playing.

Exit the EQ setting mode by pressing the **DISPLAY/ESC** key.
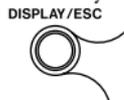
Using the tuner

The CD-BT1's built-in tuner has two modes; an automatic mode, where the pitch of the incoming signal is detected and displayed automatically, and a manual mode, where you set the "target" and tune to it.

Press the **MENU** key until the display shows TUNER, and then press **ENTER**.

When you enter the tuner mode, any effect is automatically turned off.

If the tuner is in automatic mode (shown as AT on the display), just play a note on your bass. The tuner guesses the closest note and shows it on the display.

The symbols to the left and right of the larger center symbol show that the incoming note is either flat (shown by a ♭ on the display) or sharp (♯) respectively.

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Tune the string roughly so that the right note appears, and then adjust the tuning until the tuning display shows only a large center "blob". with both the ♭ and ♯ showing.

The range of the tuner is between B0 and E5, which covers almost all the useful audible range.

If the tuner is in manual mode (shown as MT on the display), use the ▲ and ▼ keys to set the note on the display, and then tune as above.

Calibrating the tuner

Usually, the A above Middle C is tuned to 440Hz (in most Western music).

There may be times when you need to tune to a different standard (you are playing with another instrument or to a CD which does not use the 440Hz tuning). Use the tuner's CAL (calibration menu) to set the "reference A" to a tuning between 435Hz and 445Hz.

NOTE

Although you do not need to play a CD when you are tuning, the CD-BT1 must be switched on, and the BASS button must be pressed in to allow tuning of the instrument plugged into the CD-BT1.

Disc types	8cm single, 12cm CD
AD/DA	16-bit
Digital signal processing	32-bit
Nominal output level (LINE OUT)	−10dBV
Maximum output level (LINE OUT)	0dBV (1Vrms)
Output impedance	1kΩ
Maximum output level (PHONES)	> 18mW (into 32Ω)
Nominal input levels	
LINE IN	−10dBV
BASS IN	passive: -15dBV active: -10dBV
CD playback characteristics	
Frequency response	20Hz to 20kHz ±1.0dB
Dynamic range	> 88dB
S/N ratio	> 88dB
THD	< 0.015%

Voltage requirements	DC 9V (PS-PS5 AC adapter)
	AA batteries x 4 (NiMH or alkaline)
Power consumption	4W (PS-PS5 AC adapter)
Dimensions (w x d x h) including feet	232 x 138 x 40 (mm) 9.1 x 5.4 x 1.6 (in)
Weight (excluding batteries)	620g / 1lb, 6oz

TASCAM CD-BT1
TEAC Professional Division