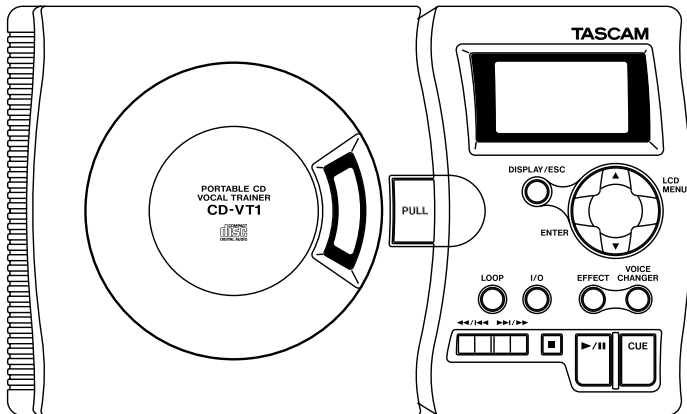


**TASCAM**  
TEAC Professional Division

# CD-VT1

## Portable CD Vocal 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



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

FOR U.S.A.

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 when the equipment is operated in a commercial environment. 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 countermeasures.

- a) Reorient or relocate the receiving antenna
- b) Increase the separation between the equipment and receiver.
- c) Connect the equipment into an outlet on a circuit other from that to which the receiver is connected.
- d) 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.

- 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.

## Important Safety Instructions

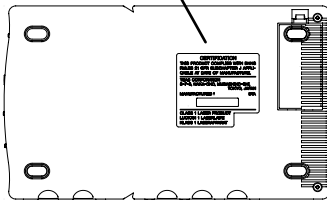
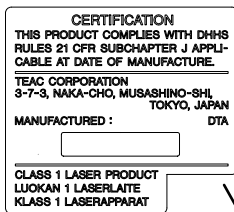
### Safety Information

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, 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



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## About this manual

When we refer to a key or connector or control on the CD-VT1, 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-VT1 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-VT1 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 tempera-

ture range: 10°C to 30°C (50°F to 86°F). Nickel-hydrate 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-hydrate 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.

## First steps with your CD-VT1

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-VT1, 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-VT1.

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

#### NOTE

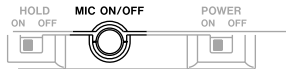
Always remove batteries when operating the unit with an AC adapter. If batteries are accidentally left in the unit when it is operated with an AC adapter, always switch off the

unit before changing from AC adapter to battery power or switching from battery to AC adapter operation.

### Switching on the unit

The CD-VT1 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, **MIC ON/OFF**, controls the power to the **MIC** jacks and effect unit. If this section is off, you cannot use these jacks, or use any of the vocal-related menu systems (effect and voice changer).



Also note the **HOLD** switch that locks the CD-VT1'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 vocal section.

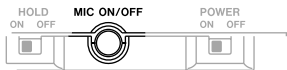
Restart the CD player alone by using the **▶/II** key (or use the **POWER** switch if both the CD and vocal sections are turned off).

## Inputs

### Connecting microphones

Only use low-impedance dynamic microphones (you can use high-impedance microphones, but the quality may suffer) or self-powered condenser microphones, preferably with unbalanced connectors. To connect a microphone to the unit, simply connect the plug at the end of the microphone cord to one of the **MIC IN** jacks of the CD-VT1. If you are using only one microphone, you can connect it to **MIC IN 1** or **MIC IN 2**.

Make sure the **MIC ON/OFF** power button is pushed to activate the microphone and effects, etc.



### Connecting a stereo line source

You can also connect a stereo line source such as the outputs from a synthesizer, a guitar preamplifier or rack-

mount effects unit or a cassette deck, etc. to the CD-VT1. Use the **LINE IN** mini-jack beside the **MIC IN** jacks. This unit will not be able to use the effects of the CD-VT1.

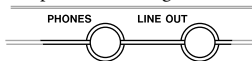
### WARNING

*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-VT1, ask someone who knows.*

## Outputs

Connect the unit to a stereo system's AUX input, the inputs of a cassette, MD or CD recorder, or mixer input, etc. using a suitable stereo cable (not supplied), connected to the CD-VT1's **LINE OUT** stereo mini-jack.

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



### NOTE

*If you are singing, and listening through speakers, you should site the microphones and speakers to avoid feedback.*

## Making connections

### Adjusting the balance

#### Inputs

The CD-VT1 has three input sources:

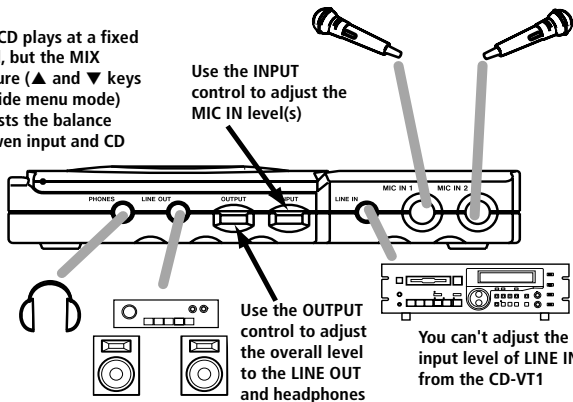
- the CD being played
- the microphone(s) connected to the **MIC IN** jacks
- any stereo input connected to the **LINE IN** jack.

The first and last of these cannot have their input levels changed by the CD-VT1 (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-VT1's effects).
- Use the CD-VT1's **INPUT** control to adjust the level of the microphones before they are sent to the effect.
- When a menu is not selected, you can use the **▲** and **▼** keys to set the relative balance of the micro-

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 **MIC IN** level(s)



phone inputs (but not the **LINE IN** source) compared to the output from the CD player. This **MIX** value can be set to between  $-5$  and  $+5$ .

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

#### 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.



See the table on this page for details of the two 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.

Menu	Menu item	Values	Notes
			
<b>KEY</b>	KEY	♭5 to #5	sets key change in semitones
	FINE	-50 to +50	sets key change in cents
	SSA	0, -8, -16, -32, -50	sets slow speed audition speed
<b>MENU</b>	PLAY	ALL/SGL	all or single play
	CUE	CUE/FLS	cue or “flash play” operation

## Using the CD player

The CD-VT1'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-VT1. Open and close the player door by hand by lifting the door tab (marked **PULL**).

The display shows **OPEN** when the door is opened, **CLOSE** when it is closed and **TOC READ** when a CD's Table of Contents (TOC) is being scanned by the unit after being loaded.

### NOTE

*The CD-VT1 cannot play unfinalized CD-R/ RW discs. In addition, some finalized CD-R/ RW discs may be unplayable on the CD-VT1.*

### Playback

Press the play/pause (▶/⏸) 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 ◀◀/|◀◀ and ▶▶/|▶▶) 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-VT1. 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 (**FLASH** is shown on the display).

### 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).

### Vocal Cancel

The Vocal Cancel feature allows you to reduce the volume of the vocals recorded on (stereo) CDs when they are played back, without reducing the volume of the backing, allowing you to sing to a “karaoke”-type backing. If you are playing back a mono CD, the feature does not work, and on some CDs, the effect is more pronounced than on others.

Use the **VOCAL CANCEL** switch at the side of the unit to turn the effect on or off.



## Pitch and tempo changes

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

These modes help you to sing along at a different key and/or a different tempo so that you can learn your favorite vocal lines.

### TIP

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

### KEY mode

The “key” mode changes the key of the music by five semitones up or down. The tempo does not change.

The value is set in semitones and cents (1/100ths of a semitone).

When this mode is on, the top of the display shows the amount that the key has been shifted.

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

### 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. Use this mode to practice difficult fast vocal lines.

### Making SSA settings

Press the **MENU** key so that the **KEY** indicator flashes, and then press **ENTER** until SSA is shown. Select the SSA value from 0 (off), -8, -16, -32 or -50 (representing the percentage by which the playback speed is reduced). The SSA mark appears on the display when the value is not 0.

### Making KEY settings

Use the menu system to set the values for the pitch settings (key); choose **KEY** from the **KEY** menu and make the **KEY** (semitone) and **FINE** settings.

The CD-VT1 uses “blob” symbols at the top of the display to show, indicating the current setting in semitones. While editing, a # mark is shown if the new pitch is above or a b if the new pitch is below the real pitch.



In the example above, **1** indicates no change to the pitch, **2** is a tone flat (below), and **3** is three semitones sharp (above) the original pitch. The sharp and flat marks are only visible while the pitch is being edited.

### Remember!

- Shift pitch alone and keep speed = **KEY**
- Slow down and keep pitch = **SSA**

Press the **EFFECT** key so that **EFF:OFF** appears on the display.



Use the **▲** and **▼** keys to select the effect you want to use (01 through 18). See the table of effects for an explanation of the different effects available. When an effect is active, the **EFFECT** symbol appears in the display.



Press **ENTER** to start editing the effect's parameter with the **▲** and **▼** keys.



Press the **DISPLAY/ESC** key to exit the effect settings. The inverse **EFFECT** is shown on the display as long as an effect is active (i.e. **EFF:OFF** is not selected).



## Effect presets and parameters

The different presets are described here. This table also shows the different parameter ranges for each effect:

OFF	Off	—
01	Large "pop" reverb sound 1	0 – 20
02	Large "pop" reverb sound 2	0 – 20
03	Large "pop" reverb sound 3	0 – 20
04	Lively "rock" reverb 1	0 – 20
05	Lively "rock" reverb 2	0 – 20
06	Lively "rock" reverb 3	0 – 20
07	Vibrato and echo 1 ( <i>enka</i> )	0 – 20
08	Vibrato and echo 2 ( <i>enka</i> )	0 – 20
09	Vibrato and echo 3 ( <i>enka</i> )	0 – 20

10	Emphasizes "buried" vocals	0 – 20
11	Detuned choral effect	0 – 20
12	Strong vocal vibrato	0 – 30
13	A flanged vocal sound	0 – 30
14	Pans the voice between left and right channels	0 – 30
15	Distorted "shouting" vocal sound	0 – 20
16	Lo-fidelity vocal sound	0 – 20
17	Vocal sound through a megaphone	0 – 99
18	Mixed duet in harmony	-17 to +17

*Enka* is a form of Japanese popular song (usually slow and sentimental, and often with a tango-like backing).

## Using effects

### Voice changer

You can also change the pitch of your voice up or down using the voice changer function (you can use this with the other effects, as it is independent from them).

Press the **VOICE CHANGER** key so that the display shows VCHG OFF.



Use the ▲ and ▼ keys to set the voice changer to up (UP) or down (DN).



Press the **DISPLAY/ESC** key to exit the voice changer mode.



## Facts & figures (specifications)

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	1k $\Omega$
Maximum output level (PHONES)	> 18mW (into 32 $\Omega$ )
Nominal input levels LINE IN MIC IN (1/2)	-10dBV -40dBV
CD playback characteristics	
Frequency response	20Hz to 20kHz $\pm$ 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 / 11lb, 6oz

**TASCAM**  
TEAC Professional Division

**CD-VT1**

**TEAC CORPORATION**

3-7-3 Nakacho Musashino-shi Tokyo 180-8550 JAPAN  
+81-422-52-5082

[www.tascam.com](http://www.tascam.com)

**TEAC AMERICA, INC**

7733 Telegraph Road Montebello CA 90640 USA  
+1-323-726-0303

[www.tascam.com](http://www.tascam.com)

**TEAC CANADA LTD.**

5939 Wallace Street Mississauga Ontario L4Z 1Z8 CANADA  
+1-905-890-8008

[www.tascam.com](http://www.tascam.com)

**TEAC MEXICO, S.A de C.V**

Campeños No. 184 Colonia Granjas Esmeralda Delegacion Iztapalapa CP 09810 Mexico DF MEXICO  
+52-555-581-5500

[www.tascam.com](http://www.tascam.com)

**TEAC UK LIMITED**

5 Marlin House, Croxley Business Park Watford Hertfordshire WD18 8TE UNITED KINGDOM  
+44-1923-438880

[www.tascam.co.uk](http://www.tascam.co.uk)

**TEAC DEUTSCHLAND GmbH**

Bahnstrasse 12 65205 Wiesbaden-Erbenheim GERMANY  
+49-611-71580

[www.tascam.de](http://www.tascam.de)

**TEAC FRANCE SA**

17 Rue Alexis-de-Tocqueville CE 005 92182 Antony Cedex FRANCE  
+33-1-42-37-01-02

[www.tascam.fr](http://www.tascam.fr)

**TEAC ITALIANA S.p.A.**

Via C Cantu 11 20092 Cinisello Balsamo Milano ITALY  
+39-02-66010500

[www.teac.it](http://www.teac.it)

**TEAC AUSTRALIA PTY., LTD.**

280 William St Melbourne Victoria 3000 AUSTRALIA  
+61-3-9672-2400

[www.teac.com.au](http://www.teac.com.au)

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