

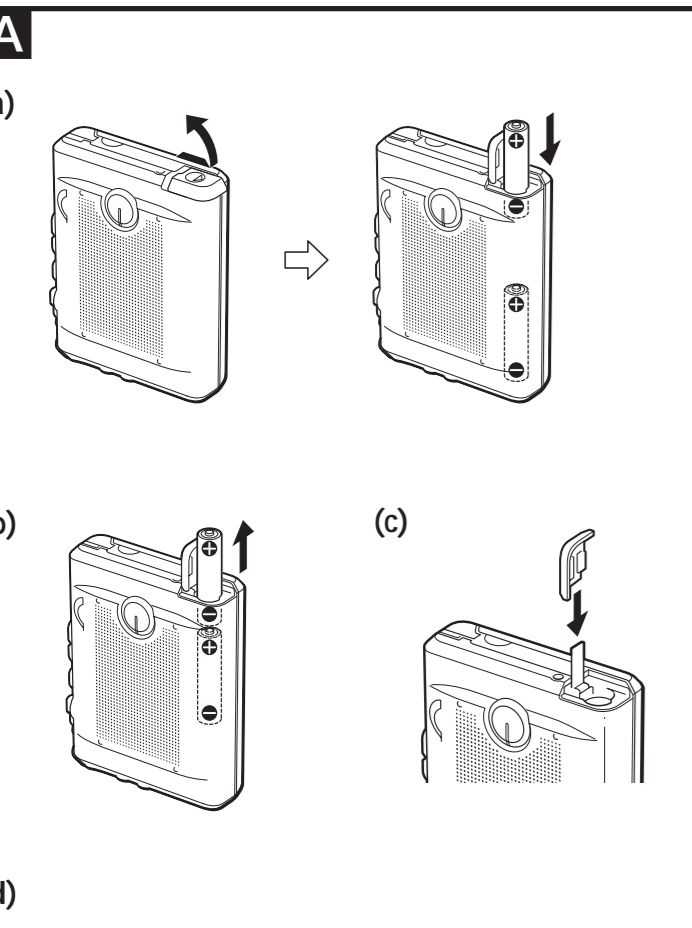
Cassette-Corder

Operating Instructions
操作说明书

TCM-450DV

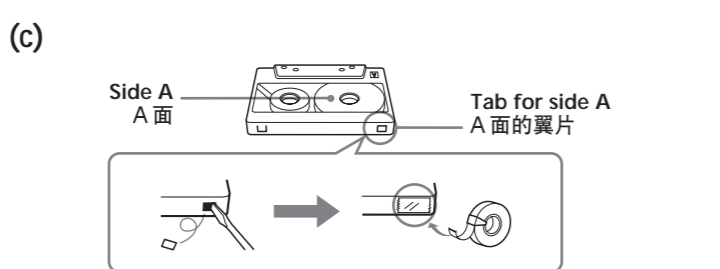
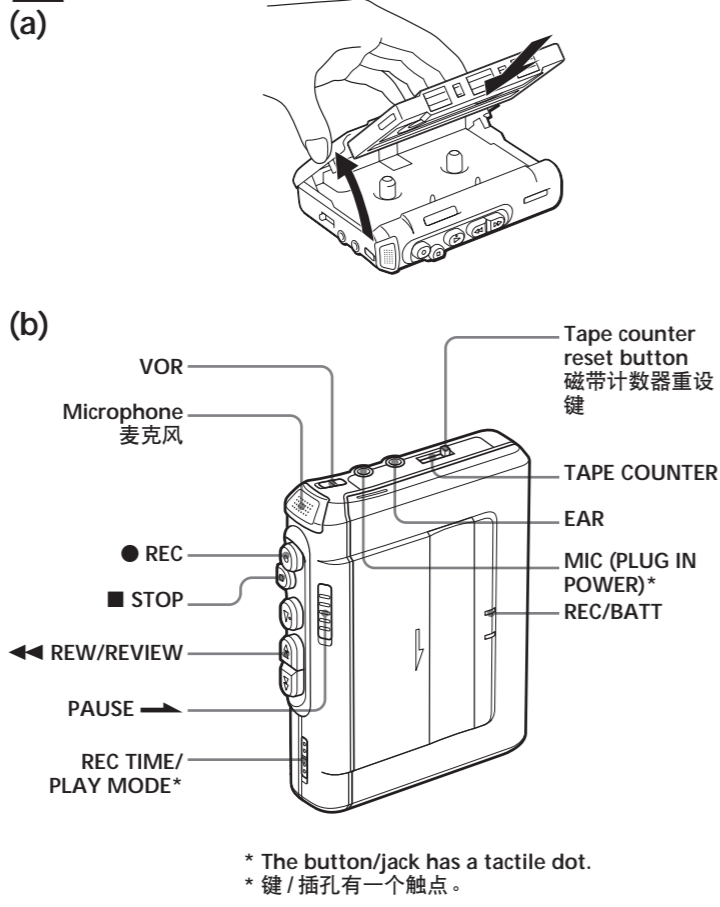
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When batteries are new 电池崭新时	REC /BATT lights brightly 明亮
When batteries become weak 电池电量微弱时	REC /BATT lights dimly 暗淡
Replace batteries 更换电池	flashes 闪烁

B



(d)

English

▶ Getting Started

Preparing a Power Source

Choose one of the following power sources.

Dry Batteries (see Fig. A-(a))

- 1 Open the battery compartment lid.
- 2 Insert two R03 (size AAA) batteries (not supplied) with correct polarity and close the lid.

To take out the batteries (see Fig. A-(b))

To attach the battery compartment lid if it is accidentally detached (see Fig. A-(c))

When to replace the batteries

Replace the batteries with new ones of the same kind when the REC/BATT lamp dims and the lamp flashes. The REC/BATT and lamps change as illustrated. (see Fig. A-(d))

Notes

- The unit will play back normally for a while, even after the lamp flashes. However, replace the batteries as soon as you can. Otherwise, the built-in speaker may emit a loud noise and recordings may not be made correctly.
- In the following cases you do not need to replace the batteries:
 - if the lamp flashes with the playback sound when you turn up the volume.
 - if the lamp lights momentarily when the tape starts running or at the end of the tape.
 - if the lamp flashes during FF/REW or CUE/REVIEW.

Battery life*1 (approx. hours)

Batteries	Recording	Playback*2
Sony alkaline LR03 (SG)*3	15	8
Sony manganese R03 (SB)	5	2

*1 Measured value by the standard of JEITA (Japan Electronics and Information Technology Industries Association). (Using a Sony HF series cassette tape)

*2 Using a tape on which music has been recorded is played at volume setting 7 using speaker

*3 When using Sony LR03 (SG) alkaline dry batteries (produced in Japan)

Note

The battery life may be shorter depending on the operating condition, the surrounding temperature and battery type.

For maximum performance we recommend that you use alkaline batteries.

▶ Operating the Unit

Recording (see Fig. B-(a), (b))

You can record right away with the built-in microphone. Make sure that nothing is connected to the MIC jack.

- 1 Press the reset button of the TAPE COUNTER.
- 2 Insert a normal (TYPE I) tape with the side start recording facing the lid.

- 3 Set REC TIME/PLAY MODE to the desired mode. NORMAL (4.8cm/s): for optimum sound. Recommended for normal recordings. *There is a tactile dot on this side.* DOUBLE (2.4cm/s): for double recording time (for example, 120 minutes using both sides of a 60-minute cassette). Suitable for recording conferences, dictations, etc. Not recommended for recording music.

- 4 Set VOR to OFF. If you set VOR to ON, the unit automatically starts recording the sound and pauses when there is no sound (you can save tapes and batteries). When the sound is not loud enough, set it to OFF, or the unit may not start recording.

- 5 Press ● REC. ▶ PLAY is pressed simultaneously and recording starts. While the tape runs, the REC/BATT lamp lights and flashes depending on the strength of the sound. Recording level is fixed.

At the end of the tape, recording stops and the unit turns off automatically (Automatic shut-off mechanism).

To	Press or slide
Stop recording	■ STOP
Pause recording	Slide PAUSE in the direction of the arrow. To release pause recording, release PAUSE .
Start recording during playback	● REC during playback (the unit enters the recording mode)
Review the portion just recorded	Press and hold ◀◀ REW/REVIEW during recording. Release the button at the point to start playback.
Take out a cassette	Press ■ STOP and open the cassette compartment lid by hand.

* PAUSE will also be automatically released when ■ STOP is pressed (stop-pause-release function).

Notes

- Do not use a High-position (TYPE II) or metal (TYPE IV) tape. If you do so, the sound may be distorted when you play back the tape, or the previous recording may not be erased completely.
- The SPEED CONTROL switch (see reverse side) works in the playback mode only. Recording will be made independent of this control.

Notes on VOR (Voice Operated Recording)

- The VOR system is affected by the environmental recording conditions. When you use the system in a noisy place, the unit will stay in the recording mode. If the sound is too soft, on the contrary, the unit will not start recording. If you cannot get the results you want, set it to OFF.
- The VOR system may not record the beginning of the sound you want to record because it starts recording only after it catches the sound. For an important recording, set it to OFF.

To monitor the sound Connect an earphone (not supplied) firmly to the EAR jack. The monitor volume cannot be adjusted by VOL.

To prevent a tape from being accidentally recorded over (see Fig. B-(c))

Break off and remove the cassette tabs. To reuse the cassette for recording, cover the tab hole with adhesive tape.

(turn over)

中文

▶ 启用

准备电源

操作时，有下列电源可供选用。

干电池（参见图 A-(a)）

- 1 打开电池室盖。
- 2 装入两个R03（AAA，7号）电池（无附带），装时须按照正确极性方向装入，然后盖上盖子。

要取出电池时（参见图 A-(b)）

电池室盖意外掉落时请将其装上（参见图 A-(c)）

什么时候需要交换电池

REC/BATT灯暗淡并且灯闪烁时，请用相同型号的新电池予以更换。

如图所示，REC/BATT和指示灯发生变化。（参见图 A-(d)）。

注

- 即使灯起闪烁之后，机器仍可正常地播放一下，但是必须尽快更换电池。如果不换电池，您将不能获得正常声音的收音，所录声音可能参杂噪声，所录声音也会不够响亮。
- 如下状况时，并不必更换电池：
 - 调高音量时，如果随播放声而灯起闪烁。
 - 当开始走带或到达磁带末端时：灯亮了一下。
 - FF/REW（快进绕提示）或CUE/REVIEW（重绕检阅）操作中，如果灯起闪烁。
- The SPEED CONTROL switch (see reverse side) works in the playback mode only. Recording will be made independent of this control.

Notes on VOR (Voice Operated Recording)

- The VOR system is affected by the environmental recording conditions. When you use the system in a noisy place, the unit will stay in the recording mode. If the sound is too soft, on the contrary, the unit will not start recording. If you cannot get the results you want, set it to OFF.
- The VOR system may not record the beginning of the sound you want to record because it starts recording only after it catches the sound. For an important recording, set it to OFF.

To monitor the sound Connect an earphone (not supplied) firmly to the EAR jack. The monitor volume cannot be adjusted by VOL.

To prevent a tape from being accidentally recorded over (see Fig. B-(c))

Break off and remove the cassette tabs. To reuse the cassette for recording, cover the tab hole with adhesive tape.

注

电池寿命可能因机器的操作情况、环境温度 and 电池类型而缩短。

为发挥最大性能，推荐使用碱性电池。

▶ 操作机器

录音（参见图 B-(a), (b)）

可使用内置麦克风立即录音。录音时，MIC插孔里不可连接任何电线。

- 1 按 TAPE COUNTER 的重设键。

- 2 将要录音的一面朝向卡带室盖，插入普通 (TYPE I) 磁带。

- 3 将 REC TIME/PLAY MODE 设为所需的状态。NORMAL (标准) (4.8cm/秒)：用于最佳音质。建议使用标准录音。在该面有一个触点。DOUBLE (两倍) (2.4cm/秒)：用于两倍录音时间 (例如，使用 60 分钟磁带的双面为 120 分钟)。适用于会议、口述等。建议不要用于录制音乐。

- 4 把 VOR 开关设定在“OFF”。若把 VOR 开关设定在“ON”，则录音机将在发出声音时自动开始录音，没有声音时自动暂停下来（可以节省磁带及电池之消耗）。要录的声音若不够大，把 VOR 开关设定在“OFF”，否则便无法令录音机开始录音。

- 5 按压 ● REC 键。▶ PLAY 即同时被按下而开始录音。录音带一开始卷动，REC/BATT 指示灯便发亮并按照声音强弱而闪烁。录音电平是固定的。

*1 按 JEITA (Japan Electronics and Information Technology Industries Association) 标准测量的值 (使用 Sony HF 系列磁带)

*2 使用扬声器以音量设置 7 播放录有音乐的磁带

*3 当使用 Sony LR03 (SG) 碱性干电池 (日本制造) 时

电池	录音时间	收音*2
Sony 碱性电池 LR03 (SG)*3	15	8
Sony 锰性电池 R03 (SB)	5	2

*1 按 JEITA (Japan Electronics and Information Technology Industries Association) 标准测量的值 (使用 Sony HF 系列磁带)

*2 使用扬声器以音量设置 7 播放录有音乐的磁带

*3 当使用 Sony LR03 (SG) 碱性干电池 (日本制造) 时

要	按压或滑动
停止录音	按 ■ STOP 键
暂停录音	沿箭头方向滑动 PAUSE 开关。要释放暂停录音，释放 PAUSE 开关*。
在收音过程中开始录音	在收音过程中按 ● REC (录音机进入录音状态)
回放刚录制的部分	在录音过程中按住 ◀◀ REW/REVIEW 键，在录音带转到要收听的地方时放开按键。
取出磁带	按 ■ STOP 键，用手打开卡带室盖。

* 按 ■ STOP 键时 PAUSE 键也将自动释放 (停止 - 暂停 - 释放功能)。

注

- 请勿使用高频 (TYPE II) 磁带或金属 (TYPE IV) 磁带。否则，收音时声音可能会失真，或者可能完全抹掉以前的录音内容。
- SPEED CONTROL 旋钮 (见背面) 仅在收音状态中才起作用。录音不受该控制的影响。

关于 VOR (Voice Operated Recording) 开关的注意事项

- VOR 系统受环境录音条件影响。当在嘈杂的地方使用该系统时，本机将一直处于录音状态，如果声音太轻，本机也不会开始录音。如果不能获得理想的结果，请将其设为 OFF。
- VOR 系统可能没有录下要录声音的开始部分，因为只有它捕获到声音后才开始录音。对于重要的录音，请将其设为“OFF”。

若要一面录音一面监听所录着的声音

在 EAR 插孔连接耳机 (无附带)。监听器的音量是不能用 VOL 调整的。

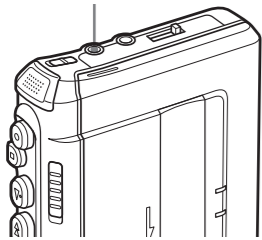
为防止所录的地方因重录而被误关掉 (参见图 B-(c))

拆掉录音卡带盒背的录音防止保险片。要再以那盒卡带录音时，在拆掉保险片的小洞，贴张胶带就行。

(续下页)

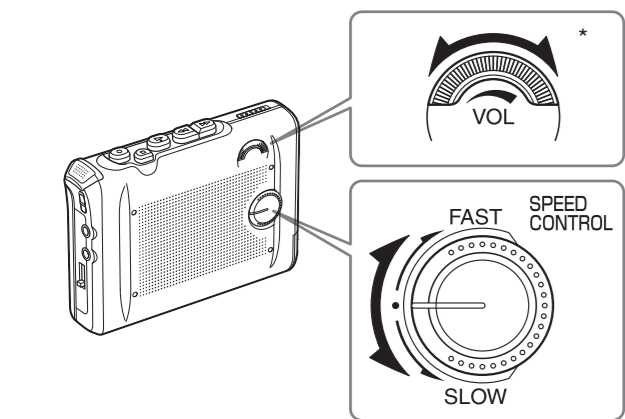
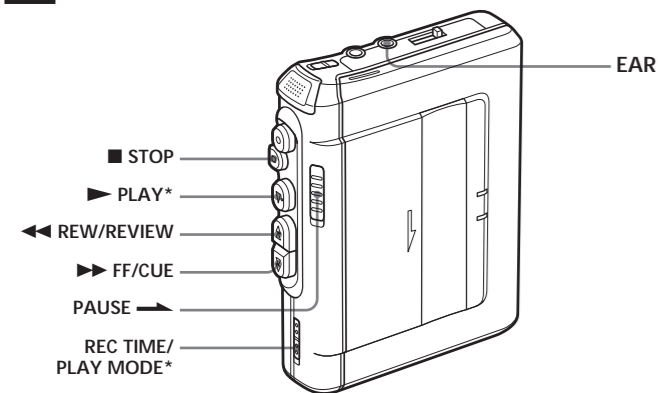
C

MIC (PLUG IN POWER)*



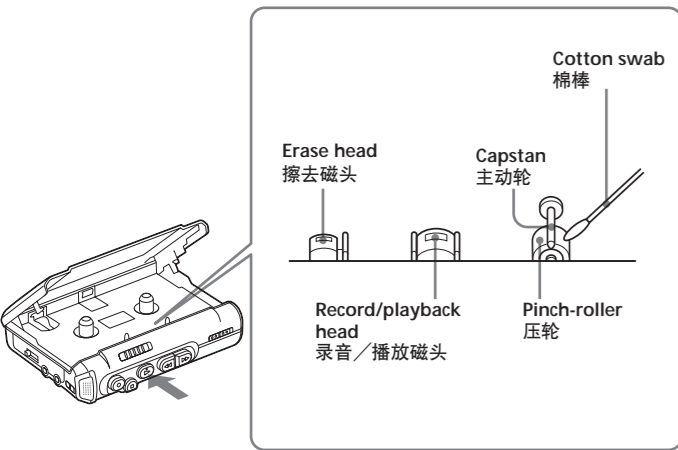
- * There is a tactile dot beside the MIC jack.
- * 在 MIC (麦克风) 插孔旁边有一个触点。

D



- * The button has a tactile dot.
- * 键有一个触点。

E



English

Recording from Various Sound Sources

Notes

- When you are going to record something that you may not have an opportunity to record again, test the unit first before you actually start recording.
- When recording with an external microphone, the VOR system may not work properly because of the difference in sensitivity.

Recording with an External Microphone (see Fig. C)

Connect a microphone firmly to the MIC jack.

Use a microphone of low impedance (less than 3 kΩ). When using a plug-in-power system microphone, the power to the microphone is supplied from this unit.

Recording from Another Equipment

Connect another equipment firmly to the MIC jack using the connecting cord (not supplied). Set this unit to the recording mode and another equipment to the playback mode.

Playing a Tape (see Fig. D)

- 1 Insert a normal (TYPE I) tape with the side to start playing facing the lid
- 2 Set REC TIME/PLAY MODE to the same position as that used for recording. To playback commercially available music tape, etc., select NORMAL.
- 3 Press ► PLAY and then adjust the volume. *There is a tactile dot beside VOL on to show the direction to turn up the volume.*
- 4 Adjust the tape playback speed. Turn SPEED CONTROL to: SLOW (slow) to play back at a slower speed. Center position to play back at normal speed. FAST (fast) to play back at a faster speed.

At the end of the tape, playback stops and the unit turns off automatically (Automatic shut-off mechanism). After the tape has been wound or rewound, be sure to press ■ STOP.

If you plug in headphones (not supplied) to the EAR jack, you will get monaural output from both left and right channels.

To	Press or slide
Stop playback/stop fast forward or rewind	■ STOP
Pause playback	Slide PAUSE ► in the direction of the arrow. <i>To release pause playback, release PAUSE ►*.</i>
Fast forward** (FF)	►► FF/CUE during stop
Rewind** (REW)	◄◄ REW/REVIEW during stop
Search forward during playback (CUE)	Press and hold ►► FF/CUE and release it at the point you want.
Search backward during playback (REVIEW)	Press and hold ◄◄ REW/REVIEW and release it at the point you want.
Start recording during playback	● REC
Take out a cassette	Press ■ STOP and open the cassette compartment lid by hand.

* PAUSE ► will also be automatically released when ■ STOP is pressed (stop-pause-release function).

**If you leave the unit after the tape has been wound or rewound, the batteries will be consumed rapidly. Be sure to press ■ STOP.

Note

Playback may not start automatically even if you release ◄◄ REW/REVIEW at the end of the tape. To start playback again, press ■ STOP, then press ► PLAY.

► Additional Information

Precautions

On power

- Operate the unit only on 3 V DC. For battery operation, use two R03 (size AAA) batteries.

On the unit

- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Should any solid object or liquid fall into the unit, remove the batteries and have the unit checked by qualified personnel before operating it any further.
- Keep personal credit cards using magnetic coding or spring-wound watches, etc. away from the unit to prevent possible damage from the magnet used in the speaker.

- When you do not use the unit for long, remove the batteries to avoid damage caused by battery leakage and subsequent corrosion.
- If the unit has not been used for long, set it in the playback mode and warm it up for a few minutes before inserting a cassette.

On tapes longer than 90 minutes

We do not recommend the use of tape longer than 90 minutes except for a long continuous recording or playback. They are very thin and tend to be stretched easily. This may cause malfunction of the unit or sound deterioration.

If you have any questions or problems concerning your unit, please consult your nearest Sony dealer.

Troubleshooting

Should any problem persist after you have made these checks, consult your nearest Sony dealer.

You cannot insert a cassette or close the cassette compartment lid.

- The cassette is being inserted in the wrong way.
- ► PLAY has been already pressed.

The unit does not operate.

- The batteries have been inserted with incorrect polarity.
- The batteries are weak. Replace both batteries with new ones.
- PAUSE ► is slid in the direction of the arrow.

Recording cannot be made.

- There is no cassette in the cassette compartment.
- The tab on the tape has been removed. To reuse the tape for recording, cover the tab hole with adhesive tape.
- The batteries are weak. Replace both batteries with new ones.

Recording is interrupted.

- The VOR switch is set to ON. When you do not use VOR, set it to OFF.

Recording cannot be erased completely.

- The erase head is contaminated. See "Maintenance."
- You are using a High-position (TYPE II) or metal (TYPE IV) tape.

Playback cannot be made.

- The tape has reached the end. Rewind the tape.

No sound comes from the speaker.

- The earphone is plugged in. Unplug it.
- The volume is turned down completely.

The sound drops out or comes with excessive noise.

- The volume is turned down completely.
- The batteries are weak. Replace both batteries with new ones.
- The heads are contaminated. See "Maintenance."

- Direct placement of the cassette tape on the speaker resulted in magnetization and deteriorated tonal quality.
- You are using a High-position (TYPE II) or metal (TYPE IV) tape.
- Use the unit away from radiowave-emitting devices such as cellular phones.

Tape speed is too fast or too slow or the sound is distorted in the playback mode.

- SPEED CONTROL is set at a point other than the center.
- Improper setting of the REC TIME/PLAY MODE switch. Set it to the same speed as that used for recording.
- The batteries are weak. Replace both batteries with new ones.

There is a clicking noise during tape operation.

- The unit is not in the stop mode. Press ■ STOP.

Maintenance

To clean the tape heads and path (see Fig. E)

Press ► PLAY and wipe the heads, pinch roller and the capstan with a cotton swab, moistened with alcohol every 10 hours of use.

To clean the exterior

Use a soft cloth slightly moistened in water. Do not use alcohol, benzine or thinner.

Specifications

Recording system	2-track 1 channel monaural
Speaker	Approx. 3.6 cm dia.
Tape speed	4.8 cm/s or 2.4 cm/s
Variable range of the tape speed	From approx. +30% to -20% (with REC TIME/PLAY MODE switch at "NORMAL")
Frequency range	250 - 6 300 Hz using nomal (TYPE I) cassette (with REC TIME/PLAY MODE switch at "NORMAL")
Input	Microphone input jack (minijack/monaural/PLUG IN POWER) sensitivity 0.2 mV for 3 kΩ or lower impedance microphone
Output	Earphone jack (minijack/monaural) for 8 - 300 Ω earphone
Power output (at 10 % harmonic distortion)	450 mW
Power requirements	3 V DC, batteries R03 (AAA) × 2
Dimensions (w/h/d) (incl. projecting parts and controls)	Approx. 86.3 × 113.4 × 28.9 mm
Mass (main unit only)	Approx. 173 g
Supplied accessory	Carrying pouch (1)

Design and specifications are subject to change without notice.

中文

从各种声源录音

注

- 将要录制某些仅有一次录音机会的声源时，请在开始录音前先测试本机。
- 使用机外麦克风时，因为各个麦克风的灵敏度不同，所以 VOR 功能也许不能正常工作。

另连接麦克风录音 (参见图 C)

将麦克风牢固地连接到 MIC 插孔。

使用低阻抗 (低于 3kΩ) 的麦克风。使用插入通电式麦克风时，麦克风电源由本机提供。

从其他装置录音

用连接导线 (无附带) 将另一磁带录音机连接到 MIC 插孔。把本机设定在录音状态，并把另一架录音机设定在放音状态

放音 (参见图 D)

- 1 将要开始放音的一面对着卡带室盖，插入普通 (TYPE I) 磁带。
- 2 将 REC TIME/PLAY MODE 设为与录音时相同的状态。要放音在市面上选购的音乐磁带等，请选择 NORMAL。
- 3 按 ►PLAY 键，然后调节音量。VOL 旁的触点表示调高音量的方向。
- 4 调节磁带放音速度。将 SPEED CONTROL 旋钮转至：SLOW (慢速) 以较慢的速度进行放音。中心位置以标准速度进行放音。FAST (快速) 以较快的速度进行放音。

到达磁带末端时，放音停止并且本机自动关闭 (自动关机机制)。磁带完全绕完或重绕完之后，请务必按 ■STOP 键。

故障排除

如果把头戴耳机 (无附带) 接到 EAR 插孔，则从左声道及右声道都将听到单耳声输出。

要	须按压或设定的控制器
停止放音/停止快转或倒转	按 ■STOP 键
暂停放音	把 PAUSE ► 开关往箭头方向移动。要取消暂停放音，请释放 PAUSE ►* 键。
快速前转** (FF)	在停止状态下按 ►►FF/CUE 键
快速倒转** (REW)	在停止状态下按 ◄◄REW/REVIEW 键
在放音过程中向前寻找 (CUE)	按住 ►►FF/CUE 键，在所需的地方释放该键。
在放音过程中向后寻找 (REVIEW)	按住 ◄◄REW/REVIEW 键，在所需的地方释放该键。
在放音过程中开始录音	按 ●REC 键
取出磁带	按 ■STOP 键，用手打开卡带室盖。

* 按 ■STOP 键时 PAUSE ► 键也将自动释放 (停止 - 暂停 - 释放功能)。

**若在录音带走到尽头，或被卷回起点以后离开录音机，则电池将很快就用完，切记此时一定要按下 ■STOP 键才离开座位。

注

即使在磁带结束时释放 ◄◄REW/REVIEW 键，也有可能不会自动开始放音。若要重新开始放音，按 ■STOP 键，然后再按 ►PLAY 键。

► 附加信息

使用前须知注意事项

电源

- 本机只可使用 3V DC 直流电操作。

录音机

- 不可把录音机放在热源附近，或直接受到阳光照射的地方，以及灰尘极多，容易受震动之处。
- 若让固体或液体掉落机内，请取出电池，并经电气专业人员检查以后，方可再行使用。
- 若长期不使用电池，请取出，以免电池溶液泄漏，损伤机体或腐蚀。
- 录音机若长期不使用，下次要再使用时，先把录音机设定在放音状态，使机器预热了几分钟，然后才插入录音带。

90 分钟以上长的磁带须知

除非进行长时间的连续录音或播放，不建议使用长度长于 90 米的磁带。因为这类磁带很薄，容易拉伸，可能引起机器故障或音质变差。

若对机器有任何疑问时，请向最近的 Sony 销售店咨询。

维修

清洁磁头和磁带通道 (参见图 E)

每使用 10 小时后，按 ►PLAY 键，然后用蘸有酒精的棉球棒擦拭磁头、压带轮及输带轴。

机体外表的清洁

机体外表请以一稍微沾湿的柔软布块擦拭，不可使用酒精、挥发性油脂或稀释剂。

规格

录音系统	2 轨迹，1 声道，单声道
扬声器	直径约为 3.6cm
磁带速度	4.8cm/秒或 2.4cm/秒
磁带速度变化范围	大约 +30% 到 -20% (REC TIME/PLAY MODE 开关设定于 "NORMAL")
频率范围	250-6300Hz，使用标准盒带 (TYPE I) (REC TIME/PLAY MODE 开关设定于 "NORMAL")
输入	麦克风输入插孔 (小型插孔/单声道/PLUG IN POWER，插入通电式) 灵敏度为 0.2mV，用于阻抗为 3kΩ 或低于 3kΩ 的麦克风。
输出	耳机插孔 (小型插孔/单声道)，用于 8-300Ω 的耳机
功率输出 (10% 谐波失真时)	450mW
电源	3V DC 电池 R03 (AAA，7 号) × 2
尺寸 (宽/高/深) (包括突出部分及控制器)	约 86.3 × 113.4 × 28.9mm
质量 (只包括主机)	约 173g
随机附件	便携袋 (1)

本机设计及规格或有变更之处，恕不另行通知。

若在经过自己进行下列检查调查以后，仍然不能使录音机恢复正常的的话，请向 Sony 经销店商量。

无法插入磁带或关闭卡带室盖。

- 录音带方向装反了。
- ►PLAY 键已经被按下了。

本机不工作。

- 电池装反了。
- 电池电量不足。请同时更换两个新电池。
- PAUSE ► 往箭头方向移动了。

不能录音。

- 卡带室里没装录音带。
- 磁带上的防录保险片被拆掉了。要使磁带能重新录音，用胶布覆盖保险片孔。
- 电池用完了。请用新电池更换两节旧电池。

录音中途停止。

- VOR 开关被设为 ON，当不使用 VOR 时，请把它设为 OFF。

以前的录音不能完全消除。

- 擦去磁头脏了。参看“维修”。
- 正在使用高频 (TYPE II) 磁带或金属 (TYPE IV) 磁带。

不能播放。

- 磁带已到头了。重绕磁带。

扬声器没有声音。

- 已插入耳机。请将其拔出。
- 音量被调到最小。

声音跳音或噪音太大。

- 音量被调到最小。
- 电池电量不足。请同时更换两个新电池。
- 磁头脏了。参看“维修”。
- 把卡带放在扬声器上导致磁化以及声音质量劣化。
- 正在使用高频 (TYPE II) 磁带或金属 (TYPE IV) 磁带。
- 在远离无线电发射设备如手机处使用本机。

磁带速度太快或太慢或者放音模式时声音失真。

- SPEED CONTROL 没有设在中心位置。
- REC TIME/PLAY MODE 开关设置不正确。将其设为与录音时相同的速度。
- 电池电力不足。用两节新电池进行更换。

在磁带运转过程中有“卡嗒”的噪音。

- 录音机不在停止状态。按 ■STOP 键。