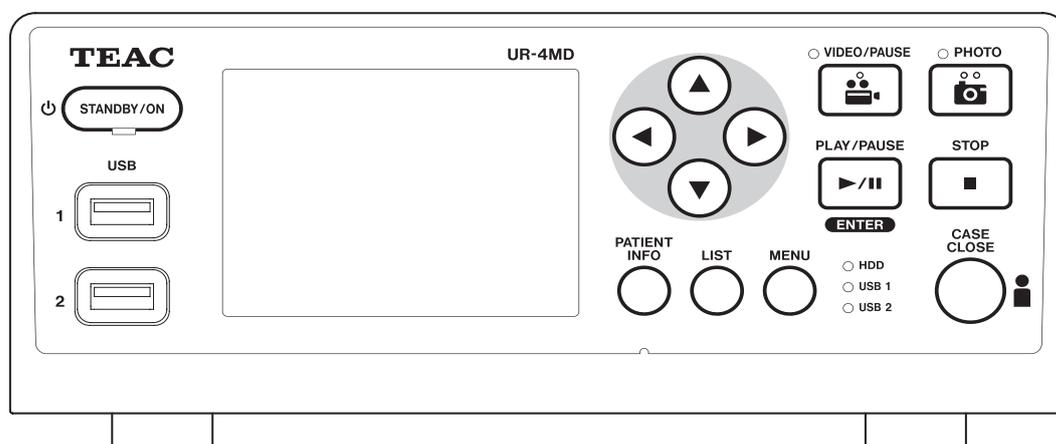


TEAC

用户手册

UR-4MD

数字式录影机



说明书发行日期：2025 年 11 月
执行标准：GB8898, GB13837, GB17625.1, GB9254

各种符号的含义

以下类型的符号被使用在 UR-4MD 的包装及用户手册内。
当您阅读相关信息时，必须确保您已完全理解符号的含义。



符合欧盟法规的医疗器械



目录编号



序列号



清晰的产品标识



型号



注意：美国联邦法律限制本设备只能由医生销售或根据医生的指令销售



包装内容



包装损坏时请勿使用



仅在非热带条件下使用



仅在海拔不超过 2000 米的高度使用



环保使用年限（年）



(蓝色)

请参阅使用说明书 / 手册



小心，注意：查阅随附文件



制造日期



合法制造商



欧盟授权代表

UKRP

英国负责人



瑞士授权代表



欧盟当地进口商



保持干燥以便运输和存放



运输和存放的温度限制



运输和存放的湿度限制



运输和存放的气压限制



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



注意:为降低触电风险,请勿拆除护罩(或后板)。设备内部未包含用户自行维修的部件。仅允许专业维修人员进行维修。



等边三角区域内带有箭头的闪电标识旨在提醒用户:产品壳体内部的未绝缘“危险电压”等级可能导致人员触电危险。



等边三角区域内的感叹号旨在提醒用户:遵守产品随机资料中的重要操作和维护(维修)操作说明。

- 1) 请阅读此类操作说明。
 - 2) 请妥善保管此类操作说明。
 - 3) 注意所有警告事项。
 - 4) 遵守所有操作说明。
 - 5) 严禁在有水区域附近使用本设备。
 - 6) 仅允许使用干布清洁设备。
 - 7) 严禁堵塞设备通风口。按照产品制造商操作说明中的相关规定进行安装。
 - 8) 严禁在散热器、热风调节器、烘箱或其他可产生热量的仪器(包括放大器)等热源附近安装设备。
 - 9) 严禁破坏极性插头或接地式插头。极性插头包含两块插片。接地式插头包含两块插片和第三个接地插脚。宽型插片或第三个接地插脚主要用于确保使用安全。如果随机附带的插头与您所使用的插座不匹配,请向电气技术人员咨询废旧插座的相关更换事宜。
 - 10) 保护电源线免受踩踏或挤压,特别是插头、电源插座和电源线等从设备伸出的部位。
 - 11) 仅允许使用设备制造商指定的附件/配件。
 - 12) 仅允许使用设备制造商指定或随机销售的推车、支架、三脚架或工作台。使用推车移动设备过程中,为避免发生倾覆,必须严格遵循相关注意事项。
 - 13) 雷雨天气或长时间未使用时,应拔除设备电源插头。
 - 14) 仅允许专业维修人员进行维修。设备出现任何形式的损坏时必须进行维修,例如:电源线或插头损坏、液体溅入或异物落入设备内、设备受到雨淋或受潮、操作不正常或发生掉落。
- 严禁将本设备放置在滴水或溅水区域。
 - 严禁在本设备上放置装有液体的物品,例如:花瓶。
 - 严禁在密闭空间内安装本设备,例如:书柜或类似物品。
 - 在设备的 POWER 或 STANDBY/ON 开关未处于 ON 位置时,设备从交流电源插座获取公称非运行功率。



- 本设备应安装在紧邻交流电源插座的位置,以便您可随时很容易地握住电源线的插头。
- 电源插头可作为断开装置,断开装置应随时处于可用状态。
- I 类设备配有带接地插头的电源线。此类设备的电源线必须与带有接地保护的交流电源插座相连。
- 如果本设备使用电池(包括电池组或内置式电池),严禁将其放置在阳光下、火源或高温区域。
- 注意使用可更换锂电池的产品:如果更换不正确类型的电池有爆炸的危险。只能更换相同或同等类型。
- 由于来自于耳机的过大声压(音量)可能导致听力受损,因此,在产品使用过程中,佩戴耳机时,应遵守相关注意事项。

警告:为避免发生火灾或触电,严禁使本设备受到雨淋或受潮。

注意

- 勿拆卸外壳或机身让电子零件暴露。里面没有用户能修复的部件。
- 如果您遇到了此产品的问题,请联系您购买此产品的经销商。故障设备完成维修前,严禁使用。
- 使用控制,调整或不按此处指定的步骤可能会导致危险的辐射。



仅适用于海拔 2000m 以下地区安全使用。



仅适用于非热带气候条件下安全使用。



环境保护使用年限

关于汇报事故:

如发生与设备相关的严重事故,需向制造商及当局主管部门汇报。

预期用途:

本产品是医疗领域使用的图像记录仪,用于检查和手术记录的备份,不用于诊断目的。

废弃方法:

按照当地法规妥善处置。

简介

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预期用户简介

此医疗设备可以由医生、护士、技术员、治疗师、安装人员和维修人员操作。操作者也必须具备有视频录制和回放的知识，能够阅读操作面板，并按操作按钮。

产品有毒有害物质或元素的名称及含量

机型：UR-4MD		有毒有害物质或元素					
品名		铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
1	CHASSIS 部分	○	○	○	○	○	○
2	FRONT PANEL 部分	○	○	○	○	○	○
3	螺丝部分	○	○	○	○	○	○
4	线材部分	○	○	○	○	○	○
5	PCB Assy 部分	×	○	○	○	○	○
6	电源部分	×	○	○	○	○	○
7	附属品部分	○	○	○	○	○	○
8	LABEL 部分	○	○	○	○	○	○
9	包装部分	○	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T26572 标准规定的限量要求以下。

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 GB/T26572 标准规定的限量要求。

(针对现在代替技术困难的电子部品及合金中的铅)

特点

- 自动感应分辨率和输入连接便于连接到其他设备
- 可快速启动的录制按钮，方便操作
- 可长时间录制播放视频和照片
- 录制视频的同时可以拍照
- 外部的触点开关可用来录制
- 同时录制到内置硬盘和外部 USB 设备能提供高可靠性的数据保存
- 内置 LCD 能够确认输入图像和显示状态
- 通过网络传输数据
- 可使用内置硬盘的自我检测、分析和报告信息来确认故障。
- 断电时可短时间维持供电的功能，可以防止数据丢失
- 轻巧紧凑设计
- 支持高达 WUXGA 的高清晰度

设备指示灯

前面板

指示灯	功能
 STANDBY/ON	使用此按钮开启或关闭本设备

后面板

指示灯	功能
 IN	使用此连接器为本设备供电。连接随附的电源线。
	这是一个电位平衡端口。将电位平衡线与符合 DIN42801 的端口相连接。
	使用此连接器来连接网络。
	使用此连接器来输入视频信号。
	使用此连接器来输出视频信号。

目录

感谢选用TEAC。

仔细阅读本手册，以让本机达到最佳效能。阅读本手册以后，请妥善保存以备日后参考需要。

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在使用之前

随机配件

检查及确认包装内包含所有如下所示的项目。如果包装内的物品出现缺失或由于运输导致损坏时，请致电设备经销商。

电源线 × 3 (型号 PS206、WP-201或KE-23、UP-592或KE-55)
线夹 × 1
用户手册

使用注意事项

- **为了保证正常操作，请在以下条件下使用本设备。**
 - 温度：5 - 40°C
 - 湿度：5 - 80%RH (无冷凝)
 - 最大湿球温度29°C
- **水平位置安装，避免振动。**

设备底部放置橡胶脚垫并将其安装在水平面上。
- 避免将设备放置在阳光直射的地方，避免靠近加热器或其他可能发热的地方。此外，不要将其放置在会产生热量的放大器或其他设备顶部。这样做可能会导致变色或变形，或导致故障。
- 移动本设备或打包运输等时，请断开所有连接的电缆和设备，否则连接器有可能受损。
- 受电视机播放电波状态的影响，如果在打开本设备电源的状态下开启附近的电视机，屏幕上可能会出现条纹图案。这并非本设备或电视机出现故障。如出现这种情况，请将本设备与电视机拉开足够的距离加以使用。
- 避免在以下地方使用，因为这样做可能会导致故障。
 - 靠近产生高频波的设备
 - 存在有强磁力或静电的地方。

内置硬盘驱动器

本设备具备一个内置硬盘驱动器 (HDD)。硬盘容易受冲击、振动和温度等环境变化的影响，这可能会影响到正在录制的视频。

请遵守以下注意事项。

- 不要让本设备受到振动或冲击。
- 在水平面上安装并使用本设备。
- 当硬盘正在存取时，不要关机。

重要通知

不能保证长期储存内置硬盘上的录制内容。此外，由于空间的需要，会从最老的视频自动进行删除。我们建议您使用LAN或USB驱动器来传输储存重要视频数据在计算机或DVD上。

重要通知

硬盘驱动器的寿命是有限的。根据使用的情况不同，可能几年后会开始出现问题。如果发生无法录制或播放，请与您购买本设备的零售商或本手册封底的联系人联系要求维修。

内置电池

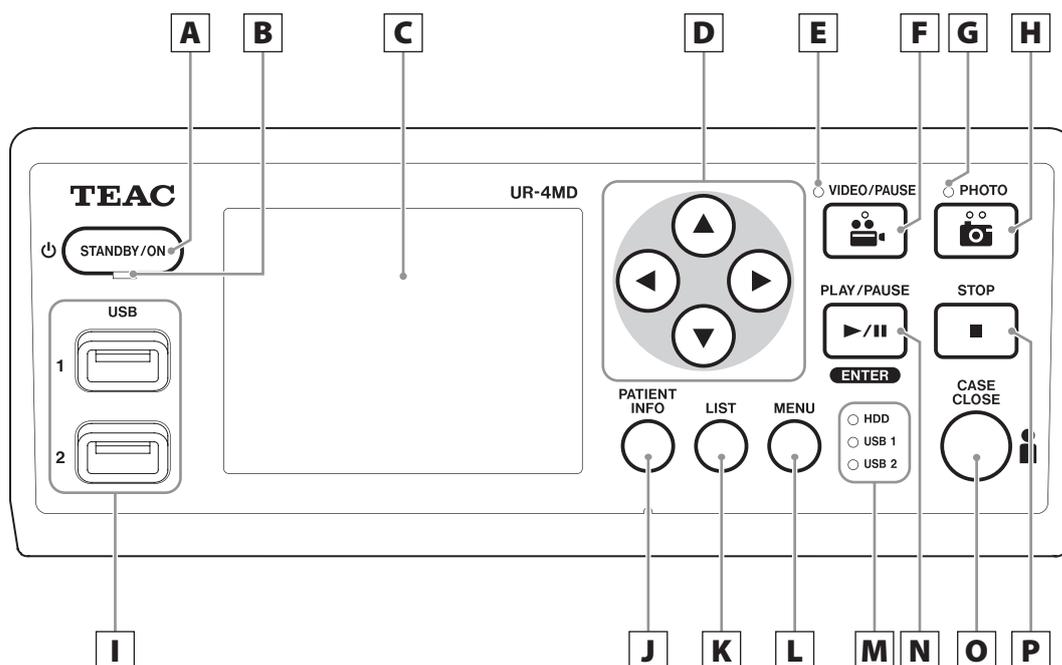
本设备具有一个电池来运行其内部的时钟。如果电池寿命已尽，不能保证准确的时间，这将影响到录制图像的时间信息。我们建议在电池抵达寿命之前，每五年更换一次电池。如果需要更换电池，请与您购买本设备的零售商或本手册封底的联系人联系要求更换。

关于可用介质

您可以连接USB闪存驱动器和USB硬盘到本设备上。录制前请将介质格式化。

关于内置风扇

本设备的内置风扇的寿命是有限的。如果风扇坏了，请与您购买本设备的零售商或本手册封底的联系人联系要求维修。



A STANDBY/ON 按钮

按下按钮开启本设备。液晶显示屏点亮。

注释

- 开机状态下，长按2秒可关机。
- 开机状态下，长按约 4 秒钟可强制关闭电源。该操作也可作为故障恢复的紧急措施使用，例如，当长按超过 2 秒钟设备仍未关闭，无法进入待机状态时。强行关闭电源有可能会破坏正在记录或访问的数据，使数据无法使用。
- 如果本设备背面的主电源没有设置为ON (|)，即使按下STANDBY/ON按钮，本设备也无法启动。
- 当处于正在复制到记录介质时是无法关机的。

B STANDBY LED

亮绿色:ON
亮琥珀色:待机

C 液晶显示屏

显示输入图像(预览)，播放图像，状态信息和设置菜单。

D ▲, ▼, ◀, ▶ 按钮

使用这些来更换和选择菜单项，并查看录制的照片和视频。

E VIDEO LED

点亮:正在录制视频
闪烁:视频录制暂停中

F VIDEO/PAUSE 按钮

按下开始视频录制。
视频录制过程中，按下此按钮暂停录制。
按多一次恢复录制。

注释

当视频录制暂停时，会在此处创建索引。

G PHOTO LED

当录制照片时这里会亮灯。

H PHOTO 按钮

用来录制照片。

注释

在视频录制过程中录制照片，会创建索引。

I USB 端口 (USB 1/USB 2)

在这里连接USB闪存驱动器和外接硬盘驱动器。也可在打印机上连接USB电缆。

注释

不要连接USB集线器。

J PATIENT INFO 按钮

输入或确认患者信息时按此键来显示患者信息。患者信息屏幕也可在外部监视器上显示。

注释

- 长按 (1 秒) 可将外部显示屏上的 OSD 显示 (患者信息、剩余容量、时间等) 的打开/关闭在以下四种模式中转换。

切换时, 当前 OSD 模式会在 LCD 显示屏和外部显示屏上弹出。

OSD1 (显示打开)



OSD2 (显示关闭)



OSD3 (只显示状态图标)



OSD4

(显示状态图标和计时器)



- 如果设置“患者信息输入”为“关闭”, 将不显示患者信息。

K LIST 按钮

按下显示已录制文件夹的列表。列表画面在外部显示屏上也以弹出窗口出现。

L MENU 按钮

按下打开菜单, 设置本机。菜单画面在外部显示屏上也以弹出窗口出现。当文件夹列表打开时按下此按钮, 弹出窗口显示复制、编辑和删除文件夹。

M 状态灯

显示内置硬盘驱动器和连接到USB1和USB2的驱动器的访问状态。

内置硬盘

亮绿色: 正常

熄灭: 错误

USB 1/2

亮绿色: 设备连接已识别

亮琥珀色: 正在写入或格式化 (或者设备正在连接中)

熄灭: 没有设备

N PLAY/PAUSE 按钮

ENTER 按钮

按下播放已录制的文件。

视频播放过程中, 按下此按钮暂停播放。

当进行菜单设置时, 按下此按钮确认所选的项目。

O CASE CLOSE 按钮

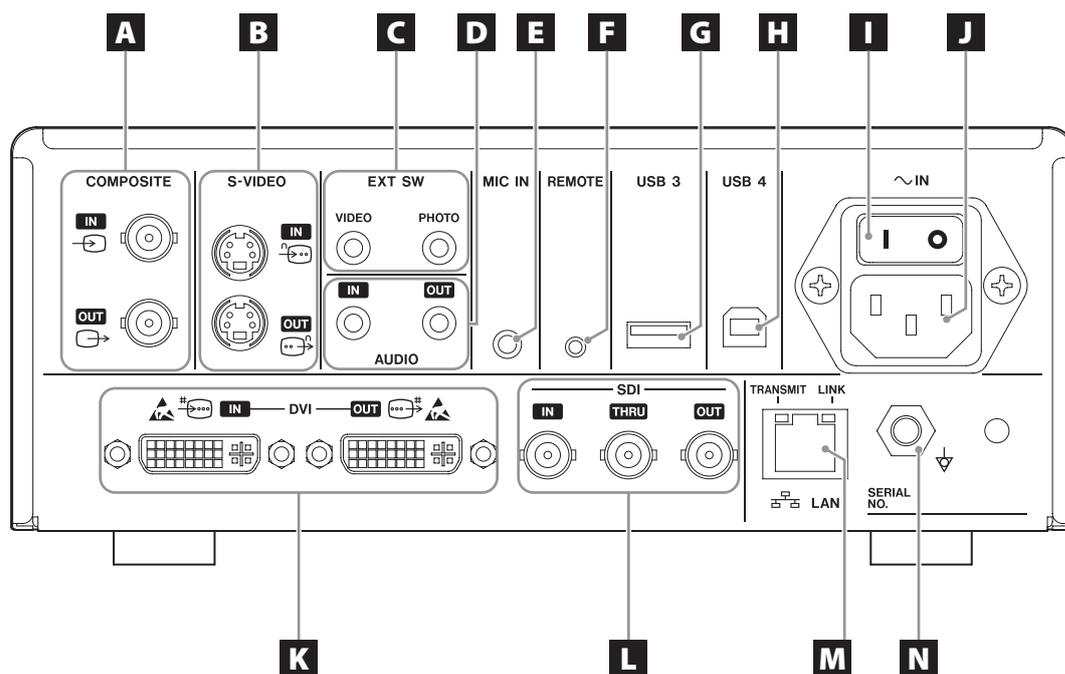
按下退出录制、播放、菜单、搜索列表和患者信息输入等状态。

在录制状态时, 按下CASE CLOSE按钮前的视频和照片将被保存到同一个文件夹中。当您按下CASE CLOSE按钮时, 患者信息被清除, 本设备将等待下一个录制或播放操作。

当下一次开始录制时, 会创建一个新的文件夹。

P STOP 按钮

视频录制过程中按下此按钮停止录制。视频在播放时按下此按钮停止播放。



A COMPOSITE 输入/输出接口

IN (→)

输入复合视频 (NTSC/PAL) 信号。(BNC)

OUT (→)

输出复合视频 (NTSC/PAL) 信号。(BNC)

B S-VIDEO 输入/输出接口

IN (→)

输入S-VIDEO (NTSC/PAL) 信号。

(S 接口)

OUT (→)

输出S-VIDEO (NTSC/PAL) 信号。

(S 接口)

C EXT SW接口 (外部开关输入接口)

连接视频和照片的外部开关。(3.5mm 立体声迷你插孔)

B AUDIO 输入/输出接口

IN

输入音频信号 (3.5mm 立体声迷你插孔)。

OUT

输出音频信号 (3.5mm 立体声迷你插孔)。

E MIC IN (输入) 接口

输入麦克风音频信号 (3.5mm 单声道迷你插孔)。
当使用立体声插头时, 将声音输入到左 (L) 侧。

F REMOTE 接口

连接TASCAM RC-10有线遥控器或TASCAM RC-3F脚踏开关 (另售) 用于控制本设备 (2.5mm 迷你插孔)。

G USB 端口(USB 3)

您可以连接USB键盘、读卡器或条形码阅读器来输入患者信息。

(USB 2.0 A类)

读卡器和条形码阅读器请使用正规键盘规格的产品。

也可在打印机上连接USB电缆。

有关详细信息,请联系我们或我们的分销商。

注释

不能连接USB集线器。

H USB 端口(USB 4)

用于从外部设备(设置为USB大容量存储时)访问本机数据或从外部设备对本机进行指令控制(没有设置为USB大容量存储时)。要以命令控制本机,您必须创建通信程式。有关详细信息,请联系我们或我们的分销商。(USB 2.0 B型)

注释

不能连接USB集线器。

I 主电源开关

本设备的主电源开关。

J 电源线接口(~IN)

连接随附的电源线。

始终将电源线连接到接地的电源插座。

K DVI输入/输出接口

IN ()

输入DVI (DVI-D) 视频信号。

OUT ()

输出DVI (DVI-D) 视频信号。

L SDI 接口

IN

输入SDI视频信号(BNC)。

THRU

直通输入SDI视频信号(BNC)。

OUT

输出SDI视频信号(BNC)。

M LAN 接口

将设备连接到网络上。遵循由网络管理员提供的有关连接和设置的说明(10BASE-T/100BASE-TX/1000BASE-T (RJ-45))。

LINK LED

当检测到有链路脉冲时,此灯亮。

TRANSMIT LED

传送时此灯会闪烁。

注释

请勿连接USB B类连接器。本机可能出现故障。

N 电位平衡端口 (▽)

连接上带有符合 DIN 42801 标准的连接器的电位平衡导线。

当与医疗设备结合使用时,请使用专用线来连接设备。

注意



显示此标记的连接器容易受到静电造成内部损坏。注意,不要用手直接触摸连接器的接触点。

连接输入线

本设备具有S-VIDEO和复合视频标准视频输入端口和DVI和SDI高清视频输入端口。
连接输入线到将要使用的端口上。

连接输出线

本设备具有S-VIDEO和复合视频标准视频输出端口和DVI和SDI高清视频输出端口。

如以下连接示例1所示,当本设备处于关闭状态时,显示屏上无法看到输入图像。

如果如连接示例2所示,尽管本设备处于关闭状态时,显示屏上仍可以看到输入图像。

连接示例 1



连接示例 2



连接音频输入

本设备带音频输入端口。如需要,请连接音频输入端口。

SDI音频,可以与SDI图像输入端口一起使用。

有关详情信息,请查阅第38页的音频输入项目。

连接音频输出

本设备带音频输出端口。如需要,请连接音频输出端口。

SDI音频,可以与SDI图像输出端口一起使用。

连接外部开关

本设备具有外部开关端口。如需要,请连接外部开关端口。

连接录制设备

录制到USB驱动器

连接USB驱动器到前面板的USB1或USB2端口。电源开启状态时,相关的LED灯会呈绿色。

按下CASE CLOSE按钮可断开连接。对应的USB指示灯停止闪烁(变成再次点亮绿色)后断开连接。有关详细信息,参阅第18页的“移除USB录制设备时的注意事项”和第15页的“进行录制设置”的内容。

连接以太网电缆

当需要通过FTP / CIFS传输文件时,将以太网电缆连接到LAN连接器。有关设置的详细信息,请参阅第44页的“网络”。

连接电源线

注意

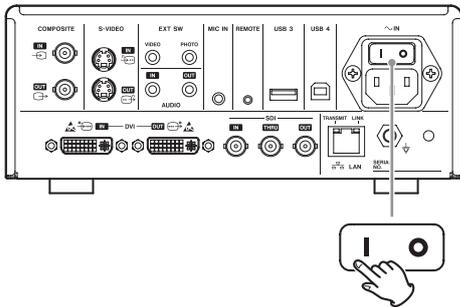
本设备要求100–240V 交流电 ±10% (50/60Hz)的电源。其他任何电源可能会引起火灾或触电。为了防止触电事故,请务必使用隔离变压器。

电源线有一个三脚插头。为了保证安全使用,请不要将其连接到一个两脚(接地)插座。

基本操作

开启本机

将本设备后面的主电源开关设置在(I)位置上。



注释

当主电源开关设置在 (I) 位置上时, 按下前面板上的 STANDBY/ON按钮。

当本设备处于开启状态时, 前面板上的LCD灯点亮, 然后出现“Starting...”。



设备开启后, 显示输入视频。如果没有输入, 会显示黑色背景。

当前面板的 LCD 显示变为在 LCD 上显示各种状态字符时, 可以进行下一步的操作。

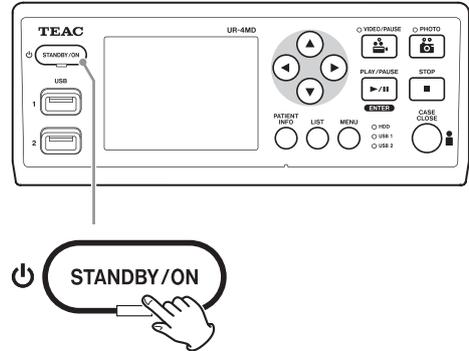


- 如果视频被输入, 该视频将出现在背景中。

关闭设备

关闭本设备之前, 停止录制或播放。

按下前面板的 STANDBY/ON 按钮, 直到出现 SHUTDOWN (约2秒钟)。



进行内部关机程序后, 本设备进入待机状态, 设置后面板上的主电源开关到关闭(O)位置。主电源关闭后, 电源按钮 STANDBY LED 会持续亮几分钟。这属于正常现象, 并非故障。

节能模式(省电)

短按 STANDBY/ON 按钮, 本设备进入节能模式。在这种状态下, 您可以按下 STANDBY/ON 按钮再次快速重启设备。

- 在节能模式下, 风扇持续转动。

待机模式

按下前面板的 STANDBY/ON 按钮, 直到出现 SHUTDOWN (约2秒钟)。

- 重启设备需要约30秒钟。

当设备长时间不使用时

当设备长时间不使用时, 请按照下面的步骤将后面板上的主电源开关设置到关闭位置。

1. 按住前面板上的 STANDBY/ON 按钮, 本设备进入待机状态。

2. 将后面板上的主电源开关设置到关闭(O)位置。

- 主电源关闭后, STANDBY LED 保持亮灯, 这是因为在停电时短期功率保持使用。当备用电源耗尽时, STANDBY LED 会熄灭。

重要通知

在关闭后面板上的主电源开关前, 请先停止录制并终止对各介质的访问。

发生突然断电时, 终止程序会继续执行, 但不能保证数据的保存。特别是, 当任何介质正在被访问时关闭电源可能会破坏数据, 使其无法使用。

格式化录制介质

按下MENU按钮打开主菜单。依次选择“高级-1” → “格式化记录装置” → “USB 1/USB 2/HDD”。



选择“是”开始格式化。



重要通知

格式化的操作会删除介质上的所有数据。如果选择内置硬盘，那么本设备硬盘上的数据将被删除。

进行录制设置

开始录制前，请设置好录制数据的分辨率。

- 总是录制到内置硬盘内。
- 通过设置，设备可以同时记录到内置硬盘、USB 1、USB 2 和网络上。

录制到USB驱动器

- 连接USB驱动器到前面板的USB1或USB2端口。当USB驱动器处于开始状态时，相关的LED灯会呈绿色。
- 从设备插入相关USB端口时的图像开始录制。插入前所录制的图像不会被记录。
- 录制时，请不要连接或断开USB驱动器，否则，不仅会造成正在录制的数据丢失，而且还会丢失已经录制好的数据。甚至，会导致其他故障。

保存至网络

打开“主菜单”，“网络”，然后“模式选择”，并设置如下。

- 总是录制到内置硬盘内。

CIFS客户端

本设备是一个CIFS客户端，录制将被保存到CIFS服务器中。

FTP客户端

本设备是一个FTP客户端，录制将被保存到FTP服务器中。

外部开关设置(视频)

您可以连接外部开关到后面板的EXT SW连接器上,使用它们来操作本设备。

1 按下MENU按钮打开主菜单,选择“视频”。

2 选择“外部开关”。

3 设置所要的操作。

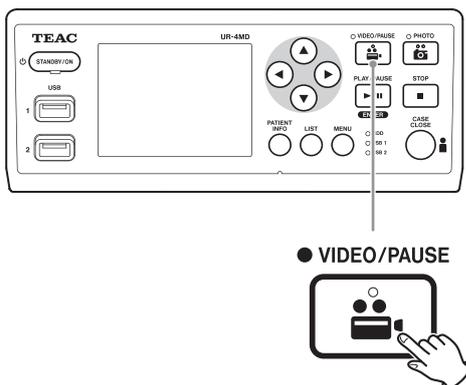
更多详情,请见第39页的“视频”内的“外部开关”。

注释

没有静止图像的外部开关设置。

录制视频

按前面板上的VIDEO/PAUSE按钮开启录制视频。



再次按VIDEO/PAUSE按钮暂停录制。

按STOP按钮停止视频录制。

- 如果录制在患者信息被输入前已经开始,视频将不会显示患者信息。如果需要患者信息,参考第17页的“输入患者信息”,在您开始录制前输入患者信息。

在录制的过程中,会呈现以下状态:



- 如果视频被输入,该视频将出现在背景中。
- 在录制过程中,VIDEO/PAUSE按钮上的VIDEO LED灯会点亮琥珀色。
- 状态指示灯会呈现在显示屏的右上角。
- 视频录制时,可以按PHOTO按钮拍摄照片。

录制过程中出现的图标

图标	说明
	停止
	正在录制视频
	视频录制暂停中
	视频停止时拍摄照片
	录制视频时拍摄照片
	视频录制暂停中拍摄照片

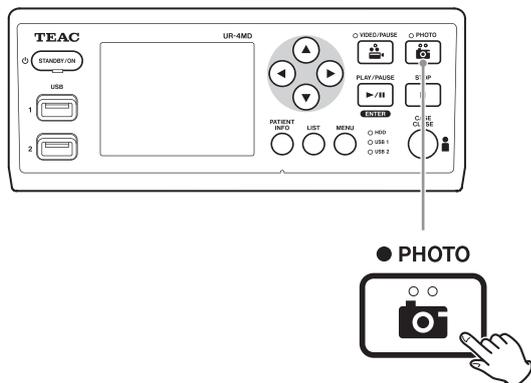
注释

当长时间录制时,文件会自动被分割。分割的大小取决于您的设置(详情请参阅第40页)。

即使文件被分割,其录制在本设备中的内容照样可以播放而不被中断。

拍摄照片

按下前面板上的PHOTO按钮,可以进行拍照。



- 如果这是发生在输入患者信息之前,照片将不会有患者信息。如果需要患者信息,参考第17页的“输入患者信息”,在您拍摄照片之前输入患者信息。

当拍摄照片时,会呈现以下状态:

- PHOTO按钮上面的PHOTO LED灯会短暂亮橙色。
- 相机图标会短暂出现在显示屏的右上角。

当拍摄照片时,会出现的图标

图标	说明
	拍摄照片中

输入患者信息

需要USB键盘,读卡器和条形码阅读器来输入患者信息。

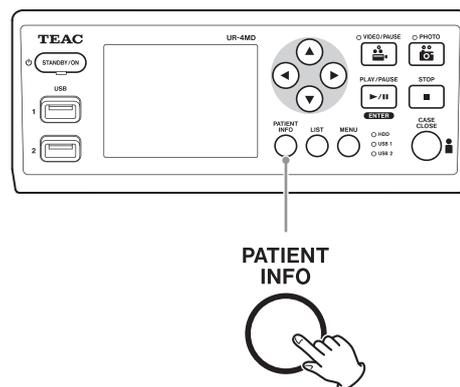
- 参考第40页的“患者信息输入”,设置正使用中的输入装置。

使用键盘输入患者信息

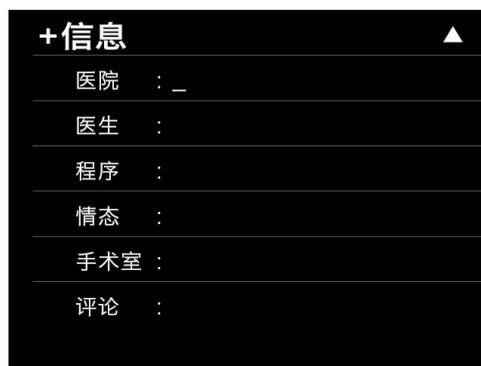
您可以使用连接到本设备背面USB3端口的USB键盘输入患者信息。

使用USB键盘输入患者的ID姓名,性别和出生日期。打印机连接到USB 3端口时,请断开其连接,或可将打印机连接到USB 1或2端口。

1 按下PATIENT INFO按钮。



2 使用键盘输入信息。



当第二页的医院、程序、情态或手术室被输入时,数值会被储存在内部。不需要时请删除。

3 按下ENTER按钮确认。

确认后,会创建一个基于患者ID的新文件夹。
按钮和相应的USB键盘按键。

操作	按钮	USB键盘
新患者	PATIENT INFO 按钮	F10
移至上面字段	▲ 按钮	↑ 键
移至下面字段	▼ 按钮	↓ 键
向左移动光标	◀ 按钮	← 键

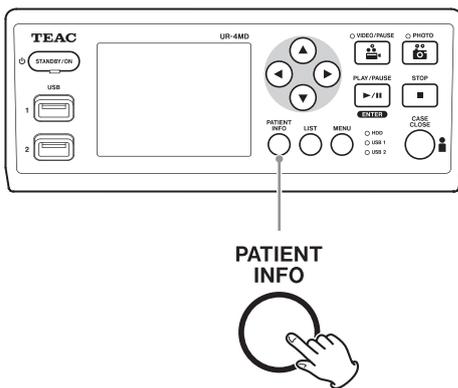
向右移动光标	▶ 按钮	→ 键
确定和录制	ENTER 按钮	ENTER 键 F1 键
取消患者信息输入	CASE CLOSE 按钮 PATIENT INFO 按钮	ESC
取消光标处字符	—	DEL
删除光标的前一个字符	—	BS
字符输入	—	字符代码

注释

- 如果您不按前面板的 ENTER 按钮、VIDEO 按钮、PHOTO 按钮, 或键盘的 ENTER 键的话, 输入值将不被确定。
- 只能输入英文字母或数字。
- 根据本机设置的“语言”使用相应的键盘。
- 只支持能兼容 Windows 的 USB 键盘。
不支持非用于 Windows (如用于 MAC 等) 的 USB 键盘。
- 取消患者信息的输入
在患者信息输入显示屏上, 按下 CASE CLOSE 或 PATIENT INFO 按钮。
- 菜单的照片-格式选择 DICOM (.dcm) 时, 患者信息输入画面的出生日期栏中将显示 YYYYMMDD 作为准则。

用卡/条码输入患者信息

1 按下 PATIENT INFO 按钮。



2 阅读卡/条码

3 按下 ENTER 按钮确认和录制视频。

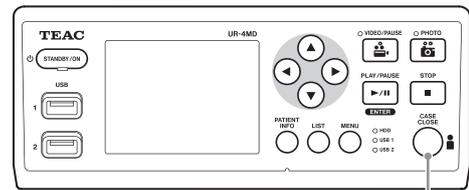
确认后, 会创建一个基于患者ID的新文件夹。

注释

- 如果您不按前面板的 ENTER 按钮、VIDEO 按钮、PHOTO 按钮, 或键盘的 ENTER 键的话, 输入值将不被确定。
- 只能输入英文字母或数字。
- 英文字母和数字以外的字符无法正常显示。

退出录制模式

按下 CASE CLOSE 按钮清除患者信息并退出录制模式。



按下 CASE CLOSE 按钮前的视频和静止照片将被保存到同一个文件夹中。文件夹内最大的图像数为 999, 包括静止和视频像图像。需再录制时, 请先将录制状态结束 (CASE CLOSE)。开始下一个录制后, 将创建一个新文件夹。

移除 USB 录制设备时的注意事项

在录制视频和照片时, 即使按下 CASE CLOSE 按钮结束录制, 本机将持续一段时间写入到 USB 设备, 因此请不要立刻移除 USB 设备。

写入时断开 USB 设备, 可能会导致一些已录制图像和管理文件损坏, 造成图像数据损失。断开 USB 设备时应遵循以下程序。

1 按 CASE CLOSE 按钮停止录制并等待所有状态指示灯点亮绿色。

根据不同的录制时间, 可能几分钟过后才会亮起绿色。

2 确认 LED 点亮绿灯后, 按 LIST 按钮, 并确认已录制的图像是否在列表的最顶部。

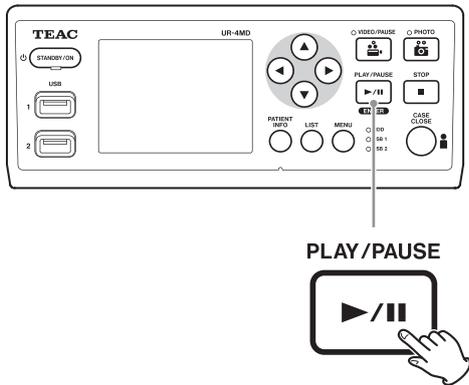
下一步, 确认显示屏的左下方显示的播放设备是 USB 设备 (USB1 或 USB2)。

3 确认可以播放已录制图像。

4 按 CASE CLOSE 按钮停止播放。播放图标从显示屏消失后, 移除 USB 设备。

播放最新图像

按下前面板的PLAY/PAUSE按钮播放新录制的数据。



播放过程中出现的图标

图标	说明
	视频常速播放
	暂停播放
	根据视频快速播放速度出现1, 2, 3, 4 或5
	播放照片



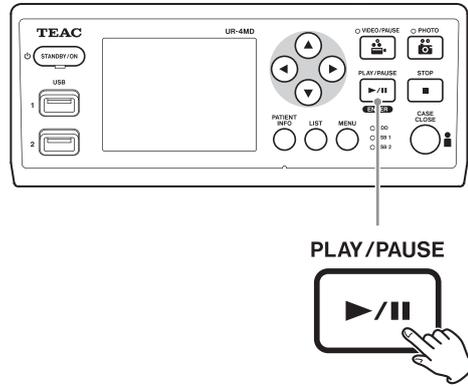
警告

播放最新图像的条件是启动后立即播放和录制结束后立即播放。
打开列表或开始播放将改变播放文件夹。

播放操作

播放及暂停

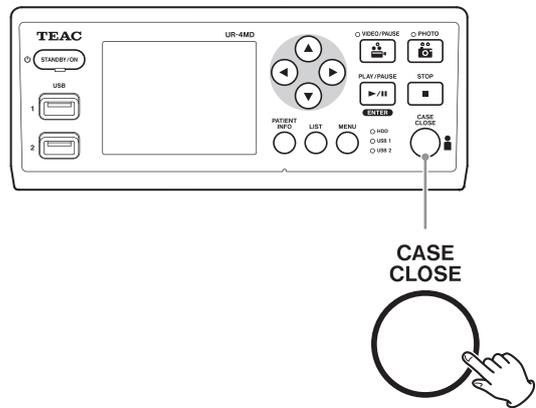
按下PLAY/PAUSE按钮。



- 在视频常速播放的过程中, 可以暂停播放。
- 当处于视频常速播放以外的状态时, 转为常速播放(1倍速)。
- 当播放照片时, 无变化。

停止

在播放的过程中, 按下CASE CLOSE 或 STOP 按钮可以停止播放。

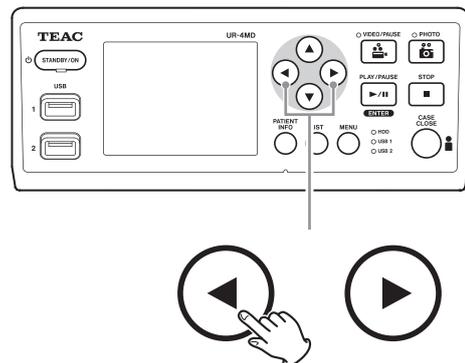


使用 LIST 按钮关闭列表时, 会记住当前的播放设备。
使用 CLOSE 按钮关闭列表时, 会重置播放设备。

改变播放速度

在视频播放过程中, 按下▶按钮可以一次加快一级播放速度。

按下◀按钮减慢播放速度。



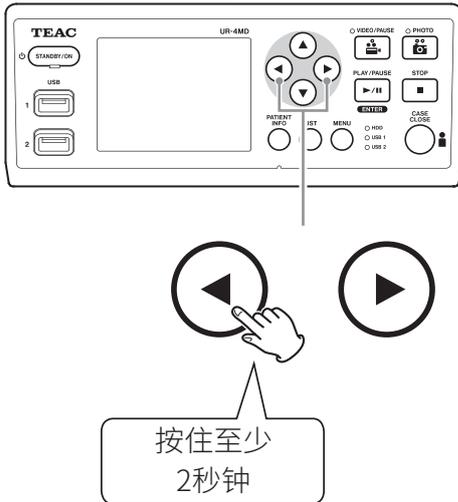
注释

- 本设备没有“倒回”功能。
- 当快速播放视频时，图像可能会变得不稳定。此时，请重启常速播放后再试一次。

跳转到索引

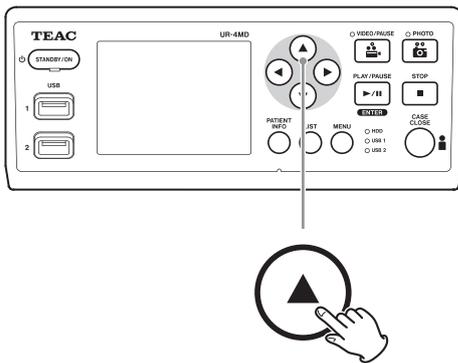
当观看视频时，长按▶按钮可以跳转到下一个索引并播放。

长按◀按钮可以跳转到前索引并播放。

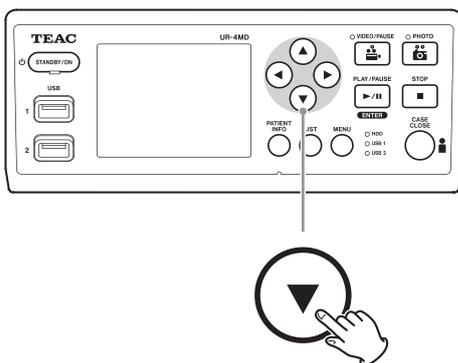


移到下一个图像文件

当播放照片或播放结束时，按下▲按钮可以移到下一个文件。



按下▼按钮移动到上一个文件。



移到下一个文件夹

在播放过程中或播放暂停时，按住▲按钮至少2秒钟，移到下一个图像文件夹。



按住▼至少2秒钟，移动到上一个图像文件夹。



播放过程中的音频

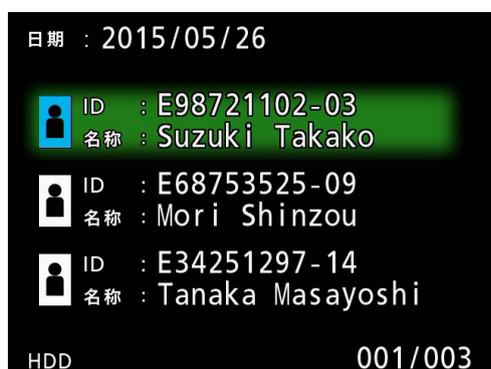
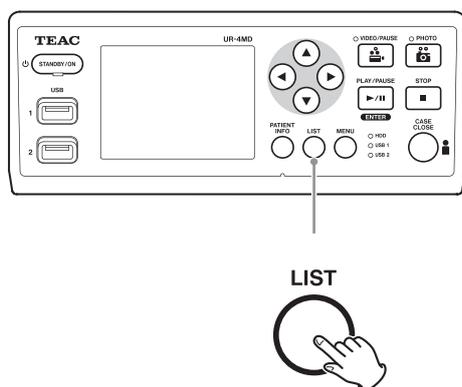
音频只在常速播放中播放。

注释

在快速播放中, 无法播放音频。

显示和播放最新文件夹列表的文件

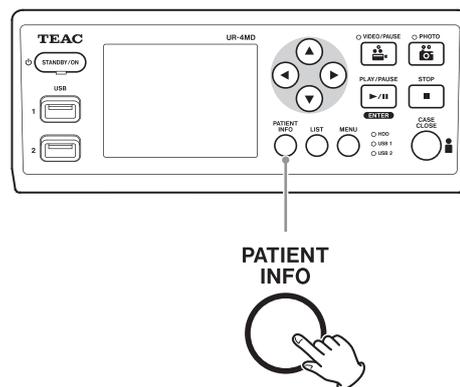
按下LIST按钮或USB键盘F3可以显示最新文件夹里的录制数据。



搜索设备

当前文件夹位序/文件夹总数量

按条件搜索文件并播放



按ID搜索

- 1 按下PATIENT INFO按钮。
- 2 移动光标到ID字段。
- 3 使用USB键盘输入ID。
- 4 按下LIST按钮或USB键盘F3开始搜索。

按名称搜索

- 1 按下PATIENT INFO按钮。
- 2 移动光标到“名称”字段。
- 3 使用USB键盘输入姓名。
- 4 按下LIST按钮或USB键盘F3开始搜索。



按日期搜索

- 1 按下PATIENT INFO按钮。
- 2 移动光标到“日期”字段。
- 3 使用USB键盘输入日期。
- 4 按下LIST按钮或USB键盘F3开始搜索。



注释

如果设置患者信息输入为关闭，本项搜索功能将不能使用。

按钮和相应的USB键盘按键

操作	按钮	USB键盘
新患者	PATIENT INFO 按钮	F10
移至上面字段	▲ 按钮	↑ 键
移至下面字段	▼ 按钮	↓ 键
向左移动光标	◀ 按钮	← 键
向右移动光标	▶ 按钮	→ 键
确定和录制	ENTER 按钮	ENTER 键 F1 键
停止搜索状态	CASE CLOSE 按钮	ESC
删除光标处字符	—	DEL
删除光标的前一个字符	—	BS
字符输入	—	字符代码
开始搜索	LIST 按钮	F3 键

改变使用的设备进行搜索(播放)

在搜索显示屏上，按下 ◀ 或者 ▶ 按钮，或者USB键盘 ← 或 → 键可以按以下顺序更改设备。



停止搜索

搜索时按下CASE CLOSE按钮可以停止搜索状态。

保存已经录制好的图像到外部设备

本设备可将录制的数据保存到外部设备。请参阅第41页中的“高级-1”画面上的“从内部磁盘复制”功能。使用列表画面复制指定的文件夹 (请参阅第25页)。

复制到USB1或USB2

- 1 按下MENU按钮。
- 2 选择“高级”。
- 3 选择“从内部磁盘复制”。
- 4 选择“USB1”或“USB2”。
- 5 选择复制文件夹的次序。



注释

- 存储在 UR-4MD 上的所有视频和照片将被复制到所选设备上。只复制指定的文件夹, 请使用List屏幕 (第25页的“复制指定的文件夹”)。
- 无法选择复制单个文件。
- 确认复制目的地有足够的开放空间。
如果内置硬盘内有大量数据, 复制可能需要数小时。
我们建议在不需长时间使用设备时进行复制。

复制到FTP服务器上

- 1 按下MENU按钮。
- 2 选择“高级”。
- 3 选择“从内部磁盘复制”。
- 4 选择“网络(FTP)”。
- 5 选择复制文件夹的次序。



注释

更多关于FTP服务器设置的信息, 请查阅第44页“模式选择”内的“FTP客户端模式”。

复制到CIFS服务器上

- 1 按下MENU按钮。
- 2 选择“高级”。
- 3 选择“从内部磁盘复制”。
- 4 选择“网络(CIFS)”。
- 5 选择复制文件夹的次序。



注释

更多关于CIFS服务器设置的信息, 请查阅第45页“模式选择”内的“CIFS客户端模式”。

复制到SURGE ONE服务器上

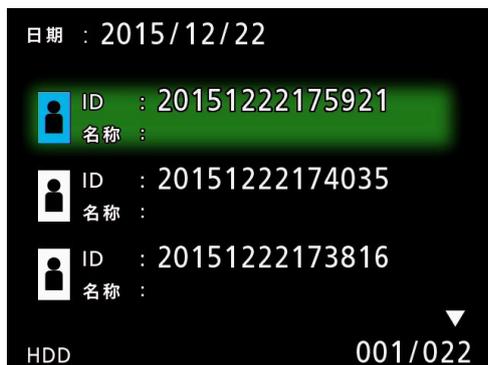
- 1 按下MENU按钮。
- 2 选择“高级”。
- 3 选择“从内部磁盘复制”。
- 4 选择“SURGE ONE”。
- 5 选择复制文件夹的次序。



注释

更多关于SURGE ONE设置的信息，请查阅第46页“模式选择”内的“SURGE ONE”。

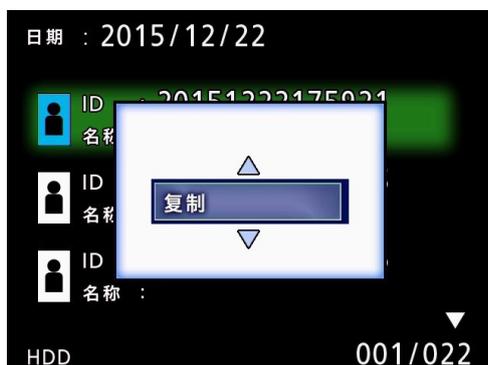
复制指定的文件夹

1 按LIST按钮打开列表。

- 如果没有显示内置HDD列表,用←和→按钮设置搜索(播放)设备为HDD。

2 使用↑和↓按钮来选择您想要复制的文件夹,然后按MENU按钮。

弹出式菜单出现。

3 使用↑和↓按钮来选择复制,然后按ENTER按钮。

将显示“从iHDD复制”弹出式菜单。

4 使用↑和↓按钮来选择要复制的目的地,然后按ENTER按钮。

当前可用的复制设备显示为复制目的地。

**1** 当确认弹出式菜单出现时,请按←选择“是”,然后按ENTER按钮。

- 如果复制目的地没有足够的开放空间,不能开始复制。



- 当复制进行时按ENTER键可以取消复制。

2 当复制完成信息出现,按下ENTER按钮退回到列表。

编辑现有文件夹的信息

1 按LIST按钮打开列表。



2 使用↑和↓按钮选择您想编辑的文件夹，然后按MENU按钮。

弹出式菜单出现。



3 使用↑和↓按钮选择编辑，然后按下ENTER按钮。

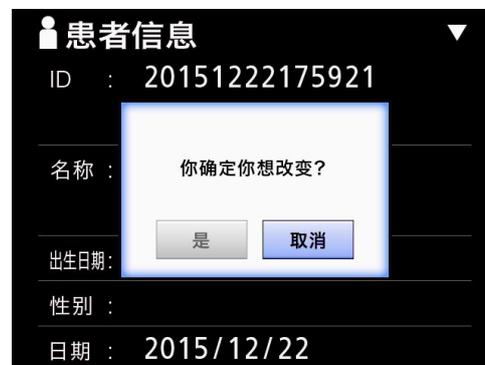


文件夹(患者信息画面)将打开。



4 更改文件夹信息，按下ENTER按钮。

改变确认画面显示。



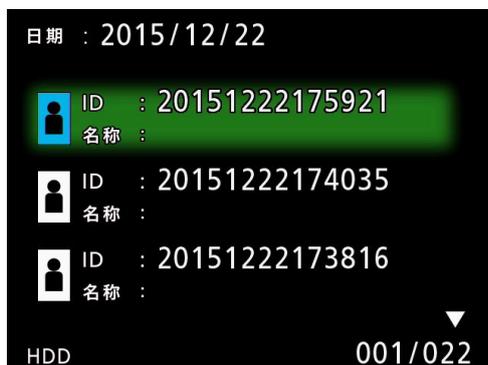
5 选择“是”，然后按ENTER按钮保存编辑的信息。

警告

如果正在网络上使用，可能不能编辑文件夹的信息。此种情况下，将网络模式设置为关闭。

删除现有文件夹的数据

1 按LIST按钮打开列表。



2 使用↑和↓按钮来选择要删除的文件夹，然后按MENU按钮。

弹出式菜单出现。



3 使用↑和↓按钮来选择删除，然后按ENTER按钮。



弹出式菜单出现。



4 选择“是”并按ENTER按钮。

确认弹出式菜单再次出现。



5 如果确定可以删除，选择“是”，然后按ENTER按钮。

已选择的文件夹数据将会被删除。

警告

- 无法恢复删除的数据。要小心使用此功能。
- 如果正在网络上使用，有可能不能删除文件夹。此种情况下，将网络模式设置为关闭。

记录图像的文件夹结构(内置硬盘或USB设备)

每输入一次患者信息将创建一个文件夹。
文件夹根据年月日时分秒_ID的格式来命名。

yymmddhhmmss_ID

注释

如果ID中有一个字符不能在文件名中使用,那么这个字符将会被#代替。

当录制完成时文件夹信息得以更新(按下CASE CLOSE按钮可退出录制模式)。

文件夹结构

¥(根目录)	
PatientList.html	(html 文件)
20131216154525_000012345	(患者管理文件夹)
├video_files	(视频储存文件夹)
├┐000001-001.mov	(视频文件)
├┐000002-001.mov	(视频文件)
├┐000004-001.mov	(视频文件)
├┐000005-001.mov	(分割的视频文件)
├┐000005-002.mov	(分割的视频文件)
├┐000007-001.mov	
├photo_files	(照片储存文件夹)
├┐000003.jpg	(照片文件(按编号拍摄))
├┐000006.jpg	(照片文件)
├Files.html	(文件夹中的图像列表)
20131216181554_0000112255	(患者管理文件夹)
├video_files	(视频储存文件夹)

在电脑上观看录制图像 (使用介质内的HTML文件)

录制的文件夹 (患者) 信息和图像信息可以通过电脑浏览器进行观看。

录制文件夹列表

在录制的内置硬盘上创建有文件夹列表 html (PatientList.html)。

数据复制到外部 USB 装置时, 也会在 USB 装置上创建文件夹列表 html (PatientList.html)。

UR-4MD						
Folder List (Patient)						
No	Date	ID	Name	D.O.B.	Sex	Num of image
Total 3 folder						
1	2014/May/29	00001206	Tanaka Masayoshi	1950-Jun-18	M	6
2	2014/May/28	00002457	Yamada Taro	1955-Mar-19	M	1
3	2014/May/25	00001822	Suzuki Hanako	1960-Dec-25	F	4

- NO: 媒介上的文件夹序号
它们根据复制顺序显示。
- Date: 录制日期
- ID: 患者ID, 链接 (到文件夹里的图像列表中)
- Name: 患者姓名, 链接 (到文件夹里的图像列表中)
- D.O.B.: 患者的出生日期 (显示为储存的字符串)
- Sex: 患者性别
- Num of image: 文件夹里图像的数量 (链接到文件夹里)

文件夹里的图像列表

点击文件夹(患者)显示图像列表如下。

Video/Photo List			
Folder	: 00001206		
Date/Time	: 2016/03/22 12:21:38		
ID	: 00001206		
Name	: Nakamura Masayoshi		
D.O.B.	: 1966-06-18		
Sex	: M		
			Num of image : 6
No	File	Size (Byte)	Length
1	000001-001.mov	14,420,173	00:00:09
2	000002-001.mov	15,204,545	00:00:08
3	000003.jpg	221,841	Photo
4	000004.jpg	91,937	Photo
5	000005.jpg	159,773	Photo
6	000006-001.mov	35,745,617	00:00:25

- NO: 文件夹里图像的序列号,分割的视频显示为“-”
- File: 文件名(链接)
- Size: 文件实际大小
- Length: 录制时长,照片显示为“Photo”,分割的视频显示为“-”

一般事项

本章介绍使用 UR-4MD 打印功能的设置和步骤。

- 使用 1.23 或更高版本固件的 UR-4MD 支持打印功能。有关最新固件的信息，请联系您购买此产品的经销商，或本手册封底的联络人。
- UR-4MD 录制的图像（照片）只能在通过 USB 连接的特定打印机上打印。关于所支持的打印机，请联系您购买此产品的经销商，或本手册封底的联络人。

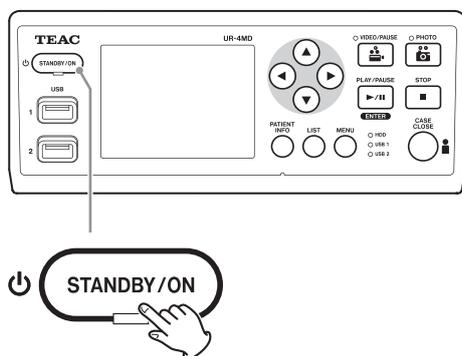
连接

1 在连接前先关闭 UR-4MD 和打印机。

2 将打印机与 UR-4MD 背面的 USB 端口3 (USB 3) 连接。

请使用打印机附带的电缆或市售的 USB 电缆。

3 UR-4MD 开机。



4 打印机开机。

进行打印设置

1 按下 MENU 按钮打开主菜单。



2 选择“高级”，然后按 ENTER。



3 选择“打印设置”，然后按 ENTER。



4 在两个选项页面 (打印设置-1 和打印设置-2) 上进行所需的设置。

5 完成后，按“CASE CLOSE”按钮。



打印设置-1

打印设置-1	
打印机	UP-DR80MD
→ 纸张	信
打印份数	1
单页图片数	1
自动打印	关闭
商标	关闭
商标档案	

打印机

关于所支持的打印机, 请联系您购买此产品的经销商, 或本手册封底的联络人。

纸张

选择纸张尺寸。

信、A4

打印份数

设置打印份数。

1-10

单页图片数

设置单页打印的照片数量。有以下选项:

1、2、4、8、15、16 (横向: 1、4、16, 纵向: 2、8、15)

- 打印方向由该数字决定, 用户不能更改。

自动打印

开启此选项后, 一旦达到了在“单页图片数”中设置的照片数量, 打印就会自动开始。

可设定此功能开启或关闭。

商标

您可以在页面右上方打印商标。

On: 打印加载的商标。

Off: 不打印商标。

下载: 从连接到 USB 端口 1 (USB1) 的 USB 存储设备加载商标文件。确保商标符合以下规格:

文件格式: jpg、png

文件名: mdvrlogo.jpg / mdvrlogo.png

商标尺寸: 245 × 75 像素

商标档案

用于在屏幕上显示已加载的商标。

打印设置-2

打印设置-2 ▲	
→ 页眉	
页脚 1	关闭
页脚 2	关闭
页脚 3	关闭
页脚 4	关闭
页脚 5	关闭

打印设置-2 ▲	
→ 页眉	Operation-1_
页脚 1	ID
页脚 2	名称
页脚 3	出生日期
页脚 4	性别
页脚 5	医生

页眉

使用屏幕键盘或USB 键盘输入最多 32 个字母数字字符, 打印在页面顶部。

注释

将 USB 键盘连接到 USB 端口 1 (USB1) 或 2 (USB2)。确保将“USB 键盘”选为输入患者信息的设备(请参见 MENU> 高级>患者信息输入)。

页脚-1 - 页脚-5

选择在页面底部打印哪些患者信息。为每个页脚字段(页脚-1 至页脚-5) 选择以下选项之一

ID
 名称
 出生日期
 性别
 医院
 医生
 程序
 检查仪器
 手术室
 关闭

打印当前显示的照片

1 显示要打印的 JPEG 照片。

2 按 MENU按钮。

出现以下确认对话框。



3 将光标移至“是”, 然后按ENTER 开始打印照片。



4 按ENTER 关闭对话框。

重要通知

- 如果出现提示错误的信息, 请参阅打印机用户手册以获取说明。
- 关于所支持的打印机, 请联系您购买此产品的经销商, 或本手册封底的联络人。

选择多张照片打印

1 设备待机时, 按 LIST 按钮显示患者列表。

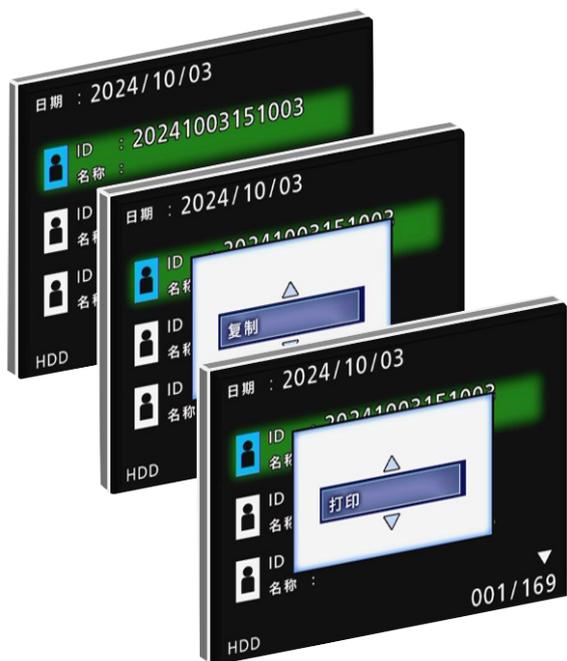


2 选择要打印的文件夹, 然后按MENU按钮。



3 选择“打印”, 然后按 ENTER 按钮。

屏幕显示缩略图。



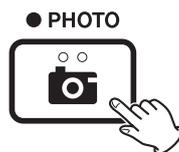
4 选择要打印的照片, 然后按 PATIENT INFO按钮。



选中的缩略图上会出现一个复选标记。



- 再按一次 PATIENT INFO按钮可取消勾选的照片。
- 按“PHOTO”按钮可选择所有照片。
- 再次按“PHOTO”按钮可取消勾选所有照片。



打印多张照片

可手动或自动打印多张照片。

手动打印

1 缩略图屏幕上按 MENU 打开“打印页面设置”画面。



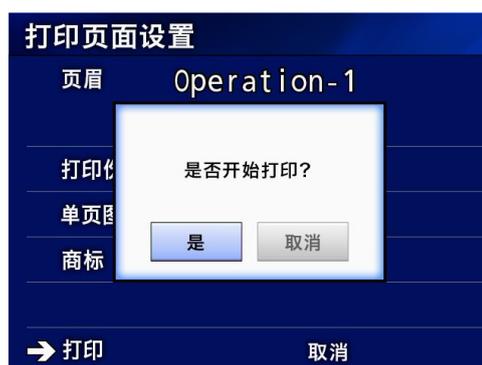
您可以在这里更改打印份数、单页图片数，以及设置开启/关闭商标。

2 选择“打印”，然后按 ENTER 按钮。



3 选择“打印”，再按 ENTER 按钮。

出现确认对话框。



4 选择“是”，然后按 ENTER 按钮。

打印完成后，出现以下对话框：



5 按 ENTER 按钮确认。

自动打印

开启自动打印后，一旦拍摄了预先设置的照片数量，打印就会自动开始。

- 设置每页要打印的照片数量（请参阅第32页的“单页图片数”）。
- 要使用此功能，请将“自动打印”设置为“开启”（请参阅第32页的“自动打印”）。

在下面的示例中，当拍摄了八张照片后将开始自动打印。按“CASE CLOSE”按钮关闭患者文件夹后，将打印所有剩余照片。



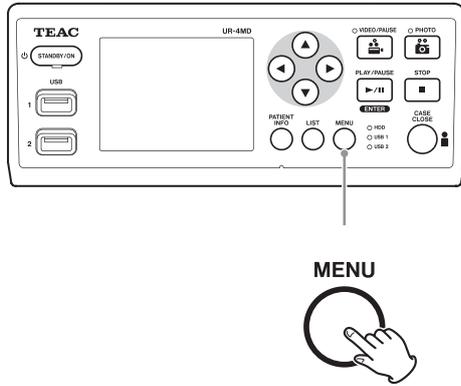
打印时的错误信息

信息	响应
ERROR (701) PRINTER OFF LINE	打开打印机。检查打印机和UR-4MD之间的USB电缆连接。
ERROR (702) PRINTER NO RIBBON	安装打印机色带。
ERROR (703) PRINTER END RIBBON	更换打印机色带。
ERROR (704) PRINTER DOOR OPEN	完全关闭打印机门。
ERROR (705) PRINTER NO PAPER	装入打印纸。
ERROR (706) PRINTER UNKNOWN	错误原因未知。关闭打印机和UR-4MD一次。然后,打开两台设备并再次尝试打印。
ERROR (707) PAPER WRONG SIZE	确保装入的纸张与所选纸张尺寸匹配。
ERROR (708) PRINT FAILED	检查打印设置。关闭打印机和UR-4MD一次。然后,打开两台设备并再次尝试打印。

您可以为本设备设置，也可以使用各种功能，包括格式化和复制。

基本操作

1 按下MENU按钮打开主菜单。



2 使用▲, ▼, ◀和▶按钮移动选择的位置。

3 按下ENTER按钮打开选择的菜单

4 退出菜单可按下CASE CLOSE按钮,或在“退出”位置按下ENTER按钮退出。

- 按下MENU按钮返回上一画面。

设置

设置	
→ 当前的设置	
视频输入	SDI
音频输入	SDI
视频输出	1920 x 1080
播放装置	iHDD (内置硬盘驱动器)
🕒	2017/08/01 09:25:58
语言	中文

将光标移到要设置的项目，然后按下ENTER按钮更改项目。

当前的设置

显示了主要设置状态。

当前的设置	
固件版本	a1.18
患者信息输入	USB 键盘
自动索引	1 分钟
自动文件分割	1GB
外部开关	↔ 按下开关
擦除内置硬盘驱动器 (保留)	保留 100GB 记录
iHDD 可用空间	438 GB

- 固件版本
- 患者信息输入
- 自动索引
- 自动文件分割
- 外部开关
- 擦除内置硬盘驱动器 (保留)
- iHDD可用空间

视频输入

当输入多个视频信号时，设置具有最高优先级的视频输入。

- SDI
- DVI
- S-VIDEO
- COMPOSITE

自动视频输入切换

当检测到输入视频信号时，视频输入将自动进行切换。当输入多个视频信号时，将设置优先度最高的视频输入。

设置

输入的视频信号按以下顺序进行检测。



例如, 如果设置的是DVI, 优先次序如下。

DVI → SDI → S-VIDEO → COMPOSITE

- 如果视频输入的是COMPOSITE, 将不会切换到S-VIDEO。
- 如果视频输入的是S-VIDEO, 将不会切换到COMPOSITE。

手动视频输入切换

当没有录制或播放时, 请按住▲或▼按钮搜索具有视频信号的其他输入端口并切换。如果无其他视频信号输入, 则不切换。

- 在录制过程中视频输入不会进行切换。

音频输入

当输入多个音频信号时, 将设置优先度最高的音频输入。

SDI
AUDIO
MIC

自动音频输入切换

与视频输入相同, 当检测到音频输入时将自动进行切换。音频输入信号按以下顺序进行检测。



例如, 如果设置的是AUDIO, 优先次序如下。

AUDIO → SDI → MIC

- SDI 检测是否存在数字信号, 而 AUDIO 和 MIC 则通过是否插入输入端口来检测。
- 在录制过程中, 音频输入不会进行切换。
- 只有执行SDI视频输入时, SDI音频才会启用。

内部同步输出分辨率

设定没有输入视频信号时的输出视频信号的分辨率。

NTSC: 从COMPOSITE和S-VIDEO OUT端口输出

PAL: 从COMPOSITE和S-VIDEO OUT端口输出

1024x768: 从DVI OUT端口输出

1920x1080: 从DVI和SDI OUT 端口输出

- 在播放过程中, 即使有一个输入视频信号, 如果视频信号和播放图像不同, 会输出在此设置的视频信号。

播放装置

指定播放装置。

USB1
USB2
iHDD (内置硬盘驱动器)

- 播放时如果没有所指定的装置, 会按以上顺序确认连接, 搜索装置。

时钟

设置当前日期和时间。

要变更的数字(光标处)显示为黑边白字。

◀, ▶: 移动光标处数字。

▲, ▼: 增减光标处数字。

ENTER: 确定日期和时间。

MENU: 取消日期和时间的更改。

备注

本设备的内置时钟不会一直保持精准。我们建议定期校对时间。

语言

设置菜单使用语言。

English
日本語
Français
Deutsch
L'italiano
Español
한국어
中文
Português
Türkçe
Svenska
Россия

照片

照片	
→ 图像质量	HQ
格式	JPEG

图像质量

设置拍摄照片的质量。

HQ: 高品质

SQ: 标准品质

EQ: 经济品质 (小文件)

格式

JPEG: JPEG压缩

TIFF

JPEG (info on):

在JPEG压缩的图像顶部嵌入以下文件夹信息。

嵌入文件夹信息: 日期, ID, 名称, 出生日期, 性别, 医院, 手术医生

DICOM (.dcm): DICOM文件格式 (图像是JPEG格式)

警告

不支持未压缩的DICOM图像。只支持JPEG压缩图像。

视频

视频	
→ 图像质量	HQ
自动索引	1 分钟
外部开关	↔ 按下开关
外部开关 (模式)	暂停

图像质量

设置录制视频时的质量。

HQ: 高品质

SQ: 标准品质

EQ: 经济品质 (小文件)

自动索引

设置如何在录制过程中添加索引到视频中。

关闭: 不创建索引。

30 秒钟: 每30秒创建一次索引。

1分钟: 每1分钟创建一次索引。

5分钟: 每5分钟创建一次索引。

10分钟: 每10分钟创建一次索引。

每文件20 视频录制结束后, 自动将视频时间20等分, 等分: 并创建索引。

外部开关

用于设置外部开关的操作。

按下开关: 按下交替切换到启动和暂停录制。

按住以记录: 按下期间录制。放开为暂停或停止录制。

外部开关 (模式)

用于设置外部开关操作的模式。

暂停: 录制 ↔ 暂停

停止: 录制 ↔ 停止

高级-1

高级-1	
患者信息输入	USB 键盘
自动文件分割	1GB
格式化记录装置	取消
OSD	开启
从内部磁盘复制	取消

患者信息输入

选择装置输入患者信息。(此设置仅适用于患者信息的输入。)

当使用卡/条形码读取器时, 还需指定读取字符的位置(范围)。

- 关闭: 患者信息将不被输入。
- USB键盘: 使用USB键盘输入患者信息。

卡/条形码读取器: 使用USB卡/条形码读取器输入患者信息。使用该设置时, 下面的字符范围会出现在设置显示屏上, 请设置每一组信息的范围。

- 支持加强标准的美式键盘。

卡/条形码读取器 (开始 - 结束参数)	
ID (开始 - 结束)	000 000
名称 (开始 - 结束)	000 000
出生日期 (开始 - 结束)	000 000
性别 (开始 - 结束)	000 000
显示所有信息	

范围设置为从第一个字符(开始)到最后一个字符(结束)。当只有一个字符使用时, 开始和结束值是一样的。

- ID: 设置ID的字符范围。
- 名称: 设置名称的字符范围。
- 出生日期: 设置出生日期的字符范围。
- 性别: 设置性别的字符范围。
- 显示所有信息: 在显示屏上, 显示出所有由卡/条形码读取器输入的数据。

显示所有信息 (卡 / 条形码读取器)			
00000	00000	00000	00000

- 连接用于输入患者信息的USB设备到本设备背面的USB3端口上。

自动文件分割

当录制视频时, 设置自动文件分割的尺寸。

- 4 GB
- 1 GB

- 由于文件系统的限制, 文件需要分割。当使用FTP传输时, 尺寸单位越小效率越高。
- 根据视频质量设置和输入的视频信号的分辨率, 实际的文件分割尺寸可能会比设置的尺寸要小。

格式化记录装置

将记录装置(介质)格式化(初始化)。

- 取消
- USB1
- USB2
- iHDD

重要通知

格式化装置将删除里面所有的录制数据。请注意, 一旦格式化后不能恢复。

OSD

- ON: 显示打开
- OFF: 显示关闭
- ICON: 只有状态图标显示
- ICON+TIMER: 状态图标和时间计数器显示
- 还可长按 PATIENT INFO 按钮, 可立即在可用选项之间切换(见第10页的“PATIENT INFO按钮”)。

从内部磁盘复制

可以从内置硬盘复制录制的图像。选择复制目标装置后, 会显示复制选项。(详情请参阅第23页)

取消
USB1
USB2
网络 (FTP)
网络 (CIFS)
SURGEONE

选择装置后, 选项在下面显示。

选择一个选项将开始复制。

从较旧的文件夹: 从最老的文件夹开始, 所有的数据将被复制。

从较新的文件夹: 从最新的文件夹开始, 所有的数据将被复制。

- 使用列表画面复制指定的文件夹(详情请参阅第25页)。

注意

如果复制到 USB 介质失败 (蜂鸣器响5次警告音), 请重新连接 USB 介质并再次复制。

高级-2



擦除内置硬盘驱动器 (保留)

设置如何从内置硬盘擦除数据。根据设置, 当设备启动时, 数据将被删除。

- 关闭: 不会擦除。当硬盘已满时, 不能再进行录制。
- 保留200GB: 首先从最老的文件夹开始依次删除, 以腾出大约200GB的内存空间。
- 保留100 GB: 首先从最老的文件夹开始依次删除, 以腾出大约100 GB的内存空间。
- 保留50 GB: 首先从最老的文件夹开始依次删除, 以腾出大约50 GB的内存空间。
- 保留最后24小时: 超过24小时的文件夹 (从录制开始时间算起) 会被删除。
- 保留最后7天: 超过7天的文件夹 (从录制开始时间算起) 会被删除。

警告

如果本机保持长时间开启状态, 开机擦除硬盘功能将无法使用, 内置硬盘的可用空间无法保留。当硬盘可用空间为零时, 录制将被迫中断和停止。

请避免持续通电, 每天关闭电源一次。

存储设备信息

这里显示选定存储设备的各种信息。

iHDD 信息	
容量	499,863,715,840 Bytes
可用空间	499,842,203,648 Bytes
已用空间	0,021,512,192 Bytes

- iHDD信息： 这里显示内置硬盘信息。
 - 容量： 显示总容量。
 - 可用空间： 显示可用空间。
 - 已用空间： 显示已用空间。
- iHDD 自我监测： 这里显示内置硬盘自我监测、分析及报告技术信息。
- USB 1 自我监测： 这里显示连接到USB 1设备的自我监测、分析及报告技术信息。不会出现在不支持SMART (自我监测、分析及报告技术信息)功能的设备上。
- USB 2 自我监测： 这里显示连接到USB 2设备的自我监测、分析及报告技术信息。不会出现在不支持SMART (自我监测、分析及报告技术信息)功能的设备上。

自我监测、分析及报告技术信息

iHDD 自我监测、分析及报告技术信息 ▼			
ID 属性名	当前值	最糟糕值	阈值
01 读取错误率	100	100	062
02 吞吐性能	100	100	040
05 重新映射扇区计数	100	100	005
07 寻道错误率	100	100	067
0A 旋转重试计数	100	100	060

iHDD 自我监测、分析及报告技术信息 ▲			
ID 属性名	当前值	最糟糕值	阈值
C4 再分配事件计数	100	100	000
C5 当前待映射扇区计数	100	100	000
C6 无法校正扇区计数	100	100	000
C8 写入错误率	200	200	000
DF 加载 / 卸载重试次数	100	100	000

这里显示每个项目“当前值”，“最糟糕值”和“阈值”。这些值是由硬盘供应商提供。因此，如果当前值或最糟糕值小于阈值，我们认为应考虑采取备份数据或更换硬盘等必要措施。

- 01 读取错误率
- 02 吞吐性能
- 05 重新映射扇区计数
- 07 寻道错误率
- 0A 旋转重试计数
- C4 再分配事件计数
- C5 当前待映射扇区计数
- C6 无法校正扇区计数
- C8 写入错误率
- DF 加载/卸载重试次数

蜂鸣器

用于打开或关闭内置蜂鸣器声音。

ON: 蜂鸣器响。

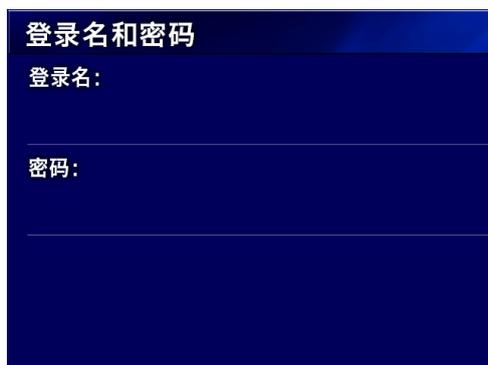
OFF: 蜂鸣器不响。

- 例如，当使用按钮，开始录制和出现警告时，会发出蜂鸣声。

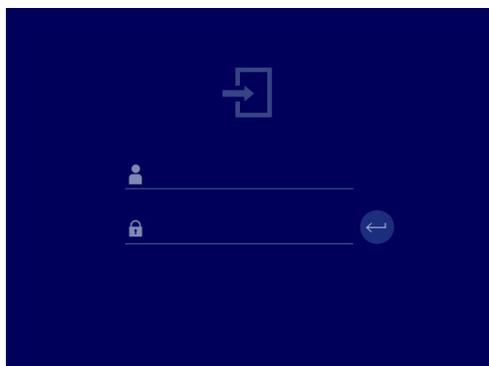
管理员选项

OFF: 启动时不显示登录界面。

ON: 启动时显示登录界面。设置登录用户名和密码。



登录



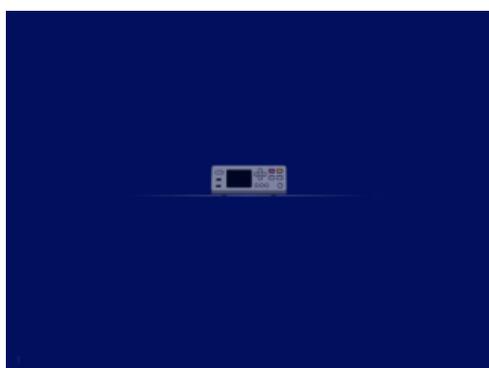
启动时显示登录界面。

在登录界面上, 管理员将提供其凭据来访问系统。

可使用连接的键盘输入登录信息。

注释

- 8个字符, 须使用三种以上的字符, 包括大、小写字母、数字和符号。
- 如果患者信息输入设置为 USB 键盘以外时, 请使用 ▼ 和 ENTER 按钮。
- 验证失败五次, 将显示锁定屏幕。无法进行操作, 请联系您所购买设备的TEAC授权经销商。



打印机选项

设置打印选项。(第31页)

有关所支持的打印机的详细信息, 请联系您所购买设备的TEAC授权经销商。

固件更新

请按照正确步骤来更新本设备的固件。

如果更新操作有误, 可能会造成设备故障。

- 联系您购买本设备的零售商获取固件更新的信息。

准备USB闪存驱动器用于更新

- 1 使用本设备将USB闪存驱动器进行格式化。**
- 2 从计算机复制更新固件到USB闪存驱动器的根文件夹。**

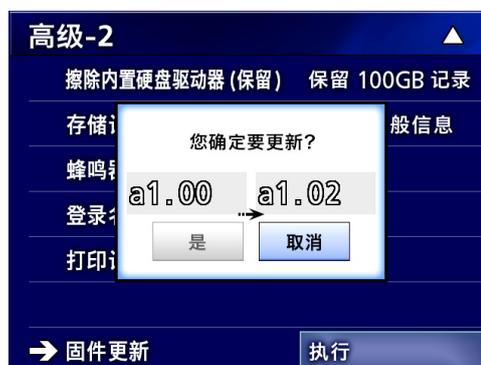
执行固件更新

警告

- 更新前, 请根据需要对已录制的数据进行备份。更新后, 本设备可能不能播放之前的文件。另, 更新后, 请对内置的硬盘驱动器进行格式化。(请参阅第40页的“格式化记录装置”。)
- 开机后, 在进行更新前, 不要使用录制或播放功能。
- 按照下面的程序进行一个稳定的更新。

- 1 按住STANDBY/ON电源按钮2秒关闭本机。**
- 2 断开连接到本机背面的LAN, USB 3, USB 4和视频信号 (SDI, DVI, 复合, S-VIDEO) 的连接线。**
- 3 按STANDBY/ON电源按钮来开启本机。**
- 4 将USB闪存驱动器插入本机的USB 1端口。**
- 5 从高级-2画面进行固件更新。**

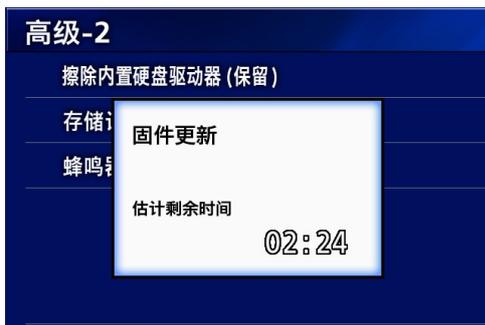
在以下所示的例子中, 本设备版本将从a1.00更新到a1.02。



取消: 不作更新。

是: 更新固件。

6 选择“执行”并按下ENTER按钮开始更新。将会出现以下屏幕。



- 更新需要几分钟时间。
- 当更新完毕, 本设备将自动重启。等待设备重启。
- 更新过程中, 不要中断电源或移除USB装置。请注意, 如果发生此情况, 可能会造成本机故障。

网络



模式选择

用来设置网络模式。

关闭

FTP客户端: 文件将被自动发送到指定的FTP服务器上。*

CIFS客户端: 文件将被自动发送到指定的CIFS服务器上。*

SURGEONE: 与可选的 SURGE ONE 软件通信传输文件。必须在 PC 上安装 SURGE ONE 软件。

CIFS服务器: 本设备成为CIFS服务器, 允许从CIFS 客户端读取文件。作为服务器, 本设备为只读设备。* 在录制的过程中不能读取。

USB 大容量存储: 使用本设备作为一个USB大容量存储设备, 可以从USB主设备中读取文件。

作为服务器, 本设备为只读设备。将其连接到本设备背面的USB 4 端口上。

在录制的过程中不能读取。

不能同时使用外部命令控制功能。使用此设置, USB大容量存储功能将被用于操作。没有设置USB大容量存储时, 外部命令控制功能将被用于操作。

* 该项选择后, 将显示下级菜单的详细设置屏幕。(请参阅第45 页)

根据所选的设置, 会出现以下的详细设置的屏幕。使用USB键盘输入。(连接到本设备背面的USB 3端口上)

重要通知

- 请与负责网络管理员查询有关网络设置和操作的信息。
在不稳定的网络上操作有可能导致图像数据的丢失。
- 如果要通过每个模式的设置,对 PC 或 本设备的IP地址进行名称解析,则需要 DNS 服务器等。
- 切换到USB大容量存储设置或从USB大容量存储设备切换到另一个设置,必须重新启动设备。(从USB大容量存储功能切换到外部命令控制功能时必须如此)
- 如将模式设置为FTP客户端、CIFS客户端或SURGE ONE时,则录制的视频将自动发送到设置的服务器。录制前,请确认网络设置(包括服务器和电缆等)后再开始录制。如在录制过程中网络出现电缆断开连接之类的问题,视频将在网络恢复后发送。只有在设置了上述的其中之一网络模式后录制的视频才会自动发送。(设置为关闭时,不会自动发送录制的视频。可根据需要手动发送录制的内容。)
- 进行网络设置时,请务必连接以太网电缆。

FTP客户端模式

FTP 客户端模式	
FTP 服务器	
用户名	
密码	

FTP服务器: 使用USB键盘输入服务器名称。您也可以
在服务器名称后面输入文件夹名称。

用户名: 使用USB键盘输入用户名。

密码: 使用USB键盘输入密码。

设置例子:

FTP服务器: 192.168.0.001/dvr_ftp

用户名: dvr

密码: abcde

重要通知

当使用多台录影机时,如果录制数据的保存目的地被设置到同一个服务器的相同地方,录制的数据有可能会丢失。不要设置在相同的地方。

用户名和密码是必须的。此外,需要在服务器端进行该用户的设置。

有关详细信息,请参阅单独的网络手册。请联系您所购买设备的TEAC授权经销商以获取有关单独手册的信息。

CIFS服务器模式

CIFS 服务器模式	
型号名	
用户名	
密码	

型号名称: 使用USB键盘输入模式名称。

用户名: 使用USB键盘输入用户姓名。

密码: 使用USB键盘输入密码。

设置例子:

型号名: video_recoder

用户名: dvr

密码: abcde

CIFS客户端模式

CIFS 客户端模式	
路径	
用户名	
密码	

路径: 使用USB键盘输入网络路径(Path)。

用户名: 使用USB键盘输入用户名。

密码: 使用USB键盘输入密码。

设置例子:

路径: 192.168.0.101/dvr_mount

用户名: dvr

密码: abcde

重要通知

当使用多台录影机时,如果录制数据的保存目的地被设置到同一个服务器的相同地方,录制的数据有可能会丢失。不要设置在相同的地方。

用户名和密码是必须的。此外,需要在服务器端进行该用户的设置。

有关详细信息,请参阅单独的网络手册。请联系您所购买设备的TEAC授权经销商以获取有关单独手册的信息。

SURGE ONE



IP地址: 输入SURGE ONE接收软件的电脑的IP地址。

端口号: 输入SURGE ONE 接收软件端口号。通常是10050。

名称: 输入任意名称。可以留空。

设置例子:

IP地址: 192.168.0.101

端口号: 10050

名称: UR-4MD

IP地址

用来设置本设备的网络地址。

自动(DHCP): 使用DHCP服务器获取自动网络设置。您可以在“当前IP地址”下查看获取的网络地址。

手动: 输入下面的网络地址。

当前IP地址: 使用USB键盘设置IP地址。

子网掩码: 使用USB键盘设置子网掩码。

默认网关: 使用USB键盘设置默认网关。

DNS服务器1: 使用USB键盘设置DNS1服务器1。

DNS服务器2: 使用USB键盘设置DNS2服务器2。

WINS服务器: 使用USB键盘设置WINS服务器。

注释

如果IP地址设置发生改变,新的设置将在本设备重启后显现。

当前IP地址

IP 地址	
当前 IP 地址	192.168.0.121
子网掩码	255.255.255.0
默认网关	
DNS 服务器 1	
DNS 服务器 2	
WINS 服务器	
(00:02:2E:00:00:02)	

显示当前的IP地址。

最底一行显示设备的MAC地址。

DICOM 设置:购买本机后要开启 DICOM 功能,您需要购买DICOM 密钥。请联系您购买此产品的经销商,或本手册封底的联络人。

- DICOM 设置支持接收工作列表并将静态图像/照片转发到 DICOM存储服务器。UR-4MD 不支持 DICOM 视频。

存储功能

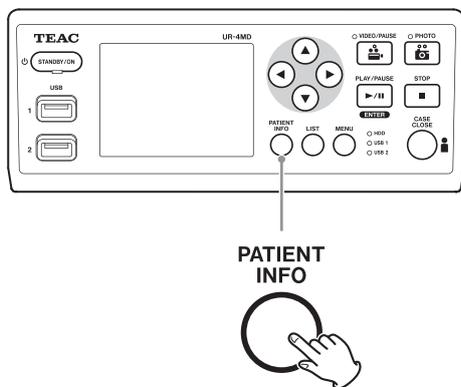
开启存储功能后,当UR-4MD拍摄静止图像时,可自动将其传输到使用DICOM存储功能设置的服务器上。如果由于网络传输问题或无法连接到服务器导致无法传输,它会不断重试,直到可以连接。

此外,如果从服务器接收到错误状态,在重试重新发送文件达到设定的重试次数后,就会停止发送文件,转而发送下一个文件。

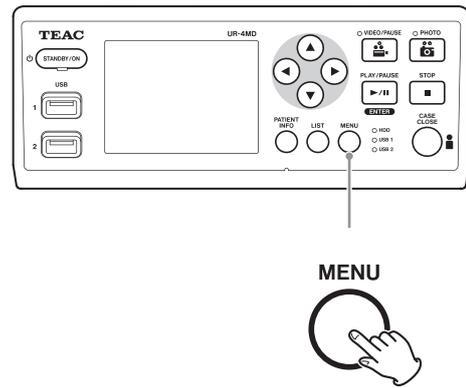
MWM功能

通过开启MWM功能,可以获取工作列表并将其显示在UR-4MD 的前显示屏上。从显示列表中选择的患者信息可用于拍摄图像。

1 按 PATIENT INFO按钮。



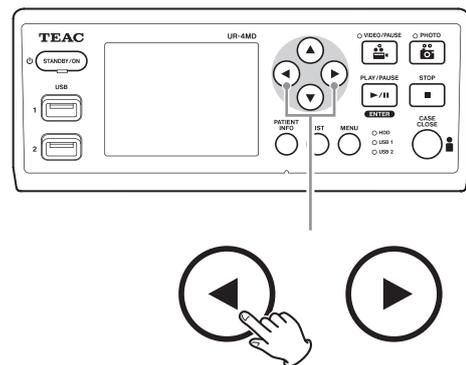
2 按 MENU按钮。



从服务器获取 DICOM 工作列表。
当列表获取成功后,显示屏上将显示工作列表。

注释

如果开启了日期筛选(所要求的日期设置)、您可以按设备上的 ◀ 按钮加载列表所显示的前一天的内容,或按 ▶ 按钮加载列表所显示的后一天的内容。

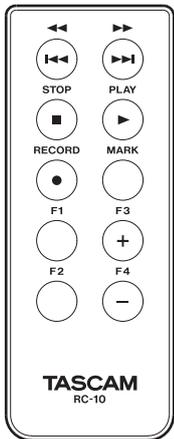


可选配件

将以下遥控器连接到 UR-4MD 背面的 REMOTE 连接器上,即可对本机进行控制。遥控器按钮/踏板及其控制的设备功能如下:

有关使用遥控器的其他信息,请参阅各遥控器的用户手册。

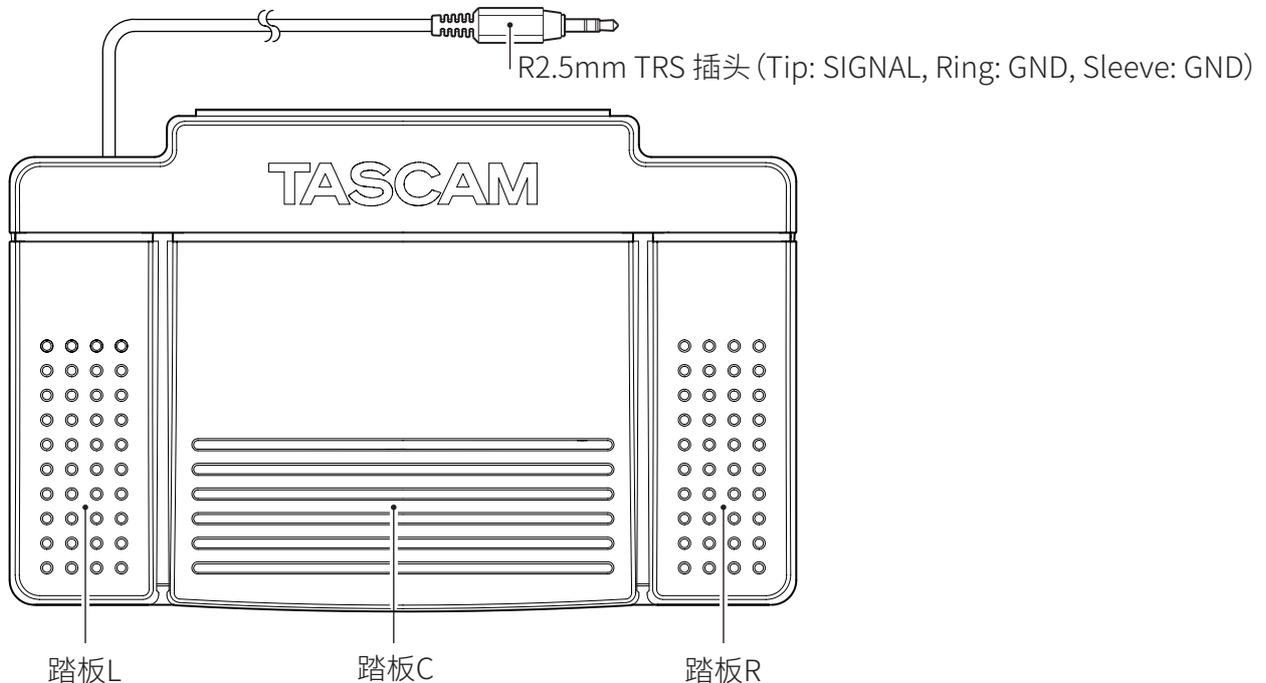
TEAC/TASCAM RC-10 遥控



RC-10	UR-4MD 功能 (按钮)
RECORD	在“外部开关”下设置的操作(参见第16页的“外部开关设置(视频)”)。
STOP	(STOP)
PLAY	(PLAY/PAUSE)
MARK	(PHOTO)
F3	(↑)
F4	(↓)
>> (FF)	(→)
<< (REW)	(←)
F1	(LIST)
F2	(CASE CLOSE)

- 将有线遥控适配器连接上 RC-10 遥控器用于 UR-4MD 的操作。

TEAC/TASCAM RC-3F 遥控



RC-3F	UR-4MD 功能 (按钮)
踏板C (中)	在“外部开关”(参见第16页的“外部开关设置(视频)”)。
踏板L (左)	(STOP)
踏板R (右)	(PHOTO)

建议检查

每天使用前检查以下项目。这样做有助于您迅速找到问题并防止故障发生。

检查项目

- 电源线是否正确连接？
- 各种连接器是否正确连接？

我们建议对设备进行定期检查以维护其功能和提高安全性。请联系您购买本设备的零售商获取有关设备维护检查,包括定期检查和维护合同以及其他服务信息。

清洁设备

为了安全起见,请在清洁前从插座拔下电源插线。

- 如果顶盖或面板表面脏了,可以用微蘸了稀释后的中性清洁液软布擦拭后,再用拧干后的湿布进行擦拭。不要使用化学清洁布、苯或辛那水等进行擦拭,因为它们可能会损坏表面。
- 不要使用喷雾清洁剂,因为它们可能会导致灰尘等进入设备内。
- 避免让橡胶或塑料物品长时间碰触设备,因为这可能会损坏机壳。

故障排除

在以下情况下,请在请求维修前检查所列出的项目。

电源无法开启。

- ➔ 确认电源线的连接。
(确保设备已正确连接到电源插座,没有断开连接。)

设备可开启但没有图像。

- ➔ 确认后面板的连接器没有断开连接,正在使用的电缆没有断线。
确认图像设置的输入选择是否正确。

当外部USB设备连接时,即使它之前能够正常使用,但仍在LCD上显示“您确定要进行格式化?”

- ➔ 尝试重新连接外部USB设备。如果接口插入不当,外部USB设备可能不能被正确识别。

- ➔ USB设备的文件系统发生矛盾时,也可能导致弹出这项提示。文件系统中的矛盾也可能会导致录制故障。停止使用该USB设备,并在电脑的磁盘检查工具上对该文件系统的整合性进行检查和文修复。

也可选择取消,不进行格式化。但是此外部USB设备将不会被识别,系统会提示错误,并且此设备将不能被用来录制。

重要通知

选择“是”,格式化将擦除所有的数据。因此,您应该在格式化之前尝试检查文件系统。

录制到外部USB设备时中途停止;录制文件不显示或不能播放。

- ➔ 可能是USB设备文件系统出现矛盾而导致发生录制问题。
使用计算机的磁盘检查工具检查和修复文件系统的一致性。
每种操作系统都有不同的磁盘修复方法。请遵循已连接的计算机的操作系统中的磁盘修复程序进行修复。

注释

搜索关键词“磁盘检查”可进行查找。

即使按下录制按钮,录制图标和录制时间有时也不会出现。

- ➔ 在使用UR-4MD进行录制的外部USB设备上,用电脑等添加或删除文件时,该操作后的首次开始录制时可能会出现上述现象。
该问题只是显示问题,实际录制是在执行的。根据外部USB设备的录制状态,恢复正常可能需要 20 秒到 2 分钟左右。请等待直至恢复正常。

内置硬盘可用空间为零,无法进行录制。

- ➔ 是否已设置“高级-2”设置页上的“擦除内置硬盘驱动器(保留)”为“关闭”?将它设置为“关闭”以外的任何其他设置,并重新启动本机。如果已经设置它为“关闭”以外的任何其他设置,内置硬盘的可用空间仍为零时,请确认是否连续开机使用。确保内置硬盘的可用空间只在启动录影机设备的电源时执行。请避免连续开机,每天关机一次。在内置硬盘的可用空间不充分的状态下,如果预计会进行较长录制时,请在执行前重启电源,恢复可用空间。

剩余录制时间急剧增加或减少。

- ➔ 所显示的剩余时间取决于输入的视频信号(当多个信号正在输入时,则为当前选择的视频信号)的分辨率。

产品规格

一般事项

录制媒体	
内置	2.5英寸硬盘驱动器
外部介质	USB驱动器 (闪存驱动器和硬盘驱动器)
操作安置	水平安置
电源:	AC 100 – 240 V ±10% 50/60 Hz 0.62 A – 0.35 A

操作环境

温度	5 – 40°C
湿度	5 – 80%RH (无冷凝)
最大湿球温度	29°C
气压	750 – 1040 hPa

存放环境

温度	-20 – 60°C
湿度	5 – 80%RH (无冷凝)
最大湿球温度	29°C
气压	600 – 1040 hPa

运输环境

温度	-30 – 60°C
湿度	5 – 90%RH (无冷凝)
最大湿球温度	29°C
气压	600 – 1040 hPa

外部尺寸 210.5 W × 88.5 H × 235 D (mm)
(包括橡胶垫脚, 不包括后面板上的突起部分)

重量 2.6 kg

标准

安全标准	IEC 60601-1 CSA60601-1 EN60601-1 GB8898
EMC	IEC 60601-1-2 CSA60601-1-2 EN60601-1-2 FCC B类 ICES-003 B类 GB17625.1 GB13837 GB9254
证书	CSA NRTL/C

医疗设备规格

防电击	1类设备
防止水的有害侵入	普通
与空气混合的易燃麻醉气体或与氧或氧化亚氮混合的易燃麻醉气体情况下使用时的安全程度分类	不能在空气混合的易燃麻醉气体或与氧或氧化亚氮混合的易燃麻醉气体情况下使用
操作模式	连续操作设备

视频/音频输入信号

模拟(NTSC/PAL)	
复合	1.0 Vp-p, 75Ω 终端
S-VIDEO	1.0 Vp-p, 75Ω 终端, 亮度信号
NTSC	0.286 Vp-p, 75Ω 终端, 色度信号
PAL	0.3 Vp-p, 75Ω 终端, 色度信号
数字(高分辨率视频)	
SDI	1080p, 1080i, 720p, 480i, 576i
DVI-D	640 × 480 – 1920 × 1200
• 1920 × 1200 缩小到 1728 × 1080 并录制	
音频	
AUDIO	3.5mm立体声迷你插孔 -9.4 dBv, 10 kΩ 或更高, 非平衡型 单独SDI视频输入端口
MIC	3.5mm单声道迷你插孔

视频/音频输出信号

模拟(NTSC/PAL)

复合	1.0 Vp-p, 75Ω 终端
S-VIDEO.....	1.0 Vp-p, 75Ω 终端, 亮度信号
NTSC.....	0.286 Vp-p, 75Ω 终端, 色度信号
PAL.....	0.3 Vp-p, 75Ω 终端, 色度信号

数字(高分辨率视频)

SDI	1080p, 1080i, 720p, 480i, 576i
DVI-D	640×480–1920×1200

音频

AUDIO	3.5mm立体声迷你插孔
	-6 dBv, 1 kΩ, 非平衡型
	单独SDI视频输出端口

视频和照片的数据处理

照片压缩格式.....	JPEG
视频压缩格式.....	H.264
文件格式.....	mov

音频数据处理

格式	LPCM
采样频率	48 kHz
量化比特深度.....	16-bit

外部录制介质

USB驱动器	闪存或硬盘
格式	FAT32

接口

LAN.....	RJ45 (100Base-TX/1000Base-T)
USB-A.....	用于录制 × 2 (USB 2.0)
	用于字符输入 × 1 (USB键盘)
USB-B	用于连接电脑
REMOTE	2.5mm迷你插孔
触点开关	3.5mm迷你插孔

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Package list

linux-3.0.35
kernel-3.0.35-imx_4.0.0
u-boot-2009.08-imx_3.0.3
gst-plugins-base-0.10.35
gst-plugins-good-0.10.30
gst-plugins-ugly-0.10.11
gstreamer-core-0.10.35-1
imx-lib-3.0.35-4.0.0
imx-test-3.0.35-4.0.0
smartmontools-6.3

If you wish to obtain the source code for this software, you may request it by accessing the following URL and filling out a registration form.

<http://teac-global.com/support/opensource/form/>

Please understand that we are unable to respond to questions about the source code contents and similar matters.

The original texts of the GNU General Public License and GNU Lesser General Public License are provided below.

GPL

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Version 2, June 1991

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LPGL Version 2.1

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Version 2.1, February 1999

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