TASCAM ▶

TEAC PROFESSIONAL

HD-R1
Solid-State Audio Recorder

XLR | RCA | EUROBLOCK | SPDIF | RS-232C | PARALLEL | LAN | USB 2.0

The **HD-R1** is a two-channel, single rack-mount recording and playback device created with the sound contractor in mind. Utilizing the highly reliable CompactFlash card, the **HD-R1** records 44.1/48 kHz, 16/24-bit PCM or MP3 files. File transfer can be accomplished via Ethernet, USB, or a card reader. The ability to control the unit remotely is provided via RS-232, Parallel, and RJ45 100-Mbit Ethernet.

To further enhance the **HD-R1**'s feature set, mic preamps with 20-dB PAD and phantom power (rear-panel selectable) have been included. A variety of contractor-friendly I/O options, such as unbalanced RCA, balanced XLR and Euroblock, and SPDIF digital (coaxial and optical) are also available.

And of course … the **HD-R1** offers traditional source device features like power-on play, front panel rotary input level controls, a headphone jack with level control, and a variety of playback modes.

- ▶ 1-U rack-mount solid-state audio recorder
- ▶ Uses popular, secure CompactFlash card as recording media
- ▶ USB host interface for USB flash cards
- ▶ Audio data formats: PCM (16-bit/24-bit), MP3
- ▶ Samplig rates supported:
    - – PCM: 44.1 / 48 / 88.2 / 96 kHz
    - – MP3: 44.1 / 48 kHz
- ▶ MP3 bit rates supported:
    - – Stereo: 64/80/96/112/128/160/ 192/224/256/320 Kb/s
    - – Mono: 32/40/64/80/96/ 112/128/160 Kb/s
- ▶ Variable Bit Rate MP3 file playback supported
- ▶ Balanced XLR mic/line I/O with switchable 20-dB PAD
- ▶ Balanced Euroblock input/output terminal
- ▶ Phantom power (switchable on rear panel, front LED indicator)
- ▶ Unbalanced RCA input/output

- ▶ Rotary analogue input level controls on front panel
- ▶ SPDIF Digital input/output (coaxial and optical)
- ▶ RJ-45 Ethernet interface (100-Mbit/s) for FTP file transfer and control via Telnet protocol
- ▶ RS-232 interface for integration into media systems
- ▶ D-sub 25-pin parallel remote control interface
- ▶ Direct Play via parallel interface
- ▶ Power-on play (start playback when power comes up)
- ▶ Headphones jack with level control on front panel
- ▶ Input Through function
- ▶ Auto Fade function
- ▶ Input monitoring/mixing of live stereo input along with playback
- ▶ Play modes: Program, Folder, Shuffle, Interval, and more
- ▶ Pre-record buffer (up to 20 seconds at 44.1 kHz)
- ▶ Available as an option: **RC-SS20** Direct Play Controller for instant access to 16 tracks, announcements or effects

RC-SS20

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Specifications

General

Recording Media	Type I and Type II Compact Flash media
File Systems	FAT16 and FAT32
File Formats	Broadcast Wave (WAV) and MPEG 1 Audio Layer 3 (MP3) files)
Recording Time (4 GB CompactFlash card)	WAV: 6 hours 40 minutes (44.1 kHz, 16-bit stereo) MP3: about 70 hours (44.1 kHz, 16-bit stereo, 128 Kb/s)
Sampling Rates	44,1 kHz, 48 kHz, 88,2 kHz, 96 kHz MP3: 44.1 kHz or 48 kHz
Quantization	16 or 24 bits
MP3 Bit Rates	Stereo: 64/80/96/112/128/160/192/224/256/320 Kb/s Mono: 32/40/64/80/96/112/128/160 Kb/s Variable Bit Rate (VBR) files can be played but not recorded
Pre-record buffer	Up to 20 seconds (at 44.1 kHz)

Analogue audio inputs and outputs

Microphone/Line input	XLR-3-31, Impedance 2.4 kOhm
Nominal level	−63.8 dBu (max trim) to −7.78 dBu (min trim)
Nominal level with pad	−43.8 dBu (max trim) to +12.2 dBu (min trim)
Maximum level	+28.2 dBu
Maximum gain	56 dB
Phantom Power	2 x +48 V, 10 mA
Line Input	RCA, Impedance 10 kOhm
Nominal level	−66.0 dBV (max trim) to −10 dBV (min trim)
Maximum level	+6 dBV
Maximum gain	56 dB
Balanced Line output	XLR-3-32, Impedance 100 Ohm
Operating level	Adjustable in 5 steps from +4 dBu nom. / +24 dBu max. to +6 dBu nom. / +15 dBu max.
Unbalanced Line output	RCA, Impedance 100 Ohm
Operating level	Adjustable in 5 steps from −10 dBV nom. / +10 dBV max. to −8 dBV nom. / +1 dBu max.
Headphones Output	6.3-mm phone jack
Minimum load impedance	32 Ohm
Maximum level	+4.7 dBu (at 1% distortion)
Maximum power	50 mW + 50 mW

Digital audio inputs and outputs

Digital input and output	Coaxial RCA phono jack
Impedance	75 Ohm
Format	SPDIF (IEC 60958-2)
Quantization	16-bit or 24-bit

Other connectors

RS-232C	9-pin D-sub (female)
Clearance	Accepts D-sub plugs with housings < 15mm high
Data rate	9600 bps
Parallel control port	25-pin D-sub (female)
Clearance	Accepts D-sub plugs with housings < 15mm high
Input level	0 V to 3.3 V (logic low < 0.8 V, logic high > 2.0 V)
Busy current loop rating	60 V DC (relay open), 1.5 A DC (relay closed)
LAN	RJ45
Data rate	10/100 Mbps
Format	100Base-TX (IEEE 802.3)
USB	USB A-type 4-pin
Format	USB 2.0

Audio Performance

Frequency response, nominal level (MIC to LINE OUT)	20 Hz to 20 kHz ±1.0 dB (44.1 kHz / 48 kHz) 20 Hz to 40 kHz +0.5 dB / −4 dB (88.2 kHz / 96 kHz)
Noise level (max. trim, MIC to LINE OUT)	< −55 dBu (22 Hz to 22 kHz, 150 Ohm input termination)
Dynamic range (min. trim, MIC to LINE OUT)	105 dB(A) 44.1 kHz, 22 kHz LPF
Total harmonic distortion + noise (MIC to LINE OUT)	<0.01 % (min trim, 22 kHz LPF, 1 kHz)
Crosstalk (MIC to LINE OUT)	> 80 dB (1 kHz, 150 Ohm input termination)
Delay	44.1 kHz < 0.6 ms 96 kHz < 0.6 ms

Power supply and other specifications

Mains power	100 VAC, 50/60 Hz; 120 VAC, 60Hz 230 VAC, 50Hz; 240 VAC, 50Hz
In-rush current	700 mA
Power consumption	10 W
Display	192 x 32 pixel, white LED backlight
Operating Temperature	5 °C to 35 °C
Dimensions (W x H x D)	483 mm x 280 mm x 44 mm
Weight	3.2 kg

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