TASCAM
TEAC PROFESSIONAL

DR-680

Portable Multi-Track Recorder

The DR-680 brings multi-track portable recording within reach of any musician for polished live, location and surround recordings. Up to eight tracks can be recorded to solid-state SD card media at 96 kHz / 24-bit Broadcast WAV quality. Six mic inputs provide 60 dB of gain and phantom power for clear recordings with condenser microphones. Record the six analogue input signals along with a digital SPDIF source for 8-track recording.
Inputs can be monitored using a built-in mixer with level and pan controls for each input. The stereo mixdown can even be recorded along with the six analogue input signals for quick stereo playback of the event. There's even a built-in speaker to check recordings without headphones.
The DR-680 is also able to capture stereo audio at 192 kHz / 24-bit for audiophile-quality masters or record up to four channels simultaneuously in space-saving MP3 format (firmware v1.10 or higher) – ideal for minutes recording. And for up to 16-track recording on battery power two units can be connected with a cascade cable. An AC adapter, a USB cable and a shoulder strap are included as standard.

Main Features

Recording/Playback

- **High-quality field recording**
- **Compact size and easy operation**
- **Up to 8 recording tracks**
  - 6 tracks + stereo mix track at up to 24-bit/96 kHz
  - 6 tracks via the analogue inputs + 2 tracks via the digital input at up to 24-bit/96 kHz
  - 2 tracks at 24-bit/192 kHz
- **Secure and easily available SD/SDHC recording media**
- **Recording/playback in uncompressed BWF or WAV format or space-saving MP3 format (MP3 format available with firmware v1.10 or higher)**
- **MP3 multi-track recording (2 stereo or 4 mono files)**
- **WAV/BWF sampling frequencies: 44.1 kHz, 48 kHz, 96 kHz, 192 kHz**
- **MP3 sampling frequencies: 44.1 kHz, 48 kHz**
- **MP3 bit rates: 96 kbit/s, 128 kbit/s, 192 kbit/s, 320 kbit/s**
- **16-bit/24-bit resolution**
- **Pre-recording buffer allows a recording to start before the record key is pressed (max. 2 seconds)**
- **Automatic recording allows the unit to start and stop recording automatically by input level**
- **Locate markers**
- **Repeat playback feature**

Inputs/Outputs

- **6 balanced mic/line inputs (4 XLR/TRS combo connectors, 2 TRS connectors)**
- **+48 V phantom power (hardware-switchable in pairs)**
- **Selectable input gain on each analogue input (hardware-switchable high/low)**
- **Switchable low-cut filter and limiter on each analogue input**
- **6 unbalanced line outputs (RCA)**
- **Stereo digital input and output (selectable between SPDIF and AES/EBU)**
- **Headphones output with level control**
- **USB 2.0 high-speed data transfer to PC**
- **Cascade feature to combine up to four DR-680**

Other features

- **Hold feature locks buttons to prevent misoperation**
- **Built-in loudspeaker for monitor purposes**
- **Powered by 8 AA-size batteries or AC adapter PS-1225L (included)**
- **Optional accessory: CS-DR680 carrying case**

Specifications

Recording media and formats	
Recording media	SD card (2 GB) Class 4 or faster SDHC card (4 GB – 32 GB) Class 4 or faster
File system	FAT16 (2 GB Cards) FAT32 (Cards larger than 4 GB)
Supported recording and playback formats	BWF: 16/24-bit, 44.1/48/96/192 kHz WAV: 16/24-bit, 44.1/48/96/192 kHz
Number of tracks	
6 tracks and a stereo mix track	BWF: 44.1/48/96 kHz WAV: 44.1/48/96 kHz
2 tracks	BWF: 192 kHz WAV: 192 kHz
File recording modes	BWF: monaural, stereo, 6-channel WAV: monaural, stereo, 6-channel

Analogue audio inputs and outputs	
MIC/LINE inputs	XLR-3-31/ 6.3-mm TRS combo connectors
INPUT switch set to MIC:	
Input impedance	2.4 kΩ
Nominal input level	GAIN LOW: –20 dBu (0.11 V) GAIN HIGH: –44 dBu (6.91 mV)
Maximum input level	GAIN LOW: +3 dBu (1.55 V) GAIN HIGH: –21 dBu (0.098 V)
Minimum input level	GAIN LOW: –51.5 dBu (2.0 mV) GAIN HIGH: –75.5 dBu (0.1 mV)
INPUT switch set to LINE:	
Input impedance	10 kΩ
Nominal input level	+4 dBu (1.23 V)
Maximum input level	+24 Bu (12.3 V)
Minimum input level	–27.5 dBu (0.05 V)
LINE outputs	RCA pin jack
Output impedance	200 Ω
Nominal output level	–10 dBV (0.3 V)
Maximum output level	+6 dBV (2.0 V)
PHONES jack	6.3-mm stereo jack
Maximum output power	50 mW + 50 mW (into 32 Ω load)
Built-in speaker	500 mW (monaural)

Digital audio input and output	
DIGITAL/SYNC IN jack	RCA pin jack
Format	IEC60958-3 (S/PDIF) or AES3-2003/IEC60958-4 (AES/EBU) automatically determined
DIGITAL/SYNC OUT jack	RCA pin jack
Format	IEC60958-3 (S/PDIF) or AES3-2003/IEC60958-4 (AES/EBU) set by user

Control input and output	
USB connection	Mini-B type
Format	USB2.0 HIGH SPEED (480 Mbit/s)

Audio performance	
(From LINE IN to LINE OUT, Input level = FS –1 dB)	
Frequency response	20 Hz-20 kHz +0.5/–1.5 dB (44.1 kHz) 20 Hz-20 kHz +0.5/–0.5 dB (48 kHz) 20 Hz-40 kHz +0.5/–1.0 dB (96 kHz) 20 Hz-80 kHz +0.5/–5.0 dB (192 kHz)
Distortion	0.007% (1 kHz)
S/N ratio	98 dB(A)

Host computer requirements	
Windows	Pentium 300 MHz or faster 128 MB or more memory USB port (USB2.0 recommended)
Mac	266 MHz Power PC, iMac, G3, G4 or faster 64 MB or more memory USB port (USB2.0 recommended)
Recommended USB host controller	Intel chipset
Supported Operating Systems	Windows XP, Windows Vista, Windows 7 Mac OS X 10.2 or newer

Power supply and other specifications	
Power supply	8 AA batteries (alkaline or NiMH) AC adaptor (TASCAM PS-1225L, included)
Power consumption	
100–120V	9 W (Phantom on, AC Adaptor PS-1225L)
220–240V	9.5 W (Phantom on, AC Adaptor PS-1225L)
Battery operation time (when used continuously)	
Alkaline batteries	About 4 hours recording (JEITA) About 4 hours playback (JEITA)
NiMH batteries	About 4.5 hours recording (JEITA) About 4.5 hours playback (JEITA)
Dimensions (width x height x depth)	217 mm x 56 mm x 189 mm
Weight	1.2 kg (without batteries)
Operating temperature range	0–40 °C

Design and specifications subject to change without notice.

Last modified: 2015-02-12 12:33:11 UTC