

# R-88

8-CHANNEL RECORDER and MIXER

All in One Recorder, Mixer and  
Audio Interface - Anytime, Anywhere



 **8<sup>ch</sup>+2<sup>mix</sup> Rec**

 **8<sup>ch</sup> Mixer**

 **10<sup>in</sup>×8<sup>out</sup> USB**

 **8<sup>in</sup>×8<sup>out</sup> XLR**

# Seamless integration of recording, mixing and an audio interface - a new dimension in professional portable recording.

- Simultaneous recording of 8 channels + stereo mix (up to 96kHz)
- Up to 24bit/192kHz uncompressed linear PCM recording (up to 4 channels)
- 3 hours of recording time using 32GB SDHC card (24bit/96kHz, 10ch)
- Up to 5 seconds pre-recording
- 8 XLR inputs, 8 XLR outputs, AES/EBU input/output
- Built-in 8 channel mixer with 3-band EQ and MS microphone decoder
- Built-in 10in/8out USB audio interface to use with any common DAW (up to 96kHz)
- Touch Panel Display for intuitive navigation
- SMPTE time code In/out for video sync
- BWF and iXML embedded metadata (SCENE, TAKE, TIMECODE RATE)
- Supported power types – AA batteries, rechargeable Ni-MH battery, AC power, and 4-pin XLR external battery types.

**R-88**  
8-CHANNEL RECORDER and MIXER



USB 2.0

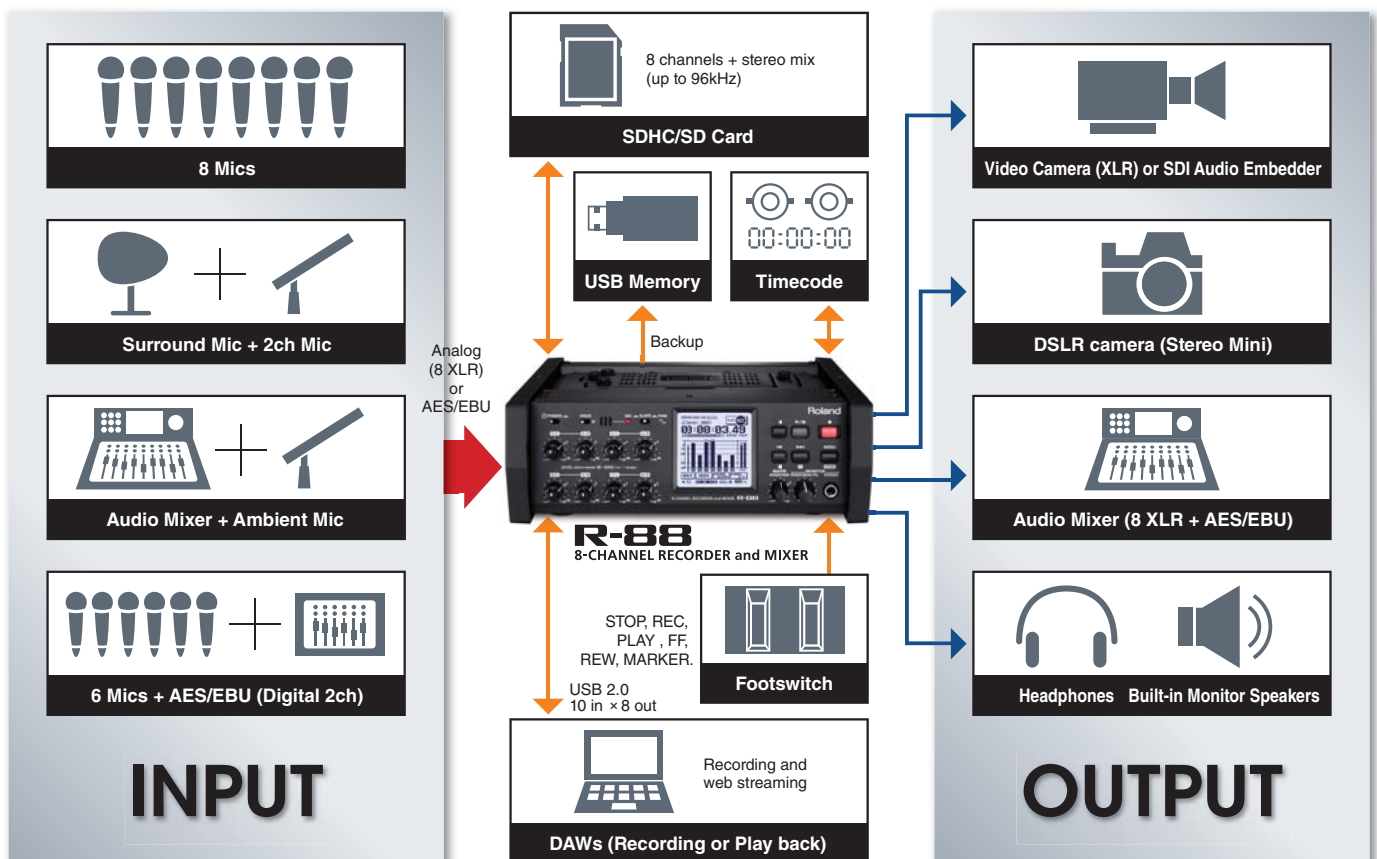
ASIO



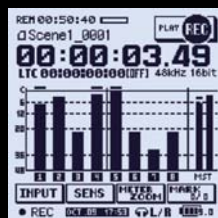
for Windows® 7/Vista/XP

for Mac OS X

## Input, Output, Mix and Interface Options to Cover a Multitude of Recording Applications



8 channels + stereo mix recording simultaneously (up to 96kHz)



Built-in, powerful digital mixer allows simultaneous recording and mix-down



**● Hold Switch**

Prevents unintentional operations by disabling control from the front panel buttons and touch panel display.

**● Power Switch**

**● Input Sensitivity & Level Knobs**

Dual type knobs adjust both input sensitivity (-56dBu to +4dBu) and level for Ch 1 to 8 independently.

**● Peak Indicators**

**Touch Panel Display**

The front touch panel displays a variety of contextual information making control and adjustments intuitive.



**● Memory Card Slot**

Audio is recorded on SD or SDHC cards (up to 32G).

**● Digital Audio Input/Output**

AES/EBU Input/Output. Provides digital input capability and stereo mix output from internal mixer.

**● DC Input**

Power via the included AC adaptor or professional external battery systems. (4-pin XLR 9 to 16 V)

**● Outputs 1-2**

XLR balance outputs. Assignable from Channel 1/2, 3/4, 5/6, 7/8 or mixed audio via internal mixer. Selectable output level (+4/-60dBu).

**● Mix Out Terminal**

Stereo miniature phone type. This output offers mixed audio from the internal mixer. Selectable output level (2 Vrms/-30 dBu).

**● Top Panel**

**Battery Pack**

The R-88 works with eight (8) AA batteries.



**● Internal speakers**

**● Slate Mic**

For recording voice memos

**● Slate Switch**

On/Off switch to turn on Slate Mic or Slate Tone (1kHz/-20dBFS)

**● REC Button**

REC button lights during recording and blinks in standby mode. During recording, markers are set by pushing the button.

**● PREV/NEXT Buttons**

PREV and NEXT allow selection of the previous or next file. Hold down these buttons for rewind or fast forward.

**● MENU Button**

This button accesses the menu settings, such as recording/playback settings and specifying the date and time, recording mode, etc

**● Monitor Level knob**

Volume control for built-in speakers and headphones. When pushing the knob, the monitor/PFL/RTA setting menu screen appears.

**● Master Level knob**

Volume control for stereo mix from internal mixer. When pushing the knob, the mixer menu screen appears.

**● Inputs/Phantom Power Switches**

XLR type jacks support line level to mic level. Individual on/off switches control the phantom powered supply to each XLR input.

**● USB Memory Port**

Backup files to USB memory flash drives.

**USB Port**

Enables copying files to or from computers or using as a 10 in/8 out USB audio interface (up to 96kHz).



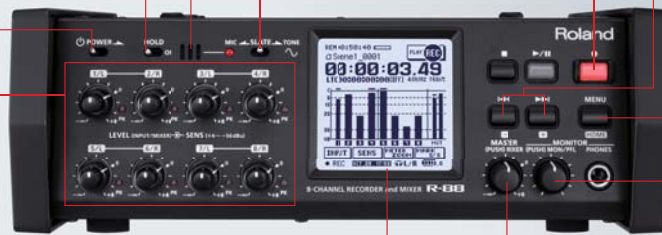
**● External Control Jack**

Enables STOP, REC, PLAY, FF, REW, REC/STOP, PLAY/STOP, PLAY(MOMENT), SET MARKER, PREV MARKER, NEXT MARKER using optional FS-6 or FS-5U footswitches.

**● Time Code Input/Output**

The R-88 accepts SMPTE time code offering slave mode to video cameras or VTRs. In addition, the R-88 can be the master, sending out time code to slave devices (Time code mode : OFF, INT, RTC, REC-RUN, EXT SYNC, EXT AUTO JAM, EXT SYNC REC, EXT REC).

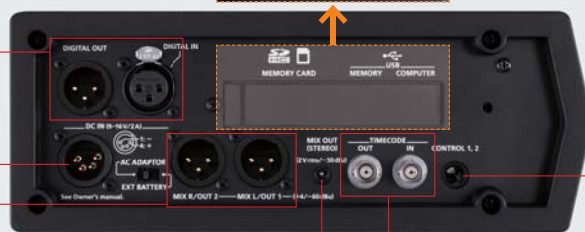
**Front Panel**



**Right Side Panel**



**Left Side Panel**



**Rear Panel**



**● Outputs 3-8**

XLR balance output. Together with Ch.1 and 2, a total of 8 independent outputs are available. Also, mixed audio via internal mixer can be output (+4dBu).

**Specifications**

Recorder Part	
Channels	8 channels + 2 channels (stereo mix from built-in mixer) (Sampling Frequency 44.1, 48, 88.2 and 96 kHz), 4 channels (Sampling Frequency 192 kHz)
Data Type	Format: BWF (mono, stereo), Sampling Frequency: 44.1, 48, 88.2, 96, 192 kHz, Bit Depth: 16, 24 bits, Meta Data: Origination Time, Frame Rate, etc.
Recording Media	SDHC Memory Card: 4 to 32 GB, SD Memory Card: 2 GB
Pre-Recording	OFF, 1, 2, 3, 4, 5 second(s)
Mixer Part	
Mixing Channels	Input: 8 channels, Output: 2 channels (stereo)
Channel Strip	3-band equalizer, Fader, Pan, MS microphone decoder
Master	Fader, Limiter
Audio Input Part	
Signal Processing	AD Conversion: 24 bits
AD Dynamic Range	120 dB or greater ([SENS] knob = +4 dBu)
Channel Effects	Limiters, Low Cut, MS microphone decoder
IN 1-8 jacks (Analog Inputs): XLR type (Phantom powered)	Nominal Input Level (chooses with [SENS] knob): -56, -50, -44, -38, -32, -26, -20, -14, -8, -2, +4 dBu (LEVEL KNOB MODE = INPUT: Changes with the [LEVEL] knob positions in the range of -infinity to +8 dB.) Maximum Input Level: +26 dBu Input Impedance: Mic Input ([SENS] knob = -56 to -20 dBu): 3.4 k ohms, Line Input ([SENS] knob = -14 to +4 dBu): 5.6 k ohms * When sampling frequency is 192 kHz, IN 5-8 jacks are inactive.
DIGITAL IN jack: XLR type (AES/EBU, conforms to IEC 60958-4)	* When using Digital Input, IN 1-2 jacks are inactive.
Phantom Power	48 +/- 4 V, 10 mA per 1 channel (8 channels of phantom power available simultaneously)
Slate Microphone	Built-in
Audio Output Part	
Signal Processing	DA Conversion: 24 bits
OUT 1-2 jacks (Analog Outputs): XLR type	Output Buses: Channel 1-2, Channel 3-4, Channel 5-6, Channel 7-8, Stereo mix from built-in mixer, Output Level: +4 dBu/-60 dBu, Maximum Output Level: +24 dBu, Output Impedance: 600 ohms
OUT 3-8 jacks (Analog Outputs): XLR type	Output Buses: Channel 1-2, Channel 3-4, Channel 5-6, Channel 7-8, Stereo mix from built-in mixer, Output Level: +4 dBu, Maximum Output Level: +24 dBu, Output Impedance: 600 ohms * When sampling frequency is 192 kHz, OUT 5-8 jacks are inactive.
MIX OUT jack (Analog Outputs): Stereo miniature phone type	Output Buses: Stereo mix from built-in mixer, Maximum Output Level: 2 Vrms/-30 dBu, Output Impedance: 1 k ohm
DIGITAL OUT jack: XLR type (AES/EBU, conforms to IEC 60958-4)	Output Buses: Stereo mix from built-in mixer
PHONES jack: Stereo 1/4-inch phone type	Output Level: 80 mW (32 ohms), Output Impedance: 10 ohms

Built-in Speaker	Stereo
Slate Tone	1 kHz, -20 dBFS
Monitor	Pre Fader Listening (PFL), Real Time Analyzer (RTA), Alarm Tone
Characteristics	
Residual Noise Level (IHF-A)	OUT 1-8: -80 dBu or less ([LEVEL] knobs = -infinity), MIX OUT: -90 dBu or less ([LEVEL] knobs = -infinity)
Total Harmonic Distortion + Noise	0.02 % or less ([SENS] knob = +4 dBu, [LEVEL] knob = 0)
Frequency Response	20 Hz-40 kHz (0/-3 dB, Sampling frequency = 88.2 kHz, 192 kHz)
Other Terminals	
USB (MEMORY) port: USB Type A	USB Mass Storage Class (USB 2.0/1.1) * USB HDD cannot be used.
USB (COMPUTER) port: USB Type mini B	USB Mass Storage Class (USB 2.0/1.1), USB-AUDIO (Hi-Speed USB, Input: 10 channels, Output: 8 channels) * When sampling frequency is 192 kHz, the USB audio is inactive.
TIME CODE (OUT, IN) jacks: BNC coaxial type (Conforms SMPTE 12M-1999)	Mode: OFF, INT, RTC, REC-RUN, EXT SYNC, EXT(AUTO JAM), EXT SYNC AUTO REC, EXT AUTO REC, Frame Rate: 23.976, 24, 25, 29.97, 29.97D, 30, 30D
CONTROL 1, 2 jack: 1/4-inch TRS phone type	STOP, REC, PLAY, FF, REW, REC/STOP, PLAY/STOP, PLAY(MOMENT), SET MARKER, PREV MARKER, NEXT MARKER
Others	
Display	Graphic LCD 160 x 160 dots (touch screen)
Indicators	IN 1-8 PK indicators, SLATE MIC indicator, REC indicator, PLAY indicator
Power Supply	AC adaptor (using 4-pin XLR type connector conversion cable), Alkaline battery (AA, LR6) or Rechargeable Ni-MH battery (AA, HR6) x 8, External power supply (4-pin XLR type, 9-16 V)
Current Draw	1.5 A
Dimensions	260 (W) x 235 (D) x 93 (H) mm, 10-1/4 (W) x 9-1/4 (D) x 3-11/16 (H) inches
Weight (including batteries)	2.7 kg, 6 lbs
Accessories	Owner's Manual, AC adaptor, AC adaptor - 4-pin XLR type connector conversion cable

\* 0 dBu = 0.775 Vrms

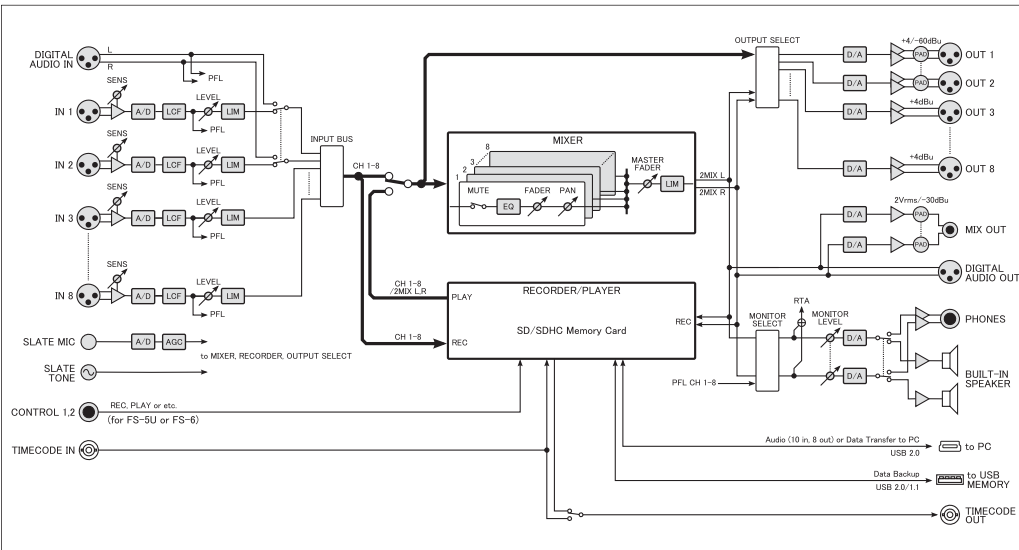
**Recording Time using 32GB SDHC memory card**

UNIT: hours

	16 bits/ 44.1 kHz	24 bits/ 44.1 kHz	16 bits/ 48 kHz	24 bits/ 48 kHz	16 bits/ 88.2 kHz	24 bits/ 88.2 kHz	16 bits/ 96 kHz	24 bits/ 96 kHz	16 bits/ 192 kHz	24 bits/ 192 kHz
1ch	100	67	92	61	50	33	46	30	23	15
2ch	50	33	46	30	25	16	23	15	11	7.7
4ch	25	16	23	15	12	8.4	11	7.7	5.7	3.8
8ch	12	8.4	11	7.7	6.3	4.2	5.7	3.8	—	—
10ch	10	6.7	9.2	6.1	5	3.3	4.6	3	—	—

\* These recording times are approximate. Actual results may vary somewhat.  
\* If more than one recorded file exists, the total recordable time will be less.

**Block Diagram**



**Options**

- R-88 Carrying Bag**  
**CB-R88**
- Dual Footswitch**  
**FS-6**
- Footswitch**  
**FS-5U**
- Stereo Headphones**  
**RH-300**



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