COURIER

Portable Flash-Card Audio Recorder

USB

Already in use around the world by major broadcasters, freelance journalists and sound recordists, Courier is one of the most versatile portable recorders on the market. The Courier has been designed with total ease of use in mind with careful thought going into the layout of the controls. For sheer flexibility and adaptability the Courier is hard to beat and it's easy to see why :

• **Low weight - only 1.5kg including media and battery.**
• **Records in most broadcast formats providing instant compatibility with audio broadcast systems.**
• **Uses flashcards or PCMCIA hard disks.**
• **Optional USB removes the need for audio dubbing.**
• **Built-in, sophisticated, easy to use editing functions.**
• **Use a POTS modem, an ISDN modem, or GSM to transfer files back to the studio.**
• **Carry out live reports with the optional ISDN version or with the CO-TBU telephone balance unit.**
• **Anti-shock, robust packaging using strong shatterproof ABS plastic, with protection buffers to prevent damage.**
• **Uses standard domestic rechargeable camcorder batteries, which can even be changed whilst recording.**

CO-TBU Telephone Balance Unit

CO-PRO Sound Recordists Bag

CO-CGR 12V Cigarette Lighter Adaptor

Selections for mic/line, mic & line levels, phantom power, high pass filter & limiter

Digital AES/EBU output

2 inputs for either single, stereo or mono sources at either mic or line level

XLR audio input & output connectors

Scrub wheel and jog shuttle for fine-point editing

Headphones socket with volume control

Dual ganged rotary input level controls

Peak over-level leds and simple menu operation

Backlit graphical LCD

Standard easy to use "tape transport" keys

Sliding record and record pause switches enable "feel in the dark" operation

Battery life & disk time remaining can quickly be viewed

The Monitor button acts as a confidence monitor allowing you to hear what's being recorded while it's recording

Rubber protection buffers to prevent damage if dropped

Courier uses a standard camcorder battery which can be removed/installed on the fly (battery backup is standard)

12V DC mains power input on an XLR-4 connector

RS232 is used for transferring data to/from a modem or a PC or for direct GSM mobile connection

Optional USB port for fast data transfer

Optional ISDN port for live audio or data transfer

A covered slot with a large eject button accepts a flashcard or hard disk

Built-in loudspeaker

Press and hold the power switch to turn it on and off - the button can't accidentally be knocked

Portable power with hot-swap batteries

The days when you had to worry about your recorder failing in the middle of an interview are over ! Courier's audible bleep reminds you when to change the battery. The internal rechargeable battery will give over 1 minute of hot-swap time during which you can change the main battery. An optional cigar lighter adaptor provides power in the car and will recharge the Courier's batteries whilst on your way to the next crucial assignment. The integral international mains travel adaptor pack also ensures that you can operate and charge your Courier from anywhere in the world.

Record in style

Take advantage of Courier's superior versatility by defining 'Record Styles' to make your report perfectly compatible with the majority of editing and broadcast playout systems. Simply define parameters such as sample rate, file format, compression used and whether mono or stereo, then give your recording style a name such as 'Radio' or 'CD'.

Up to 20 personalised Record Styles can be configured into the Courier. Once you've selected your chosen Record Style and finished recording, use USB to connect to your editing or playout system for instant editing or playback. No need for audio dubbing - what could be simpler ?

Control at your fingertips

All the controls for Courier are designed for your ease of use. Large, readily identifiable keys have been used with added benefits such as 'feel in the dark' operation and accidental switch-off prevention. A confidence monitor confirms that your recording is safe and a backlit LCD display gives you vital information on the recording levels, battery and disk time remaining.
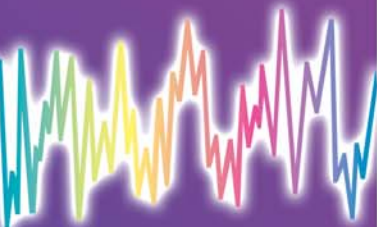
A software controlled limiter can be switched in together with a high pass filter for use in noisy surroundings and there are "over level" LEDs for an instant visual check on recording levels. All of this enables you to concentrate on your job not your recorder.

Why rush if you don't have to ?

There's no need for you to waste time hurrying back to base in order to edit and transmit your report. Stay right where you are! Courier has sophisticated, non-destructive, accurate editing capabilities. By using the jog shuttle wheel, and watching the waveform on the graphical display, you can place multiple marks, and perform complex editing simply. A playlist can be compiled by taking pieces from any number of cuts, which can be saved in a number of different formats. Easier still, once you've finished your report, simply connect Courier to a modem and sit back as it sends your report as data down the phone line. Courier can even send your report over the digital phone network by directly connecting a GSM mobile phone. All of which saves you valuable time and effort.

SONIFEX

COURIER

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Courier with standard accessories

Live reporting using POTS or ISDN

Provide your listeners with all the excitement of live commentary. Connect up the purposely-designed CO-TBU telephone balance unit and you're ready to broadcast down a telephone line, either by using the mic/line inputs or by playing pre-recorded cuts.

The CO-ISDN-S & CO-ISDN-S-USB versions of the Courier provide you with all the features and benefits of the standard Courier but bring it up to the level of a portable ISDN codec. You can either carry out a live broadcast, or use the Courier as an ISDN modem to send your audio back to the studio as data. For live audio, mpeg layer 2 compression is used to send and receive audio over a single 64 kb/sec circuit. As standard you can use the left mic/line input to broadcast, or you can play back cuts from the disk.

Audio can be sampled at either 24kHz or 48kHz and there is an option to mix both the inputs to mono before sending. There is a send and return level indicator and levels can be adjusted using the record level knob and the headphone volume adjustment, with the return feed being sent to the headphones. Courier is compatible with CCS CDQ Prima & CDQ1000, Telos Zephyr, Dialog 4 MusicTaxi and Prodys Pronto 2 codecs.

Using the Courier as an ISDN modem, you can connect directly to an ISDN line and send data files back to your studio using the z-modem protocol. The ISDN Courier uses the Euro-ISDN protocol which can be used in Europe and Asia. It can be used in the USA with a separate NT1 adapter.

Configuring the Courier

If you have one, or a number of Couriers, you can configure them all simply with the same password protected settings. Supplied free with every Courier is the CCM software, available for Win 95/98/2000/NT & XP™. By connecting the Courier to your PC using the supplied serial, or USB, cable you can have the following benefits :

*   You can configure all of the options for the Courier using CCM, including PhoneBook entries and Record Styles.

*   You can carry out bi-directional file transfers between the Courier and your PC, so you don't need to have a PCMCIA slot for your PC.

*   You can update your Courier free of charge to the latest version by downloading Courier firmware from the Sonifex website.
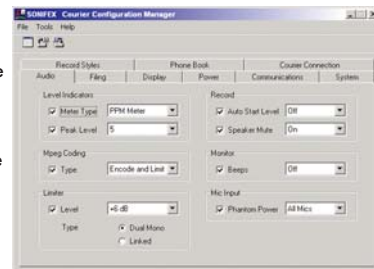
USB connection

The CO-STD-USB and CO-ISDN-S-USB Couriers have a USB B connector supporting USB 1.1 so that fast downloads can be made to the PC of up to 60 times real-time speed. Supplied with the new Courier is software to enable connection to Windows Explorer in MS-Win 98/2000/XP™. Once the Courier is connected via USB, the Courier hard-disk (or flashcard) looks like another hard-disk on the connected PC system, from which audio files can be played, edited, transferred, copied and deleted. Additionally, the USB connection allows the flashcard or hard-disk used for recording to be permanently stored in the Courier without the need for removal. Files can be quickly downloaded to a PC by USB, the disk wiped and recording started again in a fraction of the time normally needed.

Technical Specification

Physical Specification

Batteries & Battery Life:	6V standard 8mm NiCd or NiMH camcorder batteries (for use with Sony, JVC, Sharp camcorders). Over 6 hours record time available on a 20MB flashcard and up to 5 hours on a 520MB hard-disk, using a fresh 3600mAh NiMH battery.
External Dimensions:	24cm (W) x 8cm (H) x 26cm (D), 41cm (W) x 22cm (H) x 35cm (D) (Boxed)
Weight:	1.5kg (nett), 5kg (gross, boxed)

Audio Specification

Input Impedance:	> 10kΩ balanced	Phase Error at 10kHz:	Unmeasurable
Output Impedance:	< 50Ω balanced	Low Frequency Roll-Off:	125Hz @ 6dB/octave
Maximum Input Level:	-40dB (mic input) variable to +20dB (line input)	Limiter Threshold:	+2dB to +10dB
		Sample Rates:	8kHz, 11.025kHz,12kHz, 16kHz,
Maximum Output Level:	+12dB (line output)		22.05kHz, 24kHz, 32kHz, 44.1kHz,
Headphone Output Level:	Drives 150mW into 32-600Ω phones		48kHz.
Speaker Power:	500mW	Mpeg Bit-Rates:	8-384kbps mpeg layers 1 & 2
E.I.N. for Mic Input:	124dB	File Formats:	Mpeg Layer 2 .mp2 and .wav,
Phantom Power:	+48V available individually to left and right mic channels.		Broadcast Wave File mpeg layer 2 and .wav, 8 or 16 bit linear .wav,
Frequency Response:	20Hz - 20kHz ±0.1dB (600Ω load, ref 1kHz)		AIFF. Other proprietary header formats are supported - please
Distortion:	< 0.1% at 1kHz +16dBu		contact Sonifex for details.
Signal to Noise Ratio:	90 dB RMS A wtd. 22kHz bandwidth	Recording Types:	Mono, stereo, dual level mono, Dalet
Wow and Flutter:	Unmeasurable		mono, stereo mix.

Connections

Analogue Outputs (2):	XLR 3 pin plug	PCMCIA (PC Card):	Type III slot (accepts type II & III
Analogue Inputs (2):	XLR 3 pin socket		hard-disk or type II flashcard)
AES-EBU Digital Output:	XLR 3 pin plug	ISDN (Option):	RJ45, 64 kbit/sec mpeg layer 2,
RS232:	9 Way D-type plug		Euro-ISDN, S-bus.
Headphone Output:	¼" (6.3mm) Jack socket	USB (Option):	USB B connector supporting USB 1.1

Types

CO-STD	Standard Courier Portable Recorder
CO-STD-USB	Standard Courier Portable Recorder with USB Interface
CO-ISDN-S	Courier Portable Recorder with ISDN-S Interface
CO-ISDN-S-USB	Courier Portable Recorder with ISDN-S and USB Interfaces