DIGICORDER

Digital Portable Audio Recorder
DIGITRANS
Digital Receiving Software

The DIGICORDER: the revolution of new media and a combination of functions into the portable audiorecorder

The Digicorder is a portable digital audio recording, playback, editing and communication device. It stores up to 4 hours of audio on creditcard-sized harddisks or flash-cards. Audiofiles stored on harddisks are directly accessable.

On-site recordings can be instantly edited using cut and paste techniques. The Digicorder can be directly connected to ISDN and telephone lines for data transmission. Audiofiles transmitted are collected on a PC using the Digitrans receiving software without any loss of quality.

The Digicorder uses the Musicam-standard for audio compression; the audiofiles can easily be made available throughout the organization for re-mixing, broadcasting and storage. Developed for the professional user, the Digicorder is robust and easy-to-use.

Digital Recording.....

Recording is done via microphone or line-input in mono, stereo, or joint stereo. During recording volume, gain and threshold levels may be altered. The set of only 8 push buttons make the Digicorder very easy to use. All the information on the recording, and on the recorder status is provided by a large illuminated Liquid Cristal Display, mounted on top of the Digicorder. The Digicorder is powered by a rechargeable battery, a mains adaptor or a car-battery.

.....and Editing

After recording with the same Digicorder it's possible to edit the recordings just made, on site. Editing is non-destructive using EDL's. Editing is being done using the Jog-shuttle placing markers. The selected sections can be cut, or copied and pasted to other parts of the file, to a new file or to the clipboard. All editing information, like counters (accurate to 1/10th of a second), actions (copy, cut, paste) and the place of the markers are shown on the LC Display.

When Maycom Automation Systems B.V. began developing the Digicorder the goal was to make an audiorecorder that would combine the traditional sequence of operations. The combination of recording, get the audio in the studio and get it ready for broadcasting into one device would save time and money.

Maycom was the first in the world who developed a fully computerized tapeless digital recording device. At its presentation on the IBC 1994 in Amsterdam, the Digicorder won the Pater Wayne award for innovation.

Being an independent manufacturer Maycom choose to use the standards of the computer and audioindustry so its products are compatible with as much systems as possible.

The Digicorder is optionally equipped with ISDN-transmission facilities, modem communication and AES/EBU

Sending Your Message....

With the Digicorder audio can be sent from all over the world to the homebase without any loss of quality, using the built-in communication services.
If ISDN is available it's possible to go On-air in realtime with the audiofiles recorderd or directly using the feed-through mode. If only telephone-lines are available file transmission can be done making use of a high speed modem (with the size of a creditcard) that is connected to the PCMCIA-slot.

....and get it on Air

Using the Digitrans software in the studio (or wherever a PC is available), audiofiles can be received from all Digicorders in the field. On-screen one'll see from which Digicorder they come from. The audiofiles received can be stored on harddisk or be transmitted (like any computerfile) to other locations for further use. The musicam audiofiles can be converted, using musicam-compatible studiosoftware, into analogue signal to go On Air. If the station broadcasts digitally the first-one to receive Hifi analogue signals is the ear of the audience.

PCMCIA, the letters stand for Personal Computer Memory Card International Association is an organization of over 500 companies, founded with the goal to make portable connectivity compatible. All PCMCIA cards are connected to a 68-pins internal PCMCIA-slot built into desktopcomputers, note-books and off course the Digicorder.
In a few years time PCMCIA has become the standard for a wide range of flexible and low powerconsuming periphirals. First there were only portable harddisks, now in the PCMCIA standard, there are also Flashmemory-cards, Modem-cards, LAN-adaptors and wireless communication devices.
Maycom decided to use PCMCIA-cards as storage-medium for its Digicorder because of the flexibilty, the possibilty to hotswap the cards, the size,and robustness. At the moment moving parts harddisks are available up to 260 MB and non-moving parts Flashcards up to 40MB. Modemcards up to speeds of 28 Kb per sec. Much of these figures seem to double each year.

The Digicorder offers flexibilty and effeciency through multi-functionality, easy handling and speed. It saves time on actions one does not want to loose any time on. It leaves you with a revolutionary improvement of your news-quality and as a result of savings in man-and machine power, at lower overall costs.

The technique...

Recordings are made on PCMCIA-storage media connected to the internal PCMCIA-slot. These media can contain audio-items up to 4 hours (depending on compression and sample rate). The double PCMCIA-slot is compatible for PCMCIA Type I, II and III. The recorded data are reduced using the ISO/MPEG layer II (known as Musicam) standard to save diskspace and to reduce datatransfer times.

Recording can be done mono, stereo or joint stereo using microphone- or line-input. The Digicorder back contains two XLR-connectors for mono or stereo input and two XLR-connectors for mono or stereo output. There is a switch for choosing between microphone or line input. Recording is started using the recordbutton and paused or stopped using the according buttons. During recording, headphone or speakervolume can be changed as well as recording level and gain, using the gain button.


Other specifications:

- Samplerate: 32, 44.1 and 48 kHz
- Compressionfactor: from 32 up until 192 kbit/s per channel
- Phantom power: 12V
- 2 x XLR in: Analogue symmetrical input, Balanced mic: -60 dBu, Balanced line: 0 dBu
- 2 x XLR out: Analogue symmetrical output Max. +10 dBm, typ. +6 dBm
- Freq. response: 20 Hz - 20 kHz
- S/N ratio: >70 dB
- Crosstalk : -80 dB
- ISDN: S0 (2B+1D), RJ45, E-DSS1 (Euro-ISDN) or 1TR6
- Speakers: 2 x integrated speakers
- Options: AES/EBU digital output/input, SMPTE time code interface
- Dimensions: L x W x H:(280 x 185 x 80 mm)
- Weight: ±2.8 kg.
- Operating temp.: 0 - 70 ºC.

For more Information don't hesitate to contact the manufacturer:

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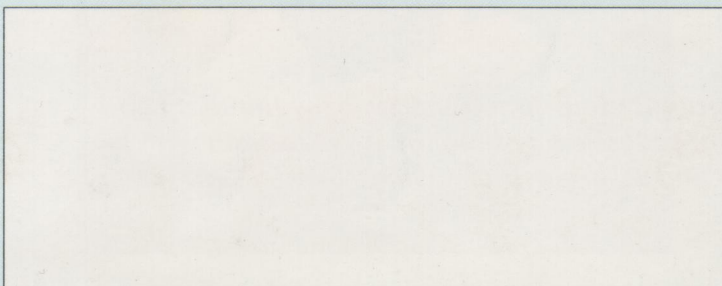
Most of the special functions of the Digicorder are menu driven. Using the Jogshuttle/Jogwheel the menus and submenus can be scrolled, making choices or setting values. All functions are shown on the LC Display.
A selection is given of the most important functions available:

Settings: a.o. choosing sample rate and compressionfactor of the audio that will be recorded. These numbers influence the soundquality (up to a bandwidth of 48 kHz) and the storage consumption. In this menu the devicemode can be selected:mono,stereo and joint stereo.
Calibration: Calibrate the gain-,threshold or battery level.
Management: a.o. building and deleting items recorded and audioclips from the clipboard.
ISDN: choosing packet size and ISDN-protocols. An ISDN-connector (RJ45) is placed at the the Digicorder back.
Transmission: Go live (real-time), dial numbers (and store them in a database) or send files.
Modemcommunication: choose (from the database) or dial numbers and send files using a PCMCIA modemcard connected to the PCMCIA slot.
AES/EBU: Select input- and outputmode and synchronization.
In Edit-mode with the jogshutlle/wheel an audio-item to edit can be selected. After selection of the item the LC Display shows the total length of the item and the current position in the item. One can scroll through the item forward and backward faster and slower just to listen to the audio recorded or to place markers. The LC Display shows the position of these markers. By placing two markers an audio-clip is created that can be copied, cutted or placed on the clipboard (for later use). Also it's possible to paste audioclips or entire items into other items.

Collecting files transmitted with a Digicorder is done using the Digitrans software. For this purpose the computer has to be equipped with a modem and an ISDN card and must run on Windows. The program identifies the Digicorder that is transmitting data. The data can be stored on a internal or PCMCIA harddisk for further use. The computer is equiped with a Digiram audioboard so one can play back the audio.

The Digicorder is powered by a rechargeable battery, a car battery or mains adaptor. An external batterycharger and a mains adaptor is supplied with every Digicorder.