



PORTADAT

Professional Portable DAT Recording System

PORTADAT



The PORTADAT System

HHB's PORTADAT is the worldwide industry standard for location sound recording. Unparalleled build quality and reliability combine with a comprehensive feature set specified by leading industry professionals to create a portable DAT recorder which is the first choice of many broadcasters and TV & film location Sound Recordists the world over. For his sound effects work with the PORTADAT on the blockbuster movie 'Titanic', Sound Recordist Chris Boyes won an Oscar.



- 1 PDRCASE Aluminium case (optional).
- 2 Soft carry case (supplied).
- 3 AR1000(TC) Portabrace case (optional).
- 4 MCA1000 4-bay fast charger (optional).
- 5 MHB220 rechargeable battery (supplied).
- 6 RB110 2-bay charger (supplied).
- 7 HHB DAT tape (1 x DAT15 supplied).
- 8 DCP1000 Vehicle power cord (optional).
- 9 PS100 Worldwide power supply (optional).
- 10 PORTADAT PDR1000.
- 11 PORTADAT PDR1000TC.



PORTADAT

Exceptional sound quality. Rugged build.

PORTATDAT PDR1000



Designed in consultation with leading location sound recordists, the PORTADAT defines new standards of sound quality, performance and reliability. Built to withstand the rigours of everyday location use in harsh conditions, PORTADAT delivers all the advantages of the DAT format - outstanding sound quality, genuine portability, and low media costs. The 4-head, direct-drive DDS type transport mechanism is so well constructed that as yet, not one single PORTADAT has been returned with a worn head drum. A range of powering options covers every eventuality - battery, mains, or from a vehicle, with a two bay charger supplied as standard and a four bay fast charger available as an option. With Nickel Metal Hydride (Ni-MH) technology, batteries are less susceptible to the 'memory effect' associated with Ni-Cads, and therefore run at full capacity throughout a longer lifetime. The PORTADAT's comprehensive list of professional features goes on: 48V phantom powering; balanced XLR inputs; selectable sampling rate (32/44.1/48kHz); SPDIF and AES/EBU digital I/O; on-board limiting; large, clear record, pause and level controls which are easily operated while wearing gloves; a large, clear back-lit LCD display; an internal monitor speaker; and comprehensive indexing facilities.

PDR1000 Features

- 1** Switches under lid for: analogue / digital input, sampling rate, digital I/O format, eject, and clock / calendar set (PORTADAT stamps every recording with date & time).
- 2** Internal monitor speaker.
- 3** Buttons for: end search, renumber, actual / recorded time and date display, end ID, ID erase, and auto ID on / off.
- 4** Switches for: power on / off, key hold (locks transport controls), and open cassette compartment cover.
- 5** Transport controls: ID search back / forward, rewind / review, play (with LED), fast forward / cue, and stop.
- 6** Switches for: L/R line / mic (HP filtered), mic input attenuation, +48V phantom power, internal limiter.
- 7** 12V DC power input.
- 8** Removable panel for access to clock back-up battery. Optional HM1000 headphone matrix replaces this panel.
- 9** Remote control port.
- 10** 1/4" / 6.5mm stereo jack headphone socket.
- 11** Monitor level control. Applies to headphones and internal monitor speaker.
- 12** Back-lit LCD display showing clock and counter, battery status, peak level metering, margin indicator, source / tape monitor, transport status, and selected sample rate.
- 13** Front panel controls: large sliding record key (with LED), large pause key (with LED), independently lockable L/R record level controls, ID write, time display format, counter / margin indicator reset, display illumination on / off, tape / source monitoring.
- 14** Phono sockets for: SPDIF in / out, analogue out L/R.
- 15** XLR sockets for: AES/EBU digital in / out, balanced analogue in L/R.

The industry standard for location sound recording.

PORTADAT PDR1000TC



The PORTADAT is available in two versions - the PDR1000 (pictured left) and the PDR1000TC (above). The PDR1000TC offers all the features of the PDR1000, along with the facility to record, generate and reference to timecode in all existing international standards, as well as to jam sync and convert absolute time to linear timecode. Frame rate is selectable between 24, 25 (PAL), 29.97 drop frame (NTSC), 29.97 non-drop frame (NTSC) and 30 frames per second. Timecode can be recorded as time of day, preset free run or record run, and can be set to internal or external generation. The PDR1000TC also features a built-in chase synchroniser, allowing the machine to slave to an incoming timecode source.

PDR1000TC Features

- 1** Side panel can be replaced by optional MS1000 Master sync module.
- 2** Internal / external timecode source selector.
- 3** Timecode generator control panel (user bit set and reset, increment / decrement of selected digits).
- 4** Back lit LCD display showing timecode and user bits, frame rate, sync mode, drop / non-drop indicator, timecode errors, timecode lock, and load timecode errors.
- 5** Timecode display controls for: int / ext / tape, user bits display, display timecode as user bits.
- 6** User bits source selector (internal user bits, date, external user bits, external timecode).
- 7** Timecode generator mode selector (time of day, record run, free run).
- 8** Frame rate selector (24, 25 (PAL), 29.97 drop frame (NTSC), 29.97 non-drop frame (NTSC), 30 FPS).
- 9** BNC connectors for: word sync output, video / word sync input, video / word sync through.
- 10** XLR connectors for: linear timecode balanced input and output.

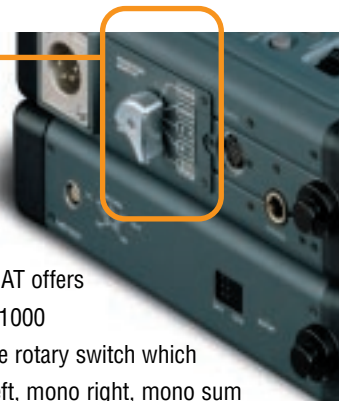
Optional Upgrades

• MS1000 MASTER SYNC



The optional MS1000 Master Sync module makes PORTADAT the most accurate portable timecode DAT recorder on the market, ensuring that drift does not exceed 1 frame in 10 hours. Compatibility with Aaton timecode film cameras is provided by the standard Lemo socket, and the MS1000 also adds the facility to pull up from 29.97 FPS drop to 30 FPS drop. The MS1000 can be specified at the time of purchase or can be installed as a retrofit to any PDR1000TC.

• HM1000 HEADPHONE MATRIX



While many recorders require you to build custom headphone monitoring systems, the PORTADAT offers its own integral solution. The HM1000 Headphone Matrix features a large rotary switch which changes between stereo, mono left, mono right, mono sum and M/S stereo configurations. Again, the HM1000 can be specified as you order your PORTADAT, or can be retrofitted.

• PORTADAT PDR1000TC PLUS

Comprehensive and cost-efficient; quite simply the ultimate location recording system. The PORTADAT PDR1000TC PLUS consists of the standard PDR1000TC (as described left), with the MS1000 Master Sync Module (above) and the HM1000 Headphone Matrix (above right) fitted.

These optional upgrades are installed and tested at the time of purchase, ensuring that you have a fully unified digital location recording solution from the word go.



HHB DAT TAPE: The complete solution

As the world's leading independent supplier of DAT technology and developers of the industry standard PORTADAT, it comes as no surprise that HHB also produces the industry's most advanced range of DAT recording tape. Part of the HHB Advanced Media Products range, HHB DAT Tape is available in 6 convenient tape lengths to minimise costly wastage, and while other manufacturers use thinner tape for longer running times, all HHB DATs are full thickness. An advanced binder formulation ensures consistently low block error rates, while the anti-static lid of the precision engineered cassette shell discharges particularly quickly, resisting dust build-up. A new improved design in the hub lock assembly creates a more efficient braking action, reducing tape slack when ejecting and hence providing better loading.

In the independent head to head testing of 7 leading DAT tape brands by the widely respected pro audio journal 'Studio Sound', HHB DAT Tape emerged as a clear winner with consistently low block error rates and superior archival security.



TECHNICAL DATA

PDR1000



AUDIO PERFORMANCE

Frequency Response 10Hz - 20KHz +/- 1dB
Sampling rates 48/44.1/32kHz via analogue or digital inputs
Signal-To-Noise-Ratio 90dB (Line Input)
THD + Noise <0.015% (20Hz - 22KHz)
Wow and Flutter Below measurable limits

ANALOGUE INPUTS (2 X XLR3-F)

Microphone Input -66dBu, impedance >10K Ω
Line Input 0dBu, impedance = 47K Ω
(Figures quoted are to achieve a recorded -12dBFS with record gain at max)

ANALOGUE OUTPUTS

Line Output (2 x Phono/RCA Sockets) . . . 2Vrms max, load impedance >10K Ω
Headphone Output (1/4"/6.5mm stereo jack) . 12.5mW + 12.5mW, EIAJ 32 Ω

DIGITAL I/O

AES/EBU In (XLR-3F) 3-10V pp per IEC958 Type 1 standard
AES/EBU Out (XLR-3M) 5V pp per IEC958 Type 1 standard
SPDIF In (Phono/RCA Socket) . . . 0.5V pp 75 Ω per IEC958 Type 2 standard
SPDIF Out (Phono/RCA Socket) . . . 0.5V pp 75 Ω per IEC958 Type 2 standard

POWERING

External DC Input (XLR-4M) 12V DC, 9W (10-14V DC)
MHB220 Rechargeable Battery . . . 6V, 2400mAh Nickel Metal Hydride pack
RB110 AC Adaptor 100-240V AC, 18W
Operating Time . . . 2 hrs using MHB220 rechargeable pack after 2 hr charge
(Record mode, without phantom powering or display backlight)

ADDITIONAL FEATURES

Phantom Powering 48V, 7mA max
Microphone High Pass Filter 100Hz, 6dB per octave approx
Limiter Operating threshold -3dB approx
Monitor Speaker 50mW
Remote Control Allows control of: Play, Stop, Record, Pause,
Fast Fwd, Rewind, Skip Back, Skip Forward functions

PHYSICAL

External Dimensions . . . 240(W) x 55(H) x 177(D) mm (9.5 x 2.1 x 7.0 ins)
Weight (without battery) 1620g (3.6 lbs)
Weight (with battery) 1940g (4.3 lbs)

PDR1000TC



TIME CODE

Standards Supported 24, 25, 29.97NDF, 29.97DF, 30 FPS
per EBU and SMPTE standards

Tape Format Conforms to IEC 461
Compatible Nominal Sample Frequencies 48KHz, 44.1KHz

EXTERNAL SYNCHRONISATION

Video Composite video (PAL, NTSC, SECAM) +/- 0.1%
Field Sync 48/50/59.94/60Hz +/- 0.1%
Word Sync 48/44.1KHz +/- 0.1%

INPUTS AND OUTPUTS

Time Code Input (XLR-3F) 0.2-18V pp, impedance 8K Ω
Time Code Output (XLR-3M) 2.2V pp, impedance 600 Ω
Video/Word Sync Input (BNC) . . . Video Sync, 1-4V pp. Word Sync, TTL level

Video/Word Sync Through (BNC) Connected in parallel to above
Use for loop through or 75 Ω term
Word Sync Output (BNC) TTL level output, 75 Ω

POWERING

External DC Input (XLR-4M) 12V DC, 12W (10-14V DC)
MHB220 Rechargeable Battery . . . 6V, 2400mAh Nickel Metal Hydride pack
RB110 AC Adaptor 100-240V AC, 18W
Operating Time . . . 1.5 hrs using MHB220 rechargeable pack after 2 hr charge
(Record mode, without phantom powering or display backlight)

PHYSICAL

External Dimensions . . . 240(W) x 55(H) x 177(D) mm (9.5 x 3.7 x 7.0 ins)
Weight (without battery) 2280g (5 lbs)
Weight (with battery) 2600g (5.7 lbs)

PDR1000TC PLUS



Specifications as PDR1000TC, with the following optional upgrades factory fitted:

Includes upgrades:
HM1000 Headphone Matrix
MS1000 Master Sync Module

ACCESSORIES

SUPPLIED ACCESSORIES (PDR1000, PDR1000TC & PDR1000TC PLUS)

1 x Carrying Case
1 x MHB220 Rechargeable Nickel Metal Hydride battery pack
1 x RB110 12v DC power supply / 2 bay charger
1 x HHB DAT15 DAT Tape
1 x Operating Instructions

OPTIONAL ACCESSORIES

AR1000 Portabrace case for PDR1000
AR1000TC Portabrace case for PDR1000TC / PDR1000TC PLUS
PDRCASE. Aluminium case for PDR1000 or PDR1000TC / PDR1000TC PLUS
MHB220 Additional rechargeable NiMH battery pack
RB110 Additional 12v DC power supply / 2-bay charger
DCP1000 10V-14V vehicle power cable (connects to cigar lighter)

PS100 AC power supply
MCA1000 AC/DC powered 4-bay fast charger
RCC1000 Remote control connector
PDRSERV PDR1000 service manual
PDRTCserv PDR1000TC service manual
HHB DAT15, DAT35, DAT50, DAT65, DAT95, DAT125 DAT Tape
For consistently lower block error rates, improved archiving stability and reduced head wear, HHB Communications recommends the use of HHB DAT tape with PORTADAT portable DAT recorders.

OPTIONAL UPGRADES

MS1000 Master Sync Module
HM1000 Headphone Matrix



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