

kd2 seismograph digital drum recorder



Applications:

- Earthquake monitoring
- Aftershock surveys
- Blast and other vibration monitoring

Above left: KD2 in field case with smoked paper record
Above right: KD2 for desk / 19" rack mounting with ink record
Below: KD2 time display showing GPS date, time and position

Features:

- Stand-alone or telemetry operation
- Digital Filtering
- User programmable parameters
- GPS timing
- Custom timing marks
- Supports a variety of telemetry formats (including time-stamped data)



Options:

- Field case
- 19" rack for 3, 4 or 5 drum recorders
- sliding drawer to suit 19" rack (with mounting kit)
- GPS time and position display (using large 13cm wide x 4cm high LCD)

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Physical

Recorder

Size	450 x 320 x 220 mm (field case configuration) 450 x 320 x 260 mm (rack mount configuration)
Mass	6.5 kg
Connectors	2 x 12V power, timing & auxilliary, console port, modem port, display port, "combo" port (combining all three serial ports), and transducer (GPS aerial direct to receiver)
Display LED's	Power, Running, Receiving Data Each LED shines red, orange or green.
Switches	Fwd, Rev, Cal and Audio & LED enable
Speaker	Can sound on errors and signal level

Field Case

Size	520 x 460 x 270 mm
Mass	7.5 kg (empty)
Connectors	Battery, external timing, transducer, console port, modem port, and GPS antenna All connectors except the GPS antenna are military specification bayonet type

Recording

Signal	Reconstructed from digital values Radial pen output, resolution of 0.1mm
Media	Smoked paper or ink
Paper Size	340 x 600 mm (or 340 x 610 mm with overlap)
Drive	Toothed belt
Rotation	5 to 60 minutes per rotation (120 to 10 mm/min)
Translation	24, 48, 96 or 192 hours

Transducer Interface

Input	3 channel, differential input with $\pm 5V$ range Input impedance 330k Ω Display channel is software selectable
Gain	Software selectable (0, 10, 20, 30 or 40 dB)
Sampling	16 bit ADC, 100 samples per second (sampling options are 20, 25, 100 and 200)
Output	12V battery power (software switched) Digital generation of calibrate signals up to $\pm 5V$ or $\pm 13mA$

Processing

Filtering	Digital 2nd order IIR high pass & low pass (std)
Timing Marks	Software selectable amplitude and duration
Scaling	Software selectable from 0.001 to 999
Pen Limit	Software selectable from $\pm 1mm$ to $\pm 25mm$

Timing

Internal	GPS receiver standard Can synchronise internal clock to GPS time
Stability	0.2ppm, 0-50°C Software control of oscillator frequency
Backup	Includes lower accuracy standby oscillator with lithium battery with approximately 5 year life

Power

External Input	Nominal 12V DC supply
Operating Voltage	11.5V to 15V (low battery cutout operates at approximately 11.5V)
Consumption	Typically 100mA (small seismic signal) Maximum 500mA (full scale signal)
State of Health Display	Via terminal, shows battery voltage, recorder power consumption, and many other paramaters

Options

Field or Display case	(supplied as stand-alone recorder)
GPS time display	(LCD showing date, time & position)
Additional drums	(supplied with single drum)
Ink pen kit	(smoked drum stylus standard)
Drum recorder rack	(up to 5 recorders per rack, includes sliding drawers and mounting kit)

