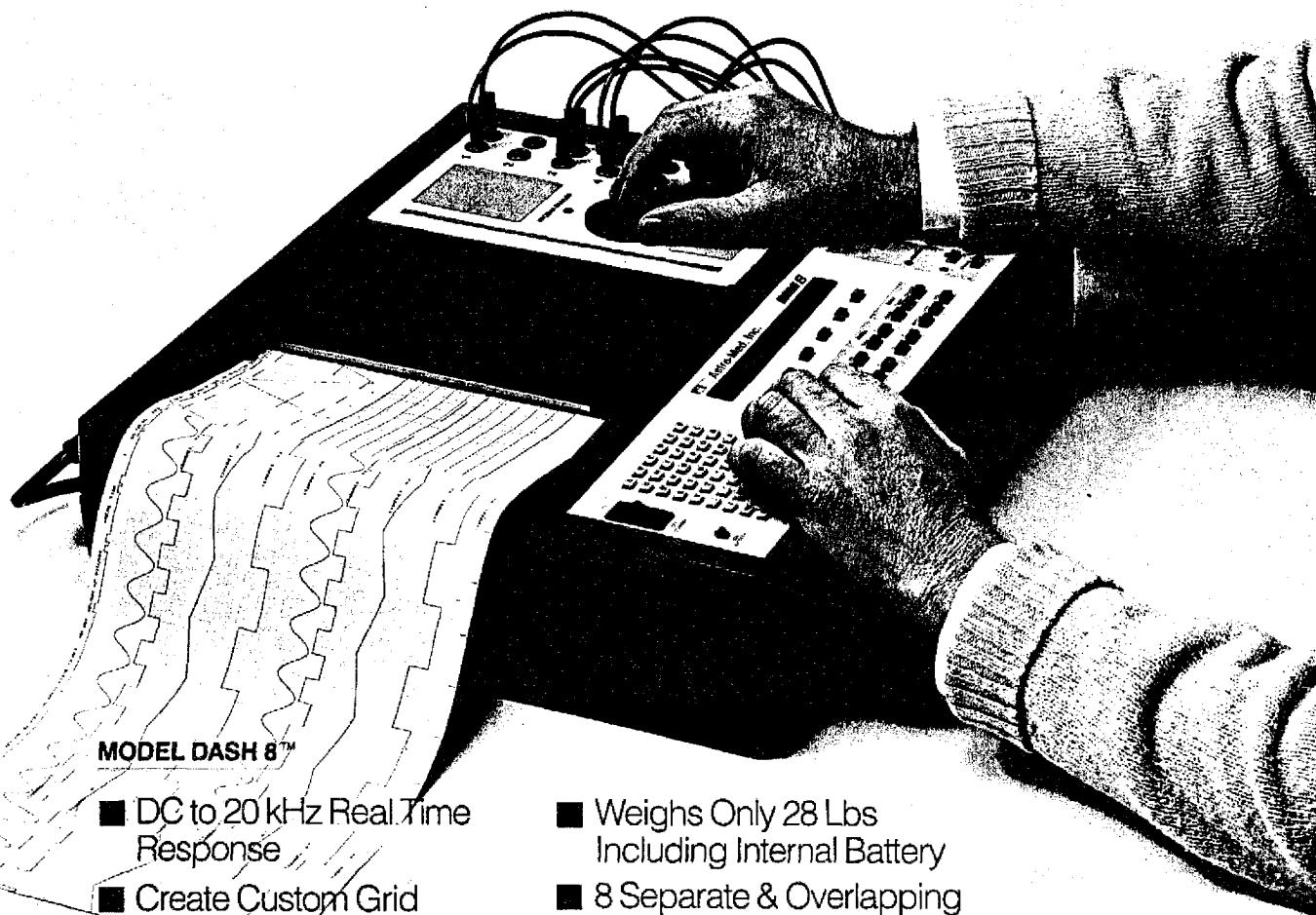




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NEW TECHNOLOGY 8-CHANNEL BATTERY POWERED FIELD RECORDER®



MODEL DASH 8™

- DC to 20 kHz Real Time Response
- Create Custom Grid Formats "On The Fly"
- Data Capture & Playback—32 k Samples per Channel
- Weighs Only 28 Lbs Including Internal Battery
- 8 Separate & Overlapping Channels on 8½ Inch Chart
- Internal Battery, AC, and 12 VDC Operation
- Chart Speeds to 200 mm/sec

AI® Astro-Med, Inc.

Astro-Med Industrial Park, West Warwick, Rhode Island 02893
Phone: (401) 828-4000 • Toll-Free (800) 343-4039 • Fax: (401) 822-2430
In Canada Telephone 1-800-565-2216

Sales and Service Centers throughout the U.S. and Canada

Astro-Med is system certified to ISO 9001

Dash 8 Specifications, Performance, and Engineering Data

Recording Method: Direct writing; Astro-Med New Technology, no moving parts

Recording Medium: Low cost, permanent thermal paper, black imaging

Chart Size: Roll, 8.5" wide by 150' long
(216 mm x 46 m)

Number of Channels

Analog Waveforms—8 maximum; operator selectable 8, 6, 4, 2, and 1-channel modes

Event Markers—9; switch closure or TTL actuation

Alphanumeric—8 text buffers each with 128 ASCII characters, 1 "on the fly" text buffer

System Log—1, reports recorder operating data including time, date, and speed.

Timer—Tri-level marker

Frequency Response: DC to 25 kHz within 3 dB; DC to 15 kHz within 1 dB

Amplitude Resolution: 200 dots per inch
(8 dots per mm)

Time Axis Resolution: 400 dots per inch
up to 100 mm/sec; 200 dots per inch from 101 to 200 mm/sec

Chart Drift: Zero. Grid is printed simultaneously with waveform data.

Chart Formats

Standard—5 standard grid formats: 8, 6, 4, 2, 1 channels for recording 1 to 8 channels

"On the Fly" Chart Creations—Any combination of waveform channels from 12 mm to 175 mm wide, with or without grids, can be placed anywhere on the chart.

Grid Selections (Operator Selected)

1. Major divisions
2. Major plus minor divisions
3. Grid OFF/ON
4. Time line synchronization to internal timer

Chart Speeds: 1, 5, 25, 50, 100 and 200 mm/sec, mm/min, mm/hr, plus every integer from 1 to 200 mm/hr, mm/min, and mm/sec

Channel I.D.: Numerical identification of waveform channels via front panel button

Real-Time Clock: Non-volatile

Setup Storage: Non-volatile. Three setups stored for later retrieval. Setups are maintained on power loss. (Save/Recall feature)

Internal Timer: Real-time clock generates a tri-state mark (either 0.01, 0.1, 1 sec or 0.1, 1, 10 sec). When selected, this mark is displayed on the right edge standard event marker.

Measurement Range: 50 mV full scale to 500 V peak full scale

Maximum Input: 500 V peak or DC; 250 V RMS mode

Input Type: Differential balanced to common

Common Mode Voltage: 10 V for ranges less than 10 V full scale; 500 V for ranges above 10 V full scale

CMR (60 Hz): 80 dB

Input Impedance: 2 M Ω

Non-Linearity: Less than 0.1% of full scale

Gain Error: Less than 0.5% of full scale

Gain Drift: Less than 0.5% of full scale (to 40° C)

Intrinsic Noise: Less than 1.0% of full scale

Zero Suppression: Up to ± 10 V for ranges up to 5 V full scale; up to ± 500 V for ranges up to 500 V full scale

A/D Converter: 12 bit. One per channel

Sample Rate: 250 kHz maximum per channel

Low Pass Filter: 10 Hz, menu selectable

Measurement Mode: True RMS or peak-to-peak, soft key selectable

RMS Crest Factor: Greater than 8 at 1% error

RMS Gain Error: Less than 2% full scale

Data Capture Module (Optional)

Sample Rates—250, 100, 50, 10, 5, and 1 kHz, 500, 100 Hz

Mode—Single or stacked

Capacity—32 kSamples per channel in single acquisition mode; eight 4 kSample segments per channel in stacked mode

Stacked Mode—Up to 8 independent captures per channel saved; non-volatile

Events—9 standard, saved in playback

Trigger—Any combination of waveform, host, manual, periodic or external (TTL or switch closure)

Waveform Trigger—Window trigger. Each channel has independent high and low levels

Trigger Level Accuracy—2% of full scale

Playback Mode—Any real-time mode plus X-Y plot

Playback Factor—Expansion or compression of 1/8, 1/4, 1/2, 1, 2, 4

Connectors

Input—Guarded banana jacks

Host—GPIB (IEEE 488)

Other—Utility port to access event channels, remote chart drive, remote start/stop, and external trigger

Remote Control

Start/Stop—Standard; switch closure actuation

Chart Drive—External TTL pulse

Fingertip HELP: At the touch of a button, a series of help sheets will print out. These contain a condensed operations manual, definition and function of front panel keys, and system setups.

Summary of Standard Modes: Real time waveform, data logger, line printer, X-Y plot

Dimensions: 15 1/2" (394 mm) D x 17 1/2" (445 mm) W x 4 1/4" (108 mm) H

Environmental

Operating Temperature—0 to 40° C (32 to 104° F)

Humidity—5 to 95% RH

Weight: 28 lbs (13 kg) with battery pack

Power: 115/230 VAC, 50/60/400 Hz, and external 11 to 18 VDC (See options for internal battery pack and external 22 to 44 VDC)

Options & Accessories

Model DC-85 Data Capture Module—provides 32 kSamples of memory per channel; internal

Model BP-80 Battery Pack—fits inside the Dash 8 and is charged during AC operation

Model EP-28—replaces battery pack and permits operation from external 22 to 44 VDC

Model TC-10 Thermocouple Input Modules—for E, J, K and T types

Model CC-80 Carrying Case—soft sided carrying case for Dash 8 with pockets to hold cables and manuals

Model AN-85 Padded Transport Case—Rigid construction, reusable

A lower-cost Dash 8 (Mod 2) is available for less demanding applications. Some specifications differ from those listed above:

- (1) Maximum Frequency Response is 5 kHz;
- (2) Top Chart Speed is 100 mm/sec;
- (3) No Zero Suppression; (4) No RMS Mode