

# DASH 2EZ



**Astro-Med, Inc.**  
TEST & MEASUREMENT PRODUCT GROUP

DATA ACQUISITION RECORDER



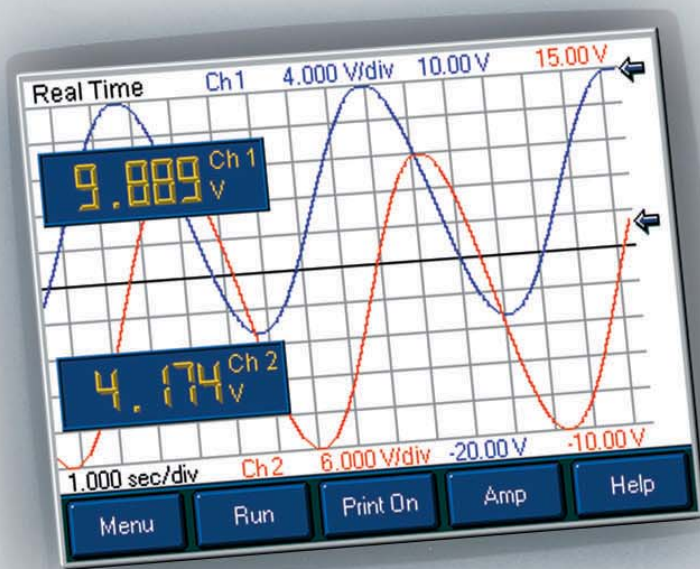
- Compact hand-held design
- 5.7" color touch-screen
- Record two channels at sample rates up to 10 kHz per channel
- Built in 3" chart recorder



# THE DASH 2EZ

*Measurement has never been this easy*

THE DASH 2EZ IS THE LATEST INNOVATION IN HAND-HELD DATA RECORDING. WITH A BUILT-IN 5.7 INCH COLOR DISPLAY FOR WAVEFORM VIEWING, COMPACT FLASH FOR CAPTURING DATA, AND A BUILT-IN CHART RECORDER FOR RECORDING REAL-TIME OR CAPTURED DATA, THE DASH 2EZ IS THE IDEAL HAND-HELD TROUBLESHOOTING AND MAINTENANCE TOOL. IT'S PORTABLE DESIGN AND RUGGED HIGH IMPACT POLYCARBONATE CASE ENSURE IT WILL SURVIVE EVEN THE HARSHTEST ENVIRONMENTS. IDEAL FOR PAPER MILLS, CHEMICAL PLANTS, STEEL MILLS, AND POWER PLANTS, THE DASH 2EZ IS READY TO GO WHEREVER YOU GO. ITS INTUITIVE TOUCHSCREEN INTERFACE MAKES IT SO EASY TO USE, WE CALL IT THE DASH 2EZ!



## REAL-TIME WAVEFORM DISPLAY

The Dash 2EZ has a 5.7 inch color touchscreen display for viewing waveforms in real-time. This high resolution display provides remarkable clarity, and is fully customizable, allowing channels to be viewed side-by-side or overlapped for measuring phase relationships. A numeric datalogger function provides a numeric readout of your data simultaneously with waveform data.

The Dash 2EZ lets you review captured data right on the screen, giving you immediate access to critical information. On-screen cursors provide quick and accurate information, eliminating the need to approximate measurements. Data capture review also lets you expand or compress captured data so you can see the data in any timebase you require.

The touch-screen display and menu driven operator interface make setting up your Dash 2EZ a snap. With the intuitive user interface, you'll be up and running in no time.

## CAPTURE DATA DIRECTLY TO COMPACT FLASH

The Dash 2EZ saves data directly to off-the-shelf Compact Flash memory cards at sample rates of up to 10 kHz per channel. It comes standard with a 32 Mbyte CF card for a complete, out-of-the-box solution. The Dash 2EZ accepts any off-the-shelf CF card, increasing your data capture capacity to 1 Gbyte or more!

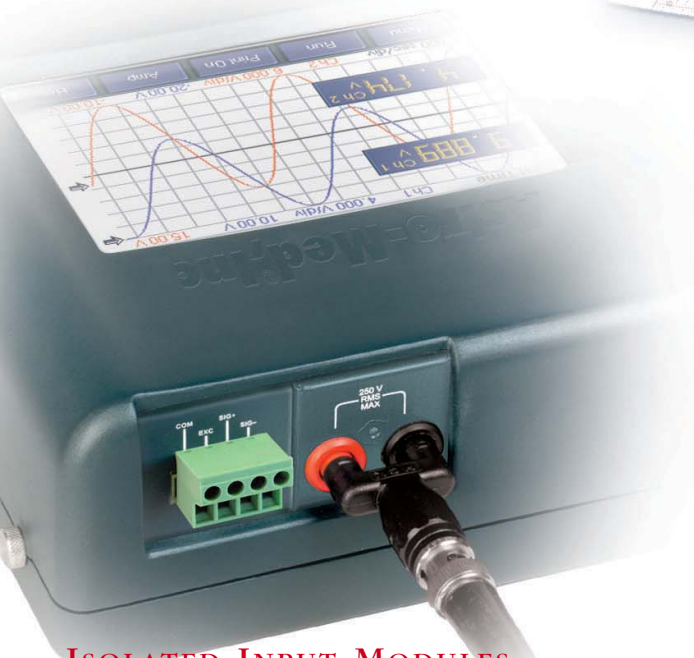
The Dash 2EZ lets you capture data to memory based on triggers, so you only capture the data you want. Trigger selection includes a manual trigger for one button captures and fully customizable waveform triggers with logical AND/OR combinations.

Once data is captured to memory, you can review it on the Dash 2 EZ's color display. For more advanced analysis, simply remove the CF memory card from the Dash 2EZ to import your data to any PC with an inexpensive CF card reader.



## REAL-TIME STRIP CHART

The Dash 2EZ has an integral 3 inch thermal printer for printing real-time and captured data. This high resolution printer provides the highest quality strip chart printouts of any hand-held system available. The Dash 2EZ prints the time and data, chart speed, time scale and scaling information on your chart, giving you an immediate hard copy record of your data. Grids are printed with waveform data, effectively eliminating paper skew.



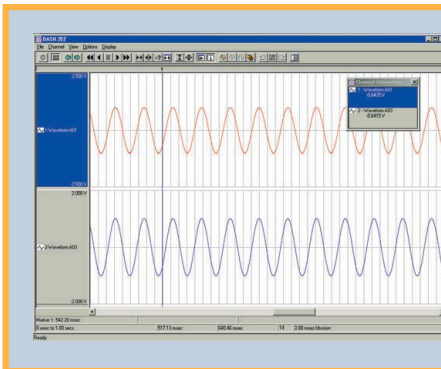
## ISOLATED INPUT MODULES

The Dash 2EZ accommodates two types of isolated signal modules. An isolated high voltage module accepts inputs up to 250 VRMS – perfect for power monitoring applications. An isolated DC bridge input module is ideal for connecting to most sensors, strain gages and transducers. Choose 2 Voltage, 2 DC Bridge, or one of each. Built-in digital signal processing for each channel allows you to program lowpass, highpass, notch or RMS filters. (Shown above with one isolated voltage module and one bridge module.)

## “GO ANYWHERE” SYSTEM

The Dash 2EZ's rugged, hand-held design assures it can handle any environment or application you give it, including:

- Paper mill maintenance
- Power monitoring
- Shock and vibration testing
- Metal mill maintenance
- DC drive monitoring
- Non-destructive testing



## ASTROVIEW PC-BASED REVIEW SOFTWARE

The Dash 2EZ includes AstroVIEW X shareware software for your computer. This PC-based analysis software allows you to view captured data on your screen, and includes zoom, FFT and filtering capability. AstroVIEW X also easily converts captured data into ASCII, Excel, MathCAD, DADISP and other popular formats for further analysis.



# SPECIFICATIONS

## Color Display

Type	TFT LCD
Viewing Area	5.7 inches (diagonal)
Resolution	320x240 (QVGA)
Touch	Full screen, resistive

## Signal Modules

Maximum Modules	2
Maximum Waveforms	2
A/D Resolution	12 bit
A/D Sample Rate	10 kHz per channel
Filters	Lowpass, notch, RMS
User Engineering Units	Yes

## Data Acquisition Recording

Recording Medium	Compact Flash (CF) card
Maximum Sample Rate	10,000 samples/second per channel
Minimum Sample Rate	1 sample/minute
Total Capacity	Determined by CF card (typically 64MB to 1GB)
Maximum Record Size	Determined by CF card

## Trigger

Trigger types	Manual, external, periodic, date/time, waveform
External trigger	Mini phone plug, TTL (active low)
Waveform triggers	Level, window
Logic	AND, OR

## Chart Recording

Paper Width	3-inches
Resolution	200 dpi
Max Chart Speed	15 mm/s
Chart Speed Accuracy	+/-2%
Grid Width	One 50 mm or two 25 mm grids

## Power

Input Voltage Range	9-28 V DC
Wall Power Supply	120/240 V, 50/60 Hz
Power Consumption	35 Watts max

## Battery Power

Battery Type	Lithium Ion (rechargeable)
Battery Life	>1 hour (with no chart recording)

## Compliance

Safety	EN 61010-1, UL 61010A-1, C22.2 No. 1010.1-92
EMC	FCC Part 15, Subpart B, Class A, EN 61326

## Physical

Enclosure	ABS plastic
Dimensions	10.5" L x 8.5" W x 2.8" H
Weight	4.5 lbs

## Environmental

Operating Temp	0 to 40°C (32 to 104°F)
Operating Humidity	10% to 90% non condensing

## Optional Input Modules

### Isolated Voltage Module

Type	Isolated
Connector	Guarded banana jacks (red/black)
Frequency Response	DC to 3.5 kHz
Max Rated Input	250 Vrms
Max Transient Input	+/-700 V (not to exceed 250 Vrms)
Isolation	250 Vrms
Input Impedance	1 Megohm
Input Coupling	DC
Specified Ranges	50 mV to 17000 mV (mV scale) 5 V to 250 V (V scale)
Accuracy	All ranges with zero center: +/-0.25% of span With offset: mV scale: +/-0.25% of span +/-2 mV V scale: +/-0.25% of span +/-125 mV
Zero Suppression	+/-5 V (mV scale) +/-200 V (V scale)

### Differential Voltage / Bridge Module

Type	Isolated, differential
Connector	Screw terminal (removable)
Frequency Response	DC to 2.5 kHz
Excitation Voltage	Up to 10 V
Max Input	210 mV
Common Mode Voltage	10 V
Isolation	250 Vrms or DC, Cat II
Input Impedance	1 Megohm
Input Coupling	DC
Specified Ranges	1 to 300 mV
Accuracy	With zero center: 1 mV span: +/-0.5% of span 2 mV to 300 mV span: +/-0.25% of span With offset: 1 mV span: +/-0.5% of span +/-0.05 mV 2 mV to 300 mV span: +/-0.25% of span +/-0.05 mV
Excitation Voltage	Up to 10 V @ 30 mA
Zero Suppression	+/-80 mV (spans <260 mV) +/-60 mV (spans >260 mV) >100 dB
IMR at 60 Hz	Up to 10 mV
Auto Balance	

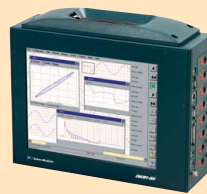
## OTHER PRODUCTS AVAILABLE FROM ASTRO-MED, INC.



**Dash 18:** Features 18 channels of universal inputs, data acquisition to internal hard drive at 100 kHz sample rate per channel.



**Everest:** Features up to 32 channels of analog or digital recording, 18.1 inch color touch-screen display, integral 16.3 inch chart recorder.



**Dash 8Xe:** Features 8 channels of modular inputs, data acquisition to internal hard drive at 200 kHz sample rate per channel.

**AM**® **Astro-Med, Inc**  
TEST & MEASUREMENT PRODUCT GROUP

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Astro-Med is system certified to ISO9001.

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