Signal conditioning for any application
10.4" color monitor for real-time viewing and playback
Internal 8 GB hard drive for data capture
100 MB ZIP® drive and Ethernet for data transfer
8 channels with 20 KHz per channel sample rate
PC-based data review and analysis software
Rugged, compact & portable – less than 20 lbs.
The Dash® 8 series from Astro-Med are powerful data acquisition recorders. Ideally suited for both chart recording and data acquisition, they were designed for today's demanding applications.

**BIG COLOR MONITOR**

The Dash 8 series recorders feature a built-in, 10.4-inch color monitor that adds another dimension to chart recording. Signals may be displayed in real-time on the monitor, saving chart paper during recorder setup. And to make data even easier to interpret, the Dash 8 allows you to make each channel a different color.

**VERSATILE INPUTS**

There are two powerful models to choose from. The Dash 8n offers isolated inputs up to 250 VRMS, build-in offset adjustment and an almost unlimited number of full scale selections, giving you the versatility you need for almost any voltage recording. The Dash 8u has flexible universal inputs making your connection even easier. From single ended and differential voltage to thermocouple (J, K, E, T) and DC bridge inputs, the Dash 8u allows you to connect almost any signal without external conditioning. The Dash 8u also supports optional input modules for RTD, isolated high voltage and frequency to voltage.

**CHART PRINTING**

With all the powerful data capture and display features of the Dash 8 series, it's easy to forget about the integral chart recorder. The high resolution, 8.5 inch chart give you real-time recording at the push of a button. Chart speeds are front panel selectable from 1mm per hour to 100mm per sec. And channels can be displayed in any format, from individual to overlap to completely custom.

**FREQUENCY RESPONSE**

With 16-bit A/D converters sampling at 20,000 samples per second for each channel, the Dash 8 series gives you the frequency response you need to record all your data. Signals up to 2 kHz may be displayed, printed and stored to memory.

**MEMORY AND STORAGE**

Sometimes real-time chart recording is not enough. That's why we designed the Dash 8 series to be both a chart recorder and a data acquisition system. The internal, 8 Gbyte hard drive lets you capture hours, days or even weeks of data for later review and analysis. And best of all, data can be captured in parallel with (or in place of) real-time recording. With the Dash 8 series you get the best of both worlds, in one compact, rugged package.

**REVIEW AND PLAYBACK**

Once data has been captured to memory, the Dash 8 series monitor really goes to work. Captured data may be displayed on the screen, giving you a quick look at all your data files. On-screen cursors handle the rest, providing timing and amplitude information. For even more detail, simply zoom in on important events and print the screen. With the Dash 8 series recorders, you print only what you want.

**GET YOUR DATA QUICKLY AND EASILY TO A PC**

The Dash 8 series offers a variety of option to get captured data to your PC quickly and easily. For smaller files, simply copy data to the Dash 8’s ZIP drive and carry it to your PC. When direct connection to a PC is desired, the Dash 8 has both an Ethernet and SCSI port for data transfer.
**DASH 8N INPUTS**
- **Number of Channels**: 8
- **Input Type**: Isolated, single-ended
- **Connector**: 2 guarded banana jacks
- **UL Rated Input**: 250 Vrms
- **Measuring Range**: 50 mV full scale to 500 V full scale
- **Bandwidth**: 2 kHz (-3dB)

**DASH 8U INPUTS**
- **Number of Channels**: 8
- **Input Type**: Universal
- **Connector**: Screw terminal with removable connector

**VOLTAGE INPUTS**
- **Types**: Isolated single-ended, isolated differential
- **Absolute Maximum Input**: Single-ended: 40 V differential: 40 V
- **Measuring Range**: Single-ended: 500 mV to 40 V full scale
differential: 5 mV to 500 mV full scale
- **Bandwidth**: 2 kHz (-3dB)

**THERMOCOUPLE INPUTS**
- **Types**: J, K, E and T
- **Absolute Maximum Input**: 40 V
- **Measuring Range**:
  - Type J: 0° C to 760° C
  - Type K: 0° C to 1370° C
  - Type T: -160° C to 400° C
  - Type E: -100° C to 1000° C
- **Bandwidth**: 10 Hz (-3dB)
- **Isolation**: 250 Vrms (between iso-commons and chassis)
- **Engineering Units**: °C or °F

**DC BRIDGE INPUTS**
- **Type**: Isolated full bridge
- **Absolute Maximum Input**: 40 V
- **Excitation**: Isolated 10 V at 30 mA
- **Measuring Range**: 5 mV full scale to 500 mV full scale
- **Bandwidth**: 2 kHz (-3dB)
- **Isolation**: 250 Vrms (between iso-commons and chassis)

**OPTIONAL DASH 8U MODULES**
- **RTD-8u**: Supports platinum RTD’s
- **HV-8u**: Accepts voltages up to 250 Vrms
- **VHV-8u**: Accepts voltages up to 600 Vrms
- **FV-8u**: For frequency measurements up to 20 kHz

**DIGITAL SIGNAL PROCESSING**
- **Sample Rate**: 20 kHz
- **ADC Resolution**: 16-bit
- **Functions**: Filter, RMS, integration, differentiation
- **Filter Choices**: Low pass, high pass, notch, bandpass

**EVENT INPUTS**
- **Number of Inputs**: 8 external event markers
- **Input Types**: TTL with pull-up

**FRONT PANEL DISPLAY**
- **Type**: Active matrix color LCD
- **Viewing Area**: 10.4 inch (diagonal), resolution: 640x480

**CHART RECORDER**
- **Recording method**: Direct thermal
- **Chart Size**: 216mm (8.5”) W x 139mm (5.5”) L; Z-fold, 300 sheets, 137.5 ft.
- **Resolution**: 8 dpm (200 dpi) amplitude axis; 10 dpm time axis
- **Chart Speed**: 1 mm/hr to 100 mm/sec; ± 2% accuracy
- **Time marking**: Tri-state (x1, x100) mark on either chart edge. Selectable time mark reference (0.02 to 1 sec or external)
- **Annotation**: System log printed automatically (time, date, speed); Each grid has one line of text (128 ASCII characters); An on-demand text buffer available (128 characters)
- **Data Logger**: Numerical printout up to 2 lines/second

**DATA CAPTURE**
- **Sample Rate**: 0.2 Hz to 20 kHz per channel
- **Disk Capacity**: 8 Gbyte
- **Time Stamp**: Time/date automatically saved with data
- **Trigger Point Location**: Pre and post-trigger percentage adjustable
- **Auto Arm**: Allows automatic stacking of captures

**TRIGGER ACQUISITION SOURCES**
- **Window**: All active waveform channels simultaneously
- **Logic**: AND/OR combinations
- **Special**: Slew rate or slope/level
- **Event**: Binary combination of active event states
- **Clock**: Time of day or periodic
- **Other Sources**: Both manual and hard-wire trigger inputs

**RECORD REVIEW**
- **Formats**: Strip chart, numeric tabular, XY plot
- **Display**: Preview with cursor measurement
- **Chart**: Playback all or any section at x1/8 to x8

**POWER**
- **Input Voltage**: 90-250 VAC to 500 or 60 Hz (auto-select)
- **Power Consumption**: 100 watts typical, 200 watts maximum

**PHYSICAL**
- **Case Material**: Aluminum
- **Dimensions**: 6.4” (16.26cm) L x 11.2” (28.44cm) W x 5.2” (13.2cm) H
- **Weight**: 20 lbs. (9.09kg)

**ENVIRONMENTAL**
- **Operating Temperature**: 5 to 40 degrees C
- **Non-Operating Temperature**: -15 to 60 degrees C
- **Operating Humidity**: 10% to 95%, non-condensing

**MISCELLANEOUS**
- **ZIP Drive**: 100 Mbyte capacity
- **Utility Port**: Connections for start/stop, remote drive, trigger and events
- **Controls**: Full alphanumeric keypad, softkeys, encoder wheel
- **Built-in Help/Reports**: General, system status, chart information
ASTROVIEW C REVIEW AND ANALYSIS SOFTWARE

AstroVIEW C, the Windows-based data review software for the Dash 8 series, makes it easier than ever to review and analyze your data. From viewing data on your PC monitor to importing data into your data analysis program, AstroVIEW does it all. AstroVIEW C is designed for Windows® 95/98/ME and Windows NT/2000.

AstroVIEW is simple enough for anyone to use but powerful enough to handle however much data you give it. For troubleshooting or trending applications, it lets you review an entire record - minutes, days, or even weeks of data – on a single screen. And for even more detail, simply click on important data and perform a time or amplitude zoom in seconds. AstroVIEW also offers built-in analysis functions such as Fast Fourier Transforms, RMS conversion, and lowpass filtering.

After capturing data and reviewing it in AstroVIEW C, built-in conversion routines allow you to convert Dash 8 series data to popular spreadsheet formats such as Excel®, Lotus® 1-2-3, DADiSP™ and MathCad™. It has never been easier to get data from your recorder to your spreadsheet or analysis program.

ASTROSET SETUP SOFTWARE

Are you more comfortable in a PC environment? If you are, then you will truly appreciate our Windows-based AstroSET offline setup program. With AstroSET, all Dash 8 series setup is done on your PC, with the familiar Windows graphical interface that you are used to. You can set analog gains, speeds, capture settings – virtually every recorder setup that you want. When your setup is complete, simply download it to the Dash 8 series via the Ethernet interface. For remote applications, copy your setup to Zip disk and load it in the Dash 8 series in the field – it’s that easy!