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Dash 16u Data Acquisition Recorder *The Ultimate Troubleshooting System*

- *Sample Rates to 200,000 samples per second per channel - You'll never miss a critical event*
- *16 Channels with Universal Inputs for virtually any signal*
- *Color Display for viewing signals in real-time*
- *Real-time, high resolution chart for immediate hard copy of important data*
- *16 Megabytes of high-speed RAM for data capture*
- *Zip Drive and Ethernet for data archive to PC*



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Dash 16u Sixteen Channel Data Acquisition Recorder

If you are looking for a recording system that combines the features of a high speed oscilloscope, a real-time chart recorder and a data acquisition system, look no further than the Dash 16u. With sixteen channels of isolated inputs sampled at 200 kHz per channel, the Dash 16u can handle all of your recording needs. View data on a color display, print data in a strip chart format, capture data to memory or import data to a PC – The Dash 16u is the tool for you. And best of all, everything is contained in a compact, rugged case that will go anywhere with you.

All in one box

The Dash 16u features 16 channels of universal signal conditioning, real-time data display, real-time chart recording and built-in data acquisition - all in one compact, rugged case.

Real-time Chart Recording

With a built-in high resolution, real-time chart, the Dash 16u gives you immediate access your data in the most convenient format available - paper!

High Frequency Response

Each channel in the Dash 16u has a separate A/D converter sampling at 200 kHz. Imagine – you'll never have to worry about missing important data again!

Real-time Monitor

The Dash 16u features a 10.4-inch color display for realtime and post capture viewing of waveform data. The display can be run in place or in parallel with the chart, saving paper during setup and recording.

High Speed Memory

The Dash 16u has 16 Megabytes of memory for capturing important data. Sample rates are adjustable from 0.2 to 200,000 samples per second, ideal for transient capture as well as long-term trending.

ZIP Drive

With the integral 100 Megabyte ZIP drive you can easily upgrade software, transfer data for archive, and save complete setups.

Isolated, Universal Inputs

The Dash 16u inputs are truly universal, letting you connect almost any signal – voltage to temperature to pressure and strain – without external conditioning. Each channel is electrically isolated, eliminating crosstalk.

PC Software

No recorder is complete these days unless it connects to your PC. With AstroSET - our off-line setup package, and AstroVIEW - our data upload and review package - the Dash 16u is PC ready.

Specifications

Color Display

Type _____ 10.4", Active matrix color LCD (TFT)
Function _____ Control menus, real-time waveforms, waveform review

Chart Recorder

Paper _____ Direct Thermal, Z-fold pack (sheet size is 8.5" x 5.5"), top of form mark on back
Resolution _____ 12dpm (300 dpi) amplitude and time axes
Chart Speed _____ 1 mm/min to 50 mm/sec.
Dual Speed _____ Automatic change of speed with trigger
Amplitude Grids _____ 16 grids up to 200 mm wide, grid placement can be automatic or user determined
Time Marking _____ Tri-State (x1, x10, x100) mark or either chart edge; Grid time lines can be synchronized to time mark; Selectable time mark reference (0.02 to 1 sec.)
Annotation _____ System Log printed automatically (time, date, speed); Each grid associated with a line of text (128 ASCII characters); On-demand text buffer available (128 characters); Signal conditioner annotation
Channel ID _____ Each channel labeled with channel number; Top and bottom grid values can be annotated

Data Capture and Review

Sample Rates _____ 0.2 to 200,000 samples/second/channel
Amplitude Resolution _____ 14 bits
Total Capture Memory _____ 16 Megabytes (512 ksamp./channel)
Time Stamp _____ Time and Date automatically saved with data
Header _____ Information on units, range, sample rates, etc. saved with data
Events _____ All event inputs can be captured with waveforms
Trigger Point _____ Pre- and post-trigger amount is user adjustable
Auto Arm _____ Permits automatic stacking of captures
Auto Archive _____ Automatic archive of capture to ZIP
Chart _____ Playback all or any section at x1/8 to x8, auto playback supported
Ext. Sample Rates _____ External TTL sample clock to 10,000 Hz
Review Formats _____ Strip chart, numeric tabular, XY-Plot
Display Cursors _____ Use cursors to select sections and make measurements
ZIP Archive _____ Up to 45 million samples
ASCII conversion _____ Direct conversion to PC/ASCII/EXCEL formats

Signal Inputs

Waveform Inputs _____ 16 isolated, universal inputs
Waveform Isolation _____ 250Vrms
Connector _____ Banana (Voltage); Screw Terminal (Differential, Thermocouple and Bridge)
Max. Rated Input _____ ± 250 Vrms (Voltage); ± 40 V (Differential, Thermocouple and Bridge)
Measuring Ranges _____ 0.2Vfs to 400 Vfs (Voltage); 5mVfs to 1600Vfs (Differential, Bridge); -100 to 1300°C (Thermocouple, depending on type)
Bandwidth _____ 20 kHz (-3dB) (Voltage); 10 Hz (-3dB) (TC)
Excitation _____ Isolated, adjustable to 10.5V@2.5mA
Input Impedance _____ 1 Megohm
Filter Choices _____ Low Pass with stops from 10 Hz to 20,000 Hz; High pass with starts from 0.1 Hz to 100 Hz; Band Pass; Notch with 50 or 60 Hz center
RMS time constant _____ Selectable from 0.02 to 2 seconds
Event Inputs _____ 16 TTL or switch closure
Waveform Testing _____ All active waveform channels monitored simultaneously
Trigger _____ Window, slope/level
Trigger Function _____ Alarm output, trigger capture, abort capture

ZIP Drive

Function _____ Setup files, software upgrades and data transfer/archive
Menu Functions _____ Format, Rename, Delete, Copy, Print (ASCII)

Miscellaneous

Power _____ AC: 85 to 250 VAC at 50 or 60 Hz (auto select); DC: 11 to 18 VDC
Power Consumption _____ 100 W typical, 200 W maximum
Battery _____ Provides orderly shutdown without data loss in the event of a power loss
Case Description _____ Aluminum, 17"L x 11.2"W x 6.6"H, 30 lbs.
Environmental _____ 5°C to 40°C (40°F to 105°F), 10% to 95% RH, non-condensing
Utility Port _____ Connections for start/stop, remote drive and trigger
Indicators _____ Trigger, armed, battery/power
Controls _____ Full alpha-numeric keypad, soft keys, encoder wheel
Post processing _____ Frequency spectrum (FFT)
Built in Help/Reports _____ General, System Status, Chart Information
Multi-language support _____ French and German