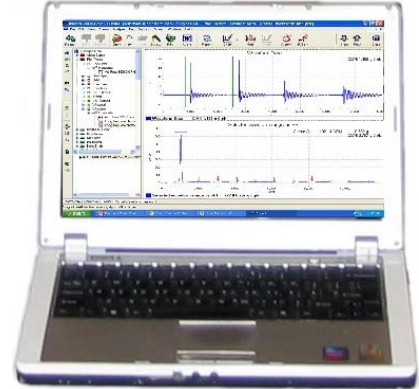




PRODUCT SPECIFICATION

MIL1234 Portable Multi-Channel Machinery Analyser Tool-Kit

Mechanalysis (India) Ltd, a leading System Integrator in vibration technology, brings together powerful four part Tool-Kit creating a highly flexible Portable Multi-Channel Analyser. It comes complete with a range of Relative and Absolute, Triaxial Sensors, & Laser Tacho. The Data Acquisition Unit available with (8 to 32 optional channels) includes WiFi communications, a Laptop & Software. Commissioning and interactive Training are included in the package.



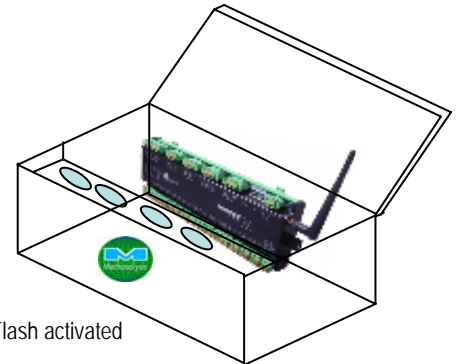
This flexible Tool-Kit is ideal for Expert Diagnosticians or OEMs wishing to set up a machinery test bed facility to undertake detailed multi-channel vibration analysis. Suitable for installed machinery of strategic importance such as a gas and steam turbines, compressors and complex gear drives etc. Temperature, pressure, flow and load can be collected as AC and DC voltage (+/- 20V) or as 4-20mA inputs. The analogue measurements allow the monitoring of process data that, when collected, can be trended and alarmed with vibration data.

The heart of the Data Acquisition Unit (DAU) is the widely proven Commtest **vbOnline™** available with optional 8, 16, 20, 24, or 32 activated channel modules. These provide a tailor-made solution for most analytical requirements. The DAU uses a WiFi wireless LAN connection to transfer the vibration and process data to the host computer. With Windows look and feel the system is very user-friendly to operate. Data is easily transferred to MS Windows and Excel.

Once connected and activated, the value and power of multiple channel data acquisition becomes immediately apparent. The preloaded Ascent3 software in the supplied Laptop automatically evaluates data collected during pre-set scans.

DAU Module: This unit is packaged in a rugged carrying case complete with power supply, Sensor breakout Boxes with BNC input sockets. Remote LA by WiFi connectivity. It undertakes the following:

- Measures dynamic vibration data & Process Values
- Supports machine data from a number of different sensor types
- Dual Channel simultaneous measurement
- LED Alarm Status indicators
- Interfaces with Ascent software
- Ascent filters data and reports alarms



SPECIFICATION

FEATURES

Analogue Channels	:	8 to 32, multiplexed high speed scanning, Pro Flash activated
Sensor types	:	All, DC coupled
Simultaneous Recordings	:	Dual channel for Orbits etc
Fmax / Lines	:	40 KHz / 6400 Lines
Analog inputs - DC-coupled range	:	0 to 20V, -10 to 10 V, -20 to 0V
AC-coupled range	:	16 V peak to peak
Tachometer inputs	:	4 to 20 mA; 4 x 300000 cpm
Relay Outputs	:	4 x 250VAC or 30 VDC 5A
System Status Indicators	:	Alarm – Red, Yellow, Green
Communications	:	Ethernet, WiFi as standard
Power	::	Mains 240 - 50Hz mains Supply, DAU: 9 to 36 VDC, 0.2 A
Environmental	:	-20 to 70°C, 95% RH
Warranty on DAU & Software	:	3 Year & 5 Years respectively

It should be noted that the vbOnline units comes in a rack of 32 channels. Only those channel purchased will be activated. If additional channels are required then these can be activated in blocks of 4 or more channels.



PRODUCT SPECIFICATION

Analysis Software



The **Ascent**® vibration analysis software provides an instant view of the current machine status together with visual notification of alarm levels. The diagnostic capabilities of the software are sufficient for most requirements including: time waveforms, FFT, overall vibration values, bearing demodulation, phase, speed, interactive charting and more.

A powerful in-built SQL/HTML based reporting engine also allows users to design and customise their own reporting options. Standard reporting options include status of machines in database, most recent vibration level and percentage change.

The **vbOnline**™ also comes with an online manager and a web browser application. The online manager is the brain of the system that is responsible both managing data collection in accordance with the scan rate specified within **ascent**®, and replicating it to the network database. The web browser application allows users to browse the collected conditioning monitoring data LAN, WAN or the Internet.



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The vibration analysis system is supplied with pre configured but is very easy to customise on site. It enables analysts to capture high quality machine data more cost-effectively, efficiently and in greater frequency than monitoring with a single channel instrument.

Common software platform – Portables / Online

The software is also common to the vb range of single and dual channel portable analysers and data collectors providing a powerful analysis tool in the hands of the vibration analyst with the following features:

SN	SOFTWARE FEATURES	SN	SOFTWARE FEATURES cont..
1	Trending of data	11	Detects sudden increases in vibration
2	Charting, FFT, Waterfall, Orbit & Bode Plots	12	Can act as a basic protection device
3	Bearing demodulation - 20 Filters, 3 rd Octave etc	13	Quickly check for excessive vibration levels on multiple channels
4	Filters data and reports alarms	14	Onboard triggered recording
5	Custom views & reporting	15	Records machines that operate intermittently or do not maintain a steady state for long
6	Automated Alarm notification	16	Variable speed machines
7	Email or SMS notifications	17	Trigger recordings can be based on speed or derived from an average value (process variable) measurement
8	Flashing icons & Pop-up messages	18	OPC compatible
9	Share data with other users, monitor machines using company network via web browser	19	VbOnline can integrate with Distributed Control System
10	Check alarm status from any networked PC	20	RPM, Linear speed, numeric data and Alarm condition is updated 'live' to ensure the most recent information is available



PRODUCT SPECIFICATION

SN	BILL OF MATERIALS – RECOMMENDED (8 Channels)	Qty	PART NUMBER
1.1	Portable vbonline 32 channel analyser with 8 active channels & power supply in carrying case	1	PVBOLA8
1.2	Break out Box with 8 signal inputs with BNC sockets to 'D' Connector to MIL1234 Analyser	1	BOBOX8
1.3	DB9 to RJ12 comms adapter	1	ADON0107
1.4	RJ12 comms cable	1	CABO0105
1.5	Screwdriver	1	SDON0096
1.6	1m Cat 5 UTP cross-over cable	1	SDON0096
1.7	Manual for the vbOnline Multi-Channel Analyser	1	MBV010078
1.8	Ascent level 3 (vbonline suite)	1	SAL30134
1.9	Ascent software security dongle - USB HL PRO	1	DGL0219
1.10	Software reference guide	1	MVBS0077
1.11	System documentation pack	1	VBONADOC
2.1	Laptop: 1GB, DDR2, SDRAM at 667Mhz, 80GB hard drive, Integrated WiFi Intel Duo Centrino	1	LAPTOP
2.2	Software : MS Window XP, MS Office	1	MSWOF
2.3	Antivirus software	1	MACVIR
2.4	Colour printer (HP)	1	HPCOL
2.5	Documentation	1	PCMAN
3.1	Eddy current probe 8mm diam, 9m integral armoured cable (2.5mm range) with GI conduit	2	PRS04/9.0A010
3.2	Probe driver (signal sensor) - 9mtr system, range 0-2.5mm	2	ECD04/90
3.3	External Power Supply -24V for Eddy Current Probe System (suitable for 4 probes)	1	ECPPS-24V
3.4	ECP dual Probe bracket, custom made to client requirements	2	MILBKT
3.5	Velocity sensor model MIL544M 14-1KHz, 42.52 mV/mm/sec ± 10%, operates to 260°C	2	M97120
3.6	Magnetic holder for model MIL544 sensor	2	M43320
3.7	Cable for MIL544m sensor to DAU 10m length 2 pin MIL spec	2	M60043
3.8	Accelerometer multi-purpose, 100 mv/g, top connector IEPE (Integrated Electronics Piezo Electric)	2	MIL511
3.9	Magnetic holder for sensor accelerometer model MIL511 / MIL521 / MIL531)	2	M24746
3.10	Cable Assembly to IEPE accelerometer (10metre)	2	M60076
3.11	Triaxial IEPE Accelerometer, 100mv/g 4 pin side connector. Has directional locking key.	2	MMC230-1A
3.12	Cable from a Triaxial Accelerometer to single channel outputs with BNC connectors 10M	2	F4C
3.13	Shaft stick for Velocity & Accelerometer Sensors for absolute direct shaft vibrations	1	M24750
3.14	Magnetic stand for tach sensor	1	MAGA0063
3.15	Laser tach sensor with block	1	LASA0062
3.16	Reflective tape	1	RTAP0094
3.17	Cable 20m from existing monitor's buffered output	4	CBL20BNC/BNC
3.18	Laser extension cable 3 meter	1	CBLS0029
3.19	Accessories carry case	1	ACSCAS
4.1	Interactive vibration training	1	CDIL0197
4.2	ILearnInterpreter + model maker.	1	ILINTMM
4.3	Commissioning (in days)	2	CMG

The bill of materials can be reduced, increased or extended to match the Customers specific needs. As a Tool-Kit package the above bill of materials covers most applications and detailed investigations.



PRODUCT SPECIFICATION

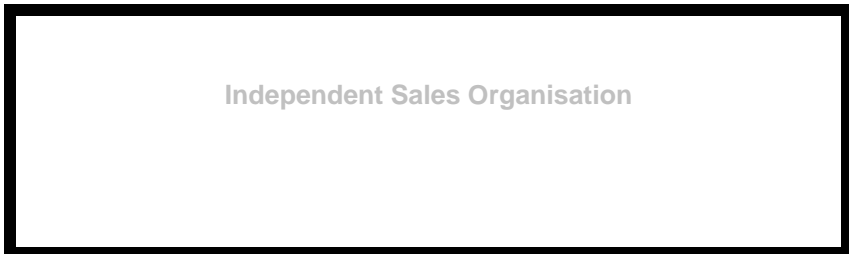
Mechanalysis (India) Ltd

Condition Management Solutions, Site Consultancy Services, System Commissioning, Training and Product Support are amongst the comprehensive range of services available by our philosophy of:

*Getting you Started
 Keeping you Going
 Taking you Further*

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Mechanalysis (India) Limited is represented in your area by:



Independent Sales Organisation