



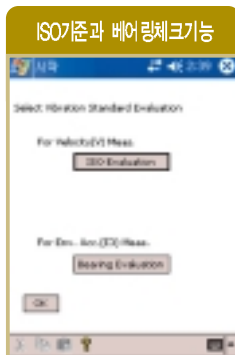
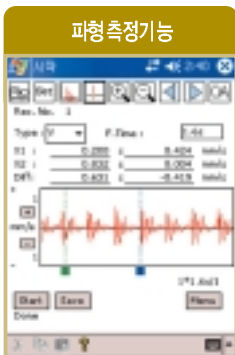
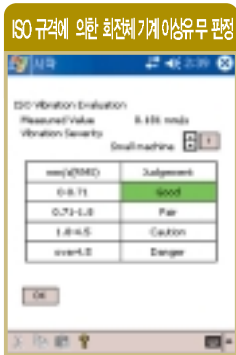
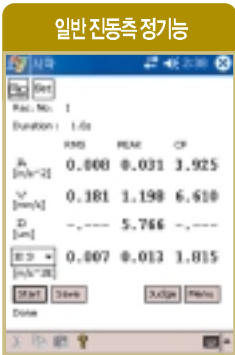
VM-2004Neo 특징

- 최신형 Pocket PC와 연결하여 사용이 가능하다.
- 넓은 PDA 액정화면을 이용, 다양한 표시가 가능하다.
- 진동을 측정저장하며 PDA를 이용한 데이터 관리가 편리하다.
- 진동측정과 PDA의 부가기능을 활용할 수 있다. (일정관리, 계산기, 네비게이션 등)
- 한글 또는 영문버전 선택 가능

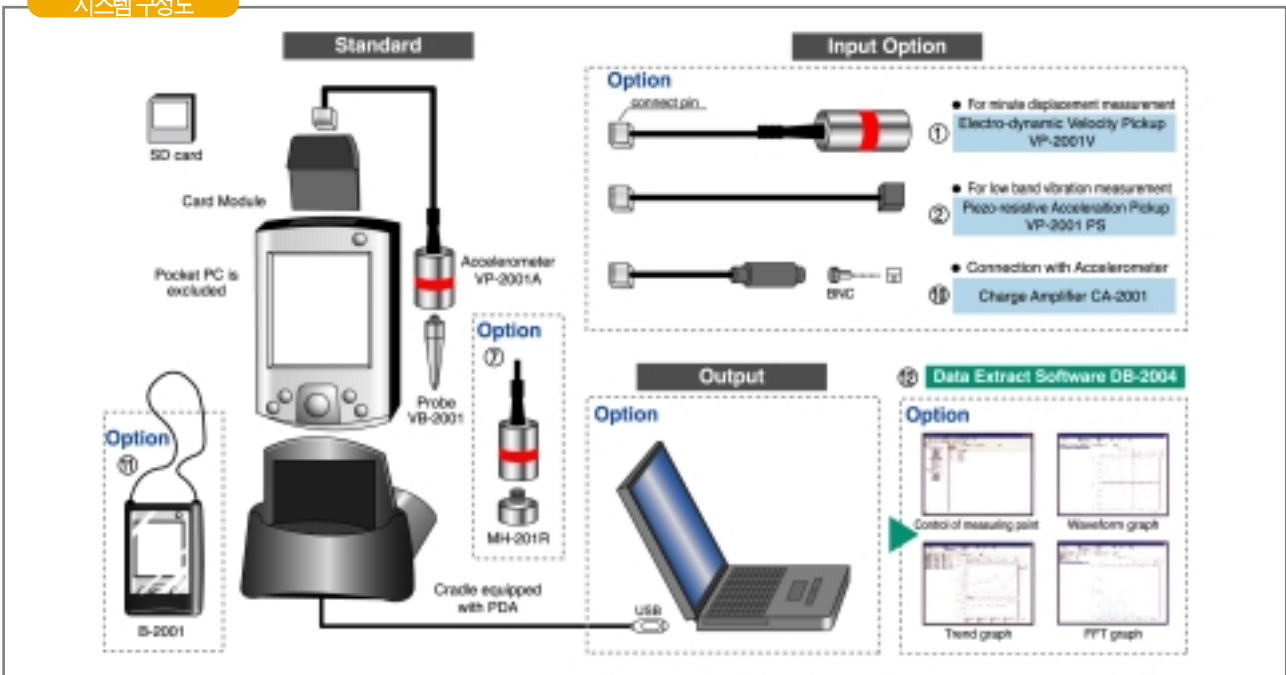
VM-2004Neo 용도

- ISO 규격에 의한 회전체기계의 이상유무 판정 (모터, 펌프 등)
- 진동측정에 의한 볼베어링 이상유무 판정
- 진동을 귀로 들을 수 있는 청음진단기능 탑재로 각종 품질검사에 적합
- 파형측정기능, FFT 분석 기능에 의한 각종 기계장비의 설비진단에 적합
- 그외 각종 기계류 등의 진동 분석에 적합

진동측정장비



시스템 구성도



### General Specifications

Item	Specifications
<b>Suitable Pocket PC*</b>	OS : Windows Mobile™2003 software for Pocket PC Processor : ARM Processor : P × A255 400MHz(or more than) Memory(RAM) : 64MB or more
<b>Interface with Pocket PC</b>	CF card with Type II slot
<b>Power supply</b>	+3.3V (It is supplied from Pocket PC.)
<b>Temperature Range</b>	0 ~ +45℃
<b>Humidity Range</b>	30 ~ 90% RH not due condensation
<b>Weight</b>	25g approx. (Only the card)
<b>Dimensions</b>	60.0 × 42.1 × 16.9(mm)
<b>Shape</b>	Conforms to CF Card TYPE II, Card Type
<b>Color</b>	Black
<b>Pickup Input(PU IN)</b>	AC voltage signal Max. ± 2.5V Input Terminal : 8-pin modular jack(RJ-45)
<b>Raw Waveform</b>	AC voltage signal Max. ± 2.5V
<b>Output (PU OUT)</b>	Output the voltage signal which the sensor input signal is amplified by the used range magnification (×1 / ×5 / ×20 / ×100) Output Terminal : 2.5 φ mini-jack
<b>Sampling Frequency</b>	MAX. 76.8kHz (Changes according to Mode.) 76.8kHz / 38.4kHz / 19.2kHz / 9.6kHz
<b>Aliasing Filter</b>	20kHz / 2kHz (Changes according to Mode.)
<b>A / D</b>	16bit

\* Please consult IMV as for the available Pocket PC.

### Specifications with Accelerometer VP-2001A (standard)

Item	Specifications	
<b>Measurement Type Frequency Range (Filter)</b>	Acceleration: A	10 ~ 10kHz (fmax is changeable)
	Velocity: V	10 ~ 1kHz
	Displacement: D	10 ~ 150kHz
	Enveloped Acceleration:E1	DC ~ 50Hz (5 ~ 100Hz [BPF])
	Enveloped Acceleration:E2	DC ~ 50Hz (50 ~ 1kHz [BPF])
	Enveloped Acceleration:E3	DC ~ 5Hz (500 ~ 10kHz [BPF])
	Enveloped Acceleration:E4	DC ~ 10kHz (5 ~ 20kHz [BPF])
<b>Measuring Range Range</b>	Max. Acceleration	500m/s <sup>2</sup>
	Acceleration: A	4range, 10, 50, 200, 1000m/s <sup>2</sup> , Fixed/Auto
	Envelope : E1, E2, E3, E4	4range, 10, 50, 200, 1000m/s <sup>2</sup> , Fixed/Auto
	Velocity: V	4range, 10, 50, 200, 1000mm/s, Fixed/Auto
	Displacement: D	4range, 50, 250, 1000, 5000 μm-p, Fixed/Auto

### Specification with Piezo-resistive Acceleration Pickup[for Low-band] VP-2001PS (Option)

Item	Specifications	
<b>Measurement Type</b>	Acceleration : A	3 ~ 100Hz
<b>Frequency</b>	Velocity : V	3 ~ 100Hz
<b>Range(Filter)</b>	Displacement : D	3 ~ 100Hz
<b>Measuring Range</b>	Max. Acceleration	20m/s <sup>2</sup>
<b>Range</b>	Acceleration : A	4range, 0.2, 1.0, 4.0, 20m/s <sup>2</sup> , Fixed / Auto
	Velocity : V	4range, 15, 20, 100mm/s, Fixed / Auto
	Displacement : D	4range, 5, 25, 100, 500 μm-p-p, Fixed / Auto

### Measurement Specifications

Item	Specifications
<b>Overall Measurement</b>	Select Simultaneous meas. / Single Meas.
<b>Judgment</b>	<ul style="list-style-type: none"> <li>IOS Vibration Evaluation (ISO-10816 [JIS-B-0906] standard)</li> <li>Bearing Evaluation</li> </ul>
<b>FFT Spectrum Analysis</b>	<ul style="list-style-type: none"> <li>Lines of Resolution : Max. 1600lines</li> <li>Trigger function</li> <li>Dominant frequency component of highest 5 display function</li> </ul>
<b>Time Waveform measurement</b>	<ul style="list-style-type: none"> <li>Measuring Time : Max. 10 second</li> <li>Trigger function</li> </ul>
<b>Notes Function</b>	<ul style="list-style-type: none"> <li>Memo for every Machine, Measuring Point can be recorded. (Data of rotational number, temperature, power, pressure etc. other than vibration can be saved)</li> </ul>
<b>Data Save-Control</b>	<ul style="list-style-type: none"> <li>Saves the information of machine name, measuring point, detected direction, note, measuring data, measuring condition etc. in addition to the measured data.</li> <li>Pocket PC(memory 64MB)can save OA-2000 points, FFT:1000 points, WV:5MB (with the use of external memory as SD card, more data can be saved)</li> </ul>

### Specifications with Electro-dynamic Velocity Pickup VP-2001V (Option)

Item	Specifications	
<b>Measurement Type</b>	Velocity: V	10 ~ 1kHz
<b>Frequency Range(Filter)</b>	Displacement: D	10 ~ 500Hz
<b>Measuring Range</b>	Max. Displacement	1000 μm-p-p
<b>Range</b>	Velocity: V	4range, 5, 25, 100, 500mm/s, Fixed / Auto
	Displacement: D	4range, 25, 125, 500, 2500 μm-p-p, Fixed / Auto

### Specifications of Data Extract Software DB-2004(Option)

Item	Specifications
<b>Suitable PC</b>	OS : Window XP, 2000 Resolution : 800 × 600 dot or more Interface : USB (Necessary for ActiveSync)
<b>Necessary Application</b>	Microsoft Excel 2000, 97(or later than):Necessary for printing Microsoft ActiveSync 3.7.1 or later:Necessary
<b>Main Function</b>	<ul style="list-style-type: none"> <li>Data transfer and synchronization between Pocket PC and personal computer is possible with the use of Microsoft ActiveSync (function of Pocket PC)</li> <li>Control of measuring point</li> <li>Trend graph display of Overall Value</li> <li>FFT graph display</li> <li>Waveform graph display</li> <li>Notes display of machine and measuring point</li> <li>Print function</li> <li>Outputs the measured data in Excel file format and print is possible.</li> <li>CSV file output of FFT data waveform data</li> </ul>

**Specifications of Accelerometer VP-2001A**

Item	Specifications
<b>Detecting method</b>	Pre-amp is built-in, Compression type, shear type
<b>Power Supply</b>	±5VDC
<b>Voltage Sensitivity</b>	2.0 [mV/(m/s <sup>2</sup> )]
<b>Resonance</b>	20kHz approx.
<b>Frequency</b>	
<b>Frequency Range</b>	3 ~ 10,000Hz
<b>Max. Acceleration</b>	500m/s <sup>2</sup>
<b>Max. Allowable Acceleration</b>	5000m/s <sup>2</sup>
<b>Max. Output Voltage</b>	±1V
<b>Output Impedance</b>	Below 100 Ω
<b>Used Temperature</b>	~20℃ ~80℃
<b>Material</b>	SUS
<b>Weight</b>	60 g approx.
<b>Mounting Screw</b>	M6, P=1, depth 5, internal thread
<b>Cable</b>	Direct leading φ 4, 1.5m
<b>Connector</b>	8-pin modular plug
<b>Dimensions</b>	φ 20 × 40mm
<b>Structure</b>	Dust-proof, spray-proof

**Specifications of Electro-dynamic Velocity pickup VP-2001V (Option)**

Item	Specifications
<b>Detecting method</b>	Electro-dynamic velocity pickup
<b>Detecting Direction</b>	Horizontal or Vertical
<b>Voltage Sensitivity</b>	4.0 [mV/(mm/s)]
<b>Natural Frequency</b>	14Hz
<b>Frequency Range</b>	10 ~ 1000Hz
<b>Max. Tolerable Acceleration</b>	100m/s <sup>2</sup>
<b>Max. Measuring Displacement</b>	1000 μm-p
<b>Usable Temperature</b>	-10 ~ 50C
<b>Material(case)</b>	SUS
<b>Weight</b>	140 g approx.
<b>Mounting Screw</b>	M6, P=1, depth 5, internal thread
<b>Cable</b>	Direct leading φ 4, 1.5m
<b>Connector</b>	8-pin modular plug
<b>Dimensions</b>	φ 25.8 × 50mm
<b>Structure</b>	Dust-proof, spray-proof

**Specifications of Piezo-resistive Acceleration Pickup(for Low-band) VP-2001PS (Option)**

Item	Specifications
<b>Measuring Range</b>	±20m/s <sup>2</sup>
<b>Sensitivity</b>	102mV/m/s <sup>2</sup> ± 5%
<b>Linearity</b>	±0.5%
<b>Frequency Range</b>	1 ~ 100Hz( ±0.5dB)
<b>Resolution</b>	≤0.06m/s <sup>2</sup>
<b>Temperature Characteristic (Sensitivity)</b>	≤0.2%/℃
<b>Zero-point drift</b>	≤6mV/℃
<b>Power Voltage</b>	±5 ~ ±15V
<b>Temperature Range</b>	0 ~ 50℃
<b>Weight</b>	36g
<b>Shock Resistance</b>	4000m/s <sup>2</sup>
<b>Dimensions</b>	19 × 19 × 16mm
<b>Cable</b>	1m

**Accessories**

Description	Model	Remark
Accelerometer	VP-2001A	Direct cable 1.5m, with Plug
Probe for Pickup	VB-2001	Probe length 55cm
Case	C-2004	-----
User Guide	IM-2004	-----

**Option**

Description	Model	Remark
Electro-dynamic Velocity Pickup	VP-20001V	With cable 1.5m and Plug
Low-band Vbration Pickup	VP-2001PS	Piezo-resistive type, with cable 2.5m
Long Cable 3m	CE-2001-3	Pickup extension cable 3m with both connectores
Long Cable 6m	CE-2001-6	Pickup extension cable 6m with both connectores
Long Cable 10m	CE-2001-10	Pickup extension cable 10m with both connectores
Output Cable	CO-2001	Length 1.2m
Small Magnet (strong type)	MH-201R	Strong type, Common for accelerometer and velocity pickup
Probe for Pickup	PI-2001	Probe length 185mm
Earphone	HE-2001	Used with VP-2001A with 2.5 φ mini plug
Charge Amplifier	CA-2001	-----
Shoulder Bag	B-2001	-----
Data Extract Software	DB-2004	-----