Description

The Snapshot* for Windows® CE handheld portable data collection and analysis instrument is intended for periodic manual collection of data in a predictive maintenance program. It has been specifically designed for use by both machinery specialists and operations personnel, and provides features specific to portable data collection and analysis applications, such as:

- Two fully functional channels support data acquisition.
- A separate dedicated channel supports phase and speed input.
- Lightweight design that allows single-handed use for extended periods of time with minimal physical effort.
- IP54 rating permits use in harsh environments.
- Removable lithium ion battery provides a minimum usage of 10 hours between charges.
- Polycarbonate/ABS case design provides high impact resistance and durability.
- Quarter-size VGA display (backlit) and integral touchscreen provide a convenient user interface in a compact package.
- Ergonomically designed keypad permits simple operation with either the left or right hand, even with gloves on.
- Intuitive user interface provides ease of use.
- 32 MB of standard on-board memory accommodates large data collection schedules.
- Optional Snapshot Balance software provides on-board one- and two-plane balancing.
- Integrated communications provides high speed Ethernet remote data exchange with System 1®
- Unit supports a wide variety of measurement types and signal processing options including:
  - Proximity probes
  - Velocity transducers
  - Accelerometers
  - Temperature measurements
  - Numeric data
  - Manually keyed notes
  - User-configurable dynamic inputs
  - REBAM* transducers

The Snapshot for Windows® CE data collector uses System 1 host software (refer to System 1 Specifications and Ordering Information, p/n 145146-01) for permanent storage of all collected data and for system configuration functions. For detailed performance specifications refer to data sheet p/n 147934-01.
Specifications

Operating System
Microsoft Windows® CE

System Features

Battery Power:
10 hours minimum, in use

Battery Type:
Lithium Ion

Memory:
32 MB on board.

Local Display Plots Supported
Current value/bar graph
Trend
Direct and Filtered Orbit/Timebase
Direct and Filtered Timebase
Direct and Filtered Orbit
Full spectrum
Half spectrum
1/1 and 1/3 Octave Filter

Spectrum configurations
Frequency resolution, user-selectable from 100, 200, 400, 800, 1600, 3200, 6400 lines
Frequency span, user-selectable ranges between 0-25Hz and 0-40 kHz.

Measurements Supported
mm/s2, g – 0-pk, rms
mm/s, in/s – 0-pk, rms
μm, mil – pp
Enveloping
Integrated Velocity
Integrated Displacement
Direct Amplitude
1X & 2X Vectors
REBAM (rotor region and prime spike filters)
Gap
Temperature
Proportional Voltage
Speed (10 to 100,000rpm)
Phase
User-definable low-, high- and band pass filters.

Note: The above measurements can be applied to user-configurable dynamic data within an input range of ± 10 volts or 0 to -24 Vdc

Environmental Limits

Operating Temperature:
-20°C to +55°C (-4°F to +131°F)

Relative Humidity:
To 95%, non-condensing
Electromagnetic compatibility:
Complies with EN50081-2 (emission) and EN50082-2 (susceptibility)

Rating:
IP54

Physical
Length:
250 mm (10.0 in)

Width:
163 mm (6.4 in)

Depth:
60 mm (2.3 in)
All values are specified over the full operating temperature range unless stated otherwise. All voltages are specified with respect to 0V.

Environmental Specification

Temperature & Humidity
Operating Temperature range:
-20 to +55 °C (-4 to +131 °C)

Storage Temperature Range:
-30 to +85 °C (-22 to +185 °C)

Relative humidity:
95 % condensing.

Ingress Protection
The Snapshot has been designed and tested to meet the requirements of IP54.

Mechanical Shock & Vibration
Unpackaged shock:
EN 68000-2-27

Unpackaged Vibration:
EN 68000-2-6

Unpackaged Random Vibration:
BS 2011 Pt. 2.1

Packaged Shock:
ISTA 1 & 1A (April 1996)

Packaged Vibration:
ISTA 1 & 1A (April 1996)

Packaged Random Vibration:
BS 2011 Pt. 2

Drop test – free fall
IEC 68-2-32

Impact test
BS 50021

Electromagnetic Compatibility
Emissions:
EN 50081-2

Immunity:
EN 61000-6-2

Hazardous Area Approvals
CSA/NRTL/C:
Class 1, Division 2
Groups A, B, C & D, T4

External Power Input and Battery
Power Input
Nominal Input Voltage:
+15 Vdc ± 2 %
Maximum Current Draw: 2250 mA

Connector: 2.1 mm Jack, center positive

Battery
Type: ME202 Li-ion
Capacity: 4500 mAh
Time Between Charges: 8 Hrs.
Charge Time: 2 Hrs.

Transducer Power Supplies
Point ID +5 V Power
Voltage: 4.725 to 5.100 Vdc
Current: 0 to 440 mA

Phase Reference Power +5 V
Voltage: 4.731 to 5.100 Vdc
Current: 0 to 120 mA

Phase Reference Power, Transducer Power Channel A & Channel B –24 V
Voltage: -23.160 to –25.725 Vdc
Current: 0 to 25 mA

Velomitor* & Constant Current Transducers

Power Channel A & Channel B
Voltage: -19.17 to –22.10 Vdc
Current: 2.44 to 4.97 mA

Signal Inputs
Displacement
Input Impedance: 122.5 kΩ
Input Voltage Range: 0 to –24.25 V
Analysis Application OK Limits: -4.15 to –16.75 V
DC Accuracy: ± 50 mVdc
AC Accuracy:
Minimum: [100 – Filter attenuation (see p. 7)] % of input signal amplitude
Maximum: [101 % of input signal amplitude + noise offset (see below) / Scale Factor]
AC Accuracy (1X & 2X Vectors):

Note: These specifications apply over the valid input frequency range of the Phase Reference (10-100,000 rpm).

Minimum: 98 % of input signal amplitude for inputs greater/equal to 0.2 Vpp.
95 % of input signal amplitude for inputs less than 0.2 Vpp.
Maximum: 102 % of input signal amplitude + 1.2 mV

Noise Offsets:
Minimum noise offsets in all cases are zero. All values are based on Snapshot operating from its own battery.

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 5,000 Hz</td>
<td>4.0 mV pk</td>
</tr>
<tr>
<td>10 to 10,000 Hz</td>
<td>5.6 mV pk</td>
</tr>
</tbody>
</table>

**Velomitor & Other Constant Current Velocity Transducers**

**Input Impedance:**

10 MΩ minimum

**Input Voltage Range:**

0 to –19.17 V

**Analysis Limits:**

-4.15 to –19.85 V

**AC Accuracy (Non-Integrated):**

Minimum: [100 – Filter attenuation (see p. 7)] % of input signal amplitude

Maximum: 101 % of input signal amplitude + noise offset (see below) / Scale Factor

**AC Accuracy (Integrated, for signals ≥ 10Hz):**

Minimum: [100 – 4 – Filter attenuation (see p. 7)] % of signal amplitude.

Maximum: 102 % of input signal amplitude + noise offset (see below)

**AC Accuracy (1X & 2X Vectors)**

Notes: These specifications apply over the valid input frequency range of the Phase Reference (10-100,000 rpm).

Minimum: 98 % of input signal amplitude for inputs greater/equal to 0.2 Vpp.

95 % of input signal amplitude for inputs less than 0.2 Vpp.

Maximum: 102 % of input signal amplitude + 1.2 mV

**Noise Offsets:**

Minimum noise offsets in all cases are zero. All values are based on Snapshot operating from its own battery.

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Non-Integrated</th>
<th>Intg mil &amp; μm pp 100 mV/in/s transducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 3,000 Hz</td>
<td>4.6 mV pk</td>
<td>0.33 mil (8.38 μm)</td>
</tr>
<tr>
<td>5 to 5,000 Hz</td>
<td>4.6 mV pk</td>
<td>0.23 mil (5.84 μm)</td>
</tr>
<tr>
<td>10 to 10,000 Hz</td>
<td>5.4 mV pk</td>
<td>0.23 mil (5.84 μm)</td>
</tr>
</tbody>
</table>

**9200, 147633 and Other Seismoprobe**

**Input Impedance:**

122.5 kΩ

**Input Voltage Range:**

-10.1 to + 10.2 V

**Analysis Limits:**

± 4.00 V

**AC Accuracy (Non-Integrated):**

Minimum: [100 – Filter attenuation (see p. 7)] % of input signal amplitude

Maximum: [101 % of input signal amplitude + noise offset (see below)] / Scale Factor

**AC Accuracy (Integrated, for signals ≥ 10Hz):**

Minimum: [100 – 4 – Filter attenuation (see p. 7)] % of signal amplitude.

Maximum: 102 % of input signal amplitude + noise offset (see below)

**AC Accuracy (1X & 2X Vectors)**

Minimum, 98 % of input signal amplitude for inputs greater/equal to 0.2 Vpp.
Maximum: 102 % of input signal amplitude + noise offset (see below).

AC Accuracy (1X & 2X Vectors):

Note: These specifications apply over the valid input frequency range of the Phase Reference (10-100,000 rpm).

Minimum: 98 % of input signal amplitude for inputs greater/equal to 0.2 Vpp.
95 % of input signal amplitude for inputs less than 0.2 Vpp.

Maximum: 102 % of input signal amplitude + 1.2 mV

Noise Offsets:

Minimum noise offsets in all cases are zero. All values are based on Snapshot operating from its own battery.

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Non-Integrated</th>
<th>Intg mil &amp; μm pp 500 mV/in/s &amp; mm/s transducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 3,000 Hz</td>
<td>3.2 mV pk</td>
<td>0.07 mil (1.78 μm)</td>
</tr>
<tr>
<td>5 to 5,000 Hz</td>
<td>3.2 mV pk</td>
<td>0.03 mil (0.76 μm)</td>
</tr>
<tr>
<td>10 to 10,000 Hz</td>
<td>3.9 mV pk</td>
<td>0.03 mil (0.76 μm)</td>
</tr>
</tbody>
</table>

Accelerometer

Input Impedance:

122.5 kΩ

Input Voltage Range:

0 to –24.25 V

Analysis Application OK Limits:

-2.75 to –15.05 V

AC Accuracy (Non-Integrated):

Minimum: [100 – Filter attenuation (see p. 7)] % of input signal amplitude

Maximum: [101 % of input signal amplitude + noise offset (see below)] / Scale Factor

AC Accuracy (Integrated, for signals ≥ 10Hz):

Minimum: 98 % of input signal amplitude for inputs greater/equal to 0.2 Vpp.
95 % of input signal amplitude for inputs less than 0.2 Vpp.

Maximum: 102 % of input signal amplitude + noise offset (see below).

Noise Offsets:

Minimum noise offsets in all cases are zero. All values are based on Snapshot operating from its own battery.

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Non-Integrated</th>
<th>Intg in/s &amp; mm/s pk 100 mV/g transducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 5,000 Hz</td>
<td>4.0 mV pk</td>
<td>0.05 in/s (1.16 mm/s)</td>
</tr>
<tr>
<td>10 to 10,000 Hz</td>
<td>5.6 mV pk</td>
<td>0.05 in/s (1.16 mm/s)</td>
</tr>
<tr>
<td>20 to 20,000 Hz</td>
<td>6.4 mV pk</td>
<td>0.02 in/s (0.58 mm/s)</td>
</tr>
<tr>
<td>30 to 30,000 Hz</td>
<td>6.4 mV pk</td>
<td>0.02 in/s (0.58 mm/s)</td>
</tr>
<tr>
<td>40 to 40,000 Hz</td>
<td>9.5 mV pk</td>
<td>0.02 in/s (0.58 mm/s)</td>
</tr>
</tbody>
</table>

Constant Current Acceleration Transducer

Input Impedance:

10 MΩ minimum
Input Voltage Range:

0 to –19.17 V

Analysis Application OK Limits:

-2.75 to –15.05 V

AC Accuracy (Non-Integrated):

Minimum: \([100 – \text{Filter attenuation (see p. 7)}]\) % of input signal amplitude

Maximum: \([101 \% \text{ of input signal amplitude } + \text{ noise offset (see below)}]/\text{Scale Factor}\)

AC Accuracy (Integrated, for signals \(^3\) 10Hz):

Minimum: \([100 – 4 – \text{Filter attenuation (see p. 7)}]\) % of signal amplitude.

Maximum: 102 % of input signal amplitude + noise offset (see below).

AC Accuracy (1X & 2X Vectors)

Note: These specifications apply over the valid input frequency range of the Phase Reference (10-100,000 rpm).

Minimum: 98 % of input signal amplitude for inputs greater/equal to 0.2 Vpp.

95 % of input signal amplitude for inputs less than 0.2 Vpp.

Maximum: 102 % of input signal amplitude + 1.2 mV

Noise Offsets:

Minimum noise offsets in all cases are zero. All values are based on Snapshot operating from its own battery.

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Non-Integrated</th>
<th>Intg in/s &amp; mm/s pk 100 mV/g transducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 5,000 Hz</td>
<td>3.8 mV pk</td>
<td>0.06 in/s (1.47 mm/s)</td>
</tr>
<tr>
<td>10 to 10,000 Hz</td>
<td>6.9 mV pk</td>
<td>0.04 in/s (1.12 mm/s)</td>
</tr>
<tr>
<td>20 to 20,000 Hz</td>
<td>3.1 mV pk</td>
<td>0.02 in/s (0.56 mm/s)</td>
</tr>
<tr>
<td>30 to 30,000 Hz</td>
<td>4.6 mV pk</td>
<td>0.02 in/s (0.56 mm/s)</td>
</tr>
<tr>
<td>40 to 40,000 Hz</td>
<td>6.1 mV pk</td>
<td>0.02 in/s (0.56 mm/s)</td>
</tr>
</tbody>
</table>

Temperature

Input Impedance:

122.5 kΩ

Input Voltage Range:

-10.1 to +10.2 V

DC Accuracy:

± 10 mV for inputs between ±2 Vdc

Generic Vibration ±10 V, 0 to –24 V

Input Impedance:

122.5 kΩ

Input Voltage Range:

-10.1 to +10.2 V (±10 V)

0 to –24.25 V (0 to –24 V)

Analysis Application OK Limits:

± 10V, 0 to –24V

DC Accuracy:

± 80 mVdc (±10 Vdc)

± 80 mVdc (0 to –24 Vdc)

AC Accuracy:

Minimum: \([100 – \text{Filter attenuation (see p. 7)}]\) % of input signal amplitude

Maximum: \([101 \% \text{ of input signal amplitude } + \text{ noise offset (see below)}]/\text{Scale Factor}\)
Note: These specifications apply over the valid input frequency range of the Phase Reference (10-100,000 rpm).

Minimum: 98 % of input signal amplitude for inputs greater/equal to 0.2 Vpp.
95 % of input signal amplitude for inputs less than 0.2 Vpp.
Maximum: 102 % of input signal amplitude + 1.2 mV.

Noise Offsets:
Minimum noise offsets in all cases are zero. All values are based on Snapshot operating from its own battery.

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>± 10 V Input Range</th>
<th>0 to –24 V Input Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 5,000 Hz</td>
<td>3.5 mV pk</td>
<td>4.0 mV pk</td>
</tr>
<tr>
<td>10 to 10,000 Hz</td>
<td>4.2 mV pk</td>
<td>5.6 mV pk</td>
</tr>
<tr>
<td>20 to 20,000 Hz</td>
<td>3.8 mV pk</td>
<td>4.8 mV pk</td>
</tr>
<tr>
<td>30 to 30,000 Hz</td>
<td>4.6 mV pk</td>
<td>5.6 mV pk</td>
</tr>
<tr>
<td>40 to 40,000 Hz</td>
<td>6.4 mV pk</td>
<td>8.4 mV pk</td>
</tr>
</tbody>
</table>

Process Variable (± 10 V)
Input Impedance: 122.5 kΩ
Input Voltage Range: -10.1 to + 10.2 V
DC Accuracy: ± 80 mV

Process Variable (0 to –24 V)
Input Impedance: 122.5 kΩ
Input Voltage Range: 0 to –24.25 V
DC Accuracy: ± 80 mV

Phase Reference Input
Input Impedance:

Input Voltage Range:
-24 to + 10.0 V
Minimum Input Amplitude: 2.0 Vpp
Minimum Input Pulse Width: 1 % or 50 ms, whichever is greater.

Speed Response: 10 to 100,000 rpm
Speed Accuracy: ± 1 rpm or 0.1 % whichever is greater

Threshold Voltage Accuracy:
Hysteresis Setting Accuracy:
-865 mV, +861 mV
0.348 V Max (0.25 V)
0.693 V Max (0.5 V)
1.878 V Max (1.25 V)
3.684 V Max (2.5 V)

RMS Measurements
Snapshot uses two methods to perform RMS measurements. The choice of method depends on the low pass filter used, as does the performance of the measurement.

For configurations where the low pass filter is not greater than 7.5 kHz the RMS performance meets the ac accuracy specifications stated earlier.

For configurations where the low pass filter is greater than 7.5 kHz the RMS performance is as follows:

AC Accuracy:
Signal Conditioning

Filter Specifications

High Pass Filters

Type: 4 Pole, Butterworth

Attenuation at corner Frequency:
-2.665 to –3.356 dB for Frequencies above 50 Hz
0 to –8.9 dB for Frequencies below 50 Hz

RMS Measurements:
-1.050 to –5.520 dB for frequencies greater than 7.5 kHz
-2.665 to –3.356 dB for frequencies from 50 Hz to 7.5 kHz
0 to –8.9 dB for frequencies below 50 Hz

Passband Attenuation:
≤1.5 % of input signal amplitude max.
(Input frequency < 0.55 * Corner Frequency).

For configurations where the low pass filter is disabled, the passband frequencies (≤1.5 % attenuation) are 30 kHz for synchronous or integrated measurements and 40 kHz for other measurements.

Passband Attenuation.
The passband attenuation is not additive for each filter. The attenuation is ≤1.5% at 2.1 x the high pass filter corner frequency and also at 0.55 x the low pass corner frequency. As the signal approaches midband the attenuation is reduced. The minimum low pass corner allowable is 4 x high pass corner which ensures that the passband attenuation is ≤1.5 % at the midband

\[ \text{The midband frequency} = \sqrt{F_{HP} \times F_{LP}} \]

Vector Measurements.

1X Vector Phase Accuracy:
±3° for speeds up to 50,000 rpm

1X Vector Phase Accuracy:
±5° for speeds from 50,000 to 100,000 rpm
2X Vector Phase Accuracy:
± 6° for speeds up to 50,000 rpm

2X Vector Phase Accuracy:
± 10° for speeds from 50,000 to 100,000 rpm

Minimum 1X & 2X Rejection:
30 dB

Frequency Spectrum
Snapshot provides a simple frequency spectrum display to aid with machinery condition evaluation. Cursors allow the user to determine the amplitude and frequency of any particular vibration component.

Frequency Resolution:
Spectrum Frequency Span / Number of lines

Frequency Accuracy:
± 0.01 %

Amplitude Accuracy:
± 2 % of input signal amplitude
(For input signal frequency = Cursor frequency ± 5 % of frequency resolution)

Signal to noise ratio (SNR):
30 dB minimum (Signals > 10 mV pk)

Accuracy Calculation Example
Configuration:
Velomitor, Integrated mm pp, Low Pass = 5,000 Hz, High Pass = 5 Hz

Signal frequency:
10.5 Hz (630 rpm)

Error Below Nominal
[100 – 4 – Filter Attenuation] % of input signal amplitude (filter attenuation = 1.5 %)
94.5 % of input signal amplitude.

Error Above Nominal
102 % of input signal amplitude + Noise offset
102 % of input signal amplitude + 14.9 mm pp
Therefore the accuracy for this configuration is: Signal Amplitude – 5.5 % / + (2 % + 14.9 mm pp)

Octave Filtering
Snapshot provides an Octave plot display to aid with machinery condition evaluation. These plots include 1/1 Octave bands (1 band per octave) and 1/3 Octave bands (3 bands per octave) calculated using the Base 2 system. Cursors allow the user to determine the amplitude and frequency of any octave band in the plot.


Signal to noise ratio (SNR):
30 dB minimum (Signals > 10 mV pk)

Ordering Information
Snapshot for Windows® CE
PDC550-AXX-BXX-CXX
A: Accessory Package:

<table>
<thead>
<tr>
<th>Accessory Package</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 0</td>
<td>Snapshot for Windows® CE with Cable Kit (See notes 1 and 2 for list of components)</td>
</tr>
<tr>
<td>0 1</td>
<td>Snapshot for Windows® CE with Accelerometer Kit (See notes 1, 2 and 4 for list of components)</td>
</tr>
<tr>
<td>0 2</td>
<td>Snapshot for Windows® CE with Velomitor® Kit (See notes 1, 2 and 3 for list of components)</td>
</tr>
</tbody>
</table>
04  Snapshot TIM Tester* with Cable Kit (See notes 1, 2 and 5 for list of components)
05  Snapshot TIM Tester* with Accelerometer Kit (See notes 1, 2, 4 and 5 for list of components)
06  Snapshot TIM Tester* with Velomitor Kit (See notes 1, 2, 3 and 5 for list of components)
20  Snapshot for Windows®CE with Velomitor and Accelerometer Kits (See notes 1 through 4 for list of components)
30  Snapshot TIM Tester* with Velomitor and Accelerometer Kits (See notes 1 through 5 for list of components)
99  Snapshot for Windows®CE only (See note 1 for list of components)

B: Approvals
00  No approvals
01  CSA/NRTL/C, IEC79-15

C: Language
01  English

* For details about Snapshot TIM Tester refer to data sheet p/n 162514-01.

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Snapshot Balance Software
PDC200-AXX-BXX-XX

A: License
01  Single user license

B: Language
01  English

C: Installation
01  User installation
02  Factory installed. (Option is valid only when ordering a Snapshot

For details about Snapshot Balance software refer to data sheet p/n 147933-01.

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Notes:
1. PDC550-99 components list:
   - Snapshot for Windows®CE Assembly
   - Battery & Power Adapters
   - Manual & (3) Stylus
   - RS232 Lap-link & Ethernet Cable
2. Snapshot Cable Kit

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3. Snapshot Velomitor Kit: *
   - (2) 330500 Velomitor
   - (2) 330500 Velomitor Cable
   - (2) Magnetic Base
   - (1 each) Long & Short Stinger
   - (2) Quick Connection Adapter
   - (2) Stud Adapter 1/4-28

4. Snapshot Accelerometer Kit: *
   - (2) 330400 Accelerometer
   - (2) 330400 Accelerometer Cable
   - (2) Magnetic Base
   - (1 each) Long & Short Stinger
   - (2) Quick Connection Adapter

5. Snapshot TIM Tester Kit:
   - TIM Utilities Manual
   - (1) TIM Tester Cable
   - (1) TIM Tester Loopback Tester
   - (3) TIM Tester Splice
   - (3 each) Pro TIM-C,-R Connector
   - (3) Flexi-TIM, Legacy TIM Connector

* Parts are added if they are not already part of an ordered Kit.

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Accessories

140867-01  Snapshot for WindowsCE Quick Start Guide
01800000  Spare battery
02200210  Spare mains adapter (for bench-top use without battery)
284885  External battery charger.

Note: If you are using this to replace the old 02200253 charger, and need the dual bay capabilities, you will need to order two of the new style chargers.
140870-01  
Transport Case  

147892-01  
Snapshot protective bag  

143307-01  
Snapshot replacement hand strap  

143308-01  
Snapshot shoulder strap  

143309-01  
Snapshot belt kit  

**Interface Kits**  

141663-01  
*Accelerometer*  
Start Kit  
(2) 330400 Accelerometers  
(2) Magnetic Bases  
Long Stinger  
Short Stinger  
(2) 330400 Accelerometer Interface Cable  

141664-01  
*Velomitor*  
Start Kit  
(2) 330500 Velomitor  
(2) Magnetic Bases  
Long Stinger  
Short Stinger  
(2) 330500 Velomitor Interface Cable  

141665-01  
*Strobe Kit, 110Vac*  
110Vac handheld strobe  
BNC to stereo adapter  

141666-01  
IR Thermometer Kit  
Handheld Infrared Thermometer  
BNC to stereo adapter  

143310-01  
3300, 8mm Proximitor Kit  
3300XL 5 meter Proximitor  
3300XL probe  
3300XL extension cable  

143311-01  
3300 REBAM 1V/mil Kit  
3300 REBAM Proximitor  
3300 REBAM probe  
3300 extension cable  

147922-01  
Snapshot to printer interface kit, for use with Snapshot Balance only.  
Serial to parallel converter  
Snapshot printer interface cable  

166812-01  
2m Laser Speed Sensor Kit  
Laser optical speed sensor  
Mounting bracket for laser sensor  
2m Snapshot to laser sensor cable  

166813-01  
5m Laser Speed Sensor Kit  
Laser optical speed sensor  
Mounting bracket for laser sensor
### Data Collection Accessories

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Code</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>145474-01</td>
<td>Mounting bracket for optical tachometer.</td>
<td>02200375</td>
<td>BNC-to-Banana Adapter</td>
</tr>
<tr>
<td>145473-01</td>
<td>¼-28 UNF set screw to attach Quick Connect Stud</td>
<td>02200508</td>
<td>BNC-to-Test Clip Adapter</td>
</tr>
<tr>
<td></td>
<td>to machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>145472-01</td>
<td>Quick Connect Stud w/ M8x1 thread to machine</td>
<td>02200371</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>141259-01</td>
<td>Short Stinger (for transducer)</td>
<td>141260-01</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>141686-01</td>
<td>BNC-to-Stereo Adapter</td>
<td>141686-01</td>
<td></td>
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### Cables

<table>
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<tr>
<th>Part Number</th>
<th>Description</th>
<th>Code</th>
<th>Accessories</th>
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<tbody>
<tr>
<td>02200283</td>
<td>RS232 10ft Laplink Cable.</td>
<td>02200230</td>
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<tr>
<td>02180060</td>
<td>2-Pin Mil-C Cable, for Velomitor®, Coiled.</td>
<td>02180061</td>
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<tr>
<td>02180061</td>
<td>3-Pin Mil-C Cable, for 330400 accelerometer, Coiled.</td>
<td>145518-01</td>
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<td>145518-01</td>
<td>2-Pin Mil-C Cable, for Velomitor®, Straight.</td>
<td>145519-01</td>
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<tr>
<td>145519-01</td>
<td>3-Pin Mil-C Cable, for 330400 accelerometer, Straight.</td>
<td>145520-01</td>
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<td>145520-01</td>
<td>BNC Straight cable.</td>
<td>147856-01</td>
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<td>162491</td>
<td>Proximitor Straight Cable.</td>
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<td>166814</td>
<td>2m Snapshot to Laser Sensor cable, Straight.</td>
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<td>01609137</td>
<td>BNC-to-Banana Adapter</td>
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<td>01600123</td>
<td>BNC-to-Test Clip Adapter</td>
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5m Snapshot to laser sensor cable. 2m Snapshot to Laser Sensor cable, Straight.
Figure 1 Snapshot for Windows®CE physical dimensions
Specifications and Ordering Information
Part Number 143338-01
Rev. P (10/09)

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Polycarbonate membrane keypad. Keys are embossed and have metal domes for tactile feel.

Figure 3 Snapshot for Windows®CE membrane keypad details
## Serial Communications Cable Pin Assignments

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Channel A</th>
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<th>Phase Ref</th>
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<td>-Vt</td>
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<tr>
<td>2</td>
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<td>COM</td>
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<td>3</td>
<td>COM</td>
<td>COM</td>
<td>COM</td>
<td>COM</td>
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<td>4</td>
<td>ICP(X)</td>
<td>ICP(X)</td>
<td>NC</td>
<td>TIM COM</td>
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<td>5</td>
<td>ICP(Y)</td>
<td>NC</td>
<td>NC</td>
<td>TIM SIG+</td>
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<tr>
<td>6</td>
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<td>NC</td>
<td>TIM SIG-</td>
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<td>COM</td>
<td>COM</td>
<td>+5V PWR</td>
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<td>TxD OUT</td>
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<td>NC</td>
<td>NC</td>
<td>ENCODER 2</td>
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<td>N/A</td>
<td>N/A</td>
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*Point ID connection is only used with the Snapshot TIM Tester*