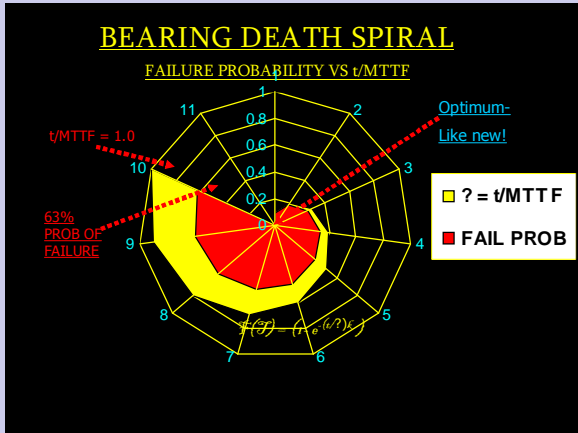


The **Bearing LifeGuard™** system has been in use as part of the Total Facility Maintenance™ (TFM) Program at the University of Medicine and Dentistry, in Newark and the Johnson & Johnson facility in New Brunswick, New Jersey.



**Quotes from Users:**

*"It is a sea change in bearing testing technology."*

**Tim Wechsler**  
Chesapeake Reliability Services, LLC  
Gainsville, MD

*"This changes everything!"*

**James Meeker**  
Condition Monitoring Inc.  
Morris Plains, NJ

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**Dynamic Measurement Consultants, LLC**  
Hamden, CT 06518  
Phone: U.S. 877-358-4437  
e-mail: John@bearinglifeguard.com  
web: www.bearinglifeguard.com

**A powerful "NEW" tool to increase your machinery reliability!**

**Bearing LifeGuard™**  
*Metrics provide:*

- Clear information on bearing condition.
- Warning on operating life reduction.
- Less guesswork in tear down decisions.
- Reduced risks of catastrophic failure.
- Clear incoming accept/reject criteria.
- Reduced training and turnover costs.
- Ease of tracking/bench marking.

[www.bearinglifeguard.com](http://www.bearinglifeguard.com)



**Bearing LifeGuard®**

**MDA 400**



**Handheld Data Collector/Analyzer**  
*with*  
**MULTIPLE DISCRIMINANT ANALYSIS™**

**DMC**  
DYNAMIC MEASUREMENT CONSULTANTS, LLC

Hamden, CT 06518

**Toll-free (877) 358-4437**  
**Outside U.S. (818) 302-3404**

# Bearing LifeGuard™ ...

... is a new 'smart technology' for rolling element bearing fault detection that uses powerful multiple diagnostic techniques to analyze the sonic and ultrasonic emissions from a rolling element bearing. It then provides immediate statistical estimates on 'bearing condition'.

No extensive knowledge of vibration or signal analysis is required.

The system also provides additional 'analysis capability' for use by experts.

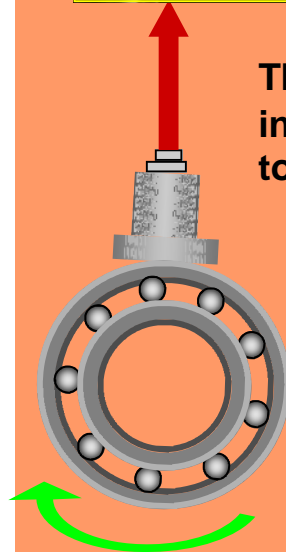
The **MDA 400** is a unique handheld instrument designed to allow convenient collection and storage of bearing acceleration vibration data up to 500 scheduled or unscheduled machine bearing points with built in barcode scanner. The stored data may be flash or wireless uploaded to a supervisory Windows XP PC with full Bearing LifeGuard software for review, trending and further analysis if needed. It uses a standard industrial grade 100 mv/g, 24 volt constant current accelerometer with a typical 18/20 kHz mounted resonance. It includes a built in Barcode scanner and a 100 kHz DAQ with a BNC input and internal CC power supply.

### The MDA 400 includes:

- 1-Handheld computer w/keyboard and Barcode scanner and Windows CE Bearing LifeGuard software package.
- 1-**MDA 105** Adaptor BNC/Ni DAQ w/24 volt, 2ma constant current Accelerometer power supply.
- 1-**MDA 103** 100 kHz DAQ A/D converter.
- 1-**MDA 107** 100 mv/g Industrial grade accelerometer.
- 1-**MDA 106** Six foot coil cord cable to BNC connector.
- 1-**MDA 112** Convenient Belt/Pouch carrying case.
- 1-BearingLifeGuard™ Analysis and database software (Windows XP) with installation instructions
- 1-**MDA 110** Battery charger.
- One year online tech support.

# MDA 400

## Unitec Model 962 Handheld Terminal



The **MDA 400** provides information on 4 key factors:

1. Life Reducing Forces
2. Bearing Condition
3. Probability of Failure
4. Financial Risk

*"This changes everything!"*

SETUP

METRICS

DISCRIMINANTS

SPECTRA

SECURITY

1a) Database utility assembly setup. 1b) Facility Barcode Tree, Planned, Un-Planned, Data Review.

timestamp	4/15/2006 2:08:57 PM	
Forecast period	90	Days
Estimated MTF	2380	Hours
Estimated Life	2185	Hours
Probability of Failure in forecast period	57.9	%
Short term Probability (14 day)	5.2	%
Risk Estimate (Forecast Period)	\$5786	CoAF \$10000

2) The important INFORMATION screen. Immediately after data upload, it provides point ID, date, time. Forecast period, estimates on MTF, Life, Fail probability long & near term, financial risk.

3a & b) Factor and Discriminant time/date stamped trend values in one to ten metrics, color coded for optimum and action.

4a & b) Filtered and unfiltered time and Spectrum displays of Raw, Filtered Wide Band, High Frequency and Enveloped Demodulated acceleration data. Includes zoom and auto ranging.

**LEVEL 1-DATA COLLECTION** - Notes  
**LEVEL 2- ANALYST** - Factors, discriminants, time & spectral signals  
**LEVEL 3 - SUPERVISOR** - Setup utility- Password assignment