# AFM2





- Portable
- FAA (& others) Approved
- Easy to Use
- Compatible with ABS Braking Systems\*
- Built-in Printer
- PC Link Capability
- Backlit Display for Night Use
- Built-in Rechargeable Battery
- Accessories available, including:
  - Carry Case
  - Mains Charger
  - Car Charger
  - PC Link Interface Cable
  - o PC Downloader Software

# Overview

The BOWMONK AFM2 is a compact, portable electronic instrument for measuring and recording the maximum deceleration possible on an airport runway or road surface. The AFM2 is recognised worldwide and approved by leading civil aviation authorities, including the FAA, the Japanese Civil Aviation Bureau, the Romanian Civil Aeronautic Authority and Transport Canada.

The BOWMONK AFM2 is the modern day equivalent of a mechanical decelerometer such as the Bowmonk Brakemeter or Tapley Brake Meter.

It contains a solid state accelerometer and an accurate crystal controlled clock. During a friction test the accelerometer measures the deceleration (g-force) experienced by the transporting vehicle, 400 times per second with an accuracy of better than 2%. The output is read by a microprocessor and stored in the 128 Kb memory for automatic analysis at the end of the test.

In use the BOWMONK AFM2 is simply positioned on the passenger seat or in the footwell of the test vehicle - usually a good condition pick-up with balanced springing and good tyres. The vehicle does not need to come to a complete stop to calculate runway friction.

Control and setting of the BOWMONK AFM2 is via a seven button keypad which provides for airport, runway and operator identification.

<sup>\*</sup>The AFM2 is ABS compatible, however please refer to your local aviation authority for advice on its use with ABS enabled vehicles.

The BOWMONK AFM2 is fitted with a two line alpha-numeric liquid crystal display. This is used to prompt the user for command entry via the keypad, to indicate results and to give any error messages. Night time operation is facilitated by back-lighting of the display panel.

The BOWMONK AFM2 contains a miniature dot matrix impact printer capable of printing text in 40 columns and graphics of 240 dots per line. Printout of results is obtained by pressing the Print button whilst viewing stored readings. The printout will show individual friction readings, averages for each third of the runway and a total average of all friction readings taken. The printout will not fade and duplicate copies can be taken automatically.

The BOWMONK AFM2 is powered by an internal rechargeable battery. When fully charged this will power the instrument for at least 12 hours testing and printing. The battery voltage and charge can be shown on the display.

# **Features**

- Records true vehicle deceleration
- Compatible with ABS braking systems\*
- Stores up to 99 friction readings.
- Provides hard copy printouts of up to 99 friction tests together with calculated total runway average or thirds.
- Compensates for peaking due to initial vehicle pitching.
- Indicates friction values 10% below average and disregards tests cancelled by operator or considered faulty.
- Permits field programmable airport name, runway and operators through keypad or bar codes.
- No mounting kit or connections to the vehicle are required
- 32 character high contrast alpha-numeric liquid crystal display with back lighting for nighttime visibility.
- Tactile switches, with beep, for selection purposes.
- Automatic cancellation of faulty friction tests.
- Manual cancellation of any test if required.
- Provides for temporary suspension of friction testing with no loss of recorded data.
- 128 kilobyte CMOS memory with battery backup.
- Built in 6 volt rechargeable battery (external voltage for battery recharge 9v to 18v DC),
   powers unit for at least 12 hours. Can be recharged from mains power pack or car cigarette lighter outlet.
- Built in temperature compensated accelerometer records runway friction coefficient in compacted snow and ice conditions as %g.
- FAA approved for winter runway friction testing

# **Specifications**

## General

Measurement range: 0 to 1.4g.Dimensions: just 14 x 22 x 8 cm.

• Weight: 2.75kg.

• Clock battery life: 5 years.

Operating temperature: 0°C to 40°C.
Storage temperature: -20°C to + 60°C.

#### **Maintenance Requirements**

- Replacement of battery.
- Replacement of printer ribbon and paper.
- For preventative maintenance purposes we recommend an annual recalibration and recertification of accuracy by BOWMONK during the summer months.

# **Training**

• An operator manual is provided - no special training is necessary.

## Installation

 No installation is required. Velcro backing will hold the AFM2 securely to the front seat or floor well.

# **Optional Features**

- Input for measuring and printing temperature.
- All stored results can be downloaded to a PC-compatible computer via a USB port.
- If required, a graphical print-out of each friction test showing the variation in friction along the runway can be printed.

#### Warranty

Standard 12 month warranty

# **Part Codes**

#### **Bowmonk AFM2**

Part Code: BOW009

Bowmonk AFM2 Airfield Friction Tester

# **Carry Case for AFM2**

Part Code: BOW012

A robust aluminium carry case for the AFM2, which also accommodates the charger and a spare roll of printer paper.

## **Mains Charger for AFM2**

Part Code: BOW015

Charger supplied with the appropriate plug for the destination country.

# **Car Charger for AFM2**

Part Code: BOW023

For charging the AFM2 from the car's cigarette lighter power socket.

# **AFM2 Battery Charger Connector**

Part Code: BOW024

Allows third party chargers to be used instead of the BOW015. Supplied with fitting instructions.

#### **AFM2 PC Link Interface**

Part Code: BOW018

Interface cable for connecting the AFM2 to a PC via USB (also requires BOW022).

#### **PC Download Software**

Part Code: BOW022

Software for retrieving data from the AFM2 and viewing / saving to a database stored on the PC (requires BOW018).

# **Spare Paper Roll for AFM2**

Part Code: BOW034

Spare paper roll for the AFM2's built-in printer.

# **Additional Images**

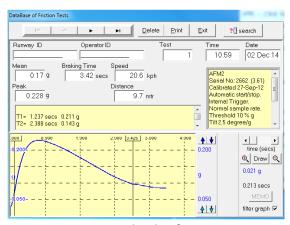






AFM2 with BOW012 Carry Case





PC Download Software