M2510/N/0698

NOMAD™ Datalogger

OM-NOMAD-T
OM-NOMAD-RH

Operator's Manual

CE

INFINITY® SERIES

Made in the USA

Y2K Year 2000 Compliant

◤ **NEWPORT** Electronics, Inc.

NOMAD™ Quick Start

Install "NOMAD" software:

<u>DOS version:</u> insert diskette in floppy drive.
At the DOS prompt type A:\INSTALL and press enter. If floppy drive is B, then at DOS prompt type B:\INSTALL followed by enter.

<u>Windows version:</u> Before installation, all programs must be closed and ensure that terminant resident (TSR) programs are turned off. These programs have been found at times to conflict with the installation process. Insert diskette into floppy drive, from file manager choose File, Run.
Type A:\SETUP and press enter. Use B:\SETUP if floppy is the B drive.

Macintosh version: insert diskette into floppy drive, drag the NOMAD Datalogger folder onto your hard drive.

To start NOMAD, open the Nomad Datalogger Folder, and doubleclick on the NOMAD icon. 🖥

Verify your computer **clock** is set to correct time, since NOMAD obtains its time stamp from your computer.

To **start NOMAD** for **Windows**, inside Windows click on the NOMAD Icon. 🖥

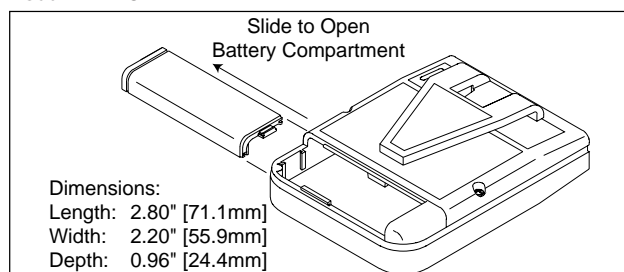To **start NOMAD** in **DOS**, type CD:\NOMADOS and press return. Then type NOMAD and press return.

NOTE: Please review the on-line user manual for a complete description of all features. This is a text file included on the installation disk. File Name: manual.txt

⚠ This device is marked with the international hazard symbol. It is important to read the Setup Guide before installing or commissioning this device as it contains important information relating to safety and EMC.

Ordering Information

MODEL #	DESCRIPTION
OM-NOMAD-T-16/N	Temperature datalogger 16K memory (16,192 samples)
OM-NOMAD-RH-32/N	Temp/RH datalogger 32K memory (16,192 samples).
OM-NOMAD-RTD	External temp. sensor with 6ft cable **NOTE:** Not useable with **OM-NOMAD-RH** models
OM-NOMAD-CP9	RS-232 cable for IBM PC, 9 pin female D-sub. connector
OM-NOMAD-CP25	RS-232 cable for IBM PC, 25 pin female D-sub. connector
OM-NOMAD-CM	RS-232 cable for Macintosh
OM-NOMAD-WIN/N	Windows/DOS software, 3.5" disk
OM-NOMAD-MAC/N	Macintosh software
OM-NOMAD-BATT	Replacement battery

To place an order from the USA or Canada call:
1-800-NEWPORT®

Slide to Open
Battery Compartment

Dimensions:
Length: 2.80" [71.1mm]
Width: 2.20" [55.9mm]
Depth: 0.96" [24.4mm]

Launching the NOMAD™ DATALOGGER

Attach the NOMAD to an available Serial port of your computer using your RS-232 cable purchased with your unit (see ordering block).

If you wish to use the external sensor with Temp dataloggers only, plug it in to the "Temp Probe" socket on the NOMAD.

From program manager select Nomad icon.

Cancel "about the datalogger" screen by keyboard return or select 'OK' button.

The NOMAD Datalogger screen will appear.

Select logger sub-menu, "configure and launch datalogger".

NOTE: If NOMAD is not connected, an error message "Port is available, but no NOMAD was detected" will be displayed. Check hardware connections and select "COMPORT" under the "Setup" menu for alternate ports to test.

Once successful, you will be greeted by the "Launch datalogger" screen.

Follow your application requirements in choosing the appropriate menu item, using on-line help as needed.

NOMAD™ Logger Specifications

Temperature:

Operating range with internal sensor:
    -10 to 70°C (14 to 158°F)

Measurement range with external sensor:
    -40 to 123°C (-40 to 253°F)

Accuracy: ±1.8°C using internal sensor

Electronics temperature coefficient of error using external sensor ±.025% Full Scale/°C

Resolution better than 0.9°C:
    Sensor 1 K ohm, RTD alpha = 3750

Humidity:

Measurement range:
    20 to 90% non-condensing

Operating temperature range: 0-50°C

Measurement accuracy: ±5% RH @25°C ±0.3%RH/°C away from 25°C

Sensor: Bulk polymer resistive

RH response: 63% of step change in less than 5 minutes

Measurement Interval:

Programmable: from 1 second to 3 hours

EEPROM memory size: 16K data samples

Battery: one 3.6 volt AA Lithium Cell operating for more than 2 years

Readout and Plotting: Windows and Macintosh

From NOMAD Datalogger menu select **Setup**, sub-menu **Readout.**

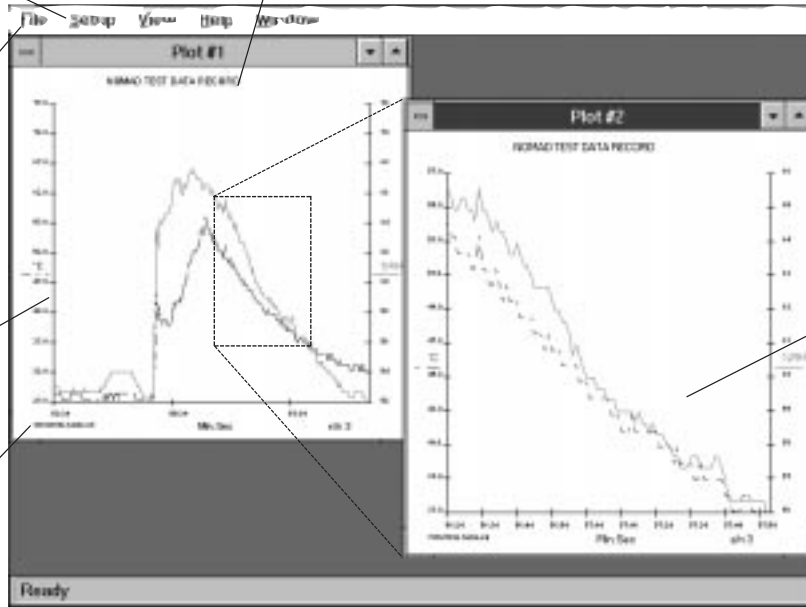**NOMAD** application description. User entered at time of launch.

After data download the attached **NOMAD** information will appear.

Alternately from **File** select **Open** to view a previously saved data file. One file at a time.

The Y axis automatically scaled for maximum resolution based upon max and min data records. Temperature shown on left in segmented red while RH is shown on the right in continuous blue line.

Recording start date and time stamp along the X axis with serial number and units of sampling interval selected.

Zoom in on any selected plot. Using the mouse, click and drag draw box around area of interest. Multiple zooms are allowed.

Plots can be copied and imported into applications running under Windows or MAC.

Export Setup

Select information to export, temperature and humidity counts are used primarily as diagnostic tool.

Select popular pre-defined data formats for applications.

Use **Export data summary** from the **View** menu for detailed information about the export format.

Custom allows user to specify time format and field separators.

Accept chosen parameters.

Abort selection process.

On-line help available.

NOMAD™ Datalogger

Features

- 16,192 records
- Record length from 4 hrs 29 min to over 2 years
- Nonvolatile EEPROM memory for record keeping
- Over 2 years operation on replaceable battery
- 4 different launch modes
- Average, minimum or maximum recording
- Programmable alarms
- Single or Wrap-around recording
- PC or Macintosh compatible
- External RTD sensor for temperature dataloggers
- Windows/DOS user friendly OMEGA® Software to view plots, make prints, and export data for use in other programs
- Weighs only 2 ounces with battery

Launching the NOMAD™ DATALOGGER (MAC, DOS & Windows 3.1 and above)

Recording starts immediately upon Launch command.

Recording starts at time set in entry box.

Recording starts after "Run" button is pressed on Datalogger.

Recording starts, following a user specified delay time set in the entry box, after "Run" button is pressed.

Sampling option, selects single recording or the highest, lowest or average of 4 samples.

Sampling interval in seconds, minutes or hours may be specified.

Automatically calculated from interval entry and device capacity.

Recording capacity of NOMAD, (model dependent).

User entry Describe the NOMAD application, will appear on print plot.

Stop sampling when memory is full.

Continuous recording most recent data available.

NOMAD Serial # Factory Assigned.

Current time stamp based on host computer's internal clock setting.

Temperature alarm user specified limits in degree F or C.

Excursions beyond set limits are displayed on Plot. Pressing "Run" button while recording will indicate alarm excursions on the NOMAD LED.

Relative Humidity alarm 20 to 90% allowed.

On-line help available.

Launch the Datalogger

Memo or Description

Start Sampling:
- ● Now
- ○ At time specified below
- ○ When button on datalogger is pressed
- ○ After delay starting when button is pressed

Stop Sampling
- ● When memory is full
- ○ Don't stop (overwrite oldest data)

NOMAD Version 2.0
Serial # 3

System Time: 8/23/1997 14:05:35

| Sampling Option | Single | Temperature Alarm | -40.0 °F to 253.0 °F |
| Sampling Interval | 1 sec | R.H. Alarm | 20 to 90 |

Total Record Length   4 hr 29 min

Sample Capacity: 16192

[Launch] [Cancel] [?]

Start sampling   Abort Launch

NOMAD™ Datalogger Launch and Offloading with DOS

NOMAD™ DATALOGGER

File
- **O**pen
- E**x**port
- C**l**ose
- **S**ave as
- **C**ancel

Logger
- **R**eadout
- Configure & **L**aunch
- **C**ancel

Setups
- Com **P**ort
- Print & **E**xport format
- **C**ancel

Help
- **H**elp on help
- **G**etting started
- **M**anual
- **A**bout logger
- **C**ancel

File
Logger
Setup
Print
Help
E**x**it

User may navigate through menus using the mouse or the keyboard accelerators. Accelerator keys are shown with highlighted letter.

Windows will have ? mark button for access to context sensitive information.