



## iMFD Data Logger

Data Logger User Guide (V1.0) October 10, 2008

**A Silicon Valley California Company**



# iMFD Data Logger User Guide

Designed by PLX Devices Inc. in Sunnyvale, CA  
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# 1 Introduction

The iMFD Data Logger allows you to data log iMFD sensors in real-time onto a PC and store sensor data in flash memory for later high speed download. Additional features include, data playback on all iMFD Display Modules.

## 1.1 Warnings

**To prevent fire or shock hazard, do not expose this product to rain or moisture.**

**Do not operate this product under direct sunlight or in high temperatures. Damage and malfunction may occur.**

**Do not operate this product while driving. This may interfere with driving operations, resulting in an accident.**

**Do not use this product and its accessories in any way other than specified by PLX Devices. PLX Devices is not liable for accidents or damage cause by misuse of this product.**

**Do not tamper, disassemble, or modify this product. This may cause an accident, fire, electric shock, or product malfunction.**

**Do not operate this product without a protective fuse. (5-10 Amps)**

## 1.2 Key Features

- 1) High speed USB download to PC
- 2) Records up to 8 hours
- 3) Daisy chain up to 32 sensors
- 4) Automatic sensor detection
- 5) 180 Deg Viewing Angle
- 6) High Contrast, Daytime visible
- 7) Color Organic LED Technology (OLED)
- 8) Playback data on any PLX gauge

## 1.3 Package Contents

- 1) iMFD Data Logger
- 2) Dash mount
- 3) Double stick tape
- 4) Power cord
- 5) Male to female serial cable
- 6) USB Cable

## 2 Overview

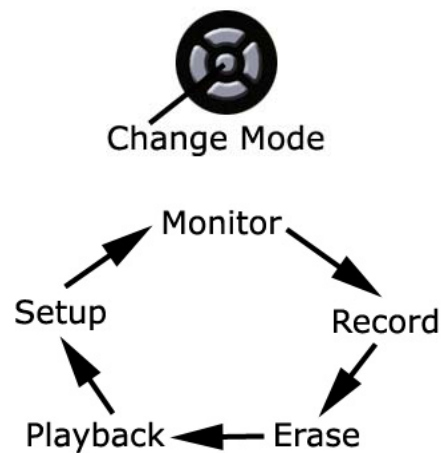
### 2.1 iMFD Data Logger



- 1) 2.2" OLED Display
- 2) 12V Power
- 3) iMFD RX (receive)
- 4) iMFD TX (transmit)
- 5) Mini USB Port
- 6) 5 Button Interface

### 2.2 Navigating the Menu System

Navigating the menu system is simple. The 'CENTER' button changes the mode and the 'UP', 'DOWN', 'LEFT', 'RIGHT' navigates you within each mode.



## 2.3 Monitor Mode



In monitor mode, you can view all your iMFD sensors in gauge, numeric, and plot form.

## 2.4 Record Mode



Record mode allows you to store sensor data into internal flash memory.

## 2.5 Erase Mode



Erase mode allows you to erase ALL logged data stored in flash memory. All other settings are unaffected.

## 2.6 Playback Mode



Playback mode allows you to playback stored data from internal flash memory to your iMFD gauges connected to the TX of the data logger or upload stored data to your PC via the USB port.

## 2.7 Setup



In setup mode, allows you to customize your gauge colors, choose which plots you want to display, select your unit of measurement associated with each sensor and adjust factory settings.

## 3 Hardware

### 3.1 Connecting Power

**CAUTION! CONNECTING THE DATA LOGGER IN REVERSE POLARITY WILL DAMAGE THE UNIT! CHECK CONNECTIONS BEFORE POWERING ON.**

The Data Logger accepts 12-18V DC for power. Connect the negative wire (black) to your vehicle's ground. This is usually the negative terminal of your automobile's battery. Connect the positive wire (red) to your vehicle's ignition power. This power is only supplied when your key is turned passed a specific position and is off when your key is removed. Your power connection must be capable of supplying at least 1 amp of current. A 5 Amp fuse is recommended for safety. Plug the power plug to the Data Logger where indicated #2 in section (2.1).



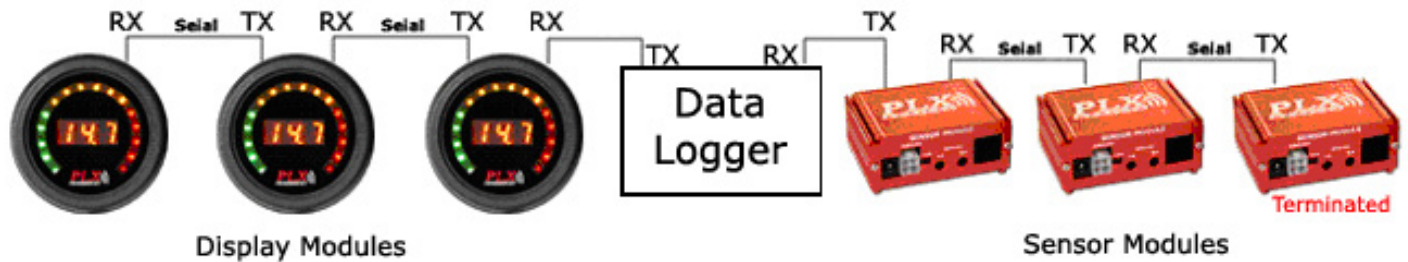
The unit is working properly when the OLED screen turns on within 10 seconds. If your unit does not turn on, check your power connections and gauge connections. A cigarette lighter power adapter is also available here <http://www.plxdevices.com/products/accessories/lighteradapter/> if you wish to use an easily accessible power source.

## 3.2 iMFD Daisy Chain

The iMFD architecture allows you to connect up to 32 Display Modules and 32 Sensor Modules in a daisy chain. The Data Logger is connected in between Display Modules and Sensor Modules.



Connect the RX to your last Sensor Module in your iMFD chain  
Connect the TX to the first Display Module in your chain



## 3.3 Sensor Table

As more sensor modules are available the Sensor Table must be updated for the Data Logger to properly interpret and detect new sensors. You will know if your sensor table needs to be updated if your Data Logger does not properly detect your new sensor module. The sensor table is stored in flash memory of the Data Logger and can be updated by connecting to the USB port on your PC. The [DM-100/200 Utility PC software](#), is used to upload the updated sensor table. Please refer to the DM-100/200 Utility user guide for more details. Be sure to toggle to Setup>General>Sensor Table to properly upload your new sensor table.

## 4 Technical Specifications

### 4.1 Data Logger

Physical Dimensions	2.2" x 3.4" x 0.5" inches
Power Consumption	1.5 Watts
Processors	Custom PLX 32 Bit Processor, Custom PLX GPU (Graphics Processor Unit)
Operation Temperature	0 - 85 Deg C
Operating Voltage	10V-18V
Human Interface	5 Button
PC Interface	USB 2.0
# Sensor Modules	1-32
Firmware Upgradeable	Yes
Enclosure	ABS Plastic

## 5 Revision History

Version 1.0 (10/10/00)	Preliminary release
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### TERMS OF USE

PLX Devices Inc. does not guarantee product functionality with any ECU, data logger or other devices that uses the output signals. Implementation and integration of the PLX products with any other device(s) must be done at your own risk. Improper installation and usage may lead to engine damage. Mount and install PLX products in a location where it does not obstruct the driver's view and/or ability or safely control the vehicle.

### LIMITED WARRANTY

PLX Devices Inc. warrants this product to be free from defects for 1 year from the date of purchase. If applicable, Oxygen sensors and other non-serviceable items are excluded from stated warranty. Serviceable goods must be determined by PLX Devices to be defective before any warranty or replacement is issued. PLX Devices' obligation under warranty shall be limited to repairing or replacing, under the discretion of PLX Devices, any part proven defective. This warranty is limited to the repair or replacement of parts in the manufactured good and the necessary labor done to affect its repair or replacement.

### SERVICE UNDER WARRANTY

In the unlikely event that your PLX Devices hardware should fail during the warranty period, a Return Material Authorization number (RMA) must be first retrieved from PLX Devices Customer Support. Support can be contacted through email: [support@plxdevices.com](mailto:support@plxdevices.com) or by phone: 408-745-7591. All serviceable goods must be packaged securely with proof of purchase, RMA number, with all shipping charges prepaid and shipped to PLX Devices Inc. Goods returned under warranty must be received by PLX Devices Inc. within ten (10) business days after the RMA number has been issued. Goods received after this period is subject to fees for the service of repair or replacement. All repaired or replaced items shall be warranted for the remainder of the original product warranty.

### RETURNS AND RESTOCKING FEE

A 15% restocking fee will apply to applicable PLX Devices products for refund. All returns are to be packed in original condition including packaging, documentation, manuals, and accessories. Returns that do not include all the accessories and components may be returned to the customer or charged on a per item basis. The customer assumes responsibility for product until receipt at PLX Devices Inc., shipping via an insurable carrier is recommended. Any unauthorized shipping charges will be billed to the customer or shipment will be refused.

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