



ENTTEC RDM Kit

Complete RDM Toolkit

includes
USB PRO Mk2
RDM License Key
Controller & Sniffer
Zip case
DMX Terminator

Box Contents

- DMX USB PRO Mk2 (70314)
- USB Cable (50282)
- 5pin DMX Breakout cable (79146)
- 5pin DMX Terminator (79122)
- RDM License Dongle (70511)
- ENTTEC Zip Case (70317)
- This user manual (50798)

Features

- Two universes (512 channel each) of input or output (one per DMX port) DMX.
- RDM enabled (ANSI E1.20 compliant)
- Fully compatible with ENTTEC RDM Controller and RDM Sniffer applications. (Windows only)
- Standalone mode: playback a single recorded DMX show on power-up
- Midi input & output ports (DMX + MIDI cable sold separately) – MIDI needs software support
- Fully compliant with USITT DMX512-A
- Adjustable Frame Rates and empty frames to accommodate non-standard equipment
- USB 2.0 Support on Windows PC and Mac OSX

- 1500 V full isolation (data & power lines to protect your computer from surges)
- Drivers for Windows, OSX and Linux (drivers released and maintained by FTDI)
- Output refresh rate configurable from 1 to 40 Fps
- Compatible with various open-source and professional lighting control programs (DMX)

Safety

- Do not expose the ENTTEC RDM Kit to rain or moisture, doing this will void the warranty
- Do not remove the cover, there are no serviceable parts inside
- This unit is intended for indoor use only
- Office lighting

Basic Setup

- Install and configure the Driver software on your Windows™, Linux™ or Mac™ computer.
- Methods can vary between Operating systems, but the end result is the same: once installed correctly, the drivers will allow software to communicate with the PRO Mk2.
- Connect the PRO Mk2 to your computer (usb) and the DMX512 control network (DMX cable).



- Connect the RDM License Dongle to your computer (usb).
- Load the RDM software of your choice onto the computer. RDM Controller and/or Sniffer.
- For updating firmware on the PRO Mk2, install and run PRO-Manager.
- Latest versions of RDM Controller and Sniffer are always available on www.enttec.com/rdm.

RDM Controller

ENTTEC RDM Controller makes it easy and fast to communicate with compatible (ANSI E1.20) devices which act as responders over the line. The responders are connected via DMX to the PRO Mk2. RDM Controller connects to this PRO Mk2 and performs RDM functions.

Once started, please select your PRO Mk2 from the Devices menu to activate the Controller. If the RDM License key is not plugged in, only Device Summary window will be available. The RDM functions are currently limited to DMX1 only on the PRO Mk2.

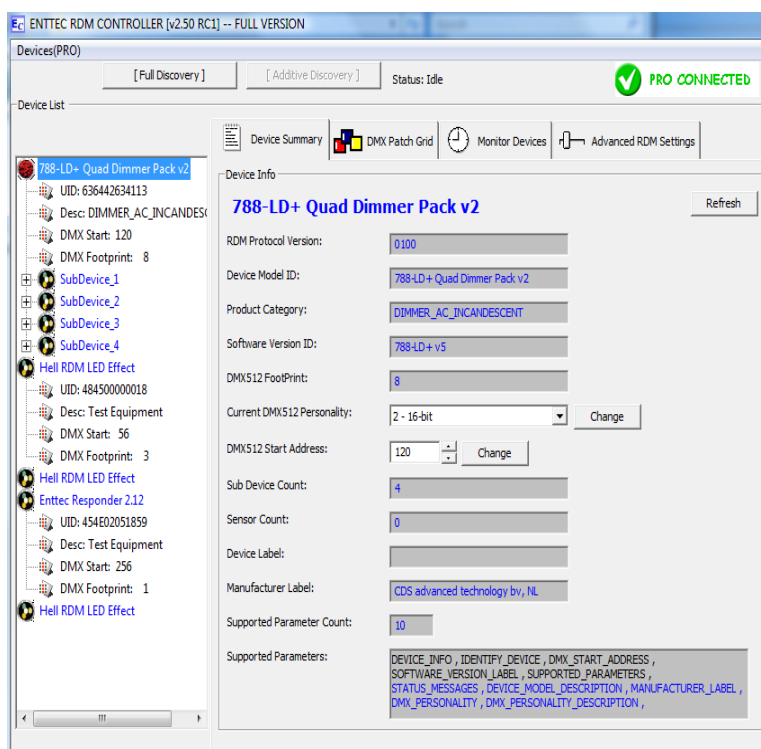
The Controller interface is divided into four tabs:

- **Device Summary.** Useful information reported by the device
- **DMX Patch Grid.** DMX Patching via drag & drop
- **Device Monitor.** Sensor information & Status Messages
- **Advanced RDM Settings.** RDM Get & Set for all supported Parameters (incl. Manufacturer PIDs)

RDM Controller: Device Summary

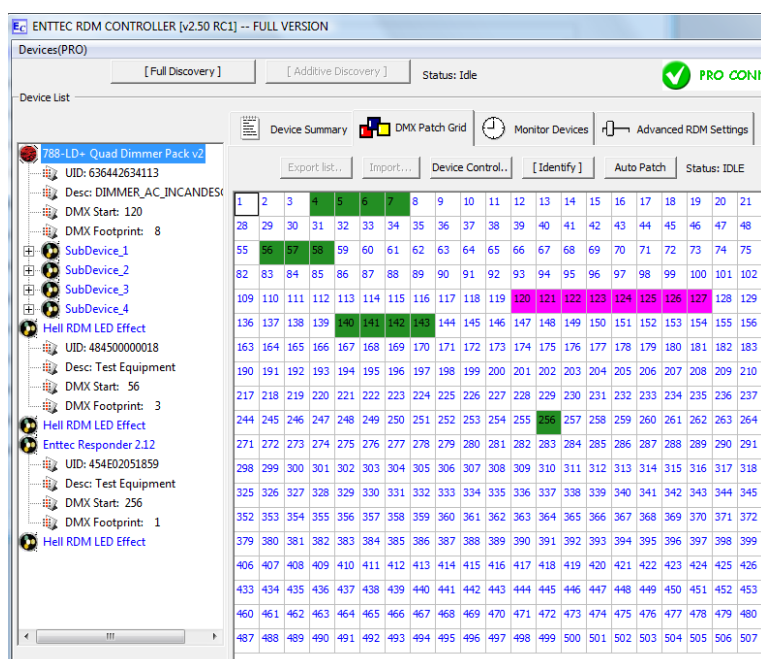
Once connected, you can click **RDM Discovery** to find all connected RDM Responders on-line. On activating "Discovery", the status changes to "Discovery in Progress". Since RDM discovery could take up to a few seconds depending upon the number of RDM responders on the network, it can be cancelled by the "Cancel" button if needed.

The Summary screen, shows all found RDM devices, and available options that can be changed. For example, changing the DMX Start address or DMX Personality can be made from this screen. Select the device on the left, and make the changes as needed.



RDM Controller: DMX Patch

The DMX Patch Grid panel contains a grid displaying all possible output addresses (also referred to commonly as "DMX Channels"). This allows user to patch devices and see the results graphically. There are also several buttons assist in the patching operation and to allow on-the-fly control of the dimmers or attributes of a multi-channel fixture.





The Drag & Drop technique is available in this window, and is considered the easiest way to configure the selected device to output on the chosen DMX Channel (or to "address" it.) If you're already familiar with "drag and drop" just drop the selected device onto the Channel you want its DMX Start Address to be. Click on Save All once done, and all the patching changes will be saved (one by one).

The channels patched are shown in the following colors:



Patched to a device on the list. (**DARK GREEN**)

Vacant Cell / Not Patched yet (**WHITE**)



Overlapped with 2 or more devices (**RED**)



Patched to the Selected Device (**LIGHT GREEN**)



Overlapped And Patched to the currently Selected Device (**PINK**)

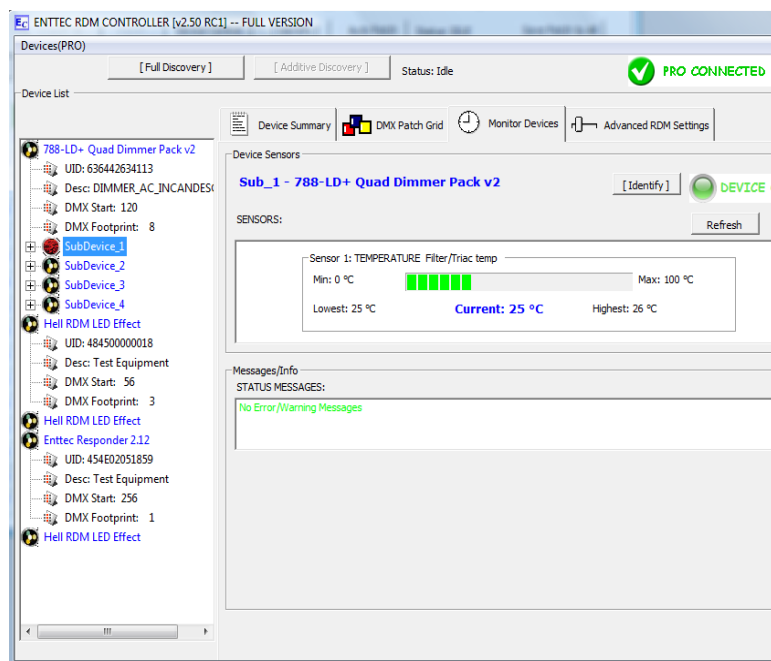
Auto Patch will patch all the devices shown on the list, to a series of channels starting with DMX 1. The devices will be patched consecutively based on the Sort order of their Manufacturer Label.

RDM Controller: Monitor Devices

This window displays all sensors reported by the device selected in Device List to the left. The Sensor display area is scrollable if there are multiple values to scan. The following information for each sensor displayed (if available):

- Sensor No.
- Sensor Name
- Min. Defined Value (with units)
- Max. Define Value (with units)
- Lowest reported Value (with units)
- Current reported Value (with units)
- Highest reported Value (with units)

Any Warning, Error or Advisory Status Messages reported by the device are listed under "Status Messages". Critical messages are displayed in red. These messages are updated by manual refreshing only.



The following information might be displayed, if supported by the device:

- DEVICE_HOURS
- LAMP_HOURS
- LAMP_STRIKES
- LAMP_STATE
- DEVICE_POWER_CYCLE

RDM Controller: Advanced RDM

This panel allows GET/SET functions for all supported Parameters as reported by the device. Since not all PIDs allow both GET and SET, and since they may or may not have data to send, the relevant controls for each device are pre-selected based on the ANSI E1.20 specification.

Once a different device is selected, the list of PIDs that can be GET or SET will change accordingly. This window can be used to test and set any manufacturer specific PIDs. HEX values can be sent too (hover on the text field to see what format to use for HEX values).

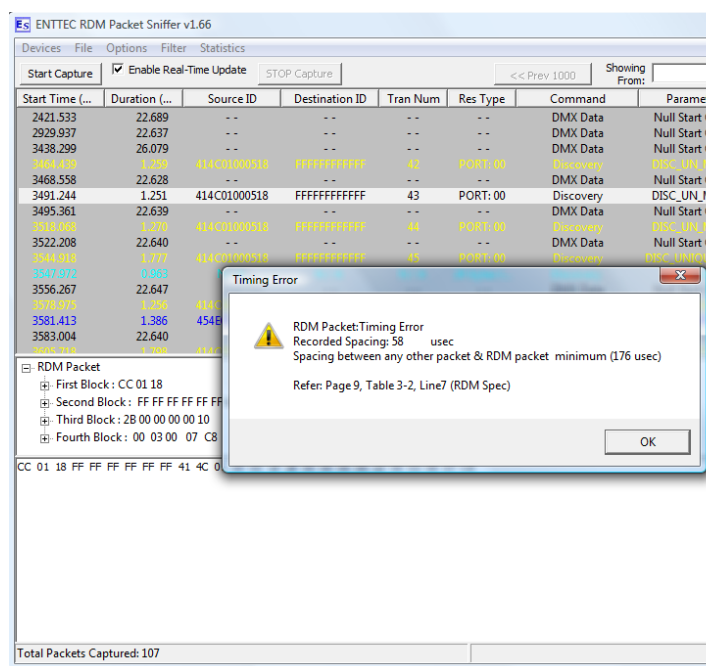
There is also a log window which logs all relevant RDM messages that are sent or received by the RDM Controller. The log can be used to check for appropriately formed response by the responder.

RDM Sniffer

ENTTEC RDM Sniffer captures packets and displays them with an extensive layout to easily decode RDM Layout of the captured packet. A detailed view lists each byte captured along-with individual time-stamp. With Timing checks enabled it can allow the user to determine whether a certain device complies with ANSI E1.20.

ENTTEC Sniffer is designed to be used primarily for the capture and analysis of RDM/DMX packets. The entire process is divided into two stages:-

- Capture of Data, and
- Analysis of capture data into meaningful form.



Press **Start Capture** button while **Enable Real Time Update** is selected, to perform both the tasks at the same time. The packet list screen will be updated as and when new packets are captured. If Real Time Update consumes too much resources, it is recommended to not use it. Alternatively a progress bar shows the packets being captured, and Stop Capture button allows analysis.

Any packet that does not conform to the Timing as per ANSI E1.20 (RDM) and DMX 512/1990 is highlighted in Yellow. Double Clicking the packet displays the error message with reference to ANSI E1.20 (Pg & table) to lookup for RDM Timing.

PRO Mk2 Specifications

Due to continuous improvements and innovations of all ENTTEC products, specifications and features are subject to change without notice.

Item	Value
Power Requirements	500mA supplied by USB
Weight	0.42 lbs. / 0.19 Kg
Shipped weight	0.77 lbs. / 0.35 Kg
Length	4.1" / 105mm
Width	2.6" / 66mm
Height	0.9" / 22mm
Op Environment	0°-50°C
Connectors	1x 15-Pin breakout connector 1x micro USB B Male connector

Ordering Information

The ENTTEC RDM Kit and compatible products can be ordered from our website or through your ENTTEC dealer.

PN	Description
70531	ENTTEC RDM KIT
70511	RDM License Dongle
70029	5-pin to 3-pin DMX Adapter
79122	5-pin DMX Terminator
79126	0.5m 5-pin DMX Cable
79133	2m 5-pin DMX Cable

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