

## APPLICATION NOTE

### Rainbow Plus D-500 D-700 Usage Guide

<b>PRODUCTS AFFECTED:</b>	D-500 / D-700
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<b>DATE:</b>	02-10-2012
<b>Issue</b>	03

<b>Related documents</b>	Rainbow Plus D-500 D-700 Installation Guide
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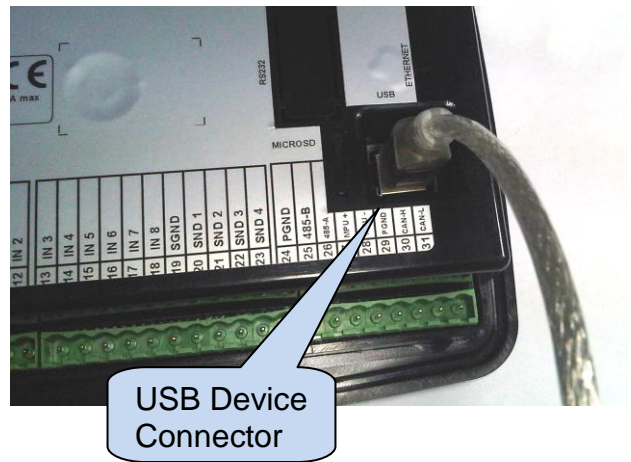
## Connecting the D-500/D-700 to PC

**USB cable**

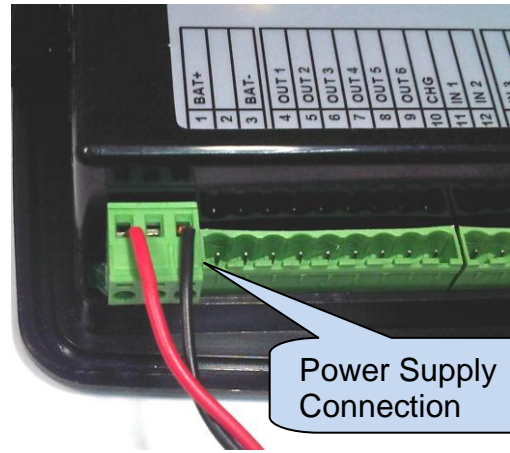
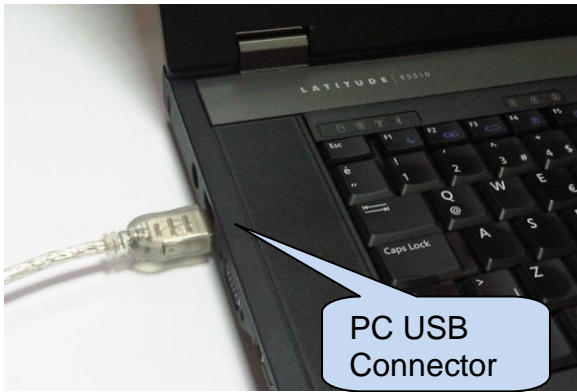


**PC USB port connection**


**Module USB port connection**



**The module must be powered-up**



## Data Connection Establishment

 The RainbowPlus program must be installed to PC.  
Please check **Rainbow Plus D-500 D-700 Installation Guide**.

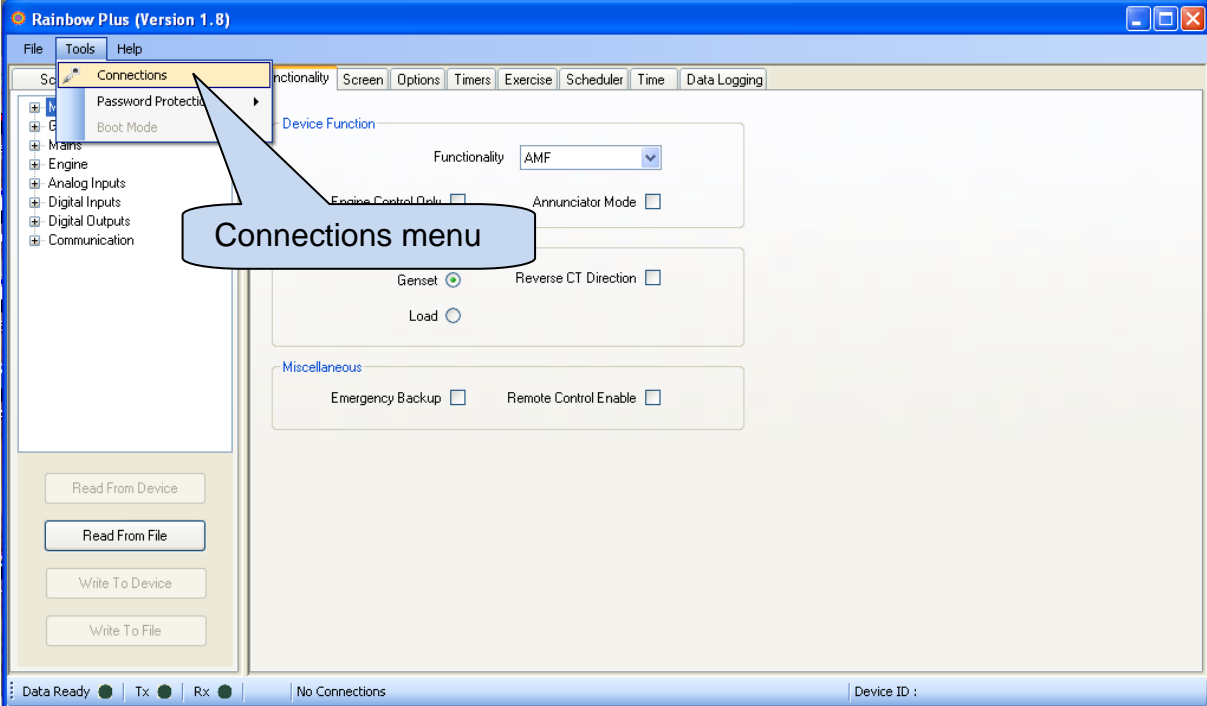


The RainbowPlus icon is on your desktop.  
**Double click** this icon in order to start the RainbowPlus program

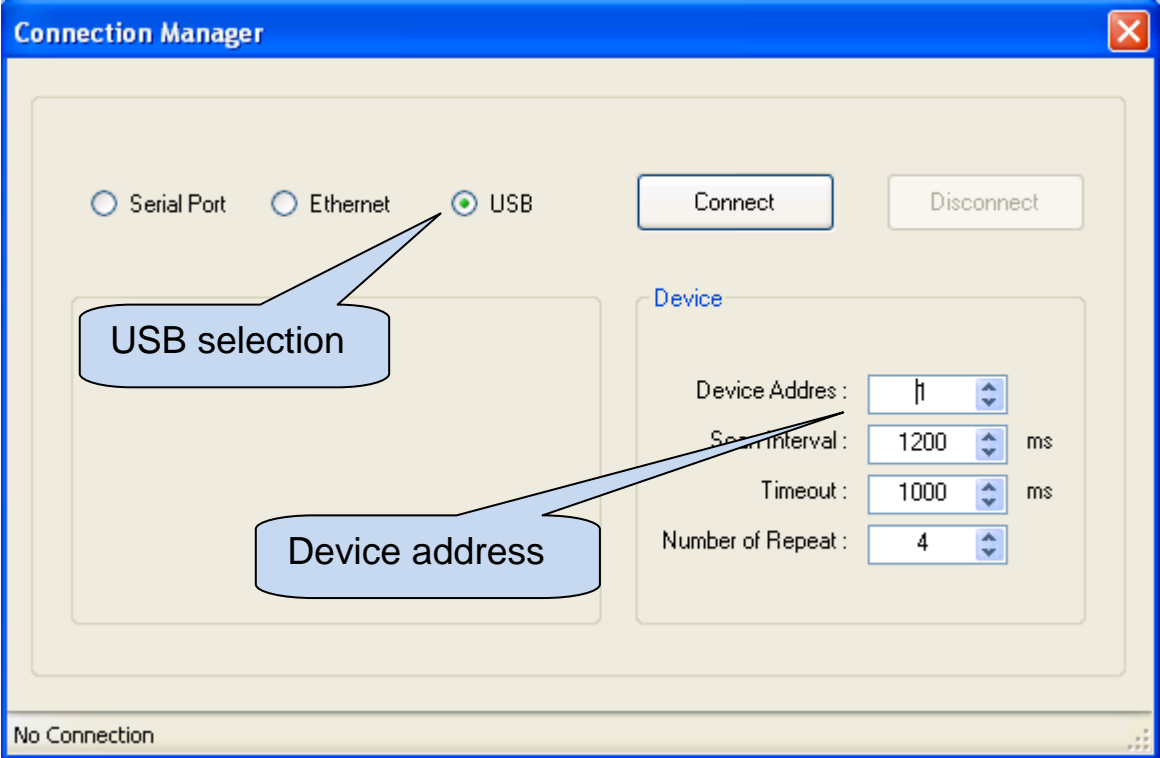


The splash screen will come prior to program execution.

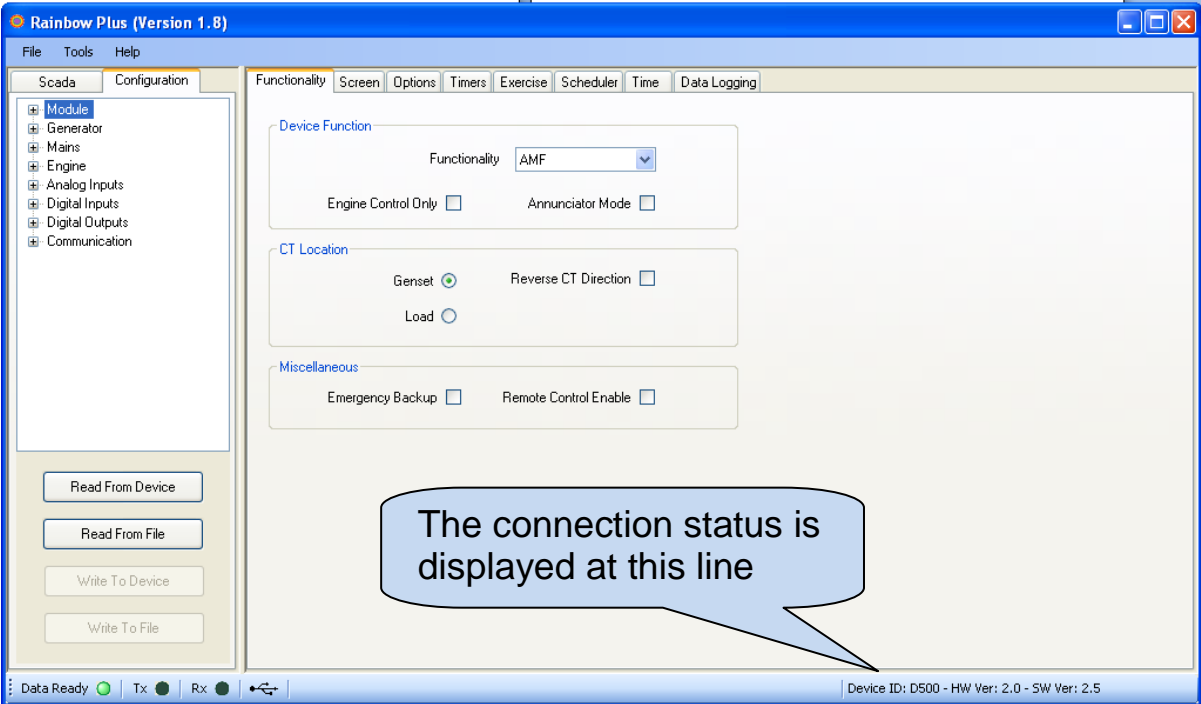
Below screen will open.  
Select **Tools>Connections** menu.



From the Connection Manager screen select **USB**.  
Then click **Connect**.

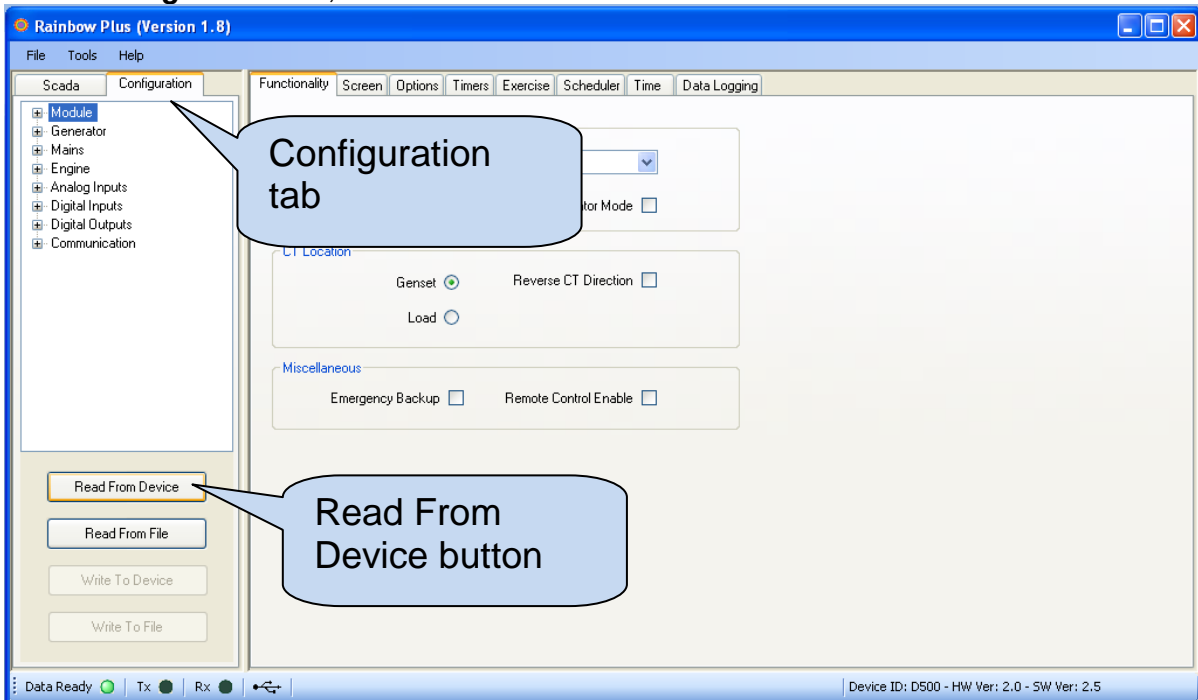


The connection status is announced in the bottom line.  
If a controller is connected through the **USB port**, the connection will be detected and device id and version will appear.

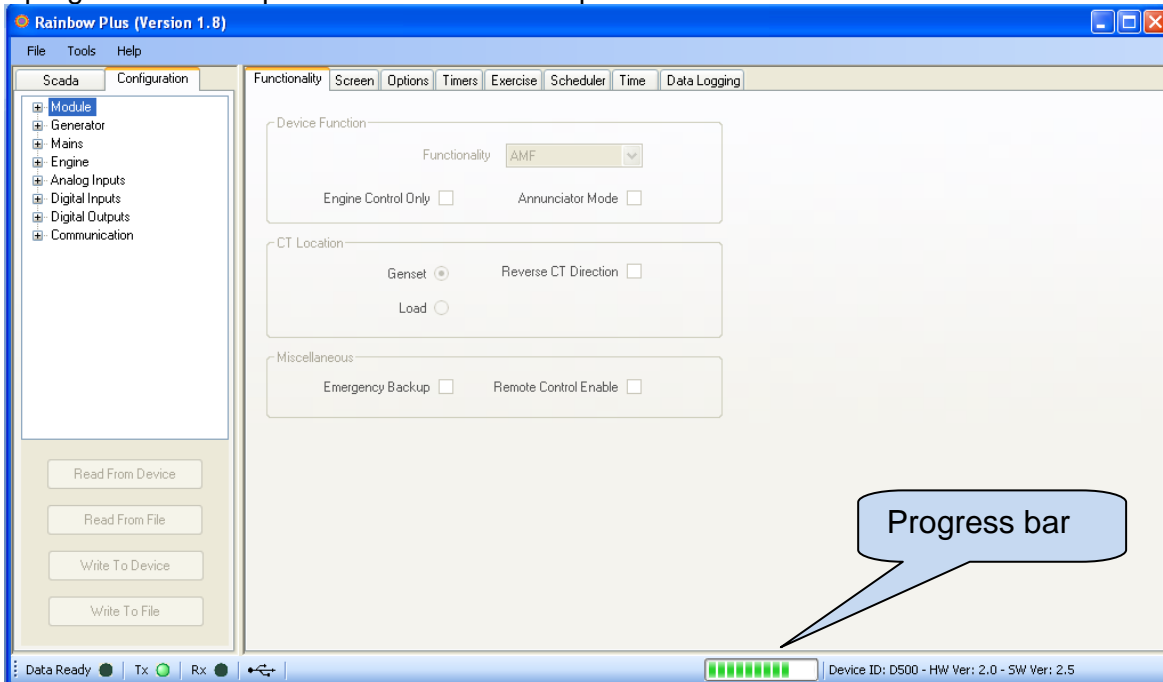


# Configuring the D-500/D-700

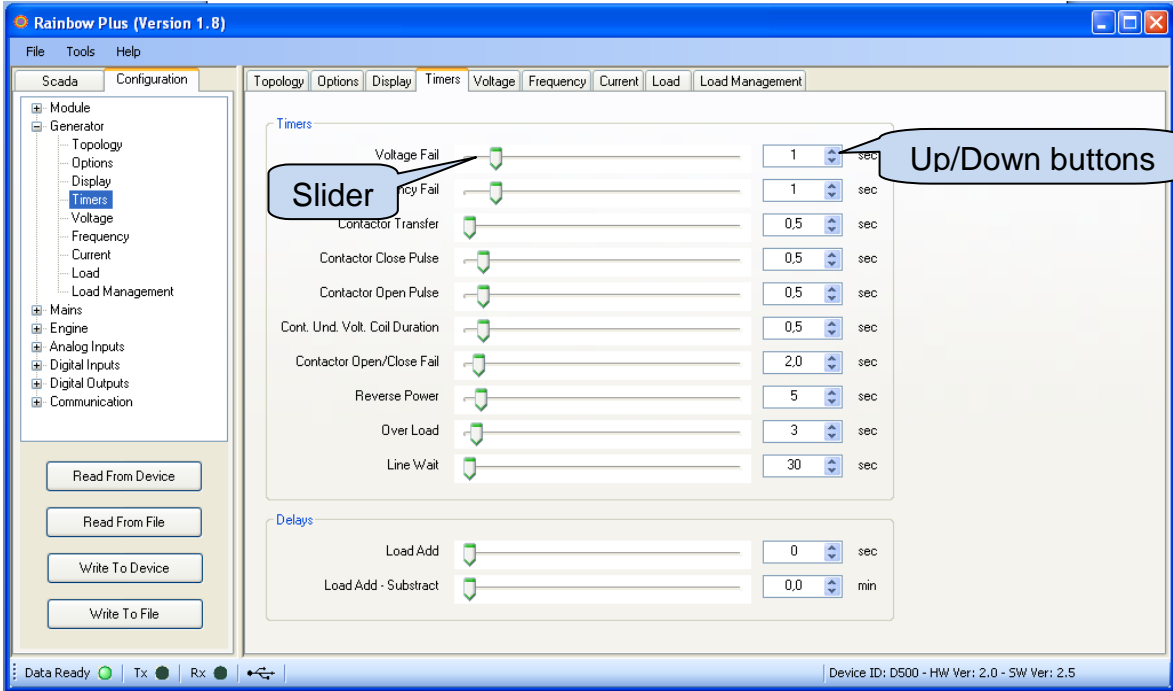
Select **Configuration** tab, then click **Read From Device**



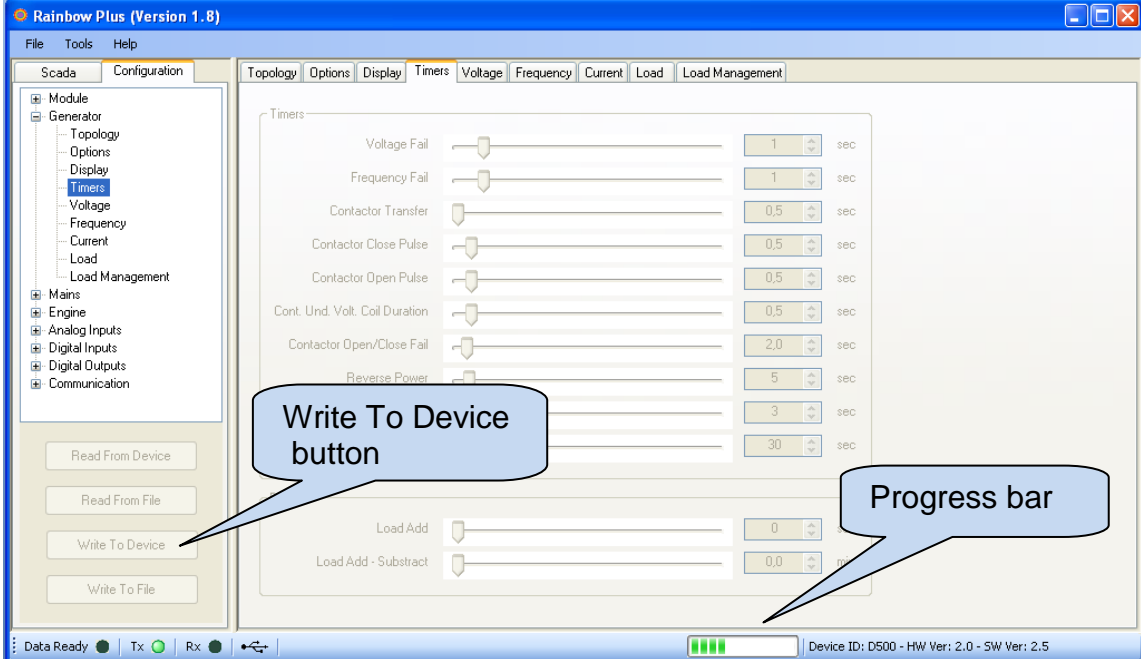
A progress bar will open. Wait until read complete.



Use the menu system to edit parameters. You can use the slider (👉) or (⬆️) buttons for parameter editing. You can also write directly the parameter value.



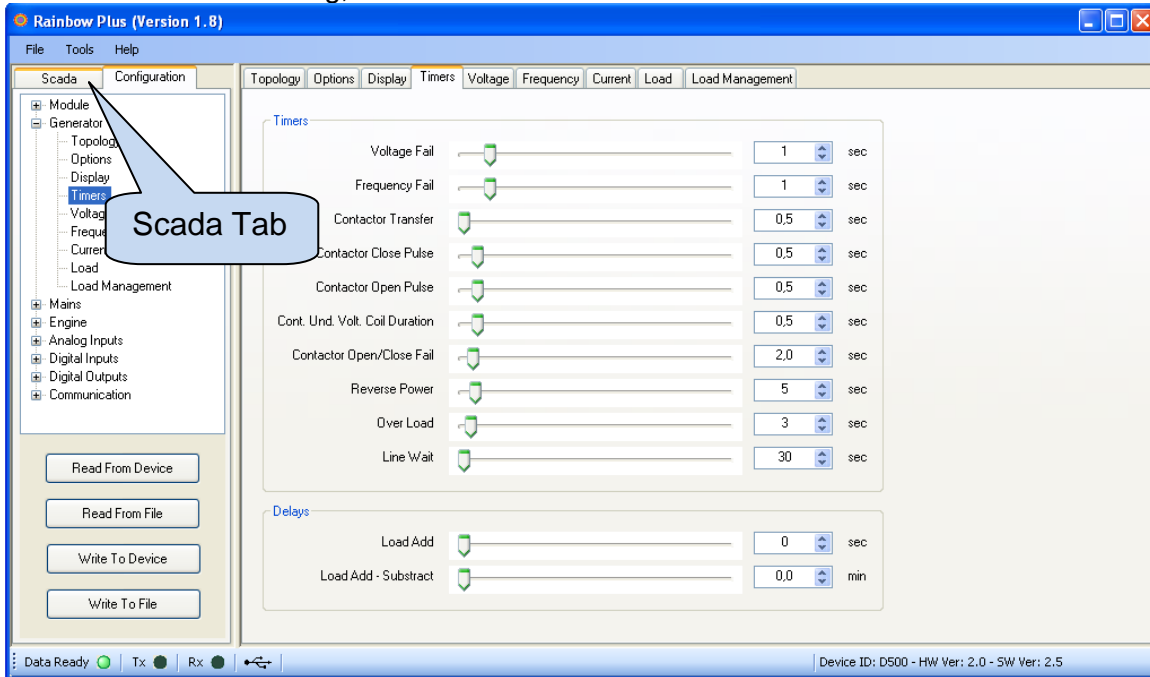
When parameter editing is over, click **Write To Device** button. A progress bar will open.



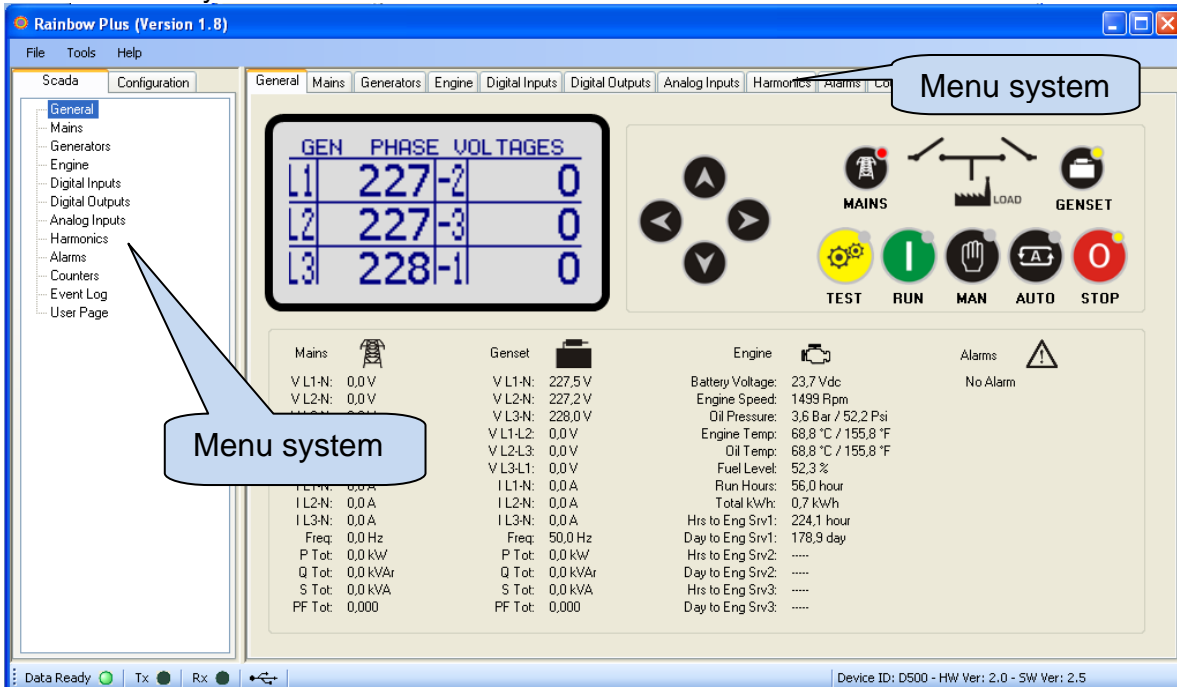
When the progress bar disappears and buttons reappear the write operation is terminated.

# Monitoring the D-500/D-700

In order to start monitoring, click **Scada** tab.



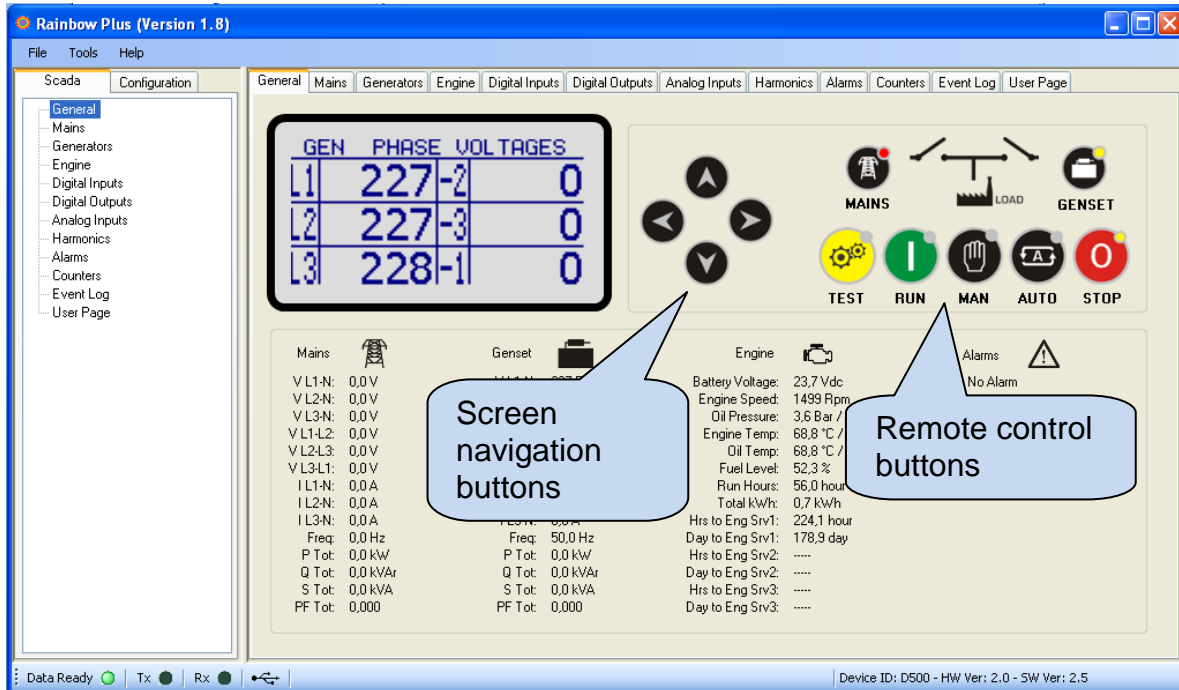
The overall monitoring screen will come. This screen presents a general overview of the generating set. Buttons, leds and the mimic diagram are fully functional. Use the menu system to view other screens.



# Remote Control of the D-500/D-700

The general monitoring screen features all buttons found on the controller. Buttons, leds and the mimic diagram are fully functional.

The screen offers also an exact copy of the controller LCD screen. The screen navigation buttons allow graphical monitoring as well.







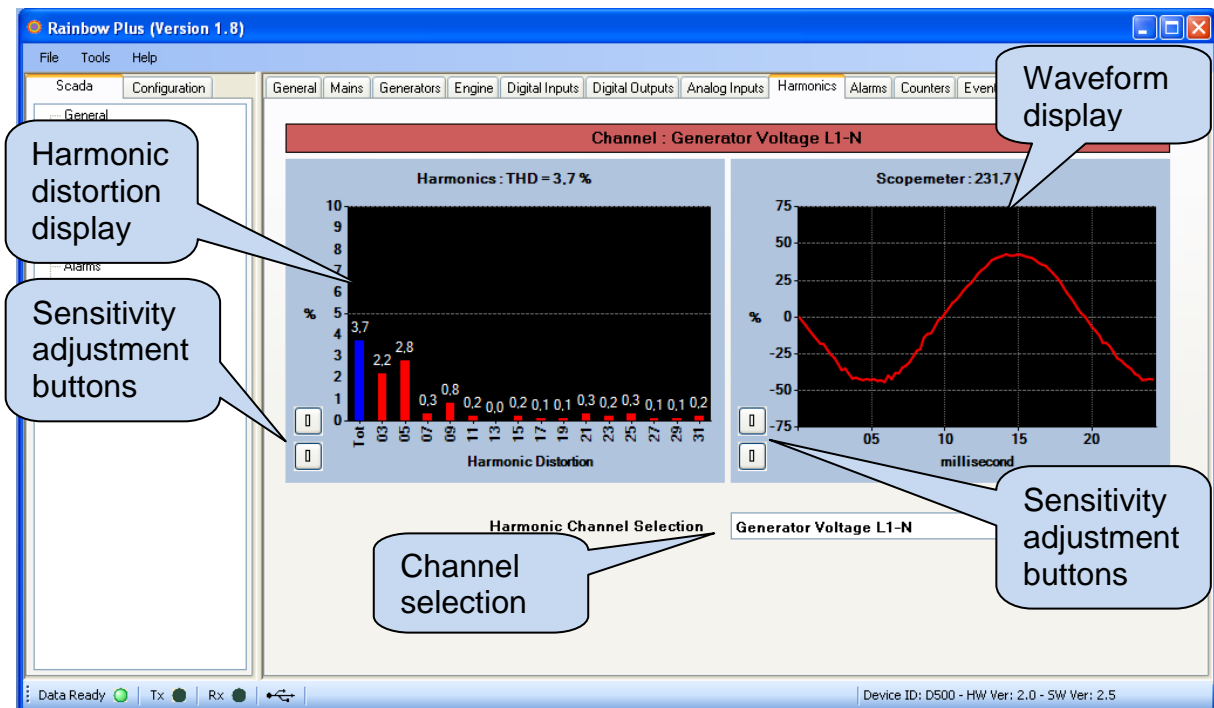
## Waveform and harmonic display

Select **Harmonics** tab.

Any available voltage or current waveform may be visualised like an oscilloscope. The selection is made using the **Harmonic Channel Selection** tab.

The THD (total harmonic distortion) value and individual values of each harmonic component are displayed until the 31st component.

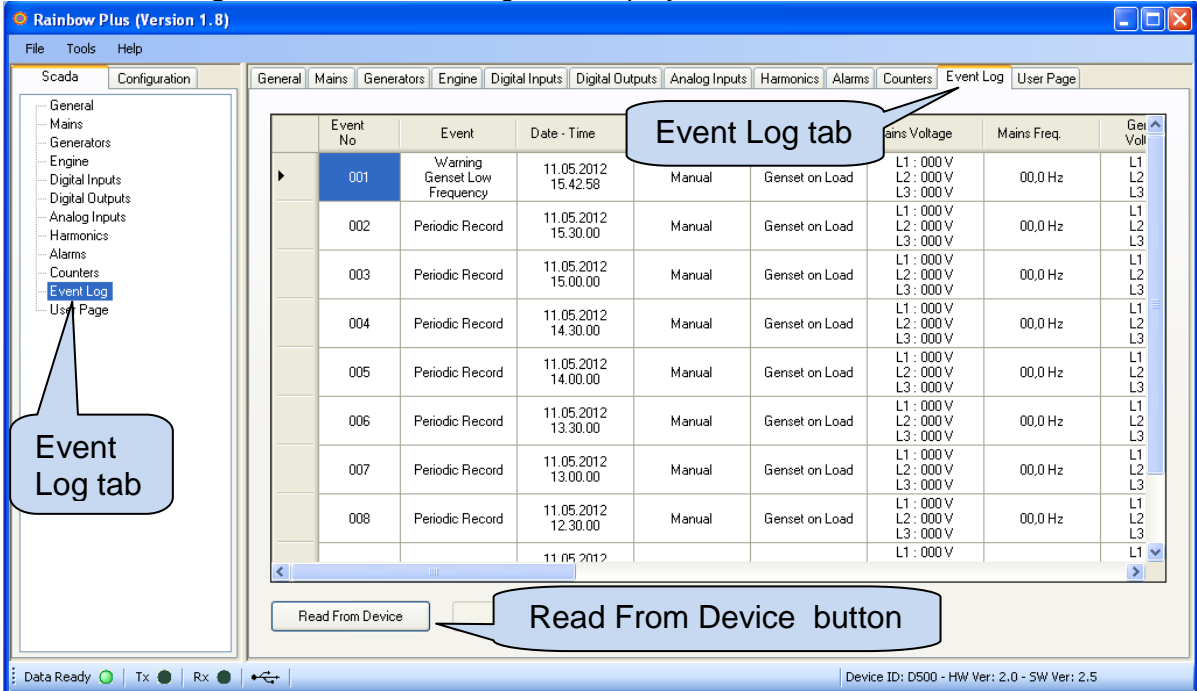
Y-axis sensitivity of both harmonic and waveform displays is adjusted by clicking  and  buttons.



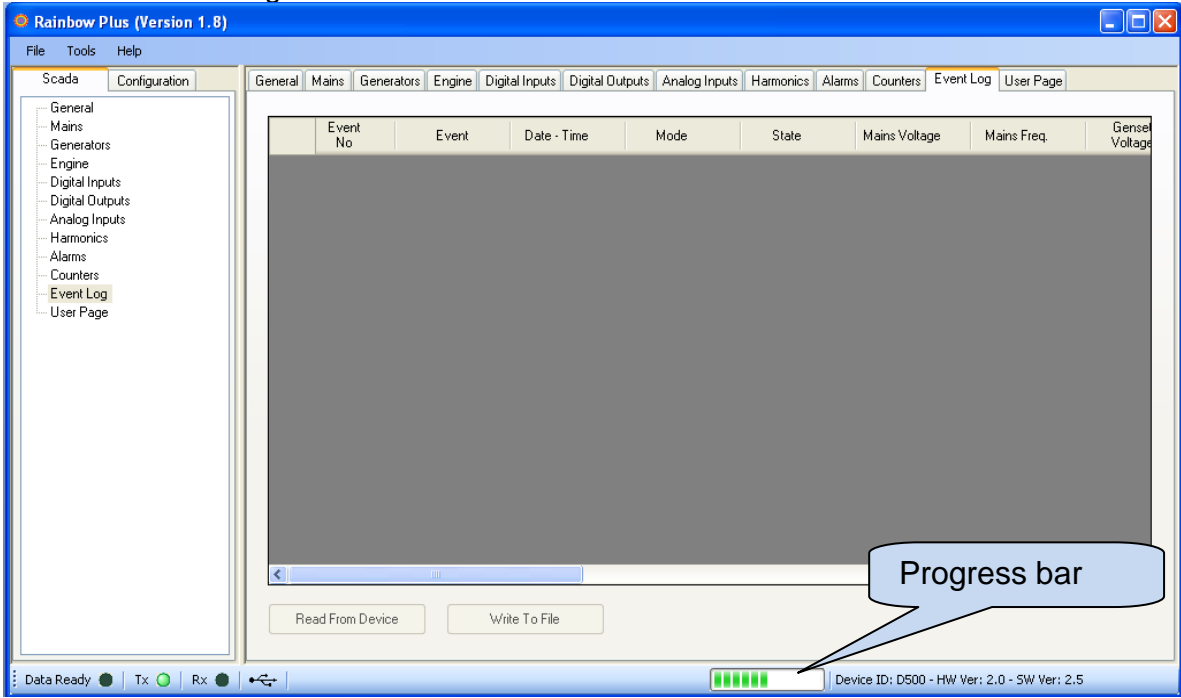
The harmonic analysis is updated at regular intervals adjusted in **Tools>Connections** tab.

# Reading, displaying and saving event records

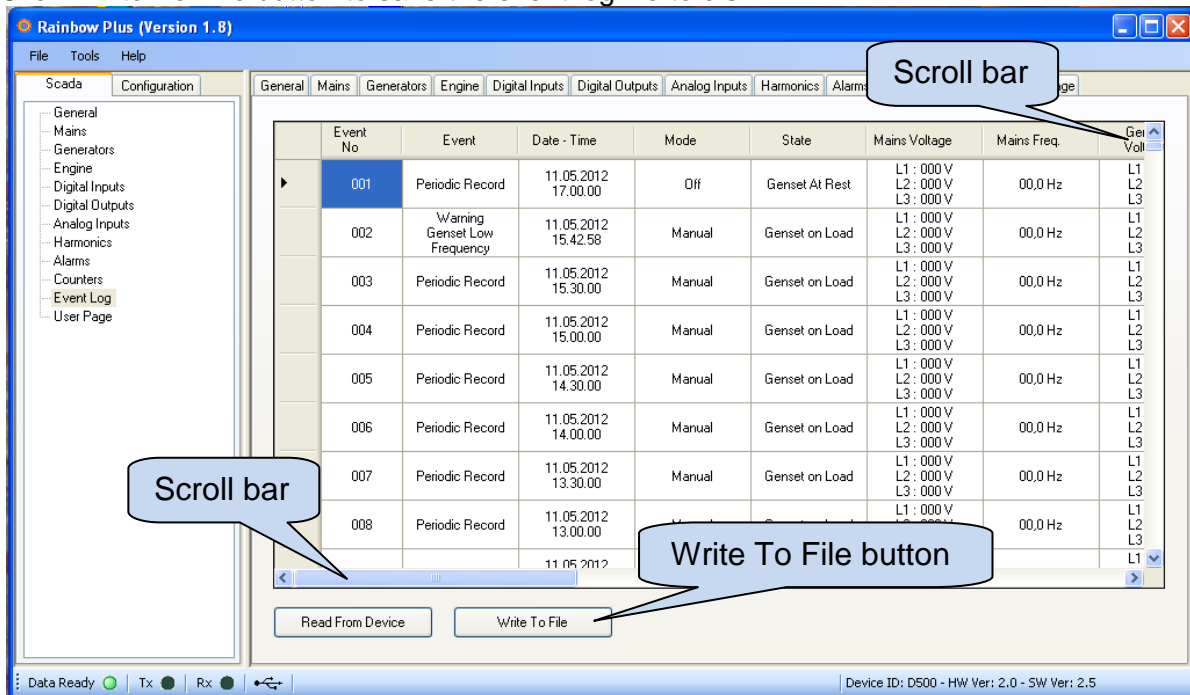
Select **Event Log** tab. Last 10 event logs are displayed.



Click **Read From Device** button. A progress bar will appear and the unit will read all events. Wait until all event logs are read.



When download is complete, all events are displayed. Use horizontal and vertical scroll bars to display all values.  
 Click **Write To File** button to save the event log file to disk.



The **default file saving directory** is the same directory as RainbowPlus program. Select another directory if required.  
 The **default filename** includes date and time. Change filename if required.  
 The saved **file format** is selectable as Excel-CSV format or text format. Select as required.

