

# **POWERMASTER-DCU20**

## ***Configuration and diagnostic tool***

### **User Manual**





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## 1 Introduction

**POWERMASTER-DCU20** is a software tool used to configure and monitor the operation of DCU20.

Reader of this document should be familiar with the mentioned product, at this purpose reading of the DCU20 user manual is recommended.

With **POWERMASTER-DCU20** the user can:

- ▶ Monitor the device status.
- ▶ Update the firmware.
- ▶ Read and write the device configuration.
- ▶ Read and write the configuration from/to a file.
- ▶ Read the logs.
- ▶ Read and write the logs from/to a file.

## 2 Installation

Run "*SETUP-POWERMASTER-DCU20-XX.exe*" (where *XX* is replaced with the release number) and follow the instructions on the screen until the end of the installation process.

**POWERMASTER-DCU20** application can be installed on any PC running windows XP, windows 7 (32 and 64bits) or window 8 (32 and 64bits).



USB driver are bundled with **POWERMASTER-DCU20** application. Install the application before connecting the device to the PC with USB.

### 3 Functional description

User can operate the application in two ways:

- ▶ **Offline:** This mode is active when the device is disconnected from the PC. The user can perform a limited number of activities, all activities that require the device connected are disabled.
- ▶ **Online:** This mode is active when the device is connected to the PC. The user can benefit of all the functionalities.

There are 5 different activities that can be performed, each one related to a tab, as shown on Figure 1 and described later.

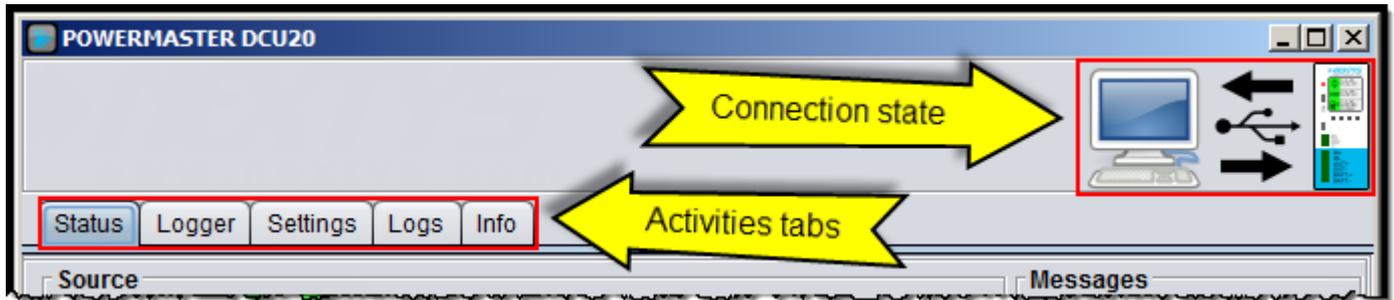


Figure 1: DCU20 activities and connection state

The top of the page shows the connection state. Depending on the connection state the image changes as shown on the table below.

	DCU20 is not connected to the PC.
	DCU20 is connected to the PC. The arrows become blue when data is sent over USB.

Figure 2: DCU20 connection state

#### 3.1 Status

To view the current device status select the “Status” tab as shown on Figure 3.

If the device is connected to the PC the fields are automatically updated once per seconds.



Figure 3: DCU20 status

### 3.2 Logger

This tab is used to show measured data on a chart and/or save them to an excel file, 5 controls are available to the user:

- ▶ **Enable:** When selected the collected points are added to the chart.
- ▶ **Show points:** When selected the points markers are shown on the chart.
- ▶ **Clear points:** Used to clear all points from the chart.
- ▶ **Zoom all:** Used to adjust the chart zoom making all points visible.
- ▶ **Start save to file:** Used to save the collected points to an excel file.
- ▶ **Automatic file logging:** Used to automatically save collected points to excel files. User can specify the maximum number of files (oldest file are automatically deleted) and the maximum file size.



Figure 4: DCU20 logger

### 3.3 Settings

This tab contains all the DCU20 settings, 4 buttons are available to the user:

- ▶ **Read from device:** Used to read the settings from the connected device. This button is enabled only if a device is connected.
- ▶ **Write to device:** Used to write the displayed settings to the connected device. This button is enabled only if a device is connected.
- ▶ **Read from file:** Used to read settings from previously saved file.
- ▶ **Write to file:** Used to write the displayed settings to a file. The file type is .xml.
- ▶ **Read on connection:** Select to automatically read setting on device connection.

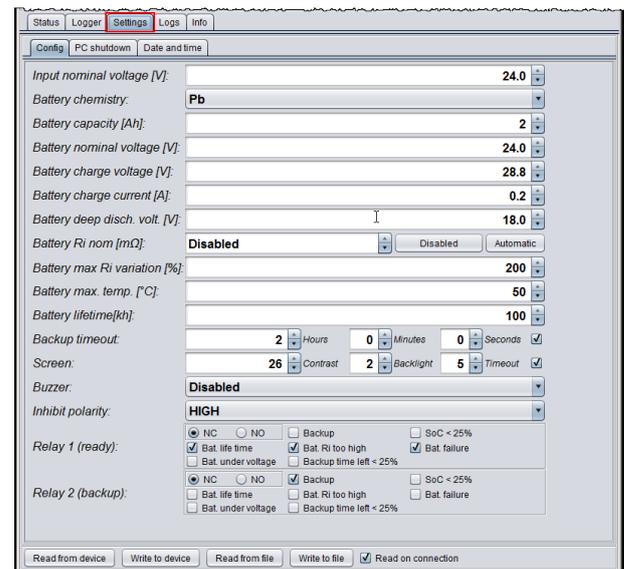


Figure 5: DCU20 settings

### 3.4 Logs

The events logs present on the connected device can be read from this panel, 3 buttons are available to the user:

- ▶ **Read from device:** Used to read the logs from the connected device. This button is enabled only if a device is connected.
- ▶ **Read from file:** Used to read logs from a previously saved file.
- ▶ **Write to file:** Click to write the logs to a file. The file type is .xml.
- ▶ **Read on connection:** Select to automatically read logs on device connection.

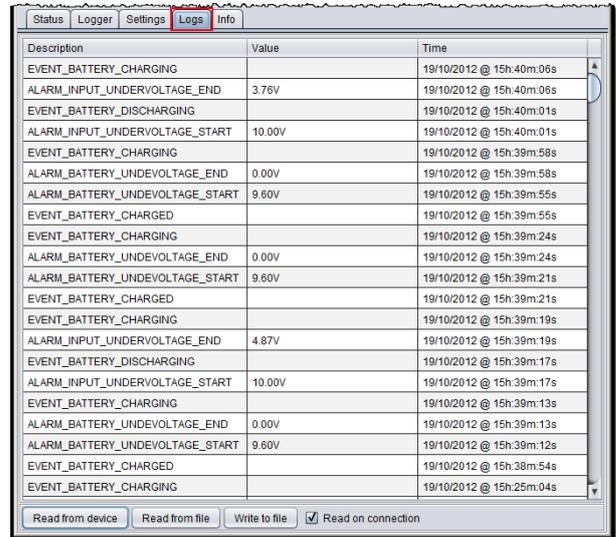


Figure 6: DCU20 logs

### 3.5 Info

From the help panel user can view several information about the connected device. The “Update” button is used to update the DCU20 with a new firmware.

User can change the name of the device from this panel.



Figure 7: DCU20 info

▶ The firmware is bundled with the executable. The application will automatically choose the latest firmware version and download it to the device.

▶ **If the update procedure fails the device will not work and the LCD screen stays off, but even from this status the device can be recovered.** In this case please check the connection between the PC and the device and then launch the update procedure again.