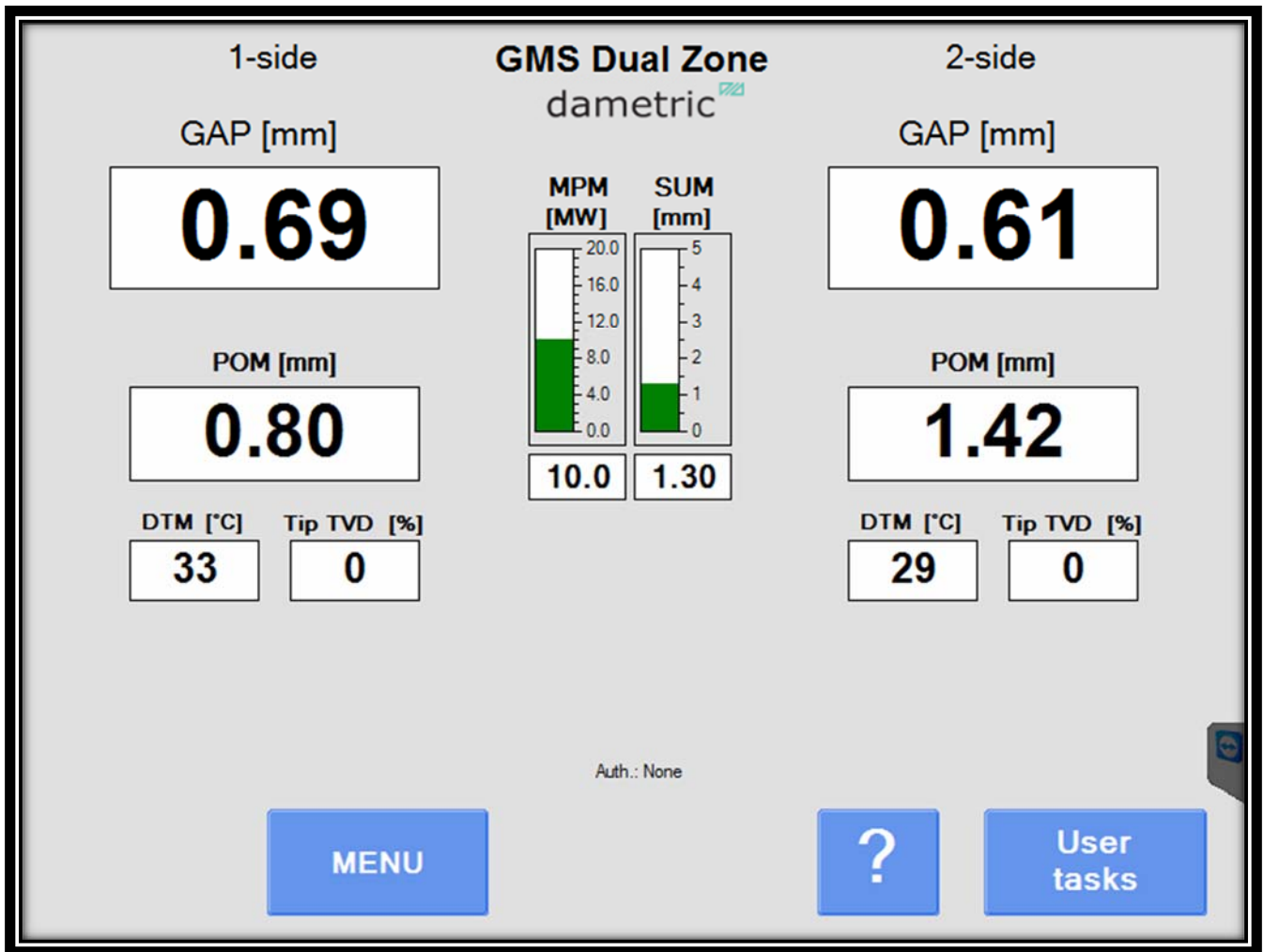


dametric 

# GmsWin



GmsWin Panel-PC Ver. 3.x

Manual

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## 1 Overview

The GmsWin program is used to display and log signals, change parameters and to control the AGS-sensor in a system for measurement of the true plate gap in a pulp refiner.

The program has a graphical user interface which is controlled by a touch screen. The user navigates through a tree structure to reach the desired function.

GmsWin is installed in a 8 or 12 inch panel-pc which is a part of a GMS or RMS measuring system. The Panel-PC uses UDP, an IP based protocol, to communicate with the hardware units through a CAN to Ethernet Converter, CEC-DM1.

The units in the GMS/GMS system communicate with each other using the CAN-bus.

## 2 Security

It should be pointed out that all critical measurements and logic are managed by the dedicated measurement modules. The responsibility of the Panel PC and the accompanying software is to show and log the measured values, alter parameters and access functions for AGS calibration. This means that the Panel PC can be turned off temporarily without any consequences to the operation of the refiner.

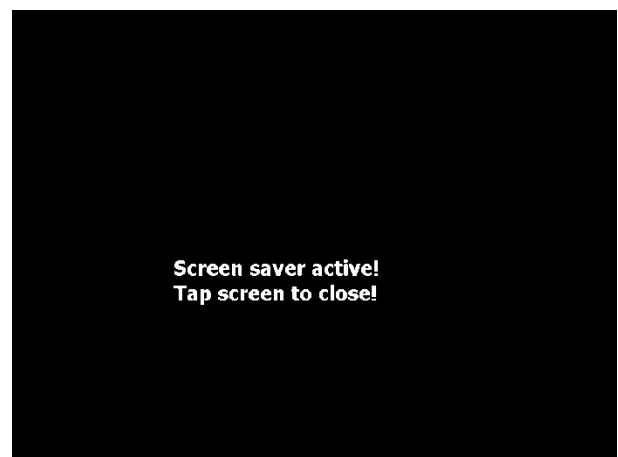
## 3 Authorization and login

Many of the functions and views in GmsWin are only available to authorized users, verified by a login system. By pressing buttons labeled “Log in”, and inputting a passcode associated with an authorization level, the user can gain access to these features. If the panel PC is left idle for an extended period, the user is automatically logged out and must log in again to regain access. The authorization levels of the login system, ordered from least to most access, are: **Operator**, **Service**, and **Administrator**.

## 4 Screensaver

After some inactivity, the screensaver will start. To close it, tap anywhere on the screen.

Suggested tasks to be performed are also displayed on the screen.



## 5 Main display

### 5.1 Layout

The layout of the normal view is dependent of the actual GMS/RMS measuring system. This example shows a single zone refiner with one AGS sensor.

### 5.2 Normal view

In the normal view, the most important signals for the refiner status are shown: Plate gap (GAP), rotor/stator position (POM), plate gap temperature (DTM) and tip contact vibration (Tip TVD).

If dual AGS sensors are used then the values for both sides are shown.

Added variant dependent signals: Main motor power (MPM) contact vibration for the segment plates (TVD) and refiner vibration (VIM).

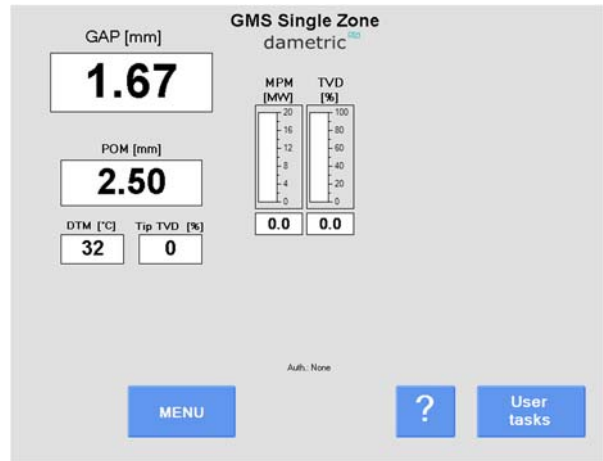
### 5.3 Operation

**MENU** By pressing the MENU button the other program functions can be reached, e.g. calibration of the AGS sensor.

**?** By first pressing the “?” and then one measure value or button a help text is shown. Under “System Settings” other languages can be selected for the help texts.

**User tasks** Opens a list of tasks to perform. These are recommendations and are maybe not needed to be solved immediately. The tasks can also be dismissed.

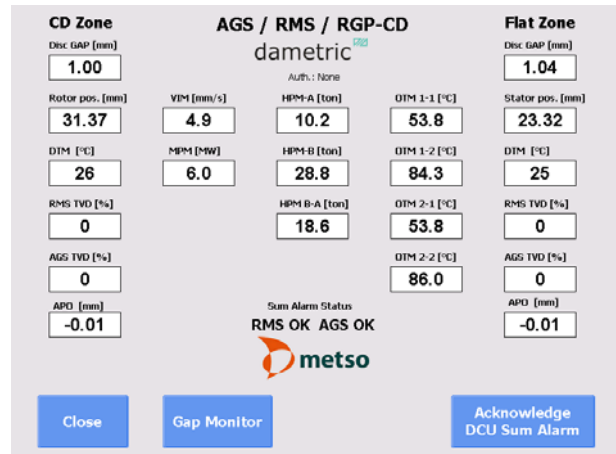
**RMS Display** This button is only shown for Valmet RMS systems and opens a window in which an extended set of signals for the refiner are shown.



### 5.4 RMS Display

The RMS Display window shows all refiner signals that are measured by the RMS-SD system in Valmet refiners. The units must be enabled in the DCU-unit to get proper values.

The **Gap monitor** button opens a window to monitor the gap controller.



#### 5.4.1 Gap Monitor (only RMS-SD and RMS CD)

The signals for monitoring the gap controller are shown. Signals within parenthesis are the limits for the gap controller alarms.

##### Trend

This will start a trend window which will show the signals and the gap controller actions.

##### Parameters

Opens a window to view and edit the gap controller parameters.

##### Enter

This button is visible if a gap controller alarm has occurred. By pressing it, the alarm is cleared (same as pressing the Enter button on the DCU-RM2 unit).



## 6 Application Functions

The application functions are divided into the following main groups.

### 6.1 Menu Window

**AGS Service and Calibration.** This function includes the auto-calibration of the AGS sensor and the tip replacement wizard.

**Service.** The functions in the Service menu are for altering parameters and to be able to calibrate the system's measurement functions.

The program gives you a good overview over the functions and which settings exist for each function. All settings and adjustments are stored in a permanent memory for respective measurement module for a safe function even if there is a power failure. The parameter settings that are under the Service menu are placed in a table format for respective function for fast and simple handling.

**Logger.** This opens a window with functions for managing log files and extracting them to an external USB stick.

**System Settings.** This part includes the settings for the GmsWin program logic. The settings are stored in a file on an external memory (Compact Flash) in the Panel PC.

**Calibration Log.** Performed calibrations are logged to make it easier to perform service and diagnostics when something unpredicted occurs. These logs can be read by this function.

**Alarm Log.** Possible alarms are stored to make it easier to do service and diagnostics when something unpredicted occur. These logs can be read by this function.

**Operation Log.** Lists all production start and stops.

**Exchange Log.** Lists all exchanges of parts in the system.

**Login.** Login allows the user to input an authorization passcode to unlock settings and functions within the system.

**“Auth:”** The login status is displayed.



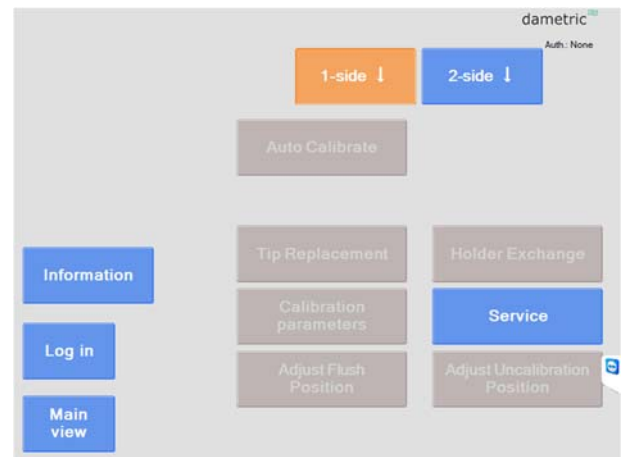
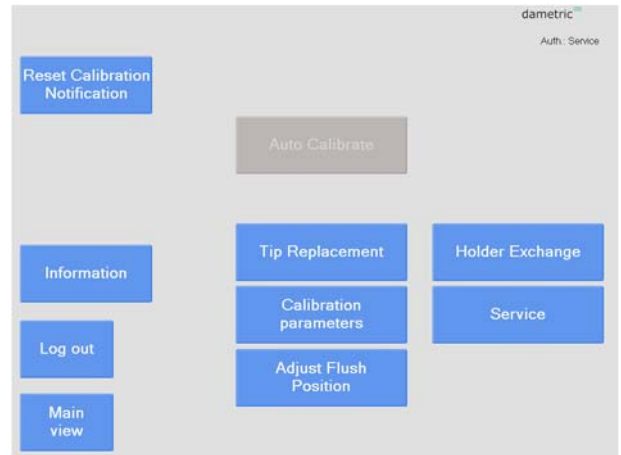
### 6.2 AGS Service

This menu handles the tasks for the AGS sensor, calibration, replacing sensor tip etc..

The layout is dependent of the number of sensors used, either 1 or 2.

The functions reached from this menu are described in a separate document:

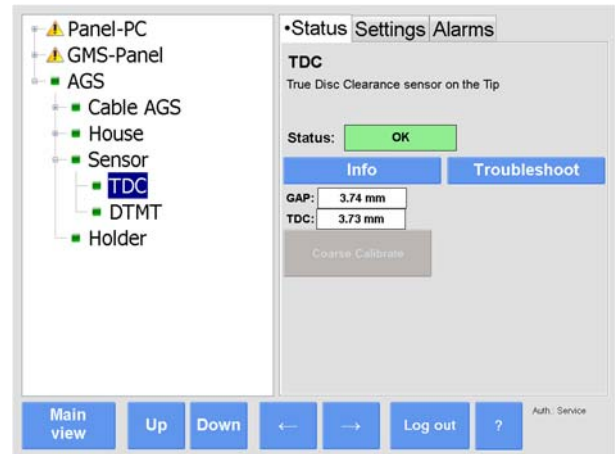
*GmsWin30 Ags Service EN.pdf.*



### 6.3 Service

The service window presents the user with a list of components in the system, organized into a tree structure in the left panel. Contextual information is displayed in the panel on the right when a node of the tree is selected. Navigation between nodes can also be performed by pressing the “Up”, “Down” and arrow buttons in the control panel at the bottom of the screen.

Note that some nodes have additional information and settings, accessible by selecting different tabs in the information panel.

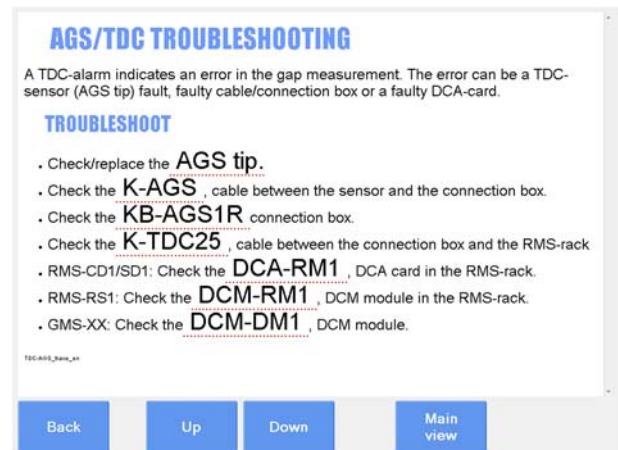


The tree structure also allows the user to quickly see the status of all the components in the system. If a node has a green rectangle next to it, the status of that node, and all underlying nodes, is ok. If the rectangle is grey the node is deactivated. If there is a yellow exclamation mark next to the node that indicates there is important information associated with that component. If the background of the text field for the node is colored yellow that indicates that there is an alarm for some component under that node. If the background of the text field is grey that indicates the node is inaccessible.

#### 6.3.1 Troubleshooting

By pressing the “Troubleshoot” button in the information panel, the user is presented with a contextual guide for troubleshooting issues with the selected node. The list of suggested solutions also contains links that can be selected to access more information about the solution or component.

Note that the troubleshooting function will present possible sources of errors; it is not a list of definitive errors.





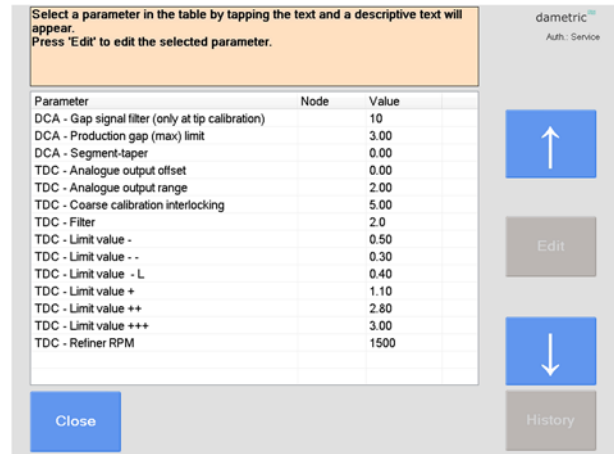
### 6.3.2 Parameters

The parameters window shows the value of all parameters associated with the selected component. Every parameter is shown with a short description and the allowed max- and min values. There is also a possibility to copy the parameter settings to a text file for printing or archiving.

As the list can be rather long, the parameters from respective node/side can easily be unselected from the list by a single press on a button.

To alter a parameter:

- Select the parameter by marking its name (a description of the parameter is shown at the top of the screen).
- Press the **EDIT** button and a new window with a keypad is shown.
- Enter the new value by using the keypad on the screen.
- Press the **SAVE** button. The program will give a warning if the entered value is outside its allowed range.



## 6.4 System settings

Some parts of the functionality are protected by a passcode.

### 6.4.1 Login

Allows the user to login with a passcode to give access to restricted parts of the system.

## 6.5 System tab

### 6.5.1.1 Service info

Address, phone and e-mail for service.

### 6.5.1.2 Refiner ID

Defines a unique id for the installation, which is used when transferring files to an external USB memory.

### 6.5.1.3 Program log

Displays program related events.

### 6.5.1.4 Refiner type

Select the refiner type.

### 6.5.1.5 Upgrade System

Updates the current version of the program from a newer version located on an external USB stick.

### 6.5.1.6 Activate/Renew License

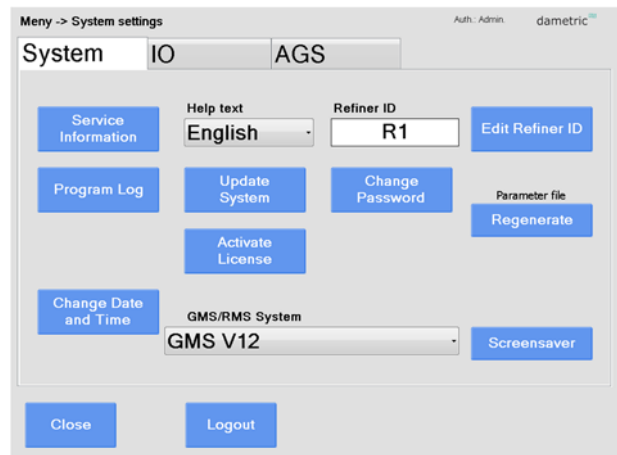
Activates or renews the license from an external USB memory.

### 6.5.1.7 Change Date and Time

Press the + and – buttons to change the date and time. Press Save to save the changes and restart the system. If the system contains a BRM-unit it is also possible to synchronize to an external time source.

### 6.5.1.8 Screensaver

This changes the start time for the screensaver.



**6.5.2 IO-tab**

**6.5.2.1 Touch panel calibration**

Calibrates the touch screen. Follow the instructions given.

**6.5.2.2 Backup**

Performs a backup of system files to the internal system memory attached to the cabinet. This allows for a complete restoration in case of a replacement of the panel pc.

**6.5.2.3 Log file format**

Selects the format of the log files.

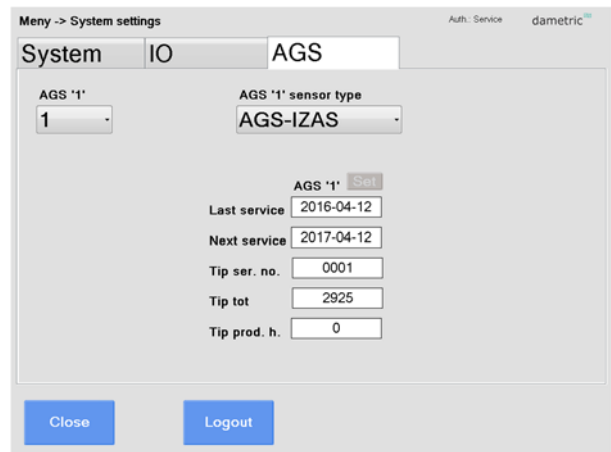
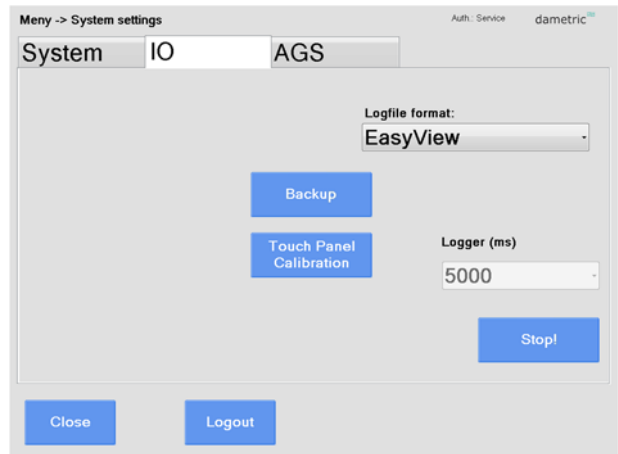
**6.5.3 AGS-tab**

**6.5.3.1 AGS 1 Suffix, AGS 2 Suffix.**

Select a suffix for each AGS-sensor depending on the placement of them in the refiner. For example “C” for a sensor in the CD zone. The selection does not alter the functionality but is only for display purposes.

**6.5.3.2 AGS sensor type**

Select the desired AGS type.



## 7 Logs

There are 4 different logs in the system. Use the buttons as follows.

### Home – Up – Down

Used for navigating the list.

### Row content

Tap a row to present the content in a larger view.

### Clear log (if logged in as administrator)

Clear the log content.

### 7.1 Calibration log

In the calibration log calibration events can be shown.

### 7.2 Alarm log

To make it easier for trouble shooting all alarms that occur are listed here.

### 7.3 Operation log

The production start and stops of the refiner is shown

### 7.4 Exchange log

Here you can see when parts of the system are exchanged.

## 8 Logger

The logger window provides functionality for managing log files.

### 8.1 Graph

Displays a real-time graph containing the most common parameters.

### 8.2 Save last 15 minutes

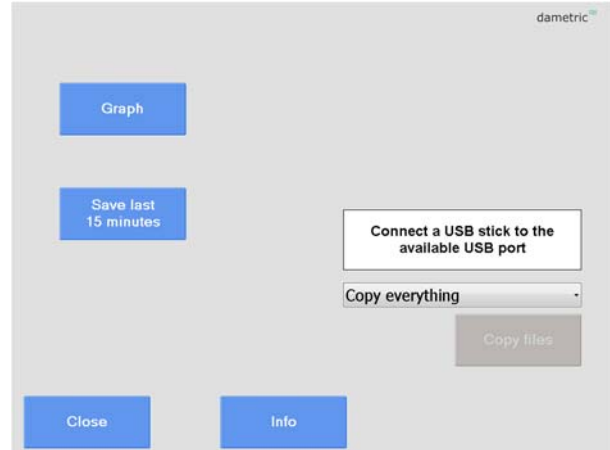
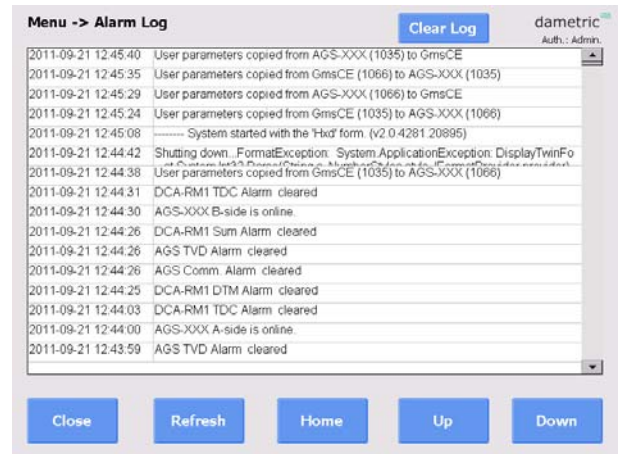
Saves a log file containing about 15 minutes of buffered data from the most common parameters.

### 8.3 Start logging/Stop logging

Starts a continuous logging of the most common parameters. This continues until it is stopped by the user, or until the maximum time of 10 hours is reached, which results in the logger stopping by itself.

### 8.4 Copy files

Insert a USB-stick to enable this function. All log files are copied to the USB, including any files generated by other functions in this window.



### 8.5 Graph

A trend graph showing the gap, touch point vibration and rotor position.

#### Slower/Faster

Changes the speed of the live graph.



#### 8.5.1 Graph scale

Select a parameter and then change the limits.

Default scale reverts to the factory defaults.

The column Data shows the current range of values for each parameter. This can be useful when determining the limits.

Select Auto scale to automatically determine the limits. Note that your selection will not be saved when you close the trend window.

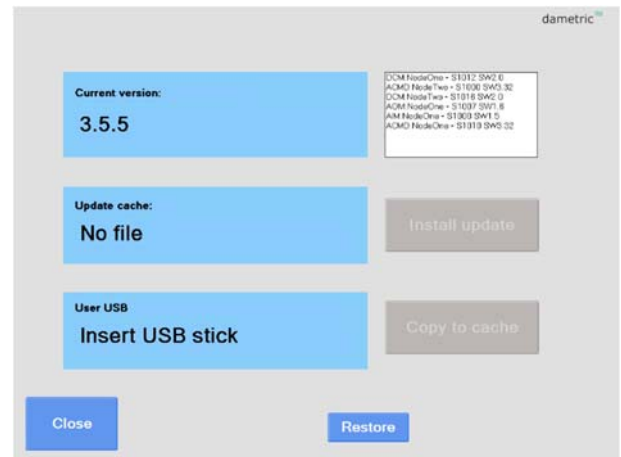
Signal	Data
Disc GAP	2.157-3.272
POM	2.5
TVD	0
DTM	29-32
MPM	0

## 9 Updating the system

### 9.1 Update System

This function is used when updating the system files.

- Connect the USB memory to a connector on the panel PC.
- The new files must be located in a folder called GmsWin\Update\.
- Select Copy to cache to copy the files to the panel PC.
- Select Install update to perform the actual upgrade. GmsWin will restart.

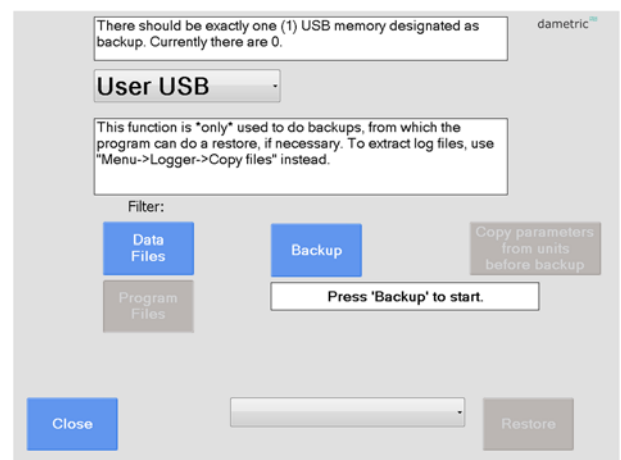


### 9.2 Backup and Restore

This function is used to perform backups and restorations of data- and system files.

- Attach the USB memory to the panel PC.
- Select Backup to start the process.

As default, all important files will be copied to the internal system memory. This allows for a complete restoration of the program after change of the panel PC.



## 10 Startup of the system

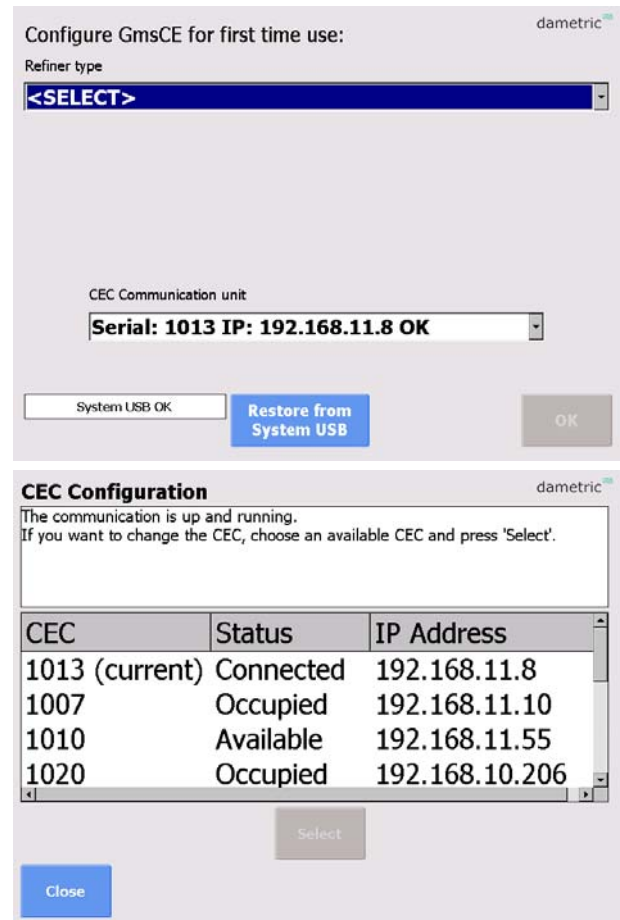
### 10.1 Startup of GmsWin for the first time

The first time the program is started you will be asked to specify the type of refiner used as well as the CEC-DM1. If the panel PC is new, but installed into an existing system, it is possible to restore everything from the internal system memory belonging to the cabinet. In this case, it is not necessary to choose refiner and CEC, since this information will be found in the restored files.

### 10.2 Configuration of the CEC-DM1

Select *CEC Configuration* from the System Settings-window.

Choose a CEC-unit by tapping on it in the list. Press *Select* to connect to the CEC.



## 11 Contact

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