TEM *Evolution* System

Operating Terminal Touch Screen [BRT]

Calibration

Release 2.00.00
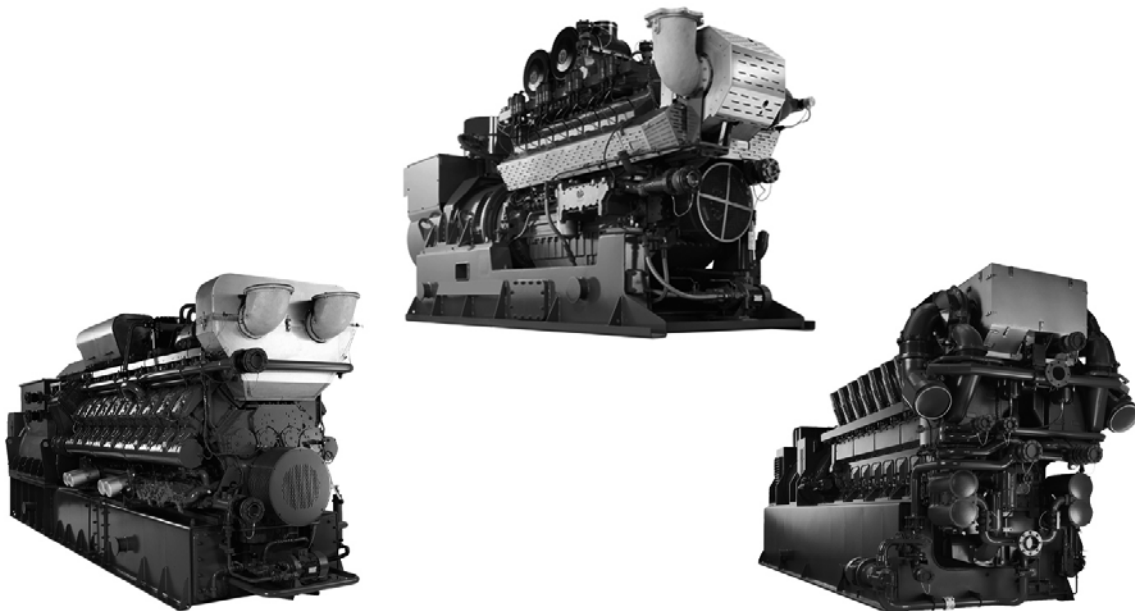
This documents applies to the following gas engines:

Series:

CG132

CG170

CG260

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1 Notes

This quick reference guide is designated for trained operators of the TEM-Evo system. Therein is described the calibration of the touch surface of the Operating terminal BRT. During calibration the touch screen is adapted to the finger touch of the user.

- **Optionally** in case of cursor deviations
  If the cursor shows some inaccurateness over the years it may be readjusted by means of this calibration
  see »Readjusting the Cursor« on page 6
- **Inevitable** after a software update with a new installation of the touch screen drivers
  see »Reinstallation of Touch Screen Drivers« on page 7

1.1 Validity

These instructions apply only for Operating terminal BRT:

- Software release: from 1.7.15

1.2 Safety

Qualification of the personnel

Only a skilled personnel with a pertinent vocational training must be entrusted with the installation, dismantling and calibration of the Operating terminal BRT.

The following safety instructions must be observed by the commissioning personnel, the servicing personnel and by all users of the unit.

Safety

Attention
You cannot undo the calibration procedure. An incorrect calibration may impact the touch functionality of the screen. Possibly the entire Operating terminal will get unusable.

Change the calibration settings only in the following cases:

- Finger touch and cursor are not exactly assigned to one another. The software cannot be or no longer be operated via touch surface.
- The software starts the calibration procedure automatically, e.g. after installation of new touch screen drivers.

⇨ Always follow the instructions of the software for the calibration.
⇨ Repeat the calibration procedure before saving the calibration data, if required.

2 Calibration

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Note
As a precondition for the start of the calibration procedure, a blue USB authorisation dongle with at least level »200« must be inserted.
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Calibration process

The calibration surface displays in succession five target coordinate planes showing in their centre a calibration point.

Each calibration point must be touched by a finger or by a special input pin exactly in the centre.

For determination of each calibration point a time limit of 10 s is stipulated. When the time limit has been exceeded the procedure is aborted and must be repeated.
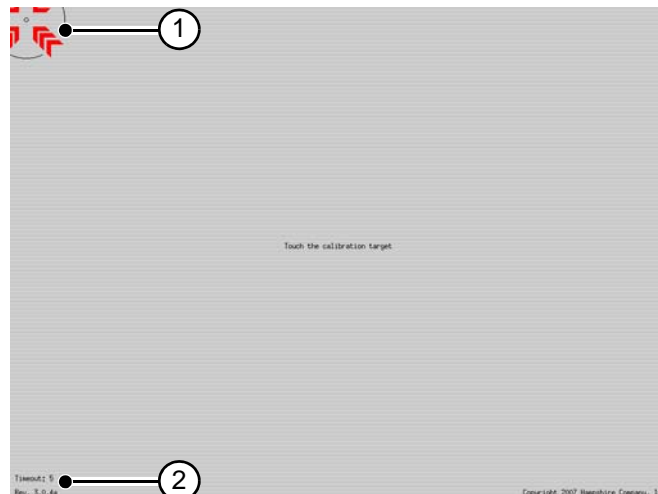

Figure 1:   Calibration surface

1.   Target coordinate plane with calibration point in the centre

2.   Time limit, remaining time for the current calibration point

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Attention
The following situations result inevitably in a faulty calibration. In these cases the calibration procedure must be repeated:
• It was not possible to touch a calibration point within the time limit.
• A calibration point was touched several times (e.g. by double click).
• The calibration surface was touched accidentally by the thenar.
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2.1   Readjusting the Cursor

Start the calibration procedure

⇨ Depress button »Operating terminal« on the »System« mask.

⇨ Depress button »Calibrate screen«.

⇨ Read the alarm and acknowledge with »OK«.

Dialogue field »Calibration surface« opens.

⇨ Read carefully the note concerning the calibration surface and acknowledge with »OK«.

Calibration surface opens. The calibration procedure starts **immediately** when the first target coordinate plane is faded in.

> **!** **Note**
> The calibration may be started with a mouse if the touch functionality has become useless due to a faulty calibration. Close the mouse via USB-interface on the terminal.

Calibrate screen

⇨ Depress the calibration points within the time limit.

If not all calibration points were exactly hit:

⇨ Restart the calibration surface via button »Cancel«.
In case that the »Cancel« button cannot be depressed due to a faulty calibration, the procedure is aborted.

If all calibration points were exactly hit:

⇨ Quit the calibration surface via button »Accept«.

Window »Calibration result« opens.

⇨ Depress button »Save«.

The calibration data are saved.

The calibration is terminated.

2.2 Reinstallation of Touch Screen Drivers

> **!**
>
> **Note**
> The calibration of the touch surface of the Operating terminal BRT is in case of a software update only required if new **touch screen drivers** have been installed. In this case the dialogue field »CF-card exchange« opens automatically after the start of the Operating terminal BRT.

2.2.1 Software Update

A software update on the Operating terminal BRT may be carried out via:

* exchange of the CF-card
* USB-interface (e.g. with USB-stick)

Exchange of the CF-card

The exchange of the CF-card is described in detail in a further document of the compiled documentation concerning the TEM-Evo System.

> **Information**
> Exchange of the CF-card:
> refer to the Assembly Instructions for »Operating terminal touch screen [BRT] Exchange of CF-card«

* The directive in these Assembly Instructions must be obeyed in order to ensure the proper functioning of the Operating terminal BRT.
* The safety instructions concerning the maintenance work on the Operating terminal BRT of these Assembly Instructions must be observed.

2.2.2 Calibration After Software Update with Reinstallation of the Touch Screen Drivers

After the Operating terminal BRT has been started the dialogue field »CF-card exchange« opens.

⇨ Touch the screen several times to quit the dialogue field.

Dialogue field »Calibration surface« opens.

⇨ Read carefully the note concerning the calibration surface and touch the screen in order to quit the dialogue field.

Calibration surface opens. The calibration procedure starts **immediately** when the first target coordinate plane is faded in.

⇨ Depress the calibration points within the time limit.

If not all calibration points were exactly hit:

⇨ Restart the calibration surface via button »Cancel«.
In case that the button »Cancel« cannot be depressed due to a faulty calibration, the calibration procedure restarts automatically after a time limit of 90 s.

If all calibration points were exactly hit:

⇨ Quit the calibration surface via button »Accept«.

Window »Calibration result« opens.

⇨ Depress button »Save«.

The calibration date are saved. The calibration is terminated.