General Information

The Concycle Customer Tool is a universal tool for displaying and reading out:

- Speed and power
- Measured values
- Fault messages
- Operating hours counter
- Operating status or system values
- Events
- for parameter setting
- for calibration of the 4-20mA inputs
- for calibration of the 4-20mA outputs

This information allows the user of the Concycle Wind System:

- to get an overview of the current characteristic and measured values,
- to analyse fault messages,
- to adjust some parameters directly.

Hardware and conditions for software

The "Concycle Customer Tool" runs on each IBM compatible PC (starting from i486) with the operating systems Windows 9x, W2000, Windows NT4, Windows XP.

Communication is made by the RS232 (zero-modem / modem / TcpIp).
It permits operation by mouse and has a user-led window representation.

Installation of the Concycle Customer Tool

Following installation the »*Concycle-Customer Tool*« can be found under programs: *SEG->Concycle*. The program can only be started with the dongle which is included in the scope of supply. The dongle is operated on the parallel or usb port.

De-installation of the Concycle Customer Tool

De-installation is effected via:

Settings/system control/software ->>CSC Customer = "Remove".

About

With "About CSC-Customer..." it is possible to check the version numbers of the following software:

- the Service tool
- the customer Dynamic-Link Library (dll) and
- the data dll.

Starting the Customer Tool

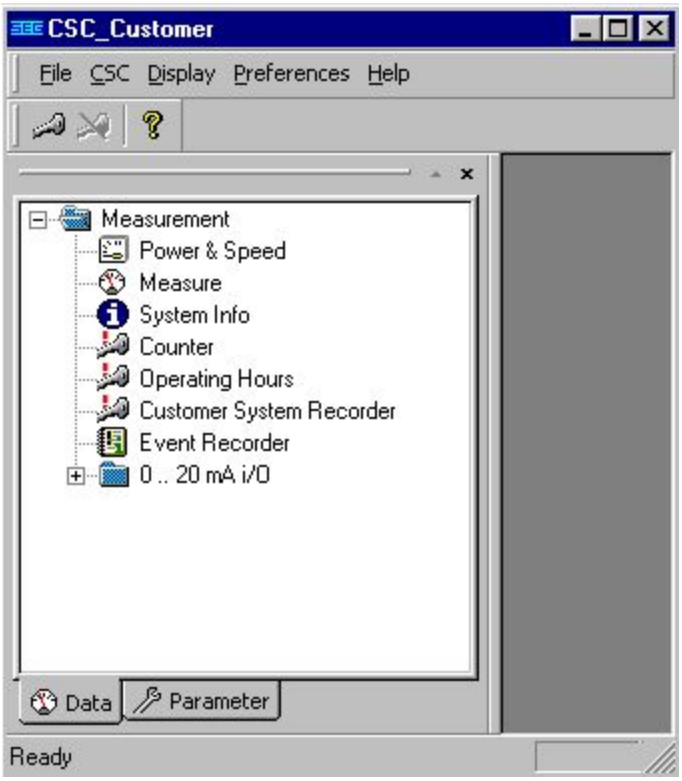
Before the Customer Tool can be started for the first time, the connection from the PC to the Concycle Wind System must be established.

There are two possible types of connection.

- SEG_SerialServer
- SEG_ModemServer
- SEG_SerialToTcpIpServer

Start

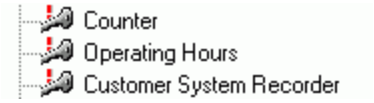
For every customer there is a separate, customer-specific driver (Import-DLL) which is recognised by the dongle coding.
If the dongle and the installed software are identical, the program can be started.



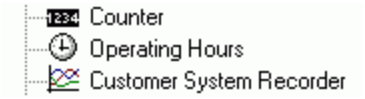
After the start the loaded *.dll is entered in the lower r.h. part of the program task bar.

General Handling

- In the l.h. window, which looks like the usual tree structure, the individual functions can be selected with a double click.
- The Output window is intended for messages (e.g. communication fault); (not implemented yet and can be closed).
- After the start some functions protected by password are blocked as follows:



- When the password is entered (key button) they are activated as follows:



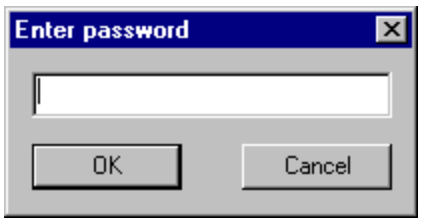
The parameters are also released via the password in order to ensure that only one user is working with the system.

The event recorder can work in a mode not protected by password. Thus, stored event files can be offline.

Password

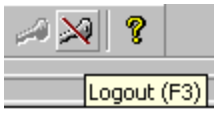
After the Password-Button has been pressed

the following entry window opens



Note: The password can be found on the installation CD.

After pressing the logout-Button



all functions saved with a password are deactivated.

Menu Display

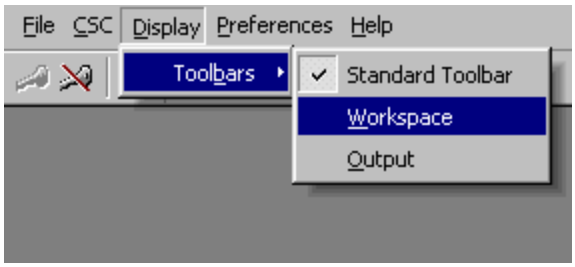
In order to make the

- Operating window = (Workspace) and
- Error window = (output)

visible again.

the menu "Toolbars"

will bring both windows back to the foreground.



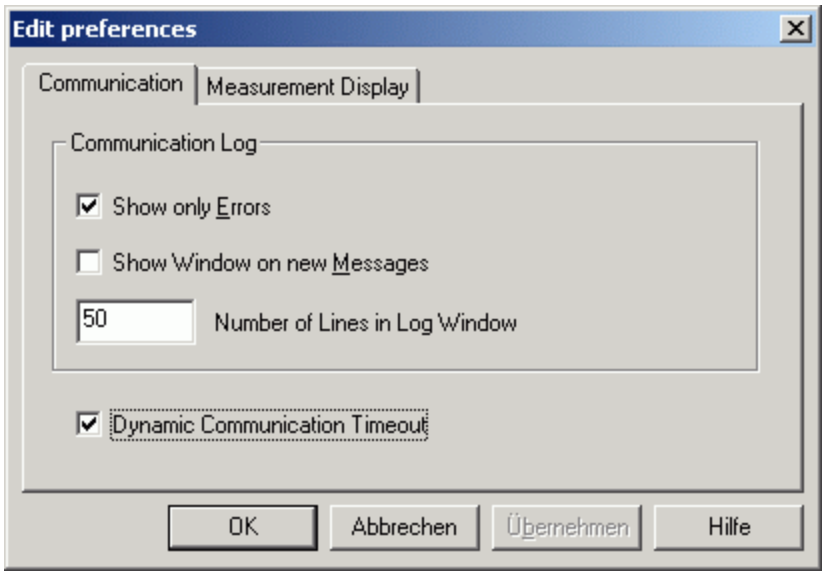
Preferences for Communication

Adjustments for the error window can be carried out in the menu "Preferences"

1. If no display is desired, click: "Show Errors only "
2. If the fault messages are to be displayed "Show window on new Messages"
   with a number of, for example, 50 listed failures.

The error window will open immediately if faults or other messages occur during ongoing operation.

With remote connections (modem or TcpIp) exists the possibility "Dynamic Communikation Timeout" to switch on in order to adapt to the communication distance dynamically. Switching of this attitude on and/or off becomes only effective after the Customertool is again started.

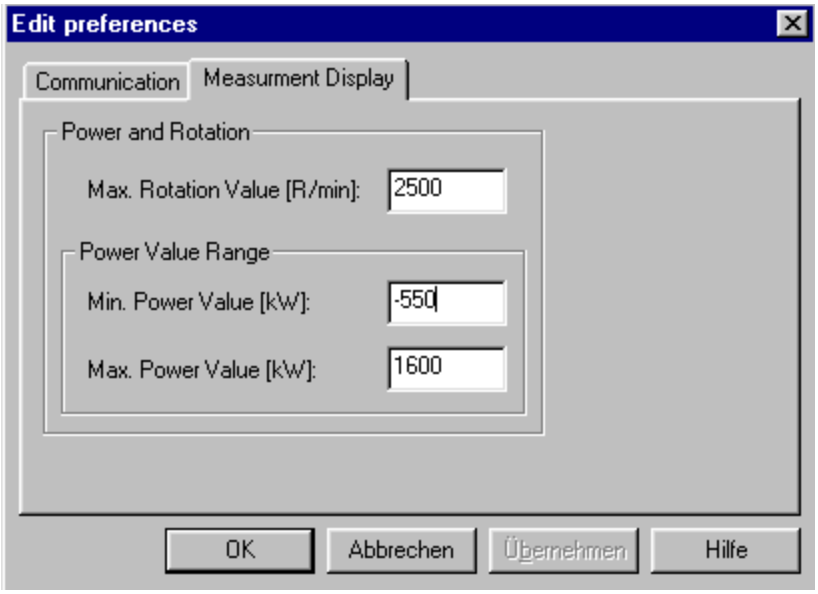


Preferences for Measurement Display

In the menu Preferences \ Measurement Display the display of power and Rotation variably adjustable.

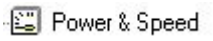
The Rotation and power display value are configurable to maximal and minimal (negatively) value.

The value is updated when the power and rotation is display newly started.

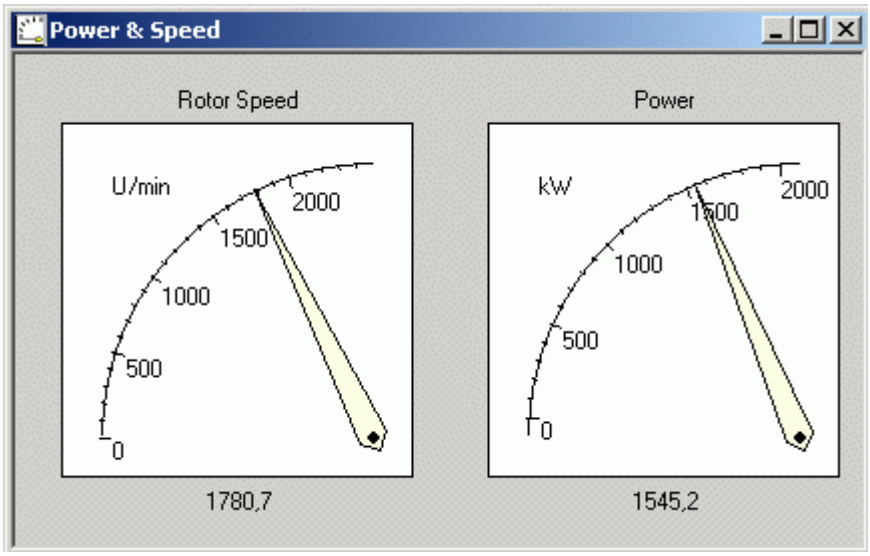


Power display

The Power und Speed Button



displays the speed and the power during ongoing operation.

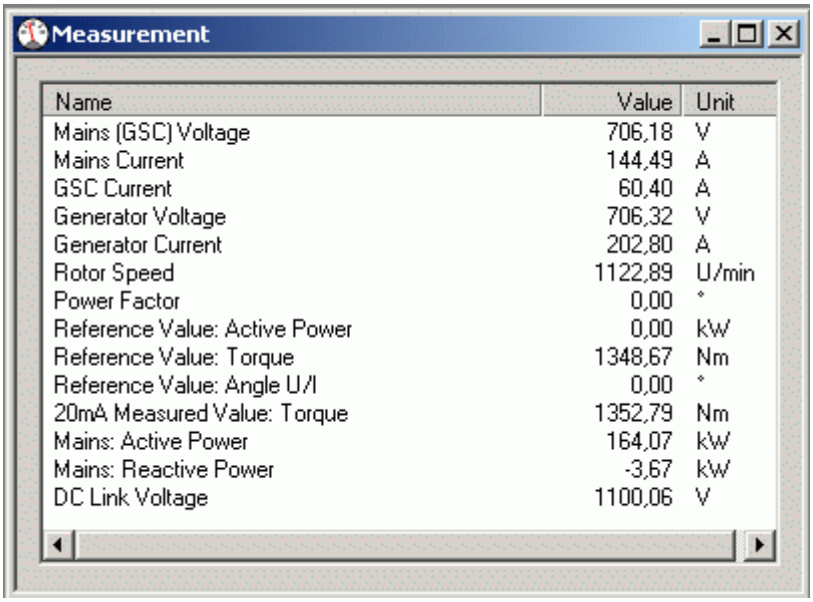


Measured value

The Measurement Button

Measure

serves to read out the following measured values:

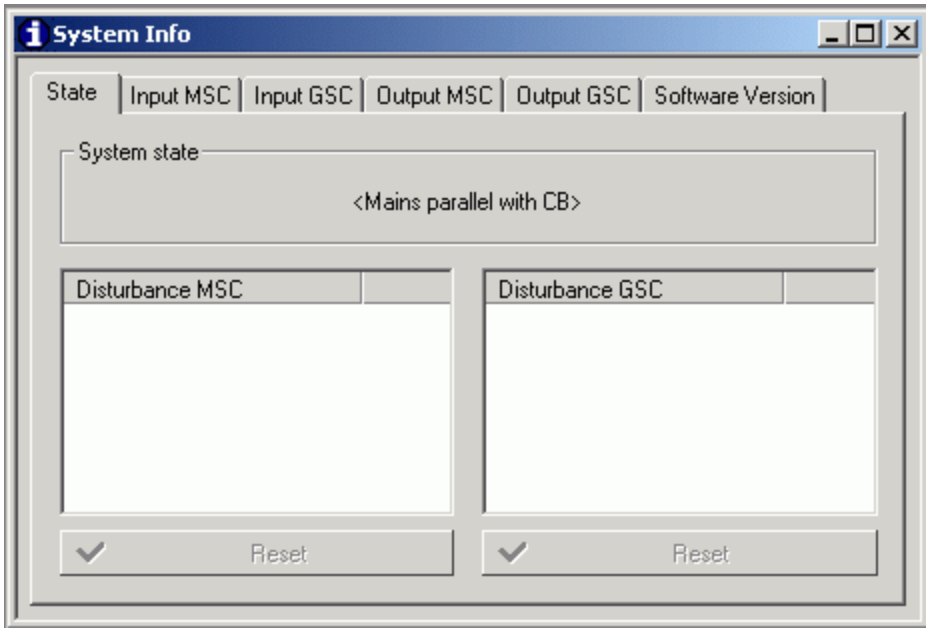


System state

The System status-Button System Info

serves to display the status messages

1. which are relevant to the system
2. the input assignment of the machine side converter (MSC)
3. the input assignment of the line side converter (LSC)
4. the assignment of the MSC output relays
5. the assignment of the LSC output relays
6. and the Version information of the converter system



The fault message marked with ! *= shut-down fault*

The fault message on pale gray background =

self-acknowledging fault

Resetting Errormessage

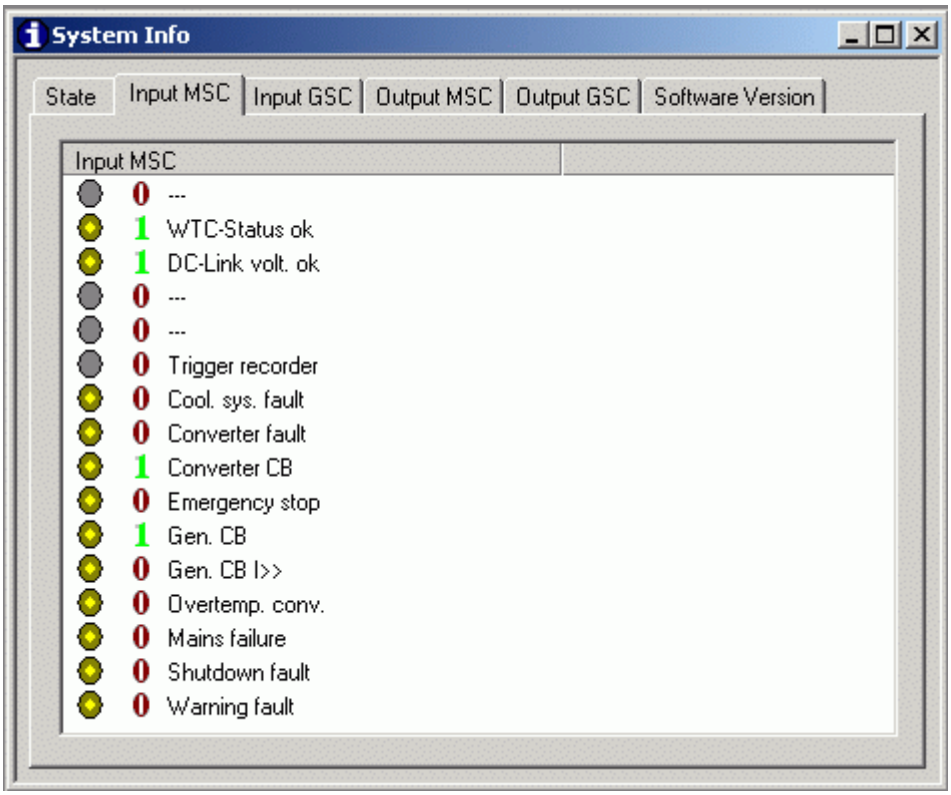
Resetting of the fault message is done with the >> Reset<< button and is only possible with **valid password!**

i.e. the Reset Button is
a) not available:

b) available:

System state

Input assignment MSC / LSC .
This display provides the physical and logical state of the inputs of the machine side and line side converter.



The physical state of the LED: *ON* *yellow* *LED: OFF =* *grey*

The logical state *ON =* ***1*** ***OFF*** *=* ***0***

Version information

This tab shows all available version information from the converter system.
On systems with a software version < 4.0.19 only the software version is shown.
For systems with a software version >= 4.0.19 the following information is shown
for all three devices separately (MSC, LSC and CMW):

- System Type

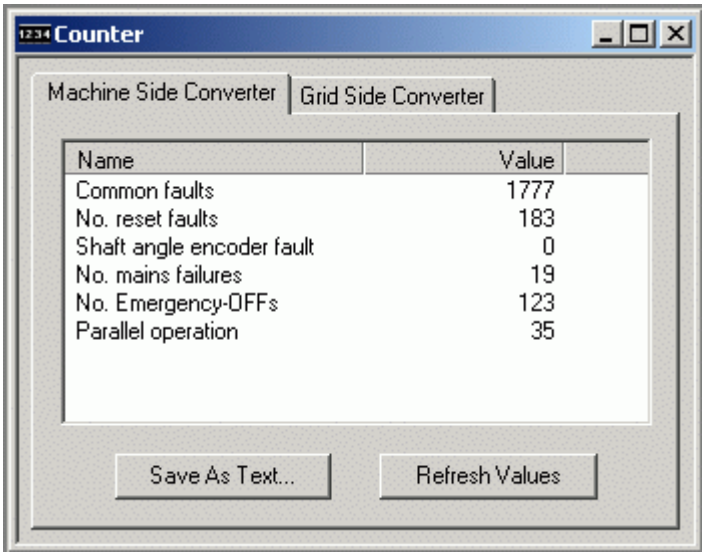
- Software version
- Language
- Inifile version
- Configuration

Additionally the parameter versions (from MSC and LSC) as well as the generator type (from MSC) are shown, too.

Error Counter

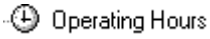
The Counter Button

serves to read out the counter values such as >>Total number of faults<< , which can be stored in ASCII format.

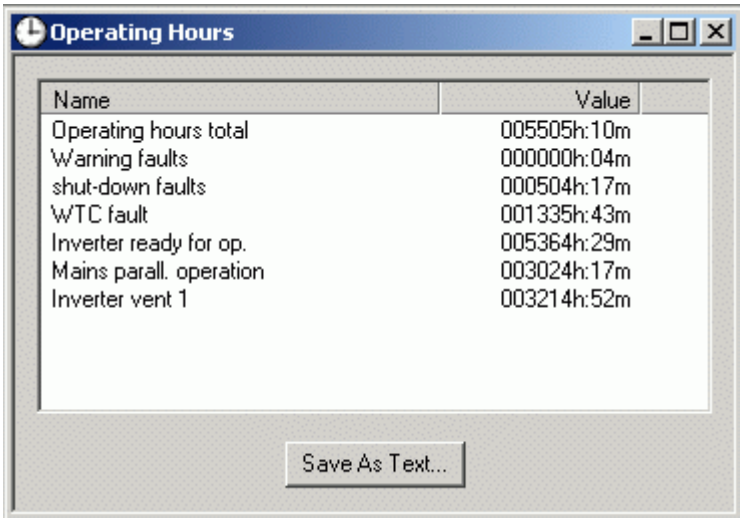


Operating hours

The Operating Hours Button

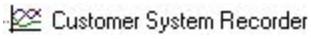


serves to read out the operating hours which can be stored in ASCII format.

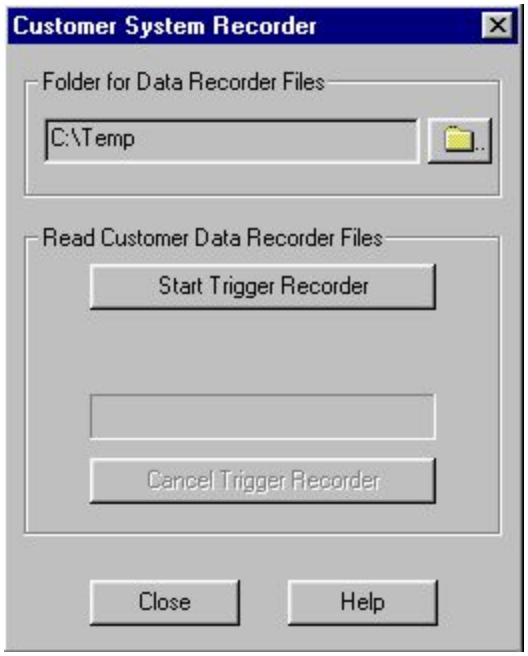


Trigger Recorder

The Customer System Recorder Button is only available with Password

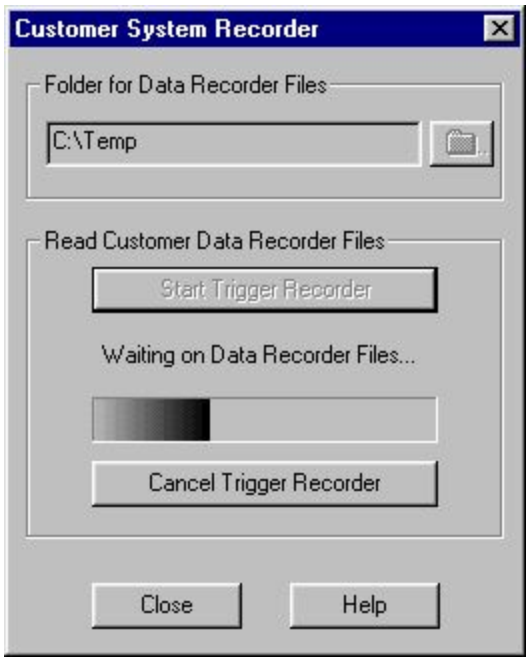


permits recording of operating states and creation of a system data file manually by means of a defined trigger and subsequent storing on the hard disc in the previously set up directory.



Storing the System Recorder

After the trigger has respondend one file each of the main and voltage converter is stored on the Flash-RAM one after the other.

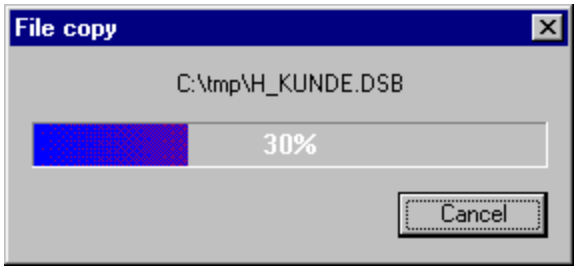


Copying the System recorders

After that the data files are copied into the

- H_customer.dsb and the

- S_customer.dsb.

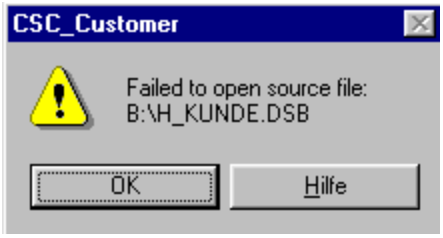


In case of a new trigger event the previous files are written over!

If a "Data Visualizer" is also installed , it will open automatically and the values can be analysed immediately.

Error at copy the Trigger file

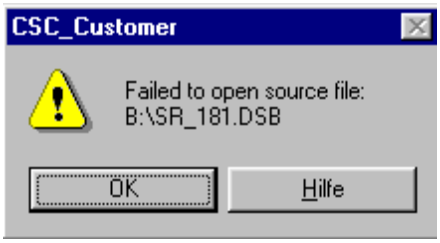
After activating the Customer trigger (= external Trigger) the following Error message may appear,



The cause may be:

- File: H_Kunde.dsb isn't stored and not available.
- Memory Card is missing.
- The Memory Card was exchanged and must be formated newly.

The same Error message is received, if the Event Recorder is read out and a special trigger file is to be copied by a double click, in this example: SR_181.dsb. The file is not available and the following Error message is indicated:



Error at Trigger

May be indicated if

- The defined trigger was started off more then once *in a short time*.
  Please wait for storing to be completed (approx. 1minute), before starting a new trigger.
- Communication is interrupted.

Event Recorder

The Event Recorder Button,

serves to read out events from the temporary memory.

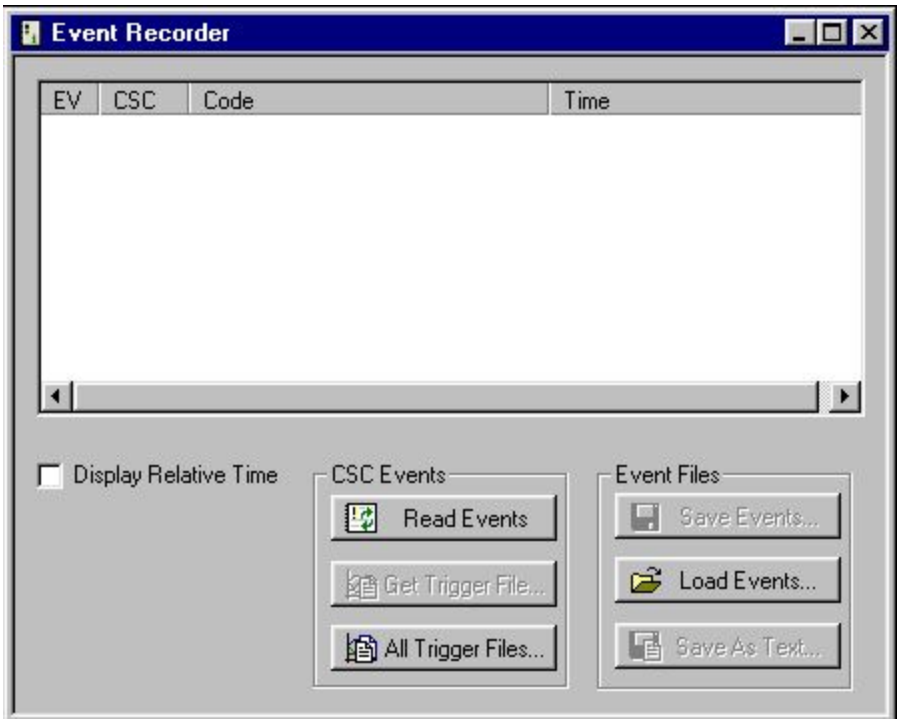
There are two possibilities

- Without password

  There is the possibility of viewing previously stored event files without being connected to the system.
- With password

  Before a current event list from the CSC´c can be read, the password must be entered.

  After that the >>Read Events<< button is available.



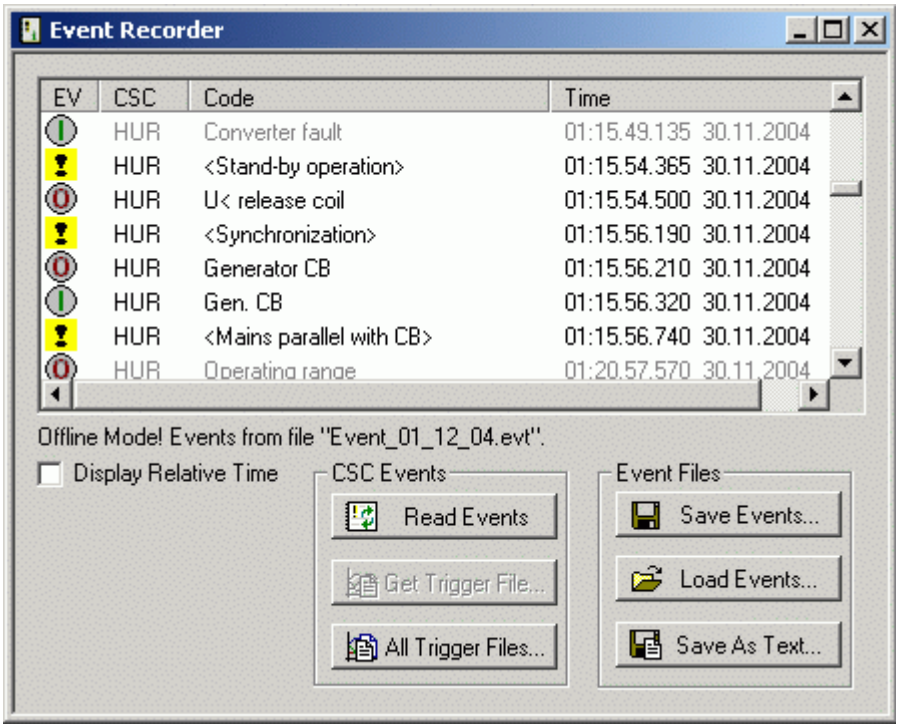
The data read-out is started with >> Read Events


Reading event recorders
Cancel

Reading-out the Event Recorder

When reading out the Event Recorder has been completed , the following list is displayed:

- Event type,
- CSC type,
- name of the event type (must be inserted between "CSC" and "Code"),
- event coding,
- event time and date.



Interpretation of the Event Recorder

The events can be displayed as:

ON = normal or

OFF = inverse

Types of events:

 INPUT

 OUTPUT

 ERROR

 PLC-Status

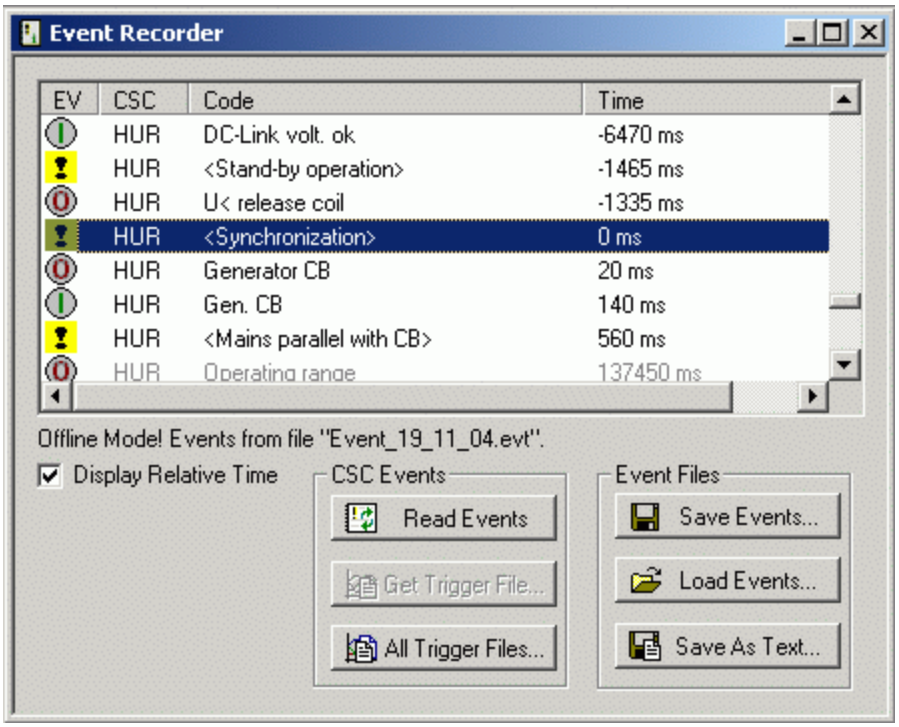
 Data Recorder Trigger

[empty] Miscellaneous

 CMX inquiry

Relative Event time

Activating of the display >>Display Relative Time<< switches the time display over to [ms].
Then an important event is selected by clicking (marking) which should have the starting point "0 ms".

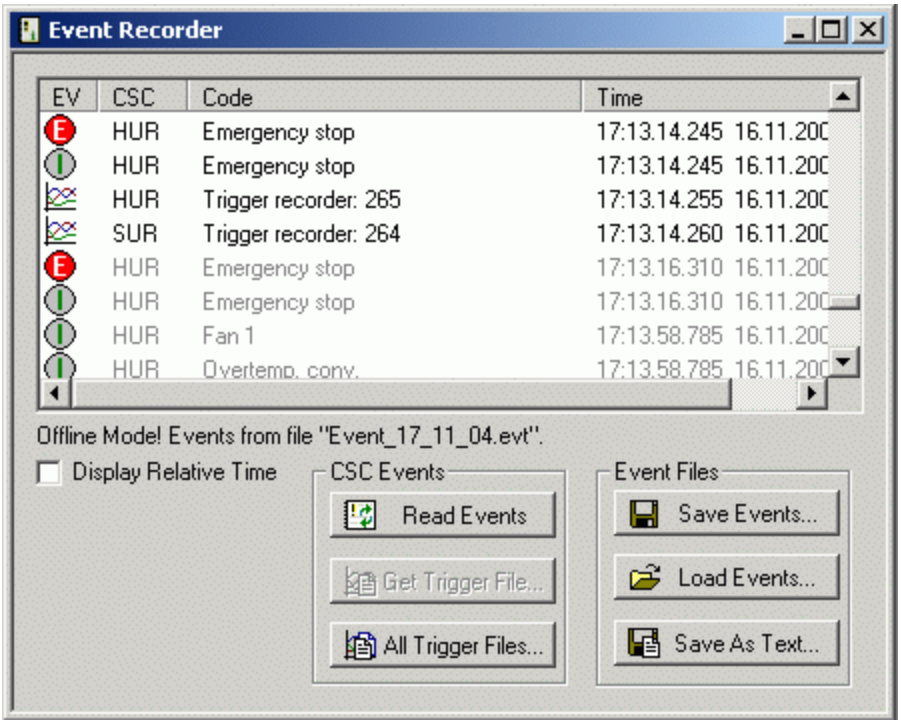


A new "relative" time axis is prepared of this event and this makes it easier to recognise the previous and subsequent events in the time process.
If another event is clicked, it is given the value "0 ms" and a new time axis, which is adapted accordingly.

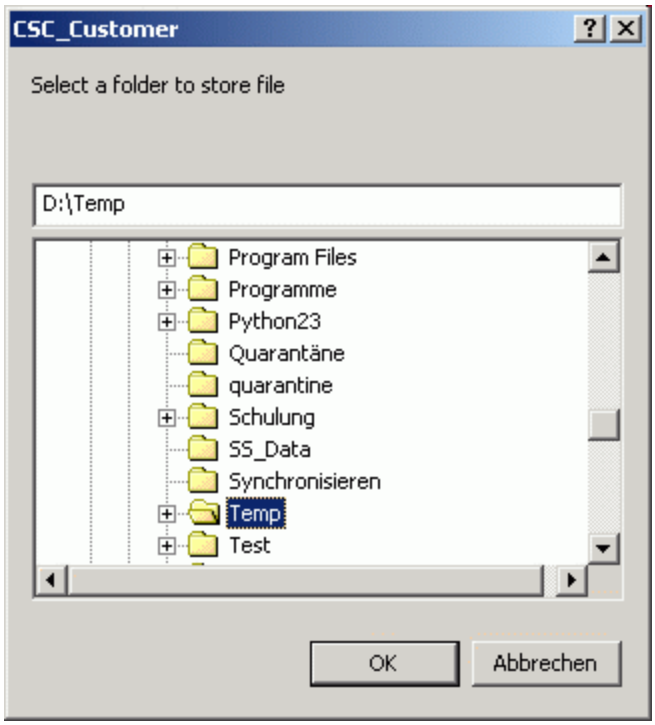
With >>Save Events<< or >>Load Events the event list can be read in retrospect.

Reading-out the Trigger file direct from Event Recorder

If an event represents triggering of the Data Recorder, for example,
- *a double click* on the entry or
- with the Button >> *Get Trigger File*<< will transfer the file to the PC.



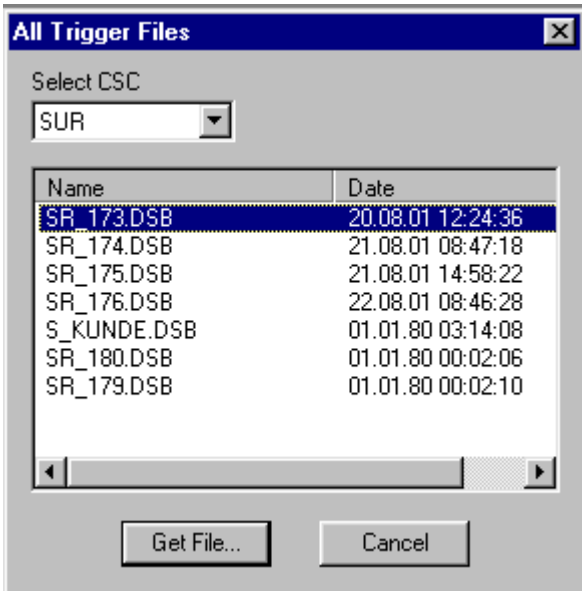
At the same time the explorer opens and permits selection of the folder in which the file is to be stored.



Here, too, the DataVisualizer permits subsequent evaluation of the file.

Copying the Trigger files from Memory Card

Extra possibility to copy the Trigger files from Memory-Card
is with Button >> *All Trigger Files* << which opens folloing window



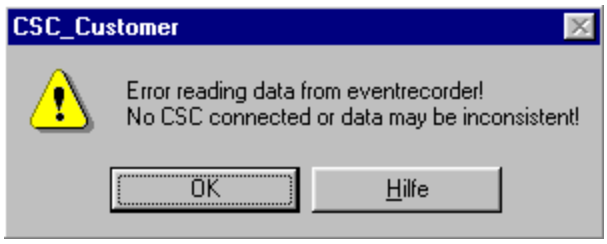
if the required file is marked the Button >> *Get File* << Button active.
And then can copy.

Any number of files can be marked and copied on the PC.

Error in reading-out the Event Recorder

Reading the event recorder by Pushing Button >> Read Events <<

the following Error message may occur:

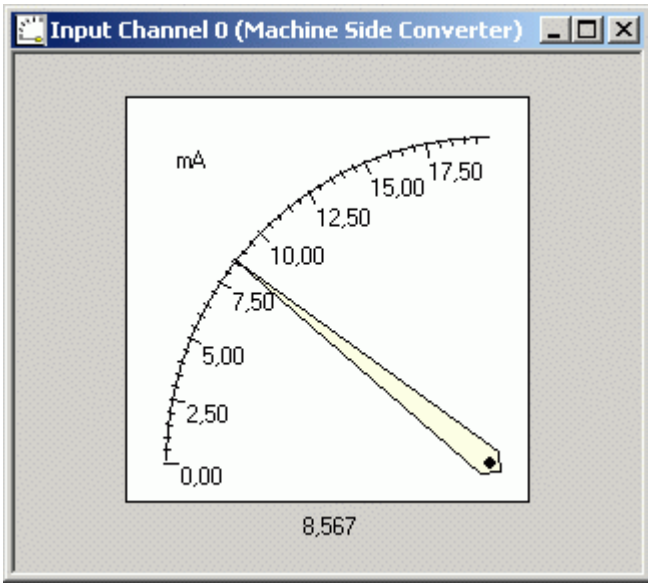


Reason could be:

- Communication has been interrupted.
- Data impossible to read and cannot be read out.

Display 0.. 20mA Inputs / Outputs

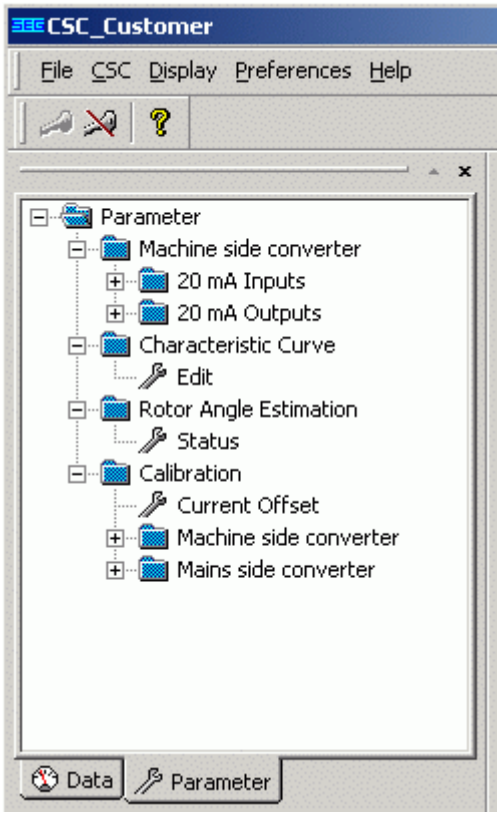
This is the display at 0.. 20mA Input /Outputs after the calibration.



Edit Parameter

The second frame: **Parameter**,
which is only available with password,

permits defined changing of parameters within specified limit values.

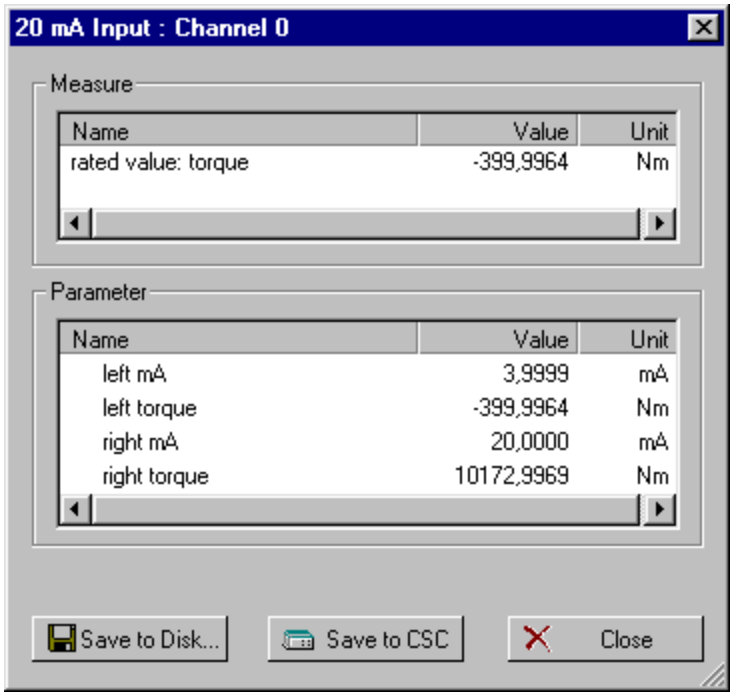


If this function is selected, **the other functions are not available**, i.e. not selectable.

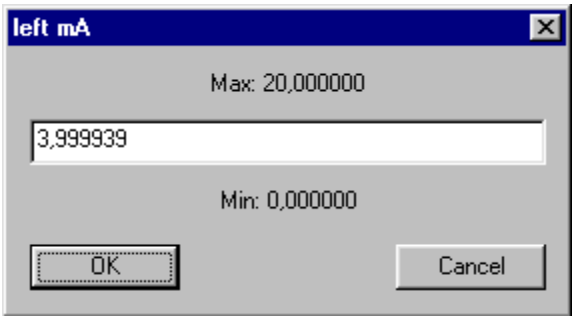
Editing the parameters

The customer-dependent parameters must be separately edited for the 20mA inputs and outputs.

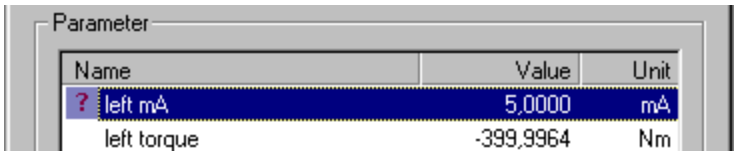
If the Login is not possible, the following window cannot be opened either.



By means of a double click on a parameter it is possible to enter a new value between limit values.

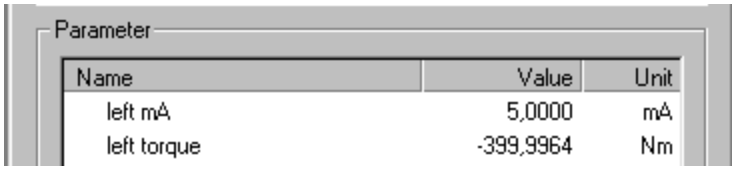


A changed value which has not yet been played back to the CSC will be marked with a question mark.


Parameter
Name
Value
Unit
left mA
5,0000
mA
left torque
-399,9964
Nm

Saving parameters

Only after **>>Save to CSC<<** has been clicked the new value will be transfered to the CSC and activated in the control system.
After transfer of the values the question mark is reset.



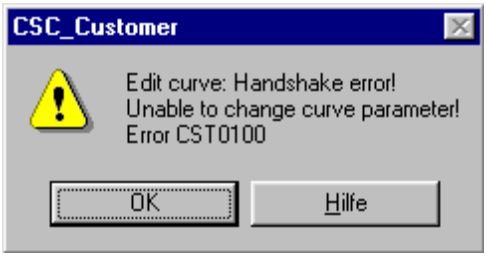
Error messages with edit parameter

Here can be called different error messages with the designation CSTnnnn, which are to due all to the same error causes.

The following is to be controlled:
A) If connected with modem, the user must be sure, that he's the single user!
B) To edit parameter is inserted an additional security, which presupposes the following:

- The key must set to AUTO.
- The active status on CMW – must fixed by NO.

The Communication is interrupted during edit parameter: then you get the handshake error:



Or, there is a problem to save the parameter.

Note:
It the connecting is unbroken during the login , the next login is possible after 50sec! The CSC will provide a logout automatically after this time.

Calibration of the mA interfaces

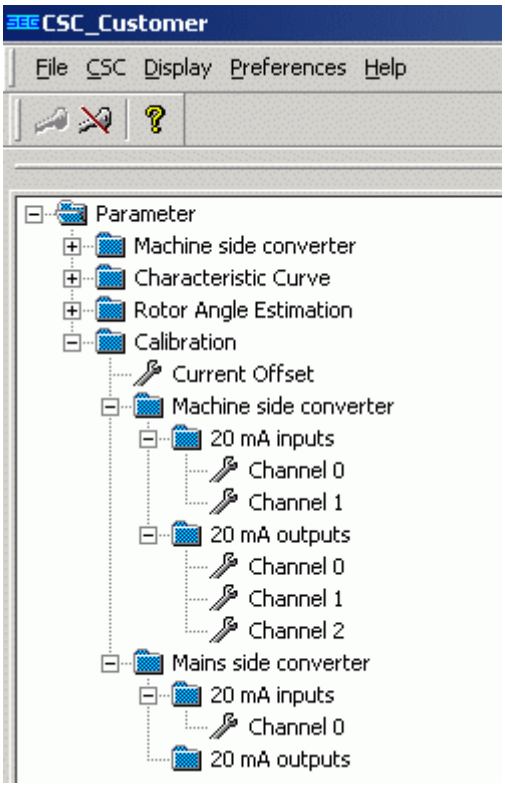
Criterion for calibrating the mA interfaces:

· is the software and hardware version of the CSC

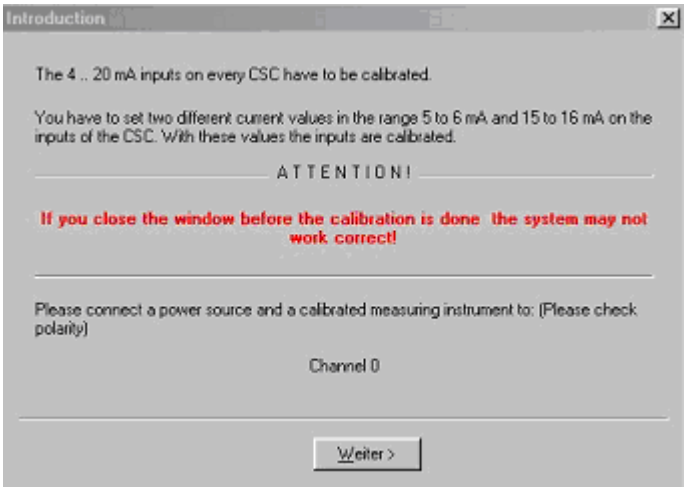
General rule: after exchange of the CSC in systems with **software version < 3.7.0** and therefore also **devices stating < change 18a**., the mA interfaces have to be calibrated.

The procedure is as follows:

Step 1: The nodes **„Calibration“** at the parameter side are extended :

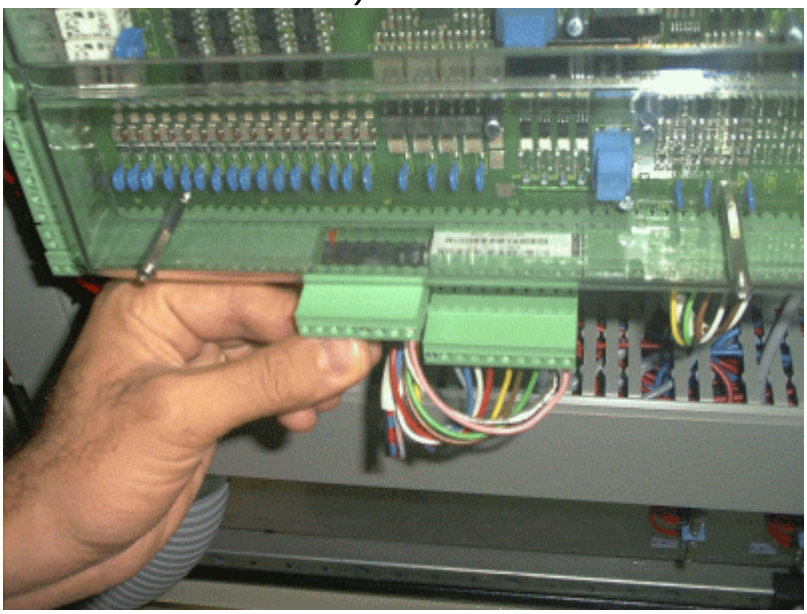


Step 2: The relevant interface is opened by double click on the related folder symbol. The warning note outlined in the following start window must be strictly adhered to!

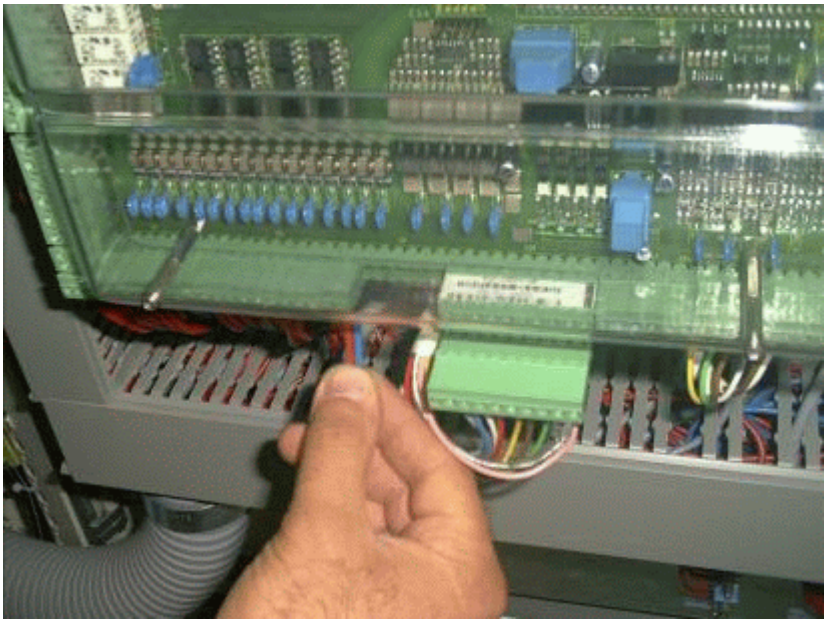


Calibration is carried out on the CSC-HU or CSC-SU.
For this purpose a calibrating facility (mA-transmitter is installed at the relevant interface (see photographs). The calibrating facility must have an accuracy of at least 0.5%

Step 3 : The contact plug of the relevant CSC interface (here X1:21-28) has to be removed.

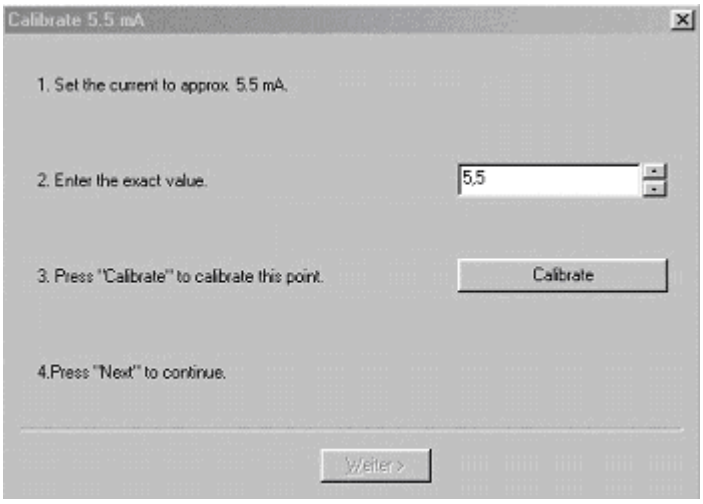


Step 4 : Contacts "I_in" and "GNDx" are led to the mA transmitter via a terminal with a sufficiently long connecting lead.



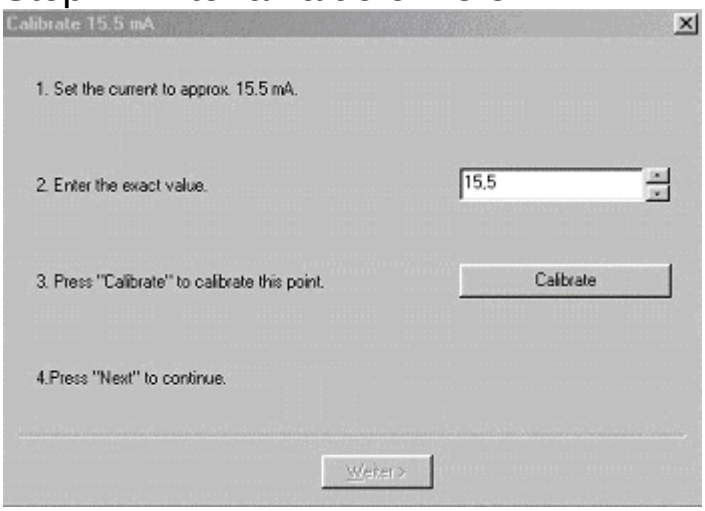
Step 5: By clicking the <Next> button in the start window one continues to an edit box and here the user is asked to preset different mA values.

Step 6: First a constant current of 5.5mA is preset via the mA transmitter. Under item 2 in the dialogue box the value 5.5 is entered and acknowledged with <Calibrate>.

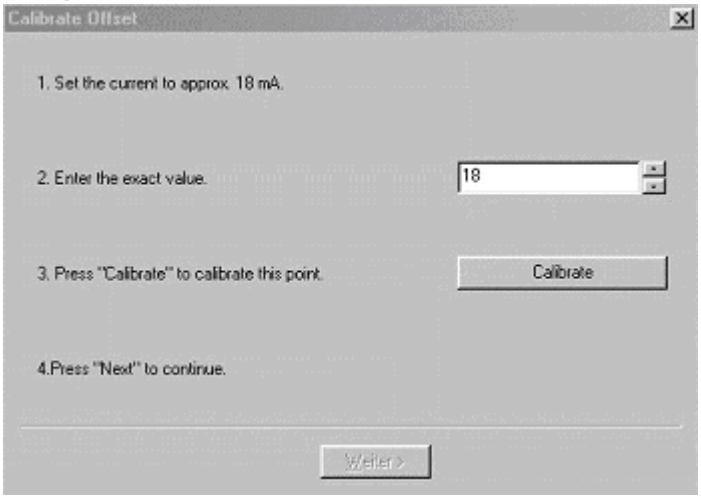


The following steps are repeated and each time a higher value has to be stated.

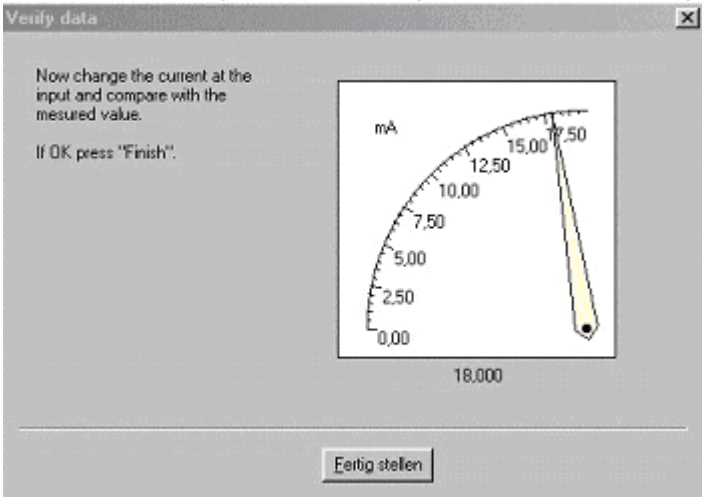
Step 7: Enter a value of 15.5 mA.



Step 8: Enter a value of 18 mA.



After all calibrating steps have been carried out, finally the dialogue box "Verify Data" is opened. For checking purposes the user can now enter any value, ranging between 0 to 20mA. The adjusted value at the mA transmitter has to tally exactly with the value shown on the simulated analogue display. A tolerance of <3% with regard to the preset value is permissible.



The calibrating process is completed by clicking the <Finish> button.

Due to the signal delay times it is possible that changes at the mA transmitter are shown on the simulated analogue display with slight delay.

Notes:

There is no calibration required for systems with a CANopen interface.

By pressures of the Button <Calibrate< the system status is read again and only with stop of the Concycle Wind System<span lang="EN-US" style="mso-bidi-font-size:9.0pt;font-family:Arial;color:black;

mso-ansi-language:EN-US"> <span lang="EN-US" style="font-family:Arial;

mso-ansi-language:EN-US">the calibration is accomplished. <o:p> </o:p>

If the Concycle Wind System<span lang="EN-US" style="mso-bidi-font-size:9.0pt;font-family:Arial;color:black;

mso-ansi-language:EN-US"> <span lang="EN-US" style="font-family:Arial;

mso-ansi-language:EN-US">is not in the mode stop, calibrating is not possible. The following window is indicated:<o:p></o:p>

<!--[if gte vml 1]><v:shape id="_x0000_i1026" type="#_x0000_t75"

style='width:199.5pt;height:89.25pt'>

<v:imagedata src="./Offsetabgleich-Dateien/image002.gif" o:title=""/>

</v:shape><![endif]--><!--[if !vml]--><!--[endif]-->
<o:p></o:p>

<!--[if !supportEmptyParas]--> <!--[endif]--> <o:p></o:p>

The Concycle Wind System<span lang="EN-US" style="mso-bidi-font-size:9.0pt;font-family:Arial;color:black;

mso-ansi-language:EN-US"> <span lang="EN-US" style="font-family:Arial;

mso-ansi-language:EN-US">is in the stop, the calibration of the L<span lang="EN-US" style="mso-bidi-font-size:9.0pt;font-family:Arial;color:black;

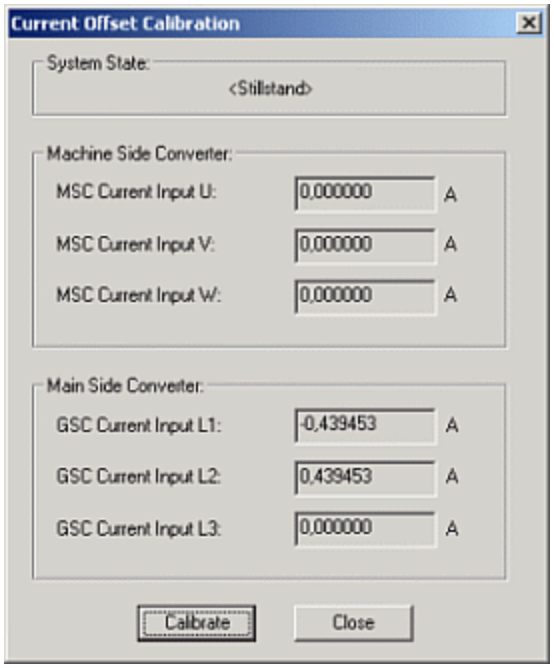
mso-ansi-language:EN-US">SC Current Input and the MSC Current Input is then accomplished <o:p></o:p>

That is called it all 3 offsets around zero set. <o:p></o:p>

And with minus sign as offset registered in the

respective parameters. (Visible with the Mastertool only).<o:p> </o:p>

Varying the measurement does not make possible always that all values are set accurately to zero, e.g.:

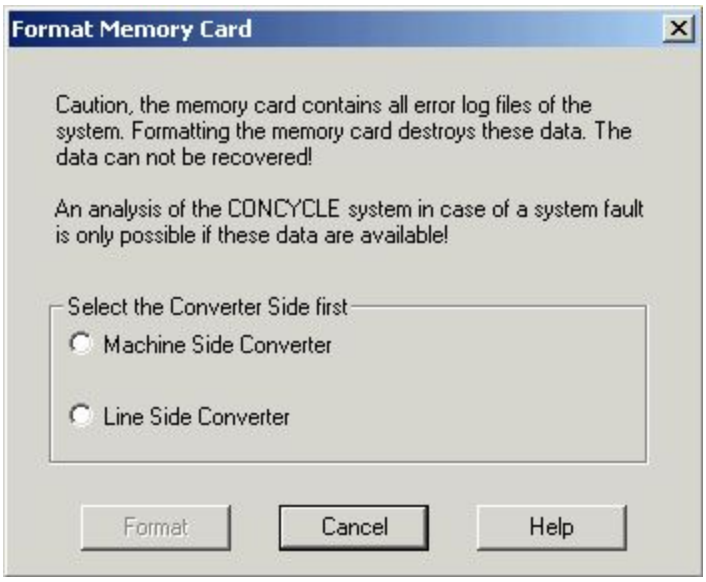


Deviations **< 1%** of the nominal current do not need any corrective action. I.e., a calibration is not necessary.

Format the MEMORY Card

In every Concycle Wind System (MSC and LSC) there is a MEMORY

card. If no new breakdown data files (*.dsb) can be stored, or if there are defective files or sectors on the MEMORY Card, there is the possibility of formatting these after further inquiry with our SEG service.
ATTENTION:
Before formatting is carried out, one should make sure - whether any files still need to be secured! In that case the files should be copied from the menu tree Event Recorder on the PC **beforehand** with the Button "All Trigger Files".



CST0111: no communication or wrong mapping

Is no data communication present, or a wrong mapping is adjusted in the SEG_Comm_Dispatcher, one receives this error message:

CST0112: other sources of error

This general error message is called, if formatting cannot be accomplished. That can be different causes, e.g. the MEMORY Card is locked by the writing protection. Or no MEMORY Card is in or this is not correctly put.

Copy the configuration files

NOTE: Please use only configuration files delivered by SEG. If the original files are not used, it may be possible that the Concycle Wind System cannot reboot.

The customer is put into the position to copy the SEG supplied configuration files to the CSC's. It is to be made certain that the configuration files for the MSC and the LSC can be copied **only with the same version number**.

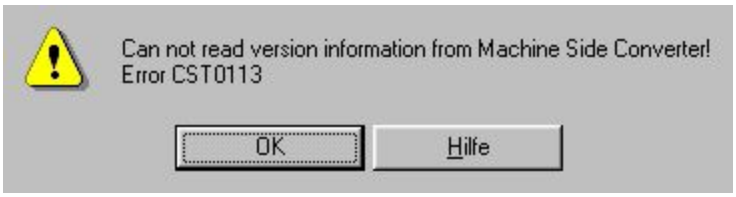
After opening the files the file information will be displayed:
1. Concycle Wind System type (not shown if the file is a language file)
2. Software-Version
3. Converter type
4. System-Modification. (not shown if the file is a *.csi file)
5. File - Version.
If these data are not identical and/or if data are missing, error messages are generated.

The minimum requirement to copy configuration files is a software version V3.7.10 or higher.
The minimum requirement to copy language files is a software version V4.0.19 (MSC

and LSC) and V1.4.6 (CMW) respectively.

CST0113: (still) no communication or Software-Version does not support configuration files

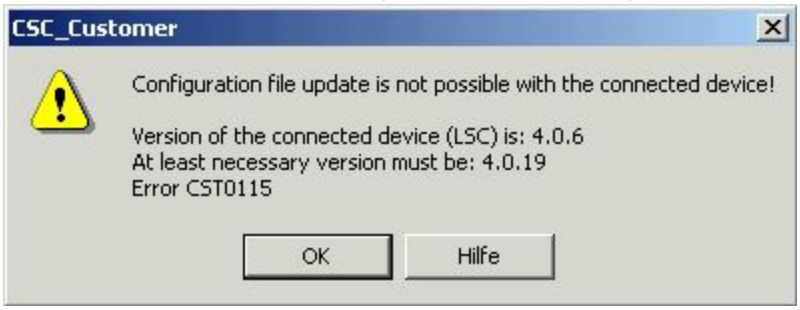
The configuration files are used only with version V3.7.10 in the Concycle - system. Therefore it is necessary to check the software-version. That means, all Concycle Wind System those the software versions < = V3.7.0 have, cannot be configured in this way and shown this error message:



Note: If no communication is present and/or if the Concycle Wind System did not loaded yet finished, one receives the same error message.

CST0115: Software-Version does not support any configuration files

In the Concycle - System configuration files are only used as from version V3.7.10 regarding config-files and from version V4.0.19 regarding language-files. Therefore it is necessary to check or call up the software-version. That means, all Concycle Wind Systems with the software versions >= V3.7.0 and < = V3.7.9 for config-files or < V4.0.19 for language-files cannot be configured in this way and will show the following error message:



CST0116: Invalid section to file info - version

The configuration file has incomplete and/or wrong data in the section of the file information. If not explainable, please contact the service department.

CST0117: Invalid section to the End - Equipment

When opening the file, the wrong configuration file was possibly selected. Maybe, instead of the MSC the LSC file was opened or vice versa. If not explainable, please contact the service department

CST0118: Invalid section to file info

The configuration file has incomplete and/or wrong data in the section of the file information. If not explainable, please contact the service department.

CST0119: Invalid section to the INI file - version

The configuration file has incomplete or wrong data in the section of the file information. If not explainable, please contact the service department.

CST0120: Error during transmission

An error has occurred during the transmission of the configuration files. That may have different causes (writing protection of the file is set e.g.). A further cause may be that communication is interrupted. In this case one receives the same error message. If this error occurs due to a bad communication, please do not reboot the CSC’s! Wait for approx. 2 minutes and try to copy the configuration files again.

CST0121: Version numbers of Concycle Wind System and configuration file are different

The version number of the software which is located in the configuration file of the MSC is not identical to the version number which is in the connected Concycle Wind System. If not explainable, please contact the service department.

CST0122: Software-version numbers in the configuration files are different.

It is absolutely essential that the version information in the configuration file of the MSC is identical to the version information of the LSC.

Additionally when copying language-files the file version and the language of the file for the CMW have to match the values from the CSC’s. If not explainable, please contact the SEG service department.

CST0123: The softwareversion of the CMW could not be determined

There are two circumstances under which this error-message can appear.

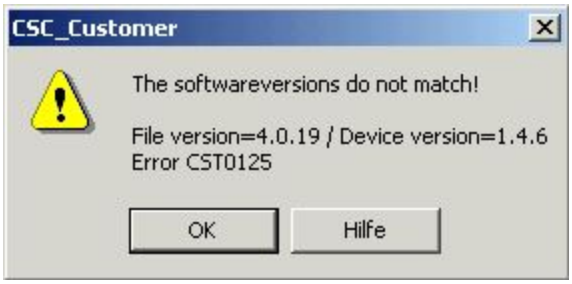
Ether the communication is bad or the softwareversion of the CMW does not support language-files. In the Concycle - System language files are only used as from version V4.0.19. Therefore it is necessary to check or call up the software-version. That means, all Concycle Wind Systems with the software versions < V4.0.19 cannot be configured in this way and will show this error message.

CST0124: Copy-process could not be started

This error can be caused by several circumstances. One possible cause may be that there is not enough memory available. If this problem remains after a retry please contact the SEG service.

CST0125: Version numbers of Concycle Wind System and language file are different

The version number of the language file does not match the version number of the software installed in the connected Concycle Wind System. The corresponding window is shown in the following picture. If not explainable, please contact the SEG service department.



CST0126: Invalid section to the End - Equipment

When opening the file, the wrong language file was possibly selected. Maybe, instead of the MSC the LSC file was opened or vice versa. If not explainable, please contact the SEG service department.

Error-Handling

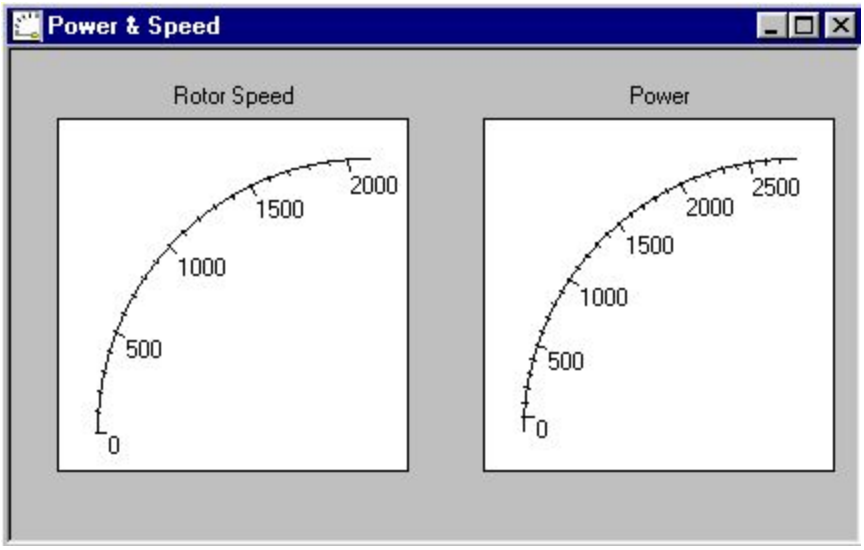
If the communication chain has been interrupted or a communication part has failed,

the fault messages are displayed in the output window.

Values that cannot be read are not displayed.

e.g.:

no hand in the power display



Trouble - shooting
If no communication is possible although all technical conditions are fulfilled, we recommend:
1. to login newly via the SEG_SerialServer with "Disconnect" and then "Connect"2. if that is not successful, to close the complete tool chain, i.e. in the following order:
1. CSC_Custumer ->2. SEG_Comm_Dispatcher -> 3. SEG_Serial_Server
and to then start again.

Dongle error: HASP not found.

Application is protected by a hardware Dongle. The Dongle must be attached to a parrallel or usb port of the PC.

If this error arises, simply attach a permissible Dongle and operate a "repeat" Button again to check whether a Dongel is present.

Dongle error: "HASP Status" failed.

When starting a dongle-protected application and this error arises with information "A HASP with specified passwords was not found (-3)",

this points to a defective Dongle.

Error when connecting with SEG_SerialServer

If the SEG_SerialServer cannot be connected by means of a serial cable at the CMW, then the following must be checked:

- If the serial cable is connected to the outside of the CMW,
  the modem cable in the Control cabinet must be taken off!

Error upon Login with SEG_ModemServer

If the SEG_ModemServer cannot login,

then the following must be checked:

- If you read in the Login frame this message: "You may not connect to this target", then check the Dongle is used.
- For the modem connection the provided modem cable must be plugged in the control cabinet at the CMW.
- And the serial cable must be taken off .

CMW-Message **: M1 = L1: Hardware protection**

Release (SPS - internal) :
1. CSC initialization must be finished
2. CSC self-test C167 must be finished
3. CSC self-test DSP must be finished **First check for trouble clearance (SEG or authorized partner) :**
Check of the hardware **First check for trouble clearance (by SEG trained customer) :**
not possible **First check for trouble clearance (not trained customer) :**
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M2 = L2: IGBT over-load**

Release (SPS - internal) :
light error from IGBT power section **First check for trouble clearance (SEG or authorized partner) :**
1. Check if failure isn´t finished
2. Check of the hardware-section
3. Check of the overload from the IGBT power section; Check short circuits from the electrical connections
4. If necessary insulation measurement of the stator (at diconnected IGBT-power section)
5. Insulation measurement of the power-section (at disconnected rotor)
6. Check of the IGBT´s

First check for trouble clearance (by SEG trained customer) :
1. Check if failure isn´t finished
2. Check of the hardware-section
3. Check of the overload from the IGBT power section; Check short circuits from the electrical connections
4. If necessary insulation measurement of the stator (at diconnected IGBT-power section)
5. Insulation measurement of the power-section (at disconnected rotor)
6. Check of the IGBT´s

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M3: LSC fault via fibre optic**

Release (SPS - internal)
1. light error form IGBT power section (LSC)
2. light failure from MS3

First check for trouble clearance (SEG or authorized partner) :
1. Check if failure isn´t finished
2. Check of the hardware-section
3. Check of the overload from the IGBT power section; Check short circuits from the electrical connections
4. If necessary insulation measurement of the stator (at disconnected IGBT-power section)
5. Insulation measurement of the power-section (at disconnected rotor)
6. Check of the IGBT´s

First check for trouble clearance (by SEG trained customer) :
1. Check if failure isn´t finished
2. Check of the hardware-section
3. Check of the overload from the IGBT power section; Check short circuits from the electrical connections
4. If necessary insulation measurement of the stator (at disconnected IGBT-power section)
5. Insulation measurement of the power-section (at disconnected rotor)
6. Check of the IGBT´s

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M4 = L4: Parameter not valid**

Release (SPS - internal) :
no valid set of parameter on the flashdisk **First check for trouble clearance (SEG or authorized partner) :**
load the valid set of parameters **First check for trouble clearance (by SEG trained customer) :**
not possible **First check for trouble clearance (not trained customer) :**
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M5 = L5: Commissioning missing**

Release (SPS - internal) :
1. Wrong phase sequence stator
2. Wrong phase sequence rotor
3. Rotor short circuit at the inrush current
4. Mains voltage converter is connected wrong
5. Generator voltage converter is connected wrong
6. Geno voltage angle unequal 90° -> position encoder wrong trimed
7. Commissioning not complett **First check for trouble clearance (SEG or authorized partner) :**
Check of the points 1-7

First check for trouble clearance (by SEG trained customer) :
Check of the points 1-7

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
NO

CMW-Message : **M6: Safety chain stop**

Release (SPS - internal) :
1. Emergency off loop is open **First check for trouble clearance (SEG or authorized partner) :**
Close the safety ring line **First check for trouble clearance (by SEG trained customer) :**
Close the safety ring line **First check for trouble clearance (not trained customer) :**
Close the safety ring line **SEG - service in warranted case urgent necessary :**
NO

CMW-Message : **M7: Gen. CB I> | I>>**

Release (SPS - internal)

1.Circuit breaker has tripped with overvoltage **First check for trouble clearance (SEG or authorized partner) :**

1. Overload: check of the power curve from the WTC
2. Short circuit:

Check of the overload from the IGBT-power section;

Check on short circuit from the electrical connection

3. Note the manintance instruction from the circuit breaker **First check for trouble clearance (by SEG trained customer) :**

1. Overload: check of the power curve from the WTC
2. Short circuit:

Check of the overload from the IGBT-power section;

Check on short circuit from the electrical connection

3. Note the manintance instruction from the circuit breaker **First check for trouble clearance (not trained customer) :**

Overload: check of the power curve from the WTC

SEG - service in warranted case urgent necessary :

NO

CMW-Message : **M8: Excitation fault**

Release (SPS - internal) :
1. Attend to Zk-priming charger timeout
2. Voltage setpoint phase sequence check not reached
3. Voltage scheduled value U-Gen not reached
4. Attend to B6-charge:timeout
5. Zk-rated voltage not reached
6. Generator rated frequency not reached **First check for trouble clearance (SEG or authorized partner) :**
Check of point 1-6

First check for trouble clearance (by SEG trained customer) :
Check of point 1-6

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M9: Synchronizing fault**

Release (SPS - internal) :
System is not synchronous (after timeout of the synchronous time)
First check for trouble clearance (SEG or authorized partner) :
1. Check of the stator filter capacitor
2. Check of the IGBT-current curve; check the selection from the hardware
3. Check IGBT´s
4. Check of the generator vector angle; Check the parameter form the vectorcheck

First check for trouble clearance (by SEG trained customer) :
1. Check of the stator filter capacitor
2. Check of the IGBT-current curve; check the selection from the hardware
3. Check IGBT´s

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary : Yes**

CMW-Meldung : **M10: Gen.**

C.B. Fault

Release (SPS - internal) :
Switch feedback of the Gen. C.B. did not come after adjusted waiting period.

First check for trouble clearance (SEG or authorized partner) :
1. Check of the wiring and control
2. Switching cycle number take up **First check for trouble clearance (by SEG trained customer) :**
1. Check of the wiring and control
2. Switching cycle number take up

First check for trouble clearance (not trained customer) :
Switching cycle number take up **SEG - service in warranted case urgent necessary :**
YES = at SEG-LV
NO =

at other LV

CMW-Meldung : **M11: Rotor line-to-earth**

Release (SPS - internal) :
A Rotor line-to-earth arose.

First check for trouble clearance (SEG or authorized partner) :
1. Check of the hardware - control
2. Check of the overloading of the IGBT power stack
3. Check for short-circuits of the electrical connections
4. Isolation measurement of the rotor side (with clamped IGBT power stack)
5. Isolation measurement of the power stack (with clamped rotor)
6. Check of the IGBT's

First check for trouble clearance (by SEG trained customer) :
1. Check of the hardware - control
2. Check of the overloading of the IGBT power stack
3. Check for short-circuits of the electrical connections
4. Isolation measurement of the rotor side (with clamped IGBT power stack)
5. Isolation measurement of the power stack (with clamped rotor)
6. Check of the IGBT's

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
YES

CMW-Message : **M12: LSC C.B. fault**

Release (SPS - internal) :
CB response is not coming after the adjusted delay time

First check for trouble clearance (SEG or authorized partner) :
1. Check of the wiring and the selection
2. Pick up the operation cycle number **First check for trouble clearance (by SEG trained customer) :**
1. Check of the wiring and the selection
2. Pick up the operation cycle number **First check for trouble clearance (not trained customer) :**
Pick up the operation cycle number **SEG - service in warranted case urgent necessary :**
Yes at SEG – LV, no at other suppliers

CMW-Meldung : **M13: External Fieldbus**

Release (SPS - internal) :
CAN bus failed à field bus for superordinate control

First check for trouble clearance (SEG or authorized partner) :
Control of the field bus connection (external) **First check for trouble clearance (by SEG trained customer) :**
Control of the field bus connection (external)

First check for trouble clearance (not trained customer) :
Control of the field bus connection (external)

SEG - service in warranted case urgent necessary :
NO

CMW-Message : **M14: DC-Link-voltage-low**

Release (SPS - internal) :
Digital HU- input "rated voltage dc-link"

switched off, even though the HU-output "SU-rated voltage is set
First check for trouble clearance (SEG or authorized partner) :
Hardware- and parametercheck at the CSC-SU

First check for trouble clearance (by SEG trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Meldung : **M15: I MSC offset**

Release (SPS - internal) :
Maximally permissible DC offset in the MSC current measurement is exceeded.

First check for trouble clearance (SEG or authorized partner) :
Check **First check for trouble clearance (by SEG trained customer) :**
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

CMW-Message : **M16: Stator voltage**

Release (SPS - internal) :
Tripping at overvoltage value of the rough internal protection:U_Gen_max
Tripping at fall below the rough internal protection:U_Gen_min **First check for trouble clearance (SEG or authorized partner) :**
Hardware - and parametercheck **First check for trouble clearance (by SEG trained customer) :**
not possible **First check for trouble clearance (not trained customer) :**
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M17: Stator current fault**

Release (SPS - internal) :
Tripping at exceed the rough internal protection: I_Gen_max

First check for trouble clearance (SEG or authorized partner) :
Overload: check the power curve from the WKA **First check for trouble clearance (by SEG trained customer) :**
Overload: check the power curve from the WKA **First check for trouble clearance (not trained customer) :**
Overload: check the power curve from the WKA **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M18: Mains current fault**

Release (SPS - internal) :
Tripping at exceed the roug internal protection: I_Net_max

First check for trouble clearance (SEG or authorized partner) :
Overload: check the power curve from the WTC

First check for trouble clearance (by SEG trained customer) :
Overload: check the power curve from the WTC

First check for trouble clearance (not trained customer) :
Overload: check the power curve from the WTC

SEG - service in warranted case urgent necessary :
Yes

CMW-Message : **M19: WTC release missing**

Release (SPS - internal) :
24V at the digital input WTC-status are not fixed

First check for trouble clearance (SEG or authorized partner) :
1. Check WTC- output of the WTC
2. Check of wiring till the CSC-HU
3. Check input of the CSC-HU

First check for trouble clearance (by SEG trained customer) :
1. Check WTC- output of the WTC
2. Check of wiring till the CSC-HU
3. Check input of the CSC-HU

First check for trouble clearance (not trained customer) :
Check WTC- output of the WTC

SEG - service in warranted case urgent necessary :
NO

CMW-Message : **M20: Overtemperature**

Release (SPS - internal) :
Digital input overtemperatur 1+2

First check for trouble clearance (SEG or authorized partner) :
1. Heat sink system o.k.?
2. Environmentle conditions ok?
3. Overload: Check of the power curve from the WTC

First check for trouble clearance (by SEG trained customer) :
1. Heat sink system o.k.?
2. Environmentle conditions ok?
3. Overload: Check of the power curve from the WTC

First check for trouble clearance (not trained customer) :
1. Heat sink system o.k.?
2. Environmentle conditions ok?
3. Overload: Check of the power curve from the WTC

SEG - service in warranted case urgent necessary :
NO

CMW-Meldung : **M21: Preliminary CB tripped**

Release (SPS - internal) :
That the Concycle system preliminary switches has and/or was released (protection).

First check for trouble clearance (SEG or authorized partner) :
Check **First check for trouble clearance (by SEG trained customer) :**
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

CMW-Meldung : **M22: Stator contactor**

Release (SPS - internal) :
Switch feedback of the Gen. C.B. did not come after adjusted waiting period.

First check for trouble clearance (SEG or authorized partner) :
1. Check of the wiring and control
2. Switching cycle number take up

First check for trouble clearance (by SEG trained customer) :
1. Check of the wiring and control
2. Switching cycle number take up

First check for trouble clearance (not trained customer) :
Switching cycle number take up **SEG - service in warranted case urgent necessary :**
YES = at SEG-LV
NO =

at other LV

CMW-Message : **M23: LSC fault via relais**

Release (SPS - internal) :
1. Digital input CSC-SU failure
2. Message over CAN-Bus
3. following failures at the CSC-SU run to a general CSC-SU failure
-Input voltage fault
-DC-link-over voltage
-DC-link-under voltage
-Input

current failure
-IGBT-over temperature
-Commissioning is missing

First check for trouble clearance (SEG or authorized partner) :
1.see detailed information at the CMW-SU
2. Hardware- and parameter check at the SU

First check for trouble clearance (by SEG trained customer) :
1. see detailed information at the CMW-SU
2. Hardware- and parameter check at the SU

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **M24: Ringline shut down**

Release (SPS - internal) :
digital input "ringline shut down" missing

First check for trouble clearance (SEG or authorized partner) :
1. Check of the fuses and protective circuit breaker according to the circuit diagram
2. Check inlet CSC-HU
3. If necessary current measurement
4. Check the adjustment

First check for trouble clearance (by SEG trained customer) :
1. Check of the fuses and protective circuit breaker according to the circuit diagram
2. Check inlet CSC-HU
3. If necessary current measurement
4. Check the adjustment

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
NO

CMW-Message : **M25: Ringline alarm**

Release (SPS - internal) :
digital input "ringline warning" missing **First check for trouble clearance (SEG or authorized partner) :**
1. Check of the fuses and protective circuit breaker according to the circuit diagram
2. Check inlet CSC-HU
3. If necessary current measurement
4. Check the adjustment

First check for trouble clearance (by SEG trained customer) :
1. Check of the fuses and protective circuit breaker according to the circuit diagram
2. Check inlet CSC-HU
3. If necessary current measurement
4. Check the adjustment

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary : NO**

Message : **M26: mA cable protection**

Release (SPS - internal) :

1. break down of a 4-20mA input of the CSC-HU from customer
2. Input of CSC-HU is defect
3. Output of Customer control unit is damaged **First check for trouble clearance (SEG or authorized partner) :**

1. Check mA-output from the WTC
2. Wiring check till the CSC-HU
3. Check input from CSC-HU

First check for trouble clearance (by SEG trained customer) :

1. Check mA-output from the WTC
2. Wiring check till the CSC-HU
3. Check input from CSC-HU

First check for trouble clearance (not trained customer) :

Check mA-output from the WTC

SEG - service in warranted case urgent necessary :

NO

CMW-Message : **M27: Pickup warning**

Release (SPS - internal) :
The signal from the position encoder is missing over a certain period -> Warning

First check for trouble clearance (SEG or authorized partner) :
check of the true running (see technical data) **First check for trouble clearance (by SEG trained customer) :**
check of the true running (see technical data) **First check for trouble clearance (not trained customer) :**
check of the true running (see technical data) **SEG - service in warranted case urgent necessary :**
NO

CMW-Message :**M28: Pickup fault**

Release (SPS - internal) :
Some signals from the position encoder are missing over a certain period-> shut down **First check for trouble clearance (SEG or authorized partner) :**
1. Check of the true running (technical data)
2. Measurement of the tracks (A/B/N)
3. Check the wiring between position encoder and CSC-HU

First check for trouble clearance (by SEG trained customer) :
1. Check of the true running (technical data)
2. Measurement of the tracks (A/B/N)
3. Check the wiring between position encoder and CSC-HU

First check for trouble clearance (not trained customer) :
check of the true running (see technical data)

SEG - service in warranted case urgent necessary :
NO

CMW-Message : **M29: Mains fault**

Release (SPS - internal) :
Release (SPS - internal) :

1. Digital input mains failure

2. 1 phase mains failure

3. 3 phase mains failure

4. rough internal protection (Isolated operation -> U_Net)

5. rough internal protection (mains parallel ->U_Net or U_Gen)

6. summenstromfehler

7. Sum current error

First check for trouble clearance (SEG or authorized partner) :

1. Grid recovering isn´t finished
2. Parametercheck of the network master relay
3. Check of the CSC-HU-inlet

First check for trouble clearance (by SEG trained customer) :

1. Grid recovering isn´t finished
2. Parametercheck of the network master relay
3. Check of the CSC-HU-inlet

First check for trouble clearance (not trained customer) :

not possible

SEG - service in warranted case urgent necessary :

NO

CMW-Message : **M30: CAN-bus error**

Release (SPS - internal) :
1. Canbus interupted -> internal Canbus
2. Canbus shut down -> fieldbus to external PLC

First check for trouble clearance (SEG or authorized partner) :
Check the CAN-connection (internal/external) **First check for trouble clearance (by SEG trained customer) :**
Check the CAN-connection (internal/external) **First check for trouble clearance (not trained customer) :**
Check the CAN-connection (internal/external) **SEG - service in warranted case urgent necessary :**
NO

CMW-Message : **M31: Cooling-system error**

Release (SPS - internal) :
During the startup of the converter the checkback signal of the cooling system is missing.

First check for trouble clearance (SEG or authorized partner) :
1. Check of cooling system
2. Check of digital input of CSC-HU
3. Check of checkback signal from cooling system to the CSC-HU

First check for trouble clearance (by SEG trained customer) :
1. Check of cooling system
2. Check of digital input of CSC-HU
3.Check of checkback signal from cooling system to the CSC-HU

First check for trouble clearance (not trained customer) :
1. Check of cooling system **SEG - service in warranted case urgent necessary :**
NO

CMW-Message : **M32: Rotor overcurrent**

Release (SPS - internal) :
A too big rotor current has occurred.

First check for trouble clearance (SEG or authorized partner) :
1. Check of the hardware-section
2. Check of the overload from the IGBT power section
3. Check short circuits from the electrical connections
4. Insulation measurement of the rotor (at disconnected IGBT-power section)
5. Insulation measurement of the power-section (at disconnected rotor)
6. Check of the IGBTs

First check for trouble clearance (by SEG trained customer) :
1. Check of the hardware-section
2. Check of the overload from the IGBT power section
3. Check short circuits from the electrical connections
4. Insulation measurement of the rotor (at disconnected IGBT-power section)
5. Insulation measurement of the power-section (at disconnected rotor)
6. Check of the IGBTs

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
YES

CMW-Message : **L3: DC-Link volt. too high**

Release (SPS - internal) :
Light error from MS3-> Uzk to high **First check for trouble clearance (SEG or authorized partner) :**
1. Check if the failure isn´s finished
2. Check of the hardware-selection
3. Check short circuits of the electrical connections
4. Check the IGBT´s

First check for trouble clearance (by SEG trained customer) :
1. Check if the failure isn´s finished
2. Check of the hardware-selection
3. Check short circuits of the electrical connections
4. Check the IGBT´s

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **L6: LSC input fault**

Release (SPS - internal) :
1. Tripping by fall below the roug internal protection: U_SU_min 1.
2. Tripping by exceed the rough internal protection: U_SU_max 2.

First check for trouble clearance (SEG or authorized partner) :
Hardware- and parameter check **First check for trouble clearance (by SEG trained customer) :**
not possible **First check for trouble clearance (not trained customer) :**
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **L7: DC-Link voltage >**

Release (SPS - internal) :
Tripping by exceeding rough internal protection: U_Zk_max

First check for trouble clearance (SEG or authorized partner) :
Hardware- and parameter check **First check for trouble clearance (by SEG trained customer) :**
not possible **First check for trouble clearance (not trained customer) :**
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **L8: DC-Link-voltage <**

Release (SPS - internal) :
Tripping by fall below rough internal protection: U_Zk_min

First check for trouble clearance (SEG or authorized partner) :
Hardware- and parameter check **First check for trouble clearance (by SEG trained customer) :**
not possible **First check for trouble clearance (not trained customer) :**
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **L9: LSC current fault**

Release (SPS - internal) :
Tripping by exceed rough internal protection: I_SU_max **First check for trouble clearance (SEG or authorized partner) :**
Hardware- and parameter check **First check for trouble clearance (by SEG trained customer) :**

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
Yes

CMW-Message : **L10: LSC mA protection**

Release (SPS - internal) :

1. break down of a 4-20mA input of the CSC-SU from CSC-HU
2. Input of CSC-SU is defect
3. Output of CSC-HU is damaged

First check for trouble clearance (SEG or authorized partner) :

1. Check output CSC-HU
2. Check input CSC-SU

First check for trouble clearance (by SEG trained customer) :

1. Check output CSC-HU
2. Check input CSC-SU

First check for trouble clearance (not trained customer) :

not possible **SEG - service in warranted case urgent necessary :**

NO

CMW-Message : **L11: Overtemperature**

Release (SPS - internal) :
The CSC-SU message about IGBT overtemperature to CSC-HU

First check for trouble clearance (SEG or authorized partner) :
1. Heat sink o.K?
2. Environmental conditions o.k. ?
3. Overload: check power curve of the WTC

First check for trouble clearance (by SEG trained customer) :
1. Heat sink o.K?
2. Environmental conditions o.k. ?
3. Overload: check power curve of the WTC

First check for trouble clearance (not trained customer) :
1. Heat sink o.K?
2. Environmental conditions o.k. ?
3. Overload: check power curve of the WTC

SEG - service in warranted case urgent necessary :
NO

CMW-Message : **L12: Temperature warning**

Release (SPS - internal) :
The temperature of the cooling circuit is higher than the warning threshold.

First check for trouble clearance (SEG or authorized partner) :
1. parameter check
2. check of the temperature sensors
3. check of the cooling circuit
4. check the interface for the 4-20mA signal **First check for trouble clearance (by SEG trained customer) :**
1. check of the temperature sensors
2. check of the cooling system
3. check the interface for the 4-20mA signal **First check for trouble clearance (not trained customer) :**
1. check of the temperature sensors
2. check of the cooling system **SEG - service in warranted case urgent necessary :**
YES

CMW-Message : **L13: Temperature shut down**

Release (SPS - internal) :
The temperature of the cooling circuit is higher than the shut down threshold.

First check for trouble clearance (SEG or authorized partner) :
1. parameter check
2. check of the temperature sensors
3. check of the cooling circuit
4. check the interface for the 4-20mA signal **First check for trouble clearance (by SEG trained customer) :**
1. check of the temperature sensors
2. check of the cooling system
3. check the interface for the 4-20mA signal **First check for trouble clearance (not trained customer) :**
1. check of the temperature sensors
2. check of the cooling system **SEG - service in warranted case urgent necessary :**
YES

CMW-Message : **L14: LSC Overcurrent**

Release (SPS - internal) :
The LSC current has been too high.

First check for trouble clearance (SEG or authorized partner) :
1. Check of the hardware-section
2. Check of the overload from the IGBT power section
3. Check short circuits from the electrical connections
4. Insulation measurement of the power-section (at disconnected rotor)
5. Check of the IGBTs

First check for trouble clearance (by SEG trained customer) :
1. Check of the hardware-section
2. Check of the overload from the IGBT power section
3. Check short circuits from the electrical connections
4. Insulation measurement of the power-section (at disconnected rotor)
5. Check of the IGBTs

First check for trouble clearance (not trained customer) :
not possible **SEG - service in warranted case urgent necessary :**
YES

CMW-Message : **L15: duZK/dt error**

Release (SPS - internal) :
A too big change of the dc-link voltage has occurred **First check for trouble clearance (SEG or authorized partner) :**
1. parameter check
2. check of IGBT power section
3. check of dc link voltage measurement (MS3) **First check for trouble clearance (by SEG trained customer) :**
1. check of IGBT power section
2. check of dc link voltage measurement (MS3) **First check for trouble clearance (not trained customer) :**
not possible **SEG - service in warranted case urgent necessary :**
YES

CMW-Meldung : **L16: Cooling time Crowbar**

Release (SPS - internal) :
The maximally permissible number of Crowbar ignitions was exceeded, the Crowbar may not be ignited a time.

First check for trouble clearance (SEG or authorized partner) :
Check **First check for trouble clearance (by SEG trained customer) :**
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

CMW-Meldung : **L17: LSC: line-to-earth**

Release (SPS - internal) :
Sum of the LSC of currents is not null.

First check for trouble clearance (SEG or authorized partner) :
Check **First check for trouble clearance (by SEG trained customer) :**
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

CMW-Meldung : **L18: Temp. measuring coolant**

Release (SPS - internal) :

The measurement of the temperature over mA interface failed

First check for trouble clearance (SEG or authorized partner) :
Check **First check for trouble clearance (by SEG trained customer) :**
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

CMW-Meldung : **L19: Chopper**

Release (SPS - internal) :
At the Chopper (IMC-limiter) a IGBT error arose.

First check for trouble clearance (SEG or authorized partner) :
Check **First check for trouble clearance (by SEG trained customer) :**
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

CMW-Meldung : **L20: I LSC offset**

Release (SPS - internal) :
The maximally permissible offset with the alignment of the LSC currents was exceeded.

First check for trouble clearance (SEG or authorized partner) :
Check the current measuring points of the LSC

First check for trouble clearance (by SEG trained customer) :
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

CMW-Meldung : **L21: LSC**

fault

Release (SPS - internal) :
Collecting fault signal for the acceptance of the UL system in standard equipment, is not set this fault signal.

First check for trouble clearance (SEG or authorized partner) :
Check **First check for trouble clearance (by SEG trained customer) :**
Check **First check for trouble clearance (not trained customer) :**
Check **SEG - service in warranted case urgent necessary :**
NO

Is the reading-out of the Event Recorder and the Trigger files possible during Commissioning?

Yes, it is. The key can be set to manual operation.