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# CSM8000

## CSM Static (CSMSA)

### Operation Guide

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Doc. Ref : CSM8000 OPG  
Version : 3.0.5  
Status : Draft  
Created by : Odd Sandnes  
Date : 15.12.2004  
Part no. :

**Version History**

Version/Status	Release Date	Comments
1.0.1/Draft	13.09.2001	First draft version
2.0.2/Draft	10.10.2001	Revised status/error messages and added some descriptions
2.1.3/Draft	04.06.2002	Revised for new <b>CARGOSCAN</b> logos
2.2.4/Release	31.10.2002	Revised new software name
3.0.5/Draft	15.12.2004	Revised for CSMSA static version which has modified toolbar and function key layout and is designed for the system based on CS800LX.

**Document Reviewed By**

Version	Department/Function	Reviewer Name(s)
2.1.3	Sales	Isao Kadota

**Software Version History**

Version	Release Date	Comments

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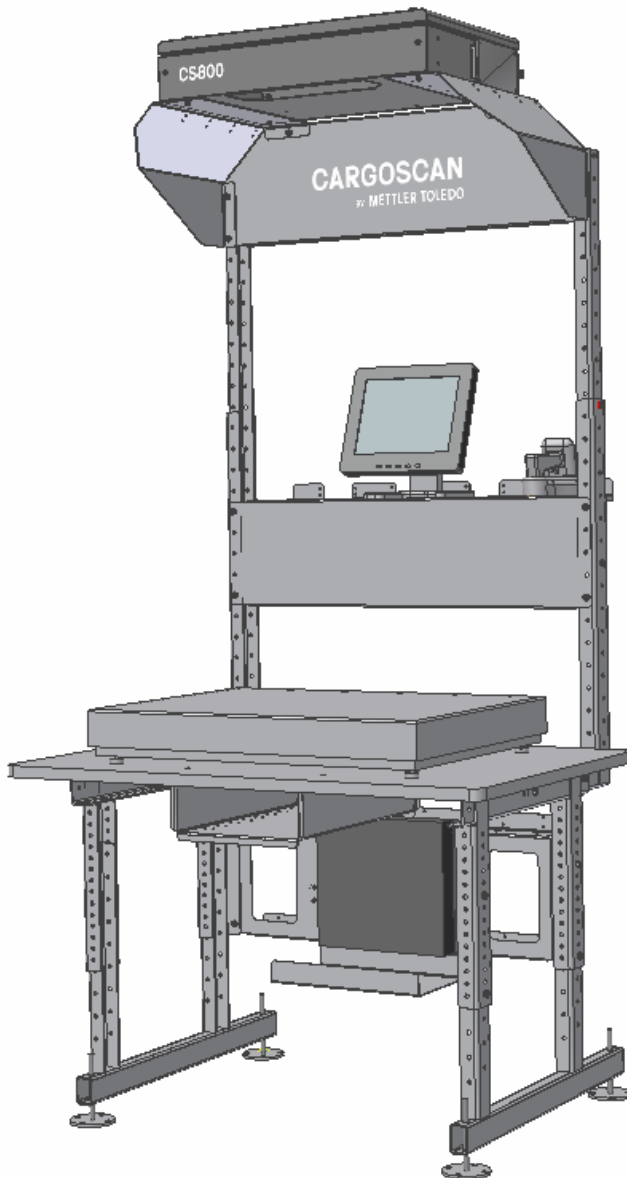
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## 1 INTRODUCTION

CSM8000 is a registration system for package's identity, dimensions and weight:

- CargoAMS (AMS2) Software:
  - Alibi storage on local hard-disk according to WELMEC.
  - Audit trail records for all changes in configuration
  - Error log for all errors/status during operation.
  - Interface to **CARGOSCAN** CS800LX Dimensioning device
  - Interface to **METTLER/TOLEDO** Panther/Spider/Digital/ID1 scales and others
  - Interface to Barcode readers connected on serial port
- CSM (CSMSA) Software:
  - Operator interface for sequential registration/input of information
  - Barcode verification, pattern check and/or checksum check (option)
  - Transfer of information to host (option)




## 2 OPERATION

Operation of the CSM8000 is easy. Below is a description on how the CSM8000 is operated.

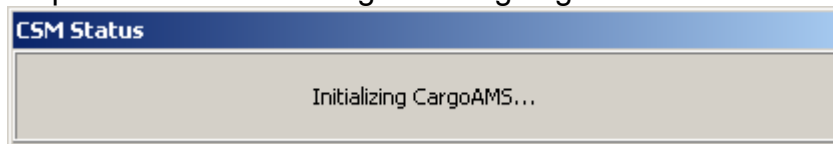
### 2.1 START REGISTRATION

The CSM8000 starts automatically when the PC is power-up or re-booted.

If the CSM8000 is terminated manually, it can be started again by clicking on the

icon  or selecting “Start” -> “Programs” -> “CSM” -> “CSM” program (with the same icon as above).

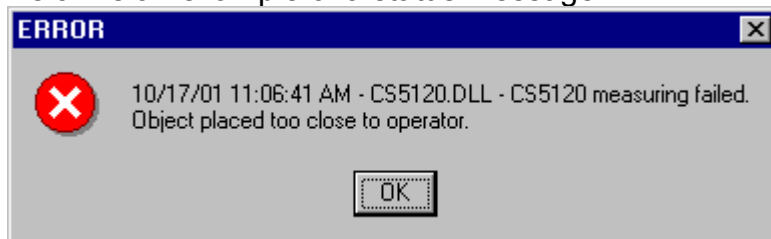
The CSM8000 then connects itself to the program AMS (CargoAMS), which is responsible for measuring and weighing:



### 2.2 STATUS MESSAGE/WARNING/ERROR

When a status messages/warning/error is reported to the operator, a dialog box is shown including the status to be shown. Depending on the severity of the status/warning/error the status will either disappear by itself after a configured number of seconds, or stay on the screen until the operator takes some action. All status messages/warnings/errors are explained in separate chapter

Below is an example of a status message



The status message will disappear when pressing the Ok button or pressing Enter button. Some status message of informational type will disappear by themselves after configured number of seconds.

## 2.3 REGISTRATION DIALOGUE

The registration dialogue when the CSM8000 is operated is shown below.

CSMS General ver.1.0.1

Action Functions

Current:

AWB: 321321321321321321321

Length: 46,0 cm Weight: 52,01 kg

Width: 87,0 cm Payable weight: 66,30 kg

Height: 99,4 cm

Last 50 packages:

Idx	Date & Time	Barcode	Length	Width	Height	Weight	Dim.Wei...
1	01.12.2004 11:16:11	321321321321321321...	46,0 cm	87,0 cm	99,4 cm	52,01 kg	66,30 kg










F1 F2 F3 F4 F5 F6 F7 F8

AMS: OK HOST: ONLINE List of last 50 packages 01.12.2004 11:17

The registration dialogue box contains 2 fields:

- Current: Contains the leading text for all information to be registered with fields where the data is shown. The fields are:
  - AWB: The field with the AWB/Identity number
  - Length: The measured length of the package
  - Width: The measured width of the package
  - Height: The measured height of the package
  - Weight: The measured weight of the package
  - Payable weight: The calculated payable weight of the package, which is the maximum of the volumetric weight and the weight itself.
- Last 50 packages: Contains the AWB and the measured values for the last 50 measured packages. The fields are the same as for the Current package, with additional the Date&Time which is when the package was measured and the Idx which is an internal sequence number to keep track of the measurements.

These are the functions on the first CSM toolbar:



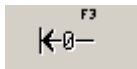





	F1 – Brings up the second CSM toolbar
	F2 – Start measuring manually
	F3 – Cancels the measurement process
	F4 – <N/A>
	F5 – Shows / hides the statistical counters
	F6 – Zero screen / remove package not accepted
	F7 – Special host function (only enabled for special applications)
	End-Of-Day / Select operator etc can be used here
	F8 – Exits CSM application

These are the functions on the second CSM toolbar (by pressing



F1 –

Information.

	F1 – Show messages and buffers
	F2 – <N/A>
	F3 – Zero the scale and CS800LX
	F4 – Go back to first toolbar
	F5 – Zeroes the statistical counters
	F6 – Start configuration of CSM
	F7 – Show about box for CSM application
	F8 – Open CargoAMS software to show alibi data


## 2.4 REGISTRATION SEQUENCE

CSM8000 follows the same registration sequence for all types of packages.


I-a. The operator identifies the AWB of the package with the barcode reader.

I-b. If the AWB of the package cannot be read with the barcode reader, the operator must enter the AWB manually.  
While entering the AWB the field turns to red to indicate that the entered information so far is not correct. When the proper number of digits and checksum is entered the fields turn to white to indicate that the reading is correct. Then press the Enter key to start the measurements.

I-c. If there is no barcode on the package, use any default barcode function key

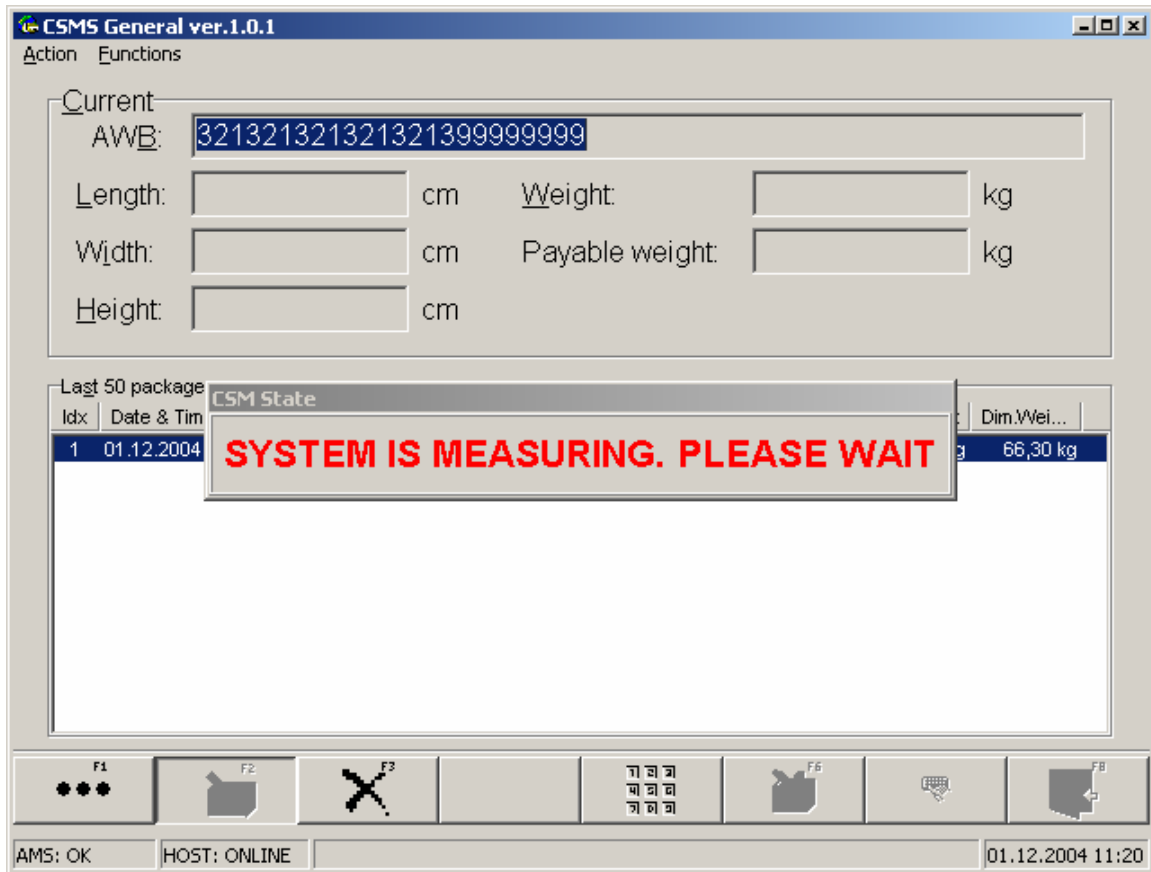
F2 with the icon . (If CSM8000 is configured to allow measurements without AWB).

NB!: Remember that if the previous package was measured WITH an AWB number then this AWB number is still present in the field AWB:.  
Remember to clear this off with "Functions" -> "Clear screen" or the

function key F6 with the icon . If not this is done, then the next measurement will be using the same AWB number as the previous one. Only when AWB field is empty, the measurements will not belong to any AWB number.

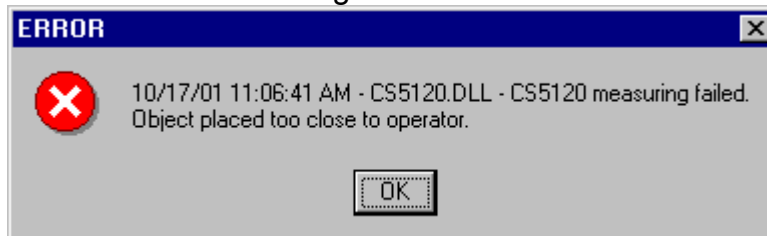
II. Measurement is now started, by triggering the scale and the CS800LX.





- III-a. If all measurements are Ok, all fields are greyed and will stay on the screen until the next AWB is read. However, the operator will see that the measurements have popped up in the Last 50 packages field.


- III-b. If any measurement is wrong, a dialog box shows the reason for the measurement not being Ok.



First the operator must clear this warning, and then the fields with error are populated with the text ERROR(n) where n is the error number.

Then the operator can select between two alternatives:

Alt I: The operator can manually enter the values in the fields with ERROR, thus the dimensions or weight has to be manually obtained, which can be time consuming. On the other hand it could be that the item is not measurable, which means that the values must be manually keyed in.

Alt II: The operator can cancel out the existing measurements and ERRORS by using function key F3 with the icon . Then all measurement fields are emptied, thus the AWB field is still populated with the entered AWB-number.

To re-measure the item, use the function key F2 with the



## 2.5 CLEAR SCREEN

The fields in the Current section can be cleared for information when there is not any

ongoing measurements. Use function key F6 with the icon .


any ongoing measurements (the button  is greyed and is “pressed down” on the screen), first cancel the ongoing measurements with the function key F3 with



## 2.6 RESET STATISTICS

The CSM8000 makes statistical records of the measurements.


These are viewed with function key F5 with the icon  (see next chapter).


To reset the statistical records, use function key F1 with the icon  and then



## 2.7 STATISTICS

The CSM8000 makes statistical records of the measurements.

Use function key F5 with the icon  to turn the viewing of the statistical

records on and off. When the statistical records is on the button  looks like it is “pressed down” on the screen.

It is there for possible to select if the statistical records are shown at all times or only when wanted to be seen.

The statistical records includes number of packages in the time period given, and the throughput of packages pr last hour and last day.

## 2.8 CANCEL ONGOING MEASUREMENTS

The measurements can be cancelled by the operator.

If the operator sees that something is wrong, the operator can cancel the measurements rather than wait until the measurements times out with an error.

To cancel the measurements, use function key F3 with the icon



## 2.9 RE-MEASURE

If the measurements reported some error, maybe that the package was outside the measurement borders, the operator can move the package inside the measurement borders and re-measure the object instead of clearing off the measurements and re-read the AWB or re-enter the AWB manually.

To re-measure use function key F2 with the icon

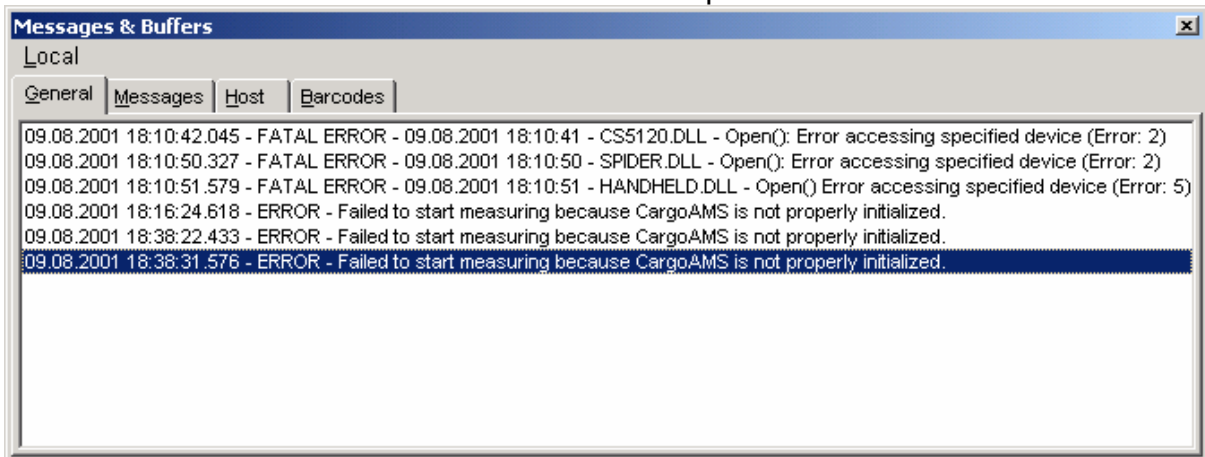


, but this is only possible after the measurement fields have been cleared with the function key F3 with the icon



## 2.10 SHOW MESSAGES AND BUFFERS



This function is more for installation and service operators and will show this window:



This window shows:

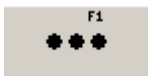
- I. The general status/warnings/errors in the tab-sheet "General"
- II. The activity between the CargoAMS software and the CSM software in the tab-sheet "Messages"
- III. The entered AWB numbers that will not be repeated in the tab-sheet "Barcodes"
- IV. The status of the host protocol in the tab-sheet "Host" (only valid when any Host is enabled, which is an option for the system)

This window is good for reporting any errors or finding out what is happening in the CSM8000 application.

To enter this window use function key F1 with the icon  and then F1 with the 

## 2.11 ABOUT CSM8000

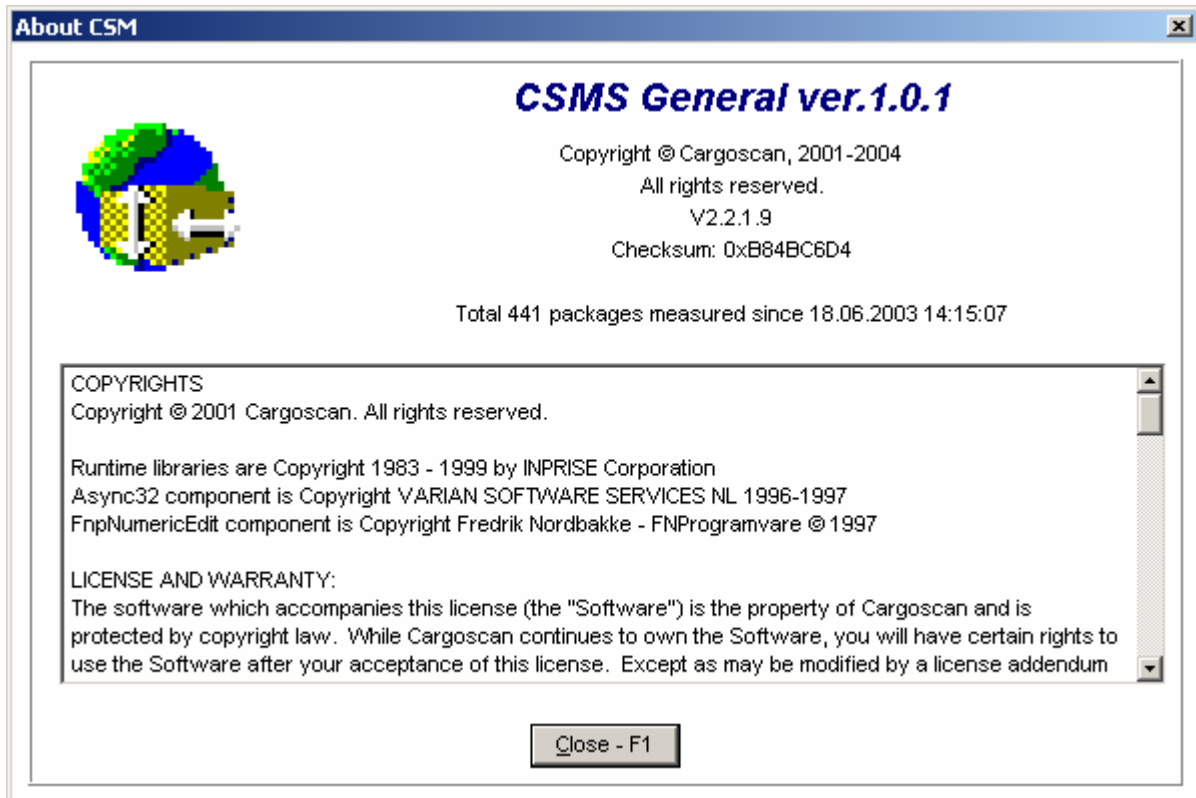
To show the information about the CSM8000, use function key F1 with the icon



and then function key F1 with the icon




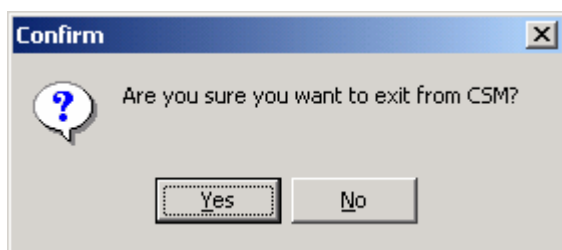
This dialogue box is shown:



Close the window by pressing F1 again or Enter.

## 2.12 EXIT OPERATION

To exit the operation use function key F8 with the icon . When exiting the application will confirm the operation with the dialog box:



This is just to avoid any unwanted exit of operations, due to accidentally pushing the exit key.

### 3 STATUS MESSAGES

Below is the different status messages that can occur in the application. These messages are supposed to be solved by the operator himself. Any information in brackets as *<what>* means that the text *what* will include information depending on the status received.

#### 3.1 CS800LX DIMENSIONER

These are the status messages received from the CS800LX Dimensioner

<b>CS800LX GENERAL INFORMATION</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
CS800LX is ready to measure	Check connections and power
CS800LX reported other status or error code: <number>	Look up the <number> in the CS800LX Dimensioner manual
Timed out while waiting for measurement results.	-
Timed out while waiting for zeroing results	-
Timed out while waiting for version	-
CS800LX requests a ZERO command to do zeroing.	-
CS800LX operation cancelled	-

<b>CS800LX MEASUREMENT STATUS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Object placed too close to stand	Re-do measurements
Object placed too close to operator	Re-do measurements
Object placed too far right	Re-do measurements
Object placed too far left	Re-do measurements
Object too high to be measured	-
Object too small	-
Object too large	-
Object in unstable position	Re-do measurements
Object in wrong size-defined area	-
Attempt to measure when no object or too small object on scale/table.	-
Package is too long to be measured	-
Object shape too complex for processing algorithms	-
Too high reflection on parts of the object	-
Too low reflection on parts of the object	-
Two objects beside each other	-
Measuring failed	Re-do measurements

<b>CS800LX ZEROING STATUS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Warning during zeroing: Surface to place object on is below field of view	-
Warning during zeroing: Surface to place object on is so high that the highest parcel will go above field of view	-
Zeroing field not level	-
Zeroing field skewing down on operator side	-
Zeroing field skewing down on stand side	-
Zeroing field skewing down on right hand side	-
Zeroing field skewing down on left hand side	-
Ball units found when setup for plan surface	-
Setup for ball units on surface but none is found	-
CS800LX zeroing failed	Re-do zeroing

### 3.2 SCALE

These are the status messages received from the scale.

<b>SCALE GENERAL INFORMATION</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Timed out while waiting for measurement results.	-
Timed out while waiting for zeroing results	-
Timed out while waiting for version	-
Negative weight value. The scale requires zeroing	-
Operation cancelled	-
Other scale error. Indicator: <information>	-
Device overload/positive.	Zero the scale

<b>SCALE MEASUREMENT STATUS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Unstable/dynamic scale	-
Stable weight	-
Device underload/negative	-
Device overload/positive	-
Zero weight. Place the package onto the weighing platform or the scale requires zeroing	-

### 3.3 CSM

These are the status messages received from CSM application.

<b>CSM GENERAL INFORMATION</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
A package with this AWB number is already measured. Do you really want to measure it again	-
CSM8000 is already measuring. Wait until the current measurement is finished.	-
Received unexpected measuring results	-
Statistical counters reset due to overflow	-
The CSM8000 is already running. Only one instance is allowed to run. Do you want to switch to the existing instance.	When selecting No, this instance of CSM8000 is closed.



## 4 ERROR MESSAGES

Below is error messages that can occur in the application.

These messages are supposed to be solved by a supervisor or trained personnel

Any information in brackets as *<what>* means that the text *what* will include information depending on the status received.

### 4.1 CS800LX DIMENSIONER

These are the error messages received from the CS800LX Dimensioner.

<b>CS800LX GENERAL ERROR</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Failed to execute <function> because DLL is busy	-
The driver is busy. Requested operation failed.	-
Module is already initialized	-

<b>CS800LX SERIAL PORT ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Error accessing specified device (Error: 2)	Check serial port parameters
Error accessing specified device (Error: 5)	Check serial port parameters
Error updating DataControlBlock (Error: 6)	-
Communication port is not opened	-
Data buffer is full	-
Receive buffer is full. Data from CS800LX lost	-

<b>CS800LX PROTOCOL ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Data telegram from CS800LX does not have expected length	Wrong device connected?
Unknown units in CS800LX data	Wrong device connected?
Failed to convert a value in CS800LX data telegram	Wrong device connected?
Illegal telegram from CS800LX	Wrong device connected?
Wrong sequence number from CS800LX. Expected <sequence>, but received <sequence>	-
The telegram from CS800LX has checksum error. Expected <checksum>, but received <checksum>	-

### 4.2 SCALE

These are the status messages received from the scale.

<b>SCALE PORT ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Error accessing specified device (Error: 2)	Check port parameters
Error accessing specified device (Error: 5)	Check port parameters
Error updating DataControlBlock (Error: 6)	-
Communication port is not opened	-
Data buffer is full	-
Receive buffer is full. Data from scale lost	-

<b>SCALE PROTOCOL ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Data telegram from scale does not have expected length	Wrong device connected?
Unknown units in scale data	Wrong device connected?
Failed to convert a value in scale data telegram	Wrong device connected?
Illegal telegram from scale	Wrong device connected?

### 4.3 BARCODE READER

These are the status messages received from the barcode reader:

<b>READER GENERAL ERROR</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Failed to execute <function> because DLL is busy	-
The driver is busy. Requested operation failed.	-
Module is already initialized	-

<b>READER PORT ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Error accessing specified device (Error: 2)	Check port parameters
Error accessing specified device (Error: 5)	Check port parameters
Error updating DataControlBlock (Error: 6)	-
Communication port is not opened	-
Data buffer is full	-
Receive buffer is full. Data from scanner lost	-

<b>READER PROTOCOL ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Data telegram from scanner is shorter than expected	Wrong device connected?
Illegal telegram from scanner	Wrong device connected?

### 4.4 CARGOAMS

These are the error messages received from CargoAMS (AMS2) software.

<b>CARGOAMS GENERAL ERROR</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
The CargoAMS is not properly installed. Please re-install CargoAMS from the installation CD.	-
CargoAMS terminated due to Windows shut down	-
Received an invalid data record from the process module	-
Internal data buffer is not initialized	Re-start PC

<b>CARGOAMS FILE ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Alibi memory is full	Re-configure the size of alibi memory
Audit Trail log is full	Re-configure the size of audit trail log
Error log is full	Re-configure the size of error log
Alibi memory does not exist or failed to open	Re-configure the alibi memory.
Failed to store changed parameters to the disk file	Re-configure audit trail log.
Failed to rename storage file	-
The storage file with name "filename" already exists. Do you want to use existing storage with its parameters or create new file with parameters you have specified? Press "Yes" to use existing storage or "No" to create new one	-
The file with name "filename" already exists. Do you want to overwrite it?	-
The storage is not ready. Failed to resize	-
Failed to get a temporary file name from OS	-

#### 4.5 CSM

These are the error messages received from CSM application:

<b>CSM GENERAL ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
CSM failed to find the previous instance. Reason: <explanation>	Re-start the PC.
Failed to load library <library>. Reason: <explanation>	Re-start the PC.
Failed to get address of the function <library>. Reason: <explanation>	Re-start the PC.
Failed to initialize error handler. The application will shut down	Re-start the PC

<b>CSM-CARGOAMS INTERFACE ERRORS</b>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Failed to initialize CargoAMS. Try to start the CargoAMS alone and check the configuration and that CargoAMS works properly.	-
Failed to register the ReadNextBarcode() function. Check the CargoAMS configuration and restart CSM	-
Failed to start measuring because CargoAMS is not properly initialized	Re-initialize CargoAMS
Failed to read measurement data. Reason: <explanation>	-
Failed to write the measurement result to the Alibi memory. Reason: <explanation>	-
The result will be not saved to the ALibi memory	-

<b>CSM BARCODE VALIDATION ERRORS</b> <i>(ONLY VALID IF BARCODE VALIDATION OPTION IS ENABLED)</i>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Failed to initialize the barcode validation module Reason: <explanation> All barcodes will be accepted	-
Failed to initialize the barcode Unable to get address for the function <function> Reason: <explanation> All barcodes will be accepted	-
Failed to initialize the barcode The specified module is of a wrong type Reason: <explanation> All barcodes will be accepted	-

<b>CSM HOST MODULE ERRORS</b> <i>(ONLY VALID IF HOST OPTION IS ENABLED)</i>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Failed to initialize the host module Reason: <explanation> No data will be sent to the host neither saved locally	-
Failed to initialize the host module Unable to get address for the function "xxx" Reason: <explanation> No data will be sent to the host neither saved locally	-
Failed to initialize the host module The specified module is of a wrong type Reason: <explanation> No data will be sent to the host neither saved locally	-
Failed to delete backup file Reason: <explanation>	-
Failed to write data to backup file Reason: <explanation>	-
Host module rejected data Some fields may have illegal values	-

#### 4.6 HOST MESSAGES

These are the status messages received from the host protocol driver for CSM.

<b>CSM HOST MODULE GENERAL ERRORS</b> <i>(ONLY VALID IF HOST OPTION IS ENABLED)</i>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Cannot open file <install directory>\<file>	-
Invalid host message	-
Host timed out	-

<b>CSM HOST MODULE SERIAL PORT ERRORS</b> <i>(ONLY VALID IF HOST OPTION IS ENABLED)</i>	<b>ACTION (IF NO ACTION IS GIVEN)</b>
Error accessing specified device (Error: 2)	Check serial port parameters
Error accessing specified device (Error: 5)	Check serial port parameters
Error updating DataControlBlock (Error: 6)	-

## 5 HOST STATUS

The following status code may be written to host.

Text for status field	Code	Short text in list of 50 packages
OK	00	OK
BARCODE IN GRAYZONE	01	GRAYZONE
TOO MANY BARCODES	02	TOO MANY CODES
TOO MANY PACKAGES	04	TOO MANY PCKGS
NO PAKCAGE	05	NO PACKAGE
MERGING ERROR	06	MERGING ERROR
BUFFER IS FULL	07	BUFFER IS FULL
BYPASS MODE	10	BYPASS MODE
OUTSIDE MEASUREMENT AREA	51	OUTSIDE AREA
TOO SMALL PACKAGE	52	TOO SMALL PCKG
TOO LONG PACKAGE	53	TOO LONG PCKG
TOO HIGH PACKAGE	54	TOO HIGH PCKG
DIMENSIONS CAME TOO LATE	55	DIM TO LATE
UNDER MINIMUM DIMENSIONS	56	UNDER MIN DIM.
OVER MAXIMUM DIMENSIONS	57	OVER MAX DIM.
PACKAGE NOT CUBOIDAL	58	NOT CUBOIDAL
NO PHOTOCCELL SENSOR	59	NO DIM. SENSOR
PACKAGE IN SHADOW	60	IN SHADOW
REFLECTION PROBLEM	61	REFLECTION
PACKAGE TOO COMPLEX	62	TOO COMPLEX
DIMENSIONING IMPOSSIBLE	63	DIM. IMPOSSIBLE
MEASURING FAILED	64	DIM. FAILED
SAFETY STOP ACTIVATED	65	SAFETY STOP
MULTIPLE PACKAGES	66	MULTIPLE PCKG
SCALE WAS UNSTABLE	81	SCL. UNSTABLE
TOO LONG FOR WEIGHING	82	TOO LONG PCKG
MULTIPLE ON SCALE	83	MULTIPLE ON SCL
SCALE UNDERLOAD	84	UNDERLOAD
SCALE OVERLOAD	85	OVERLOAD
UNDER MINIMUM WEIGHT	86	UNDER MIN WGT.
OVER MAXIMUM WEIGHT	87	OVER MAX. WGT
NO SCALE DATA	88	NO SCL. DATA
SCALE TIMEOUT	89	SCL. TIMEOUT
WEIGHING IMPOSSIBLE	90	WGH. IMPOSSIBLE
TOO SHORT WEIGHING TIME	91	SHORT WGH. TIME
SCALE DATA ERROR	92	SCL DATA ERROR