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MCE9626L and 4025 PC Scale Service

EEScaleService PC software suite for MCE9625L and 4025 weighing terminal maintenance

Applies to:

Software:EEScaleService.901116.1v6Document no.:091116dlu1v6.docDate:2016-03-16Rev.:1v6

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2) Introduction

2.1 Scale service

This document describes how to use the Eilersen Electric EEScaleService PC software suite. This software is used to do maintenance on a MCE9625L or a 4025 weighing terminal. The software has the following features:

- Connects with a RS232 serial COM port to the terminal RS232-DOWNLOAD plug for software download or parameter transfer between PC and weighing terminal.
- Connects with a RS232 serial COM port to the terminal RS232-TEST plug for parameter transfer from weighing terminal to PC.
- Download of new software to a MCE9625L terminal
- Download of new software to a 4025 terminal

To use the software the following two files must be present in the same directory:

- EEScaleService.exe
- EEScaleService.INI

No installation is required. To launch the software simply launch the EEScaleService.exe file. The software will run directly on any Windows-XP (or later) system, but of cause requires a RS232 COM port (build-in or on USB).

2.2 Operation selection

When the Scale Service software is started the upper left part should look like this (possibly with an operation type selected):

EE Eilersen Electri	c Scaleservice (091116.1v6)
<u>F</u> ile <u>V</u> iew	
Connection type:	Serial
Operation:	None
Port: None	
File:	
State:	

Five different operations are possible:

- Software download 4025
- Software download MCE9625
- Parameter transfer from PC to device (4025 or MCE9625)
- Parameter transfer from device to PC on TEST connection
- Parameter transfer from device to PC on DOWNLOAD connection

Select the desired operation with the drop-down box:

EE Eilerse	n Electric	Scaleservice (091116.1v6)	
<u>F</u> ile <u>V</u> ie	w		
Connect	ion type:	Serial 💌	[
Operation:		None	1
Port:	None	None Software Download - D4025 Software Download - MCE9625L	
File:		Parameters from PC to device Parameters from device to PC - TEST Parameters from device to PC - DOWNLOAD	
State:			1

Then follow the appropriate procedure below.

2.3 4025 software download

When the Scale Service software is started and "Software download- 4025" is selected the upper left part should look like this:

<u>F</u> ile <u>V</u> iew		
Connection type:	Serial 💌	
Operation:	Software Download - D4025	
Port: COM3		Length:
File:	Open	Unit:
State: No file o	pened for download	

If not so select the connection type as 'Serial' and the operation as 'Software download'.

Please consult Appendix C on how to change the COM port number if necessary. To download software, perform the following steps (only step 1-5 requires user interaction, step 6 and forward will be performed automatically by the software).

- 1. Connect the COM port to the DOWNLOAD port on the 4025.
- 2. Open the HEX file by clicking 'Open' and then select the appropriate HEX file and click 'Open' in the open dialog box:

EE Open			×
Look <u>i</u> n:	110301	▼ = 1 → ▼	
Recent Places	↓ -1v00 ↓ -1v10 ↓ -1v10a ↓ -1v11	 ☑ T110301-1v10.hex ☑ T110301-1v10a.hex ☑ T110301-1v11.hex ☑ T110301-1v12.hex 	
Desktop	-1v12 CO_DISP CO_ETH		
Libraries	CO_LCCOM DOC Kopi af -1v12		
Computer	 ↓ Todo ☑ 110301-1√00.hex ☑ 110301-1√10.hex ☑ T110301-1√00.hex 		
	<		Þ
	File name: Files of type: Intel HEX files (*.he	x)	Open Cancel

3. The file will load. This could take several seconds. When the file is loaded and ready for download the lower part of the screen will display the file content at it will be indicated in the upper part of the screen like this:

File View	N														
Connecti	ion type: Serial]													
Operation	n: Software Download - D4025	·													
Port:	СОМЗ							Lengtł	h:						
File:	C:\4025\-C\SW\CCWD\110301\-1v27\T110301-1v27.hex				Oper	n		67867	79	Unit					
State:	Ready for download		ſ		Downlo	oad									
															_
:020000	040800F2		00	01	02	03	04	05	06	07	08	09	0a	ОЬ	OC.
:100000	00390100083B0100083D010008070100081 00390100083B0100083D0100080000000014 00000000000000000000000	08000000	50	d7	00	20	31	01	00	08	35	01	00	08	37
:100030	0041010008000000043010008A70100087A 0047010008470100084701000870	08000010	39	01	00	08	ЗЬ	01	00	08	3d	01	00	08	00
100050	004701000047010000000400000000000000000	L08000020	Inn	00	00	00	00	00	l nn	00	00	100	00	00	R

- 4. Switch the 4025 terminal Off.
- 5. Click 'Download'. The system will now attempt to connect to the 4025 indicated like this:

State:	Connecting	Abort	Main processor	

- 6. Switch the 4025 back On.
- 7. After 5-10 seconds the connection will be made and the download will commence. First the Main Processor software will be downloaded while the 'Length' field indicates the progress (please notice that the upper 'Length' field indicates the total length of the HEX file, which is much longer than the number of bytes that actually needs to be downloaded):

ate:	Downloading	Abort	1792	Main processor

8. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:

State:	Verifying	Abort	1792	Main processor

9. After the Main Processor software has been downloaded and verified, the 4025 will be restarted, indicated like this:

State:	Re-booting device	Abort	1	

10. Then a connection to Display Unit will be established (on fast computers this may happen very fast):

State:	Connecting]	Abort	Display

11. Then the Display Unit software will be downloaded, while the 'Length' field indicates the progress like this:

State:	Downloading	Abort	1792	Display	

12. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:

State:	Verifying Abort 1792 Display
	13. After the Display Unit software has been downloaded and verified, the 4025 will be restarted, indicated like this:
State:	Re-booting device Abort
	14. Then a connection to Loadcell Communication Unit will be established (on fast computers this may happen very fast):
State:	Connecting Abort Loadcell communication
	15. Then the Loadcell Communication Unit software will be downloaded, while the 'Length' field indicates the progress like this:
State:	Downloading Abort 1792 Loadcell communication
	16. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:
State:	Verifying Abort 1792 Loadcell communication
	17. After the Loadcell Communication Unit software has been downloaded and veri- fied, the 4025 will be restarted, indicated like this:
State:	Re-booting device Abort
	18. Then a connection to Ethernet Unit will be established (on fast computers this may happen very fast):
State:	Connecting Abort Ethernet

19. Then the Ethernet Unit software will be downloaded, while the 'Length' field indicates the progress like this:

State:	Downloading	Abort	1	1792	Ethernet	
otato.	le ernine dan ig	Aboli	J	1102		

20. After the download the downloaded software will be verified. The 'Length' field indicates the progress like this:

State:	Verifying	Abort	1792	Ethernet	

21. Finally the total system is reset, indicated like this:

State:	Final reboot: Connecting	Abort	

22. Now the 4025 is operational and the PC is ready for a new download:

State:	Download done. Ready for new download	Abort			
			,	,	

2.3.1 Abort download

The download procedure can be aborted at any time.

Warning: If download is aborted during download it most likely may be necessary to perform a "First time download", as described below in section 3.2 Appendix B: First time software download 4025.

To abort click abort and verify the abort operation:

Abort	×
Abort download?	
Yes	<u>N</u> o

After this the system will be ready for a new download:

<u>F</u> ile <u>V</u> iew														
Connection type: Serial]													
Operation: Software Download - D4025]													
Port: COM3							Lengt	h:						
File: C:\4025\-C\SW\CCWD\110301\-1v27\T110301-1v27.hex				Ope	n		6786	79	Unit					
State: Ready for download		[Downl	oad									
:020000040800F2 :100000050D 70020310100083501000837010008F1		00	01	02	03	04	05	06	07	08	09	0a	Оb	0c
:10001000390100083B0100083D0100080000000014 :10002000000000000000000000000000000000	08000000	50	d7	00	20	31	01	00	08	35	01	00	08	37
1000200041010008000000043010008470100087A	08000010	39	01	00	08	ЗЬ	01	00	08	3d	01	00	08	00
.1000400047010000470100004701000870 .1000500047010000470100005540000504000054	08000020	lnn	nn	nn	nn	nn	nn	nn	nn	nn	nn	nn	nn	Зf

2.3.2 Trouble shooting

If for any reason the download or the verification fails, the system will automatically restart the operation. If the system will not connect or restarts an operation repeatedly the operation can be stopped simply by aborting as described above or exiting the EEScaleService software.

To retry the download launch the EEScaleService software and retry the procedure above.

If this does not work after several attempts the procedure described in section 3.2 Appendix B: First time software download 4025 below must be carried out.

PLEASE NOTICE that this MUST be done with a Main Processor only HEX file with a length below 524288.

2.4 MCE9625L software download

When the Scale Service software is started and "Software download- 4025" is selected the upper left part should look like this:

EE Ei	EE Eilersen Electric Scaleservice (091116.1v6)										
<u>F</u> ile	<u>V</u> iew										
Co	nnection typ	: Serial									
Op	eration:	Software Download - MCE9625L									
Po	rt: CON	3		Length:							
File	e:		Open								
Sta	ate: No f	e opened for download									

1. Connect the COM port to the DOWNLOAD port on the MCE9625L motherboard (MCE9627).

2. Open the HEX file by clicking 'Open' and then select the appropriate HEX file and click 'Open' in the open dialog box:

EE Open					×
Look <u>i</u> n:	퉬 -2v0		•	← 🖻 💣 📰▼	
<u>G</u>	MC9625.HEX				
Recent Places					
Desktop					
Libraries					
Computer					
Network					
		14000005 11514			
	File <u>n</u> ame:	IMC9625.HEX		•	Open
	Files of type:	Intel HEX files (*.hex)		-	Cancel

3. The file will load. This could take several seconds. When the file is loaded and ready for download the lower part of the screen will display the file content at it will be indicated in the upper part of the screen like this:

EE Eilersen Electr	ic Scaleservice (091116.1v6)													
<u>F</u> ile <u>V</u> iew														
Connection type	Serial	•												
Operation:	Software Download - MCE9625L	•												
Port: COM	}								Lengt	h:				
File: C:\M	E9625L\Ccwd\010201\-2v0\MC9625.HEX					Oper	n		9830	3				
State: Read	y for download					Downlo	bad							
:02000002E000	1C B840008ED0BCD077B8E00E8EC0B8E4			00	01	02	03	04	05	06	07	08	09	0a
:1000100093EF	8ED88E00008F00089100028CFD1E7		000e0000	fa	fc	Ь8	40	00	8e	dO	Ьс	d0	77	Ь8
10002000E9E3	02F3A9B840008EC08894EF8ED8BEC5 RENNNR9E21C2RCED1E9E3N2E3A519		000e0010	93	ef	8e	48	he	nn	nn	hf	nn	nn	h9

- 4. Switch the MCE9625L terminal Off.
- 5. Click 'Download'. The system will now attempt to connect to the MCE9625L indicated like this (the counter will increase every second until a connection is made):

State:	Connecting 8	Abort
	 6. Switch the MCE9625L back On. 7. After 5-10 seconds the connection will be may Very fast the BIOS revision will be read, the block signature will be transferred: 	de and the download will commence. baudrate will be set, and the Flash un-
State:	Aqquiring BIOS revision	Abort
State:	Transferring Flash Unlock Signature	Abort
State:	Setting baudrate at 57600 baud	Abort

8. Then the new software will be transferred and verified. The 'Length' field indicates the progress like this:

State:	Transferring data	Abort	32463	

9. When the transfer is completed the MCE9625L will start and the PC is ready for a new download:

E Eilersen Electric Scaleservice (091116.1v6)													
<u>F</u> ile <u>V</u> iew													
Connection type: Serial	•												
Operation: Software Download - MCE9625L													
Port: COM3								Lengtł	n:				
File: C:\MCE9625L\Ccwd\010201\-2v0\MC9	625.HEX				Oper	ı		98303	3				
State: Download done. Ready for new downloa	d				Downlo	ad							
:02000002E0001C	IB8F4		00	01	02	03	04	05	06	07	08	09	0a
1000100093EF8ED8BE0000BF0000B910002BCF	D1E7	000e0000	fa	fc	Ь8	40	00	8e	dO	bc	dO	77	Ь8
1000200023230213438640008EC08634EF6ED6	Δ519	000e0010	93	ef	8e	48	he	nn	nn	hf	nn	nn	Ь9

2.4.1 Abort download

The download procedure can be aborted at any time.

Warning: If download is aborted during download the MCE9625 will not be able to start. However software can still be downloaded as described above

To abort click abort and verify the abort operation:

Abort	×
Abort download?	
Yes	<u>N</u> o

After this the system will be ready for a new download:

E Eilersen Electric Scaleservice (091116.1v6)													
<u>File V</u> iew													
Connection type: Serial	•												
Operation: Software Download - MCE 9625L	•												
Port: COM3								Lengt	h:				
File: C:\MCE9625L\Ccwd\010201\-2v0\MC9625.HEX					Oper	n		9830	3				
State: Ready for download					Downlo	bad							
:02000002E 0001C :1000000EAECB840008ED0BCD077B8E00E8EC0B8E4			00	01	02	03	04	05	06	07	08	09	0a
1000100093EF8ED8BE0000BF0000B910002BCFD1E7		000e0000	fa	fc	Ь8	40	00	8e	d0	Ьс	dO	77	Ь8
10003000000000000000000000000000000000		000e0010	93	ef	8e	d8	he	nn	nn	hf	nn	nn	h9

2.4.2 Trouble shooting

If for any reason the download fails, the system will automatically restart the operation. If the system will not connect or restarts an operation repeatedly the operation can be stopped simply by aborting as described above or exiting the EEScaleService software.

To retry the download launch the EEScaleService software and retry the procedure above.

If this does not work after several attempts, try lowering the baudrate as described below in section 3.3 Appendix C: COM port selection and parameters.

2.5 Parameter transfer from PC to device

When the Scale Service software is started and "Parameters from PC to device" is selected the upper left part should look like this:

<u>F</u> ile <u>V</u> iew		
Connection	ype: Serial	
Operation:	Parameters from PC to device	
Port: C	ОМЗ	
File:		Open
State: N	o file opened for transfer to device	

- 1. Connect the COM port to the DOWNLOAD port on the 4025 or the MCE9625L motherboard (MCE9627).
- 2. Open the Parameter file file by clicking 'Open' and then select the appropriate TXT file and click 'Open' in the open dialog box. Please notice that old DOS version could only download short-form parameter files without parameter description. This DO NOT apply to the EEScaleService software. Parameter files with parameter description can be opened and downloaded.

EE Open						×
Look <u>i</u> n:	091116		•	+ 🗈 💣		
Recent Places Desktop Libraries Computer	-1v0 -1v1 -1v2 -1v3 -1v4 -1v5 Doc CPSTORE.TXT LOG.TXT UL.TXT UL1.TXT ULS.TXT	Γ				
	File <u>n</u> ame:	UL.TXT		•		<u>O</u> pen
	Files of type:	Text files (*.txt)		-		Cancel

3. The file will load. This could take several seconds. When the file is loaded and ready for download the lower part of the screen will display the file content at it will be indicated in the upper part of the screen like this:

<u>File</u> <u>V</u> iew							
Connection type: Serial							
Operation: Parameters from PC to device							
Port: COM3							
File: W:\testlong.TXT Open							
State: Ready for transfer to device	Transfer to device						
Criselant) (/PC/000 Cools: Parameteriat	Par. No. Description						
	1 Unit, Normal mode						
Crisplant unit number : 0	2 Unit, Calibration mode						
Program number CCWD.110301; 1.2.6 Par. 1: Unit, Normal mode : 0 Hg	3 Unit, Protocol						

4. Click 'Transfer to device'. The system will now attempt to download the parameters while indicating which parameter is currently being downloaded:

State:	Parameter 1 read. Attempt 2	Abort

5. When all parameters are downloaded, the old parameter value, the parameter from the file opened and the new value of the parameter can be inspected in the lower right corner of the display.

2.5.1 Abort

The procedure can be aborted at any time.

To abort click abort and verify the abort operation:

Abort		x
Abort download?		
Yes	<u>N</u> o	

After this the system will be ready for a new transfer:

<u>F</u> ile <u>V</u> iew							
Connection type: Serial							
Operation: Parameters from PC to device							
Port: COM3							
File: W:\testlong.TXT	Open						
State: Ready for transfer to device	Transfer to device						
Crisplant WBC4000 Scale: Parameterlist	Par. No. Description						
	1 Unit, Normal mode						
Crisplant project number : 0 Crisplant unit number : 0	2 Unit, Calibration mode						
Program number CCWD.110301: 1.2.6 Par. 1: Unit, Normal mode : 0 Hg	3 Unit, Protocol						

2.5.2 Trouble shooting

If for any reason the download fails, the system will automatically restart the operation. If the system will not connect or restarts an operation repeatedly the operation can be stopped simply by aborting as described above or exiting the EEScaleService software.

To retry the download launch the EEScaleService software and retry the procedure above.

2.6 Parameter transfer form device to PC

When the Scale Service software is started and "Parameters from device to PC - TEST" or "Parameters from device to PC - DOWNLOAD" is selected the upper left part should look like this:

<u>F</u> ile <u>V</u> iew		
Connection typ	e: Serial 🗨	
Operation:	Parameters from device to PC - TEST	
Port: CON	13	
File:		
State: Rea	dy to start receiving	Get from device

Or like this

<u>F</u> ile <u>V</u> iev	v	
Connecti	on type: Serial	
Operation	Parameters from device to PC - DOWNLOAD	
Port:	СОМЗ	
File:		
State:	Ready to start receiving	Get from device

- 1. Connect the COM port to the TEST or DOWNLOAD port on the 4025 or the MCE9625L motherboard (MCE9627). When TEST port is use parity (N)one must be selected. When the DOWNLOAD port is used parity (E)ven must be selected. Please see below in section 3.3 Appendix C: COM port selection and parameters, how the parity setting is changed.
- 2. Click 'Get from device'.
- 3. Start parameter printing on the 4025/MCE9625L by selecting parameters and pressing Print or Shift+Print.
- 4. When the parameters are received they will be displayed in the lower left part of the screen. All received data are saved in a file named CPSTORE.TXT:

State: Receiving			Stop
Par. 12: Corner 2: Calibration factor Par. 13: Corner 3: Calibration factor Par. 14: Corner 4: Calibration factor Par. 16: Right Calibration factor 1 Par. 17: Right Calibration factor 2 Par. 18: Left Calibration factor 1 Par. 19: Left Calibration factor 2 Par. 20: Coarse tare: Total Par. 21: Coarse tare corner 1 Par. 22: Coarse tare corner 2 Par. 23: Coarse tare corner 3	: 524288 : 524288 : 524288 : 524288 : 524288 : 524288 : 524288 : 524288 : 524288 : -50.000 : -11.000 : -12.000 13.000	Par. No.	Description

5. When all parameters are received click 'Stop'. This will calculate and display parameter values in the lower right part of the screen and enable parameter saving.

File:		Save	
State: Ready to start receiving	_	Get from device	
Par. 386: Calibration mode, range 5: Div 2 : 20	Par. No.	Description	Value
Par. 389: Calibration mode, range 5: Mar. weight : -0.180 Par. 389: Calibration mode, range 5: May weight : -0.180	1	Unit, Normal mode	OHg
Par. 420: Protocol, range 1: Decimal point : 3 Par. 421: Protocol, range 1: Mul 1 : 1	2	Unit, Calibration mode	OHg
Par. 422: Protocol, range 1: Mul 2 : 20 Par. 423: Protocol, range 1: Mul 2 : 20	3	Unit, Protocol	0 Hg
Par. 425: Protocol, range 1: Mar. weight : 20.100	6	Tare weight	1.000
Par. 420: Protocol, range 1: Max. weight : 50:100 Par. 426: Protocol, range 2: Decimal point : 3	7	Specific gravity	9.8155
Par. 427: Protocol, range 2: Mul 1 : 1 Par. 428: Protocol, range 2: Div 2 : 20	8	Static Calibration factor	52428
Par. 425: Protocol, range 2: Mul 3 : 2U Par. 430: Protocol, range 2: Min. weight : 0.100	9	Dynamic Calibration factor 1	52438
Par. 431: Protocol, range 2: Max. weight : 50.180	10	Dunamia Calibration Factor 2	E0400

6. Click Save to save the parameter file:

EE Save As					×
Save <u>i</u> n:	091116		•	+ 🗈 💣 [
Recent Places Desktop Libraries Computer Network	-1v0 -1v1 -1v2 -1v3 -1v4 -1v5 Doc CPSTORE.TX LOG.TXT UL.TXT UL1.TXT UL1.TXT	T			
	File <u>n</u> ame: Save as <u>t</u> ype:	UL3 TXT Text files (*.bd)		•	<u>S</u> ave Cancel

2.6.1 Trouble shooting

If for any reason the upload fails, carefully check that the port on the 4025/MCE9625 TEST or DOWNLOAD matches the selected parity. TEST: (N)one, DOWNLOAD: (E)ven.

3) Appendices

3.1 Appendix A: Hardware connection 4025

To download a standard Crisplant download cable must be connected to the RS232-DOWNLOAD plug (labelled J1) located in the middle of the top of the board.

RS232-DOWNLOAD



3.2 Appendix B: First time software download 4025

If no software has yet been downloaded (or a software version not able to perform auto download has been downloaded) a two-step process must be followed

- 1. A Main Processor only manual download:
 - a. Switch the 4025 Off
 - b. Insert jumper JP12
 - c. Open the HEX file by clicking 'Open' and then select the appropriate HEX file and click 'Open' in the open dialog box. This MUST be a Main Processor only HEX file with a length below 524288.
 - d. The file will load. This MUST be a Main Processor only HEX file with a length below 524288.
 - e. Click ' Download'. The system will now attempt to connect to the 4025
 - f. Switch the 4025 back On.
 - g. After 5-10 seconds the connection will be made and the download will commence. The Main Processor software will be downloaded while the 'Length' field indicates the progress
 - h. After the download the downloaded software will be verified. The 'Length' field indicates the progress.
 - i. When the verification has ended switch the 4025 Off
 - j. Remove jumper JP12
- 2. A total software download as described above.

JP12 location:



3.3 Appendix C: COM port selection and parameters

The COM port number and relevant communication parameters can be changed by selecting the "View – Settings" menu (this is only possible when no download is started):

File Vie	w
Cor	Settings Ctrl+S
Operatio	n: Software Download - D4025 🔹
Port:	СОМЗ
File:	C:\4025\-C\SW\CCWD\110301\T110301-1v12.hex
State:	Ready for download

In the settings screen the COM port can be selected with the dropdown list:

Configuratio	n		
Mode:	Serial	-	
Port:	COM3 COM1 COM2 COM3		

Click "Apply" to use the selected port. The port is common to all operations. Depending on the selected operation other settings may be changed as well.

For MCE9625L software download the baudrate can be selected:

Configuratio	n							
Mode:	Serial		•					
Port:	СОМЗ	•		Baudrate:	57600 1200	•		
					9600 14400 19200			
					38400 57600 115200			
					110200			

For "Parameters transfer from device - TEST/DOWNLOAD" the parity (None or Even) is selectable:

Co	nfiguratio	n					
	Mode:	Serial		•			
	Port:	COM3	•	F	Parity:	E(ven) N(one) E(ven)	

All other parameters are fixed.