Loss Compensation Tool

For A3 ALPHA® and A1800 ALPHA® meters

Purpose

This instructional leaflet explains how to use the loss compensation software for configuring loss compensation parameters. Instructions are provided for reading and writing the loss compensation parameters to the meter.

Document History

The following table lists the releases of this document and a brief description of the changes made.

Document release	Tool version	Comment
A	1.00	Initial version of document.
B	1.40	Changed document number from TB42-1003A to IL42-5001A. Converted "ABB" to "Elster Electricity." Minor updates made regarding version 1.4.
C	1.50	Updates made regarding Elster's A1800 ALPHA meter. Document number now IL42-5002B.

System Requirements

To use the loss compensation software, your system must meet the following minimum requirements:

- a PC that runs Windows 2000 or later
- has at least 8 MB of memory (RAM)
- has at least 1 MB of free space on the hard drive

Installing and Starting

This software consists of a single file (A3A1800LossComp.exe). Copy this file to your hard drive or to a diskette. Open the file to start the application.

Each time the application starts, the license agreement will be presented. You must accept the license agreement to proceed.

Setting Up

Option	Description
Port	Select the communications port that your optical port is connected to.
Baud	Select the designated bits per second. Note that many optical probes in use today cannot support rates higher than 9600 bps.
Password	Type the unrestricted password for the meter to be configured. The password will not be visible on the screen. Each time the Loss Compensation tool is started, the password is automatically reset to the Elster factory default of 20 zeros ("00000000000000000000"). If your meters have a different unrestricted password, you must re-type your unique password each time the application is started.

Applicable Meters

This tool can only be used with meters that have loss compensation enabled.

- A3 ALPHA meters using firmware version 3.01 or higher with loss compensation enabled **must be** configured with version 1.4 or later of the loss compensation tool.

  If you use an earlier version of the loss compensation tool on A3 ALPHA meters using firmware version 3.01, it will appear to operate properly but the compensation register will be incorrect.

- A1800 ALPHA meters must be configured with version 1.5 of the loss compensation tool.

If you use the loss compensation tool on meters that do not have loss compensation enabled, all software functions will fail.

Contact Elster at +1 800 338 5251 if you need assistance in obtaining the most current version of the tool.

Supporting Files

Two new files will be created in the same directory when you start the application for the first time.

File	Description
A3A1800LossCompConfig.ini	This file contains the communication port and baud rate settings. These settings will be restored each time you start the application. (Note: For security reasons, the password is not saved in the .ini file.)
A3A1800LossCompLog.txt	This file contains a log of each data editing attempt. This allows you to track exactly what action has been performed on each meter. Each entry in the log includes the following items: • the function performed (WRITE | LC On | LC Off) • result of the function (PASS | FAIL) • date and time of function • factory serial number of the meter • programmed meter ID (ID#2) • programmed account number (ID#1) • failure message (included if the result was FAIL) Note that READ attempts are not entered into the log.

Command Buttons

Button	Description
Exit	Quits the application.
View Log	Opens the A3A1800LossCompLog.txt file in a separate window.
Read Configuration	Reads the existing loss compensation parameters from the meter and displays them for review or editing.
Write Configuration	Writes the user-entered loss compensation parameters to the meter. If the status was set to ON, then the meter immediately begins compensated metering using the entered parameters. If the status was set to OFF, then all parameters are still written to the meter but the compensation feature in the meter is disabled.

Button	Description
Loss Compensation ON	Turns on the loss compensation feature in the meter without changing any of the loss compensation parameters. The existing configuration parameters in the meter are read and displayed for reviewing or editing.
Loss Compensation OFF	Turns off the loss compensation feature in the meter without changing any of the loss compensation parameters. The existing configuration parameters in the meter are read and displayed for review or editing.

The Loss Compensation ON and the Loss Compensation OFF buttons offer a method to easily turn loss compensation on and off for testing purposes without modifying any of the configured compensation parameters in the meter.

Loss Compensation Parameters

Option	Description
Status	Select whether loss compensation should be turned on or off when the configuration parameters are written.
Disable during test mode	If selected, the meter will automatically disable loss compensation whenever test mode is activated and will resume loss compensation whenever test mode is exited. If this option is not selected, the meter will continue to perform compensation while in test mode.
Metercat identifier	Optional user input of up to 12 characters to describe the loss compensation settings. This is stored in the meter for recordkeeping purposes only.
Registration	Select to "Add Losses to Delivered Energy" or "Subtract Losses from Delivered energy."
Iron watts correction (%)	Enter the per element correction value as a percentage from 0.0000 to 100.0000 (default is 0.0000 %)
Copper watts correction (%)	Enter the per element correction value as a percentage from 0.0000 to 100.0000 (default is 0.0000 %)
Iron VARs correction (%)	Enter the per element correction value as a percentage from 0.0000 to 100.0000 (default is 0.0000 %)
Copper VARs correction (%)	Enter the per element correction value as a percentage from 0.0000 to 100.0000 (default is 0.0000 %)
Meter current (A)	Enter the meter current assumed in the calculation of the loss correction values (must be in the range of 0.01 to 99.99, with the default = 5.0). Typically, this is the meter current when the power transformer is operating at its maximum ratings.
Meter voltage (V)	Enter the meter voltage assumed in the calculation of the loss compensation values (must be in the range of 0.1 to 999.9, with the default = 120.0). Typically, this is the meter voltage when the power transformer is operating at its rated voltage.

The Write Configuration button causes the listed parameters to be written to the meter. When the Read Configuration, Turn Loss Compensation On, or Turn Loss Compensation Off buttons are pressed, the application will read the loss compensation configuration values from the meter and will display these in the same fields. In this case, any pending user-entered data in these parameter fields will be lost (overwritten with the data returned from the meter).

Status

At the bottom of the screen is a status section. A status message is displayed following every communication attempt. The message will indicate whether or not the function attempted was successful. If the attempt is unsuccessful, the message will provide information on the failure.

Troubleshooting

If the communication attempt is unsuccessful:

- Verify that the Loss Compensation Alpha Key is enabled.
- Verify that you have the correct serial port setting.
- Reduce the baud rate setting and try again.
- Verify that you have properly entered the unrestricted password.

If you continue to have problems, contact Elster Electricity at +1 800 338 5251.