Landis & Gyr (Europe) Corp.

Readout Software ACS10
Manual

Version 2.11

LANDIS & STAEFA

Contents

1. Preface

This documentation is intended to assist you in the installation of your ACS10 software program; it is not an operating manual.
For operating the software program, the ACS10 Help is at your disposal. Refer to chapter 6 of this manual for details.

2. Introduction

2.1 What is ACS10 software program?

ACS10 is a software program used for data read-out and parameter settings in M-bus plants. The data can be read from the memory of the OZW10 M-bus central unit or from a memory card inserted in the OZW10. ACS10 also facilitates the recording of measured values that are made available by the M-bus central unit.

Data stored on the memory card can be read and also deleted with the ACS10 software program. The connection to the M-bus central unit can be established directly with the help of a null modem or via a telephone modem.

2.2 Contents of ACS10 software package

Your ACS10 package contains:
- 3½" diskettes (1.44 MB)
- the manual

2.3 Requirements on the system

2.3.1 PC, hardware and software

To be able to work with ACS10 and to establish a connection to a M-bus central unit, your PC must meet the following requirements:
- PC: 100 % IBM compatible
- Processor: 80386 min., but 80486 recommended
- RAM: 4 MB min., but 8 MB recommended
- Memory required on hard disk: 6 MB min. (depending on the number of heat meters)
- Screen: VGA standard driver (VGA3.0), 640 x 480, 16 colors

- Interface: At least one serial interface with up to 9,600 baud
- Operating system:
  - DOS version 5.0 or higher and WINDOWS version 3.1 or higher, or
  - OS/2, version 2.1
- 3½" diskette drive, 1.44 MB

2.3.2 Accessories

For direct connection:

- Standard RS232 cable, one-to-one-termination
  Note:
  Depending on the PC interface, you may also need a reduction adapter (commercially available, to provide reduction from 25 to 9 pins, or vice versa). Please check whether the PC interface and the cable use the correct connectors
- Null modem

For modem connection:

- One modem for the M-bus central unit and one for the PC
- Connecting cable between PC and modem (standard RS232 cable, one-to-one-termination)

2.4 Tips on the use of the manual

2.4.1 Terminology

The terms "menu" and "menu choice" have the following meaning:

1 Menu
2 Menu choice
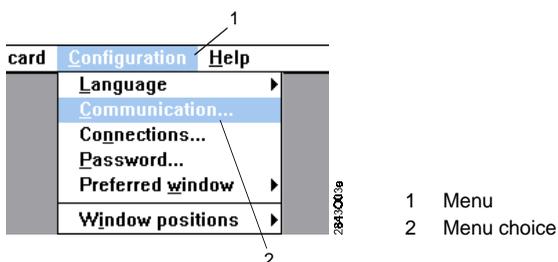
2.4.2 Naming of PC keys

Please note:

[SHIFT] + [CTRL]   The plus sign separating the two key names denotes that both keys must be pressed at the same time.

[SHIFT]   Uppercase letters are also used on the keys themselves.

[Direction keys]   Lowercase letters are not used on the keys. Press the keys as indicated in the manual.

This manual uses the names of the American keyboard.

3. Installation

3.1 Installing the software

Note:
During installation, you can work with the default settings.
To load the ACS10 software program from the diskette to your hard disk, proceed as follows:

1. Start WINDOWS

    Caution:
    If WINDOWS already runs, stop it and start it again before beginning with the installation of ACS10. This procedure avoids installation problems.
2. Place the first ACS10 diskette in drive A: or B:
3. Select "Execute..." from the "File" menu
4. Enter the command:
    a:\setup.exe or **b:\setup.exe.**
5. Press the "OK" button.

3.2 Installing the hardware

For installation of the hardware, refer to chapter 4., "Connecting the M-bus central unit".

3.3 Setting the connection parameters

3.3.1 Configuring the communication

You define the type of connection between the M-bus central unit and your PC via the COM interface by selecting "Communication..." from the "Configuration" menu.
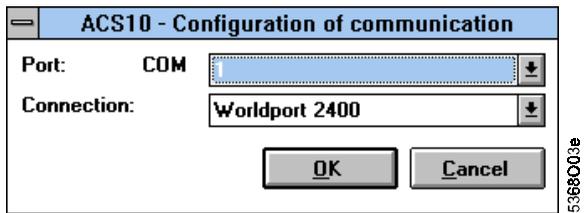
This window allows you to define the type of connection for the individual COM interfaces.

3.3.2 Drivers

Communication without modem

Please select the preconfigurated driver "OZW10 Direkt":

Communication with modem

For the following types of modems, drivers are preconfigured:
- Alcatel md1142
- Microlink 2440TL
- Microlink 2460TL
- Microlink 28.8TQV
- Microlink 28.8TQ
- Microlink 14.4TQ
- QuickTel XEBA 14.400
- Worldport 2400
- Worldport 2400 V.42bis
- Zyxel U-1496
- Zyxel U-1496E

Please contact us if other drivers are required.

For other types of modems, it is necessary to define specific drivers. In particular, please ensure that in the initialization modem string the following parameters will be set as indicated (provided they are supported by your modem):
- Selction of error correction: NORMAL
- Automatic resynchronization: OFF
- Data compression: OFF
- Data buffering in the negotiation phase: OFF
- Bit rate on telephone side: %B9600 (central unit and PC)

We recommend to use one of the modems listed above, since the ACS30 has been tested with them.

4. Connecting the central unit

4.1 Settings at the M-bus central unit

When switching on, the data are set to the status as supplied.

The following variables and values must be entered into the M-bus central unit:

- Direct connection/modem connection
- Code number

This is made as follows:

Where to make the setting:	As supplied	What to enter:
Page 4, line 48: "Selection PC interface"	2	1 = modem connection 2 = direct connection
Page 09.1 (only available on ACS10!): Line "Code number"	0000001	The code number must agree with the selection made in the ACS10 window "Edit plant directory"

4.2 Connection without modem

To establish a connection to a M-bus central unit, a null modem (refer to section 4.4., "Null modem") is required between PC and M-bus central unit.

The following illustration shows the direct connection between PC and M-bus central unit.

1   RS232 Cable
2   Null modem
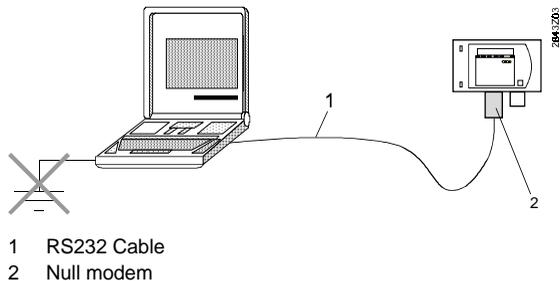
4.3 Connection via modem

1   RS232 Cable
2   Modem

Normally, with an OZW10 M-bus central unit as supplied by Landis & Staefa, you can establish a connection via modem, in which case you only need to enter 1 on operating page 4, line 48, "Selection PC interface".
If your modem does not operate with the default settings, you need to change the settings contained in the tables below t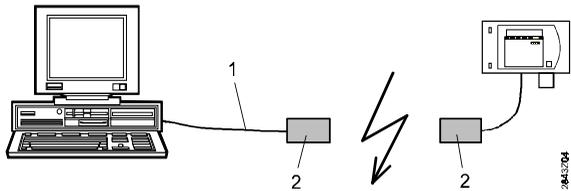o suit your modem. These settings can only be made via the ACS10. For this purpose, you need to establish a connection first (refer to section "4.3., "Connection without modem").
In the "Operating pages" window, you can then change the settings to suit your modem, page 9.1, "Configuration of M-bus central unit".
Note:
To be able to select this operating page, you need to change to "Options - Select pages - Configuration" (refer to Help under "Operating pages").

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Zeile:	Microlink 2440TL Microlink 2460TL Worldport 2400 Worldport 2400 V.42bis Zyxel U-1496 Zyxel U-1496E	Alcatel md1142	Microlink 28.8TQV Microlink 28.8TQ Microlink 14.4TQ	QickTel XEBA 14.400
Telefonnummer der Leitstelle 1	0000001	0000001	0000001	0000001
Telefonnummer der Leitstelle 2	0000001	0000001	0000001	0000001
Baudrate	2400	1200	2400	9600
Modem-String für Initialisierung	ATE0V0&C1\J1S0=2 ^M	~~ATE0V0&C1S0=2 ^M	ATE0N0%E0\C0V0\J1S0=2 ^M	ATE0V0%C0\N0&K0S0=2F8 ^M
Modem-String für Reset	AT&F ^M	~~AT&F ^M	AT&F ^M	AT&F ^M
Modem-String für Wählen	ATDP	ATDP	ATDP	ATDP
Modem-String für Aufhängen	~~~~+++~~~~ATH ^M	~~~~+++~~~~ATH ^M	~~~~+++~~~~ATH ^M	~~~~+++~~~~ATH ^M

4.4 Null modem

To connect a PC, a standard RS232 cable and a null modem are required. With the null modem, at least wires 1, 2, 3, 4, 5, 6, 7, 8 and 20 must be connected as follows:
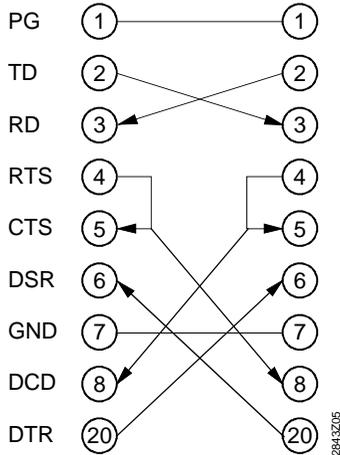
PG	Protective Ground
TD	Transmit Data
RD	Receive Data
RTS	Request to Send
CTS	Clear to Send
DSR	Data Set Ready
GND	Signal Ground
DCD	Data Carrier Detect
DTR	Data Terminal Ready

5. General information on WINDOWS

By using the combination of keys given in the table below, you can also operate WINDOWS without a mouse.

5.1 Combinations of keys

Calling the task list	[CTRL] + [ESC]
Changing to the next application without restoring the symbolic windows	[ALT] + [ESC]
Changing to the next application with restoring the symbolic windows	[ALT] + [TAB]
Copying a screen shot to the clipboard	[PRINT SCREEN]
Copying an active window (dialog box,, application) to the clipboard	[ALT] + [PRINT SCREEN]
Opening the system menu in an application window	[ALT] + [Spacebar]
Opening the system menu in a document window	[ALT] + [-]
Closing the active window or an application	[ALT] + [F4]
Closing a document window	[CTRL] + [F4]
Changing between window and full picture in a DOS window	[ALT] + [ENTER]
Shifting a window after selecting "Shift" or "Size" from the associated system menu. After shifting, close with [ENTER]	[Direction keys]

5.2 Dialog boxes

To the next option	[TAB]
To the previous option	[SHIFT] + [TAB]
Selecting a menu or group whose name contains this underlined letter	[ALT] + [Letter]
Selecting the first element or character within a list or text field	[HOME]
Selecting the last element or character within a list or text field	[END]
Opening a list	[ALT] + [Downward arrow]
Highlighting a list element or deselecting	[Spacebar]
Extending or deleting highlighting	[SHIFT] + [Direction key], [SHIFT] + [HOME], [SHIFT] + [END]
Executing a command,, with previous selection if necessary	[ENTER]
Closing the dialog box without executing a command	[ESC] oder [ALT] + [F4]

5.3 Editing text

Extending or reducing highlighting by character	[SHIFT] + [Left arrow], [SHIFT] + [Right arrow]
Extending or reducing highlighting by character	[SHIFT] + [Upward arrow], [SHIFT] + [Downward arrow]
Extending or reducing highlighting by one screen	[SHIFT] + [PAGE DOWN], [SHIFT] + [PAGE UP]
Highlighting text to the end of the line or to the first character	[SHIFT] + [HOME], [SHIFT] + [END]

Highlighting the previous or the next word	[CTRL] + [SHIFT] + [Left arrow],
	[CTRL] + [SHIFT] + [Right arrow]
Highlighting text to the start or the end	[CTRL] + [SHIFT] + [HOME],
	[CTRL] + [SHIFT] + [END]
Deleting the highlighted text and storing it on the clipboard	[SHIFT] + [DELETE]
Copying the highlighted text to the clipboard	[CTRL] + [INSERT]
Inserting the contents of the clipboard at the actual pointer position	[SHIFT] + [INSERT]
Retrieving the last working step	[ALT] + [BACKSPACE]

5.4   Program manager

Moving between individual windows and symbols	[CTRL] + [F6], or [CTRL] + [TAB]
Starting the highlighted program	[ENTER]
Side-by-side arrangement of opened individual windows ("Tile")	[SHIFT] + [F4]
Cascaded arrangement of opened individual windows ("Cascade")	[SHIFT] + [F5]
Closing the active group window	[CTRL] + [F4]
Closing the program manager	[ALT] + [F4]
Editing a program property	[ALT] + [ENTER]

5.5   File manager

Opening a file	[ENTER]
Shifting files and directories	[F7]
Copying	[F8]
Deleting	[DELETE]
More detailed information (properties)	[ALT] + [ENTER]
View of next level	[+]
Showing branch	[*]
Removing branch	[-]
Showing all levels	[CTRL] + [*]
Cascaded windows	[SHIFT] + [F5]
Windows side-by-side	[SHIFT] + [F4]
Updating directory trees	[F5]

6.   ACS10 Help

Detailed instructions about functions and operating sequences are given in the help program.
For this reason, this manual does not contain detailed operating instructions on the ACS10 software program.

6.1   The first steps

A description of the most important procedures is given in ACS10 Help. Select "Contents" from the "Help" menu to reach the first help page.
From there, you can select "Procedure".
Now you can invoke help text for the various actions.

6.2   Invoking ACS10 Help

ACS10 Help can be invoked in different ways:

6.2.1   Function key F1

Using function key F1, you can access ACS10 Help. A description of the respective window will then be given.

6.2.2   "Help" menu

In the main menu, you will find the "Help" menu. You can invoke it at any time. The menu choices have the following meaning:

"Contents"	Calls up ACS10 Help, which is operated the same way as any other help program of a WINDOWS application.
"Search..."	This menu choice calls up the dialog box "Search". Here, you can search for certain terms relating to ACS10 and the M-bus central unit.

| "Using Help" | This invokes the help program of WINDOWS. |
| "Info..." | Shows you in a dialog box information relating to your software program. This includes the version number, the build number and the date on which the software program was produced.
If you contact us for assistance, please provide this information. |

If you do not use a mouse, you can work with the keyboard codes listed in chapter 5. "Combinations of keys".

6.3 Printing help texts

If you wish to print certain sections of the help texts, you can do so by selecting "Print theme" from the "File" menu.

7. Rectification of faults

Should faults occur, please check the following:
- Is the RS232 cable connected to the defined COM interface?
- Have all phone numbers been correctly selected?
- In the case of a direct connection, is there a null modem connected between the RS232 cable and the M-bus central unit?
- Has the connection to the respective COM interface been correctly defined? (Refer to the "Configuration" menu and the menu choice "Communication...").
- Are the system requirements met? (Refer to section 2.3. "System requirements").
- Did you select the right plant?

8.   Archiving data

We would like to draw your attention to the fact that the data you handle in connection with the ACS10 software program must still be accessible after a year's time.
To ensure the data will still be available after that period of time, we recommend to proceed as follows:

• Save your data according to a backup concept.

• Ensure that you save the data in a format that allows you to rehandle them at any time.

Use the quick names from the plant directory as a subdirectory for the files.
For example:
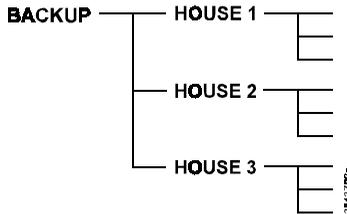
Note:
The memory card files are saved in the subdirectory MEMOCARD. We recommend to create some more subdirectories (e.g. by using the production numbers of the M-bus central units as the directory names) and to copy the files to these subdirectories.
ACS10 stores the data as follows:
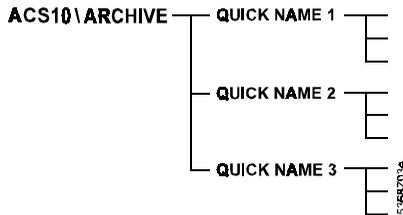
9. Support

9.1 General notes

Should you run into problems with either the hardware or the software, consult the manual first. If you find no advice relating to your problem, ACS10 Help will probably assist you, depending on the type of problem (refer to chapter 6. "ACS10 Help"). If your problem can still not be overcome, please talk to your M-bus contact person at the Landis & Staefa service center nearest you.

9.2 Information on support

If you contact your Landis & Staefa service center, please have the following information available:
- License number (you find this on the diskette)
- Version and build number (see in the "Help" menu under "Info..." or on the diskette)
- Precise wording of the error message
- Type and software version of the M-bus central unit
- Type of modem
- Type of your computer
- Type of operating system and version of DOS and WINDOWS
- Contents of your CONFIG.SYS and AUTOEXEC.BAT files

This information will enable us to resolve your problem in the fastest way.

10. License agreement

10.1 General notes

When you purchased the ACS10 readout software program, you/your company have/has signed a licence agreement, which defines the buildings covered by the agreement.
Prior to using the program, please make certain that you/your company have/has obtained the license agreement for the right field of application. Violations may lead to considerable claims for damage and may result in prosecution.
If you have any questions concerning to your license agreement, please get in touch with your ACS10 contact person.

10.2 What is permitted

- Istallation and operation of the software program on a PC of the company that has signed the license agreement
- Readout of data from the buildings that are covered by the license agreement

10.3 What is not permitted

- Transfer of software copies or printed information to thirds
- Readout of data from buildings that are not covered by the license agreement
- Reverse engineering, decompiling or disassembling the software program
- Renting or transferring the software program to thirds

11. Additional operating cards

11.1 General notes

The ACS10 software program allows you to make additional settings that cannot be made at the M-bus central unit.

You can operate the OZW10 M-bus central unit from a remote location via the menu "Data - Remote operation - Operating cards". The operating cards are assigned to two levels:

1. At the standard level, you find operating cards 1...4 as on the OZW10 M-bus central unit, plus the extra card "Commands" and "Clock time meter".

2. At the configuration level, you find additional operating cards that, usually, are only required for commissioning the system. The settings at the configuration level should only be changed by authorized staff.

11.2 Standard level

On the "Data" menu under the menu choices "Remote operation - Operating pages", you find operating cards 5.1, "Clock time meter", and 8.1, "Commands", in addition to operating cards 1...4.

Operating card 5.1, "Clock time meter", allows you to:
- Read out the date
- Read out the clock time of the meters

Operating card 8.1, "Commands", allows you to:
- Acknowledge error messages
- Format the memory card
- Synchronize the meter clocks with the clock time of the M-bus central unit

Acknowledgement, formatting and synchronization are made by setting the displayed value from 0 to 1. After performing the function, the value will automatically be reset to 0.

11.3 Configuration level

On the "Options" menu in the "Operating pages" window, you find the menu choice "Select pages" and then the "Configuration" option which allows you to access the additional operating card 9.1, "Configuration M-bus central unit".
On operating card 9.1, you find:

- The settings for summer-/wintertime changeover. The settings of month, day, weekday, and hour define the earliest possible time at which changeover can take place.

  For example:
  The earliest possible changeover to summertime be Sunday, March 25, at 02.00. This requires the following inputs:

  Month: 2
  Day: 25
  Weekday: 7
  Time: 2

- The settings for communication and the parameter settings for the modem.
  Setting "Code number" can be used to ensure access protection for the M-bus central unit from unauthorized readout or other modem users.
  If you change the code number, please remember to write the new number down, because no communication will be possible without the code number!
  The other settings are described in the chapter "Connection with modem".