# MULTITERM Pro G2 and G3 - wM-Bus





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# About this manual

This manual is based on MULTITERM Pro, product number 5098-365, version AF1.

The manual provides you with:

- Instructions on the operation of MULTITERM Pro with wM-Bus.
- Description of software features in MULTITERM Pro with wM-Bus
- Installation and update instructions for the software.

The following terms are used in the manual:

*User* refers to the person at the utility using the hand-held terminal MULTITERM Pro wM-Bus *Customer* refers to the person who has meters installed to measure energy consumption.

#### 1 MULTITERM Pro wM-Bus

This manual contains a detailed description of the features available with MULTITERM Pro wM-Bus (MT Pro wM-Bus).

MT Pro wM-Bus supports the newest standard for wireless reading of water, heat and cooling meters. Wireless M-Bus is a wireless variant of the wired M-Bus that is already widely used for meter reading. Wireless M-Bus is standardised under EN13757-4.

MT Pro wM-Bus also supports serial reading and reading with optical eye.

#### 1.1 Principle of operation

MT Pro wM-Bus is based on routes which contain the meters selected for reading. The routes are typically created in PcBase III.

When the reading has been carried out, the route file is transferred back to the PC with the respective meter data collected during the reading.

#### **Keyboard overview:**

These overviews show the keyboard shortcuts for the most often used features:

<u>MT Pro G2</u>:



#### <u>MT Pro G3</u>:

N	ULTITER		O		
F1:	Select	Notification	Contacts	F2-	Select
Orang	e func-	PSUDATEK		Arrows:	Navigate
tion k ESC:	ey: See below Back/Pause in radio			FN, Ente (5 sec):	r Restart the hand-held terminal
٨.	Radio reading all routes			Enter:	Execute
<b>A</b> .	(in overviews of meters and routes)			- D:	Information (in meter overview)
В:	Event code (in meter overview)		3 740	F:	Status change (Read/not read in
M:	Meter options	9 74 04	0' 0'		meter overview)
0:	Automatic optical reading 🚽	ABC		- R:	Radio reading single
S:	Search function		K L Q R W X		view)
	Un/Off			K	amstrup

# **MULTITERM** Pro

ORANGE + D:	Home
ORANGE + J:	End
ORANGE + E:	Page Up
ORANGE + K:	Page Down
ORANGE + Z:	Software Rev.
BLUE + BKSP:	Delete template etc.
BLUE + ENTER:	Reset
ORANGE + BLUE + ENTER:	Reinstall MULTITERM Pro application

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# 2 Introduction

#### 2.1 Product overview

#### 2.1.1 Hardware specifications

Description	MT Pro G2	MT Pro G3	
Processor	520 MHz	624 MHz	
Display	3.6"	3.7"	
Memory	256 MB ROM / 128 MB RAM	1 GB ROM / 256 MB RAM	

The hand-held terminal WORKABOUT PRO from Psion Teklogix has been adapted to varying working conditions and is solid and practical to use. This is confirmed by the following features:

- Complies with standard IP 54 (water and dust protection)
- Can be used at temperatures from -10° to +50°C
- Fall tested on concrete floor from 1.1 m
- Daylight readable VGA screen
- Compact Flash and SD/MMC Card
- 4400 mAh Battery
- Backup battery with 5 years' service life
- Wireless M-Bus built into the hand-held terminal (EN13757-4, Mode C).

WORKABOUT PRO is provided with a lithium battery with maximal capacity. Furthermore, a backup battery provides power in case the main battery must be replaced.

WORKABOUT PRO is installed with radio card and all necessary software by Kamstrup A/S. After this, the name of the hand-held terminal is MT Pro wM-Bus.

MT Pro wM-Bus is provided with a number of features making it even more user-friendly. However, due to the large power consumption of the hand-held terminal, it is recommended to place it in the docking station as often as possible. For users primarily working on location, it is recommended to use Car Kit to continuously supply power to the hand-held terminal.

#### 2.1.2 Battery charging

MT Pro wM-Bus is supplied with factory fresh batteries that must be fully charged before use.

It takes approx. 24 hours to charge the batteries completely. Therefore, before using MT Pro wM-Bus for the first time, it is recommended to connect it to a charger – either a docking station or a car charger – for 24 hours.

**Note** A period of 10-15 minutes to charge the battery must be expected before MT Pro wM-Bus can be started and used.

#### 2.2 wM-Bus meters supported in MULTITERM Pro wM-Bus

The number of meter types supporting wM-Bus is continuously increasing. For further information, see the data sheet for each meter.

#### 2.3 Frequency

The wireless M-Bus system of Kamstrup A/S uses the frequency 868 Mhz.

#### 2.4 Capacity

40 MB disc is available on MT Pro wM-Bus for applications and data.

Kamstrup recommends collecting readings in a number of route files rather than collecting all readings in one large route file:

- routes with up to 500 meters
- a total of at least 3500 meters is guaranteed.

If this recommendation is not followed, it might result in a poorer performance of MT Pro wM-Bus.

#### 2.5 Data security

The MT Pro wM-Bus application and data are stored in Flash Memory to prevent data from being lost, e.g. when changing batteries or when losing power in another way.

#### 2.6 Copyrights

Kamstrup A/S reserves the right solely to use our preinstalled MT Pro wM-Bus application on handheld terminals procured by Kamstrup.

Likewise, Kamstrup can neither support third party software installed on the hand-held terminal, nor problems caused by this software.

#### 2.7 Navigation in MULTITERM Pro wM-Bus

<u>MT Pro G2</u>:



#### MULTITERM Pro wM-Bus

#### User manual

#### MT Pro G3:

F1 corresponds to the left button at the bottom of the window

Function keys for • navigation

Orange function key -



#### 2.7.1 Switch on the hand-held terminal

Press the ENTER key for 2-3 seconds to start the hand-held terminal.

#### 2.7.2 Switch off the hand-held terminal

Press the ENTER key for 2-3 seconds to switch off the hand-held terminal.

#### 2.7.3 Starting the application

To start the application, press Kamstrup | MULTITERM Pro once on the touch screen.



Alternatively, mark **Kamstrup | MULTITERM Pro** by scrolling down with the navigation button and pressing ENTER.

Control and set the time, and finish by pressing ENTER.

Control and set the time zone, and finish by pressing ENTER.

This opens the main menu in MT Pro wM-Bus:



#### 2.7.4 Symbol explanation

The following status symbols are used in the hand-held terminal:

#### **Route overview:**

Stilling	1	65
🎯 Stilling	2	13
🌰 Stilling	5	9

= no meter in the route has been read
= reading of meters in the route has started

#### Overview of streets in a route:

🗁 Prins Chr.Vænget	3
🜑 Mursejlervej	1
MØLLEPOLD	1
Mursejlervej	1
🚇 Mursejlervej	0
Nattergalevej	0
Prins Chr.Vænget	11





= all meters on the street have been read

#### **Overview of meters on a street:**

唑 Prins Chr.Vænget 145
🐨 Prins Chr.Vænget 147
🐨 Prins Chr.Vænget 149
Prins Chr.Vænget 151
🐨 Prins Chr.Vænget 153
🤒 Prins Chr.Vænget 153
🤒 Prins Chr.Vænget 151

- meter not yet read
  - 😠 = meter read
  - = meter read and event code registered

### 3 Read from route

In MT Pro wM-Bus, the meters to be read are available in so-called routes which are defined in PcBase III. The respective routes may consist of an arbitrary number of meters to be read.

Wireless M-Bus works by one-way radio communication. About every 15 seconds, the meter sends out data packages, and MT Pro wM-Bus then listens for these packages. The data packages are encrypted, and as soon as MT Pro wM-Bus has received an understandable data package, the package is registered and saved in the memory of the hand-held terminal.

If a meter is not available in a route, it can be read as an ad hoc meter under the menu **Manual reading**. This is done by entering the serial number of the meter.

**Note** An encrypted and to MT Pro wM-Bus unknown meter cannot be read via radio.

If there is a problem with the radio reading of a meter, it can be read via optical eye or manual entries instead.

#### 3.1 Navigation under Read from route

ser1 - 25.08.2011 14:08	User1 - 25.08.2011 14:13
0	Select route:
Kamstrup   MULTITERM Pro	Stilling 1
	🎯 Stilling 2
1: Read from route	Stilling 3
2: Manual reading	
3: Search	
4: Receive routes	
5: Send data	
6: Configure	
	24/435 - 6%
435 meters in 3 route(s).	Number of completed routes : 0/3
24 meters done.	Meters with into code : 0
du lice meters.	* Chausing all maters (T)
	* Jump to current street, disabled (J)
Salact Ouit	Start reading Back
Select Quit	Start reading Back

Select **Read from route**. An overview of routes available in MT Pro wM-Bus appears. By selecting a route and pressing ENTER, the street names in the route file appear.

User1 - 25.08.2011 14:10	
Stilling 2 streets:	
Falkevej	1 🔺
🌑 Mursejlervej	0
🥮 Nattergalevej	0
Prins Chr.Vænget	11 =
Rosenk jær	0
🕼 Slåenvænget	1
🎱 Ternevej	0
Vagtelvej	0 -
24/38 - 63%	
Number of completed streets : 5/9	
Meters with info code : 0	
* Showing all meters (T)	
* Jump to current street, disabled (J)	

By selecting a street name and pressing ENTER, the single meters on that street appear.

#### 3.2 Radio reading all routes

Radio reading can be started in the route overview or in the overview of the streets.

By pressing the shortcut key A in the route overview, all routes are read. By pressing **Start reading** in the route overview, only the selected route is read.



The window above to the left shows all routes where the shortcut key A can start reading all of them. The window to the right shows the streets in a selected route where only the contents of this particular route can be read. Thus, the shortcut key A has no function in this connection.

After pressing **Start reading**, the radio reading begins:

User1 - 25.08.2011 14:14
Reading route: Stilling 2
Prins Chr.Vænget 145
Prins Chr.Vænget 147
Prins Chr.Vænget 149
የ Prins Chr.Vænget 151
Prins Chr.Vænget 153
Prins Chr.Vænget 155
Prins Chr.Vænget 159
Prins Chr.Vænget 161 🔹
0/11 - 0%
Meter number : 60102995
Name : Address : Prins Chr.Vænget 151
Note :
Meter type : MULTICAL 402 Format number : 34419
Stop reading Back

In this window, the following information appears:

- Number of read meters
- Meters not yet read
- Detailed information about the meter concerned (name, meter number, info etc.)

It is possible to continuously follow the number of read meters, which "new" meters have been received, and detailed information about the individual meter.

The reading can be stopped by pressing **Stop reading**.

#### 3.3 Detailed information about the meter

In the route overview, the bottom third of the window contains primary information about the meter. If detailed information displaying all available data is required, press D.

In the window below to the left, the meter overview shows primary information, while the window to the right shows all available data when pressing D.

User1 - 18.08.2011 11:50	User1 - 18.08.2011 11:51
Stilling 2 meters:	Mursejlervej 3
😻 Mursejlervej 14	Meter number : 60102844
🥶 Mursejlervej 3	Name :
😻 Mursejlervej 6	Address : Mursejlervej 3 Note :
	Meter reader : User1 Time : 2011-08-03T13:18:25 Meter type : MULTICAL 402
3/3 - 100%	E1 Varmeenergi : 580 kWh V1 Volumen : 21,69 m3
Meter number : 60102844 Meter reader : User1 Time : 2011-08-03T13:18:25 E1 Varmeenergi : 580 kWh	Timetæller : 674 h T1 Fremløb : 54,49 C T2 Returløb : 32,68 C T1 T2 (delta t1) :
V1 Volumen : 21,69 m3 Timetæller : 674 h Start reading Back	Effekt1 : Add event code Back

After the reading, the extended display (to the right) shows the registers that the reading job in question contains.

#### 3.4 Meter reading shortcut menus

#### 3.4.1 Jump to active street

#### J: Jump to active street, enabled/Jump to active street, disabled.

This feature is used during the reading of meters in routes and is enabled or disabled by the key J. When the feature is enabled, a jump is automatically made to the street in the window where most meters have been read lately.

#### 3.4.2 Showing all meters / Showing missing meters

#### T: Showing all meters/Showing missing meters

This feature is used during the reading of meters in routes and is enabled or disabled by the key T. When the feature is enabled, only the meters or streets where the reading is not yet finished are shown.

#### 3.4.3 Shortcut key M

By selecting a meter and pressing M on the keyboard, access is given to a number of shortcuts.



This feature is available in connection with both ad hoc meter readings and meters in a route.

- 1. Radio reading all routes: See "Radio reading all routes", p. 8.
- 2. Radio reading single route: Not available to wM-Bus
- 3. **Read as wM-Bus:** Read a meter by wM-Bus, even though it has been set to optical or manual reading in the route
- 4. **Read as optical**: Read a meter optically, even though it has been set to radio or manual reading in the route
- 5. **Read as manual:** Read a meter by manual entry, even though it has been set to optical or wM-Bus reading in the route
- 6. Change status: Change the status of the meter from read to not read
- 7. Configure meter by radio: Not available to wM-Bus
- 8. Configure meter by optical eye: It is possible to configure the meter by optical eye
- 9. View info: See all details about the selected meter
- 10. **Add event code**: Add one or more of the available event codes or enter manually via the keyboard of the hand-held terminal.
- 11. **New customer info**: New customer name, address, meter position and access info can be entered here.

Information entered in connection with meter reading is automatically transferred together with the readings.

# 4 Manual reading

MT Pro wM-Bus offers the possibility of manual reading. By manual reading is meant the reading of meters that are <u>not</u> included in available routes on the hand-held terminal.

Select **Manual reading** in the main menu, and the available reading methods appear:

User1 - 22.08.2011 09:08	User1 - 22.08.2011 09:08
0	Select reading method
Kamstrup   MULTITERM Pro	1. wM-Bus
	2. Optical
1: Read from route	3. Manual
2: Manual reading	4. View ad hoc meters
3: Search	5. View log readings
4: Receive routes	
5: Send data	
6: Configure	
435 meters in 3 route(s). 24 meters done. 4 ad hoc meters.	
Select Quit	Select Back

**wM-Bus**: Use this method for reading a specific wM-Bus meter, and when you know the meter number in advance.

**Optical:** Here, the meter number is not necessarily known in advance.

**Manual:** Use this method for reading a meter by manual entries on the hand-held terminal. This feature can be used e.g. to read a defective meter, where the only possibility of reading is by manually inserting the various values read on the display of the meter.

View ad hoc meters: Meters read under wM-Bus, Optical and Manual are shown here.

View log readings: The read log readings are shown here.

#### 4.1 Manual reading (wM-Bus)

Select **wM-Bus**, and select between heat and water meters.

User1 - 18.08.2011 12:13	User1 - 18.08.2011 12:14	
Select wM-Bus template	Manual input:	
1. Heat wM-Bus	SerialNumber	6003579
2. Water wM-Bus		
Heat wM-Bus	This function is executed (a saved) by pressing Enter a the last field	and data ar fter entry ir
Select Back		Back

Enter the number of the meter that you wish to read. Press ENTER, and the reading starts.

#### 4.2 Manual reading (optical)

Select **Optical**. Now, an overview of available optical templates appears as illustrated below.

User1 - 18.08.2011 13:10	User1 - 22.08.2011 12:52
Select optical template	
1. El M3 2. El S7 3. Heat L1 4. Heat M1 5. Heat S3 6. Heat XL1	wM-Bus reading job finished. Press 'D' to view read data, 'C' to enter customer data or Enter/OK to close the window
7. Reading of log 8. Water L1	
Reading of log	ОК

Place the optical reading head on the meter, or connect the external plug for reading. Select the required reading job, and press ENTER. The reading starts.

#### 4.3 Manual reading (manual input)

This feature can be used when it is <u>not</u> possible to execute an optical or radio reading.

When selecting Manual (entry), an overview of available manual templates appears:

User1 - 18.08.2011 13:18	User1 - 18.08.2011 13:18	
Select manual template	Manual input:	
1. El M3	Meter number	
2. El S7	E1 Heat energy	
3. Heat L1	V1 Volume	
4. Heat M1	Input A	
5. Heat S3	Input B	
6. Heat XL1	InfoCode	
7. Water L1	mocode	
8. Water S3		
Heat S3	This function is executed (ar saved) by pressing Enter aft the last field	nd data are er entry in
Select Back		Back

If e.g. **Heat S3** is selected, the entry template of this job is shown. Here, the user can enter the registrations of the meter manually.

**Note** This feature is finished (and data are saved) by pressing ENTER after inserting registrations in the last field.

When entering data manually, do not enter separating characters or units. For a meter that e.g. shows 123,456 MWh, enter "123456". Subsequently, PcBase III makes sure to show decimals and units correctly.

#### 4.4 Remove templates

Templates can be removed from the hand-held terminal by pressing the blue function key FN followed by the BKSP key.

#### 4.5 Add event code

It is possible to add comments about meters. Three types of event codes are available:

- Meter info
- Customer info
- Free text.

This feature is used by pressing the B key in the meter overview. An overview of the three above event codes now appears. Here, it is possible to add information about the meter, the customer, or as free text, where the user can enter his own comments.



Add meter info and Add customer info contain codes that can be predefined in PcTermPro III.

**Note** The MULTICAL<sup>®</sup> 601 hourly logger modules 67-02, 67-03, 67-05, 67-08, 67-09 and 67-0A can only read data since the last mains interruption or since the last adjustment of date and time.

If you wish to add a comment about e.g. the meter, select **Add meter info**. Then, you can e.g. select the comment **No access to the meter**.

#### 4.6 Reading of log

MT Pro wM-Bus can read the internal loggers in Kamstrup MULTICAL<sup>®</sup> via optical reading or external reading plug.

Establish connection, select **Manual reading**  $\Rightarrow$  **Optical**  $\Rightarrow$  **Reading of log**, and press ENTER.

MT Pro wM-Bus detects the meter type and the meter number and shows the loggers that are available in the meter:

User1 - 19.08.2011 08:14	User1 - 19.08.2011 08:15
Logger reading	Logger reading
MULTICAL 402 (60054850)	MULTICAL 402 (60054850)
Log Year	Log Monthly
From Year	From -1 Month
	To -5 Months
Info	
Press Enter to save selection	Press Enter to save selection and move on to selection of registers to read
Read again Back	Read again Back

Select the required logger and the interval to read.

If old data should be read, it is possible to indicate the period to read directly.

Select with the navigation button the registers to read, and press ENTER:

User1 - 19.08.2011 08:19	User1 - 19.08.2011 08:19	User1 - 19.08.2011 08:20
Press Enter to change state	Logger reading	Logger reading
	MULTICAL 402 (60054850)	MULTICAL 402 (60054850)
Select: (A) All, (I) Invert, (N) None	Log Monthly	Log Monthly
✓ Date	From -1 Month	From -1 Month
✓ E1 Heat energy	To -5 Months 👻	To -5 Months
E3 Cooling energy		
E8 m3xT1		
E9 m3xT2	Reading logger. Please wait	Reading finished. Readings saved in
TA2 Tariff register		The. 00054850_Monthly.KAMLOg
TA3 Tariff register		
V1 Volume		
🗌 Input A 🗸 👻		
Confirm Cancel	Read again Back	Read again Back

Press Confirm to start the reading.

The reading has been started.

**Note** It might take up to 16 minutes to read a logger if old data or all data in a logger have been selected.

When the logger reading has been executed, the reading is saved under **Manual reading**  $\Rightarrow$  **View log readings**. The name of the reading file consists of Meter number\_Logger type.

Select the required logger:

User1 - 19.08.2011 08:22	User1 - 19.08.2011 08:22	User1	- 19.08.20	011 08:23	
Reading of log	Press Enter to change state	60054850_Monthly.KAMLog		og	
6004973_Monthly		Index	Date	E1 Heat energy	
60054850_Monthly	Select: (A) All, (I) Invert, (N) None			MWh	
		2	11.06.30	0.000	
	Index	3	11.05.31	0.000	
	Time stamp	4	11.04.30	0.000	
	✓ Date	5	11.03.31	0.000	
		6	11.02.28	0.000	
Select Back	Confirm Cancel			Bac	:k

Select the registers to display on the screen, and press **Confirm**.

Now, the values of the logger are displayed with the correct units and decimal characters.

To remove a logger reading, press the blue function key FN followed by the BKSP key.

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# 5 Search

It is possible to search for meter data available on MT Pro wM-Bus. To do this, select **Search** in the main menu:



Alternatively, press the S key, which is a universal shortcut key that works in every menu of MT Pro wM-Bus.

The hand-held terminal is provided with an intelligent search feature. For instance, if "Kings" is entered in the search field, results starting with "kings", e.g. "Kings Street" or "Kings Road" appear.

**Note** The search includes all available routes on the hand-held terminal.

# 6 Receive routes

In connection with **Receive routes**, be aware of the performance limitations in MT Pro wM-Bus (see "Capacity", p. 4).

Select **Receive routes** in the main menu:

User1 - 19.08.2011 08:25
0
Kamstrup   MULTITERM Pro
1: Read from route
2: Manual reading
3: Search
4: Receive routes
5: Send data
6: Configure
[]
435 meters in 3 route(s).
3 ad hoc meters.
Select Quit

Now, MT Pro wM-Bus will look into the route library of the connected PC to see the route files that can be collected.

Select the route files to collect by scrolling down to and selecting the route files concerned by pressing ENTER. Press **Get routes** to collect the selected routes.

# 7 Send data

In connection with **Send data**, be aware of the performance limitations in MT Pro wM-Bus (see "Capacity", p. 4).

#### 7.1 Send data (route files)

When route files should be transferred back to the PC from MT Pro wM-Bus, select **Send data**:

User1 - 18.08.2011 15:30	User1 - 18.08.2011 15:31
0	Select files to send:
Kamstrup   MULTITERM Pro	😪 adhoc
	Stilling 3
1: Read from route	Stilling 1
2: Manual reading	Stilling 2
3: Search	
4: Receive routes	_ /
5: Send data	
6: Configure	
435 meters in 3 route(s).	Press Enter to select file
24 meters done.	Meter status
3 ad hoc meters.	ODone : 3
	Total : 3
Select Quit	Send files Back

Thereby an overview appears of available routes that are ready to be transferred to the PC.

Select the route files to send by scrolling down and selecting them by pressing ENTER. Press **Send files.** In this way, the selected routes are placed in the route library of the PC that must be predefined in PcBase III.

Select if the routes should be kept on or deleted from the hand-held terminal after the transfer to the PC.

# 8 Configure

#### 8.1 Configuration of meter

MT Pro wM-Bus supports a number of features for the configuration of MULTICAL<sup>®</sup>. Configuration can only be carried out via the optical eye or serial communication.

The features that are configurable depend on each meter type and its configuration.

User1 - 19.08.2011 08:26			
Configure			
1: Configure meter by radio			
2: Configure meter by optical eye			
3: Configure hand-held terminal			
4: Engineering Tools			
Make sure the meter is connected before			
choosing to configure meter by optical			
eye			
Select Back			

**Configure meter by radio** and **Engineering Tools** are not available to MULTITERM Pro wM-Bus.

#### 8.2 Meter configuration by optical eye

The features that are configurable depend on each meter type and its configuration.



For further information, refer to the technical description of each meter.

#### 8.2.1 Changing language/region

All available languages have been preinstalled on MT Pro wM-Bus.

**Note** The application must be restarted for language selections to take effect.

#### Select **Configure** ⇒ **Configure hand-held terminal**.

Select Change language/region.

Select region, and press ENTER.

Select language, and press ENTER.

Press **Yes** to restart the application.

#### 8.2.2 Change user

User1 - 18.08.2011 15:34				
Kamstrup   MULTITERM Pro				
1: Read from route				
2: Manual reading				
3: Search				
4: Receive routes				
5: Send data				
6: Configure				
435 meters in 3 route(s). 24 meters done. 3 ad hoc meters.				
Select Ouit				

"User1" has been preinstalled as default user in MT Pro wM-Bus (see window above). New user names can be created in PcTermPro III.

It is possible to limit the access to selected features in MT Pro wM-Bus by means of three different passwords:

• Engineer

Has access to all features.

Administrator

Has access to all features, except Engineering Tools if this feature is installed.

• Meter reader

Has access to all features, except meter configuration and Engineering Tools if this feature is installed.

Passwords are created and administered in the PcTermPro III application. If passwords are not created, there is access to all features.

MT Pro wM-Bus also gives access to changing the user via the configuration menu.



#### Select **Configure** ⇒ **Configure hand-held terminal** ⇒ **Change user**.

In this way, it is possible to change the user name for MT Pro wM-Bus. Press ENTER to confirm the change.

**Note** "Users" must be transferred from the PcTermPro III application in order to make them visible on the hand-held terminal.

#### 8.2.3 Change date/time and time zone

As in the case with changing the user, it is also possible to change the date/time and time zone in the application.

Select **Configure**  $\Rightarrow$  **Configure hand-held terminal**  $\Rightarrow$  **Change date/time**. In this way, you have access to change the date, time and time zone.

#### 8.2.4 Select supported meter types



In connection with ad hoc readings carried out serially and with the optical eye, the reading time can be reduced by deselecting the meter types that are not available. In this way, the time that MT Pro wM-Bus spends on finding the right communication protocol is reduced.

When reading from a route, the necessary information comes from PcBase III.

#### 8.2.5 Select display unit

By default, the hand-held terminal shows the same unit (kWh or MWh) as the meter. In cases where the program number, informing about the setup of the unit, is not transferred from the meter, the hand-held terminal shows the selections below.

# **Note** This only applies to the display on the hand-held terminal and does not influence data delivered for further use.

🍂 Kamstrup MTPro 🛛 🗱 📢	🐉 Kamstrup MTPro 🛛 🗱 📢	🐉 Kamstrup MTPro 🛛 🗱 📢
Configure	Configure hand-held terminal	wM-Bus settings:
1: Configure meter by optical eye	1: Change language/region	Default energy unit to use: MWh
2: Configure hand-held terminal	2: Change user	kWh
3: wM-Bus installation tool	3: Change date/time	MWh
4: Engineering Tools	4: Change frequency	
	5: Select supported meter types	
	6: Check for updates	
	7: Change 'Keep unread meters'	
	8: wM-Bus settings	
SW-version: 5.5.3.2 Product number: 5098-365 AE2 (G2) Microsoft Windows CE 5.2.20758 .NET Runtime: 3.5.7283.0 WMBUS firmware version : 04		Press Enter to save settings
Select Back	Select Back	Cancel

During the configuration of the hand-held terminal, wM-Bus settings are selected, and here you can select between kWh and MWh. This applies to all relevant registers using kWh or MWh.

# 9 Application updates and plug-ins

Application updates and extensions are installed on MT Pro wM-Bus by means of an update application.

#### 9.1 Program updates

Program updates are made available via CD or via download.

Program updates are installed on MT Pro by an update program.



Start the application, and follow the instructions:

MultiTerm <sup>p</sup> ro Upgrade Tool - 1.2.0 MultiTermPro Up Device info	" grade Tool		23
Connected device:	Initializing		
Compact Framework Status Framework installed: Device is upgraded:	- 23 Close MultiTermPro	Upgrade	
MultiTemPro Info MultiTermPro installer Instaled Plugns (readonly) EMS10 Fallback Engineering	Husk at lukke for MULTITERM Pro-programmet på håndterminalen, før der fortsættes. Remember to close the MULTITERM Pro application on the hand-held terminal before continuing. Schleßen Sie das MULTITERM Pro-Programm auf dem Handterminal, bevor Sie fortsetzen.	Update	
Log Connection to device established	ОК		*
		Close	

#### 9.2 How to install plug-ins on MT Pro wM-Bus

Plug-ins are made available via CD or via download.

Start the application by double-clicking the program icon for MT Pro.

Now, all the MT Pro hand-held terminals that are connected to the PC appear.

Deselect, if required, the MT Pro hand-held terminals that you do not wish to update, and click **Deploy update**:

	K
Select the users (pda's) to update	
Usemame	
♥ BLJ ♥ GBO ♥ PL ♥ RVE	
Progress Deploy update	

When the update has been transferred to the PC and is ready for installation on the selected MT Pro hand-held terminal, **All done** appears.

Click the red **X** in the top right corner to close the application.



On the hand-held terminal, select Configure ⇒ Configure hand-held terminal ⇒ **Check for updates**:



Now, MT Pro searches for updates on the PC:

<b>N</b>	TPro						
Eile	<u>Z</u> oom	<u>T</u> ools	<u>H</u> elp				
<b></b>	Start			4	€ 3:54		
Updates available Updates are available and will be installed now							
No	o detai	ls					
	0	К		D	etails		

The updates have now been loaded into MT Pro.

Press **OK** to start the installation. The installation is done automatically.

Follow the instructions on the display:

MTPro	×
<u>F</u> ile <u>Z</u> oom <u>T</u> ools <u>H</u> elp	
🎥 Installing Kamstru 📰 🍕 09:17	
Update progress	
Shutting down updateable application Shutting down succeded Star Already Installed Turr Star Run( already installed. Re-install? Star Mult OK Cancel	4 F
Continue	
	▲

Press **OK** to start the installation.



Click **Continue** to complete the installation. Now MT Pro restarts automatically.

When pressing the P key in the main menu, an overview of the installed plug-ins appears.

#### 9.3 Time

When MT Pro wM-Bus – through Microsoft ActiveSync or Windows Mobile Device Center – is connected to the PC, the time of the hand-held terminal is automatically set according to the time on the PC. At the same time, you are asked to make time settings every time the application is started.

It is also possible to set the time under the configuration menu of MT Pro wM-Bus. For further information, see "Change date/time and time zone", p. 21.

**Note** At each reading, a time stamp is created from the hand-held terminal. Therefore, it is very important that the time of MT Pro wM-Bus is always set correctly.

#### 9.4 Regeneration of the system

MT Pro wM-Bus cannot lose data, unless routes are actively deleted by the user.

If the MT Pro wM-Bus application should get into a state where it does not respond to conventional inputs, it might be necessary to regenerate the system.

To regenerate the system, press ENTER and the blue function key FN for 6-8 seconds. This closes the application, and the application (and data) is reloaded without loss of data.