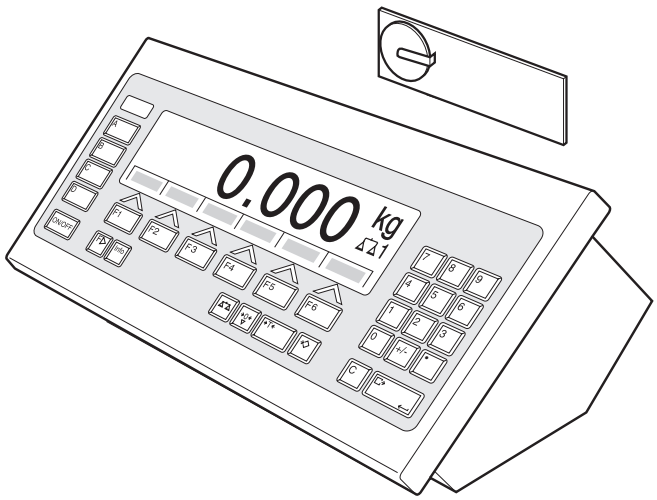
Operating instructions and installation information

METTLER TOLEDO MultiRange
ID7-Data 2000 application software

METTLER TOLEDO



Contents

1 Introduction and assembly

1.1 Introduction

ID7-Data is an application software for the METTLER TOLEDO ID7-... weighing terminal. The functions of the ID7-Data can be used after replacing the memory module.

Documentation

The ID7-... weighing terminal is provided with operating instructions and installation information for the original configuration of the weighing terminal. Please see these operating instructions and installation information for basic information on working with the ID7-... weighing terminal.

These operating instructions and installation information contain additional information on installing and using the ID7-Data application software.

1.2 Safety precautions

1.2.1 Installation in explosion protected ID7xx-... weighing terminal

EXPLOSION HAZARD

The ID7xx-... weighing terminal may only be opened by METTLER TOLEDO service technicians.

➜ To install the ID7-Data application software, please contact METTLER TOLEDO Service.

1.2.2 Installing in ID7-... weighing terminal

▲ Only authorized personnel may open the weighing terminal and install the ID7-Data application software.

▲ Before opening the terminal, pull the power plug or switch off the power supply for terminals with a fixed connection.

1.3 Installing ID7-Data

1.3.1 Opening ID7-... weighing terminal

Desk unit

1. Unscrew the screws on the underside of the cover.
2. Lay down the cover toward the front. In doing so, make sure that the cables are not damaged.

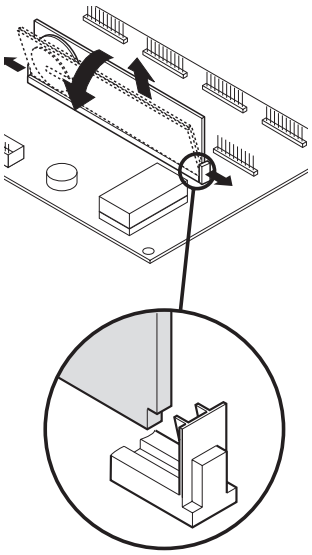
Wall unit

1. Unscrew the screws on the underside of the cover and fold the cover toward the front. When doing so, make sure that the cables are not damaged.
2. Fold open the mounting plate.

Panel unit

1. Unscrew the 10 hex bolts on cut-out on the inside of the switch cabinet.
2. Remove the cover from the switch cabinet and fold toward the front. When doing so, make sure that the cables are not damaged.
3. Fold open the mounting plate.

1.3.2 Mounting ID7-Data



1. Bend the bracket of the memory module outward on both sides, tilt the memory module forward and remove.
2. Insert the ID7-Data memory module tilted slightly toward the front and move it into the vertical position until it engages. The empty space of the module must be on the bottom right.

1.3.3 Closing ID7-... weighing terminal

Closing desk unit

1. Lay device on cover and fix slightly in place with 3 screws.
2. Press unit into cover so that 3 engaging springs engage.
3. Tighten screws.

CAUTION

The IP68 protection type can only be guaranteed when the weighing terminal is closed again properly.

➜ The 3 engaging springs must be completely engaged.

➜ Make sure that the keypad cable is not pinched.

Closing wall unit

1. Fold in the mounting plate.
2. Position the cover and screw on again. When doing so, make sure that no cables are pinched.

Closing panel unit

1. Fold in the mounting plate and position the cover on the cut-out again.
2. Secure the cover on the switch cabinet from the inside with 10 screws. When doing so, make sure that no cables are pinched.

2 Weighing in dialogue with computer

The ID7-Data can be operated in the dialogue mode with a computer as a terminal with a keyboard and display.
The connected computer controls the dialogue mode. The keyboard of the ID7-Data serves as the input unit, and the display of the ID7-Data as the display unit.
Additional information on the communication between the ID7-Data and the computer is contained in the operating and installation instructions for the ID7... weighing terminal.

Available dialogue types

Two dialogue types are available:

- Dialogue mode with the display command, whereby only the display field can be written on the ID7-Data, see section 2.1.
- Dialogue mode with the RM commands, whereby the display field can be written and the function key assignment can be changed on the ID7-Data, see section 2.2.

Function keys

In the default configuration the function key assignment for the ID7-Data is designed for use with the METTLER TOLEDO SQC application "FreeWeigh", however can be set as desired with RM commands or the commands AW303 ... AW307 or AW_303 ... AW_307 (see section 4.1).

Default function key assignment ("FreeWeigh")

SHIFT	RESET	CODE	NEXT	SAMPL	END
For activating the second assignment of the keys CODE A ... D	See operating instructions for "FreeWeigh"				

➜ Select the function by pressing the function key.

Example

➜ Press the SHIFT key to activate the second assignment of the keys CODE A ... CODE D.

If the function keys are assigned other functions

➜ Press the CHANGE FUNCTION key repeatedly until the function key assignment shown above appears.

Change function key assignment with RM commands
The assignment of the 4 function keys F2 ... F5 can be selected as desired by transmitting an RM command to the ID7-Data, see section 2.2.

<--	TEXT 1	TEXT 2	TEXT 3	-->
Scroll by page within the function key line	see RM commands from page 11			Scroll by page within the function key line

Key The key marking can cover a maximum of 4 function keys, i.e. several function key fields are then combined to form one function key.
Page A function key page corresponds to the display size, i.e. a maximum of 4 function keys can be shown on a page depending on the key marking.
Line A function key line consists of a maximum of 15 function keys.

Timer function following an RM command
If a function key on the ID7-Data is pressed following a request by an RM command, the keyboard is locked and a 15-second timer is started.
When the timer has run out, the function keys are marked in the "FreeWeigh" default setting and the response "RM30_T" is transmitted.
The timer can be suppressed by one of the following commands being transmitted immediately to the ID7-Data after a function key message is received:
D, RM34, RM35, RM38, RM39_x1.

Note
The timer function does not apply to the keys CODE A ... CODE D.

2.1 Dialogue mode with display command

The display of the ID7-Data is described in the dialogue on the display command. However, the entered text disappears when entries are made on the ID7-Data. The function key assignment is matched to the METTLER TOLEDO SQC application "FreeWeigh". The dialogue is possible without/with format specification.

Start The ID7-Data receives a display command from the computer and displays the received data.

Dialogue
- The ID7-Data waits for an entry via the keyboard and transmits the entry to the computer.
- The computer transmits display commands to the ID7-Data.
- The data cable to the computer remains active exclusively for the display dialogue until the display dialogue is ended.

End The dialogue mode ends when the ID7-Data receives a display command without a content (D).

2.1.1 Display dialogue without format specification

If a character is entered on the keyboard of the ID7-Data, it is immediately transmitted to the connected computer.

Display command from computer to ID7-Data

The following commands can be transmitted from the computer to the ID7-Data:

Display command	Shown on display of ID7-Data
D x _ Text (MMR) D x _ "Text" (SICS)	The transmitted text is shown in the line x x=1 Line 1 Character size 4x6 pixels max. 14 characters x=2 Line 2 Character size 4x6 pixels max. 14 characters x=3 Line 3 Character size 5x7 pixels max. 20 characters x=4 Line 4 Character size 4x6 pixels max. 30 characters
D 1 2 3 4 _ TextLine1 $ $ ... $ $ TextLine4 D 1 2 3 4 _ "TextLine1" _ ... _ "TextLine4" D _ Text D _ "Text"	Describe all four lines of the display with a single command Abbreviation for D 3 _ Text Abbreviation for D 3 _ "Text"
D x	Delete line x
D _	Delete all lines
D	End display dialogue
Note	When the interface is operated in the dialogue mode with the SICS command set, "Text" must always be between inverted commas.

Message of ID7-Data to computer

The ID7-Data transmits a message to the computer immediately after a key is pressed.

Message	Meaning
K D _ Code (MMR) D _ A _ "Code" (SICS)	For numeric and alphanumeric keys of an external keyboard, CLEAR key and decimal point
K F _ Code	The function keys F1 - F6 and for the keys CODE A ... CODE D
R M 3 0 _ A _ 1 6	For ENTER key

Notes

- For information on "Code", see section 2.1.3.
- As many entries as desired are permitted. The content of the last display command continues to be shown in the display until a new display command is transmitted.
- The following basic functions of the ID7-Data can be used during the dialogue mode, causing "Text" to appear again in the display.
  - Taring
  - Tare specification
  - Set to zero
  - Specify DeltaTrac target values
  - Scale switchover

2.1.2 Display dialogue with format specification

The ID7-Data accepts only entries in the specified format (e. g. alphanumeric, real, etc.). The transmission to the computer does not take place until the entry on the ID7-Data has been completed with ENTER.

Note

The control sequences of the function keys and the keys CODE A ... CODE D are always transmitted immediately.

Display command from computer to ID7-Data

`D x _ Text (max. 20 characters)` Interface in dialogue mode with MMR command set

`D x _ "Text" (max. 20 characters)` Interface in dialogue mode with SICS command set

x = Code for the format that must be observed during entry on the ID7-Data

Format	Possible keyboard entries	No. of characters
x = A (Alpha)	alphanumeric keys, special characters, CLEAR key, ENTER key	max. 20
x = H (Hidden)	as for x = A, however all characters appear on the display as *	max. 20
x = G (General)	number keys 0... 9. sign, decimal point, CLEAR key, ENTER key	max. 20
x = R (Real)	number keys 0... 9. sign, decimal point, CLEAR key, ENTER key	max. 20, incl. one decimal point, one sign
x = N (Natural)	number keys 0... 9. CLEAR key, ENTER key	max. 20
x = Q (Query)	key 0, key 1, CLEAR key, ENTER key	1 ("1" or "0")

Note

When the ID7-Data expects an alphanumeric entry, the function keys change to the assignment for the alphanumeric entry, see operating and installation instructions for ID7… weighing terminal.

Message of ID7-Data to computer

After the keyboard entry is completed with ENTER, the ID7-Data transmits the following message to the computer:

Message	**Meaning**
K␣␣Data (max. 20 characters) (MMR) D␣x␣␣A␣␣"Data" (max. 20 characters) (SICS)	For alphanumeric keys
K␣F␣␣Code (MMR) D␣x␣␣A␣␣Code (SICS)	The function keys F1 ... F6 and the keys CODE A ... CODE D, CLEAR and ENTER

Notes

- For information on "Code", see section 2.1.3.
- Incorrect entries can be deleted character by character with the CLEAR key, and correct entries must be completed with the ENTER key. The keys pressed here are not transmitted to the computer.
- With the format Q (Query) YES appears in the display after the key 1 is pressed, and NO appears after the key 0 is pressed.
- The entered data continue to be shown in the display after the transmission.
- If no data entry is to take place, the keys CLEAR or ENTER trigger a data transmission.

2.1.3 Key codes for response from ID7-Data

The codes of the messages to the computer K F _ Code or K D _ Code can be assigned to the keys as follows

Code	Key	FreeWeigh assignment
A	CODE A	Art
B	CODE B	Tare
C	CODE C	Test
D	CODE D	Print
E	Shift CODE A	Mach
F	Shift CODE B	Param
G	Shift CODE C	Atrr
H	Shift CODE D	Stat
No message	Function key F1	Shift
I	Function key F2	Reset
J	Function key F3	Code
K	Function key F4	Next
L	Function key F5	Sample
M	Function key F6	End
_ (Hex 5FH)	CLEAR	
^ (Hex 5EH)	ENTER	
. (Hex 2EH)	Decimal point	
1	Number key 1	
2	Number key 2	
…	…	
9	Number key 9	
0	Number key 0	

2.2 Dialogue mode with RM commands

With the RM dialogue the assignment of the function keys can be set from the computer. The specified text continues to be shown on the display during an entry on the ID7-Data. The RM commands of the ID7-Data are based on the command set MT-SICS 3 RemoteR V1.0x.

2.2.1 Table of RM commands

Command	Meaning	Page
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RM38	Display defined function key assignment immediately	21
RM39	Execute current RM3x commands last transmitted	23
RM50	Carry out acoustic signal (beep) on terminal ID7-Data	24

2.2.2 Description of RM commands

RM20 – Request user entry (value or text) of ID7 data

Command

`R M 2 0 _ x1 _ "Text1" _ "Text2" _ "Text3"`

Text1: Text in Line 1 on the display (max. 14 characters).

Text2: Text/value displayed as default specification and overwritten or adopted by the user (max. 20 characters).

x1: Entry format

x1=1: Real (only positive values)
x1=2: Real
x1=3: Integer (only positive values)
x1=4: Integer
x1=5: EU date (DD.MM.YY)
x1=6: US date (MM/DD/YY)
x1=7: Time (hh:mm:ss)
x1=8: Alphanumeric

Text3: Unit (max. 3 characters).

1st response

`R M 2 0 _ B` Command executed, user entry will follow.

`R M 2 0 _ I` Command understood, however cannot currently be executed (e.g. when an RM20 command is already active). No second response will follow.

`R M 2 0 _ L` Command understood, however parameter incorrect. No second response will follow.

2nd response

`R M 2 0 _ A _ "User entry"`
Entry by the user that will be sent back by pressing ENTER.

`R M 2 0 _ T` 10 minutes have past since the last RM20 command. If present, the last RM3x commands will be reactivated (including RM39).

Example

Request entry of date from ID7 data

Command: `R M 2 0 _ 5 _ "Date:" _ "09.09.99" _ ""`
Date display in European format with default specification "09.09.99" and "Date" as text to the left of the cursor. It is not necessary to enter a unit.

1st response: `R M 2 0 _ B`
Command executed, user entry will follow. The information ("09.09.99") is saved in the terminal.

2nd response: `R M 2 0 _ A _ "09.09.99"`
The ENTER key has been pressed.

Reset/cancel

Cancel RM20 command

Command: `R M 2 0 _ 0`

Response: `R M 2 0 _ A` Command executed, i.e. the last RM20 command was cancelled.

`R M 2 0 _ I` Command understood, however cannot currently be executed (e.g. when no RM20 command is active).

Comments	• The display of the function keys can be deactivated with the command RM39_2 as long as the RM20 command is still active. This is the meaning when the current function key assignment may not appear immediately after the RM20 command is executed, e.g. the function key assignment is to be changed. • Entry is also possible via a barcode or an RS232 keyboard. However, the correctness of the entry and of the format must be checked by the host, i.e. all barcodes read in are transmitted, regardless of the required entry format x1. • The character " (ASCII 34) may not be used within the parameters "Text1", "Text2" and "Text3". • The SICS commands T, TI, Z, C1, C2, C3, TST1, TST2 and TST3 will not be executed when an RM20 command is active, as otherwise the response RM20_I appears. Other commands are processed, however are not displayed until after the RM20 command is executed.

RM30 – Define function key assignment

Command	`R M 3 0 _ "Text1" _ "Text2" _ . . . "Text15"` Text1: Text for the 1st function key (max. 20 characters). Text2: Text for the 2nd function key (optional; max. 20 characters). : Text15: Text for the 15th function key (optional; max. 20 characters).
1st response	`R M 3 0 _ B` Command executed, additional RM3x commands expected (at least one RM39 command). `R M 3 0 _ I` Command understood, however cannot currently be executed. No second response will follow. `R M 3 0 _ L` Command understood, however parameter incorrect (e.g. more than 20 characters for a function key, or more than 15 function keys). No second response will follow.
2nd response	`R M 3 0 _ A _ x1` Number of function key pressed (x1=1...15). `R M 3 0 _ T` A 15-second timer has expired since the last function key was pressed and none of the host commands RM34, RM35, RM38 or RM39_x1 has been received. All function keys switch into the default assignment.
Additional response	`R M 3 0 _ A _ 16` Transmitted after ENTER was pressed.
Example	**Define the assignment for three function keys** Command A: `R M 3 0 _ "Small" _ "Medium" _ "Large"` 1st response A: `R M 3 0 _ B` Command executed, user entry will follow. The information (Small Medium Large) is saved in the terminal. To display the information on the ID7-Data, the command RM39_1 is required: Command B: `R M 3 9 _ 1` Execute current RM30 command. Response B: `R M 3 9 _ A` Command executed. 2nd response A: `R M 3 0 _ A _ 2` Second function key has been pressed (Medium).
Comments	• To activate the command, the terminal expects the command RM39_1. The commands RM31, RM32 or RM33 must be transmitted before the command RM39. • The commands RM31, RM32, RM33 and RM34 will be automatically deleted, i.e. the command RM30 must be transmitted first. • Keys that are not function keys react as described for the SICS command "K_x". • The character " (ASCII 34) may not be used within the parameters "Text1", "Text2" ... or "Text15". • By switching off the terminal or with the SICS command @ (Reset), all RM30 information is deleted from the memory of the ID7 data.

RM31 – Define highlighting of function keys

Command	R M 3 1 _ x1 _ x2 _ . . . x15 x1: Highlight 1st function key (optional). x2: Highlight 2nd function key (optional). : x15: Highlight 15th function key (optional).
Response	R M 3 1 _ A Command executed. R M 3 I _ I Command understood, however cannot currently be executed (e.g. no RM30 command is present). R M 3 1 _ L Command understood, however parameter incorrect.
Example	**Define highlighting of second function key** Example: R M 3 0 _ "Small" _ "Medium" _ "Large" Command: R M 3 1 _ 2 Highlight second function key (Medium). Response: R M 3 1 _ A Command executed. To display the change on the display of the ID7 data, the command RM39_1 is required.
Reset/cancel	**Cancel all highlighting** Command: R M 3 1 _ 0 Response: R M 3 1 _ A Command executed. Response: R M 3 I _ I Command understood, however cannot currently be executed (e.g. no RM30 command has preceded).
Comments	• No fault message appears when a function key has been marked more than once. • To activate the command, the terminal expects the command RM39_1. Note that the commands RM32 or RM33 must be transmitted before the command RM39. • The command RM31 refers to the last RM30 command transmitted. • By switching off the terminal or with the SICS command @ (Reset), all RM31 information is deleted from the memory of the ID7 data.

RM32 – Define sequence of function keys

Command	`R M 3 2 _ x1 _ x2 _ . . . x15` x1: Number of function key to be displayed as the 1st function key from now on. x2: Number of function key to be displayed as the 2nd function key from now on. : x15: Number of function key to be displayed as the 15th function key from now on.
Response	`R M 3 2 _ A` Command executed. `R M 3 I _ I` Command understood, however cannot currently be executed (e.g. no RM30 command is present). `R M 3 1 _ L` Command understood, however parameter incorrect.
Example	**Change sequence of function keys** Example: `R M 3 0 _ "Small" _ "Medium" _ "Large"` Command: `R M 3 2 _ 3 _ 1 _ 2` Arrange function keys in following sequence: Large Small Medium. Response: `R M 3 2 _ A` Command executed. To display the change on the display of the ID7 data, the command RM39_1 is required.
Reset/cancel	**Produce original sequence (created with RM30 or RM36)** Command: `R M 3 2 _ 0` Response: `R M 3 2 _ A` Command executed. `R M 3 2 _ I` Command understood, however cannot currently be executed. (e.g. no RM30 or RM36 command is present).
Comments	• A function key can be displayed several times. • To activate the command, the terminal expects the command RM39_1. Note that the commands RM31 or RM33 should be transmitted before the command RM39. • The command RM32 refers to the last RM30 command transmitted. The function key sequence of other RMx commands remains unchanged. • By switching off the scale or with the SICS command @ (Reset), all RM32 information is deleted from the memory of the ID7 data.

RM33 – Define sequence of function keys by page

Command	R M 3 3 _ x1 **Display the page that contains function key x1 as the first page** x1: Number of function key to be displayed on the 1st page from now on.
Response	R M 3 3 _ A Command executed. R M 3 3 _ I Command understood, however cannot currently be executed (e.g. no RM30 command is present). R M 3 1 _ L Command understood, however parameter incorrect (e.g. a parameter contains a function key that does not exist).
Example	**Define Page 2 from 1st page** Example: R M 3 0 _ "Grape" _ "Pear" _ "Apric" _ "Mango" _ _ "Apple" _ "Kiwi" _ "Bana" _ "Orang" (4 function keys per page) Command: R M 3 3 _ 5 Define the page that contains the 5th function key (Apple) (Page 2), as 1st page. Response: R M 3 3 _ A Command executed. To show the changes on the display, the command RM39_1 is required. Now the following appears on the display: Apple Kiwi Bana Orang.
Reset/Cancel	**Deactivate previous RM30 command if its parameter is not zero** R M 3 3 _ 0 R M 3 3 _ A Command executed. R M 3 3 _ I Command understood, however cannot currently be executed (e.g. no RM30 command is present).
Comments	• To activate the command, the terminal expects the command RM39_1. Note that the commands RM31 or RM33 should be transmitted before the command RM39. • The command RM33 refers to the last RM30 command transmitted. • By switching off the scale or with the SICS command @ (Reset), all RM33 information is deleted from the memory of the ID7 data.

RM35 – Change function key assignment immediately

Command	`R M 3 5 _ x1 _ "Text1" _ . . . x4 _ "Text4"` x1: Position of 1st function key to be changed (1...15). Text1: New text for the 1st function key (max. 20 characters). : x4: Position of 4th function key to be changed (1...15). Text4: New text for the 4th function key (max. 20 characters).
Response	`R M 3 5 _ A` Command executed. `R M 3 5 _ I` Command understood, however cannot currently be executed (e.g. no RM30 command is present). `R M 3 5 _ L` Command understood, however parameter incorrect (e.g. more than 20 characters used for a function key, more than 4 function keys present or the position specification refers to an empty function key).
Example	**Rename first and fourth function key immediately** Example: `R M 3 0 _ "Grape" _ "Pear" _ "Apric" _ "Mango" _ "Apple" _ "Kiwi" _ "Bana" _ "Orang"` Command: `R M 3 5 _ 1 _ "Apple" _ 4 _ "Lime"` Rename first function key Grape to Apple, fourth function key from Mango to Lime. Response: `R M 3 5 _ A` Command executed.
Comments	• The command RM35 only concerns the function key assignment of the last RM30 command transmitted. If the function key assignment of the last RM30 command is currently displayed, the command RM35 changes the display immediately. Therefore, the command RM39_1 is no longer required. • The character " (ASCII 34) may not be used within the parameters "Text1" to "Text4". • By switching off the scale or with the SICS command @ (Reset), all RM35 information is deleted from the memory of the ID7 data.

RM36 – List or save function key line from fix memory

Command

List function key line

`R M 3 6 _ x1` x1=0: List all function key lines (including empty ones).
x1=1…30: Number of desired function key line.

Save Function key line (15 lines with 20 characters per key)

`R M 3 6 _ x1 _ "Text1" _ "Text2" _ . . . "Text1"`

x1: Number of the function key line to be defined (**1…15**).
Text1: Text for the 1st function key (max. 20 characters).
Text2: Text for the 2nd function key (optional; max. 20 characters).
:
Text15: Text for the 15th function key (optional; max. 20 characters).

Save Function key line (15 lines with 12 characters per key)

`R M 3 6 _ x1 _ "Text1" _ "Text2" _ . . . "Text5"`

x1: Number of the function key line to be defined (**16…30**).
Text1: Text for the 1st function key (max. 12 characters).
Text2: Text for the 2nd function key (optional; max. 12 characters).
:
Text5: Text for the 5th function key (optional; max. 12 characters).

Response

Function key line transmitted

`R M 3 6 _ A _ x1 _ "Text1" _ "Text2" _ . . . "Text12"`

Command executed.
x1: Number of function key line (1…30).
Text1…15: Display the individual parameters (see below).

Function key line defined

`R M 3 6 _ A` Command executed.
`R M 3 6 _ I` Command understood, however cannot currently be executed.
`R M 3 6 _ L` Command understood, however parameter incorrect.

Example

Define two function key lines

Command A: `R M 3 6 _ 1 _ "Grape" _ "Pear" _ "Apric" _ "Mango" _ "Apple" _ "Kiwi" _ "Banan"`
The 1st function key line has been saved.

Response A: `R M 3 6 _ A` Command executed.

Command B: `R M 3 6 _ 16 _ "Net" _ "Gross" _ "Target" _ "Act" _ "Diff"`
The 16th function key line has been saved.

Response B: `R M 3 6 _ A` Command executed.

Two function key lines (1 and 16) have been saved. To show the function keys on the display of the ID7-Data, the command RM38_x or RM39_1 is required. However, an RM37 command should precede the command RM39_1.

Comments	• The command RM36 may be a good alternative to an RM30 command. As the function key assignments are saved in the internal memory of the ID7 data, they can be displayed at any time. Therefore, it is no longer necessary for the host to send back the function key commands. Displaying the function key assignment from the internal memory of the ID7 data requires less time than the transmission of the function key assignment by the host. • RM commands may be a maximum of 250 characters long, i.e. not all 15 function keys in a function key line can be marked with up to 20 characters. • Information saved with the RM36 command remain in the memory of the ID7 data even after the scale is switched off or following the SICS command @ (Reset). However, a reset deletes all information saved in RM36.

RM37 – Display defined function key assignment

Command	`R M 3 7 _ x1` x1: Number of function key line (1…30) defined beforehand with the command RM36.
Response	`R M 3 7 _ A` Command executed. `R M 3 7 _ I` Command understood, however cannot currently be executed (e.g. no function key line is defined in RM36). `R M 3 7 _ L` Command understood, however parameter incorrect.
Example	**Display first function key line** Example: `R M 3 6 _ 1 _ "Grape" _ "Pear" _ "Apric" _ "Mango" _ "Apple" _ "Kiwi" _ "Bana"` Command: `R M 3 7 _ 1` Response: `R M 3 7 _ A` Command executed. To show the function key line on the display, the command RM39_1 is required. Press arrow keys F1 or F6 to scroll between the different pages of a function key line.
Comment	By switching off the scale or with the SICS command @ (Reset), all RM37 information is deleted from the memory of the ID7 data.

RM38 – Display defined function key assignment immediately

Command

R M 3 8 _ x1 _ ABCtext1 _ ABCtext2 _ ABCtext3

x1: Number of function key line (1...30) defined beforehand with the command RM36.

The maximum of 15 function keys are assigned the 15 letters A to O.

ABCtext1: The letters A to O define the sequence of the function keys.
Alternative entry:
0 (zero): Use memory content.
X: Use specification of RM36.
The specification of ABCtext1 is optional; if there is no specification, the specification of RM36 will be taken into account or, if available, the memory content will be used, see notes.

ABCtext2: A letter from A to O defines the function key page to be displayed.
Alternative entry:
0 (zero): Use memory content.
X: Use specification of RM36.
The specification of ABCtext2 is optional; if there is no specification, the specification of letter A will be selected or, if available, the memory content will be used, see notes.
ABCtext2 may only be specified when ABCtext1 has also been specified.

ABCtext3: The letters A to O define which function keys are highlighted.
Alternative entry:
0 (zero): Use memory content.
X: Use specification of RM36.
The specification of ABCtext3 is optional; if there is no specification, no function keys will be highlighted or, if available, the memory content will be used, see notes.
ABCtext3 may only be specified when ABCtext1 and ABCtext2 have also been specified.

Response

R M 3 8 _ A — Command executed.

R M 3 8 _ I — Command understood, however cannot currently be executed (e.g. if no function key line has been defined in RM36).

R M 3 8 _ L — Command understood, however parameter incorrect.

Example	Example: `R M 3 6 _ 2 _ "NetWeight" _ "GrossWeight" _ "TargetWeight" _ "ActWeight" _ "WeightDiff"` Maximum of 2 function keys per page Command: `R M 3 8 _ 1 _ DEBC _ C _ DE` Based on the second function key line predefined in RM36, the new function key line is defined as follows: ActWeight WeightDiff GrossWeight TargetWeight. First display the function key page that contains the third function key (TargetWeight). The fourth and fifth function keys are highlighted. Response: `R M 3 8 _ A` Command executed. The function keys GrossWeight and TargetWeight (second page) immediately appear on the display of the ID7 data. Press the arrow keys to display the first page.
Comments	• In command RM38 the functions of the commands RM30, RM31, RM32, RM33 and RM39_1 are combined to form a single command, whereby a predefined function key line (RM36) is used. • The memory content is used when parameters have not been precisely specified (ABCtext1, ABCtext2 or ABCtext3) or when, wherever possible, 0 (zero) has been entered (for faster processing). In this case the function-key command line will obtain the missing information from the memory and apply it as was the case during the last use of an RM38 command with the same x1. • If a function key line generated by RM38 is active or has been deactivated by the command RM39_2, the commands RM31, RM32 and RM33 directly influence the memory content for a subsequent RM38 command with regard to this command line. This function simplifies updates running in the background and enables faster working. • By switching off the scale or with the SICS command @ (Reset), all RM38 information is deleted from the memory of the ID7 data.

RM39 – Execute current RM3x commands last transmitted

Command	R M 3 9 _ x1 x1=0: Delete command line (RM30...RM33 information no longer available). x1=1: Activate command line. x1=2: Deactivate command line (can be reactivated with command RM39_1).
Response	R M 3 9 _ A Command executed. R M 3 9 _ I Command understood, however cannot currently be executed (e.g. no RM30 present (x1=1) or no function keys displayed (x1=2)). R M 3 9 _ L Command understood, however parameter incorrect.
Example	**Execute current RM3x commands last transmitted** Example: R M 3 0 _ "Small" _ "Medium" _ "Large" R M 3 1 _ 2 R M 3 2 _ 3 _ 1 _ 2 . Command: R M 3 9 _ 1 Execute current function key commands RM30, RM31 and RM32. Response: R M 3 9 _ A Command executed. The commands RM30, RM31 and RM32 are executed simultaneously. The display of the ID7-Data shows the following: Large Small Medium on, Medium is highlighted.
Comments	• The command RM39 deletes, deactivates (hide) or activates/reactivates the current function key lines, including the RM31...RM33 information. • Also see "2nd response" for command RM30. • The commands RM35 and RM38 already contain an RM39_1 command.

RM50 – Execute acoustic signal (beep) on the terminal ID7-Data

Command	R M 5 0 _ x1 **x1:** **Length of beep** x1=1...15: Beep of approx. 0.1...1.5 second duration.
Response	R M 5 0 _ A Command executed. R M 5 0 _ A Command understood, however cannot currently be executed. R M 5 0 _ L Command understood, however parameter incorrect.
Example	**Execute beep (1 sec.)** Command: R M 5 0 _ 10 Execute beep with a duration of 1 second on the terminal ID7-Data. Response: R M 5 0 _ A Command executed.
Comment	Pressing any key ends the beep.

3 Settings in the master mode

3.1 PAC master mode block

Prerequisite

At least one serial interface (CL, RS232, RS422 or RS485) is configurated in the master mode block INTERFACE for dialog mode with the computer.

COMX	Select the interface connection
CHANNEL 1 CONFIGURED … CHANNEL 6 CONFIGURED	Select one of the configurated serial interfaces.

MODE	Set CODE D key
NORMAL	The CODE D key functions line the keys CODE A … CODE C.
D KEY LOCK	The key can only be pressed once. Then the scale must be unloaded below the ZERO LIMIT or by the MIN. DEFLECTION for the key to be released again.

4 Application blocks

In the following description, the application blocks are shown in the syntax for the MMR command set. When used with the SICS command set, please observe the SICS conventions, see Operating instructions and installation information for ID7… weighing terminal.

4.1 PAC application blocks

No.	Content	Format
301	Pac version	Response: `A B _ I D / D A T A P A C _ x . x x`
302	Program number	Response: `A B _ I P 7 5 - 0 - 0 x x x _`
303	Text for F2 key	Response: `A B _ Text_20` Write: `A W 3 0 3 _ Text_20` Note: Only the first 5 characters are shown in the display
304	Text for F3 key	Response: `A B _ Text_20` Write: `A W 3 0 4 _ Text_20` Note: Only the first 5 characters are shown in the display
305	Text for F4 key	Response: `A B _ Text_20` Write: `A W 3 0 5 _ Text_20` Note: Only the first 5 characters are shown in the display
306	Text for F5 key	Response: `A B _ Text_20` Write: `A W 3 0 6 _ Text_20` Note: Only the first 5 characters are shown in the display
307	Text for F6 key	Response: `A B _ Text_20` Write: `A W 3 0 7 _ Text_20` Note: Only the first 5 characters are shown in the display

5 What to do if …?

Error / Display	Possible causes	Remedy
Certain keys have no function	• ID7-Data in dialog mode through display command with format specification	➜ Only press keys defined by format specification ➜ Change format specification so that other keys are permitted
NO DATA CHANNEL FOUND	• No serial interface is configured for dialog mode with computer	➜ Install serial interface if necessary ➜ Configure serial interface for dialog mode with computer

6 Technical data

Dialog mode with computer	
Operating modes	• Dialog mode without format specification • Dialog mode with format specification • Control of the function key assignment with RM commands
Key codes	Special key codes for • 6 function keys F1 to F6 • 8 keys CODE A to CODE D, Shift CODE A to Shift CODE D • CLEAR, ENTER and decimal point keys

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