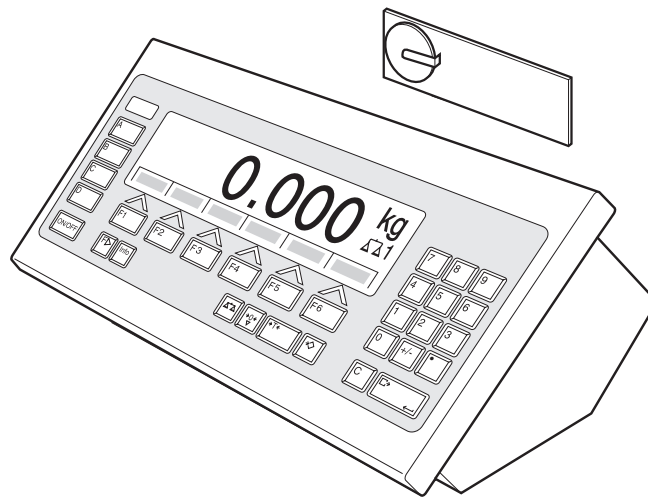


# Operating instructions and installation information

**METTLER TOLEDO MultiRange**  
**ID7-Sum<sup>2000</sup> application software**

**METTLER TOLEDO**





# Contents

|          | Page   |
|----------|--|
| <b>1</b> | <b>Introduction and assembly ..... 2</b>         |
| 1.1      | Introduction ..... 2                             |
| 1.2      | Safety precautions ..... 2                       |
| 1.3      | Installing ID7-Sum ..... 2                       |
| <b>2</b> | <b>Totalizing functions ..... 5</b>              |
| 2.1      | Enter identifications ..... 6                    |
| 2.2      | Totalize items with same article number ..... 7  |
| 2.3      | Enter known weight values manually ..... 8       |
| 2.4      | Cancel item ..... 8                              |
| 2.5      | End totalizing and clear customer sum ..... 9    |
| 2.6      | Manage inventory ..... 9                         |
| 2.7      | Work with several weighing platforms ..... 10    |
| 2.8      | Recall application-specific information ..... 10 |
| 2.9      | Print total recordm ..... 11                     |
| 2.10     | Recall total record from computer ..... 12       |
| 2.11     | Print total record on external printer ..... 13  |
| <b>3</b> | <b>Settings in the master mode ..... 14</b>      |
| 3.1      | PAC master mode block ..... 14                   |
| <b>4</b> | <b>Application blocks ..... 17</b>               |
| 4.1      | PAC application blocks ..... 17                  |
| <b>5</b> | <b>What to do if ...? ..... 20</b>               |
| <b>6</b> | <b>Technical data ..... 22</b>                   |
| <b>7</b> | <b>Index ..... 23</b>                            |

# 1 Introduction and assembly

## 1.1 Introduction

ID7-Sum is an application software for the METTLER TOLEDO ID7-... weighing terminal. The functions of the ID7-Sum 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-Sum 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-Sum 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-Sum 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-Sum

### 1.3.1 Opening ID7-... weighing terminal

#### Desk unit

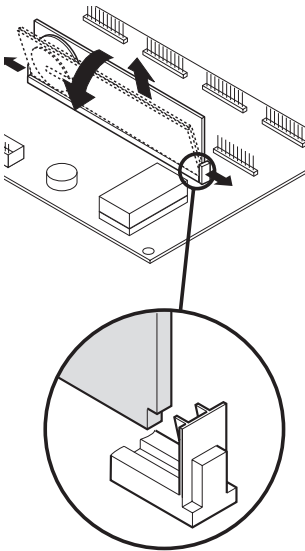
1. Unscrew the screws on the underside of the cover.
2. Lay down the cover toward the front. In doing so, make sure that the cables are not damaged.

**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-Sum**

1. Bend the bracket of the memory module outward on both sides, tilt the memory module forward and remove.
2. Insert the ID7-Sum 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 Totalizing functions

With the ID7-Sum you can form 3 different sums:

- Article total, marked with #
- Customer sum, marked with \*
- Total sum, per article marked with @, for all articles marked with \$

The **article total** combines all items with the same article number.

Each article total can be added to a **customer sum**.

The **total sum** is formed independently of the article total and customer sum. It stores all items that have been totalized with the ID7-Sum in a database. Both the sums in the database fields of each individual article (@) and the individual sums for all identical database fields (\$) are stored. Similar to application blocks, these database fields can be added to the printout configuration, see operating instructions and installation information for the ID7... weighing terminal.

A pre-configured total record of the total sum lists all items by article numbers.

**Function keys** The function keys of the ID7-Sum are assigned as follows:

| PLUS  | A TOT  | C SUM   | TOTAL  | MAN  | CANC                                    |
|---|--|---|--|--|---|
| Start automatic totalizing or totalize items manually | Print article total, set article total buffer to zero, transmit article total to customer sum buffer | Print customer sum, set customer sum buffer to zero | Print sum report of total sum, save or delete list entries | Enter weight values or quantities manually | Cancel items and print cancelled values |

→ Select the function by pressing the function key.

### Example

→ Press the MAN key.

Then you can enter a weight value manually with the keypad.

### When the function keys are otherwise allocated

→ Press the FUNCTION CHANGE key until the function keys allocation displayed above appears.

## 2.1 Enter identifications

To mark the items identifications must be entered prior to totalizing, e. g. the article number, see "Additional functions" chapter in the operating instructions and installation information for the ID7... weighing terminal.

Depending on the setting of the OPERATOR GUIDE in the master mode the ID7-Sum requests Code D to Code A in sequence.

The identification data buffers have the following standard assignment:

- Code A: ARTICLE NO
- Code B: DESTINATION
- Code C: IDENT C
- Code D: IDENT D

If the name of the identification data buffers is to be changed in the master mode, make sure that the sum memories list all weighings by the article number or by the identification Code A.

When entering the identifications, no fixed text memories can be recalled with the ID7-Sum.

|             |             |
|-------------|-------------|
| Date        | 01/12/97    |
| Time        | 11-40-56    |
| Ident D     |             |
| Ident C     | 1236        |
| Destination | 7896        |
|             | Client 1234 |

### Input

- Enter identifications and confirm each with ENTER.  
After entering Code B the header is automatically printed.  
Totalizing is started after entering Code A.

### Notes

- The values marked with \* only appear when the master mode block OPERATOR GUIDE is set to TARG. VALUE A+B+C or TARG. VALUE A+B+C+D .
- The first character of the article number (Code A) **must** be a number, as otherwise the message ENTER NUMBER appears.  
All other identifications can be confirmed without entry with ENTER.
- For article numbers already present in the article database, it is sufficient when **all** characters (numbers and separating characters) are entered up to the first letter.  
Example: The existing article number "1004 Screw" can be called up with "1004 "  
(with blank space).  
To handle article numbers, see DATABASE master mode block on page 15.



## 2.2 Totalize items with same article number

### Totalize manually

If AUTO TOTALIZING OFF is set in the master mode, the weight values of the items must be copied with the PLUS key.

1. Press PLUS key and enter identifications, see section 2.1.
2. Lay item on weighing platform.
3. Press PLUS key.

The display shows the article number, the serial number and the net value # NET of the article total. The current article total is automatically printed out.

4. Relieve weighing platform.
5. To totalize additional items, repeat steps 2 to 4.

|             |           |
|-------------|-----------|
| Article no. | 12345678  |
| Gross       | 12.495 kg |
| Net         | 11.000 kg |
| Tare        | 1.495 kg  |
| Current no. | 6         |

### Totalize automatically

If AUTO TOTALIZING ON is set in the master mode, the weight values of the items are automatically totalized.

If the items are in tare containers of an equal weight, the weighing platform can be tared with one of these containers prior to totalizing. The stored tare weight is then taken into account for all subsequent weighings.

1. Press PLUS key and enter identifications, see section 2.1.
2. Lay item on weighing platform.

The display shows the article number, the serial number and the net value # NET of the article total. The current article total is automatically printed out.

3. Relieve weighing platform.
4. To totalize additional items, repeat steps 2 and 3.

|             |           |
|-------------|-----------|
| Article no. | 12345678  |
| Gross       | 12.495 kg |
| Net         | 11.000 kg |
| Tare        | 1.495 kg  |
| Current no. | 6         |

### Note

The PLUS key need only be pressed after the 1st item to start automatic totalizing.

### Transmit current article total

→ Press A TOT key.

The current article total is transmitted to the customer sum buffer and printed out.

Then the article total buffer is set to zero.

The display shows the last article number.

|               |           |
|---------------|-----------|
| Article total |           |
| Article no.   | 12345678  |
| # Gross       | 12.495 kg |
| # Net         | 11.000 kg |
| # Tare        | 1.495 kg  |
| # Items       | 6         |

### Continue totalizing

→ Copy displayed article number with ENTER.

– or –

Enter new article number and confirm with ENTER.

### Cancel totalizing

→ Cancel entry of article number with the FUNCTION CHANGE key.

**Notes**

- The weighing platform must be relieved by at least 30 digit between laying the items on the scale.
- If the article total or the customer sum memory overflows, the sum saved last is automatically printed and then deleted before copying the current item to the memory. The display shows \*SUM OVERFLOW or # SUM OVERFLOW.
- The printout can be formatted as desired, see operating instructions and installation information for ID7... weighing terminal.

**2.3 Enter known weight values manually**

Known net weight values can be copied without weighing or quantities entered. Manual entries in a running weighing series are stored under the current article number. However, the manual entries can also be stored under a separate article number.

1. With separate article number: Press A TOT key and enter article number for manual entry.
2. Press MAN key.
3. Weight value: Enter known net weight value and confirm with ENTER.

– or –

Quantities: Press FUNCTION CHANGE key and enter the number of quantities in the unit PCS.

The display shows the net value of the current article total.

The manual entry is automatically printed and the display shows the net weight value of the article total.

|             |          |
|-------------|----------|
| Article no. | 12345    |
| Hand        | 25.30 kg |
| Current no. | 5        |

|             |          |
|-------------|----------|
| Article no. | 12345    |
| Hand        | 1000 pcs |
| Current no. | 5        |

**Notes**

- With the FUNCTION CHANGE key you can select the weight unit for entering known weight values.
- Weight values can only be entered in the displayed unit.
- The printout can be formatted as desired, see operating instructions and installation information for ID7... weighing terminal.

**2.4 Cancel item**

An item of the current article total can be cancelled by weighing back. Manually entered weight values cannot be cancelled.

→ Leave the item to be cancelled on the weighing platform or place it on the platform again and press the CANC key.

Net, gross and tare weight values of the current item are negatively booked in the article total and customer sum memory.

The cancelled values are automatically printed.

|             |           |
|-------------|-----------|
| Cancel      |           |
| Article no. | 12345678  |
| – Gross     | 12.495 kg |
| – Net       | 11.000 kg |
| – Tare      | 1.495 kg  |
| Current no. | 6         |

### Notes

- If a negative weight value is formed in the article total or customer sum memory during cancelling, the item is not cancelled and the display shows NEGATIVE SUM.
- The serial number of the item is increased by 1 during cancelling, and the item counter in the article total or customer sum memory is decreased by 1.
- The printout can be formatted as desired, see operating instructions and installation information for printer GA46.

## 2.5 End totalizing and clear customer sum

|              |            |   |
|--------------|------------|---|
| Article no.  | 6985       | * |
| Gross        | 39.540 kg  | * |
| Net          | 32.070 kg  | * |
| Tare         | 5.470 kg   | * |
| Hand         | 2.000 kg   | * |
| Hand         | 0 pcs      | * |
| Items        | 3          | * |
| Article no.  | 7412       | * |
| Gross        | 65.905 kg  | * |
| Net          | 53.455 kg  | * |
| Tare         | 12.450 kg  | * |
| Hand         | 0.000 kg   | * |
| Hand         | 0 pcs      | * |
| Items        | 5          | * |
| Customer sum |            |   |
| * Gross      | 107.445 kg |   |
| * Net        | 85.525 kg  |   |
| * Tare       | 21.920 kg  |   |
| * Hand       | 2.000 kg   |   |
| * Hand       | 0 pcs      |   |
| * Items      | 8          |   |

After completing a shipment or an order the customer sum can be printed. If new identifications are then entered, a new totalizing process is started automatically.

1. Press C SUM key.  
The customer sum is printed and the customer sum buffer set to zero.
2. Enter identifications, see section 2.1.

### Notes

- Article data are only listed individually when ENLARGED \*SUM ON is set in the master mode.
- The printout can be formatted as desired, see operating instructions and installation information for printer GA46.
- The entries of the customer sum are available in the application blocks 323 ... 328, see section 4.1.

## 2.6 Manage inventory

The default setting for the ID7-Sum is the PLUS MODE, in which it adds together all items with the same article number and the item counter increases.

If inventory control is to be carried out with the ID7-Sum, it is possible to switch back and forth between the PLUS MODE and the MINUS MODE to detect inventory receipts and removals.

Weight values adopted in the MINUS MODE are subtracted from the sum and the item counter is reduced.

### Prerequisite

ITEMS ACTIVE is set in the master mode.

### Inventory removals

1. To switch over to the MINUS MODE, press and hold the PLUS key until MINUS MODE appears in the display.
2. Totalize the inventory removals, see section 2.2.  
ID7-Sum operates in the MINUS MODE until it is switched over to the PLUS MODE again.

- Inventory receipts**
1. To switch over to the PLUS MODE, press and hold the PLUS key until PLUS MODE appears in the display.
  2. Totalize the inventory receipts, see section 2.2.  
ID7-Sum operates in the PLUS MODE until it is switched over to the MINUS MODE again.

**Note**

If the inventory level is dropped below, the display shows INVENTORY 0 and the weight value of the current item is not subtracted.

## 2.7 Work with several weighing platforms

When working with several weighing platforms, the weighing platform on which the individual items are weighed can be selected as desired.

Prior to taring the weighing platform or placing the item on the scale, select the number of the weighing platform, see "Basic functions" chapter in the operating instructions and installation information for the ID7... weighing terminal.

The number of the weighing platform is indicated on the printouts of the article total and the customer sum.

**Note**

The weighing sums of all weighing platforms are rounded off with the roughest increments according to the weighing platform.

## 2.8 Recall application-specific information

Information on totalizing can be recalled with the following key combinations:

|              |   |
|--------------|---|
| INFO, PLUS   | Display setting of AUTO TOTALIZING master mode block. |
| INFO, A TOT  | Display current net value of the article total.       |
| INFO, C SUM  | Display current net value of the customer sum.        |
| INFO, TOTAL  | Display current net value of the total sum.           |
| INFO, MAN    | Display last manually entered weight value.           |
| INFO, CANC   | Display last cleared weight value.                    |
| INFO, CODE A | Factory setting: Display last entered article number. |
| INFO, CODE B | Factory setting: Display last entered destination.    |
| INFO, CODE C | Factory setting: Display last entered Ident C.        |
| INFO, CODE D | Factory setting: Display last entered Ident D.        |

**Note**

If several pieces of information are recalled with one key, the display changes automatically after the set DISPLAY DURATION. It is also possible to switch back and forth between these pieces of information with the CLEAR key.

## 2.9 Print total recordm

|                      |            |
|----------------------|------------|
| Total record         |            |
| Date                 | 01/12/97   |
| Time                 | 11-40-56   |
| Last deletion        |            |
| Date                 | 30/11/97   |
| Time                 | 13-40-35   |
| Article no. 123      |            |
| Gross                | 62.625 kg  |
| Net                  | 52.600 kg  |
| Tare                 | 10.025 kg  |
| Hand Pcs             | 0 pcs      |
| Items                | 5          |
| Article no. 78788    |            |
| Gross                | 62.625 kg  |
| Net                  | 52.600 kg  |
| Tare                 | 10.025 kg  |
| Hand Pcs             | 0 pcs      |
| Items                | 5          |
| Article no. 96587456 |            |
| Gross                | 50.100 kg  |
| Net                  | 42.080 kg  |
| Tare                 | 8.020 kg   |
| Hand Pcs             | 1000 pcs   |
| Items                | 4          |
| Total                |            |
| § Gross              | 288.075 kg |
| § Net                | 241.960 kg |
| § Tare               | 46.115 kg  |
| § Hand               | 5.000 kg   |
| § Items              | 23         |

For complete detection of all items, a total record should be printed at regular intervals, e. g. after one day, one week or after completing an entire shipment.

A database entry is created for each article number in the customer sum memory. A database entry consists of the following values:

- Article number
- Gross weight of all items (Gross)
- Net weight of all items (Net)
- Tare weight of all items (Tare)
- Quantities of the manual entries (Hand)
- Item counter (Items)

When the total record is printed out you can select whether you print the total record for an individual database entry or for all database entries.

The total record lists the database entries and the corresponding total values in the total sum memory.

The total record can be formatted. The article data can be called up as database fields.

Following printing you can store or clear the database entries. The setting of the DATABASE master mode block determines which data are cleared.

### 2.9.1 Print individual database entry

1. Press the TOTAL, CODE A key sequence.  
The display shows the article number last entered.
2. To adopt the article number, press the ENTER key.  
– or –  
Enter a new article number and confirm with ENTER.

The total record for this database entry is automatically printed and the display shows TOTAL RECORD and then SAVE ?

3. To save the database entry, press the ENTER key.  
– or –  
To delete the database entry, press the CLEAR key.

#### Note

If the entered article number is not present in the total sum memory, the display shows NO. NOT FOUND.

### 2.9.2 Print all database entries

1. Press the TOTAL, ENTER key sequence.  
The total record is automatically printed and the display briefly shows TOTAL RECORD and then SAVE?.
2. To save all database entries, press the ENTER key.  
– or –  
To delete all database entries, press the CLEAR key.

## 2.10 Recall total record from computer

If the interface is set to DIALOG MODE in the INTERFACE master mode block, the total record of the total sum can be recalled from the computer.

The following interface commands are available for this purpose:

- Print total record for all list entries and then save:

|   |   |   |   |   |   |    |    |   |   |
|---|---|---|---|---|---|----|----|---|---|
| A | W | 3 | 0 | 6 | _ | \$ | \$ | 0 | 5 |
|---|---|---|---|---|---|----|----|---|---|

 (corresponds to the TOTAL, ENTER key sequence)

- Print total record for all list entries and then delete:

|   |   |   |   |   |   |    |    |   |   |
|---|---|---|---|---|---|----|----|---|---|
| A | W | 3 | 0 | 6 | _ | \$ | \$ | 1 | 5 |
|---|---|---|---|---|---|----|----|---|---|

 (corresponds to the TOTAL, CLEAR key sequence)

In accordance with the printout of the total sum, the database entries and the customer sums are listed in the total sum memory in sequence.

In the process, the data are transmitted in their maximum length in accordance with the data formats in the application blocks.

During the data transmission, the keypad of the ID7-Sum is locked and the display shows DAILY LOG. TO EDP.

#### Note

After pressing the CLEAR key or when the total sum memory overflows, the ID7-Sum waits approximately 2 seconds before it deletes the article total memory. During this time the computer can request data transmission via the interface.

## 2.11 Print total record on external printer

If REPORT EXTERNAL is set in the master mode, the total record of the total sum can be printed out on an external form printer.

In the PRINT MODE the printout can be formatted, see INTERFACE master mode block in the operating instructions and installation information for the ID7... weighing terminal.

Here article data can be called up as database fields.

### Example of printout on a certified printer

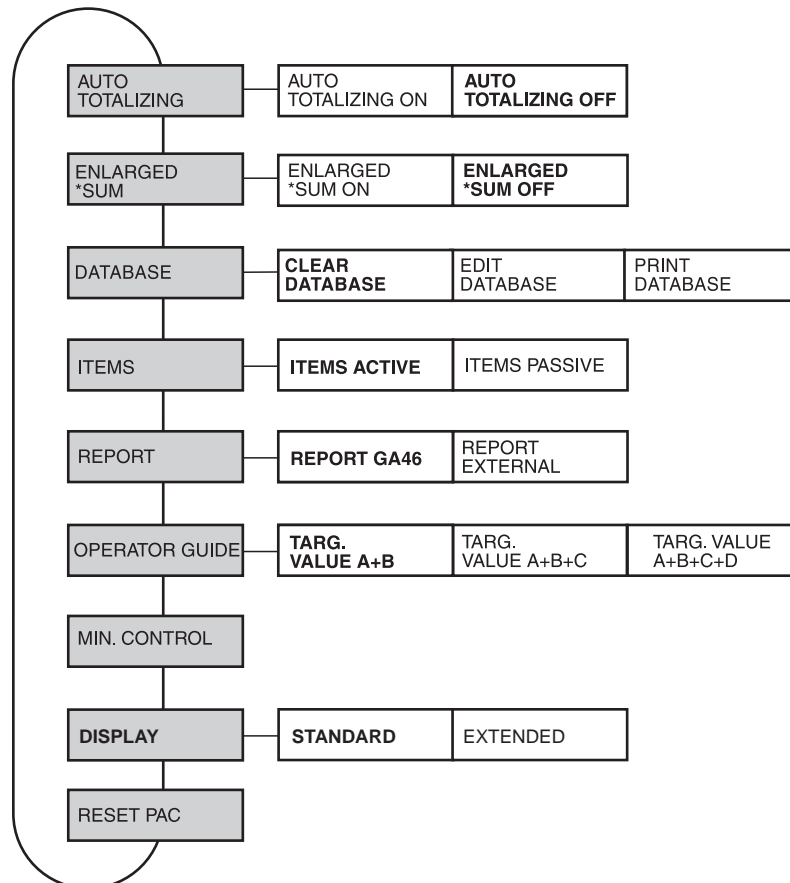
| Total record                |               |                |            |
|-----------------------------|---------------|----------------|------------|
| Date 01/12/97               |               | Time 10-35-56  |            |
| Last deletion Date 01/12/97 |               | Time 09-35-47  |            |
| ARTICLE                     |               |                |            |
| GROSS                       | NET           | TARE           | ITEMS      |
| -----                       |               |                |            |
| 1000.TSICWM                 |               |                |            |
| 100 kg                      | 800 kg        | 200 kg         | 2          |
| 1100. GOWCE                 |               |                |            |
| 1500 kg                     | 1200 kg       | 300 kg         | 3          |
| 1200. GCMKM                 |               |                |            |
| 1000 kg                     | 800 kg        | 200 kg         | 2          |
| 1300. EKKE                  |               |                |            |
| 2500 kg                     | 2200 kg       | 300 kg         | 3          |
| -----                       |               |                |            |
| Total                       |               |                |            |
| § Gross 6000 kg             | § Net 5000 kg | § Tare 1000 kg | § Items 10 |

## 3 Settings in the master mode

### 3.1 PAC master mode block

#### 3.1.1 Overview of the PAC master mode block

In this block the following system settings can be carried out:



- Legend**
- Blocks on a **grey** background are described extensively in the following.
  - Factory settings are printed in **bold** type.



### 3.1.2 Settings in the master mode block PAC

| <b>AUTO TOTALIZING</b> | <b>Switch automatic totalizing on or off</b> |
|------------------------|--|
|                        | Factory setting: AUTO TOTALIZING OFF         |

| <b>ENLARGED *SUM</b> | <b>Also divide up customer sum printout by article numbers</b> |
|----------------------|--|
|                      | Factory setting: ENLARGED *SUM OFF                             |

| <b>DATABASE</b> | <b>Edit article data</b>   |
|-----------------|--|
| EDIT DATABASE   | Edit database entries, see page 16.  |
| PRINT DATABASE  | Print a list of all database entries.  |
| CLEAR DATABASE  | Clear only selected data when deleting a database entry in the total sum memory.                                   |
| CLEAR TOTAL     | Clear only weight sums and item counters; the article entry with the article number is retained (factory setting). |
| CLEAR ALL       | Clear article number, all other identification data, weight sums and item counters.                                |

| <b>ITEMS</b>  | <b>Switch item counter for inventory control on or off</b>  |
|---------------|---|
| ITEMS ACTIVE  | For inventory receipts the item counter is increased with the PLUS key, for inventory removals it is decreased (factory setting). |
| ITEMS PASSIVE | Switch off item counter; the display shows the article total and a serial number.   |
| Comment       | The item counter is available in application block 317, see section 4.1.  |

| <b>REPORT</b>   | <b>Select printer for total record of total sum</b>                                     |
|-----------------|---|
| REPORT GA46     | Print total record on printer GA46; the printout cannot be formatted (factory setting). |
| REPORT EXTERNAL | Print total record on a form printer; the printout can be formatted as desired.         |

| <b>OPERATOR GUIDE</b> | <b>Interrogation of the identification data memory prior to totalizing</b> |
|-----------------------|--|
| TARG. VALUE A+B       | Code B and Code A are always requested (factory setting).                  |
| TARG. VALUE A+B+C     | Code C, Code B and Code A are always requested.                            |
| TARG. VALUE A+B+C+D   | Code D, Code C, Code B and Code A are always requested.                    |

| <b>MIN. CONTROL</b> | <b>Set minimum load control</b>   |
|---------------------|---|
|                     | If the current weight value is less than the value of the MIN. CONTROL, the display shows INSUFFICIENT WEIGHT.<br>Possible values: 1 ... 99 digit (factory setting: 10) |

| <b>DISPLAY</b> | <b>Select display presentation</b>   |
|----------------|--|
| STANDARD       | Article number can only be displayed with 14 characters.   |
| EXTENDED       | If entered, the article number is displayed immediately after entry in a larger font on the middle line. Up to 20 characters can be displayed. |

| <b>RESET PAC</b> | <b>Reset all functions to the factory settings</b> |                        |
|------------------|--|------------------------|
|                  | <b>Block</b>                                       | <b>Factory setting</b> |
|                  | AUTO TOTALIZING                                    | off                    |
|                  | ENLARGED *SUM                                      | off                    |
|                  | CLEAR DATABASE                                     | clear total            |
|                  | LIST   | clear sums             |
|                  | ITEMS  | active                 |
|                  | REPORT   | report GA46            |
|                  | OPERATOR GUIDE                                     | enter A+B              |
|                  | MIN. CONTROL                                       | 10 digit               |

### Edit database entries

**Function keys** The function keys in the block EDIT DATABASE are assigned as follows for editing database entries:

|  | <b>&lt;</b>                     | <b>&gt;</b>                 | <b>F▶</b>   | <b>NEW</b>            | <b>↑</b>  |
|--|---------------------------------|-----------------------------|---|-----------------------|---|
|  | Display previous database entry | Display next database entry | Select function of function key F5: NEW, SEARCH, EDIT | SEARCH<br>EDIT<br>DEL | Accept changes and return to higher level block |

The database entry can be edited with function key F5:

**NEW** Create new database entry. Here the first character of the article number (Code A) must be a number, as otherwise the message ENTER NUMBER appears.

**SEARCH** Search for an existing database entry.

**EDIT** Edit an existing database entry.

**CLEAR** Clear displayed database entry.

## 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: <code>A,B _ I,D,7 _ S,u,m _ V,x, . ,x,x</code>  |
| 302 | Program number                                       | Response: <code>A,B _ I,P,7,6 _ 0, - ,0,x,x,x _</code>  |
| 305 | Keypad entry or read-in barcode                      | Response: <code>A,B _ Entry</code><br>Write: <code>A,W 3,0,5 _ \$,\$ Entry</code><br>Comment: Entry = Text_20, number or weight value   |
| 306 | Total record   | Write: <b>Print and save total record</b><br><code>A,W 3,0,6 _ \$,\$ 0,5</code> TOTAL, ENTER key sequence<br><br><b>Print and delete total record</b><br><code>A,W 3,0,6 _ \$,\$ 1,5</code> TOTAL, CLEAR key sequence |
| 310 | Consecutive number                                   | Response: <code>A,B _ Number_4</code>   |
| 311 | Print article total:<br>fixed text article total     | Response: <code>A,B _ Text_20</code>  |
| 312 | Article total: gross weight<br>(#Gross)              | Response: <code>A,B _ Weight value _ Unit</code>  |
| 313 | Article total: net weight<br>(#Net)                  | Response: <code>A,B _ Weight value _ Unit</code>  |
| 314 | Article total: tare weight<br>(#Tare)                | Response: <code>A,B _ Weight value _ Unit</code>  |
| 315 | Article total:<br>manual quantity entries<br>(#Hand) | Response: <code>A,B _ Number_10 _ Unit</code> Unit = PCS  |
| 316 | Article total: item counter<br>(#Items)              | Response: <code>A,B _ Number_6</code>   |
| 317 | Item counter for inventory<br>control                | Response: <code>A,B _ Number_6</code>   |

| No.               | Content   | Format   |
|-------------------|---|--|
| 318<br>...<br>321 | Identification data<br>Code A ... Code D                | Response: <input type="text" value="A,B"/> <input type="text" value="Name (text_20)"/> <input type="text" value="Identification (text_20)"/><br>Write: <input type="text" value="A,W"/> <input type="text" value="3,x,x"/> <input type="text" value="Name (text_20)"/> <input type="text" value="\$"/> <input type="text" value="\$"/> <input type="text" value="Identification (text_20)"/><br>Comment: xx = 18 ... 21;<br>the blocks 318 ... 321 contain the same information as the<br>blocks 94 ... 97.  |
| 322               | Total record:<br>fixed text total record                | Response: <input type="text" value="A,B"/> <input type="text" value="Text_20"/>  |
| 323               | Print customer sum:<br>fixed text customer sum          | Response: <input type="text" value="A,B"/> <input type="text" value="Text_20"/>  |
| 324               | Customer sum:<br>gross weight (*Gross)                  | Response: <input type="text" value="A,B"/> <input type="text" value="Weight value"/> <input type="text" value="Unit"/>   |
| 325               | Customer sum:<br>net weight (*Net)                      | Response: <input type="text" value="A,B"/> <input type="text" value="Weight value"/> <input type="text" value="Unit"/>   |
| 326               | Customer sum:<br>tare weight (*Tare)                    | Response: <input type="text" value="A,B"/> <input type="text" value="Weight value"/> <input type="text" value="Unit"/>   |
| 327               | Customer sum:<br>manual quantity entries<br>(*Hand)     | Response: <input type="text" value="A,B"/> <input type="text" value="Number_10"/> <input type="text" value="Unit"/> Unit = PCS   |
| 328               | Customer sum: item<br>counter (*Items)                  | Response: <input type="text" value="A,B"/> <input type="text" value="Number_4"/>   |
| 329               | Total record:<br>date/time at last deletion             | Response: <input type="text" value="A,B"/> <input type="text" value="Text_20"/> <input type="text" value="Date"/> <input type="text" value="Time"/><br>Write: <input type="text" value="A,W"/> <input type="text" value="0,1,9"/> <input type="text" value="Text_20"/> <input type="text" value="\$"/> <input type="text" value="\$"/> <input type="text" value="Date"/> <input type="text" value="\$"/> <input type="text" value="\$"/> <input type="text" value="Time"/><br>Comment: Text: e. g. last deletion<br>Date: DD.MM.YY, MM.DD.YY<br>Time: hh.mm.ss, A/PMhh.mm.ss |
| 330               | Total record:<br>fixed text for cancelled<br>items      | Response: <input type="text" value="A,B"/> <input type="text" value="Text_20"/><br>Write: <input type="text" value="A,W"/> <input type="text" value="3,1,1"/> <input type="text" value="Text_20"/><br>Comment: e. g. cancel  |
| 331               | Total sum, cancelled<br>items:<br>gross weight (-Gross) | Response: <input type="text" value="A,B"/> <input type="text" value="Weight value"/> <input type="text" value="Unit"/>   |
| 332               | Total sum, cancelled<br>items:<br>net weight (-Net)     | Response: <input type="text" value="A,B"/> <input type="text" value="Weight value"/> <input type="text" value="Unit"/>   |
| 333               | Total sum, cancelled<br>items:<br>tare weight (-Tare)   | Response: <input type="text" value="A,B"/> <input type="text" value="Weight value"/> <input type="text" value="Unit"/>   |

| No. | Content   | Format   |
|-----|---|--|
| 335 | Total sum, manual entry:<br>fixed text for printing and<br>weight value   | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Text_20 <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit<br>Write: <input type="text"/> A <input type="text"/> W <input type="text"/> 3 <input type="text"/> 3 <input type="text"/> 5 <input type="text"/> _ <input type="text"/> Text_20 <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit                      |
| 336 | Total record:<br>fixed text total   | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Text_20  |
| 337 | Total sum:<br>gross weight (\$Gross)  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit  |
| 338 | Total sum:<br>net weight (\$Net)  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit  |
| 339 | Total sum:<br>tare weight (\$Tare)  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit  |
| 340 | Total sum:<br>manual weight entries<br>(\$Hand weight)  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit  |
| 341 | Total sum:<br>manual quantity entries<br>(\$Hand pieces)  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Number_10 <input type="text"/> _ <input type="text"/> Unit Unit = PCS  |
| 342 | Total sum:<br>item counter (\$Items)  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Number_6   |
| 343 | Last closed<br>article: Date, time, name<br>of destination,<br>identification of<br>destination, name of<br>article, identification of<br>article | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Date <input type="text"/> _ <input type="text"/> Time <input type="text"/><br><input type="text"/> _ <input type="text"/> Name of destination (Text_20)<br><input type="text"/> _ <input type="text"/> Identification of destination (Text_20)<br><input type="text"/> _ <input type="text"/> Name of article (Text_20)<br><input type="text"/> _ <input type="text"/> Identification of article (Text_20) |
| 344 | Last closed article:<br>Gross weight  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit  |
| 345 | Last closed article:<br>Net weight  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit  |
| 346 | Last closed article:<br>Tare weight   | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Weight value <input type="text"/> _ <input type="text"/> Unit  |
| 347 | Last closed article:<br>Manual entry of pieces  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Number_10 <input type="text"/> _ <input type="text"/> Unit   |
| 348 | Last closed article:<br>Item counter  | Response: <input type="text"/> A <input type="text"/> B <input type="text"/> _ <input type="text"/> Number_6   |

## 5 What to do if ...?

| Error / Display     | Possible causes   | Remedy   |
|---------------------|---|--|
| ENTER NUMBER        | <ul style="list-style-type: none"> <li>No numerical entry for Code A</li> </ul>   | → Enter article number   |
| NOT USED            | <ul style="list-style-type: none"> <li>Buffer contains no data</li> </ul>   | → Totalize items with + key  |
| NO. NOT FOUND       | <ul style="list-style-type: none"> <li>No database entry exists for entered article number</li> </ul>   | → Enter existent article number  |
| VALUE TOO HIGH      | <ul style="list-style-type: none"> <li>Place number for manual entry of pieces exceeded</li> </ul>  | → Enter maximum of 999 999 PCS   |
| WRONG INPUT         | <ul style="list-style-type: none"> <li>Manual entry of pieces contains decimal places</li> </ul>  | → Enter quantity without decimal places  |
| WEIGHT TOO LOW      | <ul style="list-style-type: none"> <li>Minimum weight dropped below when totalizing or clearing</li> </ul>  | → Place weight > minimum weight on scale   |
| LOAD SCALE          | <ul style="list-style-type: none"> <li>Minimum deflection dropped below when totalizing or clearing</li> </ul>  | → Place weight on scale or move scale  |
| NEGATIVE NET        | <ul style="list-style-type: none"> <li>Negative weight values cannot be totalized</li> </ul>  | → Relieve scale and retare   |
| NEGATIVE SUM        | <ul style="list-style-type: none"> <li>Clearing would lead to a negative subtotal or total sum</li> </ul>   | → Place right item on scale  |
| BUFFER FULL         | <ul style="list-style-type: none"> <li>Max. number of article numbers in total sum buffer reached</li> </ul>  | → Print total record and clear   |
| OVERFLOW PIECES     | <ul style="list-style-type: none"> <li>Manual entry of pieces leads to a sum greater than 999 999</li> </ul>  | → Manual entry of pieces is automatically printed and deleted                      |
| OVERFLOW TOTAL      | <ul style="list-style-type: none"> <li>Totalizing leads to a value greater than 999 999 999 kg or to more than 9 places</li> <li>Itemcounter exceeds 999 999</li> </ul> | → Total sum is automatically printed and deleted<br>→ Itemcounter starts over at 1 |
| *SUM OVERFLOW       | <ul style="list-style-type: none"> <li>Totalizing leads to a value greater than 999 999 999 kg or to more than 9 places</li> <li>Itemcounter exceeds 999 999</li> </ul> | → Subtotal is automatically printed and deleted<br>→ Itemcounter starts over at 1  |
| # SUM OVERFLOW      | <ul style="list-style-type: none"> <li>Totalizing leads to a value greater than 999 999 999 kg or to more than 9 places</li> <li>Itemcounter exceeds 999 999</li> </ul> | → Total sum is automatically printed and deleted<br>→ Itemcounter starts over at 1 |
| SERIAL NO. OVERFLOW | <ul style="list-style-type: none"> <li>Serial number for individual printout is greater than 999 999</li> </ul>   | → Serial number automatically starts over at 1                                     |

| <b>Error / Display</b> | <b>Possible causes</b>   | <b>Remedy</b>                |
|------------------------|--|------------------------------|
| OFF LIMIT              | <ul style="list-style-type: none"><li>• When DeltaTrac is activated, net value is not within set tolerances, therefore cannot be totalized and cleared</li></ul> | → Conclude weigh-in properly |
| STOCK 0                | <ul style="list-style-type: none"><li>• Current item cannot be subtracted, as the stock will be dropped below</li></ul>  | → Restock                    |

## 6 Technical data

| <b>Totalizing functions</b> |  |
|-----------------------------|--|
| Subtotal memory             | <ul style="list-style-type: none"> <li>• For gross, net and tare</li> <li>• Capacity up to 999 999 999 kg or a maximum of 9 places including decimal point</li> </ul>  |
| All sum memory              | <ul style="list-style-type: none"> <li>• For totalizing subtotals</li> <li>• Capacity up to 999 999 999 kg or a maximum of 9 places including decimal point</li> </ul>   |
| Total sum memory            | <ul style="list-style-type: none"> <li>• For exact article detection of all sub-quantities within certain time period or for completion of a shipment</li> <li>• Capacity up to 999 999 999 kg or a maximum of 9 places including decimal point</li> </ul> |
| Article management          | Maximum of 999 article numbers   |
| Serial No.                  | On every sub-quantity printout, capacity up to 999 999   |
| Item counter                | On every sum printout, capacity up to 999 999  |
| Input routine               | Automatic input request for destination data and article numbers for exact article sum detection   |
| Clear function              | Reverse entry of incorrectly totalized sub-quantities from sum memories  |
| Manual input                | Manual input of known weight values (net) in sum memories or piece inputs for logging on output  |
| Automatic totalizing        | Automatic totalizing and printing after placing weighing sample on scale and stabilization of weighing platform  |



## 7 Index

### A

Article total 5  
Automatic totalizing 15

### C

Cancel item 8  
Carry out inventory control 9

### D

Database 15  
Database entry 11, 15  
Documentation 2

### E

Edit data string 16  
Enlarged \*sum 15  
Enter identifications 6  
Enter known weight values  
manually 8  
Error messages 20

### F

Function keys 5

### I

Installation 2

### M

Minimum load control 16

### O

Operator guide 15

### P

Print total record 13, 15

### R

Recall information 10  
Recall total record from  
computer 12  
Reset Pac 16

### S

Safety precautions 2

### T

Technical data 22  
Total record 11  
Total sum 5, 9  
Totalize automatically 7  
Totalizing 7, 9  
Totalizing functions 5, 22  
Transmit article total 7

### W

What to do if ...? 20  
Work with several weighing  
platforms 10



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