Operating instructions and installation information
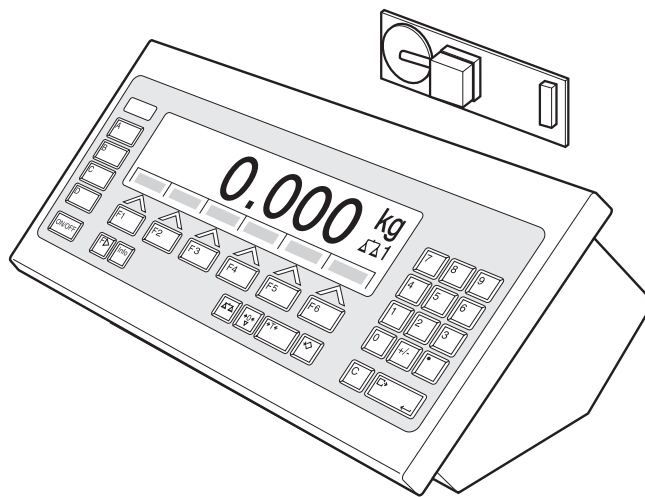
METTLER TOLEDO MultiRange
ID7-Form application software

METTLER TOLEDO

Contents

1   Introduction and assembly

1.1   Introduction

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

1.2   Safety precautions

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

▲ Always pull the mains plug before opening the unit.

1.3   Installing ID7-Form

1.3.1   Open 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.
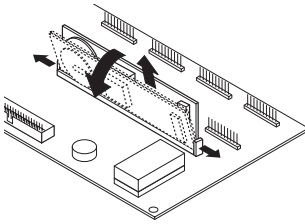
Wall unit

1. Unscrew the screws on the underside of the cover.

2. Pull the display and keypad cables off the main board.

Panel unit

1. Remove 6 screws on the cutout.

2. Only slightly loosen the two large Phillips screws and turn the housing lugs outward.

3. Carefully remove the unit and pull the display and keypad cable off the main board.

1.3.2   **Mounting ID7-Form**

1. Bend the bracket of the memory module outward on both sides, tilt the memory module forward and remove.
2. Insert the ID7-Form memory module tilted slightly toward the front and move it into the vertical position until it engages.

1.3.3   **Close ID7... weighing terminal**

Close 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.

Close wall unit

1. Make sure that the display and keypad cables are properly connected again.
2. Place the cover on the unit and screw it on again.

Close panel unit

1. Make sure that the display and keypad cables are properly connected again.
2. Place the unit on the cutout, secure with the housing lugs and tighten the two large Phillips screws.
3. Mount the unit on the cutout with the 6 screws and tighten all screws.

2 Formulation functions

The ID7-Form offers 3 different formulation applications, which you can select in the master mode:
FORMULATION, PHARMA FORMULATION and TOTALIZING.

2.1 FORMULATION application
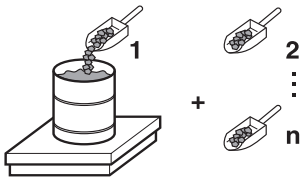
In this application, you can measure out several components into a container one after the other. Each recipe and each component can be provided with an identification.

Prerequisite

In the master mode, the FORMULATION application is selected.

Function keys   With the FORMULATION application the function keys are allocated as follows:

MAN	SUM	CONT	PLUS	–	–
Enter weight values manually	Display net sum and print out	Subtotal for current container	Add weight values	–	–

→ Press the relevant function key, in order to select the function.

Example   → Press the MAN key.
Then you can enter the known weight values manually via the keyboard.

When the function keys have a different allocation

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

2.1.1 Formulation

1. Press CODE A key and enter the identification for the recipe.
2. Place the empty container on the weighing platform and tare.
3. Press CODE C key and enter the identification for the first component.
4. Add first component.
   The display indicates the net weight of the current component.
5. Press PLUS key.
   The weighing platform tares automatically and the display registers 0.000 kg.
   The current net sum in the container is determined and the component counter is increased by 1.
6. In order to add further components in the container, repeat steps 3 to 5.
   Max. 15 components per container are possible.

Change the container   7. If more than 15 components are filled into a container or the container is overfilled: Press CONT key and place a new container on the weighing platform. The container counter is increased by 1, the component counter is set back to zero for the new container and the tare weight is deleted.

End formulation   8. Press SUM key.
The net sum is displayed and automatically printed out.

9. If the net sum is to be placed into temporary storage, press the ENTER key.

10. Press CLEAR key.
The net sum is deleted and the component counter and the container counter are reset.

2.1.2 Carry over the known weight value to the sum

1. Press MAN key.

2. Enter the weight value and confirm with ENTER.
The weight value is stored in the sum memory and the component counter is increased by 1.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering known weight values.

2.1.3 Tolerance control with DeltaTrac
Using DeltaTrac in the application FILLING you can monitor on weighing in the compliance of the tolerances with the target weight, see chapter "Additional functions" in the operating instructions and installation information ID7... weighing terminal.
The weight value is only added to the sum when the weight value lies within the tolerance limits.

1. Preset the DeltaTrac target values for the current component.

2. Add the component.
If there is an addition beyond the tolerance limits, remove the container and fill again or delete the target value.

3. Press PLUS key.
The components are only carried over to the sum when they lie within the tolerance limits.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering the DeltaTrac target values.

2.1.4 Change the weighing platform
On the ID7-Form up to 3 weighing platforms can be attached, see chapter "Basic functions" in the operating instructions and installation informatsion ID7... weighing terminal.
A recipe must be formulated only on one weighing platform. Therefore:

➜ Before changing the weighing platform, conclude the current recipe.

2.1.5   Recall information regarding the FORMULATION application

Using the key sequence INFO, FUNCTION key you can recall information regarding the FORMULATION application.

INFO, MAN	Display last entered weight value.
INFO, CONT	Display number and subtotal for the current container.
INFO, PLUS	Display the last weighed components.

2.2   PHARMA FORMULATION application
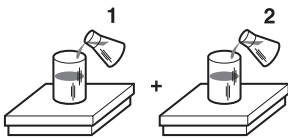
In this application, you can fill each component of a recipe in a separate container. Each recipe and each component can be individually provided with an identification.

Prerequisite

In master mode, the PHARMA FORMULATION application is selected.

Function key   With the PHARMA FORMULATION application the function keys are allocated as follows:

MANUAL	**SUM**	**CONTAINER**
Enter weight value manually	Display net sum and print out	Close container

➜ Press the relevant function key, in order to choose the functions.

Example   ➜ Press the MANUAL key.
Then you can enter the known weight values manually via the keyboard.

If the function keys have a different allocation

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

2.2.1   Pharma formulation

1. Press CODE A key and enter the identification for the recipe.

2. Place the conatiner on the weighing platform and tare.
   The container counter is increased by 1.

3. Press CODE C key and enter the identification of the first component.

4. Add the components.
   The display shows the net weight of the current component.

5. Press CONTAINER key.
   The tare weight of the container is deleted.

6. In order to add further components, repeat steps 2 to 5.

End pharma formulation   7. Press SUM key.
                               The net sum is displayed and automatically printed out.

                               8. If the net sum is to be placed into temporary storage, press the ENTER key.

                               9. Press CLEAR key.
                               The net sum is deleted, and the component and container counters are reset.

2.2.2 Carry over the weight values to the sum

1. Press MANUAL key.

2. Enter the weight value and confirm with ENTER
    The weight value is stored in the sum memory and the item counter is increased
    by 1.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering known
weight values.

2.2.3 Tolerance control with DeltaTrac
With DeltaTrac in the application FILLING you can monitor on weighing in the
compliance of the tolerances with a target value, see chapter "Additional functions" in
the operating instructions and installation information ID7… weighing terminal.
The weight value is only added to the sum when the weight value lies within the
tolerance limits. Possible settings in the master mode:

- FILL − A target value applicable to all fillings.
- COMPOUNDING − A target value for each container or each component.

Fill

1. Preset DeltaTrac target values.

2. Add component.
    If there is an addition beyond the tolerance limits, remove the container and fill
    again or delete the target value.

3. Press CONTAINER key.
    The components are only then carried over to the sum if they lie within the
    tolerance limits.

4. For the additional components, repeat steps 2 and 3.
    The DeltaTrac target values remain stored until new values are entered or the
    values are deleted.

Compounding

1. Preset the DeltaTrac target values for the components.

2. Add component.
   If there is an addition beyond the tolerance limits, remove the container and fill again or delete the target value.

3. Press CONTAINER key.
   The component is only then carried over to the sum if it lies within the tolerance limits.

4. For additional components, repeat steps 1 to 3.
   The DeltaTrac target values are deleted after each component.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering the DeltaTrac target values.

2.2.4 Recall information regarding the PHARMA-FORMULATION application
Using the key sequence INFO, FUNCTION key you can recall information regarding the PHARMA-FORMULATION application.

INFO, MANUAL   Display the last entered weight value.
INFO, CONTAINER   Display the sum for the current container.

2.3 TOTALIZING application
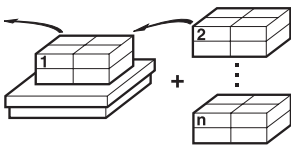
In this application, you can determine the total weight of several items. Each sum and each item can be provided with an identification.

Prerequisite
In the master mode the TOTALIZING application is selected.

Function keys   With the TOTALIZING application the function keys are allocated as follows:

MANUAL	**SUM**	**PLUS**
Enter weight values manually	Display gross sum and print out	Add weight values

➜ Press the relevant function key in order to select the functions.

Example   ➜ Press the MANUAL key.
   Then you can enter the weight values manually via the keyboard.

If the function keys have a different allocation

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

2.3.1 Totalizing

1. Press CODE A key and enter the identification for the sum.

2. Press CODE C key and enter the identification for the first item.

3. Put the first item on.

4. Press PLUS key.
   The item counter is increased by 1 and displayed with the gross sum.

5. Place the additional items on and repeat steps 2 to 4.

End totalizing   6. Press SUM key.
   The gross sum is displayed and printed out automatically.

7. In order to place the gross sum into temporay storage, press the ENTER key.

8. In order to delete the gross sum, press the CLEAR key.
   The item counter is reset.

2.3.2 Transfer the weight value to the sum

1. Press MANUAL key.

2. Enter the weight value and confirm with ENTER.
   The weight value is stored in the sum memory and the item counter is increased by 1.

Note

With the FUNCTION CHANGE key you can select the weight unit for entering known weight values.

2.3.3 Recall information regarding the TOTALIZING application

Using the key sequence INFO, FUNCTION key you can recall information regarding the TOTALIZING application.
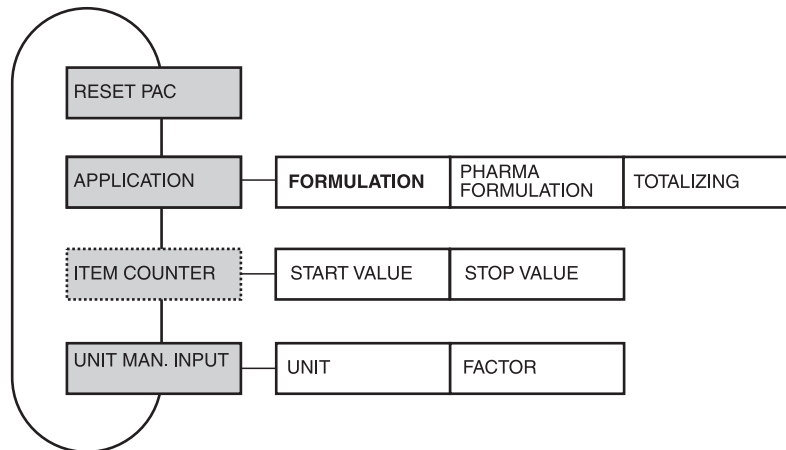
INFO, MANUAL   Display the last entered weight value.
INFO, PLUS   Display the number of items weighed until now.

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 settings are possible:

Legend • Blocks marked in **grey** are described extensively in the following.

• Factory settings are printed in **bold** type.

• Blocks that appear only under specific conditions are **dotted**.

3.1.2 Settings in the master mode block PAC

RESET PAC	Reset all functions to the factory settings
	APPLICATION Formulation ITEM COUNTER Start value = 1, final value = 9999 UNIT MANUAL ENTRY kg

APPLICATION	Select application
FORMULATION	Fill the recipe components one after the other into the container.
PHARMA FORMULATION	Fill the recipe components one after the other into separate containers. Possible settings: • FILL – Fill all components to the same target value. • COMPOUNDING – Fill each component to a different target value.
TOTALIZING	Totalize several items.

ITEM COUNTER	**With the application TOTALIZING set the item counter**
START VALUE	Possible values: 1 … 9999 (factory setting: 1)
STOP VALUE	Possible values: 1 … 9999 (factory setting: 9999)

UNIT MANUAL ENTRY	**Select preferred unit for weight values, which are entered with the MANUAL key**
UNIT	Possible units: g, kg, lb, ozt, dwt, oz, Stk, Pcs, neutral unit Factory setting: kg
FACTOR	Enter the conversion factor for the neutral unit. **Example:** For determining the weight of liquids, enter the density of the liquid as the factor. In weighing operation, enter the volume of the liquid, the weight of the liquid is displayed.

4 Application blocks

4.1 PAC application blocks

No.	Content	Format	
301	Pac version	Response:	`A B _ I D / F o r m P a c _ V x . x x`
302	Program number	Response:	`A B _ I P 7 2 - 0 - 0 x x x _`
310	Counter	Response:	`A B _ Number_4`
		Comment:	Application FORMULATION, PHARMA FORMULATION: Component counter Application TOTALIZING: Item counter
311	Container counter	Response:	`A B _ Number_4`
		Comment:	only with the application FORMULATION, PHARMA FORMULATION
312	Component counter current container	Response:	`A B _ Number_4`
		Comment:	only with the application FORMULATION
313	Sum net weight	Response:	`A B _ Weight value _ Unit`
314	Sum gross weight	Response:	`A B _ Weight value _ Unit`
		Comment:	only with the application TOTALIZING
315	Manual entry	Response:	`A B _ Weight value _ Unit`
316	Unit manual entry	Response:	`A B _ Unit`
		Write:	`A W 3 1 6 _ Unit`
317	Start value item counter	Response:	`A B _ Number_4`
		Write:	`A W 3 1 7 _ Number_4`
		Comment:	only with the application TOTALIZING
318 ... 321	Identification data Code A ... Code D	Response:	`A B _ Name (text_20) _ , _ Identification (text_20)`
		Write:	`A W 3 x x _ Name (text_20) $ $ Identification (text_20)`
		Comment:	xx = 18 ... 21; the blocks 318 ... 321 contain the same information as blocks 094 ... 097.
322	Sum net weight current container	Response:	`A B _ Weight value _ Unit`
		Comment:	only with the application FORMULATION
323	Net weight last start weight	Response:	`A B _ Weight value _ Unit`
324 ... 338	Net weight component 1 ... component 15	Response:	`A B _ Identification (text_20) _ , _ Weight value _ Unit`
		Comment:	only with the application FORMULATION

No.	Content	Format	
339	Tare weight current container	Response:	`A‚B` _ `Weight value` _ `Unit`
		Comment:	only with the application FORMULATION, PHARMA FORMULATION
340	Stop value item counter	Response:	`A‚B` _ `Number_4`
		Write:	`A‚W‚3‚4‚0` _ `Number_4`
		Comment:	only with the application TOTALIZING
341	Conversion factor for the neutral unit with manual entry	Response:	`A‚B` _ `Weight value` _ `Unit`
		Write:	`A‚W‚3‚4‚1` _ `Weight value` _ `Unit`
342	Gross weight last totalizing procedure	Response:	`A‚B` _ `Weight value` _ `Unit`
343	Tare weight last totalizing procedure	Response:	`A‚B` _ `Weight value` _ `Unit`
		Write:	`A‚W‚3‚4‚3` _ `Weight value` _ `Unit`

5   What to do if …?

Error / Display	Possible causes	Remedy
OVERFLOW SUM GROSS OVERFLOW SUM NET	• Capacity of buffer for gross sum or for net sum exceeded	➜ Delete sum and form sub-sum
OVERFLOW CONTAINER	• Capacity of buffer for container counter exceeded	➜ Reset counter by deleting sum ➜ Suitably divide sum or recipe
OVERFLOW ITEMCOUNTER	• Itemcounter or component counter has reached stop value	➜ Reset counter by deleting sum ➜ Select suitable start and stop value
OVERFLOW MAN. INPUT	• Manual entry would exceed capacity of sum buffer	➜ Check value of manual entry ➜ Check value of FACTOR FOR NEUTRAL UNIT
WEIGHT TOO LOW	• Totalizing or formulation with weight which is too low	➜ Place item on platform or fill component; watch 10 d weight threshold.
NEGATIVE COMPONENT	• Current component negative	➜ Place component removed last on scale again until second display is positive
NO VALUE	• Manual entry: No value or zero entered	➜ Enter permissible value
CONT. NOT FINISHED	• Sum key pressed without having formed container sum for all scales used beforehand	➜ Form all container sums
CLEAR SUM	• Sum not cleared	➜ Clear sum

6   Technical data

Formulation functions	
Sum memory	Up to 8 places including decimal point
Manual entry memory	Up to 6 places including decimal point
Item counter	Up to 9,999 with freely selectable start and stop value, only for TOTALIZING application
Component counter	Up to 9,999, only for FORMULATION and PHARMA FORMULATION applications
Container counter	Up to 9,999, only for FORMULATION and PHARMA FORMULATION applications

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