OPERATION MANUAL
Software Version 1.17

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1. THE WEIGHING HAND PALLET TRUCK

1.1. TAKING THE SYSTEM INTO OPERATION

The weighing system is activated with the ↵ key (see 3.1.1).

After three to five minutes the electronics and load cells have reached the operational temperature. Before this, inaccuracies of up to ca. 0.3% may occur.

It is recommended not to lift loads before the zero point correction has been executed.

1.2. USE

How to disconnect the rechargeable batteries out of the housing:

To recharge or exchange the battery packs please follow instructions underneath.

Open the door of the battery compartment	Press the lock upwards with your thumb	Release the lock completely and take out the battery pack

How to charge the batteries:

A fully charged battery provides power for approx. 25 hours of uninterrupted operation.

To avoid damages to the battery it should never be completely discharged. Deep discharge strongly reduces the life time of the battery. Charging at regular intervals ensures full operational availability.

Charger: When the battery packs are being charged, the red LED is on. After the charging time of 8 hours min. has elapsed, the charger is switched off and the batteries are fully charged. The LED signal turns from red to green.

Important note: Both battery packs should always be charged at the same time!

1.

2.

8 hours
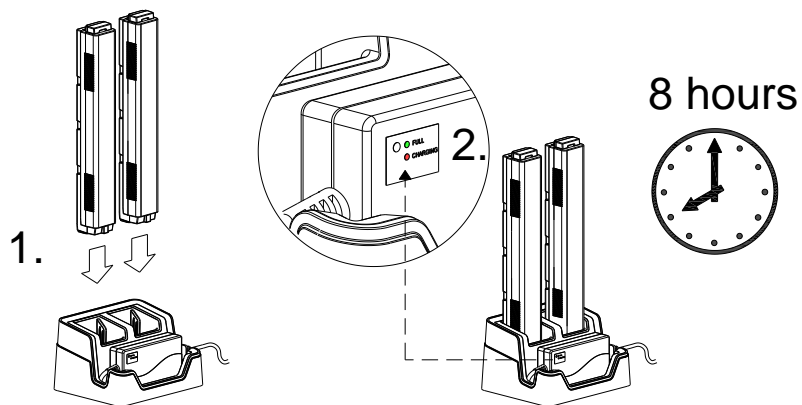
Charger

Attention: When the charger is connected to 230 VAC mains supply and no battery pack is plugged in, the green LED is on. The battery packs are protected against overcharging by the auto shut-off function of the charger.

When batteries are placed in the charging holder and plug is out of the 230 VAC, the batteries will be de-charged by the charger. So when you take out the 230 VAC plug, also take out the batteries.

How to connect the charged batteries into the housing:

Always recharge both battery packs at the same time!* Charging function LEDS: RED = CHARGING GREEN = FULL	Please take attention to the notch when replacing the full battery packs!	Push the top-side against the back wall and close the release again

The weight must be lifted freely: without touching the housing of the indicator or other pallets.
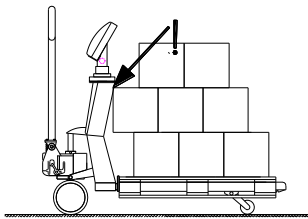
Wrong way of lifting the load   Correct way of lifting the load
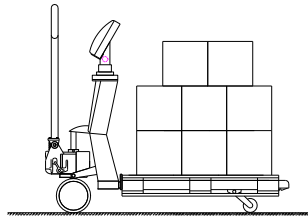
The accuracy of the weighing system diminishes with circa 0.1% per degree starting from a tilted position of 2°. This effect also occurs with pits / potholes in the floor. An even floor is optimal.

The optimally accurate weighing result is obtained when the centre of gravity of the load is placed between the forks. With a non-centric loading the forks will tordate and bend. This may result in a higher inaccuracy.

With legal for trade versions, the level control will switch off the indicator with a non-centric loading or a tilted position that influences the weighing accuracy.
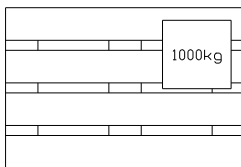
Non-optimal placement of the load
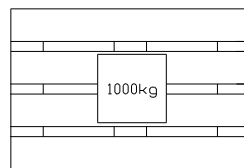
Optimal placement of the load

Temperature range: between -10 and +40°C the maximum inaccuracy is 0.1% of the weighed load. Outside this range inaccuracies up to 0.3% may occur.

Fast temperature changes must be avoided because it can cause condensation in the electronics. During acclimatisation the weighing system must be switched off.

1.3. MAINTENANCE

For the chassis of the mobile weighing system the maintenance guidelines for normal hand pallet trucks apply. From experience we know that the integrated weighing systems still functions when the chassis is damaged by overloading.

Main guidelines:

- Because the steering wheels are mounted in front, pulling the hand pallet truck is preferred above pushing it.

- When the lifting mechanism is not used, it should be kept in the neutral, middle, position. This prolongs the life span of the sealings.

- The electronics may only be cleansed with a moist cloth. Chemical cleansers and high-pressure cleansing will cause damage.

- For the whole system goes that only specialists may execute actions involving welding. This to avoid damage to electronics and load cells.

- The bearings of the wheels (not with polyurethane) and the pivoting points of the levelling bar of the loading wheels must be cleansed and greased regularly.

- The oil container must be checked every six months.

2. TOUCH PANEL INDICATOR
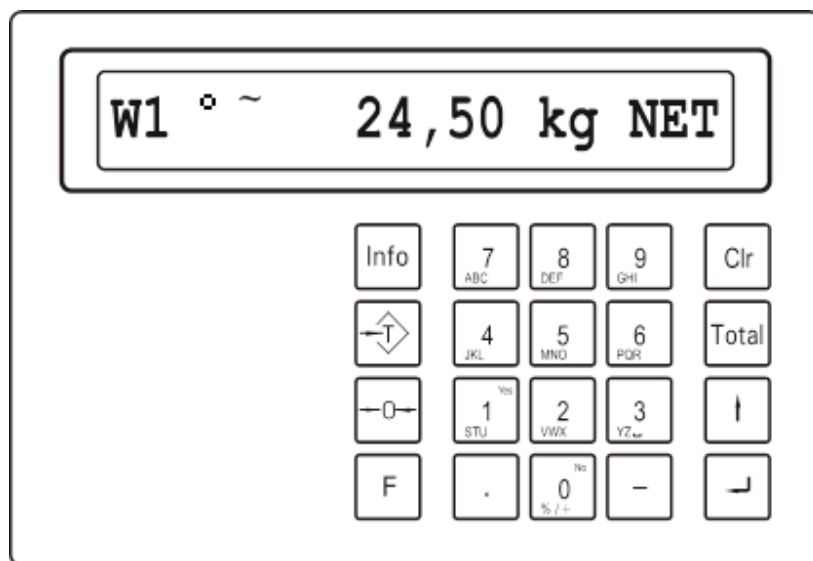
Front indicator

THE ALPHANUMERIC DISPLAY

The indicator has an alphanumeric display, containing 20 segments. The display shows: weights and help-prompts and it indicates which function is active at any moment, f.i.:

NET   the main display shows the net weight

TAR   the main display shows the tare weight

PT   manual entered tare weight

THE KEYS

DISPLAY

Display shows gross-/net weight and prompts

◘   display shows gross – zero value ($\pm$ 0,2 counts)

∼   display shows: load instability

INFO-/WEIGH KEYS

Info   scroll forward, activate Service Mode during start-up, show active tare value in basic weigh mode
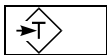
⟨T⟩   automatic tare function or deleting exciting tare value
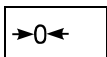
→0←   set to zero of the Gross weight value

FUNKTION KEYS

F1-F8   F button and an numeral entry button (1 - 8). Press simultaneously to call the defined function in the user program. (example: F8 will be entered by pushing the 'F button and the 8 button simultaneously)

F1-F2   Changing from scale 1 to scale 2 if 2 scales are connected.

F0   Resolution switching to a 10-fold higher value. The display returns in the normal resolution after 5 seconds automatically.

F-   Activating alfanumeral entries.

F.   Activating numeral entries.
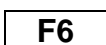
F6   Changing from basic to count
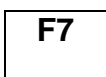
F7   Turning the indicator off
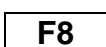
F8   activates Supervisor mode
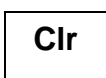
Clr   short press: last entered character will be deleted
Long press (> 1 sec) :delete complete entry
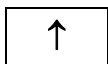
| ↑ | back to previous program step |

| ↵ | enter key - next program step will become active |

| Total | printing of the total weight or the total counted pieces |
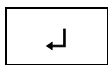
NUMERIC KEYS

0-9   Use for numeric entries. ' Yes ' (= 1) confirmation
or denial ' no ' (= 0) and entries of alpha characters via the
multiple key-mapping.

ALFANUMERIC KEYS

Data entry is as with mobile phones – one key has more characters which can be seen, by pressing the key more then once within in a short period the display will show the characters.

REMOVE CHARACTERS

An incorrect entry can be removed by quickly pressing the CLR key (removed the last entered character) or by clicking on the CLR key for 1 sec. (removed the complete entry).

WARNING

When the weighed load surpasses the pre-set maximum, the help display shows: "-------------". In order to prevent damage to the indicator or load cells, the weighing system must be unloaded immediately.

TILTED POSITION

With the approved version of the weighing system, the help display indicates a tilted position larger than 2° with the remark: "/". In this case, the weighing system must be placed in a horizontal position.

3. FUNCTIONS INDICATOR

3.1   GENERAL

3.1.1 SWITCHING INDICATOR ON/OFF

The indicator is switched on by pressing the ↵ key. Pressing the F7 key will switch of the indicator. To save the life span of a charged battery, the indicator will switched off automatically after 15 minutes of load stability.

If the battery level is too low, a rectangle will flash on the right of the display to show that the battery needs to be charged. After 2 minutes the indicator will turn off automatically.

3.1.2 DATE & TIME ADJUST

After switching on of the indicator the display gives sequentially the following information: IT3000M.." (initialization takes about 12 sec.) software version number, date/time and the active programme (BASIC or COUNT). This information can also be displayed by pressing the ↑ key.

Adjusting date & time is done in the *supervisor mode*. This is done like this:
➢ Press F8 to activate the supervisor mode.
   ❑ The display gives the text "Supervisor mode" and "Password [2958].
➢ Key in password (a wrong password will give "Invalid Password". With the ↑ key you can go back to the normal weighing mode.)
   • On the display appears "Choose: Parameter".
   ❑ Confirm with ↵
   ❑ The display shows the entered date & time.
➢ Change the date with the numeric key path and confirm with ↵
   (or confirm the current setting of the date with ↵).
   ❑   The display shows the entered time.
➢ Change the time with the numeric key path and confirm with ↵
   (or confirm the current setting of the time with ↵).
   ❑ The display shows "Ticket nr.".
➢ Scroll through the other items in the supervisor mode by pressing the key ↵
   several times.
   ❑ The display shows "Saving", the entered values will be stored
   ❑ On the display appears ''Choose: Parameter".
➢ To return to the weighingprogramme push ↑
   The indicator returns returns to the weighing programme.

3.1.3 WEIGHING PROGRAMM'S: BASIC AND COUNT

The indicator knows two weighing programmes: BASIC (standard weighing and registration of data) and COUNT (for weighing and piece counting). You can toggle between both programmes by pressing the function key F6.

3.2   BASIC: WEIGHING AND REGISTRATION

With the F6 Key – you can switch between the BASIC program and the COUNT program.

3.2.1 BEFORE WEIGHING: CHECK ZERO POINT

Before each weighing it is necessary to check whether the system is unloaded and free. The indicator is fitted with an automatic zero correction. This means that small deviations of the zero point will be corrected automatically. If the indicator does not determine the zero point automatically, it must be done manually using the →0← key.

3.2.2 GROSS WEIGHING

After lifting a load, the display shows the gross value of the weighed load.

3.2.3 NET WEIGHING: AUTOMATIC TARE

The indicator has an automatic tare function to tare out a (empty) pallet or container automatically. This way the net added or subtracted weights can be determined.

➢ Lift load.
➢ Press key →T.
  ❑ The display shows 0 kilogram, with at the right the indication NET.
➢ Place or remove the net load.
  ❑ The display shows the net value of the weighed load. When removing load, this is a negative value.
➢ With the Info key you can read the actual tare weight.
➢ By pressing the key →T again, the indicator returns back to gross weighing.

3.2.4 NET WEIGHING: MANUAL TARE ENTRY

A tare weight can be entered at any moment, meaning in either a loaded or unloaded situation. For a higher accuracy, a tare weight can be entered with a smaller graduation step, independent of the applied load and the graduation of the indicator. A tare weight larger than the capacity of the weighing system will not be accepted by the indicator. On a printout a manual entered tare weight will be printed with the sign Pt, the net weight with KgC.

The tare weight can be entered in the gross weighing mode with the keys 0-9.
A wrong entry can be corrected with the Clr-key.
  ❑ Display shows "Tare entry" together with the entered value.
➢ Conform with: ↵.
  ❑ The tare weight is activated.
  ❑ if the system is loaded at that moment, the net value appears in the display. The secondary display shows: "NET".
➢ With the Info key Info you can display the tare weight.
➢ By pushing key →T the indicator goes back to gross weighing.

3.2.5 USING TARE MEMORY

It is possible to manually enter a maximum of 9 tare values in the memory.

Entering tare values:
➢   Push on the "Info" key.
  ❑ The display shows "0.0 kg TAR".
 ➢   Push the "↵" button.
  ❑ The display shows "Memory 1: 0.0".
➢   Enter a tare weight for the first memory. Per example 12.5 kg.
  ❑The display shows "Memory 1: 12.5".
➢   Push the "↵" button.
  ❑ The display shows "Memory 2: 0.0".
➢   Enter a tare value in the second memory of press the ↑ button to return to weighing mode.

Using tare memories:
    ➢ Push the "-" button and subsequently on the number of wanted memory.
    ➢ The display shows briefly "S1   12.5 kg PT". , the preset tare value will be entered and the system automatically returns to weighing-mode.

3.2.6 CODE ENTRY AND PRINTING (OPTION)

If the scale is equipped with a printer, you can enter and print a reference code at each weighing, f.i. an order number or an article number. On the printout gross- / tare- / net weights, code and datum / time will be printed. The code can have a maximum of 10 alphanumeric characters.

➢ Pick up the load and if needed key in tare weight.
➢ Press the ↵ key.
   ❑ The display shows the text "Code Nr.: -".
➢ Enter the correct code using the alphanumeric keys. The entry of characters is as it is with a cellular telephone (GSM): several key presses shortly after each other on the same key give different numbers and letters. At incorrect entry there is the Clr-key: per character by short pressing and the whole code by long pressing.
➢ Confirm with ↵.
   ❑ The printer prints the ticket with the data and the indicator goes back to the normal weighing mode.

3.2.7 DISPLAYING TOTAL WEIGHTS AND PRINTING THEM (OPTION)

All printed net weights will be automatically added together by the indicator to a total weight. With this one can easily determine the total weight of a shipment containing of several pallets.

➢ Press the Total key.
   ❑ The display shows the text "Tot." With the number of weighings and the total weight.
➢ To go back to the weighing program without resetting the memory: press key ↑. Now you can weigh more pallets and add them to the total.
➢ To printout the total weight: press the ↵ key. The net total weight will be printed and the memory will be reset to zero. The indicator returns to the weighing program.
➢ To clear the Total without printing: press the CLR key. The total memory will be erased. The indicator goes back to the weighing program.

3.3   COUNT: WEIGHING AND COUNTING

Use Key F6 to switch between weighing program BASIC and program COUNT

3.3.1 BEFORE WEIGHING: CHECK ZERO POINT

As in BASIC: see 3.2.1

3.3.2 GROSS WEIGHING

As in BASIC: see 3.2.2

3.3.3 NET WEIGHING: AUTOMATIC TARE

As in BASIC: see 3.2.3

3.3.4 NET WEIGHING: MANUAL TARE ENTRY

As in BASIC: see 3.2.4

3.3.5 PIECE COUNTING WITHOUT KNOWN PIECE WEIGHT

The indicator has several possibilities to count articles on the scale. By use of the known piece weight (weight per article); this weight will be used to calculate the total number of pieces when weighing the complete load. The indicator will show, instead of weight, the number of articles. If the piece weight is not known, the indicator can calculate it, after which a counting is executed

➢ Place the load which you want to count on the scale.
➢ Key in the tare weight of the pallet or container (see 3.2.4) or tare out the empty pallet or container (see 3.2.3): The piece counting is executed in the net mode only.
➢ Press the ↵ key.
  ❑ The display shows "10 pieces on the scale".
➢ Add 10 articles or take 10 off: the scale calculates the piece weight
  Through the weight increase or decrease. (If you want to put an other number of articles on the scale then you press the Clr key and you key in that number.)
➢ Confirm with the ↵ key.
  ❑ The display shows the message "Piece weight. (g)" and the calculated piece weight in grams.
➢ Confirm with the ↵ key.
  ❑ The display gives the message "pieces" and the counted number of articles.

3.3.6 PIECE COUNTING WITH KNOWN PIECE WEIGHT

When the piece weight is known (or is measured on a small reference scale), it can be entered manually after which the indicator will calculate the number of pieces on the scale.

➢ Place the load which you want to count on the scale.
➢ Enter the tare weight of the pallet or container (see 3.2.4) or tare the empty pallet or container (see 3.2.3): the calculation will only be executed with the net load.
➢ Confirm with the ↵ key.
  ❑ The display gives the message "10 piece on scale".
➢ Press the key: Info.
  ❑ The display shows: "Piece wght. (g)" and the last used piece weights in grams.
➢ Enter the known piece weight through the numeric keys and confirm with the ↵ key. (when more pallets are using the same piece weight you can use that piece weight by confirming this with the ↵ key).
  ❑ The display gives the message "Number" and the number of counted articles.

N.B.: When a big number of containers with the same article have to be counted in a row, the user can – after determining of the piece weight – use the same piece weight directly with the next container. Set parameter " Ser.mode" in Supervisor mode on 1 (to activate Supervisor mode: see 3.1.2).

3.3.7 PIECE COUNING WITH A REFERENCE SCALE (OPTION)

When the piece weight is extremely small, or the accuracy of the piece weight is of paramount importance, the system can be equipped with a reference scale (f.i. with a 10 kg capacity and a resolution in grams). The piece weight is determined on the reference scale and the indicator uses that weight directly to calculate the number of pieces of the pallet scale.

➢ Place the load which you want to count on the scale.
➢ Enter the tare weight in for a pallet or container (see 3.2.4) or tare out the empty pallet or container (see 3.2.3): the calculation is executed now with the net weight only.
➢ Confirm with the ↵ key.
  ❑ The display gives the message "10 Pieces on scale".
➢ Press F2 to switchover to the reference scale. The weight, number of pieces and messages in the display are related to information of the reference scale.
➢ Put 10 articles on the reference scale and press the ↵ key.
  ❑ The display gives the message "Piece wght. (g)" and the calculated piece weight in gram's.

➢ Confirm with the key ↵.
  ❑ Display gives the message "Pieces" and the number of articles of the reference scale.
➢ With F1 you go back to the main weighing system. The weight, the number and messages in the display of the main weighing system are activated.
  ❑ The display gives the message "Number" and the number of counted goods on the main weighing system. When you take goods out of the pallet of put more goods in then the counted number of articles will increase and decrease accordingly.

3.3.8 CODE ENTRY AND PRINTING (OPTION)

When the weighing system is equipped with a printer, it is possible to enter per weighing/count action an order or an article number. On the printout it shows gross- / tare- / net weights, piece weight and the number of pieces and the entered codes with date / time. The maximum number of codes is 10 alphanumeric characters.

➢ Lift the load and execute a count action (see above).
➢ Press key ↵.
  ❑ Display shows the text "Code Nr.: -".
➢ Key in the code using the alphanumeric key path. Entry of characters is executed as with a mobile phone: sequentially pressing the same key in a short time. Incorrect entries can be corrected using the Clr-key: per character by pressing shortly and a long press for the complete code
➢ Confirm with ↵.
  ❑ The printer prints the ticket and returns to the normal program.

3.3.9 PRINTING AND DISPLAYING TOTALS (OPTION)

All printed net weights and counting results will be accumulated automatically by the indicator into a weight total and a piece total. So with shipments with several pallets with the same articles it is possible to get the total calculated and registered. (!: the indicator does not recognize the different articles. All quantities of pieces are added together).
➢ Press theTotal key.
  ❑ Display shows the text "Tot." including the numbers of summations and the total number of pieces
➢ To get back to the weighing program without deleting the total memory:
  press ↑. You can add more pallets to the current total value if needed.
➢ To print the totals: Press ↵. The net total weight will be printed, the total memory will be reset and the indicator returns to the normal weighing program.