

handifor™

20 kg / 50 kg / 100 kg / 200 kg



GB

Operating and maintenance instructions
Original manual



1. Before installing and using this unit, to ensure safe, efficient use of the unit, be sure you have read and fully understood the information and instructions given in this manual. A copy of this manual should be made available to every operator. Extra copies of this manual can be supplied on request.
2. Do not use the unit if any of the plates mounted on the unit are missing or if any of the information on the plates, as indicated at the end of the manual, are no longer legible. Identical plates will be supplied on request; these must be secured on the unit before it can be used again.
3. Make sure that all persons operating this unit know perfectly how to use it in a safe way, in observance of all safety at work regulations. This manual must be made available to all users.
4. The positioning and commissioning of this appliance must be carried out under conditions that ensure installer safety in compliance with the relevant regulations.
5. Each time, before using the unit, inspect the unit for any visible damage, as well as the accessories used with the unit. Never use an appliance that is not obviously in good condition. Return the unit to the manufacturer for overhaul for any malfunctions observed which are not related to the condition of the batteries.
6. Protect your appliance from any form of impact, especially the display unit.
7. The unit must never be used for any operations other than those described in this manual. The unit must never be used to handle any loads exceeding the maximum utilization load indicated on the unit. It must never be used in explosive atmospheres.
8. This device must not be used in a man lifting line.
9. Tractel® declines any responsibility for use of this unit in a setup configuration not described in this manual.
10. Tractel® declines any responsibility for the consequences of any changes made to the unit or removal of parts.
11. Tractel® declines any responsibility for the consequences resulting from disassembly of the unit in any way not described in this manual or repairs performed without Tractel® authorization, especially as concerns replacement of original parts by parts of another manufacturer.
12. If the unit is to be definitively removed from use, make sure the unit is discarded in a way which will prevent any possible use of the unit. All environment protection regulations must be observed.
13. Certified in compliance with European regulations, this appliance should be checked for compliance with the regulations of any other country where it might be used, prior to being commissioned there.

1. OVERVIEW

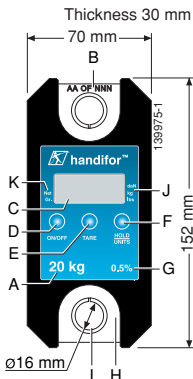
The handifor™ micro-weighers are precision force sensors (0.5 % EM) used to measure tensile forces and to indicate loads.

The equipment is supplied in a cardboard box containing:

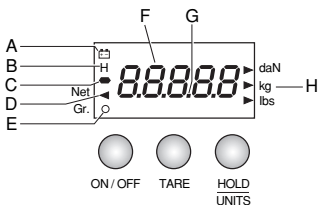
- The handifor™ micro-weigher
- An operating and maintenance instructions manual.
- A CE statement of compliance.

2. DESCRIPTIONS AND MARKINGS

A	Capacity
B	Serial No.
C	LCD screen
D	ON/OFF button
E	Tare button
F	Hold/unit button
G	Precision
H	Sensor body
I	Hole for accessories
J	Unit symbol
K	Calibration information
Back of device	Battery compartment cover Manufacturer's markings



3. DISPLAY



OVERLOAD
See 4.3 §

A	Battery indicator	E	GROSS indicator (Gross Value of measurement)
B	Peak load indicator	F	Force value
C	Measurement symbol	G	Decimal point
D	NET indicator (Net Value of Measurement)	H	Unit indicator

4. TECHNICAL SPECIFICATIONS

Capacities	20 kg / 50 kg / 100 kg / 200 kg								
Safety coefficient	≥ 4 (including accessories)								
Precision	+/- 0.5 % of measurement range								
Protection index	IP 40								
Operating Temperature range	-10 to + 50 °C								
Power supply	2 AAA batteries. Operating endurance = 100 h								
Display	LCD, 5 digits, 14 mm. Characteristics of display in accordance with capacities:								
	Kg / Lbs	20 / 44		50 / 110		100 / 220		200 / 440	
	Increment	kg/daN	lbs	kg/daN	lbs	kg/daN	lbs	kg/daN	lbs
		0,05	0,1	0,1	0,2	0,1	0,2	0,5	0,5
	Min: display	0,05	0,1	0,1	0,2	0,1	0,2	0,5	0,5
	Max: display	25	55	65	143	130	286	260	572
Beyond max, indication values, the screen indicates: HI.									
Provision applied	CEM 2004/108/CE								

4.1. FASTENING ACCESSORIES

The handifor™ is supplied with a snap shackle and an "S" hook.

4.2. INSTALLATION



DANGER



When installing, you must:

- Make sure that the load line fastening points are sufficiently strong with respect to the force which will be applied.
- Make sure that the sensor is properly aligned in the line of force.

4.3. UTILIZATION PROHIBITIONS

IT IS PROHIBITED:

- To use the handifor™ in a man lifting line.
- To modify the appliance housing by machining, drilling or any other process.
- To use handifor™ beyond their maximum capacity.
- To arc-weld with the handifor™ in the ground circuit.
- To disassemble or open the sensor.
- To use the appliance for operations other than those described in this manual.



DANGER




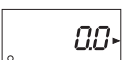
In the event of overload, all stress on the sensor must be completely relieved and a check made that the appliance returns to zero.

If the appliance shows a stress value, even though tension is not applied, then it has suffered a permanent distortion. In this case, you must have the appliance serviced by the manufacturer before continuing to use it.

5. SETTING INTO SERVICE

5.1.1. Starting and stopping the device

ON/OFF	ON: Press the button to switch on the unit. OFF: Press and hold the button for 2 seconds to switch off the unit.
Auto-OFF	If not used, the unit will switch off automatically after 2 minutes.


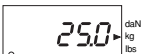
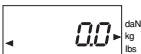
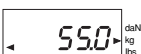

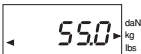
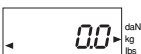
Nbr	DISPLAY	REMARKS
1		On power up. Display of all active segments. Reinitialisation of all functions. Display duration: 2 seconds.
2		Display of capacity in kg (ex 200 kg). Display duration: 2 seconds.
3		Display of last adjustment date. YY.MM (10.09: year 2010, September) Display duration: 2 seconds.
4		Device ready to operate. Default unit: last unit selected "Gr" indicator (GROSS measurement) activated.

5.1.2. Automatic zero

On power up, the display will indicate "0" so long as the force measured is less than 10 % of the maximum capacity of the device.



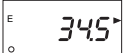

5.2. BASIC FUNCTIONS

5.2.1. Tare function

Nbr	DISPLAY	REMARKS
1		Device ready to operate. No load suspended "Gr" indicator (GROSS measurement) activated.
2		A 25 kg recipient is currently suspended.
3		The operator presses 2 seconds on the TARE button. The value of the weight currently measured is stored. The display goes to "0.0". The "Net" indicator is activated.
4		The operator loads 55 kg of equipment in the recipient. The display indicates 55, i.e. the NET weight.
5		The operator presses the TARE button. The display indicates 80, i.e. the GROSS weight. The "Net" indicator is deactivated; the "Gr." indicator is activated.
6		The operator presses the TARE button. The display indicates 55.0, i.e. the NET weight. By successively pressing the TARE button, the display switches back and forth the "Net" and the "Gr." indicators. The load can be increased in both conditions; the difference between "GROSS" and "NET" will always be the weight stored in step 3.
7		If the operator presses the TARE button for 2 seconds. New Tare: Return to step 3. The function is reinitiated (return to step 1) when the device is switched off.

Note : If a tare is defined, for example at 50% of the device capacity, therefore giving an indication of "0.0", if the load decreases, it will be indicated on the screen as a negative value. For example, a decrease of 25 kg will give an indication of "- 25.0".

5.2.2. Peak load function

Nbr	DISPLAY	REMARKS
1		Device ready to operate. No force on device.
2		Press the HOLD / UNITS (peak load) button. The measurement frequency goes to 30 Hertz. The filtering function is deactivated. The Tare function is inhibited. The function is accessible regardless of the unit.
3		Apply a variable pulling force on the device. Release any force on the device. The value of the maximum force remains frozen on the screen.
4		To exit the function: press the HOLD / UNITS (Peak load) button. The measurement frequency returns to 3 Hertz. Return to step 1. The function is reinitiated (return to step 1) when the device is switched off.

5.3. ADJUSTMENT

The adjustment frequency of the device depends on the local regulations and the extent to which the device is used.

The device can be checked and readjusted if necessary.

5.3.1. Adjustment procedure

The buttons are identified as follows:

- ON/OFF: Start-Stop button (item D of §2).
- TARE: Tare function button (item E of §2).
- HOLD/UNITS: Peak load / Units button (item F of §2).

1	Switch off the device.
2	No load should be suspended.
3	Press "ON/OFF" and "HOLD/UNITS" simultaneously for 3 seconds.
4	The display indicates the maximum capacity of the device, then "CAL".
5	Press "TARE" for 3 seconds, then release.
6	The - ____ - symbol flashes for around 5 seconds, after which the maximum capacity is displayed.
7	Suspend a load corresponding to the maximum capacity of the device.
8	Press "TARE" ; the display indicates _---_ then "PASS" for 2 seconds.
9	Configuring the adjustment date: the display indicates XX.XX (YY.MM). When the first digit flashes, press "HOLD/UNITS" to select the digit. Press "TARE" to go to the next digit. Continue in the same way to complete the adjustment date.
10	Press "TARE" to exit the date configuration mode; the display indicates "END".
11	Wait for the device to switch off automatically.
12	The adjustment procedure is complete.

6. REPLACING THE BATTERIES

The battery indicator flashes when the batteries are discharged. Replace the batteries.

- Using a Phillips screwdriver, remove the battery housing cover.
- Place the 2 1.5 V "AA" batteries checking the polarities.
- Replace the battery housing cover.

7. MAINTENANCE

The handifor™ does not require any special maintenance other than regular cleaning using a dry cloth.

8. STORAGE, TRANSPORT, DISPOSAL

Storage: Place the appliance in its original packaging, with the sensor batteries removed. Keep in a warm, dry place.

Transport: Transport the appliance in its original packaging.

Disposal: Any disposal of the appliance must be carried out in compliance with the regulations in force in the country of use. For countries subject to European regulations, please be informed that the micro-weighers are not covered by the "DEEE" and "RoHS" directives.

9. OPERATING ANOMALIES AND TROUBLESHOOTING

Trouble	Possible causes	Solutions
No initial reset	Peak load function activated Tare function activated. Permanent deformation of the sensor following a handling error; excessive overload or compression.	Deactivate the function Peak load or Tare and display the "GROSS" value of the force. The appliance should be checked by the manufacturer before you continue using.
The sensor does not switch on	Dead batteries. Electronic fault.	Change batteries. Contact the after-sales service.
No display evolution or display inconsistent	Sensor or sensor electronics malfunction.	Reinitialise: Switch off, then switch on the sensor. In the event of persistent malfunction, contact the after sales service.
Linearity or precision problem	Sensor or sensor electronics malfunction.	Contact the after-sales service.