PRODUCTS MANUAL

english

Thank you for purchasing our product

With the purchase of our product you have opened up your possibilities in payload management to the top of your expectations. Please contact us to upgrade your product to your work needs if necessary. info@veigroup.com

PAYLOAD DATA MANAGEMENT

ipotweb.com Cloud

WIRELESS DATA REMOTING

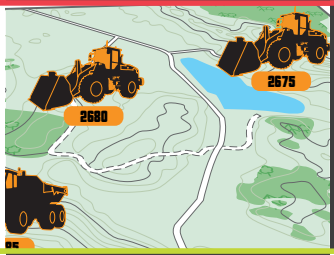
your machines loading into the cloud and scales update to the latest data files

USB DATA REMOTING

your machines loading into the cloud and upgrade to the latest developments

CLOUD CONNECTIVITY

ipotweb.com brings a real time approach to your production and sales



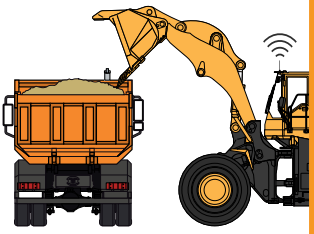
GPS CONNECTIVITY

ipotweb.com enhanced with GPS connectivity of your machines gives geo-fancing capability

LOADOUT PRINTOUT

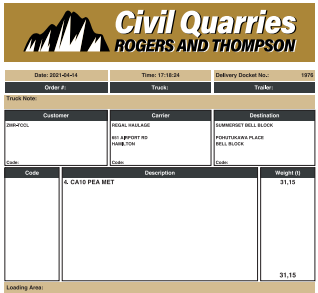
JOB ORDERS

automate loadings by sending orders from the cloud to your machines



INDUSTRY TYPE INTERFACE

enable the industry you are working in, to have a familiar interface and a proper data management



E-DOCKET

real time loading dockets sent to your customers email

General

Containers

Logistics

Table of contents

Manual References

Throughout this manual few icons are used to identify the theme for which the description is used for. Hereafter we explain better the concept in order for you to have a clear navigation afterwards

DEVICE TYPE

At the top of each page it shows for which Device the description is related to. In this example HelperX and Millennium5. HelperM does not comply with the described feature

APPLICATION TYPE

At the bottom of each page it shows for which machine type the description is related to. The applications are the most common, there can be others not mentioned here for which apply the same description. When No Machines are shown it means the description is for all

INDUSTRY TYPE

At the bottom of each page it shows for which Industry type the description is related to. Industry type is a Device's setting with which the interface graphics and database is compatible with the industry where the Device is in use. When No Industry is shown it means the description is for all

User interface

Common Icons

	Yes		No
	Start		New
	Cancel		Start list
	Find by content		Find by initials
	Pause		Print
	Print system configuration		Tip off
	Confirm tip off		Job orders list loading
	Calibration		Favorite loadings
	Text edit		Save into a file
	Product zero setting		Tools listing
	Wireless files reception		Diagnostics
	Reset		

Industries Icons

Based on the Industry selection into System Preferences the Device replaces some Data Management icons with Industry orientated ones making the navigation even easier.

General Industry

	Product		Customer
	Target		Destination
	Recipe		Vehicle
	Target on demand entry		Target on demand start up
	Target on demand exit		

Containers Industry

	Terminal		Shipper
	Container# Booking#		

Logistics Industry

	Product		Product lot
	Pick		Deliver

Positioning the Device

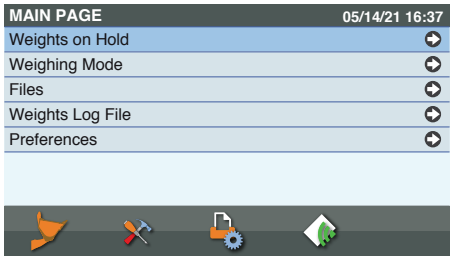
Position the Device where desired with the handle on the mounting arm. Do not unscrew it too much or the arm disassembles into two parts.

Navigation

Navigation allows you to move inside the Device's pages, confirm and enable items.

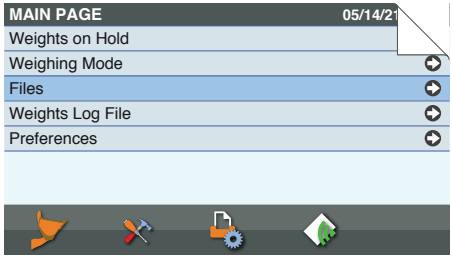
Change window

This enables you to change pages, from Weighing to Main Page, or any other page to Weighing. It is especially useful for returning quickly to the Main Page from any window by skipping through Weighing and then to the Main Page.
In Files, it returns you to Weighing without changing the current item.



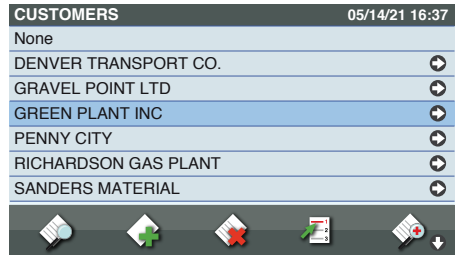
Navigating between windows

Next window

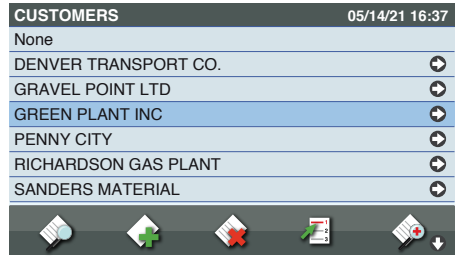


Previous window

Previous item



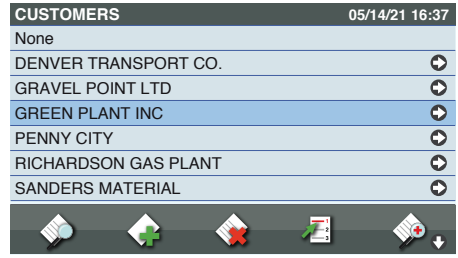
Next item



Confirm

OK

Use this key to enable the check boxes and confirm a selection, for instance Customer or Product, for Weighing.

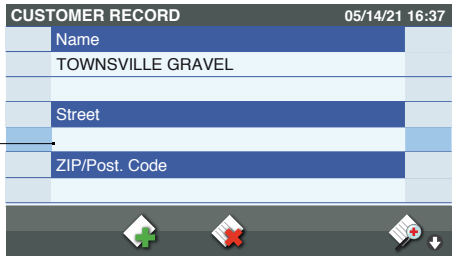


Editing

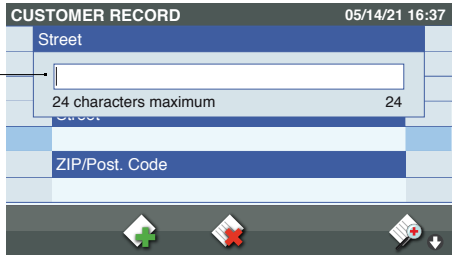
Editing allows you to write into a field, for instance to enter a Customer or Product name.

..1.. Enter

Select the field to edit

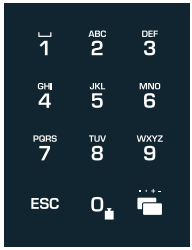


OK Entering Editing



..2.. Editing

Use the keypad to edit a field.
Holding down the key edits the number directly.



Use the keys to move between characters when correcting a name or value

C

Use this key to delete a character or an entire name/value (when held down for a few seconds)

ESC

Use the key to quit editing without implementing the changes

..3.. Confirm

OK

Confirm the changes

Date and Time

The date and Time can be set in System Preferences. It is important to update the Date and Time in case they change due to the calendar or time saving hour change.

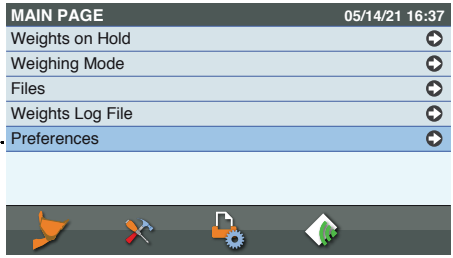
..1.. Main Page

Press the key to enter the Main Page

..2.. Preferences

Select Preferences

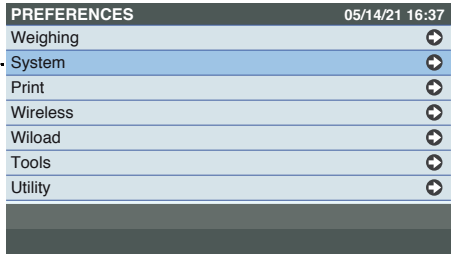
Enter Preferences



..3.. System

Select System

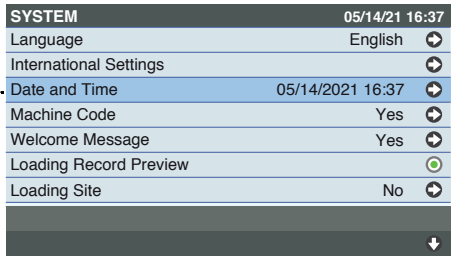
Enter System



..4.. Date and Time

Select Date and Time

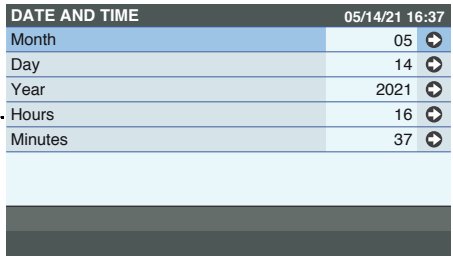
Enter Date and Time



..5.. Editing

Select the field to edit

Confirm the field to edit;
see Editing chapter to learn
how to edit a field content



International Settings

With International Settings specific parameters can be set according to each country in order to make files transfer to other platforms easier and faster

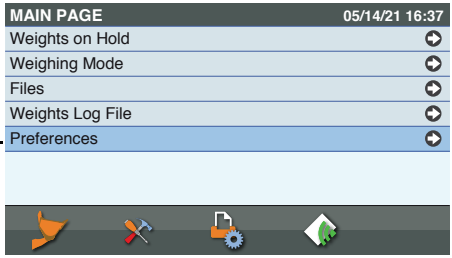
..1.. Main Page

Press the key to enter the Main Page

..2.. Preferences

Select Preferences

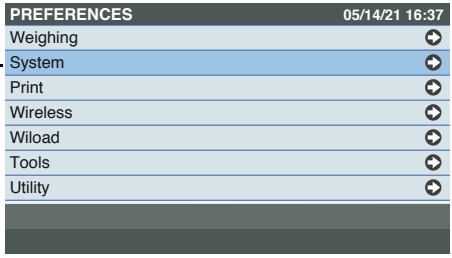
Enter Preferences



..3.. System

Select System

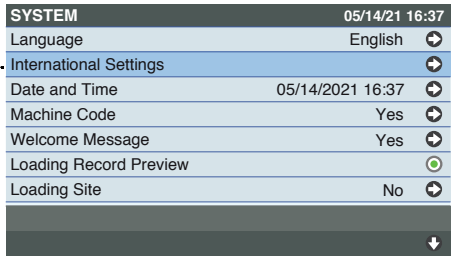
Enter System



..4.. International Settings

Select International Settings

Enter International Settings

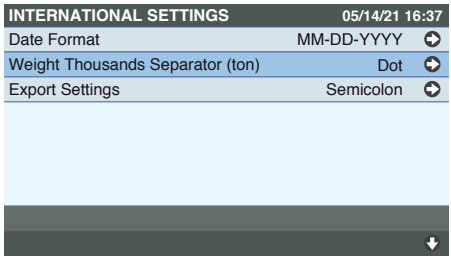


..5.. Settings

DATE FORMAT
can be in the form of DD-MM-YYYY or MM-DD-YYYY in other words day or month as first.

WEIGHT THOUSAND SEPARATOR
decides which separator to have when the Unit of Mass is “t”, metric tons, it can be “Dot” or “Comma”. When the unit of Mass is “ton”, short ton, the thousand separator is “comma”, International Settings has no effect being that “ton” is used on those countries where the separtor is “comma”, only.

EXPORT SETTINGS
The field separator can be set “semicolon” compatible with Europe, South America, Africa, Asia or “comma”, compatible with North America and Oceania



Weighing Mode

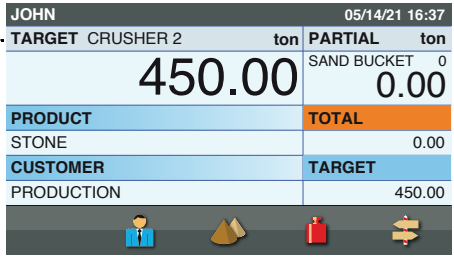
The Weighing mode indicates how the total loaded weight is counted.
There are two basic modes: from 0.00 up to the Target Load or from the Target Load down to 0.00. The Target Mode is developed in few types, used based on the job you are doing

Incremental

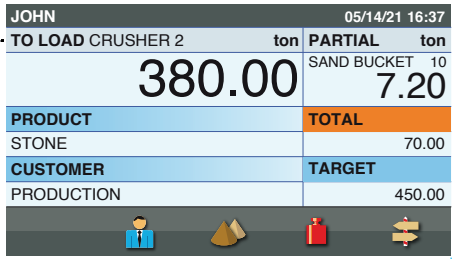
Incremental weighing mode indicates that the Total weight starts from zero and increases to the desired total load.

XSTarget

Target weighing mode indicates a target load weight which decrements towards zero with each weighing cycle. Once zero is reached, a buzzer sounds to indicate that the load is complete.
The Loaded weight area is “Target” before loading starts,



and changes to “To load” once it has started.



Vehicle

Vehicle mode indicates that an ID or license plate has been selected, which corresponds to a set Customer and Load.
The Load weight can be set as 0.00 or Target. Once the Load increases the Total increase while the single Targets decrease once at a time.

Recipe

Recipe weighing mode indicates that a recipe ID has been selected, which specifies certain products with their target weights.

Once the Load of the product starts the Target changes into “To Load” and the Recipe Total starts to increase

Select

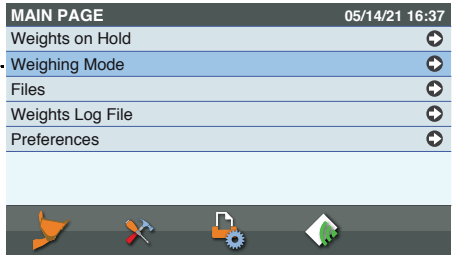
..1.. Main Page

The weighing mode is selected in the Main Page but, except for Incremental mode which is always enabled, it must first be enabled in system preferences under Enable Weighing Mode.

..2.. Weighing Mode

Select Weighing Mode

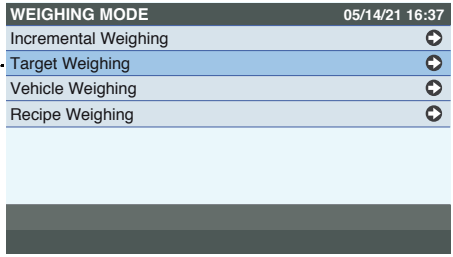
Enter Weighing mode



..3.. Select Mode

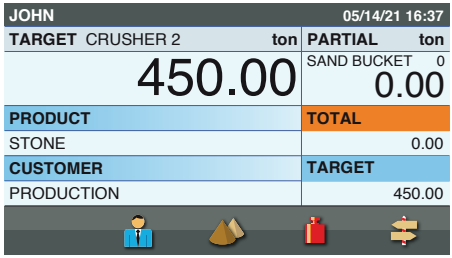
Select the desired Weighing mode

Enter Weighing mode



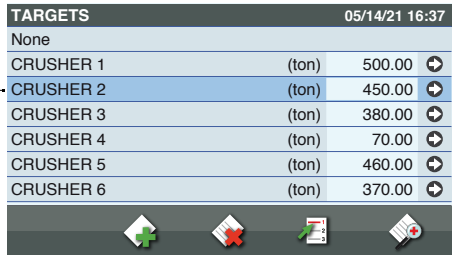
..4.. Active Weighing Mode

The selected Weighing mode, in this case Target



Alternative Selection

Alternatively you can select a weighing mode by selecting a record that pertain to it, as an example a Target to go to Target Weighing. Go to Main Page/Files: select the file and then the record.



Target on Demand

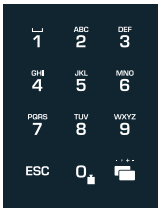
To use a Target on Demand, “Target on Demand Weighing Mode” must be enabled (see “System Preferences”, “Weighing Mode).
Target on Demand is a function in which the target weight and a reference name may be edited as desired. It is particularly useful when the container ID or license plate of the vehicle are not already set in the Vehicles File. For a vehicle, the load may be divided between truck and trailer with two fields for editing, so called Split weighing. The target weight decrements towards zero with each weighing cycle. Once zero is reached, a buzzer sounds to indicate that the load is complete.
There can be two ways of working with Target on Demand, with one Target or two Targets, this must be set into Target on Demand located in System Preferences, Weighing Mode.

Target on Demand entry

Press the key to run a Target on Demand

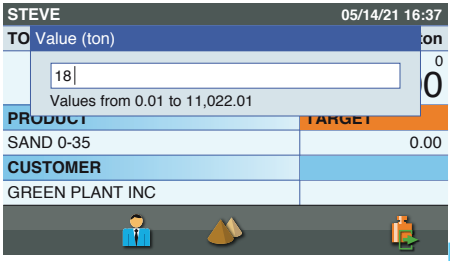
Enter weight

1 Target



Enter the weight for your target.

With 1 target there is no name to save for it

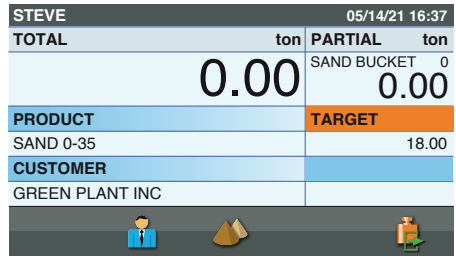


Confirm entry

Weighing start

1 Target

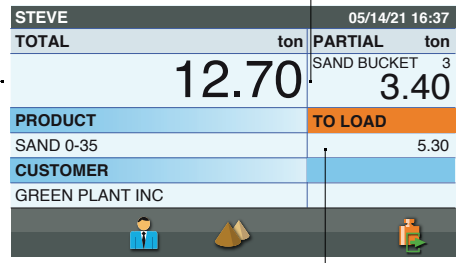
You can now start weighing with the target you have just entered



Last Partial weight

Total loaded

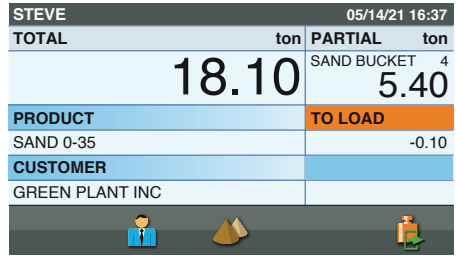
Remaining to load



Weighing end

1 Target

Press one of these keys to terminate weighing

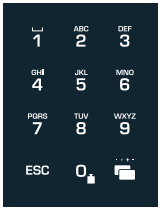


Enter name

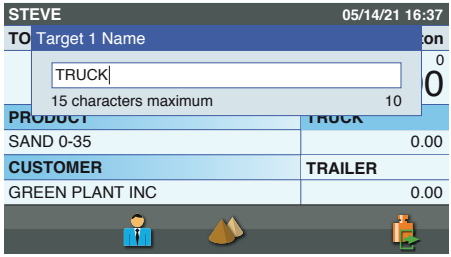
2 Target

Position the cursor on top of the Targets' name, in this case TRUCK or TRAILER

Press the key to enter the name



Enter each character with the keyboard

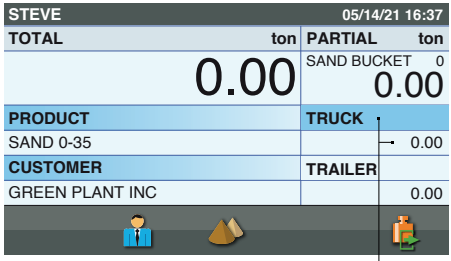


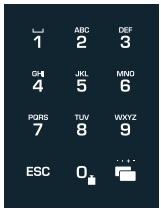
Press the key to confirm

Enter weight

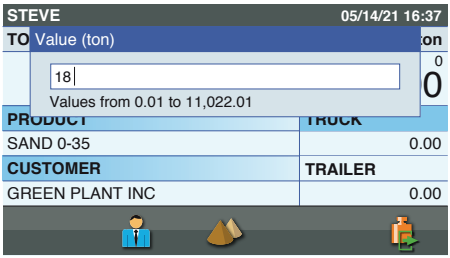
2 Target

Position the cursor on top of the Target name or its weight





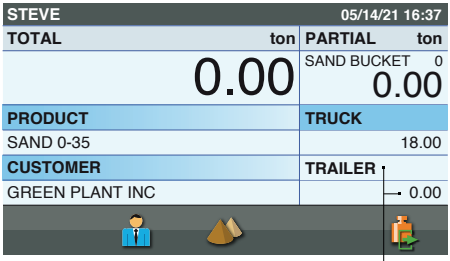
Enter the weight for your target



Confirm entry

Now your Target 1 weight is into weighing.

Enter now the Target 2 weight, positioning the cursor on top of the Target name or its weight as you previously did with Target 1



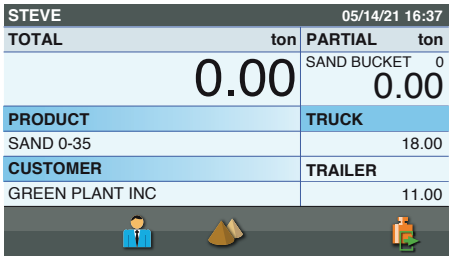
Remarks

1. The Name field may remain blank.
2. The Weight field has to be set to the target value
3. Only one weight field may be set, it is not necessary to set them both to run the weighing procedure.

Weighing start

2 Target

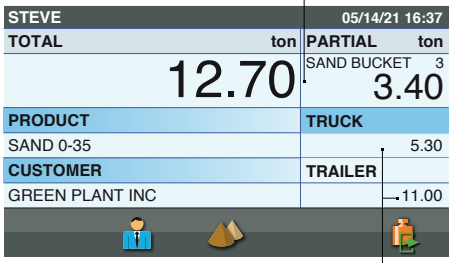
You can now start weighing with the targets you have just entered



Last Partial weight

Total loaded

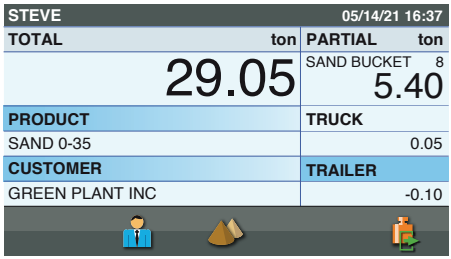
Remaining to load



Weighing end

2 Target

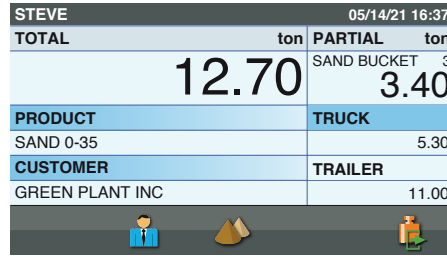
Press one of these keys to terminate weighing



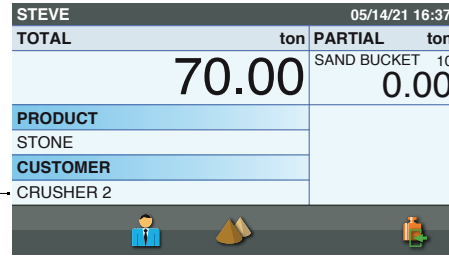
How to quit Target on Demand

Target on Demand can be quit to load something else and then go back loading what was left under Target on Demand.
Temporarily quitting the Target on Demand places the current load into Weights on Hold.

Press the key to quit Target on Demand

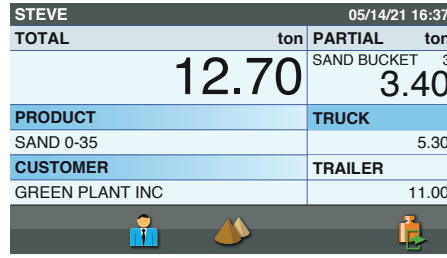


As an example you are brought back to a Weighing on Hold you were doing before



Press the key to go back in Target on Demand

Back to Target on Demand where it was left

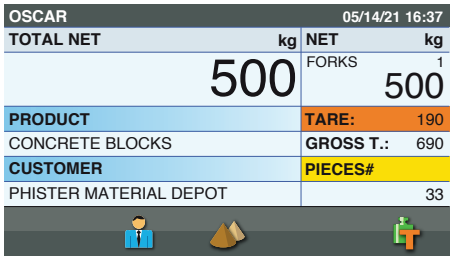


Weighing with Tares and Pieces counter

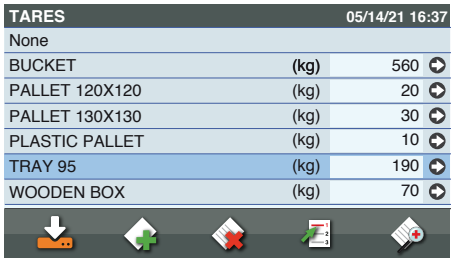
Tares can be introduced as a File or weighed in order to display and print Gross, Net and Tare weights. To have the Pieces# calculation the Unit Weight must be entered in each product, the number will be automatically displayed, printed and sent wireless. Tares and Pieces Counter must be enabled into System Preferences in order to appear into the Weighing Page.

As you see Total Net, Net (single weighing), Tare and Gross Total (Gross T.) are displayed

Press the key to enter the File

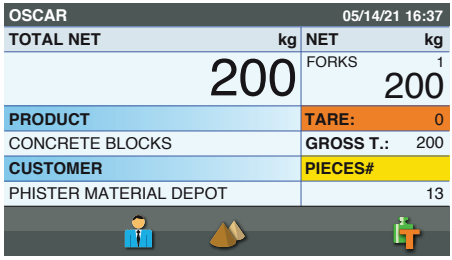


The selected Tare will be used into weighing, deducted from each single partial weight



In case the tare is not known and needs to be weighed before the Gross, weigh just the Tare

Press the key to enter the File



Press the key to save the partial weighing as a tare named +Weighed Tare

TARES		05/14/21 16:37
None		
BUCKET	(kg)	560
PALLET 120X120	(kg)	20
PALLET 130X130	(kg)	30
PLASTIC PALLET	(kg)	10
TRAY 95	(kg)	190
WOODEN BOX	(kg)	70

Total Net, Partial Net and Gross Total are set to zero because the previous weighing was set as a tare

OSCAR		05/14/21 16:37
TOTAL NET	kg	NET kg
0		FORKS 0 0
PRODUCT		TARE: 200
CONCRETE BLOCKS		GROSS T.: 0
CUSTOMER		PIECES#
PHISTER MATERIAL DEPOT		

Press the key to enter the File

TARES		05/14/21 16:37
None		
+Weighed Tare	(kg)	200
BUCKET	(kg)	560
PALLET 120X120	(kg)	20
PALLET 130X130	(kg)	30
PLASTIC PALLET	(kg)	10
TRAY 95	(kg)	190

A +Weighed Tare has been created as first of the list

Select Tool

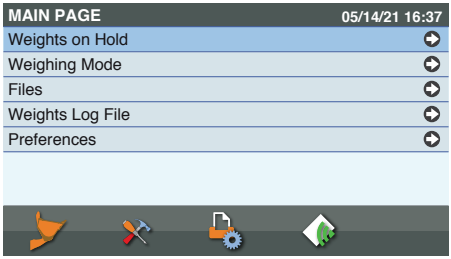
The Tool is the part of the machine used for loading: bucket, forks, spreader, etc. Whenever you use a different tool, it must be selected for weighing so that the Device's precision is unaffected, using in this way the proper calibration previously done.

..1.. Main Page

Press the key to enter the Main Page

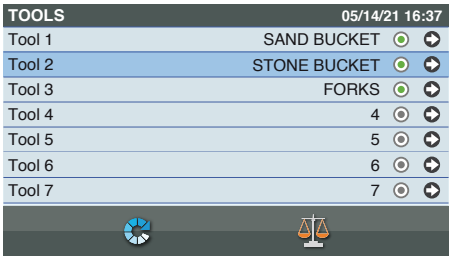
..2.. Enter Tools

Press the key to enter Tools



..3.. Tools

From the Tools page, select the Tool



Confirm the Tool

Weights on Hold

Weights on hold are saved in a File which stands for loads which have not been terminated and are thus waiting to be canceled. This file is particularly useful for loads which, for whatever reason, must be suspended and then resumed later.
This is a functionality we name multi-tasking. Keep in mind that when a load is cleared the next load on Hold in terms of date and time will be prompted into the weighing page.

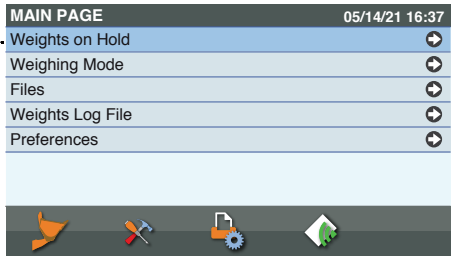
Select

..1.. Main Page

Press the key to enter the Main Page

..2.. Weights on Hold

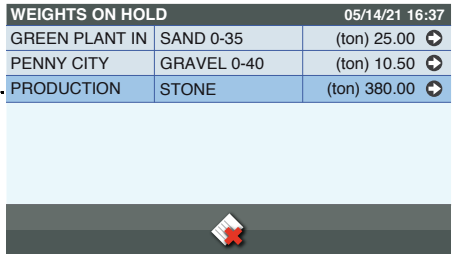
Select Weights on Hold



Enter Weights on Hold

..3.. Select

Select the load on hold you wish to run



If necessary, enter the Weights on Hold record

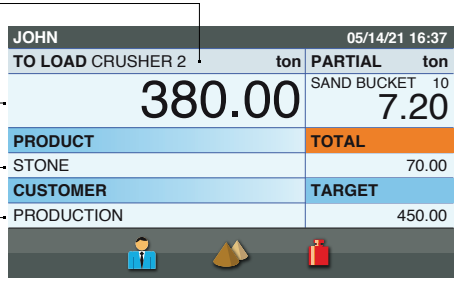
..4.. Confirm

Confirm the selected Weight on Hold which is to be resumed in weighing

Return to weighing without resuming the selected Weight on Hold

..5.. Resumed load

New selection into weighing which, for instance, is in Target mode



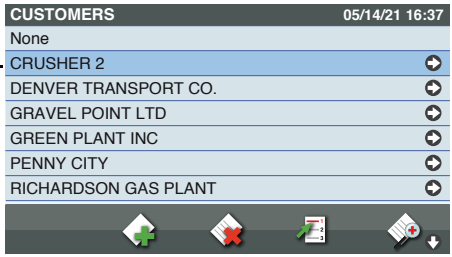
Resuming Weights on Hold from the weighing page

A weight on Hold beside being resumed from the Weights on Hold page it can be recalled from the Weighing page by selecting the loading data you want to use and if this data has already a Total weight undergo it will be prompted into weighing resumed from what it was.

In this example you are loading TRUCK ID SP23 YGA and you have to suspend for feeding the crusher

Press the key to enter the File

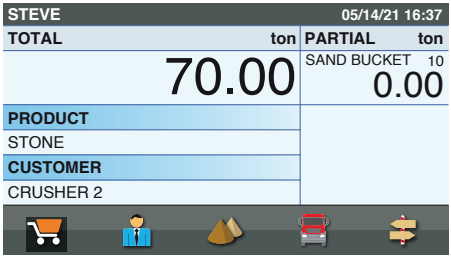
Select the item



Confirm the selection

Now you can start loading CRUSHER 2 from where it was left

Press the key to go back to the truck loading you were doing before



Select the item

Confirm the selection

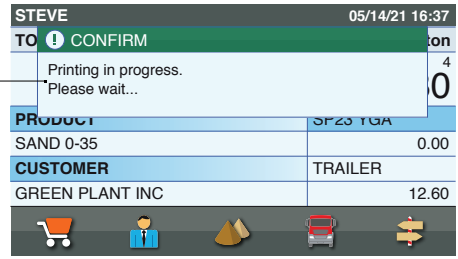
Now you are back loading truck SP23 YGA

Load printout

When loading has completed, run a printout. The print options depend on the print and system preferences.

..1.. Print

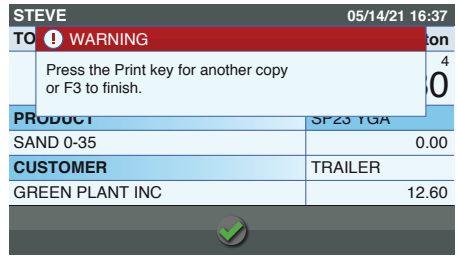
Press the Print key to terminate loading



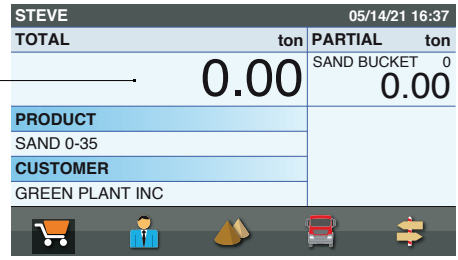
..2.. Confirm

Press Print to print out more copies

Confirm the Print



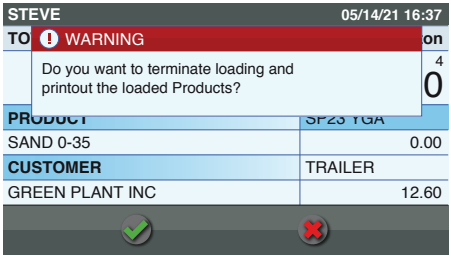
The total is set to zero and a new loading procedure can start



Print Correction

You can enable Print Correction in the Print preferences. This means that when a Printout is initialized, the Device prompts you to select the load termination or back to weighing after the printout.

Press the key to print.
Two options are available after the Printout:



Confirm Load Termination.
The Total is set to zero

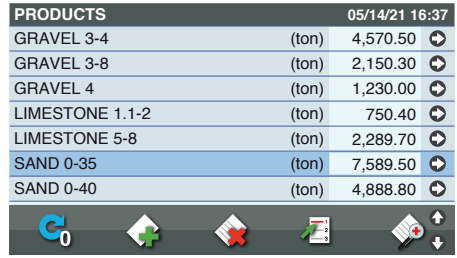
Do not confirm Load Termination, return to weighing

Print loaded products or Grand totals

You can Print out the loaded products to review the amount loaded over time or for a specific period. This amount is called the Grand Total.

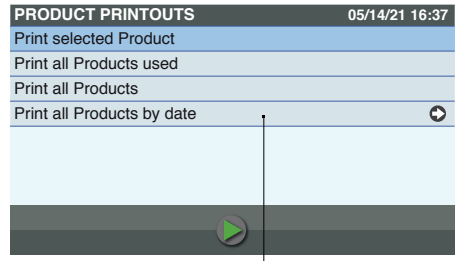
..1.. Print

In the Products window, press the key to run the Print



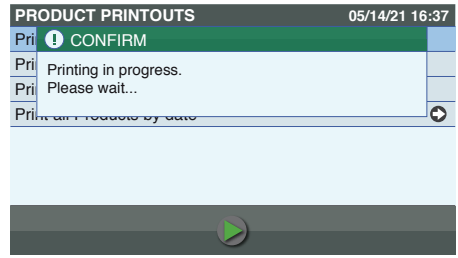
..2.. Select Print

Select the Printout:
Print selected Product
Print all Products used
Print all Products
Print all Products by date.
By entering the period, from date to date, print out all the products loaded every day including the daily percentage variation



..3.. Confirm

Press the key to start the print

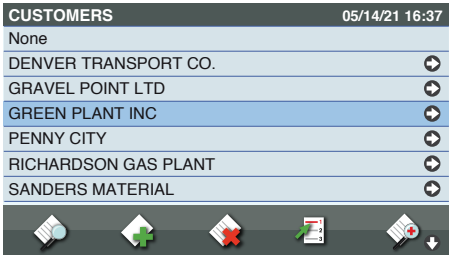


File printout

In each File, you can print out its content for review. We use the Customers file as an example.

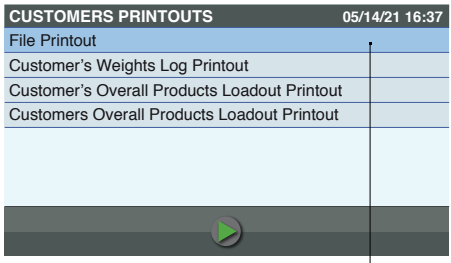
Print

In the window of each file, press the key to run the Print



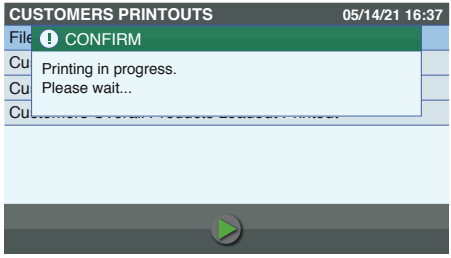
..2.. Select Print

Select File Printout, from the list of options. Other Files might print directly because File Printout is the only option available.



..3.. Confirm

Press the key to start the print run

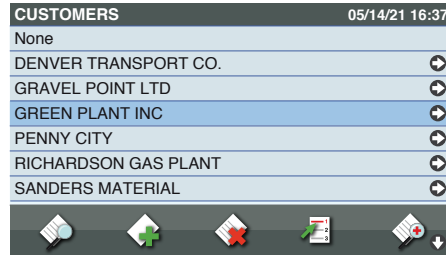


Printout of Products totals by Customer

On the Customer's File it is possible to print loadout reports for the selected customer or all of them. The Weights Log File must be enabled into System Preferences

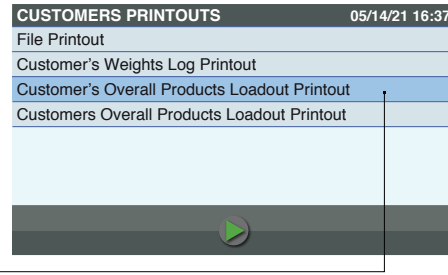
Print

In the Customers window, press the key to run the Print



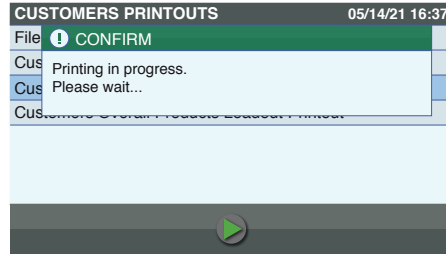
..2.. Select Print

Select the Printout:
Customer's Weights Log Printout.
Customer's overall loadout Printout, the totals by product for the selected customer will be printed.
All Customers overall loadout Printout, the totals by product will be printed divided by customer



..3.. Confirm

Press the key to start the print

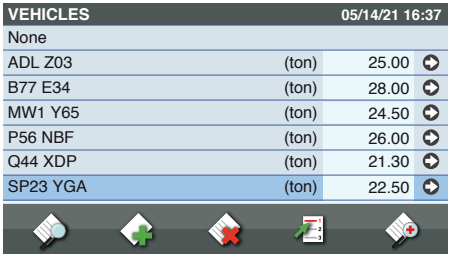


Printout of Products totals by Vehicle

On the Vehicle's File it is possible to print loadout reports for the selected vehicle or all of them. The Weights Log File must be enabled into System Preferences.

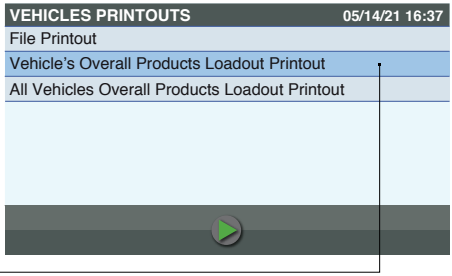
Print

In the Vehicles window, press the key to run the Print



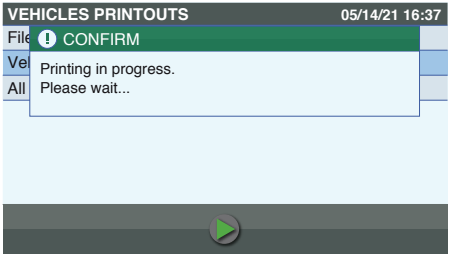
..2.. Select Print

Select the Printout:
Vehicle's overall loadout Printout, the totals by product for the selected vehicle will be printed.
All Vehicles overall loadout Printout, the totals by product will be printed divided by vehicle



..3.. Confirm

Press the key to start the print

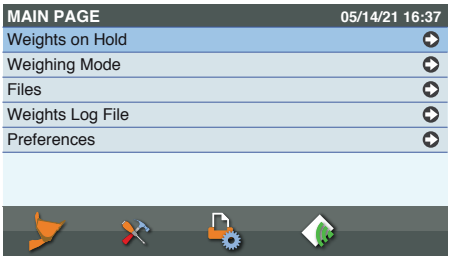


Configuration printout

The system configuration can be printed out to review the settings and for analysis by customer service.

Print

In the Main Page window, press the key to run the Print.
You can also run the print from Preferences/Utility.



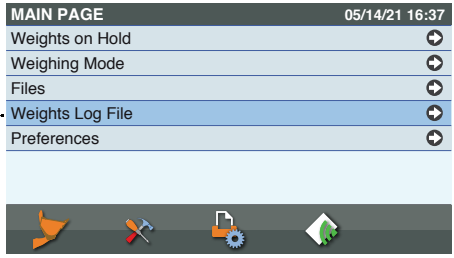
Weights log file printout

Loads which have been completed and saved in the Weights log file can be printed out and saved into a USB key or transmitted over a wireless connection.

..1.. Weights Log File

In the Main Page, select Weights log file

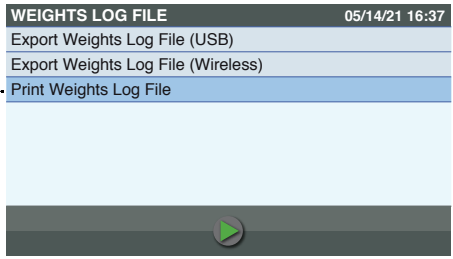
Enter the Weights log file



..2.. Print weights log file

In the Weights log file page, select Print weights log file

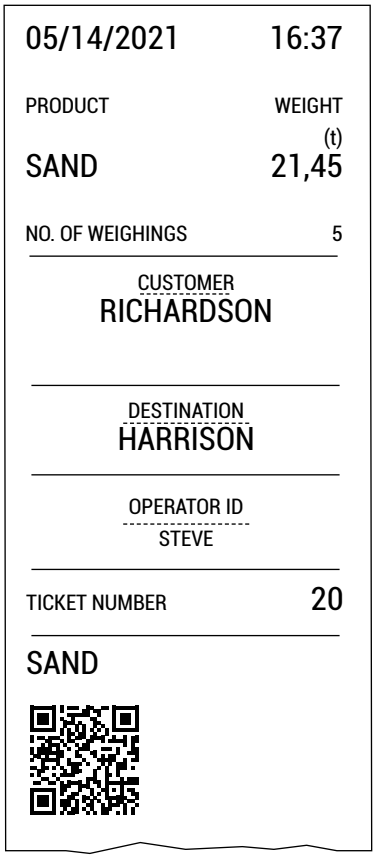
Press the key to start the print



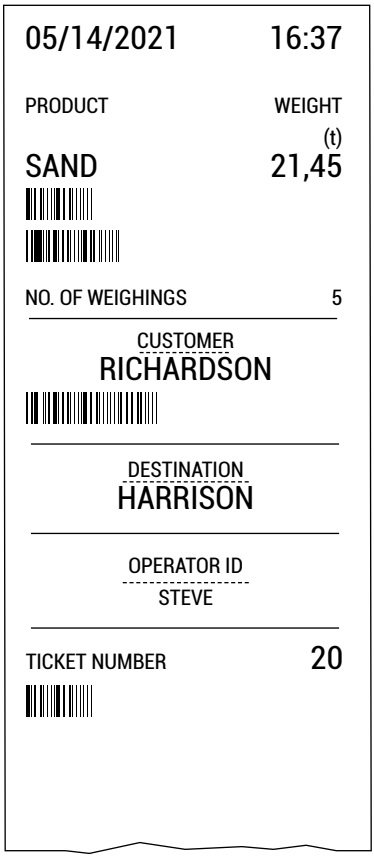
QR and Barcode printout

A Load's printout can have Barcodes and or QRcode. Barcodes or QRcode is a setting to be done into Print Preferences. The Barcode is CODE39 type, alphanumeric and with maximum number of characters of 10, it is printed after the Product, Weight, Customer, Operator ID, Destinations, Carriers, Ticket Number, Machine Code, Ticket No. + Machine Code, Loading Area, Loading Note. These can be printed all or based on a selection inside of Barcode Print into Print Preferences.

The QRcode instead includes Weight, Product Name, Total Price and Currency. In case the loaded products are two, two QRcodes will be printed, one after the other with the specification to which product it is related to. Millennium5 does not have QRcode.



Example of QRcode printout without Barcodes



Example of Barcode printout of Product, Weight, Customer and Ticket number

Load Preview

When a load is completed and its deletion or printout is attempted the Loading record Preview page is prompted in order to check if loading data are correct and in case not to change them before deleting the load or, if necessary, it is possible to go back weighing continuing with the load.
Load Preview must be enabled into System Preferences.

..1.. Review loading data

Scroll Loading Preview page to review loading data. Fields' name depends upon preferences setting

..2.. Change loading data

Enter files' listing to change data as you need

..3.. Confirm or go back

Press the key to confirm and start the print and or total deletion

Press the key to go back weighing without saving any change

Files

The files contain data related with the loading. You can select some of them before loading starts and some others when loading ends. Some files must be enabled into System Preferences before they can be used into weighing, even records can be created and edited without the file being enabled. The following Files are refered to the Industry selection made in System Preferences and highlighted with the Industry icon at the bottom of the page. When not highlighted, the file is for all the Industries.

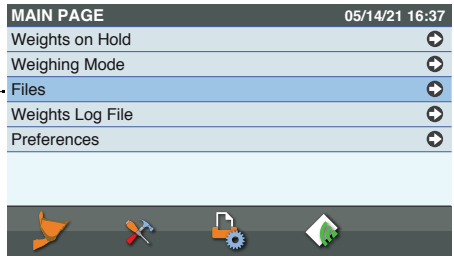
..1.. Main Page

Press the key to enter the Main Page

..2.. Files

In the Main Page, select Files

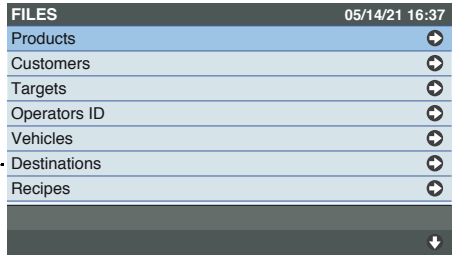
Enter Files



..3.. Select

In Files, select the File of interest

Enter File



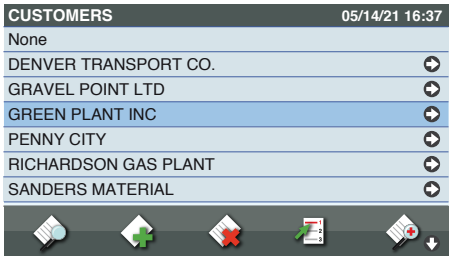
New - Delete - Start list and Find

In each file you have the options New, Delete, Start list and Find. The images show the Customers File as an example, but the same applies to the other files.

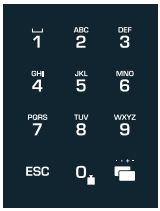
New

..1.. New item

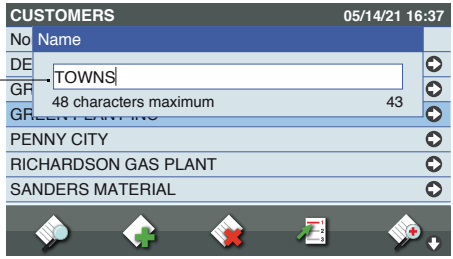
Press the key to create a new item



..2.. Editing



Edit the name with the keypad



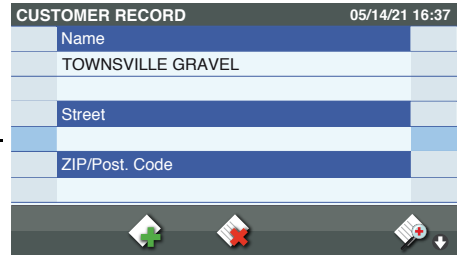
..3.. Confirm

OK Confirm the changes

..4.. Continue

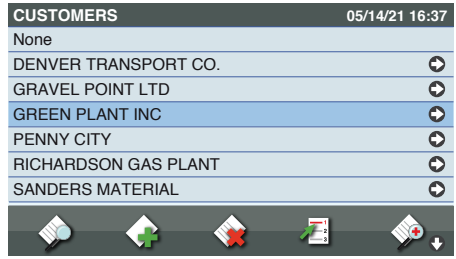
Continue editing other fields

OK Enter editing



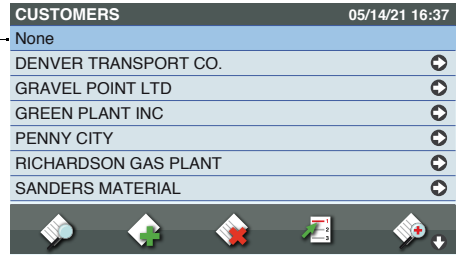
Delete

Press the key to delete the item



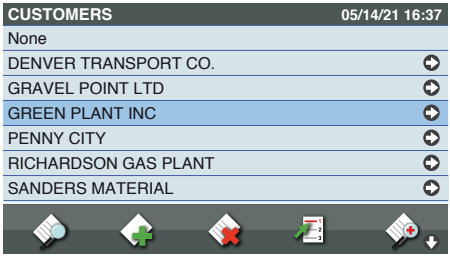
List top

Press the key to go to the top of the list

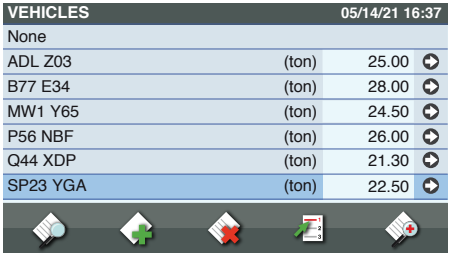


..1.. Find item

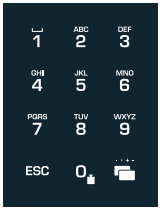
Press the key to find an item on the list by initials



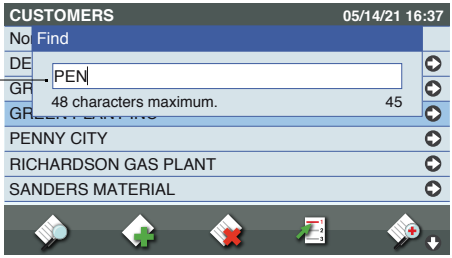
Press the key to find an item on the list by content.



..2.. Editing



Edit the initial or first characters of the name

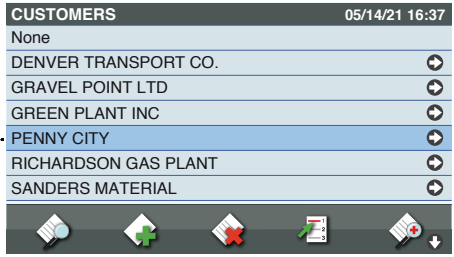


..3.. Confirm

Confirm the editing

..4.. Result

The search result is displayed in the list



Operators ID file

The Operators ID file allows you to select the name of the operator using the machine. If the Operator ID code is enabled into the file's record, it will be requested when the machine is switched on; if no ID code is entered, the instrument cannot be used.

Select

..1.. Main Page

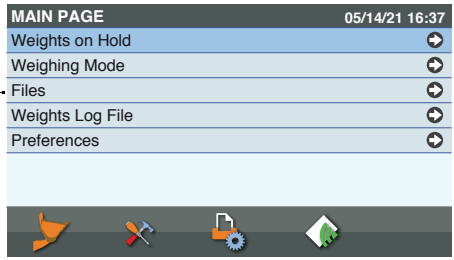
Operator ID

Press the key to enter the Main Page

..2.. Files

Select Files

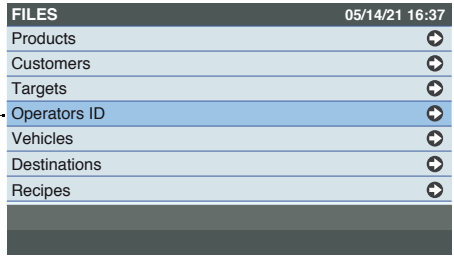
Enter Files



..3.. Operators ID

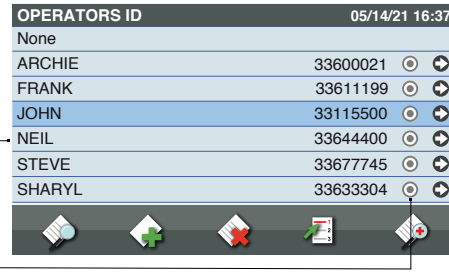
Select Operators ID

Enter Operators ID



..4.. Select

Select the item



Operator ID field not enabled in this example. It means the operator login at start up will not be required

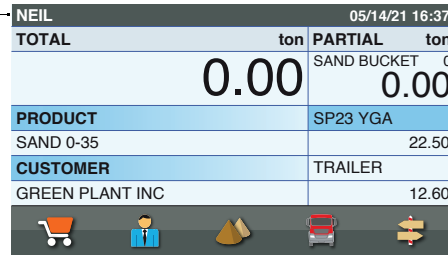
..5.. Confirm

OK Confirm the selection

Go to Weighing without confirming the selection

..6.. New Operator ID

New selection during weighing



Operator Login

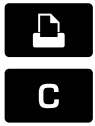
When the Device is switched on, it prompts for an Operator ID, without which it cannot be used

OK Confirm

Loading Areas File

Loading Area is an identification within the job site where, as an example certain products are stocked and trucks directed to.
In order to use the Loading Areas, the file must be enabled in System Preferences under Loading Areas.

..1.. Print or Clear

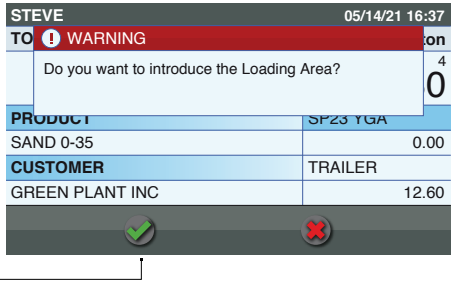


Press the Print or Clear key to terminate loading

..2.. Confirm entry

Confirm entry

Do not confirm



..3.. Select

Select the item

..4.. Confirm

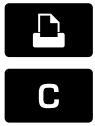
Confirm the selection

Go to Weighing without confirming the selection

Loading Notes File

Loading Notes identify the reason why the transport of material is made, sales, stock or others.
In order to use the Loading Notes, the file must be enabled in System Preferences under Loading Notes.

..1.. Print or Clear

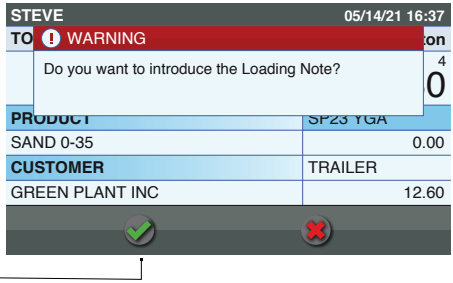


Press the Print or Clear key to terminate loading

..2.. Confirm entry

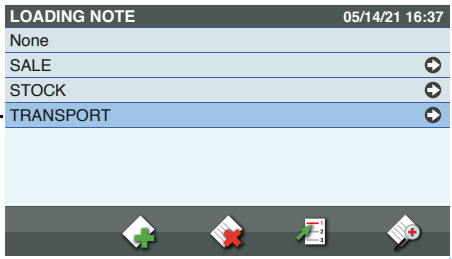
Confirm entry

Do not confirm



..3.. Select

Select the item



..4.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

Files by Industry

Files can be different upon the type of Industry selected into System Preferences. In the following pages we group files that pertain to each Industry. Each page points out at the bottom, as a reference, which Industry the description is related to with these icons here below.

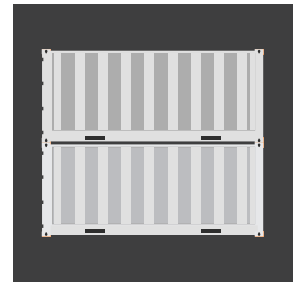
The HelperX product is the only one having the Industry setting, while Millennium5 and HelperM have files related only to the General Industry.

GENERAL
The Industry - General is the one where the load transaction is mainly but not only done with a customer, a vehicle transporting the material, a carrier doing the transport a destination where the material has to go.
Furthermore those sectors where a recipe of products must be performed.
This is the most used Industry type and involves applications such as Wheel Loader, Telescopic Loader, Material Handler, Truck, Forklift for loading customers.

When this icon is into the weighing page, the Device is working with GENERAL Industry

LOGISTICS
The Industry - Logistics is the one where the load transport is done inside a factory and therefore not related to customers loading.
With Logistics files handle where the material is picked up, where it is going to be delivered or deposited, product type and lot number.
This Industry involves mainly the Forklift application but there can be cases where Wheel Loader and Material Handler can be used for internal material stowage

When this icon is into the weighing page, the Device is working with LOGISTICS Industry



CONTAINERS
The Industry - Containers is specific for containers handling because files can manage data typically related to this industry alone, such as booking#, shipper, ship lines and more.
Obviously this Industry applies to the Reach Stacker or Containers Handler applications

When this icon is into the weighing page, the Device is working with CONTAINERS Industry

How to change Industry

The correct Industry should be set at installation by your Vei Device supplier, in case not here is how to set the Industry you want to work with.

..1.. Main Page

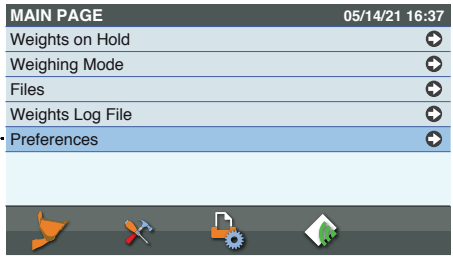
Press the key to enter the Main Page

As an example this weighing page is set as General

..2.. Preferences

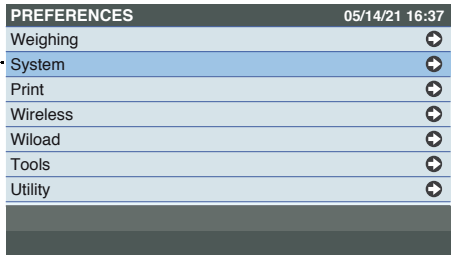
Select Preferences

Enter Preferences



..3.. System

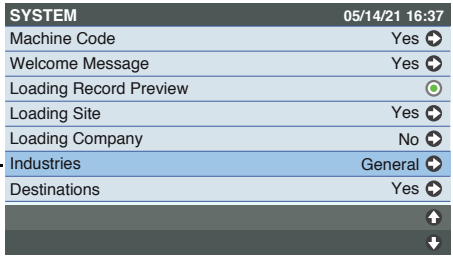
Select System



..4.. Industries

Select Industries

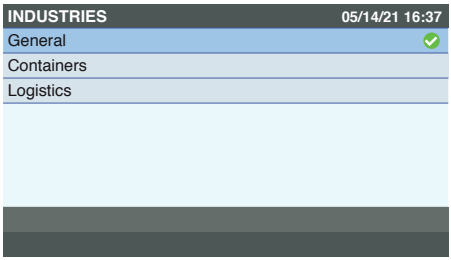
Enter Industries



..5.. Select

Select the item

Set your Industry type



Products file

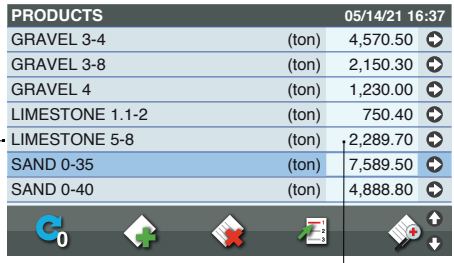
The product to be loaded must be selected before weighing starts, meaning when the Total is zero; in this way the product reference is included in the loading data information. Selecting a product when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data.
(see Weights on Hold).

Press the key to enter the File

..1.. Select

Select the item

Grand Total per product field



..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

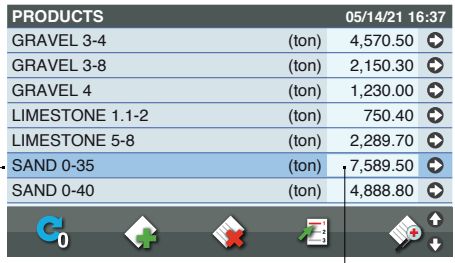
..3.. New product

New selection during Weighing

Zero the Grand Total

Select the item

Press the key to set the Grand Total for the given product or all products to zero

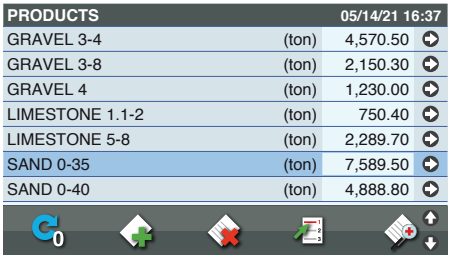


Calculations on the Product

Each product can be specified with its Specific Weight, Unit Weight, Price and Notes in order to give more loading information in the printout.

Press the key to enter the File

Press the key to enter the selected Product record



..1.. cu.meters or cu.yards

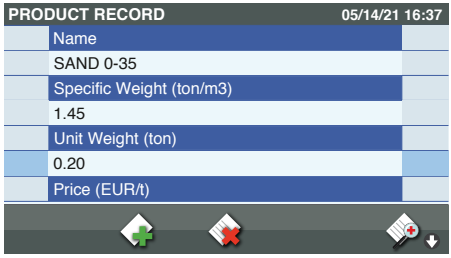
OK

Enter the Specific Weight of the selected product.
It can be t/m3 or ton/yd3, only, even the Weighing Preference unit of mass is kg or lb.
Based on the Total loaded for the product, the cubic meters (m3) or cubic yards (yd3) will be printed within the loading docket but not sent wireless

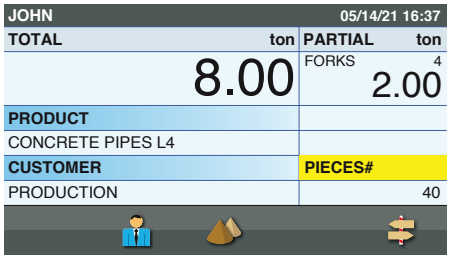
..2.. Unit Weight

OK

If you weigh a product made by different pieces, each with the same weight by entering the Unit Weight, based on the Total weight, the number of pieces can be displayed, printed and sent wireless.
Pieces Counter must be enabled within System Preferences, it works on Incremental Weighing Mode and General Industry setup, only. Unit Weight can be in t,kg,ton,lb depending upon the Unit of Mass set into Weighing Preferences



For a given Unit Weight of 0,20t and a Total of 8,00t Pieces# are 40.



..3.. Price

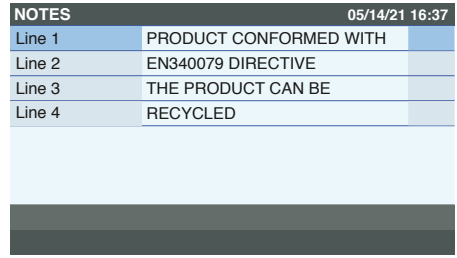
OK

Enter the Price per unit, t,kg,ton,lb based upon the Unit of Mass set into Weighing Preferences.
The Total Price based on the Total Weight loaded will be printed together with the currency and VAT which must be set into System Preferences.
The Total Load Price is not saved

Product Notes

Press the key to enter the item

Enter the text in each line of 24 characters



Targets file

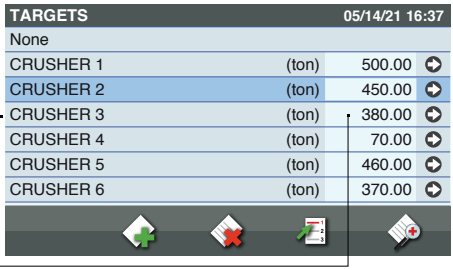
To use the Targets, "Target Weighing Mode" must be enabled and selected (see Weighing modes). The target is a load weight which decrements towards zero with each weighing cycle. Once zero is reached, a buzzer sounds to indicate that the load is complete. Selecting a new target while the current one is undergo puts the latter in Weights on hold (see Weights on Hold).

Press the key to enter the file

..1.. Select

Select the item

Preset target weight field



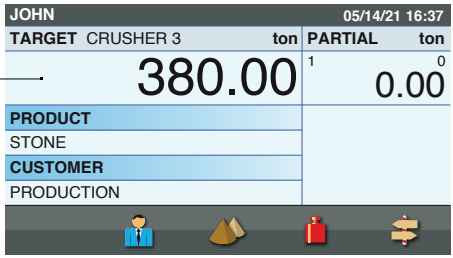
..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

..3.. New Target

New selection during weighing

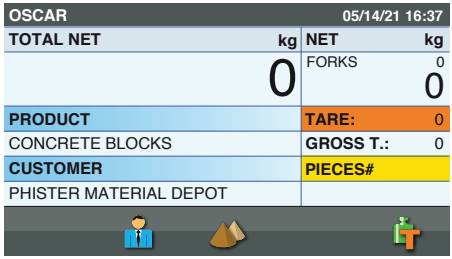


Tares File

Tares file stores the tares of containers or pallets you use to load your product. The weighing of the Gross weight is deducted by the Tare to display and print the Net weight. Tare and Gross are printed but not sent wireless. Beside being entered a tare can be weighed and stored.
In order to use the Tares, the file must be enabled in System Preferences under Tares. Be aware that by enabling the Tares other files cannot be enabled for icon position conflicts.
Furthermore just Incremental and Target weighing can be used.
See how saving a weighed tare into Tare weighing chapter.

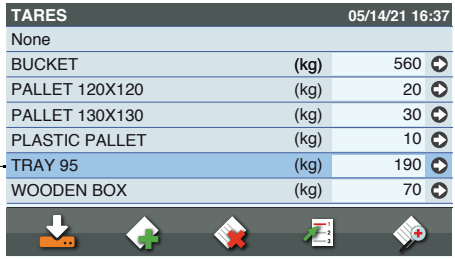
..1.. Tare entry

Press the key to enter the File



..2.. Select

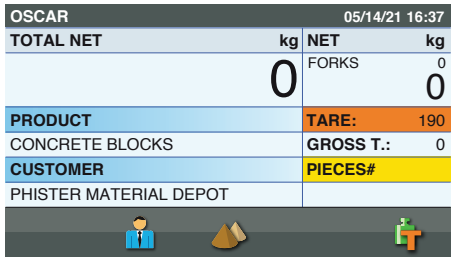
Select the item



..3.. Confirm

Confirm the selection

Go to Weighing without confirming the selection



Recipes file

To use Recipes, “Recipe Weighing Mode" must be enabled into System Preferences and selected from Weighing Mode into the Main Page (see Weighing modes). A Recipe consists of a name, recipe total, products included in the recipe and their target weights, which decrement towards zero with each weighing cycle. Once zero is reached, a buzzer sounds to indicate that the product in question is complete.
If the “Product Quantity” within the system preference “Weighing Mode” is enabled as “Nr. of Weighings”, the Target Weight will be replaced by the number of Weighings to be loaded for each product.

Press the key to enter the File

..1.. Select

Select the item

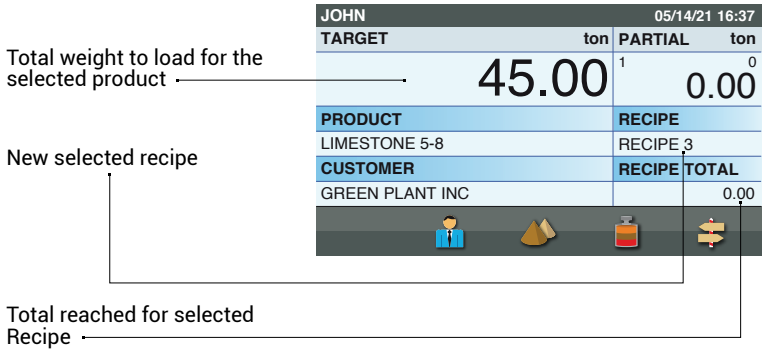
Recipe total to load field.
It can be a Target initiated or not

..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

..3.. New recipe



Select product

There are three ways to select the Product for a Recipe, from the Recipes File, from Recipe Weighing Mode or Products Listing.

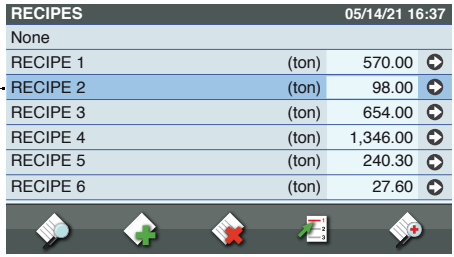
Select product from Recipes file

..1.. Recipes file

Press the key to enter the File

..2.. Recipe Content

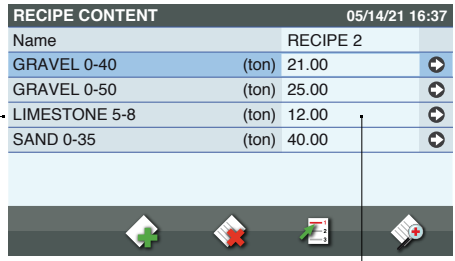
Enter Recipe Content for the selected Recipe



..3.. Select

Select the item

Total product to load field



..4.. Confirm

OK Confirm the selection

Go to Weighing without confirming the selection

..5.. New product

New selected product

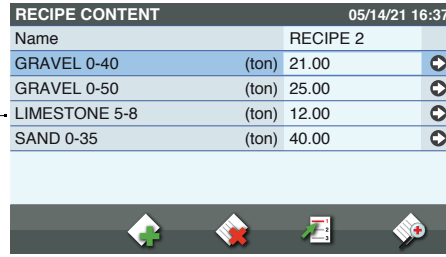
Select product from weighing

Select the product

Select Product from Products listing

Press the key to enter the File

Select the item



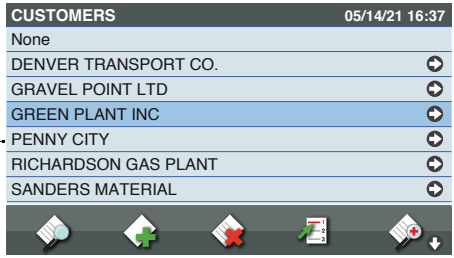
Customers file

The Customer to be loaded must be selected before weighing starts, meaning when the Total is zero; in this way the customer reference is included in the loading data information. Selecting a customer when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data.
(see Weights on Hold).

Press the key to enter the File

..1.. Select

Select the item



..2.. Confirm

Confirm the selection and go to weighing

Go to Weighing without confirming the selection

..3.. New Customer

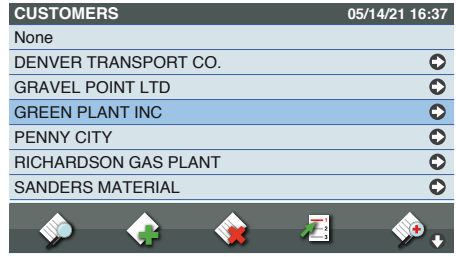
New selection during weighing

Favorite Destinations setting

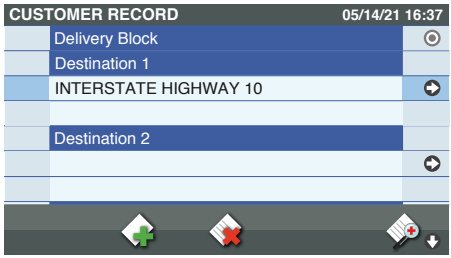
A Customer can have up to five Favorite Destinations enabled, in this case when a Destination has to be selected the prompted listing include just the Destinations set into the Customer record and the Destination where the same Customer is set as a Favorite.

Press the key to enter the File

Press the key to enter the selected Customer record



Scroll down to introduce the Destination from the Destinations file

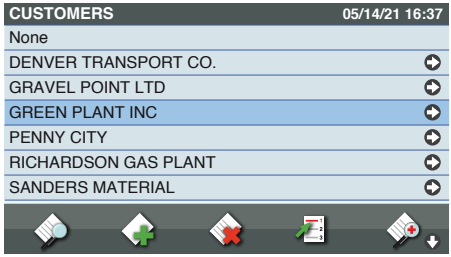


Delivery block

A Customer can be blocked from being supplied by enabling Delivery Block into the customer record. In this way the selection of the customer will not be possible.

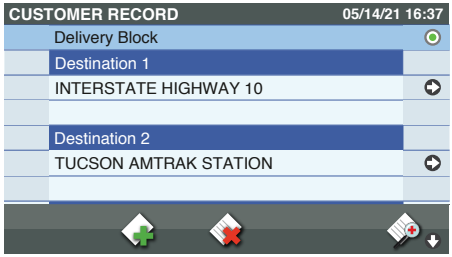
Press the key to enter the File

Press the key to enter the selected Customer record



OK

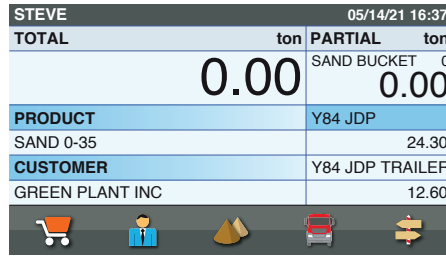
Enable Delivery Block



Customer cash payment

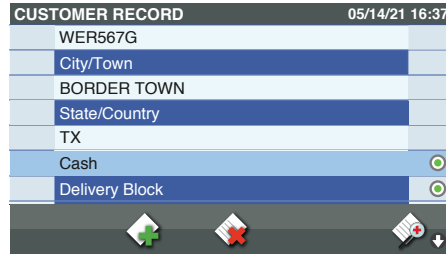
A Customer can be tagged to pay cash before going out the site.
On the printout “Cash Payment” is printed. You must introduce the Unit Price into the Products and the VAT and Currency into System Preferences for the Total Price of the loaded product to be printed out.

Press the key to enter the File



Press the key to enter the selected Customer record

Enable Cash

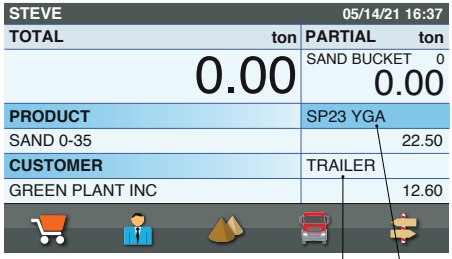


Vehicles File

To use Vehicles, “Vehicle Weighing Mode” must be enabled and selected (see Weighing modes). A Vehicle record consists of a license plate, Customer name, Carrier name and, if so set, the target weight to be loaded, which decrements towards zero with each weighing cycle. Once zero is reached, a buzzer sounds to indicate that the load is complete.
The load can also be divided into two Totals, each for a different product. This may be useful when loading a truck and its trailer, called Split loading.

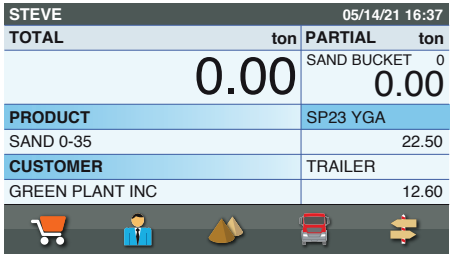
..1.. Select field

Select the Field to be set to Truck and Trailer. The first is usually the truck, the second the trailer which is named “Trailer” when its identification is not defined



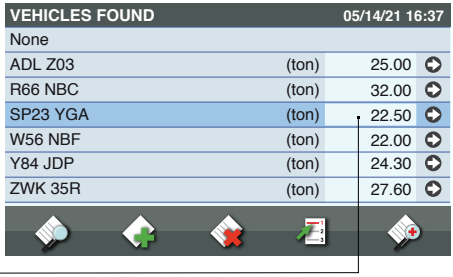
..2.. Vehicles entry

Press the key to enter the File



If every Vehicle has a Customer associated to it, the vehicle listing will be populated by the Vehicles pertaining to the selected customer, only. The page is called in this case “Vehicles Found”

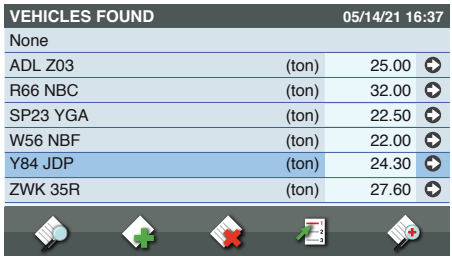
Preset Vehicle Weight field



Go to the Vehicles' entire listing

..3.. Select

Select the new truck plate to load



..4.. Confirm

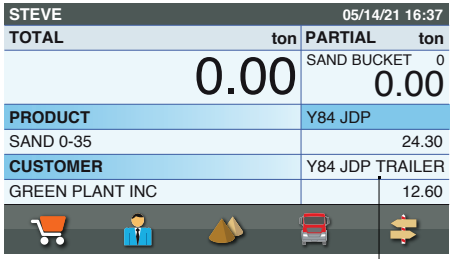
Confirm the selection

Go to Weighing without confirming the selection

..5.. New Vehicle

New selection during weighing

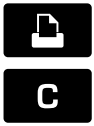
Repeat the selection in the second field for the trailer plate if this is your case.
If the trailer has the same Truck plate you can create a record by the name “Truck plate trailer”, in the display image example it becomes:
Y84 JDP TRAILER



Destinations File

The Destination is where the material is going once out of the loading site; it can be selected before loading starts or requested when you want to terminate loading with “Print” or “C”, total delete, this depending from the Destination system preference setting “Automatic Inclusion”.To use Destinations, the file must be enabled in system preferences under Destinations.

..1.. Print or Clear

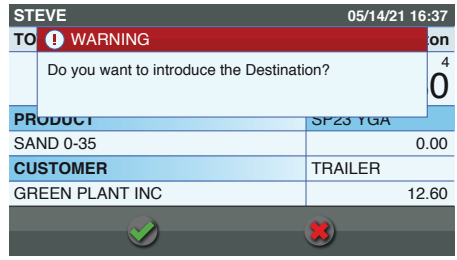


Press the Print or Clear key to terminate loading

..2.. Confirm entry

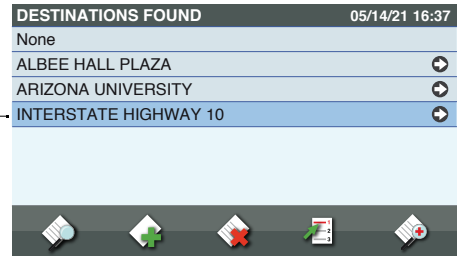
Confirm entry

Do not confirm



..3.. Select

If a Customer has favorite Destinations in its record and the same is a Favorite in one or more destinations, the page Destinations Found will appear which records are pertaining to the selected customer, only.
Select the item



Go to the Destinations' entire listing

..4.. Confirm

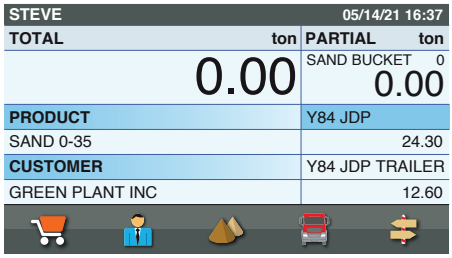
Confirm the selection

Go to Weighing without confirming the selection

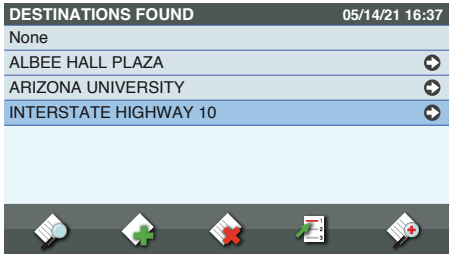
Destination Favorite Customer setting

A Destination can have a Favorite Customer enabled, in this case upon the Destination selection, the customer is automatically prompted into the weighing page. There can be more than one destination sharing the same Customer as a favorite.

Press the key to enter the File



Press the key to enter the selected Destination record



Go to the Customers listing to introduce the Customer and enable it as a favorite for the selected destination

Destination prompted at the end of loading

In case the Destinations are set as “Ask for Destination at the end of loading” into System Preferences, the Destinations listing will be prompted when a load is completed with the “Print” or “C” keys.
No matter if your Destination was choosen before loading if this preference is enabled the Destination will be asked to be entered again. Depending from your use of the Destination make sure to enable or disable this preference.

The main reason why to ENABLE this Preference is that you want to avoid the Destination not to be added, therefore prompting the Destinations listing at the end of loading reduces this chance.

The main reason why NOT TO ENABLE this Preference is that Destination is used as the main data with a favorite Customer enabled into it, setting therefore the Customer automatically into weighing.
See “Favorite Customer setting”.

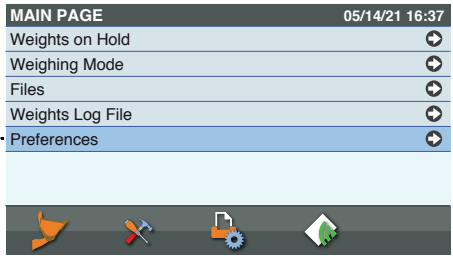
..1.. Main Page

Press the key to enter the Main Page

..2.. Preferences

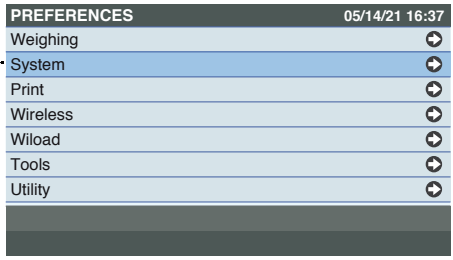
Select Preferences

Enter Preferences



..3.. System

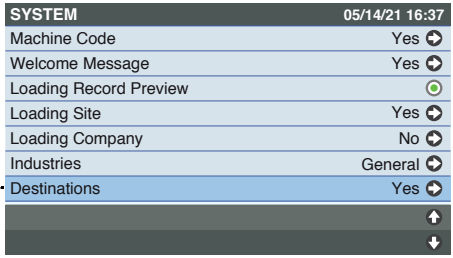
Select System



..4.. Destinations

Select Destinations

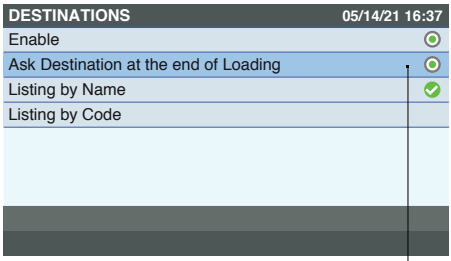
Enter Destinations



..5.. Enable

Select the item

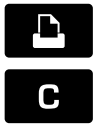
Enable “Ask for Destination at the end of Loading”



Carriers File

The Carrier is who carries the transport of the material, if different from the Customer. It is requested when the loading is completed, in this way the Carrier info is included in the loading data. In order to use the Carriers, the file must be enabled in System Preferences under Carriers.

..1.. Print or Clear



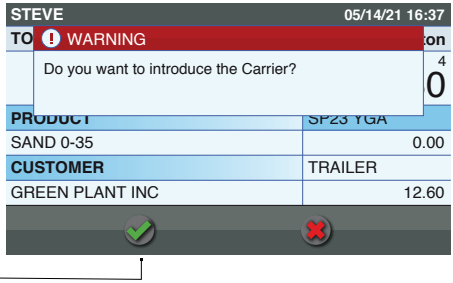
Press the Print or Clear key to terminate loading

..2.. Confirm entry

Confirm entryr

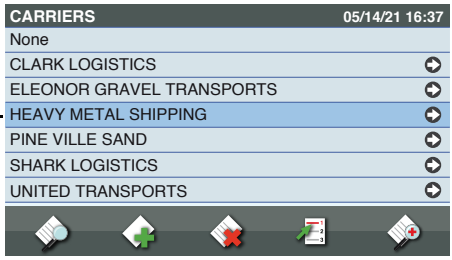
Do not confirm

In Vehicle Weighing Mode if the Carrier is associated to the selected Vehicle, it will be printed without asking for a confirmation



..3.. Select

Select the item



..4.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

Favorites File

Favorites identify the loadings that are done more often therefore by entering them into the Favorites file, they can be recalled without selecting the data at each load.
In order to use Favorites, the file must be enabled in System Preferences under Favorites. Favorites is in alternative to Orders which means you can work with one or the other.
Into Favorites you can save data related to Incremental and or Vehicle weighing not Target, Tare or Recipe weighing.

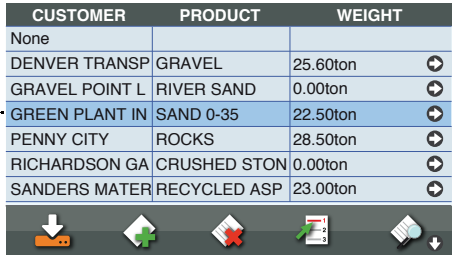
..1.. Favorites listing entry

Press the key to enter the File

..2.. Select

Select the item

Search by content of the column 1, in this case Customer



..3.. Confirm

OK Confirm the selection

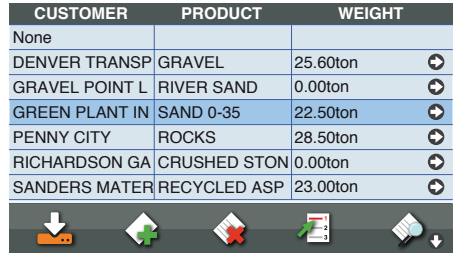
Go to Weighing without confirming the selection

Favorites fields

These are the Favorite File record's fields available.

Press the key to enter the File

Press the key to set a new Favorite



Fill in each field, your Favorite is automatically saved.

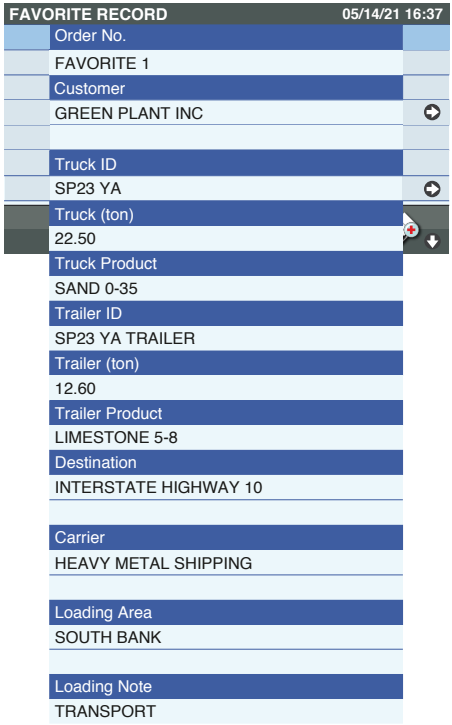
Press the key to go to each file where you can select the item to fill into the favorite you are creating.

ORDER# is the name you give to your Favorite, it will not be printed.

TRUCK ID or TRAILER ID, if entered, the weighing mode will be Vehicle, if not entered Incremental mode, instead.

TRUCK (t) or TRAILER (t) cannot be entered when the Truck ID or Trailer ID are not entered.

PRODUCTS.
One product can be loaded into the truck and one into the trailer.

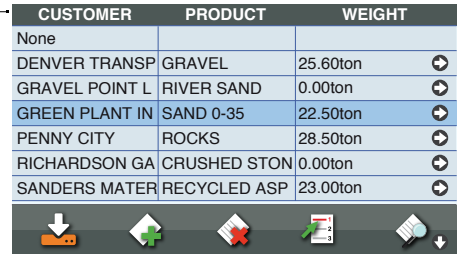


Favorites listing appearance setting

The Favorites File listing can be set to have the desired field columns to appear on the page. This can be accomplished into Favorites under System Preferences.

Press the key to enter the File

FIELD COLUMNS.
Order of appearance can be set as it will follow

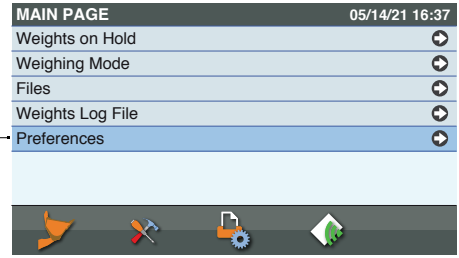


Press the key to enter the Main Page

..2.. Preferences

Select Preferences

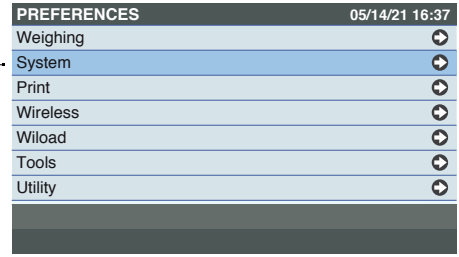
Enter Preferences



..3.. System

Select System

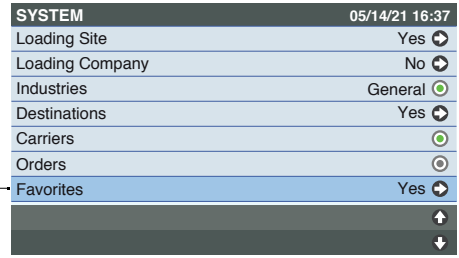
Enter System



..4.. Favorites

Select Favorites

Enter Favorites



..5.. Setting

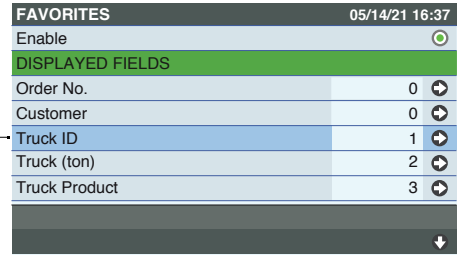
As an example you want Truck ID, Truck (t) and Product to appear in sequence in your Favorites Listing.

Select Truck ID

Enter editing page where you set 1.
In the same way select Truck (t) where you set 2 and finally select Truck Product to set 3

Go to Weighing

Press the key to enter the File



As you can see now the displayed fields are as you wanted in the Favorites setting,
Truck column 1
Weight column 2
Product column 3

Favorites in progress identification

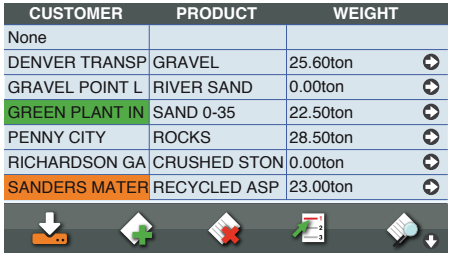
When Favorites are started into weighing, they become colored to identify which ones are in progress.

Press the key to enter the File

A GREEN Favorite is the current into weighing, an ORANGE Favorite is the one put on Hold.

A Favorite can be put on hold just selecting an other Favorite or Customer into weighing before completing the current Favorite with the "Print" or "C" keys.

Another way to put a Favorite on hold is selecting from the weighig page one or more of the following items:



Product

Customer

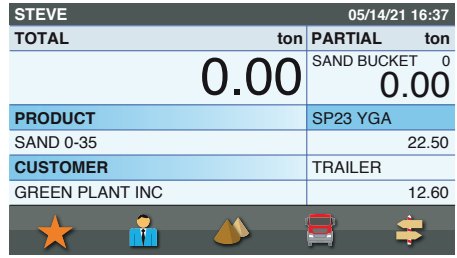
Destination

Vehicle

How to quit a Favorite not started

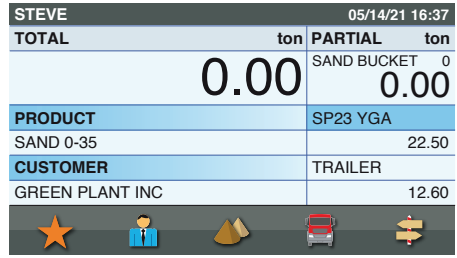
When a Favorite is selected into weighing by mistake and your weighing operation is not with a Favorite at all, follow these simple ways in how to quit a Favorite not started, yet.

This is, as an example, your Favorite selected into weighing



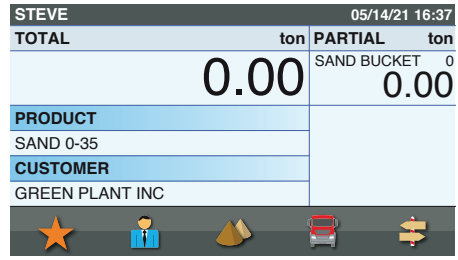
Press the key to quit the Favorite and go back to the previous load, if any, or to a weighing page with Product and Customer you had on the favorite just quit

As an alternative press the key to enter the Favorites Listing



Select the item

Confirm the selection



Your weighing window has now been cleared from the Favorite

Saving a load as a Favorite

As we have seen a Favorite is created inside the Favorite File by filling the record's fields. There is another way around which is saving a load weighing as a Favorite.

Press the key to enter the File

Press the key to save your next load into Favorites when you clear your load with “Print” or “C” keys

Orders File

Orders identify the loadings that are prepared into the ipotweb.com cloud and uploaded into the Device using wireless or USB.
In order to use Orders, the file must be enabled in System Preferences under Orders.
Orders is in alternative to Favorites which means you can work with one or the other.
Orders can be used with Vehicle weighing, only.

..1.. Orders listing entry

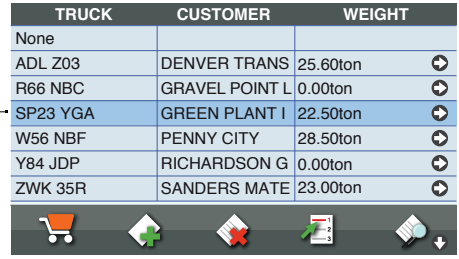
Entry can be denied if wireless is not connected to the internet or weak or USB not inserted

Press the key to enter the File.

..2.. Select

Select the item

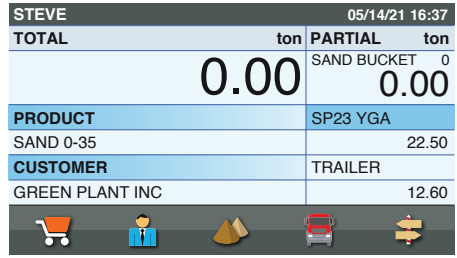
Search by content of the column 1, Truck



..3.. Confirm

Confirm the selection

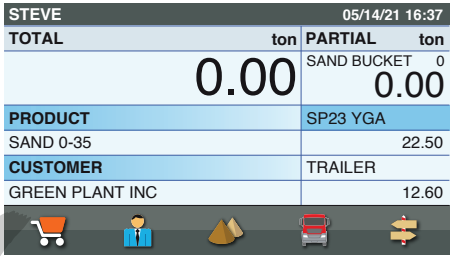
Go to Weighing without confirming the selection



..4.. Order's booking

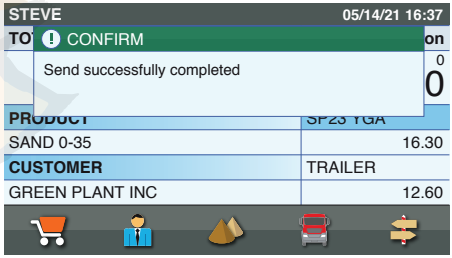
When the first weighing of an order is accomplished, the order is booked and it disappears from the order page of the other machines, if any.

ipotweb.com cloud marks this order as RUNNING



The first weighing can be deducted aborting in this way the current Order and putting it again into the Order page of each machine.

ipotweb.com cloud unmarks this order which becomes NOT RUNNING



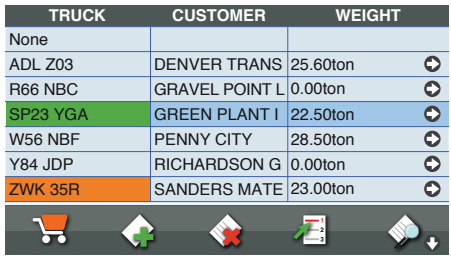
Press the key to deduct the first weighing

The running Order is aborted and starts from the beginning

Orders in progress identification

When Orders are started into weighing, they become colored to identify which ones are in progress.

Press the key to enter the File



A GREEN Order is the current into weighing, an ORANGE Order is the one put on Hold.

An Order can be put on hold just selecting an other Order into weighing before completing the current Order with the “Print” or “C” keys.

Another way to put an Order on hold is selecting from the weighig page one or more of the following items:

Product

Customer

Destination

Vehicle

How to quit an Order not started

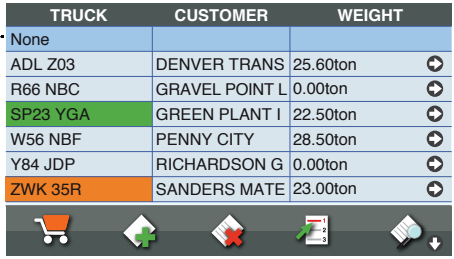
When an Order is selected into weighing by mistake and your weighing operation is not with an Order at all, follow these simples ways in how to quit an Order not started, yet.

This is, as an example, your Order selected into weighing

Press the key to quit the Order and go back to the previous load, if any, or to a weighing page with Product and Customer you had on the order just quit

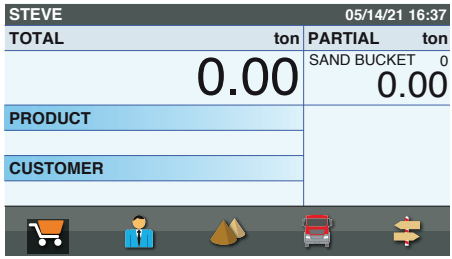
As an alternative press the key to enter the Orders Listing

Select the item



Confirm the selection

Your weighing window has now been cleared from the Order

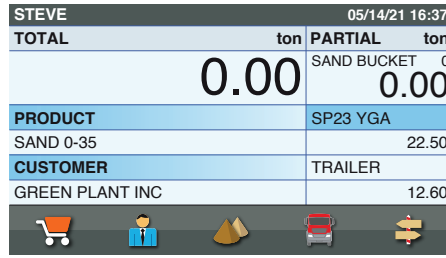


INDUSTRY - GENERAL

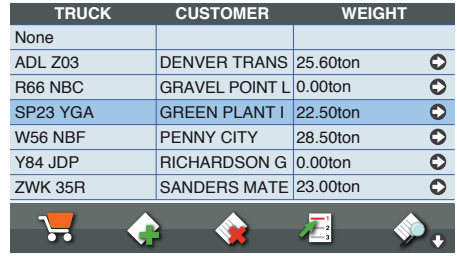
Orders fields

These are the Order File record's fields available.

Press the key to enter the File



Enter the Order



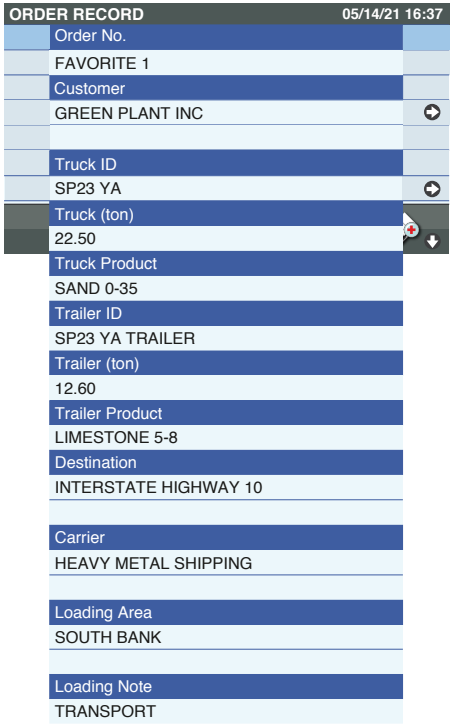
With Orders the field content can't be changed

ORDER# is the name given to the Order.

TRUCK ID or TRAILER ID identifies the Truck Identification, usually the registration number or so called plate

TRUCK (t) or TRAILER (t) is the target Weight to be loaded

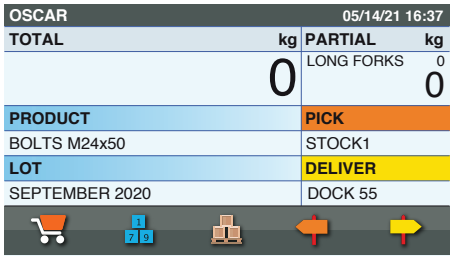
PRODUCTS.
One product can be loaded into the truck and one into the trailer.



Products file

The product to be loaded must be selected before weighing starts, meaning when the Total is zero; in this way the product reference is included in the loading data information. Selecting a product when weighing is underway and the Total is not zero puts the current weighing on hold and starts a new loading referred to a new set of data.
(see Weights on Hold).

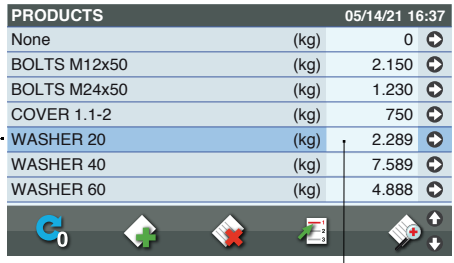
Press the key to enter the File



..1.. Select

Select the item

Grand Total per product field



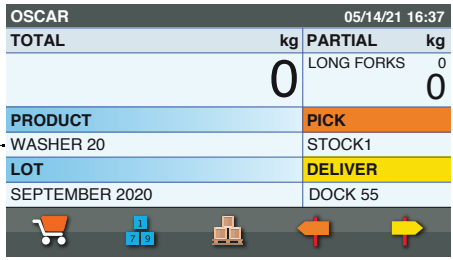
..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

..3.. New product

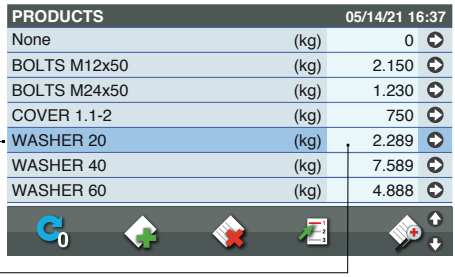
New selection during Weighing



Zero the Grand Total

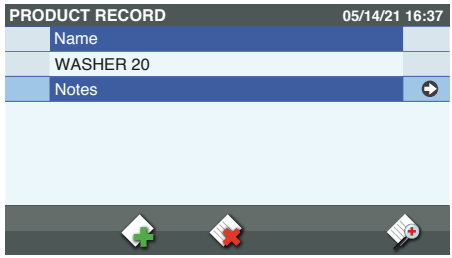
Select the item

Press the key to set the Grand Total for the given product or all products to zero

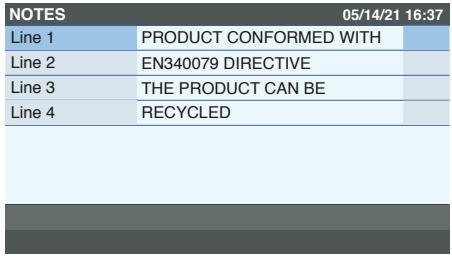


Notes

Press the key to enter the item



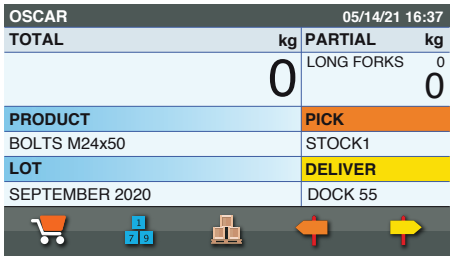
Enter the text in each line of 24 characters



Lots file

The product Lot must be selected before weighing starts, meaning when the Total is zero; in this way the Lot reference is included in the loading data information. Selecting a Lot when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data. (see Weights on Hold).

Press the key to enter the File



..1.. Select

Select the item

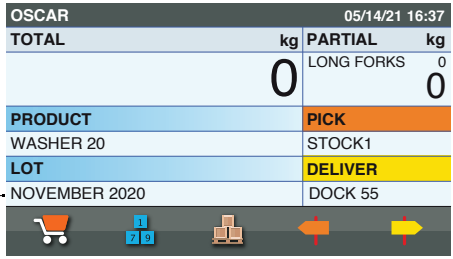
..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

..3.. New lot

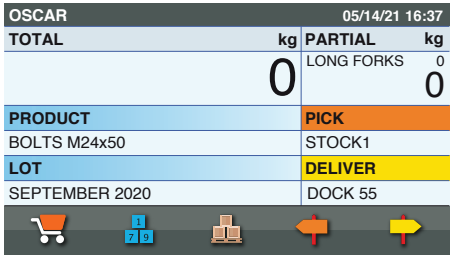
New selection during Weighing



Picks file

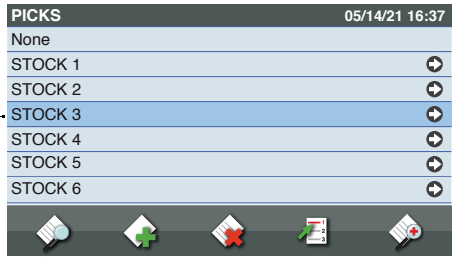
The Pick is the spot where the load is picked to be delivered or moved somewhere else. It must be selected before weighing starts, meaning when the Total is zero; in this way the Pick reference is included in the loading data information. Selecting a Pick when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data. (see Weights on Hold).

Press the key to enter the File



..1.. Select

Select the item



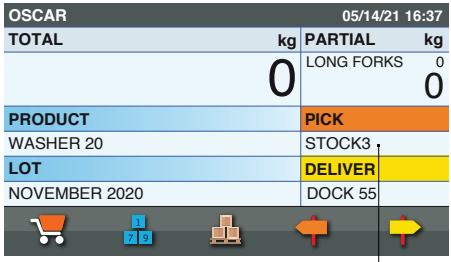
..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

..3.. New pick

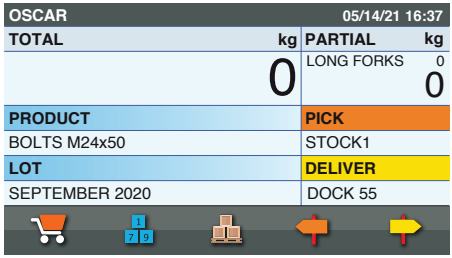
New selection during Weighing



Deliveries file

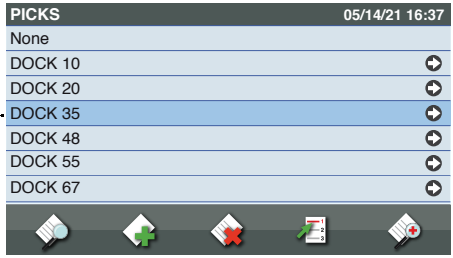
The Deliver is the spot where the load is unloaded. It must be selected before weighing starts, meaning when the Total is zero; in this way the Deliver reference is included in the loading data information. Selecting a Deliver when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data. (see Weights on Hold).

Press the key to enter the File



..1.. Select

Select the item

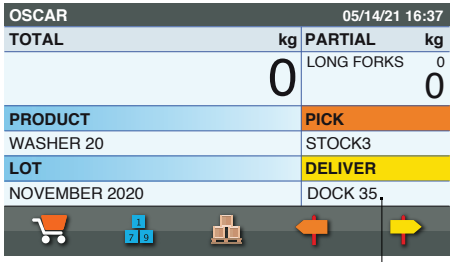


..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

..3.. New deliver



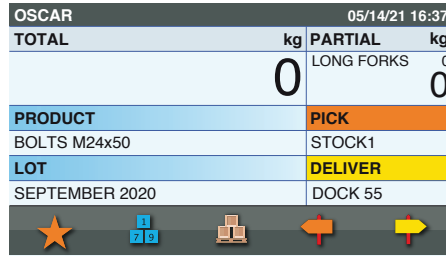
New selection during Weighing

Favorites File

Favorites identify the loadings that are done more often therefore by entering them into the Favorites file, they can be recalled without selecting the data at each load.
In order to use Favorites, the file must be enabled in System Preferences under Favorites. Favorites is in alternative to Orders which means you can work with one or the other.
Into Favorites you can save data related to Incremental Weighing, only.

..1.. Favorites listing entry

Press the key to enter the File



..2.. Select

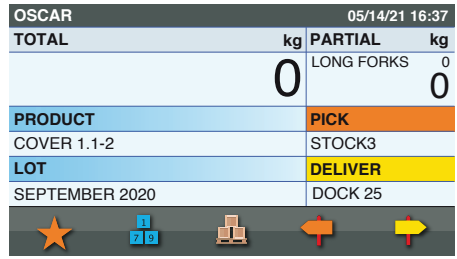
Select the item

Search by content of the column 1, in this case Product

..3.. Confirm

Confirm the selection

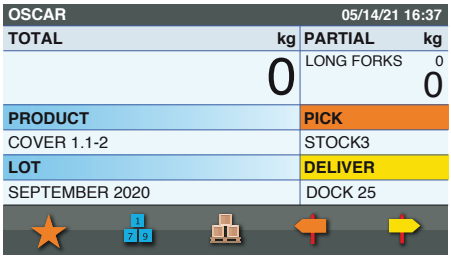
Go to Weighing without confirming the selection



Favorites fields

These are the Favorite File record's fields available.

Press the key to enter the File



Press the key to set a new Favorite

Fill in each field, your Favorite is automatically saved.

Press the key to go to each file where you can select the item to fill into the favorite you are creating.

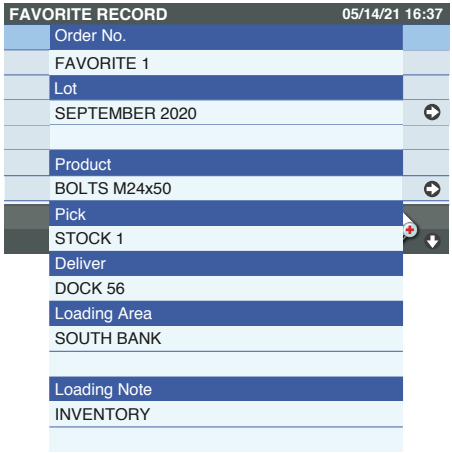
ORDER# is the name you give to your Favorite, it will not be printed.

PICK is where your product is picked

DELIVER is where your product is going to be deposited

LOADING AREA if your stock building has different loading areas you want to register.

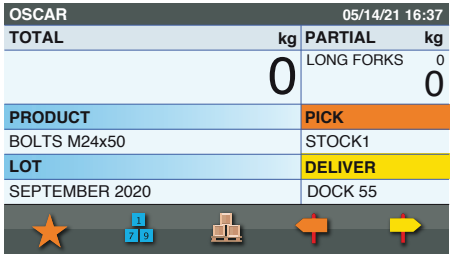
LOADING NOTE if you want to register the purpose of the product moving.



Favorites listing appearance setting

The Favorites File listing can be set to have the desired field columns to appear on the page. This can be accomplished into Favorites under System Preferences.

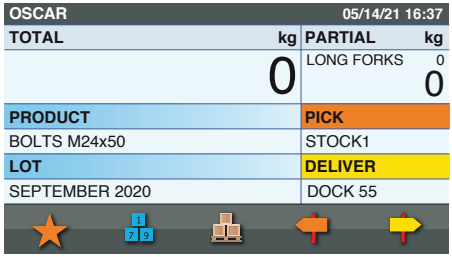
Press the key to enter the File



FIELD COLUMNS.
Order of appearance can be set as it will follow

PRODUCT	PICK	DELIVER
None		
BOLTS M12x50	STOCK 1	DOCK 10
BOLTS M24x50	STOCK 2	DOCK 10
COVER 1.1-2	STOCK 3	DOCK 25
WASHER 20	STOCK 1	DOCK 35
WASHER 40	STOCK 1	DOCK 10
WASHER 60	STOCK 1	DOCK 10

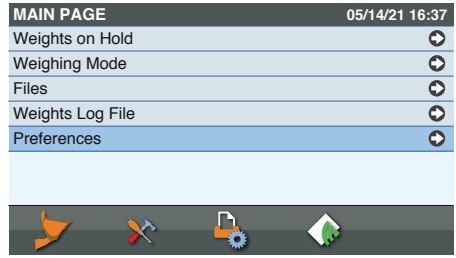
Press the key to enter the Main Page



..2.. Preferences

Select Preferences

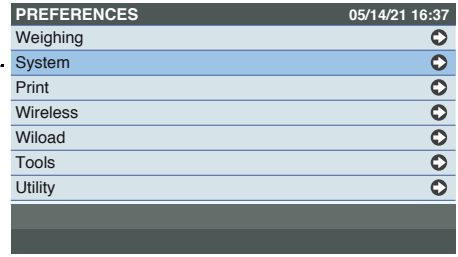
Enter Preferences



..3.. System

Select System

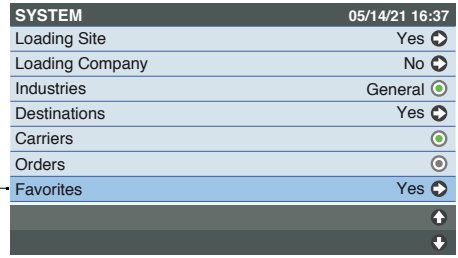
Enter System



..4.. Favorites

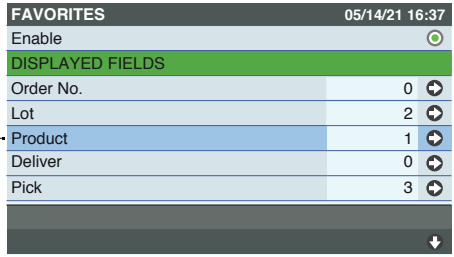
Select Favorites

Enter Favorites



As an example you want Product, Lot and Pick to appear in sequence in your Favorites Listing.

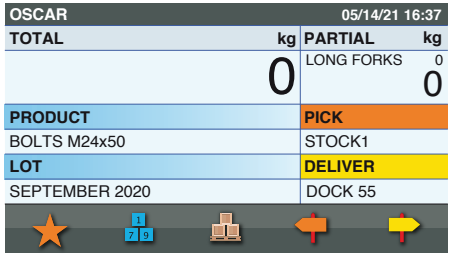
Select Product



Enter editing page where you set 1.
In the same way select Lot where you set 2 and finally select Pick to set 3

Go to Weighing

Press the key to enter the File

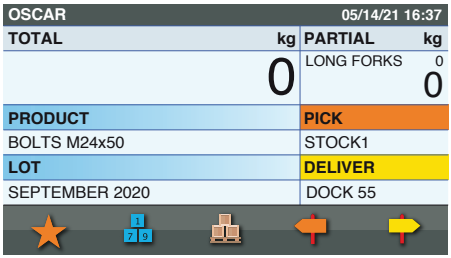


As you can see now the displayed fields are as you wanted in the Favorites setting,
Product column 1
Lot column 2
Pick column 3

Favorites in progress identification

When Favorites are started into weighing, they become colored to identify which ones are in progress.

Press the key to enter the File



A GREEN Favorite is the current into weighing, an ORANGE Favorite is the one put on Hold.

A Favorite can be put on hold just selecting an other Favorite or Product into weighing before completing the current Favorite with the "Print" or "C" keys.

Another way to put a Favorite on hold is selecting from the weighig page one or more of the following items:

Product

Lot

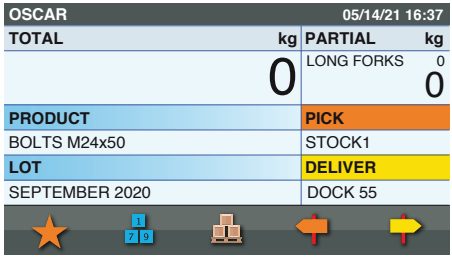
Pick

Deliver

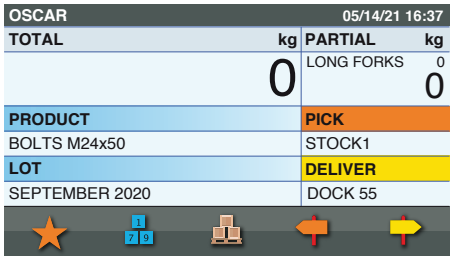
How to quit a Favorite not started

When a Favorite is selected into weighing by mistake and your weighing operation is not with a Favorite at all, follow these simples ways in how to quit a Favorite not started, yet.

This is, as an example, your Favorite selected into weighing



Press the key to quit the Favorite and go back to the previous load, if any, or to a weighing page with Product and Lot you had on the favorite just quit

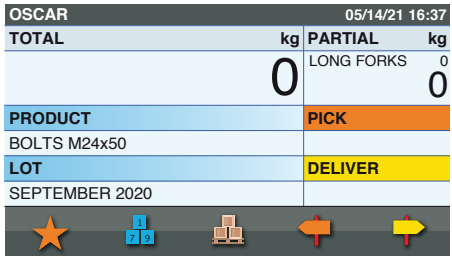


As an alternative press the key to enter the Favorites Listing

Select the item

Confirm the selection

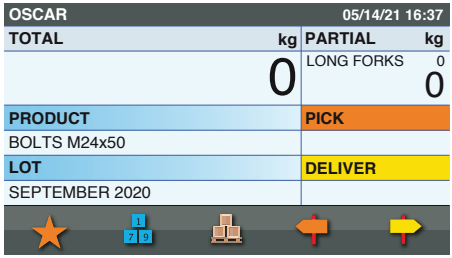
Your weighing window has now been cleared from the Favorite



Saving a load as a Favorite

As we have seen a Favorite is created inside the Favorite File by filling the record's fields. There is another way around which is saving a load weighing as a Favorite.

Press the key to enter the File



Press the key to save your next load into Favorites when you clear your load with “Print” or “C” keys

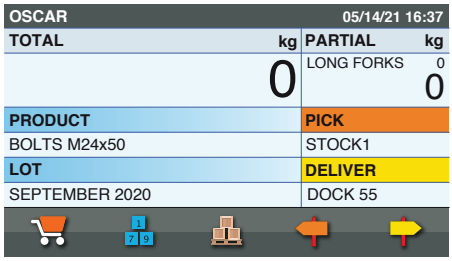
Orders File

Orders identify the loadings that are prepared into the ipotweb.com cloud and uploaded into the Device using wireless or USB.
In order to use Orders, the file must be enabled in System Preferences under Orders.
Orders is in alternative to Favorites which means you can work with one or the other.

..1.. Orders listing entry

Entry can be denied if wireless is not connected to the internet or weak or USB not inserted

Press the key to enter the File.



..2.. Select

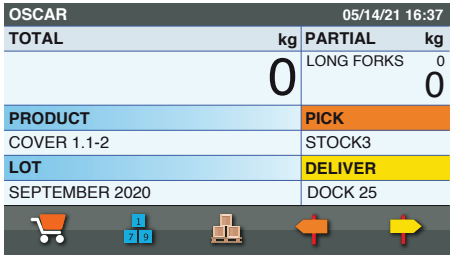
Select the item

Search by content of the column 1, Product

..3.. Confirm

Confirm the selection

Go to Weighing without confirming the selection



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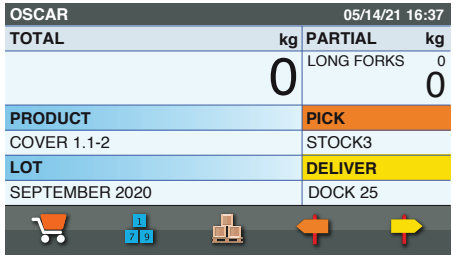
..4.. Order's booking

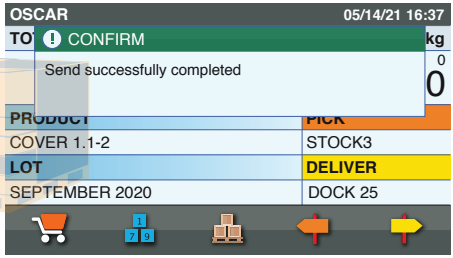
When the first weighing of an order is accomplished, the order is booked and it disappears from the order page of the other machines, if any.

ipotweb.com cloud marks this order as RUNNING

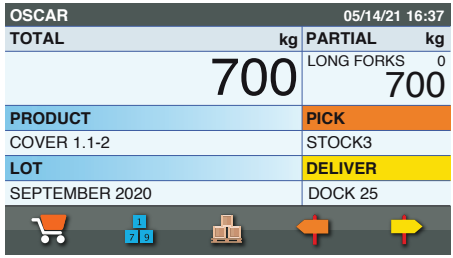


The first weighing can be deducted aborting in this way the current Order and putting it again into the Order page of each machine.

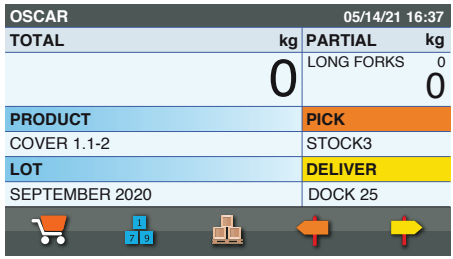
ipotweb.com cloud unmarks this order which becomes NOT RUNNING



Press the key to deduct the first weighing



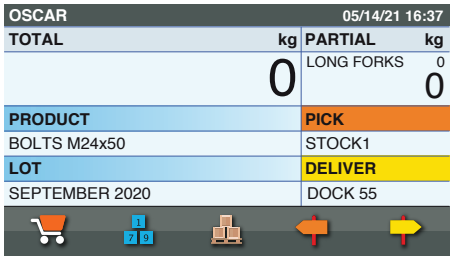
The running Order is aborted and starts from the beginning



Orders in progress identification

When Orders are started into weighing, they become colored to identify which ones are in progress.

Press the key to enter the File



PRODUCT	PICK	DELIVER
None		
BOLTS M12x50	STOCK 1	DOCK 10
BOLTS M24x50	STOCK 2	DOCK 10
COVER 1.1-2	STOCK 3	DOCK 25
WASHER 20	STOCK 1	DOCK 35
WASHER 40	STOCK 1	DOCK 10
WASHER 60	STOCK 1	DOCK 10

A GREEN Order is the current into weighing, an ORANGE Order is the one put on Hold.

An Order can be put on hold just selecting an other Order into weighing before completing the current Order with the "Print" or "C" keys.

Another way to put an Order on hold is selecting from the weighing page one or more of the following items:

Product

Lot

Pick

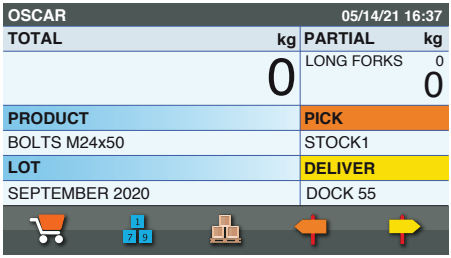
Deliver

How to quit an Order not started

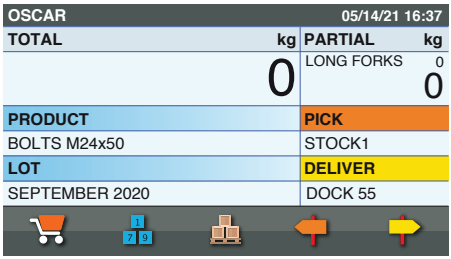
When an Order is selected into weighing by mistake and your weighing operation is not with an Order at all, follow these simples ways in how to quit an Order not started, yet.

This is, as an example, your Order selected into weighing

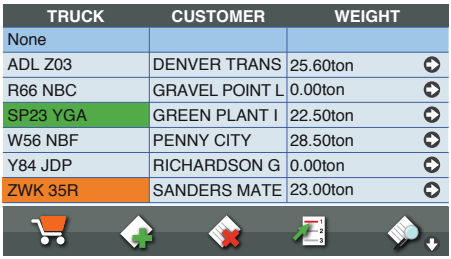
Press the key to quit the Order and go back to the previous load, if any, or to a weighing page with Product and Lot you had on the order just quit



As an alternative press the key to enter the Orders Listing

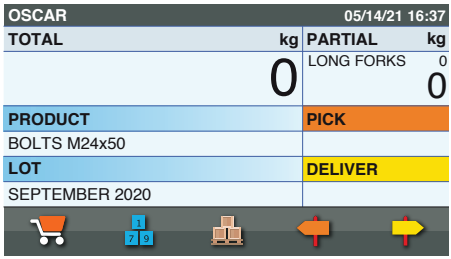


Select the item



Confirm the selection

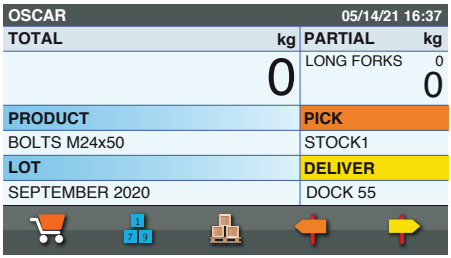
Your weighing window has now been cleared from the Order



Orders fields

These are the Order File record's fields available.

Press the key to enter the File



Enter the Order

PRODUCT	PICK	DELIVER
None		
BOLTS M12x50	STOCK 1	DOCK 10
BOLTS M24x50	STOCK 2	DOCK 10
COVER 1.1-2	STOCK 3	DOCK 25
WASHER 20	STOCK 1	DOCK 35
WASHER 40	STOCK 1	DOCK 10
WASHER 60	STOCK 1	DOCK 10

With Orders the field content can't be changed

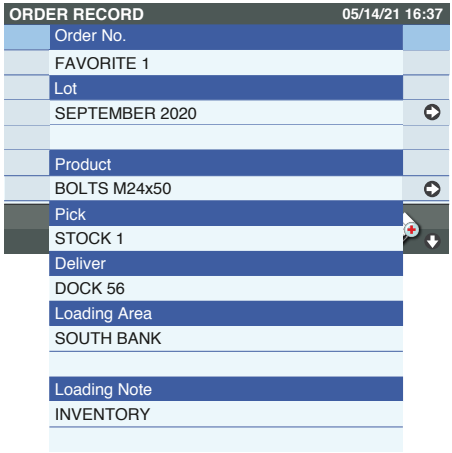
ORDER# is the name given to the Order.

PICK is where your product is picked

DELIVER is where your product is going to be deposited

LOADING AREA if your stock building has different loading areas you want to register.

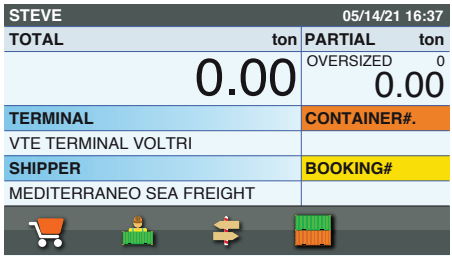
LOADING NOTE if you want to register the purpose of the product moving.



Containers file

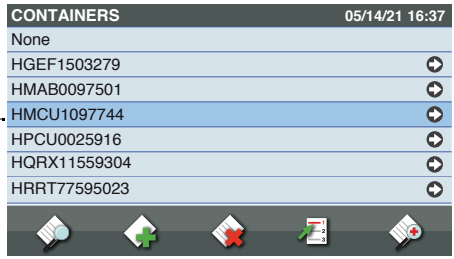
The Container to be loaded must be selected before weighing starts, meaning when the Total is zero; in this way the Container reference is included in the loading data information. Selecting a Container when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data.
(see Weights on Hold).

Press the key to enter the File



..1.. Select

Select the item



..2.. Confirm

Confirm the selection

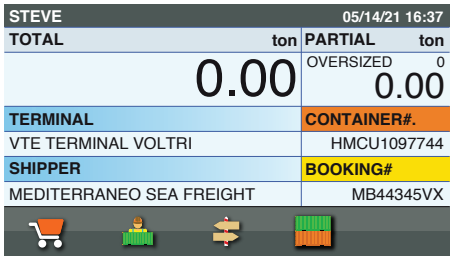
Go to Weighing without confirming the selection

..3.. New container

Terminals file

The Terminal is where the Ship is anchored. It must be selected before weighing starts, meaning when the Total is zero; in this way the Terminal reference is included in the loading data information. Selecting a Terminal when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data.
(see Weights on Hold).

Press the key to enter the File



..1.. Select

Select the item

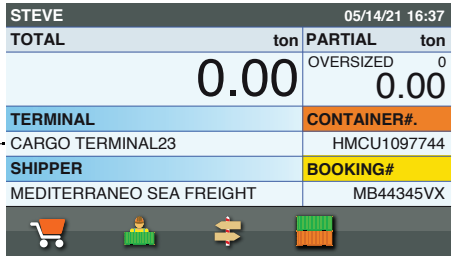
..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

..3.. New terminal

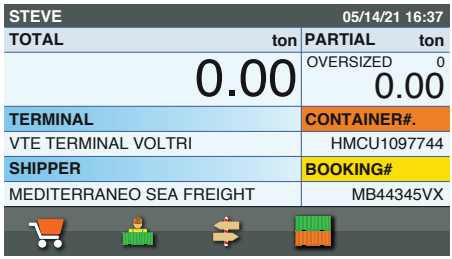
New selection during Weighing



Shippers file

The Shipper is who is in charge of the shipment. It must be selected before weighing starts, meaning when the Total is zero; in this way the Shipper reference is included in the loading data information. Selecting a Shipper when weighing is underway and the Total is not zero put the current weighing on hold and starts a new loading referred to a new set of data. (see Weights on Hold).

Press the key to enter the File



..1.. Select

Select the item

..2.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

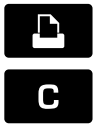
..3.. New shipper

New selection during Weighing

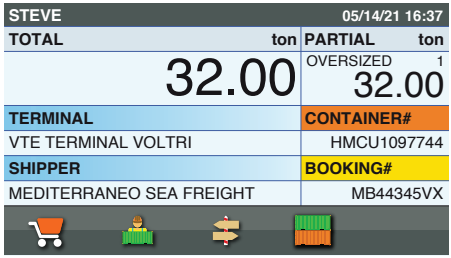
Ships File

The Ship is where the container is loaded. It is requested when the container weighing is completed, in this way the Ship info is included in the loading data. In order to use the Ships, the file must be enabled in System Preferences under Ships, it is so by default.

..1.. Print or Clear



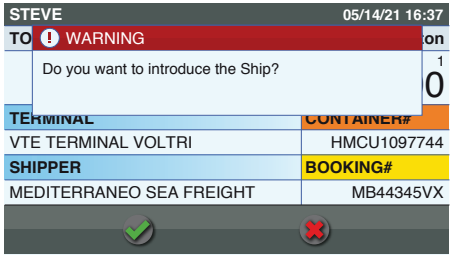
Press the Print or Clear key to terminate loading



..2.. Confirm entry

Confirm entry

Do not confirm



..3.. Select

Select the item

..4.. Confirm

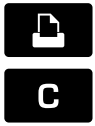
Confirm the selection

Go to Weighing without confirming the selection

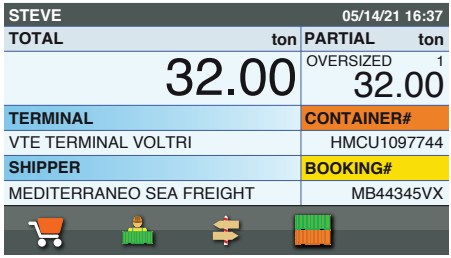
Ship Lines File

The Ship Line is the ship owner and cargo forwarder. It is requested when the container weighing is completed, in this way the Ship line info is included in the loading data. In order to use the Ship Line, the file must be enabled in System Preferences under Ship Lines, it is so by default.

..1.. Print or Clear



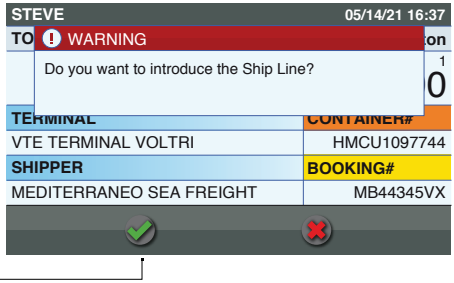
Press the Print or Clear key to terminate loading



..2.. Confirm entry

Confirm entry

Do not confirm



..3.. Select

Select the item

..4.. Confirm

Confirm the selection

Go to Weighing without confirming the selection

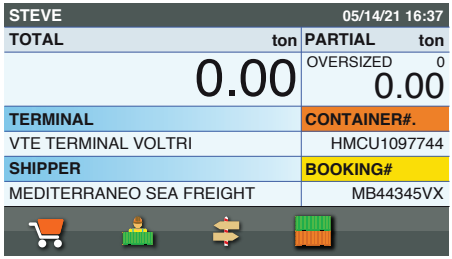
Orders File

Orders identify the loadings that are prepared into the ipotweb.com cloud and uploaded into the Device using wireless or USB.
In order to use Orders, the file must be enabled in System Preferences under Orders.

..1.. Orders listing entry

Entry can be denied if wireless is not connected to the internet or weak or USB not inserted

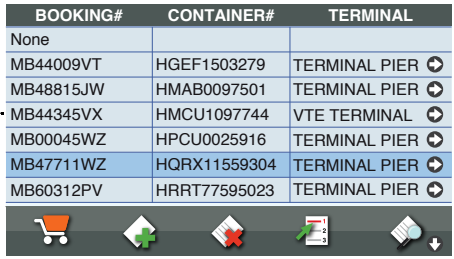
Press the key to enter the File.



..2.. Select

Select the item

Search by content of the column 1, Booking#

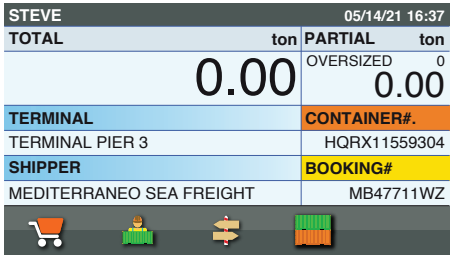


..3.. Confirm

OK

Confirm the selection

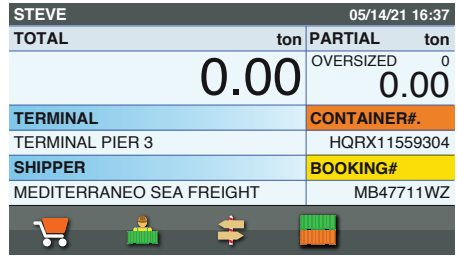
Go to Weighing without confirming the selection



..4.. Order's booking

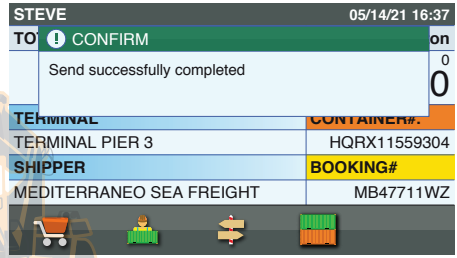
When the first weighing of an order is accomplished, the order is booked and it disappears from the order page of the other machines, if any.

ipotweb.com cloud marks this order as RUNNING

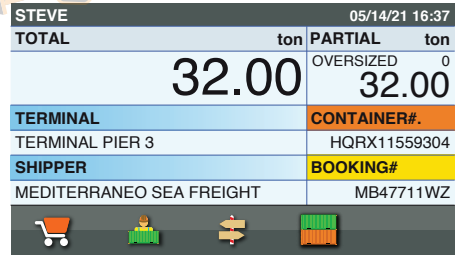


The first weighing can be deducted aborting in this way the current Order and putting it again into the Order page of each machine.

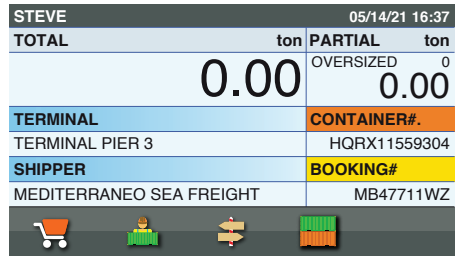
ipotweb.com cloud unmarks this order which becomes NOT RUNNING



Press the key to deduct the first weighing



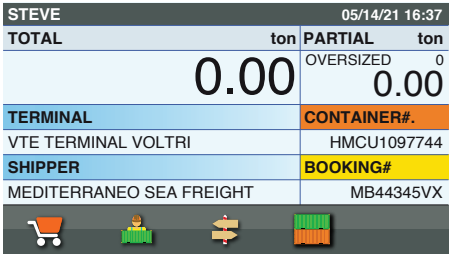
The running Order is aborted and starts from the beginning



Orders in progress identification

When Orders are started into weighing, they become colored to identify which ones are in progress. It is also true that normally a container is weighed and cleared so there will not be weighings in progress

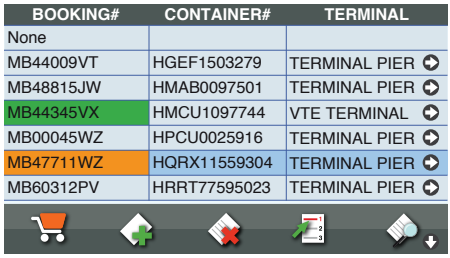
Press the key to enter the File



A GREEN Order is the current into weighing, an ORANGE Order is the one put on Hold.

An Order can be put on hold just selecting an other Order into weighing before completing the current Order with the “Print” or “C” keys.

Another way to put an Order on hold is selecting from the weighig page one or more of the following items:



BOOKING#	CONTAINER#	TERMINAL
None		
MB44009VT	HGEF1503279	TERMINAL PIER
MB48815JW	HMAB0097501	TERMINAL PIER
MB44345VX	HMCU1097744	VTE TERMINAL
MB00045WZ	HPCU0025916	TERMINAL PIER
MB47711WZ	HQRX11559304	TERMINAL PIER
MB60312PV	HRRT77595023	TERMINAL PIER

Terminal

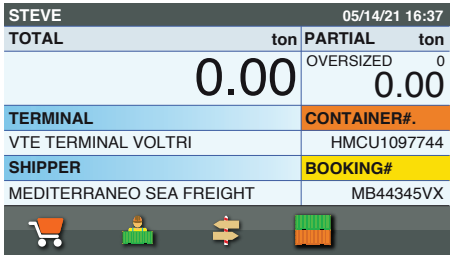
Shipper

Container

How to quit an Order not started

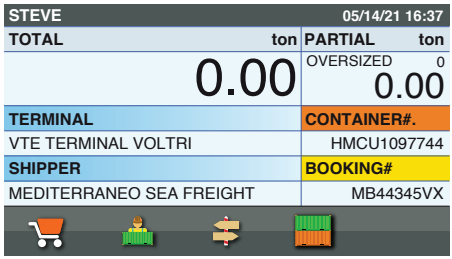
When an Order is selected into weighing by mistake and your weighing operation is not with an Order at all, follow these simples ways in how to quit an Order not started, yet.

This is, as an example, your Order selected into weighing

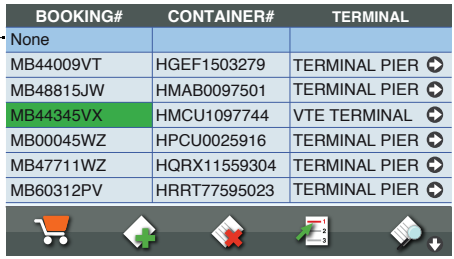


Press the key to quit the Order and go back to the previous load, if any, or to a weighing page with Terminal and Shipper you had on the order just quit

As an alternative press the key to enter the Orders Listing

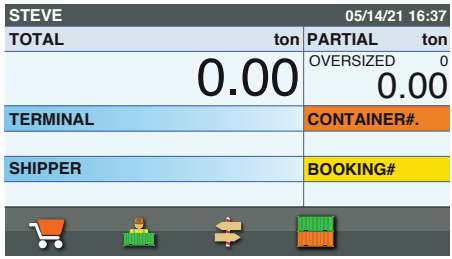


Select the item



Confirm the selection

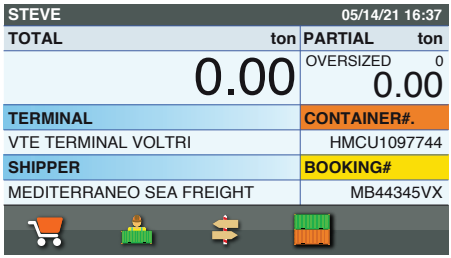
Your weighing window has now been cleared from the Order



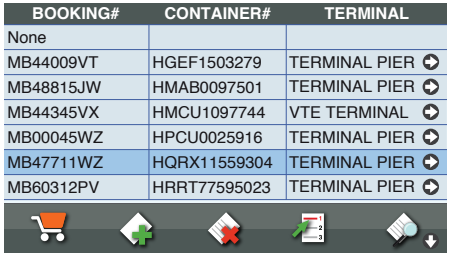
Orders fields

These are the Order File record's fields available.

Press the key to enter the File

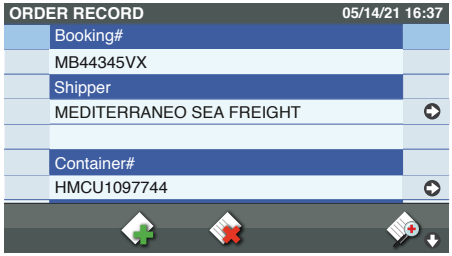


Enter the Order



BOOKING#	CONTAINER#	TERMINAL
None		
MB44009VT	HGEF1503279	TERMINAL PIER
MB48815JW	HMAB0097501	TERMINAL PIER
MB44345VX	HMCU1097744	VTE TERMINAL
MB00045WZ	HPCU0025916	TERMINAL PIER
MB47711WZ	HQRX11559304	TERMINAL PIER
MB60312PV	HRRT77595023	TERMINAL PIER

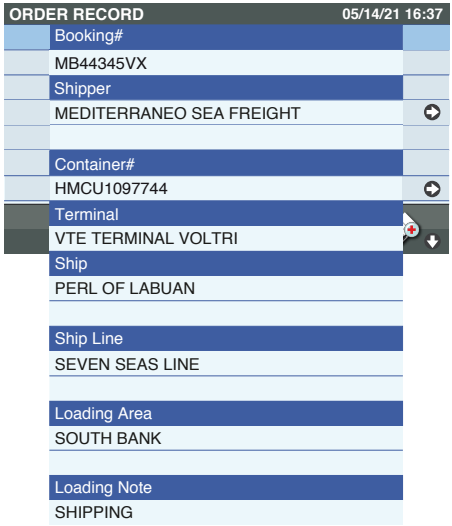
With Orders the field content can't be changed



Booking# is the booking reference given to the container.

LOADING AREA if your container's loading area needs to be registered

LOADING NOTE if you want to register the loading purpose of the container moving.



Export Weights Log File

The Weights Log File contains all loaded weights correlated with the data selected during weighing: Customer, Product, Vehicle, Destination or Recipe just to name an example. A .csv file can be downloaded into a USB key for a later analysis, or a proprietary file format sent, to the ipotweb.com cloud over a wireless connection. Keep in mind that if you are using a wireless connection to send each load data once the Total load is cleared, the Weights Log File will be empty unless the wireless network is down, in this case the load data are saved into the Weights Log File.
In this event, when the wireless connection is back, right after clearing the first load, load data in memory are automatically sent. If you have no more loads to do once the wireless is back, you can send the loads in memory by “Export Weights Log File (Wireless)”.

The .csv file export varies upon the type of Weighing Software, if Recipe type or not and upon the type of Industry. Weighing Software is set into Weighing Preferences while Industry into System Preferences.
See Configuration appendix for further details on these two parameters.

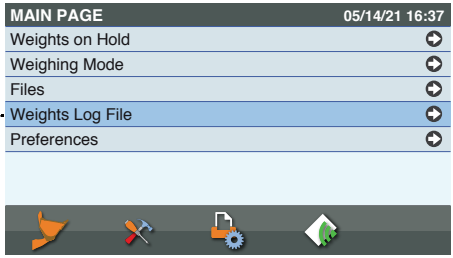
..1.. Main Page

Press the key to enter the Main Page

..2.. Weights Log File

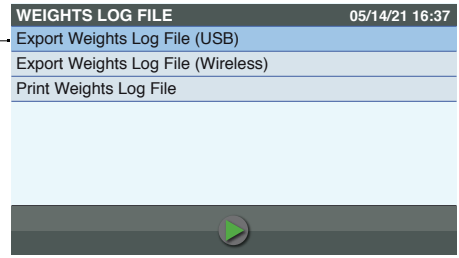
In the Main Page, select Weights Log File

Enter the Weights Log File



..3.. Exporting

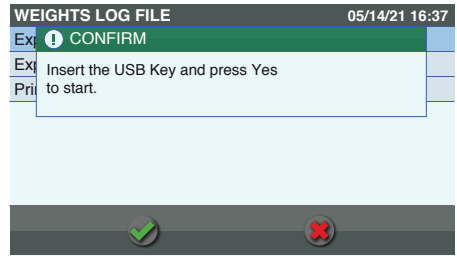
In the Weights Log File page, select Export Weights log file (USB)



Press the key to export the file

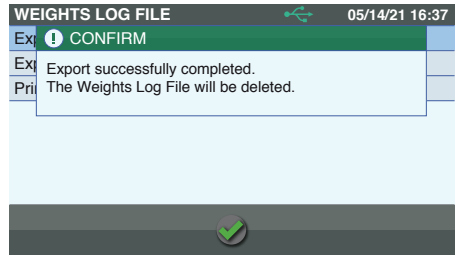
..4.. Insert the USB key

Insert the USB key and press the key to confirm the Weights log file export



..5.. Confirm

Press the key to confirm, the Export has terminated successfully



Log Weights .csv file

These are examples of .csv file exported from the Device with USB which can be opened with Excel. Be aware that depending from the International settings of your PC data could appear in one single excel cell, this is due to the fact that the field separator is wrong if compared to the PC settings in use.

Please set the correct Export field's separator into International Settings located under System Preferences; it can be “comma” or “semicolon”.
Anyhow if the PC do not match the Export Settings into the Device, you can adjust Excel to the field separator pertaining to the file you are opening.

General Industry Export

All Weighing Modes

This file format produced when the Industry setting is General uses Vehicle Weighing as an example but is valid for Target, Target On demand, Incremental and Recipe Weighing as well, each with the pertaining data fields. As an example Incremental Weighing do not have the Target field filled in because not pertaining to it.

“not used” means that in the type of Weighing performed, in this case Vehicle Weighing the field is not used.

The Industry setting can be made into System Preferences

RECORD	WEIGHING	LOAD START	LOAD END	ORDER No.	CUSTOMER	PRODUCT
1	VEHICLE	05/14/2021/ 07:34.15	05/14/2021/ 07:37.10	ORDER 1	EVERTON CONSTRUCTION	LIMESTONE

TARGET NAME	LOADED WEIGHT (t)	TARGET WEIGHT (t)	PIECES#	TARGET 2 PRODUCT	TARGET 2 NAME	LOADED WEIGHT 2 (t)	TARGET 2 WEIGHT (t)
TRUCK	11.85	12.00	Not used	GRAVEL	TRAILER	15.20	15.00

No. OF WEIGHINGS	PRODUCT No. OF WEIGHINGS	TARGET No. OF WEIGHINGS	OPERATOR ID	MACHINE CODE	DESTINATION	DESTINATION CODE
5	Not used	Not used	STEVE	VOLVO L150H	QUANON	120000456

CARRIER	LOADING SITE	LOADING AREA	LOADING NOTE	LOADING COMPANY	TICKET NUMBER	TRANSACTION NUMBER
WILLINGS	TOP HILL	FA-23	SALES	FILLMORE	A17172	45098234

General Industry Export

Recipe Weighing Mode

This is an example of Recipe Weighing data fields which are like the other Weighing modes with the distinction that every product creates a record, therefore a row pertaining to the same recipe which name is under TARGET NAME.

"not used" means that in the type of Weighing performed, in this case Recipe Weighing the field is not used.

RECORD	WEIGHING	LOAD START	LOAD END	ORDER No.	CUSTOMER	PRODUCT
1	RECIPE	05/14/2021/ 07:34.15	05/14/2021/ 18:37.10	Not Used	EVERTON CONSTRUCTION	LIMESTONE
2	RECIPE	05/14/2021/ 07:34.15	05/14/2021/ 18:37.10	Not Used	EVERTON CONSTRUCTION	GRAVEL
3	RECIPE	05/14/2021/ 07:34.15	05/14/2021/ 18:37.10	Not Used	EVERTON CONSTRUCTION	SAND

TARGET NAME	LOADED WEIGHT (t)	TARGET WEIGHT (t)	PIECES#	TARGET 2 PRODUCT	TARGET 2 NAME	LOADED WEIGHT 2 (t)	TARGET 2 WEIGHT (t)
RECIPE 1	11.85	12.00	Not Used	Not Used	Not Used	Not Used	Not Used
RECIPE 1	20.30	20.00	Not Used	Not Used	Not Used	Not Used	Not Used
RECIPE 1	57.00	57.00	Not Used	Not Used	Not Used	Not Used	Not Used

No. OF WEIGHINGS	PRODUCT No. OF WEIGHINGS	TARGET No. OF WEIGHINGS	OPERATOR ID	MACHINE CODE	DESTINATION	DESTINATION CODE
28	4	Note1	STEVE	VOLVO L150H	QUANON	120000456
28	6	Note1	STEVE	VOLVO L150H	QUANON	120000456
28	18	Note1	STEVE	VOLVO L150H	QUANON	120000456

CARRIER	LOADING SITE	LOADING AREA	LOADING NOTE	LOADING COMPANY	TICKET NUMBER	TRANSACTION NUMBER
WILLINGS	TOP HILL	FA-23	SALES	FILLMORE	A17172	45098234
WILLINGS	TOP HILL	FA-23	SALES	FILLMORE	A17172	45098234
WILLINGS	TOP HILL	FA-23	SALES	FILLMORE	A17172	45098234

Note1: this field is filled in when "Recipe Quantity", within Recipe Weighing Mode in System Preferences is set as No. of Weighings, it means the recipe is performed by number of single weighings, as an example a number of buckets, and not by a Target weight.

Logistics Industry Export

This is the file format produced when Industry setting is Logistics.
The Industry setting can be made into System Preferences

RECORD	WEIGHING	LOAD START	LOAD END	ORDER No.	LOT	PRODUCT
1	LOGISTICS	05/14/2021/ 07:34.15	05/14/2021/ 07:37.10	ORDER 1	SEPTEMBER 2020	BOLTS M24x50

LOADED WEIGHT (t)	PICK	DELIVER	No. OF WEIGHINGS	OPERATOR ID	MACHINE CODE	LOADING SITE
11.85	STOCK1	DOCK23	73	STEVE	LINDE H30	TOP HILL

LOADING AREA	LOADING NOTE	LOADING COMPANY	TICKET NUMBER	TRANSACTION NUMBER
FA-23	SALES	FILLMORE	A17172	45098234

Containers Industry Export

This is the file format produced when Industry setting is Containers.
The Industry setting can be made into System Preferences

RECORD	WEIGHING	LOAD START	LOAD END	BOOKIN #	CONTAINER #	LOADED WEIGHT (t)
1	CONTAI-NER	05/14/2021/ 07:34.15	05/14/2021/ 07:34.25	MB44345VX	HMCU1097744	32.00

SHIPPER	TERMINAL	SHIP	SHIP LINE	No. OF WEIGHINGS	OPERATOR ID	MACHINE CODE
PATAGONIA CARGO	VTE	LABUAN	SEVEN SEAS	1	STEVE	STACKER 17

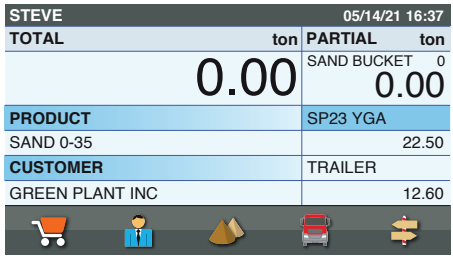
LOADING SITE	LOADING AREA	LOADING NOTE	LOADING COMPANY	TICKET NUMBER	TRANSACTION NUMBER
HARBOR	FA-23	CARGO	FILLMORE	A17172	45098234

Files Restore

The Products, Customers, Targets, Operator ID, Vehicles, Destinations, Carriers, Loading Area, Loading Note, Recipes and all the rest of the files can be Restored from a USB key. This is necessary when a file is modified on ipotweb.com cloud, or if you want to import the files from another Scale Unit.

..1.. Main Page

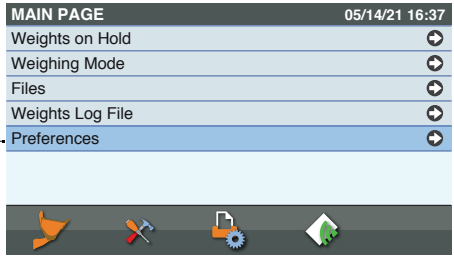
Press the key to enter the Main Page



..2.. Preferences

In the Main Page, select Preferences

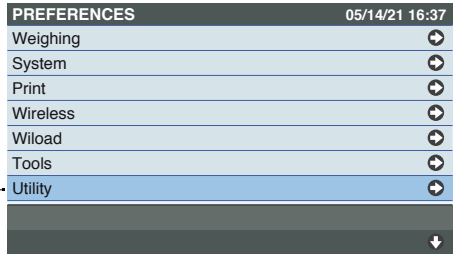
Enter Preferences



..3.. Utility

In Preferences, select Utility

Enter Utility



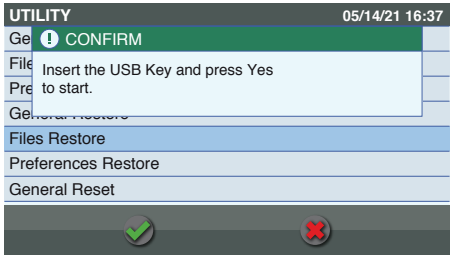
..4.. Files Restore

In Utility, select Files Restore

Start the Restore procedure

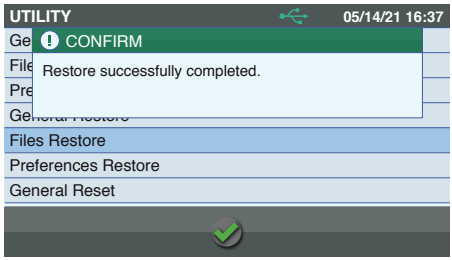
..5.. Insert the USB key

Insert the USB key and press the key to confirm the Files Restore procedure



..6.. Confirm

Press the key to confirm the Restore has terminated successfully



Files Backup

The Products, Customers, Targets, Operator ID, Vehicles, Destinations, Carriers, Loading Area, Loading Note, Recipes and all the rest of the files can be backed up on the USB key. This is necessary when a file is modified on the Device and you want to upload it into ipotweb.com cloud, or if you want to export the files to another Scale Unit.

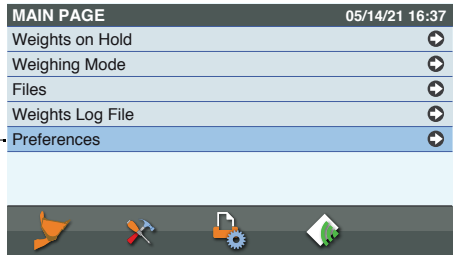
..1.. Main Page

Press the key to enter the Main Page

..2.. Preferences

In the Main Page, select Preferences

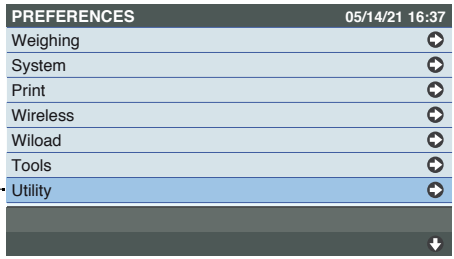
Enter Preferences



..3.. Utility

In Preferences, select Utility

Enter Utility



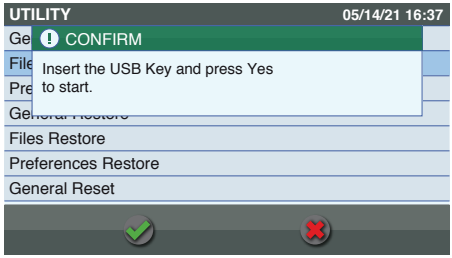
..4.. Files Backup

In Utility, select Files Backup

Start the backup procedure

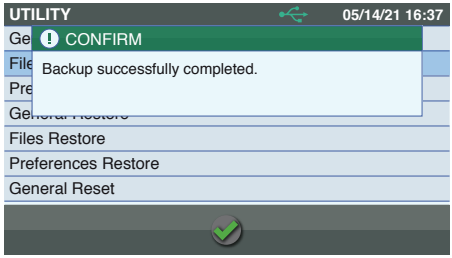
..5.. Insert the USB key

Insert the USB key and press the key to confirm the Files Backup procedure



..6.. Confirm

Press the key to confirm the Backup has terminated successfully

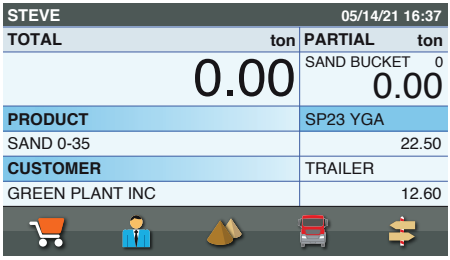


Files Reception

The Files Reception is an input to receive, from ipotweb.com, all the Files or just the ones selected in Wireless Preferences, Files Reception. The selection of some Files imply the automatic selection of other because they are related Files, as an example, Vehicles, Customers and Carriers.

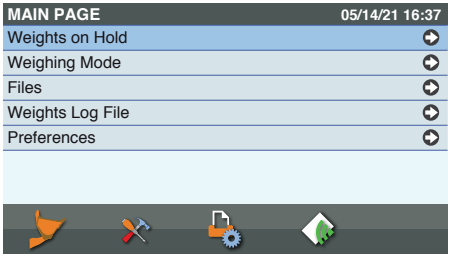
..1.. Main Page

Press the key to enter the Main Page



..2.. Files Reception

Press the Key to initiate automatically the Files Reception. The key is a shortcut of the F3 key situated in Wireless Preferences, Files Reception.



Files selection for the Wireless Reception

To receive the Files via wireless, they must be selected in the Files Reception page, situated in Wireless Preferences. The selection can be All the Files or a combination of them, depending from their relation.

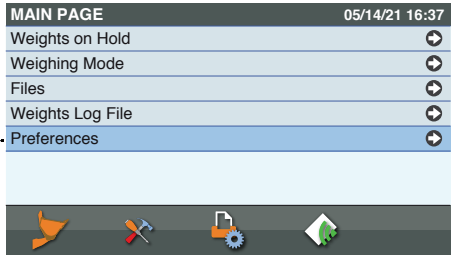
..1.. Main Page

Press the key to enter the Main Page

..2.. Preferences

In the Main Page, select Preferences

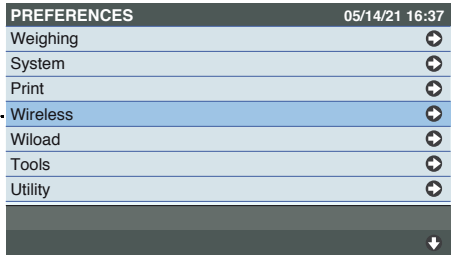
Enter Preferences



..3.. Wireless

In Preferences, select Wireless

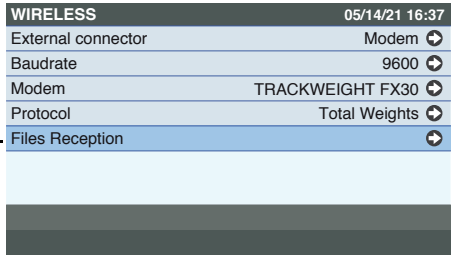
Enter Wireless



..4.. Files Reception

In Wireless, select Files Reception

Enter Files Reception



..5.. Select

In Files Reception select All or a combination of the desired Files.
Be aware that when you select All you will be uploading data for those Files which have a content into ipotweb.com cloud and these Files can be used in the Device if they are enabled into System Preferences, only.

Enable the selected File

Press the key to start the Files Reception

Wiload

Wiload and Wilink are two wireless Devices that transmit and receive to each other at 2.4Ghz with a Vei proprietary protocol. Created for those applications where cables can be subject to failure or not possible to wire. Wiload connects to the load cell, GR2 weighing block for material handlers as an example, while Wilink connects to the Device, the scale unit.
More informations are available from the Wiload Wilink User Manual. Millennium5 needs HelperX back panel to use Wiload

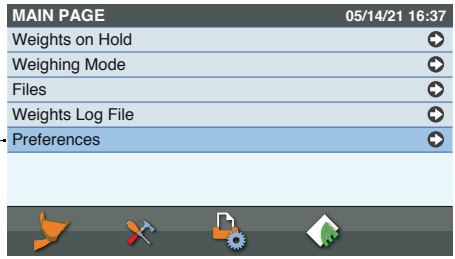
..1.. Main Page

Press the key to enter the Main Page

..2.. Preferences

In the Main Page, select Preferences

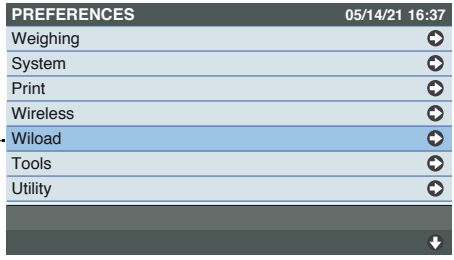
Enter Preferences



..3.. Wiload

In Preferences, select Wiload

Enter Wiload



..4.. Set Wiload

In Wiload select the different items to enable and pair the wiload with your Device, scale unit

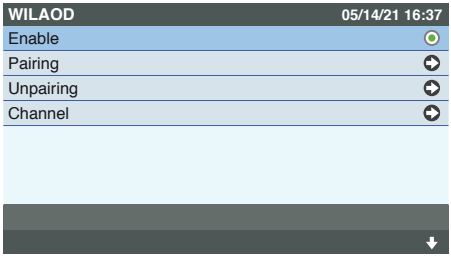
Press the key to enable the Wiload

Enter the item.

PAIRING
It means your Wiload will be paired with your Device, scale unit, in order to transmit only with it and not to others.

UNPAIRING
A paired Wiload can be unpaired to be installed somewhere else as an example and paired with an other Device.

CHANNEL
The default transmission channel among the spectrum is 26. In case of disturbances it can be changed 'till to find the best one.



Statistics

Statistics is a file where some actions done with the Device are recorded in order to have a short history on a possible diagnosis or analysis.
Statistics is a file reserved to those companies doing maintenance of the system and for this reason it is protective by Administrative Password.
If as a customer you want to use this file please talk to the maintenance company

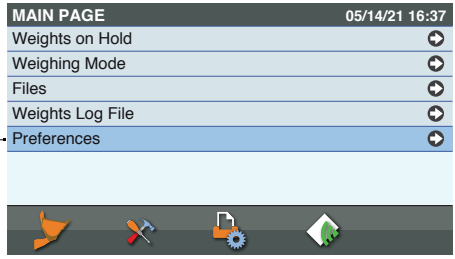
..1.. Main Page

Press the key to enter the Main Page

..2.. Preferences

In the Main Page, select Preferences

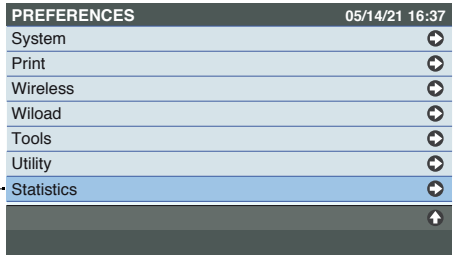
Enter Preferences



..3.. Statistics

In Preferences, select Statistics

Enter Statistics

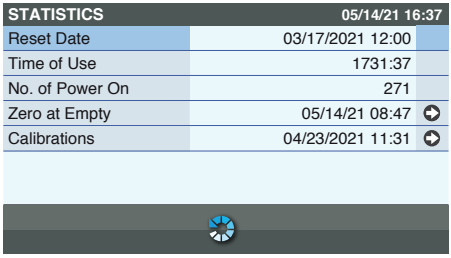


..4.. Statistics data

Scroll through the items of interest

Enter the item

Press the key to delete Statistics



RESET DATE
is the date Statistics have been deleted

TIME OF USE
is the overall numbers of hours the Device has been powered on

No. of POWER ON
is how many times the Device has been turned on

ZERO AT EMPTY
saves with date, time and weight the last 5 Zero at Empty you have done

CALIBRATIONS
saves with date, time and calibration's factors (gains) the last 5 Calibrations you have performed

APPENDIX 1

How to Weigh

In this section we will describe how to weigh in different applications or machines of use. The aim is to provide the operator with a quick start guide to use our product. Any recommendations are purely noted as a standard, one can find its own way through once the concept has been understood.

WHEEL LOADER
weighing is achieved by lifting the boom with the bucket closed.

The same weighing principle and process are applied to:
SKID STEER
TRACTOR
SELF-LOADING CONCRETE MIXER
UNDERGROUND WHEEL LOADER (LHD)

FORK LIFT TRUCK
weighing is achieved by lifting the fork's carriage with the mast vertical or in any position fixed for weighing.

The same weighing principle and process are applied to:
CONTAINERS HANDLER

TELESCOPIC LOADER
weighing is achieved by lifting the boom with the bucket and telescopic arm both closed or in a fixed position.

MATERIAL HANDLER
weighing is achieved with the tool lifted from the ground due to a load cell block mounted after the end of the stick boom.

REACH STACKER
weighing is achieved by stopping the boom's lift at a given position.

TRUCK CHASSIS
WEIGHING
is achieved in real time

componentry overview

The weighing concept is pressure evaluation of the lifting boom and a sensor to trigger the weight at a certain height of the lift cycle.
Here a wheel loader is shown but the same concept applies to any other alike machine.

DEVICE installed in the cab with operator's easy view

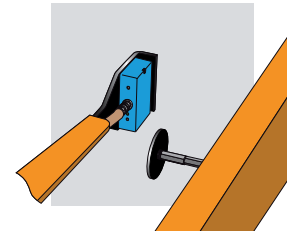
PRESSURE SENSORS installed on the main and return pressure pipe of one lifting cylinder

WEIGHING ZONE SENSOR which triggers the weight display during the lifting cycle

Weighing Procedure

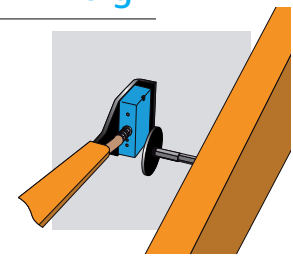
..1.. Lift

Start lifting by pulling the lever all the way back



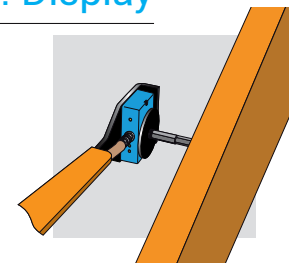
..2.. Weigh

Weighing starts.
The display reads “Lift”
(keep the movement smooth)



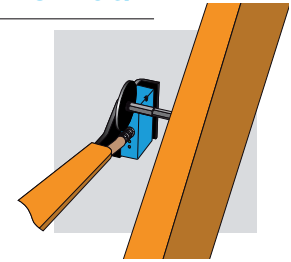
..3.. Display

The weight is displayed



..4.. Unload

The weighing cycle has terminated.
Continue unloading



Zero at empty

Zero at empty maintains the weight of the empty tool at zero. The No load zero may vary because:

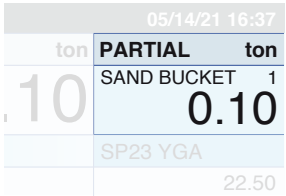
1. material is still attached in to the tool
2. the machine's hydraulic circuit pressure has changed
3. the previous zero setting was done with the tool not completely empty or different

..1.. Lift

With the machine stopped and the tool closed, lift the boom at low speed by pulling the lever all the way back. Weighing is done at this time.
The display reads “Lift”.
DO NOT stop the boom at this time

..2.. Weigh

The weight of the lifted load is displayed in the Partial weight area, for instance 0.10 ton

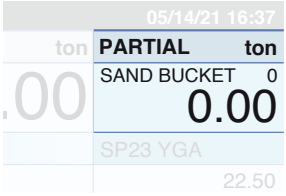


..3.. Execute

Hold the key down to run the Zero at empty until you hear two beeps

..4.. Done

The Partial weight area will display 0.00, the zero setting procedure has terminated; you can release the key



Weighing loaded

..1.. Load

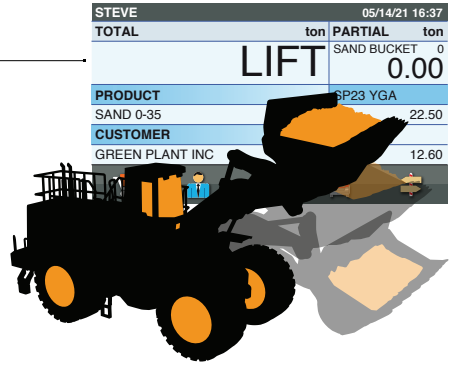
Load the material

..2.. Lift

With the tool loaded, move out of the loading area and place the boom under the weighing sensor

..3.. Weigh

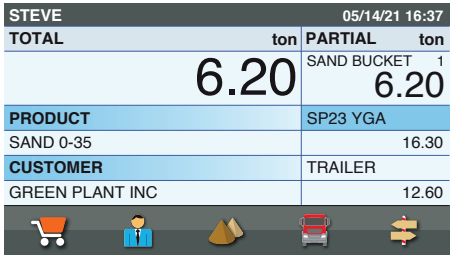
Start to raise the boom while moving forwards towards the unloading position by pulling the lifting lever all the way back, Weighing is done at this time.
The display reads “Lift”.
DO NOT stop the boom at this time



..4.. Done

A buzzer sounds to indicate that Weighing has terminated

The weight of the load is displayed in the Partial weight area and automatically or manually added into the Total area



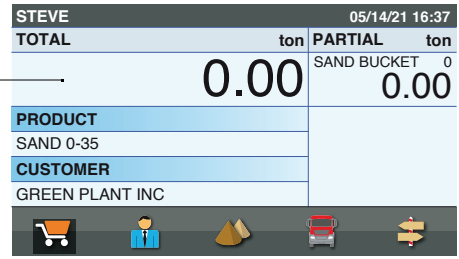
Clearing the Total loaded

When loading has completed, Clear the total. The clear options depend on the system, print and wireless preferences.
The image of the weighing page here shown can differ from the type of Weighing mode Preference used.

C

Press the key to terminate loading.
The Total loaded for the current Customer is set to zero.

You can now load a new Customer



Subtracting a weight

A Weight can be subtracted if it has been saved by error, or if it exceeds the desired total, or if the load could not be completely unloaded into the container or vehicle; in this case reweigh the remaining load and subtract it from the total.

Subtracting after totalization

Press the button to subtract a weight added to the total by error or when the total is greater than the desired amount.
In this case, after subtracting it, unload the material and try again with a new weighing.

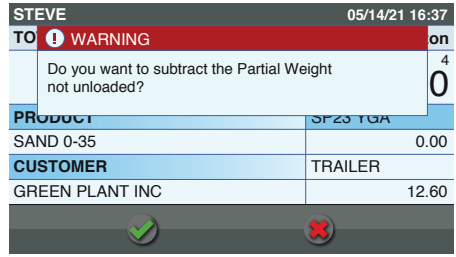
Subtracting a weight not unloaded

When a weight has not been fully unloaded, reweigh it and subtract it from the Total weight.

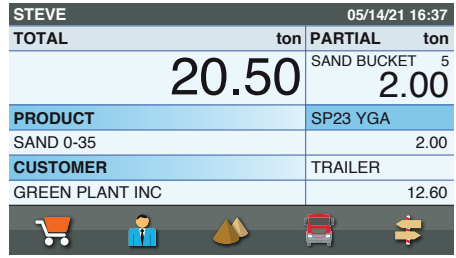
If totalizing is **AUTOMATIC**, proceed as it follows:

Press the key to subtract the weight of the remaining material, which has just been added to the total by the automatic totalizing operation

Press the key again to subtract the weight of the remaining material from the final total



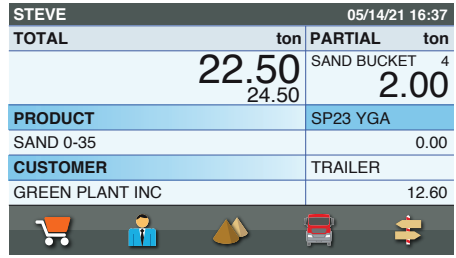
Confirm the Subtraction



OLD TOTAL = 24.50
Weight = 2.00
Subtraction 1 = -2.00
Subtraction 2 = -2.00
NEW TOTAL = 20.50

If totalizing is **MANUAL**, proceed as it follows:

Reweigh and press the key to subtract it



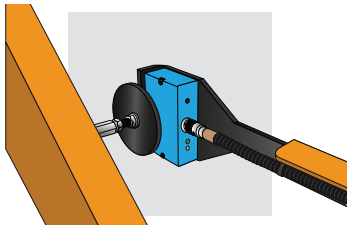
OLD TOTAL = 22.50
Weight = 2.00
Subtraction = -2.00
NEW TOTAL = 20.50

Tip Off

Tip Off is a function which unloads excess weight by displaying the weight of the load in real time; you can thus stop unloading when you reach the desired load weight.
Caution: unloading must be done where the material was picked, not into the container or vehicle being loaded because the accuracy of Tip Off is not enough.

..1.. Alignment with the weighing sensor

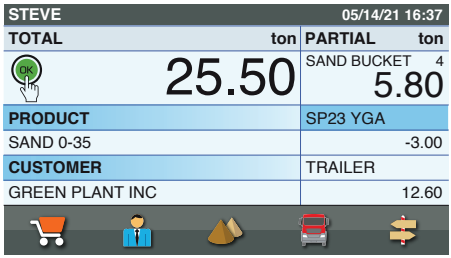
Once the Weighing cycle has terminated and the tool still loaded, lower the lifting boom until the reference reaches the weighing sensor.



..2.. Confirm alignment

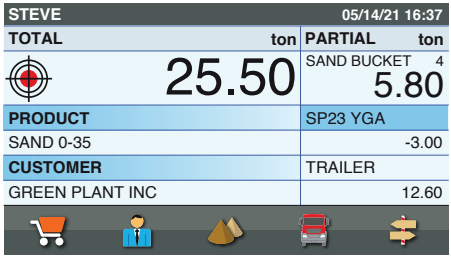
The symbol displays to indicate that the right position has been reached

Press OK



..3.. Run

The symbol displays to indicate that Tip Off is ready



..4.. Unloading

Start unloading slowly, without jerky movements, keeping the lifting boom in the same position.
You will see the weight diminish in real time.

STEVE		05/14/21 16:37
TOTAL	ton	PARTIAL ton
	23.50	SAND BUCKET 4 3.80
PRODUCT		SP23 YGA
SAND 0-35		-1.00
CUSTOMER		TRAILER
GREEN PLANT INC		12.60

..5.. Conclusion

When you reach the desired Total or Target weight, stop unloading by closing the bucket back

STEVE		05/14/21 16:37
TOTAL	ton	PARTIAL ton
	22.50	SAND BUCKET 4 2.80
PRODUCT		SP23 YGA
SAND 0-35		0.00
CUSTOMER		TRAILER
GREEN PLANT INC		12.60

Lower the lifting boom.
The previously lifted weight is automatically subtracted from the Total and Target.

STEVE		05/14/21 16:37
TOTAL	ton	PARTIAL ton
	19.70	SAND BUCKET 3 5.80
PRODUCT		SP23 YGA
SAND 0-35		2.80
CUSTOMER		TRAILER
GREEN PLANT INC		12.60

..6.. Weigh the remaining amount

Weigh the remaining material.
In this way, you will reach the desired weight.

componentry overview

The weighing concept is pressure evaluation of the lfork's carriage lifting cylinder and one or two sensors to trigger the weight at a certain height of the lift cycle.

DEVICE installed in the cab with operator's easy view

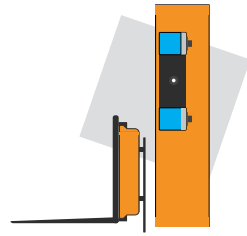
PRESSURE SENSOR installed on the main pressure pipe of the cylinders joining point

WEIGHING ZONE SENSORS which triggers the weight display during the lifting cycle

Weighing Procedure

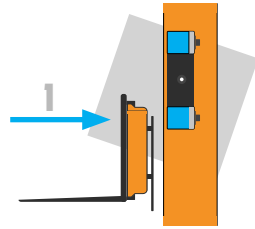
..1.. Lift

Start lifting by pulling the lever all the way back



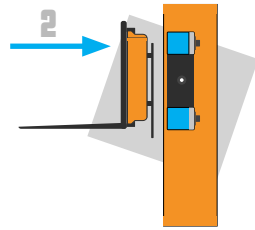
..2.. Weigh

Weighing starts.
The display reads “Lift”
(keep the movement smooth)



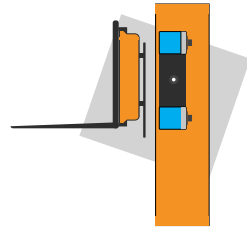
..3.. Display

The weight is displayed



..4.. Unload

The weighing cycle has terminated.
Continue unloading



Zero at empty

Zero at empty maintains the weight of the empty tool at zero. The No load zero may vary because:

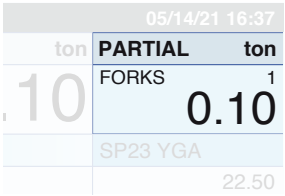
1. steel has been added to the tool
2. the machine's hydraulic circuit pressure has changed
3. the previous zero setting was done with the tool not completely empty

..1.. Lift

With the forklift stopped and the mast in position, lift the forks carriage at low speed by pulling the lifting lever all the way back

..2.. Weigh

The weight of the lifted load is displayed in the Partial weight area, for instance 0.10ton

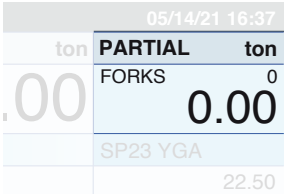


..3.. Execute

Hold the key down to run the Zero at empty until you hear two beeps

..4.. Done

The Partial weight area will display 0.00, the zero setting procedure has terminated; you can release the key

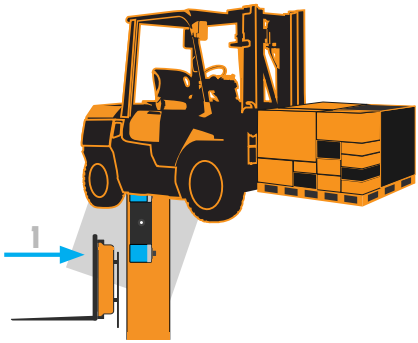


..1.. Load

Load the material

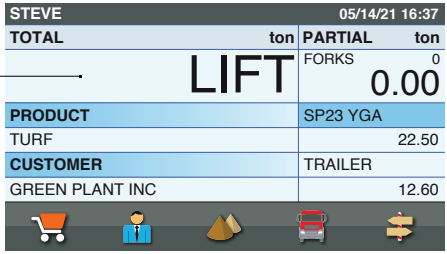
..2.. Lift

With the forklift stopped and the mast in position, lift the forks carriage at low speed, by pulling the lifting lever all the way back



..3.. Weigh

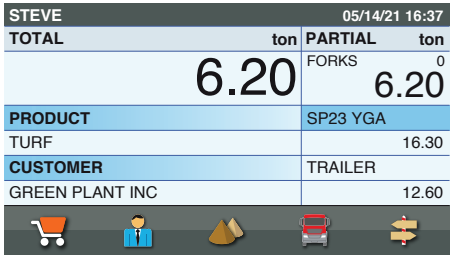
Continue to lift without interruptions.
The display reads “Lift”. DO NOT stop the arm at this time



..4.. Done

A buzzer sounds to indicate that Weighing has terminated

The weight of the load is displayed in the Partial weight area and automatically or manually added into the Total area



Clearing the Total loaded

When loading has completed, Clear the total. The clear options depend on the system, print and wireless preferences.
The image of the weighing page here shown can differ from the type of Weighing mode and Industry Preferences used.

C

Press the key to terminate loading.
The Total loaded for the current Customer is set to zero.

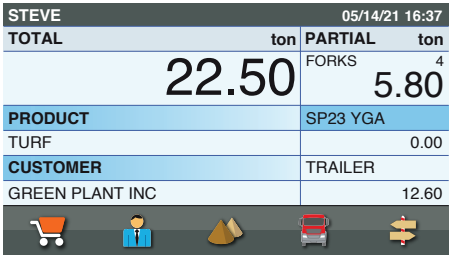
You can now load a new Customer

Subtracting a weight

A Weight can be subtracted if it has been saved by error, or if it exceeds the desired total, or if the load could not be completely unloaded into the container or vehicle; in this case reweigh the remaining load and subtract it from the total.

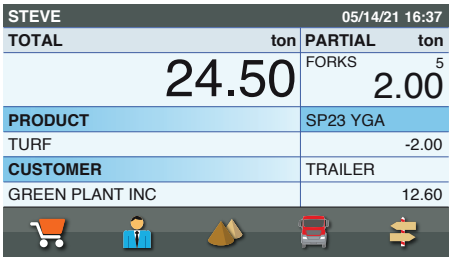
Subtracting after totalization

Press the button to subtract a weight added to the total by error or when the total is greater than the desired amount.
In this case, after subtracting it, unload the material and try again with a new weighing.



Subtracting a weight not unloaded

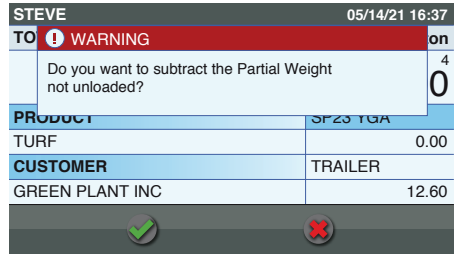
When a weight has not been fully unloaded, reweigh it and subtract it from the Total weight.



If totalizing is **AUTOMATIC**, proceed as it follows:

Press the key to subtract the weight of the remaining material, which has just been added to the total by the automatic totalizing operation

Press the key again to subtract the weight of the remaining material from the final total

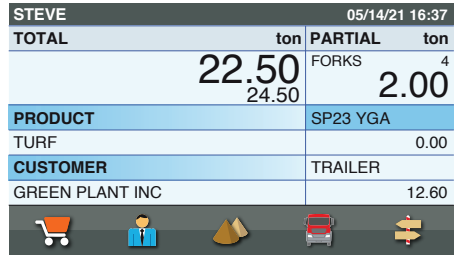


Confirm the Subtraction

OLD TOTAL = 24.50
Weight = 2.00
Subtraction 1 = -2.00
Subtraction 2 = -2.00
NEW TOTAL = 20.50

If totalizing is **MANUAL**, proceed as it follows:

Reweigh and press the key to subtract it



OLD TOTAL = 22.50
Weight = 2.00
Subtraction = -2.00
NEW TOTAL = 20.50

componentry overview

The weighing concept is pressure evaluation of the lifting boom and a sensor to trigger the weight at a certain height of the lift cycle.

DEVICE installed in the cab with operator's easy view

PRESSURE SENSORS installed on the main and return pressure pipe of the lifting cylinder

WEIGHING ZONE SENSOR which triggers the weight display during the lifting cycle

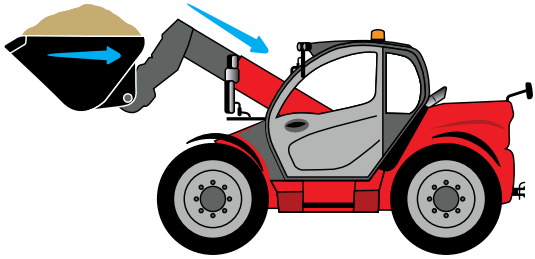
Weighing Joystick Bucket and Arm positions

Joystick

Pull the joystick all the way back and to the left to keep the bucket closed and for Manitou machine keep the joystick to the left as well in order to maintain the bucket closed

Bucket and Arm

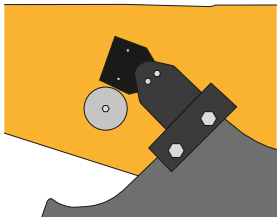
Perform weighing with bucket closed and boom fully retracted



Weighing Procedure

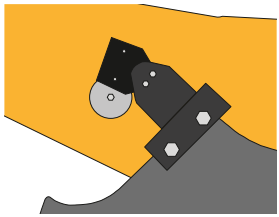
..1.. Lift

Start lifting by pulling the joystick all the way back. For Manitou machines keep the joystick to the left as well in order to maintain the bucket closed



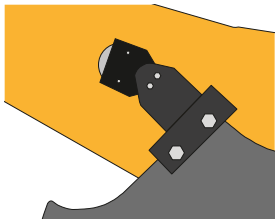
..2.. Weigh

Weighing starts.
The display reads “Lift”
(keep the movement smooth)



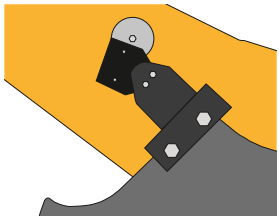
..3.. Display

The weight is displayed



..4.. Unload

The weighing cycle has terminated.
Continue unloading



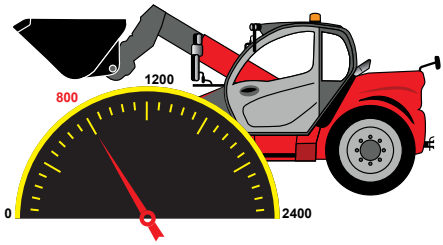
Zero at empty

Zero at empty maintains the weight of the empty tool at zero. The No load zero may vary because:

1. material is still attached in to the tool
2. the machine's hydraulic circuit pressure has changed
3. the previous zero setting was done with the tool not completely empty or different

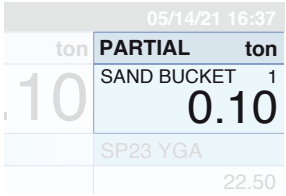
..1.. Lift

With the machine stopped, keep the rpms as advised in the picture and lift with the joystick all the way back. For Manitou machines keep the joystick to the left as well in order to maintain the bucket closed. Weighing is done at this time.
The display reads “Lift”.
DO NOT stop the boom at this time



..2.. Weigh

The weight of the lifted load is displayed in the Partial weight area, for instance 0.10ton

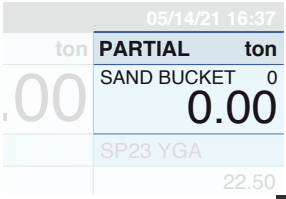


..3.. Execute

Hold the key down to run the Zero at empty until you hear two beeps

..4.. Done

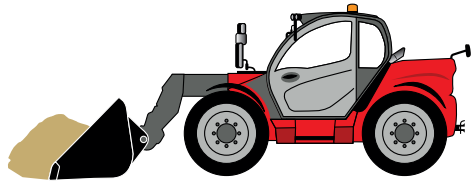
The Partial weight area will display 0.00, the zero setting procedure has terminated; you can release the key



Weighing loaded

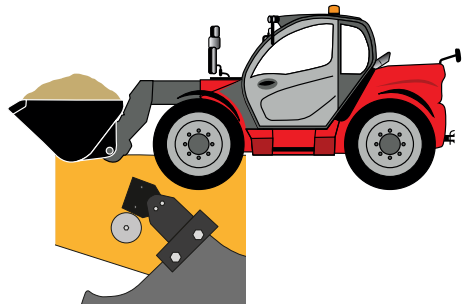
..1.. Load

Load the material



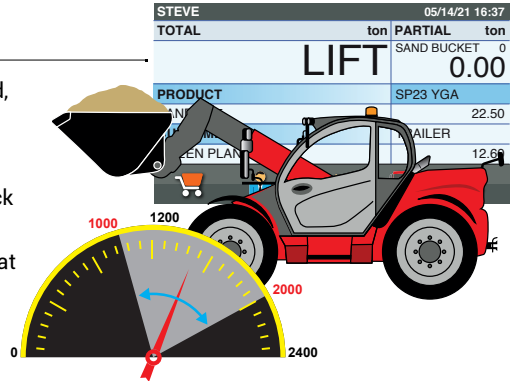
..2.. Lift

With the tool loaded, move out of the loading area and place the boom under the weighing sensor



..3.. Weigh

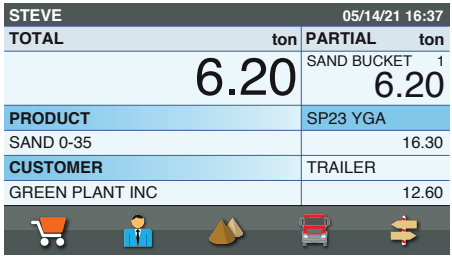
With the machine stopped, keep the rpms as advised in the picture and lift with the joystick all the way back. For Manitou machines keep the joystick to the left as well in order to maintain the bucket closed. Weighing is done at this time.
The display reads “Lift”.
DO NOT stop the boom at this time



..4.. Done

A buzzer sounds to indicate that Weighing has terminated

The weight of the load is displayed in the Partial weight area and automatically or manually added into the Total area



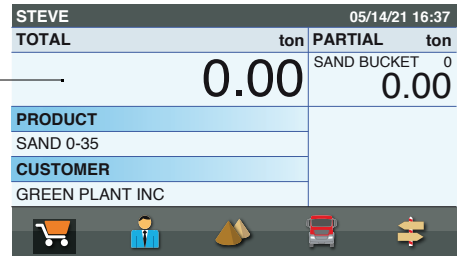
Clearing the Total loaded

When loading has completed, Clear the total. The clear options depend on the system, print and wireless preferences.
The image of the weighing page here shown can differ from the type of Weighing mode Preference used.

C

Press the key to terminate loading.
The Total loaded for the current Customer is set to zero.

You can now load a new Customer



Subtracting a weight

A Weight can be subtracted if it has been saved by error, or if it exceeds the desired total, or if the load could not be completely unloaded into the container or vehicle; in this case reweigh the remaining load and subtract it from the total.

Subtracting after totalization

Press the button to subtract a weight added to the total by error or when the total is greater than the desired amount.
In this case, after subtracting it, unload the material and try again with a new weighing.

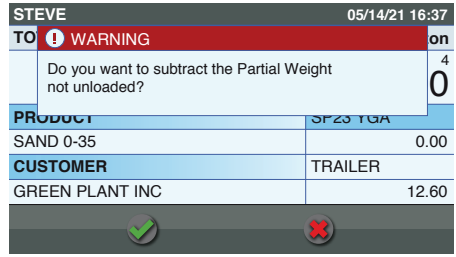
Subtracting a weight not unloaded

When a weight has not been fully unloaded, reweigh it and subtract it from the Total weight.

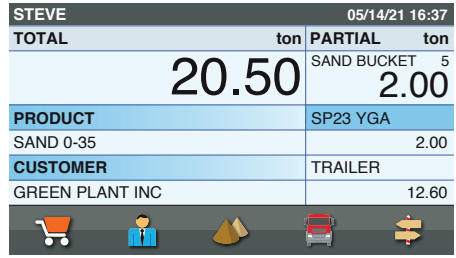
If totalizing is **AUTOMATIC**, proceed as it follows:

Press the key to subtract the weight of the remaining material, which has just been added to the total by the automatic totalizing operation

Press the key again to subtract the weight of the remaining material from the final total



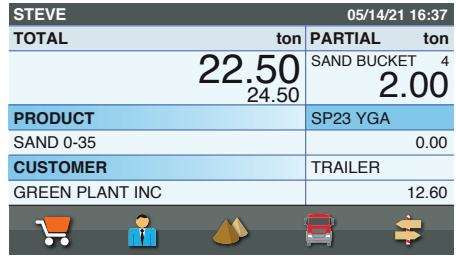
Confirm the Subtraction



OLD TOTAL = 24.50
Weight = 2.00
Subtraction 1 = -2.00
Subtraction 2 = -2.00
NEW TOTAL = 20.50

If totalizing is **MANUAL**, proceed as it follows:

Reweigh and press the key to subtract it



OLD TOTAL = 22.50
Weight = 2.00
Subtraction = -2.00
NEW TOTAL = 20.50

Material Handler

componentry overview

The weighing concept is traction force evaluation through the so called GR2 weighing block replacing the machine's original yoke or installed on top the rotor of the tool. There is no need of other sensors to trigger the weight, it is instantaneous in any position of the tool.
Here a material handler componentry overview is shown.

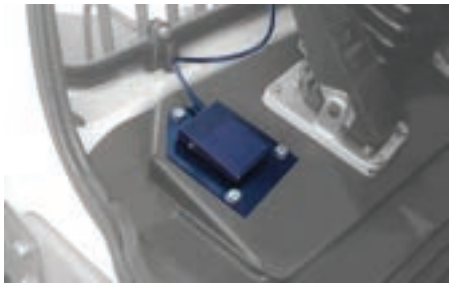
DEVICE installed in the cab with operator's easy view

GR2 Weighing Block, cable connected to the Device, installed at the end of the Stick boom and replacing the original Yoke

GR2 Weighing Block, wireless connected to the Device, installed at the end of the Stick boom and replacing the original Yoke.

Wireless is made possible by using Wiload which instructions of use are supplied on a dedicated manual

Pedal to trigger the totalization of the displayed load weight



Weighing Procedure

There are two ways to perform weighing, one pushing and holding down a pedal and the second pressing the key on the Device.

..1.. Lift

Lift the tool to suspend it in the air

..2.. Weigh

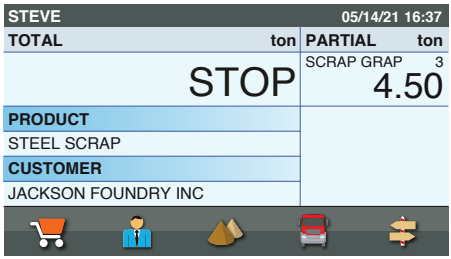
Push the pedal and hold it down

OK

or Press the key

..3.. Saving

The display shows “STOP”. Weighing is initiated (avoid abrupt maneuvers)



..4.. Done

When STOP disappears, release the pedal.
The Total is updated with the new Partial

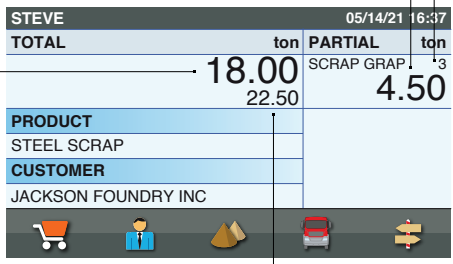
Weighing Page

This is how the weighing page is when the weighing mode in use is STA, which is a standard in the Multi Handler weighing.

No. of saved weights:
number of weights saved in the same load for the same selected customer and product

Real Time Partial:
always displayed and it varies depending upon the tool stability

Partial:
displayed after a request for totalization is made with the pedal or the OK key, therefore after the "STOP" condition seen on the Weighing Procedure



Total:
it is the totalized weight up to the moment

Real Time Total:
it is the sum of Total + Real time Partial, showing in this way what the Total would be after the totalization with the pedal or OK key.

Zero at empty

Zero at empty maintains the weight of the empty tool at zero. The No load zero may vary because:

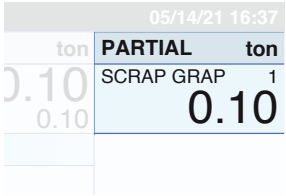
1. material is still attached in to the tool
2. the tool has its own weight changed for some reasons
3. the previous zero setting was run with the tool not completely empty

..1.. Weigh

Lift the tool to suspend it in the air

..2.. See

The weight of the lifted load is displayed in the Partial weight area, for instance 0.10 ton

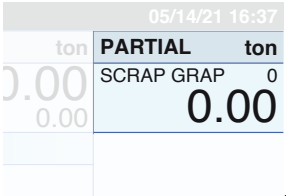


..3.. Execute

Hold the key down to run the Zero at empty

..4.. Done

The Partial weight area will display 0.00, the zero setting procedure has terminated; you can release the key



Weighing loaded

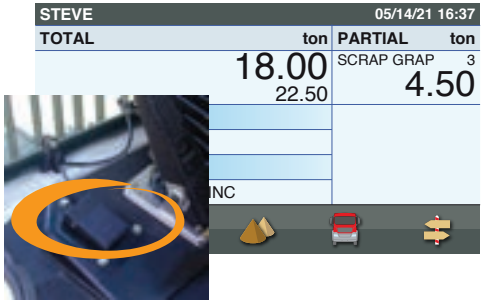
..1.. Lift

Load and Lift the tool to suspend it in the air

Push the pedal and hold it down

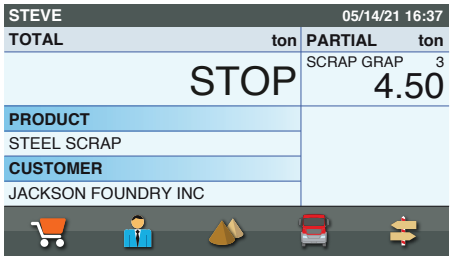
OK

or Press the key



..2.. Saving

The display shows “STOP”. (avoid abrupt maneuvers)



..3.. Done

When STOP disappears, The Partial will show the Weight of the lifted load

The Total will show the updated Weight

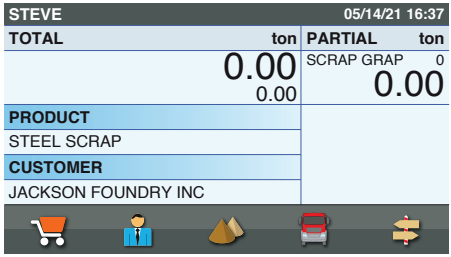
Now it is possible to release the pedal and proceed to unload

..4.. Unloading

You can now proceed to unload the weight.

In case the Minimum Capacity is set as Enabled into the Weighing Preferences
you will not be able to Save the weight into memory again due to the weight which has to go under the set Minimum Capacity weight value. Once under it, the unloading cycle is complete.

This prevents to totalize the same weight twice by error

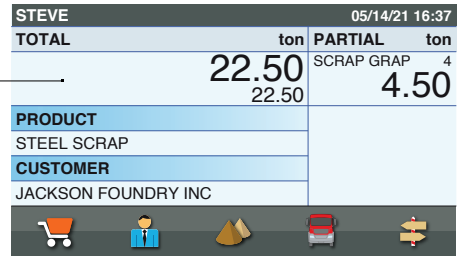


Clearing the Total loaded

When loading has completed, Clear the total. The clear options depend on the system, print and wireless preferences.
The image of the weighing page here shown can differ from the type of Weighing mode Preference used.

C

Press the key to terminate loading.
The Total loaded for the current Customer is set to zero.



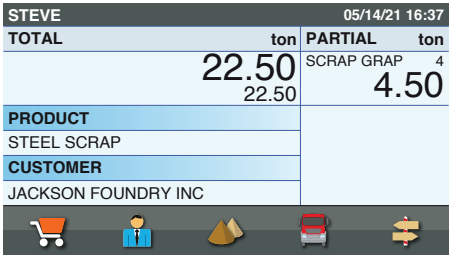
You can now load a new Customer

Subtracting a weight

A Weight can be subtracted if it has been saved by error, or if it exceeds the desired total, or if the load could not be completely unloaded into the container or vehicle; in this case reweigh the remaining load and subtract it from the total.

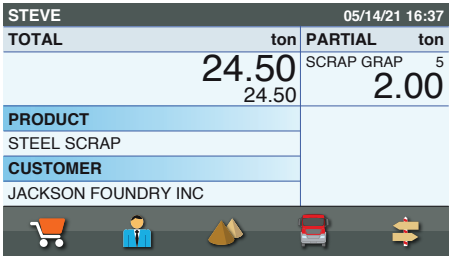
Subtracting after totalization

Press the button to subtract a weight added to the total by error or when the total is greater than the desired amount.
In this case, after subtracting it, unload the material and try again with a new weighing.



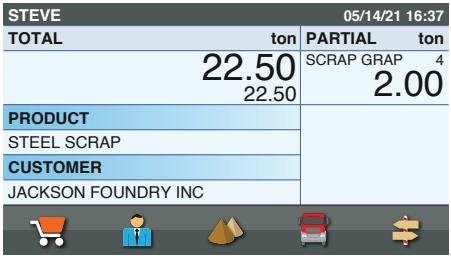
Subtracting a weight not unloaded

When a weight has not been fully unloaded, reweigh it and subtract it from the Total weight.

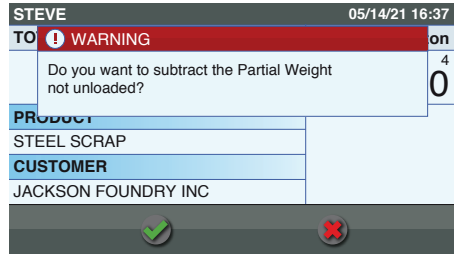


If totalizing is **AUTOMATIC**, proceed as it follows:

Press the key to subtract the weight of the remaining material, which has just been added to the total by the automatic totalizing operation



Press the key again to subtract the weight of the remaining material from the final total

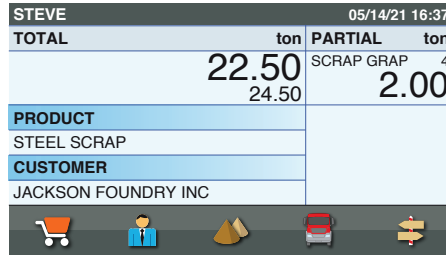


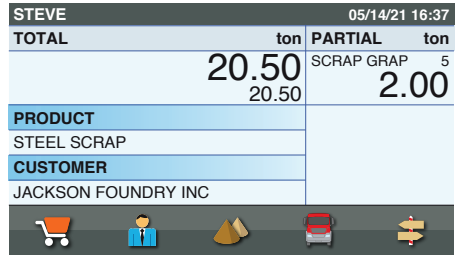
Confirm the Subtraction

OLD TOTAL = 24.50
Weight = 2.00
Subtraction 1 = -2.00
Subtraction 2 = -2.00
NEW TOTAL = 20.50

If totalizing is **MANUAL**, proceed as it follows:

Reweigh and press the key to subtract it





OLD TOTAL = 22.50
Weight = 2.00
Subtraction = -2.00
NEW TOTAL = 20.50

componentry overview

The weighing concept is pressure evaluation of the lifting boom and a sensor to trigger the weight at a certain height where to stop the lift.
The Reach Stacker can have a double weighing point to handle two different heights of containers. In this case stopping at one sensor or the other automatically selects the right calibration for weighing

DEVICE installed in the cab with operator's easy view

PRESSURE SENSORS installed on the main and pressure pipe of both lifting cylinders

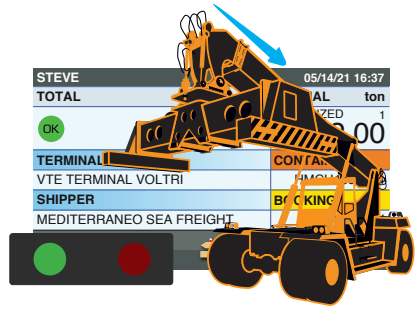
WEIGHING ZONE SENSOR which triggers the weight display once the boom stops with the metal reference in front of it

BOOM POSITION SENSOR which establishes the fixed boom position and it allows weighing if activated, only

Weighing Procedure

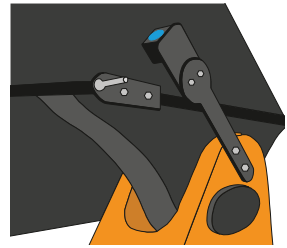
..1.. Close the Boom

Close the Boom or put it into the position it has to be. OK appears on the display and the GREEN light turns ON



..2.. Lift

Start lifting by pulling the lever all the way back



..3.. Stop and Weigh

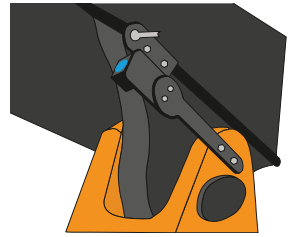
Stop the boom when the display reads “STOP” and the RED light turns ON.
Weighing starts.
(reach the position with a smooth and slow lift)

..4.. Display

The weight is displayed

..5.. Unload

The weighing cycle has terminated.
Continue with the lift or unload



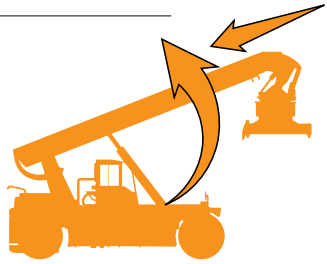
Zero at empty

Zero at empty maintains the weight of the empty tool at zero. The No load zero may vary because:

1. the machine's hydraulic circuit pressure has changed
2. the previous zero setting was done with the tool having a different weight due to mechanical works to it

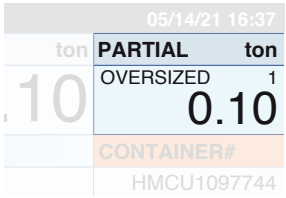
..1.. Lift

With the machine stopped and the boom closed, or in the established position lift the boom at low speed by pulling the lever all the way back



..2.. Weigh

Stop the boom when the display reads “STOP” and the RED light turns ON. The weight of the lifted load is displayed in the Partial weight area, for instance 0.10ton

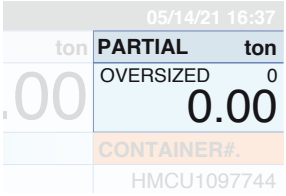


..3.. Execute

Hold the key down to run the Zero at empty until you hear two beeps

..4.. Done

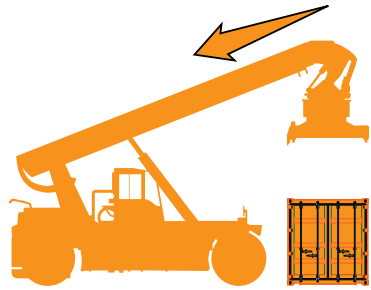
The Partial weight area will display 0.00, the zero setting procedure has terminated; you can release the key



Weighing loaded

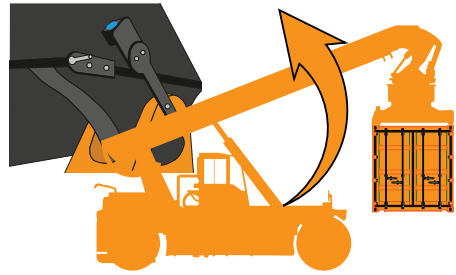
..1.. Load

Bring the boom to the desired weighing position or fully closed, if it is so, and load the container



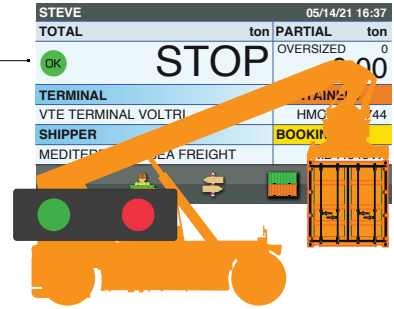
..2.. Lift

With the machine stopped and the boom closed, or in the established position lift the boom at low speed by pulling the lever all the way back



..3.. Weigh

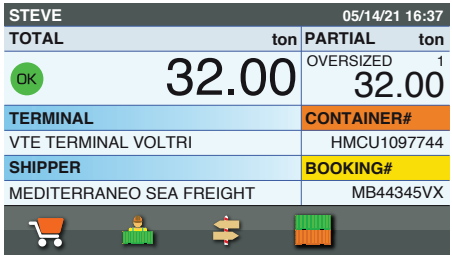
Stop the boom when the display reads “STOP” and the RED light turns ON



..4.. Done

A buzzer sounds to indicate that Weighing has terminated

The weight of the load is displayed in the Partial weight area and automatically or manually added into the Total area.



OK

Press the key in case of MANUAL totalization

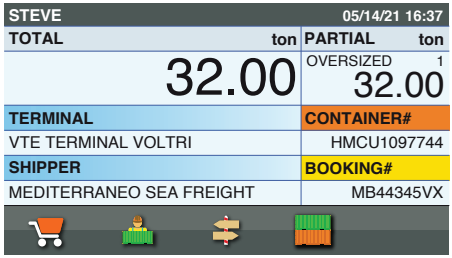
The weighed container is added into the Total in order to print it and send it wireless.
More than one container can be added to the Total

Clearing the Total loaded

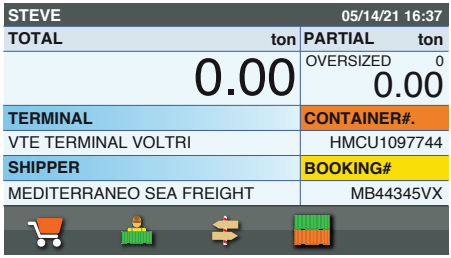
When loading has completed, Clear the total. The clear options depend on the system, print and wireless preferences.

C

Press the key to terminate loading of the current container or a sum of containers
The Total for the current shipper and or terminal will be set to zero



You can now
load an other container

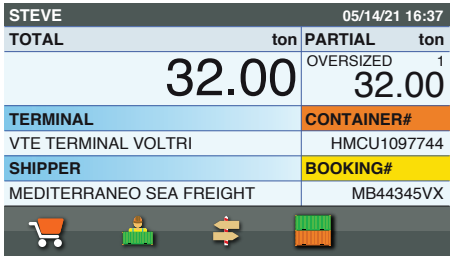


Subtracting a container's weight

A Container's Weight can be subtracted if it has been saved by error, or if it exceeds the desired total.

—

Press the button to subtract a container's weight added to the total by error or when it has been wrongly weighed and by the automatic totalization it has been saved and added to the total



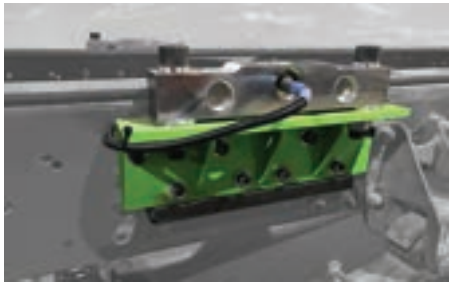
Truck Chassis Weighing

componentry overview

The weighing concept is compression force evaluation through a number of load cells packed between the chassis and the body frame.
There is no need of other sensors to trigger the weight, it is instantaneous in any position of the truck.
Here a truck componentry overview is shown.

DEVICE installed in the cab with operator's easy view

Load cell mounted on the bracket fixed to the chassis with bolts or welded

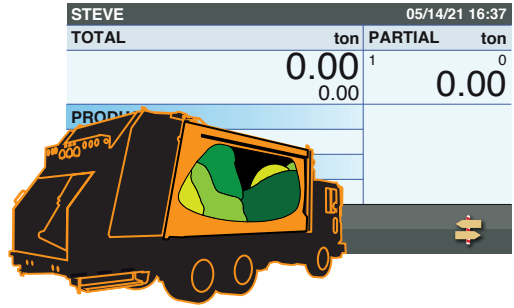


Weighing Procedure

Weighing on a Truck is in real time while saving it is performed by pressing a button on the Device or remote from it.

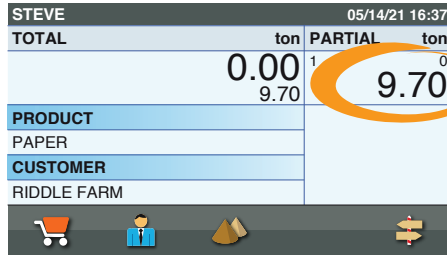
..1.. Load

Load the truck



..2.. Display

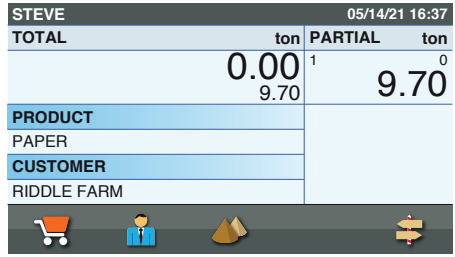
The loaded Weight is displayed



..3.. Weigh

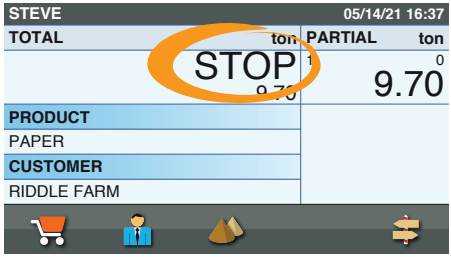
OK

Press the key to weigh



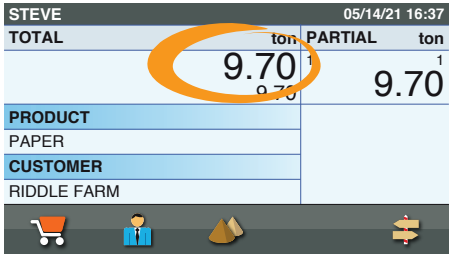
..4.. Saving

The display shows “STOP”.
Weighing is initiated,
do not move the truck



..4.. Done

When STOP disappears, the
Total is updated with the
new Partial



Weighing Page

This is how the weighing page is when the weighing mode in use is STA, which is a standard in the Truck Chassis Weighing.

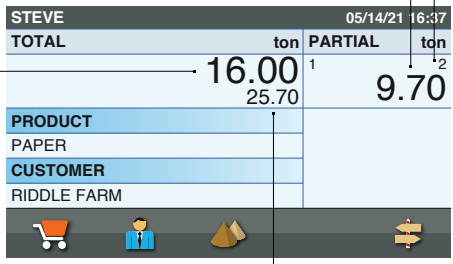
No. of saved weights:
number of weights saved in the same load for the same selected customer and product

Real Time Partial:
always displayed and it varies depending upon the truck stability

Partial:
displayed after a request for totalization or saving is made with the OK key, therefore after the "STOP" condition seen on the Weighing Procedure

Total:
it is the totalized or saved weight up to the moment

Real Time Total:
it is the sum of Total + Real time Partial, showing in this way what the Total would be after the totalization or saving with the OK key.



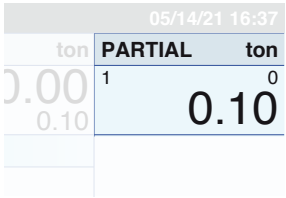
Zero at empty

Zero at empty maintains the weight of the empty truck at zero. The No load zero may vary because:

1. material is still attached in to the body
2. the body has its own weight changed for some reasons
3. the previous zero setting was run with the truck not completely empty

..1.. See

The weight is displayed in the Partial weight area, for instance 0.10 ton

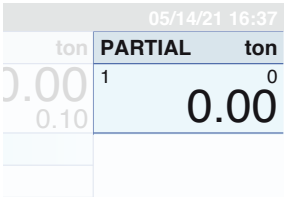


..2.. Execute

Hold the key down to run the Zero at empty

..4.. Done

The Partial weight area will display 0.00, the zero setting procedure has terminated; you can release the key



Saving separated loads

On Truck Weighing there are two different ways to consider a load:
1. The load is one
2. The load is split among different customers and or products

Depending on the needs the right saving approach must be taken.

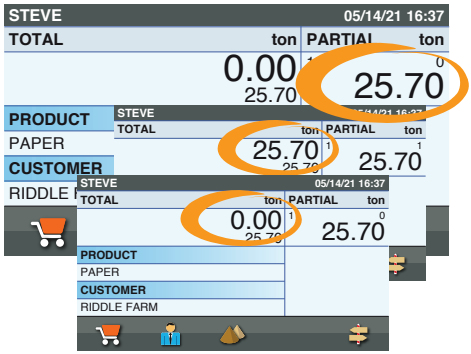
..1.. One Load

OK — Press the key to save the weight into the selected Customer's Total.

Press the key to Print

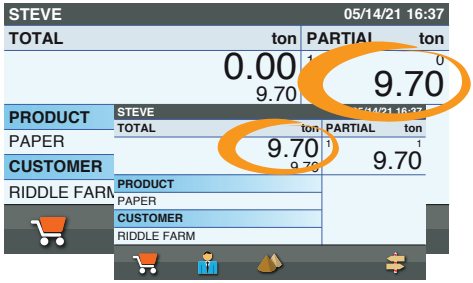
C — Press the key to Clear the Total weight without printing

Load data are then saved and or wireless transmitted



..2.. Split Load

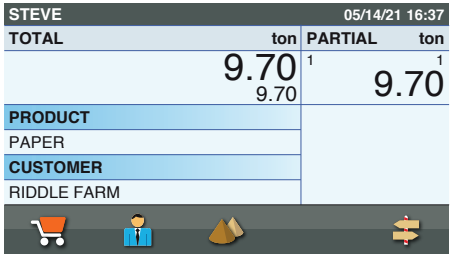
OK — Press the key to save the weight into the selected Customer's Total



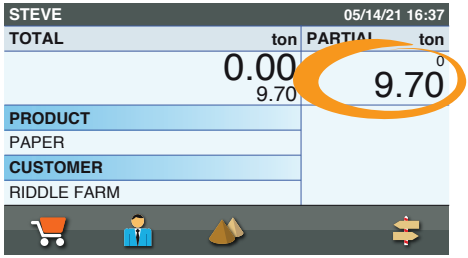
Press the key to Print

C — Press the key to Clear the Total weight without printing

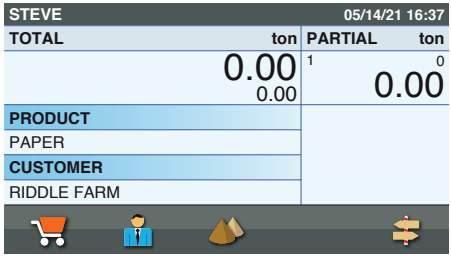
Load data are then saved and or wireless transmitted



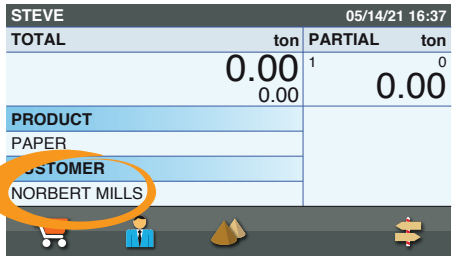
Hold the key down to Zero out the weight of the load into the truck



Press the key to select an other Customer

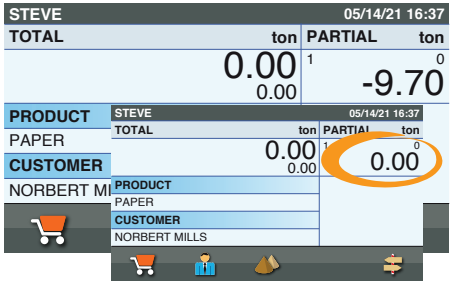


You are now ready for an other load of an other customer



Once the truck is unloaded the displayed weight will be negative due to partial loads being previously zeroed.

Hold the key down to run the Zero at empty

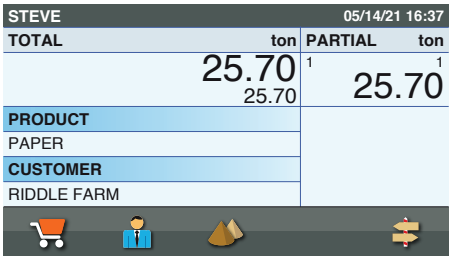


For a load with split Products use the same procedure as for customers

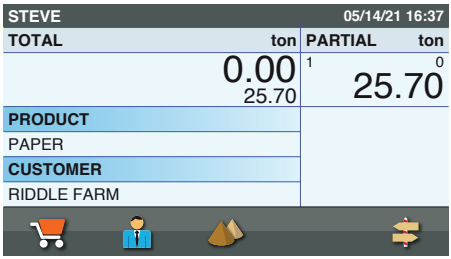
Subtracting a weight

A Weight can be subtracted if it has been saved by error, for example with the truck on the move, the body up or many other reasons.

Press the button to subtract a weight added to the total by error



The Totalization has been subtracted



APPENDIX 2

How to Calibrate

In this section we will describe how to calibrate in different applications or machines of use. The aim is to provide a quick guide without showing every single step of the calibration which are self explanatory by the Device messages during the process of calibration.
The Calibration differs based upon the Weighing Software Preference selected with each machine.

WHEEL LOADER
Two weighing softwares can be chosen, DYN or DYN+, each with its own calibrations

FORK LIFT TRUCK
One weighing software can be used, SPEED.

The same applies to CONTAINERS HANDLER if the hydraulic cylinders are of a single effect, if a double effect, DYN or DYN+ is used, instead

TELESCOPIC LOADER
Two weighing softwares can be chosen, DYN or DYN+, each with its own calibrations

MATERIAL HANDLER
One weighing software can be used, STA

REACH STACKER
One weighing software can be used, AUTOSTA

ROAD TRUCK
One weighing software can be used, STA, this related to the chassis weighing therefore load cells mounted on the chassis

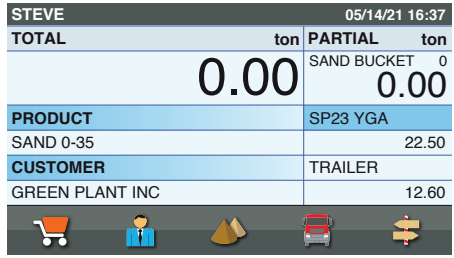
Weight Correction

valid for all Weighing Softwares

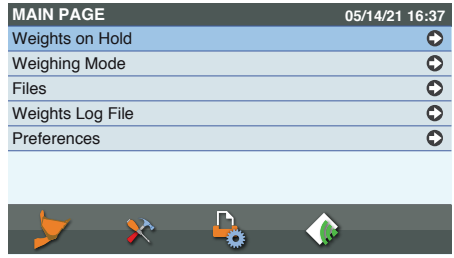
Weight Correction or calibration fine tuning corrects a weight result by a true weight value used as comparison. It makes sense to perform Weight Correction if the weight result is always bigger or smaller of the true weight. If the error is in both directions, instead, it is better to perform the Complete Calibration as described after.

In order to average out the error it is better to use as a weight result the sum of three total loads of a truck, as an example and when possible according to the application or machine type.

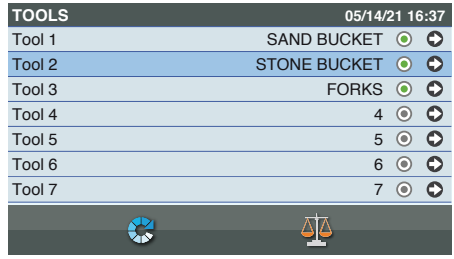
Press the key to enter the Main Page

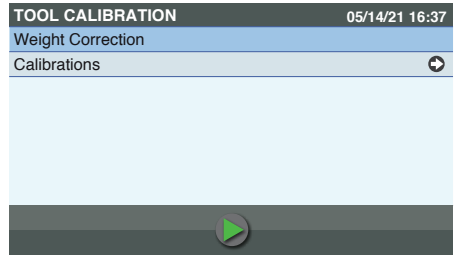


Press the key to enter Tools

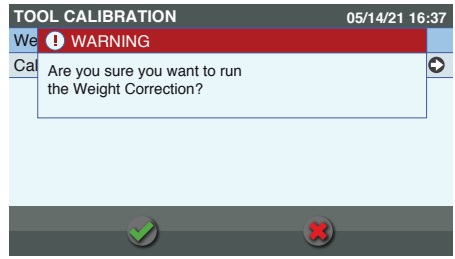


Select the tool where you want to perform the calibration and press the key to enter Calibration





Press the key to start



Confirm your choice

The Device drives you now through the Weight Calibration prompting to enter the DISPLAYED WEIGHT, which is the weight given by the Device or the sum of different weights as explained in the introduction, and the CORRECT WEIGHT or true value to which the Displayed Weight is compared to.
At the end the Device calculates a NEW Weight Gain (GWG) and saves it into the Tool Parameters

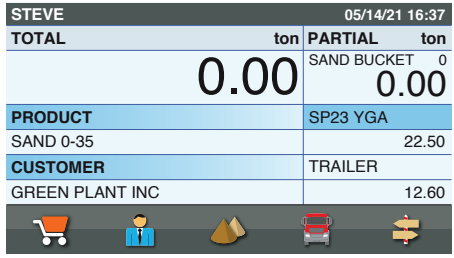
DYN Calibration

DYN Calibration presumes that the Weighing Software selected into the Weighing Preferences is DYN. DYN Weighing is performed in those machines where there is a boom lifting the tool and weighing is triggered at a certain position of the lifting, dynamically and without stopping the lifting maneuver.
It is implied that the calibration must be performed in the same way the Weighing Procedure have been described above for each application or machine type.

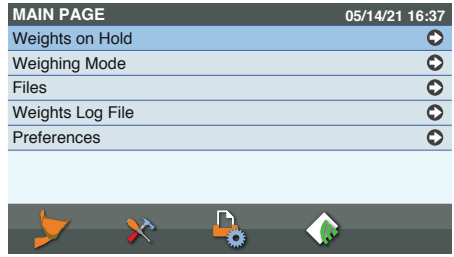
Complete Calibration

Complete Calibration is performed at installation or anytime weighing is not consistent. You have to load into the tool a weight which value is known or near the true value you will enter into the calibration.

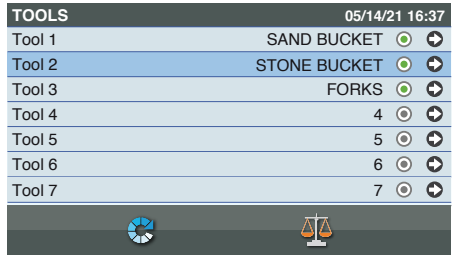
Press the key to enter the Main Page



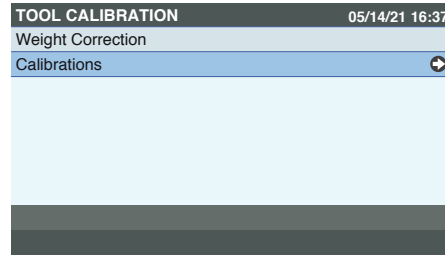
Press the key to enter Tools



Select the tool where you want to perform the calibration and press the key to enter Calibration

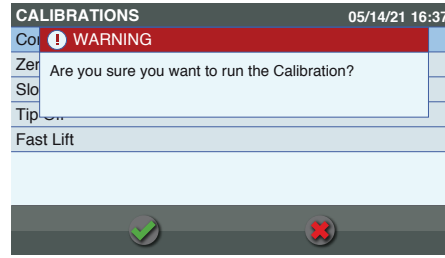


Enter the item

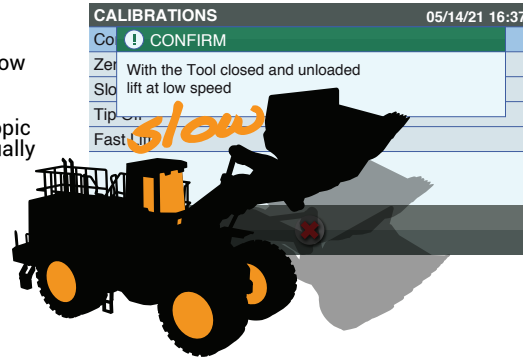


Press the key to start

Confirm your choice



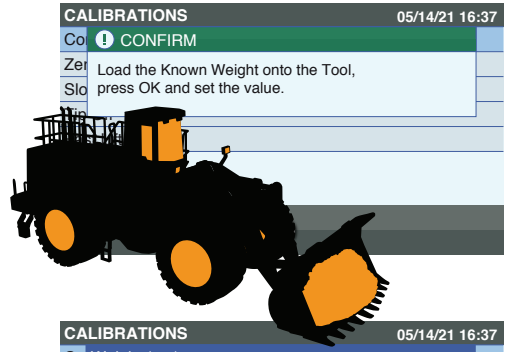
Empty the Tool and perform a weighing at low speed and tool closed.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted



USED FOR

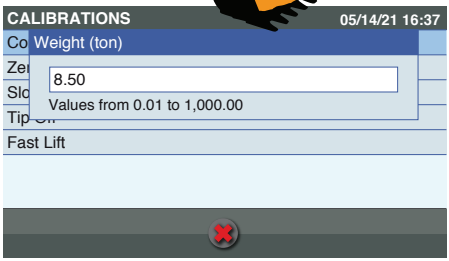
OK

Load the material into the Tool and press the key

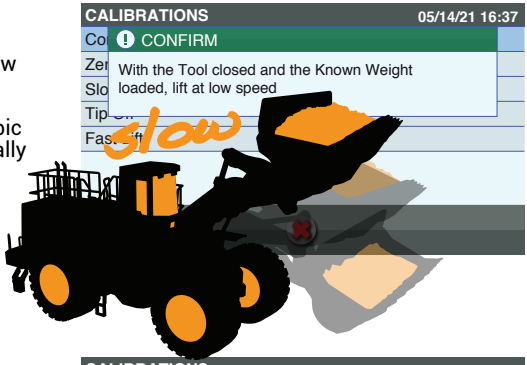


OK

Enter the Known Weight value and press the key

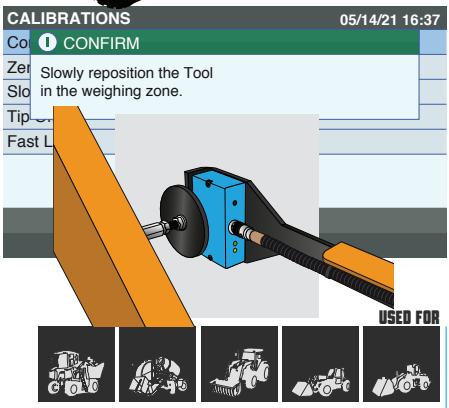


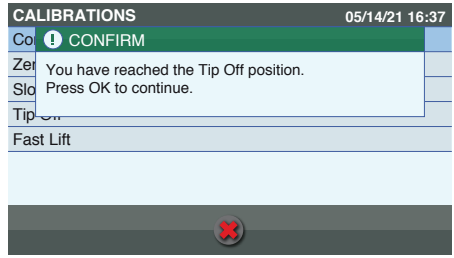
With the Tool loaded perform a weighing at low speed and tool closed.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted



If the Tip Off function is enabled into the Weighing Preferences the Device prompts to lower the boom and stop it in front of the weighing zone sensor.
Do it smootly without abrupt movements and keeping the tool closed.

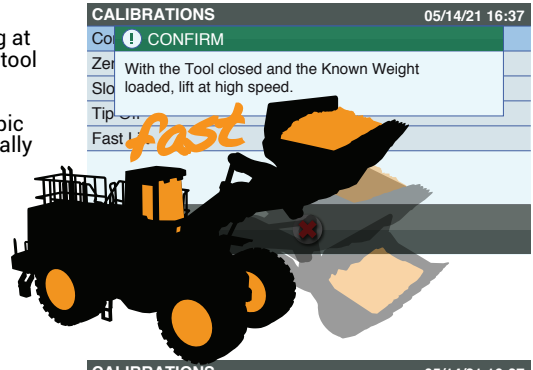
Be aware that in certain applications tip off will not be activated due to the impossibility to perform it

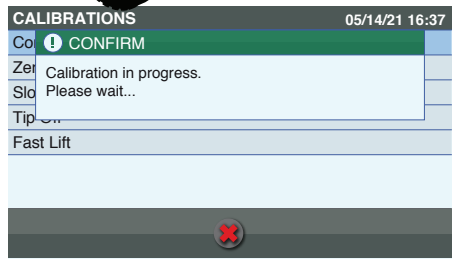




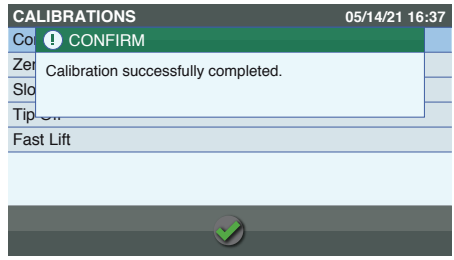
OK Press the key to confirm

Perform now a weighing at high speed keeping the tool closed.
In case of a telescopic loader keep the telescopic boom into position, usually fully retracted





The calibration is now getting to the end



The calibration has been successful, press the key to exit

With the key, at any moment during the calibration process, you can escape the NEW calibration leaving the current one untouched

With the key, the Calibration Parameters are reset to default

DYN Calibration Test

After the Complete Calibration is done with the same weight loaded into the tool try weighing several times at low, medium and high lifting speed to check if the weight difference remains within one scale interval (e).
If not, consider always the weight given at low speed as your reference weight and decrease the Sensor 2 gain (S2G) if the weight at high speed is bigger, viceversa increase the Sensor 2 Gain (S2G) if the weight is smaller. Consider the Sensor 2 Gain change as 0,1000 each time and do weighing trials until you find the correct weight.

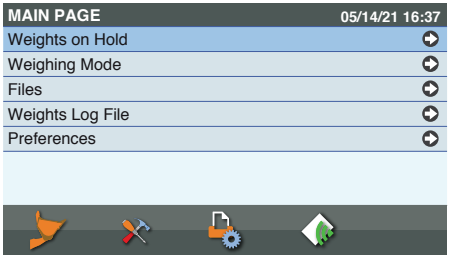
The Sensor 2 Gain change is performed when the Device was not able to automatically save the correct value during the Complete Calibration process.

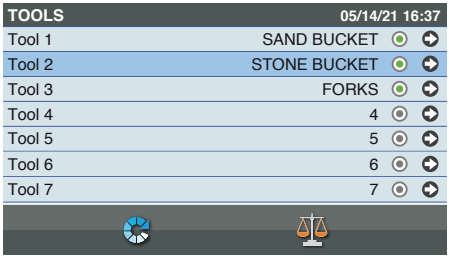
Press the key to make the Zero with tool empty

Press the key to enter the Main Page

Press the key to enter Tools

Enter the item

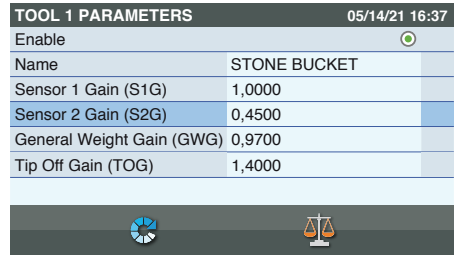




These are the Tool's gains automatically saved after the calibration.

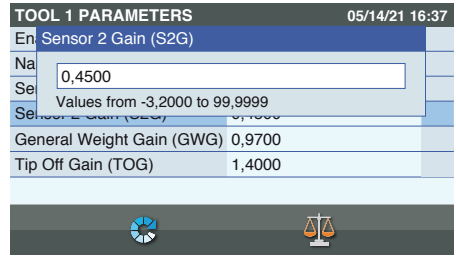
OK

Select the item and press the key to change its value



OK

Enter the value and press the key



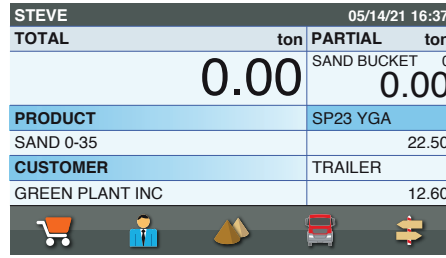
Once validated that the weight at different lifting speed differs one scale interval, it is then a good manner to weigh a bulk of material and compare it with an other weighing system such as a weighing bridge or weighing platform in order to fine tune the calibration with the Weight Correction Calibration seen in the previous chapter.
As explained in that chapter it is better to use as a weight result the sum of three total loads of a truck, as an example,
in this way the error will be averaged out

USED FOR

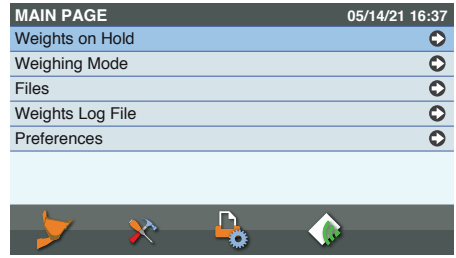
DYN Calibration Parameters

These are the DYN Calibration Parameters found into the Tool.

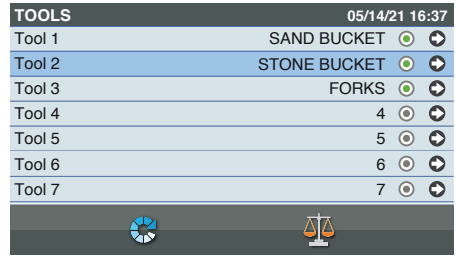
Press the key to enter the Main Page



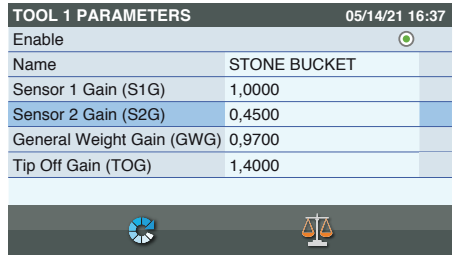
Press the key to enter Tools



Enter the item



Enter the value



USED FOR

PARAMETER	MEANING	MODIFY
S1 Gain	Sensor 1 (green) Gain factor. It changes just the S1 weight result	Do not modify
S2 Gain	Sensor 2 (blue) Gain factor. It changes just the S2 weight correcting the result with different lifting speeds	Automatic with Complete Calibration or manually modified
General Weight Gain (GWG)	Weight Gain factor. It changes the overall weight result	Automatic with Weight Correction or Complete calibrations
Tip Off Gain	Tip Off Gain factor. It changes the unloaded weight result while tipping off	Automatic with Complete or Tip Off calibrations

DYN+ Calibration

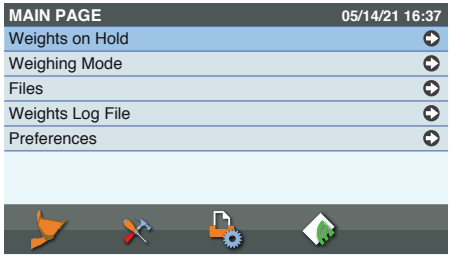
DYN+ Calibration presumes that the Weighing Software selected into the Weighing Preferences is DYN+. It is performed in those machines where there is a boom lifting the tool and weighing is triggered at a certain position of the lifting, dynamically and without stopping the lifting maneuver.
DYN+ is an evolution of DYN Calibration as it has the Zero at Empty Calibration and the possibility to add more calibration points between Zero and Maximum Load. Moreover DYN+ have gains factors in each calibration point therefore each one of them can be adjusted in terms of weighing time, Sensor2 gain and lifting speed window.
It is implied that the calibration must be performed in the same way the Weighing Procedure have been described above for each application or machine type.

Complete Calibration

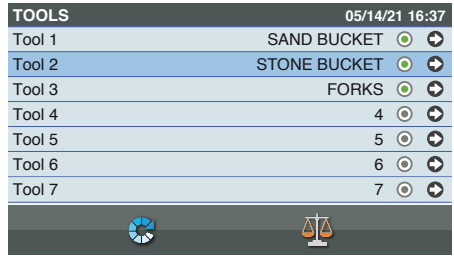
Complete Calibration is performed at installation or anytime weighing is not consistent. You have to load into the tool a Maximum Weight which value is known or near the true value you will enter into the calibration.
If you need to add an extra calibration point, instead, the weight you load into the tool must be known without any guess.

Press the key to enter the Main Page

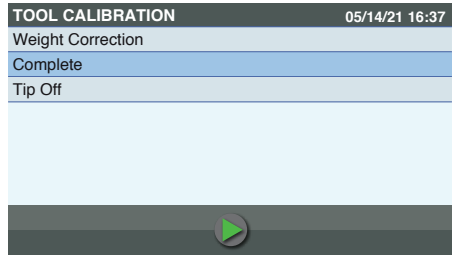
Press the key to enter Tools



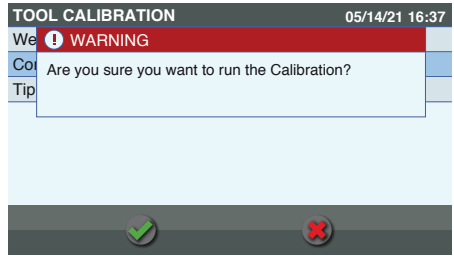
Select the tool where you want to perform the calibration and press the key to enter Calibration



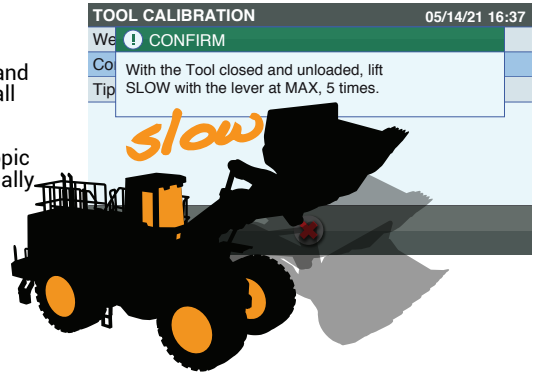
Select the item and press the key to start



Confirm your choice



Empty the Tool and perform 5 weighings at low speed, tool closed and pulling the lifting lever all the way back.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted

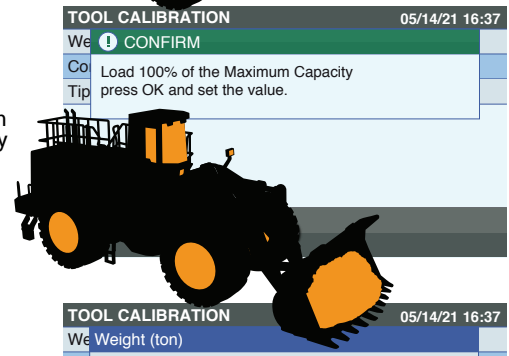


USED FOR

Keeping the Tool empty perform now 5 weighings at high speed, tool closed and pulling the lifting lever all the way back.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted

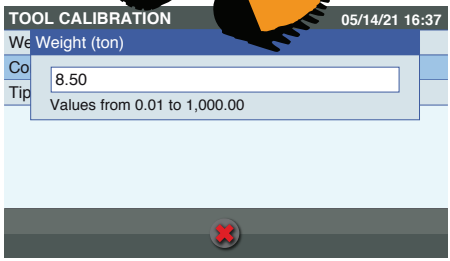
OK

Load the Tool at Maximum Capacity and press the key



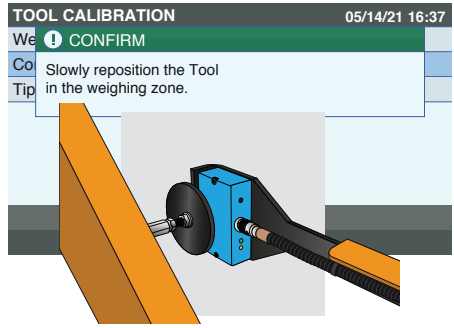
OK

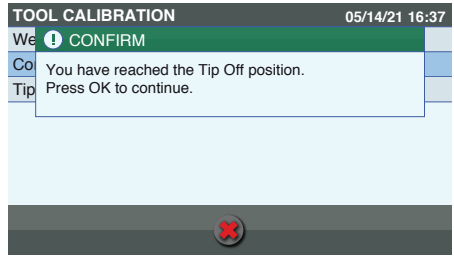
Enter the Known Weight value and press the key



With the Tool loaded perform now 5 weighings at low speed, tool closed and pulling the lifting lever all the way back.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted

If the Tip Off function is enabled into the Weighing Preferences the Device prompts to lower the boom and stop it in front of the weighing zone sensor.
Do it smootly without abrupt movements and keeping the tool closed

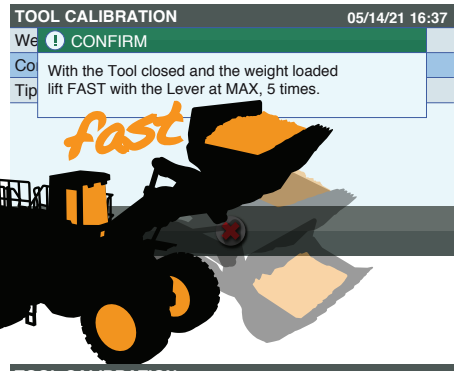


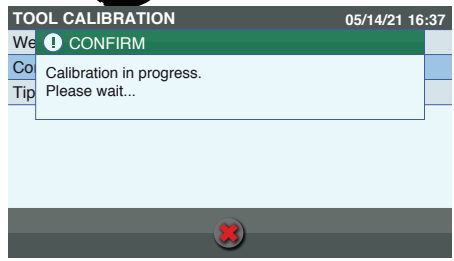


OK

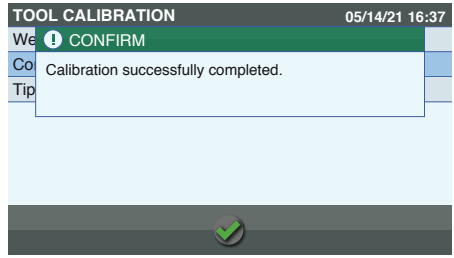
Press the key to confirm

Keeping the Tool loaded perform now 5 weighings at high speed, tool closed and pulling the lifting lever all the way back.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted



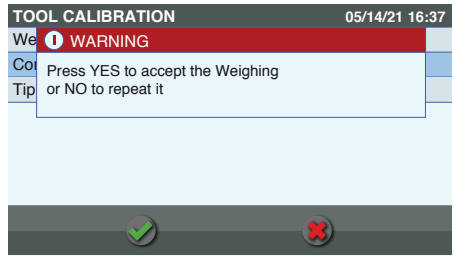


The calibration is now getting to the end



The calibration has been successful, press the key to exit

With the key, at any moment during the calibration process, you can escape the NEW calibration leaving the current one untouched



At each lift you are requested to accept the weighing or repeat it in case you come aware of a false lift.

Press the key to confirm

With the key, the Calibration Parameters are reset to default

DYN+ Calibration Test

After the Complete Calibration is done with the same weight loaded into the tool, maximum weight, try weighing several times at low, medium and high lifting speed to check if the weight difference remains within one scale interval (e).
If not, consider always the weight given at low speed as your reference weight and decrease the Sensor 2 gain (S2G) if the weight at high speed is bigger, viceversa increase the Sensor 2 Gain (S2G) if the weight is smaller. Consider the Sensor 2 Gain change as 0,1000 each time and do weighing trials until you find the correct weight.

Repeat the same with the tool fully empty.

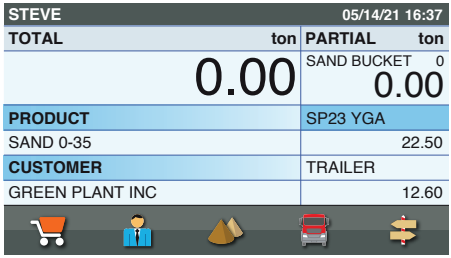
The Sensor 2 Gain change is performed when the Device was not able to automatically save the correct value during the Complete Calibration process.

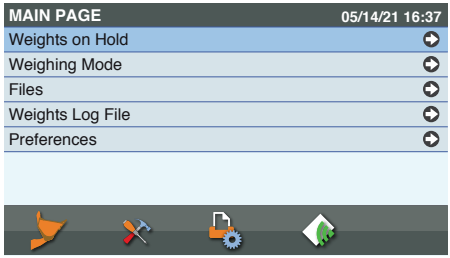
Press the key to make the Zero with tool empty

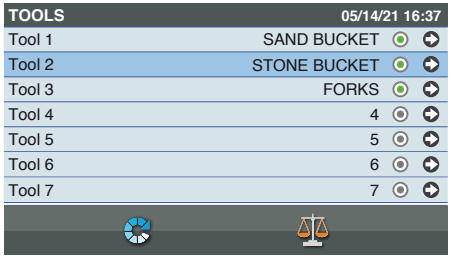
Press the key to enter the Main Page

Press the key to enter Tools

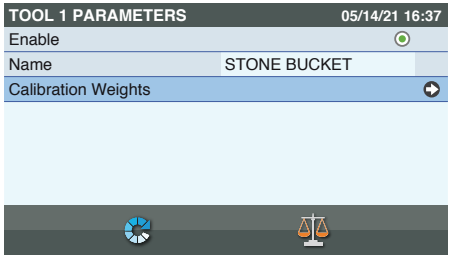
Enter the item







Enter the item

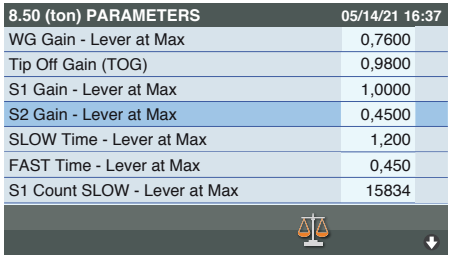


Enter the item

These are part of the gains and parameters the Tool automatically saves after the calibration.

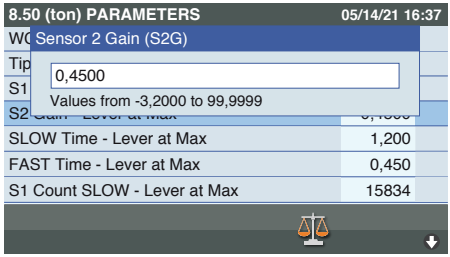
OK

Select the item and press the key to change its value



OK

Enter the value and press the key



USED FOR

Repeat now the same test but with the Tool empty, changing the S2 gain on the 0.00 weight if necessary

Once validated that the weight at different lifting speed differs one scale interval, it is then a good manner to weigh a bulk of material and compare it with an other weighing system such as a weighing bridge or weighing platform in order to fine tune the calibration with the Weight Correction Calibration seen in the previous chapter.
As explained in that chapter it is better to use as a weight result the sum of three total loads of a truck, as an example,
in this way the error will be averaged out.

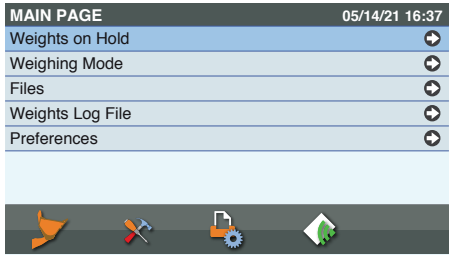
IMPORTANT: at this stage load the vehicle or container with the maximum capacity of the tool as you did during the calibration process. This is because the calibration in this machine may not be linear and therefore there will be the need to add extra Calibration Weights as we will see in the next chapter.

DYN+ Calibration Parameters

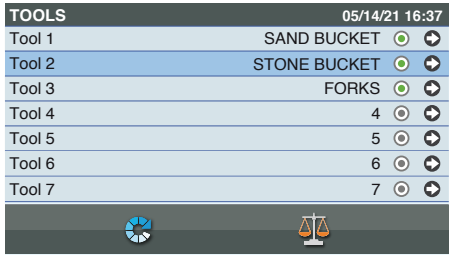
These are the DYN+ Calibration Parameters found in each Calibration Weight so created, Zero (0.00), Max. Weight and intermediate weights created when necessary.

Press the key to enter the Main Page

Press the key to enter Tools



Enter the item



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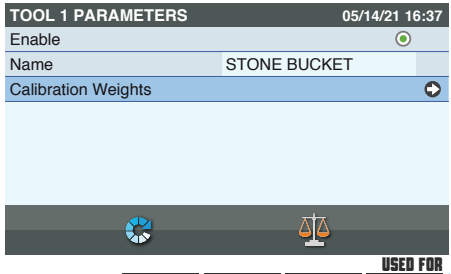
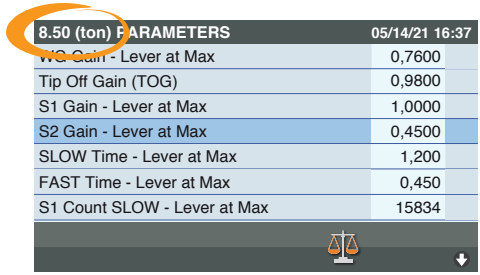


Here after are the parameters in each Calibration Weight

OK

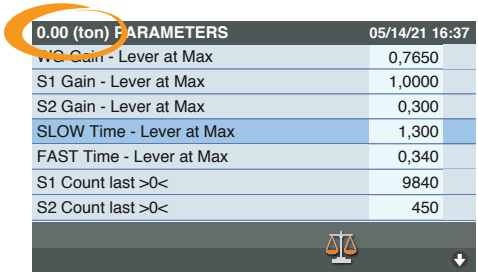
Enter the value



WEIGHT PARAMETERS		
PARAMETER	MEANING	MODIFY
WG Gain	Weight Gain factor. It changes the overall weight result	Automatic with Weight Correction and Complete calibrations
Tip Off Gain	Tip Off Gain factor. It changes the unloaded weight result while tipping off	Automatic with Complete or Tip Off calibration
S1 Gain	Sensor 1 (green) Gain factor. It changes just the S1 weight result	Do not modify
S2 Gain	Sensor 2 (blue) Gain factor. It changes just the S2 weight correcting the result with different lifting speeds	Automatic with Complete Calibration or manually modified
SLOW TIme	Weighing Time of the slow lift during calibration	Do not modify
FAST Time	Weighing Time of the fast lift during calibration	Do not modify
S1 Count SLOW	Sensor 1 signal with the slow lift	Do not modify
S2 Count SLOW	Sensor 2 signal with the slow lift	Do not modify
S1 Count FAST	Sensor 1 signal with the fast lift	Do not modify
S2 Count FAST	Sensor 2 signal with the fast lift	Do not modify
MIN Weighing Time (sec.)	Minimum Weighing Time which means the fastest lift that can be done	Modify to reduce the fast lift speed
MAX Weighing Time (sec.)	Maximum Weighing Time which means the slowest lift that can be done	Modify to increase the slow lift speed

USED FOR

Here after are the parameters of the Zero Calibration (0.00)



ZERO PARAMETERS		
PARAMETER	MEANING	MODIFY
WG Gain	Weight Gain factor. It changes the overall weight result	Automatic with Weight Correction and Complete calibrations
S1 Gain	Sensor 1 (green) Gain factor. It changes just the S1 weight result	Do not modify
S2 Gain	Sensor 2 (blue) Gain factor. It changes just the S2 weight correcting the result with different lifting speeds	Automatic with Complete Calibration or manually modified
SLOW TIme	Weighing Time of the slow lift during calibration	Do not modify
FAST Time	Weighing Time of the fast lift during calibration	Do not modify
S1 Count last >0<	Sensor 1 signal of the last Zero at Empty (>0<)	Do not modify
S2 Count last >0<	Sensor 2 signal of the last Zero at Empty (>0<)	Do not modify
S1 Count FAST	Sensor 1 signal with the fast lift	Do not modify
S2 Count FAST	Sensor 2 signal with the fast lift	Do not modify
MIN Weighing Time (sec.)	Minimum Weighing Time which means the fastest lift that can be done	Modify to reduce the fast lift speed
MAX Weighing Time (sec.)	Maximum Weighing Time which means the slowest lift that can be done	Modify to increase the slow lift speed

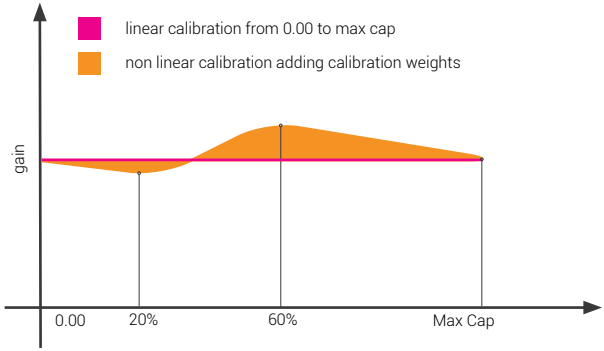
DYN+ Adding Calibration Weights

Adding a Calibration Weight is necessary when the calibration from Zero (0.00) to the Max Weight is not linear.

HOW TO DISCOVER IF YOU NEED AN EXTRA CALIBRATION WEIGHT:
load an intermediate weight like 50% of the Maximum Capacity and check the weight value on an other weighing system or load a known weight into the tool. You need to know exactly how much weight there is into the tool.

Repeat the same with a load 20% of the Maximum Capacity.

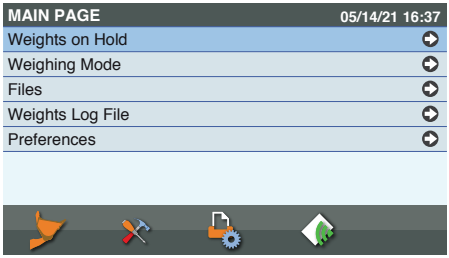
If you find a discrepancy of more than one scale interval you may attempt to add the Calibration Weight, with the same weight you have tested with. This Calibration point as seen before into the parmaters description has its own parameters like Weighing Times that can be adjusted just for it.



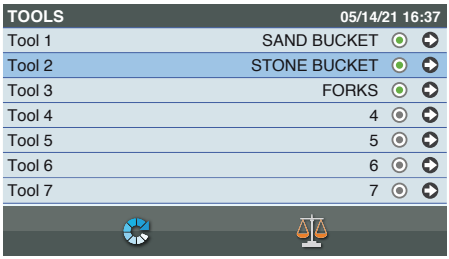
Press the key to enter the Main Page

USED FOR

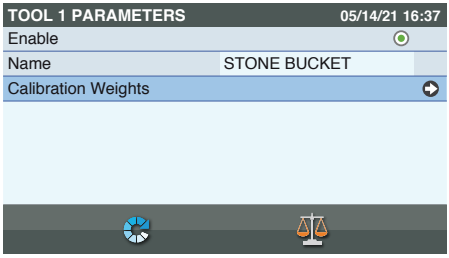
Press the key to enter Tools



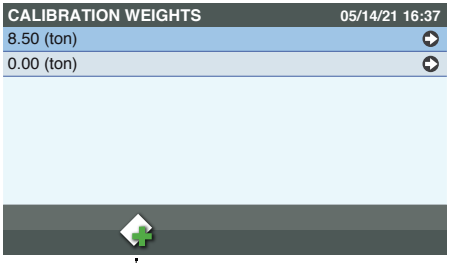
Enter the item

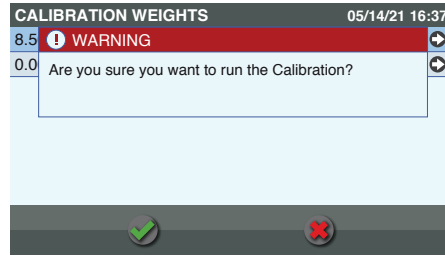


Enter the item

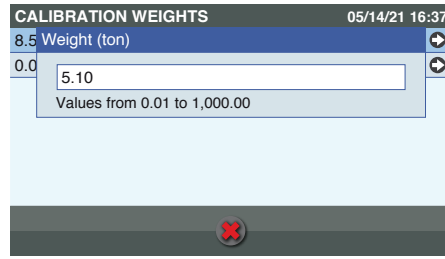


Press the key to add a Calibration Weight





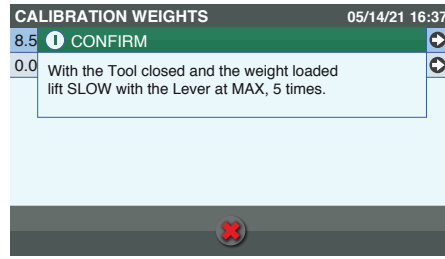
Confirm your choice



OK

Enter the true value of the new Calibration Weight and press the key

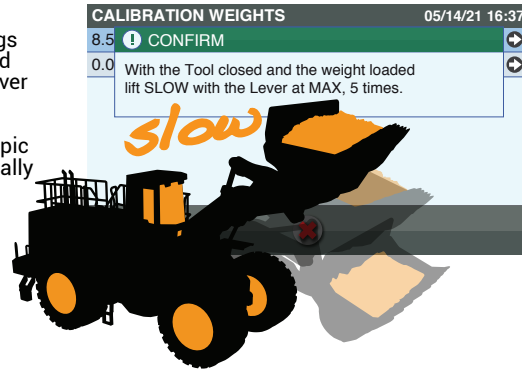
Answer Yes if the Zero at Empty was not done before most likely when you are not adding the Calibration Weight after a calibration



Answer No when the Zero at Empty was just done and the Weight is already loaded.

The Calibration continues with load.

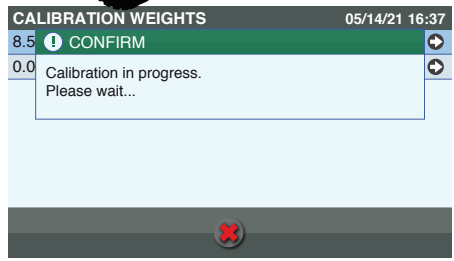
With the Tool loaded perform now 5 weighings at low speed, tool closed and pulling the lifting lever all the way back.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted



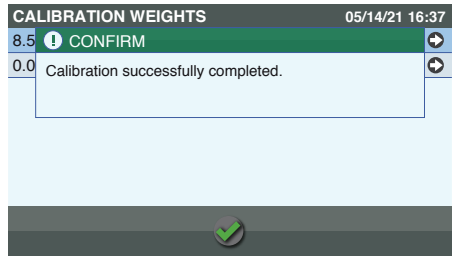
USED FOR

Keeping the Tool loaded perform now 5 weighings at high speed, tool closed and pulling the lifting lever all the way back.
In case of a telescopic loader bring the telescopic boom into position, usually fully retracted

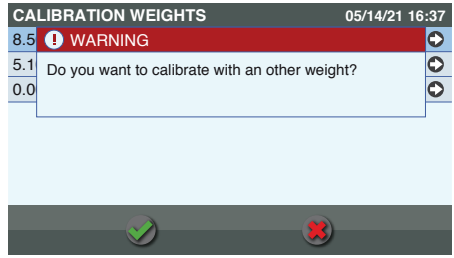
The calibration is now getting to the end



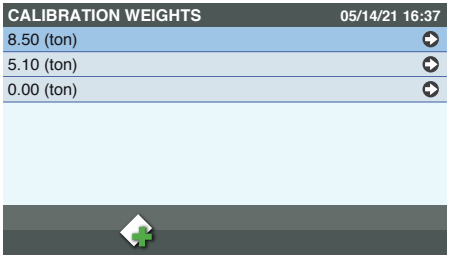
The calibration has been successful, press the key to exit



Make your choice if you are prepared to calibrate for another intermediate weight

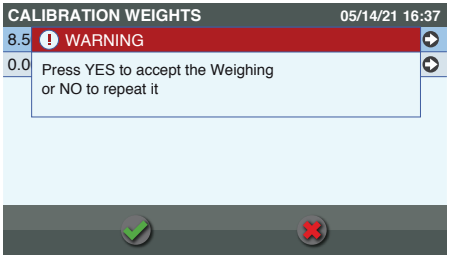


USED FOR



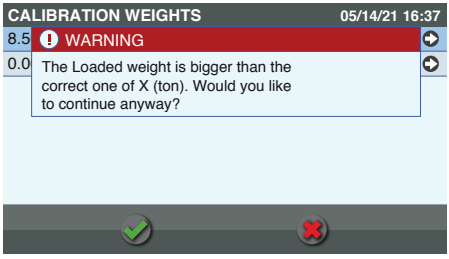
As you can see the Intermediate weight for which you have calibrated is added into the list of Calibration Weights

With the key, at any moment during the calibration process, you can escape the NEW calibration leaving the current one untouched



At each lift you are requested to accept the weighing or repeat it in case you come aware of a false lift.

Press the key to confirm



This message might appear after the first lift. Confirm to continue because this is the reason why you are calibrating, weights calibration is not linear

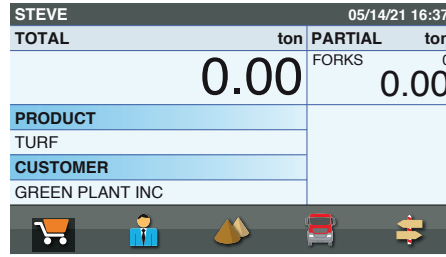
SPEED Calibration

SPEED Calibration presumes that the Weighing Software selected into the Weighing Preferences is SPEED. It is performed in those machines where there is a boom lifting the tool with only the main pressure into the cylinder without return line. This is typical of a fork lift truck. Weighing is triggered at a certain position of the lifting, dynamically and without stopping the lifting maneuver.
SPEED calibration works on three different speeds of lifting reading the time elapsed between the two weighing zone sensors.
It is implied that the calibration must be performed in the same way the Weighing Procedure have been described above for each application or machine type.

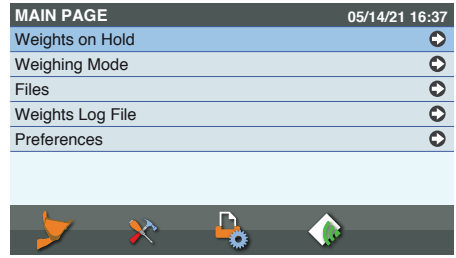
Complete Calibration

Complete Calibration is performed at installation or anytime weighing is not consistent. You have to load into the tool a weight which value is known or near the true value you will enter into the calibration.

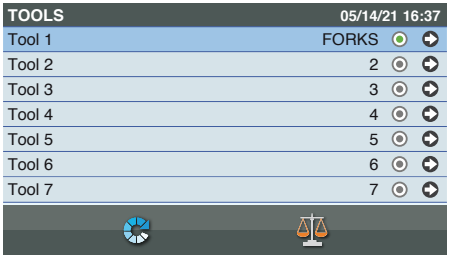
Press the key to enter the Main Page



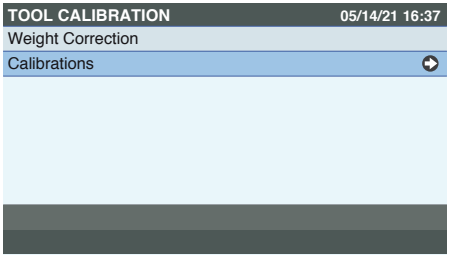
Press the key to enter Tools



Select the tool where you want to perform the calibration and press the key to enter Calibration

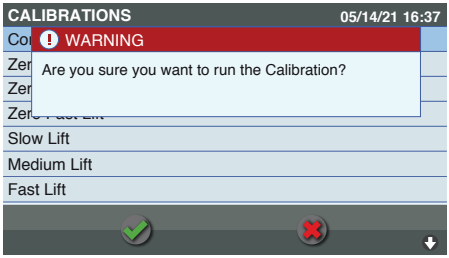


Enter the item

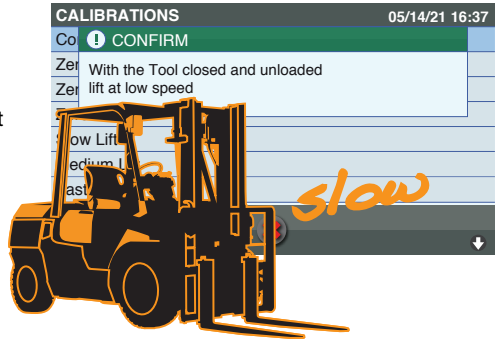


Press the key to start

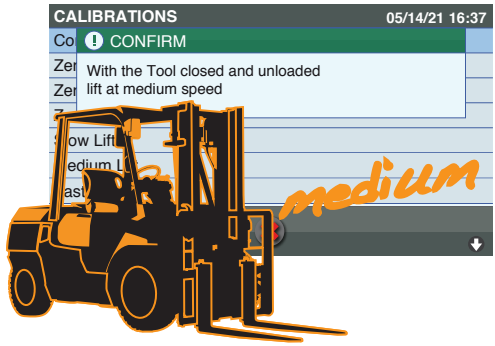
Confirm your choice



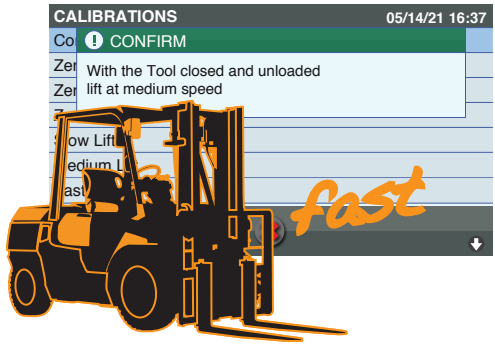
Empty the Tool and perform a weighing at LOW speed and mast in the weighing position.
Low speed on a diesel forklift truck means without operating on the gas pedal, while on an electric forklift pulling the lifting lever a a little back



Keep the tool empty and lift now at MEDIUM speed. Consider that medium speed means a little more than slow not the real medium speed of the forklift

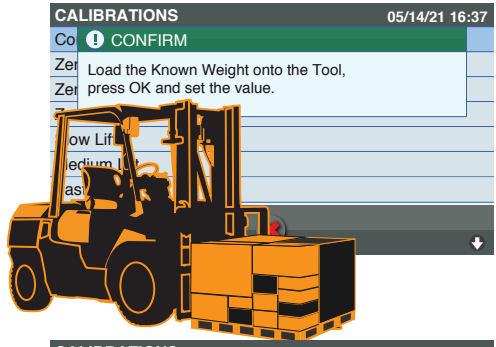


Keep the tool empty and lift now at FAST speed. Consider that fast speed means a little more than medium not the real highest speed of the forklift.



OK

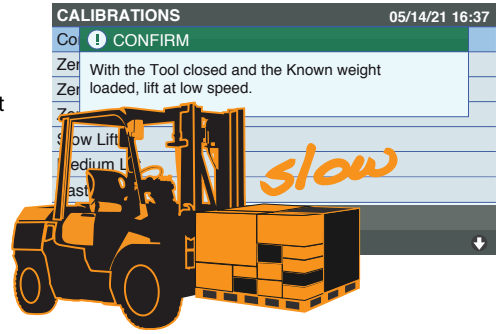
Load the Tool at Maximum Capacity and press the key



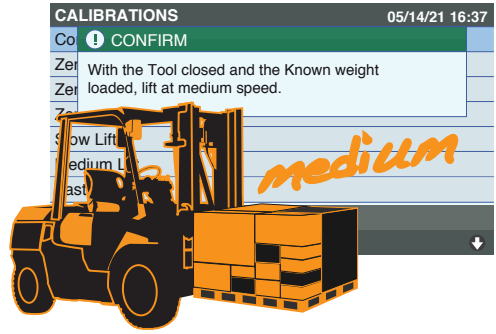
OK

Enter the Known Weight value and press the key

Perform a weighing at LOW speed and mast in the weighing position.
Low speed on a diesel forklift truck means without operating on the gas pedal, while on an electric forklift pulling the lifting lever a little back

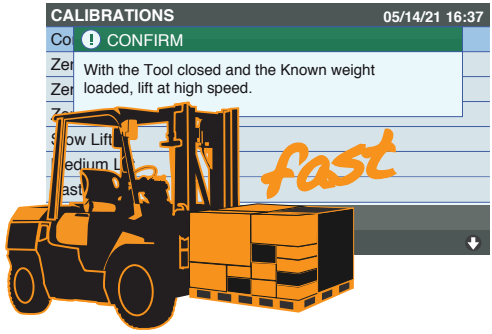


Perform a weighing at MEDIUM speed and mast in the weighing position.
Consider that medium speed means a little more than slow not the real medium speed of the forklift

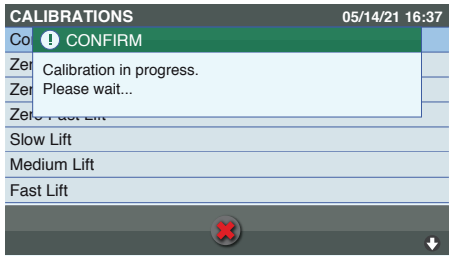


USED FOR

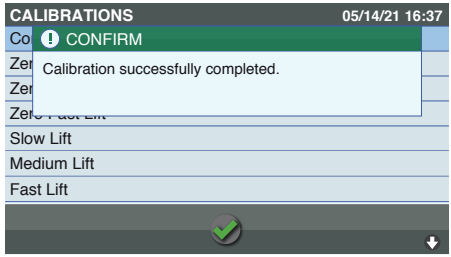
Perform a weighing at FAST speed and mast in the weighing position. Consider that fast speed means a little more than medium not the real highest speed of the forklift.



The calibration is now getting to the end



The calibration has been successful, press the key to exit



With the key, at any moment during the calibration process, you can escape the NEW calibration leaving the current one untouched

With the key, the Calibration Parameters are reset to default

SPEED Calibration Test

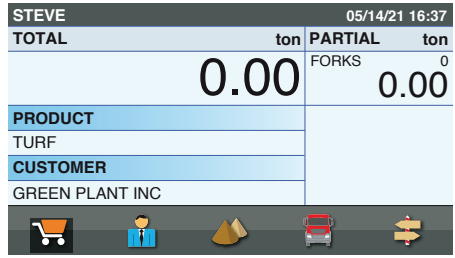
After the Complete Calibration is done with the same weight loaded into the tool try weighing several times at low, medium and high lifting speed to check if the weight difference remains within one scale interval (e).
If not, consider always the weight given at low speed as your reference weight and adjust the Time of the Low and or Fast lift in order to shorten your weighing window.
In alternative repeat the complete calibration.

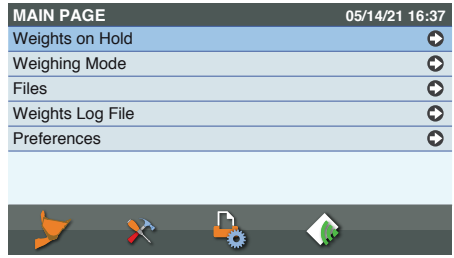
Press the key to make the Zero with tool empty

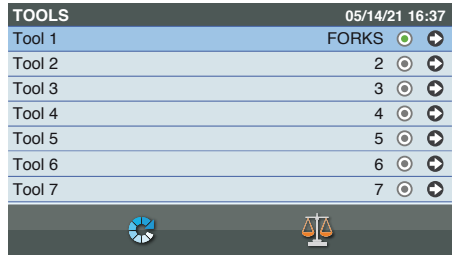
Press the key to enter the Main Page

Press the key to enter Tools

Enter the item

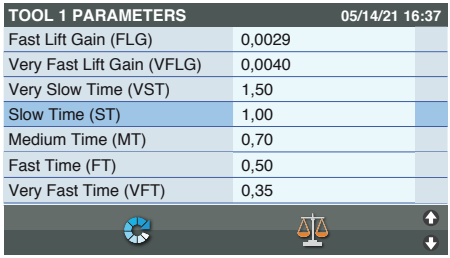




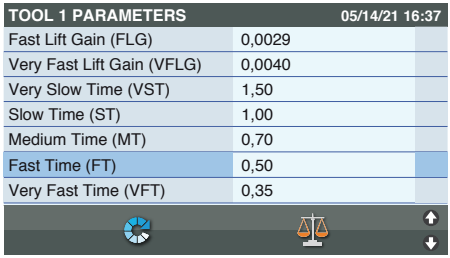


These are the Tool's parameters automatically saved after the calibration.

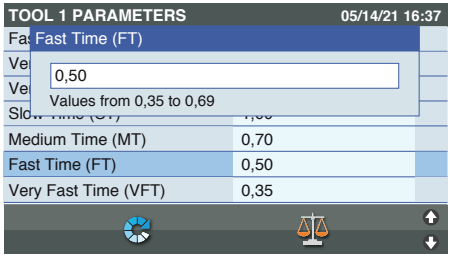
Select the item and press the key to change its value in case you want to decrease the value in order not to weigh as slow as with calibration



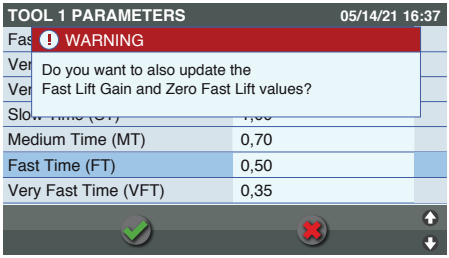
Select the item and press the key to change its value in case you want to increase the value in order not to weigh as fast as with calibration



Enter the value and press the key



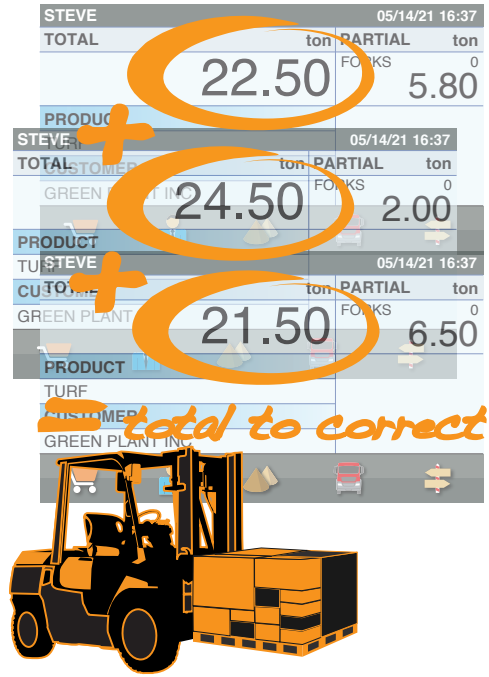
When changing the Fast Time its related Gain and Zero at Empty signal are changed automatically by confirming the choice



Confirm your choice

Do not confirm. Used when you reprogram the parameters' values

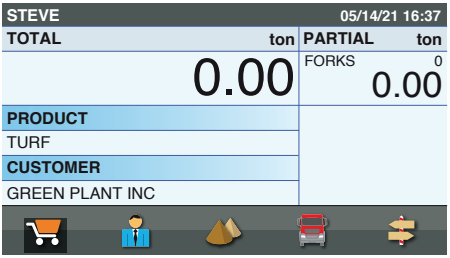
Once validated that the weight at different lifting speed differs one scale interval, it is then a good manner to weigh a bulk of material and compare it with an other weighing system such as a weighing bridge or weighing platform in order to fine tune the calibration with the Weight Correction Calibration seen in the previous chapter.
As explained in that chapter it is better to use as a weight result the sum of three total loads of a truck, as an example,
in this way the error will be averaged out



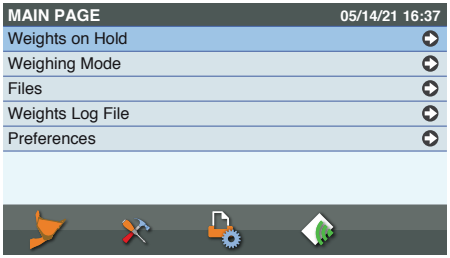
SPEED Calibration Parameters

These are the SPEED Calibration Parameters found into the Tool.

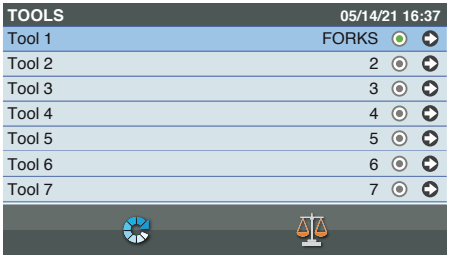
Press the key to enter the Main Page



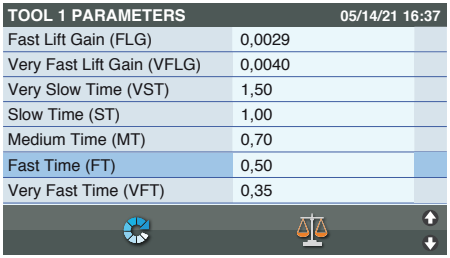
Press the key to enter Tools



Enter the item



Enter the value



PARAMETER	MEANING	MODIFY
Very Slow Lift Gain (VSLG)	Weight Gain factor for lifts with slower speed than Low speed	Automatic with Weight Correction and Complete calibrations
Slow Lift Gain (SLG)	Weight Gain factor for lifts with Low speed. It influences the weight result of lifts performed on other speeds as well	Automatic with Weight Correction and Complete calibrations or manually decreased
Medium Lift Gain (MLG)	Weight Gain factor for lifts with Medium speed	Automatic with Complete calibration
Fast Lift Gain (FLG)	Weight Gain factor for lifts with Fast speed	Automatic with Complete Calibration or manually increased
Very Fast Lift Gain (VFLG)	Weight Gain factor for lifts with higher speed than Fast speed	Automatic with Complete calibration
Very Slow Time (VST)	Weighing Time bigger than the Slow lift during calibration	Do not modify
Slow Time (ST)	Weighing Time of the Slow lift during calibration	Decrease if necessary
Medium Time (MT)	Weighing Time of the Medium lift during calibration	Do not modify
Fast Time (FT)	Weighing Time of the Fast lift during calibration	Increase if necessary
Very Fast Time (VFT)	Weighing Time smaller than the Fast lift during calibration	Do not modify
Zero Very Slow Lift (ZVSL)	Sensor's signal without weight	Do not modify
Zero Slow Lift (ZSL)	Sensor's signal without weight	Do not modify
Zero Medium Lift (ZML)	Sensor's signal without weight	Do not modify
Zero Fast Lift (ZFL)	Sensor's signal without weight	Do not modify
Zero Very Fast Lift (ZVFL)	Sensor's signal without weight	Do not modify
Zero Medium Time (ZMT)	Zero at Empty weighing time of the Medium lift	Do not modify
Tip Off Gain (TOG)	Tip Off Gain factor. It changes the unloaded weight result while tipping off	Automatic with Complete or Tip Off calibration

USED FOR

STA Calibration

Material Handler

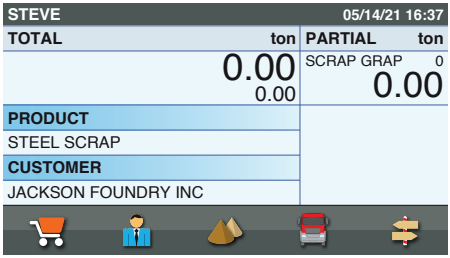
STA Calibration presumes that the Weighing Software selected into the Weighing Preferences is STA. It is performed in those machines where weighing is static, with a lifting boom it means stopping it in one precise position or not depending on the application. In this section we consider the Material Handler application with the GR2 (load cell type) and the Truck Weighing application with chassis weighing because both applications do not have a precise weighing point.
It is implied that the calibration must be performed in the same way the Weighing Procedure have been described above for each application or machine type.

Complete Calibration

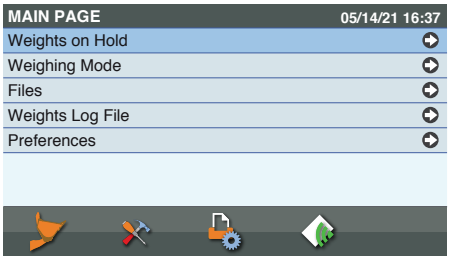
Material Handler

Complete Calibration is performed at installation or anytime weighing is not consistent. You have to load into the tool a weight which value is known or near the true value you will enter into the calibration.

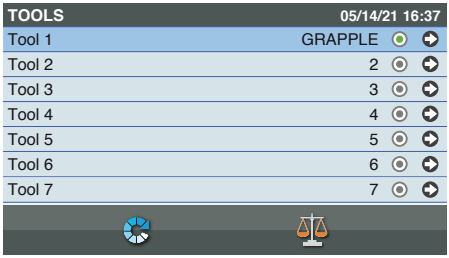
Press the key to enter the Main Page



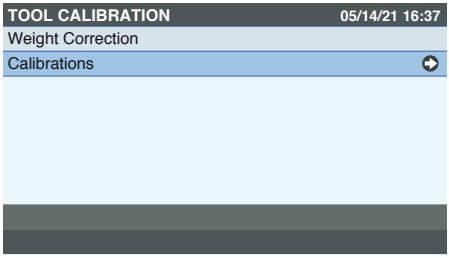
Press the key to enter Tools



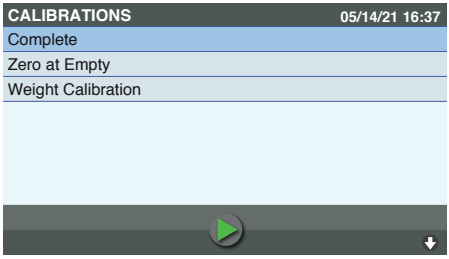
Select the tool where you want to perform the calibration and press the key to enter Calibration



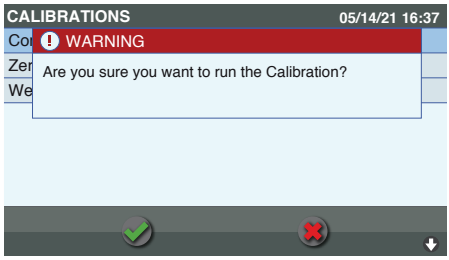
Enter the item



Press the key to start

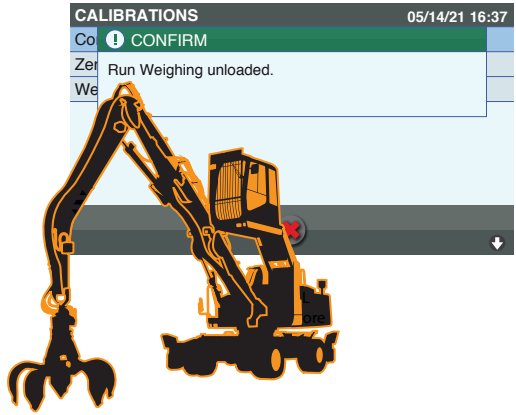


Confirm your choice



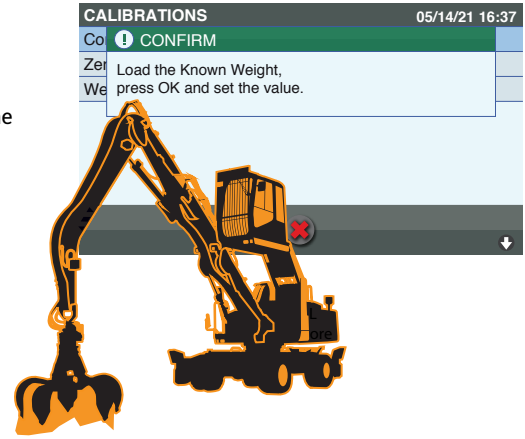
OK

Empty the Tool and lift it from the ground.
Press the key to confirm weighing



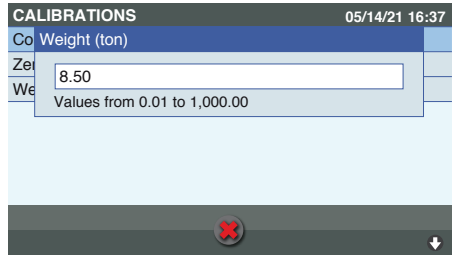
OK

Load the material into the Tool and press the key



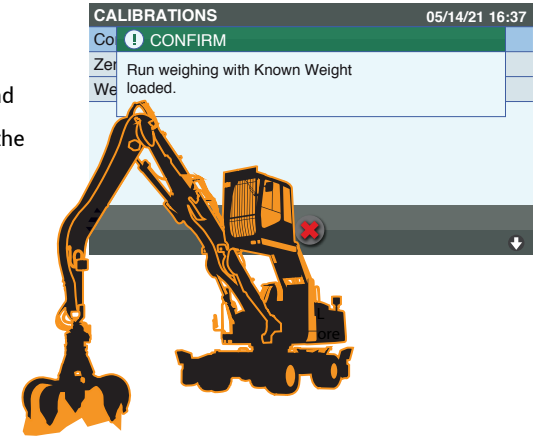
OK

Enter the Known Weight value and press the key

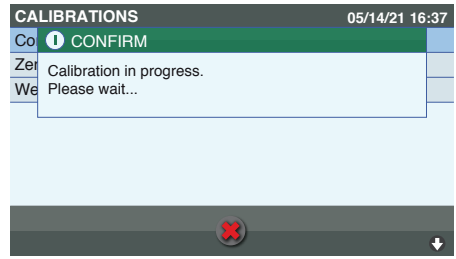


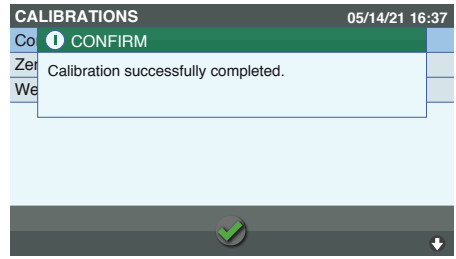
OK

With the Tool loaded and lifted from the ground confirm weighing with the key



The calibration is now getting to the end





The calibration has been successful, press the key to exit

With the key, at any moment during the calibration process, you can escape the NEW calibration leaving the current one untouched

With the key, the Calibration Parameters are reset to default

USED FOR

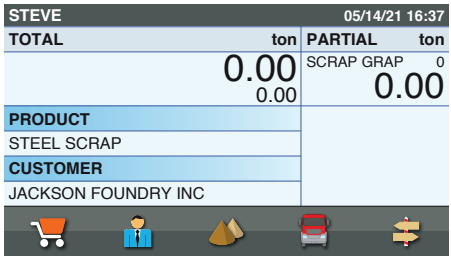
STA Calibration Test

After the Complete Calibration is done with the same weight loaded into the tool try weighing several times to check stability in the result.
If you find a certain stability but the weight is always off for more than one scale interval (e), perform first the Zero at Empty and then load the weight again. If you still find a discrepancy with the true value, perform the Weight Correction Calibration as explained in the previous chapter.

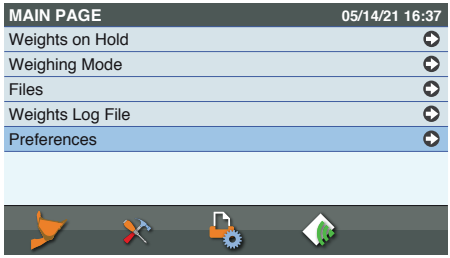
While picking a load and weighing the weight result may differ from the true value because of the speed of loading and swinging; two parameters can be adjusted to cope with the speed of loading and weight accuracy. These parameters are found in Weighing Preferences.

Press the key to make the Zero with tool empty

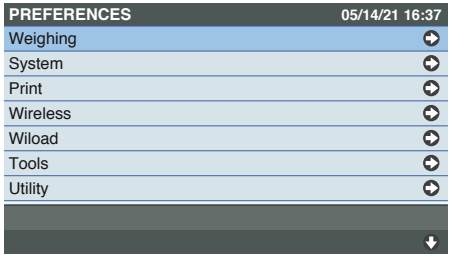
Press the key to enter the Main Page



Enter the item



Enter the item

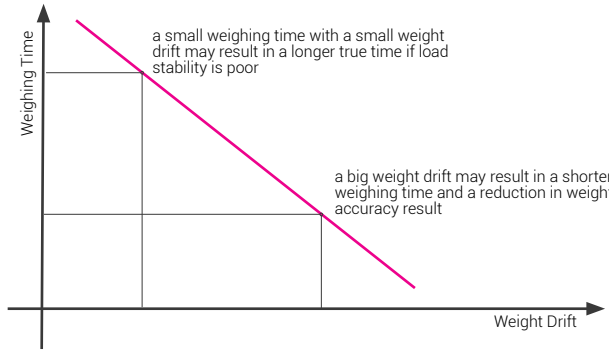


Press the key to increase the value which increases the weighing time and result accuracy.
Decreasing the value not necessarily decreases the weighing time because it depends from the next parameter as well

WEIGHING	05/14/21 16:37
Weighing Software	STA
No. of Weight Sensors	1
Sensor 2 Compatibility	Mill5/HelperX
MIN Weighing Time (sec.)	0,2
MAX Weighing Time (sec.)	2,0
Extended Weighing Time (sec.)	0,0
Maximum Weight Drift	0.02

Press the key to increase the value which decreases the weighing time and result accuracy.
Decreasing the value increases the weighing time because more weight stability is like this required

WEIGHING	05/14/21 16:37
Weighing Software	STA
No. of Weight Sensors	1
Sensor 2 Compatibility	Mill5/HelperX
MIN Weighing Time (sec.)	0,2
MAX Weighing Time (sec.)	2,0
Extended Weighing Time (sec.)	0,0
Maximum Weight Drift	0.02

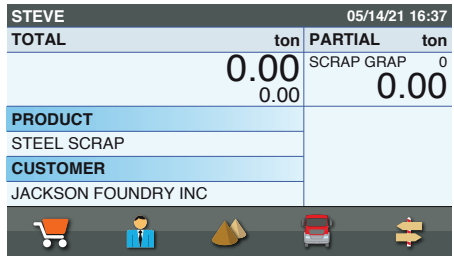


ADVISE
Max Weighing Time = 2secs
Max Weight Drift = 3x Scale Interval (e).
Decrease Weight Drift = Increase weighing time and weight accuracy result
Increase Weight Drift = Decrease weighing time and weight accuracy result

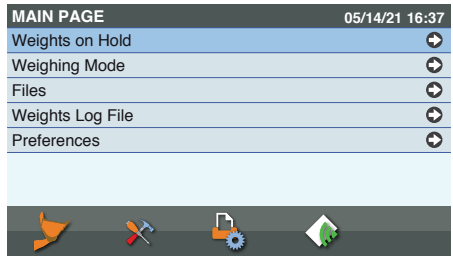
USED FOR

These are the STA Calibration Parameters found into the Tool.

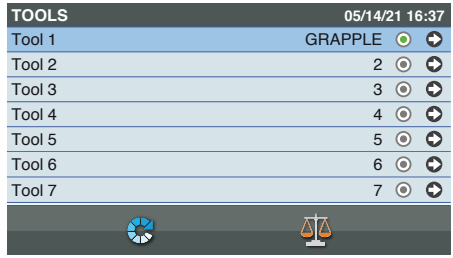
Press the key to enter the Main Page



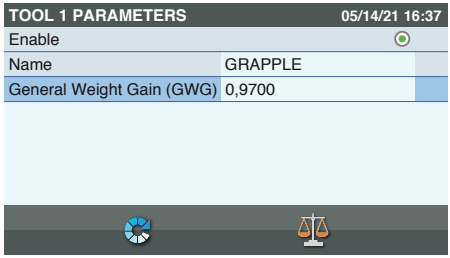
Press the key to enter Tools



Enter the item



OK Enter the value



PARAMETER	MEANING	MODIFY
General Weight Gain (GWG)	Weight Gain factor. It changes the weight result	Automatic with Weight Correction or Complete calibrations

STA Calibration

Truck Chassis Weighing

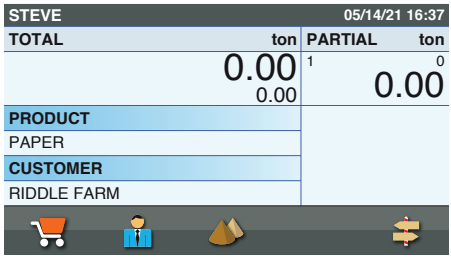
STA Calibration presumes that the Weighing Software selected into the Weighing Preferences is STA and it can't be anything else on a truck chassis weighing.
It is implied that the calibration must be performed in the same way the Weighing Procedure have been described above within the How to Weigh chapter.

Complete Calibration

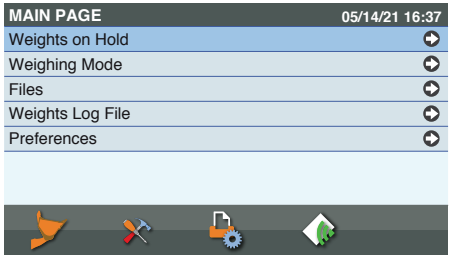
Truck Chassis Weighing

Complete Calibration is performed at installation or anytime weighing is not consistent. You have to load into the truck's body a weight which value is known.

Press the key to enter the Main Page



Press the key to enter Tools

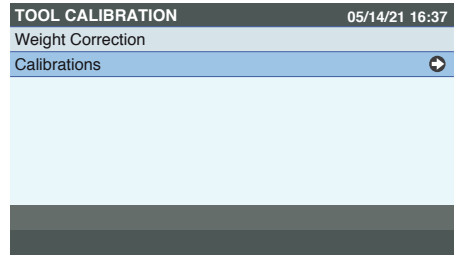


On a truck the tool represent the body therefore you will have just one tool, Tool 1.

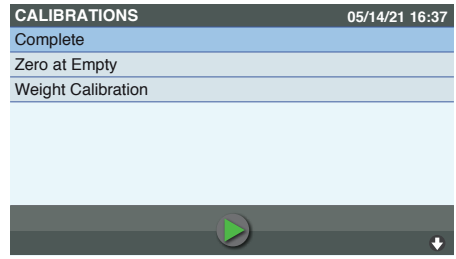
Press the key to enter Calibration

USED FOR

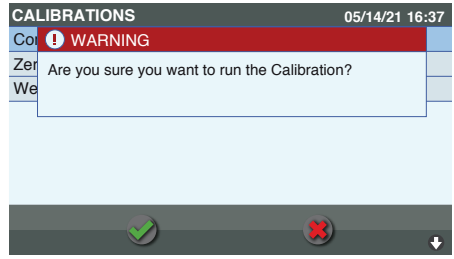
Enter the item



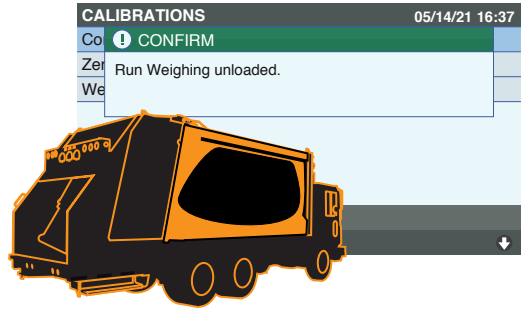
Press the key to start



Confirm your choice



With the Truck empty press the key to confirm weighing



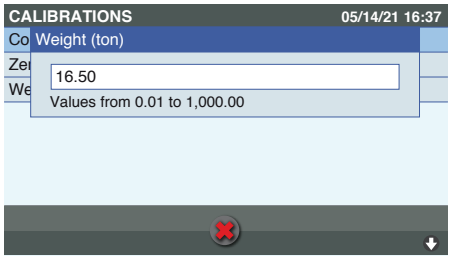
USED FOR

OK

Load the truck to its maximum capacity or at least 80% and press the key

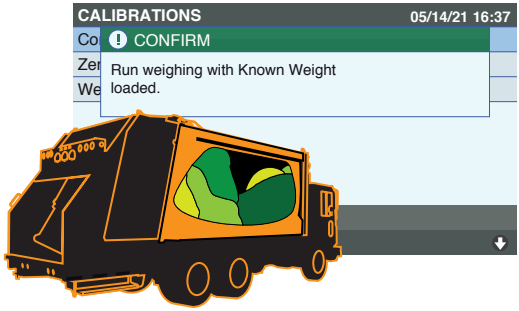
OK

Enter the Known Weight value and press the key

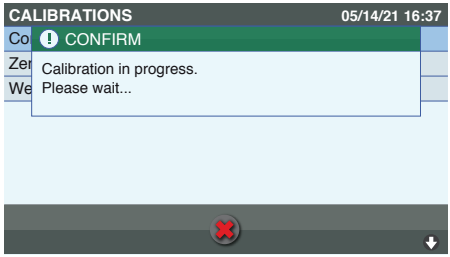


OK

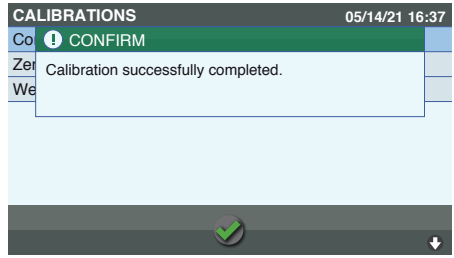
With the Truck so loaded press the key to confirm weighing



The calibration is now getting to the end



USED FOR



The calibration has been successful, press the key to exit

With the key, at any moment during the calibration process, you can escape the NEW calibration leaving the current one untouched

With the key, the Calibration Parameters are reset to default

USED FOR

STA Calibration Test

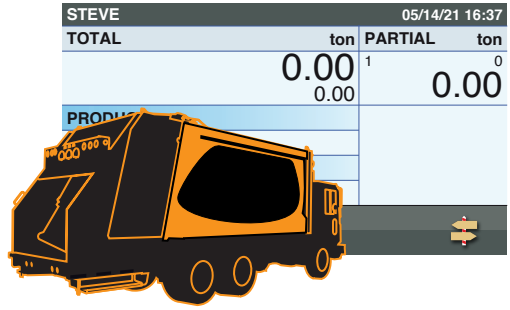
Truck Chassis Weighing

After the Complete Calibration is done with the same weight loaded into the truck body try weighing few times to check stability in the result.
If you find a certain stability but the weight is always off for more than one scale interval (e), perform first the Zero at Empty and then load the weight again. If you still find a discrepancy with the true value, perform the Weight Correction Calibration as explained in the previous chapter.

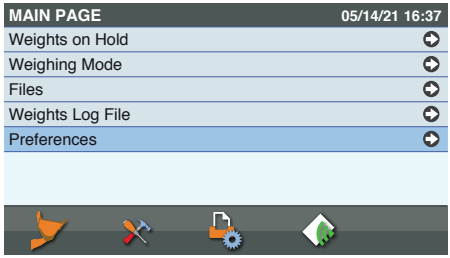
In case the truck is of waste collection type and the compactor can't be stopped while weighing, in order to have a certain stability of the weight, some parameters should be set accordingly to the kind of disturbances present while weighing. These parameters are found in Weighing Preferences.

Press the key to make the Zero with truck empty

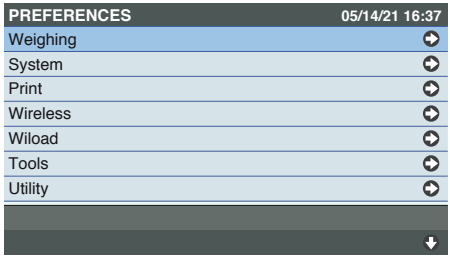
Press the key to enter the Main Page



Enter the item



Enter the item



USED FOR

Press the key to increase the value which increases the weighing time and result accuracy.

WEIGHING	05/14/21 16:37
Weighing Software	STA
No. of Weight Sensors	1
Sensor 2 Compatibility	Mill5/HelperX
MIN Weighing Time (sec.)	0,2
MAX Weighing Time (sec.)	2,0
Extended Weighing Time (sec.)	0,0
Maximum Weight Drift	0.02

Press the key to increase the value which decreases the weighing time and result accuracy.
It's setting depends from the amplitude of the disturbances the compactor creates while loading

WEIGHING	05/14/21 16:37
Weighing Software	STA
No. of Weight Sensors	1
Sensor 2 Compatibility	Mill5/HelperX
MIN Weighing Time (sec.)	0,2
MAX Weighing Time (sec.)	2,0
Extended Weighing Time (sec.)	0,0
Maximum Weight Drift	0.02

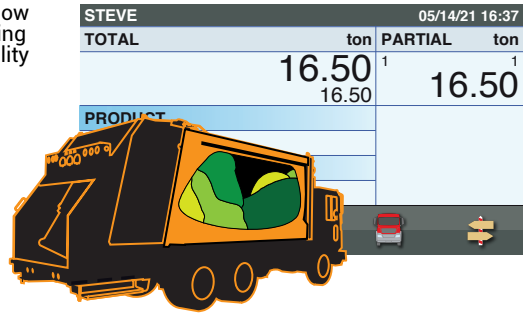
Press the key to increase the value which increase weighing stability based on redundant disturbances.
If these disturbances are changing randomly this filter would not help much

WEIGHING	05/14/21 16:37
Obligatory Zero at Empty	No
Automatic Totalising	Yes
Tip Off	No
Warm up Liftings	No
Ticket Number	A3470
Software Update	
STA Digital Filter	120

ADVISE
Max Weighing Time = 4secs
Max Weight Drift = 3x Scale Interval (e).
STA Digital FIlter = 120

USED FOR

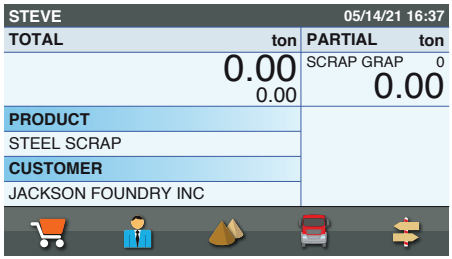
With new settings load now the truck and test weighing results. If weighing stability is good but the result is more than one scale interval when compared with the true value perform the Weight Correction calibration as seen in the previous chapter



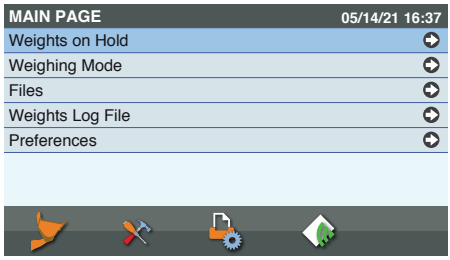
USED FOR

These are the STA Calibration Parameters found into the Tool.

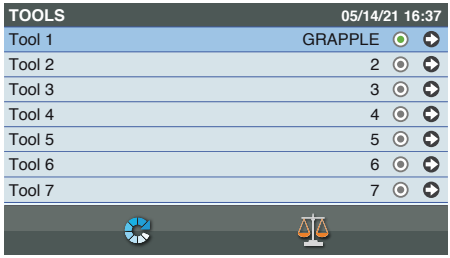
Press the key to enter the Main Page



Press the key to enter Tools

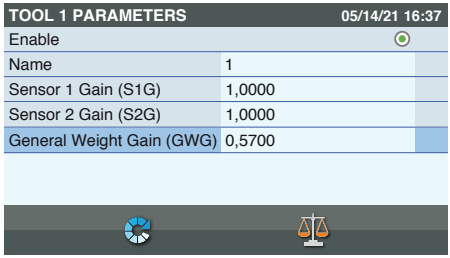


Enter the item



USED FOR

OK Enter the value



PARAMETER	MEANING	MODIFY
S1 Gain	Sensor 1 (green) Gain factor. It changes just the S1 weight result	Do not modify. Present only when the load cells on the right side are connected to S1 connector
S2 Gain	Sensor 2 (blue) Gain factor. It changes just the S2 weight result	Do not modify Present only when the load cells on the left side are connected to S2 connector
General Weight Gain (GWG)	Weight Gain factor. It changes the overall weight result	Automatic with Weight Correction or Complete calibrations

AUTOSTA Calibration

AUTOSTA Calibration presumes that the Weighing Software selected into the Weighing Preferences is AUTOSTA. AUTOSTA Weighing is performed in those machines like the Reach Stacker where there is a boom lifting the tool and weighing is triggered at a certain position of the lifting, statically, which means stopping the lifting maneuver.
IMPORTANT: The calibration must be performed with the reach stacker always in the same position, therefore bring the container at reach.
It is implied that the calibration must be performed in the same way the Weighing Procedure have been described above for each application or machine type.

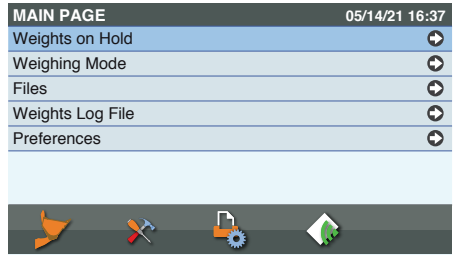
Complete Calibration

Reach Stacker

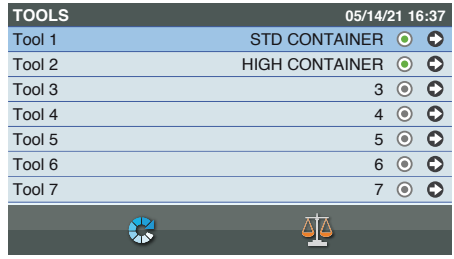
Complete Calibration is performed at installation or anytime weighing is not consistent. You have to load a container which weight value is known.

Press the key to enter the Main Page

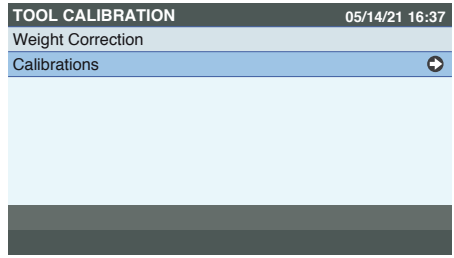
Press the key to enter Tools



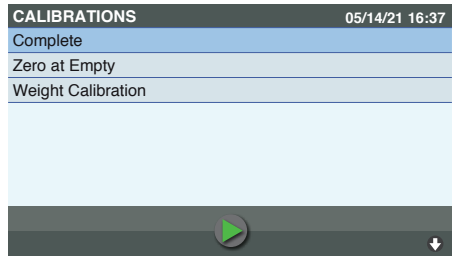
Select the tool where you want to perform the calibration, as an example for Standard Container press the key to enter Calibration



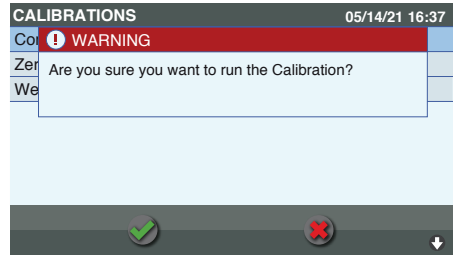
Enter the item



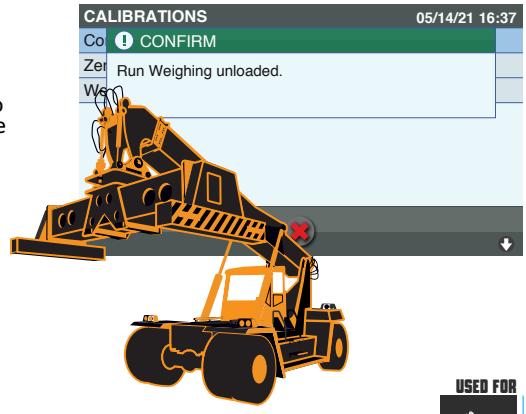
Press the key to start



Confirm your choice



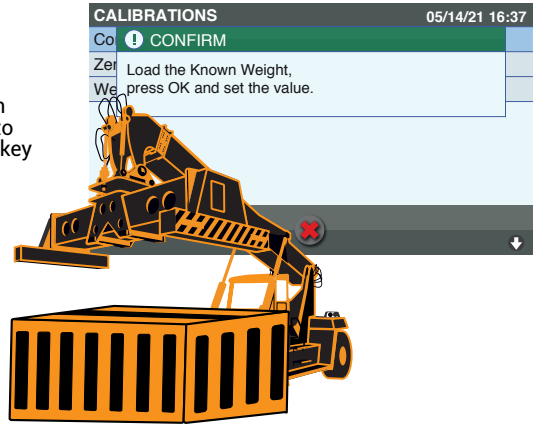
Without container and the telescopic boom into position, slowly lift to the weighing position and STOP there.



USED FOR

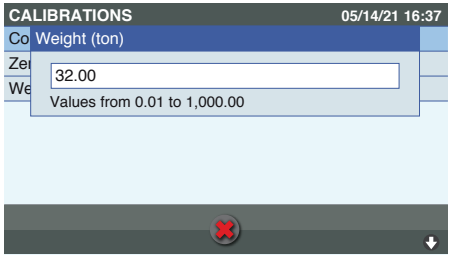
OK

Load the container, with the telescopic boom into position, and press the key



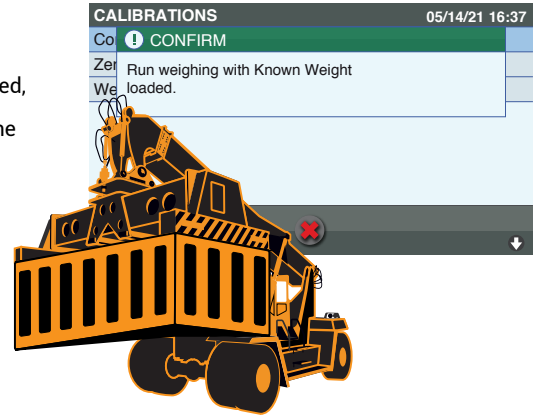
OK

Enter the Container Gross Weight value and press the key

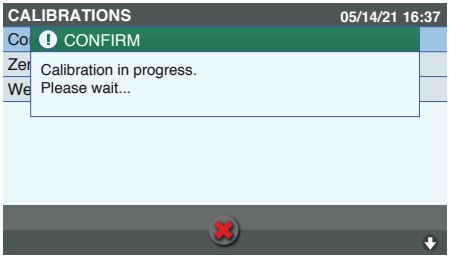


OK

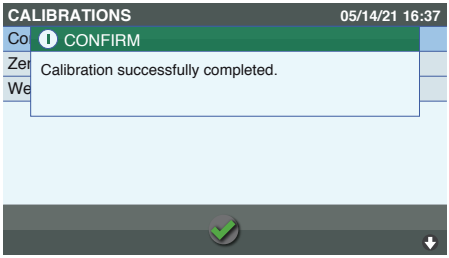
With the container loaded, telescopic boom into position, slowly lift to the weighing position and STOP there



USED FOR



The calibration is now getting to the end



The calibration has been successful, press the key to exit

With the key, at any moment during the calibration process, you can escape the NEW calibration leaving the current one untouched

With the key, the Calibration Parameters are reset to default

SECOND TOOL
You can continue now the calibration on the other Tool with a higher container for which the weighing position will be higher and the telescopic boom outer

AUTOSTA Calibration Test

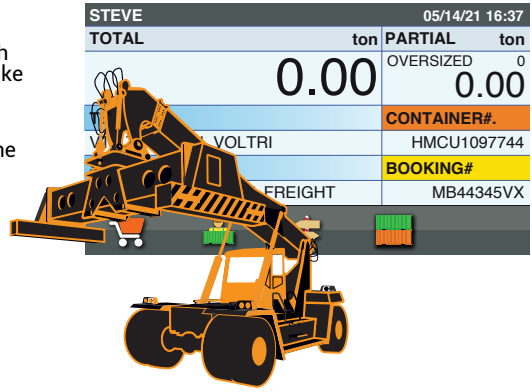
Reach Stacker

After the Complete Calibration is done with the same container loaded try weighing few times to check stability in the result.
If you find a certain stability but the weight is always off for more than one scale interval (e), perform first the Zero at Empty and then load the container again. If you still find a discrepancy with the true value, perform the Weight Correction Calibration as explained in the previous chapter.
IMPORTANT: The test must be performed with the reach stacker always in the same position, therefore just unload the container without moving.

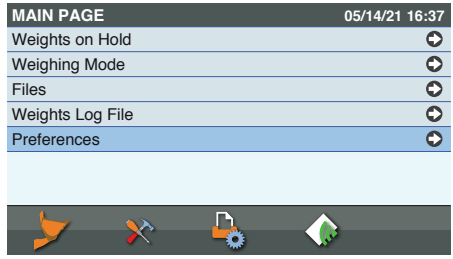
In order to have a certain stability of the weight, some parameters should be set accordingly to the kind of disturbances present while weighing. These parameters are found in Weighing Preferences. It might be that these parameters aren't to be changed from the calibration procedure.

Without container, weigh and press the key to make the Zero

Press the key to enter the Main Page



Enter the item



USED FOR

Enter the item

PREFERENCES	05/14/21 16:37
Weighing	
System	
Print	
Wireless	
Wiload	
Tools	
Utility	

Press the key to increase the value which increases the weighing time and result accuracy.

WEIGHING	05/14/21 16:37
Weighing Software	AUTOSTA
No. of Weight Sensors	1
Sensor 2 Compatibility	Mill5/HelperX
MIN Weighing Time (sec.)	0,2
MAX Weighing Time (sec.)	2,0
Extended Weighing Time (sec.)	0,0
Maximum Weight Drift	0.200

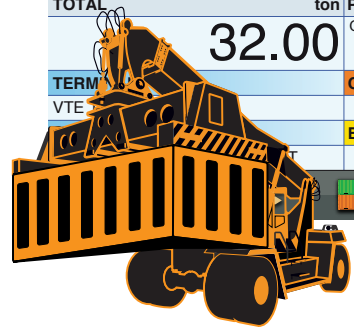
Press the key to increase the value which decreases the result accuracy.
It's setting depends from the amplitude of the disturbances into the oil of the lifting cylinders and how smooth the boom's stop is done

WEIGHING	05/14/21 16:37
Weighing Software	AUTOSTA
No. of Weight Sensors	1
Sensor 2 Compatibility	Mill5/HelperX
MIN Weighing Time (sec.)	0,2
MAX Weighing Time (sec.)	2,0
Extended Weighing Time (sec.)	0,0
Maximum Weight Drift	0.20

ADVISE
Max Weighing Time = 4 secs
Max Weight Drift = 2x Scale Interval (e).

With new settings load now the container and test weighing results. If weighing stability is good but the result is more than one scale interval when compared with the true value perform the Weight Correction calibration as seen in the previous chapter

STEVE	05/14/21 16:37
TOTAL ton	PARTIAL ton
32.00	OVERSIZED 1
	32.00
TERM	CONTAINER#
VTE	HMCU1097744
	BOOKING#
	MB44345VX

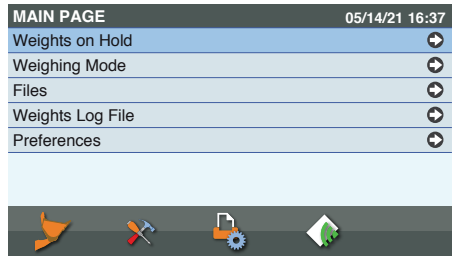


USED FOR

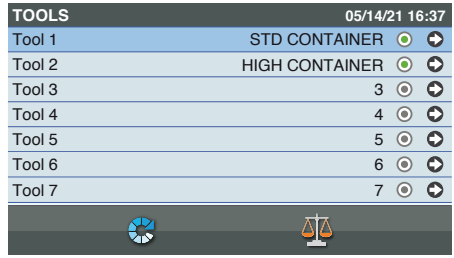
These are the AUTOSTA Calibration Parameters found into the Tool.

Press the key to enter the Main Page

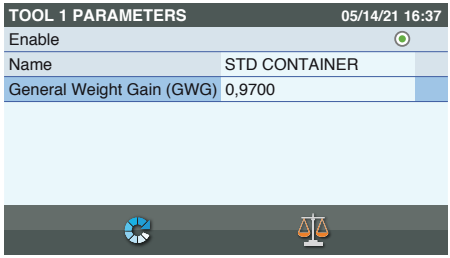
Press the key to enter Tools



Enter the item



OK Enter the value



PARAMETER	MEANING	MODIFY
General Weight Gain (GWG)	Weight Gain factor. It changes the weight result	Automatic with Weight Correction or Complete calibrations

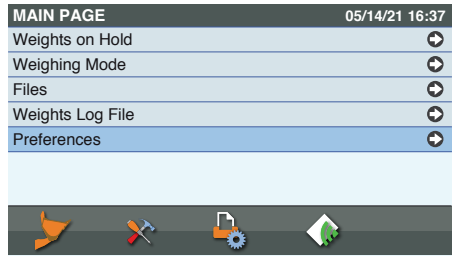
Inclined Weight Correction

valid for all Weighing Softwares

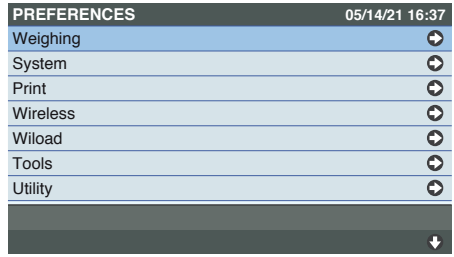
With Inclined Weight Correction the weight result is corrected when influenced by the vehicle inclination up to ±5,6°.
It must be enabled after the Complete Weight Calibration has been performed on a flat ground.
Inclined Weight Correction can be enabled for any type of Weighing Software, DYN, DYN+, SPEED, STA and AUTOSTA.
The instructions that follow use the Wheel Loader application as example.

Press the key to enter the Main Page

Enter the item



Enter the item



USED FOR ALL

Enter the item

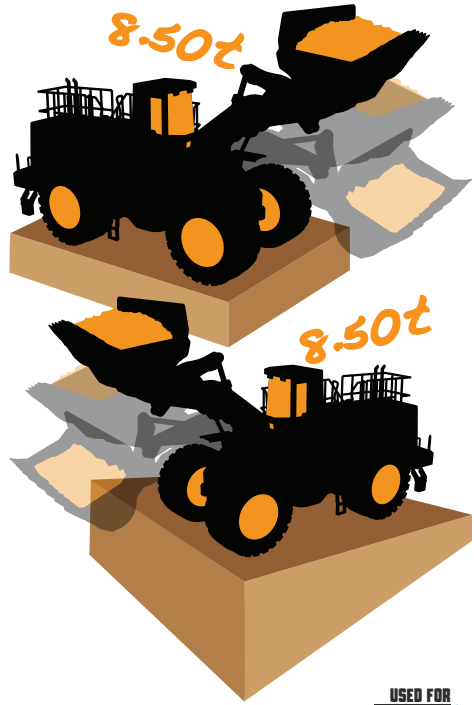
WEIGHING	05/14/21 16:37
Automatic Totalising	Yes
Tip Off	No
Warm up Liftings	No
Ticket Number	A3470
Software Update	
STA Digital Filter	40
Inclined Weight Correction	Yes

OK Enable the item

INCLINED WEIGHT CORREC.	05/14/21 16:37
Enable	
Master Factor	0,0200
Uphill Factor	1,0000
Downhill Factor	-1,0000
X-Angle Zero at Empty (>0<)	0,00

Load the machine and take a weighing in a leveled ground to use as a reference

Position the machine uphill and take a weighing. The result should be the same or one scale interval (e) different from the one taken in the leveled ground

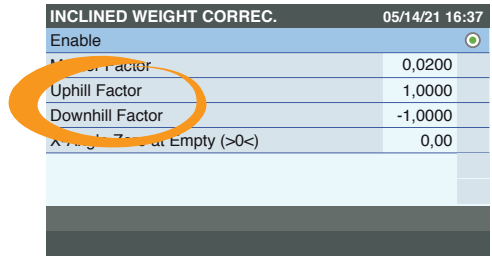


USED FOR ALL

Position the machine downhill and take a weighing. The result should be the same or one scale interval (e) different from the one taken in the leveled ground

MODIFYING FACTORS

In case of a discrepancy of the results work changing the Uphill and Downhill Factors in order to achieve the accuracy you need, leaving the Master Factor as it is.
Master Factor should be used when the results either Uphill and Downhill together are much off, therefore before fine tuning with the Uphill and Downhill Factors change the Master Factor



UPHILL DOWNHILL Factors

>1 increase = weight increase
<1 increase = weight decrease

APPENDIX 3

Configuration

In this section we will describe the Device Configuration which is mostly the same despite the Weighing Software selected into the Device except for the Weighing Preferences where some of them are specific.
In the same time we will see the Configuration across the Devices in order to point out each parameter belonging to which Device.
We are going to see how to select the correct Weighing Software when weighing is performed on machines with a lifting boom, therefore on hydraulic pressure evaluation.

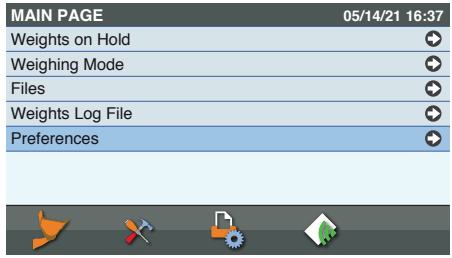
TABLES UNDERSTANDING

UNIT OF MASS	DYN DYN+ STA SPEED AUTOSTA DUMPER	DEFAULT
kg - t - lb - ton	Set the unit of mass according to your application and location	t

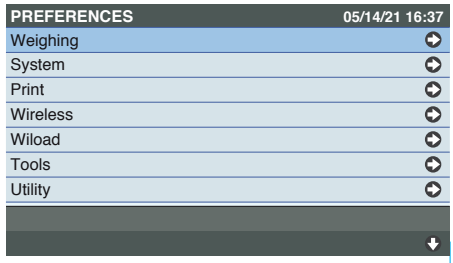
Weighing Softwares inherent to the parameter
HelperX related
Millennium5 related
no colors means for all

Press the key to enter the Main Page

Enter the item



This is the PREFERENCES page,
the CONFIGURATION is stored in some of them,
WEIGHING
SYSTEM
PRINT
WIRELESS
WILOAD



Weighing Preferences

WEIGHING		
UNIT OF MASS	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
kg - t - lb - ton	Set the unit of mass according to your application and location	t
TEMPORARY UNIT OF MASS	DYN DYN+ STA SPEED AUTOSTA DUMPER	
kg - t - lb - ton	Set this unit when sometimes you need a different unit of mass while loading. When the main unit of mass is "t" the temporary cannot be "lb" and when the main is "ton" the temporary cannot be "kg"	NO
SCALE INTERVAL (e)	DYN DYN+ STA SPEED AUTOSTA DUMPER	
1 - 2 - 5 - 10 - 20 - 50 - 100 - 200 - 300 - 500 - 1000	It is the smallest increment of the displayed weight	50
WEIGHING SOFTWARE		
DYN DYN+ STA SPEED AUTOSTA DUMPER	Set the way the weighing is gonna work based on the machine. DYN for Loaders, Telescopic Loaders, Tractors, Concrete Mixers, Grape Harvester DYN+ for Loaders, Telescopic Loaders, Tractors, Concrete Mixers, Grape Harvester when weights are not proportional from 0.00 up to the Max. Cap. STA for Material Handlers, Trucks SPEED for Forklifts AUTOSTA for Reach Stackers DUMPER for Rigid DUmpers and ADTs	DYN
No. of WEIGHT SENSORS	DYN DYN+ STA SPEED AUTOSTA DUMPER	
1 Sensor - 2 Sensors	Depends upon the Weighing Software. SPEED = 1 sensor STA = 1 sensor All the rest needs 2 Sensors because required by the Weighing Software or because it is usefull to divide the set of sensors in two lines, S1 and S2; this can be done just with STA and DUMPER softwares	2
SENSOR 2 COMPATIBILITY	DYN DYN+ STA AUTOSTA	
HelperP5 - Helper7 - Millennium - Millennium5/HelperX (X5)	It allows to change the sign of the Sensor2 signal according to the old devices in the list	X5
MIN WEIGHING TIME (sec)	DYN	
Value 0,1 ÷ 9,9sec	Defines the fastest possible speed of lifting	0,1

WEIGHING		
MAX WEIGHING TIME (sec)	DYN STA AUTOSTA DUMPER	**DEFAULT**
Value 0,2 ÷ 15,0sec	It defines the fastest possible speed of lifting or the Weighing Time for STA AUTOSTA and DUMPER	2,0
EXTENDED WEIGHING TIME (SEC)	DYN	
Value 0,0 ÷ 3,0sec	It set an extra time for weighing added to the Max Weighing Time above. Typically used on those machines with a large frequency curve of the hydraulic pressure	0,0
MAXIMUM WEIGHT DRIFT	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Value 0,01 ÷ 2,00t - 1 ÷ 2.000kg 0.01 ÷ 1.00ton - 1 ÷ 2,000lb	It defines the maximum pressure peak accepted during weighing. If a number of peaks are read over this value, weighing is aborted. The smaller the value the more static the machine must be during weighing but more precise the scale is	3x (e)
LIFTING SPEED FILTER	DYN	
Value 1 ÷ 500	It works connected to Sensor2 (S2 port) and disable weighing when the speed of lifting within the weighing zone sensor is not constant. Higher the value is wider the filter is	70
WEIGHING DIRECTION	DYN DYN+ SPEED	
From Prox.1 to Prox.2 From Prox.2 to Prox.1	It defines the weighing direction according to the weighing zone installation. The sensor has 1 led positioned in one side of its connector and two leds positioned on the other side. The 1 led alone represent Prox.1 and the two leds together the Prox.2	1 to 2
TOOL CLOSED SENSOR	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Sensor ON - Sensor OFF	The sensor properly installed does not allow weighing if it is not activated. Once activated it must be deactivated to allow weighing again. SENSOR ON means that when it needs to be activated it turns ON. SENSOR OFF means that when it needs to be activated it turns OFF	NO

WEIGHING		
TOOL OPEN SENSOR	DYN DYN+ STA SPEED AUTOSTA	DEFAULT
Sensor ON - Sensor OFF	The sensor properly installed does not confirm unloading if it is not activated and weighing cannot proceed SENSOR ON means that when it needs to be activated it turns ON. SENSOR OFF means that when it needs to be activated it turns OFF.	NO
BOOM POSITION	DYN DYN+ STA SPEED AUTOSTA	
Sensor ON - Sensor OFF	A sensor can be installed to allow weighing once it is activated, only. It can be enabled in alternative to Tool Closed Sensor, only and the difference with the last is that it can stay activated all the time allowing weighing anyhow. SENSOR ON means that when it needs to be activated it turns ON. SENSOR OFF means that when it needs to be activated it turns OFF	NO
DUAL WEIGHING	DYN DYN+ STA SPEED AUTOSTA	
Enable	Two weighing zone sensors and two tool closed sensors connected to a junction box allow to have to weighing points with two different Tool's calibrations automatically set based upon which tool closed sensor is activated	NO
TILT PORT	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Tilt Switch Output Max Capacity (STA only) Output Max Capacity Threshold (STA DUMPER, only) External Buzzer	It defines for which purpose the Tilt port can work. The Millennium5 has not the Tilt port therefore it needs the HelperX back panel. TILT SWITCH = disable weighing when the vehicle is over 3°. OUTPUT MAX CAPACITY = 24Vdc or 12Vdc output activated when the Real Time Partial Weight is over the Maximum Capacity setting. OUTPUT MAX CAPACITY THRESHOLD = 24Vdc or 12Vdc output activated when the following thresholds within the Max. Cap.are reached: 80% - every second 90% - every 1/4 of a second 97% - all the time The Output is deactivated after Totalization EXTERNAL BUZZER = a replica of the Device inner buzzer	NO

WEIGHING		
MINIMUM CAPACITY (e)	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
Value 1 ÷ 200e	Depending from the Weighing Software its meaning change. DYN DYN+ SPEED AUTOSTA = when the weight is from Min. Cap. down printing and totalizing is not possible when Legal Software Protection (System Preferences) is MID. STA DUMPER = the weight must go under Min. Cap. to consider the tool unloaded, until then a second totalization with the same load is not possible. With DUMPER, under Min.Cap. the unloading cycle is complete and the weight displayed is 0,00	NO
MAXIMUM CAPACITY	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Value 0,01 ÷ 400t - 10 ÷ 400.000kg 0,01 ÷ 440.80ton 10 ÷ 881,849lb	Once a Partial weight reaches the Max.Cap. + 9e the weight result is not displayed except on DUMPER. On STA and DUMPER weighing softwares Max.Cap. as well sets the weight value when the output on the Tilt port is activated	NO
NEG.THRESHOLD ZERO AT EMPTY (%)	DYN DYN+ STA SPEED AUTOSTA	
Value 1 ÷ 4% of Cap.Max.	Usually used for Legal for Trade purposes it sets the negative threshold within which a Zero at Empty (>0<) is possible. When used for Legal for Trade together with the Positive Threshold Zero at Empty the maximum allowed is 4%, therefore set this value at 2%, in this way the two thresholds are balanced and if you zero a positive weight you can after the tool is cleaned zero again the negative weight you will find.	NO
POS.THRESHOLD ZERO AT EMPTY (%)	DYN DYN+ STA SPEED AUTOSTA	
Value 1 ÷ 4% of Cap.Max.	Usually used for Legal for Trade purposes it sets the positive threshold within which a Zero at Empty (>0<) is possible. When used for Legal for Trade together with the Negative Threshold Zero at Empty the maximum allowed is 4%, therefore set this value at 2%, in this way the two thresholds are balanced as explained above	NO

WEIGHING		
NEG.THRESHOLD INITIAL ZERO (%)	DYN DYN+ STA SPEED AUTOSTA	DEFAULT
Value 1 ÷ 20% of Cap.Max.	Usually used for Legal for Trade purposes it sets the negative threshold within which a Zero at Empty (>0<) is possible right after power on. When used for Legal for Trade together with the Positive Threshold Initial Zero the maximum allowed is 20%, therefore set this value at 10%, in this way the two thresholds are balanced and if you zero a positive weight you can after the tool is cleaned zero again the negative weight you will find	NO
POS.THRESHOLD INITIAL ZERO (%)	DYN DYN+ STA SPEED AUTOSTA	
Value 1 ÷ 20% of Cap.Max.	Usually used for Legal for Trade purposes it sets the positive threshold within which a Zero at Empty (>0<) is possible right after power on. When used for Legal for Trade together with the Negative Threshold Initial Zero the maximum allowed is 20%, therefore set this value at 10%, in this way the two thresholds are balanced as explained above	NO
OBLIGATORY ZERO AT EMPTY	DYN DYN+ STA SPEED AUTOSTA	
Level High - Level Low	It sets a time frame after which the Zero at Empty becomes an obligation or an advise. Typically useful for those applications where the material stick into the tool. LEVEL HIGH = Zero at Empty is required at each power ON, each time a TOTAL is deleted and advised after 30' from the last zero (>0<) LEVEL LOW = Zero at Empty is required at each power ON, advised every 15' of the first hour after power on and every 30' after the first hour of power on	NO
AUTOMATIC TOTALIZING	DYN DYN+ STA SPEED AUTOSTA	
Enable	A Partial weight can be Totalized Automatically or Manually	YES

WEIGHING		
TIP OFF	DYN DYN+ STA SPEED AUTOSTA	**DEFAULT**
Sensor2 not active Sensor2 active	Tip Off is the maneuver of tipping ok material from the tool when this is in excess. On Hydraulic systems opening the tool for tipping off might cause the lifting boom return pressure to drop as well canceling like this the tip off result. When this happens, setting Sensor2 not active prevent the drop in pressure to be seen. Tip off calibration must be peformed after this parameter is set	ACTIVE
WARM UP LIFTINGS	DYN DYN+ STA SPEED AUTOSTA	
Value 1 ÷ 20	It gives the possibility to set how many lifts it must be done at power on in order to warm up the hydraulic fluid. Usually used for legal for trade applications	NO
TICKET NUMBER	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Value Next Number 1 ÷ 2.100.000.000 Suffix 1 character max.	The ticket no. in the printout can be enabled or disabled. Next number shows the next ticket no. that will be printed, it can be changed. Suffix is a letter printed before the number. If you have more than one machine working at site, each can have a different suffix therefore a same ticket number among the machines will not exist	A1
SOFTWARE UPDATE	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable	Enables the possibility to update the Device firmware.	YES
STA DIGITAL FILTER	STA	
Value 40 - 80 - 120 - 160 - 200 - 240 - 280 - 320 - 360 - 400	When the application consist in a load with a repeating motion and the real time weighing must be performed within this motion the filter allows to display a constant result with less fluctuation as the number is increased. Setting it to high on the contrary will not allow to see the real time weight, therefore it must be set accordingly in the filed. In other applications where the load motion is not repeating but changes its frequency this filter ability to work is reduced. This can be as an example a material handler, with a grapple tool, loading and swinging	40

WEIGHING		
INCLINED WEIGHT CORRECTION	DYN DYN+ STA SPEED AUTOSTA DUMPER	DEFAULT
Master Factor Uphill Factor Downhill Factor X-Angle Zero at Empty (>0<)	With an inclinometer installed onto the machine chassis weight can be corrected up to 5,6° when the machine is inclined. MASTER FACTOR = inclination weight result corrections in both ways, uphill and downhill. UPHILL FACTOR = uphill inclination weight result correction DOWNHILL FACTOR = downhill inclination weight result correction X-ANGLE ZERO at EMPTY = X angle found at the last Zero at Empty. Uphill means cabin facing up. Downhill means cabin facing down. X Angle is in the longitudinal axis of the machine. Y Angle is in the trasverse axis of the machine (90° to the longitudinal)	NO
WEIGHING SENSOR	DYN+	
Proximity - Angle Sensor	It allows to set the weighing sensor in use, the dual proximity weighing zone sensor or the angle sensor	PROX

Weighing Software notes

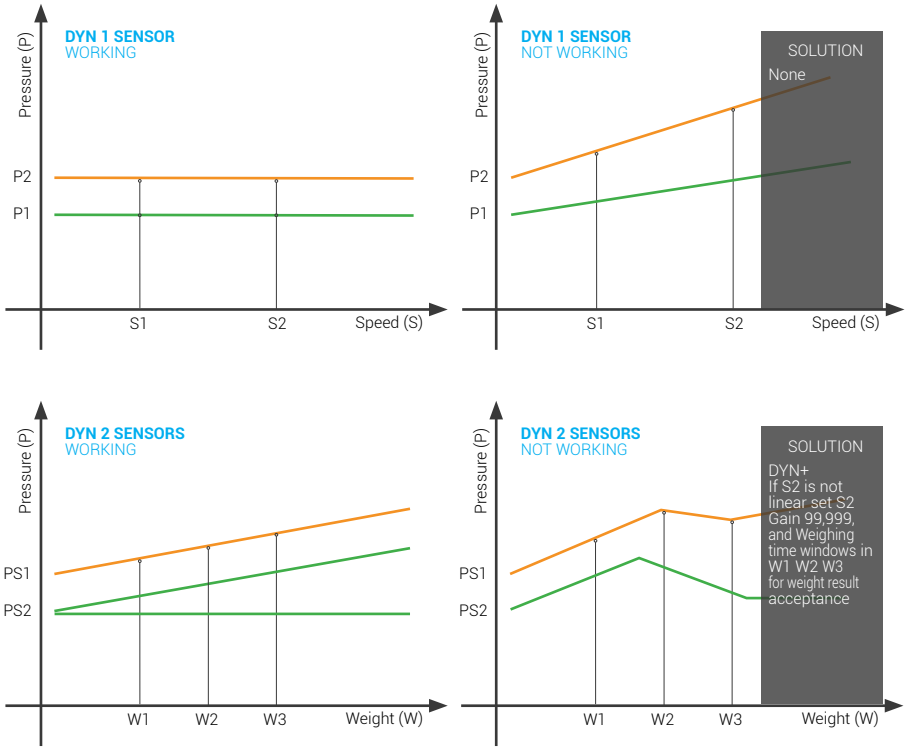
We try now to explain how to distinguish which Weighing Software to use in case of problems found on the hydraulic system, more than problems let's say out of standard.
In these cases it is helpful to download from the scale the Weights Recording .csv (needs to be enabled into diagnostics) file in order to see the Sensor1 and Sensor2 signals behavior by plotting them on a diagram and therefore be able to chose which weighing software could solve your situation based on the following explanation.

DYN Weighing Software

DYN Weighing Software can be set on Weighing Preferences, No. of Sensors, with 1 sensor or 2 sensors.

1 Sensor connected to S1 port, it measures the main pressure of the lifting boom.
When it works
The configuration works when the main pressure remain constant by changing the lifting speed and or weighing can be performed at the same speed every time.
When it doesn't work
The configuration doesn't work when the main pressure does not remain constant by changing the lifting speed and or weighing cannot be performed at the same speed every time.
Furthermore when the main pressure does not increase proportionally with the load, 1 Sensor configuration doesn't work.
Solution
No solution with just 1 sensor

2 Sensors with the second sensor connected to S2 port, measuring the return pressure of the lifting boom
When it works
The configuration works when the main and the return pressures proportionally increase with the loaded weight or the return pressure alone doesn't increase at all.
When it doesn't work
The configuration doesn't work when the main pressure doesn't increase proportionally with the loaded weights and or the return pressure increase or decrease on different load's ranges.
Solution
Use DYN+ setting a proper Sensor2 gain and weighing time where needed with each load weight range.



DYN+ Weighing Software

DYN+ Weighing Software can be set on Weighing Preferences, No. of Sensors, with 2 sensors, only.

Sensor 1 is connected to the main pressure of the lifting boom's cylinder.
Sensor 2 is connected to the return pressure of the lifting boom's cylinder.

When it works

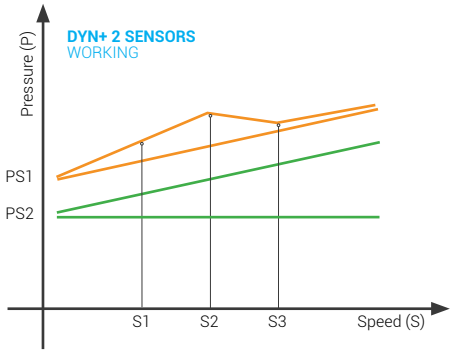
The configuration works when the main and the return pressures proportionally or not proportionally increase with the loaded weight and the return pressure alone increases proportionally, not proportionally or is constant with the lifting speed.

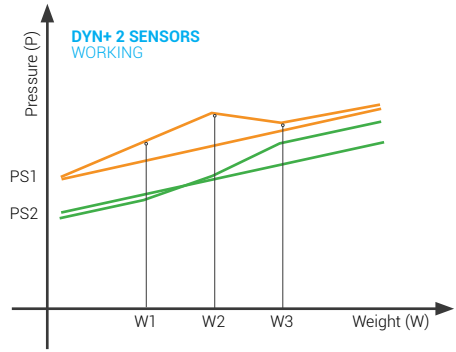
When it doesn't work

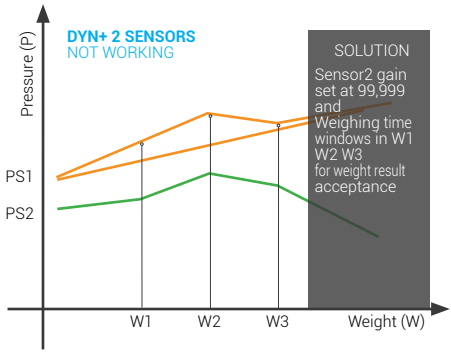
The configuration doesn't work when the return pressure decreases increasing the lifting speed.

Solution

No solutions. The option is to set Sensor2 gain at 99,999 and set MIN e MAX weighing time in each Weight Calibration accordingly to the result in the machine, allowing weighing lifts inside the set time window alone.



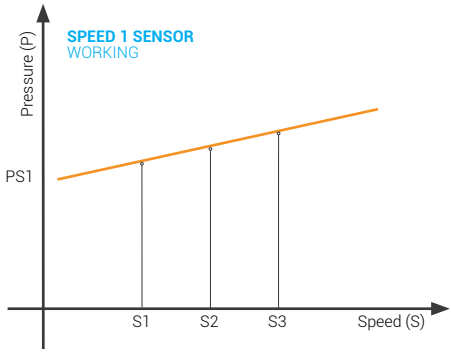


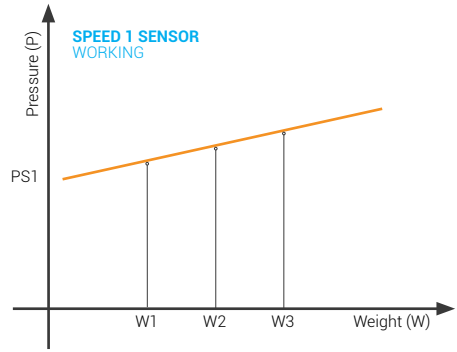


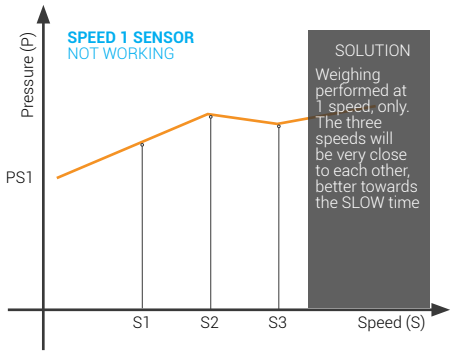
SPEED Weighing Software

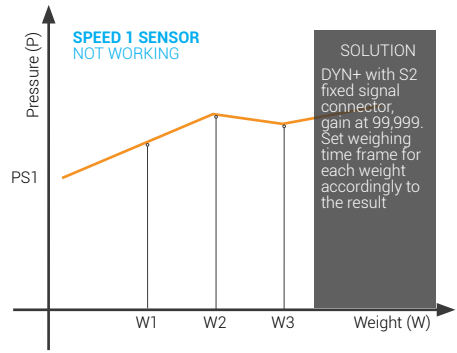
SPEED Weighing Software can be set on Weighing Preferences, No. of Sensors, with 1 sensor, only, because it presumes the non existance of the return pressure.

Sensor 1 is connected to the main pressure of the lifting boom's cylinder.
Sensor 2 not existing
When it works
The configuration works when the main pressure increases increasing the weighing speed and it is proportional to the loaded weight.
When it doesn't work
The configuration doesn't work when the main pressure is not proportional with the loaded weight.
Solution
No solutions. The option is to set the Weighing Software as DYN+ and plug into the S2 port the Connector with resistances inside, giving a fixed value as Sensor2, setting the Sensor2 gain at 99,999 and set MIN e MAX weighing time in each Weight Calibration accordingly to the result in the machine, allowing weighing lifts inside the set time window alone.





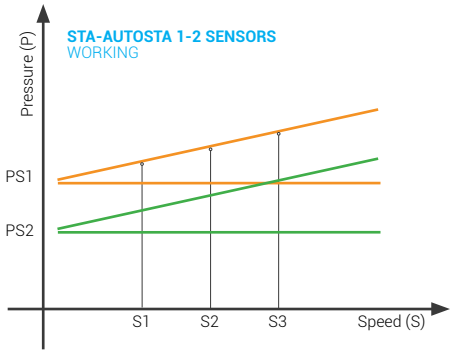


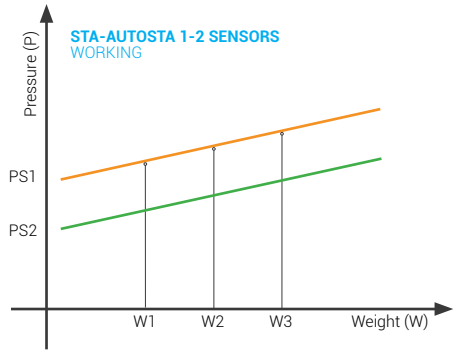


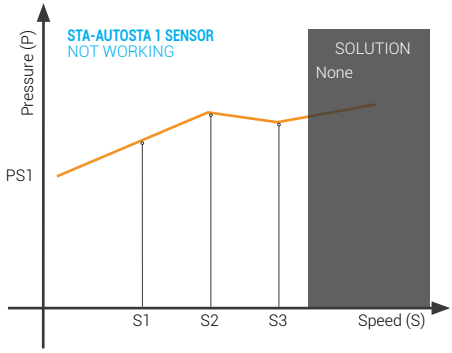
STA AUTOSTA Weighing Software

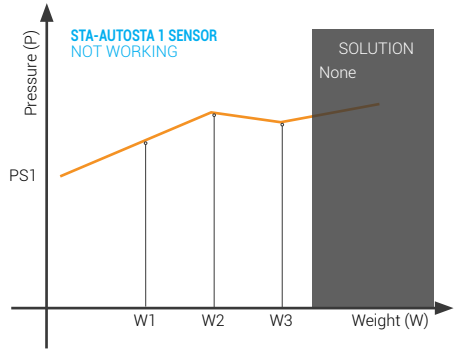
STA and AUTOSTA Weighing Softwares can be set on Weighing Preferences, No. of Sensors, with 1 sensor or 2 sensors. The second sensor not connected to the return pressure of a lifting boom's cylinder, instead connects to a second main pressure lifting boom's cylinder. The second sensor or set of sensors can be connected to the S2 port just to divide the sensors in two groups, semplifying diagnostics.
This configuration is of a Static weighing.

Sensor 1 is connected to the main pressure of the lifting boom's cylinder.
Sensor 2 is connected to the main pressure of a second lifting boom's cylinder
When it works
The configuration works when the main pressure increases proportionally with the loaded weight. Speed does not matter because weighing is static.
When it doesn't work
The configuration doesn't work when the main pressure is not proportional with the loaded weight.
Solution
No solutions.









"The second sensor not connected to the return pressure of a lifting boom's cylinder, instead connect to a second main pressure lifting boom's cylinder"

System Preferences

SYSTEM		
LANGUAGE	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
Language	It sets the language within the software pages, printouts and exports	EN
INTERNATIONAL SETTINGS	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Date Format Weight Thousand Separator Export Settings	It allows to set the Date Format as in dd/mm/yyyy or mm/dd/yyyy. Weight Thousand Separator with "dot" or "comma". When the unit of mass is "lb" or "ton" it is automatically "comma" so this setting is irrilevant. .csv separator Export Settings with ";" semicolon or "," comma	DD/MM/YYYY DOT ";"
DATE AND TIME	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Value	It sets date and time	N.A.
MACHINE CODE	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Name (15 chr.)	The Machine code or name can be set in order to distinguish your machines production by jobsite and Devices pertaining to it such as scale ID, and modem	NO
WELCOME MESSAGE	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Name (48 chr.)	The Welcome Message appears at power ON.	YES
LOADING RECORD PREVIEW	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable	After the loading is complete by the "Print" or "C" key, the Loading Preview Page allows to view your loading data info, confirm them, change them or go back to weighing without clearing the load	NO
LOADING SITE	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Name (24 chr.) - Address	The Loading Site or jobsite name and address can be entered here, it will appear into the printout, export and wirelss sending	NO
LOADING COMPANY	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Name (24 chr.) - Address	The Loading Company or contractor name and address can be entered here, it will appear into the printout, export and wirelss sending	NO

SYSTEM		
INDUSTRIES	DYN DYN+ STA SPEED AUTOSTA	**DEFAULT**
General - Containers - Logistics	This parameters allows to change some files name and structure according to the Industry of work in order to have a more oriented interface	GEN
DESTINATIONS	DYN DYN+ STA SPEED AUTOSTA	
Name (48 chr.) - Address Ask Destination at the end of Loading - Listing by Name - Listing by Code	It enables the Destination selection, printout, saving and wireless sending with loading data info. Ask Destination at the end of Loading means that when "Print" or "C" clear is attempted the Device prompts to select the Destination. If this parameter is not enabled it means the Destination into the loading data info is the one selected into while loading. The Destination listing page can be by Name or Code depending on the choice selected. Destinations are located into Main Page/Files	NO
CARRIERS	DYN DYN+ STA SPEED AUTOSTA	
Name (48 chr.) - Address	It enables the Carrier selection, printout, saving and wireless sending with loading data info. Carriers are located into Main Page/Files	NO
ORDERS	DYN DYN+ STA SPEED AUTOSTA	
Enable	Job Orders can be received, wireless or USB, into the scale. Orders are located into Main Page/Files	NO
FAVORITES	DYN DYN+ STA SPEED AUTOSTA	
Enable	Favorites works in alternative to and they are created in the scale, only, they are not recieved wireless or imported with USB. With Favorites you can enter the loading data of your favorite loads or book the load data of the load you would like to save. Favorites are located into Main Page/Files	NO
LOADING AREA	DYN DYN+ STA SPEED AUTOSTA	
Name (48 chr.)	The load can be classified by Areas from where the material is picked	NO
LOADING NOTE	DYN DYN+ STA SPEED AUTOSTA	
Name (24 chr.)	The Load can be classified by means of transport, sale, stock etc.	NO

SYSTEM		
PIECES COUNTER	DYN DYN+ STA SPEED AUTOSTA	**DEFAULT**
Enable	Based on the Unit Weight saved in each product this parameter allows the calculation of how many pieces there are in a Total weight of a load	NO
TARES	DYN DYN+ STA SPEED AUTOSTA	
Enable	It enables the Tares file where tares weights can be stored and then selected into weighing or weighed on the machine and then saved. In this way the Gross Total weight, Total Net and Partial net weights can be displayed and printed. The Total Net is saved, only	NO
VAT	DYN DYN+ STA SPEED AUTOSTA	
Value (%)	When the Product Price is set into a Product the VAT tax is calculated based on this setting	NO
CURRENCY	DYN DYN+ STA SPEED AUTOSTA	
Euro - US Dollar - Pound - Koruna Česká - Zloty - Svenska Kronan - Leu Românesc - Danske Krone - CAN Dollar - Schweizer Franken - Kuna - AUS Dollar - NZD Dollar	When the Product Price is set into a Product the Currency is printed together with the price caluculation. Price calculation is just printed and not saved	NO
WEIGHING MODE	DYN DYN+ STA SPEED AUTOSTA	
Target Target On Demand Vehicle Recipe	Weighing Mode specify the way weights are displayed and loading data possible to be handled. TARGET means weighing start from an amount and go towards zero. Targets are selected from a list. TARGET ON DEMAND the same as target but the weight value must be keyed in and there are two target, only which can be weighed simultaneously, performing split weighing. VEHICLE is still a split target weighing but loading data include Vehicle ID RECIPE is still a target weighing where different products can be saved to be weighed on the same recipe	NO VEHICLE

SYSTEM		
WEIGHTS LOG FILE	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
Save Partial Weight Save Total Weights	The log can be set to save Partial Weights which means after every weighing or Total Weights after each Total clearing	NO
DATA PROTECTION	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Data Password (default is VEI)	When enable it protects the following files and parameters from being changed. PREFERENCES: WEIGHING - all protected SYSTEM - all protected except, Language - Date and Time - Welcome Message - Favorites - Buzzer - Remote Keys - Automatic Backlighting - Display Brightness - Power ON Method - Energy Saving - Automatic Shutdown - Products Sorting - Alert Message with "C" Key - System Info PRINT - all protected WIRELESS - all protected except, Files reception WILOAD - all protected TOOLS - all protected UTILITY - all protected except, General Backup - Files Backup - Preferences Backup - Print System Configuration - Export System Configuration - Diagnostics - Format NAND Flash (diagnostics which requires the Administrator password not the data password, it is always enabled)	NO
LEGAL SOFTWARE PROTECTION	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable (VEIADMIN hardware password, it cannot be changed)	Typically used for Legal for Trade approved systems it allows to protect from changing the following parameters. If one parameter is changed by entering the password the Event Counter number changes and the approval is no longer valid because of this. PREFERENCES: WEIGHING - all protected TOOLS - all protected UTILITY - all protected except, General Backup - Files Backup - Preferences Backup - Wiload Reset - Files Delete - Print System Configuration - Export System Configuration - Software Update - Angle Sensors Configuration - Diagnostics	NO

SYSTEM		
KEYBOARD LOCK	DYN DYN+ STA SPEED AUTOSTA DUMPER	DEFAULT
Enable	When enabled all the keyboard will not work unless pin no.0701 is entered on the attempt to operate with the keyboard. It includes the off key. Instead when a message requires the YES or NO input, then F2 and F4 works without pin code	NO
PERIODIC CHECK	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Value (default 200 hours. Max.9999)	With this parameter an alert is prompted when the time exceeds the set value requesting to call for the periodic check. The parameter is protected by the administrator password	NO
BUZZER	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Weighing and Alarms Keyboard	It allows to set the buzzer working or not working	YES
REMOTE KEYS	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Key 1 - Key 2	Two keys from the keyboard can be remoted to two keys connected via cable. The keys that can be remoted are: C - OK - "-" - >0< - Print - Yes - Standby - Product 1 for key 1 (first on the list) Product 2 for key 2 (second on the list)	NO
AUTOMATIC BACKLIGHTING	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable	When enabled and based on the Display Brightness parameter the display changes backlighting intensity based on the current ambient light conditions	NO
DISPLAY BRIGHTNESS	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Day (default 8) Night (default 2)	It allows to set the day and night display backlighting intensity	NO
POWER ON METHOD	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Manual - Automatic	The power on once power is given by the machine can be manual with the ON OFF key or automatic	MANUAL
ENERGY SAVING	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Display - Shutdown Value (minutes max.120)	The display or Device can be powered off after the value has expired when there are no keystrokes or weighing operations	NO

SYSTEM		
AUTOMATIC SHUTDOWN	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
Hours - Minutes	The Device can be set to power off at a certain hour of the day	NO
PRODUCTS SORTING	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Alphanumeric - Numeric	The products listing order if Alphanumeric is in alfabethical order, instead when Numeric it is increasing by number	ALPHA
ALERT MESSAGE WITH "C" KEY	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable	It sets the prompt of an alert when a total is cleared with the "C" key requesting the confirmation	NO
POWER VOLTAGE	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Voltage (Vdc)	It shows the voltage applied to the Device	YES
SYSTEM INFO	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Product Family Software Version Device ID SW Key Descriptive Markings Aliby Memory Event Logger	This parameter's page shows relevant data to the software installed into the Device and to the Certification as Legal for Trade unit. PRODUCT FAMILY: HXG (example) SOFTWARE VERSION : 00.04 (example) DEVICE ID: a unique number to each Device SW KEY: a unique number to each Device. It is requested when an upgrade to a different software family is made. DESCRIPTIVE MARKINGS: an array of data fields which are relevant to legal for trade systems officials. It included the Legal SW CRC which is identified into the Device approval Certificate. ALIBY MEMORY: with a max. of 70.000 records it saves each partial weight and total which is highlighted with green color. Each record contains: Date and Time (no seconds), Device ID, Total Weight or Partial Weight depending on the record and Transaction number (always). EVENT LOGGER: it registers the event when an update with a new Legal Software version is made	NO

Print Preferences

PRINT		
EXTERNAL CONNECTOR	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
Printer Modem	The printer can be connected to the PRINTER (common choice) or MODEM port of the Device	PRINTER
PRINTER	DYN DYN+ STA SPEED AUTOSTA DUMPER	
vPrint TM295	Two types of printers can be used: vPrint is Vei thermal paper roll printer TM295 is the Epson needle printer to print a docket with carbon copy paper	VPRINT
PRINT HEADER	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Line 1 - Line 2 - Line 3 - Line 4 (each of 24 characters)	A Header of 4 lines with 24 characters each can be printed on the vPrint	NO
PRINT FOOTER	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Line 1 - Line 2 - Line 3 - Line 4 (each of 24 characters)	A Footer of 4 lines with 24 characters each can be printed on the vPrint	NO
AUTOMATIC PRINT WITH "C" KEY	DYN DYN+ STA SPEED AUTOSTA	
Enable	When clearing a Total with "C" automatically it is printed as well	NO
TOTAL PRINT WITHOUT CLEAR	DYN DYN+ STA SPEED AUTOSTA	
Enable	A Total can be printed out whithout it being cleared as it happens normally	NO
TOTAL PRINT WITH PARTIALS	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable	The Total is printed together with each Partial weight that made up the Total together with the sequence number and time it was saved	NO
BARCODE PRINT	DYN DYN+ STA SPEED AUTOSTA DUMPER	
All - Products - Customers - Operators ID - Destinations - Carriers - Ticket Number - Machine Code - Ticket No. + Machine Code - Loading Areas - Loading Notes	The barcode type "Code39" is printed below the mentioned fields' content. The max. no. of characters the barcode can print is 10 so if the name is longer it is cut at 10th character. It is printed just on the vPrint printer	NO
QRCODE PRINT	DYN DYN+ STA SPEED AUTOSTA	
Enable	A QRCode can be printed at the end of a load's docket on the vPrint printer alone. The following fields are printed: Date and Time, Weight, Customer, Product, Price, Currency, Ticket No.	NO

PRINT		
PRINT DEVICE ID - TRANS. NO.	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
Enable	It prints the Device ID and Transaction number for loading tracebility into the Aliby Memory. Usually used when the system is used as Legal for Trade. This parameter is automatically enabled when Legal Software Protection is enabled	NO
PRINT WEIGHT ONLY	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable	When enabled it allows to print just the Total weight with an height of 17mm approx and the Unit of Mass above it. Usually used when the total weight must sticked into a box or pallet	NO

Wireless Preferences

WIRELESS		
EXTERNAL CONNECTOR	DYN DYN+ STA SPEED AUTOSTA DUMPER	**DEFAULT**
Printer Modem	The Modem can be connected to the MODEM (common choice) or PRINTER port of the Device	MODEM
BAUDRATE	DYN DYN+ STA SPEED AUTOSTA DUMPER	
9600 - 115200	Each modem has a baud rate of 9600 except for RFlink 1870 for which 115200 can be selected	9600
MODEM	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Trackweight FX30 Trackweight M100 Vortex Wifi RFlink 1870	It allows to select the type of modem connected to the Device. Trackweight M100 is out of production	NO
PC RS232 CONNECTION	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Enable	This parameters enables the connection of the Device to an external PC and or Tablet via RS232 cable	NO
PROTOCOL	DYN DYN+ STA SPEED AUTOSTA DUMPER	
Total Weights Partial Weights Modular Partial Weight Only Total Weight Only Total Weights with Partials Partial Weights with Tool Open	A protocol is a sequence of data the Device put into the RS232. They can differ from the quantity of data fields, type of data and structure. To understand each protocol please visit veigroup.com dealer area	Total Weights
FILES RECEPTION	DYN DYN+ STA SPEED AUTOSTA	
ALL PRODUCTS CUSTOMERS TARGETS OPERATORS ID VEHICLES DESTINATIONS RECIPES CARRIERS TARES LOADING AREAS LOADING NOTES	Files Reception means that the Device, the scale, requests to ipotweb.com cloud all files or a selection of them. The selection of some files implies automatically the selection of others because they are linked to each other. As an example: Customers and Destinations Vehicles and Customers - Carriers Recipes and Products	ALL

Wiload Preferences

WILOAD		
PAIRING	STA	**DEFAULT**
Start	Within this page the list of wiload IDs in the area are listed, select the wiload ID which is mounted in your machine. Wiload have the ID on a sticker outside and inside the case.	N.A.
UNPAIRING	STA	
Start	Select the Wiload ID pertaining to your machine appearing on the list. Wiload have the ID on a sticker outside and inside the case and it is marked in GREEN within the list	N.A.
CHANNEL	STA	
11÷26	There are 16 channels within the 2.4GHz that can be set for the Wiload. 26 is the default one and advised. If you notice the performances go on and off change channel and doing trials you will find the appropiate channel. This happen when there are other devices transmitting in 2.4GHz in the area	26

Note: Millennium5 requires HelperX back panel

Utility Preferences

UTILITY		
GENERAL BACK UP		**DEFAULT**
Start	It backs up calibration, preferences and load's data management files into the USB key	N.A.
FILES BACKUP		
Start	Just the load's data management files are backed up into the USB key	N.A.
PREFERENCES BACKUP		
Start	Just preferences, calibration included, are backed up into the USB key	N.A.
GENERAL RESTORE		
Start	It restores calibration, preferences and load's data management files from the USB key	N.A.
FILES RESTORE		
Start	Just the load's data management files are restored from the USB key	N.A.
PREFERENCES RESTORE		
Start	Just preferences, calibration included, are restored from the USB key	N.A.
GENERAL RESET		
Start	It puts the Device to the default values all data and settings will be deleted	N.A.
PREFERENCES RESET		
Start	All the preferences, including calibration, are reset back to the defualt values	N.A.
WILOAD RESET		
Start	Pairing and calibration are reset back to default values	N.A.
FILES DELETE		
Start	All files or a selection of them are cleared	N.A.
SYSTEM CONFIGURATION WIZARD		
Start	The wizard initialize the setting of Language - Date Format - Date and Time - Machine Code - Welcome Message - Printer - Unit of Mass - Scale Interval - Weighing Software - No. of Weight Sensors - S2 Compatibility - Weighing Direction - Calibration Procedure	N.A.

UTILITY		
PRINT SYSTEM CONFIGURATION		**DEFAULT**
Start	The configuration, preferences, can be printed out	N.A.
EXPORT SYSTEM CONFIGURATION		
Start	The configuration, preferences, can be exported into the USB stick in .csv format	N.A.
SOFTWARE UPDATE		
Start	The software update is loaded into the Device. Depending upon the update version configuration and files can be cleared. If the update version change to the one running into the device is on the minor, preferences and files are kept untouched. If the update version change is on the mayor, instead, files are cleared while weighing preferences and tool's calibration might be kept, this will be shown by a message during the update process. HXG.00.01, "G" is the mayor while "01" is the minor	N.A.
ANGLE SENSORS CONFIGURATION		
Boom Machine X-axis Angle sensor Reset Zero Setting	It allows to configure, reset and zero the angle sensors when installed. Angle sensors are configured out of factory but can be done afterwords as well. BOOM: related to those machines that mount an angle sensor on the boom instead of a proximity switch MACHINE X-axis: related to those machines that mounts an angle sensor in the body instead of a tilt switch in order to correct the weight based on the machine's inclination ANGLE SENSORS RESET: sensors are reset to default ZERO SETTING: gives the zero angle in the position where the sensor is	N.A.
DIAGNOSTICS		
	It allows to perform a diagnostic on the sensors and device. See Diagnostic chapter for a complete view of it	N.A.

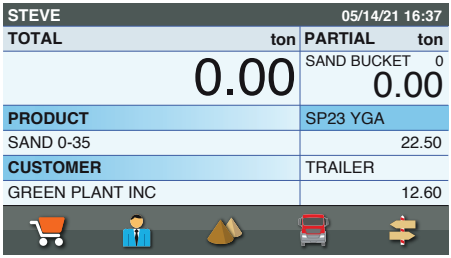
APPENDIX 4

Diagnostics

In Diagnostics you can check and confirm that the Device and all its peripheral equipment are working properly.

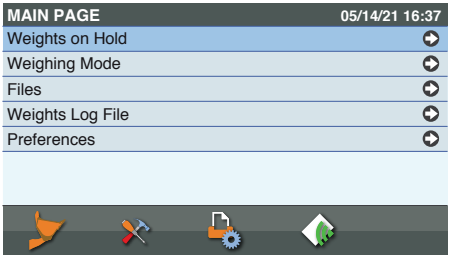
..1.. Main Page

Press the key to enter the Main Page



..2.. Select diagnostic

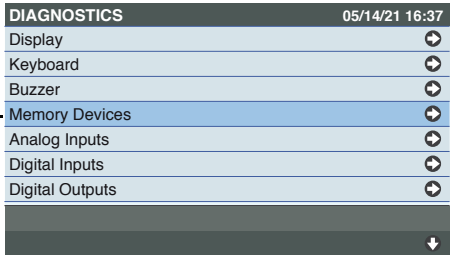
Press the key to enter Diagnostics



..3.. Diagnostics

In Diagnostics, select the component you want to diagnose

Enter the selected component to start diagnosing



DIAGNOSTICS

DISPLAY		DEFAULT
Screen - Backlighting	It allows to check screen colors and backlighting are working properly	N.A.
KEYBOARD		
Keys - Backlighting	By pressing a key its name or symbol is diplayed to show it is working properly. Backlighting turns off and on the keyboard leds	N.A.
BUZZER		
Off On	Applies on and off power to the buzzer	N.A.
MODEMS		
TRACKWEIGHT FX30 Technology - Signal Strength (%) - Server - Modem - ipotweb.com account - Latitude - Longitude VORTEX WIFI Network - Server - ipotweb.com account RF Link 1870E Tx Address - Rx Address	Three different types of modems can be diagnosed based on which one is selected into Wireless Preferences. TRACKWEIGHT FX30 TECHNOLOGY: 2G - CAT M1 - NBIoT technology with which the modem was set into Wireless Preferences SIGNAL STRENGHT: Very Low - Low - Medium - Good - Very Good SERVER: establishes a connection to ipotweb.com server MODEM: check connection to the modem IPOTWEB.COM: check connection availability to your ipotweb.com account based on the settings done into Wireless Preferences LATITUDE: check GPS functionality LONGITUDE: check GPS functionality VORTEX WIFI NETWORK: displays the wifi network SERVER: establishes a connection to ipotweb.com server IPOTWEB.COM: check connection availability to your ipotweb.com account based on the settings done into Wireless Preferences RF LINK 1870E TX ADDRESS: modem transmission address RX ADDRESS: modem reception address	FX30

DIAGNOSTICS		
WILOAD		DEFAULT
Wiload ID - Channel - Battery (V) - RSSI - Wiload Nearby - Protocol Version - Firmware Version	The connected Wiload feeds back some relevant data	N.A.
WILINK		
Firmware Version - Frequency - Wireless Module Test	The connected Wilink feeds back some relevant data	N.A.
MEMORY DEVICES		
All Devices - NAND Flash - NOR Flash - SDRAM - USB Key - Format NAND Flash	It allows to check the Device memories including the USB stick connected to it. Format NAND Flash, instead deletes all data from Device and set them into the default values. Doing a format can sometimes repair memory banks which can be seen in sw strange behavior or print out. Format requires the administration password	N.A.
ANALOG INPUTS		
ADC Sensor 1 ADC Sensor 2 ADC Power ADC Brightness Sensor	The test gives a digital number which is the analog conversion of the specified inputs. Sensor 1 is connected to S1 port and Sensor 2 to S2 port	N.A.
DIGITAL INPUTS		
Proximity 1 - Proximity 2 Tool Open Tool Closed Tilt Port Input 1 Input 2	The test gives the On or Off condition of each single port. Proximity 1 and 2 are the switches inside the weighing zone sensor and conneceted to W.Zone connector. Tool Open and Tool Closed are connected to the Power port. This test gives the real sensor's state not the one for which the sensor was set into Weighing Preferences where the logic can be opposite	N.A.
DIGITAL OUTPUTS		
Outputs 1 ÷ 5	The test gives the On or Off condition of each single output. The CPU must be enabled for outputs. Standard is not.	N.A.

DIAGNOSTICS		
SERIAL LINES		**DEFAULT**
All Devices - Printer - Modem - RS485	To test the Serial Lines Printer, Modem and RS485 Rx should be connected to Tx in the connector. Mainly used during first assembly and testing at factory	N.A.
OTHER DEVICES		
Dip2-1 - Dip2-2 - Dip2-3 - Dip2-4	Used at factory to test the dipswitches into the CPU board	N.A.
ANGLE SENSORS		
Boom - Machine X-axis Machine Y-axis	The test gives back the angle of each sensor	N.A.
WEIGHTS RECORDING ON USB		
Enable	It enables the recording of a .csv file into the USB stick of each single lift weighing data including sensors input, weighing time, calculated weight.	N.A.
WEIGHING DIAGNOSTIC PAGE		
Enable	Instead of the standard weighing page the diagnostic page can be enabled, therefore at each lift you can see, beside the weight, the sensors signal value. An editing page will help to record the true weight and notes you like to add	N.A.

Troubles Finder

The following table helps to find out the reasons of possible failures or malfunctions.

POWER		
DEVICE DOES NOT SWITCH ON		
Is Power connector plugged in?	YES NO	NEXT PLUGIN
Is 3.15A fuse on the power line broken?	YES NO	REPLACE NEXT
Check machine's battery charge	OK NOT OK	NEXT CHARGE
Check if the connector has power pin1 = V+ pin3 = V-	YES NO	NEXT REPLACE
Replace power cable	OK NOT OK	END REPAIR DEVICE
DISPLAY IS BLACK		
Is Display black but printer LED On?	YES NO	REPLACE DISPLAY NEXT
Follow "Device does not switch On" finder		

PRINTER		
PRINTER DOES NOT PRINT		
Is Printer enabled into Print Preferences?	YES NO	NEXT ENABLE
Is Printer LED flashing?	YES NO	OUT OF PAPER NEXT
Is Printer LED On?	YES NO	NEXT REPLACE CABLE
Is Printer printing?	YES NO	END NEXT
Once connected to the Modem port, if available, and set Printer external connector as "Modem" into Print Preferences, is it printing?	YES NO	REPAIR DEVICE REPLACE PRINTER

DYN DYN+ SPEED WEIGHING		
DEVICE DOES NOT WEIGH		
Is “Green” LED on the weighing sensor On?	YES NO	NEXT REPLACE CABLE
Are both “Orange” LEDs on the weighing sensor switching On when the metal trigger is in front of the sensor?	YES NO	NEXT REPLACE SENSOR
Is the Device displaying the message “Lifting speed too low” after lifting?	YES NO	NEXT REPAIR DEVICE
Is lifting done with higher speed?	YES NO	NEXT DO IT
Is the Device now weighing?	YES NO	END REPAIR DEVICE
STA AUTOSTA WEIGHING		
DEVICE DOES NOT WEIGH (with sensor)		
Is “Green” LED on the weighing sensor On?	YES NO	NEXT REPLACE CABLE
Is the “Orange” LED on the weighing sensor switching On when the metal trigger is in front of the sensor?	YES NO	NEXT REPLACE SENSOR
Is the Device displaying the message “STOP” when the metal trigger is in front of the sensor?	YES NO	NEXT REPAIR DEVICE
Is the Device displaying “STOP” all the time?	YES NO	NEXT END
Check Load Sensors stability, when unstable the Device stays in “STOP” because unable to find a stable weight	OK NOT OK	REPAIR DEVICE REPLACE SENSOR
DEVICE DOES NOT WEIGH (with push button)		
Is the Device displaying the message “STOP” when the push button is holded down?	YES NO	NEXT NEXT
Is the Device displaying the message “STOP” when the OK key on the Device is pressed?	YES NO	NEXT REPAIR DEVICE
Is the Device displaying “STOP” all the time?	YES NO	NEXT END
Check Load Sensors stability, when unstable the Device stays in “STOP” because unable to find a stable weight	OK NOT OK	REPAIR DEVICE REPLACE SENSOR
WEIGHING		
UNSTABLE WEIGHT		
Is the Device displaying the message “Unstable Weight” with the machine standing still?	YES NO	NEXT NEXT
Is the Device weight result compared with a true value, unstable more than 5% up and down?	YES NO	NEXT END

WEIGHING		
UNSTABLE WEIGHT		
Plug in S1 sensor (green) to the S2 port (blue) and S2 sensor (blue) to the S1 port (green). Is "Unstable Weight" still displayed?	YES NO	REPLACE BACK PANEL REPLACE SENSOR
The application use S2 Sensor plugged into the Device?	YES NO	REPLACE BACK PANEL REPLACE SENSOR
Is "Unstable Weight" still displayed?	YES NO	REPLACE BACK PANEL END
The application has one or two junction boxes from where Sensor 1 (green) and Sensor 2 (blue) parallel cables are plugged into the Device?	YES NO	CHECK CONNECTIONS NEXT
Has "Unstable Weight" message disappeared?	YES NO	END REPAIR DEVICE
UNSTABLE ACCURACY		
Is the machine standing still?	YES NO	NEXT STOP
On applications with a lifting boom are weighing tests done at low rpm?	YES NO	NEXT DO IT
Taking the weight result at low rpm as the true value, is the weight at high rpm within one scale interval?	YES NO	NEXT CHANGE S2 GAIN
Loading a truck with the tool full and not, is the total weight result precise?	YES NO	END NEXT
Can you use DYN+ to calibrate weight's thresholds accordingly?	YES NO	END MACHINE PROBLEM
Is the application with a load cell or with static weighing in any or a specified position?	YES NO	NEXT END
With the tool or machine stopped and loaded is weighing constant or unloading and loading gives the same weight?	YES NO	END NEXT
Is load cell or sensor freely working without any damage to the supporting structure	YES NO	REPLACE LOAD CELL REPAIR STRUCTURE
MODEM		
TRANSMISSION FAILURE		
Is the Device, scale, displaying "Modem not connected?	YES NO	REPLACE CABLE NEXT
Is the Device, scale, displaying "Modem not connected?	YES NO	REPLACE MODEM NEXT
Is the Device, scale, displaying "Modem not connected?	YES NO	REPAIR DEVICE NEXT

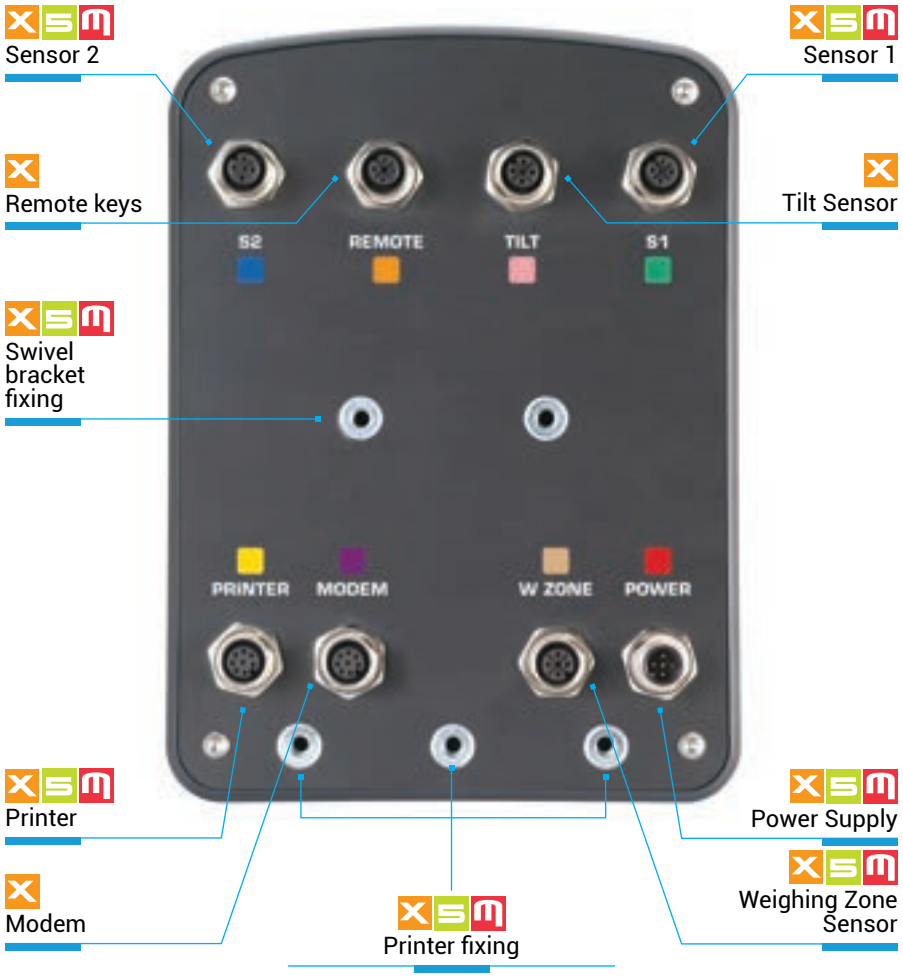
MODEM		
TRANSMISSION FAILURE		
Is the Device, scale, displaying a problem related to ipotweb.com?	YES NO	CHECK ACCOUNT NEXT
Is ipotweb.com account open and its credentials correctly entered into the modem configuration?	YES NO	NEXT DO IT
Are you sure you are connected to the local network and internet?	YES NO	NEXT CHECK IT
Modems have an LED that is on or blinks when connected to the internet or network in case of wifi, is the LED as described?	YES NO	CALL SUPPORT NEXT
Check with your network support or activate/replace SIM card		
ANGLE SENSORS		
DEVICE DOES NOT WEIGH		
Are you sure start and end of weighing are set correctly into the tool under the Angles page? If start or end of weighing are set too high the angles might not be reached by the boom's lift	YES NO	CALIBRATION
Was calibration possible?	YES NO	NEXT
Is Boom sensor displayed into Angle Sensors diagnostics?	YES NO	CONFIGURE
Is the terminator connector plugged in to the sensor?	YES NO	DO IT
Configure the Boom sensor into Utility Preferences		NEXT
Can the sensor be configured?	YES NO	END REPLACE SENSOR
Can the sensor be configured?	YES NO	REPLACE CABLE
Can the sensor be configured?	YES NO	REPAIR DEVICE
Is the Device weighing?	YES NO	END REPAIR DEVICE

APPENDIX 5

Connections

The Device can be equipped with M12 type Back Panel or Amphenol type Back Panel. Each one identifies the connectors type used on the back panel, M12 or Amphenol.

M12 type Back Panel



Power

Pin	Signal	Description	Color
1	+ Vin	+ Power Supply	Brown
2	SPROX3	Tool Open	White
3	GND	Ground	Blue
4	SPROX4	Tool Closed	Black
5	+Vout	+ Power Supply to Proxies	Yel Gre

W.Zone

Pin	Signal	Description	Color
1	+ Vout	+ Power	Brown
2	SPROX2	Weighing Zone Proxy 2 contact	White
3	GND	Ground	Blue
4	SPROX1	Weighing Zone Proxy 1 contact	Black

Modem

Pin	Signal	Description	Color
1	+ Vout	+ Power	White
2	CTS	Clear to Send	Brown
3	DTR	Data Terminal Ready	Green
4	TXD	Send	Yellow
5	GND	Ground	Grey
6	RXD	Receive	Pink
7	DCD	Not Connected	Blue
8	RTS	Ready to Send	Red

Printer

Pin	Signal	Description	Color
1	+ Vout	+ Power	White
2	CTS	Clear to Send	Brown
3	DTR	Data Terminal Ready	Green
4	TXD	Send	Yellow
5	GND	Ground	Grey
6	RXD	Receive	Pink
7	DCD	Not Connected	Blue
8	RTS	Not Connected	Red

S1 - sensor 1

P8 pressure sensor

Pin	Signal	Description	Color
1	+ Vout	+ Power	Blue
2	S+	+ Sensor signal	White
3	- Vout	- Power	Black
4	S-	- Sensor signal	Red
5	SCH	Shielding	No color

Tilt - tilt switch

Pin	Signal	Description	Color
1	+ Vout	+ Power	Brown
2	0-STILT	Common contact	White
3	GND	Ground	Blue
4	STILT	Tilt X-Y contact	Black
5	ZTILT	Tilt Zero Setting	Yel Gre

Tilt - lights

Pin	Signal	Description	Color
1	+ Vout	Not used	Brown
2	0-STILT	Not used	White
3	GND	Ground	Blue
4	STILT	Not used	Black
5	ZTILT	+ Power	Yel / Gre

Remote

Pin	Signal	Description	Color
1	NC	Not connected	Brown
2	SK1	Key 1 contact	White
3	GND	Ground	Blue
4	SK2	Key 2 contact	Black

S2 - sensor 2

P8 pressure sensor

Pin	Signal	Description	Color
1	+ Vout	+ Power	Blue
2	S+	+ Sensor signal	White
3	- Vout	- Power	Black
4	S-	- Sensor signal	Red
5	SCH	Shielding	No color

Amphenol type Back Panel

Power and W.Zone

Pin	Signal	Description	Color
1	+ Vin	+ Power Supply	Red
2	GND	Ground	Black
3	+ Vout	+ Power to Proxies	Orange
4	SPROX1	Weighing Zone Proxy 1 contact	Gray
5	SPROX2	Weighing Zone Proxy 2 contact	White
6	SPROX3	Tool Open Proxy contact	Green
7	SPROX4	Tool Closed Proxy contact	Yellow

Modem

Pin	Signal	Description	Color
1	+ Vout	+ Power	White
2	CTS	Clear to Send	Brown
3	DTR	Data Terminal Ready	Green
4	TXD	Send	Yellow
5	GND	Ground	Grey
6	RXD	Receive	Pink
7	DCD	Not Connected	Blue
8	RTS	Ready to Send	Red

Printer

Pin	Signal	Description	Color
1	+ Vout	+ Power	White
2	GND	Ground	Grey
3	CTS	Clear to send	Brown
4	SG	Signal Ground	
5	RXD	Receive	Pink
6	TXD	Send	Yellow
7	DTR	Data terminal Ready	

S1 - sensor 1

P8 pressure sensor

Pin	Signal	Description	Color
1	Sense +	+ Sensing	Gray
2	S-	- Sensor signal	Red
3	+ Vout	+ Power	Blue
4	- Vout	- Power	Black
5	S+	+ Sensor signal	White
6	SCH	Shielding	No color
7	Sense -	- Sensing	Green

Note: Sense+ and Sense- are connected as above when the Sensing circuit is enabled into the Device's CPU. As a standard Sensing is not enabled, therefore Sensing+ is connected to Vout+ and Sensing- is connected to Vout-

Tilt - tilt switch

Pin	Signal	Description	Color
1	+ Vout	+ Power	Brown
2	0-STILT	Common contact	White
3	GND	Ground	Blue
4	STILT	Tilt X-Y contact	Black
5	ZTILT	Tilt Zero Setting	Yel Gre

Tilt - lights

Pin	Signal	Description	Color
1	+ Vout	Not used	Brown
2	0-STILT	Not used	White
3	GND	Ground	Blue
4	STILT	Not used	Black
5	ZTILT	+ Power	Yel Gre

Remote

Pin	Signal	Description	Color
1	NC	Not connected	Brown
2	SK1	Key 1 contact	White
3	GND	Ground	Blue
4	SK2	Key 2 contact	Black

S2 - sensor 2

P8 pressure sensor

Pin	Signal	Description	Color
1		Not Connected	
2	S-	- Sensor signal	Red
3	+ Vout	+ Power	Blue
	Sense +	+ Sensing	Gray
4	- Vout	- Power	Black
	Sense -	- Sensing	Green
5	S+	+ Sensor signal	White
6	SCH	Shielding	No color
7		Not Connected	

Note: Sense+ (gray) and Sense- (green) are connected to +Vout and -Vout respectively, because on S2 the sensing circuit is not available

EU declaration of conformity
(in accordance with ISO/IEC 17050-1)

No. 05

Manufacturer's name **Veigroup S.r.l.**
Manufacturer's address Piazza G. Zanella, 1/A
36066 Sandrigo (VI)
Italy
Object of the declaration Device for payload and data management
VEI
helperX - HelperXE - HelperM - Millennium5

The subject of the above declaration complies with the requirements of Directive 2014/30/EU of 26 February 2014 concerning the harmonization of member State legislation regarding electromagnetic compatibility and with the requirements of the following harmonized standards and/or technical specifications.

Documents No.	Title	Edition Date of issue
EN 61326-1	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	2013
ISO 7637-2	Road vehicles - Electrical disturbances from conduction and coupling	2011
ISO 7637-3	Road vehicles - Electrical disturbances from conduction and coupling	2016
ISO 16750-2	Road vehicles — Environmental conditions and testing for electrical and electronic equipment	2012
EN 50498	Electromagnetic compatibility (EMC) - Product family standard for aftermarket electronic equipment in vehicles	2010
EN ISO 14982	Agricultural and forestry machinery - Electromagnetic compatibility - Test methods and acceptance criteria	2009
ISO 13766	Earth-moving machinery - Electromagnetic compatibility	2018

Additional information
The product is marked in accordance with the requirements of Directive 2014/30/EU.
Laboratory: RadioMotive Srl - Via Tevere,63 - 22073 Fino Mornasco (CO) - Italy
Test report No.: 0259R1_19_EMCTR-2 date 2019-11-19

Signed for and on behalf of: Veigroup S.r.l.

Place and date of issue Sandrigo, 2019/12/06

Name, function
Giuseppe Valerio
Product Manager

Signature or equivalent authorized by the manufacturer

Giuseppe Valerio

Since 1986 we supply your solutions across the industries

The experiences of customers like you are blended into our products to give you a unique satisfaction when you discover that with them you can go beyond your expectations, complete tasks that customers like you have done before, or suggest your needs to become a mirror for other customers.

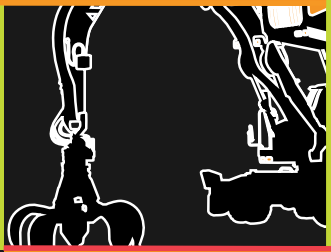
APPLICATIONS ACROSS THE INDUSTRIES

WHEEL LOADER

sand and gravel quarry mining recycling agriculture construction ports

MATERIAL HANDLER

recycling waste wood ports



FORKLIFT

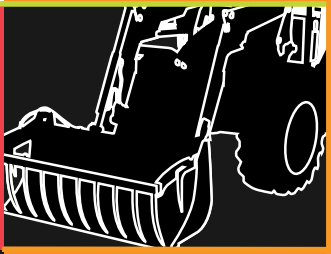
logistics material depot containers recycling

REACH STACKER

containers

TRACTOR

agriculture



TRUCK CHASSIS WEIGHING

waste transport

AGRI TRAILER

agriculture

TELESCOPIC LOADER

agriculture material depot

"in all sectors where a load is moved, knowing its weight it is of primordial importance because it involves the energy to move it, which establishes the profitability of the action"

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