X-Series System Manual Part 4:

Weighing terminal with 15" touch screen

METTLER TOLEDO

Version check:

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1 Introduction

1.1 Using the touch screen

The touch screen technology provides rapid and simple operation by directly touching the menu items and command buttons with your finger. Navigating with the cursor is then no longer required.

▲ The touch screen may only be touched with your finger or a blunt object. The use of sharp objects, such as a screw driver, can destroy the touch screen. This case is not covered by the warranty.

Note
The package and other data can also be entered with a common PC keyboard with a USB connection. The USB port is located on the computer of the weighing system.

Character and digit entries If alphanumeric entries (characters and digits) are required for a parameter, the window with the virtual keyboard opens:
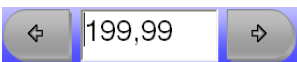
The functions of the keys correspond to those of common keyboards:

Item	Description
1	Entry field
	Characters and digits can be entered by touching the screen keyboard or by using an external keyboard.
2	Correction key
	Used to correct typing errors. The character last entered is deleted.
3	**Cancel** button
	Cancels the entry without storing the entries.
4	**OK** button
	The entries and selections made are accepted and the window is exited.
5	Button for displaying an extended screen keyboard
6	Space key
7	SHIFT key
	For switching between upper- and lower-case when entering characters
8	Screen keyboard
	Touch the required characters/digits. If appropriate touch the SHIFT key first.

Numerical entries   If solely numerical entries are required for a parameter, such as to enter a value, a window with the numerical keypad opens:
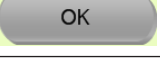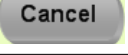
Button	Description
Min.: 0,00	Displays the minimum value that has to be entered. Touching the field accepts the displayed minimum value.
Max. 1200	Displays the maximum value that may be entered. Touching the field accepts the displayed maximum value.
199,99	Arrow key left: The displayed value is decreased. Arrow key right: The displayed value is increased. **Note** An implausible value has a red background.
(weighcell)	Accepts the current weight measured on the weighcell into the digit field. The conveyor must be at a standstill for this.
(correction)	Correction key. Used to correct typing errors. The character last entered is deleted.

The other keys (**OK**, **Cancel**) correspond in their meaning to those of the character field on the previous page.

Selection from list boxes   If a parameter has several selection options, a window opens containing the possible selections, for example to select the unit:
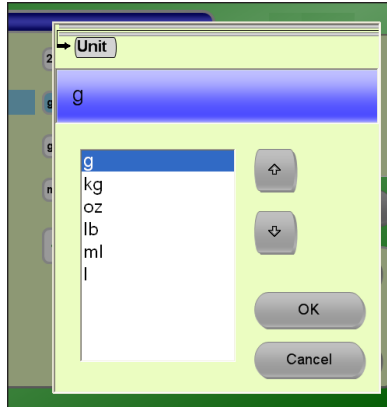
Button	Description
	Scroll up- and downward through the list of selection options
	Displays the current selection
	The selection made is accepted and the window is exited.
	Cancels the entry without storing the entries.

Return to basic screen (Home)   Touching the button in the screen footer returns you from any point in the program back to the **basic screen**.

2 Description

2.1 How the checkweigher works

Companies that process and package products use checkweighers to make sure they do not sell too much or too little of the product in question to the end-user.

Checkweighers are also used for statistical analysis in the companies, strict quality control and cost reduction purposes.

The product is weighed while it is on the production line. Classification of each product is carried out in weight zones that have been defined in advance. The product is rejected if it does not lie within the weight specifications.

Checkweighers can carry out weighings while the conveyor moves either continuously or intermittently. The conveyor is not stopped when the product is being weighed in continuous mode. In intermittent mode, the product is stopped briefly on the checkweigher and weighed.

2.2 Basic screen overview
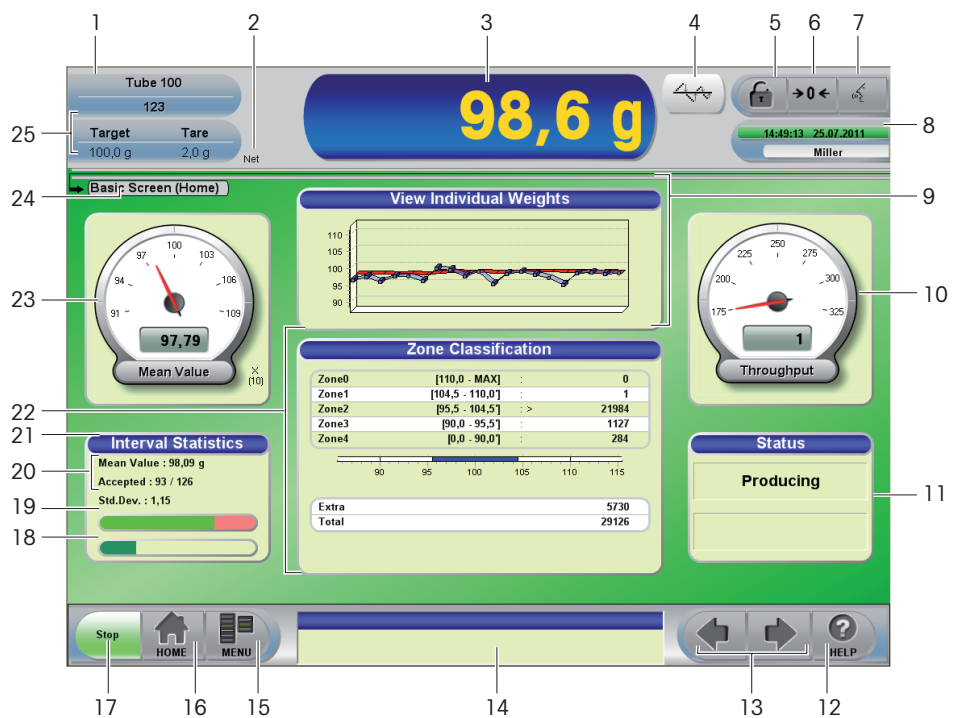
Note

The basic screen of your concrete checkweigher may deviate slightly from the **basic screen** due its customized configuration.

Item	Explanation
1	Name and Code Number of the package currently being weighed. When touched it changes to the **Package Changeover** screen.
2	In static operation the gross weight is always displayed, without deduction of the tare. The tare is only deducted at a running conveyor and only then is the "Net" symbol displayed.
3	Net weight of the product being weighed. When touched it changes to the **Large Weight Display** screen. The gross weight, the difference between the actual weight and the target weight or the mean value gliding count can optionally be displayed in the **Large Weight Display** screen.
4*	Direct jump to the control chart for the **Feedback** (option). The button changes it appearance depending on the control process: • Up control: Arrow upward (red) • Down control: Arrow downward (green) • No control: Display of the control chart (gray) **Note** The button is only available when the **Feedback** option is activated.
5	Status display of the current access code protection. If there is a **green bar** under the display of the date and time (toggle field): • When the lock symbol above the date and time display is closed: The device is in **monitoring mode**. No user is logged in. • When the lock symbol is open: A user is **logged in** and the bar under the date and time is reduced in accordance with the preset utilization time for this user. If there is a **red bar** under the date and time display, the lock symbol is locked and the device is in **monitoring mode**: • Either the **utilization time** of the logged-in user **has expired** – or – • The lock symbol was touched while a user was logged in. The user is **logged off**. When the closed lock symbol is touched, the **Login** screen is displayed. After a successful login the bar becomes green again.
6	For manual rezero of the large weight display when the weighing conveyor or platform is empty. If no rezero is carried out within a specified period, the rezero button becomes red. **Note** In the case of certified checkweighers the button is deactivated as soon as the motors run.
7	Temporary language changeover for the current session: is reset to the configured language (Timeout Language, see Chapter 9.2.4 "Miscellaneous Setup").

Item	Explanation
8	Display of the date, time, name and profile of the current user. • Date and time: The display has a green bar in the background that shows the logged-in user how much time still remains for entries at the touch screen. If nothing is entered on the touch screen for a specified length of time, the weighing terminal automatically switches back into security mode. The bar becomes red. • Current user: The user currently logged in is displayed under the date and time display. This display changes between the name and the profile of the respective user. **Note** When this field is touched, those sections of the touch screen that can currently be activated are marked with an orange frame. Every user can recognize at a glance what he or she can change or call up in this screen. The markings disappear when this field is touched again.
9*	Graphical display of the last 20 measured items and the mean value gliding count. The chart is zoomed in with every touch.
10	Analog and digital display of the number of weighings (throughput) per minute. When touched it changes to the **Speed** screen.
11	Current system status. When touched it changes to the **OMAC Machine Status** screen.
12	Call up online help.
13	Change to the previous or next view (not always displayed).
14	Info field for system information, alarms and errors. When touched it changes to the **Messages** screen.
15	Call up the main menu.
16	Change to the **basic screen**.
17	Start/stop conveyor drives in as far as operation via the touch screen is provided.
18*	Residual time of the production hour (only if **Statistics** option is active).
19*	Graphics display of the ration of accepted to not-accepted products (only if **Statistics** option is active).
20*	Number of the accepted products for all the weighed products and the corresponding mean value (only if the **Statistics** option is active).
21*	Toggle field for the **Statistics** option: When this header is touched the display changed between the screens Total Statistics, Hour Statistics, Batch Statistics and Interval Statistics. When the field with the statistical data (Items 18–20) is touched, the program changes to the screen of the statistics evaluation selected in toggle field.

Item	Explanation
22	Zones – Display of the zone designation, the current tolerance limits, the product quantity per weight class and of the special counts such as the Countercheck* and the number of products recognized by the Metal Detector* as containing metal.
	A tolerance limit can always only belong to one zone. If a tolerance limit value does not belong to the zone that it delimits, it is identified in the weight zones display by an inverted comma (also see Chapter 4.3 "Limit Setup").
	The zone in which the product just weighed belongs is identified by >.
	When touched it changes to the **Zones** screen.
23*	Analog and digital display of the mean value gliding count.
	When touched a window is displayed in which the basis for calculating the displayed mean value can be changed. The following are displayed additionally (**Statistics** option active): Hour Statistics*, Total Statistics*, Interval Statistics* or Batch Statistics*.
24	Name of the current screen that is being displayed.
25	Target weight and tare weight of the package that is being produced.
	When touched changes to the **Main Package Setup** screen into the package data where the target weight can be changed.
	Note If a tare weight is entered, "Net" for net weight is displayed on the right next to the tare display at running conveyors.
	This display extinguishes while the conveyors are standing still because nothing is deducted.

Fields of the **basic screen** that are marked with an asterisk require the corresponding options to be activated. If for example the optional **Feedback** is not available, the button for jumping directly to the control chart (4*) does not exist. If the **Statistics** is not activated, the information "Statistics not active" is displayed in Fields 18, 19 and 20 instead of the statistical data.

2.3 Basic screen with the Quick Access Box

A Quick Access Box is displayed for each user in the basic screen. Prerequisite is that this tool was assigned to the user when setting up the profiles. The Quick Access Box can be positioned freely. In the example the **Status** field is covered by the Quick Access Box (see Chapter 9.2.4 "Miscellaneous Setup").
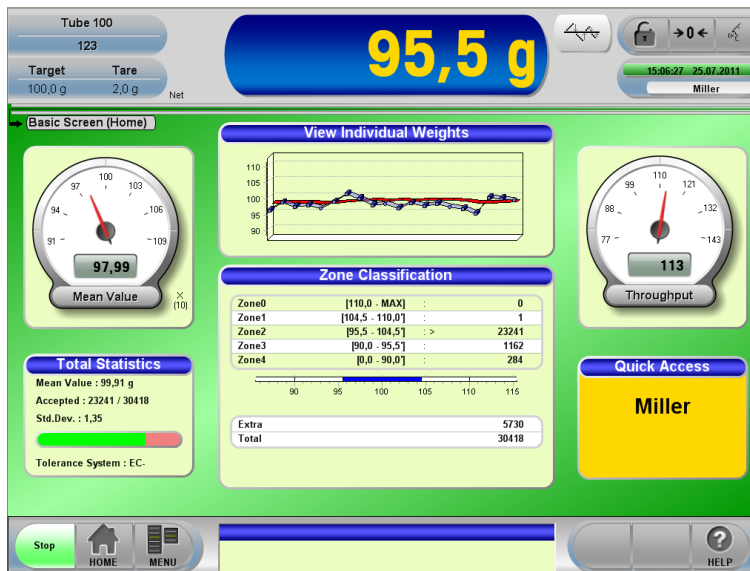
The profile name of the logged-in user stands on the Quick Access Box. When the box is touched, a window is opened in which the individually assigned views are displayed. For information about configuring the Quick Access Box see Chapter 9.1.4.
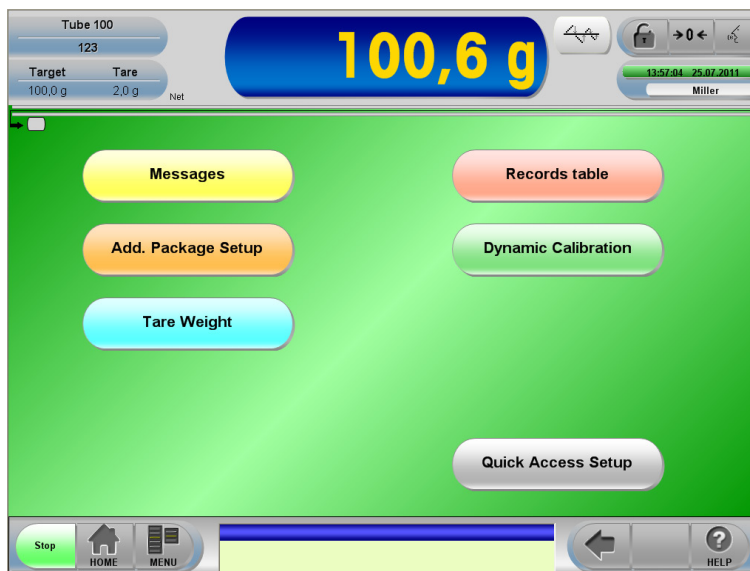
2.4 Menus

The **menu** layout depends on the user's access level (profile). Users with a low access level do not see all the menu items described here.

Subordinate menus can be displayed on a higher level to users with a low access level so they can access those menus more easily.

Depending on the access authorization the users see only a part of or all the main menus:

- Information
- Production Data
- Package Maintenance
- Actions
- Setup
- Maintenance

The following representations take the access authorizations up to and including the **Supervisor** access level into account.

Note
Numerous options are available for the checkweigher. These are described in detail in the **X-Series System Manual Part 6: Options**.

All the options are only displayed in the menus if the respective option is installed and is activated in the **Function Allocations** menu (see Chapter 9.4 "Function Allocations").

2.4.1 Information menu (Level 1)

Level 2	Level 3
Messages	
Status	OMAC Machine Status
	Components Status
	Output Info
	Input Info
	Positions
XRTC**	
System Information	
Stored Printouts*	

*   Option

** Select menu items when instructed by after-sales service to do so

The following information can be called up in this menu:

- System information
- Information about the checkweigher and its components as well as their positions
- Logs of the statistics, evaluations and messages

For detailed information about this menu see Chapter 7 "Information".

2.4.2 Production Data menu (Level 1)

Level 2	Level 3
Zones	
Statistics*	Total Statistics*
	Hour Statistics*
	Interval Statistics*
	Batch Statistics*
	Records Table*
	Records Graphics*
Charts	Feedback*
	Items
	SPC Trend*
	Histogram
	Fillhead Analysis*
Large Weight Display	

* Option

The following values can be defined and called up in this menu:

- Display weight zones with all the parameters
- Statistics (option): Call up Total Statistics, Hour Statistics, Interval Statistics, Batch Statistics, Records Table and Records Graphics.
- Display charts: Items and histogram as well as charts for the options Feedback SPC Test and Fillhead Analysis, if available
- Large Weight Display

For detailed information about this menu see Chapter 6 "Production data".

2.4.3 Packages menu (Level 1)

Level 2	Level 3
Active Package	Main Package Setup
	Add. Package Setup
	Package Setup (3)*
	Gliding Limits Setup*
	Add. Length*
	Limit Setup
	Statistical Limits*
	Interval Setup*
	Feedback Setup*
	Metal Detector*
	Extended Succ. Error*
	Rejecter Adjustment
	Dynamic Calibration
	SPC Interval Setup*
	Fillhead Parameters*
	Digital Position Indicators*
Package Maintenance	Package Changeover
	Create New Package
	Edit Package
	Delete Package
	Copy Package
	Print Package*
Packages Export and Import	
Zone Calculation Setup	

* Option

In this menu, you can enter and edit the following values and settings for a package:

- Call up and change the settings for the current package as well as configure package options

- Change, create, edit, delete, copy and print packages in the package maintenance

- Export and import packages

- Zone pre-assignment for automatic recalculation of the zones after the target weight has been changed

For detailed information about this menu see Chapter 4 "Active Package" and Chapter 5 "Package Maintenance".

2.4.4 Actions menu (Level 1)

Level 2
Login
Login Server Login*
Display Cleaning Mode
Final evaluation*
Batch*
Tare
Load Package from Host*
Download Product from ProdX*

* Option

The following functions can be executed up in this menu:

- A user logs in with user name and password
- Logging in via LogIn Server (option) or Domain Server (option)
- Deactivate touch screen for cleaning
- Direct request of a final evaluation (option)
- Direct entry of the Batch Number (option) or of the tare weight
- When FreeWeigh/ProdX is activated, load packages from an external data source (option).

For detailed information about this menu see 3 "Actions".

2.4.5   Setup menu (Level 1)

Level 2	Level 3	Level 4
Users	Edit Users	
	Edit Profiles	
	Assign Profiles	
	Quick Access Setup	
	Users Export and Import	
General	Time and Date	
	Rejecter Settings	
	Zone Actions	
	Metal Detector*	
	Miscellaneous Setup	
System	Motor	Speed
		Motor Analysis
	Functions	Function Allocations
		Succ. Error Groups*

*   Option

The following values and settings can be entered in this menu:

- Administrate the profiles of the users, export and import users
- Assigning of views for Quick Access to the current user profile
- Set general parameters (e.g. time, rejecter, zone actions)
- Miscellaneous: Carry out basic settings that are only carried out once
- Set motor parameters
- Edit functions and options (as instructed by the METTLER TOLEDO Garvens after-sales service)
- Metal Detector (option)

For detailed information about this menu see Chapter 9 "Setup".

2.4.6   Maintenance menu (Level 1)

Level 2	Level 3
Data Backup	Backup Internally
	Backup USB Stick
	Restore Internally
	Restore USB Stick
File Copy	

* Option

This menu is used mainly by technicians who have carried out changes to the system.

The following files of the system can be administered in this menu:

•   Store configuration and/or software

•   Restore backup

For detailed information about this menu see Chapter 8 "Exporting and importing data".

2.4.7   Quick Access menu

The menu item **Quick Access** is only displayed if views have been assigned to a profile using the menu item**Setup – Users – Quick Access Setup**. The selected view are displayed on menu level 2.

For detailed information about this menu see Chapter 9.1.4 "Configuring the Quick Access Setup".

2.5 Access levels

The weighing terminal is normally in "Monitoring" mode. The weighframe is in operation but the settings cannot be changed. To de-activate this protection, a user ID and a password have to be entered.

Access rights are defined in user profiles and each user profile is assigned to each user. Access rights vary from being able to only view statistics and values without any write permissions up to extensive administrator rights.

The following access levels, which can be modified as required, exist:

Profile name	Authorization
Viewer	Solely viewing of parameters and selected statistics. No password, but can also be protected with a password
Operator	Additional rights for switching to a different package memory location and for printing statistics
Supervisor	Additionally creating and deleting packages, adjusting rejecters and allocating zone actions, setting up and editing user profiles, parameterizing outputs and inputs
Administrator	All rights, as a rule the manufacturer's Technical Customer Support

The factory-set profiles can be modified as required or further profiles added.

This manual describes the functions for all the access levels up to and including the **Supervisor** level.

3 Actions

Note

Depending on the model further entries can be configured in the **Actions** menu than those described below, for example if the **Statistics** option is active, the entries **Batch** and **Final evaluation**.

3.1 User log-in

In order to operate the weighing terminal the user has to enter his password and name. In addition the user can individually change the user interface language and the password in this menu.

Note

In the case of a corresponding configuration the checkweighers can work together with a login server on which the user data are managed centrally (see **X-Series System Manual Part 6: Options**).

1. In the **basic screen** touch 🔓 .
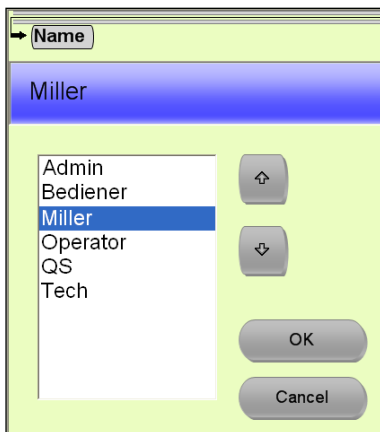
   – or –

   In the **basic screen** touch 📋 and select the menu items **Actions – Login**.

The following screen is displayed:

2. Touch the input field next to **Name**.

The following window is displayed:

```
→ Name
  Miller

  Admin          ⬆
  Bediener
  Miller
  Operator       ⬇
  QS
  Tech
                 OK

                 Cancel
```

3. Select the user name and touch [OK].

   The **Name** window is closed.

4. Touch the input field next to **Password**.

   The screen keyboard is displayed.

5. Enter the password and touch [OK].

   The system returns to the **Login** screen. The user name and **** for the password are displayed.

6. Touch [OK].

   The user is logged in.

Note

The [Show Options] button does not function until the name and password have been entered correctly.

3.1.1 Editing the password

1. In the **basic screen** touch [🔓].

   – or –

   In the **basic screen** touch [MENU] and select the menu items **Actions – Login**.

2. If you are not yet logged in, select the name and enter the password (see Chapter 3.1 "User log-in").

3. Touch [Show Options].

The following screen is displayed:

4. Activate **Change Password?** and touch [OK].

    The following window is displayed:
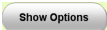
5. Consecutively enter the old password, enter the new password and once more the new password for confirmation.

6. Touch [Apply].

    The new password is stored.

3.1.2   Changing the user interface language

Note

If no-one is logged in at the checkweigher, the "Timeout" language is active. This basic setting can be changed in the **Supervisor** access level (see Chapter 9.2.4 "Miscellaneous Setup").
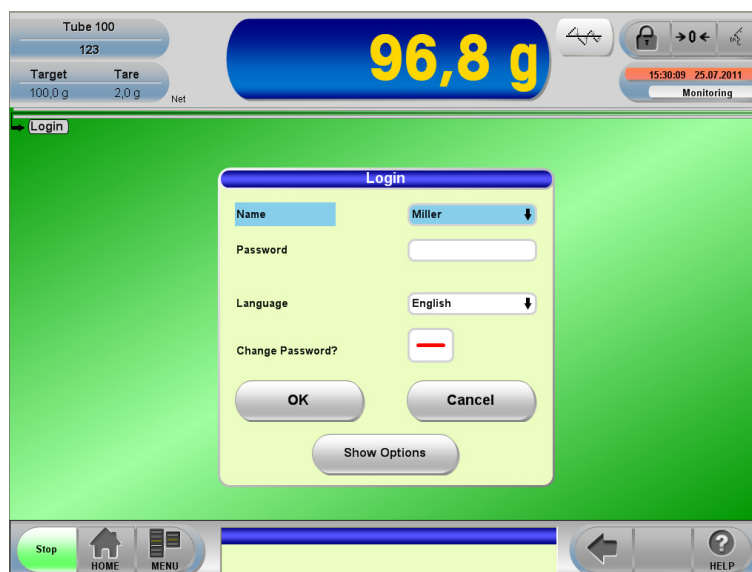
1. In the **basic screen** touch 🔓 .

    – or –

    In the **basic screen** touch ⊞MENU and select the menu items **Actions** – **Login**.
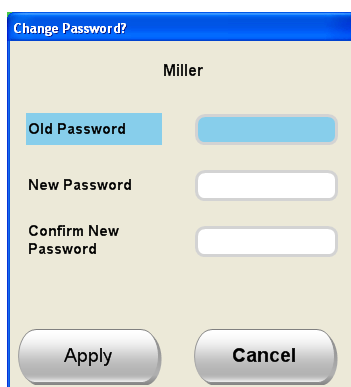
2. If you are not yet logged in, select the name and enter the password (see Chapter3.1 "User log-in").

3. Touch Show Options .

The following screen is displayed:

4. Touch the field next to **Language**.

    The list with the available languages is displayed.

5. Select the desired language and confirm with **OK**.

    The user interface is displayed immediately in the desired language.

Temporary language change   You can change the language for the current session.

1. In the **basic screen** touch 🗫 in the upper right-hand corner.

    The list with the available languages is displayed.

2. Select the desired language and confirm with **OK**.

    The user interface is displayed immediately in the desired language.

Note

This change is temporary and can be carried out by every user at any time. After the session has been terminated, the language is reset to that which is configured in the **Login** dialog or as the Timeout language.

3.2 Display Cleaning Mode

This action deactivates the touch screen for cleaning.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Actions – Display Cleaning Mode**.

The following screen is displayed:
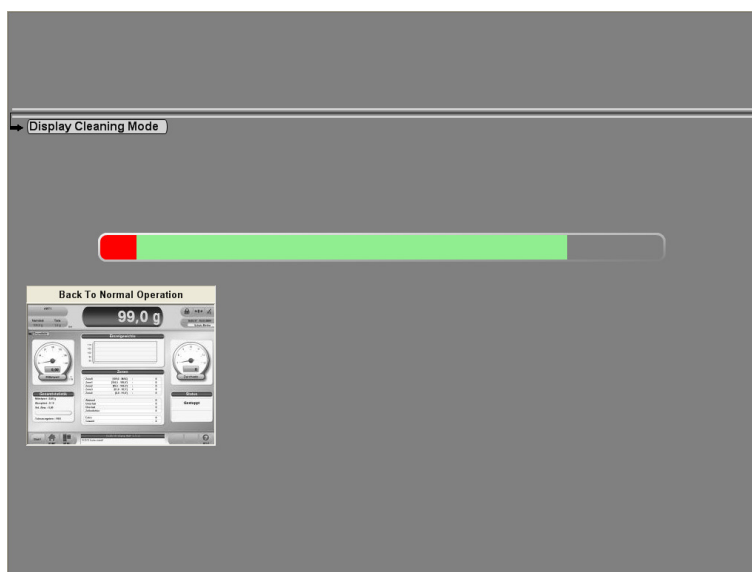
The green status bar displays the time remaining in which the touch screen can be cleaned. The time available for cleaning amounts to 30 seconds or a multiple of it.

3. Clean the touch screen.

When the green status bar is shortly before the red status bar, two arrows flash over the section **Back to Normal Operation** and the section becomes colored when the red status bar is reached.

4. If cleaning has been completed: Touch the colored section **Back to Normal Operation** and confirm the prompt with **Yes**.

    The system returns to normal operation.

    – or –

    If cleaning has not been completed: Wait until the red status bar has expired and the system restarts with a complete green status bar.

Note

Starting of the progress bar is repeated until the colored section **Back to Normal Operation** is touched.

3.3 Changing the tare

This action allows the tare weight to be changed directly.

1. In the **basic screen** touch .

2. Select the menu items **Actions – Tare**.

The numerical screen keypad is displayed and the new tare weight can be entered.

Alternatively the current weight measured on the load cell can be accepted into the digit field by using the button. The conveyor must be at a standstill for this.

The tare weight is displayed in the **basic screen** at the top left and in the **Package Setup** of the current package.

4 Active Package

This menu can be used to change the settings of the active package. The desired screen can be selected directly via the corresponding menu item.

Note

The settings in this menu may only be carried out by users having the corresponding authorization.

The active package data are categorized in the following screens:

- 4.1 "Main Package Setup" on Page 4–28

- 4.2 "Add. Package Setup" on Page 4–30

- 4.3 "Limit Setup" on Page 4–32

Note

In addition to these three standard functions, numerous hardware and software options are available whose settings can partially be carried out by using the menu **Active Package**. In the example the options Statistical Limits, Interval Setup, Feedback Setup and Fillhead Parameters are activated.

Information about the options settings can be found in the **X-Series System Manual Part 6: Options**.

Changing settings and parameters

Settings and parameters are modified in all the screens as follows:

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Active Package** and call up the screen that contains the parameters to be changed.

3. Touch the field of the desired parameter.

   – or –

   Use [↑] or [↓] to select the desired field and touch [Edit].

   The screen keyboard, the numerical keypad or a window with a list box opens.

4. Enter or select the new value and confirm with **OK**.

The system returns to the initial screen.

5. Touch **Apply** to save the entries.

– or –

Touch **Cancel** to reject the entries.

– or –

From the list window select the next window for editing the package data.

4.1 Main Package Setup

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Active Package – Main Package Setup**.

The input fields have the following meaning:

Field	Description
Name	Name of the package. Use a **unique** name. The "Code" field has to be used for designations that are repeated.
Target Weight	Target weight of the package, the basis for automatically determining the limits "TU1" and "TU2" and the base value for production data and statistics. The target weight can be entered via the numerical screen keypad. Alternatively the current weight measured on the weighcell can be accepted into the digit field by using the [ ] button. The belt must be at a standstill for this.

X-Series System Manual Part 4: Weighing Terminal 15"   **Active Package**

Field	Description
Tare	Mean fixed tare of the package that is deducted from the measured weight during each dynamic weighing process. **Note** **Tare values with decimal places** When entering the numerical value for the tare the rounding that is set in the configuration has to be observed. During running operation the decimal places in the large weight display allows a conclusion to be drawn about the type of configured rounding: • **All** the numbers can be entered after the decimal point: Any number can be entered after the decimal point for the tare. • **Only even** numbers are entered after the decimal point: Only even numbers (0, 2, 4, 6, 8) may be entered after the decimal point for the tare. • **Only 0 and 5** are entered after the decimal point: Only 0 and 5 may be entered after the decimal point for the tare.
Target Throughput	The target throughput is the number of products to be weighed per minute. The checkweigher automatically calculates the necessary belt speed to reach the target throughput and sets this speed when this screen is closed – with the exception of weighers with fixed speed and in clocking mode.
Code	If desired, enter an additional identification of the package such as a number or characters (such as EAN Code). This information is displayed during the production directly under the package name (top left) and on printouts.
Unit of Measurement	Unit for length, width and height of the package (mm, cm, inch, m).

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4.2   Add. Package Setup

1.   In the **basic screen** touch [MENU].

2.   Select the menu items **Packages – Active Package – Add. Package Setup**.

The input fields have the following meaning:

Field	Description
Description	Description of package (optional)
Number of Zones	Specify the number of weight zone (weight classes) (maximum of 7 weight zones).
Tolerance System (**Statistics** option)	Selection of the tolerance system "EC-", "FREE", "US" or "Australian"
EC-	This system complies with EU production directives.
	If the "TU1 Percentage" and "TU2" limits are violated, the product in question is rejected.
	Note
	If "EC-" is set as the tolerance system, rejecters need to be assigned to the zones "TU1" and "TU2". The rejecter number may not be set to zero.
FREE	If "FREE" is selected, violations of the "TU1 Percentage" and "TU2" limits do not necessarily cause the product in question to be rejected. It is possible in this case to select the rejecter number "NO" (= no rejecter).

Field	Description
US	If "US" is selected, the product weights are only checked to see whether they lie within the tolerance range that can be entered in the statistics entry screen – and the mean value displayed in the production data screens is only calculated from weights lying within this range. If "US" is selected, weight sorting does not take place, meaning that products are not rejected by the statistics program. See **X-Series System Manual Part 6: Options**.
Australian	Observes the Australian legislation.
Ind. Corr. Factor	Entry of the correction factor.
	Function of the correction factor: When the belt speed is very high, the weight value can differ from the value determined during statistical weighings. This effect is compensated by automatically multiplying the correction factor with the dynamically determined weight value.
	The correction factor is only taken into consideration if the weigher has been pre-configured correspondingly in the factory.
	The correction factor can be determined by means of a wizard function, see Chapter 4.5 "Dynamic Calibration".
	Note In weighing environments where calibration is compulsory, the "individual correction factor" is not displayed on screen and cannot be changed by the operator.
Product Length	Enter the **maximum** edge length of the package measured in mm – viewed in the transport direction of the conveyors.

4.3 Limit Setup

1. In the **basic screen** touch [MENU icon].

2. Select the menu items **Packages – Active Package – Limit Setup**.

The zones can have a different appearance than in the following example image depending on your customized configuration.

The limits of the individual weight zones used to classify products by weight is entered in the **Limits Setup** screen. The graphic shows the distribution of the individual zones on the left-hand side. The number of zones was specified in the **Add. Package Setup** window.

Every weighed product is categorized into one of the weight zones defined here in accordance with its weight (see the field [… ? in the following table).

The limits have to be set in descending order. They can be set according to your individual requirements. For example you can set solely underweight classes so that all the entered limits lie under the target weight of the package.

The input fields have the following meaning and can be set individually for each selected weight zone:

Field	Description
Zone Name	The designations assigned in the factory, Zone 1, Zone 2, etc. for the weight zones (weight classes) can be changed here. They are used, for example, in the **basic screen** and in printouts to mark the different weight zones (weight classes).
Comment	Enter a free comment for the respective weight zone.
Upper Limit	Specify the upper tolerance limit of the respective weight zone
Lower Limit	Specify the lower tolerance limit of the respective weight zone.

Field	Description
[... ?	The following settings regulate the case that a product weight is identical with the value of the lower tolerance limit of the selected weight zone. **Note** This setting has to be carried out individually for the lower tolerance limit of each weight zone. It can however not be carried out for the lowest weight zone.
✓	Lower tolerance limit with checkmark (default): When the checkmark is activated, a product with the same weight value as the lower tolerance limit is categorized into the **selected** weight zone.
—	Lower tolerance limit without checkmark: When the checkmark is not activated, a product with the same weight value as the lower tolerance limit is categorized into the **next lower** zone. **Note** A tolerance value between two weight zones can always only belong to one of the two zones. If a tolerance limit value should not belong to the zone that it delimits, it is identified in the weight zones display by an inverted comma.
✓ "Accepted" — "Not accepted"	You can specify individually for each zone whether it classified as "Accepted" or not in the sense of the **Statistics** option.
[Text field]	Display of the actions assigned to a zone, see Chapter 9.2.3 "Allocating actions to the weight zones".

4.4 Rejecter Adjustment

In the **Rejecter Adjustment** screen you can enter a specific delay and change the pulse duration for the current package. The changed setting applies solely for the current package.

Note

By contrast the settings in the **Rejecter Settings** screen apply for all the packages (see Chapter 9.2.2 "Rejecter Settings").

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Active Package – Rejecter Adjustment**.

The following screen is displayed:

3. In the **Rejecter List** use [⬆] or [⬇] to select the desired rejecter.

The input fields have the following meaning:

Field	Description
Delay Offset	For **dynamic** checkweighers:
	Allowance that compensates the lag of the rejecter, in "ms".
	For **intermittent** checkweighers:
	For fine adjustment between two cycles. The reference is the global sorting distance.
	Examples:
	• Blast nozzles approx. 50 ms
	• Pushers approx. 100 ms
	• Swing gates/Sorting hatches approx. 120 ms
Duration Offset	Change in the pulse duration that is set in the general sorting data. (Entry in ms)
	Example: Compensation of different package widths, when for example a longer pusher stroke is necessary.

4.5 Dynamic Calibration

In the menu **Dynamic Calibration** a package-specific correction factor (see Chapter 4.2 "Add. Package Setup") can be determined from the mean value of dynamic measurements and the static comparison value. The calculation is carried out with a test product (product sample).

1. In the **basic screen** touch the [MENU] icon.

2. Select the menu items **Packages – Active Package – Dynamic Calibration**.

The following screen is displayed:

Dynamic calibration is carried out in four steps:

1. Stop the motor.

    Prerequisite is that the motor is standing still. The status of the motor is recognized automatically. As a rule no action is required by the user here.

2. Place the test product on the weighing platform and after a few seconds touch **Confirm**.

When carried out successfully, Step 2 becomes gray, Step 3 is displayed in the screen and the static weight of the product is displayed in the lower text field:

3. Take the product from the platform and restart the motor.

The state of the motor is recognized automatically and the screen with Step 4 is displayed:
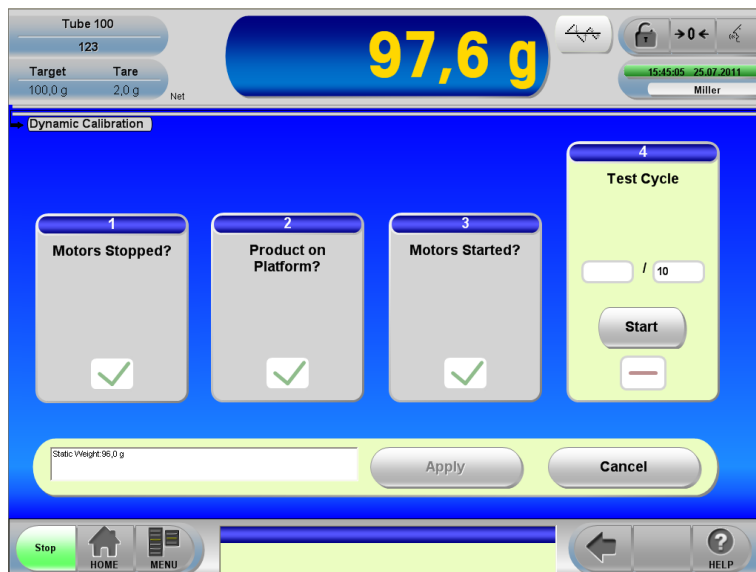
4. If desired, change the number of products that are to be included in the measurement (in the example this is the usual number of 10) and touch [Start] to start the test cycle.

After the test cycle has been completed, the calculated correction factor is displayed in the lower field.

5. In order to accept the calculated correction factor touch [Apply].
    – or –
    In order to reject the calculated correction factor touch [Cancel].

5 Package Maintenance

In this menu packages can be changed, created, edited, deletes, copied or printed in the packages database. Users of the **User** access level can change or print packages. A higher access level is required for the other functions (creating, deleting, editing packages, etc.).

The same navigation aids are available for these actions on all the screens. With the exception of **Create New Package** you can select between the representation as a tableau or as a list.

Tableau view

List view

You can use and to change between the two views.

Proceed as follows to select a package:

Tableau view   ➜   Touch the desired package on the tableau.

Note
20 packages are displayed on a tableau. A total of 200 packages can be stored in the package database. Use $\boxed{\Leftarrow}$ or $\boxed{\Rightarrow}$ to scroll page-by-page within the database.

List view   ➜   In the list view touch the desired package in the package list.

– or –

Use $\boxed{\Uparrow}$ or $\boxed{\Downarrow}$ to navigate to the desired package.

Note
If you know the exact package designation, you can jump directly to the desired package in the list view as follows:

1. Touch the input field under the screen of the current package.

    The screen keyboard is displayed.

2. Enter the package name.

3. Touch $\boxed{\text{Search Package}}$.

    The desired package is activated, its image is displayed in the list view.

5.1 Changing the package

Changing to another package that has already been created in the checkweigher memory is simple. Depending on the package, some mechanical settings on the weighing system may be necessary to adapt it to the new package. For example it may be necessary to adapt optional equipment such as lateral guide railings, specific light barrier systems and special conveyors.

All that needs to be done to change the active, i.e. current, package is to open the memory location for the new package.

1. Touch the package name in the upper left-hand corner in the **basic screen**.

    – or –

    In the **basic screen** touch $\boxed{\text{MENU}}$ and select the menu items **Packages – Package Maintenance – Package Changeover**.

Depending on the view last used, the **Package Changeover** screen is displayed in tableau form or in list form – in the following example in list form:

2. Touch the desired package or use ⬆ or ⬇ to select it.

3. Touch Changeover.

    The system returns to the **basic screen**. The name and Code No. of the new package are listed at the top left. The newly selected package is activated immediately for future weighings.

If the target weight or the tare is changed, observe the following:

Changing target weight When an attempt is made to change the stored target weight of a package that has already been weighed and whose recorded production data (e.g. statistical results, counter values, mean values) have not yet been called up and deleted by the user, the checkweigher automatically requires triggering of a final evaluation of this package.

After the final evaluation – with printing out of all the production data of this package – the recorded production data of this package are deleted. Subsequently the changed target weight is accepted.

Changing the tare The tare weight is deducted automatically from the determined weight at every dynamic weighing so that the weight display in the information section of the screen displays only the net weight of the product.

Note

The tare weight is not deducted when the conveyors are switched off (static operation).

5.2   Print package (option)

In order to verify the entered package data packages can be selected and printed out individually.

Note

Prerequisite for all the printing processes is the activation of the optional printer function.

1.   In the **basic screen** touch [MENU] .

2.   Select the menu items **Packages – Package Maintenance – Print Package**.

Depending on the view last used, the **Print Package** screen is displayed in tableau form or in list form – in the following example in tableau form:

3.   Select the desired package and touch [Print] .

The following message is displayed:
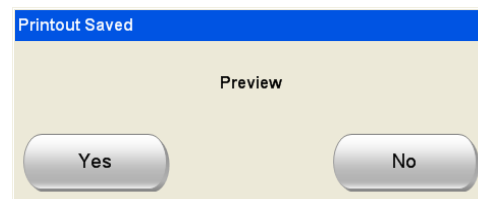
Note

The message can be switched off.

➜   Confirm with **No**.

   –   A PrintStick is inserted at the USB connection:

   The printout is stored directly on the PrintStick.

   – or –

– No PrintStick available but a paper roll printer available:

The printout is stored at the stored printouts and can be printed from there (see "Stored Printouts" option in the **X-Series System Manual Part 6: Options**).

➜ Confirm with **Yes**.

The print preview is displayed:

```
Print Package                    0,0 - 90,0

25.07.2011 16:31                 Statistical Limits
Machine-ID1                      Tolerance System:EC-
                                 TU1 Limit:95,5 g
                                 TU2 Limit:91,0 g
Name:Tube 100                    TU1 Percentage:2,0
Code:123                         10,000 Pcs Rule:Yes
Target Weight:100,0 g            Auto Printout:No
Tare Weight:2,0 g                Interval Type:Pieces
Description:                     End at:500
Target Throughput:250            Auto Interval Printout:No
Speed:92 m/min                   Auto Batch Printout:No
Code:123
Ind. Corr. Factor:1,0000         Feedback Setup
Extended Succ. Error             Target:100,0 g
Count X:5                        Upper Limit:120,0 g
Count Y:6                        Lower Limit:80,0 g
Product Length:100               Tolerance +:102,0 g
Zone0 Rejecter:2                 Tolerance -:98,0 g
110,0 - 5000,0                   Start Phase:0
Zone1 Rejecter:0                 Neutral:0
104,5 - 110,0                    Qty for MV:4
Zone2 Rejecter:2                 Control Factor:1,000
95,5 - 104,5
Zone3 Rejecter:2
90,0 - 95,5
Zone4 Rejecter:1

         OK                         Print
```

➜ In order to store the printout in the print memory, touch [OK].

The printout is stored at the stored printouts and can be printed from there (see "Stored Printouts" option in the **X-Series System Manual Part 6: Options**).

➜ In order to print the printout onto a connected printer, touch [Afdrukken!].

The package-specific data – including optional components such as the feedback setup – are printed out in the form of a ticket.

5.3 Creating a new package

Note

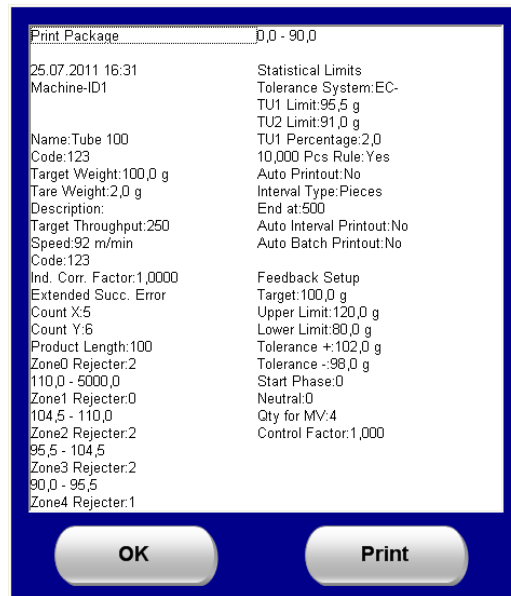This screen is only available for users with a corresponding authorization.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Package Maintenance – Create New Package**.

    The following screen is displayed:

Note

Free package fields have a yellow background. A maximum of 200 packages (10 pages) can be created. [◁] or [▷] can be used to scroll page-by-page.

3. Search for a free package field and touch it.

    The color of the package field changes to blue.

4. Touch [Create Now].

    The **Main Package Setup** screen is displayed.

Parameters can now be defined and settings carried out for the new package. The new package is based on the parameters and settings of the package currently active.

The parameters of the active package are distributed among the following screens that are described in detail in Chapter 4:

• 4.1 "Main Package Setup"

• 4.2 "Add. Package Setup"

• 4.3 "Limit Setup"

Note

Information about the settings for the activated options can be found in **X-Series System Manual Part 6: Options.**

You have to use [Continue ...] to view all the screens consecutively. Edited screens are marked with a checkmark when continuing.

In order to carry out subsequent corrections use [⇦] to go back to the footer of the screen. You can also carry out the changes later (see Chapter 5.4 "Editing packages").

5.4 Editing packages

Note

This screen is only available for users with a corresponding authorization.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Package Maintenance – Edit Package**.

Depending on the view last used, the **Edit Package** screen is displayed in tableau form or in list form – in the following example in tableau form:

Note

[⇦] or [⇨] can be used to scroll page-by-page.

3. Touch the desired package.

4. Touch [Edit].

The **Main Package Setup** screen is displayed.

The parameters of the package are distributed among the following screens that are described in detail in Chapter 4:

• 4.1 "Main Package Setup"

• 4.2 "Add. Package Setup"

• 4.3 "Limit Setup"

Note

Information about the settings for the activated options can be found in **X-Series System Manual Part 6: Options**.

You can use [Continue ...] to view all the screens consecutively. Edited screens are marked with a checkmark when continuing.

In order to carry out subsequent corrections use [⇦] to go back to the footer of the screen.

5.5 Copying a package

If many parameters can be used from an existing package for a new package, the package can be copied with all the parameter settings and adapted.
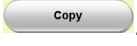
Note

This screen is only available for users with a corresponding authorization.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Package Maintenance – Copy Package**.

   The following screen is displayed:

3. Use [⇧] or [⇩] to select the desired package.

4. Touch [Copy].

The view changes to the tableau form and the following screen is displayed:

Note

 or can be used to scroll page-by-page.

5. Search for a free package field and touch it.

   The color of the package field changes to blue.

6. Touch .

   The following screen is displayed:
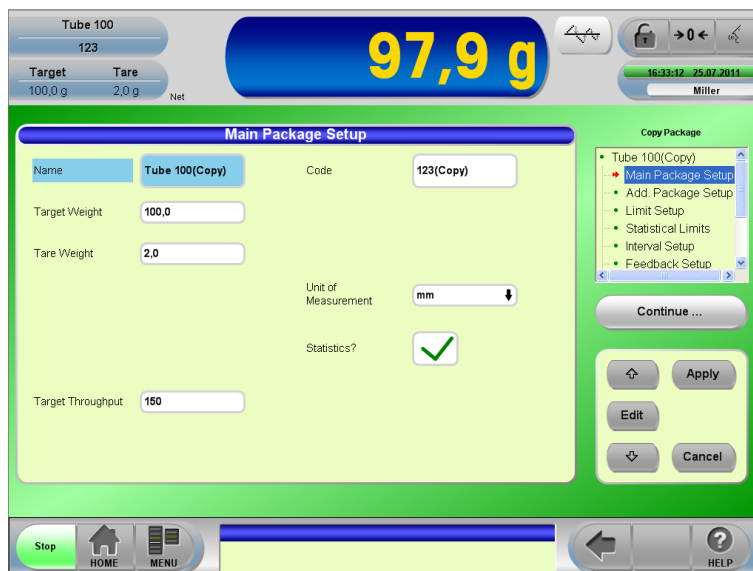
The name of the copied package is displayed in the **Name** field with the addition "(Copy)".

7. Touch the name of the copied package.

   The screen keyboard is displayed.

8. Enter the unique name of the new package and confirm with **OK**.

Parameters can now be defined and settings carried out for the new package.

The parameters of the package are distributed among the following screens that are described in detail in Chapter 4:

- 4.1 "Main Package Setup"
- 4.2 "Add. Package Setup"
- 4.3 "Limit Setup"

Note

Information about the settings for the activated options can be found in **X-Series System Manual Part 6: Options**.

You can use [Continue ...] to view all the screens consecutively. Edited screens are marked with a checkmark when continuing.

In order to carry out subsequent corrections use [⇦] to go back to the footer of the screen.

5.6 Deleting the package

This function deletes a package completely from the package memory location including all of its master data.

Note

This screen is only available for users with a corresponding authorization.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Package Maintenance – Delete Package**.

Depending on the view last used, the **Delete Package** screen is displayed in tableau form or in list form – in the following example in tableau form:

Note

[⇦] or [⇨] can be used to scroll page-by-page.

Note

The current package, i.e. that activated for the weighings, cannot be deleted.

3. Touch the desired package.

4. Touch (**Delete Now**).

5. Confirm the prompt with **OK**.

    The package is deleted, the memory slot is available again for the programming of a different package.

Note

The last package in the package memory cannot be deleted since at least one package must always exist in the package memory.

5.7 Zone Calculation Setup

This menu allows you to have the weight zones recalculated automatically and the calculation method that is to be used specified after a change of the target weight.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Packages – Zones-Zone Calculation Setup**.

    The following screen is displayed:

The input fields have the following meaning:

Field	Description
Recalculate Zones After Target Weight Change	Green checkmark: Zone limits of a package are recalculated directly after the change of the target weight. Red dash: The zone limits of a package are to remain set as they are currently set despite the change in the target weight. The calculation is carried out on the basis of one of the following calculation methods.
Calculation Method	The following calculation methods can be selected: **FPVO** — Calculation of the weight zones in accordance with the pre-packaged goods legislation. **Absolute Offset** — When this option is selected, additional numerical fields are displayed in which the desired offset of the individual weight zones to the target weight is entered in g, see the example. The limit values are added absolutely to the target weight. The absolute offsets have to be entered in the current weight unit. **Relative Offset** — The desired offset to the target weight is also entered in g, but when the target weight is changed, the offsets to the new target weight are calculated relative to the old one. The limit values are added as a percentage to the target weight. The offsets have to be entered as a percentage.
Reject Indication	Freely selectable character for identifying zones to which a rejecter is assigned. This identifier is displayed in the basic screen and in the two zone screens.

Examples of calculation methods

Absolute Offset

The target weight amounts to 100 g. The example assumes three weight zones.

- The Offsets Plus 1 and Minus 1 define the weight zone around the target weight: Above the target weight: 105 g, below the target weight 95 g.

- The Offset Plus 2 defines the upper limit of the next weight zone above the target weight: 110 g.

- The Offset Minus 2 defines the lower limit of the next weight zone below the target weight: 90 g.

Relative Offset If the **Relative Offset** method has been selected and the target weight is changed to 20 g, the limits for the weight zones are adapted automatically:

- Weight zone around the target weight: 19 g or 21 g (5%)

- Limit of the upper weight zone: 22 g (10%)

- Limit of the lower weight zone: 18 g (10%)

6 Production data

6.1 Displaying weight zones

The number of pieces, the mean values and the total weight of the products for the defined weight classes are shown on this screen.
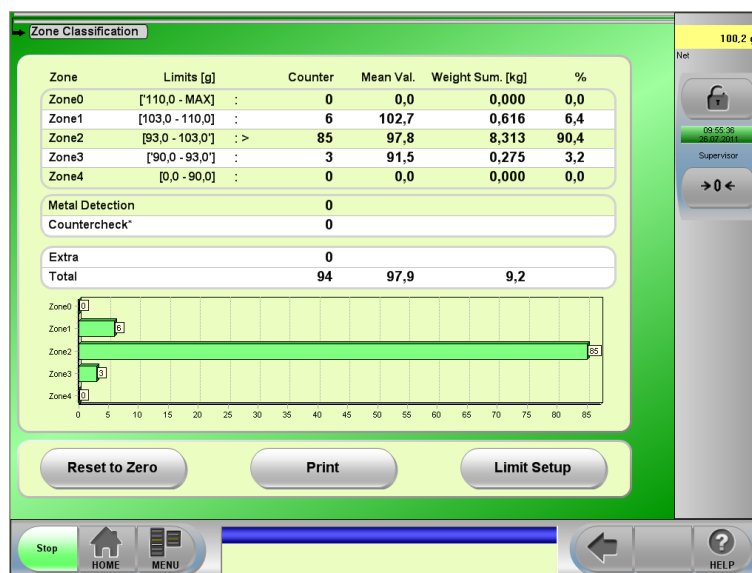
The displayed information is updated with every weighed product.

1. Touch the **Zones** section in the **basic screen**.

   – or –

   In the **basic screen** touch [MENU] and select the menu items **Production Data – Zones**.
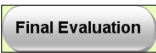
The following screen is displayed:

The following values are entered in the columns:

Column	Description
Zone	Weight zone, weight class
Limits [g]	Upper and lower limits of the respective weight zone
Sorting character >	Indicates the zone in which the product just weighed falls
Quantity	Number of products that were weighed in the respective weight zone. The number of products per zone is displayed graphically in the lower section.
Mean value	Mean weight value of the respective weight zone
Total [kg]	Product of quantity and mean value
%	Distribution as a percentage of the weighed products to the respective weight zones
Metal recognition	Option: Number of products that contain metal (only if a metal detector is used).

Column	Description
Countercheck	Option: Number of products that were recognized by the counter-check (product flow monitoring).
	Note
	Special counters that are marked with an asterisk (*) are not included in the total counter.
Extra	Total of all products for which no weight could be determined (e.g. due to metal, latch, distance faults)
Total	Total of all products, total mean value, total weight

The buttons have the following functions:

Button	Function
Reset to Zero	All the counters are reset after confirmation of the prompt.
Final Evaluation	In the case of the **Statistics** option the "Final Evaluation" key is displayed instead of the "Delete" key.
Print	Print current counter state (with preview).
Limit Setup	Change to the **Limits** screen.

6.2 Items

This screen displays the weight of each currently weighed product as a graph.

Four wizard functions support the determination of the production parameters:

- Printout: Statistical checking of a production period (random sample) with a printout
- Measure target: Statistical checking of a production period (random sample) to determine and accept the target weight
- Measure tare: Statistical checking of a production period (random sample) in order to determine and accept the tare weight from empty packagings
- Sample Rejecter (option, not shown in the following screen see **X-Series System Manual Part 6: Options**): Statistical checking of a production period (random sample) with rejection of the samples and printout

1. Touch the **View Individual Weights** section in the **basic screen**.

   – or –

   In the **basic screen** touch [MENU] and select the menu items **Production Data – Charts – View Individual Weights**.

The following screen is displayed:

Item	Explanation
1	Weight axis
2	Selection field for the desired action. Only one action can be selected at any time.
3	Controlling (starting, aborting, printout) of the wizard functions.
4	Measuring point for each item
5	Limiting lines (white) of the weight zones
6	Line (blue) for mean value
7	Line (gray) of the target weight

Printing individual values   1. In the **Action** section activate the **Printout** field.

The selected action is marked with ✔.

2. If a different number of measurements than the displayed number is desired: Enter the desired number of the product in the **Printout** section into the ☐ / 10 field behind the slash.
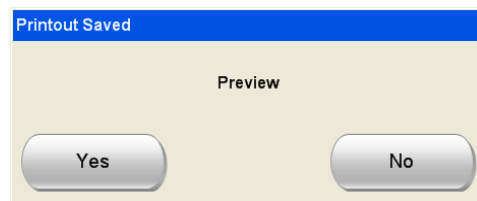
3. Touch **Start** .

Individual value recording begins. The recorded products have a sequential number assigned via the measuring points:

After measuring has expired, a record of the recorded measured values is displayed if no printer is available.

If a printer is available, the following message is displayed:

➔ Confirm with **No**.

– A PrintStick is inserted at the USB connection:

The printout is stored directly on the PrintStick.
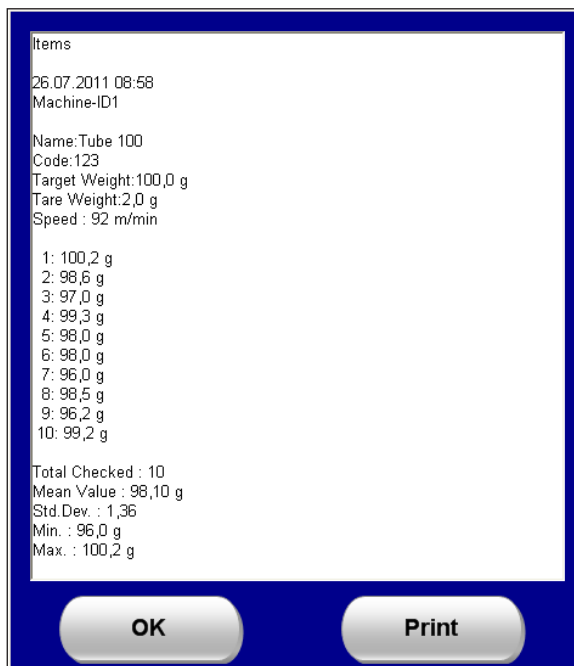
– or –

– No PrintStick available but a paper roll printer available:

The printout is stored at the stored printouts and can be printed from there (see "Stored Printouts" option in the **X-Series System Manual Part 6: Options**).

➜ Confirm with **Yes**.

The print preview is displayed:

```
Items

26.07.2011 08:58
Machine-ID1

Name:Tube 100
Code:123
Target Weight:100,0 g
Tare Weight:2,0 g
Speed : 92 m/min

 1: 100,2 g
 2: 98,6 g
 3: 97,0 g
 4: 99,3 g
 5: 98,0 g
 6: 98,0 g
 7: 96,0 g
 8: 98,5 g
 9: 96,2 g
10: 99,2 g

Total Checked : 10
Mean Value : 98,10 g
Std.Dev. : 1,36
Min. : 96,0 g
Max. : 100,2 g
```

| OK | Print |

➜ In order to store the printout in the print memory, touch [OK].

The printout is stored at the stored printouts and can be printed from there (see "Stored Printouts" option in the **X-Series System Manual Part 6: Options**).

➜ Inn order to print the printout onto a connected printer, touch [Print].

The log can be printed out in the menu **Information – Stored Printouts** (see "Stored Print-outs" option in the **X-Series System Manual Part 6: Options**).

6.2.1 Determining the target weight for the package

1. In the **Action** section activate the **Measure Target** field.

2. If a different number of measurements than the displayed number is desired: Enter the desired number of the products in the **Measure Target** section into the field behind the slash [/ 10].

3. Touch [**Start**].

Individual value recording begins. The recorded products have a sequential number assigned via the measuring points:

The determined target weight is displayed after complete measuring has been finished or after premature aborting with the **Measure Target** key.

In order to accept the newly determined weight as the target weight for the current package touch **Yes**. The checkweigher requires a final evaluation. The data of the current package are accepted and are displayed on the **basic screen** at the top left.

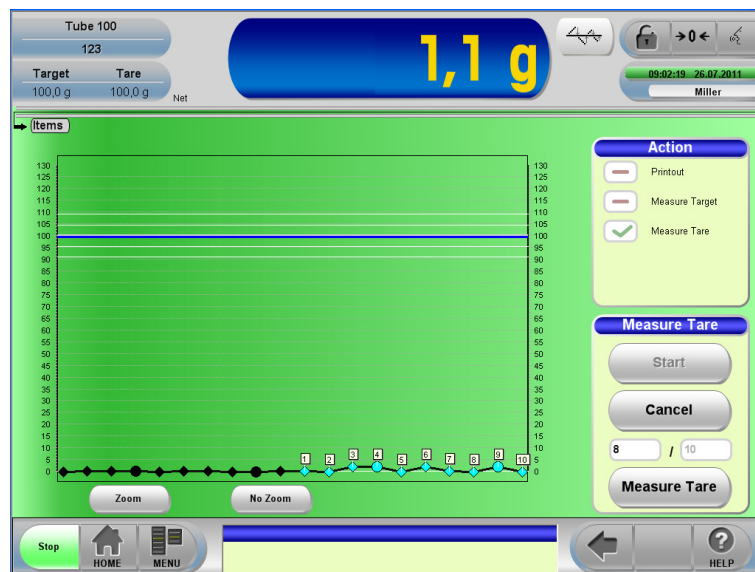The target weight can be determined by means of a wizard function.

The final evaluation can be printed out in the menu **Information – Stored Printouts** (see "Stored Printouts" option in the **X-Series System Manual Part 6: Options**).

6.2.2   Determining the tare of the packagings

In order to determine the tare weight of the checkweigher feed in empty packagings.

1. In the **Action** section activate the **Measure Tare** field.

2. If a different number of measurements than the displayed number is desired: Enter the desired number of packagings in the **Measure Tare** section into the field behind the slash ☐ **/** 10 .

3. Touch **Start** .

Individual value recording begins. The recorded empty packagings have a sequential number assigned via the measuring points:

The measured tare weight is displayed after complete measuring has been finished or after premature aborting with the **Measure Tare** key.

In order to accept the newly measured tare weight for the current package touch **Yes**. The checkweigher requires a final evaluation. The data of the current package are accepted and are displayed on the **basic screen** at the top left.

The tare weight can be determined by means of a wizard function.

The final evaluation can be printed out in the menu **Information – Stored Printouts** (see "Stored Printouts" option in the **X-Series System Manual Part 6: Options**).

6.3 Histogram

The histogram is a graphical representation of the frequency distribution of the determined weights across the time. The following values are displayed numerically in the legend:
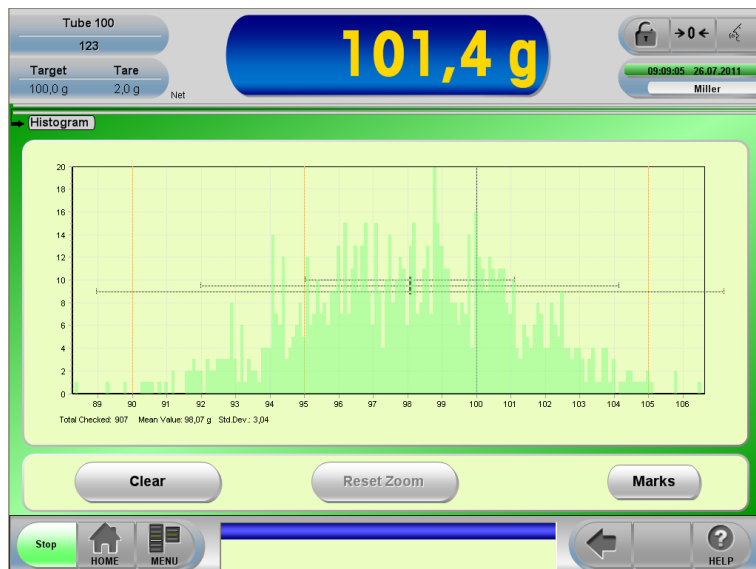
• Number of checked products

• Mean value

• Standard deviation σ (sigma)

In addition the mean value is displayed as a small vertical bar.

The three horizontal bars characterize the parameters that are important for the statistical evaluation σ, 2σ, 3σ in relation to the mean value.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Production Data – Charts – Histogram**.

The following screen is displayed:

The buttons have the following functions:

Button	Function
Deleting	Delete display
Marking	Displays the following supplements to the curve consecutively: • Nothing • Weight • Product quantity for this weight • Both

6.4 Large Weight Display

If you select the **Large Weight Display** menu, the weight display is enlarged to fill the entire middle screen area. This is to improve readability at a distance.

1. In the **basic screen** touch the weight display in the upper section.

    – or –

    In the **basic screen** touch [MENU] and select the menu items **Production Data – Large Weight Display**.

The following screen is displayed:

2. In order to change the display parameters, touch the list field.

3. In order to return to the **basic screen** touch the empty field at the top in the center or [HOME].

At the large weight display you can choose between:

*   Gross weight
*   Net weight
*   Mean value
*   Difference (actual weight to target weight)

7 Information

In this menu you can call up different menu items that provide information about the course of the weighings or of the production.

7.1 Messages

Important system information, errors and alarms are displayed in the lower section of the **basic screen** – however only the last four messages.
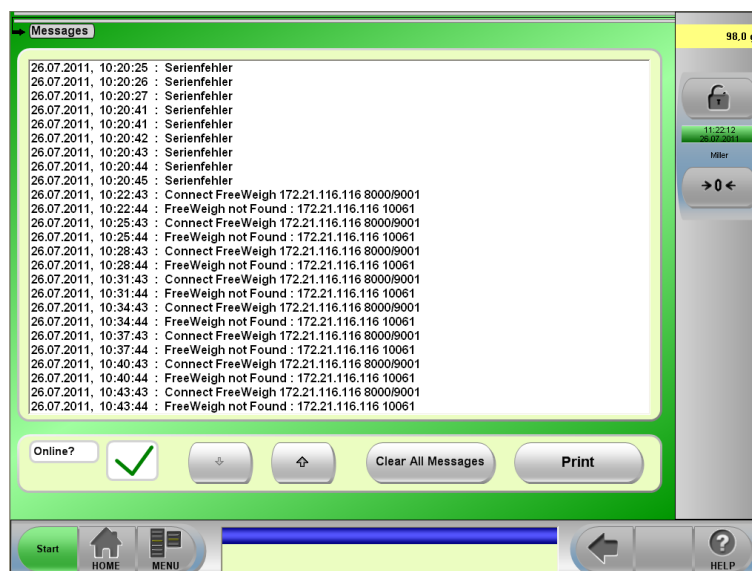
All the information from booting of the software on is logged continuously in the **Messages** screen. New entries are added at the end of the list.

1. Touch the lower section with the messages in the **basic screen**.

    – or –

    In the **basic screen** touch [MENU] and select the menu items **Information – Messages**.

The following screen is displayed:

2. Use [↓] or [↑] to scroll though the log line-by-line to check the entries.

Note
As long as the page is not full yet, the arrow keys are grayed out (not active).

All the messages can be deleted or the messages of the current page printed by touching the command buttons.

Note

If you want to view older messages, you can interrupt continuous logging as follows:

1. Touch the field next to **Online?**.

   Instead of ✔ ➖ is displayed and logging is deactivated temporarily. New lines are not added at the bottom.

2. Look for the desired log entry and, if wished, print out the current page.

3. In order to reactivate the logging function touch ➖ .

   ✔ is displayed, the logging function is activated again.

7.2 Status

7.2.1 OMAC Machine Status

The **OMAC Machine Status** (**O**pen **M**odular **A**rchitecture **C**ontrols) can be used to call up information about the current status of the weighing terminal (e.g. producing, stopped, etc.). The individual program steps from one status to the next can be tracked on the basis of arrows.

1. In the **basic screen** touch 🖳 .

2. Select the menu items **Information – Status – OMAC Machine Status**.

The following screen is displayed:
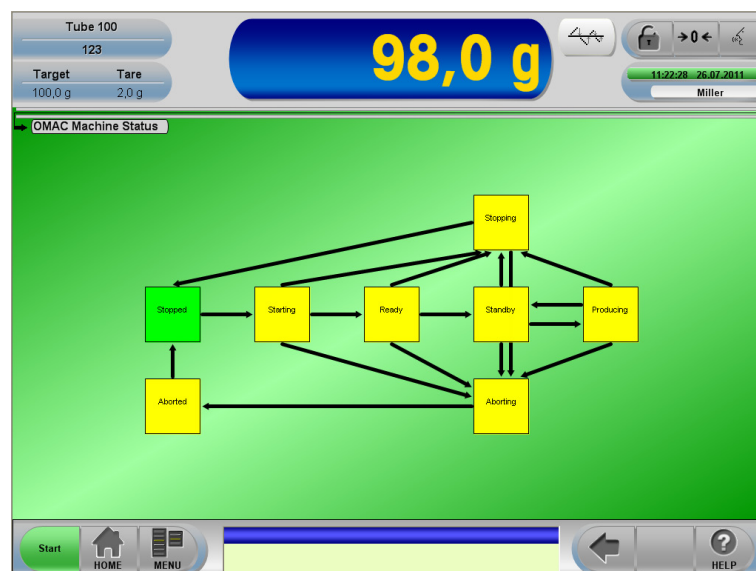
The respective current status is displayed green.

7.2.2 Components Status

The current state of the components (motors, weighcell, light barriers) is displayed in the **Components Status** menu so error situations can be localized.

1. Touch the menu button [MENU] in the **basic screen**.

2. Select the menu items **Information – Status – Components Status**.

The following screen is displayed:

The parts of the hardware and the components are displayed as command buttons.

- If all the components are OK, the highest level is displayed green.

- If a component is not OK, the command buttons of all the higher-level components are displayed red.

3. In order to determine defective components navigate step-by-step through the hierarchy until the defective part has been determined.

4. Use [⇧] to return step-by-step to the highest level.

Displaying defective components

In the case of a defect or a malfunction of a part the command button of the higher-level component becomes red.

1. Touch the red command button.

   The parts of the component are displayed.

2. Touch the red command buttons of the lower-level parts until the defective part has been determined.

7.2.3 Output Info / Input Info

These two screens provide an overview of the assignment of the various inputs and outputs.

Note

These screens are only displayed for users with a corresponding authorization.

Outputs 1. In the **basic screen** touch [MENU].

2. Select the menu items **Information – Status – Output Info**.

The following screen is displayed:
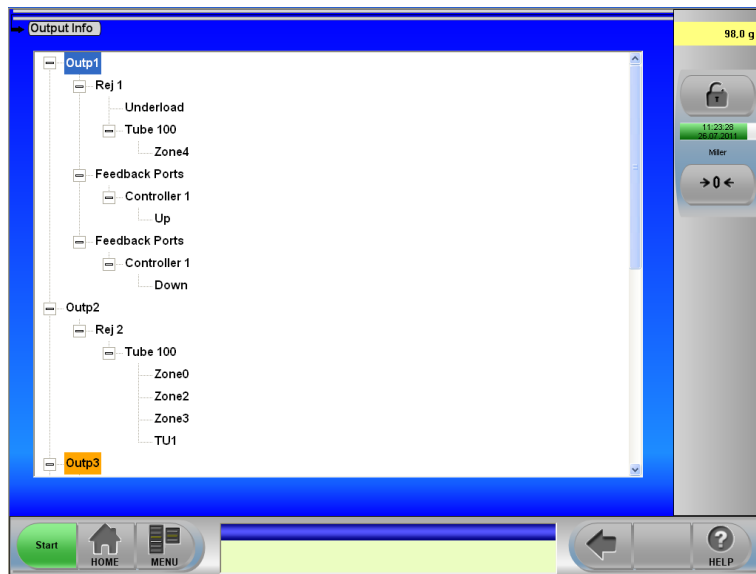
Inputs 1. In the **basic screen** touch [MENU].

2. Select the menu items **Information – Status – Input Info**.

The following screen is displayed:

7.2.4 Positions of the device components

1. In the **basic screen** touch [MENU].

2. Select the menu items **Information – Status – Positions**.

The following screen is displayed:
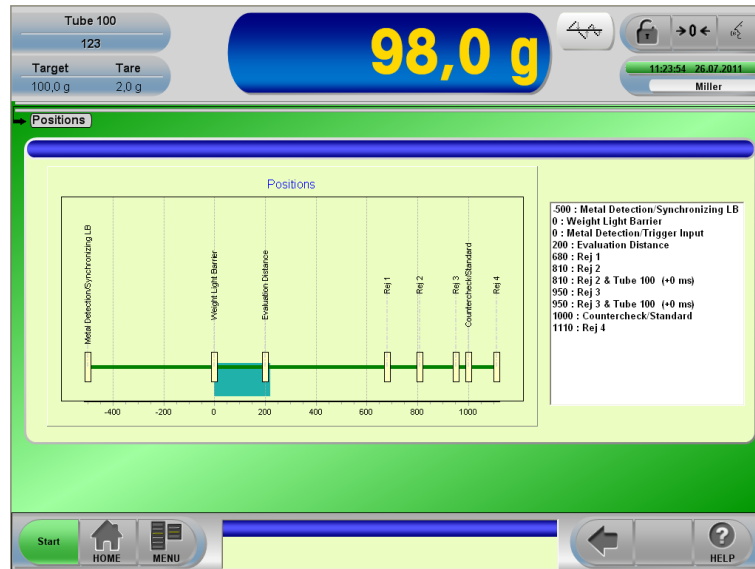
The distances of the components from the weighing light barrier are specified in mm on the axis.

7.3   System Information

This menu can be used to call up information about the following categories:

- Installed software versions
- Metrology (only for certified weighers)
- Network
- Active options
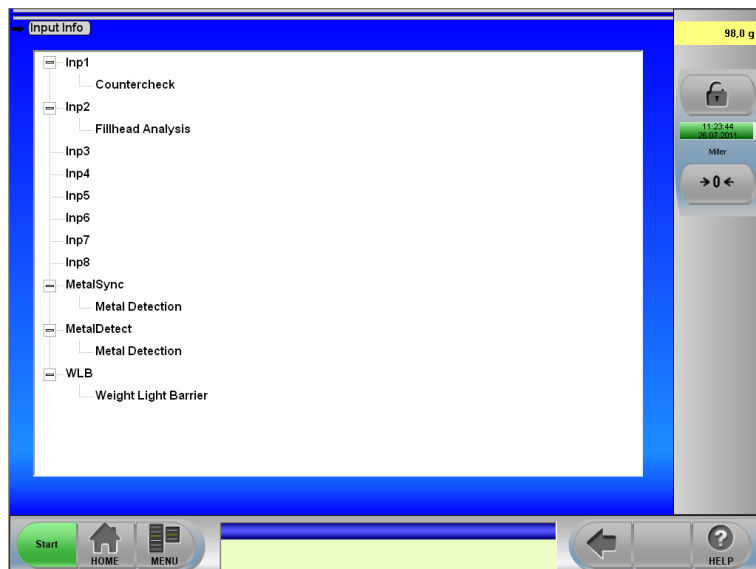- Motor
- CPU

The quantity and designation of the categories as well as the scope of the information provided can vary.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Information – System Information**.

The **System Information** that for example contains the following information is displayed:
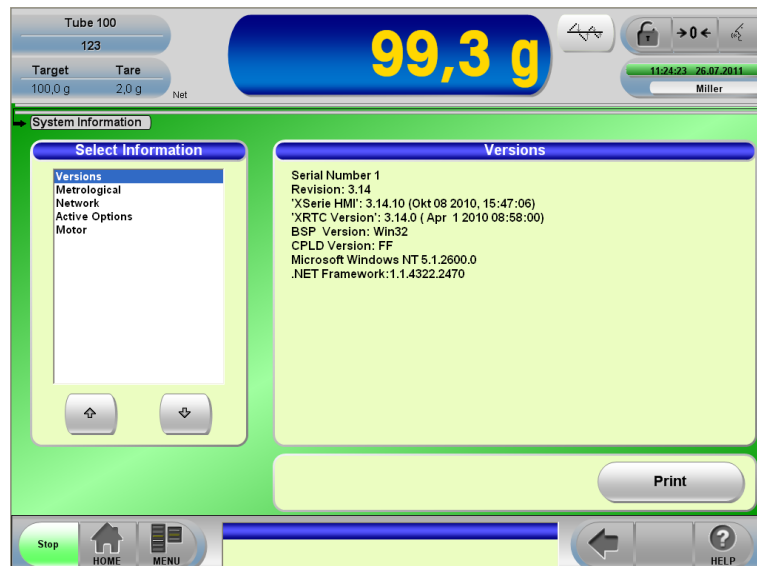
3. Use [↑] or [↓] to select the desired category.

8 Exporting and importing data

The settings in this menu may only be carried out by users having the corresponding authorizations.

8.1 User data export and import

In this menu the users or user groups currently stored in system can be exported or imported using a USB stick . If several checkweighers are operated by the same user group, this user group only needs to be created once and can then be imported at the other systems.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup – Users – Users Export and Import**.

The following screen is displayed:
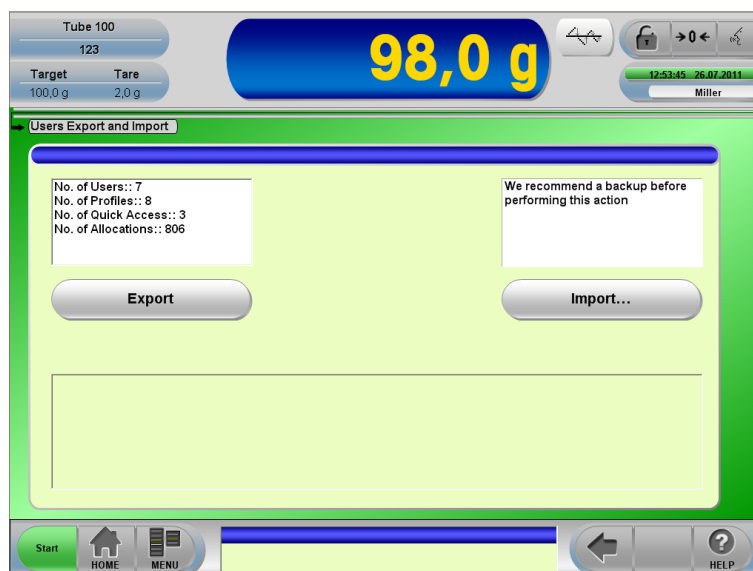
The left-hand section displays a user overview that can be exported to a USB stick.

Export   1.   Insert the USB stick into the USB port.

2.   Touch [**Export**].

The system stores all the existing user data completely on the USB stick.

Note

If no USB stick is inserted, a corresponding system message is displayed when

[**Export**] is touched.

Import   **Note**

Before importing user profiles always carry out a backup of the configuration (see Chapter 8.3 "Data backup").

1.   Insert the USB stick into the USB port.

To prevent unintentional overwriting of the existing data the following prompt is displayed after [Import...] has been touched:

Import of Users

This action will remove the complete user and profile setup of this machine and replace it with a new setup
Are you sure?

[Yes]   [No]

2.   Confirm the prompt with **Yes**.

The new user group is imported.

8.2   Packages Export and Import

In this menu all the stored packages with the corresponding settings can be exported and imported as a group. The package group is stored in a directory named after the checkweigher serial number on a USB stick. During importing the serial number is used to select the checkweigher whose package data are to be imported.

This function is useful if the same package group is to be imported into several systems or if the package groups often change on a system.

1.   In the **basic screen** touch [MENU].

2.   Select the menu items **Packages – Packages Export and Import**.

The following screen is displayed:

The left-hand field displays the number of stored packages that can be exported with the corresponding package settings to a USB stick and can be saved in a directory names after the serial number.

Export   1.   Insert the USB stick into the USB port.

2.   Touch [**Export**] .

The system stores the package data to the USB stick.

Note

If no USB stick is inserted, a corresponding system message is displayed when

[**Export**] is touched.
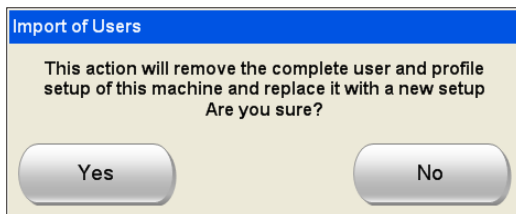
Import   **Note**

- Package data can only be imported if all the package names are unique.
- Before importing package data always carry out a backup of the configuration (see Chapter 8.3 "Data backup").

1.   Insert the USB stick into the USB port.

In order to prevent unintentional overwriting of the data, the following message is displayed after [**Import...**] has been touched:

Import of Packages

This action will change the package setup of this machine.
Are you sure?

[Yes]   [No]
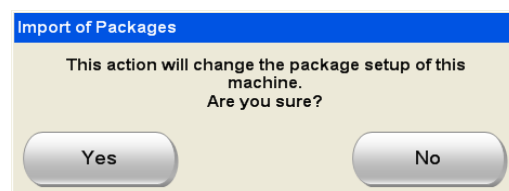
2.   Confirm the message with **Yes**.

3.   Select a file and confirm with **OK**.

Example path: <Drive>/XS/<SerialNumber>/Transfer/ExportPackages.XML

The new package data are imported.

Note

The messages and outputs assigned to the package under **Limit Setup – Actions** are not exported since these are strongly machine-dependent Package-related messages and outputs may therefore have to be re-entered after the import, see Section 9.2.3 "Allocating actions to the weight zones".

The **Data Backup** function is used to store all the parameters (see Chapter 8.3 "Data backup").

8.3   Data backup

A data backup should be carried out after every change to the system. The data can be stored on an internal medium, but should preferably also be saved to an external USB stick. The last three backups respectively are stored in the folders A, B and C. A new backup is always stored in Folder A. Older backups are moved to the Folders B and C. The oldest backup is deleted from Folder C and is replaced by the backup from Folder B. The data backup contains the configuration, the user profiles and the packages. The production data (statistics, counter readings) are not backed up.

External data backups of different weighers can be stored on the same USB stick and kept reliably.

User profiles and packages can also be backed up separately (see Chapters 8.1 and 8.2).

8.3.1   Backup to a USB Stick

1.   Insert the USB stick into the USB port.

2.   In the **basic screen** touch ▮▮.

3.   Select the menu items **Maintenance – Data Backup – Backup USB Stick**.

The following screen is displayed:
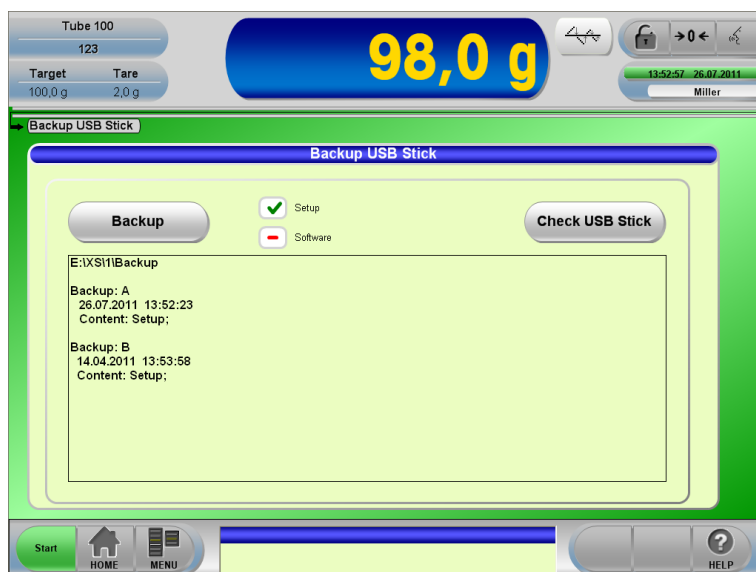
4.   Activate the **Configuration** field.

Note
The **Software** field may not be activated.

5.   Touch **Backup**.

The data are stored to the USB stick.

Note
Touch **Check USB Stick** to check the functionality of the USB stick.

8.3.2 Backup Internally

1. In the **basic screen** touch [MENU].

2. Select the menu items **Maintenance – Data Backup – Backup Internally**.

    The following screen is displayed:

3. Activate the **Configuration** field.

Note

The **Software** field may not be activated.

4. Touch [Backup].

    The data are stored to the internal storage medium.

8.3.3   Restoring from the USB stick

1. Insert the USB stick into the USB port.

2. In the **basic screen** touch [MENU].

3. Select the menu items **Maintenance** – **Data Backup** – **Restore USB Stick**.

The following screen is displayed:
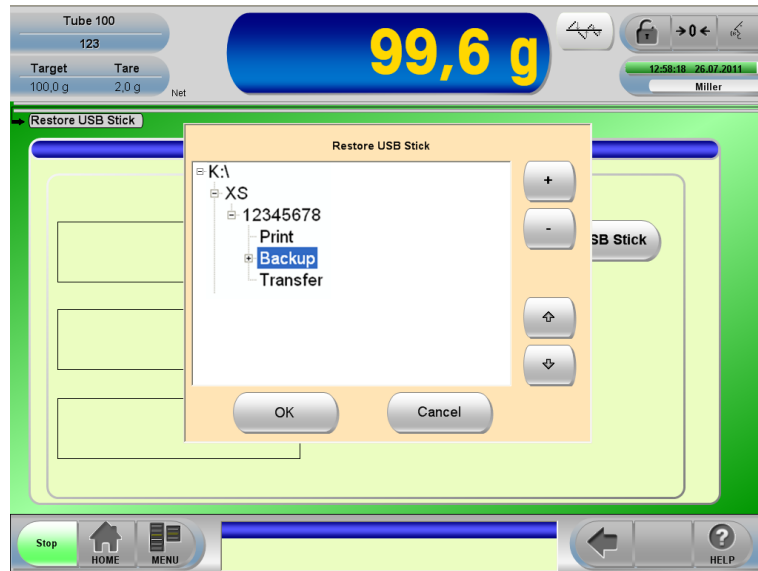
Note

You can use [⇧] or [⇩] to navigate within the structure and select a folder.

A folder can be opened with [+] and closed with [-].

4. Select a folder and confirm with **OK**.

The following screen with the last three data backups is displayed.

5. Touch [Restore from Backup] to select the data you wish to restore and confirm the selection with **Yes**.

    An additional window with a reddish background is displayed. The import process has been completed as soon as "READY!!!" is displayed in the lowest line of this screen.

6. Touch the gray button **Start XMAIN**,

    The checkweigher starts with the imported configuration.

Note
Touch [Check USB Stick] to check the functionality of the USB stick.

8.3.4 Restore Internally

1. In the **basic screen** touch [MENU].

2. Select the menu items **Maintenance – Data Backup – Restore Internally**.

The following screen is displayed:

3. Touch [Restore from Backup] for the files that you wish to restore.

    An additional window with a reddish background is displayed. The import process has been completed as soon as "READY!!!" is displayed in the lowest line of this screen.

4. Touch the gray button **Start XMAIN**,

    The checkweigher starts with the imported configuration.

8.4 File Copy

This function supports the provision of additional information to the after-sales service.

1. Insert the USB stick into the USB port.

2. In the **basic screen** touch ![MENU].

3. Select the menu items **Maintenance – File Copy**.

The following screen is displayed:

4. Touch **Source**.

The following screen is displayed:

Note

You can use ![up] or ![down] to navigate within the structure and select a folder.

5. Select the **Log** folder and confirm with **OK**.

The following screen is displayed:

Note

You can use [Mark All Rows] to activate or deactivate all the files in one go.

6. Use [⬆] or [⬇] to select the desired line(s) and touch [Mark Selected Row] each time.

The box at the line beginning is activated.

7. Touch [Copy].

The file transfer is confirmed by a message box. Transferred files are stored on the USB stick in a directory named after the serial number and then deleted automatically on the checkweigher.

9 Setup

Setup settings may only be carried out or modified by users with higher access authorizations, for example **Supervisor** or **Administrator**. **Operators** partially have the possibility of having these settings displayed.

9.1 Users

9.1.1 Editing, adding, removing users

All the persons who may work with the weighing terminal are listed in the user list. A password, a user profile and a language are assigned to each user name.

Displaying or editing a user

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup** – **Users** – **Edit Users**.

The following screen is displayed:

Note

- If the cursor is positioned on a user whom you may not edit, the **Edit User Properties** section is hidden.

- A user can only change his own password. However another user can be removed and added with a new password.

3. Select the user whose properties are to be changed from the list of all the users by touching [↑] or [↓].

4. Touch the input field whose content is to be changed.

5. Use the screen keyboard to enter a changed name or a new password or select a new profile or a different language from the list fields.

Note

The password is always represented by ****. It is not visible in plain text even when it is entered.

We recommend writing down the passwords and keeping them in a safe place. If a Supervisor password is lost or forgotten, access can only be restored by the after-sales service.

6. Save all the entries with [Apply].

Note

If a user is selected from the list whom you may not edit, the following message is displayed:

Adding a user 1. Touch [**Add**].

The new user is displayed in the **User List** section:

A placeholder (e.g. USER8) is positioned in the input field next to the **Name**.

2. Touch the input field next to **Name**.

The screen keyboard is displayed.

3. Enter the name by touching the keyboard fields and confirm with **OK**.

4. Touch the input field next to the **Password**, enter the password and confirm with **OK**.

5. Enter the new password once more for confirmation and confirm with **OK**.
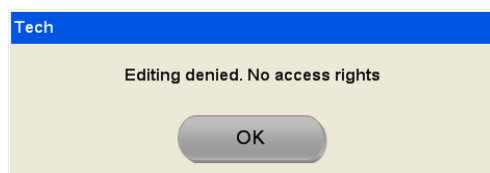
Note

The password is always represented by ****. It is not visible in plain text even when it is entered.

We recommend writing down the passwords and keeping them in a safe place. If a Supervisor password is lost or forgotten, access can only be restored by the after-sales service.

6. Touch the input field next to **Profile**.

    The list field with the profiles (access authorizations) is displayed.

7. Select the desired profile and confirm with **OK**.

8. Touch the input field next to **Language**.

9. Select the desired language from the list field and confirm with **OK**.

10. Save all the entries with Apply .

Removing a user

1. Select the desired user in the **User List** section and touch Remove .

2. Confirm the prompt with **Yes**.

3. Save with Apply .

9.1.2 Editing, adding and removing user profiles

The screens (rights) that are allocated to a user group, meaning what actions it may take at the checkweigher and what not, is defined in the user profile for each user group. A user profile has to be allocated to each user.

1. In the **basic screen** touch ⌷MENU.

2. Select the menu items **Setup – Users – Edit Profiles**.

The following screen is displayed:

Displaying or   ➜ Select the desired profile in the **Profile List** by using [⇧] or [⇩].
editing a user profile

• The active profile is marked blue in the list and the name is displayed as a header of the middle section, in the example **Supervisor**.

• The users who are allocated to the respective profile are displayed in the right-hand section **Allocated Users**.

The parameters that have been specified and activated for this profile by the user administration are displayed in the middle section, in the example **Supervisor**.

The status of the respective parameter is displayed as follows:

✔	Parameter is activated for the respective profile.
▬	Parameter is not activated.

Touching a parameter or the corresponding activation field is used to toggle between "activated" (field has a blue background) and "deactivated" (field has a pink background).

The following parameters can be activated:

Name	Description
Auto Logoff	Number of minutes after which the system logs a user off automatically when no entry has been made.
Failed Logins	Number of failed logins after which a user is blocked.
Min Password	Minimum number of characters that a password must have.
Password Expiration	Number of days after which a password has to be changed.
Change Password	Forces the user to immediately change a password assigned by the administrator after the first login.

For further information see **X-Series System Manual Part 5: Information for administrators**.

Adding a user profile   1.   Touch **Add** .

The screen for the new user profile is displayed in the **Profile List** with a placeholder in the field **Name** (e.g. P9):

2.   Touch the input field under **Name**.

The screen keyboard is displayed.

3.   Enter the name by touching the keyboard fields and confirm with **OK**.

4.   If necessary activate or change the parameters.

5.   Save all the entries with **Apply** .

Removing a user profile   1.   Select the desired profile in the **Profile List** section and touch **Remove** .

2.   Confirm the prompt with **Yes** .

3.   Save with **Apply** .

9.1.3 Allocating screens to the user profiles

A specific profile has to be allocated to users who operate the weighing terminal. This menu is used to specify the functions and parameters (screens) which the user can activate, change and enter.

Note

Tried and tested parameters are pre-assigned in the factory to the supplied profiles (for example **Supervisor**, **Operator**). These settings can be edited by users with the appropriate authorization level.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup – Users – Assign Profiles**.

The following screen is displayed:

*   All the user profiles are listed in the **Profile List**.

*   All the functions and parameters that are not allocated to the set user profile are listed in the **Available Screens** section. The list is sorted by the main menus. The entries can be moved from there into the **Allocated Screens** section.

*   Only those functions and parameters that are allocated to the respective profile are listed in the **Allocated Screens** section.

Adding screens
1. Select the desired profiles in the **Profile List** section.

2. Select the desired screen in the **Available Screens** section and use [⇨] to move it into the **Allocated Screens** section.

Note

If all the screens of a main category are to be transferred to the **Allocated Views** section, mark the main category and touch [⇨].

Removing screens 1. Select the desired profile in the **Profile List** section.

2. Select the desired screen in the **Allocated Screens** section and use [⇦] to move it into the **Available Screens** section.

The screens are displayed in the **Available Screens section**.

Note
If all the screens of a main category are to be transferred back from the **Allocated Screens** section to the **Available Screens** section, mark the main category and touch [⇦].

3. If the **Allocated Screens** section contains the desired views, touch [HOME] or [⇐].

The following prompt is displayed:

Assign Profiles

Apply ?

Yes   No   Cancel
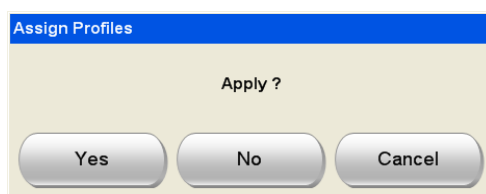
4. Touch **Yes** to accept the entries.

– or –

Touch **No** to reject the entries.

The system returns to the **basic screen**.

Note
If you touch [Cancel], you return to the previous screen. You have to respond **Yes** or **No** to the prompt in order to return to the **basic screen**.

9.1.4 Configuring the Quick Access Setup

Screens that are enabled for this profile can be selected in the **Quick Access Setup** menu. Up to eight screens can be allocated to a profile. The selected screens appear in the **Quick Access Setup** menu item and can be called up directly. We recommend setting up a Quick Access Box in the **basic screen** for users with a corresponding authorization (see Chapter 2.4.7 "Quick Access menu" and 9.2.4 "Miscellaneous Setup").

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup – Users – Quick Access Setup**.

The following screen is displayed:

Adding/removing screen   3.   In order to add a screen select the desired screen in the **Available Screens** by using

⟨⬆⟩ or ⟨⬇⟩ and touch ⟨➡⟩.

Added views are displayed in the **Allocated Views** section:

4.   In order to remove a screen from the **Allocated Screens** use ⟨⬆⟩ or ⟨⬇⟩ to select

the corresponding view and touch ⟨⬅⟩.

5.   If the **Allocated Screens** section contains the desired views, touch 🏠 or ⬅.

A prompt is displayed.

6.   Confirm the prompt with **Yes**.

The system returns to the **basic screen**.

Note

If you touch [Cancel], you return to the previous screen. You have to respond **Yes** or **No** to the prompt in order to return to the **basic screen**.

9.2 General

9.2.1 Setting the time

In this menu the current system time whose data are displayed in all the screens and also on the statistics printouts can be entered.

The system date can only be entered or modified by the after-sales service.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup – General – Time and Date**.

The following screen is displayed:
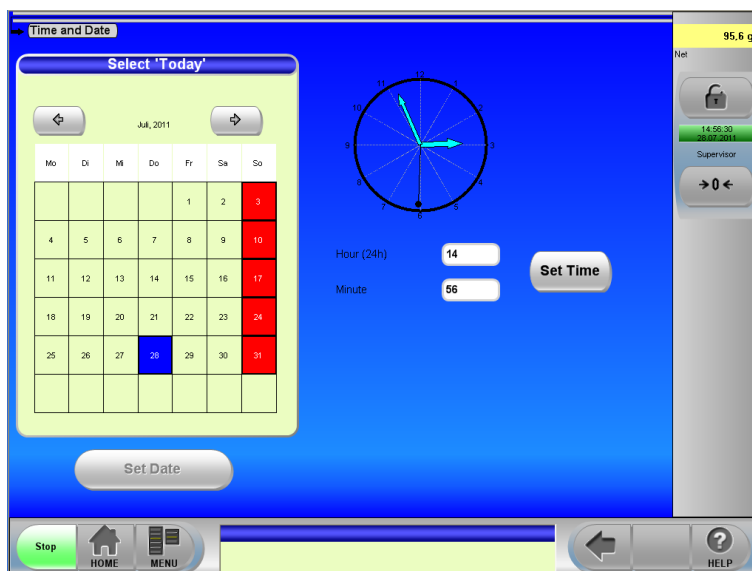
3. Touch the **Hour** field and enter the hour in the input field that is displayed.

4. Touch the **Minute** field and enter the minutes in the input field that is displayed.

5. Touch the **Set Time** button.

    The time is stored.

9.2.2 Rejecter Settings

Note

These settings may only be carried out by users having the corresponding authorization.

Note

The following parameters apply to all the packages in common. In addition the delay can be changed for each package individually.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup – Users – Rejecter Settings**.

The following screen is displayed:

Note

Tab 2 can contain further fields depending on the customized configuration or on the activated options.

3. In the **Rejecter List** use [⇧] or [⇩] to select the desired rejecter.

4. Touch the field to be changed (Name, Distance, Delay, Duration or Output).

   Depending on the field either the screen keyboard, the numerical keyboard or a list field is displayed.

Note

The delay specifies the allowance that compensates the lag of the rejecter.

5. Enter the new value or select the corresponding list entry and confirm with **OK**.

6. When all the parameters have been entered, touch [Apply].

   The parameters for the selected rejecter are stored.

9.2.3 Allocating actions to the weight zones

In the **Zone Actions** specific actions can be allocated to the various weight zones of the current package, i.e. different rejecters, outputs or messages such as "Overload", "Under-load" or "Belt Stop".

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup** – **General** – **Zone Actions**.

The following screen is displayed:
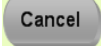
- The weight zones of the current package are listed in the left-hand section.
- The **Action List** section lists all the actions that are still available and that can be allocated to the selected zone.
- The **Allocated Actions** section lists all the actions that are still available and that can actually be allocated to the selected zone.

Adding/removing action

1. To add an action:

   – In the left-hand **Zones** section use [⇧] or [⇩] to select the desired zone.

   – In the **Action List** section use [⇧] or [⇩] to select the desired action and touch [⇨].

2. To remove an action:

   – In the **Zones** section use [⇧] or [⇩] to select the corresponding zone.

   – In the **Allocated Actions** section use [⇧] or [⇩] to select the corresponding action and touch [⇦].

3. If the **Allocated Actions** contains the desired actions, touch [HOME] or [←].

   A prompt is displayed.

4. Confirm the prompt with **Yes**.

The system returns to the **basic screen**.

Note

If you touch ⬚Cancel⬚ , you return to the previous screen. You have to respond **Yes** or **No** to the prompt in order to return to the **basic screen**.

9.2.4   Miscellaneous Setup

This menu contains basic settings for a multitude of functions that are usually only set once.

Note

These settings may only be carried out by users having the corresponding authorization.

1.   In the **basic screen** touch ⬚MENU⬚ .

2.   Select the menu items **Setup – General – Miscellaneous Setup**.

The following screen is displayed:

The input fields have the following meaning:

Field	Description
Machine-ID	Use for unique identification of the checkweigher, for example for printouts or in the network.
Timeout Language	The basic language used by the checkweigher as long as no user is logged in.
Save Last Login Name	Activated: During the login the last login name used is suggested.
	Deactivated: During the login no user is suggested.
Quick Access Box	Activate the Quick Access Box in the **basic screen** and select the position of the selection button, see Chapter 9.1.4 "Configuring the Quick Access Setup".

Field	Description
AuditTrail	Activate the AuditTrail (option). AuditTrail is a list in table form of the records of all the changes carried out to the parameters.
Culture	Country-specific features such as display of time/date, character set. **Note** The selection set here may not be changed!
Hold Statistics Time During Motor Stop	Time measuring is stopped during a belt stop.
Reset Weight Chart	The chart of the items is deleted.
Mean Value Gliding Count	Mean weight value of the respective weight zone.
USB Drive	Selection of the USB drive.

9.3 Motor

9.3.1 Changing the belt speed

1. In the **basic screen** touch the analog/digital display for the number of weighings.

    – or –

    In the **basic screen** touch [MENU] and select the menu items **Setup – System – Motor – Speed**.

If the system has only one speed zone (one motor) the following screen is displayed:
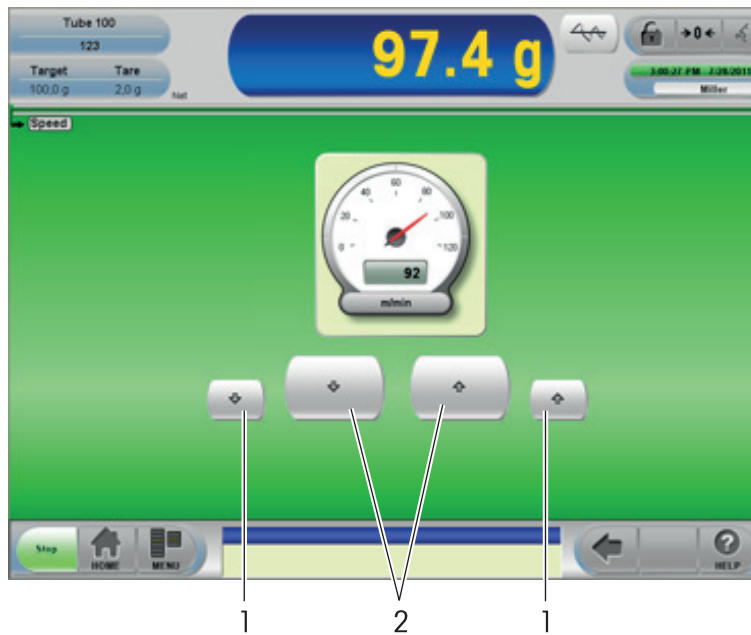
The belt speed is displayed in analog form at the gauge and in digital form in the middle of the gauge in m/min.

2. Use the large arrow buttons (2) to increase or decrease the belt speed in steps of 5 m/min or the small arrow buttons (1) to increase or decrease the belt speed by 1 m/min.

If, for example 3 speed zones (optional) is configured at a system, the following screen is displayed:
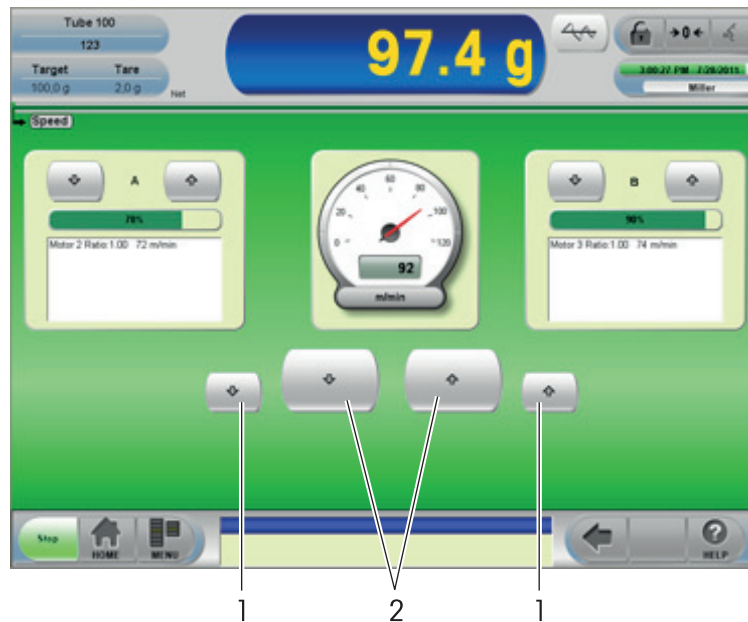
1. Use the large arrow buttons (2) to increase or decrease the belt speed of Motor 1 in steps of 5 m/min or the small arrow buttons (1) to increase or decrease it by 1 m/min.

2. If necessary, regulate the speed of Motors 2 and 3 depending on Motor 1 by using the corresponding arrow buttons in the fields on the right and left of the gauge.

9.3.2 Motor Analysis

Note

These settings may only be carried out by users with the corresponding authorization, e.g. **Supervisor** or **Administrator**.

1. In the **basic screen** touch ▢ .

2. Select the menu items **Setup – General – Motor – Motor Analysis**.

    The **Motor Analysis** screen is displayed.

3. Touch the **Start** button next to the **Pause** button.

    The inscription of the **Start** button changes to **Wait**. As soon as at least one motor is found, the inscription changes back to **Start**.

4. Select a motor at the bottom left in each of the two **Motor** list fields.

5. Use the two list fields next to the motor selection fields in the middle of the **Motor Analysis** screen to select the analysis object and the scaling.

    – Analysis object (motor current, speed, temperature): Left-hand list field
    – Scaling: Right-hand list field

Note

If a motor analysis is running the chart starts from the beginning after the changes have been carried out.

6. **Press Start** to start the motor analysis.

    The inscription of the **Start** button changes to **Stop**.

The results of the motor analysis are represented graphically (using the example of the motor current here):
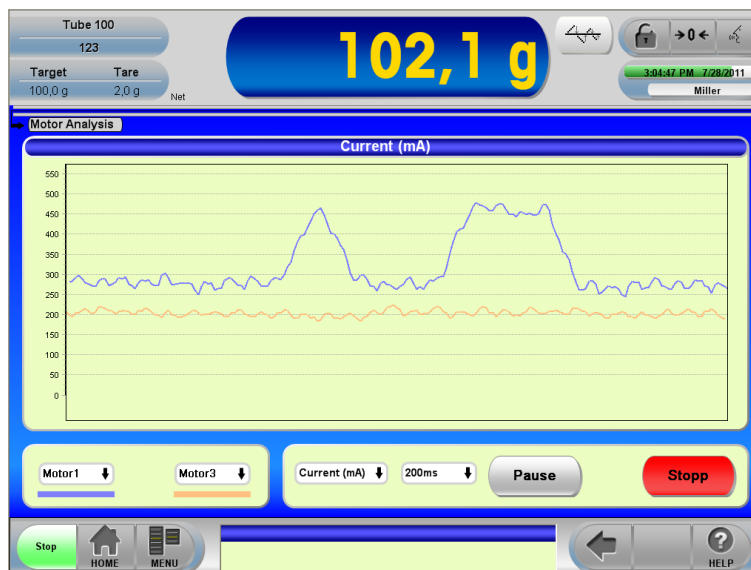
7. Press the **Pause** button to interrupt or continue the motor analysis,

8. Press the **Stop** button to abort the motor analysis,

9.4 Function Allocations

This function offers the possibility of editing specific functions for the current operation in agreement with the after-sales service. Since the list of functions depends on the respective configuration, it can contain more or less entries or even other entries for a concrete checkweigher.

1. In the **basic screen** touch [MENU].

2. Select the menu items **Setup – System – Function Allocations**.

The following screen is displayed:

All the functions and options are listed in the **List Of Functions** section.

The functions that are available are listed in the upper main group **USED**.

The main group **USED** is subdivided into four groups that facilitate finding of specific functions. Some of the options are activated or deactivated via the package setup, e.g. "Statistics" and are not listed here.

Editing parameters of functions

Note

Change the parameters of the functions only in agreement with the after-sales service!

➔ Select the desired function with [⬆] or [⬇] and touch [Edit].

The section belonging to the function is displayed and the parameters can be adjusted, for example allocating outputs and inputs or actions.

10 Error messages, faults and emergency run

If you are experiencing persistent problems and wish to contact our after-sales service/ hotline, please have as many details as possible ready:

- Type (model)
- Serial number
- Year of manufacture
- METTLER TOLEDO Garvens order number and date (if known)
- Displayed software version of the weighing terminal
- Precise wording of the displayed error message or detailed fault description, respectively

This helps us to avoid delays in helping you.

10.1 Product-related messages

In the information field of the **basic screen** plain text error messages are displayed that provide information about certain processes or faults with regard to the products/production. The following list contains the most common error messages of X-Series weighers. This list does not contain error messages that occur very rarely and error messages that occur exclusively at special designs.

If you have any questions about an error message not described here but that occurs at your checkweigher, please contact our ServiceLine: +49 (0) 5121 933 160.

Error	Cause
* * *	If a weight value could not be determined, three asterisks appear in the weight display. They also indicate to the user that there is an error message (plain text) in the info box at the bottom of the **basic screen**.
Insufficient product spacing	The products are too close to each other.
Incorrect product length	(option) The weight light barrier has detected a product that is too long. This can mean that a) a product is longer than the weighing conveyor, – or – b) in weighing systems with optional product length tests, the measured product length exceeds the maximum length entered by a user into the package data. Products that are too long can be two subsequent products with no gap in between. Another possible cause is that the wrong products are in the weighing system.

Error	Cause
Open flap detected	The error recognition function "Recognition of open flaps" (option) has recognized a package that is incompletely closed. The corresponding product is sorted out by the assigned sorting device.
Askew package detected	The error recognition function "Askew package recognition" (option) has recognized a package lying askew to the conveyor. The corresponding product is sorted out by the assigned sorting device.
Countercheck: reject failure	The sorting countercheck (Reject Countercheck, option) has recognized a product that should actually have been rejected. This monitoring function has then triggered the error message above. Depending on the design of this function a belt stop (stopping of the conveyors) is additionally triggered or the respective product was after all sorted out by a special rejecter specially provided for the sorting countercheck.
	The preceding failed ejection attempt can have several causes: The ejecter that failed is defective or has an unfavorable position, or an incorrect offset was entered for the corresponding ejecter during the setup so that it reacts at an incorrect moment.
Countercheck: "GOOD" product missing	The sorting countercheck (Reject Countercheck, option) has determined that a "good" product did not reach the outlet of the checkweigher. This monitoring function has then triggered the error message above. The product may have been ejected incorrectly or removed manually.
Metal Detection	A signal is present at the metal detector input (option) of the checkweigher. Depending on the operating mode of the (optional) metal detector, a "Metal contamination of the product" or – in inverse mode of the detector – a "missing metal part" was recognized Depending on the setting of the checkweigher the corresponding product is sorted out or a belt stop, i.e. stopping of the conveyors, is triggered.
Metal monitoring: Item missing	(option) One product too little is located on the checkweigher. ➜ Correct the product quantity
Metal monitoring: Too many items	(option) One product too much is located on the checkweigher. The package cannot be read. ➜ Correct the product quantity

Error	Cause
Successive errors	The "Successive errors detection" function (option) has issued this error message and triggered a pre-defined checkweigher reaction (activation of a special contact or conveyors stop) because the pre-set number of successive bad products has been reached.
	In the **Function Allocations** screen you can define how many products of a specific quantity have to be recognized as faulty (e.g. 5 out of 10) for a "Successive error" function to exist.
	➔ Verify and remedy the cause for the series of bad products detected by the checkweigher. Possible causes are subsequent products that are overweight and/or underweight, gaps that are too small or too great between products as well as other faults that lead to products being classified as unacceptable.
Overload	The parameterized weighing range for the weighing unit has been exceeded.
Underload	The parameterized weighing range of the weighing unit has not been reached.

10.2   Messages not related to products

10.2.1   Information

Information does not require any action.

Message	Cause
CAN_Network: Motors are exchanged!	Confirmation after a motor replacement: At least 1 motor was replaced or swopped.
CAN Bus OK!	After deactivation of the emergency-stop button.
CAN Bus: Bus OFF!	After activation of the emergency-stop button.
MotorX Y is offline!	After activation of the emergency-stop button, e.g. Motor1 1 is offline.
MotorX Y is online!	After deactivation of the emergency-stop button, e.g. Motor1 1 is online.
Generic setup mode ON!	Function steps in the function "IPT".
Generic setup mode OFF!	
Sample Input Active: Sample 1 Item	Function steps in the function "Sample Rejecter".
Sample Mode: Item x Rejected	
Sample Mode: Start Sample of x Items	
Sample Mode: End of Sample Interval	
Sample Mode: Canceled, x NOT Rejected	
Emergency-stop pressed	The emergency stop of the checkweigher conveyors was triggered by the emergency-stop button being pressed. When the emergency situation no longer exists, the emergency-stop button can be reset. This is followed by the status message **Emergency-stop OK again** at the weighing terminal and the conveyors can be restarted.
Emergency run activated	The emergency run was activated by the operator (i.e. the emergency run switch was switched over). The checkweigher operates without a weighing function as a "Conveyor". Product classification and sorting is not carried out by the checkweigher - solely the products transported further. **Note**: The conveyors must be started with the conveyor-start button (not with the selection field in the basic screen). When the emergency run is switched off, the message **Emergency run deactivated** is displayed.
Light barrier is not obstructed	The light barrier is not being obstructed by an object.

Message	Cause
Loadcell reconnected	The connection between the weighcell and the control cabinet has been interrupted by removing the weighing terminal and re-established.
Loadcell ready	After power connection and connection to the control cabinet the weighcell is ready to operate.
Rezero successful	Manual zero setting at large weight displays was carried out successfully with the Rezero button on the **basic screen** at an empty weighing conveyor/ weighing platform.
Clear conveyors function	The "Clear conveyors function" message signals that the Clear conveyors function (option) is active after a motor stop in order to clear away lying products.
Pre-Selection	The "Pre-Selection" message signals that the Pre-Selection (option) is active. Pre-Selection is configured in the factory or by a Customer Service technician. Specific products that represent "Errors" are already sorted out before weighing by means of a correspondingly located rejecter.
Multi evaluation: Code OK	The code can be read, the weighing terminal takes on the switchover.
Multi evaluation: Delay on package load	(option) A delay occurs when the package data are loaded for the first time. (System-specific information, as a rule only once.)

10.2.2 Warnings

Warnings require an intervention by the operator. Usually a simple operating or setting error is the cause.

Message	Cause
Config error in function 'xyz'	Setting error: Rejecter or sensor distance in function "xyz" is incorrect.
Set tare value failed! (T max)	The tare weight lies above the permitted range. ➜ Use a correct value.
Set tare value failed! (T min)	The tare weight lies below the permitted range. The preload (weighing conveyor) may be too low. ➜ Use a correct value or check whether the weighing conveyor is complete.
Loadcell config error! (X)	Only at multi-lane weighers, X is the error number. Correct sorting is no longer ensured. ➜ Reduce the speed or check the product length.
Feedback: Invalid number (x). Max=y	Feedback: There is a wrong code at the inputs.

Message	Cause
Please check rejecter distance, motor speed,... Item [x] not classified!	A product was not classified. The rejecter distance may be too small or the speed too high. ➜ Adjust the sorting distance and/or speed.
Please check rejecter distance, motor speed,... Item [x] no attribute found by rejecter y!	A product was not classified. The rejecter distance for rejecter y may be too small or the speed too high. ➜ Adjust the sorting distance and/or speed.
Please check delay of rejecter x	The total delay for rejecter x (setup and package data) is too low.
Please check package pulse length of rejecter x	The total pulse length for rejecter x (setup and package data) is too low.
Successive errors: Value out of range! X > Y	Successive errors. ➜ Reduce the value for X.
Rejecter (1, 2, 3...): Insufficient distance!	The distance between the weighing conveyor and the sorting device is too small or the belt speed is too high. The corresponding sorting device cannot respond in time. ➜ Increase the distance between the weighing conveyor and the sorting device.
Laser fault	The laser monitoring camera cannot recognize the "lasered" code. ➜ Check the cleanliness of the laser and the corresponding product.
Weighcell not connected	The weighcell is not connected to the control cabinet. ➜ Establish a plug connection. The message **Loadcell connected** is displayed.
Re-zero range fault	The Re-zero attempt failed because, for example. there are too many residues (soiling) on the weighing conveyor or because the weighing conveyor has an other load (for example through an object). ➜ Check, if appropriate, clean.
Multi evaluation: Wrong code	(option) The scanner cannot read the code. The weighing terminal ignores the changeover and instead retains the last package memory slot. The respective product may be ejected.

10.2.3   Combined error messages / warnings

At some messages to required action is content-specific, depending on whether it is a warning or an error message. These messages always begin with the same keyword. The subsequent message is usually so clear that it is possible to conclude whether it is a error or a warning.

Warnings require an intervention by the operator. Error messages require an intervention by the after-sales service. In case of any doubt please contact our after-sales service.

Note
After the checkweigher has been switched on, the motors are logged in and configured. If an error occurs in the process, a message is displayed in the info line.

Message	Background
Drive Error Mx: Cause (num/num) Example: Drive error M3: Overcurrent (500/8400)	Message in the info line: • the time when the error occurred • Error text (German in case of German operating language, otherwise English) and name of the corresponding motor • first number (Error group 500 – 510, see table below) • second number (Error ID)
Fault from CAN-IO Nx "message"	Error message or warning for a motor-CAN node with specification of the Node ID "Nx" and the cause "message" (English).
Error messages and warnings concerning the weighcell: LoadCell: "message"	Error message or warning of the weighcell. "message" specifies the reason for the message.
Product backup!	The connected external system (e.g. PLC) has sent a "Product backup" message to the checkweigher. Once the product jam is removed or disappears, the status message **Backup cleared** is displayed.
Light barrier is obstructed	The darkening (optical interruption) of the weight light barrier is lasting too long – meaning that the duration of the light barrier interruption amounts to more than 3 weighing conveyor lengths – or it is interrupted permanently. This can indicate a defect of the light barrier, but also soiling or maladjustment of the light barrier or its reflector. If necessary consult the after-sales service.

Message	Background
Lack of compressed air	The compressed air supply of the pneumatic equipment (e.g. rejecters) is insufficient or interrupted. → Eliminate the cause (check the setting of the pressure gauge at the compressed-air connection of the checkweigher – see **X-Series System Manual Part 3**, Chapter 5.4 "Checking the compressed-air supply"). In rare cases (with the compressed air being available correctly) a defect of the pressure-operated switch at the compressed-air connection of the checkweigher can cause this error message. When the compressed-air supply has been restored, the message **Air OK** is displayed.

Error groups for Drive error Mx: Cause (num/num)

Message	Error	Cause
500	Overcurrent	Motor is overloaded.
501	Undervoltage	Cross-section of the motor cable is too small.
502	Overvoltage	
503	Voltage	Voltage (general)
504	Temperature	Motor is overloaded, room temperature is too high.
505	Device fault hardware	
506	Device error software	
507	Monitoring	CAN Bus error
508	Report error	
509	General error	
510	Other error	

10.2.4 Error messages

Error messages often require an intervention by the after-sales service. Usually a defect is the cause. However, errors can also occur when, for example, cables were not connected properly after the checkweigher has been moved.

Always have the exact text of the message at hand when contacting the after-sales service.

Message	Cause
PutCond for abc failed in task xyz	Internal software problem in the function "xyz".
Loadcell config error! (Command failed)	Error in the communication with the weighcell.
CAN_Network: Found X of Y motors!	Not all the motors were found, e.g. "Found 1 of 3 motors". ➜ Check the connections.
CAN_Network: Some motors are offline: M1, M2,…	Not all the motors were found.
CAN_Network: X motors found for position Y!	The motors are not connected correctly.
CAN_Network: Please check motor wiring and MCB!	
Motor X: Could not set OPERATIONAL MODE!	Motor X cannot be configured. The message can only be displayed after the checkweigher has been switched on.
Motor command "Start" failed for motor Mx	Motor cannot receive any commands or parameters. The cause can be an interrupted connection. ➜ Check the connection.
Motor command "Stop" failed for motor Mx	
Motor command "SetSpeed" failed for motor Mx	
Motor command "Save parameter" failed for motor Mx	
No pulses! Please check configuration and motors/encoder.	
Load Cell Fault	Error of the weighcell or in the weighcell comunication. ➜ Please contact the after-sales service.
Loadcell timeout	The response time of the weighcell has been exceeded. ➜ If this occurs repeatedly, consult the after-sales service.
Multi evaluation: No response from IPC	(Option) IPC does not respond. Possibly faults in the system. ➜ If this occurs repeatedly, consult the after-sales service.

10.3 Emergency run

In case of any fault occurring at your METTLER TOLEDO Garvens weighframe, an emergency run function can be activated so that the products continue to be transported on a conveyor while the weighing function does not function. All weighframes feature this emergency run circuit.

Note

The weighing function of the checkweigher and all other functions normally available are deactivated in the case of emergency run; only the conveyors are running in order to transport the items.

⚠ **CAUTION**

After the control cabinet has been opened, live parts become accessible.

→ The checkweigher must be opened by a qualified electrician only.

The **Emergency run switch** for controlling the speed during the emergency run is located in the control cabinet on the XRTC module.

1. Open the door of the control cabinet.

The XRTC module can be located easily by means of the following figure:
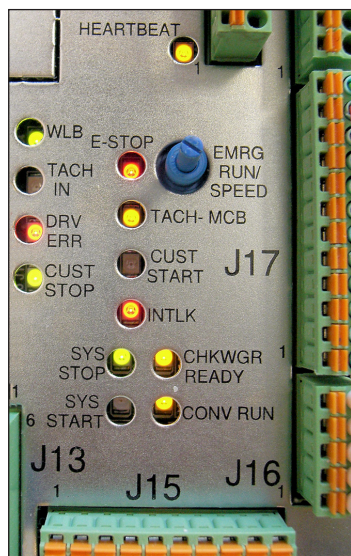
The blue button beside the caption **EMRG RUN/SPEED** at the top right is a speed controller with integrated switch for the emergency run.

2. In the case of a malfunction slightly turn the blue button.

   You feel a slight resistance. After overcoming this resistance the controller can be turned continuously.

3. Press the conveyor start button (button "I") on the weighframe.

4. Set the desired speed for the emergency run.

Note

The electronic equipment belonging to the emergency run function can also be designed as a separate unit, if necessary, outside the control cabinet.

11 Technical data

11.1 Weighing terminal

Screen	Bright, high-contrast LCD color display, user operation through menu system
Keyboard	Touch screen (no mechanical keys)
Housing/control panel	Stainless steel and plastic
Weighing terminal protection class	Impermeable to dust and splash water in accordance with IP 65 or IP 69K (depending on version)
Permissible operating temperature	0 to +40 °C
Supply voltage of the weighing terminal at version for separate installation	24 VDC, 0.65 A (max. 1.8 A)

CAUTION RISK OF PROPERTY DAMAGE

➜ Observe the connection values on the tape plates of weighing terminal and weighframe if they are placed in different locations.

Mains supply   See **X-Series System Manual Part 3: Weighframe**

Data interfaces   See **X-Series System Manual Part 7: Interfaces**

11.2 Weighing functions

Main function	Dynamic weighing operation with weight value and weight classification display as well as automatic sorting of the goods to be weighed. It may be equipped with any of the following options: • Data transmission via interface • Reports (statistics) • Saving or printing data • Programs for controlling fill processes • Various special modes of operation (depending on customized version)
Secondary function	Static weighing (displaying of weights)
Rezero (zero balance)	Automatic or manual, depending on configuration

12 Glossary

10,000 Pcs Rule	When this rule is applied, the current hour of production is stopped after 60 minutes or earlier if 10,000 acceptable products are reached before this length of time.
Package	The package is an abstract designation. The product is the concrete weighing sample that corresponds to the package.
	For example, you have 500-g packs of coffee as the package. A product is such a pack of coffee that is being weighed.
Dynamic weighing	A product is weighed while it is moving on the checkweigher.
Final evaluation	Printing out and subsequent automatic deleting of the production data and statistical results of an article.
Total weight	This value displays the total of all the weights in all the weight classes.
Weight zone	The weight range between the upper and lower tolerance limits.
Checkweigher, intermittent	At a checkweigher of this type each product on the weighing conveyor is stopped, weighed and then transported further. Checkweighers of this type weigh more precisely because no vibrations are generated by conveying equipment during the weighing process. However, they have a lower throughput than continuous checkweighers.
Checkweigher, continuous	A checkweigher of this type weighs the products while they move on a conveyor chain or a belt conveyor over the weigh-cell.
Checkweigher, automatic	A checkweigher of this type weighs the products while they move on a conveyor chain or a conveyor over the weighcell. Each product is classified in accordance with the previously defined weight zones (typically as overweight, accepted and underweight). Products are sorted or rejected if they do not lie within the weight specifications.
Menu	Total of possibilities available for selection.
Target weight	The target weight or desired weight of the product.
Rezero	Automatically corrects product deposits on the weighcell or gradual changes in weighing operation when components have aged.
Product	A concrete product. If, for example, the package is 500-g packs of coffee, a product is an individual pack.
Target throughput	Number of products that should be weighed per minute.
	The checkweigher uses this information to calculate the belt speed necessary to achieve the target throughput. The belt speed is regulated automatically as soon as the screen has been stored.
Rejecter	When signaled, this device removes unaccepted products from the production line.
Static weighing	A product is weighed by being placed on the checkweigher.

Tare weight	The weight of the pack without content (e.g. an empty carton).
Tolerance limits TU1 and TU2	A value that the weighing terminal calculates according to the regulations for pre-fabricated packaging. If production is not carried out in accordance with the pre-packaged goods legislation – meaning that "FREE" was selected as the tolerance system – these values can be modified freely. If "EC-" is used as the tolerance system, this value can only be changed towards the target weight. The value of both tolerance limits appears on the statistical printouts and displays.
Tolerance system	Statutory regulations on which the weighing of this article is based. The following tolerance systems can be selected: EC- This system complies with EU production directives. If the "TU1 Percentage" and "TU2" limits are violated, the product in question is rejected. **Note** If "EC-" is set as the tolerance system, rejecters need to be assigned to the zones "TU1" and "TU2". The rejecter number may not be set to zero. FREE If "FREE" is selected, violations of the "TU1 Percentage" and "TU2" limits do not necessarily cause the product in question to be rejected. It is possible in this case to select the rejecter number "NO" (= no rejecter). US If "US" is selected, the product weights are only checked to see whether they lie within the tolerance range that can be entered in the statistics entry screen – and the mean value displayed in the production data screens is only calculated from weights lying within this range. If "US" is selected, weight sorting does not take place, meaning that products are not rejected by the statistics program. See **X-Series System Manual Part 6: Options**. Australian Observes the Australian legislation.

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