XS Series Retail System Scales
Setup and Programming Guide

XS 100

XS 200

XS 400

ABR35-000653   ISSUE AA

IMPORTANT

When programming or configuring the equipment you must ensure that you comply with all relevant standards and legislation. The example settings given in this book may not be legal for trade with the public.

Chapter 1 Safety

1.1   Warnings

Safe Installation

The mains plug must be inserted into a socket outlet with a **protective earth contact**. The electrical supply at the socket outlet must provide over current protection of an appropriate rating.

CAUTION: The mains lead must be connected to a supply outlet with a protective earth contact. The electrical supply at the socket outlet must provide over current protection of an appropriate rating.

Pluggable equipment must be installed near an easily accessible socket outlet. Permanently connected equipment must have a readily accessible disconnect device incorporated in the fixed wiring.

USA

If the scale is connected to a 240V supply, the receptacle must be protected by a 15 amp circuit breaker.

Safe use

To avoid the possibility of electric shock or damage to the machine, always switch off the machine and isolate from the power supply before carrying out any routine maintenance.

To avoid the risk of the machine falling, where applicable, ensure that it is placed securely on a flat and level surface.

Take care when placing large, heavy produce such as water melons on the weigh plate so that they do not roll off the machine.

Cleaning the machine

CAUTION: Harsh abrasives, solvents, scouring cleaners and alkaline cleaning solutions, such as washing soda, should not be used especially on the display windows. Under no circumstances should you attempt to wipe the inside of the machine.

The outside of standard products may be wiped down with a clean cloth moistened with water containing a small amount of washing up liquid.

Training

Do not attempt to operate or carry out any procedure on a machine or network unless you have received the appropriate training or read the Instruction Books.

Ergonomics

To avoid the risk of RSI (Repetitive Strain Injury) it is important to ensure that the machine is placed on a surface which is ergonomically satisfactory to the user. It is recommended that frequent breaks are taken during prolonged usage.

EMC compliance

The following warning may be applicable to your machine.

WARNING: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Cleaning the print head

CAUTION: Do not use metallic objects on the print head. Only use the recommended print head cleaning kit.

Chapter 2   About Your Machine

2.1   Description

The XS series provides a complete set of system scales and printers to suit the different requirements of fresh food counters, self-service, pre-pack areas and point of sale areas for supermarkets and speciality stores. They may be used in stand-alone mode or linked together to form departments networks. Different department networks can be linked together and connected to a back office computer, to form a store-wide, centrally managed network.

The scales can operate in a number of different modes, printing individual labels for each item or combining the shoppers' items together and printing a single receipt.

The XS series build types cover a range of counter service terminals, including:

XS 100 Monobloc scale

This model provides a compact weighing terminal with integrated vendor and customer display. The scale has a 58 pre-set key keyboard for PLU selection and an additional 23 full-travel tactile keys for regularly used functions.

XS 200 Head up Display (HUD)

Scale with column mounted customer display and a vendor display located on the base unit. The display, keyboard and weighing characteristics are identical to the mono bloc unit. The scale has a 58 pre-set key keyboard for PLU selection and an additional 23 full-travel tactile keys for regularly used functions.

XS 400 Two-piece scale

This has the keyboard and both displays mounted on the tower column, this maximises eye-level interaction between operator and customer. The scale has a 58 pre-set key keyboard for PLU selection and an additional 23 full-travel tactile keys for regularly used functions.

2.2   Operating roles

Depending on how it is configured your XS scale can operate in three different roles within the store: as a counter scale; a pre-pack machine, or as a full cash control Electronic Cash Register (ECR).

As a counter scale the machine can be set up to print labels for produce served to customers by a member of staff, or as a self service scale which will allow customers to weigh and label their own produce by making choices from a picture keyboard. In this mode of operation it is generally used for single item, weighed or non-weighed transactions. It can also be used to produce different types of information labels such as recipes and nutritional information.

When used as a pre-pack machine the scale will print labels for pre-packaged produce. The scale is programmed with functions that allow for pack runs (to allow packing consignments with up to three levels) re-pricing and re-wrapping with full management of product traceability information if required.

When used as an ECR the scale can be used in conjunction with a cash drawer, Electronic Fund Transfer (EFT) terminal and bar code scanner to allow the customers purchases to be consolidated in to a single receipt and cash, card and account payments to be taken.

Scale networks

The machine can be used on its own or as part of a network of scales operating together via either a wired or wireless network connection. Used in this way, different machines can be configured for different roles throughout the store. For instance you could have a single pre-pack machine in a back room connected to several counter scales operating in conjunction with a number of ECR machines at the Point of Sale (PoS) at the front of the store. A mixture of different XS models could be used, but the primary difference that determined the machine's role would be in the programmed configuration.

Operating modes

During programming the scales can be set to operate in several different operating modes and these define how the machine functions.

Label Mode. XS series scales operating in label mode are generally used for single item, weighed or non-weighed transactions. In label mode, the system can be set to Print on Request (press the Print or Operator keys) or Immediate (as soon as the weight is steady).

Pre-pack mode. Pre-pack mode enables a number of consecutive labels to be printed for each selected item. The selected item - along with any tare details, are retained until cleared. An item is selected in the standard way and the details are automatically 'fixed' - with a label being printed each time the weight changes and then returns to a steady weight again.

Receipt Mode. Receipt mode enables the operator to produce one receipt for a complete set of transactions. Transaction details printed on the receipt include; store header details and optional logo, operator details, date / time / terminal /

receipt number, number of items, total value and any tax elements. Individual line details, including description, weight or quantity, unit price and price to pay are also printed.

Products may be key entered, selected via a preset key or simply scanned in via a barcode reader. The scanner may be used for scanning dry goods (such as tinned items), previously packed items from the scales (pre-packed items) or receipt barcodes produced at separate counters.

A void function enables the complete sale or any individual line to be cancelled and the voided transactions are identified on receipt print outs.

Receipt Mode is often used at the PoS when the scale is configured as an ECR. In this configuration, a number of payment keys are programmed and the sale is finalised when the operator presses the appropriate payment key.

Up to 15 flexible payment keys may be created and assigned to the keyboard. Payment types include cash, cheque, credit card, local account or coupon. Foreign currencies and common cash denominations may be included in this payment table. The type of payment is always printed on the receipt.

Receipt mode can be used for a non PoS machine to produce subtotal receipts that can be consolidated at the PoS. A barcode may be printed at the bottom of each receipt. This barcode can contain receipt-specific information such as total value, receipt number or customer number. It can be scanned at the PoS in a system network to instantly recall transactions, thereby saving time and increasing customer throughput.

By including the Department or Group in the receipt barcode, sales may be limited to items from the same set only (department interlock feature).

Operator security

Sales/management functions are protected via operator PIN codes to ensure that only authorised operators have access to those functions. Up to 99 operators may be 'live' on the network at any one time, with name and number printing on the receipts.

When the scale is used as an ECR operators may be 'floating' in a network, or set into **Checkout mode**, whereby an individual operator is logged on to a specific terminal, and is prevented from 'floating' to other scales on the network.

In Checkout mode, the operator PIN codes do not have to be entered to use security functions, as it is assumed that the logged on operator is using the scale.

Account transactions

Sales can be charged to a customer account and payments may be received against an account. All electronic account transactions go into an electronic log.

An on-line file of up to 9999 local accounts may be programmed into the system. The account name and status is entered for each customer. Every customer has a credit status code, which informs the operator of the customer's details every time that accounts is called up for a transaction. The system can be set to enforce validation against this file, for all account entries.

An account payment slip is produced for each account sale, which may be kept in the cash drawer to enable end of day reconciliation and provide a signature-based audit trail.

Cash drawer operations

Float. A float transaction allows money to be put into the drawer for the purpose of giving change.

Pick Up. A pick up transaction allows the declaration of cash taken out of the drawer for security reasons during trading, prior to final cashing up.

Paid Out. A paid out transaction allows miscellaneous cash payments to be made using the cash from the drawer.

Label Formats

Label formats can be pre-set for a scale or may be set for individual items. Up to 103 label formats can be set up, with standard default formats being pre-set into each XS Series on delivery.

Every label format can be modified using label format editors in the MX system software.

Up to 50 fields of information can be printed on each label format. Legends such as those for the current date, expiry date, price per kg and total price values may be configured to print (for use with plain labels) or not (for use with pre-printed labels).

Sales messages may be set against a product's details and printed on labels, within sales message fields.

Label lengths can be from 40 mm to 600 mm long and can be printed in 0, 90 or 180° orientation.

Printing can be set for individual thermal labels or to print on continuous, sticky paper enabling labels of different length to be printed for different products.

2.3 System Data

System Data is information which is managed and held for the complete XS series network, this data can be created or edited at any scale, with the data then copied to all scales on that network.

Programming Product Look Ups (PLUs)

information about the products sold in the store is stored in individual PLUs which must be programmed.

PLUs can contain a variety of information about the product and, to simplify this process the PLU editor can be customised so that only the fields required are shown when they are programmed. in addition the barcode scanner can be used to help with the creation or editing of PLUs.

Promotions

A PLU may be programmed with one of the following types of promotion:

Price Promotion. Allows 2nd and 3rd prices to be automatically applied when either a certain weight or number of items of a product are sold.

Weight Free Promotion. Applies to weighed products only. Allows a configurable amount of weight to be sold free of charge, when the total weight of the product is above a configurable weight.

Items Free Promotion. Allows a configurable number of items to be sold free of charge, when a certain weight or number of items are sold.

Discount Promotion. Allows a discount value to be automatically applied to the transaction value when a certain weight or number of items are sold.

Voucher Promotion. Allows the printing of a separate voucher containing a saving value, when either a certain weight or number of items are sold.

Frequent Shopper Promotion. Allows a product to be programmed with a second price which is then printed on the label in addition to the original price. Customers who are part of a store's frequent shopper program, are charged at the frequent shopper price at the point of sale. The barcode printed on the label containing a frequent shopper promotional price will contain the original standard price.

All of the above promotions can be included into a timed batch which enables promotions to be automatically enabled and disabled on each day of the week and at pre-defined times.

When a PLU with a promotion is selected, the product description on the display will flash to indicate this to the vendor. A promotional message advising of the actual promotion can also be set against each PLU for display and printing purposes.

All of the above promotions except the frequent shopper promotion can be used in label and receipt modes. Frequent shopper can only be used in label mode.

Nutritional Information

Each PLU can be provided with nutritional information if required. There is an editable default list of common nutrients against which values are then programmed in the PLU records. Nutrient information can be programmed to print either on the same product label, or on a separate label. As well as being able to print individual nutrient values per product, the standard measure (normally 100 g) values and RDA values can also be printed.

Departments

It is possible to create up to 100 departments each having a 20 character description. All products are allocated to a specific department.

Messages

Up to 99 scrolling texts of up to 200 characters each, or bitmaps graphics can be programmed. You can assign each scale to display one of these messages or graphics when the scale is idle, giving an ideal platform for 'in-store' promotion.

Up to 99 sales messages may be programmed, and each PLU can be assigned two of these to print on labels, where a field has been set up for this purpose.

Tables

The following data tables can be programmed.

Tax. 10 tax rates can be programmed, with up to two tax rates being assigned to PLUs.

Tares. Up to 39 tare weights can be programmed which can be assigned to PLUs for use as preset tare values or assigned to keys for recall in normal operating mode.

Payment Tables. Payment tables includes 'local cash', 'foreign cash', 'credit card', 'account', 'coupon' or 'general'. A selection of payment types are available by scrolling with the arrow keys, entry is accepted by pressing the enter key.

Discount Tables. A maximum of 20 discount rates are programmable. A maximum of 16 displayed characters may be entered for describing the discount rate. The discount value may be disabled or entered as a percentage or value. The security level is applied for discount protection when operating the scale in sales mode.

Account File

Up to 9999 accounts may be programmed. The following information must be entered into the customer's account before it may be used; customers ref. number, customers name and customers credit status.

Add Label

You can assign one of the label formats for the add label format, or this can be set to print in a receipt style.

Logos

The XS scale can store up to 100 different logos. Logos are loaded into XS series scales using PC based system software support tools. A logo report can be printed showing all logos stored in the scale.

Logos can be used for a variety of applications including printing on labels or receipts as store logos, for promotional purposes, for the display logo area and for idle-time scrolling messages.

Barcode Types and Formats

The XS series range supports up to 30 barcode formats, each of which can be of the following types:

EAN13	CODE39	PDF417
EAN13 SCANDINAVIAN	CODE39 EXTENDED	GS1 EXPANDED
EAN8	CODE128	GS1 - 14
UPC12	EAN128	GS1 LIMITED
ITF14		

The following data can be encoded in the barcode: article number, price, weight, trace code, operator number or department number, group and transaction number. SSCC data is also supported.

- Weighing and traceability type application identifiers are supported by EAN 128 and RSS barcode formats.

- Barcodes may be programmed to print on receipts, labels, talons or combinations thereof.

- The add label uses the machine's receipt barcode format.

- Each PLU may be programmed to use one of 30 configurable barcode formats.

Operators

The XS Scale allows a maximum of 99 live operators in a network. individual security levels can be set for each operator.

Sign On message

The Sign On message printed at the top of receipts can have up to 200 characters of text and may be printed multi-line, across the full width of the receipt.

A logo can also be used in addition to, or instead of, the header message and is printed at the top of the receipt.

Sign Off message

The Sign Off message printed at the bottom of receipts can have up to 200 characters of text and may be printed multi-line, across the full width of the receipt.

A logo can also be used in addition to, or instead of, the trailer message and is printed at the bottom of the receipt.

Information Labels

Up to 50 information label references can be set up in order to be assigned to PLUs. An information label is programmed with a description and label format number.

In label mode when a PLU is served with an associated information label, the information label will be printed after the initial product label. In receipt mode, the information label is printed when the PLU is transacted by the operator key.

Information labels can be used for a number of different applications including ingredients, recipes, promotional/ merchandising, cooking instructions, coupons and traceability.

Vouchers

Up to 50 voucher types can be set up and used in conjunction with a PLU voucher promotion. Each voucher reference needs to be programmed with a description, mode of use (label, receipt or both), expiry date, barcode format and label format (which provides the voucher layout).

Vouchers containing barcodes can then be scanned at the point of sale and, depending on the barcode content, can be used to identify the product, voucher price and even expiry date.

Where XS series is used in ECR mode, a scanned voucher value will automatically be entered against the coupon payment type.

Pack Runs

Up to 99 pack runs can be created and used in pre-pack mode, to allow packing consignments with up to three levels. Each level can be user-defined with its target weight, number of packs or price, along with label format and barcode format to be printed for that level's total label.

Pack runs can be set up to be closed (fixed PLU at all levels), open (fixed PLU at level one only) or manual (mixed PLUs at all levels).

Sub-total labels can be printed if required and levels can be terminated early, with the appropriate total label issued accordingly.

Consecutive numbers can be printed on labels across all levels and defaced or damaged labels can be re-issued using the non-add function. Both completed and outstanding pack run totals can be printed for reporting purposes.

Re-Pricing

The re-pricing mode is a non-PLU associated method of printing labels, with pricing and barcode information which are adhered over a product's original price and barcode information. The re- price function requires setting up with default label information, barcode format, whether packs will be weighed and if totals are required to be stored or not.

Traceability

XS series scales feature comprehensive options for all types of traceability requirements. Up to nine different traceability schemes may be individually programmed, allowing associated products to be tracked through their supply chains. Scheme options include the ability to print user-defined trace information, manual or scan methods of data input and the ability to reproduce 'traceability passports'.

All schemes can be used in either label or receipt modes, allowing counter or pre-pack service operation.

E-mail Alerts

Up to 15 different alert conditions can be enabled which when triggered, will cause an XS series scale to send an e-mail to a designated e-mail address.

Both LAN and modem connected XS series networks are supported with different set up information required for each type. Alert conditions for sending e-mails include paper out, label feed errors, print head wear, networking and PLU file errors. As well as the 'to' address being user-configurable, the 'from', 'copy' and 'reply' addresses may also be set.

Electronic Fund Transfer (EFT)

Verifone UK card terminals can be connected via Ethernet to the scale.

Security Levels

The system has 10 security levels: 0 - no security up to 9 - highest level. Functions assigned to security level of 0 will have no security ie: they can be accessed by any user.

Each operator can be given security level 0 - 9. Every exceptional sales function (e.g. Void, Refund) can be set to require PIN authentication: level 0 - 9. If set > 0 for a selected function, system prompts for the Operator number then the PIN code.

If the Operator security level is greater or equal to the function level, the transaction will proceed, but, if the operator security level is less than the function level, the scale prompts for a supervisor. All management functions operate on similar security levels.

Security Levels for Operators

Operators are programmed with security levels between 0 - 9 to determine their level of access to the system. Operators are allocated personal PIN codes that they can change on a regular basis, via a PIN key which may be assigned to the keyboard.

Security Levels for Managers

By default, Operator 1 has security access 9 and PIN number 4296. Operator 1 will usually be retained as the top level manager's login and the PIN number should be changed.

Security Log

The security log is a report which shows functions that have been carried out above a user-entered security level. For example, a report printed for security level eight would print each level eight and nine function carried out, with the date and time and the name of the operator who performed the function.

2.4 Machine Data

Machine date is configuration information that applies only to the individual scale. It allows the scale to be customised for its operating role in the store.

Pre-set key assignments

The programmable keys on the membrane keyboard may be set to any combination of functions, including PLU, tares, Departments or Operators.

The different types of assignments are:

- Standard key assignments.

- ECR key assignments.

- Pre-pack key assignments.

- Function key assignments.

Standard key assignment:

> PLU, Operator, Log, PIN, Tax, Department, Tare, Prop. Tare, Dual Capacity, Alternate Currency, Return, Discount, Sub - total and Hash, Hand Price Keys, -UP/PLU Positive Non-weighed, Negative Non-weighed, Traceability Panel, Edit Preset Traceability, Traceability Passport, Pre-Weigh, Code, Stock, Weight Override, Checkout Operator, Customer Number and Consecutive Number, PLU search, Paper Select, Fixed Price, Re-open Receipt, Print Control, Quick Price Promo, PLU Data Print.

ECR key assignments:

> Up to 15 payment keys, No Sale, Float, Pick up, Paid out, Received on Account and Refund.

Pre-pack key assignments:

> Rewrap, Non-add, Wrapper on/off, re-price and pack run.

Function Key Assignments:

> Add, Clear, Enter, Fix Number, Override, Zero, Void, Test, Tare, Price Base, Up Arrow, Down Arrow, Total, Yes

The pre-set keys can be re-titled by applying adhesive labels to the operator's overlay or by re-printing the complete keyboard.

2.5 Data back-up

Data back-up provides the following options:

System Dump/System Load. Saving and loading the following data to/from memory stick:

> PLU's, logo's, carcass tracking data, ADD label info, tax rates, stored tares, Euro rate and symbol, label formats, scroll messages sign-on/off messages, store name, operator numbers, network ID, departments information labels, pack runs, nutritional information, e-mail alerts, sales messages and discounts.

Machine Dump/Load. Saving and loading the following data to/from memory stick:

> Machine identity, key assignments, key set-ups, printer set-up, print modes, trace code, symbols, custom menus, label mode, label type, label detect, tare interlock, barcode assignments, Euro print set-up and display contrast.

Totals Receive. Saves and loads a backup file of the totals information produced from the scale.

2.6 Data Reports

The following reports may be printed on receipt paper for data management purposes:

> PLU file list, operators report, text report, discount list, security level, payment key list, account list, promo batch list, traceabilityreports, barcodes, logos, tax rates, tare weights, AIs, nutrients, pack runs, information labels, vouchers, batch reports, e-mail set-up, PLU data print and Mix n Match.

Any data report can be halted by pressing the Clear key.

Totals reports

Reports are available on the following:

1. PLU totals (with option to enter a start and end range)
2. Operator (optional range)
3. Grand totals
4. Department (optional range)
5. Machine
6. Hourly (or per half hour)
7. Group (optional range)
8. Discount totals
9. Promotion totals
10. System cash
11. Security
12. Carcass (lists an audit trail of the last 100 carcasses used, showing the total weight packed, the value and the last date on which that carcass was used)
13. Single (X/Z) or dual (X2/Z2) report periods, enable daily plus weekly reporting.

Totals Batching

All of the above totals reports from any period may be batched together to allow up to nine different reports to be printed at the press of a button. Up to five batches may be programmed, which are then assigned to a key on the keyboard.

Audit Reports

Audit reports print out transactions which have been totalised and printed on the label or receipt during sales transactions. Transactions are printed either from the last clearing date or from the date/time specified by the operator.

The operator may clear the audit transactions at the end of the printout. The operator may choose between a full or summary report.

Audit reports may be configured to be printed out as a summary or in detail, selected by time, receipt number or filter for transaction type.

The summary report shows the total value and number of transactions for reach receipt and the grand totals.

It is possible to clear or print outstanding transactions (e.g: unreconciled receipts at the end of the day) or clear all totals (normally only when a system is being set up to go live).

2.7 PC applications

MX system software

MX system software has been specifically designed to provide a transparent interface between the retailers' primary Store Management module (generally the EPoS system), and the mixture of scales in the various departments within the store. MX is designed to run on the same computer as the management module, but "in the background", this solution allows the retailer to control the prices and product range in both the EPoS and the scale systems from the Head Office.

MX also provides for the collection and return of scale sales reports, as well as enabling a detailed audit trail of transactions.

Contact Avery Berkel for a full description of functionality and features.

2.8 Power Supply

The XS scale has an external power supply mounted in a protective recess under the scale; the unit is rated at 100V/60Hz to 240V/50Hz. The approximate Consumption is 60 VA when printing falling to 3 VA when not printing.

The scale is supplied with a 2m long 3 -core mains cable with moulded plug. The mains cable can be secured by a clip on the underside to provide strain relief. The use of the external power supply makes the scale a low voltage device, and reduces power consumption.

All variants use a mains cable with IEC320 C5 three pin termination to allow for continuity of the protective earth connection.

2.9 Scale Interfaces

USB Ports. All models feature two USB ports, with USB V.1.1 being supported. On XS 100, 200, 300 and 400 models, one port is located beneath the scale, one is located in the printer compartment.

Typically, the port located beneath the scale may be used for scanner input. The port located in the printer compartment is typically used for data transfer with a USB memory stick. (Note: the USB ports do not support Hubs / composite devices).

Cash Drawer Interface. All models feature an RJ12 connector for use with a 12 V or 24 V cash drawer.

Inter-scale Network and Host Computer Interfaces. A maximum of 31 scales may be linked together in a single network. All communications is based on standard 10/100-BaseT Ethernet networking. Ethernet cabling standard IEEE802.3 defines cable type, length and equipment. TCP/IP is the 'language' or protocol, by which all devices communicate.

Within a single network, scales are configured in a Client/Server configuration, with all scales sharing the same Ethernet 'port address'. Any scale can be configured as the Server and all scales contain the full PLU and data file.

As all scales are connected directly into an Ethernet hub, no wiring short-circuit can bring down the scale network, adding significantly to network resilience.

Each scale may be connected to a local 'Department HUB'. Where connection to the office computer is required, each HUB may then be connected to the store's Ethernet' HUB in the wiring closet. This HUB provides the connection to the back-store management PC via Ethernet cabling.

Alternatively, full Category 5 structured cabling may be employed, with every scale being directly connected to a single hub system within the store.

When communicating by wired Ethernet, the LAN communications symbol will be displayed in the scale's status window on the display.

Within a single store-wide Ethernet system, multiple scale networks can be configured, with each network having a unique network ID.

In this scenario hundreds of XS series scales can be linked into the store's Ethernet hub, with each Server talking independently to its own network of client scales.

The XS series range also allows host names to be specified for a particular scale for use in conjunction with DHCP and DNS. The host name to be programmed can be up to 100 characters.

The TCP/IP protocol enables simple remote diagnostic tools from head office, such as the 'Ping' feature. The MX system software support tool provides an authorised dealer with more sophisticated remote diagnostics.

RF Communications. XS series scales are compatible with most common Spread Spectrum Radio Frequency systems, this enables the use of RF for communication between the PC located in the management office and the counter scales in the store.

Multiple network configurations are possible using either only RF or combinations of RF and direct cabling communications. For further information, see the XS series RF Communications Data specification sheet.

When communicating by RF, the RF communications symbol will be displayed in the scale's status window on the display.

2.10   System Resilience and Networking

In both LAN and RF networks, client scales can operate in local mode if the server or network connection fail.

When the communication with the server is restored, transactions are automatically recollected from local mode and the totals are regenerated.

Configurable Network Error Alarm

An audible alarm warning of network errors can be disabled in sales mode. A flashing message appears on the vendor display when the scale is experiencing communication problems.

Chapter 3 Using the XS Scale

This chapter explains how to set up and operate the scale during configuration. It covers installation, how to access manager mode, how to navigate the menus and how to enter text and change settings. All of these later sections will be important when you move on to the actual programming instructions later in the manual.

3.1   Installation

Handling

When moving the unit take care to handle it carefully and only lift it from the base.

Levelling

The unit should be placed on a stable, level surface. Adjust the feet to level the machine so that the bubble in the level indicator is central.
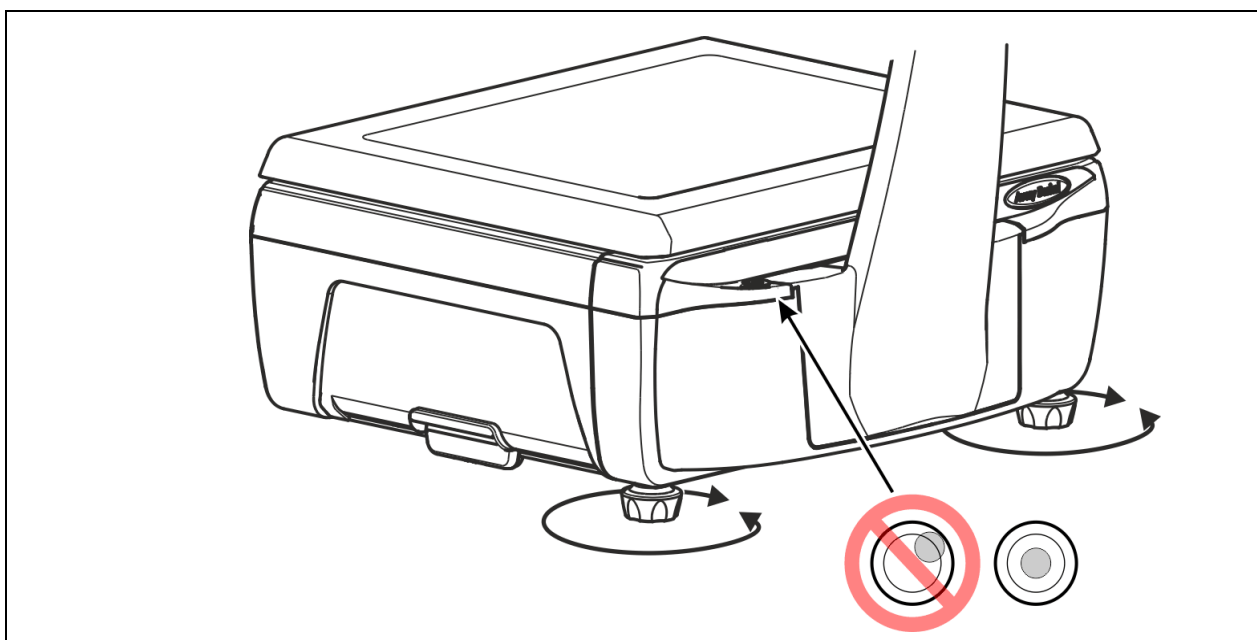
3.2   Making Connections

Note: Take care not to trap any cables under the feet, or the ribs in the base of the machine, as this could cause weighing inaccuracies and damage to the cables.
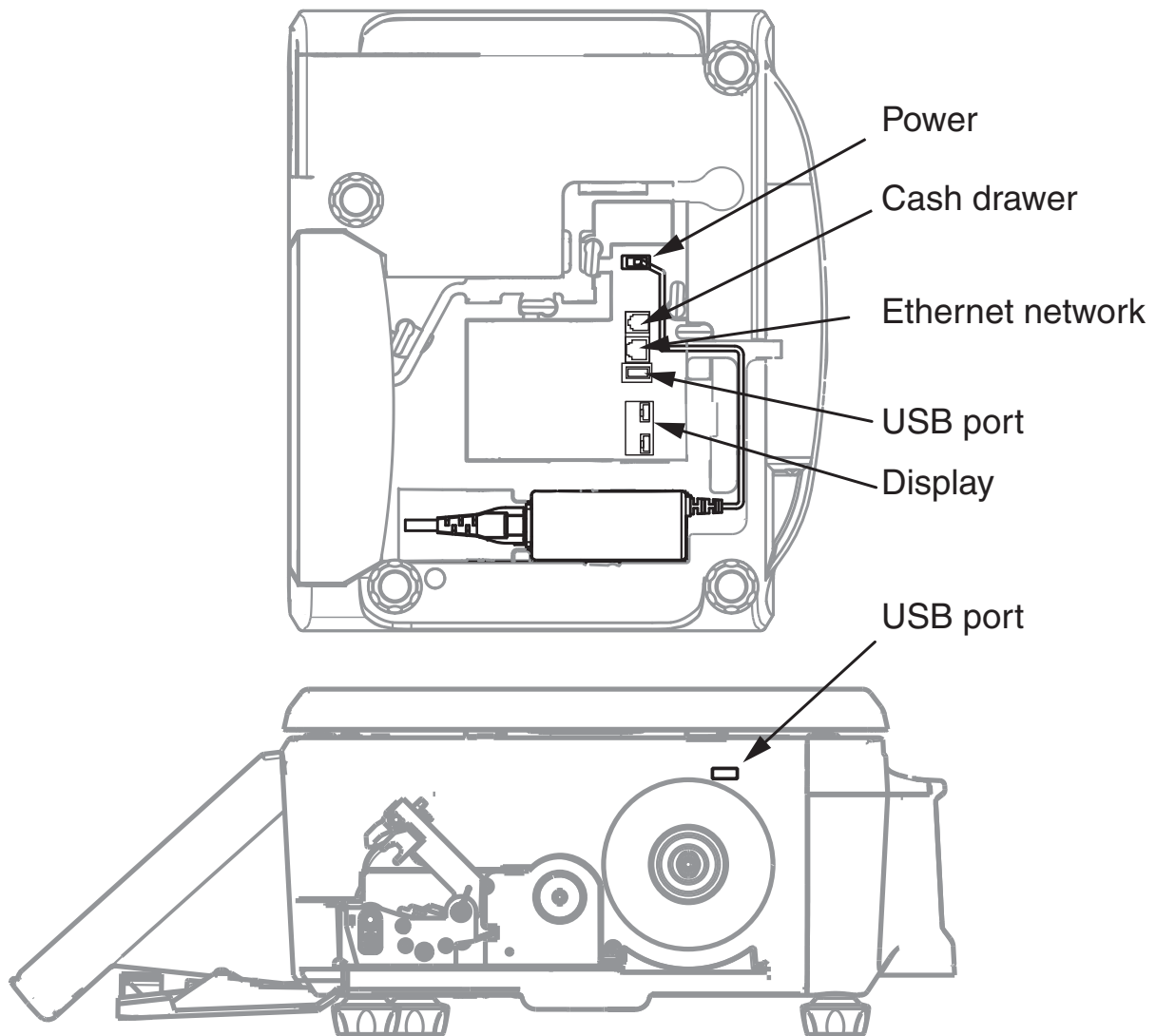
Figure 3.1   Connections

Mains power

The mains plug must be inserted into a socket outlet with a **protective earth contact**. The electrical supply at the socket outlet must provide over current protection of an appropriate rating.

3.3   Keyboards

The XS series features a 58 key user-programmable touch sensitive keyboard with a transparent pocket under which a user-defined insert may be slotted into place. An insert is supplied with the scale. The reverse side of the insert is marked up all the keys necessary to programme the scale. A custom operators keyboard insert with graphics can be produced and printed using the MX PC software

Figure 3.2   Operators keyboard template

🔒	Q	W	E	R	T	Y	U	I	O	P	( ) %	– = +	≣←	≣←
Caps	A	S	D	F	G	H	J	K	L	: ;	À @ '	Ä Æ Á #	↶	✔
⬆	Z	X	C	V	B	N	M	Ć Č ,	Ď É .	? Í /	Ń Ñ !	↖	🏠	↘
Cntrl	ALT	X X x	° Ö Ó Ô £	€	Space	Space	Ř Š $	Ü Ú Ø	Ž *	&	Enter	Enter	✗S series	

Figure 3.3   Manager's programming keyboard

In addition there is a 23 key full-travel section for commonly used numeric / function keys (eg: 0-9, Clear, Test, Enter, Total / Print, Add, Tare, etc); this keyboard has a raised embossed overlay to give you touch feedback that your finger is located correctly on the key.

Figure 3.4   Numeric and Function Keypad

Function keys

Zero. Resets an out of balance scale.

Tare. Subtracts the weight of the container when weighing goods.

Fix. (1) In receipt mode, retains the PLU until the transaction is entered. Retains any active tare, if in operation, until it is cancelled. (2) In label mode, the PLU is retained until it is cancelled. (3) Sets the machine to pre-pack if the machine configuration allows it.

Cancel. Cancels a PLU or hand entered price. Depending on the function in use, clears messages or characters from the display.

Print. In receipt mode, when the subtotal is displayed, prints a receipt. In label mode, prints a label.

Enter. Confirms data entry.
Enables you to change the number of items when serving non-weighed items.

Change. Enables you to change the price of a PLU for that transaction.

Cancel Transaction. Cancels an unwanted transaction from an operator subtotal.

Price Base. Selects the other price base when entering the price of an open, weighed PLU or a hand entered price.

Display Test/Standby. (1) Initiates a display test sequence. (2) Pressed again during the test sequence prints a test report. (3) Press and hold for 3 seconds to enter Standby mode. (4) Hold for 1 seconds to leave Standby and restart. (5)Press the Enter key and type in a valid PIN during the test sequence to gain access to Manager Mode (for programming).

Up. Move to the item above in the displayed list

Down. Move to the item below in the displayed list

3.4 Entering and leaving Standby mode

To shut down and enter Standby:

1. Press and hold [icon] for 3 seconds.

To exit Standby and return to normal operation:

2. Press [icon] for 1 second.

3.5 Installing the programming keyboard overlay

To program the machine you will need to make use of the programming keyboard overlay, which should be inserted in to the clear plastic pocket which covers the machine's keyboard.

Revealing the programming overlay:

1. Hold the overlay by the tab and slide it down to remove it from behind the clear protective cover.

2. Reverse the overlay to reveal the programming side.

3. Slide the top edge of the overlay up under the protective cover until the bottom edge rests on the supports.

3.6 Manager mode

You must be in manager mode in order to perform programming operations.

Note: The factory default setting for operator 1 PIN is 4296 and for operator 1 security level is 9. All other operators will have factory default settings of PIN 0 and security level 0 unless you change them.
For information on changing an operator PIN and security level see *Programming Operators*

To enter Manager Mode:

1. Press [icon] .

2. Press [icon] .

A list of operators is displayed.
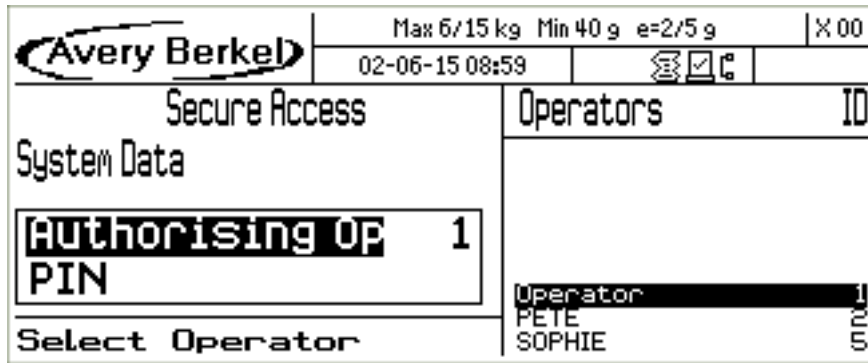
3. Select the Authorising Operator using the ▲ ▼ keys (or select the number) and press ⏎ .
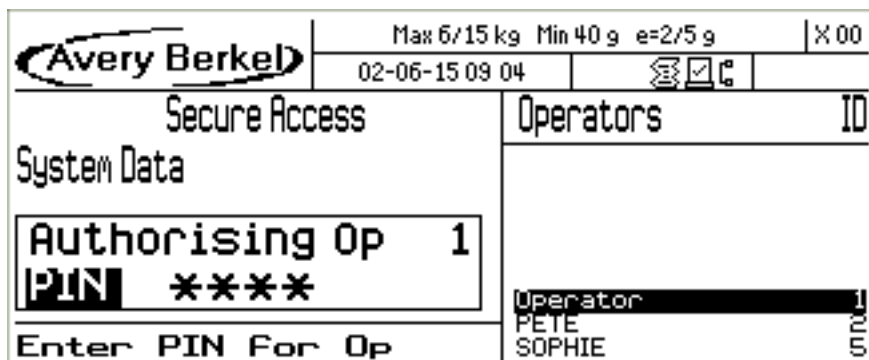
4. Enter the PIN Number, and press ⏎ . The manager mode top menu is displayed.
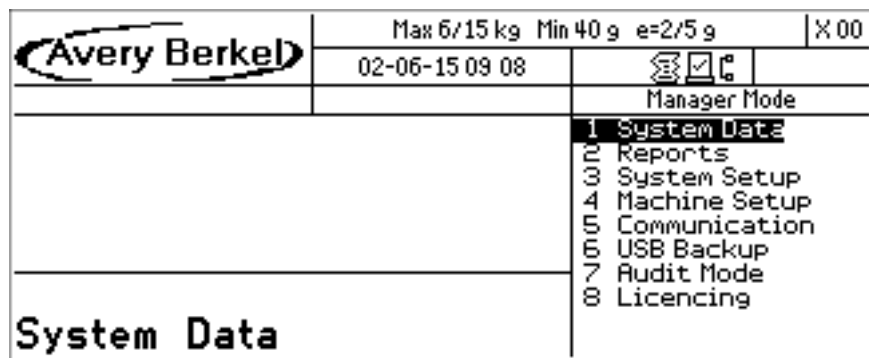
To exit Manager Mode:

Press 🏠 one or more times.

3.7 Navigating the programming menus

The right hand panel on the display in Manager mode shows the top level of a hierarchical menu system. It provides eight categories from which to select using either the ▲ or ▼ keys, or by using the number keys. Choosing a category provides access to sub-menus which can be used to reach the desired settings.

In addition, you can use the following keys to:

- Move around the programming screen
- Select menu items.
- Select options

Your programming keyboard overlay may have keys that allow you to go directly to some of the menu items.

	Select menu item		Move to top level of menus/return to operator mode.
	Back up one menu level	**5**	Select the like numbered menu item
	Move to menu item above.		Move to menu item below.

PLU Create/Edit quick save:

 Save data entered up to this point.

To exit Manager Mode from within a menu:

 x 2
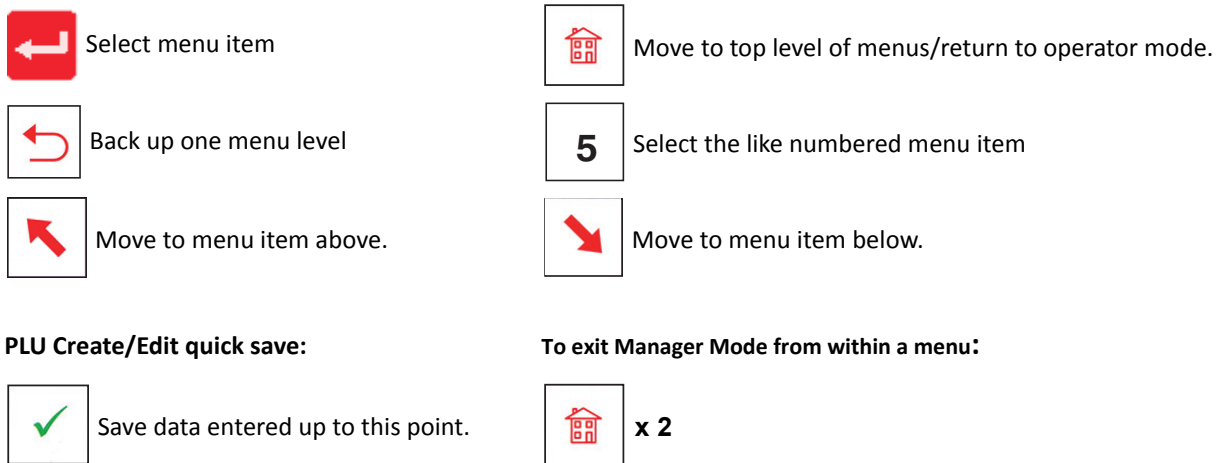
Figure 3.5   Navigating the menus

Menu navigation

The following menu map shows the top two levels of the menu system. To navigate down the menu enter the number corresponding to the desired menu item at each level.

1. System Data ⇒
- 1. Products
- 2. Promos
- 3. Departments
- 4. Operators
- 5. Messages
- 6. Tables
- 7. Label Details
- 8. Date & Time
- 9. Traceability
- 10. Pack Run Data
- 11. Funct.Security
- 12. Nutri Facts

2. Reports ⇒
- 1. Totals Report
- 2. Data Report
- 3. Trans. Reports
- 4. Log Report
- 5. Define Filters

3. System Setup ⇒
- 1. Interlock Setup
- 2. Receipt Setup
- 3. Security Setup
- 4. Promo Setup

4. Machine Setup ⇒
- 1. Keyboard Setup
- 2. Printer Setup

3. Machine Barcode

                    4. Machine Mode

                    5. Alarms

                    6. Re-Price Setup

                    7. Display Logo

                    8. Job Scheduler

                    9. EFT System

5. Communication ⟹   1. Auto Configure

                    2. Machine ID

                    3. Network Map

                    4. Network Dump

                    5. M/c Setup Dump

                    6. Advanced Setup

6. USB Backup ⟹   1. Save File

                    2. Load File

7. Audit Mode ⟹   1. Audit On/Off

                    2. Filtering

                    3. Server Buff Mode

                    4. Client Buff Mode

                    5. Label Override

                    6. Audit Report

                    7. Erase Audit List

8. Licencing ⟹   1. Start Trial

                    2. Request

                    3. Activate

                    4. Backup Codes

                    5. Restore Codes

For example, to access the Change Price setting:

1. System Data ⟹ 1. Products ⟹   **1. Change Price** ⟹

Avery Berkel	Max 6/15 kg Min 40 g e=2/5 g		X 00
	02-06-15 09 08	🗳☑C	
		Manager Mode	
		1 System Data	
		2 Reports	
		3 System Setup	
		4 Machine Setup	
		5 Communication	
		6 USB Backup	
System Data		7 Audit Mode	
		8 Licencing	
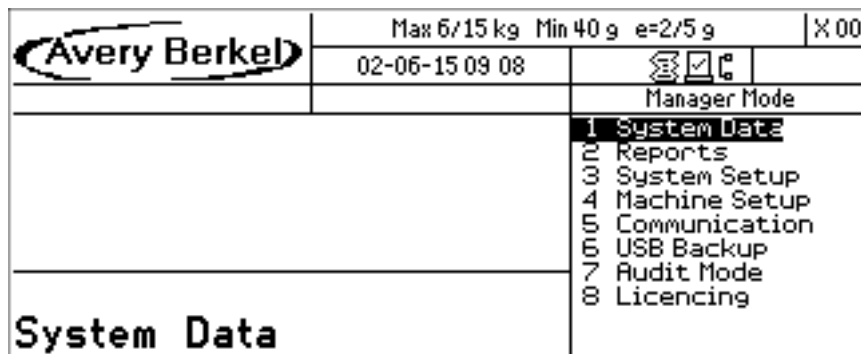
1.   Press ⏎ or press 1 to select item 1, **System Data**.

2.   Press [↵] or press 1 to select item 1, **Products.**

3.   Press [↵] or press 1 to select item 1, **Change Price** to open the Change Price menu.

4.   You can then follow the screen prompts to select the department and PLU, and enter the new price. For more details see *Changing prices*.

3.8   Dedicated manager mode keys

You can program dedicated keyboard keys to provide you with direct access to some functions without stepping through the menus. This can help you perform manager functions more quickly

To program dedicated keys for fast menu access:

1.   Navigate to the menu for which you require quick access.

2.   Hold down the key you want to use until you hear a series of short bleeps followed by a long bleep.

You will see a confirmation message when the key has been assigned.

3.9　Creating and editing text

To enter text use the programming keyboard on the machine. The keyboard also provides access to upper case characters and a number of special characters (shown in red and blue on the template).

To create upper case text:

1.　Press ⃞Caps .

2.　Press the appropriate character keys.

3.　Press ⃞Caps again to revert to lower case text.

To type the special characters shown on the keyboard template:

1.　Press ⃞↑ and release for characters printed in red

2.　or ⃞Cntrl and release for characters printed in blue.

3.　Then press the appropriate character key.

The machine:

- Word wraps PLU label text to ensure a word is not split over two lines.

- Word wraps after punctuation marks, for example

    , - : ; but not **'** (apostrophe)

    so you do not need to enter spaces when creating a list of ingredients.

- Centralises all printed label text and the sign on and sign off messages on receipts

Text Alignment

The text can be centre aligned or left justified.

To left justify the text:

1.　Press ⃞≡ .

To centre the text on;

1.　Press ⃞≡ (or ⃞↑ followed by ⃞≡ , depending on the keyboard language).

Selecting the size of printed text

There are 32 different character (font) sizes from which you can select when entering text for printing.

1.　Enter the font identification number (**1** to **8** and **A** to **X**), for the size of characters required before entering the text otherwise it will be printed in the default size for that field.

2.　Press ⃞xxx followed by the identification number for the font you require at the start of the text.

1234567890

ABCDEFGHIJKL
MNOPQR
STUV
WX
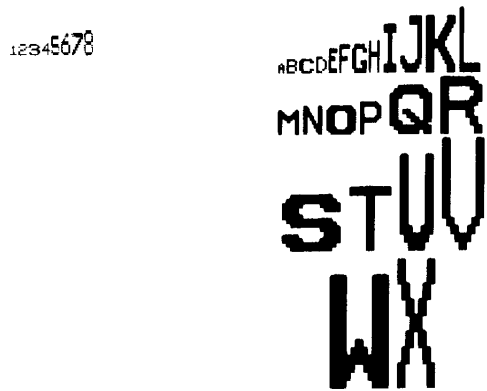
Figure 3.6   Available fonts

Inserting text

To insert text, press [↖] or [↘] until the character preceding the new text is at the far right-hand edge of the display. Enter the new text.

Inverted text

You can print text in inverse print:

1.   Press [X X X] twice during text entry

2.   Select the relevant control from the list displayed:

•   Inverse On is displayed as <INVERSE>

•   Inverse Off is displayed as <!INVERSE>

•   Strike Out On is displayed as <STRIKE OUT>

•   Strike Out Off is displayed as <!STRIKE OUT>

Displaying text

When you recall already entered text, the display shows either the entire text, if it is 16 characters or less, or the first 16 characters of a long description.

•   Press [↑] then [↖] to move to the previous linefeed or to the start of displayed text.

•   Press [↑] then [↘] to move to the next linefeed or to the end of displayed text.

Correcting the last character displayed

1.   Press [C] to delete the last character.

2.   Enter the character required.

Deleting a character

1.   Press [↖] or [↘] until the character is at the right hand end of the display.

2.   Press [C] to delete the last character.

Clearing the entire text entered

•   Press [↑] then [C]. Do not press any other key.

Enter new text if required.

PLU display text

The PLU display text allows you to enter up to 60 characters over two lines (30 characters per line). The second line could be used to display the product text in an alternative language.

Note: The promotional message (if any) will replace the second line of the product text.

Extended character set

You can create additional text characters using the extended character facility and entering the appropriate numeric code for the character. See *Extended character sets* for the table of characters available and the corresponding numeric codes.

• Press | ALT | followed by the numeric code keys for the character required.

3.10 Setting the date and time

1. System Data $\Longrightarrow$ 8. Date & Time

The machine has an internal clock which stores the date and time. It uses the clock to calculate the sell-by dates printed on labels and to print the date and time on printouts and reports.

Note:

• The time is displayed to the right of the date in hours/minutes (24 hour).

• You can only change the digit which flashes.

• You can press ↖ or ↘ to move along the display.

• Press ↵ when you have set all the digits you need to change.

Chapter 4 Programming System Data

System data is information which is managed and held for the complete XS series network, this data can be created or edited at any scale, with the data then copied to all scales on that network. System data includes details of the products sold by the store, the operators that have access to the system and of any text and promotional information that may be used by the scales.

Programming system data can be a circular process because some fields need to reference other system data ((e.g. tax rates or sales messages) and these need to be set up first. The preferred method is to first identify the data that you want to program, and then read through the description to see which fields need to be set up before you can complete the programming. Once these items have been set up you can then go on to complete programming the required data.

4.1   Programming Products

A Product Look Up (PLU) is a record of the information about a product available for sale in the store. PLUs for all of the products sold in the store must be programmed before the scale can be used. The most frequently used PLUs may have their own dedicated key.

1. System Data $\Rightarrow$ **1. Products** $\Rightarrow$ **1. Change Price** $\Rightarrow$

2. Create&Edit PLU $\Rightarrow$

3. Delete PLU $\Rightarrow$ 1. Single PLU

2. Range PLU

3. All PLU

4. Copy PLU $\Rightarrow$

5. Customise Menu $\Rightarrow$ 1. Department

2. Label Format

3. Display Text

4. PLU Text 1

5. PLU Text 2

6. PLU Text 3

7. PLU Text 4

8. PLU Text 5

9. PLU Text 6

10. Tax Ref 1

11. Tax Ref 2

12. Group Number

13. Trading Mode

14. Promotions

15. Price Base

16. Net Weight

17. Tare Weight

18. Prop. Tare

19. Date 1

20. Date 2

21. Sales Text 1

22. Sales Text 2

23. Barcode

24. Traceability\x0

25. Nutri Panel

26. PLU Logo

6. Change Lot Num. $\Rightarrow$

This chapter describes how you can:

•   Change Price

•   Create and Edit PLUs

•   Set Up Promotions

•   Create a Nutritional Panel

•   Copy a PLU

•   Delete a PLU

•   Selecting a PLU by Barcode

•   Customise Create & Edit PLU

•   Create Voucher Record

Selecting PLUs by barcode

PLUs can be selected using the barcode number rather than the PLU number in:

•   Sales mode

•   Change Price

•   Create and Edit

•   Delete PLU

•   Copy PLU.

Use a barcode scanner if available or use the keyboard to enter the barcode number if you have a '#' key.

4.2   Changing prices

1. System Data $\Rightarrow$ **1. Products** $\Rightarrow$ 1. Change Price

Only the first, second or third price (PLUs programmed with a promotion) of a PLU can be changed. To change any other PLU data see *Creating and Editing PLUs*.

Note: For the each price, the display will highlight unit price, item price or neg. item price, according to the type of PLU selected.

4.3   Creating and Editing PLUs

1. System Data $\Rightarrow$ **1. Products** $\Rightarrow$ 2. Create&Edit PLU $\Rightarrow$ Department Number
⇓
PLU Number
⇓
Label Format
⇓
Display Text
⇓
⇓
⇓
Assign Key

The options available when creating or editing a PLU vary depending on how your machine has been configured. In addition, the Create&Edit PLU menu can be customised to allow you to choose which options are available as you go through the process. See *Customising the Create/Edit PLU menus* for more information.

Note: If the PLU you want to edit has a dedicated key assigned to it, instead of entering the PLU number you can, just press the appropriate PLU key.

Departments

The PLU can be assigned to a Department if they have been configured on the machine. Select the appropriate Department for the product.

Note: For more information on creating and assigning departments refer to *Creating departments*.

PLU Number

Each PLU must be assigned a number that can be used to select the PLU from the keyboard. If the PLU has been assigned to a department the PLU number is unique within that department. The same PLU number can be assigned to other products in other departments. In this case the combination of department number and PLU number becomes the unique identifier for the product.

PLU text

Each PLU can have up to seven text fields. Each of these may have up to 2000 characters.

PLU display text. Will be displayed when the PLU is selected in operator mode.

Note: Although up to 2000 chars can be programmed, only about 60 can be displayed in operator mode.

PLU text 1. This is the product description shown on receipts and labels. For receipt operation, this needs to be brief (ie just the product name) so that it will fit on one or two lines of the receipt. For labelling, this field could contain the product's full description, but usually it will just show the product name. Any supplementary description (eg ingredients) required can use PLU text 2.

PLU text 2 and 3. PLU text 2 is a supplementary label text area, often used for ingredients. PLU text 3 is typically used for traceability information.

PLU text 4, 5 & 6. Are typically used for nutritional information, and are not normally available to the user. However, if nutritional data is disabled for the PLU and texts 4, 5 and/or 6 are enabled in Customise Menu, then these fields may be used for further supplementary PLU text.

Note: For substitution codes that you can use in PLU text messages 1 and 2 refer to *Substitution codes*.

Tax reference 1 and 2

Each PLU can have up to two tax references.

- There are ten tax references to select from (0 - 9) and each one can be assigned a different tax rate.

- Use tax reference 0 for products which are non taxable.

For further information on tax rates see *Tax rate*.

Product groups

A product group is a category such as fish, fresh meat or vegetables to which an individual PLU may be assigned. See *Product groups* for more information.

Trading mode

Allows you to select the way in which the product is sold:

- **By Weight.** Used for goods that are to be weighed.

- **By Count.** Used for nonweighed items.

- **By Count Neg.** Typically used for bottle deposit refunds. Not allowed in label mode.

- **Fixed Weight.** Back calculates the unit price from the item price and the net weight.

- **Fixed Price.** Back calculates the unit price from the item price and the measured weight.

- **By Manual Weight.** Requires the operator to enter the weight manually.

- **By Litres.** Used for liquids.

Note: For fixed weight and fixed price to operate, back calculation by product type must be enabled in the service configuration and machine must be in pre-pack mode. Otherwise both will operate as for by count.

Price multiple

For non-weighed PLUs you can program a default quantity for the product at a set price.

For example: Four chocolate chip muffins for £1.40:

• Set the item price to £1.40 and the price multiple to 4.

To charge a premium when selling individual items (split pack price):

1. Set the item price to the higher value for that number of items.

2. Select price promotion

3. Set the second price to the default pack price and the trip value to the default quantity.

For example: Four chocolate chip muffins for £1.40. Individual price £0.40:

1. Set the item price to £1.60 and the price multiple to 4.

2. Select price promotion and set the second price to £1.40 and the trip value to 4.

If a smaller quantity than the default number is purchased, the items will be charged at the higher price.

If a quantity greater than the default number is purchased, all the items will be charged at the promotional price.

Promotions

There are seven types of promotion available that you can choose from when programming a PLU.

• Price promotion

• Frequent shopper promotion

• Weight free promotion

• Items free promotion

• Discount promotion

• Voucher promotion

• Markdown promotion

For details see *Promotions*.

Sell by dates

If you enter a sell by or use by date when programming a PLU the machine prints the date or time on the label in one of the following ways:

• As a use by or sell by date computed from the number of days from the current date

• As a use by or sell by date computed from the number of months from the current date

• As a use by or sell by time computed from the number of hours from the current time
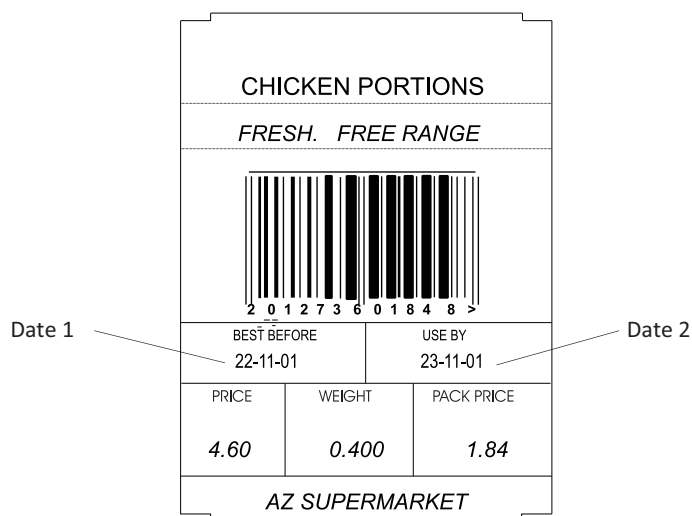
Figure 4.1   Sell by dates

Net weights

Net weight is a description printed on a label to identify the weight of a non-weighed product sold on a normal or average weight basis. For example, 400g for all loaves of a certain size.

Proportional tares

Proportional tares are used when weighing ready wrapped goods such as confectionery. Provided that the proportional weight value for the wrappings is known, the percentage tare value can be entered when programming the PLU.

Barcode printing

Labels

To select the barcode format :

• Select the (non-zero) barcode format you want here.

or

• Select zero here to use the machine's default barcode format. The default machine barcode must be non-zero, or the scale will display "invalid entry".

4.4 Entering PLUs for dry or branded goods

PLUs for dry or branded goods can be created in two ways:

Using a PLU number:

1. Create the PLU as normal.

2. When you see the message **Barcode Disabled**, press or and select **BCode Scan Only**.

3. Enter the barcode number manually or use the scanner.

Using a barcode number.

• Scan the barcode when you see the message **Dept Number** or **Enter PLU**.

       or

• Enter the department number and when you see the message **Enter PLU**, press and enter the barcode number.

• Enter other PLU details such as price as normal, but you do not need to enter any barcode related information.

Note: If you want the PLUs to be in Departments, enter the department number when you see the message **Dept. Number** and the barcode number when you see the message **Enter PLU**.

4.5 Promotions

1. System Data ⟹ **2. Promos** ⟹ 1. Edit Promo Batch

2. Del. Promo Batch

3. Voucher ⟹ 1. Create & Edit

2. Delete

4. Mix n Match

You can program PLUs with a promotional price or offer when you Create & Edit PLU. These menu items control various aspects of how the promotion is run.

There are seven types of promotion available:

• Price promotion

• Frequent shopper promotion

• Weight free promotion

• Items free promotion

• Discount promotion

• Voucher promotion

- Markdown promotion

Sales receipts and labels can be printed with messages giving details of the savings or benefit to the customer. A suitable label format must be selected when programming the PLU for promotional information to be printed on the label.

You can:

- Select the promotional message to always print or only when the promotional price is enabled.

- Link a promotion to a time period by assigning a Promo Batch to the PLU.

- Assign an expiry date to voucher promotions.

Price promotion

You can program a PLU with a second and third unit or item price and two different weighed quantities or number of items that enable the second and third prices,

- The promotional price is enabled when the pre-programmed weight or quantity is reached.

- If you do not program a third price and a second trip value then only the second promotion price and its trip value will apply.

- You can change the unit or item price and the promotional prices using Change Price.

Note: If you program the weighed quantity as 0.00, or the number of items as 0, the promotion will always be enabled

Frequent shopper promotion

If you program a PLU with a frequent shopper promotion, you can have two prices printed on the label, the normal selling price and a frequent shopper price.

- If the customer is in the frequent shopper scheme, the PoS terminal will use the frequent shopper price when the goods are totalised at the checkout.

- If the customer is not in the frequent shopper scheme the normal selling price is used.

- A frequent shopper price is not dependant on the weight or quantity purchased.

There are three types of Frequent Shopper promotion available:

- Price. You can program a second price for the PLU which applies if the customer is part of the frequent shopper program.

- % Discount. This type of promotion calculates the discount as a percentage of the original unit price or of the total price for the PLU.

- Reduction. The unit or total price of the PLU is reduced by the value programmed.

Weight/item free promotion

The system automatically scales up the free quantity according to the amount purchased.

For example:

- Buy three and get one free (item free).

- Buy 500g and get 100g extra free (weight free).

Note: If you program the weight as 0.00 or the number of items as 0, the promotion will always be enabled.

Weight free promotion

20g free with every 100g purchased

on pan	----------
to pay	-·-·-·-·-
free	··············

weight

weight on pan

Customer 1
orders 130g
pays for 110g
receives 20g free

Customer 2
orders 230g
pays for 200g
receives 30g free
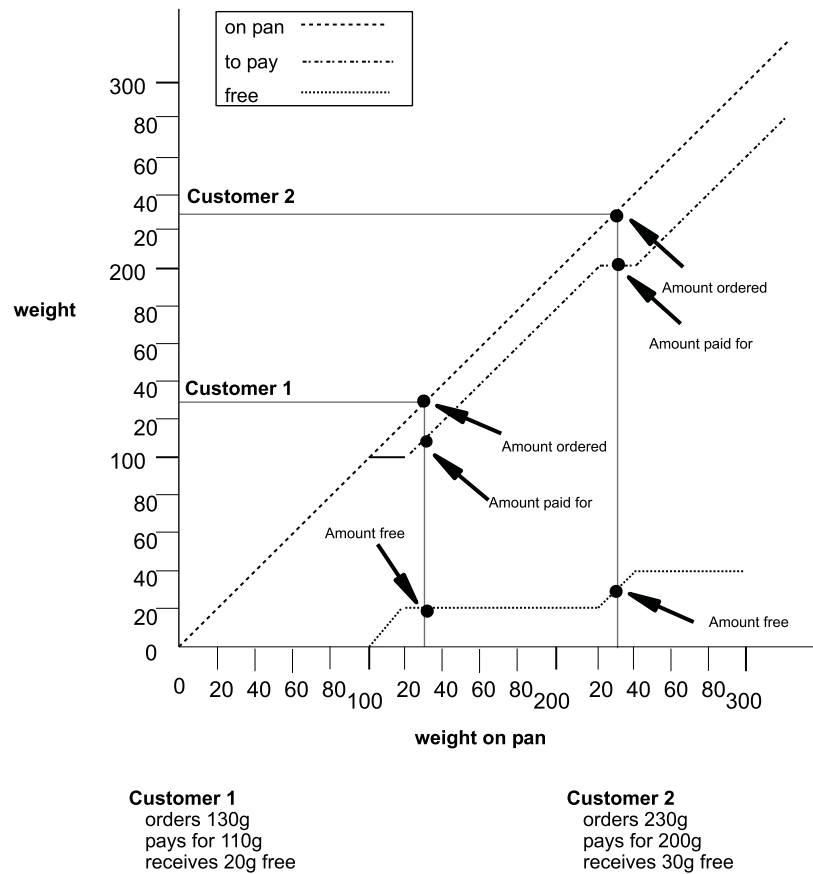
Figure 4.2   Free weights graph


```
20-07-02                    14:09
Served by                   Maria

COLESLAW                  £ 1.24
0.270  kg   £ 4.60/kg
       BUY 100G GET 20G FREE
0.040  kg   FREE
NET PRICE        £ 1.06
Discount                  -£ 0.18
                   ................
Total                      £1.06
Cash                      £ 1.06
Change                    £ 0.00

Transactions                   1
              05#10041213
     THANK YOU FOR SHOPPING AT
          AZ SUPERMARKETS
```

Normal Price

Promotional message

Always printed for
amount free promotions
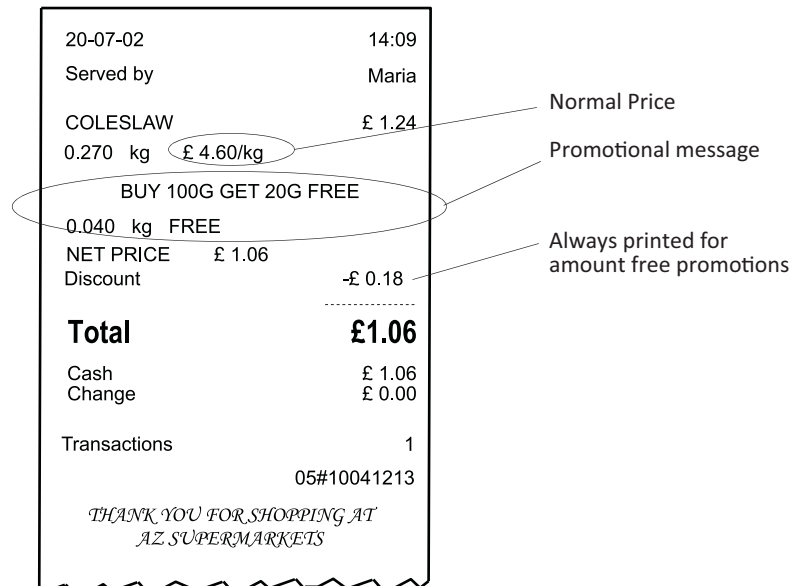
Figure 4.3   Weight free promotion receipt

Item free promotion

Item free promotions can be applied to weighed goods and nonweighed items.

They can be used for products such as hamburgers which are priced by weight but generally sold by number.

Example: Buy 4 hamburgers and get 1 free.

- When programming the promotion, enter 1 for the number of free items and 4 for the item break.

- The weight and total price of 4 hamburgers is calculated from the weight of 5 hamburgers on the weighplate and the unit price.

- When serving a customer, the operator weighs all 5 hamburgers and enters 5 for the number of items. The value of the transaction is calculated automatically with the appropriate quantity (1) given free.

```
20-07-02                    12:19
Served by                   Maria

HAMBURGER               £ 2.10          ──── Normal Price
0.500  kg   £ 4.20/kg                        Promotional message

          BUY 4 GET 1 FREE
1 FREE
NET PRICE       £ 1.68                        Always printed for
Discount                -£ 0.42              amount free promotions
          ----------------
Total                   £1.68
Cash                    £ 2.00
Change                  £ 0.32

Transactions                 1
          05#10001188
    THANK YOU FOR SHOPPING AT
         AZ SUPERMARKETS
```
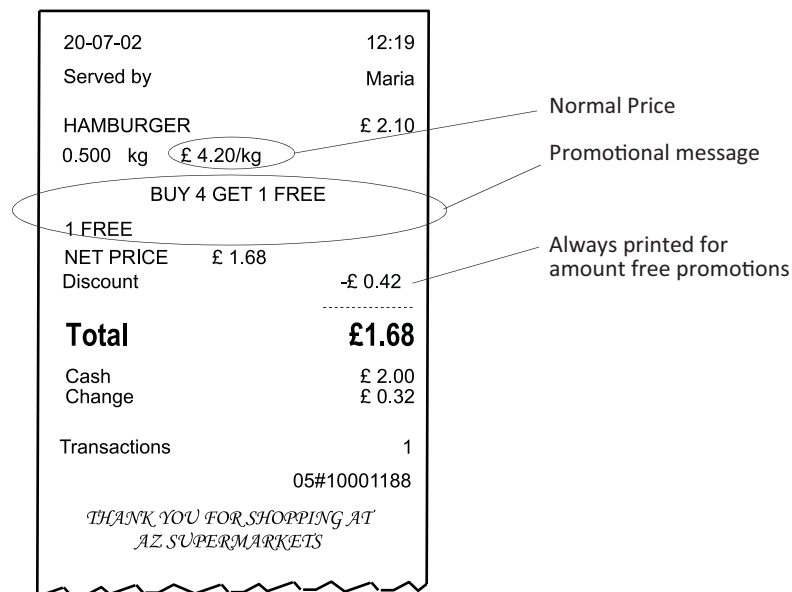
Figure 4.4   Typical item free promotion receipt

Discount promotion

A discount promotion applies a percentage reduction on the normal selling price. It is applied automatically when the quantity of weighed goods or the number of items equals or exceeds the trip value set in the PLU.

Note: The percentage must always be entered to two decimal places - but without pressing the decimal point. For example, a price reduction of 5% must be entered as 5, 0, 0 (displayed as 5.00). For a fractional amount such as 5.25% you would enter 5, 2, 5 (displayed as 5.25).

Voucher promotion

This type of promotion prints a voucher or coupon giving customers incentives to:

- Purchase more of the same product

- Try other products.

Printing vouchers

Machines operating in label mode:

- The voucher label is printed two seconds after the standard label.

Machines operating in receipt or non-add label mode:

- The voucher is printed after the receipt or add total label has been printed.

Programming a voucher promotion

You can program a voucher promotion with:

- A promo batch number

- The voucher reference (1 - 50)

- The weight or number of items at which the voucher will be printed

- The monetary value of the voucher

- A promotional message

- Conditional or unconditional printing of the promo message.

See *Creating voucher records* for more information.
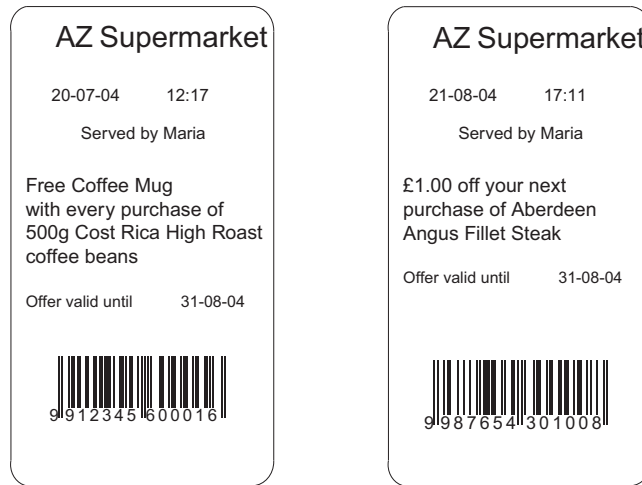
Figure 4.5   Sample Voucher labels

Promo batches

You can create batches of promotions where all the products in one batch share the same beginning and end date or time. These times can apply to specific days or every day. The promotional price and type of promotion are specific to each product.

For example, you could set up batch promotions for seasonal goods or monthly promotions.

Linking promotions to a time period

You can link a PLU to a batch promotion in either:

•   Create & Edit

or

•   Edit Promo Batch

Promo text

When there is no promotion message associated with the PLU promotion, the promo batch text will be printed on the receipt immediately below the transaction.

Promo Batch 0

If you enter the reference 0 as the Promo Batch number in Create & Edit PLU then the promotion will not be linked to a batch and **will be active all the time**.

Deleting promo batches

Select the batch number to delete the batch.

Promo messages

You can assign a promotional (sales) message to any promotion. If you select **Conditional** the sales message is printed only when the promotion is active. If you select **Unconditional**, the default setting, the sales message is always printed.

If you assign a promo sales message to a frequent shopper promotion it is always printed.

Using substitution codes

The message text can contain codes, as listed below, or Dewey Decimal codes to print information about the transaction. The codes are:

%%S   prints the value saved

%%N   prints the price to pay with promotion

%%G   prints the price to pay without promotion

%%F   prints the weight or items given free

%%PTXX prints the promo batch text.

(XX is the promo batch number.)

%%PSXX prints the promo batch start date.

(XX is the promo batch number.)

%%PEXXprints the promo batch end date.

(XX is the promo batch number.)

Note: For other substitution codes that you can use in a promotional message refer to *Substitution codes* and for Dewey Decimal codes see *Using Dewey substitution codes*.

4.6   Creating a nutritional panel

1. System Data $\Rightarrow$	**12. Nutri Facts** $\Rightarrow$	**1. Nutrient Defs** $\Rightarrow$	1. Nutrient Edit
			2. Nutrient Reset
			3. Nutrient Clear
		2. Nutri Data Texts $\Rightarrow$	1. Nutri Data Edit
			2.Nutri Data Reset
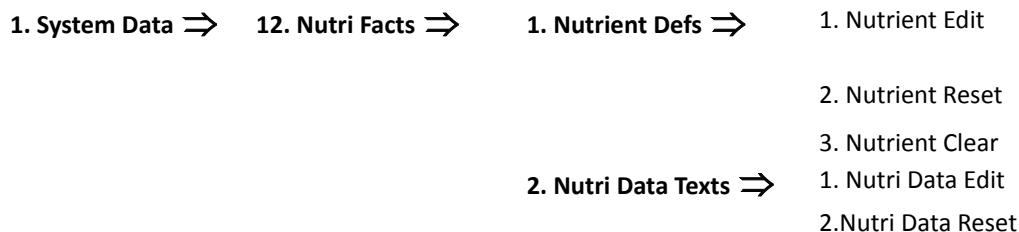
You can define nutritional panels to suit your requirements or you can used the pre-defined formats 99-103 already programmed in the machine.

You must select Nutri Panel = separate or combined in PLU create & edit in order to be able to setup and program nutritional panels or labels in the PLU.

The nutritional panel shows the weight and percentage per serving of the nutrient content of a product relative to the recommended daily intake. You can print nutrition facts:

• on a *separate* label or

• on the main product label.

In order to print a nutritional label, you must select either **Separate** or **Combined** in the PLU and assign an appropriate label format. You will also need to define the information to be printed on the nutri panel.

Note: You can use the MX system software to create your own label format instead of using one of the default formats .

Pre-defined Nutritional Formats

You can enter the information required to create a nutritional label with MX system software.

Label rotation can be 0° or 180° and you can select either long label format or short label format, as shown in *Figure 4.6*, according to the label format number programmed in the PLU.

Use label formats numbered 100 to 103 for these fixed format nutritional labels.

Sample label for
Macaroni & Cheese

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250   Calories from Fat 110

	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet.
Your Daily Values may be higher or lower depending on
your calorie needs.

		Calories:	2,000	2,500
Total Fat	Less than		65g	80g
Sat Fat	Less than		20g	25g
Cholesterol	Less than		300mg	300mg
Sodium	Less than		2,400mg	2,400mg
Total Carbohydrate			300g	375g
Dietary Fiber			25g	30g

Figure 4.6   Fixed nutri panel label

Relative Nutrient Amounts

Some minerals are sent as a percentage of RDA rather than as absolute values. The nutrient table will indicate whether the nutrient amount is specified in %RDA or as an absolute value.

The following nutrients are defined, by default (for USA only) as using %RDA relative amounts:

- Vitamin A

- Vitamin C

- Calcium

- Iron

All other default nutrients are defined with absolute values.

Nutrient Guide Texts

Nutrient guide text elaborates on the nutrient amounts. They allow 'healthy' products to be advertised with messages (either printed or displayed). Examples are:

- low in fat

- high in omega 3

For each nutrient, three messages (i.e. low, medium and high) and two thresholds (low-medium and medium-high) are available. The messages can be up to 32 characters long, and the thresholds are 0.00 - 10,000.00 %RDA.

Substitution codes are available to insert these guide messages into any text see , .

Flexible nutritional panels

Flexible nutritional panels allow you to create nutri labels to suit your individual market requirements.

Label format 99 has been programmed in the machine for use with flexible nutri panels. You can use this format to print a separate nutri label as shown in *Figure 4.7*.

Nutrient	Per Serving	Per Std Measure	Serv %RDA	Std Meas %RDA
Energy	2945kCal	2179kCal	118%	87%
Protein	157g	116g	262%	193%
Fibre	47g	35g	157%	117%
Total Fat	437g	323g	546%	404%
Saturated Fat	47g	35g	188%	140%
Cals from Fat	0kCal	0kCal		
Cholesterol	0mg	0mg	0%	0%
Sodium	0mg	0mg	0%	0%
Carbohydrates	624g	462g	166%	123%
Sugars	33g	24g		
Vitamin A	0μg	0μg	0%	0%
Vitamin B1	0,0mg	0,0mg	0%	0%
Vitamin B2	0,0mg	0,0mg	0%	0%
Vitamin C	0mg	0mg	0%	0%
Calcium	0mg	0mg	0%	0%
Iron	0mg	0mg	0%	0%
Folic Acid	0μg	0μg	0%	0%

Nutritional Information
Typical serving: 135g Servings this pack: 3
Saturated Fatty acids are 51% of total Fatty acids, monosaturated Fatty acids are 45% of total Fatty acids and polyunsaturated Fatty acids are 3.8% of total Fatty acids.

Figure 4.7   Flexible nutri panel label

Defining the nutritional information

Nutrient Definitions define the nutrients that will appear on the nutri panel and will be listed when creating or editing the PLU. You can define up to 50 nutrients and set values for the:

•   Nutrient name

•   Recommended daily allowance (RDA)

•   Units

•   Decimal places.

Note: Only nutrients that have been defined will be prompted for when creating or editing the PLU.

Standard nutrient definitions and the associated values, as advised by the UK Food Standards Agency, are already programmed in the machine. You can add to or edit these as required.

Nutrient Data texts define the text that will be printed on the nutri panel. You can program up to 50 data texts of 400 characters each. Nutrient data texts can contain both text and substitution codes.

 For a list of the standard data texts programmed in the machine see *Nutrient facts*.

PLU setup

The nutritional data printed depends upon the settings in each PLU.

Combined/Separate Nutri

Select either:

Combined to print a combined product and nutri label.

or:

Separate to print the product label and a separate nutri label.

Label Format

Enter the label format reference to include the nutritional information required. Use the default label format 99 to print the label as shown in *Figure 4.7*

Serving

This is the typical serving size for the product for which the nutrients are quoted. Select g,ml or none for the units.

Standard (Std) Measure

This is the standard amount of the product (normally 100g or 100ml) for which the nutrients are quoted. Standard measures allow the customer to compare the nutritional values of different products.

Select g or ml for the units, or standard measure disabled.

Auto Num Serving

You can choose to allow the scale to calculate the number of servings or you can enter a fixed number. Auto num serving will only be allowed if the serving size and the transaction weight use the same units.

The number of servings per container is calculated automatically from the serving size programmed in the PLU and the weight of the product in the container:

total weight in container
serving size in grams

Amount per serving

You must enter the amount per typical serving for each nutrient listed in the PLU or press enter to accept the previously programmed value. Enter a numerical value or select from Less, <, Trace or Nil.

Less or < means that the amount is less than the smallest non-zero value at the resolution used.

Example: If vitamin C is measured in milligrams to 2 decimal places;

Less or < means less than 0.01mg.

Example: Carbohydrate measured in grams

Less or < means less than 1g.

PLU nutri text

This field is shared with PLUText 4. When nutri panels are active, PLU Text 4 is not available for use in the PLU as a general PLU text field.. Any text previously programmed in the field will be displayed and can be edited if necessary.

If the serving size in grams is included in the nutri text and the value **%%C,** or the equivalent Dewey Decimal code, as the text for servings per container, then provided that **Auto Num Servings** is enabled the scale will calculate and print the number of servings for the pack.

Note: For information on using Dewey Decimal codes see *Using Dewey substitution codes*.

Serving Size Text and Servings per Container

• These fields are shared with PLU text 5 and PLU text 6. When nutri panels are active, PLU text 5 and PLU text 6 are not available for use in the PLU.

• Any text previously programmed in the fields will be displayed and can be edited if necessary.

These text fields do not have label fields associated with them. To print the information contained in these fields you must enter the appropriate Dewey Decimal code in a standard label text field.

Note: For information on using Dewey Decimal codes see *Using Dewey substitution codes*

4.7   Copying PLUs

1. System Data ⟹   **1. Products** ⟹   4. Copy PLU

This function enables you to copy the data from an existing PLU to a new one. The new PLU has a different PLU number and barcode number, and can also be in a different department. The new barcode number will default so that the article number matches the PLU number. If the barcode number is already in use then the barcode number will be set to zero.

4.8   Deleting PLUs

1. System Data ⟹   **1. Products** ⟹   **3. Delete PLU** ⟹   1. Single PLU
2. Range PLU
3. All PLU

You should delete PLUs that are no longer required to reduce the size of the PLU file.

In some cases you will delete a range of products (for example all products in a department) or sometimes the complete product file to ensure that no obsolete products exist in the scale.

Note: If the PLU has outstanding totals you should print a clearing totals report for the PLU before deleting it.

Note: The default security level for Single PLU delete is 1. The default security level for the Range delete and All PLU delete is 9.

4.9 Customising the Create/Edit PLU menus

1. System Data $\Rightarrow$ **1. Products** $\Rightarrow$ 5. Customise Menu

The Create/Edit PLU menu can be customised so that items which are not required do not appear on the display in Create/Edit PLU.

Menu items that can be removed or included from Create & Edit PLU, are:

1 Departments	8 Promotions	15 Barcode
2 Label Format	9 Price Base	16 Traceability
3 Display text	10 Net Weight	17 Nutri panel.
4 PLU Text 1, Text 2 and Text 3	11 Tare Weight	18 PLU Logo
5 Tax Ref 1 and Tax Ref 2	12 Proportional Tare	19 PLU Text 4
6 Group Number	13 Date 1 and Date 2	20 PLU Text 5 and PLU Text 6
7 Price Multiple	14 Sales Text 1 and Text 2	21 Info. Labels

4.10 Creating voucher records

You can program up to 15 different voucher records for use with PLU voucher promotions. The voucher record contains the following information:

- The description to be printed on the voucher.

- Print mode

- Expiry date

- Barcode format

- Printer ID

- Label format

Voucher description

You can program a voucher description up to a maximum length of 200 characters. The description can contain

- alpha and numeric characters

- embedded information such as PLU texts, current date and time, operator number

For information on text creation and editing see *Creating and editing text*.

For information on substitution codes for embedded information see *Substitution codes* .

Print type

You can select whether the voucher will be printed when the machine is in Label mode or Receipt mode or both.

Expiry date

If you program an expiry date it can be used as the expiry date for the voucher validity or as the expiry date for the promotion. You can disable the expiry date.

Barcode format

You must select a barcode format which has been programmed as a voucher barcode. Voucher barcodes usually have a different prefix to differentiate from normal label barcodes. The default format for voucher barcodes is EAN13 with prefix 99 and is programmed as 99AAAAAPPPPPC. Barcode format 32 is suitable.

You can edit the default format using numeric digits.Use the substitution code for promotional saving to embed the voucher value.

Label format

The label format used for printing the voucher must have the appropriate fields to print the information.

Label format field	Voucher data
Text 1	Voucher description text
Date 2	Expiry date
BarcodeRef 0	Barcode specified by the barcode reference in the voucher
Ref 32	Barcode reference specified in the label format

4.11 Creating departments

1. System Data $\Rightarrow$ 3. Departments

A department is a grouping of products within the store which reflects the way the store operates, for example produce, bakery, fresh meat, fish. Each machine is assigned to a particular department and will select products from that department by default. Each department has its own set of PLUs. The departmental PLU file is a subset of the main product file.

Department 1 Produce	Department 2 Bakery	Department 3 Fresh meat
PLU 1 PLU 2 PLU3 PLU 4	PLU 1 PLU 2	PLU 1 PLU 2
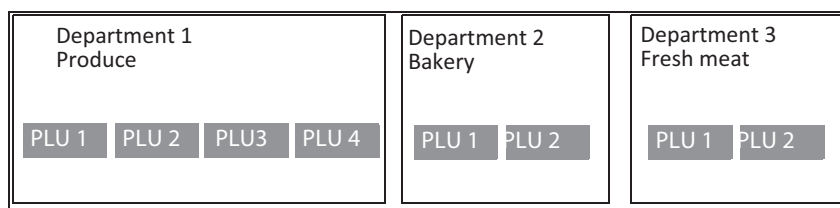
Figure 4.8   Using departments

You can create up to 100 departments.

• Assign a reference number from 0 to 99 and enter a name for the department.

• Program the department reference number into the PLU (see *Creating and Editing PLUs*).

Allocating departments

When you allocate a department to a machine, it becomes the default department for that machine.

When you enter the PLU number to select a product, the selected product will be the one assigned to the default department for the machine.

1. System Data $\Rightarrow$ **3. Departments** $\Rightarrow$ Department Number
⇓
Description of department
(20 characters max.)
⇓
Assign Machine
(enter machine ID)
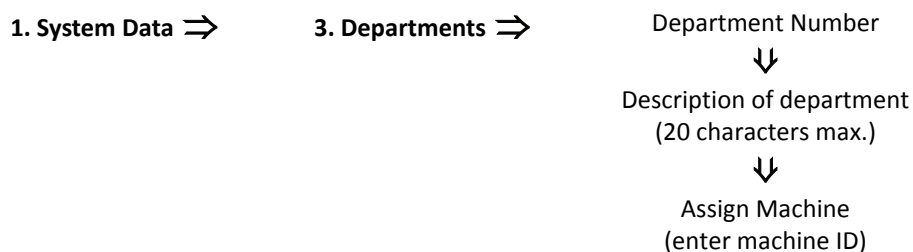
Press [🏠] instead of typing in the machine ID if you do not wish to allocate a specific machine to the department.

Department keys

You can set up:
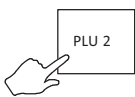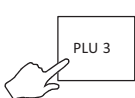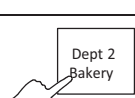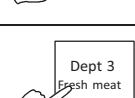
• Department keys dedicated to specific departments.

• A general department key. This key enables you to use any department available at your machine by entering the department number.

See *Programming dedicated keys* for details of how to set up dedicated keys.

If you have commodity keys assigned, the operator can press a department key followed by a commodity key to select the PLU in that department with the same number as the commodity key.

Example: Department 1 (Produce) assigned as default department

Figure 4.9   Using commodity and department keys

4.12   Programming Operators

1. System Data ⟹   **4. Operators** ⟹   Operator No
⇓
Name
⇓
PIN
⇓
Security Level
⇓
Trading/Training
⇓

You can select the status of an operator to be either trading or training. You only change the operator status if there are no outstanding transactions against the operator.

Trading

All transactions carried out by the operator are added to the trading totals stored by the machine

Training

The operator's transactions are added to the operator totals and the training value is listed in the operator totals report.

Operators

- You can enter up to 99 operators and you can assign dedicated keys to any number of them.

- Each name may have up to 16 characters.

- Operator names are printed on receipts and the operator totals report.

- You can print the operator name or number on a label if you select a suitable label format and include the appropriate substitution code in the sales message text.

Operator PIN

- The factory default setting for operator 1 PIN is 4296 and for operator 1 security level is 9.

- All other operators will have factory default settings of PIN 0 and security level 0 unless you change them.

- Each operator may be assigned a PIN between 0 and 99999999 which must be entered when logging on or off. If the PIN is left at 0, a PIN is not required when logging on or off.

- You can change the PIN in Manager mode at any time. If you have set up and assigned a dedicated PIN key, the operator can change his or her PIN in sales mode.

Note: If you make a mistake while entering the number press and start again.

Operator security level

- There are 10 security levels from 0 to 9.

- The security level determines operator access to scale functions.

- The operator will have access to those functions whose security level is the same as or less than their own security level.

- Security level 0 means that any operator can access that function.

Note: Always ensure that at least one operator has a security level set high enough to be able to change PINs and operator security in Manager Mode. If you accidentally set all the security levels too low see *Problems accessing manager mode*.

Changing Operator status

The default operator mode is trading. You can change the operator mode from trading to training (or back again from training to trading) provided that there are no outstanding transactions against that operator.

- If there are any current transactions you will see an error message displayed briefly and the machine will revert to the previous mode.

- If there are totals outstanding you will see the message **Clear Trans. No.?**. Press ✓ , or press 🏠 to return to the previous mode without clearing transactions for the operator.

Operator training text

Each time an operator is changed from trading to training you have the opportunity to change the training text or remove it.

- The training text is printed on receipts for transactions carried out while the operator is in training mode.
- The training text setting is used for any operator in training mode.

4.13 Setting function security

The following functions have factory default security levels set as follows:

Sales functions

Void	1	Float	0	Consec.Num.	1
UP/PLU	0	Pick Up	0	PRun Limit Oride	1
Pos NonWeighed	0	Paid Out	0	Slight Dot Wear	0
Neg NonWeighed	0	Recvd.On Account	0	Dot Wear	0
ReceiptlLabel	0	Stock	0	Fixed Price	1
Dual Capacity	0	Weight Override	0	ReWrap & RePack	0
Override	1	Trac. Passport	0	Re-Open Receipt	9
Price Base	0	Edit Preset Trac	0	Print Control	1
Non Add	0	Pre-Weigh	0	Promo Override	1
Return	1	Trac. Override	1	Quick Price Prmo	1
Refund	1	Re-Price	0	PLU Trans Lock	9
No Sale	0				

Manager functions

You can assign a security level to most of the manager functions or you can change the level set, provided that your own security level is the same or higher than the function security.

To secure a menu in Manager mode:

1. Navigate to the menu that you want to secure.

2. Press 🔒 .

3. Enter the security level required (1-9).

Note: Always ensure that you have at least one operator with a security level high enough to change Operator PIN and security level settings.

It is possible to inadvertently set all users security levels so that security levels can no longer be modified and no user has access to any sales or manager functions.

If this happens see *Problems accessing manager mode*.

4.14 Setting up data tables

Use the Table menu (item6, System Data) to configure tables of data for use by the scale.

1. System Data ⟹ **6. Tables** ⟹   **1. Tax Rate**

   2. Tare Weight

   3. Barcode Format

   4. Discount Rate

   5. Payment

   6. Account ⟹   1. Create & Edit

   2. Delete Account ⟹ 1. Delete Record

Tax rate

You can program each PLU with one or two tax references. There are ten tax references available (0-9) and each one can be assigned a different tax rate.

During manufacture the scale is set to display either Inclusive or Exclusive tax.

Inclusive tax

The value of the transaction is displayed including the tax.

Exclusive tax

The value of the transaction is displayed excluding the tax. The tax is added to the receipt subtotal as a separate item when the receipt is printed.

This setting cannot be changed using Manager mode. However, it can be changed by a service engineer if required.

Note: Use tax reference 0 for products which are non taxable.

Printing the tax

Your machine has been configured for one of three tax printing options

•	Printing the total tax value on receipts

•	Printing the individual tax rate values on the receipt

•	No tax printing

Tax print key

If the machine has a tax print assigned to the sales keyboard, you can print individual tax rates regardless of the machine configuration.

To set up and assign a **Tax print key** to the sales keyboard, see *Programming dedicated keys*

Note: Tax rates are entered as a percentage. Remember to enter the digits after the decimal point, for example, enter 10% as 10.00.

Tare weight (stored tare)

When goods are to be weighed in containers, you can set up tare values (container weights) which are stored against a reference number from 0 to 39.

Repeat with a new reference number to create more tare references.

Assigning a stored tare

You can

•	Enter a tare reference number when programming PLUs .

•	Enter a tare reference when assigning a dedicated tare key.

Note: For instructions on assigning a dedicated tare key see *Programming dedicated keys*

Discount rates

There are two types of discount rate

•	Percentage

•	Value

Discount rates can be fixed or variable. You can program up to 20 discount rates and you can enter up to 16 characters for the discount text.

You can set the security level for each discount rate. An operator will only be able to apply discount rates with a security level equal to or lower than his/her own security level.

Percentage discounts

For percentage discount rates you can enter a rate from 0% to 100%.

Value discounts

You can enter value discounts from 0 to a maximum equal to the total transaction or receipt value.

Variable discounts

If the value or percentage is left at 0, the discount is variable and the operator enters the value or percentage in sales mode.

Discount keys

You can only apply discounts if you have set up the appropriate discount keys on the sales mode keyboard.

Note: If you set up a discount key without assigning a discount reference to it, the operator is prompted to enter the discount reference number.

Payment tables

This function allows you to;

- Define up to15 different payment options

- Assign a dedicated key to each payment option if required (see *Programming dedicated keys*).

- Select one of eight types of payment for each payment option or to disable it

- Select from a range of programmable values associated with each payment type.

The table (*Figure 4.10*) shows the payment table default values.

Payment Key Num. (1 - 15)	1	2	3	4	5		6 - 15
Payment Method (16 chars max)	Cash	Cheque	Card	Account	Coupon		
Type	Local Cash	General	Credit Card	Account	Coupon	Stock Movement	Disabled
Pre-set Value	0.00	0.00	0.00	0.00	0.00		0.00
Minimum Value	0.01	0.01	0.01	0.01	0.01		0.01
Maximum Value	99,999.99	99,999.99	99,999.99	99,999.99	99,999.99		99,999.99
Halo Security Level	0	0	0	1	0		0
Change	Yes	No	No	No	No		Yes
Allow Refund	Yes	No	Yes	Yes	No		Yes
Enforce Value	No	No	Yes	Yes	Yes		No
Open Drawer	Yes	Yes	Yes	Yes	Yes		Yes
Conversion Rate	1.00	1.00	1.00	1.00	1.00		1.00
Currency Symbol	£	£	£	£	£		£
Decimal Places	2	2	2	2	2		2
Security Level	0	0	0	1	0	0	0
Prices						No	

Figure 4.10   Payment table default values

Payment name

You can create a payment name of up to 16 characters or edit an existing name. The payment name is displayed when a payment is entered and is printed on receipts and cash reports.

Payment type

Press [↖] or [↘] or press the appropriate number key to select the payment type.

The payment types available are:

- Local Cash

- Foreign Cash
- Card
- Account
- Coupon
- General
- Stock Movement

Preset value

Payment keys programmed with a pre-set value will only allow a payment entry that matches the pre-set value. For example, you could have a dedicated key for £50 notes.

Prices

If you have selected Stock Movement as the payment type you will be given the option to display prices. If you select **No**, neither the unit/item price or the total price will be printed on the receipt.

Minimum value

Payment entries below the programmed minimum value are not allowed.

Maximum value (HALO)

Payment entries above the programmed maximum value are not allowed unless the operator security level is as high or higher than the HALO security level.

HALO (High Amount Lock Out) security level

Allows you to programme a security level for the maximum value.

Change

You can programme a payment key to allow or disallow change payments.

- **Allowed.** You can enter payments greater than the amount owed:
- **Not allowed.** You cannot enter a payment for an amount greater than the amount owed.

Allow refund

When a receipt total has a negative value, and the payment key selected allows refunds, the receipt or ADD label is printed. If refunds are not allowed for the payment key selected you will see the message **Refunds Disabled**.

Enforce value

If enforce value is enabled, you must enter the payment value. If enforce value is not enabled and the payment key is pressed without a value entered, then the machine will assume that a payment exactly matching the amount owed has been made.

Open drawer

Each payment key can be programmed to open or not open the cash drawer. When more than one type of payment has been made, the cash drawer will open if any one of the payment types has been programmed to open the drawer.

Conversion rate

If you have selected foreign currency as the payment type you can programme the conversion rate to be used for converting the local amount to pay into the foreign cash.

- Use the numeric keys to enter the value for the conversion rate

- press [↖] or [↘] to move the decimal point.

Currency symbol and decimal places

The currency symbol reference numbers are shown below. Use the numeric keys to enter the reference number you require.

Currency symbol reference numbers					
00 user defined	10 Lit	20 Pta	30 Won	40 Q	50 SR
01 £	11 P	21 Rp	31 bt	41 TL	51 YR
02 $	12 E	22 mk	32 Pts	42 F (Belg.)	52 Ft
03 R	13 K	23 ΔPX	33 EEK	43 BD	53 kn
04 F (French)	14 M	24 SR	34 Lt	44 LE	54 Lm
05 Kr	15 D	25 zt	35 €	45 JD	55 Ksh
06 DM	16 RM	26 Kc	36 Eur	46 KD	56-RON
07 S	17 L	27 SK	37 R$	47 LL	57-ROL
08 Fr	18 N$	28 kr	38 B	48 RO	58-LEI
09 ƒ	19 Esc	29 Dhs	39 C	49 QR	

- Press [↖] or [↘] to move the decimal point .

The payment name, the value in the foreign currency and the conversion rate used is printed on the receipt.

Security level

Payment entry is only allowed if the operator security level is as high or higher than the security level set for the payment key.

4.15   Setting up accounts

You can set up the account system to allow either:

- free entry of any account reference

        or:
- validated entry only of previously programmed account references.

You can create accounts for up to 999 customers and for each account you can enter:

- Account reference   up to 16 alpha/numeric   characters

- Account name   up to 8 alpha/numeric   characters

- Credit status   up to 6 alpha/numeric characters

Note: The credit status can be either the value of the credit allowed or a code representing the credit value allowed.

Charging to account

This function enables customers to pay all or part of the cost of purchases by charging the cost to their account.

- Only one account payment is allowed per receipt.

- The amount recorded against the account payment key is charged to the specified account.

- The machine prints a receipt followed by an account slip. The account slip is signed by the customer and then kept in the cash drawer.

Received on account

Customers may make payments to their accounts when they are not purchasing goods. When the transaction is completed the machine prints two copies of a slip. One copy is given to the customer and the other copy is retained.

4.16   Electronic Funds transfer

1. System Data ⇒   **6. Tables** ⇒   9. EFT System

The scale' EFT implementation supports the Verifone "Payware Ocius" for use in the UK only. The VX820 (Ethernet) and the VX680 (Wireless) terminals are supported. Depending on the card, Pin Verified, Contactless, Swiped, and refund transactions are supported.

Verifone VX820

Setup and Configuration

A maximum of 10 terminals may be connected to the system and each terminal may be shared with more than one machine. The following parameters must be specified for each terminal.

- •   IP address

- •   Port Number

- •   Description

- •   Terminal Type

- •   Contactless Limit

After the terminals have been programmed each machine is assigned to use a specific terminal from Manager Mode > Machine Setup > EFT system

When a machine has been assigned to use an EFT terminal then all Card payments will be processed through the terminal.

Note: If Cashback is needed then the card payment type must have the Allow Change enabled (default is disabled).

4.17   Setting Label Details

1. System Data ⟹   **7. Label Details** ⟹ 1. Add Label

2. Info. Labels

Setting up the ADD label

The ADD function enables you to obtain a label with totals printed on it rather than individual transactions.

Your machine can be configured to print one of four types of ADD labels (this is preset during manufacture, but can be changed by a service engineer):

- •   Weighed and nonweighed transactions with a label after each transaction and a single ADD label at the end of all the transactions.

- •   Weighed and nonweighed transactions with a single ADD label at the end of all the transactions.

- •   Weighed and nonweighed transactions with a single receipt label at the end of all the transactions.

- •   Weighed and nonweighed transactions with a label after each transactions and a single receipt label at the end of all the transactions.

Note: The barcode format for the ADD label is the receipt barcode format programmed for the machine unless the labels are for a single PLU. In this case the PLU barcode format will be used.

1. System Data ⟹   **7. Label Details** ⟹ 1. Add Label ⟹

Label Format
⇓
Enter Text
⇓
PU/Rcpt Barcode
⇓
Date 1 (Disabled/days/Months/Hours)
⇓
Date 2 (Disabled/days/Months/Hours)
⇓

Barcode printing in ADD mode

You can print the PLU label barcode on the ADD receipt as well as on the ADD total label.

To print the PLU barcode:

• ADD label barcode must be set to option 2. **PLU or receipt barcode.**

• All the transactions must be for the same PLU.

• A machine receipt barcode must be configured (this is the default setting).

.

'Receipt type' ADD label   'Receipt type' ADD label

Single PLU number 2037   Mixed PLUs

(PLU barcode)   (machine receipt barcode)
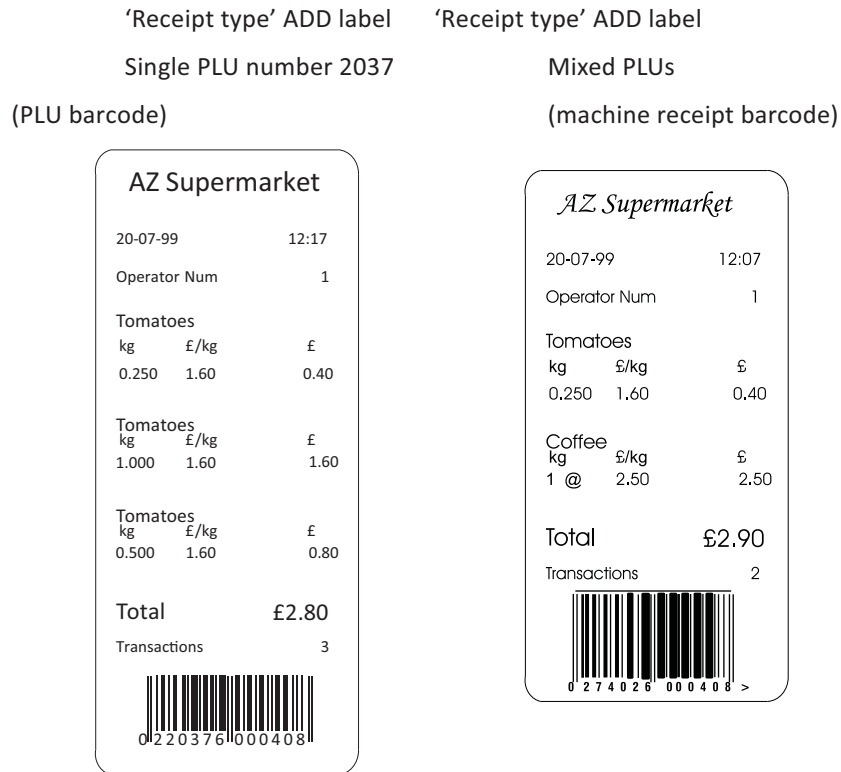
Figure 4.11   Typical ADD labels

4.18   Information labels

1. System Data ⇒   **7. Label Details** ⇒   **2. Info. Labels** ⇒   Info Label Number

⇓

Enter Text

⇓

Label Format

⇓

Printer ID
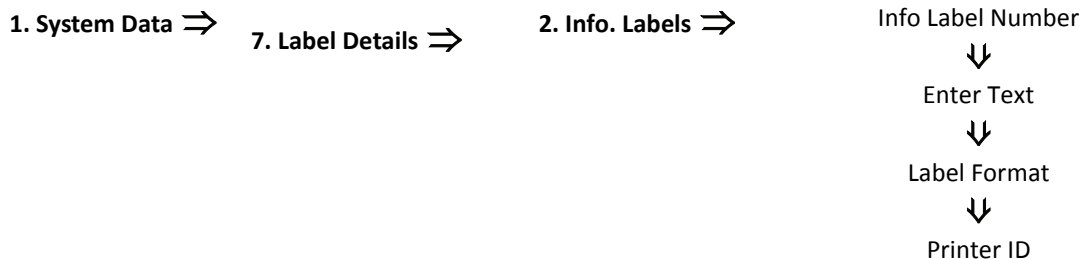
You can program a PLU to print an additional label providing information such as:

• Cooking instructions

• Recipes

• Safe handling

• Traceability information

The info label should use a suitable label format. This may include any of the fields available for standard labels.

If Info Label is enabled you will be prompted to enter an information label number when programming the PLU.

Note: An info label may be associated with any product by selecting if from PLU Create & Edit. Info label selection is, by default, disabled in PLU Create & Edit.

4.19   Creating messages

1. System Data $\Rightarrow$ **5. Messages** $\Rightarrow$ 1. Sign On

2. Sign Off

3. Sales

4. Scroll

5. Store Name

6. Group Names

7. Report Message

You can create seven different types of messages:

• Sign On

• Sign Off

• Sales

• Scroll

• Store Name

• Group Names

• Report Message

For information on creating and editing text see *Creating and editing text*.

For information on creating group names see *Creating product groups*.

Substitution codes

You can include substitution codes in text messages for printing sales information (enter %%+ and choose from the list.). For a complete list of Avery Berkel and Dewey Decimal substitution codes available and how to use them, see *Substitution codes*.

Scroll message

This is a trading message which appears on the customer and vendor displays when the machine is not in use. The message blanks as soon as you press a key during normal operation (or if the weight is non-zero).

You can:

• Create up to 99 messages numbered from 1 to 99.

• Program each message with up to 200 characters.

The scroll message can be configured in two ways:

1. Text Scrolling up.

2. Scrolling logo - you can define a bit map which scrolls up.

Store name

The store name can:

• Be printed at the bottom of the label provided that a suitable label format is selected.

• Contain machine based messages by including the substitution code for machine message in the store name text.

Sales message

A sales message is a general purpose message that:

• Can be assigned to a PLU

• Will be printed on labels if the label format has an appropriate sales message field and it has been assigned to a PLU.

The position of the message depends on the label format selected.

Each label format can have up to two sales message fields and a number of legend fields. You can:

• Create up to 99 sales messages

- Program each message with up to 200 characters.

- Include substitution codes in the text message for printing sales information.

For example:

> %%+4.1%% or %%D prints the current date
>
> %%+4.3%% or %%Z1 prints the time in the format 12:59
>
> %%+4.4%% or %%Z2 prints the time in the format 1259
>
> %%+4.4%% or %%Z3 prints the time in the format 125
>
> %%+7.3#pp%% or %%Rpp prints the sales message numbered 'pp'.

You could use this to insert text that you wish to appear in all PLU texts

> %%+3.1%% or %%V1 prints the current operator number.
>
> %%+3.2%% or %%V1 prints the current operator name.
>
> %%+7.1%% or %%M prints the sales message at machines associated with that message.

Note: For more information on sales texts see *Sales message*.

Date code

Use the date code to print the date as the number of days from the start of the current year (01 January). You can set an offset (999,999 max.) to add a chosen number of days to the calculation.

> %%+4.1%% or %%DCprints the date 01/02/02 as 32.
>
> %%+4.2#10%% or %%DC+10prints the date 01/02/02 as 42
>
> %%+7.1%% or %%DCprints the date31/12/02 as 365

Cooking times and loyalty points

- Insert the special codes for the cooking time or for loyalty points, in the sales text, up to a maximum of 99 minutes or 99 points.

- Enter the cooking time or points for 1kg of the goods.

> The total cooking time or loyalty points proportional to the weight of the goods being sold is printed.

Sales message text:

> COOK AT 150° C FOR %%+9.2#60%% (or %%T60)

Printed text for 2.5 kg sold:

> COOK AT 150° C FOR 2Hours 30Mins

Sales message text:

> COOK AT 150° C FOR %%+9.2#30.1#20%% (or %%T30+20)

Printed text for 1.0 kg sold:

> COOK AT 150° C FOR 50Mins

Sales message text:

> YOU HAVE EARNED %%+9.1#20%% (or %%P20) BONUS POINTS

Printed text for 1.5 kg sold:

> YOU HAVE EARNED 30 BONUS POINTS

Sign on/off text

These are messages that appear at the top (sign on) or at the bottom (sign off) of a customer receipt.

You can use these messages for whatever information you choose to enter. For example, it could be an advertising slogan or the company name and address.

If you include the substitution code for a sales message (%%+7.3#pp%% or %%Rpp) you can have different sign on or off messages at each machine.

Machine specific messages

If you include the substitution code for machine message (%%+7.1#pp%% or %%Mpp) in the sign on or sign off message, you can print different messages at each machine.

The printed text is determined by the sales message reference number assigned to the machine as the Machine message in Printer setup.

Creating product groups

1. System Data $\Rightarrow$ **5. Messages** $\Rightarrow$ 6. Group Names

A product group is a category such as fish, fresh meat or vegetables to which an individual PLU may be assigned.

You can:

- Create up to 99 groups.

- Give each group a name can up to 20 characters long. The group name is printed on PLU and group reports.

Chapter 5 Machine Set-up

This chapter explains how you can customise the way in which your machine operates. It describes how to:

- Select which function keys are operable

- Program dedicated keys for quick access to regularly used functions.

- Specify some of the criteria for printing receipts and labels.

Note: You must be in manager mode in order to perform machine set-up operations.

5.1   Keyboard programming

Before the scale can be put in to use the 58 pre-set key keyboard must be programmed so that dedicated keys are assigned to the required functions. Doing this allows you to customise the scale to suit the exact requirements of the store. Keys can be assigned to a specific PLU or to a number of functions, including payment methods or operator login.

Creating an operator keyboard template

After programming the keyboard layout you will need to mark up a paper keyboard insert for the machine. There is a template for doing this on the reverse of the Manager mode keyboard insert. Use a photocopy of the template so you can make a new one should the keyboard layout change. When you do this it is important that you use the symbols that we have used in this manual for the keys. Your keyboard will then be consistent with the instructions in the Operator manual.

Note: You can also program direct access (Hot) keys in for use in Manager mode. These will provide you with direct access to functions without having to step through the menus. See *Dedicated manager mode keys* for instructions on how to do this.

5.2   Programming dedicated keys

Dedicated keys are 'soft' keys which can be assigned to any of the programmable keys on the touch sensitive keyboard. The procedure for assigning them is the same for all types of dedicated key. The following menu map shows all of the options available for key assignments.

4. Machine Setup ⟹	1. Keyboard Setup ⟹	1. Key Assign ⟹	1. Standard Assign ⟹	1. PLU	
				2. Operator	
				3. Log	
				4. PIN	
				5. Tax ⟹	1. Tax Change
				6. Tax Print	
				7. Department	
				8. Tare	
				9. Prop.Tare	
				10. Dual Capacity	
				11. Alt. Currency ⟹	1. Convert Key
					2. Print Key
				12. Return	
				13. Discount	
				14. Checkout Oper.	
				15. Sub-Total Print	
				16. Customer Number	
				17. Hash	
				18. Hand Price Keys ⟹	1. UP/PLU
					2. Pos NonWeighed
					3. Neg NonWeighed
				19. Trac. Keys ⟹	1. Edit Preset Trac
					2. Trac. Passport
					3. Pre-Weigh
				20. Trac. Panel ⟹	1. By Lot Number
					2. By Panel Number
				21. Code	

22. Stock

23. Weight Override

24. Consec.Num.\x0

25. X2

26. X4

27. PLU Search

28. Keyboard Key

29. Paper Select\x0

30. Fixed Price\x0

31. Re-Open Receipt

32. Print Control\x0

33. Quick Price Prmo

34. PLU Data Print

2. ECR Assign ⟹   1. Payment

2. No Sale

3. Float

4. Pick Up

5. Paid Out

6. Recvd.On Account

7. Refund

3. Prepack Assign ⟹   1. Re-Wrap ⟹   1. Price And Dates

2. Date 1 Only

3. Date 2 Only

2. Non Add

3. Wrapper On/Off

4. Re-Price

5. Pack Run ⟹   1. Pack Run Mode

2. Pack Run Review

3. Quick Change

6. Re-Pack

4. Funct Key Assign ⟹   1. Add

2. Clear

3. Enter

4. Fix

5. Number ⟹   1. Keys 0-9

2. Key 00

3. Key 000

6. Override

7. Zero

8. Void

9. Test

10. Tare

11. Price Base

12. Up Arrow

13. Down Arrow

14. Total

15. Yes

2. Key Unassign ⟹

3. Initial Keyboard ⟹   **1. PLU Seln Screens** ⟹   1. Receipt

2. Label

3. Prepack

2. Subtotal Screens ⟹   1. Payments

2. Receipt Subtotal

To assign a dedicated PLU key for PLU 117:

1. From Manager mode select 4. Machine Setup.

2. Select 1. Keyboard Setup.

3. Select 1. Key Assign.

4. Select 1. Standard Assign.

5. Select 1. PLU.

6. Select the department number.

7. Enter the PLU number.

8. Press the key to which the PLU is to be assigned. The screen will show the message **Entry Accepted**.

Note: If you are assigning a key to a position previously assigned to a function key, hold down the key until you hear a series of short bleeps followed by a long bleep.

Standard keys

The Standard keys that can be assigned are:

1 PLU	9 Dual Capacity	17 Hand Price Keys	25 Fixed Price
2 Operator	10 Alternative Currency	18 Traceability Keys	26 Re-open Receipt
3 Log	11 Return	19 Code	27 Print Control
4 PIN	12 Discount	20 Stock	28 Quick Price Promo
5 Tax	13 Checkout Operator	21 Weight Override	29 PLU Data Print
6 Department	14 Subtotal Print	22 Consecutive Number	
7 Tare	15 Customer Number	23 PLU Search	
8 Proportional Tare	16 Hash	24 Paper Select	

You may have keys set up that are different from the ones shown here depending on your requirements. For example, you may have several operator keys or you might not have a tax print key.
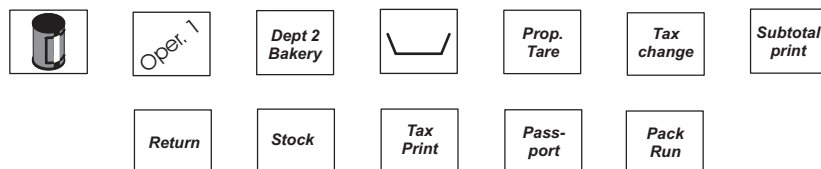
Hand price keys

These keys allow you to hand price weighed goods and nonweighed items.

UP/PLU. Switches the scale between hand price and PLU operation.

Positive Non Weighed. Allows you to enter the price of a nonweighed item.

Negative Non Weighed. Allows you to enter the price of a negative nonweighed item.

ECR (payment) keys. You may have different keys set up from the ones shown here depending on your requirements. Several payment keys are shown here for different types of payment.

Pre-pack keys

Rewrap	NON ADD	Wrapper On/Off	Re-Price	Pack Run Mode	Pack Run Review	Re-Pack

Function keys

Function keys initiate an action. This includes all keys on the 23 key upper key pad, plus any manager mode function keys,

which control navigation (for instance ⬉ ⬊ 🏠 & ⏎ .

Initially, function keys are assigned to default positions on the keyboard. You can assign them to other positions on the keyboard if required.

Generic keys. Generic keys are keys which belong to one of the four groups just mentioned which can be used with an ID to select a function. For example, you can assign a generic department key, which when pressed asks for an ID number. If you then enter '1', it then selects department 1.

Generic keys can be allocated to:

• Departments

• Tare references

• Payments and discounts

Allowing you to select references that do not have a dedicated key on the keyboard.

Note: To set up a generic key, do not enter a reference number for the key before assigning it to the keyboard.

5.3 Printer set-up

This group of functions enable you to customise the way in which your machine generates and prints labels, receipts and talons.

4. Machine Setup ⟹ **2. Printer Setup** ⟹ **1. Label Setup** ⟹

1. Label Type

2. Label Format

3. Passport Setup ⟹ 1. Psprt.Label Fmt.

2. Barcode Type

4. Label Detect

5. Tare Interlock

6. Symbols

7. Print Modes

8. Duplicate Label

9. One Shot Label

2. Receipt Setup ⟹

1. Talon

2. Duplicate Rcpt.

3. Single Item

4. Bag Label

5. Margin

3. Alt. Cncy. Print ⟹

1. Receipt

2. Label

3. Warning Message

4. Machine Message ⟹

5. Machine Logos ⟹

1. Header Logo

2. Footer Logo

6. Speed/Density ⟹ 1. Label ⟹

1. Label Speed

2. Label Density

Label setup

These options allow you to choose:

• How you want labels to look and

• The way in which you want labels to be generated and printed.

Label type. You can select either separate or continuous labels.

• **Separate.** Labels are printed on label rolls with separate labels. These labels must be the appropriate size to accommodate the label format assigned to the PLU or to the machine.

• **Continuous.** Continuous labels are printed on a tally roll or on a continuous label roll. If you require labels of varying lengths or formats, printing on a continuous label roll uses the printer roll more economically.

In sales mode, if you have a **Paper Select** key press the key:

• To display the currently selected label type.

• Press **Paper Select** again to toggle between label types (You can also use the   keys.

Label format. The label format can be open or closed.

There are 103 label formats available. Any of the formats can be set to suit your requirements.

• **Open label format:** labels are printed according to the format stored in the PLU record.

• **Closed label format:** labels are printed using the label format you have assigned to the machine.

Passport label format. The default label format is 90. If you select a different label format you must ensure that only text field 3 and barcode fields are defined. The barcode field must be wide enough to accommodate EAN128 or CODE128 barcodes.

Tare interlock. If the tare interlock is enabled, you will only be able to print a label if you have selected a tare.

Suppressing symbols

If symbols are enabled then symbols, for example, **£, kg, £/** are printed on labels.If these symbols are pre-printed on the label stock, you should choose to disable symbols.

Print mode. You can select one of three ways to print labels:

• **Print on request.** Press your operator key or to obtain the label.

• **Print immediate.** The machine issues a label as soon as the weight on the machine becomes steady. It does not retain the PLU or tare.

• **Pre-pack.** The machine retains the PLU and tare (if set up) and issues a label each time the weight becomes steady and totalises as pre-pack..

Default operator. When selecting the print mode you will be asked to enter an operator number. This operator number will be assigned to the key.

Duplicate labels. This function allows a number of duplicate labels to be printed that are an exact copy of the first label. Duplicate labels are useful in an environment where the goods are prepared away from the counter. One copy is sent to the preparation area and the other retained by the operator. A typical use is in restaurant type situations where one copy goes to the kitchen.

One shot label. When enabled, this function allows you to print a label for an item whilst the machine is in receipt mode.

To print the label, press while the PLU is displayed.

Transactions totals for the labels are stored as counter values against the default operator.

This means that you can:

• Individually label products with ingredients, cooking instructions, promotional information.

• Print coupons, vouchers or promotion labels on demand.

Receipt setup

Select the options according to how you want receipts to look and the way in which you want receipts to be generated and printed.

Talon. A talon is a slip of paper, printed after the receipt, which the operator retains. It shows the operator number, the number of transactions and the total value of the last receipt.

Duplicate receipt. This function to sets up the printer to print a duplicate receipt. DUPLICATE is printed at the start and end of the duplicate receipt.

Single item. Enable this function if you want to print a receipt after each transaction.

Note: Talon, Duplicate Receipt and Single Item can be enabled and disabled in a similar manner.

Bag labels. A 'bag label' is a total label that is used to seal the bag and is then scanned at the checkout. This function makes it possible for several transactions that have already been individually wrapped to be packed in one larger outer bag. The itemised receipt is placed inside the outer wrapping which is then sealed using the 'bag' label.

At the checkout only one label has to be scanned instead of several.
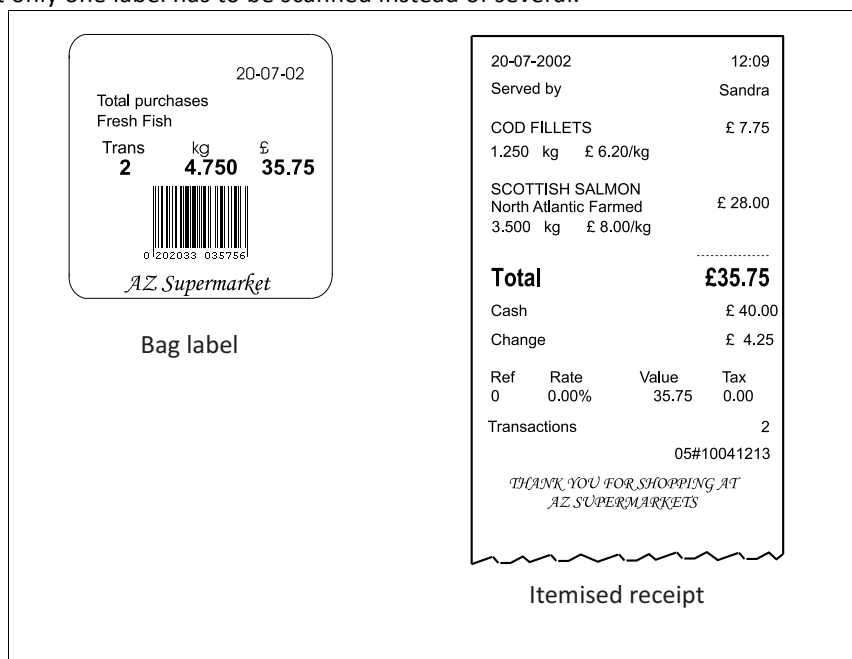
Figure 5.1   Typical label and receipt

- The 'bag' label is printed using the label format set for ADD labels, for example, item description, total and barcode.

- When the receipt is printed, it will be followed by the ADD format label which is used as the 'bag' label.

- There will be a 2 second delay between printing the receipt and the bag label.

Margin

This function allows you to centralise the text on receipts and reports when printing to wide receipt paper.

The default setting is 0.0mm and you can program a margin width up to 9.9mm. Setting a margin has the effect of moving the print to the left of the paper by the amount programmed.

02-07-2003	12:09		02-07-2003	12:09
Served by	Sandra		Served by	Sandra
COD FILLETS	£7.75		COD FILLETS	£7.75
1.250 kg £6.20/kg			1.250 kg £6.20/kg	
SCOTTISH SALMON			SCOTTISH SALMON	
North Atlantic Farmed	£28.00		North Atlantic Farmed	£28.00
3.500 kg £8.00/kg			3.500 kg £8.00/kg	
Total	£35.75		Total	£35.75
Cash £40.00	£28.00		Cash £40.00	£28.00
Change £4.25	£28.00		Change £4.25	£28.00
Ref Rate Value Tax			Ref Rate Value Tax	
0 0.00% 35.75 0.00			0 0.00% 35.75 0.00	
Transactions	2		Transactions	2
THANK YOU FOR SHOPPING AT			THANK YOU FOR SHOPPING AT	
AZ SUPERMARKETS			AZ SUPERMARKETS	
05#10041213			05#10041213	
No margin			Margin	

Figure 5.2   Receipt margin

Euro print. Euro printing is provided for use in countries that are transitioning to joining the Euro. Its use is for the months following switch-over, so that customers will be able to see the prices in Euros and in the obsolete local currency. If this function is enabled:

• euro price information is printed automatically on receipts and labels

• euro prices are displayed on request

• a warning message may be printed on the receipt.

On labels either:

• totals only in euros will be printed

    or:

• totals and unit price in euros will be printed.

Euro receipt printing key. Provided your machine has been configured to print euro currency symbols, you can set up and

assign the | Euro Print | key, see *Standard keys*, to print a duplicate euro receipt.

Machine message. You can assign a message reference to a machine. which designates which sales message to use when the substitution code %%M or %%+7.1%% is used. This allows machine specific messages to be used. The substitution code can be programmed into any PLU text field, sales message or store name. The code is replaced by the assigned message which is printed in the appropriate text field on the label.

Machine logos. Up to 100 logos can be stored in the system. These can be selected, under Machine Logos, for the receipt header and/or footer. Individual machines can be programmed to use different logos on the receipt header or footer.

Speed/Density. A slower print speed may improve print quality on low specification paper.

5.4   Assigning a barcode format

4. Machine Setup ⟹   **3. Machine Barcode** ⟹   1. Label
2. Receipt
3. Talon
4. Trace
5. Barcode Height

You can assign a default barcode format to a machine. On label machines the format assigned to the machine is used if the PLU does not have a programmed barcode. Enter a barcode reference number from 1 to 9.

On receipt machines you may enable or disable barcode printing for receipts and for talons.

Note: For more information on creating and selecting barcode formats, see *Chapter 6 - Barcodes*.

Trace code. The trace code is a six digit numerical code printed at the end of receipts and reports. It is used to identify uniquely an individual machine.

Height of Barcode. The height of barcode option allows you to set the height of barcodes on receipts and talons to be programmable in the range of 5-20 mm in 1mm intervals. The default height is 20mm

5.5   Machine operating modes

4. Machine Setup $\Rightarrow$ 4. Machine Mode $\Rightarrow$ 1. Checkout Mode

2. Pos Mode

3. Self Service

Checkout mode

The checkout mode setting has three options and can be set to Disabled, Enabled, or ChkOut -No Float:

Disabled:

This is also known as "Floating Vendor Mode". The scale is used by up to 99 "floating" operators. They can serve customers and produce receipts at any machine. Each operator must assign transactions to their operator key. This has the advantage that, where multiple scales are in use you can weigh and assign the transaction on the closest, available, scale. Each transaction can be on a different scale and the receipt can be printed on whichever scale is most convenient.

Enabled:

The scale is used by a single (logged on) operator. The operator is automatically logged off the previous scale when logging on to the new scale.

ChkOut -No Float: This is similar to **Enabled** in that the scale is used by a single operator. The difference is that, when moving to another scale, the operator must manually log off the original scale before logging on to the new one.

- If checkout mode is set to **Enabled** or **ChkOut -No Float** only **one** operator may be logged on to that machine at any given time. If an operator wants to use another machine he or she will have to log on to the new machine.

- Transactions at the machine will only be assigned through the `logged on' operator's dedicated key or the 'checkout operator' key if one has been set up.

- If the checkout operator key has been set up, transactions will automatically be assigned to the operator logged on to the machine.

- If an operator is logged on to a machine and has outstanding transactions, a new operator will not be allowed to log on. The new operator will see the message **Machine in use** when they press their own assigned key**.**

- If a product barcode is scanned, it is immediately assigned without needing to press either operator or checkout operator key.

Point of Sale (PoS) mode

When PoS (Point of sale) mode is enabled it is normally used in conjunction with a cash drawer and allows different types of payments to be accepted.

PoS- Enabled

You can:

- print sales receipts

- display the amount tendered and the change required

- accept different types of payment for purchases according to the payment keys set up at your machine

- receive payments to accounts.

PoS-Disabled

This mode prints counter receipts only even if the scale has been configured with ECR keys.

Self-service machines

In self-service mode you can select the way in which the keyboards will operate. There are three options:

- TK (self service) only

- both keyboards

- TK/Item keyboard.

If you choose to enable **both keyboards**, dedicated PLU keys on the standard keyboard will work as well as those on the large keyboard.

If you select T**K/Item keyboard** any numeric entry at the lower keyboard will be treated as the number of items not the PLU number.

Note:

- Make sure that the machine is set up or configured to print labels before enabling self-service mode.

- Set security for any functions that you do not want to be available from the sales keyboard.

- In self-service mode, PLU is cleared after 15 seconds if no label is printed.

Zeroing the machine

The zero key on the sales keyboard is disabled in self-service mode.

To re-zero the machine:

1. Enter Manager mode.

2. Press .

Assigning keys

You can assign any programmable key to the TK keyboard in the same way that you assign keys to the sales keyboard. See *Programming dedicated keys* for mre information.

Large keys

Larger keys for product selection can be set up by assigning two adjacent keys, or four keys in a square block, to the same PLU. Create suitable labels or a keyboard overlay to suit your own keyboard layout.

Keyboard overlay

Remove the keyboard overlay provided and insert overlays printed to suit your own requirements.

5.6   Setting alarms

4. Machine Setup ⟹   **5. Alarms** ⟹   1. Drawer Alarm

2. Map Error Alarm

Cash drawer detect

If the cash drawer alarm is enabled the machine cannot be used while the cash drawer is open. An audible alarm will sound and a message will be displayed until the drawer is closed.

You can program a delay time from 0 -60 seconds between the drawer opening and the alarm sounding.

(Network) Map error alarm

You can enable or disable the Network map error audible alarm. For information on network errors see *Dealing with network faults*.

5.7   Trade transactions (stock mode)

In stock mode the machine is used solely for data entry and capture. Any transactions performed in this mode do not update sales totals. Transactions are stored in the audit buffer and can be collected by suitable PC applications.

Trade transactions could include trade sales, delivery notes, orders, stock control operations.

Note:

- Stock mode must not be used in the presence of the customer.

- Stock mode transactions and sales transactions must **not** be mixed on the same receipt.

Setting up stock mode

A dedicated stock mode key must be enabled and assigned to the keyboard for you to be able to put the machine into stock mode. You can set a security level for the key in order to prevent unauthorised use. You can use stock mode either in receipt mode or in label mode.

Label mode

Stock mode can only be used if the **ADD** function has been selected.

Receipt mode

Refunds, returns and negative PLUs are not allowed in stock mode.

Trade accounts. You need to set up accounts for trade customers, or for the areas of the business against which to charge the goods when performing stock functions. For example, if you are writing off stock you might wish to charge it against a specific department such as electrical goods, toiletries, delicatessen.

For details of setting up accounts see *Setting up accounts*.

Payment keys. In stock mode you can only use stock movement type of payment keys and the 'Recvd.On Account' key.

To differentiate between different kinds of stock movements, you must create multiple stock payment keys with names according with the intended use (eg "write off", "orders", "delivery note", "trade account"

• You can select whether to print prices or weight/quantity only on the receipt. Tax values are not printed.

For details of setting up payment keys see *Programming dedicated keys*.

```
******Stock Mode******              ******Stock Mode******

12-08-2003           13:25          12-08-2003           13:25


Operator Num             1          Operator Num             1
Sandra                              Sandra

Stock Write Off      Int 002        Stock Write Off      Int 002
Greengrocery                        Greengrocery
Total              £162.35          Transactions             1
Transactions             1
                                    Customer
Customer
                                    - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -
                                    Signature
Signature
                                    - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -
                                              0001#0017
          0001#0017

                                    **** Report Complete ****
   **** Report Complete ****
```

Prices Yes   Prices No
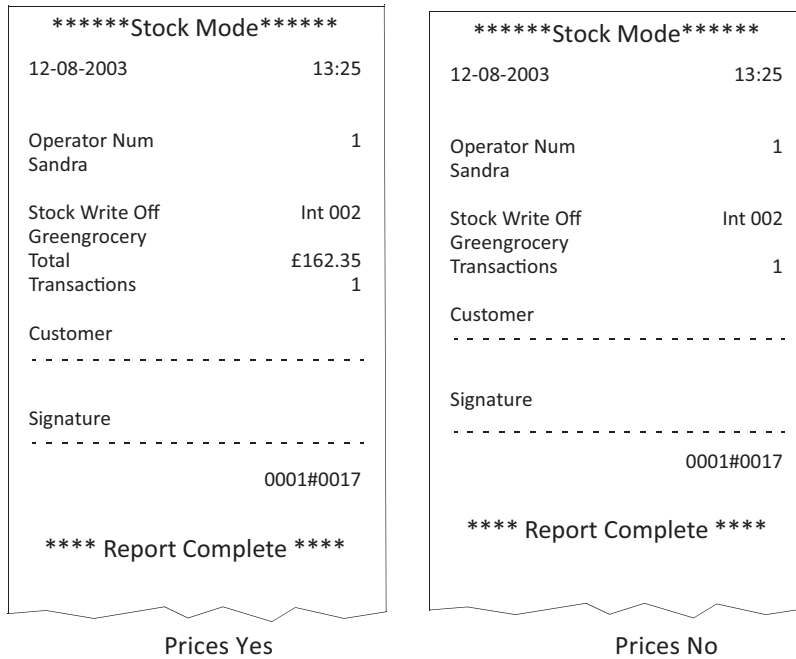
Figure 5.3   Stock mode account slip

```
******Stock Mode******              ******Stock Mode******

12-08-2003           18:25          12-08-2003           18:25


Served by           Sandra          Operator Num             1
                                    Sandra
Melon              £ 50.40
42 Items @     £ 1.40/01            Delivery Note        T 001
                                    Gourmet Restaura
                                    Transactions             1
           - - - - - - - - - -
                                    Customer
Total        £ 50.40
Transactions             1
                                    Signature
Delivery Note        T 001
Gourmet Restaura                              0001#0017

                                    **** Report Complete ****
Total Weight       0.000 kg

          0001#0017


THANK YOU FOR SHOPPING AT
    AZ SUPERMARKETS
```
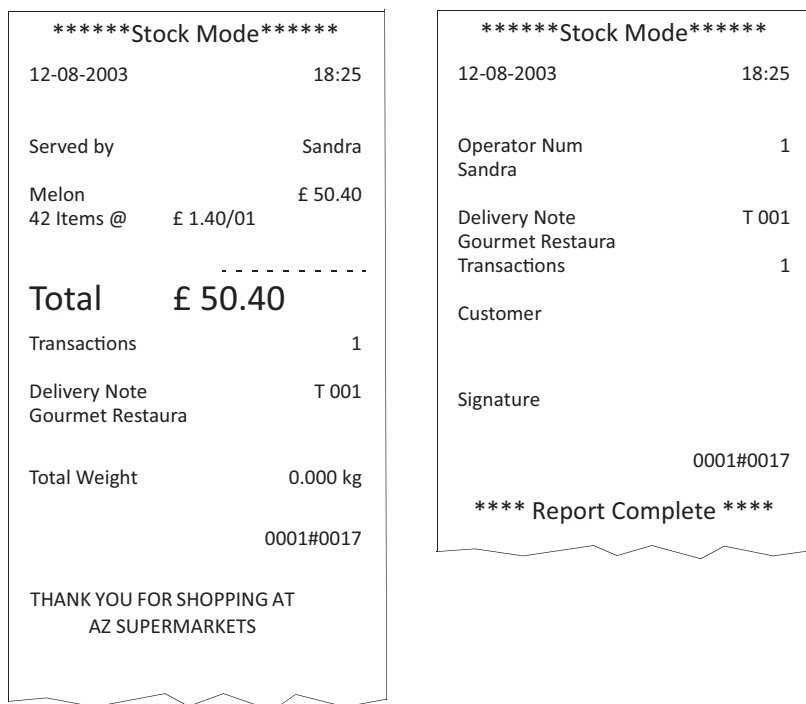
Figure 5.4   Stock mode receipt and account slip

5.8   Re-pricing goods

4. Machine Setup $\Rightarrow$ 6. Re-Price Setup

Re-pricing is when a new price label is issued and stuck over the original price label on the pack. This label is not PLU assigned. The label format usually includes:

• barcode

• total price

• unit/item price

• weight/items.

To be able to print re-price labels you must assign a dedicated re-price key to the sales keyboard.

Weigh pack

Weigh pack allows you to decide whether packs that are being re-priced should be weighed or the weight entered by hand.

- **Weigh pack Yes.** The packs that are being re-priced can be weighed.

- **Weigh pack No.** The weight of the pack must be entered by hand using the numeric keys. Hand entered weights are indicated by an 'H' printed on the label in front of the weight.

Totals print

Totals print allows you to choose whether to generate temporary totals for re-price transactions.

- **Totals Print Yes.** Temporary totals for re-price transactions are generated.

Each label is totalised against the relevant EAN number. The totals are machine specific and include:

- EAN number

- Total weight

- Number of transactions

- Total value.

Re-price totals are printed using the ADD label format and each total generates a separate ADD label.

Re-price totals are cleared on exit from re-price mode.

5.9 Software Licensing system

8. Licencing $\Rightarrow$	1. Start Trial
	2. Request
	3. Activate
	4. Backup Codes
	5. Restore Codes
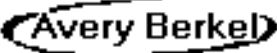
Certain scale features can be purchased as options. This is done using a licence manager which is accessed via Manager mode menu 8. Licencing.

On entry to the Licence Manager the user selects from a list of available functions associate with the licensing system:

- Start Trial– Activates a 30-day trial

- Request Licence - Request a licence code which can be used to obtain an activation code

- Activate Licence - Activates a feature from an activation code

- Backup Codes- Back up activation codes to USB memory stick

- Restore Codes- Restore activation codes from USB memory stick.

Starting Trials and Licensing Features

The licence manager screen lists the feature(s) which are subject to licensing. At the time of writing only Electronic Funds Transfer (EFT) is available as a licensed feature.

To select a feature press the ✅ button and, when all features have been selected, the ⬅ button will either start a trial or generate a licence request.

Press the ⬅ button to print a hard copy of the licence request code.

You will then be asked if you want to save it.
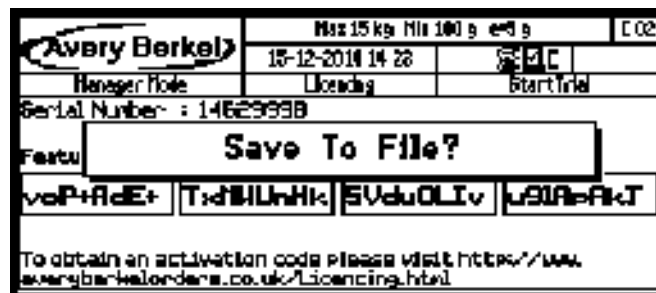
To save the licence request code:

1.   Insert a memory stick into the USB port in the printer compartment and press ✅ .

2.   A file named *licence.txt* will be generated on the root of the USB memory stick.

The file is a plain text file with each licence request code on a new line. The format of each line is:

14345678=S2BRVE49FR3gqtZi9a+mpmwBjtFSri7P<new line>

Where, 14345678 is the serial number.

Activating a Licence

To obtain an activation code visit www.averyberkelorders.co.uk/licencing.html, and save the activation code on your memory stick.

On the scale, select the Activate Licence menu. On entry to the licence activation screen, you can either load the code from a file on the memory stick (Enter key) or manually enter the code from the keyboard (C key).

The activation code(s) must be in a file named activationcode.txt on the root of the USB memory stick.

The file must be a plain text file with each activation code on a new line. The format of each line is:

14345678=S2BRVE49FR3gqtZi9a+mpmwBjtFSri7P<New Line>

 Where, 14345678 is the serial number followed by '=' and the activation code.

Avery Berkel	Max 15kg Min 100g e=5g	C 02
	15-12-2014 14:88	
Manager Mode	Licencing	Activate
Activation Code		

| QWERTYUA | SDFGHJKL | ZXCVBNMq | 123456+/ |

Avery Berkel	Max 15kg Min 100g e=5g	C 02
	15-12-2014 14:34	
Manager Mode	Licencing	Activate
Activation Code		

Load From File?
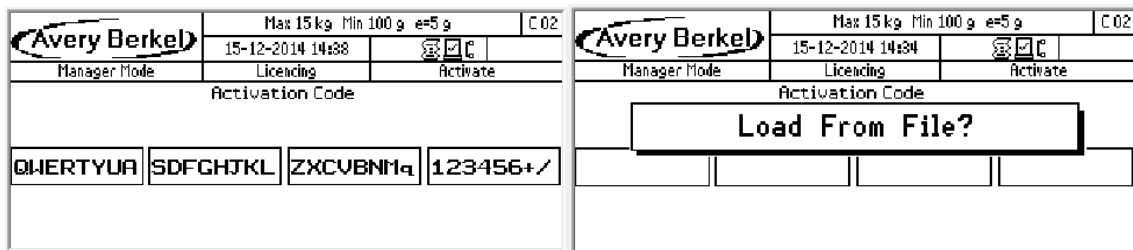
Backup & Restoring Activation Codes

The current activation codes present on the scale can be saved to a memory stick and restored at a later date if they are lost due to board repair. The activation codes can only be restored on the original main board. If the mainboard is changed then a new activation code must be obtained. The activation codes are to an encrypted file stored on the USB memory stick at \lic_backup\14529999.BAK, where 14529999 is the serial number.

Chapter 6 Barcodes

6.1 Introducing barcodes

Barcodes are used to identify specific characteristics about the product; for example, price, quantity, article number. Barcodes are used with the XS scale in two ways. If a barcode scanner is connected they can be used as a fast way of selecting PLUs. In addition, the scale can print barcodes for labels, receipts and talons that can be read by other scales or other machines fitted with a barcode scanner.

You can create and store up to 32 barcode formats.

Barcode types

The XS scale supports both fixed length barcodes and variable length barcodes. The following barcode types available are:

EAN 13	Fixed length	**Code 39 extended**	Variable length
EAN13 Scandinavian	Fixed length	**ITF 14**	Fixed length
EAN8	Fixed length	**PDF417**	Variable length
UPC12	Fixed length	**GS1 Expanded**	Variable length
UPC13	Fixed length	**GS1-14**	Fixed length
EAN128	Variable length	**GS1 Limited**	Fixed length
Code 128	Variable length	**SSCC**	Fixed length
Code 39	Variable length		

Fixed length barcodes

There are several types of fixed length barcode which are accepted internationally for use in the retail trade. The type of barcode used depends on the standard adopted by a particular country. For instance, in the USA UPC barcodes are used, in Europe EAN barcodes are used.

Default length. Each type of barcode has been programmed into the machine as a standard length for the barcode digits. This is known as the default length.

The barcode formats can be re-defined to enable a source marked barcode or dry article barcode to be printed.

Variable length barcodes

You can enter data freely to specify the information you require to be embedded in the barcode provided it satisfies the requirements for the barcode type you are using. For example, it may need to be capable of encoding using Application Identifier (AI) prefix codes which denote the meaning and format of the data that follows it.

6.2 Printing barcodes

Label machines

Label barcodes relate to the PLU will only be printed if a barcode is enabled in the PLU. The label selected in the PLU (or the default label format assigned to the machine) must have a barcode field.

The label field can directly specify a barcode format, or it can require it to be selected in the PLU configuration. In the latter case the PLU configuration defines which barcode format to use. If a barcode format has not been selected in the PLU then the default barcode for the machine will be used. For more information See *Assigning a barcode format*.

- You can print multiple barcodes on the same label if necessary.
- The barcodes can be defined in the PLU or referenced to a label format.
- Programming the barcode in the PLU is the preferred method for fixed length barcodes.

Receipt machines

Receipt barcodes relate to the specific receipt, talon or add label and are independent of barcode settings in the PLU. The Barcode will be printed on the receipt, talon or add label if the scale has been set up to do so in Machine Setup. See *Assigning a barcode format* for more details.

If the barcode format includes the department number or group number, you may not mix goods or items from different departments or groups on the same receipt.

Printing subtotal and total receipts

If you want to print subtotal barcodes you must create a suitable barcode format for the receipt barcode. This barcode must have an unique prefix that cannot be confused with any label type, barcode formats.. To include the customer number in the barcode, the format must contain the character code 'S' for a consecutive number at the appropriate positions in the format.

To print barcodes on subtotal counter receipts only, you must enable **Barcd On Subtot**.

To print barcodes on sales total receipts only, you must enable **Barcode On Total**.

```
07-11-03                    09:41
Served by                   Maria

Subtotal                     6.40

Transactions                    4



     9 8 0 0 0 0 1 2 3 4 5 6 2 >

Customer Number 123456
```
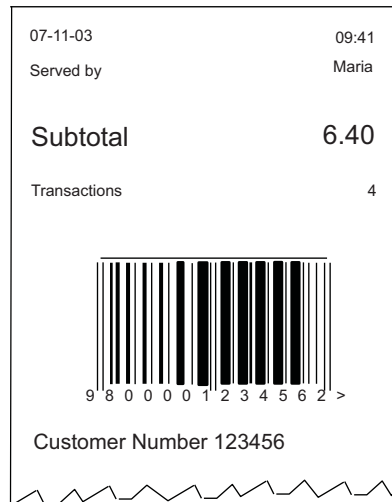
Figure 6.1   Subtotal counter receipt

6.3   Barcode scanning

You can use the hand held scanner to:

•   Read in-store or branded barcodes at a PoS machine when your machine is in sales mode.

•   Help you program PLUs when your machine is in manager mode,.

Note: You can only use the scanner if an appropriate barcode is displayed on the goods.

Branded goods

Branded goods have the barcode printed on the packaging by the manufacturer. The barcode is registered with the EAN authority and is known as a source marked barcode.

In-store goods

If you wish to scan in-store goods you must print a suitable barcode and attach it to the product being sold.

Note: GS1 Limited barcodes are not suitable for use with some types of scanner.

Reading a barcode

When the barcode is scanned, the machine searches the barcode list for a prefix that matches the one in the scanned barcode. If it fails to find a matching barcode it treats the barcode as a dry article barcode.

The barcode format can either be the one assigned to the machine or the barcode format programmed in the PLU. The machine will use a PLU barcode if programmed rather than the one assigned to the machine.

Note: The scanner will use the first barcode type it encounters with a prefix matching the one on the goods. It is important that you do not program different barcode types with the same prefix.

Checkout mode

If the machine is operating in checkout mode and a barcode is scanned the transaction will be assigned automatically to the operator logged on at that machine. This means you do not need to press your operator key or the subtotal key each time.

6.4   Scanning barcodes for branded goods

Scanning dry article barcodes

This type of barcode contains only the article number. Dry article barcodes are the most common barcode used on branded goods. For example, a jar of coffee might have a manufacturers product number 5021991245497. Normally you don't need to be able to print barcodes for dry goods, you only want to be able to scan them for use in receipt mode.

Creating the PLU entry for a dry article:

1.   In Create & Edit PLU, at the PLU number prompt, scan the barcode.

2.   Program the PLU description.

3.   Program the PLU price

4.   Press the ✔ to save the PLU

Note: You can only assign a dry article barcode to a nonweighed PLU. **It is illegal to use this type of barcode for a weighed PLU.**

When the goods are scanned in sales mode the receipt shows the description and the price programmed in the PLU.

Scanning price embedded barcodes

Some goods may come from the manufacturer already weighed and priced, for example frozen chickens and pre-packed fruit and vegetables. In this case the manufacturers barcode will include the product number and the selling price.

Before you can create a PLU entry for a price embedded barcode you must create the barcode format registered with your national coding authority for use with branded, pre-priced goods. For example, the UK currently uses the format **20AAAAAVPPPPC**.

Creating the PLU entry for a price embedded barcode:

1.   Create a PLU.

2.   Program the item price as **0.00**.

3.   Enter any other product information you want to include in the product file.

4.   Select barcode **Scan Only**.

5.   Enter the barcode format reference for branded, pre-priced goods.

6.   Enter or scan the manufacturer's barcode number when you see the barcode format displayed.

When the goods are scanned in receipt mode the receipt shows the description programmed in the PLU and the price embedded in the manufacturer's barcode.

6.5   Printing and scanning barcodes for in-store goods

You can print labels with barcodes for goods packed in-store prior to sale. If you include the barcode on the label the operator can scan the goods at the PoS or checkout machine.

Dry article barcodes

• Use this type of barcode for goods with a non variable weight and a fixed price.

• A barcode showing **just the product number** is attached to the goods and the price is displayed on the shelf edge.

• A typical use would be for products from the bakery department

Note: In order to avoid pricing discrepancies the in-store dry article label should not show a price. If you are in any doubt use a price embedded barcode instead.

Creating the product (PLU) file:

1.   Create the dry article in either EAN8 or EAN13 format: 008AAAAC or **02AAAAAAAAAAC**

2. Create a **nonweighed** PLU.

3. Enter a label format that supports barcodes.

4. Program the item price.

5. Enter any other product information you want to include in the product file.

6. Select barcode enabled.

7. Enter the barcode format reference.

8. Enter the product number.

9. Print a barcoded label and attach it to the goods..

When the goods are scanned in receipt mode the receipt shows the description and the price programmed in the PLU.

Note: You can only assign a dry article barcode to a nonweighed PLU. It is illegal to use this type of barcode for a weighed PLU.

Price embedded barcode

Use this type of barcode on labels for products such as fresh meat or fish that are priced or weighed and priced in the store pre-pack area.

To create the product (PLU) file:

1. Create a suitable barcode format for use with in-store, pre-priced goods. The recommended format is:

    02AAAAVPPPPPC.

2. Create a **weighed** or **nonweighed** PLU.

3. Enter a label format that supports barcodes.

4. Program the unit or item price.

5. Enter any other product information you want to include in the product file.

6. Select barcode enabled.

7. Enter the barcode format reference.

8. Enter the product number.

9. In label mode you can now print a barcoded label and attach to the goods.

When you scan the price embedded barcode in receipt mode, weighed goods are treated as a nonweighed item. The receipt shows the description programmed in the PLU and the price embedded in the in-store barcode.

Note: When you scan a price-embedded barcode, in receipt mode, the price embedded in the barcode will be used. This will override any price or promotion programmed in the PLU.

6.6 Defining the barcode format

1. System Data $\Rightarrow$ **6. Tables** $\Rightarrow$

3. Barcode Format

Barcodes are printed as a series of bars and digits are arranged in groups or fields known as the barcode format. Each group of digits within the format conveys specific information.

You can create up to 32 barcode formats. You can choose whether the format is to be applied to labels, receipts, talons or vouchers, and also the barcode type (see *Barcode types* or more information). Choosing the barcode type determines the underlying format for the barcode, and specifies if the barcode is to be fixed length or variable length.

The barcode is represented on the scale's display as a series of numbers and letters, which define what data will be included in the barcode. You can re-arrange these groups of digits to re-define how information is printed on the barcode.

6.7 Fixed length barcode formats

Each digit defines the information encoded in the barcode format.

A   PLU or article number

T   Trace code

The trace code is a number used to uniquely identify a machine. It may have up to 6 digits.

V   Price verifier

The price verifier is an automatic check performed by the barcode reader to ensure that it has read the barcode price digits correctly.

P   Price

Price is the transaction price on a label barcode and the total price on a receipt.

W   Weight

Weight is the total weight on weighed labels or the number of items sold on nonweighed labels. On a receipt, weight shows the total weight of all weighed transactions.

D   Department number

G   Group number

N   Operator number

C   Overall check verifier. Cannot be changed.

FF   Decimal point code (EAN13 Scandinavian).

S   Label or receipt sequence number

MM   Machine ID

HH   Network ID

Note: You can include %% codes and %%(AI) codes in some barcode formats. See , for a list of codes available for use.

EAN 8

	01	02	03	04	05	06	07	08
Default receipt format	0	0	8	T	T	T	T	C
Default label format	0	0	8	A	A	A	A	C

Permitted entries

Prefix	0 - 999		
A	1 - 7 digits	W	4 - 6 digits
T	4 - 6 digits	D	2 digits together
P	4 - 6 digits	N	2 digits together
G	2 digits together		

UPC 12

01	02	03	04	05	06	07	08	09	10	11	12
2	T	T	T	T	T	P	P	P	P	P	C
2	A	A	A	A	A	V	P	P	P	P	C

Permitted entries

Prefix	0 - 9	V	digit 6 or 7
A	1 - 11 digits	W	4 - 6 digits
T	4 - 6 digits	D	1 - 2 digits together (printed on receipts)*
P	4 - 6 digits	N	2 digits together (printed on receipts)
G	1 - 2 digits together (printed on receipts)*		

Note: If only one digit is available, the least significant digit is printed for example, 12 would be printed as 2.

UPC 13

01	02	03	04	05	06	07	08	09	10	11	12	13
0	2	T	T	T	T	V	P	P	P	P	P	C
0	2	A	A	A	A	V	P	P	P	P	P	C

Permitted entries

Prefix	00 - 09	V	digit 7 or 8
A	1 - 12 digits	W	4 - 6 digits
T	1 - 6 digits	D	1 - 2 digits together (printed on receipts)*
P	4 - 6 digits	N	2 digits together (printed on receipts)
G	1 - 2 digits together (printed on receipts)*		

Note: If only one digit is available, the least significant digit is printed for example, 12 would be printed as 2.

EAN 13

01	02	03	04	05	06	07	08	09	10	11	12	13
0	2	T	T	T	T	V	P	P	P	P	P	C
0	2	A	A	A	A	V	P	P	P	P	P	C

Permitted entries

Prefix	0 - 9 or 00 - 09	V	digit 7 or 8
A	1 - 12 digits	W	4 - 6 digits
T	1 - 6 digits	D	1 - 2 digits together (printed on receipts)*
G	1 - 2 digits together (printed on receipts)*		
P	4 - 7 digits	N	2 digits together (printed on receipts)

Note: If only one digit is available, the least significant digit is printed for example, 12 would be printed as 2.

EAN 13 (Scandinavian)

	01	02	03	04	05	06	07	08	09	10	11	12	13
Default receipt format	F	F	T	T	T	T	T	T	P	P	P	P	C
Default label format	F	F	A	A	A	A	A	A	P	P	P	P	C

Permitted entries

FF	2 digits	W	4-6 digits
A	1-6 digits	T	1-6 digits
T	1 - 6 digits	D	1 - 2 digits together (printed on receipts)*
P	4 digits	N	2 digits together (printed on receipts)

The decimal point codes are:

20 to print PP.PP

21 to print PPP.P

22 to print PPPP.

23 to print W.WWW

24 to print WW.WW

25 to print WWW.W

Weight is the total weight on weighed labels. On nonweighed labels, 0000 is printed. On a receipt, weight shows the total weight of all weighed transactions

ITF14

	01	02	03	04	05	06	07	08	09	10	11	12	13	13
Default receipt format	A	A	A	A	A	A	A	P	P	P	P	P	P	P
Default label format	0	2	T	T	T	T	T	P	P	P	P	P	P	P

Permitted entries

Prefix	00 - 09	V	digit 7 or 8
A	1 - 12 digits	W	4 - 6 digits
T	1 - 6 digits	D	1 - 2 digits together (printed on receipts)*
P	4 - 6 digits	N	2 digits together (printed on receipts)
G	1 - 2 digits together (printed on receipts)*		

Note: If only one digit is available, the least significant digit is printed for example, 12 would be printed as 2.

GS1-14 and GS1 Limited

These barcodes support Global Trade Item Numbers (GTINs).

GS1-14 barcodes have a maximum length of 14 characters.

GS1 Limited barcodes only support GTINs with a 0 or 1 as the initial digit in the article number.

	01	02	03	04	05	06	07	08	09	10	11	12	13	13
Default label format	A	A	A	A	A	A	A	A	A	A	A	A	A	C

Permitted entries

A	13 digits	C	1 digits

6.8 Variable length barcode formats

EAN128

The barcode format can including text, %% codes and %%(AI) codes to specify the data to be embedded in the barcode. You can also program standard barcode format characters for standard EAN/UCC AIs, for example,

"AAAAAAAAAAAAACWWWWWW%%BEAN&WEIGHT"

Up to 100 characters can be entered. However the data printed in EAN128 barcodes is limited to 48 characters.

See *Supported AI codes* for a list of codes available for use.

Code 128

You can enter up to 48 characters including numeric characters, %% codes, Dewey decimal codes and %%(AI) codes to specify the data to be embedded in the barcode.

You can also program standard barcode format characters for standard EAN/UCC AIs, for example,

"91%%+7.4#2%%PPPPPPC

Code 39

The following 43 characters are supported. There is a 50 character limit in the barcode format, but the barcode data printing is limited to 30 characters (including a check digit not shown in the human readable part). Dewey Decimal codes, %% codes and %%(AI) codes can be entered.

1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ-.$/+% SPACE

Code 39 Extended

Similar to Code 39 but uses two characters to represent characters outside the 43 character set.

PDF417

Both text mode and AI mode have a 2000 character limit.

Text mode

In text mode you can use numeric characters, Dewey Decimal codes, %% codes and %%(AI) codes to specify the data to be embedded in the barcode.

AI mode

In AI mode all the data must be capable of encoding using AIs. That means that data must be in the form of a valid substitution code (Dewey Decimal codes, %% codes) or must have been defined in the AI standard list or the AI carcass list. For example, A (article number) or P (price) must be defined as AIs.

GS1 Expanded

You can enter up to 100 characters. All the data must be capable of encoding using AIs.

Note: If the label field is not wide enough to accommodate all the characters, provided that there is room to increase the height sufficiently, the barcode will print as a 'stacked' barcode.

6.9 Troubleshooting barcode formats

Barcode overflow

If there are more digits in the pack price or weight than specified in the barcode, the article number is printed instead of the barcode.

Incorrectly defined formats

If you define the barcode incorrectly you will briefly see the message **Invalid Entry** followed by the barcode format. The wrongly entered character flashes enabling you to correct it. If more than one character is incorrect the first incorrect one flashes. When all the characters are corrected the first character of the barcode will flash.

6.10 Serial Shipping Container Code (SSCC)

The SSCC is used to identify and track packages or logistics units. It constitutes a barcode sticker on the side of a package that contains the company name, plus a unique identifying number known as the 'serial reference'.

Note: SSCC barcodes are printed on pack run total labels only.

There are two types of SSCC that can be programmed:

- Sequence number SSCC which gets the serial reference from the existing transation sequence number with the 2 digit machine ID at the front - this ensures that the serial reference is unique.

- Consecutive number SSCC which gets the serial reference from a new machine based, consecutive number. The Machine ID may be appended to the front of the consecutive number.

SSCC barcode Programming

The barcode programming is the same as for GTIN. The 'S' code in the barcode format is already used to refer to a transaction sequence number.

The example below shows how a barcode format for an SSCC is programmed where a 7 digit prefix is required and the transaction sequence number is being used as the serial reference number.

This is an example with EAN 128 and demonstrates a sequential barcode.

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Character	1	1	2	3	4	5	6	7	0	S	S	S	S	S	S	S	S	C
				Company Prefix								Serial Reference						

Packaging Type (arrow to digit 1) — Check Digit (arrow to digit 18)

Note: The 9th digit is fixed at zero. However this could be any fixed value or the Network ID.

The example below shows how a barcode format for an SSCC is programmed where a 7 digit company prefix is required and the SSCC consecutive value is being used as the serial reference.

This is an example with EAN 128 and demonstrates a consecutive barcode.

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Character	1	1	2	3	4	5	6	7	0	R	R	R	R	R	R	R	R	C
	↑			Company Prefix							Serial Reference							↑

Packaging Type   Check Digit

Note: All 9 digits of the SSCC consecutive number are used, but this is not mandatory. Any numbers of digits 1-9 can be used.

Chapter 7 Product Traceability

The product traceability scheme is used to provide an audit trail for a product back through the stages in its production to its original source. You can record traceability for up to 9 cutting centres and 5 fattening countries. It can be used for:

- Beef products

- Other types of meat products such as pork

- Non meat products such as fish or cheese.

These instructions describe how to set up and use the scheme for tracking bovine carcasses.

To use the scheme for other types of product, change the data names and programming texts to suit the product.

7.1   Mandatory information

Traceability enables you to label products with information about the animal or group of animals (batch) from which the product was derived.

In some markets certain traceability information is mandatory.

Example: The following lists the information which is mandatory when labelling beef products in EU countries.

- Lot number (more than one animal) or carcass number.

- Slaughter house reference and country.

- Cutting/de-boning centre reference and country.

- Country of birth.

- Country of rearing.

In addition, approved voluntary information may be included on labels and receipts.

Note:

- If the product is **pre-packed** (packed when the customer is not present), the traceability information **must** be printed on the product label or receipt.

- If the product is packed or prepared in the **presence of the customer**, there must be a clear link between the product being served and the displayed carcass details.

The best way to ensure this is by individually labelling each pack, or by printing the full details on the counter or ECR receipt. If this is not possible you can use Tray labelling, see *Tray labelling*.

7.2   Using traceability

Traceability details are printed on labels for all products associated with a carcass/batch.

Traceability format:

- Defines the way in which the information is printed on the labels according to the text and data type programmed into the traceability format.

Traceability barcode format:

- Defines the actual data and messages printed.

- May also contain additional information provided by the supplier.

Traceability tables:

- Are a database of countries, categories etc held by the machine.

- Provide additional traceability information in relation to specific carcass/lot numbers.

- For non preset PLUs, this database is referenced for each specific carcass/lot number and the details printed on the label or receipt.

You can:

- Print carcass/batch data on labels or receipts for all products associated with a particular carcass/batch.

- Print counter service tray labels providing full traceability information for the customer.

- Create duplicate passports, including a copy of the original barcode.

Note: For schemes using **Preset** mode, the data may also be managed by a PC application which downloads the panel information in a printable format. See section 7.13, page 84.

Non-preset mode

The full traceability or batch details are scanned or entered from the sales keyboard each time the operator selects a different batch at the machine.

This is particularly suitable for prepack operations where the operator may be packing a complete batch in one session and then selecting a new complete batch to pack.

Preset mode

The full traceability or batch details are scanned or entered from the keyboard once and the data is stored against a `batch' reference number or against a `tray' key on the sales keyboard. This method is particularly suitable for counter service or ECR mode of operation.

Each time a product is selected, the operator only needs to:

- Enter or scan the `batch' number

or

- Press the appropriate `tray' key.

Automatic creation of records

When a PLU with traceability enabled is selected, you will be prompted for the Lot number. The display shows the last used lot number for the PLU. You can:

- Accept this number or

- Enter a new number. If the Lot number is not recognised you will see the message **Record Not Found** followed by **Add New Record?** .

- Enter the new lot number and the record will be created automatically.

Lot prompt disabled

If this is selected for the PLU, you will not be prompted for a lot number.

Self service mode

You can use PLUs with traceability enabled in Self Service mode provided that has also been enabled for the PLU.

The panel text in the traceability record for the lot number is printed in text field 3 on the label and the traceability totals (and GTIN if enabled) are totalised against the lot number.

If you select a PLU with you will see the message and the PLU will not be selected.

7.3   Traceability schemes

1. System Data ⟹	9. Traceability ⟹	1. Tables
		2. Scheme
		3. Data Name
		4. Records

You can set up a different scheme for each type of product that requires traceability.

Scheme reference

This is a reference number from 1 to 10 that is used to link the batch being processed to the correct scheme. For schemes operating in preset mode, when the PLU is selected, the associated lot number will link the PLU to the correct scheme.

Scheme name

You can program a scheme name, up to a maximum of 20 alpha/numeric characters, for easier identification of a scheme.

Scheme emulation

You can create schemes to emulate specific traceability schemes embedded in the scale or you can choose no emulation. Each of the emulation schemes operates in a slightly different way from the default scheme setup.

The types of scheme available are:

None (no emulation).

Emulation 1 (SVA). The SVA scheme emulation system ignores standard barcode templates and interprets proprietary barcodes containing check digits.

Emulation 2 (GTIN). GTIN scheme emulation requires traceability records to be uniquely identified by a lot number and GTIN. GTIN codes contain data uniquely identifying the supplier and product type.

Emulation 3 (Geant). Geant scheme emulation requires the lot number to be re-entered each time a PLU is selected.

Life

You can set the number of days that limits the duration of a scheme. This is usually referred to as the scheme life and the default value in the machine is 30 days.

For each scheme you can select the way in which it operates. You can choose from:

GTIN operation

Select **GTIN Operation Y** if you require traceability records to be uniquely identified by a lot number and GTIN.

Forced lot number entry

Select **Forced Lot Ent Y** number entry for the Lot number to be requested each time a PLU is selected.

Label or receipt printing

You must select **Label & Receipt** for traceability information to be printed on sales receipts.

PrePack operation

You must select **Prepack&Counter** for traceability information to be printed on both counter receipts and labels. If you select the information will only be printed on labels.

Traceability mode

Select **Non Preset Mode** if you are using the database of countries and categories stored in the machine. Select **Preset Mode** if you are using counter service or ECR mode of operation.

Retain Lot or **Don't Retain Lot** (preset mode only)

Select **Retain Lot** if you want to save the lot number you have entered for the selected PLU and replace the programmed lot number.

 Passpt. Prompt Y or **Passpt. Prompt N**

Select **Passpt. Prompt Y** if you want to create a passport label each time a new traceability record is created in sales mode.

Pspt.Lbl.Fmt.M/C or **Pspt.Lbl.Fmt**

Select **Pspt.Lbl.Fmt.M/C** to use the format defined in the machine or **Pspt.Lbl.Fmt** if you want to program the format to suit the scheme. The default value is to use the machine based passport label format.

Weight limits

Select **No Weight Limit** if you do not want to use weight limits during trading. **Batch Weight** uses the weight of the whole batch (usually encoded in the supplier barcode). **Pack Weight** allows you to set weight limits for individual cases or packs.

If the barcode includes AI 303 the batch weight is incremented each time a pack is scanned. When the weight sold equals the weight limit for the batch you will see a warning message and you will not be able to print further labels.

% Wastage

If you select **Batch Weight** or **Pack Weight** limits you will be prompted for a value. This is a programmable value that allows for wastage in the batch due to bone etc.

Date limits

Select **No Date Limit** if you do not want to use date limits during trading. You will not be prompted to enter dates when creating records. The default option **Use Scheme Life**, computes the expiry date from the slaughter date plus the scheme life. You can manually override the date if required. **Use Expiry Date** uses the sell by date encoded (AI 17) in the supplier barcode. You can manually override this date if required.

Linking a scheme to a PLU

When creating or editing a PLU, you will be asked to enter the scheme reference number for the PLU provided that traceability is enabled and more than one traceability scheme exists.

7.4　Printing the information

Traceability information is normally printed in text area 3. You can print any of the data in other text fields provided you embed the appropriate %% codes or Dewey Decimal codes (see).

In preset mode, you can print the traceability information as:

- A single block of text

- As individual lines of text which can be printed in different areas on the label.

To enable traceability text line printing you must:

- Embed the appropriate Dewey code in the sales message to select text printed as a block or as individual lines (see *Dewey substitution codes*).

- Separate the lines of text in the traceability text panel using line feed and centralise line feed characters.

You must select a suitable label format or the data will not be printed.

When programming PLUs you must select **Traceability On** to be able to use traceability for that product.

Listed below are the operations you need to perform to enable traceability information to be printed on labels.

- Enable receipt or counter service printing if required

- Define the barcode format for non-standard AI reference codes

- Program the tables with the data names and associated text as you want them to appear on the traceability panel.

- Create the traceability format which defines the way in which the information will be printed on the label.

- Set up the traceability schemes required.

7.5　Traceability code data

The machine contains tables that relate the traceability code embedded in the traceability panel format to:

- The Application Identifier (AI)

- The data name

- Dewey Decimal codes.

The machine is pre-programmed with industry standard codes for both data names and *AI codes*. You can change these codes if necessary.

Data name

Data names are the text descriptions associated with the traceability codes. The machine is pre-programmed with industry standard codes. You can change these if necessary to suit the products for which you are using the system.

For example:

	Beef	**Cheese**
Origin 1	Born in:	Produce of:
Cutting ref:	Cutting in:	Packed in:

AI codes

- The AI code is embedded into the barcode followed by the data to which it refers.

- The data is interpreted according to the AI code function.

- The data can be in any order and can be split into more than one barcode if necessary.

Data interpretation

- Printed as read from the barcode:

    Lot/carcass number.

    Slaughter and cutting numbers.

    Scheme licence number.

    Text 3 data.

- Dates are interpreted in the format YYMMDD.

- Origin, slaughter and cutting references, breed, category, type and species data are used as a reference to look up the related text in a table. See Figure 7.3.

- AI codes 7030 to 7039

    Application Identifier 7030 is always for the slaughter house and 7031 to 7039 are for the cutting centres. The first three digits are interpreted as an origin reference and the remaining alphanumeric characters as cutting numbers.

AI (EAN128 only)	Traceability Code (%%)	Dewey Decimal
10	0	%%+2.1%%
422	1	%%+2.6.1%%
423	2	%%+2.23.2.1 - to - %%+2.23.2.5
7030	3, 9	%%+2.16#0
424	3	%%+2.6.3%%
	4	
	5	
	6	
	7	
	8	
7031	A, E	%%+2.16#1
7032 - 7039	A, E	%%+2.16#2 - %%+2.16#9
	B	
425	E	%%+2.23.4.1- to - %%+2.23.4.9
	A	%%+2.24.1 - to - %%+2.24.9
251	I	
426	J	%%+2.6.5%%
	L	
953	Q	%%+2.13%%
	T	
	U	
	V	
	W	
	Y	
3103		%%+10.1.2%%
3303		%%+10.1.1%%
15		%%+10.2#1%%
17		%%+10.2#2%%
3902		%%+5.1%%
8005		%%+5.5%%

Figure 7.1   Supported AI numbers

Unsupported AI codes

You can edit the tables to add an AI code or change an existing AI in the substitution codes list. (See *Substitution codes*.)

1.   Select **7. AI**

2.   Select **1. Create and Edit**

3.   Enter the %% code or the Dewey Decimal code for the AI code you wish to change or to which the new AI code is to be assigned.Programming traceability tables

If you are using nonpreset schemes or scanning supplier proprietary barcodes, you need to set up tables for:

- Countries of origin

- Slaughter centre references

- Cutting centre references.

Creating messages

1. System Data $\Rightarrow$ **9. Traceability** $\Rightarrow$ 1. Tables

When creating messages ensure that the messages programmed in your machine match the messages used by your suppliers.

Note: All your suppliers must use the same messages.

You can create seven different lists of messages.

List	Records	Characters
Origin	300	40
Slaughter reference	100	40
Cutting reference	100	40
Category	100	40
Breed	100	40
Type	100	40
Species	100	40

Origin, slaughter reference and cutting reference information is mandatory. Category, breed, type and species is additional information which may be included.

Origin messages

An origin message may be a country or a supplier. You can print up to four origin messages on the label, for example: country of birth, supplied by. The default origin list contains internationally agreed country references (ISO 3166) but you can change these if necessary. To revert to the default value just delete the current entry in the table.

Slaughter reference

This table stores reference information about where the animal was slaughtered. It contains the name of the country and the approval number for the slaughterhouse.

Cutting reference

This table stores reference information about where the carcass was cut up and de-boned. It contains the name of the country and the approval number for the cutting centre.

Category messages

The following category messages must be used for beef:

Messages	Notes
Bull	
Young bovine (steer)	Less than 6 years old
Ox (beef cattle)	
Heifer	Less than 6 years old
Cow	

Breed messages

Breed messages describe the breed of the cattle. Examples are Aberdeen Angus and Charolais.

Type messages

Type messages describe the end product from the animal. For beef it could be beef animal, milk animal or mixed.

Species messages

These messages describe the type of animal or product.

7.6 Defining the barcodes

There are two types of barcode used with bovine traceability.

- EAN128 standard. These barcodes include the mandatory information and use Application Identifiers (AIs) to determine how the data is interpreted.

This type of barcode cannot be edited.

- EAN128 non-standard barcodes. These barcodes use Application Identifiers (AIs) but include voluntary information in addition to the mandatory information (custom barcode).

This type of barcode can be edited to match those of your supplier.

Each type of barcode has been programmed into the machine as a standard format for the barcode digits. This is known as the default format. You can edit these formats to match the barcode formats received from your suppliers.

Custom barcodes

Use this barcode format to interpret data from non standard AI barcodes received from the supplier. The system uses the AI (950) to identify that the barcode contains voluntary data and AI (953) the licence number to print this data.

The default barcode format for AI 950 is:

LWYTTUUVV

(10)234567(7030)250789(7031)250654
(950)141010100(953)321

(10)

6 digit carcass/lot number	= 234567

(7030)

3 digit slaughter country reference	= 250 = France
3 digit slaughter number	= 789

(7031)

3 digit cutting country reference	= 250 = France
3 digit cutting number	= 654

(950)

1 digit species	**= 1 = bovine**
1 digit category	**= 4 = heifer**
1 digit type	**= 1 = meat**
2 digit breed of father	**= 01 = Charolais**
2 digit breed of mother	**= 01 = Charolais**
2 digit breed if mixed	**= 00 = N/A**

(253)

3 digit scheme licence number	= 321

Traceability barcodes

Used for fixed, non AI barcodes received from suppliers.

A traceability barcode format defines the information conveyed by the printed bars in the barcode in a similar way to a label or receipt barcode. Traceability barcodes are based on digits, for example **00000006666661122335544**.

The default barcode format is:

00000044551122   14digits

6 digit carcass/lot number + 2digit slaughter reference + 2 digit cutting reference + 2 digit origin message 1 + 2digit origin message 2 = 14 digits

12345601010501   14 digits

6 digit carcass/lot number	= 123456
2 digit slaughter reference	= 01 = UK (1143)
2 digit cutting reference	= 01 = UK (19985)
2 digit origin message 1	= 05 = Scotland
2 digit origin message 2	= 01 = UK

Note: The maximum number of barcode digits you can specify in the barcode format is 40.

The barcode digit in the first column of the table is also entered in the traceability format, see page 79, so the machine knows how to print bovine details on the label.

Barcode digit	Used for	Example
0	Lot number	0000000 7 digit lot/batch number (maximum 20 digits)
1	Country of birth	11 2 digit 1st origin message (maximum 4 digits)
2	Country of fattening	22 2 digit 2nd origin message (maximum 4 digits)
3	Country of slaughter	33 2 digit 3rd origin message (maximum 4 digits)
4	Slaughter reference	44 2 digit slaughter reference (maximum 4 digits)
5	Cutting reference	55 2 digit cutting reference (maximum 4 digits)
6	Date of birth	666666 Date 1 (fixed digits)
7	Date of slaughter	777777 Date 2 (fixed digits)
8	Date format	888888 Date 3 (fixed digits)
9	Slaughter house reference	999999 (maximum 30 digits)
A	Cutting centre reference	AAAAAA (maximum 30 digits)
B	Text 3	BBBBBB (maximum 20 digits)
E	Country of cutting	EE 2 digit 4th origin message (maximum 4 digits)
I	Carcass number	IIIIIIII 8 digit carcass number (maximum 20 digits)
J	Whole life country	JJ 2 digit 5th origin message (maximum 4 digits)
Q	Scheme licence	QQQQQQ 6 digit scheme licence number (maximum 30 digits)
T	Breed of father	TT 2 digit breed message (maximum 4 digits)
U	Breed of mother	UU 2 digit breed message (maximum 4 digits)
V	Breed if mixed	VV 2 digit breed message (maximum 4 digits)
W	Category	WW 2 digit category message (maximum 4 digits)
Y	Type	YY 2 digit type message (maximum 4 digits)
L	Species	LL 2 digit species message (maximum 4 digits)

SVA barcodes

The SVA Scheme Emulation system ignores standard barcode templates and interprets proprietary barcodes containing check digits.

If the check digit does not validate you will see the message **Invalid Entry** and you will not be able to scan the barcode.

Note:

You can still use EAN128 standard barcodes when the SVA scheme is enabled.

7.7   Setting up the machine

1. System Data $\Rightarrow$ **9. Traceability** $\Rightarrow$ 2. Scheme   1. Create and Edit

Creating the traceability panel format

The traceability panel format defines:

- the text to be printed on the label.
- the type of data to be printed on the label.

Type the text to be printed on the label. Refer to the table in Figure 7.3 and enter the required substitution code to define the type of data to be printed with the text on the label.

The maximum number of characters that you can have in the traceability panel format is 2000 (including spaces).

Default traceability format

This is already set up in the machine and allows for both fixed barcodes and EAN standard barcodes.

Traceability panel format

↵Lot Number: %%0↵Slaughtered In: %%4%%3%%9↵Cutting In: %%5%%E%%A↵Born In: %%1↵Reared In: %%2

Label print out (text area 3)

Lot Number: 102354

Slaughtered In: UK (1143)

Cutting In: UK (19985)

Born In: Ireland

Reared In: Ireland

Figure 7.2   Traceability format and label printout

Substitution codes

AI (EAN128 only)	Traceability Code (%%)	Dewey Decimal	Data name	Typical use
10	0	%%+2.1%%	Lot number	Batch number (multiple animals)
422	1	%%+2.6.1%%	Origin 1	Country of birth
423	2	%%+2.23.2.1 - to - %%+2.23.2.5	Origin 2	Country of rearing (1 to 5)
7030	3, 9		Origin 3, Slaughter number	Country of slaughter, Slaughter house number
424	3	%%+2.6.3%%	Origin 3	Country of slaughter
	4		Slaughter reference	Slaughter reference
	5		Cutting reference	Cutting reference
	6		Date 1	Date of birth
	7		Date 2	Date of slaughter
	8		Date 3	Date 3
7031	A, E	%%+2.16#1	Processor centre 1	Country of cutting, Processor centre 1
7032 to 7039	A, E	%%+2.16#2 - %%+2.16#9	Processor centre (2 to 9)	Country of cutting, Processor centre 2 to 9
	B		Text 3	Miscellaneous text
425	E	%%+2.23.4.1 - to - %%+2.23.4.9	Origin 4	Country of cutting
	A	%%+2.24.1 - to - %%+2.24.9	Processor centre (1 to 9)	Processor centre (1 to 9)
251	I		Carcass reference number	Carcass number (single animal)
426	J	%%+2.6.5%%	Origin 5	Whole life country
	L		Species	Type of animal or product
953	Q	%%+2.13%%		Scheme licence number
	T		Race	Race of father
	U		Race of mother	Race of mother
	V		Race if mixed	Race if mixed
	W		Category	Animal category see page 76
	Y		Type	Type of end product see page 76
3103		%%+10.1.2%%		Net weight
3303		%%+10.1.1%%		Gross weight
15		%%+10.2#1%%		PLU date 1
17		%%+10.2#2%%		PLU date 2
3902		%%+5.1%%		Price with promo
8005		%%+5.5%%		Unit or item price

Figure 7.3   Table of codes

Note: When selecting a PLU with traceability enabled, the lot/carcass number is always displayed first followed by the remaining traceability information in the order in which it is stored in the carcass format.

7.8 Capturing the source data
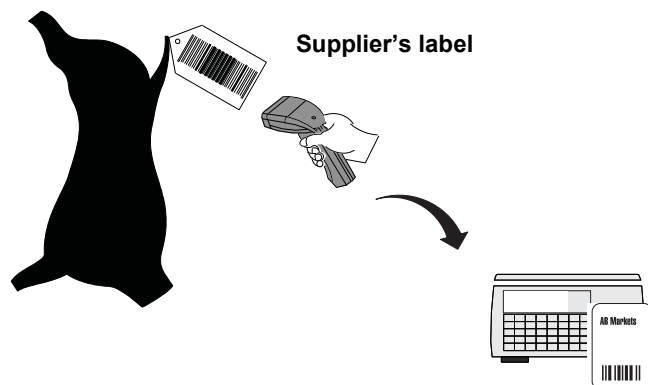
Supplier's label

The supplier attaches a barcoded label (traceability passport) to the carcass containing the information required.

Programming the machine with the same messages and data used by the supplier means that you can print the data defined in the traceability barcode on all labels for associated PLUs.

There are various ways in which the traceability data can be input to the machine.

• Use the Avery Berkel scanner to read the proprietary barcodes printed on the carcass labels by the supplier.

• Use the keyboard to enter the references for each data item when a product is selected.

• Use the Avery Berkel scanner to read the EAN128, PDF417 and GS1 barcodes containing all the required bovine data.

Note: When variable format barcodes are used it is possible that more than one barcode will be required to contain all the data. The system has been designed to cope with this.

Hash key

If a hash key has been assigned to the keyboard, you can enter the barcode digits manually:

1. Press ⌗

2. Type in the barcode digits

3. Press ↵

Use this method if you do not have a scanner or the scanner fails to read the barcode,

7.9 Pre-pack operation

The supplier attaches a barcode to the carcass which is scanned when the carcass is cut and pre-packed in store.

Text area 3

Lot Number:1000435
Slaughtered In:UK (1143)
Cutting In:UK (19985)
Born In:Ireland
Reared In:Ireland
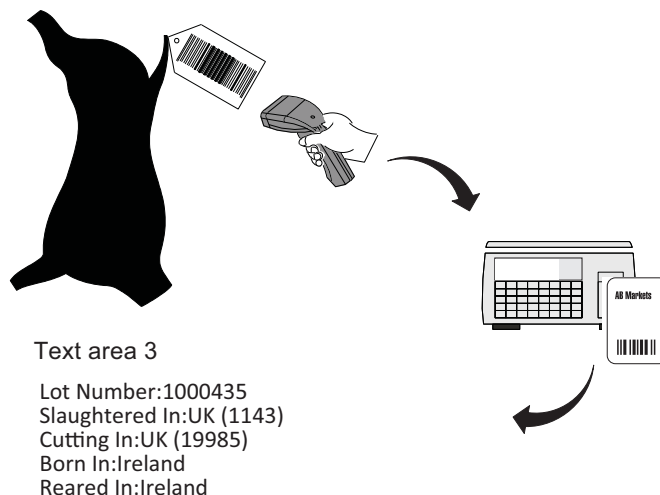
Note: You can press $\boxed{\#}$ and enter the barcode numbers directly if the barcode is not scannable.

When you select the PLU, the last carcass/lot number used is displayed. You can enter a new carcass or lot number if required.

Note: If lot number is enabled in the PLU and the panel text associated with the number contains text markers, the designated text is displayed instead of the lot number.

Category, origin and breed options, and dates are displayed in the order in which they are set in the print format. Carcass/Lot number is always displayed first.

If you see the message for any of the options enter the reference number for the origin message to be printed.

7.10   Traceability passport

A carcass may be delivered with a single barcoded label attached (traceability passport) containing all the information to provide full traceability for that animal.

The information received from the supplier may be contained across more than one barcode.

Barcode amalgamation

The traceability passport function allows you to amalgamate multiple barcodes into one traceability passport barcode.

Note: Barcode amalgamation only applies to EAN128 barcodes.

When the carcass has been split up for retail sale, the barcoded information is needed to create additional copies of the passport for scanning at the counter service point.

Passport label format.

Traceability schemes may be configured to use either

• The format defined in the machine

• These formats are programmed to suit the scheme.

Printing a duplicate passport

4. Machine Setup $\Rightarrow$ 1. Keyboard Setup $\Rightarrow$ 1. Key Assign $\Rightarrow$ 1. Standard Assign $\Rightarrow$ 19. Trac. Keys $\Rightarrow$

1. Edit Preset Trac

2. Trac. Passport

3. Pre-Weigh

20. Trac. Panel $\Rightarrow$ 1. By Lot Number

2. By Panel Number

You must use a suitable label format. The default label format is 90 for the machine passport format.

1.   Set up a traceability passport key for each carcass currently in use.

2.   Use these keys to create a sheet of duplicate passports.

3.   The operator scans the appropriate one for the transaction to print the required receipt or label.

To create a single passport barcode from one, two or three barcodes:

1.   Press $\boxed{\text{Pass-port}}$.

2.   Scan each of the supplier barcodes.

3.   Press to print the passport barcode.

BATCH NUMBER

(10)123456

CARCASS DETAILS

(422)616(423)056(7030)620213(7031)442312

CARCASS PASSPORT

(10)123456(422)616(423)056(7030)620213(7031)442312
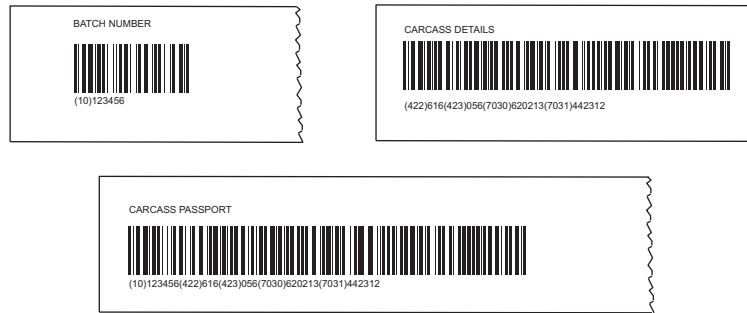
Figure 7.4   Sample barcode amalgamation

7.11   Pre-weigh function

You must be able to account for all the meat from a batch. The pre-weigh key enables you to pre-weigh meat for counter service. For example, when you move meat from the chill room to the counter.

Note: To use Pre-weigh you must assign a pre-weigh key to the sales keyboard. Pre-weighing may not be used in the presence of the customer.

Using pre-weigh:

1.   Select pre-weigh.

2.   Confirm the lot number.

3.   Weigh each cut from the carcass. The weight is added to the total pre-weight for that carcass or lot number.

4.   The new total pre-weigh value is displayed in the total display.

5.   Press when all the cuts from the carcass have been weighed, to print a report.

```
****Trac. Pre-Weigh****

02-08-2002                10:27


Lot Number                20011
Pre-Weighed          52.870 kg

****Report Complete****
```
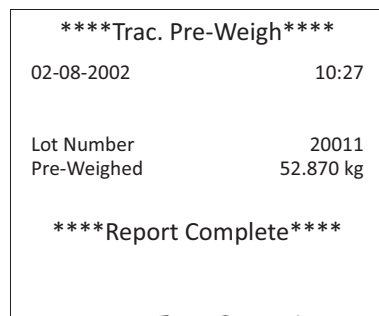
Figure 7.5   Traceability pre-weigh report

The weight limit and pre-weighed weight are included in the traceability totals report as separate fields.

Pre-weigh returns

There may be a requirement to take meat from the counter for pre-packing. If this happens it is necessary to adjust the pre-weigh total to account for the returns.

After selecting the pre-weigh function, use the Return key for the transactions and the returns value will be subtracted from the sales totals.

You must assign a pre-weigh key to the sales keyboard.

1.   Select pre-weigh

2.   Confirm the lot number

3.   Press Return.

4.   Weigh each cut from the carcass. The weight is added to the total pre-weight for that carcass or lot number.

The total return value is displayed as a negative value in the total display and is printed as a negative value on the Traceability pre-weigh report..

7.12 Counter service operation

In counter service you can scan the barcoded information from the tray label for the product, or you can type in the lot number at the keyboard and the machine will print it on the label or receipt.

Tray labelling

Where the product is packed in the presence of the customer, it is not necessary to print all the carcass/batch details on each label or receipt, provided that the information is clearly displayed and obviously intended for that product.

The system enables you to assign a panel key to print `tray labels' for use in this mode of operation. You can use this key to print a counter service tray label for each tray of product on sale.

Tray labelling can be used in non-preset and preset modes.

Setting up the key

1.   Create a PLU called `Tray Label'.

2.   Select a label format for the PLU that has the relevant text fields included.

Tray labels usually have larger print than pack labels and the field needs to be large enough to allow all the information to be printed.

3.   Enter the text required and the appropriate %% or Dewey Decimal codes in one of the PLU text fields.

4.   Step through the remaining options except unit or item price without entering any data.

5.   Select **Traceability On**.

6.   Assign the key to the sales keyboard.

Note: You will need to program the PLU with a nominal unit or item price, but check that the label format selected has no fields for printing weight or price information.

This tray contains:

Carcass Ref: 0112254
Slaughtered In: UK (112456)
Cutting In: UK (11224)
Born In   Ireland
Fattened In   Ireland
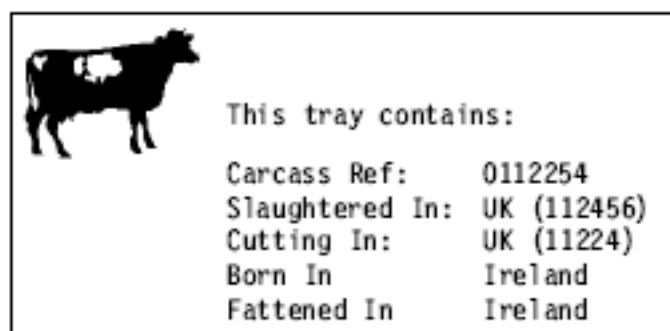
Figure 7.6   Tray label

Recall lot number

If preset mode is enabled, the panel key can be used to recall the lot number instead of scanning or entering the data for the tray label.

For details on assigning panel keys see section 7.13, page 85, Traceability panel (batch) keys.

7.13 Preset mode

If preset mode has been enabled in the scheme, the information printed on labels or receipts is held in a record file. Each record is referenced by a `batch' or lot number. The record file can be built at a host PC and sent to the machine or you can create or edit them at the machine.

Editing preset traceability in sales mode

When you select a PLU, the last used lot number is displayed. You can enter a new lot number at this point if required. If has been enabled for your scale the new lot number will be retained, replacing the programmed lot number in the PLU.

To create or edit a traceability record from the sales keyboard:

1.   Enter the scheme reference to be used.

2.   Enter the lot number.

3.   Enter the references to the appropriate data tables as you are prompted for them.

You can scan the barcode if you have a scanner at the machine, or use the # key to program data from the supplier barcodes, if the appropriate barcoded information is available.

If the record already exists, when you have finished entering data, you will see the message **Record Exists** followed by **Update Record ?**.

4.　Press to confirm that you want to update the traceability panel or press to cancel the changes.

If all 999 records are currently in use, when you try to create a new panel you will see the message **No Space Left** followed by **Delete Old Rec.?**.

The system uses the last pack date to select the oldest record.

5.　Press to confirm selection.

6.　Press | Edit Preset Carc | to view the next oldest record.

You can keep pressing | Edit Preset Carc | to step through the traceability records and press to delete any record no longer required.

If you need to delete old records by lot number or specific dates, see *Deleting old panel texts*.

Traceability panel (batch) keys

4. Machine Setup ⟹ **1. Keyboard Setup** ⟹ **1. Key Assign** ⟹ **1. Standard Assign** ⟹ **19. Trac. Keys** ⟹
1. Edit Preset Trac
2. Trac. Passport
3. Pre-Weigh

20. Trac. Panel ⟹
1. By Lot Number
2. By Panel Number

A lot number may refer to multiple carcasses or a batch providing:

• 　all share the same source (slaughter and cutting for animal products)

• 　all are processed on the same day (at the cutting centre for animal products)

• 　all share the other data printed on the label (mandatory or voluntary).

For schemes operating in preset mode, you can assign a lot number to a key. This means that instead of scanning or entering the details for each transaction, you can just press the appropriate key.

• 　Traceability/batch details can be assigned to a `panel' key on the sales keyboard.

• 　You can label the keys to suit your own requirements

• 　You can print labels or receipts, depending on how your machine is configured, or you can print tray labels for counter service.

7.14　Traceability Records

1. System Data ⟹ **9. Traceability** ⟹ **4. Records** ⟹ Create & Edit

• 　The system can store up to 999 records.

• 　You can download the records from a PC or create them at the machine.

• 　If you have an `edit preset trac' key assigned to the sales keyboard you can create or edit records in sales mode.

1.　Enter the scheme reference.

2.　Enter the lot number, then enter the **references** to the appropriate data tables see *Editing preset traceability in sales mode*, page 84.

Note: You cannot change weight or date limits when editing traceability records in sales mode.

To create or edit a record in manager mode:

1. Enter the lot or carcass number.
2. Enter the full text as you want it to be printed on the label. This is referred to as the **traceability panel text**.

Traceability panel text

↵Lot Number: 102354↵Slaughtered In: UK (1143)↵Cutting In: UK (19985)↵Born In: Ireland↵Reared In: Ireland

Printed result (text area 3)

Lot Number: 102354

Slaughtered In: UK (1143)

Cutting In: UK (19985)

Born In: Ireland

Reared In: Ireland

Figure 7.7   Traceability records

Note: You can scan the barcode for the lot number if you have a scanner at the machine, and the appropriate barcoded information is available.

Panel text

Each panel text can have up to a maximum text length of 420 characters. However, if you create a large number of panels you may have insufficient memory for them all to use the maximum. If there is not enough memory to store a panel you will see the message **No Space Left**.

Text markers

You can include text markers (two consecutive degree symbols) in the panel text to define the data to be displayed.:

• **One text marker (°) included.**

   the next 16 characters are displayed.

• **Two text markers (°° °°) included**

   the text between the markers is displayed.

• **No text markers included**

   the first 16 characters from the left will be shown.

Assigning records

There are two ways to assign traceability records to batch keys.

• When creating or editing a traceability record you can assign the record to a key on the sales keyboard.

• If the traceability file has been downloaded from the PC or you do not wish to edit the traceability record, you can assign traceability panel keys.

You can label the keys to suit your own requirements.

7.15   Lot number in PLUs

In preset mode, you can assign a lot number previously programmed in the traceability records to a PLU.

This means that you can:

• Set up default lot numbers for PLUs which do not often need the lot number changed.

• Link a set of common traceability panels to PLUs requiring traceability information.

Enabling PLU lot number

When creating or editing the PLU, you can enable a lot number. When the lot number is entered, if a traceability record exists, the panel text is displayed. At this point you can confirm the selection or enter a different lot number for use with the PLU.

If you want a different lot number, you can enter the new number when the current lot number is displayed or when the panel text is displayed.

If you enter a lot number for a traceability record using a different scheme reference you will see the message **Wrong Scheme Ref**.

If no record exists you will see the message **Record not found** followed by the message **Add New Record?**

The data is used as long as the PLU is not changed, allowing you to label batches.

Change lot number

1. System Data $\Rightarrow$ **1. Products** $\Rightarrow$ 6. Change Lot Num.

This function allows quick changes of the panel reference linked to the PLU. You can assign a `hot' key to the function and program a security level if required.

Retaining the lot number

In pre-pack mode, whenever you select a PLU the last lot number used is displayed. Enter a new lot number at this stage if required. You can now choose whether to save the new lot number in the PLU overwriting the previous lot number

If **Retain Lot** is disabled the next time the PLU is recalled it will revert to the lot number programmed in the PLU record.

If **Retain Lot** is enabled the new lot number will be retained replacing the programmed lot number in the PLU.

Enable or disable **Retain Lot** in the traceability menus in Manager Mode.

PLU file list

- If traceability and lot number are enabled for the PLU, then the lot number will be printed in the PLU file list.
- If traceability is enabled and lot number is disabled for the PLU, then the lot number will be printed as **No** in the PLU file list.
- If traceability is off, no lot number will be shown in the PLU file list.

7.16   Deleting old panel texts

1. System Data $\Rightarrow$ **9. Traceability** $\Rightarrow$ **4. Records** $\Rightarrow$ 1. Delete by Number

2. Delete by Date

3. Delete All

If all the 999 traceability records have been used, you will need to delete old records before you can create any new panels.

You can delete panel texts by:

- Lot number
- Specific dates
- By last pack date

or you can delete all panels.

You can delete old traceability panels by last pack date from the sales keyboard, see section 7.13, page 84.

Chapter 8 Reporting Functions

2. Reports ⟹	**1. Totals Report** ⟹	1. X Reports
		2. Z Reports
		3. X2 Reports
		4. Z2 Reports
		5. Report Setup
		6. Trac. Totals
		7. Pack Run Totals
		8. Batch Reports
	2. Data Report ⟹	1. PLU File List
		2. Verify Labels
		3. Operators Report
		4. Text Report
		5. Discount List
		6. Security Level
		7. Payment Key List
		8. Account List
		9. Promo Batch List
		10. Trac. Reports
		11. Barcode List
		12. Logo List
		13. Tax Rate List
		14. Tare Weight List
		15. AI List
		16. Nutri Reports
		17. Pack Run List
		18. Info Label List
		19. Voucher List
		20. Batch Report Lst
		21. Email Reports
		22. Keyboard Report
		23. PLU Data Print
		24. Mix n Match
	3. Trans. Reports ⟹	1. Live
		2. Print Trans.
		3. Sub-Totalised
	4. Log Report ⟹	1. Security Log
		2. Event Log
		3. Alert Log
	5. Define Filters ⟹	

The XS scale's **Reports** menu provide access to a comprehensive range of reporting functions which allow you to make a printed record of both the scale's sales operation and its configuration.

• Totals for some reports are updated whenever a label or receipt has been printed successfully.

- You must be in Manager Mode to print a report.

- You can assign a security level to any report.

8.1 Report printing

To print a report:

1. Navigate to the required report.

2. Press '

3. To stop a report printing press .

Missing fields

If there is no data for a particular field then that field is not printed on the report. For example, if you are printing a Grand or Operator report and no voids have been registered then the Void Value and Void Count lines are not printed.

Sales value

Sales values show actual turnover.

Sales totals

Are not reduced by refunds or returns, but are reduced by Negative PLUs.

Note: Reports can be printed on receipt rolls or labels. When printing to labels, the label gaps are skipped so that no data is lost.

8.2   Totals reports

2. Reports ⟹ **1. Totals Report** ⟹ **1. X Reports** ⟹

1. Grand Totals

2. Department Total

3. Machine Totals

4. Operator Totals

5. Hourly Totals

6. Plu Totals

7. Group Totals

8. Discount Totals

9. Promotion Totals

10. Security Report

11. System Cash

2. Z Reports ⟹

1. Grand Totals

2. Department Total

3. Machine Totals

4. Operator Totals

5. Hourly Totals

6. Plu Totals

7. Group Totals

8. Discount Totals

9. Promotion Totals

10. Security Report

11. System Cash

12. Clear All Totals

3. X2 Reports ⟹

1. Grand Totals

2. Department Total

3. Machine Totals

4. Operator Totals

5. Hourly Totals

6. Plu Totals

7. Group Totals

8. Discount Totals

9. Promotion Totals

10. Security Report

11. System Cash

4. Z2 Reports ⟹

1. Grand Totals

2. Department Total

3. Machine Totals

4. Operator Totals

5. Hourly Totals

7. Plu Totals

8. Group Totals

9. Discount Totals

5. Report Setup $\Rightarrow$

6. Trac. Totals $\Rightarrow$

X, X2, Z and Z2 Reports

An **X** report prints the totals for period 1 and does not reset any totals data - the totals for that category are carried forward.

An **X2** report prints the totals for period 2 and does not reset any totals data - the totals for that category are carried forward.

A **Z** report prints the **X** totals for period 1 and then resets those totals - the totals are cleared and the relevant clearing date in the security report is updated. .

A **Z2** report prints the totals for period 2 and then resets those totals - the totals are cleared and the relevant clearing date in the security report is updated..

Note: If the report printing fails for any reason or you abort the report printing, the totals will be unchanged.

Within these report types you can print any of the following totals reports:

1	Grand Totals	2	Operator Totals	3	Group Totals	4	Security report
5	Department totals	6	Hourly totals	7	Discount Totals	8	System cash
9	Machine Totals	10	PLU Totals	11	Promotion Totals		

The clearing reports menus also provide the option to **Clear All Totals**.

Report setup

2. Reports $\Rightarrow$ **1. Totals Report** $\Rightarrow$ 5. Report Setup

In **Report Setup** you can configure the way in which you want the reports printed. The choices you make will apply to all the machines on the system. You can select either single or two period reporting. Two period reporting enables you to obtain totals covering two different trading periods, for example daily and weekly. The default setting is for single period reporting.

The reporting periods are:

• **X** and **X2** for non clearing reports

• **Z** and **Z2** for clearing reports

Use the <up> and <down> keys to select the following options:

• X and X2 Totals or X Totals Only

• PLU Totals Yes or PLU Totals No

• Amount Entry OFF or Amount Entry ON or Amount Auto

• Short Cash Rpr or Full Cash Rprt

• PRun Totals No or PRun Totals Yes

PLU totals

If you do not require PLU totals from the scale, disabling them makes more memory available for PLU storage at the scale.

Amount Entry ON

You must enter the value of each type of payment in the cash drawer before printing a Z machine totals report. You will only be prompted to enter values for payment types that have been enabled in the payment programming table (see User Instructions Part One,). You may enter zero values. Any discrepancies between the expected values and the values entered will be printed.

Amount Entry OFF

You will not be prompted to enter drawer values and discrepancies will not be printed in the report.

Amount Auto

You will only be prompted to enter values for payment types actually taken.

When requesting the amounts in the drawer, If enforce value has been enabled for a payment type, you must enter a

value or zero. If enforce value is disabled you may press to skip the entry.

If you have selected **Amount Entry ON** or **Amount Auto**, when printing Z Grand Total reports, all the amounts entered are accumulated into a single declared value and printed after the sequence numbers at the top of the report.

Cash report

The cash report configuration applies to **X** and **X2** machine reports only. If you select **Short Cash Rprt** a summary machine report is printed that does not list the payment types.

The report will include tax totals.

Note: Only non zero tax totals are printed.

Tax totals are part of the grand totals command and therefore can only be cleared when the grand totals are run and not when the cash report is run.

Note: The valid tax totals period is printed with the tax summary which can be different from the period of the cash report.

Report numbering

Each totals report has its own sequential number for security purposes. There are four separate number sequences, one each for X, X2, Z and Z2 reports. The number is incremented each time you print a report.

Report fields

* indicates the reports that include this field

** indicates fields that only appear on Z reports.

Field name	Description	Grand	Department	Machine	Operator	Hourlyr	PLU	Group	Discount	Promotion	System
Sales value	Value of all transactions in PoS mode	*	*	*	*	*	*	*		*	*
Sales weight/ items	Weight/items sold						*			*	
Counter value	Value of all transactions in non-PoS mode	*	*	*	*	*	*	*			*
Counter weight/items	Weight/items labelled						*				
Pre-pack value	Value of all transactions in Pre-pack mode	*	*	*	*	*	*	*			*
Pre-pack weight/items	Weight/items pre-packed						*				
Transactions	Total number of transactions (Sales + Counter + Pre-pack)	*	*	*	*	*	*	*			*
Customer	Total number of receipts + Total ADD labels	*	*	*	*	*					*
Training value	Value of all transactions in training mode			*	*	*					*
Override value	Value of override transactions	*	*	*	*	*					*
Override count	Total number of overrides	*	*	*	*	*					*
Void value	Value of void transactions	*	*	*	*	*					*
Void count	Total number of voids	*	*	*	*	*					*
Return value	Value of return transactions	*	*	*	*	*		*			*
Return count	Total number of returns	*	*	*	*	*		*			*

Field name	Description	Grand	Department	Machine	Operator	Hourlyr	PLU	Group	Discount	Promotion	System
Return weight/items	Weight/items returned						*				
Refund value	Value of refund transaction	*	*	*	*	*					*
Refund count	Total number of refunds	*	*	*	*	*					*
Discount value	Value of all discounts	*	*	*	*	*			*		*
Discount count	Total number of discounts	*	*	*	*	*			*		*
No Sale count	Total number of No Sales	*	*	*	*	*					*
Pick Up value**	Amount of Pick Up			*	*	*					*
Pick Up count	Total number of Pick Ups			*	*	*					*
Float value**	Amount of Float			*	*	*					*
Paid Out value**	Amount paid out			*	*	*					*
Paid Out count	Total number of Paid Outs			*	*	*					*
Local Cash value**	Value of local cash payments			*	*	*					*
Payment value**	Value of each payment type (not local cash)			*	*	*					*
Received on Account	Value of payments received on account			*	*	*					*
Promotion cost	Difference between sales value at standard price and sales value at promotion price									*	*
Batch value	Sales during the promo period									*	*
Batch cost	Difference between sales value at standard price and sales value at promotion price during the promo period									*	*
Payment usage	The number of payments taken for each payment type.			*							*

Grand totals report

A Grand total consolidates data from PLU, Operator, Department, Machine, Group and Discount reports for each machine on the system and prints a report of the total sales. It also provides a tax breakdown for the entire system. Net sales value and tax value are calculated according to whether the tax system in use is inclusive or exclusive.

You can select either X or Z totals to print. If you select the X total, the totals are carried forward and are not cleared. If you select the Z total, the totals are cleared.

```
          Grand Report                         Grand Report

X Report              0001#0012       Z Report              0001#0013
03-08-2002                13:28       03-08-2002                13:29

Sequence Numbers 0012:0012            Sequence Numbers 0012:0013
Sales Value           £949.25         Declared              £950.03
Counter Value           £7.19
PrePack Value           £5.84         Sales Value           £949.25
Transactions               58         Counter Value           £7.19
Customers                  23         PrePack Value           £5.84
Override                £3.29         Transactions               58
Override Count              8         Customers                  23
Voids Value             £0.36         Override                £3.29
Voids Count                 1         Override Count              8
Return Value           £14.80         Voids Value             £0.36
Return Trans                4         Voids Count                 1
Refund Value           £14.80         Return Value           £14.80
Refund Trans                4         Return Trans                4
                                      Refund Value           £14.80
Tax Ref 0               0.00%         Refund Trans                4
Sales Value           £774.66
Tax Value               £0.00         Tax Ref 0               0.00%
Net Sales Value       £774.66         Sales Value           £774.66
                                      Tax Value               £0.00
Tax Ref 1              10.00%         Net Sales Value       £774.66
Sales Value           £174.59
Tax Value              £15.87         Tax Ref 1              10.00%
Net Sales Value       £158.72         Sales Value           £174.59
                                      Tax Value              £15.87
From:      02-08-2002 13:35           Net Sales Value       £158.72

To:        03-08-2002 13:28           From:      02-08-2002 13:35

                                      To:        03-08-2002 13:28
       Report Complete
                                             Report Complete
```

Figure 8.1   Grand totals reports

Machine totals report

The machine report gives totals for each machine. You can print a report for an individual machine or all machines.

If you select a consolidated cash up report is printed at the end of Z reports,.

Note: Returns value and Returns Trans are printed if return transactions are not zero.

```
              Machine Report                    Return Value            £ 2.46
                                                Return Trans                 1
   Z Report                0001#0004            Refund                 £ 1.90
   02-08-2002                    18:28          Refund Count               1
                                                Discount Value         £ 2.50
   Sequence Numbers 0002:0004                   Discount Count             5
   Machine Start                    1           No Sale Count              1
   Machine End                      4           Pick Up Count              1
                                                Paid Out Count             1
   Machine ID                       1
                                                - - - - - - - - - - - - - - -
   Performance Data
   Sales Value              £ 807.47                  Cashup Report
   Counter Value            £ 0.40
   Transactions                   127           - - - - - - - - - - - - - - -
   Customers                       84
                                                Cash                 £ 702.53
   Exceptional Data                             Cheque               £ 695.35
   Voids Value              £ 0.66              Card                 £ 327.15
   Voids Count                      1           Account              £ 250.25
   Return Value             £ 5.60              Coupon                £ 23.70
   Return Trans                     2           Total               £ 1998.98
   Refund                  £ 10.10
   Refund Count                     2           Float                £ 500.00
   Discount Value          £ 11.10             Paid Out              -£ 5.00
   Discount Count                   3           Pick Up             -£ 750.00
   No Sale Count                    2           Drawer Value        £ 1743.98
   Pick Up Count                    1
   Paid Out Count                   1           Discrepencies
   Rcvd On Accnt.          £ 150.00                        Declared   Difference
                                                Cash    £    704.53        2.00
   Machine ID                       2           Cheque £    675.35  -     - 20.00

   Performance Data
   Sales Value             £ 317.43            From:       02-08-2002 06:30
   PrePack Value           £ 210.40
                                               To:         02-08-2002 18:29


                                                      Report Complete
```

Figure 8.2   Machine Totals report (clearing)

Operator totals report

The machine stores both trading and training totals. The report includes all transactions assigned to the operator and prints the training value, if any, on a separate line. Depending on how your machine is configured, a receipt item count may be printed.

You can choose to print the report for an individual operator or all operators.

```
         Operator Report                    Transactions              23
                                            Customers                  8
X Report              0001#0004
02-08-2002              18:29                   Operator Num 14

Sequence Numbers 0001:0004               ANNE
Operator Start              0
Operator End               99            Performance Data
                                         Sales Value           £873.54
      Operator Num 1                     Transactions             181
                                         Customers                 66
SANDRA
                                         Exceptional Data
Performance Data                         Voids Value            £14.66
Sales Value           £633.57            Voids Count                4
PrePack Value          £59.20            Return Value            £2.46
Transactions             103             Return Trans               1
Customers                 58
             4
Exceptional Data                         From:         02-08-2002 15:30
Voids Value            £14.66
Voids Count                4             To:           02-08-2002 18:29
Return Value            £2.46
Return Trans               1
                                              Report Complete
      Operator Num 2

MARIA
```

Figure 8.3   Operator totals report (non-clearing)

Hourly totals report

Hourly reports allow you to monitor trading patterns throughout the day. You should clear hourly totals daily if you want to ensure that totals from the previous day are not included with the current day. You can print the reports for each hour or for each half hour period throughout the day. Clearing either report also clears the other one.

Note: The first hour of the day is 00:00 to 00:59. If no trading has taken place during an hour or half hour period that period is not listed.

```
        Hourly Report                         Hourly Report

Z Report              0001#0035          Z Report              0001#0035
02-08-2003              12:00            02-08-2003              12:00

Sequence Numbers 0001:0035
     Time  08:00-08:59                        Time  08:30-08:59

Sales Value           £107.47            Sales Value           £107.47
Transactions              13             Transactions              13
Customers                  5             Customers                  5

     Time  09:00-09:59                        Time  09:00-09:29

Sales Value           £141.78            Sales Value           £101.68
Counter Value          £16.79            Counter Value          £10.28
PrePack Value          £23.84            PrePack Value          £23.84
Transactions              31             Transactions              23
Customers                 13             Customers                 10

     Time  10:00-10:59                        Time  09:30-09:59

Sales Value           £102.18            Sales Value            £40.10
PrePack Value          £27.03            Counter Value           £6.51
Transactions              23             Transactions               8
Customers                 11             Customers                  3

     Time  11:00-11:59
                                              Report Complete
Sales Value           £165.24
Counter Value          £50.32
PrePack Value          £56.99
Transactions              43
```

Figure 8.4   Hourly report (clearing)

PLU, department and group reports

These are sales analysis reports and show counter, sales and prepack values for each PLU, department or group.

PLU, department and group reports can be listed in various formats (see page page 97) to help you analyse sales more easily.

Note: Returns value and Returns Trans are printed only if return transactions are not zero.

You can choose to print the report for an individual department or group, or all departments or groups.

```
        Department Report

X Report                    0001#0016
02-08-2002                      18:25


Sequence Numbers 0003:0016
Dept. Start                         2
Dept. End                           2

          Department 2

BAKERY
Sales Value                   £183.97
Sales Items                        86
Counter Value                  £59.20
Counter Items                      43
Return Value                   £12.87
Return Items                       13
Return Trans                        1
Transactions                      120
Customers                          72

From:          02-08-2002 16:31

To:            02-08-2002 18:25


       Report Complete
```

```
          Group Report

X Report                    0001#0017
02-08-2002                      18:26


Group Start                         1
Group End                           1

        Group Number 1

BREAD
Sales Value                   £121.77
Sales Items                        62
Counter Value                  £29.10
Counter Items                      21
Return Value                   £12.87
Return Items                       13
Return Trans                        1
Transactions                       79
Customers                          52

From:          02-08-2002 16:30

To:            02-08-2002 18:26


       Report Complete
```

Figure 8.5   Department and Group reports

Printing PLU reports

You can choose to print PLU reports with the information sorted by PLU number, counter, sales or transactions.

Using the **Define Filter** menu you can specify either an individual PLU or a range of PLUs for listing PLU totals. To print the totals for one PLU only, enter the same PLU number for both the start and end value.

Note: PLU totals reports include weight and items.

```
            PLU Report

X Report                0001#0019
02-08-2002                  18:25


Sequence Numbers 0001:0019
Dept. Start                     0
Dept. End                       9
PLU Start                       1
PLU End                         3
Group Start                     0
Group End                       9


Sorted By                 PLU No.
- - - - - - - - - - - - - - - - -
          Department 2

BAKERY
- - - - - - - - - - - - - - - - -
            PLU 2001

CARROT CAKE
Sales Value                £83.97
Sales Items                    76
Counter Value              £59.20
Counter Items                  43
Return Trans                    1
Return Value                £2.86
Return Items                    3

            PLU 2002

BAGUETTE
Sales Value               £121.77
Sales Items                    62
Counter Value              £29.10
```

```
LARGE WHOLEMEAL
Sales Value                £97.44
Sales Items                   116
Counter Value              £27.84
Counter Items                  24
Return Trans                    1
Return Value                £2.52
Return Items                    3
- - - - - - - - - - - - - - - - -
             Summary
- - - - - - - - - - - - - - - - -


Number of PLUs                  3
PLU Totals                Enabled

Sales Value                £97.44
Sales Items                   116
Counter Value              £27.84

From:        02-08-2002 16:30
To:          02-08-2002 18:26


          Report Complete
```

Figure 8.6   PLU report (non-clearing)

Discount totals report

Discount totals include manual transaction and receipt discounts.

```
           Discount Report

X Report                0001#0006
02-08-2002                  18:27

Sequence Numbers 0004:0006
             Discount 1

MANAGER SPECIAL
Discount Value            £150.00
Discount Count                 30

             Discount 2

LOYALTY BONUS
Discount Value            £753.06
Discount Count                497

From:        02-08-2002 18:30
To:          03-08-2002 18:26
```

Figure 8.7   Discount report

Promotion totals report

You can select to print promotion totals by:

• single batch

• all batches

• PLU number

Batch promotion reports include the promo batch name, start and end dates, sales value and quantity for each PLU and the promotion cost. The promotion cost is the difference between selling at the standard price and the sales value at the promotion price. PLU totals are included, even if they are zero, to assist with promotion analysis.

Reports printed by PLU number will show the totals for all PLUs on promotion whether they are linked to a batch or not.

```
***Promotion Report***

X Report                0001#0008
03-11-2003                  08:09

Sequence Numbers 0001:0008
Dept. Start                     0
Dept. End                       3
PLU Start                       1
PLU End         9999999999999
Group Start                     0
Group End                      99

Batch Start                     7
Batch End                       7

Promotion Batch                 1
EARLY BIRD SPECIAL
From:          03-11 2003   06:00
To:            03-11 2003   08:00

          Department 3
- - - - - - - - - - - - - - - - -
BEVERAGES
- - - - - -  PLU 00313  - - - - -

TEA BAGS
Promotion Value           £83.32
Promotion Cost             £8.70
Promotion Items               77

- - - - - -  Department 4  - - - -
DAIRY
- - - - - - - - - - - - - - - - -
          PLU 00413

MILK ILTR
Promotion Value           £14.18
Promotion Cost             £2.48
Promotion Items               34
- - - - - - - - - - - - - - - - -
          Summary
- - - - - - - - - - - - - - - - -
Number of PLUs                 2

From:         02-11-2032 08:20
To:           03-11-2003 08:09
    ****Report Complete****
```

by Batch

```
***Promotion Report***

X Report                0001#0039
03-11-2003                  18:26

Dept. Start                     2
Dept. End                       2
PLU Start                       1
PLU End         9999999999999
Group Start                     0
Group End                      99
- - - - - -  Department 2  - - - -
BAKERY
- - - - - - - - - - - - - - - - -
          PLU 2001

CARROT CAKE
Promotion Value           £23.76
Promotion Cost             £4.80
Promotion Items               24

          PLU 2002

BAGUETTE
Promotion Value           £52.08
Promotion Cost            £26.04
Promotion Items               62

- - - - - - - - - - - - - - - - -
          Summary
- - - - - - - - - - - - - - - - -
Number of PLUs                 2

From:         03-11-2003 16:31
To:           03-11-2003 18:26
    ****Report Complete****
```

by PLU

Figure 8.8   Promotion report (non-clearing)

Security report

Security reports are non-clearing reports and list:

• the sequence numbers for the Z reports

• the sequence numbers for the Z2 reports

• the date and time of the last Z report for each report type

• the date and time of the last Z2 report for each report type

```
        ****Security Report****                    ****Security Report****

X Report                0001#0000          Z Report                0001#0000
02-08-2003                   18:03         3-08-2003                   13:04


           Sequence Numbers                          Sequence Numbers

                     X        Z                               X        Z
PLU                 11        9             PLU                12        9
Promo               11        9             Promo              12       10
Operator            11        9             Operator           12        9
Grand               11        9             Grand              12        9
Dept                11        9             Dept               12       10
Machine             11        9             Machine            12       10
Group               11        9             Group              12        9
Discount            11        9             Discount           12        9
Clear All           11        9             Clear All          12        9
System              11        9             System             12        9

          Z Clearing Dates                          Z Clearing Dates

PLU          02-08-03       18.00          PLU          02-08-03       18.00
Promo        02-08-03       18.00          Promo        03-08-03       13.00
Operator     02-08-03       18.00          Operator     02-08-03       18.00
Grand        02-08-03       18.00          Grand        02-08-03       18.00
Dept         02-08-03       18.00          Dept         03-08-03       13.00
Machine      02-08-03       18.00          Machine      03-08-03       13.00
Group        02-08-03       18.00          Group        02-08-03       18.00
Discount     02-08-03       18.00          Discount     02-08-03       18.00
Clear All    02-08-03       18.00          Clear All    02-08-03       18.00
System       02-08-03       18.00          System       02-08-03       18.00

      ****Report Complete****                   ****Report Complete****
```

Figure 8.9   Security report (non-clearing)

Clear All Totals

This function is only available with Z Totals. It clears all totals except carcass totals.

System cash report

The accumulated Z totals and the declared payment values for all the machines being cashed up are added into the system cash totals. If the machines are configured for two period reporting both X and X2 reports are updated.

Detailed cash reports are always printed for system cash reports.

Clear All Totals does not clear the system cash report. These reports can only be cleared by printing the Z or Z2 system cash reports corresponding to the X reports.

```
              System Cash Report

Z Report                    0001#0005
02-08-2002                      18:30

Performance Data
Sales Value                   £ 807.47
Counter Value                   £ 0.40
Transactions                        127
Customers                            84

Exceptional Data
Voids Value                     £ 0.66
Voids Count                           1
Return Value                    £ 5.60
Return Trans                          2
Refund                         £ 10.10
Refund Count                          2
Discount Value                 £ 11.10
Discount Count                        3
No Sale Count                         2
Pick Up Count                         1
Paid Out Count                        1
Rcvd On Accnt.                £ 150.00
```

```
              Cashup Report


Cash                         £ 702.53
Cheque                       £ 695.35
Card                         £ 327.15
Account                      £ 250.25
Coupon                        £ 23.70
Total                       £ 1998.98

Float                        £ 500.00
Paid Out                      -£ 5.00
Pick Up                     -£ 750.00
Drawer Value                £ 1743.98

Discrepencies
                     Declared    Difference
Cash    £            702.53          2.53
Cheque  £            695.35         25.00


From:          02-08-2002 06:30

To:            02-08-2002 18:29


           Report Complete
```

Figure 8.10   System cash report

8.3   Traceability totals report

2. Reports ⟹   **1. Totals Report** ⟹   **6. Trac. Totals** ⟹   1. By Lot Number

2. By Date

Traceability totals are non-clearing. The report is an audit trail of the last 100 batches/carcases stored in memory.

You can choose to print traceability totals by date or by lot number. If you select lot number a report is printed for the lot number you enter. If you select date a report is printed for all the lot numbers that have been updated since the date entered.

Weight used is the total used weight of the batch/carcass and is incremented each time a standard or pre-weighed transaction is completed. As this value is non-clearing, you can always use it as a check against the weight of the batch/carcass

The date that a lot number was last updated in any way is printed at the end of the details.

```
          **Traceability Report**

03-08-03                          15:10


              Lot Number 20011

Weight                          12.800kg
Counter Weight                   3.720kg
Pre-Pack Weight                  5.455kg
Pre-Weighed                      6.000kg
- - - - - - - - - - - - - - - - - - - - - -
Weight Used                    123.652kg
- - - - - - - - - - - - - - - - - - - - - -
Weight Limit                   272.768kg

              Additional Data

Sales Value                      £118.85
Transactions                          35
Pre-Weigh Return                1.320 kg
First Used        24-03-05        09:11
Last Updated      03-05-05        08:45
Expiry Date                     06-05-05

          ****Report Complete****
```

Figure 8.11   Traceability report (non-clearing)

8.4   Pack run totals

1. Totals Report ⟹ **7. Pack Run Totals** ⟹ **1. Print** ⟹   1. Outstanding PRun

2. Completed PRun ⟹ 1. By Order Number ⟹ 1. Summary Report

2. Detailed Report

2. By Customer Ref. ⟹ 1. Summary Report

2. Detailed Report

3. By Pack Run Ref. ⟹ 1. Summary Report

2. Detailed Report

2. Clear ⟹   1. Outstanding PRun

2. Completed PRun ⟹ 1. By Order Number

2. By Customer Ref.

3. By Pack Run Ref.

Outstanding Pack runs

This report lists any incomplete pack runs against the pack run reference number. The report includes:

- order number

- customer reference number

- packs, cartons, boxes packed

- target values for level 1, level 2 and level 3.

Completed pack runs

You can print completed pack run totals by order number, customer reference number or by pack run reference. For each type of report you can select either summary or detailed.

Summary reports list against each pack run

- order number or customer reference (depending on type of report selected).

- tare weight

- number of items
- number of packs
- number of cartons
- number of boxes
- total weight or items
- total price

Detailed reports also print the details for each transaction in the pack run.

8.5   Batch reports

You can group frequently used reports in a batch and assign a key to the keyboard for printing the batch. This has the advantage of allowing you to print a group of reports from a single key press when in Manager Mode.

Batch setup

You can create up to five batches and program each batch with the following information:

- Batch report reference   (1 - 5)
- Batch name   (20 characters max)
- Batch security level   (0 - 9)
- Totals reports   (up to 9 reports)
- Totals type (X, X2, Z, Z2)   (for each report)

Each batch can contain up to nine reports. The number of reports in the batch is displayed on screen during . Each time you select or disable a report the number is updated.

Selecting reports

Each batch can contain up to nine reports.

1.   Create the batch and assign a security level.

2.   Select the type of report required.

3.   Select the report. The number of reports selected is displayed on screen.

4.   Repeat step 3 until you have selected all the reports you want to include in the batch (maximum 9).

5.   Select **disabled** from the report type list.

6.   Assign the batch report key or press <Enter>.

8.6   Printing data reports

Data reports comprise the PLU file list and lists of the data tables and messages set up. A printout provides you with a reference copy of information programmed at the machine.

2. Reports ⟹   **2. Data Report** ⟹   1. PLU File List

2. Verify Labels

3. Operators Report

4. Text Report

5. Discount List

6. Security Level ⟹   1. Sales Security

2. Manager Security

7. Payment Key List

8. Account List

9. Promo Batch List

10. Trac. Reports ⟹
- 1. Tables
- 2. Scheme
- 3. Setup
- 4. Records ⟹
  - 1. By Lot Number
  - 2. All
- 5. Scanner Input

11. Barcode List

12. Logo List ⟹
- 1. Single Logo
- 2. Predefined Logos
- 3. All Logos

13. Tax Rate List

14. Tare Weight List

15. AI List

16. Nutri Reports ⟹
- 1. Nutrient List
- 2. Nutri Data List

17. Pack Run List ⟹
- 1. Pack Run Stores
- 2. PRun Data Names

18. Info Label List

19. Voucher List

20. Batch Report Lst

21. Email Reports ⟹
- 1. Email Details
- 2. Alert Details

22. Keyboard Report ⟹
- 1. Summary
- 2. Detailed

23. PLU Data Print

24. Mix n Match

Data report examples

```
        ***Operators Report***

03-08-2002                    12.05
Operator Num 1

SANDRA
Security Level                     1
Trading
Logged On
Operator Num 2

MARIA
Security Level                     1
Trading
Logged Off
Operator Num 3

PAUL
Security Level                     5
Trading
Logged Off
Operator Num 4

ANNE
Security Level                     9
Trading
Logged Off

      ****Report Complete****
```
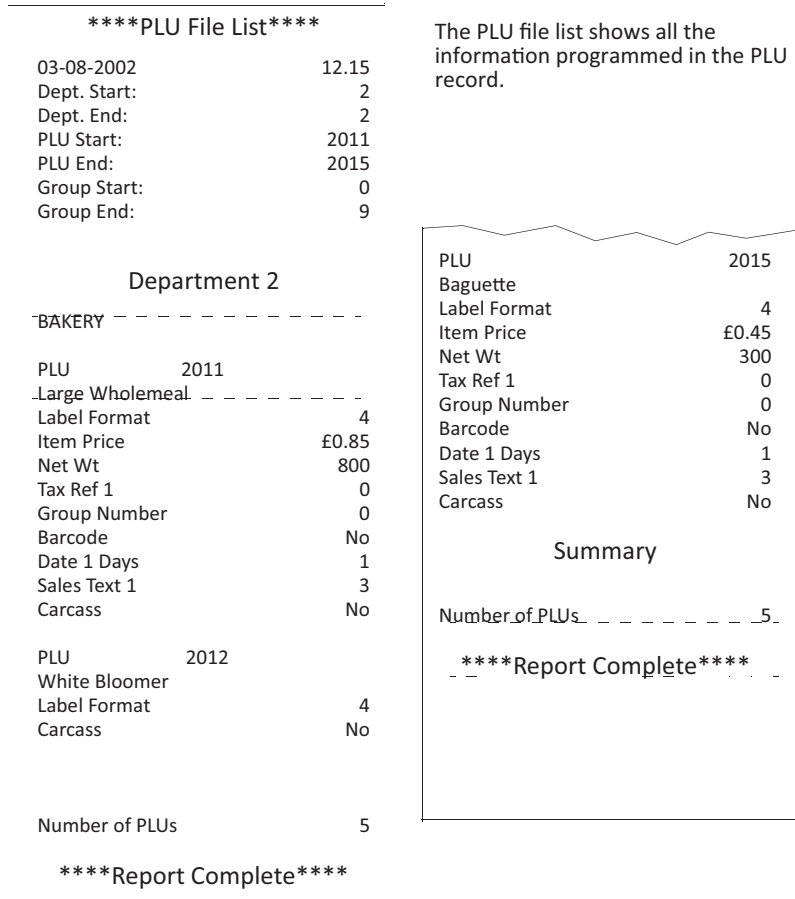
```
        *****Discount List*****

03-08-2002                    12.07
Discount 1

BULK BUY
Percentage                        5%
Security Level                     1
Discount 2

ONE DAY SPECIAL
Value                         £5.00
Security Level                     2

      ****Report Complete****
```

```
        ****Sales Security****

03-08-2002                    12.09

Void                               5
UP/PLU                             0
Pos Non Weighed                    0
Neg Non Weighed                    0
Receipt/Label                      9
Metric Switch                      9
Override                           5
Price Base                         0
Non Add                            0
Returns                            1
Refund                             5
No Sale                            1
Float                              5
Pick Up                            7
Paid Out                           7
Account                            0

      ****Report Complete****
```

Figure 8.12   Data report examples

Listing the PLU file list

Depending on the filter criteria defined for the machine you can list:

•   All the PLUs

•   A range of PLUs

•   PLUs in a selected range of departments

```
****PLU File List****

03-08-2002                    12.15
Dept. Start:                      2
Dept. End:                        2
PLU Start:                     2011
PLU End:                       2015
Group Start:                      0
Group End:                        9


         Department 2

BAKERY


PLU            2011
Large Wholemeal
Label Format                      4
Item Price                    £0.85
Net Wt                          800
Tax Ref 1                         0
Group Number                      0
Barcode                          No
Date 1 Days                       1
Sales Text 1                      3
Carcass                          No

PLU            2012
White Bloomer
Label Format                      4
Carcass                          No



Number of PLUs                    5

    ****Report Complete****
```

```
PLU                            2015
Baguette
Label Format                      4
Item Price                    £0.45
Net Wt                          300
Tax Ref 1                         0
Group Number                      0
Barcode                          No
Date 1 Days                       1
Sales Text 1                      3
Carcass                          No

            Summary


Number of PLUs                    5

    ****Report Complete****
```

The PLU file list shows all the information programmed in the PLU record.

Figure 8.13   PLU file list

Verify labels

This function prints out the default labels for all programmed PLUs. Use this function to check that labels scan correctly before using them on products.

Text report

The text report lists:

1	Sign on text	5	Scroll message text
2	Sign off text	6	ADD label text
3	Store name text	7	Department text
4	Sales message texts	8	Group names

If you have not programmed a message or text under a particular heading, then that heading will not be printed.

```
        ******Text Report******

03-08-2002                    12.18

Sign On Text:
WELCOME TO AZ
SUPERMARKET

Sign Off Text:
THANK YOU FOR
SHOPPING AT AZ
SUPERMARKETS


Add Label Text:
ASSORTED ITEMS

Department Text
1: Meat
2: Bakery
```

Figure 8.14   Text report

Security Log Report

The security log report will report on any changes to the PLU numbers. It will display the PLU number change and which operator made the changes.

8.7   Transaction reports

2. Reports ⟹   **3. Trans. Reports** ⟹   1. Live ⟹   1. Clear Trans.

3. Sub-Totalised ⟹   1. Print Trans.

2. Clear Trans.

Printing transactions

Printing **live** transactions will show you if there are any incomplete transactions outstanding against any of the operators.

Sub-totalised transactions are those for which **sub-total receipts** have been printed but have not yet been consolidated into a **sales total receipt** and added to sales totals.

Clearing transactions

You can clear any outstanding transactions at the end of trading or when you move or replace a machine. Cleared transactions are not added to the totals.

Note: If you clear transactions during trading current sales will be lost.

8.8   Defining filters

You can specify the following filter criteria when listing Department or PLU totals:

•   individual or range of departments

•   individual or range of PLUs.

To print the labels for one department or PLU only, enter the same department or PLU number for both the start and end value.

Chapter 9 Audit Mode

Auditing is a background reporting function that enables you:

• To print out a record of completed transactions.

• To collect details of transactions as permanent records if you have the appropriate PC software application (For further information contact your Avery Berkel centre)

The Audit Mode menus allow you to decide what transactions should be recorded, how to handle audit full conditions and also provide reporting and clearing of the audit.

9.1 Setting up the audit function

Filtering the information

You can set up the audit function filter to include only certain types of information if required. The various options available are:

1. No Filters - save everything.

2. Label - only save labels.

3. Receipt - only save receipts.

4. Receipt & Label - only save labels & receipts.

5. Account - only save accounts.

6. Stock - only save stock.

7. Stock & Account - only save stock and accounts.

8. Pack Run - only save pack runs.

9. Sub-Total Rcpt - only receipts printed at a counter, but not yet finalised at the Point of Sale.

• Be able to continue trading when the audit store is full (circular).

• To have to clear audit transactions before trading can continue when the audit store is full (linear).

Server/client buffer mode

The client buffer settings only take effect when the machine is operating in local mode (if, for instance, there is a communications failure between the server and client machines). They determine how the machine operates with audit data when the memory allocated for the audit store is full.

If you select **Circular** you will be able to continue trading when the audit store is full but new audit transactions will over write the oldest audit transactions. You will not see any warning messages.

If you select **Linear** you will see flashing warning messages as the number of transactions in the audit store approach the maximum permitted. The message replaces the scroll message on the vendor display in sales mode and is also displayed if you go to the network map in manager mode.

Note: Normally the server buffer mode is set to circular and the clients are set to linear.

An error message is displayed at three stages:

• When the audit store is 75% full.

• When the audit store is 90% full.

• When there is no space left in the audit store.

When **Audit Full** is displayed you must either **Erase Audit List** or print the **Audit Report** and then **Erase Audit** List to clear the audit store of transactions.

Label override

Label override allows you to continue trading when the client audit buffer mode is **linear** and the buffer is full.

This is the default mode for machines operating in label mode. The **Audit Full** message will be displayed on every transaction until the audit buffer has been cleared.

Press to clear the message and complete the transaction.

You can disable label override if you do not wish to allow continued trading when the audit buffer is full.

9.2 Printing the audit report

The audit report prints transactions that have been totalised and printed on the label or receipt. You will be prompted to enter:

- The start and end dates or times.

- Receipt numbers for the report.

You can customise the reports to include only the type of transaction you require or all transactions. You can select from

- Label.

- Receipt

- Label and receipt

- Account

- Stock

- Stock and account

- All transactions

If you select **Summary Report** the report prints a summary of each receipt or label. A **Detailed Report** prints all the transaction details for each label, receipt or account.

9.3 Erasing the audit list

You can clear all the audit transactions (No Filter) or you can set selection criteria as in printing the audit report.

9.4 Communications failure

If there is a communications failure between the server and client machines the machine will retain audit transactions while operating in local mode.

As soon as the server detects and reinstates the client machine, the client audit transactions are transferred to the server.

If the client buffer is set to linear mode, warnings will be given when the buffer is nearly full. No further transactions will be allowed when the buffer is full.

Chapter 10 Subtotal Receipt Operation

10.1   How subtotal receipt operation works

Subtotal receipts allow a number of machines in a store network to operate together in processing a single customer transaction. XS scales are used at each counter (cooked meat, cheese, fish etc) in receipt mode, but produce subtotal receipts showing the items that have been served at that counter.

XS Scales are also used at the PoS. When the customer is ready to pay, subtotal receipts are consolidated at the PoS machine, normally by scanning the receipt barcodes. Any other purchases are added and combined into a single sales receipt which includes all of the item purchased.

The network can be set up to operate using auto generated (system mode) or manually entered (customer mode) customer numbers.

Customer numbers are printed on subtotal receipts and are used to

*   Identify individual receipts.

*   Identify customers.

Operators can print subtotal counter receipts at any machine throughout the store that has a subtotal print key.

Subtotal transactions are stored in the audit list and can be re-opened if the Audit function has been enabled. Management totals are only updated when a final receipt is printed. Subtotal receipts are treated as part of the single total receipt and are not totalised separately.

10.2   Operation at the counter

System mode

The machines are set up to use auto generated customer numbers.

1.   The operator serves a customer and prints a counter receipt which shows the subtotal for the transactions and the system generated customer number.

2.   The customer may then make further purchases within the store or go straight to the PoS machine (checkout) to pay.

3.   If the customer makes additional purchases the operator at the next machine can choose between:

*   Entering the system generated customer number to add the transactions to the subtotal and print a new counter subtotal receipt or

*   Printing a new counter subtotal receipt which includes a new system generated customer number.
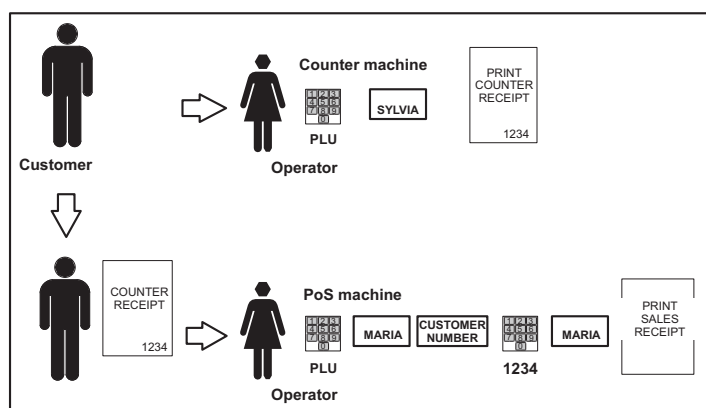

Figure 10.1   System mode

At the checkout:

1.   The operator serves the customer to any additional purchases.

2.   Scans or enters the customer number from the counter receipts.

3.   Prints the sales receipt.

The subtotals stored against each number assigned to a customer are consolidated when the customer pays at the checkout or a PoS machine with payment keys and obtains a sales total receipt

Customer mode

The machines are set up to use manually entered customer numbers. This number is used to identify the customer as they make their way through the store. Some shops use numbered trolleys and baskets for this purpose.

1. The operator serves a customer, enters the customer number and prints the subtotal counter receipt.

2. The customer number is printed on the subtotal counter receipt.

3. If the customer makes additional purchases, the operators at subsequent counter machines must enter or scan the customer number each time before printing the subtotal receipt again.
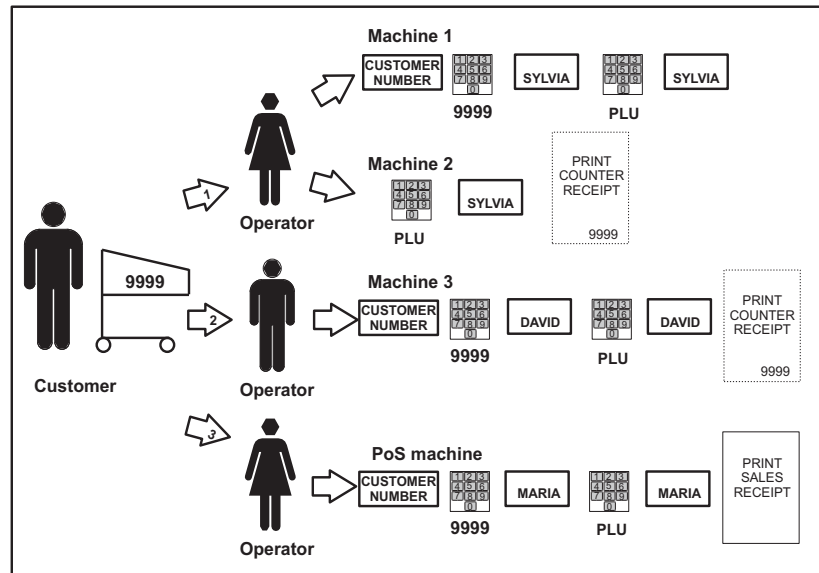
Figure 10.2   Customer mode

10.3   Operation at the Point of Sale (PoS)

Customer and system mode

The customer:

1. Goes to a PoS machine or checkout to pay for their purchases

2. Presents the subtotal counter receipts.

3. The customer number(s) is scanned or manually entered and the transaction data linked to the number is recalled.

More than one subtotal counter receipt may be brought together (consolidated) to form a total sales receipt.

In addition to the consolidated subtotals, the sales total receipt may also include

- Purchases from label machines in the store.

- Purchases made directly at the checkout.

These transactions are listed on the receipt after all the consolidated subtotals.

Receipt consolidation

Consolidation is the process by which several subtotal receipts are brought together to generate a final sales receipt.

- The list of subtotal transactions is linked to the consolidation receipt store (primary receipt store).

- A secondary receipt store holds all the receipt values for the subtotal receipts they represent but no transactions.

- The list of secondary receipts is only held on the server.

- Client machines hold only the primary receipt store and the transactions.
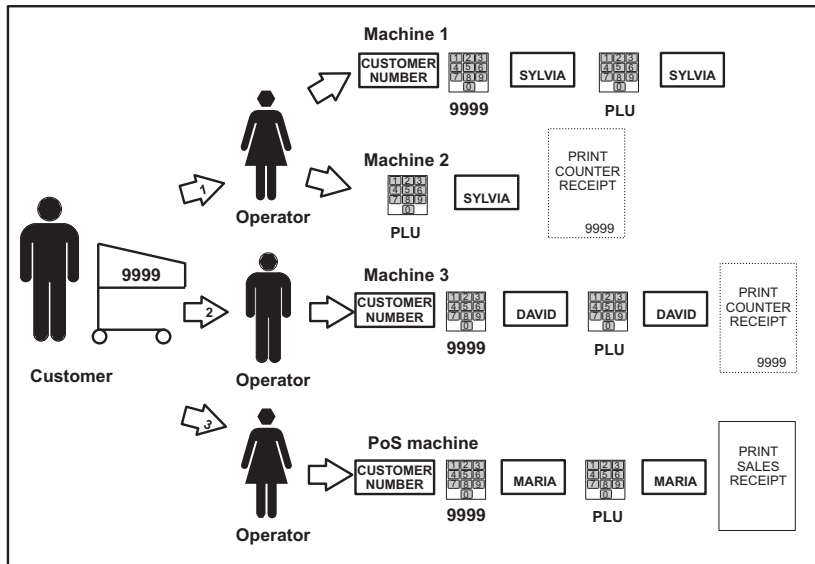
Figure 10.3   Consolidation

Final receipt details may be retained for the audit trail but detail from the subtotal receipts is lost as only the primary receipt information and transactions are kept.

Voiding transactions and deconsolidation

Individual transactions or all the transactions may be voided before the total receipt is printed. See the Operators instruction manual for details of how to do that.

Chapter 11 Communications

11.1   Store Networks

You can link up to 31 compatible machines in a store network.

The system will support any combination of machines in the XS series range provided they have the same software version.

Machines may be used for weighing or nonweighing applications in

- Counter service.

- Checkout.

- Rear of store operations.

Networked machines are connected using either ethernet network cables or Wireless LAN communications (see Wireless LAN communications, page 118). These cables or the internal scale RF cards enable information to be passed between each connected machine (and other devices if used).

One machine on the network is called the server and is responsible for overseeing the network. The remaining machines are known as client machines. Any machine may be programmed as the server.

All the machines on the network use the same PLU and system data. You can enter data at any machine and the other machines on the network will receive the information provided they are switched on.

Note: The server must be switched on when the client machines are in operation. If a client machine has been connected to the network but not had the machine ID set up it will not be recognised by the server.

99 OPERATORS MAXIMUM
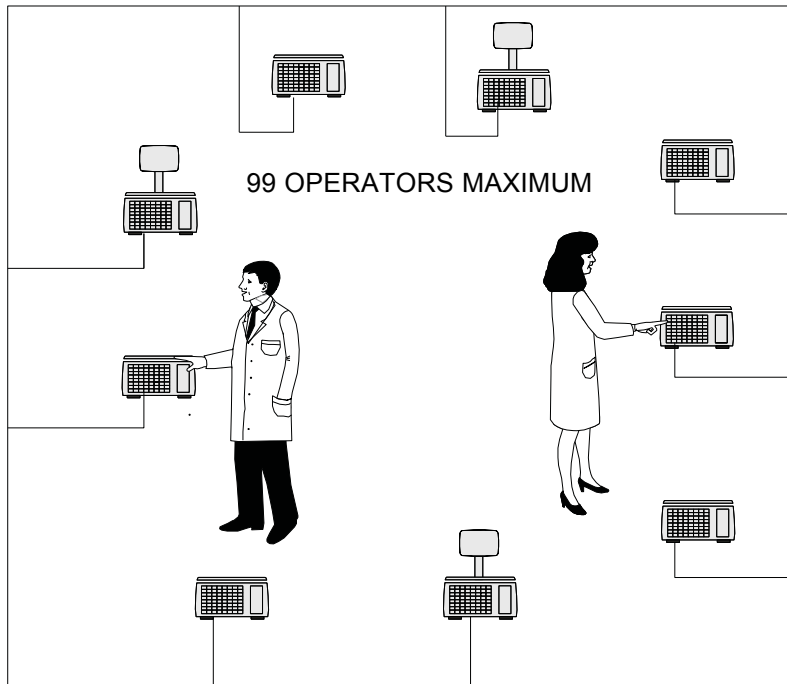
Figure 11.1 Typical sale network

11.2 Auto configure

You can use auto configure to quickly set up a network of machines that are programmed with the factory default IP address and have been connected to an ethernet hub.

Adding a machine to the network

You can add machines to the network up to the maximum allowed (31). When you select **Auto Configure** at the new machine it will automatically be allocated the next machine ID.

Updating the PLU file

You can perform a **Network Dump** from the server if the PLU file at the new client machine does not match the server PLU file (see *Network dump* for more details).

Each time the client machine uses a PLU it fetches the PLU data from the server and the PLU file at the client machine is updated.

If you choose not to perform a network dump, the PLU file at the client will gradually be updated to match the server.

11.3 Setting machine ID

The server uses machine identity to distinguish between individual machines on the network.

You can:

- Enter a value for the machine ID between 1 and 31.
- Select either **Server** or **Client** for the machine status. An S or C will be displayed on the network map at the appropriate position.

Note: If you set the machine ID to 0 it will operate as a stand alone machine.

11.4 Network map

The network map at any machine shows the positions (machine ID) of all the machines on the network.

At each position on the map corresponding to a machine you will see a character indicating the machine status. The flashing character indicates the ID of the machine currently being used to display the network map.

Note: The network map simply shows the status of each scale.It does not provide means to change it (e.g. from clients to servers).You can only change the status of a machine at **that** machine. See *Setting machine ID* for more details.

The following table defines the characters you may see on the network map.

Character	Meaning
S	Server: responsible for overseeing the network
C	Client
X	No machine set up.
E	The PLU file in the client machine at that position does not match the server PLU file.
O	The machine corresponding to that position is off line. ()
L	The client machine is in local mode.

11.5 Dealing with network faults

The server constantly monitors the network and when it detects a network error it will bleep.

1. Check the network map to determine which machine is offline.

If the cause is a client machine that has been switched off:

2. Switch the client back on.

If the cause appears to be a faulty client machine:

3. Restart the faulty machine, and/or the server.

4. Checking that the patch cables are fully inserted.

5. Switch off or disconnect the faulty machine.

If this does not correct the fault:

6. At the server go to Manager Mode.

7. Navigate to Communications->Network Map

8. Press Enter

9. Press Yes (ie tick) at "Purge Network? Y/N"

Toubleshooting error messages

Error message	Appears when	Cause	Action
Memory Full	An operation is attempted.	The system cannot store any more PLUs	Delete any old, unwanted PLUs.
Comms Error	An operation is attempted.	Breakdown in communications between machines.	Check network map
Map Error	Selecting the Network Map	The machine corresponding to that position is off line.	Check the network map. Check the network connections and set the machine ID if necessary.
Local Mode	The machine is disconnected from the network.	The machine is in local mode.	Restore the connection
No Server	The machine is disconnected from the network.	Client machine is not communicating with server machine.	Check network cable. If no network is available set the machine to operate in Local mode.

11.6 Local mode

If you see the message **No Server** followed by **Local Mode** when you try to:

• select a PLU

• assign transactions

• print a label

it means that the client cannot operate on the network because there is a communication failure between that client and the server.

Switching a client to Local Mode

You can set the machine to operate independently of the network when it cannot communicate with the server.

When you switch the client to **Local Mode** any transactions that have been entered but not printed will be lost. You must re-enter any uncompleted transactions.

- Press to switch the client to **Local Mode**.

If you do not want the client to operate in **Local Mode:**

- Press any other key just to clear the message.

Label machines only:

- Press to select the PLU and print one label.

The message is repeated next time you select a PLU.

There will be no totals for that label.

Note: If the server is faulty you will see the message **No Server** at whichever client machine you are using.

If you see the message **Local Mode** at the end of the start up routine when you switch on a machine then that machine is operating in **Local Mode**.

If you see the message **Local Machine(s)** at the end of the start up routine when you switch on the server, there is at least one client operating in **Local Mode**. Go to the **Network Dump** to check which machine it is.

Operating in local mode

Audit buffer

The audit buffer can operate in linear or circular mode.

Linear mode

In linear mode you cannot continue trading when the audit buffer is full (see *Erasing the audit list*). You will see flashing warning messages as the number of transactions in the audit store approach the maximum permitted.

Circular mode

In circular mode new audit transactions over write the oldest transactions.

Default setting

The default buffer setting for **client** machines is linear and the transaction memory limit is set at 20 receipts with up to eight transactions per receipt (160 transactions).

You can change the client buffer mode from linear to circular if required.

If you wish to increase the audit buffer size, contact Avery Berkel to reconfigure the machine.

Note: Before making any changes you should read *Chapter 9 - Audit Mode*.

Reinstating a local client

When the problem with the network has been resolved the client machine operating in local mode is automatically restored to the network.

The server will then:

- Transfer any outstanding live transactions from the client.

- Transfer completed transactions to the server as a background task.

- Update totals.

11.7   Network dump

5. Communication $\Rightarrow$ 4. Network Dump

Network dump synchronises all data held at client machines with that of the server.

When dumping data to client machines, the server copies the PLU file and all system data apart from data programmed under Machine setup..

You will need to dump data to client machines if you:

• Have programmed the a server while it was not connected to the client.

• Add a new or replacement client machine onto the network.

You will *not* need to dump the data if you:

• Programme the data at a server which is connected to the network and all the machines are switched on

• Make amendments to the PLU data at any machine provided that all the machines are switched on.

11.8 Machine setup dump

5. Communication $\Rightarrow$ 5. M/c Setup Dump

Machine setup dump allows you to copy the machine setup and dedicated keys from machine to machine. The default security setting for this function is 9.

11.9 Advanced set-up

Machine IP address

Each machine in a network must have a unique IP address. The IP address is used by the TCP/IP protocol to identify the source and destination of data packets.

The machines are manufactured with unique IP addresses which only need to be changed if the XS Series network is to be integrated with an existing IP network.

The IP address of the machine consists of two parts.

• The network address

     The network address must be the same as all the other machines on the same network.

• The machine address.

     The machine address must be different from the other machines on the same network

The network address depends on which sub-net mask is used, for example for an IP address of 88.1.1.7:

Sub-net mask	255.0.0.0	255.255.0.0	255.255.255.0
Network address	**88**.0.0.0	**88**.**1**.0.0	**88**.**1**.**1**.0
Machine address	88.**1**.**1**.**7**	88.1.**1**.**7**	88.1.1.**7**

Sub-net mask

The sub-net mask allows you to split a large physical network into smaller logical networks.

Note: If a machine is being added to an existing network and you need to change the IP address and sub-net mask, the network address and the subnet mask must match the existing network. For further information contact Avery Berkel.

Host name

This only applies to machines on networks with DHCP enabled. The host name enables the machine to be identified even if the IP address has changed. The name can have up to 100 characters in either a fixed or variable string.

You can include the following codes in the string to automatically insert the machine's Machine ID and Network ID :

     %%NTID **or** %%+8.2%%network ID (2two digits)
     %%MCID **or** %%+8.1%%machine ID (2two digits)

This ensures that each machine has a unique name.

Gateway IP address

Where XS Series machines are linked to a PC through a gateway, the XS Series machine needs to know the gateway address in order to communicate with it.

Network ID

The machines are manufactured with a default network ID. You will only need to change it if more than one XS Series network is required.

Up to 31 machines can be connected together into a single machine network. All the machines in a single network must have the same network ID.

Up to 99 machine networks can be created but each group of machines must have a network ID number that is different from any other group.

Base port number

The base port number is used with the network ID to generate a TCP/IP port number for inter scale communications.

This port number is used by the scales in the network to communicate across the network. If this port number is used by other equipment you may need to change the base port number.

Host port number

This is the TCP/IP port number used to communicate with a PC running scale management software (contact Avery Berkel for available packages to manage your scales). The default value for the port number (3001)will not usually need to be changed.

Ping IP test

This function tests connections between the scale and other IP addresses.

Data clone

You can use data clone to copy machine specific data, as well as system data, from the server to a new or replacement machine on a network. The new machine must use the same network ID.

Cloning transfers:

• System data.

• Service configuration (not capacity).

• Machine setup.

• Dedicated keys.

• Euro setup.

Relaxed Timing

Communication timeouts can be extended by 0 < 10s to achieve reliable operation in networks with long delays, for example in wireless networks.

Test Report

The test report contains information regarding the network configuration. The following details may be included:

• MAC address

• WiFi encryption type being used

• Wifi authenticity

• Wifi signal strength

Printing the test report

To print the test report:

1. Switch the machine into sales (weighing mode).

2. Press the display test key twice in quick succession.

3. The test report will print.

11.10   Wireless LAN communications

Wireless LAN allows communication between machines on a Local Area Network using radio signals. To use wireless communications, you will need an XS Wifi module fitted to your scale. Contact Avery Berkel for details.

Each machine can operate in two modes.

Ad Hoc (peer to peer) mode

This mode does not require an Access Point. When operating in Ad Hoc mode, the internal WLAN PC cards in the scales communicate directly with each other. This requires all the machines on the network to have visibility of each other. In practical terms this usually means that the distances between the machines are fairly short.

Access Point mode

This mode allows the scales to join an existing WiFi network. This type of wireless communication typically has a range of up to 50m depending on store layout and environment factors (counters, walls, partitions, ceiling height).

• The range can be extended by using additional access points.

• The coverage from each access point must slightly overlap the next.

The Access Point:

• communicates directly with each device allowing larger, diverse networks.

• acts as a hub for scales fitted with internal WLAN PC cards and provides a connection to the Ethernet LAN.

• controls communications between scales in the store and between PC and scales.

Wireless set up

1. Use the WIFI wizard,

2. Select the correct network

3. Enter the encryption key.

WLAN mode

Allows you to select either Access Point mode or Ad Hoc mode.

All machines on the same WLAN must operate in the same mode.

Wireless channel

The WLAN PC cards in the machines can operate on a number of different channels to prevent interference with other equipment.

In Access Point mode the channel is determined by the access point and you will see the message .

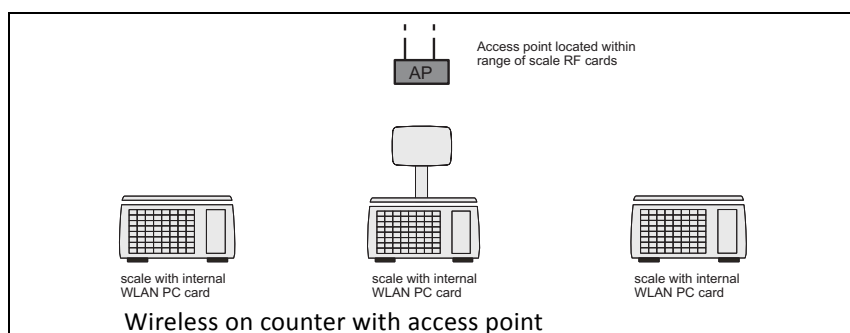In Ad Hoc mode you can select the channel in the range 1-14.

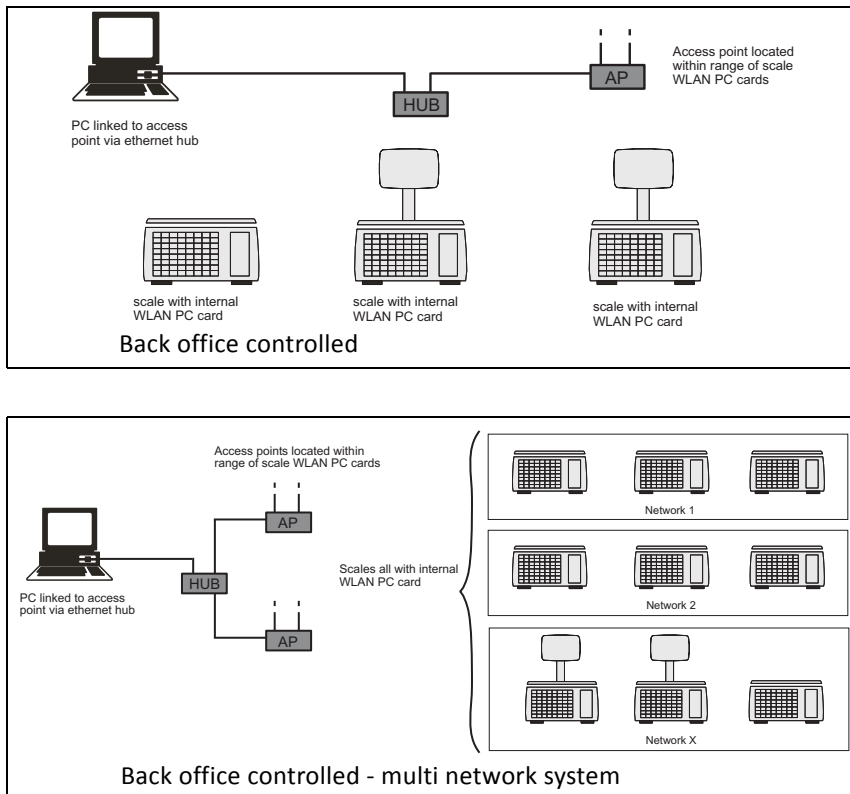All machines on the same WLAN must have matching channels.

ESSID

(Extended Service Set Identifier)

This is a 32 character alphanumeric string which separates wireless LANs.

All machines on the same WLAN must have matching ESSID.

AP

Access point located within range of scale RF cards

scale with internal WLAN PC card

scale with internal WLAN PC card

scale with internal WLAN PC card

Wireless on counter with access point

Figure 11.2   Supported network configurations

11.11   RF encryption

Communications across wireless networks can be encrypted to keep transmissions secure, and to keep networks separate.

Encryption makes use of user defined 'keys' which set how the scale encodes and decodes the transmissions. Only scales using the same active encryption key will be able to communicate with each other.

XS scales offer a choice of either WPA or WEP encryption.

To set up encryption:

1.   Use the WIFI wizard.

2.   Select the correct network.

3.   Enter the encryption key.

Wifi disable

Where a scale has a Wifi module fitted, it will disable the Ethernet interface. To enable the Ethernet interface, disable Wifi in the Communication->Advanced Setup->Select Net Media menu.

If the machine is switched off and the wifi card removed, when the machine is switched on again the ethernet interface will be automatically enabled.

11.12   Email alerts

The email alert system can provide IT departments or remote service support with information about notable events or errors occurring at a scale.

E-mail setup details

You can select a LAN e-mail server.

Server name

This is the e-mail server name. The server name can have a maximum of 64 characters.

Example: smtp.wideblueyonder.com

Server IP (LAN only)

This is the IP address of the SMTP server.

Server Port

This is the port number of the SMTP server. The default port number is 25. You can program values between 1 and 65535.

Authentication type

Some SMTP servers require an authentication type to be programmed before relaying an e-mail outside the local domain. You can select from:

• **None.** Default

• **Login.** The user name and password are verified separately.

• **Plain.** The user name and password are verified in a single communication packet.

User name and password

Your username and password are required for authentication. For LAN connections this is your internal ID and password. Remote dial up systems require an internet username and password.

Example: LANjsmithU0262919

   Dial upjsmith@OAOL.com87654321

E-mail addresses

Three e-mail addresses can be programmed. Each address can have up to 64 characters.

Send to: E-mail alert recipient.

Copy to: The alert is copied to this address.

Reply to: Replies will be sent to this address.

Changing the 'from' address

If you want to use a different address see *Asset Identifier*.

Alert details

You can program the details for the alerts you wish to monitor or you can delete an alert.

Create Alert

• The default setting for alerts is .

• You must enable an alert for it to be monitored.A maximum of 20 alerts can be monitored

• There are 14 alerts programmed in the system. The table in Figure 11.3 lists these and the options available for each.

• You can edit the existing alerts.

Delete Alert

Deletes any changes to the selected alert and resets the values to the default settings.

Alert ref. number	Alert	Status	Trip limit	Default trip limit
1	Software exceptions	Off, On	1	1
2	Critical system log events	Off, On	1	1
3	Print head resistance limit 1	Off, On	1	1
4	Print head resistance limit 2	Off, On	1	1
5	Service Alert	Off, On	1	1
100	Network errors	Off, On	1- 9999	30
101	Machine offline errors	Off, On	1- 9999	60
102	Local Mode errors	Off, On	1- 9999	30
103	PLU file errors	Off, On	1- 9999	100
104	Manual reboots	Off, On	1- 9999	1000
105	Auto reboots	Off, On	1- 9999	10
106	Power supply brown outs	Off, On	1- 9999	10
107	Label feed errors	Off, On	1- 9999	10
108	Paper out errors	Off, On	1- 9999	10
109	Print head temperature limit	Off, On	1- 9999	5

Figure 11.3   Default alerts

Asset Identifier

You can program a text string to help identify the scale being monitored. You can enter up to 50 alpha numeric characters.

'From' address

You can use an e-mail address as the whole, or part of, the Asset Identifier.

• If the system detects an '@' it will use the string as the 'from'address.

• If there is no '@', the text string will identify the scale but the system will still use the default 'from' address.

Example:

Text string

DeliScale1

Text string used to identify scale being monitored

Text string

DeliScale1 deli@abcmarkets.com Smethwick

Text string used to identify scale being monitored and e-mail 'from' address.

Note: If the e-mail address is part of a longer text string, you must include a space at the start and end of the e-mail address.

Chapter 12 Data Backup

6. USB Backup $\Rightarrow$ 1. Save File

2. Load File

When setting up several stand-alone machines with the same PLUs and system information the ability to transfer data via a USB memory stick saves you having to re-enter the data at each machine. You can also use a USB memory stick to store backup files which can be loaded to a machine should you ever experience problems.

12.1   Choosing a USB memory stick

The XS scale is provided with a standard USB memory stick driver, which is configured to operate from the USB port located under the printer cover. However, because of manufacturing differences, not all USB memory sticks are compatible with the XS scale. For reliable operations, only use USB memory sticks approved for use with the XS scale (contact Avery Berkel for more advice).

USB port
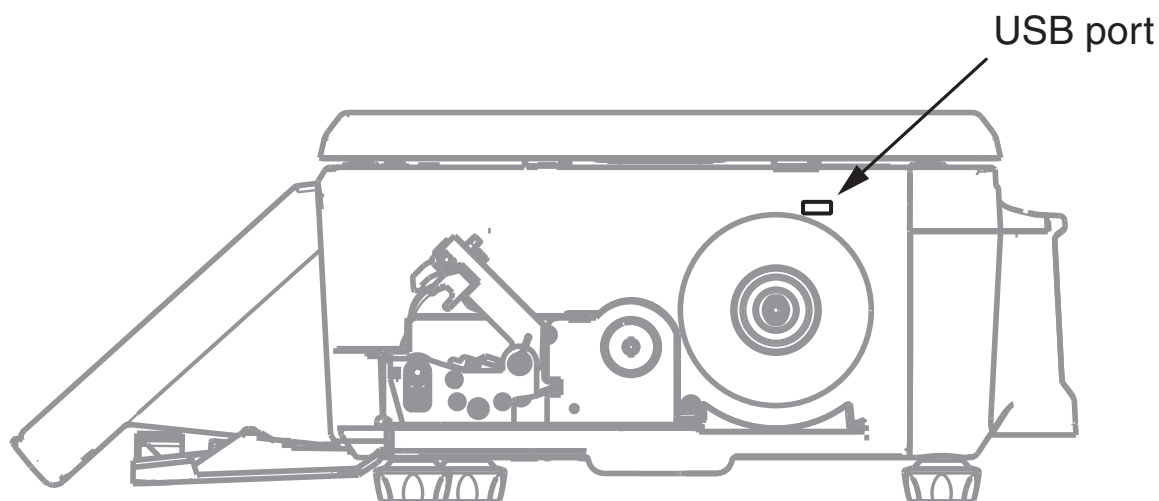
Note: Remember to take a backup whenever you make any amendments, otherwise the files will be out of date.

12.2   Saving/loading data

Saving

The scale copies its data to a USB memory stick. The original data is retained by the machine.

Loading

The scale copies data from a USB memory stick. The data held by the machine is replaced or overwritten, but is still retained by the USB memory stick.

When you select Save File the screen will provide 10 options for you to choose from:

1	Products	2	Alert Details
3	System Data	4	Traceability
5	Machine Setup	6	Keyboard Setup
7	Label Format	8	Nutrient
9	Logo	10	Transactions

These allow you to load and save each type of data independently of the other data types.

System data

System data is comprised of the functions that need to be the same on all the machines in a store. Where machines are part of a network the system information will be common to all the machines.

When loading or saving system data from the machine, the following information is sent to or received from the USB memory stick:

departments	tax rates
network ID	stored tares
operator numbers	barcode formats
store name	PLUs
sign on/off messages	ADD label
scroll messages	carcass tracking data
label formats	logos
Euro rate and symbol	

Machine setup

Machine setup data is comprised of those functions that are specific to each machine.

When loading or saving machine set up information from the machine, the following data is sent to or received from the USB memory stick:

machine ID	label mode
key assignments	label type
key set-up	label detect
printer set-up	tare interlock
print modes	barcode assignments
trace code	Euro print set-up
symbols	display contrast
custom menus	

Chapter 13 Troubleshooting

13.1   Problems accessing manager mode

It is possible to inadvertently set all users security levels so that security levels can no longer be modified and no user has access to any sales or manager functions. This could happen, for example, if:

- The manager's security level is initially set to 9.

- All sales and manager functions set to perhaps level 5

- The manager changes own security level to 4

The result is that the manager can no longer use any function, or increase his/her own security level.

If this happens, contact Avery Berkel for advice.

13.2   If things go wrong

XS Series machines have been designed with reliability and accuracy built in and should give you trouble free use.

However they will not operate as expected if set up incorrectly. The following section lists some problems which may occur and the action you should take.

No label when you press print.

Check that the operating mode is set to Label.

Transaction isn't displayed.

Check that the operating mode is set to Receipt.

See the XS Operator's Manual for more information on operating modes

Wrong scroll message or store name

Check that you have programmed the correct information and the reference for the scroll message has been assigned correctly.

No barcode

Ensure you have programmed the correct assignments.

Function key does not operate

Function not configured. Contact Avery Berkel.

Cannot print continuous labels

Ensure that **Continuous** is selected for **Label Type**.

Machine not at zero

Ensure that there are no goods on the weigh plate. Check that no food has accumulated on or under the weigh plate or under the machine. Press $\boxed{\rightarrow 0 \leftarrow}$.

Should your machine fail to operate correctly check that:

- The machine is connected.

- The fuse in the plug is the correct rating and is working.

- There is power to the socket outlet (plug in an electrical appliance that is known to be working).

- You have followed the correct procedure for the operation you are trying to perform.

- You have looked up any error message to see if it is a situation you can resolve for yourself.

Note: Should the machine still fail to operate correctly contact Avery Berkel.

13.3   Error messages

Whilst using the machine, you may see messages on the display to help you when things go wrong. These messages, and the action you should take, are listed below.

CALIBRATION LOST	• The machine is not weighing accurately. Do not use the machine. • Contact Avery Berkel.
CHECKSUM FAILURE	• Contact Avery Berkel.
COMMS ERROR	• There has been a breakdown in communications between machines. • Check network map.
FILE TYPE ERROR	• The files stored by the memory stick do not match those set in the machine.
FORMAT ERROR	• You are trying to load the wrong type of file from the DCU. • Check the file format.
HARDWARE ERROR	• If necessary, press ![C] to stop the machine bleeping. • Switch off the machine and switch it back on. • Contact Avery Berkel if the fault persists.
INVALID ENTRY	• You are trying to enter a tare value which is not a multiple of the display division. • Enter a correct tare value. • You have tried to enter an incorrect barcode format. • You are trying to enter a machine ID that conflicts with another client machine.
INVALID OPTION	• You are trying to select an option not permitted at your machine.
LABEL FEED ERROR	• The printer has run out of labels or is not feeding the labels correctly. • Check the printer. • You are trying to print the wrong type of label. • Check printer set up. • If you are using pre-printed labels check with Avery Berkel that the labels are suitable.
LABEL NOT TAKEN	• You are trying to obtain a label before removing the previous one.
MAP ERROR	• Network map error. • Check the network map and the network connections. • Perform a Network dump at the server.
NO SPACE LEFT	• You cannot enter any more characters in the text. Edit the text. • PLU totals are full.
NO TARE SELECTED	• Tare interlock has been set on at the machine and you are trying to print a label without first selecting a tare.
PLU NOT FOUND	• Ensure you selected the correct department and PLU number. • Program the PLU.
Department NOT FOUND	• Program the department. Assign a department key.
Lot number NOT FOUND	• Ensure you selected the correct department and PLU number. • Ensure the machine is in pre-pack mode. • Program the traceability details.

OUT OF PAPER	• The printer is out of paper. Replace the roll. Press $\boxed{C}$ to clear the message.
PRICE OVERFLOW	• The value of the transaction or the subtotal exceeds the maximum configured for your machine.. If you are using an open PLU, ensure you entered the correct unit price. If you are in receipt mode, print the receipt for any current transactions.
PRINT HEAD HOT	• Print head overheating. Allow the print head to cool. Contact Avery Berkel if the fault persists.
WEIGHT BELOW MIN	• You are trying to complete a transaction with no goods on the machine or the goods weigh less than the minimum permitted.
ZERO TOTAL PRICE	• Total price is zero. • If you are using an open PLU, check that you have entered the unit price.

14.1 Extended character sets

When creating or editing printable text such as sales messages or PLU text, you can create additional text characters using the extended character facility. Enter the appropriate numeric code for the character you require from the tables in this section.

To enter a character:

- press [↑] then [X X X] followed by the numeric code keys for the character required.

Latin character set (including Lithuanian, Latvian and Rumanian)

To determine the code for the character you require:

- Read the number in the left hand column of the row (112)

- then add the number in the top row of the column (11)

This gives you the code for **Æ** - 123.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
000										TAB	LF		CLF	CNLF		
016												FONT				
032	SP	!	°	#	$	%	&	'	(	)	*	+	,	-	.	/
048	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
064	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
080	P	Q	R	S	T	U	V	W	X	Y	Z	Ä	Ö	Å	Ü	Ø
096		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
112	p	q	r	s	t	u	v	w	x	y	z	Æ	£	ƒ	€	
128	Ç	Đ	Ý	ª	±	ä	ö	å	ü	ø	æ	ç	ð	Į	þ	ł
144	Á	Â	Â	Ą	Ć	Č	Đ	Ď	É	Ě	Ê	Ę	Î	Ł		Ń
160	Ň	Ó	Ò	Ö	Ô	Ř	Ś	Š		Ú	Ü	Ǔ	Û	Ý		Ž
176	Ž	Ã	Õ		Ñ	Ľ	Ĺ	Ŕ	µ	Ā	Ă	Ē	Ė	Ģ	Ī	Į
192	Î	Ķ	Ņ	Ō	Ŗ	Ū	Ų		À	Á	Â	Ã	È	è	é	ê
208	ë	ì	í	î	ï	ñ	ò	ó	ô	õ	ö	ù	ú	ý	ÿ	"
224	_	Ā	ț	ď	č	Í	ľ	ň	š	R						
240		0	1	2	3	4	5	6	7	8	9					

Greek character set

To determine the code for the character you require:

- Read the number in the left hand column of the row (080)

- then add the number in the top row of the column (7)

This gives you the code for **Y** - 087.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
000											LF	FONT	CLF			
016																
032	SP	!	°	#	$	%	&	'	(	)	*	+	,	-	.	/
048	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
064	@	A	B	Γ	Δ	E	Z	H	Θ	I	K	Λ	M	N	Ξ	O
080	Π	P	Σ	T	Y	Φ	X	Ψ	C	D	Ω	F	G	J	L	Q
096		α	β	γ	δ	ε	ζ	η	θ	ι	κ	λ	µ	ν	ξ	o
112	π	ρ	σ	τ	υ	φ	χ	ψ	R	S	ω	U	V	W		g
128																
144																
160																
176																
192																
208																
224																
240																

Lithuanian character set

Code	Character	Code	Character
185	Â	197	Û
187	Ç	198	Ø
188	Ë	189	Ì
190	Î	193	Í
191	Á	194	Ò
195	Ô	196	ª

Latvian character set

Code	Character	Code	Character
185	Â	189	Å
187	È	193	Æ
190	Ì	194	Đ
195	Ò	196	Ç
197	Ú		

Romanian character set

Code	Character	Code	Character
186	Ã	199	Þ
192	Î		

Cyrillic character set

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
000										TAB	LF		CLF	CNLF		
016												FONT				
032	SP	!	°	#	$	%	&	'	(	)	*	+	,	-	.	/
048	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
064	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
080	P	Q	R	S	T	U	V	W	X	Y	Z	Ä	Ö	Å	Ü	Ø
096		a	b	C	d	e	f	g	h	i	j	k	l	m	n	O
112	p	q	r	S	t	u	v	w	x	y	z	Æ	£	ƒ	€	
128	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
144	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
160	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
176	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
192	Ё	Ђ	Ћ	Ѓ	Є	Ѕ	І	Ї	Ј	Љ	Њ	Ќ	Ў	Џ	Ґ	µ
208	"	_														
224	ё	ђ	ћ	ѓ	є	ѕ	і	ї	ј	љ	њ	ќ	ў	џ	ґ	§
240																

Hebrew character set

Arabic character set

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0										TAB	LF		CLF	CNLF		
1												FONT				
2	SP	!	°	#	$	%	&	'	(	)	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	Ä	Ö	Å	Ü	Ø
6		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	p	q	r	s	t	u	v	w	x	y	z	Æ	£	ƒ	€	
8	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
9	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
A	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
B	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
C	Ё	Ђ	Ћ	Ѓ	Є	Ѕ	І	Ї	Ј	Љ	Њ	Ќ	Ў	Џ	Ґ	µ
D	"	_														
E	ё	ђ	ħ	ѓ	є	ѕ	і	ї	ј	љ	њ	ќ	ў	џ	ґ	§
F																

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0										TAB	LF		CLF	CNLF		
1												FONT				
2	SP	!	°	#	$	%	&	'	(	)	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	!	<	=	>	؟
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	±	\	,	"	Ø
6	SP†	`	ء	آ	أ	ؤ	ئ	ا	ب	ة	ت	ث	ج	ح	خ	د
7	ذ	ر	ز	س	ش	ص	ض	ط	ظ	ع	غ	ف	ق	ك	ل	
8	م	ن	ه	و	ى	ي										
9																
A		Note characters between 86 hex and D5 hex are the modified forms														
B		of the standalone Arabic characters 62 hex to 85 hex. Any external system must always transmit the standalone forms in the order in which they were entered.														
C																
D							a	b	c	d	e	f	g	h	i	j
E	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
F	µ	.	١	٢	٣	٤	٥	٦	٧	٨	٩					

14.2   Supported AI codes

AI (EAN128 only)	Carcass Code (%%)
00	
01	A
10	0
15	
17	
251	I
422	1
423	2
424	3
425	E
426	J
950	Z
953	Q
3103	W
3303	
3902	P
7030	K0 (3, 9)
7031	K1 (A, E)
8005	

14.3   Substitution codes

There are two types of substitution code supported by the software:

- The Avery Berkel code system

This is a fixed system using the start code %% followed by a character representing the associated data.

- A Dewey Decimal based system

The Dewey Decimal based system divides information into classes, divisions and subdivisions to the number of levels needed to give the required amount of detail. The number of levels supported by the software is four.

For each class, division etc. you can include a parameter to specify a particular reference. In the table of codes, a parameter is indicated by the characters #pp where pp is a numerical value.

Each code string requires the start characters %%+ and closing characters %%. The closing characters are entered automatically when you finish selecting the class and divisions you require.

Dewey decimal code:%%+1.1#21.1%%

%%+1.1#21.1%%

Class:	Section:
Nutritional Data	Name

Division:	Parameter:
Nutrients	Nutrient
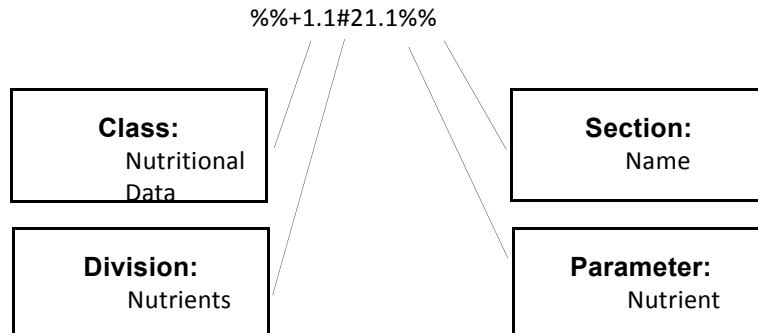
Dewey substitution codes

Substitution data (parameter	Dewey code	Avery Berkel code	AI code
Nutritional data	**General form** %%+string%%	**General form** %%string	( )
Nutrient name (nutrient number)	1.1#pp.1		
Nutrient RDA No units (nutrient number)	1.1#pp.2.1		
Nutrient RDA With units (nutrient number)	1.1#pp.2.2		
Nutrient RDA units only (nutrient number)	1.1#pp.2.3		
Serving size No units	1.2.1.1		
Serving size With units	1.2.1.2		
Serving size units only	1.2.1.3		
Std Measure size No units	1.2.2.1		
Std Measure size With units	1.2.2.2		
Std Measure size units only	1.2.2.3		
Servings per container	1.2.3	%%C	
Amount nutrient per serving measure No units (nutrient number)	1.2.4#pp.1		
Amount nutrient per serving measure With units (nutrient number)	1.2.4#pp.2		
Amount nutrient per serving measure units only (nutrient number)	1.2.4#pp.3		
Amount nutrient per std measure No units (nutrient number)	1.2.5#pp.1		
Amount nutrient per std measure With units (nutrient number)	1.2.5#pp.2		
Amount nutrient per std measure units only (nutrient number)	1.2.5#pp.3		
ServingSsize Txt	1.2.6		
Servings/Contnr	1.2.7		
Per serving guide message	1.2.8		
Per std measure guide message	1.2.9		
Nutrient serving % RDA (nutrient number)	1.3.1#pp		
Nutrient std measure % RDA (nutrient number)	1.3.2#pp		
Nutri text 4	1.4		
Autogen nutrients per serving No units (nutri data ref)	1.5#pp.1		
Autogen nutrients per serving With units (nutri data ref)	1.5#pp.2		
Autogen nutrients std measure No units (nutri data ref)	1.5#pp.3		

Substitution data (parameter	Dewey code	Avery Berkel code	AI code
Autogen nutrients std measure With units (nutri data ref)	1.5#pp.4		
Autogen nutrients serving %RDA (nutri data ref)	1.5#pp.5		
Autogen nutrients std measure %RDA (nutri data ref)	1.5#pp.6		
Traceability			
Trace lot num	2.1	%%0 or %%I	(10) or (251)
Trace slaughter ref	2.16#0	%%4	7030
Trace slaughter num	2.3	%%9	
Trace cutting ref	2.4	%%5	
Trace cutting num	2.5	%%A	
Trace origin 2.1	2.23.2.1	%%2	(423)
Trace origin 2.2	2.23.2.2	%%2	(423)
Trace origin 2.3	2.23.2.3	%%2	(423)
Trace origin 2.4	2.23.2.4	%%2	(423)
Trace origin 2.5	2.23.2.5	%%2	(423)
Trace origin 4.1	2.23.4.1	%%E	(425)
Trace origin 4.2	2.23.4.2	%%E	(425)
Trace origin 4.3	2.23.4.3	%%E	(425)
Trace origin 4.4	2.23.4.4	%%E	(425)
Trace origin 4.5	2.23.4.5	%%E	(425)
Trace origin 4.6	2.23.4.6	%%E	(425)
Trace origin 4.7	2.23.4.7	%%E	(425)
Trace origin 4.8	2.23.4.8	%%E	(425)
Trace origin 4.9	2.23.4.9	%%E	(425)
Cutting Number 1	2.24.1	%%A	(425)
Cutting Number 2	2.24.2	%%A	(425)
Cutting Number 3	2.24.3	%%A	(425)
Cutting Number 4	2.24.4	%%A	(425)
Cutting Number 5	2.24.5	%%A	(425)
Cutting Number 6	2.24.6	%%A	(425)
Cutting Number 7	2.24.7	%%A	(425)
Cutting Number 8	2.24.8	%%A	(425)
Cutting Number 9	2.24.9	%%A	(425)
Trace breed of Father	2.7.1	%%T	
Trace breed of Mother	2.7.2	%%U	
Trace breed if mixed	2.7.3	%%V	
Trace date 1	2.8.1	%%6	
Trace date 2	2.8.2	%%7	
Trace date 3	2.8.3	%%8	8
Trace species	2.9	%%L	
Trace text 3	2.10	%%B	
Trace category	2.11	%%W	
Trace type	2.12	%%Y	
Trace scheme license	2.13	%%Q	(953)
Trace Custom (Scheme) Data	2.14	%%Z	
Trace (Carcass) Reference Number	2.15	%%I	
Trace scheme Processor	2.16#p	%%Kp	
Trace GTIN	2.20		
Print trace text as a block	2.26#0		
Print line 1 of trace text	2.26#1		
Print trace text line (text line number)	2.26#nn		

Substitution data (parameter	Dewey code	Avery Berkel code	AI code
Operator Details			
Operator number	3.1	%%V1	
Operator name	3.2	%%V2	
Date and Time			
Date std	4.1	D	
Date Julian (days from start of year offset)	4.2#pppppp	DC+pppppp	
Time format 1	4.3	Z1	
Time format 2	4.4	Z2	
Time format 3	4.5	Z3	
Key tracker	4.6	K	
Promotions			
Price with promo	5.1	N	(3902)
Price without promo	5.2	G	
Promo saving	5.3	S	
Promo amount free	5.4	F	
Unit or item price	5.5		(8005)
PLU batch start date	5.6.1	PS	
PLU batch end date	5.6.2	PE	
PLU batch text	5.6.3	PT	
Promo batch start date (batch number)	5.6.4#pp	PSpp	
Promo batch end date (batch number)	5.6.5#pp	PEpp	
Promo batch text (batch number)	5.6.6#pp	PTpp	
Alternate currency (NB if pp is 0, prints local currency; if non zero, prints currency associated with payment key #pp)	5.7#pp		
Voucher Promo Expiry Date	5.8		
Promo Trip	5.9		
PLU Amount Free	5.10		
PLU Prices)	5.11		
PLU Data			
PLU number	6.1		
Department number	6.2		
Group number	6.3		
Article number	6.4		(01)
PLU Display Text	6.5.1		
PLU Text 1	6.5.2		
PLU Text 2	6.5.3		
PLU Text 3	6.5.4		
PLU Text 4	6.5.5		
PLU GTIN	6.7		
Miscellaneous Messages			
Message machine	7.1	M	
Message code key	7.2	H	
Message sales (sales message number)	7.3#pp	Rpp	
Barcode format text (barcode format number)	7.4#pp		
Network Details			
Network machine ID	8.1	MCID	
Network network ID	8.2	NTID	
Cooking and Points			
Points (per lb or kg)	9.1#ppp		
Cooking time (minutes per lb or kg)	9.2#ppp.1#ppp		
Transaction			
Gross weight	10.1.1		(3303)
Net weight	10.1.2		(3103)
Tare weight	10.1.3		
PLU date (1 or 2)	10.2#p		
Receipt			
Receipt sequence number	11.1		

Substitution data (parameter	Dewey code	Avery Berkel code	AI code
Pack Runs			
Pack run data name	12.1#p		
Order number	12.2		
Pack run description	12.3		
Pack run origin	12.4		
Total packs	12.5.1		
Total cartons	12.5.2		
Total boxes	12.5.3		
Total target 1	12.5.4		
Total target 2	12.5.5		
Total target 3	12.5.6		
Total tare	12.5.7		
Total net weight	12.5.8		
Total items	12.5.9		
Customer ref	12.6.1		
Account name	12.6.2		
Miscellaneous Numbers			
Label consecutive number	13.1		
SSCC Barcode	13.2		(00)
SSCC Human Readable Form	13.3		

Using Dewey substitution codes

In text entry mode, as soon as you type in the start characters '%%+', the system will prompt you to select the class.

Use [↖] and [↘] to move between the options. Press <Enter> to confirm the selection. When you have selected the class the system will prompt for a division within that class and subsequently for the section.

Press <Enter> to confirm each selection. To enter a parameter, just type in the value and the system will insert the '#'. When all the codes and parameters have been entered the system will automatically add the closing '%%' characters.

14.4 Nutrient facts

Nutrient definitions define the nutrients that will appear on the nutri panel and will be listed when creating or editing the PLU.

Nutrient Data texts define the text that will be printed on the nutri panel.

Standard nutrient definitions

Standard nutrient definitions and the associated values, as advised by the UK Food Standards Agency and the United States Food and Drug Administration, are already programmed in the machine. You can add to or edit these as required.

Ref	Nutrient name	UK RDA	USA RDA	Units of measure	Decimal places
1	Energy	10,400	8,320	(kJ)	0
2	Energy	2,500	2000	(kcal)	0
3	Protein	60	50	(g)	0
4	Fibre/Fiber	30	25	(g)	0
5	Total Fat	80	65	(g)	0
6	Saturated Fat	25	20	(g)	0
7	Cals from fat	0	0	(kcal)	0
8	Cholesterol	300	300	(mg)	0
9	Sodium	500	2400	(mg)	0
10	Carbohydrates	375	300	(g)	0
11	Sugars	0	40	(g)	0
12	Vitamin A	800	500	(µg)	0
13	Vitamin B1	1.4	1.4	(mg)	1
14	Vitamin B2	1.6	1.6	(mg)	1
15	Vitamin B6	2.0	2.0	(mg)	1

16	Vitamin B12	1.0	1.0	(μg)	1
17	Vitamin C	60	60	(mg)	0
18	Vitamin D	5.0	5.0	(μg)	1
19	Vitamin E	10	10	(mg)	0
20	Vitamin K	70	70	(μg)	0
21	Vitamin H	150	150	(μg)	0
22	Calcium	800	1000	(mg)	0
23	Iron	14	18	(mg)	0
24	Folic acid	200	200	(μg)	0
25	Niacin	18	20	(mg)	0
26	Trans Fat	2	2	(g)	0
27 - 50		0	0	(g)	0

Standard data texts

Standard data texts already programmed in the machine. You can edit these as required.

Ref	Text (400 chars)	Comments
1	Nutrient %%+1.1#2.1%% %%+1.1#3.1%% %%+1.1#4.1%% %%+1.1#5.1%% %%+1.1#6.1%% %%+1.1#7.1%% %%+1.1#8.1%% %%+1.1#9.1%% %%+1.1#10.1%% %%+1.1#11.1%% %%+1.1#12.1%% %%+1.1#13.1%% %%+1.1#14.1%% %%+1.1#17.1%% %%+1.1#22.1%% %%+1.1#23.1%% %%+1.1#24.1%%	Provides a column, headed with "Nutrient", showing the name of nutrients 1-14, 17 and 22-24. This nutri data text provides the template for the following four. These five nutri data texts provide the example nutri panel, in conjunction with default label format 99.
2	Per Serving %%+1.5#1.2%%	Column headed with "Per Serving", showing the amount of each nutrient per serving. This achieved using the auto-gen feature based on the nutrients listed in nutri data 1.
3	Per Std Meas %%+1.5#1.4%%	Column headed with "Per Std Meas", showing the amount of each nutrient per standard measure (normally per 100g or per 100ml). This achieved using the auto-gen feature based on the nutrients listed in nutri data 1.
4	Serv %RDA %%+1.5#1.5%%	Column headed with "Serv %RDA", showing the percentage of the recommended daily allowance that will be satisfied by eating a serving of this product. This achieved using the auto-gen feature based on the nutrients listed in nutri data 1.

5	Std Meas %RDA %%+1.5#1.6%%	Column headed with "Std Meas %RDA", showing the percentage of the recommended daily allowance that will be satisfied by eating the standard measure (normally 100g or 100ml) of this product. This achieved using the auto-gen feature based on the nutrients listed in nutri data 1.
6 - 28		Defaulted to null string.
28>	%%+1.2.4#26.2%%	Trans Fat
7	%%+1.2.1.2%%	The following texts provide an emulation of the old US style nutri panel, in conjunction with label field 100, 101, 102 or 103. This text inserts servings size with units.
8	%%+1.2.3%%	This text inserts servings per container.
9	%%+1.2.4#2.1%%	This text inserts energy (kCal) per serving with units.
10	%%+1.2.4#7.1%%	This text inserts calories from fat per serving with units.
11	%%+1.2.4#5.2%%	This text inserts total fat per serving with units.
12	%%+1.3.1#5%%	This text inserts the percentage RDA for total fat satisfied by a serving of this product.
13	%%+1.2.4#6.2%%	This text inserts saturated fat per serving with units.
14	%%+1.3.1#6%%	This text inserts the percentage RDA, for saturated fat, satisfied by a serving of this product.
15	%%+1.2.4#8.2%%	This text inserts cholesterol per serving with units.
16	%%+1.3.1#8%%	This text inserts the percentage RDA, for cholesterol, satisfied by a serving of this product.
17	%%+1.2.4#9.2%%	This text inserts sodium per serving with units.
18	%%+1.3.1#9%%	This text inserts the percentage RDA, for sodium, satisfied by a serving of this product.
19	%%+1.2.4#10.2%%	This text inserts carbohydrates per serving with units.
20	%%+1.3.1#10%%	This text inserts the percentage RDA, for carbohydrates, satisfied by a serving of this product.
21	%%+1.2.4#4.2%%	This text inserts fibre per serving with units.
22	%%+1.3.1#4%%	This text inserts the percentage RDA, for fibre, satisfied by a serving of this product.
23	%%+1.2.4#11.2%%	This text inserts sugar per serving with units.

24	%%+1.2.4#3.2%%	This text inserts protein per serving with units.
25	%%+1.3.1#12%%	This text inserts the percentage RDA, for vitamin A, satisfied by a serving of this product.
26	%%+1.3.1#17%%	This text inserts the percentage RDA, for vitamin C, satisfied by a serving of this product.
27	%%+1.3.1#22%%	This text inserts the percentage RDA, for calcium, satisfied by a serving of this product.
28	%%+1.3.1#23%%	This text inserts the percentage RDA, for iron, satisfied by a serving of this product.