

Description

General

The IX series of products are fully self-contained retail printing scales.

Configurable to suit a variety of retail trading requirements, they can be used stand-alone or linked in a network of up to nine machines.

Models & description

IX100

One piece with integral customer and operator displays and label and receipt printer. RS485 networking as standard.

IX202

One piece with column-mounted customer and operator displays and label and receipt printer. RS485 networking as standard.

IX110

One piece with integral customer and operator displays and receipt-only printer. Stand-alone operation only.

Hardware

Memory

All user programmable data is stored in 1MB of battery-backed, programmable RAM.

An additional 4MB of memory is used for the application software and factory default data.

The number of PLUs and text content supported is dependent on the model:

IX100/IX202: 1000 PLUs with up to 290 characters per PLU

IX110: 500 PLUs with up to 40 characters per PLU

The number of PLUs is not dependent on text content per PLU.

Fittings

Stainless-steel weigh plate, 345 mm x 275 mm

Printer

Integral thermal receipt or label printer, manual loading for use with receipt tally roll, die cut labels and continuous sticky paper.

Paper rewinds before printing commences, thereby consuming no "dead zone".

IX100/IX202

- Thermal label/receipt printer with take-up spool for backing paper
- 56 mm/second print speed
- 100 mm diameter paper roll (maximum)
- 60 mm paper width (maximum)
- 56 mm print width

IX110

- Thermal receipt printer
- 56 mm/second print speed
- 100 mm diameter paper roll (maximum)
- 60 mm paper width (maximum)
- 56 mm print width

Approvals

EC approval number: UK2849

Keyboard

Wipe clean membrane keyboard with audible bleep. Cluster-type numeric function keys.

IX100/110

57-key keyboard
34 direct keys

IX202

79-key keyboard
56 direct keys

Capacities

IX100/202

15kg AVR
6kg AVR
30lb x 0.01lb

IX110

15kg x 5g

At-a-glance IX Series specification

Dimension	<ul style="list-style-type: none"> IX100/110 (w x d x h) - 375 x 405 x 140 mm / 14.8 x 15.9 x 5.5 in IX202 (w x d x h) - 375 x 405 x 415 mm / 14.8 x 15.9 x 16.3 in Feet spacing (w x d) - 310 x 290 mm / 12.2 x 11.4 in
Capacities	<p>IX100/202</p> <ul style="list-style-type: none"> Standard: 15kg AVR, 30lb x 0.01lb Optional: 6kg AVR <p>IX110</p> <ul style="list-style-type: none"> 15kg x 5g
Connections	<ul style="list-style-type: none"> RS232 D-type, 2 x RJ121, RJ12 cash drawer
Memory	<ul style="list-style-type: none"> Size: 1.0 MB No. PLUs: 1000 @ 390 chars/PLU
Networking	<ul style="list-style-type: none"> Interscale: RS485, max 9 scales per network, max 8 operators
Display	<ul style="list-style-type: none"> Operator: Green LED backlit, dot matrix, 192 x 32 pixel Customer: Green LED backlit, dot matrix, 192 x 32 pixel
Keyboard	<ul style="list-style-type: none"> Type: Pressure-sensitive No. preset PLUs: 34 on IX100/110, 56 on IX202
Printer	<ul style="list-style-type: none"> Type: Thermal label/receipt (receipt only on IX110) Roll diameter/width - Max 100/60 mm or 4/2.4 in Speed: Max 56 mm/s or 2.2 in/sec
Labels	<ul style="list-style-type: none"> Print dimensions (w x l): Max 56 x 160mm or 2.2 x 6.3in Graphics: Yes, max 1 No. fonts: 8 No. formats: 5, all flexible Label orientation: 0, 90 Field orientation: 0, 90, 180 Print boxes, frames, lines: Yes
Operating modes	<ul style="list-style-type: none"> Label, receipt, ECR, pre-pack, pick & mix
Barcodes	<ul style="list-style-type: none"> EAN 8, UPX 12, EAN 13, UPC 13, GS1 Databar

Displays

All models include dot-matrix graphics LCD panels for both customer and operator for indication of weight, unit price, total price, tare weight, alpha-numeric product description and programming menus.



Scale interfaces

All models feature an RJ12 connector for cash drawer connection and one 9-way 'D' type serial port for either scanner or PC connection.

Inter-scale network & host interface

Interscale network (not IX110)
A maximum of nine scales may be linked together in a single network via two RJ121 connectors providing RS485 communications.

Within a single network, scales are configured in a Client/Server

configuration, with individual machine identification numbers.

Any scale can be configured as the Server, and all scales contain the full PLU and data file.

Programming of data can be carried out at any scale; these changes are then communicated to each scale on the network.

Configurable network alarm

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

Host interface

The 9-way 'D' type on all models can be used to connect a PC via RS232 communications for use with MX020.

Software

This section defines the software operation and data held by the IX series scales.

Operating modes

Label mode

IX scales in label mode are generally used for single-item, weighed or non-weighed transactions.

Label formats can be preset for a scale or may be set for each individual product.

Up to six label formats are available, with default layouts preset for each format. See separate IX series Label Format Specification sheet.

Every format can be modified in the scale's Service Mode or using MX020 (IX series support software).

Up to 25 fields of information can be printed on each format.

Legends such as those for the current date, expiry date, price per kg and total price values may be configured to print automatically.

A sales message may be assigned to a product which is subsequently printed by label formats containing a sales message field.

In label mode, the scale can be set to "Print on Request" (press the Print or Operator keys) or "Print Immediate" (as soon as the weight is steady).

Maximum label length which can be accommodated is 160 mm; minimum label length is 40 mm. 0° and 90° label orientations are possible.

Printing can be set for individual thermal labels or to print on continuous sticky paper (enabling short and long labels to be printed for different products).

Self-service mode

This mode is used when customers label their own goods using the scale.

When set up in Self-Service mode, the scale prompts the customer to select the appropriate product from the keyboard and, in the case of a weighed product, place the item on the weigh platter. The scale will then automatically print the label to be adhered to the product/bag.

In the case of a non-weighed product being selected, the customer is prompted to enter the number of items before the label is printed.

The IX100/110 can be assigned with a maximum of 34 product keys. These may be grouped to form larger product keys, if required.

The IX202 can be assigned with a maximum of 56 product keys. These may be grouped to form larger product keys, if required.

Pick and mix mode

This mode is used when all goods share a common price and customers label their own goods using the scale. Only one single key is represented on the keyboard, which may be assigned to any product, making the selection process simple and the scale easy to use.

When in Pick and Mix mode, the scale prompts the customer to select the item key from the keyboard. After placing the weight on the platter, the label is then printed.

If a non-weighed product is selected, the scale will automatically print the label without having to weigh the product, or enter the number of items; the number of items is always defaulted to one.

A service configuration option allows for a maximum of four different Pick and Mix products to be assigned to the keyboard.

Pre-pack mode

Pre-pack mode enables a number of consecutive labels to be printed for each selected item. For this reason, the selected item - along with any tare details - are retained until cleared.

In general, an item is selected in the standard way, and details are automatically 'fixed' with a label being printed each time the weight changes and then returns to a steady weight again.

For non-weighed items, it is possible to 'stream' the labels automatically up to a maximum of 99.

To cancel any item, press the clear key until the pre-pack message is displayed.

Direct entry to pre-pack mode by pressing the FIX key can be enabled in Service Configuration.

Receipt mode

Receipt mode enables individual transactions to be assigned to operators, adding up as they serve, with an itemised receipt printed at the end for the customer.

Products can be selected either by PLU number, direct pre-set key or by scanner, plugged into the RS232 port.

Transaction details on the receipt include: receipt header (store name), operator details, date/time, individual transaction information (description, weight, unit price, total price), total value, number of transactions, receipt footer, receipt number and scale ID.

A barcode may also be printed at the bottom of each receipt.

This barcode can contain receipt-specific information such as total value or receipt number.

The Void function enables the complete sale or any individual line to be cancelled, and the voided transactions are identified on receipt printouts.

On a network of IX100 and IX202 scales in receipt mode, the operators may 'float' up and down a counter from one scale to another, assigning transactions as they serve and printing the final receipt at any machine by pressing the Total key.

Up to eight operators may be 'live' on the network at any one time with capacity for up to 160 'live' transactions between them.

Receipts can be printed using either thermal receipt paper (non-sticky) or continuous sticky thermal receipt paper with backing paper.

ECR or EpoS mode (IX100 & IX202 only)

Scales may be configured into ECR or EpoS mode.

This is similar to Receipt mode of operation, but in addition to those functions, the sale must be finalised through one of the payment keys being assigned on the keyboard.

Up to three payment keys may be created and assigned to the keyboard. Default payment types are for cash, cheque and card; however, these may be changed and additional information programmed for security level, change allowed, cash drawer activation, refund and enforced entry value.

Switching between operating modes

The IX series can be configured to switch between label and receipt modes by pressing 'Clear', 0, 0 and pressing Enter to accept.

Programming modes

Access to the MANAGEMENT functions are controlled through the use of the MANAGEMENT PIN number. Direct entry into the major programming functions is then possible by navigating the hierarchical menu system or by using the direct preset keys.

System data

System data is that which is managed and held for the complete network.

This data can be edited at any scale, with the data then copied to all scales on that network.

Text control

Printed information for either labels or receipts can be programmed in eight different font sizes. The font size must be positioned in the text before the data to be printed.

Upper and lower-case characters are available through the use of Font Z.

Left-justified and centralised line feeds are possible through the Line Feed and Shift Line Feed functions respectively.

Word wrapping is automatic and appears on most punctuation marks including space, comma, full stop, colon, semi-colon and dash.

Product

The following Product Maintenance functions are available: Change Price, Create/Edit PLU, Copy PLU, Delete PLU and Customize the Create/Edit PLU options.

For each product, the operator can manage the following data elements in Create/Edit PLU:

- PLU number - 1 to 999999
- Label format - 0 to 5
- Display text - 16 characters
- PLU Text 1 - 40 characters
- PLU Text 2 - 250 characters (not IX110)
- Tax Ref 1 - 0 to 3
- Group Number - 0 to 9
- Price (weighed, non-weighed, negative)
- Price Base (weighed products and only if configured)
- Price Multiple (non-weighed products)
- Tare - 0 to 9 (weighed products)
- Proportional Tare - 0000 to 9999 (weighed products)
- Net Weight - 0 to 9999
- Date 1 - Disabled/days/months/time
- Sales Text 1 - 0 to 20
- Barcode - Disabled/enabled
- Barcode format - 1 to 9 (if enabled)
- Barcode number
- Carcass - Yes/No
- Assign key

The hand-held scanner may be used to create and edit PLUs in Manager Mode.

Messages

Sign On - Up to 200 characters may be programmed which will appear at the top of each printed receipt.

Sign Off - Up to 200 characters may be programmed which will appear at the bottom of each printed receipt.

Sales - Up to 20 sales messages may be programmed each with up to 200 characters. These sales messages are used to print information on labels.

Store Name - Up to 200 characters may be programmed which will appear at the bottom of each printed label.

Group Names - Each of the nine groups may be programmed with up to 20 characters. These group names appear within the group report when printed.

Substitution strings may be printed in the messages or PLU Text Areas to provide specific product data. Typical examples:

%%D - current date

%%Z1, %%Z2, %%Z3 - current time (three formats)

%%V1, %%V2 - operator name and operator number

%%Txx + yy - cooking time (xx mins/kg + yy mins)

%%S - prints the actual value saved by the customer when discounts applied.

Tables

Tax rates - up to three tax rates may be programmed.

Tares - up to nine tare weights can be programmed which can be assigned to PLUs for use as pre-set values or assigned to keys for recall in normal operating mode.

Payment - up to five payment types can be created, three as ECR payment methods and the remaining two as foreign currency payments (IX100 and IX202 only).

Discount rates - up to three discount values may be programmed with description, percentage/amount value and security level.

Barcode formats - The IX series can be programmed with up to nine different barcode formats of the following types: EAN13, EAN8, UPC12, UPC13, Scandinavian and GS1 Databar.

The following data may be encoded into the barcode: article number, price, weight and trace code. These barcodes may be programmed to print on labels, receipts or talons.

Operators

Up to eight operators may be programmed and used on a stand-alone or networked scale at any time. Up to 16 characters are available for operator name along with an eight-digit PIN, security level, Trading/Training status and Logged on/Logged off status.

Carcass traceability

Carcass tracking enables the operators to print carcass data on labels and receipts for all products packed from a particular carcass.

The supplier attaches a label from which the details may be entered or, if barcodes are used, can be scanned in when the carcass is sliced and packed.

There are up to 100 origin, category and breed entries which may be set up in the appropriate tables.

A text template is set up to define the format of the carcass data to be printed on the labels and receipts.

Security levels

The system has up to three security levels: 0 - no security up to 2 - highest level.

Functions assigned to level 0 will have no security and therefore may be accessed by any user.

Each operator can be given a security level of 0 to 2.

Every sales function (e.g. void, refund) can be set to require PIN authentication through assigning a level of 1 or 2. If set to 1 or 2, the selected function will prompt for the operator number then the PIN. If the operator security setting is greater or equal to the function level, the transaction will proceed, but if the operator security level is lower than the function level, the scale prompts for a supervisor.

Programming menus may also be set with security levels through the use of the Shift and Yes keys.

System functions

Pre-Pack PLU lock

Dependent on the setting of the PLU pre-pack lock in pre-pack mode, PLUs may need to be cleared before a different PLU can be called via the preset keyboard. If they are required to be cleared, set as enabled. If they are not, set as disabled.

Machine data

Pre-set key assignments (Dedicated keys)

The different types of assignment are Standard Assign and ECR Assign.

The free programmable keys may be set to any combination of functions:

Standard Assign: PLU, Operator, PIN, Tax Print, Tare, Proportional Tare, Euro, Return, Discount, Hash, Hand price keys, Weigh override, Total.

Management reports

Data reports

The following reports may be printed on receipt paper for data management purposes: PLU file, Verify labels, Operator report, Text report, Discount list, Manager Function Security report, Sales Function Security report, Payment Key list, Carcass reports, Barcode list, Tax Rate list and Tare Weight list.

Sales reports

The following reports are available:

- Grand Totals
- Machine Totals
- Operator Totals (optional range)
- PLU Totals (optional range and filters available)
- Group Totals (optional range)
- Discount Totals
- Security Report
- Carcass Totals

Both X (Subtotal) and Z (Total) totals may be reported on enabling period reporting over days/weeks/months.

Service mode

This mode includes the following functions, accessible by entering the SERVICE PIN during the power on 'countdown':

- Diagnostics - Weighing, keyboard, network, serial tests
- Configuration - Banks 1 and 2
- Country Configuration - Banks 3 and 4
- Calibration
- Site Gravity

- SERVICE PIN
- Euro Set up - Rate, Symbol and Wizard
- Label Editor - Copy, Edit, Restore and List formats

Kits

The IX series can be supplied with the following kits:

- Quick-fit L2 16" scoop
- Quick-fit G Pan Shallow fish scoop
- Economy cash drawer
- Metrologic MS9520 hand-held scanner
- Metrologic MS7120 hands-free scanner
- 3m network cable - 70735-136 (RJ12 connectors)
- 10m network cable - 70735-138 (RJ12 connectors)
- Internal battery kit

PC-based support software

MX020

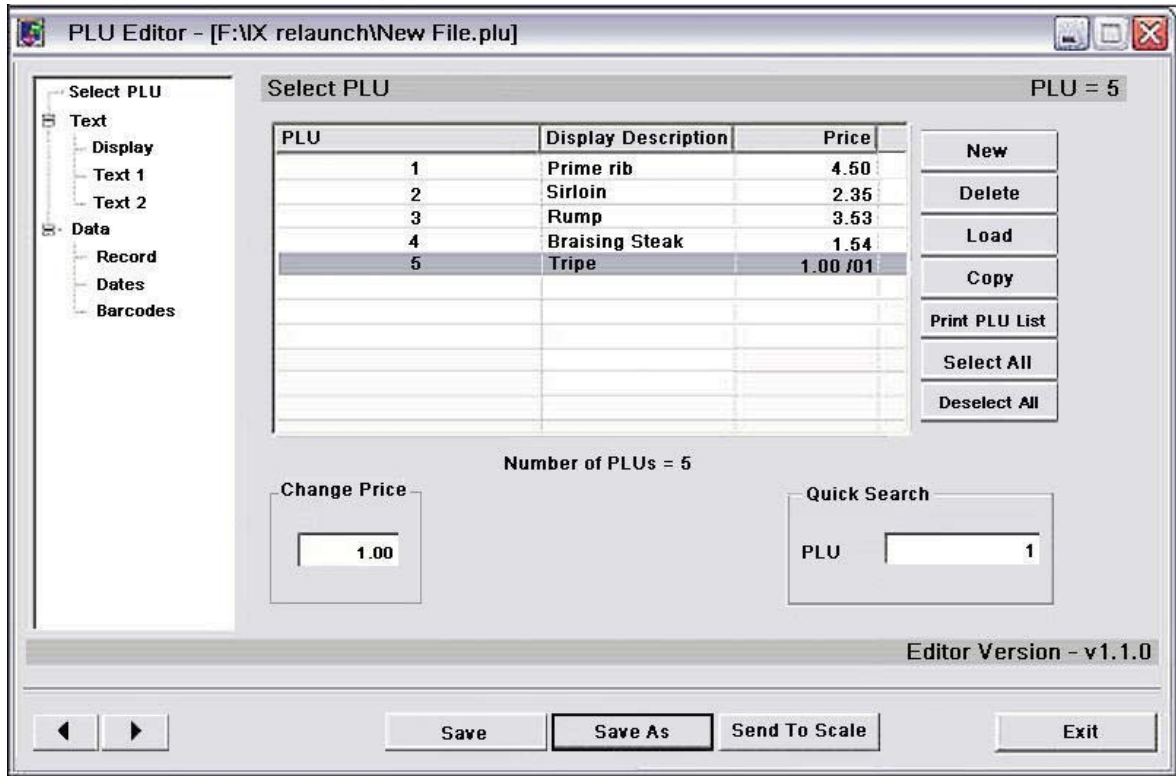
MX020 enables users to control PLU and label format files stored on the IX series of scales. Files can be stored on the PC, providing complete data resilience.

MX020 also provides authorised service and technical staff the ability to reprogram the IX series with new program information.

The PLU Editor enables quick and easy PLU maintenance – add, edit and delete PLUs and their associated data such as linked texts, price, barcode, tax reference etc.

The Label Editor enables easy design, editing and formatting of labels. A graphical preview of the

label is always displayed, letting you see the effect of any changes you are making straight away.



MX020 PLU Editor

Housing & environment

All manufactured IX series share the following exterior appearance:

- Wipe-clean textured gloss surface, designed to provide easy peel-off labels.
- High UV resistance for good colour stability.

Electrical

220 V - 240 V (+10% to -15%) at 50 Hz

110 V - 120 V (+10% to -15%) at 50 Hz

Operating

- Resistant to dust-abrasive environment
- Resistant to salt water
- Resistant to blood and animal fats

Operating temperature range
-10°C to + 40°C

Storage temperature range
-30° C to + 70° C

Humidity
10%to 98% RH

Safety standards

The IX series fully complies with CE requirements, including EMC and low-voltage directives in BS EN60950.

Weight

Without Tower
8.0 kg

With Tower
8.5 kg

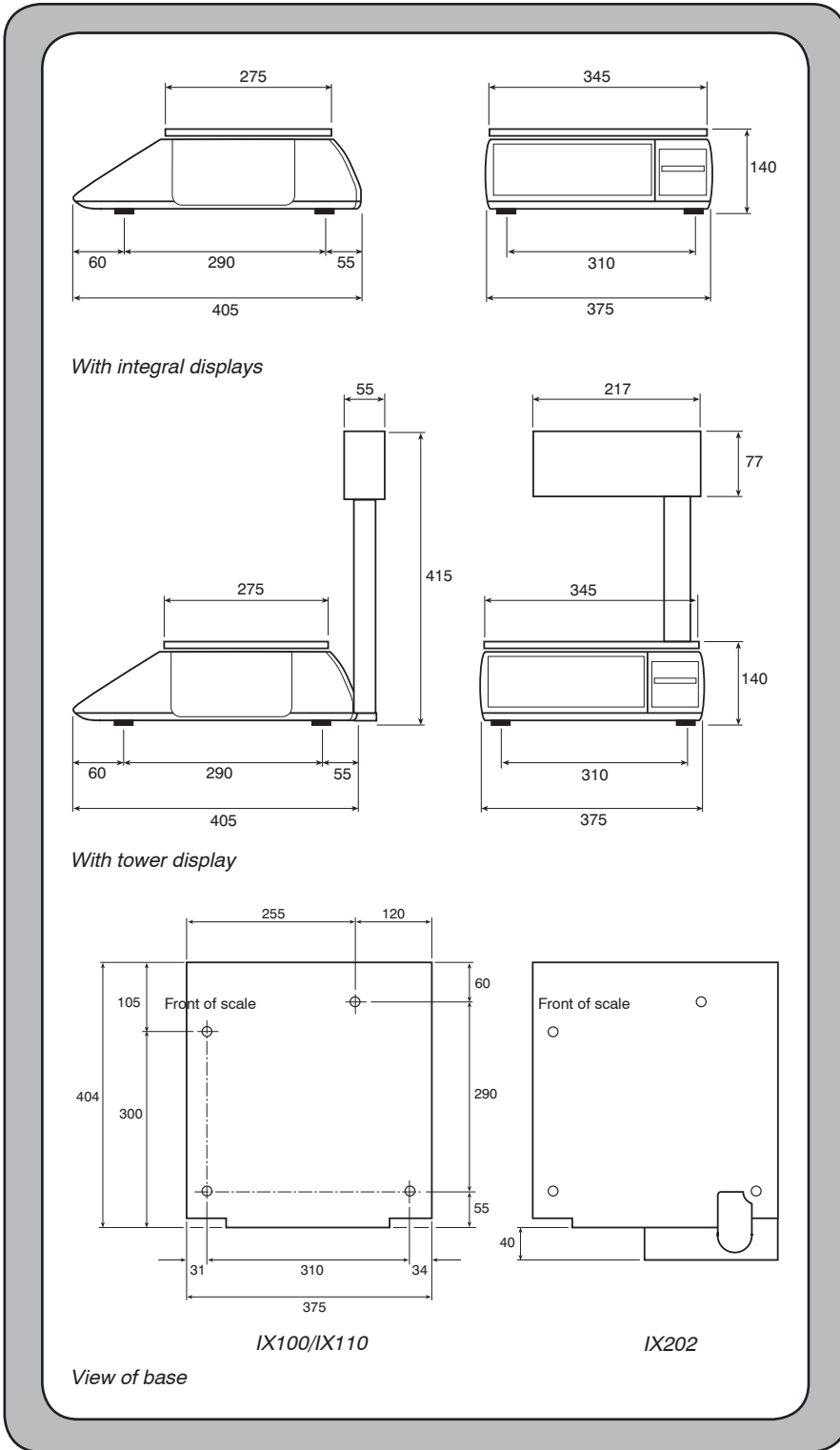
Shipping specification

Without tower
Net: 8.0 kg
Gross: 10.0 kg

With tower
Net: 8.5 kg
Gross: 10.3 kg

Harmonised commodity code
842381 50 0

Dimensions



Internal battery kit specifications

The kit consists of two 12 V sealed lead-acid rechargeable batteries and a power converter PCB.

The batteries and converter PCB fit directly into the base of any IX scale and are retained by the protective plate attached to the PCB which slides into place and is firmly held by a locking screw.

Operation

When fitted, the protective plate provides access to the internal battery kit power switch. This switch has two positions:



ON:

If mains power to the IX scale is removed and the internal batteries are sufficiently charged, power will be provided to the scale by the batteries without performance or operation being interrupted. To indicate that the scale is running on internal battery power, the battery annunciator in the customer and vendor display will be lit. If mains power is re-connected to an IX scale under internal battery power with the battery switch in the ON position, the scale will automatically take power from the mains and “trickle charge” the internal batteries back to full power.

OFF:

If mains power is removed from the IX scale while the switch is in the OFF position, the scale will immediately power off. Charging of the internal batteries will occur with the switch in the OFF position if mains power is reconnected.

Low power

The IX scale will automatically advise the vendor when the internal batteries are holding less than 20 volts via a series of four warning messages. At each warning, the message “Recharge Battery” will be displayed and a number of asterisk indicating the estimated amount of charge remaining.

- 1st warning: **** - -
- 2nd warning: *** - - -
- 3rd warning: ** - - - -
- 4th warning: * - - - - -

In addition to this, the scale will beep a warning beep every three seconds. At this point the scale can no longer be used and needs the internal batteries to be re-charged by re-connecting to mains power. This warning process takes place approximately 20-25 minutes before the batteries are fully discharged (depending upon battery condition and usage).

Battery voltage level test

The voltage of the internal battery can be checked when the scale is running on internal battery power by pressing the Test key. Following the display test, the battery voltage will be displayed.

To switch the scale off, the battery switch must be put into the OFF position. If the Test key on the keyboard is depressed for three seconds when the scale is under battery power, the message “Turn Off Battery” will be displayed and a warning bleep will sound every three seconds until the scale is physically turned off.

A label adhered to the side of the machine advises the location of the switch underneath the machine.

Note: It is advised that when an IX scale with internal battery kit installed is not in use, the scale should be disconnected from the mains power. This will prevent mains power interruptions unnecessarily discharging the battery.

Performance

Label mode

In ambient temperature, an IX scale will work continuously for 4.5 hours from internal battery power at a rate of printing 2 x 60 mm length labels per minute.

Receipt mode

In ambient temperature, an IX scale will work continuously for 4.5 hours from internal battery power at a rate of printing 2 x 3 transaction receipts per minute.

Non-printing mode

In ambient temperature, an IX scale will work continuously for up to 6.5 hours from internal battery power in non-printing mode.

Note: These battery life expectations are approximates and dependent upon the charge state, age, condition and temperature under which the scale/battery are being operated.

Re-charge time

An IX scale connected to mains power and fitted with an internal battery kit with the battery switch in the ON position will automatically and constantly “trickle charge” the batteries until fully charged,

whether the battery switch is in the ON or OFF position, so long as mains power is connected. It is recommended that the internal battery be charged for a minimum of eight hours in order to provide optimum performance.

Battery specification

2 x YUASA NP0.8-12 12 V batteries are fitted.

Battery kit UPCs

1. **Internal rechargeable battery kit with batteries**
IX1001AB00000000

Operating environment

-10° C to + 40° C

Safety standards

EN60950

Weight

Internal battery kit with batteries

945 g

Internal batteries only

745 g