SAM4s

ER-180 Series Electronic Cash Register

Operation and Programming Manual
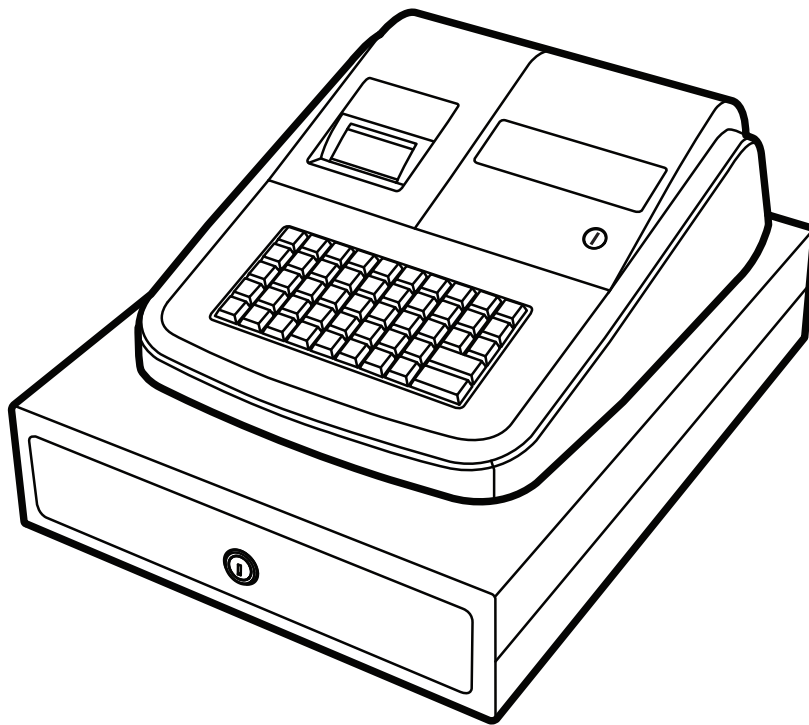
ATTENTION

The product that you have purchased requires three AA Type (Non-rechargeable Mn) batteries. These batteries are recyclable. At the end of their useful life, under various state and local laws, it may be illegal to dispose of these batteries into the municipal waste system.

Check with your local solid waste officials for details concerning recycling options or proper disposal.

It is recommended that the batteries are changed every 12 months.

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.

CAUTION

Risk of explosion if batteries are replaced by an incorrect type. dispose of used batteries according to the instructions.

Precaution Statements

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1 Safety Precautions

1. Be sure that all built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including non-metallic control knobs and compartment covers.

3. Make sure there are no cabinet openings through which people - particularly children - might insert fingers and contact dangerous voltages. Such openings include excessively wide cabinet ventilation slots and improperly fitted covers and drawers.

4. Design Alteration Warning:
Never alter or add to the mechanical or electrical design of the SECR. Unauthorized alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

5. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or over-heating, and correct any potential hazards.

6. Observe the original lead dress, especially near the following areas: sharp edges, and especially the AC and high voltage supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

7. Product Safety Notice:

   Some electrical and mechanical parts have special safety-related characteristics that might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original - even if the replacement is rated for higher voltage, wattage, etc.

   Components that are critical for safety are indicated in the circuit diagram by shading, (⚠) or (⚠). Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

<div style="text-align:center">CAUTION</div>

There is the danger of explosion if batteries are incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose used batteries according to the manufacturer's instructions.

<div style="text-align:center">ATTENTION</div>

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.

Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

SAFETY NOTICE: For pluggable equipment, the socket-outlet should be installed near the equipment and should be easily accessible.

1-2   Servicing Precautions

WARNING: First read the-Safety Precautions-section. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.
2. Always unplug the units AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly (b) Disconnect an electrical plug or connector (c) Connect a test component in parallel with an electrolytic capacitor
3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.

5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels and input terminals).
6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
8. Always connect an instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3   Precautions for Electrostatic Sensitive Devices (ESDs)

1. Some semiconductor (solid state) devices are easily damaged by static electricity. Such components are called Electrostatic Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
2. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power - this is an electric shock precaution.)
3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminium foil to prevent accumulation of electrostatic charge.
4. Do not use Freon-propelled chemicals. These can generate electrical charges that damage ESDs.

5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.
6. Use only an anti-static solder removal device. Many solder removal devices are not rated as anti-static; these can accumulate sufficient electrical charge to damage ESDs.
7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminium foil or other conductive materials.
8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

Contents

GETTING STARTED

Unpacking

- Unpack and unwrap the cash register.

- Locate the following items in the packaging:
  - 1 roll of 57mm non thermal paper
  - 1 rewind spindle
  - 1 set of control keys
  - 3 batteries

- Remove the roll cover and ensure three AA batteries have been fitted in the battery compartment at the base of the till roll housing.

  Note :- Failure to correctly install working batteries may result in the need to carry out the factory reset operation outlined in maintenance.

- Insert the key stamped **C** into the mode lock, and turn the key one position past **PGM** to **S** not shown on the mode lock.

- Press and continue to hold the **00** key

- Connect the adaptor cord to the right-side of the register, plug the register power adaptor into a power socket.

- After five seconds release the **00** key and turn the key to the **REG** lock position.

- If the display shows CLOSED, enter **1** and press the **CLERK** key.

- The register is now ready to operate

TO BEGIN OPERATION, REFER TO THE REGISTER OPERATION CHAPTER

Paper Roll and Take-Up Spool Installation

Loading Paper

- Remove the printer cover
- Ensure three AA batteries have been fitted in the battery compartment at the base of the roll housing

- Insert the Paper Roll
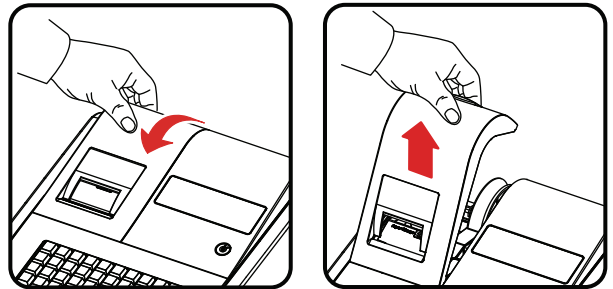- Feed the leading edge of the paper about 150mm and fold the tip 20mm.
- Press the **Feed** button to advance the paper
- Then follow the instructions for either customer receipt or journal roll setup.
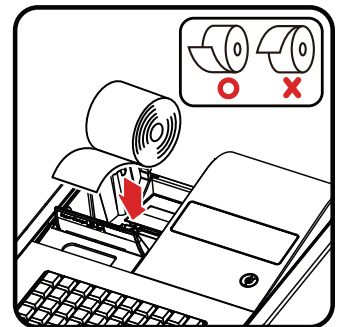
For Receipt

- Ensure the paper is fed through the paper outlet in the roll cover, and tear off the excess paper.
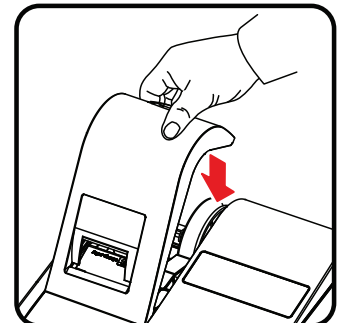
For Journal

- Insert the leading edge of the paper into the slot on the Journal Spool.
- Turn the spool two to three turns as shown.
- Place the Journal Spool on slots. If the paper is loose then turn the spool.
- Refer to initial setup page to program the spool to turn
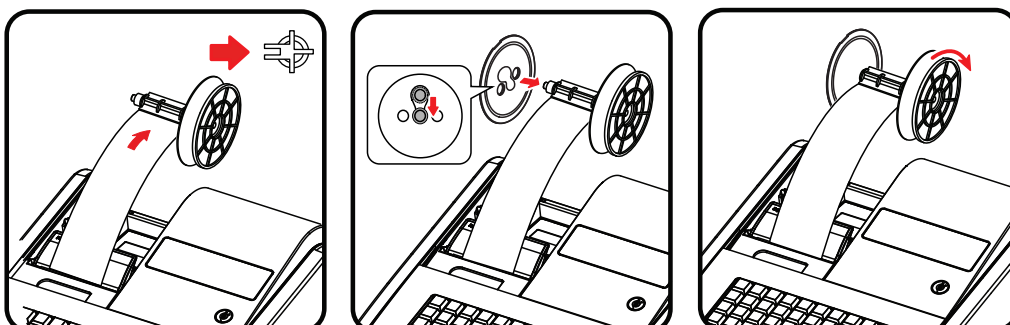
Basic Features and Functions

Standard Hardware

- 8 position segment display.
- 38 position keyboard.
- 57mm non thermal, non alpha printer.
- Key controlled mode lock.

Software Features

- 100 **P**rice **L**ook **U**ps (PLUs) for open or preset sales.
- Up to 5 department keys for open or preset sales.
- 4 Clerks for sales analysis of monies taken.

Mode Key

The cash register has a mode lock located on the front right of the cabinet. This is used to control the operations of the register such as reporting and programming.
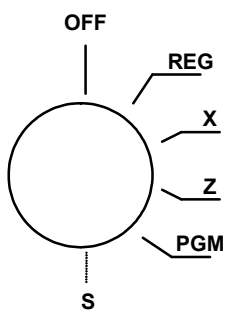
OFF	Turns the register off, allowing no sales
REG	Used to enter sales transactions
X	Used to **Print** and **Read** financial reports and declare monies taken
Z	Used to **Print** and **Reset** financial report totals to **zero**
PGM	Used for program settings such as date and time.

Note: Keys may be removed from the control lock in the **OFF** or **REG** positions.

Display

The display features fluorescent digits providing the user with information about the operations of the cash register. During these operations, the register display will show the following symbols.

$$1\ 2\ 3\ 4\ 5\ 6\ .7\ 8$$
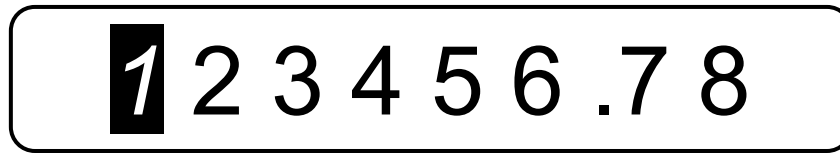
All these symbols appear in position 1 of the display.

C	Indicates the amount due in **change**.
=	Indicates the amount displayed is the **Total** monies
E	Indicates an error, pressing the **Clear** button will stop the error.
S	Indicates the amount displayed is a **Subtotal**
Closed	Indicates a clerk is required, press 1,2,3 or 4 followed by the **Clerk** key

Keyboard

The cash register uses the keyboard shown for all operations, each key is explained in detail following.

SAM4S 180 Keyboard

FEED	RECEIPT ON/OFF		CLEAR	PLU	X/TIME (X)	DEPT.5		# NO SALE	CALC
RETURN	–		7	8	9	DEPT.4		RA (+)	PO (-)
VOID	-%		4	5	6	DEPT.3		CHEQUE	CHARGE
CLERK	+%		1	2	3	DEPT.2		SUB TOTAL	
TAX	CONV		O	OO	.	DEPT. 1		CASH (=)	

Key Functions

FEED	When pressed this advances the printer paper.
0 - 9	These "Number keys" are used to enter the numeric amounts For Example - Enter 100 for £1
DEPT.1 - 5	Department keys are used to sell open or preset items, with the sales quantities and values recorded per key on the financial report. E.g. - **DPT1** as FOOD and **DPT2** as NON FOOD sales.
X/TIME	Used to display the time by pressing the key whilst in REG mode or used to sell multiples of the same items. This key is also the multiplication key in calculator mode.
PO (-)	Used to register any money paid out and reduce the cash in drawer total on reports. This key also acts as the minus key in calculator mode.
RA (+)	Used to register any money received and increase the cash in drawer total on reports. This key also acts as the plus key in calculator mode.
CLERK	This is used to sign on a clerk for total monies taken. Enter 1,2,3 or 4 and press the CLERK key to sign on an operator or press the CLERK key to sign off.
PLU	**P**rice **L**ook **U**p codes 1 to 100 can be used to sell preset or open priced items. The sales of these items can be totalled to one of the 5 department keys for reporting purposes.
-	Used to register a minus amount and reduce the sales total.
-%, +%	Used to register a percent discount **(-%)** or surcharge **(+%)** adjustment to the sales total. It is possible to assign a % rate to the keys to enable preset discounts or premiums.
VOID	Pressed immediately after an item sale this will remove the last item sold from the total.

ER-180

Key Functions

RETURN	This will remove a sales quantity and value from the report when the key is pressed prior to entering the department sale.
CLEAR	The key is used to clear error tones or numeric entries in addition this will also clear the time displayed after X/time is pressed
TAX	Programming of the tax rates for VAT add on or VAT extraction is carried out using this key. Also this key can be used for non UK straight tax as a %+ Manual Tax Rate
# / NO SALE	If a numeric entry is made prior to this key the number is printed on the receipt as reference number (#). Alternatively pressing this key outside of a sale acts as a No Sale and opens the cash drawer.
CHEQUE	To finalise the sale as a Cheque payment, and report to a separate totaliser on the financial report.
CHARGE	To finalise the sale as a Charge payment, and report to a separate totaliser on the financial report.
SUBTOTAL	When pressed the current total of the sale is displayed. This can be used prior to a % operation to determine the value to be adjusted or before finalisation to show the amount due.
CASH / TEND (=)	When pressed this will open the cash drawer and record the monies received as cash. In addition if the value of monies given by the customer is entered, the change due will be displayed This key also acts as the equals key in calculator mode
CALC	When pressed this switches the register into calculator mode, allowing mathematical calculations without reporting any values. The keys used in calculator mode are :- **RA** (+) **PO** (-) **X/TIME** (x) **CASH** (=) **CLEAR** (exits)
RCPT ON/OFF	When pressed this will toggle the printing from On to Off, stopping all printing irrespective of receipt or journal settings.
C/CONV	This allows the current sale total to be converted to a different currency total using the pre-programmed currency rate.

INITIAL SET UP INSTRUCTIONS

Receipt or Journal Paper Usage

The following sets the paper roll to act as either, a customer receipt or journal audit.

- Ensure the key is in the **PGM** position

- On the number keys enter

| **0** | **0** | For **Receipt** printing |

Or

| **0** | **1** | For **Journal** printing |

- Press the | **SUBTOTAL** | key and return to the **REG** position

Setting the Date and Time

The following procedures are used to set the time and date.

To Change the Time

- Ensure the key is in the **PGM** position

- Type in time (24hr clock) using the number keys i.e. **HHMM**

- Press the **CASH/TEND** key and return to the **REG** position

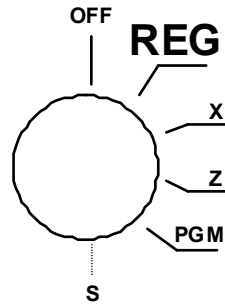| **H** | **H** | **M** | **M** | **CASH / TEND (=)** |

To Change the Date

- Ensure the key is in the **PGM** position

- Type in using the number keys, the date in 6 digits i.e. **MMDDYY**

- Press the **CHEQUE** key and return to the **REG** position

| **M** | **M** | **D** | **D** | **Y** | **Y** | **CHEQUE** |

REGISTER MODE

REGISTER

The following explains the operation of the mode lock whilst in **REG**.

OFF

REG

X

Z

PGM

S

If an error occurs during operation in this mode, press the **CLEAR** key to stop the tone and continue with the operation.

Clerk Operation

The register provides reporting totalisers for operators 1,2,3 and 4 in addition to printing the clerk number all receipts.

Clerk Sign On

Clerks can be signed on by entering a clerk number followed by the **CLERK** key.

| 1 | | CLERK |

Clerk Sign off

Pressing the **CLERK** key will sign off an operator, this will also set the register to the **CLOSED** state preventing any operation.

CLERK

Receipt On / Receipt Off

The paper roll can be either a journal or customer receipt as set within the program options. The following function will turn off all printing, irrespective of settings.

- Ensure the key is in **REG** the position

- Press the **RCPT ON / OFF** key to toggle the printing **OFF** and **ON**

RECPT
ON/OFF

No Sale Cash Drawer Open

A No Sale operation opens the cash drawer outside of a sale and the financial report records the count of the activity

- Ensure the key is in the **REG** position

- Press the **#/NO SALE** key

Example Receipt

| # / NO SALE |

```
30-03-10  09-45


.......... NS
```

Non Add Reference Number Entry

The **#/No Sale** key can be used to enter up to a seven digit number, which is printed on the receipt and journal as a reference.

The reference entry can be made prior or during any operation in the register mode. This numeric entry will not add to any activity counts or totals.

- Ensure the key is in the **REG** position

- Enter the reference number
  i.e 123 as a docket number

- Press the **#/NO SALE** key

- Continue with the sale as normal

Example Receipt

| 1 | 2 | 3 | # / NO SALE |

```
30-03-10  09-45


        1.23 #

    Etc..
```

Department Price Operation

Department keys are used to classify the items sold, reporting the quantities and values to their own individual totals. Departments are either manual or preset and manual price items, as set within program mode.
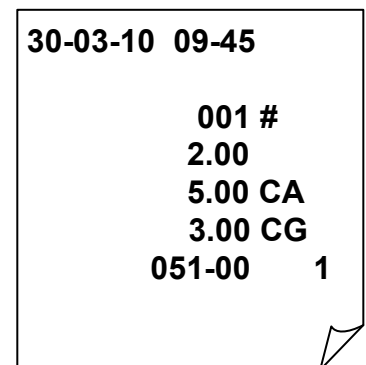
E.g. **DEPT.1** for FOOD, **DEPT.2** for NON FOOD sales and **DEPT.3** for LOTTERY at £1

Manual Example Sale

- Ensure the key is in the **REG** position
- Type in the price of the item on the number keys without a decimal point
    i.e. Enter 200 for £2
- Press the **DEPT.1** key to register the item
- Repeat the above for further sales items.
- If change calculation is required enter the value given by the customer
    i.e. Enter 500 for £5
- Press the **CASH/TEND** key to finalise

Example Receipt

| 2 | 0 | 0 | DEPT.1 |
| 5 | 0 | 0 | CASH/TEND (=) |

```
30-03-10  09-45

           001 #
          2.00
          5.00 CA
          3.00 CG
     051-00      1
```

Preset Example Sale

- Ensure the key is in the **REG** position
- Press the pre-programmed price **DEPT** key
    i.e. press DEPT.3 which has been preset as 100 (£1) for the lottery
- Repeat the above for further sales items.
- Press the **CHARGE** key to finalise

Example Receipt

| DEPT.3 |
| CHARGE |

```
30-03-10  09-45

           003 #
          1.00
          1.00 CG
     051-00      1
```
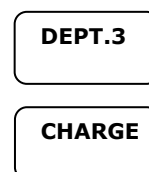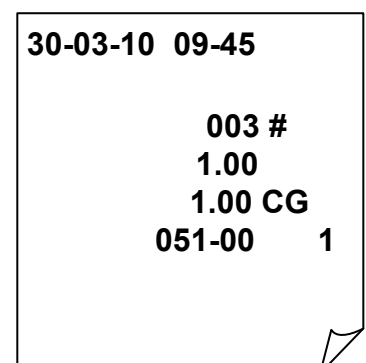
PLU Price Operation

Price Look Up codes 1 to 100 can be used to classify the items sold either as preset or open priced items.

The sales of these items can be totalled to one of the five departments for reporting.

E.g. **PLU Code 1** for OPEN PRICE SWEETS and **Code 2** for ICE POP sales at 50p

Manual Example Sale

- Ensure the key is in the **REG** position

- Enter the **Item Code Number** (1 to 100) and press the **PLU** key
  i.e. Enter 1 PLU

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 200 for £2

- Press the **PLU** key

- Repeat the above for further sales items.

- If change calculation is required enter the value given by the customer
  i.e. Enter 500 for £5

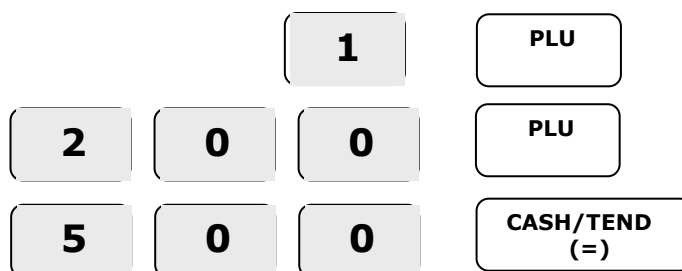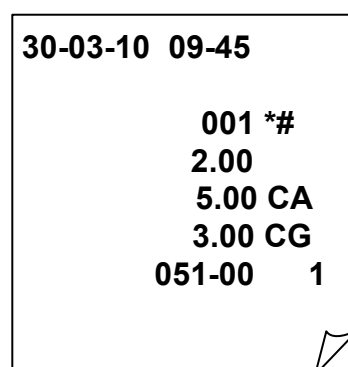- Press the **CASH/TEND** key to finalise

Example Receipt

1			PLU		30-03-10 09-45
2	0	0	PLU		001 *#
					2.00
					5.00 CA
5	0	0	CASH/TEND (=)		3.00 CG
					051-00 1

Preset Example Sale

- Ensure the key is in the **REG** position

- Enter the **Item Code Number** (1 to 100) and press the **PLU** key
  i.e. PLU 2 as ICE POP sales which has been preset as 50 (£0.50) is entered 2 PLU

- Repeat the above for further sales items.

- Press the **CASH/TEND** key to finalise

Example Receipt

2	PLU		30-03-10 09-45
	CASH/TEND (=)		002 *#
			0.50
			0.50 CA
			051-00 1
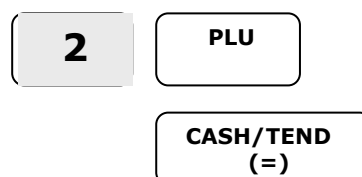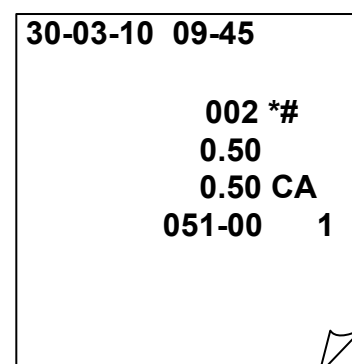
Multiplication Operation

It is possible to sell multiple products by entering the quantity required and pressing the X/Time Key. The product price will then multiply by the entered quantity.

Manual Department Example

- Ensure the key is in the **REG** position
- Type in the quantity required and press the **X/Time** key
  i.e. for 15 enter 15 X/Time
- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 200 for £2
- Press the **DEPT.1** key to register the item
- Repeat the above for further sales items
- Press the **CASH/TEND** key to finalise

Example Receipt

1	5		X/TIME
2	0	0	DEPT.1
			CASH/TEND (=)

```
30-03-10  09-45

             15 x
            2.00
           001 #
          30.00
       30.00 CA
      051-00      1
```
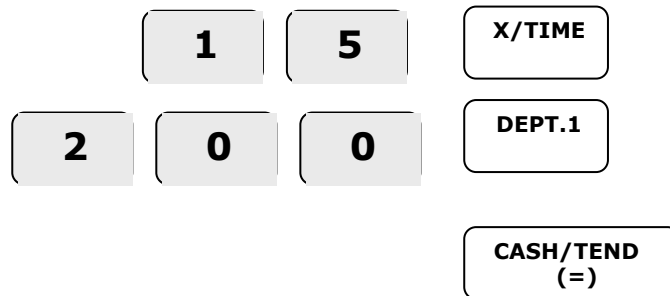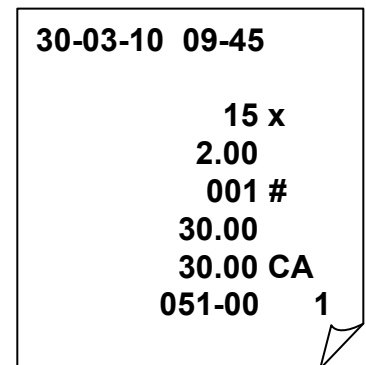
Preset Price Look Up (PLU) Example

- Ensure the key is in the **REG** position
- Type in the quantity required and press the **X/Time** key
  i.e. for 15 enter 15 X/Time
- Enter the Code number and press the **PLU** key
  I.e. PLU 3 which has been preset as 100 (£1) is entered 3 PLU
- Repeat the above for further sales items
- Press the **CASH/TEND** key to finalise

Example Receipt

1	5	X/TIME
	3	PLU
		CASH/TEND (=)

```
30-03-10  09-45

             15 x
            1.00
          001 *#
         15.00
      15.00 CA
     051-00      1
```
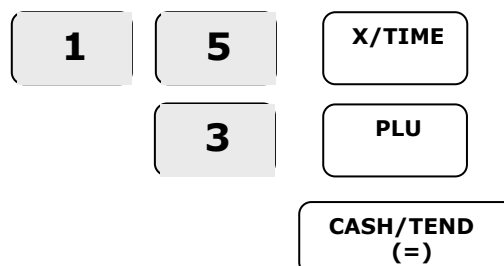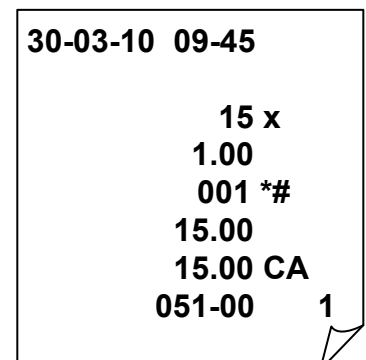
Department Single Item Operation

Products can be preset to open the cash drawer immediately after the item price has been recorded. This is set within the product price and tax status programming.

Manual Price Department Example

- Ensure the key is in the **REG** position
- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 200 for £2
- Press the **DEPT.1** key to register the item

The cash drawer will open immediately

Example Receipt

| **2** | **0** | **0** | DEPT.1 |

```
30-03-10  09-45

        001 #
   2.00
   2.00 CA
051-00     1
```
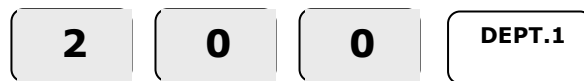
Preset Department Example

- Ensure the key is in the **REG** position
- Press the pre-programmed price **DEPT** key
  I.e. Dept 3 which has been preset as 100 (£1) for the lottery

The cash drawer will open immediately

Example Receipt

DEPT.3

```
30-03-10  09-45

        003 #
   1.00
   1.00 CA
051-00     1
```

Percentage (%) Premium or Discount

The % keys can be used to add or subtract a value from either the item retail price or the whole sale total, depending on the operation.

If the % action is carried out immediately after the item, the % is calculated as part of the item retail price and values are reported Net

However if the -% action is carried out after the Subtotal key has been pressed, it is assumed the discount is not item related. The value is then calculated as part of the whole sale total and reports Gross, unlike the +% which reports the value to the item
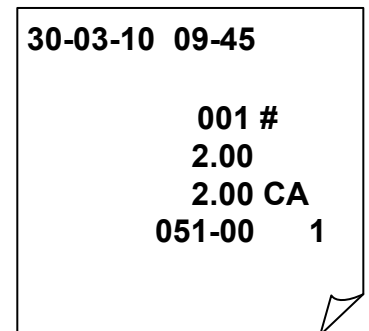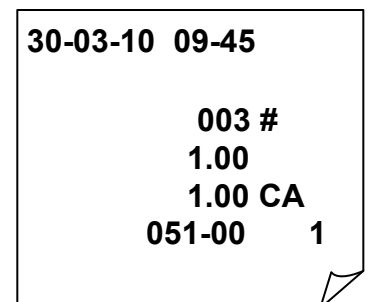
Item % - Manual Price Department Example

- Ensure the key is in the **REG** position

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 500 for £5

- Press the **DEPT.1** key to register the item

- Enter the value of the discount or surcharge and press the **-%** or **+%** key
  i.e. Enter 10 -% for a 10% discount

- Press the **SUBTOTAL** key to see amount due.

- Press the **CASH/TEND** key to finalise

Example Receipt

| 5 | 0 | 0 | DEPT.1 |
| 1 | 0 | | -% |

SUBTOTAL

CASH/TEND (=)

```
30-03-10  09-45

            001 #
            5.00
     -10.000 %-
           -0.50
          4.50 CA
   051-00        1
```
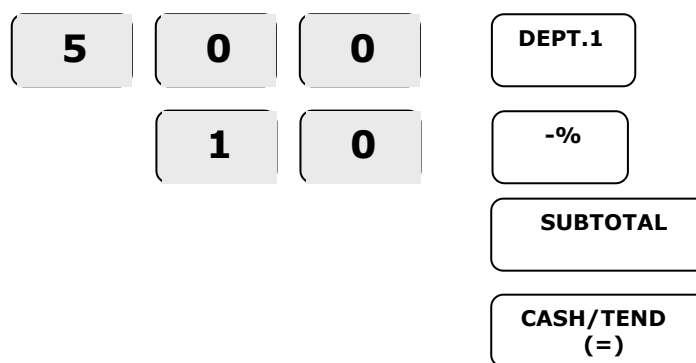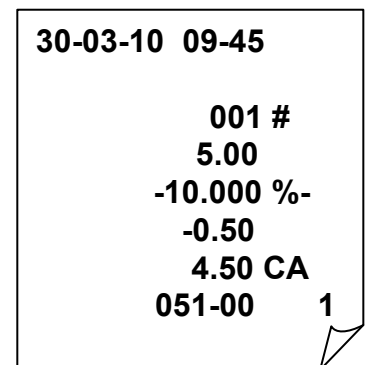
Percentage (%) Premium or Discount

Subtotal % - Manual Price Department Example

- Ensure the key is in the **REG** position

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 500 for £5.00

- Press the **DEPT.1** key to register the item

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 200 for £2

- Press the **DEPT.2** key to register the item

- Press the **SUBTOTAL** key to see amount to be discounted

- Enter the value of the discount or surcharge and press the **-%** or **+%** key
  i.e. Enter 10 -% for a 10% discount

- Press the **SUBTOTAL** key to see amount due.

- Press the **CASH/TEND** key to finalise

Example Receipt

| 5 | 0 | 0 | DEPT.1 |

| 2 | 0 | 0 | DEPT.2 |

SUBTOTAL

| 1 | 0 | -% |

SUBTOTAL

CASH/TEND (=)

```
30-03-10  09-45

           001 #
          5.00
           002 #
          2.00
      -10.000 %-
         -0.70
          6.30 CA
    051-00     1
```

Minus (-) Key Operation

It is possible to deduct an amount from a sale by entering the required value and pressing the (-) key.

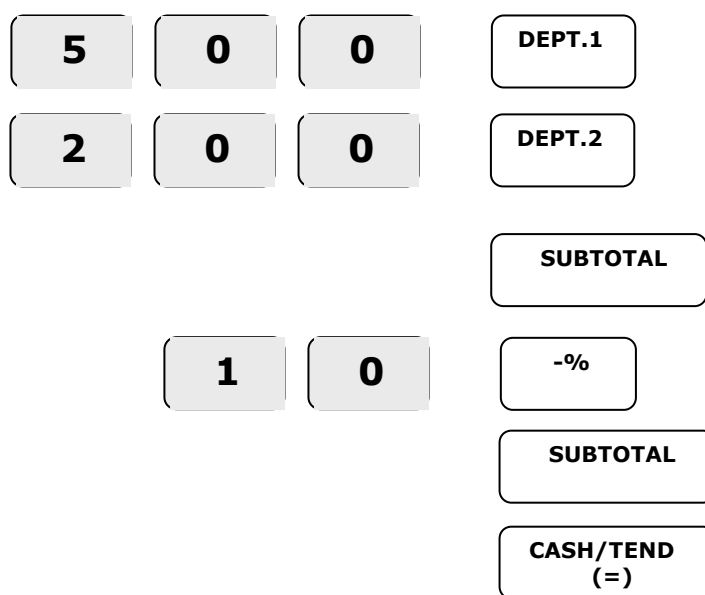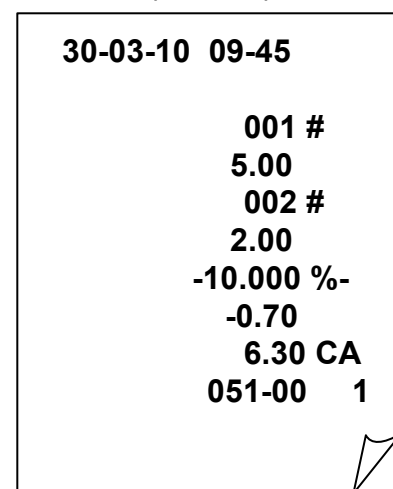If the minus action is carried out immediately after the item, the total of the item is reported net of the minus.

However if the minus action is carried out after the Subtotal key has been pressed it is assumed not to be related to the item, and the item value reports Gross.

The item discount can also be entered with a preceding quantity multiplier. This would allow the user to present more than one voucher per item
For example, multiple 10p vouchers requires the user to enter 5 x 10p
i.e. 5 X/Time would be pressed prior to the minus value.

Manual Price Department Example

- Ensure the key is in the **REG** position

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 500 for £5

- Press the **DEPT.1** key to register the item

- Enter the value of the minus and press the **(–)** minus key
  i.e. Enter 200 for £2

- Press the **SUBTOTAL** key to see amount due.
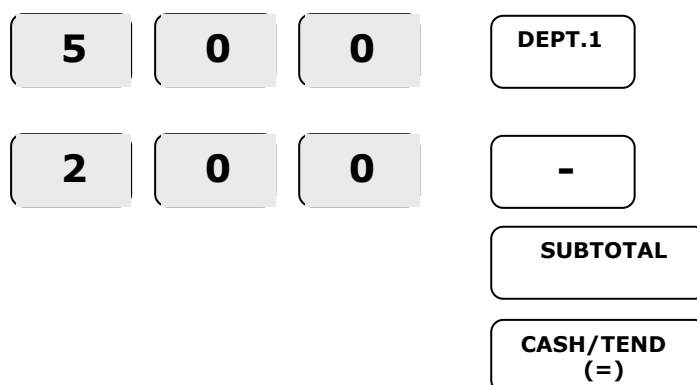
- Press the **CASH/TEND** key to finalise

Example Receipt

| 5 | 0 | 0 | | DEPT.1 |

| 2 | 0 | 0 | | - |

SUBTOTAL

CASH/TEND
(=)

```
30-03-10  09-45

              001 #
           5.00
          -2.00 -
           3.00 CA
      051-00      1
```


Merchandise Return Operation

The Return key can be used within or outside of an existing sale to record the following item as a negative. This function can be used when customers return goods for refund.

Return - Manual Price Department Example

- Ensure the key is in the **REG** position

- Press the **RETURN** key

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 100 for £1

- Press the **DEPT.1** key to register the item

- Press the **CASH/TEND** key to finalise

Example Receipt

| 1 | 0 | 0 |

| RETURN |

| DEPT.1 |

| CASH/TEND (=) |

```
30-03-10  09-45

········· RF
     001 #
     1.00
  - 1.00 CA
  051-00      1
```
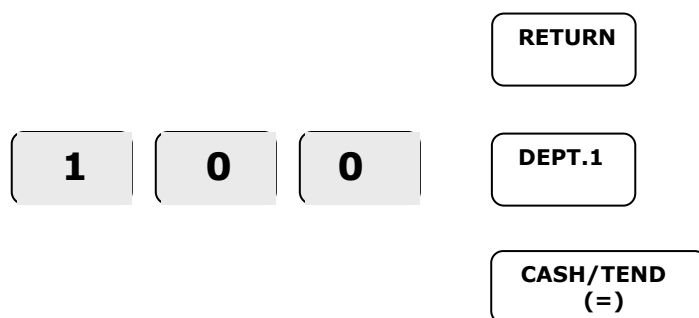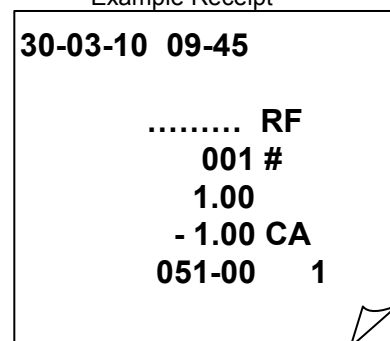
Voiding Last Item (VOID)

The Void key can be used within an existing sale to correct the last item sold, with a pre-entered value to remove one manually priced item within the sale

Pressing the void key immediately after the sale of an item will remove the value.

Correcting the Last Item - Manual Price Department Example

- Ensure the key is in the **REG** position

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 200 for £2

- Press the **DEPT.1** key to register the item

- Press the **VOID** key to remove the last item sold

- Continue with the sale.

Example Receipt

| 2 | 0 | 0 |

| DEPT.1 |

| VOID |

```
30-03-10  09-45

     001 #
     2.00
········· VD
     001 #
     -2.00
     001 #
     1.00
     1.00 CA
  051-00      1
```
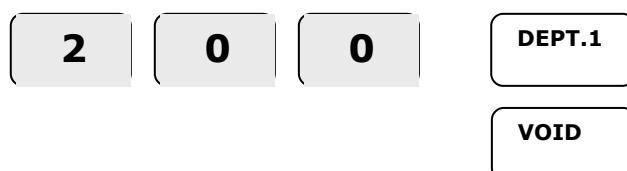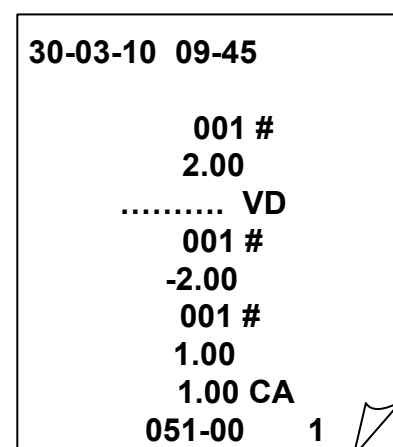
Tendering Operation

The register allows payment to be made either as Cash, Charge or Cheque with each reporting independently to the financial report.

Change Calculation – Manual Price Department Example

- Ensure the key is in the **REG** position

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 200 for £2

- Press the **DEPT.1** key to register the item

- Repeat the above for further items

- If change calculation is required, enter the value given by the customer
  i.e. Enter 500 for £5

- Press the **CASH/TEND** key to finalise and display the change due.

Example Receipt

| 2 | 0 | 0 | DEPT.1 |
| 5 | 0 | 0 | CASH/TEND (=) |

```
30-03-10  09-45

        001 #
        2.00
        5.00 CA
        3.00 CG
   051-00      1
```
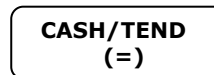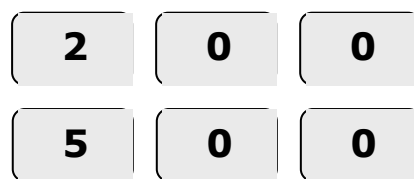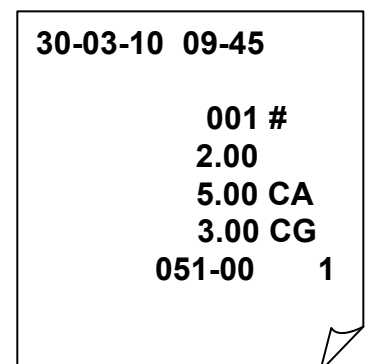
Tendering Operation

It is possible to split a transaction value into multiple methods of payment i.e. Cash and Charge, also to calculate the amount of change due to the customer on cash payments.

Partial Tender – Manual Price Department Example

- Ensure the key is in the **REG** position

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 2000 for £20.00

- Press the **DEPT.1** key to register the item

- Press the **SUBTOTAL** key to display the value due

- Enter the value of monies paid by charge and press the **CHARGE** key
  i.e. Enter 500 CHARGE for £5

- Enter the value of monies paid by cash and press the **CASH/TEND** key
  i.e. Enter 1500 CASH/TEND for £15

Example Receipt

2	0	0	0		DEPT.1

| | SUBTOTAL |

| 5 | 0 | 0 | | CHARGE |

| 1 | 5 | 0 | 0 | | CASH/TEND (=) |

```
30-03-10  09-45

            001 #
         20.00
         20.00 TA
          5.00 CG
         15.00 TA
         15.00  CA
       051-00    1
```
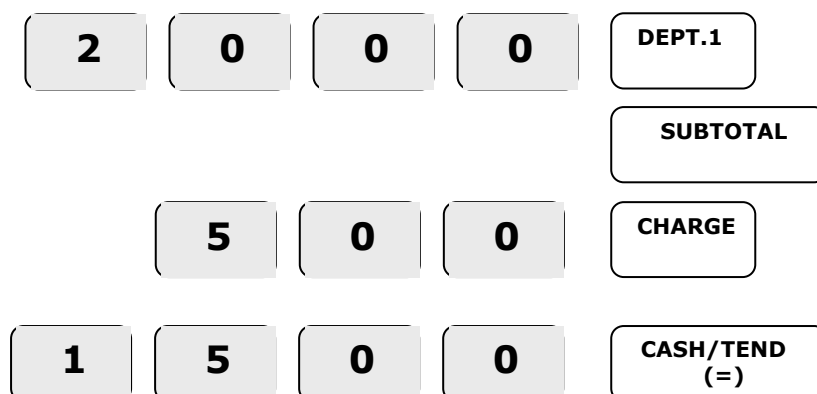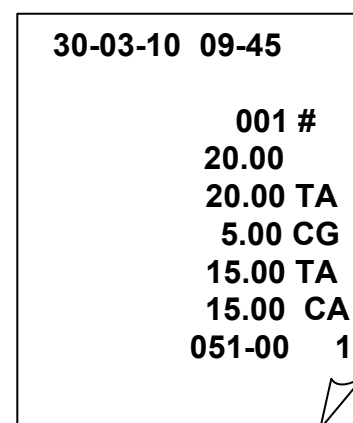
Received on Account (RA) Operation

It is possible to register monies added to the cash drawer which do not relate to a sale i.e. the amount of float added in to the drawer at the start of the day

- Ensure the key is in the **REG** position

- Type in the received value on the number keys without a decimal point
  i.e. Enter 700 for £7

- Press the **RA** button to register the monies received

Example Receipt

| 7 | 0 | 0 | RA (+) |

```
30-03-10  09-45


              7.00 RA
      051-00        1
```
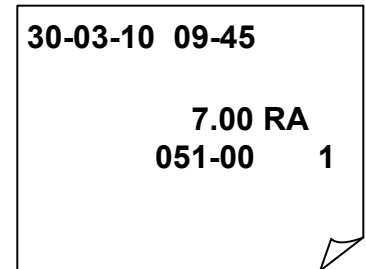
Paid Out Monies (PO) Operation

It is possible to register monies removed from the cash drawer which do not relate to a sale i.e. the amount of monies paid out to a window cleaner etc.

- Ensure the key is in the **REG** position

- Type in the paid out value on the number keys without a decimal point
  i.e. Enter 800 for £8

- Press the **PO** button to register the monies paid out

Example Receipt

| 8 | 0 | 0 | PO (-) |

```
30-03-10  09-45


              8.00 PO
      051-00        1
```
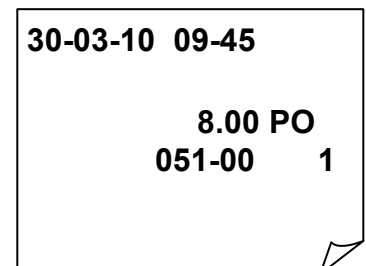
Currency Conversion Operation

It is possible for the current sale total to be converted to a new total as a foreign currency using the pre-programmed currency rate.

The item sales will be entered in the home currency, the value due converted to foreign currency and tender taken, any change given will be in the home currency.

- Ensure the key is in the **REG** position

- Type in the price of the item on the number keys without a decimal point
  i.e. Enter 100 for £1.00

- Press the **DEPT.1** key to register the item

- Press the **SUBTOTAL** key to display the value due.

- Press the **C/CONV** key to see the value converted to the programmed currency rate.

- Enter the value of monies paid by foreign cash and press **CASH/TEND**
  i.e. Enter 2000 CASH/TEND for $20

1	0	0	DEPT.1

SUBTOTAL

C/CONV

2	0	0	0	CASH/TEND (=)

```
30-03-10  09-45

           001 #
           1.00
           1.00 TA
           1.58 @
          20.00 AT
          12.66 PO
          11.66 CG

         051-00    1
```

Calculator Operation

The register will also act as a calculator, during this operation values are not added into the sales totals and the register operates as a simple calculator

Example Calculator

- Ensure the key is in the **REG** position
- Press the **CALC** key to enter the calculator mode
- Use the calculator functions as required.

RA **(+)**	Is the Plus Function
PO **(-)**	Is the Minus Function
X/Time **(X)**	Is the Multiplication Function
CASH /TEND **(=)**	Is the Equals Function

- Press **CLEAR** to quit the calculator operation

Example Calculator

```
100 + 200  = 300
      - 150  = 150
      x 100  = 15000
```

REPORTS MODE

REPORTING

The register has two reporting modes –
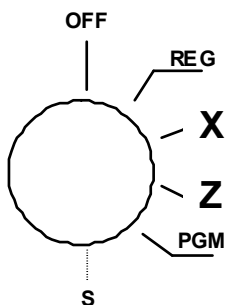
X to **Print** reports

Z to **Print** and **Reset** report data

The following table below shows the report selections available

To print a report

- Ensure the key is in either **X** to **Print** reports or **Z** to **Print** and **Reset**
- Press the required key for the report
  i.e. Cash/Tend for a financial report.
- Once the report has finished return to the **REG** position.

Mode Lock	Key press	Report Printed
X - Only	AMOUNT - [SUBTOTAL]	Enter cash in drawer amount for comparison of actual with theoretical monies taken.
X - Read / **Z -** Reset	[CASH/TEND (=)]	Financial Report
X - Read / **Z -** Reset	[CHARGE]	Department and Linked PLU sales
X - Read / **Z –** Reset	[CLERK]	Clerk total monies taken
X - Read / **Z -** Reset	[VOID]	Financial Period Gross and Net totals
X - Read / **Z -** Reset	[CHEQUE]	Period to date totals

Cash Declaration

It is possible to enter the actual monies in drawer amount prior to printing any reports

This actual value is then compared to the theoretical Cash in Drawer and the difference printed, alongside the actual cash.

This can be made compulsory prior to all reports with a program setting

To Enter Actual Monies

- Ensure the key is in **REG** position

- Press the **NO SALE** key to open cash drawer

- Count the actual sum of cash

- Ensure the key is in **X** position

- Type on the number keys the total amount of monies in the drawer
  i.e. Enter 7000 CASH/TEND for £70.00

- Press the **SUBTOTAL** key

- The **X** or **Z** reports can then be taken as required.

Sample Receipt

30-03-10 10-33	
70.00CA	Total actual monies entered
70.26AT	Total theoretical cash in drawer
-0.26	This is the difference
014-77 1	

Example Financial Daily Report

Example Financial Report

- Ensure the key is in either **X** to **print** or **Z** to **print** and **reset** totals

- Press   CASH / TEND (=)

30-01-10 14-30	Date, Time
1 Z	Z Counter, Mode key position
54.00TX1	Taxable 1 Total
2.08TX1	Tax 1 Total
19.00TX2	Taxable 2 Total
1.07TX2	Tax 2 Total
3.00TX3	Taxable 3 Total
0.22TX3	Tax 3 Total
3.00TX4	Taxable 4 Total
0.22TX4	Tax 4 Total
0.54%-	-% Total
0.30%+	+% Total
-7.50 -	(-) Total
188.26*1	Net Sales Total
-2.00RF	Return Merchandise Total
-3.00VD	Void Total
198.00*2	Gross Sales Total
018 #	Customer Counter
183.26CA	Cash Total
5.00CH	Cheque Total
0.00CG	Charge Total
7.00RA	Received On Account
5.00PO	Paid Out
184.26AT	Cash In Drawer
001 NS	No Sale Counter
●●●●●●●●●	
198.00*3	Grand Total
064–01 1	Receipt No., Machine No., Clerk No.

Example Department Report

- Ensure the key is in either **X** to **print** or **Z** to **print** and **reset** totals

- Press [CHARGE]

02-01-10 14-30	Date, Time
1 X	Z Counter, Mode Key Position
001 #	Department Number
0.03 @	Department Counter
19.00	Total
002 #	Department Number
0.02 @	Department Counter
29.00	Total
016 #	Department Number
0.05 @	Department Counter
20.00	Total
064–01 1	Receipt No., Machine No., Clerk No.

Example Clerk Report

- Ensure the key is in either **X** to **print** or **Z** to **print** and **reset** totals

- Press [CLERK]

02-01-10 14-30	Date, Time
1 X	Z Counter, Mode Key Position
25.00 1	Net Sales of Clerk 1
30.00 2	Net Sales of Clerk 2
59.00 3	Net Sales of Clerk 3
100.00 4	Net Sales of Clerk 4
064–01 1	Receipt No., Machine No., Clerk No.

Example Financial Period Report

- Ensure the key is in either **X** to **print** or **Z** to **print** and **reset** totals

- Press [VOID]

02-01-10 14-30	Date, Time
1 X	Z Counter, Mode Key Position
188.26 * 1	Net Sales Total
198.00 * 2	Gross Sales Total
064–01 1	Receipt No., Machine No., Clerk No.

Example Period to Date Report

Shown below is how to print the Period-To-Date report and an example

- Ensure the key is in either **X** to **print** or **Z** to **print** and **reset** totals

- Press the [CHEQUE]

02-01-10 10-33	Date, Time
1 *Z	Z Counter, Mode Key Position
425.71 *4	P-T-D Grand Total
016-77 1	Receipt No., Machine No., Clerk No.

Example Calculations

Below are listed the common calculations shown on the previous report.

Value	Explanation
*1 – **NET SALES TOTAL**	Sales of all Department keys 1 to 5 + Sales of all Price Look Up items + Tax Total *(Add on or manual tax only)* – Sum of all Returns + Sum of all Premium (+%) – Sum of all Discounts (-%) – Sum of all Minus Amounts (–)
*2 – **GROSS SALES TOTAL**	Sales of all Department keys 1 to 5 + Sales of all Price Look Up items + Tax Total *(Add on or manual tax only)*
*3 – **GRAND TOTAL**	Gross Sales Total + Previous Grand Total

PROGRAM MODE

TRAINING MODE

The cash register has a training option which allows sales to be made without adjusting any report totals.

This allows for staff training with full register functionality without any training sales adding to the report values.

Start Training

- Ensure the key is in the **PGM** position

- On the number keys type **1** and press the **CHARGE** key

- Return the key to **REG** and begin trading in training mode

   **Note :-** *No reports are updated whilst in training mode*

End Training

- Ensure the key is in the **PGM** position

- On the number keys type **0** and press the **CHARGE** key

- Return the key to **REG**

Programming

The following outlines how to change the pre-programmed system settings with the mode key in the **PGM** position. This program information is stored whilst the power is off using the AA batteries fitted.
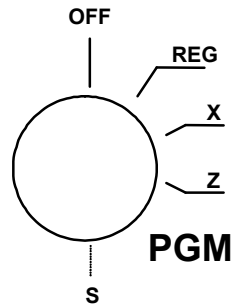
Receipt or Journal and Tax Print options

This option sets whether the paper will be given to the customer as a receipt or wound onto a spool as journal.

In addition this controls whether programmed tax is printed on the customer receipt

To Change Settings

- Insert the key stamped **C** and turn to the **PGM** position

- On the number keys type in the answer to question **a**
  This is usually set to 0 to print tax

- On the number keys type in the answer to question **b**
  This is either 0 for Receipts or 1 for Journal

- Press the **SUBTOTAL** key and return to the **REG** position

Answer		Question	Explanation
a	**0** 1	**= Print Tax Details** = Do not print Tax	If Tax rates are programmed, when this option is set to 0 the tax information will print on the customer receipt.
b	**0** 1	**= Receipt Printer** = Journal Printer	When set to 0 the printer will issue customer receipts, when set to 1 the paper winds onto the spool as a journal **Note :-** Pressing the RCPT ON/OFF key in REG mode can be used to stop all printing.

Tax and Country Setting

This option sets the correct number of decimal places for the country of use.

In addition this controls the method of tax, i.e. whether tax is included or added to the retail price of goods sold.

To Change Settings

- Insert the key stamped **C** and turn to the **PGM** position

- On the number keys type in the answer to question **a**
  This is usually 0 for 2 decimal places in the UK

- On the number keys type in the answer to question **b**
  This is usually 0 for price inclusive Vat

- Press the **X/TIME** key and return the key to the **REG** position

a	b	X/TIME
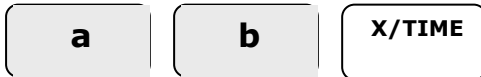
Answer		Question	Explanation
a	**0** 1 2 3	**= 2 decimal** = no decimal = 1 decimal = 3 decimal	This is the number of decimal places for the currency for the country of use. This would be 0 for the UK
b	**0** 1 2	**= VAT** included in Price = Vat added to price = External tax (non uk)	This sets how programmed tax rates will be applied to retail prices.

Tax Rate Programming

The following allows the pre-programming of four tax numbers with rates
i.e. Tax 1 as 17.5% and Tax 2 could 0.00%

The department sales keys and **P**rice **L**ook **U**p codes are then linked to tax numbers
allowing the calculation of various VAT amounts based on the sales values entered.

To Change Settings

- Insert the key stamped **C** and turn to the **PGM** position

- On the number keys type in the answer to question **a**
  This would be value for the first tax rate i.e. 17500 for 17.5%

- On the number keys type in the answer to question **b**
  This would tax number i.e. Tax 1 @ 17.5% and Tax 2 @ 0%

- Press the **TAX** key and return the key to the **REG** position

a	a	a	a	a	b		TAX

| Answer		Question	Explanation
a	Rate i.e **17500**	Tax rate to be set to the tax number	This would be value for the first tax rate i.e. 17500 for 17.5%
b	1	= Tax 1	This sets which Tax number the rate will be applied to i.e.
	2	= Tax 2	
	3	= Tax 3	Rate 1 set as 17.5%
	4	= Tax 4	Rate 2 set as 0.00%

Price and Tax Settings

Sales made using the Dept 1 to 5 keys or by using the **P**rice **L**ook **U**p codes 1 to 100 are totalled to one of the five department keys for reporting and tax calculation.

These sales can be made using either a preset price or as a manual price entry.
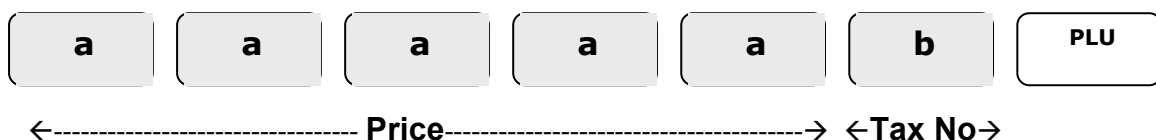
Dept.1 – 5 keys - Price and Tax setting

- Insert the key stamped **C** and turn to the **PGM** position

- On the number keys type in price as represented by **a**
  i.e. Enter 1072 for £10.72

- On the number keys type in the Tax 1 to 4 (or 0 for no tax) as the answer **b**
  i.e.. 1 to be referenced for the VAT rate to be applied tax number 1

- Press **DEPT 1** to **5** key,

- Repeat the above for further keys if required.

- Return the key to the **REG** position

a	a	a	a	a	b	DEPT.1

←-------------------------------- **Price** --------------------------------------→   ←**Tax No**→
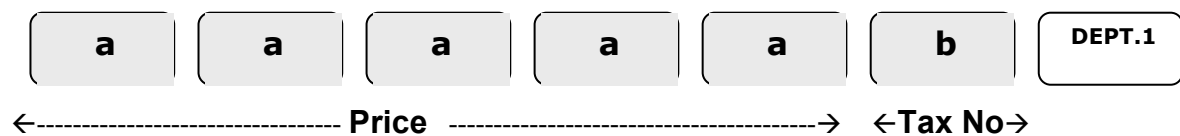
Price Look Up (PLU) code – Price and Tax Setting

- Insert the key stamped **C** and turn to the **PGM** position

- On the number keys type in PLU code 1 to 100 as represented by **xxx**

- Press the **PLU** key
  i.e. For PLU item 13 enter 13 PLU

- On the number keys type in price as represented by **a**
  i.e. Enter 1072 for £10.72

- On the number keys type in the Tax 1 to 4 (or 0 for no tax) as the answer **b**
  i.e. 1 to be referenced for the VAT rate to be applied tax number 1

- Press the **PLU** key, repeat the above for further PLUs if required.

- Return the key to the **REG** position

- If in addition to monies reporting sales analysis to one of five departments categories is required then continue with PLU linking to a departments.

x	x	x	PLU

←-----------Code 1 to 100------------→

a	a	a	a	a	b	PLU

←-------------------------------- **Price**--------------------------------------→   ←**Tax No**→

Note – For both PLUs and Departments, if using Single item (i.e. cashed off immediately after sale) then the Tax number is increased by 5   –   i.e 6 is tax 1 and single item operation.

PLU linking to Department

When a **P**rice **L**ook **U**p is sold, the monies are reported to the financial totalisers. The following provides additional reporting with the option for sales totals to be summed to one of the five departments. This allows the product sales to be categorised.

For Example all Food PLU Sales may be set to total to Department 1 and all Non Food PLU sales to Department 2.

To Change Settings

- Insert the key stamped **C** and turn to the **PGM** position

- On the number keys type in PLU code 1 to 100 as represented by **XXX**

- Press the **PLU** key
  i.e. for PLU item 13 enter 13 PLU

- Press the **DEPT** key to which the PLU sales will be recorded.

- Repeat the above for further PLU's if required.

- Return the key to the **REG** position

| X | X | X | PLU | DEPT.1 to 5 |

←------------ **Code 1 to 100** ------------→
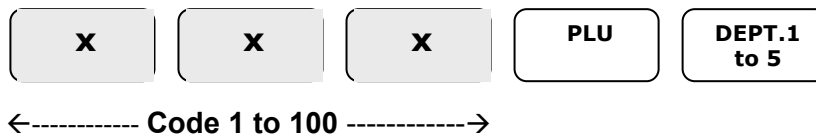
Setting the Register Number

The register number is printed on the receipt and used to identify the sales receipts and reports for the individual registers.

- Ensure the key is in the **PGM** position

- Enter the register number up to 2 digits
  i.e. for 12 for register number 12

- Press the **NO SALE** key and return the key to the **REG** position

x	x		# / NO SALE

←--**Till Number** --→
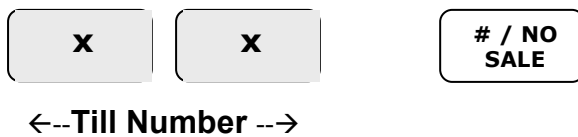
Setting the +% and -% key

The **+%** and **-%** can be programmed with a preset rate. This can then adjust the sale total accordingly.

- Ensure the key is in the **PGM** position

- On the number keys type in the rate with 3 decimal places
  i.e. for 10% enter 10000

- Press the **+%** or **-%** and return the key to the **REG** position

x	x	x	x	x	+% or -%

←---------------------------- **Rate** ----------------------------------→

Option settings 1

The register operation can be tailored using the following options. For each option set there are five questions answered by entering 0 or 1.

The five choices a,b,c,d,e for each option must be answered at the same time. This results in a five digit entry of **0's** and **1's** followed by the **RA (+)** key.

To Change Settings

- Ensure the key is in the **PGM** position

- On the number keys type in the answer for question a
  i.e. enter 0 for normal reports or 1 to force cash count entry before reports

- On the number keys type in the answer for question b
  i.e. enter 0 to print all unused report totals or 1 to skip zero value lines

- On the number keys type in the answer for question c
  i.e. enter 0 to print one financial report or 1 to print two copies

- On the number keys type in the answer for question d
  i.e. enter 0 to print all corrections and Gross on reports or 1 to not print

- On the number keys type in the answer for question e
  i.e. enter 0 not to print the subtotal key presses or 1 to print subtotal

- Press the **RA** key and return the key to the **REG** position

a	b	c	d	e	RA (+)

Answer		Question	Explanation
a	*0 1	None Compulsory Declaration Compulsory Declaration	This programs the register to prevent the printing of financial reports unless the operator enters the actual monies taken i.e. "Compulsory Declaration" This then provides a comparison between the actual and theoretical monies
b	0 *1	Print items with 0 values Do not print items with 0 values	This option sets if unused functions are printed on reports with a zero or not printed at all.
c	*0 1	Print a single copy of the Z report Automatically print two copies of the Z report	It is possible to have a second copy of the Z report printed automatically.
d	*0 1	Print Returns / Voids and Gross Total on reports Do Not Print Returns/ Voids and Gross Totals	This removes the refund / void and gross totals from the printed financial reports.
e	0 *1	Print Subtotal when key pressed Do not print the Subtotal	This set is the Subtotal value is printed when the key is pressed.

* indicates default setting

Option settings 2

The register operation can be tailored using the following options. For each option set there are five questions answered by entering 0 or 1.

The five choices a,b,c,d,e for each option must be answered at the same time. This results in a five digit entry of **0's** and **1's** followed by the **PO (-)** key.

To Change Settings

- Ensure the key is in the **PGM** position

- On the number keys type in the answer for question a
    I.e. enter 0 to print report Grand Total or 1 not to print

- On the number keys type in the answer for question b
    I.e. enter 0 to keep running Grand Total or 1 to reset after Z clear Financial Report

- On the number keys type in the answer for question c
    I.e. enter 0 for a running Report Counter or 1 to reset after Z clear Financial Report

- On the number keys type in the answer for question d
    I.e. enter 0 for a running Receipt No. or 1 to reset after Z clear Financial Report

- On the number keys type in the answer for question e
    I.e. enter 0 to print date and time or 1 not to print date and time

- Press the **PO** key and return the key to the **REG** position

a	b	c	d	e	PO (-)

Answer		Question	Explanation
a	*0	Print running Grand Total	The register has a GT (Grand Total) which increases with each sale
	1	Do not print the Grand Total	This sets if this Grand total is to be printed on the Financial report
b	*0	Do not reset the Grand Total after Z Report	Every time a Z reset financial report is printed the Grand Total Increases.
	1	Reset the Grand Total after every Z report	This option sets if the Grand Total is reset back to 0.00 every time a Z clear financial report is printed
c	*0	Do not reset the report Counter after Z report	Every time a Z reset financial report is printed the report counter increases.
	1	Reset the Counter after Z report	This option sets if the report counter is reset back to 1 every time a Z clear financial report is printed
d	*0	Do not reset the receipt consecutive number after Z report	Every time the register prints a receipt the receipt counter increases.
	1	Reset the receipt number after every Z Report	This option sets if the receipt counter is reset back to 1 every time a Z clear financial report is printed
e	*0	Print Date and Time	This sets if the time and date are printed on the receipt or journal.
	1	Do Not Print	

* indicates default setting

Currency Conversion Rate

The cash sale total can be converted into a foreign currency, by pressing the **C/CONV** key after the Subtotal key.

The item sales will be entered in the home currency, the value due converted and tender taken, any change given will be in the home currency.

The following sets the rate for the foreign currency to the **C/CONV** key.

To Change Settings

- Ensure the key is in the **PGM** position

- On the number keys type in the rate as for answer **a**
    i.e. for 1.58 enter 158, leading zero's are not required.

- On the number keys type in the number of decimals in the exchange rate for answer **b**
    i.e. for 1.58 enter 2

- Press the **C/CONV** key and return the key to the **REG** position

| a | a | a | a | a | b | C/CONV |

←----------------------------------- Rate ------------------------------------→ ←Decimal→
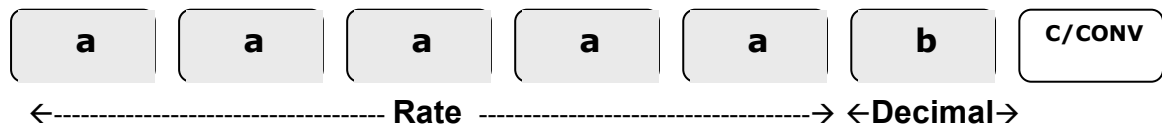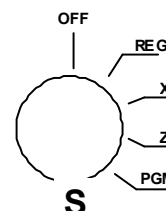
MAINTENANCE

Factory Reset

WARNING – This will clear all sales and programming.

This procedure has been done prior to shipment and need not be carried out as part of the initial setup

- Insert the key stamped **C** in to the mode lock, and turn the key to one position past **PGM** to **S** not shown on the mode lock

- Power **OFF** and press the [**00**] and while still pressing the key power **ON**

- The register prints **"……."** to indicate a successful reset

- Turn the mode key to the **REG** position.

- At the **CLOSED** prompt enter [**1**] on the number keys and press [**CLERK**]

Recommendations

Shown below are common recommendations regarding the care of this cash register.

| |
|---|
| Replace the three AA batteries every 12 months. |
| Be certain that the AC cord poses no danger of accidental tripping and that it is inserted firmly into the outlet. |
| Use no chemicals or abrasives while cleaning cabinet or keyboard. |
| Do not pull or hold the paper while the register is printing. |
| Avoid excess dust and extreme temperatures. |

Replacing the Batteries

It is recommended the three AA batteries are replaced every 12 months

- Remove the printer cover
- Ensure three AA batteries have been fitted in the battery compartment at the base of the roll housing
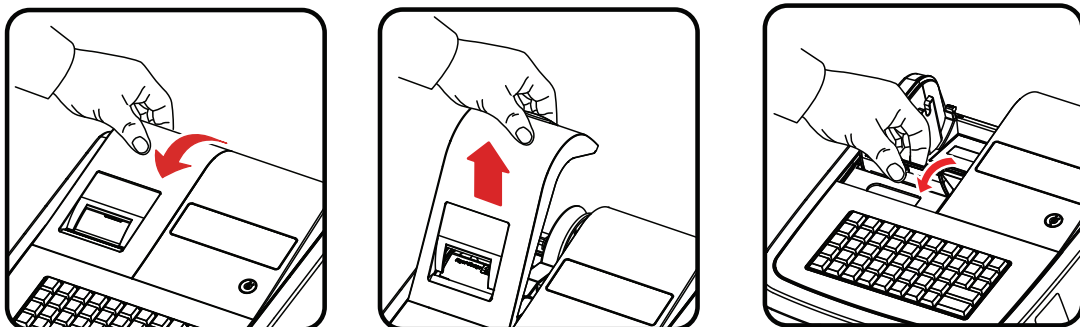
Replacing the Ink Roller

The ink roller is a one-use article; re-inking the roller can cause damage to the printer and void warranty. When the print becomes faint, replace the ink roller as follows.

- Remove the old roller by lifting it out using the lever on the left-hand side

- Fit the new ink roller completely into the space as shown.
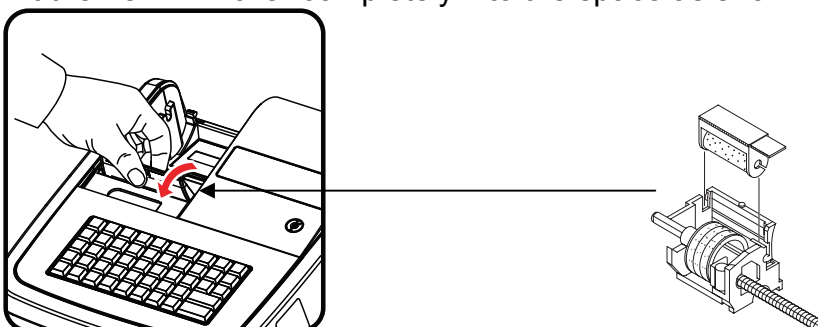
Specification

Below are shown the technical specifications for this product.

Specification

DIMENSIONS	Reg. Size	280 mmW × 360 mmL × 215 mmH
DRAWER	Size	320 mmW × 420 mmL × 95 mmH
MODE KEY	Lock switch	Key
	Positions	6 (OFF, R, X, Z, PGM, S)
	Receipt on / off	by keyboard
KEYBOARD	Type	Rubber contact type
	Number of keys	38
	Keystroke buffer	15
PRINTER	Model #	M−42v
	Stations	1
	Paper	Single ply (57.5 mm) none thermal
	Copy	None
	Print speed	2.2 line / second (7 Column printing)
DISPLAY	Capacity	8 digits
	Symbols	5 (E, C, -, =, S)
POWER	Input	AC local voltage ±10%,50 / 60 hz
	Consumption	Standby : 2w, max : 8w
	Memory back-up	60 days (battery dependant)
	Battery	3x AA batteries.