

SHARP®



ELECTRONIC CASH REGISTER
ELEKTRONISCHE REGISTRIERKASSE
CAISSE ENREGISTREUSE ELECTRONIQUE
CAJA REGISTRADORA ELECTRONICA

MODEL
MODELL
MODELE
MODELO

ER-A160
ER-A180

INSTRUCTION MANUAL
BEDIENUNGSANLEITUNG

MANUEL D'INSTRUCTIONS
MANUAL DE INSTRUCCIONES



The above illustration shows model ER-A180.
Die obenstehende Abbildung zeigt das Modell ER-A180.

L'illustration ci-dessus montre le modèle ER-A180.
La ilustración anterior muestra el modelo ER-A180.

CAUTION:

The cash register should be securely fitted to the supporting platforms to avoid instability when the drawers are open.

CAUTION:

The socket-outlet shall be installed near the equipment and shall be easily accessible.

VORSICHT:

Die Netzsteckdose muß nahe dem Gerät angebracht und leicht zugänglich sein.

ATTENTION:

La prise de courant murale devra être installée à proximité de l'équipement et devra être facilement accessible.

AVISO:

El tomacorriente debe estar instalado cerca del equipo y debe quedar bien accesible.

WARNING:

Det matande vägguttaget skall placeras nära apparaten och vara lätt åtkomligt.

CAUTION:

For a complete electrical disconnection pull out the mains plug.

VORSICHT:

Zur vollständigen elektrischen Trennung vom Netz den Netzstecker ziehen.

ATTENTION:

Pour obtenir une mise hors-circuit totale, débrancher la prise de courant secteur.

AVISO:

Para una desconexión eléctrica completa, desenchufar el enchufe de tomacorriente.

WARNING:

För att helt koppla från strömmen, dra ut stickproppen.

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ένωσης 89/336/ΕΟΚ και 73/23/ΕΟΚ, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som komplette ras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

INTRODUCTION

Thank you very much for your purchase of the SHARP Electronic Cash Register, Model ER-A160/ER-A180. Please read this manual carefully before operating your machine in order to gain full understanding of functions and features.

Please keep this manual for future reference, it will help you, if you encounter any operational problems.

CAUTION!

Never install the batteries into the cash register before initializing it. Before you start operating the cash register, you must first initialize it, then install the batteries. Otherwise, distorted memory contents and malfunction of the cash register will occur. For their procedures, please refer to page 6.

IMPORTANT

- **Install your register in a location that is not subject to direct radiation, unusual temperature changes, high humidity or exposed to water sources.**
Installation in such locations could cause damage to the cabinet and the electronic components.
- **Never operate the register with wet hands.**
The water could seep into the interior of the register and cause component failure.
- **When cleaning your register, use a dry, soft cloth. Never use solvents, such as benzine and/or thinner.**
The use of such chemicals will lead to discoloration or deterioration of the cabinet.
- **The register plugs into any standard wall outlet (Official (nominal) voltage).**
Other electrical devices on the same electrical circuit could cause the register to malfunction.
- **If the register malfunctions, call your local dealer for service - do not try to repair the register yourself.**
- **For a complete electrical disconnection, pull out the mains plug.**

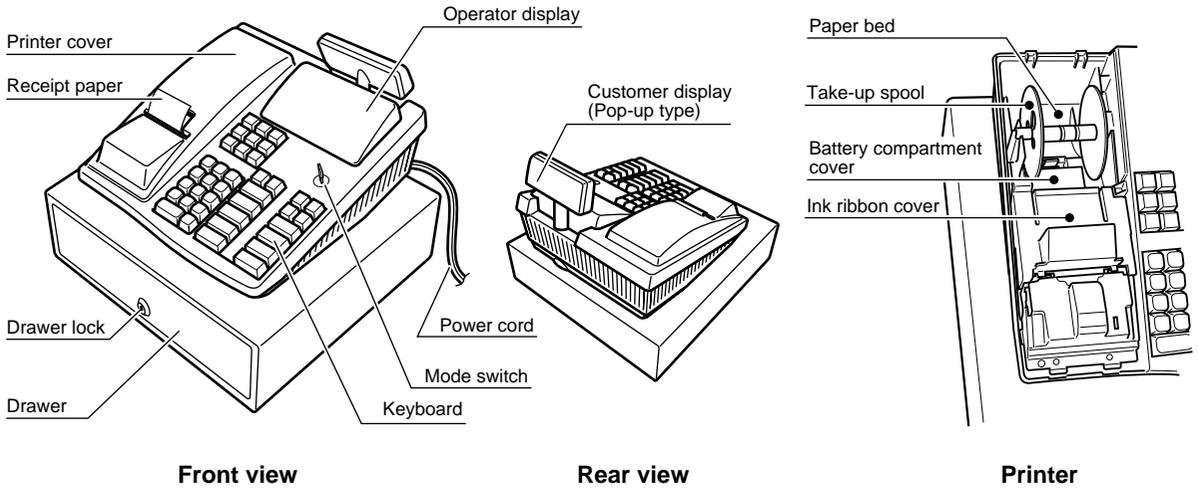
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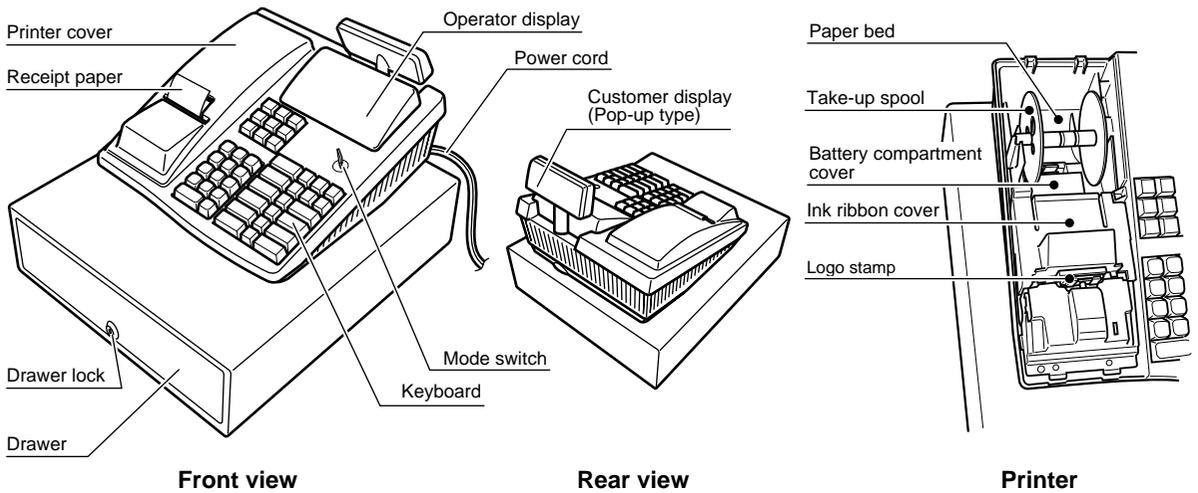
PARTS AND THEIR FUNCTIONS

1 External view

ER-A160



ER-A180



2 Keyboard

Standard keyboard layout

ER-A160

↑	RA	CASH #		
RCPT /PO	AUTO 1	AUTO 2		
∞	RF	ESC		
			PLU	AMT
⊗	•	CL		5
7	8	9		4
4	5	6		3
1	2	3		2
0	00			1
			⊖	EX
			%1	%2
			CR	
			CH	
			#/TM/ST	
			TL/NS	

ER-A180

↑	RA	CASH #		
RCPT /PO	AUTO 1	AUTO 2		
∞	RF	ESC		
			PLU	AMT
⊗	•	CL		5
7	8	9		4
4	5	6		3
1	2	3		2
0	00			1
			⊖	EX
			%1	%2
			CR	
			CH	
			#/TM/ST	
			TL/NS	

Standard key names

↑	Paper feed key
RA	Received-on account key
CASH #	Cashier code entry key
RCPT /PO	Receipt print/Paid-out key
AUTO 1 AUTO 2	Auto 1 and 2 keys
∞	Void key
RF	Refund key
ESC	Escape key
⊗	Multiplication key
•	Decimal point key
CL	Clear key
00 0 ~ 9	Numeric keys

PLU (ER-A180) PLU (ER-A160)	PLU/Subdepartment key
AMT	Amount key
⊖	Discount key
EX	Foreign currency exchange key
1 ~ 5	Department keys
6 ~ 10 (ER-A180 only)	Department keys
%1 %2	Percent 1 and 2 keys
CR	Credit key
CH	Cheque key
#/TM/ST	Non-add code/Time display/Subtotal key
TL/NS	Total/No sale key

Option keys

VAT	Value added tax key
(SHIFT)	(ER-A180 only) Department shift key (Ex. (SHIFT) 16 = Department 16)

You can change the number of departments to 10 or 15 (ER-A160), or to 5, 15, 20 or 30 (ER-A180). The key layout of 15, 20, 30 departments are as follows. (The layout of 5 and 10 departments are as shown above.) Consult your dealer for changing the number of departments.

15 departments

	PLU	AMT
	5	10 15
	4	9 14
	3	8 13
	2	7 12
	1	6 11

20 departments

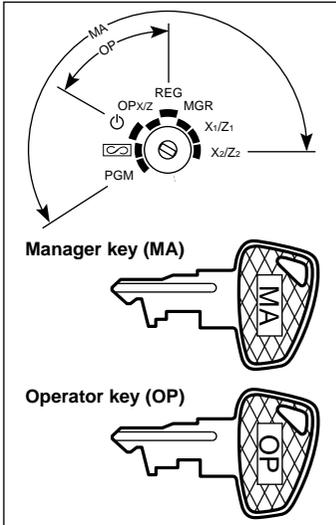
	PLU	AMT
15	5	20 10
14	4	19 9
13	3	18 8
12	2	17 7
11	1	16 6

30 departments

	PLU	AMT
20	5	25 30 15
19	4	24 9 14
18	3	23 8 13
17	2	22 7 12
16	1	21 6 11

3 Mode switch and mode keys

The mode switch can be operated by inserting one of the two supplied mode keys - manager (MA) and operator (OP) keys. These keys can be inserted or removed only in the "REG" or "⏻" position.

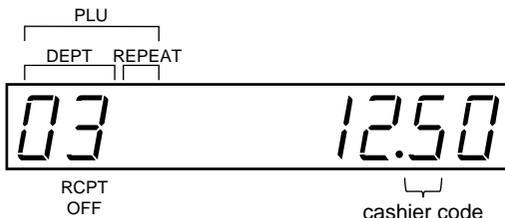


The mode switch has these settings:

- ⏻ :** This mode locks all register operations. (AC power becomes off.) No change occurs to register data.
- OP X/Z:** To take individual cashier X or Z reports, and to take flash reports. And it can be used to toggle receipt state "ON" and "OFF" by pressing the **RCPT/PO** key.
- REG:** For entering sales.
- PGM:** To program various items.
- ∞ :** Enters into the void mode. This mode allows correction after finalizing a transaction.
- MGR:** For manager's entries. The manager can use this mode for an override entry.
- X1/Z1:** To take the X/Z report for various daily totals
- X2/Z2:** To take the X/Z report for periodic (weekly or monthly) consolidation

4 Displays

Operator display



Customer display (Pop-up type)



Amount: Appears in the far-right eight (max.) positions. When the amount is minus, the minus symbol "-" appears before the amount.

Number of repeats for repetitive registrations:

The number of repeats is displayed, starting at "2" and incremented with each repeat. When you have registered ten times, the display will show "0." (2 → 3 9 → 0 → 1 → 2 ...)

Receipt function status:

The indicator "_" appears in the ninth position when the receipt function is in the OFF status.

Time: Appears in the first to fifth positions (using 24-hour format) in the OP X/Z, REG, **∞**, or MGR mode. In the REG, **∞**, or MGR mode, press the **#TMS** key to display the time.

Machine state symbols (appears in the tenth place)

- P :** Appears during programming.
- E :** Appears when an error is detected.
- :** Appears when the subtotal is displayed or when the amount tendered is smaller than the sale amount.
- C :** Appears when the **[EX]** key is pressed to calculate a subtotal in foreign currency.
- F :** Appears when a transaction is finalized by pressing the **[TLNS]**, **[CH]** or **[CR]** key.
- L :** Appears when the change due amount is displayed.
- L :** Appears when the voltage of the installed batteries is under the required level. You must replace them with new ones within two days. Refer to page 37 for details.
- L :** Appears when the batteries are not installed, or the installed batteries are dead. You must replace them with new ones immediately. Refer to page 37 for details.

GETTING STARTED

Follow these steps when you use the cash register for the first time.

1

Install the Cash Register

Unpack the cash register and place it in a location near a wall outlet. Be sure to locate it in such a location as described in "IMPORTANT" (page 1).

To prevent the register from moving the drawer, fix the drawer with the fixing angle bracket. To fix the drawer, please refer "Installing the fixing angle bracket" of "OPERATOR MAINTENANCE" (page 42).

2

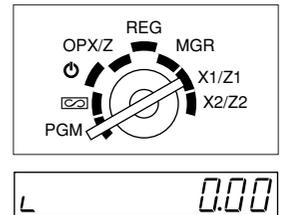
Initialize the Cash Register

In order for your cash register to operate properly, you must initialize the cash register before programming for the first time. Use the following procedure:

Before initializing the cash register, make sure that the plug is not connected to the outlet, and the batteries are not mounted in the register.

1. Turn the mode switch to the "PGM" position.
2. Insert the plug into the outlet.

The right most decimal point will blink for a few seconds, then the register will sound three beeps and display " L 0.00".



3

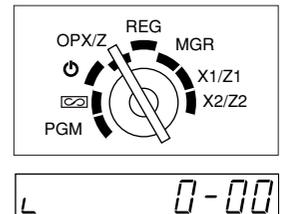
Install Batteries

Purchase and install three R6 or LR 6 batteries ("AA" size). The batteries prevent the data and user-programmed settings from being erased, when the AC cord is accidentally disconnected or in case of a power failure.

The batteries will last approximately one year. If the low battery symbol " L " appears on the far left of the display, you must replace within two days. And if the no battery symbol " L " appears, you must replace them at once.

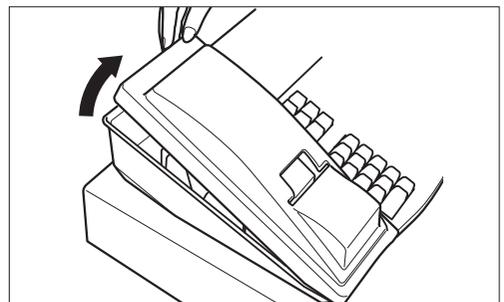
To install the batteries, use the following procedure.

1. Turn the mode switch to the "OP X/Z" position.
The display will change to time display with the symbol " L ".

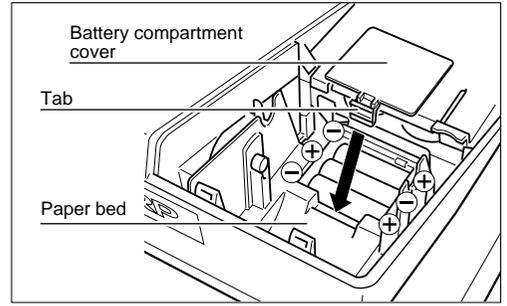


2. Remove the printer cover.
Lift up the rear of the printer and detach it.

Be very careful with the manual cutter mounted on the cover, so as not to cut yourself.



3. Open the battery compartment cover located in front of the paper bed.
Press the tab toward you then pull and lift the cover to expose the battery compartment.
4. Install three new batteries in the battery compartment. Be sure that the positive (+) and negative (-) poles of each battery are facing in the proper direction. When they are correctly installed, “⌊” symbol will disappear.
5. Close the battery compartment cover.



View from rear

CAUTION!

Incorrectly using batteries can cause them to burst or leak, possibly damaging the interior of the cash register. Note the following precautions:

- Be sure that the positive (+) and negative (-) poles of each battery are facing in the proper direction.
- Never mix batteries of different types.
- Never mix old batteries and new ones.
- Never leave dead batteries in the battery compartment.
- Remove the batteries if you do not plan to use the cash register for long periods. However, the data and user-programmed settings will be erased.
- If a battery leaks, clean out the battery compartment immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.
- Do not throw any spent batteries into combustible waste and do not burn any spent batteries.

Note

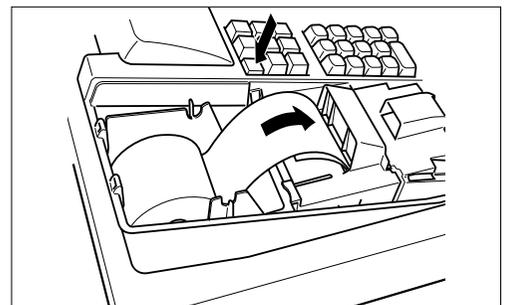
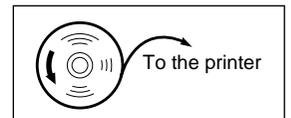
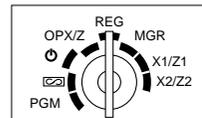
Your cash register comes with a battery caution label. Please cut off the appropriate half and attach it to the battery compartment cover.

4

Install the Paper Roll

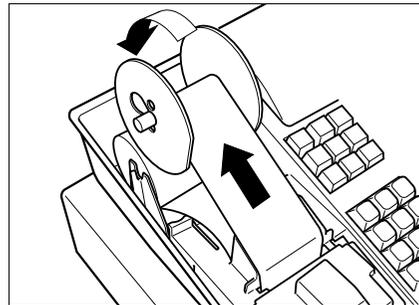
Precaution: Be very careful for the manual cutter mounted on the printer cover when removing and replacing the cover, so as not to hurt yourself.

1. Turn the mode switch to the “REG” position.
2. Set the provided paper roll correctly and drop it in the paper bed.
3. Make a fold in the paper five centimeters from the end.
4. While press the  key, insert the folded end straight into the paper inlet. The inserted end appears at the printing area.
5. **When not using the take-up spool (using as receipt paper):**
 - Lead the end of the paper out through the manual cutter on the printer cover. (Press the  key to advance the paper more if required.)



When using the take-up spool (using as journal paper):

- Insert the end of the paper into the slit in the spool. (Press the  key to feed more paper if required.)
- Wind the paper two or three turns around the spool shaft.
- If the holding plate is not attached to the spool, attach it by inserting the spool shaft into the large hole and sliding it into the small one.
- Set the spool on the bearing, and press the  key to take up excess slack in the paper.

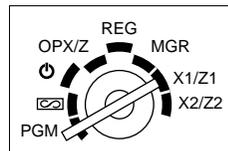


6. Replace the printer cover.
Hook the cover on the pawls on the cabinet and shut it.

- Note**
- When using a paper roll as journal paper, you must change the printer type. Refer to "Programming print format" on page 30.
 - You can use 2-ply journal/receipt paper. For the installation procedure, refer to Note on "Installing the paper roll" (page 39).

5 Program Items as Necessary

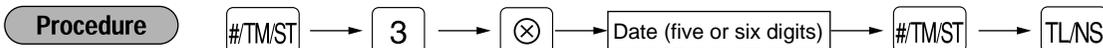
Before programming, insert the manager (MA) key and turn the mode switch to "PGM".



- Note**
- On the key operation examples shown below, numeric such as 1234 indicates the number or parameter which must be entered using the corresponding numeric keys.
 - On the receipt, the programmed data is printed together with header (date) and footer (e.g. consecutive number).

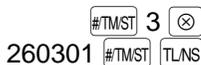
Setting the date

Enter day (one or two digits), month (two digits), and year (two digits) in this sequence.



Example: March 26, 2001

Key operation example



Print



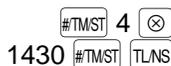
Setting the time

Set the time using the 24-hour format. For example, when the time is set to 2:30 AM, enter 230; and when it is set to 2:30 PM, enter 1430.



Example: 14:30

Key operation example



Print



■ Programming the VAT(Value Added Tax) rate

If you program the VAT/tax rate, your cash register can calculate the sales tax. In the VAT system, the tax is included in the price you enter in the register, and the tax amount is calculated when tendered according to the VAT rate programmed. In the tax system, the tax is calculated when tendered according to the tax rate programmed, and added to the price. Your cash register can provide totally 6 kinds of tax system and 3 kinds of rates.

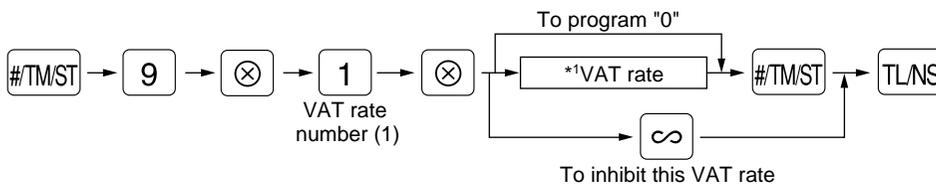
In the factory setting, the VAT/tax system is set to "Automatic VAT 1-3 system", and all the departments are programmed as taxable in VAT 1/tax 1 rate. So, if you set VAT 1 rate by executing the procedure shown below, VAT 1 can be calculated automatically to all the goods sold.

In the current VAT/tax system, you can also use VAT 2 and VAT 3 rates when you need more than one VAT rate. Refer to "Programming the VAT/tax rate" to program multiple VAT rates, and "Programming for departments" to allocate the taxable status to departments.

If you make nontaxable for some goods, program a department as nontaxable for all VAT rates. (Please note that all the goods belonging to that department are subjected to nontaxable.)

If you need other types of VAT/tax system, refer to "Computation of VAT/tax" on page 14, and consult your dealer for the change of your VAT/tax system.

Procedure



*1: VAT rate: 0.0001 to 100.0000

Example: VAT 1 rate 10%

Key operation example

#/TMST 9 ⊗
1 ⊗
10 #/TMST TLNS

Print

10.0000%#1 —VAT1 rate

6

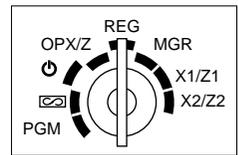
Program for EURO

Your register can be modified to correspond with each period set for the introduction of EURO. To execute the automatic modification operation, please refer to "PROGRAMMING FOR EURO" on page 34.

Before the modification operation, you must go to X2/Z2 mode and make cashier assignment first. For cashier assignment, please refer to page 10.

Now you are ready for the sales operation. However, you can program other various convenient functions depending on your need. For details, please refer to "PROGRAMMING".

BASIC SALES ENTRY



1 Prior to entries

Before registrations, insert the operator or manager key into the mode switch and turn it to the “REG” position and check the following items:

Receipt ON/OFF function

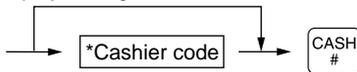
When you use the printer to issue receipts, you can disable receipt printing in the REG mode to save paper using the receipt function. To disable receipt printing, press the  key in the OP X/Z position. This key toggles the receipt printing status “ON” and “OFF”. When the status is “OFF”, the receipt off indicator “_” illuminates in the display. Your register will print reports regardless of the receipt state, so the paper roll must be installed even when the receipt state is “OFF”.

Cashier assignment

Prior to any item entries, cashiers must enter their cashier codes into the register. However, the code entry may not be necessary when the same cashier handles the next transaction.

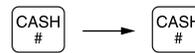
■ Sign-on (in REG, MGR, , OP X/Z, X1/Z1, X2/Z2 mode)

To display the signed-on cashier code



*Cashier code: 1-6(ER-A160) 1-8(ER-A180)
Enter the code using numeric keys.

■ Sign-off (in REG, MGR, mode)



2 Basic sales entry

1. Enter the price for the first item with numeric keys.
2. Press the appropriate department key.
3. Repeat steps 1 and 2 for all the items.
4. Press the  key to display the amount due. (You can omit this step.)
5. Enter the amount received from the customer with numeric keys. (You can omit this step if the amount tendered is the same as the subtotal.)
6. Press the  key, and change due is displayed with the symbol “” and the drawer is opened.
7. Tear off the receipt and give it to the customer with his or her change displayed.
8. Close the drawer.

Note

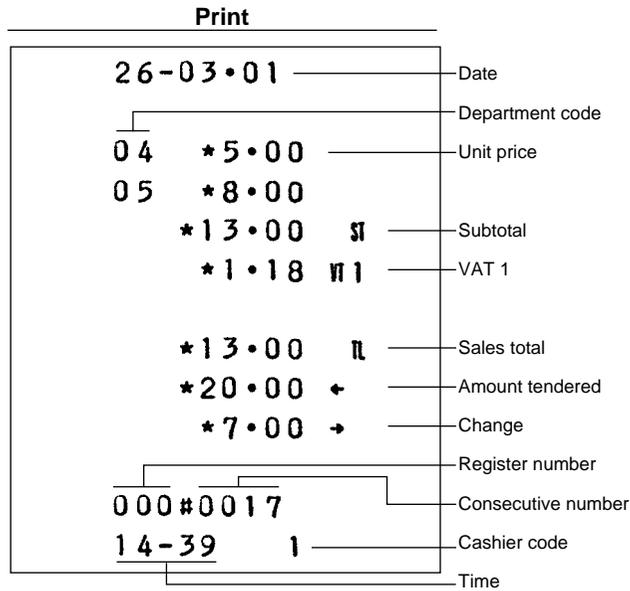
- When you finalize the transaction with the  key without tendering, the total sales amount is displayed.
- If you enter the amount tendered which is smaller than the subtotal, the register shows a deficit with the symbol “”. Make an additional tender entry.

Example:

Key operation example

500
 800

 2000



In this example, the department 4 and 5 are set as taxable 1 (default setting) and VAT 1 rate is programmed as 10%.

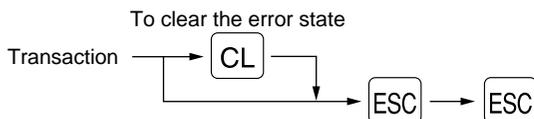
3 Error warning

In the following examples, your register will go into an error state accompanied with a warning beep and the error symbol “E” on the display. Clear the error state by pressing the key and take proper action.

- When you enter an over 13-digit number (entry limit overflow): Cancel the entry and re-enter a correct number.
- When you make an error in key operation: Clear the error and continue operation.
- When you make an entry beyond a programmed amount entry limit: Check to see if the entered amount is correct. If it is correct, it can be rung up in the MGR mode.
- When an including-tax subtotal exceeds eight digits: Delete the subtotal by pressing the key and press the , or key to finalize the transaction.

Error escape function

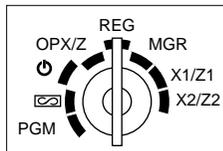
When you want to quit a transaction because of an error or something uncontrollable, use the error escape function as shown below:



The transaction is voided (treated as a subtotal void) and the receipt is issued by this function. If you have already entered tendered amount, the operation is finalized as a cash sale.

When you use the error escape function, “★ ★ ★ ★” is printed on the receipt.

OTHER TYPES OF ENTRIES



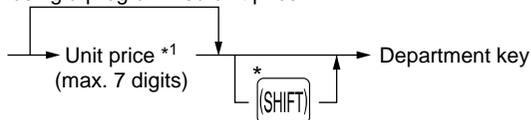
Note On the key operation examples except that of "Computation of VAT/tax", all the departments are programmed as non-taxable. Also on all the examples, numeric such as 1234 indicates that they are entered using the corresponding numeric keys.

1 Item entries

Single item entries

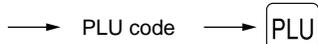
Department

When using a programmed unit price



*To shift the department key, press the department shift key at this point. (ER-A180 only)

PLU



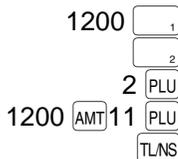
Subdepartment



*1 Less than the programmed entry digit limit

- Note**
- When those departments and PLUs for which the unit price has been programmed as zero (0) are entered, only the sales quantity is added.
 - When using PLU function, you must program the preset price, and associated department. When using subdepartment function, you must change the mode to subdepartment mode, and program the associated department. Refer to page 26 for programming details.

Key operation example



Print

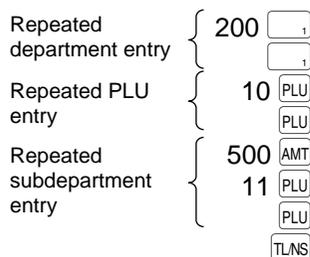
```

01 *12.00
02 *5.00
002#*1.50
011#
    *12.00
    *30.50  u
    
```

Repeat entries

You can use this function for entering a sale of two or more same items.

Key operation example



Print

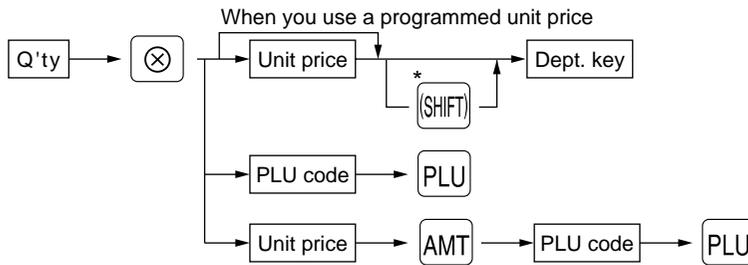
```

01 *2.00
01 *2.00
010#*7.15
010#*7.15
011#*5.00
011#*5.00
    *28.30  u
    
```

■ Multiplication entries

Use this feature when you sell a large quantity of items or need to enter quantities that contain decimals.

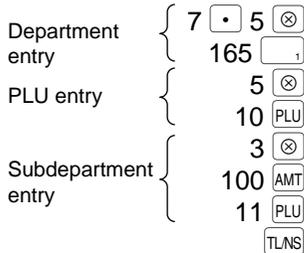
Procedure



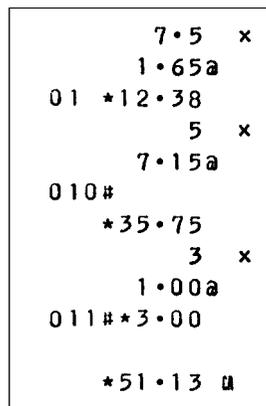
*To shift the department key, press the department shift key before pressing the department key. (ER-A180 only)

- Q'ty: Up to three digits integer + three digits decimal or four digits integer + two digits decimal
- Unit price: Less than a programmed entry digit limit
- Q'ty x unit price: Up to seven digits

Key operation example



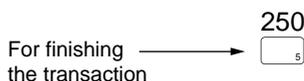
Print



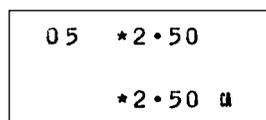
■ Single item cash sale (SICS) entry

- This function is useful when a sale is for only one item and is for cash; such as a pack of cigarettes. It is applicable only to those departments programmed as SICS or to their associated PLUs or subdepartments.
- The transaction is finalized as soon as you press the department key or **PLU** key.

Key operation example



Print



Note

If an entry to a department or PLU/subdepartment set for SICS follows the ones to departments or PLUs/subdepartments not set for SICS, it does not finalize and results in a normal sale.

2 Displaying subtotals

The subtotal is displayed by pressing the **#TMST** key. When you press it, the subtotal of all entries which have been made is displayed and the symbol “□” will light up in the display.

Note If you want to print the subtotal when you press the **#TMST** key, change the setting by programming. Refer to “Selection of the subtotal printing” (page 31).

3 Finalization of transaction

■ Cheque or credit sale

Cheque sale

Press the **CH** key at the end of the transaction. The amount tendered can be entered like a cash sale and the change due is displayed.

Key operation example

}
#TMST
1000 **CH**

Print

*7.35 ₺
*10.00 □
*2.65 →

*The amount tendered: Less than programmed entry digit limit

Credit sale

Press the **CR** key at the end of the transaction. The amount tendered cannot be entered.

Key operation example

}
#TMST **CR**

Print

*57.50 □

*The total sales amount: Less than programmed entry digit limit

Mixed-tender sale

You can perform mixed-tendering of cheque and cash, cash and credit, and cheque and credit.

Key operation example

}
#TMST
950 **TLNS**
CR

Print

*49.50 ₺
*9.50 ←
*40.00 □

4 Computation of VAT/tax

■ VAT/ tax system

The machine may be programmed for the following six tax systems by your dealer.

Automatic VAT 1-3 system (This is the factory default system)

This system, at settlement, calculates VAT for taxable 1 through 3 subtotals by using the corresponding programmed rate.

Automatic tax 1-3 system

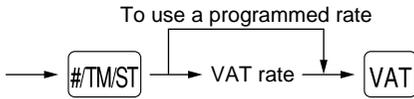
This system, at settlement, calculates taxes for taxable 1 through 3 subtotals by using the corresponding programmed rate, and also adds the calculated taxes to those subtotals, respectively.

Manual VAT 1-3 system



This system provides the VAT calculation for taxable 1 through 3 subtotals. This calculation is performed using the corresponding programmed rate when the **VAT** key is pressed just after the **#TM/ST** key.

Manual VAT 1 system



This system enables the VAT calculation for the then subtotal. This calculation is performed using the VAT 1 preset rate when the **VAT** key is pressed just after the **#TM/ST** key. For this system, the keyed-in VAT rate(0.0001 to 99.9999) can be used.

Manual tax 1-3 system



This system provides the tax calculation for taxable 1 through 3 subtotals. This calculation is performed using the corresponding programmed rate when the **VAT** key is pressed just after the **#TM/ST** key. After this calculation, you must finalize the transaction.

Automatic tax 1-2 and automatic VAT 3 system

This system enables the calculation in the combination with automatic tax 1 and 2 and automatic VAT 3. The combination can be VAT3 corresponding to taxable 3 and any of tax 1 and 2 corresponding to taxable 1 and taxable 2 for each item. The tax amount is calculated automatically with the corresponding programmed rates.

- Note**
- Tax statuses of PLU is depending on that of the department which the PLU belongs to.
 - VAT/tax assignment symbol can be printed at the fixed right position near the amount on the receipt as follows:

VAT1	→	VT1	Tax1	→	TX1
VAT2	→	VT2	Tax2	→	TX2
VAT3	→	VT	Tax3	→	TX

When the multiple VAT/tax is assigned to a department or a PLU, a symbol of the lowest number assigned to VAT/tax rate will be printed. For details, contact your authorized SHARP dealer.

Key operation example

550
#TM/ST
 (When the manual VAT **VAT**
 1-3 system is selected) **TL/NS**

Print

0 4	* 5 • 5 0	
	* 5 • 5 0	\$1
	* 0 • 2 1	VT 2
	* 5 • 5 0	CA

5 Auxiliary entries

■ Percent calculations (premium or discount)

- Your register provides the percent calculation for subtotal and/or each item entry depending on programming.
- Percentage: 0.01 to 100.00% (Depending on programming) (Application of preset rate (if programmed) and manual rate entry are available.)

Percent calculation for the subtotal

Key operation example	Print
140 <input type="text" value="1"/>	01 *1.40
570 <input type="text" value="2"/>	02 *5.70
<input type="text" value="#TMST"/>	*7.10 ST
<input type="text" value="%1"/>	- 10.00% 1
<input type="text" value="TLNS"/>	- *0.71
	*6.39 U

(When 10% is programmed for the key)

Percent calculation for item entries

Key operation example	Print
800 <input type="text" value="1"/>	01 *8.00
<input type="text" value="%2"/>	15.00% 2
2 <input type="text" value="PLU"/>	*1.20
7 <input type="text" value="."/> <input type="text" value="5"/> <input type="text" value="%2"/>	002#*5.00
<input type="text" value="TLNS"/>	7.5% 2
	*0.38
	*14.58 U

(When premium and 15% are programmed for the key)

■ Discount entries

Your register allows you to deduct a preset amount or a certain amount manually entered, which are less than a programmed upper limit. These calculations can be after the entry of an item and/or the computation of subtotal depending on the programming.

Discount for the subtotal

Key operation example	Print
575 <input type="text" value="1"/>	01 *5.75
10 <input type="text" value="PLU"/>	010#*7.15
<input type="text" value="#TMST"/>	*12.90 ST
100 <input type="text" value="⊖"/>	- *1.00-
<input type="text" value="TLNS"/>	
	*11.90 U

Discount for item entries

Key operation example	Print
675 <input type="text" value="2"/>	02 *6.75
<input type="text" value="⊖"/>	- *0.75-
<input type="text" value="TLNS"/>	
	*6.00 U

(When a discount amount of 75 is programmed.)

■ Refund entries

If a refund item is the one entered into a department, enter the amount of the refund, then press the key and the corresponding department key in this order; and if an item entered into a PLU is returned, enter the corresponding PLU code, then press the and keys.

Key operation example	Print
250 <input type="text" value="RF"/> <input type="text" value="1"/>	01- *2.50#
10 <input type="text" value="RF"/> <input type="text" value="PLU"/>	010#
<input type="text" value="TLNS"/>	- *7.15#
	*9.65 →

■ Printing of non-add code numbers

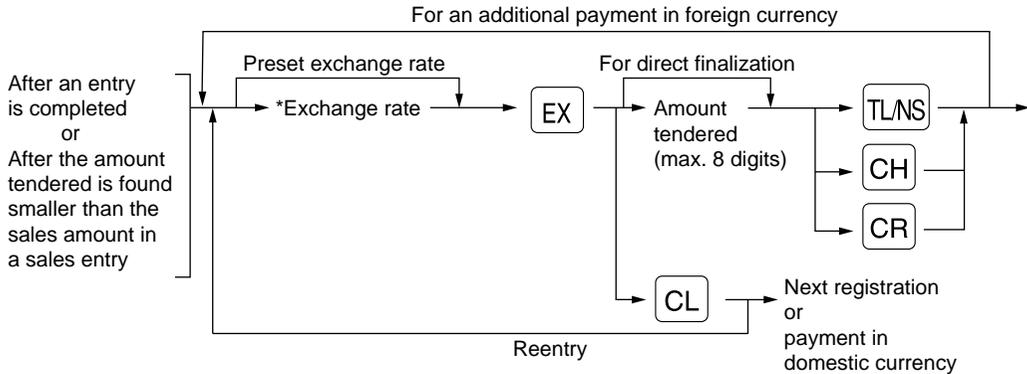
Enter a non-add code number such as a customer's code number and credit card number within a maximum of 8 digits and press the key at any point during the entry of a sale. Your register will print it at once.

Key operation example	Print
1230 <input type="text" value="#TMST"/>	#00001230
1500 <input type="text" value="1"/>	01 *15.00
<input type="text" value="CR"/>	
	*15.00 U

6 Payment treatment

■ Currency exchange

Your register allows payment entries of foreign currency. Pressing the **EX** key creates a subtotal in foreign currency.



*Exchange rate: 0.000000 to 999.999999

Note

- When the amount tendered is short, the deficit is shown in domestic currency.
- Availability of credit and cheque tendering is depending on programming (only for preset exchange rate).
- A programmed foreign currency symbol is printed when you apply preset rate.
- If you want to print the exchange rate on receipt/journal, please consult your dealer.

Applying preset exchange rate

Key operation example

2300
 Currency exchange → 4650
 Amount → 15000
 tendered in foreign currency

Print

```

01 *23.00
02 *46.50

*69.50  ₤ Domestic currency
          x
107.74
150.00 ← Foreign currency
*27.26 → Domestic currency
    
```

Applying manual exchange rate

Key operation example

2300
 4650
 1 0190
 10000

Print

```

01 *23.00
02 *46.50

*69.50  ₤
          x
 70.82
100.00 ←
*28.63 →
    
```

Received on account entries

Amount* (max. 8 digits) → RA (Available cash only)

*Less than the programmed entry digit limit

Key operation example

4800 RA

Print

* 48.00 ◀

Paid out entries

Amount* (max. 8 digits) → RCPT/PO (Available cash only)

*Less than the programmed entry digit limit

Key operation example

3000 RCPT/PO

Print

* 30.00 ▶

No sale (exchange)

Simply press the TLNS key without any entry. The drawer will open and the printer will print "NS" on the journal or the receipt.

NS

7 Receipt issuance after finalization

If your customer wants a receipt after you have finalized a transaction with the receipt function being in the "OFF" status (no receipting), press the RCPT/PO key after transaction. This will produce a receipt.

Note

- Pressing the RCPT/PO key in the OP X/Z mode before registration toggles the status "ON" and "OFF".
- When more than 64 lines are entered, the receipt will be issued in the format of summary receipt print.

8 Automatic sequencing key (AUTO key) entries

You can achieve a programmed transaction simply by pressing a corresponding automatic sequencing key. For programming the AUTO key, refer to page 32.

Key operation example

AUTO₁ TLNS

(AUTO₁) = 2 (PLU)

Print

002# * 5.00

* 5.00 u

2 Correction of the next-to-last or earlier entry (indirect void)

With the  key, you can void any incorrect department entry, PLU/subdepartment entry or item refund entry made during a transaction if you find it before finalizing the transaction (e.g. pressing the  key).

Key operation example

1310 
 1755 
 10 
 2 
 250  
 Correction of a department entry → 825 
 Correction of a PLU entry → 1310  
 Correction of a refund entry → 250   


Print

```
01 *13.10
02 *17.55
010#*7.15
002#*5.00
01- *2.50#
02 *8.25
01-*13.10^
002#
- *5.00^
01 *2.50^

*32.95 a
```

3 Subtotal void

You can void an entire transaction. Once subtotal void is executed, the transaction is aborted and the register issues a receipt.

Key operation example

1310 
 10 
 Subtotal void { 



Print

```
02 *13.10
010#*7.15
*20.25 $
-*20.25^
*0.00 R
```

4 Correction after finalizing a transaction

If you find errors during the tendering operation or after finalizing a transaction, you can void the whole entries made in an incorrect receipt in the void mode in the following procedure. (If you find the errors during the tendering operation, enter the void mode after finalizing a transaction.)

1. Turn the mode switch to the  position using the manager (MA) key to enter the void mode.
2. Repeat the entries that are recorded on an incorrect receipt. (All data for the incorrect receipt are removed from register memory; the voided amounts are added to the void-mode transaction totalizer.)

Cancellation receipt

```
26-03.01

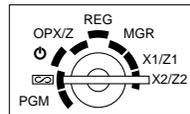
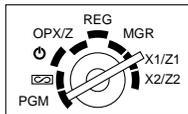
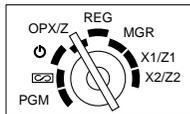
02 *10.00
03 *1.50

*11.50 a

000#0024 ^
15-49 1
```

Void mode symbol

READING (X) AND RESETTING (Z) OF SALES TOTALS



- Use the reading function (X) when you need to take a reading of sales information entered since the last resetting. You can take this reading any number of times. It does not affect the register's memory.
- Use the resetting function (Z) when you need to clear the register's memory. Resetting prints all sales information and clears the entire memory except for the GT, reset count, and consecutive number.

1 Summary of reading (X) and resetting (Z) reports

X1 and Z1 reports: Daily sales reports

X2 and Z2 reports: Periodic (monthly) consolidation reports

Item	Mode switch position			Key operation
	OPX/Z	X1/Z1	X2/Z2	
Flash report: (Only display) To clear the display, press the CL key or turn the mode switch to another position.	X	—	—	Dept. key or (SHIFT) → Dept. key (ER-A180 only) :Department total amount (⊗) key: Amount of cash in drawer (TLNS) key: Sales total
General report	—	X1, Z1	X2, Z2	Reading Resetting (TLNS)
Individual cashier report	X, Z	—	—	Reading Resetting (CASH #) (The report of the cashier currently signed-on)
Full cashier report	—	X1, Z1	—	Reading Resetting (CASH #)
PLU sales report	—	X1, Z1	—	All PLUs Start PLU code → (⊗) → End PLU code → Reading Resetting (PLU)
Hourly sales report	—	X1, Z1	—	Reading Resetting (#TMST)

Note

- In the reports, when both of sales quantity and sales amount are zero, their printing is skipped. If you do not want to skip, change the programming. (Refer to "Programming print format".)
- "X" represents read symbol and "Z" represents reset symbol in the reports.

2 Sample report

General report

• Sample X1 report

1	X	Read symbol*1	
#01		Dept. code	
41.50		Sales q'ty	
*2760.78		Sales amount	
#02			
18.00			
*352.93			
12.00			
*162.50			
*3432.71	tl	Dept. total	
3		Subtotal ⊖ counter and total	
- *3.00-			
1		Subtotal percent 1 counter and total	
- *0.71%	1		
1		Subtotal percent 2 counter and total	
*1.75%	2		
*3430.75	tl	Net sales total	
*3189.50	VI ST	Taxable 1 total	*2
*289.95	VI 1	VAT 1 total	
*104.10	VI ST	Taxable 2 total	
*4.96	VI 2	VAT 2 total	
*102.65	VI ST	Taxable 3 total	
*3.95	VI	VAT 3 total	
*298.86	II tl	VAT total	
1		Item ⊖ counter and total	
- *0.75-			
2		Item percent 1 counter and total	
- *4.90%	1		
6		Item percent 2 counter and total	
*1.05%	2		
6		Refund counter and total	
*28.95	ST		
9		Direct & indirect void counter and total	
*54.16	vn		
1		Subtotal void counter and total	
*20.25	st		
5		Void-mode item counter and total	
*33.00	1		
3		Void-mode transaction counter and total	
*33.00	tl		

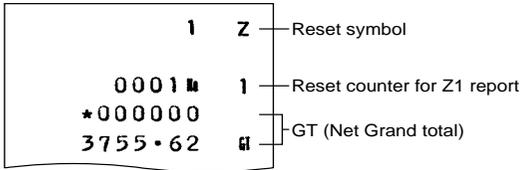
1	tl	Received on account counter and total
*48.00	tl	
1		Paid-out counter and total
*30.00	tl	
4	KS	No-sale counter
35		Cash sale counter and total
*2762.64	tl	
1		Cheque sale counter and total
*10.00	tl	
3		Credit sale counter and total
*112.50	tl	
3		Exchange (in preset rate entry) Counter, total and amount in domestic currency
417.70	x	
*309.02	1	
1		Exchange cheque (in preset rate entry)
41.78	tl x	
*41.00	1	
3		Exchange credit (in preset rate entry)
158.98	tl x	
*156.00	1	
1		Exchange (in manual rate entry)
100.00	x	
*98.13	2	
45		Customer counter
*3430.75	tl	Sales total
*2722.10	st	Cash in drawer

*1: In X2 report, 2 is printed here.

*2: When the tax system is automatic tax 1-3, manual tax 1-3, or the combination of automatic tax 1-2 and automatic VAT 3, the net sales total plus tax 1, 2, 3 are printed here.

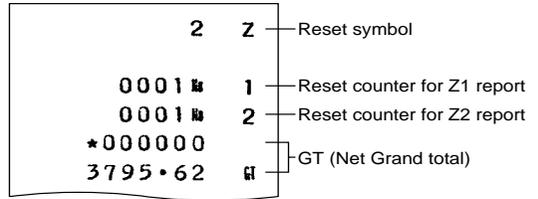
*283.96	VI ST	Taxable 1 total
*28.40	VI 1	Tax 1 total
*25.00	VI ST	
*1.25	VI 2	
*62.26	VI ST	
*2.49	VI	
*32.14	VI tl	VAT/tax total
*403.36	VI	Net sales total plus tax

• Sample Z1 report



The subsequent printout occurs in the same format as in the sample X1 report.

• Sample Z2 report

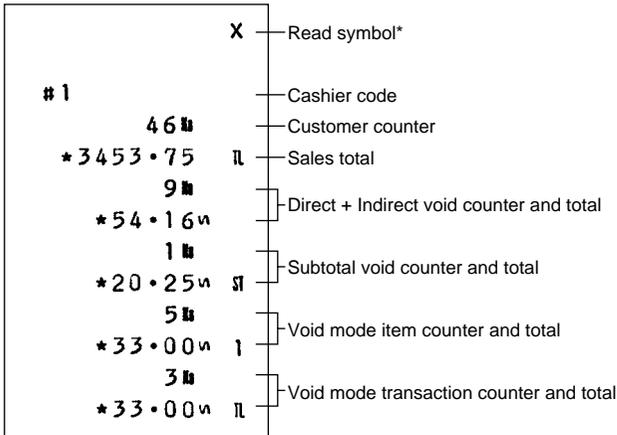


The subsequent printout occurs in the same format as in the sample X1 report.

■ Cashier reports

Individual cashier report

• Sample X1 report



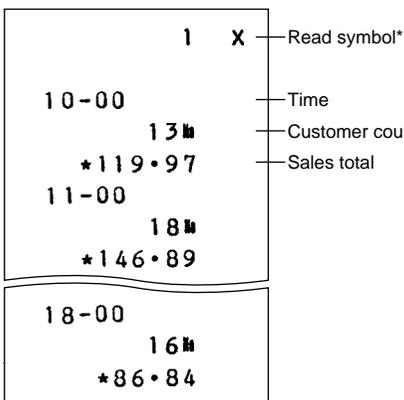
*:When you take Z report, "Z" is printed.

Full cashier report

The printout occurs in the same format as in the sample report of individual cashier, but all cashier's sales data are printed in the order of cashier code number (from #1 to #6 for ER-A160, from #1 to #8 for ER-A180).

■ Hourly sales report

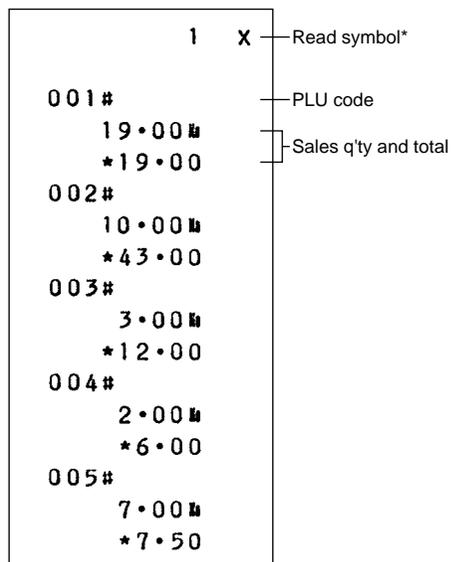
• Sample X1 report



*:When you take Z report, "Z" is printed.

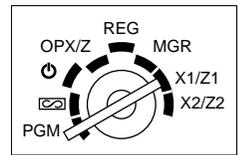
■ PLU sales report

• Sample X1 report



*:When you take Z report, "Z" is printed.

PROGRAMMING



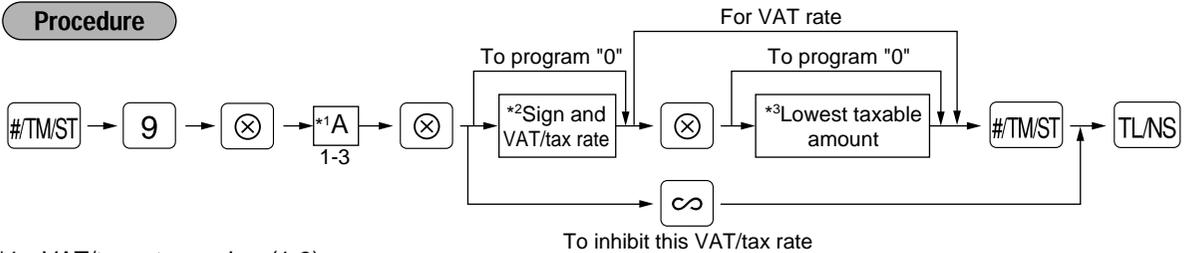
This chapter illustrates how to program your cash register. Program every item necessary for your store by following the appropriate procedure.

Note

On the key operation examples, numeric such as 1234 indicates the number or parameter which must be entered using the corresponding numeric keys.

1 Programming the VAT/tax rate

Procedure

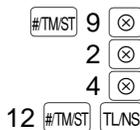


*1: VAT/tax rate number (1-3)

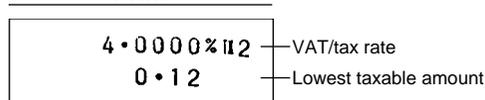
*2: Sign and VAT/tax rate: XYYY.YYYY (X:Sign -/+ = 1/0, YYY.YYYY:VAT/tax rate = 000.0001 to 100.0000)

*3: Max. five digits: 0 to 99999

Key operation example



Print



Note

In VAT system, the sign and the lowest taxable amount are ignored. They are valid only when you select add on tax system.

2 Programming for departments

Your machine is equipped with 5 (ER-A160) or 10 (ER-A180) standard departments. You can increase the number of departments up to 15 (ER-A160) or 30 (ER-A180).

Functional programming

Sign

Assign plus department for normal sales, or minus department for minus transaction.

Tax status

Assign a tax status to each department. When entries are made into taxable departments in a transaction, tax is automatically computed according to the associated tax rate as soon as the transaction is completed.

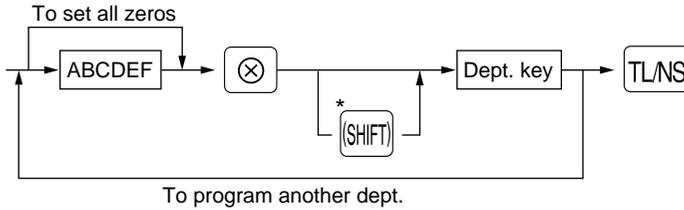
SICS (Single Item Cash Sale)

If the first registration is to a department set for SICS, the sale is finalized as soon as the department key is pressed.

Entry digit limits

Set the number of allowable digits for the maximum entry amount for each department. The limit is effective for operations in the REG mode and can be overridden in the MGR mode.

Procedure



*To shift the department key, press the department shift key at this point. (ER-A180 only)

* Item:	Selection:	Entry:
A Sign	Minus department	1
	Plus department	0
B Taxable in VAT 3/tax 3 rate	Yes	1
	No	0
C Taxable in VAT 2/tax 2 rate	Yes	1
	No	0
D Taxable in VAT 1/tax 1 rate	Yes	1
	No	0
E SICS / Normal	SICS	1
	Normal	0
F Entry digit limit		0-7

Key operation example

011007 ⊗
 3 TL/NS

Print

```

0 3      0 7
          1 1 0
          0 • 0 0
    
```

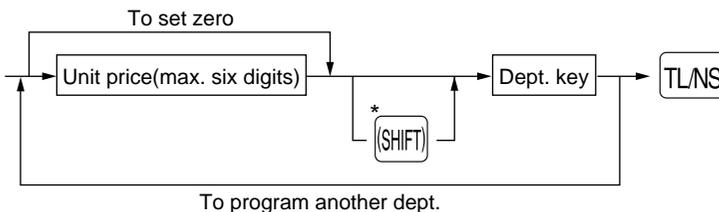
— SICS/Normal / Entry digit limit (E,F)
 — Tax status (BCD)
 — Sign (A)

Note

- The tax system of your machine has been factory-set to automatic VAT1-3. If you desire to select any of automatic tax 1-3, manual VAT1-3, manual VAT1, manual tax 1-3, and the combination of the automatic tax 1-2 and the automatic VAT 3, consult your dealer.
- When the combination of the automatic tax 1-2 and the automatic VAT 3 system is selected, one of the tax 1-2 can be selected in combination with VAT3(B).
 Example: BCD = 101 or 110

Unit price

Procedure



*To shift the department key, press the department shift key at this point. (ER-A180 only)

Key operation example

1000 1
 TL/NS

Print

```

0 1      0 7
          0 0 1
          1 0 • 0 0
    
```

— Unit price

3 PLU (Price lookup) programming

Unit price and associated department assignment

Unit price (max. six digits)

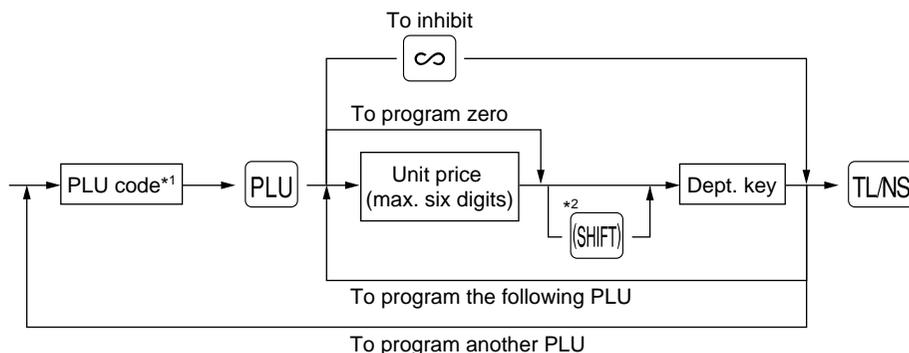
You will usually have unit prices programmed for individual PLUs as PLU preset unit prices. If you program unit price "0" for a PLU, you can enter only the selling quantity of the PLU, i.e. the PLU can be used only as a counter.

Associated department

When a PLU is associated with a department, the following functions of the PLU depend on the programming for the corresponding department.

- Tax status, entry digit limit (only for the subdepartment), single item cash sale, and sign

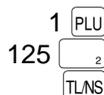
Procedure



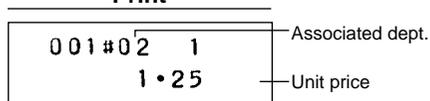
*1: 1 through 200 (ER-A160) or 1 through 400 (ER-A180)

*2: To shift the department key, press the department shift key at this point. (ER-A180 only)

Key operation example



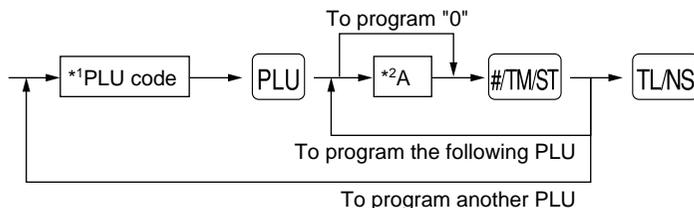
Print



PLU/subdepartment mode

If the PLU mode (i.e. automatic preset unit price entry) is selected, individual PLU entries can be made by entering the assigned code and depressing the **[PLU]** key. If the subdepartment mode is selected, the following key operations must be performed: Enter the price, press the **[AMT]** key, enter the PLU code, and press the **[PLU]** key.

Procedure



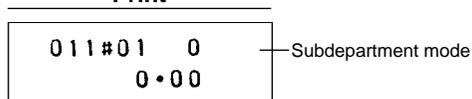
*1: 1 through 200 (ER-A160) or 1 through 400 (ER-A180)

*2: 0 for subdepartment mode or 1 for PLU mode

Key operation example



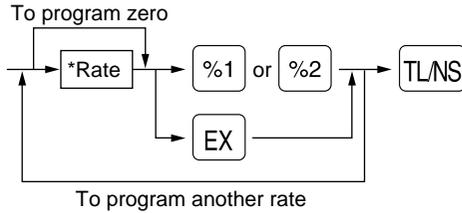
Print



4 Programming for miscellaneous keys

■ Programming the rate (%, EX)

Procedure



*: Rate
 0.00 — 100.00 (% rate)
 0.000000 — 999.999999 (Currency exchange rate)

Key operation example

10 . 25 %1
 0 . 6068 EX
 TL/NS

Print

```

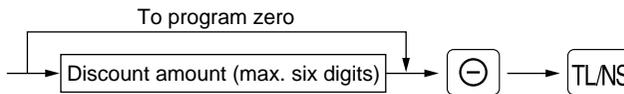
    000
    100.00
    - 10.25% 1
      0021 x
    0.6068
      00
    
```

Percent rate
 Currency exchange rate (0.606800)

Note You must use a decimal point when setting rates that are fractional.

■ Programming the discount key amount (⊖)

Procedure



Key operation example

1000 ⊖
 TL/NS

Print

```

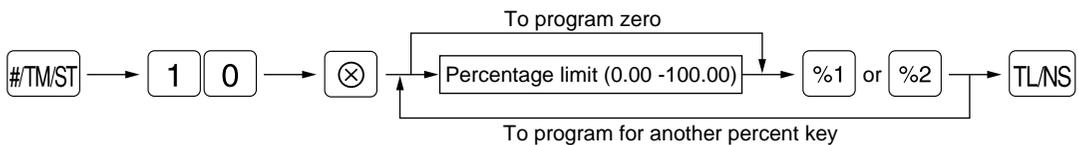
    007
    - 10.00-
    
```

Discount amount

■ Programming the percent rate limitation (⊗)

You can program the upper limit of percent rates for percent entries. Percent entries that exceed the upper limit may be overridden in the MGR mode.

Procedure



Note 10.00% can be entered as 1 0 or 1 0 . 0 0 0. The . key is needed only for fractional entry.

Key operation example

#/TM/ST 10 ⊗
 15 . 00 %1
 TL/NS

Print

```

    000
    15.00
    - 10.25% 1
    
```

Percentage limit

■ Programming function parameters for ⊖ and % keys

+/- sign

Programming of the +/- sign assigns the premium or discount function for each key.

Item % / Item ⊖

Percent/discount calculation for the individual department and PLU

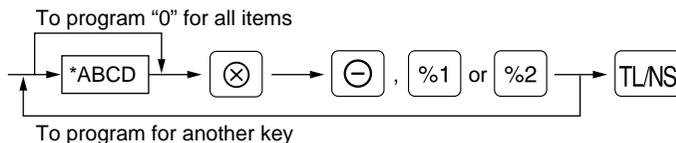
Subtotal % / Subtotal ⊖

Percent/discount calculation for the subtotals

Entry digit limit (For discount key only)

The limit is in effect for the REG-mode operations but can be overridden in the MGR mode.

Procedure



*: Item:	Selection:	Entry:
A +/- sign	+ (premium) sign	0
	- (discount) sign	1
B Item % / Item ⊖	Enable	0
	Disable	1
C Subtotal % / Subtotal ⊖	Enable	0
	Disable	1
D Entry digit limit*		0-7

* When programming for percent keys, always enter 0.

The default setting is ABCD = 1007 for ⊖ key and 1000 for % key.

Key operation example

1006 ⊗
⊖ TL/NS

Print

006 — From left, BCD
- 10.00- — Sign

■ Programming function parameters for EX key

Currency exchange rate entry selection

You can enable or disable preset and manual entry of currency exchange rate.

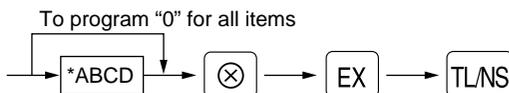
Number of digits after decimal point

Set the number of digits after decimal point which is printed on the receipts for currency exchange amount.

Foreign currency symbol

Foreign currency symbol for EX key is printed on a foreign currency exchange amount of which rate is preset by programming.

Procedure



*: Item:	Selection:	Entry:
A Manual rate entry	Enable	0
	Disable	1
B Preset rate entry	Enable	0
	Disable	1
C Number of digits after decimal point		0-3
D Foreign currency symbol	★	0
	(space)	1
	€	2

The default setting is ABCD = 0021.

Key operation example

0001 ⊗
EX TLNS

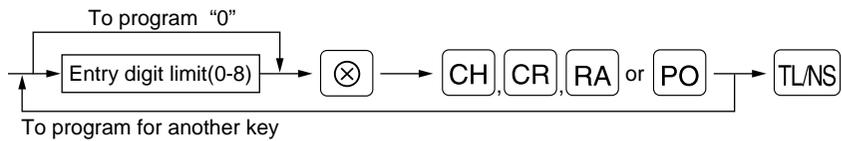
Print

0001 x — From left, ABCD
0 • 6068
00

■ Programming an entry digit limit for CH, CR, RA and PO keys

The limit is in effect for REG-mode operation but can be overridden in the MGR mode. When "0" is set, the operation of the corresponding key is prohibited.

Procedure



Key operation example

8 ⊗ CR TLNS

Print

8 a — Entry digit limit

5 Programming various functions

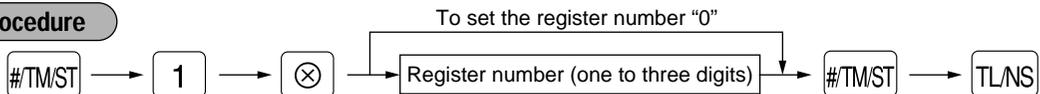
Note

- Be very careful not to enter a wrong number for the number entry after the first #TM/ST key. Be sure to enter the number described in the "Procedure".
- You can continue programming until TLNS key is pressed for the programming described in this section. To continue programming, repeat from the first numeric key entry.

■ Setting the register number

When your store has two or more registers, it is practical to set separate register numbers for their identification.

Procedure



Key operation example

#TM/ST 1 ⊗
123 #TM/ST TLNS

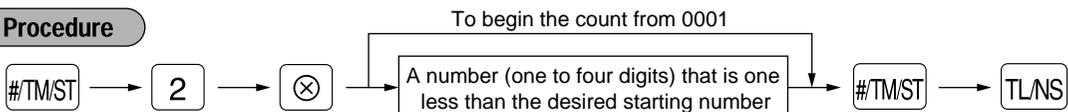
Print

123#

■ Setting the consecutive number

The consecutive number is increased by one each time a receipt is issued.

Procedure



Key operation example

#TM/ST 2 ⊗
1000 #TM/ST TLNS

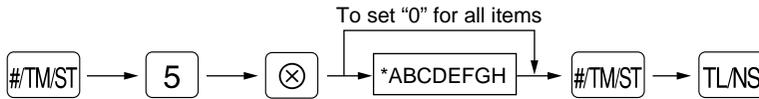
Print

1000

■ Programming optional feature selection

You can enable or disable the operation of Paid out, Received-on account, Refund, No-sale, Void in the REG-mode, and also select if you enable fractional quantity entry or not.

Procedure



* Item:	Selection:	Entry:	
A	Paid-out in the REG-mode	Enable	0
		Disable	1
B	Received on account in the REG-mode	Enable	0
		Disable	1
C	Subtotal void in the REG-mode	Enable	0
		Disable	1
D	Indirect void in the REG-mode	Enable	0
		Disable	1
E	Direct void in the REG-mode	Enable	0
		Disable	1
F	Refund entry in the REG-mode	Enable	0
		Disable	1
G	No sale in the REG-mode	Enable	0
		Disable	1
H	Fractional quantity entry	Enable	0
		Disable	1

The default setting is ABCDEFGH = 00000000.

Key operation example

#/TM/ST 5 ⊗
00000100 #/TM/ST TL/NS

Print

#00000100

■ Programming print format

You can program;

Printer type - Use printer as journal printer or for issuance of receipt

If you select the journal printer type and complete journal information is mandatory, the receipt ON/OFF function should be in the "ON" state.

Receipt print form - Detailed receipt print or summary receipt print

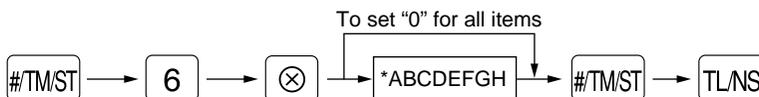
On the summary receipt print, the details of each item are not printed.

Date print selection

Consecutive number print selection

Zero skip for reports

Procedure



* Item:	Selection:	Entry:
A Printer type	Journal printer	0
	Receipt printer	1
B Receipt print form	Total	0
	Detailed	1
C Always enter 0.		0
D Date print	Yes	0
	No	1
E Consecutive no. print	Yes	0
	No	1
F Always enter 0.		0
G Zero skip in PLU report	Yes	1
	No	0
H Zero skip in general/cashier/hourly report	Yes	1
	No	0

The default setting is ABCDEFGH = 11000011.

Key operation example

#TMST 6 ⊗
10000011 #TMST TLNS

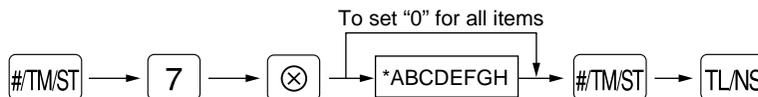
Print

#10000011

■ Selection of the subtotal printing

You can make selection of subtotal print when #TMST key is pressed.

Procedure



* Item:	Selection:	Entry:
A - B Always enter 0.		0
C Subtotal print with a press of subtotal key	Yes	1
	No	0
D - H Always enter 0.		0

Key operation example

#TMST 7 ⊗
00100000 #TMST TLNS

Print

#00100000

■ Programming EURO system settings

For details of EURO system settings, please refer to "PROGRAMMING FOR EURO".

Printing exchange total amount and change amount on receipt or journal

Total and change amounts in exchange currency are printed respectively below each of the total and change amounts in domestic currency.

Cheque and credit operation when tendering in foreign currency

Exchange calculation method

"Division" or "Multiplication" can be selected for the conversion method from domestic currency to exchange currency, and the calculation is performed as follows:

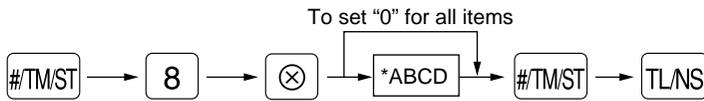
In case that "Division" is selected:

Domestic currency amount ÷ Exchange rate = Exchange amount

In case that "Multiplication" is selected

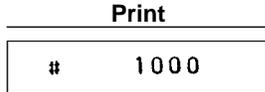
Domestic currency amount × Exchange rate = Exchange amount

Procedure



* Item:	Selection:	Entry:
A	Printing exchange total amount and change amount on receipt or journal	Yes No
B	Always enter 0.	0
C	Cheque and credit operation when tendering in foreign currency	Yes No
D	Exchange calculation method	Division Multiplication

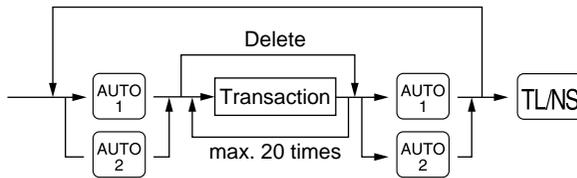
Key operation example



■ Programming the AUTO key — Automatic sequencing key —

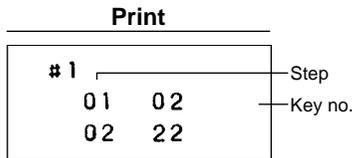
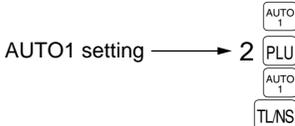
If you program frequently performed transactions or report sequences for the AUTO keys, you can call those transactions and/or reports simply by pressing the corresponding AUTO keys in key operations in the appropriate mode (REG, MGR, , OP X/Z, X1/Z1 or X2/Z2).

Procedure



Programming for ; entering a PLU 2 item (programmed unit price: 1.50)

Key operation example



Key number list

keys	nos.	keys	nos.	keys	nos.	keys	nos.
	00		11		21		51
	01		12		22		52
	02		13		23		53
	03		14		24		54
	04		15		25		55
	05		16		26		56
	06		17		27		57
	07		18		28		58
	08		19		29		59
	09		20		30		60
	10						61
							62
							63
							64
							65

Key sequence for reading stored program

Report name	Key sequence
Programming report	TL/NS
Auto key programming report	1 → TL/NS
PLU programming report	Start PLU code → ⊗ → End PLU code → PLU

Sample printouts

1 Programming report

26-03-01	Date
01	Dept. code
07	Dept. function (E&F)
001	Tax status
10-00	Dept. unit price w/sign
02	
000	
- 1-00	Minus sign
03	
07	
110	
0-00	
006	Discount
- 10-00-	function parameters (B-D)
000	Discount amount w/sign
15-00	Percent
- 10-25% 1	function parameters (B-D)
000	Percent limit
100-00	Percent rate with sign
- 0-00% 2	
8 0	CH entry digit limit
8 0	CR entry digit limit
8 4	RA entry digit limit
8 >	PO entry digit limit
0001 x	Exchange
0-6068	function parameters (A-D)
00	Exchange rate (0.606800)
#00000000	Optional feature selection (A-H)
#11000011	Print format (A-H)
#00000000	Subtotal printing (C only)
# 0000	EURO system setting (A-D)
10-0000% 1	VAT rate*
.... 12	
.... 11	
123#1012	Machine no./Consecutive no.
14-43 1	Time/Cashier code

*When the tax system is automatic tax 1-3, manual tax 1-3, or the combination of automatic tax 1-2 and automatic VAT 3, the lowest taxable amount is printed under the tax rate.

4-0000% 1	Tax rate
0-12	Lowest taxable amount
.... 12	
.... 11	

2 Auto key programming report

# 1	Step
01 02	Key no.
02 22	
# 2	
....	

3 PLU programming report

001#02 1	PLU code
- 1-25	Mode parameter
002#01 1	Unit price
0-00	Associated department code
003#01 1	
0-00	
004#01 1	
0-00	
005#01 1	
0-00	

PROGRAMMING FOR EURO

Your register can be modified to correspond with each period set for the introduction of EURO, and in your register each currency is treated as shown on the table below depending on which period you are in. Basically your register can be automatically modified to correspond to the introduction of EURO by executing the modification operation in the X2/Z2 mode. However, there are several options you must set depending on your needs.

How currencies are treated in your register

	Period 1	Period 2	Period 3
	After the introduction of EURO, and before EURO banknotes and coins begin to circulate	After EURO banknotes and coins begin to circulate, and before national currency is withdrawn from circulation. (Co-existence of EURO and national currency)	After the national currency is withdrawn from circulation
Currency	EURO	Domestic currency	Domestic currency
	National currency (DM, F, etc.)	Exchange key (Preset rate entry)	Exchange key (Preset rate entry)
	Foreign currency	Exchange key (Manual rate entry)	Exchange key (Manual rate entry)

Receipt samples

Period 1

01	*1.00
02	*2.00
	*3.00 ₣
	1.57€
	*5.00 ←
	*2.00 →
	1.05€

— Sales total amount in national currency (as domestic currency)
 — Sales total amount in EURO*
 — Tendered amount in national currency
 — Change in national currency
 — Change in EURO*

*: They are printed for information purposes only.

Period 2

01	0.52€
02	1.04€
	1.56€ ₣
	*2.98
	2.00€←
	0.44€→
	*0.84

— Sales total amount in EURO (as domestic currency)
 — Sales total amount in national currency*
 — Tendered amount in EURO
 — Change in EURO
 — Change in national currency*

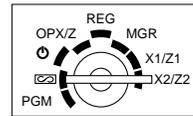
*: They are printed for information purposes only.

Period 3

01	1.00€
01	2.00€
	3.00€ ₣
	5.00€←
	2.00€→

■ Automatic Modification of Register System for Introduction of EURO

To make your register correspond to the introduction of EURO, your register system can be automatically modified. According to the steps of the introduction, you can make your register correspond to EURO. Set the manager key (MA) to **X2/Z2** position, and use the following sequence.



- *A=1: Applicable for period 1
- *A=2: Applicable for period 2
- *A=3: Applicable for period 3

Note

- A cashier must be signed-on before this operation.
- You can perform each operation only once with the substitution of "A=1", "A=2" and "A=3". If you perform the operation with the substitution of "A=2" first, you cannot perform the operation with the substitution of "A=1". If you perform the operation with the substitution of "A=3" first, you cannot perform the operation with the substitution of "A=1" and "A=2".

The details of the automatic register system modification are as follows:

(As for PGM functions described below, please refer to "Programming EURO system settings" and "Programming function parameters for **EX** key".)

When "1" is substituted to "A":

1. Issuing a general Z1 report
2. Issuing a general Z2 report
3. Setting "printing" for a PGM function "Printing exchange total amount and change amount on receipt or journal"
4. Setting "division" for a PGM function "Exchange calculation method"
5. Setting the EURO symbol (€) for the currency symbol of exchange key, and setting "2" for the number of digits after decimal point of exchange amount
6. Setting the round-off function for currency exchange

After the execution of the procedure with the substitution of "1", treat EURO as foreign currency using the exchange key (**EX**) with the preset rate entry.

When "2" is substituted to "A":

1. Issuing a general Z1 report
2. Issuing a general Z2 report
3. Resetting GT
4. Setting "printing" for a PGM function "Printing exchange total amount and change amount on receipt or journal"
5. Setting "multiplication" for a PGM function "Exchange calculation method"
6. Changing the domestic currency symbol to the EURO symbol (€) and setting the number of digits after decimal point of the domestic currency amount to 2
7. For the setting of the currency symbol and the number of digits after decimal point of exchange amount, the ones that had been set to the domestic currency are set.
8. Setting the round-off function for currency exchange

After the execution of the procedure with the substitution of "2", treat EURO as domestic currency, and previous national currency as foreign currency using the exchange key (**EX**) with the preset rate entry.

Since EURO becomes domestic currency in your register after execution of the procedure with the substitution of "2", you must change unit prices in each department and PLU to make prices correspond to EURO before actually you start operating your register again. As for the miscellaneous keys, also please change the rates or amounts so that they are based on amounts in EURO.

When “3” is substituted to “A”:

1. Issuing a general Z1 report
2. Issuing a general Z2 report
3. Resetting GT
4. Setting “not printing” for a PGM function “Printing exchange total amount and change amount on receipt or journal”
5. Setting “multiplication” for a PGM function “Exchange calculation method”
6. Changing the domestic currency symbol to the EURO symbol (€) and setting the number of digits after decimal of the domestic currency amount to 2
7. Setting the round-off function for currency exchange

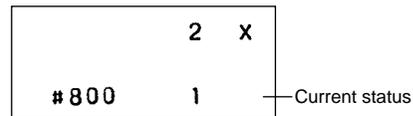
After the execution of the procedure with the substitution of “3”, treat EURO as domestic currency.

When the operation with the substitution of “2” has been performed already, “3. Resetting GT” is not executed.

When the operation with the substitution of “1” or “2” has been performed already, the currency symbol of exchange key is overwritten with a space.

Note

- If you want to check the current status you are in, set the manager key (MA) to X2/Z2 position, and use the following sequence.



■ Optional Programming for the Introduction of EURO

Some programming relating with the function of exchange key (**EX**) cannot be changed automatically with the execution of modification operation described in the previous section.

Currency exchange rate for **EX** key

For period 1 and period 2, set the EURO conversion rate. For programming details, refer to “Programming the rate”.

Exchange rate entry selection

When you treat EURO currency in the exchange key, you must apply preset rate entry. So, make enable for preset rate entry for period 1 and period 2. For programming details, refer to “Programming function parameters for **EX** key”.

Cheque/credit operation

For period 1 and period 2, enable cheque/credit operation when tendering in foreign currency so that you can treat cheque and credit for EURO currency and national currency. For programming details, refer to “Programming EURO system setting”.

■ Displaying the Change Amount in Exchange Currency

You can display a change amount in exchange currency by pressing the **EX** key when the change amount is displayed. This may be convenient when you want to give the change in exchange currency in the period 1 and 2. When pressing the **EX** key again, the displayed amount returns to the amount in domestic currency.

The conditions that you can display a change amount in exchange currency are as follows:

- “Printing” is selected for a PGM function “Printing exchange total amount and change amount on receipt or journal.”
- Exchange rate is not zero.

OPERATOR MAINTENANCE

1 Replacing the batteries

If the low battery symbol “ L ” appears on the far left of the display, the voltage of the batteries is less than the required level. In this situation, you must replace new batteries within two days.

And if the no battery symbol “ L ” appears on the far left of the display, less than three batteries are installed in your register, or the batteries are dead. In this situation, you must replace new ones immediately. If the AC power is accidentally disconnected or in case of a power failure, all programmed settings will be reset to the default settings and any data stored in memory will be cleared.

CAUTION!

Incorrectly using batteries can cause them to burst or leak, possibly damaging the interior of the cash register. Note the following precautions:

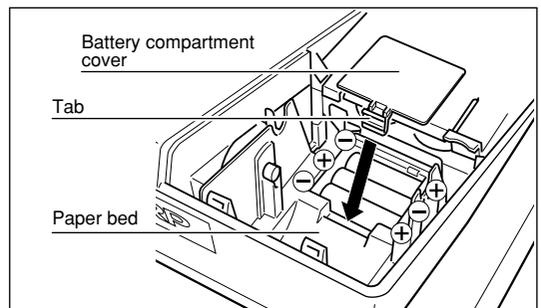
- Be sure that the positive (+) and negative (-) poles of each battery are facing in the proper direction.
- Never mix batteries of different types.
- Never mix old batteries and new ones.
- Never leave dead batteries in the battery compartment.
- Remove the batteries if you do not plan to use the cash register for long periods. However, the data and user-programmed settings will be erased.
- If a battery leaks, clean out the battery compartment immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.
- Do not throw any spent batteries into combustible waste and do not burn any spent batteries.

To replace the batteries:

1. **Make sure that the register is plugged in.**
2. Turn the mode switch to the “OP X/Z” position.
3. Remove the printer cover.
4. Open the battery compartment cover located in front of the paper bed and remove the old batteries.
5. Install three new R6 or LR6 batteries (“AA” size) in the battery compartment. Be sure that the positive and negative poles of each battery are facing in the proper direction.

When they are installed correctly, the “ L ” or “ L ” symbol will disappear.

6. Close the battery compartment cover.
7. Replace the printer cover.



View from rear

2 Replacing the paper roll

Precaution: Be very careful for the manual cutter mounted on the printer cover when removing and replacing the cover, so as not to hurt yourself.

■ Removing the paper roll

When a red dye appears on the paper roll, it is time to replace the existing paper roll. Replace the paper roll with new one.

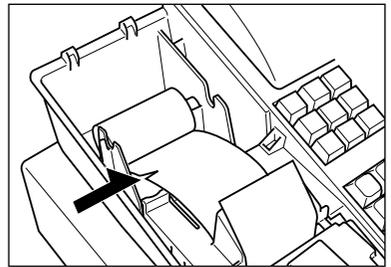
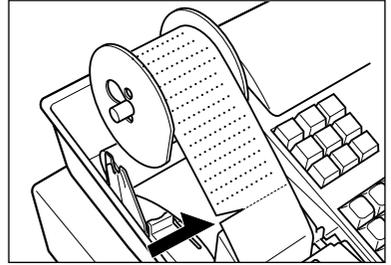
1. Remove the printer cover.
2. Turn the mode switch to the "REG" position with the AC cord connected.

3. When the take-up spool is not used:

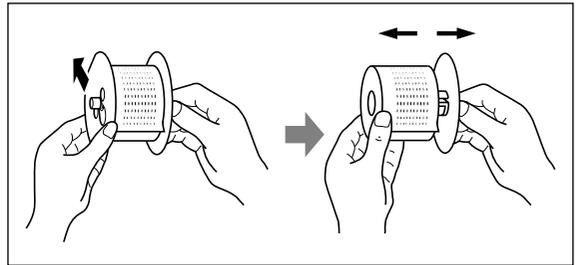
- Cut the paper near the paper roll as shown on the second sketch, and remove the used paper roll.
- Remove the rest of paper by pressing the  key.

When the take-up spool is used:

- Press the  key to advance the paper until its printed part is out of the way.
- Cut the paper, and remove the take-up spool from the cradle.
- Cut the paper near the paper roll, and remove the used paper roll.
- Remove the rest of paper by pressing the  key.



- Remove the used paper roll from the take-up spool. Slide up the holding plate to move the spool shaft from the small hole in the plate to the large one. Remove the holding plate from the spool shaft.



■ Installing the paper roll

Be sure to use paper rolls specified by SHARP.

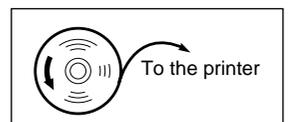
The use of any other paper rolls than specified could cause paper jamming, resulting in register malfunction.

Paper specification

Paper width: 57.5 ± 0.5 mm Max. outside diameter: 70 mm

Before starting the installation, make sure that the AC cord is connected, and the mode switch is in the "REG" position. Remove the printer cover, if it is not.

1. Set the paper roll correctly and drop it in the paper bed.

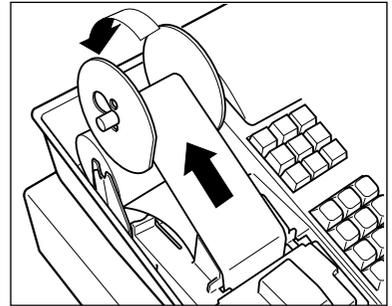


2. Make a fold in the paper approx. five centimeters from the end.
3. While pressing the  key, insert the folded end straight into the paper inlet. The inserted end appears at the printing area.
- 4 **When not using the take-up spool (using as receipt paper):**
 - Lead the end of the paper out through the manual cutter on the printer cover. (Press the  key to advance the paper more if required.)



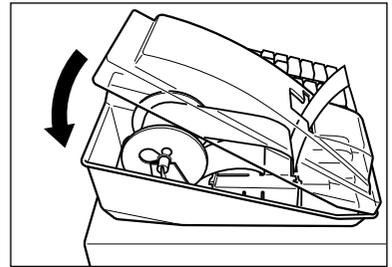
When using the take-up spool (using as journal paper):

- Insert the end of the paper into the slit in the spool. (Press the  key to feed more paper if required.)
 - Wind the paper two or three turns around the spool shaft.
 - If the holding plate is not attached to the spool, attach it by inserting the spool shaft into the large hole and sliding it into the small one.
 - Set the spool on the bearing, and press the  key to take up excess slack in the paper.
5. Replace the printer cover.



Note

- When using a paper roll as journal paper, you must change the printer type. Refer to "Programming print format" on page 30.
- When using 2-ply journal/receipt paper, follow the same instructions as above, but lead the end of the receipt paper out through the manual cutter after winding the journal paper on the take-up spool shaft.



3 Replacing the ink ribbon

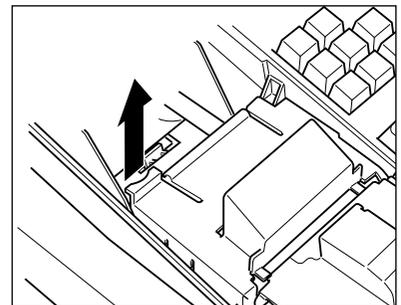
When printing becomes faded, replace the ink ribbon with a new one specified by SHARP.

Removal

Note

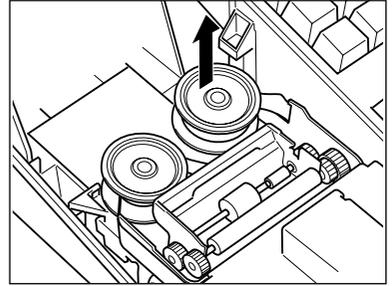
To prevent the ink ribbon from drying or becoming dirty, do not remove it from its bag until just before using.

1. Remove the printer cover.
2. Cut off the paper and press the  key to remove it.
3. Detach the ink ribbon cover. Pull the tab in the direction of arrow to lift the cover.



4. Remove the ink ribbon.

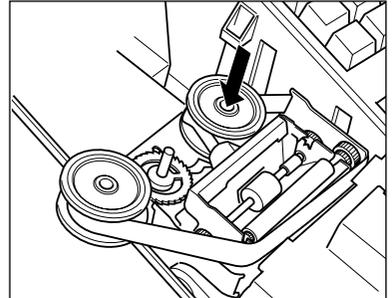
Remove the reel that is not locked by the reel stopper first, and tip the stopper to the opposite side and remove the another reel. To remove the reels, pull them upwards.



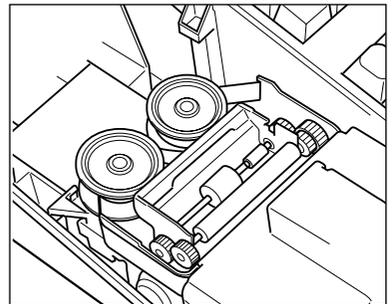
■ Installation

The protruding side of reels must face downward. So, note which reel is the left one and which is the right.

1. Install the reel at the side that the reel stopper is not tipped. Rotate the reel to the right or to the left until it clicks into place.
2. Run the ink ribbon correctly through the printer as shown on the right sketch. Note that the ribbon is placed along the outside of the metal brackets.



3. Install the other reel in the same way, and rotate either reel to take up slack from the ribbon.

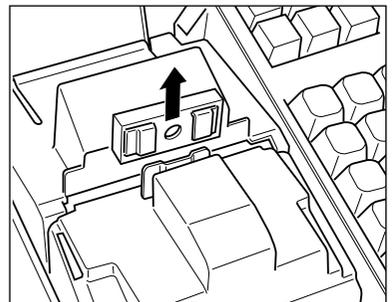


4. Replace the ink ribbon cover.

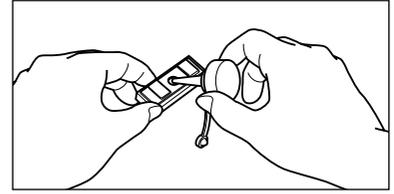
4 Ink refill (ER-A180 only)

If the logo becomes too light, it's time to refill the logo ink. You must use the logo ink specified by SHARP. Consult your dealer for the logo ink. For refilling the logo ink, follow the procedure given below.

1. Remove the printer cover.
2. Remove the logo by pulling it straight up in the direction of the arrow.



3. Pour two or three drops of logo ink through the ink inlet situated on the back of the logo.
4. Replace the logo by the reverse procedure to removing.
5. Replace the printer cover.



Precautions:

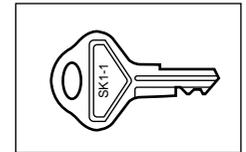
The logo ink first gives a clear print 6 to 10 hours after being applied into the logo. Therefore, refilling at the end of daily business is most effective. Overinking should be avoided. This will create a blurry print. Do not apply the logo ink to the ink ribbon.

5 Drawer handling

■ Locking the drawer

To lock the drawer, insert the key into the drawer lock and turn it 90 degrees counterclockwise.

To unlock the drawer, insert the drawer key into the lock and turn it 90 degrees clockwise.

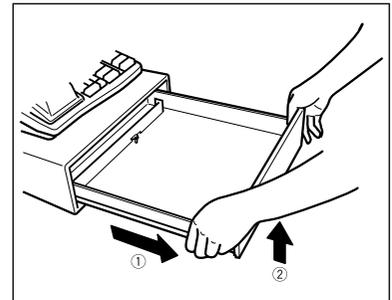
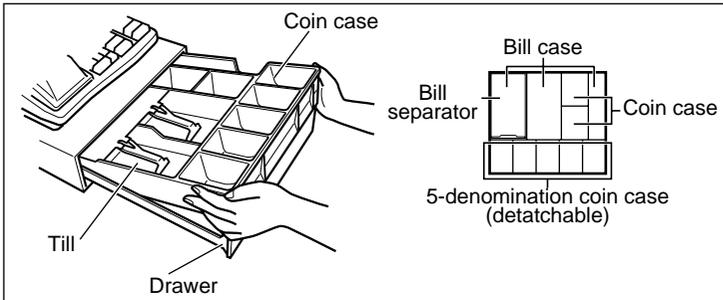


Drawer lock key

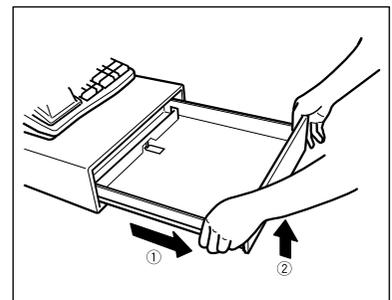
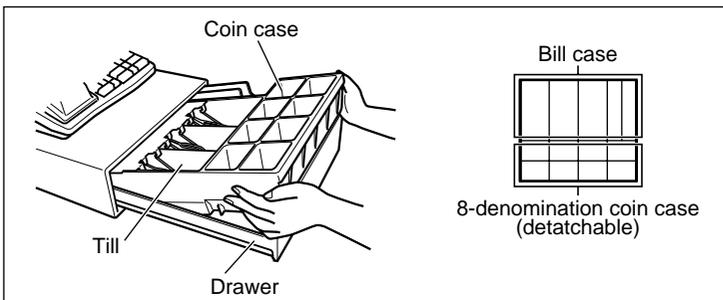
■ Removing the till and the drawer

The till in the register is detachable. After closing your business for the day, remove the till from the drawer and keep the drawer open. To detach the drawer, pull it forward fully with the till removed, and remove it by lifting it up.

ER-A160



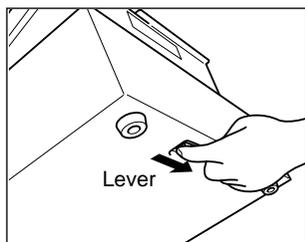
ER-A180



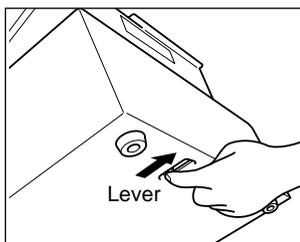
6 Opening the drawer by hand

The drawer automatically opens in the usual way. However, when power failure is encountered or the machine becomes out of order, slide the lever located on the machine bottom in the direction of the arrow. (See the figure shown below.) The drawer will not open, if it is locked with a drawer lock key.

ER-A160



ER-A180

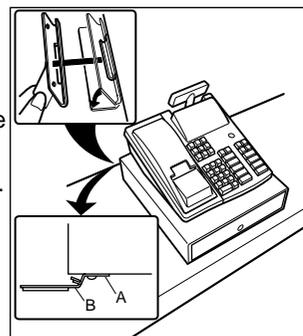


7 Installing the fixing angle bracket

To prevent the register from moving when the drawer opens, use the supplied fixing angle bracket to fix the drawer to the platform.

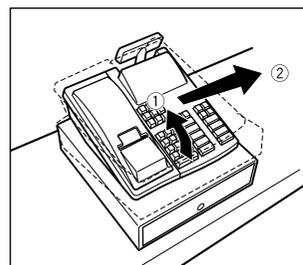
How to install the fixing angle bracket

1. Thoroughly clean the location where the fixing angle bracket (B) is to be placed.
2. Peel off the adhesive tape on the fixing angle bracket.
3. Hook the angle bracket onto the hook (A) that is located at the bottom rear of the register.
4. Firmly stick the fixing angle bracket to the table surface that you cleaned above.



How to remove the register from the fixing angle bracket

1. Lift up the front of the register and pull the register towards you.



8 In case of power failure or paper jam

When power is lost, the machine retains its memory contents and all information on sales entries. The following situations occur during a power failure or paper jam. (Batteries must be correctly installed.)

When a power failure occurs when the register is turned on or during a computation process:
When power returns, the register resumes operation from the point of failure.

When a power failure occurs during the printing of a sales transaction or of X/Z reports:

When power returns, the register prints "★★★★★★" and then resumes correct printing of the transaction or reports.

What to do when the printer motor locks:

If the printer motor happens to lock, the printing stalls, and an intermittent beeping starts. If this occurs, please follow the procedure below.

1. Turn the mode switch to "⓪" position.
2. Insure the printer is clear of any obstructions (e.g. paper jams, etc).
To clear the printer, remove the printer cover and the ribbon cover.
3. Turn the mode switch to the previous position. The "-----" appears in the display.
4. Feed the paper roll to the proper position.
5. Press the key.
6. The register will resume correct printing after printing "★★★★★★".

```

01 *12*00
02  23 55

*****
02 *23*55
   *35*55  ST
   *3*23  IT 1

   *35*55  CA
    
```

9 Program resetting

If your register is locked, perform the program resetting. When the program resetting is performed, the register returns to the initial state without erasing the sales data and user-programmed settings. The procedure is as follows:

1. Unplug the power code from the outlet.
2. Turn the mode switch to "PGM" position.
3. While pressing the key, plug the power code to the outlet.
When the program resetting is done successfully, "★★★★ 2" is printed.

10 Before calling for service

The malfunctions shown in the left-hand column below, labelled "Fault," do not necessarily indicate functional faults of the machine. It is therefore advisable to refer to the "Checking" shown in the right-hand column before calling for service.

Fault	Checking
(1) The display shows symbols that do not make sense.	<ul style="list-style-type: none"> • Was the machine initialized?
(2) The display won't be illuminated even when the mode switch is turned to any other position than "⓪".	<ul style="list-style-type: none"> • Is power supplied to the electrical outlet? • Is the power cord plug out or loosely connected to the electrical outlet?
(3) The display is illuminated, but the whole machine refuses registrations.	<ul style="list-style-type: none"> • Is a cashier code assigned to the register? • Is the mode switch set properly at the "REG" position?
(4) No receipt is issued.	<ul style="list-style-type: none"> • Is the paper roll properly installed? • Is there a paper jam? • Is the receipt function in the "OFF" status?
(5) No journal paper is taken up.	<ul style="list-style-type: none"> • Is the take-up spool installed on the bearing properly? • Is there a paper jam?
(6) Printing is unusual.	<ul style="list-style-type: none"> • Is the paper roll properly installed? • Is the ink ribbon worn out? • Is the ink ribbon installed properly? • Has the ink ribbon folded?

LIST OF OPTIONS

For your register, the following options are available. For details, contact your dealer.

•Key kit models

By using the following key kits, you can change the keyboard layout of your register.

- ER-11KT7: 30 regular size keys
- ER-12KT7: 30 1 x 2 size keys
- ER-22KT7: 10 2 x 2 size keys
- ER-11DK7G: 30 regular size dummy keys
- ER-51DK7G: 10 5 x 1 size dummy keys

SPECIFICATIONS

Model:	ER-A160/ER-A180	
Dimensions:	ER-A160: 330 (W) x 364 (D) x 238 (H) mm	ER-A180: 355 (W) x 424 (D) x 252 (H) mm
Weight:	ER-A160: 8.7 kg	ER-A180: 10.7 kg
Power source:	Official (nominal) voltage and frequency	
Power consumption:	Stand-by 8W Operating 17W (max.)	
Working temperature:	0 °C to 40 °C	
Electronics:	LSI (CPU) etc.	
Display:		
Operator display:	7-segment display (10 positions)	
Customer display:	7-segment display (7 positions)	
Printer:		
Type:	One-station print wheel selective type	
Printing speed:	Approx. 3.2 lines/second	
Printing capacity:	12 digits	
Other functions:	Receipt (ON-OFF) function	
Paper roll:	Width: 57.5 ± 0.5 mm Max. diam.: 70 mm Weight: 52.3 to 64 g/m ² Superior quality paper Thickness: 0.06 to 0.085 mm	
Ink ribbon:	Width: 13 mm Length: 4 m Colour: Purple (single colour)	
Cash drawer:	ER-A160: 3 slots for bill and 7 for coin denominations ER-A180: 5 slots for bill and 8 for coin denominations	
Accessories:	Manager key 2 Operator key 2 Drawer lock key 2 Paper roll 1 Take-up spool 1 Ink ribbon 1 (mounted on the printer) Battery caution label 1 Fixing angle bracket 1 Instruction manual 1 copy Bill separator 1 (ER-A160 only) (set in the drawer) Logo stamp 1 (ER-A180 only) (mounted on the printer)	

* Specifications and appearance subject to change without notice for improvement.

FOR CUSTOMERS IN U.K.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

BLUE:	Neutral
BROWN:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured black.

The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured red.

The apparatus must be protected by a 3A fuse in the mains plug or distribution board.

CAUTION: DO NOT CONNECT THE LIVE (BROWN) WIRE OR THE NEUTRAL (BLUE) WIRE TO THE EARTH TERMINAL OF YOUR 3-PIN MAINS PLUG.

Environment Protection

The device is supported by a battery. To dispose the battery safely to protect the environment, please note the following points:

- Take the used battery to your local waste depot, dealer or customer service centre for recycling.
- Do not throw the used battery into fire, into water or into the household waste!

Umweltschutz

Das Gerät wird durch eine Batterie gestützt. Um die Batterie sicher und umweltschonend zu entsorgen, beachten Sie bitte folgende Punkte:

- Bringen Sie die leere Batterie zu Ihrer örtlichen Mülldeponie, zum Händler oder zum Kundenservice-Zentrum zur Entsorgung.
- Werfen Sie die leere Batterie niemals ins Feuer, ins Wasser oder in den Hausmüll.

Protection de l'environnement

L'appareil est supporté sur pile. Afin de protéger l'environnement, nous vous recommandons de traiter la pile usagée la façon suivante:

- Apporter la pile usagée à votre centre de traitement des ordures ménagères le plus proche ou, à votre revendeur ou, au service après-vente, pour recyclement.
- Ne jamais jeter la pile usagée dans une source de chaleur, dans l'eau ou dans les vide-ordures.

Miljöskydd

Denna produkt nöddrivs av batteri.

Vid batteribyte skall följande iakttas:

- Det förbrukade batteriet skall inlämnas till er lokala handlare eller till kommunal miljöstation för återinnsamling.
- Kasta ej batteriet i vattnet eller i hushållssoporna. Batteriet får ej heller utsättas för öppen eld.

ER-A160

Geräuschpegel: 56 dB (A)
Gemessen nach DIN 45635 bzw. EN27779
(Spitzenwert bei Aufspringen der Kassenschublade: 70 dB (A))

ER-A180

Geräuschpegel: 57 dB (A)
Gemessen nach DIN 45635 bzw. EN27779
(Spitzenwert bei Aufspringen der Kassenschublade: 67 dB (A))

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SHARP CORPORATION