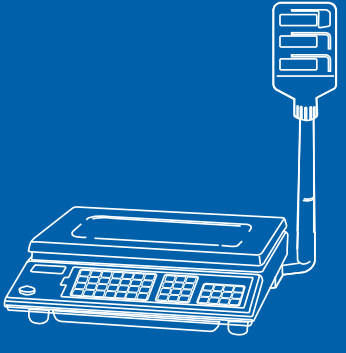
RETAIL WEIGHING SOLUTION™

AP PLUS SERIES

Price Computing Scale



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OWNER'S MANUAL

CAS

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PRECAUTIONS

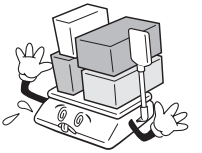
Warning

Precautions when installing the scale. To ensure that you get the most from your scale, please follow these instruction.

Do not disassemble the scale.

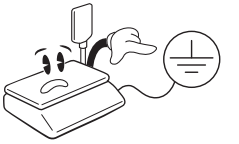
When any damage or defect occurs, contact your CAS authorized dealer immediately for proper repair.

Do not overload beyond the maximum weight limit.



Scale must be grounded to minimize electricity static.

This will minimize defect or electric shock.

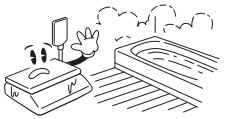


Do not pull the plug by its cord when unplugging.

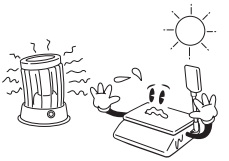
Damaged cord could cause electric shock or fire.

To prevent from fire occurring, Do not place or use the scale near flammable or corrosive gas.

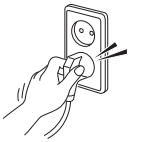
To reduce electric shock or incorrect reading, Do not spill water on the scale or place it in humid condition.



Avoid placing the scale near heater or in direct sunlight.

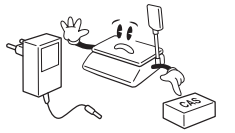


Insert plug firmly to wall outlet to prevent electric shock.



Use proper Adapter.

Incorrect adapter could damage the scale.

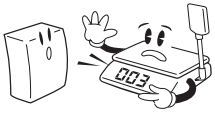


PRECAUTIONS

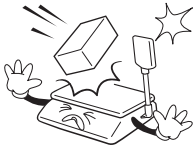
⚠ Attention

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

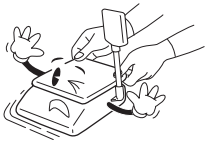
For consistent and accurate reading, maintain periodical check by your CAS authorized dealer.



Avoid sudden shock to the scale.



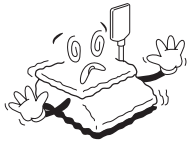
Grab on the bottom of the scale when moving.



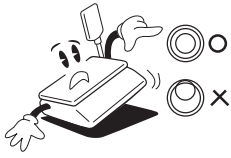
Keep the scale away from other electromagnetic enerating devices.

This may interfere with accurate reading.

Place the scale on firm and temperature consistent environment.



By adjusting 4 comers of the scale, set the scale even using the built in scale leveling indicator.



PREFACE

Thank you for the purchasing of our CAS AP PLUS Series.
This series have been designed with CAS reliability, under rigid quality control and with outstanding performances. Your speciality departments can enjoy with these high quality reliable CAS products.
We believe that your needs will be satisfied and you will have proper reliability in variable weight.
This manual will help you with proper operations and care of the AP PLUS series.
Please keep it handy for the future references.

INSTALLATIONS

Put a post pipe into a post bracket as Fig. -1
Screw the post bracket and the post pipe as Fig. -2

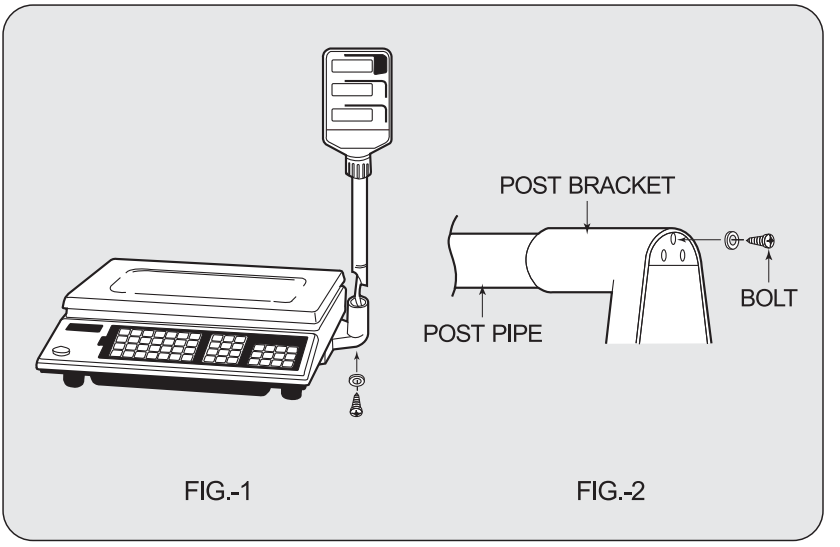
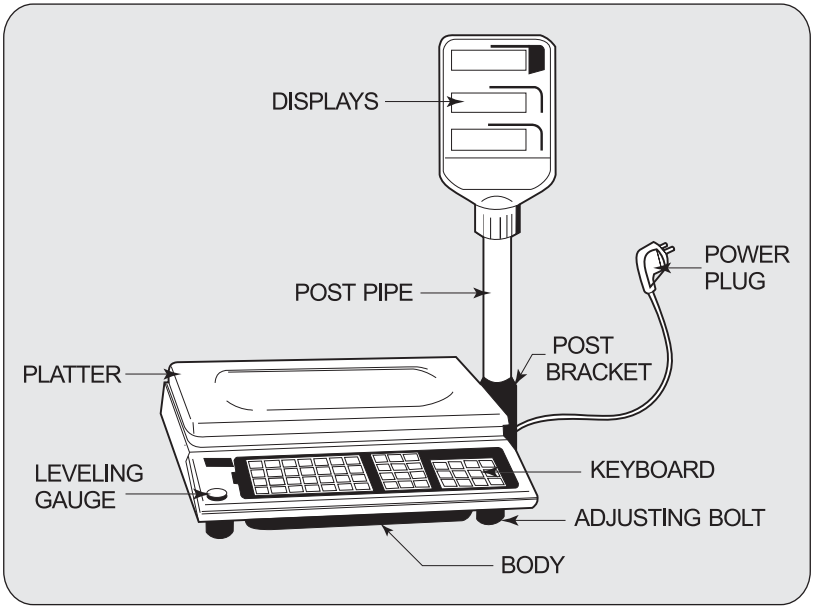


FIG.-1 FIG.-2

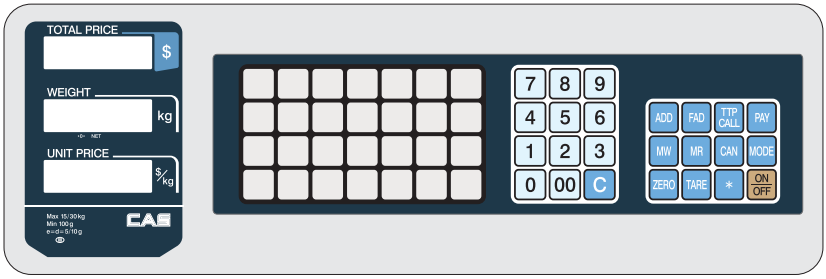
NAMES AND FUNCTIONS

OVERALL VIEW

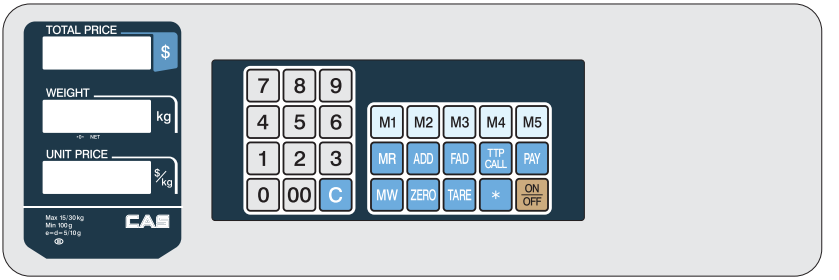


DISPLAY & KEYBOARD

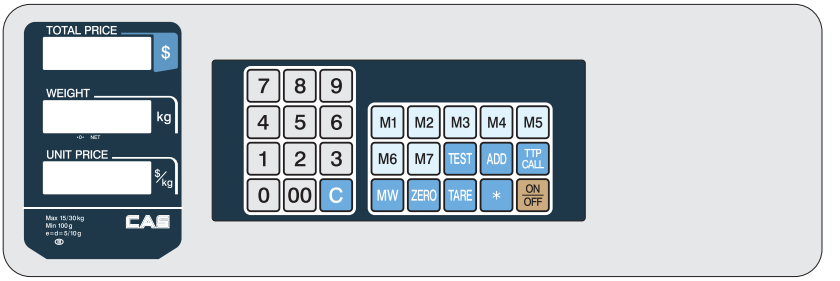
1. AP PLUS-EX Type



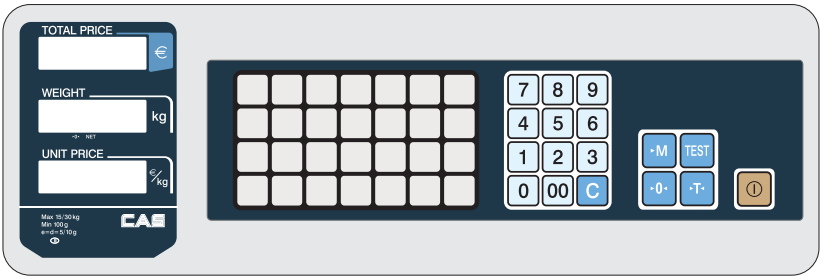
2. AP PLUS-MX Type



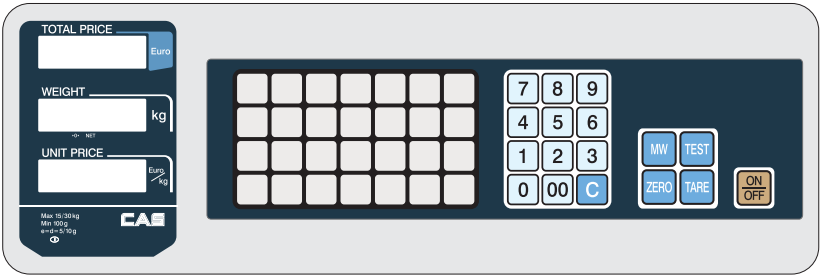
3. AP PLUS-M Type



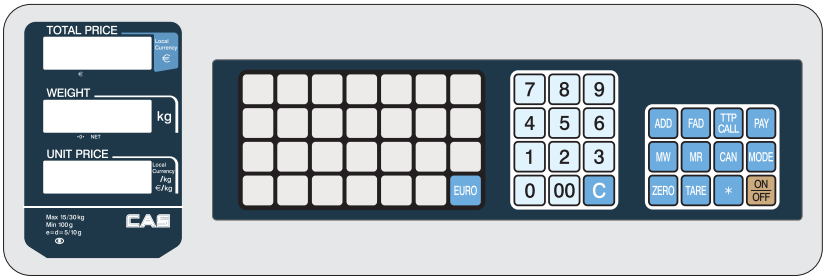
4-1. AP PLUS -EC Type(Symbol Type)



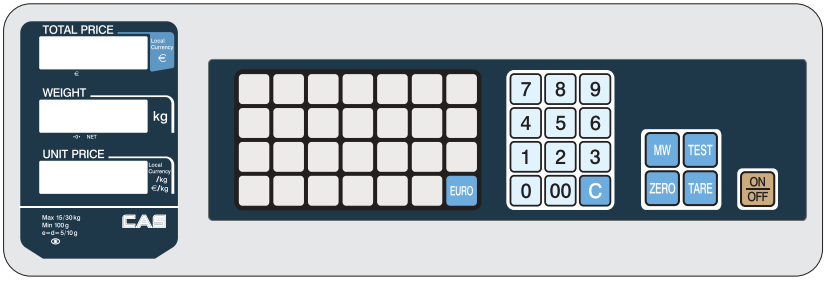
4-2. AP PLUS -EC Type(Standard Type)



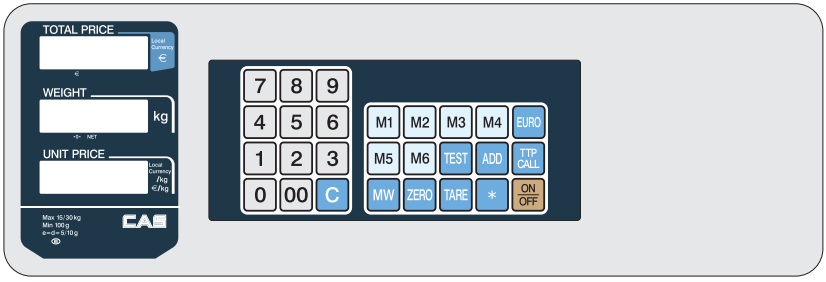
5-1. AP PLUS -Euro (AP PLUS -EX Type)



5-2. AP PLUS -Euro (AP PLUS -EC Type)



5-3. AP PLUS -Euro (AP PLUS -M Type)



■ KEY FUNCTIONS

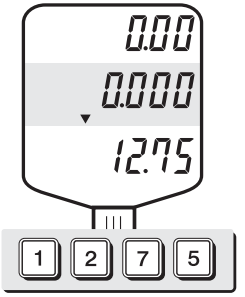
KEY	FUNCTIONS
0 ~ 9	Used to enter all the numeric data.
00	Used to enter a double zeros.
C	Used to clear all the numerics on the unit price display. Used to clear sum total price. Used to clear all the daily total prices. Used to move to next byte when inputting ASCII code.
ZERO or →0←	Used to correct the zero point. Used to move to previous byte when inputting ASCII code. Used to move to user set-up mode.
TARE or →T←	Used to enter a tare weight. Used to delete a tare weight. Used to move to next printing ticket format setting mode when inputting ASCII code.

NAMES AND FUNCTIONS

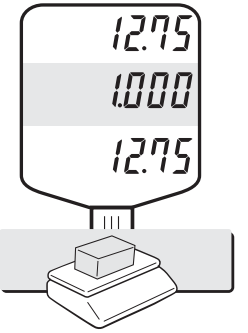
KEY	FUNCTIONS
ON/OFF or ⏻	Turns on and off the displays.
FAD	Used to add up a fixed price item.(non weighed)
ADD	Used to add up a weighed item.
PAY	Used to calculate a change.
CAN	Used to cancel a prior accumulation.
M1 ~ M7	Direct PLU(Price Look Up) keys.
TEST	Used to check the all displays.
TTP CALL	Used to call a total price of add up transactions.
MODE	Used to convert the modes. A default is weight mode after the power on.
MR	Used to call an indirect PLU(Price Look Up) in memory.
MW or M+	Used to save a PLU(Price Look Up) to memory.
*	Used to finalize sales transaction.
▢▢▢▢▢ ▢▢▢▢▢	Direct PLU keys.
EURO	Used to set Euro to local currency, and vice versa.

OPERATIONS

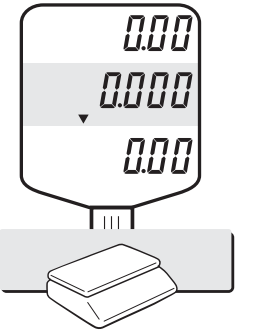
1. Simple Weighing Mode



① Enter an unit price.



② Place the commodity on the platter.

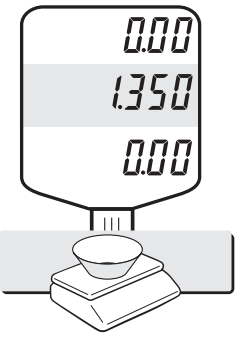


③ Remove the commodity from the platter.Press "C" key to clear unit price input.

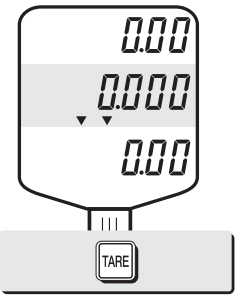
▶ NOTE : Automatic unit price clearing function may not be applied to all of AP PLUS series

2. Weighing with Tare

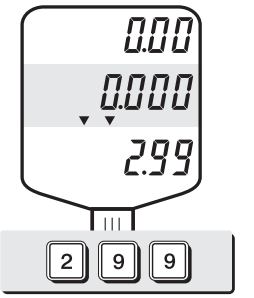
■ The tare is the weight of a container being used for a commodity.
■ The tare key subtracts the weight of the container.



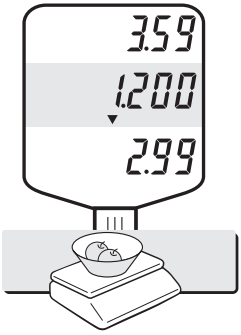
① Place the container on the platter.



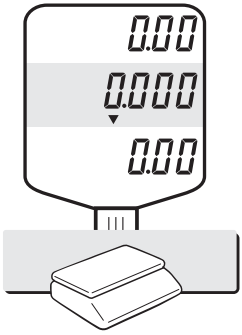
② Press TARE key.



③ Enter an unit price.



④ Place the commodity on the platter.

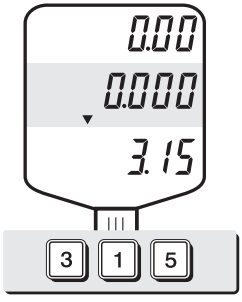


⑤ Remove the commodity from the platter.Press "C" key to clear previous transaction.

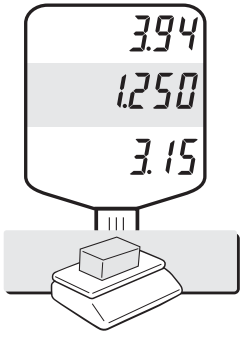
▶ NOTE: To remove TARE function press "TARE" key again after removing the container from the platter. Automatic tare clearing function may not be applied to all of AP PLUS series.

3. Adding up transactions for weighed commodities

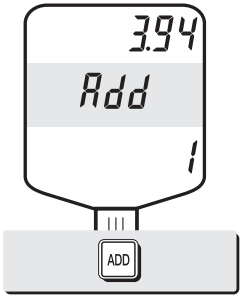
■ This add-up function is useful for transaction to purchase several commodities.
■ You can check total price by pressing TTP CALL key. And delete total price data by pressing C key after transaction is completed.



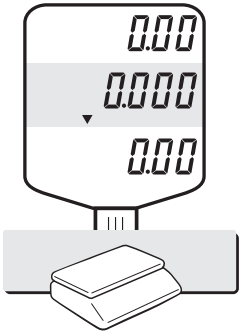
① Enter an unit price.



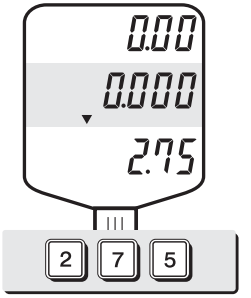
② Place the commodity on the platter.



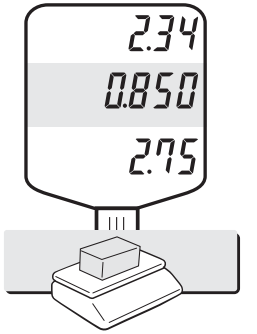
③ Press ADD key.



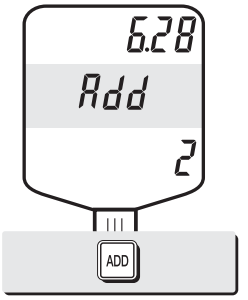
④ Remove the commodity from the platter.



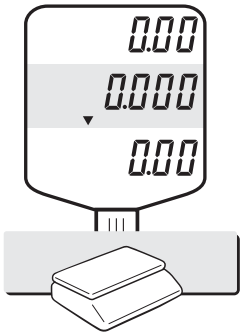
⑤ Enter another unit price.



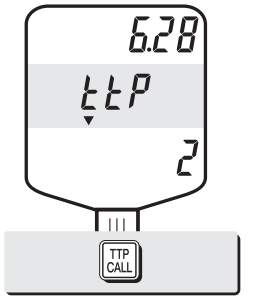
⑥ Place the commodity on the platter.



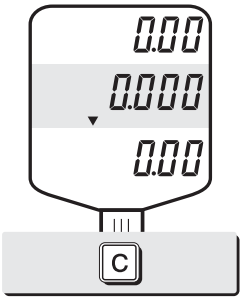
⑦ Press ADD key.



⑧ Remove the commodity from the platter.



⑨ Press TTP CALL key to call up total price.



⑩ Press C key to clear the sum of transaction.

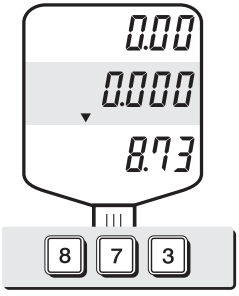
■ This function is effective on either that total number of transactions is up to 1,000 and total amount of money is up to 9,999.99.

■ When input data exceed maximum capacity for total number of transactions or total amount of money the scale beeps to notify an error.

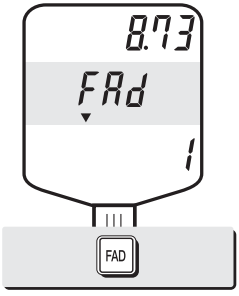
4. Adding up transactions for non-weighed(Fixed price)commodity

This is a function to add up several transactions for non-weighed commodity, using “FAD(Fixed price Added)” key.

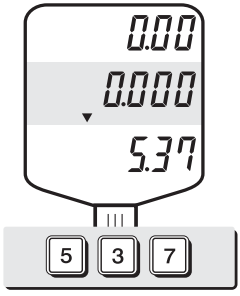
■ User should keep the platter empty when he/she tries this function in the beginning.



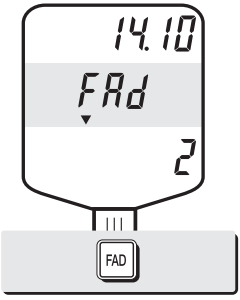
① Enter a price.



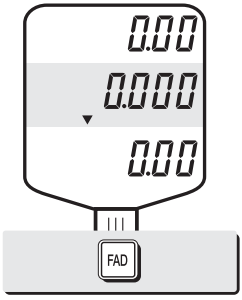
② Press FAD key.



③ Enter a next price.



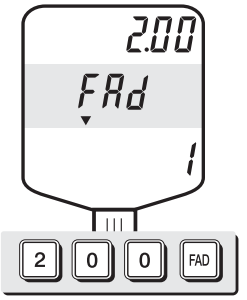
④ Press FAD key.Total amount will be shown on total price display.



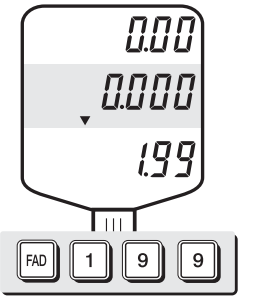
⑤ Press FAD key again to exit.

5. Canceling daily total transactions

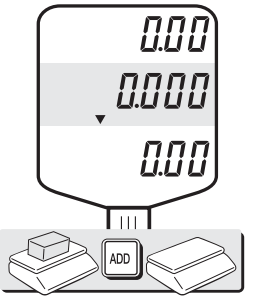
■ When user makes more than two sales transactions he/she can cancel previous mistake transaction(s) of them by doing “Cancel” function.



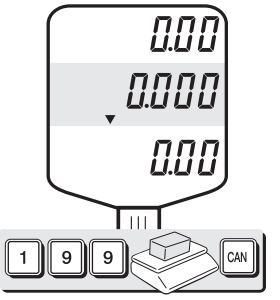
① Press numeric keys to input a unit price.
Ex) Item’s unit price=2.00



② Press FAD key and appropriate numeric keys to make next another sales transaction.
Ex) unit price = 1.99, 1kg



③ Place item on the platter and do ADD function.
Ex) unit price=1.99, 1kg
Remove it from the platter.



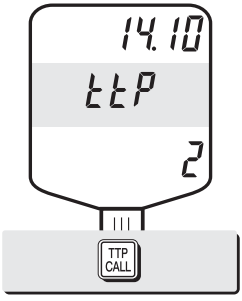
④ To cancel previous transaction input the same unit price and place the same item on the platter. Then, press CAN key.
Remove it from the platter.

● Remove the item from the platter. For sure user may check total number of a series of transactions after canceling previous one by pressing **ttp call** key to call up “ttP(Total Price)”.

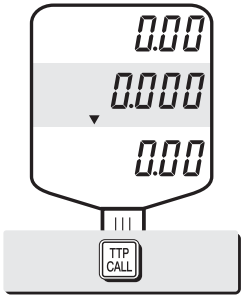
■ User can call up previous total price simply by pressing “TTP CALL” key.
■ User can clear the sum of transactions simply by pressing “C” key.
■ This function is effective on either that total number of transactions is up to 1,000 or total amount of money is up to 99,999.99.
■ When input data exceed maximum capacity for above total number of transactions or total amount of money the scale beeps to notify an error.

6. Calling up & clearing up previous total price

■ Calling up total price

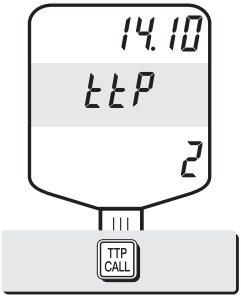


① Press TTP CALL key.

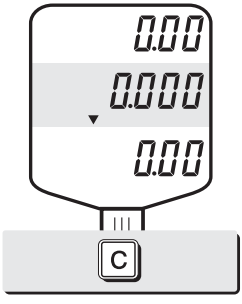


② Press TTP CALL key again to exit.

■ Clearing up total price data



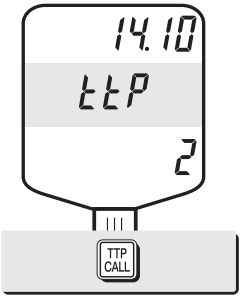
① Press TTP CALL key.



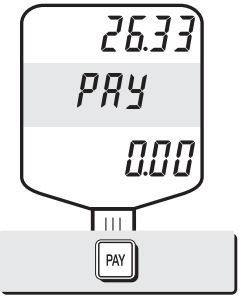
② Press C key. This function will clear up total price data permenatly.

7. Making Payment

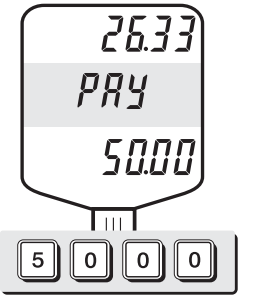
This is the function to make payment or change on the scale. The payment function is effective only if the amount customer pays exceeds the amount of total price.



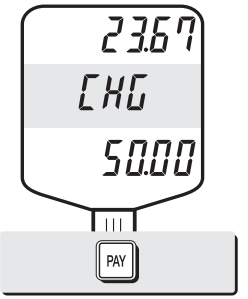
① Press TTP CALL key.



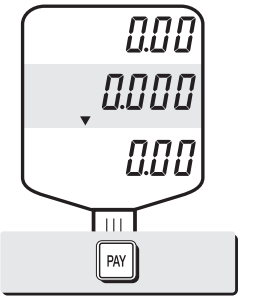
② Press PAY key, assuming total amount is 26.33



③ Enter a customer's payment. The payment will be displayed on the unit price display. Press PAY key.

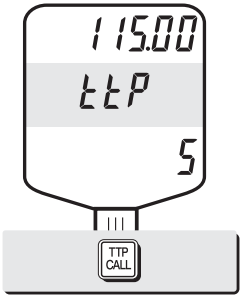


④ Press PAY key again to show the amount of change.

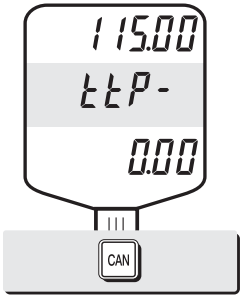


⑤ Press PAY key to exit.

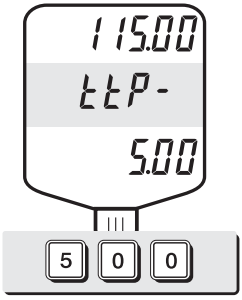
8. Discount on total sales amount



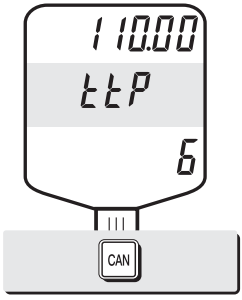
① Press TTP CALL key just to check total amount.
Ex)Total amount=115.00,
Total number of transaction=5.



② Press CAN key.



③ Press appropriate numeric keys to input the amount of discount.



④ Press CAN key.

● Press **SUM** key to finalize these transactions. (Refer to the “making payment” function on page 17).

9. Saving PLUs (Price Look-Up)

This is the function to save PLUs to memory in the scale. PLU means "Price Look-Up" which includes individual unit price information.

■ AP PLUS series have different PLU memory capacity, depending on the product model.

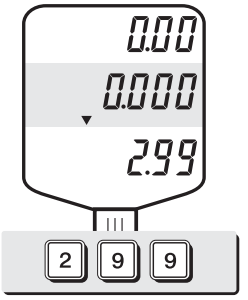
■ There are two different kind of PLUs, direct and indirect PLU.

- Direct PLU: User can call up PLU directly by pressing preset keys, for example, any key of M1~M7 or any key of 28 keyboard.
- Indirect PLU: User can call up any one of PLUs with designated numbers by pressing the designated numeric key(s), for example, "4" and "5" numeric keys for PLU # 45.

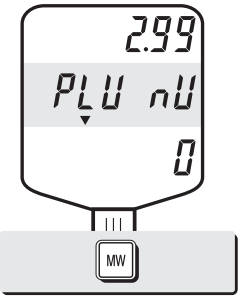
■ Maximum PLUs Memory Capacity

Product Model		Direct PLUs	Indirect PLUs
AP PLUS-EX		Up to 28 PLUs	Up to 200 PLUs
AP PLUS-MX		Up to 5 PLUs	Up to 200 PLUs
AP PLUS-M		Up to 7 PLUs	Up to 200 PLUs
AP PLUS-EC		Up to 28 PLUs	
AP PLUS (EURO) Version	EC type	Up to 27 PLUs	
	EX type	Up to 27 PLUs	Up to 200 PLUs
	M type	Up to 6 PLUs	

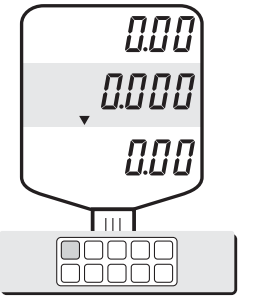
A) Direct PLUs



① Enter an unit price.

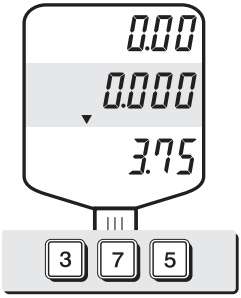


② Press MW key.

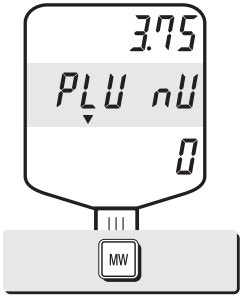


③ Press one of direct PLU keys. The display automatically goes to save valid data set on PLU mode.
(Described on page 21.)

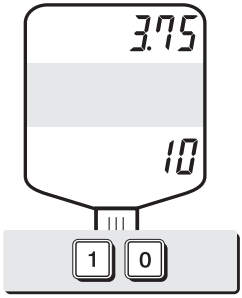
B) Indirect PLUs



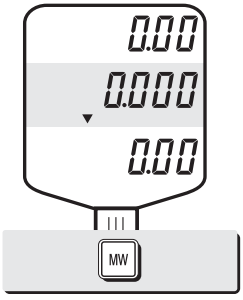
① Enter an unit price.



② Press MW key.



③ Enter a desired number(s) to store a PLU(s) at a specific address(es). You can select any number within the indirect PLU memory capacity.



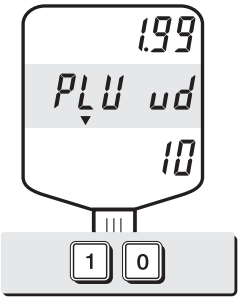
④ Press MW key to save it. The display automatically goes to save valid data set on PLU mode.
(Described on page 21.)

C) Saving valid data set on PLU

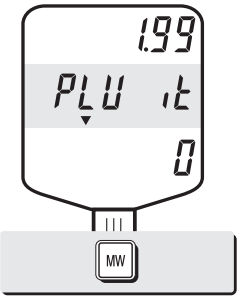
This section explains how to save valid date in PLU.
You can input the valid date. Range is 0 ~ 999.

■Valid date setting table

Valid date	Packed on date	Sell by date	Remarks
0	07.12.11 (Today)	(No print)	
1	07.12.11 (Today)	07.12.11(Today)	
2	07.12.11(Today)	07.12.12(Tomorrow)	
999	07.12.11(Today)	10.09.03(After 998 days)	



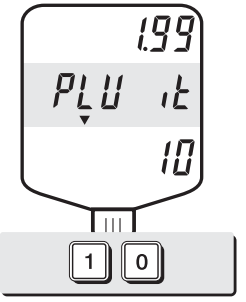
① Press numeric key to input a vaild date.
Ex) Sell by 9 days after



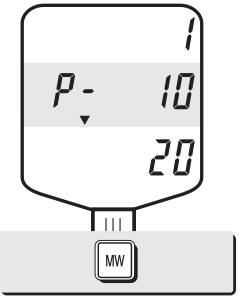
② Press MW key to save it.

D) Saving PLU item code

This section explains how to save valid date in PLU.



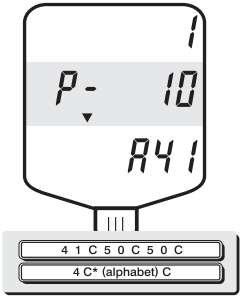
① Press numeric key to input a item code
Ex) Item code number "10"



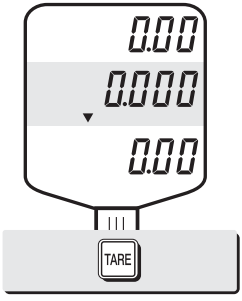
② Press MW key to save it.

E) Saving PLU name

- **C** key is to input, save a character, and move to next character (or byte).
- **TARE** key is to move next programming menu.



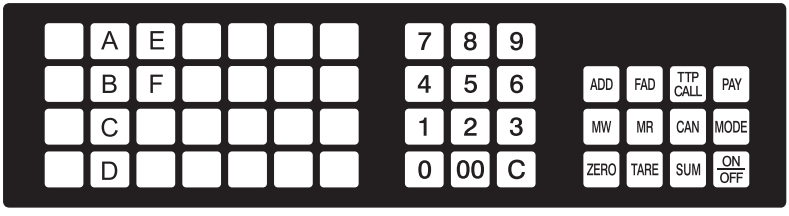
① Input appropriate ASCII codes to save the PLU name.
※ Please refer to the ASCII code on page 45.
Ex) "APPLE" is "4, 1, C, 5, 0, C, 5, 0, C, 4, C(alphabet), C, 4, 5, C"



② Press TARE key to exit to nomal weighing mode or C key up to maximum 16th byte. Then automatically exit to nomal weighing mode.

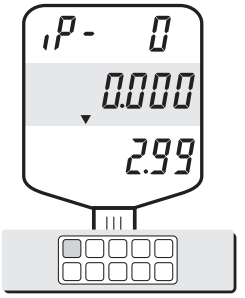
■ **Please refer to "Alphabetic key location".**

■ Alphabet A ~ F keys for AP PLUS-EX

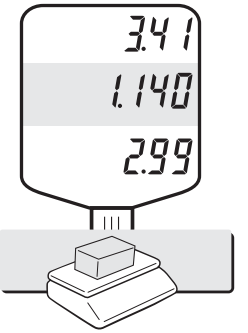


10. Calling up a PLU

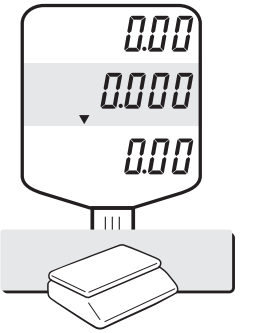
A) Direct PLUs



① Press an appropriate direct PLU key you wish to have.



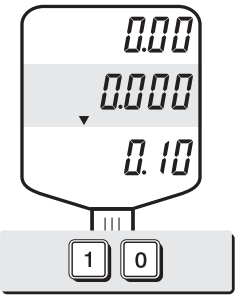
② Place commodity on the platter.



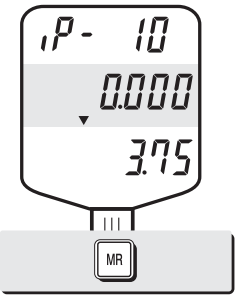
③ Remove the commodity from the platter, then press "C" key to go back to the weighing mode.

▶ NOTE : Automatic unit price clearing function may not be applied to all of AP PLUS series

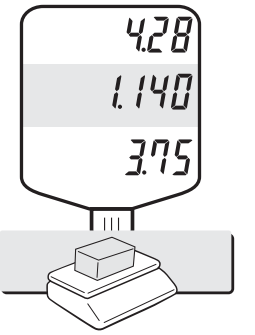
B) Indirect PLU



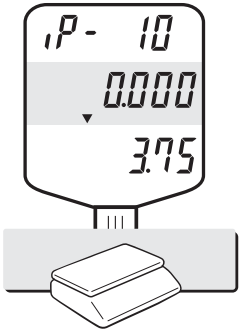
① Press numeric keys. For example, PLU# 10.



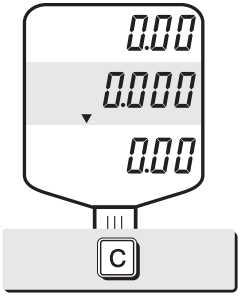
② Press "MR" key to call up a indirect PLU you wish to have.



③ Place commodity on the platter.



④ Remove the commodity from the platter.



⑤ Press "C" key to go back to the weighing mode.

*When user is in use of "Unit Price Clear" function it's automatically cleared.

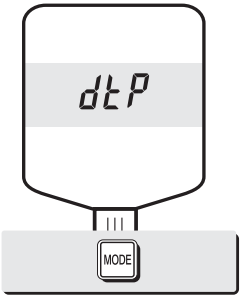
▶ NOTE: Please do not consider of decimal point on the unit price display at ① when you input a specific PLU number.

11. Displaying Daily total sales (EX)

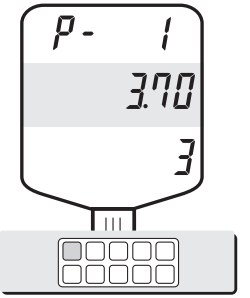
This function shows the daily total sales for in dividual PLU or daily total sales record.

■ The total sales amount and the number of transaction are displayed up to 99,999,999.99 and 9,999 respectively.

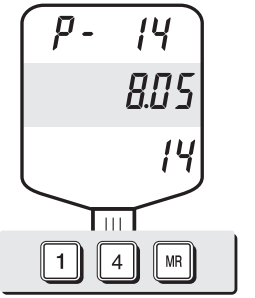
A) Total sales for direct PLU



① Press "Mode" key.

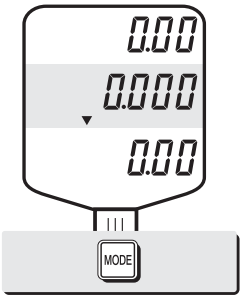


② If you look at the amount of Individual PLU sales call up appropriate PLU.
Ex)PLU #1(Banana : Direct PLU) & PLU #14.



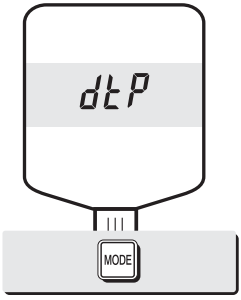
③ If you look at the amount of Individual PLU sales call up appropriate PLU.
Ex)PLU #1(Banana : Direct PLU) & PLU #14.

To go back to “Daily total sales” mode simply press **“MODE”** key.

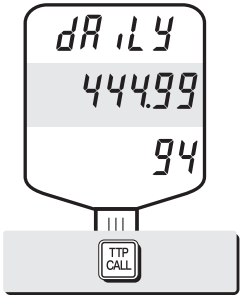


④ Place commodity on the platter.

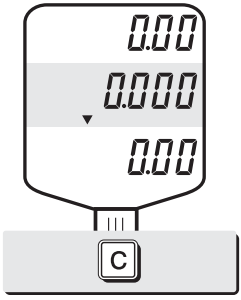
B) Daily total sales



① Press "Mode" key.



② Press "TTP CALL" key. The display says that the daily total amount of sales is 11,455,876.00, and total number of transactions is 3,319 on the scale today.

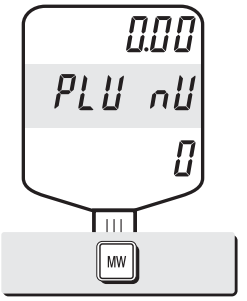


③ Press "Mode" key to exit. Be careful of pressing "C" key to clear current transaction permanently.

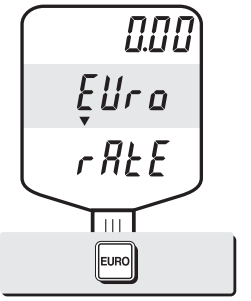
OPTION

1. Saving Euro rate (Option)

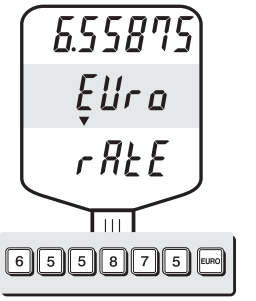
This is function to input Euro rate on your scale. Before start user should check the value in the "TOTAL PRICE" display is "0.00".



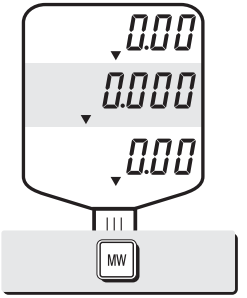
① Press the MW key.



② Press the EURO key. If you have entered the euro rate before, you will see the previous euro rate in the total price display.

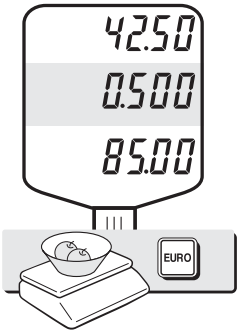


③ Enter appropriate euro rate. For example, enter € 1= 6.55875(local currency). To move decimal point press "EURO" key.



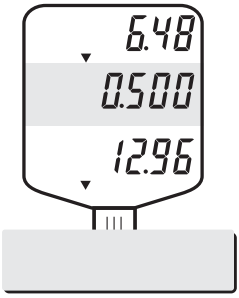
④ Press the MW key to save it, then you will go to normal mode.

2. Switching Currency

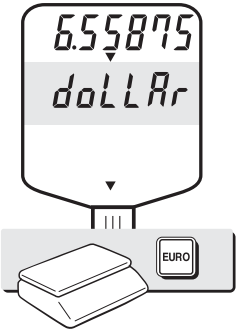


① Press the EURO key in the normal mode.

② You will go to euro mode.



③ You will see Euro currency after 2 seconds. Please make sure Euro lamp is on.



④ Press the EURO key, one more time. You will see Dollar currency mode after 2 seconds.

▶ NOTE : € 6.55875 ≒ € 6.56 in this example.
€ 6.55475 ≒ € 6.55 in this example.

※ Euro Conversion Option
- PLU Unit price is only available in NON EURO.
- Total Price(TTP Call, DTP Call) is automatically showed in the display that depending on the current unit
- Addmode is only available when you use EURO or NON EURO currencies separately.

Ex) You could not add 2 items of Euro Currency and add another item in NON EURO item in order to do so, after the Total Price Transaction then you would be able to use the Non euro currency

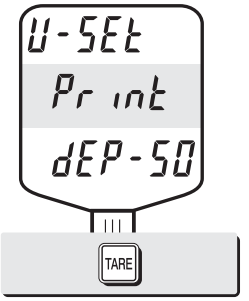
3. Selecting the printer.

This section explains how to select the printer option when you'd like to use the printer connected to AP PLUS.

■ Serial printer table

Options	Description	Remarks
NON	No printer in use	
DEP-50	DEP-50 printer interface	
DLP-50	DLP-50 printer interface	

① To get into "User's Set-up Mode"press **ON/OFF** key pressing and holding **ZERO** key.



① Press **ZERO** key to move next function setting, selecting the printer

② Select the printer you're using with AP PLUS by Pressing **TARE** key.
Ex) DEP- 50

4. Setting-up printing ticket (receipt) format

This chapter explains how to set the receipt format in the following fields.

To set into “Printing format Setup mode” Press ON/OFF key pressing and holding C key.

■ Whenever you move to next byte please press "C" key.

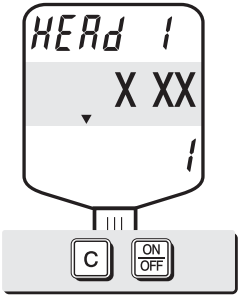
■ If user wants to move to previous byte please press"ZERO" key.

Options	Description	Remarks
HEADER	To input characters you wish to have on the receipt header.	Maximum **1,2 line / 24 characters, 3 line / 16 characters** for each line
UNIT (Currency)	To input currency symbol or characters you wish to have on the receipt.	Maximum 8 characters
DATE	To input date on the receipt.	

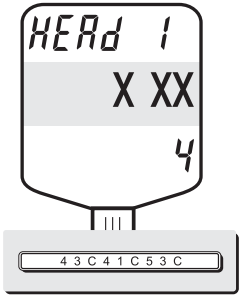
a. Receipt header setting

Options	Description	Remarks
HEADER	To input characters you wish to have on the receipt header.	Maximum **1,2 line / 24 characters, 3 line / 16 characters** for each line

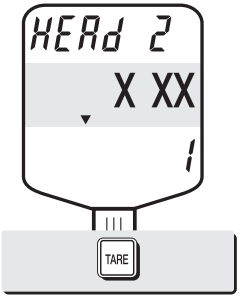
● User may input the name of store, telephone number, or other expressions he/she wishes to have on the receipt.



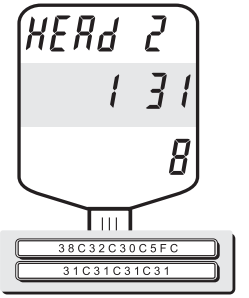
① Pressing and holding **C** key, press **ON/OFF** key under the scale power off.
“1” on the “Unit Price” display represents that you are ready to input the first character.



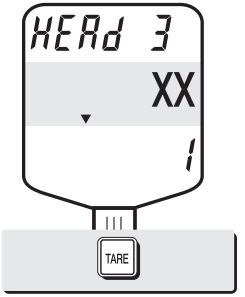
② Input appropriate ASCII codes (page on 45) you wish to have.
Ex) CAS.



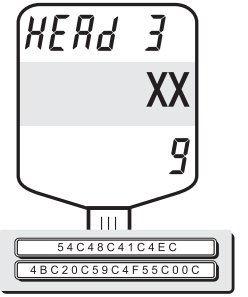
③ To save it and go next header line press **TARE** key.



④ Using ASCII code you can input appropriate data on Header 2.
Ex) 820-1111, telephone #.

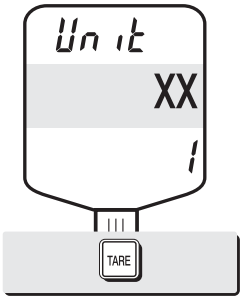


⑤ To save it and go next header line press **TARE** key.

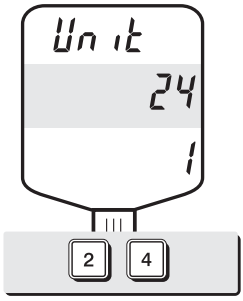


⑥ Using ASCII code you can input appropriate data on Header 2.
Ex) THANK YOU

b. Receipt currency (unit) setting

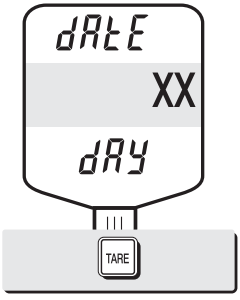


① Initial currency (unit) display status.

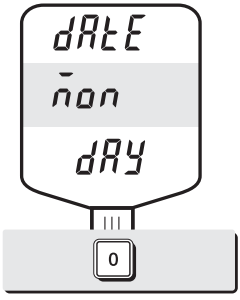


② Using ASCII code you can input appropriate character or currency symbols on unit.
Ex) $

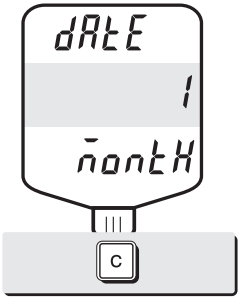
c. Receipt DATE setting



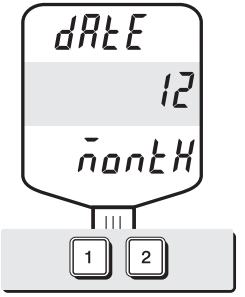
① To save it and go to "Initial DATE display" status press **TARE** key.



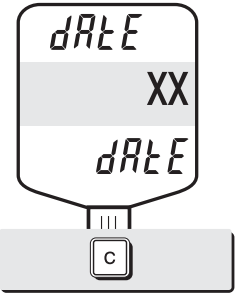
② Just input appropriate weekday you wish to have, using numeric key.
Ex) 1(Monday) ~ 7(Sunday)



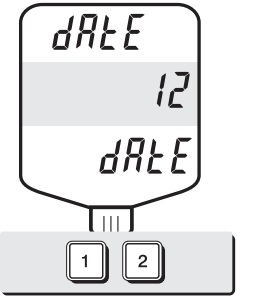
③ Press **C** key to go to next "Month" setting.



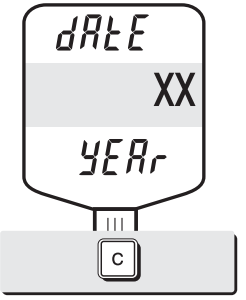
④ Just input appropriate month you wish to have, not using ASCII code.
Ex) 12 (December)



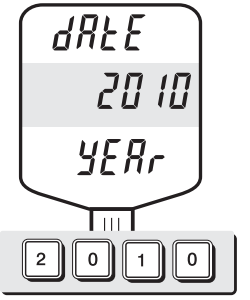
⑤ Press **C** key to go to next "Date" setting.



⑥ Just input appropriate date you wish to have, not using ASCII code.
Ex) 12th day

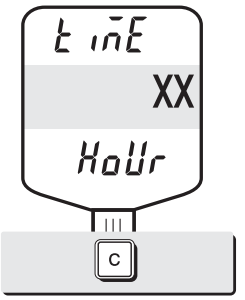


⑦ Press **C** key to go to next "Year" setting.

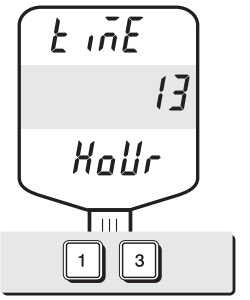


⑧ Just input appropriate year you wish to have, not using ASCII code.
Ex) Year 2010

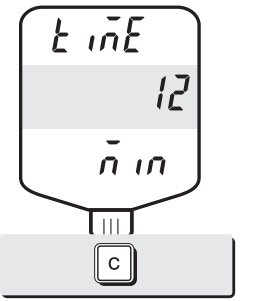
d. Receipt TIME setting



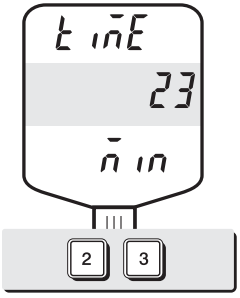
① Press **C** key to go to next "Hour" setting.



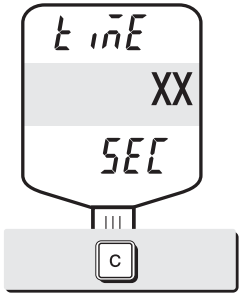
② Just input appropriate time you wish to have, not using ASCII code. Ex) Hour 13



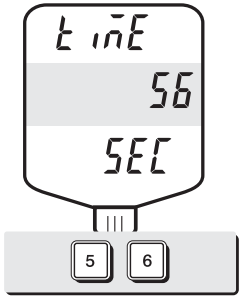
③ Press **C** key to go to next "Minute" setting.



④ Just input appropriate minute you wish to have, not using ASCII code.
Ex) Minute 23

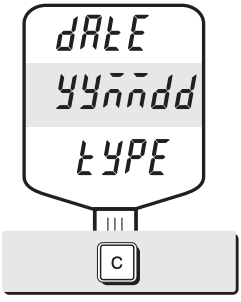


⑤ Press **C** key to go to next "Second" setting.

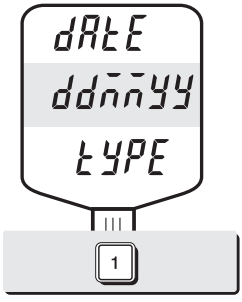


⑥ Just input appropriate second you wish to have, not using ASCII code.
Ex) Second 56

e. Receipt Date format setting



① Press **C** key to go to next "Date format" setting.



② Just input a number according to below table.

Number	Date format
0	Year / Month / Date
1	Date / Month / Year

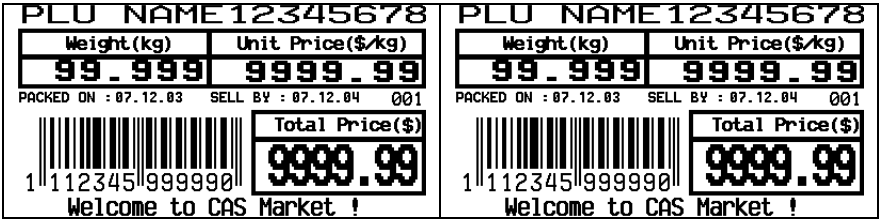
Ex) Press "1" to use DD/MM/YY print format

● If you press **C** or **T(TARE)** key you cas automatically go to nomal weighing mode.

f. Samples of Print format

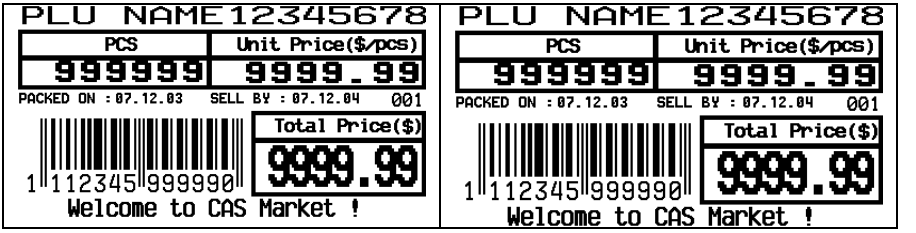
■ DLP Printer

① When using weigh item or fixed item sale mode.



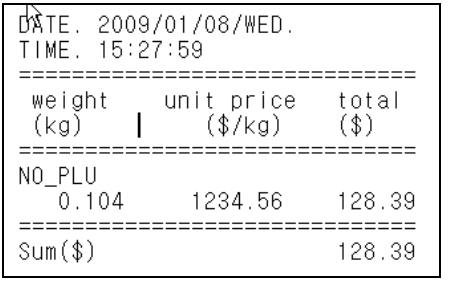
APP type – Barcode indicates "Total price" APW type – Barcode indicates "Weight"

② When using multi item sale mode.



APCP type – Barcode indicates "Total price" APCW type – Barcode indicates "PCS"

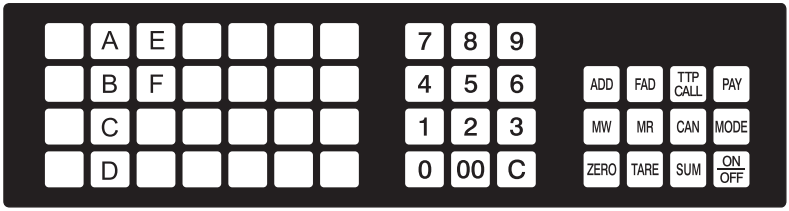
■ DEP Printer



ASCII Code

HIGH ORDER / LOW ORDER	2	3	4	5	6	7	8	9
0	SP	0	@	P	‘	p		
1	!	1	A	Q	a	q		
2	˝	2	B	R	b	r		
3	#	3	C	S	c	s		
4	$	4	D	T	d	t		
5	%	5	E	U	e	u		
6	&	6	F	V	f	v		
7	´	7	G	W	g	w		
8	(	8	H	X	h	x		
9	)	9	I	Y	i	y		
A	*	:	J	Z	j	z		
B	+	;	K	[	k			
C	,	<	L	¥	l			
D	-	=	M	]	m			
E	.	>	N	^	n			
F	/	?	O	_	o			

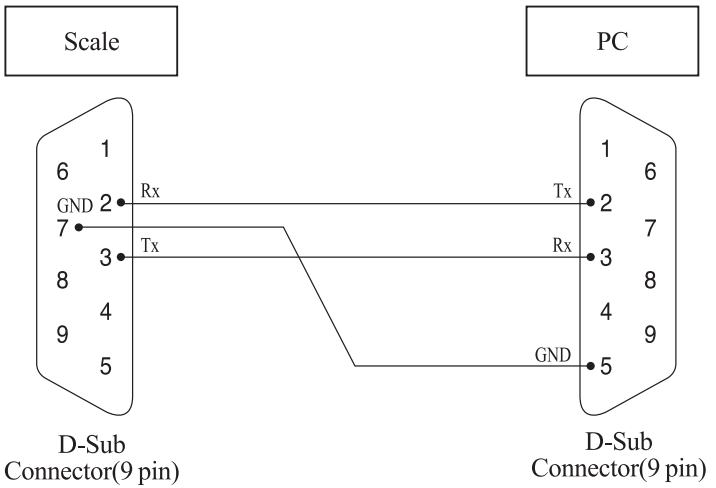
■ Alphabet A ~ F keys for AP PLUS-EX



Error Messages

Error Message on Display	Description	Solution
"Err 0"	The "Err 0" occurs when scale is not stable.	Remove unstable facts.
"Err 1"	The "Err 1" occurs when a current zero point has shifted from the last span calibration.	Please call your CAS dealer.
"Err 3"	The "Err 3" is an overload error.	Please remove the weight.
"Err 4"	The "Err 4" is short of payment.	Scale needs more payment.
"Err 5"	The "Err 5" means there is already tare.	Remove the tare.
"Err 6"	The "Err 6" means total price summation is over.	Please change unit price or remove some weight.
"Err 8"	The "Err 8" means Euro rating price is over.	Please change unit price or change euro rate.
"Err13"	The "Err13" means the soft key code is broken	Please try to find out which key lost soft key code and then input this code again.
"Err 15"	The "Err 15" means 1/2 or 1/4 unit price is over.	Please change unit price

■ Notice : Please refer to following error messages for detail.



Specifications

MODEL	AP PLUS		
CAPACITY (Dual)	3 x 0.001 kg (6 x 0.002 lb)	6 x 0.002 kg (15 x 0.005 lb)	15 x 0.005 kg (30 x 0.01 lb)
	6 x 0.002 kg (15 x 0.005 lb)	15 x 0.005 kg (30 x 0.01 lb)	30 x 0.01 kg (60 x 0.02 lb)
CAPACITY (Single)	6 x 0.002 kg (15 x 0.005 lb)	15 x 0.005 kg (30 x 0.01 lb)	30 x 0.01 kg (60 x 0.02 lb)
DISPLAYS: WEIGHT UNIT PRICE TOTAL PRICE	6 / 6 / 7 (Weight/Unit Price/Total Price)		
DISPLAY DESIGNATORS	Zero, Tare, EURO(EURO version only)		
MAXIMUM TARE	- 2.999 kg	- 5.998 kg	- 14.995 kg
TEMPERATURE RANGE	- 10°C ~ + 40°C		
POWER SOURCE	AC 100~240V 50/60Hz		
POWER CONSUMPTION	APPROX. 10W		
PLATTER SIZE (mm)	340(W) x 222(D)		
PRODUCT SIZE (mm)	350(W) x 325(D) x 490(H)		
PRODUCT WEIGHT	5.0 kg		

■ Notice : Specifications are subject to change for improvement without notice.

MEMO

MEMO

AP PLUS SERIES

Price Computing Scale

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