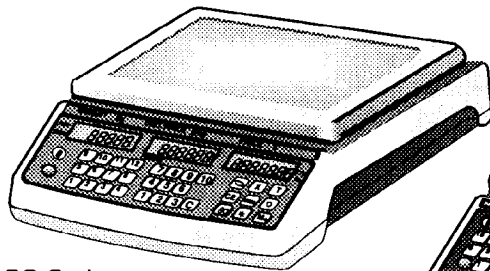
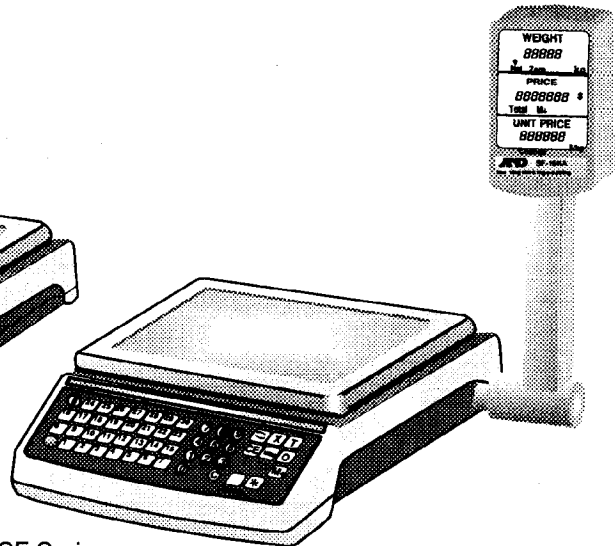


# SF/SG Series Price Computing Scales

## Instruction Manual



SG Series



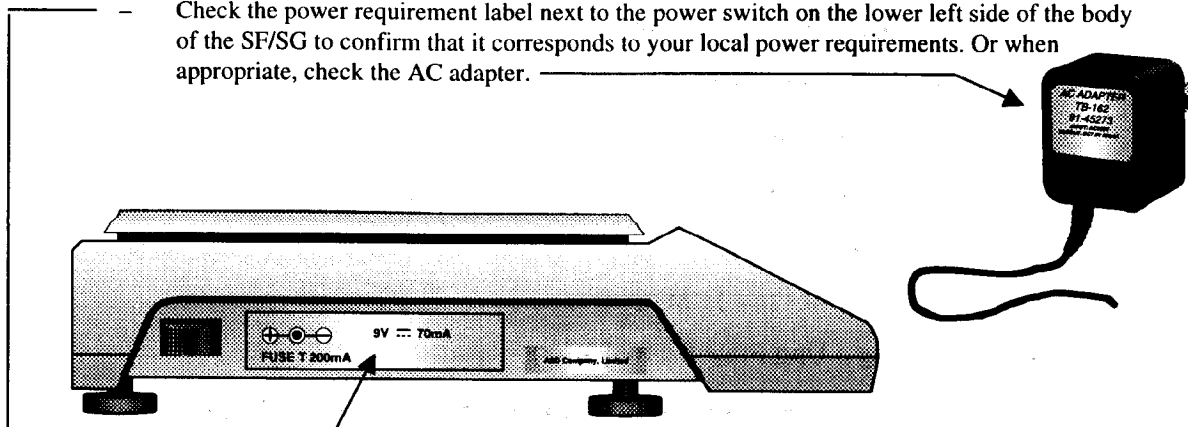
SF Series

# Thank You...

Thank you for purchasing our A&D SF/SG Series price computing scale. *Before using your new price computing scale, please read the operating instructions.*

## **Warning before connecting power plug:**

- Do not place a load on the weighing pan before connecting the power supply.
- Check the power requirement label next to the power switch on the lower left side of the body of the SF/SG to confirm that it corresponds to your local power requirements. Or when appropriate, check the AC adapter.



## • Unpacking and inspecting

- The SF/SG price computing scales are precision instruments, please handle them with care.
- Please inspect your new SF/SG when unpacking, and retain the shipping container in the event that you need to return the unit to your dealer for repair.
- The following items should be included in your shipping container:
  - SF/SG price computing scale.
  - AC power adapter (except SF-A).
  - Optional rechargeable battery (SF-C), if ordered.
  - Optional RS-232C, if ordered.
  - Instructional manual
  - Various models are capable of using rechargeable or 6 D size replaceable batteries. D size replaceable batteries are not shipped with the unit and must be purchased locally:
    - SF-6KA, 15KA, 30KA AC only
    - SF-6KB, 15KB, 30KB AC adapter (D size capable)
    - SF-6KC, 15KC, 30KC AC adapter (rechargeable battery capable)
    - SG-6KA, 15KA, 30KA AC adapter (D size capable)

# SF/SG Series Specifications

## Specification Table

Model	Capacity	Display	Type	AC Type	Battery Type	Price Lookup Capability	Options
SF- 6KA	6kg x 2g	VFD	Tower	AC hardwired	No	30	RS-232C
SF-15KA	15kg x 5g	VFD	Tower	AC hardwired	No	30	RS-232C
SF-30KA	30kg x 10g	VFD	Tower	AC hardwired	No	30	RS-232C
SF- 6KB	6kg x 2g	LCD	Tower	AC adapter	6 D size	30	RS-232C
SF-15KB	15kg x 5g	LCD	Tower	AC adapter	6 D size	30	RS-232C
SF-30KB	30kg x 10g	LCD	Tower	AC adapter	6 D size	30	RS-232C
SF- 6KC	6kg x 2g	VFD	Tower	AC adapter	Rechargeable*	30	RS-232C
SF-15KC	15kg x 5g	VFD	Tower	AC adapter	Rechargeable*	30	RS-232C
SF-30KC	30kg x 10g	VFD	Tower	AC adapter	Rechargeable*	30	RS-232C
SG- 6KA	6kg x 2g	LCD	Table top	AC adapter	6 D size	12	RS-232C
SG-15KA	15kg x 5g	LCD	Table top	AC adapter	6 D size	12	RS-232C
SG-30KA	30kg x 10g	LCD	Table top	AC adapter	6 D size	12	RS-232C

**\*Note:**

1. Rechargeable batteries are sold as an option.
2. D size batteries are not included with the unit & must be purchased locally.

<b>Display:</b>	Numerical Digits		<b>Resolution:</b>	1/3000
	<u>LCD Type</u>	<u>VFD Type</u>		
Weight Display:	5	5	<b>Sensor:</b>	Strain gauged load cell
Price Display:	7	7		
Unit Price Display:	6	6		

**Character Size:**

Weight Display:	18mm	13mm
Price Display:	20mm	13mm
Unit Price Display:	18mm	13mm

**Weighing Pan Size:**

300mm x 280mm

**Physical Weight of the Scale:**

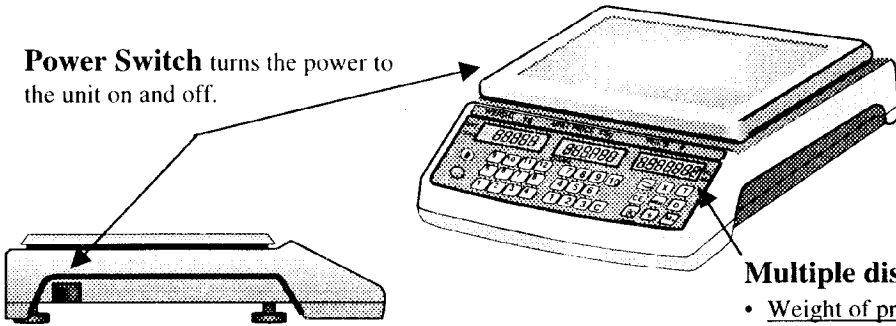
SF Series	Approximately 5.5kg
SG Series	Approximately 4.5kg

**Operating Temperature:**

-10°C ~ 40°C / 14°F ~ 104 °F; RH less than 85%

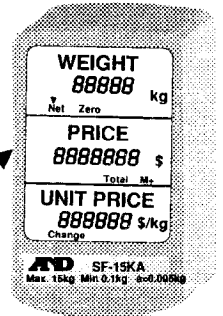
# SF/SG Series Main Operating Components

**Power Switch** turns the power to the unit on and off.

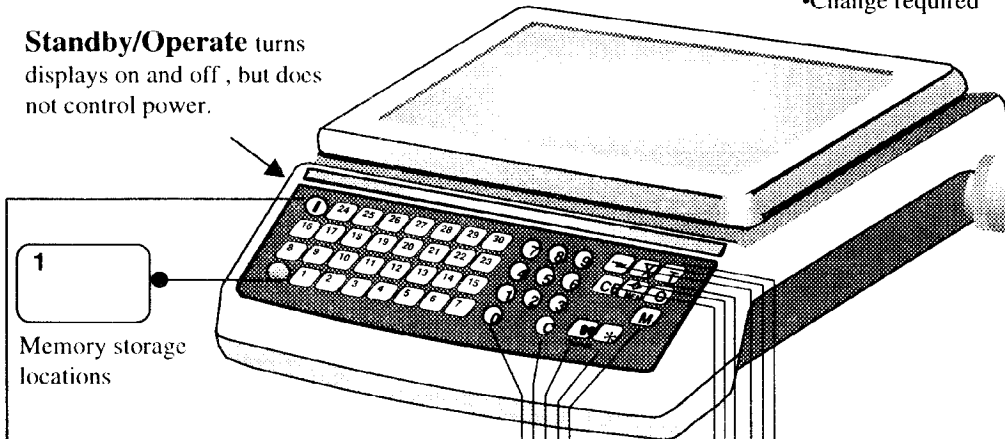


## Multiple displays

- Weight of product
  - Zero & Tare
- Price of product
  - Memory & total sale
- Unit price of product (\$/kg)
  - Payment received
  - Change required



**Standby/Operate** turns displays on and off, but does not control power.



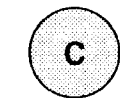
Memory storage locations



**STANDBY/OPERATE:** Turns the displays on and off (does not turn power off).



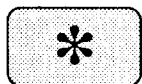
Ten numerical keys to enter price and weight values.



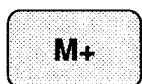
**CANCEL:** Cancels key input, Unit Price, and Total Price entries



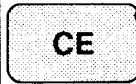
**CHANGE:** Calculates the change due to the customer after payment.



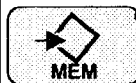
**PRINT** key



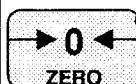
Stores each entry made during a customer's purchase, allowing calculation for totals & change.



**CLEAR FROM MEMORY:** Clears prices entered by the M+ key.



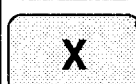
**MEMORY RECALL:** Allows access to product prices stored in memory.



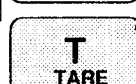
**ZERO:** Zero's the weight display when no weight is on the weigh pan, to provide accurate calculations.



Acts as a **TOTAL** key to calculate the total price at the end of a sales transaction.



**MULTIPLIER** key: Calculate the total value of more than one of the same item.



**TARE:** Subtracts unwanted weight, such as the weight of a container, from price calculations.

# SF/SG Series Operating Instructions

## 1. Zero Point Adjustment

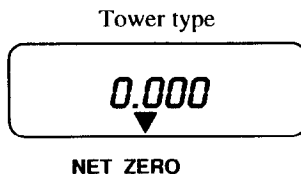
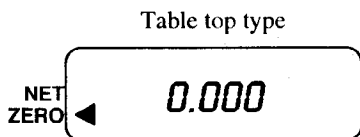
The zero point is automatically adjusted when power is turned on. If the display shows a positive or negative weight, the scale must be re-zeroed.

### How to re-zero:

1. Assure that nothing is on the weigh pan.



3. “0” should appear on the weight display

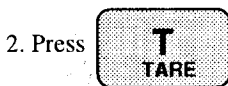


## 2. Tare Adjustment

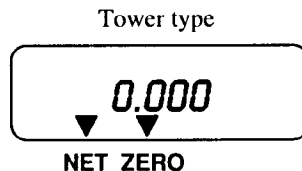
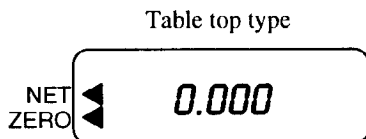
When weighing with a container, it is necessary to TARE out the weight of the container in order to get an accurate price/weight reading.

### How to operate TARE:

1. Place empty container (100g) on the weigh pan. Display reads “100” :



3. The weight display display should read:



4. When removing the weight from the pan the display reads “-100”


### Note:

When a TARE weight has been set, it is not possible to set a new TARE weight of a lower value by the instructions above. It is necessary to delete the previous TARE first, before entering a TARE of lower value.

# SF/SG Series Operating Instructions

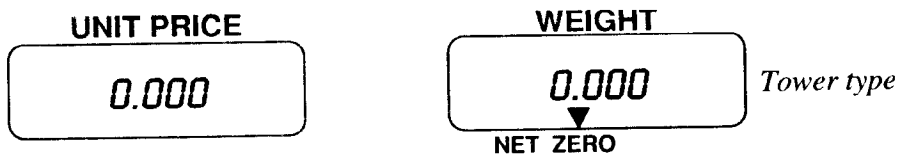
## 3. Keypad Tare Entry

(Usually this function is inhibited. If necessary, please ask your dealer.)

In addition to pressing  to TARE out an empty container that has been placed on the weigh pan, it is also possible to enter a TARE value with the numerical 10 key pad.

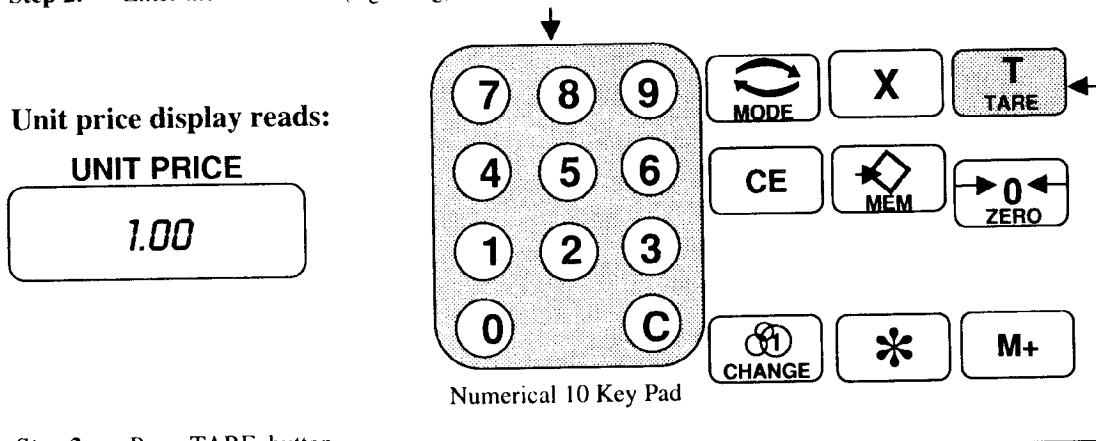
### How to enter TARE using the 10 Key Pad:

**Step 1:** With no weight on weigh pan, turn on the SF/SG.  
Display's will read:

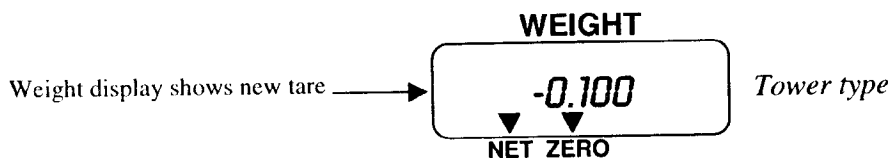


If a unit price has previously been entered, it will be displayed instead of 0.00 -example 2.00, this is OK.

**Step 2:** Enter the new TARE (e.g. 100g) with the 10 key pad.



**Step 3:** Press TARE button

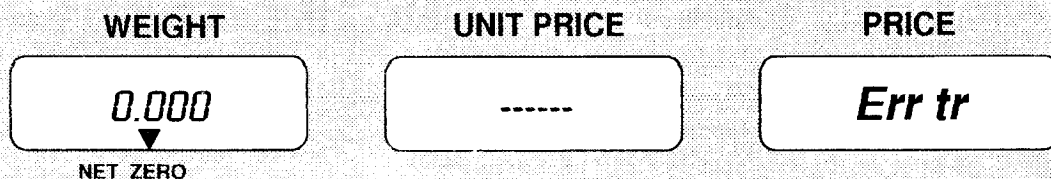


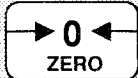
# SF/SG Series Operating Instructions

## Note about keyboard TARE:

1. If you enter a tare weight greater than the weighing capacity of the scale an error message will display: “ *Err tr* ”
2. When a TARE weight has been set, it is not possible to set a new TARE weight of a lower value by the instructions above. It is necessary to delete the previous TARE first, before entering a TARE of lower value.

### Example



3. Any previous TARE entries will be cancelled when the  key is pressed.

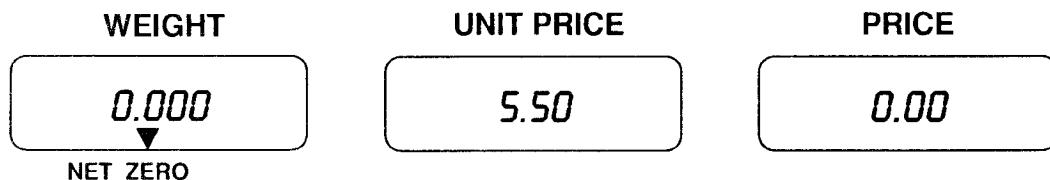
4. To cancel a TARE weight that has been entered, remove any weight from the weigh pan and press



## 4. Setting Unit Price

1. Enter Unit Price by 10 key pad. Up to 6 digits may be entered.

*The example below shows the entry of a unit price of \$5.50:*



2. Unit price entry must be completed within 3 seconds. Any delay beyond 3 seconds will require the unit price to be re-entered.

# SF/SG Series Operating Instructions

## 5. Storing a Unit Price in Memory

It is possible to store unit prices in memory for quick recall.

A. The SF model has 30 Price Look-Up keys (PLU).

B. The SG model has 12 PLU's

The following instructions explain how to assign a unit price to a PLU key.

**Step 1:** Enter desired unit price by the 10 key pad.

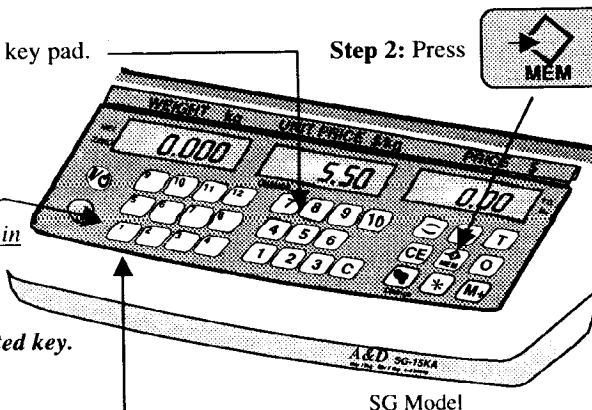
**Step 2:** Press



**Step 3:** Press the desired PLU key within 3 seconds of entering unit price in 10 key pad.

*(If you do not select this key within 3 seconds, a beep will sound).*

*The unit price is now stored in the selected key.*



SG Model

## 6. Recalling a Unit Price from Memory

**Step 1:** Press the desired PLU key

## 7. Totaling Multiple Items with Unit Prices Stored in PLU Memory

**Example:** A. Weight 1000g, Unit Price= \$ 5.00 / 100g, PLU key #1

B. Weight 5000g, Unit Price= \$10.00 / 100g, PLU key #2

**Step 1:** With the weigh pan empty, assure that the weight display reads **0.000**.

**Step 2:** Place the first item on the weigh pan.

**Step 3:** Select desired PLU key (PLU key #1 in this example).

**Step 4:** Press  to add to purchase total.

**Step 5:** Remove item from weigh platform, put second item (item b) on weigh pan and repeat Steps 2~4, using appropriate PLU key.

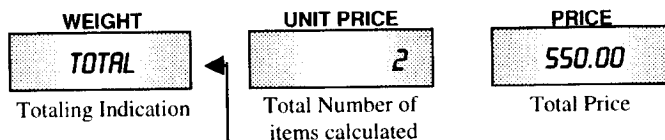
Continue this process until all of the items have been weighed and the price totals are stored in memory.

**Final Step - Recalling TOTAL.**

Press



Using above example, displays read:






**8. Clearing Totaling Memory:** Push  when in the TOTAL mode.



# SF/SG Series Operating Instructions

## Note about Totaling Items:

- A. The 10 key pad, PLU keys, and  multiplier key may all be used during a single transaction. (See X key operation below.)
- B. An item must be removed from the weigh pan before another item can be weighed & entered into totaling memory. **The weight display must return to zero to re-set for next weighing.**
- C. The SF/SG have automatic power off capability. If there is a long delay in the middle of a transaction which causes the scale to shut off, press , displays read 0's. Press  and the displays will show the last total calculated. Additional items may now be calculated into the total.

## 9. Multiplier Function: (Max. pieces allowed = 99; Max. unit price = 999999)

Not all purchased items are sold by weight, items like canned goods, milk, apples, etc. may be sold by the piece.

The SF/SG allow the operator to calculate all items purchased, those that require weigh/price calculation and those that are sold by the piece, and provides a total price for both.

The Multiplier Function allows the operator to tell the scale how many of a given item he would like to calculate.

**Example:** A customer is purchasing 10 cans of tuna fish at a cost of \$1.00 per can.

**Step 1:** Enter unit price by the appropriate PLU key, or by 10 key pad. Unit price is displayed.

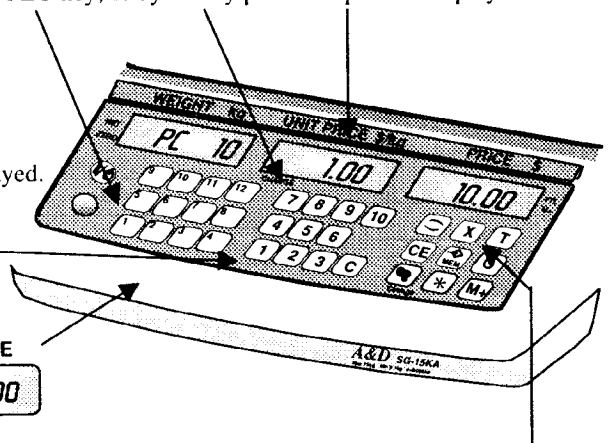
**Step 2:** Press  PC is displayed.

**Step 3:** Enter multiplier by 10 key pad.

**Example:** 10 cans of tuna fish.

**Result:**

WEIGHT	UNIT PRICE	PRICE
PC 10	1.00	10.00

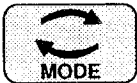


# SF/SG Series Operating Instructions

## 10. Calculating Correct Change for the Customer

The purpose of this function is to allow the operator to determine the correct change to return to the customer once payment has been made.

**Example:** There have been 4 entries and the total cost of the transaction is \$80.00.


Step 1: Press . Displays: 

WEIGHT	UNIT PRICE	PRICE
TOTAL	4	80.00


Step 2: Enter customer payment by 10 key pad (Example: \$100)

Displays: 

WEIGHT	UNIT PRICE	PRICE
RECEIU	100.00	80.00
TOTAL M+		

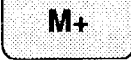
Step 3: Press . Displays: 

WEIGHT	UNIT PRICE	PRICE
	20.00	CH
TOTAL M+		

Note: Push  if an error is made while entering the amount of money received from the customer.


## 11. Clear Entry Function



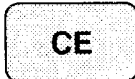
The CE key is designed to clear the last entry made by the  key, which places entries into memory for totaling.

Step 1: You have entered a value with the M+ key and wish to cancel it.

**Example:** Assume that you entered 3 values totaling \$55.00. The last (3rd) entry was \$10.00.

Step 2: Press the  key. Displays: 

WEIGHT	UNIT PRICE	PRICE
TOTAL	3	55.00
TOTAL M+		


Step 3: Press the  key. Displays: 


WEIGHT	UNIT PRICE	PRICE
TOTAL	2	45.00
TOTAL M+		

**Note:** A. Only the last M+ entry can be cleared from memory by the CE key.

B. Pressing the  key while in the total mode will delete all entries in memory.

C. Pressing the  key will also delete:


1. Active PLU entries.
2. Active 10 key pad entries.
3. Active  key entries.
4. Improper entry of money received from customer.

Pressing the  key will not delete:

1. 

WEIGHT	UNIT PRICE	PRICE
PC	0.00	00.00


 entries.

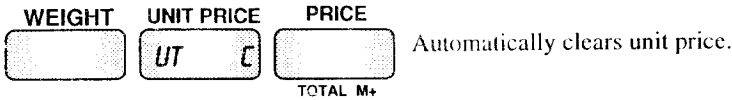
Press  key to cancel this operation.

# SF/SG Series Operating Instructions

## 12. Automatic Cancellation of Unit Price

In very busy applications, it may be more convenient for the Unit Price entry to return to zero after each operation. (F2 should be "0".)

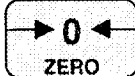
To do this, press the  key while the display is in normal operation.

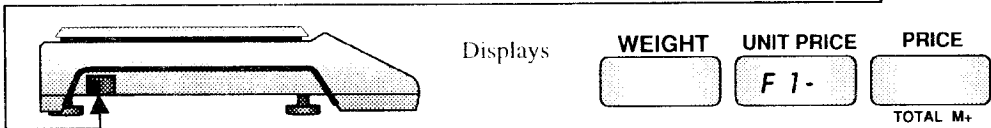


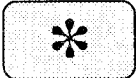
While the display shows the above, press  again to change the setting.

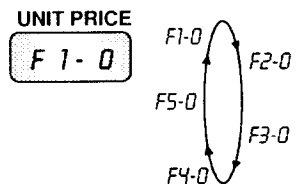
## 13. Setting "F" Functions


"F" functions allow the programming of various functions of the SF/SG Price Computing scales. Following is a brief description of these functions and how to program them.

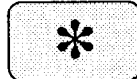
**Step 1:** Starting with the power off, hold  and turn on the power switch

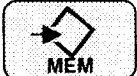


**Step 2:** Press  to select the desired "F" function group.



**Step 3:** Using the 10 key pad and the  key, select and cancel

the various settings for each "F" function. Press  to move to the next "F" function.

Use  to store each setting selected.

	Settings	
F1: Auto display off	0: Yes	1: No
F2: Cancellation of unit price	0: Selectable	1: No      2: Yes
F3: Output Data	0: Print key mode A	1: Print key mode B
	2: Command mode	3: Stream mode
F4: Baud Rate	0: 600 bps	1: 1200 bps
	2: 2400 bps	3: 4800 bps      4: 9600 bps
F5: Parity Bit	0: 7 bits (Even)	1: 8 bits (No parity)