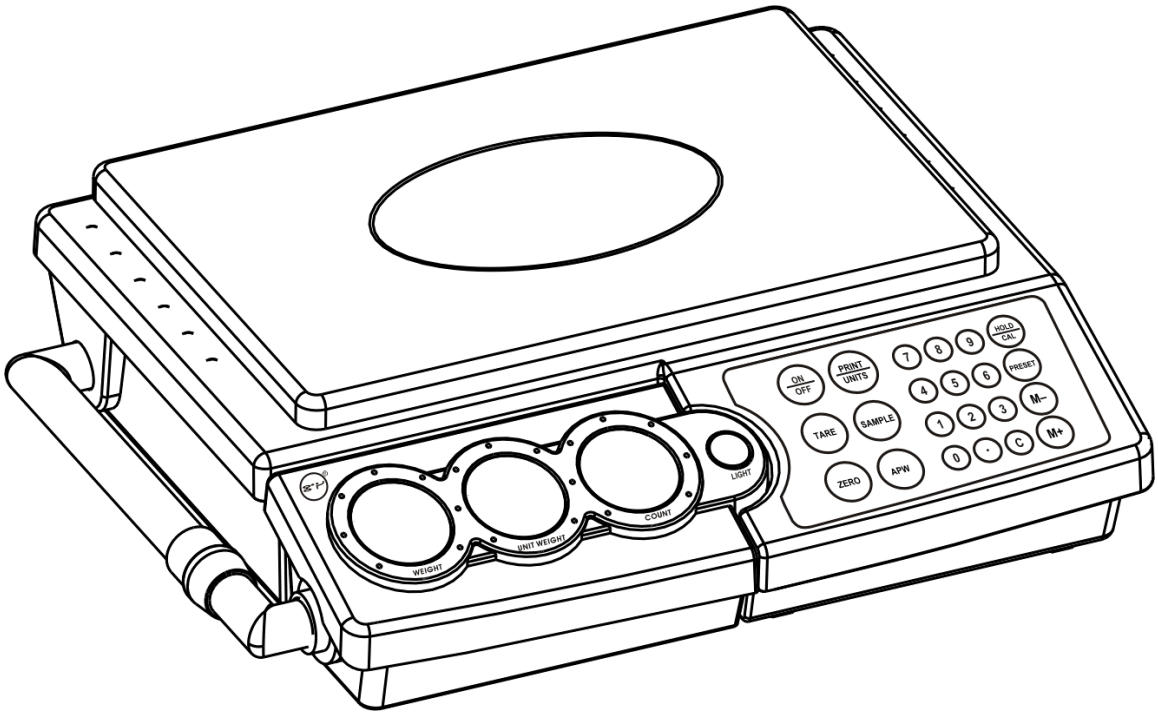
Gram Precision Scales

Endurance series

Counting Scale



INSTRUCTION MANUAL FOR ALL MODELS

(End.c-K6, End.c-K15, End.c-K30)

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BEFORE YOU START

Thank you for purchasing an Endurance series Counting scale from Gram Precision.

By following some simple operating guidelines and reading the instruction manual thoroughly, you will have years of maintenance-free operation from this unit.

However, if you do require assistance, please refer to our website (www.gramprecision.com) for help with the most common problems. If you need more assistance, then please contact your dealer where you purchased the scale.

These instructions are applicable for all models within the Endurance Bench series (End.b-K6, End.b-K15, End.b-K30)

WHAT TO CHECK BEFORE USING YOUR SCALE

Although every care is taken to get the scale to you in good working order and with all the required parts and accessories, we do recommend that you take a minute to check and ensure everything listed below is indeed included:

Scale
Adapter
Rechargeable batteries
Protective cover / weighing pan
Stainless steel platform
Instruction manual
Warranty registration form

If there are any parts missing, please contact your dealer immediately or if the manual or warranty cards are missing, reference our website where you can download them (www.gramprecision.com).

HINTS BEFORE YOU BEGIN TO WEIGH

You've purchased a scale for one reason – to give you precise results. Therefore to ensure that you get the optimal performance of your scale, please adhere to these simple guidelines:

Don't place the scale where it might be exposed to wind (window, door, ceiling fan, and air conditioner), vibrations (near door or staircase, heavy traffic areas), large temperature fluctuations, near magnetic fields, or uneven work surfaces.

Please ensure that the scale is leveled before using it. The feet are adjustable and there is a bubble indicator to allow you to level the unit.

Treat the scale as sensitive electronic equipment. Although, made for everyday use, carefully placing items to weigh on the platform will ensure years of reliable use and avoid potential problems. Never place an item that exceeds the total listed capacity of the balance as it will immediate display an "Error" – this could cause serious damage to the unit and is not covered by the warranty.

If you are using it on battery power, please make sure that the batteries are fully charged – weak batteries will affect the weighing performance of your scale,

Finally, let the scale warm up to room temperature before beginning to use it to allow the internal components to stabilize.

OPERATING INSTRUCTIONS

This scale has dual power source: 6 rechargeable AA batteries or adapter (both included). Please ensure that you use only the adapter enclosed as its specification is design for the scale – using other adapters may damage the scale and is not covered by warranty.

To use rechargeable battery power, please insert the battery pack that comes with your scale. It should be inserted in the compartment underneath the scale (right side of the product sticker in between the two adjustable legs – please remove the small screw to access the panel compartment)

Also, please note that inside the regular battery compartment there is a toggle switch. Depending on which power source that you will be using (regular or rechargeable batteries), you will need to adjust the toggle switch to the source that you've chosen).

When the unit is powered on, by pressing the **ON/OFF** key, the display will show a set of 999999, count down to 11111 and then show a 0 value on the display – your scale is now ready to weigh.

CALIBRATION

Before the initial use of the scale, it should be calibrated to ensure optimal results. In fact, the unit should be calibrated anytime that it has been moved, where an extreme temperature changes have occurred, as well as periodical intervals to ensure its accuracy.

Please allow the scale to warm up before performing the calibration and you'll also need the proper calibration weight to complete the calibration process. Please note that the calibration weights are not included – contact your dealer to purchase calibration weights or have him perform the calibration for you.

These calibration procedures are the same for all models within the Endurance Counting series.

1. Remove all items from the weighing platform
2. While the scale is on, press the **HOLD/CAL** key for 5 seconds until the "Add Ld" message appears in the Unit Weight display
3. You will need to enter the calibration value for the particular scale that you are using - enter the value via the numeric keypad.

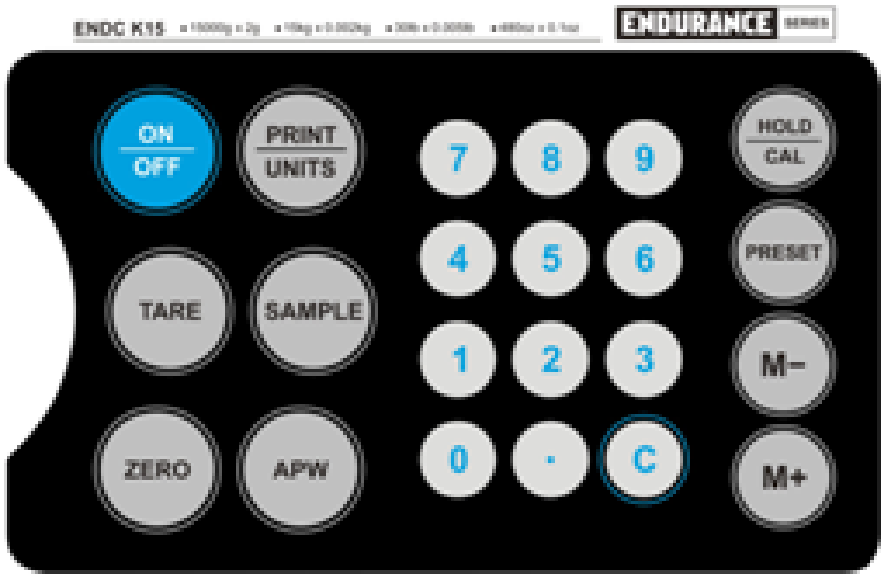
Primary platform	End.c – 6K	6000
Primary platform	End.c – 15K	15000
Primary platform	End.c – 30K	30000

4. Place the appropriate weight on the platform and let stabilize for a few seconds.
5. Once the weight has stabilized, press the **HOLD/CAL** key to accept and initiate the calibration procedure.
6. If the calibration process has been accepted, the weight value will be shown in the Weight display and you will have been returned to the weighing mode.
7. If the calibration process failed, you will see SP Err in the Count display and you will need to redo the procedure from step 2.

You are now ready to perform any weighing or counting function.

KEYPAD FUNCTIONS

The keypad design is for efficiency with only 10 keys and a full numeric keypad to simplify operations



FEATURES & KEY FUNCTIONS

The Endurance Counting series was designed with features that will help you accomplish both your weighing and counting operations with ease. Please take a few minutes to review the features and key functions to better understand your new Endurance Counting scale.

The ON/OFF key is to power the unit on or off. Please note that to power the unit off, press and hold the ON/OFF key for 3 seconds – this feature is to ensure that you don't accidentally press the ON/OFF key until you are ready.

With the platform empty, press the PRINT/UNITS key until the desired unit mode is attained. The Endurance Counting series offers weighing in g, kg, lb, and ounces. Please note that to change from one unit mode to another, you need to empty the weighing platform, otherwise it will not allow you.

The secondary function is to initiate the printing function. When a weight in on the platform and you would like to print the results, simply atttached the RS-232 cable (included) to a printer and then press the PRINT/UNITS key.

When it is required to remove the weight of a container, so as to give you a net reading weight, this can be accomplished by using the tare feature. Tare can be accomplished via pushbutton or keyboard.

Pushbutton Tare

When a container is placed upon the scale and the **TARE** key is pressed and the scale settles to no motion, the tare weight is stored then substracted from the gross weight to provide a net weight display of zero, and the net indicator is turned on. When the container is removed from the platform, the net weight is displayed as a negative value equal to the tare weight. When the **TARE** key is pressed while the scale is at gross weight zero, and displaying a minus net weight, the net indicator is turned off and the display shows gross weight zero.

Keyboard Tare

Tare value of up to 6 digits plus decimal point may be entered on the keyboard, up to full scale capacity. The number is displayed as it is entered, when the **TARE** key is pressed, the keyboard tare is entered and the net weight is displayed. When the gross weight is zero, the net weight display is equal to the tare weight, precded by a minus sign.

The HOLD function allows the operator to permanently fix the results of a weighing or counting function on the display until it is no longer required. Once an operation is completed and the results are shown on the display, press the HOLD/CAL key. You can now safely remove the items on the platform without losing the results on the display. To erase the results on the display, simply press the HOLD/CAL key again.

For how to initiate the calibration (CAL) function, please reference the Calibration section above.

Clear key during data entry

Simply press the C key during data entry to erase the data entered.

Exist from entering data status

When entereing data status, press the C key twice to return to the weighing mode

When using the counting function, you can enter your own APW (Average Piece Weight) if it is known or simply have the scale calculate it for you.

If the APW is known, you can enter this value into the scale before starting your counting function. Simply enter, up to 6 digits, the APW value on the numeric keypad and terminate the entry by pressing APW to accept.

Therefore, if the known APW is 20g, then enter 20 via the numeric keypad and press APW to accept. Now, if you put an unknown quantity of items on the platform, the scale will divided the weight by 20g to give the appropriate count which will be displayed on the Count display.

You are now ready to perform a counting operation by simply placing the unknown item quantities on the platform and the count results will be displayed on the Count display

When using the counting function, you can enter your own APW (Average Piece Weight) if it is known or simply have the scale calculate it for you.

If the APW is unknown, you can enter a sample of the items to be weighed and the scale will automatically calculate the APW value. Please note that the larger the sample, the more accurate the APW will be.

Therefore, if you have 10 items that are to be used as the sample, place them on the platform, and then enter 10 via the numeric keypad and finally press the SAMPLE key. This will calculate and display your APW on the Unit Weight display and show your item count on the Count display.

You are now ready to perform a counting operation by simply placing the unknown item quantities on the platform and the count results will be displayed on the Count display

The scale can store up to 10 preset APWs for items that are counted frequently – once stored, you can look up the known APW by selecting the predetermined preset number assigned to it.

Store an APW

- Enter an APW either using the **SAMPLE** or **APW** keys (see instructions above).
- Press and hold the **PRESET** key until PrESEt is displayed on the Weight display.
- Enter a digit between 0 to 9, via the numeric keypad, that you want assigned with this item and press **HOLD** to save the preset APW.

Recall an APW

- Enter the assigned number of the item via the numeric keypad
- Press the **PRESET** key and the preset APW will be displayed on the Unit Weight display

You are now ready to begin a counting operation.

Piece counts may be captured via the Accumulative Weighing feature.

- Simply place an item on the platform to determine the piece count
- When the count results is shown in the Count display, press the M+ key and the display will flash momentarily – this is your confirmation that the information has been captured.
- Remove the items and continue with another count operation – continue to press the M+ key after each count result is displayed
- When all count operations are completed, make sure the platform is empty and press the M+ key for the summary results
- The Weight display will show TOTAL
- The Unit Weight display will show the number of count operations
- The Count display will show the total number of items counted.

You can also substract a count operation as well by using the M- key.

To clear the contents of the accumulator, press the C key.
To print the contents of the accumulator, press the PRINT/UNITS key
To exit from the accumulator display, press the M+ key

The Endurance series offers the ability to set a Hi/Lo range with an alarm confirmation when you have reached the parameters of your target count.

- Press and hold the SAMPLE key for 3 seconds
- The displays will show
    - o Weight display SetP t
    - o Unit Weight display tArGEt
    - o Count display 0

- Via the numeric keypad, enter the value of the target count you are trying to achieve – it will be shown on the Count display
- Press HOLD/CAL key to accept
- The displays will show
    - o Weight display SetP t
    - o Unit weight display tOL -
    - o Count display 0

- Via the numeric keypad, enter the low value of the target count range that you are willing to accept – it will be shown on the Count display
- Press HOLD/CAL key to accept
- The display will show
    - o Weight display SetP t
    - o Unit weight display tOL +
    - o Count display O
- Via the numeric keypad, enter the high value of the target count range that you are willing to accept – it will be shown on the Count display
- Press HOLD/CAL key to accept
- At this point, you will be returned to the weighing/count mode
- Enter the APW value either through the SAMPLE or APW key and begin the counting operations
- The alarm will sound if it's between the low and hi range that you have set – if it's under or over the range, it will remain silent.

Example:

Target = 250 pieces
Low range = 225 pieces
Hi range = 275 pieces

Weight is less than the set negative tolerance	If the count is 220 pieces, it is below the Lo range. The display will show a right handed triangle (<) and the alarm will not be set off.
Weight is within negative tolerance but under target	If the count is 230 pieces, then it is within the Hi/Lo range but not on target. The display will show a right handed triangle (<) and an OK icon – the alarm will be set off.
Equivalent to target weight	If the count is 250 pieces then it is on target. The display will show OK icon and the alarm will be set off.
Weight is within positive tolerance but over target	If the count is 260 pieces, then it is within the Hi/Lo range but not on target. The display will show a left

handed triangle (>) and an OK icon – the alarm wil be set off.

Weight is more than the set positive tolerance	If the count is 290 pieces, it is over the Hi range. The display will show a left handed triangle (>) and the alarm will not be set off.

All Endurance series Counting scales come equipped with a protective cover that sits on the housing that can also double as a weighing pan.

The benefit of this feature is that the platform, and therefore the load cell, is protected from potential abuse. In this manner, with the protective cover in place, the scale can be stacked one on top of each other without fear of damaging the load cell (under normal use)

The Endurance series has an adjustable display arm that allows the users to view the display at their own optimal viewing level.

To active the display arm, simply loosen the nut at the curved base of the arm (near the display head) and then move the arm up or down. Tighten the nut once the display is at the height that you are comfortable with.

To help improve visibility when reading weighing results, all Endurance series Counting scales have the backlight feature, which can be activated by simply press the LIGHT button near the display.

PROGRAMMING MODE

The programming mode gives you access to features that most aren't necessary on a day to day basis. We recommend that before you make any changes that you carefully read the details of the features and if there are any questions or doubt, contact your local dealer for help.

Before modifying any of the default settings, please record them – in this manner, if the changes you initiate does not give you the desired results, you can always return to the default factory setting. Again, we strongly recommend that you consult your dealer before making any changes to your default settings.

To access the programming mode, the unit must be in the power off setting. Press the On/Off key and the immediately press and hold the M+ key – it will count down from 000000 to 999999 and then go into the program mode where the displays will show:

Weight display	SEtUP
Unit Weight display	A.Off
Count display	Default setting

To change the default setting, use the M+ key and to accept the default setting, press the HOLD/CAL key to initiate it and then move onwards to the next setting.

At any time, if you are ready to return to the weighing/counting mode, continue to press HOLD/CAL until you've acccepted all the settings at which time it'll return automatically to the weighing/counting mode.

If the automatic shutoff function is activated, the scale automatically switches itself off after a selected period of inactivity (i.e. with no key being pressed or changes of weight occurs)

0	Automatic shutoff not activated
2	Automatic shutoff after 2 minutes inactivity
5	Automatic shutoff after 5 minutes inactivity
10	Automatic shutoff after 10 minutes inactivity

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You are able to have key sounds either enabled or disabled

0	Disable beeper
1	Enable beeper

0	No beeps
1	Scale beeps continuously when the parts dispensed on the platter is with the set range
2	Scale beeps continuously when the parts dispensed on the platter is greater than the set upper tolerance

Automatic zero maintenance minimizes the effects of temperature changes and shift on the zero reading. The scale maintains the zero display until the automatic zero range is exceeded. The selected automatic zero maintenance range are:

0.5 Sets automatic zero maintenance range to 0.5 divisions
1.0 Sets automatic zero maintenance range to 1 division
2.0 Sets automatic zero maintenance range to 1 division,
3.0 Sets automatic zero maintenance range to 3 divisions

The stability range can be set to a preset tolerance limit. When the scale reading is stable within preset limits, the weight unit remains ON; when a displayed weight changes beyond the allowed range, the weight unit turns OFF, indicating an unstable condition. The selected stability range are:

0.5	Smallest range (0.5 divisions)
1.0	Reduced range (1 division)
2.0	Normal range (2 divisions)
3.0	Largest range (3 divisions)

Vibration filter compensates for vibration or excessive air current. The selected vibration filter are:

0	Minimum filtering, fastest stabilization time.
1	Reduced filtering, fast stabilization time
2	Normal filtering, normal stabilization time
3	Maximum filtering, slowest stabilization time

This parameter is used to select the desired baud rate. There are six available baud rate to choose from:
300, 600, 1200, 2400, 4800 and 9600.

This parameter is used to select parity setting. Parity can be set to either Odd, Even or None.

0	8 data bits without parity
1	7 data bits with odd parity
2	7 data bits with even parity

The baud rate can be set to meet the operators' needs and can be adjusted to the following baud rates:

300 600 1200 2400 4800 9600

Simply use the **PRINT/UNIT** key and select the appropriate setting of choice. Once the appropriate setting has been chosen, press the **F/ENTER** key unti you cycle through all the options and return to the weighing mode.

The parity setting can be set either Odd, Even or None – the settings are:

0	8 data bits without parity
1	7 data bits with odd parity
2	7 data bits with even parity

To set the PRINT/UNITS key to ouput data in either a single or multiple line format

0	Single line format
1	Multiple line format

To set the PRINT/UNITS key to ouput data in either Gross & Tare or Displayed weight

0	Print gross and tare
1	Print the displayed weight

To enable or disable the printing of APW

0	Disable printing of APW
1	Enable printing of APW

To enable or disable the printing of pieces

0 Disable printing of pieces
1 Enable printing of pieces

At this point, you have the option of calibrating the unit or simply to return to the weighing/counting mode.

0 Return to weighing mode
1 Initiate calibration mode

If you choose option 1 and want to initate the calibration mode, please note the default settings within the CAL setting:

At this point, you have the option of calibrating the unit or simply to return to the weighing/counting mode.

The scale can be calibrated in weight units g ,kg or lb

0 Weight unit is "g"
1 Weight unit is "kg"
2 Weight unit is "lb"

The following capacities are available for weight unit:

Selectable capacity is 6000, 15000 or 30000g when unit is g
Selectable capacity is 6, 15 or 30kg when unit is kg
Selectable capacity is 15, 30 or 60 lb when unit is lb

The linearity correction utilizes three calibration points, one at zero, center span and full span. This method minimizes deviation between actual and displayed weights within the scale's weighing range.

0 Linearity correction disabled
1 3 point linearity correction enabled

Linearity correction disabled

1. Empty scale calibration adjust
   - Remove any load from the pan, waiting 2 seconds for scale stabilized.
   - Pressing the 〖**hold/cal**〗 key. The scale automatically read the new zero. The empty scale calibration adjust is performed.

2. Span calibration adjust
   - The scale display the message "Add Ld" briefly, and enter the calibrate value by numeric key
   - Place the adjustment weight on the center of pan, waiting 2 seconds for scale stabilized.
   - Confirmed by Pressing the 〖**Hold/cal**〗 key.. The scale reading is automatically adjusted to be the new span reading. The span calibration adjust is performed.

3 point linearity correction enabled

3 point linearity correction utilizes three calibration points, one at zero, center span and full span. This method minimizes deviation between actual and displayed weights within the scale's weighing range.

1. Empty scale calibration adjust
   - Remove any load from the pan, waiting 2 seconds for scale stabilized.
   - Pressing and hold the〖**hold/cal**〗key. The scale automatically read the new zero .. The empty scale calibration adjust is performed.

2. Center span calibration adjust
   - The scale display the message "Add 50" in apw feild, enter the calibrate value by numeric key the value range is form 30% to 60% of full capacity
   - Place the adjustment weight on the center of pan, waiting 2 seconds for scale stabilized.
   - Confirmed by Pressing the 〖**hold/cal**〗key., The center span calibration adjust is performed.

3. Full span calibration adjust
   - The scale display the message "Ad 100" briefly, enter the calibrate value by numeric key the value range is form 70% to 110% of full capacity
   - Place the adjustment weight on the center of pan, waiting 2 seconds for scale stabilized.
   - Confirmed by Pressing the 〖**hold/cal**〗key. The scale automatically count down from 10 to 0 while scale reading are being taken. Scale motion causes the countdown to restart from 10
   - .Confirmed by Pressing the 〖**hold/cal**〗key., the current scale reading is adjusted to be the new span reading. The full span calibration adjust is performed.

ACCESSORIES

Your scale comes equipped with the following accessories:
- AC Adapter
- 6 AA rechargeable batteries
- Protective cover that doubles as a weighing pan
- RS-232 Interface & cable

SPECIFICATION			
	Endurance.bench K6	**Endurance.bench K15**	**Endurance.bench K30**
FEATURES			
Primary Platform			
Capacity – g	6000g	15000g	30000g
Resolution	1.0g	2.0g	5.0g
Capacity – kg	6kg	15kg	30kg
Resolution	0.001kg	0.002kg	0.005kg
Capacity – oz	211oz	529oz	1058oz
Resolution	0.05oz	0.1oz	0.2oz
Capacity – lb	13.2lb	30.0lb	60lb
Resolution	0.002lb	0.005lb	0.01lb
Secondary platform			
Capacity – g	200g		
Resolution	0.1g		
Linearity	±2d		
Display	LCD 5-digit with backlight – 0.5" (25cm)		
Units	g kg lb		
Auto Zero	With display segment test		
Zero Tracking	Yes		
Tare	Yes		
Re-Zero	Yes		
Display Hold	Yes		
Auto Off	User set		
User Calibration	@6000g	@15000g	@30000g
Low Battery Indication	Between 6.0 to 6.4V, [Lo]		
Over Load Indication	Display [Error]		
Under Load Indication	Display negative readings		
Key Tone	Yes		
Power	6 AA rechargeable batteries or A/C adaptor		
Current Consumption	30 mA max. (backlight off)		
Weight platform	Stainless steel platform – 13.5 x 9.0" (primary) 4 x 2" (secondary)		
Keys	Membrane overlay w/5 emboss keys: On/Off, Tare, Print/Units, Hold/Cal, Enter		
Feet	4 adjustable feet		
Others	Bubble level on top housing		
A/C Adaptor	Yes		

DATA OUPUT INFORMATION

5.1 Data Output

The scale is supplied as standard with an RS-232 interface. The socket is 9-pin D-sub female connector. The pin assignment is as follows:

Pin 2	Data output (TxD)
Pin 3	Data input (RxD)
Pin 5	Internal Ground (GND)

The serial data is output in an 10-bit ASCII frame which includes: 1 start bit, 7 data bits, 1 parity bit, and 1 stop bit. Data output is started by press the 〖**PRINT**〗 key.

5.2 Count Data Print Format

Data output occurs when the 〖**PRINT**〗 key is pressed while a count is displayed.

5.2.1 Single line format: Gross, Tare and Net

Data	STX	XXXXXXXX	SP	klo	ggbz	SP	XXXXXXXX	SP	k/L	g/B
Note	A	B	C	D		C	E	C	D	

SP	T	R	SP	XXXXXXXX	SP	klo	ggbz	SP	N	E	T
C	F		C	G	C	D		C	H		

SP	XXXXXXX	SP	A	P	W	SP	XXXXXX	SP	P	C	S
C	I	C	J			C	K	C	L		

CR	LF
M	N

Note:

A - <STX> ASCII Start of Text character, Hex 02. Transmitted at beginning of first line of data only.
B - If gross print is enabled, the eight digits gross weight is print.
C - <SP> ASCII space character, Hex 20.
D - Weight unit (g kg lb or oz).
E - If tare print is enabled, the eight digits tare weight is printed.
F - Weight filed descriptors. These descriptions are printed to identify the tare weight fields.
G - If net print is enabled, the eight digits net weight is printed.
H - Weight filed descriptors. These descriptions are printed to identify the net weight fields.
I - If APW print is enabled, the seven digits APW is printed.
J - Average Piece Weight descriptor. These descriptions are printed to identify the APW.
K - If Pieces print is enabled, a one to six digit pieces is printed.
L - Count filed descriptors. These descriptions are printed to identify the PCS.
M - <CR> ASCII Carriage Return character, Hex 0D.
N - <LF> ASCII Line Feed character, Hex 0A.

5.2.2 Single line format: Displayed weight only

5.2.2.1 Gross Weight

Data	STX	XXXXXXXX	SP	klo	ggbz	SP	XXXXXXX	SP
Note	A	B	C	D		C	E	C

→	A	P	W	SP	XXXXXX	SP	P	C	S
	F			C	G	C	H		

→	CR	LF
	I	J

Note:

A - <STX> ASCII Start of Text character, Hex 02. Transmitted at beginning of first line of data only.
B - If gross print is enabled, the eight digits gross weight is print.
C - <SP> ASCII Space character, Hex 20.
D - Weight unit (g kg lb or oz).
E - If APW print is enabled, the seven digit APW is printed
F - Weight filed descriptors. These descriptions are printed to identify the APW weight fields.
G - If Pieces print is enabled, a one to six digit pieces is printed.
H - Count filed descriptors. These descriptions are printed to identify the PCS count fields.
I - <CR> ASCII Carriage Return character, Hex 0D.
J - <LF> ASCII Line Feed character, Hex 0A.

5.2.2.2 Net Weight

Data	STX	XXXXXXXX	SP	kl o	g g b z	SP	N	E	T	SP
Note	A	B	C	D		C	E			C

→	XXXXXXX	SP	A	P	W	SP	XXXXXX	SP	P	C	S
	F	C	G			C	H	C	I		

→	CR	LF
	J	K

Note:

A - <STX> ASCII Start of Text character, Hex 02. Transmitted at beginning of first line of data only.
B - If net print is enabled, the eight digit net weight is printed .
C - <SP> ASCII Space character, Hex 20.
D - Weight unit (g kg lb or oz).
E - Weight filed descriptors. These descriptions are printed to identify the net weight fields.
F - If APW print is enabled, the seven digit APW is printed .
G - Weight filed descriptors. These descriptions are printed to identify the APW weight fields.
H - If Pieces print is enabled, a one to six digit pieces is printed.
I - Count filed descriptors. These descriptions are printed to identify the PCS count fields.
J - <CR> ASCII Carriage Return character, Hex 0D.
K - <LF> ASCII Line Feed character, Hex 0A.

5.2.3 Multi line format: Gross, Tare and Net

Data	STX	XXXXXXXX	SP	klo	ggbz	CR	LF
Note	A	B	C	D		E	F

Data	STX	XXXXXXXX	SP	klo	ggbz	T	R	CR	LF
Note	A	G	C	D		H		E	F

Data	STX	XXXXXXXX	SP	klo	ggbz	N	E	T	CR	LF
Note	A	I	C	D		J			E	F

Data	STX	XXXXXXX	SP	A	P	W	CR	LF
Note	A	K	C	L			E	F

Data	STX	XXXXXX	SP	P	C	S	CR	LF
Note	A	M	C	N			E	F

Note:

A - <STX> ASCII Start of Text character, Hex 02. Transmitted at beginning of first line of data only.
B - If gross print is enabled, the eight digit gross weight is printed.
C - <SP> ASCII Space character, Hex 20.
D - Weight unit (g kg lb or oz).
E - <CR> ASCII Carriage Return character, Hex 0D.
F - <LF> ASCII Line Feed character, Hex 0A.
G - If tare print is enabled, the eight digit tare weight is printed .
H - Weight filed descriptors. These descriptions are printed to identify the tare weight fields.
I - If net print is enabled, the eight digit net weight is printed.
J - Weight filed descriptors. These descriptions are printed to identify the net weight fields.
K - If APW print is enabled, the seven digit APW is printed .
L - Weight filed descriptors. These descriptions are printed to identify the APW weight fields.
M - If Pieces print is enabled, a one to six digit pieces is printed.
N - Count filed descriptors. These descriptions are printed to identify the PCS count fields.

5.2.4 Multi line format: Displayed Weight only

5. 2.4.1 Gross Weight

Data	STX	XXXXXXXX	SP	klo	ggbz	CR	LF
Note	A	B	C	D		E	F

Data	XXXXXXX	SP	A	P	W	CR	LF
Note	G	C	H			E	F

Data	XXXXXX	SP	P	C	S	CR	LF
Note	I	C	J			E	F

Note:

A - <STX> ASCII Start of Text character, Hex 02. Transmitted at beginning of first line of data only.
B - If gross print is enabled, the eight digit gross weight is printed,
C - <SP> ASCII Space character, Hex 20.
D - Weight unit (g kg lb or oz).
E - <CR> ASCII Carriage Return character, Hex 0D.
F - <LF> ASCII Line Feed character, Hex 0A.
G - If APW print is enabled, the seven digit APW is printed
H - Weight filed descriptors. These descriptions are printed to identify the APW weight fields.
I - If Pieces print is enabled, a one to six digit pieces is printed.
J - Count filed descriptors. These descriptions are printed to identify the PCS count fields.

5.2.4.2 Net Weight

Data	STX	XXXXXXXX	SP	klo	ggbz	N	E	T	CR	LF
Note	A	B	C	D		E			F	G

Data	XXXXXXX	SP	A	P	W	CR	LF
Note	H	C	I			F	G

Data	XXXXXX	SP	P	C	S	CR	LF
Note	J	C	K			F	G

Note:

A - <STX> ASCII Start of Text character, Hex 02. Transmitted at beginning of first line of data only.
B - If net print is enabled, the eight digit net weight is printed .
C - <SP> ASCII Space character, Hex 20.
D - Weight unit (g kg lb or oz).
E - Weight filed descriptors. These descriptions are printed to identify the net weight fields.
F - <CR> ASCII Carriage Return character, Hex 0D.
G - <LF> ASCII Line Feed character, Hex 0A.
H - If APW print is enabled, the seven digit APW is printed .
I - Weight filed descriptors. These descriptions are printed to identify the APW weight fields.
J - If Pieces print is enabled, a one to six digit pieces is printed.
K - Count filed descriptors. These descriptions are printed to identify the PCS count fields.

5.3 Accumulator Data Print Format

Data output occurs when the PRINT button is pressed while the accumulator data is displayed

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Data	STX	XXX	SP	C	N	SP	XXXXXX	P	C	S	CR	LF
Note	A	B	C	D		C	E	F			G	H

Note:

A - <STX> ASCII Start of Text character, Hex 02. Transmitted at beginning of first line of data only.
B - A consecutive number of up to three digits is printed.
C - <SP> ASCII Space character, Hex 20.
D - These descriptions are printed to identify the CN count fields.
E - If Pieces print is enabled, a one to six digit pieces is printed.
F - Count filed descriptors. These descriptions are printed to identify the PCS count fields.
G - <CR> ASCII Carriage Return character, Hex 0D.
H - <LF> ASCII Line Feed character, Hex 0A.