

2451

**Hanging
Scale/Printer**

User's Guide

and

Installation Instructions

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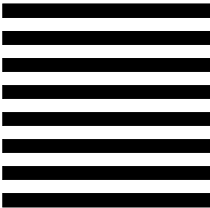
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FCC Notice

This device complies with Part 15 of the FCC Rules and the Radio Interference Requirements of the Canadian Department of Communications. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Publication Revision History

Part Number	Date	Revisions
16511900A_	23-Jul-07	Chg 1: Add Dec.of Conf * update p/n on pg 8-2.

PRECAUTIONS

READ this manual BEFORE operating or servicing this equipment.

FOLLOW these instructions carefully.

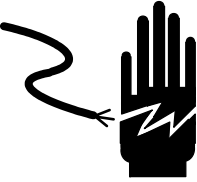
SAVE this manual for future reference.

DO NOT allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.

ALWAYS DISCONNECT this equipment from the power source before cleaning or performing maintenance.

CALL METTLER TOLEDO for parts, information, and service.

	 WARNING
	FOR CONTINUED PROTECTION AGAINST SHOCK HAZARD CONNECT TO PROPERLY GROUNDED OUTLET ONLY. DO NOT REMOVE THE GROUND PRONG.

	 WARNING
	DISCONNECT ALL POWER TO THIS UNIT BEFORE REMOVING THE FUSE OR SERVICING.

Declaraton of Conformance

Mettler-Toledo Inc.
Columbus, Ohio

**Declaration of Conformance to SMA Standard
Year of Declaration 2006
Production Meets Type**



We the manufacturer of

Model	Certificate and Number	Issued by
2451	NTEP CoC 97-062	NCWM

declare in our responsibility the conformance of the above listed models and types to the mentioned certificates and the requirements of the SMA standard.

This declaration becomes valid when the SMA Compliance Logo, having our name or trademark is applied to the device or its accompanying documentation.

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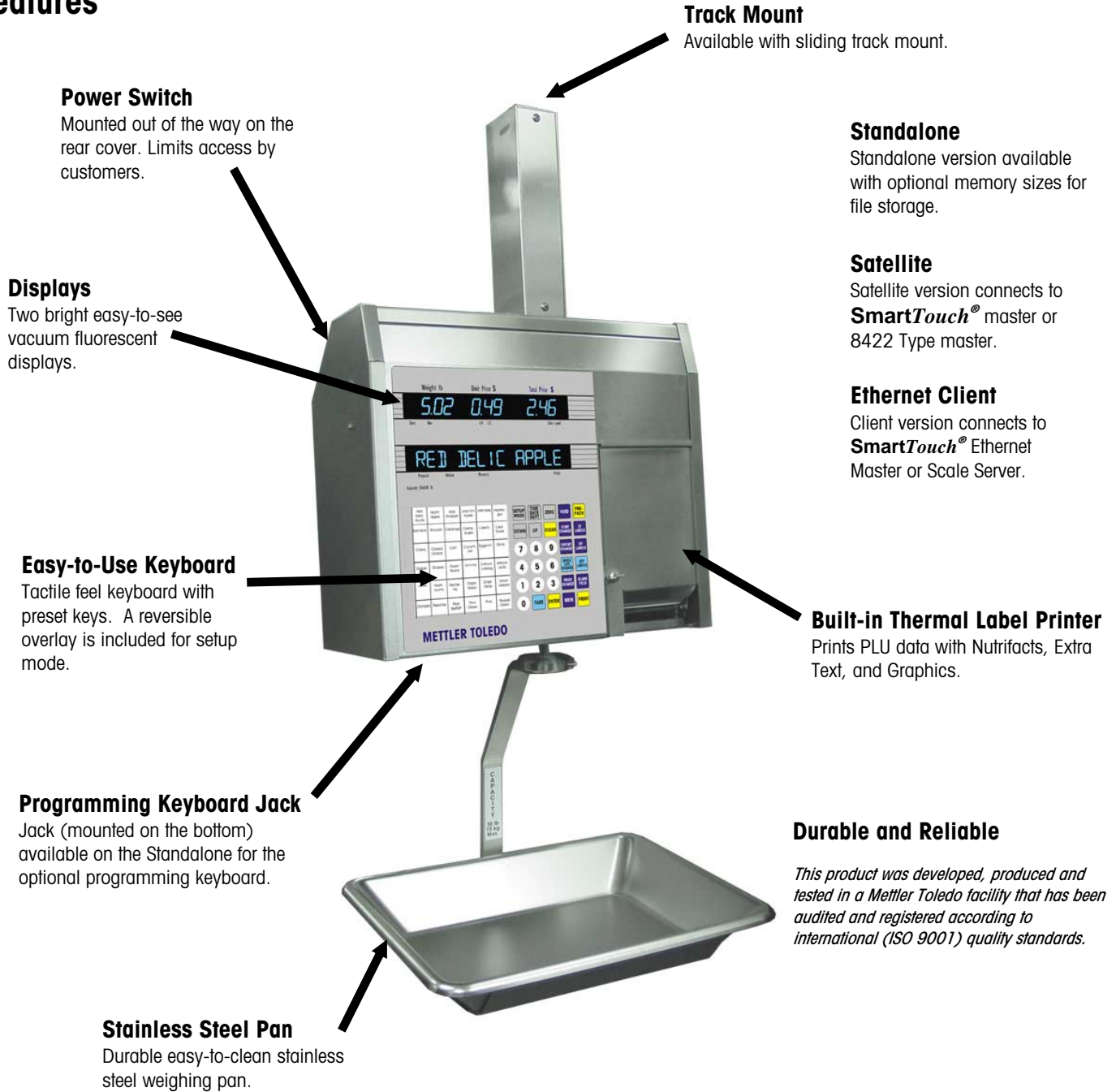
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1 Introduction

Features



Keyboard Layout

Weight lb **Unit Price \$** **Total Price \$**
5.02 **0.49** **2.46**

Zero Net 1/4 1/2 Take Label

RED DELIC APPLE

Prepack On/Off Memory Setup

Capacity 30x0.01 lb

Red Delic Apple	McInt Apple	Red Snapper	Gran Sm Apple	Artichoke	Asparagus
Banana	Broccoli	Cabbage	Cantaloupe	Carrots	Cauliflower
Celery	Collard Greens	Corn	Cucumber	Eggplant	Garlic
Grapefruit	Okra	Green Beans	Lemons	Lettuce Iceberg	Lettuce Leafy
Limes	Mushrooms	Nectarine	Onion Yellow	Onion White	Onion Vidalia
Oranges	Peaches	Pear Bartlett	Pear Green	Peas	Pepper Green

METTLER TOLEDO

SETUP MODE **TIME DATE DEPT** **ZERO** **VOID** **PRE-PACK**
DOWN **UP** **CLEAR** **ET/NF CHANGE** **ET LABELS**
7 **8** **9** **CNT/WT CHANGE** **NF LABELS**
4 **5** **6** **SHELF LIFE CHANGE** **QTY LABELS**
1 **2** **3** **PRICE CHANGE** **BLANK FIELD**
0 **TARE** **ENTER** **MEM** **PRINT**

Callout 1: In normal mode, displays time, date, and department. In Setup mode, allows changing these items. On the Standalone, Dept is changed under Setup/Database/Edit/Dept Info.

Callout 2: Accesses Setup Mode and Database (Standalone). Setup Cursor on Display lights while in Setup Mode.

Callout 3: Preset Quick Keys for calling PLUs.

Callout 4: Up/Down are used to scroll through possible selections, including Yes/No selections.

Callout 5: ET/NF Change is used to Override the Extra Text and/or Nutrition Fact number of the called PLU.

Callout 6: Enters tare or overrides programmed tare. Tare can be entered numerically (Keyboard Tare) or by placing item on platter, then pressing the TARE key (Pushbutton Tare).

Callout 7: Accepts displayed data or displayed selection.

Callout 8: Enters current transaction into memory for printing a receipt label. When pressed at the **READY** prompt, receipt prints and memory is cleared.

Callout 9: Manually overrides the price of the called PLU.

Callout 10: Prints a label and feeds blank labels.

Callout 11: Used to selectively blank Unit Price, Total Price, Pack Date, and/or Net Weight on label.

Callout 12: Enters the quantity of PLU labels to print in batch mode.

Callout 13: Prints a batch of Nutrifacts Labels.

Callout 14: Overrides the net weight field of Std Pack PLU.

Callout 15: Overrides quantity/count of Standard Pack/By-Count PLU.

Callout 16: Prints a batch of Extra Text Labels.

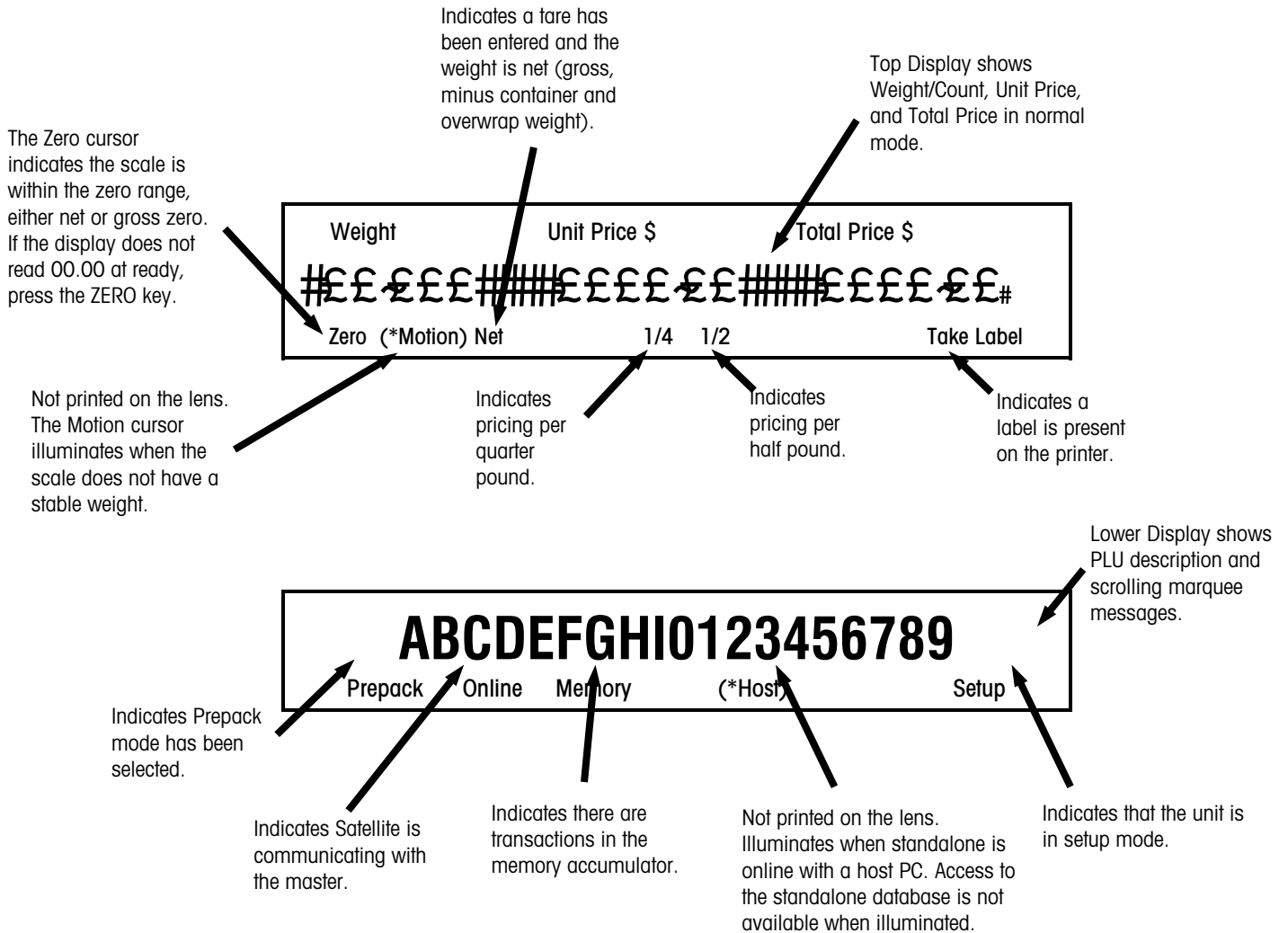
Callout 17: Toggles Prepack mode on/off. Prepack retains the PLU until the CLEAR key is pressed.

Callout 18: Removes a transaction from the totals accumulator.

Callout 19: Clears incorrect entries and messages from display. Backs out of menu selections.

Callout 20: If the scale drifts from zero, pressing the ZERO key returns scale to zero ($\pm 2\%$).

Display



Model 2451 User's Guide & Installation Instructions

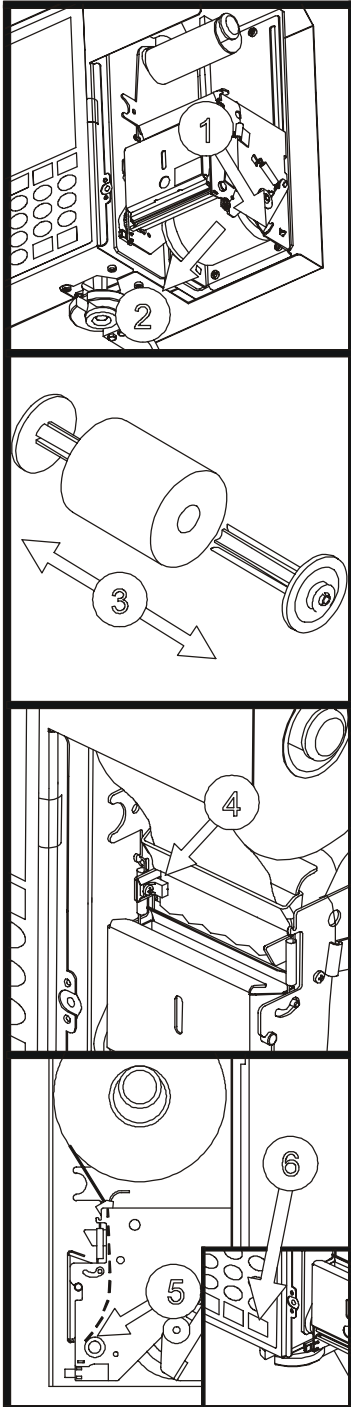


For your notes

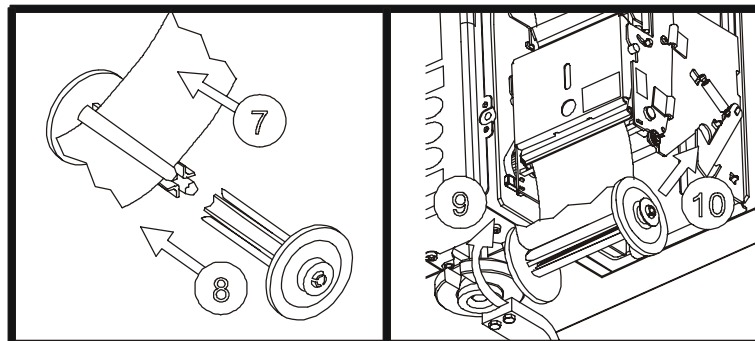
2

Label Installation

Open the printer door and follow the illustrations on the left column. (It is not necessary to unlock the printhead to load labels.)



1. Press the release lever. (For *Unstripped* mode skip to step 4.)
2. To load standard labels for stripped mode, remove the liner take-up spool from the printer mechanism.
3. Slide the two halves of the liner take-up spool apart and discard any spent liner.
4. Insert the end of the paper into the rear chute and through the Gap Sensor.
5. Feed labels into the chute until they stop at the platen roller.
6. For first time installation, or if changing label size, set the label size by pressing the SETUP MODE key, then the LABEL SIZE key. Press the UP/DOWN keys to toggle through the available label sizes, then press ENTER to accept. Next press the STRIP key and use the UP/DOWN key to select *Stripped* or *Unstripped* delivery mode, then press ENTER to accept. Press CLEAR to return to the ready mode. Press the PRINT button to feed the labels, while gently pushing the label stock into the rear chute until the label feeds out the front of the mechanism. If the label stock will not feed out the front check for an obstruction or a label jam inside the mechanism. If the delivery method is *Unstripped*, you are done loading labels and can close the printer door.
7. For *Stripped* mode, insert the label liner through the fingers of one half of the liner take-up spool.
8. Reassemble the two halves of the liner take-up spool.
9. Wind the spool upwards until the slack is taken up on the liner.
10. Reinstall the liner take-up spool into the printer mechanism. At this point, you are finished and you can close the printer door.





For your notes

3

Operating the Scale

General Guidelines

When weighing items, please follow the DO List.

- **Do** place the item on the scale pan gently.
- **Do** place any oversize objects on the pan carefully and centered on the pan.
- **Do** weigh only items under the scale capacity (30 lb or 15 kg) to prevent damage to the unit.
- **Do** exercise care when weighing any unstable items that could fall out of the pan.
- **Do** periodically check for any loose hardware or mounting brackets and report any problems to your maintenance representative.

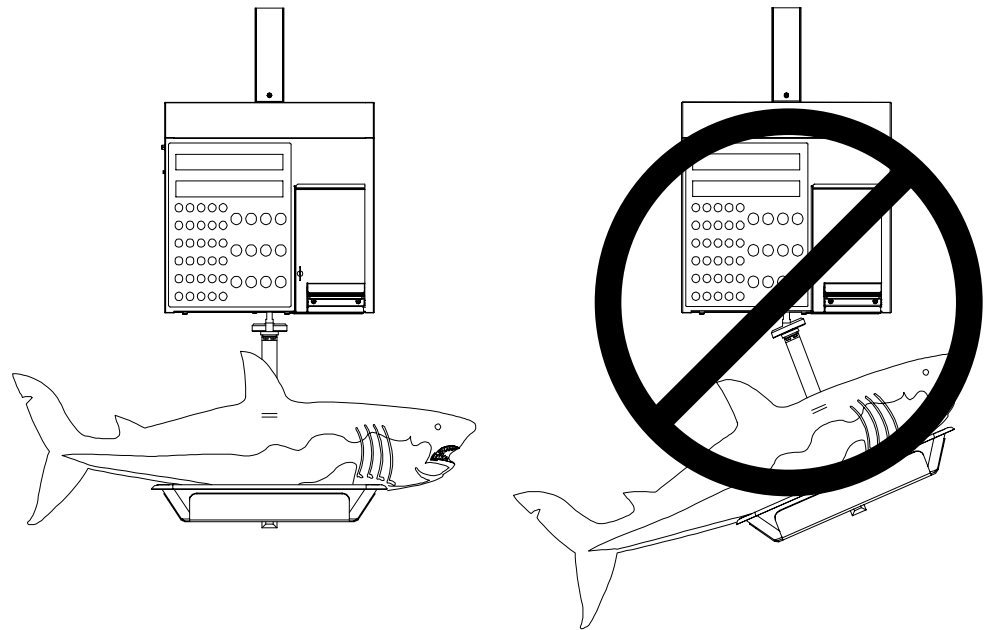
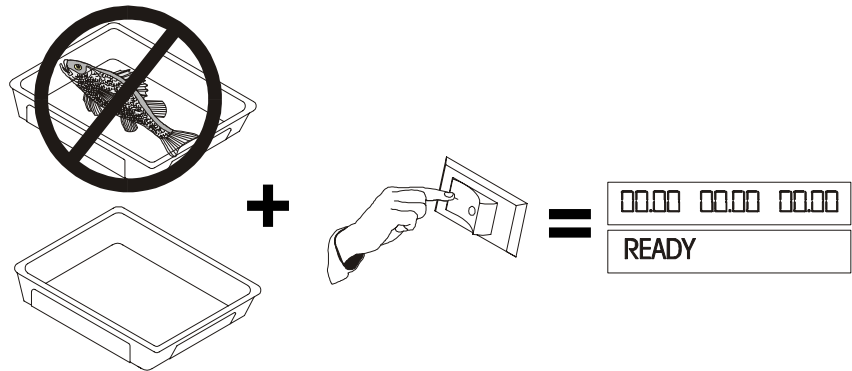


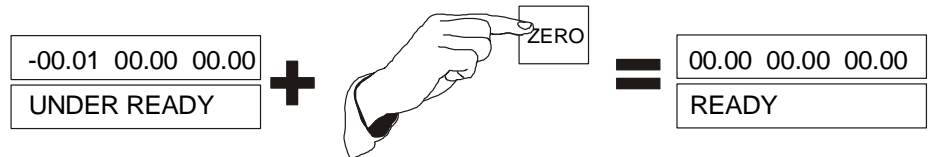
Figure 3-1: Oversized Items

Basic Functions

Starting the Model 2451

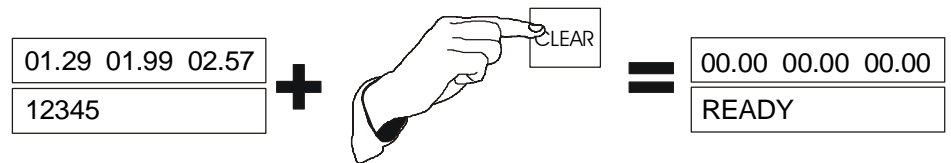


Zero



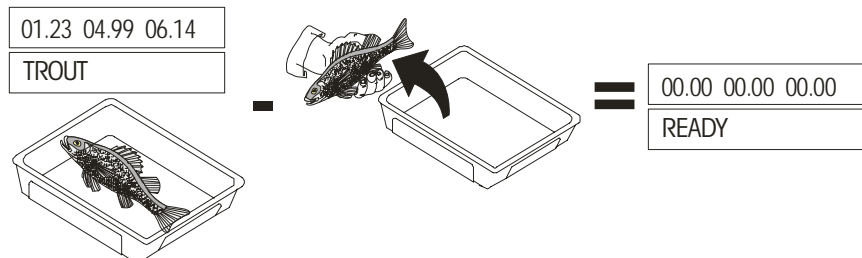
Clear

Manual Clear

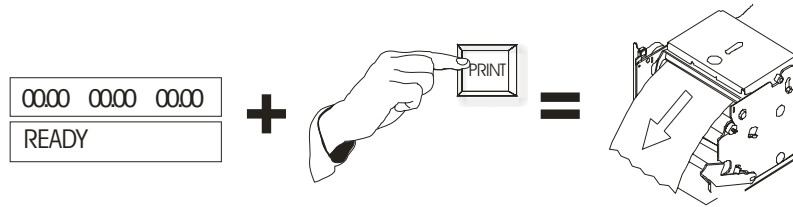


Automatic Clear

In the Service Mode, after a label is printed for a By Weight PLU, and the item is removed from the platter, the display will automatically clear the PLU and return to the **READY** prompt.

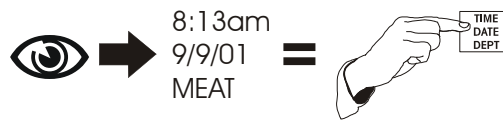


Label Feed

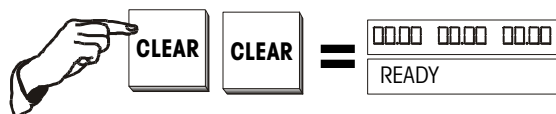
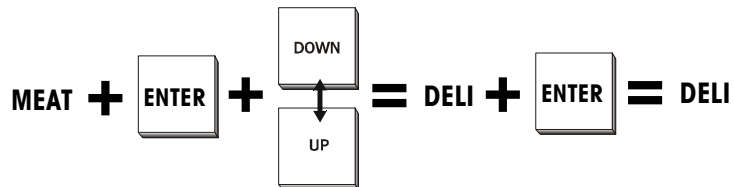
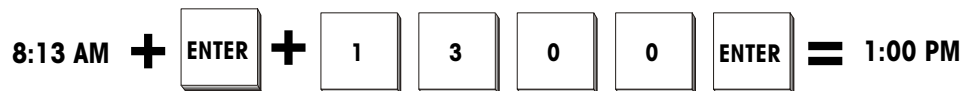
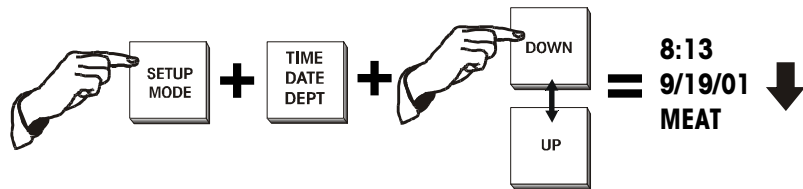


Time, Date, Department

View Only

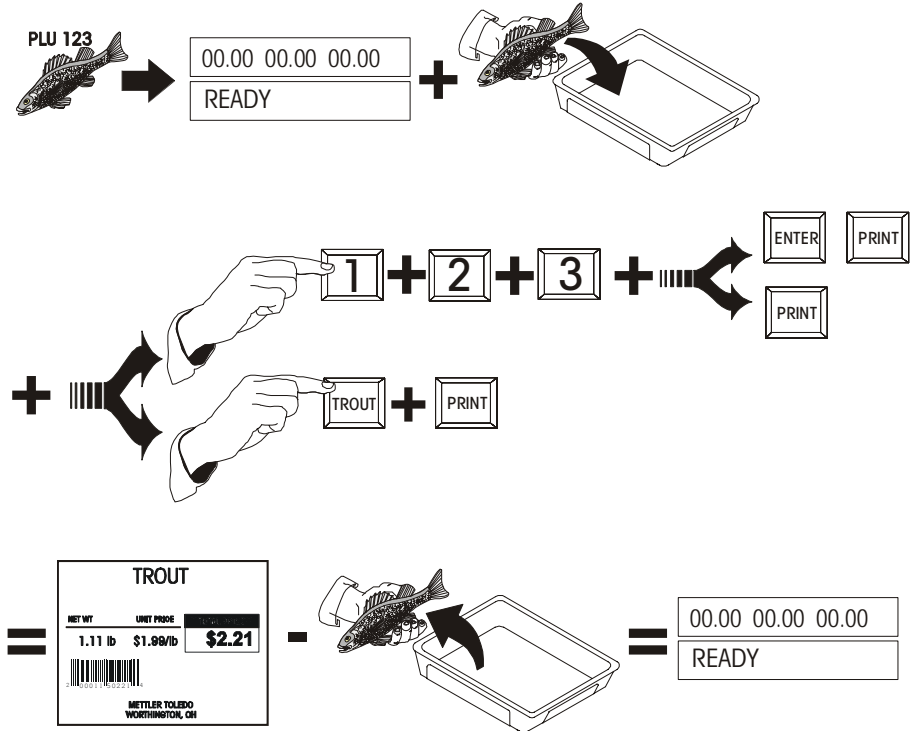


Change

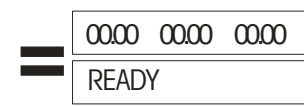
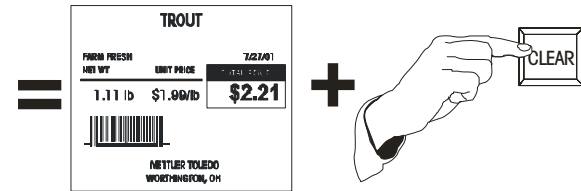
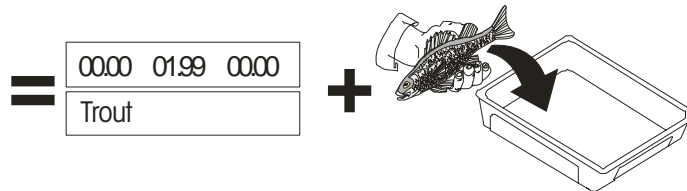
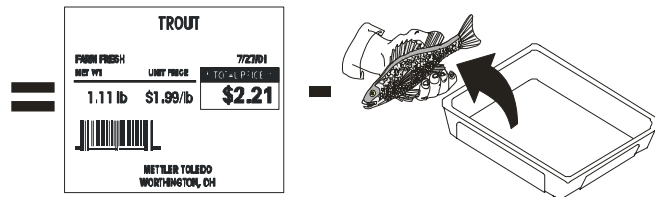
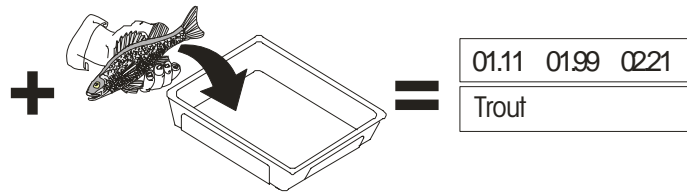
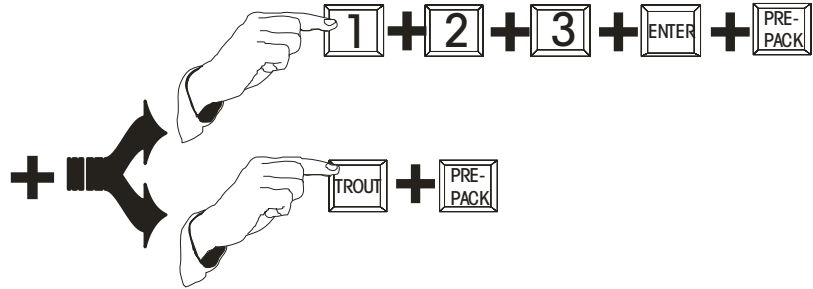


Calling a PLU and Printing Labels

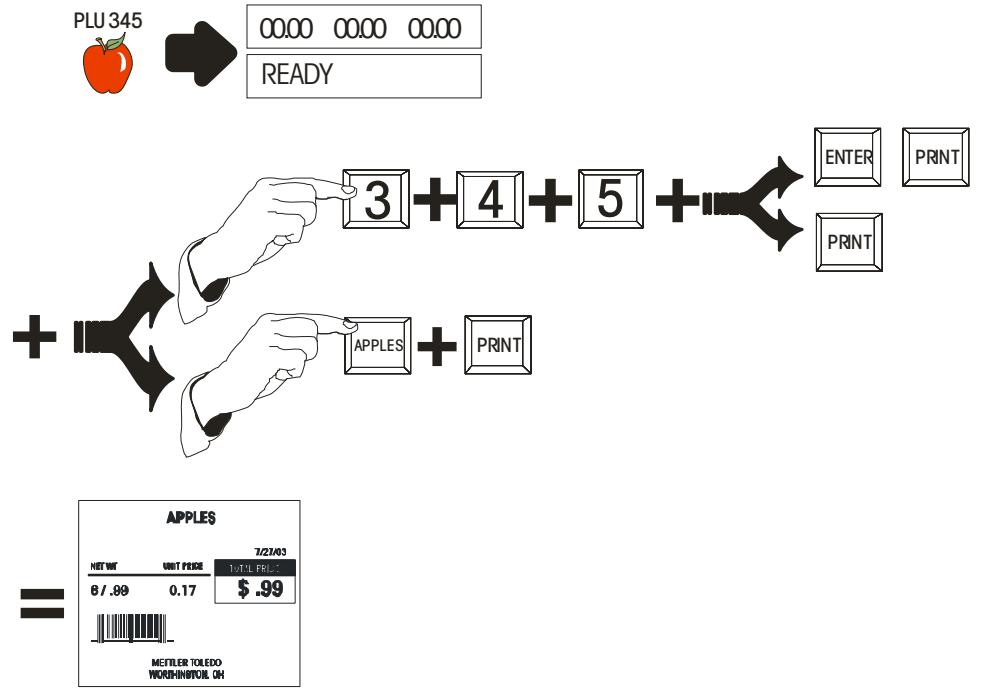
By-Weight PLU Service Mode



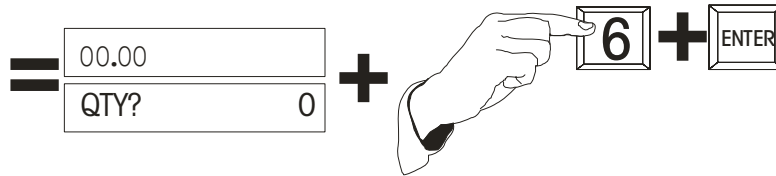
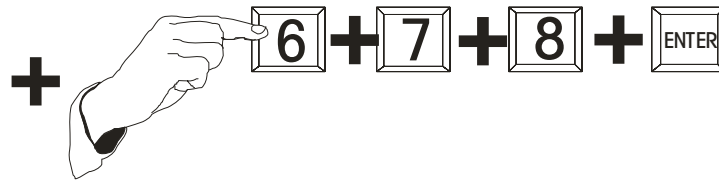
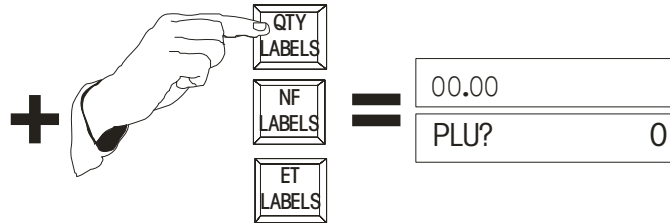
By-Weight PLU Prepack Mode



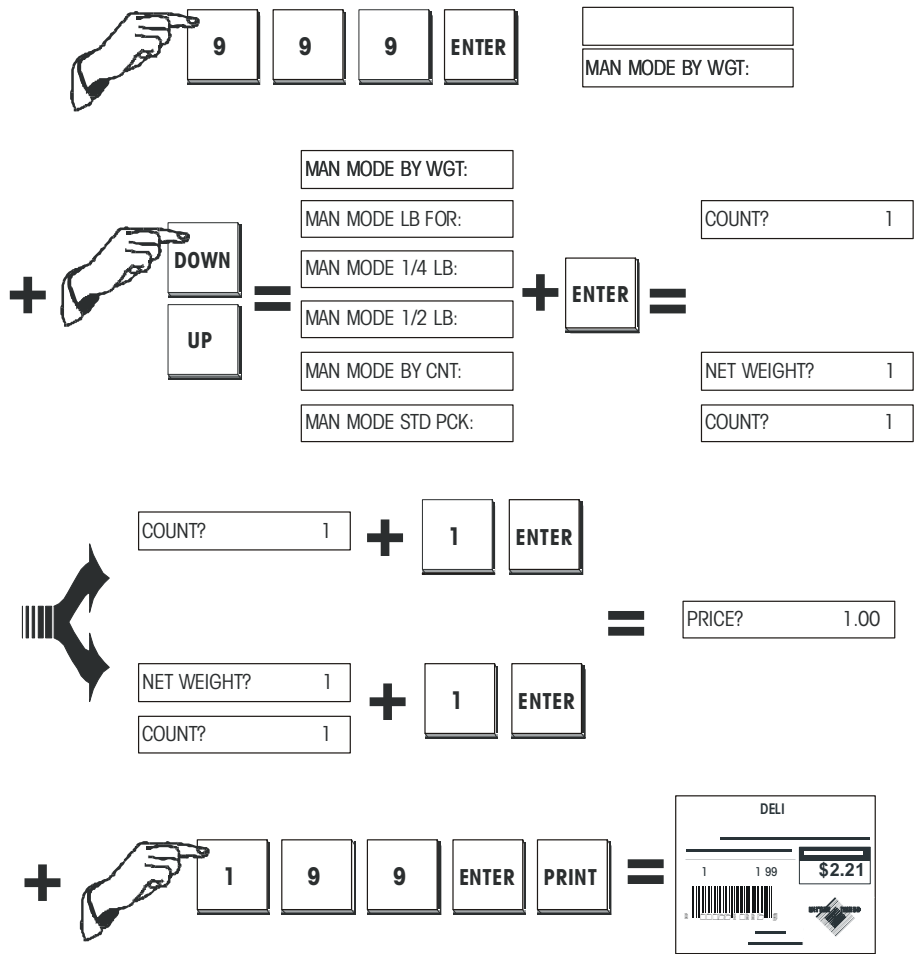
By-Count and Standard Pack (Single Label)



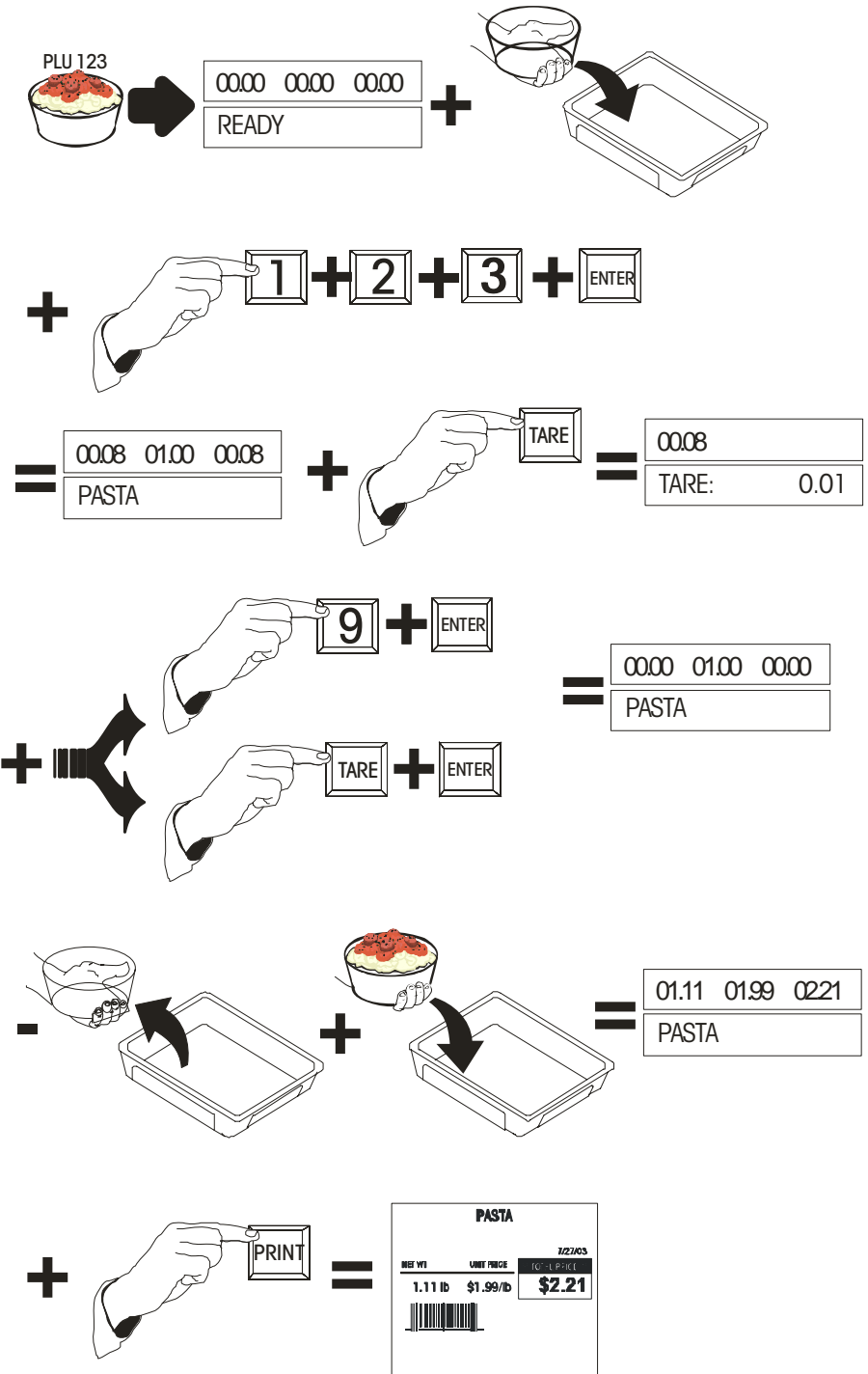
Batch Printing (By-Count and Standard Pack Only)



Manual Mode PLU Label Printing



Manual Tare and Tare Override



Tare

PLU Stored Tare

A tare may be stored with a PLU. In this case, when the PLU is called and no weight is on the platter, the weight display will show a negative number (the tare weight) and a cursor will appear over Net.

Proportional Tare

Proportional tares may be used when supported by the master scale and the PLU is programmed for a proportional tare. This calculation is done automatically by the scale.

Forced Tare

Some items will *require* the operator to enter a tare to complete a transaction. This is called a "forced tare."

Select the PLU.

The bottom display will show **TARE**. You can either key in the tare and press ENTER, or place the tare on the platter and press ENTER. If no tare is desired, press TARE, then ENTER, then place the item on the platter.

Pushbutton Tare

A tare can be manually entered by the following procedure using the TARE button.

Select the PLU (either by entering the number or pressing the preset key).

Press the TARE key.

Place the container on the platter and press TARE.

Keyboard Tare

Select the PLU (either by entering the number or pressing the preset key).

Press the TARE key.

Key in the tare weight. Press ENTER.

Place the item on platter.

If the Canadian Tare is set to YES in the Calibration Settings then the platter must be empty when keying in the tare, and you cannot clear the Tare by entering 0.00.

Memory Mode

The MEM key can act as an ENTER/MEM key. To eliminate keystrokes, press MEM after keying in the PLU to immediately enter the transaction into the scale's memory.

If Continuous stock is used the label shows a line of description and the price information for up to 15 items.

When enabled, the Memory mode feature is an alternative to printing individual labels and allows accumulating multiple items for a customer. A receipt label can be printed showing the grand total and a department bar code.

Call the PLU, and place the item on the scale.

Press the MEM key to enter the current transaction into memory. The cursor over "Memory" on the Display tower will light.

Remove the item from the platter and repeat for the desired number of transactions, pressing the MEM key after each transaction.

When all items are entered for a particular customer, clear the platter and press the MEM key.

You will be prompted to print the total. Press ENTER to print the accumulated total price.

You are then asked **PRINT OK?** If the printing was successful, press the DOWN key to answer **YES**, then press ENTER; the memory is now cleared and the cursor over "Memory" will turn off.

If the printing was not okay, or you do not want to clear the memory, press the DOWN key until **NO** appears, then press ENTER. You may then either print again or add additional transactions to the accumulator.

At the initial **PRINT?** prompt after pressing MEM with an empty platter, you can scroll with the UP and DOWN keys to **CANCEL?** or **CONTINUE?**. At the **CANCEL?** prompt, pressing ENTER will bring up the **CLEAR MEMORY? NO** prompt. Toggle between **YES** and **NO** here to clear the memory. At the **CONTINUE?** prompt, pressing ENTER will retain the current memory as is so that more items can be added.

Void

The last ten transactions can be voided from the totals accumulators using this function.

Press the VOID key and use the DOWN and UP keys to display previous transactions.

The transactions will be displayed as follows: the top display will show the number of transactions/labels printed, item number, and total price.

The lower display will show the product description and whether it has been voided or not (Y/N). When the transaction you wish to void is displayed, press ENTER.

The display will ask if you want to void the transaction. Use the DOWN key to change your response to **Y**, then press ENTER.

You may either continue to void other transactions or press CLEAR to return to the **READY** prompt.

Manual Override Functions

Certain information can be overridden after the PLU has been called. These changes are temporary and last only for a single transaction or a single "run" in Prepack mode. Some or all of these overrides may be disabled through Unit Setup.

Tare Override

When the unit setup allows for programmed tares to be overridden, the desired tare can be entered as if there were no preprogrammed tare.

Keypad Tare

Call the PLU. If a tare is programmed in the PLU the Weight display will show the tare as a negative number and the "Net" cursor will light.

Press TARE.

Enter in the desired tare weight, then press ENTER.

Pushbutton Tare

Call the PLU.

Press TARE.

Place the container on the platter, then press TARE.

Place the item on the platter.

Price Override

When allowed by the unit set up, prices may be overridden by the operator with either of the following procedures:

Place the item on the platter.

Select the PLU.

Key in the new price, and press ENTER.

or

Call the PLU.

Press PRICE CHANGE.

Key in the new price. Press ENTER.

Place the item on the platter.

ET, NF Record Override

Extra Text and Nutrition Facts records are linked to a PLU using Extra text and Nutrition Fact record numbers programmed into the PLU record in the master database. These Record numbers can be overridden using the ET/NF CHANGE key.

Extra Text Change

When allowed by the unit set up, the Extra Text for a single transaction or Prepack "run" may be changed.

Call the PLU.

Press the ET/NF CHANGE key.

Using the DOWN and UP keys, you will be able to toggle between **ET** (Extra Text) and **NF** (Nutrition Facts). When **ET** is displayed, press ENTER.

The current Extra Text number will be displayed. Key in the new Extra Text number, then press ENTER.

Place the item on the platter (if By Weight item).

Press PRINT to print the label (if in Service mode).

Nutrition Fact Change

When allowed by the unit set up, the Nutrition Facts may be changed.

Call the PLU.

Press the ET/NF CHANGE key.

Using the DOWN and UP keys, you will be able to toggle between **ET** (Extra Text) and **NF** (Nutrition Facts). When **NF** is displayed, press ENTER.

The current Nutrition Fact number will be displayed. Key in the new Nutrition Fact number, then press ENTER.

Place the item on the platter (if By Weight item).

Press PRINT to print the label (if in Service mode).

Net Weight, Count Override

Standard Pack Weight/Count Change

For Standard Pack items, the count and/or the Net weight may be changed. When the count is changed, a new total price and net weight will be calculated from the unit price and new count value. When the Net weight is changed, the total price does not change, however a new unit price is calculated from the total price and new Net weight.

To change the quantity or weight of the item, press the CNT/WT CHANGE key.

Use the DOWN and UP keys to toggle between **QTY** (quantity, count) and **WEIGHT**.

To change the quantity of the pack, press ENTER when **QTY** is displayed. Key in the new quantity, then press ENTER.

To change the total weight, press ENTER when **WEIGHT** is displayed.

Key in the new weight (in ounces), then press ENTER.

Press CLEAR to return to the Item Description display.

Press PRINT to print a label.

By Count Change

For products that are priced By Count (e.g., 10 biscuits for \$5.00), the count (10 biscuits) may be changed; a new price will then be calculated (e.g., 5 biscuits would be \$2.50).

Retrieve the PLU. Press the CNT/WT CHANGE key.

The current quantity will be displayed and you will be prompted to enter the new quantity. Key in the new quantity; press ENTER.

The new quantity and the adjusted price will appear on the display and will also be printed on the label.

Press PRINT to print a label.

Shelf Life Override

After calling up the PLU, press the SHELF LIFE CHANGE key.

You are prompted to enter the new Sell By date. Depending on the unit setup, you will enter in the new date one of two ways: if your display reads **ENTER DAYS**, enter the number of days *until* the desired Sell By date. If the display reads **ENTER DATE**, enter the date of the desired Sell By date in the format of MMDDYY, then press ENTER.

Place the item on the platter (if By Weight item).

Press PRINT to print the label (if in Service mode).

Blank Label Fields

When allowed by the unit setup, certain fields on the labels may be temporarily blanked out. Select the PLU. Press the BLANK FIELD key.

Use the DOWN and UP keys to toggle between **BLANK PACK DATE**, **BLANK NET WEIGHT**, **BLANK UNIT PRICE**, **BLANK TOTAL PRICE**, **BLANK SHELF LIFE**, **BLANK USE BY** (date).

When you have the field you would like to blank out displayed, press ENTER.

The display will ask you if you want the field blanked. Press the DOWN and UP keys to change the answers to **YES**, then press ENTER.

You may continue to blank other fields or press CLEAR two times when you are done.

Place the item on the platter (if By Weight item).

Press PRINT to print the label (if in Service mode).

Master Off Line

Not Applicable to StandAlone model.

The satellite does not store the PLU accumulators for later transmission to the master during off line operation.

During scale operations, the satellite relies on the master to supply PLU files and record the PLU accumulators after a transaction. When PLU's are retrieved from the master scale, the satellite scale makes a backup record of the PLU information.

If the master is turned off, or the connecting cables to the master are disconnected or broken the unit will be off line.

When the master is off line and a PLU is called, the display shows **SEARCHING...** for a few seconds, the Online cursor is removed, and the satellite searches its backup files for the PLU record.

If a PLU is called and no backup file exists, the scale will default to "manual PLU's." The PLU is then treated as a "Manual PLU."

The display will show **MANUAL MODE BY WGT**. Use the DOWN and UP keys to select between **BY WEIGHT**, **LB FOR**, **¼ LB**, **½ LB**, **BY COUNT**, or **STD PACK** pricing. Place the item on the platter. (For Standard Pack items, the weight must first be entered, in ounces, then press ENTER). Key in the price, then press ENTER.

To print a label, press PRINT. A label will be printed with the department name in the product description field and department UPC in the Item number field of the bar code.



For your notes

4

Standalone Database Functions

General Description

The Standalone stores and maintains its own database of PLU information, extra text, nutrifacts, and graphics. It is available with 256K, 512K or 1M capacity memory. The following table details the amount of records each size of memory can hold.

	PLUs (223 bytes each)	ET Records (540 bytes each)	NF Records (383 bytes each)
1 Meg	4600	0	0
	1350	1350	0
	900	900	900
	1700	0	1700
512K	2300	0	0
	675	675	0
	450	450	450
	850	0	850
256K	1150	0	0
	335	335	0
	225	225	225
	425	0	425
ET recs + NF Recs + Graphic Recs = 7280 Max			

Table 4-1: Approximate Memory Capacities

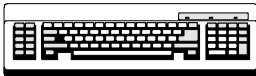
More than one department of information can be stored in memory but only the current department's information can be accessed at a time. For example, if department 1 is the current department, only PLUs entered in department 1 will be accessible. The department can be changed in either the Unit Setup Mode or in the Database Setup Mode.

Standalone Database Functions

The following is an overview of the database setup structure, with the first row showing the major headings. The columns below each heading show specific commands available under that function. The UP/DOWN key scrolls through the selections. The ENTER key allows changes to the selected function.

EDIT	QUICK	PRINT	CLEAR
PLU	PRICE	PLU TOTALS	CLEAR PLU/ITEM
ET	TARE 1	GROUP TOTALS	CLEAR ET
NF	ET #	HOURLY TOTAL	CLEAR NF
ACTION CODE	NF #	GRAND TOTALS	CLEAR GR
GRADE	SHELF LIFE	MEM AVAILABLE	CLEAR PLU/ITEM TOTALS
GROUP	USE BY		CLEAR GROUP TOTALS
DEPT INFO	GROUP		HOURLY ACCUMULATORS
- DEPT #	ACTION CODE		VOID ACCUMULATORS
- DEPT NAME	ITEM #		COMPRESS DATABASE
- DEPT ADDR	GRADE #		CLEAR ALL
- DEPT UPC			
ITEM # DUPE			

Table 4-2: Database Functions



Required

Editing any of the alphabetical fields, such as Description and Extra Text, requires a programming keyboard.

Database Setup Mode

To access database setup, press the SETUP MODE key. Use UP/DOWN to toggle to **DATABASE**, then press ENTER. If a password has been set up for the database mode, key in the password and press ENTER.

Passwords

To change the password for database access, press the PASSWORDS key. At the **PASSWORD** prompt, enter a number between 1 and 9999. To disable the password enter 0.

Edit

This function allows you to edit records in the database. The fields which are editable vary depending on the type of PLU. For example, a Standard Pack PLU will not need a Tare or Unit Price field.

PLU

Press ENTER at the **PLU** prompt to change or to add a new PLU record. Enter the PLU you wish to edit or add. If it is a new PLU, the prompt **PLU NT FD! ADD ACTV** will appear. To continue and add a new active record press ENTER, otherwise press CLEAR. Respond to each of the following prompts by pressing ENTER to update it, or DOWN or UP to scroll to the next.

PLU NUMBER:

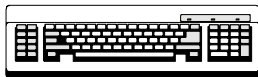
Enter a new PLU number from 1 - 999999.

ITEM:

Enter an item number between 0 - 9999999999. This number is used in the Bar Code symbol.

DESC 1 and DESC 2:

These fields are edited by pressing ENTER at the **DESC1** or **DESC2** prompt. Changes must be made on the programming keyboard which is connected to the jack on the bottom of the Model 2451. The Desc1 line displays when that PLU is called up. There is a maximum of 32 alphanumeric characters per description field.



Required

PLU TYPE:

Choose **BY WGT**, **LB FOR**, **BY 1/2**, **BY 1/4**, **BY CNT**, **STD PACK** or **MANUAL** by toggling to that prompt and pressing ENTER.

TARE1/COUNT:

Toggle between **FORCED** or a numeric value. For the numeric value, enter the value of these tares with the numeric keypad and press ENTER. For a forced tare, toggle to **FORCED** and press ENTER.

TARE/PROP TARE:

Toggle between **FORCED**, **PROP**, or a numeric value. For the numeric value, enter the value of these tares with the numeric keypad and press ENTER. For a forced tare, toggle to **FORCED** and press ENTER. For **PROP** proportional tare, press ENTER

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and then enter the percentage for the proportional tare as a value between 0 and 99.99. For example, if 10.00 is entered, the proportional tare is 10%.

UNIT/TOTAL PRICE:

Enter 6 digits 0 - 999999 or **FORCED** price for By-Weight, lb/for, ¼, ½, total price for By-Count, and Standard Pack. To change the currency increments, enter the currency function under Unit Setup.

SHELF LIFE:

0 - 999 days used to calculate Sell By date printed on the label.

USE BY:

0 - 999 days used to calculate Use By date printed on the label.

GROUP #:

Items can be categorized by groups within a department. For example, in a bakery there could be a group for cookies and a group for pies. This allows various reports to be printed based on each group. To change this enter a new value between 0 - 500 with the numeric keypad and press ENTER.

GRADE #:

Lines of text with grade information can be linked to each PLU. Enter the number of the Grade text between 0 - 16 to be linked to this PLU with the numeric keypad and press ENTER. 0 means no grade is selected.

ET #:

Lines of extra text can be linked to each PLU. Enter the number of the Extra Text record between 0 - 999999 to be linked with this PLU with the numeric keypad and press ENTER. 0 means no ET is selected.

NF #:

Nutrition Fact information can be linked to each PLU. Enter the number of the Nutrition Fact record between 0 - 999999 to be linked with this PLU with the numeric keypad and press ENTER. 0 means no NF is selected.

GRAPHIC:

Graphics can be linked to each PLU and will be printed if a label format which prints a graphic is selected. Enter the number of the graphic record between 0 - 999999 to be linked with this PLU with the numeric keypad and press ENTER. 0 means no Graphic is selected.

ACTION CODE #:

Action codes can be linked to each PLU which will replace the store address, display a different PLU description, or can be used to scroll a marquee. Enter the number of the Action Code record between 0 - 50 to be linked with this PLU with the numeric keypad and press ENTER. 0 means no Action Code is selected.

BARCODE:

The barcode to be printed on the label is determined by this setting. This menu is different depending on the Unit Setup for barcode type, **EAN** or **UPC**.

At the prompt you can choose from **USE SCL SETTING** or choose a type from the **TYPE?** List. These types include **GEN MERCH** (0), **NOT IDENT** (1), **RAND WT** (2), **DRUG & HEALTH** (3), **STORE MARK** (4), **COUPONS** (5), **PRICE ENCODED** (6) and **NOT IDENT** (7). (The numbers in parentheses correspond to the values of these bar code types in the master units.) If **RAND WT** or **PRICE ENCODED** types are selected, a format string can be selected from the **FORMAT?** prompt list. For **RAND WT** and **PRICE ENCODED** these format strings are:

Note:

N = Item Number
C = Price Check Digit
\$ = Total Price
= Weight
W = Weight Check Digit
X = Bar Code Check Digit.

0: NNNNN C\$\$\$\$ X
1: NNNNN O\$\$\$\$ X
2: NNNNN N\$\$\$\$ X
3: NNNNN \$\$\$\$\$ X
4: NNNNN W#### X
5: NNNNN O#### X
6: NNNNN N#### X
7: NNNNN ##### X

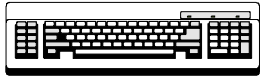
If the Unit Setup barcode type is EAN, you can first choose **USE SCL SETTING**. There is an additional field called **PREFIX**. There will be **BY_WGT_PREFIX**, **BY_CNT_PREFIX**, **STD_PACK_PREFIX**, AND **RUN_TOT_PREFIX**. Both the first and second digit of the EAN barcode can be changed. To change the prefix, follow the example below.

	<u>Display</u>
	BY_WGT_PREFIX: 5_3
Press ENTER	BY_WGT_PREFIX? 5_3
Enter digits 2 and 4	BY_WGT_PREFIX? 2_4
Press ENTER	

The digits 2 and 4 are now set as the first and second digit of the "BY_WGT_PREFIX" prompt. The display now shows the next prompt "BY_CT_PREFIX 5_3: 2_1". Use the same procedure to set the other barcode prefix for the other PLU types.

BLANK:

This allows you to blank one of the following fields on a label: **PACK DATE**, **NET WEIGHT**, **UNIT PRICE**, or **TOTAL PRICE**. To blank one of these fields, press ENTER at that prompt and toggle **YES** or **NO**. When these fields are blanked, only the values are blanked not the legends.



Required

Extra Text

This allows you to add a new or edit an existing extra text record. Press ENTER at the **EXTRA TEXT** prompt. With the numeric keypad enter the number of the extra text record to be edited (6 digit number 1-999999).

New Extra Text Records

If it is a new record, the prompt will display **XT NT FD! ADD XT**. To add the new extra text, press ENTER, otherwise press CLEAR. At the **CHAR PER LINE** prompt, enter a number between 1 and 99. 54 is the maximum number of characters per line without wrapping the line around. The most common numbers are 32, 42 and 54 characters per line.

Entering the Extra Text

Now you should be able to begin typing in the extra text with the programming keyboard. If the extra text was not a new record, the current text will be displayed on the screen and ready for editing. Otherwise, type in the new extra text. *Press [F10] on the keyboard when finished.* You will be prompted to **SAVE CHANGES**. Pressing ENTER will result in a **SURE? YES** prompt and require one more ENTER to save or CLEAR to exit without saving. Pressing CLEAR at the **SAVE CHANGES** prompt will exit without saving.



Required

Nutrition Facts

This allows you to edit a current or add a new nutrition facts record. The first prompt requests a nutrition facts record number (6 digit number 1-999999). If it is a new nutrition facts record, the display will read **NF NT FD! ADD NF**. Pressing ENTER here will continue and add a new record as the following describes. Pressing CLEAR will leave the nutrition facts editing.

LABEL?

At this prompt, choose the type of label for the nutrition facts to be printed on by toggling through the choices and pressing ENTER. **SINGLE** will print the nutrition facts on the label with all the rest of the PLU information. **ALT PLU/NF** will print a PLU label followed by a nutrition facts label, while **ALT NF/PLU** will print a nutrition facts label followed by a PLU label. **BATCH PLU/NF** and **BATCH NF/PLU** will do the same but in a batch process. The second nutrition facts only label will be printed according to the label format selected in the Unit Setup Label Format menu.

FORMAT?

The format for the nutrition facts record can be chosen by toggling through the following choices and pressing ENTER: **VRT STD** (vertical standard), **VERT SIMP** (vertical simplified), **TABULAR**, **LINR LND** (linear landscape), and **LINR PRT** (linear portrait).

SERV UNITS?

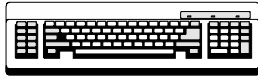
This will select the serving units used to calculate servings per container by toggling through the following prompts: **OZ** (numeric entry for By Weight and Standard Pack PLUs only), **PIECES** (numeric entry for by Count or Standard Pack PLUs only), or **TEXT** (alphanumeric entry, entered for both serving units and servings per container). This is done by pressing ENTER on the prompt and entering in the requested information followed by ENTER. Table 4-3 lists the fields that are required (R) and voluntary (V) along with the insignificant value (when applicable).

Nutrition Field	Type	Insig. Amount
Calories	R	<=5
Calories from fat	R	<=5*
Calories from saturated	V	
Total fat (g)	R	<=0.5
Total fat (%)	R	
Saturated fat (g)	R	<=0.5
Saturated fat (%)	R	
Polyunsaturated fat (g)	V	
Monounsaturated fat(g)	V	
Cholesterol (mg)	R	<=2*
Cholesterol (%)	R	*
Sodium (mg)	R	<=5
Sodium (%)	R	
Potassium (mg)	V	
Potassium (%)	V	
Total carbohydrate (g)	R	<=1
Total carbohydrate (%)	R	
Dietary fiber (g)	R	<=1*
Dietary fiber (%)	R	*
Soluble fiber (g)	V	
Insoluble fiber (g)	V	
Sugar (g)	R	0*
Sugar Alcohol	V	
Other carbohydrates (g)	V	
Protein (g)	R	<=1
Protein (%)	V	
Vitamin A (%)	R	<=2%*
Beta-carotene (%)	V	
Vitamin C (%)	R	<=2%*
Calcium (%)	R	<=2%*
Iron (%)	R	<=2%*
Vitamin D (%)	V	
Vitamin E (%)	V	
Thiamin (%)	V	
Riboflavin (%)	V	
Niacin (%)	V	
Vitamin B6 (%)	V	
Folate (%)	V	
Vitamin B12 (%)	V	
Biotin (%)	V	
Pantothenic acid (%)	V	
Phosphorus (%)	V	
Iodine (%)	V	
Magnesium (%)	V	
Zinc (%)	V	
Copper (%)	V	

* = For the Vertical Simple template, these fields are not printed in the main Nutrition Facts table when they have insignificant values. They are printed in the footnote, following the words "Not a significant source of . . ." with the other fields that contain insignificant amounts. See 21 CFR part 101.9(f).

Table 4-3: NF Record

Press CLEAR to exit the Nutrition Facts setup. A prompt to **SAVE CHANGES** will be displayed. Press ENTER to save and exit. Press CLEAR to exit without saving.



Required

Action Code

Action Code records can be linked to a PLU to do one of three things, print a store address line, print a PLU description or scroll a marquee. Press ENTER at the **ACTION CODE** prompt to enter into this function. Type a current action code record number or a new record number and press ENTER (2 digit number 1-50). The next prompt, **TYPE?**, will toggle through the three types. Press ENTER to choose one of the types described below.

STORE ADDR

This type will print a store address at the bottom of a label. After pressing ENTER, the prompt **LINE 1** will appear. Press ENTER and type the **LINE 1** text on the programming keyboard followed by ENTER. The prompt **LINE 2** will then appear. Enter the **LINE 2** text followed by ENTER. At the **SAVE CHANGES** prompt, press ENTER to save and exit, or press CLEAR to exit without saving.

PLU DESCR

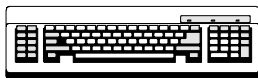
This type will override the PLU description that is normally displayed on the lower scale display. It does not change the description printed on the label. It can be used to display a special message for the customer or operator. After pressing ENTER, the prompt **LINE 1** will appear. Press ENTER here and type the text on the programming keyboard followed by ENTER. At the **SAVE CHANGES** prompt, press ENTER to save and exit, or press CLEAR to exit without saving.

MARQUEE

This type of action code will define the text for a scrolling marquee. After pressing ENTER, a cursor will appear waiting for text input from the PCAT keyboard. Enter the marquee text and press ENTER. At the **SAVE CHANGES** prompt, press ENTER to save and exit, or press CLEAR to exit without saving.

Grade

This function is used to program Grade Text. After pressing ENTER, enter the record number of the grade text to be edited (2 digit number 0-16). A cursor will appear waiting for text input from the programming keyboard. Enter the grade text and press ENTER. At the **SAVE CHANGES** prompt, press ENTER to save and exit and CLEAR to exit without saving.



Required

Group

This function will assign a text string to a group number. This text string will then be printed on the Group Totals report heading. After pressing ENTER, enter the record number of the group text to be edited. A cursor will appear waiting for text input from the programming keyboard. Enter the group text and press ENTER. At the **SAVE CHANGES** prompt, press ENTER to save and exit and CLEAR to exit without saving.

Department Info

This allows information about the department to be entered. At each of the prompts, enter the requested information followed by ENTER. **DEPT NAME** and **DEPT ADDR** are alphanumeric entries from the programming keyboard. The **DEPT ADDR** can have 2 lines. The **DEPT UPC** is a generic UPC number for totals labels for that department.



Required

Item # Duplication

This function simply toggles **YES** and **NO** entries. Selecting **YES** allows different PLU records to have the same item number. Selecting **NO** does not allow this.

Quick Change

This function allows you to change one of the following fields of a PLU without having to go through all of the other fields at the same time: **PRICE, TARE, ET #, NF #, SHELF LIFE, USE BY, GROUP #, ACTION CODE, ITEM,** and **GRADE #**. The **QUICK PRICE** changes the **UNIT PRICE** field for By Weight PLUs and the **TOTAL PRICE** field for Standard Pack and By Count PLUs. The **QUICK TARE** changes the **TARE1** field.

Print

This function will print reports for the following: **PLU TOTALS, GROUP TOTALS, HOURLY TOTALS, GRAND TOTALS,** and **MEMORY AVAILABLE**. The reports are printed on labels the format of which is chosen in the Unit Setup Label Format function. Refer to Appendix 2 for the label formats for reports. To print one of these reports, press ENTER at that prompt. The results are displayed on the tower display. To print, press the PRINT key (exception: Hourly totals will print automatically). To stop printing in the middle of a run, press the CLEAR key.

Clear

This function allows you to clear out or delete various parts of the database. The first 4 choices, **CLEAR PLU/ITEM, CLEAR EXTRA TEXT, CLEAR NUTRIFACT,** and **CLEAR GRAPHIC,** will clear individual records in each of those areas. Press ENTER at the prompt. The next prompt can be toggled between **ALL** and the record type. For example, press ENTER at the **CLEAR PLU/ITEM** prompt. Now you can toggle between **PLU/ITEM** and **ALL**. Pressing ENTER at **PLU/ITEM,** will request a PLU number to delete. Pressing ENTER at **ALL** will clear all PLU records. Both cases will prompt with **SURE?? NO** before continuing. The other 3 choices work the same way but with the other record types of extra text, nutrifact, and graphic.

The next four choices, **CLEAR PLU/ITEM TOT, CLR GROUP TOTALS, HOURLY ACCUMULATORS,** and **VOID ACCUMULATORS,** will clear the totals for each of those areas. **CLEAR PLU/ITEM TOT** works as described in the above paragraph where there is a choice between clearing totals for **ALL** PLUs or for just one PLU. **CLR GROUP TOTALS** requests a group number to be entered. Both end with a **SURE?? NO** prompt. The two accumulators display a prompt with the current department number and a toggle between **YES** and **NO**. There is no **SURE?** prompt to double check on clearing accumulators.

The next choice, **COMPRESS DATABASE,** should be used if any 'Out of Memory' errors are displayed. Press ENTER at the prompt and toggle **YES** and **NO** at the **SURE??** prompt to continue.

The final choice, **CLEAR ALL,** will clear everything from the database completely including all PLU, Extra Text, Nutrition Facts and Graphic records and accumulators. There is a **SURE?? NO** prompt to make sure this is what you want to do.





For your notes

5

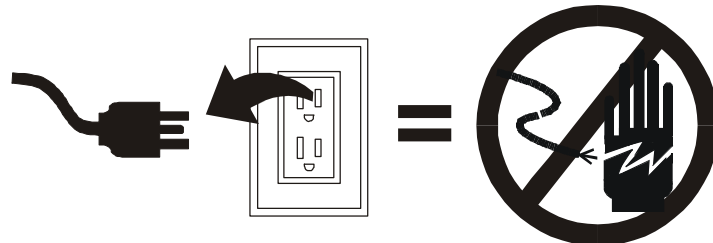
Maintenance

External Cleaning

	 WARNING
	DO NOT SPRAY OR WASH DOWN. HAZARD OF ELECTRICAL SHOCK OR BURN.

	 WARNING
	DISCONNECT ALL POWER TO THIS UNIT BEFORE REMOVING THE FUSE OR SERVICING.

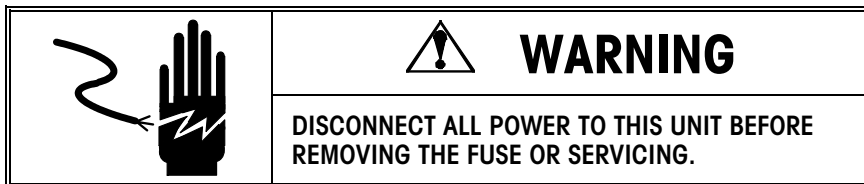
Turn the scale power off by placing the power switch to the OFF position (press the "o" on the power switch). Disconnect the power cord from the outlet.



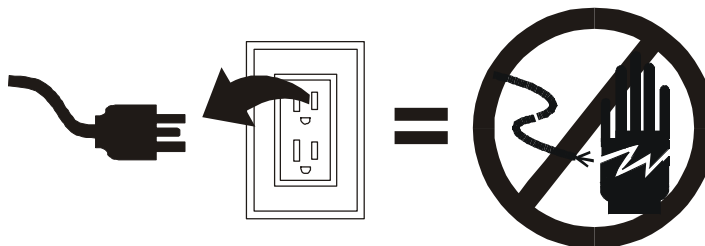
Use a soft clean cloth dampened with a mild detergent and water (or a mild cleaner) to wipe the exterior surfaces. Do not spray liquid directly on the unit. A mild spray cleaner can be used by spraying the cleaning cloth.



Internal Printer Cleaning



Turn the power off by placing the power switch to the OFF position (press the "o" on the power switch). Disconnect the power cord from the outlet.



Open the printer door. Clean any adhesive or debris buildup from the stripper bar, platen roller, and printhead using METTLER TOLEDO liquid cleaner or equivalent or the METTLER TOLEDO Clean Pen. **DO NOT USE A METAL DEVICE TO REMOVE LABELS FROM COMPONENTS OR SEVERE DAMAGE MAY RESULT. DO NOT SCRAPE THE PRINthead WITH ANY OBJECT TO REMOVE GLUE OR LABEL DEBRIS.**

To clean the printhead, unlock the printhead by lifting the rear of the printhead assembly forward and up at the same time. Once the rear of the assembly is unlocked then lift the front of the printhead assembly. Refer to Figure 5-1. Remove the paper stock and clean the printhead and paper path with a soft, clean cloth soaked in isopropyl alcohol, METTLER TOLEDO liquid cleaner or equivalent, or the METTLER TOLEDO Cleaning Pen.

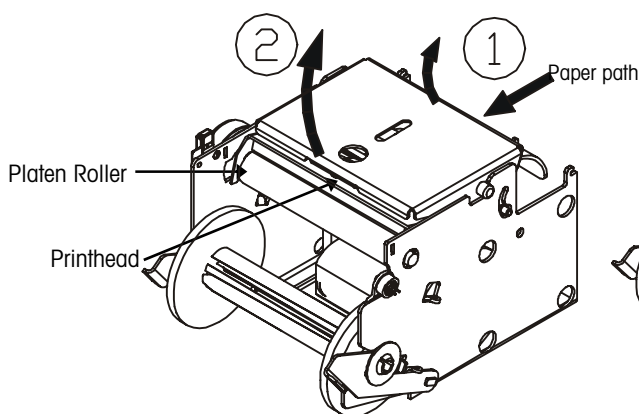


Figure 5-1: Unlocking the Printhead

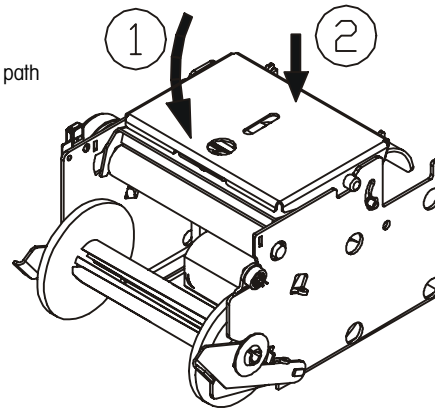


Figure 5-2: Locking the Printhead

To lock the printhead back down when complete, see Figure 5-2.

6

Label Formats

- BCB** Bar Code on Bottom
- By Cnt** By Count Pricing
- By Wght** By Weight Pricing
- Cont** Continuous Strip Label
- Grd** Grade
- NF** Nutrifact Text
- Pack** Pack Date
- Sell** Sell By Date
- SH** Safe Handling Text Printed by 8461.
- SHS** Safe Handling Space on Preprinted Labels.
- Std Pck** Standard Pack Pricing

Refer to the Model 2451 or 8450 Service Manual for label format illustrations.

Label Number	Size	Type	Date	Other Info	BC Position	Label Number	Size	Type	Date	Other Info	BC Position
31	1.9"	By Wght	Sell	Grd		80	3.7"	By Cnt	Sell	NF	
32	1.9"	By Cnt	Sell	Grd		81	4.2"	By Wght	Sell	Grd	
33	1.9"	Std Pck	Sell	Grd		82	4.2"	By Cnt	Sell	Grd	
34	1.9"	By Wght				83	4.2"	Std Pck	Sell	Grd	
35	1.9"	By Cnt				84	4.2"	By Wght	Sell	Grd	BCB
36	1.9"	Std Pck				85	4.2"	By Cnt	Sell	Grd	BCB
37	1.9"	By Wght	Pack	Grd		86	4.2"	Std Pck	Sell	Grd	BCB
38	1.9"	By Cnt	Pack	Grd		87	4.2"	By Wght	Sell	Grd	SH
39	1.9"	Std Pck	Pack	Grd		88	4.2"	By Wght	Sell	Grd	SHS
40	2.1"	By Wght	Sell	Grd		89	4.2"	By Wght	Sell	Grd	NF
41	2.1"	By Cnt	Sell	Grd		90	4.2"	By Cnt	Sell	Grd	NF
42	2.1"	Std Pck	Sell	Grd		91	4.2"	Std Pck	Sell	NF	
43	2.1"	By Wght				92	4.7"	By Wght	Sell	Grd	
44	2.1"	By Cnt				93	4.7"	By Cnt	Sell	Grd	
45	2.1"	Std Pck				94	4.7"	Std Pck	Sell	Grd	
46	2.1"	By Wght	Pack	Grd		95	4.7"	By Wght	Sell	Grd	BCB
47	2.1"	By Cnt	Pack	Grd		96	4.7"	By Cnt	Sell	Grd	BCB
48	2.1"	Std Pck	Pack	Grd		97	4.7"	Std Pck	Sell	Grd	BCB
49	2.4"	By Wght	Sell	Grd		98	4.7"	By Wght	Sell	Grd	SH
50	2.4"	By Cnt	Sell	Grd		99	4.7"	By Wght	Sell	Grd	SHS
51	2.4"	Std Pck	Sell	Grd		100	4.7"	By Wght	Sell	Grd	NF
52	2.4"	By Wght	Sell	Grd	BCB	101	4.7"	By Cnt	Sell	Grd	NF
53	2.4"	By Cnt	Sell	Grd	BCB	102	4.7"	Std Pck	Sell	Grd	NF
54	2.4"	Std Pck	Sell	Grd	BCB	103	5.1"	By Wght	Sell	Grd	
55	2.4"	By Wght	Sell	Grd		104	5.1"	By Cnt	Sell	Grd	
56	2.4"	By Cnt	Sell	Grd		105	5.1"	Std Pck	Sell	Grd	
57	2.4"	Std Pck	Sell			106	5.1"	By Wght	Sell	Grd	BCB
58	2.4"	BW	Sell	Grd	BCB	107	5.1"	By Cnt	Sell	Grd	BCB
59	2.4"	By Cnt	Sell	Grd	BCB	108	5.1"	Std Pck	Sell	Grd	BCB
60	2.4"	Std Pck	Sell		BCB	109	5.1"	By Wght	Sell	Grd	SH
61	2.4"	By Wght	Sell	Grd	SH	110	5.1"	By Wght	Sell	Grd	SHS
62	2.4"	By Wght	Sell	Grd	SHS	111	5.1"	By Wght	Sell	Grd	NF
63	3.3"	By Wght	Sell	Grd		112	5.1"	By Cnt	Sell	Grd	NF
64	3.3"	By Cnt	Sell	Grd		113	5.1"	Std Pck	Sell	Grd	NF
65	3.3"	Std Pck	Sell	Grd		114	Con	By Wght	Sell	BCB	
66	3.3"	By Wght	Sell	Grd	BCB	115	Con	By Cnt	Sell	BCB	
67	3.3"	By Cnt	Sell	Grd	BCB	116	Con	Std Pck	Sell	BCB	
68	3.3"	Std Pck	Sell	Grd	BCB	117	Con	By Wght	Sell	SH	BCB
69	3.3"	By Wght	Sell	Grd	SH	118	Con	By Wght	Sell	NF	BCB
70	3.3"	By Wght	Sell	Grd	SHS	119	Con	By Cnt	Sell	NF	BCB
71	3.7"	By Wght	Sell	Grd		120	Con	Std Pck	Sell	NF	BCB
72	3.7"	By Cnt	Sell	Grd		121	Rec				
73	3.7"	Std Pck	Sell	Grd							
74	3.7"	By Wght	Sell	Grd	BCB						
75	3.7"	By Cnt	Sell	Grd	BCB						
76	3.7"	Std Pck	Sell	Grd	BCB						
77	3.7"	By Wght	Sell	Grd	SH						
78	3.7"	By Wght	Sell	Grd	SHS						
79	3.7"	By Wght	Sell	NF							



For your notes

7

Error Messages

The following is a list of "Operator" errors that may occur. These errors are an "invalid operation" type and are displayed in order to explain the problem:

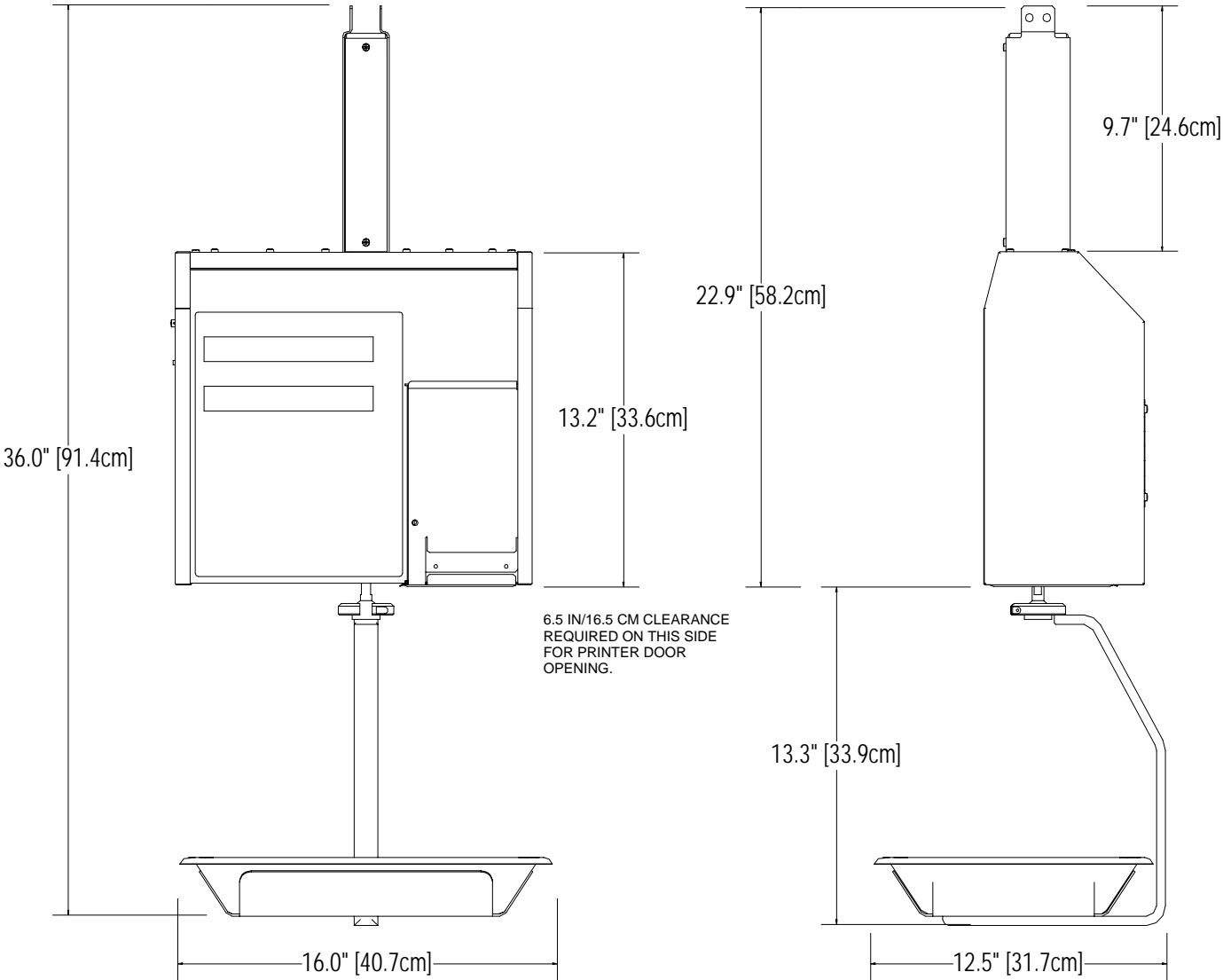
Error Message	Description
DOWNLOAD ERROR	Indicates an error during the backup download from the master. The master may be off-line. Check the master and the communication cable on the scale.
BAD PRINTER COMM	This is a printer error. Turn power off, then on. Try printing another PLU. If problem persists, call for service.
CHECK LABEL STOCK	Scale may be out of labels or incorrectly threaded.
COMMUNICATION ERROR	Indicates the satellite has lost communication with the master scale. This could occur during a download PLU routine. The cause could be the master scale being turned off, a loose or broken communication line, or a failure in the master scale. Also check power to the master scale and the fuse.
INVALID ENTRY	Incorrect entry made when making an accumulator adjustment, under zero, or overflow.
INVALID PRICE MODE	Incorrect entry found in modifier or package code fields during a price entry (or change). When the package code is "2", the modifier must be a "2" or a "4" indicating one half or one quarter lb pricing. When the package code is "1" (By Count), the modifier must be greater than "0". When in Pound For or By Count mode, the number of pounds or the count is too many digits.
INVALID PRICE MODE	Invalid date found in modification or package code fields in the PLU record.
INVALID TARE	Invalid tare entry.
ITEM # NOT FOUND	The entered Item number was not found (does not exist).
MEMORY IS FULL	The satellite memory is full.
NO EXTRA TEXT FOUND	The entered Extra Text number was not found (does not exist).
OVER READY	Scale is over capacity.
PLU # NOT FOUND	The entered PLU number was not found (does not exist).

Error Message	Description
PROP TARE 2 ERROR	The Tare 2 field in the PLU record is set to a proportional tare and the satellite is set up to use Tare 2. However, the satellite is also set up to prohibit the use of proportional tare. Change the setup to allow proportional tare.
RECORD NOT FOUND	The Extra Text, Nutrition Fact, or Graphics number does not exist in the master database.
TEXT FILE TOO LARGE	Extra Text file is too big to fit in memory.
TOTALS>\$999.99	Total dollar amount exceeds the ability of the printer to print the value.
UNDER READY	Scale is under capacity.

8

Installation

Dimensions



Unit Installation

Unpacking

Remove the Model 2451 and accessories from the shipping carton and inspect for damage. Report any damage to the carrier promptly. Verify you received the accessories shown in figure below.



Note: If you choose to dispose of the package, please recycle the materials. The carton is recyclable natural fiber with biodegradable adhesives.

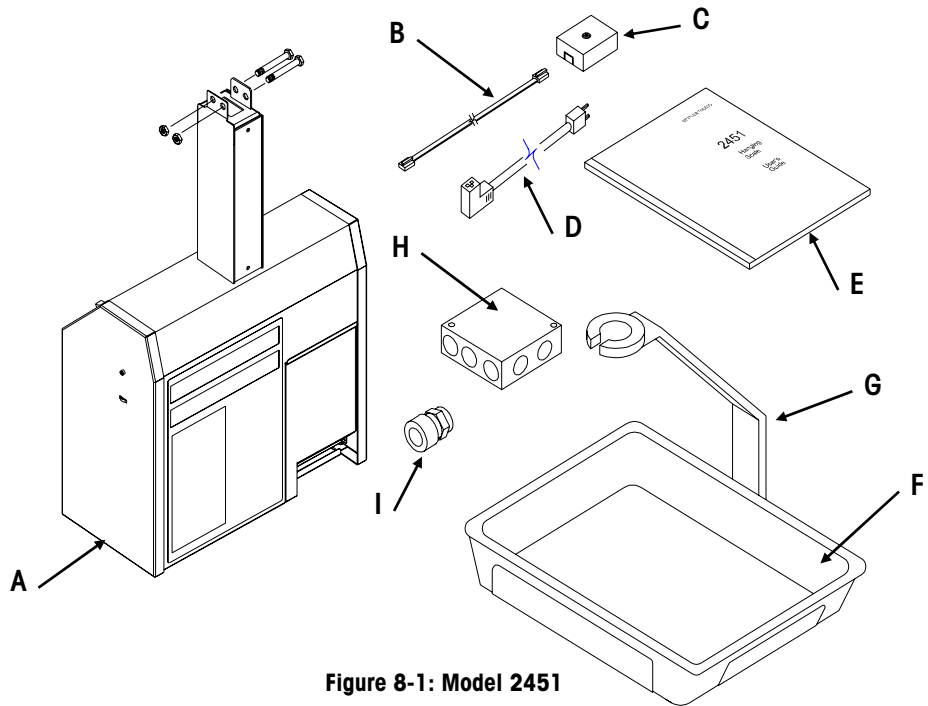


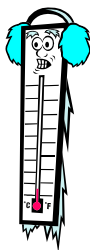
Figure 8-1: Model 2451

Ref	Description
A	Model 2451
B	25 ft/7.62 m TNET Cable 12716500A (Satellite Only)
C	TNET Phone Jack 12716300A (Satellite Only)
D	Power Cord 15039600A
E	Operator Manual
F	Stainless Steel Pan
G	Hanger
H	Electrical Box (15345500A) and Cover w/1/2" Knockout (15345600A)
I	Bushing, (13785100A)

Not shown:

16496800A Keypad Envelope-Std 16496600A Keypad Envelope-Self Serve
 16496700A Insert, English-Std 16477900A Insert, English-Self Serve
 B12363300A Security Seal 16574100A Security Wire Seal
 R0538900A (2) M8 Hex Nuts R0535800A M4x6 FI Hd Screws.
 R0550800A (2) M8x5 Hex Hd Screws A12800700A Sample Label Form

Installation Checklist



Note: If the unit has been stored or transported in below freezing temperatures, allow the unit to warm up to room temperature before turning on AC power.

Note: After performing the Reset Ram/Database Function procedures for Satellite and Standalone, **you must reset the printhead resistance and print speed/power setting, and the Scale ID.**

Tip: A question mark following a message on the left side of the display means the Model 2451 expects you to enter a number or select an option followed by pressing ENTER. A colon means the data on the right of the display is the current setting. Pressing ENTER will allow you to change it.

Install optional kits. Install any optional kits at this time.

Install optional Track and Trolley. Refer to the Track Installation and Trolley Installation Sections. The Trolley Mount installation is recommended.

Connect Data Cable Wiring for TNET or host. Refer to the Model 2451 Service Manual.

Connect AC power. Refer to Electrical Wiring Section.

Reset Ram (Satellite/Client) - The scale must be initialized. To initialize the scale and reset all softswitches to factory defaults, press the SETUP MODE key. Next, press the **CAL Switch**. The display will show **Sure?? No**. Press DOWN/UP to toggle to **Yes**. Press ENTER with **Yes** displayed to initialize or with **No** displayed to abort. Cycle power when complete.

Reset Ram (Standalone) - The scale must be initialized. To initialize the scale and reset all softswitches to factory defaults (but not clear the PLUs, ET, NF Database), press the SETUP MODE key. Next press the ENTER key, followed by the **CAL Switch**. The display will show: **Sure?? No**. Press DOWN/UP to toggle to **Yes**. Press ENTER with **Yes** displayed to initialize, or with **No** displayed to abort.

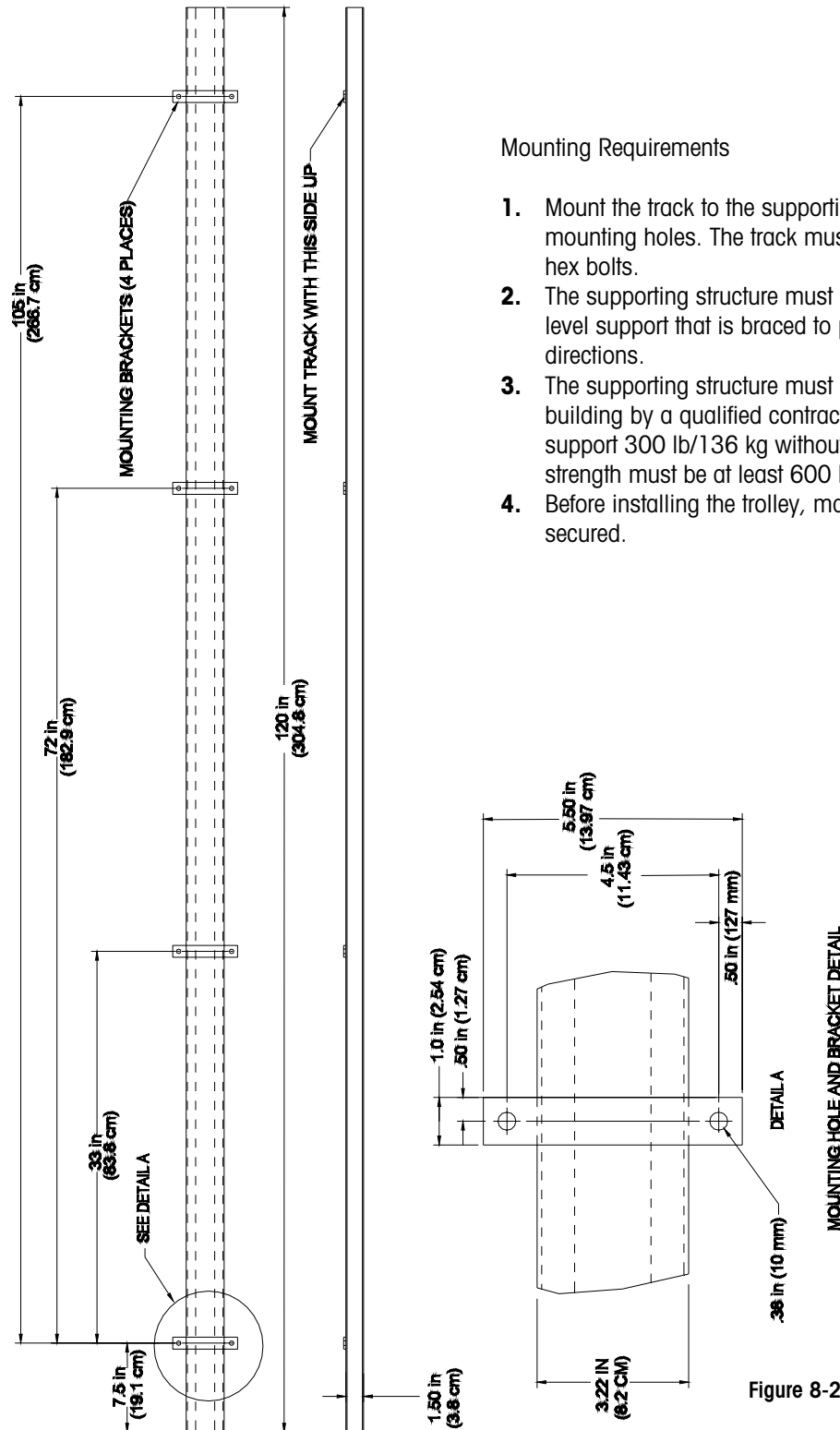
Reset Database (Standalone) The Database Functions must be reset by pressing SETUP MODE key, UP/DOWN to display **Database** on the lower display, ENTER, CLEAR (on the Setup Keypad), UP to display **Clear All**, then press ENTER. The display will show **Sure?? No**. Press the DOWN/UP keys to toggle to **Yes**. Press ENTER with **Yes** displayed to initialize, or with **No** displayed to abort. Cycle power when complete.

Continue setup in the following order:

1. **Setup Printer** - Set the print speed/power setting and the print head resistance.
2. **Unit ID** - Set the Satellite and Client Unit ID to a unique number on the network. Do not duplicate any ID numbers on the network or communications errors will occur. Set the Standalone Unit ID to 255. Refer to Chapter 3 Unit Setup in the Model 2451 Service Manual.
3. **Protocol** - When using the Model 2451 Satellite with the **SmartTouch**[®] Master or Model 8422/8423/8305 NF Master, set the TNET Protocol to **SmartTouch**. When using the Model 2451 with the Standard Model 8422 Type Master, Select **PLU 4** or **PLU 6**. Set the Standalone protocol to **SmartTouch**.
4. **Calibrate** - Refer to Calibration Instructions in Chapter 3 CAL Key in the Model 2451 Service Manual.
5. **Password** - To bypass either a Unit Password or Database Password, press the **CAL** switch when the display prompts for the password.
6. **Install Labels** - Install labels in the printer. Refer to Label Installation.
7. **Set Scale Options** - Scale options must be configured such as Bar Code settings, Label Size, and Label Formats. Refer to Chapter 3 Unit Setup in the Model 2451 Service Manual.
8. **Database (Standalone)** Load the standalone database either manually or from Intelli-Net or Databack. Make necessary changes. Use Databack to back it up if manually entered (Refer to the Model 2451 Service Manual)
9. **DataBack** - Use DataBack to backup and restore the presets, custom label formats, label styles, and miscellaneous categories.

Track Installation

Refer to the illustration in Figure 8-2 for track installation. The Trolley Mount installation is recommended.



Mounting Requirements

1. Mount the track to the supporting structure using all eight mounting holes. The track must be mounted with 5/16 in steel hex bolts.
2. The supporting structure must provide a solid, stable, and level support that is braced to prevent lateral movement in all directions.
3. The supporting structure must be designed and installed in the building by a qualified contractor and must be designed to support 300 lb/136 kg without deformation. The ultimate strength must be at least 600 lb/273 kg.
4. Before installing the trolley, make sure all bolts are properly secured.

Figure 8-2: Track Installation

Trolley Installation

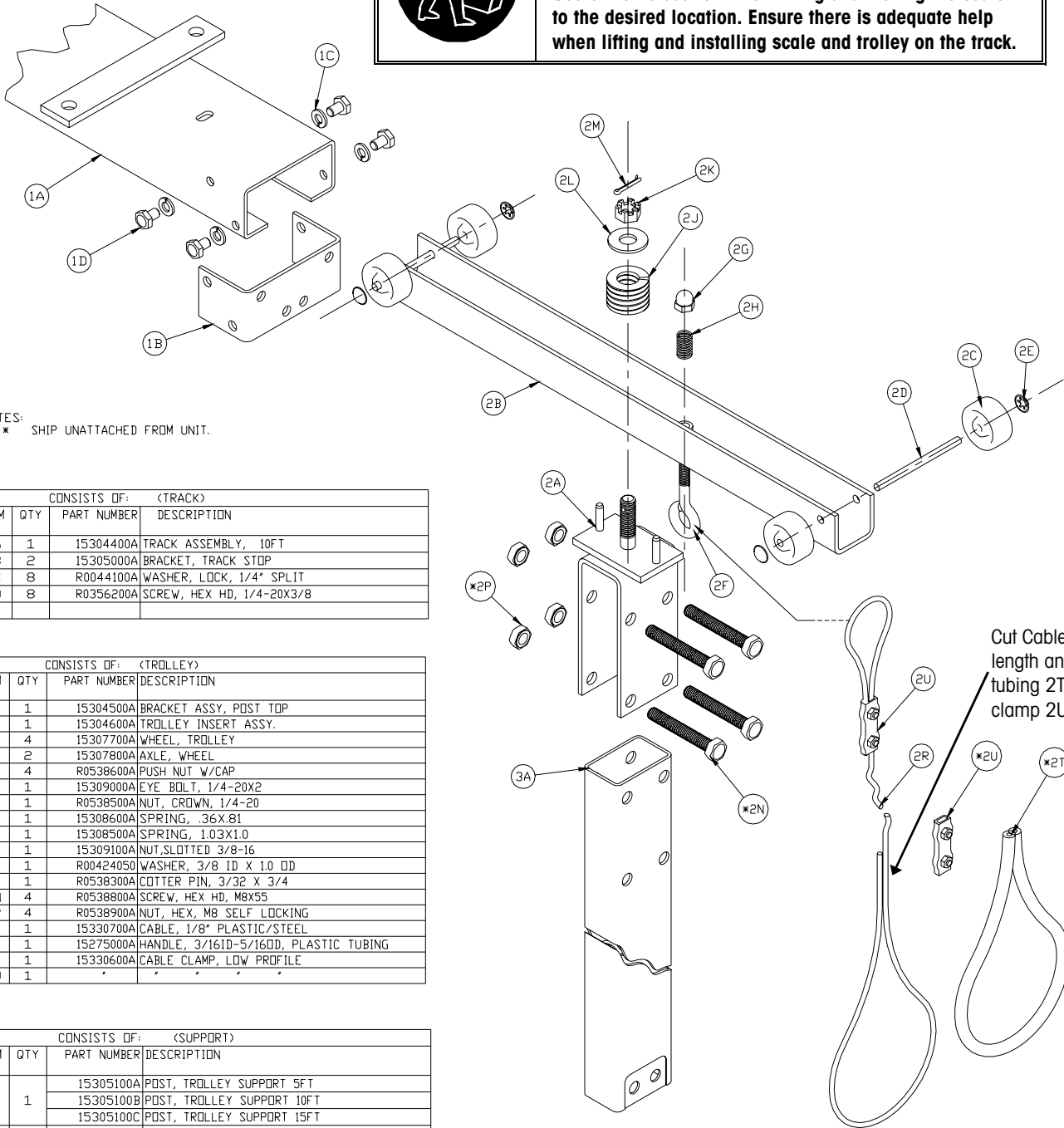
The Trolley Mount installation is recommended.

After the track is installed, remove one track stop bracket on the track. Mount the trolley assembly onto the Model 2451 mounting column using the supplied bolts (2N), then mount the scale and trolley assembly onto the track (See Figures 8-3 and 8-4). Ensure there is adequate help on site, and exercise care when lifting and installing the scale and trolley onto the track. Install track stop bracket when the assembly is in place. Check to make sure all bolts are properly secured.



WARNING

Use extreme caution when lifting and moving the scale to the desired location. Ensure there is adequate help when lifting and installing scale and trolley on the track.




NOTES:
1. * SHIP UNATTACHED FROM UNIT.

CONSISTS OF:		<TRACK>	
SYM	QTY	PART NUMBER	DESCRIPTION
1A	1	15304400A	TRACK ASSEMBLY, 10FT
1B	2	15305000A	BRACKET, TRACK STOP
1C	8	R0044100A	WASHER, LOCK, 1/4" SPLIT
1D	8	R0356200A	SCREW, HEX HD, 1/4-20X3/8

CONSISTS OF:		<TROLLEY>	
SYM	QTY	PART NUMBER	DESCRIPTION
2A	1	15304500A	BRACKET ASSY, POST TOP
2B	1	15304600A	TROLLEY INSERT ASSY.
2C	4	15307700A	WHEEL, TROLLEY
2D	2	15307800A	AXLE, WHEEL
2E	4	R0538600A	PUSH NUT W/CAP
2F	1	15309000A	EYE BOLT, 1/4-20X2
2G	1	R0538500A	NUT, CROWN, 1/4-20
2H	1	15308600A	SPRING, .36X.81
2J	1	15308500A	SPRING, 1.03X1.0
2K	1	15309100A	NUT, SLOTTED 3/8-16
2L	1	R00424050	WASHER, 3/8 ID X 1.0 OD
2M	1	R0538300A	COTTER PIN, 3/32 X 3/4
*2N	4	R0538800A	SCREW, HEX HD, M8X55
*2P	4	R0538900A	NUT, HEX, M8 SELF LOCKING
2R	1	15330700A	CABLE, 1/8" PLASTIC/STEEL
*2T	1	15275000A	HANDLE, 3/16ID-5/16OD, PLASTIC TUBING
2U	1	15330600A	CABLE CLAMP, LOW PROFILE
*2U	1		

CONSISTS OF:		<SUPPORT>	
SYM	QTY	PART NUMBER	DESCRIPTION
3A	1	15305100A	POST, TROLLEY SUPPORT 5FT
		15305100B	POST, TROLLEY SUPPORT 10FT
		15305100C	POST, TROLLEY SUPPORT 15FT

Figure 8-3: Trolley Assembly

	WARNING
	Make sure the track stop is re-installed after the trolley assembly is installed on the track. Properly secure all mounting bolts.

Remove one track stop bracket to install the scale with the trolley assembly mounted on the scale support post.

Mount the Scale Support Post to the trolley with the supplied bolts.

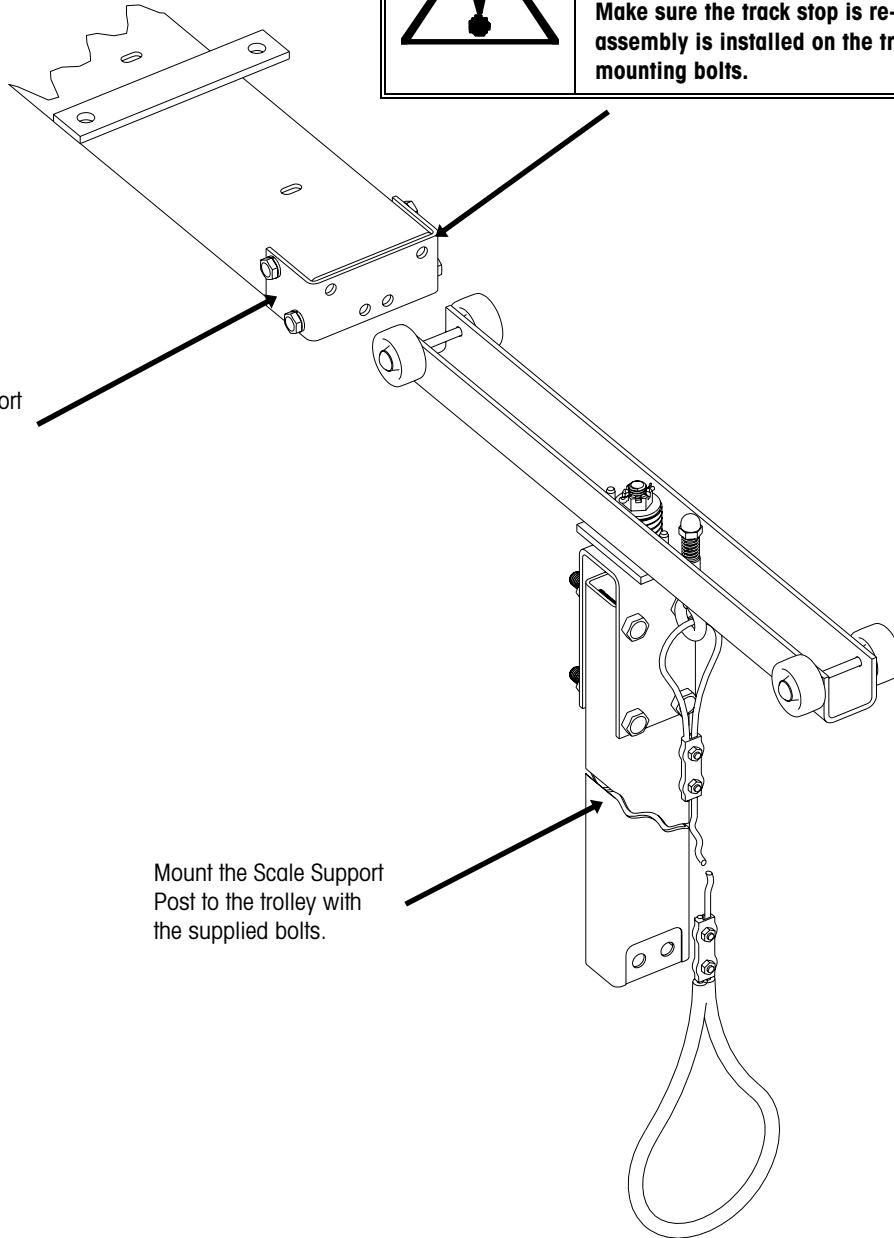
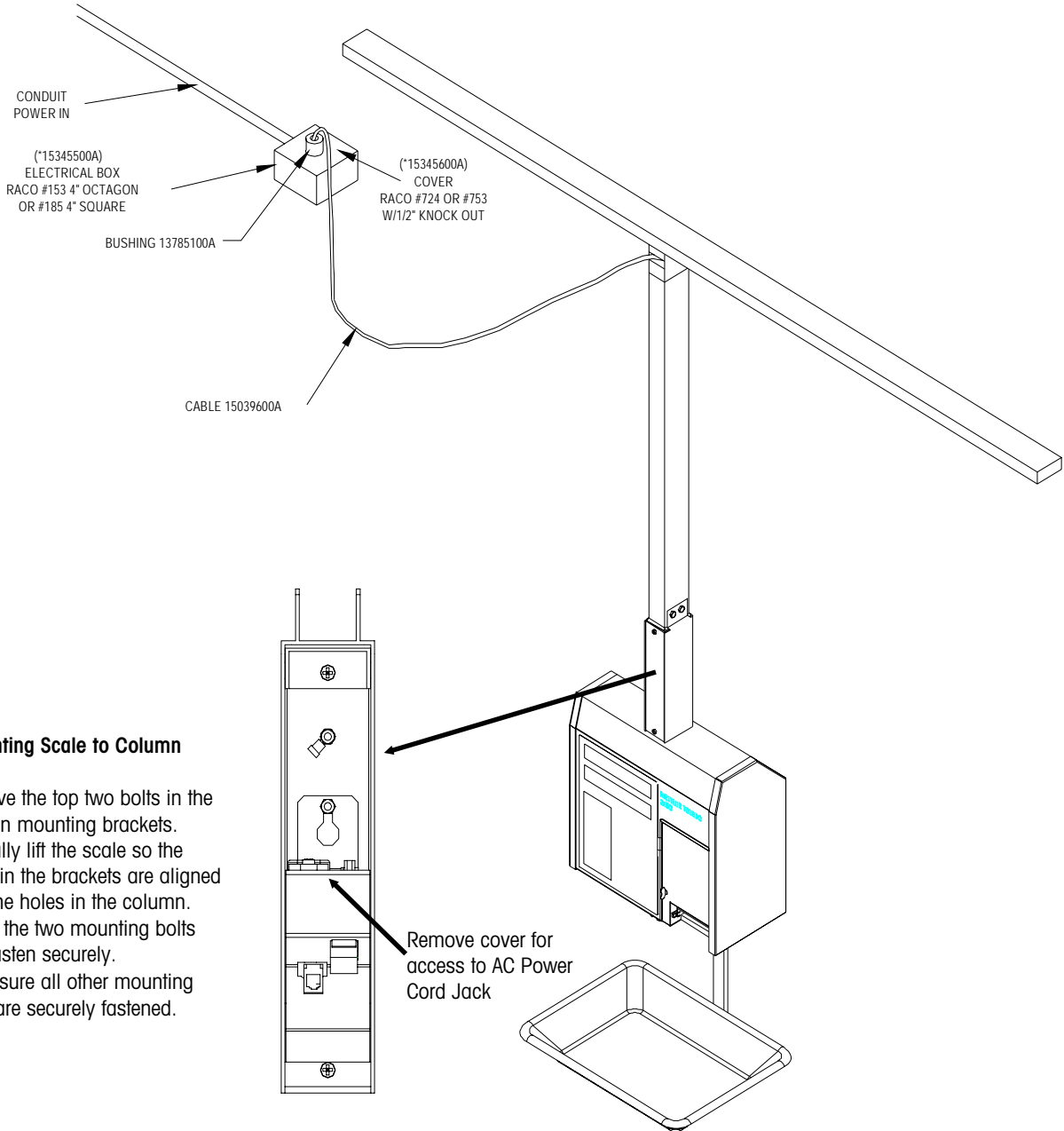


Figure 8-4: Support Post Mounted to Trolley

Trolley Mount - Scale Mounting and Wiring

The Trolley Mount installation is recommended.

	 WARNING
	DISCONNECT ALL POWER TO THIS UNIT BEFORE INSTALLING, SERVICING, CLEANING, OR REMOVING THE FUSE. FAILURE TO DO SO COULD RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.



Mounting Scale to Column

1. Remove the top two bolts in the column mounting brackets.
2. Carefully lift the scale so the holes in the brackets are aligned with the holes in the column.
3. Install the two mounting bolts and fasten securely.
4. Make sure all other mounting bolts are securely fastened.

Figure 8-5: Trolley Mount – Scale Mounting and Wiring

Electrical Wiring

NOTE: The branch circuit must be protected by a 20A maximum rated UL listed circuit breaker. All wiring must comply with all National and local wiring codes.



Refer to Figure 8-5.

1. Install the electrical supply junction box near the center of the track and approximately 6 to 12 inches from the track.
2. Install the bushing (13785100A) in the cover of the junction box with the "O" ring on the outside of the cover and the metal nut on the inside. Securely tighten the metal nut.
3. Cut the scale power cord supplied to the proper length for the installation. This length will depend on the length of the vertical support and must allow the scale to move freely from one end of the track to the other without binding the power cord.
4. Route the power cord down through the vertical support (before mounting the vertical support to the trolley) with the IEC plug at the scale end.
5. Loosen the collar of the bushing and insert the free end of the power cord through the bushing from the outside allowing sufficient length of cord on the inside to make connections in the box.
6. Hand tighten the collar on the bushing snug and then turn one more turn to provide a secure grip on the power cord.
7. Remove the outer jacket from the power cord approximately 3 inches back from the end and strip the ends of the conductors for connection using wire nuts.
8. Connect the supply line white wire to the white or blue wire of the scale power cord using a wire nut of the proper size.
9. Connect the supply line black wire to the black or brown wire of the scale power cord using a wire nut of the proper size.
10. Connect the green/yellow wire of the scale power cord to the electrical ground.
11. Install the cover on the junction box.

METTLER TOLEDO® Power Cord:
Black or Brown = AC Line (120VAC)
Blue or White = Neutral
Green or Green/Yellow = Ground





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