8431

Technical Manual and Parts Catalog

INTRODUCTION

This publication is provided solely as a guide for individuals who have received METTLER TOLEDO Technical Training in servicing the METTLER TOLEDO product.

Information regarding METTLER TOLEDO Technical Training may be obtained by writing to:

> METTLER TOLEDO Training Center P.O. Box 1705 Columbus, Ohio 43216 (614) 438-4400

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PRECAUTIONS

- **READ** this manual before operating or servicing this equipment.
- ALWAYS REMOVE POWER and wait at least 30 seconds **BEFORE** connecting or disconnecting any internal harnesses. Failure to observe these precautions may result in damage to, or destruction of the equipment.



- **ALWAYS** take proper precautions when handling static sensitive devices.
- DO NOT connect or disconnect a load cell scale base to the equipment with power connected or damage will result.
- **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 servicing.
- **CALL** METTLER TOLEDO for parts, information, and service.





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I. GENERAL DESCRIPTION

The Model 8431 is a price computing scale intended for direct sales applications. The 8431 is capable of operating with the Model 0307-0023 printer.

FEATURES:

I DITTOICHC	
-	Capacities:
	Avoirdupois, 30 \times 0.01 lb and 15 \times 0.005 lb
	Metric, 15 X 0.005 kg and 6 X 0.005 kg
-	Moment Insensitive Load Cell
-	Customer and Vendor 19-digit vacuum fluorescent displays for
weight,	unit price and total price.
-	Indicators for NET, 1/4, 1/2, (100g) PREPACK and By Count.
-	20 position membrane keyboard with audible beeper.
-	1/2, 1/4 and 100g fractional pricing.
-	Optional printer interface kit.
-	Date Entry in the Scale

II. PHYSICAL DESCRIPTION

A. BASE AND COVER

The base is constructed of die cast aluminum with a white textured painted surface. The base is supported by four adjustable rubber capped feet. The top cover is fog white plastic.

B. PLATTERS

Three meat platters are available (stainless steel, stainless steel with backsplash and stainless steel with tower guard). In addition a fish pan, lobster pan and produce pan are available as options.

C. LOAD CELL

The weighing mechanism is a moment insensitive load cell. The load cell contains all the analog circuitry and a mask-programmed microprocessor which processes weight data and also controls scale functions. The load cell is adjusted for platter shift prior to assembly in the scale, and is temperature compensated to meet specified scale performance.

D. POWER SUPPLY

The power supply (part number 13082700A) is a wall plug AC adapter with an integral connection harness. The harness plugs through the scale cover to an internal PCB. The AC adapter provides approximately +12 VDC to the scale.

E. DISPLAYS

The customer and vendor displays are 19 digit vacuum fluorescent. The unit price and total price fields are 6 digits maximum and the weight field is limited to 5 digits. Indicators light up for NET, PRE-PACK, 1/4, 1/2 and 100g (metric version).

III. SPECIFICATIONS

A. PERFORMANCE

The scale is available in four capacity versions: 15 X .005 lb, 30 X .01 lb, 6 X .002 kg and 15 X .005 kg. The operating temperature range is +10 degrees C to 40 degrees C, with non-condensing relative humidity between 5% to 95%. The 8431 is designed to withstand static overloads of five times the rated capacity without sustaining permanent damage. Loads greater than five display increments over capacity will blank the weight display and the total price display. Negative weights will blank the total price display and will show either negative weight or dashes, depending upon softswitch selection.

The scale will settle to a no-motion condition within 1.7 seconds after a load is applied. The update rate is ten per second, minimum. At any load between zero and full capacity, the scale will return to zero indication within five seconds after removal of the load.

B. ZERO MAINTENANCE

When the weight displayed is within the zero correction range, and a no-motion condition is present, pressing the ``ZERO'' button will cause the weight display to zero. Zero correction range is a maximum of $\pm 2\%$ of full capacity. The center of the range is determined when the unit is calibrated.

C. TARE LIMITATION

Tare is limited to the full capacity of the scale. On metric scales, the tare entry must have a ``0'' or ``5'' for the least significant digit, or the tare will not be accepted. Keyboard entry of tare can be disabled with a softswitch.

1. Push-button Tare

Push-button tare is allowed when there is no motion and the price field is cleared. When the tare button is pressed the tare weight of the load on the platter is weighed in minor increment resolution and stored. The "NET" indicator is then turned on and the net zero weight is displayed. The push-button tare function may be disabled with a softswitch.

2. Chain Tare

A second softswitch is available to allow ``Chain Tare''. When the chain tare function is enabled, push-button tare can be used multiple times while the scale is indicating a positive net weight.

3. Auto Clear

When the weight display is returned to gross zero, (after a total price has been calculated at a stable weight greater than 1 major increment), the tare value and unit price are automatically cleared. The auto-clear function is disabled in pre-pack mode and can be completely disabled with a softswitch.

4. Keyboard Clearing of Tare

When the display is at gross zero, a tare entry may be cleared by entering ``O'', ``TARE'' on the keyboard. Manual clearing of tare may be disabled with a softswitch. Another softswitch is available to implement a Canadian requirement that manual clearing is allowed in prepack mode only.

D. AGENCY APPROVALS

The Model 8431 is designed to meet the requirements of the following agencies:

UL 115 NTIS HANDBOOK 44, 1988 FCC EMISSIONS, FOR A ``CLASS A'' COMPUTING DEVICE, PART IS, SUBPART J CSA

E. ELECTRICAL SPECIFICATIONS

The 8431 scale operates on unregulated 12 VDC at 0.5 AMP from a wall mounted AC adapter. When the scale is used with the 307 printer, power is supplied to scale from the printer. See 0307-0023 Instruction Sheet, PN 13203000A for installation details.

AC ADAPTER SPECIFICATIONS

Part Number A13082700A Wall Transformer

- 1. Input Voltage: 102 to 132 VAC @ 60 Hz.
- 2. Output Voltage (@ 120 VAC): 12.5 ± 0.5 VDC @ 0.5 AMP
- 3. No-Load Output Voltage (@ 120 VAC): 18.1 VDC Max.
- 4 Approx. Weight: 0.5 lb
- 5. Cord: Two conductor, flat, 22 AWG, 72'' long
- 6. Connector: See detail below
- 7. U.L. Listed and C.S.A. Approved

Unit must be labeled with the following:

- a. applicable U.L. number
- b. input and output electrical ratings



IV. INTERNAL FUNCTIONS

A. KEYBOARD

The scale keyboard is a sealed unit with a five row by four column design, providing 20 keys. An audible tone is generated to signal the closure of each key. The embossed descriptive overlay contains the following function keys:

KEY FUNCTION

0 THRU 9 Used for the numerical entry of unit price and tare TARE Used for entry of keyboard tare, push-button tare, chain tare or pressing ``0'', ``ENTER''. to clear the tare by Removes digits from the unit price field and total price field. CLEAR ON / OFF While scale is on, display will blank and keyboard tone will be disabled for all keys except the ``ON / OFF'' key. While scale is OFF, the scale will assume the ``ON'' mode and go through the power-up sequence. When power is first applied, the scale assumes the ``ON'' state and must be turned off manually.. When softswitch C4 and C19 are on, pressing this key will multiply 1/4the unit price by a factor of 4. If softswitch C19 is off, the unit price display will not change, but an indicator will light up and the total price will change. 1/2When softswitch C4 and C19 are on, pressing this key will multiply the unit price by a factor of 2. If softswitch C19 is off, the unit price will not change, but an indicator will light up and the total price will change. 100 G Multiplies the total price by a factor of 10 (in metric versions) and the 100g indicator will light up. If the 100g default softswitch is enabled, pressing the 100g key will divide the unit price by ten and turn off the 100g indicator. Will illuminate the pre-pack indicator, if SSW C7 is on, and cause PRE-PACK the scale to retain the unit price and tare. Pressing it again will exit from pre-pack mode. In pre-pack mode, automatic printing is enabled, unless specifically disabled with softswitch C17. ENTER Used to retain softswitch selections and enter data. ZERO Use to reset the scale to zero. PRINT Initiates an output to a label printer, providing the weight is stable and the total price is calculated. Used in the set-up mode to toggle softswitch options. 1 used to select price in by-count transactions. (Examples: 2'', 2'', 3'', 3'' = 2 pcs. for \$0.99)

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B. SET-UP SWITCH

A single push-button switch, accessible through the left side of the cover, is provided to enable the set-up mode and calibration mode. The access hole is normally covered with a paper security seal.

C. ERROR CODES

If a malfunction is detected, an error code number will be displayed and is interpreted as follows:

ERROR

CODE	DESCRIPTION	CORRECTIVE ACTION
E11	RAM ERROR DETECTED	REPLACE LOAD CELL ASSEMBLY
E16	ROM ERROR DETECTED	REPLACE LOAD CELL ASSEMBLY
E18	EEROM ERROR DETECTED	RE-CALIBRATE SCALE. IF UNSUCCESSFULL, REPLACE LOAD CELL ASSY.
E19	EEROM ERROR	REPLACE LOAD CELL
E31	OPERATOR ENTRY ERROR	CLEAR AND RETRY OPERATION
E32	ANALOG LOAD CELL FAILURE	NEGATIVE OUT-OF-RANGE RE-CALIBRATE OR REPLACE LOAD CELL ASSY.

D. 307 PRINTER INTERFACE

The printer data output is provided by a sourced 20ma current loop. The ASCII data code with one start bit, two stop bits and even parity operates at 2400 baud.

To connect the 307 printer to the 8431 and interface harness is needed. This harness is supplied with the 307-0023 printer. The printer's external cables connect the data lines to the scale, power the scale and connects the 307 to an external power source to provide power to the printer electronics. The scale ON / OFF switch does not disconnect power to the printer.

NOTE: The AC adapter is not used when the 8431 is connected to the 307-0023 printer.

E. SOFTSWITCHES

Feature selection is provided at set-up by means of softswitches. The softswitch settings and calibration data is stored in a non-volatile memory located on the load cell. The softswitch functions are as follows:

C1	EXPANDED DISPLAY
	ON- Minor increments will display in the total price display
	OFF- Major increments will display (must be off for normal
operation)	
C2	KEYBOARD TONE
	ON- Scale will "beep" when a key is pressed
	OFF- Function disabled
C3	``0'' ``TARE'' KEYBOARD ENTRY ENABLE
	ON- Tare can be cleared by pressing the "0" key followed by
pressing the	e ``TARE'' key. (Platter must be empty).
	OFF- Tare can not be cleared with a keyboard entry. Autoclear
must be used	a
C4	1/4 LB PRICING ENABLE
	ON- 1/4 pricing enabled
	OFF- Function disabled
C5	1/2 LB PRICING ENABLE
	ON- 1/2 pricing enabled
	OFF- Function disabled
C6	METRIC / AVOIRDUPOIS MODE
	ON- Scale weight will be metric
	OFF- Function disabled
C7	PRE-PACK MODE ENABLE
	ON- Pre-pack key will function. (The unit price and tare will be
retained unt	til ``CLEAR'' and the ``O'' and ``TARE''
keys are pre	essed.)
	OFF- Pre-pack key is disabled
<u>C8</u>	CHAIN TARE
	ON- Chain (multiple) tares can be taken
	OFF- Only one tare can be taken per transaction
<u>C</u> 9	AUTO CLEAR
	ON- The scale will automatically clear the unit price and tare
upon return	to zero after a unit price is entered and a
weight appl:	ied and removed from the platter.
	OFF- Function disabled
C10	KEYBOARD TARE
	ON- A known tare can be entered via the keyboard by pressing the
digit keys,	
	then pressing the ``TARE'' key.
	OFF- Function disabled
C12	<u>ENABLE 9.995 KG MAXIMUM TARE</u>
	ON- Tare limited to 9.995 kg.
	OFF- Tare limited to the capacity of the scale
<u>C13</u>	<u>100 GRAM DEFAULT (METRIC SCALES)</u>
	ON- Pricing will default to "per 100g" . Pressing the "100g"
(1/2) key w:	ill change
	pricing to ``per 1 kg''.
	OFF- Pricing will default to "per 1 kg". Pressing the "100g"
(1/2) key w:	ill change
-	pricing to ``per 100 g''.
C14	TOTAL PRICE ROUND (TO NEAREST 0 OR 5)
	ON- The total price LSD will round up or down, to the nearest 0 or
5.	
	OFF- Total price LSD will not be rounded.

<u>C15</u>	<u>PRINT INHIBIT BELOW 10 INCREMENTS</u>
	ON- Printing will be disabled below 10 increments
	OFF- Printing will be enabled below 10 increments
C16	PRINT INHIBIT BELOW 20 INCREMENTS
	ON- Printing will be disabled below 20 increments
	OFF- Printing will be enabled below 20 increments
C17	AUTODRINT MODE ENABLE
	ON- When pre-pack mode is selected (C7 ON) the printer will
automatical	V print a
aacomacicai	label after each motion to no-motion condition as
determined	by 171 below
accerminea	OFF Drinting must be invoked by pressing the "DRINT" key
C17A	Selection of number of minor increments change between consecutive
woight	
to remove t	the displayed entry
	and then enter one on two digits followed by the NENTER (Low
C19	and then enter one of two digits followed by the ENTER Rey.
<u>CI0</u>	ON Will not digplay any garage left of weight and price MSD
	ON- Will not display any zeros left of weight and price MSD.
	(NOTE: printed data is always and price MSD
C10	(NOTE: PITILEU GALA IS ATWAYS ZETO Supplessed)
<u>C19</u>	ON Process the N1/4" or N1/2" here will alter the
dignlawed w	UN- Pressing the 1/4 or 1/2 key will alter the
displayed t	
	OI 4 OF 2, respectively.
unit nuido	off- pricing will be by 1/4 of 1/2 ib internally, the entered
and price	WIII NOL DE ALLERA MUEN METCHE INDER REPO
<u>CZU</u>	DISPLAT DASHES WHEN WEIGHT UNDER ZERU
ما م م ا م م م م	ON- Pressing the "1/4" or "1/2" key Will alter the
displayed t	mit price by a factor
	or 4 or 2, respectively
CO1	OFF- Display will snow negative weight when under zero
<u>C21</u>	<u>TARE ENABLE</u>
athen tone	UN- Tare function is enabled (ref. C3, C8, C9, C10 and C12 for
other tare	related valuations)
	selections)
~ ~ ~	OFF- Tare function is disabled
<u>C22</u>	<u>BY-COUNT MODE</u>
	ON- By-count pricing is enabled
ann	OFF- By-count pricing is disabled
<u>CZ3</u>	ENABLE ZERO CORSOR
	ON- Enable zero cursor per C23A selection
a aa a	OFF- DISADLE ZETO CUISOF
<u>CZ3A</u>	GROSS OR NET ZERO CURSOR
	ON- Zero cursor will be illuminated when het weight is zero
CO 1	OFF- zero cursor will be illuminated when gross weight is zero
<u>C24</u>	DECIMAL POINT TO RIGHT OF PRICE LSD (WHEN "GECP = 0")
	ON- Decimal point to right of price LSD will be illuminated and
princed	OFF No designal point to wight of prize LCD will be illuminated
0 05	OFF- NO declinal point to right of price LSD will be filluminated
<u>CZ5</u>	ON DECIMAL PERIOD
	ON- Print a comma in all weight and price data
007	OFF- Print a decimal point in all weight and price data
<u>C27</u>	BLANK DISPLAY WHEN WEIGHT IS GREATER THAN 9.995
	ON- The Weight and total price display will blank over 9.995
a 00	OFF- The weight and total price display will blank at capacity +5d
<u>C28</u>	DATE ENTRY FOR 307 PRINTER
	ON- Date entry prompt will be displayed at power-up and the date
may be	
	printed on each label.
	OFF- Date entry and printing is disabled
a 21	
<u>C31</u>	CANADIAN ''O-TARE" OPTION
	ON- Tare can be cleared by pressing the " $0''$ key followed by the
``'I'ARE'' ke	У

	when in pre-pack mode at gross zero with no unit price.
Autoclear,	(C9
-	ON), must be selected to clear tare in non-pre-pack mode.
	OFF- Tare clearing is controlled by the C3 selection
<u>P307 - 307</u>	PRINTER
	ON- 307 printer in use
	OFF- Other (or no printer) used
decp	DECIMAL POINT POSITION SELECT FOR PRICE DISPLAYS
	Enter the number of digits (0, 1, 2 or 3) to be displayed and
printed to	the right
000	Di the decimal point for the unit price and total price displays.
00	0- No digital filtering
	1 - Light digital filtering which adds more resistance to
vibration,	but slows down
	weight settling time
	2- Heavy digital filtering which results in the greatest
resistance	to vibration, but
	slowest weight settling time
CAL	CALIBRATION MODE
	ON- Calibration mode enable
	OFF- By-pass scale calibration
000	END OF COME SETTID
())	Depress the calibration switch to being operation based on the
selections	made above
20100010115	

V. SET-UP INSTRUCTIONS AND CALIBRATION

A. SCALE SET-UP

 Unpack the scale and inspect for damage. Notify the carrier of any shipping damage.

2. Level the scale to its permanent location using the adjustable feet and the level bubble.

3. Plug the AC adapter into a wall outlet and allow approximately 30 minutes for the scale to warm up before calibration.

4. Using the plastic tool supplied with the unit, push the pushbutton set-up switch

(figure 1) ON. Access to this switch is through the small hole in the cover on the $% \left({{{\left({{{\left({1 \right)} \right)}} \right)}_{\rm{cov}}}} \right)$

left side of the scale.



Figure 1

5. ``Cl'' (indicating Softswitch 1) and the status (OFF or ON) will be displayed. Press ``ENTER'' to retain the current setting, or `` / `` key to change the current setting. Then press ``ENTER'' to retain the setting and to advance to the next softswitch.

6. At the end of the softswitch listing the display will show 'CAL'' for the calibration mode. To enable the calibration mode press the '' / '' key, the ''ENTER'' key.

7. To set zero, empty the platter, then press the ``ENTER'' key.

8. To set the span, place test weight on the platter, then press the ``ENTER'' key.

SCALE	CAPACITY	REQUIRE	D TEST	WEIGHT

15 x .005 LB	10 LB
30 x .01 LB	20 LB
6 x .002 KG	5 KG
15 x .005 KG	10 KG

9. When the set-up is complete, C99 will display. Push the set-up switch to store selections.

10. If fractional pricing is allowed (C4) apply the 1/4 and 1/2 or 100g decals to the 2 blank keys below the prepack key.

B. 307 PRINTER SWITCH SETTINGS

1. The 307-0023 must have Control PCB Revision D11357600A (or greater) to operate with the 8431.

JUMPER #8: ALL PINS OPEN

VI. EQUIPMENT ACCESS / OVERLOAD STOP SCREW ADJUSTMENT

A. ACCESS TO MAIN DISPLAY, CUSTOMER DISPLAY, LOAD CELL AND THE KEYBOARD

TOOLS:

- 1 3/16" Hex Wrench (Allen)
- 1 #2 Phillips Screwdriver
 - 1 Torque Wrench
 - 1 Hex Bit Holder
 - 1 3/16" Hex Bit

CAUTION: REMOVE power from the scale by unplugging the AC adapter from the power outlet.



1. Remove the platter.

2. Remove the Spider. It is retained by 2 Hex Head screws. Use 3/16'' HEX wrench to remove.

3. Remove the top cover. It is retained by five Phillips Head screws. See figure 3.



4. The Main Display PCB, Customer Display PCB's and Keyboard are mounted to the top cover with Phillips Head screws. Disconnect the appropriate harnessing and remove the mounting screws.

5. The Loadcell is mounted to the scale base with two HEX Head screws. The screw heads are on the outside of the base. Use 3/16'' HEX Wrench to remove the screws.

6. Torque the loadcell mounting screws and the Spider mounting screws to 75-85 inch-pounds.

B. OVERLOAD STOP SCREW ADJUSTMENT

Normally no adjustment is required, overload stop screws are pre-set at the factory.

Should the spider require replacement, the overload Hex screws would require adjustment for the proper gap. See figure 4 and the following 'stop position'' chart.



TOP VIEW OF 8431 SCALE

FIGUR

E 4

Procedure:

1. If not aligned, loosen spider mounting screws to align. Then use a torque wrench to tighten all four (4) screws to 75/85 inch-pounds.

2. Adjust the stop positions per the table below.

3. Seal all the set screws with Loctite #242 so that they will not move.

POSITION:	X1		X2	X3	
X4 X5	Хб				
TOLERANCE:	<	+/005	>		<
- + /001 - >					
30 LB SCALE (15KG)	.081	.081	.081	
.081 .014	.016				
15 LB SCALE (6 KG).059		.064	.064	
.059 .015	.017				
DIMENSIONS ARE IN INCHES					

CAUTION: Never apply weights exceeding the capacity of the scale if the overload

stops have not been set.

VII. MAINTENANCE / CLEANING



- 1. DISCONNECT POWER SUPPLY TO THE SCALE. POWER IS REMOVED BY UNPLUGGING THE WALL MOUNTED POWER SUPPLY. IF THE SCALE IS ATTACHED TO A 307-0023 PRINTER, THE PRINTER POWER CORD MUST BE UNPLUGGED FROM THE AC OUTLET TO REMOVE THE SCALE'S POWER.
- 2. USE A CLEAN DAMP CLOTH TO WIPE THE EXTERIOR SURFACES.
- 3. DO NOT USE SOLVENTS OR CHEMICALS ON UNIT. THESE MAY HARM THE SURFACES.

XIII. SYSTEM SCHEMATIC



X. INSTALLING MODEL 0307-0023 TO THE MODEL 8431 SERVICE COUNTER SCALE



The 0307-0023 printer is completely assembled with a power cord for plugging into a 120VAC outlet and a data cable for connection to an 8431 Scale. Install the appropriate roll of labels and the ribbon cassette using the instructions provided in From #0480.

A. INSTALLING PRINTER CONNECTOR INTO SCALE

A printer harness assembly, PN 13207800A, which must be mounted into the 8431 to allow conection of the 0307 cable, is packaged with the 0307 printer.

- 1. Unplug the AC adaptor cable from the left side of the 8431 and remove the platter by lifting it vertically off the scale, figure 5.
- 2. Loosen the two screws mounting the subplatter to the load cell (1/4" Allen Wrench) and lift the subplatter off the scale.



FIGURE 5

3. Remove the 5 phillips head screws holding the cover to the base. (The 6th innermost screw is not removed, figure 6)





- 4. Lift the plastic cover off of the base and tilt the cover to see the load cell harness attached at the display PCB Assembly. Unplug that harness from the display PCB and set the cover assembly aside.
- 5. On the left side of the 8431 base, locate the rectangular cover plate toward the rear of the scale. Remove the 2 screws and discard the plate, figure 5.
- 6. Intot the uncovered opening, insert the printer harness assembly. Use the 2 screws removed in the previous step to secure the harness assembly to the scale base.
- 7. Plug the printer harness connector into header J3, on the display PCB Assembly (mounted to the cover). Follow the orientation of the connector's ploarity key.
- Plug the load cell harness back into the display PCB at J1.
 BE SURE THE HARNESS REMAINS PLUGGED IN WHILE LIFTING COVER ONTO THE BASE.
- 9. Install the 5 cover screws, then the subplatter and platter.

B. FINAL SET UP AND INSTALLATION

- 1. Position the 8431 and 0307 into the customer's desired location.
- 2. Plug the loose end of the 0307 interface cable directly to the 8431 printer harness connector and tighten the 2 screws to secure.
- 3. Plug the 0307 power cord into the 120
- 4. Follow the 8431 operator instructions, PN (*) 13085500A to enable the 0307 interface softswitch and print a label.
- 5. Adjust the 0307 as required for best printing, using Technical Manual TM000307R02, PN (*) 11362300A.

IX. PARTS CATALOG

A. BASE CASTING (INTERIOR)



REF NO	PART NUMBER	DESCRIPTION	QTY
1	A13616000A	LOAD CELL ASSEMBLY, 30 KG (8431-0001)	1
1	13616000A	LOAD CELL ASSEMBLY, (8431-0002)	1
1	13616300A	LOAD CELL ASSEMBLY, (8431-0003)	1
1	A13616100A	LOAD CELL ASSEMBLY, 30 KG (8431-0011)	1
1	13616100A	LOAD CELL ASSEMBLY, (8431-0012)	1
1	13616400A	LOAD CELL ASSEMBLY, (8431-0013)	1
1	A13616800A	LOAD CELL ASSEMBLY, (8431-0102)	1
1	13616500A	LOAD CELL ASSEMBLY, (8431-0103)	1
1	13521300A	LOAD CELL ASSEMBLY, (8431-0105)	1
1	13616800A	LOAD CELL ASSEMBLY, (8431-0107)	1
2	12232400A	L./C CAVITY COVER-RF1	1
3	RO2180050	SCREW, #8-32 X 3/8" PH TT	4
4	13085600A	LOADCELL HARNESS	1
5	12422400A	BASE ASSEMBLY, HEAVY CAPACITY	1

B. BASE CASTING (EXTERIOR)



REF NO	PART NUMBER	DESCRIPTION	QTY
1	11985900A	LABEL, ASSEMBLY SPECIFICATION	1
2	12232200A	COVER PLATE, SHORT	1
3	12232100A	COVER PLATE, LONG	1
4	RO2180050	SCREW, #8-32 X 3/8" PH TT	4
5	13085000A	LINE FILTER HOLE COVER	1
6	RO309000A	SCREW, #6-32 X 3/8" TAP	2
7	12241000A	FOOT, 5/16-18 X 1"	4
8	00187400B	HEX NUT, 5/16-18	4
9	13084100A	HOLE PLUG, SQUARE (.830")	1
10	RO302000A	HOLE PLUG, 7/8" BLACK	2
12	A12233900A	LOADCELL SPACER (NOT SHOWN)	1
13	RO350700A	SCREW, CAP 1/4-28 X 1" SOC	2

C. TOP COVER (INTERIOR)



REF NO	PART NUMBER	DESCRIPTION	QTY.
1	13673800A	PCB ASSEMBLY, CUSTOMER DISPLAY (SEE NOTE 1)	1
	13803200A	PCB ASSEMBLY, CUSTOMER DISPLAY (SEE NOTE 2)	
2	RO394500A	SCREW, #6 X 5/8" PH.RD.HD. PLASTITE	4
3	13084300A	DISPLAY HARNESS	1
4	13725000A	PCB ASSEMBLY, MAIN DISPLAY (SEE NOTE 1)	1
	B13086400A	PCB ASSEMBLY, MAIN DISPLAY (SEE NOTE 2)	
5	13086400A	KEYBOARD ASSEMBLY	1
6	RO264000A	SCREW, #6 X 3/8" PH.RD.HD PLASTITE	4
7	RO254100A	WASHER, FLAT #6	4
n/s	A13082700A	WALL TRANSFORMER (NOT SHOWN)	1
NOTE: F	-OR 8431-0002, 0003, 00	012, 0013, 0103, 0107	
NOTE: P	-OR 8431-0001, 0011, 01	02	

D. PLATTER SUPPORT / TOP COVER



PLATTER SUPPORT / TOP COVER - PART NUMBERS -

REF NO	PART NUMBER	DESCRIPTION	QTY
1	R0350800A	SCREW, CAP 1/4 X 1-1/2"	2
2	12858900A	SUB-PLATTER ASSEMBLY STAINLESS STEEL PLATTER	1
3	B11541300A	GROMMET PLASTIC PLATTER	4
		RUBBER TIP STAINLESS STEEL PLATTER	4
4	RO349800A	SCREW, #8-32 X 3/8" PH FL HO TAPTITE	4
5	1223880D	COVER	1
6	12566200A	KEYBOARD GASKET	1
7	13086400A	KEYBOARD ASSEMBLY, U.S. (8431-0001,01020105)	1
		includes gasket	
	A13080600A	KEYBOARD OVERLAY, CANADA (8431-0011)	1
	13615500A	KEYBOARD OVERLAY, SPANISH (8431-0102, 0103, 0107)	1
8	RO259600A	SCREW, #8-32 X 3/8" FILL PH HD (HEAD DRILL)	1
9	12513400B	DECORATIVE PANEL	1
10	A13080700A	LENS, U.S. (8431-0001)	2
	A13080800A	LENS, CANADA (RAM 0011)	2
	13234000A	LENS, NEW ZEALAND (8461-0105)	2
	A13557100A	LENS, SPANISH (8431-0103, 0107)	2
	13615700A	LENS, U.S. (8431-0002, 0003)	2
	13615900A	LENS, CANADA (8431-0012, 0013)	2
11	RO357300A	SCREW, #8-32 X 1/2" FILL PH HD	1
12	A12935200B	PLATTER, PLASTIC	
	13086700A	PLATTER, STAINLESS STEEL	
	11900400A	PLATTER, PRODUCE	1
	12894400A	PLATTER, LOBSTER	1
	12894300A	PLATTER, FISH	1
	13324000A	SCOOP	1
13	A13082700A	POWER SUPPLY, 12 VOLTS, (not shown)	1
14	13673300A	LABEL, CAPACITY 15 X .005 LB	1
	13673500A	LABEL, CAPACITY 6 X .002 KG	1