8432

Counter Scale

Technical Manual
and Parts Catalog

A14256300A
(08/94)

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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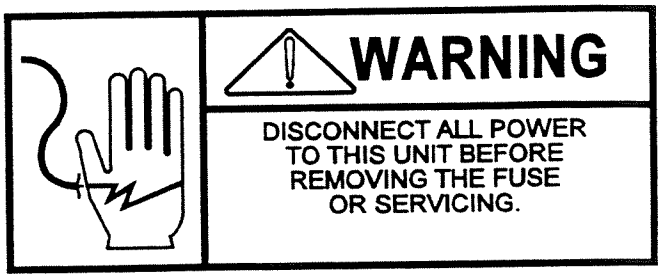
CONTENTS

PRECAUTIONS

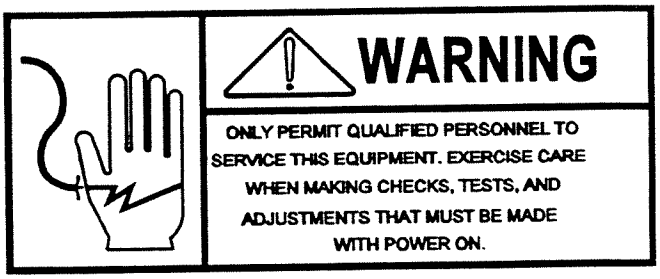
* **READ** this manual before operating or servicing this equipment.

* **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.

1. GENERAL DESCRIPTION

The Mettler Toledo model 8432 is a stand alone retail counter scale designed to meet the needs of a worldwide market. The low power requirements make it ideal for battery powered operations.

1.1 FEATURES

- LCD Displays
- Prepack Function
- Total weight accumulator
- Multiply function (By-Count)
- A simple PLU function (price and tare only)
- Optional Tower display
- Optional "D" cell battery operation
- Optional internally rechargeable battery operation

1.2 ACCESSORIES

- Car battery kit (See parts section for part numbers.)
- Carrying case, soft (See parts section for part numbers.)
- Back-Stop platter (See parts section for part numbers.)

1.3 CONFIGURATIONS

Factory Number	Default Setup	Description
8432 - 0XXX - XXX		7.5 kg Load Cell, 3 kg or 6 lb Scale Capacity
8432 - 1XXX - XXX		15 kg Load Cell, 6 kg or 15 lb Scale Capacity
8432 - 2XXX - XXX		30 kg Load Cell, 15 kg or 20 kg or 40 lb Scale Capacity
8432 - X0XX - XXX		No Battery
8432 - X1XX - XXX		D Cell Battery Holder
8432 - X2XX - XXX		Rechargeable Battery Pack
8432 - XX1X - XXX		Customer Display
8432 - XX2X - XXX		Tower Display
8432 - XXX1 - XXX		Platter without Lip
8432 - XXX2 - XXX		Platter with Lip
8432 - XXXX - 001	U.S.	English language, lb units, $ currency symbol, North American power
8432 - XXXX - 002	Canada	English/French language, kg/lb units, $ currency symbol, North American power
8432 - XXXX - 003	Latin America	Spanish language, lb units, $ currency symbol, North American power
8432 - XXXX - 004	Latin America	Spanish language, kg units, $ currency symbol, North American power
8432 - XXXX - 005	Latin America	Spanish language, kg units, no currency symbol, North American power

8432 - XXXX - 006	Latin America	Spanish language, kg units, no currency symbol, European power (Europlug)
8432 - XXXX - 007	Latin America	Spanish language, kg units, no currency symbol, Australian power
8432 - XXXX - 008	General Export	English language, kg units, $ currency symbol, Australian power
8432 - XXXX - 009	General Export	English language, kg units, $ currency symbol, South African power
8432 - XXXX - 010	General Export	English language, kg units, $ currency symbol, European power (Europlug)
8432 - XXXX - 011	General Export	English language, kg units, $ currency symbol, North American power
8432 - XXXX - 012	General Export	English language, kg units, $ currency symbol, U.K. power
8432 - XXXX - 013	Europe	German language, kg units, DM currency symbol, European power (Europlug)
8432 - XXXX - 014	Europe	German language, kg units, S currency symbol, European power (Europlug)
8432 - XXXX - 015	Europe	German language, kg units, Fr. currency symbol, European power (Europlug)
8432 - XXXX - 016	Europe	French language, kg units, F currency symbol, European power (Europlug)
8432 - XXXX - 017	Europe	Dutch language, kg units, f currency symbol, European power (Europlug)
8432 - XXXX - 018	Europe	Italian language, kg units, Lit currency symbol, European power (Europlug)
8432 - XXXX - 019	Europe	Spanish language, kg units, Pta currency symbol, European power (Europlug)
8432 - XXXX - 020	Europe	Norwegian language, kg units, no currency symbol, European power (Europlug)
8432 - XXXX - 021	Europe	Swedish language, kg units, Kr currency symbol, European power (Europlug)
8432 - XXXX - 022	Europe	Finish language, kg units, mk currency symbol, European power (Europlug)
8432 - XXXX - 023	Europe	Hungarian language, kg units, Ft currency symbol, European power (Europlug)
8432 - XXXX - 024	Europe	English language, kg units, £ currency symbol, European power (Europlug)
8432 - XXXX - 025	Europe	French language, kg units, F currency symbol, European power (Europlug)
8432 - XXXX - 026	General Export	English language, kg units, SA currency symbol, European power (Europlug)

8432 - XXXX - 00A	General Export	No Overlays & Lenses, kg units, no power

Table 1-1 8432 Factory Numbers

2. SPECIFICATIONS

2.1 CONSTRUCTION

Base:	Die cast aluminum alloy.
Covers:	Injection molded plastic.
Platter:	Stainless Steel.

2.2 DIMENSIONS

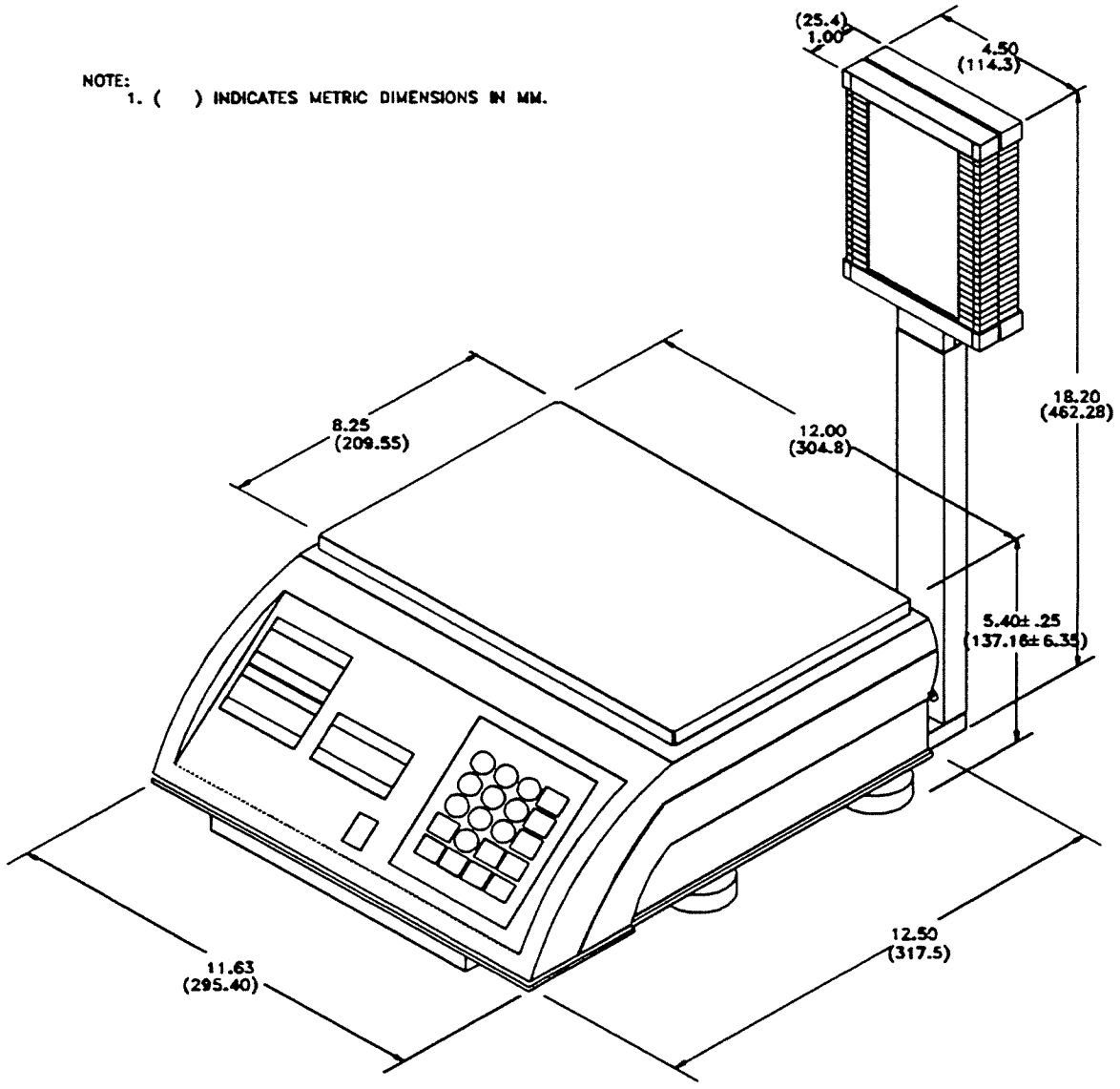


Figure 2.1 Dimensions

2.3 WEIGHING CAPACITY

The Model 8432 is available in a 15 x .005 lb, 40 x .01 lb, 6 x .002 kg, 15 x .005 kg, 20 X .005 kg versions. When the weight is greater than 5 increments over full capacity, all upper segments in weight display will illuminate and the total price field will blank. When the scale is under zero all lower segments of the weight display will illuminate.

2.4 TARE

Tare is limited to full capacity in pounds mode, or 9.995 kg metric mode. Tare can be taken two ways:

Keyboard Tare	While at gross zero, the tare value can be entered from the keyboard after the PLU is called up.
Push button Tare	While at gross zero, the tare key can be pressed to subtract the weight of the item on the platter after the PLU is called up.

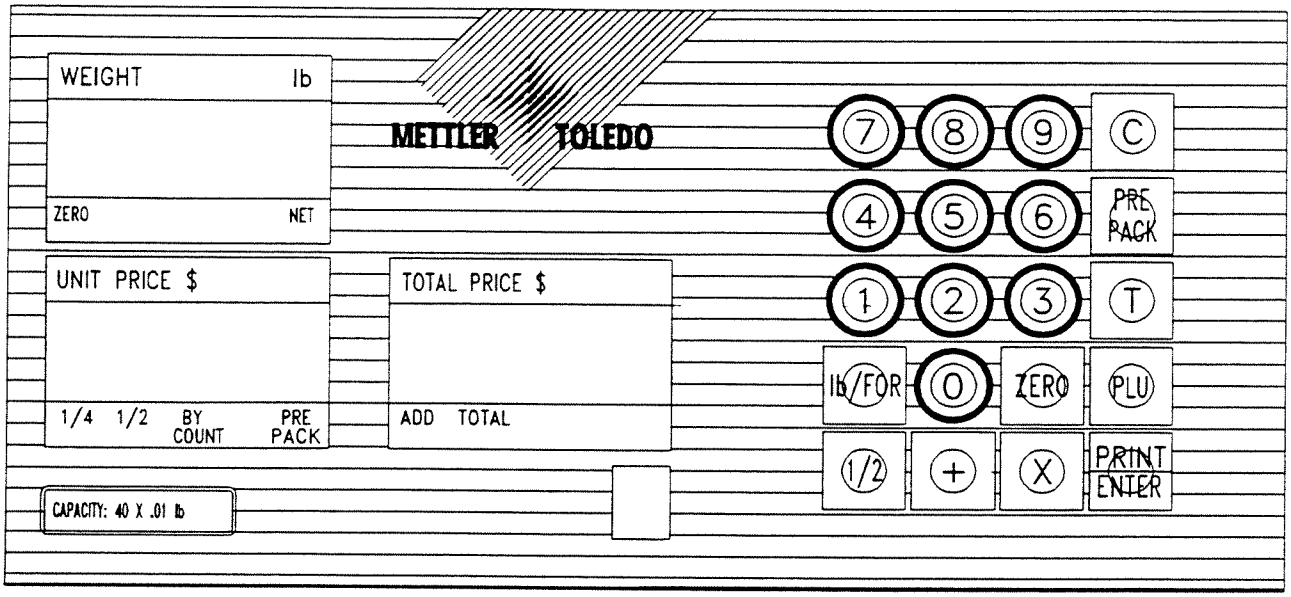
2.5 ENVIRONMENT

Operating temperature range is -10°C to +40°C with non-condensing relative humidity between 0% and 90%. Storage temperature range is -20°C to +60°C.

2.6 KEYBOARD

The keyboard is a dome-type sealed unit which can generate an audible tone to verify key contact closure.

2.6.1 US keyboard layout.

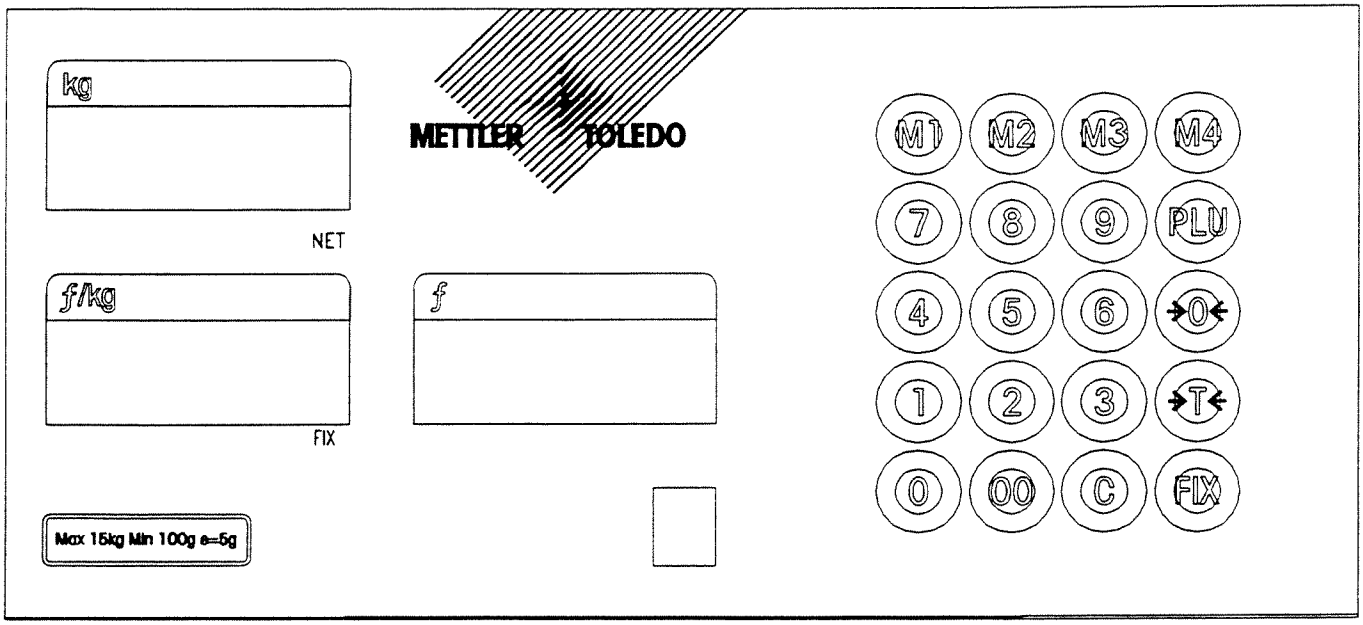


US Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
[C] Clear	Clears entered digits from display.
Pre-Pack	Toggles Prepack mode on/off. Prepack provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
[T] Tare	Used to enter or override a programmed tare.
lb/For	When the **lb/For** softswitch is on, this key is used to enter a **lb/For** price.
Zero	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
1/2 Fractional Price Key	Used to turn on fractional pricing mode. Press once for 1/2 lb pricing. Twice for 1/4 lb pricing. Press again to return to price per lb mode.
[+] Accumulator Key	Used to Accumulate the current transaction.
[X] By-Count Key	Used to activate the by count mode.
Enter / Print	Used as a Return Key to enter data. Print is currently not supported.

Table 2-1 US Key Functions

2.6.2 Netherlands keyboard layout.

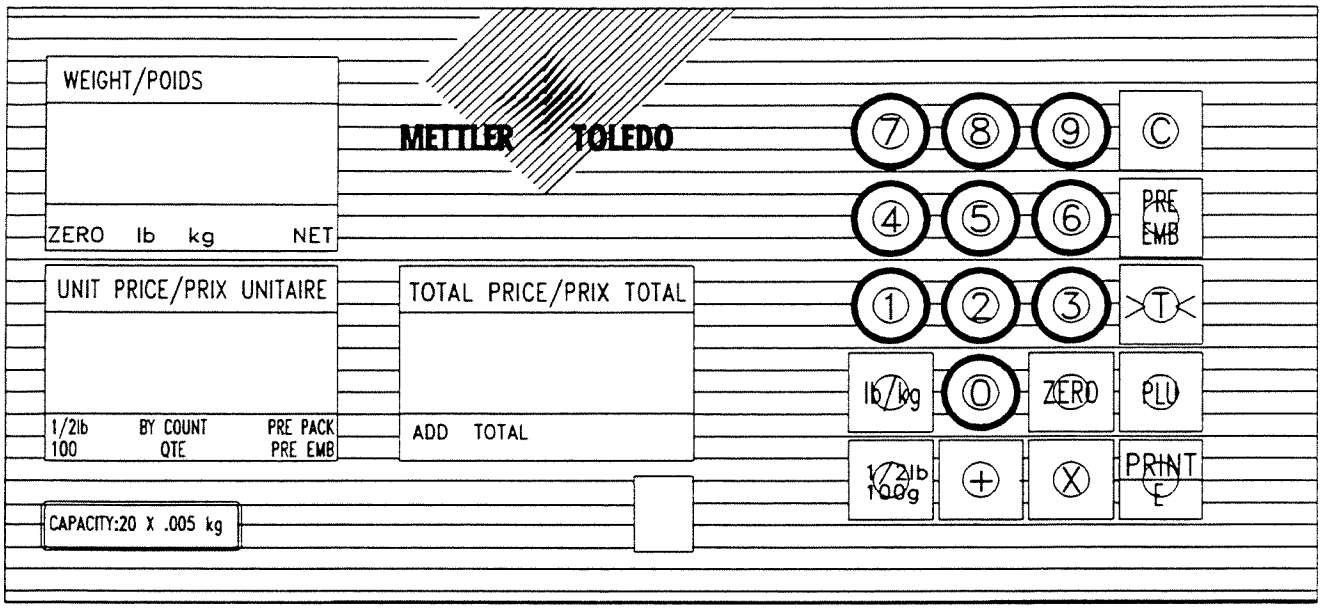


Netherlands Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-2 Netherlands Key Functions

2.6.3 Canadian keyboard layout.

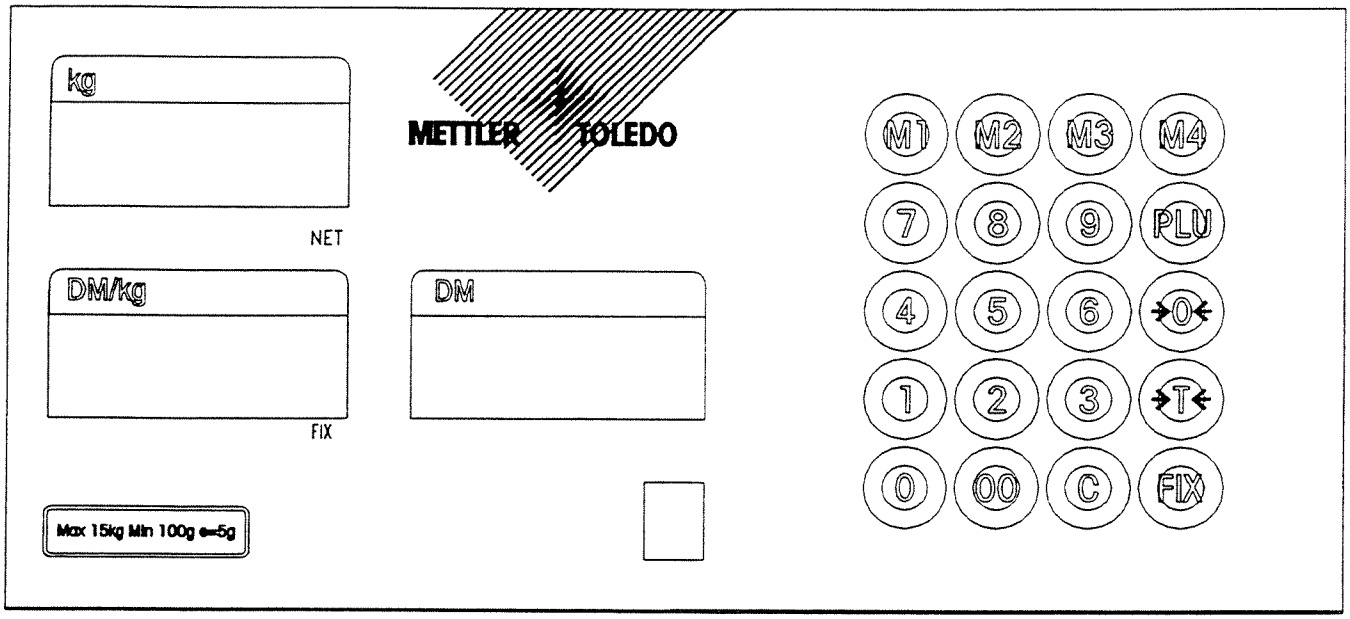


Canadian Keybaord Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Pre-Emb	Toggles Preemb mode on/off. Preemb provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
lb/kg	This key is used to switch for lb to kg and back again.
Zero	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
100 g	Changes the unit price to price per 100 g. When lb weight units are selected the Fractional price key changes the unit price to price per 1/2 lb.
+	Used to Accumulate the current transaction.
X	Used to activate the by count mode.
Print / E	Used as a Return Key to enter data. Print is currently not supported.

Table 2-3 Canadian Key Functions

2.6.4 German keyboard layout.

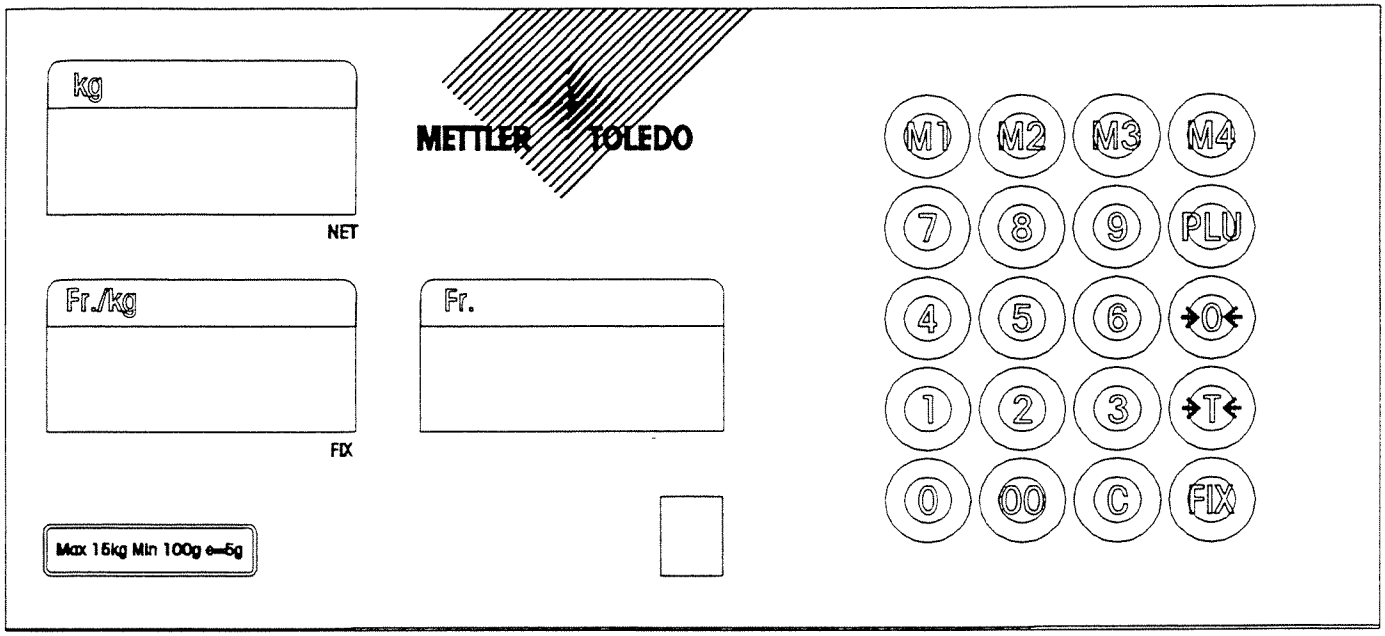


German Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-4 German Key Functions

2.6.5 Swiss keyboard layout.

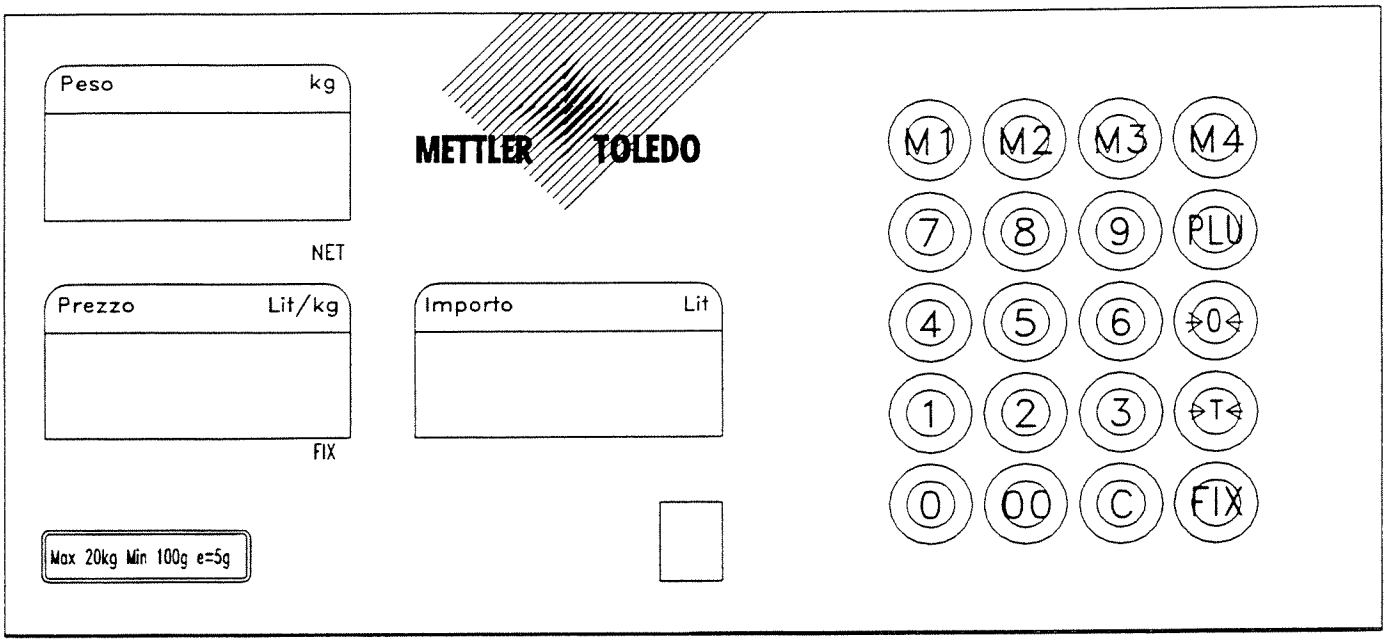


Swiss Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-5 Swiss Key Functions

2.6.6 Italian keyboard layout.

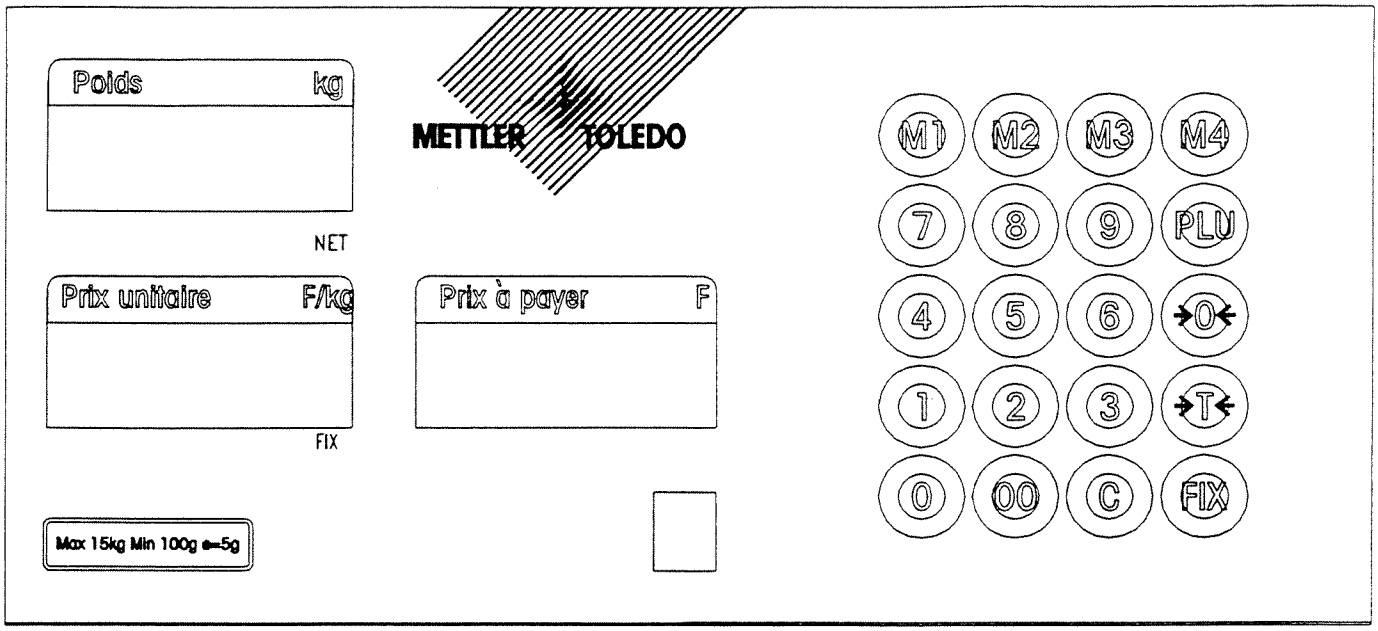


Italian Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-6 Italian Key Functions

2.6.7 French keyboard layout.

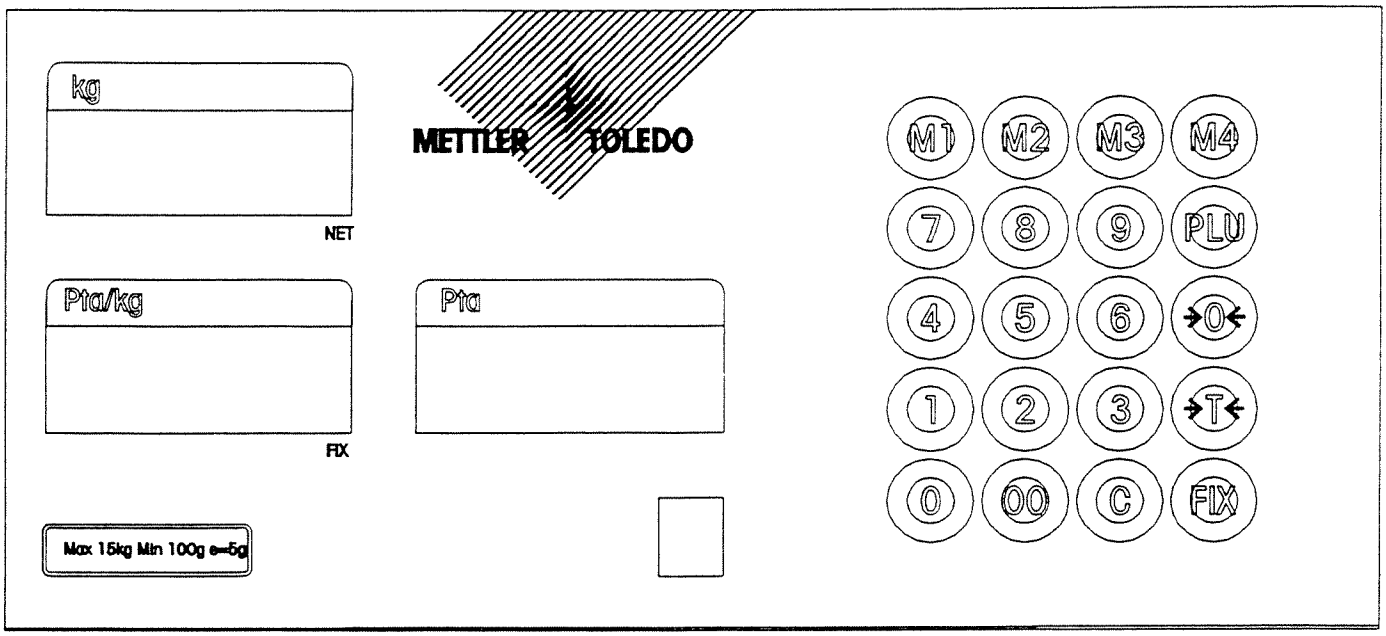


French Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-7 French Key Functions

2.6.8 Spanish keyboard layout.

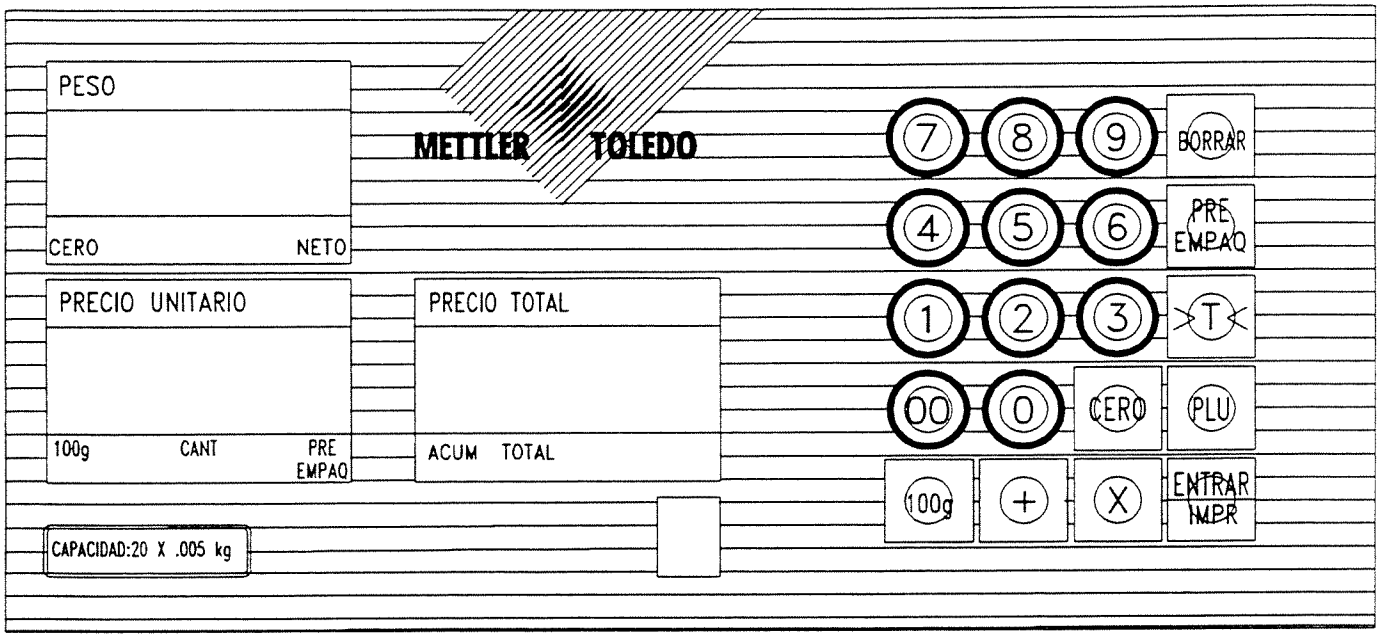


Spanish Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-8 Spanish Key Functions

2.6.9 Latin American keyboard layout.

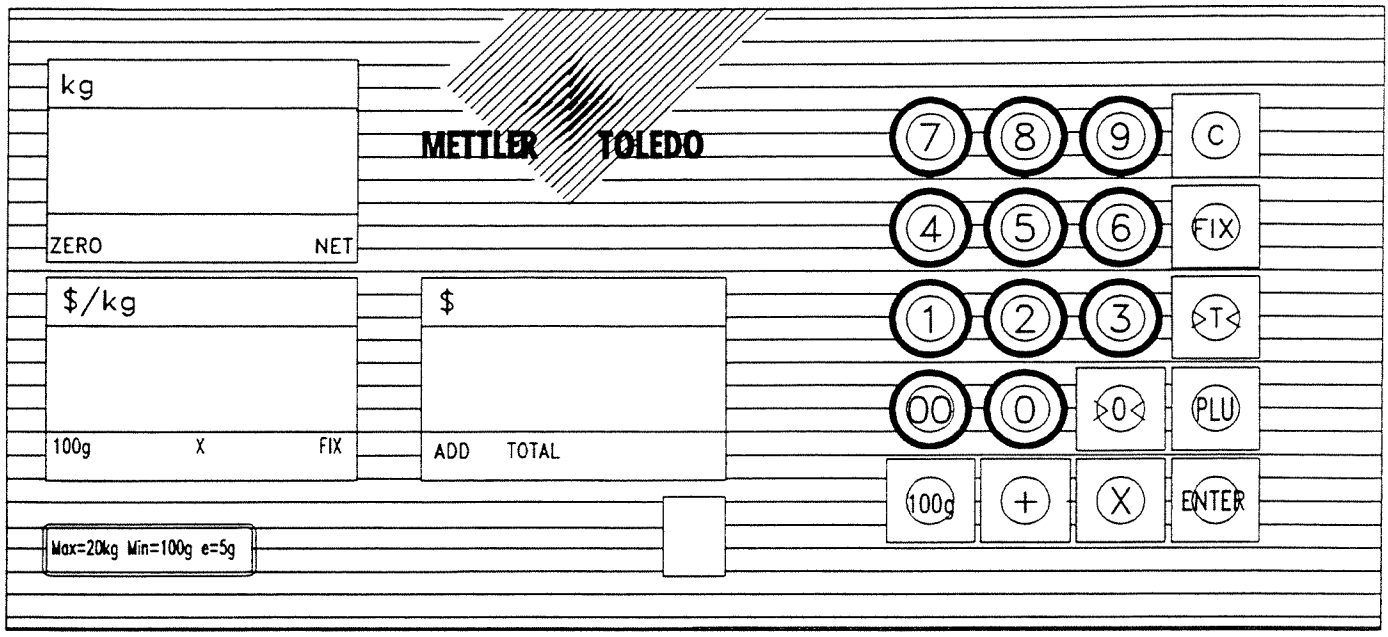


Latin American Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
BORRAR	Clears entered digits from display.
Pre-Empaq	Toggles Preempaq mode on/off. Preempaq provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
100 g	Changes the unit price to price per 100 g.
Cero	The Cero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
+	Used to Accumulate the current transaction.
X	Used to activate the by count mode.
Entrar / ImPr	Used as a Return Key to enter data. Impr is currently not supported.

Table 2-9 Latin American Key Functions

2.6.10 General Export Keyboard Layout.

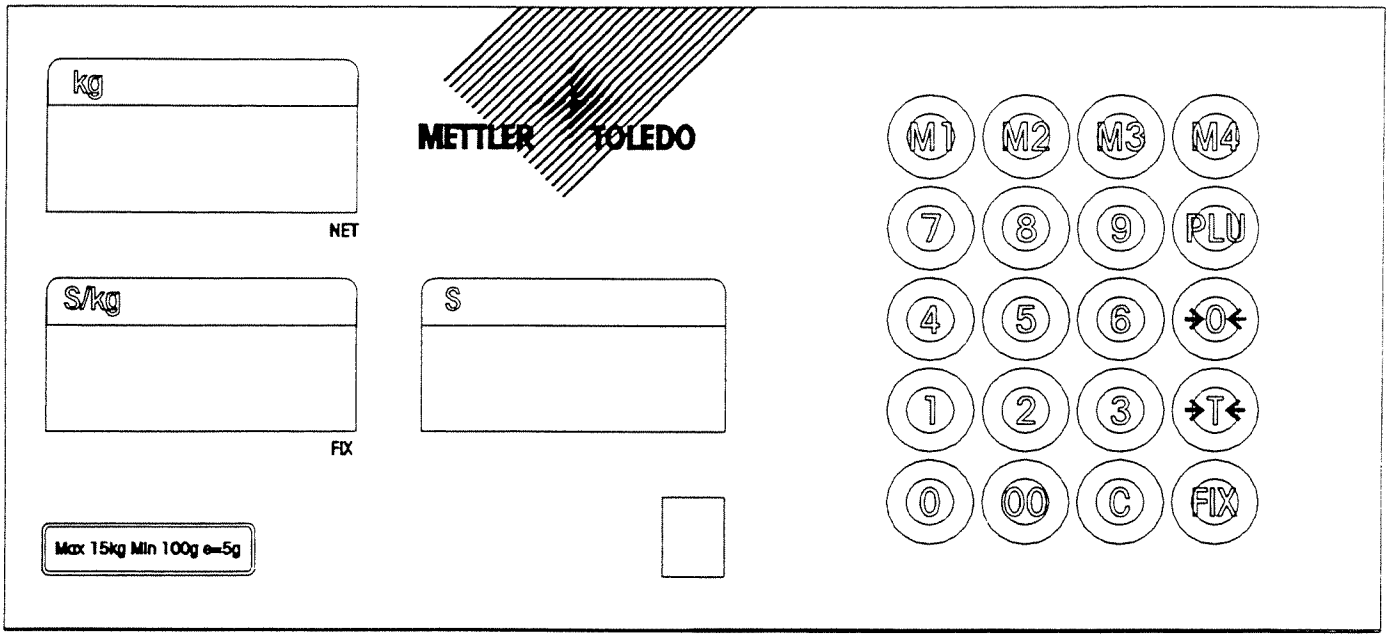


General Export Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
FIX	Toggles Fix mode on/off. Fix provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The **0** Key is used to recapture zero. This key is used to compensate for small changes in zero.
100 g	Changes the unit price to price per 100 g.
+	Used to accumulate the current transaction.
X	Used to activate the by count mode.
PLU	Used to enter or recall a PLU.

Table 2-4 General Export Key Functions

2.6.11 Austrian keyboard layout.

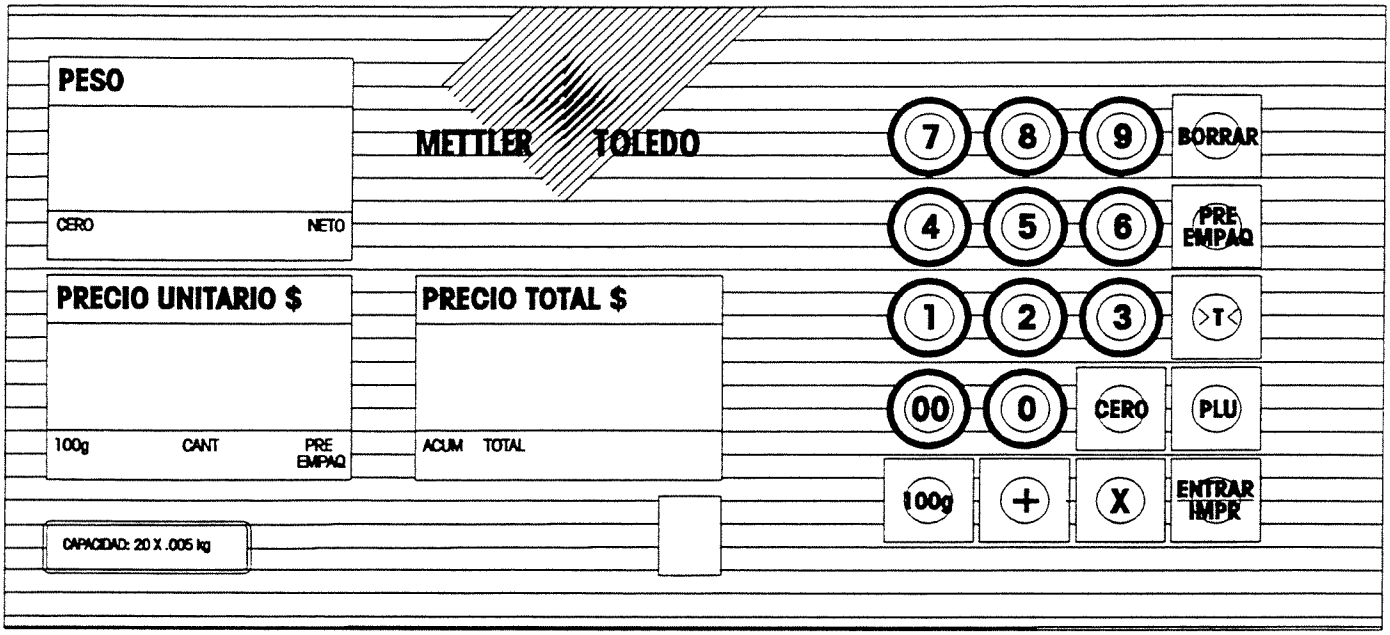


Austrian Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-11 Austrian Key Functions

2.6.12 Mexican keyboard layout.

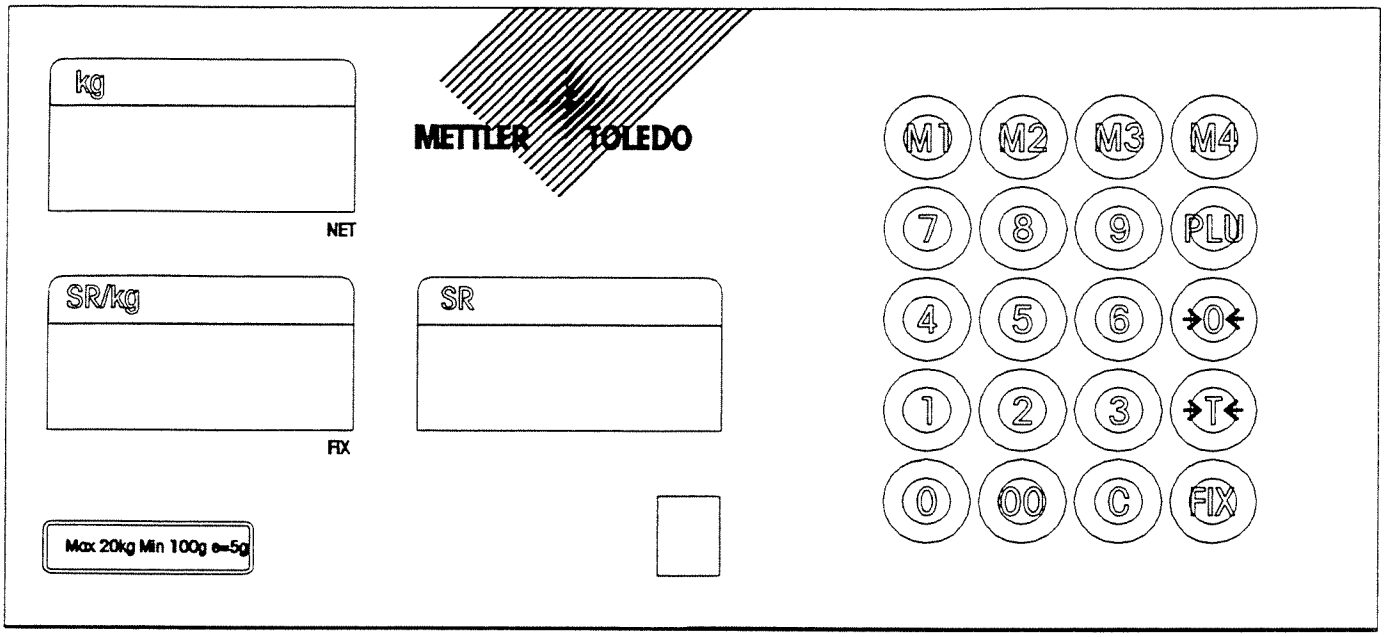


Mexican keyboard layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
BORRAR	Clears entered digits from display.
Pre-Empaq	Toggles Preempaq mode on/off. Preempaq provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
100 g	Changes the unit price to price per 100 g.
Cero	The Cero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
+	Used to Accumulate the current transaction.
X	Used to activate the by count mode.
Entrar / ImPr	Used as a Return Key to enter data. Impr is currently not supported.

Table 2-12 Mexican Key Functions

2.6.13 Saudi keyboard layout.

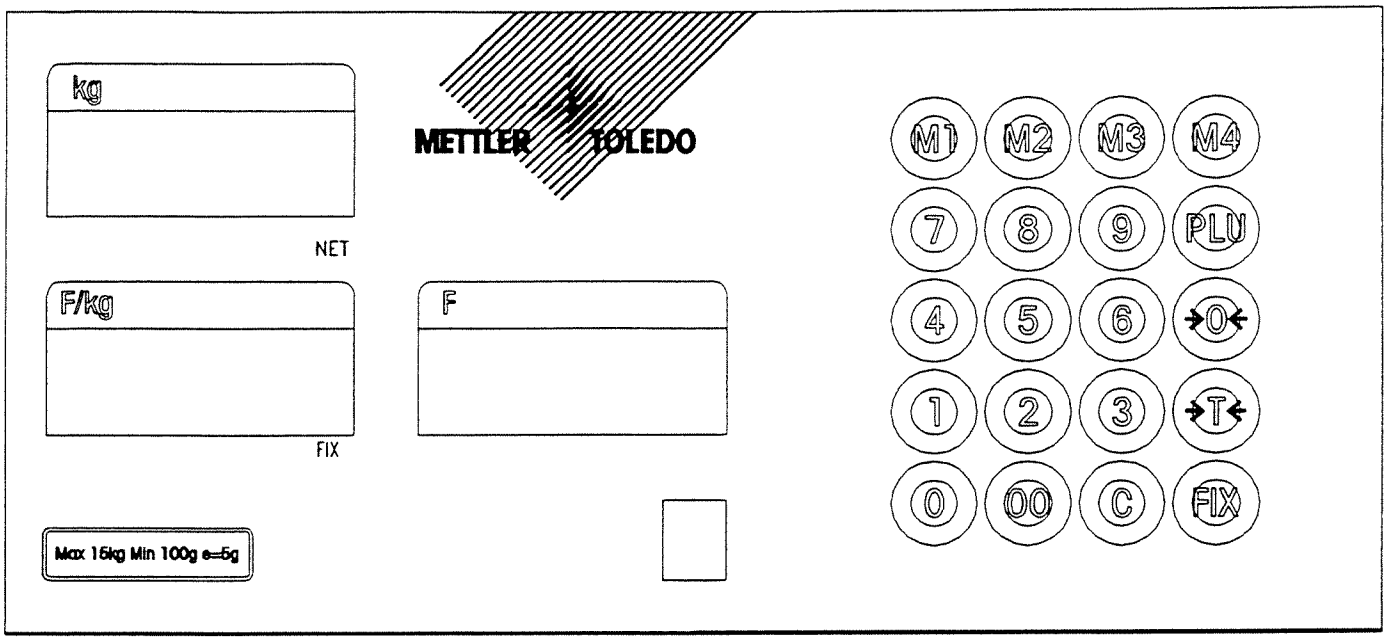


Saudi Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-13 Saudi Key Functions

2.6.14 Belgium keyboard layout.



Belgium Keyboard Layout

KEY	KEY FUNCTION
0 thru 9	Used for numeric data entry.
C	Clears entered digits from display.
Fix	Toggles Fix mode on/off. Fix mode provides retention of unit price and tare (defeats automatic clear) for consecutive transactions.
T	Used to enter or override a programmed tare.
0	The Zero Key is used to recapture zero. This key is used to compensate for small changes in zero.
PLU	Used to enter or recall a PLU.
M1-M4	Preset memory keys. Used to recall one of the first four PLUs programmed into memory.

Table 2-14 Belgium Key Functions

2.7 ELECTRICAL POWER

The 8432 requires 11 to 17 VDC at 80 mA without battery charging or 355 mA with battery charging. The power is supplied by a 100-132 VAC, 57-63 Hz to 12 VDC wall transformer or a 187-242 VAC, 47-53 Hz to 12 VDC wall transformer through a DC barrel jack.

There are two optional battery power sources available. The first is a "D" cell battery holder that holds six "D" size NiCad batteries, or six "D" size alkaline batteries. This battery voltage is converted to the 12 VDC required by the scale through the battery PCB. These batteries cannot be recharged by the 8432. Operation time from fully charged batteries is approximately 10 hours.

The second optional battery power source is a 7.2 VDC NiCad battery pack. The battery PCB converts this voltage to 12 VDC required by the 8432 and also provides charging capabilities for the battery pack. Operation time from fully charged batteries is approximately 10 hours.

2.8 PLU RECORDS

The 8432 is capable of storing up to 15 individual PLU records. Each PLU record contains a preprogrammed tare weight and a preprogrammed price. The tare is limited to maximum capacity of the scale.

2.9 AGENCY APPROVALS

The 8432 will meet the EC Guideline 92 performance for an OIML Class III, 3000 increment scale. (Reference OIML R76) The 8432 will meet NIST Handbook 44 requirements for a Class III 4000 increment scale. The 8432 will meet Canadian (CSA) requirements for a 4000 increment scale.

2.10 DISPLAYS

The 8432 utilizes LCD displays for both the operator display and the customer display.

3. SYSTEM COMPONENTS

3.1 WALL TRANSFORMER

The wall transformer converts the AC line voltage to 12 VDC @ 600 mA (North American) or 800 mA (using Europlug). Center conductor is positive. Outer conductor is negative.

3.2 'D' CELL SUPPLY

'D' Cell battery holder will hold 6 "D" size NiCad cells (7.2 VDC) or 6 "D" size alkaline cells (9 VDC). This voltage is converted to the required 12 VDC by the battery PCB.

3.3 NiCad BATTERY PACK

The NiCad Battery Pack provides 7.2 VDC to the battery PCB which converts this voltage to the 12 VDC required by the scale. The Battery PCB also provides the necessary battery charging capabilities for the Mettler Toledo optional battery pack.

3.4 MAIN/DISPLAY BOARD

The main/display PCB performs the following functions:

- Process weight information from the load cell.
- Receive and process data from the scale keyboard.
- Drives the displays.

3.5 CUSTOMER DISPLAY

The main/display PCB provides signals to control the customer display on the back of the 8432 or in a tower.

3.6 LOAD CELL

The load cell converts the applied weight to a digital signal that is sent to the main/display PCB. Provides storage of PLU records and softswitch setup.

3.7 BATTERY PCB

The battery PCB takes the voltage supplied by either the alkaline 'D' cells or the NiCad battery pack and steps this voltage up to 11 VDC for use by the 8432. It also supplies the voltage necessary to charge the NiCad battery pack.

4. INSTALLATION INSTRUCTIONS

4.1 SETUP PROCEDURE

4.1.1 Carefully remove scale, platter, and wall transformer (tower if this scale variation contains one) from shipping carton.

4.1.2 Carefully connect the tower harness to the tower connector PCB.

4.1.3 Place scale on its top and attach the tower using 3 retaining screws provided.

4.1.4 Connect the power cord from the wall transformer to the scale base. Do not connect the wall transformer to the outlet at this time.

4.1.5 Place scale on its feet in the location the scale will be utilized.

4.1.6 Level the scale by adjusting the feet until the leveling bubble is centered in the level indicator.

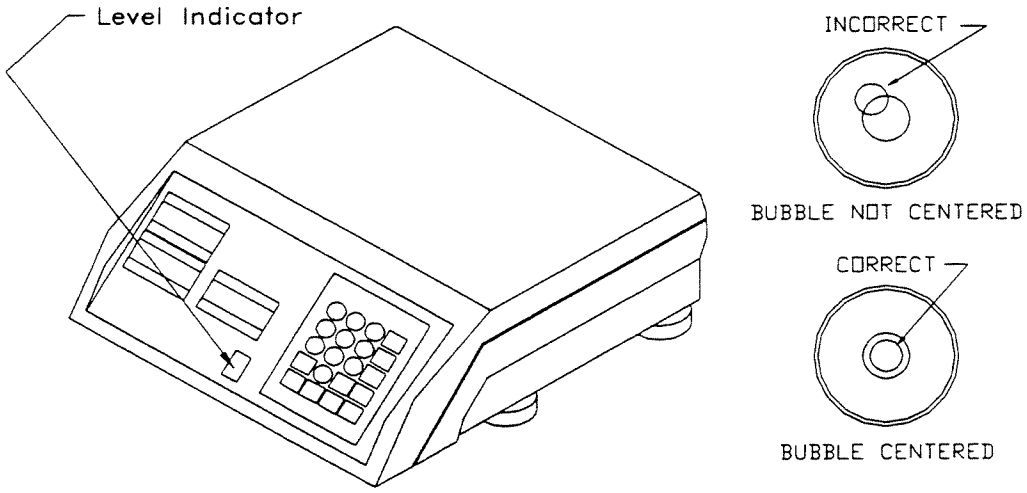


Figure 4.1 Level Indicator

4.1.7 Install the platter by placing the retaining cups on bottom of platter over the posts in the spider assembly.

4.1.8 Connect the wall transformer to an electrical outlet of the appropriate voltage and frequency for your wall transformer. The voltage rating and frequency are clearly marked on the wall transformer.

4.1.9 The scale will power up and briefly display the EPROM part number in the weight field and the software revision level in the unit price field.

4.2 SOFTSWITCH SETUP

The scale is configured for your specific needs with a special set-up procedure allowing you to answer some prompts. In order to access the various prompts you must utilize the functions keys listed below.

COUNTRIES	FINISH	BACK-UP	TOGGLE	ACCEPT
UNITED STATES	PREPACK	TARE	PLU	PRINT/ENTER
ITALY/FRANCE/GERMANY NETHERLANDS/SWISS SPANISH/AUSTRIAN SAUDI/BELGIUM	PLU	ZERO	TARE	FIX
LATIN AMERICA/MEXICO	PREEMPAQ	TARE	PLU	IMPR/ENTRAR
CANADA	PREEMB	TARE	PLU	PRINT/ENTER
GENERAL EXPORT	FIX	TARE	PLU	ENTER

In the scale set-up mode, these functions are:

- **[TOGGLE]** This key is used to step through the set-up groups. Once a group is accepted, this key is used to select the "on" or "off" settings.
- **[ACCEPT]** This key is used to accept a group. Once a group is accepted, this key is used to advance one softswitch at a time.
- **[BACKUP]** This key is used to step back through the soft switches or groups.
- **[FINISH]** This key is used to end the scale configuration and proceed to the "SAVE" prompt.

To access the set-up mode, remove the platter and if necessary remove the security plate. Momentarily de-press the setup switch with a thin non-metallic instrument. The weight field will then display [group 1]. This is the first prompt of the set-up mode.

Note: Default selections are indicated by **BOLD** print.

GROUP	STEP	OPTION	FUNCTION
1	1	**USA** CANADA E PORT S AMER EUROPE	**Country Select.** Select the appropriate country. USA-United States of America. Canada-Canada. E Port-General Export. Latin-Latin America Countries. Europe-European countries.
1	2	Yes **No**	**Initialize Country Defaults.** Initialize to country defaults. "Yes" will initialize to the settings consistent with the country selected in step 1.
1	3	**On** Off	**Beeper Enable.** "On" will enable beeper. "Off" will disable beeper.
1	4	**On** Off	**Leading zero suppression.** "On" suppresses the leading zeros down to but not including the first digit to the left of the decimal point. "Off" displays all the appropriate zeros.
1	5	. ,	**Display decimal point or comma**. Use either a decimal point or comma in all weight and price data. For operations within the U.S. select the decimal point.
1	6	0 1 **2** 3	**Decimal point position.** Select the desired number of digits to be displayed to the right of the decimal point. (Units/Total Price fields only.
1	7	**On** Off	**Enable zero cursor**. "On" enables zero cursor. "Off" disables zero cursor (This softswitch is not available for all countries.)

1	8	On **Off**	**Gross or Net zero cursor.** Selecting "On" the zero cursor will illuminate when the gross or net weight is in the center of zero. Selecting "Off" the zero cursor will illuminate only when gross weight is in the center of zero. (This softswitch is not available for all countries.)
1	9	**On** Off	**Auto clear of tare and price.** Selecting "On" enables automatic clearing of tare and price when weight is removed from the platter. Selecting "Off" disables auto clearing of tare and price.
1	10	On **Off**	**Display dashes when under zero.** Selecting "On" causes the scale to display dashes when the scale is under zero. Selecting "Off" the scale will show negative weight.
1	11	On **Off**	**Expanded weight display.** Selecting "On" causes the scale to display minor weight increments (0.1d). Select "Off" for normal operation.
1	12	On **Off**	**Sleep Mode.** Selecting "On" will allow the scale to enter a "Sleep" mode when the scale is not in use. Selecting "Off" does not allow the scale to enter the sleep mode. The sleep mode is a low power consumption feature to extent battery life. The scale will enter the sleep mode when the weight reading has been steady for five minutes and no keyboard activity occurs within five minutes. When in the sleep mode 1 segment of the Total Price Display is lit and all other displays are off. The sleep mode is exited by pressing any key. (This softswitch can be temporarily overridden by pressing the Print/Enter Key while the scale is being powered up. When power is removed from the scale, the scale reverts to the setting of this softswitch.)
2	1	**On** Off	**Tare Enable.** "On" enables the tare function. "Off" disables the tare function.
2	2	On **Off**	**Chain tare enable.** "On" enables chain (multiple) tare. "Off" disables chain tare.
2	3	**On** Off	**Keyboard tare enable.** "On" allows the operator to enter a known tare utilizing the keyboard. "Off" disables keyboard tare.
2	4	**On** Off	**Keyboard tare clear.** "On" permits the tare to be cleared by pressing the tare key while the platter is empty. "Off" disables keyboard tare clear.
2	5	On **Off**	**Prepack /Fix mode tare clear.** When "On" tare can be cleared with the tare key in the prepack /fix mode only. When "Off" tare can be cleared with the tare key as described in group 2 step 4.
3	1	**On** Off	**1/4 lb pricing enable.** "On" enables 1/4 lb pricing. "Off" disables 1/4 lb pricing. (This softswitch is not available for all countries.)
3	2	**On** Off	**1/2 lb/ 100g pricing enable.** "On" enables 1/2 lb pricing. "Off" disables 1/2 lb pricing. (This softswitch is not available for all countries.)
3	3	On **Off**	**Unit price factor multiplication.** When "On" pressing the 1/4 lb or 1/2 lb key will alter the displayed unit price by a factor of 4 (1/4 lb) or 2 (1/2 lb). When "Off" pricing will be 1/4 lb or 1/2 lb internally only the entered unit price will not be altered. (This softswitch is not available for all countries.)
3	4	**On** Off	**Prepack / Fix mode enable.** "On" enables prepack /fix mode. "Off" disables Prepack / fix mode.
3	5	On **Off**	**Total price rounding**(to nearest 0 or 5). "On" causes the least significant digit to round up or down to 0 or 5. "Off" no rounding will occur. (This option is not available for all countries.)
3	6	**On** Off	**Lb/For enable.** "On" enables lb/For mode. "Off" disables lb/For mode. (This softswitch is not available for all countries.)
3	7	**On** Off	**Accumulator/ + enable.** "On" enables the accumulator functions. "Off" disables the accumulator function. (This softswitch is not available for all countries.)
3	8	**On** Off	**By-Count/ X Mode.** "On" enables the By-Count mode. "Off" disables By-Count mode. (This softswitch is not available for all countries.)
3	9	**On** Off	**PLU Enable.** "On" enables the storage of up to 15 PLU's. "Off" disables PLU storage.
3	10	**On** Off	**PLU tare enable.** "On" enables storing tare with the unit price in the PLU. "Off" disables PLU tare storage. (This softswitch is not available for all countries.)
3	11	**On** Off	**Preset Enable.** "On" enables the four preset keys. The presets are then linked to the first four PLU's. "Off" disables preset keys. (This softswitch is not available for all countries.)

4	1	0 **1** 2 3	**Digital filtering.** This selection is used to reduce the effects of vibration on the weight and price display. 0-No digital filtering. 1-Light digital filtering. 2-Medium digital filtering. 3-Heavy digital filtering.
4	2	kg lb	**Display Units.** If "kg" is selected display weight units are in kg. If "lb" is selected display weight units are lbs. (This softswitch is not available for all countries.)
4	3	On Off	**lb/kg switching.** If "On" is selected the units may be switched from lb to kg. If "Off" the units may not be changes. (This softswitch is not available for all countries.)
4	4	On Off	**Multi-Range weighing Enable.** If "On" is selected then two range weighting is enabled. If "Off" is selected only one weight range is enabled. (This softswitch is not available for all countries.)
4	5	Yes **No**	**Scale Calibration.** Select "Yes" to calibrate scale. "No" to bypass calibration. (See calibration section 4.3)
4	6	**32**	**Gravity adjust.** This softswitch is factory set to gravity adjust constants for countries other than the U.S. This softswitch should be set to 32 if the scale is calibrated outside of the factory.
		Save Abort	Press the accept key to save soft switch settings, or press toggle key followed by accept key to abort saving the softswitches.

The unit price and total price displays will show alternating "Push Button" message. Pressing the calibrate push button causes the scale to save the softswitch settings and initiate a power-up sequence.

4.3 CALIBRATION

4.3.1 Calibration should be performed only after the scale has been powered up for at least 30 minutes and is at normal operating temperature.

Before attempting calibration, setup and level the scale on a stable surface free from vibration and away from excessive air currents.

4.3.2 Remove the platter and remove the security plate if installed. Momentarily de-press the setup switch with a thin non-metallic instrument. The weight field will then display [group 1]. This is the first prompt of the set-up mode.

4.3.3 Press the toggle key until the weight field displays "group 4".

4.3.4 Press the accept key until the unit price field displays "step 5". Then press the toggle key to toggle the display to "Yes". Press the accept key to accept the "yes" response. The scale then displays "CAL" in the weight display indicating the scale is in the calibration mode.

4.3.5 Select the proper scale capacity. Select between 3.000, 6.000, 15.000 and 20.000 if weighing in kgs. Select between 6.000, 15.000, 30.000 and 40.000 if weighing in lbs. Press the toggle key to toggle through the selections and press the accept key when the proper capacity is displayed.

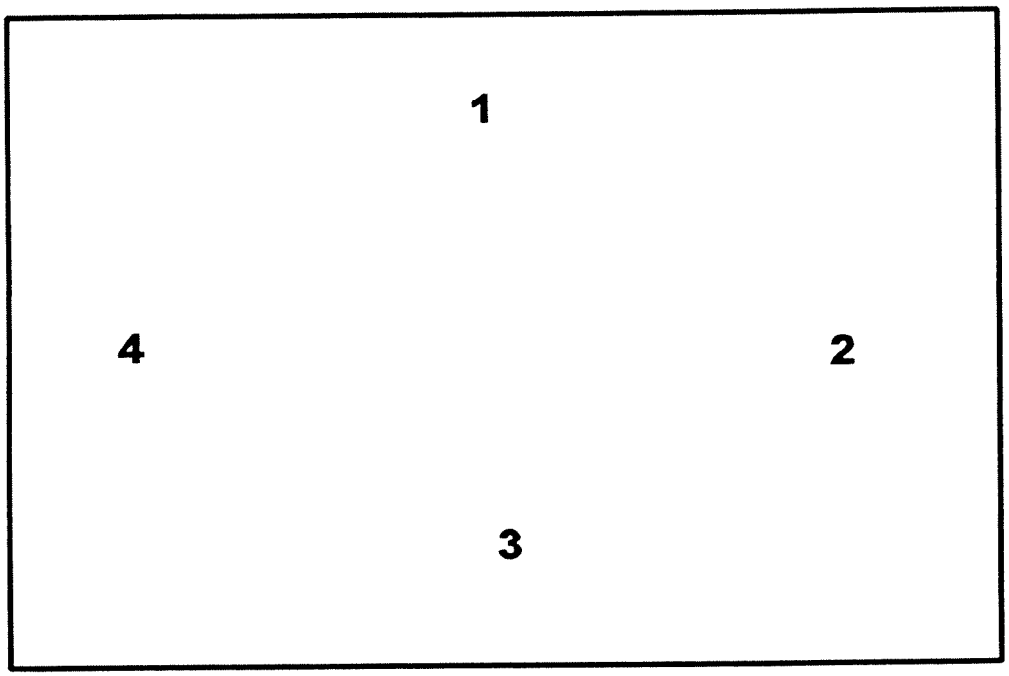
4.3.6 "——" will appear in the total price display. Clear the platter and initiate the zero reading by pressing the accept key. The scale will start counting down from 5 to 0 indicating that the zero reading is being taken. If motion is detected, the count resets to 5 and resumes countdown again.

4.3.7 "⊢⊢⊢⊢⊢⊢" will appear prompting you to add load. Place the test weights on the platter, then press accept key.

4.3.8 The scale prompts you to enter load. Key in the amount of weight that is on the scale. (2/3 to full capacity is recommended. A minimum of 50% of capacity is required.) Press accept key. The scale will count down from 5 to 0 indicating that the span reading is being taken. If motion is detected, the count resets to 5 and resumes countdown again.

4.4 SHIFT TEST

4.4.1 The shift test must be performed after calibration. Before starting the shift test, make sure the scale is level and does not rock. Place 1/2 capacity of test weight on the scale platter sequentially at positions 1 thru 4, as shown in Figure 4.2. Points 1 through 4 are midway between the center of the platter and the edge of the platter. The NIST H-44 acceptance tolerance is ±0.01 lb. The OIML acceptance tolerance is ± 1 displayed increment between all four points.



4.4.2 If the scale fails to meet the specified tolerance at one or more test points, check the following:

- Check load cell overload stop screw for proper adjustment. (see section 4.5 Overload Stop Adjustment)
- Check top scale cover for proper seating and possible interference with sub-platter.
- The Spider must be properly centered to avoid interference with the top cover.

4.4.3 If none of the above conditions exist, replace the load cell, recalibrate the scale, and recheck the shift.

4.5 OVERLOAD STOP ADJUSTMENT

Adjustment to the overload stop is required if the load cell is replaced. To adjust the overload stop perform the following steps.

4.5.1 Place the scale in a location that is level, stable, and allows access to the overload stop screw located on the bottom of the scale. Scale must be powered up and calibrated.

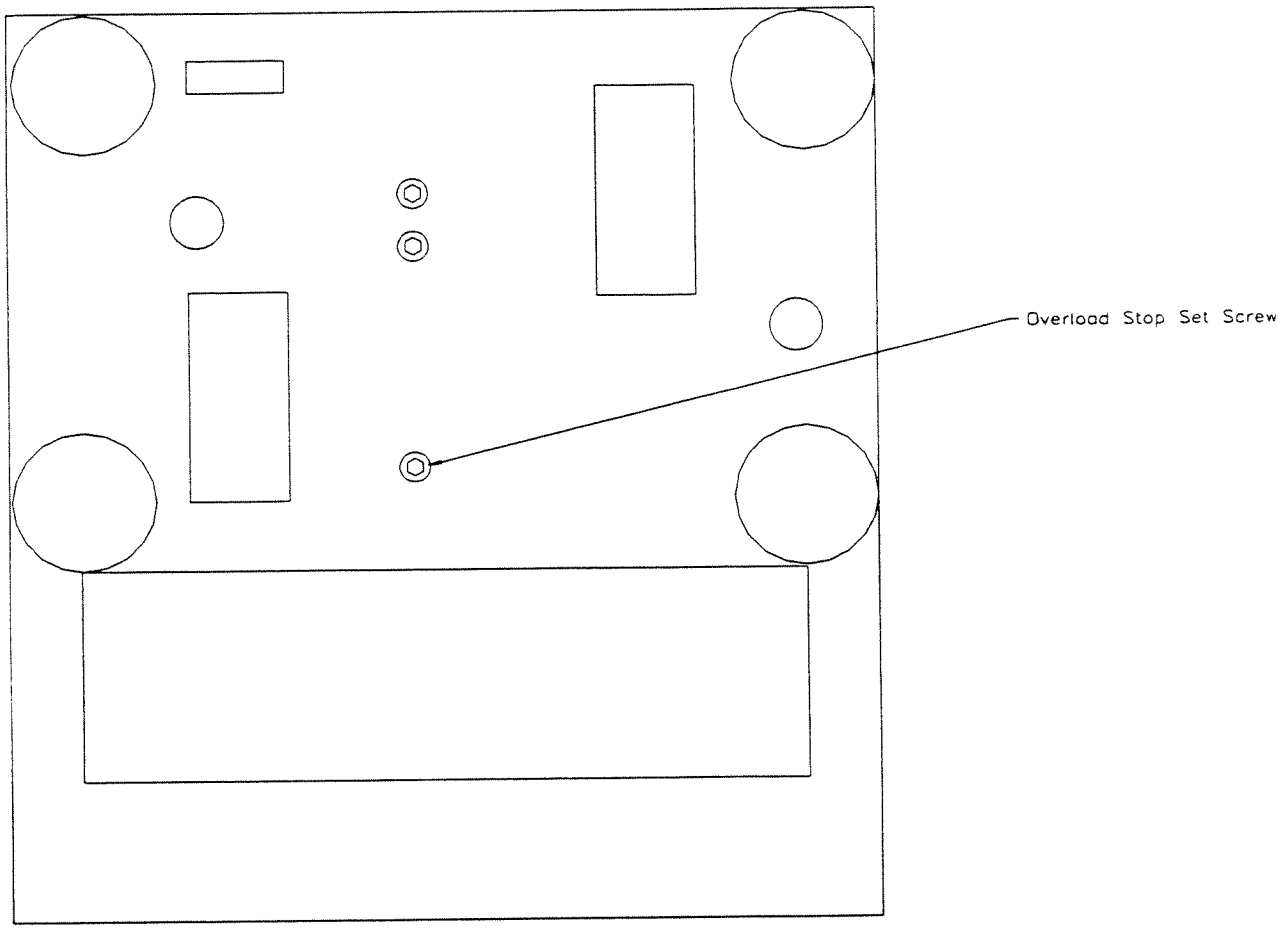


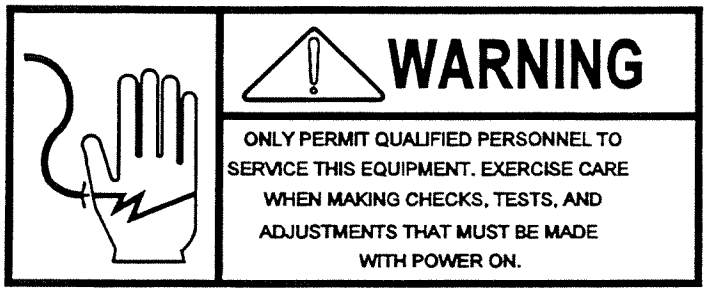
Figure 4.2 Overload Stop Set Screw

4.5.2 Place the scale in the expand mode by turning on softswitch group 1 step 11.

4.5.3 Place test weights equal to 20% over capacity on the center of the platter.

4.5.4 Adjust the overload stop set screw until the reading is between 35,700 and 35,800 on a 15 lb, 6 kg, or 15kg scale or between 46,700 to 46,800 on a 40 lb, or 20 kg scale.

5. PARTS REPLACEMENT AND ADJUSTMENTS



5.1 ACCESS TO INTERNAL COMPONENTS

5.1.1 Disconnect power from scale before continuing. Access to the internal components can be achieved by removing 4 retaining screws.

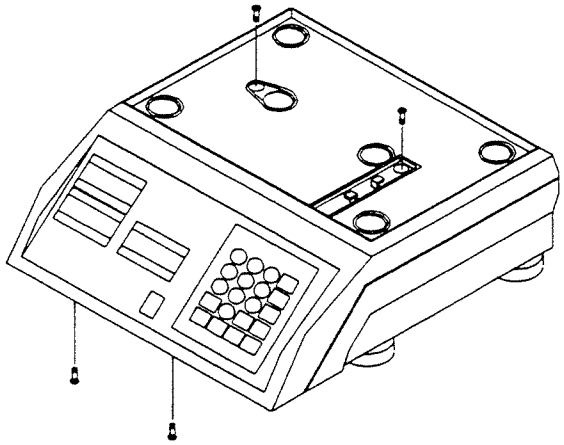


Figure 5.1 Retaining Screws

5.1.2 After removing 4 retaining screws carefully lift the left side of the top cover, and stand cover on its right side. This will allow for the disconnection of the internal harnesses.

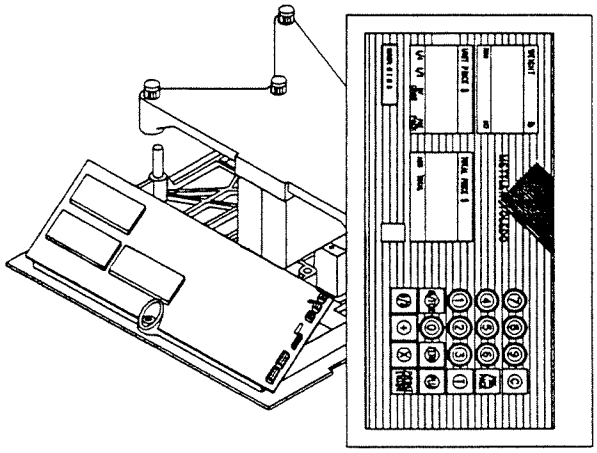


Figure 5.2 Cover Position For Harness Removal

5.1.3 Carefully raise the keyboard harness retainer, and remove keyboard harness from keyboard harness connector.

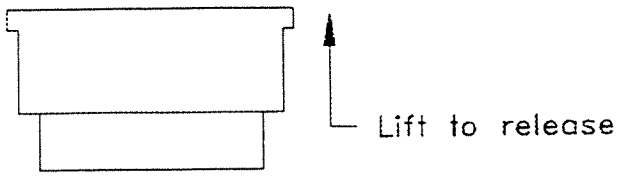


Figure 5.3 Keyboard Harness Connector

5.1.4 Next remove the customer display harness by pressing the release on the harness connector and gently pull the harness from the connector.

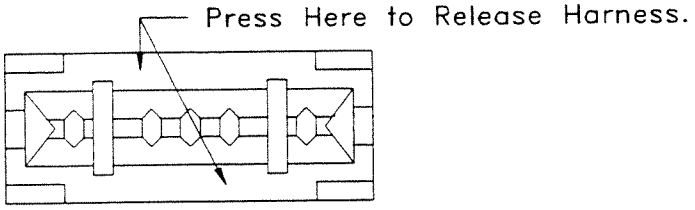
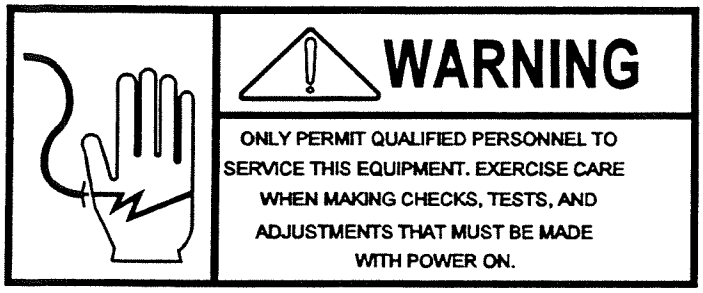


Figure 5.4 Ribbon Harness Connectors

Care should be exercised not to bend the pins on the harness. If the pins are bent carefully realign the pins on the harness. The straighter the pins are the easier they are to re-install later.

5.2 MAIN PCB REPLACEMENT



5.2.1 Refer to section 5.1 to gain access to internal components.

5.2.2 Remove remaining harness from the Main PCB. Refer to 5.1.3 and 5.1.4 for harness connector removal assistance.

5.2.3 Install replacement Main PCB.

5.2.4 Reconnect the harnesses removed in steps 5.1.3, 5.1.4, and 5.2.2 by pressing the release on the harness connector. The ribbon harnesses have an identifying marked wire (off colored wire). This wire is pin 1 and should be inserted into the appropriate connector with this marked wire towards the end of the connector marked with a 1 on the silkscreen of the PCB. In the 8432 pin 1 of all connectors is towards the top of the PCB and all connectors are clearly silkscreened with both reference designators (i.e., J1) and description designators (i.e., Customer Display). If the harnesses are installed into the wrong connector physical damage to the PCB may result.

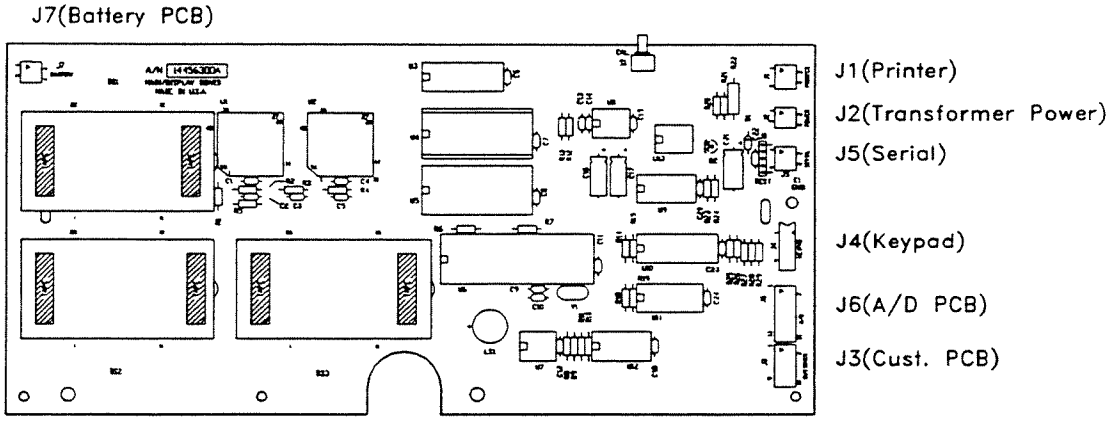
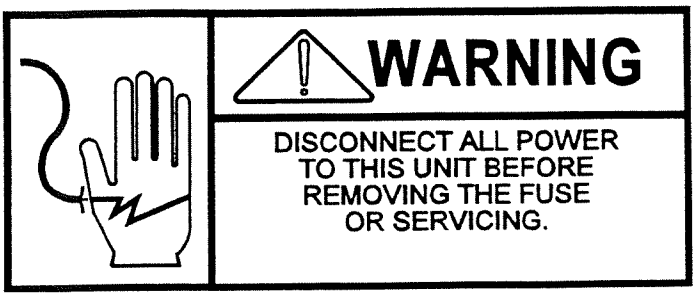


Figure 5.5 Main PCB Harness Connectors

5.2.5 Place the top cover over scale. Carefully center top cover so that the subplatter assembly is not binding on the top cover and install 4 retaining screws removed in step 5.1.1.

5.3 LOAD CELL REPLACEMENT



5.3.1 Refer to section 5.1 to gain access to internal components.

5.3.2 It is not mandatory to remove the Main PCB, but makes the job easier. If you choose to remove the Main PCB refer to section 5.2

5.3.3 Grasp the subplatter assembly and hold while loosening two 3/16 socket head (Allen) screws. Remove the subplatter and top load cell spacer.

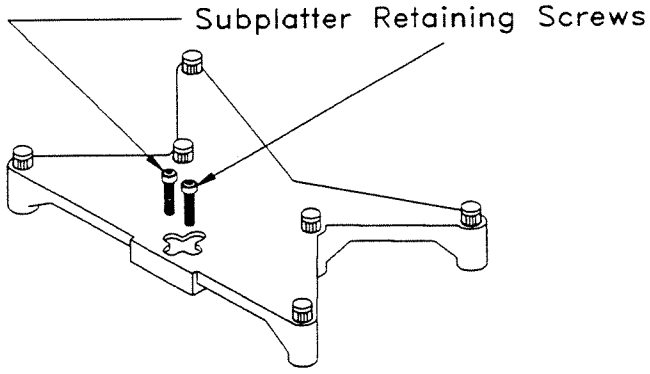


Figure 5.6 Subplatter retaining screws.

5.3.4 Remove the 2 load cell retaining screws located on the bottom of the base.

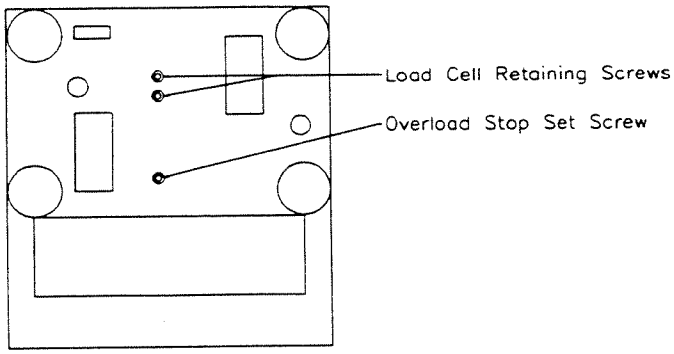


Figure 5.7 Load Cell Retaining Screws

5.3.5 Carefully remove the load cell and bottom load cell spacer.

5.3.6 Carefully remove the load cell harness from the load cell removed in step 5.3.5. Refer to 5.1.4 for removal procedure.

5.3.7 Back out the overload stop screw.

5.3.8 Reinstall the harness into the new load cell by pressing the release on the harness connector and installing the harness. Refer to 5.2.4 for proper harness orientation.

5.3.9 Reinstall the bottom load cell spacer and load cell. Torque the loadcell mounting screws to 75 to 85 inch pounds.

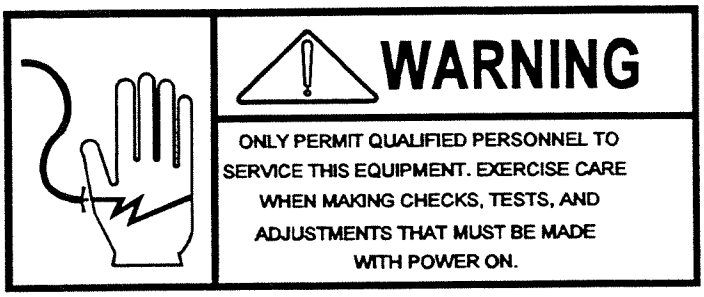
5.3.10 Reinstall the upper load cell spacer and subplatter with two 3/16 socket head (Allen) screws removed in step 5.3.3. While holding subplatter, torque subplatter mounting screws to 75 to 85 inch pounds.

5.3.11 If Main PCB was removed reinstall it now. Refer to section 5.2 for installation instructions.

5.3.12 Place the top cover over scale. Carefully center top cover so that the subplatter assembly is not binding on the top cover and install 4 retaining screws removed in step 5.1.1

5.3.13 Refer to section 4. for setup and calibration procedures.

5.4 CUSTOMER DISPLAY REPLACEMENT.



5.4.1 Refer to section 5.1 to gain access to internal components.

5.4.2 Remove the retaining clip.

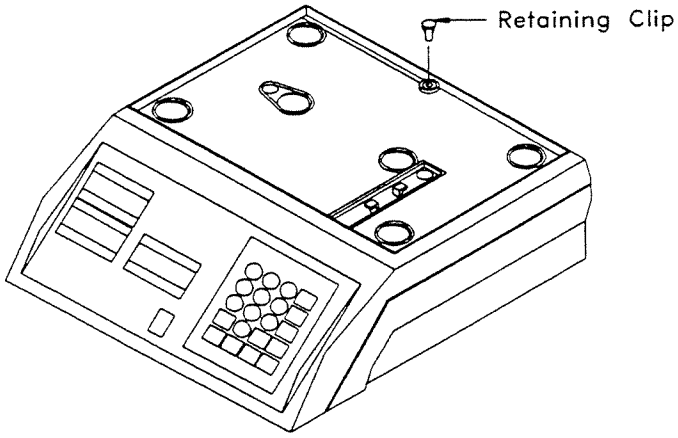


Figure 5.8 Customer Display PCB Retaining Clip

5.4.3 Slide the customer display PCB to the right and remove from the top cover.

5.4.4 Remove the harness from the customer display PCB. Refer to 5.1.4 for removal assistance.

5.4.5 Install the harness removed in step 5.4.4 and install it into the customer display PCB. Refer to 5.2.4 for proper harness orientation.

5.4.6 Place customer display PCB into top cover and slide PCB to the left to align the slot in PCB with the hole for the retaining clip.

5.4.7 Reinstall retaining clip.

5.4.8 Reconnect harness. Refer to 5.2.4.

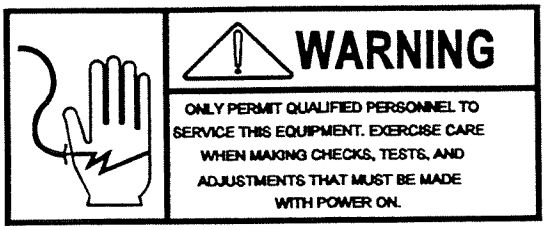
5.4.9 Place the top cover over scale. Carefully center top cover so that the subplatter assembly is not binding on the top cover and install 4 retaining screws removed in step 5.1.1

6. SCALE ERROR CODES

Error Code	Corrective Action
E11	ROM/RAM Error detected. Replace main PCB.
E18	EEROM Calibration error detected. Recalibrate scale.
E19	Load cell compensation data bad. Replace load cell.
E31	Operator error. An attempt was made to enter more than two digits of item quantity when in by-count mode.
E32	Transducer failure. (Out of range). Check for mechanical bind. Replace load cell.
E34	Operator error. PLU error.(PLU not found.)
Bad Spn	Bad Span. Recalibrate scale.
BATT	Low Battery. Replace batteries. Recharge batteries if they are rechargeable.

Table 6-1 Scale Error Codes

7. TROUBLESHOOTING



7.1 WALL TRANSFORMER CHECK

The wall transformer when connected to the proper AC input and disconnected from the scale may read as low as 10.7 VDC or as high as 18.3 VDC. The wall transformer while connected to the scale should read from 9 VDC with battery option or 11 VDC without battery option, up to 17 VDC. If the voltages measured are not within this range replace the wall transformer.

7.2 MAIN/DISPLAY PCB

7.2.1 Raw voltage test point for the main / display PCB is as follows. Place your negative meter lead on the negative side of capacitor C21. (Lower side of capacitor C21.) Place your positive lead on the positive side of capacitor C21. (Top side of capacitor C21.) You should read the same voltage as is present on the wall transformer while under load.

7.2.2 +5 VDC test point is as follows. Place your negative meter lead on the negative side of capacitor C22. (Lower side of capacitor C22.) Place you positive meter lead on the positive side of capacitor C22. (Top side of capacitor C22.) You should read +5 VDC ±0.1 VDC.

If either of the above voltages is out of tolerance and the wall transformer is ok, replace the main / display PCB.

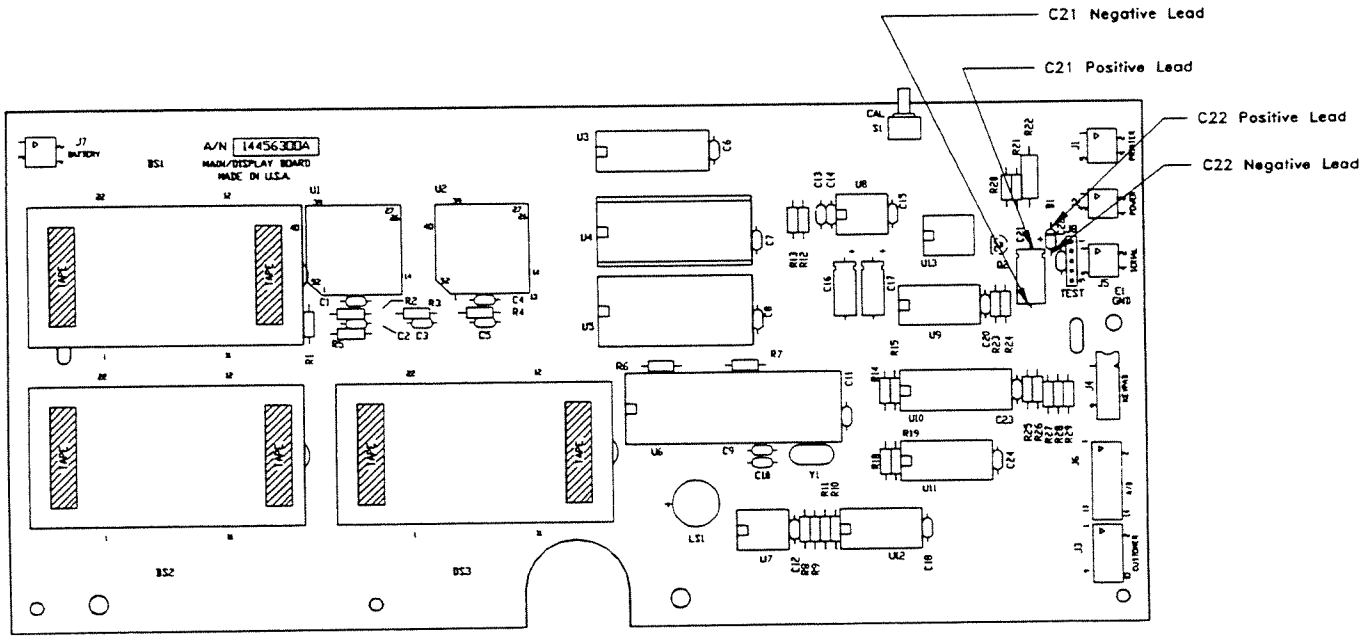


Figure 7.1 Main Display PCB Test Points

7.3 LOAD CELL

7.3.1 The +5 VDC supply to the load cell can be tested by connecting the negative meter lead to J2 pin 1 and the positive meter lead to J2 pin 2. The voltage should read +5 VDC ±0.1 VDC.

7.3.2 The +12 VDC supply to the load cell can be tested by connecting the negative meter lead to J2 pin 1 and the positive meter lead to J2 pin 12. The voltage should be +12 VDC ± 2 VDC.

If both voltages are correct and the load cell does not function correctly replace the load cell.

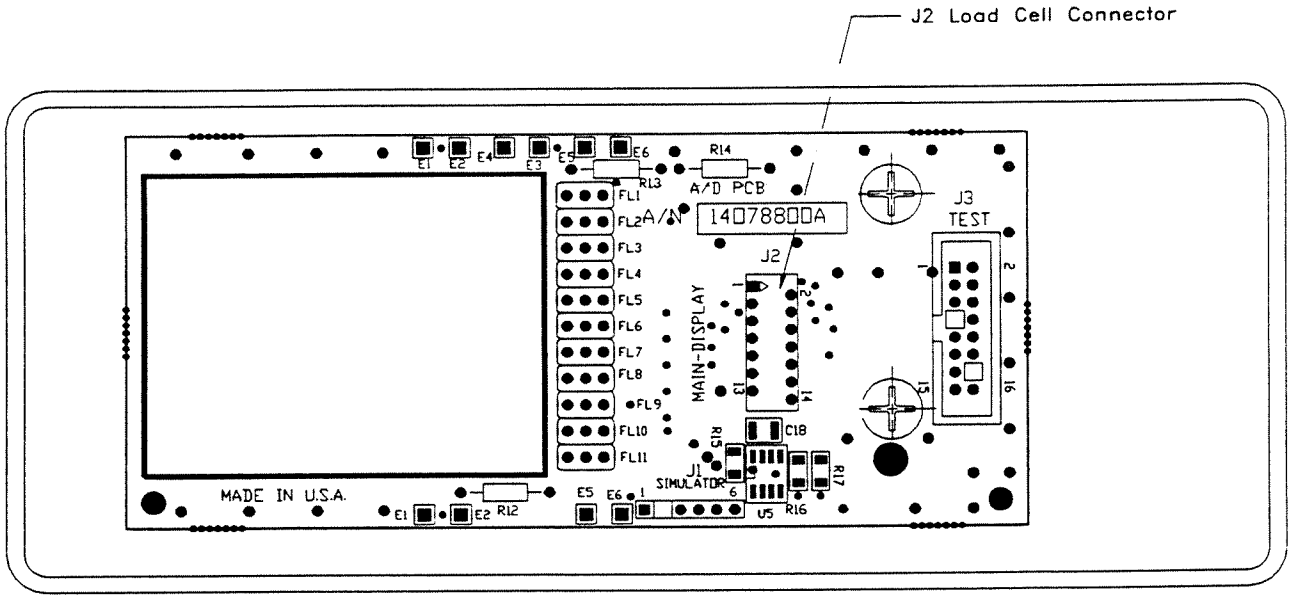


Figure 7.2 Load Cell Voltage Test Point

7.4 BATTERY PCB

7.4.1 The input voltage to the battery PCB can be tested by connecting the negative meter lead to J3 pin 4, and the positive meter lead to J3 pin 3. The voltage should be 9 VDC to 17 VDC.

7.4.2 The output power from the battery PCB to the scale can be tested by connecting the negative meter lead to J2 pin 1, and the positive meter lead to J2 pin 2. The voltage should be 10.7 VDC to 11.6 VDC.

7.4.3 The charging voltage can be tested by connecting the negative meter lead to J3 pin 4, and the positive lead to J3 pin 1. The voltage should be around 7.2 VDC to 9 VDC.

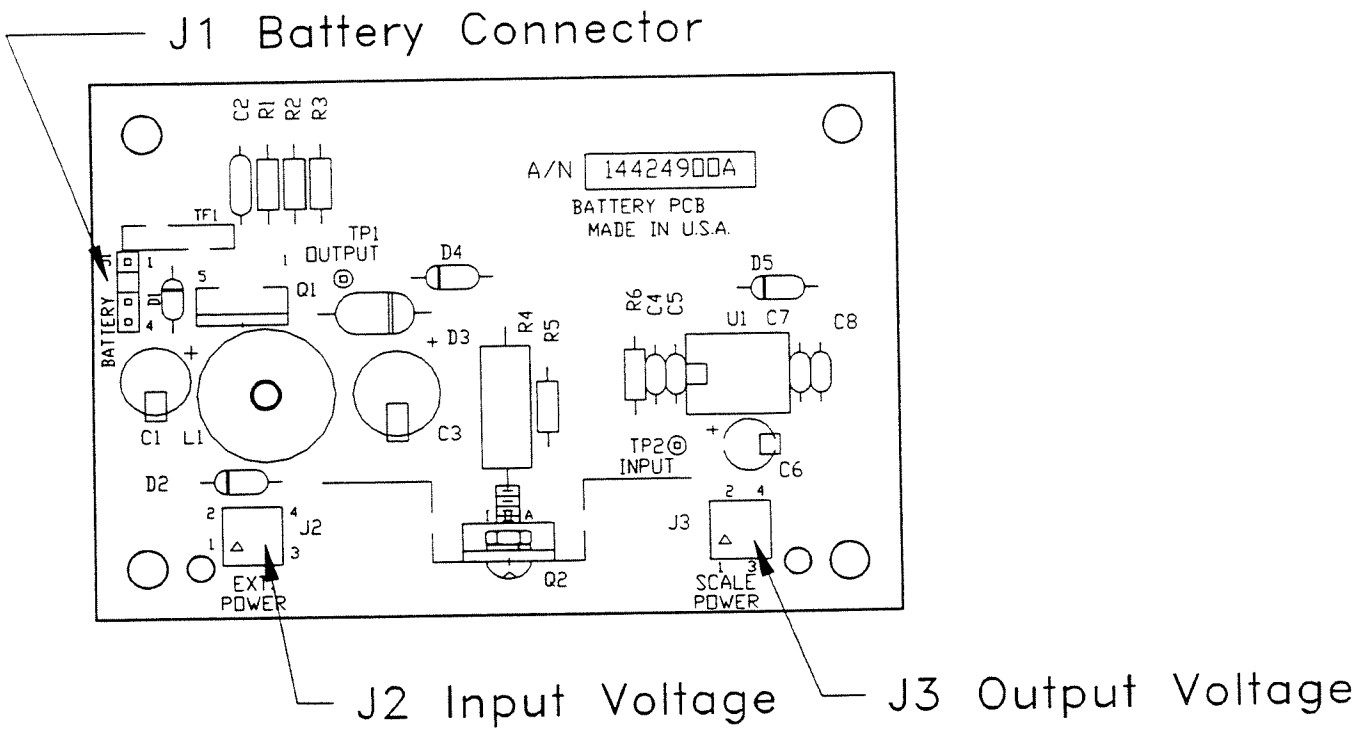


Figure 7.3 Battery PCB Test Pionts

8. MAINTENANCE

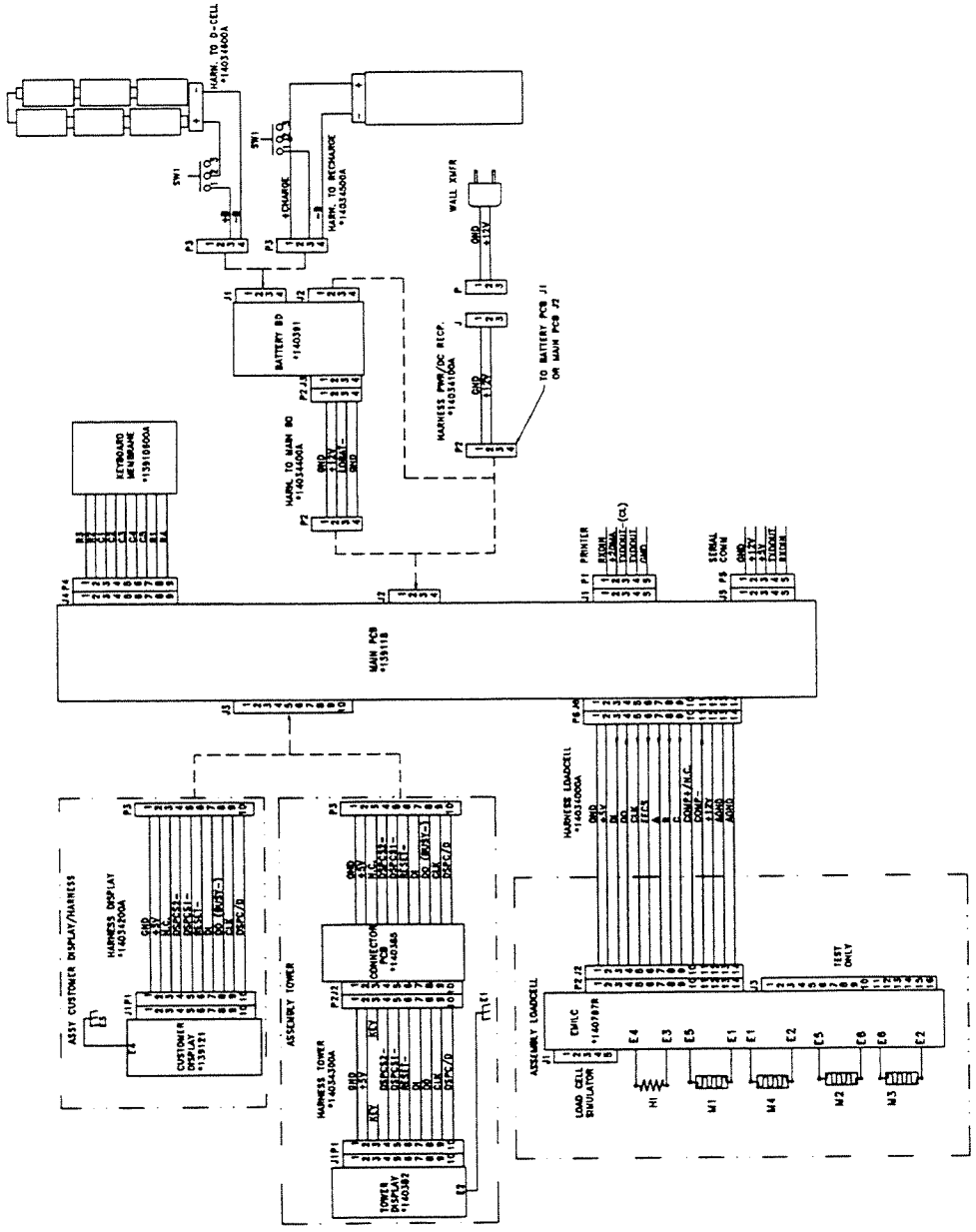
WARNING!
DO NOT SPRAY OR WASH DOWN. HAZARD OF ELECTRICAL SHOCK OR BURN.

8.1 EXTERNAL CLEANING

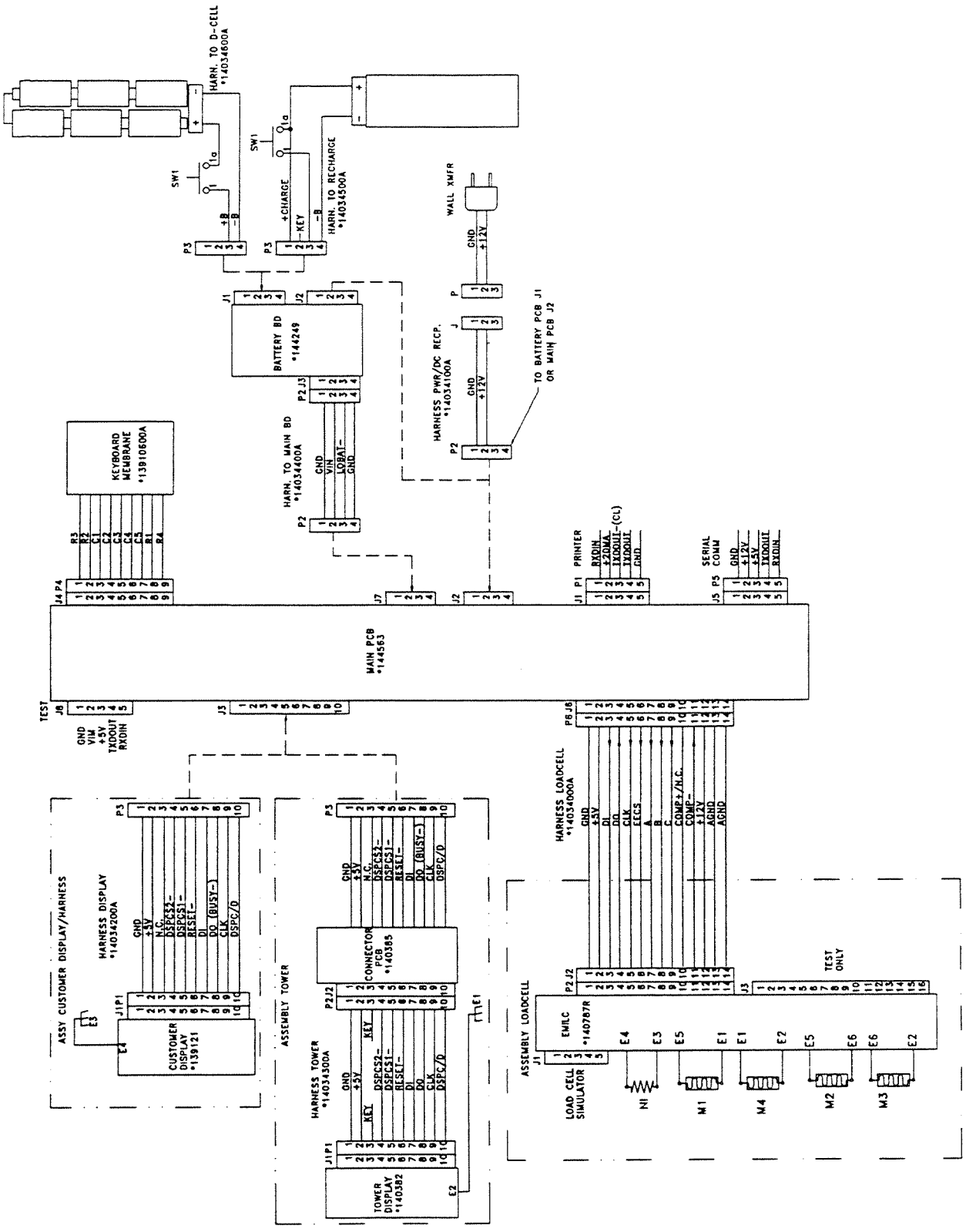
Turn scale off by removing the wall transformer from the electrical outlet, or remove the batteries from the battery powered units. Use a soft clean cloth dampened with a mild detergent and water, or a mild cleaner to wipe the exterior surfaces. Do not spray directly on the unit. A mild spray cleaner can be used by spraying the cleaning cloth. Do not use solvents or commercial cleaners on the unit. They may harm the surfaces or damage the keyboard.

9. INTERCONNECTING DIAGRAM

9.1 Original Battery PCB and Original Logic PCB



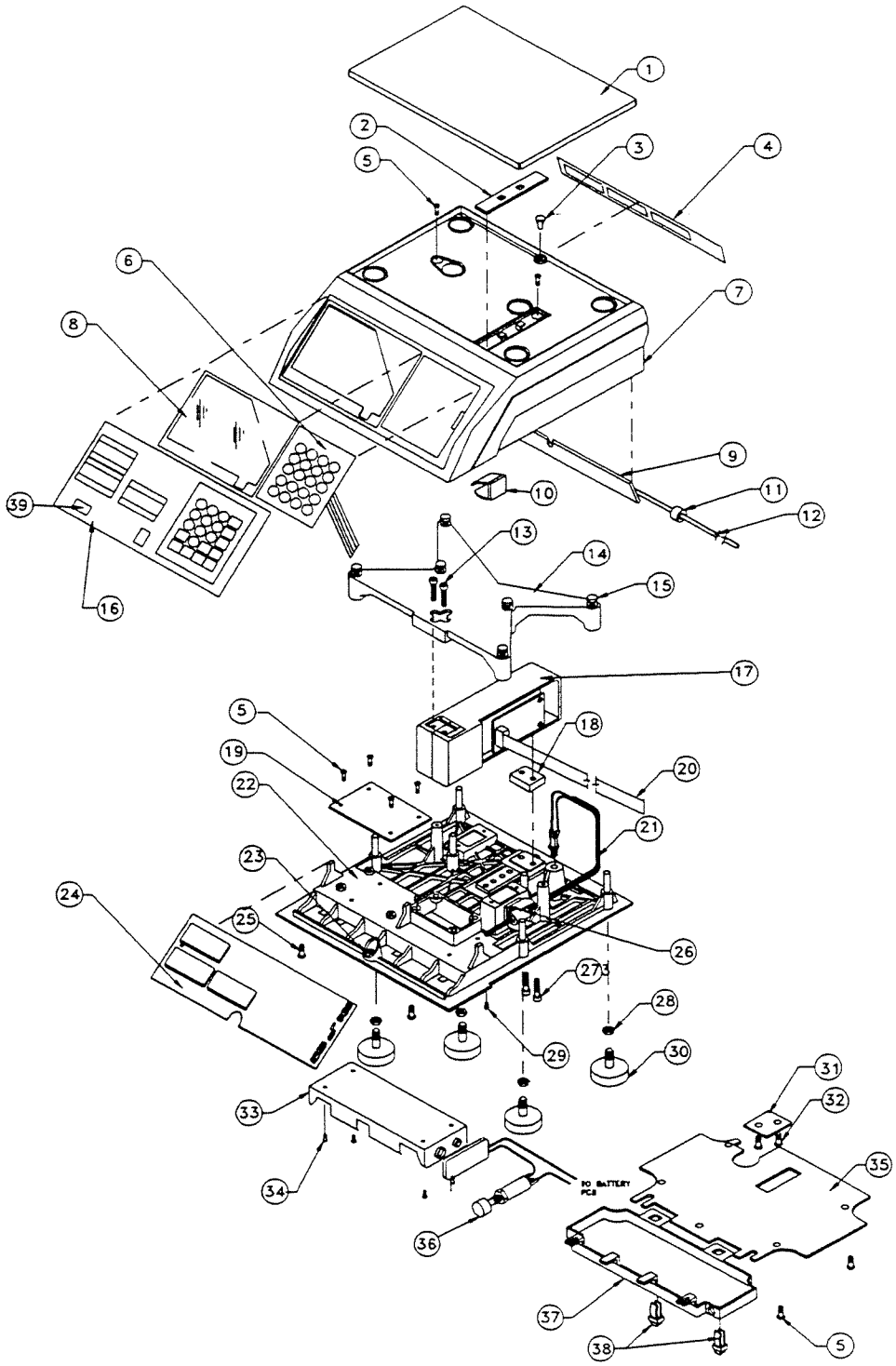
9.2 New battery PCB and new logic PCB



For Your Notes

10. REPLACEMENT PARTS

10.1 BASE PARTS

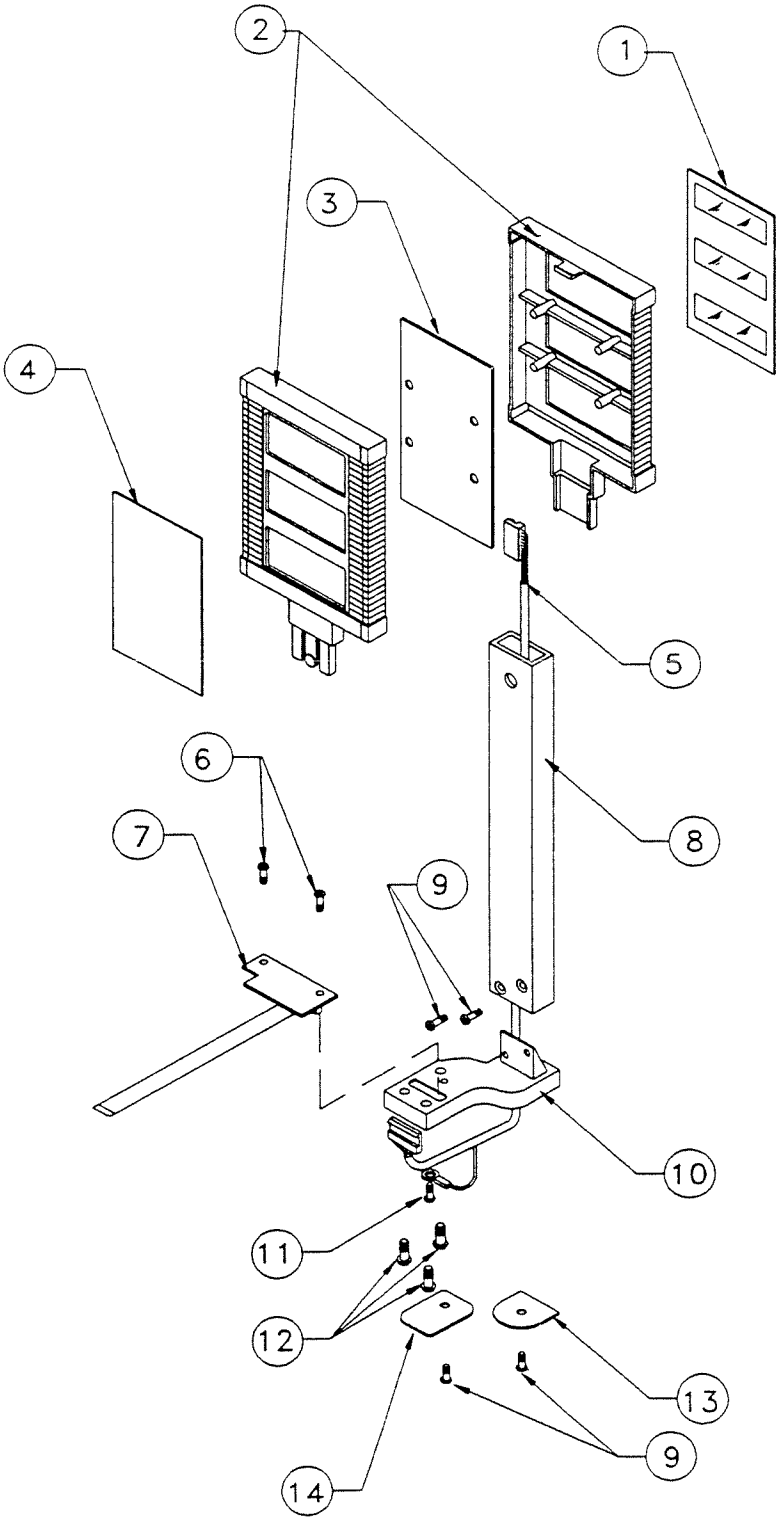


Ref#	Part Number	Description	Qty
1	14035300A 14035400A 14232800A	PLATTER, ASSY STANDARD PLATTER, ASSY FRONT LIP PLATTER, ASSY BACK-STOP	1
2	13913100A	PLATE, CALIBRATION COVER	1
3	14233000A	CLIP, RETAINING	1
4	13910700A 13914600A 13914900A 13915200A 13915500A 13915800A 13916100A 14037900A 14066200A 14066500A 14076800A 14074800A 14296500A 14405100A 14451700A	LENS, DISPLAY CUSTOMER US (CAPACITY: 40X.01 LB) LENS, DISPLAY CUSTOMER NETHERLANDS (MAX 15 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER CANADA (CAPACITY:20X.005 KG) LENS, DISPLAY CUSTOMER GERMANY (MAX 15 KG MIN 100g e=5g) LENS, DISPLAY CUSTOMER SWITZERLAND (MAX 15 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER ITALY (MAX 20 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER FRANCE (MAX 15 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER BLANK (USED WITH TOWER) LENS, DISPLAY CUSTOMER SPAIN (MAX 15 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER LATIN AMERICA (CAPACIDAD: 20X.005 KG) LENS, DISPLAY CUSTOMER GENERAL EXPORT (MAX 20 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER AUSTRIA (MAX 15 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER MEXICO (CAPACIDAD: 20X.005 KG) LENS, DISPLAY CUSTOMER SAUDI (MAX 20 KG MIN 100 g e=5g) LENS, DISPLAY CUSTOMER BELGIUM (MAX 15 KG MIN 100 g e=5g) **(FOR A CAPACITY OTHER THAN LISTED ORDER REFERENCE 39 ALSO)**	1
5	R0506600A	SCREW M4-0.7x10 PAN HD TAPTITE	6
6	14070000A 13913000A	KEYBOARD REPLACEMENT KOP U.S.A. CONTAINS: 13910600A Overlay, 8432 U.S.A. 13913000A Keyboard, Membrane 4X5 14231500A Label, Capacity, 15X.005LB,Scale 14231600A Label, Capacity, 15X.005LB,Tower 14379300A Installtion Instructions KEYBOARD MEMBRANE, 4X5 **(Order Ref# 16 and Ref# 39 when replacing keyboard.)**	1
7	14033800A	COVER ASSY	1
8	13910800A	LENS, DISPLAY CLEAR	1
9	A13912200A	PCB, DISPLAY CUSTOMER ASSY WITH HARNESS	1
10	10833900A	CLAMP, WIRE,ADJ.	1
11	13517400A	FERRITE CORE	1
12	14034200A	HARNESS, DISPLAY CUSTOMER	1
13	R0350700A	SCREW 1/4 - 28 X 1 SOC CAP HD	2
14	14034900C 14035000C	SUBPLATTER ASSY **40 LB** EMILC SUBPLATTER ASSY **15 LB** EMILC	1
15	13910900A R01394020 13911000A 13913600A	PLUNGER E-RING OVERLOAD SPRING, **40 LB** SPIDER OVERLOAD SPRING, **15 LB** SPIDER	6 6 6 6
16	13910600A 13914500A 13914800A 13915100A 13915400A 13915700A 13916000A 14066100A 14066400A 14076700A 14078300A 14296400A 14405000A 14451600A	OVERLAY OPERATOR US (Capacity:40X.01LB) OVERLAY OPERATOR NETHERLANDS (MAX 15 KG MIN 100g e=5g) OVERLAY OPERATOR CANADA (CAPACITY: 20x.005 KG) OVERLAY OPERATOR GERMANY (MAX 15 KG MIN 100g e=5g) OVERLAY OPERATOR SWITZERLAND (MAX 15 KG MIN 100g e=5g) OVERLAY OPERATOR ITALY (MAX 20 KG MIN 100g e=5g) OVERLAY OPERATOR FRANCE (MAX 15 KG MIN 100g e=5g) OVERLAY OPERATOR SPAIN (MAX 15 KG MIN 100g e=5g) OVERLAY OPERATOR LATIN AMERICA (CAPACIDAD: 20X.005 KG) OVERLAY OPERATOR GENERAL EXPORT (MAX 20 KG MIN 100g e=5g) OVERLAY OPERATOR AUSTRIA (MAX 15 KG MIN 100g e=5g) OVERLAY OPERATOR MEXICO (CAPACIDAD: 20X.005 KG) OVERLAY OPERATOR SUADI (MAX 20 KG MIN 100g e=5g) OVERLAY OPERATOR BELGIUM (MAX 15 KG MIN 100g e=5g) **(FOR A CAPACITY OTHER THAN LISTED ORDER REFERENCE 39 ALSO)**	1
17	14100200A 14100000A	LOAD CELL, **15 KG** LOAD CELL, **30 KG**	1
18	14100700A	SPACER, L/C	1
19	14039200A	PCB, BATTERY	1
20	14034000A	HARNESS, LOAD CELL	1

21	B14034100A	HARNESS ASSEMBLY, POWER SUPPLY INCLUDES: 13271700A CONNECTOR, PNL, POWER JACK 11922900A CAPACITOR, 220 pf	1 1 1
22	13910100B	CASTING, BASE EMILC	1
23	10268900A	BUBBLE, LEVELING	1
24	13911900A	PCB, MAIN DISPLAY,8432	1
25	R0511600A	SCREW 6-19 X 0.38 PLASTITE	2
26	10833900A 13517400A	CLAMP, WIRE,ADJ. FERRITE CORE	1 1
27	R0509100A	SCREW 1/4-28 X 1-3/8 SOC CAP HD	2
28	R00433050	NUT, FOOT	4
29	R0506800A	SETSCREW, M6-1.0X20 NY,HALF DOG PT. (OVERLOAD STOP)	1
30	14100500A	FOOT, 5/16-18X.69 BLK.	4
31	14232600A	PLATE,TOWER HOLE	1
32	R0507300A	SCREW, M6 X 10 CAP,	2
33	13257500A 14036500A	BATTERY HOLDER (**'D' CELL**) BATTERY HOLDER (**RECHARGEABLE.**)	1
34	R0506700A	SCREW, M3 X 8 PAN HEAD	4
35	14129800A	PLATE, BASE CASTING.	1
36	14034500A 14034600A	HARNESS, BATTERY AND SWITCH (**RECHARGEABLE.**) HARNESS, BATTERY AND SWITCH (**'D' CELL**)	1
37	13912500A	COVER, BATTERY	1
38	12051300A	FASTENER 1/4 TURN	2
39	14077600A 14077700A 14099600A 14100800A 14101200A 14101300A 14125400A 14125500A 14125800A 14128400A 14231500A	LABEL, CAPACITY, MAX 3 KG MIN 20 G E=1G LABEL, CAPACITY, 6.0X.002KG,(ITALY/FRANCE/GERMANY/U.K./EXPORT) LABEL, CAPACITY, MAX 3 KG MIN 20 G E=1G LABEL, CAPACITY, 3 X .001 KG (CANADA) LABEL, CAPACITY, 6 X .002 KG (CANADA) LABEL, CAPACITY, 3 X .001 KG (CANADA) LABEL, CAPACITY, 3 X .001 KG (LATIN AMERICA) LABEL, CAPACITY, 6 X .002 KG (LATIN AMERICA) LABEL, CAPACITY, 3 X .001 KG (LATIN AMERICA) LABEL, CAPACITY, 15X.005KG, (ITALY/FRANCE/GERMANY/U.K./EXPORT) LABEL, CAPACITY, 15X.005LB, (U.S.A.) LABEL, CAPACITY, 40X.01LB, (U.S.A.) (STENCILED ON OVERLAY REF# 16)	2
Not Shown	14078900A 14242300A 14383900A 14376200A	TRANSFORMER, WALL 120V, U.S.A. TRANSFORMER, WALL 12VDC 800MA, EUROPE TRANSFORMER, WALL 240V 12VDC,U.K. TRANSFORMER, WALL AUSTRALIA	1

For your notes.

10.2 TOWER PARTS



Ref#	Part Number	Description	Qty
1	14038000A 13914700A 13915000A 13915300A 13915600A 13916200A 13915900A 14066300A 14066600A 14076900A 14078500A 14451800A	LENS, TOWER CUSTOMER DISPLAY, US (CAPACITY: 40X.01 LB) LENS, TOWER CUSTOMER DISPLAY, NETHERLANDS(MAX 15KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, CANADA (CAPACITY: 20X.005 KG) LENS, TOWER CUSTOMER DISPLAY, GERMANY (MAX 15KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, SWITZERLAND(MAX 15KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, FRANCE (MAX 15KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, ITALY (MAX 20KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, SPAIN (MAX 15KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, LATIN AMERICA (CAPACIDAD: 20X.005 KG) LENS, TOWER CUSTOMER DISPLAY, EXPORT (MAX 20 KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, AUSTRIA(MAX 15KG MIN 100g e=5g) LENS, TOWER CUSTOMER DISPLAY, BELGIUM(MAX 15KG MIN 100g e=5g) **(FOR A CAPACITY OTHER THAN LISTED ORDER REFERENCE 1A ALSO)**	1
1A	14099700A 14101700A 14125900A 14128500A 14231600A	LABEL, CAPACITY, 6.0X.002KG (ITALY/FRANCE/GERMANY/U.K./EXPORT)TOWER LABEL, CAPACITY, 6.0X .002 KG (CANADA) TOWER LABEL, CAPACITY, 6.0X .002 KG (LATIN AMERICA) TOWER LABEL, CAPACITY, 15X.005KG (ITALY/FRANCE/GERMANY/U.K./EXPORT)TOWER LABEL, CAPACITY, 15X.005LB (U.S.A.) TOWER	
2	14079100A	TOWER SHELL, FRONT & REAR	1
3	14038300A	PCB ASSY, TOWER DISPLAY	1
4	14037800A	LENS, TOWER VENDOR SIDE OF TOWER	1
5	14034300A	HARNESS, TOWER	1
6	R0506600A	SCREW, M4-0.7X10 PAN HEAD TAPTITE,	2
7	14038600A	PCB ASSY, CONNECTOR BOARD, TOWER	1
8	14037400A	COLUMN, TOWER	1
9	RO5O7200A	SCREW, M4X8,FH,TT,	4
10	13913400A	BRACKET, TOWER	1
11	R0509900A	SCREW, M4X5, PH,TT,	1
12	R0507300A	SCREW, M6X10,CAP,	3
13	14037300A	COVER PLATE B, TOWER	1
14	14037200A	COVER PLATE A, TOWER	1

10.3 ACCESSORIES

Part Number	Description
14130200A	CAR BATTERY KIT
13230400A	CARRYING CASE, SOFT
14231300A	BACK-STOP PLATTER

Mettler-Toledo, Inc.
Scales & Systems
350 W. Wilson Bridge Road
Worthington, Ohio 43085-2273
(614) 438-4511

P/N A14256300A

Revised: 08/94

A14256300A