

SPS-70 / 150

Rate Computing Scale

Operation Manual

Revision 1.1
May 8, 2000

Transcell Technology inc.

© 1998-2000 Transcell Technology, Inc.

Contents subject to change without notice.

Transcell Technology, Inc.
975 Deerfield Parkway
Buffalo Grove, IL 60089
Tel (847) 419-9180
Fax (847) 419-1515
E-mail: transcell@transcell.net
Web: www.transcell.net

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the 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 instructions 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/her own expense.

TABLE OF CONTENTS

	<u>Page</u>
Chapter 1: Introduction To The Transcell Model SPS-70/150 Rate Computing Scale	1-1
Chapter 2: Getting Started	2-1
Chapter 3: Basics of Operation	3-1
3.1 Display	3-1
3.2 Keyboard	3-1
3.2.1 USPS, UPS and FedEx Rate Keys	3-1
3.2.1.1 USPS Rate Keys	3-1
3.2.1.2 UPS Rate Keys	3-2
3.2.1.3 FedEx Rate Keys	3-2
3.2.2 Operator Keys	3-2
3.2.2.1 Special Service Keys	3-2
3.2.2.2 ZIP/Zone Key	3-3
3.2.2.3 Clear (No) Key	3-3
3.2.2.4 Zero Key	3-3
3.2.2.5 Enter (Yes) Key	3-3
3.2.3 Function Keys	3-3
3.2.3.1 Star (*) Key	3-3
3.2.3.2 Piece Count Key	3-3
3.3 General Scale Operation	3-4
3.3.1 System Prompts	3-4
3.3.2 Mailing or Shipping an Item	3-4
3.3.3 Weighing a Letter or Package	3-4
3.3.4 Selecting a Class of Service	3-4
3.3.5 Entering a ZIP Code or Country Code	3-5
3.3.5.1 ZIP Code Entry	3-5
3.3.5.2 Country Code Entry	3-5
3.3.6 Selecting Special Services	3-5
Chapter 4: Examples of Operation	4-1
4.1 Sending a Letter or Parcel by USPS First Class/Priority Mail	4-1
4.2 Sending an International Air Letter by USPS	4-2
4.3 Sending a Letter by UPS Second Day Air	4-3
4.4 Sending a Letter by Federal Express Standard Overnight	4-4
Chapter 5: Advanced Features and Operation	5-1
5.1 Piece Counting	5-1
Chapter 6: Setup Operations	6-1
6.1 Setup Operation Overview	6-1
6.2 Setup Menu	6-1
6.2.1 Origination ZIP code	6-1
6.2.2 Handling Charge	6-1

6.2.3	Buzzer Enable/Disable	6-2
6.3	Calibration Menu	6-2
6.4	ADC Diagnostic Menu.....	6-2
Chapter 7:	Legal for Trade Sealing	7-1
7.1	Sealing Method.....	7-1
Appendix A:	Specifications	A-1
Appendix B:	Standard Rates, Special Services and Functions.....	B-1
B.1	Standard Rates, Special Services and Functions.....	B-1
B.1.1	United States Postal Service (USPS)	B-1
B.1.2	United Parcel Service (UPS).....	B-1
B.1.3	Federal Express (FEDEX).....	B-1
B.1.4	Special Services	B-1
B.1.5	Functions	B-1
Appendix C:	Rate and Special Service Abbreviations	C-1
C.1	Rate Abbreviations	C-1
C.2	Special Services Abbreviations.....	C-1
Appendix D:	Country Code Chart.....	D-1
Appendix E:	Country Name Abbreviations	E-1
Appendix F:	Rate Change Information.....	F-1
Appendix G:	Error Messages.....	G-1
G.1	Error Messages.....	G-1
G.1.1	Operator Errors	G-1

LIST OF FIGURES

1-1	SPS-70 Front Panel	1-1
2-1	SPS-70/150 Back Panel.....	2-1
3-1	SPS-70/150 Display Detail	3-1
3-2	Rate Keys and Operator Keys Layout.....	3-1
7-1	SPS-70/150 Back Panel.....	7-1

CHAPTER 1: INTRODUCTION TO THE TRANSCCELL MODEL SPS-70/SPS-150 POSTAL COMPUTING SCALE

The Transcell Model SPS-70/SPS-150 Digital Postal Computing Scale is designed for low volume mailroom and shipping applications. It is equipped with many helpful features that guide the operator through the day to day mailing activities.

The scale is available in two weight capacities. The Model SPS-70 which has a maximum weighing capacity of 70 pounds and the Model SPS-150 which has a maximum weighing capacity of 150 pounds.

Prior to using the scale, please read this user's guide carefully and completely. Store the manual in a safe and convenient place so it will be available if you have questions concerning the operation of the scale.

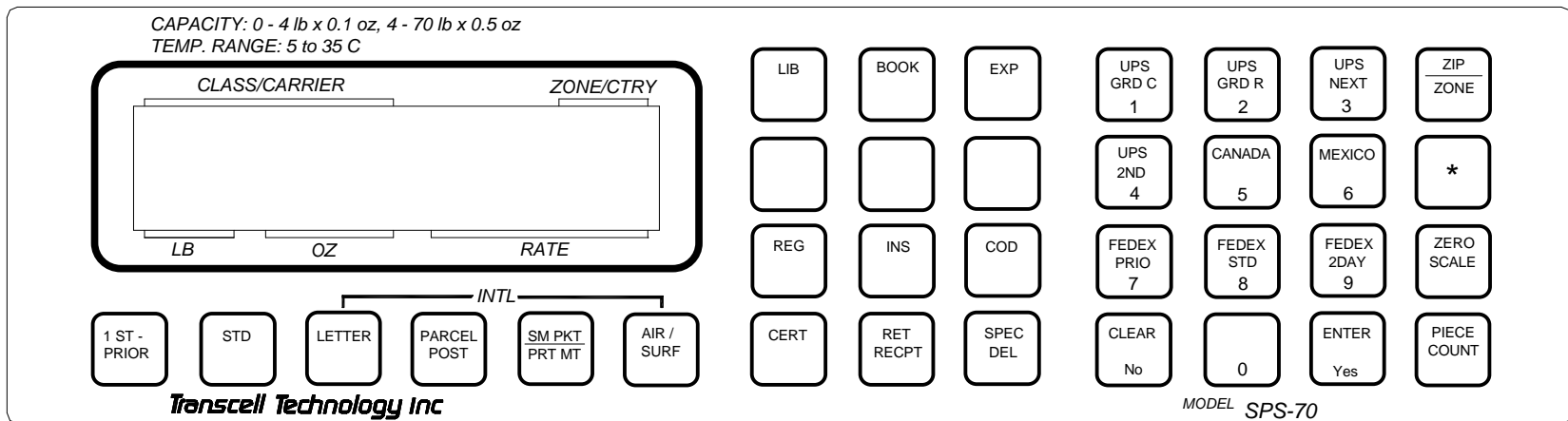


FIGURE 1-1: SPS-70Front Panel

CHAPTER 2: GETTING STARTED

After unpacking the scale, a small amount of preparation is required before the scale can be used for mailing or shipping. Please refer to Figure 2-1 below as needed.

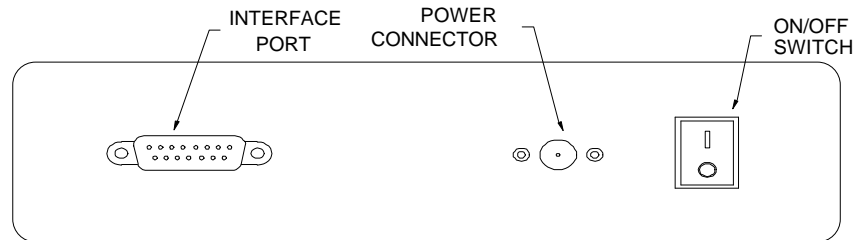


Figure 2-1: SPS-70 / SPS-150 Back Panel

- Step 1. Position the scale in its area of intended use. Observe the following guidelines for suitable location.
1. Choose a firm, stable floor or table.
 2. Do not share an AC outlet with electrical noise producing equipment, such as refrigeration units. This includes products with electrical motors and/or relays.
 3. Do not place the scale in an area with changing ambient temperature and/or high humidity.
 4. Do not place the scale in an area prone to exposure to direct sunlight, wind, or dust.
 5. Do not place the scale in an area with vibrating equipment.
- Step 2. Install the AC Adapter.
1. After placing the scale in its area of use, locate the Model A41408 AC Adapter.
 2. Connect the female end of the AC Adapter to the connector on the rear of scale, and then plug the adapter into an AC outlet.
- Step 3. Turn the scale's AC power on to begin the initialization.
- Step 4. Initialization - The first time the scale is turned on you will be required to enter your origin ZIP Code.
1. When the AC power switch is placed "ON" position, the scale prompts for your "origin ZIP Code".
 2. Enter the first three digits of your ZIP Code. The scale displays the ZIP Code entered and prompts you to verify (Yes or No) if the ZIP Code displayed is correct.
 3. If the ZIP Code is correct, press the "Yes" (Enter) key to complete the initialization or if the ZIP Code is incorrect, press the "No" (Clear) key and enter the correct ZIP Code.

CHAPTER 3: BASICS OF OPERATION

3.1 DISPLAY

The display is an LCD (Liquid Crystal Display) display capable of displaying the various system messages and information.

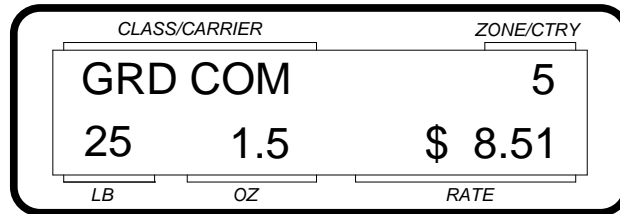


FIGURE 3-1: SPS-70/SPS-150 Display Detail

As shown in Figure 3-1, the scale displays the class of mail, weight, shipping charge (rate) and destination zone or country. When additional information is needed, the scale will prompt for the information.

3.2 KEYBOARD

The keyboard is composed of rate keys, operator keys and function keys. Refer to Figure 3-2 for the overall layout and key locations.

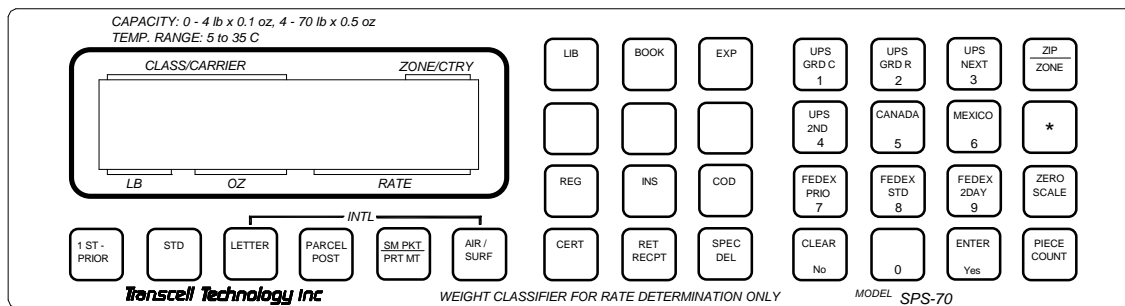


FIGURE 3-2: Rate Keys and Operator Keys Layout

3.2.1 USPS, UPS AND FEDEX RATE KEYS

The following keys allow the access to the USPS rates, UPS rates and the Federal Express rates on the scale keyboard. In each case, pressing the key will select the chosen rate.

3.2.1.1 USPS Rate Keys

1st/Priority - This key is used to select the 1st Class or Priority mail rate class. The scale defaults to the 1st Class mode whenever the scale is turned on.

Standard - This key is used to select the Standard Single Piece and the Standard Parcel Post /Intra BMC or Inter BMC rate.

Library - This key is used to select the Special Fourth Class Library rate.

Book - This key is used to select the Special Fourth Class Single-Piece (Book) rate.

Express - This key is used to select the Express Post Office to Addressee (PO-ADR) rate.

International (Surface & Air) - The following keys are used to select either the International Air rates or the International Surface rates.

- **International Air** - This key is used to select the International Air rates. If an International Surface rate is already displayed, this key toggles the display to show the International Air rate.
- **International Surface** - This key is used to select the International Surface rates. If an International Air rate is already displayed, this key toggles the display to show the International Surface rate.
- **Letter** - This key is used to select the International Air Letter and Letter Packages rate.
- **Parcel Post** - This key is used to select the International Air or Surface Parcel Post rate.
- **Small Packet/Printed Matter** - This key is used to select the International Air or Surface Small Packet/Printed Matter rate.
- **Canada (5)** - This key is used to select Canada as the destination country whenever the scale is prompting for a country code. This key is also used as the numeric 5 key when numeric entry is required.
- **Mexico (6)** - This key is used to select Mexico as the destination country whenever the scale is prompting for a country code. This key is also used as the numeric 6 key when numeric entry is required.

3.2.1.2 UPS (United Parcel Service) Rate Keys

Ground Commercial (1) - Selects the Ground Commercial rate and is also used as the numeric 1 key when numeric entry is required.

Ground Residential (2) - Selects the Ground Residential rate and is also used as the numeric 2 key when numeric entry is required.

Next Day Air Letter/Package (3) - Selects the Next Day Air Package rate and is also used as the numeric 3 key when numeric entry is required.

Second Day Air Letter/Package (4) - Selects the Second Day Air Package rate and is also used as the numeric 4 key when numeric entry is required.

3.2.1.3 FedEx (Federal Express) Rate Keys

Priority Overnight Air Letter/Package (7) - Selects the Priority Overnight Package rate and is also used as the numeric 7 key when numeric entry is required.

Standard Overnight Air Letter/Package (8) - Selects the Standard Overnight Package rate and is also used as the numeric 8 key when numeric entry is required.

Economy 2 Day Air Letter/Package (9) - Selects the Economy 2 Day Package rate and is also used as the numeric 9 key when numeric entry is required.

3.2.2 OPERATOR KEYS

The remainder of the keys acts as various function keys. Some have to do with rate calculations and some have to do with actual scale operation. In each case, pressing the key will activate the chosen function or prompt for further information.

3.2.2.1 SPECIAL SERVICES KEYS

These keys are used to select the special services for each carrier. If the service is not available with the current class of mail or carrier, the scale will briefly display "Service N/A". If the service is not valid with a previously chosen service, the scale will briefly display "Invalid Service".

- **Registered With/Without Postal Insurance** - If this service is selected, the scale prompts you to enter the Registered Amount. If the amount entered is \$100 or less, the scale prompts "Reg w/ Ins (Y/N?)". If you select "Yes", the scale will include postal insurance. If you select "No", the scale will not include

postal insurance. If the amount is over \$100, the scale automatically includes postal insurance.

- **Certified** - If this service is selected, the appropriate fee for the transaction is applied to the displayed rate.
- **Return Receipt** - If this service is selected, the appropriate fee for the transaction is applied to the displayed rate.
- **Collect On Delivery (C.O.D.)** - If this service is selected, the scale displays "Enter Val = 0". Once the value is entered, the appropriate fee for the transaction is applied to the displayed rate.
- **Insurance** - If this service is selected, the scale displays "Enter Val = 0" and allows you to enter the insured amount. After an amount is entered the appropriate fee for the transaction is applied to the displayed rate.
- **Special Delivery** - If this service is selected, the appropriate fee for the transaction is applied to the displayed rate.

3.2.2.2 ZIP/ZONE KEY

The ZIP/ZONE key is used to change the current ZIP code or zone. If three digits are entered, the scale assumes a new ZIP code has been entered. If a one or two digit code has been entered using the ENTER key, the scale assumes a new zone has been entered.

3.2.2.3 CLEAR (NO) KEY

The CLEAR/RESET key is used to clear the current entry, clear the special service fees applied or to answer a YES/NO question. If an incorrect data entry is made, pressing this key will only clear the current data from the display.

3.2.2.4 ZERO KEY

The ZERO key is used to Zero the scale. When this key is selected, the scale zeros the weight.

3.2.2.5 ENTER (YES) KEY

The ENTER (YES) key is used to accept data when in data entry mode or answer a YES/NO question.

3.2.3 FUNCTION KEYS

The function keys are used to access less frequently used scale operations.

3.2.3.1 STAR (*) KEY

The STAR (*) key is used to briefly display the actual rate charged by the carrier selected. This is used in conjunction with the handling charge feature described in section 6.2.2.

3.2.3.2 PIECE COUNT

The Piece Count function puts the scale into a counting mode. Refer Section 5.1 for the Piece Count operation procedure. Note that the counting mode is not available for legal for trade applications.

3.3 GENERAL SCALE OPERATION

3.3.1 SYSTEM PROMPTS

The SPS-70 and SPS-150 scale prompts for information in three ways.

- **Numeric Entry** - This type of prompt appears as an “Enter Val” message with an equal sign indicating a zero value. Use the numeric keys to enter the requested data and press the ENTER key to complete the entry. If you make a mistake during the entry, press the CLEAR key to start over.
- **ZIP Code/ Country Code Entry** - This type of prompt appears as a message with three question marks (???). Use the numeric keys to enter the requested data. There is no need to press the ENTER key to complete the entry. If you make a mistake during the entry, press the CLEAR key to start over.
- **YES/NO Question** - This type of prompt appears as a message with a (Y/N?) suffix. Press the ENTER key for a YES response. Press the CLEAR key for a NO response.

3.3.2 MAILING OR SHIPPING AN ITEM

There are four basic steps to shipping a letter or package. Refer to Section 4 for detailed examples.

1. Place the letter or package on the scale’s platter and allow the weight indication to stabilize. For more information on weighing an item, see Section 3.3.3.
2. Press a rate key to select the mailing or shipping method. Refer to Section 3.3.4 for more information on selecting the desired class of mail.
3. If the method of shipment and/or the weight of the item requires a ZIP Code or country code, the scale prompts (displays three question marks) for a three digit code. Use the numeric keys to enter the destination ZIP Code or country code. Refer to Section 3.3.5.1 for more detailed information on entering a ZIP Code or Section 3.3.5.2 for more detailed information on entering a country code.
4. If required, select a special service (i.e. Insurance, C.O.D., etc.). Press the appropriate key to select the desired special service. Refer to Section 3.3.6 for more detailed instructions on the special services keys.

3.3.3 WEIGHING A LETTER OR PACKAGE

Before weighing an item, make sure the scale shows a zero weight indication. If it does not, remove all items from the platter and press the ZERO key.

To weigh an item, place it on the center of the weighing platter. Once the weight stabilizes, the scale’s display also stabilizes. If the item weight exceeds the scale’s weight capacity, it displays “OVERWT”.

3.3.4 SELECTING A CLASS OF SERVICE

To select a mailing or shipping rate, simply press the appropriate rate key. The available rates are listed in Section 3.2.1.

3.3.5 ENTERING A ZIP CODE OR COUNTRY CODE

3.3.5.1 ZIP CODE ENTRY

If the method of shipment and/or the weight of the item requires a ZIP Code, the scale will prompt for a ZIP Code entry.

- When the scale prompts you for a ZIP Code, enter the three-digit destination ZIP code. When you enter third digit, the scale automatically completes the entry.
- You may also enter a destination zone with less than three digits. For example, to enter zone 8, press “8” then press the ENTER key to complete the entry.
- If the scale displays “Invalid ZIP”, re-enter a valid ZIP Code.
- If you want to change the current ZIP Code or Zone, press the ZIP/ZONE key and enter the new ZIP Code or Zone.

3.3.5.2 COUNTRY CODE ENTRY

When one of the International rate keys is selected, the scale prompts you for a three-digit numeric country code.

- Refer to the Country Code Chart in Appendix E and enter the three-digit destination country code.
- If an invalid country code is entered, the scale displays "Invalid Cty Code" and prompts you again for the country code.
- If an entered country has a service suspension imposed by the USPS or the selected class of mail is not available to that country, the scale displays an error message and prompts you again for the country code.

3.3.6 SELECTING SPECIAL SERVICES

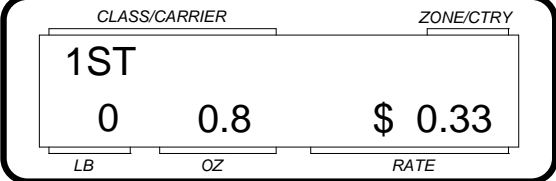
After selecting a rate, press a Special Services key to select a service. If the Special Services key is pressed before a rate is selected, or the special service is not available for the selected class of mail, the scale displays “Service N/A”.

When a value must be entered to determine the special service fee (COD, Registered, and Insurance), the scale prompts for a numeric entry. After the amount is entered, press the ENTER key to accept the input.

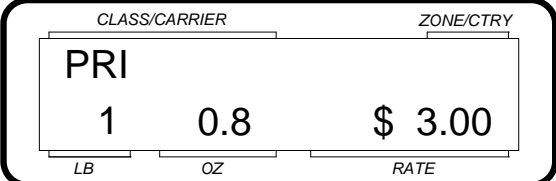
CHAPTER 4: EXAMPLES OF OPERATION

4.1 SENDING A LETTER OR PARCEL BY USPS FIRST CLASS/PRIORITY MAIL

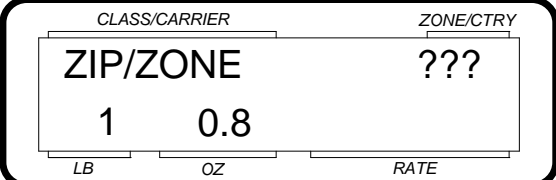
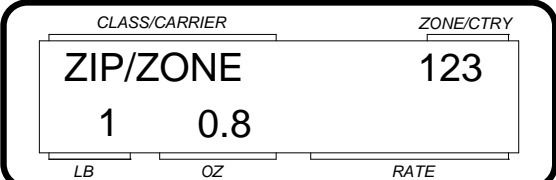

- 1ST Class Mail (Weight Less Than or Equal To 11 ounces)

ACTION	DISPLAY EXAMPLE
1. Press the 1 st /Priority key. No further action is necessary.	 <p>CLASS/CARRIER: 1ST ZONE/CTRY: LB: 0 OZ: 0.8 RATE: \$ 0.33</p>


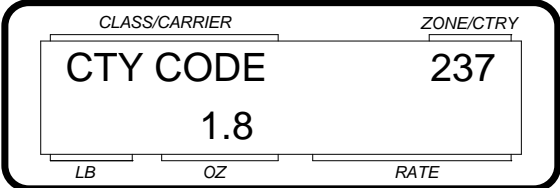

- Priority Mail (Weight from 1 Pound to 5 Pounds)

ACTION	DISPLAY EXAMPLE
1. Press the 1 st /Priority key. No further action is necessary.	 <p>CLASS/CARRIER: PRI ZONE/CTRY: LB: 1 OZ: 0.8 RATE: \$ 3.00</p>

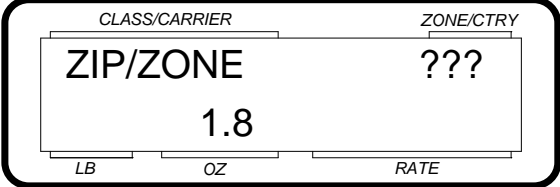
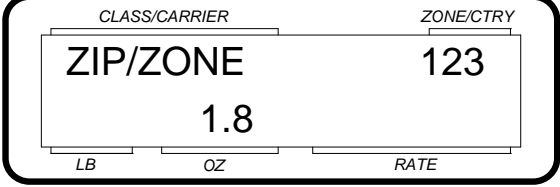

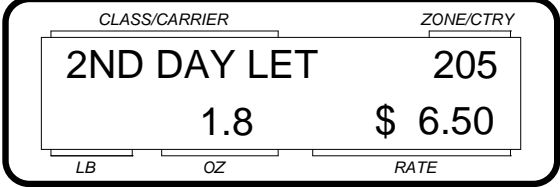
- Priority Mail (Over 5 Pounds)

ACTION	DISPLAY EXAMPLE
1. Press the 1 st /Priority key.	 <p>CLASS/CARRIER: ZIP/ZONE ZONE/CTRY: ??? LB: 1 OZ: 0.8 RATE: (Note: The image shows '0.8' in the OZ field, which is likely a typo for '0.0' based on the context of the example.)</p>
2. Enter the first three digits of the destination ZIP code using the numeric keys. In this example, we will use ZIP code 123.	 <p>CLASS/CARRIER: ZIP/ZONE ZONE/CTRY: 123 LB: 1 OZ: 0.8 RATE: (Note: The image shows '0.8' in the OZ field, which is likely a typo for '0.0' based on the context of the example.)</p>
3. The screen now shows the USPS Priority Mail rate.	 <p>CLASS/CARRIER: PRI ZONE/CTRY: 7 LB: 6 OZ: 0.8 RATE: \$ 9.20</p>

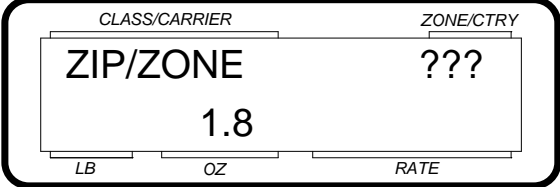
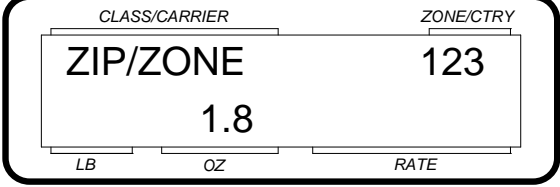
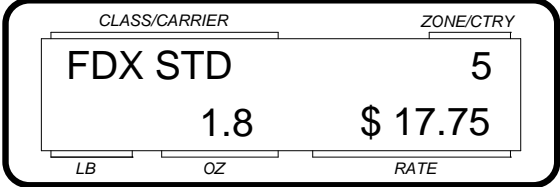
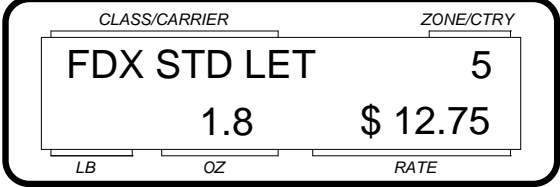
4.2 SENDING AN INTERNATIONAL AIR LETTER BY USPS

ACTION	DISPLAY EXAMPLE
1. Press the Letter Key.	 <p>CLASS/CARRIER ZONE/CTRY CTY CODE ??? 1.8 LB OZ RATE</p>
2. Using the numeric keys, enter the country code from Appendix D. In our example, we will choose Canada, which has a country code of 237. You could also press the CANADA (5) key.	 <p>CLASS/CARRIER ZONE/CTRY CTY CODE 237 1.8 LB OZ RATE</p>
3. The screen now shows the USPS Air Letter rate to Canada.	 <p>CLASS/CARRIER ZONE/CTRY AIR LETTER 237 1.8 \$ 0.72 LB OZ RATE</p>

4.3 SENDING A LETTER BY UPS SECOND DAY AIR

ACTION	DISPLAY EXAMPLE
1. Press the UPS 2 nd Day Air (4) key.	 <p>The screen shows a rounded rectangular display with a thick border. At the top left, it says 'CLASS/CARRIER' and at the top right 'ZONE/CTRY'. The main display area is divided into two sections. The left section shows 'ZIP/ZONE' and the right section shows '???' (three question marks). Below these, the number '1.8' is displayed. At the bottom, there are three labels: 'LB' on the left, 'OZ' in the middle, and 'RATE' on the right.</p>
2. Enter the first three digits of the destination ZIP code using the numeric keys. In this example, we will use ZIP code 123.	 <p>The screen shows a rounded rectangular display with a thick border. At the top left, it says 'CLASS/CARRIER' and at the top right 'ZONE/CTRY'. The main display area is divided into two sections. The left section shows 'ZIP/ZONE' and the right section shows '123'. Below these, the number '1.8' is displayed. At the bottom, there are three labels: 'LB' on the left, 'OZ' in the middle, and 'RATE' on the right.</p>
3. The screen now shows the UPS 2 nd Day Air Package rate.	 <p>The screen shows a rounded rectangular display with a thick border. At the top left, it says 'CLASS/CARRIER' and at the top right 'ZONE/CTRY'. The main display area is divided into two sections. The left section shows '2ND DAY' and the right section shows '205'. Below these, the number '1.8' is displayed on the left and '\$ 7.25' is displayed on the right. At the bottom, there are three labels: 'LB' on the left, 'OZ' in the middle, and 'RATE' on the right.</p>
4. Press the Letter key to get the UPS 2 nd Day Air Letter rate.	 <p>The screen shows a rounded rectangular display with a thick border. At the top left, it says 'CLASS/CARRIER' and at the top right 'ZONE/CTRY'. The main display area is divided into two sections. The left section shows '2ND DAY LET' and the right section shows '205'. Below these, the number '1.8' is displayed on the left and '\$ 6.50' is displayed on the right. At the bottom, there are three labels: 'LB' on the left, 'OZ' in the middle, and 'RATE' on the right.</p>

4.4 SENDING A LETTER BY FEDERAL EXPRESS STANDARD OVERNIGHT

ACTION	DISPLAY EXAMPLE
1. Press the FedEx Standard (8) key.	 <p>Terminal display showing: CLASS/CARRIER (blank), ZONE/CTRY (blank), ZIP/ZONE (blank), 1.8, LB (blank), OZ (blank), RATE (blank).</p>
2. Enter the first three digits of the destination ZIP code using the numeric keys. In this example, we will use ZIP code 123.	 <p>Terminal display showing: CLASS/CARRIER (blank), ZONE/CTRY (blank), ZIP/ZONE (123), 1.8, LB (blank), OZ (blank), RATE (blank).</p>
3. The screen now shows the FedEx Standard Overnight Package rate.	 <p>Terminal display showing: CLASS/CARRIER (blank), ZONE/CTRY (blank), FDX STD, 1.8, 5, \$ 17.75, LB (blank), OZ (blank), RATE (blank).</p>
4. Press the Letter key to get the FedEx Standard Overnight Letter rate.	 <p>Terminal display showing: CLASS/CARRIER (blank), ZONE/CTRY (blank), FDX STD LET, 1.8, 5, \$ 12.75, LB (blank), OZ (blank), RATE (blank).</p>

CHAPTER 5: ADVANCED FEATURES AND OPERATION

5.1 PIECE COUNTING

This function is used to count items of identical weight. To maintain the count accuracy, the following guidelines should be followed.

- All items placed on the scale must be of the same weight.
 - The minimum sample count is 10.
 - The minimum weight per piece must be 0.2 ounces for a sample count of 10.
 - The total weight of the items sampled must be 2 ounces or greater.
1. Remove all items from the scale.
 2. Press the ZERO key.
 3. Press the PIECE COUNT key. The scale prompts you to place a 10-piece sample count on the scale.
 4. Place the 10 piece sample count on the scale. The scale prompts you to press the ENTER key.
 5. Press the ENTER key.
 6. Remove the sample count from the scale.
 7. Place the items to be counted on the scale. As items are added to or removed from the scale the display reflects count.
 8. Press the CLEAR key to return to normal scale operation.

NOTE: If the total weight of 10 samples is less than 2 ounces, it will not register as a full sample. If this occurs, press the ENTER key and the scale will prompt for a 20-piece sample count.

CHAPTER 6: SETUP OPERATION

6.1 SETUP OPERATION OVERVIEW

The system setup consists of three setup areas: Setup Menu, Calibration Menu and Analog to Digital Conversion Diagnostic Menu.

6.2 SETUP MENU

The Setup Menu is used to configure the Origination ZIP code, Handling Charge and Buzzer setup.

1. Press and hold the ZERO key while turning on the scale. When the message "ZIP Code OK?" appears on the screen, you are in Setup Menu Mode and you may release the ZERO key.

6.2.1 ORIGINATION ZIP CODE

This function is used to program your origination ZIP code.

1. Enter the Setup Menu Mode as described above. The scale prompts " ZIP Code OK?" and displays the current ZIP code.
2. Press the ENTER (Yes) key to accept the displayed ZIP code or press the CLEAR (No) key to change the ZIP code.

Note: If "Yes" is selected, the scale proceeds to the Handling Charge Setup. If "No" is selected, the message "Input ZIP = ????" appears in the display.

3. Using the numeric keys, enter the first three digits of your ZIP code. Once all three digits are entered, the scale prompts " ZIP Code OK?" and displays the current ZIP code. Repeat Step 2.

6.2.2 HANDLING CHARGE

This function is used to program a percentage markup for each major class of mail or carrier. In each case, you may enter a number from 0 to 99, with "0" indicating no markup and "99" indicating a 99% markup (1.99 times the true rate). The scale is shipped from the factory with all rates set to a 0% markup.

The rate categories available for markup include the following:

- First Class Single Piece (1ST)
- Priority Mail (PM)
- Standard Mail Single Piece (SMSP)
- Standard Mail Parcel Post (SMPP)
- INT'L Air/Surf (INTL)
- Library/Book (LIB)
- Express Mail (EXP)
- UPS Ground Com/Res (UPS GRD)
- UPS 2nd Day/Next Day (UPS AIR)
- All FedEx (FDX)

1. Enter the Setup Menu Mode as described above and press ENTER (Yes) for current ZIP code. The scale prompts " 1ST PERCENT OK?" and displays the current markup percentage.
2. Press the ENTER (Yes) key to accept the displayed markup percentage for displayed rate category or press the CLEAR (No) key to change the markup percentage.

Note: If "Yes" is selected, the scale proceeds to the next rate category listed above. If "No" is selected, the message "Input PCT = ???" appears in the display.

3. Using the numeric keys, enter the desired markup percentage. The scale asks if the

percent markup for the displayed rate category is OK. Repeat Step 2.

Note: If the desired markup percentage is less than 10, you must press the ENTER key. Otherwise, if the desired markup percentage is 10 or greater, the scale automatically enters the value for you.

4. Repeat Steps 2 and 3 for all rate categories listed.

6.2.3 BUZZER ENABLE/DISABLE

This function is used to enable or disable the audible tone heard when a key is pressed.

1. Enter the Setup Menu Mode as described above and press the ENTER key until the scale prompts " Buzzer OK?" and displays the current status (ON/OFF) of the buzzer.
2. Press the ENTER (Yes) key to accept the displayed buzzer status or press the CLEAR (No) key to change the buzzer status.

Note: If "Yes" is selected, the scale proceeds to Normal Operating Mode. If "No" is selected, the status toggles between ON and OFF.

6.3 CALIBRATION MENU

Your SPS scale ships from the factory fully calibrated. There is no need to calibrate the scale unless you feel that it has become inaccurate. It is a good idea to check the calibration of your scale from time to time with a precision test weight. Transcell recommends that you perform a new calibration on your digital scale at least once a year.

The SPS-70 scale may be calibrated using precision test weights of 4 lb and 50 lb. The SPS-150 scale may be calibrated using precision test weights of 4 lb and 100 lb. Please note that if the unit is sealed for use in commercial applications, this calibration procedure is inhibited. See Chapter 7 for more information.

1. Enter the Calibration Mode by pressing and holding the Mexico (6) key while turning on the scale. When the message "Calibration? Y/N" appears on the screen, you are in Calibration Mode and you may release the Mexico (6) key.
2. Press the ENTER (Yes) key enter the calibration mode. The scale displays the message "C 0 PR ZERO".
3. Remove all items from the scale's platter and then press the ZERO key to zero the scale. The scale displays the message "C 0 PR ENTER".
4. Press the ENTER key to save the zero point value. The scale displays the message "C 4 ".
5. Place the 4 lb test weight(s) onto the scale's platter. When the weight stabilizes, the scale displays the message "C 4 PR ENTER".
6. Press the ENTER (Yes) key to save the 4 lb calibration value. The SPS-70 scale displays the message "C 50 ". The SPS-150 scale displays the message "C 100 ".
7. Place either the appropriate test weight(s) onto the scale's platter. When the weight stabilizes, the scale displays the message " PR ENTER".
8. Press the ENTER (Yes) key to save the 50 lb or 100 lb calibration value. The scale then displays the message "Calibration End".
9. Turn OFF the scale then turn back ON to resume normal operation.

6.4 ANALOG TO DIGITAL CONVERSION (ADC) DIAGNOSTIC MENU

This menu is reserved for Transcell technical personnel only.

CHAPTER 7: LEGAL FOR TRADE SEALING

7.1 SEALING METHOD

The SPS-70 scale only can be sealed for commercial (Legal for Trade) applications as follows.

1. Turn the scale off.
2. On the back of the scale, locate the Calibration Slide Switch Cover Plate (see illustration below).
3. Remove the cover plate to reveal the Calibration Slide Switch.
4. Turn the switch to the opposite position.
5. Replace the slide switch cover and thread a wire security seal through both drilled head screws securing the calibration switch cover.

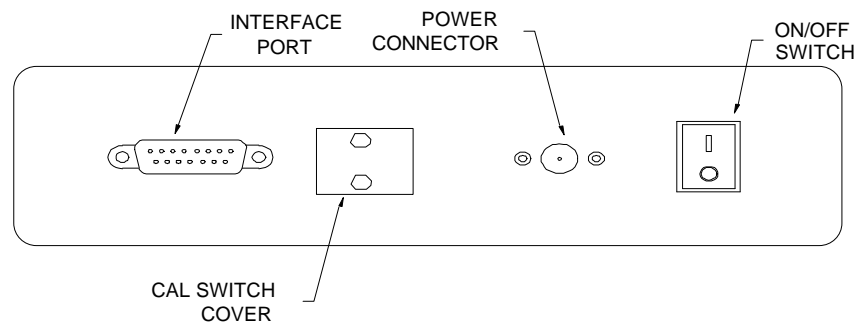


Figure 7-1: SPS-70 / SPS-150 Back Panel

APPENDIX A: SPECIFICATIONS

CAPACITY:

- 0–4 lb x 0.1 oz (SPS-70)
- 0–4 lb x 0.2 oz (SPS-150)
- 4–70 lb x 0.5 oz (SPS-70)
- 4–150 lb x 0.5 oz (SPS-150)

CONSTRUCTION:

- Housings:** Gray ABS
- Sub-Platform:** Metal
- Platter:** Stainless Steel
- Feet:** Non-skid Hard Rubber

DISPLAY:

- 16 x 2 Alpha, Liquid Crystal

KEYPAD:

- 34-key Tactile Keypad

OVER CAPACITY ANNUNCIATION:

- 103% of Full Scale Capacity

NON-LEGAL-FOR-TRADE OPERATING TEMPERATURE RANGE:

- 32°F to 104°F
(0°C to 40°C)

LEGAL-FOR-TRADE OPERATING TEMPERATURE RANGE:

- 41°F to 95°F
(5°C to 35°C)

POWER SOURCE:

- AC Adapter, 12VDC, 800 mA, included

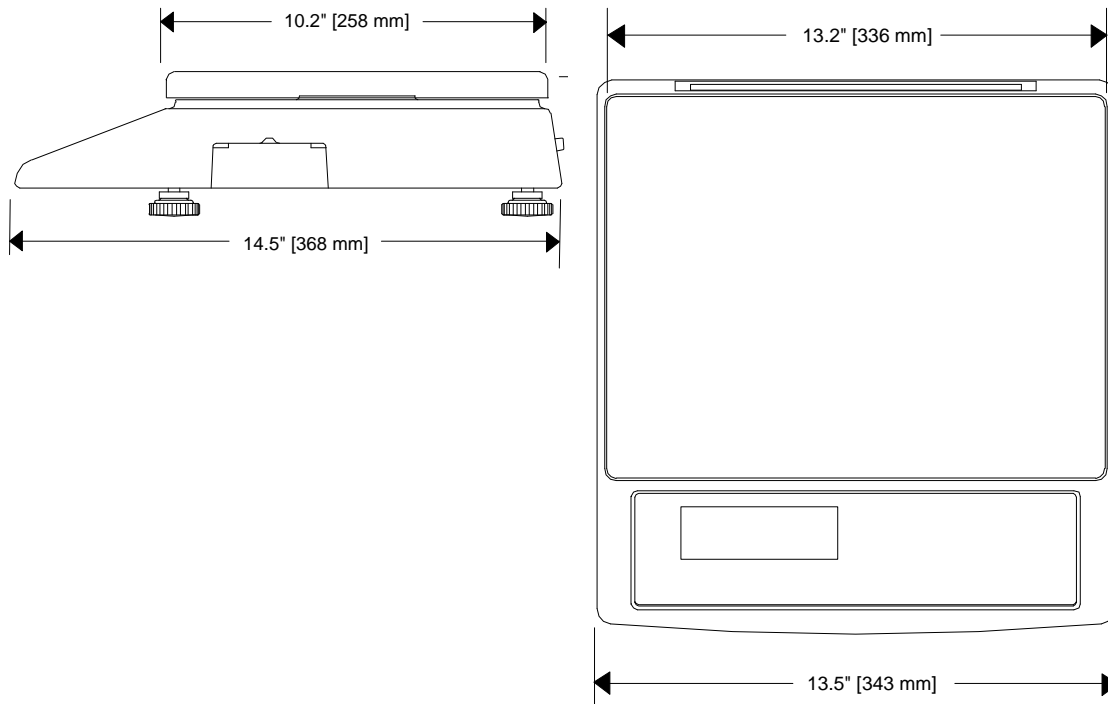
SERIAL PORT:

- Full Duplex RS-232,
Male DSUB9

WEIGHT:

- Net Weight: 23.0 lb (10.4 kg)
- Shipping Weight: 24.0 lb (10.8 kg)

PHYSICAL DIMENSIONS:



APPENDIX B: STANDARD RATES, SPECIAL SERVICES AND FUNCTIONS

B.1 STANDARD RATES, SPECIAL SERVICES AND FUNCTIONS

B.1.1 UNITED STATES POSTAL SERVICE (USPS)

- 1st/Priority (Power On Default)
- Express PO-ADR
- Standard
- Book
- International
 - Air - Letter, Printed Matter, Small Packets, Parcel Post
 - Surface - Printed Matter, Small Packets, Parcel Post
- Library

B.1.2 UNITED PARCEL SERVICE (UPS)

- Next Day Air Letter/Package
- 2nd Day Air Letter/Package
- Ground Package Commercial/Residential

B.1.3 FEDERAL EXPRESS

- Priority Overnight Letter/Package
- Standard Overnight Letter/Package
- Economy 2 Day Letter/Package

B.1.4 SPECIAL SERVICES

- | | |
|--|---|
| <ul style="list-style-type: none">• Registered with Insurance• Registered without Insurance• Insurance• Collect On Delivery (COD) | <ul style="list-style-type: none">• Return Receipt• Certified• Special Delivery |
|--|---|

B.1.5 FUNCTIONS

- Clear
- Enter
- ZIP Code Origin
- Piece Count
- Special Services
- Zero Scale
- Handling Charge

APPENDIX C: RATE AND SPECIAL SERVICE ABBREVIATIONS

C.1 RATE ABBREVIATIONS

Rate	Display Abbreviation.
USPS First 1st Class (<11 oz)	1ST
USPS 1st Priority (>11 oz)	PRI
USPS Express PO-ADR	EXP
USPS Standard Single Piece (<16 oz)	STD
USPS Standard Parcel Post (>16 oz)	STD
USPS Book	BOOK
USPS Library	LIB
USPS International Air Letter	AIR LETTER
USPS International Air Printed Matter	AIR PRT MATT
USPS International Air Parcel Post	AIR PARCEL
USP International Surface Printed Matter	SUR PRT MATT
USPS International Surface Parcel Post	SUR PARCEL
UPS Next Day Air Letter	NXT DAY LET
UPS Next Day Air Package	NXT DAY
UPS 2nd Day Air Letter	2ND DAY LET
UPS 2nd Day Air Package	2ND DAY
UPS Ground Commercial	GRD COM
UPS Ground Residential	GRD RES
Fed Ex Priority Letter	FDX PRI LET
Fed Ex Priority Package	FDX PRI
Fed Ex Standard Letter	FDX STD LET
Fed Ex Standard Package	FDX STD
Fed Ex Economy 2 Day Letter	FDX ECO LET
Fed Ex Economy 2 Day Package	FDX ECO

C.2 SPECIAL SERVICES ABBREVIATIONS

Special Services Description	Long Display Abbreviation	Short Display Abbreviation
Cash On Demand (COD)	COD	CO
Certified	CERT	CT
Insurance	INS	IN
Registered w/ postal insurance	REG (I)	RG
Registered w/o postal insurance	REG	RG
Return Receipt	RT RCPT	RR
Special Delivery	SP DLVY	SD

APPENDIX D: COUNTRY CODE CHART

TRANSCELL USPS INTERNATIONAL COUNTRY CODE CHART

200 Afghanistan	253 Czech Republic
201 Albania	254 Denmark
202 Algeria	255 Djibouti
203 Andorra	256 Dominica
204 Angola	257 Dominican Republic
205 Anguilla	258 Ecuador
206 Antigua & Barbuda	259 Egypt
207 Argentina	260 El Salvador
208 Armenia	261 Equatorial Guinea
209 Aruba	262 Eritrea
210 Ascension	263 Estonia
211 Australia	264 Ethiopia
212 Austria	265 Falkland Islands
213 Azerbaijan	266 Faroe Island
214 Azores	267 Fiji
215 Bahamas	268 Finland
216 Bahrain	269 France, Monaco
217 Bangladesh	270 French Guiana
218 Barbados	271 French Polynesia
219 Belarus	272 Gabon
220 Belgium	273 Gambia
221 Belize	274 Rep. of Georgia
222 Benin	275 Germany
223 Bermuda	276 Ghana
224 Bhutan	277 Gibraltar
225 Bolivia	278 Great Britain/North Ireland
226 Bosnia-Herzegovina	279 Greece
227 Botswana	280 Greenland
228 Brazil	281 Grenada
229 British Virgin Islands	282 Guadeloupe
230 Brunei Darussalam	283 Guatemala
231 Bulgaria	284 Guinea
232 Burkina Faso	285 Guinea-Bissau
233 Burma	286 Guyana
234 Burundi	287 Haiti
235 Cambodia	288 Honduras
236 Cameroon	289 Hong Kong
237 Canada	290 Hungary
238 Cape Verde	291 Iceland
239 Cayman Islands	292 India
240 Central African Republic	293 Indonesia
241 Chad	294 Iran
242 Chile	295 Iraq
243 China	296 Ireland (Eire)
244 Colombia	297 Israel
245 Comoros	298 Italy
246 Congo, Republic of	299 Jamaica
413 Congo, Dem. Republic of	300 Japan
247 Corsica	301 Jordan
248 Costa Rica	302 Kazakhstan
249 Cote d'Ivoire (Ivory Coast)	303 Kenya
250 Croatia	304 Kiribati
251 Cuba	305 Korea, North
252 Cyprus	306 Korea, South

307 Kuwait
308 Kyrgyzstan
309 Laos
310 Latvia
311 Lebanon
312 Lesotho
313 Liberia
314 Libya
315 Liechtenstein
316 Lithuania
317 Luxembourg
318 Macao
319 Macedonia
320 Madagascar
321 Madeira Island
322 Malawi
323 Malaysia
324 Maldives
325 Mali
326 Malta
327 Martinique
328 Mauritania
329 Mauritius
330 Mexico
331 Moldova
332 Mongolia
333 Montserrat
334 Morocco
335 Mozambique
336 Namibia
337 Nauru
338 Nepal
339 Netherlands
340 Netherlands Antilles
341 New Caledonia
342 New Zealand
343 Nicaragua
344 Niger
345 Nigeria
346 Norway
347 Oman
348 Pakistan
349 Panama
350 Papua New Guinea
351 Paraguay
352 Peru
353 Philippines
354 Pitcairn Island
355 Poland
356 Portugal
357 Qatar
358 Reunion
359 Romania
360 Russia
361 Rwanda
362 St. Christopher & Nevis
363 St. Helena
364 St. Lucia
365 St. Pierre & Miquelon
366 St. Vincent & Grenadines
367 San Marino
368 Sao Tome & Principe
369 Saudi Arabia
370 Senegal
371 Serbia-Montenegro
372 Seychelles
373 Sierra Leone
374 Singapore
375 Slovak Republic
376 Slovenia
377 Solomon Islands
378 Somalia
379 South Africa
380 Spain
381 Sri Lanka
382 Sudan
383 Suriname
384 Swaziland
385 Sweden
386 Switzerland
387 Syrian Arab Republic
388 Taiwan
389 Tajikistan
390 Tanzania
391 Thailand
392 Togo
393 Tonga
394 Trinidad & Tobago
395 Tristan Da Cunha
396 Tunisia
397 Turkey
398 Turkmenistan
399 Turks & Caicos Islands
400 Tuvalu
401 Uganda
402 Ukraine
403 United Arab Emirate
404 Uruguay
405 Uzbekistan
406 Vanuatu
407 Vatican City
408 Venezuela
409 Vietnam
410 Wallis & Futuna Islands
411 Western Samoa
412 Yemen
414 Zambia
415 Zimbabwe

APPENDIX E: COUNTRY NAME ABBREVIATIONS

<u>Country Name</u>	<u>Abbr.</u>	<u>Country Name</u>	<u>Abbr.</u>
Afghanistan	AFGHANIS	Cuba	CUBA
Albania	ALBANIA	Cyprus	CYPRUS
Algeria	ALGERIA	Czech Republic	CZECH RE
Andorra	ANDORRA	Denmark	DENMARK
Angola	ANGOLA	Djibouti	DJIBOUTI
Anguilla	ANGUILLA	Dominican Republic	DOM REP
Antigua & Barbuda	ANTIGUA	Dominica	DOMINICA
Argentina	ARGENTIN	Ecuador	ECUADOR
Armenia	ARMENIA	Egypt	EGYPT
Aruba	ARUBA	El Salvador	EL SALVA
Ascension	ASCENSIO	Equatorial Guinea	EQUATORI
Australia	AUSTRALI	Eritrea	ERITREA
Austria	AUSTRIA	Estonia	ESTONIA
Azerbaijan	AZERBAIJ	Ethiopia	ETHIOPIA
Azores	AZORES	Falkland Islands	FALKLAND
British Virgin Isles	VIRGIN I	Faroe Islands	FAROE IS
Bahamas	BAHAMAS	Fiji Islands	FIJI
Bahrain	BAHRAIN	Finland	FINLAND
Bangladesh	BANGLADE	France, Monaco	FRANCE
Barbados	BARBADOS	French Guiana	FRENCH G
Belarus	BELARUS	French Polynesia	FRENCH P
Belgium	BELGIUM	Gabon	GABON
Belize	BELIZE	Gambia	GAMBIA
Benin	BENIN	Republic of Georgia	GEORGIA
Bermuda	BERMUDA	Germany	GERMANY
Bhutan	BHUTAN	Ghana	GHANA
Bolivia	BOLIVIA	Gibraltar	GIBRALTA
Bosnia-Herzegovina	BOSNIA-H	Great Britain/North Ireland	GREAT BR
Botswana	BOTSWANA	Greece	GREECE
Brazil	BRAZIL	Greenland	GREENLAN
Brunei Darussalam	BRUNEI D	Grenada	GRENADA
Bulgaria	BULGARIA	Guadeloupe	GUADELOU
Burkina Faso	BURKINA	Guatemala	GUATEMAL
Burma	BURMA	Guinea-Bissau	GUINEA-
Burundi	BURUNDI	Guinea	GUINEA
Central African Republic	CENT AFR	Guyana	GUYANA
Cambodia	CAMBODIA	Haiti	HAITI
Cameroon	CAMEROON	Honduras	HONDURAS
Canada	CANADA	Hong Kong	HONG KON
Cape Verde	CAPE VER	Hungary	HUNGARY
Cayman Islands	CAYMAN I	Iceland	ICELAND
Chad	CHAD	India	INDIA
Chile	CHILE	Indonesia	INDONESI
China	CHINA	Iran	IRAN
Colombia	COLOMBIA	Iraq	IRAQ
Comoros	COMOROS	Ireland (Erie)	IRELAND
Congo, Dem. Republic of	CONGO DE	Israel	ISRAEL
Congo, Republic of	CONGO RE	Italy	ITALY
Corsica	CORSICA	Ivory Coast	COTE D'L
Costa Rica	COSTA RI	Jamaica	JAMAICA
Croatia	CROATIA	Japan	JAPAN

<u>Country Name</u>	<u>Abbr.</u>	<u>Country Name</u>	<u>Abbr.</u>
Jordan	JORDAN	Philippines	PHILIPPI
Kazakhstan	KAZAKHST	Pitcairn Islands	PITCAIRN
Kenya	KENYA	Poland	POLAND
Kiribati	KIRIBATI	Portugal	PORTUGAL
Kuwait	KUWAIT	Qatar	QATAR
Kyrgyzstan	KYRGYZST	Reunion	REUNION
Laos	LAOS	Romania	ROMANIA
Latvia	LATVIA	Russia	RUSSIA
Lebanon	LEBANON	Rwanda	RWANDA
Lesotho	LESOTHO	South Africa	SOUTH AF
Liberia	LIBERIA	South Korea	KOREA RE
Libya	LIBYA	Sierra Leone	SIERRA L
Liechtenstein	LIECHTEN	San Marino	SAN MARI
Lithuania	LITHUANI	Sao Tomes & Principe	SAO TOME
Luxembourg	LUXEMBOU	Saudi Arabia	SAUDI AR
Macao	MACAO	Senegal	SENEGAL
Macedonia	MACEDONIA	Serbia-Montenegro	SERBIA-M
Madagascar	MADAGASC	Seychelles	SEYCHELL
Madeira Island	MADEIRA	Singapore	SINGAPOR
Malawi	MALAWI	Slovakia Republic	SLOVAK R
Malaysia	MALAYSIA	Slovenia	SLOVENIA
Maldives	MALDIVES	Solomon Islands	SOLOMON
Mali	MALI	Somalia	SOMALIA
Malta	MALTA	Spain	SPAIN
Martinique	MARTINIQ	Sri Lanka	SRI LANK
Mauritania	MAURITAN	St Christopher & Nevis	ST. CHRI
Mauritius	MAURITIU	St Lucia	SAINT LU
Mexico	MEXICO	St Pierre & Miquelon	SAINT PI
Moldova	MOLDOVA	St Helena	SAINT HE
Mongolia	MONGOLIA	St Vincent & Grenadines	SAINT VI
Montserrat	MONTSERR	Sudan	SUDAN
Morocco	MOROCCO	Suriname	SURINAME
Mozambique	MOZAMBIQ	Swaziland	SWAZILAN
North Korea	KOREA DE	Sweden	SWEDEN
Namibia	NAMIBIA	Switzerland	SWITZERL
Nauru	NAURU	Syrian Arab Republic	SYRIA
Nepal	NEPAL	Taiwan	TAIWAN
Netherlands Antilles	NET ANTI	Tajikistan	TAJIKIST
Netherlands	NETHERLA	Tanzania	TANZANIA
New Caledonia	NEW CALE	Thailand	THAILAND
New Zealand	NEW ZEAL	Togo	TOGO
Nicaragua	NICARAGU	Tonga	TONGA
Niger	NIGER	Trinidad & Tobago	TRINIDAD
Nigeria	NIGERIA	Tristan Da Cunha	TRISTAN
Norway	NORWAY	Turkmenistan	TURKMENI
Oman	OMAN	Tunisia	TUNISIA
Pakistan	PAKISTAN	Turkey	TURKEY
Panama	PANAMA	Turks & Caicos	TURKS &
Papua New Guinea	PAPUA NE	Tuvalu	TUVALU
Paraguay	PARAGUAY	Uganda	UGANDA
Peru	PERU	Ukraine	UKRAINE

Country Name**Abbr.**

United Arab Emirate	UNITED A
Uruguay	URUGUAY
Uzbekistan	UZBEKIST
Vanuatu	VANUATU
Vatican City	VATICAN
Venezuela	VENEZUEL
Vietnam	VIETNAM
Wallis & Futuna Islands	WALLIS &
Western Samoa	W. SAMOA
Yemen	YEMEN
Zambia	ZAMBIA
Zimbabwe	ZIMBABWE

APPENDIX F: RATE CHANGE INFORMATION

F.1 RATE UPDATES

Transcell updates carrier rate and structure changes. The rates and operating system reside on one Rate Card, which is removable from the scale for reprogramming purposes.

1. Turn the scale's AC power switch to the off position.
2. Remove the Rate Card cover from the right hand side of the scale.
3. Install the Rate Card in the scale with the component side of the module facing the top of the scale.

APPENDIX G: ERROR MESSAGES

G.1 ERROR MESSAGES

If the scale encounters an error condition, it will display a message alerting the operator. A description of each display follows:

G.1.1 OPERATOR ERRORS

Message	Explanation
<i>ovwt</i>	Indicates that the weight for the class of service selected has been exceeded
<i>underwt</i>	Indicates that the weight for the class of service selected is too light
<i>OVERWT</i>	Indicates that the weighing capacity of the scale has been exceeded
-----	Indicates that the weight reading is less than zero
<i>Invalid Zip Code</i> <i>Invalid Zone #</i>	Indicates that an invalid ZIP code or zone was entered
<i>Invalid Cty Code</i>	Indicates that an invalid country code was entered
<i>Service N/A</i>	Indicates that the special service is not valid for the class of mail selected
<i>Invalid Service</i>	Indicates that the special service is not valid with the current special service(s) selected.