



TRANSCCELL TECHNOLOGY, INC.

TC-100 Series

Digital Scale

Setup Manual

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TABLE OF CONTENTS

	<u>Page</u>
Chapter 1: Introduction To The TC-100 Series Setup Manual	1-1
Chapter 2: Installation	2-1
2.1 Overview	2-1
2.1.1 Connecting the serial printer, remote display or computer	2-1
2.1.2 Connecting the power supply	2-1
Chapter 3: Configuration	3-1
3.1 Configuration Overview	3-1
3.2 Setup ("F") Menu	3-1
3.2.1 Entering the Setup Menu	3-1
3.2.2 Navigating in the Setup Menu	3-1
3.2.3 Notes on the Setup Menu	3-2
3.2.4 Exiting the Setup Menu	3-2
3.3 User ("A") Menu	3-2
Chapter 4: Setup Menu Descriptions and Procedures	4-1
4.1 Setup Menu Descriptions	4-1
4.2 Resetting Factory Defaults	4-2
Chapter 5: User Menu Descriptions and Procedures	5-1
5.1 User Menu Descriptions	5-1
Chapter 6: Calibration	6-1
6.1 Calibration Overview	6-1
6.2 Zero Calibration (F16)	6-1
6.3 Span Calibration (F17)	6-1

LIST OF FIGURES

2-1 TC-100 Rear Panel	2-1
3-1 Setup Menu Key Assignments	3-1
3-2 Setup Menu Chart	3-2
3-3 User Menu Key Assignments	3-5

LIST OF TABLES

4-1 Factory Restore Key	4-2
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CHAPTER 1: INTRODUCTION TO THE TC-100 SERIES SETUP MANUAL

Your Model TC-100 Series Digital Scale is a complete scale and has been configured and calibrated installed for you at the factory. This manual is intended for the dealer or end user who wishes to customize the scale's configuration.

The scale's installation and wiring instructions are found in Chapter 2. The scale contains two main setup menus: The Setup ("F") menu, which configures the Scale to your weigh platform and the User ("A") menu, which configures the serial communication port and enables some user options. Chapter 3 gives an overview and explains how to use the five front panel keys to maneuver and save settings in both menus. Chapters 4 and 5 explain the Setup and User Menu options, respectively. Chapter 6 covers system calibration. Prior to installing the Scale, please read this manual carefully and completely. Store the manual in a safe and convenient place so it will be available if you have questions concerning the setup and operation of the scale.

CHAPTER 2: INSTALLATION

2.1 OVERVIEW

The rear panel contains all connectors necessary to make the appropriate connections to the serial peripheral and power supply.

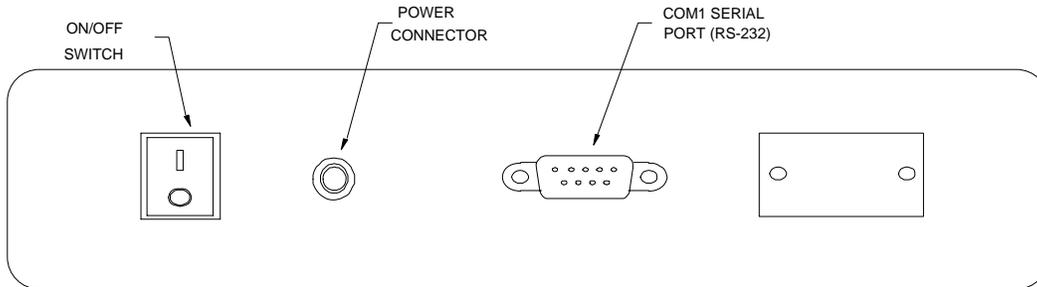


Figure 2-1: TC-100 Rear Panel

2.1.1 CONNECTING THE SERIAL PRINTER, REMOTE DISPLAY OR COMPUTER

The TC-100 series Scale comes standard with one serial port, designated COM1. COM1 is a full duplex, RS-232 port designed for connection to either a PC or a serial printer. It can also be connected to a simplex device such as a remote display.

COM1 is wired to a physical connector, a D-SUB9 female. Refer to the TC-100 Operation Manual (Appendix B) for some suggested cable diagrams. (A 9-pin pin Male D-type connector is required).

2.1.2 CONNECTING THE POWER SUPPLY

1. The Scale ships standard with an external AC to DC adapter. Simply plug the AC adapter into the Scale's DC Power Jack first, and then plug into a standard wall outlet. ***Make sure that the AC voltage appearing at the wall outlet matches the input voltage marked on the AC adapter.***

CHAPTER 3: CONFIGURATION

3.1 CONFIGURATION OVERVIEW

The scale contains two main setup menus: The Setup (“F”) menu, which configures the scale to your weigh platform and the User (“A”) menu, which configures the serial communication port and enables some user options. The Setup and User menus consist of several menu selections, each with its own sub-menu of choices.

To set up the scale, you must first enter the appropriate menu mode. Once there, four of the front panel keys become directional navigators to move around in the menus, and one key is used to save or SET the selections.

3.2 SETUP (“F”) MENU

3.2.1 ENTERING THE SETUP MENU

1. Power off the scale by toggling the ON/OFF switch.
2. Press and hold the numeric 0 key while powering the scale back on. When the scale shows “ F 1” , you are in Setup Menu mode and you may release the 0 key.

3.2.2 NAVIGATING IN THE SETUP MENU

Use the directional keys shown in Figure 3-1 to move around in the Setup Menu Chart shown in Figure 3-2 on the following page. Detailed descriptions of the Setup Menu can be found in Chapter 4.

1. To move to a new “F” heading, use the Print (left) or 9 (right) key to move right or left in the Setup Menu Chart.
2. To move to the selection level, press the 6 (down) key once. The current saved selection is shown.
3. To view the available selections for the current “F” heading, use the Print (left) or 9 (right) key to move through the selection field.
4. To save a new selection, press the SAMPLE / SAVE (Set) key. To exit without saving, press the 3 (up) key to return to the current “F” heading.
5. Repeat Steps 2 through 5 until the Setup Menu is programmed.

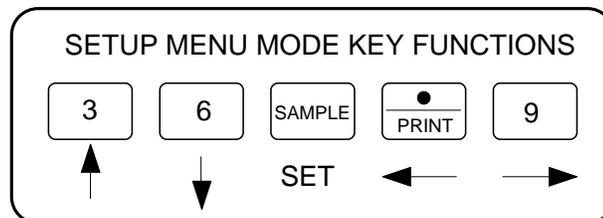


Figure 3-1: Setup Menu Key Assignments

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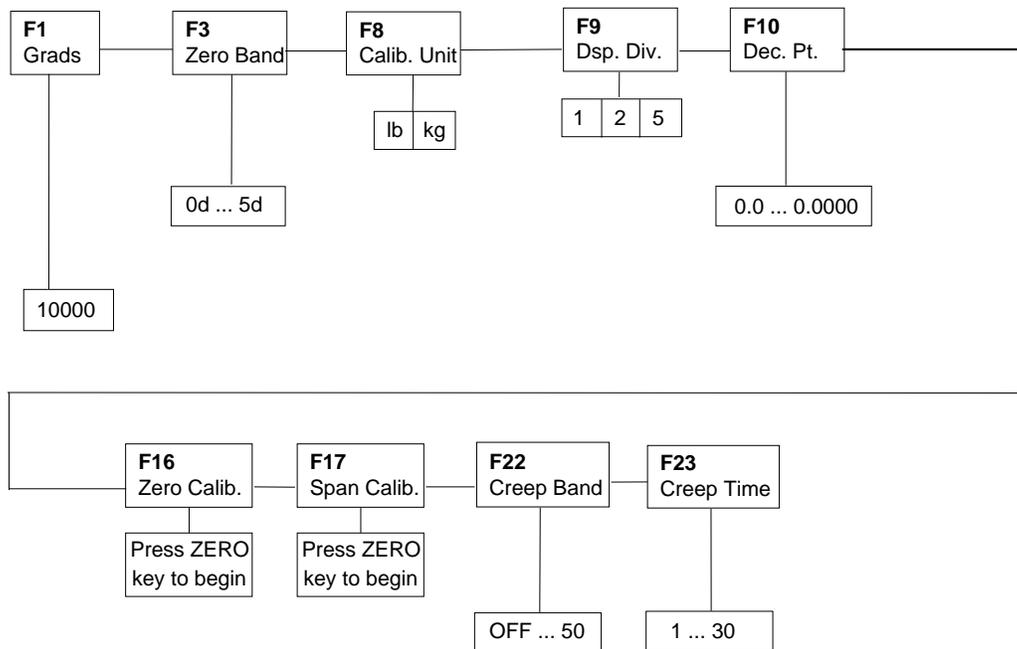


Figure 3-2: Setup Menu Chart

3.2.3 NOTES ON THE SETUP MENU

1. Detailed descriptions of the setup menu parameters can be found in Chapter 5 of this manual.

3.2.4 EXITING THE SETUP MENU

1. Power off the scale by toggling the ON/OFF switch.
2. Power on the scale as normal. The display will go through a digit check, then settle into Normal Operating mode. All front panel keys will now return to their normal mode of operation.

3.3 USER (“A”) MENU

The User Menu is covered extensively in the TC-100 Operation Manual.

CHAPTER 4: SETUP MENU DESCRIPTIONS AND PROCEDURES

4.1 SETUP MENU DESCRIPTIONS

This section provides more detailed descriptions of the selections found in the Setup Menu Chart. Factory-set defaults are shown in bold with a checkmark (✓).

NAME/CODE	DESCRIPTION	CODE/VALUE
F1 Graduations	Specifies number of full-scale graduations. Value should be consistent with legal requirements and environmental limits on the useful system resolution.	10,000 ✓
F3 Zero Track Band	Selects the range within which the scale will automatically zero. Note that the scale must be in standstill to automatically zero. Selections are in Display Divisions.	0d 0.1d 0.3d 0.5d ✓ 1d 3d 5d
F8 Calib. Unit	Selects the primary base unit to be used in the calibration process. Also the default unit for normal operation. "1" = primary unit is lb. "2" = primary unit is in kg.	1 2 ✓ depends on model
F9 Display Divisions	Determines the desired weight increments. Value should be consistent with legal requirements.	1 2 5 ✓ depends on model
F10 Decimal Pt.	Determines location of the decimal point.	0.0 0.000 0.0000 ✓ depends on model
F16 Zero Calibration	Places indicator into the zero calibration routine. Scrolling down with the 6 key one level begins the procedure.	Press 6 key to begin sequence
F17 Span Calibration	Places indicator into the span calibration routine. Scrolling down with the 6 key one level begins the procedure.	Press 6 key to begin sequence
F22 Creep Tracking Band	Determines the creep tracking band in scale divisions.	OFF ✓ 10 15 20 25 30 50
F23 Creep Tracking Time	Determines the creep tracking time in seconds.	1 2 3 4 5 ✓ 10 20 30

4.2 RESETTING FACTORY DEFAULTS

This section provides instructions for restoring factory default settings for each model.

1. Turn off the scale by toggling the ON/OFF switch.
2. Look up the key in Table 4-1 below corresponding to your model.
3. Press and hold that key while switching the scale back on. You may release that key when the scale displays the corresponding message found in Table 4-1.

MODEL	CAPACITY / GRADUATION	KEY	MESSAGE
TC-100-2	2 lb x 0.0002 lb	1	INIT 2
TC-100-5	5 lb x 0.0005 lb	2	INIT 5
TC-100-10	10 lb x 0.001 lb	3	INIT10
TC-100-20	20 lb x 0.002 lb	4	INIT20
TC-100-1M	1000 g x 0.1 g	5	INI 1-
TC-100-2M	2000 g x 0.2 g	6	INI 2-
TC-100-5M	5000 g x 0.5 g	7	INI 5-
TC-100-10M	10,000 g x 1 g	9	INI10-

Table 4-1: Factory Restore Key

CHAPTER 5: USER MENU DESCRIPTIONS AND PROCEDURES

5.1 USER MENU DESCRIPTIONS

Please refer to Chapter 5 of the TC-100 Operation Manual.

CHAPTER 6: CALIBRATION

6.1 CALIBRATION OVERVIEW

The scale is calibrated by following the procedures embedded in F16 (Zero) and F17 (Span) of the Setup Menu. Each procedure enters a value into the scale's non-volatile memory - F16 the zero value (deadweight) and F17 the span value (test weight). The minimum test weight that can be used is 1% of full-scale capacity.

NOTE: This chapter assumes that the scale is in Setup ("F") Menu mode. If the scale is not in Setup Menu mode, refer to Chapter 3 for instructions.

6.2 ZERO CALIBRATION (F16)

1. While in the Setup mode, scroll to "**F 16**", then scroll down once using the 6 key to enter zero calibration menu. The display will momentarily show "**C 0**" followed by a value. This value is the internal A/D count and can prove useful when trying to troubleshoot setup problems.
2. After making sure that there are no test weights on the platform, press the ZERO key to zero out the displayed value.
3. Press the SAMPLE/SAVE key to save the zero point value. The display will show "**EndC0**" momentarily, then revert back up to F16. At this time, proceed to the F17 span calibration to complete scale calibration.

6.3 SPAN CALIBRATION (F17)

1. While in the Setup mode, scroll to "**F 17**", then scroll down once using the 6 key to enter span calibration menu.
2. The display will momentarily show "**C 1**" for the span calibration, followed by a value with one flashing digit. This value will be zero with the Decimal Point parameter selected in F10. Place the test weight on the platter.
3. Use the numeric keys to enter the test weight value. Please note that the decimal point is fixed so that if you are entering, for example, 2 lb, you need to type "2" followed by zeroes until the "2" is to the left of the decimal point.
4. After setting the exact value, press the SAMPLE/SAVE key to save the value.
5. If the calibration was successful, the display will show "**EndC1**" momentarily, then revert back up to F17.
6. If the calibration was *not* successful, one of the error messages below will appear. Take the indicated action to correct the problem, then perform a new calibration.

"Err0" - The calibration test weight or the adjusted keyed-in weight is larger than the full capacity of the scale. Change the calibration test weight or check the input data.

"Err1" - The calibration test weight or the adjusted keyed-in weight is smaller than 1% of the full capacity of the scale. Change the calibration test weight or check the input data.

"Err2" - The internal resolution of the scale is not high enough to accept the calibration value.