



A member of the  
Avery Weigh-Tronix Group

# Model 675

## Precision Parts Counter



## User Instructions

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# 1 General Information and Warnings

## 1.1 About this Manual

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This manual is divided into chapters by the chapter number and the large text at the top of a page. Subsections are labeled as shown by the 1 and 1.1 headings shown above. The names of the chapter and the next subsection level appear at the top of alternating pages of the manual to remind you of where you are in the manual. The manual name and page numbers appear at the bottom of the pages.

### 1.1.1 Text Conventions

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Keystrokes are shown in brackets e.g. **[PRINT]** and reflect the case of the key being described. This applies to the keys on the front keypad.

Displayed messages appear in *italic* type and reflect the case of the displayed message.

### 1.1.2 Special Messages

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Examples of special messages you will see in this manual are defined below. The signal words have specific meanings to alert you to additional information or the relative level of hazard.



---

***DANGER!***  
***THIS IS A DANGER SYMBOL.***  
***DANGER MEANS THAT FAILURE TO FOLLOW SPECIFIC PRACTICES OR PROCEDURES WILL CAUSE INJURY OR DEATH.***

---



---

***ELECTRICAL WARNING!***  
***THIS IS AN ELECTRICAL WARNING SYMBOL.***  
***ELECTRICAL WARNINGS MEAN THAT FAILURE TO FOLLOW SPECIFIC PRACTICES OR PROCEDURES MAY RESULT IN ELECTROCUTION, ARC BURNS, EXPLOSIONS OR OTHER HAZARDS THAT MAY CAUSE INJURY OR DEATH.***

---



---

***CAUTION!***  
***This is a Caution symbol.***  
***Cautions give information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.***

---



---

***NOTE:*** *This is a Note symbol. Notes give additional and important information, hints and tips that help you to use your product.*

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## 1.2 Installation

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**THE MODEL 675 DOES NOT INCLUDE AN ON/OFF SWITCH AND, THEREFORE, MUST BE INSTALLED NEAR A POWER OUTLET SOCKET THAT IS EASILY ACCESSIBLE AND IN KEEPING WITH UL/CSA SAFETY STANDARDS.**

---



**INFORMATION IMPORTANT!**

---

**PRENDRE NOTE QUE LES MODEL 675 NE SONT PAS MUNIS D'INTERRUPTEURS "MARCHE / ARRÊT". PAR CONSÉQUENT, IL DEVRONT ÊTRE INSTALLÉS PRÈS D'UNE SOURCE D'ALIMENTATION SECTEUR ACCESSIBLE POUR DEMEURER SOUS LES EXIGENCES DES NORMES DE SÉCURITÉ UL/CSA.**

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## 1.3 Enclosure

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The enclosure is made of die cast aluminum with rib enforcement. This design provides extra strength and durability. The enclosure is painted with powder coat finish and the counting surface is stainless steel. The enclosure also includes built in carrying handles and a line cord wrap for ease of portability.

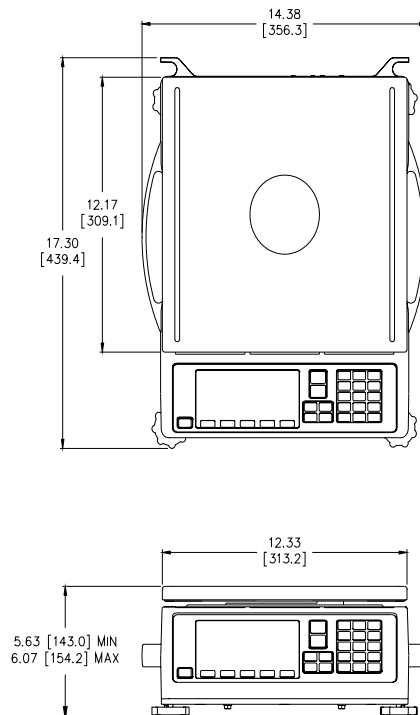


Figure 1.1 Model 675 Dimensions

## 1.4 Electrical Installation

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**CAUTION:** The power cable must be connected to an earth-grounded electrical outlet. The electrical supply must have a circuit breaker with an appropriate rating to protect from over-current conditions.

**Do not install the Model 675 in wet or damp conditions!**

---

**IF IN DOUBT SEEK ADVICE FROM A QUALIFIED ELECTRICIAN.**

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### 1.4.1 Pluggable Equipment

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Pluggable equipment must be installed near an easily accessible socket outlet.

### 1.4.2 Permanently Wired Equipment - Isolator Requirements

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Permanently connected equipment must have a readily accessible disconnect device incorporated in the fixed wiring such as an isolator or circuit breaker with at least 3mm contact separation.

The isolator **MUST NOT** be installed into the flexible power cable supplied with the unit.

### 1.4.3 Safe Handling of Equipment with Batteries

---



**Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.**

---

**ATTENTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie, remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.**

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### 1.4.4 Wet Conditions

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The Model 675 is not a washdown unit. Do not install near water.

## 1.5 Routine Maintenance

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**IMPORTANT:** This equipment must be routinely checked for proper operation and calibration.  
Application and usage will determine the frequency of calibration required for safe operation.

---



**ALWAYS TURN OFF THE MACHINE AND ISOLATE FROM THE POWER SUPPLY BEFORE STARTING ANY ROUTINE MAINTENANCE TO AVOID THE POSSIBILITY OF ELECTRIC SHOCK.**

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Make sure that the Model 675 is placed securely on a flat and level surface.

---

## 1.6 Cleaning the Model 675

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Table 1.1 Cleaning DOs and DON'Ts



DO	DO NOT
Wipe down the outside of standard products with a clean cloth, moistened with water and a small amount of mild detergent	Attempt to clean the inside of the machine
Spray the cloth when using a proprietary cleaning fluid	Use harsh abrasives, solvents, scouring cleaners or alkaline cleaning solutions
	Spray any liquid directly on to the display windows

## 1.7 Training

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Do not attempt to operate or complete any procedure on a machine unless you have received the appropriate training or read the instruction books.

To avoid the risk of RSI (Repetitive Strain Injury), place the machine on a surface which is ergonomically satisfactory to the user. Take frequent breaks during prolonged usage.

## 1.8 Sharp Objects

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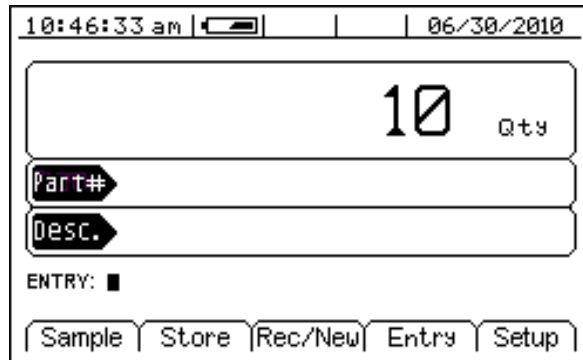
Do not use sharp objects such as screwdrivers or long fingernails to operate the keys.



## 1.9 Display

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A large 16 line x 40 character graphic LCD provides excellent visibility with user defined help screens and prompting. The large graphic display features a backlight for use in poorly lit areas.



## 1.10 Keypad

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The Model 675 comes standard with a durable and versatile polymeric switch plate. The keys are large and easy to use. The keypad is easily cleaned with a damp cloth or non-abrasive cleaner.

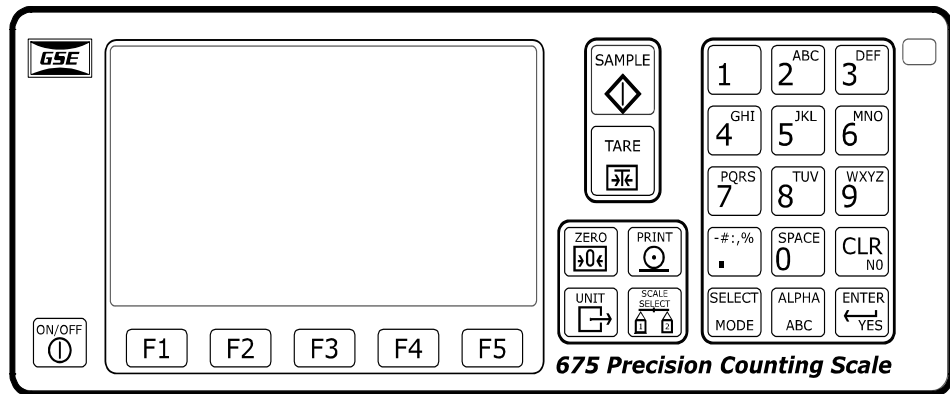















Figure 1.2 Model 675 Keypad

## 1.10.1 Keypad Functions

All of the keys perform different functions. Some keys have more than one function.

Key	Description
	Act as soft keys which will perform a specific function. Refer to the text on the display for the function of each soft key.
	Subtracts the weight of the tare from the displayed weight. Commonly used for removing the weight of a container.
	Performs a gross zero and displays the gross mode.
	Performs a sample for an accurate parts counting and calculates an average piece weight.
	Toggles between the available units.
	Selects between all enabled scales. The current scale number will be shown on the display.
	Print data from a specified communication port.
	Select among modes such as Gross, Net, Tare, Quantity and Average Piece Weight.
	Clear the entry buffer or answer "NO" to a question.
	Enter data or answer "YES" to a question.
	Enable/disable alpha entry mode. Refer to page 4 for setup information.Key
	Turn the scale on or off.
	Numeric keys used to manually enter a value for tare weight, average piece weight, sample size etc.

## 1.10.2 Alpha Entry

The Model 675 provides quick and easy alpha entry. The **[ALPHA]** key becomes the "Alpha enable/disable" key. The alpha characters assigned to each numeric key mimic a telephone layout with the addition of the **[0/space]** key. This allows additional ASCII characters to be accessed via the decimal point key. The display will show >> while an alpha entry is in progress and > when the "Alpha" entry mode is disabled. If the ALPHA graphic icon is enabled, it will also show on the display if an alpha entry is in progress.

### Character Entry

When alpha characters and other non-numeric characters are to be entered using the front panel keypad, use the **[ALPHA]** key to "build" the entry:

Press the **[ALPHA]** key to initialize the alpha entry mode. *ALPHA* will be shown on the display, indicating the **[ALPHA]** key is active. Press the **[ALPHA]** key again to turn alpha entry off.

Keys **[2]** - **[9]** have uppercase and lowercase alphabetic characters assigned to them. The **[.]** key scrolls through the remaining characters. The **[0/SPACE]** is used for inserting a space. Press the **[CLR] + [0/SPACE]** keys simultaneously to backspace one character.

To enter characters, press the corresponding number key on the keypad. The first character in the sequence (depending on the "Alpha" mode selected) will appear first. Continue pressing the key before the timeout occurs to scroll through the characters for that key. Refer to [Table 1.2](#) for character key assignments.

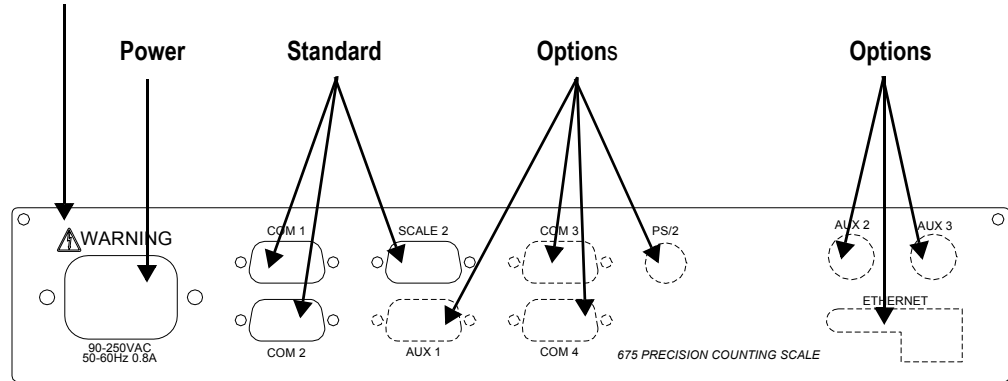
Table 1.2 Character Key Assignments

Key	Character																															
[1]	1																															
[2]	2	A	B	C	a	b	c																									
[3]	3	D	E	F	d	e	f																									
[4]	4	G	H	I	g	h	i																									
[5]	5	J	K	L	j	k	l																									
[6]	6	M	N	O	m	n	o																									
[7]	7	P	Q	R	S	p	q	r	S																							
[8]	8	T	U	V	t	u	v																									
[9]	9	W	X	Y	Z	w	x	y	Z																							
[.]	.	-	:	/	#	\	!	"	\$	%	&	'	(	)	*	+	,	;	<	=	>	?	@	[	]	^	_	'	{		}	~
[0]	0	S	p	a	c	e																										

## 1.11 Rear Panel

The Model 675 comes standard with 2 communication ports, which use Male DB-9 connectors. A remote base can also be connected to the SCALE 2 Female DB-9 connector. The positions that are shown with dotted lines are available for options such as scale 3 and 4, Ethernet, communication ports and setpoints.

NOTE: The ⚠ means CAUTION. Disconnect power before servicing



### 1.11.1 Scale 2 Connections (Remote Scale)

If a 4-wire load cell cable is being used, jumpers will need to be installed between sense and excitation. The jumpers will be installed on the DB9 connector being installed on the load cell cable. The intention of pins 8 and 9 on the DB9 are to connect the sense and excitation in 4 wire load cell applications without having to solder two wires in one hole. Refer to [Table 1.3](#) for scale 2 pin out connections.

**Table 1.3 Scale 2 DB9 Connector Pin Out**

DB9 pin designation	Connection	Load Cell Cable
1	+ Signal	4 or 6 wire
2	- Signal	4 or 6 wire
3	+ Sense	4 wire (connect a wire jumper to pin 8)
4	- Sense	4 wire (connect a wire jumper to pin 9)
5	- Excitation	4 or 6 wire
6	+ Excitation	4 or 6 wire
7	Chassis Ground	4 or 6 wire
8	+ Excitation	4 wire (connect a wire jumper to pin 3)
9	- Excitation	4 wire (connect a wire jumper to pin 4)

## 1.11.2 Communication Port Connections

---

Comm port 1 and 2 are standard on the Model 675. Comm port 3 and Comm port 4 are optional. Refer to Table 4 for communication port pin outs.

**Table 1.4 Comm Port 1 - 4 Pin Out**

DB9 pin	Comm 1	Comm 2	Comm 3 (optional)	Comm 4 (optional)
1	No connection	TTL	No connection	No connection
2	RXD	RXD	RXD	RXD
3	TXD	TXD	TXD	TXD
4	+ 5 V	+ 5V	+ 5V	+ 5V
5	ISO Ground	Ground	Ground	Ground
6	Ground	Ground	Ground	Ground
7	RTS	RTS	No connection	No connection
8	CTS	CTS	CTS	No connection
9	Remote Key 1	Remote Key 2	No connection	No connection

## 1.12 Remote Key Connections

---

The Model 675 allows for two remote key inputs. The inputs can be used for invoking a macro to perform tasks such as zero, print, tare etc. See the chart below for comm port and pin assignment.

**Table 1.5 Remote Key**

Remote Key	Port	Pins
1	Comm 1	6 and 9
2	Comm 2	6 and 9

## 1.13 FCC and EMC Declarations of Compliance

---

### United States

**Table 1.6**

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 instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### Canada

**Table 1.7**

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

### European Countries

**Table 1.8**

**WARNING:** This is a Class A product. In a domestic environment, this product may cause radio interference in which the user may be required to take adequate measures.

## 2 Configuration

The Model 675 Precision Counting Scale comes from the factory with the Application Menu enabled. This is where you will choose the preferred method of parts counting or weighing. See the explanations of each method in this chapter. After each counting method are the instructions for setting up that method.

Refer to Chapter 3 for operating instructions of each method.

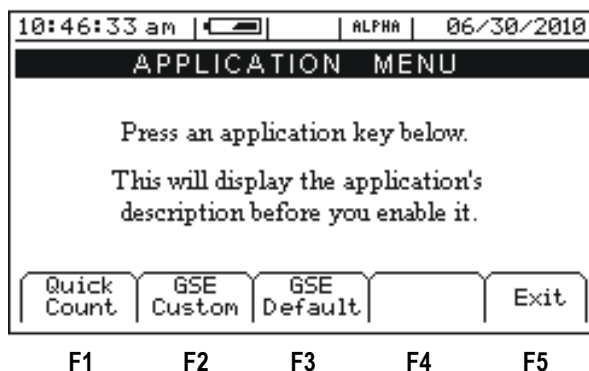


Figure 2.1 Model 675 Power up Screen

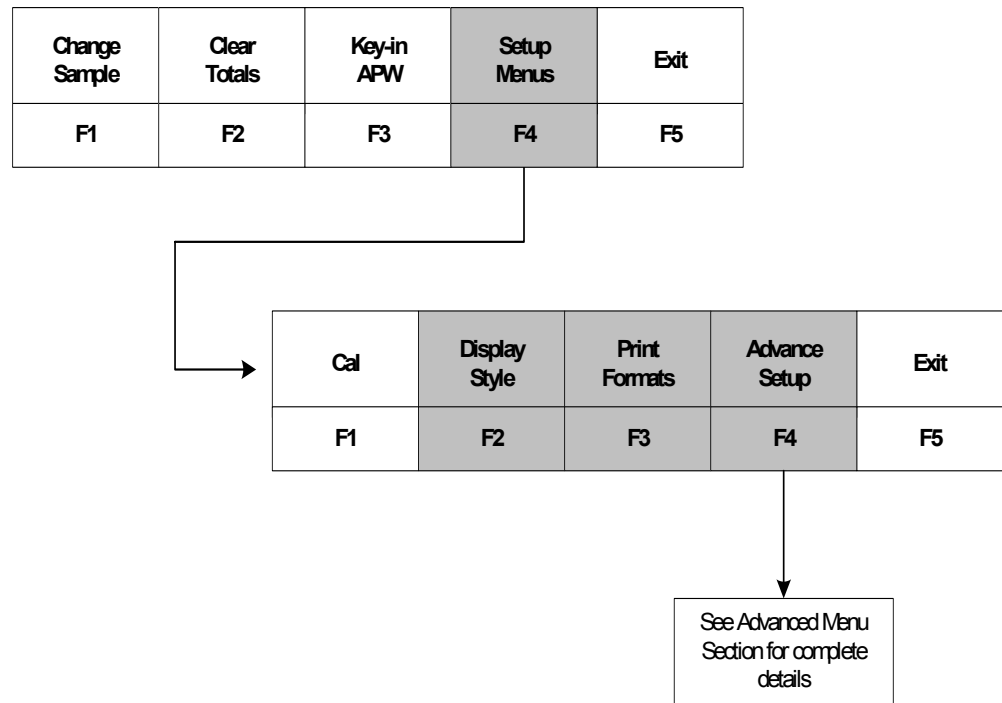
### 2.1 F1 - Quick Count

---

The **Quick Count** mode is designed for performing a quick sample and count. The soft keys are used in succession from left to right to increase speed and ease of parts counting. Basic functionality is offered to simplify operation. Below are the available soft keys and an explanation of their purpose in the **Quick Count** mode.

## 2.1.1 Quick Count Setup Menu

Use the **[F4]** Setup menu key from the *Quick Count* screen to gain access to different menus. Menu items shaded in gray are multiple level.



### Setup the Quick Count Mode

1. Press **[F1]** from the **Application Menu**. The display will come up with an explanation of the **Quick Count** menu.
2. At this time you can choose the **Quick Count** mode by pressing **[ENTER]** (YES) or return to the **Application Menu** by pressing **[F5]** (Exit) or **[CLR]** (NO).
- 2a. The Quick Count file will load automatically and return to the **Quick Count** mode.



## 2.1.2 Setup

This menu was designed for accessing the items that will need to be changed most often. Below is an explanation of the choices in the menu. Follow the instructions on the display for each key.

Function Key	Parameter	Description	Default Setting	Keypress
<b>F1</b>	CHANGE SAMPLE	Change the default sample size	10	Key in new sample size and press <b>[ENTER]</b> to accept or <b>[F5]</b> to escape
<b>F2</b>	CLEAR TOTALS	Clears the accumulation registers	Not applicable	Press <b>[ENTER]</b> to clear totals or <b>[CLR]</b> to escape
<b>F3</b>	KEY-IN APW	Key in an average piece weight for sample	0	Key in new average piece weight and press <b>[ENTER]</b> or <b>[F5]</b> to escape
<b>F4</b>	SETUP MENUS	Continues on to the Setup Menus	Not applicable	Press <b>[F4]</b> to continue

## 2.1.3 Setup Menus

This is the next level of menus, which offer more advanced setup.

Function Key	Parameter	Description	Default Setting	Keypress
<b>F1</b>	CAL	Calibration any of the enabled scales	Not applicable	Key in access code and press <b>[ENTER]</b> or press <b>[F5]</b> to escape
<b>F2</b>	DISPLAY STYLE	Chose how the display will appear	Style 2	Press either <b>[F1]</b> - <b>[F3]</b> to chose the desired display style or <b>[F5]</b> to escape
<b>F3</b>	PRINT MENU	Choose what information to print out	Not applicable	Continues on to the Print Menu selections
<b>F4</b>	ADVANCE SETUP	Continues on to the Advanced Setup Menu	Not applicable	See <a href="#">page 17</a>

### Cal (Calibration)

Refer to Chapter 4 for complete instructions on calibrating the Model 675.

### Display Style

Choose one of the display types and press **[F5]** (EXIT) to save the change and return to the main menu.

#### Style 1

This is the classic GSE 2x5 display. The weight or quantity will be displayed in larger font while the prompts will be to the right of the weight display.

## Style 2

This style incorporates the classic GSE 2x5 display along with two smaller displays, which will show other parameters. Press the **[SELECT]** key from **Quick Count** to toggle through the different parameter choices.

## Preset Print Formats

The preset print formats are viewable on the LCD display. Use the **[F3]** left arrow and **[F4]** right arrow keys to view all transmit styles. Choose the desired format by viewing it on the screen. Press the **[F5]** (EXIT) key to save the format and return to the main menu.

Print #1

Quantity:	30
APW:	0.1234
Tare:	1.515 lb

Print #2

Quantity:	30
APW:	0.1234
Tare:	1.515 lb
10:10:00 am 06/23/2010	

Print #3

Quantity:	30
Tare:	1.515 lb
Scale #:	2

Print #4

Part#:	989777
Quantity:	30
APW:	0.1234
Tare:	1.515 lb

Print #5

10.025 lb	Gross
2.500 lb	Tare
7.525 lb	Net

Print #6

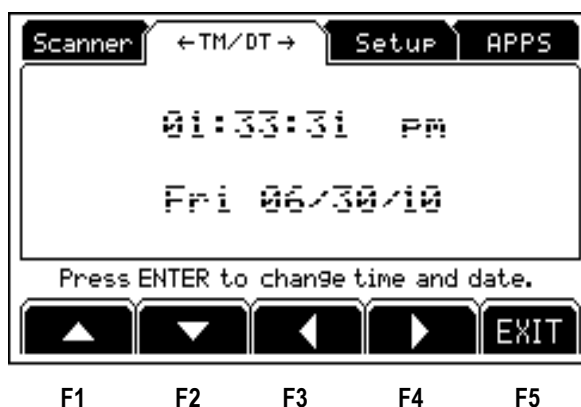
Quantity:	55
Qty Total:	513
Total Accums:	9

Print #7

Part#:	989777
APW:	0.1234
Tare:	1.515 lb
10:10:00 am 06/23/2010	

## 2.1.4 Advanced Setup Menu

The **Advanced Menu** will allow access to the time/date, setup mode and application files. Use the arrow keys to navigate to the desired tab. This is common on the preprogrammed methods of counting such as **Quick Count** and **APW**.



### Time/Date

1. From the time/date tab, press **[ENTER]** to access the configuration screen. The time can be changed with the **[F1]** key. The date can be changed with the **[F2]** key.
2. Key in the time or date by following the format on the display and press **[ENTER]** to accept the entry.
3. Press **[F5]** (EXIT) to return to the main menu.

### Setup (Setup Mode Access)

This tab allows access to the setup mode to make changes to parameters such as full scale, count accuracy and baud rate etc.

### Apps (Application Menu)

Access the Application Menu to switch to another operating mode or the factory default mode.

1. From the Apps tab press **[ENTER]**.
2. Key in the access code and press **[ENTER]**. The Apps Menu will automatically load.

---

*NOTE: Press **[F5]** at any time to abort loading the Apps Menu.*

---

### Scanner

This tab was specifically designed to show the string received from a scanner. Scan a label and the raw scanner data will be shown on the display.

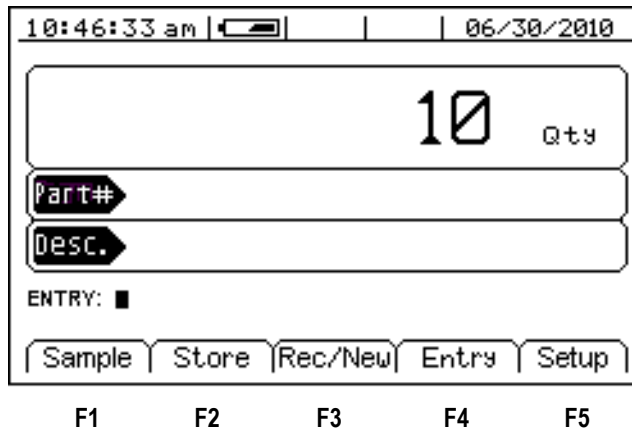
## 2.2 F2 - GSE Custom

---

Presently APW Lookup is the only application offered under GSE Custom.

### 2.2.1 APW Lookup

The APW LOOKUP offers the flexibility of storing and recalling part numbers. The average piece weight and part description will be stored and recalled with the part number.

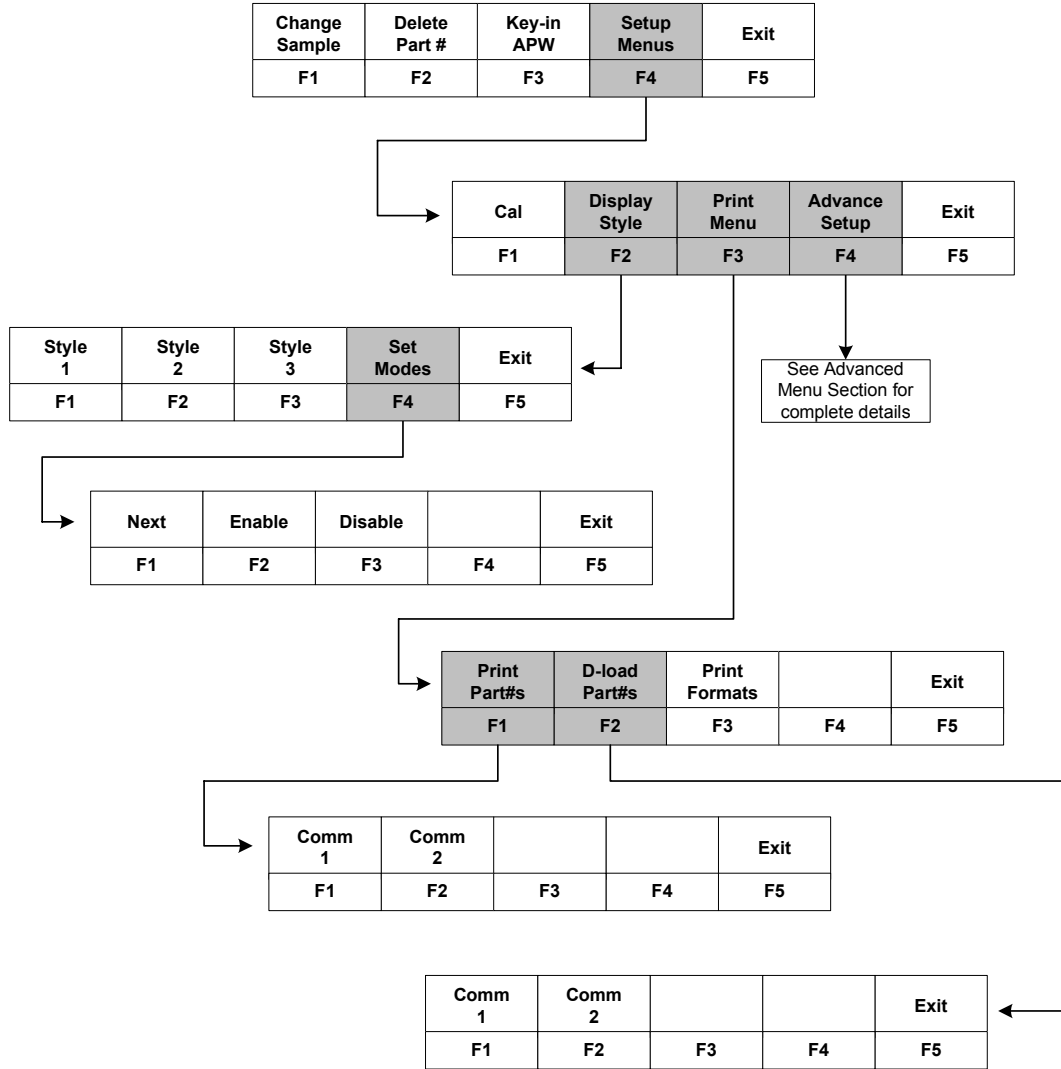


#### Setup the APW Lookup Mode

1. Press the **[F2]** (GSE Custom) from the **Application Menu**.
2. Press **[F1]** (APW Lookup). The display will come up with an explanation of the Application Menu.
3. Choose the **Application Menu** mode by pressing **[ENTER]** (YES) or return to the menu choices by pressing **[F5]** (Exit) or **[CLR]** (NO).
4. The Application Menu file will load and will return to the **Application Menu** mode.

### 2.2.2 APW Lookup Setup Menu

Use the **[F5]** Setup key from the **Application Menu** screen to gain access to different menus.



**Figure 2.2 APW Lookup Menu Structure**

### 2.2.3 Setup

This menu was designed for accessing the items that will need to be changed most often. Below is an explanation of the choices in the menu. Follow the instructions on the display for each key. The cell shaded in gray has a multiple level menu.

Function Key	Parameter	Description	Default Setting	Keypress
<b>F1</b>	CHANGE SAMPLE	Change the default sample size	10	Key in new sample size and press Enter to accept or <b>[F5]</b> to escape
<b>F2</b>	DELETE PART #	Delete specified part number	Will not show until a part number is established	Key in part # and press <b>[F3]</b> . Press <b>[F5]</b> to enter the setup. Press <b>[F2]</b> to delete part #.
<b>F3</b>	KEY-IN APW	Key in an average piece weight for sample	0	Key in new average piece weight and press <b>[Enter]</b> or <b>[F5]</b> to escape
<b>F4</b>	SETUP MENUS	Continues on to the Setup Menus	Not applicable	Press <b>[F4]</b> to continue

---

*NOTE: The YES key is [ENTER] the NO key is [CLR].*

---

### 2.2.4 Setup Menus

This is the next level of menus, which offer more advanced setup. The cells shaded in gray have a multiple level menu.

Function Key	Parameter	Description	Default Setting	Keypress
<b>F1</b>	CAL	Calibration any of the enabled scales	Not applicable	Key in access code and press <b>[Enter]</b> or press <b>[F5]</b> to escape
<b>F2</b>	DISPLAY STYLE	Chose how the display will appear	Style 2	Press either <b>[F1]</b> - <b>[F3]</b> to chose the desired display style or <b>[F5]</b> to escape
<b>F3</b>	PRINT MENU	Choose what information to print out	Not applicable	Continues on to the Print Menu selections
<b>F4</b>	ADVANCE SETUP	Continues on to the Advanced Setup Menu	Not applicable	See <a href="#">page 24</a>

### 2.2.5 Cal

Refer to Chapter 4 for complete instructions on calibrating the Model 675.

### 2.2.6 Display Style

Different display styles are offered to help customize the Model 675 parts counter to fit your needs. Choose one of the display types and press **[F5]** (EXIT) to save the change and return to the main menu. By using the **[SELECT]** key several modes can be viewed from the **Application Menu** screen. See the section on Set Modes on [page 22](#).

### Style 1

The top display will show the weight or quantity in larger font while the second display will show the part number in medium font. Press the **[SELECT]** key from the **Application Menu** screen to toggle through the different parameter choices.

Large display	Medium display
Gross	Part #
Net	Part #
Tare	Part #
APW (average piece weight)	Part #
% Accuracy	Part #
Last Sample	Part #
Quantity Total	Part #
# Accumulations	Part #
Quantity	Part #

### Style 2

This style incorporates the classic GSE 2x5 display and a second display, which will show three other parameters. Press the **[SELECT]** key from the **Application Menu** screen to toggle through the different parameter choices.

Large Display	Small Display	Small Display	Small display
Quantity	Part#	APW	Description
Gross	Part#	APW	Description
Net	Part#	APW	Description
Tare	Part#	APW	Description

### Style 3

This style incorporates the classic GSE 2x5 display along with three smaller displays which will show four other parameters. Press the **[SELECT]** key from the **Application Menu** screen to toggle through the different parameter choices.

Large Display	Small Display	Small Display	Small display
Quantity	Gross	Net	Tare
Quantity	Part#	Piece Weight	Tare
Quantity	Net	Tare	Gross Total
Gross	Part#	% Accuracy	Piece Weight
Quantity	Part#	% Accuracy	APW x 100
Quantity	Piece Weight	% Accuracy	Tare

## 2.2.7 Set Modes

After choosing a display style there are several modes of operation (such as Gross and Quantity) to choose from. These modes are accessible by using the **[SELECT]** key while viewing the Application Menu mode. The ability exists to enable or disable each choice.

1. Press **[F4]** to access the **Set Modes** menu.
2. Use the **[F1]** Next Mode key to toggle through the available modes.
3. Use the **[F2]** Enable Mode key to enable the mode.
4. Use the **[F3]** Disable Mode key to disable the mode.
5. Press **[F5]** to exit back into the **APW Lookup** screen.

### Print Menu

Parameter	Description	Default Setting	Keypresses
PRINT PART#S	Print stored part numbers to printer or computer	Not applicable	Print data to comm. 1, 2 or display. Use <b>[F1]</b> or <b>[F2]</b>
D-LOAD PART#S	Download part number, description, average piece weight and tare weight in comma delimited format	Not applicable	Print data to comm. 1 or 2. Use <b>[F1]</b> or <b>[F2]</b>
PRINT FORMATS	Choose what information to print out	Print Style 1	Use <b>[F3]</b> and <b>[F4]</b> to view print format choices. Press <b>[F5]</b> to save the format

### Preset Print Formats

The preset print formats are viewable on the LCD display. Use the **[F3]** left arrow and **[F4]** right arrow keys to view all transmit styles. Chose the desired format by viewing it on the screen. Press the **[F5]** (EXIT) key to save the format and return to the main menu.

#### Print #1

		6/30/10	
Part#	123456		
Description	Drywall Screws		
8.363 lb	Gross		
1.133 lb	Tare	<b>QTY: 964</b>	
7.230 lb	Net	0.0075 lb APW:	

#### Print #2

Part#	123456789
APW	0.017823
Tare	2.5143



**Print #3**

Part# 123456  
APW: 0.0075 lb  
Tare 1.133 lb  
Lot #  
Bin #

BARCODE WILL PRINT BELOW EACH FIELD

**Print #4**

Part# 123456	6/30/10
Lot #	
APW: 0.0075 lb	
Tare 1.133 lb	<b>QTY: 964</b>

**Print #5 - 9**

Reserved for future use.

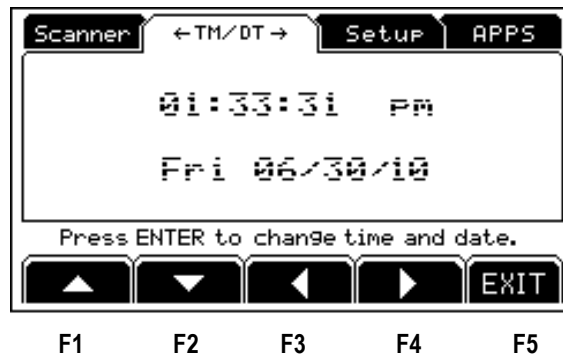
**Custom Print**

**CREATE A CUSTOM TRANSMIT FORMAT!**

- SEE THE TECH MANUAL FOR DETAILS
- CREATE AND LOAD AS TRANSMIT #130

## 2.2.8 Advanced Setup Menu

The advanced menu will allow access to the time/date, setup mode and application files. Use the arrow keys to navigate to the desired tab. This is common on the preprogrammed methods of counting such as **Quick Count** and **APW**.



### Time/Date

1. From the time/date tab, press **[ENTER]** to access the configuration screen. The time can be changed with the **[F1]** key. The date can be changed with the **[F2]** key.
2. Key in the time or date by following the format on the display and press **[ENTER]** to accept the entry.
3. Press **[F5]** (EXIT) to return to the main menu.

### Setup (Setup Mode Access)

This tab allows access to the setup mode to make changes to parameters such as full scale, count accuracy and baud rate etc. Please refer to the Model 675 Service Manual for details on more advanced setups and configurations.

### Apps (Application Menu)

Access the Application Menu to switch to another operating mode or the factory default mode.

1. From the Apps tab press **[ENTER]**.
2. Key in the access code and press **[ENTER]**. The Apps Menu will automatically load.

---

*NOTE: Press **[F5]** at any time to abort loading the Apps Menu.*

---

### Scanner

This tab was specifically designed to show the string received from a scanner. Scan a label and the raw scanner data will be shown on the display.

## 2.3 F3 - GSE Default

---

If the preprogrammed applications are not going to be used, than the Model 675 should be factory defaulted. This mode will reset the Model 675 to GSE factory default status. Note: The preset applications will be lost.

The Model 675 can still be used as a parts counter after it is factory defaulted. Refer to [page 31](#) for more details on simple counting.

1. Press **[F3]** from the **Application Menu** prompt. The display will give an explanation of the GSE DEFAULT.
2. Press **[ENTER]** (YES) to accept the choice of GSE DEFAULT and continue or press **[CLR]** to cancel the default and return to the **Application Menu**.
3. If you chose to continue with the default in step 2 the display will ask *ARE YOU SURE?* Press **[ENTER]** (YES) to default the unit or press **[CLR]** to cancel the default and return to the **Application Menu**.



## 3 Operation

This chapter will give detailed operating instructions on each preprogrammed mode.

The Model 675 is designed to operate from the 5 soft keys or the dedicated keys of the keypad. The advantage of using the soft keys is they are placed in succession for easy operation.



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*Bypass the GSE splash screen on power up by pressing the **[ENTER]** key when the splash screen appears.*

---

### 3.1 Quick Count

---

This section provides explanation on how to use the Quick Count Method. Refer to [page 13](#) for instructions on setting the Model 675 up for Quick Count.

<b>Sample</b>	Press <b>[F1]</b> to sample pieces. See the instructions below for more details on counting and sampling. The default sample size is used unless a new sample size is keyed in.
<b>Count</b>	Press <b>[F2]</b> to access the quantity mode. This key is primarily used for continuing to count pieces using the current average piece weight.
<b>Accum</b>	Accumulate - Maintains a total of quantity accumulations. Press <b>[F3]</b> to add the current quantity to the total.
<b>Print</b>	Press <b>[F4]</b> to print a ticket or send a transmit to a computer.
<b>Setup</b>	Access setup menus, see <a href="#">page 15</a> for further details.

#### 3.1.1 Sample and Count

---

Follow the steps below obtain an average piece weight (Sample) and count parts (Count).

##### Auto Tare Method

##### Sampling Pieces

1. If a container is used:
  - 1a. Place an empty container on scale and press the **[F1]** Sample or **[SAMPLE]** key. The scale will automatically tare the container.

- or -

2. If a container is not used:

- 2a. Press the **[F1]** Sample or **[SAMPLE]** key without the sample pieces on the scale. The scale will perform a tare to establish a net zero reference.



3. Add the sample pieces and press the **[F1]** Accept key to accept the sample.



4. Continue to add pieces to count



#### Without Auto Tare

1. If the sample size is known and a container is used:
  - 1a. Place an empty container on the scale and press **[TARE]** key.
  - 1b. Place the sample in the container.
  - 1c. Key in the sample size and then press the **[F1]** Sample or **[SAMPLE]** key. The scale will accept the current weights as a sample and will display the quantity.
2. If the sample size is known and no container is used:
  - 2a. Place the sample on the scale.
  - 2b. Key in the sample size and then press the **[F1]** Sample or **[SAMPLE]** key. The scale will accept the current weights as a sample and will display the quantity.



---

Use the **[SELECT]** key to check other modes such as the Tare weight and Average Piece Weight. The **[F2]** (Count) can be pressed to return to the count mode at any time.

---

### **3.1.2 Accumulate**

1. Press **[F3]** to accumulate (add) the current quantity to the total quantity. Press **[F4]** to print to a computer, printer or another peripheral device.
2. After accumulating, the weight must return to zero before another accumulation will be added. The display will show *CLEAR WGHT!* if the weight is not within the zero threshold. Remove weight and try again. This feature is necessary to avoid double accumulations.

## **3.2 APW Lookup**

Follow the steps below to perform a sample and count parts. Also the ability exists to store part numbers, lot numbers, bin numbers and average piece weight (APW).

<b>Sample</b>	Uses default sample size and prompts user to add that many pieces.
<b>Store</b>	Store a part number with average piece weight and description. Rec/New Add a new part number or recall a part number from the database.
<b>Entry</b>	This only appears when a part number is entered. Scan in or key in the part number and press <b>[F3]</b> . Press <b>[F4]</b> to access the Description, Lot #, Bin # and APW fields.
<b>Setup</b>	Access setup menus, see <a href="#">page 20</a> for further details.

### **3.2.1 Sample and Count**

Follow the steps below obtain an average piece weight (Sample) and count parts (Count).

#### **Auto Tare Method**

##### ***Sampling Pieces:***

1. If a container is used:
  - 1a. Place container on scale and press the **[F1]** Sample or **[SAMPLE]** key. The scale will automatically tare the container.
- or -
2. If a container is not used:
  - 2a. Press the **[F1]** Sample or **[SAMPLE]** key without the sample pieces on the scale. The scale will tare to establish a net zero reference.



3. Add the sample pieces and press the **[F1]** Accept key to accept the sample.



4. Continue to add pieces to count



### Without Auto Tare

1. If the sample size is known and a container is used:
  - 1a. Place an empty container on the scale and press **[TARE]** key.
  - 1b. Place the sample in the container.
  - 1c. Key in the sample size and then press the **[F1]** Sample or **[SAMPLE]** key. The scale will accept the current weights as a sample and will display the quantity.
- or-
2. If the sample size is known and no container is used:
  - 2a. Place the sample on the scale.
  - 2b. Key in the sample size and then press the **[F1]** Sample or **[SAMPLE]** key. The scale will accept the current weights as a sample and will display the quantity.



Figure 3.1 Example: **[5]** **[0]** **[SAMPLE]**

### Store Part Number

Part numbers can be stored in a database and can be recalled later with necessary data such as the average piece weight and description. Make sure you enter a part number before entering a Bin #, Lot # or APW.

1. Scan in a part number or key in the part number and press the **[F3]** (Rec/New) key. The other data fields will be cleared.
  - 1a. If you want to add a part description, Bin #, Lot # and/or an APW either scan it in or press **[F4]** (Entry).
  - 1b. If the field was scanned it will automatically be populated. Go to step 3.
  - 1c. If none of these fields are desired, go to step 3.
2. Press the key associated with the desired field (see [page 9](#) for details on alpha entry). Key in the text and press **[ENTER]**.
3. Press **[F2]** to store the part number, APW, Lot #, Bin # and description.



### **Update a Part Number**

It is possible to update the data that is stored with a part number.

1. While viewing the part number and data press **[F2]** (Store). The data will be updated in the database.

### **Recall a Part Number**

A part number that was stored previously can be recalled to count parts without having to sample the part.

1. Key in the part number to recall and press **[F3]** (Rec/New). If any other fields were entered they will appear as well.
2. Place pieces on the platform to count.

### **Delete a Part Number**

Any part number that is stored may be deleted.

1. Recall the part number to be deleted by keying in the part number and pressing **[F3]** (Rec/New). The part number does not have to be recalled if it is already being viewed.
2. Press **[F5]** (Setup).
3. Press **[F2]** (Delete Part#). You will be prompted with the part number to be deleted and the choice of deleting the part number or aborting the process. This key will not appear if a part number has not been recalled.
4. Press **[CLR]** to cancel and return to the **APW Lookup** screen or **[ENTER]** to continue deleting the part number.

## **3.2.2 Accumulate**

1. Press **[F3]** to accumulate the current quantity to the total quantity. Press **[F4]** to print to a computer, printer or another peripheral device.
  - 1a. After accumulating, the weight must return to zero before another accumulation will be added. The display will show *CLEAR WGHT!* if the weight is not within the zero threshold. Remove weight and try again. This feature is necessary to avoid double accumulations.

## **3.3 GSE Default**

---

### **3.3.1 Simple Keypad Sample**

#### **Auto Tare Method**

##### ***Sampling Pieces:***

1. If a container is used - Place container on scale and press the **[SAMPLE]** key. The scale will automatically tare the container.

- or -

- 1a. If a container is not used - Press the **[SAMPLE]** key without the sample pieces on the scale. The scale will tare to establish a net zero reference.



2. Add the sample pieces and press the **[ENTER]** key to accept the sample.



3. Continue to add pieces to count.



#### Without Auto Tare

1. If the sample size is known and a container is used:
  - 1a. Place an empty container on the scale and press **[TARE]** key.
  - 1b. Place the sample in the container.
  - 1c. Key in the sample size and then press the **[SAMPLE]** key. The scale will accept the current weights as a sample and will display the quantity.

-or-

2. If the sample size is known and no container is used:
  - 2a. Place the sample on the scale.
  - 2b. Key in the sample size and then press the **[SAMPLE]** key. The scale will accept the current weights as a sample and will display the quantity.



Figure 3.2 Example[5] [0] [SAMPLE]

## 4 Calibration

The calibration mode is accessible through the configuration menu or from the weigh mode.

### 4.1 General Notes on Calibration

---

- Pressing **[CLR]** at any point in the calibration routine moves back one step.
- Pressing **[CLR]** at the New Zero? prompt exits calibration mode.
- A calibration weight can be applied before or after entering the calibration weight value. The display prompts you to Keyin CalWt (key in calibration weight) or Add CalWT (add calibration weight) at the appropriate time.
- The digital filter is automatically set to 4 seconds during calibration.
- A motion delay is enforced during zero and span calibration.
- New calibration values are not permanently saved until the calibration mode is exited and changes are saved by pressing **[ENTER]** at the ENTER=SAVE prompt. If power is lost during calibration, the previously saved calibration values will be in effect when power is restored.
- If replacing one scale with another, it is possible to set the total gain value (P61108) of the new scale with that of the original. This will optimize the coarse and fine gain values, greatly increasing the likelihood of a successful calibration on the first attempt.

### 4.2 Access Calibration

---

#### 4.2.1 From APW Lookup or Quick Count Mode

---

1. From the main menu press the **[F5]** (Setup) key.
2. Press **[F4]** (Setup Menus) key.
3. Press **[F1]** (CAL) key.
4. Enter the access code and press **[ENTER]**.

### 4.3 Calibration Methods

---

There are six methods of calibration. Press **[SELECT]** to select a calibration method. Press **[ENTER]** to begin the calibration method selected. Refer to the appropriate section for calibration instructions.

- New Zero - Establishes a new zero (no load) and span (test load) calibration reference.
- Last Zero - Performs a span re-calibration without removing the test load. This selection is not available with linearization enabled.
- Temp Zero - Performs a calibration without removing the current gross weight. The zero reference determined during the last calibration is maintained. This selection is not available with linearization enabled.

- Only Zero - Establishes a new zero reference without affecting span.
- Cal Reset - Adjusts the zero and gain factors of the A/D amplifier to default values for maximum sensitivity.
- Known LCOut - Calibrates without the use of test weights. The mV/V value and full scale capacity of each load cell must be known.

### **4.3.1 New Zero**

---

The most common calibration procedure, **New Zero** establishes a new zero (no load) and span (test load) calibration reference. Use this method for first-time calibration and complete re-calibration.

1. Remove all weight from the scale.
  2. Enter calibration as described on [page 33](#).
  3. Select the **New Zero** calibration method as described in Calibration Methods on [page 33](#).
  4. Press **[ENTER]** at the *New Zero?* prompt to establish the new zero reference.
  5. After establishing the zero reference, the default calibration units are displayed momentarily followed by the *Keyin CalWt* prompt.
  6. Apply the calibration weight, key in the calibration weight value in terms of the default calibration units and press **[ENTER]** to establish span.
  - 6a. If the calibration weight value was entered before the weight was applied, the display will prompt *Add CalWT*. Add the calibration weight and press **[ENTER]**.
  7. After establishing span, *CAL OK?* is displayed suggesting that the calibration is acceptable, or *ReCal???* is displayed suggesting that the calibration procedure should be repeated.
  8. Accept the calibration by pressing **[ENTER]** at the *CAL OK?* prompt or **[CLR]** at the *ReCal???* prompt.
- or -
- 8a. Repeat the calibration by pressing **[CLR]** at the *CAL OK?* prompt or **[ENTER]** at the *ReCal???* prompt.
9. Once the calibration is accepted in step 6, press **[ENTER]** at the *ENTER=SAVE* prompt and again at the *ENTER=EXIT* prompt to save the new calibration and exit the calibration mode.
- or -
- 9a. To exit the calibration mode without saving the new calibration, press **[CLR]** at the *ENTER=SAVE* prompt. Then press **[ENTER]** at the *ENTER=UNDO* prompt and again at the *ENTER=EXIT* prompt to exit the calibration mode.

### 4.3.2 Last Zero

**Last Zero** allows span re-calibration without removing the applied test weight. The last zero established by pressing **[ENTER]** from the weigh mode will be used as the zero reference. This procedure is especially useful when performing routine tolerance checks on large capacity scales. A scale found to be out-of-tolerance can be easily calibrated without having to remove the test weights to reestablish a zero reference.

1. Remove all weight from the scale.
2. Press **[ZERO]** to zero the scale in the weigh mode.
3. Apply the calibration test weight.
4. Access the calibration mode as described on [page 33](#).
5. Select the **Last Zero** calibration method as described in Calibration Methods on [page 33](#).
6. Press **[ENTER]** at the *Last Zero?* prompt to display the *Keyin CalWT* prompt.
7. Key in the calibration weight value in terms of the default calibration units and press **[ENTER]** to establish span.
8. After establishing span, *CAL OK?* is displayed suggesting that the calibration is acceptable, or *ReCal???* is displayed suggesting that the calibration procedure should be repeated.
  - 8a. Accept the calibration by pressing **[ENTER]** at the *CAL OK?* prompt or **[CLR]** at the *ReCal???* prompt.
- or -
- 8b. Repeat the calibration by pressing **[CLR]** at the *CAL OK?* prompt or **[ENTER]** at the *ReCal???* prompt.
9. Once the calibration is accepted in step 6, press **[ENTER]** at the *ENTER=SAVE* prompt and again at the *ENTER=EXIT* prompt to save the new calibration and exit the calibration mode.
- or -
- 9a. To exit the calibration mode without saving the new calibration, press **[CLR]** at the *ENTER=SAVE* prompt. Then press **[ENTER]** at the *ENTER=UNDO* prompt and again at the *ENTER=EXIT* prompt to exit the calibration mode.

### 4.3.3 Temporary Zero

**Temp Zero** is used to calibrate without establishing a new zero. Calibration can be performed without removing the currently applied gross load. A temporary zero is established so that test weights can be added during calibration. The original zero reference determined during the previous calibration is not affected. This procedure is commonly used to calibrate hopper scales where it is impractical to empty the product before calibrating.

1. Access the calibration mode as described on [page 33](#).
2. Select the **Temp Zero** calibration method as described in Calibration Methods on [page 33](#).

3. Press **[ENTER]** at the *Temp Zero?* prompt to establish a temporary zero reference.
4. After establishing the temporary zero reference, the default calibration units are displayed momentarily followed by the *Keyin Cal/WT* prompt.
5. Apply the calibration weight, key in the calibration weight value in terms of the default calibration units and press **[ENTER]** to establish span.
- 5a. If the calibration weight value was entered before the weight was applied, the display will prompt *Add Cal/WT*. Add the calibration weight and press **[ENTER]**.
6. After establishing span, *CAL OK?* is displayed suggesting that the calibration is acceptable, or *ReCal???* is displayed suggesting that the calibration procedure should be repeated.
- 6a. Accept the calibration by pressing **[ENTER]** at the *CAL OK?* prompt or **[CLR]** at the *ReCal???* prompt.
- or -
- 6b. Repeat the calibration by pressing **[CLR]** at the *CAL OK?* prompt or **[ENTER]** at the *ReCal???* prompt.
7. Once the calibration is accepted in step 6, press **[ENTER]** at the *ENTER=SAVE* prompt and again at the *ENTER=EXIT* prompt to save the new calibration and exit the calibration mode.
- or -
- 7a. To exit the calibration mode without saving the new calibration, press **[CLR]** at the *ENTER=SAVE* prompt. Then press **[ENTER]** at the *ENTER=UNDO* prompt and again at the *ENTER=EXIT* prompt to exit the calibration mode.

#### **4.3.4 Only Zero**

**Only Zero** is used for zero calibration only. This calibration procedure is primarily used for the zero reference after changing a scale's dead-load, such as adding safety rails to a scale deck or installing a mixer motor on a hopper scale. Because the full scale capacity is referenced from the last zero calibration, performing a zero calibration helps to ensure that the full scale over-load will not occur prematurely due to the additional dead-load.

1. Remove all weight from the scale.
2. Access the calibration mode as described on [page 33](#).
3. Select the **Only Zero** calibration method as described in Calibration Methods on [page 33](#).
4. Press **[ENTER]** at the *Only Zero?* prompt to establish the new zero reference.
5. After establishing zero, *CAL OK?* is displayed suggesting that the calibration is acceptable.
- 5a. Accept the calibration by pressing **[ENTER]** at the *CAL OK?* prompt.
- or -
- 5b. Repeat the calibration by pressing **[CLR]** at the *CAL OK?* prompt.

6. Once the calibration is accepted in step 5, press **[ENTER]** at the *ENTER=SAVE* prompt and again at the *ENTER=EXIT* prompt to save the new calibration and exit the calibration mode.

- or -

- 6a. To exit the calibration mode without saving the new calibration, press **[CLR]** at the *ENTER=SAVE* prompt. Then press **[ENTER]** at the *ENTER=UNDO* prompt and again at the *ENTER=EXIT* prompt to exit the calibration mode.

### **4.3.5 Calibration Reset**

---

**Cal Reset** sets the gain factors of the A/D amplifier to minimum values and clears the A/D's zero offset. A Cal Reset should be performed if calibration is not possible due to an over-load condition, or if the displayed weight value does not change when the test weight is applied.

1. Access the calibration mode as described on [page 33](#).
2. Select the **Cal Reset** calibration method as described in Calibration Methods on [page 33](#).
3. Press **[ENTER]** at the Cal Reset prompt reset the A/D amplifier.
4. The display prompts *New Zero?*. Proceed with **New Zero** calibration. Refer to [page 34](#).

---

*If an over-load condition exists at the time of calibration, the calibration method prompts are replaced by an Over load! message. Press **[CLR]** to proceed directly to the Cal Reset procedure.*

---

### **4.3.6 Known Loadcell Output**

---

**Known LCOut** is used to calibrate without test weights. The exact full scale mV/V rating must be known for each load cell. All load cells must be of the same full scale capacity. This procedure works best for hopper scales where weight is evenly distributed and signal trimming is not required.

1. Access the calibration mode as described on [page 33](#).
2. Select the **Known LCOut** calibration method as described in Calibration Methods on [page 33](#).
3. Press **[ENTER]** at the *Known LCOut* prompt to display #of LC.
- 3a. The number of load cells specified during the last calibration will also be displayed. A value of zero (0) indicates that this calibration method has not yet been performed.
4. Key in the number of load cells (8 maximum) and press **[ENTER]**.

- or -

- 4a. Press **[ENTER]** to accept the displayed value.
5. The display prompts *LC#x mVv* (where 'x' is the load cell number) and then shows the mV/V value (0.1 - 5.0) last entered for this load cell.

6. Key in the load cell's mV/V value and press **[ENTER]**.
- or -
- 6a. Press **[ENTER]** to accept the displayed value.
7. Steps 5-6 will be repeated for as many load cells as specified in step 4.
8. The display prompts *LC FS* showing the value last entered for the load cell full scale.
9. Key in the full scale capacity for the load cell(s) and press **[ENTER]**.
- or -
- 9a. Press **[ENTER]** to accept the displayed value.
10. The display briefly shows *Updtd Gains* as it updates the gain values, then prompts *CurWt Zero?*.
11. Press **[ENTER]** to establish the current input signal as the zero reference.
- or -
- 11a. Press **[SELECT]** to display *Zero=0mVv?*. Press **[ENTER]** to use a 0mV/V output as the zero reference.
- or -
- 11b. Press **[SELECT]** to display *Keyin CurWt*. Key in the known gross weight already applied to the scale and press **[ENTER]**.
- or -
- 11c. Press **[CLR]** to bypass the zeroing option.
12. The display shows *CAL OK?* suggesting that the calibration is acceptable. Accept the calibration by pressing **[ENTER]** at the *CAL OK?* prompt.
- or -
- 12a. Repeat the calibration by pressing **[CLR]** at the *CAL OK?* prompt.
13. Once the calibration is accepted in step 5, press **[ENTER]** at the *ENTER=SAVE* prompt and again at the *ENTER=EXIT* prompt to save the new calibration and exit the calibration mode.
- or -
- 13a. To exit the calibration mode without saving the new calibration, press **[CLR]** at the *ENTER=SAVE* prompt. Then press **[ENTER]** at the *ENTER=UNDO* prompt and again at the *ENTER=EXIT* prompt to exit the calibration mode.

### **4.3.7 Multi - Scale Calibration**

---

When more than one scale is enabled, the prompt *Keyin Sc/#* appears before accessing the calibration method selections. Key in the scale number to be calibrated and press **[ENTER]**. Proceed with a calibration method as described in Calibration Methods on [page 33](#). After completing a calibration, the *Keyin Sc/#* appears once again. Enter the next scale number to be calibrated, or press **[CLR]** to exit the calibration mode and save the new calibration data.



## 5 Troubleshooting

This section describes all error codes generated by the Model 675. Most error codes show a two-digit code reference along with a short text message. Possible causes and remedies are described for each error.

### 5.1 Operational Errors

Message		Description
Code 02	Under Load!	Input signal less than negative full scale. If this is due to excessive loading, reduce the load. Otherwise check the load cell connections. If a 4 wire load cell cable is being used, check that the sense jumpers are in place.
Code 03	Over-Load!	Input signal is greater than positive full scale. Use same check as for underload.
Code 04	#> D=Flw	Number to be displayed will not fit within 6 digits. This will not normally occur for the Gross, Net or Tare Weights but may result while displaying the accumulated totals if the amount exceeds 999,999. Either clear the totals or settle for only being able to transmit the totals.
Code 05	Zero> Max.!	An attempt was made to zero out more than allowed. Use the [TARE] key for subtracting off container weights or if large dead-load is always to be present, apply this dead-load during the No Load? prompt during calibration to permanently eliminate the offset.
Code 06	Tare> F.S.!	Tare entry was greater than full scale. Most likely the entered tare value was incorrect.
Code 07	Tare <0!	Negative tare attempted, but not allowed. For auto-tares, the GROSS Weight must be greater than zero.
Code 08	Check Conn	The signal into the A/D is greater than +/- 2 times the expected full scale signal. This error usually indicates a defective or incorrectly wired load cell.
Code 16	CHECK JUMPR	A programming operation was attempted when the program jumper is installed. Installation of this jumper will prohibit any programming changes.

## 5.2 Hardware Errors

Message		Description
Code 17	A/D BAD!	The processor has detected a problem with the A/D chip. Several situations could cause this error message to be displayed. The most severe situation would be a damaged or defective A/D. In this case it will have to be replaced.
Code 18	BufSz Max!	The accumulative total buffer size for both the TX and RX buffers of all COMM ports exceeds the reserved storage capacity 8192 bytes.
Code 19	"Data &Stop	Certain combinations of protocol are not available.
Code 20	Defit A/D	The A/D calibration data is corrupt
Code 21	Write NVErr	Error reading data from the FRAM.
Code 22	Read NVErr	Error writing data to the FRAM.
Code 23	Check NUPar	Supplementary error message for above errors.
Code 24	NUPar Full!	The setup being attempted requires more FRAM than is currently installed.
Code 25	Defit Setup	Upon power-up the indicator has not found the proper codes. Therefore, all parameters have been reset to factory default values.
Code 26	Bad Setup	The stored data has a checksum error. Check all parameters or re-load setup.
Code 27	RE- BOOT!	The indicator cannot use the FRAM for data storage and is attempting to power-up again to cure the problem.
Code 29	PIN error	The FRAM is corrupted in the PIN section.

### 5.3 ICalibration Errors

Message		Description
Code30	F.S.> MAX!	The entered calibration weight, together with the currently applied signal, indicates that the full scale signal will be greater than the allowed maximum of the controller.
Code31	F.S.< .1mV	The entered calibration weight, together with the currently applied signal, indicates that the full scale signal will be less than the allowed minimum of the controller.
Code32	ADD MORE!	The applied weight during calibration was less than 0.1% of capacity. More weight than this is required.
Code33	ReCAL Req'd	The just completed calibration is insufficient to guarantee accurate results due to either the cal weight being less than 5% of capacity or this was the first calibration of this platform to this Indicator and, therefore, the coarse gain was adjusted by the Indicator.
Code39	"A/D Cal	The A/D calibration values for one of the scales have not been entered.

### 5.4 General Errors

Message		Description
Code41	Idnot Used!	If a string type variable that has not been setup (for example, had its size set to a non-zero value.) or if no string type variables have been setup.
Code42	Check Setup	A sample operation was performed with a sample size of "0" at parameter P34.
Code43	dbNOT SETUP	An attempt to access an undefined database occurred.
Code51	Too Small	The sample placed on the platform is too small to accurately compute the piece weight. Increase the sample size.
Code52	Can't Count	There is an insufficient quantity on the platform to perform an accurate count.
Code53	Accy< Req'D	The accuracy is less than required. Increase the sample size.
Code54	Scale Disbl	An attempt to select a disabled scale was made.
Code57	dbOpt Error	The FRAM database is corrupt (valid signature, invalid checksum). Contact GSE.
Code60	New FLASH	A new FLASH file has been uploaded via the ReFlash or BDM flash utilities in order to upgrade the firmware. Press any key to acknowledge.

Message		Description
Code 71	TxNot Exist	The specified custom transmit does not exist.
Code 95	SyErr HSR00	An error occurred at startup or during operation. Contact GSE.
Code 95	SyErr Typ04	An error occurred at startup. Contact GSE.
	Okay? #####	This is not an error. Press to acknowledge your entry, or [ENTER] to re-enter.
	Cksum error	Upon each power-up, the Model 675 tests the integrity of its firmware. If the result is not correct this message is displayed and the scale is not usable.

## 5.5 Miscellaneous Errors

Message		Description
	Entry Error	An invalid entry was made. When entering data, make sure the values are within the acceptable limits and of the proper type as required by the entry mode.
	Which Tx#?	This prompt will appear when the 675 is setup with more than one custom transmit is set for "Prmpt" (Prompt) and the [PRINT] key is pressed. The "WhichTx#?" message is asking for a custom transmit number to be entered. Key in the custom transmit desired and then press [ENTER]. For example, [2] [ENTER], for custom transmit number 2.
	OVER- WRITE	The oldest row in the DSD database has been overwritten with a new row of data.
	Rows: < XXX	The number of DSD data rows has exceeded the warning threshold. Print and/or download the DSD database to prevent loss of data before the maximum number of DSD data rows is exceeded.
	Fram2 Small	There is not enough FRAM installed to accommodate the current request.

## 5.6 Communication Errors

Message		Description
	PrtyX error	The parity of a received character did not match the parity specified. The 'X' in the error message represents the COMM port number on which the problem occurred.
	ovrnX error	An overrun error occurred where additional characters were received while the receive buffer was full. The additional characters will be lost. The 'X' in the error message represents the COMM port number on which the problem occurred.
	frmgX error	The stop bit of a received character did not occur when it was expected. The 'X' in the error message represents the COMM port number on which the problem occurred.
	PortX error	The Model 675 did not check it's receive data register in time, thus missing a character. The 'X' in the error message represents the COMM port number on which the problem occurred.
	NoTxX Allow	Associated with Modbus. This message indicates that a transmission out the specified port was attempted. This is not acceptable if the port is set for Modbus. The 'X' in the error message represents the COMM port number on which the problem occurred.
	tx on hold	Occurs if a data transmission is held up for two seconds of more due to a deasserted handshake.
	tx abort	Occurs if the [CLR] key is pressed when the tx on hold error message is shown.
	tx Con'd	Appear briefly when the handshake is re-asserted after the tx on hold message occurs.
	BadTx Port	Appears briefly after an attempt was made to put a byte in an invalid comm port receive buffer.
	Wrong Comm#	An invalid communication port number was specified.





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