MEASURETEK®
EAST HIGH

WWW.MEASURETEK.NET

EHC-C

12R982 12R983 12R984 12R985

User/Technical Manual

Contents subject to change without notice

Version 1.0
7/2013

TABLE OF CONTENTS

1. INTRODUCTION

General and Safety Information

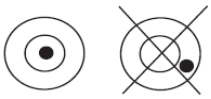
- For use in dry environments only.
- This product uses a Ni-MH battery. Dispose of according to local laws and regulations.
- Read and understand all operating instructions before using this product. Keep this manual for future reference.
- Allow sufficient warm up time. Turn the scale on and allow up to 10 minutes for internal components to stabilize before weighing.
- Record the weight shortly after placing a load on the platter. Leaving loads in place for extended periods may vary the load cell's output signature and may result in a less accurate reading.
- Avoid extended exposure to extreme heat or cold. Optimum operation is at normal room temperature. See operating temperature range in the specifications table. Allow the scale to acclimate to room temperature before using.
- When storing the scale for extended periods, the battery must be charged every 90 days to avoid premature performance degradation. Over time, the operating time per charge will degrade. If the operating time is no longer acceptable even after recharging, the battery must be replaced.
- Electronic scales are precision instruments. Do not operate near cell phones, radios, computers or other electronic devices that emit radio frequencies that may cause unstable readings.

Specifications

Model	12R982 EHC-C-3	12R983 EHC-C-6	12R984 EHC-C-15	12R985 EHC-C-30
Max. Capacity	6.6 lb (3 kg)	13.2 lb (6 kg)	33 lb (15 kg)	66 lb (30 kg)
Readability	0.0002 lb (0.1 g)	0.0005 lb (0.2 g)	0.001 lb (0.5 g)	0.002 lb (1 g)
Display Resolution	1:30000	1:30000	1:30000	1:30000
Min. Recommended Weight	0.004 lb (2 g)	0.01 lb (4 g)	0.02 lb (10 g)	0.04 lb (20 g)
Min. Piece Weight	0.000022 lb (0.01g)	0.00005 lb (0.02g)	0.00011 lb (0.05g)	0.00022 lb (0.1g)
Construction	Stainless steel pan, plastic housing			
Weighing Units	kg / lb			
Calibration unit	kg / lb			
Modes	Weighing, Counting, Accumulation, Data Compare			
Weight Display	Three 7-segment LED display windows, 0.6" High, 6-digit			
Memory	256 entries			
Zero Range	Power-on zero range: calibration zero point±15%FS; ZERO key range: power-on zero±5%FS			
Tare Range	Full capacity			
Stabilization Time	<5 seconds			
Operating Temperature	32° to 105°F (0° to 40°C)			
Humidity Range	<90% relative humidity, non-condensing			
Power Supply	6V 3.8mAh Ni-MH battery or AC power adapter (12Vdc/500mA with central positive)			
Battery Performance	Up to12 hours when fully charged			
External Interface	RS232			
Safe Overload Capacity	150% of capacity			
Platter Dimensions (L x W)	11.4" x 8.7" (290 x 220 mm)			
Scale Dimensions(L x W x H)	13.5" x 11.6" x 4.5" (294 x 342 x 115 mm)			

2. Unpacking and Setup

- Remove the scale from the box and place it on a firm, level surface. Avoid locations with rapid temperature changes, excessive dust, moisture, air currents, vibrations, electromagnetic fields, heat or direct sunlight.
- Adjust the leveling feet until the bubble is centered in the circle of the level indicator (located on the front panel).
  NOTE: Ensure that the scale is level each time its location is changed.



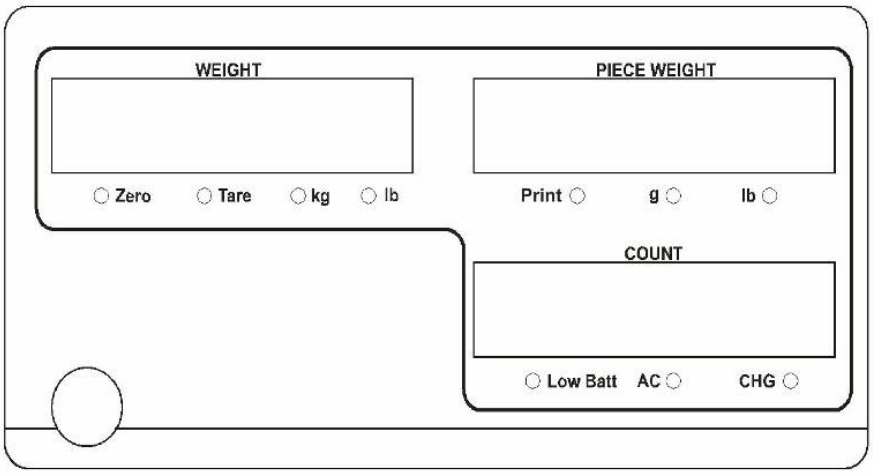
- The internal rechargeable battery should be fully charged for up to 12 hours before using the scale for the first time.
- Connect the supplied AC adapter to the power input receptacle underneath the scale. Plug the AC adapter into a properly grounded power outlet. The battery will begin charging.
- If the scale will be stored or transported in the future, save the packaging material to ensure the best possible protection for the scale.

Contents

- Scale
- 12Vdc/500mA UL adapter
- Quick Guide & Technical Manual

3. OVERVIEW OF CONTROLS AND FUNCTIONS

Indicator Display



- **WEIGHT -** Weight on platform
- **Zero -** Scale is zeroed, gross weight is 0, tare is 0
- **Tare** - Display reading is net weight; tare is not 0
- **kg** - Overall unit of measure is kg
- **lb** - Overall unit of measure is lb
- **PIECE WEIGHT -** The weight per piece used to calculate the piece quantity
- **Print** - Data output indicator
- **g** - The per piece unit of measure is g
- **lb** - The per piece unit of measure is lb
- **COUNT** – Calculated number of pieces base on total weight and piece weight
- **Low Batt -** Battery should be charged soon
- **AC -** AC power is being used
- **CHG -** Battery is charging

Function Keys

- **0~9** - Numeric keys for data entry
- **Unit** - Toggles weight unit of measure
- **0/Clear** - Press for 4 seconds to clear data or accumulated values
- **Enter** - Confirms the operation or saves the data
- **Print** - Outputs data via the RS232 port
- **Accu** - Accumulates the current weighed values. Press for 4 seconds to display total accumulated quantities and weight.
- **Tare** - Tares the weight when the scale is stable
- **Hi/Lo** - Sets upper and lower check quantity limits
- **PCWT/SPL** - Enters piece weight calculation mode.
- **RC.PLU** - Recalls a stored piece weight or tare weight and its unit of measure
- **ST.PLU** - Stores a piece weight or tare weight and its unit of measure
- **ZERO/ON/OFF** - Powers on the scale. Press for 4 seconds to power off the scale. In weighing mode, sets the zero point. In calibration, setup, and other modes, exits the current mode.

Key combinations (Press for 4 seconds)

- **ZERO/ON/OFF and 0 -** Enters calibration mode
- **ZERO/ON/OFF and 1 -** Enters LED brightness setup mode
- **ZERO/ON/OFF and 2 -** Enters auto-off time setup mode
- **ZERO/ON/OFF and 3 -** Enters display ACD inner code or working voltage mode
- **ZERO/ON/OFF and 4 -** Enters RS232 parameter setup mode
- **ZERO/ON/OFF and 5 -** Enters date and time setup mode
- **ZERO/ON/OFF and 6 -** Enters ID setup mode
- **ZERO/ON/OFF and 7 -** Enters business name setup mode

4. OPERATIONS

Normal Weighing Mode

1. Place the scale on a flat, stable surface. Level the scale using the leveling bubble at the lower left side of the display.
2. With the weighing platter empty, turn on power switch (located underneath on the left-hand side of the scale). Due to the high resolution of this scale, allow 10 minutes for the scale to warm up before use for optimum results.
3. Press the ZERO/ON/OFF key to power on the scale. The self-check will run and the scale will display a zero reading. The scale is now ready for weighing.
4. Note: If the scale does not zero, an error code will be displayed. See **Troubleshooting** to resolve. (page 13)
5. To change the weighing unit of measure, press the Unit key to toggle between kg and lb.
6. Set the tare weight if desired.
7. Place objects on the scale platter and read the weight on the indicator.
8. Print data if desired. (page 9)
9. When finished weighing, press the ZERO/ON/OFF key for 4 seconds to power off the scale.

Setting the Tare Weight

This scale allows for both a manually entered pre-set tare weight, as well as a "weighed" tare weight.

1. **To enter a weighed tare:**

a. Place an empty container on the platter and press the Tare key. The display will return to zero, eliminating the weight of the container. The **Zero** light will go off and the **Tare** light will be lit.
Note: The gross weight must be positive to enter a weighed tare.
b. To clear the weighed tare, remove all weight from the scale. The display will show a negative weight. Press the TARE key to return the display to zero, eliminating the weight of the container. The **Tare** light will go off and the **Zero** light will be lit.

2. **To manually enter a known tare:**
a. Use the number keys to input the tare weight. Your entry will be displayed in the "WEIGHT" display window. Then press the Tare key to confirm or press the ZERO/ON/OFF key to exit and not confirm.
Example: With the platter empty, entering 100g and pressing the Tare key will display "-0.100" kg.
b. To recall the previously stored tare weight, press the RC.PLU key. Press the ZERO/ON/OFF key to return to weighing.
Note: The previously stored tare weight can only be recalled with the RC.PLU key when in tare setting mode.
c. To clear the manually entered tare weight, (enter "0" and) press the Tare key to confirm.

Note: 12R984 EHC-C-15 scale, the capacity is 15kg. For a tare greater than 10kg, the weight window will display "dSP.oUr". When the weight is removed from the platter, ***the tare function is still working properly (meaning 10kg is tared already),*** but since the "WEIGHT" window cannot display "- 10.0000", "dSP.oUr" indicates that the displayed value is beyond the range of display.

Counting Mode

The counting function calculates and displays the piece quantity of the load that is being weighed.

1. Enter the piece weight by one of two methods:
2. To enter a piece weight by weighing a known quantity (calculate the piece weight):
a. Place a known quantity of objects onto the platter and press the PCWT/SPL key for 4 seconds to enter piece weight calculation mode.
Note: the total load weight has to be greater than 20*d, where d is the Readability that is written at the top left corner of the display. Any weight under 20*d will likely result in inaccurate counting.
b. The WEIGHT window will display the weight, the PIECE WEIGHT window will display "SPL.PCS" (Sample Pieces), and the COUNT window will display the known quantity that you will input.
c. Use the number keys to input the known piece quantity. Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode without storing the piece quantity.
Note: The piece weight must be greater than the minimum piece weight (see **Specifications**) or a "Lo.PCE" error will be displayed when the Enter key is pressed.
3. To manually enter a known piece weight:
a. With the platter empty, press and release the PCWT/SPL key to enter piece weight entry mode.
b. The WEIGHT window will display zeroes, the COUNT window will display "PCE" (Piece Weight), and the PIECE WEIGHT window will display the piece weight that you will input.
c. Use the number keys to input the known piece weight. Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode without storing the piece quantity.
Note: The piece weight must be greater than the minimum piece weight (see **Specifications**) or a

"Lo.PCt" error will be displayed when the Enter key is pressed.

4. Begin weighing. The total quantity and the total weight will be shown.

Note: The limited number of display digits may display rounding in some cases. As such, if you manually divide the displayed total weight by the displayed piece weight, it may not equal the displayed piece quantity. Despite this, the displayed piece quantity is correct.

Accumulation Mode

The accumulating function allows storage of weighed piece quantities and the summation of those quantities.

1. In counting mode, press the Accu key to add the displayed value to the accumulated total.
2. The indicator will display "Add" in the WEIGHT window, the PIECE WEIGHT window will display the times of accumulation instances, and the COUNT window will display the number of accumulated piece quantity.

   Note: To avoid duplicating a value for a same load, the accumulation function requires the original load to be removed (platform weight to drop below the minimum weight) before a new value can be accumulated.

3. Press and hold the Accu key for 4 seconds to display the accumulated values. The WEIGHT window will display "Add", the PIECE WEIGHT window will display the times of accumulation instances, and the COUNT window will display the accumulated quantity.
4. To clear accumulated quantities, press and hold the 0/Clear key while the accumulated values are being displayed
   NOTE: Powering off the scale will also clear the accumulated values.
   NOTE: Accumulated quantities or instances over 999999 will display "Err01".

Check Weighing (Data Compare) Mode

The check weighing or data compare function allows the user to input a pre-set range, and the display will indicate whether the weighed quantity is within that range, or indicate if it is too high or too low. **Example**: If a piece count of 100 ± 1 piece is desired, a range of 99 to 101 can be set. When the quantity on the platter is within the range, an audible tone will sound.

1. From counting mode, press the Hi/Lo key to enter this mode. The WEIGHT window will show the current weight and the PIECE WEIGHT window will show "Hi.PCS" (High limit pieces). The COUNT window will show any previously stored upper limit.
2. Use the number keys to input the upper piece quantity limit (hold the 0/Clear key to delete all). Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode without storing the piece quantity.
3. The WEIGHT window will continue to show the current weight and the PIECE WEIGHT window will show "Lo.PCS" (Lower limit pieces). The COUNT window will show any previously stored lower limit. Use the number keys to input the lower piece quantity limit (hold the 0/Clear key to delete all). Press the Enter key to confirm or press the ZERO/ON/OFF key to exit without storing the piece quantity.
4. Press ZERO/ON/OFF to exit.
   Note: Limits will be stored in memory until they are modified according to the above steps.
   Note: Limits should be: Upper limit ≥lower limit>0. If the upper limit is less than lower limit or if the upper limit is set as zero, check weighing is disabled.
5. To turn check weighing off, follow the above instructions and change the upper limit to zero.

Storing Piece Weights and Tares into Memory

This scale can store up to 256 piece weights and tares, allowing the user to quickly recall stored values when switching between products.

1. From normal weighing mode, press the ST.PLU key to enter this mode. The WEIGHT window will display "PrOG" and the COUNT window will display "Addr.". The PIECE WEIGHT window will display the input address data to be entered.
2. Use the number keys to select an address for the piece weight and tare that you will input. Addresses between 1-256 are valid. Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode without storing the address.
3. The COUNT window will display "NAmE" and the PIECE WEIGHT window will display the last 6 characters of any previously stored address name. Use the number keys to input the address name (max length of 16 characters). Press the Enter key to confirm and go to the next step, or press the ZERO/ON/OFF key to exit this mode without storing the address name.
   Example: Address 001 can be "Apples".
   Note: See page 11 for display and character key entry definitions. Pressing a key multiple times quickly will cycle through the available characters for that key. Pausing will select that character and advance to the next.
4. The WEIGHT window will display "G Lb" and the PIECE WEIGHT window will display "UNit.0" or "UNit. 1". Use the Unit key to select UNit.0 for grams or UNit. 1 for pounds as the stored piece weight unit of measure. Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode.
5. The COUNT window will display "tArE.0" or "tArE. 1" and the PIECE WEIGHT window will show any previously stored tare weight. Use the 0 key to select "tArE.0" for an unknown tare weight (to be measured) or use the 1 key to select "tArE. 1" for a known tare weight. Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode.
   a. If you selected "tArE.0 "to measure the tare weight, empty the weighing platter; the Zero light should be lit. Place an empty container on the platter. The container weight will display in the PIECE WEIGHT window. Press the Enter key to store the tare into memory.
   b. If you selected"tArE. 1 " to enter a known tare weight, any previously stored tare weight for this address will be shown in PIECE WEIGHT window. Use the number keys to enter the new tare and press the Enter key to confirm, or press the ZERO/ON/OFF key to exit this mode.
6. The COUNT window will display "PCt.0" or "PCt. 1". Use the 0 key to select "PCt.0"for an unknown piece count (to be calculated) or use the 1 key to select"PCt. 1" for a known piece count. Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode.
   a. If you selected "PCt.0 "to calculate the piece weight, the COUNT window will show "SPL " (SAMPLE). Place samples on platter and the PIECE WEIGHT window will show the sample's net weight. Press the Enter key. The COUNT window will then show "PCS" (PIECES) and the PIECE WEIGHT window will show any previously stored piece count for that address. Use the number keys to enter the new piece count and press the Enter key to confirm, or press the ZERO/ON/OFF key to exit this mode.
   b. If you selected"PCt. 1 " to enter a known piece weight, the COUNT window will show "PCt "(piece weight) and any previously stored piece weight for this address will be shown in PIECE WEIGHT window. Use the number keys to enter the new piece weight and press the Enter key to confirm, or press the ZERO/ON/OFF key to exit this mode.

Note: The piece weight must be greater than the minimum piece weight (see **Specifications**) or a "LO.SP.E" error will be displayed when the **Enter** key is pressed.

7. The scale will move back to step 1 to enter the next address number and stored information, or press the **ZERO/ON/OFF** key to exit this mode.

   Note: A flow chart diagram outlining the above process is shown in Figure 1.

Figure 1 - Storing Piece Weights and Tares into Memory

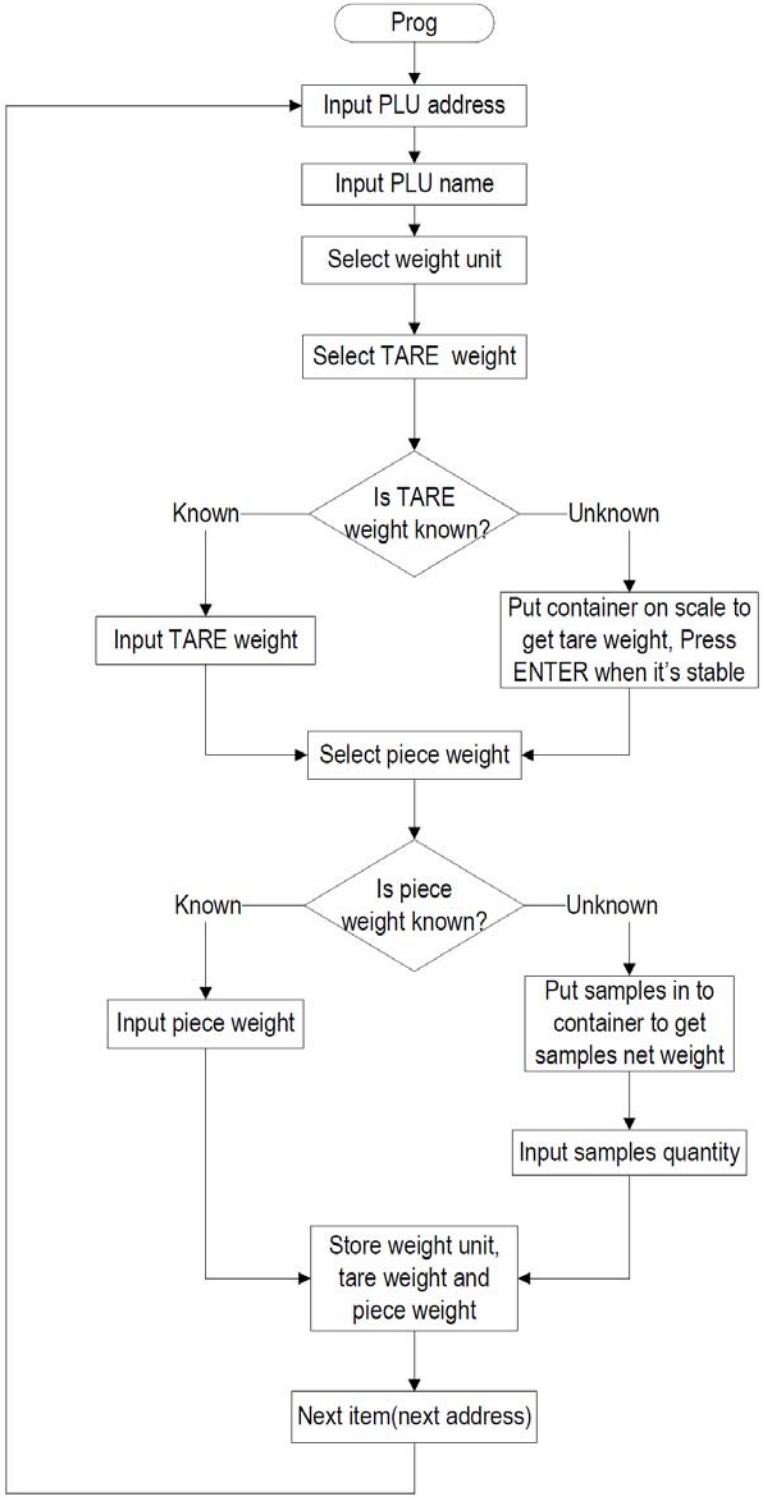


Figure 1

Recalling Piece Weights and Tares from Memory

1. From normal weighing mode, press the RC.PLU key to enter this mode. The WEIGHT window will display "CALL" (RECALL) and the COUNT window will display "Addr". The PIECE WEIGHT window will display the input address data to be entered.
2. Use the number keys to select an address for the piece weight and tare that you will input. Addresses between 1-256 are valid. Press the Enter key to confirm or press the ZERO/ON/OFF key to exit this mode without recalling the address.
3. The stored weighing unit of measure, tare weight, and piece weight for that address will be used. If the address you entered did not contain stored data, "Err 40" will be displayed in the COUNT window.

5. Calibration

1. Under the normal weighing mode， press and hold 0 and ZERO/ON/OFF key for more than 3s to enter the calibration mode.
2. After entering into the mode, the weighing window will display "CAL.on" or "CAL.oFF", which means the calibration switch is on or off. If the calibration switch is off, the following calibration steps cannot be entered. If the calibration switch is on, the scale is ready for calibration and the calibration parameter can be saved. The PIECE WEIGHT window displays "UNit.0" or "UNit.1" for the calibration unit choosing, the WEIGHT window displays"------".
3. Use UNIT key to choose the calibration unit kg or lb (the corresponding unit indicator will be lighted on), use ZERO/ON/OFF key to exit the mode, or ENTER key to confirm the unit and go to the next step.
4. The WEIGHT window still shows "CAL.on" or "CAL.oFF"， PIECE WEIGHT window displays "UNLoAd" (this means that the scale is ready to calibrate the zero point, please move away any weight on the scale), the COUNT window displays the output inner code of A/D. When the scale is stable and the unit indicator stops flashing, press ENTER key to confirm the zero point calibration, or use ZERO/ON/OFF key to exit the mode. After the scale is stable and gets the zero point, the scale will go to the next step automatically.
5. The display of the WEIGHT window remains the same, the PIECE WEIGHT window displays "LoAd"，(this means the scale is ready to calibrate the standard weight). Place a standard weight between 25%-100% capacity on the center of the scale platter, press ENTER to confirm the standard weight calibration after the scale is stable and the unit indicator stops flashing, or use ZERO/ON/OFF key to exit the calibration mode. When the scale gets the stable data, it will go to the next step automatically.
6. The display of the WEIGHT window remains the same, the PIECE WEIGHT window displays "inP.Ld" (Input Load Weight), the COUNT window displays 0, use 0 - 9 numerical key and Clear key to input loaded standard weight, then press ENTER key for confirmation, the input data will be shown on the total weight window.
7. When the PIECE WEIGHT window displays "UNLoAd" again, the scale is ready to re-confirm the zero point, move away any weight on the scale, after the scale is ready and unit indicator stops flashing, press ENTER to confirm.
8. After the calibration completes, the scale will re-initialize to be ready for normal weighing.
9. If there is an error occurred in calibration, the scale will display "CAL.Err" (this normally means incorrect data input or loading weight), please return back to the last step or use ZERO/ON/OFF to exit the calibration mode.

6. Parameter Setup Mode

Adjust brightness

To adjust the LED brightness setting, start from normal weighing mode and press and hold the ZERO/ON/OFF key and the 1 key for four seconds. The WEIGHT window will display "SETUP", the PIECE WEIGHT window will display "LEd.brt", and the COUNT window will display the brightness setting. Use the number keys to enter the desired brightness (1 through 3) and press the Enter key to confirm. Press the ZERO/ON/OFF key to exit this mode.

Auto-off time

To adjust the Auto-Off time setting, start from normal weighing mode and press and hold the ZERO/ON/OFF key and the 2 key for four seconds. The WEIGHT window will display "SETUP", the PIECE WEIGHT window will display "A.oFF.t", and the COUNT window will display the auto-off time. Use the number keys to enter the desired auto-off time (1 through 30 minutes) and press the Enter key to confirm. An auto-off setting of 0 minutes will disable the auto-off feature. Press the ZERO/ON/OFF key to exit this mode.

View battery voltage and internal ADC

To view the battery voltage and internal ADC (analog to digital converter) settings, from normal weighing mode press and hold the ZERO/ON/OFF key and the 3 key for four seconds. The PIECE WEIGHT window will display "CodE" and the WEIGHT window will display "Vol .x.x" where x.x V is the battery voltage. If the scale is using AC power, the stepped down line voltage will be shown. The COUNT window will display the internal ADC code. Press the ZERO/ON/OFF key to exit this mode.

Adjust data and time settings

To adjust the date and time settings, start from normal weighing mode and press and hold the ZERO/ON/OFF key and the 5 key for four seconds. The WEIGHT window will display "SETUP", the PIECE WEIGHT window will display "dAtE", and the COUNT window will display the date in YY.MM.DD format. Use the number keys to enter the desired date and press the Enter key to confirm and continue to the time setting, or press the ZERO/ON/OFF key to exit. The WEIGHT window will continue to display "SETUP", the PIECE WEIGHT window will display "tIME" (time), and the COUNT window will display the time in HH.MM.SS format. Use the number keys to enter the desired time and press the Enter key to confirm. Press the ZERO/ON/OFF key to exit this mode.

Enter a scale identification number

To enter an ID number for this scale (this is helpful when exporting data from multiple scales), start from normal weighing mode and press and hold the ZERO/ON/OFF key and the 6 key for four seconds. The WEIGHT window will display "SETUP", the PIECE WEIGHT window will display "id", and the COUNT window will display the current ID code (default is 000000). Use the number keys to enter the desired ID code and press the Enter key to confirm. Press the ZERO/ON/OFF key to exit this mode.

Enter a scale business name

To enter a business name for this scale (this can be printed when exporting data), start from normal weighing mode and press and hold the ZERO/ON/OFF key and the 7 key for four seconds. The WEIGHT window will display "bUS in", and the PIECE WEIGHT and COUNT windows will display the last 12 characters of the business name. Use the number keys to input the business name (max length of 20 characters). Press the ZERO/ON/OFF key to exit this mode.

Note: See page 11 for display definitions and character key entry definitions. Pressing a key multiple times quickly will cycle through the available characters for that key. Pausing will select that character and advance to the next.

7. Serial Communication Details

Note: The default baud rate is 9600 and 8N1 data format.

1. To adjust serial communication parameters (e.g. RS232 baud rate, data format, communication format), start from normal weighing mode and press and hold the ZERO/ON/OFF key and the 4 key for four seconds. The WEIGHT window will display "SETUP", the PIECE WEIGHT window will display "232.bPS", and the COUNT window will display the current baud rate. Use the number keys to select the desired baud rate (1=1200bps, 2=2400bps, 3=4800bps, 4=9600bps, 5=19200bps) and press the Enter key to confirm and go to the next step, or press the ZERO/ON/OFF key to exit this mode.

2. The PIECE WEIGHT window will display "232.dFt" (data format) and the COUNT window will display the selected data format. Use the number keys to choose the desired data format:
   1 = 8N1 8 data bits, no check digit, 1 start bit, 1stop bit
   2 = 7O1 7 data bits, 1 even check digit, 1 start bit, 1stop bit
   3 = 7E1 7 data bits, 1 odd check digit, 1 start bit, 1stop bit
   Press the Enter key to confirm and go to the next step, or press the ZERO/ON/OFF key to exit this mode.

3. The PIECE WEIGHT window will display "232.CFt" (communication format) and the COUNT window will display the selected communication format. Use the number keys to choose the desired data format:
   0 = No communication
   1 = Data will output automatically when stabilization is reached
   2 = Data will output after stabilization is reached only when the Print key is pressed
   3 = Data will output automatically when stabilization is reached or when the Print key is pressed
   Press the Enter key to confirm and then press the ZERO/ON/OFF key to exit this mode.
   Data will be exported via the RS232 interface in the following format.

```
<LF>Business:   xxxxxx<CR><EXT>
<LF>Product:    xxxxxx<CR><EXT>
<LF>ID:         xxxxxx<CR><EXT>
<LF>Date:       YY/MM/DD<CR><EXT>
<LF>Time:       hh:mm<CR><EXT>
<LF>Gross:      xxx.xxx kg(or lb)<CR> <EXT>
<LF>Tare:       xxx.xxx kg(or lb)<CR> <EXT>
<LF>Net:        xxx.xxx kg(or lb)<CR> <EXT>
<LF>Pc.wt.:     xxxxxx.xx g(xx.xxxxlb)<CR><EXT>   (Note: decimal point position adjusts automatically)
<LF>Count:      xxxxxxxx pcs<CR> <EXT>
<LF>Number:     xxxxxxxx <CR> <EXT>
<LF>Total:      xxxxxxxx pcs<CR> <EXT>
==================================
```

Where: <LF> = Line Feed character (hex 0AH)
<CR> = Carriage Return character (hex 0DH)
<EXT> = End of Text character (hex 03)

Note: Business, Product, ID, Date, and Time can only be exported if they have been set by the operator.

8. DEFINITIONS

Character Key Entry Definitions

Key	Character	Key	Character
0	0 space ( ) ÀÂÆÇÈÉÊË Î ÏÔÙÛÜ	1	1ABC
2	2DEF	3	3GHI
4	4JKL	5	5MNO
6	6PQRS	7	7TUV
8	8WXYZ	9	9

Example: To enter “nut 8”, press the 5 key three times, pause, press the 7 key three times, pause, press the 7 key twice, pause, press the zero key once, pause, and press the 8 key once.

Display Character Definitions

Symbol	7-segments digit	Symbol	7-segments digit	Symbol	7-segments digit	Symbol	7-segments digit	Symbol	7-segments digit
0		C		O		(		Ï	
1		D		P		)		Ô	
2		E		Q				Ù	
3		F		R		À		Û	
4		G		S		Â		Ü	
5		H		T		Æ			
6		I		U		Ç			
7		J		V		È			
8		K		W		É			
9		L		X		Ê			
A		M		Y		Ë			
B		N		Z		Î			

Symbol Definitions

Err01 - Weight signal is too large or over range
Err02 - No proper data can be displayed
Err03 - Weight signal is too small
Err04 - Zero point is over the setting range
Err05 - Zero point is below the setting range
Err 10 - EEPROM cannot be accessed
Err 11 - Parameters in EEPROM ≠ backup data
Err 12 - Parameters in EEPROM are out of normal range
Err20 - There is a calibration error
Err30 - Input signal is over ADC's max. range
Err31 - Input signal is below ADC's min. range
Err40 - Recall memory data error (address is empty)
CAP. - Capacity data
uoL. - Voltage data
Add - Accumulation data
PCt - Piece weight data
StPCt - Set and store piece weight
Addr. - Memory unit storage address
Unit - Weighing unit
rCPCt - Recall the stored piece weight, tare, and unit
LoPCt - Below minimum piece weight limit
SPLPCS - Sample piece data
HiPCS - Upper limit piece data
LoPCS - Lower limit piece data
LoSPt - Below minimum sample weight limit
UNLoAd - Unload the weight
LoAd - Load the weight
inPLd - Input the load weight
dSPour - Data length exceeds the LED display digits
CALon - Calibration enable switch is ON
CALoFF - Calibration enable switch is OFF

9. Troubleshooting

Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
Err01	Weight reading exceeds the overload limit or the weight value cannot be displayed in the current unit of measure.	Reduce load on scale until weight value can be displayed, or use an alternate unit of measure.
Err03	Weight reading below minimum load limit.	Install platform on scale. Perform zero calibration.
Err04	Weight exceeds Power On Zero limit (+15%), or over ZERO key range (+5%).	Make sure scale platform is empty. Power off scale and power on again. Perform zero calibration.
Err05	Weight is below Power On Zero limit (-15%) or below ZERO key range (-5%).	Install platform on scale. Perform zero calibration.
Err30	Load cell wires to indicator are incorrectly connected, shorted, or open; or ADC, load cell are damaged.	Make sure wires are correctly connected. Service required to replace load cell or ADC chip.
Err31		
Err 10	EEPROM is damaged.	Service required to replace main EEPROM IC chip.
Err 11	Setup parameters are not set, not correctly set, or settings have been lost.	Re-set parameters. Perform calibration.
Err 12		
Err20	Calibration error. Input data or loaded weight is too small, too large, unstable, or not linear.	Input correct data, load correct weight onto platform, or service is required.
Err40	Data memory is not set, not correctly set, or set data has been lost.	Reset data memory for the address you are attempting to recall.
Will not power on	Power cord not plugged in or properly connected. Power outlet not supplying electricity. Battery discharged. Other failure.	Check power cord connections. Make sure power cord is plugged into the power outlet. Check power source. Replace batteries. Or service required.
Unable to zero the display or will not zero when turned on	Load on scale exceeds allowable limits. Load on scale is not stable. Load cell damage.	Remove load on scale. Wait for load to become stable. Service required.
Incorrect counting result when using SPL to enter a piece weight	Sampling quantity is too small. Calculated piece weight is slightly different from the real value.	Increase the sampling quantity.
Lo.bAt is shown	Battery is discharged	Charge battery

Battery and Charging

Power is supplied by an internal rechargeable 6V Ni-MH battery (3800 mAh). When "**Lo.bAt**" is displayed, the battery must be recharged. Plug in the AC power adapter to recharge the battery. The scale may continue to be used on AC power during charging. Full charging time is approximately 10-12 hours.

Battery life and recharge time will vary with use. Over time, the operating time per each full charge will degrade. If the operating time is no longer acceptable, the battery must be replaced. When storing the scale for extended periods, the battery must be charged every 90 days to avoid premature performance degradation.

Replacement Parts

Part Number	Description
MH12R98201G	6V 3.8mAh Ni-MH battery
MH12R98202G	12Vdc/500mA AC power adapter with central positive
MH12R98205G	Underside foot

10.One Year Limited Warranty

MeasureTek products covered in this manual are guaranteed to be free from defects in material and workmanship for a period of one year after date of purchase. Misuse, accidental damage, overload, alteration, and improper installation are expressly excluded. Any product which is determined to be defective in material or workmanship within this time period may, as the exclusive remedy, be returned to an authorized MeasureTek distributor or service center, freight prepaid with prior return authorization, to be repaired or replaced at the manufacturer's option. MeasureTek's liability under this warranty is limited to the repair or replacement of the defective product and in no event shall MeasureTek be liable for consequential or indirect damages.