



TEI

Operation Manual

Contents subject to change without notice

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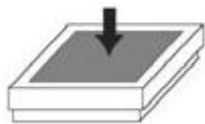
Function Keys

KEY	MODE		DEFINITION
HOLD SETUP ←	Weighing, Counting, or Percent mode	<3 seconds	Enters or exits HOLD mode
		>3 seconds	Enters SETUP mode
	Input data mode	<3 seconds	Returns to last sub-menu
		>3 seconds	Inputs decimal point
	Menu selection mode		Returns to last sub-menu
PRINT FUNC ↑	Weighing, Counting, or Percent mode	<3 seconds	Sends output data via the serial port
		>3 seconds	Selects mode: Weighing, Counting, or Percent
	Input data mode		Increases the digit in the flashing data entry position by one
	Menu selection mode		Returns to last item of current sub-menu
ACC TOTAL ↓	Weighing, Counting, or Percent mode	<3 seconds	Adds accumulation values to memory; displays instances and totals
		>3 seconds	Displays accumulation instances and totals
	Input data mode		Decreases the digit in the flashing data entry position by one
	Menu selection mode		Goes to next item of current sub-menu
UNIT DATA →	Weighing mode	<3 seconds	Changes weighing unit of measure
	Counting or Percent mode	<3 seconds	Enters the submenu to input piece weight for counting or to enter reference weight for percent-weighing
	Weighing, Counting, or Percent mode	>3 seconds	Enters the submenu to input the comparative data range for check-weighing
	Time or Date mode	>3 seconds	Enters time or date setting mode
	Input data mode		Shifts the flashing data entry position from right to left
	Menu selection mode		Goes to next item of current sub-menu
TARE PRESET ↵	Weighing, Counting, or Percent mode	<3 seconds	Tares the weight
		>3 seconds	Enters pre-determined tare input mode
	Input data mode		Confirms the input data and forwards to next step
	Menu selection mode		Confirms the input data and forwards to next step
ZERO ON/OFF ↵	Power Off		Powers on
	Weighing, Counting, or Percent mode	<3 seconds	Zeros the platform weight
		>3 seconds	Powers off
	Input data mode		Ignores the modification
	Menu selection mode		Exits from current working mode.

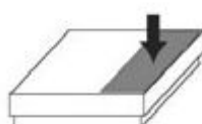
Normal Weighing Mode and Tare

1. Power on the scale by pressing the **ZERO/ON/OFF** key.
2. When the display stabilizes, press **ZERO/ON/OFF** to set new zero point.
3. Place objects on the scale platform and read the weight on the indicator.

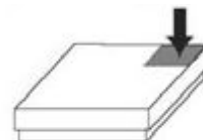
Note: Objects should be placed at the center of the platform. Corner or side loading heavy objects can damage the scale.



Yes



No



No

4. To change the weight unit of measure, press and release the **UNIT/DATA** key.
5. To send data to another device via the serial port, press and release the **PRINT/FUNC** key.
6. Power off the scale by pressing and holding the **ZERO/ON/OFF** key for 4 seconds.

Setting a Tare Weight

1. Zero the scale as described above.
2. Place an empty container on the platform and press the **TARE/PRESET** key. The display will return to zero, eliminating the weight of the container. The **NET** indicator will be lit on the display.
3. Put the material or object to be weighed in the container. The net weight will be displayed.
4. To exit tare mode, remove all weight from the scale. The display will show a negative weight. Press the **TARE/PRESET** key to return the display to zero, eliminating the weight of the container.

Setting a Pre-Determined Tare Weight

1. Zero the scale as described above.
2. Press and hold the **TARE/PRESET** key until the **NET** indicator flashes and "Pr.Tare" shows in the display.
3. Input the tare weight using the arrow keys. After inputting the tare weight, press the **TARE/PRESET** key to confirm. The **NET** indicator will be lit on the display.
Note: Tare weight must be greater than zero and less than the scale's maximum capacity.
4. Put the material or object to be weighed onto the scale platform. The net weight will be displayed.
5. To exit tare mode, remove all weight from the scale. The display will show a negative weight. Press the **TARE/PRESET** key to return the display to zero, eliminating the weight of the container.

Note: The indicator can only save one tare weight. Entering a new tare weight will automatically replace the old one.

Hold (Dynamic Weighing) Mode

The hold or dynamic weighing function allows weighing of moving objects, such as live animals, by freezing the display value to a steady weight; it would otherwise be unsteady due to object movement. This function can be used in normal weighing mode, counting mode, and percent weighing mode.

1. To enter **HOLD** mode, press and release the **HOLD/SETUP** key.
2. Place the material or object to be weighed onto the scale platform. The **HOLD** indicator on the display will flash for up to 3 seconds. It will then stop flashing and the weight will be displayed.
3. The material or object can be removed and the next item can be weighed without pressing any buttons.
4. To exit **HOLD** mode, press and release the **HOLD/SETUP** key.

The default hold mode described above is **AUTO HOLD**. Within this mode, the scale will capture the fluctuating weight data at a rate of 10Hz during the data collection time (default of 3 seconds). It will then display the average value once the scale has reached stability (**HOLD** no longer flashes).

To reach stability, the weight must be greater than the minimum **HOLD** weight (default of 10d, where d = the scale's readability, see specifications) and the fluctuation must be within the **HOLD** range (default of 5d). Once the held weight has been reached, a new weight will automatically register only if the weight has changed by more than the **HOLD** range. If a stable value is not reached within the stabilization time (default of 9 seconds), the scale will display "**STB.ER**". Press the **TARE/PRESET** key to **HOLD** again, or press the **HOLD/SETUP** key to exit **HOLD** mode.

The values of the above parameters can be changed from their defaults within **User Setup** mode. The following additional **HOLD** modes are also available through **User Setup** mode.

- Positive Peak **HOLD** mode – Holds and displays the largest positive value from the zeroed point. In Peak **HOLD** mode, both **PEAK** and **HOLD** indicators on the display will be lit.
- Negative Peak **HOLD** mode – Holds and displays the largest negative value from the zeroed point. This mode has limited practical value, but is available for specialized applications. In Peak **HOLD** mode, both **PEAK** and **HOLD** indicators on the display will be lit.
- Toggle **HOLD** mode - Holds and displays an instantaneous value. Pressing **HOLD/SETUP** while the weight is fluctuating will capture and display the value at that moment, but not an average, maximum, or minimum value. Pressing **HOLD/SETUP** again will exit **HOLD** and return to the fluctuating value.
- Average **HOLD** mode - Holds and displays an average value. The scale will capture the fluctuating weight data during the data collection time and display the average value once the scale has reached stability. This is similar to the default **AUTO HOLD** mode, but where the material or object can be removed and the next item can be weighed without pressing any buttons in **AUTO HOLD** mode, Average **HOLD** mode requires the **HOLD/SETUP** key to be pressed each time and pressed again to exit.

Accumulation Mode

The accumulation function allows storage of weighed values and the summation of those values. This function can accumulate weights, piece counts, and percentages in normal weighing mode, counting mode, and percent weighing mode respectively.

1. With an object on the scale, press and release the **ACC/TOTAL** key to add the displayed value to the accumulated total. The indicator will first display the number of accumulation instances (e.g. if this is the 5th accumulated value, it will display a 5), and then display the accumulated sum total thus far.
Note: Only loads exceeding the minimum weight (default of 10d, where d = the scale's readability, see specifications) can be accumulated. This setting (**USER-OTHER-NLD.RNG**) can be modified from its default within **User Setup** mode, but changes will impact other functions such as **HOLD**.
2. Remove the load and place another load to continue accumulating, pressing and releasing **ACC/TOTAL** to add each value.
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. To view the total accumulated data at any time, remove the platform load and press and hold the **ACC/TOTAL** key for 4 seconds. The indicator will first display the number of instances and then the accumulated sum total thus far. Accumulated instances and total values can be displayed or sent to another device via the serial port by pressing and releasing the **PRINT/FUNC** key.
4. To clear and reset the accumulated data, press and release the **ZERO/ON/OFF** key while total accumulated data is being displayed.

Note: When the HOLD function is enabled and working in PEAK HOLD mode, the accumulation function will automatically be disabled.

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 value is within that range, or indicate if it is too high or too low. This function can be used in normal weighing mode, counting mode, and percent weighing mode.

1. From normal weighing, counting or percent weighing modes, press and hold the **UNIT/DATA** key for 4 seconds to input the comparative data range.
2. "UNIT.KG" will be displayed. Use the arrow keys to select the comparison unit of measure. Press the **TARE/PRESET** key to confirm.
3. **HIGH** will be shown and 000000 will be displayed. The **Hi** indicator on the display will be lit. Use the arrow keys to input the upper limit of the range (weight, piece quantity, or percentage depending on initial mode) and press the **TARE/PRESET** key to confirm and move to the next step.
4. **Low** will be shown and 000000 will be displayed. The **Lo** indicator on the display will be lit. Use the arrow keys to input the lower limit of the range and press the **TARE/PRESET** key to confirm. Press **ZERO/ON/OFF** key to exit and go back to the previous mode (weight, piece quantity, or percentage).
NOTE: If the upper limit is 0, or if it is less than or equal to the lower limit, check weighing mode will automatically be exited.
5. After an acceptable range has been set, check weighing may begin. If the weighed value is within the specified range, **OK** will be displayed on the indicator and an audible beep will sound. If the value is outside the specified range, **HI** or **LO** will be displayed with no audible beep. Audible beep parameters can be changed from their defaults within **User Setup** mode.
6. To switch between weighing mode, counting mode, and percent weighing mode within check weighing, press and hold the **PRINT/FUNC** key for 4 seconds, select the desired mode, and press the **TARE/PRESET** key to confirm.
7. To turn check weighing off, follow the above instructions and change the upper limit to zero.

Counting Mode

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

1. From normal weighing mode or percent-weighing mode, press and hold the **PRINT/FUNC** key for 4 seconds and **WEIGH/PERCEN** will be shown. Use the up and down arrow keys to select **COUNT**, then press the **TARE/PRESET** key to confirm and enter counting mode.

Note: In counting mode, the **ZERO**, **TARE**, **PRINT**, **HOLD**, **PRESET TARE**, **ACC**, **SETUP**, and **ON/OFF** functions are all available.

2. There are two ways to input the piece weight.

- a. To input a known piece weight directly:

- i. Press the **UNIT/DATA** key. When **In:PWt** is shown, press the **TARE/PRESET** key to enter “Input Piece Weight” mode.

Note: At any time you can press **ZERO/ON/OFF** to exit “Input Piece Weight” and return to counting mode.

- ii. When **UNIT.KG** is shown, use the up and down arrow keys to select the piece weight unit of measure, then use the **TARE/PRESET** key to confirm and go to next step.
- iii. The previously entered piece weight will be shown. Use the arrow keys to input a new piece weight, then press and hold the **HOLD/SETUP** key for 4 seconds to input the decimal point. Press the **TARE/PRESET** key to confirm and return to counting mode.

Note: If the input piece weight is less than 0.5d (where d = the scale's readability, see specifications), the indicator will display **PWt.Er** and will automatically return to counting mode.

- b. To input the piece weight by weighing a sample of a known quantity:

- i. Press the **UNIT/DATA** key. When **In:PWt** is shown, use the up and down arrow keys to select **SPL.PWT**. Press the **TARE/PRESET** key to enter “Get Piece Weight” mode.

Note: At any time you can press **ZERO/ON/OFF** to exit “Get Piece Weight” and return to counting mode.

- ii. When **SPL.Lo** is shown, remove any load from the platform and press the **TARE/PRESET** key to confirm. If the scale hasn't stabilized, **SPL.Lo** will flash. After it has stabilized, it will go to the next step.
- iii. When **SPL.Hi** is shown, place a sample of a known quantity onto the scale platform and press the **TARE/PRESET** key to read the weight. If the scale hasn't stabilized, **SPL.Hi** will flash. After it has stabilized, it will go to the next step.
- iv. When **INPPCS** is shown, 000000 will be displayed. Use the arrow keys to input the sample quantity and press the **TARE/PRESET** key to confirm.

Note: If the input piece weight is less than 0.5d (where d = the scale's readability, see specifications), the indicator will display **PWt.Er** and will automatically return to counting mode.

- v. Once an acceptable piece weight has been entered, the scale will return to counting mode.

Note: The piece weight that has been entered will be saved, even after powering off. The indicator can only save one piece weight. Entering a new piece weight will automatically replace the old one.

Percent Weighing Mode

The percent weighing function shows the weight of an item relative to a stored reference weight, expressed as a percentage. In this mode, the scale will weigh the load and calculate and display its value as a percentage of the reference weight.

1. From normal weighing mode or counting mode, press and hold the **PRINT/FUNC** key for 4 seconds and **WEIGH/COUNT** will be shown. Use the up and down arrow keys to select **PERCEN**, then press the **TARE/PRESET** key to confirm and enter percent weighing mode.

Note: In percent weighing mode, the **ZERO, TARE, PRINT, HOLD, PRESET TARE, ACC, SETUP,** and **ON/OFF** functions are all available.

2. There are two ways to input the stored reference weight.

- a. To input a percentage and input weight directly:

- i. Press the **UNIT/DATA** key. When **In:Pct** is shown, press the **TARE/PRESET** key to enter "Input Percent" mode.

Note: At any time you can press **ZERO/ON/OFF** to exit "Input Percent" and return to percent weighing mode.

- ii. Before entering a weight, use the up and down arrow keys to select 100%. This percentage will correspond to the weight you will input in next step. Percentages from 1%, 2%, 5%, 10%, 20%, 50% or 100% may be selected. For a reference weight of 80kg, for example, you could select 100% in this step and enter 80kg in the following step, or enter 50% here and 40kg in the following steps.
- iii. When **UNIT.KG** is shown, use the up and down arrow keys to select the input weight unit of measure, then use the **TARE/PRESET** key to confirm and go to next step.
- iv. The previously entered input weight will be shown. Use the arrow keys to enter the new input weight, then press and hold the **HOLD/SETUP** key for 4 seconds to input the decimal point. Press the **TARE/PRESET** key to confirm and return to percent weighing mode.

Note: If the reference weight is less than 0.5d (where d = the scale's readability, see specifications), the indicator will display **Pct.Er** and will automatically return to percent weighing mode.

- b. To input the stored reference weight by weighing a sample of a known percentage:

- i. Press the **UNIT/DATA** key. When **In:Pct** is shown, use the up and down arrow keys to select **SPL.Pct**. Press the **TARE/PRESET** key to weigh samples of a known percentage and enter "Get Piece Weight" mode.

Note: At any time you can press **ZERO/ON/OFF** to exit "Get Piece Weight" and return to percent weighing mode.

- ii. When **SPL.Lo** is shown, remove any load from the platform and press the **TARE/PRESET** key to confirm. If the scale hasn't stabilized, **SPL.Lo** will flash. After it has stabilized, it will go to the next step.
- iii. When **SPL.Hi** is shown, place a sample of a known quantity and percentage onto the scale platform and press the **TARE/PRESET** key to read the weight. If the scale hasn't stabilized, **SPL.Hi** will flash. After it has stabilized, it will go to the next step.
- iv. When **IN:PCT** is shown, 000000 will be displayed. Use the arrow keys to input the percentage of samples sample quantity and press the **TARE/PRESET** key to confirm.

Note: If the reference weight is less than 0.5d (where d = the scale's readability, see specifications), the indicator will display **Pct.Er** and will automatically return to percent weighing mode.

- v. Once an acceptable reference weight has been entered, the scale will return to percent weighing mode.

Note: The reference weight will be saved, even after powering off. The indicator can only save one percentage reference weight. Entering a new percentage reference weight will automatically replace the old one.

Setup Mode



▪ **Caution:** Setup mode allows access to User Setup, as well as other functions that should NOT be adjusted by the user. If you inadvertently enter “CONFIG” mode, press the **HOLD/SETUP** key to revert back to the main menu, or press the **ZERO/ON/OFF** key to exit setup.

1. To enter **Setup** mode, press and hold the **HOLD/SETUP** key for 4 seconds.
2. After entering **Setup** Mode, the main menu item **CONFIG** will be shown first. Do **NOT** enter **CONFIG** Setup Mode. Use the arrow keys to move to **USER** Setup Mode, then press **TARE/PRESET** to enter **USER** Setup mode. If you enter the wrong mode, press the **HOLD/SETUP** key to return to the main menu, or press **ZERO/ON/OFF** to exit setup.

USER Setup Sub-menu:

USER				
Sub-Menu 1	Sub-Menu 2	Option	Remark	Default Setting
RESET		NO	NO=Retains the current settings	No
		YES	YES=Resets all USER menu parameters to their default settings	
COM1	BAUD.RT	1200	Baud rate for the COM1 serial port	9600
		2400		
		4800		
		9600		
		19200		
		38400		
	BYT.FMT	8N1	COM1 byte format: (1)8N1=8 data bits, No parity check bit, 1 stop bit (2)7O1=7 data bits, 1 Odd parity check bit, 1 stop bit (3)7E1=7 data bits, 1 Even parity check bit, 1 stop bit	8N1
		7O1		
		7E1		
	OUT.MOD	NONE	COM1 output mode: (1)NONE =No communication (2)CONT=Continuous output (3)PRINT=Output when PRINT/FUNC key is pressed (scale must be stable) (4)CMD=Output when a request command is received (scale must be stable) (5)PRT.CMD= output when PRINT/FUNC key pressed or request command received (scale must be stable) (6)STABLE=Output when scale is stable	PRT.CMD
		CONT		
		PRINT		
		CMD		
		PRT.CMD		
		STABLE		
	LAYOUT	MULTPL	COM1 output content and format: (1)MULTPL= The output will be in the format specified in OUT1 in the next sub-menu (2)SINGLE= The output will contain only displayed content and current status (compatible with NCI-SCP01) (3) EH-SCP= Command –response mode	MULTPL
		SINGLE		
		EH-SCP		

USER				
Sub-Menu 1	Sub-Menu 2	Option	Remark	Default Setting
OUT1	SCAL.ID	YES	Yes/No=enable/disable output scale's ID number Prompt is "SCALE ID"	NO
		NO		
	GROSS	YES	Yes/No=enable/disable output gross weight Prompt is "GROSS"	NO
		NO		
	TARE	YES	Yes/No=enable/disable output tare weight Prompt is "TARE"	NO
		NO		
	NET	YES	Yes/No=enable/disable output net weight Prompt is "NET"	YES
		NO		
	PERCNT	YES	Yes/No=enable/disable output weight percentage Prompt is "PERCENTAGE"	NO
		NO		
	UPCTWT	YES	Yes/No=enable/disable output weight of 1% percentage Prompt is "1% REF WT"	NO
		NO		
	COUNT	YES	Yes/No=enable/disable output counts Prompt is "QUANTITY"	NO
		NO		
	PCWT	YES	Yes/No=enable/disable output piece weight Prompt is "PIECE WT"	NO
		NO		
	BMI	YES	Yes/No=enable/disable output height and BMI Prompt is "HEIGHT" and "BMI" (not available on this model scale)	NO
		NO		
	ACCUMU	YES	Yes/No=enable/disable output accumulation times and total Prompt is "ACC. N" and "TOTAL"	NO
		NO		
	DATE	YES	Yes/No=enable/disable output date Prompt is "DATE"	NO
		NO		
	TIME	YES	Yes/No=enable/disable output time Prompt is "TIME"	NO
		NO		
	AD.CODE	YES	Yes/No=enable/disable output ADC code Prompt is "A/D CODE"	NO
		NO		
	BAT.VOL	YES	Yes/No=enable/disable output voltage of battery Prompt is "VOLTAGE"	NO
		NO		
STATUS	YES	Yes/No=enable/disable output scale's status Prompt is "STATUS"	NO	
	NO			
B.LINE	NONE	How many blank lines after the output string: NONE=no blank line LINE1/2/3/4= paper feed 1, 2, 3, or 4 blank lines after the output string	LINE1	
	LINE1			
	LINE2			
	LINE3			
	LINE4			

USER				
Sub-Menu 1	Sub-Menu 2	Option	Remark	Default Setting
COM2	BAUD.RT	1200	Baud rate for the COM2 serial port	9600
		2400		
		4800		
		9600		
		19200		
		38400		
	BYT.FMT	8N1	COM2 byte format: (1)8N1=8 data bits, No parity check bit, 1 stop bit (2)7O1=7 data bits, 1 Odd parity check bit, 1 stop bit (3)7E1=7 data bits, 1 Even parity check bit, 1 stop bit	8N1
		7O1		
		7E1		
	OUT.MOD	NONE	COM2 output mode: (1)NONE =No communication (2)CONT=Continuous output (3)PRINT=Output when PRINT/FUNC key is pressed (scale must be stable) (4)CMD=Output when a request command is received (scale must be stable) (5)PRT.CMD= output when PRINT/FUNC key pressed or request command received (scale must be stable) (6)STABLE=Output when scale is stable	PRT.CMD
		CONT		
		PRINT		
		CMD		
		PRT.CMD		
		STABLE		
LAYOUT	MULTPL	COM2 output content and format: (1)MULTPL= The output will be in the format specified in OUT2 in the next sub-menu (2)SINGLE= The output will contain only displayed content and current status (compatible with NCI-SCP01) (3) EH-SCP= Command –response mode	MULTPL	
	SINGLE			
	EH-SCP			

USER				
Sub-Menu 1	Sub-Menu 2	Option	Remark	Default Setting
OUT2	SCAL.ID	YES	Yes/No=enable/disable output scale's ID number	NO
		NO	Prompt is "SCALE ID"	
	GROSS	YES	Yes/No=enable/disable output gross weight	NO
		NO	Prompt is "GROSS"	
	TARE	YES	Yes/No=enable/disable output tare weight	NO
		NO	Prompt is "TARE"	
	NET	YES	Yes/No=enable/disable output net weight	YES
		NO	Prompt is "NET"	
	PERCNT	YES	Yes/No=enable/disable output weight percentage	NO
		NO	Prompt is "PERCENTAGE"	
	UPCTWT	YES	Yes/No=enable/disable output weight of 1% percentage	NO
		NO	Prompt is "1% REF WT"	
	COUNT	YES	Yes/No=enable/disable output counts	NO
		NO	Prompt is "QUANTITY"	
	PCWT	YES	Yes/No=enable/disable output piece weight	NO
		NO	Prompt is "PIECE WT"	
	BMI	YES	Yes/No=enable/disable output height and BMI	NO
		NO	Prompt is "HEIGHT" and "BMI" (not available on this model scale)	
	ACCUMU	YES	Yes/No=enable/disable output accumulation times and total	NO
		NO	Prompt is "ACC. N" and "TOTAL"	
	DATE	YES	Yes/No=enable/disable output date	NO
		NO	Prompt is "DATE"	
	TIME	YES	Yes/No=enable/disable output time	NO
		NO	Prompt is "TIME"	
	AD.CODE	YES	Yes/No=enable/disable output ADC code	NO
		NO	Prompt is "A/D CODE"	
	BAT.VOL	YES	Yes/No=enable/disable output voltage of battery	NO
		NO	Prompt is "VOLTAGE"	
STATUS	YES	Yes/No=enable/disable output scale's status	NO	
	NO	Prompt is "STATUS"		
B.LINE	NONE	How many blank lines after the output string: NONE=no blank line LINE1/2/3/4= paper feed 1, 2, 3, or 4 blank lines after the output string	LINE 1	
	LINE1			
	LINE2			
	LINE3			
	LINE4			

USER				
Sub-Menu 1	Sub-Menu 2	Option	Remark	Default Setting
BEEP	KEY	YES	Yes/No=enable/disable beep after a key is pressed	YES
		NO		
	COMPAR	NONE	(1)NONE=no beep	IN.LMT
		L.LOW	(2)L.Low=beeps when below the lower limit	
		IN.LMT	(3)IN.LMT=beeps when in range between lower and upper limits	
O.HIGH		(4)O.HIGH=beeps when above the upper limit		
OUT.LMT	(5)OUT.LMT=beeps when below the lower limit or above the upper limit			
HOLD	AD.H.SPD	YES	Yes=enable high speed A/D converter (80 Hz) in HOLD mode	NO
		NO	No=disable high speed A/D converter (10 Hz) in HOLD mode	
	HLD.MOD	NONE	(1)NONE=no HOLD function	AUTO
		PS.PEAK	(2)PS.PEAK=Positive peak HOLD mode. Displays the most positive value relative to the last zeroed value.	
		NG.PEAK	(3)NG.PEAK=Negative peak HOLD mode. Displays the most negative value relative to the last zeroed value.	
		TOGGLE	(4)TOGGLE=Press HOLD key to hold the data as long as weight is over (NLD.RNG) and stable. Press HOLD key again to exit.	
		AVERAG	(5) AVERAG= Average HOLD. If weight is over (NLD.RNG) and variation is less than (HLD.RNG), the average weight within (AVG.TIM) will be displayed. Press HOLD key or wait for (HLD.TIM) time to elapse to exit HOLD.	
		AUTO	(6)AUTO=Auto HOLD. Similar to AVERAG mode, but if a held load is removed and a new load that is over (NLD.RNG) is placed on the scale, the new load will be automatically held without pressing the HOLD key each time.	
	AVG.TIM	1-60	Average data time for HOLD mode: 1-60 seconds	3
	STB.TIM	3*AVG.TIM - 255	The wait time to stabilize in HOLD mode: 3*(AVG.TIM) - 255 seconds	3* AVG.TIM
	HLD.TIM	0-65535	Data HOLD time. 0=data will be frozen until HOLD key pressed. 1-65535=data will be frozen for 1-65535 seconds. After the time elapses, scale will exit HOLD mode.	0
	HLD.RNG	0 - 255	Allowable fluctuation range of data that can be averaged in HOLD mode. 1-255= only data within 1-255d can be averaged (where d = the scale's readability, see specifications). 0=any data can be averaged.	5

USER				
Sub-Menu 1	Sub-Menu 2	Option	Remark	Default Setting
OTHER	NLD.RNG	1-255	1-255= range of weight is 1-255d (where d = the scale's readability, see specifications). If the weight is less than this value, the HOLD or ACCUM function considers the scale empty (i.e. that the load has been removed).	10
	CMD.SRC	NONE	Source of the executed command selection: (1)NONE=no command will be executed (2)COM.1= command from COM1 will be executed (3)COM.2= command from COM2 will be executed (4)COM.1.2= command from COM1 or COM2 will be executed	COM.1
		COM.1		
		COM.2		
		COM.1.2		
	A.OFF.T	0-255	Auto off time: 0=no auto power off 1-255=auto off after 1-255 minutes of no operation or weight change	5
	OFF.MOD	OFF	Auto off mode: (1)OFF=when off, display is dark and blank (2)DSP.TIM=when off, display shows the time (3)AC.TIME=on battery power, display behaves as (1); on AC power, display behaves as (2). If time is displayed and continuous COMx output is enabled, the time will be sent out.	OFF
		DSP.TIM		
AC.TIME				
LCD.BLT	0-255	LCD backlight set: (1)0=always off (2)1=always on (3)2=pressing down ZERO+UNIT together for 4 seconds will turn on or off (4)3-255=auto on when keys are pressed or when weight changes; auto off after 3-255 seconds	30	
LCD.CST	CST1---8	LCD contraction level selection	CST5	
SCAL.ID	000000-999999	Scale's ID number: 000000-999999	123456	

Calibration Mode

Note:

- A standard calibration weight of at least 10% of the scale's rated capacity is required.
- Use 80% to 100% of the scale's rated capacity for optimum results.
- The calibration operation must be in pounds.
- Press **ZERO/ON/OFF** at any time to exit calibration mode.

1. Enter **Setup** mode by pressing and holding the **HOLD/SETUP** key for 4 seconds.
2. After entering **Setup** Mode, the main menu item "**CONFIG**" will be displayed. Do **NOT** enter **CONFIG** Setup Mode. Use the arrow keys to move to **CAL** Mode, then press **TARE/PRESET** to enter calibration mode. If you enter the wrong mode, press the **HOLD/SETUP** key to return to the main menu, or press **ZERO/ON/OFF** to exit setup.
3. The number of times the scale has been calibrated will be displayed. This number will increase by one after each calibration and can't be modified or erased. Press the **TARE/PRESET** key to go to the next step.
4. "**ZERO**" will be displayed. Use the up and down arrow keys to select "**LINE**", then press the **TARE/PRESET** key to confirm and enter linear calibration mode.
5. "**CAL.PO**" will be displayed to calibrate scale's zero-point. Remove all weight from the scale platform and press the **TARE/PRESET** key to confirm. Zero will flash until stability is reached and will then automatically move to the next step.
6. "**CAL.P1**" will be displayed and the scale will be ready to accept the next calibration point. The default calibration input weight is 100% of the scale's rated capacity. Use the arrow keys adjust the input value to the standard calibration weight you will use.
Note: do not use less than 10% of the scale's rated capacity. Place the standard calibration weight on the platform and press the **TARE/PRESET** key to confirm your input and move to the next step. If "**CAL.Er**" is displayed, press **ZERO/ON/OFF** key to exit this mode and begin again.
7. "**End.y**" will be shown and **y** will be flashing. If you are doing only one point of calibration, use the up and down arrow keys to select **yes** and use **TARE/PRESET** to confirm and exit. Otherwise, select **no** and use **TARE/PRESET** to confirm and continue. Better linearity will be achieved by calibrating to a second and third point.
8. "**CAL.P2**" will be displayed and the scale will be ready to accept the next calibration point. The default calibration input weight is 100% of the scale's rated capacity. Use the arrow keys adjust the input value to the standard calibration weight you will use.
Note: CAL.P2 must be larger than CAL.P1. Do not use less than 20% of the scale's rated capacity. Place the standard calibration weight on the platform and press the **TARE/PRESET** key to confirm your input and move to the next step. If "**CAL.Er**" is displayed, press **ZERO/ON/OFF** key to exit this mode and begin again.
9. "**End.y**" will be shown and **y** will be flashing. To do a third point of calibration, select **no**, press **TARE/PRESET** to confirm, and repeat step 8 for "**CAL.P3**". **Note: CAL.P3 must be larger than CAL.P2. Do not use less than 30% of the scale's rated capacity.** Otherwise, select **yes** and remove weight and press **TARE/PRESET** to confirm and exit.
10. Press **ZERO/ON/OFF** to exit setup. Calibration is now complete.

CAL Submenu:

SUB-MENU1	SUB-MENU2	OPTION	REMARK
CAL.ON CAL.OFF			Sealed calibration switch is on or off
ZERO			Only does zero point calibration, then moves to CAL.END to end
LINE	CAL.P0		Linear calibration point 0: does zero point calibration. This point is required.
	CAL.P1		Linear calibration point 1: does first weight point calibration. This point can't be omitted and calibration weight must be more than 10% of the scale's capacity.
	END.Y	YES	End calibration? YES=go to CAL.END; NO=go to next point calibration
		NO	
	CAL.P2		Linear calibration point 2: does second weight point calibration. Standard weight should be more than 20% of the scale's capacity and larger than CAL.P1. (This step is optional.)
	END.Y	YES	End calibration? YES=go to CAL.END; NO=go to next point calibration
NO			
CAL.P3		Linear calibration point 3: does third weight point calibration. Standard weight should be more than 30% of the scale's capacity and larger than CAL.P2. (This step is optional.)	
GEO	CODE	00-70	Selection of Geographic Adjustment Code 00-70
	GRAVT	9.76183 -9.99999	Input gravity of user location via keypad
INPUT			Input or view current calibration parameters value
CAL.END			Calibration end and restart

Geographic Adjustment

Note: Press **ZERO/ON/OFF** at any time to exit calibration mode.

1. Enter **Calibration** mode as directed in the previous section.
2. “ZERO” will be displayed. Use the up and down arrow keys to select “GEO”, then press the **TARE/PRESET** key to confirm and enter geographic adjustment mode.
3. There are two ways to input the geographic adjustment:
 - a. For adjustments specific to your actual latitude and elevation:
 - i. When “CODE” is shown, press the **TARE/PRESET** key. Use the arrow keys to select the geographic adjustment code for your location (00-70) using Table 1. Press **TARE/PRESET** key to confirm.
Note: The latitude and elevation for your location can be obtained via an internet search.
Note: Elevations in Chart 2 are given in kilometers. 1000 ft = 0.305 km
 - b. To enter a known acceleration of gravity constant:
 - i. When “CODE” is shown, use the up and down arrow keys to select “GRAV”. Press **TARE/PRESET** key to confirm.
 - ii. When “GRAV” is shown, use the arrow keys to enter the acceleration of gravity constant for your latitude position and elevation (9.76183-9.99999 m/s²). Press **TARE/PRESET** key to confirm
4. Press **ZERO/ON/OFF** to exit setup. Geographic adjustment is now complete.

TABLE 1: Global Geographic Adjustment Code by elevation and latitude.

elevation(km) \ latitude(°)	0	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4	4.2	4.4	4.6	4.8	5	5.2	5.4	5.6	5.8	6
0	19	18	17	17	16	15	15	14	14	13	12	12	11	10	10	9	9	8	7	7	6	6	5	4	4	3	2	2	1	1	0
3	19	18	17	17	16	16	15	14	14	13	12	12	11	11	10	9	9	8	8	7	6	6	5	4	4	3	3	2	1	1	0
6	19	18	18	17	17	16	15	15	14	14	13	12	12	11	10	10	9	9	8	7	7	6	6	5	4	4	3	2	2	1	1
9	20	19	19	18	17	17	16	15	15	14	14	13	12	12	11	11	10	9	9	8	7	7	6	6	5	4	4	3	2	2	1
12	21	20	20	19	18	18	17	16	16	15	15	14	13	13	12	11	11	10	10	9	8	8	7	7	6	5	5	4	3	3	2
15	22	21	21	20	20	19	18	18	17	16	16	15	15	14	13	13	12	11	11	10	10	9	8	8	7	7	6	5	5	4	3
18	23	23	22	22	21	20	20	19	19	18	17	17	16	15	15	14	14	13	12	12	11	10	10	9	9	8	7	7	6	6	5
21	25	25	24	23	23	22	21	21	20	20	19	18	17	16	16	15	15	14	13	13	12	12	11	10	10	9	8	7	7	6	6
24	27	26	26	25	25	24	23	23	22	21	21	20	20	19	18	18	17	17	16	15	15	14	13	13	12	12	11	10	10	9	9
27	29	29	28	27	27	26	25	25	24	24	23	22	22	21	21	20	19	19	18	17	17	16	16	15	14	14	13	12	12	11	11
30	31	31	30	30	29	28	28	27	26	26	25	25	24	23	23	22	22	21	20	20	19	18	18	17	17	16	15	15	14	14	13
33	34	33	33	32	31	31	30	30	29	28	28	27	26	26	25	25	24	23	23	22	21	21	20	20	19	18	18	17	17	16	15
36	36	36	35	34	34	33	33	32	31	31	30	30	29	28	28	27	26	26	25	25	24	23	23	22	22	21	20	20	19	18	18
39	39	38	38	37	36	36	35	35	34	33	33	32	32	31	30	30	29	28	28	27	27	26	25	25	24	24	23	22	22	21	20
42	42	41	40	40	39	39	38	37	37	36	35	35	34	34	33	32	32	31	31	30	29	29	28	27	27	26	26	25	24	24	23
45	44	44	43	42	42	41	41	40	39	39	38	38	37	36	36	35	34	34	33	33	32	31	31	30	30	29	28	28	27	26	26
48	47	46	46	45	45	44	43	43	42	41	41	40	40	39	38	38	37	37	36	35	35	34	33	33	32	32	31	30	30	29	29
51	50	49	48	48	47	47	46	45	45	44	44	43	42	42	41	40	40	39	39	38	37	37	36	36	35	34	34	33	32	32	31
54	52	52	51	50	50	49	49	48	47	47	46	46	45	44	44	43	42	42	41	41	40	39	39	38	38	37	36	36	35	34	34
57	55	54	54	53	52	52	51	51	50	49	49	48	47	46	46	45	44	44	43	43	42	41	41	40	39	39	38	38	37	36	36
60	57	57	56	55	55	54	54	53	52	52	51	51	50	49	49	48	47	47	46	46	45	44	44	43	42	42	41	41	40	39	39
63	60	59	58	58	57	56	56	55	55	54	53	53	52	52	51	50	50	49	48	48	47	47	46	45	45	44	44	43	42	42	41
66	62	61	60	60	59	59	58	57	57	56	56	55	54	54	53	52	52	51	51	50	49	49	48	47	47	46	46	45	44	44	43
69	64	63	62	62	61	61	60	59	59	58	57	57	56	56	55	54	54	53	53	52	51	51	50	49	49	48	48	47	46	46	45
72	65	65	64	63	63	62	62	61	60	60	59	59	58	57	57	56	55	55	54	54	53	52	52	51	51	50	49	49	48	47	47
75	67	66	66	65	64	64	63	62	62	61	61	60	59	59	58	58	57	56	56	55	54	54	53	53	52	51	51	50	50	49	48
78	68	67	67	66	66	65	64	64	63	62	62	61	61	60	59	59	58	58	57	56	56	55	54	54	53	53	52	51	51	50	50
81	69	68	68	67	67	66	65	65	64	63	63	62	62	61	60	60	59	59	58	57	57	56	55	55	54	54	53	52	52	51	51
84	70	69	68	68	67	67	66	65	65	64	64	63	62	62	61	60	60	59	59	58	57	57	56	56	55	54	54	53	52	52	51
87	70	70	69	68	68	67	66	66	65	65	64	63	63	62	62	61	60	60	59	58	58	57	57	56	55	55	54	53	53	52	52
90	70	70	69	68	68	67	66	66	65	65	64	64	63	62	62	61	60	60	59	59	58	57	57	56	55	55	54	54	53	52	52

Miscellaneous Submenu Settings

1. Enter **Setup** mode by pressing and holding the **HOLD/SETUP** key for 4 seconds.
2. After entering **Setup** Mode, the main menu item "**CONFIG**" will be displayed. Do **NOT** enter **CONFIG** Setup Mode. Use the arrow keys to move to **MISC** Mode, then press **TARE/PRESET** to enter miscellaneous setting mode. If you enter the wrong mode, press the **HOLD/SETUP** key to return to the main menu, or press **ZERO/ON/OFF** at any time to exit setup.
3. After entering **MISC** Mode, the submenu item "**CODE**" will be shown first. Do **NOT** enter **CODE** Setup Mode. Use the arrow keys to move past **CODE** and **VOL** Modes to **DATE** Mode, then press **TARE/PRESET** to display the current date. Date format is yy.mm.dd. If you enter the wrong mode, press the **HOLD/SETUP** key to return to the previous menu, or press **ZERO/ON/OFF** to exit setup.
4. Press the **UNIT/DATA** key for 4 seconds to enter date modification mode. Use the arrow keys to modify the date. If no entry is made within 5 seconds, it will automatically exit modification mode.
5. Press the **HOLD/SETUP** key to return to the previous menu and use the arrow keys to move to **TIME** Mode, then press **TARE/PRESET** to display the current time. Time format is hh.mm.ss as a 24 hour format.
6. Press the **UNIT/DATA** key for 4 seconds to enter time modification mode. Use the arrow keys to modify the time. If no entry is made within 5 seconds, it will automatically exit modification mode.
7. Press the **HOLD/SETUP** key to return to the previous menu and use the arrow keys to move to **VER** Mode. Press **TARE/PRESET** to view the software version. Firmware version format is Vxx.yy, where xx is the hardware version, and yy is the software version.
8. Press **ZERO/ON/OFF** to exit setup.

MISC Submenu:

SUB-MENU1	REMARK
CODE	Displays the ADC (Analog to Digital Converter) code. ADC setting to be adjusted by a technician only.
VOL	Displays battery voltage. Normal battery range is 5.6V-7.6V. Replace batteries if below 5.6V.
DATE	Displays and sets the date
TIME	Displays and sets the time
VER	Displays firmware version

Serial Communication Details

Note:

- COM1 is RS232. TXD1, RXD1 and GND communication wires are used.
- COM2 is USB. USB driver is available at <http://www.measuretek.net>
- Baud rate and byte format can be changed from their defaults within User Setup mode.
- Responses to serial commands are immediate or within one weight measure cycle. One second should be adequate as a time-out value by remote (controlling) device.

Transmission data lengths are as follows for each string:

- Read data - 6bytes
- Data polarity - 1byte: "-" for negative, followed the first digit; " " for positive
- Decimal point - 1byte: "."
- Measure unit - 1-5bytes: " lb", " kg", "lb:oz", "pcs", "%"; units are always lower case and left aligned
- Current status - 4bytes

If over capacity, the scale will return eight "^" characters.

If under capacity, the scale will return eight "_" characters.

If there is an error in the zeroing of the scale, it will return eight "-" characters.

Leading zeroes before significant digits are suppressed. Reading weight is right aligned.

Serial Communication Symbols

<LF>	Line Feed character (hex 0AH)
<CR>	Carriage Return character (hex 0DH)
<ETX>	End of Text character (hex 03)
<SP>	Space (hex 20H)
H ₁ H ₂ H ₃ H ₄	Four status bytes (see below for byte definitions)
<p>	Polarity (minus sign for negative weight and space for positive weight)
W ₁ ---W ₆	Weight data, 1-6 bytes (six digits)
<DP>	Decimal point
U ₁ U ₂ U ₃ U ₄ U ₅	Measure units, kg, lb, lb:oz , % or pcs; 2-5 Bytes
<Add>	Address of scale; 2 bytes (00-99)
<Prompt>	Prompt characters of output content; max. 11 bytes

Status Byte Definitions

Bit	Byte 1 (H1)	Byte 2 (H2)	Byte 3 (H3)	Byte 4 (H4)
0	0=stable	0= not under capacity	00=compare disable	00=normal weighing
	1= not stable	1= under capacity	01=lower limit	01=count weighing
1	0= not at zero point	0= not over capacity	10=ok	10=percent weighing
	1= at zero point	1= over capacity	11=upper limit	11=other mode
2	0=RAM OK	0=ROM OK	0= gross weight	0=not in HOLD
	1= RAM error	1=ROM error	1= net weight	1=in HOLD
3	0= eeprom OK	0=calibration OK	0=initial zero OK	0=battery OK
	1= eeprom error	1=calibration error	1=initial zero error	1=low battery
4	Always 1	Always 1	Always 1	Always 1
5	Always 1	Always 1	Always 1	Always 1
6	Always 0	Always 1	Always 1	Always 0
7	Parity	Parity	Parity	Parity

Serial Communication (continued)

Command and Response Communication Summary when **USER-COM1/2-LAYOUT** is set to **SINGLE**:

Command		Response
ASCII	HEX	
<i>W</i> <CR>	<i>57 0d</i>	Read scale weight: ①<LF> ^ ^ ^ ^ ^ ^ ^ ^ U ₁ U ₂ U ₃ U ₄ U ₅ <CR><LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX>---over capacity ②<LF> _____ U ₁ U ₂ U ₃ U ₄ U ₅ <CR><LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX>---under capacity ③<LF>----- U ₁ U ₂ U ₃ U ₄ U ₅ <CR><LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX>---zero-point error ④<LF><p>W ₁ W ₂ W ₃ W ₄ W ₅ <dp>W ₆ U ₁ U ₂ U ₃ U ₄ U ₅ <CR><LF>H ₁ H ₂ H ₃ H ₄ <CR><ETX>---normal data
<i>S</i> <CR>	<i>53 0d</i>	<LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX>; read scale status
<i>Z</i> <CR>	<i>5a 0d</i>	<LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX> ; simulate ZERO key
<i>T</i> <CR>	<i>54 0d</i>	<LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX> ; simulate TARE key
<i>U</i> <CR>	<i>55 0d</i>	<LF> U ₁ U ₂ U ₃ U ₄ U ₅ <CR><LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX>; simulate UNIT key
<i>L</i> <CR>	<i>4c 0d</i>	<LF> H ₁ H ₂ H ₃ H ₄ <CR><ETX>; simulate HOLD key
<i>X</i> <CR>	<i>58 0d</i>	Powers off the scale, simulates OFF key
<i>others</i>		<LF>?<CR><EXT>

Command and Response Communication Summary when **USER-COM1/2-LAYOUT** is set to **MULTIPLE**:

▪ Output string frame:

```
<LF><Prompt><p>W1W2W3W4W5<Dp>W6 U1U2 U3 U4U5<CR>
.....
---- Line number and content are determined by setting of USER-OUT1/2-xxxx
<LF><Prompt>H1H2H3 H4<CR> ---- USER-OUT1/2-STATUS is set to YES
.....
<LF>
```

The unit position and bytes are determined by the current unit of measure.
 The details of <Prompt> refer to the content in **User Setup** submenu.

In hold mode, if the A/D conversion speed is set to high (80Hz), and **USER-COM1/2-LAYOUT** is set to **MULTIPLE**, the outputs from COM1 or COM2 may not catch up with the data processed in the indicator. To watch “real time” data, you may need to select fewer outputs and set a higher baud rate for C<CR> --- **USER-OUT1/2-LINE** is set to **LINE1/2/3/4**

```
.....
---The number of blank lines is determined by USER-OUT1/2-LINE setting
<ETX> --- Last byte of string frame
```

Caution: COM1 or 2.

Examples of some layouts when **USER-OUT1/2-xxxx** is set to **YES (USER-COM2-EN.ADDR=No)**:

In weighing mode:		In counting mode:		In percent weighing mode:	
SCALE ID:	123456	SCALE ID:	123456	SCALE ID:	123456
GROSS:	123lb 4.56oz	GROSS:	1234.55kg	GROSS:	12345lb
TARE:	11lb 2.22oz	TARE:	12.15kg	TARE:	10lb
NET:	112lb 2.34oz	NET:	1222.40kg	NET:	12335lb
ACC. N:	8	QUANTITY:	24448pcs	PERCENTAGE:	91.4%
TOTAL:	789lb 15.2oz	PIECE WT:	0.05kg	1% REF. WT:	135lb
DATE:	2011-06-12	ACC. N:	10	ACC. N:	3
TIME:	12:34:56	TOTAL:	23456pcs	TOTAL:	271.6%
A/D CODE:	1234567	DATE:	2011-06-12	DATE:	2011-06-12
VOLTAGE:	6.7V	TIME:	12:34:56	TIME:	12:34:56
STATUS:	bpq2	A/D CODE:	1234345	A/D CODE:	1231234
		VOLTAGE:	6.7V	VOLTAGE:	6.7V
		STATUS:	bpq2	STATUS:	bpq2

Serial Communication Test

1. Enter **Setup** mode by pressing and holding the **HOLD/SETUP** key for 4 seconds.
2. After entering **Setup** Mode, the main menu item "**CONFIG**" will be displayed. Do **NOT** enter **CONFIG** Setup Mode. Use the arrow keys to move to **TEST** Mode, then press **TARE/PRESET** to enter test mode. If you enter the wrong mode, press the **HOLD/SETUP** key to return to the main menu, or press **ZERO/ON/OFF** at any time to exit setup.
3. After entering **TEST** Mode, the submenu item "**DISP**" will be shown first. Press **TARE/PRESET** to enter test display mode. All LCD segments will be lit. Pressing the **ACC/TOTAL** key will light each segment, and pressing **TARE/PRESET** will light all segments.
4. Press the **HOLD/SETUP** key to return to the previous menu, or press **ZERO/ON/OFF** to exit completely.
5. To test COM1 or COM2 transmission or receiving, use the up and down arrow keys to move to **COM1.RD**, **COM1.TD**, **COM2.RD** or **COM2.TD** and press **TARE/PRESET** to enter. Either **rd1.--** or **td1.--** or **rd2.--** or **td2.--** will be displayed.
Note: A cable must connect the indicator to a PC running the transmitting or receiving functions.
Note: Software such as Super Terminal for Windows must be installed on the PC to send and receive bytes to and from this indicator.
Note: The baud rate is selected in **User Setup** mode, 8N1 byte format is fixed, and hex data (0x00 – 0xff) is used.
6. In this mode, transmitted and received hex data (0x00 – 0xff) will be displayed in the -- position. The arrow keys can be used to modify transmitted data.
7. Press the **HOLD/SETUP** key to return to the previous menu, or press **ZERO/ON/OFF** to exit completely.
8. To test the indicator keys and audible beep, use the up and down arrow keys to move to **KEY**, press **TARE/PRESET** to enter, and "**key. --**" will be displayed.
9. In this mode, when you press a key, the value of this key will be displayed on -- position and the tone will beep according to how it is set in **User Setup**.
10. Press the **HOLD/SETUP** key to return to the previous menu, or press **ZERO/ON/OFF** to exit completely.

TEST Submenu:

SUB-MENU1	REMARK
DISP	Test the LCD segments of the indicator
COM1.RD	Test COM1 receiving
COM1.TD	Test COM1 transmitting
COM2.RD	Test COM2 receiving
COM2.TD	Test COM2 transmitting
KEY	Test keys and audible beep

Symbol Definitions

CAP- - -	- Next content displayed is Capacity	SPL.Lo	- Sample load weight of low point.
CAL.ON	- Calibration seal switch is in the ON position	SPL.HI	- Sample load weight of high point.
CAL.Px	- Calibration on point(x)	SPL.PWT	- Sample goods weight to calculate piece weight
CAL.End	- Calibration is finished	INP.PCS	- Input pieces number of weighted goods
COMP	- To go to input COMPARE data mode	SPL.PCT	- Sample goods weight to calculate
HIGH	- To input HIGH limitation data of Comparison	INP.PCT	- Input percentage of weighted goods
LOW	- To input LOW limitation data of Comparison	AC.xxxx	- Accumulation instance is xxxx
PR.TARE	- To Preset TARE weight		

Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
0-----	Weight reading exceeds the Power On Zero limit	Make sure scale platform is empty. Perform zero calibration.
0_-----	Weight reading is below the Power On Zero limit	Install platform on scale. Perform zero calibration.
-----	Weight reading exceeds the overload limit or the weight value can't be displayed in the current unit of measure because it exceeds 6 digits	Reduce load on scale until weight value can be displayed or use an alternate unit of measure.
-----	Weight reading below minimum load limit	Install platform on scale. Perform zero calibration.
EEPE2	USER parameters are not correctly set	Re-set settings in USER mode
CAL.Er	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
PWT.ER	Piece weight error. The weight on the platform is too small (<0.5d) to define a valid reference weight.	Use a greater weight for the sample
PCT.ER	Unit percentage weight error. The percentage weight (1%, 0.1%, or 0.01%) is too small (<0.5d).	Use a greater weight for the sample
STB.ER	Stabilization time USER-HOLD-STB.TIM is too short, or Hold range USER-HOLD-HLD.RNG is too small, or other failure	Set USER-HOLD-STB.TIM longer, or set USER-HOLD-HLD.RNG larger, or service required
Won't turn 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.
Battery symbol is empty or Lo.bAt is shown	Batteries are discharged	Replace batteries

Display Character Definitions

ASCII	LCD/LED Show	ASCII	LCD/LED Show	ASCII	LCD/LED Show
0	0.	A	A.	N	N.
1	1.	B	B.	O	O.
2	2.	C	C.	P	P.
3	3.	D	D.	Q	Q.
4	4.	E	E.	R	R.
5	5.	F	F.	S	S.
6	6.	G	G.	T	T.
7	7.	H	H.	U	U.
8	8.	I	I.	V	V.
9	9.	J	J.	W	W.
		K	K.	X	X.
		L	L.	Y	Y.
		M	M.	Z	Z.

Packing Contents

- Indicator w/ tilting bracket
- AC120V/DC6V 500mA UL adapter
- Owner's manual
- Scale platform/base
- Hex wrench, 4 cap screws, 4 washers, 2 M4 screws



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