



Serial Number: _____

Model 580P *Poultry Growth Monitor*

USER MANUAL



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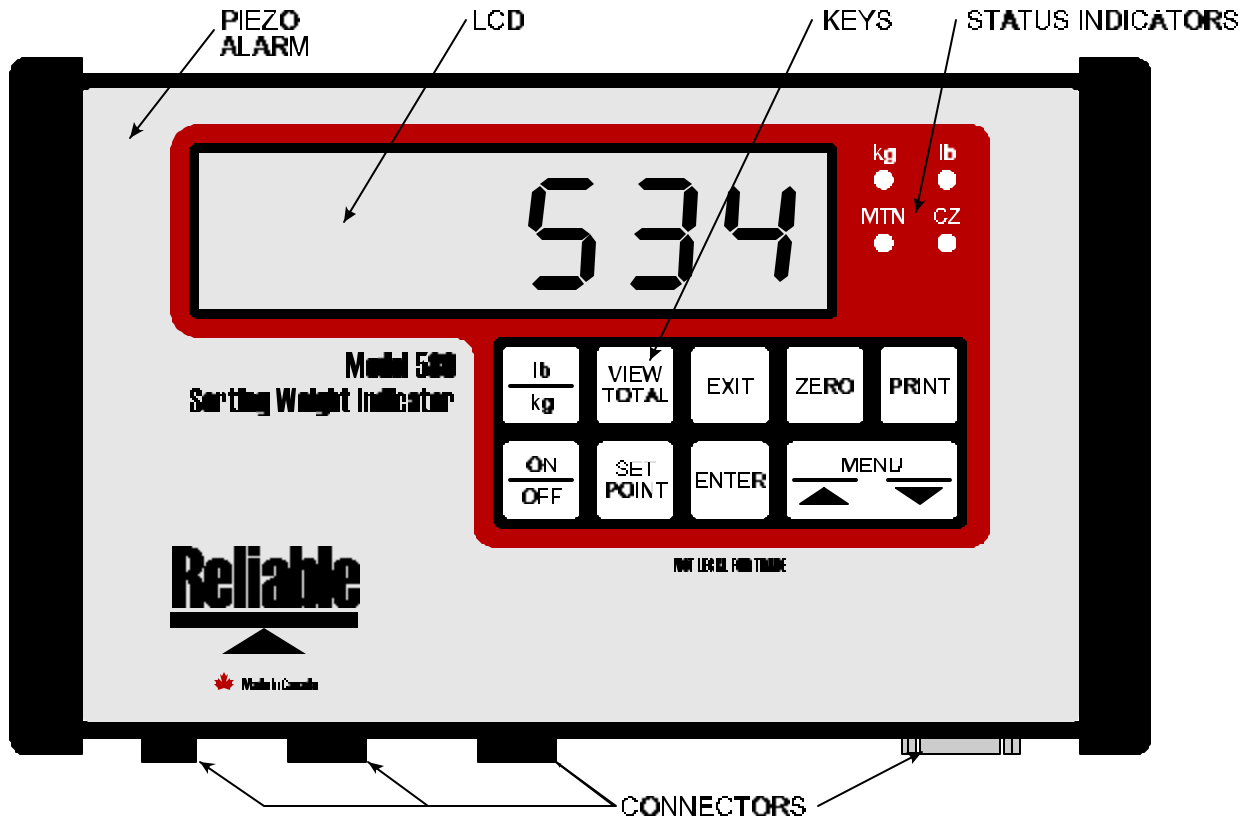
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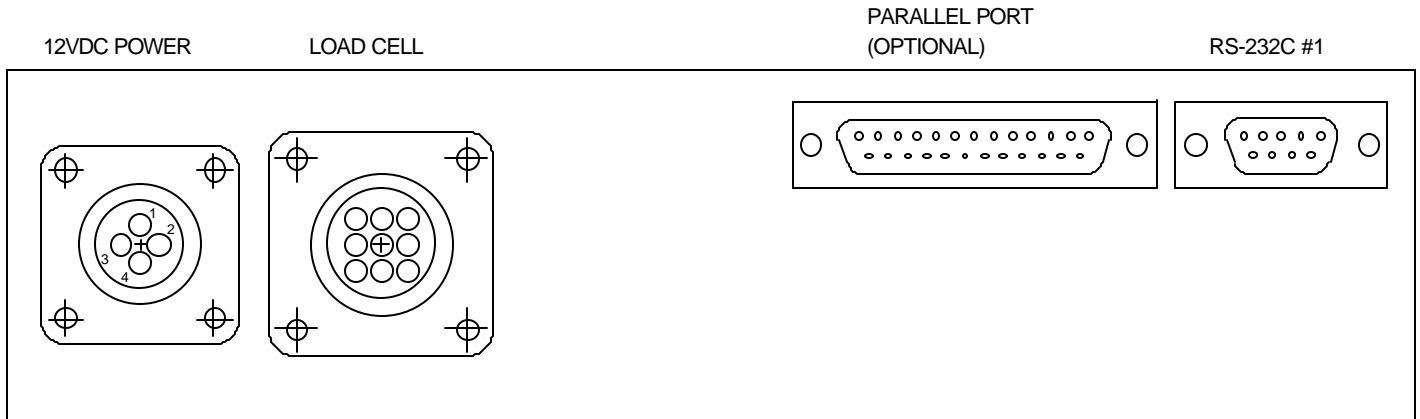
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2. General

2.1 Indicator Front Panel



2.2 Connector Detail



12VDC Power Connector:	AMP# 2060611	standard
Load Cell Connector:	AMP# 206705	standard
Parallel Port Connector:	D-sub 25 position female	optional
RS-232C Connector:	D-sub 9 position male	standard

2.3 Status Indicators

- kg** Lighted when Model 580P is operating in kg
- lb** Lighted when Model 580P is operating in lb

3. Basic Operation

3.1 Turning the Indicator On

1. To turn the Indicator on, press **ON/OFF**.



Display shows the model number, then the serial number and lastly, the software version. Display will rapidly go through a digit test procedure.



2. Allow the indicator to warm up and the display to stabilize for a few moments.
Note: At colder temperatures, more time should be allowed for warm up.



3. Press **ZERO**.



The key press is acknowledged.



The indicator displays zero.



3.2 lb/kg Key

1. To change weighing units, press **lb/kg**.



Status indicator will show the current units.



3.3 Set Point Operation

The Model 580P is designed to monitor as a poultry growth. It records (sorts) bird weights automatically and stores them in memory for later analysis. A target **Growth Curve** is stored in memory for comparison with actual flock weights. The Model 580P stores bird weights by **day number**. It will store the data in memory for retrieval on the Display or by a computer. Data is not lost when power is disconnected nor when the indicator is turned off.

3.3.1 Set Point - General

The Model 580P sorts the weights on the scale platform by continuously reading the weight on the scale (50 times/second). If a pre-set number of consecutive weight readings are within a specified range, the scale considers the weight to be stable and records it.

The Model 580P will wait until all weight is removed from the scale (the bird steps off) before re-starting the sorting process.

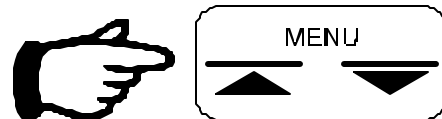
1. Press **SET POINT**.



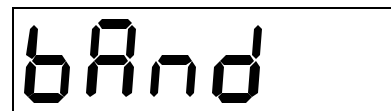
The display shows **Start Day** menu option. See Section 3.3.2 on page 7.



2. Press either **MENU** key to scroll through the **SET POINT** parameters.



Band width sets the variation above and below the target weight specified by the growth curve. See Section 3.3.3 on page 9.



Edit Curve is used to insert a new growth curve or revise an existing growth curve in memory. See Section 3.3.4 on page 10.



3.3.2 Start Day

The growth curve in the Model 580P memory consists of a **Target** weight for each day. The **Start Day** parameter sets the starting day for the flock.

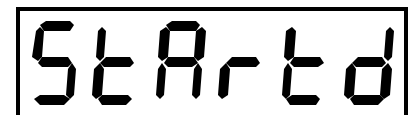
Example #1 - The flock is in its first day - set Start Day to 1.

Example #2 - The flock is 10 days old and no weights have been kept thus far - set Start Day to 10.

NOTE: If weight monitoring begins after the flock is several days old, the age of the flock (in days) **MUST** be entered correctly into the Model 580P memory. This is necessary for the growth curve comparisons to be made properly.

Note: Proceeding with this menu option will erase all data from memory. It should be used only at the beginning of the growth monitoring cycle. Be sure that the old data has been stored or transferred. The growth curve will not be erased during this procedure.

1. **SET POINT** menu opens with **Start Day**.



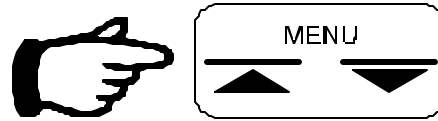
2. Press **ENTER**



Display shows current Day setting. All status indicators flash.



3. Use the **MENU** Arrow keys to adjust the value as desired.



4. Press **ENTER** to accept the new value.



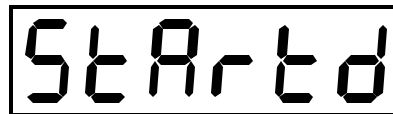
Display asks if you are **Sure** that you wish to start a new cycle.

Note: All old data will be erased.

5. If you do not wish to proceed press **Exit**, otherwise proceed to step 6.



Display returns to **Start Day** menu.



6. If you wish to proceed press **ENTER**.



Display indicates the indicator is **Busy** erasing the old data. This will take a few seconds.



Display returns to **Start Day** menu.

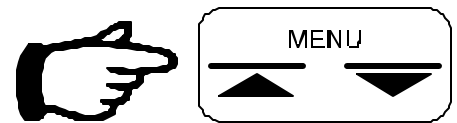


3.3.3 Band Width

The Model 580P records weights which fall on or near the target weight. **Band Width** (in percent) sets the variation, + and -, from the target weight which will be accepted or rejected. For example; if the growth curve specifies a target weight of 0.620 kg for day 20 and the operator sets the Band Width to 20%, The Model 580P will only record weights between 0.744 kg and 0.496 kg (0.620 ± 0.124)

The Model 580P also monitors the weights slightly above and below the specified **Band Width**. This extra band is fixed at the factory and cannot be field adjusted.

1. From the **Set Point** key description on page 6, use the **MENU** arrow keys to select **Band Width**.



Display shows **Band Width** option.



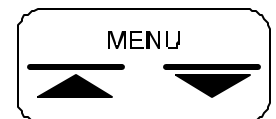
2. Press **ENTER**.



Display shows the current **Band Width** value. All status indicators flash.



3. Use the **MENU** Arrow keys to adjust the value as desired (between 5 and 25 %).



4. Press **ENTER** to accept the new value.



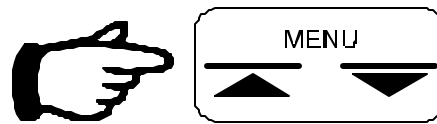
Display returns to **Band Width** option.
 Status indicators stop flashing.



3.3.4 Edit Growth Curve

A new growth curve can be entered into the Model 580P memory or an existing growth curve can be modified using the key pad.

1. From the **Set Point** key description on page 6, use the **MENU** arrow keys to select **Edit Curve** menu option.



Display shows **Edit Curve** option.



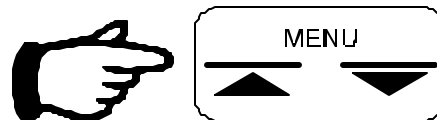
2. Press **ENTER**.



Display asks for the day which is to be adjusted, then shows the most recently modified day.



3. Use the **MENU** arrow keys to select the day to be edited.



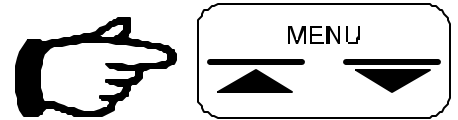
4. Press **ENTER**.



Display shows old target for that day.



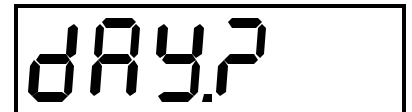
- Use the **MENU** arrow keys to adjust the target to new value.



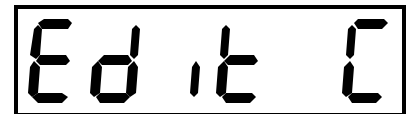
- Press **ENTER**.



Display asks for the day to be edited and returns to the most recently modified day.



- Return to item 3 and repeat items 3 - 6 as required for other days which need to be changed; or press **EXIT** to return to the **Edit Curve** menu option.



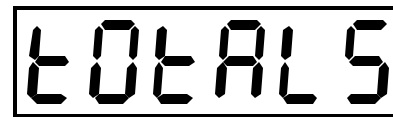
3.4 View Total

This key starts the visual reporting function. The Model 580P displays flock information by day. It will cycle through each day's data repeatedly until prompted to stop. The numbers are repeated to permit the operator to manually record the information and to double check the figures.

1. Press **VIEW TOTAL**.



Display shows **Totals** for a second.



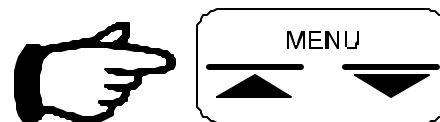
The display asks which day's data is required. It then shows the current day in the cycle.



All status indicators flash.



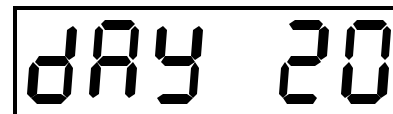
2. Use the **MENU** arrow keys to select the day required.



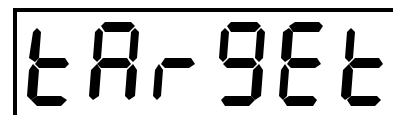
3. Press **ENTER**.



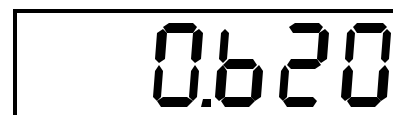
Display shows the day selected for a second.



Display shows **Target** for a second then shows the pre-set value of the **Growth Curve Target** for that day.



For Example: **Growth Curve Target** for day 20 is 0.620 kg. See Section on page for information on the growth curve.



Display shows **Band** for a second then shows the pre-set value of the **Band Width** for that day.



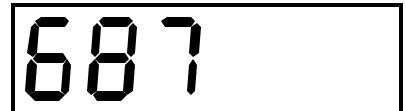
For Example: **Band Width** for day 20 is 15%. See Section on page for information on the band width.



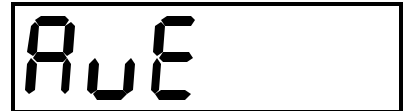
Display shows **Hits** for a second then shows the number of birds weighed on the day selected.



For Example: On day 20, a total of 687 birds were weighed.



Average weight of the flock on the specified day is displayed.



The average weight of the 687 birds was 0.612 kg.



Some of the birds weighed more than the **Target** plus the 15% **Band Width**.



Target: 0.620 kg.
 Band width: $(0.15 \times 0.620) = 0.093$ kg
 Over range: $(0.620 + 0.093) = 0.713$ kg

There were 22 of the 687 birds over 0.713 kg.



Some of the birds weighed less than the **Target** minus the 15% **Band Width**.



Target: 0.620 kg.
 Band width: $(0.15 \times 0.620) = 0.093$ kg
 Over range: $(0.620 - 0.093) = 0.527$ kg

There were 31 of the 687 birds under 0.527 kg.



Display shows **Day 20** and begins the cycle again at **Target**.

4. To view a different day's summary press **EXIT**. The display returns to the **Day?** prompt for a second.



Display shows most recently viewed day. All Status Indicators flash. Return to Item 2 above.

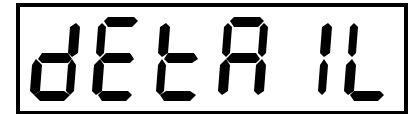
3.5 Print

Model 580P can send :

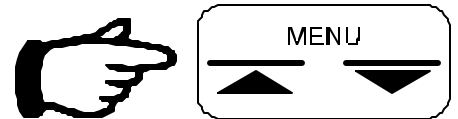
1. detailed report to a computer
2. basic report to a printer

1. Press **PRINT**.

Display shows **Detail**. See Section 3.5.1 on page 15.



2. Use the **MENU** arrow keys to select the report required.



Display shows **Basic**. See Section 0 on page 16.

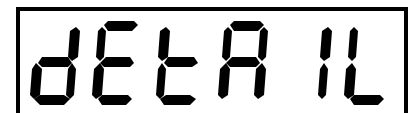


3.5.1 Printing a Detailed Report

Connect the Model 580P RS232 port to the communications port on a computer. Be certain the computer and indicator communications parameters are matched. See Section 4.3.2 on page 46 for adjustments.

Data is sent out in comma delimited, ASCII format. There are 27 columns of data. See Section on page for sample of output.

1. Display shows **Detail** print option.



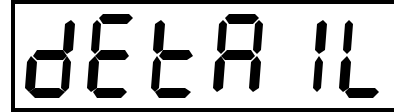
2. Press **ENTER**.



Display shows **-busy-** , while information is being transferred.



Display returns to **Detail** menu option.



3. Press **EXIT** to return to normal operation.



An example of a detailed print out for the first 20 days of a flock's performance is shown on the next page. It has been transferred to a spreadsheet program for analysis.

Please note the following:

1. No data was gathered for the first 9 days. The **Start Day** procedure was done on day 10.
2. The Band was set to 15% for the duration of the test.
3. Bands 1 and 5 are each set to 5% of the daily target at the factory.
4. Bands 2, 3, and 4 are set to equal widths. The total width of these 3 bands is governed by the **Band Width** parameter. In this example the band Width was set to +/-15% (total of 30 %). Band 2, 3, and 4 are each 1/3 of this total (30% /3=10%). Thus, for day 20, with a target of 0.620kg, bands 2, 3 and 4 will be 0.062kg. Bands 1 and 5 will each be 0.031kg.
5. Band 3 contains most of the readings (on day 20 it had 431 of the 626 readings). Band 3 average for that day was 0.607kg, (0.013 kg below target). This would suggest that the operator should investigate the cause quickly to ensure being on target by shipping day.
6. Bands 2 & 4 are useful for monitoring the weight distribution of the flock. Ideally they should have low numbers of readings and band 3 should have most of the flock.

Sorted Weight Detailed Report

Report Date: 2000-01-01
 Report Time: 05:57:05

Cycle Started Date: 1999-12-23
 Cycle Started Day: 10

Day	Band 1			Band 2			Band 3			Band 4			Band 5			Flock			Curve	Band	Set	Set	Set	Set	Set	Set
	Total	Hits	Average	Total	Hits	Average	Total	Hits	Average	Total	Hits	Average	Total	Hits	Average	Total	Hits	Average	Target	Width	Pt 1	Pt 2	Pt 3	Pt 4	Pt 5	Pt 6
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.040	15	0.032	0.034	0.038	0.042	0.046	0.048	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.050	15	0.040	0.043	0.048	0.053	0.058	0.060	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.060	15	0.048	0.051	0.057	0.063	0.069	0.072	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.070	15	0.056	0.060	0.067	0.074	0.081	0.084	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.090	15	0.072	0.077	0.086	0.095	0.104	0.108	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.100	15	0.800	0.850	0.950	0.105	0.115	0.120	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.120	15	0.960	0.102	0.114	0.126	0.138	0.144	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.140	15	0.112	0.119	0.133	0.147	0.161	0.168	
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.170	15	0.136	0.145	0.162	0.179	0.196	0.204	
10	3.611	23	0.157	16.512	96	0.172	68.632	373	0.184	16.353	79	0.207	1.561	7	0.223	106.669	578	0.184	0.220	15	0.152	0.162	0.181	0.200	0.219	0.228
11	4.525	25	0.181	20.246	106	0.191	88.15	410	0.215	20.619	87	0.237	2.056	8	0.257	135.596	636	0.213	0.220	15	0.176	0.187	0.209	0.231	0.253	0.264
12	5.697	27	0.211	26.216	116	0.226	114.432	447	0.256	26.315	95	0.277	2.709	9	0.301	175.369	694	0.252	0.260	15	0.208	0.221	0.247	0.273	0.299	0.312
13	4.579	19	0.241	27.972	108	0.259	119.143	421	0.283	27.192	88	0.309	2.022	6	0.337	180.908	642	0.281	0.290	15	0.232	0.247	0.275	0.305	0.334	0.348
14	4.709	17	0.277	28.227	97	0.291	127.437	397	0.321	35.904	102	0.352	2.709	7	0.387	198.986	620	0.320	0.330	15	0.264	0.281	0.314	0.347	0.380	0.396
15	4.017	13	0.309	29.946	93	0.322	137.198	379	0.362	37.715	95	0.397	1.724	4	0.431	210.600	584	0.360	0.370	15	0.296	0.315	0.352	0.389	0.426	0.444
16	2.457	7	0.351	34.216	91	0.376	164.811	401	0.411	44.198	98	0.451	2.455	5	0.491	248.137	602	0.412	0.420	15	0.336	0.357	0.399	0.441	0.483	0.504
17	3.456	9	0.384	36.892	92	0.401	186.816	417	0.448	47.821	97	0.493	2.680	5	0.536	277.665	620	0.447	0.460	15	0.368	0.391	0.437	0.483	0.529	0.552
18	4.697	11	0.427	43.165	97	0.445	204.352	412	0.496	55.794	102	0.547	1.773	3	0.591	309.781	625	0.495	0.510	15	0.408	0.434	0.485	0.536	0.587	0.612
19	1.916	4	0.479	42.656	86	0.496	234.342	423	0.554	67.771	101	0.671	1.314	2	0.657	347.999	616	0.564	0.570	15	0.456	0.485	0.542	0.599	0.656	0.684
20	3.647	7	0.521	46.729	83	0.563	261.617	431	0.607	66.627	99	0.673	4.314	6	0.719	382.934	626	0.611	0.620	15	0.496	0.527	0.589	0.651	0.713	0.744

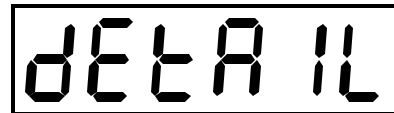
3.5.2 Printing a Basic Report

Connect a printer to the RS232 port on the Model 580P. Make sure the communications protocols for the printer and the indicator match (see Section 4.3.2 on page 46 to set Model 580P parameters).

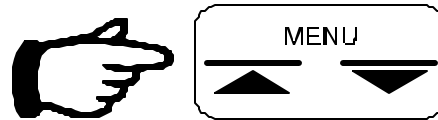
1. Press **PRINT**.



Display shows **Detail**.



2. Use the **MENU** arrow keys to select **Basic** report option.



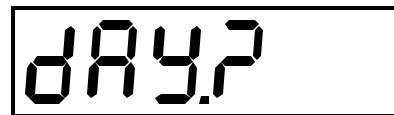
Display shows **Basic**.



3. Press **ENTER**.



The display asks which day's data is required. It then shows the current day in the cycle.



All status indicators flash.



4. Use the **MENU** arrow keys to select the day required.



5. Press **ENTER**.



Display shows **-busy-**, while information is being transferred.



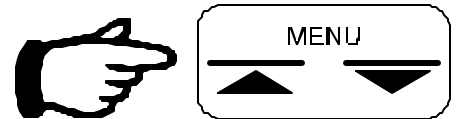
The display asks which day's data is required. It then returns to the day just printed.



All status indicators flash.



6. Use the **MENU** arrow keys to select the next day required.



Each day's data is printed in the following format:

```
Sorted Weight Summary Report

Report Date: 2000-7-20
Report Time: 09:45:21
Cycle Started Date: 2000-7-1
Cycle Started Day: 5

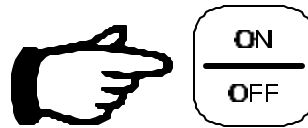
Report for Cycle Day: 20
Target Weight: 0.620 kg
Band: +/- 15%
Hits: 687
Average Weight: 0.612 kg
Hits Over: 22
Hits Under: 31
```

3.6 Turning the Indicator Off

IMPORTANT

Do not disconnect the power supply to turn the indicator off. Use the **ON/OFF** key. Important information is saved in memory when the indicator is turned off properly.

1. To turn the Indicator off, press **ON/OFF**.



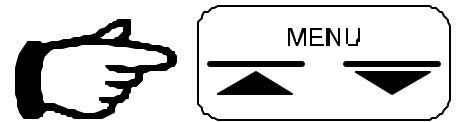
The LCD displays **BYE** and the indicator shuts down.



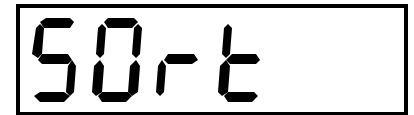
4. Menu

There are two **MENU** keys on the Model 580P face. There are three sub-menus in the Model 580P library:

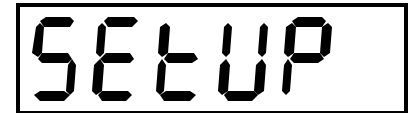
1. Press either **MENU** key. Use this key to scroll through the options.



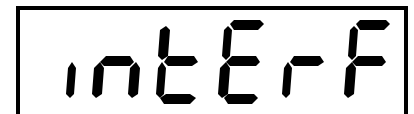
SORT - Controls the parameters of the sorting feature. See Section 4.1 on page 22.



SETUP - Controls the operating parameters of the Model 580P. See Section 4.2 on page 28.



INTERFACE - Sets the operator interface parameters. See Section 4.3 on page 41.



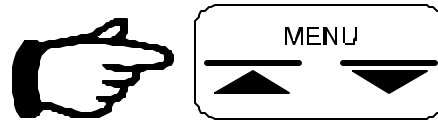
2. To return to normal weighing at any time use the **EXIT** key.



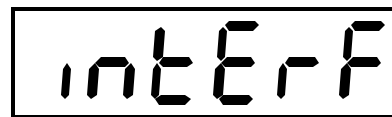
4.1 Sort Menu

This parameter controls the 580P behaviour when recording the weight of a moving bird. It also allows the operator to clear stored data which is no longer relevant.

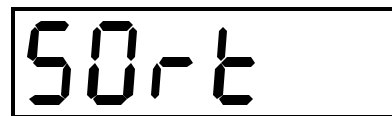
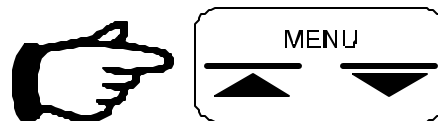
1. To activate the **Sort** feature use the **MENU** keys. Press either **MENU** key.



Display shows a menu option.



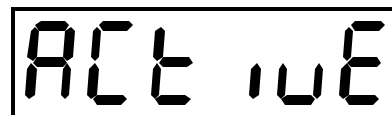
2. Use the **MENU** arrow keys to locate the **Sort** menu.



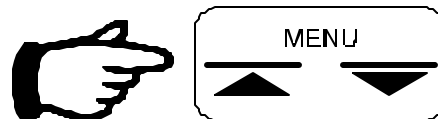
3. Press **ENTER**.



Display shows **Active**. See Section 4.1.1 on page 23.



4. Use the **MENU** arrow keys to locate the desired sorting parameter.



Samples is the number of continuous readings(samples) required within the deviation window for an acceptable weight reading. See Section 4.1.2 on page 24.

Deviation sets the size of the sample deviation allowed for an acceptable weight reading. See Section 4.1.3 on page 25.



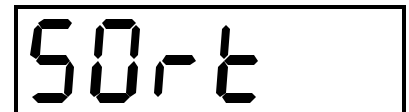
Clear All allows the operator to clear all the weight readings from memory. See Section 4.1.4 on page 26.



Clear Day allows the operator to clear the weight readings for the current day from memory. See Section 4.1.5 on page 27.

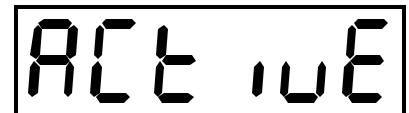


6. Press **EXIT** to return to **Sort** menu option.



4.1.1 Sort Active

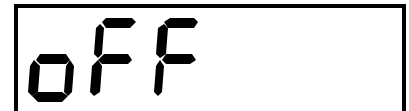
Display shows **Active Sorting** menu option.



1. Press **ENTER**.



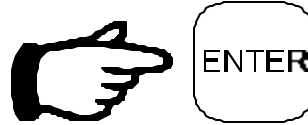
Display shows current **Sort** status. All status indicators flash.



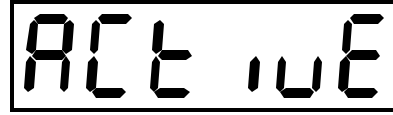
2. Use the **MENU** keys to change status as required.



3. Press **ENTER** to accept the new status.



Display returns to **Active** menu option.



4.1.2 Samples

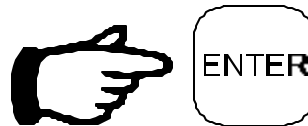
This parameter is used together with **Deviation** to create an “Accept Window”. See example in Section 4.1.3 below.

Setting the **Samples** to a smaller number allows Model 580P to find a record more quickly but the record may not be as accurate as when a larger number is used.

Display shows **Samples** menu option.



1. Press **ENTER**.



Display shows current **Samples** setting.
All status indicators flash.



2. Use the **MENU** arrow keys to change to a new value.



3. Press **ENTER** to accept the new value.



Display returns to **Samples** menu option. Status indicators stop flashing.



4.1.3 Deviation

This parameter is used together with **Samples** to create an “Accept Window”. The “Deviation” (for example: 10 graduations) is the height and the “Samples” (for example: 50) is the width of the window. In this example, when Model 580P has 50 consecutive readings within a 10 graduation range, it takes an average of the 50 readings. It records the average as a “record”. This record is displayed briefly on the display and is stored in memory.

Setting the deviation to a larger number allows Model 580P to find a record more quickly but the record may not be as accurate as when a smaller number is used.

Display shows **Deviation** menu option.



1. Press **ENTER**.



Display shows current deviation setting.
All status indicators flash.



2. Use the **MENU** arrow keys to change to a new value.



3. Press **ENTER** to accept the new status.



Display returns to **Deviation** menu option. Status indicators stop flashing.



4.1.4 Clear All

This option is used to erase all the data from memory. This is normally done when a flock has been shipped and the Model 580P is being reset for a new flock.

Display shows **Clear All** menu option.

1. Press **ENTER**.



Model 580P asks if you are **Sure ?** that you wish to clear all the data from memory

2. **If you do NOT wish to clear the memory press EXIT.**



3. To clear the memory, press the **ENTER** key again.



Display shows **-done-** momentarily, then returns to normal weighing.

4.1.5 Clear Day

This option is used to erase only the current day's data. This situation would arise only if the operator wished to change the **Band Width**. See Section 3.3.3 on page 8. **Band Width** revisions normally take effect at midnight of the day that changes are made. To have revisions implemented immediately, data from the beginning of the current day must be removed to eliminate the possibility of mixing data from two band widths.

Display shows **Clear Day** menu option.

1. Press **ENTER**.



Model 580P asks if you are **Sure ?** that you wish to clear today's data from memory

2. If you do NOT wish to clear the memory press **EXIT**.



3. To clear the memory, press **ENTER**.



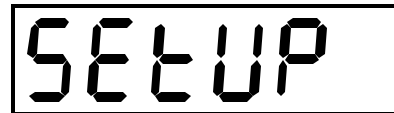
Display shows **-done-** momentarily, then returns to normal weighing.

4.2 Setup Menu

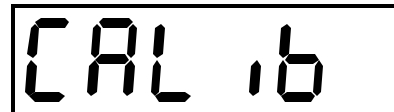
Note: Be sure to read and *fully understand* the directions before making *any modifications* to the indicator setup, failure to do so may render the Model 580P *inoperable*.

Using the menu arrow keys select the **Setup** menu.

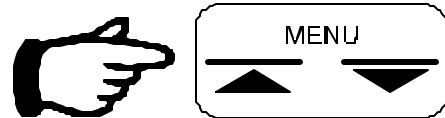
1. Indicator is in **Setup Mode**. Press **ENTER**.



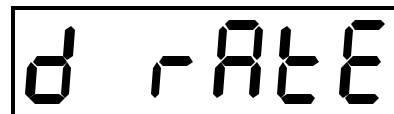
Display shows **Field Calibration** option. See section 4.2.1 on page 30.



2. Press either **MENU** key to scroll through the **Setup** parameters.



Sets **Display Update Rate**. See section 4.2.2 on page 32.



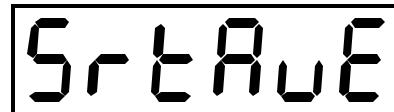
Sets **Display Averaging Rate**. See section 4.2.3 on page 33.



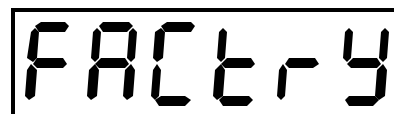
Sets **Serial Port Update Rate**. See section 4.2.4 on page 34.



Sets **Sort Average**. See section 4.2.5 on page 35.




Sets **Factory Calibration**. See section 4.2.6 on page 35. Note: For Factory Use Only.



Sets **Coarse Zero Offset**. See section 4.2.7 on page 35.

A rectangular LCD display showing the text "OFFSEt" in a seven-segment font.

Sets the **Amplifier Range**. See section 4.2.8 on page 3737.

A rectangular LCD display showing the text "9A in" in a seven-segment font.

Sets the **Zero Tracking Range**. See section 4.2.9 on page 38.

A rectangular LCD display showing the text "2 tRAC" in a seven-segment font.

Sets **Maximum Capacity Rating** of the platform. See section 4.2.10 on page 39.

A rectangular LCD display showing the text "ouEr r" in a seven-segment font.

Sets the maximum operating **Range of the Zero Key**. See section 4.2.11 on page 39.

A rectangular LCD display showing the text "2ErO r" in a seven-segment font.

System Report. See section 4.2.12 on page 40. Note: For Factory Use Only

A rectangular LCD display showing the text "SYSrPt" in a seven-segment font.

4.2.1 Calibration Adjustment

All indicators are calibrated at the factory with a fixed input signal. This signal is assigned a calibration factor. It may be necessary to adjust this calibration factor in order to obtain a more accurate weight reading.

Example: If a scale reading is 1% lower than the actual weight on the scale, the calibration figure should be increased by 1%.

- Scale display: 10,000
- Actual weight: 10,100
- Old Calibration figure: 5,000
- New Calibration figure: 5,050

$$\frac{\text{OldCalibrationFigure}}{\text{ScaleDisplay}} = \frac{\text{NewCalibrationFigure}}{\text{ActualWeight}}$$

$$\frac{5,000}{10,000} = \frac{\text{NewCalibrationFigure}}{10,100}$$

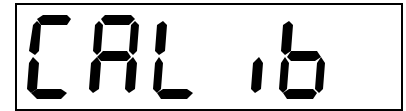
$$\text{NewCalibrationFigure} = \frac{(5,000 \times 10,100)}{10,000}$$

$$\text{NewCalibrationFigure} = 5,050$$

$$\text{NewCalibrationFigure} = \frac{(\text{OldCalibrationFigure} \times \text{ActualWeight})}{\text{ScaleDisplay}}$$

Note: Care should be taken when using this function, contact the factory at 1-800-419-1189 for help.

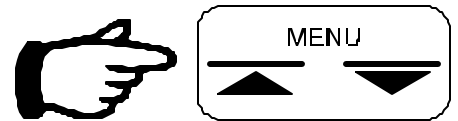
1. From the **Calibration Adjustment** menu option, press the **ENTER** key.



The current **Calibration Figure** is displayed. All Status Indicators flash.



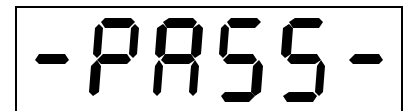
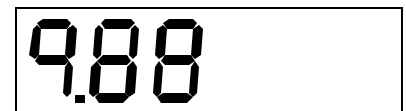
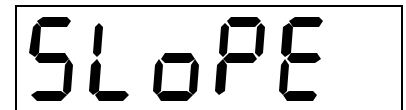
2. Use the **MENU** Arrow keys to adjust the value as desired.



3. To accept the new setting, press the **ENTER** key.



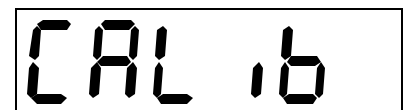
The display briefly shows **Slope**, then a number, then shows **PASS**.



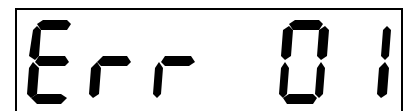
4. Press the **ENTER** key.



The **Calibration Adjustment** menu option is displayed once again.



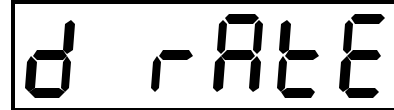
If Error Messages appear see section 5 on page 54.



4.2.2 Display Update Rate

The length of time between changes on the **LCD** is called the **Display Update Rate**. This time is shown in seconds.

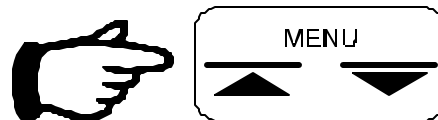
1. From the **Display Update Rate** menu option, press the **ENTER** key.



The current **Display Update Rate** setting is displayed in seconds. All Status Indicators flash.



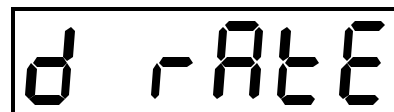
2. Use the **MENU** Arrow keys to adjust the value as desired.



3. To accept the new setting, press the **ENTER** key. Status indicators stop flashing.



The **Display Update Rate** menu option is displayed once again.



4.2.3 Display Average

The number of readings which are averaged for each **LCD** update is called the **Display Average**. Factory default is 25.

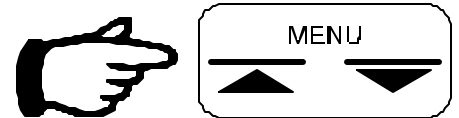
1. From the **Display Average** menu option, press the **ENTER** key.



The current **Display Average** setting is displayed. All Status Indicators flash.



2. Use the **MENU** Arrow keys to adjust the value as desired.



3. To accept the new setting, press the **ENTER** key. Status Indicators stop flashing.



The **Display Average** menu option is displayed once again.



4.2.4 Port Average

The number of readings which are averaged for each **Serial Port** update is called the **Port Average**. Factory default is 25. This number is usually the same as the **LCD** but can be different if required.

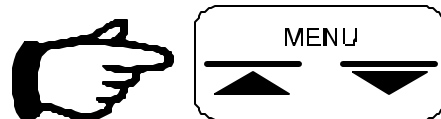
1. From the **Port Average** menu option, press the **ENTER** key.



The current **Port Average** setting is displayed in seconds. All Status Indicators flash.



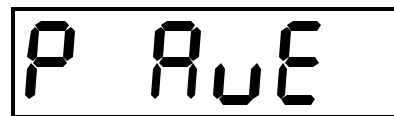
2. Use the **MENU** Arrow keys to adjust the value as desired.



3. To accept the new setting, press the **ENTER** key. Status Indicators stop flashing.



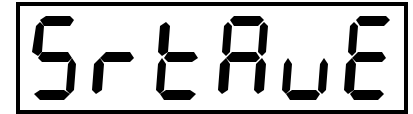
Port Average menu option is displayed once again.



4.2.5 Sort Average

The number of readings which are averaged for each **Sort Sample** is called the **Sort Average**. Factory default is 7.

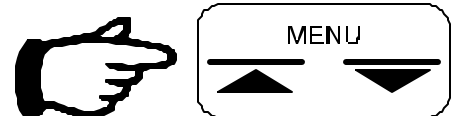
1. From the **Sort Average** menu option, press the **ENTER** key.



Display shows the current **Sort Average**. All Status Indicators flash.



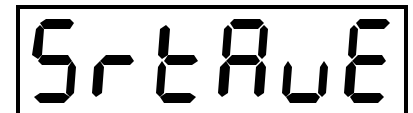
2. Use the **MENU** Arrow keys to adjust the value as desired.



3. To accept the new setting, press the **ENTER** key. Status Indicators stop flashing.



Display shows **Sort Average** menu option once again.



4.2.6 Factory Calibration


For factory use only.

4.2.7 Offset Adjustment

The **Offset Adjustment** is used as a coarse zero adjustment to compensate for static loads such as scale platforms.

Note: This operation should not be performed without prior factory authorisation as improper use can result in system failure.

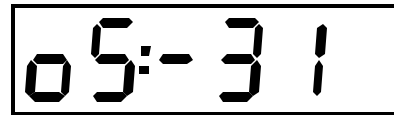
1. From the **Offset Adjustment** menu option, press the **ENTER** key.

A rectangular digital display showing the word "OFFSET" in a seven-segment font.

A number will appear on the display. This number will alternate with a **DAC Code**.

A rectangular digital display showing the number "65536" in a seven-segment font.

The **DAC Code** will count upward until a stable value is reached.

A rectangular digital display showing "05:-31" in a seven-segment font.

The **Offset Adjustment** menu option is displayed once again.

A rectangular digital display showing the word "OFFSET" in a seven-segment font.

Error Messages See section 5 on page 54.

4.2.8 Amplifier Range

Amplifier Range is usually set at the factory and there is normally no need to change it. If a load cell with a different signal level is to be connected to the Model 580P, the range may need to be changed.

Note: Contact the factory before proceeding with this option.

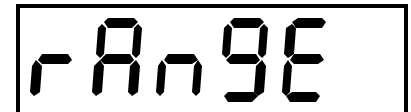
Load cell signals are normally rated in mv/v at full load. Typical values are: 1mv/v 2mv/v 4mv/v 8mv/v. When selecting range value, be sure that the value is equal to or larger than the load cell signal.

Example: for a load cell with 2.5 mv/v use the 4 mv/v setting

for a load cell with 1.8 mv/v use the 2 mv/v setting.

It is very likely that other parameters in the **Setup** and **Interface** menus will need to be changed after this procedure is complete.

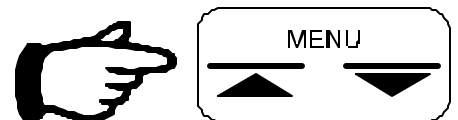
1. From the **Amplifier Range** menu option, press the **ENTER** key.



The current **Amplifier Range** setting is shown.



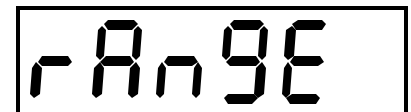
2. Use the **MENU** Arrow keys to select the correct value.



3. To accept the new setting press **ENTER**.



Display returns to **Amplifier Range** menu option.

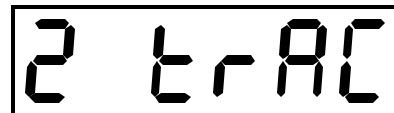


4.2.9 Zero Tracking

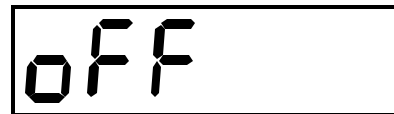
In some applications, the scale platform may be subject to external material build-up such as mud. In these instances, the indicator can be set (**Zero Tracking On**) to ignore these small changes and automatically zero itself.

Note: As the name implies, **Zero Tracking** only functions when the indicator is at or near a zero (0) reading.

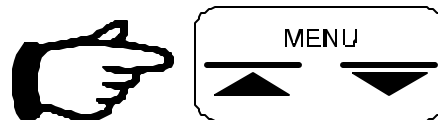
1. From the **Zero Tracking** menu option, press the **ENTER** key.



The current **Zero Tracking** status is displayed. All Status Indicators flash.



2. To change the setting, press one of the **MENU** keys.



3. To accept the new setting, press the **ENTER** key.



The **Zero Tracking** menu option is displayed once again. Status Indicators stop flashing.



4.2.10 Over Range

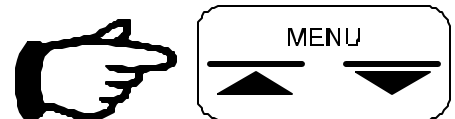
1. From the **Over Range** menu option, press the **ENTER** key.



Display shows the current **Over Range** setting. All Status Indicators flash.



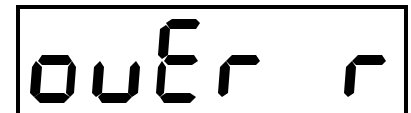
2. Use the **MENU** Arrow keys to adjust the correct value.



3. To accept the new setting, press the **ENTER** key.



Over Range menu option is displayed once again. Status Indicators stop flashing.



4.2.11 Zero Range

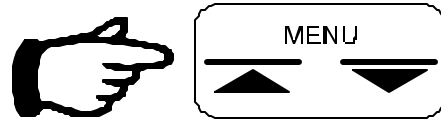
1. From the **Zero Range** menu option, press the **ENTER** key.



Display shows the current **Zero Range** setting (1 to 100%). All Status Indicators flash.



2. Use the **MENU** Arrow keys to adjust the correct value.



3. To accept the new setting, press the **ENTER** key.



Zero Range menu option is displayed once again. Status Indicators stop flashing.

4.2.12 System Report

For factory use only.

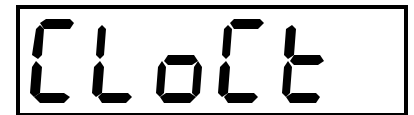
4.3 Interface Menu

Using the menu arrow keys select the **Interface** menu.

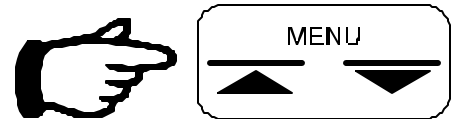
1. Indicator is in **Interface Mode**. Press **ENTER**.



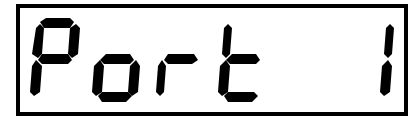
Display shows **Clock** option. See section 4.3.1 on page 42.



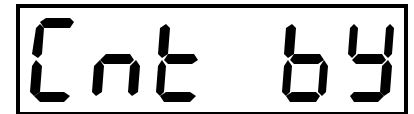
2. Press either **MENU** key to scroll through the **Setup** parameters.



Sets operating parameters for the **Serial Port**. See section 4.3.2 on page 46.



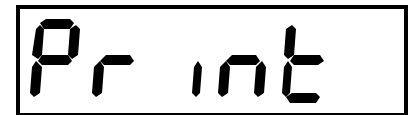
Sets the size of the **Display Graduation**. (1, 2, 5, 10 etc.) See section 4.3.3 on page 50.



Sets the location of the **Decimal Point**. See section 4.3.4 on page 51.



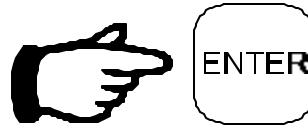
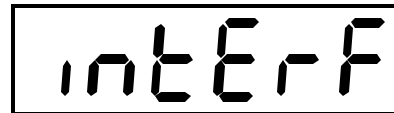
Sets the parameters **Printer Port** See section 4.3.5 on page 51.



4.3.1 Clock Adjustment - Time & Date

The indicator has a **Real Time Clock** which operates internally at all times. The clock retains both time and date. The indicator is set at the factory to **North American Mountain Time**. Adjust the clock to your specific time zone. Menus for adjusting the time & date are listed below.

1. From **Interface** menu press the **ENTER** key.



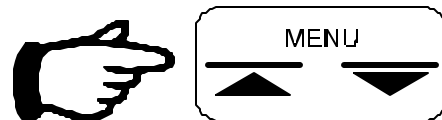
Display shows **Clock** menu option.



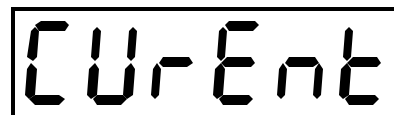
2. Press the **ENTER** to check or adjust the clock.



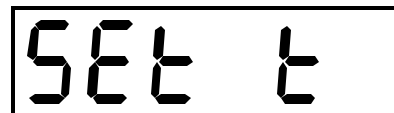
3. Use the **MENU** Arrow keys to scroll through the clock settings.



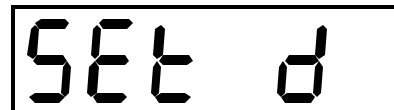
Current - Shows the current time & date. The display alternates between “YY:MM:DD” and “HH:MM:SS”.



Set Time - Adjusts the time. See Section 4.3.1.1 on page 43.



Set Date - Adjusts the date. See Section 4.3.1.2 on page 44



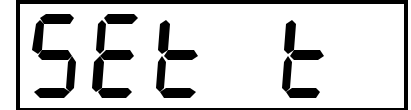
4. Use the **EXIT** key to return to **Clock** menu.



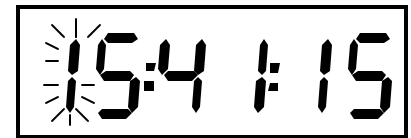


4.3.1.1 Set Time

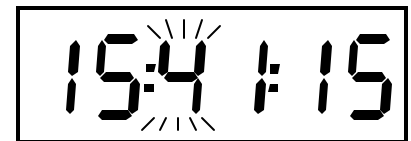
1. From **Set Time** menu press the **ENTER** key.



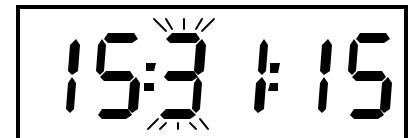
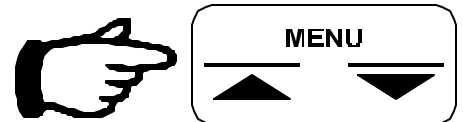
Display shows **Current** time. The left hand digit flashes. All status indicators flash.



2. Use the **ENTER** key to scroll to the right until the digit to be changed begins to flash.



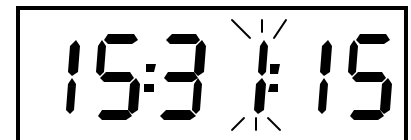
3. Use the **MENU** arrow keys to select the correct number



4. Press **ENTER** to accept the new digit.



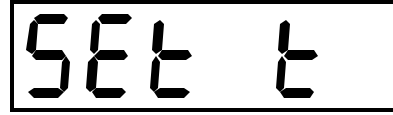
Display shows the new setting. The next digit to the right begins to flash. Proceed as in Step 3. above or Step 5. Below.



- If no other time changes are required press **EXIT**.

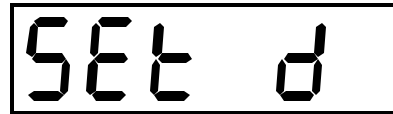


Set Time menu option is displayed once again. Status indicators stop flashing.



4.3.1.2 Set Date

- From **Set Date** menu press the **ENTER** key.



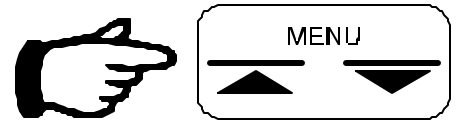
Display shows **Current** date. The left hand digit flashes. All status indicators flash.



- Use the **ENTER** key to scroll to the right until the digit to be changed begins to flash.



- Use the **MENU** arrow keys to select the correct number



- Press **ENTER** to accept the new digit.



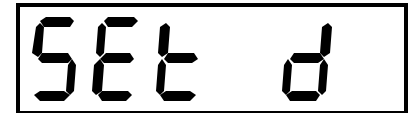
Display shows the new setting. The next digit to the right begins to flash. Proceed as in Step 3. above or Step 5. Below.



- If no other time changes are required press **EXIT**.



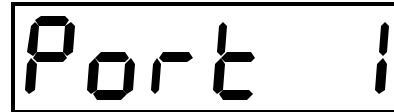
Set Date menu option is displayed once again. Status indicators stop flashing.



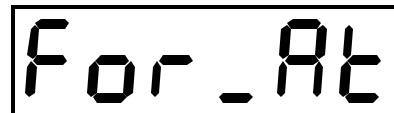
4.3.2 Serial Port

The RS232 serial port characteristics can be set in the menus below.

1. From the **Port 1** menu option, press the **ENTER** key.

A rectangular LCD display showing the text "Port 1" in a monospaced font.

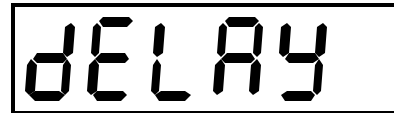
Display shows **Serial Communication Format** menu option. See section 4.3.2.1 page 47.

A rectangular LCD display showing the text "For_At" in a monospaced font.

Adjusts the **Baud Rate** of the serial port. See Section 4.3.2.2 on page 47.

A rectangular LCD display showing the text "bAUD" in a monospaced font.

Sets a **Delay** between output strings at the serial port. See Section 4.3.2.3 on page 48.

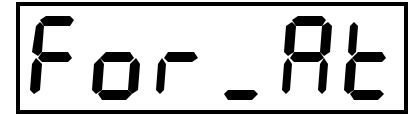
A rectangular LCD display showing the text "dELAY" in a monospaced font.

Adjusts the **Output Rate** of the serial port. See Section 4.3.2.4 on page 49.

A rectangular LCD display showing the text "ouEr r" in a monospaced font.

4.3.2.1 Serial Port Format

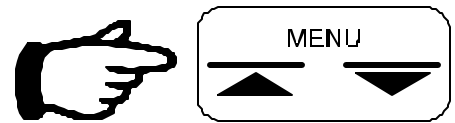
1. From the **Format** menu option, press the **ENTER** key.



Display shows the current setting. All status indicators flash.



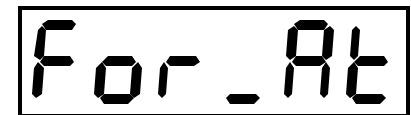
2. Use the **MENU** arrow keys to select the desired output format.



3. To accept the new setting , press **ENTER** key. See section 6 on page 55 for options and details.

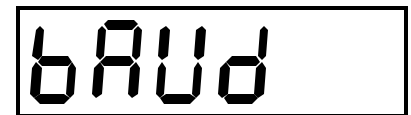


Format menu option is displayed once again. Status indicators stop flashing.



4.3.2.2 Serial Port Baud Rate

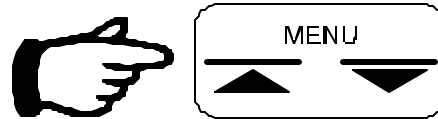
1. From the **Serial Port Baud Rate** menu option, press the **ENTER** key.



Display shows the current setting. All status indicators flash.



- Use the **MENU** arrow keys to select the desired output rate.



- To accept the new setting, press **ENTER**.

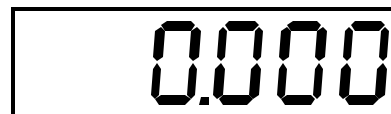
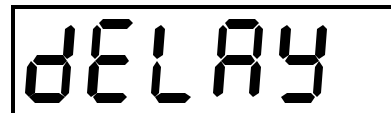


Serial Port Baud Rate menu option is displayed once again. Status Indicators stop flashing.

4.3.2.3 Serial Port Delay

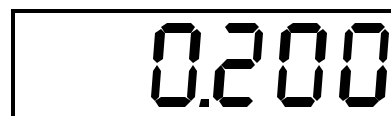
When interfacing to low speed RS-232 serial devices, a delay between characters can be implemented to prevent input buffer overflows. The **Serial Port Delay** setting controls the character delay length in milliseconds.

- From the **Serial Port Delay** menu option, press the **ENTER** key.



The current **Character Delay** setting is displayed. All status indicators flash.

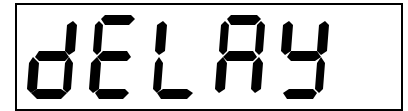
- Use the **MENU** arrow keys to select the desired delay.



3. To accept the new setting, press the **ENTER** key.



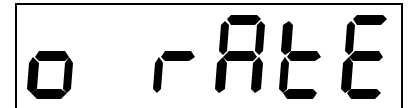
The **Port 1 Character Transmission Pacing** menu option is displayed once again. Status Indicators stop flashing.



4.3.2.4 Serial Port Output Rate

The Serial Port output frequency can adjusted to a higher or lower rate than the LCD.

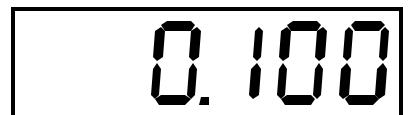
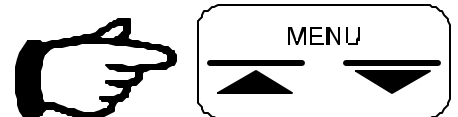
1. From the **Serial Port Output Rate** menu option, press the **ENTER** key.



The current **Character Delay** setting is displayed. All Status Indicators flash.



2. Use the **MENU** arrow keys to select the desired output format. See on page for options and details.



3. To accept the new setting, press the **ENTER** key.



The **Port 1 Character Transmission Pacing** menu option is displayed once again. Status Indicators stop flashing.



4.3.3 Count By Menu

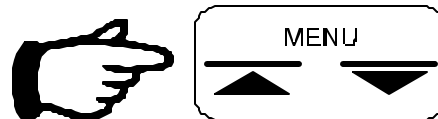
The Display Resolution of the Indicator can be set to several options called Count By or Graduation Size.

1. From the **Serial Port Output Rate** menu option, press the **ENTER** key.



The current **Character Delay** setting is displayed. All status indicators flash.

2. Use the **MENU** arrow keys to select the desired output format.



3. To accept the new setting, press the **ENTER** key.



The **Count By** menu option is displayed once again. Status indicators stop flashing.

4.3.4 Decimal Point Menu

The Decimal point location can be set as required.

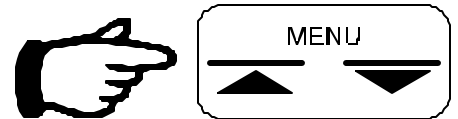
1. From the **Decimal Point** menu option, press the **ENTER** key.



The current **Decimal Point** setting is displayed. All Status Indicators flash.



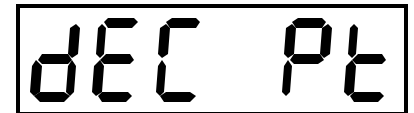
2. Use the **MENU** arrow keys to select the desired decimal point location



3. To accept the new setting, press the **ENTER** key.



The **Decimal Point** menu option is displayed once again. Status indicators stop flashing.



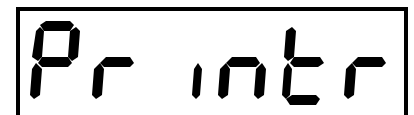
4.3.5 Printer

Printer menu option sets the configuration and timing of the data being sent to computer or printer.

4.3.5.1 Printer Format

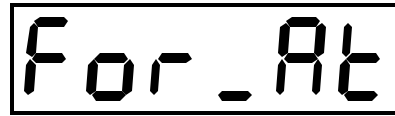
See Section 6 on page 55 for output formats.

1. From the Printer menu option, press **ENTER**.





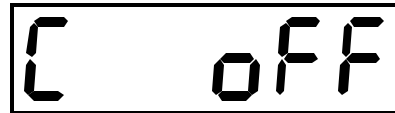
Display shows **Format** menu option.



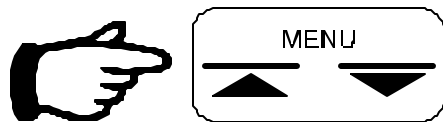
Press **ENTER**.



Display shows the current **Printer** output format. All status indicators flash.



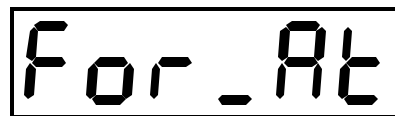
- Use the **MENU** arrow keys to select the desired printer output format.



- Press **ENTER** key to accept the new format.



Display returns to **Format** menu option.



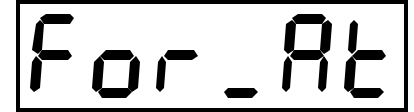
4.3.5.2 Printer Delay

Some printers do not have sufficient buffer space to receive all the data being sent by Model 580P. The output from the can be delayed to prevent overloading the printer buffer.

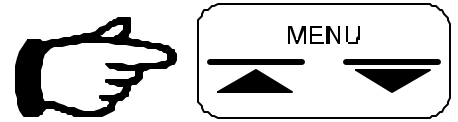
- From the **Printer menu** option, press **ENTER**.



Display shows **Format** menu option.



Use the **Menu** keys to scroll to **Delay** menu option.



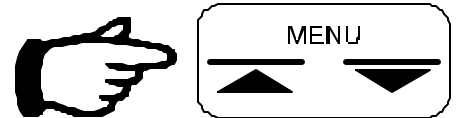
Press **ENTER**.



Display shows the current **Printer Delay** setting. All status indicators flash.



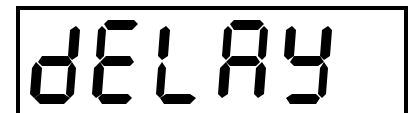
2. Use the **MENU** arrow keys to select the desired delay.



3. Press **ENTER** key to accept the new **Printer Delay**.



Display returns to **Printer Delay** menu option.



5. Error Messages

If the **Factory Calibration** function fails, an error message will be displayed. **Error 01**, **Error 02**, **Error 03** and **Error 04** are defined as **Calibration** errors. These errors are generally caused by not following the calibration procedure correctly.

1. An error has occurred and a **Factory Calibration** error message is displayed.

The image shows a digital display with the text "Err 01" in a seven-segment font.

The display returns to **Factory Calibration** menu.

The image shows a digital display with the text "FACTry" in a seven-segment font.

Error Type	Description
01	The high weight entered is lower than the low weight. Perform the Offset Adjustment procedure in section 0 on page 35 with no weight on the scale and then retry the Factory Calibration procedure.
02	The high weight signal is lower than the low weight signal. Ensure that the load cell is wired correctly and installed correctly (right-side up). Contact the factory for proper installation and wiring configuration if you are unsure.
03	There is too much difference between the low weight and the high weight for the indicator to perform the calibration calculations. Contact the factory about Range Resistor Settings and load cell output.
04	There is not enough difference between the low weight and the high weight for the indicator to perform the calibration calculations. Ensure the load cell is connected properly and that the cable is in good condition.
05	Parallel printer busy
06	
07	Parallel printer error

08	Tare Offset out of range - Large negative input
09	Tare offset out of range - Large positive input
10	Menu error - Scroll List can't find a message to match the data.
11	A/D internal full scale calibration failed
12	A/D internal Zero calibration failed
13	Least significant digit has less than 4 A/D readings - Legal for trade applications only
14	Zero key out of range
15	Calset resistor mismatch
16	Parallel Printer - Out of Paper
17	Parallel Printer - Off Line
18	Parallel Printer - General Error
20	Sort Error - Today's date is before Start Date, Sorting turned off
21	Sort Error - No curve data for today, Sorting turned off

6. Communication Port Protocols

Refer to section 4.3.2 on page 46 and section 4.3.5 on page 51 to activate ports.

C1: Port Enabled. Enables the serial port for **Basic** and **Detailed Sort Reports**.

C11: Weight only on a **Sort** action

Sort action

104.5

C12: Weight with units on a **Sort** action

Sort action

104.5 kg

C13: Weight with units and date & time on a **Sort** action

Sort action

104.5 kg

2000-09-05 10:53:26

C16: Weight only on **Display Update**

104.5

C17: Weight with units on **Display Update**

104.5 kg

7. Limited Warranty

This warranty applies to all new equipment manufactured by RELIABLE SCALE CORPORATION except when otherwise specified in the Terms of Sale. Warranty is subject to the following terms and conditions:

- All new products are warranted for a period of twelve (12) months from the date of final sale to the end user (maximum 24 months from date of manufacture).
- RELIABLE SCALE CORPORATION shall at its option, repair or replace or refund the purchase price, within a reasonable period of time, after being notified of the alleged defect and after acknowledging that a defect does in fact exist.
- Warranty claims must be submitted in writing by mail, fax or email to RELIABLE SCALE CORPORATION within the warranty period.
- This warranty does not extend to any consequential damage of other equipment, loss of use, commercial or economic loss or inconvenience prior to or during the repair period.
- RELIABLE SCALE CORPORATION is not responsible for any damage or defects caused by misuse, negligence, neglect, modification, improper operation, improper maintenance, or repairs by any unauthorized persons.
- This is the sole warranty applicable to RELIABLE SCALE CORPORATION'S products, and no RELIABLE SCALE CORPORATION employee, agent or dealer has any authority to add to this warranty whatsoever.
- Products for warranty repair must be returned to the factory freight prepaid by the customer. RELIABLE SCALE CORPORATION is not liable for any cost related to removal, replacement, or shipping of the products or any other associated equipment.

Batteries supplied in or with RELIABLE SCALE CORPORATION products are NOT covered by this warranty.