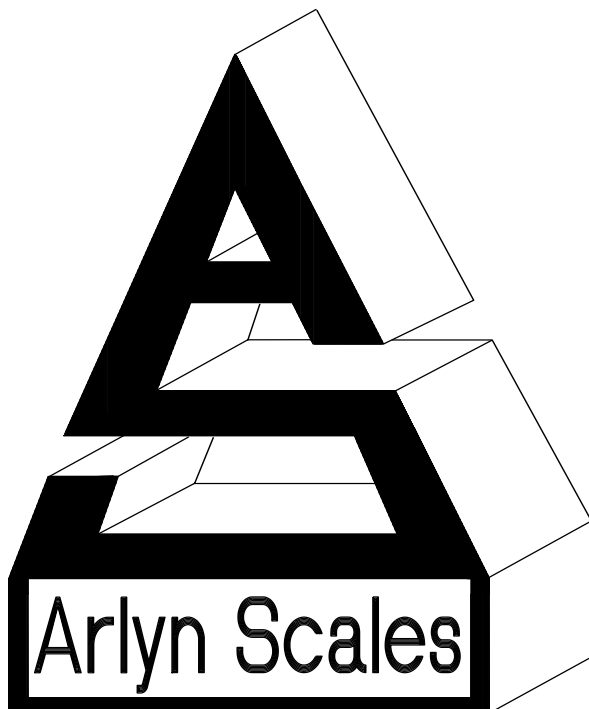


**Ultra Precision Scales with  
Super Sensitivity  
SAW X-T-L-C-H**

**SAW SCALE**  
*Addendum*



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## Introduction

In addition to the Arlyn Scale instruction manual, this addendum provides instructions on how to configure and use the SAW Scale features.

## Initial Recommendations

After familiarizing with various features and options available with the SAW Scale, please place the scale in the environment where the scale will be mostly used and perform **Zero Calibration before first official use** to get the scale acclimatized with its current environment. See page 5 and 6 for further information. This Zero calibration must be performed to get accurate readings from the scale.

## SAW Scale Features

To access the functions for SAW Scale:

- ❑ Press MENU
- ❑ Scroll to Options Setup, press ENTER
- ❑ Scroll to SAW Scale Setup, press ENTER

In the SAW Scale Setup menu, there are 5 options

- ❑ Auto Zero
- ❑ Weight Holding
- ❑ Remote Terminal
- ❑ SAW Calibration\*
- ❑ Time Interval\*
- ❑ Filter Control Off

\*These menu items are configuration options for the SAW Scale, the rest are output options.

### Auto Zero

The Auto Zero feature allows the SAW Scale to automatically zero out the platform when the weight reading is close to zero. For example, if the reading shows 0.001lb when there are no weights on the platform, the system automatically zeroes out this particular deflection to 0.000lb. The Auto Zero process only happens when the weight reading is within a specific margin of error without compromising accuracy.

### Weight Holding

The Weight Holding feature allows the SAW Scale to stabilize the final weight reading of the object placed on the platform. This gives the user a greater readability of the weight reading shown on screen. For example, if the weight is deflecting between 24.543lb and 24.546lb, the SAW Scale system will hold the weight somewhere between these two readings depending on the filter and averaging algorithm built into the SAW Scale.

### Remote Terminal

The Remote Terminal feature is used to monitor the coefficients and parameters of the SAW scale in real time. It also allows some advanced functions to be performed on the SAW scale that may alter its behavior depending on the environment. This feature is not currently used on the indicator. But it can be turned on or off using the indicator.

As a precautionary note, once the Remote Terminal feature is turned on, this will disable the indicator from working properly. The SAW Scale will have to be connected to a computer to shut off the Remote Terminal feature, so that it can work with the indicator. The instruction for computer connection is given on page 4.

## **Filter Control Off**

The Filter Control feature is a built-in system that filters and averages the raw weight received from the platform to increase the accuracy of the weight seen by the user on the indicator. However, processing the raw weight and this maybe unsuitable for certain applications that require very fast weight updates. For these applications, the user can turn off the filtering by placing a checkmark in front of the “Filter Control Off” by pressing ENTER.

Filter Control is on by default.

## **Enable/Disable SAW Scale Features:**

For enabling/disabling Auto Zero, Weight Holding, Remote Terminal and Filter Control Off, scroll to the intended option using arrow keys and press ENTER. If you want to enable the option, press ENTER until a check mark appears near the option and vice versa.

These settings do not take effect until you have exited the menu system. (i.e. go back to main weight screen)

Also, please note that once the scale has been powered off, (pulled the plug), the user needs to set the options again at the next power on sequence.

## **SAW Scale Full Calibration**

This sequence follows the same procedure as described by the computer program.

- ❑ Select SAW calibration by pressing ENTER on the menu option “SAW Calibration”.
- ❑ Read the warning message, and then press ENTER
- ❑ Input the calibration weight on the space provided. If you make a mistake, press ZERO until the mistake clears.
- ❑ Press ENTER to confirm input of calibration weight.
- ❑ Remove all weight from the platform. The current weight is shown at the top left side of the screen. Then press ENTER.
- ❑ Wait for the next prompt to appear.
- ❑ When the prompt appears, wait for the weight to get as close to zero as possible. Place the known weight on the platform and wait for the current weight on the top left side of the screen to stabilize. It doesn't matter if the weight on the screen does not match the weight you have put on the platform. The weight shown is of a previous calibration. Press ENTER to confirm the placing of weight.
- ❑ Wait for a few seconds until the calibration procedure completes.
- ❑ Press MENU/BACK to go all the way back to the weight screen.

## **Time Interval Selection**

The time interval feature gives the user the option to choose how fast the SAW Scale platform sends weight information back to the indicator. This could be between 0.2 seconds, 0.5 seconds, or 1 second. By default, lower capacity scales have 0.2-second time intervals. The time interval increases as the capacity specification passes 100 lbs.

Higher capacity SAW scales usually perform better with 0.5-second to 1-second time intervals. The weight readings are significantly stable and are less susceptible to noise and vibration.

It is important to note that if lower capacity SAW scales are to operate in noisy and unstable environments, it is better to increase the time interval for readings for more accurate results.

To set the Time Interval selection:

- ❑ Select Time interval by pressing ENTER on the menu option “Time Interval”.
- ❑ A screen shows up telling you the current time interval for updating weights on screen.
- ❑ Press the RIGHT arrow key to change the time interval settings.
- ❑ Press ENTER to confirm your choice, or press MENU to cancel your choice.
- ❑ You will be returned to the SAW scale setup menu.

The time interval only affects how fast the indicator reads the weights. To update the speed of the display, read the Arlyn Scale Instruction Manual on page 8. The display update time is independent of the weight reading time interval. As a result, it is pointless to have the display update time lower than the time interval as this will not bring any definable difference in the update speed of the screen.

The display update time can be set to anything the user wishes. The display update time may be increased to stabilize the weight seen on screen for greater readability.

## **Maintaining Accuracy**

- ❑ It is recommended that “Zero Calibration” to be done on the same day of receipt of the scale. This is because the scale can acclimatize with the customer’s environment.
- ❑ It is recommended that “Zero Calibration” be done every 3 to 4 days after the receipt of the SAW Scale. “Zero Calibration” is outlined in the next section.
- ❑ It is also recommended that “Full Calibration” be performed every year.

## “Zero” (Reset) Calibration

It is highly recommended to perform zero calibration after the arrival of the scale at the customer’s location. This will enable the scale to acclimatize with the customer’s environment and provide the customer with the most accurate readings during it’s operation.

This procedure does not require any calibration weight. It takes only few minutes to perform.

Please follow the following steps to perform zero calibration:

- ❑ Plug-in the scale, wait at least 10 min to let the scale warm-up.
- ❑ Press ON/OFF button on the indicator --- the weight screen will appear.
- ❑ Press MENU/BACK button (#5) ---- setup menu screen will appear
- ❑ Highlight “Option Setups” line (use the arrow buttons on the panel) and press ENTER button --- the Option Setups screen will appear.
- ❑ Highlight “Saw Scale Setup” line and press ENTER button ----the Saw Scale Setup screen will appear.
- ❑ Highlight “\* **Saw Calibration** \*” line and press ENTER button--- the “calibration change” warning screen will appear.
- ❑ Press ENTER button--- the \* span calibration \* screen will appear.
  
- ❑ When the prompt appears to input the calibration weight, just press the ZERO button once and then press the ENTER button--- next screen will appear.
- ❑ Make sure there are no weights on the platform, then press the ENTER button again on this screen ----the “please wait” screen will appear, and after some time next prompt will appear.
- ❑ **Do not place any weight on the platform.** Simply press ENTER button and wait until the “Saw Scale setup” screen appears again.
- ❑ Press MENU button several times until reading screen will appear.
- ❑ **Scale is ready to operate.**
- ❑ If a timeout occurs during this procedure, please unplug the scale and repeat calibration from the start.

## Computer Connection (For Troubleshooting Only)

Please note that if your scale came with the USB option, DO NOT use these steps to connect to your computer for Remote Indicator purposes. Refer to the Instruction manual and the USB manual for steps on that feature.

To connect the SAW Scale to a computer for troubleshooting purposes:

- ❑ Power down the SAW scale indicator.
- ❑ Disconnect the SAW scale platform connector from slot A and connect it to slot B.
- ❑ Connect the RS-232 port to your computer.
- ❑ Power up the SAW scale indicator.
- ❑ Run Arlyn61.exe
- ❑ If the weight shown on the computer screen is deflecting, it means you have successfully connected the scale to the computer.

The computer program can be used to perform all of the functionality described in this addendum. Furthermore, the program can also be used to modify SAW Scale coefficients, something that cannot be done using the indicator.

Press the “Terminal” button to update the data on the right hand side of the screen. Make sure to TURN OFF TERMINAL when connecting the SAW Scale back to the indicator.

To connect the SAW Scale back to the indicator:

- ❑ Power down the SAW Scale indicator.
- ❑ Disconnect the SAW scale platform connector from slot B and connect it to slot A.
- ❑ If you wish, you may disconnect the RS-232 port on the computer, but it is not necessary for the functionality of the scale.
- ❑ Power up the SAW Scale Indicator.
- ❑ Press ON/OFF key to turn on the scale indicator.

# SAW Scale Indicator Diagram

