

# **Intercomp**

## **SW II Scale System**

### **Service Manual**

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## Introduction

This manual contains a calibration, troubleshooting, and a parts & accessory section. This manual is intended to be used in conjunction with the SW II Users Manual.

## Calibration

### Calibration Switch

To access the calibration menus and raw counts mode the shorting strap on CAL1 must be removed. This strap is located on the SWI - II Rev B circuit board above the display. Following calibration, replace the strap and the set up of the scale is protected from being changed.

### Raw Counts Mode

To enter or exit raw counts mode press the TEST/ZERO and %/WGT simultaneously on the keypad. While in the raw counts mode the display will show the raw counts of the four weigh pads. This is a diagnostic function only and of no use to the end user. Press the TEST/ZERO and %/WGT simultaneously to exit back to normal operation.

### How to enter a number

Once you have entered the calibration menu you may select 4 different options. Within these options, it will be necessary to enter a four digit number. When this occurs the current number will be displayed with the left most digit flashing. To increment the value of the digit press the TEST/ZERO key. Press %/WGT to move one digit to the right. After the 4th number is entered, press %/WGT again to save the value and return to the calibration main menu.

### lb / kg selection

There is a shorting strap on the SWI-II Rev B circuit board that is used to specify the units displayed (lb or kg). The jumper is labeled LB/KG1 and is located above the LCD display. If the strap is in place the system will be in kgs. Remove the strap to display weights in lbs.

## How to calibrate scale

***Note: Regardless of whether your scale is set up to display in pounds or kilograms, calibration of the SW II scales assume weights are in pounds. If you only have kilogram weights available, convert these to pounds before entering the weight values during calibration.***

$$[\text{Weight in kg}] \times 2.2046 = [\text{Weight in lbs}]$$

1. To enter calibration mode simultaneously press the RIGHT FRONT, RIGHT REAR, %/WGT, and TEST/ZERO keys. The display will show "SEL "

### Enabling/Disabling Pads

2. Press LEFT FRONT. The display will show "EPS ". The indicators in the corners of the display will be 'on' if the corresponding pad is selected. By pressing the keys LEFT FRONT, RIGHT FRONT, LEFT REAR, and RIGHT REAR, the pads can be toggled to enabled or disabled. Disabled pads will not contribute in any way to displayed information and can not be selected during normal scale use. When finished press the %/WGT key to save the settings and return to the main calibration menu.

### Set Capacity

3. Press RIGHT FRONT. The display will show the current capacity (per pad) and allow you to enter a new 4 digit capacity. Press the %/WGT key after entering the 4th digit to return to the main calibration menu.

### Span Pads

4. Press LEFT REAR. The display will show "SPS" and the pads that are available to be spanned. The scale is waiting for you to select which of the four pads to span. Press the corresponding key for the pad you want to span. The display will change to "000L". Check to make sure there is no load on the selected pad and press the TEST/ZERO key. The display will now change to "LLLL".
5. Place a calibration weight on the selected pad and then press the TEST/ZERO key. ***Be sure to center the calibration weight on the pad and use the same object for each pad.*** Enter the amount of weight (see "How to enter a number" section) placed on the pad.
6. Repeat for other pads, when complete press the %/WGT key to return to the main calibration menu.

## Options

7. Press RIGHT REAR. The options settings are on/off choices. The 2 settings are **Auto Zero Tracking (AZT)** and **Auto Off**. For the two functions the display will show LO and II; respectfully. The message will be followed by a '1' or '0'. A '1' means the function is enabled and a '0' means the function is disabled. Press TEST/ZERO key to toggle the function on or off. If you press the %/WGT key you will move to the next function. If auto tracking is enabled, the unit will zero off weights less than 3 times the graduation size. If Auto Off is disabled the unit will not shut off after 1 hour of non-use.

| Option           | Setting                                                                                                                                                          |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZT<br>(LO)      | 1 = Auto zero tracking enabled. Corrects for slight zero changes that can occur during normal operation.<br>0 = Auto zero tracking disabled.                     |
| Auto off<br>(II) | 1 = Turns scale off if no activity for an extended period.<br>0 = Auto off feature disabled. The system will remain on until manually turned off or low battery. |

8. Press %/WGT or TEST/ZERO to return to normal weighing mode.

# Troubleshooting

## Caution



Changing some parts on the circuit board may cause a large change in calibration while others may or may not change the calibration, depending on the nature of the problem.

**Problem: Pad is connected but system doesn't recognize it**

**Fix:**

Try plugging in a different pad and cable to that channel, this will indicate whether it is the pad and cable or the scale. Try a different cable. Try a different pad.

**Problem: weights jump or drift**

**Fix:**

The problem could be a bad load cell, defective amplifier (U3), bad A/D chip (U12), or contamination on the circuit board.

**Problem: scale "locks up"**

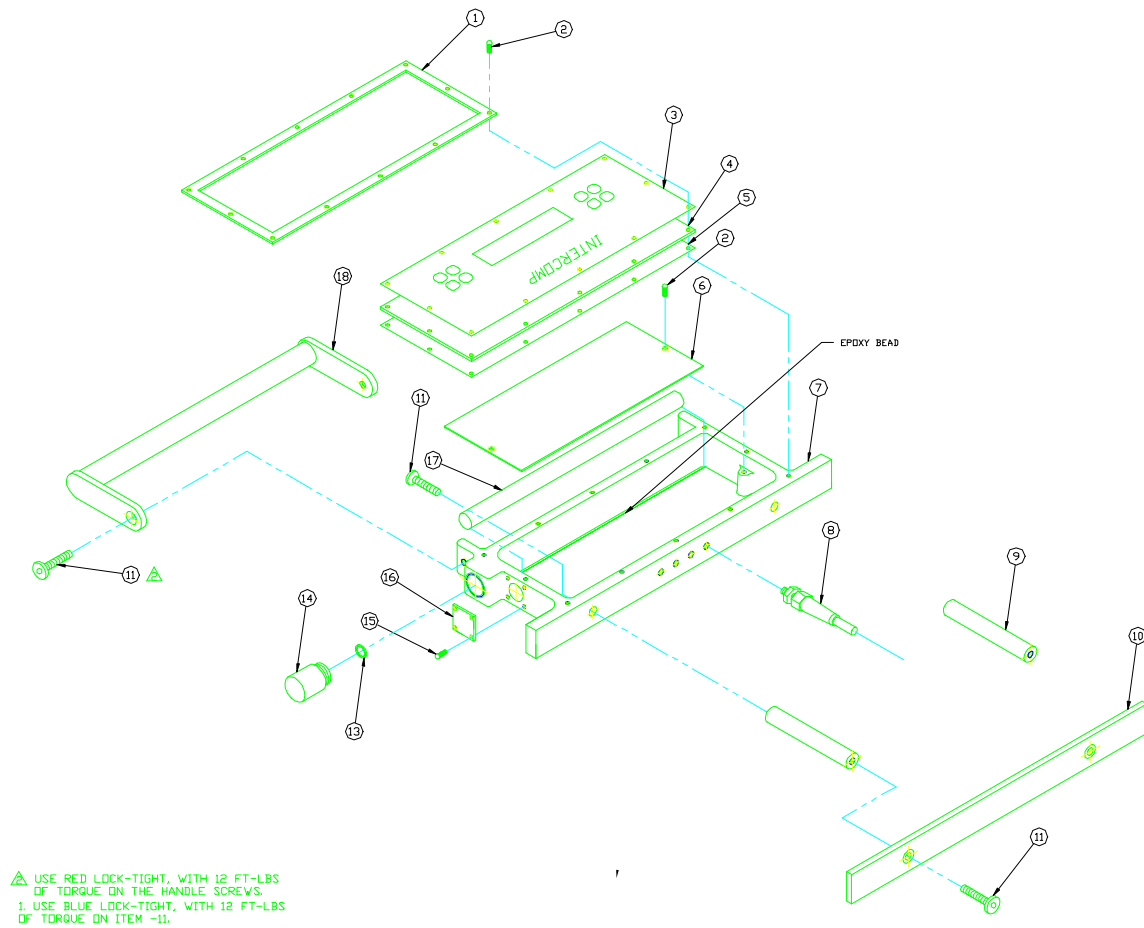
**Fix:**

The microprocessor may need to be replaced. The microprocessor support circuitry could also be bad.

## Error messages

|             |                                                                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <i>DISE</i> | The weight is too large to fit on the display.                                                                                                |
| <i>OE</i>   | This message will blink if the weight present on the pad exceeds the pads capacity, or the pad is not plugged in, or the pad may have failed. |
| <i>EEPE</i> | EEPROM error. The scale has lost saved information or its calibration information was corrupted. Scale will require calibration.              |

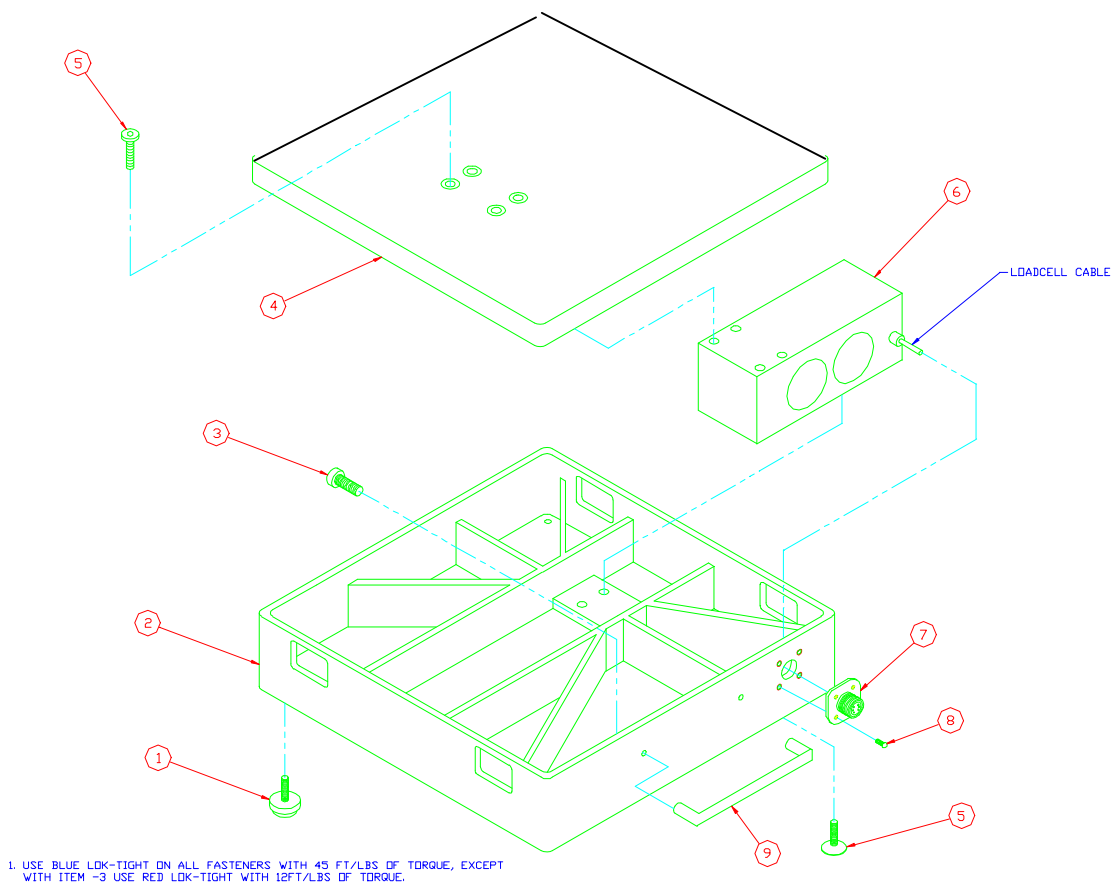
# Parts and Accessories



See next page for parts list

## SW II Indicator

| Item | QTY | Part # | Description                     |
|------|-----|--------|---------------------------------|
| 1    | 1   | 500209 | Bezel Frame                     |
| 2    | 14  | 600061 | 6-32 x .5" phil pan head screw  |
| 3    | 1   | 250034 | overlay                         |
| 4    | 1   | 500304 | keypad support                  |
| 5    | 1   | 501306 | LP600 bezel gasket              |
| 6    | 1   | 000089 | circuit board                   |
| 7    | 1   | 500214 | circuit board housing           |
| 8    | 4   | 220233 | strain relief, gray             |
| 9    | 2   | 500208 | cable bar                       |
| 10   | 1   | 500207 | cable stop                      |
| 11   | 6   | 600019 | ¼-20 x 1" torx flat head        |
| 12   |     |        |                                 |
| 13   | 1   | 330029 | O-ring                          |
| 14   | 1   | 500008 | Aluminum battery cap            |
| 15   | 4   | 600008 | 6-32 x 3/8" phil pan head screw |
| 16   | 1   | 500305 | charger jack mounting plate     |
| 17   | 1   | 501308 | battery tube, black             |
| 18   | 1   | 500007 | handle                          |



## 4" SW Pad

| Item # | QTY: | Part #           | Description                                             |
|--------|------|------------------|---------------------------------------------------------|
| 1      | 1    | 610504           | foot, 1/4-20 x 1.0 adjustable                           |
| 2      | 1    | 500300           | SWII/DLX base, 15"                                      |
| 3      | 2    | 600017           | screw, 10-32 x .625                                     |
| 4      | 1    | 500301           | SWII/DLX platform, 15"                                  |
| 5      | 8    | 600203           | screw, 3/8-16 x 1.0, torx                               |
| 6      | 1    | 603047<br>603048 | loadcell (635kg capacity)<br>loadcell (1000kg capacity) |
| 7      | 1    | 220134           | connector, 6-pin, bulkhead                              |
| 8      | 4    | 600008           | screw, 6-32 x .375 phil pan head                        |
| 9      | 1    | 601509           | handle, SW #22A                                         |

## How to reach Intercomp Service

Things to know:

1. The service is for a SW II scale system.
2. When did you purchase your scale?
3. What is your serial number?
4. Whom did you purchase the scale through?

For Intercomp Service call or fax:

FAX # (763)-476-2613  
(763)-476-2531  
**1-800-328-3336**

or fill out Service Support form at:

[www.intercompco.com](http://www.intercompco.com)