Scale Calibration Procedure.

This is the procedure for Calibration Vale Scale MkII V1.11, V2.**, and V3.** Scale Boards used in many Vale-Tech products such as IDS systems, HP systems, Press-out Systems and Hybrids, Integra Scales, and Formulator Scales.

The procedure is essentially the same for all systems, but three sets of procedures have been produced purely for better clarity. These are as follows:

1,   Integra Scale Calibration.
2,   Formulator Scale Calibration.
3,   Dispenser Scale Calibration.

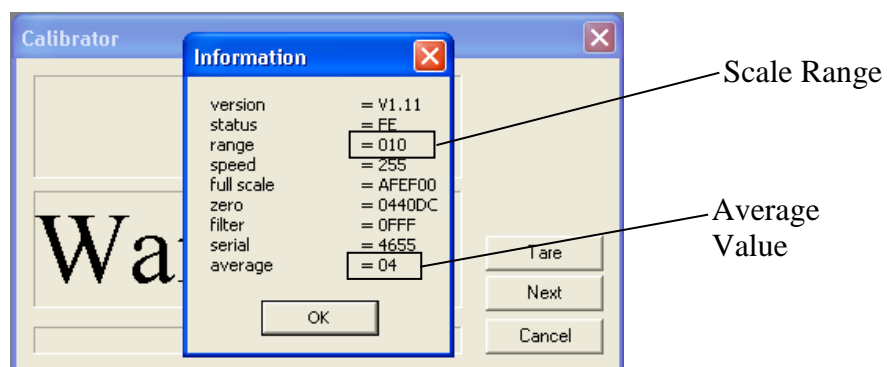**Important, please read before calibration**
All examples are for 10Kg scale ranges using 9Kg of test weights. All Vale-Scale V1.** And V2.** systems calibrate at zero and 90% FSD, for larger capacities use 90% FSD, i.e. 30Kg scale calibrates at zero and 27Kg, 80Kg scale calibrates at zero and 72Kg and so on. Note the 12Kg Range V2.** 90% FSD is 10.8Kg, use this weight even if the software states otherwise. V3.** calibrate at 0% and 100% FSD

Always check the scale accuracy using Show Scales before running the Scale Calibration option. Always allow the scale to stabilise for 30mins before checking the calibration. Open Show Scales from the Menu Bar, allow the scale to Tare, if a small amount of fluctuation is seen, this can be tared out, if the scale value continues to clime or fall, check for touch down of the scale and start again, if there is no touch down and the scale will not stabilise, return for repair. Place known weights on to the Scale Weigh Pan, (usually supplied conformance weights) and verify the Scale is within the allowed tolerance, if it is, calibration is not required, if it is not, follow the appropriate procedure that follows.

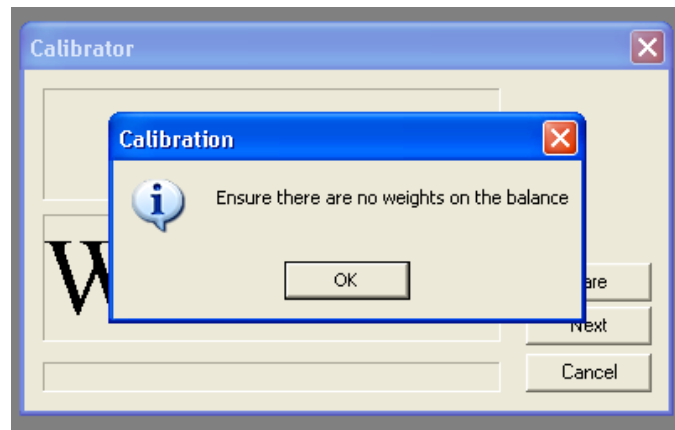## 1,   Integra Scale Calibration

Having determined the Scale requires re-calibration:

Log on to InkManger with Scale Calibration privileges, from the Option menu select Scale Calibration, if this is 'greyed out', you do not have scale calibration privileges, see your manager or supervisor for the required log on. The following screen will be displayed:
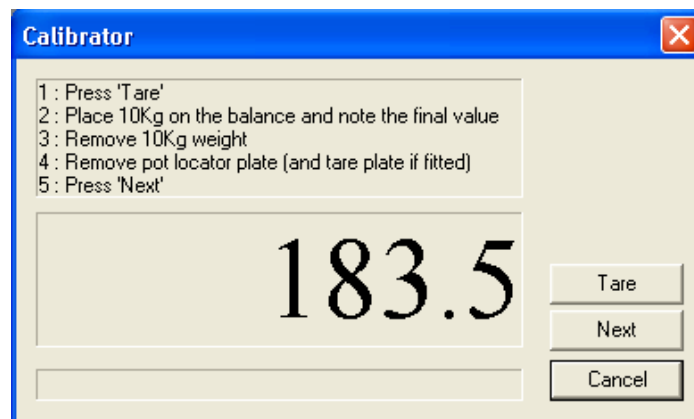

This is the basic scale programming information stored on the Scale board that we may ask for if you are having trouble calibrating the scale, check the Scale Range is correct; the example above shows a 10Kg range Scale Board. The Average setting should be 02 on all scales but for the Integra Formulator Scale which is set to 04.

Click OK and the following is displayed:

Click OK again and the following screen is displayed:

The screen shown above is the scale calibration screen showing current weight and instructions on creating pre-calibration figures, if it has been established that the scale is out of calibration and the figures have been recorded, this part really isn't required. If calibration is not required, cancellation of the procedure can be achieved at this point. Clicking on next will start the calibration procedure which is irreversible.

Ensure you have the required conformance or calibration weights, and the Light Weigh Pan or Calibration Plate as shown below:
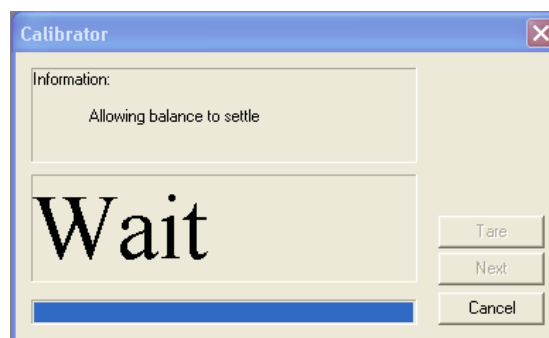
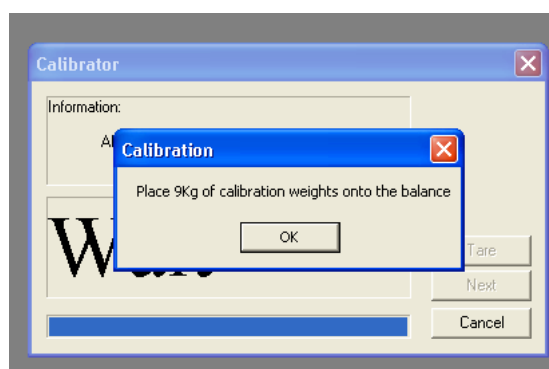If calibration is to take place now, before clicking on Next, remove the Weigh Pan as shown below:

Place the Light Weigh Pan or Calibration Plate squarely on the four rubber feet which protrude through the top of the case as shown below:

Click Next and the calibration procedure begins, the procedure allows the Scale to settle before the reading is taken, avoid vibrations drafts and touching the scale during this time. During this period the window will show a blue progress bar as shown below:
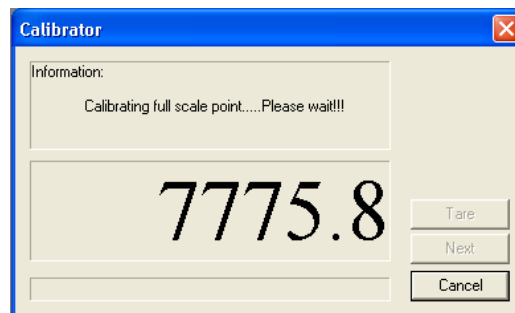

When the scale has finished recording the Zero value, the following screen is displayed:
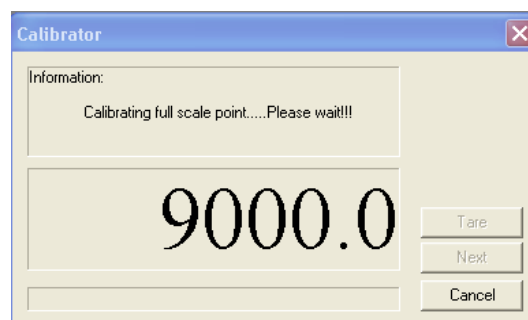
Place 9Kg of conformance or Calibration weights centrally on the scale stacked as shown below:
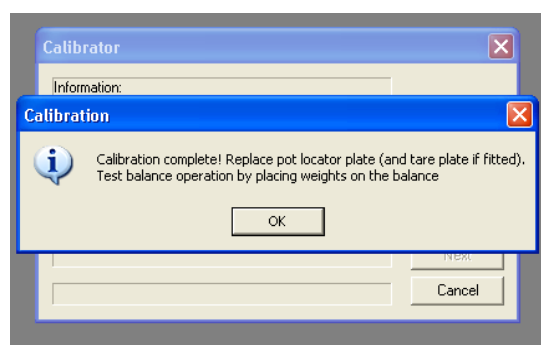

Click OK, the scale will then allow time for the readings to settle before values are displayed counting up to the calibration weight value, this will overshoot up to three times reducing less each time as the calibration point is homed in on as shown:
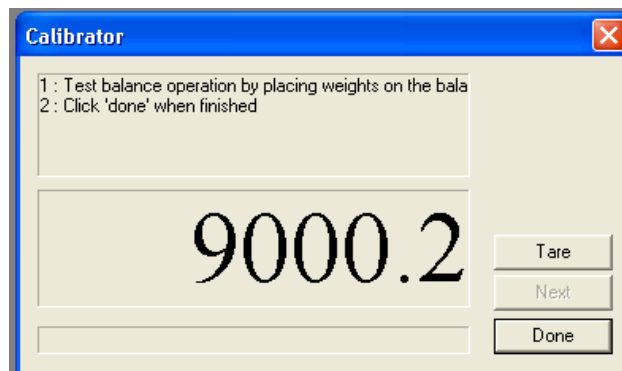

The final value, in this case 9Kg will be displayed as the value is stored, during the last stages it is again important that the scale is not exposed to vibrations drafts or touched during this period.

After the Full Scale Point is stored the following message will be displayed:

Click OK to return to the calibration window, the final weight will be displayed:

The scale calibration can be tested using this window, to do this remove all the weighs and Light Weigh Pan/Calibration Plate from the scale, replace the weigh pan and click on Tare, place the calibration weighs on the scale in 1Kg increments and record the value displayed at each point:
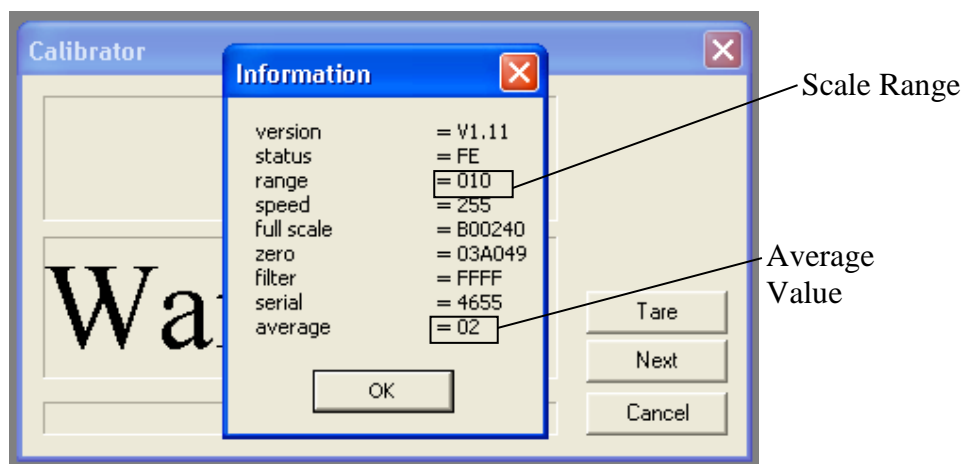

If the scale is within specification at each of the calibration points, click Done, calibration is complete. If not, click Done to close the current window and repeat the calibration procedure again. If repeating the procedure does not achieve the desired results, please contact Vale-Tech Technical Support.

2,   Formulator Scale Calibration

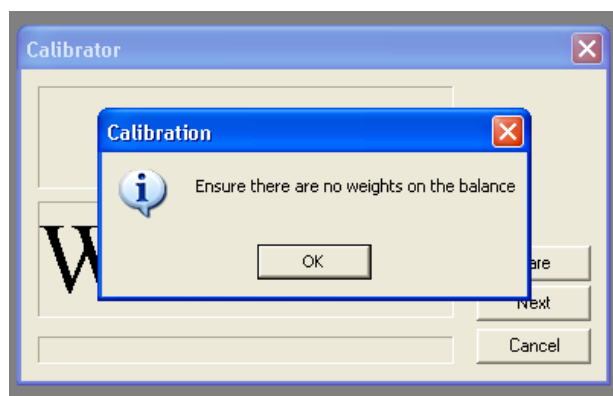Having determined the Scale requires re-calibration:

Log on to InkManger with Scale Calibration privileges, from the Option menu select Scale Calibration, if this is 'greyed out', you do not have scale calibration privileges, see your manager or supervisor for the required log on.

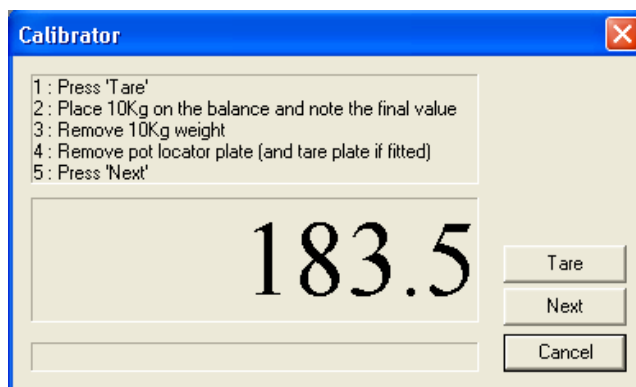The following screen will be displayed:

This is the basic scale programming information stored on the Scale board that we may ask for if you are having trouble calibrating the scale, check the Scale Range is correct; the example above shows a 10Kg range Scale Board. The Average setting should be 02 on all scales but for the Integra Formulator Scale which is set to 04.

Click OK and the following is displayed:

Click OK again and the following screen is displayed:

The screen shown above is the scale calibration screen showing current weight and instructions on creating pre-calibration figures, if it has been established that the scale is out of calibration and the figures have been recorded, this part really isn't required. If calibration is not required, cancellation of the procedure can be achieved at this point. Clicking on next will start the calibration procedure which is irreversible.

Ensure you have the required conformance or calibration weights, and the Light Weigh Pan/Calibration Plate as shown below:
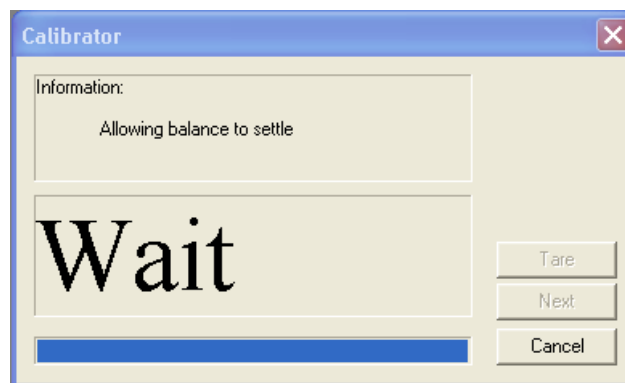

If calibration is to take place now, before clicking on Next, remove the Weigh Pan as shown below:
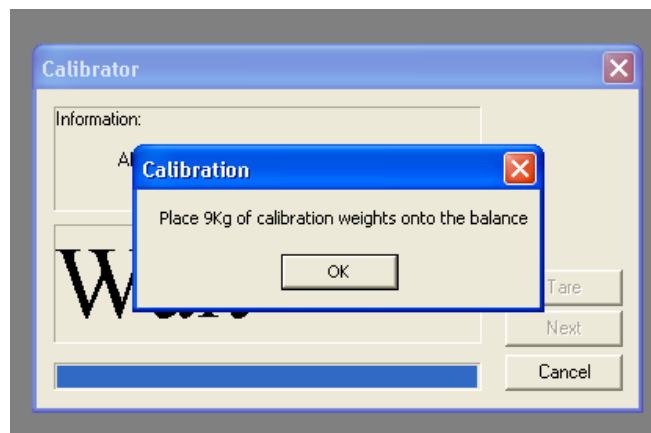

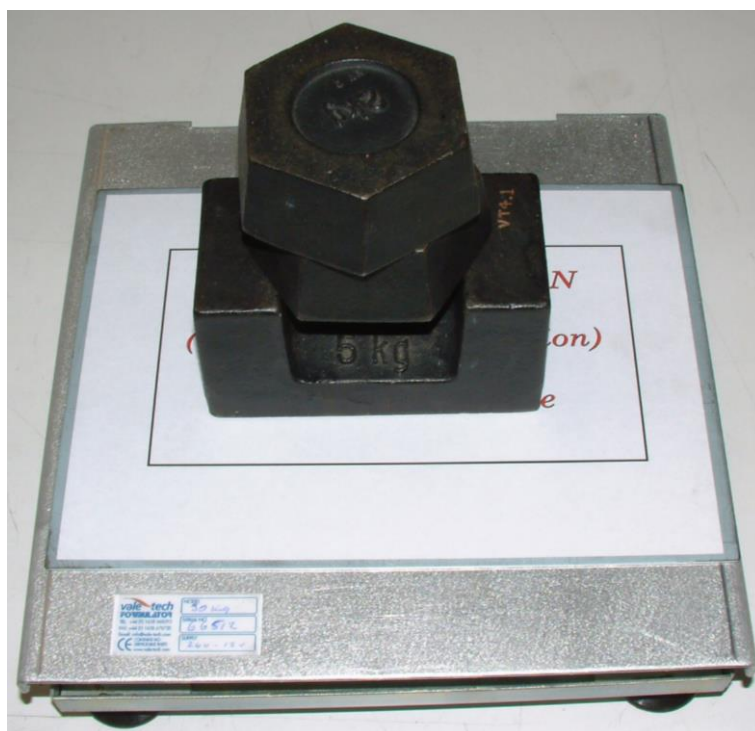Place the Light Weigh Pan/Calibration Plate squarely on the Internal Weigh Pan as shown below:

Click Next and the calibration procedure begins, the procedure allows the Scale to settle before the reading is taken, avoid vibrations drafts and touching the scale during this time. During this period the window will show a blue progress bar as shown below:
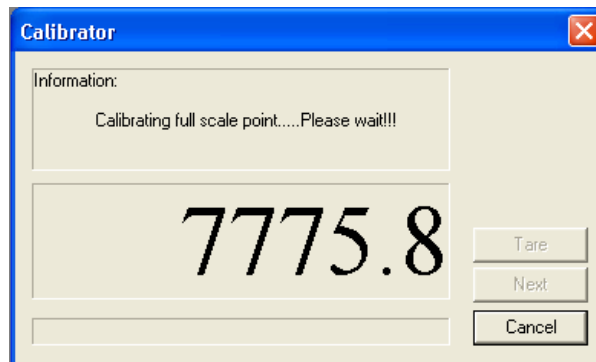

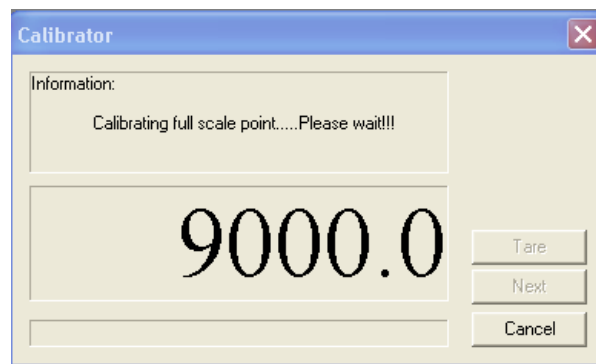When the scale has finished recording the Zero value, the following screen is displayed:

Place 9Kg of conformance or Calibration weights centrally on the scale stacked as shown below:
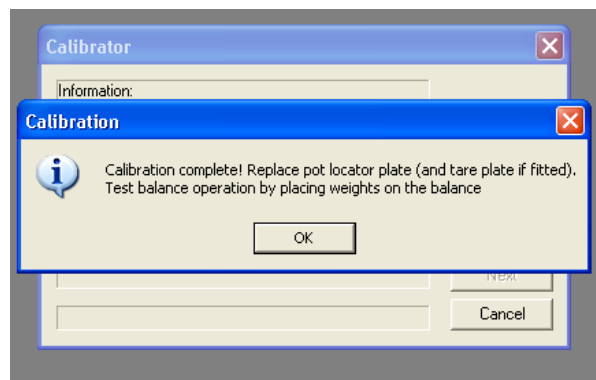
Click OK, the scale will then allow time for the readings to settle before values are displayed counting up to the calibration weight value, this will overshoot up to three times reducing less each time as the calibration point is homed in on as shown:
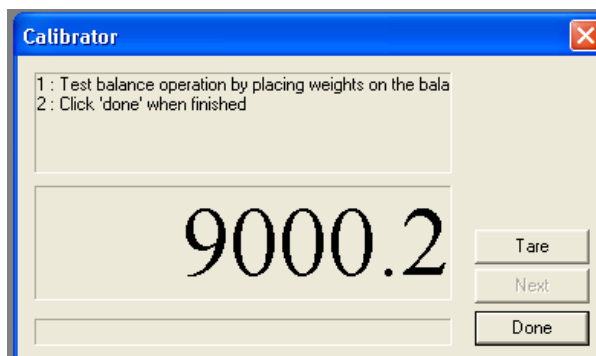

The final value, in this case 9Kg will be displayed as the value is stored, during the last stages it is again important that the scale is not exposed to vibrations drafts or touched during this period.

After the Full Scale Point is stored the following message will be displayed:

Click OK to return to the calibration window, the final weight will be displayed:

The scale calibration can be tested using this window, to do this remove all the weighs and Light Weigh Pan/Calibration Plate from the scale, replace the weigh pan and click on Tare, place the calibration weighs on the scale in 1Kg increments and record the value displayed at each point:
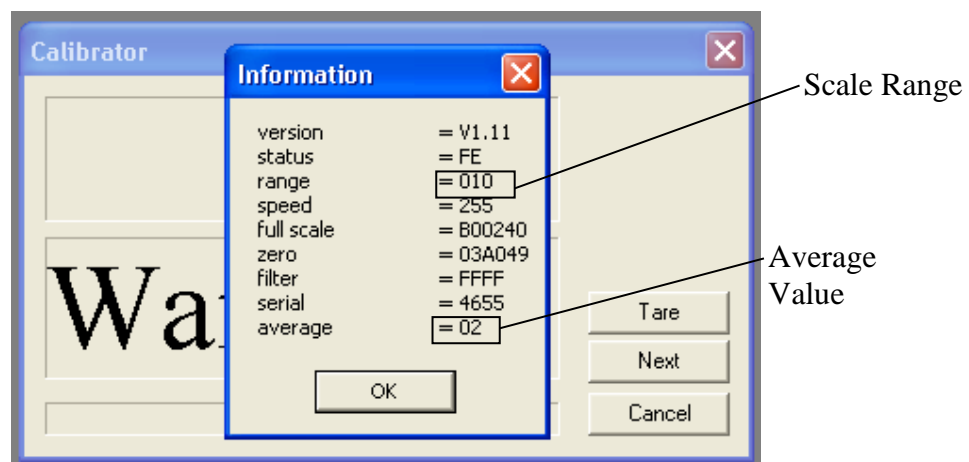

If the scale is within specification at each of the calibration points, click Done, calibration is complete. If not, click Done to close the current window and repeat the calibration procedure again. If repeating the procedure does not achieve the desired results, please contact Vale-Tech Technical Support.
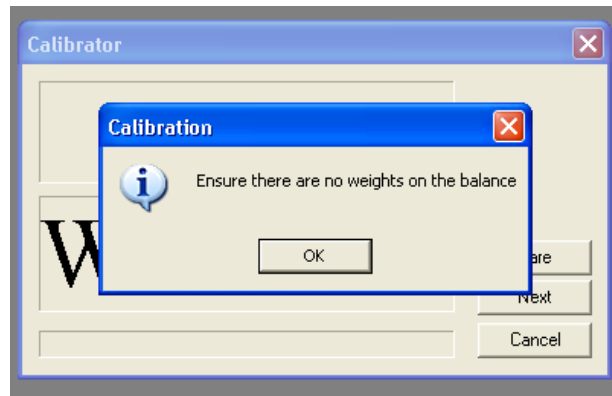
3, Dispenser Scale Calibration

Having determined the Scale requires re-calibration:

Log on to InkManger with Scale Calibration privileges, from the Option menu select Scale Calibration, if this is 'greyed out', you do not have scale calibration privileges, see your manager or supervisor for the required log on. The following screen will be displayed:
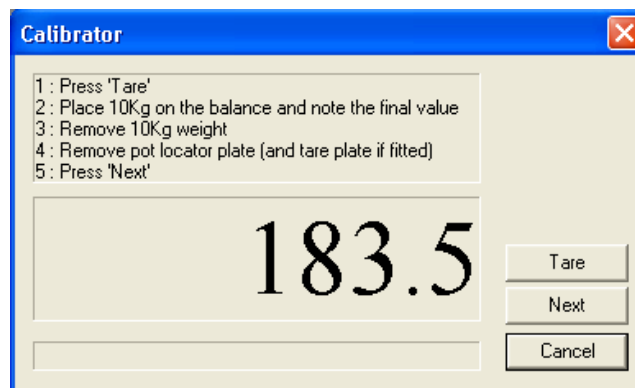

This is the basic scale programming information stored on the Scale board that we may ask for if you are having trouble calibrating the scale, check the Scale Range is correct; the example above shows a 10Kg range Scale Board. The Average setting should be 02 on all scales but for the Integra Formulator Scale which is set to 04.

Click OK and the following is displayed:

Click OK again and the following screen is displayed:

The screen shown above is the scale calibration screen showing current weight and instructions on creating pre-calibration figures, if it has been established that the scale is out of calibration and the figures have been recorded, this part really isn't required. If calibration is not required, cancellation of the procedure can be achieved at this point. Clicking on next will start the calibration procedure which is irreversible.

Ensure you have the required conformance or calibration weights, and the Light Weigh Pan/Calibration Plate as shown below:

If calibration is to take place now, before clicking on Next, remove the Universal Pot Locator, 5Kg Pot Locator and Weigh Pan as shown in the two photos below:
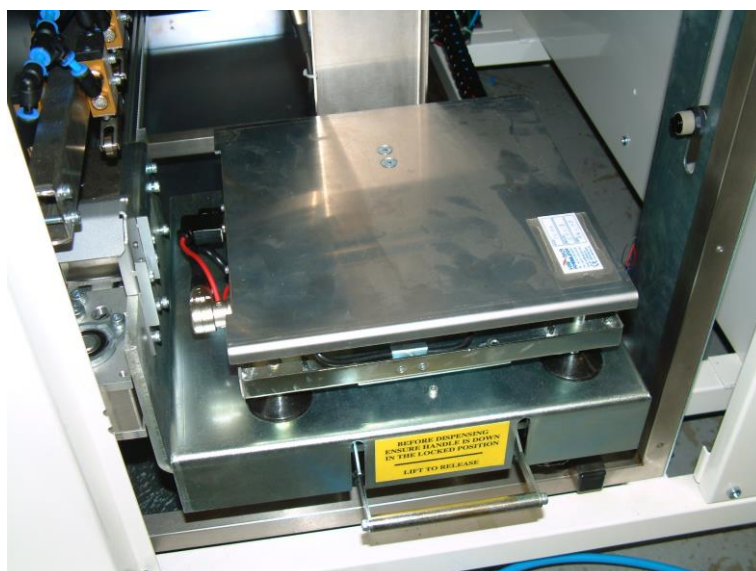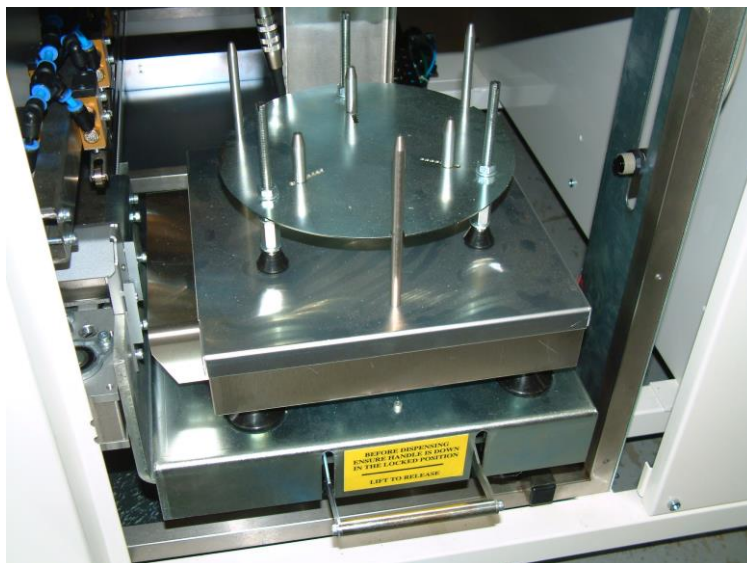

Place the Light Weigh Pan squarely on the Internal Weigh Pan/Calibration Plate with the Balance Retracted and Locked as shown below:
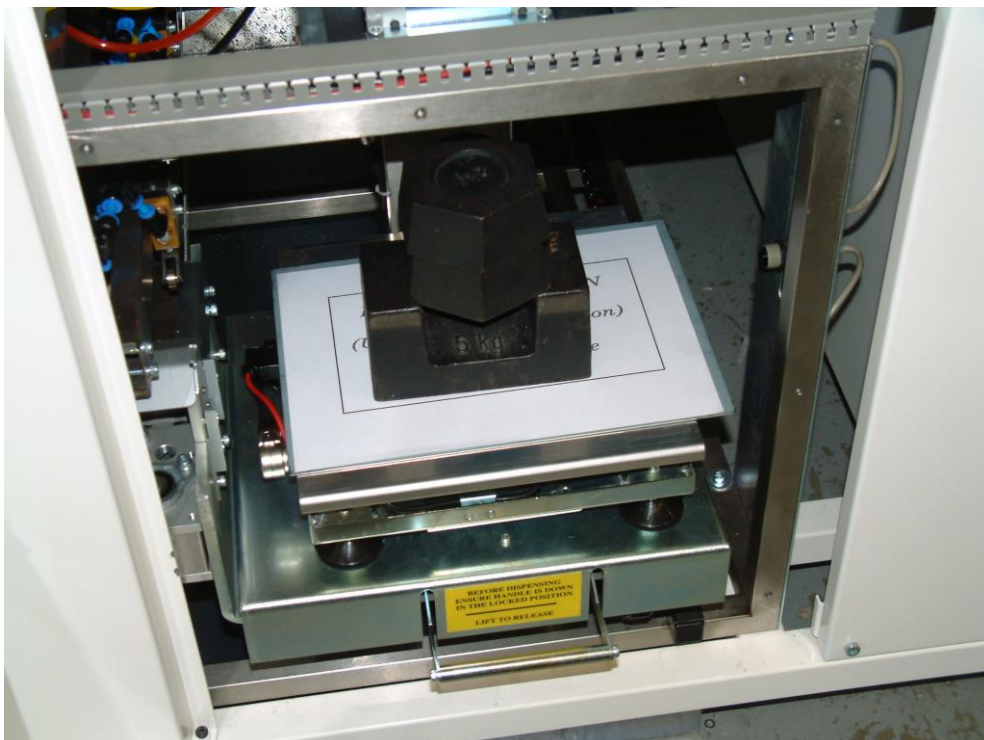
Click Next and the calibration procedure begins, the procedure allows the Scale to settle before the reading is taken, avoid vibrations drafts and touching the scale during this time. During this period the window will show a blue progress bar as shown below:
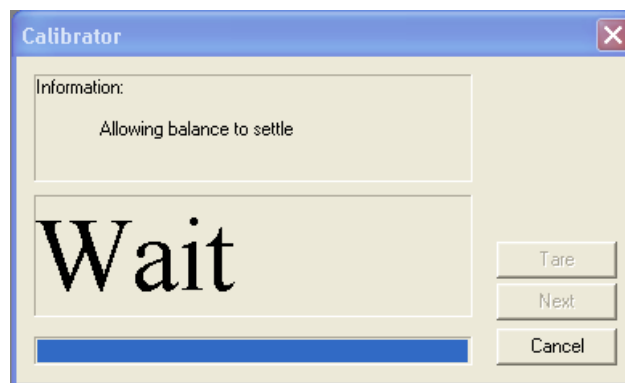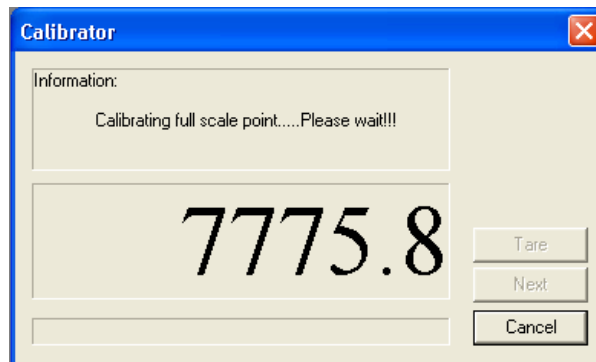

When the scale has finished recording the Zero value, the following screen is displayed:
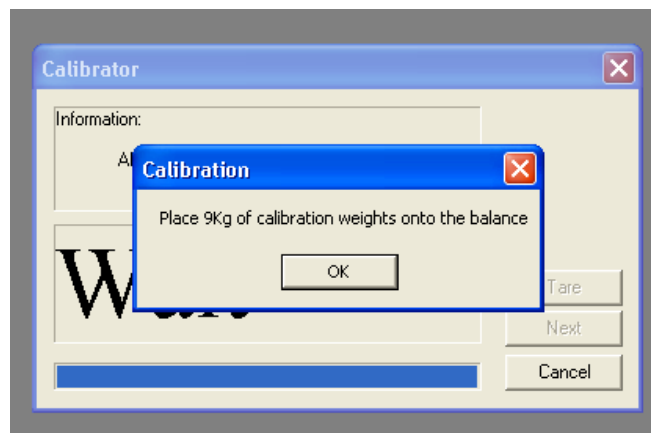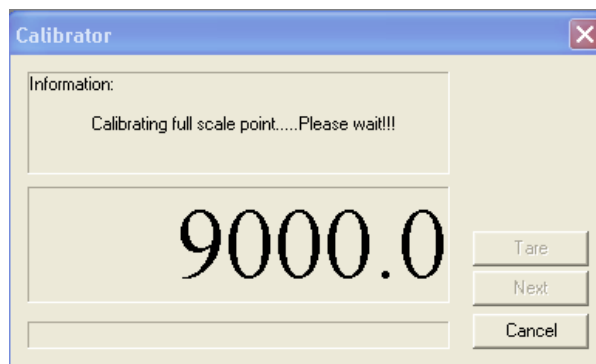

Place 9Kg of conformance or Calibration weights centrally on the scale stacked with the Balance Retracted and Locked as shown below:
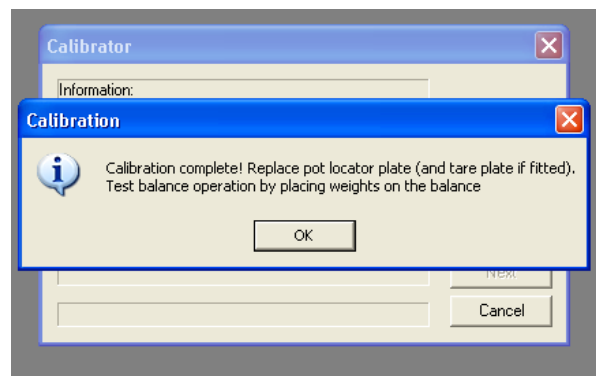
Click OK, the scale will then allow time for the readings to settle before values are displayed counting up to the calibration weight value, this will overshoot up to three times reducing less each time as the calibration point is homed in on as shown:
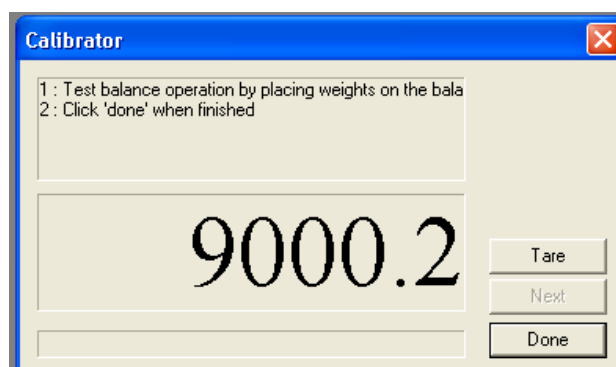

The final value, in this case 9Kg will be displayed as the value is stored, during the last stages it is again important that the scale is not exposed to vibrations drafts or touched during this period.
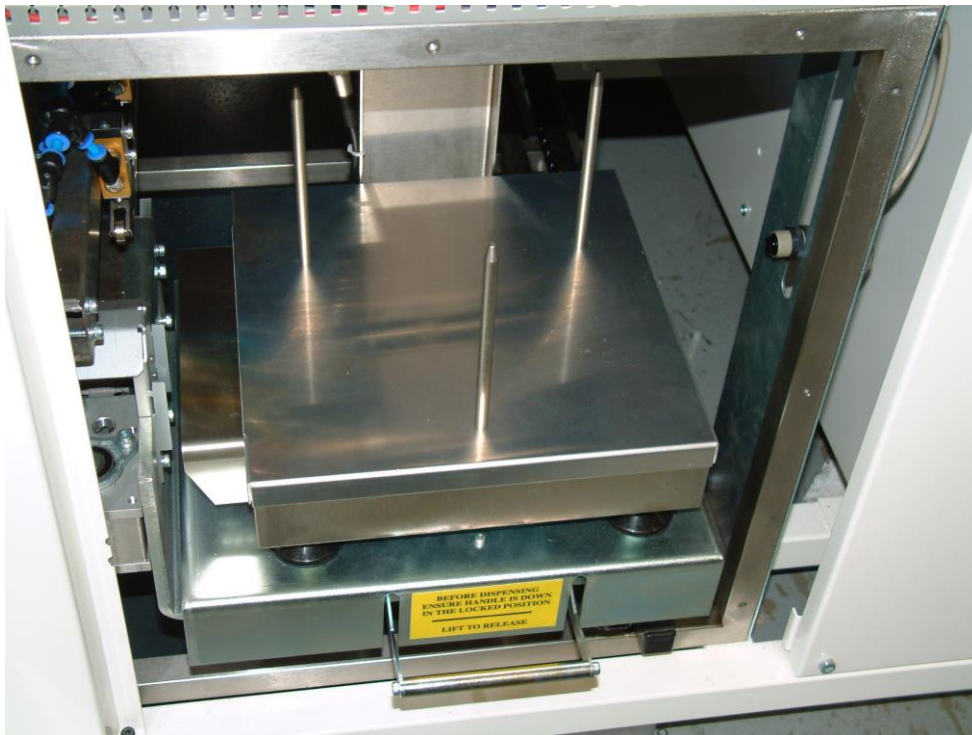

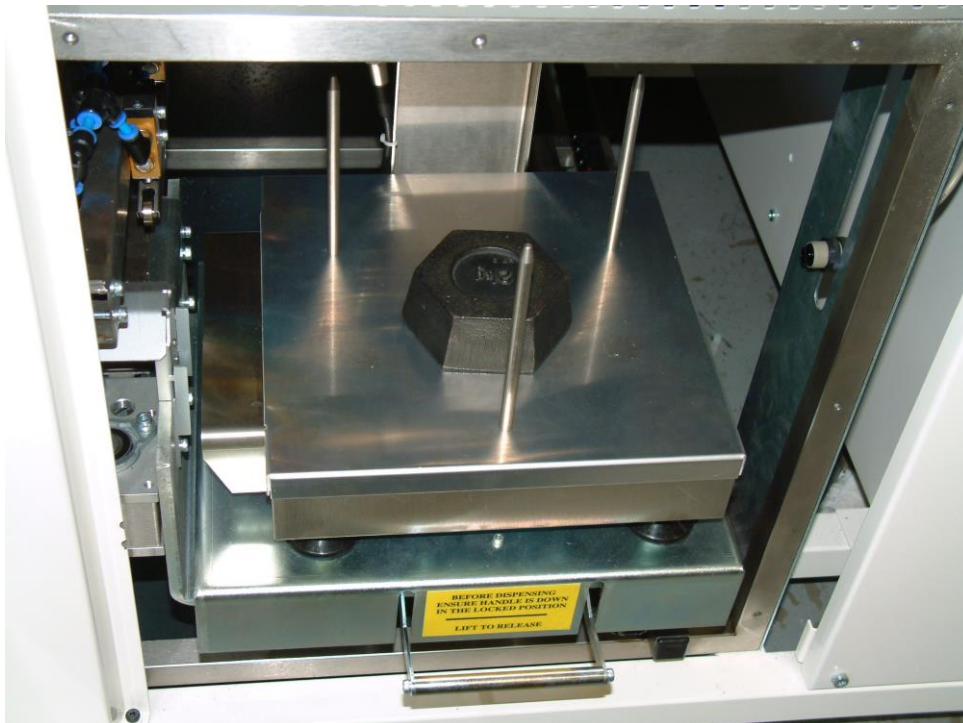After the Full Scale Point is stored the following message will be displayed:

Click OK to return to the calibration window, the final weight will be displayed:

The scale calibration can be tested using this window, to do this remove all the weighs and the Light Weigh Pan/Calibration Plate from the scale, replace the weigh pan and 5Kg Pot Locator then click on Tare:

Place the calibration weighs on the scale in 1Kg increments and record the value displayed at each point, again with the Balance Retracted and Locked as shown:

If the scale is within specification at each of the calibration points, click Done, calibration is complete. If not, click Done to close the current window and repeat the calibration procedure again. If repeating the procedure does not achieve the desired results, please contact Vale-Tech Technical Support.