



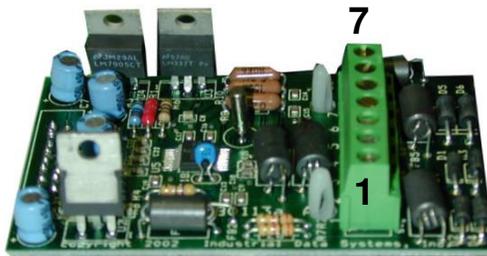
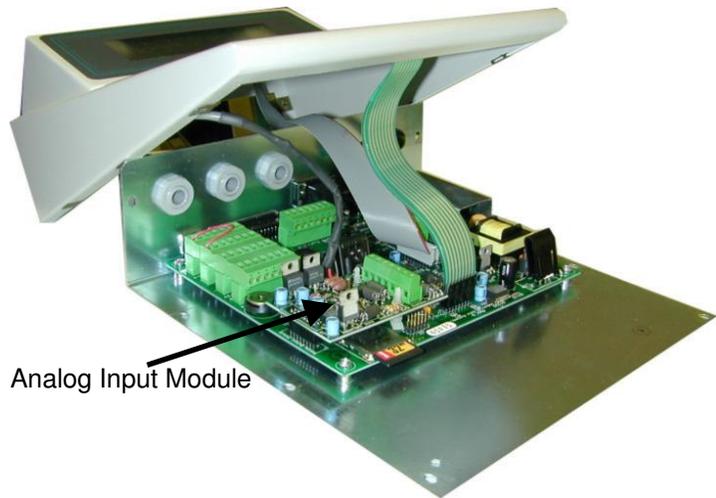
## IDS DT-220 Calibration & Sealing Methods

### Load Cell Wiring

*NOTE: This NTEP test unit has the analog input module installed and pre wired*

1. Power off the DT-220 and remove the enclosure screws
2. Wire the Load cell wiring to the Analog board (NOTE: If sense lines are to be used clip the jumpers on the bottom of the Analog board before installing)
3. Screw close The DT-220 and apply power.
4. Press the SHIFT key once then the CFG/TEST key to enter the configuration mode, select scale parameters to set the scale settings.
5. Select Calibration to calibrate

**NOTE: See Sealing & Calibration steps for more details**



Analog Input Module

7	N/C
6	Exe -
5	Sen -
4	Sen +
3	Exe +
2	Sig -
1	Sig +

↑  
Terminal Block

# Setting Scale Parameters

1. To enter the configuration mode press and release the SHIFT key then press the CFG/TEST key.

```
Configure->1 Scale Parameters
            2 Calibrate
            3 Com & Printer Ports
            4 Event Monitor
            5 ID Database
            6 PagePrinter
            7 Registers
            8 Meter Select
```

2. Select Scale Parameters by pressing the 1 digit and then the ENTER key.

```
Cfg->1 A/D speed 120 Filter 12
      2 Full Scale 10000
      3 Overload Wt 10200
      4 Count-by : 1 Alt: 0.5
      5 Units Pri: 1b Alt: kg
      6 Zero 100% delay 2 band 12
      7 Motion delay 6 band 6 blanks=N
      8 P.O.Zero = N
```

3. The Scale Parameter settings menu will be displayed.
4. The DT-220 defaults 1 thru 8 are displayed. The DT-220 defaults to Handbook 44 settings (10000 x 1 lb).
5. To make changes press a digit 1 thru 8 that corresponds to the menu item and then the ENTER key. The current value will be displayed and changes can be made or selected from a pick list.

To store or the values depress the CLEAR Entry key to back out of the configuration menus until prompted to "Press the P key to store or the X key to exit without saving changes". Make your selection and the DT-220 will resume back to the weigh mode.

```
Press P to Program changes into ROM
Press X to discard changes
```

# Calibration Steps

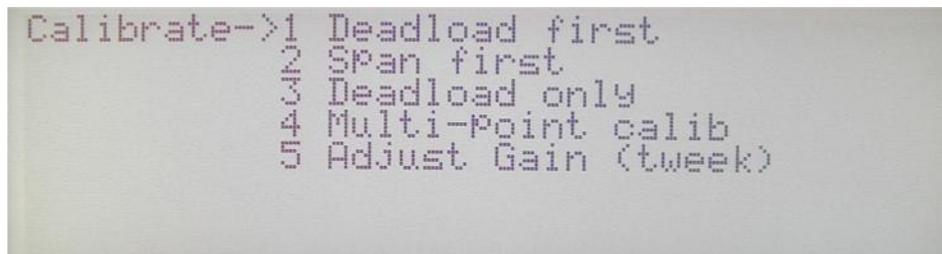
After setting and storing the scale parameters calibration must be performed.

1. To enter the configuration mode press and release the SHIFT key then press the CFG/TEST key.



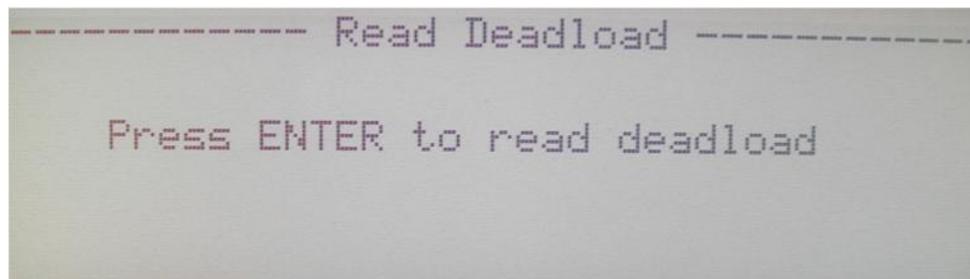
```
Configure-> 1 Scale Parameters
            2 Calibrate
            3 Com & Printer Ports
            4 Event Monitor
            5 ID Database
            6 PagePrinter
            7 Registers
            8 Meter Select
```

2. Select Calibrate by pressing the 2 digit and then the ENTER key.



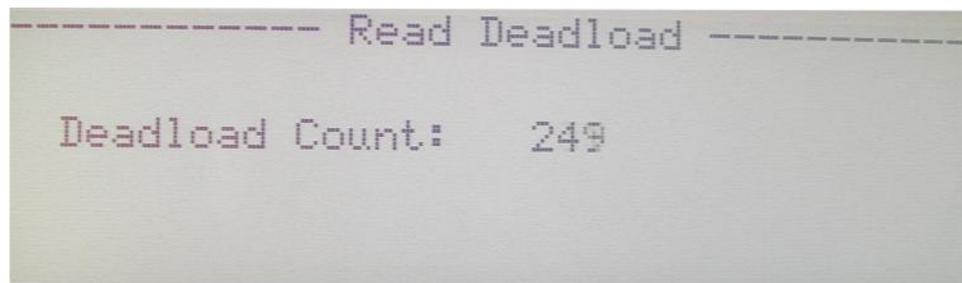
```
Calibrate-> 1 Deadload first
            2 SPan first
            3 Deadload only
            4 Multi-Point calib
            5 Adjust Gain (tweek)
```

3. The calibration menu will be displayed, press the 1 digit and then the ENTER key to select the Deadload First method of calibration.



```
----- Read Deadload -----
Press ENTER to read deadload
```

4. The display will prompt " Press ENTER to read deadload" remove any weight or debris that may be on the scale and the press the ENTER key.



```
----- Read Deadload -----
Deadload Count: 249
```

5. Deadload Count will be displayed while the DT-220 is calculating the deadload.

```
----- Calibrate SPan -----  
  
Enter calibration weight:  
Gross      0
```

6. When the deadload process finishes the display will prompt "Enter Calibration Weight" and display the current gross weight below.

```
----- Calibrate SPan -----  
  
Enter calibration weight: 10000  
Conversion count: 299
```

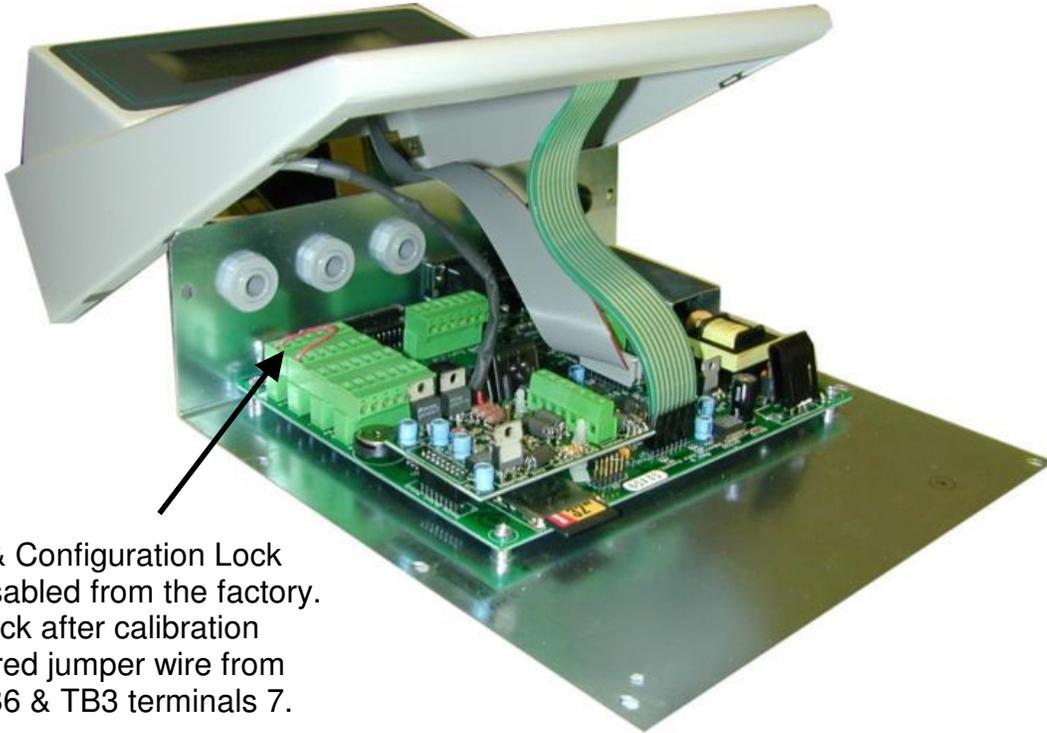
7. Place a known weight on the scale, key that weight into the DT-220 and press the ENTER key. The display will show the conversion count while calculating the span.

```
Configure-> 1 Scale Parameters  
            2 Calibrate  
            3 Com & Printer Ports  
            4 Event Monitor  
            5 ID Database  
            6 PagePrinter  
            7 Registers  
            8 Meter Select
```

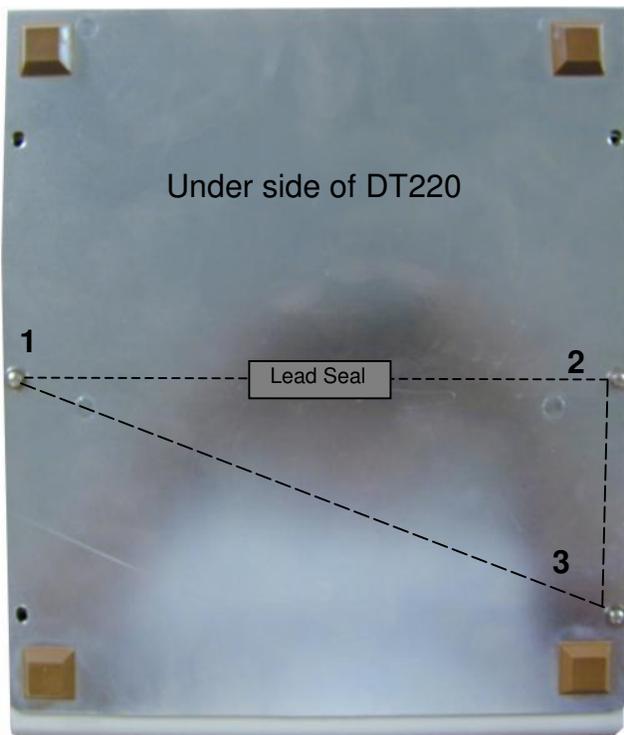
Once the span is complete the DT-220 will return back to the configuration menu, press the CLEAR key once and the display will prompt to "Press the P key to store the calibration or the X key to exit without saving changes". Depress the P key and the DT-220 will store the new calibration and return to the weigh mode.

```
Press P to Program changes into ROM  
Press X to discard changes
```

## Sealing Method



Calibration & Configuration Lock jumper is disabled from the factory. To enable lock after calibration remove the red jumper wire from terminals TB6 & TB3 terminals 7.



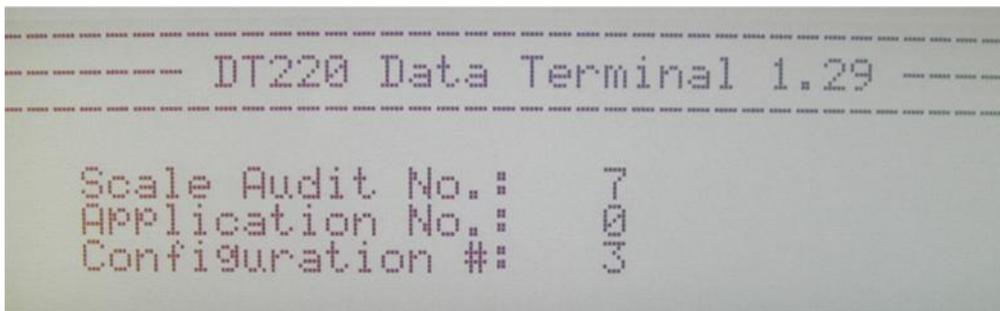
Three drilled head screws located on the underside of the DT-220 are used for threading wire lead sealing the DT-220. The remaining six standard Philips head screws are used for reinforcement purposes only.

## Audit Trail/Category 1 Event Counters

This section explains how the audit trail category 1 event counters works and how to gain access to the values

### Display Calibration Audit Numbers (Shift key then F5 key)

Press the **Shift** key then the **F5 Audit** key to view the scale audit number, application number, configuration number and the software revision ID number. The audit numbers can also be accessed via the **CFG Test** key selection 1.



The DT220 provides a Scale audit number an application audit number and a configuration number. They are used to indicate changes to calibration data, application data and configuration data. They can be used in place of mechanical seals by some regulatory agencies.

The scale and configuration audit numbers increment each time a scale parameter or calibration parameter is changed (deadload or weight conversion factor). The configuration audit number increments each time any configuration setting has been changed. The scale, application and configuration audit numbers increment each time new firmware has been loaded.

If physical seals are used, then remove the internal function lock jumper TB3 terminal 7 to TB6 terminal 7 before sealing. Calibration parameters cannot be accessed when the function lock jumper is removed. Enter Password will be displayed when locked and there is no password to disable the function lock from the keypad. See TTL Input Test for TTL input 7 Lock function status.