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Installation & Setup of Pressure Transducer and N320 Display Unit

Refer to the Rinstrum N320 Display handbook (supplied) for wiring connections.

1. Install the pressure transducer into the hydraulic system using a T-piece and appropriate adapters.

2. Install the display on the dashboard of the vehicle where it is safe, accessible and convenient to use for the operator.

3. Connect the display to the vehicle's 12 volt power or use batteries as preferred.

4. Connect the pressure transducer to the display.

5. Install lifting markers on the fork lift frame at a suitable height. Place the "Top Marker" at approximately 1000mm to 1200mm above floor level and the "Bottom marker" 200mm lower.

6. Secure all cables and pressure lines.

The N320 Display Panel

The Buttons..

[Pwr] A brief press of the power button [PWR] will power up the N320 display. Hold the power button down to turn the display off (3 seconds).

[Zero] The zero key restores the display to zero if or when it drifts away from true zero.

[Tare] The tare key is used to temporarily set the display to zero (such as canceling the weight of a carton before a filling operation). The display will show the Net weight and the net weight annunciator will be lit. A Tare can be canceled by pressing either the zero key or the tare key once the load is removed

[Gross/Net] This key toggles the display between the Gross weight and the Net weight, (provided that a tare has been set using the tare key.) The Net annunciator will be lit when displaying net weight

[Add/Clr] This key adds the displayed weight to the total stored in the N320 Display Panel's internal memory. A long press of this key will clear all the data stored in the display panels internal memory.

[Total] Pressing this key displays first the count, (the number of loads recorded by the [Add/Clr] key and then the total weight of all those loads recorded.

N320 Display – Setup & Calibration Procedure

Setting the display parameters – The Build Menu.

Press and hold both the power button [Pwr] and [Total] buttons until the instrument enters “full setup” mode. The display will read **bUiLd** and display editing annunciators **GRP**, **ITM**, **SEL**,**EDT** and **OK** which correspond to the function keys [Zero], [Tare], [Gross/Net], [Add/Clr] and [Total].

1. Press [**ITM**] to step to **decimal point** (**dp**).
2. Press [**SEL**] to inspect or change the setting.
3. Press [**EDT**] to step through the decimal point settings as required.
4. Press [**OK**] to accept the decimal point setting.
5. Press [**ITM**] to step on to **capacity** (**CAP**).
6. Press [**SEL**] to inspect or change the setting.
7. Press [**SEL**] to select the digit to change and [**EDT**] to change the value.
8. Press [**OK**] to accept the change.
9. Press [**ITM**] to step on to **resolution** (**rES**).
10. Press [**SEL**] to inspect or change the setting.
11. Press [**EDT**] to step through the available values.
12. Press [**OK**] to accept the change.
13. Press [**ITM**] to step on to **units** (**UnitS**).
14. Press [**SEL**] to display the current setting.
15. Press [**EDT**] to step through the available options.
16. Press [**OK**] to accept the change.

N320 Display Setup & Calibration – the Cal Menu.

Press and hold both the power button [Pwr] and [Total] buttons until the instrument enters "full setup" mode. The display will read **bUiLd** and display editing annunciators **GRP**, **ITM**, **SEL**,**EDT** and **OK** which correspond to the function keys [Zero], [Tare], [Gross/Net], [Add/Clr] and [Total].

1. Press [**GRP**] until **calibration** (**CAL**) is displayed.
2. Press [**ITM**] to step to **zero** setting (**ZErO**).
3. Press [**SEL**] to display the current setting.
4. Raise unloaded fork to the top lifting marker.
   (Fork should be unloaded, with normal fittings attached).
5. Lower fork to the bottom marker.
6. Press [**EDT**] to initiate zero setting of instrument (**Z in P**).
7. Press [**ITM**] to accept change. Zero is now set.
8. Press [**ITM**] to step to **span** (**SPAN**).
9. Press [**SEL**] twice to display current reading.
10. Press [**SEL**] to enter the value of the "calibration weight".
    (Pressing [**SEL**] changes the selected digit and [**EDT**] advances the value of the digit).
11. Place the "calibration Weight" onto the machine.
12. Raise the fork to the top lifting marker.
13. Lower fork to the bottom marker.
14. Press [**ITM**] to initiate **calibration** of the instrument (**S in P**).
15. Once calibration is complete the display will show the calibration weight.
16. Press [**GRP**] until END is displayed and press [**ITM**]
17. Instrument is now in "normal" mode, ready for use.

Calibration is now complete.

Setting the Alarm Point (Optional).

Press and hold both the power button [Pwr] and [Total] buttons until the instrument enters "full setup" mode. The display will read **bUiLd** and display editing annunciators **GRP**, **ITM**, **SEL**,**EDT** and **OK** which correspond to the function keys [Zero], [Tare], [Gross/Net], [Add/Clr] and [Total].

1. Press [**GRP**] until **set points** (**Set.PtS**) is displayed.
2. Press [**ITM**] to select set point 1 (**SetPt.1**).
3. Press [**SEL**] to display current setting.
4. Press [**EDT**] to step through setting until over is displayed (**OvEr**).
5. Press [**OK**] to accept the setting.
6. Press [**ITM**] to select source 1 (**SrC.1**).
7. Press [**SEL**] to display current source.
8. Press [**EDT**] to step through setting and select gross (**GrOSS**).
9. Press [**OK**] to accept the setting.
10. Press [**ITM**] to select target 1 (**tArG.1**).
11. Press [**SEL**] to display the current alarm point setting.
12. Press [**SEL**] to select the digit to change and [**EDT**] to advance the value of the digit.
13. Press [**OK**] to accept the setting.
14. Press [**GRP**] until **END** is displayed then press [**OK**].
15. Instrument is now in "normal" mode and ready for use.

Forklift Driver Operating Instructions – (Laminate this)

~ DELPHI FORCE MEASUREMENT WEIGHING SYSTEM ~

1. A brief press of the [Pwr] button turns the display on, a 3 Second press turns it off.
2. Pressing the [Zero] key resets the display to zero if/when it drifts away from true zero.
3. Pressing the [Tare] key zero's the current load (a container perhaps). This setting will be retained until reset by pressing either the Zero or Tare key with zero load.
4. Pressing the [Gross/Net] key toggles the display between gross (container and contents) and net (contents only) reading.
5. Pressing the [Add/Clr] key adds the weight of the current load to the total stored in the displays internal memory.
6. A long press of [Add/Clr] resets the displays internal memory totals to zero.
7. Pressing the [Total] key displays firstly the number of loads and then the total weight of those loads recorded by pressing the [Add/Clr] key.

Start of shift or as required – Setting Zero:

a) Raise empty fork to top marker.
b) Lower fork to bottom marker. (stabilize hydraulic pressure).
c) Press [Zero]
d) Press and hold [Add/Clr] for 3 seconds to reset totals.

Brief Operating Instructions:

1. Pick up load and raise fork to top marker.
2. Lower fork to bottom marker.
3. Wait 2 seconds then press [Add/Clr]. (Reading is added to total).

Press [Total] to display the number of loads and the total weight lifted.
Press and hold the [Add/Clr] button for 3 seconds to reset count and totals.