D-500s Indicator

D - 500 LED
User Instructions
English

D-500s Indicator

Table of Content

Section 1: Introduction.

1.1   Introduction

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respective holders.

IMPORTANT:
When programming or configuring the equipment you must ensure
that you comply with all relevant standards and legislation. The
example settings given in this book may not be legal for trade with
the public.

WARNING:
This is a Class A product. In a domestic environment this product may cause
radio interference in which the user may be required to take adequate

CAUTION:
Danger of Explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the
Manufacturer's Instructions.

Section 1: Introduction.

1.2   Specification.

| Housing	ABS
Display	Six digits (LED 0.8" & LCD 1")
Maximum Input	15mV
ADC	$\Sigma - \triangle$
External Resolution	1/40000
Interface	Rs-232c
Stabilization time	1 second typical
Operating temperature	0° C ~ 50° C / 32° F ~ 104° F
Load Cell drive voltage	5V max (150mA)
Load Cells	drive eight 350 ohm cells
Other functions	Real-time clock and unit conversion
Power Supply	AC 220V (110V optional) 50/60Hz Rechargeable battery 6V 4AH

1.3   Installation

The weighing Indicator should be sited in a location accuracy would be not be degraded avoid extremes of temperature.
Avoid unstable power source. do not use near large users of electricity such as welding equipment of large motors.
verify the voltage showing on the label matches the voltage in your area.

Load Cell Connection:
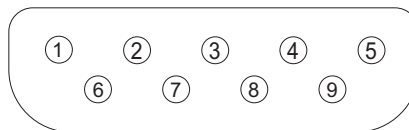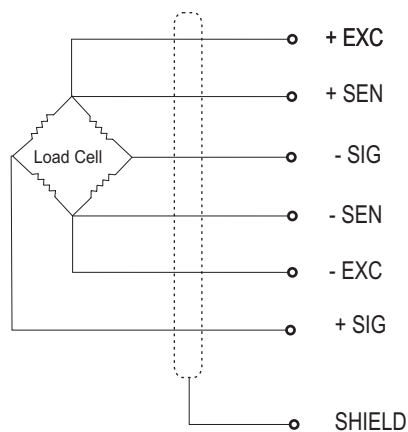
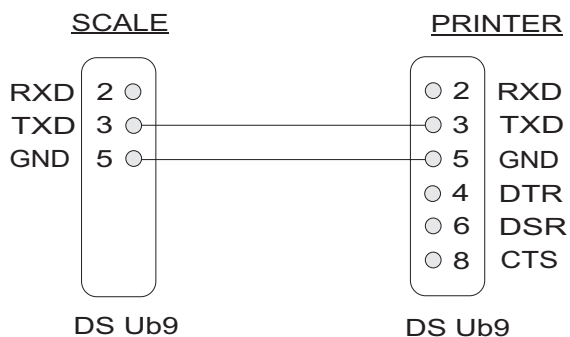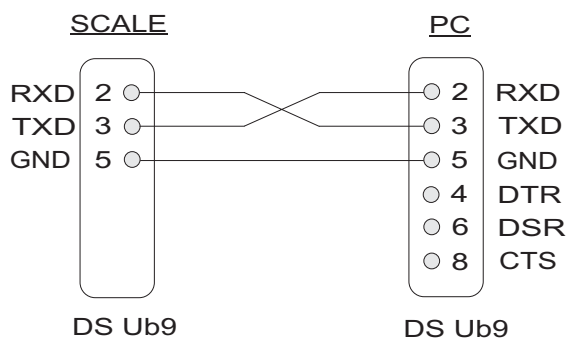| PIN	Assignment
1	Excitation +
2	Sense +
3	Shield
4	Excitation -
5	Sense -
7	Signal +
8	Signal -

Note: Short connect Pin No 1, Pin 2 and Pin 4 & Pin 5 when connected to Load cell with a 4 cable;

Rs232c Connection:


```
        SCALE                    PC
RXD  2 ○──────────────○ 2  RXD
TXD  3 ○──────╲  ╱────○ 3  TXD
GND  5 ○───────╲╱─────○ 5  GND
                        ○ 4  DTR
                        ○ 6  DSR
                        ○ 8  CTS

    DS Ub9              DS Ub9
```



```
        SCALE                 PRINTER
RXD  2 ○                  ○ 2  RXD
TXD  3 ○──────────────────○ 3  TXD
GND  5 ○──────────────────○ 5  GND
                          ○ 4  DTR
                          ○ 6  DSR
                          ○ 8  CTS

    DS Ub9                DS Ub9
```

Section 2: Key descriptions.

Power On/Off the indicator

ZERO
1: when self checking, press zero key to enter parameter setting.
2: set the zero point for all-subsequent weighing.
3: move the cursor to change the digit when setting parameter or other functions.

TARE
1: when self checking, press TARE key to enter Fast calibretion.
2: Tare the scale. store the current weight in memory as a tare value,
Subtract the Tare value from the weight and shows the net weight.
entering a value using the key pad will store that value as the tare value.
3: Cycle through the functions or increase the active digit when setting value for parameters or other functions.

MODE
1: Enter / Cancel the counting mode from weighing mode when "F3 key" = 1.
2: Accumulate and print when "F3 key" = 2.
3: "Hold" function keep and cancel when "F3 key" = 3.
4: Enter pre tare value when "F3 key" = 4.
5: Parameter setting for the animal weighing when "F3 key" = 5.
6: Cancel or quit from the operations.

FUNC
1: Select or enter the function and save the setting values of parameters.
2: View unit weight, counts and total weight when counting mode when (F3 KEY=1).
3: View Nos of accumulated weight and total weight when (F3 KEY=2).
4: Enter / Cancel animal weighing function when (F3 KEY=5).

UNIT
1: When self checking, press unit key to see unit conversion coefficient.
2: Unit conversion when weighing.

Section 3: Operations.

3.1 Power On/Off:

Press ON/OFF key to power on the Indicator and the Indicator self-cheks, then goes into the weighing state.

3.2 Function and Parameters setting:

When self-checking, press ZERO key to enter Parameter setting. Then display shows "F1 CLK". press TARE key to move functions cycle. Press FUNC key to enter the desire function or MODE key to cancel or quite. see detail on section 4 function and parameters setting.

When self-checking, press TARE key to enter " P8 CAL" calibration function.

When self-checking, press MODE key to enter " P13 UT" Unit setting.

When self-checking, press FUNC key to stop self-checking and goes into work state.

When self-checking, press UNIT key to enter Unit conversion coefficient setting.

3.3 Zero the scale:

Press ZERO key to set zero point from which all other weighing and counting is measured. Usually this will only be necessary when the platform is empty. When the zero is obtained the ZERO indicator is ON.

The scale has an automatic re-zeroing function to account for minor drifting or accumulation of material on the platform. However you may need to press ZERO key to re-zero the scale if small amount of weight are shown when the platform is empty.

3.4 Tare the scale:

when a container is applied it needs to tare off and obtains a net weight. Remove all weights from the platform and make the platform empty. Make sure that the ZERO indicator is ON. Place the container on the platform and the containers weight will be displayed.

Press TARE key to tare the scale. The container's weight will be stored as a tare value and the value will be subtracted from the display, leaving a zero value on the display. The TARE indicator will be on to show the indicator is now under tare operation. A product is placed in the container and it will show only the weight of the added product. The scale should be tare a second time if another is added to the first one. again only the weight added after tare will be displayed. When the container is removed a negetive value will be shown. If the scale was tare was just shown before removing the container this value is the gross weight of the container plus all products that were remove. The ZERO indicator will also be on because the platform is back to the some condition it was when the ZERO key was last pressed.

to clear the tare value, empty the platform and press TARE key again, TARE indicator will be goes off.

3.5   PCS counting (KEY = 1):

scale. the number of sample should match the option for parts counting, 10, 20, 50, 100 or 200 pieces.

Weighing Sample: Press MOD key to begin the parts counting. The scale shows "P 10" asking for a sample size of 10 parts. Change the sample size by pressing the TARE key, the display will cycle through the option: 10/20/50/100/200.

Counting: Press FUN key when the numbers matches the sample size. Remove samples from the container and place the desire parts for the counting purpose. Display will show the number of parts (pcs).

Viewing the unit Weight, Nos. of Counts & Total Weight: Press FUN key to cycle through Unit Weight, Nos. of Counts and Total Weight. (Note that the Unit Weight will show in gram.)

Press MODE Key to return to normal weighing.

3.6 Accumulation (KEY = 2):

When weighing, Press FUN key for accumulation.

Place the products that to be weighed, when the STABLE indicator is on, press MOD key and the weight value will be stored in memory. The display will show nos. of accumulation. After that it goes to normal weight display. Do other subsequent weighing by the similar procedure as described above.

Note: This indicator can store 200 nos. of accumulations.

View the accumulated total weight:

Empty the scale by removing the weights. Press FUN key it will display the nos. of weights, and then total weight.

Clear the accumulated weight from memory:

Press ZERO key during display of nos. of weight and total weight, accumulated weights are cleared from memory.

3.7 Hold (KEY = 3):

Press MOD key to enter the hold function. After every weighing, the weight value will be kept on display. MOD key can be pressed to cancel hold function.

3.8 Preset Tare (KEY = 4):

Press MOD key to preset tare value. While every weighing, the value can displayed is the one actual weight substrate the preset tare value.

3.9 Animal Weighing (KEY = 5):

Press MOD key to set parameter of animal weighing.

1) Stable time "Fil n". options: 1 / 2 / 3 / 4 / 5. 1 is fastest and 5 is lowest. the longer of stable time, the harder to lock.

2) Display range "Range n". Option 1 / 2 / 3 . option 2 is recommended.

3) Leaving lock range, if the change of weight exceeds the value, the indicator will get a new display.

Press FUN Key enter or cancel the animal weighing function.

3.10   Check-Weighing:

Check-weighing is procedure to cause alarm to sound when the weight on the scale meets or exceed value stored in memory. The memory holds values for a high limit and low limit.

Check Range:
Set "HI-LIMIT" and "LOW-LIMIT" as deferent values, and "HI-LIMIT" value is larger than "LOW-LIMIT" value.

Check key point:
Set "HI-LIMIT" and "LOW-LIMIT" as same" value.

Check mode:
Setting the parameter: Select "F4 CHK" to enter check mode. Press FUN key to enter and select "BEEP1, BEEP2, or BEEP3; Press FUN key, it will show"xxxxxx". Then begin to set "HI-LIMIT" value; press Enter to set "LOW-LIMIT" value;

Mode1: BEEP=1
Never beep whether it is eligible or not, but the indicator HI or LOW will be on or off to show the result. When the weight is higher then the "HI-LIMIT", indicator HI will be on, while lower than the "LOW-LIMIT" indicator LO will be on. Otherwise indicator HI & LOW will be both on.

Mode2: BEEP=2
Beep when it is eligible;

Mode3: BEEP=3

Beep when it is not eligible;

NOTE:

The weight must be grater then 9 scale divisions for the check weighing to operate. To disable the check-weighing function press UNIT key to set both HIGH and LOW limit to zero.

3.11   Print (KEY=2):

Set "P10 PS": RS Prt" is selected for the serial printer
When weighing, press MOD key to print.

Section 4: Functions and Parameters.

Turn ON the indicator while pressing ZERO key, display will show

Date and time setting:

Press FUN key, it will display time.

Time setting:

ZERO key: shift digit;   MOD key: Cancel and esc;

TARE key: Value up;   FUN key: Enter and esc;

Select date setting mode by pressing TARE key. "YY-MM-DD", "MM-DD-YY" or "DD-MM-YY".

Date setting:

ZERO key: shift digit;   MOD key: Cancel and esc;

TARE key: Value up;   FUN key: Enter and esc;

Press FUN key

Sleep Function:

Press FUN key, it will display Sleep function.

SLP no: Indicator will never sleep.

SLP 3:   Set the time span 3 minuets for sleep. This sleep mode has two options:" Off & dot", which can be selected by pressing FUN key when displaying "SLP 3". "Off" means cutting off the power and "dot" means only a dot at the last digit will be displayed. When "dot", weight changing can wake up the indicator.

SLP 5:   Set the time span 5 minuets for sleep. This sleep mode has two options:" Off & dot", which can be selected by pressing FUN key when displaying "SLP 5". "Off" means cutting off the power and weight changing can wake up the indicator.

SLP 10: Set the time span 10 minuets for sleep. This sleep mode has two options:" Off & dot", which can be selected by pressing FUN key when displaying "SLP 10". "Off" means cutting off the power and weight changing can wake up the indicator.

SLP 15: Set the time span 15 minuets for sleep. This sleep mode has two options:" Off & dot", which can be selected by pressing FUN key when displaying "SLP 15". "Off" means cutting off the power and weight changing can wake up the indicator.

Press FUN key

F3Hrey   **MOD key setting:**

Key 1:   To set the MOD key for counting, gross / net weight display switch.

Key 2:   To set the MOD key for accumulation & print.

Key 3:   To set the MOD key for holding the weight.

Key 4:   To set the MOD key for setting tare value in advance.

Key 5:   To set the MOD key for setting tare value in advance.

Press FUN key
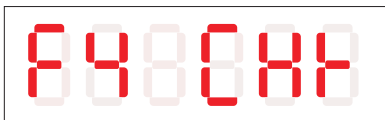
F4 CHr   **Check-weighing setting:**
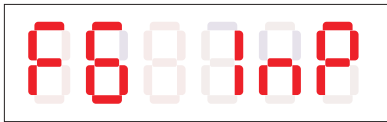
Options: BEEP 1 / 2 / 3.

Press FUN key

Section 4: Functions and Parameters.

F5 brt

Brightness adjustment of LED display:

Select 1~8: 8 is most bright.

Press FUN key

F6 InP

Display the internal counts:

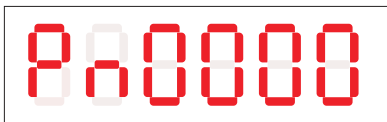Used to check the connection of load cell and working status of ADC.
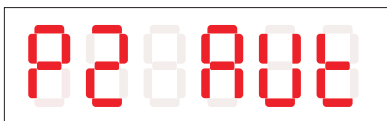
Press FUN key

F7 CAL

Calibration:

Press FUN key to enter.
"PN": Press FUN key to enter "PN". Initiate password is "0000".

Pn0000

P1 SP

Set AD Converting speed.

Options: 1 / 2/ 3 / 4 / 5. 1 is fastest and 5 is slowest.

P2 AUt

Select the "Power On Zero maintenance"

Options: 2 / 4/ 10 / 20 / 50 / 100%. of the capacity.
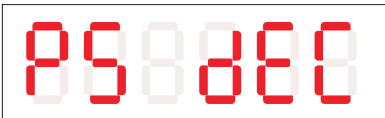
Section 4: Functions and Parameters.

`P3 rAn`   **Select the "Manuel Zero maintenance".**

Options: 2 / 4/ 10 / 20 / 50 / 100%. of the capacity.

`P4 A2`   **Select the "Auto Zero maintenance".**

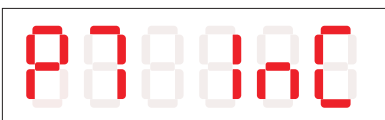Options: 0.5d / 1d / 2d / 4d. "d" means divisions.

`P5 dEC`   **Select the "Decimal Point".**
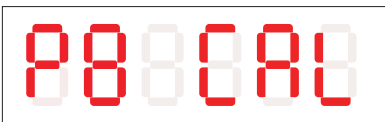
Options: 0 / 0.0 / 0.00 / 0.000 / 0.0000.

`P6 CAP`   **Select the "Capacity".**

`P7 InC`   **Select the "division increment".**

Options: 1 / 2 / 5 / 10 / 20 / 50.

`P8 CAL`   **"Calibration".**

See at section: 5 calibration.
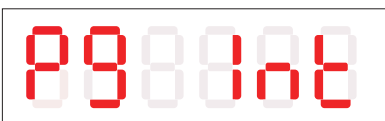
`P9 Int`   **"Initialize the memory to ex-work state".**
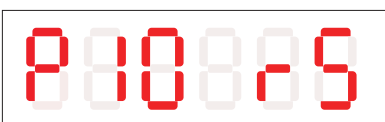
`P10 rS`   **"Communication mode".**

See at section: 6 Rs232c.

P11 FL
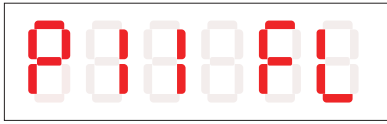
"Weight adjustment for acceleration of Gravity".

P12 tb

"When "On" keyboard is pressing with sound".

P13 Ut

"Unit setting"

Lb, U1 or U2 is optional, witch could be "ON" or "OFF" through pressing the "FUN key" and "TARE key". When U1 / U2 is on, the conversion coefficient can be set through pressing "UNIT key" while self-checking. When is "OFF", it could not be set unless entering the "P13 UT" menu and set it "ON".

P14 Pn

"Password"

press "FUN key" to display "P1- - - -" set the password and press "FUN key" it display "P2- - - -" set the password again to confirm. When successful, it will show "DONE".
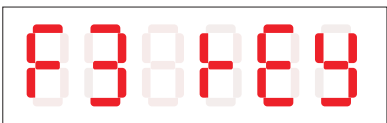
Section 5: Calibration.

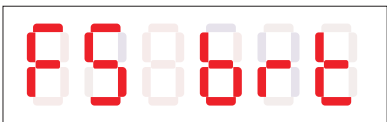Turn ON the indicator while pressing ZERO key, display will show
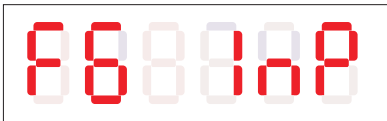
| `F1 CLt` | Press FUN key |

| `F2 SLP` | Press FUN key |

| `F3 tEy` | Press FUN key |

| `F4 CHt` | Press FUN key |

| `F5 brt` | Press FUN key |

| `F6 1nP` | Press FUN key |

| `F7 CAL` | Press FUN key |

| `Pn0000` | Press FUN key to enter. |
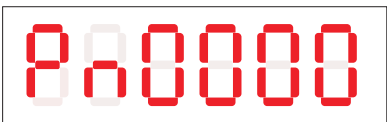
"PN": Press FUN key to enter "PN". Initiate password is "0000".

| `P1 SP` | Press FUN key |

Section 5: Calibration.
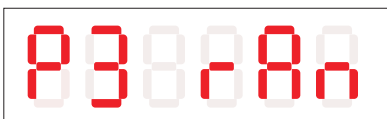
```
P2 AUt
```
Press FUN key

```
P3 rAn
```
Press FUN key

```
P4 A2
```
Press FUN key

```
P5 dEC
```
Press FUN key

```
P6 CAP
```
Press FUN key

```
P7 InC
```
Press FUN key
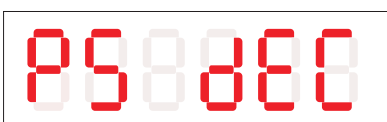
```
P8 CAL
```
"Calibration".

Press FUN key display will show

```
noLoAd
```

Empty the platform by removing the weight if any. When platform is empty and stable indicator is on press "FUN key" to confirm. Display Shows "XXXXXX"

Set it to be the weight of the weigher you want to put on platform and press "FUN key" after stable indicator will go to weighing state.

RS 232c Interface is sensitive to electrical noise..
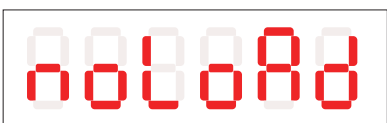
Therefore, please do the wiring separately from the wires of AC power cable or other electric wires and radio signals. you must use shield cable for it. communication mode you can select "P10 RS"

Signal format:

(a) Type: EIA-RS-232c

(b) Method: Half Duplex

(c) Baud rate: 1200, 2400, 4800,9600, 19200 bps can be selected.

(d) data bit: 8

(e) Stop bit: 1

(f) Parity: No

(g) Code: ASCII

Data format:

		,			,			K	g	CR	LF

Header 1   Header 2   data   unit

Header 1   ST: Display Stable

US: Display Unstable

Header 2   NT: Net Weight

GS: Gross Weight

P10 rS

Press FUN key

Mode 1: RS Cot (Continue output).

Mode 2: RS Prt (Command output) used for serial printer.

Mode 3: RS Aut (Automatic output) used for transmission after every weighing.

```
2010/21/10        21:40:58

No.   TARE    NET     GROSS     TOTAL
-------------------------------------------------------------------

001   0.000U1 1.034U1  1.034U1    1.034U1
```

```
DATE              2010/21/10
TIME              21:40:58
No.            001
TARE           0.000kg
NET            1.034kg
GROSS          1.034kg


DATE              2010/21/10
TIME              21:41:17
No.            002
TARE           1.250kg
NET            1.750kg
GROSS          3.000kg
```

Section 7: Error Codes.

Error	Description	Resolution
- - OL - -	Over Range	Remove weight from the scale.
ERR 1	date/ time un-correct	Reset Date/Time.
ERR 2	date/ time un-correct	Reset Date/Time.
ERR 4	Zero Setting Error	The scale was outside the normal zero setting range either when it was turned on or when the ZERO key was pressed. Remove weight from the scale and try again. use the TARE key to set the display to zero value.

D-500s Indicator

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