User manual

LP7517F/FP

Weighing Indicator

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1. Summary

LP7517F/FP indicator is developed for weighing transpalette. The indicator can be placed on the top cap of a transpalette. Two versions are available: LP7517F without a printer incorporated; LP7517FP with incorporated printer.
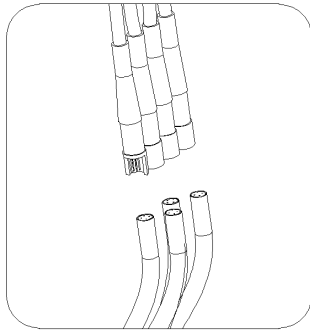
1.1　Main function

》 General weighing: Zero / Tare / Total
》 Automatic power off and power saving function
》 Battery capacity indication

2. Installation

2.1 Electrical connection

2.1.1 Connection indicator with Load cells

LP7517F/FP can be connected to 4 pcs 350Ω Load cells. Place connector as specified below:

Load cell interface depiction　　　　DC power supply
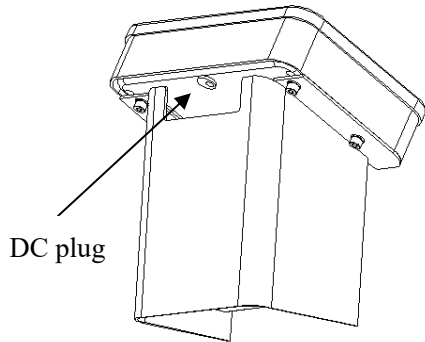
2.1.2 Power connection

　　LP7517F is powered by 5V/1A adaptor, plug the adapter directly into the "DC" pin at the back cover of the indicator.

　　LP7517FP is powered by 8.4V/1A charger, plug the charger directly into the "DC" pin at the back cover of the indicator.

3. Operation

3.1   Keys and display

Display

Key

Weighing indicator display instruction:

LED display	Instruction
8	Weighing data display
kg	Weight unit kg
lb*	Weight unit lb*
Hold	Hold the data
Peak	Hold the peak weight
Tare	Display Tare status
Gross	Gross weight display
Net	Net weight display
Total	Total weight
◣◢	The weighing data is stable
⇒◊⇐	Zero, indicating zero weight
Hi	Upper limit
OK	Within limit
Lo	Lower limit

Keys' function:

Symbol	Name	Function
	On/Off unit convert*	1. Press 3 seconds to power on or power off 2. Press key to convert units*
	Hold	Enter and exit "Hold" mode
	Total	1. Accumulating operations 2. Use with "Print" to check the total weight
	Tare/Zero	1. Clear weight within zero range 2. Exceed zero range, tare function 3. Long press to preset tare
	Print	1. Press with On/Off enter the calibration 2. Long press to print 3. Use with "Tare/Zero" weight 10 times

3.2 Operation

3.2.1 ON/OFF

Press the button for 3 seconds to power on or power off.

3.2.2 kg/lb Conversion

If you select kg/lb conversion, in normal weighing mode, press "On/Off" key to perform kg/lb conversion.

3.2.3 Tare/Zero

During the weighing process, if the zero range（±2%）is exceeded and the reading is stable, press "Tare/Zero" to start the net weighing mode. The display will then display net weight zero, the Tare and Net light indicators will switch on, Gross light indicator will switch off.

During the weighing process, if the weight stays within in the zero range （±2%）and it is stable, press "Tare/Zero" to return to gross weighing mode, the display will show gross weight zero, the Gross light indicator will switch on, Tare and Net lights will switch off.

Preset tare

Press "Tare" for 2 seconds and enter the Tare weight to configure the tare function.

3.3 HOLD

This indicator includes the following functions: peak hold, hold and auto-hold.

Settings Menu (4.2.2):

C11=0 "Hold" function unavailable

C11=1 Peak hold

C11=2 Hold

C11=3 Auto-hold

3.3.1 Peak hold

Press the "Hold" key, this will cause the Hold light to switch on, and the maximum data will be displayed on the weighing indicator. Press "Hold" key again to exit the hold function.

3.3.2 Hold

Press the "Hold" key, this will cause the Hold light to switch on, and the data will be displayed on the weighing indicator. Press "Hold" key again to exit the hold function.

3.3.3 Auto-hold

If the weight on the scales exceeds 20d and it is maintained stable, the indicator will display the data for 6 seconds and the "Hold" light will switch on, after 6 seconds the indicator will return to the general weighing mode, and the "Hold" light will switch off.

3.4   Total

3.4.1 Accumulation operation

At Zero mode, load weight until the scale shows the stable reading, then press "Total" key to enter the accumulation mode, "Total" light will then switch on, display will show "n001" message, and then display loaded weight. Unload the weight, the scale will return to zero, load weight again until the stable reading

is achieved, then press "Total", display will show "n002" message, then the loaded weight will be displayed. This operation can be repeated maximum 999 times.

3.4.2 Check the total weight operation

Hold "Print", then press "Total" at the same time, the display will show "n**", (accumulating times) and then the total weight will be displayed. If the total weight does not exceed 6 digits, it is displayed as the whole reading, otherwise, for example, if the total weight consists of 8 digits, the first 4 digits will be displayed first, then the last 4 digits. For example, the first 4 digits are "0012", the last 4 digits is "34.56", it means the actual weight is "1234.56"

3.4.3 Exit accumulate function

In order to exit the accumulative mode, when active, press "Total" key, the indicator will then show "clr n" message, prompting about clearing the total weight, press the key to confirm it and exit; If total weight is cleared, when the display shows "clr n" message, press "Tare/Zero" to change to "clr y", which will clear the total weight display. Press "Print" to clear the total weight and exit accumulating mode.

3.5 High resolution

Press "Set" and "Tare" keys simultaneously, to enter high 10 times standard resolution mode. The normal weighing mode will be established after 3 seconds.

3.6 Upper and lower limit alarm

In order to establish the upper and lower limit indications, please set C13= Upper limit, C14=Lower limit. When the measured weight exceeds the limit, the

"Hi" light will switch on, and indicator will produce an sound; when the weight is below the lower limit, the "Lo" light will switch on. In case the weight is within the limit, the "OK" light will switch on.

4. Calibration & parameter settings

4.1   Enter calibration

There have two ways to enter the settings menu:

1. When the "CAL" switch is off, press then press at the same time, hold it, you will enter C08-C39 setting.
2. Take out all of screws on the back of the indicator, then press down the "span",

press and then press at the same time, you will enter C01-C39 setting.

4.2   Keys' function

   Exit and save settings

   Left

   Down

   Up

   Confirm, go to the next step

4.2.1 Calibration

C01 UNIT

[C01   ]   Press ⊙

[C1   1]   Selected unit is kg

[C1   2]   Selected unit is lb*

Press ⊙ , go to the next step

C02 Set decimal digits

[C02   ]   Press ⊙

option:0/1/2/3/4

[C2   0]   no decimal point

[C2   1]   one decimal point

[C2   2]   two decimal points

[C2   3]   three decimal points

[C2   4]   four decimal points

Press ⊙ , go to the next step

C03 Division setting

[C03   ]   Press ⊙

[C3   1]   d=1

[C3   2]   d=2

[C3   5]   d=5

[C3   10]   d=10

[C3   20]   d=20

[C3   50]   d=50

Press ⊙ , go to the next step

C04 Maximum capacity

For example: max weighing 100kg:

Set [0100.00]

Press ⊚, go to the next step

C05 Zero calibration

Option: 0=no zero calibration   1= zero calibration necessary

In order to calibrate zero, please choose option 1 and ensure the scale is empty and the stability indicator light is on. Count down [CAL 10] ~ [CAL   0], then the indicator will show [0.00] (example for two decimals).

C06 Loading calibration

[C06], press ⊚, the [C6   0] message will appear, press →T← →0←, the message will change to [C6   1], press ⊚ again, the [SPAn   ] message will appear, depending on max capacity settings, please add a suitable known weight on scale, closest to the max capacity, heavier than 10% max at least.

For example: the weight is 80kg, as below:

[0080.00]

[CAL   9]

……

[0080.00]

[CAL End]

Once the countdown is over, the indicator will show the loaded weight, loading calibration is finished.

If you want to set an application parameter, press ⊚ , if you want to exit, press ⏻ button.

C07 Default parameters settings

[C7   0] Do not restore the default parameters

[C7   1] Restore the default parameters

Note: After the above parameters settings is completed, please avoid setting the default parameters often, in order to avoid the original setting parameters lost.

4.2.2 Application parameter settings

C08 Warning tone

[C8   1]   Open warning tone

[C8   0]   Close warning tone

C09 Power off automatically

[C9   0]   Do not power off automatically.

[C9   10]   Keep on for 10 min, then power off automatically

[C9   30]   Keep on for 30 min, then power off automatically

[C9   60]   Keep on for 60 min, then power off automatically

C10 Power saving setting

[C10   0]   Turn off the power saving

[C10   1]   Switch off backlight after 3 minutes

[C10   2]   Switch off backlight after 5 minute

C11 Hold

[C11   0]   No Hold function

[C11   1]   Peak hold

[C11   2]   Data hold

[C11   3]   Auto-hold

C12 Hold time (if you choose C11=4, you can set the time)

   Enter a sampling time of 0-9 seconds

C13 Upper limit alarm value

C14 Lower limit alarm value

C15 Check inner code

C16 Date settings

   Enter the date

C17 Time settings

   Enter the time

4.2.3 Communication settings

C18 Serial interface settings

[C18   0]   No sending

[C18   1]   Big display

[C18   2]   Print format output

[C18   3]   Command mode (Z=Zero T=Tare R=Reply weight)

[C18   4]   Continuous sending

C19 Baud rate

[C19   0]   1200bit/s

[C19   1]   2400bit/s

[C19   2]   4800bit/s

[C19   3]   9600bit/s

[C19   4]   600bit/s

4.2.4 Application settings

C20 Manual Zero Settings

[C20 00]   Do not set zero manually

[C20 01]   Manual Zero range ±1% Max. Capacity

[C20 02]   Manual Zero range ±2% Max. Capacity

[C20 04]   Manual Zero range ±4% Max. Capacity

[C20 10]   Manual Zero range ±10% Max. Capacity

[C20 20]   Manual Zero range ±20% Max. Capacity

[C20100]   Manual Zero range ±100% Max. Capacity

C21 Initial zero settings

[C21   0]   Do not set the initial zero

[C21   1]   Initial zero range±1% Max. Capacity

[C21   2]   Initial zero range±2% Max. Capacity

[C21   5]   Initial zero range±5% Max. Capacity

[C21 10]   Initial zero range±10% Max. Capacity

[C21 20]   Initial zero range±20% Max. Capacity

[C21100]   Initial zero range±100% Max. Capacity

C22 Zero tracking range

[C22 0.0]   No zero tracking

[C22 0.5]   ±0.5d

[C22 1.0]   ±1.0d

[C22 2.0]   ±2.0d

[C22 3.0]   ±3.0d

[C22 4.0]   ±4.0d

[C22 5.0]   ±5.0d

C23 Zero tracking time

[C23   0]   No zero tracking

[C23   1]   1 second

[C23   2]   2 seconds

[C23   3]   3 seconds

C24 Overload range

[C24 09]   Over 9d than Max. Capacity

C25 Negative display

[C25 00]   Less than -9d

[C25 10]   Less -10% Max. Capacity

[C25 20]   Less -20% Max. Capacity

[C25 50]   Less -50% Max. Capacity

[C25100]   Less -100% Max. Capacity

C26 Standstill time

[C26   0]   Quick

[C26   1]   Medium

[C26   2]   Slow

C27 Standstill range

[C27   1]   ±1d

[C27   2]   ±2d

[C27   5]   ±5d

[C27 10]   ±10d

C28 Dynamic filter

[C28   0]   Close dynamic filter

[C28　1]　Low dynamic filter

[C28　3]　Medium dynamic filter

[C28　5]　High dynamic filter

C29　Noise filter

[C29　0]　Close noise filter

[C29　1]　Low filter

[C29　2]　Medium filter

[C29　3]　High filter

C30 Date format

[C30　0]　99.09.29

[C30　1]　09/29/99

[C30　2]　29/09/99

[C30　3]　1999/09/29

C31 kg/lb conversion

[C31　0]　Do not use kg/lb conversion

[C31　1]　Allow kg/lb conversion

C35 Print format

　Enter 0~99

C36 Local gravitational acceleration

　Enter local gravitational acceleration

C37 Destination gravitational acceleration

　Enter destination gravity acceleration

C38 Version number view

　Displays the date, software version, and hardware version, respectively

C39 multi-interval application

[C39　0]　normal mode

[C39　1]　multi-interval mode

C40 Livestock scale delay

　Enter the scale delay of 0 to 9 seconds

C41~C49 Print related configuration

4.2.5 Exit settings

In order to exit settings, for example, after introducing the option [C10 1], press in order to confirm it, then press to exit and save the settings.

5. Maintenance

5.1   Troubleshooting method

Error	Error description	Solution
Display UUUUUU	1. The loaded weight exceeds the overload range of Max. Capacity 2. Wrong or no connection with the load cell. 3. Load cell unavailable	1. Decrease loaded weight 2. Check the load cell connection. 3. Check the load cell input and output resistance for appropriateness.
Display nnnnnn	1. Calibration is not correct 2. Cell single line is connecting a wrong line. 3. The load cell is damaged.	1. Check whether the scale is resisted or not, and the scale feet are levelled. 2. Check the load cell connection. 3. Check the load cell input and output resistance for appropriateness.
ERR1	During calibration, no weight was introduced or input weight exceeds max capacity.	Introduce the correct weight
ERR2	During calibration, the added weights were nor sufficient.	Added weight shall be at least 10% of Max. Capacity, It is recommended to use the weights at 60-80% of Max. capacity

ERR3	During calibration, input the reading is negative.	1. Check the connection. 2. Check if the load cell is damaged. 3. Restart calibration, if the error reappears, please replace the PCB.
ERR4	During calibration, the reading is unstable	Ensure the added weight and the scale are stable, restart calibration.
ERR5	EEPROM check error	Change PCB.
ERR6	Exceeded Zero range	Unload weight.
ERRAD	AD chip fault	Change PCB.

5.2 Daily maintenance

1. In order to ensure the clear display of the indicator and prolong its life, the indicator should not be placed under direct sunlight.
2. The load cell and the indicator should be well connected, the system should have a good ground, away from strong electric field or magnetic field.
3. Do not use indicator outdoors in high humidity conditions, please power the indicator off.
4. Power off the device during the operation of connecting and disconnecting.

5.3 Battery maintenance

In the lower right corner of the indicator a field will indicate the battery voltage.

If the battery voltage is too low, when the last grid blinks, please charge.

The battery grid flickers when charging, and the charging time is generally

6-8 hours.

The battery grid will then appear full. The indicator has a built-in intelligent charge management chip, which can continue to use power supply after being fully charged, preventing battery overcharge.

LP7517FP charger red light will change into green to indicate a fully-charged battery.

5.4   Restore default parameters

Enter settings menu, set C07=1, press then, press in order to exit the settings, all parameters will be back to default setting.

Note: Consider that restoring default parameters is a task which should be performed by professional technicians as it might cause the scale to lose calibration.

Default parameter table

Parameter	Description	Default value
C01	Calibration unit	1
C02	Decimal digits	0
C03	Division value	2
C04	Max capacity	10000
C05	Empty scales calibration	0
C06	Capacity calibration	0
C07	Restore the default parameters	0
C08	Warning tone	1
C09	Automatic power off	0
C10	Power saving mode	3
C11	Hold function	2
C12	Livestock weighing mode	5
C13	Upper limit warning	000000
C14	Lower limit warning	000000

C15	Inner code display	
C16	Date	
C17	Time	
C18	Serial interface data output method	0
C19	Serial interface Baud rate	3=9600
C20	Manual zero setting	2
C21	Initial zero setting	10
C22	Automatic zero tracking range	0.5
C23	Automatic zero tracking time	1
C24	Overload range	9
C25	Negative display range	10
C26	Standstill time	1
C27	Standstill range	2
C28	Dynamic filter	1
C29	Noise filter	2
C30	Date format	0 (1*)
C31	kg/lb conversion	0 (1*)
C35	Print format	1
C36	Local gravitational acceleration	9.7936
C37	Destination gravitational acceleration	9.7936
C38	Version number view	
C39	Multi-interval application	0
C40	Livestock scale delay	

NOTE: "*" this option is only available in USA version.