DSM I Series
Digital Force Gauges
User Manual

Locosc Ningbo Precision Technology Co., Ltd.

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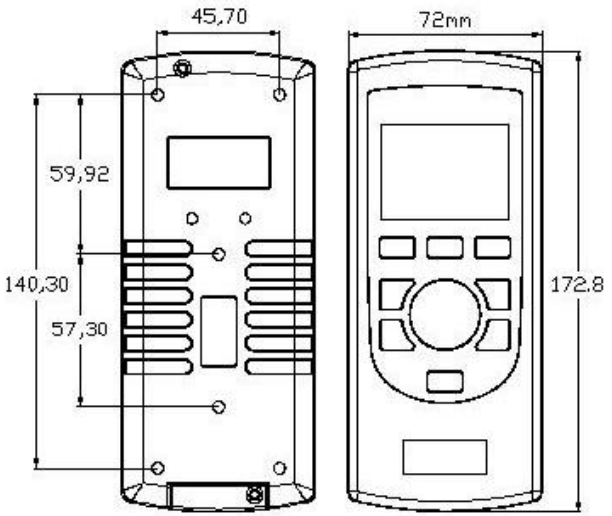
DSM Series specification parameter

Type	DSM-2	DSM-5	DSM-10	DSM-20	DSM-50	DSM-100	DSM-200	DSM-500
Load F.S	2N	5N	10N	20N	50N	100N	200N	500N
Indexing	0.001N	0.001	0.005	0.01N	0.01N	0.05N	0.1N	0.1N
Non-linearity	±0.2%							
Unit	N，kgf，lbf							
ADC Rate	1000Hz							
Power	Lithium battery 3.7V/3000mAh							
Sensor	Inside							
Work Temperature	0℃~40℃							
Store Temperature	-20℃~70℃							
Relative humidity	15%~80%							
Working environment	No vibration and corrosive medium							

DSM Series of contour structure size chart



Safety precautions

▲Please read this manual carefully before using.

▲In destructive testing, should do the protective work.

▲To check fixturebefore the test fixture, do not use damaged or bending deformation.

▲The maximum load sensor for the range 150%. 110% normal use is not recommended more than range.

Suggested use

▲This instrument can only be used to test the pushing or pulling force, don't let the test rod bending or rotation direction force.

▲Range of reasonable selection of push pull, the general should choose range than the shock load of at least one time.

▲This instrument is not waterproof.

▲Please use the matching charger adapter.

Summary

DSM series digital force gauge is a universal portable push and pull load testing instruments, has the advantages of small volume, light weight, easy to carry, multi-function, high precision characteristics, is suitable for sliding load testing of various products, insertion force test, destruction test, a small experimental machine and can be combined with all kinds of machine and fixture composition for different purposes.

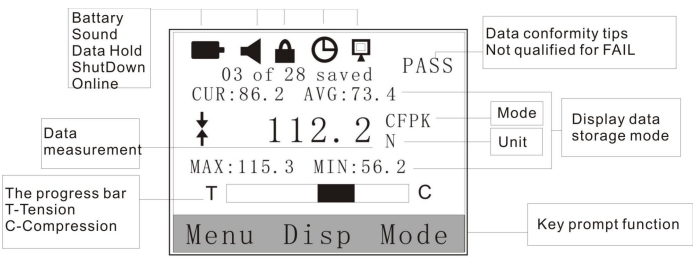
1.1 Feature

- High resolution and high precision, high sampling rate up to 960Hz;
- free to set upper and lower deviation data, automatically determine whether or not qualified;
- Display flip function: test direction can be 180 degrees turn display;
- Full color display: TFT2.4 ', 320*240262K color lcd;
- 50 groups of test data, and automatically calculates the average storage data value, maximum value, minimum value;
- Three unit N, kgf, lbf automatic conversion;
- Peak hold automatic unlocking function (0~99 seconds set free);
- No operation automatic shutdown (0~99 minutes set free);
- With 7 measurement modes;
- Support for multiple languages;
- The serial output, which can be connected to the computer for analysis the printing process.
- Can set the gravity acceleration value;
- Have the pull pressure bar, and to change the colors of the progress bar and the voice prompt overload tensile stress;
- With the layer menu operation interface original
- Automatic monitoring of battery, battery instrument will automatically shut down.

1.2 Specifications

See page first specifications table

1.3 Interface name and function



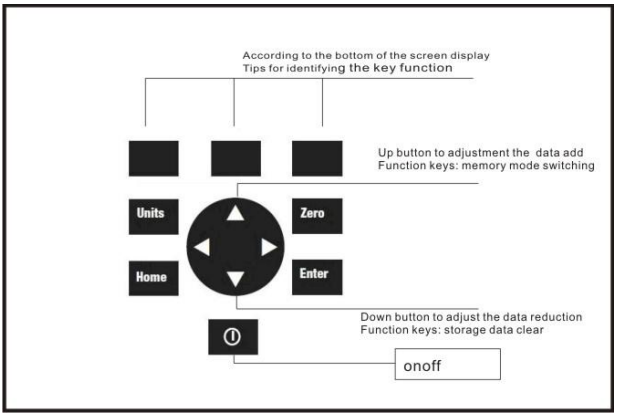
Unit: N,kgf,lbf
Mode: NORM
T-PK:TENSION PEAK
C-PK:COMPRESSION PEAK
TFPK:TENSION FIRST PEAK
CFPK:COMPRESSION FRIST PEAK
TBK%:TENSION BREAK
CBK%:COMPRESSION BREAK

Display data storage mode:
CUR: The current value
AVG: The average value
MAX: The Maximum value
MIN: The minimum value

:TENSION

:COMPRESSION

1.4 **Button description**



2. Operating parameter setting

Press the [menu] button to enter setup menu

Settings
1. Parameter
2. Language
3. Display
4. Calibrate
Back

The settings menu consists of four items.

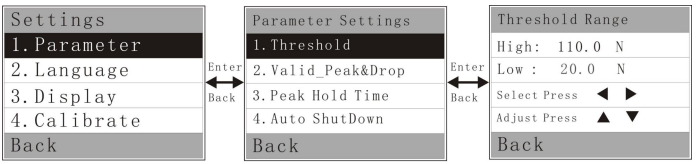
Press the **[enter]** button to enter parameter setting

Parameter Settings
1. Threshold
2. Valid_Peak&Drop
3. Peak Hold Time
4. Auto ShutDown
Back

Parameter Settings
3. Peak Hold Time
4. Auto ShutDown
5. Acceleration(g)
6. Communication
Back

2.1.1 Threshold setting

comparison of upper and lower limit setting



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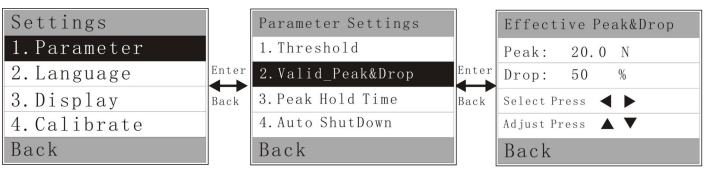
2.1.2 Valid peak & drop

Peak(Effective peak): refers to the effective value of the minimum peak locking.

Drop: refers to the maximum effective, if the force values decreased to the peak of the x%, that is the fault of effective. The only effective in fracture mode.



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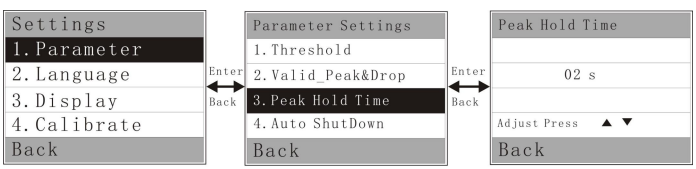
2.1.3 The peak hold time（range:[0 - 99]s）



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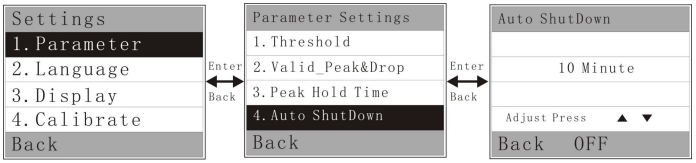
2.1.4 Auto shutdown（range :0-99 minute）



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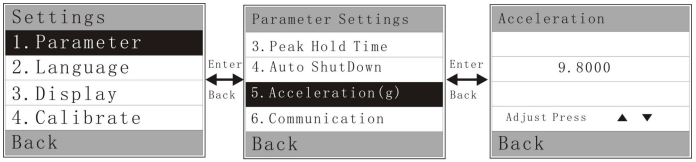
2.1.5 Acceleration (range :9.7000~9.8999)



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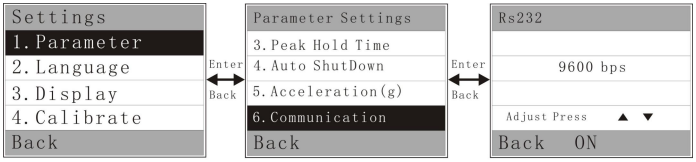
2.1.6 communication RS232 settings



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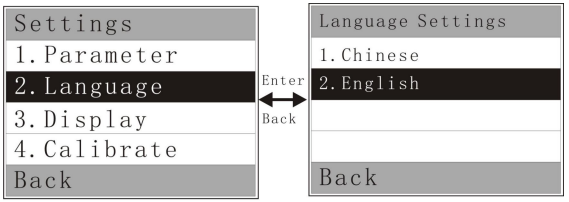
2.2 language settings



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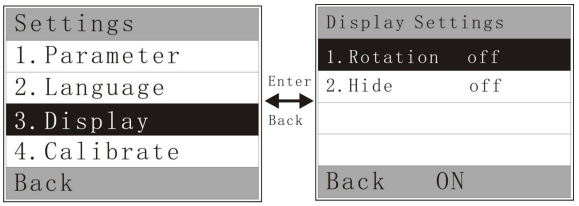
2.3 display settings



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2.4 , instrument calibration settings.