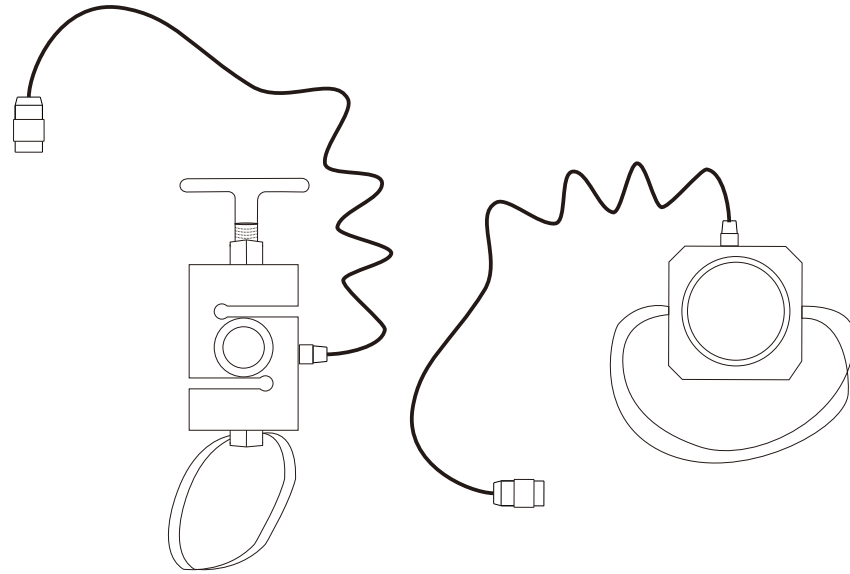
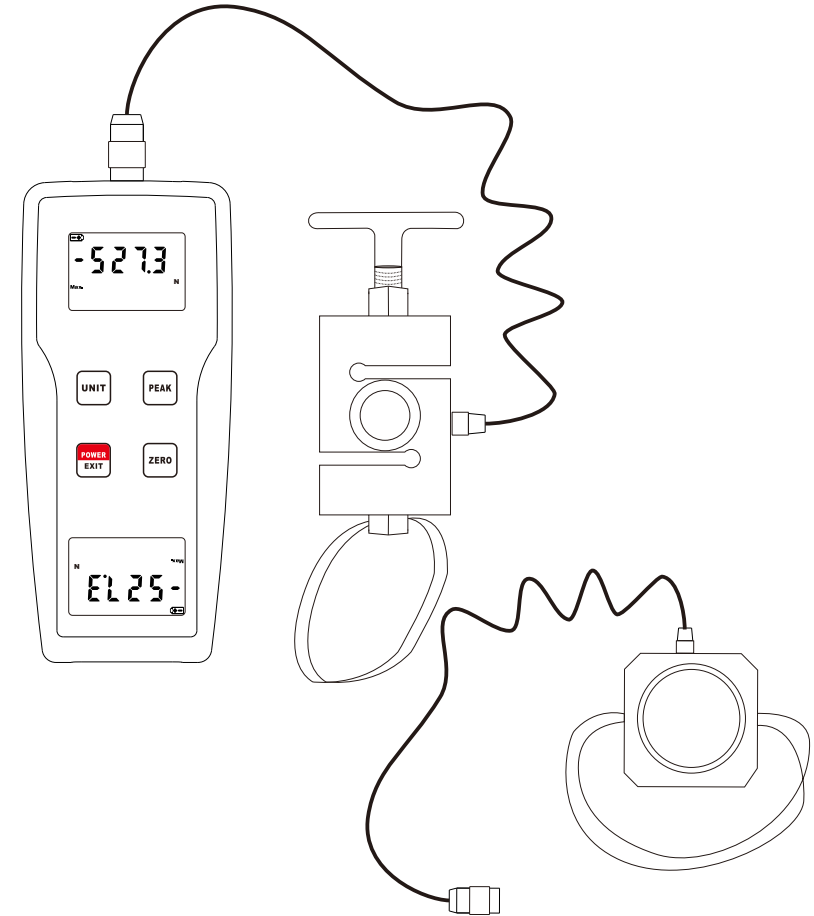


Vehicle Brake Force Gauge FG-104PB



Handbrake force sensor

Pedal force transducer



	specification
Standard Accessories	Pedal force transducer
	Handbrake force sensor
	Portable case
Optional Accessories	power adapter

When you buy this instrument, you mark a step forward in the field of precision measurement. This table is a computer - based testing tool, which can be used for many years if handled

catalogue

1. Introduction.....	1
2. Functional features.....	1
3. The technical parameters of.....	2
4. Structure shows that.....	3
4.1 the structure.....	3
4.2 the display... ..	5
4.3 operating buttons.....	6
5. The instrument of start-up and shutdown.....	6
5.1 instrument boot.....	6
5.2 the instrument to turn it off... ..	6
6. The instrument zero.....	6
7. The real-time measurement models and peak keep... ..	7
8. The conversion function.....	7
9. The installation and testing.....	7
10. Replace the battery.....	8
11. Security considerations.....	8
12. Accessories specifications and use.....	9
13. Accessories list.....	10

10. Replace the battery

10.1 If the battery voltage is too low, a battery symbol will be displayed on the monitor. You need to replace the battery.

10.2 Open the Battery cover and take out the battery.

10.3 Install the battery properly according to the label on the battery box.

10.4 If the gauge is not used for a long period of time, remove the battery to prevent the gauge from being damaged by battery decay.

11. Safety precautions

11.1 Matters needing attention:

A. Improper operation may damage the instrument or result in serious accidents. This manual points out the important matters to prevent accidents and the method of using the instrument. Please read this manual carefully before using it, and keep it properly after reading it for re-reading.

B. If it is to test the impact load, please select the model with the maximum load twice that of the impact load to be tested.

11.2 Warning:

A. During destructive testing, protective masks and gloves should be worn to prevent human body from being injured by splashing substances during testing.

B. Do not use fixtures that have been damaged or severely bent. Self-made jig please refer to the relevant parameters in this manual (the company has all kinds of jig, customers can purchase according to need).

C. Do not use the instrument beyond the maximum range. Otherwise, sensor damage or even accidents may occur.

D. When the test value exceeds 110% of the range, the buzzer will beep continuously. At this time, please remove the added load quickly or reduce the load.

11.3 Safety Matters:

A. When using the power adapter, do not use A power supply other than the rated voltage. Otherwise, electric shock or fire may occur.

B. Do not pull out or insert the plug with wet hands, otherwise it may cause electric shock.

C. Do not pull the power cord of the power adapter to remove the plug. Otherwise, the cable may be torn and electric shock may occur.

D. Please clean the machine with a soft cloth. Soak the cloth in water soaked with detergent and wring it out before removing dust and dirt. Note: Do not use volatile chemicals to clean the unit (such as volatile agents, thinners, alcohol, etc.)

E. Do not operate the device in the following environments

① Humid environment ② dusty environment

③ Where oil or chemicals are used ④ Where there is a seismic source

F. After use, please put the tension gauge in the equipped portable case to protect the test shaft from external impact force.

G. The product is a liquid crystal display, high-precision integrated electronic product, do not hit, squeeze, after use, please put the product in the equipped portable box.

H. Do not disassemble, repair or modify the unit, which may cause permanent failure of the instrument.

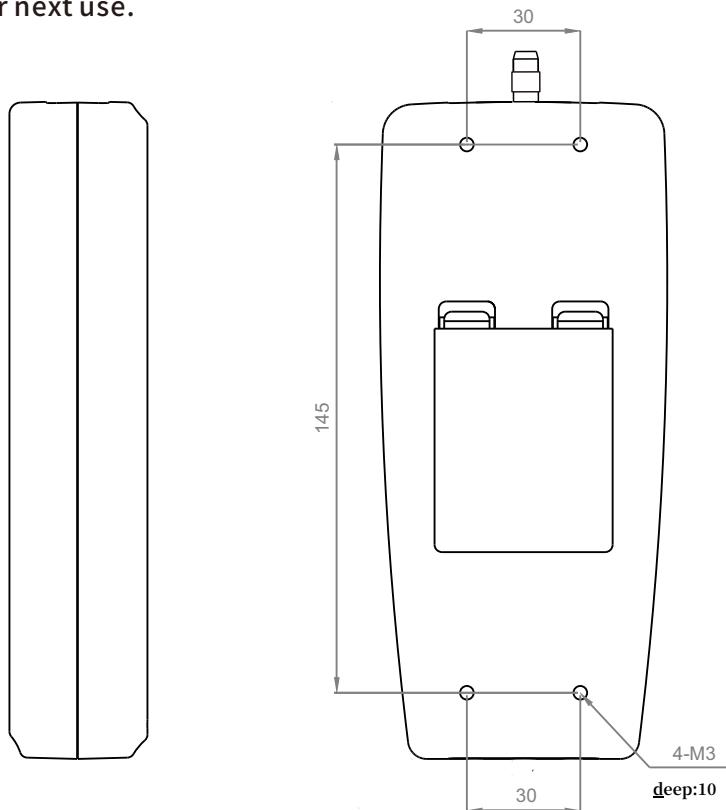
9. Installation and testing

After startup, test directly using the factory default Settings as required or select the test mode by pressing the operation button.

A. Select the appropriate test fixture for the connector and install it on the tester (please refer to the relevant data in the following "Appearance and Installation Size Drawing" for self-made fixture).

B. Please firmly hold the tester or install the tester on a suitable testing machine for testing. During the test, please make the tested force and the push-pull rod of the tester into a straight line, so as to measure the accurate load value.

C. After the test is completed, unload the load, turn off the power, remove the fixture, clean each object and put it back in the tool box for next use.



Outline and installation dimensions

1. Introduction

FG-104pb is my company's latest design and development of a pedal force hand brake force tester. It has the advantages of high precision, easy operation and convenient carrying. With a variety of test bench and fixture combination can constitute a different use of testing machine.

The user can select the instrument with the corresponding specification according to the force value of the required test product. Scientific use of the test range is 10% to 100% of the full range, the metrology department recommended not to use less than 1% of the full range. At the same time, after the instrument and the object to be tested are in place before the test, press the ZERO(ZERO) key to clear the ZERO to eliminate the weight of the fixture.

Plate force control force tester is used to measure the brake pedal force of various motor vehicles Value and parking brake force value of the test instrument, the whole design is easy to control, The instrument is automobile, agricultural machinery factory, automobile comprehensive performance testing, scientific research Department, road traffic department, agricultural machinery safety supervision department, the ideal of the army Testing equipment and the ideal teaching equipment of automobile in colleges and universities.

2. Functional features

- * High precision and high resolution.
- * Digital display, ignore the difference.
- * N(Newton), kg(kg), lb(pound), three measuring units for choice, mutual conversion.
- * Peak hold function. Maintain peak display until manually reset.
- * Can be powered by alkaline batteries; It can also be connected to 5V DC power supply.

3.Specification

Model	FG-104PB
Force Rang	100kgf
	±1000N
	±220Lbf
Resolution	0.01kgf
	0.1N
	0.1Lbf
Accuracy	±0.5%FS ± 1Digit
Unit	kgf, gf, N, Lbf
Measurement State	Peak Value Measurement, Real Time Measurement
Display	2 Reversed 4 Digit LCD
Size	host machine:211mmx80mmx36 mm
Backlight	Backlight
Safe Load	150%FS (Buzzer Alarm Over 110%FS)
Power Supply	2x1.5 AA(UM-3) Battery or 5VDC Power Supply
Operating Conditions	0°C~40°C < 80%
Surrounding	No Vibration Source or Corrosive Medium Around
Weight	390g

press the POWER/ Return key (POWER/EXIT) to start the battery.

5.2 Instrument shutdown

5.2.1 Manual shutdown

In the startup state, press and hold the POWER/EXIT key (POWER/EXIT) for about 2 seconds, release the key when "OFF" appears on the monitor, and the instrument will shut down.

5.2.2 Automatic shutdown

When the instrument has no button operation within 10 minutes, it will automatically shut down.

6. Instrument zero calibration

According to the requirements, after the instrument is installed at the measuring position, press the ZERO key (ZERO) to adjust the ZERO, the display shows the value of 0.

* When the weight of the fixture used exceeds 20% of the range or the load of the machine exceeds 20% of the range exists, press the zero key can not clear, at this time, you need to choose a lighter fixture or remove the added load, and clear again.

7. Real-time measurement mode and peak holding mode

The instrument can be set up in two measurement modes, real-time measurement mode and peak holding mode. When there is no peak indicator "MAX" on the display, it is in real-time measurement mode, and the test value changes with the change of load; Press the PEAK key (PEAK) to display the PEAK indicator "MAX", which is in PEAK retention mode. The test value shown is the maximum value in the test.

8. Unit conversion function

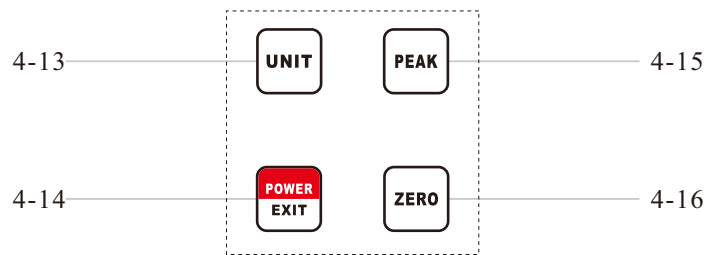
In real-time measurement mode or peak holding mode, press the UNIT key to realize the conversion of measurement UNIT.

When MAX. Is displayed, it indicates the peak holding mode, and the screen displays the peak value. If MAX. Is not displayed, it indicates the real-time measurement mode. The value displayed on the screen changes with the load.

4-12 Units of measurement

Indicates the current measurement unit, including KGF, N, and LBF. Only one of these units is displayed.

4.3 Operating Buttons



Operating Buttons(4)

Function description of key operation

4-13 UNIT Key

It is a unit conversion key for unit conversion operations.

4-14 POWER/ Return button (POWER/EXIT)

It is the switch button of the instrument.

PEAK Key (PEAK)

It is a switch button between peak holding mode and real-time measurement mode.

4-16 Adjusting the ZERO Key (ZERO)

Instrument zero operation button.

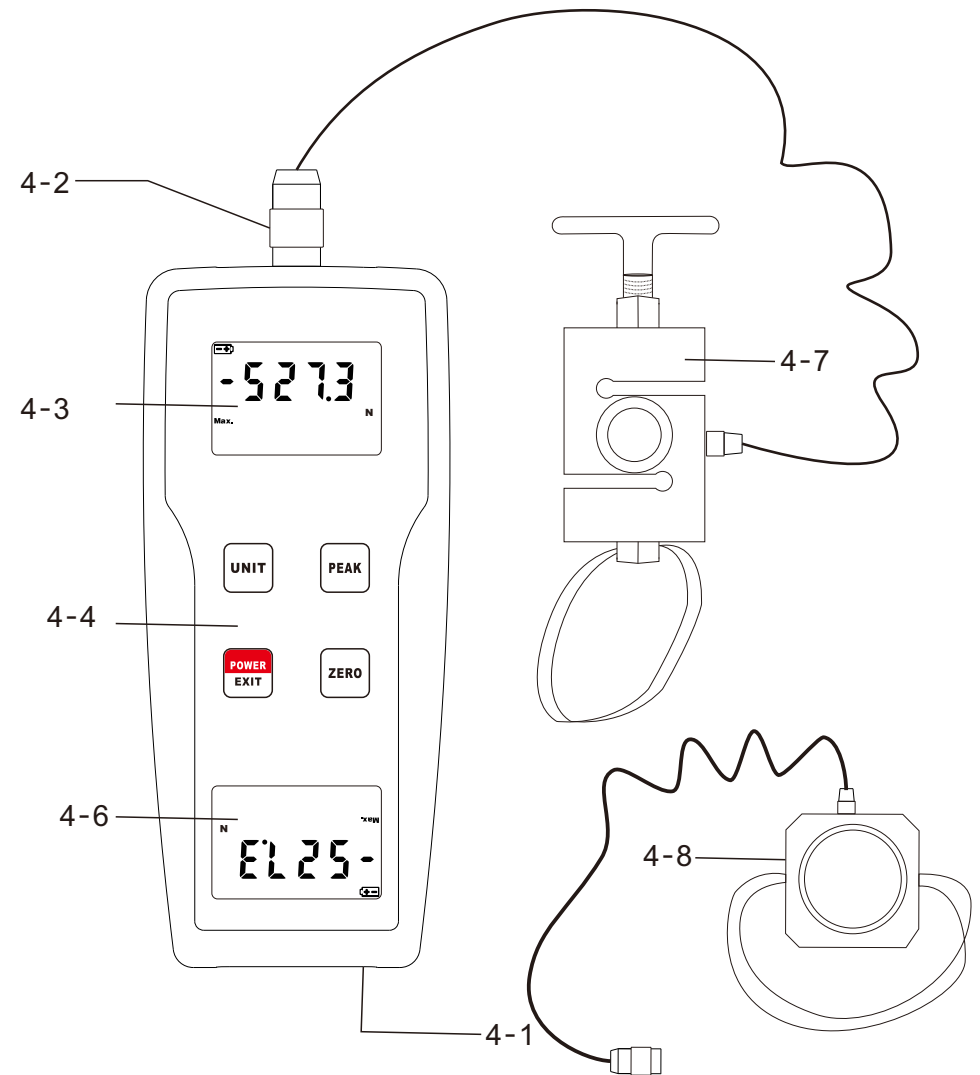
5. Startup and shutdown of the instrument

5.1 Startup of the instrument

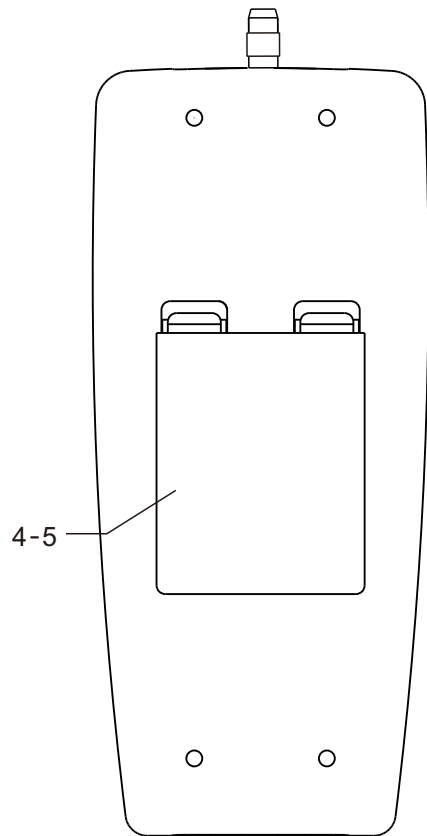
After installing the battery or switching on the AC POWER supply,

4.structure specification

4.1 extensional organization



structure chart (1)



structure chart (2)

Structure and Function description

4-1 Power port

Can be connected to 5V DC power supply to achieve DC power supply.

4-2 sensor plug

Used to connect the host to the sensor.

4-3 display A

It is used to display the measurement reading, measurement unit, prompt information during operation, etc.

4-4 Operate the key area

All the operation keys are distributed, and the whole instrument's key operation is done here.

4-5 Battery box on the back

The place where the battery is installed is powered by the battery.

4-6 display B

It is used to display the measurement reading, measurement unit, prompt information during operation, etc. Its main Function is to facilitate reading in multiple directions.

4-7 Hand brake force measurement sensor

It can transfer the received force information into electrical signals to the host.

4-8 Pedal force measurement sensor

It can transfer the received force information into electrical signals to the host.

4.2 Display



DISPLAY (3)

Display function Description

4-9 Battery indicator " "

If the battery voltage is too low, " " appears in the upper left corner of the screen, indicating that the battery voltage is insufficient and the battery needs to be replaced.

4-10 Measurement values

In this unit, the pedal force (pressure) defaults to a positive value ("+" is not displayed); The handbrake force is negative by default (display "-").

4-11 Peak indicator MAX.