

CITIZEN

Portable vehicle weighing system
Install handbook

Citizen Scale Inc., U.S.

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Figure 1: Printed Report

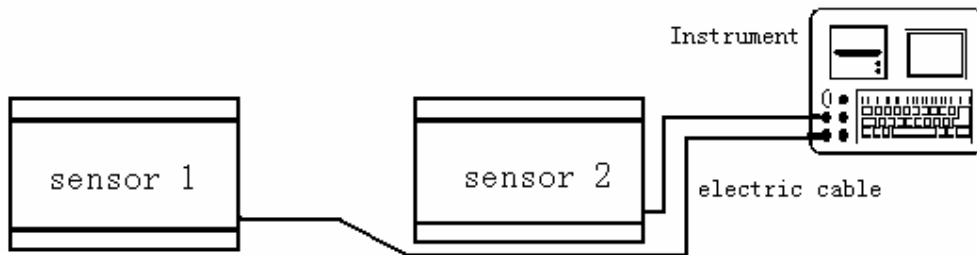
Figure 2: Charge To The Instrument

Chapter 1 Brief Introduction

Section 1

About The System

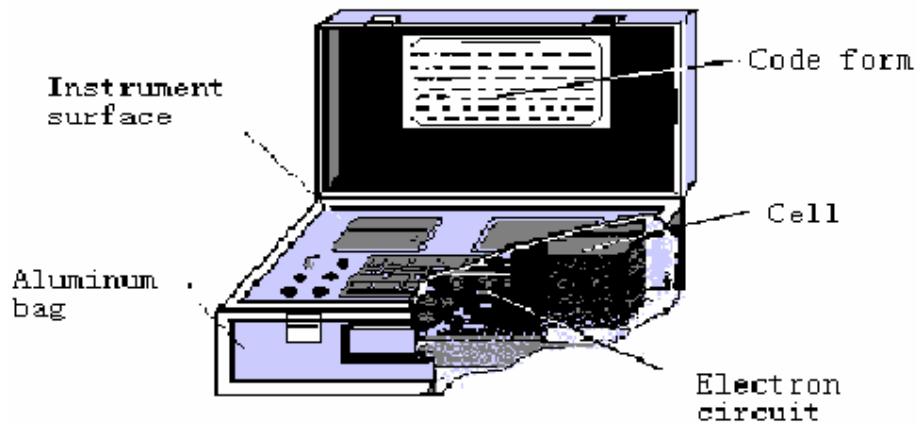
System form : The system is made up of instrument, sensor 1, sensor 2, signal cable and charger.



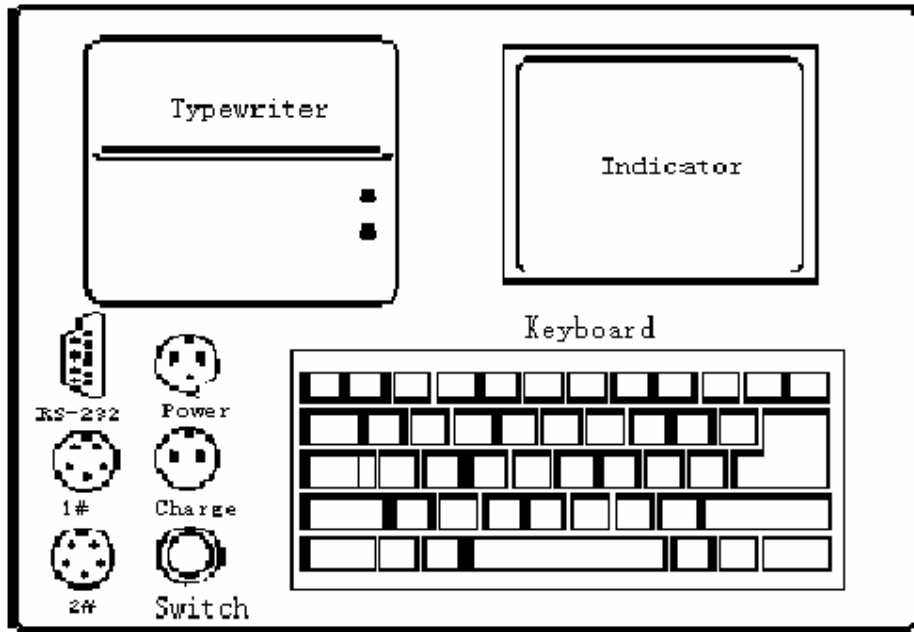
Section 2

Instrument

◆The instrument is made up of aluminum box, battery, display screen electronic circuit and printer, as follows:



The introduction of Control-Board is as follows:



{ON/OFF} Turn on and turn off the instrument.

{1#, 2# Sockets} Connected with the sensor 1 and sensor2.

{RS-232 Output} Communicated with the computer.

{Display Screen} Displaying the main menu, pointing out to operation including function selection, parameter setup, and displaying inspected report, data inquiring and statistics and so on.

{Printer} Printing vehicle I.D No, inspection date/time, total weight, overload, overload proportion, and inspection department.

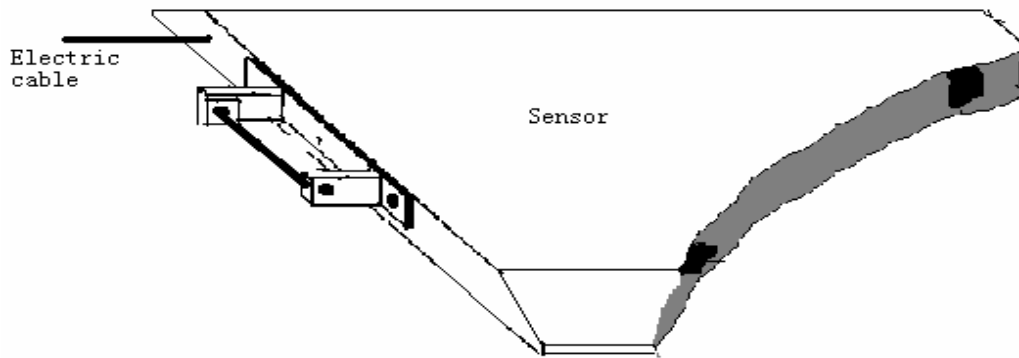
{Charging Socket} Connected with the charger to charge the instrument.

{Keyboard} Operation button.

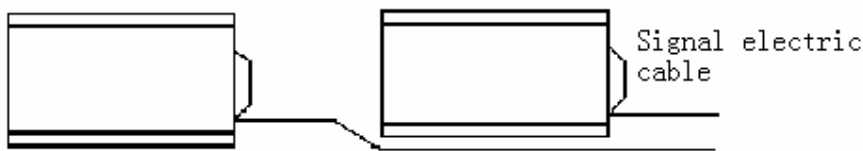
Section 3

Sensor

● The system includes the two sensors (WEIGHPADS) , as follows:



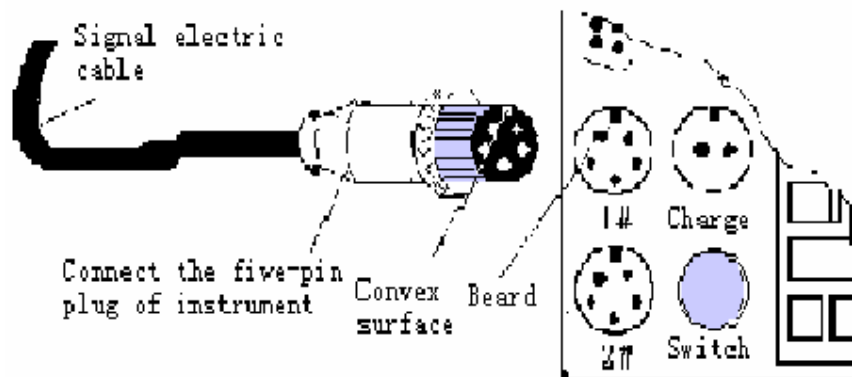
- Signal cable adopts metal protection.



Section 4

Cable connection

- Let the signal cable connect with five-pins socket of the instrument.



Chapter 2

System Assembly

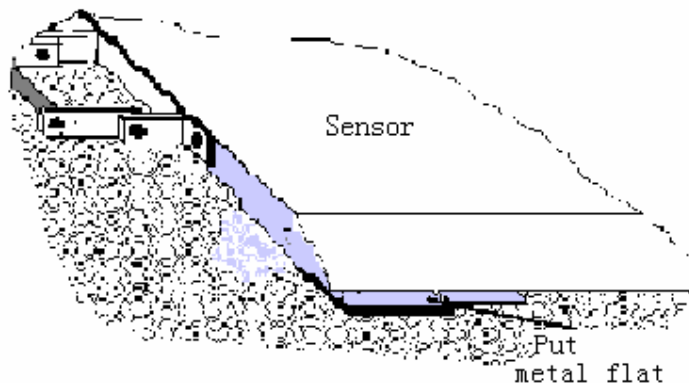
Section 1

Notions about the system assembly and use and

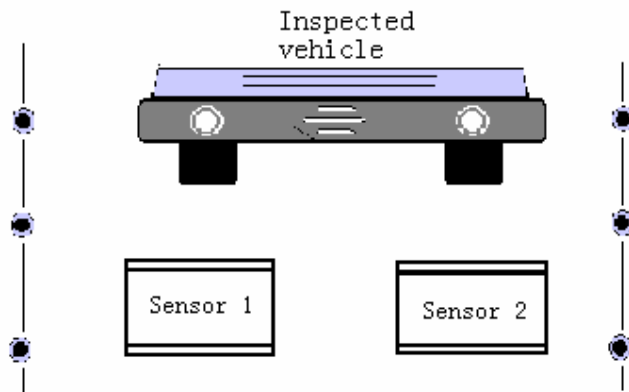
maintenance.

Please read the rules as follows, install and use the system correctly, otherwise effect the weighing precision, even breakdown the system parts, about the more detail information please read the section 2 of the chapter.

1. Choose a wide smooth and solid road surface and the most right cane. Prohibit using in the inclined plane.
2. Adjust to the distance between sensors and make the wheel of the vehicle pass through the center of the sensors.
3. Make the Sensor contact with road surface fully, when a person stand on it, it doesn't shake and stick up (otherwise use thin metal flat to level it).



4. Use some red marks to guide the inspected vehicle, the distance between the inspected vehicle and the place in which the instrument is put must be more than 30 m. The position of the set and the inspected vehicle is as follows:



5. The place put Instrument is away from road 3-5m, to pledge operator to see the axle type of the inspected vehicle clearly.
6. Driving speed must be $\leq 3\text{km/h}$ and pass through the sensor and keep in the speed, not to be stopped on the sensor.
7. Not to be used in the corrode environment or in water.
8. It must be care to carry the instrument.
9. After using the instrument, it must be kept in clearly.
10. If the instrument isn't used for a long time, it must be to turn on it every month and 8 hours each time and the electric power is not enough, it must be charged more than 3 hours to protect the battery and the way to charge the instrument can be see in figure 1.

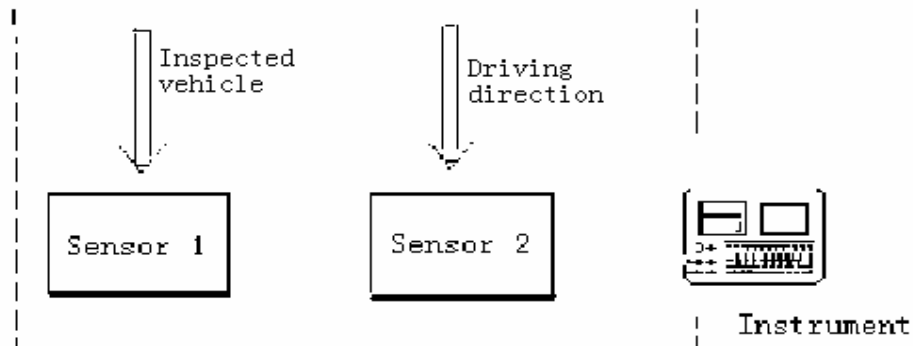
Section 2 System Installation

- 一、 Sensor installation: The good or bad of Sensor installation effects the inspected precision directly and you must read as fellows specially:
 - (1) If it meets the use demand to the road surface.

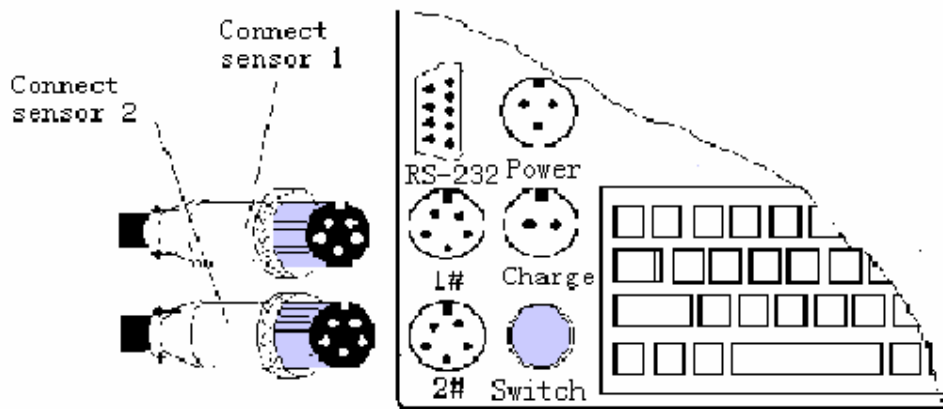
(2) If the position of the sensor and the instrument is satisfied with the use demand.

(3) If the sensor contacts with road surface.

When installation, the signal cable plug of the 1# and 2# sensor must



be inserted in the 1#, 2# socket of the instrument respectively as follow:



Instrument connect signal electric cable

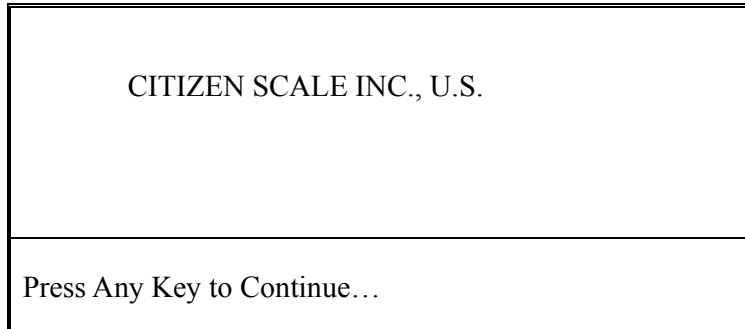
By now the installation has been completed.

Section 3

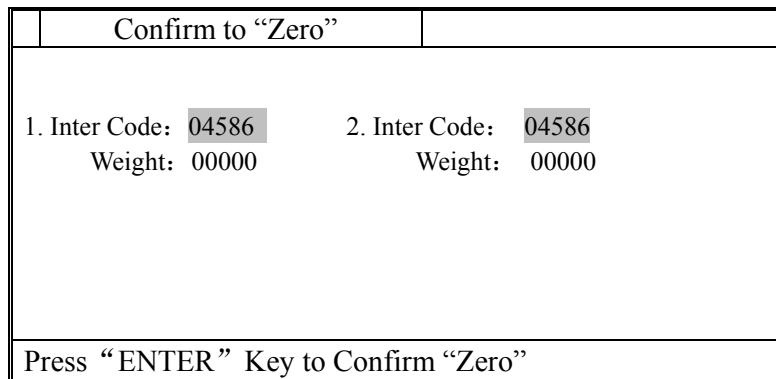
Operation

(I) Turn on the instrument

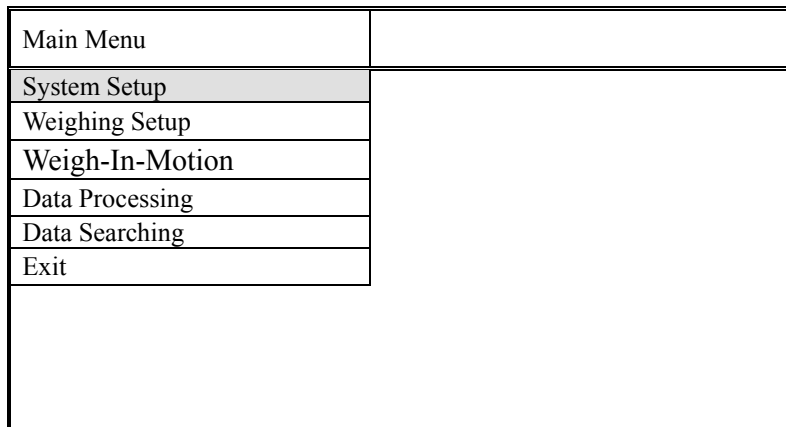
Press the switch lightly, the system starts and inspects itself, (after several second) can hear a beep, the screen will display as fellows:



Press any key to continue, input password “8888”, then press “Enter” to come into the “Zero” screen, as fellows:



Press “Enter” to come into main menu screen as fellows:



(I) Main menu operation

The main menu includes the six branch menus.

(1)System Setup

(2)Weighing Setup

(3)Weigh-In-Motion

(4)Data Processing

(5)Data Searching

(6)Exit

Move cruiser to choose item, the selected item will be introduced as follows:

(1) System Setup

Main Menu	
System Setup	Current Status
Weighing Setup	Weigh-pad Assembly Mode
Weigh-In-Motion	Operation Mode
Data Processing	Static Weighing
Data Searching	Print Setup
Exit	Date/Time Setup
	System Calibration

Move the cruiser to System Setup with “↑ ↓”, press “Enter” to come into the branch menu (see picture), includes the current status and operation mode and static weighing and so on, they had been finished before out of factory and can be changed according to the demand of

yours.

(2) Weighing set up

Move the cruiser with “↑ ↓” to “Weighing Setup ”, press “Enter” to come into the branch menu as follows:

Main Menu	
System Setup	
Weighing Setup	Current Status
Weigh-In-Motion	Operator
Data Processing	Department
Data Searching	Route
Exit	Bill No.
	Version Select
	Min-Range Setting
Press ↓ or ↑ to Move Cruiser, Press ENTER to Select Item.	

You can input the name of the operator and the department of checking and the checking route and so on.

(3) Weigh-In-Motion

Move the cruiser with “↑ ↓” to “Weigh-In-Motion ”, press “Enter” to come into “Weigh-In-Motion” screen as follows:

Date/Time		Bill No.	
Vehicle I.D	Speed	Vehicle Type	
Axle Group	Axle Grp. Weight(Kg)	Axle Grp. Limited(Kg)	Over Limited(Kg)
Axle Grp. 1			
...			
Total Weight		Axle Overload Sum	
Total Limited		Over Total Limited	
<div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px 15px;">Last</div> <div style="border: 1px solid black; padding: 5px 15px;">Next</div> <div style="border: 1px solid black; padding: 5px 15px;">Print</div> <div style="border: 1px solid black; padding: 5px 15px;">Weight</div> </div>			
ESC--Return, TAB—Function Select.			

Press “Enter” key, the cruiser flash of light in the grid in which you input the vehicle I.D, then press “Enter” and the cruiser move to the next grid in which you input vehicle type according to the “Vehicle Type Code”, press “Enter” and the cruiser move to the next grid in which you input “Total Limit”, press “Enter” and the cruiser move to the next grid in which you input “Load Limit” and press “Enter” the system display “It’s Weighing...”on the bottom of the screen as follows.

Date/Time				Bill No.	
Vehicle I.D	ER7890	Speed		Vehicle Type	12
AxleGroup	Axle Grp. Weight(Kg)	Axle Grp. Limited(Kg)	Over Limited(Kg)		
Axle Grp.1					
...					
Total Weight			Axle Overload Sum		
Total Limited	10000	Over Total Limited			
<input type="button" value="Last"/> <input type="button" value="Next"/> <input type="button" value="Print"/> <input type="button" value="Weigh"/>					
It’s Weighing, Press ESC to Exit.					

Let the inspected vehicle to pass through the sensor and keep in

Date/Time	2002.03.05. 10:09			Bill No.	00000188
Vehicle I.D	ER7890	Speed	5km/h	Vehicle Type	12
AxleGroup	Axle Grp. Weight(Kg)	Axle Grp. Limited(Kg)	Over Limited(Kg)		
Axle Grp.1	4000				
...					
Total Weight	14035	Axle Overload Sum			
Total Limited	10000	Over Total Limited	4035		
<input type="button" value="Last"/> <input type="button" value="Next"/> <input type="button" value="Print"/> <input type="button" value="Weigh"/>					
It’s Weighing, Press ESC to Exit.					

3km/h, the screen will display as follows: and the printer will print the inspected receipt immediately.

The printed receipt form can be see in figure 1.

Press “Enter” to come into the next inspection.

(4) Inquire About The Stored Data

You can use the two methods to inquire about the stored data.

(a) Inquire in “Weigh-In-Motion” screen with “Tab” and “↑ ↓” .

(b) Move the cruiser to the grid of “Inquire About Data” in main menu and press “Enter” and the screen display the branch menu as follows:

Main Menu	
System Setup	
Weighing Setup	
Weigh-In-Motion	
Handle the Storage Data	
Search the Storage Data	According to Bill No
Exit	According to Vehicle I.D

And inquire the data according to the Ticket No or vehicle I.D.

Chapter 3

Fix the breakdown

[Trouble 1] The instrument can't display the correct weight of the inspected vehicle in “weighing-In-Motion”.

The inspected vehicle may be too light or the driving speed too fast.

Notion: The load of a axle must be greater than 300 kg and the driving

speed must be lower than 3km/h and the best is keeping in 3km/h when the inspected vehicle passing through the sensor and along the center, otherwise the weight of the inspected vehicle will be fraudulent.

[Trouble 2] The printer cannot the report list. The Vehicle Type code was wrong or without paper, and input the correct code again according to the code list, and replace the paper please see the specification of the printer.

[Trouble 3] Not turning on the instrument. The power of the battery is not enough to start the instrument, please charge to the instrument more than 8 hours.

Notion: If the other hitch occurs, please take a call to the Agency.

Section 2 Statement About The System

If the functions and parameters of the system have been upgraded, the manufacture will not give some notice.

Figure 1:

Report list

No. 0000059

Date/Time: 2002-12-21 09:05

Vehicle No. : ER3679

Number of axle: 04

Total limit: 10000kg

Total (Gross Weight): 14035kg

Loaded Limit: 5000kg

Overloaded: 4035kg

Overloaded proportion: 80.7%

Good Weight (Net Weight):

Punitive Money:

Driver (sign):

Inspector (sign):

Department (sign):

Figure 2: The picture that charges to the instrument

