

**3D WHEEL ALIGNMENT**

**OPERATOR MANUAL**

# INDEX

<b>§ 1 The settings of the program.....</b>	<b>2</b>
1.1 user settings.....	2
1.2 información de taller de reparación.....	3
1.3 interface settings.....	3
<b>§ 2 Software Function.....</b>	<b>4</b>
2.1 login home page.....	4
2.2 data selection.....	5
2.3 select measurement items.....	7
2.4 Push and pull measuring process.....	8
2.41 measurement of wheel alignment.....	9
2.42 kingpin measure.....	10
2.43 Front and rear wheel adjustment.....	12
2.44, save, and print results.....	16
2.5 Auto size measurement.....	17
2.6 vehicle diagnosis.....	18
2.7 standard vehicle data.....	19
2.71 Select manufacturer.....	19
2.72 select vehicle type and date.....	22
2.73 edit standard data.....	26
2.8 customer information.....	27
2.9 parameters setting.....	29
2.10 the camera field of vision.....	30
2.11 data updates and backup.....	31

# § 1 The settings of the program

Welcomes the use of the software, in front of a specific function, which is more convenient and accurate use of the software, we know the basic settings of the software,

## 1.1 user settings



► Login successfully into the home page interface, as shown in the following figure, home page on login and other information as described in section 2.1 "log home"

Figure 1-1

► Click on icon  to enter the account settings window:

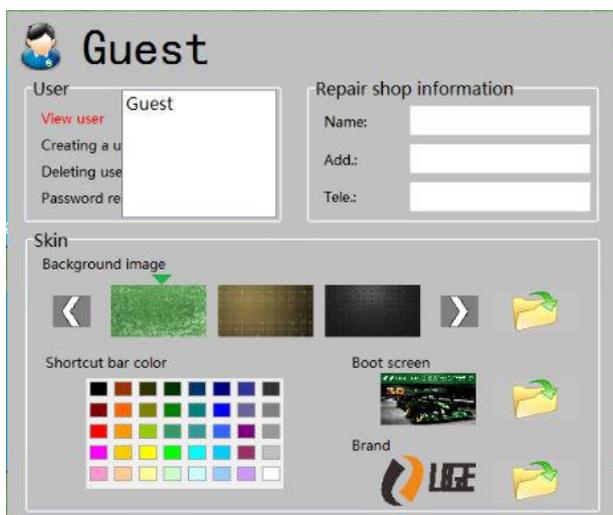


Figure 1-2

► Is shown in Figure 1-2: "Guest" for the program's default account without user-created, can not be deleted. In practical use, for purposes of data security and ease of management, and in general we do not recommend using the default account operations. So here we recommend to create your own account



► Create account: click on the "create a user", this interface, in user name, enter your new account name, enter your new password in the password box, and then click

on the bottom, after exiting the program can use

the new account to log, and

click "check users" can also look to the new account that you created.

► Delete account: click “delete user”, select the user you want to delete in this interface click 

on the button below.

**Note: deleted user cannot delete the default Guest account as well as the one currently logged in account.**



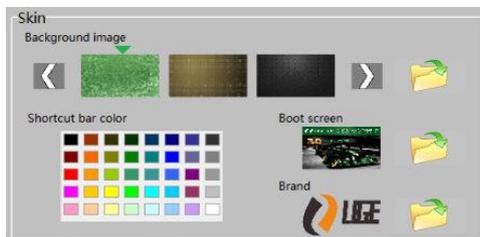
► Password reset: click "password reset", appeared interface, in old password box within entered current is using of password, to this to confirmed identity, entered new password Hou click, that modified password success, if in login interface hook selected has save password, after modified password, program will automatically save new password, in you login next time of when without again entered new password on can directly login, you to do of is don't forget you of new password.

### 1.2 repair shop information



► Directly in the interface in Figure 1-2 enter the relevant information. Also can be directly modified, blank the content that is to remove the information.

### 1.3 interface settings



► In the figure of 1-2 the following interface

► Set the background colors to choose from the program's own picture and click



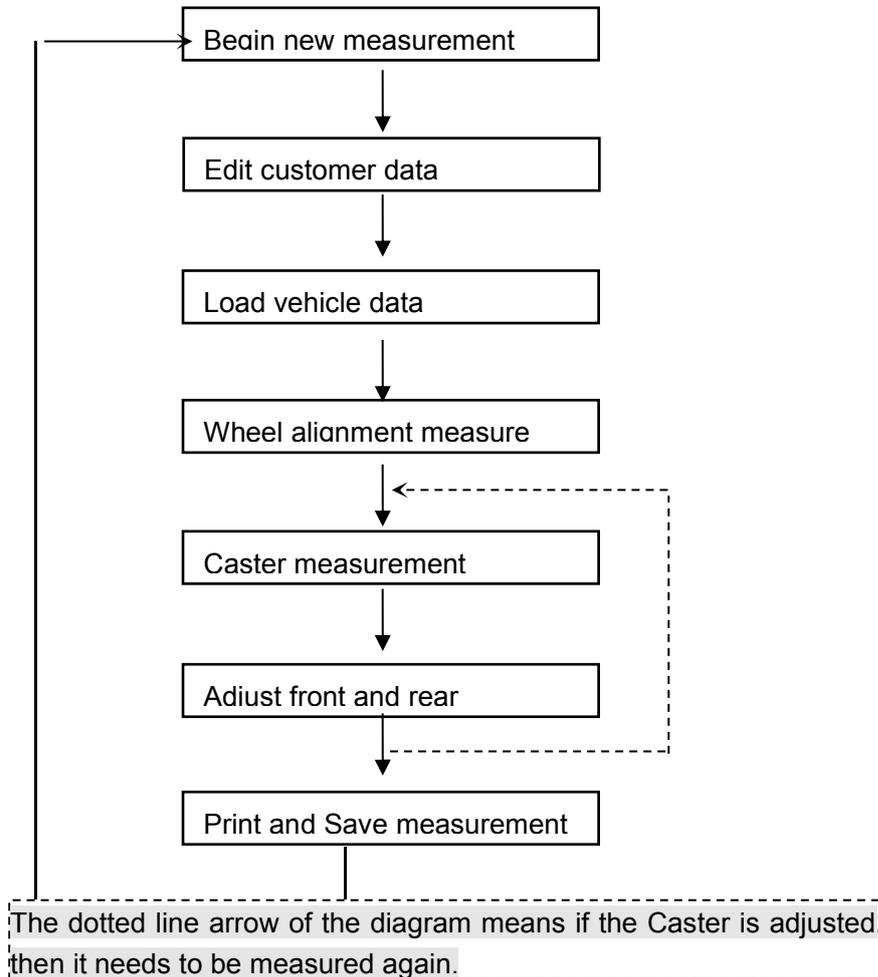
on the button, you can customize your favorite picture.

► Shortcut bar color options determines the color of the navigation bar on the left.

► We can set the background color the same way to set splash image and brand, the only difference is that the boot image and does not have its own brand program gives a different picture.

## § 2 Software Function

This chapter to you about a typical wheel alignment measurement, adjustment of the required processes and functions of the software. As shown in the following figure is a complete orientation to the relevant components.



### 2.1 login home page

- ▶ Open the software, you can see the login screen, as shown in the following figure.
- ▶ Select account, enter your



password. If you want to not re-enter the password at the next landing, you can select “save the password”, and then click  to enter the program, click  to Exit.

Figure 2-1

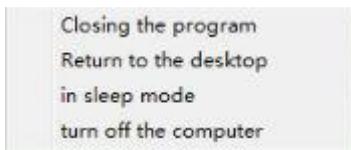


► Log in successfully entered the home page shown in the following figure

Figure 2-2

► After entering the home page, you can see six options, as well as several

icons at the top right,  is the power button, click on the pop-up menu click on the "close program",



can quit the program, you'll see prompts. "Return to your desktop" minimized programs. Click on the "sleep mode"



you can pause the camera work, light Board also enters power saving mode, in five seconds, the program reduced to the lower-right corner, the left mouse button double click on this figure is out of hibernation mode and return to normal mode.

 is user settings, details

please see **Chapter 1.1** the user settings.

► Log in successfully after entering the home page click on "measurement of wheel alignment" will display "customer information interface".

## 2.2 data selection



► Click on measurement of wheel alignment button to enter, enter customer information (customer number without typing, automatic generation, additional information needs to be entered manually) as shown in Figure:

Figure 2-2-1





Figure 2-2-5

### 2.3 select measurement items



Figure 2-3-1

► Select model interface click next to enter to select measurement items interface (as shown in the following figure):

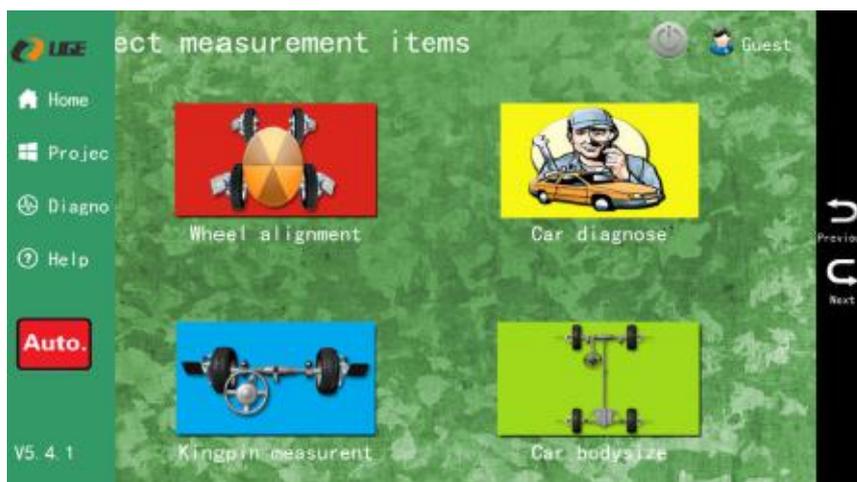


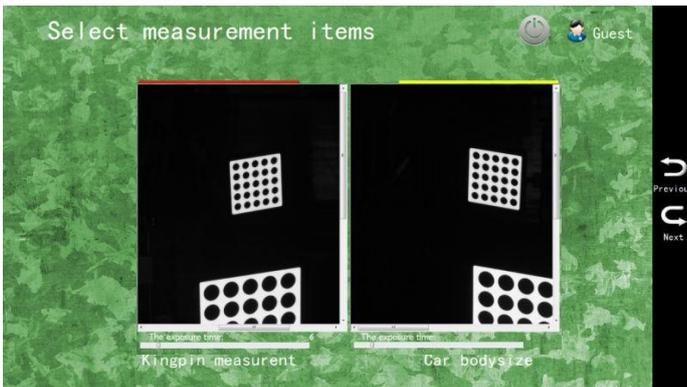
Figure 2-3-2

► This interface by moving your mouse to the left side of the screen, the following screen will pop up:

► In "select measurement project" and "Front, and Rear data adjustment" and "KPI measurement" interface in the left navigation bar will exist button **Auto.**, this button for control beam of automatically track function, dang this icon for red when representative automatically track close, at lifts can by automatically lifting handles control, click this button opened automatically track, icon will into

green **Auto.**, initial using automatically track need by lifting equipment of handles makes software found target disc, next will can automatically track, aluminum beam will with lift rose machine of lifting and lifting. In this icon interface, turn on or off automatic tracking, you can choose whether to automatically adjust the height manually adjustable height, in the absence of this interface, we are unable to adjust the height, or by lifting the handle is useless.

► Any interface do this interface will pop up (not the same where there maybe differences in the contents of the navigation bar on the left), we can at any time click on the "home" back to the home page interface, click on the "project" is the return to this interface, click on "help" to get help information.



► Before the measurement starts, we need to click on "diagnose" button to check the target detection, and adjust the left and right camera exposure time, adjusting the method for using the mouse to drag the cursor in a red circle (of course, we can do at any time! Effect as shown in the figure below)

Figure 2-3-3



► In the "select items" screen click on the button, enter 4 wheel alignment measuring interface.

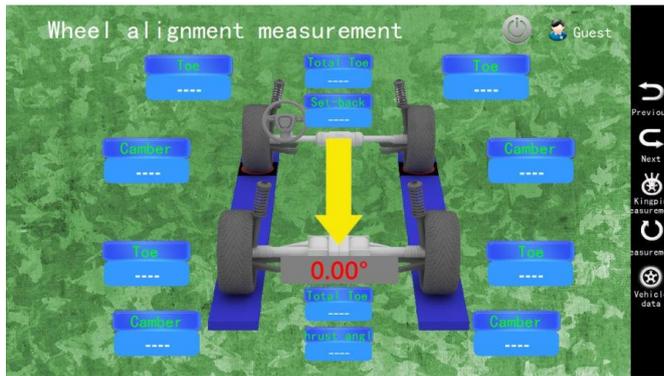
## 2.4 Push and pull measuring process

► First prompt preparation before measurement, check the tire pressure and the following need to be aware of what to do.

### **Note:**

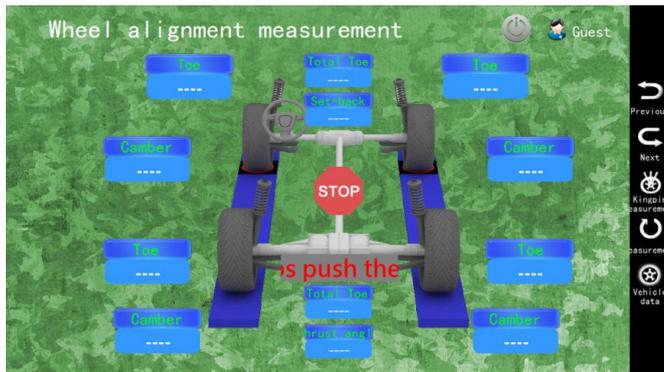
1. the preparation, to unplug the plug from turntable, then caught front pull down, making car tires and chassis to relax and then plug in the plug.
2. play is to use steering wheel wheel retainer lock.
3. in front of the cart, fixture must hang vertically in the tire on their.
4. reach after two stops, to avoid shaking the car.
5. push back, stop instructions appear, avoiding cars parked between -0.3 and 0.3 degrees.

## 2.41 measurement of wheel alignment



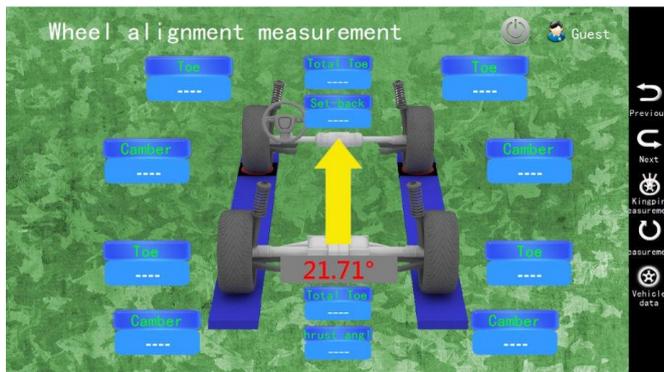
► Enter the cart measuring interface, the slow uniform cart tips back in the direction of the arrow, as shown in the following figure:

Figure 2-4-1



► According to the angle shown above, trolley back to around 20~25du, tipsto stop, as shown in the figure:

Figure 2-4-2



► Tips out when the cart forward, uniform cart slow according to the arrow direction, as shown in the following figure:

Figure 2-4-3

► Cart to forward-1~1°, and then prompts you to stop, as shown below:

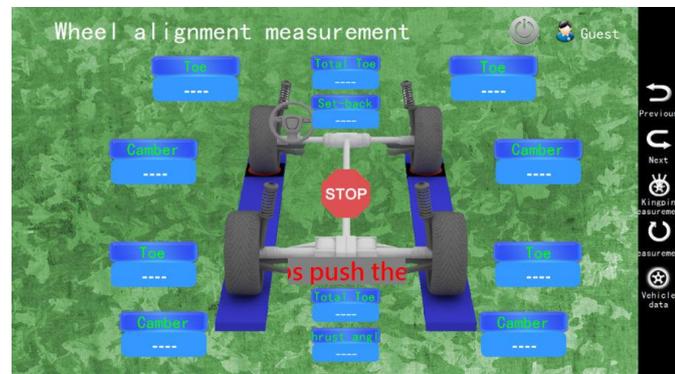
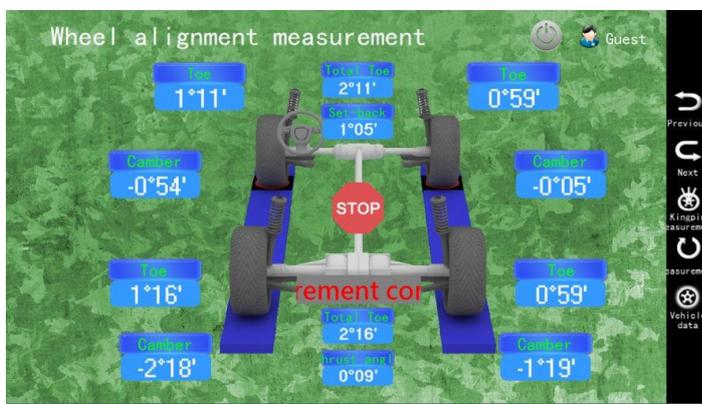


Figure 2-4-4



► Cart complete, awaiting the results of m

measurements, measurement results are obtained. As shown in the following figure:

Figure 2-4-5

- ▶ When the cart after the measurement is completed, click  on the button to recalculate the time, repeat the above process.
- ▶ Click  on the rear wheel adjustment data pages, please see section 2.43 front wheel adjustment data

### 2.42 kingpin measure

Click  on the button to enter the kingpin inclination and caster angle measurement interface, as shown in the following figure:

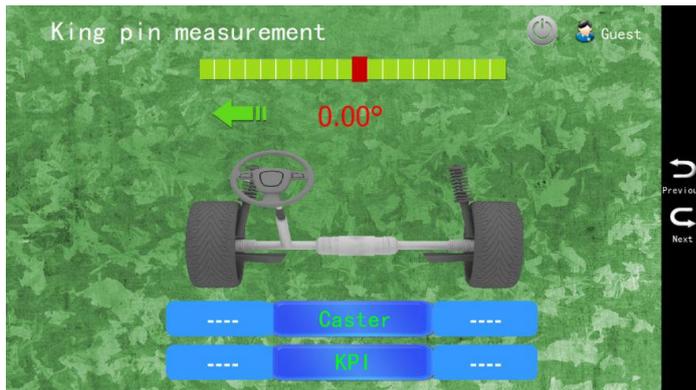
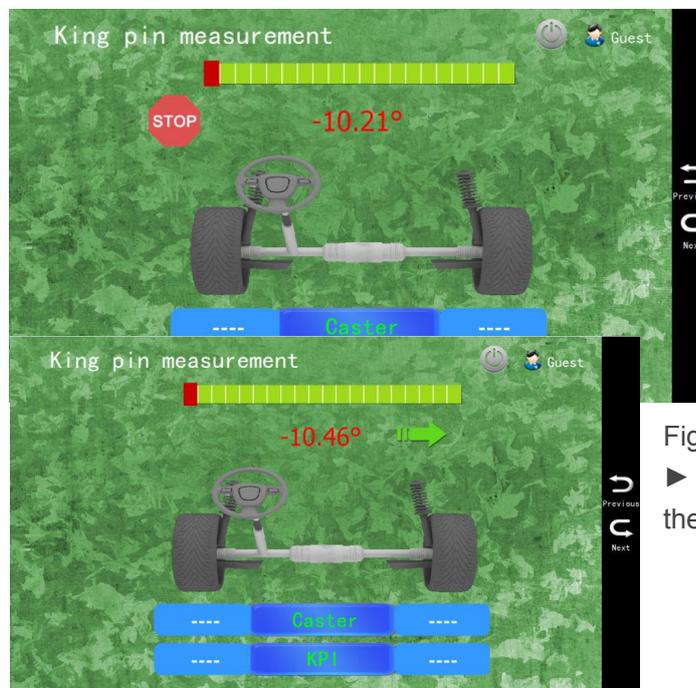


Figure 2-4-6

- Note:**
1. unplug the turntable bolted, and adjust the left and right front wheel to the front direction.
  2. tighten the hand brake.
  3. brakes immobiliser lock the brake.



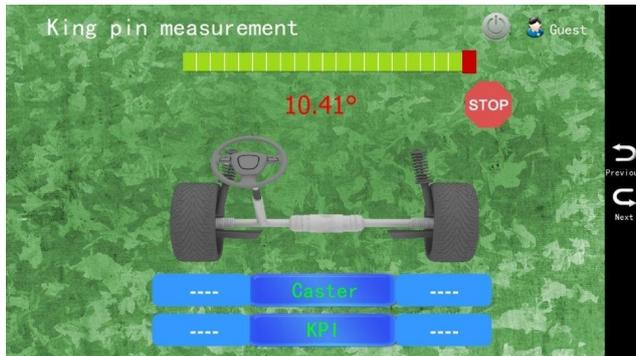
- ▶ Turn the steering wheel to the left as per the tip of the arrow until the arrow appears to the right.

Figure 2-4-7

- ▶ Then follow the tip of the arrow turn the steering wheel to the right , as shown in

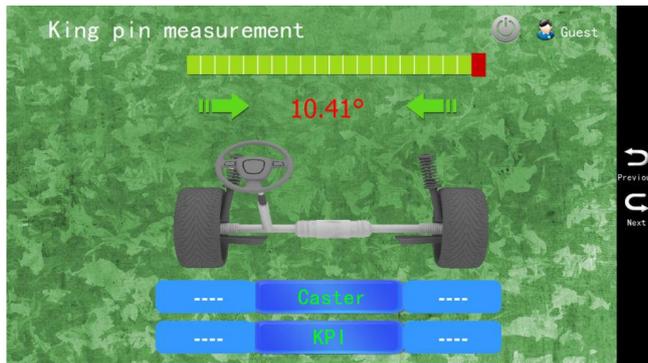
the photo:

Figure 2-4-8



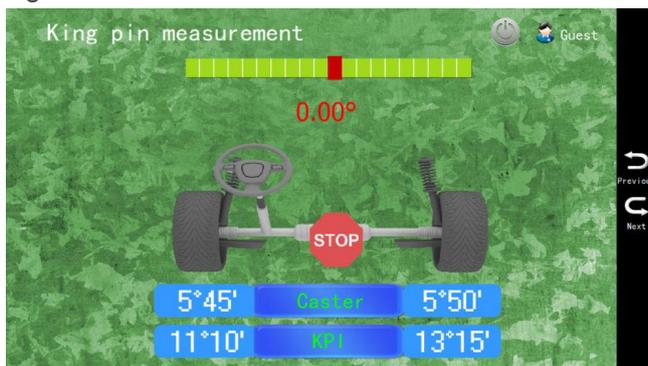
► Turn the steering wheel to the right till the “stop” appears:

Figure 2-4-9



► King pin readings comes out after the measurement, put the steering wheel straight.

Figure 2-4-10

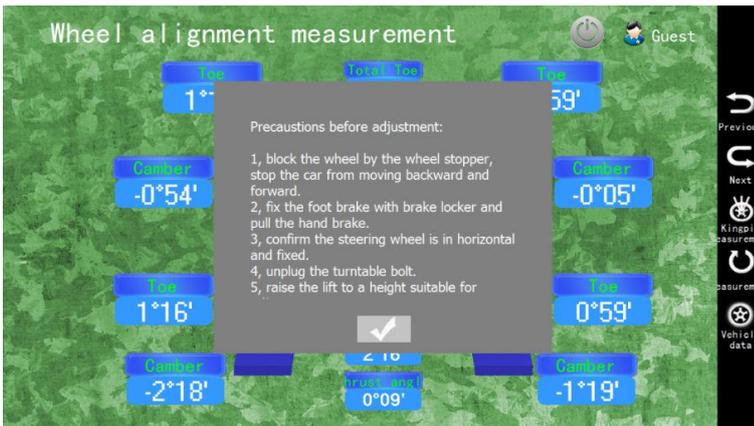


► Measurement over after the “stop” appears. As shown in photo:

Figure 2-4-11

► Click  to enter the front wheels adjustment data interface, for details please see the next section 2.43

## 2.43 Front and rear wheel adjustment



► Rear wheel adjustment data, interface or in the cart is complete "vehicledata

view" screen click 

Prompt screen appears as left:

Figure 2-4-12



Click on the  Enter the OK button, Rear wheel adjustment data the interface will appear:

Figure 2-4-13

Rear wheel adjustment interface, based on the real time data to adjust the rear camber and rear toe.

- The adjustment aims to detect the vehicle parameters adjusted to the standard.
- Click on the navigation bar on the left side of the "help" button for more rear wheel adjustment data how-to video related information.
- Some vehicles not convenient to adjust, we need to adjust camber after the tire removed, at this



time click

Enter the lift adjusting interface:



Figure 2-4-14

- The adjustment of lift can be divided into three steps:

1. lift adjustment;
2. adjust the data.
3. put down the rear wheels.



► When the rear wheel is lifted and click the button , enter the second interface, as shown in the following figure:



Figure 2-4-15

► Click on the button, enter the step interface:



Figure 2-4-16

► Click



on the button , return to rear-wheel interface. In the "rear wheel adjustment data" interface, click



on the button to enter the "front wheel adjustment data" interface, as shown in the following figure:



Figure 2-4-17

► On above interface, click on the navigation bar on the left side of the "help" button, you will find the adjustment video for the reference.

**! Note:** 1. adjust the front wheel, first fixed the brakes and vehicle steering

wheel and lock the steering wheel with fixed

devices, then unplug the turntable bolted on, begin to adjust toe-in and Camber.

2. Adjust the camber adjustment of the order is the first and then toe. Then adjusted according to the changes in the data on the screen in the vehicle front wheel data.

► Click button  for measuring kingpin, this content is described in section 2.42 kingpin measure.

► Button  is specially for Audi and Volkswagen vehicles of special chassis design,

Which will takes you to the interface:

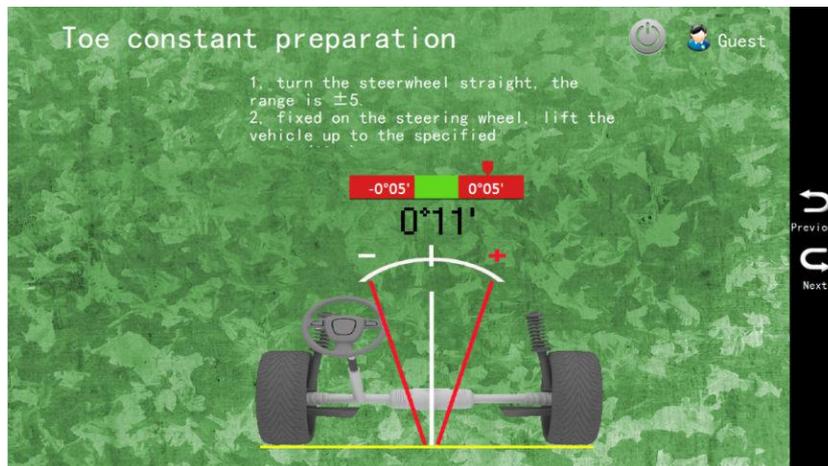


Figure 2-4-18

► Preparations for adjusting the toe curve

1. first hit the steering wheel, coverage must be within plus or minus 5 points.

2. fixed steering wheel, body lift with a tool to 60mm.

3. next, Shu Heng before starting the adjustment value.

► Click on the button  to the interface as below:

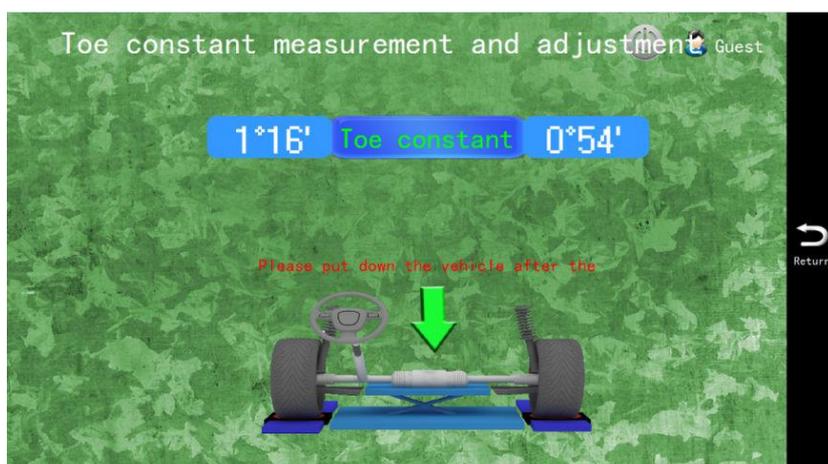


Figure 2-4-19

► Follow the instructions in the screen set to a value within a constant(indicator icon to the green range).

If not please return to the previous interface just right, repeat the adjustment finished, put down the body.

► The principle with rear wheel, we click on the button  below to enter the front wheels lift screen:



Figure 2-4-20

► Enter the lift adjusting interface, first prompted to lift the front

wheel, after you complete this step, click on the button  to the next step as shown in Figure:

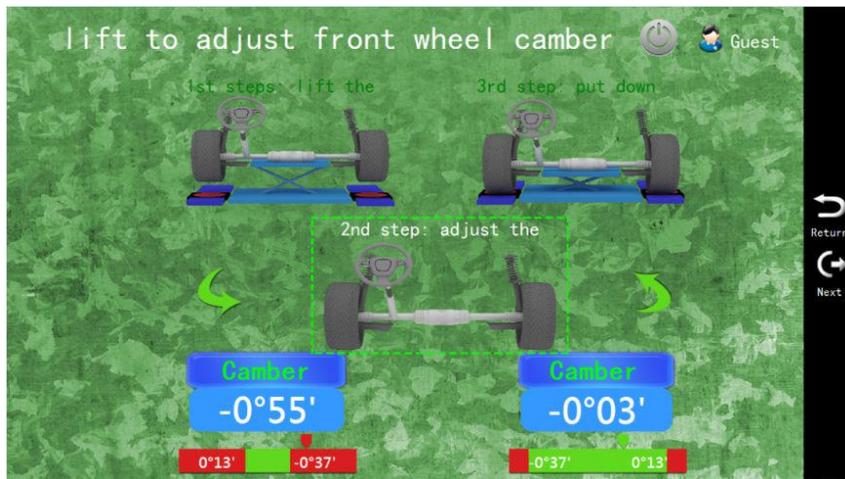


Figure 2-4-21

► Start to adjust data, data adjustment is completed, click on the button , entering the third step:



Figure 2-4-22

► Follow the instructions, put down the front wheel, and click button . Return to the "front wheel data" page. Figure 2-4-17.

► Click on the button  to enter the measured value interface

Four wheel alignment adjustment sequence: rear wheel camber → rear wheel toe → front wheel caster → front wheel camber → Front wheel toe

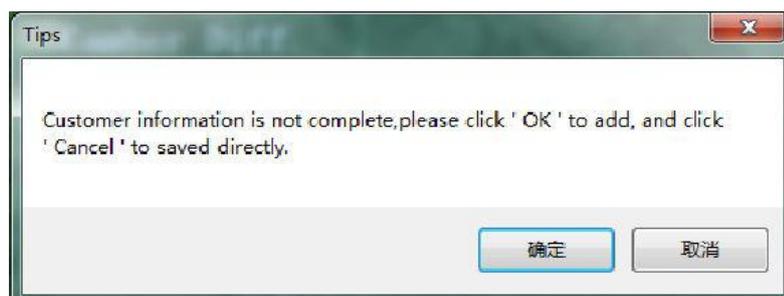
► Now that we have finished the measurement, in the "front wheel adjustment " screen click on next (Figure 2-4-23)

#### 2.44, save, and print results



Figure 2-4-23

► Click on the button , then the pop-up interface.



► If we start not input the customer information, then click "Save" will pop up Interface, click on "OK" to enter the 2-4-24 interface, and click Canceldirectly to save.

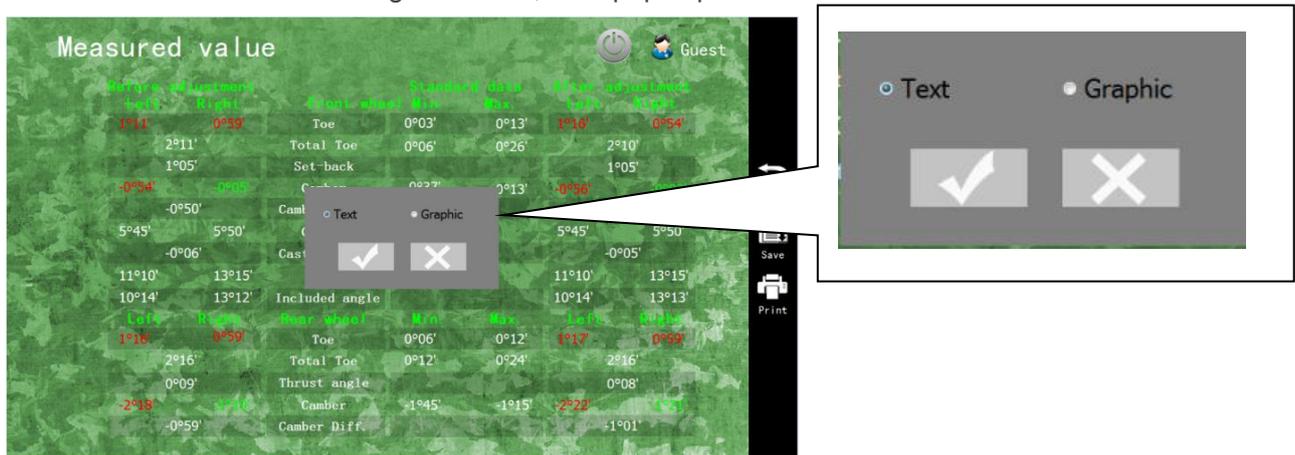
e register number   
 Customer number   
 Device number   
 Name   
 Add.   
 City   
 Tel.   
 Repair No.   
 le chassis number   
 car start to use.   
 Mileage   
 Mechanic

Figure 2-4-24

► Enter your customer information, click  to save customer data.

Click  to discardsaved account information, save data directly.

► Click on the button  in Figure 2-4-23, then pops up 2-4-25:



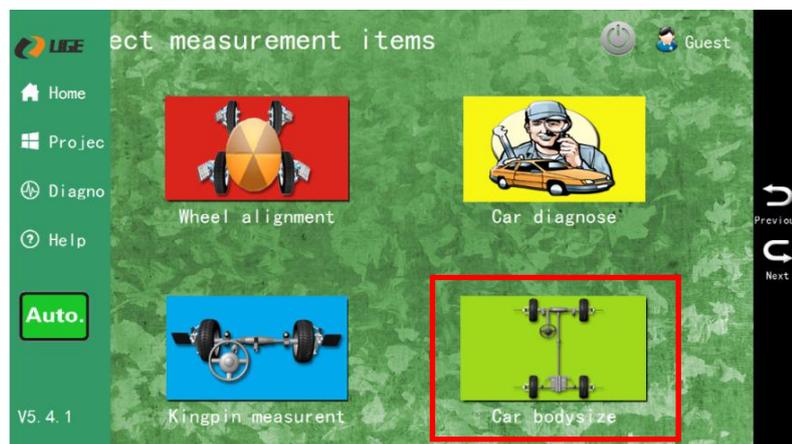
Left	Right	Steering	Wheel	Align	Set-back
1°11'	0°39'	0°03'	0°13'	1°10'	0°54'
2°11'		Total Toe	0°06'	0°26'	2°10'
1°05'		Set-back			1°05'
-0°04'	0°05'		0°27'	0°13'	-0°50'
5°45'	-0°50'	Camber			5°50'
5°45'	5°50'				-0°05'
-0°06'		Castor			11°10'
11°10'	13°15'	Included angle			10°14'
10°14'	13°12'				13°13'
1°16'	0°30'	Toe	0°06'	0°12'	1°17'
2°16'		Total Toe	0°12'	0°24'	2°16'
0°09'		Thrust angle			0°08'
-2°18'	2°10'	Camber	-1°45'	-1°15'	-2°22'
-0°59'		Camber Diff.			1°01'

Figure 2-4-25

► Select "text" or "graphics mode" click on the button  to print the data.

Click on  the print button to discard.

## 2.5 Auto size measurement



Home  
 Projec  
 Diagno  
 Help  
**Auto.**  
 V5. 4. 1

Wheel alignment  
 Car diagnose  
 Kingpin measurement  
**Car bodysize**

Previous  
 Next

► In the "select items" interface (Figure 2-3-1) click the button, enter cars view interface:

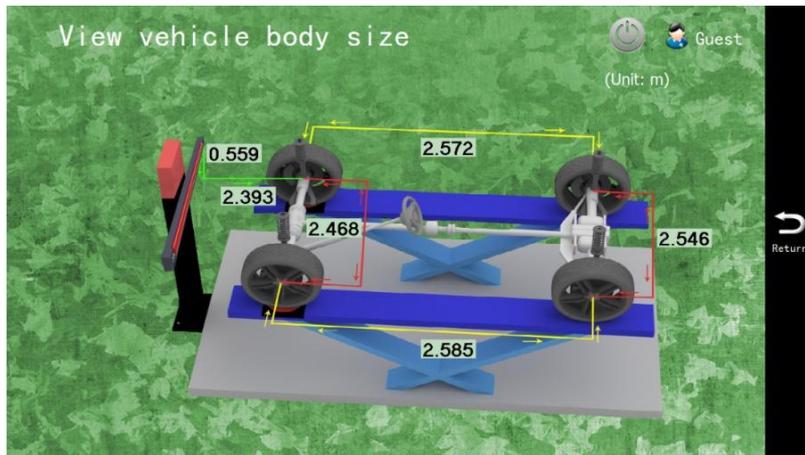


Figure 2-5-1

► All corresponding meanings are as follows (in letters):

A, the right goal height difference between the plate and the aluminium beams

B, the right goal distance difference between the plate and the aluminium beams

C, car wheel tread

D, the right side of the car's wheelbase

E, the average diameter of the four tires, which need calculated trolleys measure before it can be

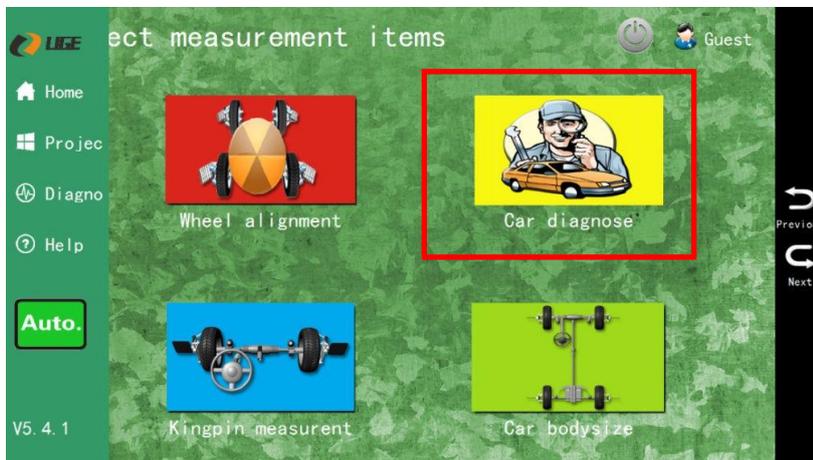
F, rear wheel track

G, the left side of the car's wheelbase



► Click to return to the "options" screen.

## 2.6 vehicle diagnosis



► In the "select items" interface (Figure 2-3-1) click on the button to enter the "vehicle" diagnostic interface (Figure 2-6-1)

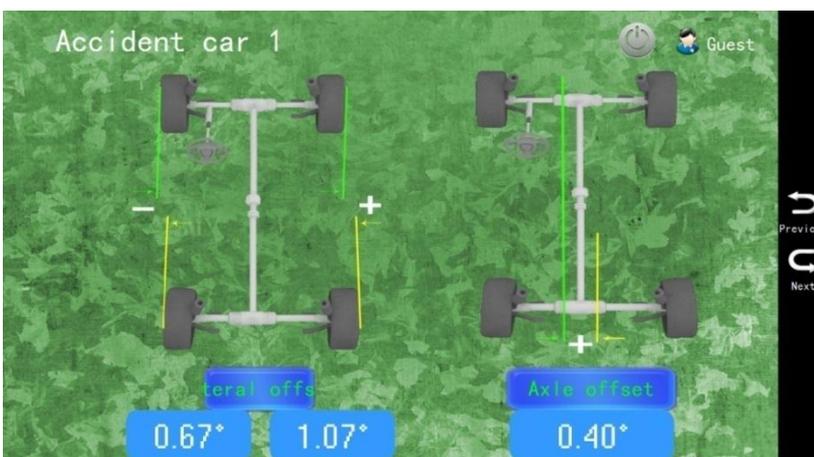


Figure 2-6-1

- ▶ Lateral offset: when the rear wheel out of the front wheel more than is, we take the value is positive, otherwise is negative (this number in the picture is schematic only, subject to the actual measurement).
- ▶ Central axis offset: when rear centre axle offset to the right, we value is positive, otherwise is negative.

- ▶ Click on the button  to enter the following interface:

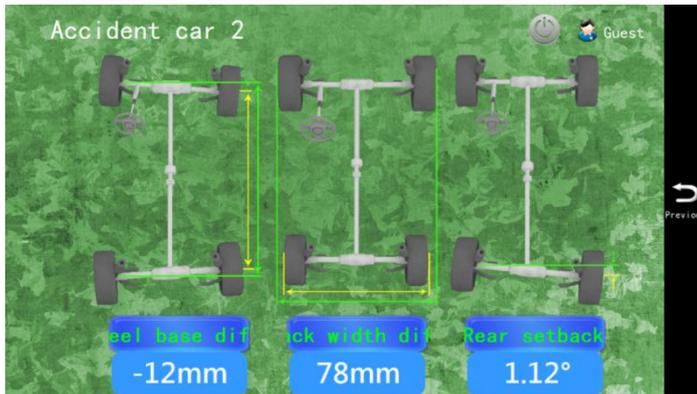


Figure 2-6-2

- ▶ The units of wheelbase and track differences are mm.

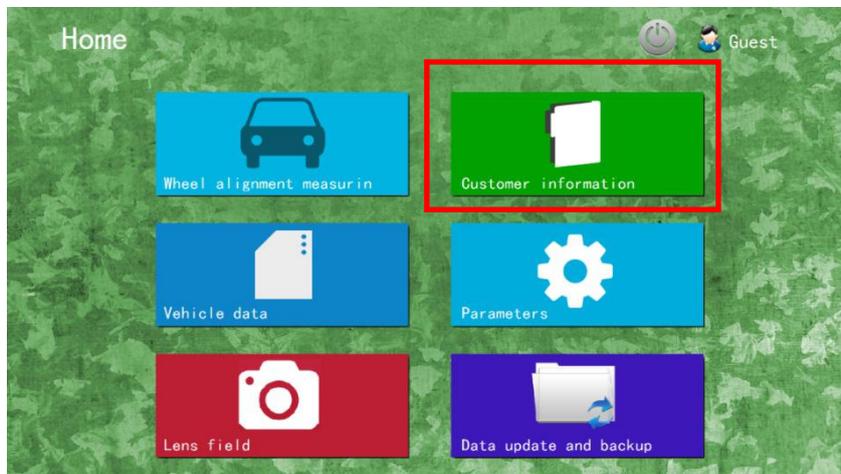
- ▶ Click button  to enter the 2-6-1 interface, and then click  return "select items" interface (Figure 2-6-1)

- ▶ We can also play a role in the left navigation bar, click on the "item" button returns "select items" screen, or click the "home" returns to the home page interface.

## 2.7 standard vehicle data

- ▶ In the previous chapters, we have used the standard vehicle data functionality to customer information, and below we will describe how to manage vehicle standard data

### 2.71 Select manufacturer



- ▶ On the home page (Figure 2-2) takes you to the Select manufacturer page:

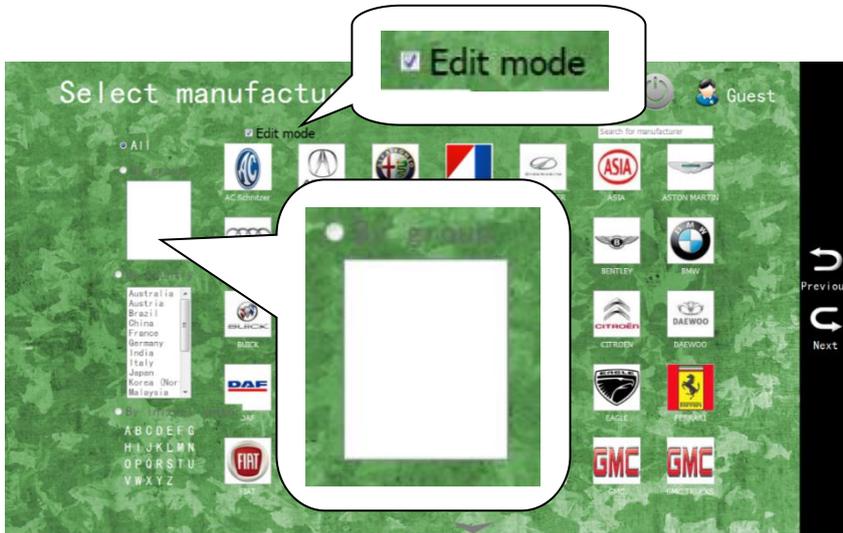


Figure 2-7-1

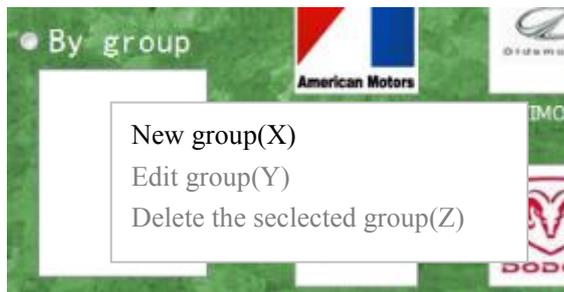
► You can see on the left is the search criteria, the

right is the manufacturer, there to enter the edit mode option.

Search conditions are divided

into four categories, all, group, country, and the first letters, first select the category, and then select one of the following conditions. Group merged into a single group of manufacturers in several countries. Differentiated by country according to the producer. By first letter is selected to display the first letter of the name of the manufacturer, according to the first letter of the phonetic Chinese name.

► Select the editing mode  Edit mode, otherwise we will not be able to select the search conditions, but we can do editing on the following sections:



► new group, grouping using the right mouse button to click the edit box below, appears the menu you need to select the appropriate option, pop up new window:

Figure 2-7-2

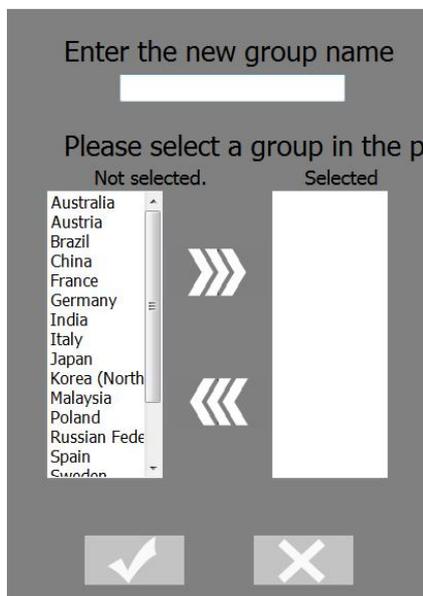


Fig. 2-7-2



Fig. 2-7-3

- in the top text box, enter the new group name, and then select the textbox on the left of the country (hold down the CTRL key to multi select) then click

» on the middle button to add the selected

country in the text box to the right, so select the right country click on the button «, you can remove your selected country. Finally click on ✓ to save.

- to edit an existing group, such as 2-7-3, we can modify an existing group name in the box at the top, add a delete State operation and new times. To complete the editing of an existing group.
- Delete selected group will just delete your currently selected group which contains all of the information.



- Right click manufacturer in the middle area, or choose a manufacturer, it will popup menu as needed, a pop-up edit window:



Fig. 2-7-4

- to add a new record in the first line, enter the manufacturer's name, and

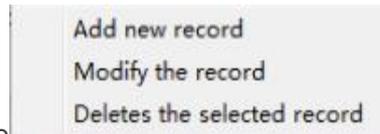
the second line select producer drop down menu click on the button 📁 to add a

custom manufacturer icon, then click + Add pictures

to the dark gray box at the bottom. + - to zoom the picture, hold down the mouse to drag

the picture you can adjust the position of the picture. Finally click on ✓ to save.

- to change the record select a manufacturer that already exist (must be selected), and



then right-click the [context menu] will pop-up. Select

“modify the record”, entered the 2-7-5 interface method when adding a record, you can modify the manufacturer name and country, as well as icons, and finally save it. [Close button] means give up the saving.

- Delete selected record will immediately delete this manufacturer and vehicle information it contains. (Did not confirm whether the Remove function with caution! )

## 2.72 select vehicle type and date

- ▶ In the "select the manufacturer" interface click button [Next] (must already be selected manufacturers) can enter the model selection and editing interface, as shown in Figure 2-7-6:

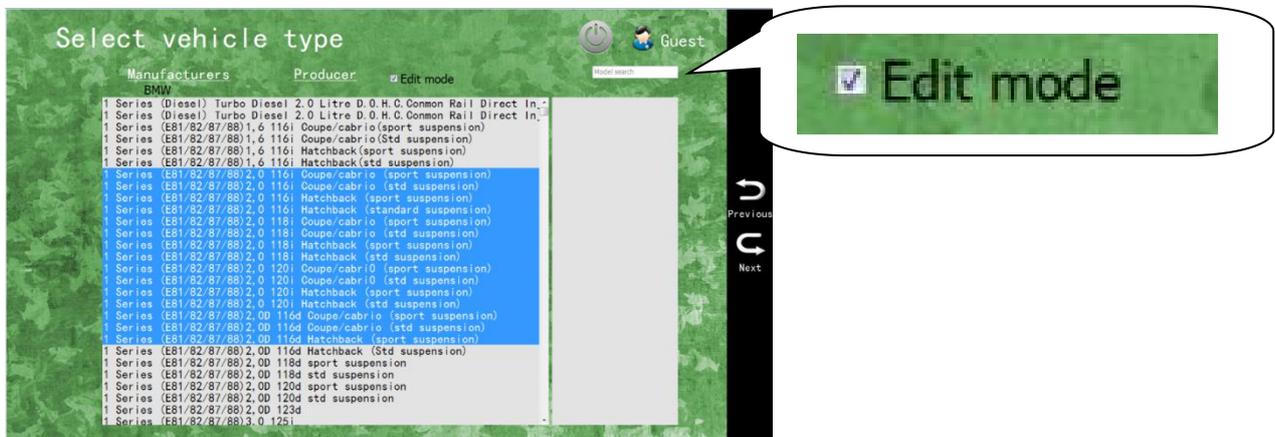
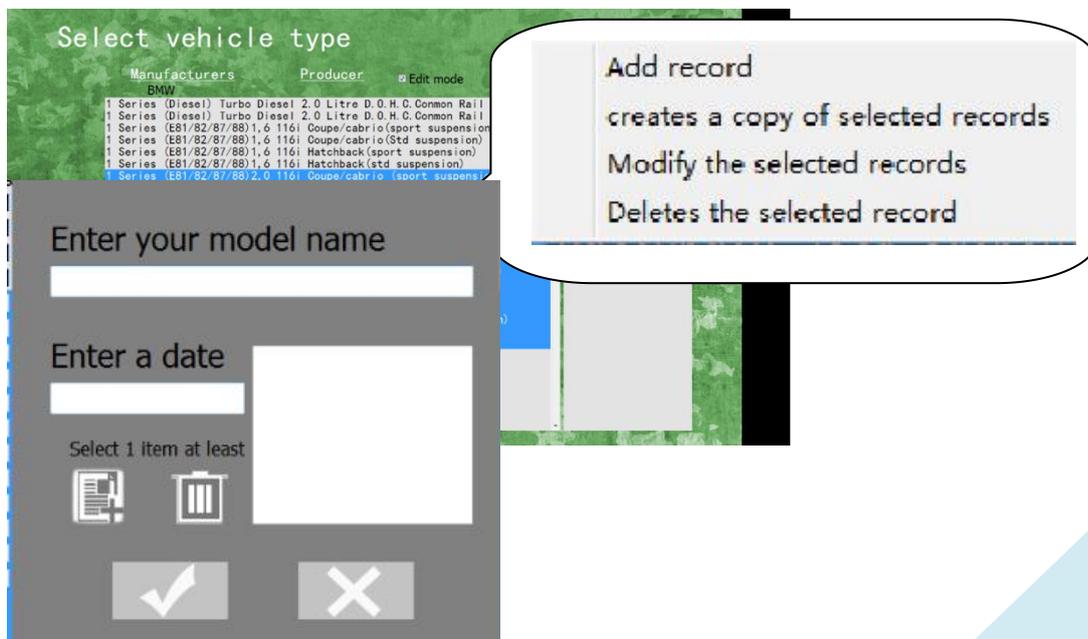


Figure 2-7-6

- ▶ As shown in the diagram, select Edit mode and select the model, here we can select a single record or you can select multiple records (for mouse-click a message and then press and hold down the drag), select a single piece of information, in the box on the right displays the time, multiple selection does not. Manufacturers and producers will be displayed above. Write model names in your search will be displayed directly in the model.

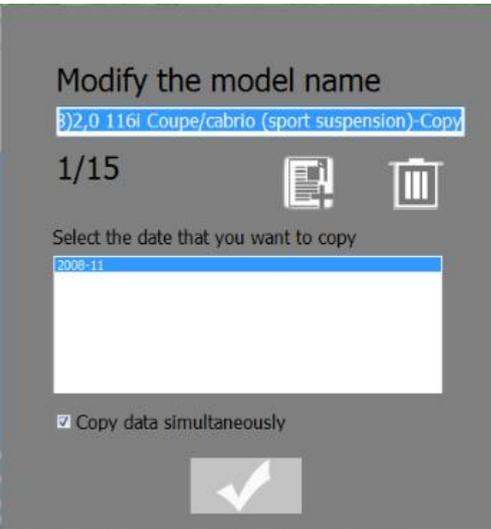
- ▶ Part 2 can be edited:

- to edit models: in the model column right-mouse popup menu



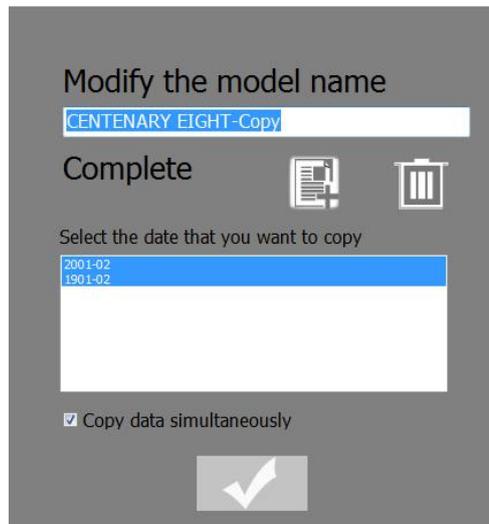
- Select "add record" pop-up window input models and dates, click on  to add new information, found that date was added

into the box on the right side, select the dates in the box on the right side, click  to remove it

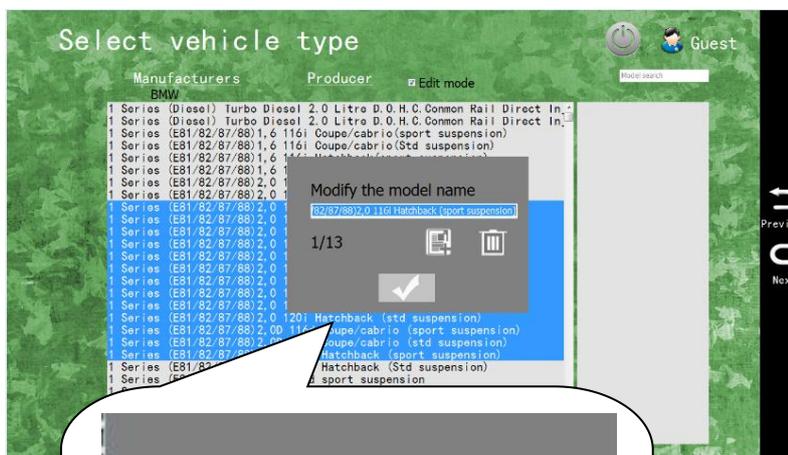


- Create a copy of the selected record, choose a single piece of information to create a copy, popup a window as left if you select multiple messages we can see the popupwindow I have selected the 16 records shown above, 1 represents the currently displayed information. You can modify the model name, select the replica models of the production date, for multiple production dates of the default select all. Click for determine, each added to this figure in the current information of digital on will increased, for gave up created copy (we can at any time gave up current this article information of copy created, like I created has first article of copy, I can gave up second article copy of created), hook selected while copy data that for said if corresponds to models has measurement records, copy will will inherited originally of measurement records. When it says "complete" after figure,

on.



Click  for final confirmati



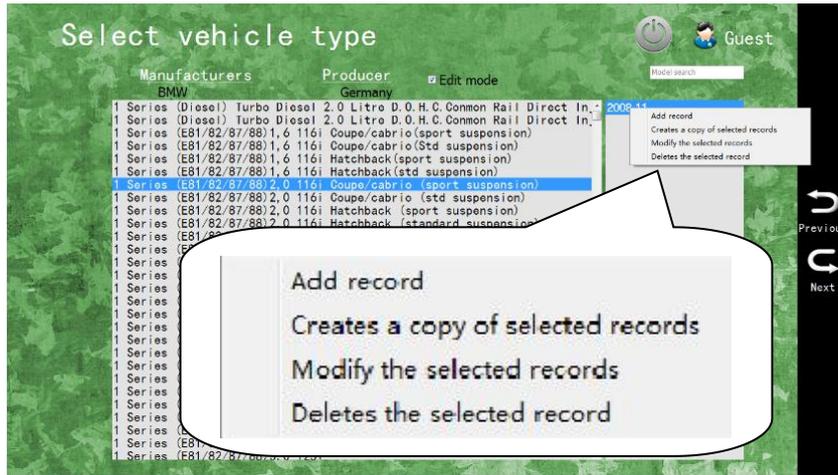
- Modify selected record here and create a copy of a similar, you can select a single item to modify, you can also select multiple items to modify and then click

Modify, choose the pop-up window. Select multiple pop-up windows as left: in which 13 items that are shown in the figure is similar to creating

a copy. click on  or  to

confirm modify or give up modify ,

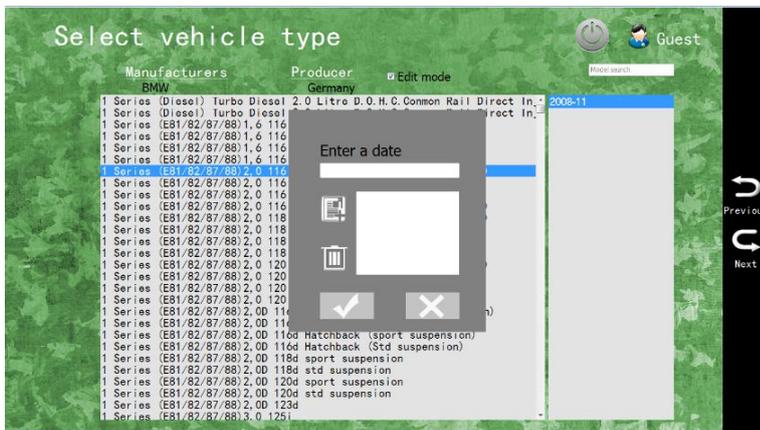
Until the prompt "all done". Finally click  to confirm.



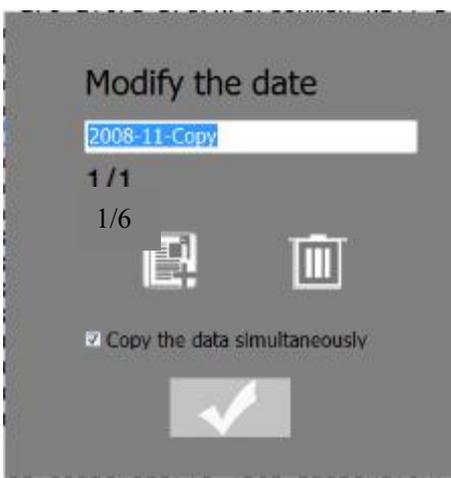
- to edit dates is based on model selection , after select the date when we selected, click with the right mouse to select the date, and supports multiple selection, as shown in left photo select the date right-Jump menu (if you did not select a date, then we can only "add record", the

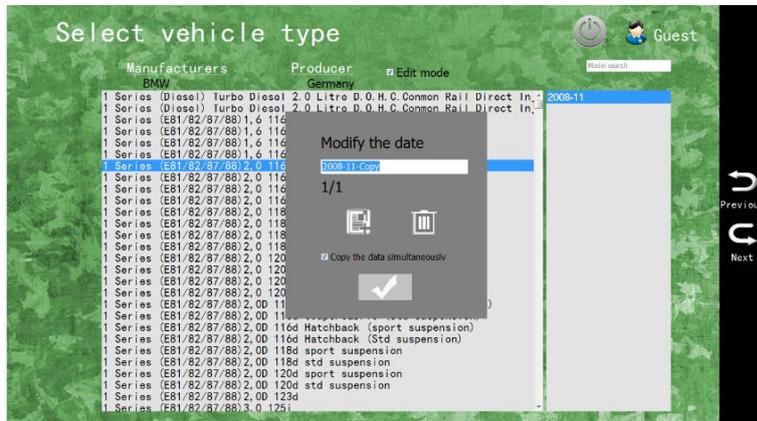
following 3 options are grayed out and cannot be selected

Figure 2-7-7

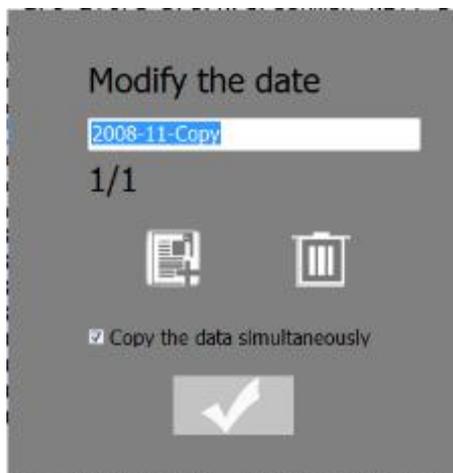


- Increase the new pop-up window, enter a date, click  to add date into the text box on the right, when a date is selected, click  to remove, and click , click on  to give up editing.





- Create copies of selected records, select a single pop-up, select eject operation is similar to creating a copy of the model and click OK to create, click discard the current copy of the information to create until you see the "all done" and click OK to complete the operation.



- Modify the selected record, the pop-up interface, displays the selected article 6 (for the same actions will not go into here to select a single operation) click  on the confirm changes to the current information, click  to discard changes to the current information is displayed until the "all done" Click  to complete a full operation!

**!**Note: newly added information, for

example, manufacturers need to returnback into the current interface to display. Models and time for instantsdisplay.

### 2.73 edit standard data

▶ After completing the manufacturer selection and model selection, click **Next** to enter the vehicle data interface standard (pictured), 2.44 reservations andprint test results mentioned in the chapter, we talk about how to edit the standard data

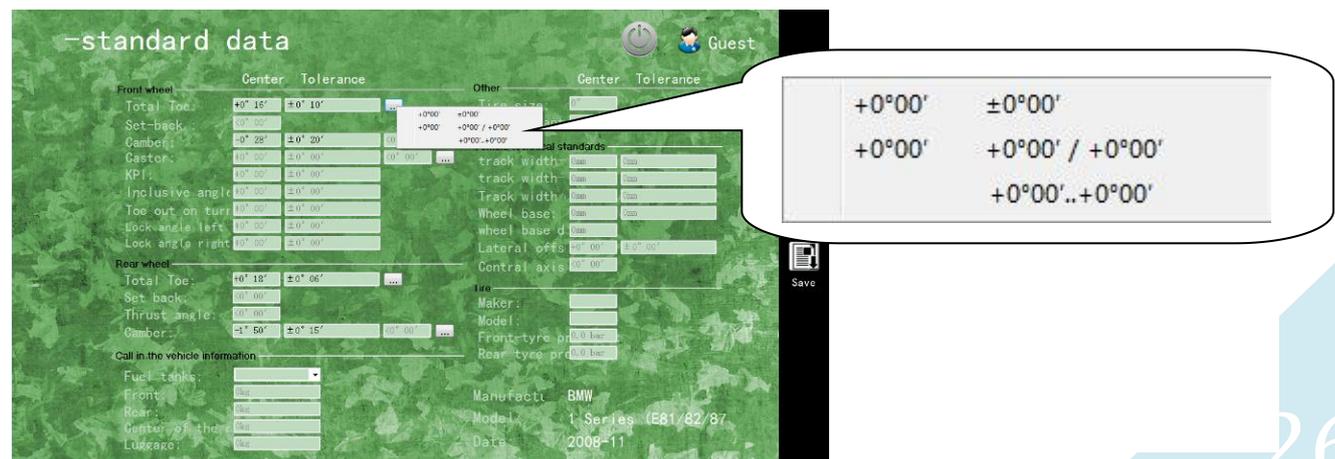


Figure 2-7-7

▶ We can see some information about the vehicle that contains 3 columns of data, including "Center" t he central values that represent the data, that is, for most standard data, "tolerance" refers to the data center data as a benchmark, allowed deviation s of before and after, and the third column which is the difference between left and right wheels, only the camber and caster angle.

▶ Some data followed by the icon , click it, pop-up interface as follows, you can choose a different data format!

**!**Select this will overwrite the original data format data, turning data into gray of the initialization of the data, it operates in places that already have data, it is recommended to save the data.



▶ Gray as the default data in the data and is invalid, only to provide dataformats, ease of editing, when emptying a data point, the mouse click in any text box, the empty data is automatically adjusted to the default grey data.

▶ When you want



to enter data, use the mouse to click in the data text box, and turn black when modified. To become true data, click on the button, the program will automatically check the data conforms to the specification, if there are any errors, give prompts. And the cursor automatically jumps to the wrong data in a text box.

▶ Save is complete we can click on

the right "return" button to the previous screen, or use the navigation bar to the left to enter the interface

## 2.8 customer information

▶ Home page (details see Chapter 2.1, Figure 2-2) click



on the button to enter the interface between customer information and history, as in Figure 2-8-

1:

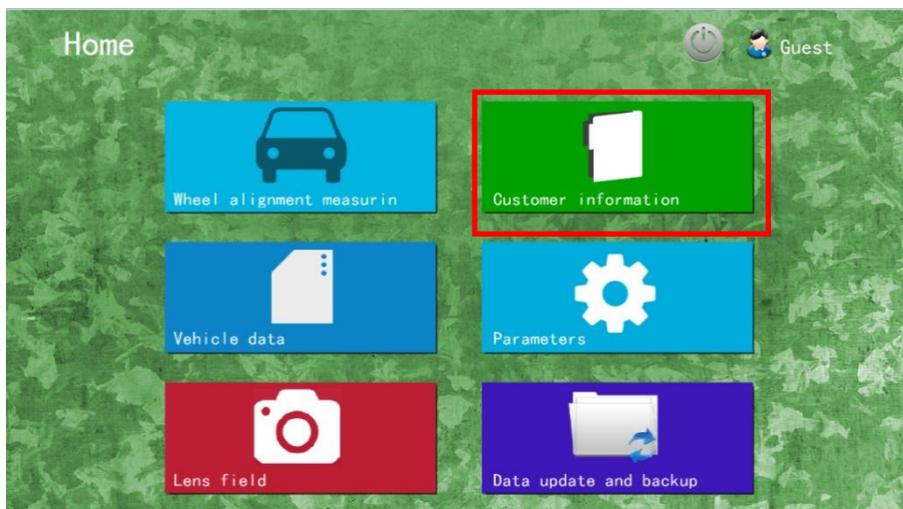


Figure 2-8-1

▶ We can entered customer of "license plate," also can in Xia pulled menu in the select we save of customer information in the of license plate,, selected license plate, Hou, in customer, of Xia pulled menu in the select a customer,, at customer information on will was automatically fill, we also can directly entered customer, get following of as Figure 2-8-2 by shows (figure in the data only for motioned):

**!** We both can manual entered car grades also can manual entered customer,, dang we first entered car grades again entered customer, of when, if customer, originally and this car grades corresponds to, is system will padded customer remaining information, we even not need entered full of customer,; if we first entered customer,, system is will automatically padded corresponds to of license plate,, and customer of related information.



Figure 2-8-2

► We found at this

time, the following information is still grey, we select the date in the 2-8-2 drop-down menu, select the date you want, and save the date for this information generated automatically by the program according to time. Will appear below the interface:

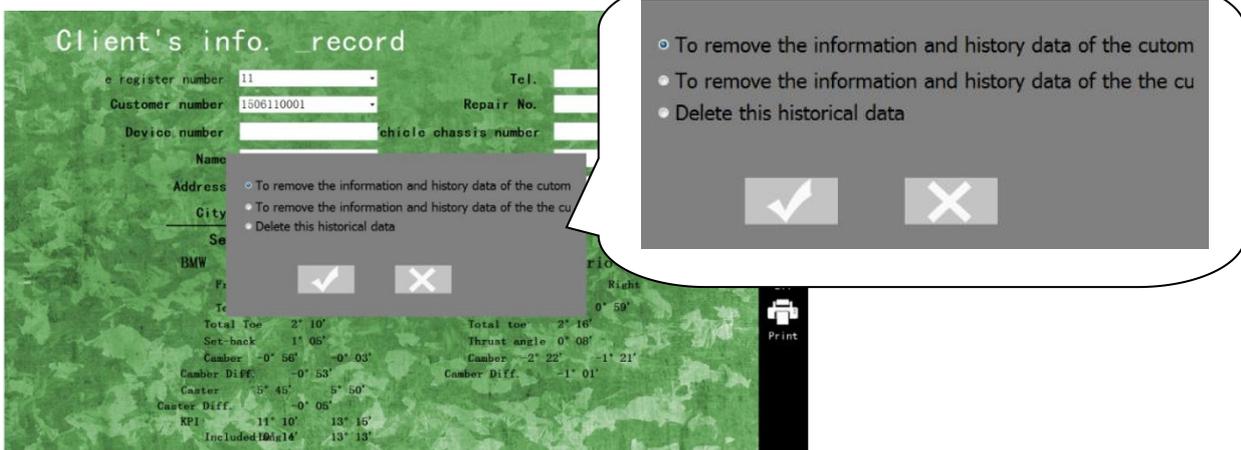


Figure 2-8-3

► Diagrams 2-8-3 corresponding measuring results it has been shown (this data is only for reference signal and is not measured in kingpin).

► Right sidebar "back", "delete" or "delete all", "print" four-button, return to return to the previous interface, print for printing the current data.

► Need to pay attention to is the "delete" or "delete all", click on the button will pop up a dialog box



- first act based on the VIN to delete customer information as well as the history of measurement results. Note under the same vehicle identification number may correspond to multiple customers, and corresponds to the Select this license plate will be removed, all customer information. Choose carefully!
- second act based on customer number and delete customer information as well as the history of measurement results. Note that a client only corresponds to a license plate number, but may correspond to multiple records, select delete this customer number and all information recorded information as well as current customers, choose carefully! (Does not affect the other under the same license plate number information).
- delete the third line of this historical data, we are saying to a customer number in the previous article can correspond to multiple information, save the data interface multiple clicks Save multiple messages is generated. This information is presented in standard time. Selecting this item will delete the current results of this measure.

**!** On the third line under the data deletion, we need to pay

attention: when we save the data, when this information is accurate only to the minute, which means that we are on the same contiguous 2 information within a minute, we will see here 2 information with the same name, which will be determined by the program for the same piece of information, there may be subtle differences even if one of the data. And when we find that duplicate information in one section, the system will delete 2 messages.



▶ Click on the button  will pop up a dialog box (as left), click OK to delete all customer data. This action will clear all customers all the information in the program, please choose carefully!

## 2.9 parameters setting

▶ On the home page (see Figure 2-2 in Chapter 2.1) click on the button below to enter parameter setup interface, Figure 2-9-1:

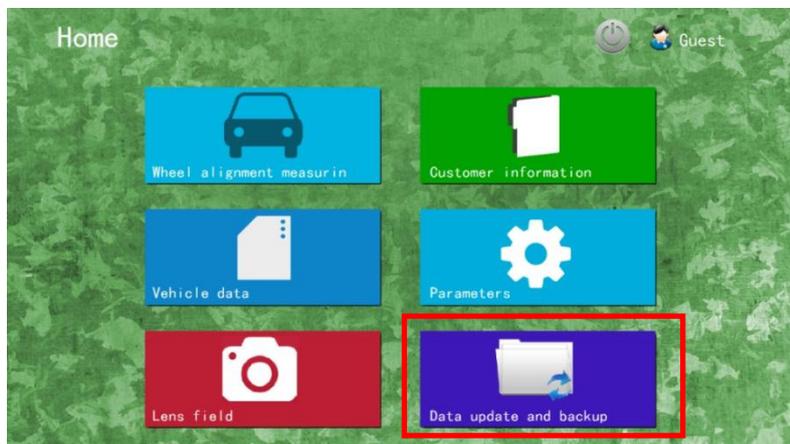




Figure 2-9-1

- ▶ As we can see in the figure the angle data displayed, choose as needed.
- ▶ Steering wheel location and language settings for users. After you switch the language interface to restart the program that you want.
- ▶ Print color into black and white and color when choosing a color print of data depending on whether the standard within the range of values to displayed and green (green meets the requirements, red stands for does not meet the requirements).
- ▶ Automatically lifting: in chapters 2.3 select measurement project in the we understand has "automatically track function" and know in some interface can through control button to opened or close "automatically track" function, we also can in here set good "automatically track of switch", when we

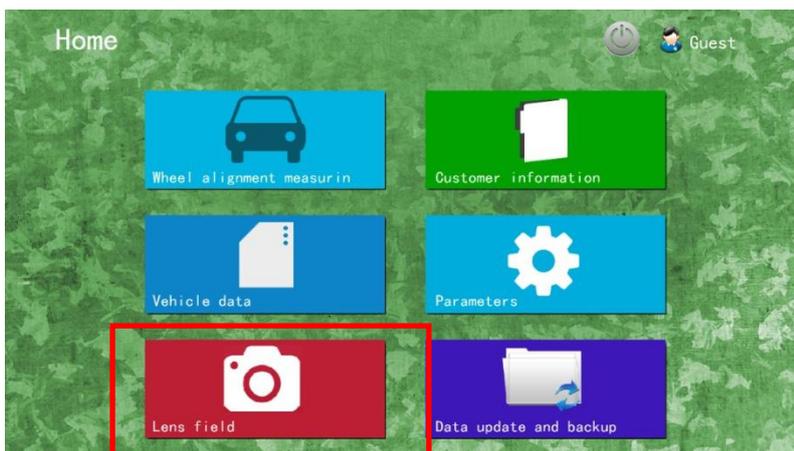
select "yes" and click right of button , correspond interface of automatically track on will default open, icon is , when we select "NO" and save, automatically track function default close, icon displayed is .

- ▶ Click on the right side of the "Save" button to save the changes which we made. "Back" to return to the home page.

▶ Contact manufacturers to enter the password for full functionality! (This manual prepared in accordance with full functionality)

## 2.10 the camera field of vision

- ▶ Home page (see section 2.1, Figure 2-2) takes you to the interface:



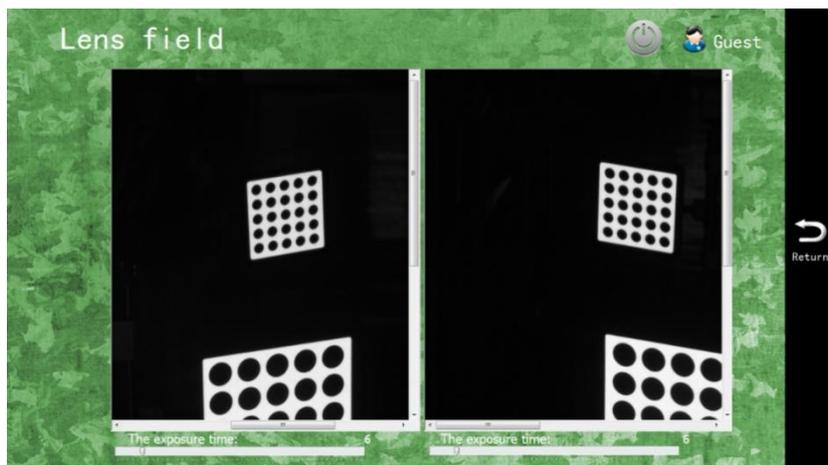


Figure 2-10-1

► 'S main function is to check the view of the camera the camera is functioning properly, the screen is clear, drag a horizontal progress bar you can adjust the picture display area, you can also drag the cursor on the progress bar below the exposure time to adjust the camera exposure time.



► Click on  return to the home page.

## 2.11 data updates and backup

► Click on the home page (Figure 2-2) on the button to enter the interface, as shown in Figure 2-11-1:

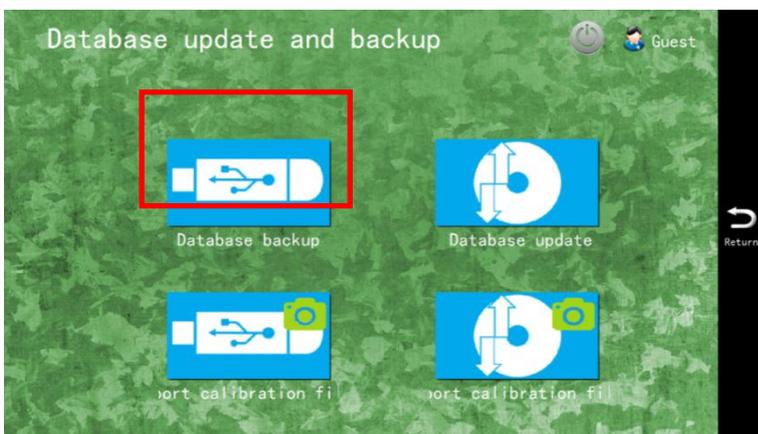
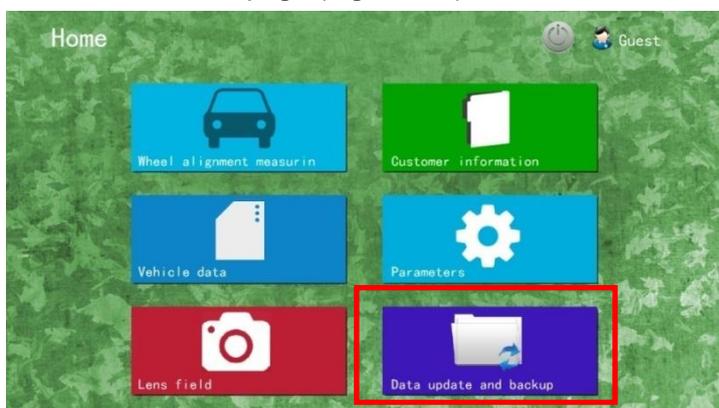
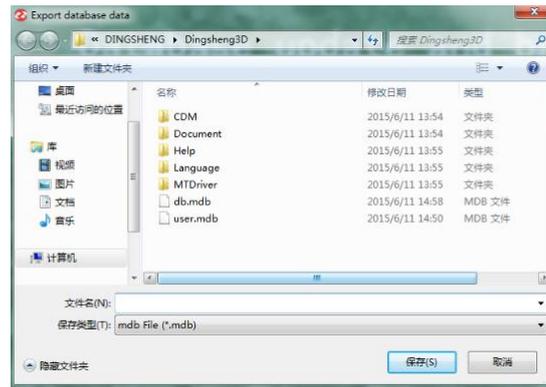
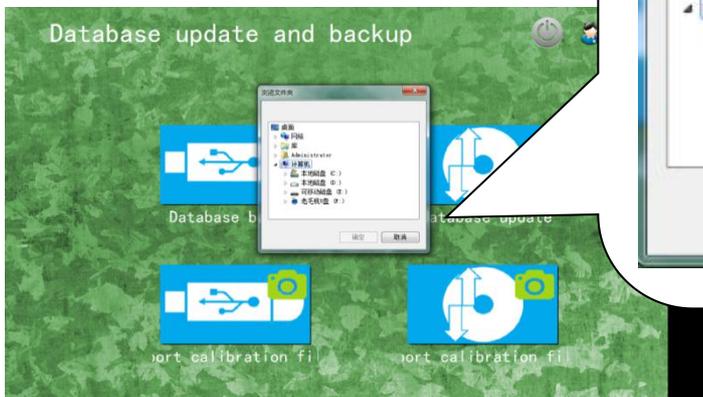


Figure 2-11-1

► Database backups. Click on the map button will pop up a dialog box: Enter a file name in the diagram, select the highest save location click onthe "Save" button to complete the backup of the database!



► The world is always changing, so we need to update the database, click onthe map of 2-11-1 Button a pop-up window: Selecting database file you stored in the map click on the "open" button tocomplete the update to the program database.



► In the actual operation of our equipment, such as cameras is difficult toavoid the small errors, this error we will be great impact on the accuracyof measurement results, we cannot eliminate the errors, but errors can bebrought into the calculation of measurement, in order to eliminate theerrors affect your results, click on the map of 2-11-1 Button, pop-up interface: as shown in the diagram to select the calibrationfile (calibration file into 3 files, placed in the same folder, we just n eedto select the folders) click the "OK" button to complete calibration filefor import. Click on the button shown in Figure 2-11-1, the pop-up interface

Select a path to save the (g plate shown in figure below) and click OK tocomplete the calibration file e xporting! Such files will be saved by usunder the g.