# Content

## Preface

It mainly introduces 3D Wheel Aligner Software operation and configuration.

## Assemble and Setting

New Wheel Alignment installation and setting must be finished by qualified Technical Engineer. If you are not clear about whom you need contact with. Please refer to the verso of Instruction Manual. All software is installed well before leaving factory.
This instruction manual states alignment procedure operation setting and explanation in detail.

## Alignment Position

The beam installed camera must be located at the center of lift, and fixed on the floor permanently.The distance of the lift from the turntable center to the camera is at the mobile cabinet of 2M-3M, put at the position convenient for operator. Please remember that, among most vehicle alignment operation procedure, must keep visual touch with monitor. Most workshops make alignment set in front of lift between the cameras.

## Power Supply Connecting Sequence

Please connect cabinet with the power supply,computer system,monitor and other parts are electrified,which will work in normal.It will ensure that camera can be normally identified by system.Make sure that the power supply of monitor and computer are always on,After switch on power supply,the computer will start,double click the icon" 

",then start to upload data .After Windows finish uploading, it will appear screen,then click screen main interface. Enter into alignment main interface ( As shown in the picture),it indicates that the alignment gets ready for operation.

***(220V voltage should be connected individually.The voltage should not be transfer from 380V to 220V,which is not accessible to share the same cable with Wheel Balancer,Lift, Tyre Changer,Air Compressor.Please avoid destroying Wheel Aligner when starting this kind of equipment.)***

## When to do Wheel Alignment:

1. Uneven Tyre wear;
2. Weight or light steering wheel appears as turning or the car body shakes or floats.
3. Change worn hanger bracket or steering system components;
4. After vehicle collision;
5. After 3,000 KM's driving for a new car;
6. After 10,000 KM's or 6 month's driving;
7. The steering wheel is not straight when driving;
8. Having to hold the steering wheel tightly;
9. The vehicle put at one side when driving;
10. When the vehicle turning steering wheel,it is too weigh or can not back automatically;
11. Daily maintenance and repair.

## Operation Procedure:

1. Diagnose,inquiry and test car:Collect information from the vehicle owner, inquiry the drive performance problems caused by incorrect alignment. Inquiry the vehicle whether it is collided or changed components or not. Testing car can verify the symptom described by vehicle owner,make slide test for tire deflection, and make correct judge for fault.
2. Visual inspection: watch over tire pressure,tire worn and the whole status of chassis.
3. Make vehicle put on the alignment lift: Make vehicle put on the lift and turntable.Raise the lift up to the suitable height and lock it safely.
4. Check that tire has abnormal worn or not.
5. Make thorough check for components: Before alignment, change the worn,loose components.You must check tire pressure and vehicle body height.
6. Install the relative targets on the four tires,and fasten the wheel clamp bandage.
7. Select right vehicle data.
8. Push vehicle to make roll compensation for four wheels:mainly eliminate measurement fault caused by wheel hub transformation, wheel clamp transformation,non-standard installation.
9. Measure Caster,Wheel Camber,Toe and other angles.
10. Make any required angle adjustment: when it reminds, please carefully adjust the steering wheel. The adjustment order :
    10.1.Rear Wheel Camber
    10.2.Rear Wheel Toe
    10.3.Front Wheel Caster
    10.4.Front Wheel Camber
    10.5.Front Wheel Toe
11. Re-adjust steering wheel,verify for the data of front wheel adjustment,The steering wheel out of center will make customer unsatisfied with alignment.
12. Print result:Please show your customer the comparison before alignment and after alignment.Many shops can save it for future recommendation.
13. Make test--drive,verify right position.

## The requirement for the vehicle stop at lift station:

Fix vehicle properly on the lift is the important procedure to guarantee safety and accuracy.

1. It is guarantee that turntable and rear slide plates are in fixed shape.

**Attention: We recommend you to follow Step 2-5 to ensure that front tire place at turntable center.**

2. Please drive the vehicle onto the alignment lift and stop at the right direction of turntable. Guarantee that the vehicle is at the center of runaway.
3. Stop vehicle ( at neutral gear), shut down, loosen hand brake. Put the wheel block at the back of tire to prevent from rolling.
   If without using wheel chock, the vehicle will roll down from the lift.
4. Put the turntables according to needs, ensure that tire is at center.
5. The vehicle drives forward to the center of turntable.

**Replacement solutions: This solution will prolong turntable life by strain and load caused by pedal brake.**

6. Put vehicle at neutral place, loosen handbrake, pull or push the vehicle onto the turntable.Then put wheel chock, stop the vehicle,then pull the handbrake.
   In order to avoid personal injury or property damage, please follow the operation of lift manufacturer and safety procedure.
   Raise the alignment lift up, make the installed target within the vision of camera. Make lift at insurance lock.
   Shift lever is at neutral position, And before vehicle alignment roll process, loosen handbrake.

## Target Installation

Please install the targets on the wheels with self-centering clamp. Big targets are installed on the rear wheel, small ones are installed on the front wheel.

According to the difference of vehicle wheel hub, it has some different installation methods, Whole clamp jaw supply many kinds of wheel-capturing ability. Clamp jaw can rotate.It can adjust for different wheel configuration.

**Clamp jaw may has sharp edge, In order to avoid human damage, please be careful when operate clamp.**

The clamp should be installed with upright vertical method(Rotary knob is on the top), Unless the low splash guard can not be done like this. For these vehicles, the rear target can be rotated for 90 degree on the wheel clamp.

The arm behind the target can be loosened,Then please rotate the target as possible.Please tighten the arm, fix target, then make clamp installed on the wheel with horizontal style. Please use installation method with greatest safety, then it will make target drop from the wheel. Most of the wheels can make claw put between tire circle and wheel rim, and fasten the wheel from outside to inside. The procedures are shown in the following:

1. Rotate the knob anti-clockwise, make the clamp expand outwards until it is greater than the wheel rim size.
2. Please make upper clamp jaw at outside of wheel rim top. Push the clamp jaw into Between tire circle and wheel rim, it needs to press-in upper clamp jaw to make it convenient for correct installation. Please pay attention that do not make clamp installed on the wheel absolute vertically.

3. Rotate knob with clockwise to screw the clamp, until the below clamp jaw clench with the wheel rim.
4. Please push the below clamp jaw to the position, once again, it is necessary to press tightly to ensure safety. Continue to screw knob until it is solid.
5. Please make outward pull on the clamp to test solidity. If it is easy to be pulled away,re-install the clamps or choose the replaced installation method.

You can use clamp to capture wheel from inside to outside,the procedures are shown in the following:

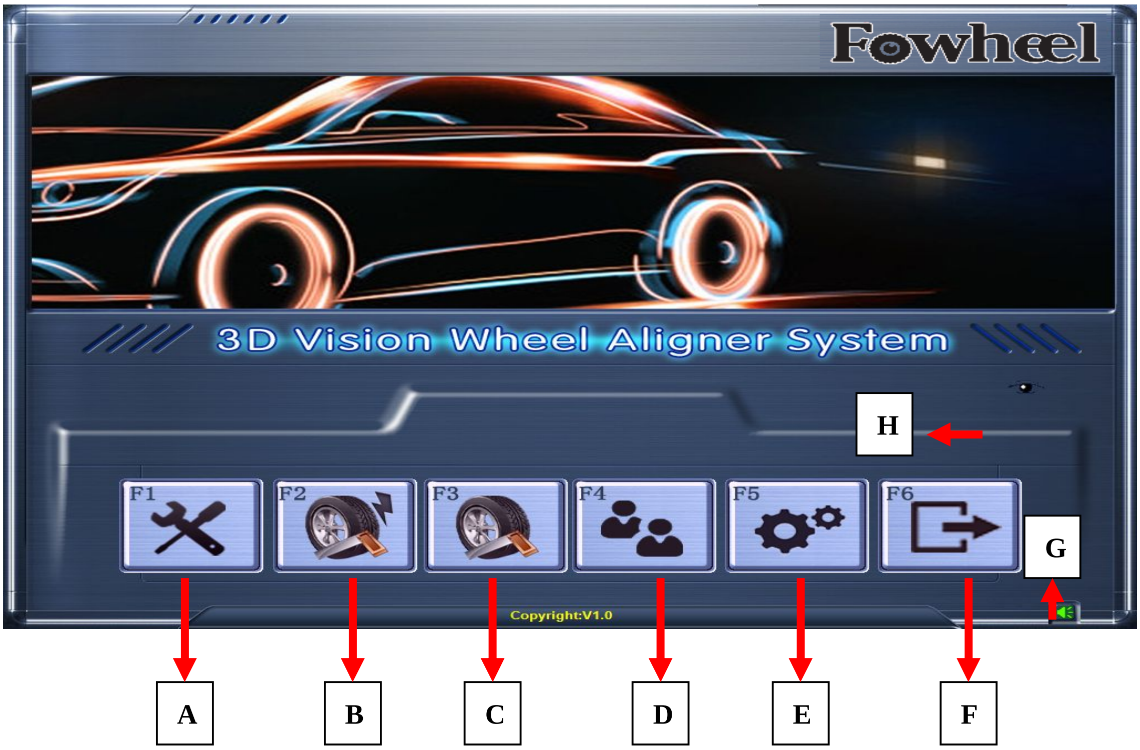
1. Rotate knob with clockwise,make the clamp expand inwards until it is less than the wheel rim size.
2. Put the claw beside the wheel hub. If the wheel is blocked by balance weights, please move the clamp slowly to avoid balance weights, without complete vertical.
3. Rotate knob with anti-clockwise, fix the clamp until the upper claw clench with wheel rim. Continue to screw until the clamp is fixed.
4. Please make outward pull on the clamp to test solidity. If it is easy to be pulled away,re-install or choose the replaced installation method.

**Attention: Unless the wheel passed alignment without shaking,otherwise alignment data will be inaccurate.**

The following are the reasons of shaking and correct tips:
1. When the vehicle is driven onto the lift, turn steering wheel,drive to the middle of turntable. It makes stress accumulate on connecting rod. In the process of alignment, when the vehicle roll backward and forward, the stress relief will cause wheel shaking. Please fix the orientation before the vehicle arrive at the turntable. Before alignment,make the wheel roll for a few time backward and forward.
2. Please make sure that the wheel will not be disconnected by any factors when the vehicle is moving. Check the gap or hollow between the front turntable and track surface, Check whether the wheel cause “skip” item or not ,while it is rolling.
3. Check the installation of wheel clamp,ensure that clamp jaw will be fixed on the wheel firmly. Any loose will cause shaking.
4. Avoid raising the vehicle up before alignment. Check steering assembly, we advise to use “Check point” procedure. If the vehicle has to be raised up, please push a few times front and Back. Make hanger bracket down before alignment works.
5. Confirm the front wheel directs right ahead, If not, When the vehicle rolls front and back, the wheel will move towards the center, it will cause wheel shaking.

# Main Interface

All wheel alignment function will start from the alignment homepage mark.Screen includes a series of function icon related with performance and orientation. Click main page key of tool menu, always return to the screen. The function of the screen is shown as below:




**A.** Pre-measure preparation--Please drive the pending measurement vehicle onto the lift, and make a series of preparation work before measuring vehicle;

**B.** Fast Measurement----Select vehicle,input customer information,Pre-check,make vehicle-pushing to measure the angle;

**C.** Measurement ----It is standard measurement,enter into live adjustment interface, it can make live adjustment for Toe,Camber,Caster;

**D.** Customer Management----Manage and read customer contact information,vehicle method,vehicle information,measurement and adjustment information;

**E.** System Management ------Alignment software parameter setting;

**F.** Exit System------Exit to Alignment software, and return to system interface or switch off computer;

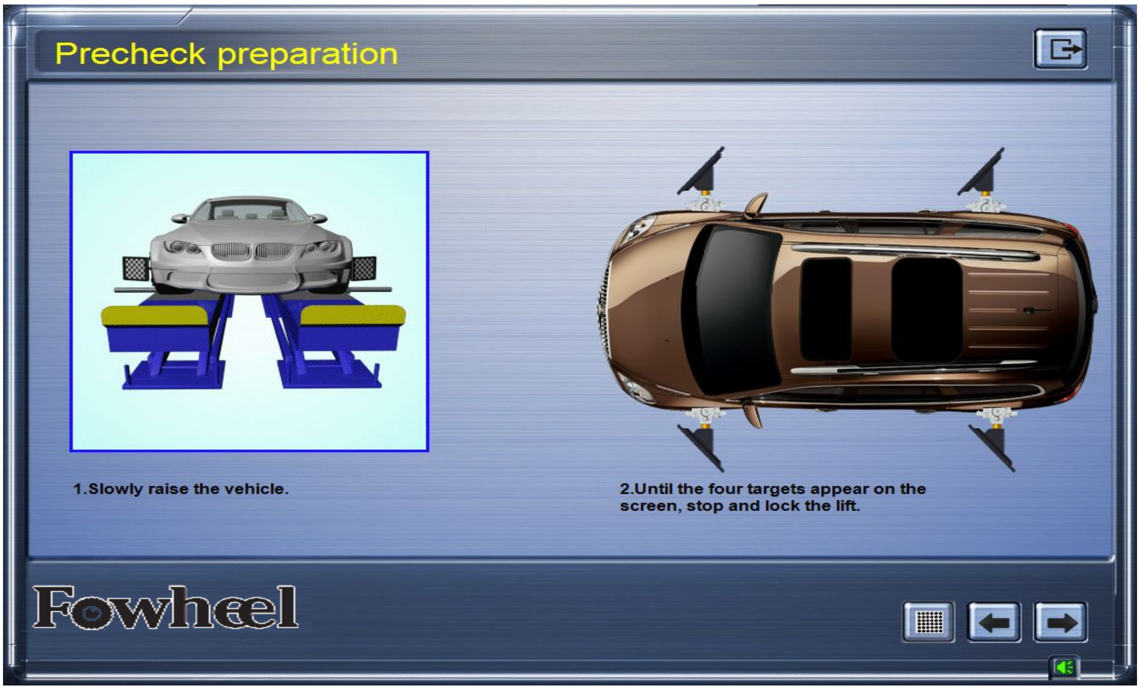
**G.** Volume Adjustment-----To control the high and low volume in the process of measurement ;

**H.** Golden Eye--Drive-in automatic monitoring system（Not all models are equipped.）;

## 1.Pre-measure preparation

1.Click main interface icon"Pre-measure preparation", and enter into "Pre-measure preparation" interface;

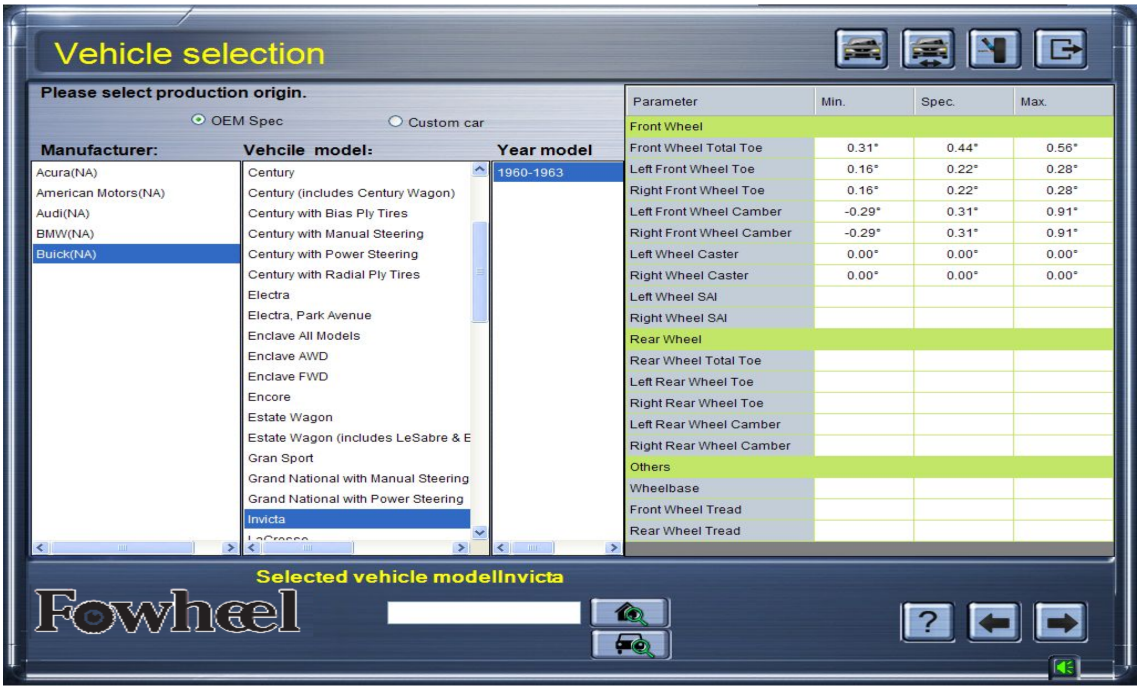

2.Please finish operation according to the corresponding words or voice remind at the interface, until the four targets appear.




## 2. Fast Measurement

1. When finish"Pre-measure preparation" whole procedure,the software backstage will automatically enter into measurement interface.

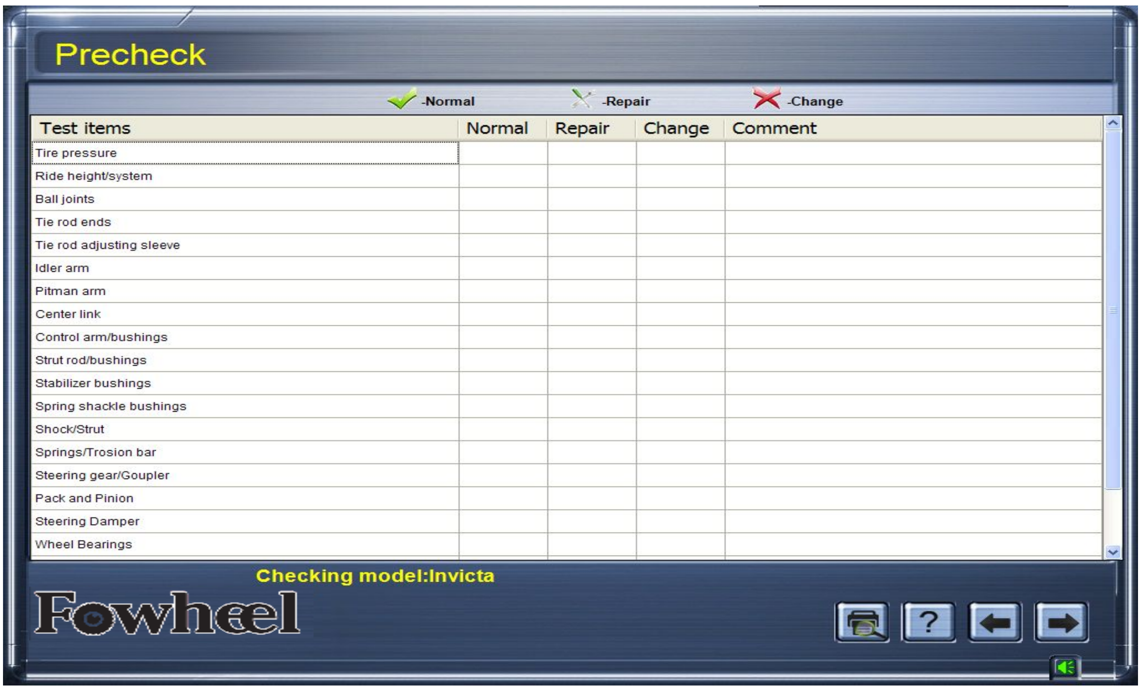
2. Select Vehicle--Search the pending vehicle data from vehicle database.( you can search the vehicle data you request through search function)




2.1.Search vehicle,you can search manufacturer "  ",Vehicle model"  "

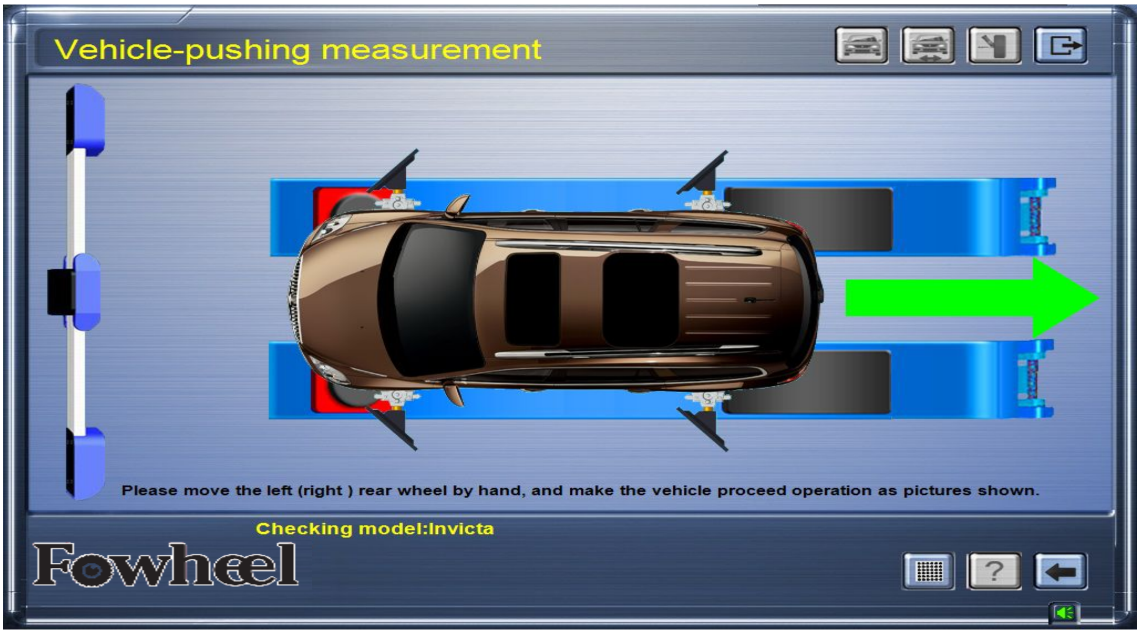
2.2.The maximum value,standard value,minimum valued of the selected vehicle tire parameter can be gotten through right-side list.

3.Pre-check ------Make Pre-check for vehicle, Pre-check is the important tool to check vehicle fault parts. The testing report can be printed and saved as workshop document or donate to customer. It will enhance his understanding for his execution work or the necessary work before alignment. Under most cases,worn or damaged components will influence the quality of Wheel Alignment.



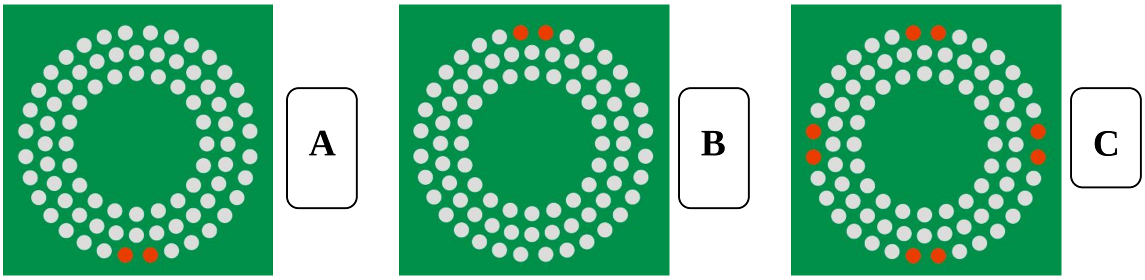
3.1.In the picture, Green “√”indicates normal;
3.2.In the picture, Red “×”indicates that components need be changed;
3.3.In the picture, Green “×”indicates that components need be repaired;

4.Vehicle-pushing -Please push vehicle as word or voice reminds.




4.1.You can push vehicle according to the green arrow on the picture, when it appears The icon"  " Then stop vehicle-pushing;

4.2.You can watch over the color change of control indicator on the beam,then make vehicle-pushing. As shown in the picture:




A：Push vehicle backward
B：Push vehicle forward
C：Stop vehicle-pushing

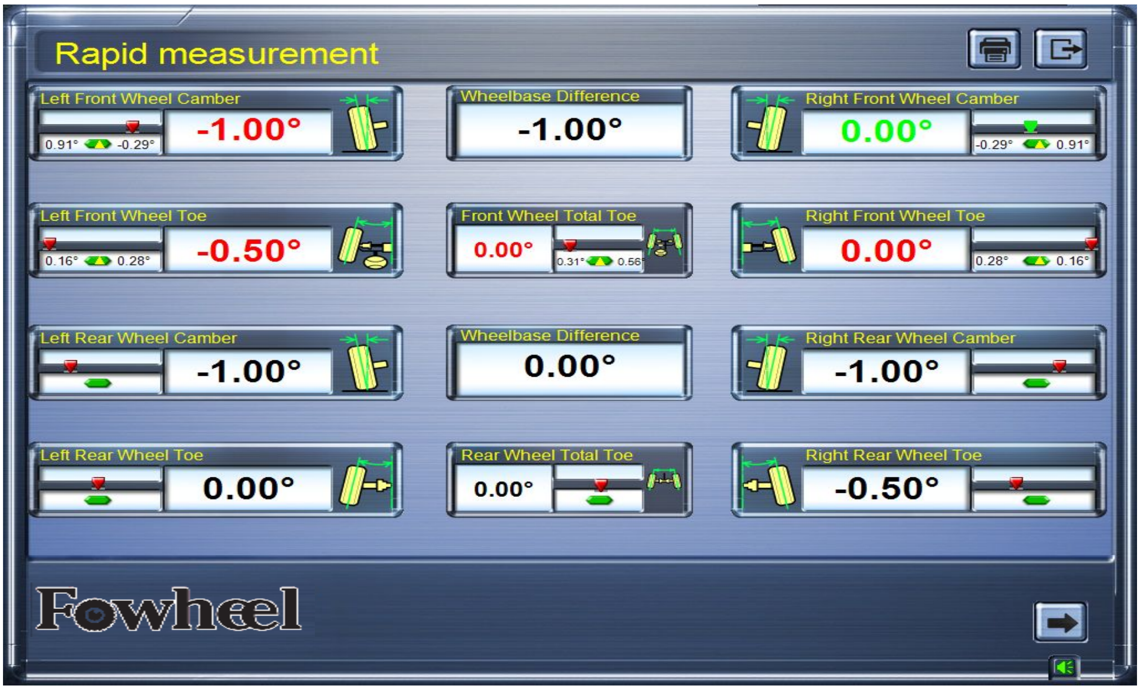
4.2.1.When the beam indicator appears”push vehicle backward” red light,it indicates that push vehicle backward on the lift.

4.2.2. When the beam indicator appears”stop pushing vehicle” red light, it indicates that stop vehicle-pushing.

4.2.3. When the beam indicator appears” push vehicle forward”, it indicates that push vehicle forward on the lift.

4.2.4. When the beam indicator appears”stop pushing vehicle” red light, it indicates that stop vehicle-pushing.

**4.3.** After vehicle-pushing, the result of fast measurement will be shown as below:

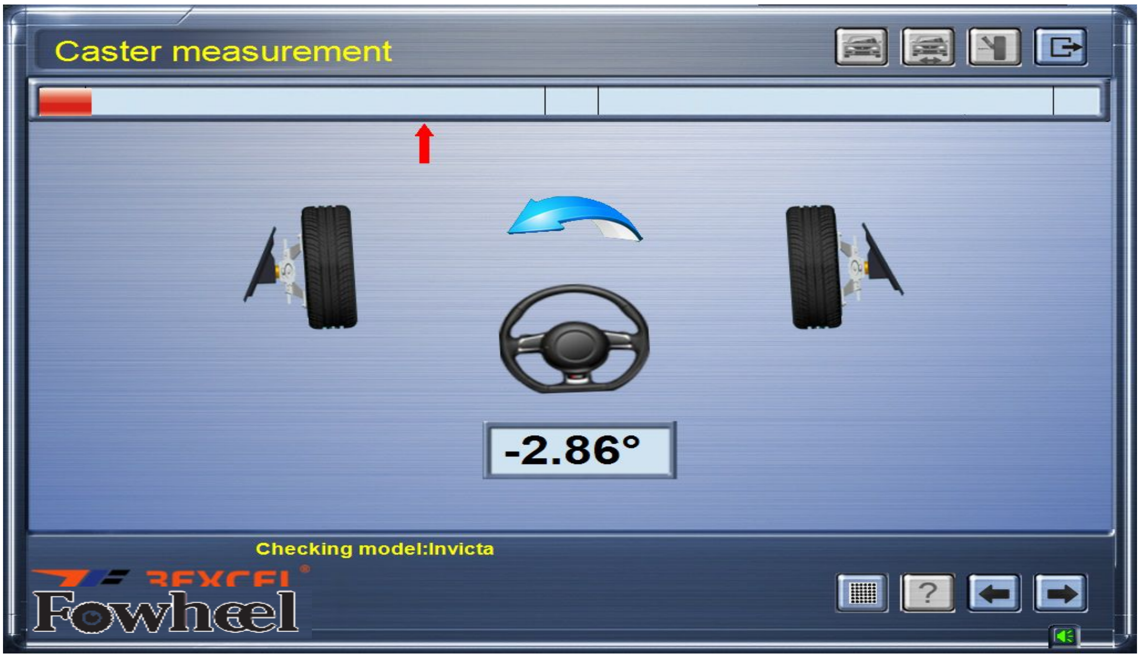



**3. Measurement.**

Within measurement interface,In the process of vehicle-pushing and accomplishment ,operation procedure and fast measurement should keep consistent.Only after vehicle-pushing,not only to display data,but at the phase of entering into turn steering wheel holder.

3.1 Turn steering wheel holder------After vehicle-pushing,then enter into the step of turning steering wheel hold,get ready for turning steering wheel holder according to words or voice remind.

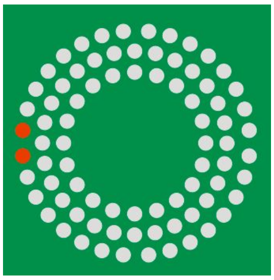
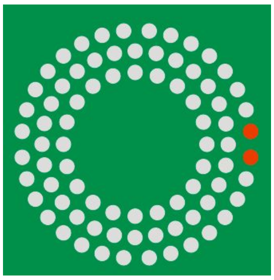
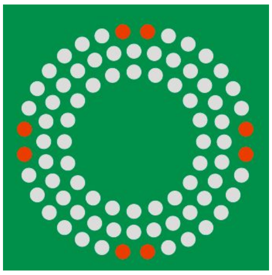
**3.1**、 Turn steering wheel holder as picture shown or voice remind.




3.2.1. Please turn steering wheel according to the blue arrow on the interface screen,

When it appears“  ”,you can stop turning steering wheel.

3.2.2. To make vehicle-pushing is based on the change of indication color on the beam,shown as below:


A

B

C

A：Turn steering wheel holder left.

B：Turn steering wheel holder right.

C：Stop turning steering wheel holder.

3.2.2.1. When the beam indicator appears”turn steering wheel holder left” red light,,it indicates that turn steering wheel holder left on the lift.

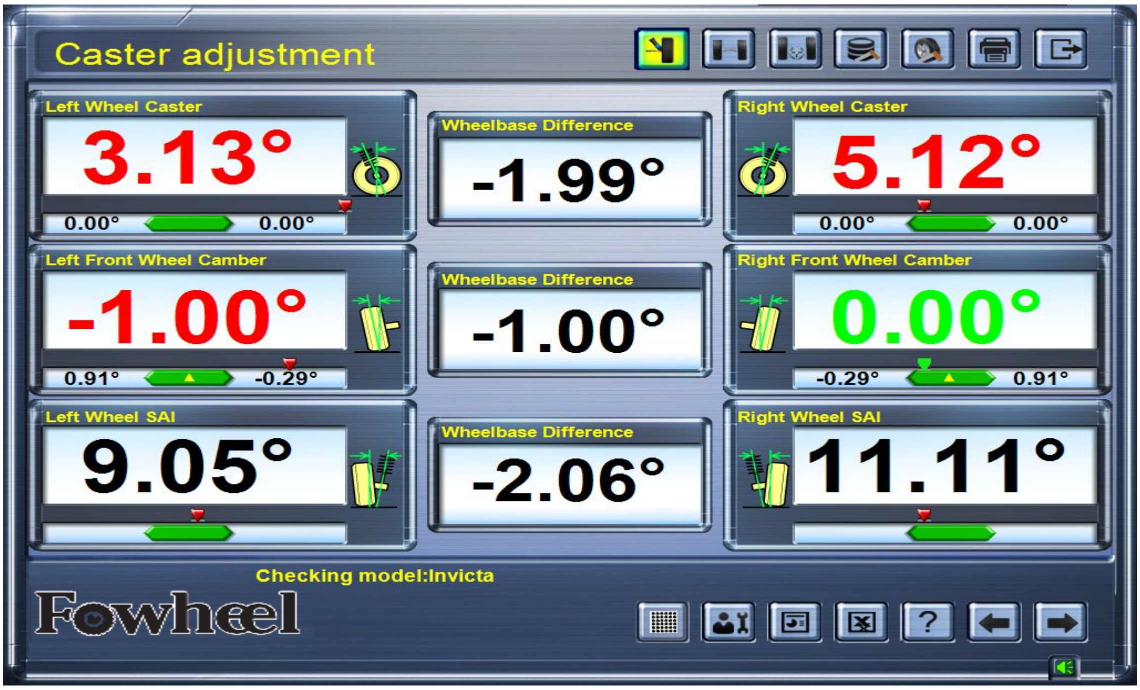
3.2.2.2. When the beam indicator appears”stop turning steering wheel holder” red light, it indicates that stop turning steering wheel holder.

3.2.2.3.When the beam indicator appears” turn steering wheel holder right” red light, it indicates that turn steering wheel holder right on the lift.

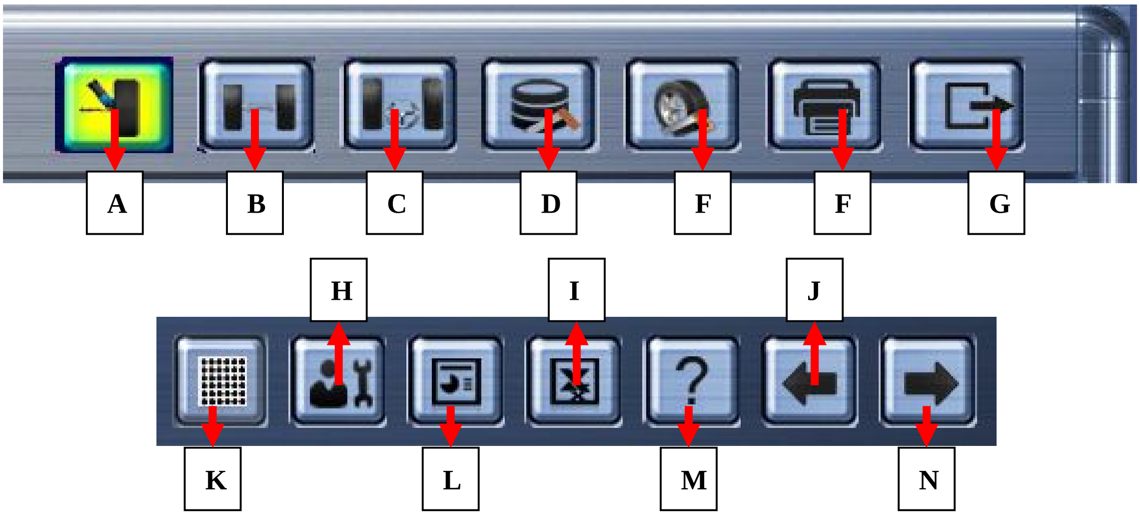
3.2.2.4.When the beam indicator appears”stop turning steering wheel holder” red light, it indicates that stop turning steering wheel holder.

After turning steering wheel, the software backstage will automatically change into adjustment module.

### 4. Adjustment module main interface is shown as below:

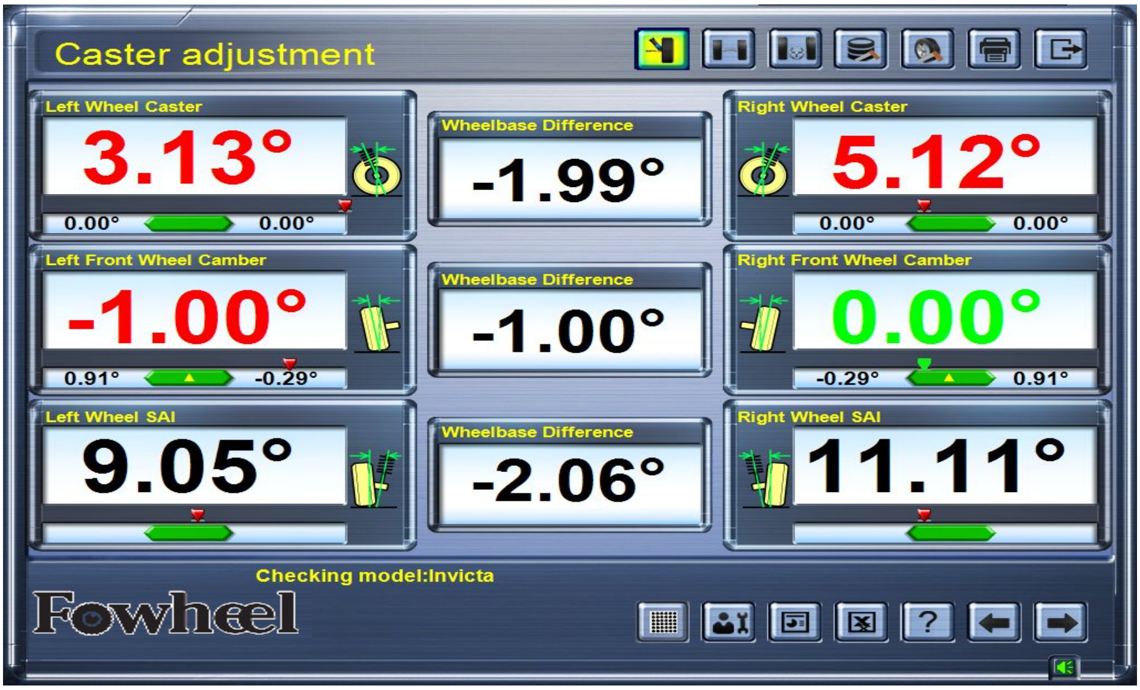



**Adjustment interface function introduction**




A:Caster Adjustment
B:Rear Axle Adjustment
C:Front Axle Adjustment
D:Additional Adjustment
E:Re-measure after adjustment
F:Report Print
G:Return to main interface.
H:Adjustment comment
I:General Graph Display
J:Previous Step
K:Next Step
L: Target Monitor
M:Graph Display
N:Help

**4.1.**.King-Pin Adjustment:Click the button of King-pin Adjustment "  ", it will enter into King-Pin Adjustment interface, the data will be displayed as live model, you can operate King-pin Adjustment at this model, the screen data will take real-time changes;

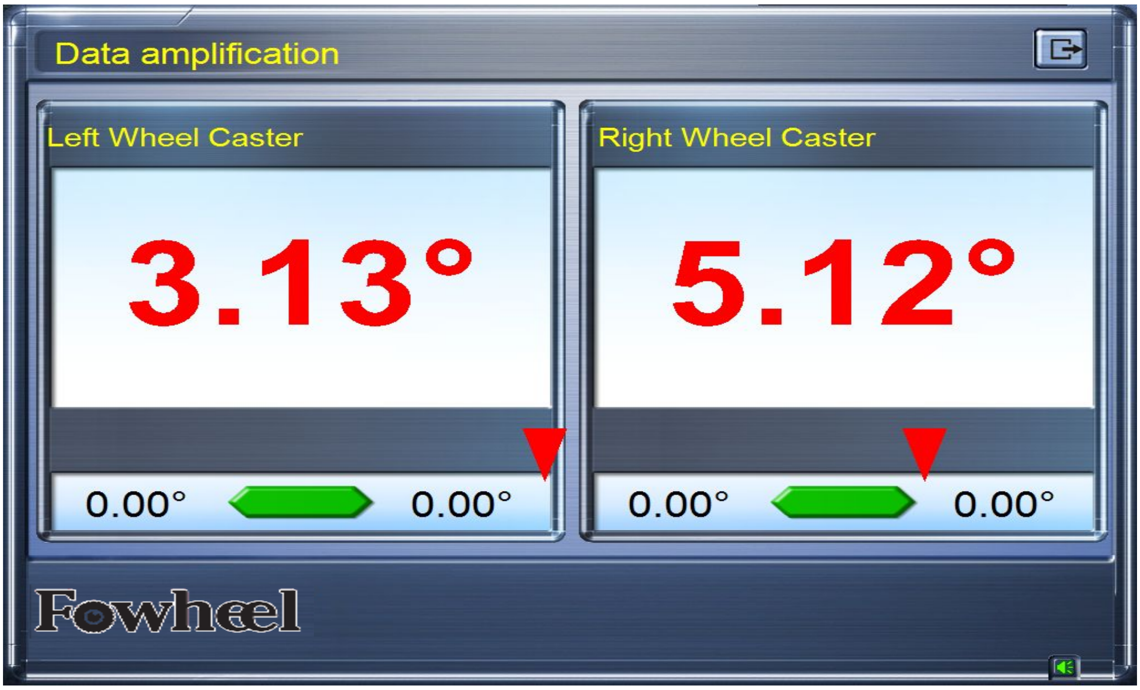



**4.1.1.**In the picture,data module displays red data, it indicates that tire angle parameter deviate with the standard value of original vehicle data. It needs adjustment; In the process of adjusting, the data will take real time change. While the data become from red to green,it indicates that the tire angle parameter is adjusted within reasonable range.

**4.1.2.**When the tested data become green, the tire angle parameter can be adjusted;

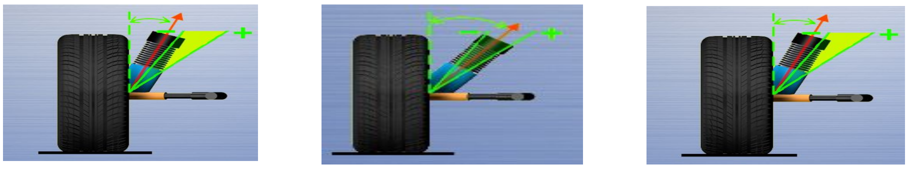
**4.1.3.**The green line in the picture indicates the range of vehicle original data between maximum value and minimum value. While the red triangle arrow is within the range of green line, it will automatically grow green.

Click the data module with left mouse,the module will be enlarged entirely,it will let operator watch more clear at a distance. As shown in the picture:



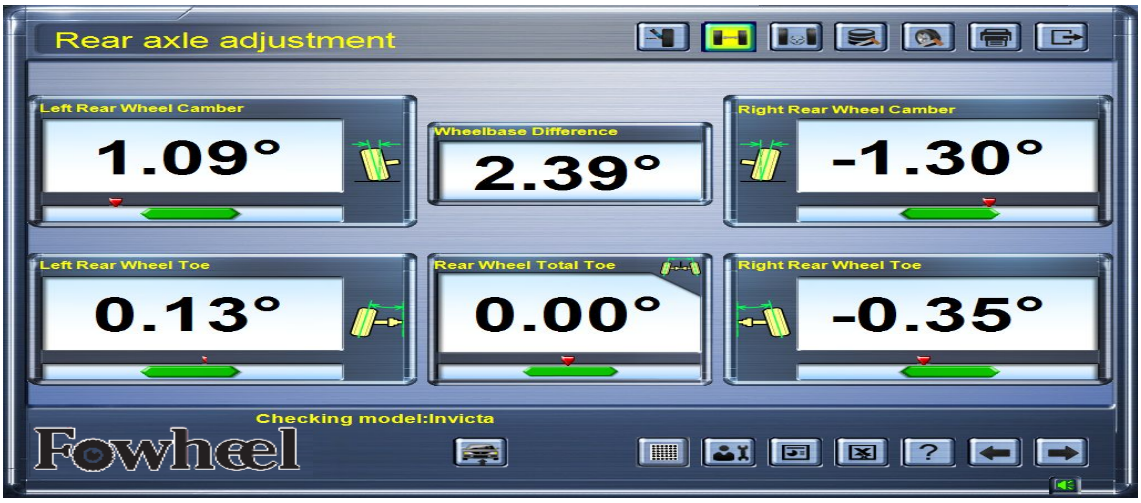
Left-click the icon“  ”, the interface will change to Live Graph,as shown in the picture:


Live picture display is divided into three kinds of status, make SAI as example:
**Picture A:** When the red arrow is between two green line included angel,it indicates that Caster Angel parameter is within the range of vehicle manufacturer original data.
**Picture B:** When the red arrow is is at the left side of two green line included angle, it indicates that Caster Angle Parameter is beyond the vehicle manufacturer original data.
**Picture C:** When the red arrow is at the right side of two green line included angle, it indicates that Caster Angle parameter is beyond the vehicle manufacturer original data;



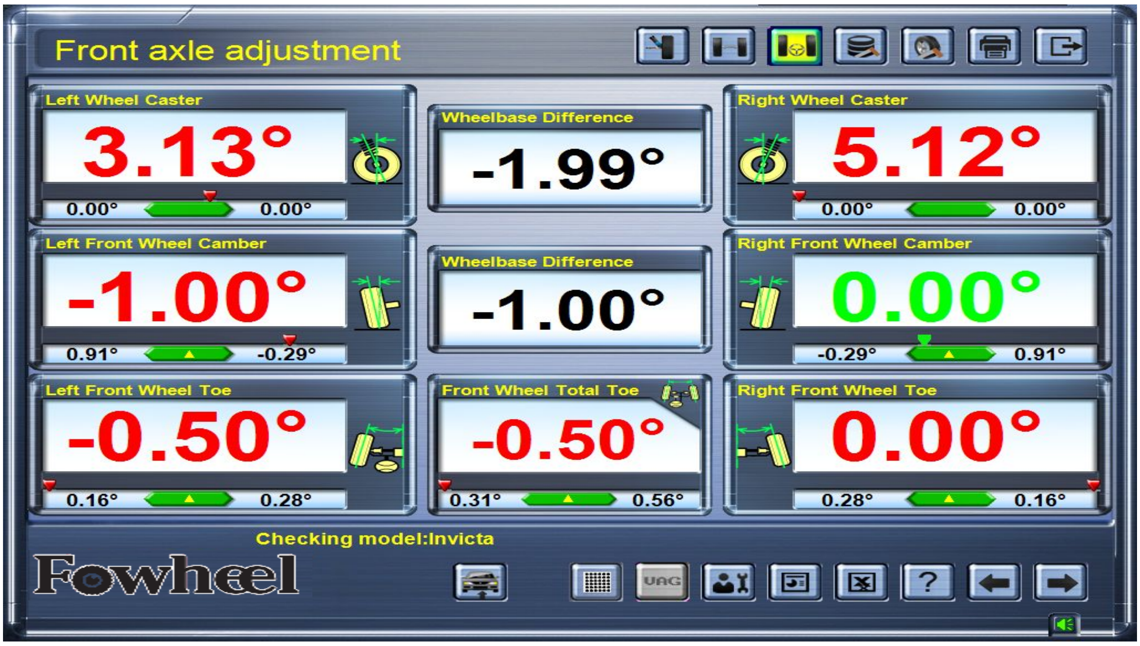
A B C

**4.2. Rear Axle Adjustment**:Click the icon of Rear Axle Adjustment “  ”,or continue next step to enter into Rear Axle Adjustment Interface, all displayed data will be live model. You can make adjustment for Rear Camber, Front Toe.
Make rear wheel camber adjustment,front toe adjustment under this model,screen data will take real time change according to adjustment.



**4.3.Front Axle Adjustment:**Click the icon of Rear Axle Adjustment "  " or continue next step to make front axle adjustment interface, the displayed data will be live model.

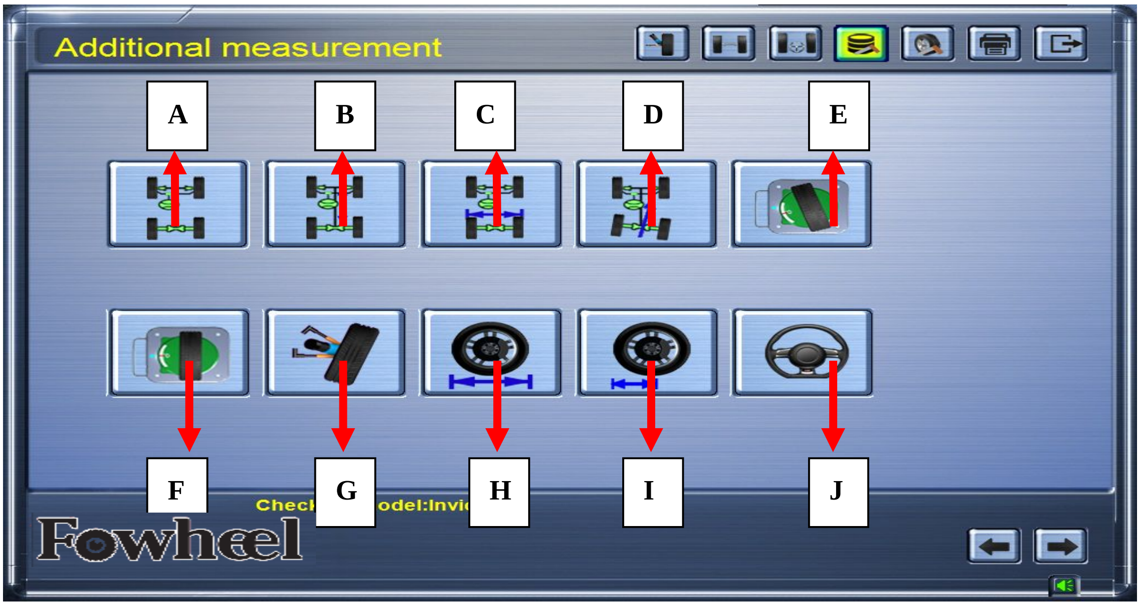
You can adjust Caster,Camber,and Front Toe for front wheel. The screen data will take real time change according to adjustment;




**4.3.1.Suspension Adjustment:**Click the Quick icon "  ", The Rear Axle Lift Adjustment and Front Axle Lift Adjustment model will appear( It will be used for automatic hoist beam assemble). When it appears insufficient lift height,it will influence Technician to repair. The vehicle can be raised to a easy and adjustable height by this function.(At the same time, the beam assemble need be raised to a reasonable height,ensure that the four targets are within the range of vision), as shown in the picture:

**4.3.2.VAG:**Click the lift adjustment icon””,enter into VAG adjustment. Special tool required to operate step by step.

**4.3.3.**Additional Measurement:Click the icon of additional measurement “  ” or enter into additional measurement model,please refer to the following picture,you can click the corresponding function model to make additional measurement according to your requests.




**A.** Expansion Measurement
**B.**Tread Measurement
**C.** Wheelbase Measurement
**D.**Thrust Angle Measurement
**E.** Maximum Turning Angle Measurement
**F.**Zero Toe Camber
**G.** 20'Turn Angle
**H.**Tire Diameter
**I.**Worn Tire Radius
**J.**Steering Wheel Return

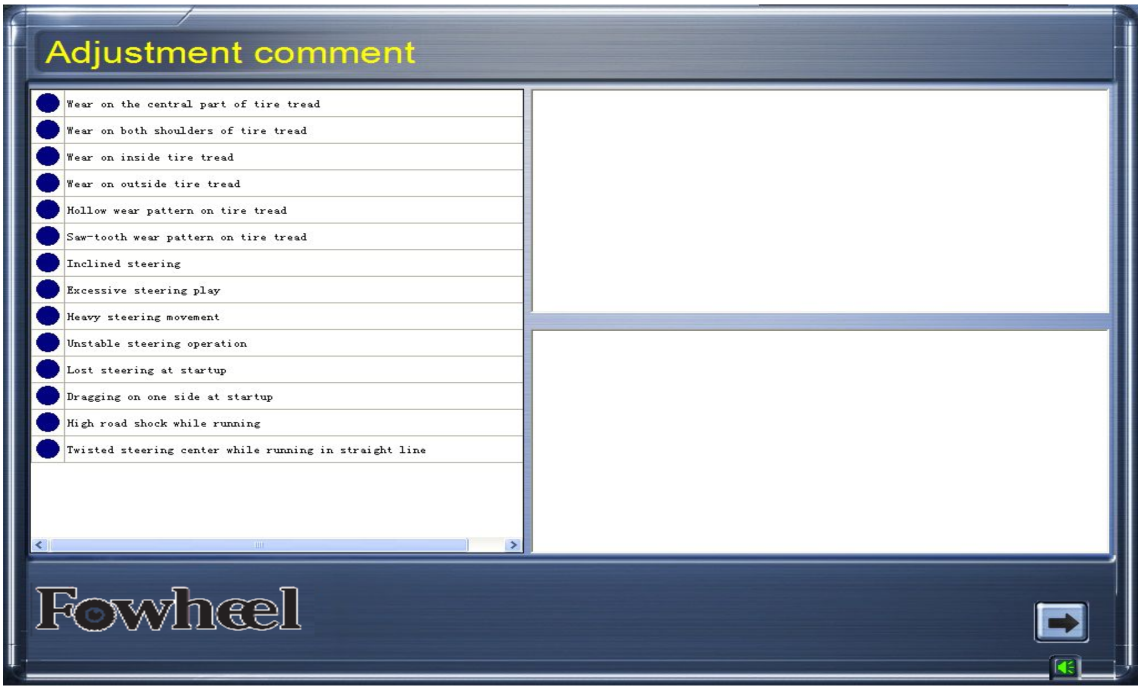
**4.3.4.**Remeasure after adjustment: Click the icon of “ re-measure after adjustment “  ”, After adjusting corresponding tire angle parameter,make re-measurement, then we will test the adjustment result.

**4.3.5.**Print:After measurement adjust: click print icon “  ”,you can make report print for all measurement result. Print content will be confirmed by customer information import,Pre-check item,actual measurement result.

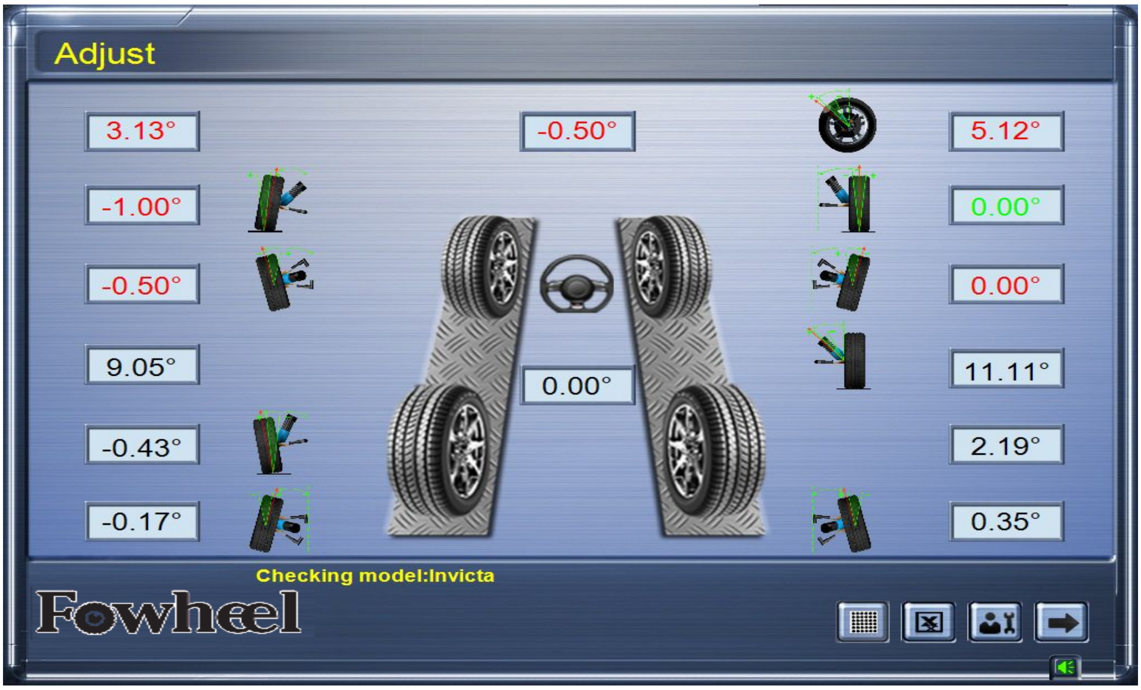
At print interface, Click the icon “  ” to make print review, click the icon “  ” to save customer information.

**4.3.6.**Return:After measurement adjustment, please do not make any operation at adjustment module interface, Click the icon of return“  ”.

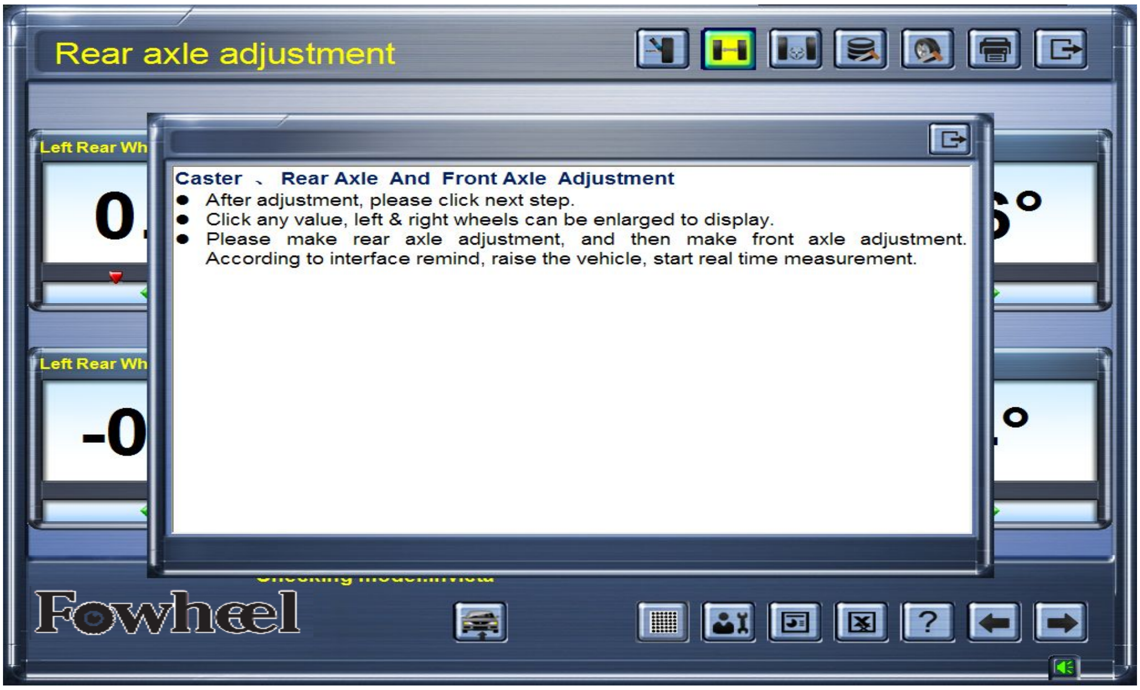
**4.3.7.**Adjustment Content:At measurement interface,click the icon “  ”,it will enter into adjustment comment interface, as shown in the picture:

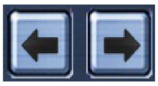



**4.3.8**、General Graph Display:At measurement interface,click the icon “  ”,it will enter into General Graph Display,which will display all angle parameters of front and rear axle.



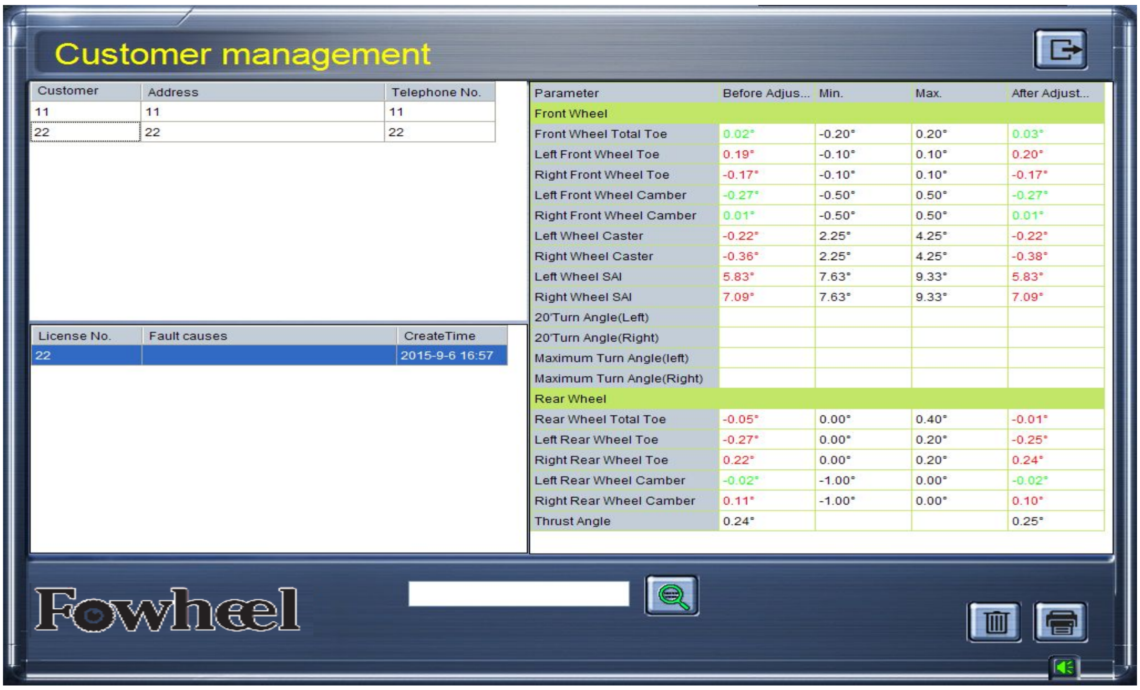
**4.3.10.** Help:At the adjustment interface,click"  ", help information interface will pop up,as shown in the picture:



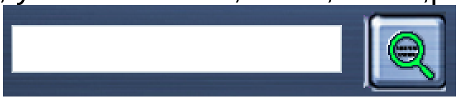

**4.3.11**.Previous.Next:Click any interface icon "  ", you can operate the Previous,Next.

## 5. Customer Management

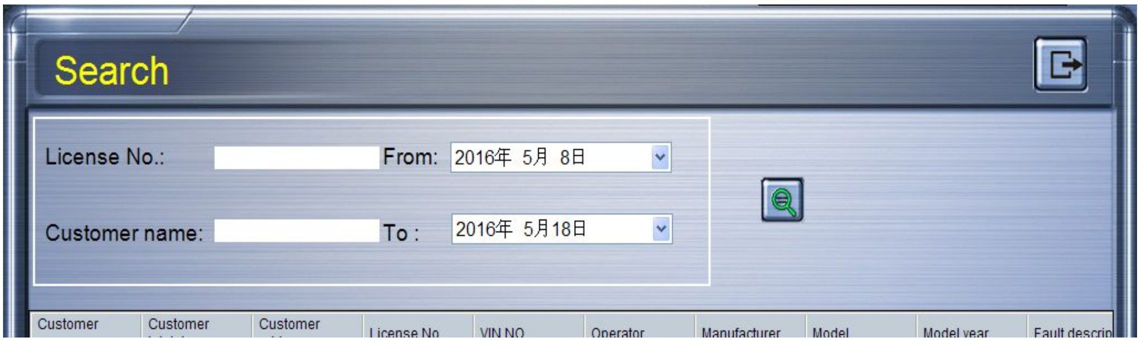
Under the main interface,click icon "  ",Customer Management model will pop up,as shown in the following:



Under this model, you can search,check,delete,print for all the customer information: 

1. At blank place"  ", system will automatically search the customer information you required.

2.Click icon "  ",it will enter into second search engine interface,as shown in the picture:




This engine can search according to vehicle license number,repair date.

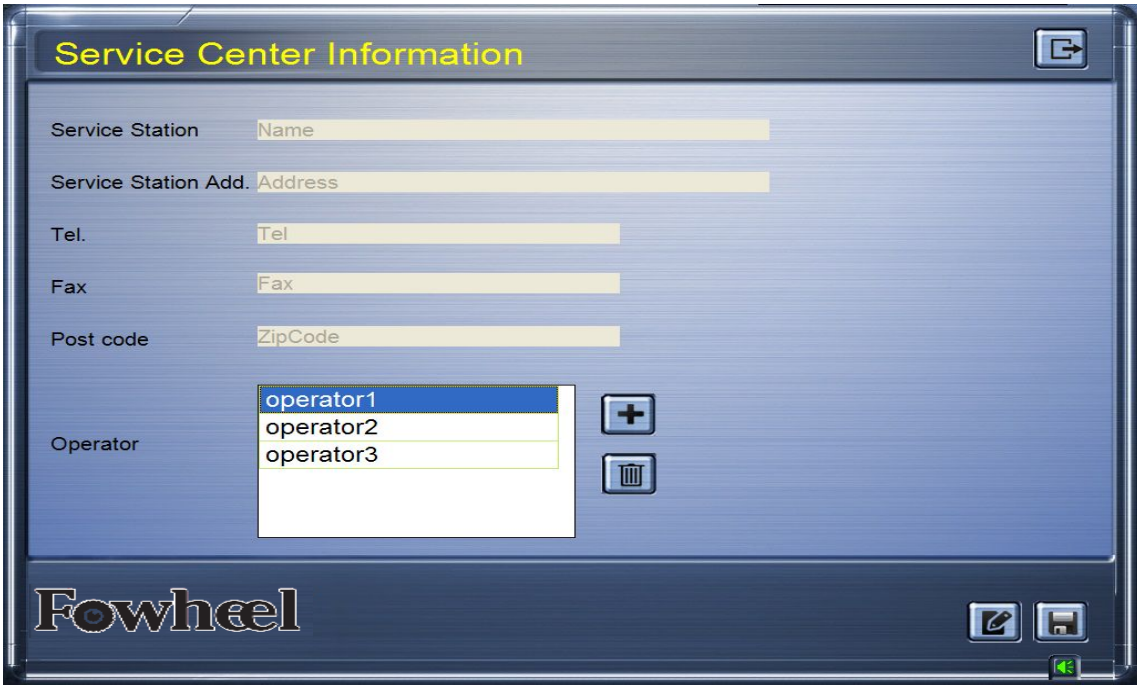
1. At report print interface, select relative customer, click icon "  ",it will delete the selected customer information.

2. At report print interface,please select relative customer, click icon "  ",it will print the customer report information.

## 5. System Management

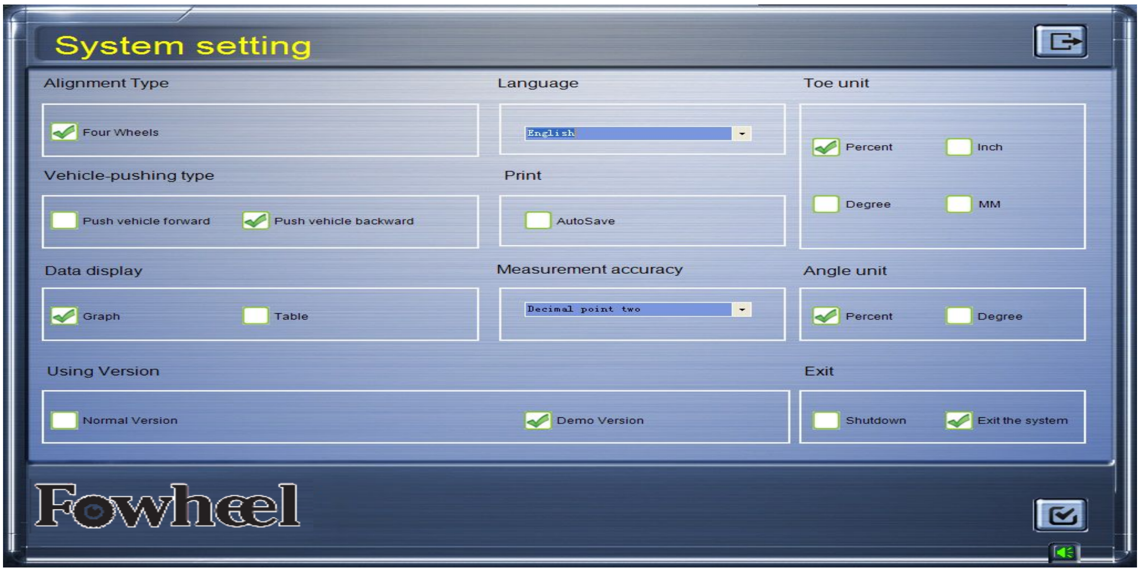
Under main interface, please click the icon"  "which will enter into system management model.as shown in the picture:

**1.Vehicle Station Information ------**Click the icon of system management“ ”,it will enter into vehicle station information edit interface, as shown in the picture:




At this interface, click the icon “  ”, you can edit for vehicle station name, address,repair phone, fax, post code, operator code. Click the icon “  ”,it will add operator and edit code,choose,operator click the icon “  ”, it can delete the operator. Click the icon “  ” ,it will save or exit vehicle station information edit model.

**2.System Management ------**Click the icon of system management “  ”,It will enter into system setting model, as shown in the picture:



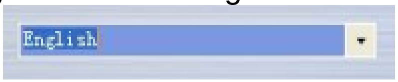
2. 1. Using version**:**Normal Version,Expert Version,Demo Version is available

2.1.1.Normal Version, with shunting animation,it is suitable for green technician or new shunting technician. 3D adjustment animation will guide technician to make relative angle adjustment.

2.1.2.Expert Version, without shunting animation, it is suitable for skilled shunting technician. You can shunt vehicle well without looking at vehicle shunting animation;

2.1.3.Demo Version: Without putting target and linking with camera, you can start whole vehicle testing demo, it will be helpful for new technician to study software;

2.2. Language:Click the triangle icon at language column right side

“ 

”. You can select the required language.

2.3.Toe unit: According to area or personal favorite, user can set toe unit as percentage degree,inch,grade,mm;

2.4.Alignment Type:It is four wheel alignment measurement model;

2.5.Database Display:You can select graph display or chart display;

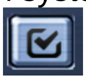
2.6.Measurement Precision:Click the triangle icon at measurement precision column right side, you can select a decimal point or two decimal point“ 

”;

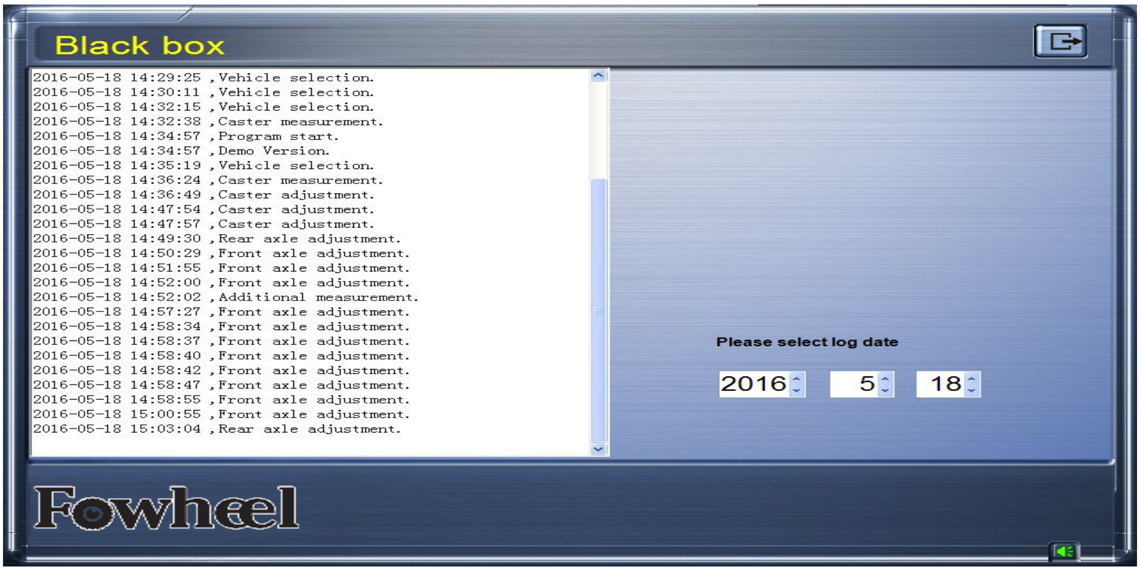
2.7.Angle Unit:You can select Percentage degree or grade;

2.8.Vehicle-pushing selection:You can select Vehicle-pushing forward or Vehicle-pushing backward;

2.9.Exit:You can select setting“exit Wheel Alignment software” or “Windows system”when exit software.( Back to operation system interface);

After finished all setting,click “  ”, it will save the parameters and exit system setting model.

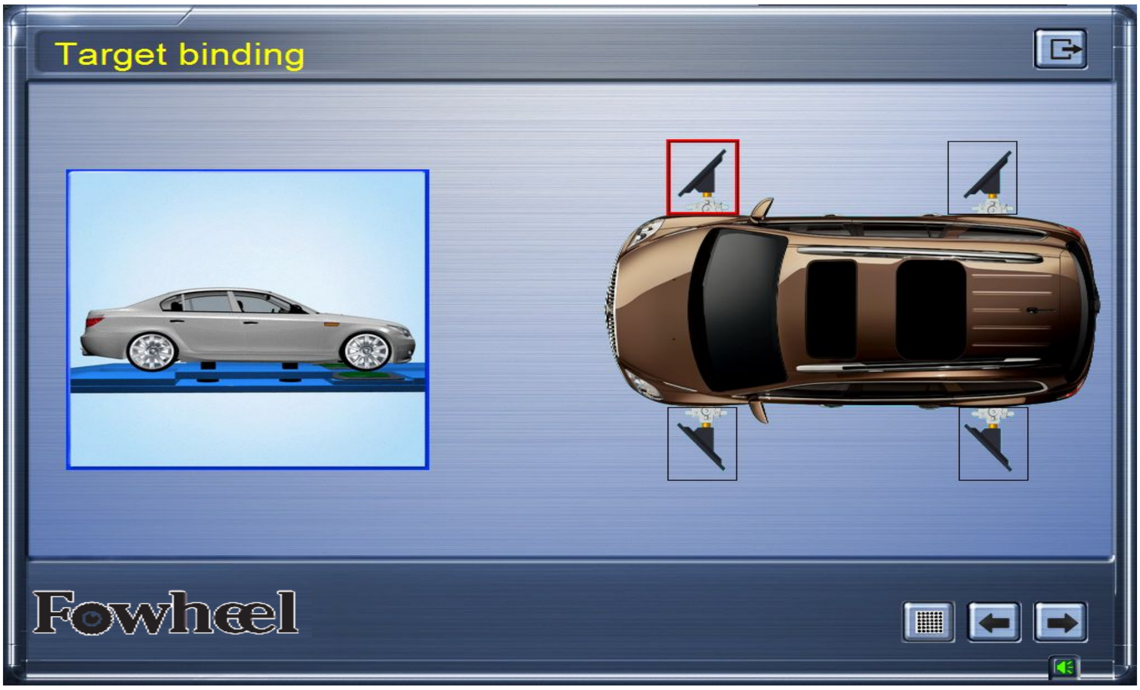
**3**.**Black Box------** Click the icon of system management interface“  ”,it will enter into black box model,as shown in the picture:



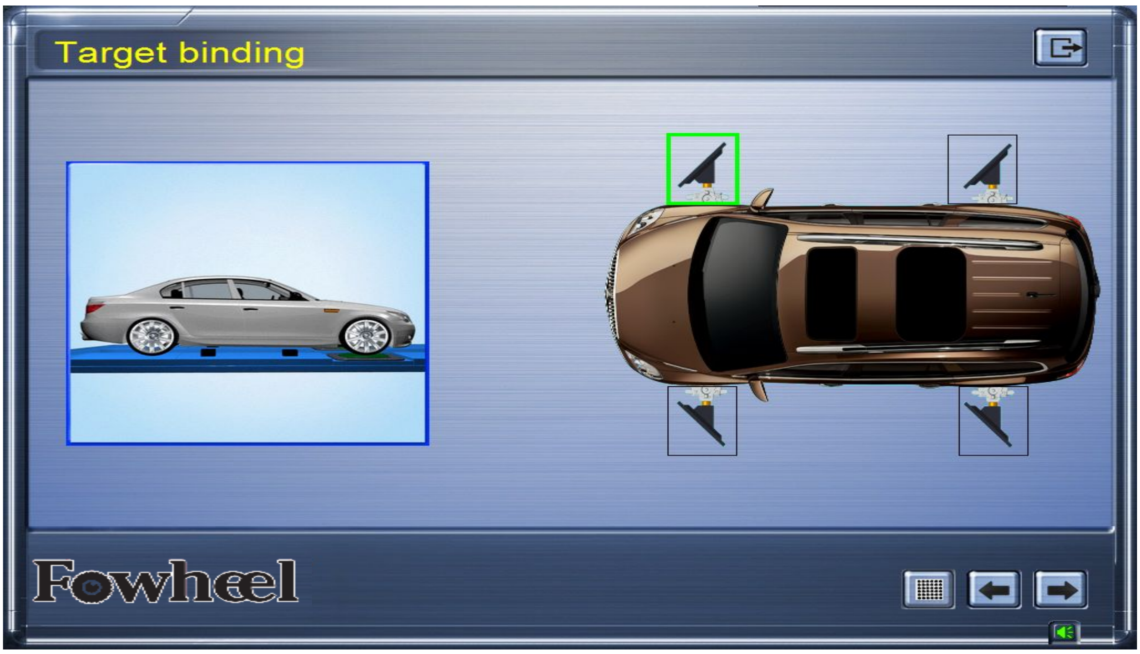

Black box mainly records the working status of camera and the target is within reasonable vision limit or not, it supplies judge basis for Technician to make remote technology support.

4.**Target Binding------** Click the icon of system management interface“  ”, it will enter into target binding model, this model will be usually operated by installation personnel. After using for sometime,the user will make targets binding by himself, The main benefit is that it will obtain the rotating center of target. Then the vehicle body plane will be calculated to ensure higher measurement precision: the detail operation will be shown in the following:

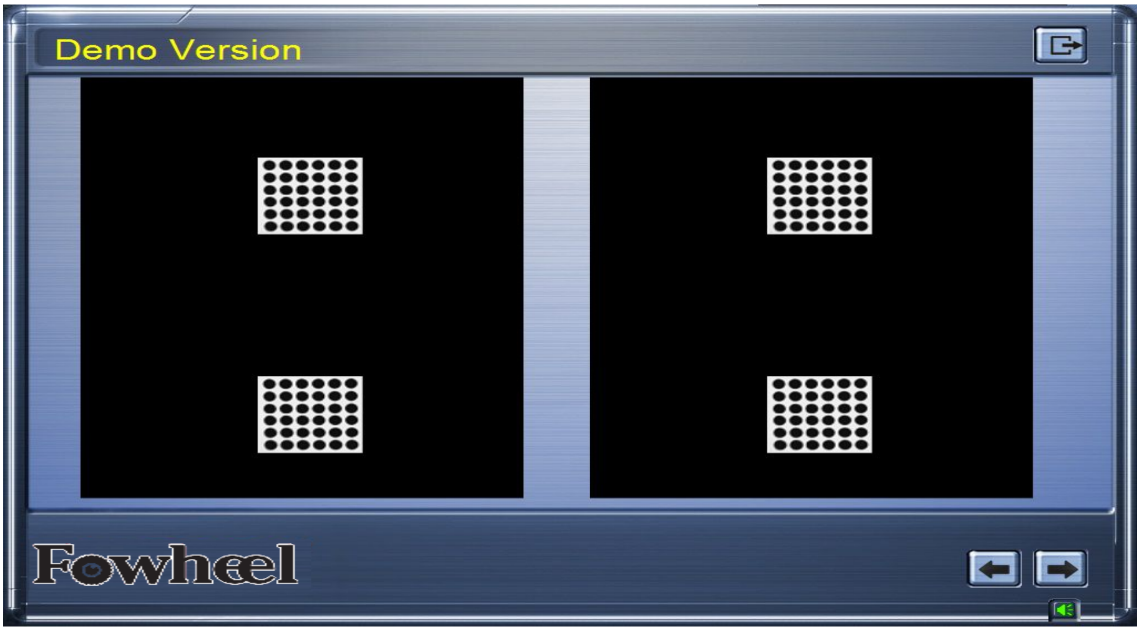
4.1.Make second lift for the vehicle, ensure that the four tires away from lift platform,and it can rotate very smoothly..Then right-click one of the target, the target select box will be red( As shown in the picture), then click “direction key” to continue next step;




4.2**.** Rotate the tires according picture arrow( The order: Rotate tires forward-Rotate tires backward-Rotate tires center)，Until the four targets become green(As shown in the picture), then it indicates the target is bound successfully.Then make the other target binding in turn.



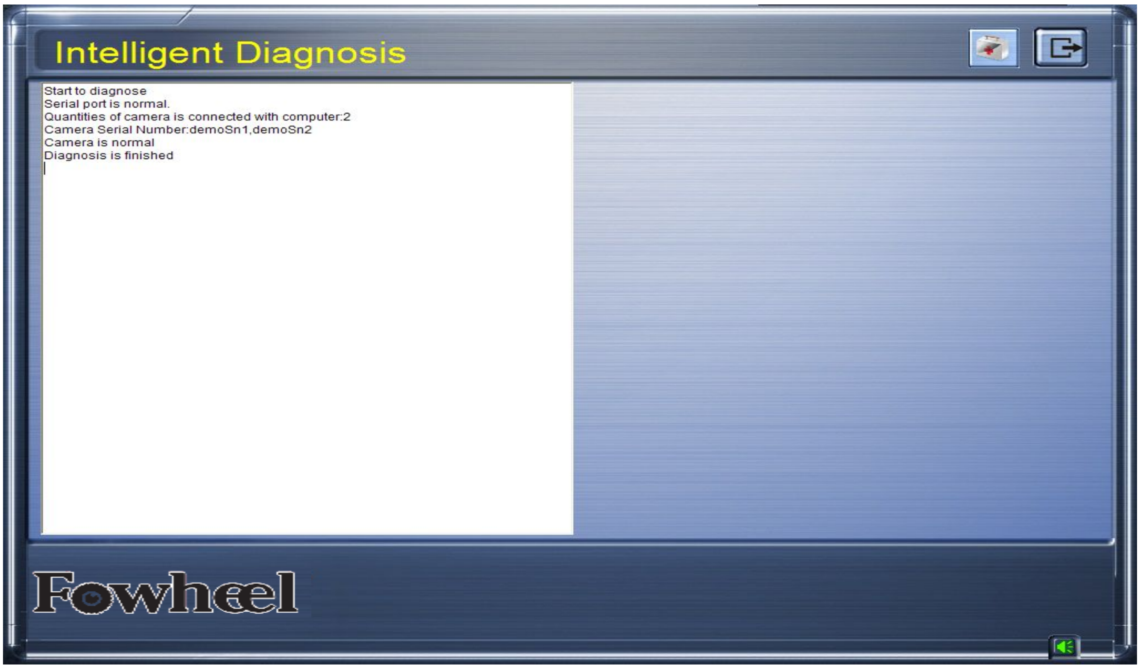
**5.Target Monitor------** Click the icon of system management interface“ ”， It will enter into target monitoring model,as shown in the picture;




5.1**.**The function of this model:Guarantee the definite position of the four targets within camera vision, black background represents the vision size of four cameras. Only make The four targets within the vision of camera. It will ensure that the reliability,effectiveness,accuracy of whole testing process;

5.2**.**When the lift raises up,Target monitoring interface need be opened,it will judge that the height of lift is suitable or not, the target exceeds the vision of camera or not.

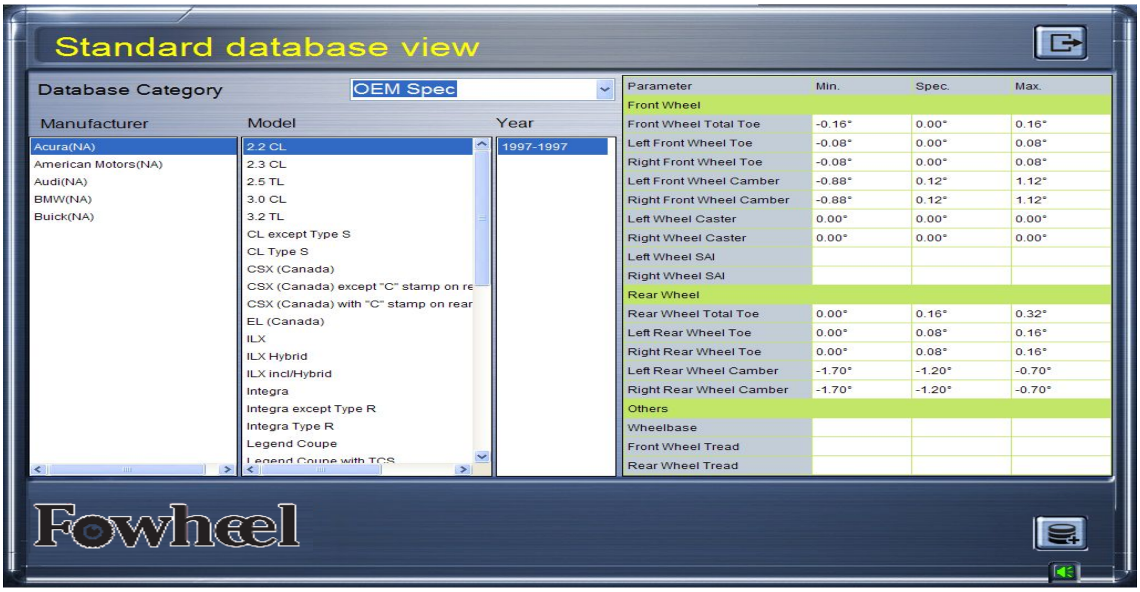
**6.Intelligent Diagnosis**:Click this icon “ ”,it will enter into intelligent diagnosis module,Computer will automatically judge and analyze the connecting situation between camera,HUB board and transmission cable and computer.



**7.Camera Calibration------** Click the icon of system management interface“  ”, it will enter into camera calibration model.

Camera calibration model mainly directs at maintenance operation after changing camera, It needs professional equipment or professional technician to operate.

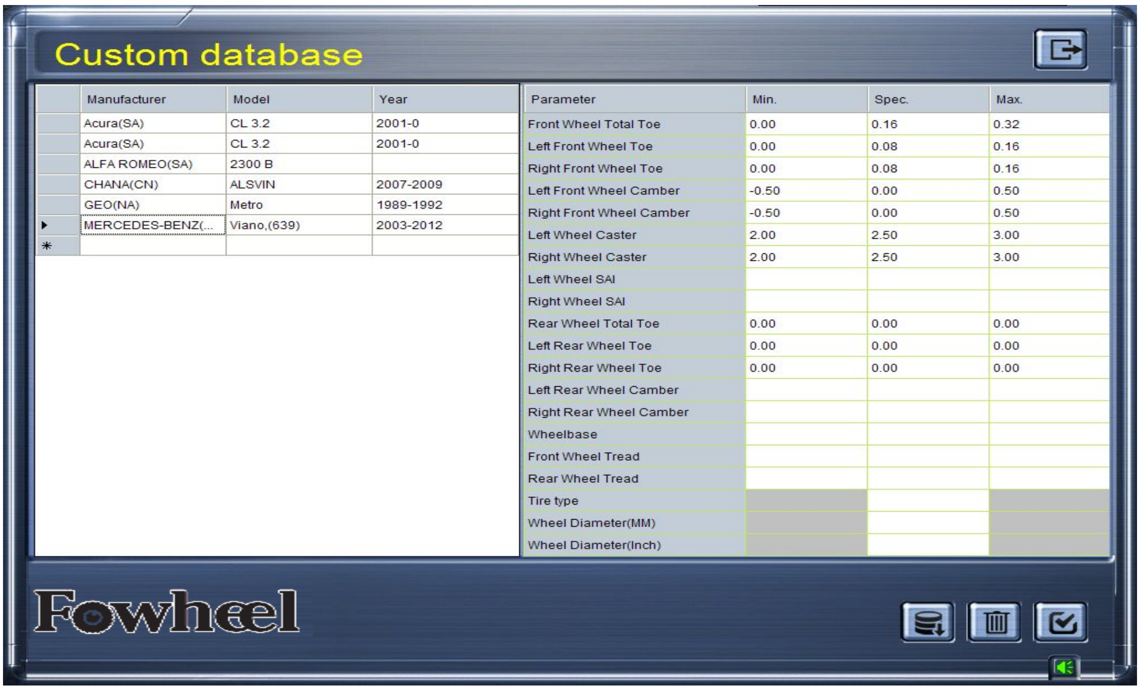
**8.Standard database------** Click the icon of system management interface“  ”, standard database model will pop up,as shown in the picture:




8.1.Standard database only can be read and reviewed,it can not be modified;

8.2.Click triangle icon at database category on the right, it will appear different area vehicle pull-down menu, you can choose according to needs;

**9.Normal Used Database------** Click the icon of system management“  ”, you can enter into normal used database model,as shown in the picture:



9.1**.** Normal used database,you can review,add,modify,delete.

9.2**.** Click normal used database,the system will automatically generate a line,then we can type new vehicle data. When we type the data, the system will automatically generate one blank column. Then you can continue typing other vehicle data.

9.3**.**Click“  ”,you can import the normal used data from standard database, then it will be convenient for future use.

9.4**.**Choose one data,click “  ”, it will delete the vehicle data information temporarily,click “  ”, it will delete the vehicle data

9.5**.**Click the icon“  ”, you can save for what you import,delete,add.Otherwise.all edit will not be saved;

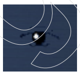
**6. Exit system**

Under main interface,Please click the icon"  ",exit the present alignment software.

**7.Volume Control**

Under main interface,please click the icon"  ", it will pop up volume control module, you can click the volume slipper with left mouse button. (As shown in the picture), It can adjust volume by dragging volume slipper.

## 8.Golden Eye

Under the main interface, please click icon"  ", Golden Eye function will be started( It is unique patent technology),which only need observe monitor interface showed on the computer monitor, then it can finish the vehicle drive-in process on the platform.

## 9.Product Maintenance

**1.Computer Maintenance**

- User must have a good command of computer software and hardware knowledge, and confirm computer to work smoothly.

  The main frame and monitor should be fixed on the working platform. It is forbidden to put near to the place where has radioactive source and heat sources, put in the environment which is drying,extremely hot,severe cold,humid.

- When the computer works, please do not move or shake it casually.
- Computer mainframe is professional used for Wheel Alignment, It is forbidden to install other software at this computer main host.
- It is forbidden to take apart computer,fiddle with inner wires and CRD card, in case it will cause inner equipment damaged.
- Long-term use will make the keyboard,main frame and monitor cover some dust and

grease dirt. Therefore, it is necessary to use neutral cleanser or absolute alcohol to wipe. It is forbidden to use oily or corrosive material to touch computer.

**2.Camera Maintenance**

- Please keep the room away from dust,moisture,keep the camera lens away from dust ,to avoid camera circuit board over humidity to get damaged
- Camera is the electronic precision instrument. After taking apart, it will cause parts damage. As for camera damage caused by automatic unpack. We will not donate warranty for it.

**3.Target Maintenance**

- Long-term use will make the surface cover some dust and greasy dirt. Therefore.it is necessary to wipe with neutral cleanser or absolute alcohol. It is forbidden to clean with water,oily,corrosive material.
- Please be careful n the process of using. Do not throw or fall. Otherwise the shell will get transformed or the protective layer will breach.

**4.Printer Maintenance**

- Please read the printer relative guidance carefully..
- Please install the printer driver program correctly, make sure that the printer setting without fault.
- After using for sometime, if appear ambiguous print handwriting, maybe as the ink is used up. So please change the printer ink box in time.