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## **Please Note:**

This system is designed for assisting driver for a better driving experience. All the information we provide is for user's driving reference only, please abide by the local traffic law and regulations while driving.

In order to provide driver a safer driving environment, digital TV is not provided when the vehicle is running on the road.

Please don't focus on the screen while driving, pull over and stop user's car in case user need to check or operate the ARS unit. If there's any traffic problem or collision occurred due to driver's operation of the unit, ARS Global Guiding Inc. does not have any legal liability for that.

Please don't fold or unfold the screen with strength, use the power button to have it fold or unfold automatically.

In order to save user's vehicle's battery, the unit will shut off automatically in 30 minutes after the car's engine is off.

如果设置“设防不关闭系统”，设备一直工作耗电，当电池电量不足时，系统自动关闭，功能失效。

If this unit does not work or is out of order, please call 800-800-800 for help.

If user's car can not start because of the unit problem, please press the emergency restart button on the right back of the rearview mirror.

## Chapter 1 Basic phone call operation

The touching screen is the input platform for this unit, slightly click buttons on the screen surface to operate related function. The touching pen is in the bottom at the right-back of the unit, find it with user's finger and slightly press and pull out for use.

### 1. Main Page/First Page/Control Panel

When the system defense is off, press the open button (details in chapter 9) to open the screen, and the main page / control panel displayed as below:



P1-1: Main Page

 indicates how strong the GSM signal is ;  indicates that GPS signal works;  indicates that there's no GPS signal, in that case, the GPS is out of order, remote service is not available.

Note: GPS signal will be affected by various environment factors, and it may take longer time for positioning, please be patient.

   These three buttons individually indicate that there are unanswered calls, unread new messages, and unread new documents.

### 2. Make a phone call

Press the phone button on the unit (Shortcut key button, details in Chapter 9), the screen will automatically unfold and display the phone calling page, then user can use the touching pen to input the phone number as shown in below photo 1-2.



Click the direction button to move the cursor, and press the cancel button to delete the previous entered wrong numbers.



P1-2: Phone calling page

Click or press the shortcut key to make a call, the phone calling page will pop up and shows the call time, see photo 1-3. Click to return to the phone number enter page, and user can continue to enter numbers or revise numbers. Using the volume rolling bar to tune the speaker volume during user's call, and user can choose to use speaker or earphone by pressing the shortcut key on the board (detailed

shortcut key introduction see Chapter 9) . Click to end a call or press the shortcut key return to the phone calling page, then press to return to the main page. On the phone calling page, user can check the phone book and call records by pressing the and button.



P1-3: Phone-talking page

Entering main page, click settings and enter the function setting page to setup the voice call number (details in Chapter 7), after hearing the prompt “Please tell the callee’s name”, speak out the name that already stored in the phone book (NOTE: Names not stored in the phone book can not be recognized) in 2 seconds, the system will read out the phone number after accepting user’s voice, then user click the ok button to confirm it’s reading and click the call button to make the call; in case the system does not recognize the name user called out, user has 5 times to try, then there’s a voice prompt “Voice can not be recognized” to cancel this action. During this action, user can also use the dialing number to make a call, by that time, the voice recognition process is terminated automatically.

### 3.Answering a call

When there’s any call coming in, the unit will report the calling number and then ring, display the phone number calls in, as shown in photo 1-4.



P1-4: Call number display page

Click **Answer** to answer the call, click **Hang up** or press the shortcut key  to hang up the call. Use the volume rolling bar to tune the speaker volume during the call, as shown in photo 1-5.

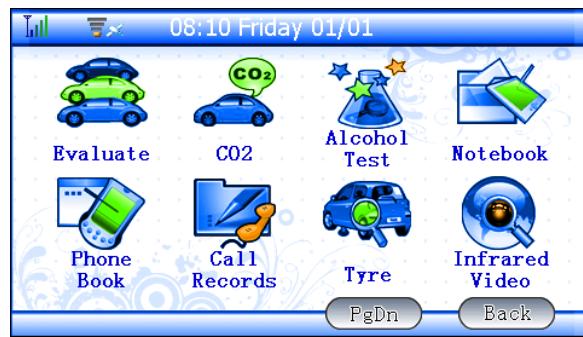


P1-5: Phone answer page

User can also use the shortcut key to answer the call ( shortcut key introduction see Chapter 8)

#### 4. Phone book

Click the toolbox button in the main page to open the toolbox page, as shown below in photo 1-6.



P1-6: Toolbox page

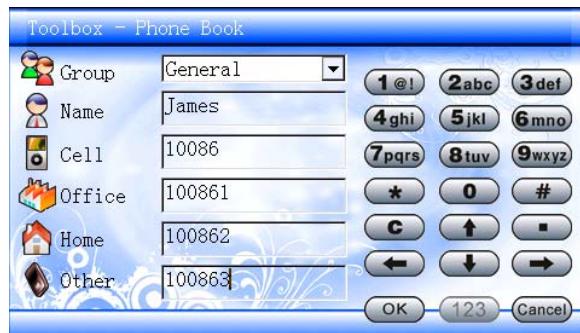


Click phone book button  , phone list displayed in the phone book, every entry includes below information: group, name, cell phone, office phone, home phone number. Choose the voice choice for one of the phone numbers under one name for future voice call. See photo 1-7.



P1-7: Phone book page

There're 5 buttons: Delete, Edit, Add, Call, Back. When user press the Call button, the system will make the call directly when there's only one number stored under that name; when there're several numbers under one name, the system will pop up a list for user to choose. Click Edit and Add button to revise and add new entries as shown in photo 1-8.

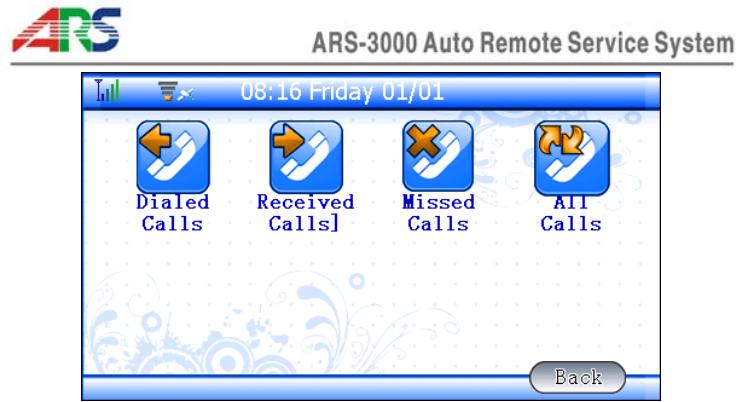


P1-8: Phone book editing page

## 5. Call Records

Click the toolbox button in the main page, the toolbox page displays as in photo 1-6. Click the Call Record

 button to see all the choices as in photo 1-9, including: dialed calls, received calls, unanswered calls, all the calls.



P1-9: Call records page

Choose any of these above items to see the relative call lists, including phone number, call date, call time, call type, if user clicks the “call” button, user can make the call. Click “Delete” button to delete the selected number, or click the “Delete all” button to delete all the call records accordingly. Click “Back” button to return to the main page. As shown in below photo 1-10.



P1-10: All calls page

## 6.Call-voice recording

During user's phone conversation, user can press the voice recording shortcut key on the ARS unit to record the conversation (detailed shortcut key introduction in Chapter 9) The screen page will show that voice recording is on, press the voice recording key again to stop the recording.

To playback the recorded conversation, click toolbox, then click play, as shown in photo 1-11. User can replay or stop playing the selected recorded conversation, and user can also adjust the volume although the voice volume

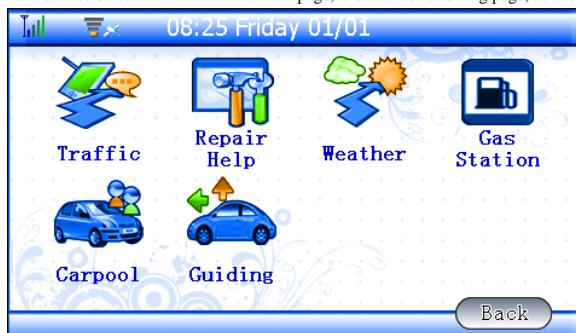
will resume the default set after user quit playing recorded phone conversation.



P1-11: Phone conversation play back page

## Chapter 2 Remote Service

 Click the remote service button in the main page, and see the following page, as shown in P 2-1:



P2-1: Remote Service

It includes road traffic, repair and help, weather information, gas station, carpool, real-time GPS. User can click  button to return to the main page. Applying remote service requires GPS signal, so that the service center can pinpoint the vehicle's current location, otherwise the system will report out "There's no GPS signal, remote service application failed".



1) Road Traffic

Request road traffic information from the center, the center then provides the road traffic information to user based on user's current location. This service requests system network support.

**2) Repair and help**

Ask for emergency help from the center when user needs it. The center will confirm user's situation and then send the requested emergency service. This service requests system network support.

**3) Weather information**

Request weather information service from the center, the center then provides user the requested weather information based on user's current location. This service requests system network support.

**4) Gas Station**

Request gas station locator service from the center, the center then provides user the nearest gas stations based on user's current location. If there's no sufficient gas in user's car, the system will automatically apply for gas station locator service from the center. This service requests system network support.

**5) Carpool service**

Carpool: Share one vehicle with others to the same destination like going to office, going to school or take a tour trip on holidays, all the passengers will share the gas expense. Our network can provide user a way to find people who have similar route and destination, user can simply send user's request to the center and the center will help user to check out if there's any person have the same needs, and then send the information to user in time. As shown in photo 2-2.



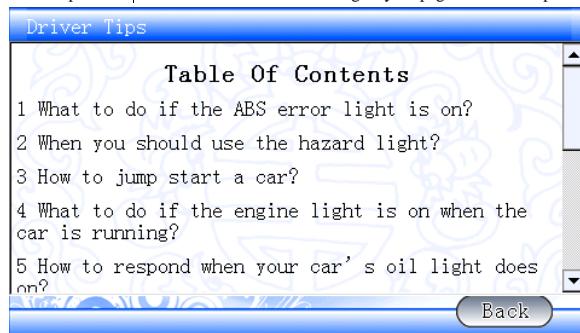
P 2-2: Carpool service page

**6) Real-time GPS Guiding**

Ask for remote navigation service from the center, the center then will provide guiding map to user according to user's current location. This service requests system network support.

**Chapter 3 Driver's Tips**

Click the Driver's Tips button  to enter the emergency kit page as shown in photo 3-1.



P 3-1: Driver's tips/ emergency kit page

In this section, user can check out the tips and methods to handle some emergency happened on the road.

Simply click the question, and the answer will appear in a new page.

## Chapter 4 Traffic Condition Information

Click the traffic condition button  in the main page to enter the next page, as shown in P 4-1.



P 4-1: Traffic Condition Information page

User can click the relative button according to the current road condition to collect the information for sharing with the control center, then when other customers want to know the specific road condition, control center can provide detailed real-time traffic condition information.

## Chapter 5 Maintenance Reminder

Click the maintenance reminder button  in the main page, enter the page for maintenance reminder checking-up and editing, as shown in photo 5-1 and 5-2.



P 5-1: Maintenance Reminder page

To edit the vehicle's maintenance items, click the "edit" button to enter the page as shown in photo 5-2. Revise the related data. The system will remind user when user's next maintenance time due (miles or driving time). If user finished maintenance, please update the data on this page in time, so that the system won't keep reminding user to do that specific maintenance. Maintenance reminding will keep one week if user does not update the data. After one week, the system will stop reminding and deems that the maintenance has been made, and automatically updates the data in the system.



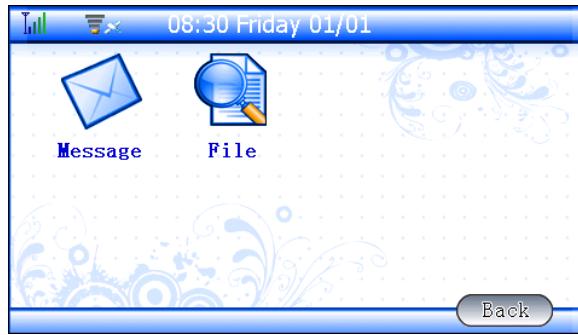
P 5-2: Maintenance Reminder Editing page

Click the "Car purchasing date" to put-in or revise the date that user's car was purchased, and the system will deem that date as the latest maintenance date.

## Chapter 6 Center Message



Click the center message button to see the next page, which includes short message and document message, as shown in photo 6-1.



P 6-1: Center message page

**1) Short Message**

Click the short message button to enter the next page, as shown in photo 6-2, which includes new messages, Read Messages and All messages. These are the messages or information sent from ARS control center or GPS. (Note: Only short messages from the control center can be received, this unit can not receive other cell phone messages.)



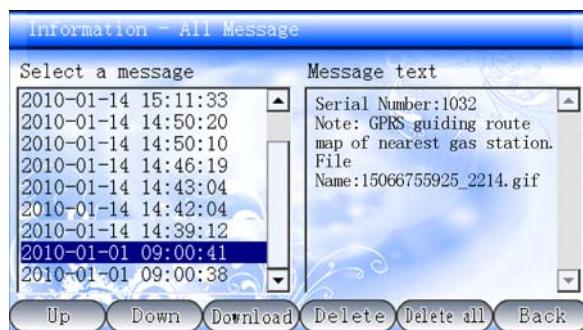
P6-2: Short Message page

User can view the message receiving date and time, view the message, and delete any selected message as shown in below photo 6-3.



P6-3: Short message checking page

If the message that user received is from the center for reminding user to download information, please click the "Download" button to download the information as shown in photo 6-4.

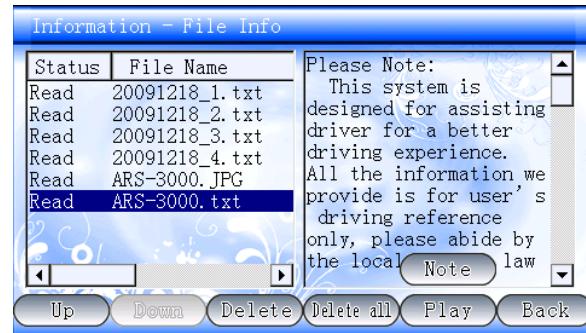


P6-4: Short message checking page

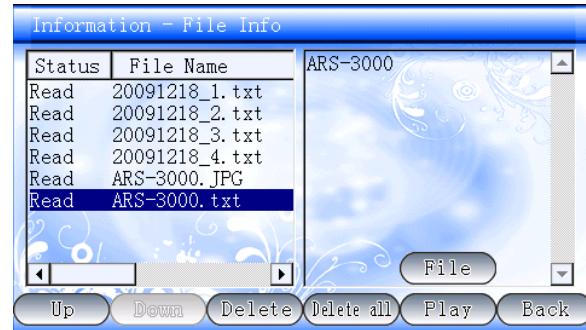
## 2) Document information



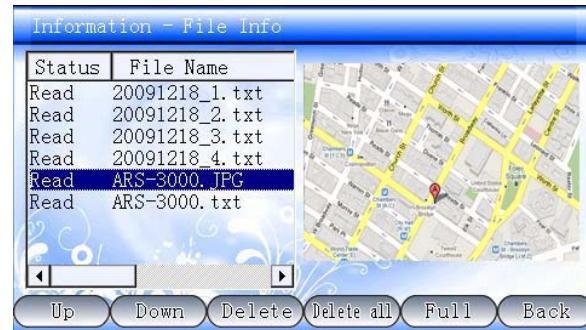
Click text/document message button  to enter the message checking/ reading page, where stored all the documents sent from control center via GPRS. User can view the text message and message status as shown in photos 6-5 6-6 6-7.



P 6-5: Text message checking page



P 6-6: Text document message status checking page



P6-7: Image message checking page

There're text messages and image messages in this section, and user can choose any from the message list.

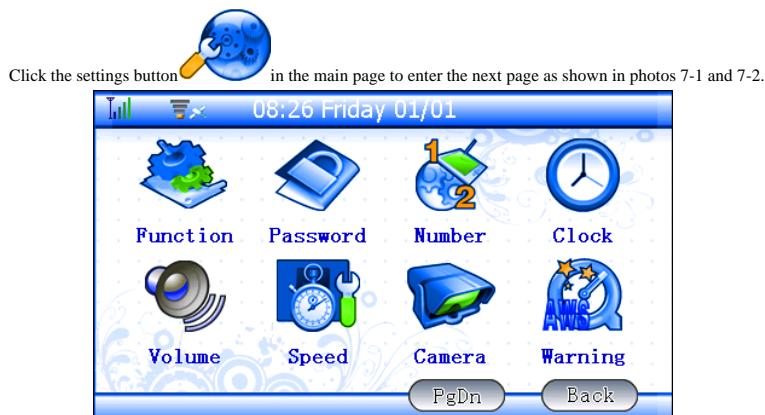
For image messages, user can have full screen view as shown in photo 6-8. When full screen viewing image, user

can click the image and drag it to move up, down, right or left, and can also press zoom in or zoom out, “back” button to adjust the image size. For text message, user can use the rolling bar to view its content as shown in photo 6-5. Click “Delete” button to delete selected message. If there's remark with text message, user can click “File/message” or “Remark” button to switch view them ( as shown in photos 6-5 and 6-6) For text messages and remarks, user can hear their content by clicking “play” button.



P 6-8: Full screen image view page

## Chapter 7 Settings



P7-1: Settings page



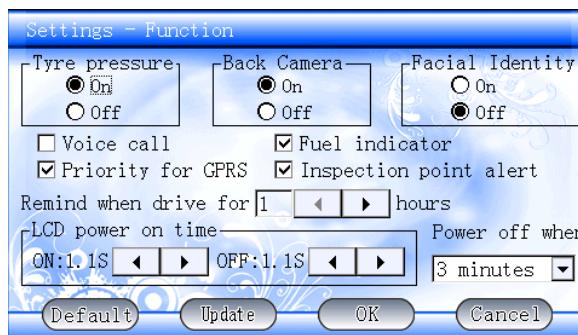
P7-2: Settings page

It includes function setting, user password, phone number setting, clock setting, volume setting, speed setting, monitoring setting, automobile warning system, tire specifications, alcohol lock, facial identity, brightness adjustment, screen tune-up, system power-off etc.

#### 1) Function Setting



Click the function setting button to set up the tire pressure inspection, backup camera, camera monitor function. User can also setup "message GPRS priority", "Fuel reminder", "Traffic Inspection warning", "Voice activated call". Setup the fatigue driving reminding and LCD screen working time for electricity efficiency. Resume the factory default setting etc. User can even insert an SD card with new data to update the system by clicking the "Update" button.



P 7-3: Function setting page

User can press the "Default Setting," button to resume the system default setting, but please note that by then,

all the user setting is changed to default setting, all the data in the phone book, call records and messages are cleared. When the default setting is resumed, user needs to enter protection password as shown in photo 7-4, this password is blank when the unit first leaves the factory



P 7-4: Password entering page

## 2) User password



Click the user password button , then enter the original password as shown in photo 7-5, the password is blank when the unit first leaves the factory. User should enter the new password and retype it for confirmation. The password length is maximum 8 digits or letters mixture. In case user forgets the password, user can call 400-658-9999 to recover it by providing legal ID or other related information, the center will be responsible for clearing the user password.

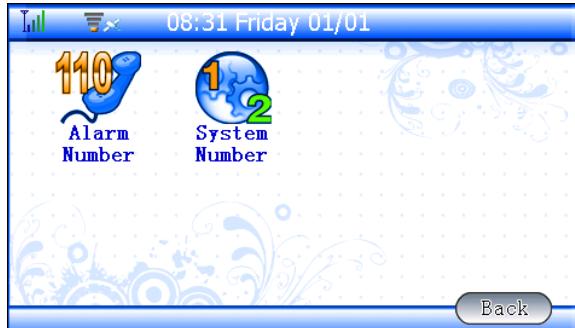


P 7-5: Password setting page

## 3) Phone number setting



Click the phone number setting button and see two new buttons: Alarm phone number and system phone number as shown in photo 7-6.



P 7-6: Phone number settings page



Alarm phone number :

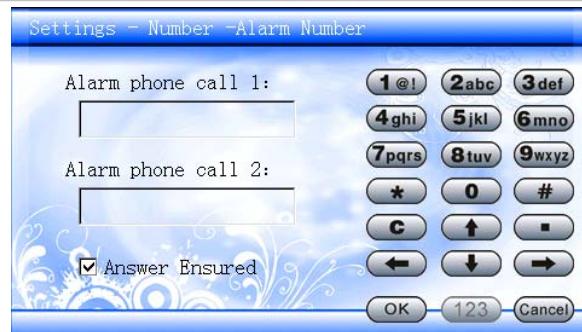
It requires entering the protection password as shown in photo 7-4, and then user can setup the first and second alarm phone number. User can set whether the alarm phone call must be answered, in case the system alarms, it will automatically call the preset phone numbers. In a situation while the setting is "Alarm call must be answered", when there's no answer to the alarm call, it will call three times to the first alarm phone number and then call two times to the second alarm phone number, and repeat that process every 5 minutes until any of these calls is answered. In a situation while the setting of "Alarm call must be answered" is not checked, the system will automatically call the first alarm phone number once and then call the second alarm phone number, in case there's no body answering the call, the system will stop calling.

If the alarm phone call has not been connected, and the system alarm is off, then the system will automatically stop calling the alarm phone number.



System number :

User does not have the right to revise the system number, this system number should be cautiously setup by the authorized installation personnel, and a control center pin code is required.



Settings - Number - Alarm Number

Alarm phone call 1:

Alarm phone call 2:

Answer Ensured

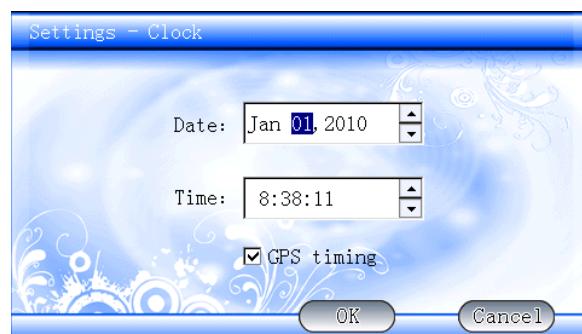
1 @! 2 abc 3 def  
4 ghi 5 jkl 6 mno  
7 pqrs 8 tuv 9 wxyz  
\* 0 #  
c ↑ ▶  
◀ ↓ ▶  
OK 123 Cancel

P 7-7: Alarm phone call setting page

## 4) Clock setting



Click the clock setting button to set up the system time, and user can choose to use the GPS automatic time calibration or not.



Settings - Clock

Date: Jan 01, 2010

Time: 8:38:11

GPS timing

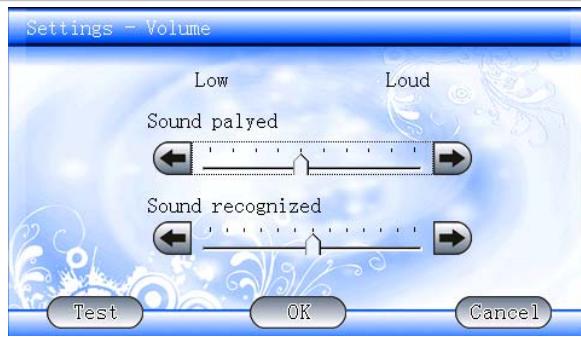
OK Cancel

P 7-8: Clock setting page

## 5) Volume setting

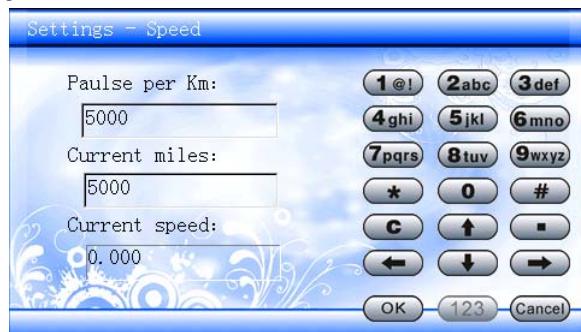


Click the volume setting button to setup volume of the phone ring and voice activated call microphone.



P 7-9: Volume setting page

The "Test" button is for testing the setting volume to a proper magnitude.

**6) Speed setting**

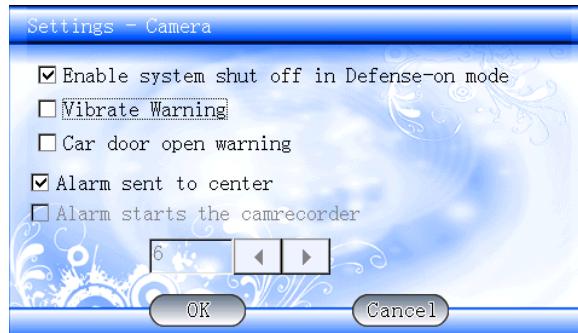
P 7-10: Speed setting page

This setting requires control center password, which should be setup by the authorized installation personnel accordingly. The impulse of every mile, default setting is 5000, and the larger this setting is, the smaller the speed reads. The current odometer reading is only required for setting up when user first use it. (For the impulse of every mile, please consult the professional in this industry)

**7) Monitoring setting**

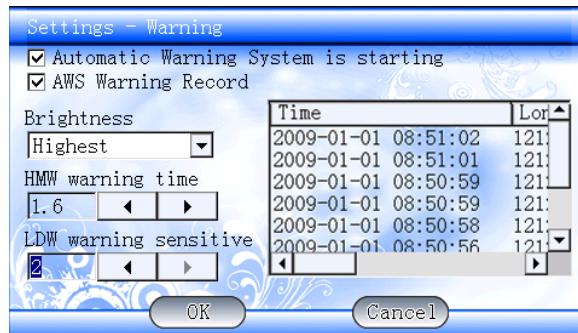
Enter the protection password (see photo 7-4) to set whether or not allow the defense system to shut off the system, under that kind of situation the warning/alarm system starts working, whether or not allow the alarm

information sent to the center, whether or not allow the recorded video sent to the center, and user can setup the number of image frames being sent to the center.



P 7-11: Monitoring camera setting page

### 8) Warning system



P 7-12: Auto warning system settings page

In this section, user can setup the brightness of AWS, headway monitoring warning time ( in seconds), lane departure warning's sensitiveness. If user checks the "AWS warning record" choice, it will display up to 100 warning records/data.

### 9) Tire Specification

If user does not check the tire inspection choice in the function setting of system setting section, the tire specification setting button will not display.

Default pressure unit is in kilogram. User can setup the pressure warning limits and tire temperature limit, set the position of each inspection sensor, if the tires are exchanged, user needs to revise the setting accordingly. User can also choose sound warning and the expressway tire pressure protection (recommended for the expressway user), this setting can automatically lower 10% of the tire pressure lower limit.



P 7-13: Tyre wording condition settings page

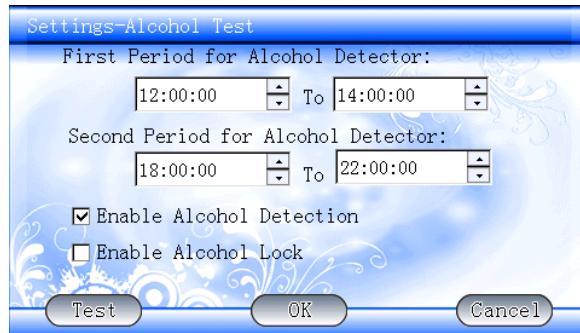
Click the Default setting button to resume the entire tire working condition data to the default setting as shown in photo 7-13.



#### 10) Alcohol Test

In this section, user can setup two time segments for alcohol detection and check whether or not to activate the alcohol lock. Only within the time segment user sets, the alcohol detection works.

User can test himself by pressing the "Test" button on this page to check if he takes excessive alcohol. This "Test" function will not be affected by the time segment setting.



P 7-14: Alcohol detection setting page

**11) Facial identity**

First, user need to make facial identity registration before making the facial identity check.

Enter the protection password as in photo 7-4, then user see the photo of 7-15



P 7-15: Facial identity registration page

In this section, user can register at least 3 persons and as many as 5 scenes for each person. Each scene should be different on brightness ( e.g. bright daytime, night time, backlighting etc.), for each scene, the system needs to take 4 facial photos. User can check the registered photos and can also delete any registered photos. Only previewed photos can be registered and stored. "Creditability" means the strictness when checking and inspecting, user can choose from "lest strict, general, strict, most strict".

**12) Brightness adjustment**

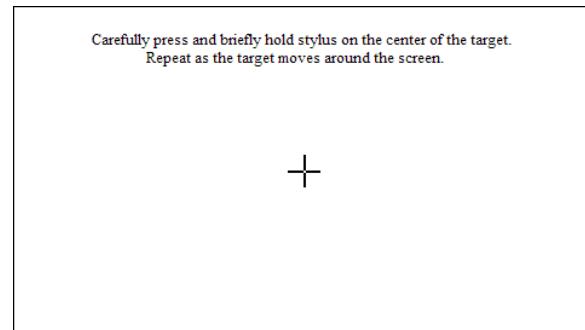
For adjusting the brightness of the screen in daytime and night time, and the daytime can be set by the user.



P 7-17: Brightness adjustment page

**13) Screen adjusting**

If user finds the touching screen does not work well, user can click the screen adjusting button to enter the page as shown below in photo 8-18. Slightly and accurately click the center of the flashing cross cursor, and then the cross cursor moves on the screen, repeat the action. When the screen adjusting work is done, please click the screen within 30 seconds to save the changing, otherwise the change will not be saved and the system will keep screen setting unchanged.



P 7-18: Screen adjusting page



13) System Power off

Click this button to shut off this system. To restart this system, user should restart the car engine.



14) About



P 7-19: About page

On this page, user can see the system version and the company contact information.

## Chapter 8 Toolbox



Click the toolbox button  to see the next page as in below photo 8-1 8-2.



P 8-1: Toolbox page

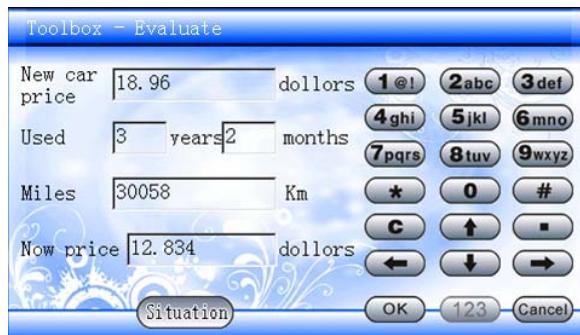


P 8-2: Toolbox page

This page includes Vehicle Evaluation, Exhaust CO<sub>2</sub> Calculation, Alcohol Calculation, Notebook, Phone book, Call Record, Tire Inspection, Infrared Thermal Imaging, Driver Tips, Inspection Review, Voice Record Play, ,etc.

**1) Vehicle Evaluation**

Click vehicle evaluation button and fill in the information required as seen in below page, then user can get an estimated car value for reference.



P 8-3: Vehicle evaluation page

Toolbox - Evaluate

Tech Status:  Perfect  Good  General  Worse  Bad

Maintenance:  Warranty valid  Warranty Expired  
 Seldom

Car Make:  Import  Famous Domestic  General Domestic

Utility:  Private  Business  Commercial

Situation:  Good  General  Bad

P 8-4: Vehicle evaluation ---car condition page

2) Exhaust CO<sub>2</sub> Calculation

 Click the exhaust CO<sub>2</sub> calculation button and fill in the required field, then it can calculate out the CO<sub>2</sub> exhaust per minute, and the total CO<sub>2</sub> exhaust. As shown in photo 8-5.

Toolbox - CO<sub>2</sub> Calculate

Note: The calculated results for reference only.

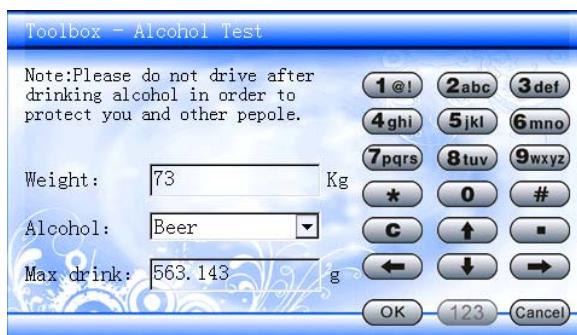
Consume:	<input type="text" value="8"/>	L/100Kms	<b>1 @!</b>	<b>2 abc</b>	<b>3 def</b>
CO <sub>2</sub> :	<input type="text" value="0.3888"/>	Kg/min	<b>4 ghi</b>	<b>5 jkl</b>	<b>6 mno</b>
Total CO <sub>2</sub> :	<input type="text" value="6492.53"/>	Kg	<b>7 pqrs</b>	<b>8 tuv</b>	<b>9 wxyz</b>
<input checked="" type="checkbox"/> Display			*	0	#
<input type="button" value="Calculate"/>			<input type="button" value="C"/>	<input type="button" value="↑"/>	<input type="button" value="↓"/>
			<input type="button" value="OK"/>	<input type="button" value="123"/>	<input type="button" value="Cancel"/>

P 8-5: CO<sub>2</sub> exhaust calculation page

If user checks the "Display" option, the CO<sub>2</sub> exhaust per minute will display in the main page at the right bottom corner. As shown in photo 8-6.

P 8-6: CO<sub>2</sub> exhaust show page**3) Alcohol Calculation**

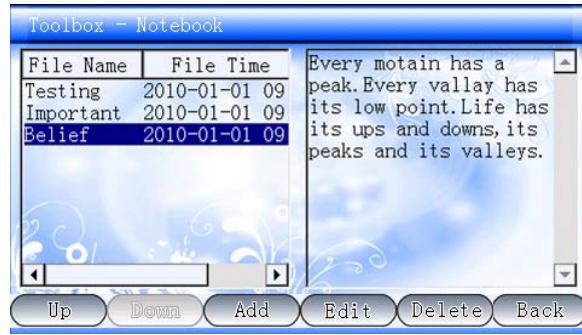
Click the alcohol calculation button and fill in the required information, then user can calculate out how much alcohol a person can drink while still legal to drive on road based on his weight. The calculation result is for reference only. For user and other's safety on the road, please don't drive after drinking alcohol!



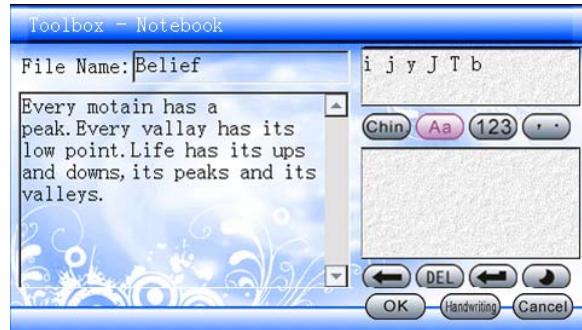
P 8-7: Alcohol calculation page

**4) Notebook**

Click the notebook button to enter the notebook edit page as shown in photo 8-8 and 8-9. User can review the notes and add, edit or delete events.



P 8-8: Notebook edit page



P 8-9: Notebook event editing page

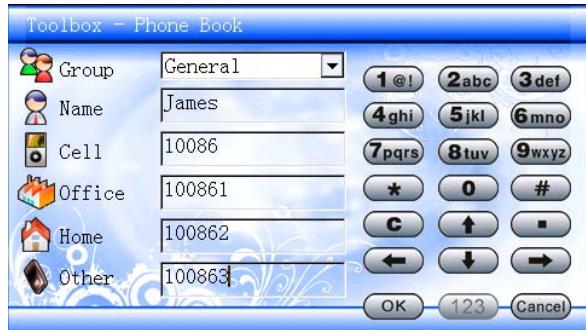
##### 5) Phone book



Click the phone book button  to see the phone number list, every name comes with below information: Group, Name, Cell phone, Company/office phone number, and home phone number, choosing one of these numbers as voice-activated call number. There're five buttons on this page: delete, edit, add, call and back. When user click the "Call" button, the system will make the call directly when there's only one phone number saved under this name; when there're several numbers under this name, the system will pop up a list for user to choose.



P 8-10: Phone book check-up page



P 8-11: Phone book editing page

**6) Call records**

Click the call record button to see the next page as shown in photo 8-12, which includes: Dialed calls, Answered calls, Missed calls, All calls.



P 8-12: Call Record page

Choose any of the above items and see the call list accordingly, which includes phone number, call time, call length and call type. Click the “Call” button to make the call, and click the “Delete” button to delete the selected call number. Click “Delete All” to delete all the phone call records accordingly. Click the “Back” button to return to the main page. See photo 8-13.



P 8-13: Phone call record page

#### 7)Tire Inspection



Click the tire inspection button to see the tire inspection page as shown in photo 8-14. It shows the tire pressure and temperature. If the tire pressure or the temperature exceeds the limit settings, the system will alarm and automatically display the specifications of the tires. If the specification is in red, it means it exceeds the limit setting, for example, the below photo shows the left front tire's pressure is too high.

Toolbox - Tyre Inspection				
	F-Left	F-Right	R-Left	R-Right
Pressure	3. 04kg ↑	2. 26kg	2. 17kg	2. 35kg
Temp	38°C	37°C	35°C	39°C
Voltage	3. 48V	3. 51V	3. 46V	3. 61V
Status	Linked	Linked	Linked	Linked

P 8-14: Tire condition/ specification check page

**8) Infrared Thermal Imaging**


If user's ARS unit has installed the infrared camera, click the infrared thermal imaging button to view the infrared thermal video display. Infrared thermal imaging is a driver vision enhancement which could dramatically reduce the night time driving risk. It's view distance is as far as 5 times to the front light. It can show clear view in totally dark, smoke, raining or foggy conditions, and it doesn't require any light source. Driver can quickly detects and realizes the potential danger on the road with this thermal imaging system, then eventually avoid any vital accident. See the difference of the imaging between infrared thermal imaging and normal view in below photos 8-15 and 8-16.



P 8-15: Thermal Imaging photo

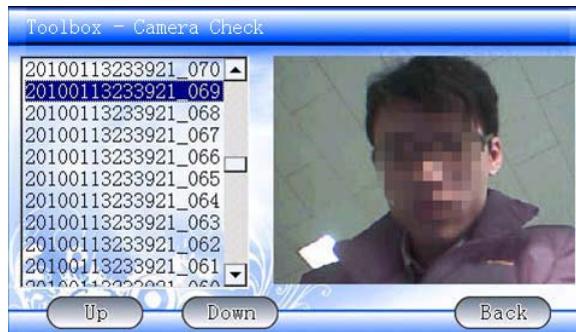


P 8-16: Normal photo

**9) Monitoring review**


Click the monitoring review button to review the saved photos by the monitoring camera, but the user can not delete these photos, the system will delete them automatically ( when there're totally 600 photos in

the system, the system will automatically delete the previous 120 photos) .



P8-17: Monitoring camera photo review

**10) Voice recording replay**



Click the voice recording replay button  to enter the page as shown in photo 8-18. User can replay the voice record and can also delete any selected item.



P 8-18: Voice recording replay page

**Chapter 9 Shortcut keys**

There're seven shortcut keys on the ARS unit, they are: Call/Hang up, Sound/Earphone, Voice record, ARS call center, Digital TV, Emergency Help, Screen Power.



## ARS-3000 Auto Remote Service System



P 9-1: Shortcut keys on ARS unit



### 1. Call/ Hang up

Press this key and the screen will unfold, the phone call page will appear in the screen ( details in Chapter 1)

During the call, press this key again to hang up the call.



### 2. Sound/ Earphone

The default call setting is in sound mode, press this key to change to earphone, press again to change back to sound mode.



### 3. Voice Record

During a call, press this key to start voice recording and the screen will show a page of voice recording.

Press this key again to stop voice recording. During the voice recording, when the call is ended, voice recording will be ended automatically. In the main page, press the voice recording button to enter the voice recording replay page.



### 4.ARS call center

Connect with the professional advisor in ARS call center for consulting or help. Press the Call/Hang up key to end the call.



### 5. Digital TV

Watch the digital TV programs ( details in Chapter 19)

**SOS****6. Emergency Help**

In case there's an accident or emergency situation, press this button to automatically report the vehicle's current location and call the ARS call center to get help. The advisor in call center will contact the related authority for help based on the information collected from the driver, in order to provide the necessary help in time.

**7. Screen Power**

Press this key to power on/ open the screen or shut off// fold the screen.

**Chapter 10 Security and Theft deterrent function****1.Defense On and Defense Off**

There's no remote control come with this unit. When the system detects that the vehicle's central lock is off, it comes into the "Defense Off" mode, and the unit starts working. When the system detects that the car central lock is on, the system comes into the " Defense On" mode, and the unit stops working ( the "allow Defense on to shut off the system" must be checked in the Monitoring Setting page).

**2.Vibration Alarm**

In the "Defense on" mode, when the vehicle was bumped, the vehicle lights will flash 5 seconds. If the vehicle was bumped again in 15 seconds, the vehicle light will flash 25 seconds, and the unit will call the preset alarm phone number. When the phone call is answered, the voice prompt that "Vibration alarm" 5 times. If the setting allows alarm information being reported to the center, it will send an alarm message to the center at the same time.

**3.Door-unlock Alarm**

In the "Defense On" mode, when the car door is unlocked, the vehicle light will flash 25 seconds, and the unit will call the preset alarm phone number. When the phone call is answered, the voice prompt that " Car door unlocked" 5 times. If the setting allows alarm information being reported to the center, it will send an alarm message to the center at the same time.



#### **4. Airbag Deployment Alarm**

Whenever the airbag light is on, the alarm starts. The unit will send an alarm message to the center while calling the center at the same time. The advisor in the call center will contact the car owner to see if any help is needed.

#### **5. Alarm Call**

User can set whether the alarm phone call must be answered, in case the system alarms, it will automatically call the preset phone numbers. In a situation while the setting is “Alarm call must be answered”, when there’s no answer to the alarm call, it will call three times to the first alarm phone number and then call two times to the second alarm phone number, and repeat that process every 5 minutes until any of these calls is answered. In a situation while the setting of “Alarm call must be answered” is not selected, the system will automatically call the first alarm phone number once and then call the second alarm phone number, in case there’s no body answers the call, the system will stop calling.

In case the alarm call is not answered yet while the defense is off, the system will stop calling alarm call.

## **Chapter 11 AWS warning system**

AWS is auto warning system, and its mission is to provide drivers with timely alerts to prevent forward collision and lane departure accidents, the most common and dangerous threats on the road today. Functioning as an extra ‘eye’ to continuously analyze the road ahead and provide alerts only when necessary, drivers are safeguarded when distraction or fatigue strike.

It includes below warning types:

- 1 A coming front collision warning;
- 2 An inadvertently lane departure warning;
- 3 Headway monitoring and warning;
- 4 Rear collision warning.

## **Chapter 12 Monitoring Camera**

### **1、Basic Setting**

Click “Settings”->“Monitoring Camera”->“Monitoring Setting”, check the options to setup the warning

type ( details see Chapter 7)

#### 2、Start the Monitoring Camera

If the “Alarm starts the camera” is checked, e.g.: Door-unlocked starts the monitoring camera. When the car door is illegally unlocked in “defense on” mode, the system alerts and takes photos at the same time. 4 photos every second and totally 120 photos.

#### 3、Alarm photos report to the center

If the setting allows the alarm photo to be sent to the center, the system will automatically send the photos to the center as set after it's photo shooting. And the center can review other photos accordingly. If the setting is not “allow the alarm photos to be sent to the center”, then the system will not automatically send photos to the center and the center can not review the photos in the system.

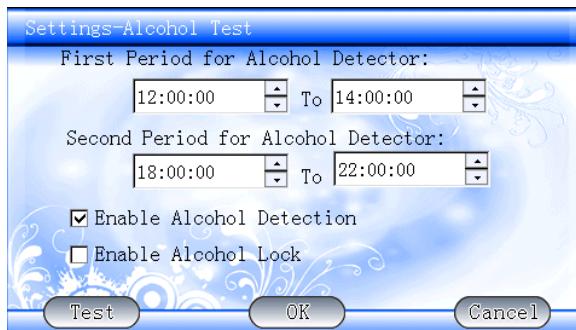
#### 4、Alarm photo review

Click the “Settings”->“Monitoring Camera”->“Alarm photo review” to review all the alarm photos stored in the system in a date clue.

### Chapter 13 Alcohol Detection

#### 1、Alcohol Detection Setting

First, please check the “Alcohol detection” option in the “Settings”->“Alcohol detection setup” page. And check if the system could lock the vehicle when detects excessive alcohol as shown in photo 14-1. Only within the time setting, when the driver starts the car, the alcohol detection works.



P 13-1: Alcohol detection setting page

#### 2、Alcohol detection time and procedure



The alcohol detection starts when the car is started in the setting time. In about 20 seconds, the sensor detects the alcoholicity in the air. If no alcohol detected, the unit will keep silence. If there's any alcohol detected but still within the limit, the unit will voice-prompt “ Detect shows that user drank alcohol, please drive with caution”; if there's excessive alcohol detected in the air, the unit will voice-prompt “Detect shows that user drank excessive alcohol, please stop driving.” . And if the setting allows that vehicle will be locked when detects excessive alcohol, the voice-prompt will continue “Please note: the engine will be shut off in 10 seconds, 10-9-8-7-6-5-4-3-2-1-0”. After that, the car engine is locked, and can not be started. If the car was running by that time, it will lose power by then. Only when the unit sensor detects no excessive alcohol in the air in the next try to start the car, the car can be started.

If the setting does not allow the system to lock the car even though excessive alcohol was detected, then the unit will only give voice-prompt, but not lock the car.

Friendly reminding: For user's safety, please don't drive after drinking alcohol.

### 3、Alcohol calculation:

Click the “Toolbox” -> “Alcohol Calculation”, this calculation result is for reference only.

It's illegal for any person to operate:

- \* A motor vehicle when Blood Alcohol Concentration (BAC) of 0.08% or higher.;
- \* Any vehicle requiring a commercial driver license, with a BAC of 0.04% or higher;
- \* A motor vehicle with a BAC of 0.01% or higher, if the person is under age 21.

## **Chapter 14 Traffic Inspection Point Reminding**

First, please make sure the traffic inspection reminding option is checked in the “Settings”->“Function Setting” page. If user does not want the reminding, just leave this option blank.

After the “Traffic inspection reminding” option is checked, when the vehicle is running about 300 meters / 0.2 mile to one traffic inspection point, the system will remind user “ Speed inspection ahead, please drive with caution”, “ Traffic inspection ahead, please drive with caution”, “ School ahead, please drive with caution”. Or, when vehicle is coming into dangerous road, the system will remind “Danger ahead”.

These reminders are for reference only, please see the local traffic sign.

## **Chapter 15 Fatigue Driving Reminding**

### 1、Setting

Click “Settings”->“Function Setting” to set the fatigue driving reminding time, the reminding frequency can be set every 1 to 4 hours. ( details see function setting in Chapter 7)

#### 2、 Reminding Frequency

If the setting is “every 2 hours” a fatigue driving reminding, then when the engine was continuously running for 2 hours, the system will automatically voice-prompt “Continuous driving for 2 hours, please find a rest area”, and this voice-prompt will repeat every 2 hours.

### **Chapter 16 Fuel Service**

#### 1、 Setting

Click “Settings”->“Function Setting” to set fuel service. ( details see function Setting in Chapter 7)

#### 2、 Insufficient fuel reminding

When there's no enough gas in the tank, the fuel warning light is on. If user checked the “Fuel service” option, the system will automatically apply for gas station searching service to the center. The center will provide driver the nearby gas stations based on user's current location via messages and photos after receiving the application.

### **Chapter 17 Backup Camera**

First please make sure the “Backup Camera” option is checked in “Settings”->“Function Setting” (details see function setting in Chapter 7)

When the vehicle shifts in “R” mode for 1 second, the screen will unfold and display a camera view for backup. Driver can view the situation at the back of the car. If the vehicle was shifted to other mode than “R” for 10 seconds, then the screen stop displaying the back camera view, resume the system operation page. User can also click the screen surface within these 10 seconds to resume the system operation page immediately.

### **Chapter 18 Facial Identity**

First please make sure the “Facial identity” option is checked in “Settings”->“Function Setting” (details see function setting in Chapter 7)

When the system defense off, the unit will unfold the screen and display the facial identify page as shown below in photo 19-1. Click the “Identify” button to start facial identifying, when it's done, the engine can be started. Otherwise, the vehicle can not be started.



P 18-1: Facial Identity page

### Chapter 19 Wireless Digital TV



Press the shortcut key **TV** to watch the wireless digital TV program. It will take several seconds to initialize the digital TV programs.

Digital TV function is currently not available.

### Chapter 20 System Update and Renew

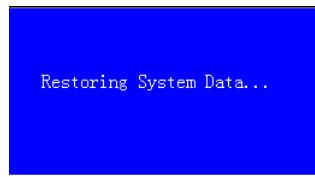
#### 1. System Renew

There's a concealed system renew button in a hole at the left back of the rearview mirror, which can be reached by the touching pin.

When the system is out of order, user can process as below to renew the system after consulting ARS Global Guiding Inc.:

- a. Press the emergency button at the right back of the rearview mirror to shut off the system.
- b. Use the touching pin to reach the system renew button in the hole at the left back of the rearview mirror, and press the emergency button at the right back of the rearview mirror at the same time to power on the system. It requires pressing the system renew button for more than one second.

In about 15 seconds after doing that system renew operation, a page will display on the screen as in below photo 20-1. This process may take about 30 seconds, please make sure the power supply does not stop during this period. This operation will renew the system to the same version as when it left the factory.



P 20-1: System renew

After the system renew process, it will automatically run the ARS-3000 system and enter the main page as in photo 1-1. If this system is not the latest version, user can update the system to the latest version.

## 2. System Update

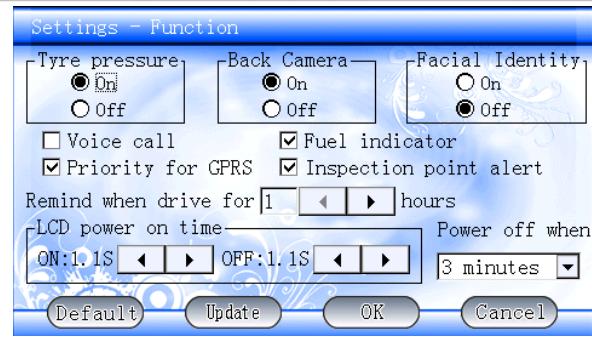
When user needs to update the system, he should copy the update program provided by ARS Global Guiding Inc. to an SD card, and insert the SD card into the SD card slot on the left up-surface of the rearview mirror.

Then click the settings button  in the main page, then the next page displayed as shown in below photo 20-2.



P 20-2: Settings page

Click the function setting button  to enter the function setting page as shown in below photo 20-3. Press the update button  to update the system as shown in photo 20-4. After the system update, it automatically run the ARS-3000 system and enter the page as in photo 1-1.



P 20-3: Function setting page



P 20-4: System Update page

**Please Note:** In the process of system updating, please keep the power supply on, and in case there's any thing wrong or user can not enter the ARS-3000 system after the system updating, please do the system renew process and then make the system updating again.

## Chapter 21 Product Suitability

### 1. Environment

Working Temperature: -20~+60°C

Storage Temperature: -40~+80°C

**2. Max. Rating**

Max. Power voltage: 25V

Max. reverse voltage: -30V

Outer port voltage: 25V

**3. Host computer electric characteristic:**

Power voltage: 12V

Port voltage: 12V

**4. GSM electric characteristic:**

Working mode: 900/ DCS1800/ PCS1900

Power: 0dBm~33dBm

Sensitivity of receiving signal: -104dBm~-106dBm

GSM receiving/ launching frequency

E-GSM900: receiving 925~960MHz, launching 880~915MHz

DCS1800: receiving 1805~1880MHz, launching 1710~1785MHz

PCS1900: receiving 1930~1960MHz, launching 1850~1910MHz

GSM antenna plus: 0.5~1dBi

**Appendix 1: Typing method****1. Input English letters**

Click **abc** **ABC** for inputting English letters, and click **#** to change between capital letter and lower case. Click **\*** to input English symbols.

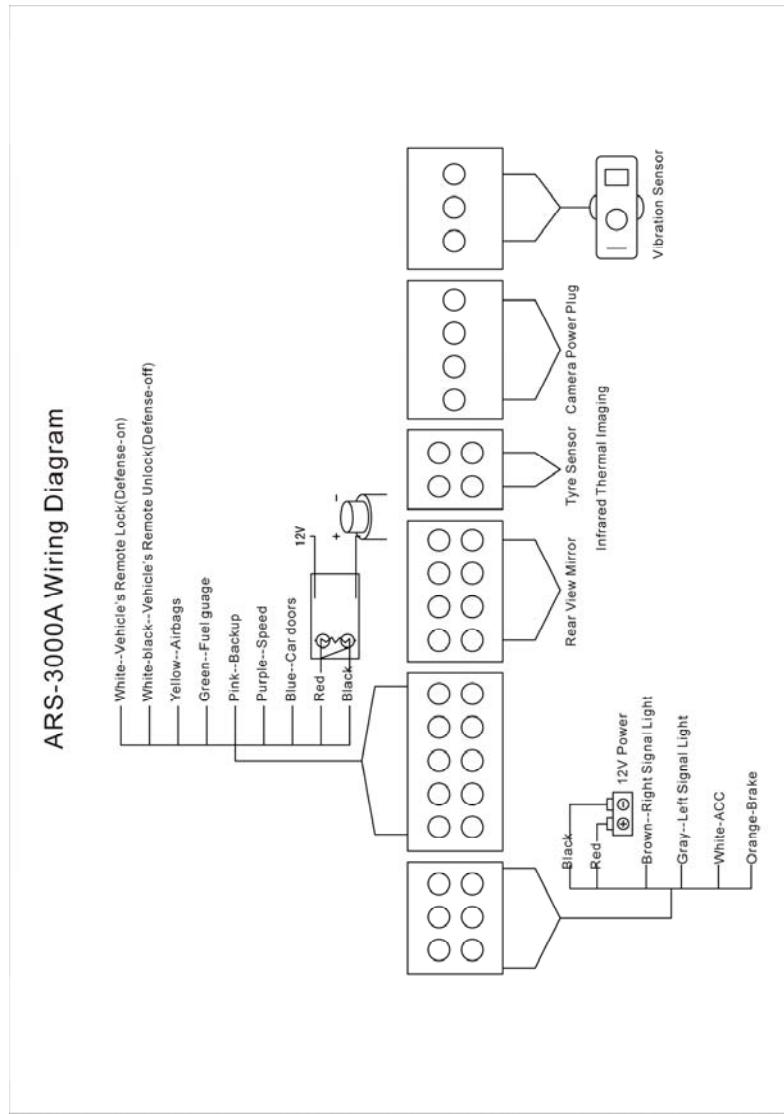
For example: to type letter "N": click **#** to get capital letters, and then click **6mno** and press **→**

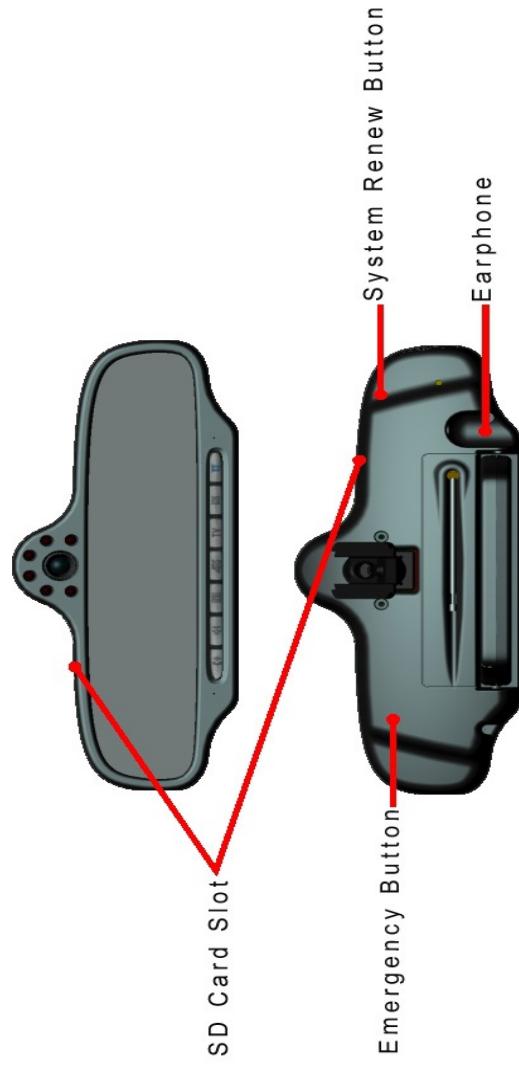
M N O 6  
to see the choices OK, Click **OK** to get the letter "N".

**2. Input numbers**

Click **123** to input numbers.

## Appendix 2: Wiring Diagram



**Appendix 3: Structure Drawing**

## FCC WARNING

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

NOTE: The manufacturer is not responsible for and radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.