# ARM CortexTM-A8 MID

## **User manual**

## Basic configuration:

#### ${\it Hardware}$

Туре	Specification	Description	Remark	
Hardware		ARM CortexTM-A8	ARM v7 instruction set	
ODII		Samsung S5PV210	45nm	
CPU	speed	1.2G MHz	512KB second level cache	
RAM	Capacity	512MB-1GB DDR2		
ROM Flash	Capacity	1GB - 32GB		
WiFi	wireless	802. 11b/g/n	Built-in	
G -sensor		Gravity acceleration sensor	Built-in	
		Digital touch screen	Resistance-type	
touch screen	Size	208mm(L) * 158mm(W) * 13.0mm(H)		
		7 inch	Digital	
D: 1		480X320	16:9	
Display screens	color	16.7M Colors		
	touch	Double point touch support	Magnify , Reduce, Spin	
Datta	Туре	Li-polymer battery 7.4V		
Battery	Capacity	2800/3300 mAh	6hours	
3D graphics	SGX540	OpenGL ES 1.1&2.0 API and OpenVG 1.0	3D Games Support	
Camera		2.0 million pixel Built		
Video output port		HDMI 1.3M		
USB2. 0 OTG	Mini USB	Data transmission	Single	
USB2. 0 HOST	USB A/F	Support external USB devices	Single	
Speaker	Built-in	1 piece 1W		
Mic	Built-in	1 piece Voice input		
Shell		Plastic or Aluminum alloy shell		

## Network connection application

Method	Specification	Description	Remark
Wireless internet	802.11b/g/n	Wireless Connect LAN\WLAN	Built-in
LAN online Ethernet		RJ45 USB module	RT8150

#### Application of the external interface

Interface type	terface type Specification Description		Remark	
Memory card	Removable	Push-push type MicroSD card	Maximum 32GB	
USB HOST	USB A/F	Mouse ,Keyboard , LAN, U DISK	USB External Device	
USB Device	Mini USB	Data transmission		
Earphone		3.5 steoro standard jack	Voice output	

Video output	HDMI Output	1.3M	
Charger	DC 12V/1A power supply	1.5M	
Button	Menu\back\homepage\ voice +\ voice -	5 pcs	

#### Software Application

Software type	Specification	Description	Remark
	0S	Google Android 2.2	Webpage Flash support
On anoting and the	Language	Multi-language	
Operating system	Input way	Software keyboard , Handwriting	
	Theme	Google Android Theme style	
		Google Search ,Google Software Market	
D 1.		Network clock , Weather online	
Desktop		three Desktop Theme , with personalized settings	
		Web Browser , E-Mail	
		Clock , perpetual calendarl	
Instant messaging		MSN ,Skype ,Gtalk ,QQ	Multiple communication software
music		WMA, MP3, WAV, AAC	
Image		JPG	Slide show
Video recording		MPEG-4/H. 263/H. 264	1080p@30fps
Video Player		Real-time Video decoder of MPEG-1/2/4/H. 263/H. 264/WMV9/Divx/Xvid MPEG4 up to ASP: 1080p@30fps	RM, RMVB soft solution
		NotePad	
		Weather Inquire	
		PDF Reader	
		Google Satellitic Map	
	Office	Word, Excel, PPT, PDF	
SoftWare	E-book	TXT, UMD, CHM, HTML, PDB	
Accessory		SoftWare Download	
		Apk installer	
Games	Java Games	3D game support	

 $\label{thm:continuous} \mbox{Remark: Users can download applications, games and other software to install by themselves .} \\ \mbox{FCC STATEMENT}$ 

- 1. 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.
- 2. Changes or modifications not expressly approved by the party responsible for compliance could

void the user's authority to operate the equipment.

3. FCC Radiation Exposure Statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without RF striction.

#### USB Peripheral Driver Supporting table:

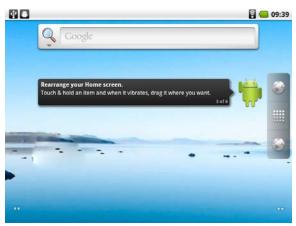
USB module	Brand	Туре	Model	Chip	Remark
Ethernet	No	USB TO RJ45		RT8150	Subject to practical

## ◆ Initial using:

- Before you first using this machine, please make sure the machine is full charged. When the charging light turns to blue, it means the machine is full charged.
- After charging it, long press the power button till seeing the blue light.
- Boot time is about 1 minute, please wait patiently.
- Enter into the interface as follows,



● Hold down the lock icon, a small dot above will appear, upslope to the small dot, pc will automatically unlock, you will enter to the picture as follow after unlock



 You can sliding operation use your figure at that time, sliding around left and right the part of 5 desktop topical of Android, You can also click the small dot at the right

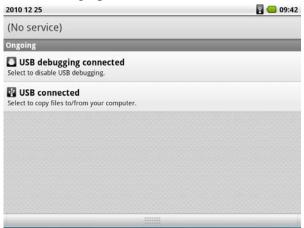
buttom switch

switch the desktop themes.

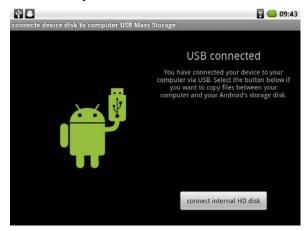
• long press button or long press the small dot it will show the picture just like the follow to choose the desktop theme interface.



• Put your finger on the top strip and pull downward. The opened window can show you running application. Pulling upward can hide the window.



- Long press "Home" button, the shortcut with running program will appears, it's a very nice apply, you can have a try。
- Click USB connect, popup the USB model to choose interface, the equipment will use the USB data transmission, click "open USB memory device", and choose USB control the outside memory device. As the follow:



• At that time popup external disk sign, it will control the outside memory device.

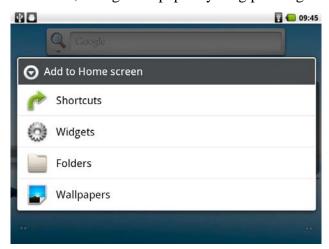
• Click the right screen button, it will popup program menu, choose what you need to operate, as the follow picture:



- Touch can bring you back to the menu and display the desktop.
- Long pressing the application icons can copy it to the desktop.
- Remark: the device attached USB Drives, PDF files, users manual, you can use the

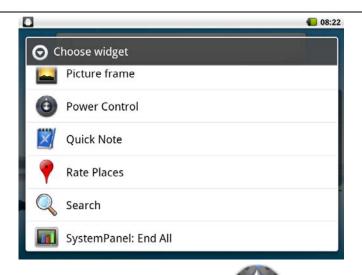
attached PDF reader Replico Reader to read.

- ◆ Basic operations:
  - Adding shortcut files, change wallpaper by long pressing the space of desktop.



• Many useful shortcut in the window as follows, you are Strongly recommended to have a try::

Ö.



Example: click the power management , add the shortcut to desktop , click the Logo to operate ,



switch control; The icon turn dark means off, turn light means on a Adjust the screen brightness shortcut, cycle through three modes, can also enter the system setup menu linear regulator.

The other widget you can have a try, photo frame, music, clock and so on are both very useful shortcut.

• Long press the logo on the desktop, the right menu button will turn to recycle

bin . At this time, you can drag the logo to the recycle bin which you needn't. The logo will disappear from desktop, but will still exist in menu.

• Use of buttons:

Back button: back to the former menu. Menu button: set functions by press it.

Home button: back to desktop immediately with the applications still running.

+button: turn up the voice -button: turn down the voice

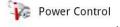
●Logo: a means WIFI is working battery indicator. turns to when charging.

USB has been linked to pc

◆ Net settings: (wireless control)

• Press the menu key on the desktop select setting items, or in the program menu select the





## Wireless controls

Press Manage Wi-Fi, Bluetooth, airplane mode, mobile networks, & VPNs , then

Wi-Fi settings
choose Set up & manage wireless access points

click "Wi-Fi"option

tick .At this point device automatically search nearby WIFI signals, and display related network information.

• Choose your WIFI machine name.if it displays ,you need to type password to connect.It will automatically connect next time.





• attention: long pressing the typing area can shift input method as follows:



• In the "WI-FI"setting screen, press "Menu" button, select Advanced Options:



Can make WI-FI advanced setting and IP setting, Select "WI-FI sleep policy", select never sleep, as follows:



Wi-Fi sleep policy
Specify when to switch from Wi-Fi to mobile data

The WIFI will not automatically dropped when it works,if you want to use the static IP,click the "Use static IP"option,it is active,the IP address,gateway and netmask set one the line,after set,press the "menu"button,you can save your setting or cancel the operation,as follows:



- Open style network is unlocked, can be directly connected.
- Note:WEP mode must in corresponding with the gateway mode, select from automatic, opening, sharing, default for the open mode.

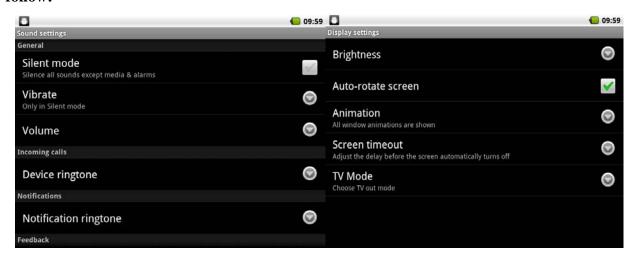
#### **Ethernet:**

- Please use the specify model USB with Ethernet 3G device (RJ45).
- Please close the WIFI before use Ethernet by hand, or the system will automatically default to the WIFI first.
- Plug USB ethernet equipment, connection icon appears on the right top window , this means network has been connected.
- ◆ Basic configuration:

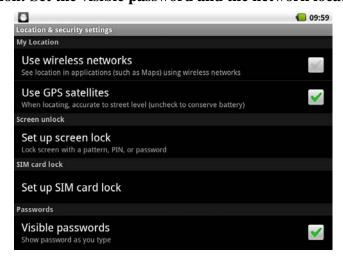
Setting menu as follow:



1, sound and display: set sound, operate voice, notice and screen bright and so on, as follow:



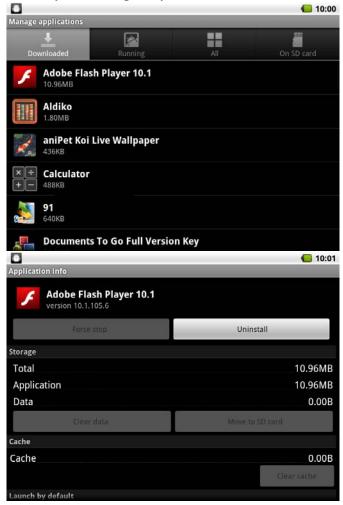
- 2) The option with a tick can be cancelled if you press it and make it turn to
- 3) If there is a beside the option, it means it has sub menu.
- 2. Security and location: Set the visible password and the network location



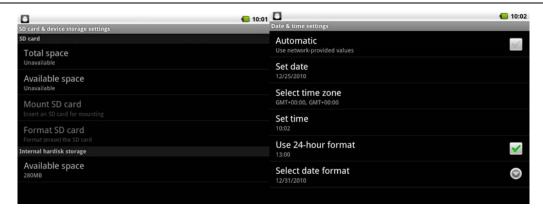
3. Application settings: management application, shortcut and uninstallation as follows,



- Please make sure unknown sources show, or the system will stop you from install software.
- 1) Select into the management application, you can view application details, and unistall program from the system completely.



- 2)Development settings, set development application option, USB and so on.
- **4. SD card and the cellphone memory setting: check the capacity,** and formatting; the system will hide 415Mb to system, open107Mb for users, users can use external expand card as the data storage.
- 5. date and time settings: The user can set the time and format personalization.



6, language and keyboard :user can select the desired language, keyboard setting and input setting.

## Language & keyboard

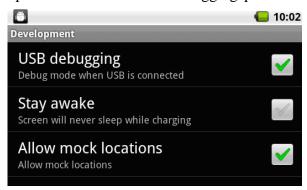
7. **about cellphone :** To check the using of software and hardware device, and relevant information  $\circ$ 



8. User can try Some other basic setting by themself.

#### **USB** using:

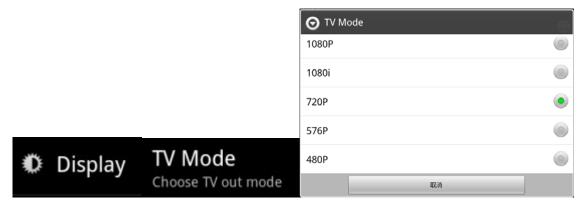
**USB Device:** USB2.0 as a USB Device is used for connect pc.It can be used as memory control or synchronous operation (Mini 5P) ,this function should in "Application/ development" options, Select the usb debugging process and where USB is allowed to seduce ,as follow:



**USB HOST: it can be connect external** USB device : mouse, keyboard and 3g dongle, u disk, USB network cards.

Remark: For USB external device need driver, The equipment of the limited, Not be fully compatible with all USB device, you can only use specify models, Please refer to driver table. U disk uses: Since operating system can only identify an external memory, the system will close automatically when insert U disk, System can only automatically identify the last adding storage device.

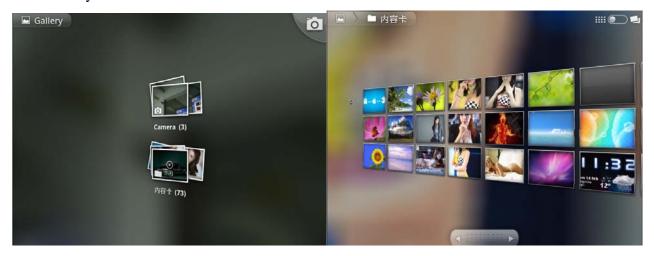
**Video output:** PC will match a HDMI video output line, use for connecting television or projector and other display devices, equipment\ the display device\ TV mode\choose display equipment and corresponding output mode. This equipment is the 720p HD output, as following:



◆ Software application:

#### **Picture browser:**

• Click program menu , it will display by sort all the pictures, enter into the picture you like. as follows:



It needs some time to read the pictures for the first time, then the system will save the pictures information, will be faster next time.

You can magnify, spin, trim, delete, share the picture and set it as wallpaper.

In the picture library, long pressing one picture can display the details of the picture.

#### Music play:

Click ,display by sort all the music, click one to play,as follows:



### Video play:

• Click enter into the page of playing:

Support format including: rmvb ,avi, flv, mpg ,3gp ,wmv ,divx , xvid, ipod attention: the filename extension of the audio should be write in small letters



Choose the file to play, it will turn up a dialog box shown in the following diagram, select the



general pattern into the play:



• click support 3GP、H.264、MP4 player, hard solution play, the effect is clear and smoother.



### Office operation:

• Click enter Office homepage, you can select Word, Excel, PowerPoint,



PDF to operate as follows:

Note: This equipment is only pre-installed trial version, trial version can not be edited, can not enter the PowerPoint, PDF. Please use the paid version users can also use third-party free software, our company does not assume legal responsibility.

#### E-book function:



enter E-book page , press Menu, as follows:



 Open the text you want to read, and press Menu button again, you can do more settings as follows,



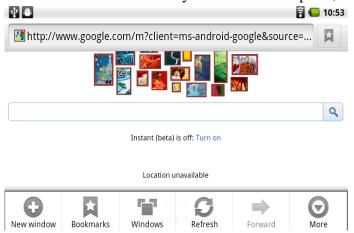
Remark: if see messy code when you opening the files ,you need set the corresponding coding, other Customization setting you can have a try by yourself.

4) Support format including TXT, UMD, CHM, HTML, PDB

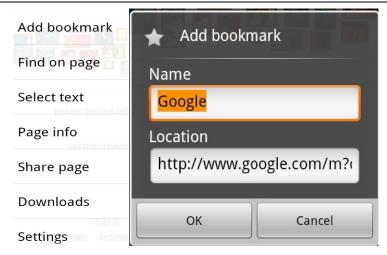
#### Web browser:

Make sure your network is connected, and then press to enter into the web browser.

system will default to the Google homepage, you can search directly. You also can press menu button and will have many function option, and can add windows as follows,



- When you open more than one windows, you can shift the windows by pressing Menu button.
- Setting the browser as default home page: click the "more" options on above picture, next select the "setting" option, now popupt a window, a "homepage setting" options and click the "homepage setting", then in the dialog box click the compile ,after modify web address and press 'confirm' button, a home page revised successfully. A sample of setting homepage operation As follows:



● When using, pc will return to desktop if you press Home button, click again browse enter the back。

#### **Net chatting:**

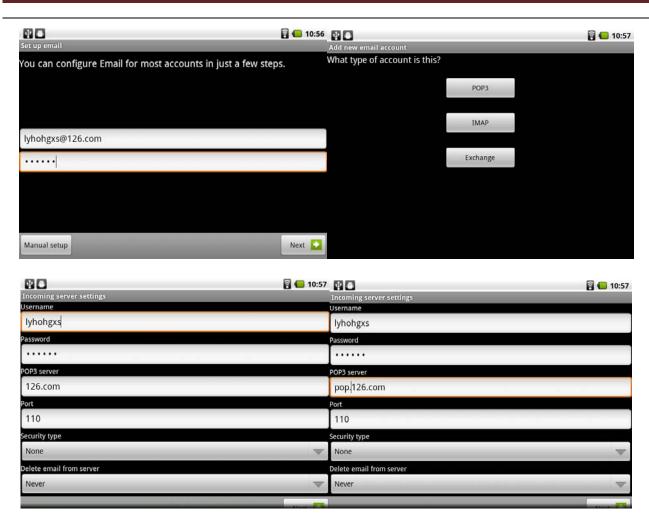
- System owns chatting tools including MSN . Skype . QQ and other chat software, you also can install others by yourself.
- Press the icons, you can use the software you want. Operate as the instruction.

attention: make sure your net is connected before you use any online software.

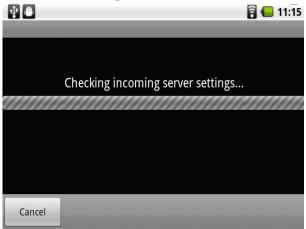
#### Mail:

1) Click the menulicon, first runing must enter your email address and password, then click "Set" button in the next window, click "POP3" button in the pop-up" incoming server settings "window" POP3 server "and "port" option were amended to "pop.\*\*\*.com" and "110", and then click "Next", there will be a "check incoming server" process, then pop up a "outgoing server settings" window, one of the "SMTP server" and "port" option are amended to "smtp.\*\*\*.com" and "25", and then click "Next", there will be a "check outgoing server" process, and then pop up a "Account Options" window, users can modify, in which we choose the default, just click "next", the pop-up" set mail: window, this window, "your name" option must be filled: Creat a name for this account "option is left blank, click "Finish", you can enter your mailbox.

("\*\*\*" means E-mail address style, ex: Netease mail "\*\*\*" is "163", 126E-mail "\*\*\*" is "126", sina E-mail "\*\*\*" is "sina" etc.)

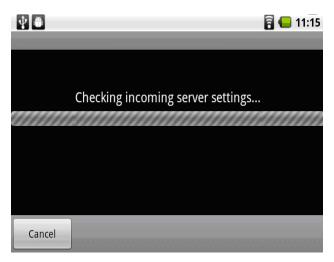


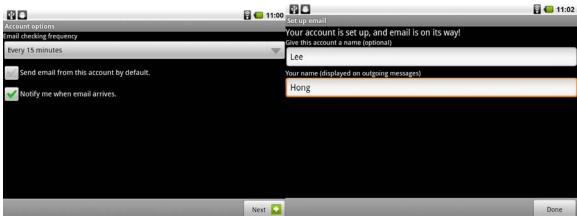
"POP3server" and "port" before changed "POP3 server" and "port" after amendment





"SMTP server" and "port" before amendment "SMTP server" and "port" after amendment

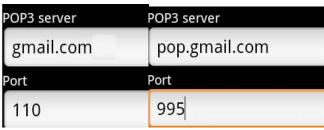




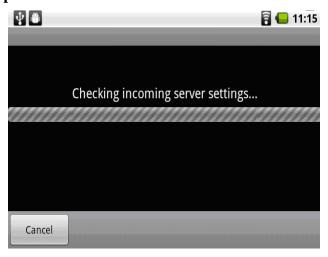
2) gmail: On website <a href="http://mail.google.com/">http://mail.google.com/</a> sign up for a gmail mailbox, Click on the programs

menulicon, First run must enter your gmail email address and password,then click"Set"button in the next window,click"POP3"button in the pop-up:incoming sever settings"window "POP3 server"and"port" option were amended to "pop.gmail.com" and "995", and then click "Next", there will be a "check incoming server" process, then pop up a "outgoing server settings" window,will be one of the "SMTP server" and

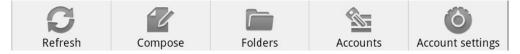
"port" option were amended to "smtp.gmail.com" and "465", and then click "Next", there will be a "check outgoing server" process, after the pop-upan "Account Options" window, users can modify, in which we choose the default, just click "Next", the pop-up "set mail" window, this window, "your name" option must be filled, "thisCreate an account name "option is left blank, click" Finish ", you can enter your mailbox.



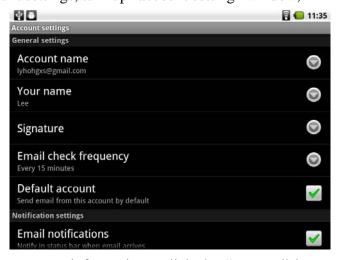
"POP3 server" and "port" before amendment "POP3 server" and "port" after amendment



**E-mail operation:** There is no operating buttons for operation when you enter the mailbox,now need to click the "Menu"button to the operation, slick the "Menu"button brings up a menu options.

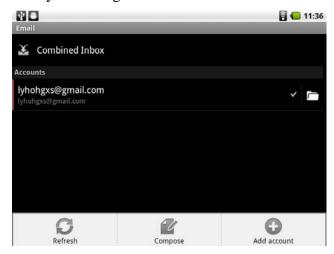


Select the account settings, turn up "account setting" window,



You can set the account information . click the "account" button in the functions menu,

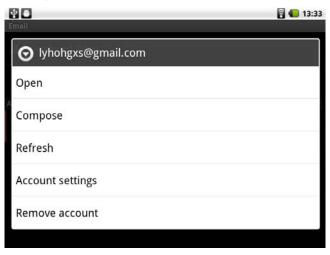
popup "the send e-mail list" window, the window will list the logon account, press the button menu this time, the functions of the menu popup, select add account you can login a new account, which you can login several mailbox

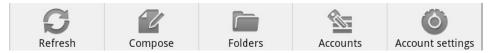


Choose the "write" you can make a new mail, after write message, click the "send" ( or press menu choose to" send "button to send mail )



Long press an account, in the popup dialog box, select the "write" or press "menu"button in the "inbox" window, and select "write" can also achieve the same functions





In the mail pages to press the menu button, in the functions of the menu, select "add attachment" you can finish add attachment from SD; in the writing page, you can back to last page if you choose "give up".

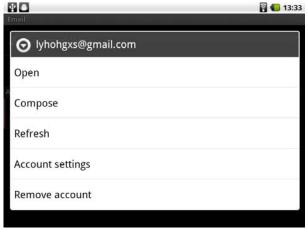


In "send e-mail window, click an account to return to the inbox page of this account; open a message then press the" menu "button to select " transmit "" delete "or" reply "to finish mail to transmit, deletes, or answer.

Summary:"long press"an option, "often press" Menu button, you will find an unexpected effect, remember the two "long/often press"

#### Clear e-mail accounts, there are two ways:

(1) if you want to delete an account(sign out please), in the "send e-mail" window,long press this account will pop up a dialog box, select "delete the account" is ok.



②press "menu"button on the desktop or menu button of menu window, and select "set" —— "application" —— "manage pplication". choose"all" and find "send email" applications, then click"clear data", and the mail account will be deleted fully; if "forced stop" to be highlighted, that's to say it still running in background, click "forced"







#### Google map:

- Google is the global satellite site filming map, it is very convenient to search map and route.
- icon, open the map, then zoom in, zoom out, drag and other On the menu, press operations.
- Press Menu button to call the menu function, select items in the layer or satellite real-time traffic such shot, as shown below: as real



• Please press back or Home button to exit.

#### **Handwriting:**





create a file, then press



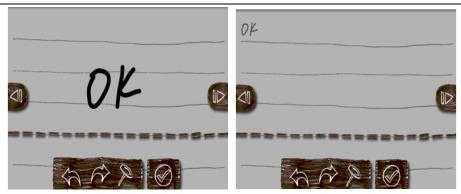
now, you can use your finger to

write.after you write down the words, you should press to leave it on the paper and then press





to quit this window.finished all this, click the mid of the top screen, click to save as follows:



- Very nice hand-painted software, and other user-related operations, please try. **Other application:** 
  - Choose in the program menu, can read.txt files, as follow:
- Select the menu icon, can go for program management, process management and file browser, etc. as shown below:



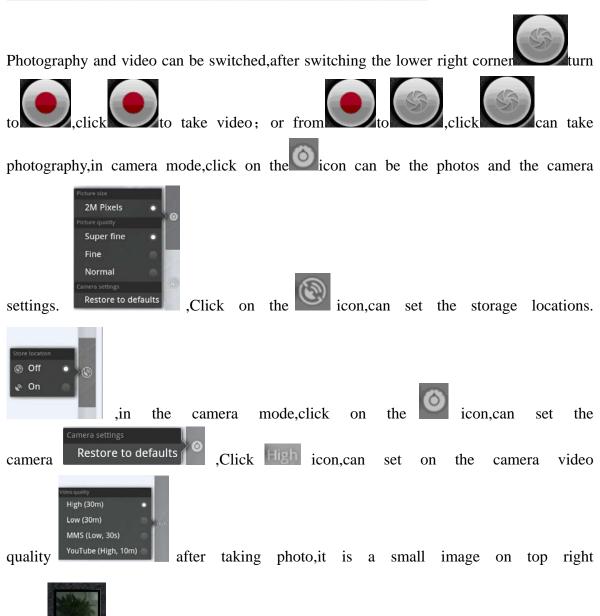
• Choose in the program menu, enter camera mode,



Drag up or down Or press the "menu" button in the pop-up function

menu, select "switch to video "or "switch to the camera"





click the small image, you can view photos.

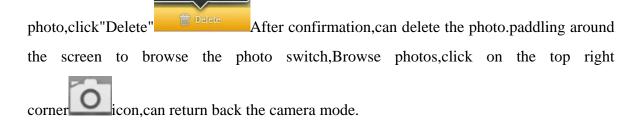
25





Click the lower right corner of the "More" icon

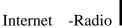
could do operation for the



• They are more than tens of thousands of Android application, please download the software in the market and try to install and using:



● **Handwriting**: download the software and have a try by yourself.







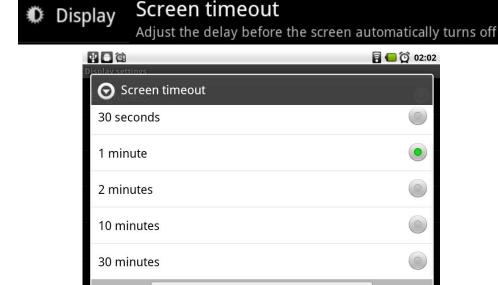
3D game Network video mobile TV, Dynamic Desktop

Wallpapers, online weather translation tool, online stock trading, news channel,

and son on They are all excellent software, please have a try.



• Sleep screen(screensaver)setting:select"Setting"-"Display"-"Screen out"to select the appropriate item on the line, as shown below:



● Switch language:Select the "Setting"-"language and keyboard"-"Select Language "language can be Switched, as below shown



Cancel



● Input method applications: After installing input methods, you need to select this method in "setting"—"language and keyboard", then the pc will change to the input method you install, the one you didn't select will not list in the "choose input method" (input option), for example, the "sogou input method" will not list in input method



option, you can't use it at this time:

#### USB drive installation :

- 1: Insure your pc power off, then connect computer with usb cable.
- 2: Long press"menu"and "power"button at the same time to start pc,you will see the pc start and have below information " fastboot update the system focus mid device -000",the pc will have " android 1.0 " dialog box turn up, select "install from the list or assigned location ( senior ), and then click the next, as follows:
- 3: In the following dialogue box and select Include this location in the search, and then click browse button, as follow:
- 4: Assigned USB driver location, click confirmation, and then click the next, as follow:
  - 5: After install driver complete, and then click"finish", as following diagram:
- 6: The pc will popup " android bootloader interface" new hardware install instruction, as follow:
  - 7: The same install step as above, after finish install, open the computer equipment management of the pc, it will have device information "android bootloader interface ", that's to say this device driver program install successfully, as following diagram:

- 8: Long press the power button to reset.
- 9: You need install corresponding synchronization applications in the pc, such as "91 assistant" applications software, then you can manage the equipment synchronous , as follow:
  - Connecting USB to the pc and manage the device synchronous, users can download 91 phones assistant for android software, Using the computer to manage this device, install application software, replacing wallpaper and cut a screen and so on.

#### **●** The application upgrade:

Click 91 phone assistant on the left menu bar"program management",it will pop up software for updating list window, click " update immediately" download and install automatically. After download, if can't install normally(say install software fail),open the folder which you download application software, double-click the application software (\*.apk file), choose "install" in the popup dialogbox,and you can install and upgrade,you can choose "uninstall" to remove the software, as following diagram:

Install and uninstall the application software: Except above install and uninstall method, it have below method also:

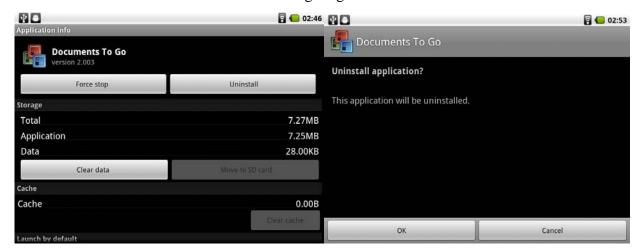
Install the software: Copy the application software (\*. APK file) to sdcard, and plug into pc, then open the sdcard from ES file Explorer, click install application software, in the popup window click "install", enter to the installation process, click "finish" in the popup window after complete as following diagram:





Software uninstall: choose "setting" — "application" — "application management" and

click the application after you find it, choose **"uninstall"in the popup window, in the next window please click"confrimation"**, then into the uninstall process, after complete click **"confirmation"**, as following diagram:

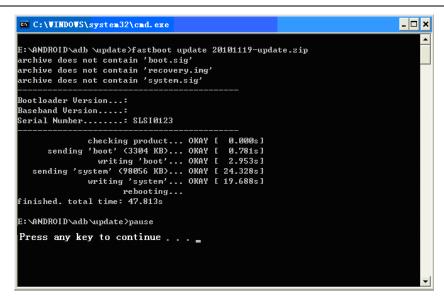




#### The system software upgrade:

Download the update package "\*\*\*\*-update.zip" (\*\*\*\* is update date)in the assigned website,after unzip,it include two files "update.zip" and batch file "no need to unzip"update.zip"any more.

Copy "AdbWinUsbApi.dll \ AdbWinApi.dll \ adb.exe and fastboot.exe" to C:\windows\system32 from the floder which unzip from USB driver zip package,make sure the pc is power off, and connect the computer by USB cable, and long press "menu" and "power" button at the same time to start the pc, after the pc have start logo and have below information "fastboot update the system focus mid device -000", double click "file.bat" to system upgrade process, after upgrade successful, it will turp up below window as follow, "press any key continue ", when upgrade finished sign turn up, shut off the window directly, don't care any information the pc showed.but in some pc, below picture will flash cross, you don't know wheter the system upgrade ok or no, so if you want to know this, you only need to press "setting"—"device info."—"Build number" and to see whether the version information is the latest, if yes, the upgrade successful, or failure. the pc will re-start automatically after upgrade successful:



◆ Software installation:

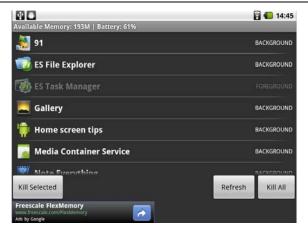
#### ES browser:

• Press , go into ES file browse page, it will show floder catalog to view files, and it's easy to view and manage files as follow:



#### ES Task manager:

• ES Task manager can manipulate the currently running program, can also be shown running in the background information on procedures and related procedures.



• Press"Menu" button to bring up the menu bar, press Back to exit the program



#### **APK file install:**

- Besides install APK application via USB, also available through ES File Manager to install.
- Using ES Manager to open the APK application location, click to install, follow the instruction to complete the installation.

#### **Touching Calibration:**

- 5) Has been calibrated before it went out.
- 6) If can't touch accurately, long press Menu button to calibrate.
- 7) Long press Menu button. The keyboard will appear. Keep pressing it till the calibration window come up.
- 8) Calibrate the screen with the stylus, quit automatically after calibration. Note: After entering the calibration must be prompted to calibrate the page, if press the quit button to exit, touch will not accurate.

#### Ask and Answer:

Some of the installed application is not working?
 Some application are based on the development of mobile phone system, you can not

use full screen, please select the program menualicon, This menu have some battery and other information, check whether the full screen mode has be selected, as shown below:



Can't use application full screen, because the icons option is selected (default state). If the icon option is checked state was a small screen mode, in a non-checked state for full screen mode, click the icon option to remove the " $\sqrt{}$ ", it in non-checked state, and

then restart the PC, and then open the application can not be full screen used before ,then application can now be found in full screen, Some games can't be played in full screen mode, but in the small-screen mode can; At this point you will be able to make this election, and it is in checked state, and then restart the PC, then switch back to the small screen model, which can play the game, Small-Screen mode and full mode can be Switched like this.



- The machine can't be turned on?
  Please check the power. If it still can't work after charging, please contact
  the dealer.
- Can not find the files stored?
   Check the SD card. The files may be at the SD card catalog.
- No sound? Check the voice is on. Check wheather the file is damaged.
- ●Can't copy files?

  Check the link situation. Check wheather the memorizer is full. Check the USB is good.
- ●Wi-Fi can't be connected? Check the net signals.
- ●Wi-Fi drop line automatically?

Because you did not choose never sleep in the WIFI policy, please set as the manual tells you.