

MK902 User Manual



Shenzhen Rikomagic Tech Corp.,Ltd

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Declaration

- The user manual includes all the information of safe and correct operation instruction. To avoid accident and product damaged, please make sure go through all the content carefully before using the product.
- Please keep the product away from high temperature, humid and dusty environment.
- Do not drop or crash the product.
- Do not cut off the device when it is formatting, or upgrading, otherwise it will cause operation system error.
- Do not dismantle the device. Do not clean it by alcohol, thinner and Benzene.
- We keep the right to upgrade and modify the product.
- Disclaimer: we only take the responsibility to provide the warranty and after service. The users have to take care of their data in the device by themselves. We do not responsible for any data or related lost.
- The product is not waterproof.
- All the pictures in the instruction are just for reference.

1.MK902 hardware introduction

1.1 Connector



1. AV output;	2. HDMI output	3. Optical output
4. RJ45 Ethernet connector	5. DC in	6. USB Host
7. USB Slave	8. Micro SD card slot	

1.2 Device connection Instruction

- a) Take out the device insert into your TV HDMI port through HDMI cable, make sure TV setting is HDMI input mode.(Refer to TV set user manual).
- b) Charge MK902 by power adapter.
- c) Suggest using 2.4G wireless keyboard or mouse. Plug 2.4G receiver on USB Host connector, if only mouse plugged, the device will provide soft keyboard during operation; If the device detected the physical keyboard, the soft keyboard will be hidden automatically.
- d) Mouse left button for "ok", right button for "return", rolling for page up and page down,

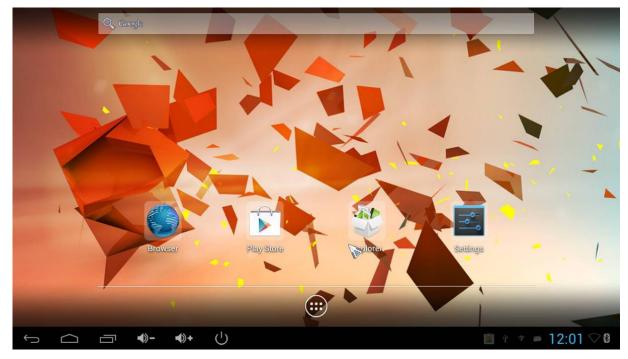
Keep holding left button to drag icon or copy/paste file.

2. Boot state

After powered around 10 seconds, the boot image will appear first then access to boot animation.



After around 30 seconds, device would access to main screen.



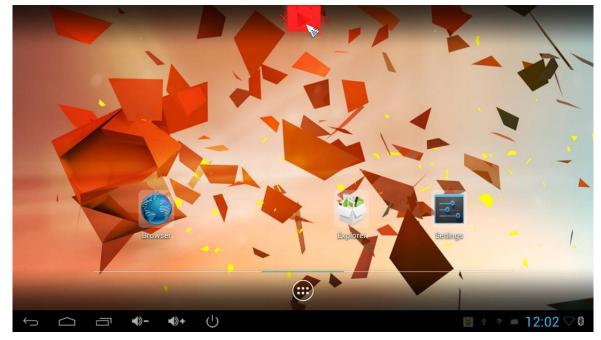
3. Main Screen Introduction

3.1 Move/Delete desktop icon

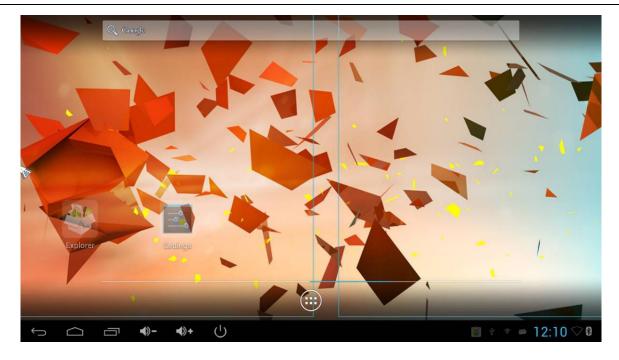
Long-press any icon on the main menu, you could put it in any position as you like, at the same time you could put the other apps shortcut to the desktop.



Long press the icon and move it to the right above "x" and loosen to delete.



Move the cursor to any space and drag towards left or right for page rolling. Also you can use the mouse wheel for rolling page.



3.2 Function column

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Return button: click to return to previous directory;



Homepage button: click it anytime to return to main menu;



Program button: Click to check all the running program;



Volume decrease button: Click to decrease volume;



Volume increase button: Click to increase volume;

Properties button: in different apps, it shows different contents. It's equivalent to Windows properties button;



Soft turn off button.



Hide icon: click for hide this function bar.

Q

Search button: Located in the top left corner of the main menu, click this icon to pop up webpage screen, user can input any website here.



Program tools button: Located in the right top corner of the desktop, click this icon to pop up all the apps which has been installed.

3.3 Status bar

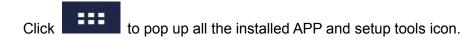
Located on the right bottom, display T-Flash Card, USB connection, Time, WiFi and Download status.



Click status bar, the hide menu will pop up:



3.4 Application



	APPS	WIDGET	S				🔓 Shop
	360手机	助手	Apkinstaller	Browser	- = + = Calculator	31 Calendar	Chrome
	300-101	m ,	Apkinstaller	Browser	Calculator	Calendar	Chrome
)			<u>@</u>		
	Clock	k	Downloads	eHomeMediaCenter	Email	Explorer	Gallery
	È						
	Gmai	il	Music	Play Store	RKGameControlSetti	Search	Settings
	talk	<		<			
	Talk		Video	WifiDisplay			
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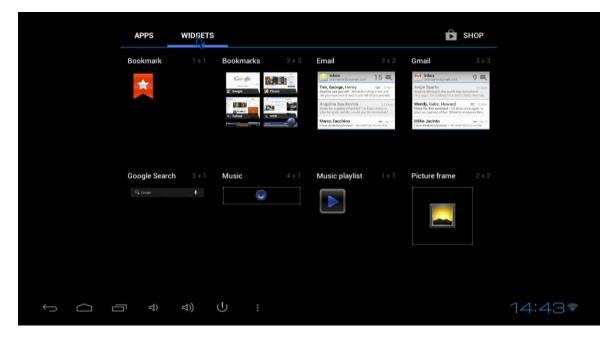
1) If the preloaded APP is beyond the first page, drag the page towards right or rolling the mouse roller to the second page to find other Apps;

2) If you want, you can long-press the APP and drag onto the desktop.



to access widgets, long press any widgets to produce corresponding

shortcut on the desktop.



4. Settings

In the system user can setup according to their own requirements, such as network connection, language, input methods, Video output resolution, Sound output and check storage space. Access to setting to pop up below screen.

											((t-	12:25
Ŕ	🕻 Wi-Fi									()	+	E
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	🗢 Wi-Fi			ON		wifi is enabled, click	to turn it off					
	Bluetooth		OFF			RKM Secured with WPA/W	VPA2					
	器 Ethernet			ON		NETGEAR					ê	
	O Data usag	е				WPS available					*	
	More					NETGEAR-5G WPS available					(îŗ	
	DEVICE					foomo					A	
	合 Home					Secured with WPA/V	VPA2 (WPS ava	iilable)			700	
	∲ USB					TP-LINK_7022 Secured with WEP					a	
	争 Sound					ChinaNet-ze9S						
	Display					Secured with WPA/V	VPA2				4	
	Screenshc	otSetting				MERCURY_DB8 WPS available	E78				(îŗ	
	🗏 Storage					ChinaNet-Es5x					~	
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4.1 WIFI Setting

WIRELESS & NETWORKS	s	Wi-Fi is already turned on. wifi is enabled, click to turn it off	
🗢 Wi-Fi	ON	Rikomagic	
More		Connected	₹.

Once turn on WiFi, the MK902 will auto search available wireless router within 20 meters, user just choose a router and input correct password to connected network.

4.2 Ethernet Setting

If there is no WIFI in the house, suggest to connect a USB LAN adapter (please select right matched USB LAN adapter) to setting Ethernet.

Setting method: Click "setting" \rightarrow "More" \rightarrow "Ethernet" \rightarrow tick "Use Ethernet", then the Ethernet setting finished.

4.3 Portable host pot

If connected the device with Ethernet (not WiFi), then open portable host pot function, you could

regard MK902 as an wireless AP.

4.4 Bluetooth

Open Bluetooth settings--> Scan and search equipment>select a device, input Bluetooth wireless password (if required)-->confirm. Then complete the Bluetooth pairing.

Notice:

Some equipment, for example, Bluetooth headset maybe have a fixed password (like 000), then you must input corresponding password.

4.5 PPPOE Setting

If the network need dial-up, then click PPPOE Settings and input account and password. Click "Setting \rightarrow "More" \rightarrow "PPPOE Settings" \rightarrow input account and password.

4.6 USB

For exchange data between the MK902 and PC.

Operation steps :

Equipment connection: Connect with computer through USB cable, please note you MUST plug into USB Slave port of the MK902, which is for computer connecting.

4.7 Sound

This is for Sound settings;

Volume: Control volume level;

Operate prompt tone: Setting prompt tone during operating;

Screen saver sound: Setting screen saver sound.

4.8 Display

Font size: Setting font size according to your favorite.

4.9 Screen

This is for Screen settings:

1. Screen ratio: Used for adjusting screen ratio.

2. Output Interface: Default HDMI

3. HDMI mode: User can setting corresponding output resolution according to the TV. Normally system will auto detective.

				12:04
Display				
WIRELESS & NETWORKS		Font size		
🗢 Wi-Fi	OFF			
Bluetooth	auto			
몲 Ethernet	1920x1080p-60			
O Data usage	1920x1080p-50			
More	1280x720p-60			
DEVICE	1280x720p-50			
₽ USB	720x576p-50			
📢 Sound	720x480p-60			
Display		Cancel		
ScreenshotSetting		Satcon		
Storage		Hue		
🖾 Apps		Hue		
Û,		<u> </u>	♦)+	\gg

4.10 Storage

In this option, user could view local storage space and external storage space, besides, user even can uninstall or format storage equipment.

Notice: System divided the whole storage into seven partitions, only two partitions visible, the other five partition has been occupied by Android system.

The balance space is equal to the sum of two partitions.

4.11 Apps

In this option, user could view installed and running Apps, at same time could check DDR parameters.

4.12 Security

User can set password according to their request.

4.13 Language & input

- 1. Setting menu language here, there are more than 60 languages build in already.
- 2. Setting IME(Input Method Editor), There are only Chinese and English IME build in, if need other language IME, pls search corresponding IME from APP store and install by yourself.
- 3. Setting keyboard, mouse cursor speed & simulated mouse step length here.

4.14 Backup & reset

Backup: Avoid lost some important APPs during reset or update/recovery system, t's better chose this function for backup.

Reset: Reset to factory settings.(Pls backup data first before reset)

4.15 Date & time

Since there is no battery inside, date and time set by manual can't be saved, Suggest setting to network synchronization time, as long as the network connected, the date and time will be with the network synchronization.

4.16 Developer options

USB debugging: During connecting with PC to exchange data, please open this option;

4.17 About device

User can check system info here.

5. Browse /Copy Files

5.1 Open file Explorer on the desktop



Internal Flash: Check internal storage space

SD Card: If TF card inside, icon will be highlight

USB: If USB device (HDD, U-disk) connected, the icon will be highlight.

Network Places: Through this option, user can access to other PC to find files and playback.

5.2. File Copy

Long-press a file or folder to pop-up a menu, including: Copy, Delete, Move, Paste, Rename options, if no need execute operation, just click "cancel".

6. Install/Uninstall Apps

MK902 supports many commonly used third-party Apps. You can install or uninstall Apps freely; there are two methods available for installing Apps.

6.1 Online installation

Please login Google Play store or other Android marketing to download Apps (User should have Gmail account if download from Google play store); after download system will remind you to install the Apps, just click install according to the system prompt.

6.2 Local installation

User also can copy Apps from computer to USB Flash or TF card, insert the USB Flash or TF card to your device, just click the APK icon to install according to the system prompt.

6.3 Uninstall Apps

Click Settings \rightarrow Apps, click an Apps you want to uninstall, the uninstall window will pop up click uninstall to uninstall. If you don't want to uninstall just exit.

7. DLNA

DLNA : Through some special APP(such as iMediaShare Lite.), all the multimedia files can be pushed from smart phone or Android tablet PC to big screen, user can share those pictures/music/videos with family or friends freely.

8. Web Browsing

After connected network, user can access the webpage screen through the system browser.

New opened webpage will be shown on the screen as tag, click "+" to add new webpage, click "x" to close the webpage.

9. Local audio & video playback

Through the file manager, user can browse & playback those contents of TF card, USB flash or USB HDD.

10. Use virtual keyboard

If just connect USB mouse only, then the virtual keyboard will pop up;

q	w	e	r	t	у	u	i	0	р
а	S	d	f	Ģ	g	h	j	k	
Ŷ	z	×	С	1	/	b	n	m	щ.
en	9	?123		/					-

If connect with physical keyboard, system will hidden the virtual keyboard.

11. Switch input methods

Click the keyboard icon at the bottom status bar from desktop;



From below screen, select corresponding favorite IME(Input method editor)



12. System recovery/update

If your MK902 has following issues, please solve these issues by recovery/update methods.

- 1. If you need update to the latest firmware,
- 2. After boot, there is no signal;
- 3. There is only boot screen;
- 4. System running very slow, crashing;
- 5. Can't find the wireless network equipment, or can't connect wireless;
- 6. When installation Apps, player loss power unexpected and cant boot up.
- 7. TF card update failed and can't boot again etc.

12.1 Recovery/update on Windows XP system

12.1.1 Download recovery tool Batch Tool, driver and recovery firmware,(img file) from official website.

Download, decompression the folder and find "RKBatch Tool" to double click, below screen will pop out, then add img file.

Firmware Info <u>rmation</u> FW Path:				
FW Ver:	FW Time: BOOT Time:	Support Ch	ip:	٨
		Click here	e to select IMG file	Î
Connected Devices	2	3	4	

FW Path:	C:\Users\sam	sung\Desktop\MK902	_131226. ing			
FW Ver:	4.1.01	FW Time:	2013-12-26 10:04:25	Support	RK31	
BOOT Ver:	2.08	BOOT Time:	2013-11-29 11:05:59			
oading firm oading firm	ware Finished.					
Connected D	evices	2		3	4	

12.1.2 Connect MK902 with computer.

- 1. Prepare USB cable and plug into PC USB port first(don't connect with USB slave now)
- 2. Prepare a thin metal stick, press the recover button by the stick according below method.



3. Don't loose the stick, at same time, plug the USB cable to USB slave port of the MK902, after 3-5s,loose the stick.

12.1.3 USB driver installation.

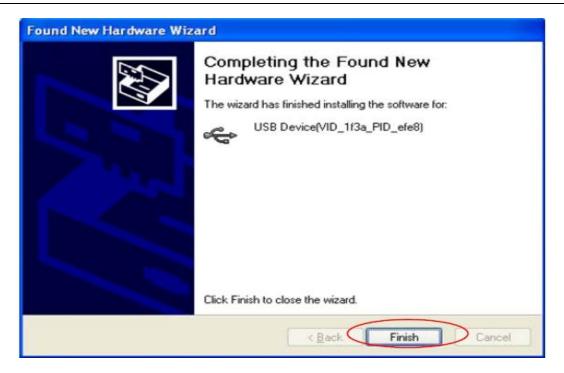
There will pop up a guide window to install new driver.



Select "next"

ound New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
✓ Include this location in the search:
C:\livesuit\UsbDriver V Browse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

Choose the options as picture display, click "Browse", find out "USB Driver", click "Next" to install. If installation finished, computer will pop up below window, click "Finish" to finish.



12.1.4 How to recovery/update by RKBatch Tool

After installation, the "connect device" icon on the "batch tool" will changed to green, as below:

wwwei.	4. 1. 01 2. 08	FW Time: BOOT Time:	2013-12-26 10:04:25 2013-11-29 11:05:59	Support Chip:	RK31	
ading firmwa ading firmwa						
connected De	vices					
connected De	vices	2		3	4	
connected De 1		2		3	4	

Then Click "restore" (the third button of below picture) for recovery, as below.

Firmware Int FW Path:	ormation E:\产品固件\标准软件\MK902 1226\sp6210_720p_RKM_131226.img						
FW Ver:	4.1.01	FW Time:	2013-12-26 10:04:25	Support Chip:	RK31		
BOOT Ver:	2.08	BOOT Time:	2013-11-29 11:05:59				
(Layer 1-1-3	-3> Test Devi -3> Test Devi -3> Lowerform						
(Layer 1-1-3	-3> Test Devi	ce Success					
Cayer 1-1-3 Cayer 1-1-3 Connected E	-3> Test Devi -3> Lowerform Devices	ce Success at Device Start 2		3	4		
Cayer 1-1-3 Cayer 1-1-3 Connected E	-3> Test Devi -3> Lowerform	ce Success at Device Start 2		3	4		
Cayer 1-1-3 Cayer 1-1-3 Connected E	-3> Test Devi -3> Lowerform Devices	ce Success at Device Start 2		3	4		

This procedure will take around 3minutes, please wait patiently, during recovery/upgrade, don't remove the USB cable.Till below screen appeared, means recovery is successful.

FW Path:	\产品固件\标准软件\MK902 1226\ap6210_720p_RKM_131226.img					
FW Ver: 4.1.01	FW Time:	2013-12-26 10:04:25	Support Chip:	RK31		
BOOT Ver: 2.08	BOOT Time:	2013-11-29 11:05:59				
Layer 1-1-3-3> Download :						
Layer 1-1-3-3> Reset Dev						
ayer 1-1-3-3> Reset Dev ayer 1-1-3-3> Wait For 3						
ayer 1-1-3-3> Wait For 1						
aver 1-1-3-3> Test Devi	ce Start					
NEL AL 20162 NO 201 91325 256						
ayer 1-1-3-3> Test Devi ayer 1-1-3-3> Download :	ce Success Firmware Start					
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12.2 Recovery/update on Windows WIN7 system

12.2.1 Download FW and RKBatch Tool

Pls refer to 12.1.1.

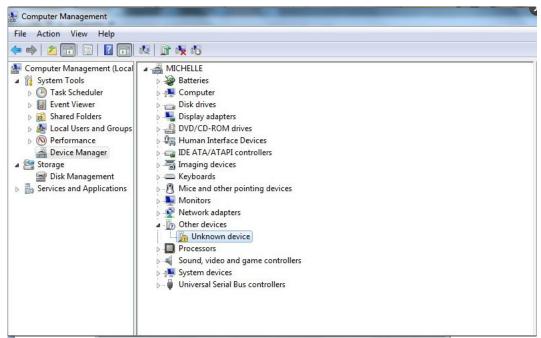
12.2.2 Connect MK902 with computer through USB slave.

Pls refer to 12.1.2

12.2.3 Install the USB driver.

Press "computer" with right key, computer---management--device management--other device, pls

check below picture.



Double click unknown device.

General	Driver	Details	
17	Unkno	wn devic	e
	Driver	Provider:	Unknown
	Driver	Date:	Not available
	Driver	Version:	Not available
	Digital	Signer:	Not digitally signed
Dri	iver Detai	s	To view details about the driver files.
Upo	late Drive	r	To update the driver software for this device.
Roll	Back Dri	ver	If the device fails after updating the driver, roll back to the previously installed driver.
	Disable		Disables the selected device.
	Uninstall		To uninstall the driver (Advanced).

Press update driver, Click browse for driver software on your computer. And choose the correct

driver.

If your computer is WIN7 32bit, choose x86--win7; if it is WIN7 64bit, choose x64-win7.



Press next, will pop up below window, Click on the image below red circle option. Click install.



Till below screen appear, means driver installed successfully.

and the second description of the second	22
🕞 📱 Update Driver Software - Rockusb Device	
Windows has successfully updated your driver software	
Windows has finished installing the driver software for this device:	
Rockusb Device	
	Close

12.2.4 How to upgrade or restore by RKBatch Tool.

Pls refer to 12.1.4.

Shenzhen Rikomagic Tech Corp.,Ltd

Add: 7F Bao'de Industrial Center, Lixin South RD, Fuyong Street,

Bao'an, Shenzhen, China, 518103

Official website: www.rikomagic.com

Tel: 86-755-29981801; Fax: 86-755-27317052

After service: service@rikomagic.com