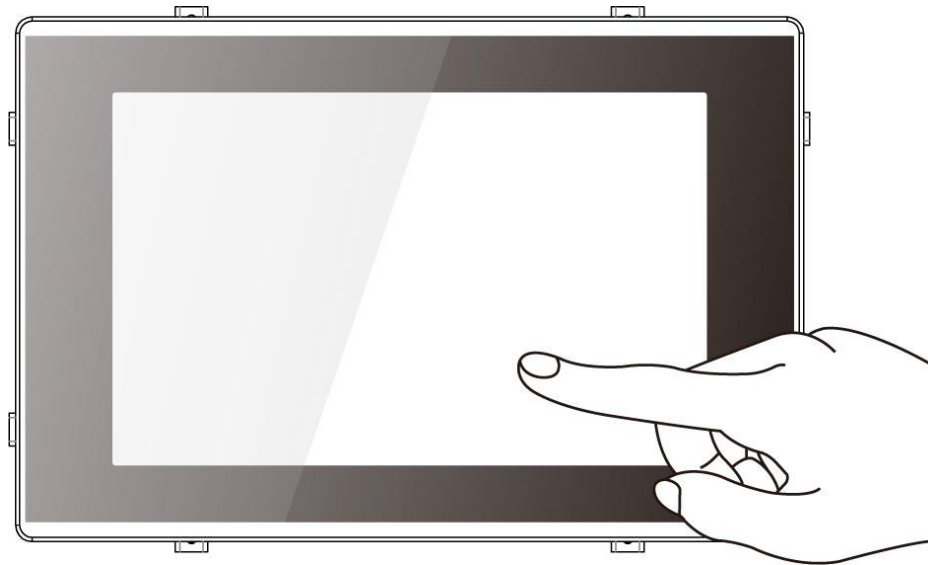


E-Series HMI

Freescale® Cortex® A9 i.MX6 Dual Core, 1 GHz
Android 6.0



Elegant Design

Model No.: W07FA3S-EHT1
W10FA3S-EHH2
R15FA3S-EHC3
W15FA3S-EHA2

User Manual

Document Version 1.7
Document Part Number: 91521111100W

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Preface

FCC Statement



This device complies with part 15 FCC rules.

Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class "B" digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at him own expense.

European Union



Electromagnetic Compatibility Directive (2014/30/EU)

- EN55024: 2010/ A1: 2015
 - IEC61000-4-2: 2009
 - IEC61000-4-3: 2006+A1: 2007+A2: 2010
 - IEC61000-4-4: 2012
 - IEC61000-4-5: 2014
 - IEC61000-4-6: 2014
 - IEC61000-4-8: 2010
 - IEC61000-4-11: 2004
- EN55032: 2012/AC:2013
- EN61000-3-2:2014
- EN61000-3-3:2013

Low Voltage Directive (2014/35/EU)

- EN 60950-1:2006/A11:2009/A1:2010/A12:2011/ A2:2013

This equipment is in conformity with the requirement of the following EU legislations and harmonized standards. Product also complies with the Council directions.

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Warranty

Winmate Inc. warranty guarantees that each of its products will be free from material and workmanship defects for a period of one year from the invoice date. If the customer discovers a defect, we will, at his/her option, repair or replace the defective product at no charge to the customer, provide it is returned during the warranty period of one year, with transportation charges prepaid. The returned product must be properly packaged in its original packaging to obtain warranty service. If the serial number and the product shipping data differ by over 30 days, the in-warranty service will be made according to the shipping date. In the serial numbers the third and fourth two digits give the year of manufacture, and the fifth digit means the month (e. g., with A for October, B for November and C for December).

For example, the serial number 1W16Axxxxxxx means October of year 2016.

Customer Service

We provide a service guide for any problem by the following steps: First, visit the website of our distributor to find the update information about the product. Second, contact with your distributor, sales representative, or our customer service center for technical support if you need additional assistance.

You may need the following information ready before you call:

- Product serial number
- Software (OS, version, application software, etc.)
- Description of complete problem
- The exact wording of any error messages

In addition, free technical support is available from our engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

Advisory Conventions

Four types of advisories are used throughout the user manual to provide helpful information or to alert you to the potential for hardware damage or personal injury. These are Notes, Important, Cautions, and Warnings. The following is an example of each type of advisory.



Note:

A note is used to emphasize helpful information



Important:

An important note indicates information that is important for you to know.



Caution/ Attention

A Caution alert indicates potential damage to hardware and explains how to avoid the potential problem.

Une alerte d'attention indique un dommage possible à l'équipement et explique comment éviter le problème potentiel.



Warning!/ Avertissement!

An Electrical Shock Warning indicates the potential harm from electrical hazards and how to avoid the potential problem.

Un Avertissement de Choc Électrique indique le potentiel de chocs sur des emplacements électriques et comment éviter ces problèmes.



Alternating Current Mise à le terre !

The Protective Conductor Terminal (Earth Ground) symbol indicates the potential risk of serious electrical shock due to improper grounding.

Le symbole de Mise à Terre indique le risqué potentiel de choc électrique grave à la terre incorrecte.

Safety Information



Warning!/ Avertissement!

Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Toujours débrancher le cordon d'alimentation du chassis lorsque vous travaillez sur celui-ci. Ne pas brancher de connexions lorsque l'alimentation est présente. Des composantes électroniques sensibles peuvent être endommagées par des sauts d'alimentation. Seulement du personnel expérimenté devrait ouvrir ces chassis.



Caution/ Attention

Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

Toujours vérifier votre mise à la terre afin d'éliminer toute charge statique avant de toucher la carte CPU. Les équipements électroniques modernes sont très sensibles aux décharges d'électricité statique. Toujours utiliser un bracelet de mise à la terre comme précaution. Placer toutes les composantes électroniques sur une surface conçue pour dissiper les charge, ou dans un sac anti-statique lorsqu'elles ne sont pas dans le chassis.

About This User Manual

This User Manual provides information about using the Winmate® E-Series HMI. This User Manual applies to the E-Series HMI – W07FA3S-EHT1, W10FA3S-EHH2, R15FA3S-EHC3 and W15FA3S-EHA2.

The documentation set for the E-Series HMI with Freescale® Cortex® A9 i.MX6 Dual Core provides information for specific user needs, and includes:

- **E-Series HMI User Manual** – contains detailed description on how to use the HMI device, its components and features.
- **E-Series HMI Quick Start Guide** - describes how to get the HMI up and running.



Note:

Some pictures in this guide are samples and can differ from actual product.

Document Revision History

Version	Date	Note
1.0	25-Jul-2016	Initial release
1.1	16-Nov-2016	Revise formatting
1.2	8-Mar-2017	Add 4.3" HMI
1.3	19-Jun-2017	Add Micro HDMI connector for 7", 10.1" and 15" HMI
1.4	15-Dec-2017	Update OS to Android 6.0
1.5	25-Jan-2018	Add 15", R15FA3S-EHC3 Add 4.2.2 Using Android Debug Bridge
1.6	14-Nov-2018	Remove 4.3"
1.7	10-Sep-2019	Revise 15.6" cutout

Chapter 1: Introduction

This chapter gives you product overview, describes features and hardware specification. You will find all accessories that come with the HMI in the packing list. Mechanical dimensions and drawings included in this chapter.

1.1 Product Features

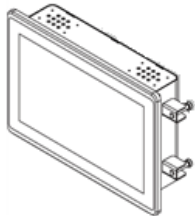
Winmate® E-Series HMI features:

- Freescale® Cortex® A9 i.MX6 Dual Core 1 GHz
- Projected Capacitive (P-CAP) Multi-Touch
- Fanless cooling system and Ultra-low power consumption
- Front IP65 water and dust proof, rear IP22
- Optional PoE (Data and Power in a single cable)
- Mounting clips for quick Installation
- Elegant design for room booking, access control and room information applications
- Support OS
 - Android 6.0 (Default)
 - Ubuntu 16.04 (Optional)
 - Linux Kernel 3.0.35,QT 5.4 Browser (Optional)

1.2 Package Contents

Carefully remove the box and unpack your device. Please check if all the items listed below are inside your package. If any of these items are missing or damaged contact us immediately.

Standard factory shipment list:



- **HMI Device**

Varies by product specifications



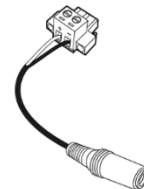
- **Quick Start Guide (Hardcopy)**

P/N: 91521111101C



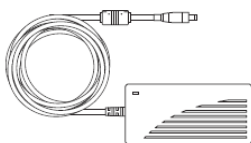
- **User Manual & Driver CD**

P/N: 91711111102P



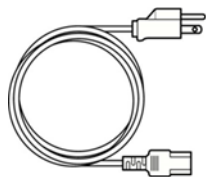
- **2 pin Terminal Block**

P/N: 94J602G020K0



- **AC Adapter (12V/ 50W)**

P/N: 922D050W12A



- **Power Cord**

P/N: Varies by country



- **Mounting Clips and Screws**

P/N: 82111E240400

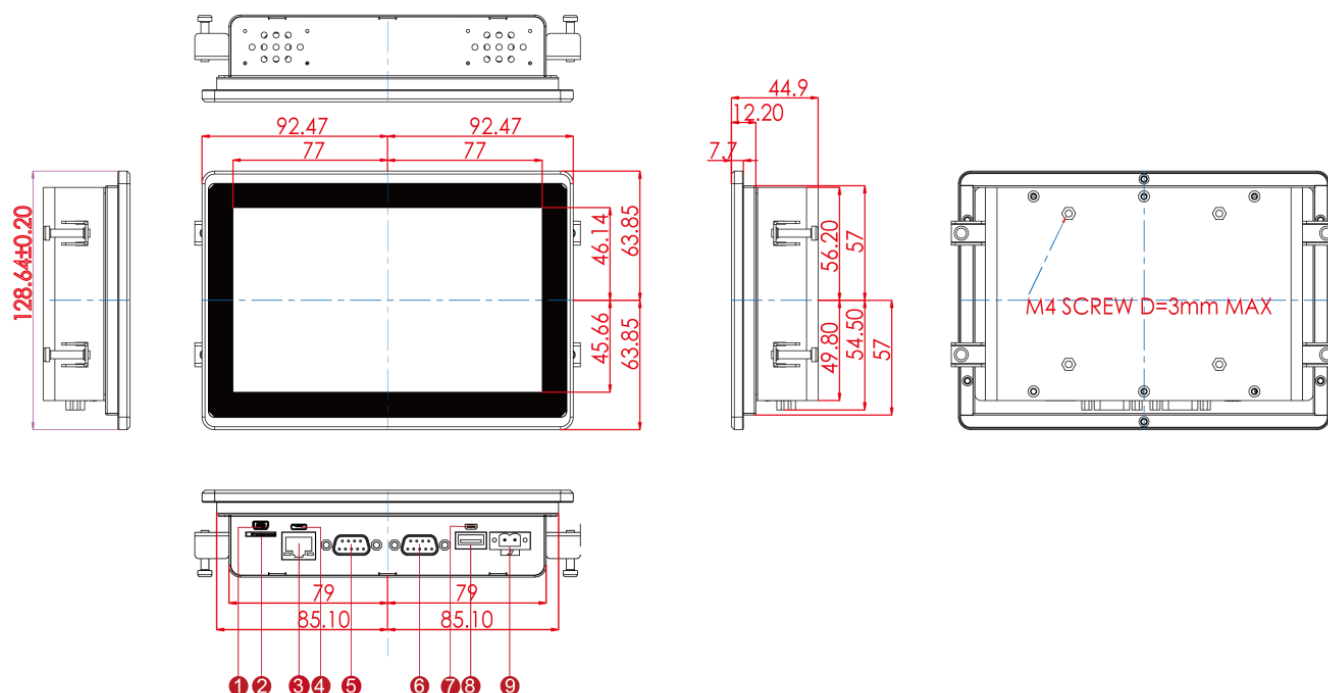
**Package content may vary based on your order.*

1.3 Description of Parts

This section describes appearance, connectors' layout and mechanical dimensions of E-Series HMI. Notice that this is a simplified drawing and some components are not marked in detail. Please contact our sales representative if you need further product information.

E-Series HMI 7"

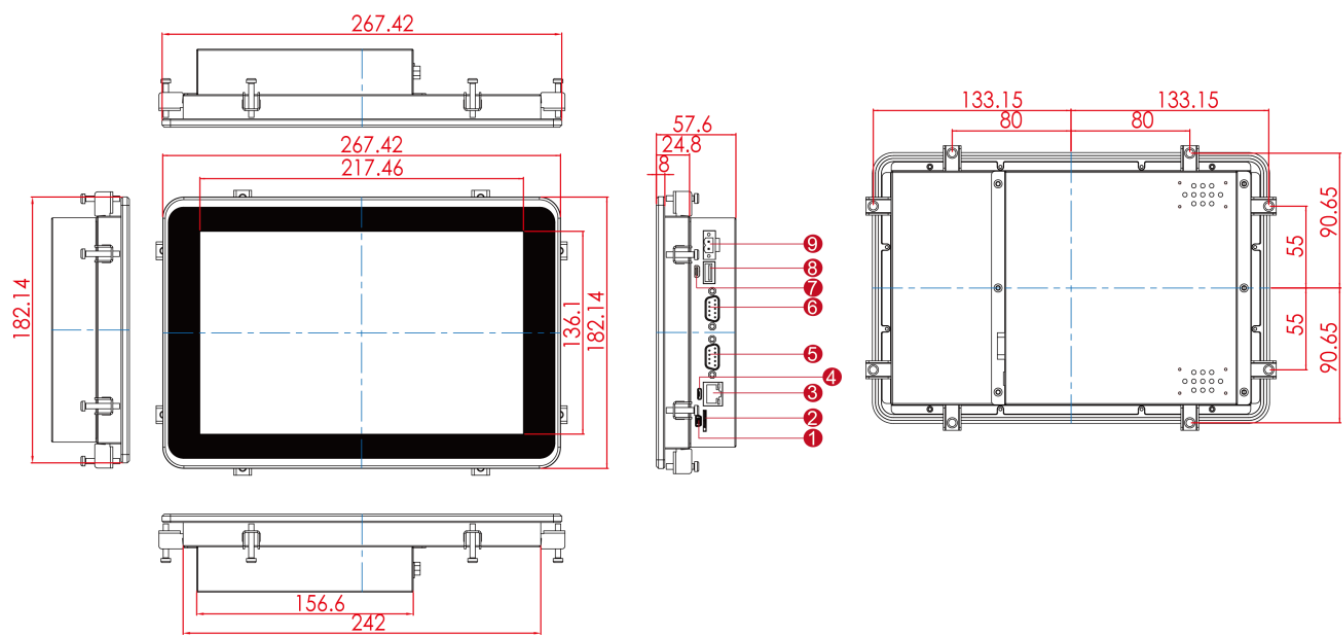
Unit: mm



No	Description	No	Description
①	Mini USB Console (Linux use)	⑥	RS-232/422/485
②	Micro SD	⑦	Micro HDMI
③	LAN/ Optional PoE	⑧	USB 2.0
④	USB OTG	⑨	12V DC in (Phoenix type)
⑤	CANBUS		

E-Series HMI 10.1”

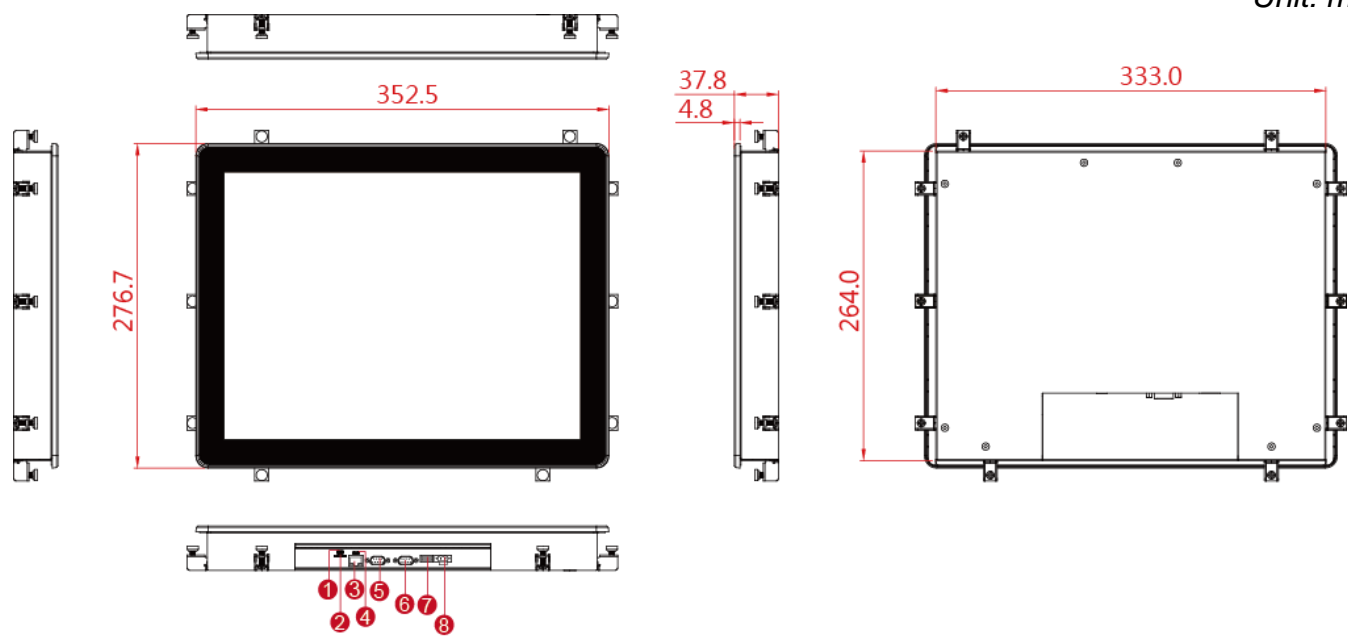
Unit: mm



No	Description	No	Description
①	Mini USB Console (Linux use)	⑥	RS-232/422/485
②	Micro SD	⑦	Micro HDMI
③	LAN/ Optional PoE	⑧	USB 2.0
④	USB OTG	⑨	12V DC in (Phoenix type)
⑤	CANBUS		

E-Series HMI 15"

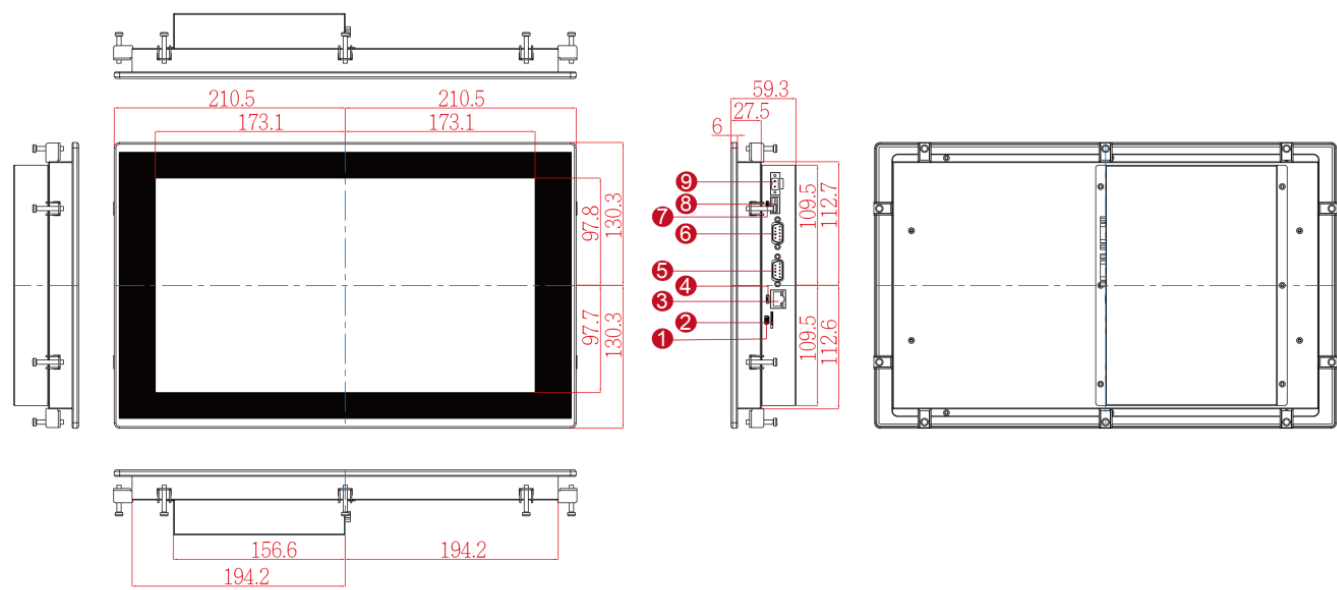
Unit: mm



No	Description	No	Description
①	Mini USB Console (Linux use)	⑤	CANBUS
②	Micro SD	⑥	RS-232/422/485
③	LAN/ Optional PoE	⑦	USB 2.0
④	USB OTG	⑧	12V DC in (Phoenix type)

E-Series HMI 15.6”

Unit: mm



No	Description	No	Description
①	Mini USB Console (Linux use)	⑥	RS-232/422/485
②	Micro SD	⑦	Micro HDMI
③	LAN/ Optional PoE	⑧	USB 2.0
④	USB OTG	⑨	12V DC in (Phoenix type)
⑤	CANBUS		

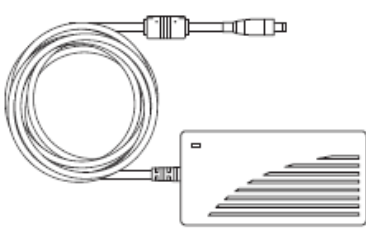
Chapter 2: Getting Started

This chapter tells you important information on power supply, adapter and precautions tips. Pay attention to power considerations.



2.1 Powering On

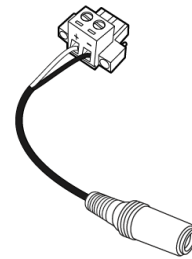
2.1.1 AC Adapter Components



• AC Adapter



• Power Cord



• 2 Pin Terminal Block to DC Jack

Safety Precautions:

- Do not use the adapter in a high moisture environment
- Never touch the adapter with wet hands or foot
- Allow adequate ventilation around adapter while using
- Do not cover the adapter with paper or other objects that will reduce cooling
- Do not use the adapter while it is inside a carrying case
- Do not use the adapter if the cord is damaged
- There are NO serviceable parts inside
- Replace the unit if it is damaged or exposed to excess moisture

While using the AC Adapter always:

- Plug-in the power cord to easy accessible AC outlet
- Plug-in the AC adapter to a grounded outlet



Alternating Current Mise à la terre !

This product must be grounded. Use only a grounded AC outlet. Install the additional PE ground wire if the local installation regulations require it.
**If you do not use a grounded outlet while using the device, you may notice an electrical tingling sensation when the palms of your hands touch the device.*

Ce produit doit être mis à la terre. Utiliser seulement un cordon d'alimentation avec mise à la terre. Si les règlements locaux le requiert, installer des câbles de mise à la terre supplémentaires.

**Si vous n'utilisez pas une prise d'alimentation avec mise à la terre, vous pourriez remarquer une sensation de picotement électrique quand la paume de vos mains touche à l'appareil.*

2.1.2 Power Considerations

The HMI device operates on external DC power. Use the AC adapter included in the package.



Caution/ Attention

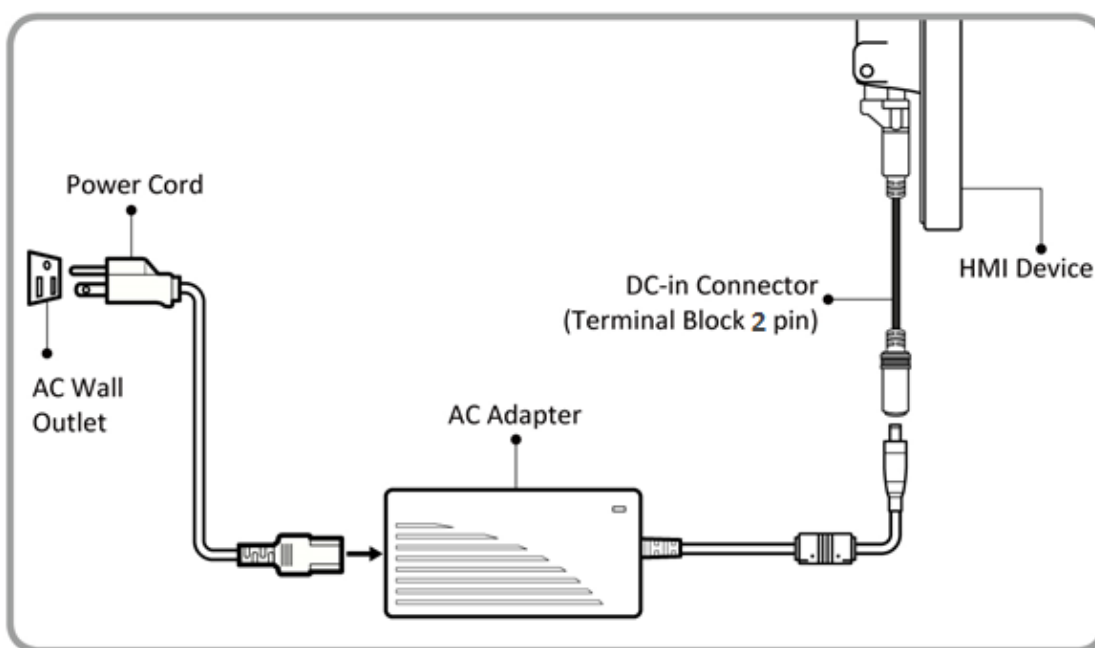
Use only the AC adapter included in your package (Rating: Output 12 V/ 6.6A). Using other AC adapters may damage the device.

Utiliser seulement le convertisseur AC inclu avec votre appareil (Puissance: Sortie 12 V/ 6.6A). Utiliser d'autres convertisseurs pourraient endommager l'appareil.

2.1.3 Connecting the Power

Installation Instruction:

1. Connect a 2-pin terminal block to the HMI connector.
2. Connect the other side of the terminal block to the AC adapter.
3. Connect the AC adapter to the power cord.
4. Plug in the power cord to a working AC wall outlet. The device will boot automatically.



Note:

Power cords vary in appearance by region and country.



Note:

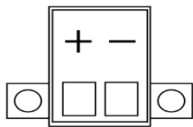
Based on the model, terminal block connector may be located either on the bottom or on the rear side of the HMI device.

2.2 Connector Pinouts

2.2.1 DC Input Connector

Terminal Block

DC power source input is a 2 pin terminal block connector. Power Input is 12V DC in.



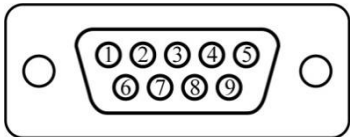
Minimum Voltage 11.4V
Maximum Voltage 12.6V
Maximum Current 4.2A



Important:
Support PoE (optional), requires IEEE 802.3at 25W power input

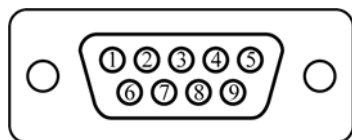
2.2.2 Serial Port Connector

RS-232/422/485



Pin №	RS-232 (Default)	RS-422	RS-485
1	DCD	TxD-	D-
2	RXD	TxD+	D+
3	TXD	RxD+	NC
4	DTR	RxD-	NC
5	GND	GND	GND
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC

Serial port settings can be configured in Winmate application for Android OS. Refer to “[Configuring Serial Port Settings](#)” of this Quick Start Guide for more details.

RS-485

Pin №	RS-485
1	D-
2	D+
3	NC
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

2.2.3 USB 2.0 Connector

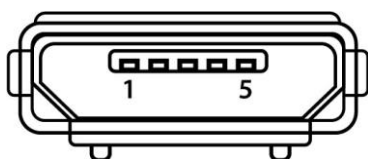
Use USB A Type (USB2.0) connector to connect your HMI device to other USB2.0 compatible devices.



Pin №	Signal Name	Pin №	Signal Name
1	+5V	2	Data-
3	Data+	4	GND

2.2.4 USB OTG Connector

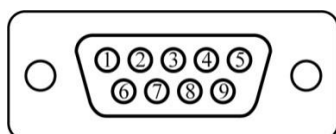
Use USB OTG connector to connect the HMI device to other external devices. Use USB OTG cable to install software on the HMI device.



Pin №	Signal Name	Pin №	Signal Name
1	+5V	2	USB_OTG_D-
3	USB_OTG_D+	4	USB_OTG_ID
5	GND		

2.2.5 CANBus Connector

Use CANBus connector for the HMI machine-to-machine communication.

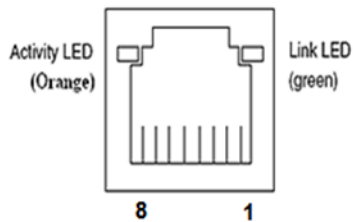


Pin №	Signal Name	Pin №	Signal Name
1	GND	2	CAN_L
3	GND	4	NC
5	NC	6	NC
7	CAN_H	8	GND
9*	+5V/NC		

*PIN9 default is NC

2.2.6 LAN (RJ45) Connector

The E-Series HMI supports one 10/100/1000 Mbps Ethernet interface for connecting to the internet.



Pin №	Signal Name	Pin №	Signal Name
1	TX1+	2	TX1-
3	TX2+	4	TX2-
5	TX3+	6	TX3-
7	TX4+	8	TX4-

2.2.7 Micro HDMI Connector

The E-Series HMI has one Micro HDMI connector.



Pin №	Signal Name	Pin №	Signal Name
1	HP_DET_OUT	2	NC
3	HDMI_D2P	4	GND
5	HDMI_D2M	6	HDMI_D1P
7	GND	8	HDMI_D1M
9	HDMI_D0P	10	GND
11	HDMI_D0M	12	HDMI_CLKP
13	GND	14	HDMI_CLKM
15	HDMI_CEC_OUT	16	GND
17	H_CLK_OUT	18	H_DAT_OUT
19	HDMI_5V		

2.3 Turning On and Off the HMI Device

This section describes how to turn on and off the HMI device.

To turn on the HMI device:

1. Connect the HMI device to the source of power.
2. The unit is configured to **Power ON** when is connected to the power source.

Refer to [Ch.2, "Powering On"](#) of this User Manual for more details on how to power on the HMI device.

To turn off the HMI device:

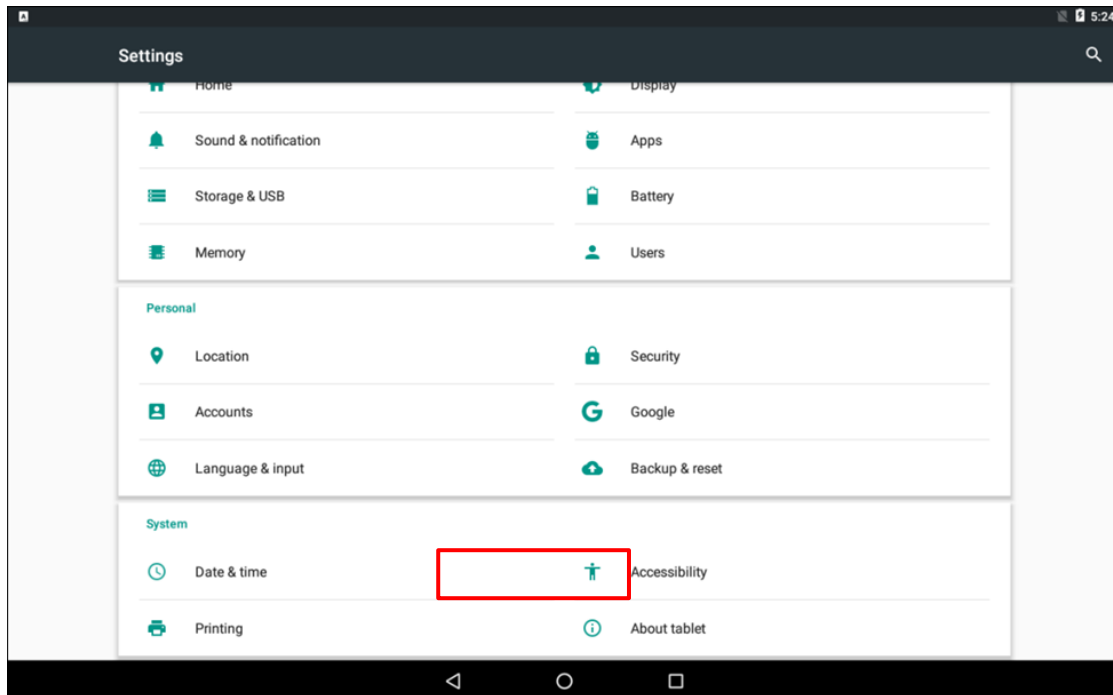
1. Disconnect the power cord from the HMI device to completely turn off the device.

2.4 Configuring Serial Port Settings

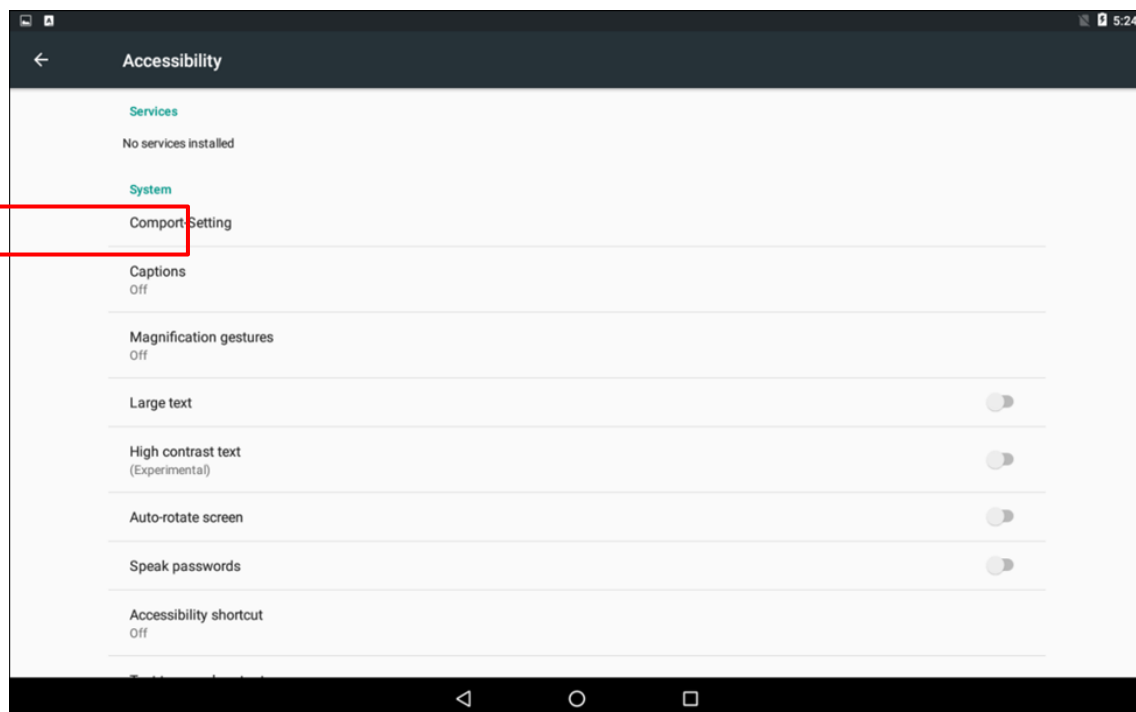
Serial COM Port can be configured for RS-232, RS-422 or RS-485. Winmate provide COM port settings application for Android OS.

To configure serial port settings:

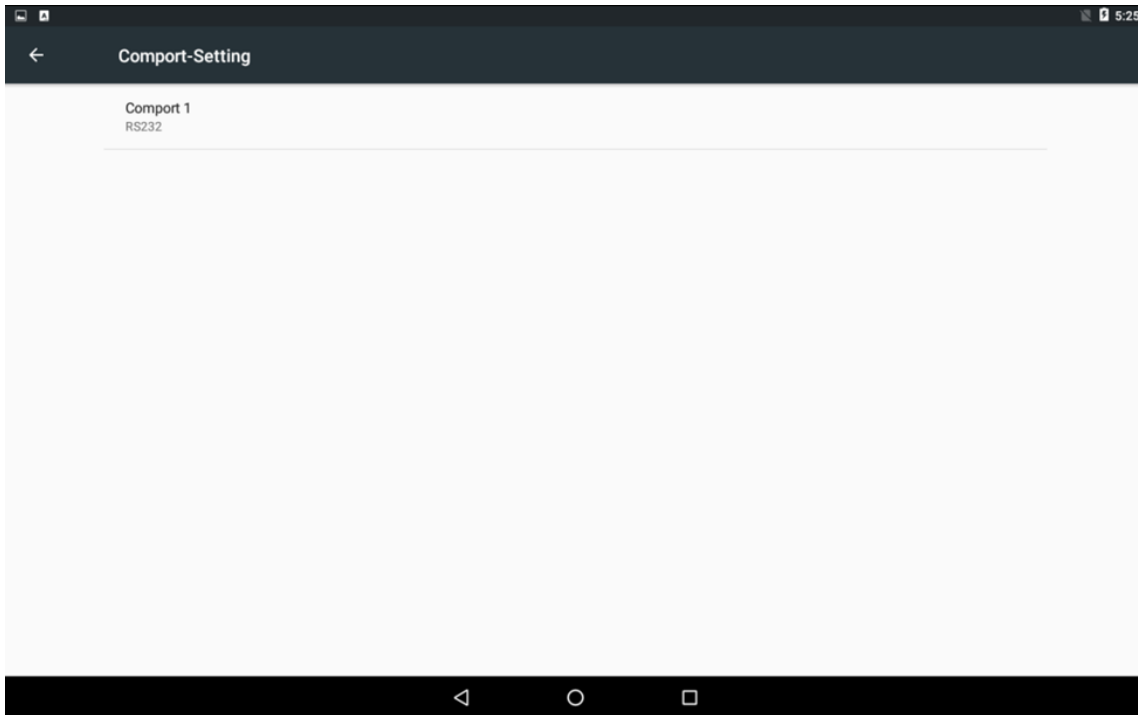
1. Settings  > Accessibility.



2. Accessibility > System: Comport-Setting.

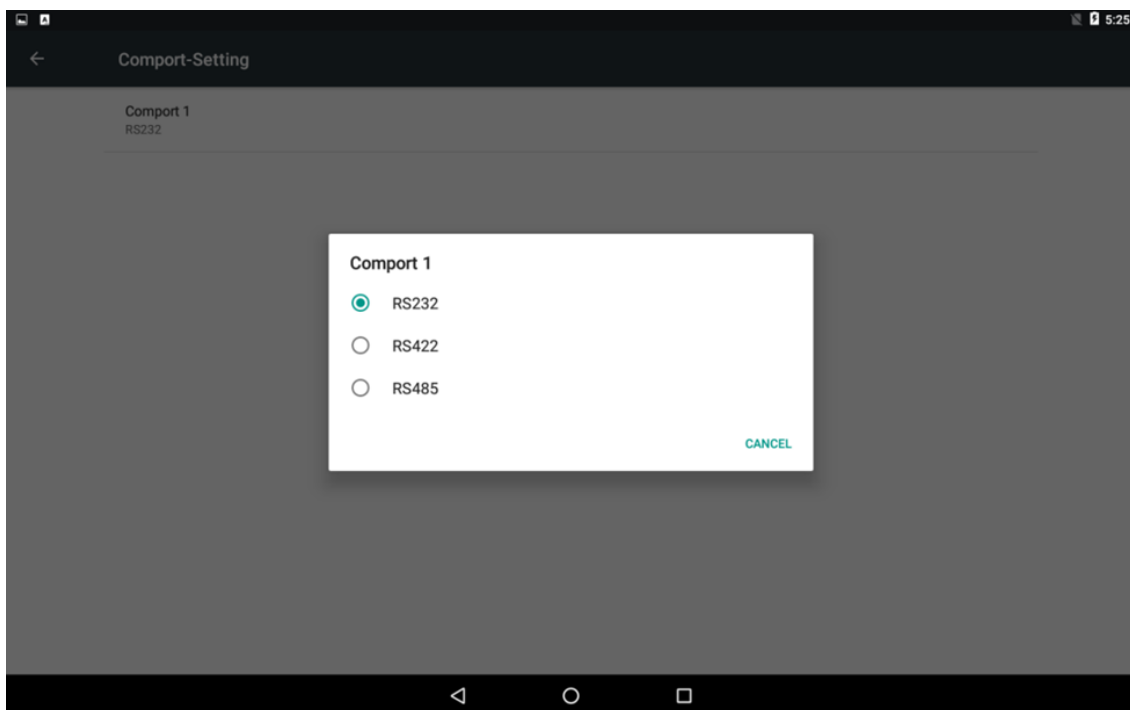


3. Comport-Setting > Comport 1/ Comport 2/ Comport 3



* Select Comport 1/ Comport 2/ Comport 3 that you want to configure.

4. Comport 1 > RS232/RS422/RS485



* Configure Comport 1 settings

Chapter 3: Operating the Device

In this chapter you will find instructions on how to operate the HMI device.



3.1 Operating System

E-series HMI support Android 6.0 (Default) and Linux Kernel 3.0.35, QT 5.4 Browser (Optional).



Important:

The device is shipped with the OS System according to your order. Contact us if you have any questions regarding OS settings.







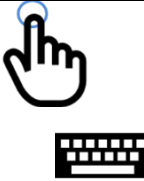


Important:

The watchdog timer is set by default. The system will automatically reboot if it hangs after 30 seconds. If the app hangs, watchdog function will not be activated.

3.2 Multi-Touch

The touchpad supports the core gestures for Android.

Gesture	Action	Description
Touch		To select or activate something
Touch & Hold		Touch and hold an item on the screen by touching it and not lifting your finger until it respond
Touch, Hold & Drag		Touch and hold an item for a moment and then without lifting your finger, move your finger on the screen until you reach the target position. i.e. moving the apps around the home screen
Swipe or slide		Quickly move the finger across the surface of the screen. i.e. slide a lock screen to open the lock
Double-tap		Tap quickly twice on a webpage, screen, or App to zoom
Scale		Place two finger on the screen and pinching them together
Type		Touch where you want to type. A keyboard pops up that lets you type into the field.

3.3 System Settings

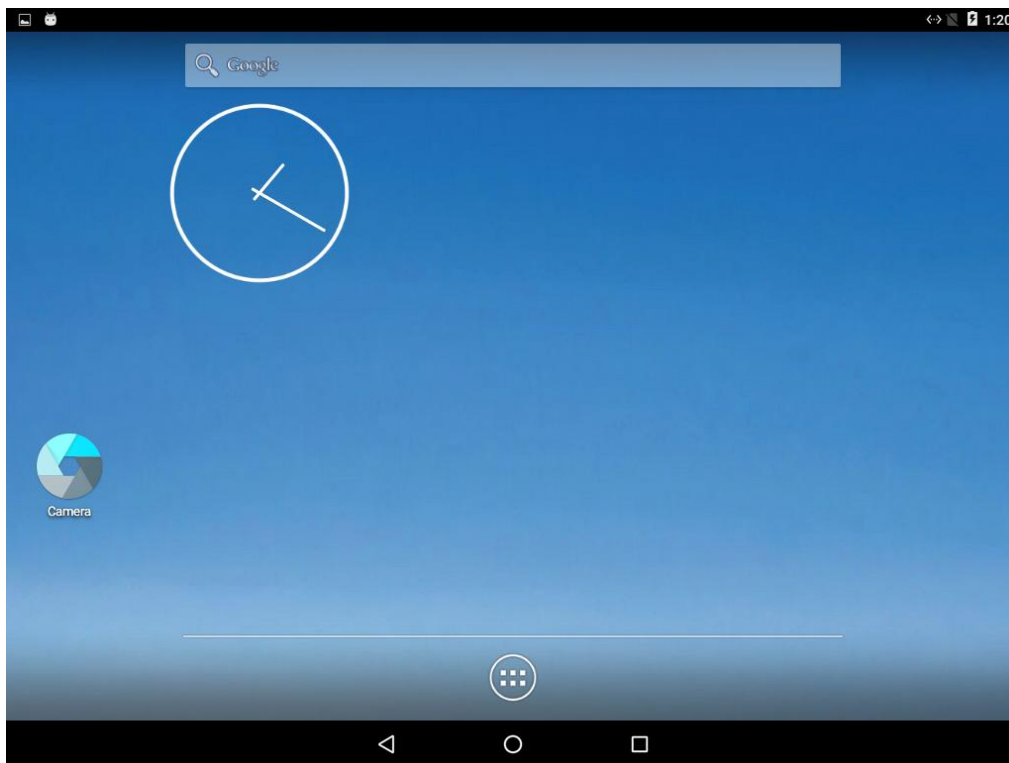
This section explains how to adjust main system settings in Android 6.0.

3.3.1 Set up the Device

When you first turn on your HMI device, you'll see a **Welcome screen**. Choose the language you want and touch **Start** or the Start icon. When prompted, you can sign in with your Google Account or create one at that time. You can also choose to skip this step and create one later.

3.3.2 Home Screen

Your device runs on Android 6.0 Operation System (Default).



Back

Opens the previous screen you were working in, even if it was in a different app. Once you back up to the Home screen, you can't go back any further.



Home

Returns to the Home screen. To get suggestions based on the screen you're currently viewing, touch & hold this button.




Overview


Opens a list of thumbnail images of screens you've worked with recently. To open one, touch it. To remove a screen from the list, swipe it left or right or touch the X.

Your apps




To see all your apps, touch  in the Favorites tray on any Home screen. This is where you can see all your apps, including those that come with your phone or tablet and those you downloaded on Google Play. You can move app icons to any of your Home screens. The apps you've used most recently appear in the first row.

Some apps hide these buttons temporarily, or fade them to small dots in the same position. To bring them back, touch the dots, touch the screen in the middle, or swipe up from the bottom.

Many screens in apps and Settings include a **menu**  icon at the top right of the screen. Touch it to explore additional options, including Help & feedback.


To add an app to a Home screen:

1. Go to the Home screen where you want to place the app.
2. Touch **All Apps** .
3. Swipe from left to right to find the app you want.
4. Touch & hold the app until the Home screen appears, slide it into place, and lift your finger.





To remove an app icon from the Home screen without removing it permanently from your device, touch & hold it, slide your finger toward the top of the screen, and drop the app over Remove in the top left.

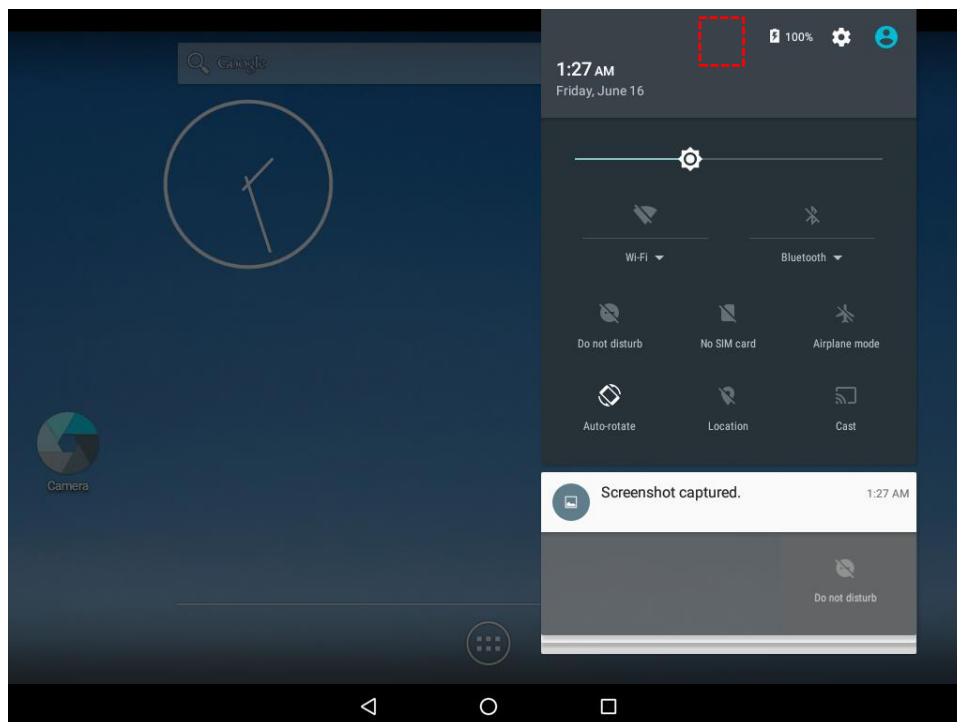
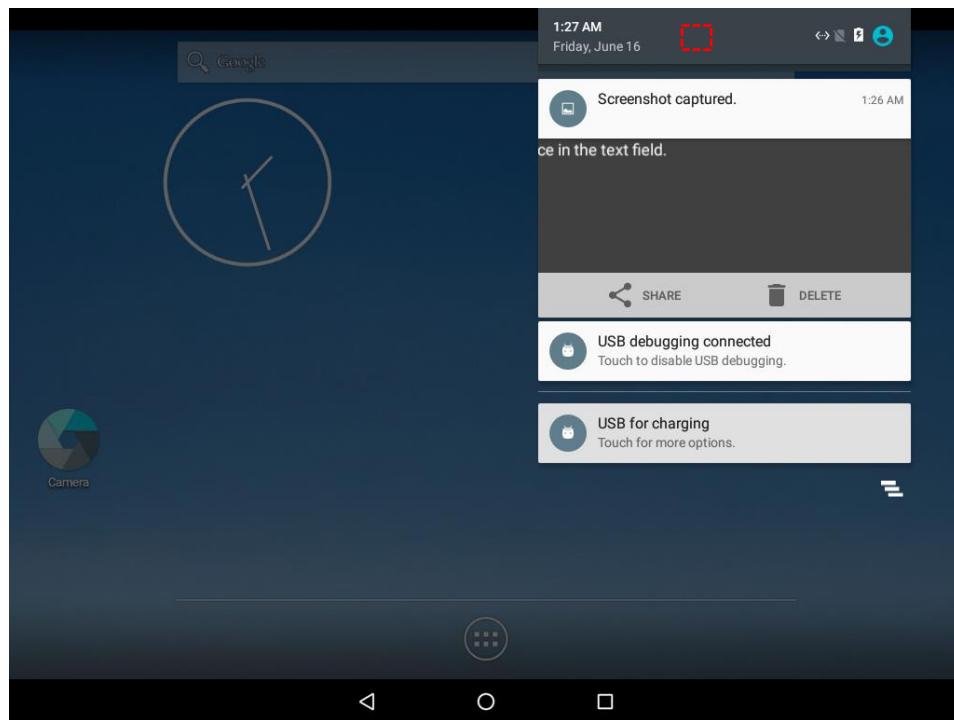
3.3.3 Quick Settings

You can open your device's Settings app from the All Apps screen or from Quick Settings.

For example, to change notification sounds, and volume go to Settings  > Device > Sound to change the volume.



Use Quick Settings to easily change frequently used settings, like turning on Wi-Fi. To open Quick Settings, swipe down from the top of the screen with two fingers. To change a setting, just touch the icon:

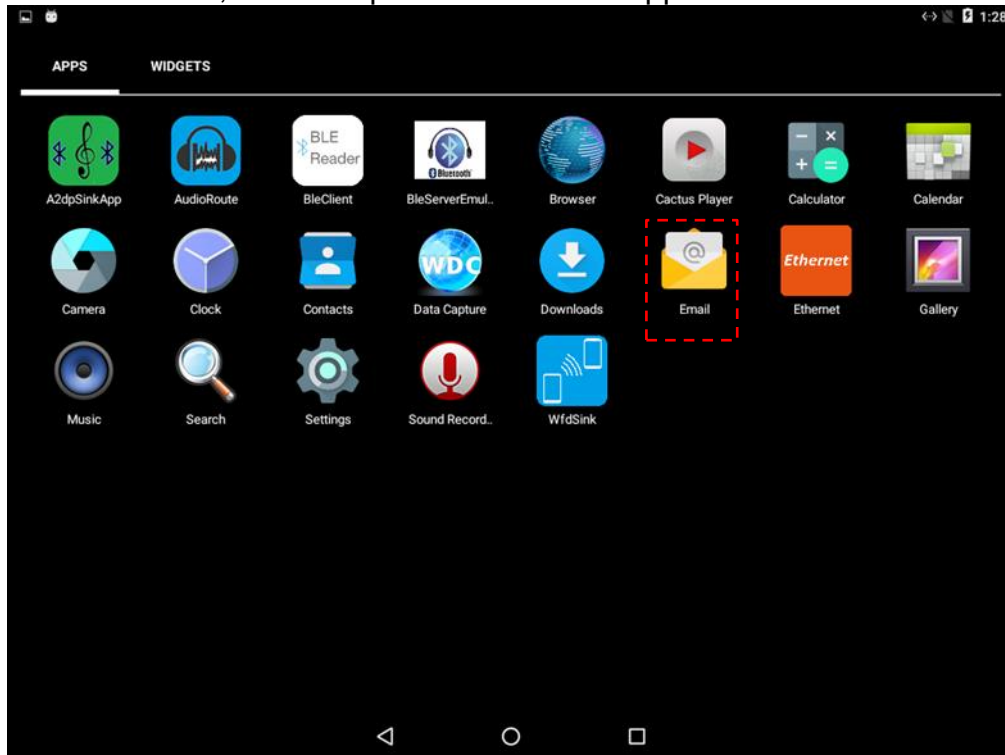
- **Display brightness:** Slide  to lower or increase the brightness of your screen.
- **Wi-Fi network:** Turn Wi-Fi  on or off or open the Wi-Fi settings menu.
- **Bluetooth settings:** Turn Bluetooth  on or off or open the Bluetooth settings menu.
- **Auto-rotate:** Lock your device's orientation  in portrait or landscape mode.



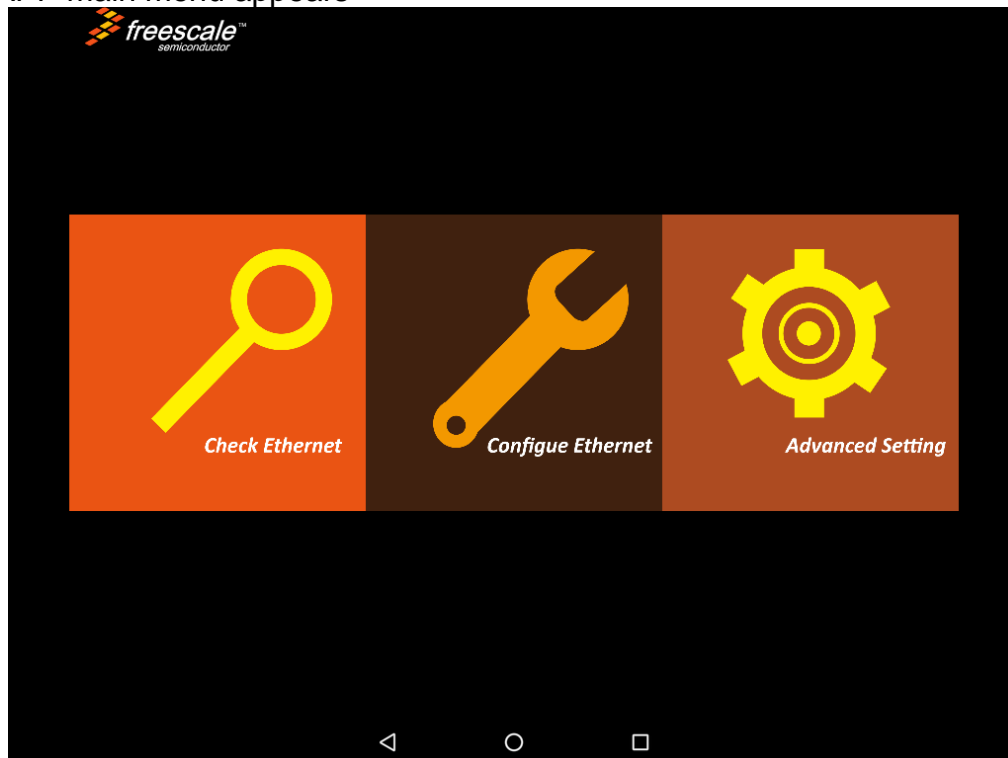
Open the main Settings menu by touching **Settings** ⚙️ at the top right.

3.4 Ethernet

1. Connect Ethernet Cable to the HMI.
2. Touch **All APPS**  icon, and the open **Ethernet**  application.

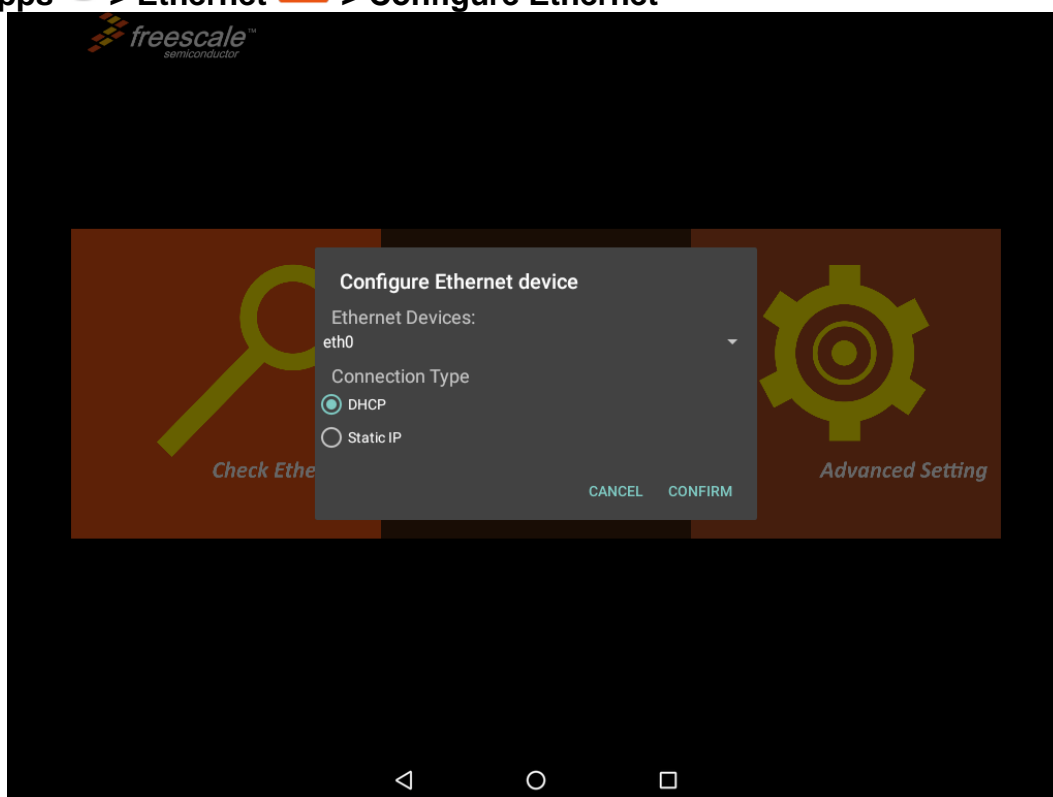


3. Ethernet APP main menu appears



3.4.1 Configuring Ethernet

Go to All Apps  > Ethernet  > Configure Ethernet



*Ethernet OFF is set by default. Swipe **Ethernet ON** to activate Ethernet connection.

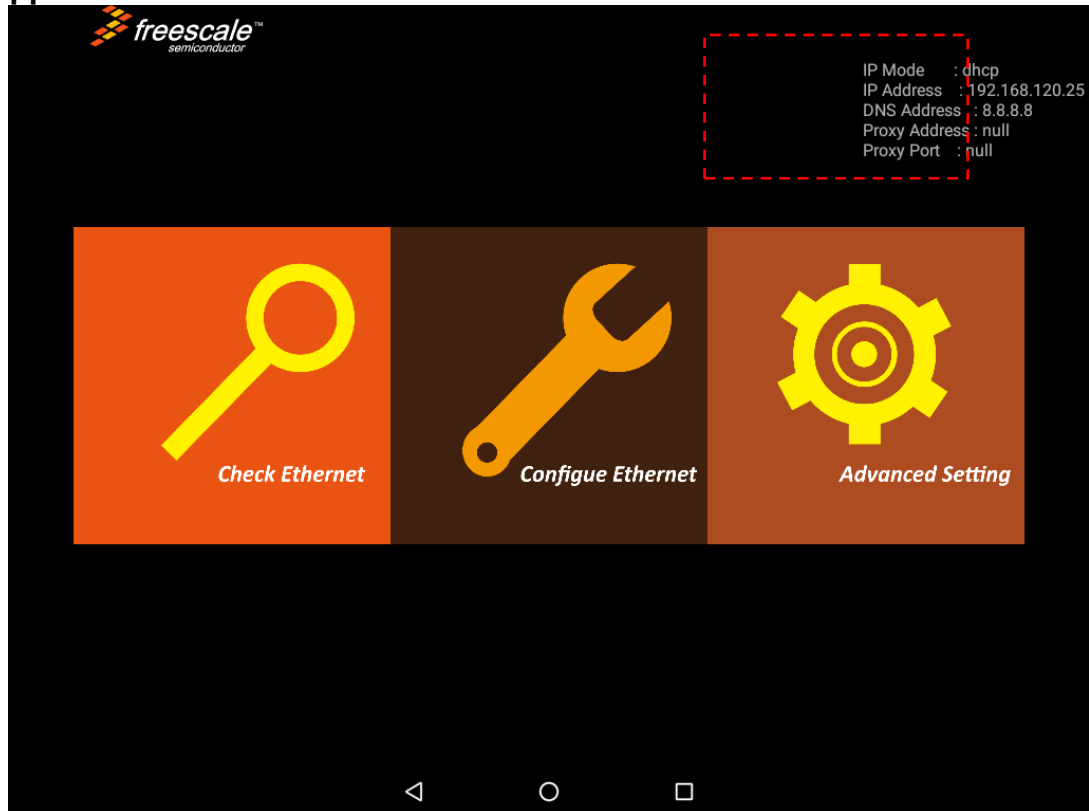
Connection Type

Setting	Description
DHCP	The device automatically capture IP-address from the router
Static IP	Allows to manually set up IP-address, DNS, Network and Gateway

3.4.2 Checking Ethernet Settings

To check Ethernet settings:

Go to **All Apps**  > **Ethernet**  > **Check Ethernet**



Ethernet settings menu appears on the top right side of the desktop.

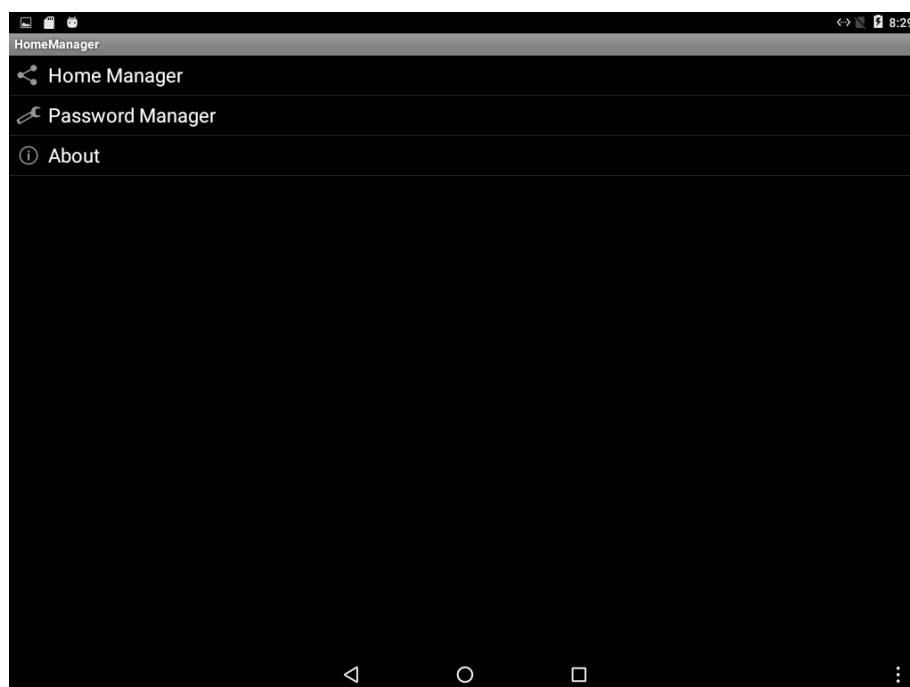
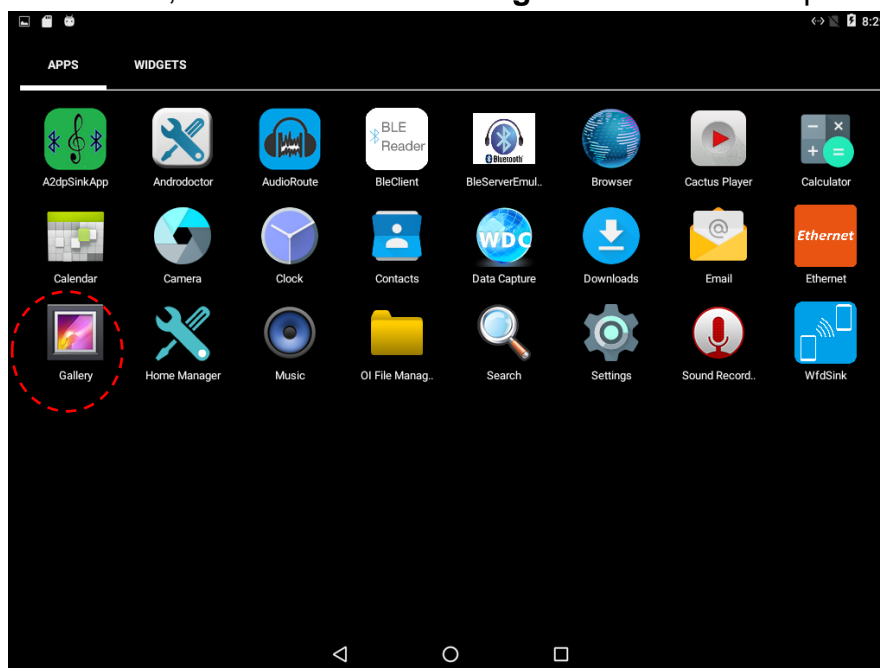
3.5 Winmate® Home Manager (WHM)

Winmate® E-Series HMI comes with preinstalled APP called Winmate® Home Manager (WHM) which let the device manager to lock the launcher then the user can only use one application assigned by the device manager.

3.5.1 How to Lock Applications

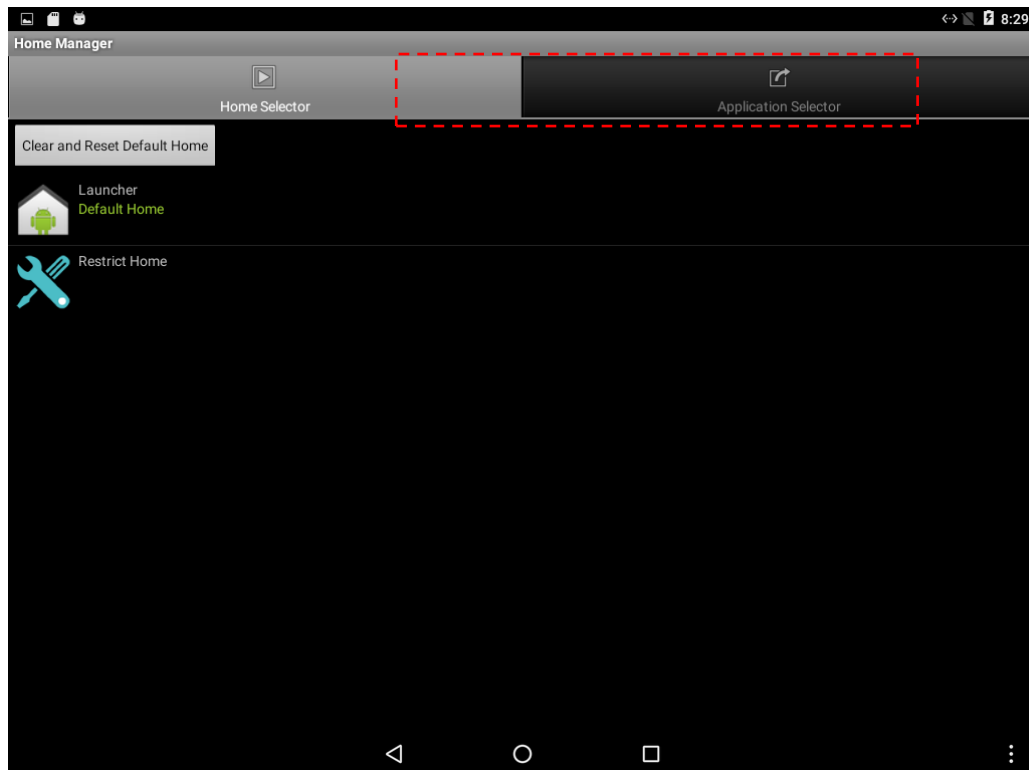
To lock applications:

1. In the main APPS window, select the **Home Manager APP**  and tap it to open.

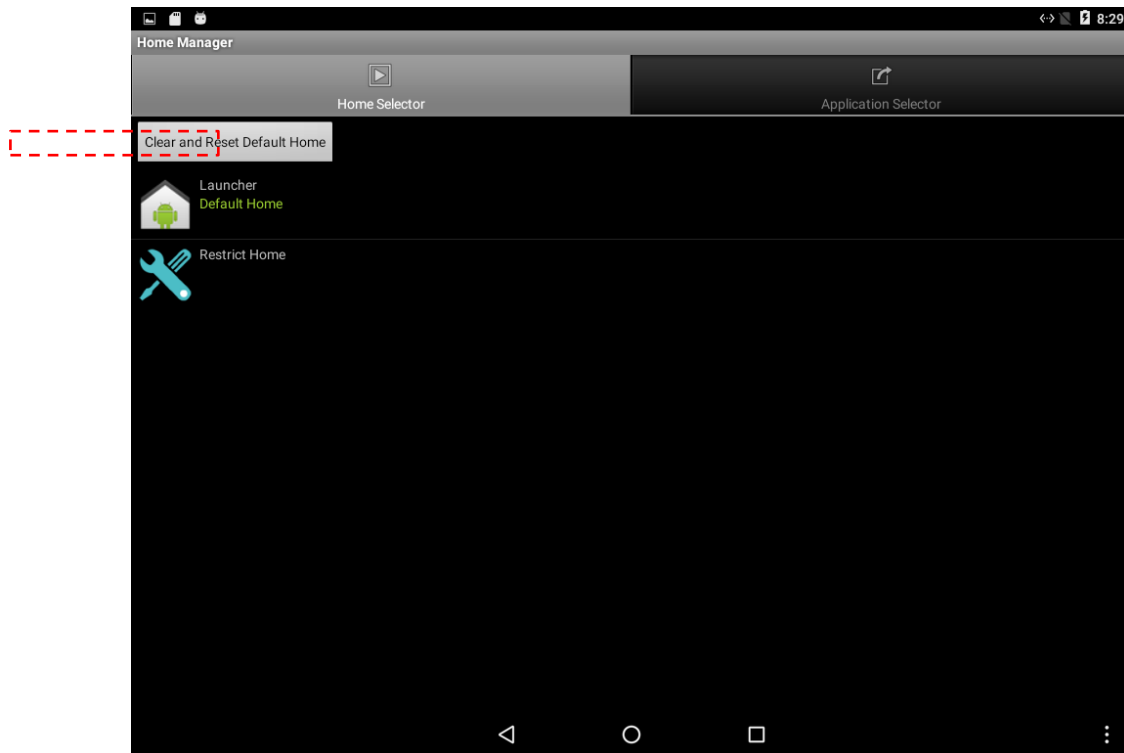


Menu	Description
Home Manager	Set which app you want to run up automatically after booting
Password Manager	Set the WHM password (Default password is “0000”).
About	Displays information about Home Manager

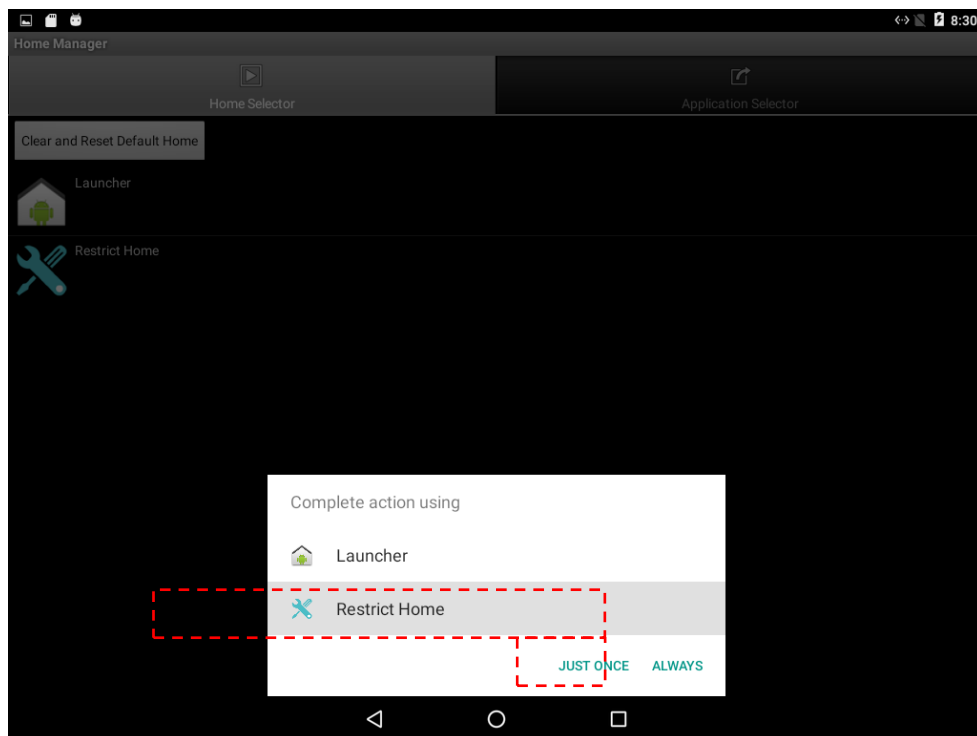
2. Go to “**Application Selector**”, and choose the app which you want to run up automatically after booting.



3. Go back to **“Home Selector”** and press **“Clear and Reset Default Home”**.



4. Select **“Restrict Home”** and **“Always”**, and then restart the computer to enable these settings.

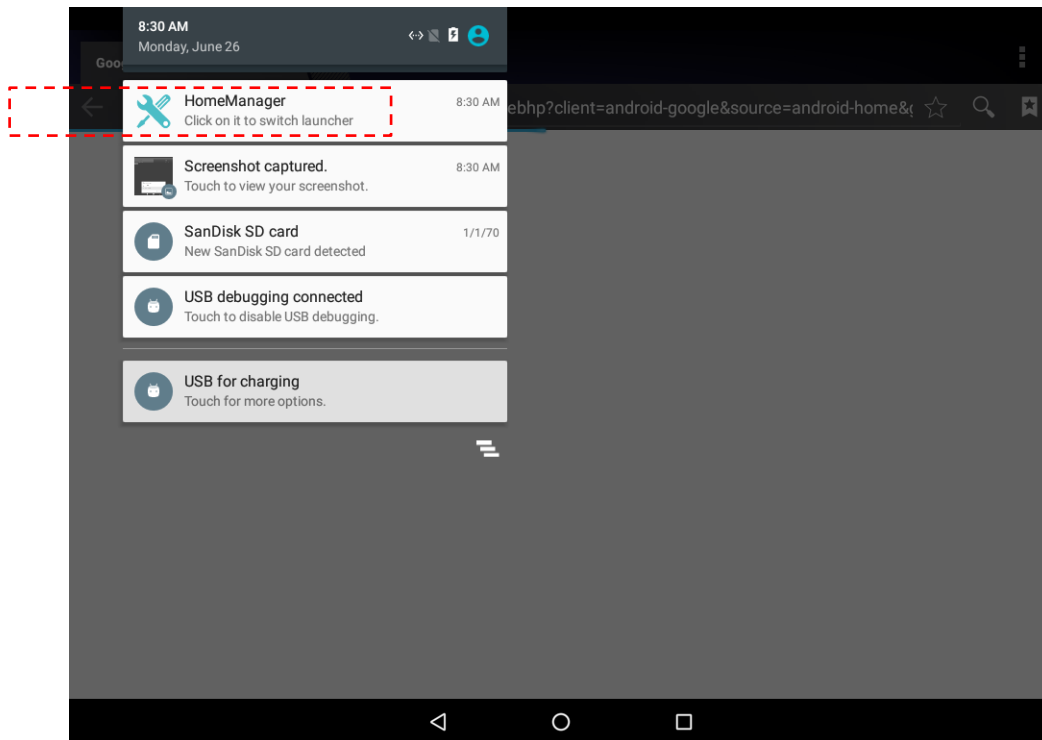


The system will automatically start the application which you selected and lock it. Any time user presses home key or back key; the system will go back to the same application which you have selected.

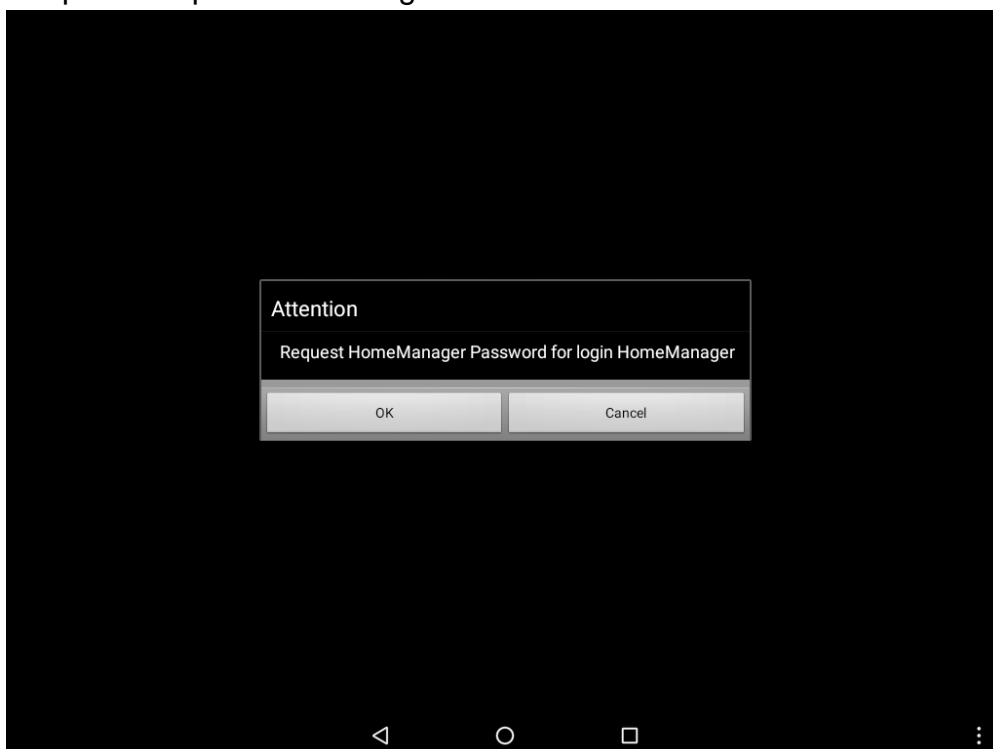
3.5.2 How to Unlock Applications

Follow the instruction below to reset Home Manager.

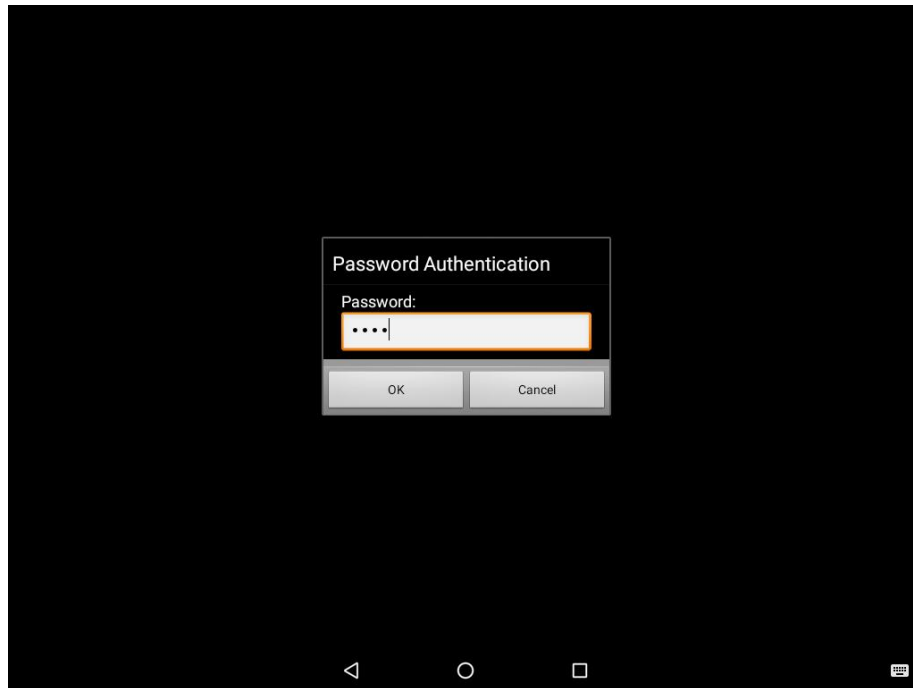
1. If you want to reset the home manager, pull down the left side to open the status bar and open **HomeManager**.



2. System will request the password to login. Touch **OK**.



Default password is **“0000”**.

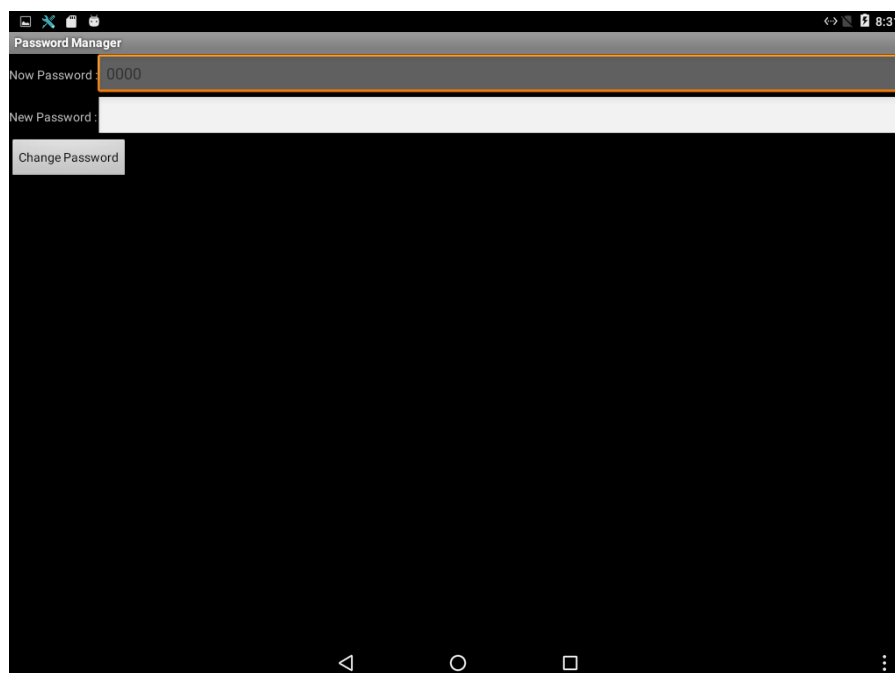


3. Restart the system and you will go back to the normal Launcher.

3.5.3 How to Change Password

To change the password:

1. Go to **Password Manager** and set your own password for this APP.
2. The **default password is "0000"**. Enter a new password in **New Password** field, and then tap **Change Password**.



Chapter 4: Software Installation

This chapter contains software installation and updates guide. All the programming guides can be found in the driver CD included in the package.

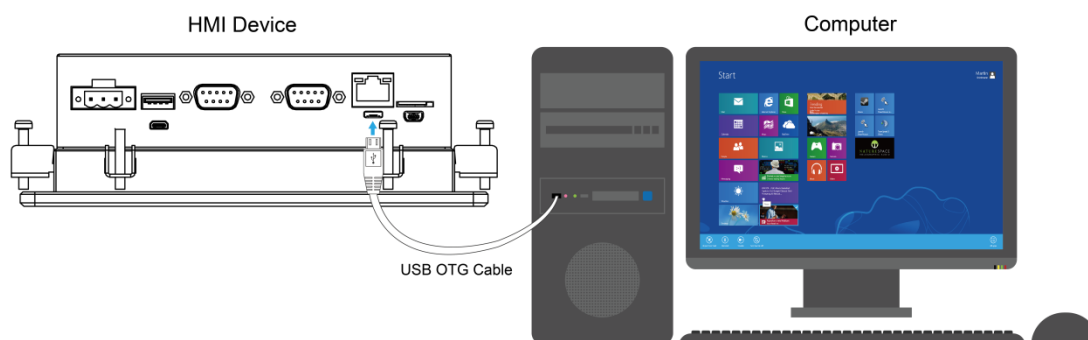
4.1 Android Debug Bridge (ADB) Driver Installation

**Important:**

- If your computer is running on Windows Embedded 8 Standard or Windows 8.1 Industry Pro OS system, you need to disable driver signature.
- For Win XP / Win 7 skip disabling driver signature section, and directly proceed to ADB driver installation.

You can find USB OTG driver in the Driver CD that comes in your package:

You need to connect HMI device to the computer with the USB OTG cable. When using a USB cable (not supplied with your HMI device), verify that the cable or cable packaging bears the “Certified USB™” mark (see below) to guarantee USB OTG compliance.



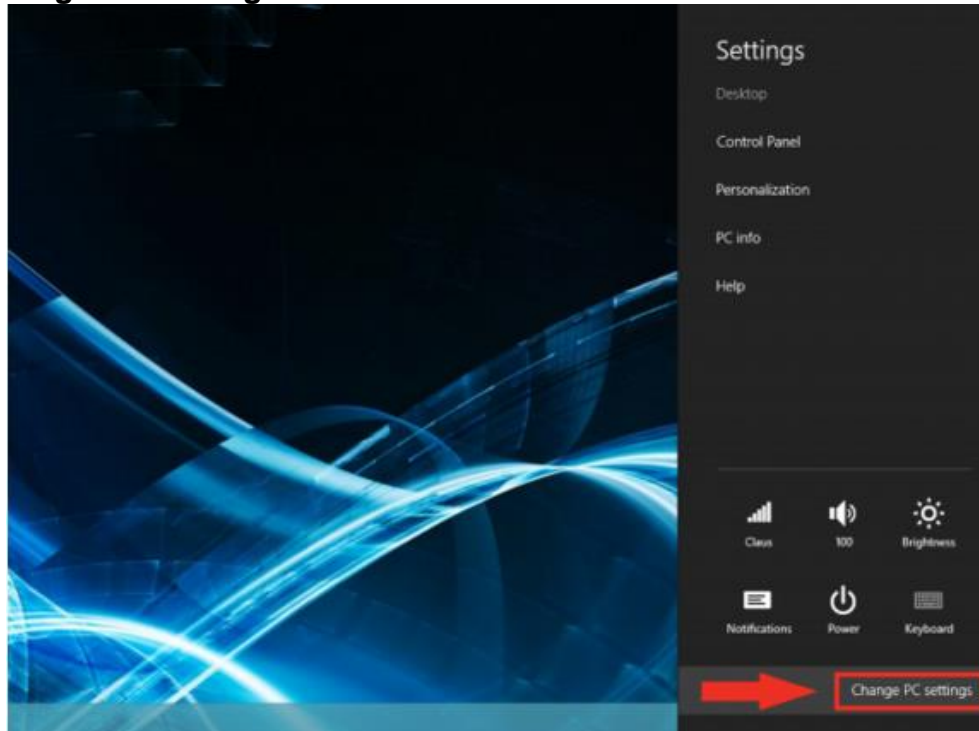
**I/O layout of the HMI device on the picture is for demonstration purposes only. Your I/O layout may vary from the picture above.*

4.1.1 Disabling Driver Signature on Windows 8

1. Hold down the Windows key on your keyboard and press the letter C to open the Charm menu, and then click the gear icon (**Settings**).

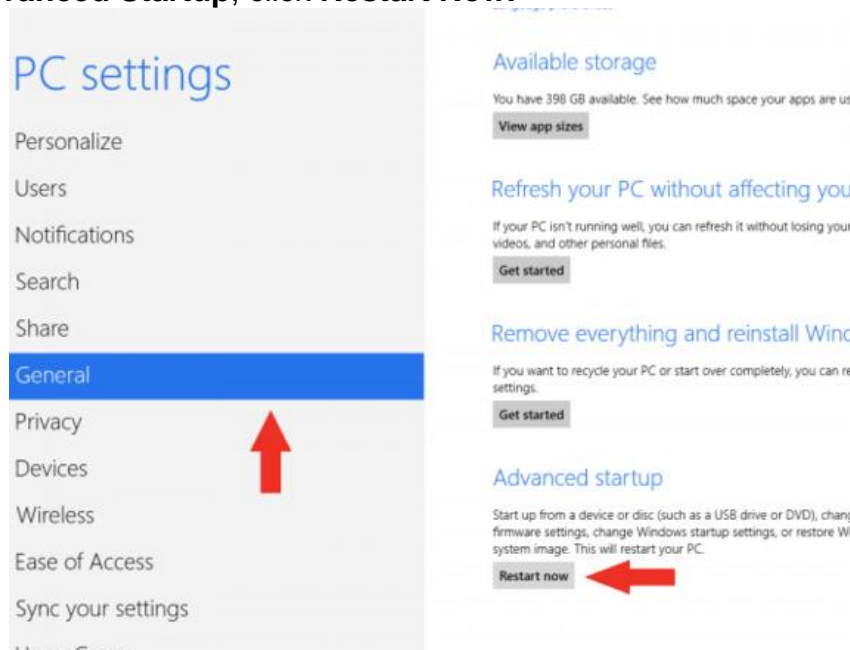


2. Click **Change PC Settings**.



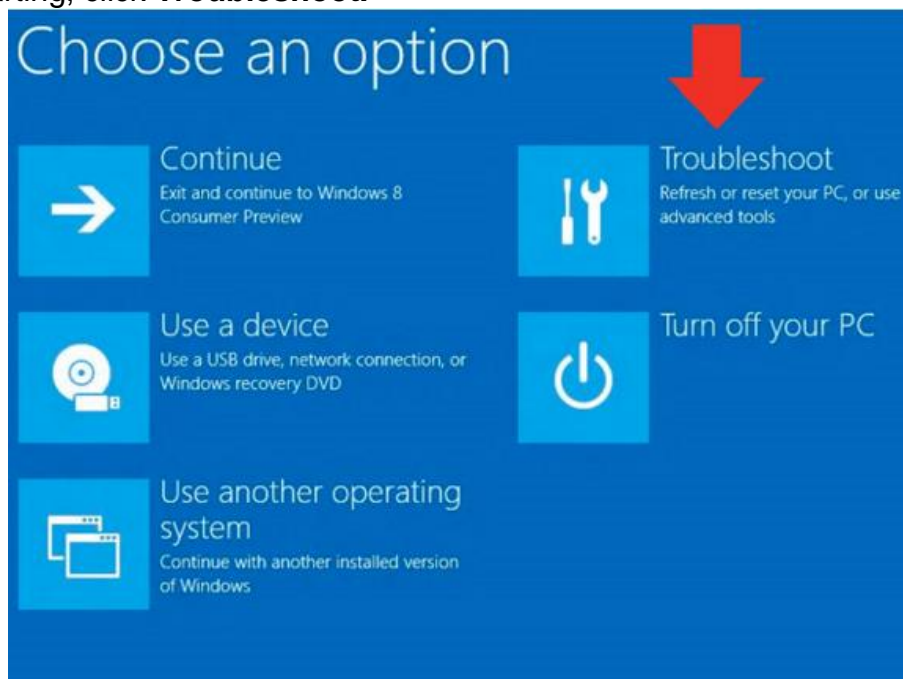
3. Click **General**.

4. Under **Advanced Startup**, click **Restart Now**.



Note: In Windows 8.1, the 'Restart Now' button has moved to 'PC Setting -> Update & Recovery -> Recovery.'

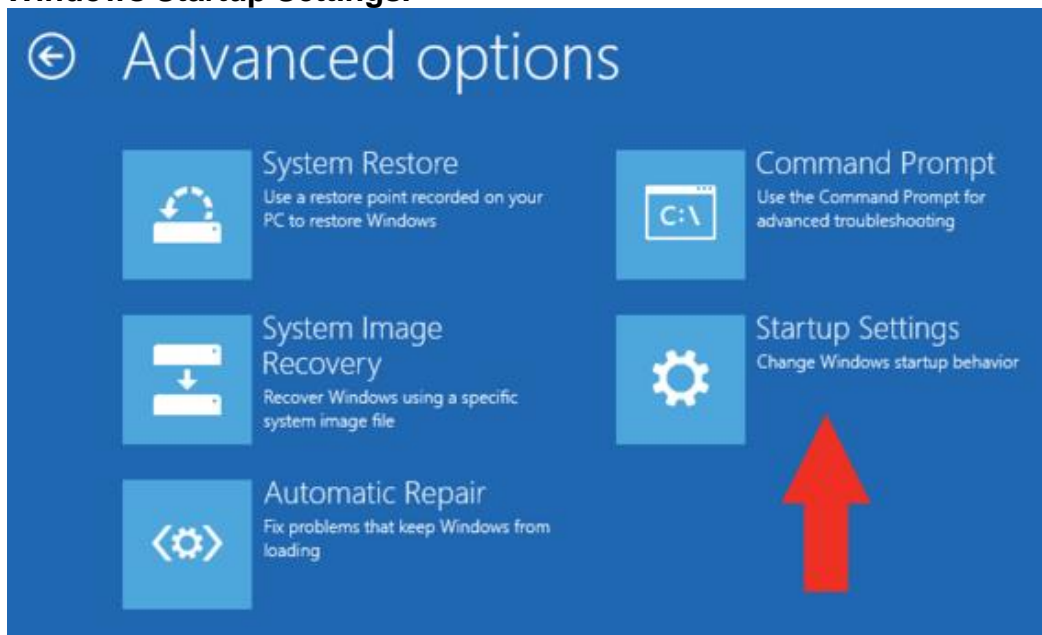
5. After restarting, click **Troubleshoot**.

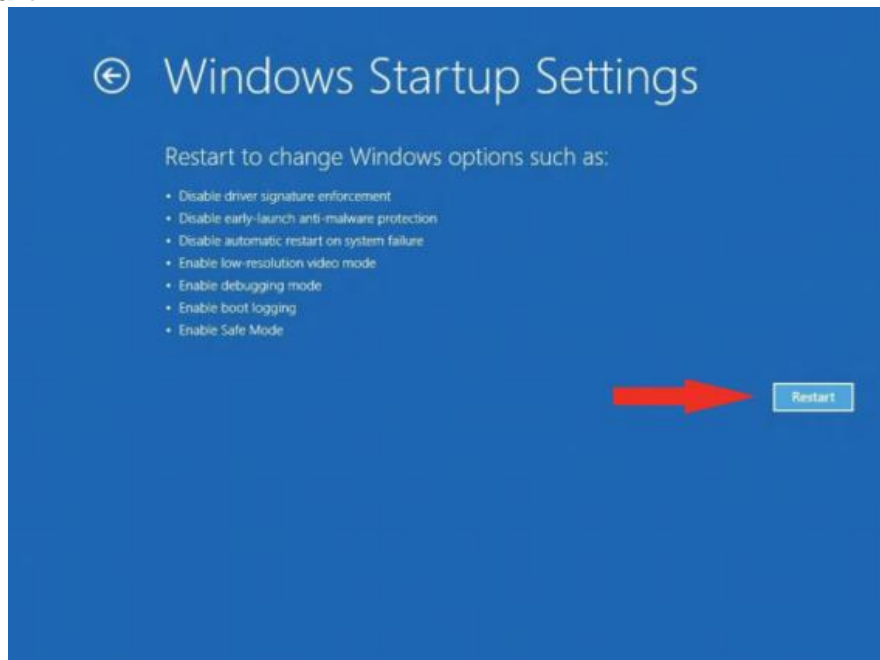
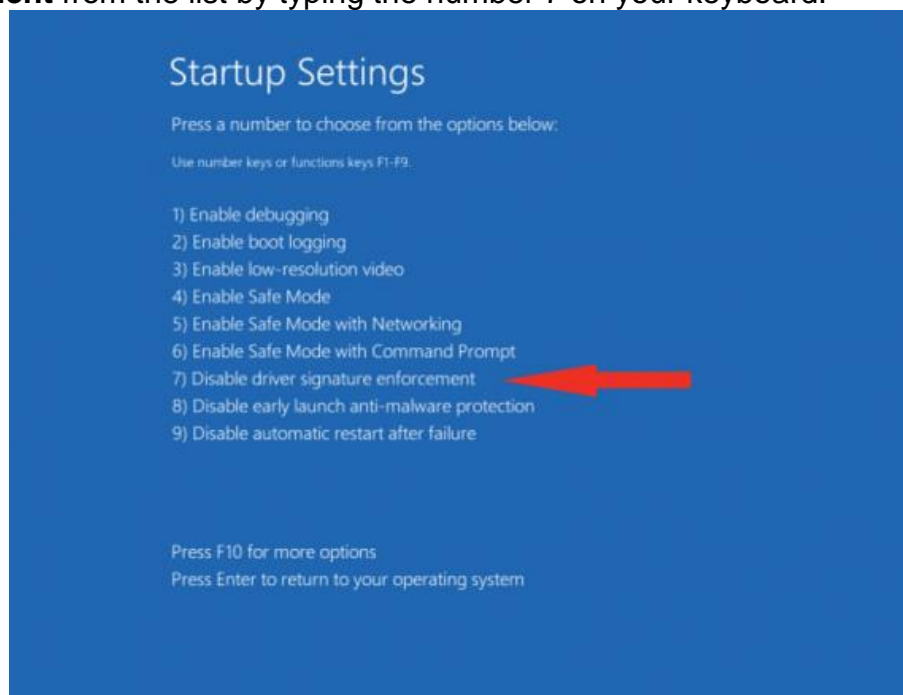


6. Click **Advanced Options**.



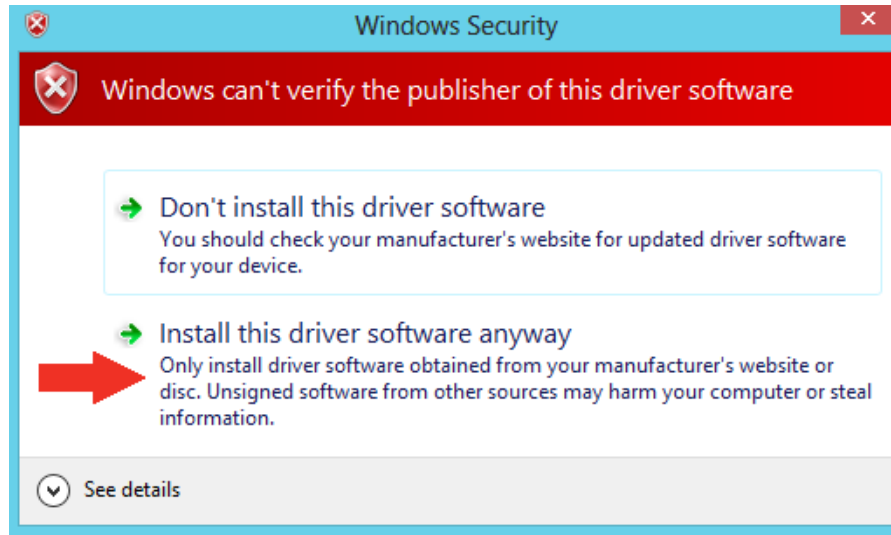
7. Click **Windows Startup Settings**.



8. Click Restart.**9. After restarting your computer a second time, choose **Disable driver signature enforcement** from the list by typing the number 7 on your keyboard.**

Your computer will restart automatically.

10. After restarting, you will be able to install the ADB drivers normally; however, Windows will display a warning message. When the warning appears, click Install this driver software anyway. If you are unfamiliar with installing drivers, check out our Installing ADB driver tutorial for a step by step guide.



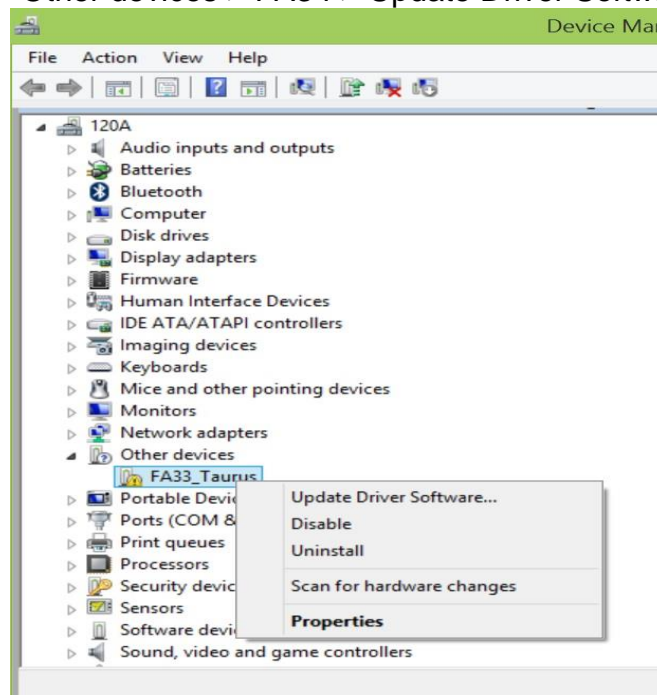
Note:

The next time you restart your computer, driver signature enforcement will be in effect again. You will have to repeat this process for any new boards. If you have multiple boards to use with the same computer, we recommend installing the drivers for each one before you shut down or restart your computer.

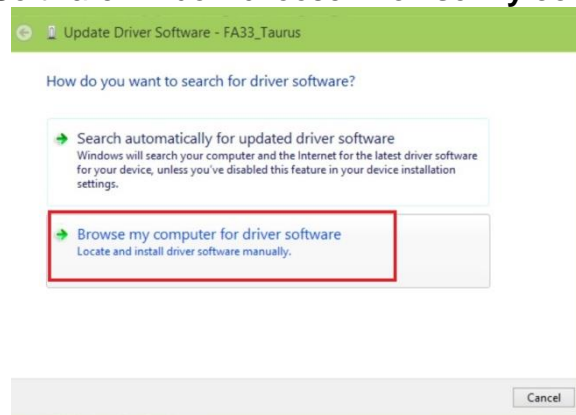
4.1.2 ADB Driver Installation

1. Confirm whether the USB device was found by the system.

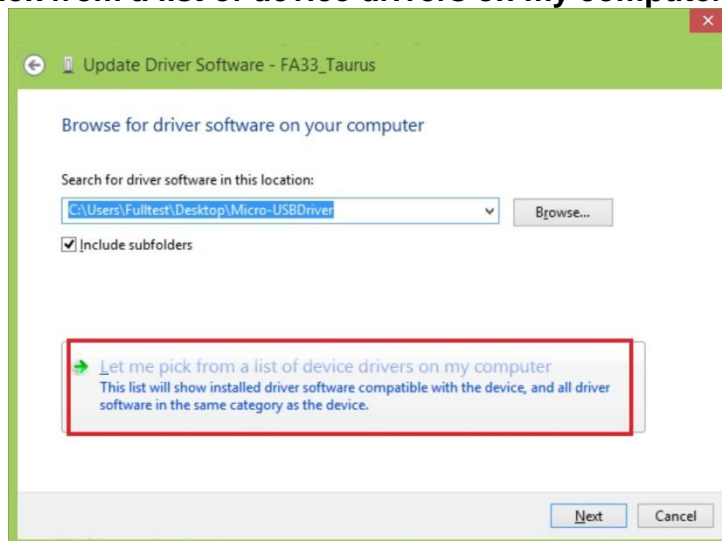
Device Manager > 120A > Other devices > FA34 > Update Driver Software



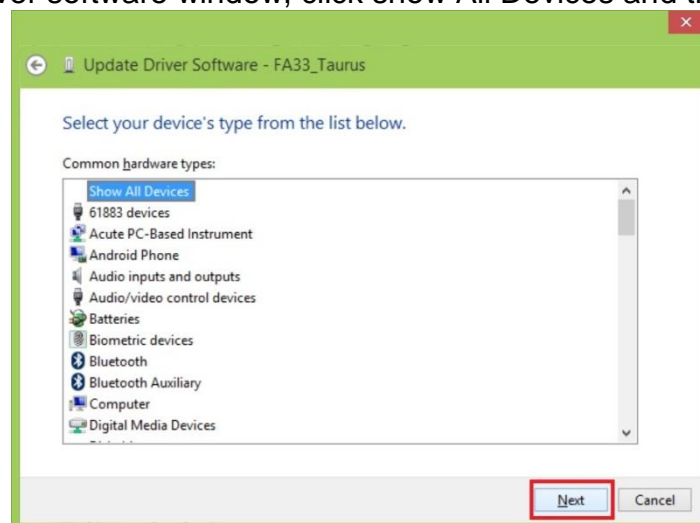
2. In the Update Driver Software window choose **Browse my computer for driver software**.



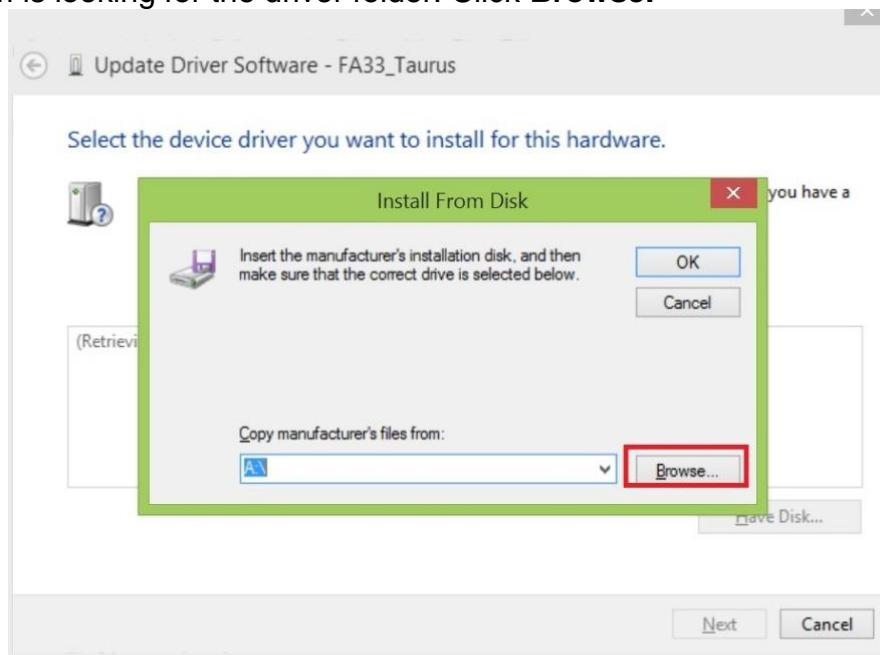
3. Select **Let me pick from a list of device drivers on my computer**. Click **Next**.



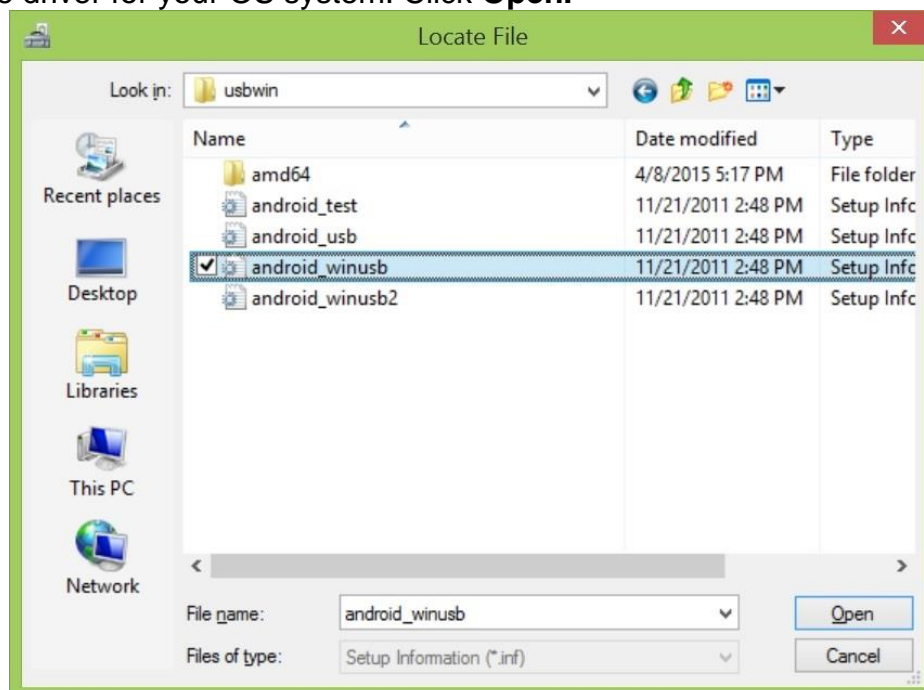
4. Select from your computer
5. In the Update driver software window, click show All Devices and then click **Next**.



6. The system is looking for the driver folder. Click **Browse**.



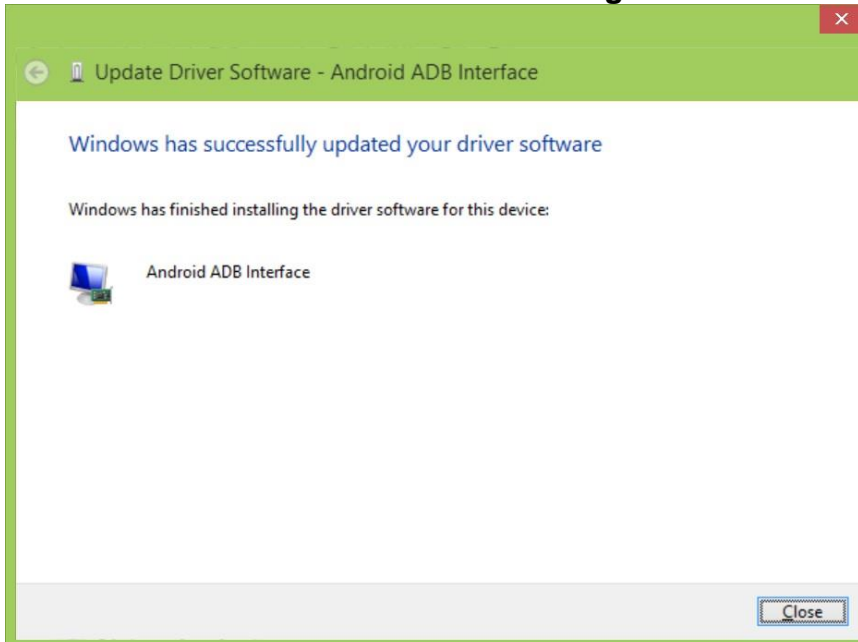
7. Select the driver for your OS system. Click **Open**.



8. Windows Security window will pop up. This message is used to confirm whether the user wants to install the driver. Select **Install this driver software anyway** to continue.



9. When the installation is successfully completed you will see **Android ADB Interface** driver in the Update Driver Software window. Now **adb debug** can be carried out.

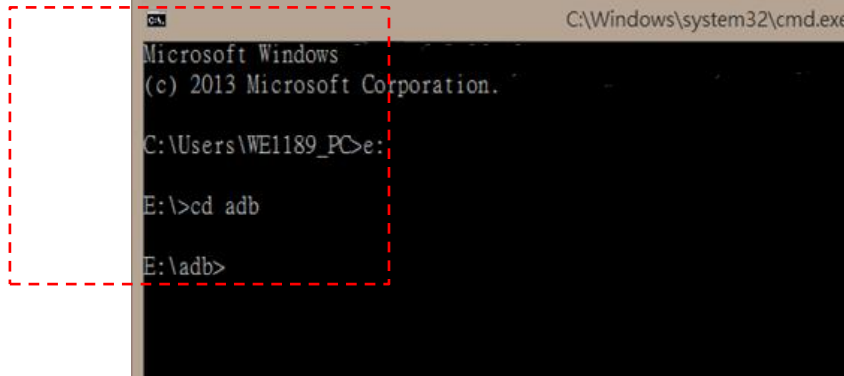


4.2 Installing Android Debug Bridge (ADB)

For detailed Android Debug Bridge (ADB) information refer to Android Developers Platform: <http://developer.android.com/tools/help/adb.html>.

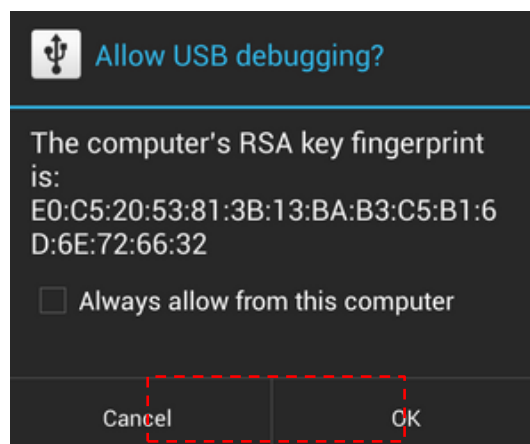
4.2.1 Installing Android Debug Bridge (ADB)

1. Decompress adb.zip. Open ADB terminal and move into the adb archive.

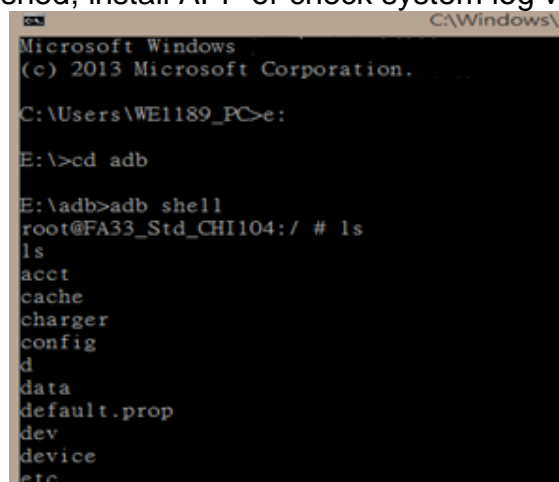


ADB Terminal window

2. Connect FA34 motherboard to the computer via USB. FA34 will ask you to confirm USB debugging. Tap **OK**.

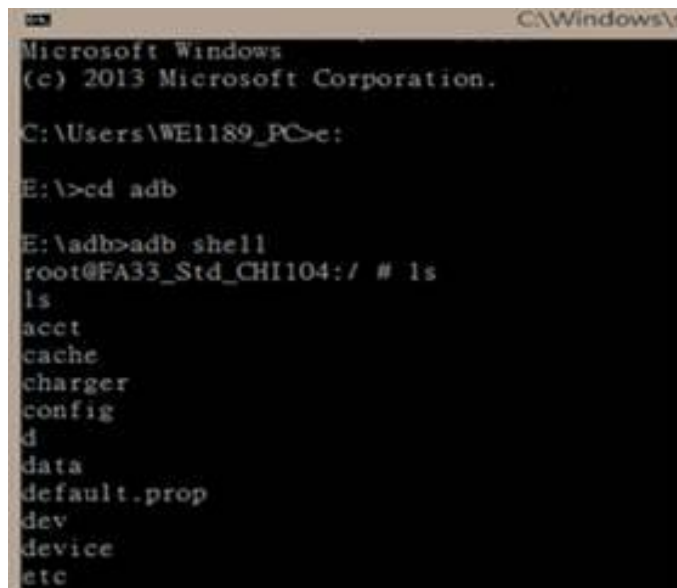


After ADB connection established, install APP or check system log via adb.



4.2.2 Using Android Debug Bridge (ADB)

1. Open the Command Prompt.
2. Connect SD cord to the HMI device.
3. Go to the Adb directory located in **E:\adb> adb shell**, and connect to the FSL machine.



```
C:\Windows\system32\cmd.exe
Microsoft Windows
(c) 2013 Microsoft Corporation.

C:\Users\WE1189_PC>cd E:

E:\>cd adb

E:\adb>adb shell
root@FA33_Std_CHI104:/ # ls
ls
acct
cache
charger
config
d
data
default.prop
dev
device
etc
```

4. Get dmesg
dmesg 2>&1 | tee /storage/sdcard1/dmesg .log
5. Get logcat commad
 - a. **logcat 2>&1 | tee storage/sdcard1/logcat.log**
 - b. When the get action stops, press "**Ctrl + C**" to leave logcat.

4.3 Downloading Image Tool

Download OS Image Tool update guide:

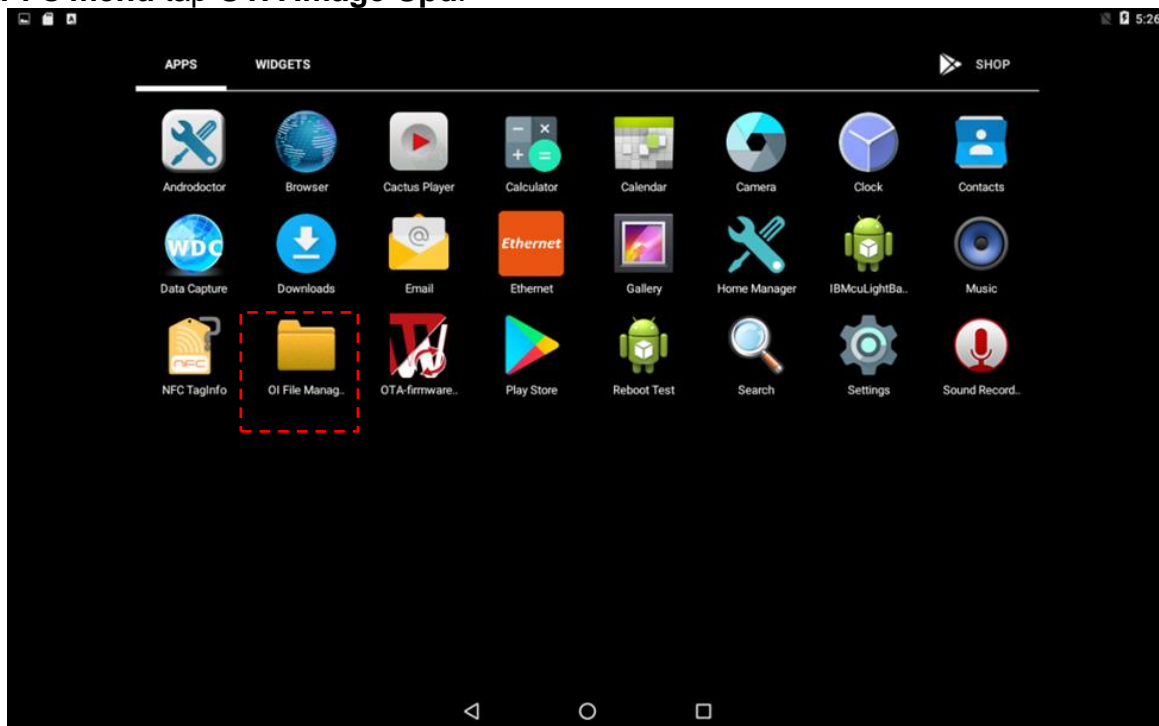
Winmate Download Center

<http://www.winmate.com.tw/> > Support > Download Center > Multi-touch PPC > E-Series HMI > OS Image

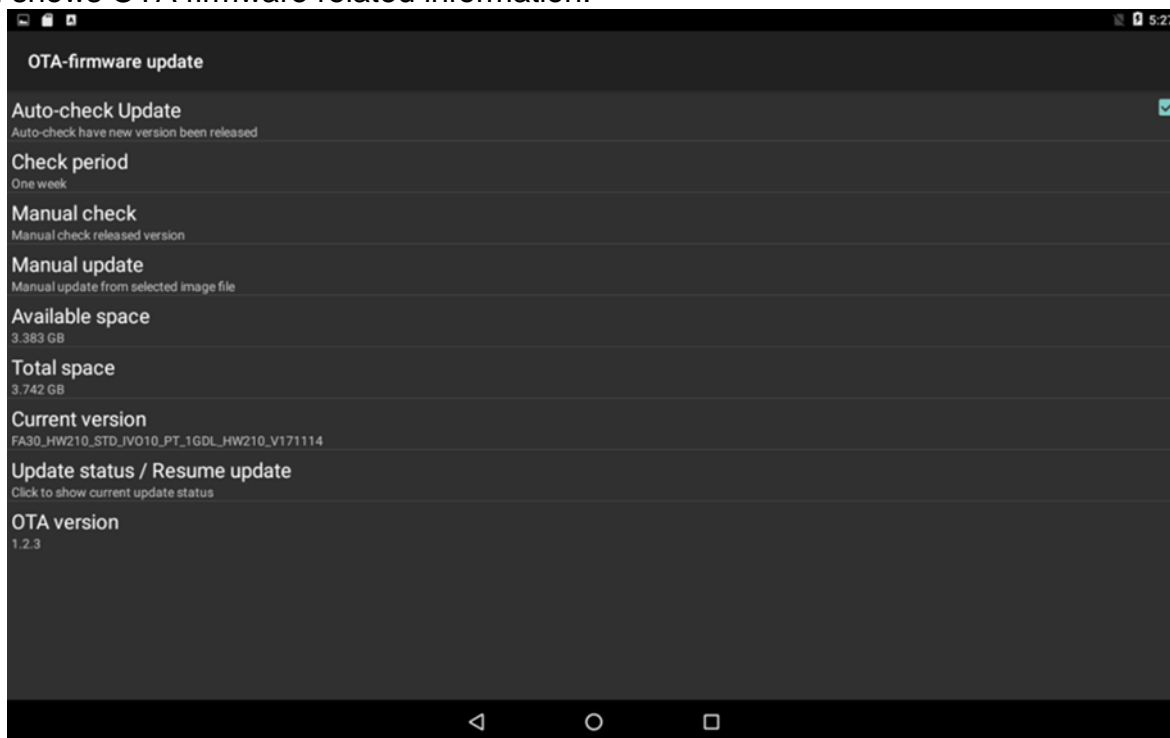
4.4 OTA Update Guide

OTA is a tool which can help you to update OS image. To receive Android OS image file contact our sales representatives. Once you get the image file follow the guideline below.

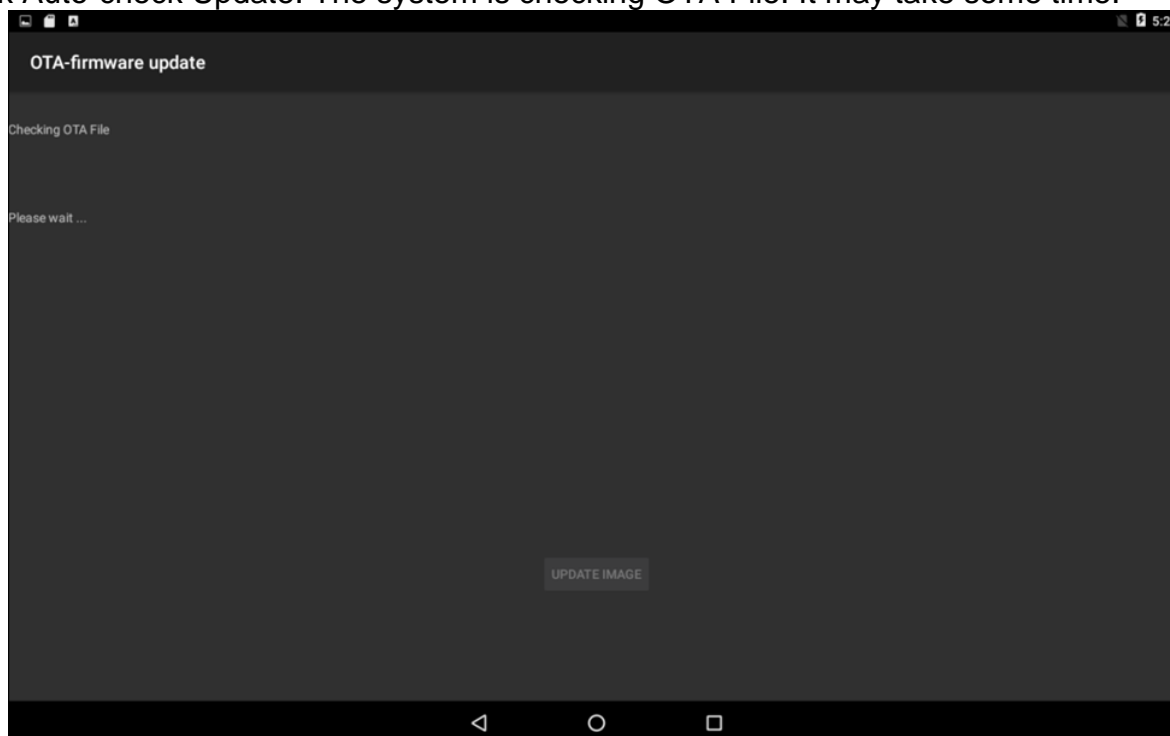
1. Copy image files **ota_FA3X_X_X_X_X.zip** and **FA3X_X_X_X_X.md5** and to micro SD card.
2. Insert micro SD card to the slot in the computer.
In the **APPS** menu tap **OTA Image Upd.**



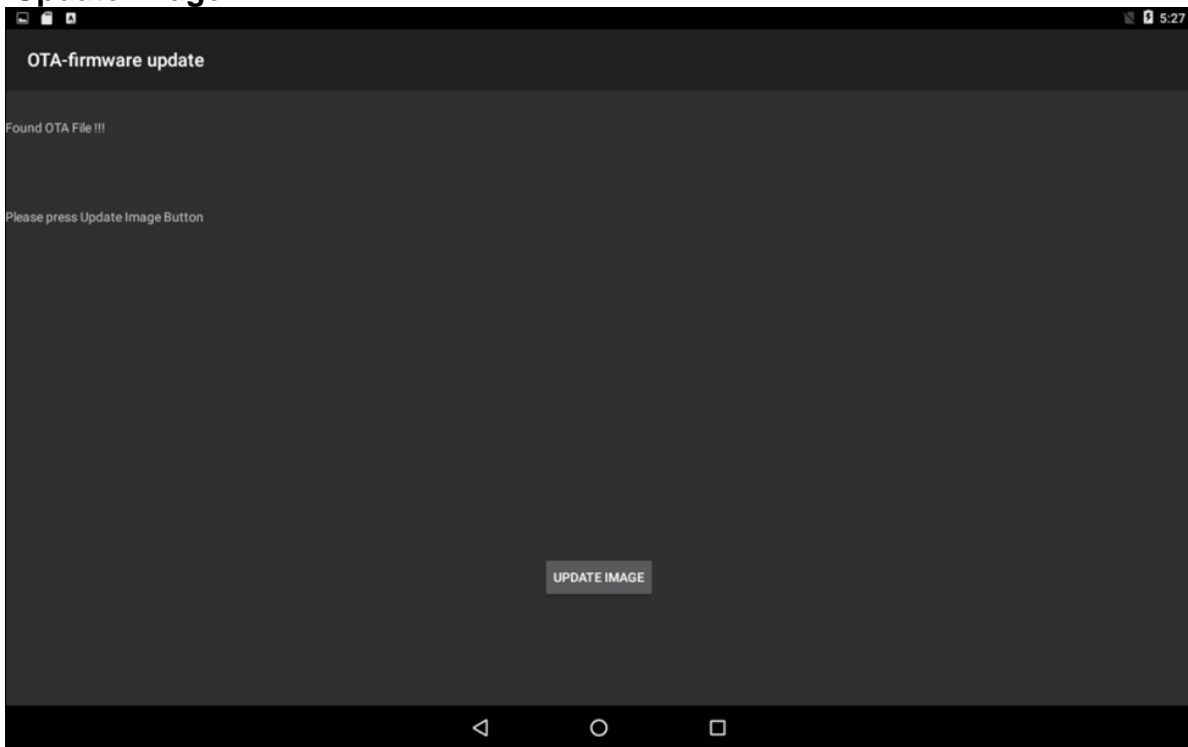
System shows OTA firmware related information.



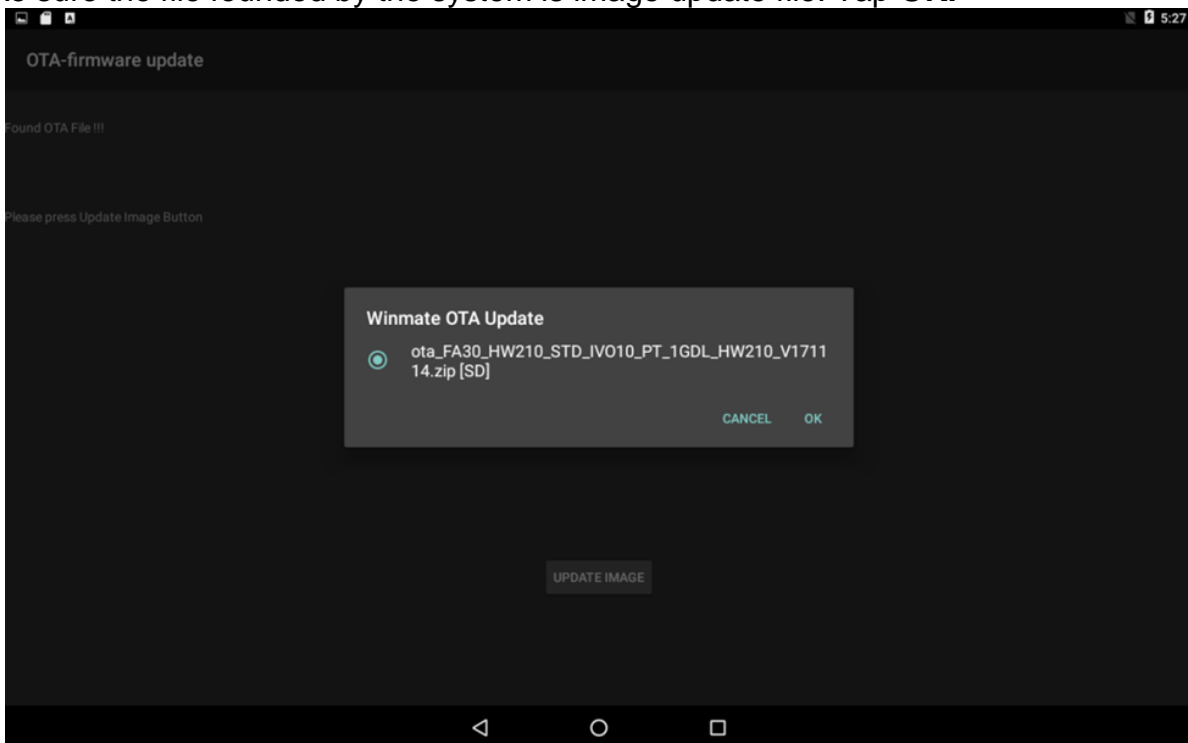
3. Click Auto-check Update. The system is checking OTA File. It may take some time.



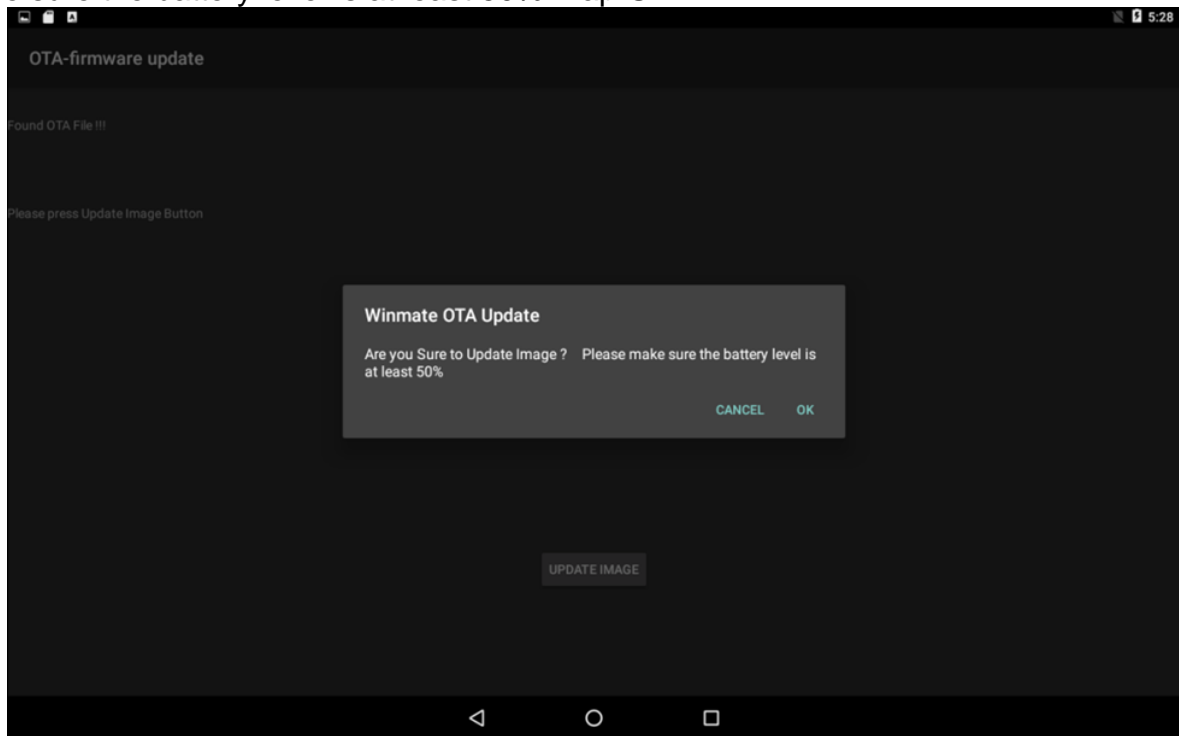
4. Tap **Update Image**



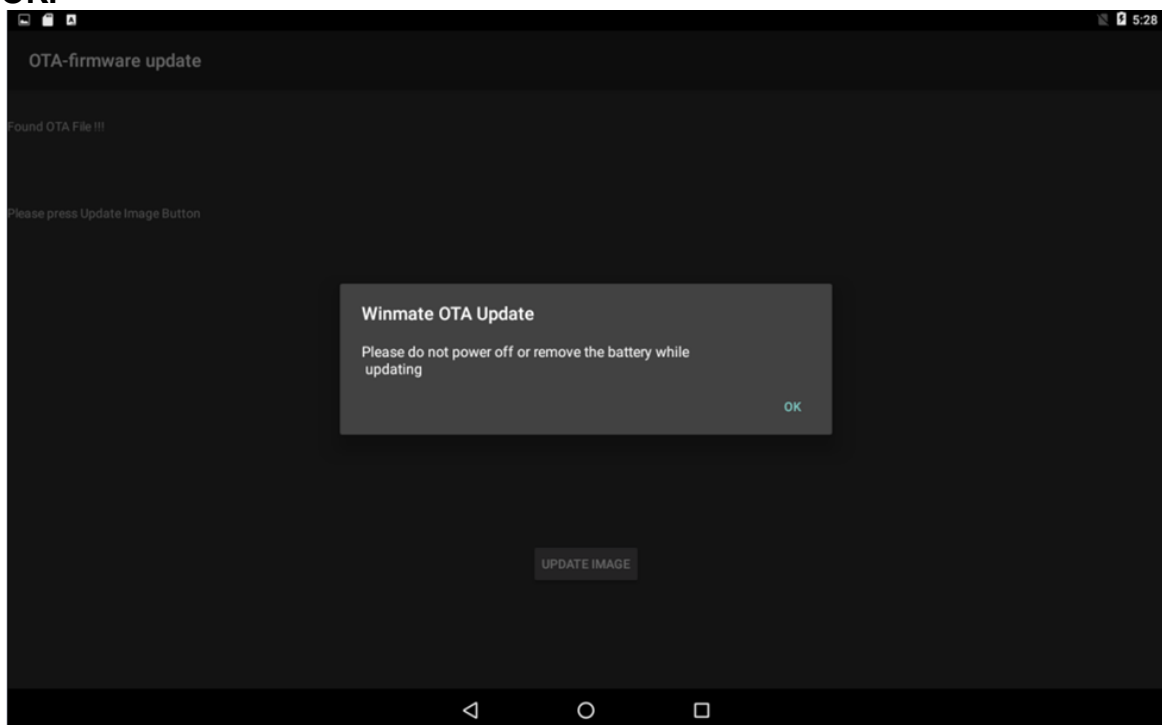
5. Make sure the file founded by the system is image update file. Tap **OK**.



6. Make sure the battery level is at least 50%. Tap **OK**.



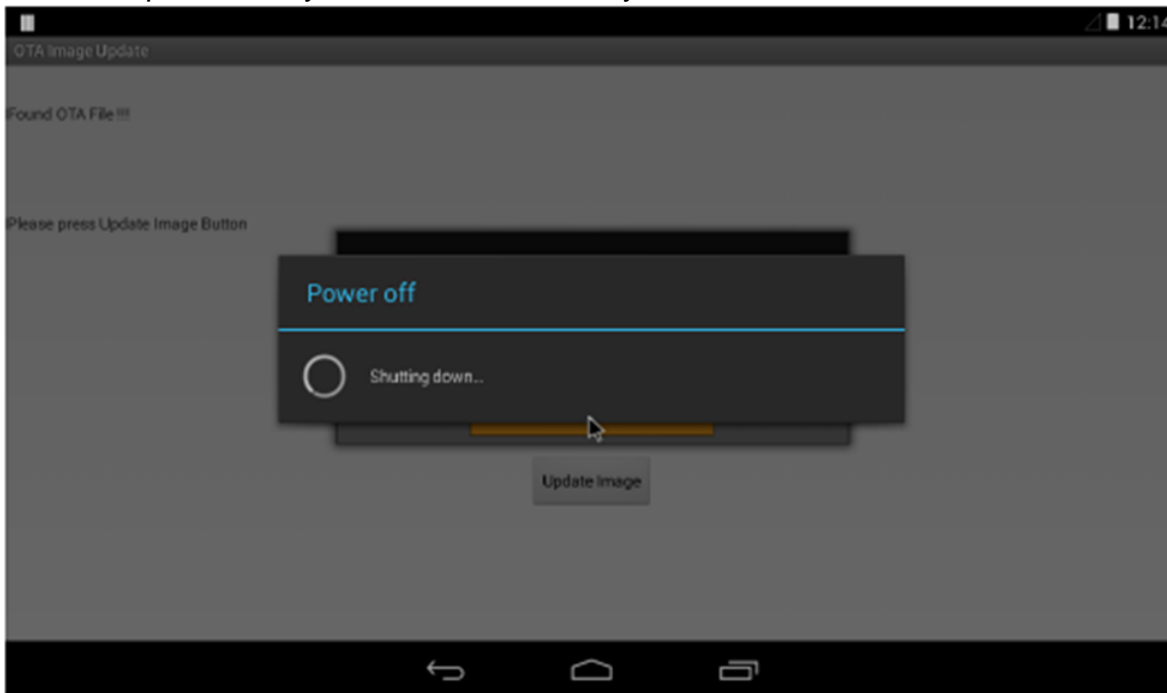
7. Tap **OK**.



Important:

Do not disconnect the power source!
Do not remove the battery!

8. After update the system will automatically restart.



4.5 OS Image Update Guide

Download OS Image update guide from Winmate Download Center or Winmate File Share.

Winmate Download Center:

<http://www.winmate.com/DownCenter/DownLoadCenter.asp?DownType=3018>

Winmate File Share: <https://winmate.box.com/v/FA34-OS-Image-Update-Guide>

Chapter 5: Mounting

This chapter provides mounting guide for all available mounting options. Pay attention to cautions and warning to avoid any damages.



5.1 Cable Mounting Considerations

For a nice look and safe installation, make sure cables are neatly hidden behind the HMI device. Refer to [Chapter 2, section 2.1](#) for the cable installation instruction.



Caution/ Attention

Observe all local installation requirements for connection cable type and protection level.

Suivre tous les règlements locaux d'installations, de câblage et niveaux de protection.



Caution/ Attention

Turn off the device and disconnect other peripherals before installation.

Éteindre l'appareil et débrancher tous les périphériques avant l'installation.



ALTERNATING CURRENT / MISE À LE TERRE!

To prevent electrical shock, the Safety Ground location on the rear must be bonded to the local earth ground through a minimum 12 AWG wire as short as possible

Pour éviter les chocs électriques, l'emplacement de la prise terre à l'arrière doit être lié à terre locale, à travers un 12 AWG minimum et aussi court que possible.

5.2 Safety Precautions

Observe the following common safety precautions before installing any electronic device:

- Use separate, non-intersecting paths to route power and networking wires. If power wiring and device wiring paths must be crossed make sure the wires are perpendicular at the intersection point.
- Keep the wires separated according to the interface. Wires that share similar electrical characteristics must be bundled together.
- Do not bundle input wiring with output wiring. Keep them separate.

When necessary, it is strongly advised that you label wiring to all devices in the system.

5.3 Mounting Guide

E-series HMI devices come with different mounting options suitable for most of the industrial and commercial applications. The main mounting approach is rear mount - very user-friendly in terms of installation. Refer to sub-sections below for more details.



Caution/ Attention

Follow mounting instructions and use recommended mounting hardware to avoid the risk of injury.

Suivez les instructions de montage et d'utilisation recommandé le matériel de montage pour éviter le risque de blessure.

5.3.1 VESA Mount

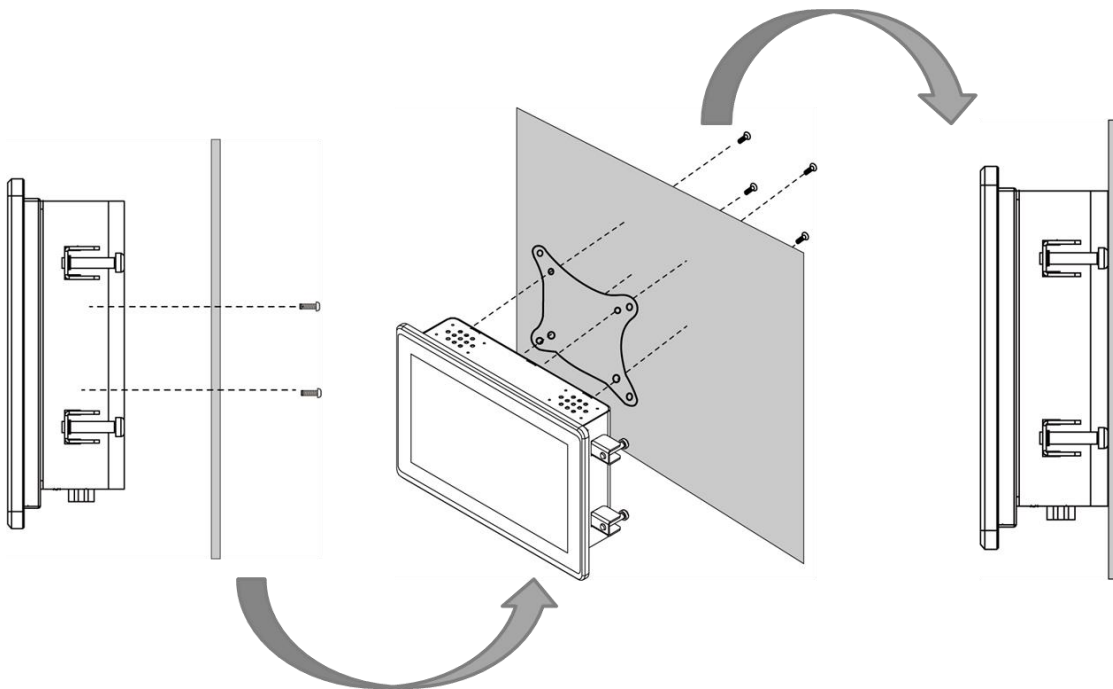
VESA Mount is a widely used mounting solution suitable for all kinds of industrial applications.

Notice that VESA Mounting solution applies only to 7" E-Series HMI.

Size	Dimensions	Screw Hole Diameter
7"	75 x 75 mm	VESA M4 x 3 mm

Mounting Instruction:

1. Screw VESA bracket to the fixture (ex. wall) with four M4 x 3 mm VESA screws.
2. Place the device on VESA bracket.



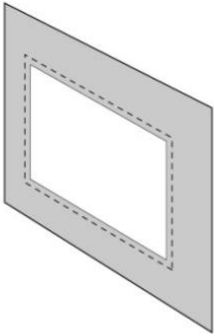
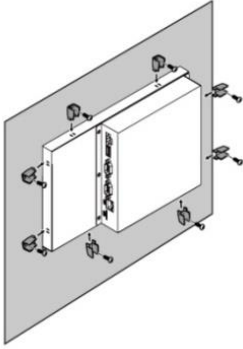
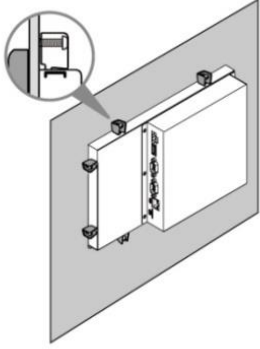
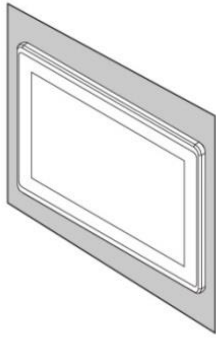
**with customer's bracket*

5.3.2 Panel Mount

Panel Mount solutions is suitable for many applications where HMI should be embedded in the machine. With this mounting solution flat surface leave no bezel in the front. In addition to elegant design, rear mount solution is making the HMI unit easy to clean and maintain. The HMI device is secured to the fixture from the rear by using the mounting brackets included in the package.

Size	7"	10.1"	15"	15.6"
Cutout dimension (W x D in mm)	174.08 x 116.9	244 x 159	336 x 266	371.6 x 223.5
Mounting Clips and Screws	4 pcs	8 pcs	10 pcs	10 pcs

Mounting Instruction:

1 	Prepare a cutout on a fixture according to the cutout dimensions.	2 	Select the mounting holes according to the wall thickness of the fixture and secure the mounting clips onto four sides of the HMI device.
3 	Secure the HMI to the fixture by screws.	4 	Connect power and other peripherals to the HMI unit.

Chapter 6: Technical Support

This chapter includes the directory for technical support. Free technical support is available from our engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

6.1 Download Center

Winmate provides the following Drivers for E-Series HMI with Freescale® Cortex® A9 i.MX6 Dual Core processor:

Item	File Type	Description
1	Android Driver	USB Driver
2	Android Driver	USB OTG Driver
3	SDK	Android SDK
4	SDK	Linux SDK
5	Guide	Download OS Image Tool

To find the Drivers and SDK, please refer to the Driver CD that comes in the package or contact us. Also, you can download drivers from Winmate Download Center or Winmate File Share.

Winmate Download Center

Go to <http://www.winmate.com/> > Support > Download Center > E-Series HMI- Cortex A9

Or follow the link: <http://www.winmate.com/DownCenter/DownLoadCenter.asp?DownType=3018>

6.2 Problem Report Form

E-Series HMI (Elegant Design)

Customer name:	
Company:	
Tel.:	Fax:
E-mail:	Date:

Product Serial Number:

Problem Description: Please describe the problem as clearly as possible. Detailed description of the occurred problem will allow us to find the best solution to solve the problem as soon as possible.

[illegible]

Appendix A: Hardware Specifications

	Model Name			
	W07FA3S-EHT1	W10FA3S-EHH2	R15FA3S-EHC3	W15FA3S-EHA2
Display				
Size/ Type	7" (Wide)	10.1" (Wide)	15"	15.6" (Wide)
Resolution	1024x600	1280 x 800	1024 x 768	1366 x 768
Brightness	320 nits	350 nits	300 nits	400 nits
Contrast Ratio	500 : 1 (typ.)	800:1 (typ.)	700:1 (typ.)	500 : 1 (typ.
Viewing Angle	-70~70(H);-50~60(V)	-85~85(H);85~85(V)	-80~80(H);80~80(V)	-70~70(H);-50~60(V)
Max Colors	16.7M (8bit)	16.7M (8bit)	16.7M (8bit)	16.7M (8bit)
Touch	Projected Capacitive Multi-Touch (P-CAP)			
Mechanical Specifications				
Dimensions, mm	184.94x 127.7 x 44.9	267.42 x 182.14 x 57.6	276.7 x 352.5 x 56.3	421 x 260.6 x 65.5
Cutout, mm	174.08 x 116.9	244 x 159	336 x 266	371.6 x 223.5
Mounting	Panel Mount (4 x clips)	Panel Mount (8 x clips)	Panel Mount (10 x clips)	Panel Mount (10 x clips
Cooling	Fanless	Fanless	Fanless	Fanless
System Specifications				
Processor	Freescale® Cortex® A9 i.MX6 Dual Core 1 GHz			
Memory	1GB LPDDR3			
Storage	Onboard 16GB eMMC /Micro SD card			
Operating System	Android 6.0 (Default), Linux Kernel 4.1.15,QT 5.5 Browser (Optional), Ubuntu 16.04 (Optional)			
Input / Output				
Power	Terminal block 2-pin	Terminal block 2-pin	Terminal block 2-pin	Terminal block 2-pin
USB Ports	1 x USB 2.0	1 x USB 2.0	1 x USB 2.0	1 x USB 2.0
USB OTG	1 x USB OTG	1 x USB OTG	1 x USB OTG	1 x USB OTG
COM Port	1xRS232/422/485	1xRS232/422/485	1xRS232/422/485	1xRS232/422/485
CAN BUS	1 x CANBus	1 x CANBus	1 x CANBus	1 x CANBus
Ethernet	1 x RJ45, 10/100/1000 LAN (Optional PoE function)	1 x RJ45, 10/100/1000 LAN (Optional PoE function)	1 x RJ45, 10/100/1000 LAN (Optional PoE function)	1 x RJ45, 10/100/1000 LAN (Optional PoE function)
SD Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
Console	1 x Mini USB Console (Linux)	1 x Mini USB Console (Linux)	1 x Mini USB Console (Linux)	1 x Mini USB Console (Linux)
HMDI	1 x Micro HDMI	1 x Micro HDMI	-	1 x Micro HDMI
Power Specifications				
Power Input	9-24V DC	12V DC	12V DC	12V DC
PoE	Supports PoE (Optional), Power Device (PD) follows IEEE 802.3at (25W)			
Environment Considerations				
Operating Temp.	-10°C to +50°C			
Operating Humidity	10 ~ 90% (non-condensing)			

