



IMAGE INSTALLATION GUIDE

# ALTA DS

Android EVK v1.1.8



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## Revision History

Version	Date	Remarks
1.00	2016/5/20	Initial release

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# 1. Introduction

This Image Installation Guide explains how to boot the Android EVK system image on the ALTA DS system in order to begin evaluating the platform.

The ALTA DS Android EVK v1.1.8 is developed based on Android 4.0.3 and enables the hardware features of the ALTA DS system.

## 1.1. Package Contents

There are 3 files in the package as listed below.

- **ALTA\_DS\_Android\_EVK\_v1.1.8:** is a precompiled Debian image for evaluating the ALTA DS system.
- **ALTA\_DS\_Android\_EVK\_v1.1.8\_Image\_Installation\_Guide\_v1.00\_20160520:** The Image Installation Guide explains how to boot the Android EVK system image on the ALTA DS system in order to begin evaluating the platform.
- **Smart\_ETK\_Demo\_v1.1.0:** is the demo program of the Smart ETK.

## 1.2. Version Information and Supported Features

- U-Boot version: 1.1.4
- Kernel version: 3.0.8
- Evaluation image: Android 4.0.3
- Development based on VIA WM8950\_Android\_BSP\_v0.09.06
- Supports HDMI
- Supports Mini-HDMI connector for VGA output
- Supports auto detection of HDMI and VGA display
- Supports HDMI audio output
- Supports Mic-in and Line-out
- Support USB: keyboard, mouse, flash drive, hard drive, UVC camera
- Supports 10/100 Mbps Ethernet
- Supports VNT9271 USB Wi-Fi dongle
- Supports Smart ETK v1.1.0: Power control, RTC wake-up and Watchdog timer

## 2. Installation Steps

The first step is to insert an SD card into the host computer (Windows OS) and format the entire SD card into a FAT partition.

Next, use an unzip program such as 7-ZIP or WinZip to extract the **ALTA\_DS\_Android\_EVK\_v1.1.8.zip** file, and then copy the **bspinst** folder and the **scriptcmd** file onto the SD card.

Insert the prepared SD card into the ALTA DS, connect an HDMI display, and power on the device to start the installation process.

```

WonderMedia Android BSP Installation

-----

W-Load 0.21.00.00 -> 0.23.00_120822
U-Boot 0.20.00.00 -> 0.20.00_120830
Kernel 0.20.00.00 -> 0.20.00
Base File System Version - 0.21.00
Reference File System Version - 0.09.00
OtherInfo -

[Progress Bar] 0 %
creating partition table

Warnings! Please don't power off!
  
```

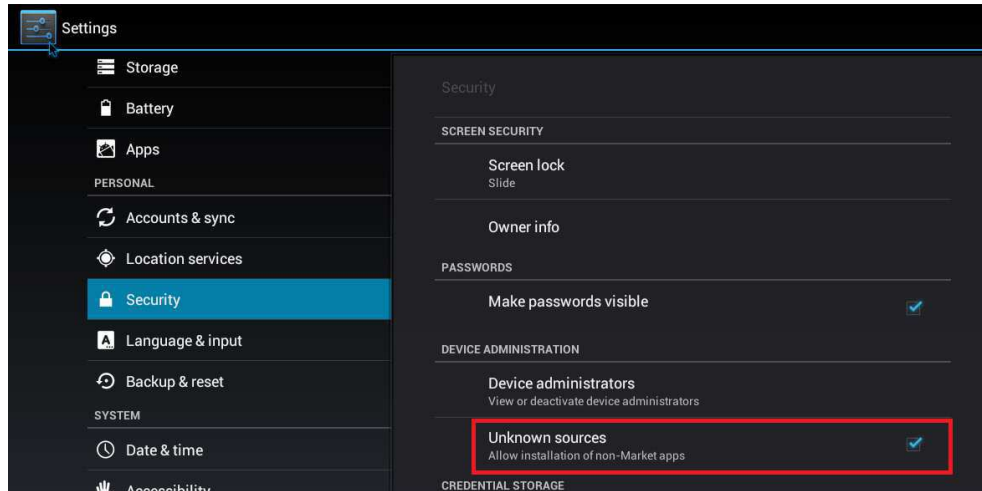
Update process screen

When the installation process is completed, remove the SD card from the ALTA DS, then the ALTA DS will automatically reboot. After the booting process is completed, you will see the Android desktop.

## 3. Smart ETK function

The ALTA DS Smart ETK supports Power Control, RTC wake-up and Watchdog timer functions.

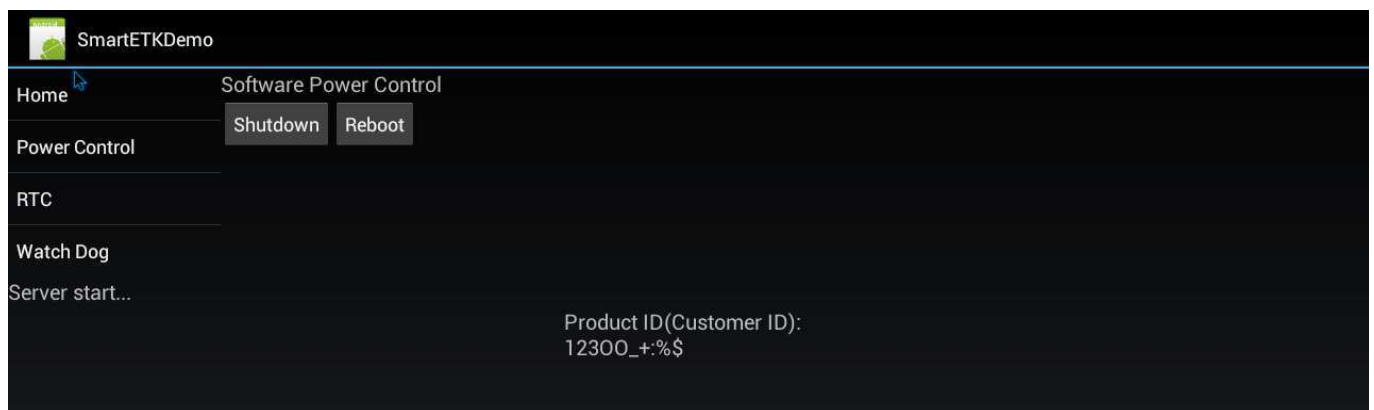
The first step is to copy the **Smart-ETK\_Demo\_v1.1.0.apk** onto a mass storage device such as a USB thumb drive. Next, from the Settings screen, click **Security** -> **Unknown sources** to allow installation of non-Market apps.



Finally, insert the USB thumb drive into the ALTA DS and install the Smart\_ETK\_Demo\_v1.1.0.apk. When the installation process is completed, click on the SmartETKDemo icon to test functions.

### 3.1. Testing Power Control function

The Power Control includes Shutdown and Reboot functions.



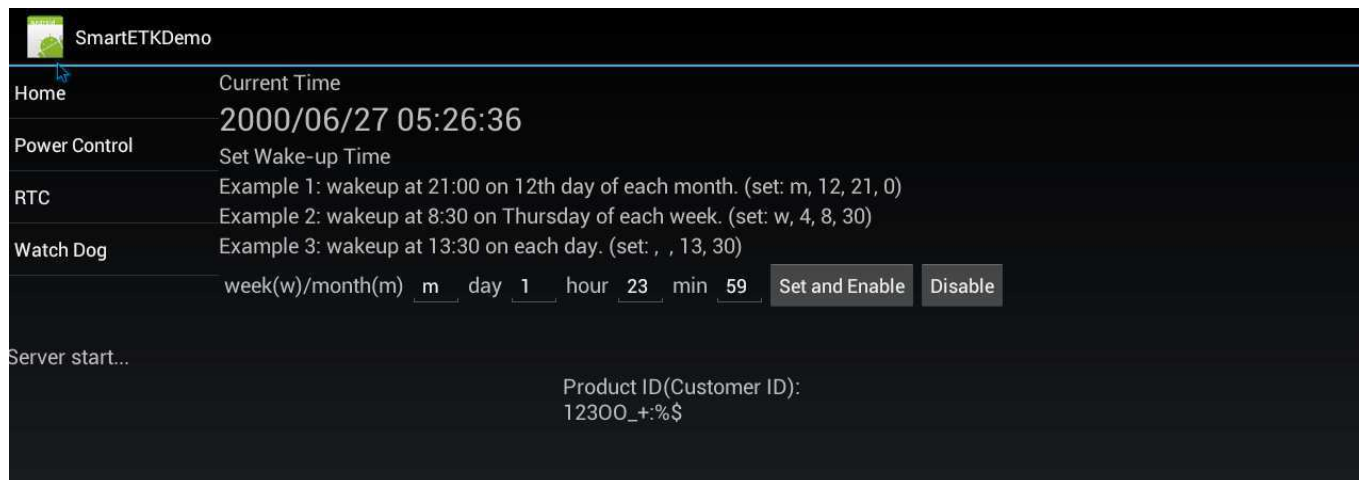
**Smart ETK Power Control diagram**

Click on the **Shutdown** button, the ALTA DS system will shutdown.

Click on the **Reboot** button, the ALTA DS system will reboot.

## 3.2. Testing RTC wake-up function

Setting RTC wake-up can wake up the system at a particular time of each day, each week or each month.



### Smart ETK RTC wake-up diagram

week(w)/month(m)[ ] : Type "w" for each week. Type "m" for each month. Leave it blank for each day.

day[ ] : If we type "w" in week(w)/month(m)[ ], it is the [ ]th day of a week.

If we type "m" in week(w)/month(m)[ ], it is the [ ]th day of a month.

Monday is the 1<sup>st</sup> day of a week. Leave it blank to wake up the system everyday.

hour[ ] and min[ ] : the time (hour and minute) RTC wakes up the system(24-hour clock).

For example:

To wake up at 21:00 on 12<sup>th</sup> day of each month, set "m, 12, 21, 0"

```
week(w)/month(m)[m]day[12]hour[21]min[0]
```

To wake up at 8:30 on Thursday of each week, set "w, 4, 8, 30"

```
week(w)/month(m)[w]day[4]hour[8]min[30]
```

To wake up at 13:30 each day, set " , , 13, 30"

```
week(w)/month(m)[ ]day[ ]hour[13]min[30]
```

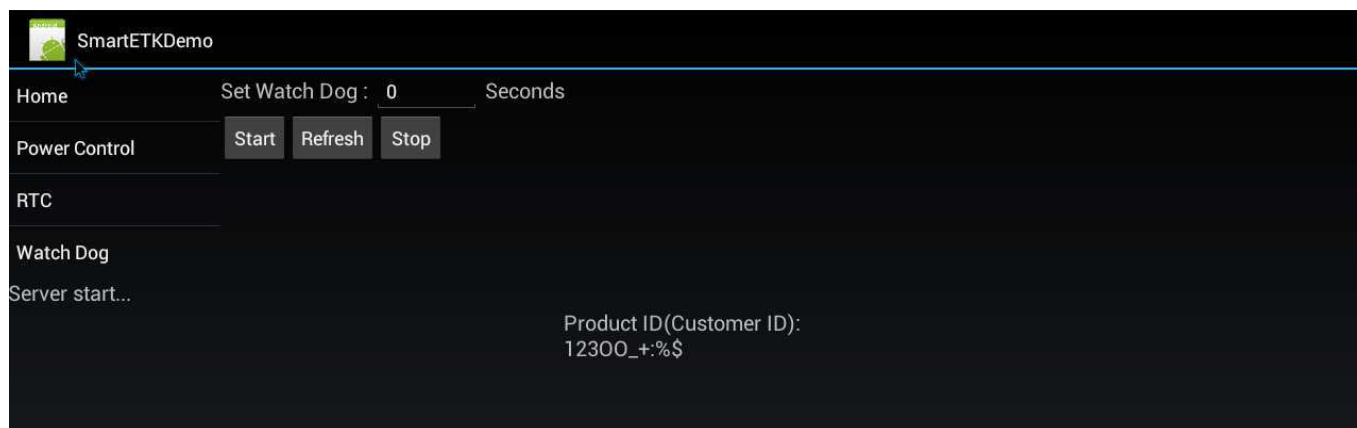
Click on the **Set and Enable** button to activate this setting.

Click on the **Disable** button to disable this setting.



### 3.3. Testing Watchdog timer function

The Watchdog timer includes Start, Refresh and Stop functions.



Smart ETK Watchdog timer diagram

The first step is to set the countdown value in [ ]Seconds.

Click on the **Start** button to activate this setting.

Click on the **Refresh** button to refresh the countdown value.

Click on the **Stop** button to disable this setting.



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