Aspire Series
Service Guide

Service guide files and updates are available on the ACER/CSD web; for more information, please refer to http://csd.acer.com.tw

PRINTED IN TAIWAN

System Specifications

Features

Below is a brief summary of the computer's many features:

Operating System

-

Platform

-

System Memory

- Dual-channel DDR3 SDRAM support:·
  - Up to 4 GB of DDR3 1066 MHz memory, upgradeable to 8 GB using two soDIMM modules (for 64-bit OS)

Display

- 17" HD 1366 x 768 pixel resolution, high-brightness (200-nit) Acer CineCrystal™ LED-backlit TFT LCD, supporting simultaneous multi-window viewing via Acer GridVista™
- Mercury free, environment friendly
- 16:9 aspect ratio
- Super-slim design

Graphics

-

Storage subsystem

-

Audio subsystem

-

Optical Media Drive

-

Communication

- Acer Video Conference1, featuring:·
  - Acer Crystal Eye high-def webcam with 1280 x 1024 resolution

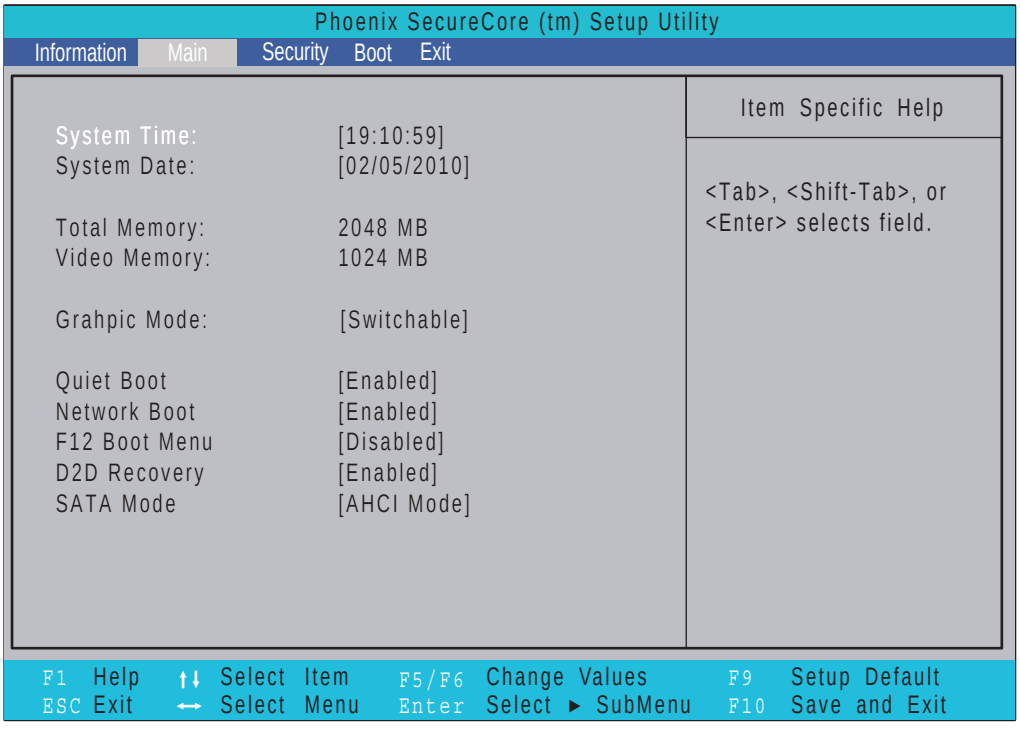
Windows Keys

The keyboard has two keys that perform Windows-specific functions.

Key	Description
Windows key	Pressed alone, this key has the same effect as clicking on the Windows Start button; it launches the Start menu. It can also be used with other keys to provide a variety of functions: **<⊞>:** Open or close the Start menu **<⊞> + <D>:** Display the desktop **<⊞> + <E>:** Open Windows Explore **<⊞> + <F>:** Search for a file or folder **<⊞> + <L>:** Lock your computer (if you are connected to a network domain), or switch users (if you're not connected to a network domain) **<⊞> + <M>:** Minimizes all windows **<⊞> + <R>:** Open the Run dialog box **<⊞> + <U>:** Open Ease of Access Center **<⊞> + <BREAK>:** Display the System Properties dialog box **<⊞> + <TAB>:** Cycle through programs on the taskbar **<CTRL> + <⊞> + <F>:** Search for computers (if you are on a network) **Note:** Depending on your edition of Windows 7, some shortcuts may not function as described.
Application key	This key has the same effect as clicking the right mouse button; it opens the application's context menu.

Main

The Main screen allows the user to set the system time and date as well as enable and disable boot option and recovery.



NOTE: The screen above is for your reference only. Actual values may differ.

The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Format/Option
System Time	Sets the system time. The hours are displayed with 24-hour format.	Format: HH:MM:SS (hour:minute:second)
System Date	Sets the system date.	Format MM/DD/YYYY (month/day/year)
Total Memory	This field reports the memory size of the system.	N/A
Video Memory	Shows the video memory size. VGA Memory size=32 MB	N/A
Graphic Mode	Sets discrete VGA only for systems with XP or Linux OS.	Option: **Switchable** or Discrete
Quiet Boot	This will hide POST messages while booting.	Option: **Enabled** or Disabled
Network Boot	Enables, disables the system boot from LAN (remote server).	Option: **Enabled** or Disabled
F12 Boot Menu	Enables, disables Boot Menu during POST.	Option: **Disabled** or Enabled
D2D Recovery	Enables, disables D2D Recovery function. The function allows the user to create a hidden partition on hard disc drive to store the operation system and restore the system to factory defaults.	Option: **Enabled** or Disabled
SATA Mode	Control the mode in which the SATA controller should operate.	Option: **AHCI mode** or IDE mode

Miscellaneous Utilities

Using Boot Sequence Selector

Boot Sequence Selector allows the boot order to be changes without accessing the BIOS. To use Boot Sequence Selector, perform the following steps:

1. Enter into DOS.
2. Execute BS.exe to display the usage screen.

```
d:\BOOTSEQ>bs

*** Boot Sequence Selecter Version 0.03 ***
Create by Rockwell Chuang 10/01/2005.

Usage:
       BS [ 1 | 2 | 3 | 4 ]

BS 1 : [ Floppy ] => [HardDisk] => [ CD-ROM ] => [  LAN   ]
BS 2 : [HardDisk] => [ CD-ROM ] => [  LAN   ] => [ Floppy ]
BS 3 : [ CD-ROM ] => [HardDisk] => [  LAN   ] => [ Floppy ]
BS 4 : [  LAN   ] => [ Floppy ] => [HardDisk] => [ CD-ROM ]

d:\BOOTSEQ>
```

3. Select the desired boot sequence by entering the corresponding sequence, for example, enter BS2 to change the boot sequence to HDD|CD ROM|LAN|Floppy.

Using DMITools

The DMI (Desktop Management Interface) Tool copies BIOS information to eeprom to be used in the DMI pool for hardware management.

When the BIOS displays **Verifying DMI pool data** it is checking the table correlates with the hardware before sending to the operating system (Windows, etc.).

To update the DMI Pool, perform the following steps:

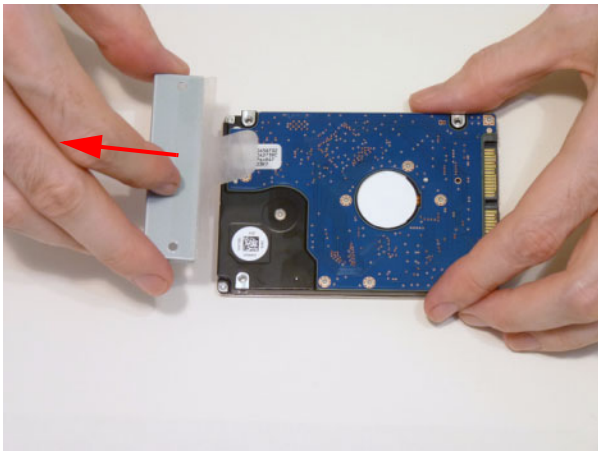
1. Enter into DOS.
2. Execute **qdmitools.exe**. The following messages show dmitools usage:

```
*** Compal DMI String R/W Utility Ver1.40 for 2006/03/14 ***

 Usage:

   DMITOOLS [ /R | /WP | /WS | /WU ] [ STRING ]

      [/R]    : Read DMI Information from Memory
      [/WM]   : Write Manufacturer Name to EEPROM. (Max.= 16 characters)
      [/WP]   : Write Product Name to EEPROM.      (Max.= 16 characters)
      [/WS]   : Write Serial Number to EEPROM      (Max.= 22 characters)
      [/WU]   : Write UUID to EEPROM.              (Ignore String       )
      [/WA]   : Write Asset Tag to EEPROM.         (Max.= 32 characters)
```

6. Remove the two (2) screws of the HDD bracket.

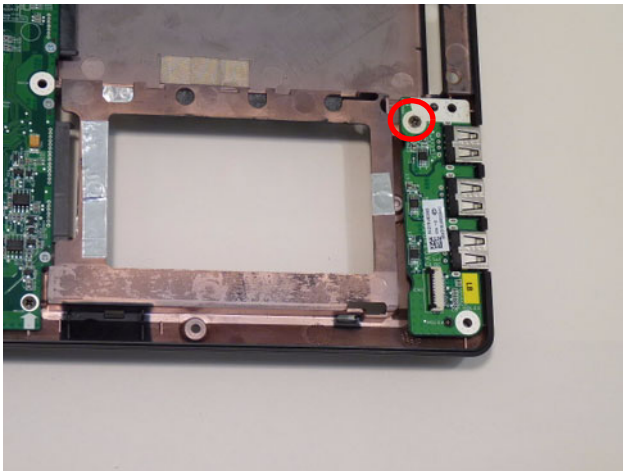
Step	Screw	Quantity	Screw Type
HDD Bracket Disassembly	M3.0*3.5L(NI)	2	

7. Lift the bracket away from the HDD.



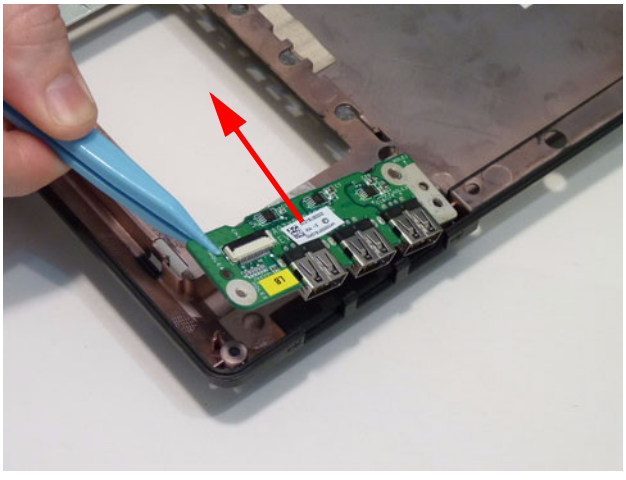
Step	Screw	Quantity	Part No.
Bluetooth Module Disassembly	TBD		
LAN Board Disassembly	TBD		
PCH Heatsink Disassembly	TBD		
LCD Module Disassembly	M2.5*6L(BNI)	4	

5. Remove one (1) screw from the USB board.



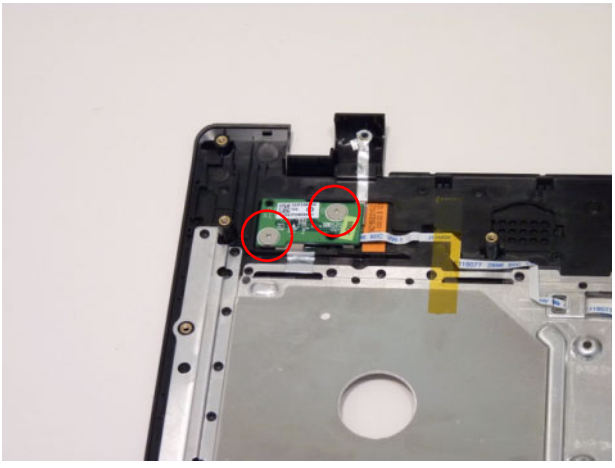
Step	Screw	Quantity	Screw Type.
USB Module Disassembly	2.5*6	1	

6. Lift the USB board clear of the chassis.



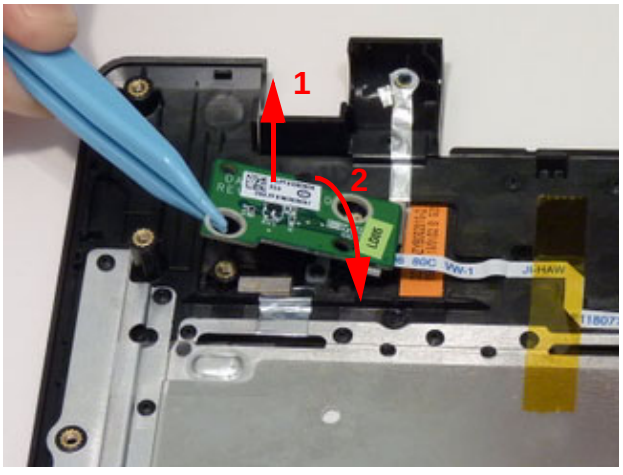
Removing the Switch Board

1. See “Removing the Upper Cover” on page 54.
2. Remove the two (2) screws.



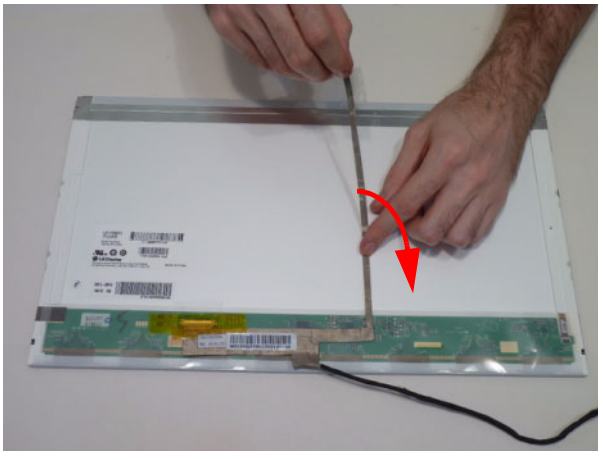
Step	Screw	Quantity	Screw Type
Switch Board Disassembly	M2.5*2Ni	2	

3. Lift the switch board away from the upper cover (1) and turn it over (2).

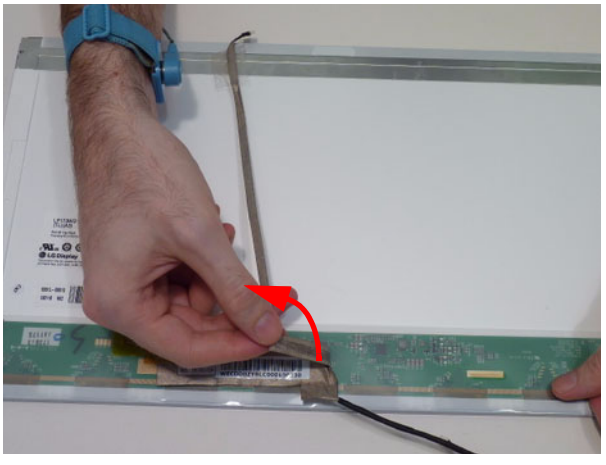


7. Separate the brackets from the panel as shown.

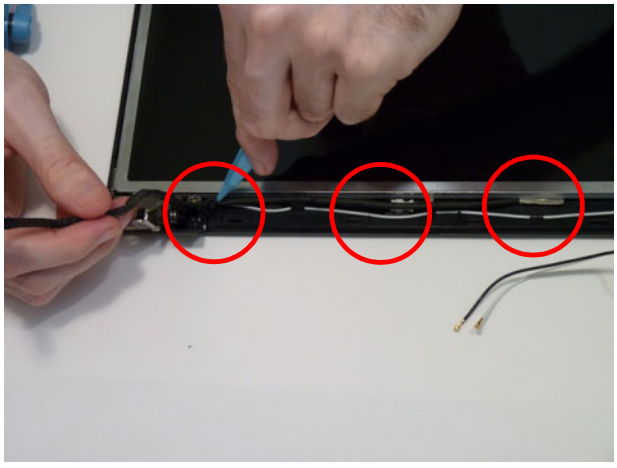
8. Peel the LVDS cable off the panel.



9. Continue peeling the cable off the LCD panel.

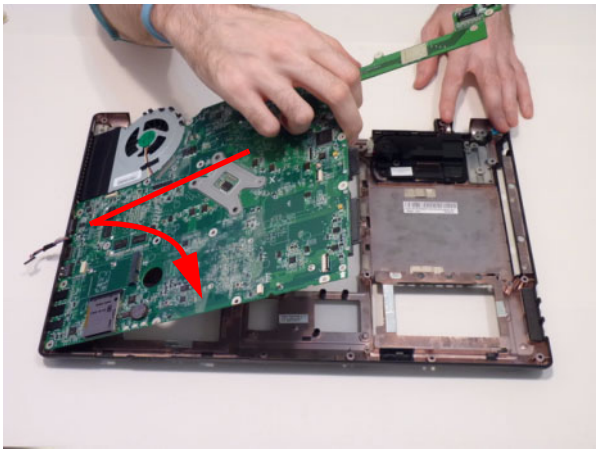


11. Place the LVDS cable into cable guides

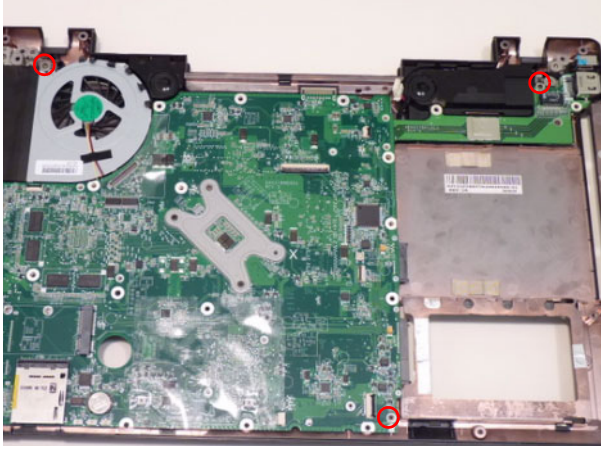


Replacing the Main Board

1. See “Replacing the Power Assembly” on page 95.
2. See “Replacing the PCH Thermal Module” on page 96.
3. See “Replacing the CPU” on page 96.
4. See “Replacing the Thermal Module” on page 98.
5. See “Replacing the RTC Battery” on page 99.
6. See “Removing the LAN Board” on page 100.
7. Slide the main board external connector edge in first to the lower case, then lower into place.



8. Replace the three (3) screws to secure the mainboard to the lower cover.



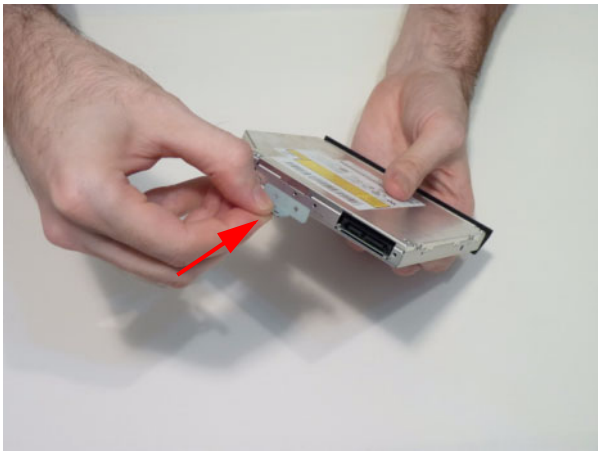
Replacing the Upper Cover

1. See “Replacing the Main Board” on page 101.
2. See “Replacing the LCD Module” on page 107.
3. See “Replacing the Bluetooth Module” on page 105.
4. See “Replacing the USB board” on page 103.
5. See “Replacing the Power Board” on page 109.
6. See “Replacing the Switch Board” on page 110.
7. Place the upper cover onto the lower cover aligning the hinges first and then press down around the edges.

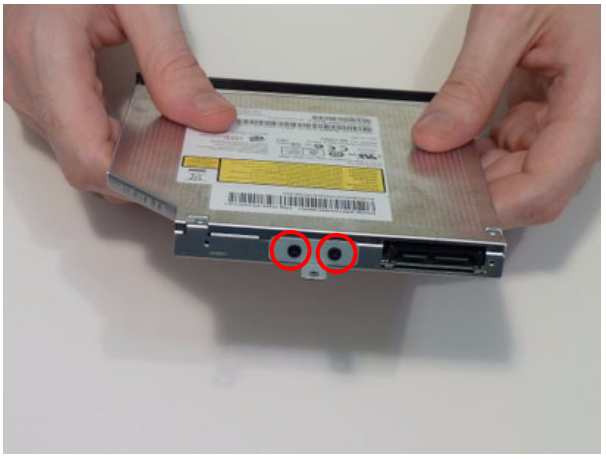
Replacing the ODD Module

1. See “Replacing the Keyboard” on page 114.
2. Replace the ODD bezel.

3. Replace the ODD bracket.

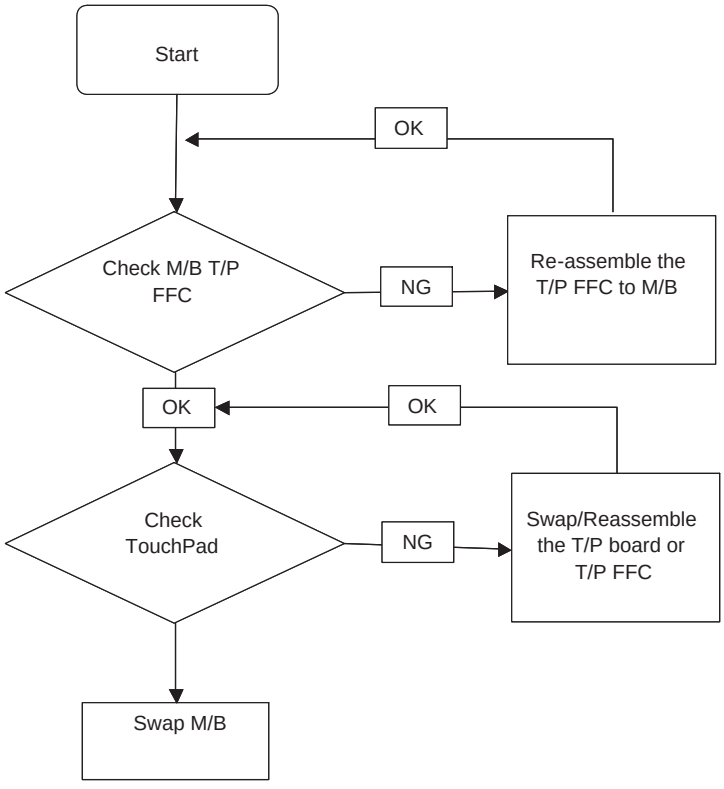


4. Replace the two (2) screws of the ODD bracket.



TouchPad Failure

If the **TouchPad** doesn't work, perform the following actions one at a time to correct the problem. Do not replace non-defective FRUs:



Functionality Name (Include\ PostCode.h)	Phase	Post Code	Description
ASL_ENTER_S4	ASL	54	Prepare to enter S4
ASL_ENTER_S5	ASL	55	Prepare to enter S5
ASL_WAKEUP_S1	ASL	E1	System wakeup from S1
ASL_WAKEUP_S3	ASL	E3	System wakeup from S3
ASL_WAKEUP_S4	ASL	E4	System wakeup from S4

SMM Functions POST Code Table

Functionality Name (Include\ PostCode.h)	Phase	Post Code	Description
SMM_IDENTIFY_FLASH_DEVICE	SMM	0xA0	Identify Flash device in SMM
SMM_SMM_PLATFORM_INIT	SMM	0xA2	SMM service initial
SMM_ACPI_ENABLE_START	SMM	0xA6	OS call ACPI enable function
SMM_ACPI_ENABLE_END	SMM	0xA7	ACPI enable function complete
SMM_S1_SLEEP_CALLBACK	SMM	0xA1	Enter S1
SMM_S3_SLEEP_CALLBACK	SMM	0xA3	Enter S3
SMM_S4_SLEEP_CALLBACK	SMM	0xA4	Enter S4
SMM_S5_SLEEP_CALLBACK	SMM	0xA5	Enter S5
SMM_ACPI_DISABLE_START	SMM	0xA8	OS call ACPI disable function
SMM_ACPI_DISABLE_END	SMM	0xA9	ACPI disable function complete

InsydeH2ODDT Debugger POST Code Table

Functionality Name (Include\ PostCode.h)	PostCode	Description
Used by Insyde debugger	0x0D	Waiting for device connect
Used by Insyde debugger	0xD0	Waiting for device connect
Used by Insyde debugger	0xD1	InsydeH2ODDT Ready
Used by Insyde debugger	0xD2	EHCI not found
Used by Insyde debugger	0xD3	Debug port connect low speed device
Used by Insyde debugger	0xD4	DDT Cable become low speed device
Used by Insyde debugger	0xD5	DDT Cable Transmission Error (Get descriptor fail)
Used by Insyde debugger	0xD6	DDT Cable Transmission Error (Set Debug mode fail)
Used by Insyde debugger	0xD7	DDT Cable Transmission Error (Set address fail)

FRU List

Screw Table