

Sharp AIO POS

RZ-E601

RZ-E701



***Service
Guide***

Release Version 0.2
Dec, 2017

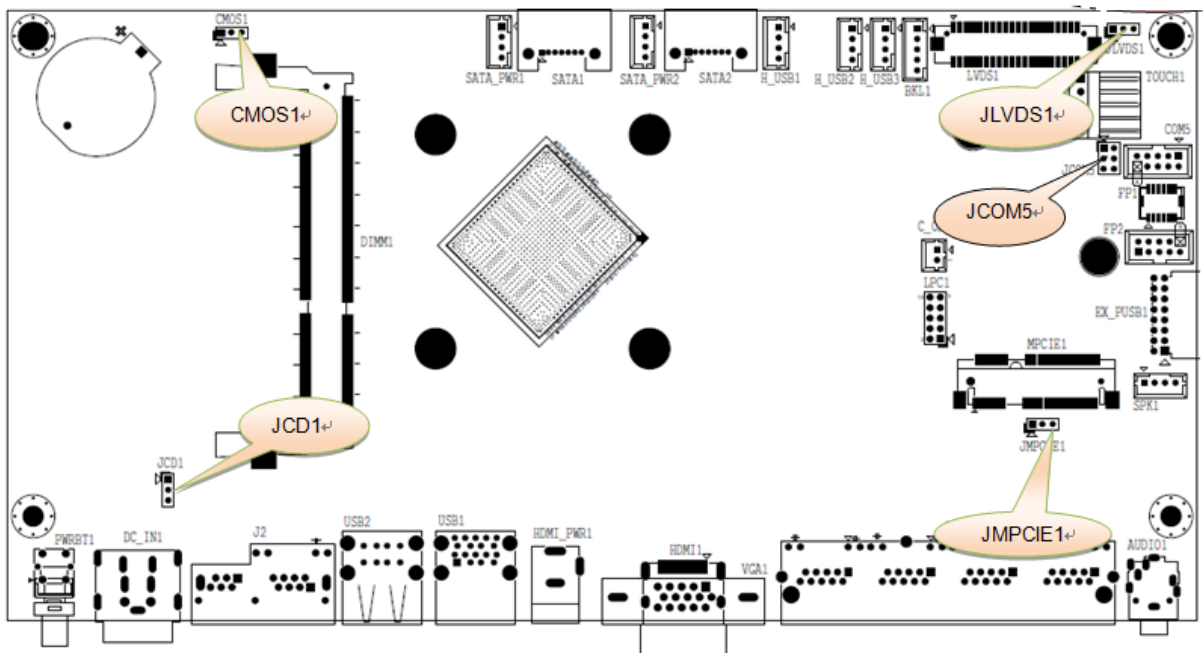
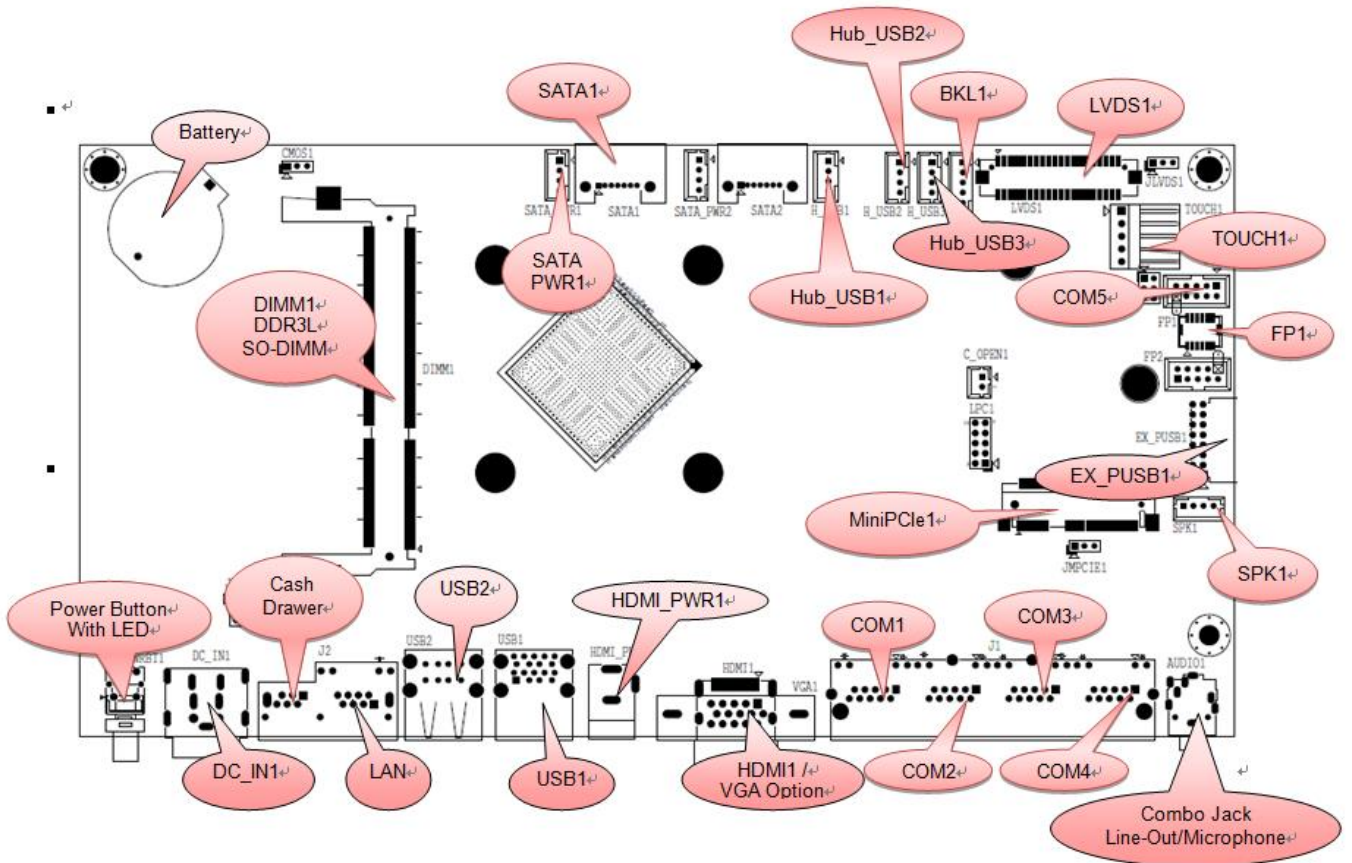
Sharp AIO POS

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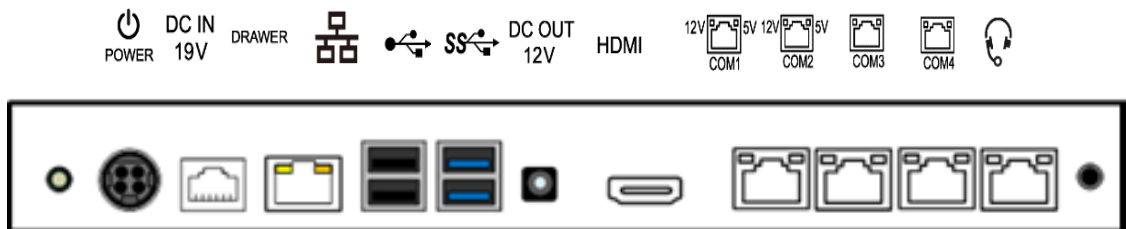
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Pin Assignment & Jumper Setting

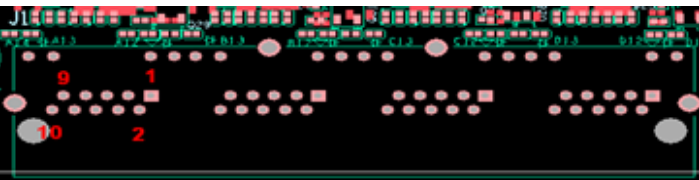
Motherboard Placement

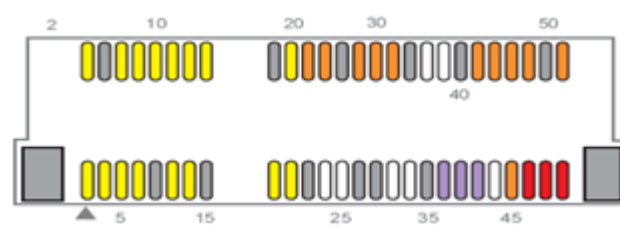


Motherboard I/O Ports

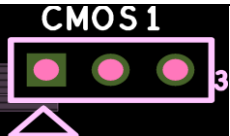



Special Pin Assignment Connectors


Connector	J1																						
Note	Pin 1 is selected by BIOS for COM1 and COM2																						
Pin Assignment	<table border="1"> <thead> <tr> <th>Pin #</th> <th>Signal</th> </tr> </thead> <tbody> <tr><td>1</td><td>RI/5V/12V</td></tr> <tr><td>2</td><td>DSR</td></tr> <tr><td>3</td><td>RTS</td></tr> <tr><td>4</td><td>Ground</td></tr> <tr><td>5</td><td>TXD</td></tr> <tr><td>6</td><td>RXD</td></tr> <tr><td>7</td><td>Ground</td></tr> <tr><td>8</td><td>CTS</td></tr> <tr><td>9</td><td>DTR</td></tr> <tr><td>10</td><td>DCD</td></tr> </tbody> </table> 	Pin #	Signal	1	RI/5V/12V	2	DSR	3	RTS	4	Ground	5	TXD	6	RXD	7	Ground	8	CTS	9	DTR	10	DCD
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1. Jumper Setting

Jumper location	CMOS1			
Setting drawing & descriptions				
	Pin	1	2	3
	Define	NC	S_RTCRST#	GND
	Setting 1	NORMAL (Default)		
	Setting 2		Clear CMOS	

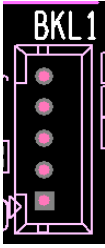
Jumper location	JCD1			
Setting drawing & descriptions				
	Pin	1	2	3
	Define	+12V	CD_PWR	+19V
	Setting 1	CD1 power 12V		
	Setting 2		CD1 power 19V (Default)	

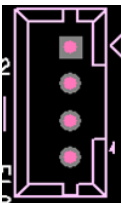
Jumper location	JMPCIE1			
Setting drawing & descriptions				
	Pin	1	2	3
	Define	3VSB	SATA_PCIE_SEL	GND
	Setting 1	mSATA		
	Setting 2		mPCIE (Default)	

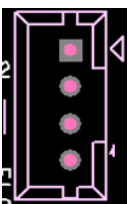
Jumper location	JLVDS1			
Setting drawing & descriptions				
	Pin	1	2	3
	Define	VCC5	Panel power	VCC3
	Setting 1	VCC_LCD power 5V		
	Setting 2		VCC_LCD power 3.3V (Default)	

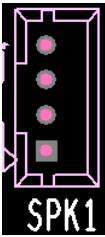
Jumper location	JCOM5						
Setting drawing & descriptions							
	Pin	1	2	3	4	5	6
	Define	VCC5	COM5_RI	RI	COM5_RI	+12V	COM5_RI
	Setting 1	5V_COM5 pin9					
	Setting 2			RI_COM5 pin9			
Setting 3					12V_COM5 pin9		

2. Header Pin Assignment

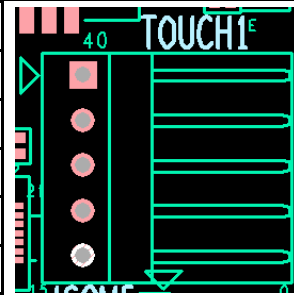
Header location	BKL1		
Setting drawing & descriptions	Pin #	Pin definition	
	1	12V	
	2	Ground	
	3	LCD_BL_EN	
	4	BL_PWM Control	
5	Ground		
Function	Panel's backlight connector.		

Header location	SATA_PWR1		
Setting drawing & descriptions	Pin #	Pin definition	
	1	12V	
	2	Ground	
	3	Ground	
4	VCC5		
Function	Supply SATA power 5V and 12V.		

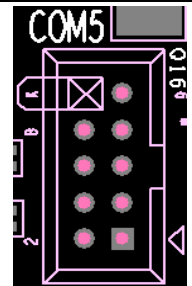
Header location	H_USB1, H_USB2, H_USB3		
Setting drawing & descriptions	Pin #	Pin definition	
	1	5V_Standby	
	2	USBN	
	3	USBP	
4	Ground		
Function	Internal USB header		

Header location	SPK1		
Setting drawing & descriptions	Pin #	Pin definition	
	1	SPK_R+	
	2	SPK_R-	
	3	SPK_L-	
4	SPK_L+		
Function	Speaker header		

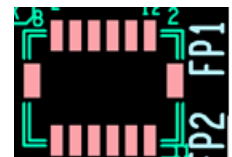
Header location	TOUCH1 (for RZ-E601)		
Setting drawing & descriptions	Pin #	Pin definition	
	1	UL	
	2	UR	
	3	SENSE	
	4	LL	
	5	LR	
Function	R-Touch header		

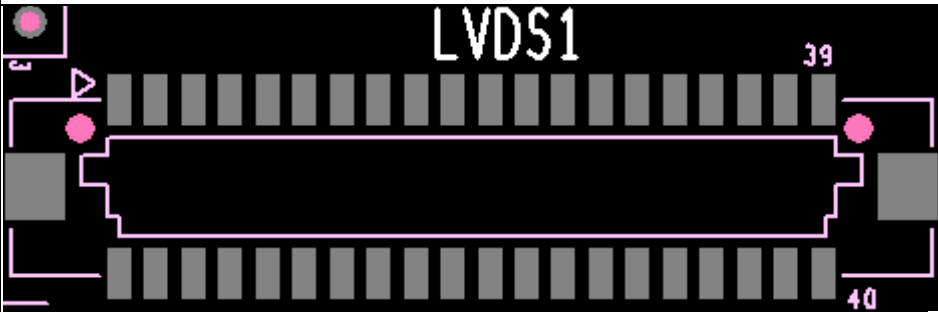


Header location	COM5			
Setting drawing & descriptions	Pin #	Pin definition	Pin #	Pin definition
	1	DCD	2	DSR
	3	RXD	4	RTS
	5	TXD	6	CTS
	7	DTR	8	RI
	9	Ground	10	Key
Function	Internal COM header			



Header location	FP1 (for RZ-E701)			
Setting drawing & descriptions	Pin #	Pin definition	Pin #	Pin definition
	1	NC	2	Ground
	3	SUSLED_N	4	HDDLED_N
	5	3VSB	6	LAN_LED
	7	SMBDATA	8	SMBCLK
	9	PWR_SW_N	10	Ground
	11	VCC3	12	OSD_INT_L
	Function	Front panel header.		



Header location	LVDS1			
Setting drawing & descriptions				
	Pin #	Pin definition	Pin #	Pin definition
	1	NC	2	NC
	3	Ground	4	Ground
	5	LVDSA_DATA0N	6	LVDSA_DATA1N
	7	LVDSA_DATA0P	8	LVDSA_DATA1P
	9	Ground	10	Ground
	11	LVDSA_DATA2N	12	LVDSA_CLKN
	13	LVDSA_DATA2P	14	LVDSA_CLKP
	15	Ground	16	Ground
	17	LVDSA_DATA3N	18	LVDSB_DATA0N
	19	LVDSA_DATA3P	20	LVDSB_DATA0P
	21	Ground	22	Ground
	23	LVDSB_DATA1N	24	LVDSB_DATA2N
	25	LVDSB_DATA1P	26	LVDSB_DATA2P
	27	Ground	28	Ground
	29	LVDSB_CLKN	30	LVDSB_DATA3N
	31	LVDSB_CLKP	32	LVDSB_DATA3P
	33	NC	34	Ground
	35	DDC_SCL	36	Ground
	37	DDC_SDA	38	VCC_LCD
	39	NC	40	VCC_LCD
Function	Panel's LVDS signal header.			

Warning: To prevent damage to your external devices caused by the wrong voltage output please **DO NOT** change the settings on your own.

***Ensure anti-static wrist strap is secured to your wrist and properly grounded before accessing the system with any tools.

BASIC TROUBLE-SHOOTING

TROUBLE SHOOTING

Trouble-shooting		
Item	Failure Symptom	Trouble-shooting
1	System no boot, Power LED off	<ol style="list-style-type: none"> 1. Verify that the 19V Power adapter is connected to the unit 2. Replace 19V Power Adapter 3. Replace Motherboard
2	System no boot, continuous abnormal beeping sound	<ol style="list-style-type: none"> 1. Verify that RAM is inserted properly 2. Replace RAM 3. Replace Motherboard
3	System POST with a short beep sound and without boot screen	<ol style="list-style-type: none"> 1. Clearing the CMOS 2. Replace Motherboard
4	System working after 1– 5 min Fan run then full speed, on boot	<ol style="list-style-type: none"> 1. Clearing the CMOS 2. Swap EPROM 3. Replace RAM 4. Replace Motherboard
5	HDD is not working	<ol style="list-style-type: none"> 1. Load optimized defaults in BIOS and restart 2. Replace parts in below order: HDD, HDD cable, HDD power cable
6	USB does not respond	<ol style="list-style-type: none"> 1. Verify that the USB device is connected to the unit 2. Load optimized default in BIOS and restart 3. Replace Motherboard
7	No output from Audio Line-out/MIC input have no action	<ol style="list-style-type: none"> 1. Use other device for cross checking 2. Load optimized default in BIOS and restart 3. Replace Motherboard
8	No Display but system with boot	<ol style="list-style-type: none"> 1. Verify that the VGA cable is connected to the unit 2. Verify that the VGA cable is connected to monitor 3. Replace VGA Cable 4. Replace monitor 5. Replace Motherboard
9	LAN does not work	<ol style="list-style-type: none"> 1. Check if the server connection is normal 2. Verify RJ45 LAN cable connection status 3. Check if the LAN driver is normal 4. Replace Motherboard
10	PUSB, No power output	<ol style="list-style-type: none"> 1. Verify PUSB cable connection status 2. Replace installed device 3. Replace Motherboard
11	COM port does not respond	<ol style="list-style-type: none"> 1. Load optimized default in BIOS and restart 2. Replace Motherboard
12	Cash Drawer does not respond	<ol style="list-style-type: none"> 1. Use other cash drawer for cross checking 2. Load optimized defaults in BIOS and restart 3. Replace Motherboard
13	12V/DC Output, No Power	<ol style="list-style-type: none"> 1. Verify that the device is connected to the unit 2. Replace Cable 3. Replace device 4. Replace Motherboard

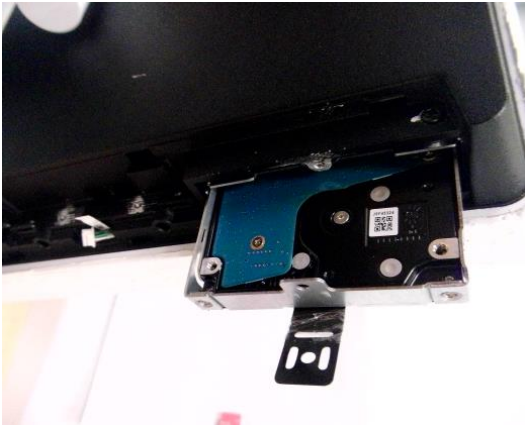
SYSTEM PREPARATION FOR TROUBLE-SHOOTING

1.0 Removal of Stand, HDD, and Rear Cover

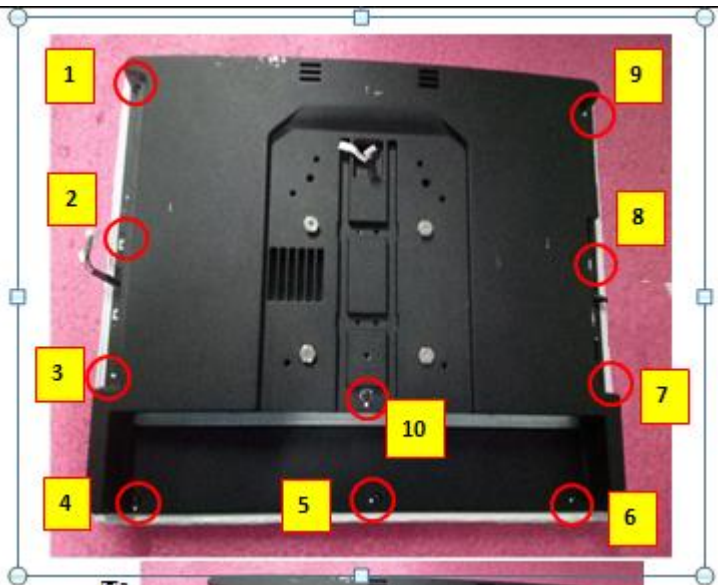
1.1 Release the thumb screw and remove the stand from system unit.



1.2 Remove HDD



1.3 Remove Rear Cover screws

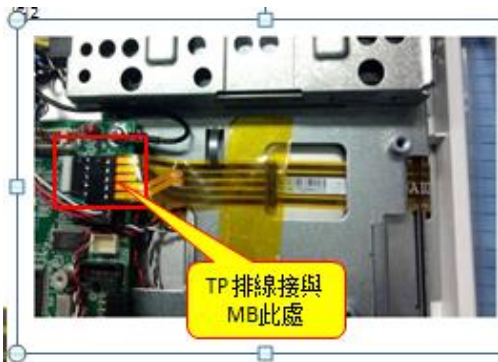


2.0 LCD panel replacement

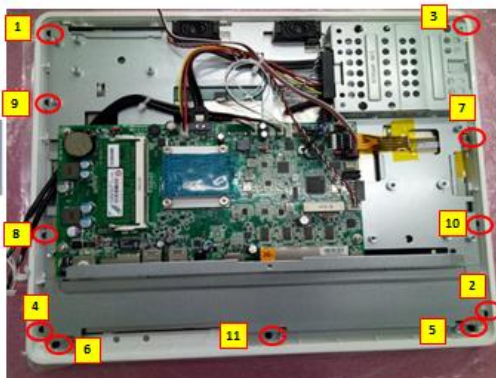
2.1.1 Remove PCAP touch FPC tail (RZ-E701)



2.1.2 Remove Resistive touch FPC tail (RZ-E601/E606/E606SC)



2.2 Remove screws

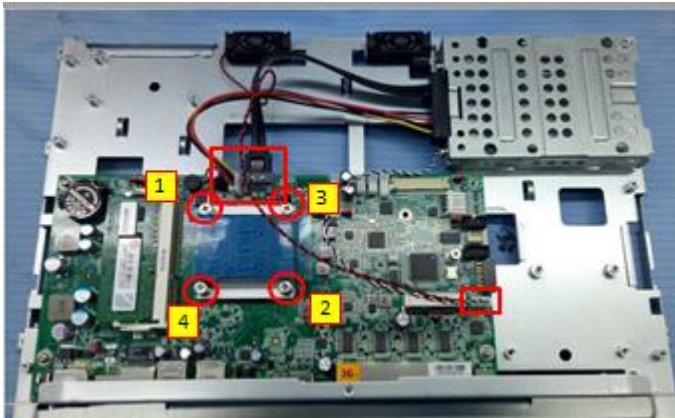


2.3 Remove panel screws

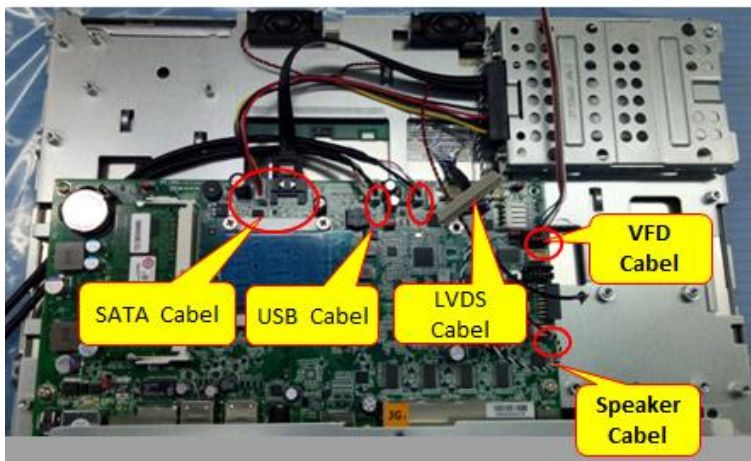


3.0 PCBA replacement

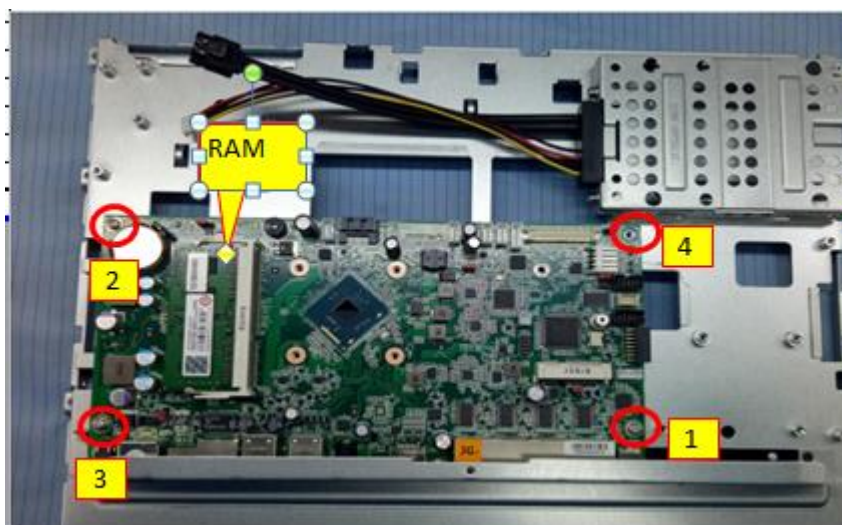
3.1 Remove heat sink



3.2 Remove cables



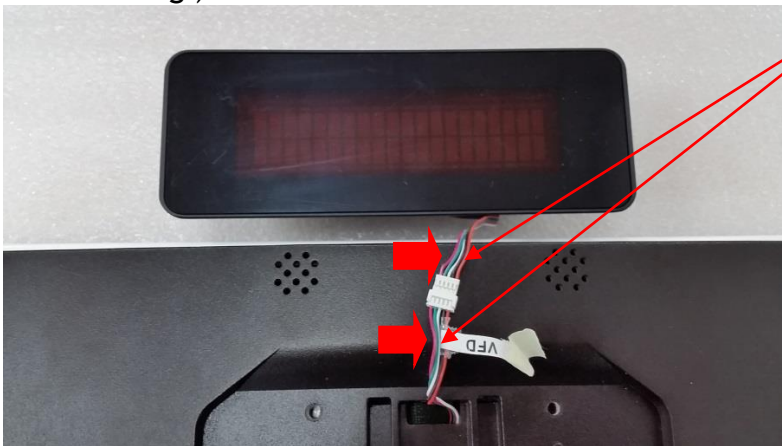
3.3 Remove screws and RAM



Peripherals Installation Guide

VFD installation guide (model name : RZ-E1DP1)

1. To Connect POS and VFD cables (be careful the cables colour that are connected should be matching)



Insert cable into POS hole

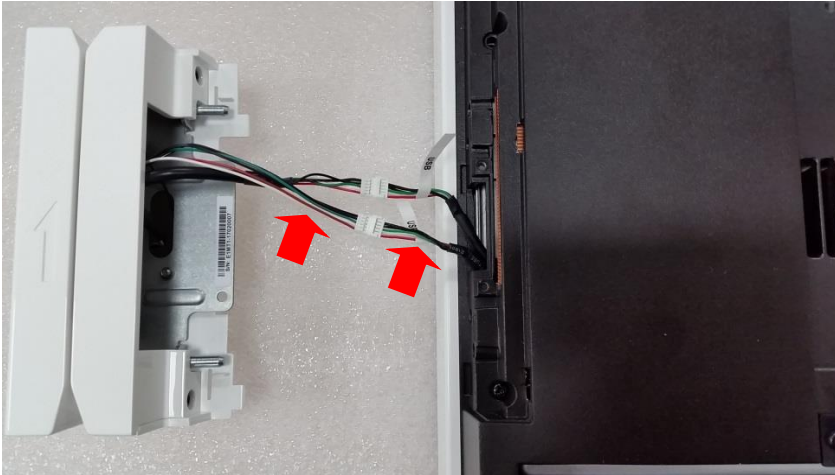


Lock 4pcs screws

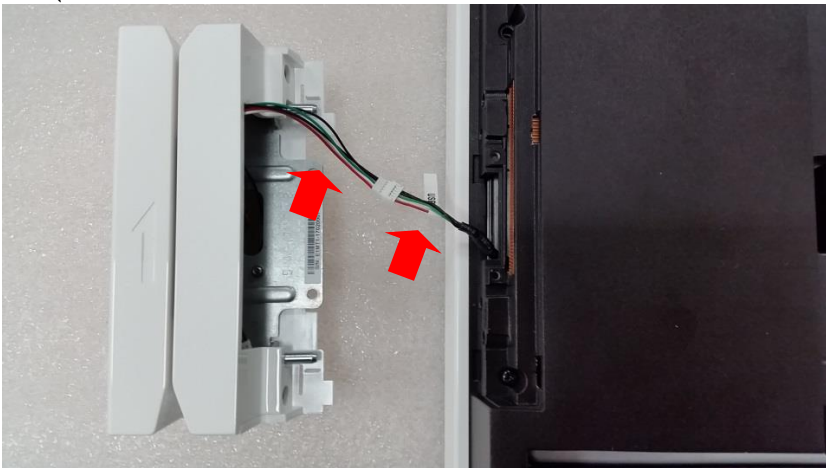


MSR+ iButton (model name : RZ-E1MT1) and MSR (for JP)(model name : RZ-E1MR2) installation guide (on POS Right side)

1. Connecting POS and MSR(slim)+ iButton cable (2 bundles)
(be careful the cable colours that are connected should be matching)



2. Connecting POS and MSR(JP) cable (1 bundle)
(be careful the cable colours that are connected should be matching)



Insert cable into POS hole



Lock screw 2 pcs

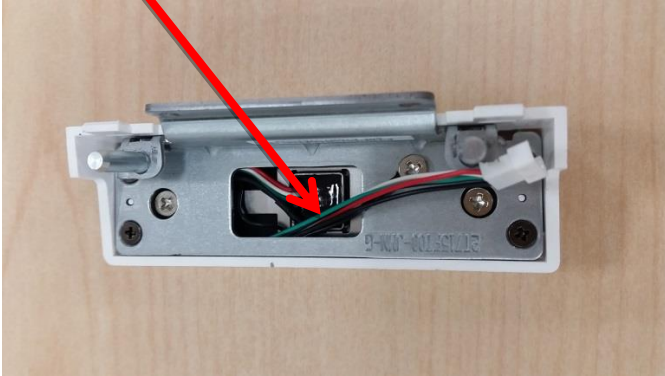


Assemble COVER

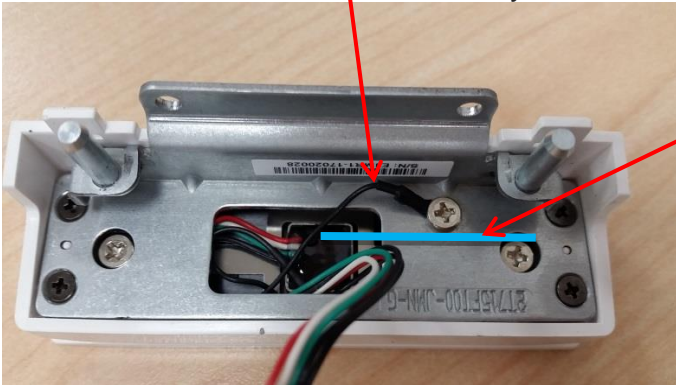


MSR Single head (Slim type) installation guide (on POS Right side) (Model name : RZ-E1MR1)

Insert cable into POS hole

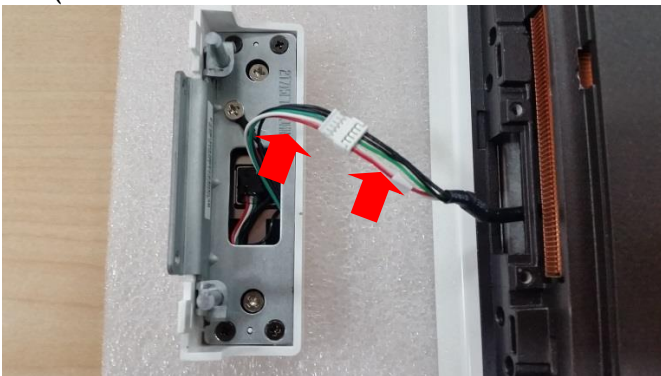


Note that the grounding wire position should not exceed the lower edge of this line, otherwise it will affect the assembly

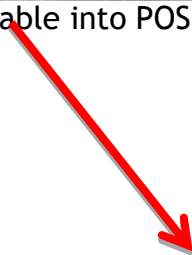


Connecting POS and MSR cable

(be careful the cable colours that are connected should be matching)

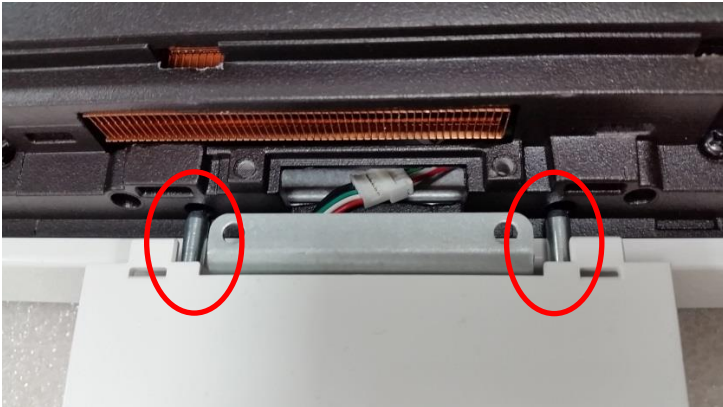


Insert cable into POS hole

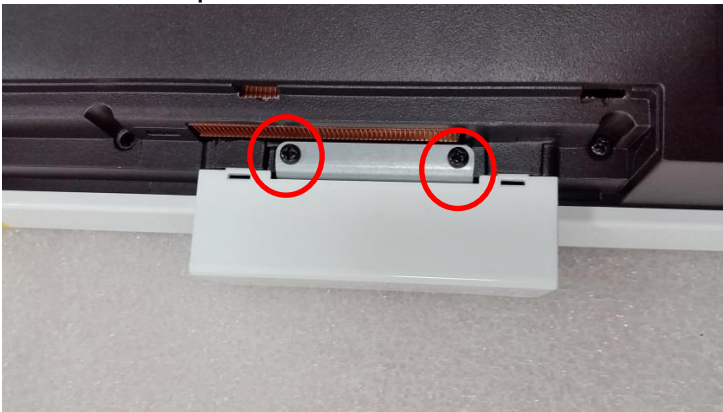




fixing clip



Lock screw 2 pcs

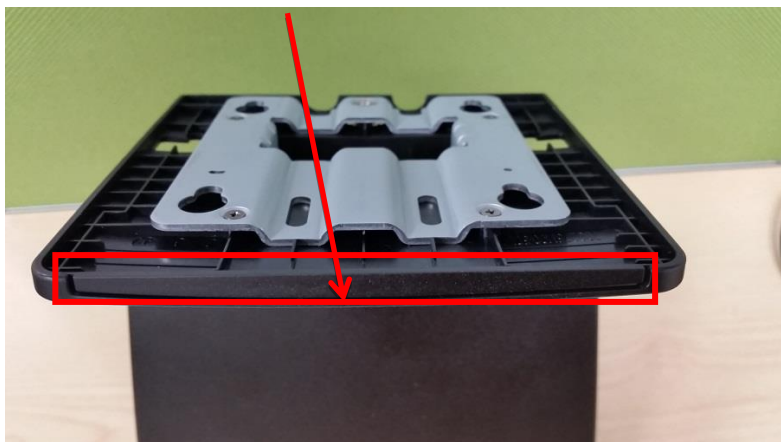


Assemble MSR COVER

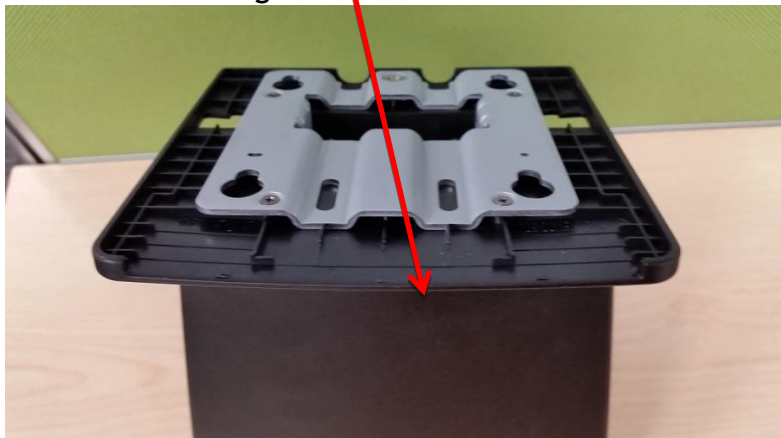


2nd display installation guide (model name : RZ-E1DP3)

1. Bend stand cover frame and remove it



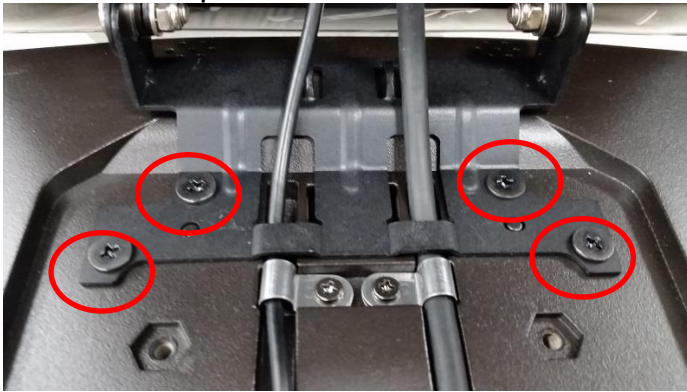
2 After removing stand cover frame



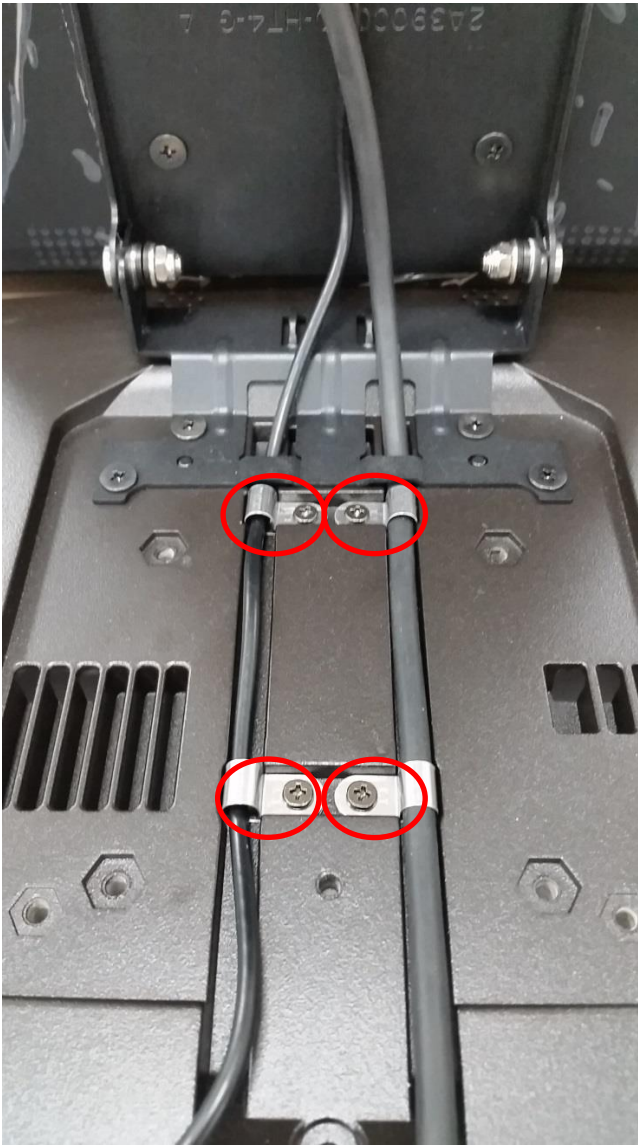
3 cable routing



4. M4 screw *4pcs



5. cable routing and m3 screw *4pcs



6 plug in I/O connector



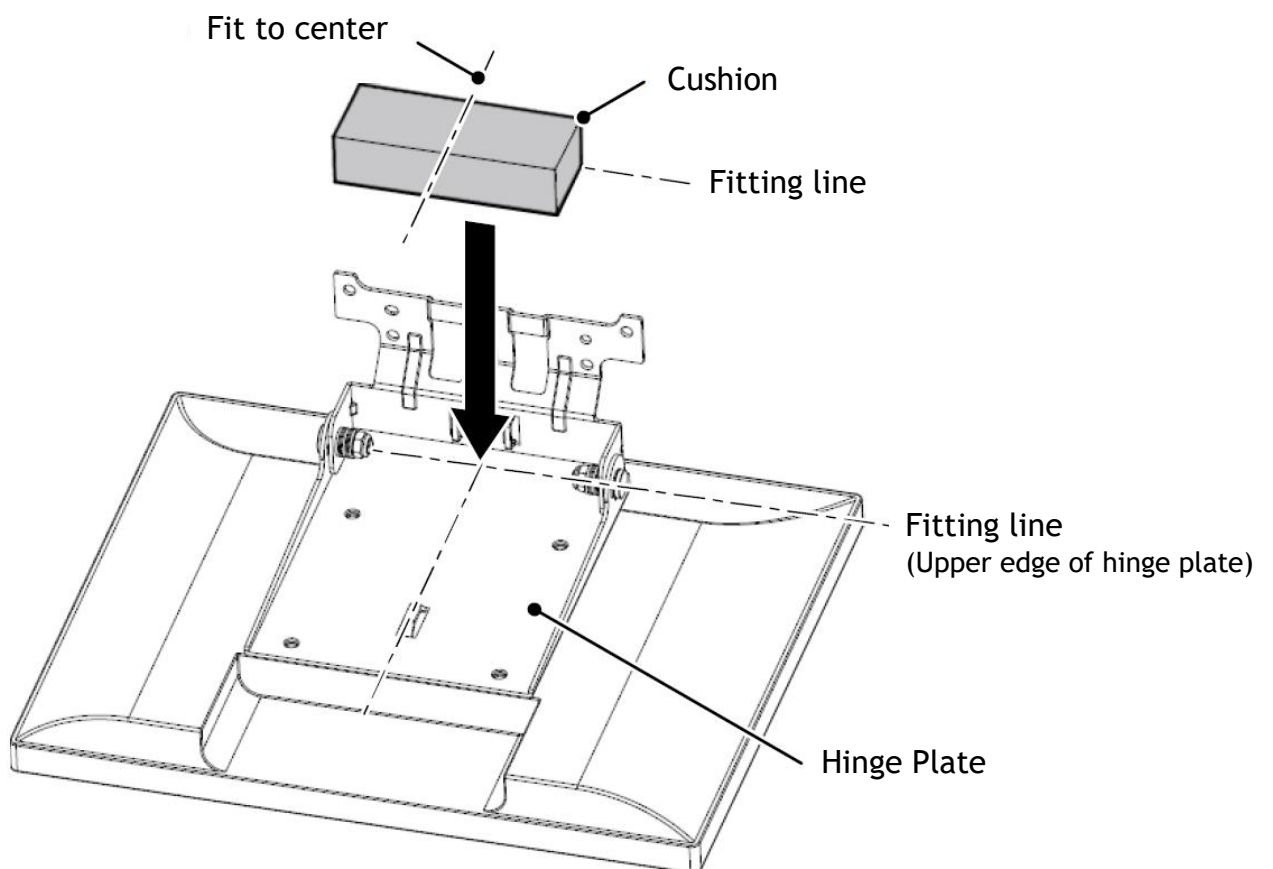
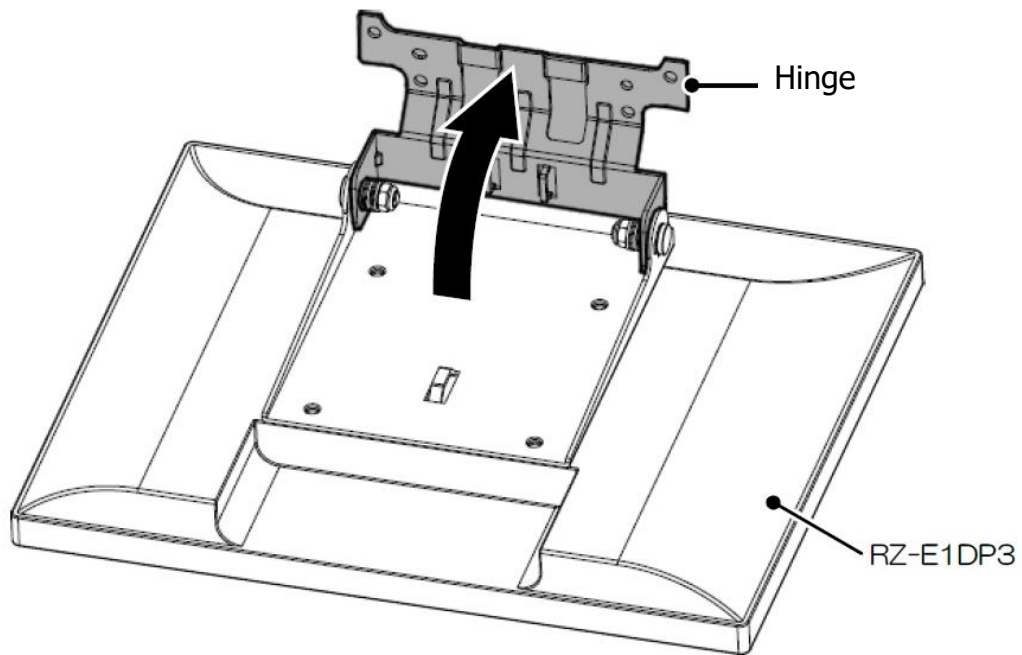
7. cable routing with Stand cover

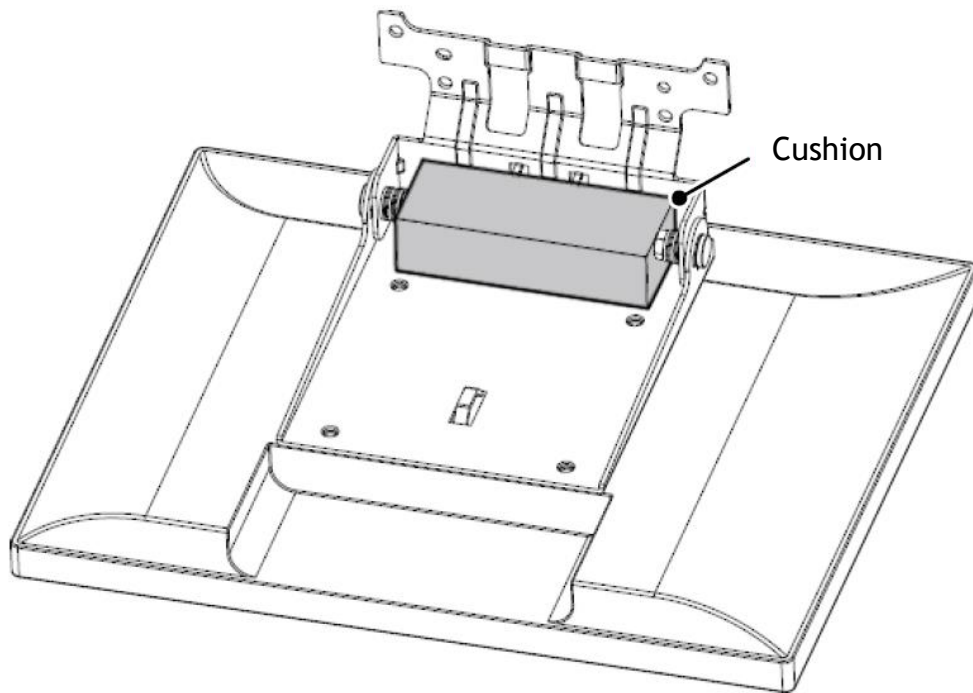


stand cover

8.Put the cushion on RZ-E1DP3(To avoid to pinch a hand)

Move the hinge of RZ-E1DP3 to back side.





(Note)

- Remove dust on putting surface.
- Fits the upper edge of cushion to the upper edge of hinge plate.
- Puts the cushion.

BIOS update procedure

Flash BIOS with AML utility Afuefix64.efi (For EFI Shell)

RZ-601:

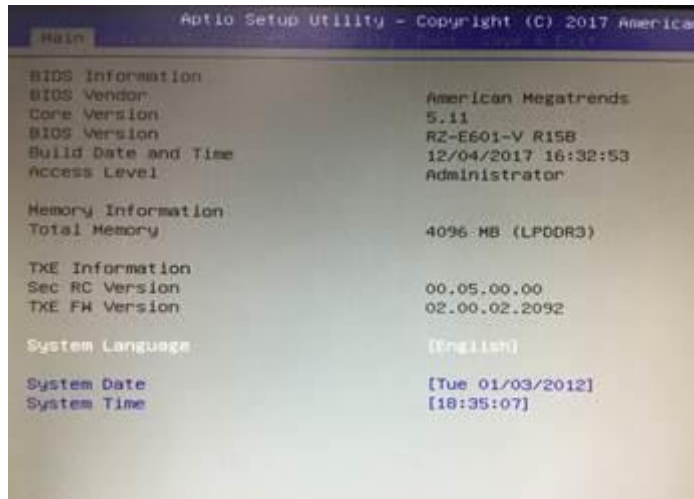
BIOS update procedure

BIOS setting choice boot to “UEFI: Built-in EFI Shell”

1. Make sure the Sharp SKU name is match to BIOS file name.
(RZ-E601: ME70AA15.C4B)
2. Ensure that the USB-key include afuefix64.efi and BIOS bin file.
3. Type “fs0:” to entry USB-Key.
4. Flash command “**Afuefix64.efi ME70AA15.C4B /p /b /n /r**”
 - /P Program Main BIOS
 - /B Program Boot Block
 - /N Program NVRAM
5. **Unplug power adapter after flash completed.**
6. Complete BIOS update.

BIOS Version Confirmation Procedure after BIOS Update

Procedure to reset the BIOS setting to the initial value after updating the BIOS (Load Optimized Defaults)



RZ-E701:

BIOS update procedure

BIOS setting choice boot to “UEFI: Built-in EFI Shell”

1. Make sure the Sharp SKU name is match to BIOS file name.
(RZ-E701: ME70AA15.C4D)
2. Ensure that the USB-key include afuefix64.efi and BIOS bin file.
3. Type “fs0:” to entry USB-Key.
4. Flash command “**Afuefix64.efi ME70AA15.C4D /p /b /n /r**”
 - /P Program Main BIOS
 - /B Program Boot Block
 - /N Program NVRAM
5. **Unplug power adapter after flash completed.**
6. Complete BIOS update.

BIOS Version Confirmation Procedure after BIOS Update

Procedure to reset the BIOS setting to the initial value after updating the BIOS (Load Optimized Defaults)

