

6033 M/B MAINTENANCE

6033 M/B TROUBLE SHOOTING GUIDE

1. DEFINITION & LOCATION CONNECTORS/ SWITCHES.....	P.2
2. DEFINITION & LOCATION MAJOR COMPONENTS.....	P.4
3. SWITCH SETTING	P.6
4. ASSEMBLY & DISASSEMBLY	P.7
5. 6033 BLOCK DIAGRAM	P.25
6. MAINTENANCE DIAGNOSTICS.....	P.26
7. TROUBLE SHOOTING	P.29
8. SPARE PARTS LIST	P.62

6033 M/B MAINTENANCE

1. DEFINITION & LOCATION OF CONNECTORS / SWITCHES (A)

J1: AUDIO OUTPUT

J2: MIC IN

J3: USB PORT

J4,J6: R/L SPK CONN.

J5: LCD PANEL TRANS. BD
CONNECTOR.

J7: INVERTER BD CONN.

J9: KEYBOARD CONN.

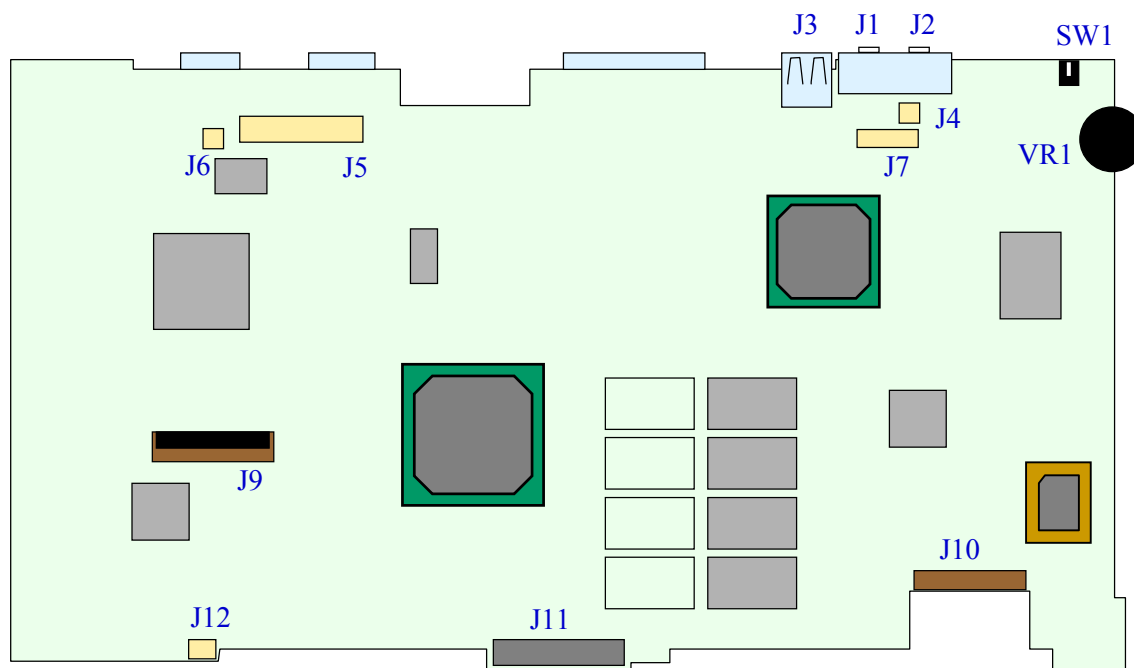
J10: FDD CONN.

J11: TOUCHPAD/ HDD CONN.

J12: INTERNAL MIC CONN.

SW1: SUSPAND SWITCH.

VR1: VOLUME CONTROL VR.



6033 M/B MAINTENANCE

2. DEFINITION & LOCATION OF CONNECTORS / SWITCHES (B)

PJ501: POWER JACK

J501: PS/2 KEYBOARD/
MOUSE CONN.

J504: VGA CONN.

J503: SERIAL PORT

J502: PARALLEL PORT

J506: FAX/MODEM CONN

J505: CPU FAN CONN

J507: PCMCIA CONN.

J508: CO-ROM CONN.

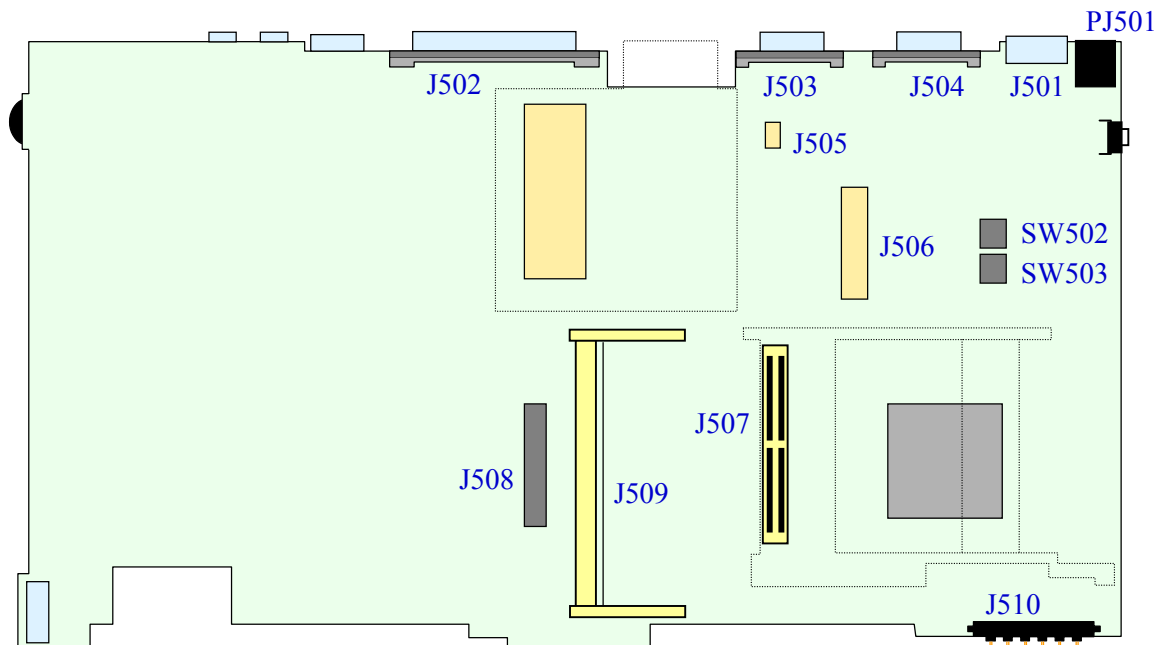
J509: 114 PINS SODIMM SOCKET

J510: BATTERY CONN.

SW501: POWER SWITCH

SW502: MOTHER BD ID/ FREQ / RTC RESET

SW503: LCD ID/ KEYMATRIX SELECT



6033 M/B MAINTENANCE

2. DEFINITION & LOCATION OF MAJOR COMPONENTS(A)

U4: LVDS

U7: CLOCK SYNTHESIZER.

U8: PIIX4(82371EB) SOUTH BRIDGE.

U9: ES1869F AUDIO CONTROLLER

U10: NMG4 NM2160B VGA CTRL.

U14,U22,U27,U31:32MB ON-BOARD
MEMORY.

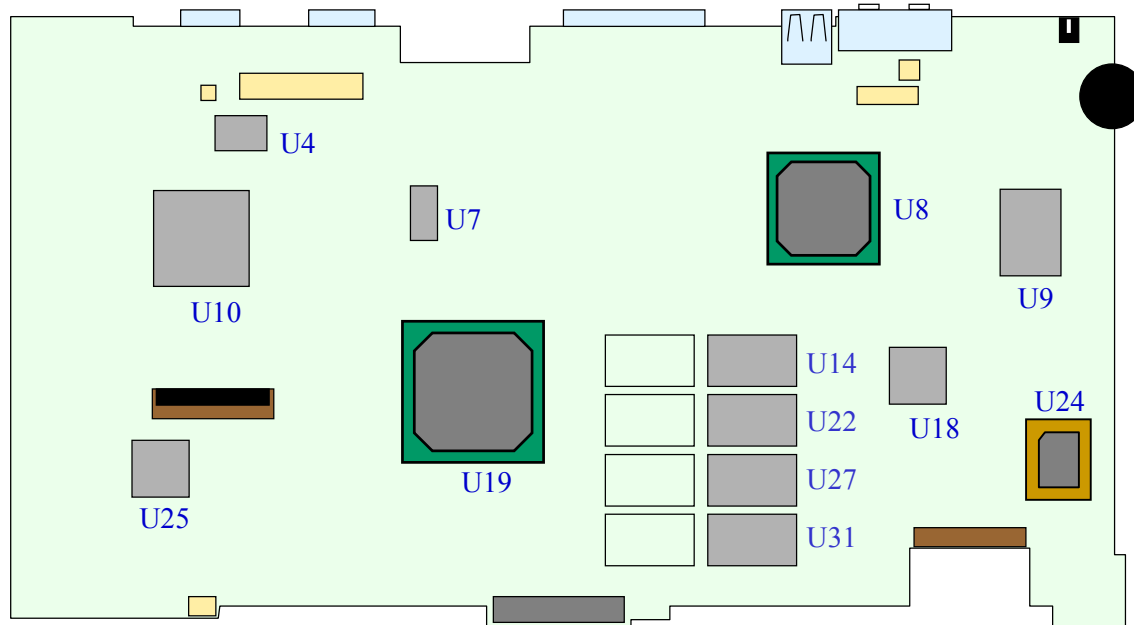
U18: NS PC97338VJC

SUPER I/O CONTROLLER

U19: 82443BX NORTH BRIDGE.

U24: 29F002 SYSTEM BIOS

U25: KEYBOARD CONTROLLER.
H8/3434.



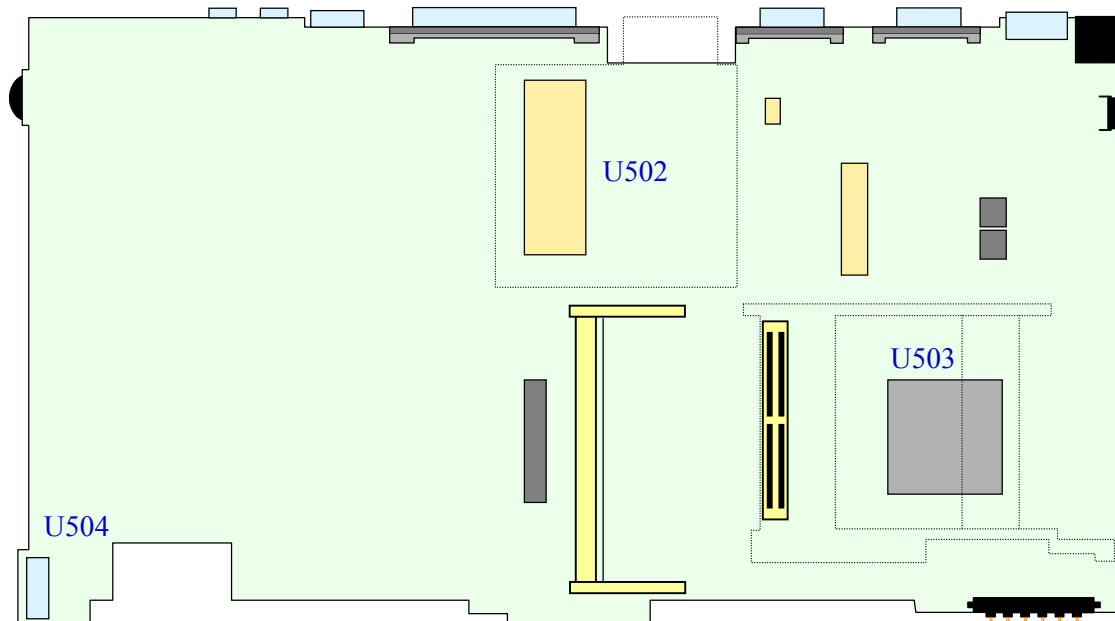
6033 M/B MAINTENANCE

2. DEFINITION & LOCATION OF MAJOR COMPONENTS(B)

U502: CPU

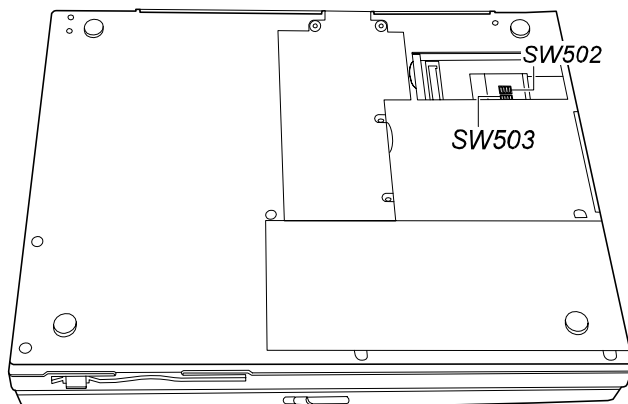
U503: TI1220 CARD BUS CONTROLLER.

U504: HP FIR MODULE



6033 M/B MAINTENANCE

3.SWITCH SETTING



Other Switch Pins

	SW502		
	PIN1	PIN2	PIN3
Default	ON	ON	ON
These pins are reserved for factory use. Do not change the default settings unless you know the definition of the pins.			

Selecting LCD Type

	SW503		
	PIN1	PIN2	PIN3
13.3" XGA TFT	ON	ON	ON
12.1" SVGA TFT	OFF	OFF	OFF

Selecting Internal Keyboard

	SW503
	PIN4
Japanese	ON
Others	OFF

Discharging CMOS

	SW502
	PIN4
Normal	ON
Clear RTC	OFF

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.1 SYSTEM VIEW

- 4.1.1 RIGHT-SIDE VIEW
- 4.1.2 LEFT-SIDE VIEW
- 4.1.3 REAR VIEW
- 4.1.4 FRONT VIEW
- 4.1.5 TOP-OPEN VIEW

4.2 SYSTEM DISASSEMBLY

MODULAR COMPONENTS

- 4.2.1 BATTERY PACK
- 4.2.2 CD-ROM DRIVE
- 4.2.3 CPU
- 4.2.4 FAX/ MODEM/DATA CARD
- 4.2.5 SO-DIMM

LCD ASSEMBLY COMPONENTS

- 4.2.6 LCD ASSEMBLY
- 4.2.7 LCD PANEL
 - 4.2.7.1 12.1 INCH LCD PANEL
 - 4.2.7.2 13.3 INCH LCD PANEL
- 4.2.8 INVERTER BOARD

BASE UNIT COMPONENTS

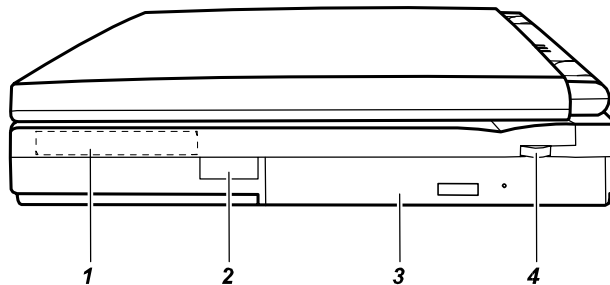
- 4.2.9 KEYBOARD
- 4.2.10 HARD DISK DRIVE
- 4.2.11 TOUCHPAD BOARD
- 4.2.12 SYSTEM BOARD
- 4.2.13 FLOPPY DISK DRIVE

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.1 SYSTEM VIEW

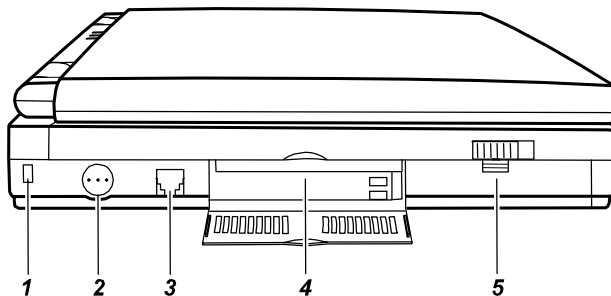
4.1.1 RIGHT-SIDE VIEW



1. **Hard Disk Drive**
2. **IR Port**
3. **CD-ROM Drive**
4. **Volume Control**

Figure 4-1. Right-Side View

4.1.2 LEFT-SIDE VIEW



1. **Kensington Lock Anchor**
2. **Power Button**
3. **Phone Line Connector**
(optional)
4. **PC Card Slots**
5. **Battery Pack**

Figure 4-2. Left-Side View

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.1.3 REAR VIEW

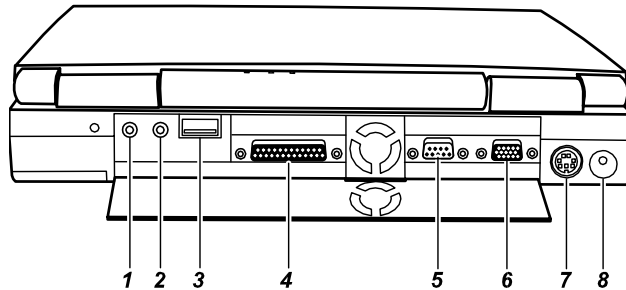


Figure 4-3. Rear View

1. **Microphone Connector**
2. **Audio Output Connector**
3. **USB Port**
4. **Parallel Port**
5. **Serial Port**
6. **VGA Port**
7. **PS/2 Mouse/Keyboard Port**
8. **Power Connector**

4.1.4 FRONT VIEW

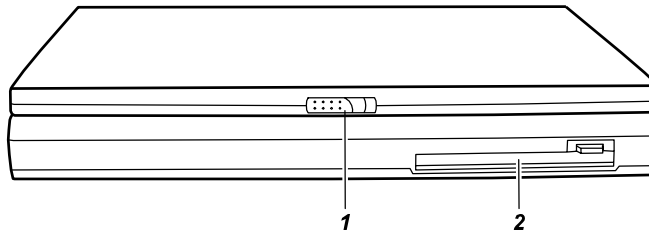


Figure 4-4. Front View

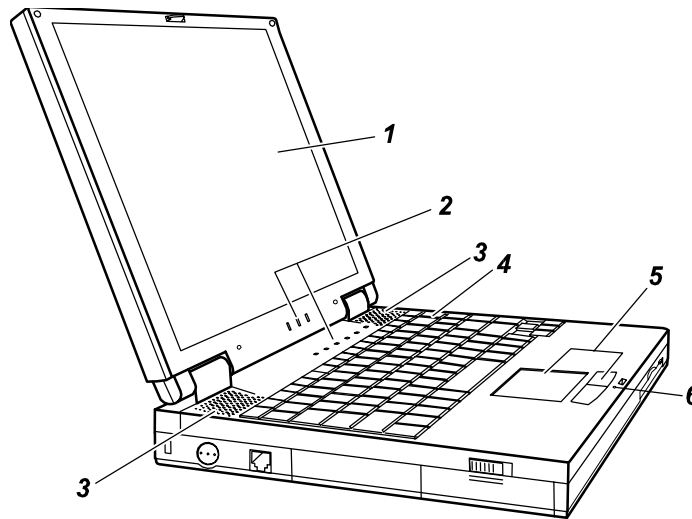
1. **Top Cover Latch**
2. **Floppy Disk Drive**

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.1.5 TOP-OPEN VIEW

To open the cover, press the cover latch toward the right and lift the cover.



1. **LCD Display**
2. **Indicators Panel**
3. **Stereo Speaker Set**
4. **Keyboard**
5. **Touchpad**
6. **Microphone**

Figure 4-5. Top-Open View

4.ASSEMBLY & DISASSEMBLY

4.2 SYSTEM DISASSEMBLY

The section discusses at length each major component for disassembly/re-assembly and shows corresponding illustrations. Use the chart below to determine the disassembly sequence for removing components from the notebook.

4.2.1 BATTERY PACK

DISASSEMBLY

1. Place the notebook upside down.
2. First push away the small locking latch (❶) on the battery pack and then slide the locking latch (❷) on the side of the notebook to unlock and lift (❸) the battery pack out of the compartment.

REASSEMBLY

1. Fit the battery pack into the compartment. Make sure the lock latches are in the locked position. (fig 7-6)

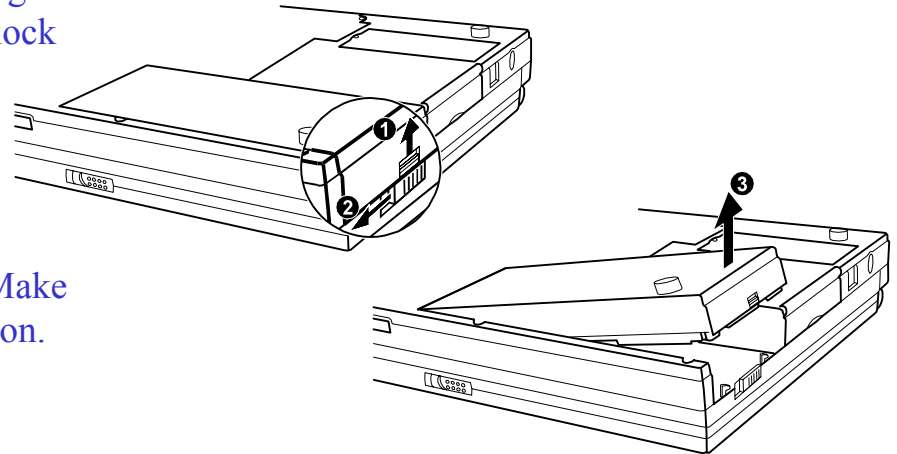


Figure 4-6. Removing the Battery Pack

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.2.2 CD-ROM DRIVE

DISASSEMBLY

1. Place the notebook upside down.
2. Open the CPU compartment cover by removing four screws and lifting up the cover from one side.
3. Unplug the CD-ROM drive cable from the system board.
4. Remove one screw and slide the CD-ROM drive out of the compartment.

REASSEMBLY

1. Connect one end of the CD-ROM drive cable to the CD-ROM drive.
2. Slide the CD-ROM drive into the compartment and secure with one screw.
3. Connect the CD-ROM drive cable to the system board.
4. Replace the CPU compartment cover and secure with four screws.

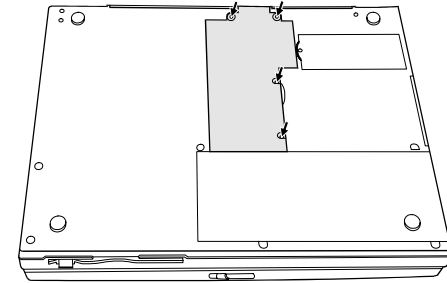


Figure 4-7. Removing the CPU Compartment Cover

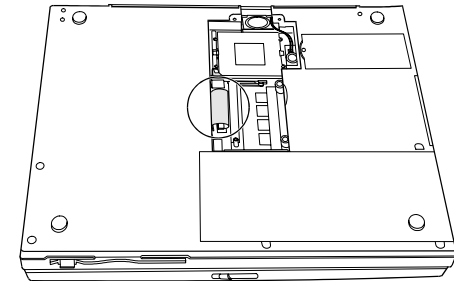


Figure 4-8. Unplugging the CD-ROM Drive Cable

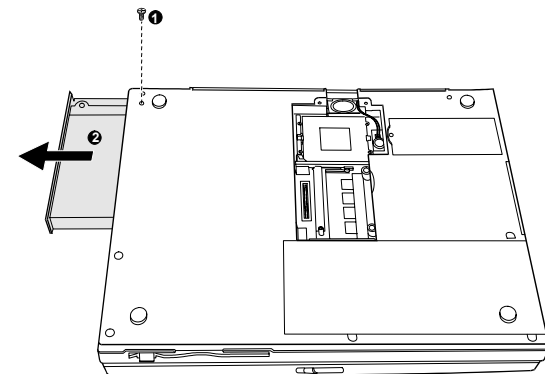


Figure 4-9. Removing the CD-ROM Drive

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.2.3 CPU

DISASSEMBLY

1. Place the notebook upside down.
2. Open the CPU compartment cover by removing four screws and lifting up the cover from one side.
3. Unplug the fan assembly's power cord from J505 on the system board.
4. Remove three screws from the fan assembly. Pull the handle of the fan assembly outwards to lift the handle up. Holding this handle, slightly lift up the right part of the package first. Then, firmly lift up the whole package with care and separate it from the socket.

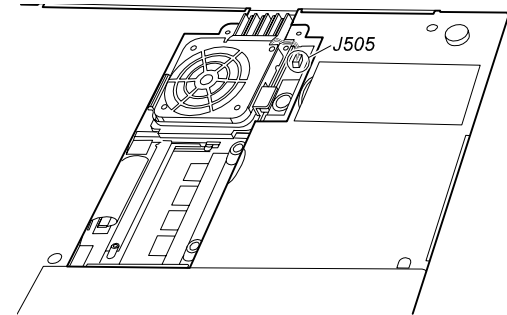


Figure 4-10. Removing the CPU Cooling Fan connector

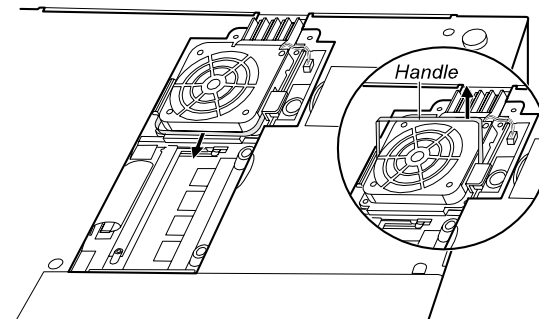
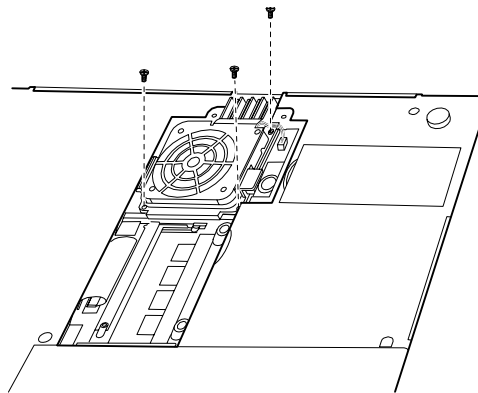


Figure 4-11. Removing the CPU

4.ASSEMBLY & DISASSEMBLY

4.2.3 CPU

5. Remove two screws to separate the metal bar and fan assembly from the Pentium II Mini-Cartridge.

REASSEMBLY

NOTE: Please be extremely careful when installing the CPU. In addition to reading this section, you must follow the instructions provided by Intel regarding Pentium II Mini-Cartridge installation.

1. Attach the metal bar to the bottom of the Pentium II Mini-Cartridge and then attach the fan assembly to the top of the cartridge. Secure with two bottom screws. (Refer to Figure 5-12 earlier.)
2. Hold the Pentium II Mini-Cartridge at an angle to align the two right side holes with the corresponding rods on the system board. After inserting the right side, firmly press the edges of other side to plug in the connectors.

CAUTION: Do not directly press the central part of the fan. This may damage the package and cause malfunction.

3. Pull the handle of the fan assembly outwards to lift it up. Tighten three screws and then put the handle back to the horizontal position. (Refer to Figure 5-11 earlier.)
4. Reconnect the fan power cord. (Refer to Figure 5-10 earlier.)
5. Replace the compartment cover and secure with four screws. (Refer to Figure 5-7 earlier.)

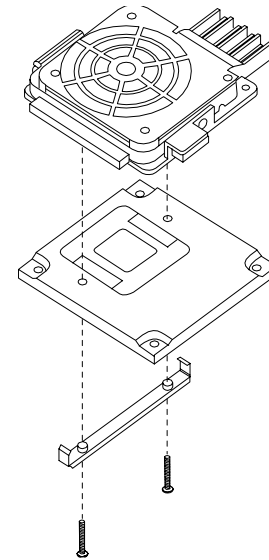


Figure 4-12. Removing the Pentium II Mini-Cartridge

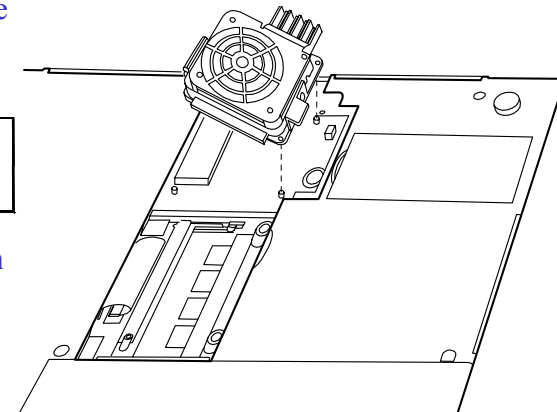


Figure 4-13. Aligning the Pentium II Mini-Cartridge

4.ASSEMBLY & DISASSEMBLY

4.2.4 FAX/ MODEM/DATA CARD

DISASSEMBLY

1. Place the notebook upside down.
2. To remove the compartment cover, remove one screw, then lift up the cover.
3. Remove one screw. Then, lift up the inner edge of the card to remove the card.

REASSEMBLY

1. Hold the Fax/ Modem/Voice Card at an angle so that the phone line connector is pointed towards the opening on the notebook. Insert the phone line connector into the opening and press the other end to plug the other connector into the socket on the system board. Then, secure with one screw.
2. Replace the compartment cover and secure with one screw.

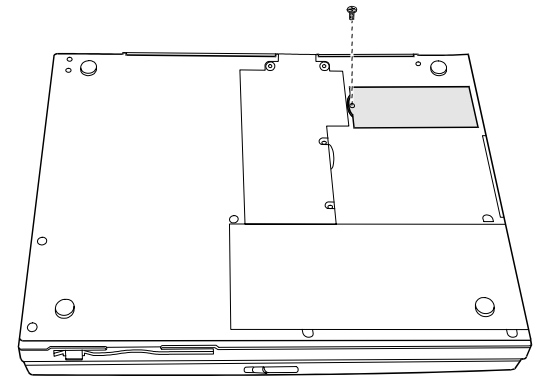


Figure 4-14. Removing the Fax/Modem/Voice Card Compartment Cover

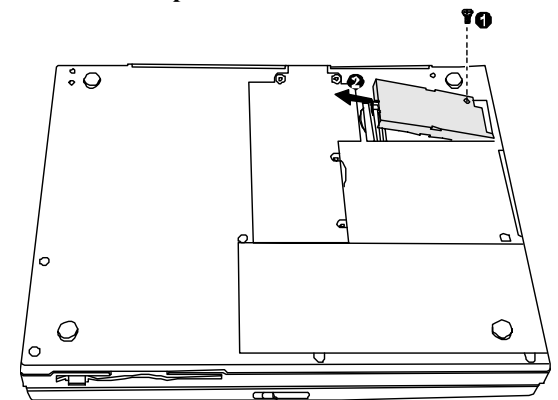


Figure 4-15. Removing the Fax/Modem/Voice Card

4.ASSEMBLY & DISASSEMBLY

4.2.5 SO-DIMM

DISASSEMBLY

1. Open the CPU compartment cover by removing four screws and lifting up the cover from one side.
2. Remove the CPU cooling fan assembly.
3. Pull the retaining clips outward and remove the SO-DIMM.

REASSEMBLY

1. To install the SO-DIMM ,align the SO-DIMM ' s notched part with the socket ' s corresponding part and family insert the SO-DIMM into the socket at an angle. Then push down until the retaining clips lock the SO-DIMM into position
2. Replace the compartment cover and secure with four screw.

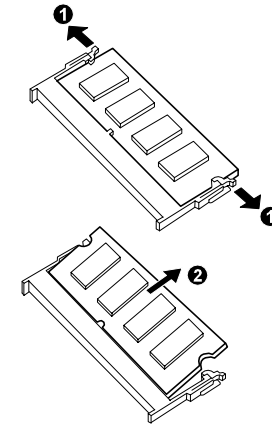


Figure 4-16. Removing the SO-DIMM

4.ASSEMBLY & DISASSEMBLY

4.2.6 LCD ASSEMBLY

DISASSEMBLY

1. Remove six bottom screws.
2. Put the notebook back to the upright position and open the top cover. Remove the base unit cover.
3. Disconnect the keyboard cable from the system board.
4. Remove the shield plate by removing 14 screws.
5. Remove the hinge cover by inserting a flat screwdriver to the rear of cover and pry the cover out. Repeat the same with the other hinge cover. Note the right and left hinges are not exchangeable.
6. Unplug the three cable connectors coming from the LCD assembly.
7. Remove four screws from the hinges. Now you can separate the LCD assembly from the base unit.

REASSEMBLY

1. Attach the LCD assembly to base unit and secure with four screws on the hinges.
2. Reconnect the Lcd cable connectors to the system board.
3. Replace the two hinge covers.
4. Replace the shield plate and secure with 14 screws.
5. Connect the keyboard cable and replace the keyboard.
6. Replace the base unit cover.
7. Replace the six bottom screws.

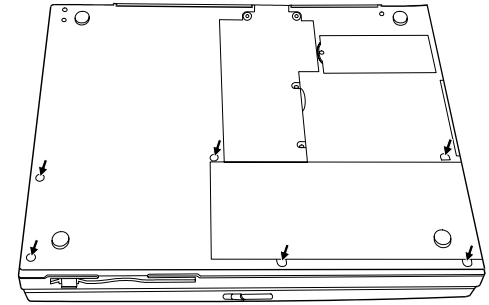


Figure 4-17. Removing Six Bottom Screws

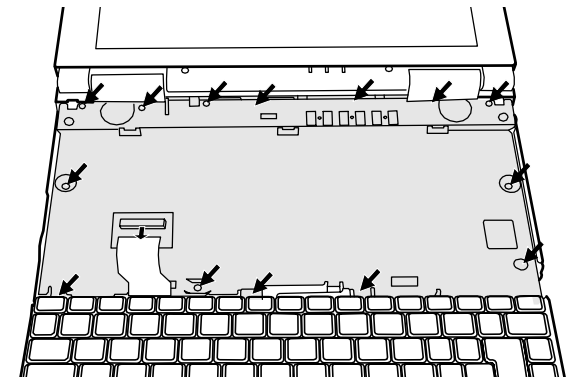


Figure 4-18. Removing the Shield Plate

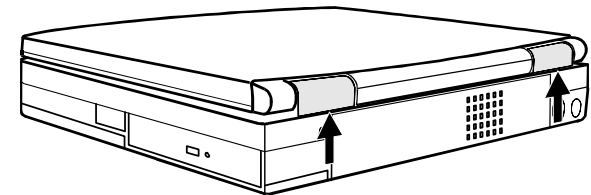


Figure 4-19. Removing the Hinge Covers

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.2.7.1 12.1 INCH LCD PANEL

DISASSEMBLY

1. Open the top cover.
2. Remove the four rubber pads and four screws underneath.
Now you can separate the LCD frame from the housing.
3. To remove the LCD, remove four screws and unplug the cables.

REASSEMBLY

1. Reconnect the cables to LCD. Fit the LCD back into place and secure with four screws.
2. Fit the LCD frame back to the housing and replace the four screws and rubber pads.

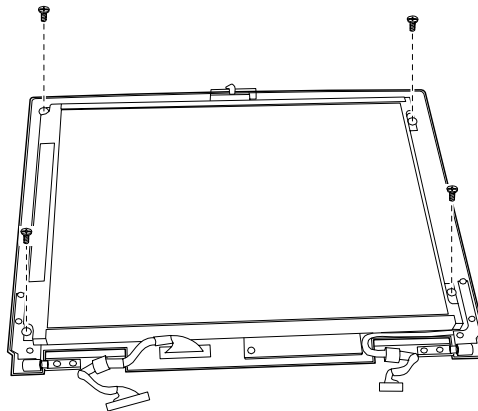


Figure 4-22. Removing the Flat Panel Screen

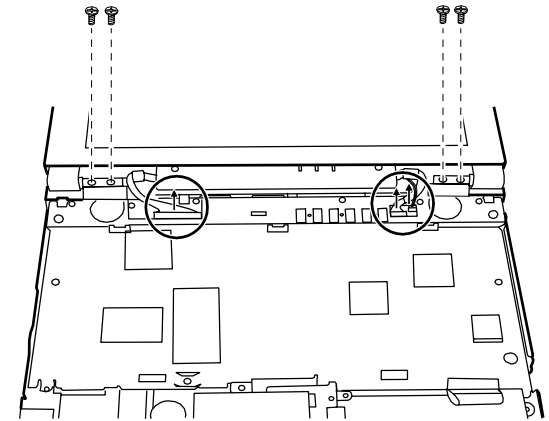


Figure 4-20. Unplugging the Cable Connectors and Removing Four Screws

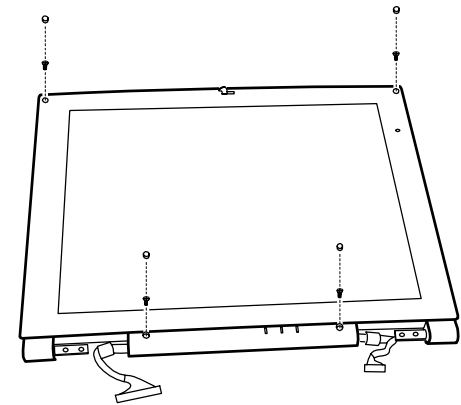


Figure 4-21. Removing the LCD Frame

4.ASSEMBLY & DISASSEMBLY

4.2.7.2 13.3 INCH LCD PANEL

DISASSEMBLY

1. Open the top cover.
2. Remove the four rubber pads and two screws on the bottom side. Then slight lift up the bottom part of the frame and gently separate the LCD frame from the housing.
3. To remove the LCD, remove six screws and unplug the cables.

REASSEMBLY

1. Reconnect the cables to LCD. Fit the LCD back into place and secure with six screws.
2. Fit the LCD frame back to the housing and replace the two screws and four rubber pads.

4.2.8 INVERTER BOARD

DISASSEMBLY

1. Detach the LCD frame.
2. For 12.1 inch LCD:
To remove the LED board at the bottom side of the LCD, remove one screw and unplug the connectors from the board.
To remove the inverter board at the right side of the LCD, remove two screws and unplug the connectors from the board.
(see figure next page)

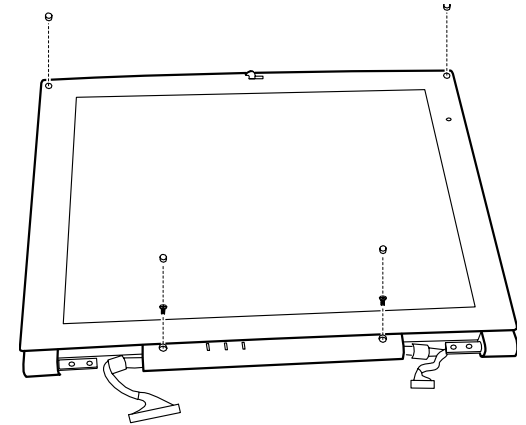


Figure 4-23. Removing the 13.3 Inch LCD Frame

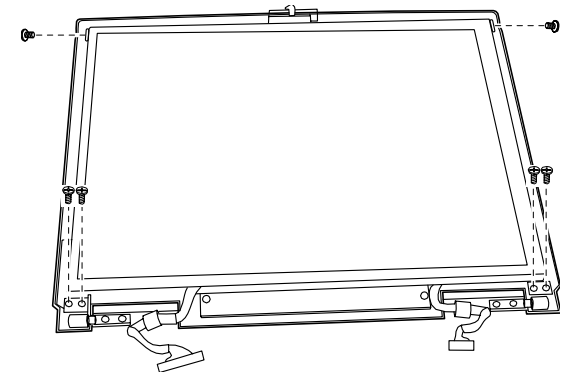


Figure 4-24. Removing the 13.3 Inch LCD

4.ASSEMBLY & DISASSEMBLY

4.2.8 INVERTER BOARD

3. For 13.3 inch LCD:

To remove the inverter/LED board at the bottom side of the LCD, remove one screw and unplug the connectors from the board.

REASSEMBLY

1. Reconnect the connector . Fit the inverter/LED board back into place and secure with number of screw.
2. Place the LCD frame back to the housing.

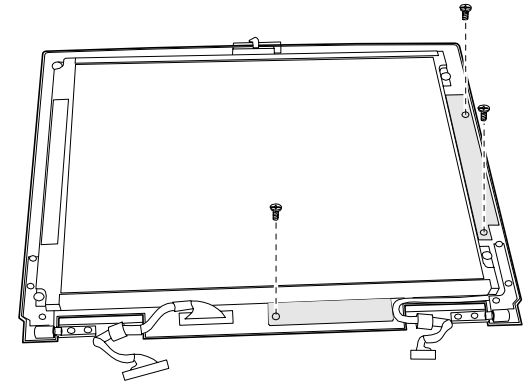


Figure 4-25. Removing the Inverter and LED Board for 12.1 Inch LCD

4.2.9 KEYBOARD

DISASSEMBLY

1. Remove the base unit cover.
2. Lift the keyboard and unplug the keyboard cable from the system board.

REASSEMBLY

1. Reconnect the keyboard cable and fit the keyboard back into place.
2. Replace the base unit cover.

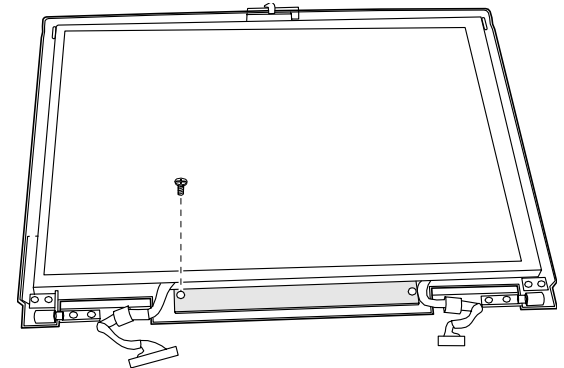


Figure 4-26. Removing the Inverter/LED Board for 13.3 Inch LCD

6033 M/B MAINTENANCE

4.ASSEMBLY & DISASSEMBLY

4.2.10 HARD DISK DRIVE

DISASSEMBLY

1. Remove the base unit cover.
2. Remove two top screws from the hard disk drive bracket and slide the hard disk drive outwards to unplug the connector.
3. To separate the hard disk drive from the bracket, remove four side screws from the bracket.

REASSEMBLY

1. Attach the bracket to the hard disk drive and secure with four screws on both sides.
2. Plug the hard disk drive connector to the touchpad board and secure the bracket in place with two screws.
3. Replace the base unit cover.

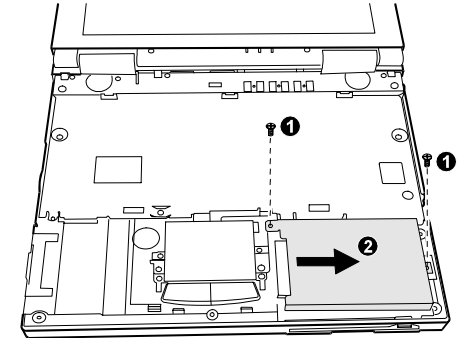
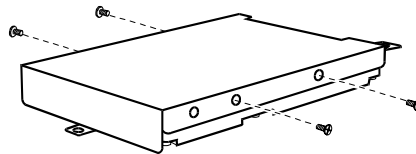


Figure 4-27. Removing the Hard Disk Drive

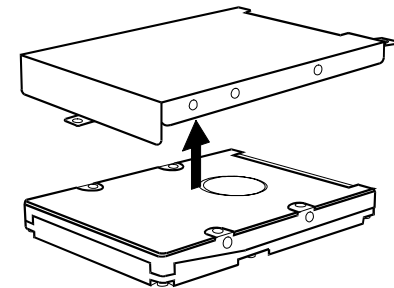


Figure 4-28. Removing the Hard Disk Drive Bracket

4.ASSEMBLY & DISASSEMBLY

4.2.11 TOUCHPAD BOARD

DISASSEMBLY

1. Remove the shield plate.
2. Remove the hard disk drive
3. Lift the touchpad board free.

REASSEMBLY

1. Fit the touchpad board into place.
2. Replace the hard disk drive.
3. Replace the Shield plate.

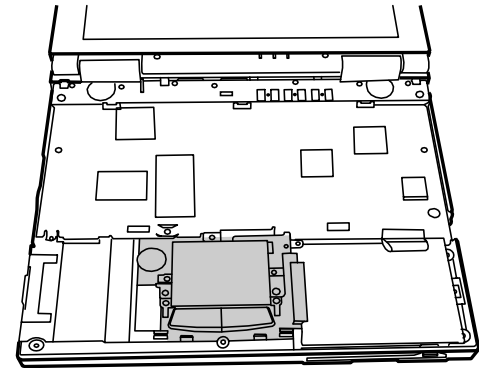


Figure 4-29. Removing the Touchpad Board

4.2.12 SYSTEM BOARD

DISASSEMBLY

1. Remove all the bottom screws.
2. Remove the battery pack.
3. Remove the CD-ROM drive.
4. Remove the CPU and cooling fan assembly.
5. Remove the Fax/ Modem/Data Card if it exists.
6. Remove the LCD assembly.
7. Remove the hard disk drive .
8. Remove the touchpad board.
9. Unplug the speaker connectors from the system board.
10. Remove the base unit rear cover by removing three rear panel screws and three bottom screws.

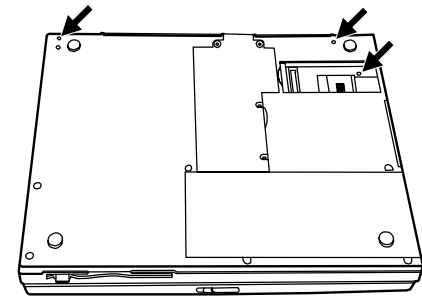
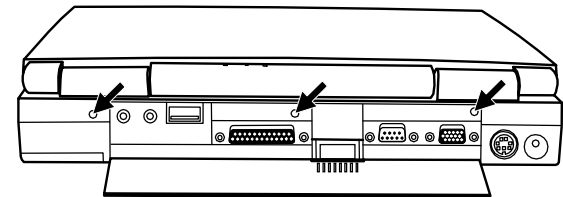


Figure 4-30. Removing Three Rear Screws and Three Bottom Screws

4.ASSEMBLY & DISASSEMBLY

11. Unplug the floppy disk driver cable connector from the system board. Lift the system board free.

REASSEMBLY

1. Fit the system board into place .
2. Connect the floppy disk drive cable to the system board.
3. Fit the base unit rear cover into place and secure with three rear screws and three bottom screws.
4. Replace the touchpad board by plugging the connector.
5. Replace the hard disk with its bracket by plugging the connector to the touchpad board and securing with two screws.
6. Connect the speaker connector.
7. Attach the LCD assembly to the base unit and secure with four screws.
8. Replace the two hinge covers.
9. Fit the shield plate back into place and secure with 14 screws.
10. Connect the keyboard cable and replace the keyboard.
11. Fit the base unit cover into place and secure with six bottom screws.
12. Replace the CD-ROM drive by sliding it into the compartment , plugging the connector, and secure with one bottom screw.
13. Attach the CPU cooling fan to the CPU and secure with two screws, then, fit the CPU assembly into place, secure the three screws, and reconnect the fan power cord.
14. Replace the CPU compartment cover and secure with four screws.
15. Replace the Fax/ Modem/Data card and secure with one screw.
16. Replace the Fax/ Modem/Data card compartment cover and secure with one screw.
17. Replace the battery pack.

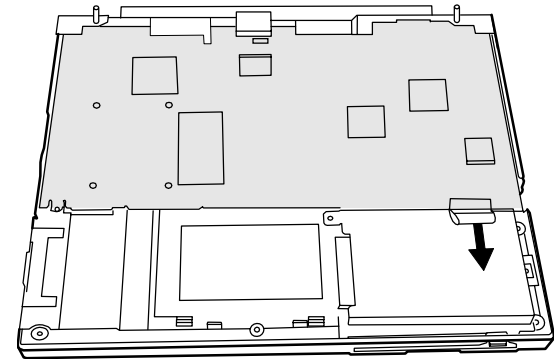


Figure 4-31. Unplugging the Floppy Disk Drive Cable

4.ASSEMBLY & DISASSEMBLY

4.2.13 FLOPPY DISK DRIVE

DISASSEMBLY

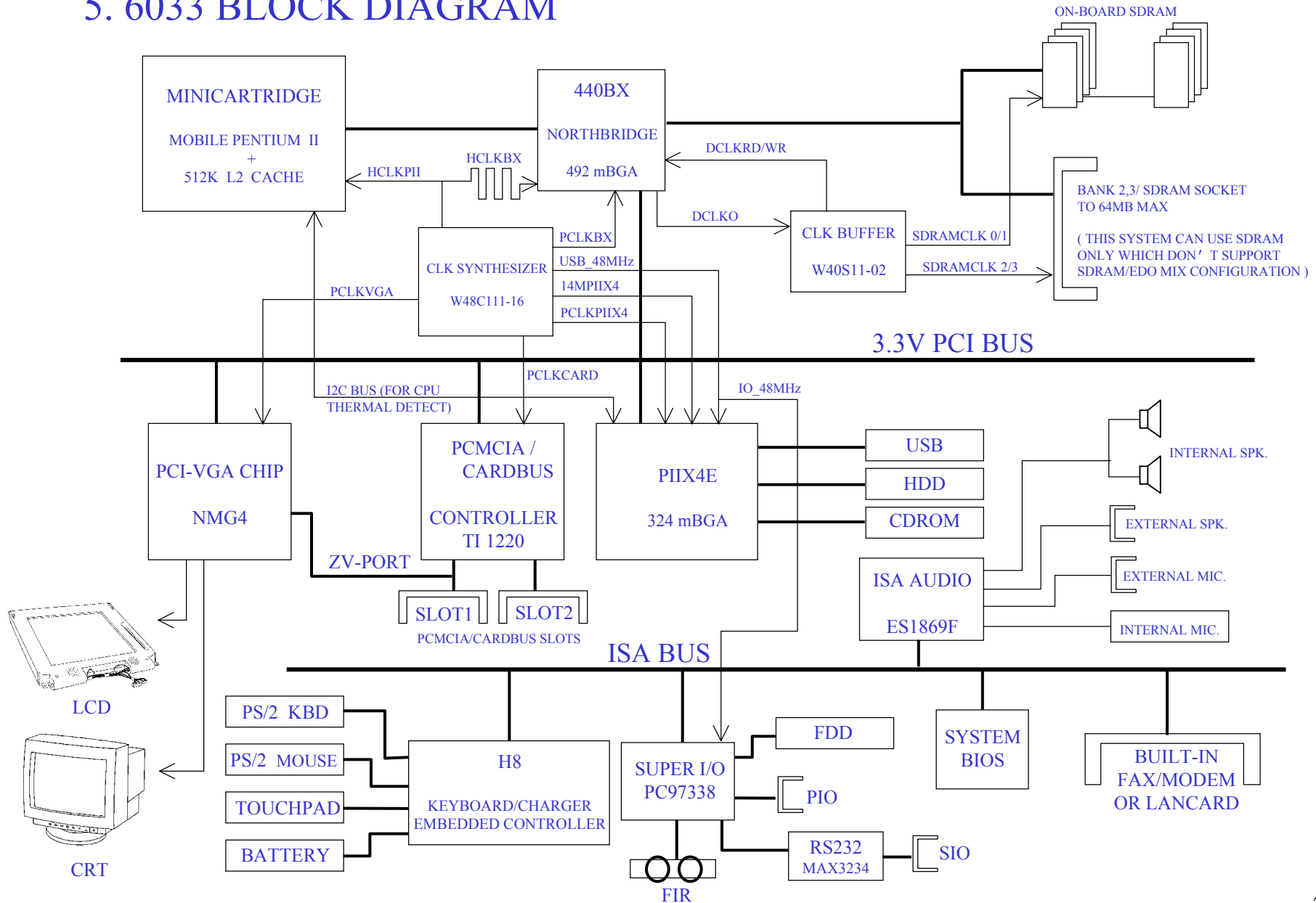
1. Remove the system board.
2. Remove the floppy disk drive by first lifting the rear end of the floppy disk drive.

REASSEMBLY

1. Connect the floppy disk drive cable to the floppy disk drive and fit the floppy disk drive into place.
2. Replace the system board.

6033 M/B MAINTENANCE

5. 6033 BLOCK DIAGRAM



6. MAINTENANCE DIAGNOSTICS

6.1 INTRODUCTION

EVERY TIME THE COMPUTER IS TURNED ON ,THE SYSTEM BIOS RUNS A SERIES OF INTERNAL CHECKS ON THE HARDWARE. THIS POWER-ON SELF TEST (POST) ALLOWS THE COMPUTER TO DETECT PROBLEMS AS EARLY AS THE POWER-ON STAGE. ERROR MESSAGES OF POST CAN ALERT YOU TO THE PROBLEMS OF YOUR COMPUTER.

IF AN ERROR IS DETECTED DURING THESE TESTS, YOU WILL SEE AN ERROR MESSAGE DISPLAYED ON THE SCREEN. IF THE ERROR OCCURS BEFORE THE DISPLAY, THEN THE SCREEN CANNOT DISPLAY THE ERROR MESSAGE. ERROR CODES OR SYSTEM BEEPS ARE USED TO IDENTIFY A POST ERROR THAT OCCURS WHEN THE SCREEN IS NOT AVAILABLE.

THE VALUE FOR THE DIAGNOSTIC POST(378H) IS WRITTEN AT THE BEGINNING OF THE TEST. THEREFORE , IF THE TEST FAIL, THE USER CAN DETERMINE WHERE THE PROBLEM OCCURS BY READING THE LAST VALUE WRITTEN TO POST 378H BY THE PIO DEBUG BOARD PLUG AT PIO PORT.

6033 M/B MAINTENANCE

6. MAINTENANCE DIAGNOSTICS

6.2 ERROR CODES : FOLLOWING IS A LIST OF ERROR CODES IN SEQUENT DISPLAY ON THE PIO DEBUG BOARD.

01h	Start of BootLoader sEQUENCE.
02h	Initialize ChipSet.
03h	Memory Sizing.
04h	Perform conventional RAM(1st 640K) test with crossed-pattern R/W.
05h	Move BootLoader to the RAM.
06h	Start point of execution of BootLoader in RAM.
07h	Shadow System BIOS.
08h	Initialize Clock Synthesizer
09h	Initialize Audio Controller.
0Ah	Detect internal ISA MODEM
0Bh	Proceed with Normal Boot
0Ch	Proceed with Crisis Boot
0Fh	DRAM Sizing
10H	Initial L1,L2 cache, make stack and diagnose CMOS.
11H	Turn off FASTA20 for POST. Reset GDTs, 8259s quickly.
12H	Signal Power On Reset at COMS.
13H	Initialize the Chipset, (SDRAM).
14H	Search For ISA Bus VGA Adapter
15H	Reset Counter/Timer 1, exite the RAM.
16H	user register config through CMOS
18H	Dispatch to 1st 64K RAM Test
19H	checksum the ROM
1AH	Reset PIC's(8259s)
1BH	Initialize Video Adapter(s)
1CH	Initialize Video (6845 Regs)
1DH	Initialize Color Adapter

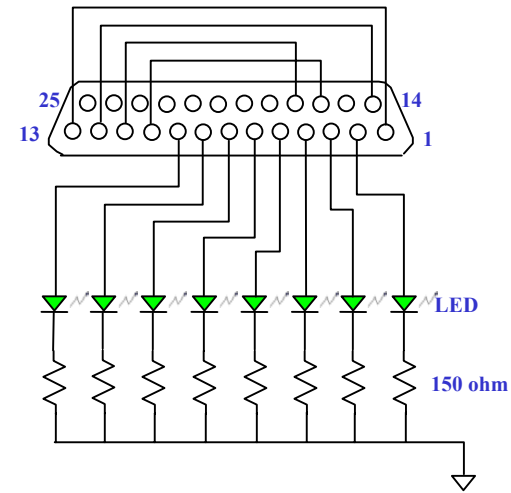
1EH	Initialize Monochrome Adapter
1FH	Test 8237A Page Registers
20H	Perform Keyboard self test
21H	Test & Initialize Keyboard Controller
22H	Check If CMOS Ram Valid
23H	Test Battery Fail & CMOS X-SUM
24H	Test the DMA controllers
25H	Initialize 8237A Controller
26H	Initialize Interrupt Vectors Table.
27H	RAM Quick Sizing
28H	Protected mode entered safely
29H	RAM test completed
2AH	Protected mode exit successful
2BH	Setup Shadow
2CH	Prepare To Initialize Video
2DH	Search For Monochrome Adapter
2EH	Search For Color Adapter, VGA Initialize.
2FH	Signon messages displayed
30H	Special init of keyboard ctrlr
31H	Test If Keyboard Present
32H	Test Keyboard Interrupt
33H	Test Keyboard Command Byte
34H	TEST, Blank and count all RAM
35H	Protected mode entered safely (2).
36H	RAM test complete
37H	Protected mode exit successful

6033 M/B MAINTENANCE

6. MAINTENANCE DIAGNOSTICS

38H	Update Keyboard output port to disable gate of A20
39H	Setup Cache Controller
3AH	Test If 18.2Hz Periodic Working
3BH	Initialize BIOS Data Area at 40:0.
3CH	Initialize the hardware interrupt vector table
3DH	Search and Init the Mouse
3EH	Update NumLock status
3FH	OEM initialization of COMM and LPT ports
40H	Configure the COMM and LPT ports
41H	Initialize the floppies
42H	Initialize the hard disk
43H	OEM's init of PM with USB
44H	Initialize additional ROMs
45H	Update NUMLOCK status
46H	Test For Coprocessor Installed
47H	OEM's init of Power Management, (check SMI)
48H	OEM functions before boot (PCMCIA, CardBus)
49H	Dispatch To Operation System Boot
4AH	Jump Into Bootstrap Code

PIO PORT (378H) DIAGNOSTIC TOOLS



PIN1 : STROBE ↔ PIN13: SLCT
 PIN10: ACK# ↔ PIN16: INT#
 PIN11: BUSY ↔ PIN17: SELIN#
 PIN12:PTERR ↔ PIN14: AUTOFD#
 PIN[9:2]:PD[7:0]

7. TROUBLE SHOOTING

7.1 NO POWER

7.2 NO DISPLAY

7.3 VGA CONTROLLER FAILURE

7.4 LCD NO DISPLAY

7.5 EXTERNAL MONITOR
NO DISPLAY

7.6 MEMORY TEST ERROR

7.7 KEYBOARD TEST ERROR

7.8 TRACK PAD/BALL TEST ERROR

7.9 DISKETTE DRIVE TEST ERROR

7.10 CD-ROM DRIVE TEST ERROR

7.11 HARD DRIVE TEST ERROR

7.12 USB PORT TEST ERROR

7.13 SIO PORT TEST ERROR

7.14 PIO PORT TEST ERROR

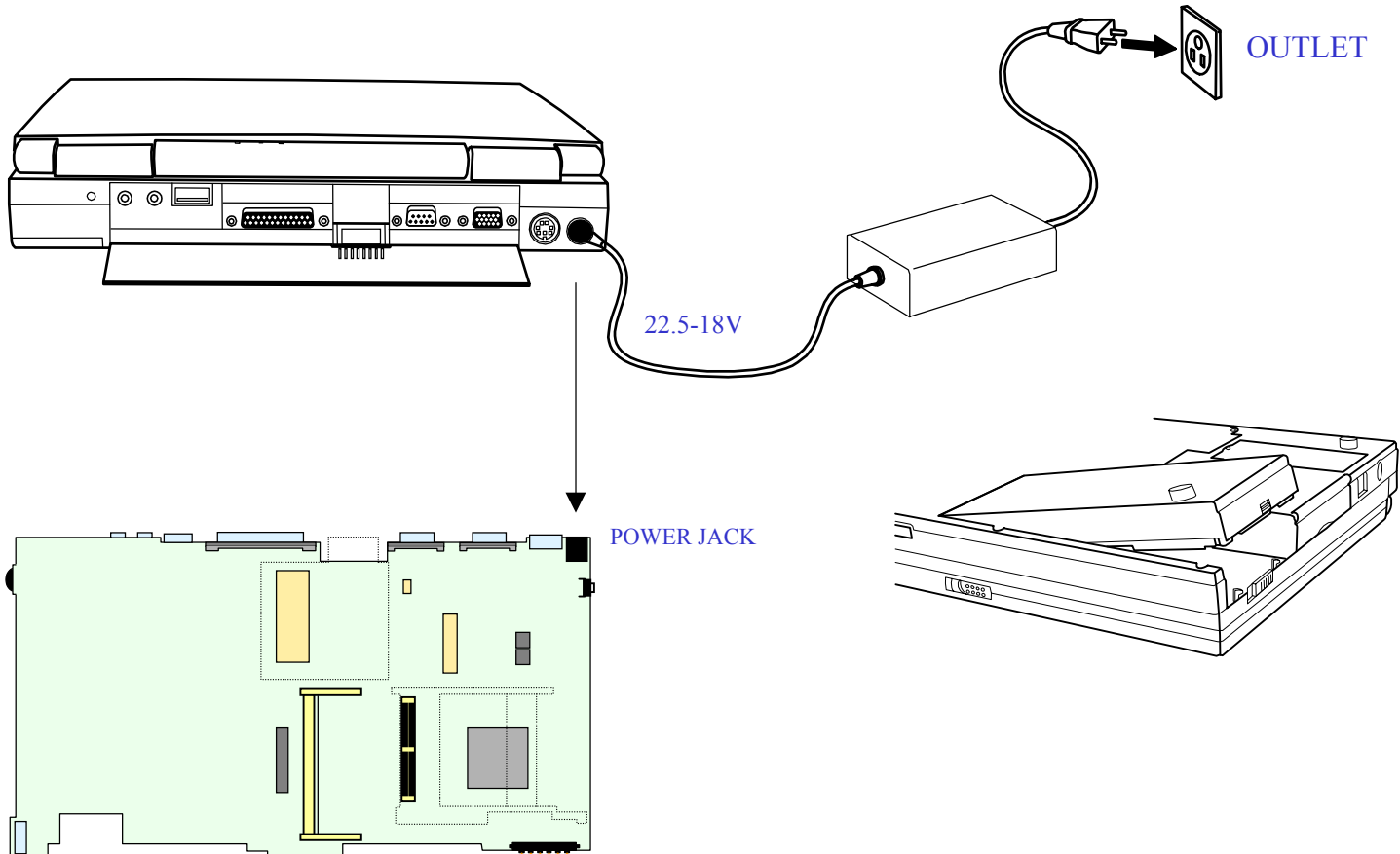
7.15 AUDIO FAILURE

6033 M/B MAINTENANCE

7.1 NO POWER:

WHEN THE POWER BUTTON IS PRESSED, NOTHING HAPPENS ,POWER INDICATOR DOES NOT LIGHT UP.

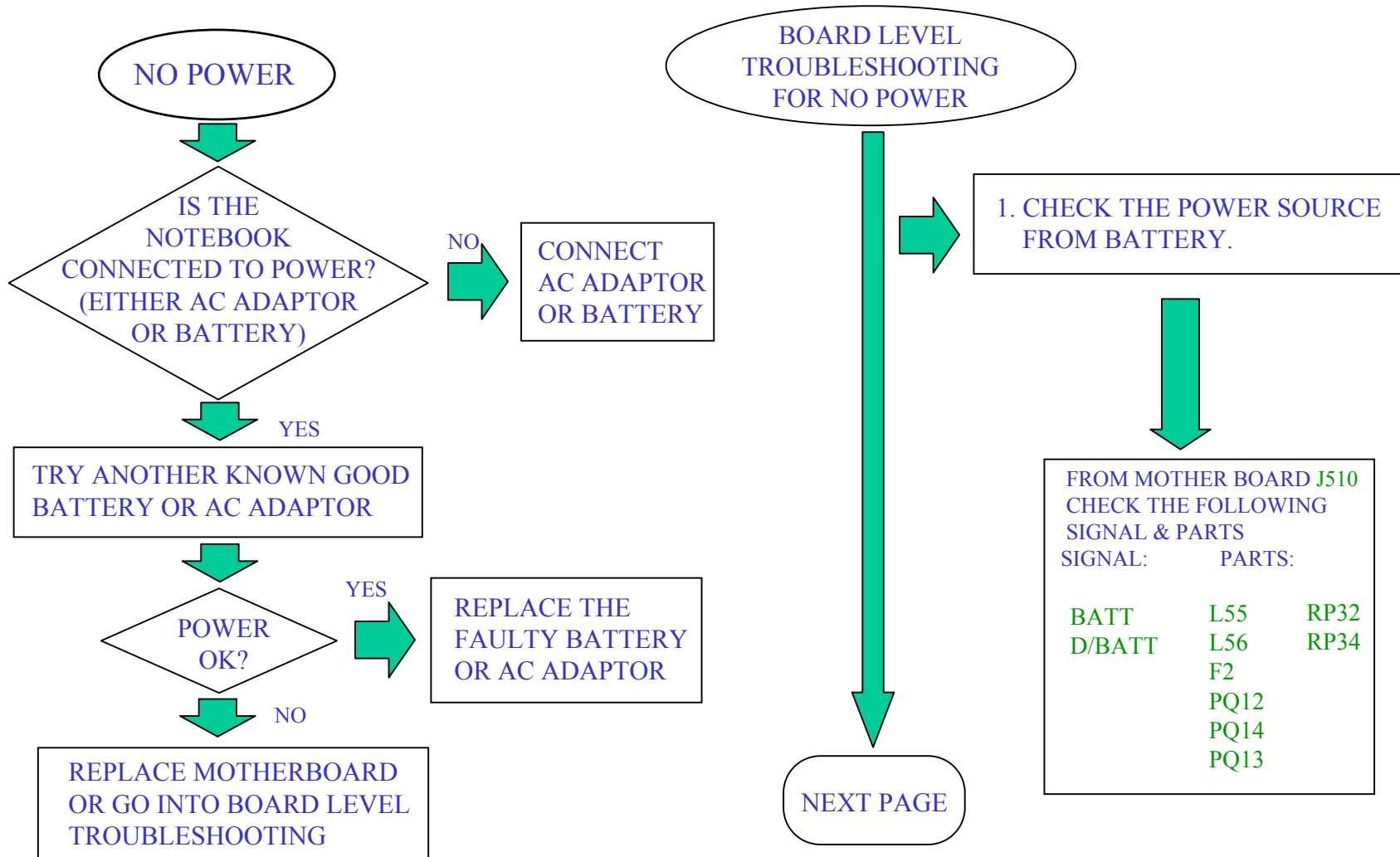
1. CHECK AC ADAPTOR
2. CHECK BATTERY



6033 M/B MAINTENANCE

7.1 NO POWER:

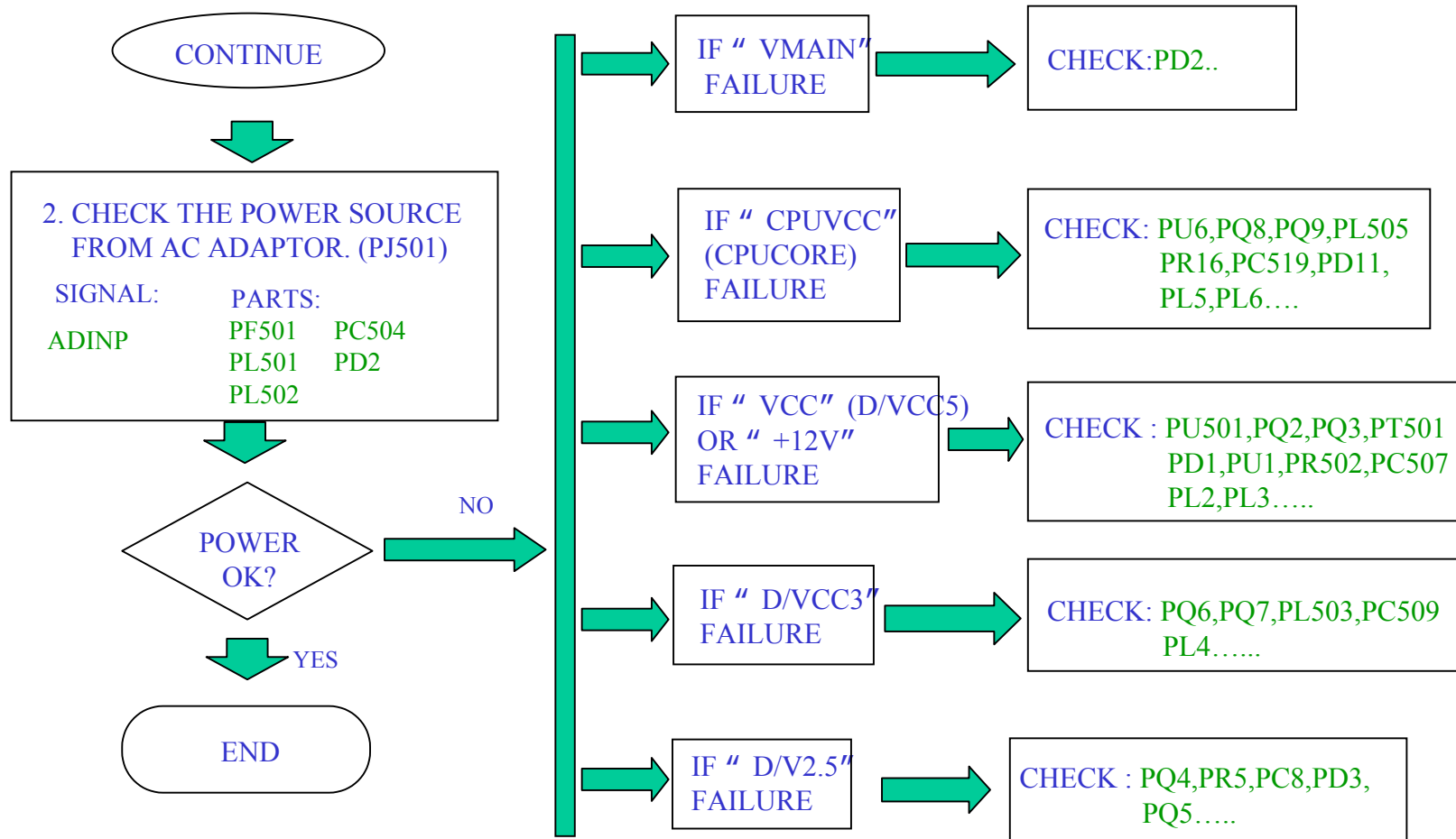
WHEN THE POWER BUTTON IS PRESSED, NOTHING HAPPENS ,POWER INDICATOR DOES NOT LIGHT UP.



6033 M/B MAINTENANCE

7.1 NO POWER:

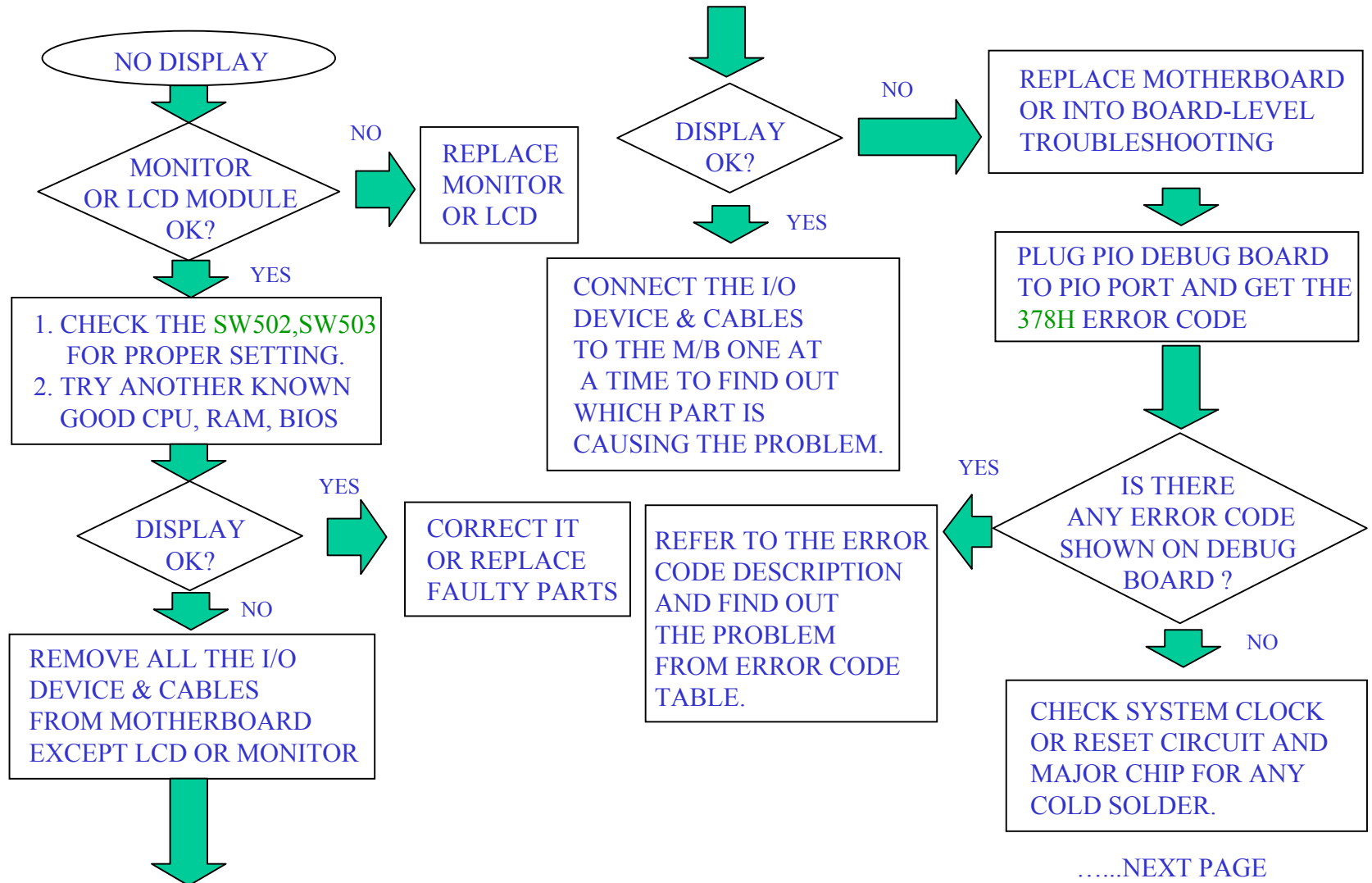
WHEN THE POWER BUTTON IS PRESSED, NOTHING HAPPENS ,POWER INDICATOR DOES NOT LIGHT UP.



6033 M/B MAINTENANCE

7.2 NO DISPLAY

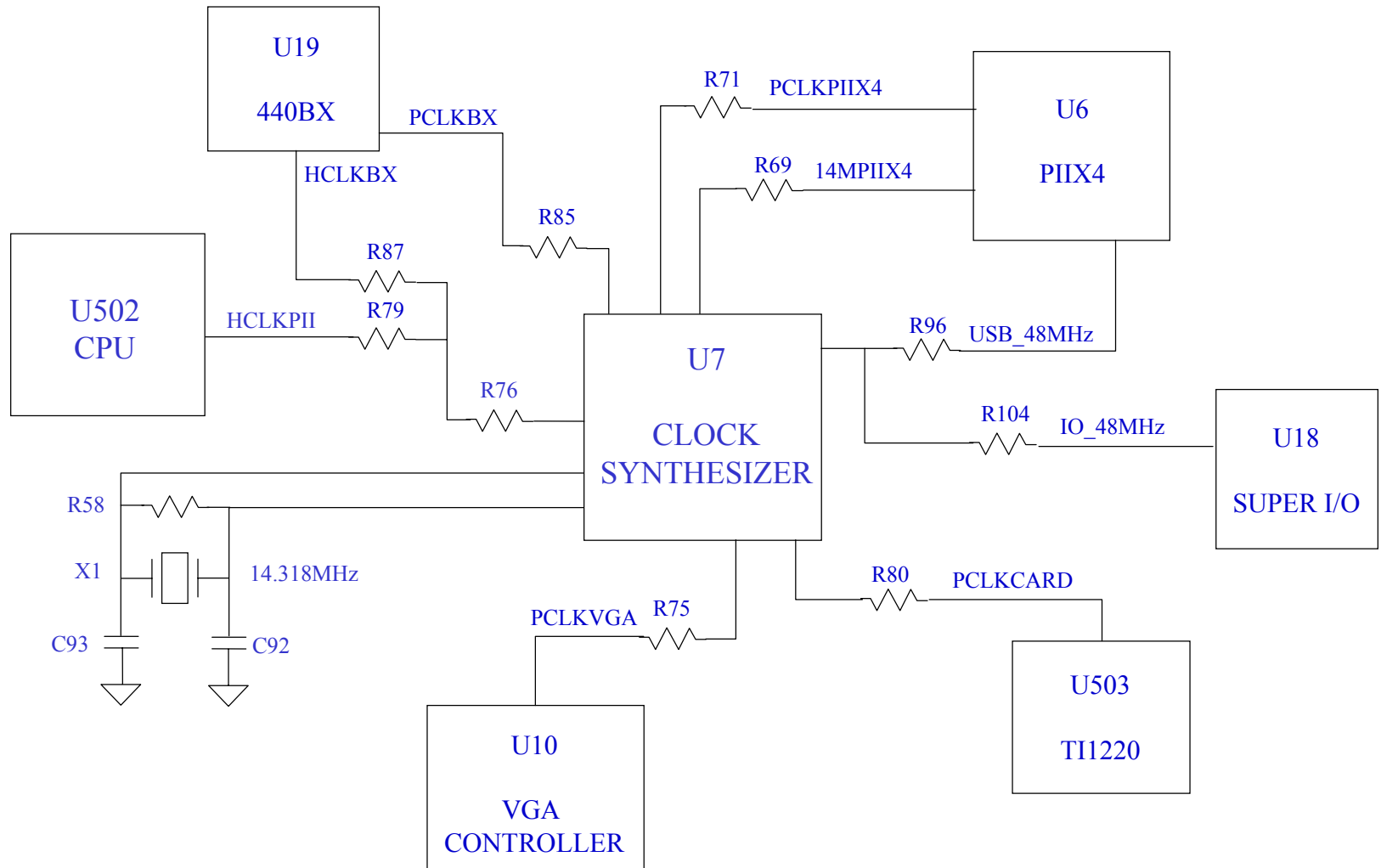
THERE IS NO DISPLAY ON BOTH LCD AND MONITOR



6033 M/B MAINTENANCE

7.2 NO DISPLAY

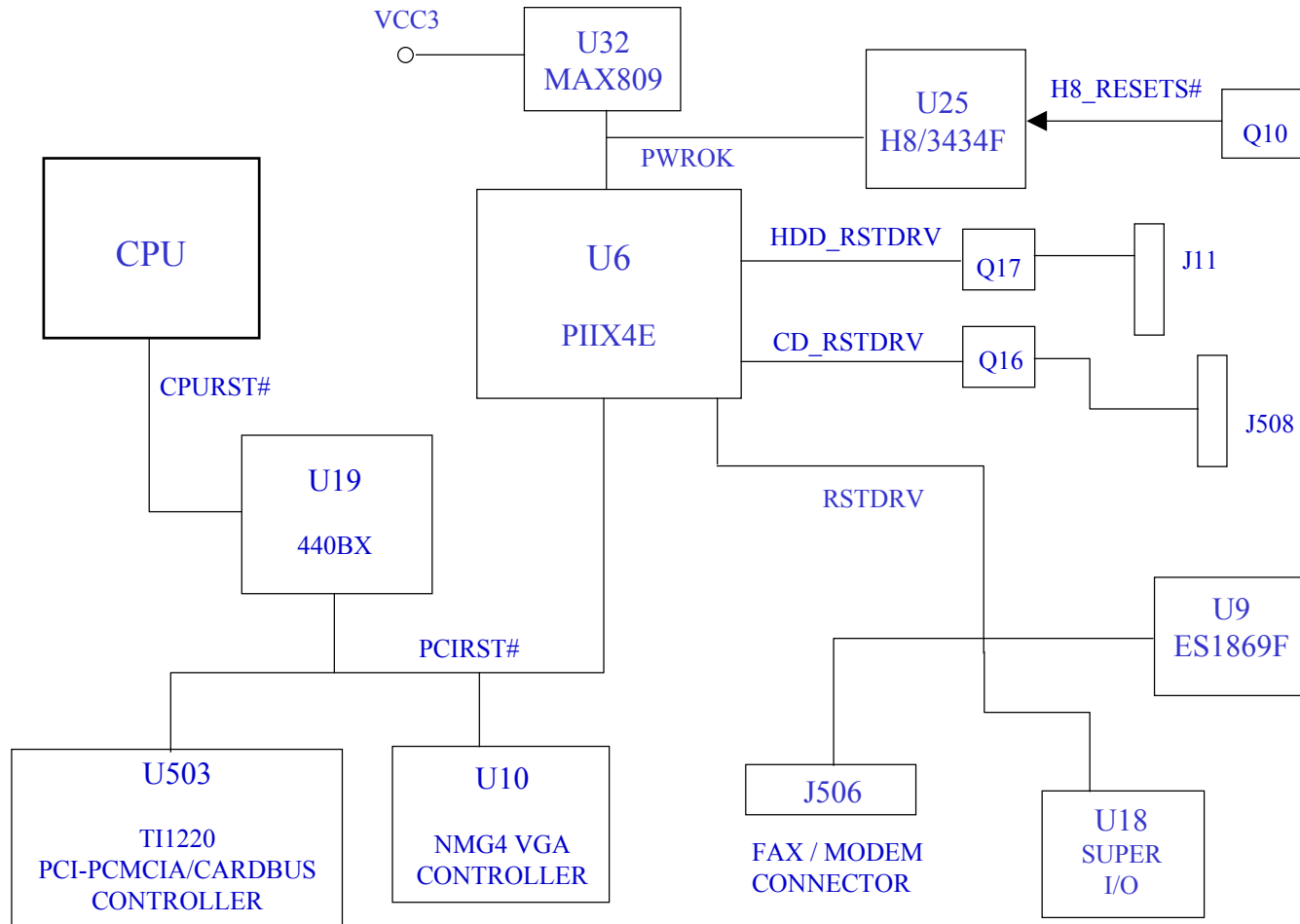
*****SYSTEM CLOCK CHECK*****



6033 M/B MAINTENANCE

7.2 NO DISPLAY

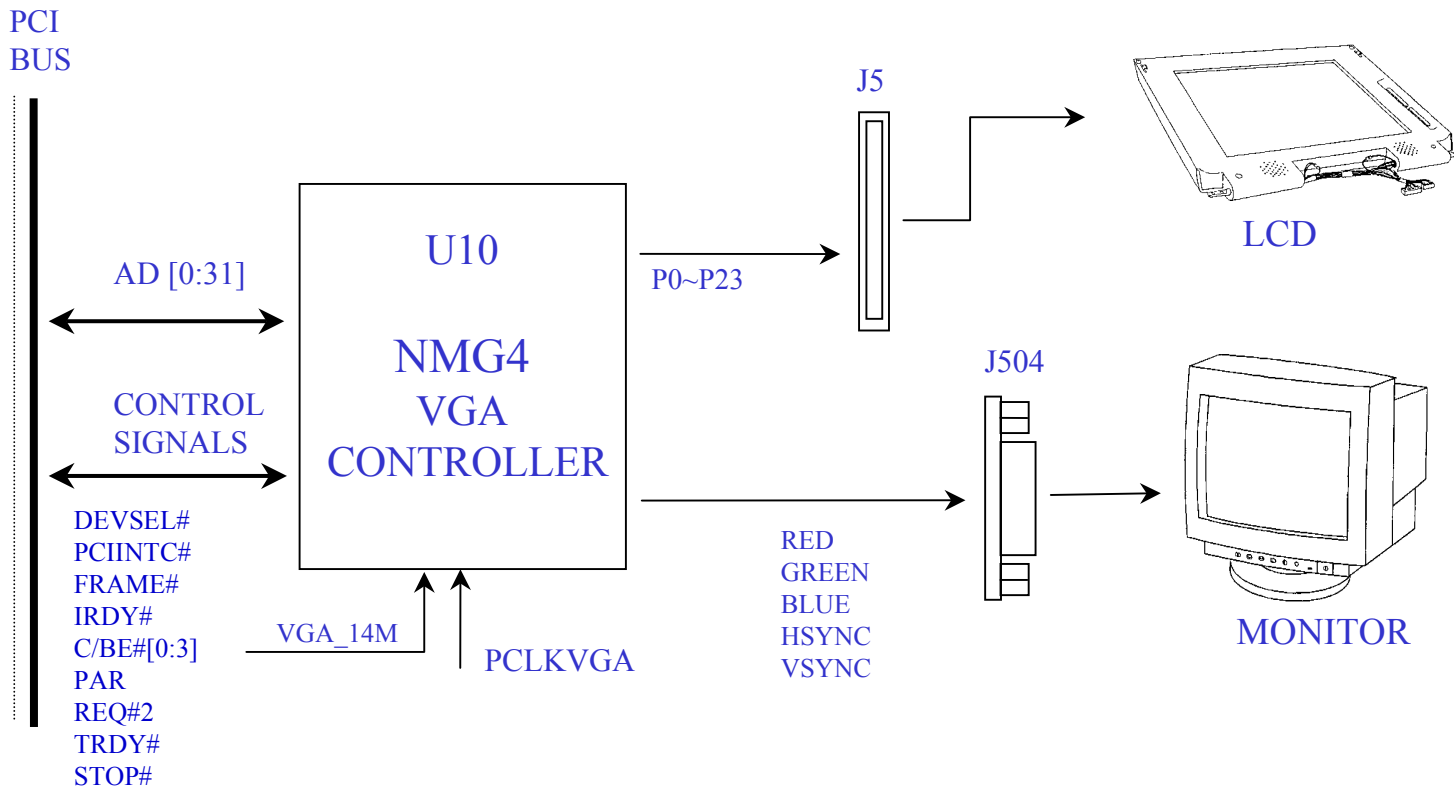
*****RESET SYSTEM *****



6033 M/B MAINTENANCE

7.3 VGA CONTROLLER FAILURE

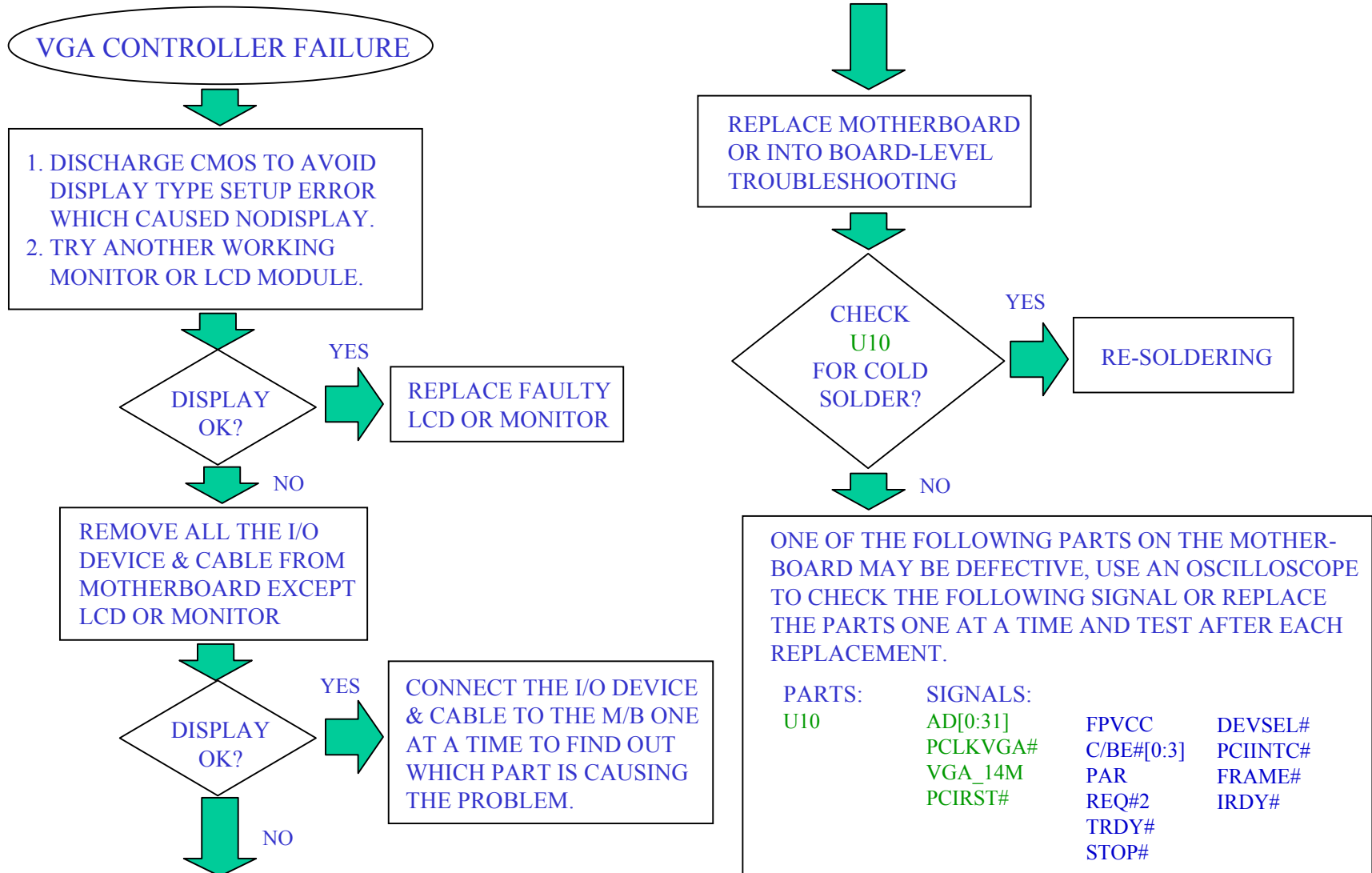
THERE IS NO DISPLAY ON BOTH LCD AND MONITOR ALTHOUGH POWER-ON-SELF-TEST IS PASSED.



6033 M/B MAINTENANCE

7.3 VGA CONTROLLER FAILURE

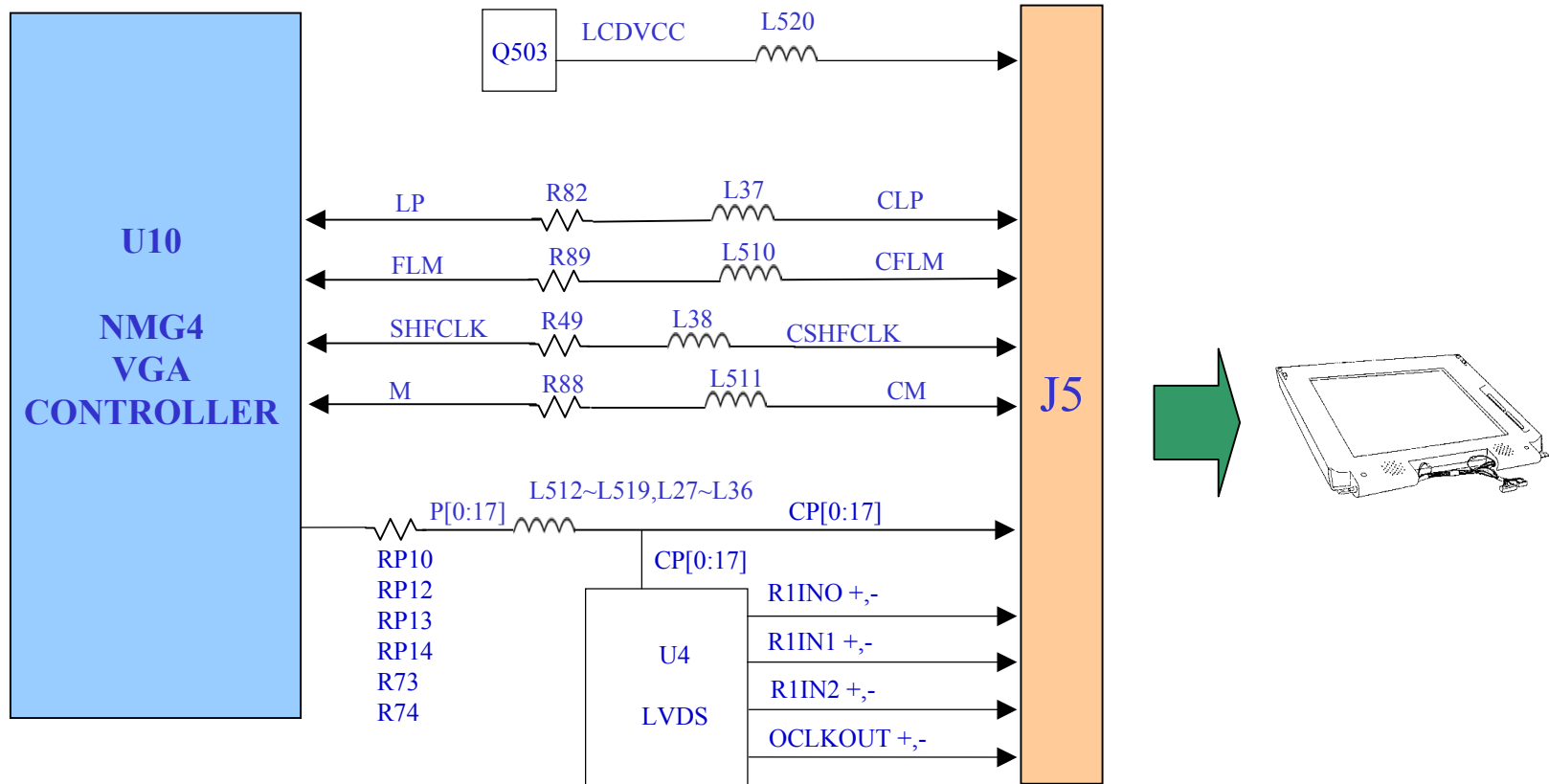
THERE IS NO DISPLAY ON BOTH LCD AND MONITOR ALTHOUGH POWER-ON-SELF-TEST IS PASSED.



6033 M/B MAINTENANCE

7.4 LCD NO DISPLAY

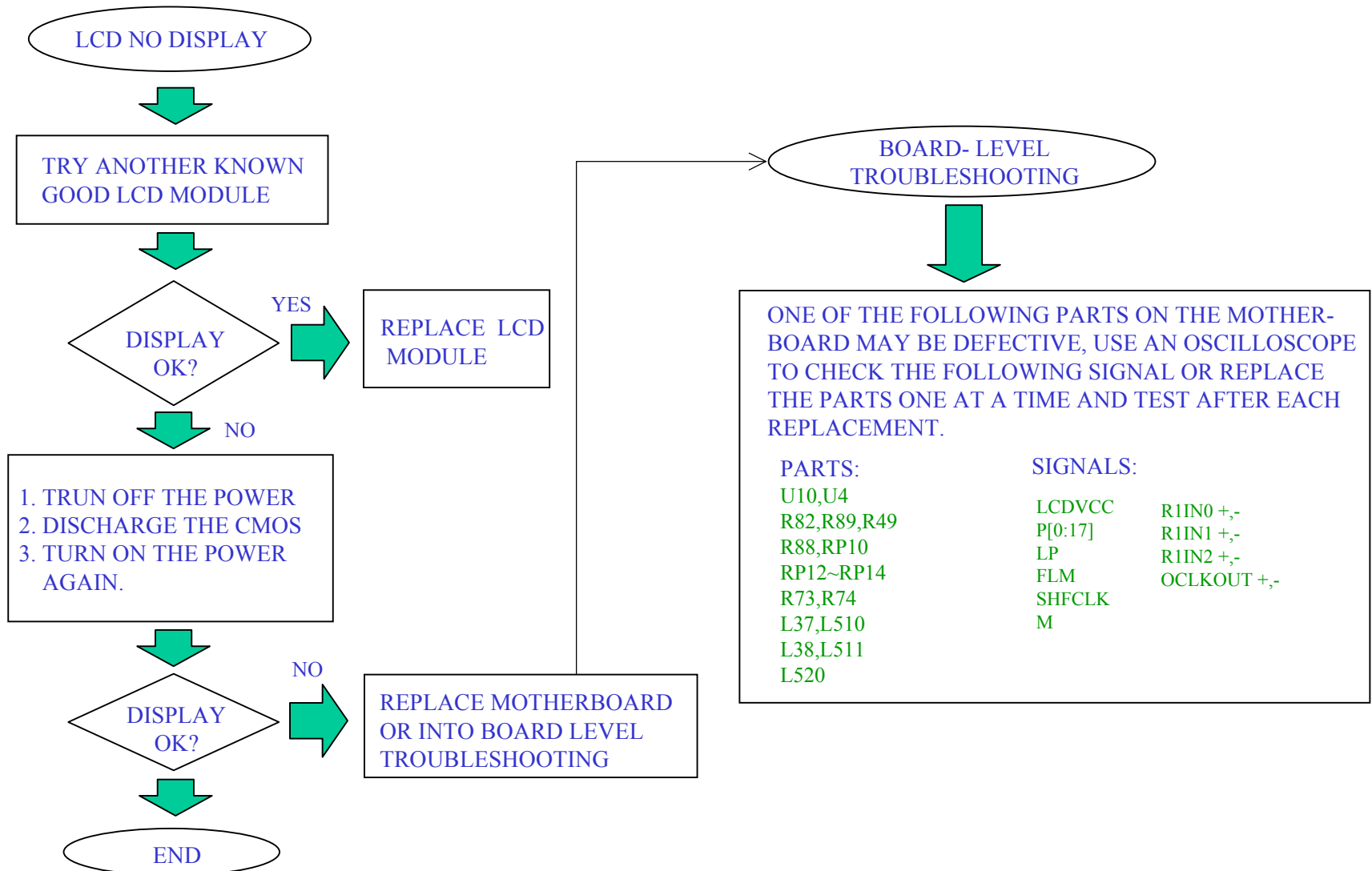
THE LCD SHOWS NOTHING OR ABNORMAL PICTURE , BUT IT IS OK FOR EXTERNAL MONITOR.



6033 M/B MAINTENANCE

7.4 LCD NO DISPLAY

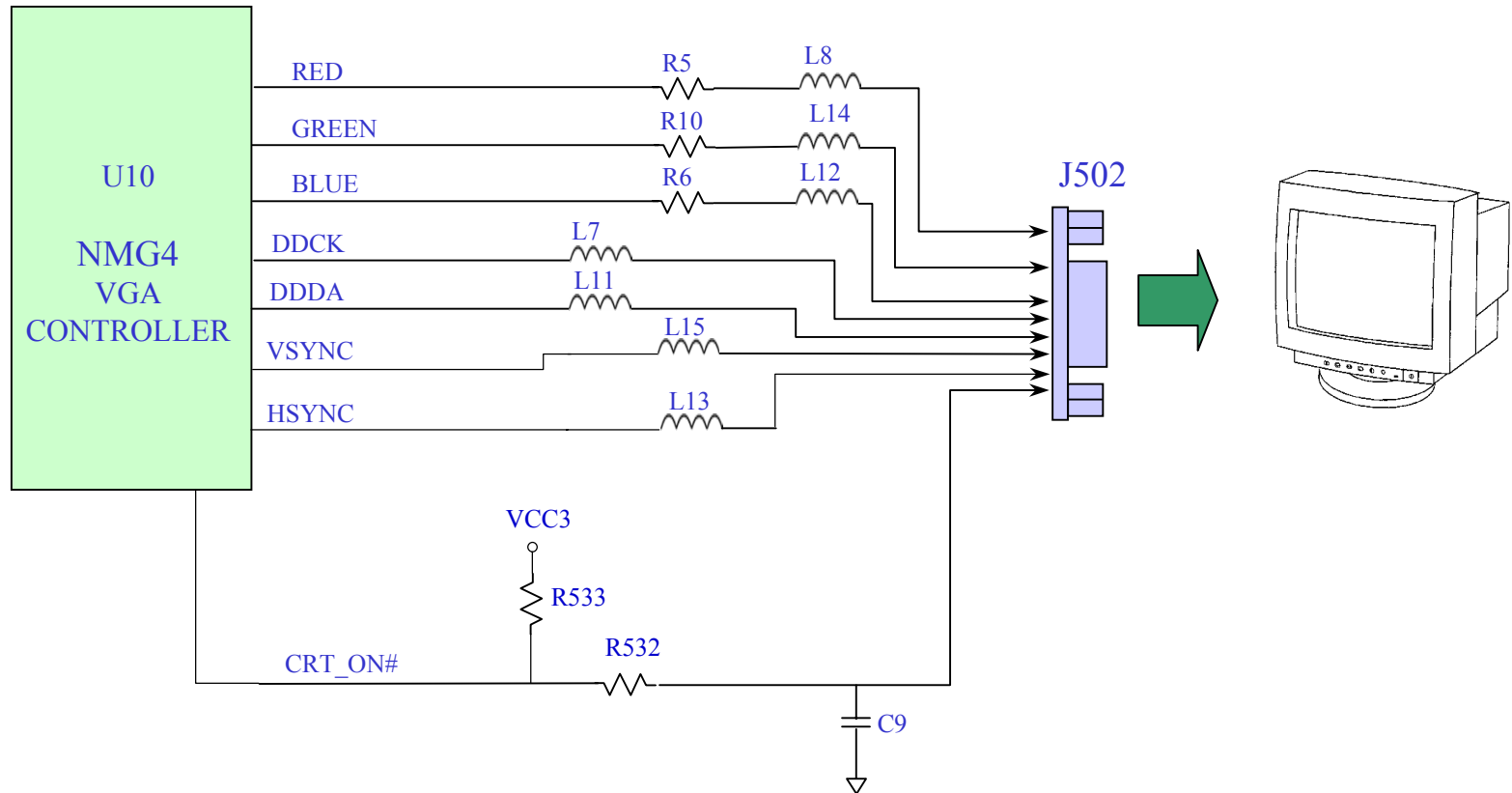
THE LCD SHOWS NOTHING OR ABNORMAL PICTURE , BUT IT IS OK FOR EXTERNAL MONITOR.



6033 M/B MAINTENANCE

7.5 EXTERNAL MONITOR NO DISPLAY

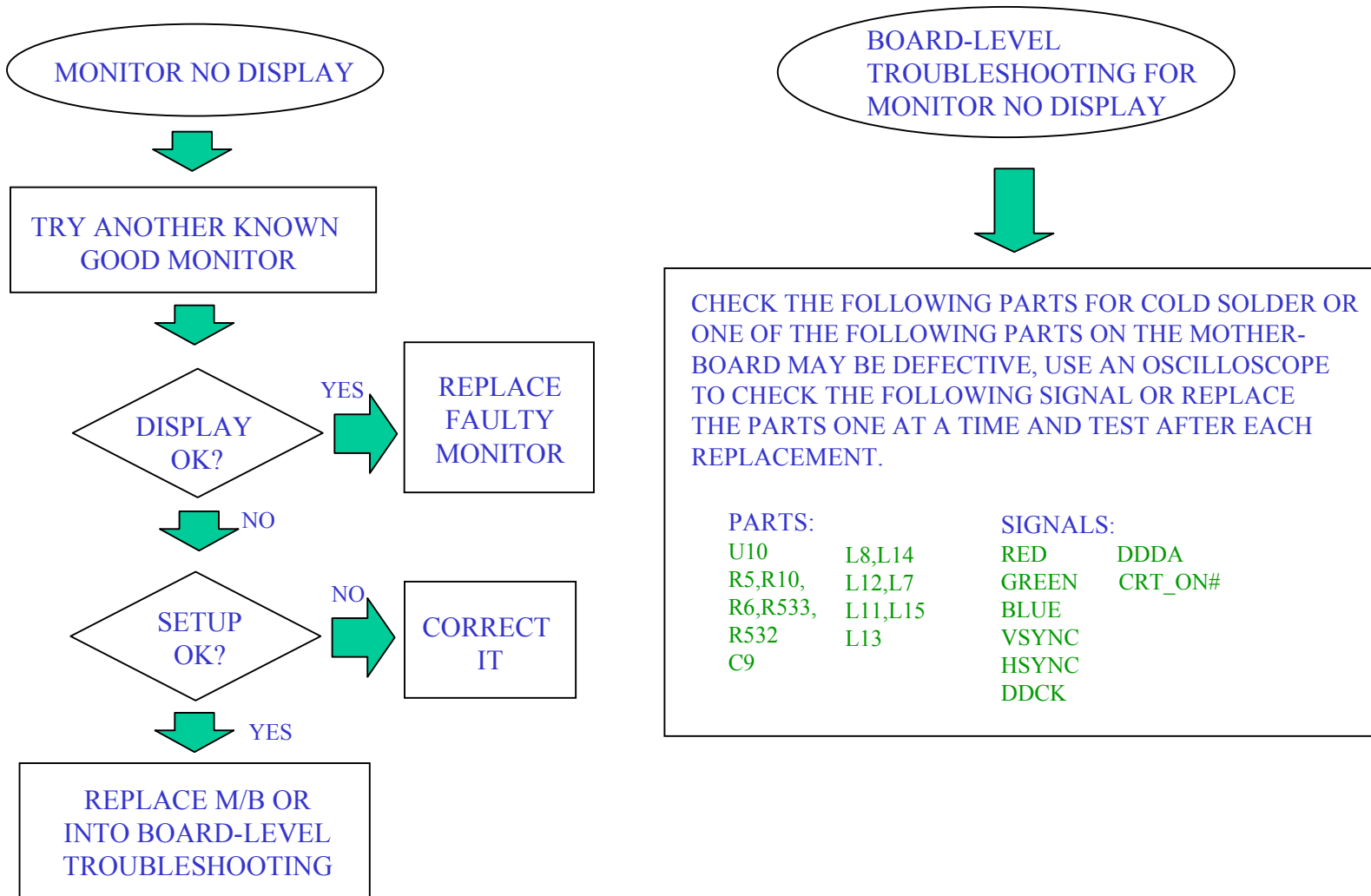
THE CRT MONITOR SHOWS NOTHING OR ABNORMAL COLOR, BUT IT IS OK FOR LCD.



6033 M/B MAINTENANCE

7.5 EXTERNAL MONITOR NO DISPLAY

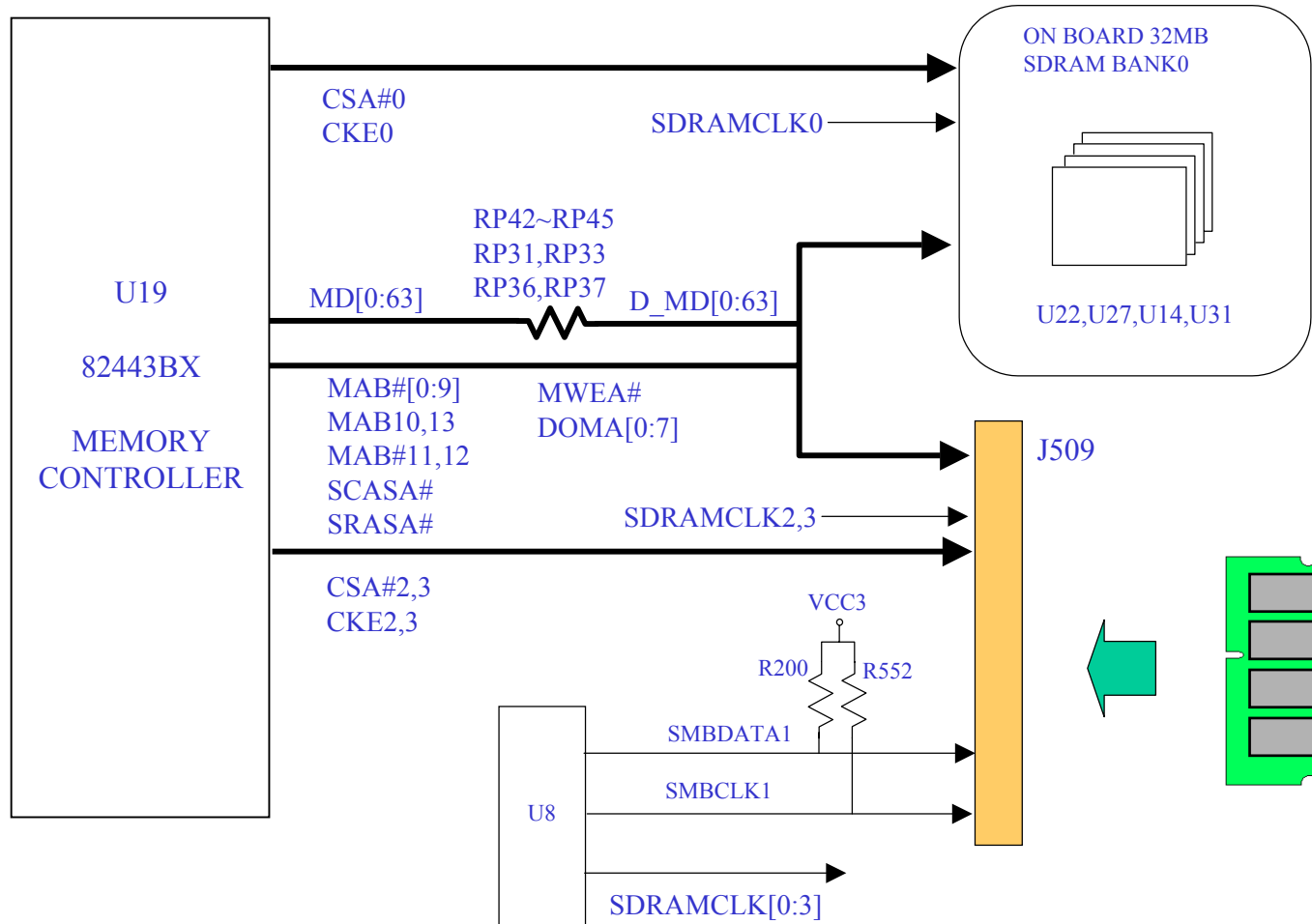
THE CRT MONITOR SHOWS NOTHING OR ABNORMAL COLOR, BUT IT IS OK FOR LCD.



6033 M/B MAINTENANCE

7.6 MEMORY TEST ERROR

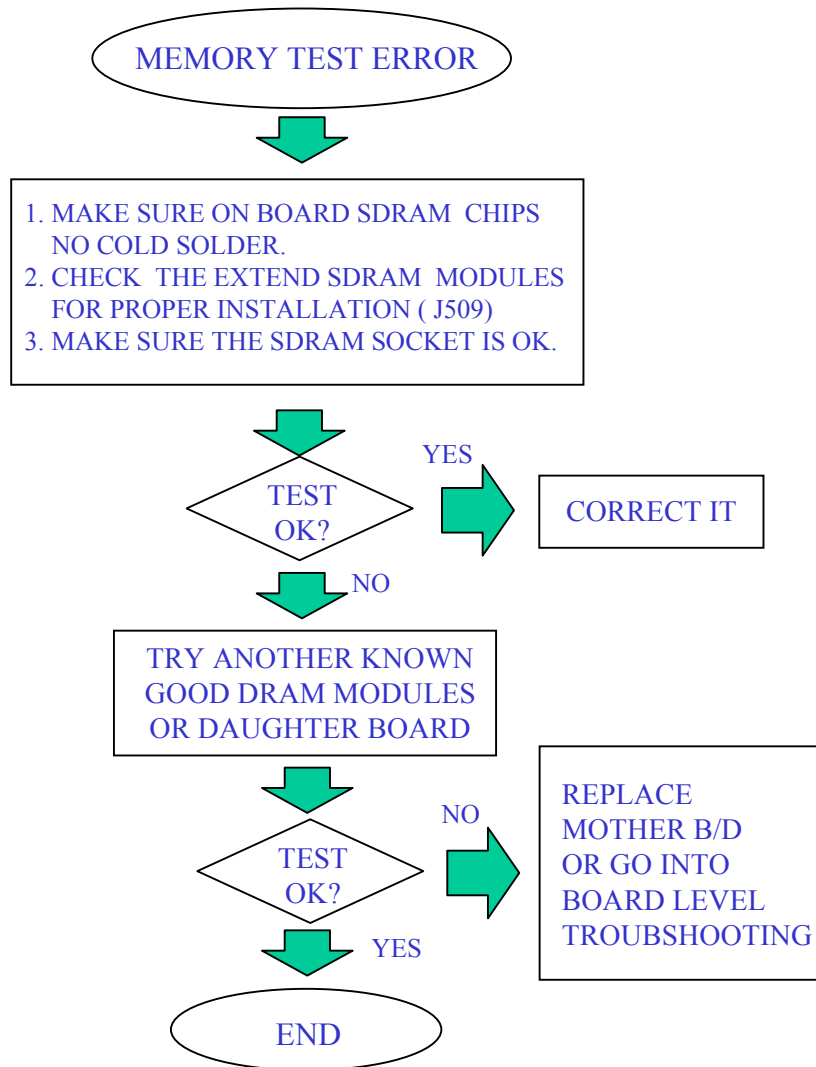
EITHER ON BOARD OR EXTEND SDRAM ,THE ERROR CODE SHOWN ON THE PIO DEBUG BOARD IS 03H,0FH, 13H,18H , 27H,29H OR 34H AND SYSTEM HANGS UP.



6033 M/B MAINTENANCE

7.6 MEMORY TEST ERROR

EITHER ON BOARD OR EXTEND SDRAM ,THE ERROR CODE SHOWN ON THE PIO DEBUG BOARD IS 03H,0FH, 13H,18H , 27H,29H OR 34H AND SYSTEM HANGS UP.



BOARD-LEVEL TROUBLESHOOTING FOR MEMORY TEST ERROR

CHECK THE FOLLOWING PARTS FOR COLD SOLDER OR ONE OF THE FOLLOWING PARTS ON THE MOTHER-BOARD MAY BE DEFECTIVE, USE AN OSCILLOSCOPE TO CHECK THE FOLLOWING SIGNAL OR REPLACE THE PARTS ONE AT A TIME AND TEST AFTER EACH REPLACEMENT.

PARTS:

U22,U27
U14,U31
U19,U8
RP42~RP45
RP31,RP33,RP36
RP37,R200,R552
J509

SIGNALS:

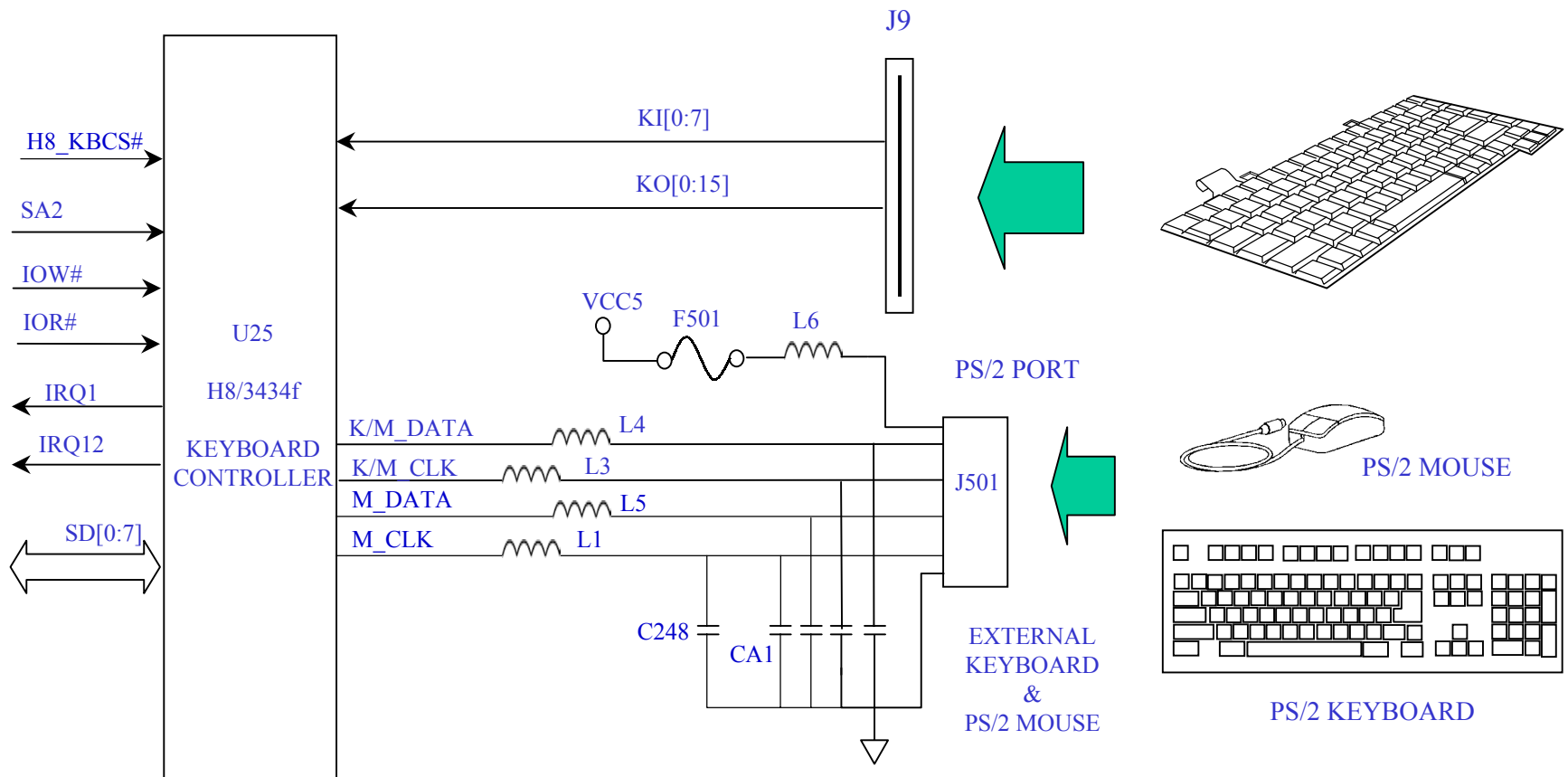
MD[0:63]
MAB#[0:9]
MAB10,13
MAB#11,12
SCASA#
SRASA#
MWEA#

DOMA[0:7]
CSA#[0:3]
CKE[0:3]
SDRAMCLK[0:3]
SMBDATA1
SMBCLK1

6033 M/B MAINTENANCE

7.7 KEYBOARD TEST ERROR

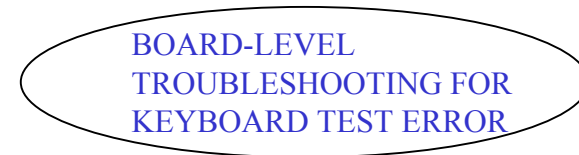
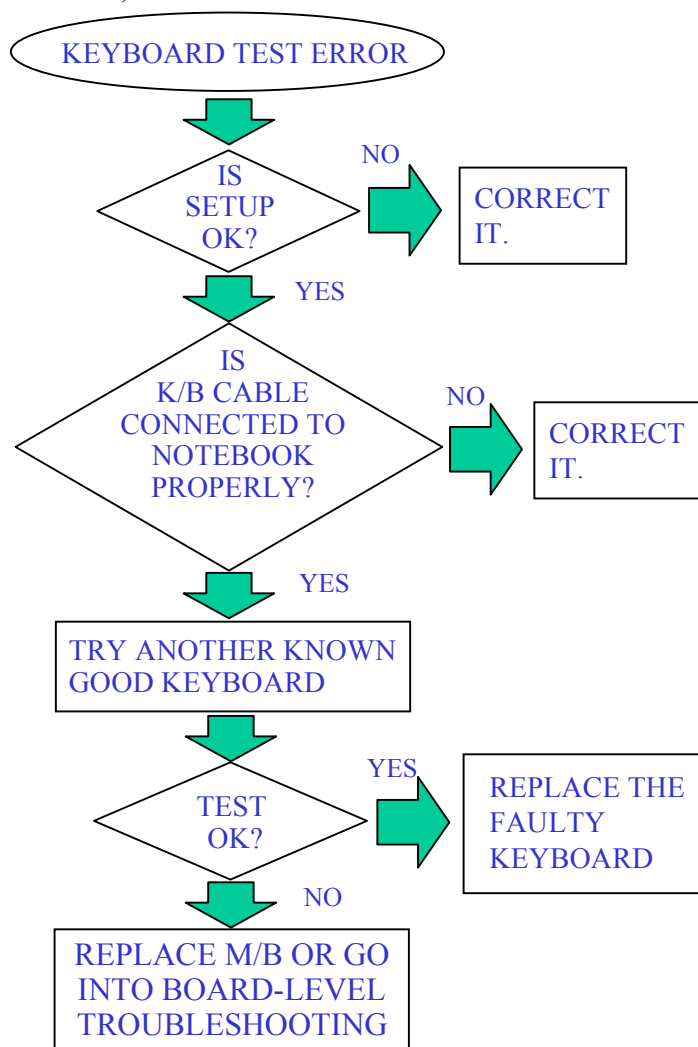
1. ERROR MESSAGE OF KEYBOARD FAILURE IS SHOWN OR ANY KEY DOESN' T WORK.
2. PIO DEBUG BOARD SHOWS THAT THE PORT 378H ERROR CODE IS STOPPED AT 20H,30H, 31H,32H OR 33H.



6033 M/B MAINTENANCE

7.7 KEYBOARD TEST ERROR

1. ERROR MESSAGE OF KEYBOARD FAILURE IS SHOWN OR ANY KEY DOESN' T WORK.
2. PIO DEBUG BOARD SHOWS THAT THE PORT 378H ERROR CODE IS STOPPED AT 20H,30H, 31H,32H OR 33H.



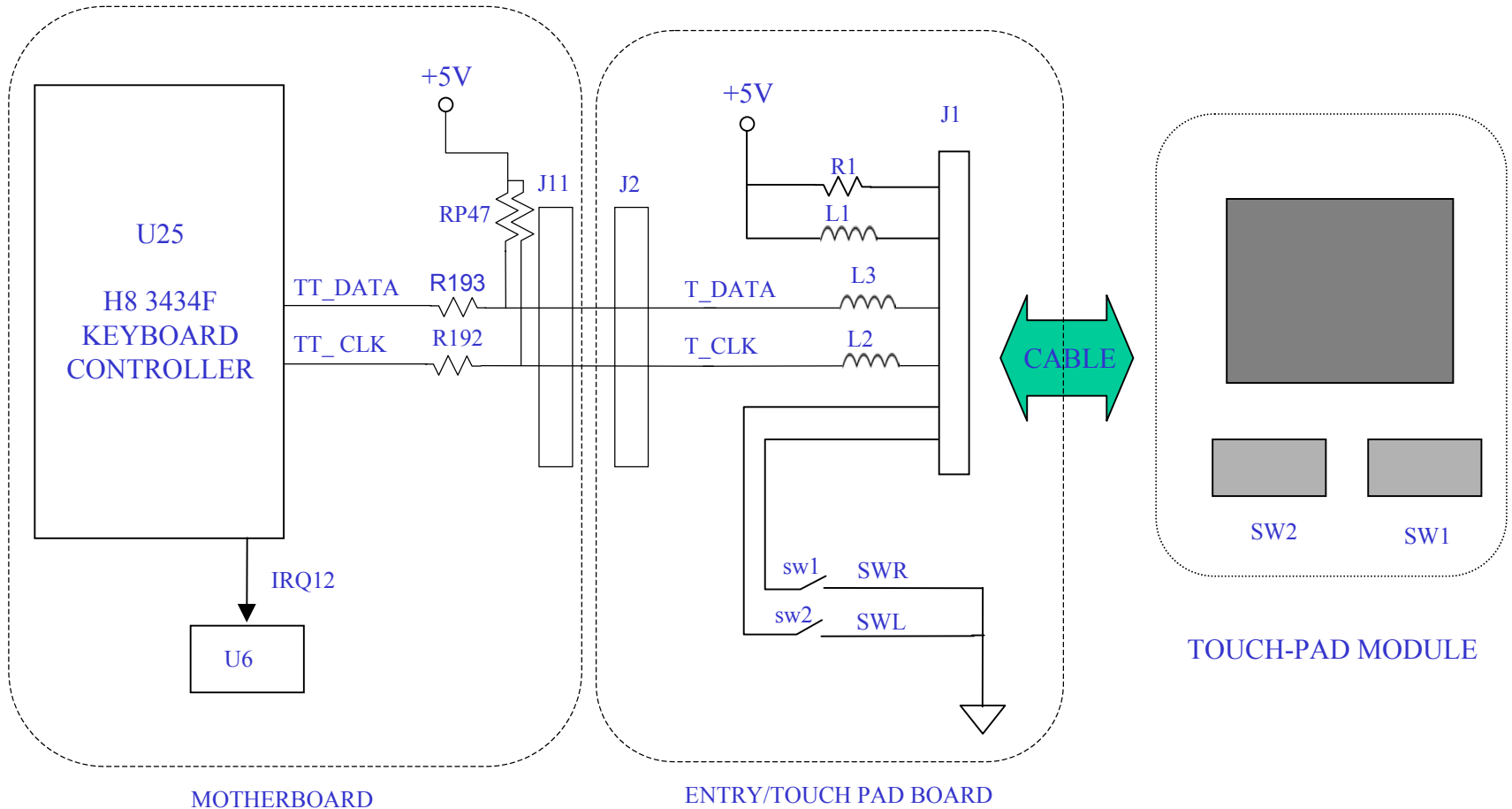
CHECK THE FOLLOWING PARTS FOR COLD SOLDER OR ONE OF THE FOLLOWING PARTS ON THE MOTHERBOARD MAY BE DEFECTIVE, USE AN OSCILLOSCOPE TO CHECK THE FOLLOWING SIGNAL OR REPLACE THE PARTS ONE AT A TIME AND TEST AFTER EACH REPLACEMENT.

PARTS:	SIGNALS:	
U25	SA2	H8_RESET
F501	KI[0:7]	IOW#
L1,L3,L4	KO[0:15]	IOR#
L5,L6	K/M_DATA	IRQ1
CA1,C248	K/M_CLK	IRQ12
	H8_KBCS#	SD[0:7]

6033 M/B MAINTENANCE

7.8 TRACK PAD TEST ERROR

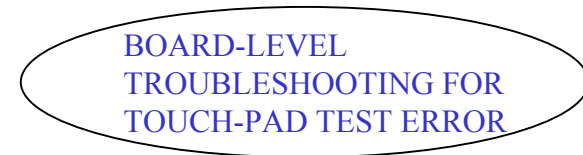
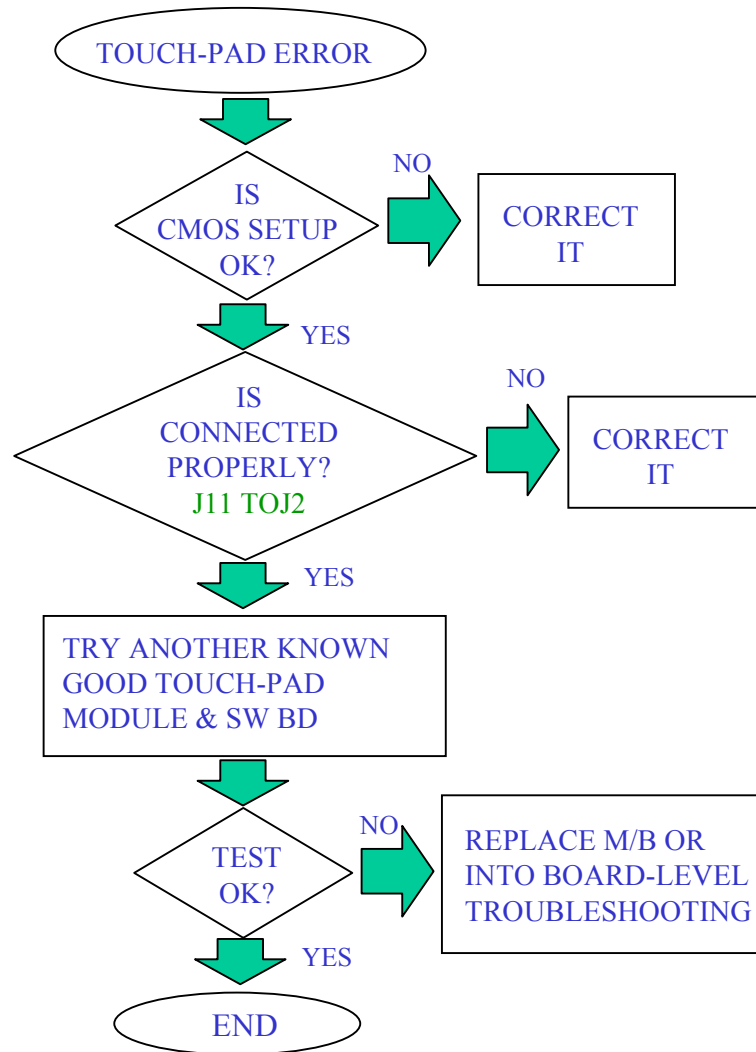
AN ERROR MESSAGE IS SHOWN WHEN TOUCH-PAD IS ENABLED.



6033 M/B MAINTENANCE

7.8 TRACK PAD TEST ERROR

AN ERROR MESSAGE IS SHOWN WHEN TOUCH-PAD IS ENABLED.



CHECK THE FOLLOWING PARTS FOR COLD SOLDER OR ONE OF THE FOLLOWING PARTS ON THE MOTHER-BOARD MAY BE DEFECTIVE, USE AN OSCILLOSCOPE TO CHECK THE FOLLOWING SIGNAL OR REPLACE THE PARTS ONE AT A TIME AND TEST AFTER EACH REPLACEMENT.

PARTS:

RP47
U25
U6
ENTRY/TOUCH BD

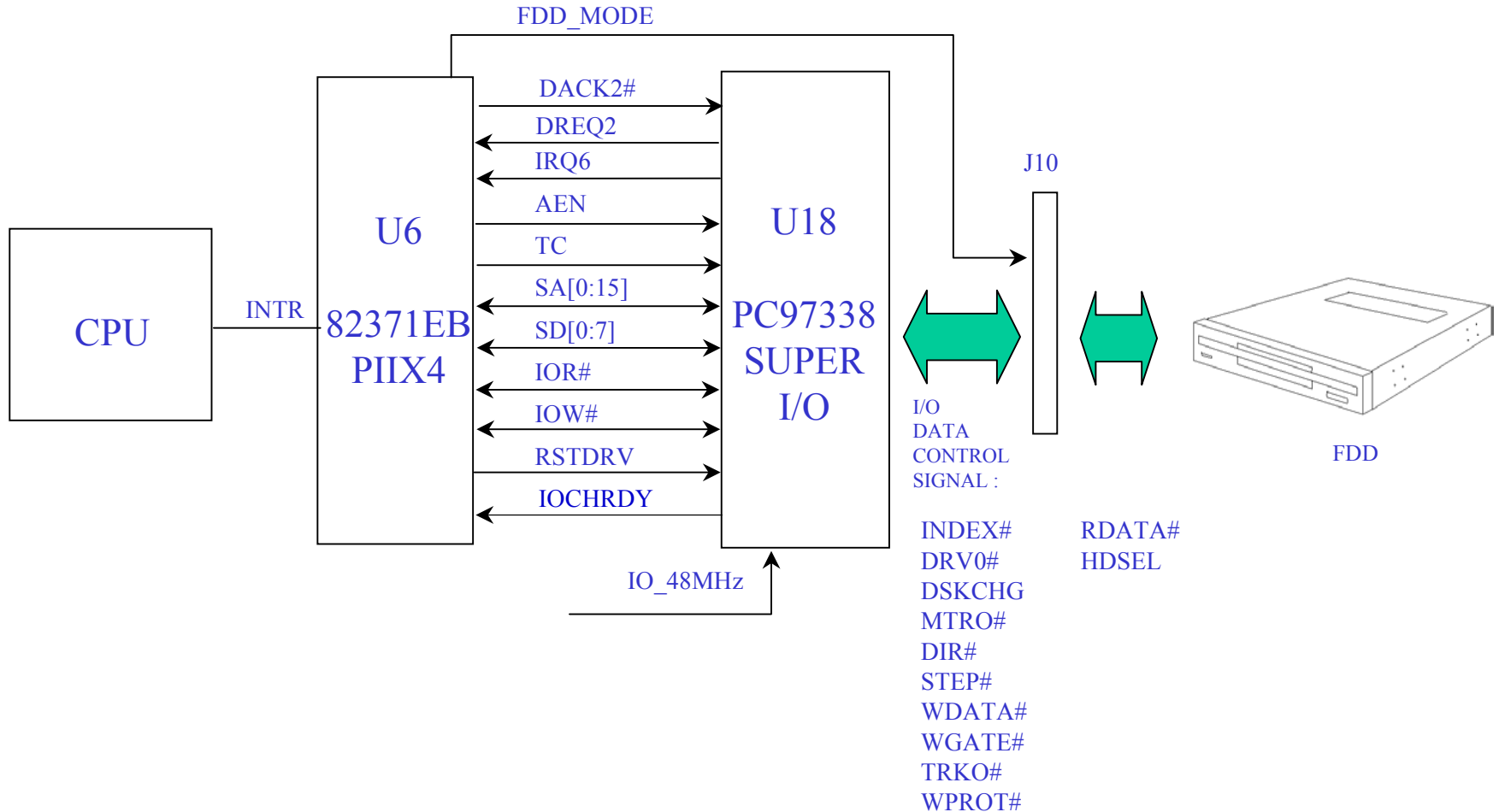
SIGNALS:

TT_DATA
TT_CLK
5V
IRQ12

6033 M/B MAINTENANCE

7.9 DISKETTE DRIVE TEST ERROR

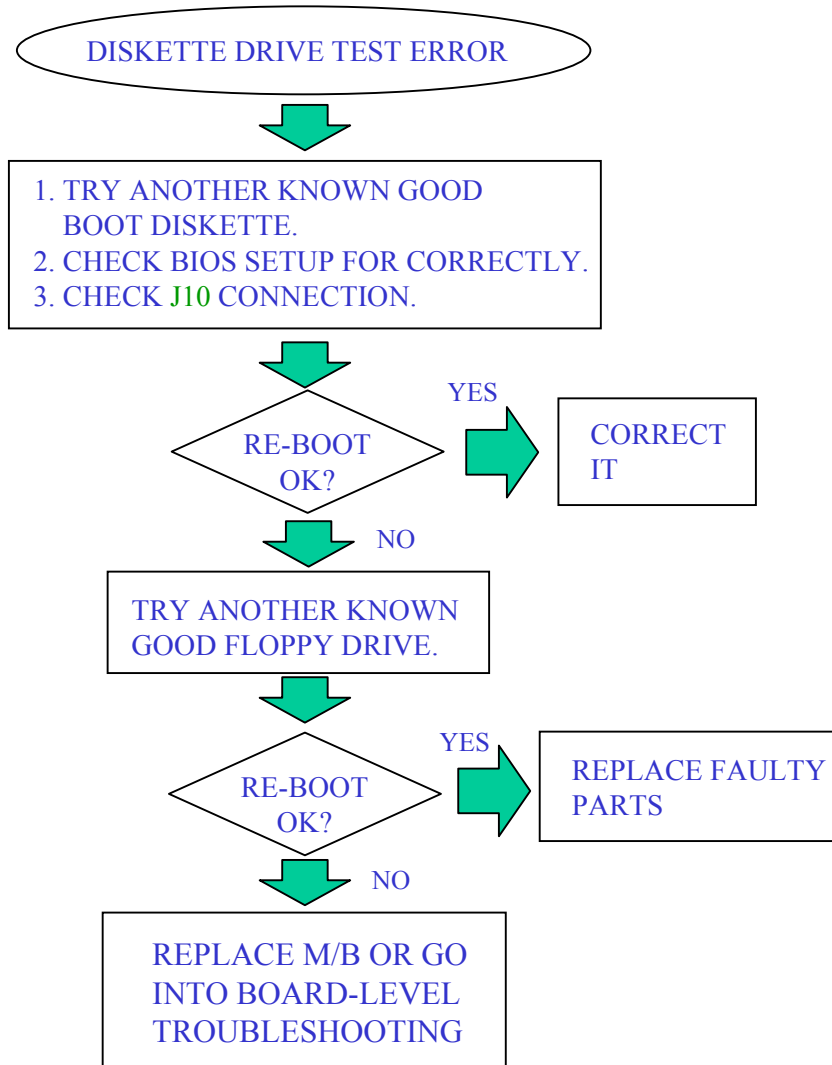
AN ERROR MESSAGE IS SHOWN WHEN READING/ WRITING DATA FROM/TO DISKETTE DRIVE.



6033 M/B MAINTENANCE

7.9 DISKETTE DRIVE TEST ERROR

AN ERROR MESSAGE IS SHOWN WHEN READING/ WRITING DATA FROM/TO DISKETTE DRIVE.



BOARD-LEVEL TROUBLESHOOTING FOR TOUCH-PAD TEST ERROR

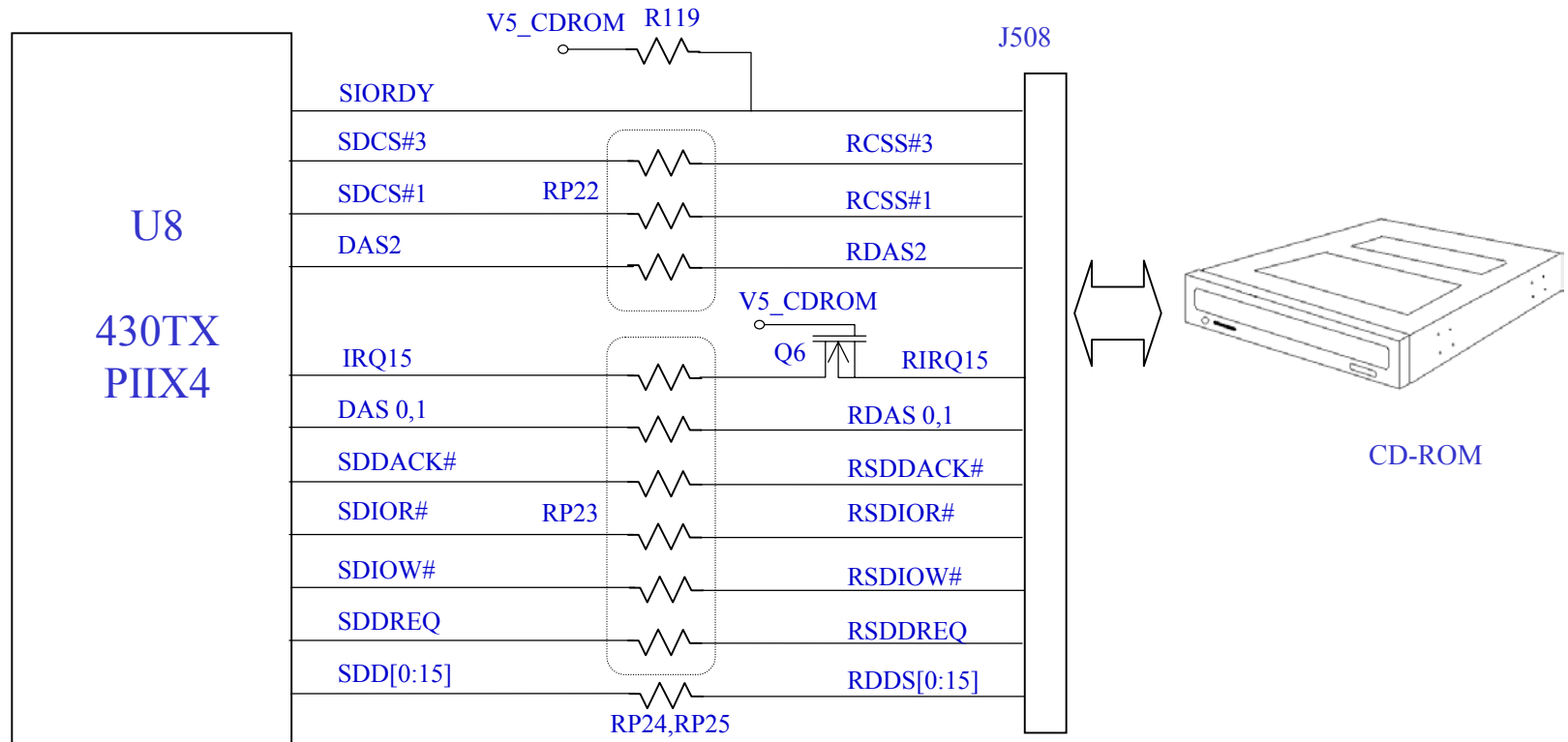
CHECK THE FOLLOWING PARTS FOR COLD SOLDER OR ONE OF THE FOLLOWING PARTS ON THE MOTHERBOARD MAY BE DEFECTIVE, USE AN OSCILLOSCOPE TO CHECK THE FOLLOWING SIGNAL OR REPLACE THE PARTS ONE AT A TIME AND TEST AFTER EACH REPLACEMENT.

PARTS:	SIGNALS:			
U6	DACK2#	SD[0:7]	INDEX#	TRKO#
U18	DREQ2	IOR#	FDD_MODE	RDATA#
	IRQ6	IOW#	DSKCHG	WDATA#
	AEN	RSTDRV	RDATA#	WGATE#
	TC	24MHz	WPROT#	HDSEL#
	SA[0:15]		MTRO#	DIR#
				STEP#
				DRVO#

6033 M/B MAINTENANCE

7.10 CD-ROM DRIVE TEST ERROR

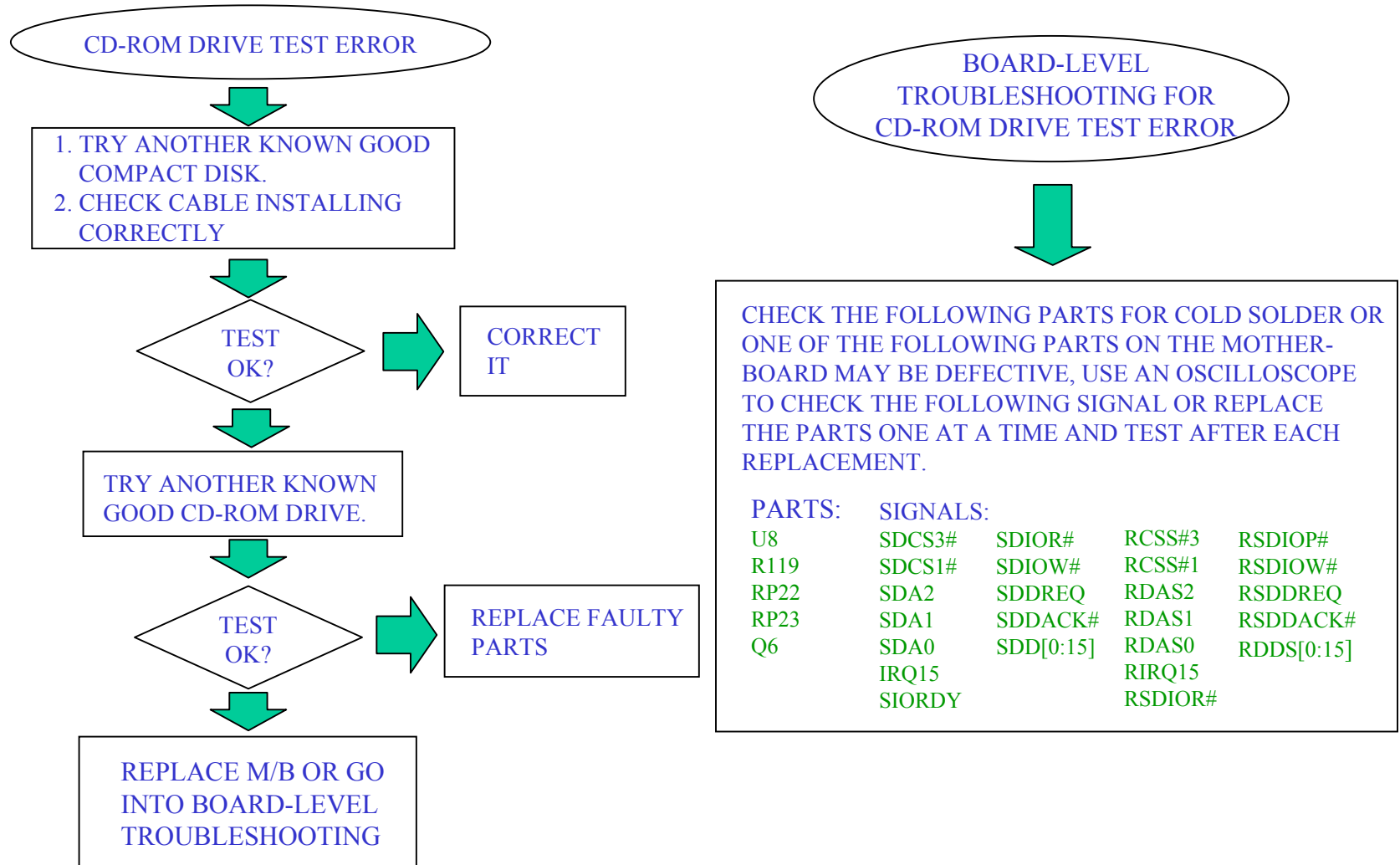
AN ERROR MESSAGE IS SHOWN WHEN READING DATA FROM CD-ROM DRIVE.



6033 M/B MAINTENANCE

7.10 CD-ROM DRIVE TEST ERROR

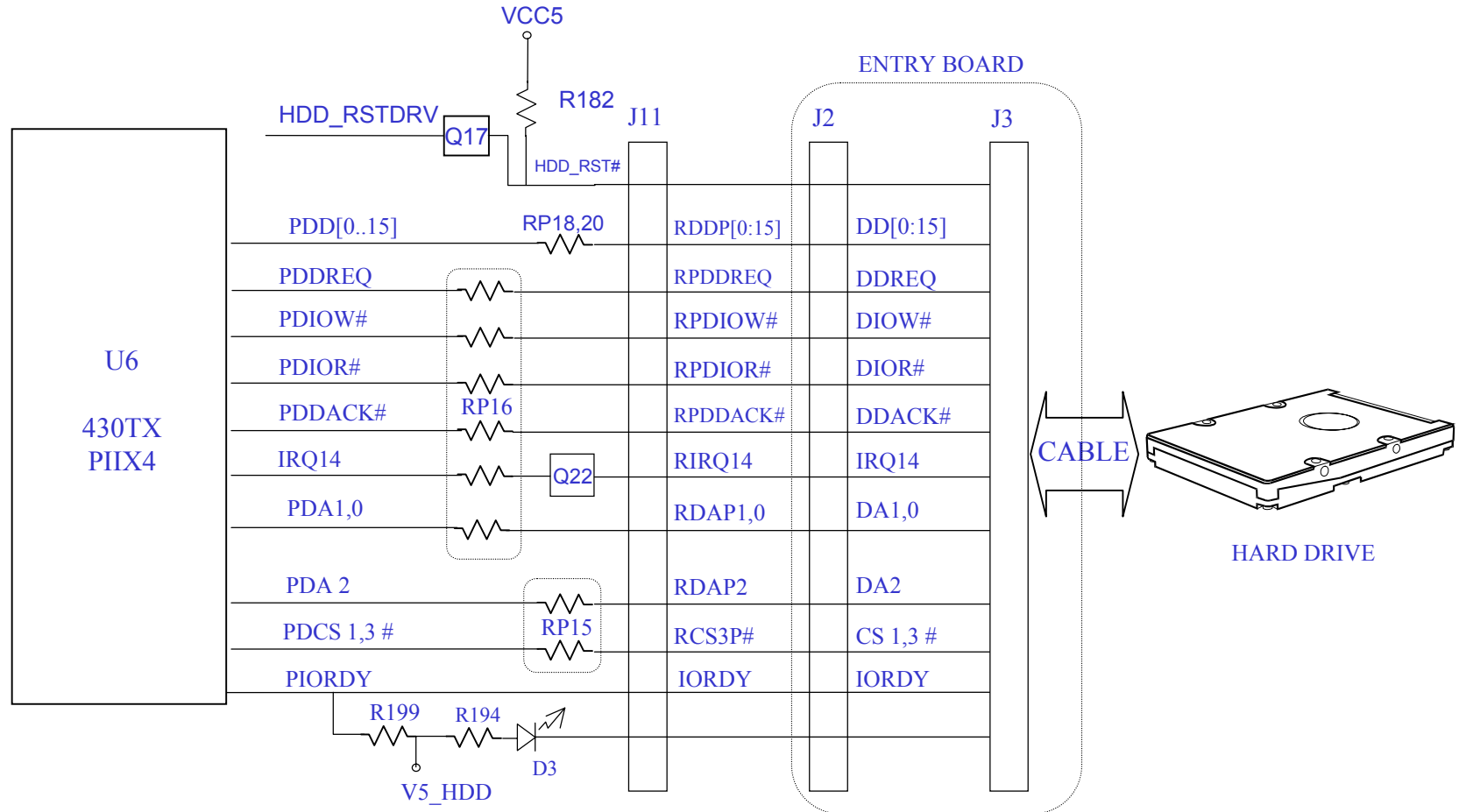
AN ERROR MESSAGE IS SHOWN WHEN READING GATA FROM CD-ROM DRIVE.



6033 M/B MAINTENANCE

7.11 HARD DRIVE TEST ERROR

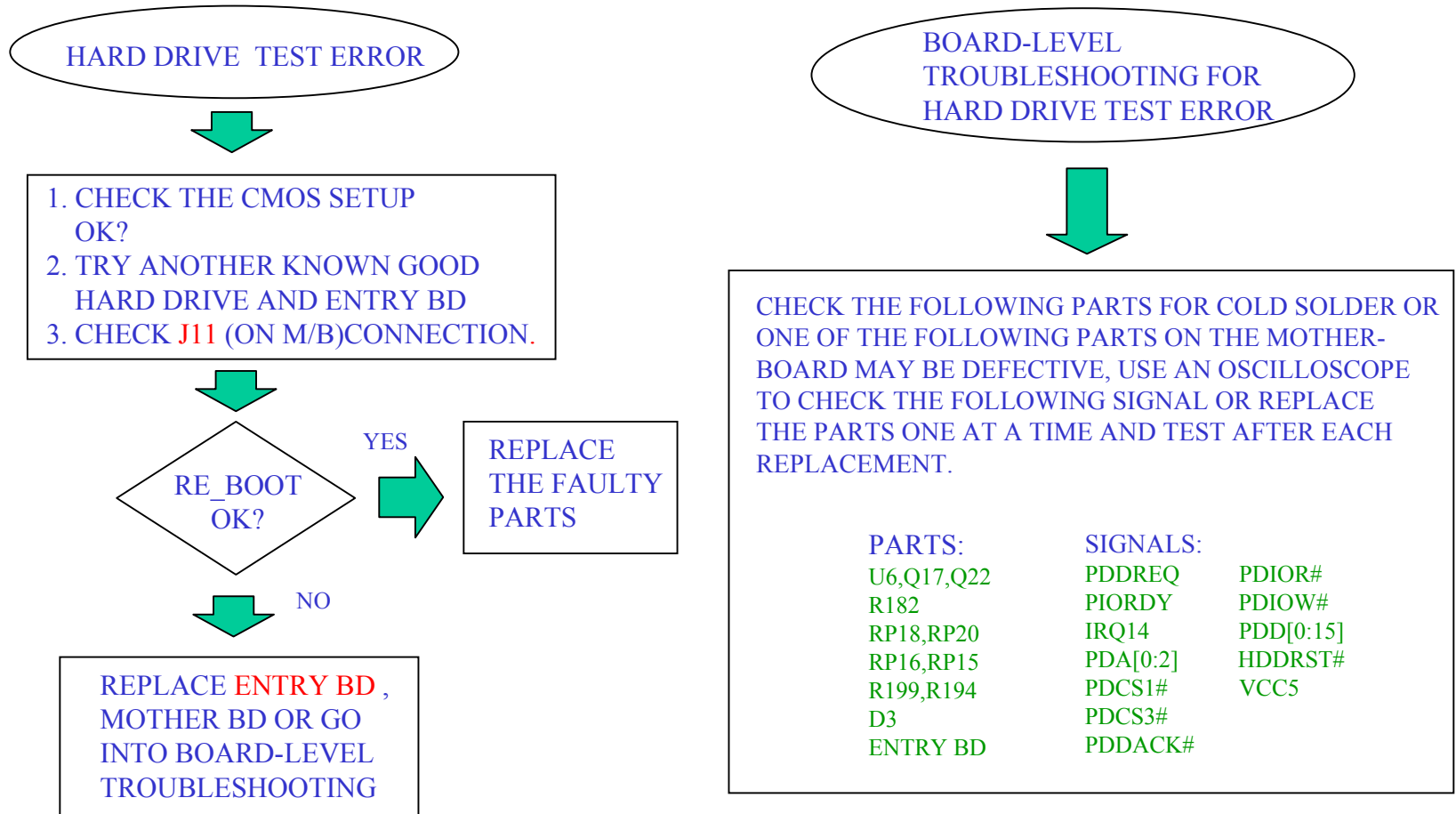
EITHER AN ERROR MESSAGE IS SHOWN , OR THE DRIVER MOTOR CONTINUES SPINNING ,
WHILE READING DATA IS FROM OR WRITING DATA IS TO HARD DRIVE.



6033 M/B MAINTENANCE

7.11 HARD DRIVE TEST ERROR

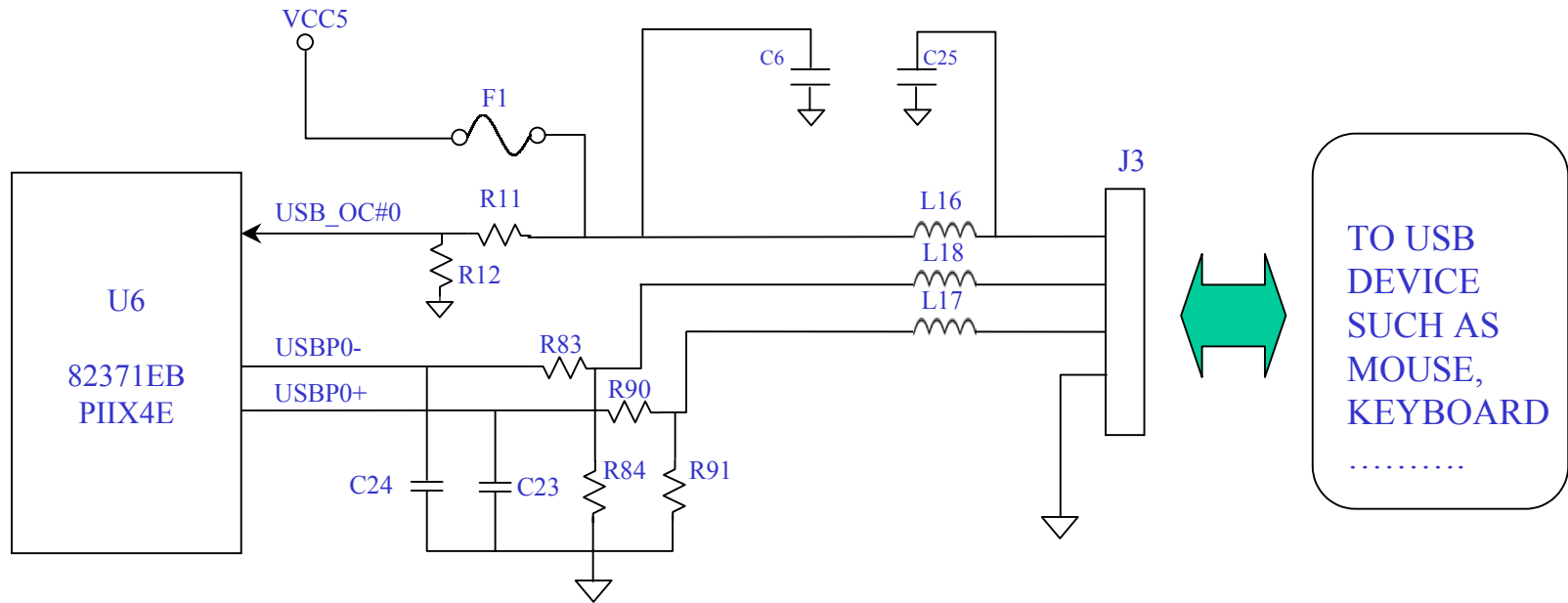
EITHER AN ERROR MESSAGE IS SHOWN , OR THE DRIVER MOTOR CONTINUES SPINNING , WHILE READING DATA IS FROM OR WRITING DATA IS TO HARD DRIVE.



6033 M/B MAINTENANCE

7.12 USB PORT TEST ERROR

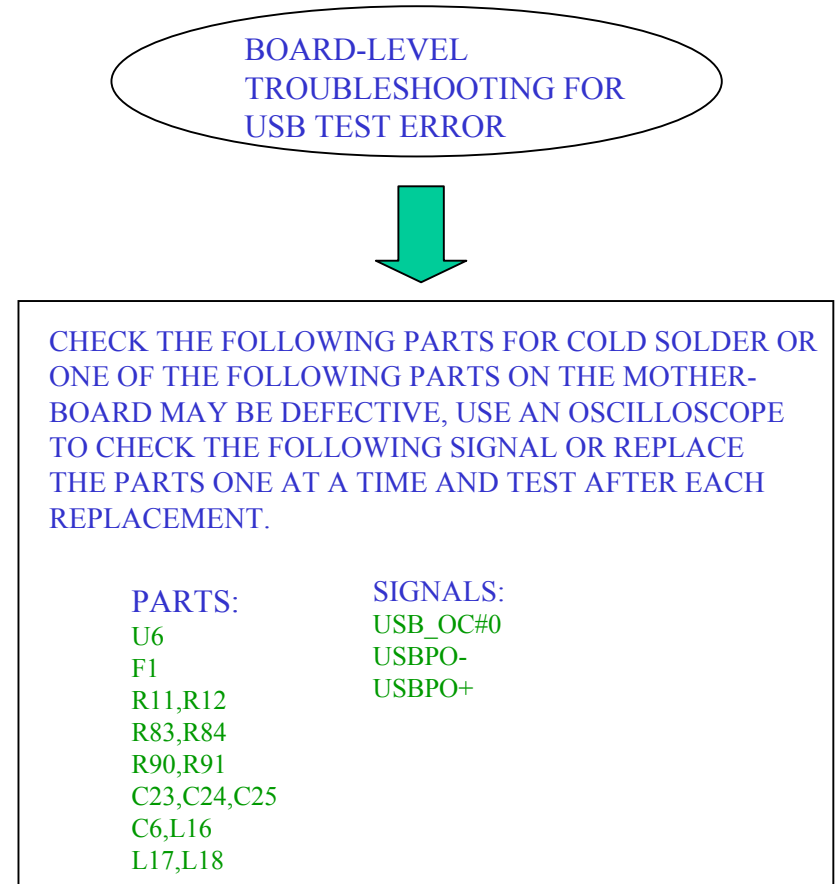
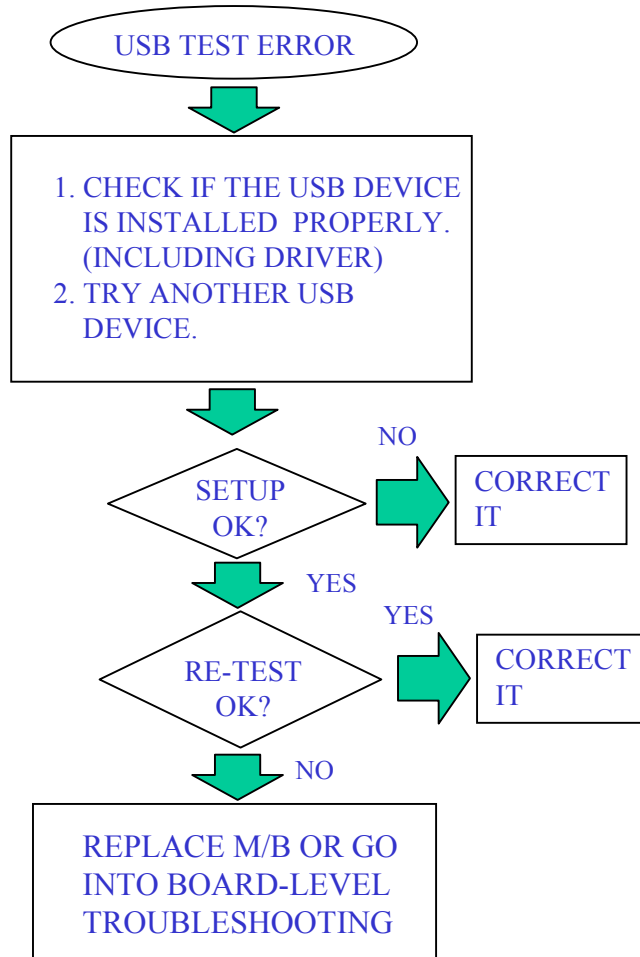
AN ERROR OCCURS WHEN A USB I/O DEVICE IS INSTALLED.



6033 M/B MAINTENANCE

7.12 USB PORT TEST ERROR

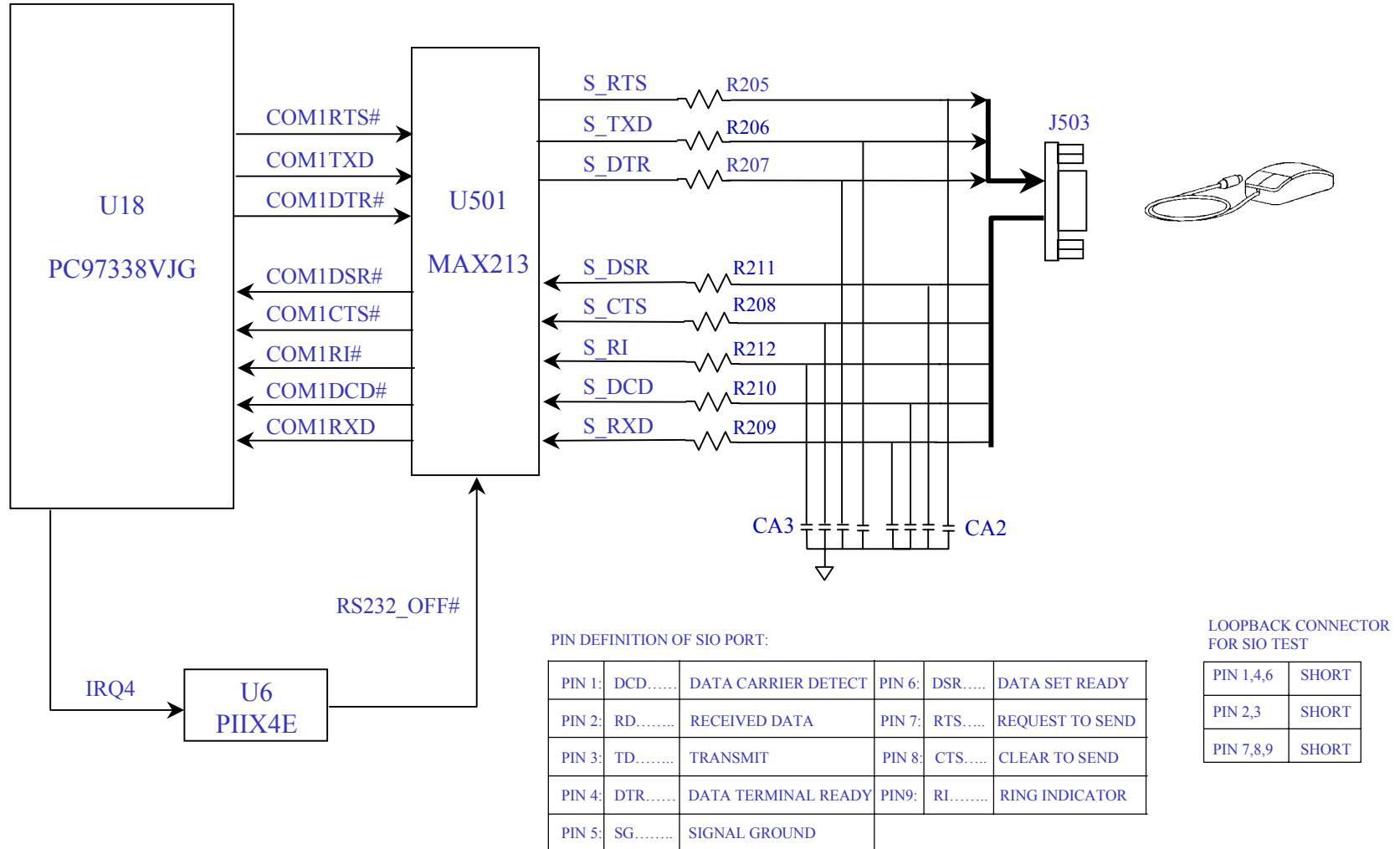
AN ERROR OCCURS WHEN A USB I/O DEVICE IS INSTALLED.



6033 M/B MAINTENANCE

7.13 SIO PORT TEST ERROR

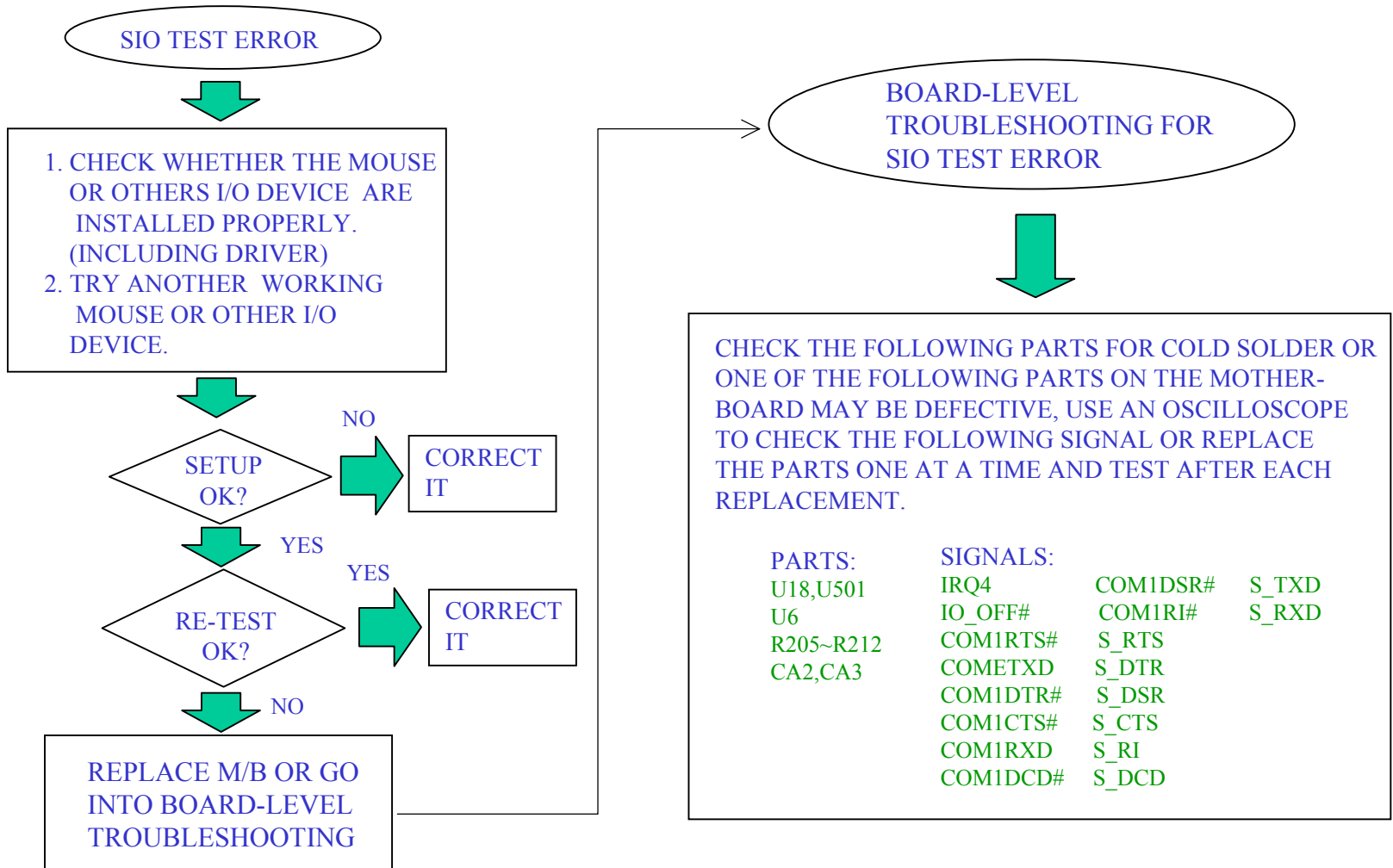
AN ERROR OCCURS WHEN A MOUSE OR OTHER I/O DEVICE IS INSTALLED.



6033 M/B MAINTENANCE

7.13 SIO PORT TEST ERROR

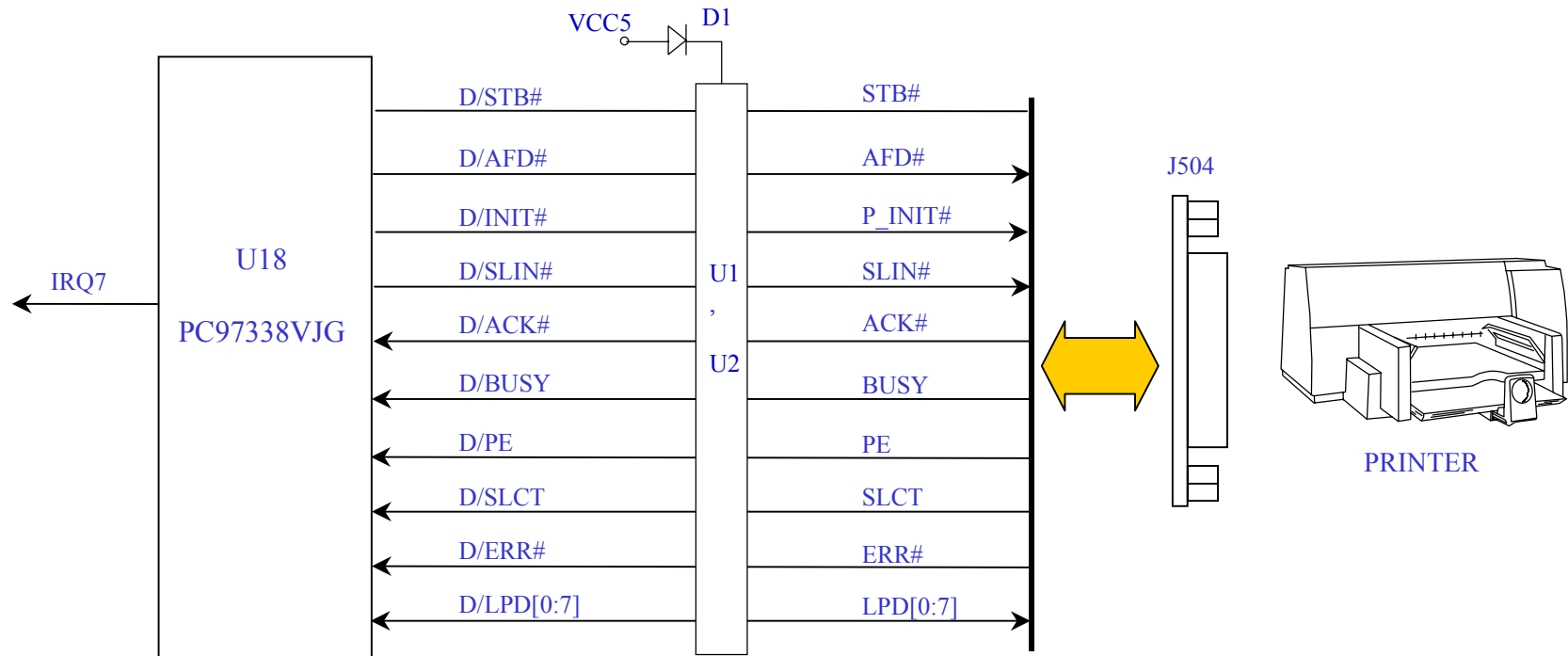
AN ERROR OCCURS WHEN A MOUSE OR OTHER I/O DEVICE IS INSTALLED.



6033 M/B MAINTENANCE

7.14 PIO PORT TEST ERROR

WHEN A PRINT COMMAND IS ISSUED, PRINTER PRINTS NOTHING OR GARBAGE.



PIN DEFINITION OF PIO PORT

PIN 1	STB	STROBE SIGNAL	PIN 14	AFD	AUTO LINE FEED
PIN 2-9	D0 - D7	PARALLEL PORT DATA BUS D0 TO D7	PIN 15	ERR	ERROR AT PRINTER
PIN 10	ACK	ACKNOWLEDGE HANDSHAK	PIN 16	INIT	INITIATE OUTPUT
PIN 11	BUSY	BUSY SIGNAL	PIN 17	SLIN	PRINTER SELECT
PIN 12	PE	PAPER END	PIN 18-25: SIGNAL GROUND		
PIN 13	SLCT	PRINTER SELECTED			

LOOPBACK CONNECTOR FOR PIO TEST:

PIN 1, 13	SHORT	PIN 10, 16	SHORT
PIN 2, 15	SHORT	PIN 11, 17	SHORT
PIN 12, 14	SHORT		

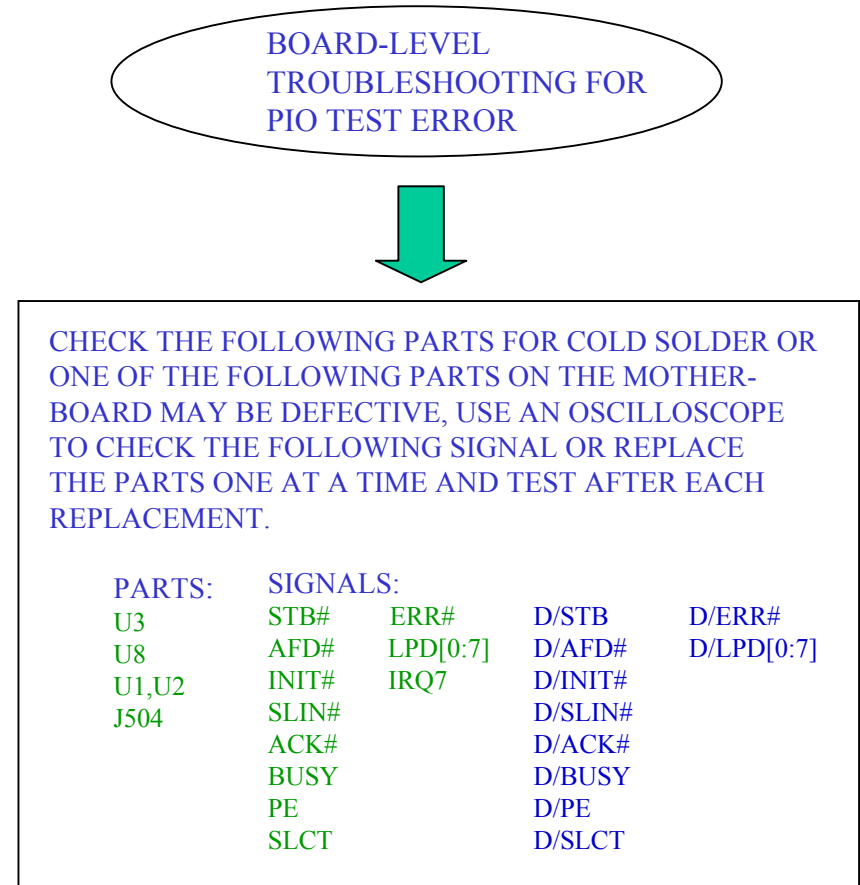
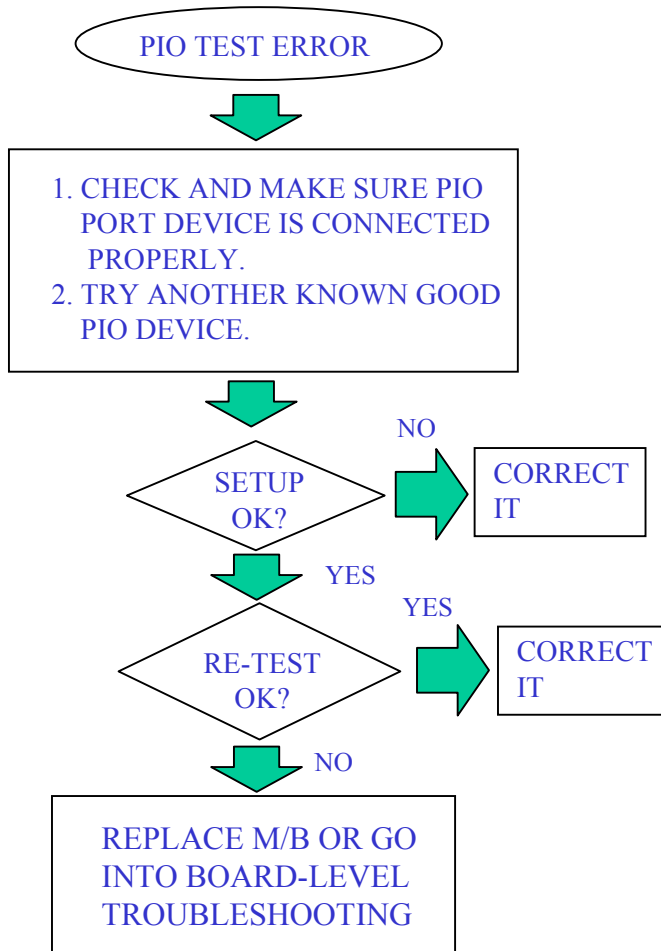
LOOPBACK CONNECTOR FOR EPP TEST:

PIN 1, 2, 4, 6, 8	SHORT
PIN 3, 5, 7, 9, 16	SHORT
PIN 18, 19, 20, 21, 22, 23, 24, 25	SHORT

6033 M/B MAINTENANCE

7.14 PIO PORT TEST ERROR

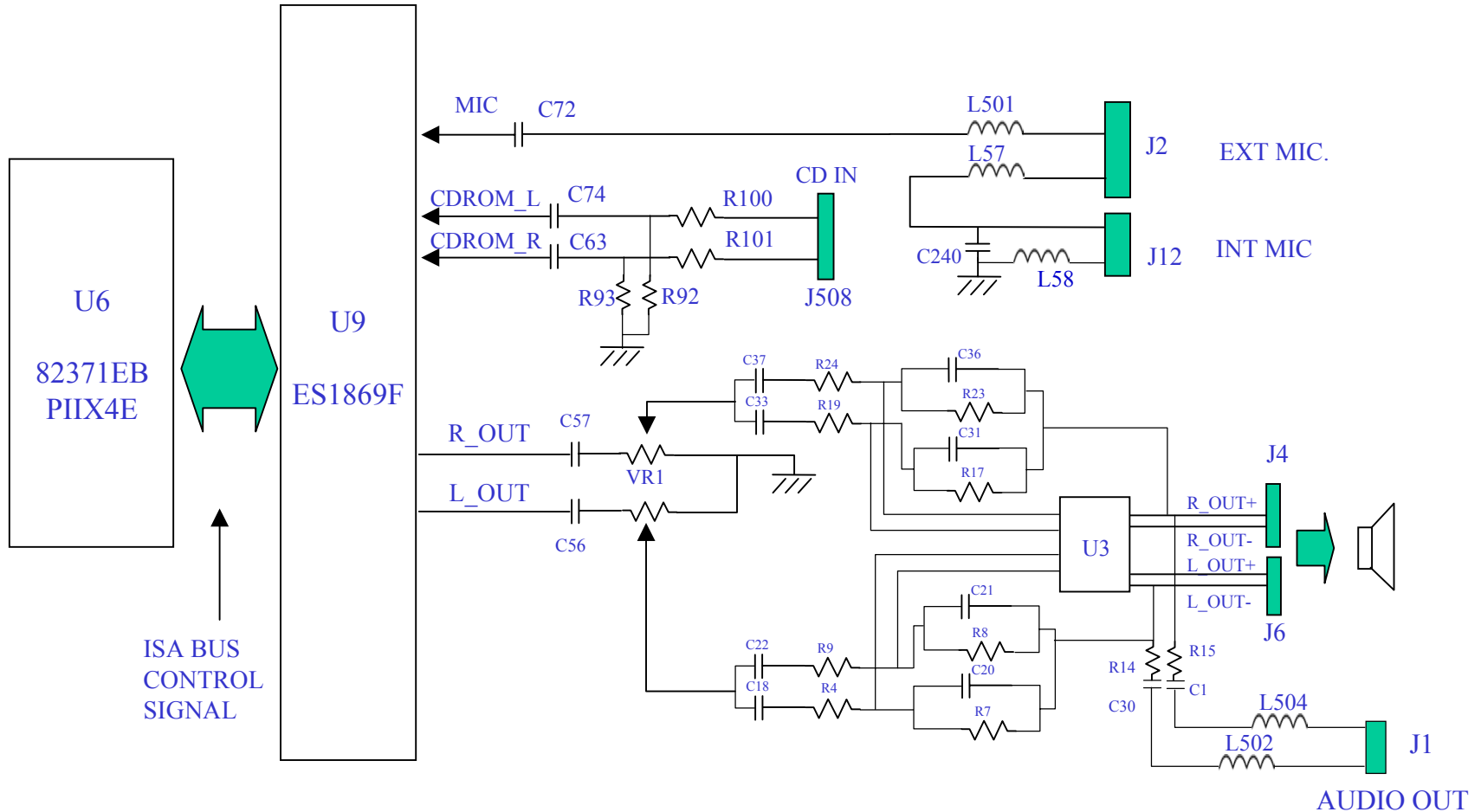
WHEN A PRINT COMMAND IS ISSUED, PRINTER PRINTS NOTHING OR GARBAGE.



6033 M/B MAINTENANCE

7.15 AUDIO FAILURE

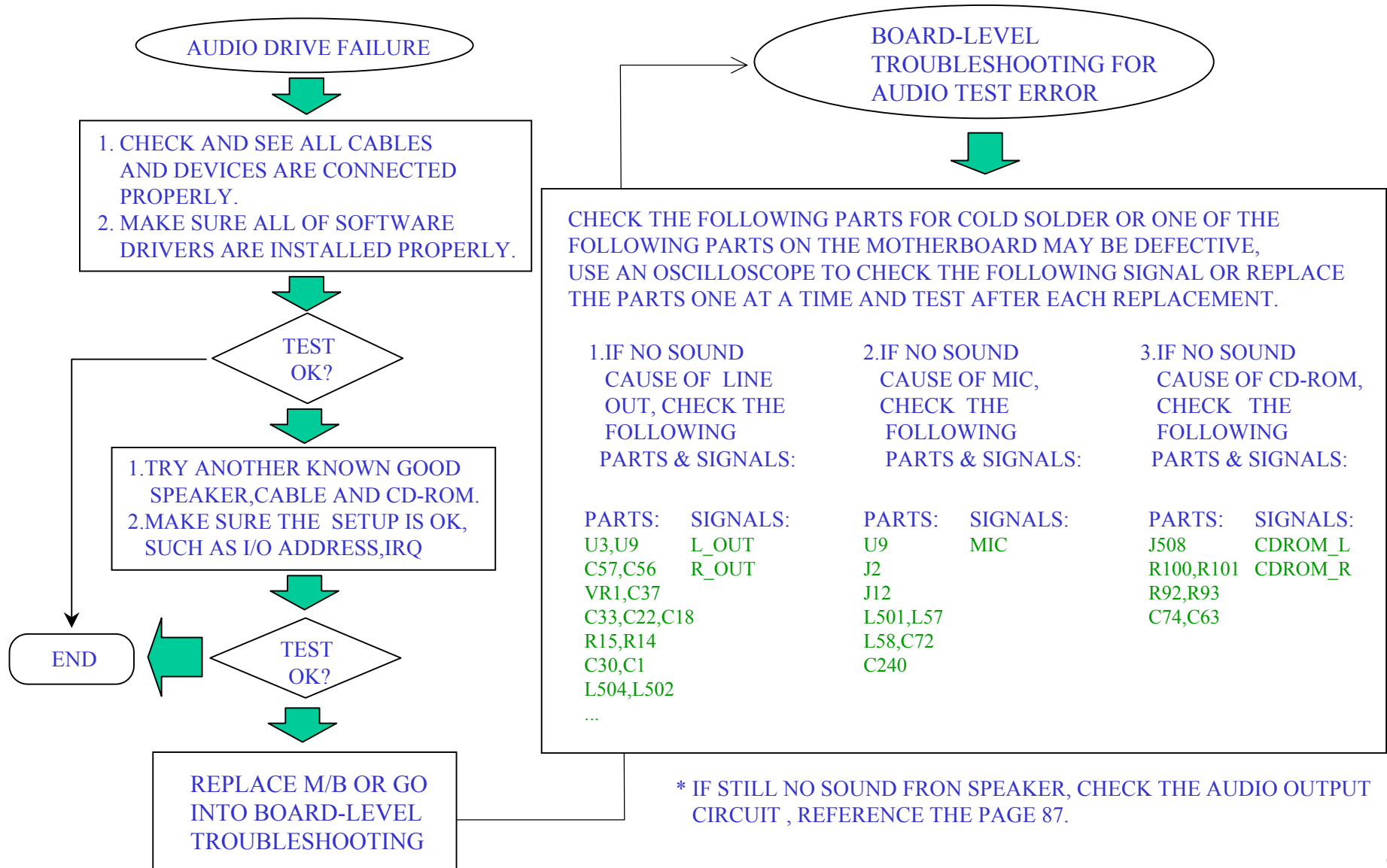
NO SOUND FROM SPEAKER AFTER AUDIO DRIVER IS INSTALLED.



6033 M/B MAINTENANCE

7.15 AUDIO FAILURE

NO SOUND FROM SPEAKER AFTER AUDIO DRIVER IS INSTALLED.



6033 M/B MAINTENANCE

8. SPARE PARTS LIST-1 ***** NB;6033/TSXX/XXA/XXXX/NXDN1 Spare Parts List *****

PART_NO	DESCRIPTION	LOCATION
526266580008	NB;6033/TSXX/XXA/XXXX/NXDN1	
416266580003	NB PLATFORM;SANYO,TFT,12.1",6033	
523411442008	FD DRIVE;1.44M,3 MODE,D353G	
422665400003	FFC ASSY;FDD,CONDUCTIVE TAPE,VEN	
343665400009	SHIELD;FDD,VENUS	
345665400024	SPONGE;FDD,PORON,L,VENUS	
345665400032	GASKET;FDD/166,VENUS	
242600020904	LABEL;BLANK,PAPER 25.4*12.7	
411665400009	PWA;PWA-VENUS V1 LED BD	
271071152302	RES;1.5K ,1/16W,5% ,0603,SMT	R6,8
271071681301	RES;680 ,1/16W,5% ,0603,SMT	R1-5,7
291000020601	CON;HDR,MA,6P*1,1.25MM,R/A,SMT	J1
294011200001	LED;GRN,H1.5,0805,PG1102W,SMT	D1,2,501,502
294011200006	LED;RE/GR,H1.5,L3,W2.5,BRPG1201W	D3,503
361400003021	SOLDER CREAM;NOCLEAN,P4020870980	
365350000015	SOLDER WIRE;63/37 FLOX:245,DIA:1	
412219300001	PCB ASSY;INVERTER BD,12.1",VENUS	
413000020132	LCD;TM121SV-02L01,12.1",TFT,SANY	
421665800009	WIRE ASSY;SANYO,12.1" LCD,6033	
421665400003	WIRE ASSY;BKLGHT,MB/INVRT/LED,VE	
225665400005	CONDUCTIVE TAPE;LCD/166,VENUS	
242664800013	LABEL;CAUTION,INVERT BD,PITCHING	
340665400001	TILT UNIT;R,ENTRY	
340665400002	TILT UNIT;L,ENTRY	
340665500003	COVER ASSY;12.1",LCD,5033	
340665500014	HOUSING ASSY;SYO/SAMSU,12.1LCD,5	
341665400001	SPRING;LATCH,LCD,ENTRY	
344665500007	LATCH;LCD,5033	
344665500008	HOLDER;LCD,5033	
345665400028	GASKET;LCD SHIELD,VENUS	

PART_NO	DESCRIPTION	LOCATION
345665500003	CUSHION;DOWN,LCD,5033	
345665500006	CUSHION;TOP LCD,5033	
346665400008	INSULATOR;INVERTER BD,LCD,VENUS	
346665400036	INSULATOR;MIC/166,VENUS	
370102010502	SPC-SCREW;M2 L5,NIB,K-HD,727	
370102610401	SPC-SCREW;M2.6L4,NIB,727,NLK	
371103010615	SPC-SCREW;M3L6,FLNG(+),NIW,NLK	
225664300001	TAPE;INSULATION,AC04,5024	
339111100002	SPEAKER ASSY;CASE KIT,VENUS	
340665800024	TOP SHIELD ASSY;CASE-KIT,6033	
340665400015	BRKT ASSY;TOUCH PAD,VENUS	
340665800001	HOUSING ASSY;CASE KIT,6033	
341665400007	HOLDER;TOUCH PAD,VENUS	
341665400010	FINGERS,I/O BRKT,VENUS	
341665500002	FINGER;I/O BRACKET,5033	
341665500003	FINGER;HEAT SINK,5033	
342665800001	BRACKET;I/O,CASE KIT,6033	
340665800007	BOTTOM SHIELD ASSY;CASE KIT,6033	
344665500015	COVER;L,HINGE,CASE KIT,5033	
344665500016	COVER;R,HINGE,CASE KIT,5033	
344665500018	COVER;REAR,CASE KIT,5033	
344665500019	COVER;MODEM,HOUSING,CASE KIT,503	
344665500023	DOOR;PCMCIA,CASE KIT,5033	
344665500025	BUTTON;TOUCH PAD,CASE KIT,5033	
344665500027	LEVER;I/O BRACKET,CASE KIT,5033	
344665500036	CAP;FAX MODEM,5033	
340665800023	CPU COVER ASSY;6033	
344665500033	DOOR;I/O,CASE KIT,THERMAL,5033	
345665400013	GASKET;USB,VENUS	
345665400029	GASKET;1*5*10MM,VENUS	

6033 M/B MAINTENANCE

8. SPARE PARTS LIST-2

PART_NO	DESCRIPTION	LOCATION
346665400006	INSULATOR;T/P SWITCH BD,VENUS	
346665400009	INSULATOR;I/O PANEL,VENUS	
346665400016	INSULATOR;BATTERY,VENUS	
346665400019	THERMAL PAD;20*20*.5,VENUS	
346665400023	INSULATOR;M/BD,VENUS	
346665400025	INSULATOR;SW BD CON.,VENUS	
370102010201	SPC-SCREW;M2L2,NIW,K-HD,727	
370102010404	SPC-SCREW;M2L4,K-HD,NIB	
370102610401	SPC-SCREW;M2.6L4,NIB,727,NLK	
370102610602	SPC-SCREW;M2.6 L6,NIB,K-HD,727	
370103010604	SPC-SCREW;M3L6,NIB,727,NYLOK	
371102010010	SCREW;M2L4,FLT(+),NIW	
371102610081	SCREW;M2.6L8,PAN(+),NIB	
371102610401	SCREW;M2.6L4,FLT(+),NIW	
411665400005	PWA;PWA-ENTRY T/P SW BD	
271071103302	RES;10K ,1/16W,5%,0603,SMT	R1
272072104702	CAP;.1U ,16V,+80-20%,0603,SMT	C1,4
272075470701	CAP;47P ,50V ,+80-20%,0603,SMT	C2,3,5,6
273000130001	FERRITE CHIP;120OHM/100MHZ,1608,	L1,2,3
291000014801	CON;HDR,FM,24P*2,1.27,ST,SMT	J2
291000150804	CON;FPC/FFC,8P,1MM,R/A,2CONTACT,E	J1
297040101003	SW;PUSH BUTTON,SPST,.1A,30V,2P,S	SW1,2
331040044004	CON;HDR,FM,22P*2,2MM,R/A,SPEEDTE	J3
338530010005	BATTERY;LI,3V/220MAH,CR2032	
298000000002	BATTERY HOLDER;FOR CR2032,BH-800	BT1
361400003021	SOLDER CREAM;NOCLEAN,P4020870980	
365350000015	SOLDER WIRE;63/37 FLOX;245,DIA:1	
370102010401	SPC-SCREW;M2L4,NIB,FLT(+),NL,731	
421665500072	MICROPHONE ASSY;HOUSING,5033H	
345665400031	SPONGE;FDD/4MM,VENUS	

PART_NO	DESCRIPTION	LOCATION
422665400002	FFC ASSY;TOUCH PAD,CASE KIT,VENU	
442110500007	TOUCH PAD MODULE;904251-0000,L65	
370103010401	SPC-SCREW;M3L4,K-HD(+),D5.2,NIW,	
370102610401	SPC-SCREW;M2.6L4,NIB,727,NLK	
340665400026	BRKT ASSY;HDD/9.5MM,VENUS	
340665800008	HEATSINK ASSY;CASE KIT,6033	
342665800011	BRACKET;CPU,6033	
370102010802	SPC-SCREW;M2L8,K-HD(+),NIB	
345665400037	GASKET;AUDIO/166,VENUS	
345665400036	CONDUCTIVE TAPE;TOUCH PAD/166,VE	
411665800001	PWA;PWA-6033 MOTHER BD	
242600000001	LABEL;PAL,20*5MM,COMMON	
242600000145	LABEL;10*10,BLANK,COMMON	
242600000158	LABEL;10*10,BLANK,COMMON,HI-TEMP	
242600000169	LABEL;BLANK,23.8*5MM,COMMON	
242600000170	LABEL;PCMCIA CARD WORKS/95 EN	
242600000195	LABEL;PENTIUM-BP,SYSTEMSOFT BIOS	
242901300011	LABEL;BAR CODE,IB,BBU	
341665400014	SHIELD;PCMCIA/200,VENUS	
341665400005	SPRING;DC JACK,VENUS	
341665400006	SHIELD;AUDIO,VENUS	
346665800003	INSULATOR;PCMCIA,6033	
370102010302	SPC-SCREW;M2L3,NIW,K-HD,736	
341665800001	STANDOFF;CPU,6033	
312271006152	EC;100U ,10V,M,RA,D6.3*9.8,OS-CO	PC505,506,509,526
312271006350	EC;100U ,25V,20%,RA,6.3*7,-40~10	PC502-504,510,511
312272206152	EC;220U ,4V ,M,RA,D8*5,OS-CON	PC515
312273306151	EC;330U ,6.3V,20%,RA,D10,W/OS-CO	PC507,519,524,527
313000020110	CHOKE COIL;8uH,12.5TS,D0.8,55130	PL505
313000020114	CHOKE COIL;15uH,16.5TS,D0.8,5513	PL503

6033 M/B MAINTENANCE

8. SPARE PARTS LIST-3

PART_NO	DESCRIPTION	LOCATION
313000020148	CHOKE;15UH,D.7*16T/.2*32,55130,T	PT501
331000006002	CON;BATTERY,6P,5MM,GOLD,5010S-06	J510
331720009004	CON;D,MA,9P,2.775,R/A	J503
331720015006	CON;D,FM,15P,2.29,R/A,3ROW	J504
331720025005	CON;D,FM,25P,2.775,R/A	J502
331840005002	CON;STEREO JACK,5P,R/A,D3.6,2 SW	J1,J2
331870006011	CON;MINI DIN,6P,R/A,W/GROUNDING	J501
331910003003	CON;POWER JACK,3P,16VDC/3A	PJ501
337030105013	SW;TOGGLE,SPST,5V/1mA	SW1
337120124001	SW;DIP,SPST,2P,25VDC,24MA,HDK632	SW501
411665800003	PWA;PWA-6033 SMT MOTHER BD	
271002000301	RES;0 ,1/10W,5% ,0805,SMT	R48
271071301211	RES;30.1K,1/16W,1% ,0603,SMT	PR19
271071593101	RES;59K ,1/16W,1% ,0603,SMT	PR22
271002152101	RES;1.5K,1/10W,1% ,0805,SMT	R115
271071118311	RES;118K ,1/16W,1% ,0603,SMT	PR24
271002187111	RES;1.87K,1/10W,1% ,0805,SMT	R122
271071237311	RES;237K ,1/16W,1% ,0603,SMT	PR26,PR37
271071102311	RES;102K ,1/16W,1% ,0603,SMT	PR28
271002472301	RES;4.7K,1/10W,5% ,0805,SMT	PR501,PR2,PR47
271071562311	RES;562K ,1/16W,1% ,0603,SMT	PR31
271002102301	RES;1K ,1/10W,5% ,0805,SMT	PR1
271002103301	RES;10K ,1/10W,5% ,0805,SMT	PR52
271012100301	RES;10 ,1/8W,5% ,1206,SMT	R195,R196,R201
271012202301	RES;2K ,1/8W,5% ,1206,SMT	R184
271071576311	RES;576K ,1/16W,1% ,0603,SMT	PR49
271071976311	RES;976K ,1/16W,1% ,0603,SMT	PR51
271045107101	RES;.01 ,1W ,1% ,2512,SMT	PR16,PR502
271012561301	RES;560 ,1/8W,5% ,1206,SMT	R203
271045257101	RES;.025 ,1W ,1% ,2512,SMT	PR9,PR8

PART_NO	DESCRIPTION	LOCATION
271071100302	RES;10 ,1/16W,5% ,0603,SMT	R169
271071000002	RES;0 ,1/16W,0603,SMT	PR36,
271071101301	RES;100 ,1/16W,5% ,0603,SMT	R114,R544,PR5
271071102102	RES;1K ,1/16W,1% ,0603,SMT	PR503,PR10
271071102302	RES;1K ,1/16W,5% ,0603,SMT	R1,R57,R66,R94,
271071103101	RES;10K ,1/16W,1% ,0603,SMT	PR6,PR12,PR18,
271071103302	RES;10K ,1/16W,5% ,0603,SMT	R4,9,19,24,
271071104101	RES;100K ,1/16W,1% ,0603,SMT	R2,R3,R11,PR13,PR32,
271071105101	RES;1M ,1/16W,1% ,0603,SMT	PR40,R189,R190,R197,
271071105301	RES;1M ,1/16W,5% ,0603,SMT	R56,R58,R117,
271071113301	RES;11K ,1/16W,5% ,0603,SMT	R113
271071121211	RES;12.1K,1/16W,1% ,0603,SMT	PR39
271071121301	RES;120 ,1/16W,5% ,0603,SMT	R524
271071124311	RES;124K ,1/16W,1% ,0603,SMT	PR11,PR25
271071153301	RES;15K ,1/16W,5% ,0603,SMT	R7,R23,R78,R84,
271071180301	RES;18 ,1/16W,5% ,0603,SMT	R155,R76
271071118211	RES;11.8K,1/16W,1% ,0603,SMT	PR48
271071203101	RES;20K ,1/16W,1% ,0603,SMT	R17,R8,R554,R525
271071205211	RES;20.5K,1/16W,1% ,0603,MST	PR7
271071221302	RES;22 ,1/16W,5% ,0603,SMT	R69,R71,R75,R80,R85,
271071222302	RES;2.2K ,1/16W,5% ,0603,SMT	R68,R72,R102
271071261311	RES;261K ,1/16W,1% ,0603,SMT	PR34,PR42
271071249211	RES;24.9K,1/16W,1% ,0603,MST	PR505,PR504
271071270301	RES;27 ,1/16W,5% ,0603,SMT	R83,R90
271071301311	RES;301K ,1/16W,1% ,0603,SMT	R185
271071330302	RES;33 ,1/16W,5% ,0603,SMT	R49,R73,R74,R88,R139
271071332302	RES;3.3K ,1/16W,5% ,0603,SMT	R70
271071402311	RES;402K ,1/16W,1% ,0603,SMT	PR511
271071470301	RES;47 ,1/16W,5% ,0603,SMT	R543,R165
271071471302	RES;470 ,1/16W,5% ,0603,SMT	R16,R18,R21,R198,

6033 M/B MAINTENANCE

8. SPARE PARTS LIST-4

PART_NO	DESCRIPTION	LOCATION
271071472302	RES;4.7K ,1/16W,5% ,0603,SMT	R25,R28,R35,R41,
271071473301	RES;47K ,1/16W,5% ,0603,SMT	R103,PR30
271071474301	RES;470K ,1/16W,5% ,0603,SMT	R173,542
271071499111	RES;4.99K,1/16W,1% ,0603,SMT	R553,PR50
271071324111	RES;3.24K,1/16W,1% ,0603,SMT	PR507,515
271071514301	RES;510K ,1/16W,5% ,0603,SMT	PR33
271071562301	RES;5.6K ,1/16W,5% ,0603,SMT	R97,R112,PR15
271071564301	RES;560K ,1/16W,5% ,0603,SMT	R12
271071681301	RES;680 ,1/16W,5% ,0603,SMT	R129,170,194,219
271071682101	RES;6.8K ,1/16W,1% ,0603,SMT	R101,R100
271071121111	RES;1.21K,1/16W,1% ,0603,SMT	PR506
271071750101	RES;75 ,1/16W,1% ,0603,SMT	R530,R531,R534
271071976211	RES;97.6K,1/16W,1% ,0603,SMT	PR45
271571180301	RP;18*8 ,16P ,1/16W,5% ,1606,SM	RP31,RP33,RP36,RP37,
271571330301	RP;33*8 ,16P ,1/16W,5% ,1606,SM	RP16,RP18,RP20
271611102301	RP;1K*4 ,8P ,1/16W,5% ,0612,SMT	RP26,RP7
271611103301	RP;10K*4 ,8P ,1/16W,5% ,0612,SMT	RP6,3,39
271611220301	RP;22*4 ,8P ,1/16W,5% ,0612,SMT	RP50
271611330301	RP;33*4 ,8P ,1/16W,5% ,0612,SMT	RP10,RP12-15,RP22
271621103303	RP;10K*8 ,10P,1/16W,5% ,1206,SMT	RP1,RP4,RP8,RP17,
271621120301	RP;120*8 ,10P,1/16W,5% ,1206,SMT	RP501-516,RP518
271621472303	RP;4.7K*8,10P,1/16W,5% ,1206,SMT	RP2,RP5,RP9,RP11,
271621473301	RP;47K*8 ,10P,1/16W,5% ,1206,SMT	RP34,RP35,RP38,RP40,
272002105701	CAP;1U ,CR,16V ,+20+80%,0805,SM	PC6,C17,C18,PC23,
272002334401	CAP; .33U ,CR,16V ,10%,0805,SMT	PC514,PC513
272012225702	CAP;2.2U ,CR,16V ,+80-20%,1206,Y	C56,C57,C65,C89,
272012475701	CAP;4.7U ,CR,16V ,+80-20%,1206,Y	C94,C112,C137,C143,
272013105501	CAP;1U ,CR,25V ,+80-20%,1206,S	PC4
272015474501	CAP; .47U ,CR,50V,20%,1206,Z5U	C247,C241,C246
272021106501	CAP;10U ,10V ,20%,1210,X7R,SMT	PC20,PC32

PART_NO	DESCRIPTION	LOCATION
272022106501	CAP;10U ,16V,20%,1210,Y5U,SMT	PC8,PC9,PC36,PC512
272022106701	CAP;10U ,16V,+80-20%,1210,Y5V,S	C162,C207,C226,
272043106501	CAP;10U ,CR,25V ,20%,1812,Y5U,S	PC16,PC38
272072221301	CAP;220P ,16V,5% ,+30+85'C,0603,	C250
272072224701	CAP; .22U ,16V ,+80-20%,0603,Y5V,	C63,C70-72,C74
272072473401	CAP; .047U,16V ,10%,0603,Y5V,SMT	C22,C33,C59
272073104501	CAP; .1U ,25V,20%,0603,SMT	PC2,C5,C7,PC11,
272073180401	CAP;18P ,CR,25V ,10%,0603,NPO,S	C82,C84,C177,C178
272073330701	CAP;33P ,25V ,+80-20%,0603,SMT	C38-C49,C511-C521
272075100701	CAP;10P ,50V ,+80-20%,0603,SMT	C76,C92,C93,C103,
272075101701	CAP;100P ,50V ,+80-20%,0603,SMT	C9,503-505,248
272075102403	CAP;1000P,CR,50V,10%,0603,X7R,SM	PC17,523
272075102701	CAP;1000P,50V ,+80-20%,0603,SMT	C4,PC5,PC14,C19,C25,
272075103702	CAP;.01U ,50V,+80-20%,0603,SMT	C55,C96,C105,C110,
272075103501	CAP;.01U ,50V ,20%,0603,SMT	PC33
272075121401	CAP;120P ,CR,50V ,10%,0603,NPO,S	C12,C10
272075220301	CAP;22P ,50V ,5% ,0603,COG,SMT	C193,C194
272075222701	CAP;2200P,50V ,+80-20%,0603,SMT	C598
272075470701	CAP;47P ,50V ,+80-20%,0603,SMT	C8,C11,C13-15,
272075471401	CAP;470P ,50V,10%,0603,SMT	C21,C31,C104
272075561701	CAP;560P ,CR,50V ,+80-20%,0603,S	C36,C20
272075681401	CAP;680P ,50V ,10%,0603,X7R,SMT	C61,C62
272431225501	CAP;220U ,TT,4V,20%,7243,OS-CON,	PC12
272601227501	EC;220U ,10V,M,6.3*7.7,-15+105',	C2
272601476501	EC;47U ,6.3V,M,5*5.5,-40+85',SM	C50
272602107501	EC;100U,16V,M,6.3*5.5,-55+85'C,S	C1,3,6,30
272625101401	CP;100P*4,8P,50V ,10%,1206,NPO,S	CA1-3
272625470401	CP;47P*4 ,8P,50V ,10%,1206,NPO,S	CA4,501-504
273000130001	FERRITE CHIP;120OHM/100MHZ,1608,	L1,L3,L4,L5,L8,
273000130006	FERRITE CHIP;600OHM/100MHZ,.2A,1	L7,L11,L20-23,L25,

6033 M/B MAINTENANCE

8. SPARE PARTS LIST-5

PART_NO	DESCRIPTION	LOCATION
273000130010	FERRITE CHIP;130OHM/100MHZ,1608,	L27-38,L510-519
273000150002	FERRITE CHIP;120OHM/100MHZ,2012,	L9,L10,L17,L18,L39,
273000150013	FERRITE CHIP;120OHM/100MHZ,2012,	L2,L6,L16,L19,L24,
273000500006	CHOKE COIL;7UH,7TS,T6*4*2, VENUS,	PT502
273000990014	INDUCTOR;47uH,CD54,SUMIDA,SMT	PL1
274011600405	XTAL;16MHZ,30PPM,16PF,SMT	X5
274011431406	XTAL;14.318MHZ,30PPM,32PF,H2.5,S	X1,X3,X4
274013276103	XTAL;32.768KHZ,30PPM,12.5PF,CM20	X2
282074338401	IC;74CBT3384DBQ,Q SWITCH,QSOP,24	U28
282574164002	IC;74VHC164,SIPO REGISTER,TSSOP,	U23
283766580001	IC;SDRAM,1M*16*4-100,TSOP,54P,60	U14,U22,U27,U31
284104011001	IC;W40S11-02,SDRAM BUFFER,SSOP,2	U8
284182371005	IC;FW82371EB,PIIX4E,PCI/ISA,BGA3	U6
284501220001	IC;PCI1220,PCI/CARDBUS,TQFP,208P	U503
284501284001	IC;PAC1284-01Q,TERMIN.NETWK,QSO	U2,U1
284501869001	IC;ES1869F,AUDIO DRIVE,PQFP,100P	U9
284502160001	IC;NM2160,VGA CTRL,TQFP,176P	U10
284548111001	IC;W48C111-16,SYSTEM CLOCK,SSOP,	U7
284582443010	IC;FW82443BX,HOST BRIDG,BGA492,6	U19
242600000158	LABEL;10*10,BLANK,COMMON,HI-TEMP	
284583434001	IC;H8/F3434,KBD CTRL,TQFP,100P	
284590363001	IC;DS90C363,LVDS,18BIT,SSOP,48P	U4
284597338001	IC;PC97338VJG,SUPER I/O,TQFP,100	U18
286100102001	IC;TPA0102,AUDIO AMP,1.5W,TSSOP,	U3
286100393004	IC;LMV393,DUAL COMPARTOR,SSOP,8P	PU7,PU8
273000150105	INDUCTOR;12UH,10%,15MA,2012,SMT	L59
286200213002	IC;ADM213E,RS-232,+,-15KVESD,SSOP	U501
286300055001	IC;TC555,3.3V,250mA,REG,SOT89	U34
286300431011	IC;SC431CSK-.5%,5%,ADJ REG,SOT23	PQ17,PQ5,PQ25
286300594001	IC;TL594C,PWM CONTROL,SO,16P	PU3

PART_NO	DESCRIPTION	LOCATION
286300809002	IC;MAX809,RESET CIRCUIT,2.9V,SOT	U32
286302206001	IC;TPS2206,CARDBUS PWR CTRL,SSOP	U33
286302675002	IC;LM2675-ADJ,REGULATOR,1A,SO,8P	PU2
286302951015	IC;LP2951ACM,VOLTAGE REGULATOR,S	U5,U29
286303032001	IC;SB3032P,PWM CTRL,SO,16P	PU6
286303052001	IC;SB3052P,PWM CTRL,SSOP,28P	PU501
286317812001	IC;HA178L12UA,VOLT REGULATOR,SC-	PU1
286303480001	IC;LM3480,VOLTAGE REGULATOR,SOT-	U20
286501410001	IC;MK1410,NTSC/PAL CLOCK,SO,8P,S	U12
286501704001	IC;MK1704S,CLOCK GENERATOR,SO,8P	U15
288001100003	FIR;HSDL-1100,TRANSCEIVER,T07,SM	U504
288100020002	DIODE;RLZ2.0B,ZENER,2.02-2.2,5%,	PD6
288100024002	DIODE;RLZ24D,ZENER,23.63V,5%,SMT	PD4
288100027001	DIODE;RLZ2.7B,ZENER,2.6-2.91,5%,	PD3
288100032013	DIODE;BAS32L,VRRM75V,MELF,SOD-80	PD12,PD15,PD16,
288100056001	DIODE;RLZ5.6B,ZENER,5.6V,5%,LL34	PD5
288100056003	DIODE;BAW56,70V,215MA,SOT-23	D8
288100073002	DIODE;SFPJ-73,DC2010,30V,3A,SMT	PD2,PD7,PD8,PD11,
288100202001	DIODE;DAN202K,80V,SWITCH,SMT	PD503
288100212001	DIODE;DAN212K,80V,SWITCH,SOT23	D12,D10
288100701002	DIODE;BAV70LT1,70V,225MW,SOT-23	D14
288101004024	DIODE;EC10QS04,RECT,40V,1A,CHIP,	PD1,PD9,PD10
288104148001	DIODE;RLS4148,200MA,500MW,MELF,S	D1,D9,D11,D13,D15,
288200144001	TRANS;DTC144WK,NPN,SOT-23,SMT	PQ13,Q14,PQ16,Q501,
288200144002	TRANS;DTA144WK,PNP,SMT	PQ10
288200352001	TRANS;NDS352P,DMOS,TO-236AB	Q15,Q506,Q509
288202302001	TRANS;SI2302DS,N-MOSFET,SOT-23	PQ4
288203904010	TRANS;MMBT3904L,NPN,Tr35NS,TO236	Q1,Q2,Q4,Q18
288203906018	TRANS;MMBT3906L,PNP,Tr35NS,TO236	Q8
288204410001	TRANS;SI4410DY,N-MOSFET,.02OHM,S	PQ2,PQ8

6033 M/B MAINTENANCE

8. SPARE PARTS LIST-6

PART_NO	DESCRIPTION	LOCATION
288204416001	TRANS;SI4416DY,N-MOSFET,.028OHM,	PQ3,PQ9
288204435001	TRANS;SI4435DY,P-MOSFET,.035OHM,	PQ1,PQ12
288207002001	TRANS;NDC7002N,N-MOSFET,SSOT-6	PU5,PU4
288209410001	TRANS;SI9410DY,N-MOSFET,.04OHM,S	PQ6,PQ7
288227002001	TRANS;2N7002LT1,N-CHANNEL FET	Q6,PQ11,PQ14,PQ15,
291000011001	CON;HDR,MA,10P*1,1.25,ST,SMT	J7
291000014003	CON;HDR,MA,20P*2,1.25MM,ST,SMT	J5
291000014802	CON;HDR,MA,24P*2,1.27,ST,H3.58,S	J11
291000014803	CON;HDR,MA,24P*2,1.27,ST,H1.5,SM	J508
291000015011	CON;HDR,MA/FM,25P*2,.8,ST,H=12MM	J506
291000020402	CON;HDR,SHROUD,MA,4P*1.2,0,R/A,U	J3
291000152401	CON;FPC/FFC,24P,1MM,R/A,ELCO	J9
291000152602	CON;FPC/FFC,26P,1MM,R/A,SMT,ELCO	J10
291000251441	CON;IC CARD,FM,72P*2,.6MM,H3MM,S	J507
291000410201	CON;WFR,MA,2P,1.25,ST,SMT/MB	J4,6
291000410301	CON;WFR,MA,3P,1.25,ST,SMT/MB	J505,12
291000612401	CON;IC SOCKET,240P,SMT,74217-001	U502
291000621445	DIMM SOCKET;144P,.8MM,GOLD,SMT	J509
294011200001	LED;GRN,H1.5,0805,PG1102W,SMT	D2-7
295000010014	FUSE;1.1A/6V,POLY SWITCH,PTC,SMD	F1,F501,F502
295000010016	FUSE;NORMAL,6.5A/32VDC,3216,SMT	PF501,F2
297120101005	SW;DIP,SPST,8P,50VDC,.1A,SMT,DHS	SW 502,SW 503
271611104301	RP;100K*4,8P,1/16W,5%,.0612,SMT	PRP1
242600000158	LABEL;10*10,BLANK,COMMON,HI-TEMP	
283420502004	IC;FLASH,256K*8-15,PLCC,32P, VENU	
288202222001	TRANS;MMBT2222AL,NPN,TO236AB	PQ18
361400003021	SOLDER CREAM;NOCLEAN,P4020870980	
313000020153	CHOKE;75uH,20%,D0.6,55130,H=14MM	PL504
271911103901	VR;10K ,.05W,20%,XV0102GPH1N-93	VR1
344600000225	IC CARD CON PART;72P*2,6033	

PART_NO	DESCRIPTION	LOCATION
346665400029	INSULATOR;AUDIO, VENUS	
365250000010	SOLDER BAR;63/37 ALLOY 1KG/BAR	
361200002002	THINNER;#111B,KESTER	
361200002001	FLUX;3961-E,LOW SOLIDS,NO CLEAN	
365350000015	SOLDER WIRE;63/37 FLOX;245,DIA:1	
361400003022	O-KONG BOND;777HFR,UL 94V0	
361400003027	SHIN-ETSU;KE45WS,RTV SILICON RUB	
221664750003	PARTITION;KEYBOARD,5026	
221665520006	CARTON;PC N/B,5033	
221665540003	BOX;INNER AK,5033	
222664720004	PE BUBBLE BAG;KEYBOARD,5026	
222663920008	PE BAG;150*200,FRU,LP486	
222664720001	PE BAG;310*450,T.08,RECY.,5026VO	
222665520003	PE BAG;80*200MM,5033	
227665500004	END CAP;N/B,5033	
227665500005	END CAP;TOP/BTM,AK,5033	
227665500006	END CAP;MIDDLE,AK,5033	
346665200015	FILM;LCD PROTECT,13.3",215*290,P	
242600000157	LABEL;BAR CODE & S/N,13.5*75,COM	
242662300009	LABEL;25*10MM,3020F	
242664400003	LABEL;WINDOWS 95,5023	
343664710002	NAMEPLATE;LOGO,1,5026,N-B	
242665800001	LABEL;AGENCY-GLOBAL,6033	
442665800001	BATT ASSY;12V/4AH,NIMH,TOSHIBA,6	
340665500013	BEZEL ASSY;CD-ROM,MAT SUSHITA,503	
342665500001	BRKT;CD-ROM,5033	
370102010201	SPC-SCREW;M2L2,NIW,K-HD,727	
421665800031	FPC ASSY;CD ROM,6033	
523408615011	CD ROM DRIVE;24X,UJDA150	
340665800017	COVER 1st ASSY;6033	
442665500001	AC ADPT ASSY;5033	