

CHIPFIXMASTER INSTITUTE

LAPTOP REPAIRING COURSE

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What will you learn in this course?

- ❖ Learn about All Basic Electronics Parts of Laptop & Desktop
- ❖ Learn about Complete Schematic Diagram & Board Viewer
- ❖ Complete Solution of BIOS Programming & Editing
- ❖ Advance Level Training on BGA Machine
- ❖ How to use I/O Programmer?
- ❖ Data & Signal Level Check with DSO/CRO Machine
- ❖ Laptop & Desktop Assembling and disassembling
- ❖ GFX to NON-GFX Conversion
- ❖ All types of Problems Solution for Laptop & Desktop
- ❖ Latest Generation Motherboard Repairing Tricks
- ❖ Hidden Trick of Laptop & Desktop Repairing
- ❖ Signal, Data, Frequency & Clock Level Training
- ❖ Dead Laptop & Desktop Repairing
- ❖ Water Damage Laptop & Desktop Repairing
- ❖ Complete IC Chip Level Training

SYLLABUS

Basic Electronics

- Introduction of (Volt, current, Watt, Ohms)
- Introduction of (AC/DC)
- How to Use Digital Multi-meter
- **Identification of Electronics Components**
 - Resistor, Capacitor, Transistor, Mosfet, Diode, Crystal, IC, Transformer, Fuse, Jumper, Thermistor, Switch, Coil etc.
- **Resistor**
 - Working Concept of Resistor
 - Types of Resistor
 - Symbol, Unit, Denoting Letter of Resistor
 - Resistor Colour Coding Concept
 - SMD Resistor Value
 - How to test Resistor on motherboard
- **Capacitor**
 - What is Capacitor?
 - Types of Capacitor.
 - What is Symbol, unit and Denoting Letter of Capacitor
 - Series and Parallel concept of Capacitor
 - Inboard and outboard Capacitor Testing
- **Diode**
 - Working Concept of Diode
 - How many types of Diode
 - Denoting Letter and Symbol of Diode
 - Bridge Rectifier Diode Concept
 - Testing of all types of Diode on motherboard
- **Transistor**
 - Working concept of Transistor on motherboard
 - Transistor Types
 - What is Symbol and Denoting Letter of Transistor
 - SMD and Normal Transistor Identification



- On-board Testing of SMD and Normal Transistor

- **Coil**

- Identification of Difference types of Coil
- Working of Coil (Inductor)
- Types of Coil
- Symbol, unit, Denoting Letter Concept of Coil
- Ok Testing of all types of Coil



- **Mosfet**

- Concept of SMD Mosfet
- Working concept of 3 pin, 6 pin, 8 pin Mosfet on motherboard
- Types of Mosfet
- What is Denoting letter and symbol of Mosfet
- Gate, Drain, Source pin Details
- Onboard Testing of all Types of Mosfet ✓ IC / Chip
- Working Concept of IC/Chip
- Identification of Difference Types of IC
- IC ok Testing on board

- **Transformer**

- Working Difference Types of Transformer
- Working of Transformer
- Symbol, Denoting Letter Concept of Transformer
- Testing Concept of Transformer

- **Crystal**

- Working Concept of Crystal
- RTC Crystal
- Symbol, unit, Denoting Letter Concept of Crystal
- Testing of Crystal by Multi-meter and CRO Machine



- **Fuse**
 - Working Concept
 - Symbol, Denoting Letter Concept of Fuse
 - Testing and Repair Concept of Fuse
- **Thermistor**
 - Types of Difference Thermistor
 - Working of Thermistor
 - Testing Concept of Thermistor
 - NTC, PTC Thermistor



Soldering & De-Soldering Practice

- How to remove all motherboard components
- Like- capacitor, transistor, mosfet, crystal, coil, diode, fuse etc.?
- How to fix all electronics components on motherboard easily?
- How to remove and fix all types of IC/chip from motherboard?
- How to remove and fix all types of port, connector, slot, socket Like -VGA Port, USB Port, ps2 port, SATA connector, CMOS battery?



Tracing of Laptop and Desktop Motherboard

- Volt in section.
- Step down section
- VRM section
- Ram section
- Chip section (Graphic Section, North Bridge, South Bridge Section)
- Battery section (Charging & Discharging Section)

- I/O (Input-Output) section
- Bios section
- LAN section
- Sound section
- USB section
- VGA section
- SATA section
- 3.3v, 5v section
- 1.2v, 1.8v, 1.5v, 2.5volt section
- Odd section
- LVDS section (LCD & LED Panel and Screen section)
- Keyboard section
- Clock generator section
- Wi-Fi section
- Fan section
- RTC section
- Soc section
- Adaptor circuit
- Sensor circuit3
- Intel GFX section
- Touch pad section
- Camera section
- SSD section
- GFX Section



ASSEMBLING & DISASSEMBLING

- Desktop Assembling and disassembling (For Fresher Students)
- Laptop Assembling and Disassembling process

SMPS Repairing

- How to check SMPS on and off condition?
- How to check SMPS all voltage supply track?
- How to check and repair 3.3v,5v,12v, -12v, SB 5v, PG 5v, PS 5volt

- SMPS problems repair
 - SMPS dead condition repair
 - SMPS power drop problem
 - SMPS restarting problem
 - SMPS suddenly power off problem



Adaptor / Charger Repairing

- How to check adaptor on and off condition?
- How to repair dead condition laptop adaptor?
- How to check adaptor high low voltage problem? ✓ How to check adaptor shorting problem?

Faults Finding and On-board Solution

- No display problem solution
- Dead motherboard problem solution
- Automatic Restarting error repairing
- Hanging problem of laptop and desktop
- Charging & discharging faults of laptops
- Dim screen faults solution
- Automatic off problem & Blue screen
- Date and time error
- Heating faults of laptop and desktop
- Fan not working faults of laptop and computer
- Motherboard Shorting faults
- Linkage problem & USB not working faults
- Hard disk not working
- Error from Webcam (camera)
- Wi-Fi not working problem
- Sound related faults solution
- Network related problem

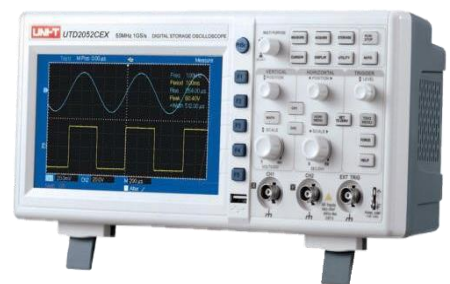


- Laptop Touch pad not working
- Keyboard not working faults of laptop and desktop
- Bluetooth and card reader problem
- White screen faults of laptops
- Hinge repair of laptops
- On/off switch related faults
- BIOS password removing method



Schematic Diagram Concept of Motherboard

- Desktop block Diagram of Motherboard
- Laptop block Diagram of motherboard
- Difference Between Laptop & Desktop Block Diagram
- How to download schematic from different website?
- How to read schematic?
- How to read board viewer software?



Advance Level Repairing with Machine

- **BGA MACHINE:** How to work on BGA machine for Chip Re-balling (Graphic chip, PCH chip, North bridge chip, South bridge chip)
- **BIOS PROGRAMMER:** How to use BIOS programmer for reprogramming Laptop bios chip, Desktop bios chip, Lcd, Led TV Bios chips.
- **CRO/DSO MACHINE:** How to use CRO Machine for checking all signal on motherboard like reset signal, clock signal, bios signal and frequency?
- **DC MACHINE:** How to check various voltage from DC Power Supply machine?
- **DIAGNOSTIC CARD:** How to check motherboard problems using diagnostic card?
- **I/O PROGRAMMER:** How to Reprogram I/o chip with ENIT I/O PROGRAMMER
- **SMD TESTER:** How to check all electronics components with SMD TESTER
- **MICROSCOPRE:** How to track and repair motherboard using microscope ✓
- **ENIT MO METER:** How can remove shorting with ENIT MO METER