

Product Name :
LCD TV systems Trainer

Product Code :
TVL4



Description :

LCD TV systems Trainer - This LCD trainer should be designed to teach television operation, theory and trouble shooting of color televisions. The trainer should be based upon a popular brand color television with modifications done to enhance the learning experience and could be integrated with other AV trainer for a complete AV systems. This LCD TV trainer should be based upon world famous brand name products such as Panasonic, Sharp, LG JVC, Hitachi, Sony, Samsung, etc. These trainers are specifically created to teach television operation, theory, repair and servicing. Special attention is given to fault diagnosis so as to facilitate the teaching of troubleshooting techniques. The TV is mounted on an attractive chassis which allows the main printed circuit board to be exposed for ease of work. The circuit board features a Plexiglas cover which has openings for access to all test points so as to allow insertion of probes while protecting the student and the circuit board.

Courseware:

The trainer should be included with operation manuals, experiment manuals which include step-by-step chapters with theoretical information and practical student experiments and a general book on equipment servicing and theory. Each chapter must include student tests with an answer key. The trainer should be provided to cover the following minimum experiment topics:

- Introduction LCD television hardware
- Troubleshooting on USB circuit

- Troubleshooting on Tuner circuit
- Troubleshooting on Sound Demodulator circuit
- Troubleshooting on Video Demodulator circuit
- Troubleshooting on Audio Video input circuit
- Troubleshooting on Audio out circuit
- Troubleshooting on Audio Amplifier Circuit
- Troubleshooting on Panel Control circuit
- Troubleshooting on System Controller Circuit
- Troubleshooting on DDR2 SDRAM circuit
- Troubleshooting on E-Eprom circuit
- Troubleshooting on Liquid Crystal Display circuit
- Troubleshooting on Back Light Inverter circuit
- Troubleshooting on IR Receiver circuit
- Troubleshooting on Power Supply circuit

Modules:

The color television trainer should be mounted on an attractive chassis, which allows the printed circuit boards to be exposed for ease of work. All circuit boards should have Plexiglas covers with openings for access to all test points so as to allow insertion of probes and it should be short circuit protected. The trainer should allow access for the entire factory recommended key test point for the taking of measurements, analysis and adjustments. All controls should be functional just as on an actual color television.

Specifications:

The color television trainer should have the following specifications:

TV Receiver : Sharp, LG, Samsung or other

Broadcast System : PAL NoB/G.D/K,I

Size : 22" LCD, Dynamic Contract Ratio

Power requirements : 220V/50-60Hz/1Ph

Antenna Impedance : 75 Ohm

Channels : VHF Channel 1 – 11, UHF Channel 21 – 69

Sound System : Built-in speaker for dynamic Hi-Fi sound

Fault System :The Trainer includes an electronically selectable fault system mounted on a panel display board featuring the circuit block diagram silk screened onto it. (20 Faults)

Circuit Board : Solid state system incorporating integrated circuits and microprocessor chips.

On Screen Indicator : Current channel, tuning frequency, volume level, color level, brightness level and skip.

Chassis : Should be mounted on a special chassis with exposes all key circuit boards and parts for ease of work. Circuit boards should be protected by Plexiglass panels which have test probe holes to allow access for measurement tests.

Courseware a) Factory service manual

b) Student job sheets, fault guide, wiring diagram

c) General book on television servicing and theory

Electronic Fault Insertion System:

- Multiple electronic fault insertion system: This system should allow for up to 20 faults to be inserted at any one time. Faults can be inserted individually or in groups.
- Circuit block Diagram Electronic Fault Display Panel: Features electronic schematic block diagram with faults indicated by LEDs. When the fault is electronically activated a corresponding LED will illuminate showing the fault is active.
- Student Testing Mode: The LED fault indication display can be deactivated, so that the faults can be active but the display is switched off.
- Electronic Fault Reset Button: The LED control should have a fault-reset button that will clear and reset the system back to normal.
- Test Points: The trainer should have short circuit protected test points that allow the student to take measurements during the troubleshooting exercises.

Technical Specification :

LCD TV systems Trainer

Naugra Export

Website: www.naugraexport.com, **Email:** sales@naugraexport.com

Address: 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, 2601773