



# HIGH DEFINITION TV (HDTV) TRAINER

MODEL - HDTV100

This trainer has been designed with a view to provide theoretical and practical knowledge of a general High Definition TV (HDTV) on SINGLE P.C.B.



## FEATURES

1. The main circuit board is soldered on single PCB.
2. The students can visually observe the electronic circuits and mechanical parts easily.
3. The block diagram is printed on single PCB.
4. Fault creation facilities are provided by switches.
5. About more than 5 faults can be demonstrated on this trainer.
6. Section wise different circuit screen printed on the PCB for easy understanding of functions of different Sections.
7. Explanation, Observation, Alignment and adjustment of internal and External controls is possible at a glance due to single PCB.
8. Easy identification of different parts of HDTV at a glance.
9. Easy measurement of Voltages and observation of waveforms at any point. Also typical voltages and waveforms are provided.
10. The whole circuit of HDTV is explained section wise in detail in the manual.

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**Dealer:-**

## SPECIFICATIONS

1. Display : 19" Diagonal Size, Flat panel display / TFT active matrix
- Max Resolution : 1360 x 768
- Aspect ratio : 16:9
- HDTV Resolution Lines : VGA interface, 480i/480p/720p
2. Image
- Image Brightness : 300 cd/m<sup>2</sup>
- Image Contrast Ratio : 400:1
- Image Max H-View Angle : 140
- Image Max V-View Angle : 140
3. Interface
- HDTV (Digital Video) Input : HDMI
- Analog Video Input : RGB, VGA (HD-15)
- Analog Video Input : S-Video
- Composite Video Input : RCA Yellow,
- Audio Input : RCA- Left (White), Right (Red)
- Component Input : Pr(Red), Pb (Blue)
- Audio output : Headphone Audio output
- Antenna RF Input : RF - HDTV/ PAL - SDTV
- USB
4. Computer Monitor Driver : Windows XP
5. Tuner Channels : 2 to 69
6. On Screen display : Volume, Brightness, Contrast, Color, Channel, Tuning.
78. Remote Control functions : On screen display of Volume, Brightness, Contrast, Channel
8. Audio Amplifier : 6W PMPO
9. Test Points : 6 Nos.
10. Faults : 6 Nos.
11. Power supply : 230V + 15% AC, 50 Hz, 60 watts.
- 12. Books for Audio video Engineering : 10 Nos in pdf Format**
- 13. Mp4 Video Class for Audio video Engineering : 40 Classes in Mp4 on Pen Drive**
14. Standard Accessories : 1. Trainer PCB with LCD display.  
2. Different input Cables  
3. A Manual having 10 practical.

## EXPERIMENTS

1. To Study Specifications of HDTV.
2. To Study the Block Diagram and working principle
3. To Study Input/output signals of different sections
4. To Study Complete circuit with different sections
5. To Study Remote Section
6. To understand/observe the function of external and Internal controls
7. To measure Test Point Voltages for different sections
8. To observe Test Point Waveforms for different sections
9. To measure Video and Audio gain (sensitivity) with Pattern Generator
10. To demonstrate and understand different types of faults
11. To study faults diagnosis method
12. To study ICs used in HDTV
13. To study glossary of the Technical Words
14. To study complete schematic circuit Diagram