



BLACK AND WHITE TV TRAINER

MODEL-BDM101

This trainer has been designed with a view to provide theoretical and practical knowledge of a general BLACK AND WHITE T.V technology on SINGLE P.C.B with FAULT CREATING FACILITIES to create more than 25 faults.



FEATURES

1. The complete circuit of Black and White T.V is printed on single PCB.
2. All parts are soldered on single pin tag for easy replacement and fault creation.
3. Fault creation facilities are provided by removing jumpers, by rotating presets, by tuning coils, by Adjusting trimmers and by changing parts.
4. About more than 25 faults can be demonstrated on this trainer.
5. Section wise different colored screen printed circuit on the PCB for easy understanding of function of different sections.
6. Typical ICs are provided on sockets to provide facility to check similar other ICs and also to create The faults by inserting faulty ICs in the Sockets.
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 Black & White T.V at a glance.
9. Easy measurement of voltages and observation of waveforms at any point. Also typical voltages and waveforms are provided.
10. A manual having 20 Practical is provided with this trainer.
11. The whole circuit of Black & white T.V is explained Section wise in detail in the manual.

In keeping view of SIGMA policy of continuous development and improvement, the Specifications may be changed without prior notice or obligation.

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Dealer:-

SPECIFICATIONS

1. System : CCIR-B, 625 lines
2. Power supply : 230V Ac, 50 Hz,
3. Regulation range : 170v Ac to 270v Ac.
4. Power consumption : 70 watts.
5. Gain Limited sensitivity : 55 dB for Video & 25 dB for Audio.
6. Sound output : 2.0 watts maximum.
7. Screen size : 20" Diagonal.
8. Channel : VHF 2 to 12, UHF 21 to 68, S-band and Hyper-band.
9. Isolated shockproof chassis.
10. Sections : Electronic tuner, Video I.F Section, Sound I.F, Video amplifier, Horizontal oscillator, Horizontal driver and EHT, Vertical oscillator, and output, S.M.P.S power supply.
11. Controls : Volume, tone, Brightness, contrast and V.Hold.
12. Distortion : 10 to 15% in Live program due to expanded P.C.B.
13. All parts are soldered on Tags on SINGLE PCB of size 19"x15" with complete circuit diagram SCREEN PRINTED in different colors with FAULT CREATING FACILITIES to create more than 25 faults.
14. Standard Accessories :
 1. Frame with PCB mounting.
 2. Picture tube fitted in wooden cabinet
 3. A Manual having 20 practical.

EXPERIMENTS

1. Study of the block Diagram and working principle.
2. Study of ICs used in different Black and white T.V. circuits
3. Study of Input and Output Signals.
4. Study of Internal and External Controls.
5. Study of operating unit and Tuner section.
6. Study of Video I.F. section
7. Study of Sound I.F. section
8. Study of Horizontal Oscillator and Sync Separator Section
9. Study of Vertical Oscillator and output section.
10. Study of Video Amplifier section.
11. Study of E.H.T. section
12. Study of SMPS section.
13. Study of Picture Tube section.
14. Alignment and Adjustment procedure.
15. Faults Creation and Demonstration.
16. Study of Fault finding methods.
17. Measurement of Test Point Voltages.
18. Observation Test Point Waveforms.