SIGMA

REMOTE COLOUR TV TRAINER

With Single IC

MODEL - CDM101D

This trainer has been designed with a view to provide theoretical and practical knowledge of a general REMOTE COLOUR T.V. on SINGLE P.C.B. with FAULT CREATING FACILITIES.

SPECIFICATIONS

1.	System	:	CCIR-B-PAL-G, 625 lines.
2.	Power supply	:	230V + 15% AC, 50 Hz.
3.	Regulation range	:	195V AC to 265V AC.
4.	Power consumption	:	70 watts.
5.	Gain Limited sensitivity	:	60 Db for Video. 30 Db for Audio.
6.	Sound output	:	5.0 watts maximum.
7.	Picture Tube size	:	51cms - 20 Inch (Diagonal)
8.	Tuner Channels	:	VHF 2 to 12, UHF 21 to 68, S-band and Hyper-band.
9.	Tuner Channel Positions	:	106 Channel positions.
10.	Program Memory	:	90 programs.
11.	On Screen display for setting of all controls e.g. Volume, Brightness, Contrast, Colour, Channel and band selection Tuning.		
12.	Audio - Video In and Out sockets.		
13.	Sections	:	Operating unit and Tuner, Remote Receiver, Video I.F., Sound I.F., Colour decoder, Video amplifier, Horizontal oscillator, Horizontal driver and output, S.M.P.S, Vertical Oscillator, Picture tube, Remote transmitter.
15.	Controls	:	Volume, Brightness, Contrast, Colour, Channel and band selection, Tuning.
14.	Remote Control functions	:	Volume, Brightness, Contrast, Colour, Channel selection, Audio mute
15.	Distortion	:	10 to 15% in Live program due to expanded P.C.B.
16.	**Books for Audio video Engineering**		**: 20 Nos in pdf Format**
17.	**Mp4 Video Class for Audio video Engineering**		**: 40 Classes in Mp4 on Pen Drive**
16.	Standard Accessories	:	1. Trainer P.C.B. 2. Picture tube fitted in molded cabinet. 3. A Manual having 15 practical.

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Dealer:-

EXPERIMENTS

1. To Study Specifications of Colour T.V.
2. To Study Safety precautions
3. To Study the Block Diagram and working principle
4. To Study the terms, definition and nomenclature used
5. To Study Input/output signals of different sections
6. To Study Electronic tuner section
7. To Study Video I.F. Section with circuit diagram
8. To Study Sound I.F. Section with circuit diagram
9. To Study Horizontal Oscillator section with circuit diagram
10. To Study Vertical Oscillator Section with circuit diagram
11. To Study Colour Decoder Section with circuit diagram
12. To Study Video Amplifier Section with circuit diagram
13. To Study E.H.T. Section with circuit diagram
14. To Study S.M.P.S. Section with circuit diagram
15. To Study Colour Picture Tube Section with circuit diagram
16. To Study Remote Receiver Section
17. To Study Remote Transmitter Section
18. To understand features of latest TVs
19. To understand External and internal controls
20. To understand/observe the function of external and Internal controls
21. To measure Test Point Voltages for different sections
22. To observe Test Point Waveforms for different sections
23. To measure Test Point Resistance for different sections
24. To understand the Alignment and adjustment procedure
25. To carry out V.I.F. alignment with Sweep Generator
26. To carry out S.I.F. alignment with Sweep Generator
27. To measure Video and Audio gain (sensitivity) with Pattern Generator
28. To demonstrate and understand different types of faults
29. To study faults diagnosis method
30. To understand Quick Testing method
31. To study ICs used in different Colour TV circuits
32. To observe Part list
33. To understand Tuner's 106 channels including “H” and “S” Band
34. To observe data Sheets of Coils used
35. To study glossary of the Technical Words
36. To study Complete Schematic Circuit Diagram