



# DIRECT TO HOME (DTH) RECEIVER TRAINER

MODEL- DTH100

This trainer has been designed with a view to provide theoretical and practical knowledge of a general Direct to Home (DTH) receiver 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 colored screen printed circuit on the PCB for easy understanding of functions of different sections.
7. Typical IC s are provided on sockets.
8. Explanation, Observation, Alignment and adjustment of internal and External controls is possible at a glance due to single PCB.
9. Easy identification of different parts of DTH at a glance.
10. Easy measurement of Voltages and observation of waveforms at any point. Also typical voltages and waveforms are provided.
11. A manual having 10 practical is provided with this trainer.
12. The whole circuit of DTH is explained section wise in detail in the manual.

## SPECIFICATIONS

- |   |   |                          |
|---|---|--------------------------|
| 1. Power supply                         | : | 200V to 240v AC, 50Hz.   |
| 2. Dish Antenna                         | : | 1.5' Aluminum steerable. |
| 3. LNB (Low Noise Block down converter) |   |                          |
| Input frequency                         | : | KU band.                 |
| Output frequency                        | : | 950 to 1450 MHz.         |
| Conversion gain                         | : | 65 dB.                   |
| Noise Temp                              | : | 35 degree K max.         |

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:-**

4. SETTOP BOX Receiver in Trainer Form
  - IF frequency : 70 MHz.
  - Video Bandwidth : 50 Hz to 5 MHz.
  - Video output level : 1 Vpp. (at 75 ohm load)
  - Video polarity : Normal/Inverted Switch selectable
  - Audio sub carrier frequency : Tunable from 5.0 to 8.0 MHz.
  - R.F Output channel : No.2
5. Uplink satellite : INSAT 4A
6. Controls : Channel selecting, Volume,
7. Faults : 5 No.
8. PCB Size : 15"x12" with Block diagram in multicolor section wise
9. Standard accessories :
  1. Dish Antenna-1.5 feet
  2. LNB
  3. Trainer PCB
  5. Dish connecting wire
  4. R.F out put cable
  5. Teaching manual
  6. Acrylic cover.
  7. Hardware Material for assembly of dish antenna.
10. DTH Subscription Connection : DoorDarshan Free Channels.
11. Accessories required : Any Colour TV with Audio/Video Input.

## EXPERIMENTS

1. To Study Specifications of DTH.
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 demonstrate and understand different types of faults
10. To study faults diagnosis method
11. To study ICs used in DTH
12. To study glossary of the Technical Words