



Model Curriculum

QP Name: DTH Set Top Box Installation & Service Technician

QP Code: ELE/Q8101

QP Version: 4.0

NSQF Level: 4

Model Curriculum Version: 4.0

Electronics Sector Skills Council of India || 155, 2nd Floor, ESC House, Okhla Industrial Area- Phase 3, New Delhi- 110020

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Training Parameters

Sector	Electronics
Sub-Sector	Communication and Broadcasting
Occupation	After Sales Service
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8212.0402
Minimum Educational Qualification and Experience	12th grade or equivalent OR 10th grade or equivalent with 3 years of experience OR Certificate-NSQF (Level-3 in relevant domain) with 3 Years of relevant Experience # Relevant experience in Communication and Broadcasting
Pre-Requisite License or Training	NA
Minimum Job Entry Age	NA
Last Reviewed On	07/10/2025
Next Review Date	07/10/2028
NSQC Approval Date	07/10/2025
QP Version	4.0
Model Curriculum Creation Date	07/10/2025
Model Curriculum Valid Up to Date	07/10/2028
Model Curriculum Version	4.0
Minimum Duration of the Course	480 Hours
Maximum Duration of the Course	480 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills:

- Demonstrate the process of installing and repairing DTH set top box.
- Explain the importance of engaging with customer for service.
- Explain the importance of following inclusive practices for all genders and PwD at work.
- Demonstrate various practices to be followed to maintain health and safety at work.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Recommended)	On-the-Job Training Duration (Mandatory)	Total Duration
ELE/N8102: Engaging with customer for service	90:00	90:00	00:00	60:00	240:00
Module 1: Process of engaging with the customer for service	90:00	90:00	00:00	60:00	240:00
ELE/N8105: Installing and repairing DTH set top box	60:00	90:00	00:00	60:00	210:00
Module 2: Process of Installing and repairing DTH set top box	60:00	90:00	00:00	60:00	210:00
DGT/VSQ/N0101- Employability Skills (30 Hours)	30:00	00:00	00:00	00:00	30:00
Module 3: Employability Skills (30 Hours)	30:00	00:00	00:00	00:00	30:00
Total Duration	180:00	180:00	00:00	120:00	480:00

Module Details

Module 1: Process of engaging with the customer for service

Mapped to ELE/N8102

Terminal Outcomes:

- Introduction to the role and responsibilities of an DTH Set Top Box Installation & Service Technician.
- Describe the process of interacting with the customer.
- Explain the importance and need of suggesting possible solutions.

Duration: 90:00	Duration: 90:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Describe the role and responsibilities of an DTH Set Top Box Installation & Service Technician. • Explain company's policies on code of conduct, organisation's culture, customer care, reporting structure and documentation policy. • State company's products and recurring problems reported in consumer appliances. • List various precautions to be taken while handling field calls and dealing with customers. • Analyze customer complaints registered at customer care or scheduled installation requests and Connect with the customer use CRM apps, mobile service tools • Explain the importance of personal grooming with proper etiquettes at the customer's premises. • Explain basic electrical, mechanical modules of various appliances and electronics involved in the type of appliance. • Describe the models of different appliances, their common and distinguishing features, functionality of different features of appliances and new features.	• Demonstrate how to analyse the details of customer complaint registered at customer care or installation schedule. • Roleplay how to provide information to the customer about the warranty and problem in detail along with the precautions to be taken in order to avoid recurrence of problem.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	

Customer Application Form, Feedback Form, Packages Form, Attendance Sheet

Module 2: Process of Installing and repairing DTH set top box

Mapped to ELE/N8105

Terminal Outcomes:

- Demonstrate the process of performing installation of DTH set top box.
- Demonstrate the process of carrying out servicing and resolving of faults in DTH set top box.

Duration: 60:00	Duration: 90:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain company's quality policies/vision on customer handling, TAT (Turnaround Time), commitment. • Explain installation and activation policy of the company. • Explain the basics of geo stationery satellite and other communication satellite. • Explain the importance of maintaining optimum signal strength/signal quality for good reception. • Explain the basics of input/output functions and block diagram of the set top box. • State the specifications of different kind of inputs available on TV sets such as RF, AV, RGB, VGA, USB and HDMI. • Describe the process of transmission of television signals and functioning of television sets, functions of the set top box and remote control. • Explain the basic functioning of tuners and function of Low Noise Block Down Converter (LNBC). • Explain the basics of digital signals and difference in analogue and digital. • Describe the process of digital signal processing chain including CAS and SMS, parameters for digital signals, viz., MER, BER, C/N, CTV and CSO and proper recording of these for future	• Demonstrate the process performing steps to drill and fix dish antenna (LNB) at the identified location using appropriate tools. • Show how to align the dish correctly using the satellite meter to ensure proper signal. • Demonstrate the process carrying out installation of set top box and checking signal strength. • Demonstrate how to connect set top box with TV as per standard operating procedure (SOP). • Demonstrate how to connect home theatre System with TV/ STB via HDMI, Audio/ Video/ Svideo/ SPDIF, etc. • Demonstrate the functioning of set top box to the customer while educating about its features. • Show how to check the AC Mains output with the help of multi-meter and check the external power supply (Adaptor DC Output). • Demonstrate the process rectifying the fault so as to resume uninterrupted service to the customer satisfaction. • Show how to document the technical report of the fault found in the defective set top box. • Show how to record completion information in the ERP system.

reference. • List various frequently occurring faults, causes, match symptoms of the fault noticed to the cause of the problem and solutions. • Explain various safety standards and practices to be followed while using power connection, stair to climb, first aid etc. • Collect the work order and site checks using GPS tools and digital documentation for precise and efficient installation planning. • State various Quality of Service (QoS) and End of Line (EOL) parameters and optimum range as specified by IS13420. • Describe the implementation process for Engineering Change Order (ECO). • Explain the importance of anticipating and avoiding hazards that may occur during repairs because of tools, materials used or repair processes. • Explain how to use hand tools such as lead tester, spanner, cutter, etc. and operate machines/meters such as drilling machine, angle meter, satellite meter, etc.	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Reflector Antenna, RJ 6 cable, Connectors, Set up box (exclusive for DTH), Remote, Tool Kit: Spanners -10,11, 12, 13mm, Ring Spanners 10,11,12,13mm, Screw drivers- Plus Minus, Drilling Machines - 8mm,10mm,12mm, For Tracking- Satellite Meter, Service Cable, Satellite Finder, For Cabling - Cable Tiles P clips, cable Preparation Tool, Others - Set up of a moving Wall (8.5'x1.25'), Compression Tool, Tape, Compass, Cable (10 mts.), Television with HDMI input & output & Basic Home Theatre, Multimeter, Hand tools like Tester, Spanner, Cutter, Angle, finder, Satellite Meter, Drilling, Machine, RF Strength Meter	

Module 3: Employability Skills (30 Hours)

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

- Discuss about Employability Skills in meeting the job requirements
- Describe opportunities as an entrepreneur.
- Describe ways of preparing for apprenticeship & Jobs appropriately.

Duration: 30:00	Duration: 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain constitutional values, civic rights, responsibility towards society to become a responsible citizen • Discuss 21st century skills • Explain use of basic English phrases and sentences. • Demonstrate how to communicate in a well-behaved manner • Demonstrate how to work with others • Demonstrate how to operate digital devices • Discuss the significance of Internet and Computer/ Laptops • Discuss the need for identifying business opportunities • Discuss about types of customers. • Discuss on creation of biodata • Discuss about apprenticeship and opportunities related to it.	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Computer, UPS, Scanner, Computer Tables, LCD Projector, Computer Chairs, White Board	
OR	
Computer Lab	

Module 4: On-the-Job Training

Mapped to DTH Set Top Box Installation & Service Technician

Mandatory Duration: 120:00	Recommended Duration: 00:00
Location: On Site	
Terminal Outcomes 1. Explain the basics of input/output functions and block diagram of the set top box. 2. Perform steps to drill and fix dish antenna (LNB) at the identified location using appropriate tools. 3. Carry out installation of set top box and checking signal strength. 4. Connect set top box with TV as per standard operating procedure (SOP). 5. Demonstrate the functioning of set top box to the customer while educating about its features. 6. Record completion information in the ERP system. 7. Use protective equipment suitable as per tasks and work conditions. 8. Use a fire extinguisher in case of a fire incident.	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma/ ITI/ Certified in relevant CITS Trade	Electronics / Electrical Engineering	1	DTH	1 year preferably	Electronics	

Trainer Certification	
Domain Certification	Platform Certification
“DTH Set Top Box Installation & Service Technician”, “ELE/Q8101, v4.0”, Minimum accepted score is 80%	Recommended that the Trainer is certified for the DTH Set Top Box Installation & Service Technician “Trainer (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, V2.0”, with minimum score of 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma/ ITI/ Certified in relevant CITS Trade	Electronics / Electrical/ Mechanical Engineering	2	DTH	1 year preferably	Electronics	

Assessor Certification	
Domain Certification	Platform Certification
“DTH Set Top Box Installation & Service Technician”, “ELE/Q8101, v4.0”, Minimum accepted score is 80%	Recommended that the Assessor is certified for the DTH Set Top Box Installation & Service Technician “Assessor (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, V2.0”, with minimum score of 80%

Assessment Strategy

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDMS/SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- The assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records

2. Testing Environment

To ensure a conducive environment for conducting a test, the trainer will:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be 10 a.m. and 5 p.m. respectively
- Ensure there are 2 Assessors if the batch size is more than 30.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME verified by the other subject Matter Experts
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- The assessor must be ToA certified and the trainer must be ToT Certified
- The assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme-specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:

To verify the details submitted by the training centre, the assessor will undertake:

- A surprise visit to the assessment location
- A random audit of the batch
- A random audit of any candidate

6. Method for assessment documentation, archiving, and access

To protect the assessment papers and information, the assessor will ensure:

- Hard copies of the documents are stored

- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are stored on the Hard drive

References

Glossary

Term	Description
Declarative knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training .
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module . A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
ISO	International Organization for Standardization
NCO	National Occupational Standards
NOS	National Skills Qualification Committee
NSQF	National Skills Qualification Framework
OJT	On-the-Job Training
OMR	Optical Mark Recognition
PC	Performance Criteria
PwD	Persons with Disabilities
QP	Qualification Pack
SDMS	Skill Development & Management System
SIP	Skill India Portal
SME	Small and Medium Enterprises
SOP	Standard Operating Procedure
SSC	Sector Skill Council
TC	Trainer Certificate
ToA	Training of Assessors
ToT	Training of Trainers
TP	Training Provider