What are Occupational Standards(OS)?

➢ OS describe what individuals need to do, know and understand in order to carry out a particular job role or function

➢ OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Contents

Introduction

Qualifications Pack - Line Assembler - Telecom Products

SECTOR: TELECOM

SUB-SECTOR: Handset

OCCUPATION: Communication Electronics

REFERENCE ID: TEL/Q2502

ALIGNED TO: NCO-2015/Nil

Brief Job Description: Line assembler is responsible for assembly of handsets and telecom equipment various stages of the production/ assembly line operations adhering to the stages/ process which are pre-defined. The outcome of the activity is fully/ partially assembled unit. The job includes assembly of electronic boards, components and related accessories using relevant tools as per work instructions and product specification drawings.

Personal Attributes: This job requires the individual to have technical appreciation of the processes, ability to understand technical details, logical thinking and clear approach to the defined processes with an eye for details. Individual needs to be focused, process oriented and should have ability to work with concentration during the shift hours.

Qualifications Pack Code	TEL/Q2502		
Job Role	Line Assembler - Telecom Products		
Credits (NSQF)	TBD	Version number	1.0
Sector	Telecom	Drafted on	12/07/2017
Sub-sector	Handset	Last reviewed on	10/11/2017
Occupation	Communication Electronics	Next review date	10/11/2021
NSQF Clearance on	DD/MM/YYYY		

Job Details

Job Role	Line Assembler - Telecom Products
Role Description	Line assembler is responsible for assembly of handsets and telecom equipment at various stages of the production/ assembly line operations adhering to the stages/ process which are pre-defined.
NSQF level Minimum Educational Qualifications* Maximum Educational Qualifications*	4 ITI/Diploma or Qualified on Handset Repair Eng QP with 1 yr exp. NA
Training (Suggested but not mandatory)	NIL
Experience	01 Yr for candidates qualified on Handset Repair QP (TEL/Q2201)
Minimum entry Job Age	18 Years
Applicable National Occupational Standards (NOS)	**Compulsory:** 1. TEL/N2506 (Preparing workspace for assembly operations) 2. TEL/N2507 (Assembly operations in production line) 3. TEL/N2508 (ESD safe procedures and practices) 4. TEL/N2509 (Health & Safety)
Performance Criteria	As described in the relevant OS units

| Keywords/ Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form on the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
OS	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard, which is denoted by 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.

Definitions

Acronym	Keywords/ Terms	Description
	SMD	Surface Mount Devices
	SMT	Surface Mount Technology
	THD	Through Hole Devices
	THT	Through Hole Technology
	PCB	Printed Circuit Board
	AC/DC	Alternating/ Direct Current
	R, C, L	Resistence, Capacitor, Inductor
	HIRA	Hazard Identification and Risk Assessment
	HLA	Higher Level Assembly
	Txr	Transmitter
	SHE	Safety, Health and Environment
	OHS	Occupational Health and Safety

National Occupational Standard
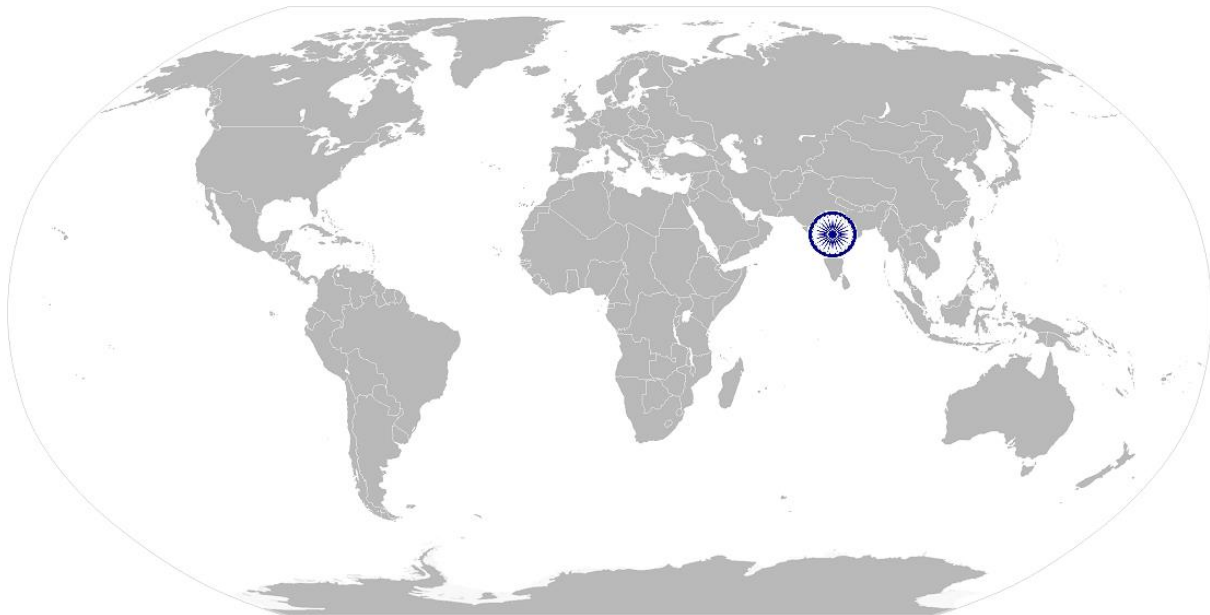
Overview

This unit is about preparing the workplace for assembly operations.

TEL/N2506   **Preparing workspace for assembly operations**

Unit Code	TEL/N2506
Unit Title (Task)	Preparing workspace for assembly operations
Description	This unit describes the preparation of workplace for assembly operations
Scope	This unit/task covers the following: • arrangement of components/ parts and assembly bench • arranging tools and equipment required for assembly

Performance Criteria (PC) w.r.t. the scope	
Element	**Performance Criteria**
Arrangement of components/parts and assembly bench	The user/individual on the job should be able to: PC1. draw correct components from stores as per the work instructions PC2. demonstrate understanding of the work instructions and familiarity with the assembly instructions PC3. demonstrate arrangement of components as per the assembly instructions PC4. verify specifications of all components as per the work instructions
Arranging tools and equipment required for assembly	The user/individual on the job should be able to: PC5. identify and draw tools and equipment requirement as per the work instructions PC6. ascertain compliance/correctness (calibrations) wherever required PC7. ascertain proper operation of all the tools/equipment

Knowledge and Understanding (K)	
A. **Organizational Context** (Knowledge of the company/ organization and its process)	The user/individual on the job needs to know and understand: KA1. organizational policies, procedures and processes related to stores, issue and return of components KA2. work practices and health & safety requirements KA3. responsibility and escalation matrix
B. **Technical Knowledge**	The user/individual on the job needs to know and understand: KB1. type of electronic parts/ components KB2. safe handling practices of electronic components KB3. types of mechanical parts like screws, nuts, securing clips and their applicability KB4. applicability of basic assembly tools and range of hand tools like screw drivers, electric screw drivers, spanners, forceps, forming players, cutters etc. KB5. types of semi-automatic tools used for electronics components fitment/ forming/ preparation like thermal wire strippers, adjustable electronic board holders, led free soldering tools, precision screw driver set. KB6. different types of consumables used for soldering and their conditions/usage /application in assembly operations including any specifications by the customer and customer supplied consumables. Storage and handling before usage of these consumables like thawing, stirring, FIFO etc.

![Telecom Sector Skill Council]

NOS
National Occupational Standards

NSDC
National Skill Development Corporation
Transforming the skill landscape

TEL/N2506   **Preparing workspace for assembly operations**

	KB7. general SHE aspects and importance of following safe product/components handling techniques during assembly and impact on environment, product, parts and property including safe movement/storage and/or lifting of materials/packages etc.

Skill (s) [Optional]	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/individual on the job needs to know and understand how to:
	SA1. fill up stores issue/return forms, activity logs, attendance sheets as per organizational format
	SA2. write basic accident or incident report as witnessed in appropriate format to relevant authority
	SA3. identify and report abnormality/not fit for use parts/products to the relevant authority
	Reading Skills
	The user/ individual on the job needs to know and understand how to:
	SA4. read/listen and interpret information correctly from relevant work instructions, documents and manuals
	SA5. read relevant signages, warnings, labels or descriptions related to assembly operations
	Oral Communication Skills (Listening and speaking skills)
	The user/individual on the job needs to know and understand how to:
	SA6. convey and share technical information clearly using appropriate language
	SA7. check and clarify task related information
	SA8. liaise with appropriate authorities using correct protocol
	SA9. communicate with people in respectful form and manner in line with organizational protocol and general office etiquette and discipline
B. Professional SKills	**Decision Making**
	The user/individual on the job needs to know and understand how to:
	SB1. take work related decisions in compliance to the organizational directives and guidelines
	Plan and Organize
	The user/individual on the job needs to know and understand how to:
	SB2. plan, prioritize and sequence work operations as per job requirements
	SB3. organize and analyze information relevant to work
	SB4. basic concepts of shop floor work productivity including waste reduction, efficient material usage and optimization of time
	Customer Centricity

	The user/individual on the job needs to know and understand how to:
	SB5. be cost conscious combined with of criticality of components in terms of availability and impact on customer
	SB6. follow quality standards understanding the importance of the product and internal customer orientation
	Problem Solving
	The user/individual on the job needs to know and understand how to:
	SB7. identify problems with work planning, procedures and output
	SB8. prioritize and plan for problem solving
	SB9. take most appropriate steps towards problem resolve without compromising work safety and/or productivity (as per the situation)
	Analytical Thinking
	Not applicable
	Critical Thinking
	Not applicable

NOS Version Control

NOS Code	TEL/N2506		
Credits (NSQF)	TBD	Version number	1.0
Industry	Telecom	Drafted on	12/07/2017
Industry Sub-sector	Handset	Last reviewed on	10/11/2017
Occupation	Communication Electronics	Next review date	10/11/2021

TEL/N2507   **Assembly operations in production line**

National Occupational Standard
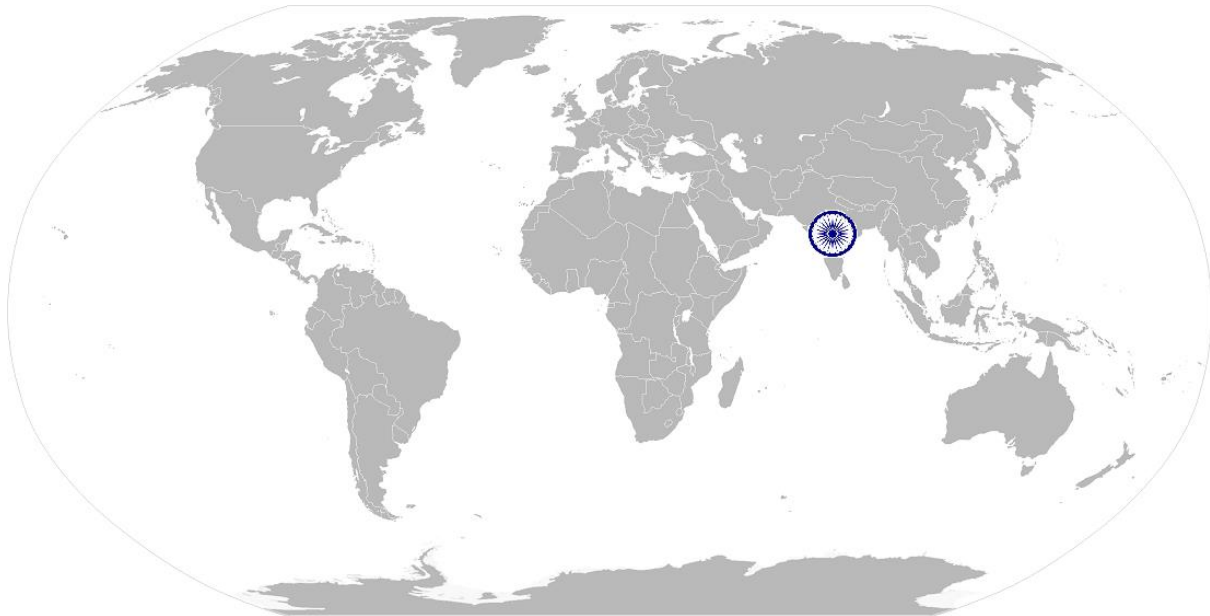
Overview

This unit is about undertaking assembly operations in a production line.

TEL/N2507   **Assembly operations in production line**

Unit Code	TEL/N2507
Unit Title (Task)	Assembly operations in production line
Description	This unit is about undertaking assembly operations in a production line
Scope	This unit/task covers the following: • assembly operations of telecom devices/products • post assembly activities

Performance Criteria (PC) w.r.t. the scope	
Element	**Performance Criteria**
Assembly operations of telecom devices/ products	The user/individual on the job should be able to: PC1. ascertain availability of all parts/components, vis-à-vis the specifications and assembly guidelines PC2. ascertain availability of all tools and equipment to carry out work PC3. ascertain work safety compliance before commencing work PC4. sequence the parts and subassemblies in correct order PC5. demonstrate ability to read technical diagrams and specifications PC6. demonstrate basic skills of component handling, component fitment, use of basic assembly tools and mechanical fitments (special purpose screws etc) PC7. demonstrate assembly of the parts/componens using proper process, procedures, sequence and using right tools PC8. demonstrate basic quality check procedures
Post assembly activities	The user /individual on the job should be able to: PC9. cross check intermediate and end of work compliance PC10. secure the workplace by clearing any loose/leftover consumables, spare components etc. PC11. account for all components used and match with the inventory issues. PC12. follow store compliances in terms of return of inventory (components, parts etc.) at the end of work PC13. document work done and account for all components as per company policy

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. quality standards, and compliances KA2. relevant health and safety requirements KA3. role and responsibilities as per the job profile and engagement terms KA4. reporting structure, inter-dependent functions, lines and procedures in the work area including all HR processes/HR manual/company policies KA5. discipline and office etiquettein the work area and during the break hours as well outside to maintain the culture/image of the company. KA6. guidelines with respect to contractual labour engaged by the organisation KA7. escalation matrix and procedures for reporting work and employment related issue

TEL/N2507   **Assembly operations in production line**

| B. Technical Knowledge	The user/individual on the job needs to know and understand:
	KB1. handling of different kinds of electronic parts/components & connectors
	KB2. importance of polarity of components
	KB3. different types of mechanical parts like screws, nuts, identification of types and importance of use for assembly.
	KB4. knowledge of basic assembly tools and range of hand tools like screwdrivers, electric screw drivers, spanners, forceps, forming players, cutters etc.
	KB5. types of hand tools and semi automatic tools used for electronics components, tweezers, forming tools, pliers, cutters, wire strippers, de-soldering pump etc.
	KB6. knowledge of PCBs (bare board) baking, storage and handling of critical parts during assembly and consumables handling like flux, paste etc.
	KB7. quality standards and risks of not following the standards
	KB8. basic soldering techniques, type of soldering defects, their effect on performance and re-work process
	KB9. basic units of measurement used in Volatage, current, resistance and power measurements, frequency, RF, wrt telecommunication equipment
	KB10. read/understand diagrams, drawings, assembly drawings, specifications and schedules pertaining to electronics line assembly/production
	KB11. basic knowledge of electronic circuits and functions (transmitters, receivers, switches, power supplies, amplifiers, multiplexers, couplers, registers, memory and all RF circuits in telecom equipment)
	KB12. different types of connectors/cables/wires, cable forms polarities and pin identification and understanding of basic specifications of these
	KB13. read understand the legend printing on PCBs and equipment including the version number and other visual symbols
	KB14. safe disposal of hazardous and non-hazardous waste materials in places designated separately and clear the trash bins in time to avoid overflow causing unsafe conditions
Skill (s) [Optional]	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user /individual on the job needs to know and understand how to:
	SA1. fill up appropriate forms, activity logs, attendance sheets as per organizational format in English and/or local language as required by the organization
	SA2. write basic accident or incident report as witnessed in appropriate format to relevant authority
	SA3. identify and report abnormality/not fit for use parts/products to the relevant authority
	SA4. dexterity of hand skills to handle and assemble fine, small parts with accuracy and care during assembly
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA5. read/listen and interpret information correctly from relevant work instructions, documents, manuals, health and safety instructions, memos, etc. applicable to the job in English and/or local language

|	
	SA6. read relevant symbols/signages, warnings, labels or descriptions on equipment, related to ESD safety on packages, parts, tilts/equipment etc. while carrying out work activities
	Oral Communication (Listening and speaking skills)
	The user/individual on the job needs to know and understand how to:
	SA7. convey and share technical information clearly
	SA8. check and clarify task related information
	SA9. liaise with appropriate authorities using correct protocol
	SA10. communicate with people in respectful form and manner in-line with organizational protocol and general office etiquette and discipline
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to:
	SB1. comprehend work environment so as to take quick decision in case of any work safety issues
	Plan and Organize
	The user/individual on the job needs to know and understand how to:
	SB2. plan, prioritize and sequence work operations as per job requirements
	SB3. organize and analyze information relevant to work
	SB4. basic concepts of shop floor work productivity including waste reduction, efficient material usage and optimization of time
	Problem Solving
	The user/individual on the job needs to know and understand how to:
	SB5. identify and address problems related to work planning, procedures, output compliances
	SB6. prioritize and plan for problem solving
	SB7. communicate problems appropriately to others
	SB8. identify sources of information and support for problem solving
	SB9. identify and apply effective resolution techniques
	SB10. seek evidence for problem resolution
	Analytical Thinking
	The user/individual on the job needs to know and understand how to:
	SB11. infer records of past incidents, emergencies, etc. to establish efficacy of alternative solutions,
	SB12. use implicit and explicit knowledge gained over a period of time towards resoling problems/challenges encountered at work
	Critical Thinking
	The user/individual on the job needs to know and understand how to:
	SB13. use reasoning ability combined with experience to determine possible solutions to potential dangers or insecurity in the workplace
	SB14. anticipate problems and implement remedial measures

NOS Version Control

NOS Code	TEL /N2507		
Credits (NSQF)	TBD	Version number	1.0
Industry	Telecom	Drafted on	12/07/2017
Industry Sub-sector	Handset	Last reviewed on	10/11/2017
Occupation	Communication Electronics	Next review date	10/11/2021
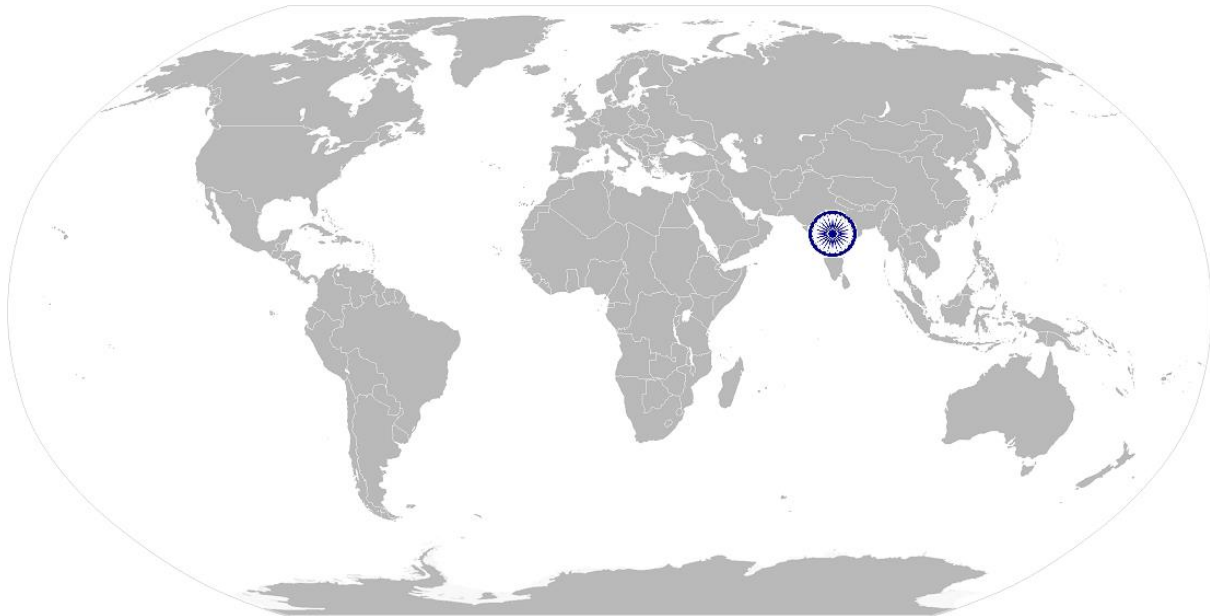
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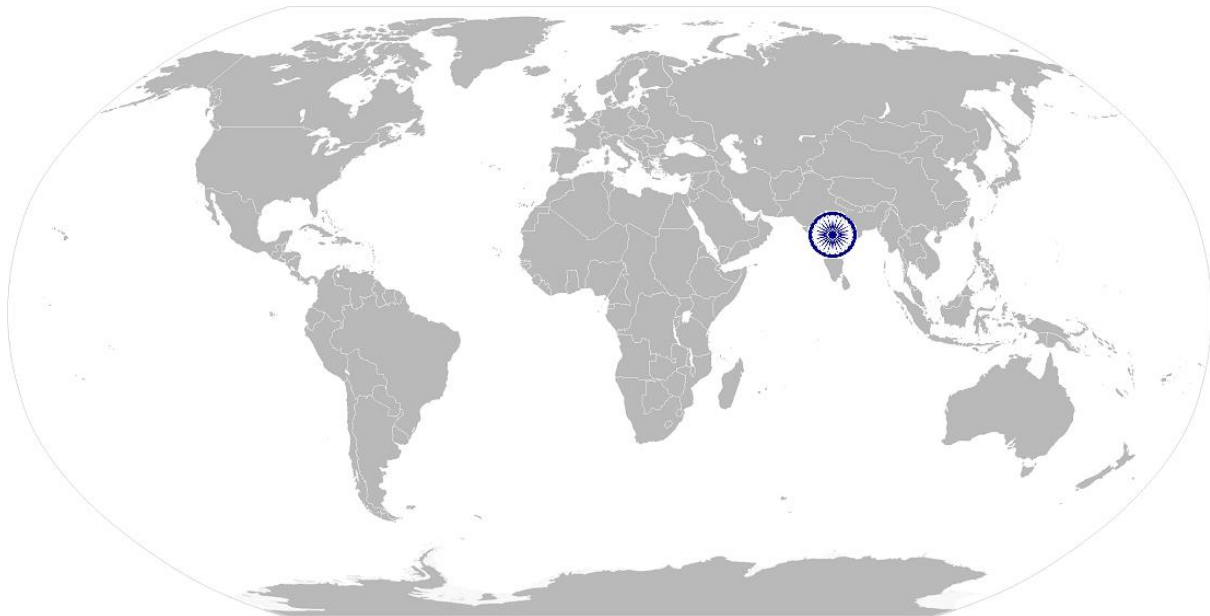
Overview

This unit covers ESD safety prcedures during the assembly operations and safe handling ESD sensetive components, sub-assemblies and product. It covers understanding of reposiblities towards safe ESD practices to prevent ESD related faliures.

Unit Code	TEL/N2508
Unit Title (Task)	ESD safe procedures and practices
Description	This unit covers ESD safety procedures during the assembly operations and safe handling ESD sensitive components, sub-assemblies and product. It covers understanding of responsibilities towards safe ESD practices to prevent ESD related failures.
Scope	This unit/task covers the following: Compliance to ESD processes and procedures

Performance Criteria(PC) w.r.t. the Scope

Element	Performance Criteria
Compliance to ESD processes and procedures	To be competent,the user/ individual on the job must be able to: PC1. demonstrate safe work practices as per the ESD process and protocol PC2. demonstrate grounding of all components in work area PC3. demonstrate use of ESD tools/equipment (static voltage checker, wrist straps, shoe grounders, air ionizers) PC4. demonstrate safe cleaning & clearing practices for removal of non-essential items and equipment carrying electrostatic generating potential PC5. demonstrate the process of packing/unpacking of electronic components in compliance to ESD processes PC6. demonstrate safe handling of all semi-finished products after assembly operations (use of ESD free trays, conveyor lines)

Knowledge and Understanding (K)

A. Organisational Context (Knowledge of the company/organisation and its processes)	The user/individual on the job needs to know and understand: KA1. importance and compliance of ESD policies and procedures KA2. documents that refer to ESD safety in workplace KA3. implications of not following the ESD protocols and its effect on the end product
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basics of ESD and it's effects on electronic components/performance KB2. classification of ESD materials KB3. how to identify ESD sensitive parts, packages, areas and understanding of precautionary labels/ instructions for use/packing/ unpacking etc. KB4. sources of generation of Electrostatic energy KB5. use/importance of all types of PPEs for ESD safe work, storage, packaging/handling materials like trays, bags etc. KB6. levels of Electrostatic voltage generation during normal working environment on the shop floor like walking on various floors while soldering, cleaning etc. KB7. impact of working on/handling on ESD sensitive products/components in a non-ESD safe area KB8. ESD - paths while working on assemblies, sub-assemblies and component parts

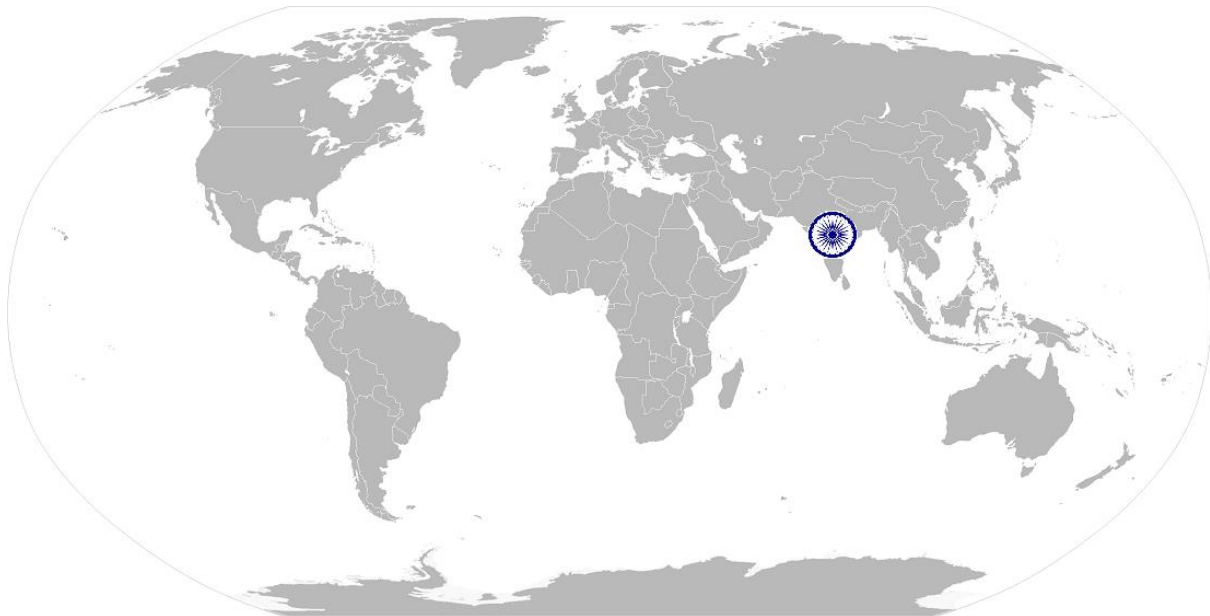|	
	KB9. grounding paths and various methods/accessories used for grounding in the work area like for e.g.- Tables, mats, flooring, wrist straps
	KB10. imporatance of proper usage of ESD safe materials and importance of checking these ESD safe PPEs and follow ESD processes and co-operate with ESD audits
	KB11. Basics of conducting ESD audits on various facility like work tables, flooring, straps, aprons, static/anti-static packaging etc.
	KB12. relevance of safe handling, storage/ stacking of parts, assembly/ sub-assemblies to avoid/prevent ESD failures
Skill (s) [Optional]	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/individual on the job needs to know and understand how to:
	SA1. fill up appropriate forms, activity logs, attendance sheets as per organizational format in English and/or local language to keep a log of ESD safe acts and related logs/reports like checking the PPEs condtion, usage of ESD safe equipment/tools as required by the organization
	SA2. write audit finding/reports in an appropriate format to submit to relevant authority
	SA3. write relevant mails/respond to relevant mails as necessary
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA4. read and interpret information correctly from relevant instruction documents, manuals, health and ESD safe instructions memos, etc.
	SA5. read relevant symbols/signages, warnings, labels or descriptions on equipment, packages, parts
	Oral Communication skills
	The user/individual on the job needs to know and understand how to:
	SA6. convey and share ESD related technical information clearly using appropriate language
	SA7. seek/communicate and clarify task related information
	SA8. communicate with people in respectful/thoughtfully/manner in-line with organizational protocol
	SA9. listen to instructions/feedback during discussions/meetings and understand to be able to implement feedback/take suitable corrective actions
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to:
	SB1. react to a potentially unsafe ESD situation
	SB2. identify unsafe ESD conditions and actions of self and others
	Plan and Organize

The user/individual on the job needs to know and understand how to:
SB3.   plan, prioritize and sequence work operations as per job requirements
SB4.   organize and arrange proper tools, PPEs (ESD) and material handling accessories before the start and/or after the work is completed
SB5.   ensure/check all ESD safe aspects in the workplace and to comply with all safe procedures applicable for the work/stage assigned

Customer Centricity
The user/individual on the job needs to know and understand how to:
SB6.   be ESD safe all time during working and be aware of the possible impact on the end product and/or usage conditions by not following ESD safe processes or not using the PPEs at the right place/time
SB7.   assess impact on customer of not reporting unsafe conditions and/or not solving or supporting precautionary measures before delivery/dispatch

Problem Solving
The user/individual on the job needs to know and understand how to:
SB8.   identify ESD unsafe actions and provide possible solutions
SB9.   immediate corrections/corrective actions of non-conformance/feedback indicated during ESD safety inspections/audits
SB10. take appropriate actions in reporting and replacing worn out charts/labels displays in various areas to help educate/identify ESD safety aspects
SB11. help and support educate new comers, trainees on safety aspects in their area to help prevent failures due to unsafe ESD conditions

Analytical Thinking
The user/individual on the job needs to know and understand how to:
SB12. identify failure prone actions of w.r.t. ESD safe procedures and analyse the situation for a possible failure/impact on the product at the customer end
SB13. contribute solving problems by experience as a part of the team in related to areas of production

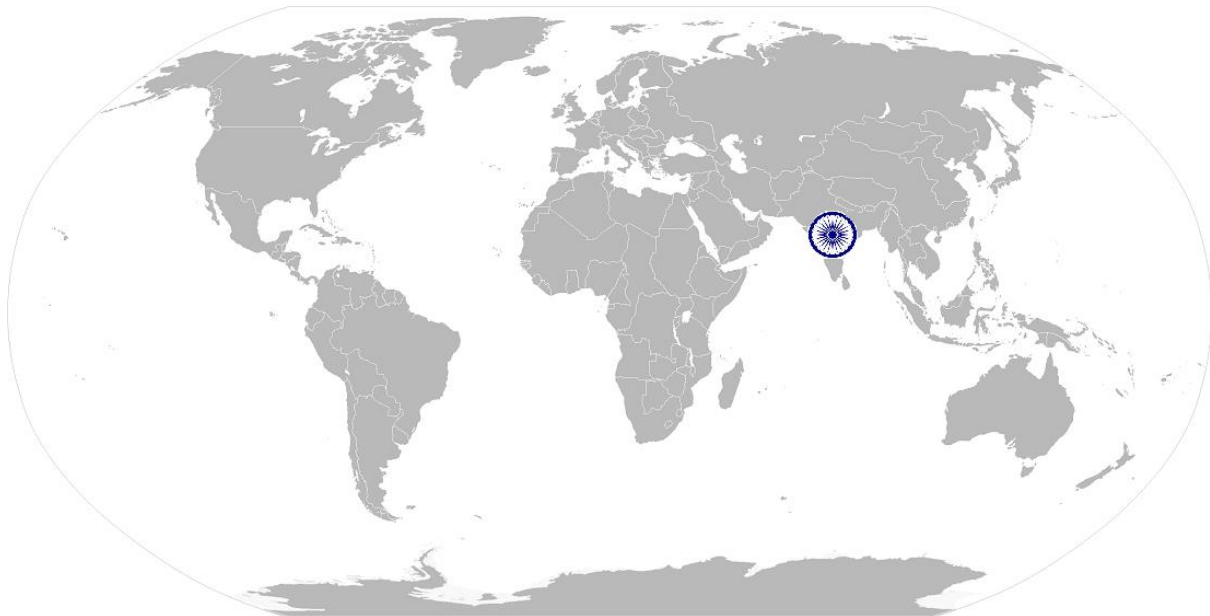| **Critical Thinking** |
| --- |
| The user/individual on the job needs to know and understand how to: |
| SB14. use reasoning ability to determine possible solutions to potential failures for the customer |

NOS Version Control

NOS Code	TEL /N2508		
Credits (NSQF)	TBD	Version number	1.0
Industry	Telecom	Drafted on	12/07/2017
Industry Sub-sector	Handset	Last reviewed on	10/11/2017
Occupation	Communication Electronics	Next review date	10/11/2021

National Occupational Standard

Overview

This unit is about monitoring the working environment and making sure it meets requirements for health, safety and security.

Unit Code	TEL/N2509
Unit Title (Task)	Health and safety
Description	This unit is about monitoring the working environment and making sure it meets requirements for health, safety and security.
Scope	This unit/task covers the following: Health & Safety: Compliance and emergency procedures • hazards • fire • accident • site emergency

| Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Health and safety: Compliance and emergency procedures	To be competent, the user/individual on the job must be able to: PC1. ensure that work is carried out in accordance with the laid down safety, security policies and procedures of the organization PC2. ensure that site is assessed for safety and emergency readiness compliance as per company's guidelines PC3. ensure electrical safety compliances and EMI/EMC hygiene requirements are met as per the guidelines PC4. identify and correct any hazards that you can deal with safely, competently and within the limits of your authority PC5. report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected PC6. follow your organizations's emergency procedures promptly, calmly and efficiently PC7. identify and recommend opportunities for improving health, safety, security to the designated person PC8. complete any health and safety records legibly and accurately
Knowledge and Understanding (K)	
A. **Organizational Context** (Knowledge of the company/organization and its process)	The user/individual on the job needs to know and understand: KA1. legislative requirements and organizations procedures for health, safety and security and role and responsibilities in relation to this KA2. what is meant by hazard, including the different types of health and safety hazards that can be found in the workplace KA3. how and when to report hazards KA4. limits of your responsibility for dealing with hazards KA5. your organization's emergency procedures for different emergency situations and the importance of following these KA6. importance of maintaining high standards of health, safety and security KA7. implications that any non – compliance with health, safety and security may have on individuals and the organization

National Occupational Standard

B. Technical Knowledge	The user/individual on the job needs to know and understand:
	KB1. different types of breaches in health, safety and security and how and when to report these
	KB2. evacuation procedures for works and visitors
	KB3. how to summon medical assistance and the emergency services, where necessary
	KB4. how to use the health, safety and accident reporting procedures and the importance of these
	KB5. government agencies in the area of safety, health and security and their norms and services
	KB6. know and understand the MSDS of any chemicals used in soldering activity

Skill (s) [Optional]		
A. Core Skills/ Generic Skills	**Writing Skills**	
	The user/individual on the job needs to know and understand how to:	
	SA1. complete accurate well-written work with attention in detail	
	Reading Skills	
	The user/individual on the job needs to know and understand how to:	
	SA2. read instructions, guidelines, procedures, rules and service level agreements	
	Oral Communication (Listening and speaking skills)	
	The user/individual on the job needs to know and understand how to:	
	SA3. listen effectively and orally communicate information accurately	
B. Professional Skills	**Decision Making**	
	The user/individual on the job needs to know and understand how to:	
	SB1. make decision on suitable course location	
	Plan and Organize	
	The user/individual on the job needs to know and understand how to:	
	SB2. plan and organize work to meet health, safety and security requirements	
	Customer Centricity	
	Not applicable	
	Problem Solving Skills	
	The user/individual on the job needs to know and understand how to:	
	SB3. apply problem solving approaches in different situations	
	Analytical Thinking	
	The user/individual on the job needs to know and understand how to:	
	SB4. analyze data and activities	
	Critical Thinking	
	The user/individual on the job needs to know and understand how to:	
	SB5. apply balanced judgements to different situations	
	SB6. apply, analyze and evaluate the information gathered from observation, experience, reasoning or communication, as guide to thought and action	

NOS Version Control

NOS Code	TEL /N2313		
Credits (NSQF)	TBD	Version number	1.0
Industry	Telecom	Drafted on	12/07/2017
Industry sub-sector	Handset	Last reviewed on	10/11/2017
Occupation	Communication Electronics	Next review date	10/11/2021
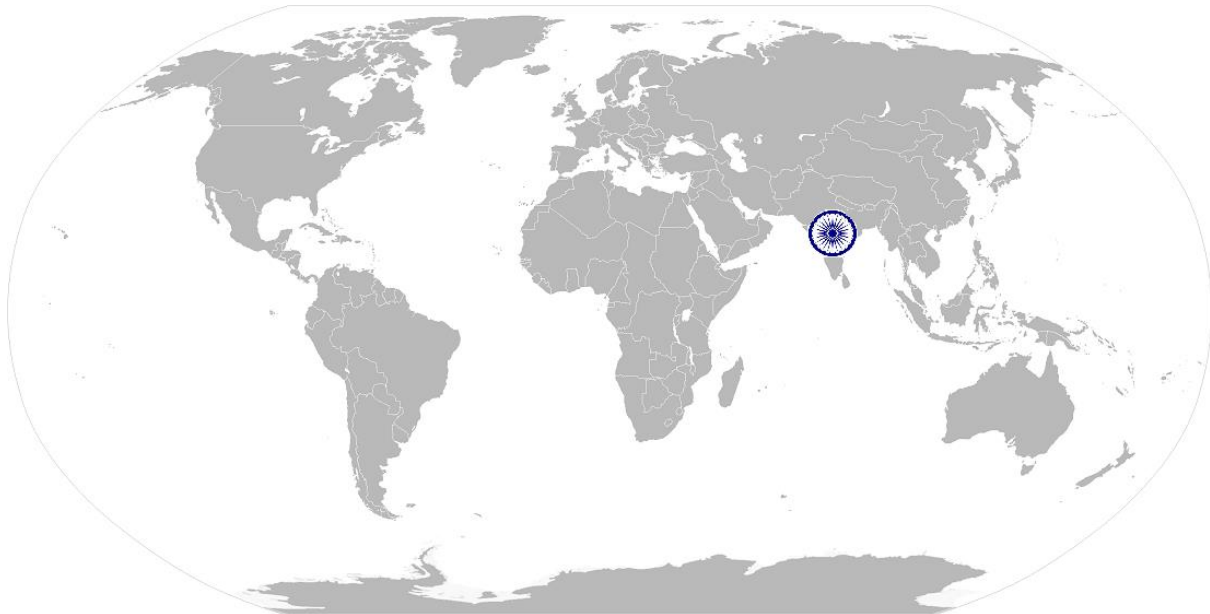
Annexure

Nomenclature for QP and NOS

Qualifications Pack :TEL/Q0101

9 characters
[ABC]/ Q 0101

[Insert 3 letter code for SSC]

QP number (2 numbers)

Q denoting Qualifications Pack

Occupation (2 numbers)

Occupational Standard

An example of NOS with 'N'

9 characters
[ABC] / N 0101

[Insert 3 letter code for SSC]

OS number (2 numbers)

N denoting National Occupational Standard

Occuptaion (2 numbers)

The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Service	01- 20
Handset	21 – 40
Passive Infra	41 – 60
Network managed	61 – 80

Sequence	Description	Example
Three letters	Industry name	TEL
Slash	/	/
Next letter	Whether **Q**P or NOS	Q
Next two numbers	Occupation code	01
Next two numbers	OS number	01

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role : Line Assembler - Telecom Products
Qualification Pack : TEL/Q2502
Sector Skill Council : Telecom Sector Skill Council

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/ training center.
5. To pass the Qualification Pack , every trainee should score a minimum 70% of aggregate marks to successfully clear the assessment.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS		Total Marks: 400		Marks Allocation	
Assessment Outcomes	**Assessment Criteria**	**Total Marks (400)**	**Out Of**	**Theory**	**Skills Practical**
TEL/N2506 Arrangement of components/parts and assembly bench	PC1. draw correct components from stores as per the work instructions		10	5	5
	PC2. demonstrate understanding of the work instructions and familiarity with the assembly		10	5	5
	PC3. demonstrate arrangement of components as per the assembly instructions		10	4	6
	PC4. verify specifications of all components as per the work instructions		15	8	7
Arranging tools and equipment required for assembly	PC5. Identify and draw tools and equipment requirement as per the work instructions		20	10	10
	PC6. ascertain compliance/correctness (calibrations) wherever required	**100**	20	10	10
	PC7. ascertain proper operation of all the tools/equipment		15	7	8
	Total	100	**100**	**48**	**52**
TEL/N2507 Assembly operations of telecom devices/products	PC1. ascertain availability of all parts/ components, vis-à-vis the specifications and assembly guidelines	100	10	6	4
	PC2. ascertain availability of all tools and equipment to carry out work		10	5	5
	PC3. ascertain work safety compliance before commencing work		10	7	3
	PC4. sequence the parts and subassemblies in correct order		10	5	5
	PC5. demonstrate ability to read technical diagrams and specifications		5	2	3

	PC6.	demonstrate basic skills of component handling, component fitment, use of basic assembly tools and mechanical fitments (special purpose screws etc)	7	3	4
	PC7.	demonstrate assembly of the parts/componens using proper process, procedures, sequence and using right tools	10	4	6
	PC8.	demonstrate basic quality check procedures	10	5	5
Post assembly activities	PC9.	cross check intermediate and end of work compliance	6	3	3
	PC10.	secure the workplace by clearing any loose/leftover consumables, spare components etc.	6	2	4
	PC11.	account for all components used and match with the inventory issues	4	2	2
	PC12.	follow store compliances in terms of return of inventory (components, parts etc.) at the end of work	4	1	3
	PC13.	document work done and account for all components as per company policy	8	3	5
	TOTAL		100	**100**	**48**	**52**
TEL/N2508 ESD safe procedures and practices	PC1.	demonstrate safe work practices as per the ESD process and protocol		20	10	10
	PC2.	demonstrate grounding of all components in work area		20	10	10
	PC3.	demonstrate use of ESD tools/equipment (static voltage checker, wrist straps, shoe grounders, air ionizers)	100	15	8	7
	PC4.	demonstrate safe cleaning & clearing practices for removal of non-essential items and equipment carrying electrostatic generating potential		15	5	10
	PC5.	demonstrate the process of packing/unpacking of electronic components in compliance to ESD processes		15	7	8
	PC6.	demonstrate safe handling of all semi-finished products after assembly operations (use of ESD free trays, conveyor lines)		15	8	7
	TOTAL		100	**100**	**48**	**52**
TEL/N2509 Health and Safety	PC1.	ensure that work is carried out in accordance with the laid down safety, security policies and procedures of the organization		10	6	4
	PC2.	ensure that site is assessed for safety and emergency readiness compliance as per company's guidelines		12	6	6

PC3.	ensure electrical safety compliances and EMI/EMC hygiene requirements are met as per the guidelines		15	9	6
PC4.	identify and correct any hazards that you can deal with safely, competently and within the limits of your authority		15	10	5
PC5.	report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected	100	12	7	5
PC6.	follow your organizations's emergency procedures promptly, calmly and efficiently		12	6	6
PC7.	identify and recommend opportunities for improving health, safety, security to the designated person		14	8	6
PC8.	complete any health and safety records legibly and accurately		10	5	5
	TOTAL	100	**100**	**57**	**43**