

**COMPETENCY MODEL FOR
COMMUNICATIONS ELECTRICIAN
CLASS CODE 3686**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **COMMUNICATIONS ELECTRICIAN** (Numbers refers to the order of competencies in the Competency Bank.)

1. Reading Comprehension
3. Judgment and Decision Making
6. Attention to Detail
8. Safety Focus
20. Job Knowledge
34. Customer Service
35. Teamwork
45. Oral Communication
47. Written Communication

On the following pages are descriptions of each competency, including a definition, the level of the competency required for the class (*italicized*, **bolded**, and underlined), examples of behavioral indicators, and satisfactory and superior performance levels.

1. READING COMPREHENSION – Accurately assesses situations, seeks new information if necessary, and applies all available information to reach sound conclusions/formulate effective response.

Level of Competency Required by Job:

- Level 1: Concrete, specific job-related information (work orders; instructions; material/equipment labels)
- Level 2: General information related to field of work and assignments; (articles in trade publications; technical/instructional manuals; memos; letters; e-mails; reports)**
- Level 3: Abstract/complex information (highly technical articles/ reports in specialized area; legal or other regulatory material)

Examples of Behavioral Indicators:

- Follows written instructions correctly
- Learns information presented in writing.
- Identifies relevant written information.
- Interprets written legal regulatory material accurately.
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Performance Levels:

Satisfactory

Reads instructions correctly. Learns from manual and other printed material.

Superior

Learns from manual and may answer others' questions. Explains information presented in written form to others.

3. JUDGMENT AND DECISION MAKING – Accurately assesses situations, seeks new information if necessary, and applies all available information to reach sound conclusions/formulate effective response.

Level of Competency Required by Job:

- Level 1: Training and guidelines needed to respond to immediate situations within very specific function are provided (or supervisor available to assist).
- Level 2: General information and guidance to assist in responding to a variety of situations across a range of circumstances are provided.**
- Level 3: Little guidance available for responding to a wide range of complex situations with far-reaching and/or enduring consequences.

Examples of Behavioral Indicators:

- Effectively responds to atypical situations.
- Asks questions or otherwise obtains additional relevant information to make a decision.
- Formulates a decision and necessary actions based on available facts.
- Correctly infers appropriate response based on information provided and existing policies, personal experience, and/or consultation with others.
- Discusses conclusions/possible responses with others before taking action as necessary.
- Considers impact of decisions on all affected parties.

Performance Levels:

Satisfactory

Correctly assesses routine and unusual situations and reaches appropriate conclusions for actions needed. Obtains additional information and/or consults with others as necessary.

Superior

Evaluates new situations accurately to establish an appropriate response or plan of action. Recognizes the impact on all affected parties, as well as the possible ramifications and/or repercussions of setting a precedent.

12. ATTENTION TO DETAIL – Dependable, reliable, diligent, and attends to all aspects of assignments (the “details”).

Level of Competency Required by Job:

- Level 1:** **Remain on-task and make every reasonable effort to complete work in time allotted. Note discrepancies and takes action or informs appropriate person when “things don’t seem right” in information or data.**
- Level 2: Note when own work logically relates to the work of others and coordinate with them and when additional tasks must be performed to complete an assignment and perform/assign them. Recognize when, despite best efforts, work will not be done and notifies supervision.
- Level 3: Attend to each area of responsibility, and if all are not being addressed, arrange for transfer or elimination of some of them. Ensure that all aspects of programs/projects are properly addressed to ensure success.

Examples of Behavioral Indicators:

- Seeks all necessary information to do the job well.
- Learns from experience so can recognize when things are not right.
- Maintains a high level of task-related behavior.
- Continues to work diligently in the absence of supervision.
- Fully attends to seemingly minor as well as major aspects of each work assignment.

Performance Levels:

Satisfactory

Fully attends to work at hand; notes details, errors, and discrepancies and follows-up as necessary. Reliably performs and completes work. Punctual; respectful of others’ time.

Superior

Notes relationship of own work to work of others to ensure all aspects are coordinated. Performs additional tasks and otherwise follows-up to ensure thoroughness.

8. SAFETY FOCUS – Performs work in a way that minimizes risk of injury to self or others.

Level of Competency Required by Job:

- Level 1: Maintain awareness of unsafe conditions and actions to avoid injury.
- Level 2: Follow safety rules/procedures; avoid known hazards in the work environment.
- Level 3: Carefully follow safety rules and procedures and consistently use all necessary safety equipment.**

Examples of Behavioral Indicators:

- Wears seat belt.
- Ensures safe physical work environment by taking actions such as eliminating unstable stacks of materials, closing drawers so filing cabinets will not tip over, and keeping pathways clear of tripping hazards.
- Reviews safety procedures before beginning each job with known hazards.
- Follows safety procedures while performing work even when it takes more time.
- Uses safety equipment such as goggles, gloves, and earplugs as required or warranted.
- Frequently checks safety equipment for proper condition and operation.

Performance Levels:

Satisfactory

Maintains awareness of personal safety to avoid injury or property damage during all work activities.

Superior

“Safety first.” Places avoidance of injury or property damage above all other job requirements. Mentions the need to follow safe work practices to co-workers. Actively seeks ways to avoid injury.

SAFETY FOCUS AREAS

1. Knowledge of safety precautions and hazards involved in working on or installing electronic and communications equipment.
2. Knowledge of proper safety use and care of hand and portable power tools.
3. Knowledge of basic first aid, CPR, ladder safety, confined space training, defensive driving.

20. JOB KNOWLEDGE – Knows information required to perform a specific job. Includes both widely available courses of study (for example, chemistry, human resources management, graphic arts) and City-specific information (parking regulation and ticketing practices; purchasing procedures; provisions of the City Charter).

Level of Competency Required by Job:

- Level 1: Knowledge is concrete, factual, and/or procedural and may be defined by the organization. Situations in which it is applied are quite consistent.
- Level 2: Knowledge is substantive and may be defined by an external trade, field, or profession. Situations in which it is applied vary and, as such, require breadth and depth of understanding.**
- Level 3: Knowledge is abstract, conceptual, and/or complex and may be supported by a well-defined academic discipline or authoritative sources (e.g., laws, ordinances, government guidelines/regulations/codes). Situations in which it is applied may vary greatly or be novel.

Examples of Behavioral Indicators:

- Performs work correctly/avoids technical (job content related) errors.
- Answers technical questions about work accurately.
- Asks few technical questions about the performance of routine work activities.
- Offers advice (“coaching”) to new employees regarding their work.
- Develops training programs for other employees.
- Sought out as a source of information by others.

Performance Levels:

Satisfactory

Sufficient job knowledge to perform work correctly independently. Answers technical questions about work correctly.

Superior

Expertise in technical job information sufficient to serve as a resource to others. May develop training manuals/programs and/or give internal and/or external presentations related to work.

Job Knowledge Areas

GENERAL

1. Knowledge of principles of electricity and electronic theory relating to various communications equipment systems including base and mobile radio, security systems, microwave, avionics, voice and data network, wireless network and audio-visual systems.
2. Knowledge of common sources of trouble, i.e. malfunctions, technical issues or damages to equipment that interfere with proper communications, in communications systems such as base and mobile radio, security systems, microwave radio, avionics, voice and data network, wireless network and audio-visual systems using the appropriate resources, tools, and equipment in order to be able to review, develop, and evaluate options and implement solutions.
3. Knowledge of methods of installing, servicing, troubleshooting, configuring, rebuilding, and repairing communications systems such as base and mobile radio, security systems, microwave radio, avionics, voice and data network, wireless network and audio-visual systems using the appropriate resources, tools, and equipment.
4. Knowledge of electronic test equipment, tools, and materials employed in the construction, servicing, installation, troubleshooting and repair of communications systems such as base and mobile radio, security systems, microwave radio, avionics, voice and data network, wireless network and audio-visual systems.
5. Knowledge of rules and regulations such as Federal Communications Commission (FCC) and Departmental rules pertaining to the operation, documentation, and maintenance of public safety and industrial communications systems.
6. Knowledge of work records and technical documentation such as log books and system drawings and the appropriate manner in which to complete such logs in order to document work.
7. Knowledge of communications plans, schematics, diagrams, and other sketches, drawings, and cable records in order to have a proper understanding of communications to make repairs, installations and troubleshoot.
8. Knowledge of configuring, testing, and evaluating hardware such as base and microwave radio, security systems, wireless network, audio/video and voice and data networking in order to conform to manufacturer standards.
9. Knowledge of the appropriate manners in which to use ladders, aerial lifts and catwalks in order to make repairs, installations and troubleshooting.
10. Knowledge of bucket trucks, forklifts, and/or scissor lifts needed in order to access aerial communications equipment.

RADIO COMMUNICATIONS

11. Knowledge of radio communication systems in order to test, install, configure, troubleshoot and repair.
12. Knowledge of basic electrical and electronic principles such as DC/AC theory and Ohms Law.
13. Knowledge of equipment and/or facilities for radio frequency (RF) interference.
14. Knowledge of installing and mounting equipment on towers and vehicles.
15. Knowledge of testing and adjusting RF Microwave/base and mobile radio receivers and transmitters to system specifications and/or FCC rules and regulations.
16. Knowledge of aligning microwave antennas in order to receive the strongest signal.

VOICE AND DATA NETWORK

17. Knowledge of differentiating copper wire and optical cable colors in order to accomplish work.
18. Knowledge of voice network systems such as telephony instruments, Voice Over Internet Protocol (VOIP), trace wiring, and voicemail systems, in order to troubleshoot, configure, install, and/or repair.
19. Knowledge of faults in fiber and copper data cabling in order to repair network infrastructure.
20. Knowledge of computers (including hardware and software) sufficient to configure or process information on data network equipment.
21. Knowledge of methods for monitoring network reliability and of using and interpreting network testers, wireless network testers, software and cloud based testers and protocol analyzers in order to analyze networks.
22. Knowledge of applying quality of service (QoS) and policy based routing in order to shape the flow of network traffic.
23. Knowledge of subnet masks in order to determine IP addresses.

34. CUSTOMER SERVICE – Interacts with recipients of services (internal or external customers) in a way that provides accurate, timely, and effective information and service.

Level of Competency Required by Job:

- Level 1: Interact with customers in person, over the telephone, or through e-mail (and/or other electronic media) in order to provide information or assistance. Listen to customer concerns; explain/reconcile information and provide alternatives if possible; facilitate resolution by making referral and/or following-up as necessary.
- Level 2: Promotes positive customer service. Serves as a model of providing exemplary customer service.**
- Level 3: Develop customer-oriented procedures; identifies changes in procedures to enhance customer service and ensures they are implemented.

Examples of Behavioral Indicators:

- Carefully listens to (or reads) customer statement of the issue.
- Provides direct, informative, accurate responses to customer.
- Suggests options if available.
- Maintains a positive attitude in the face of customer complaint or frustration.
- Remains focused on the issue presented by the customer and directs the customer back to the issue if necessary.
- Asks the customer if their concerns have been fully addressed.
- Ensures organizational policies and practices are customer-focused.
- Ensures all employees recognize their responsibility for customer service and are properly trained for it.

Performance Levels:

Satisfactory

Displays knowledge as well as courtesy and patience when interacting with customers. Ensures customers' issue is correctly identified and remains focused on it until it is resolved.

Superior

Seeks further information or advice to resolve difficult issues. Solicits feedback on the effectiveness of service. Makes suggestions for improving service and facilitates changes needed to implement.

35. TEAMWORK – Interacts effectively with others to achieve mutual objectives; readily offers assistance to others to facilitate their goal accomplishment.

Level of Competency Required by Job:

- Level 1: Work effectively as a member of a work unit or project team. Readily offer assistance to others when they have too much work or have too little.
- Level 2: Work effectively as a team member in which different people have different roles/responsibilities and perspectives. Identify points for collaboration with co-workers; readily offer and request assistance.**
- Level 3: Work effectively as a part of an interdependent team (your work gets done only if the work of the whole team is done; evaluation of team performance is more relevant than individual performance).

Examples of Behavioral Indicators:

- Discusses work-related matters with co-workers.
- Offers and requests assistance readily.
- Offers and is receptive to suggestions.
- Identifies problems with workflow that will prevent team from accomplishing its goals.
- Provides constructive criticism and feedback to team members to improve overall functioning of team.
- Assigns credit to team for accomplishments.

Performance Levels:

Satisfactory

Cooperates with co-workers and fulfills responsibilities as a member of a project team. Maintains a focus on common objectives and offers and requests assistance readily.

Superior

Sees the team as a whole; acknowledges that performance of the team is what in reality is evaluated by others. If anyone fails, everyone on the team fails.

45. ORAL COMMUNICATION – Communicates orally in a clear, concise, and effective manner.

Level of Competency Required by Job:

- Level 1: Exchange specific, job-related information orally with others in the immediate work environment or via telephone and/or radio.**
- Level 2: Obtain/provide/present general and/or job-specific information orally to a variety of others in various situations.
- Level 3: Obtain/provide/present a diverse array of information orally at varying levels of complexity to a wide range of others across many different situations and circumstances.

Examples of Behavioral Indicators:

- Audience clearly understands the intended message.
- Rarely must repeat information in response to questions.
- Refrains from use of unnecessary words, phrases, or jargon.
- Provides a level of detail appropriate to the situation (avoids too much or too little detail).
- Speaks at a level appropriate to the audience in terms of terminology, sentence structure, and simplicity/complexity of ideas expressed.
- Uses words with precision (vocabulary) to convey exact information.

Performance Levels:

Satisfactory

Speaks clearly and audibly, providing the appropriate information and level of detail. Typically conveys the message on the first attempt. Answers questions accurately and directly.

Superior

Speech is direct and to the point. Speaks convincingly and with authority when appropriate. Maintains sensitivity to the audience while providing thorough information with the appropriate level of detail through the use of precise language.

47. WRITTEN COMMUNICATION – Communicates effectively in writing.

Level of Competency Required by Job:

- Level 1: Write notes/e-mails. Completes forms with some open-ended responses (sentences).**
- Level 2: Write letters, articles/reports, and/or detailed descriptions of activities/occurrences.
- Level 3: Write lengthy reports, instruction manuals, in-depth analyses/reviews of complex issues and/or articles for publication. Reviews the written work of others.

Examples of Behavioral Indicators:

- Writing includes the necessary information to convey the intended message.
- Sufficiently few errors in spelling, punctuation, grammar to not interfere with the intended message or distract the reader.
- Little editing or re-writing needed to produce a final product.
- Composes materials efficiently.
- Information is presented in a well organized manner.
- Tone and degree of formality are appropriate to the purpose and audience.

Performance Levels:

Satisfactory

Writes material that clearly communicates the necessary information; needs little editing.

Superior

Precisely uses words and organizes information in a way that enhances presentation of the message. Virtually no editing needed.

