STATE OF OHIO (DAS) CLASSIFICATION SPECIFICATION

CLASSIFICATION SERIES:	SERIES NO.:
Highway Patrol Electronic Technician	5247
MAJOR AGENCIES:	EFFECTIVE DATE:
Public Safety - State Highway Patrol	01/09/2005

SERIES PURPOSE:

The purpose of the highway patrol electronic technician occupation is to install, repair, test & perform preventative maintenance on highway patrol electronic & communication equipment.

At the first level, incumbents clean, install, repair, test & maintain basic electronic & communication equipment under guidance of higher-level highway patrol electronic technicians

At the second level, incumbents independently install, repair, test & perform preventative maintenance on complex electronic & communication equipment.

At the third level, incumbents oversee & coordinate electronic & communication equipment activities.

The managerial level has statewide responsibility for overall design, implementation & maintenance of electronic & communications equipment operated by the Ohio State Highway Patrol & supervises assigned staff.

CLASS TITLECLASS NUMBER
Highway Patrol Electronic Technician 1CLASS NUMBER
52471PAY RANGE
09EFFECTIVE
07/01/2004

CLASS CONCEPT:

The developmental level class works under close supervision & requires working knowledge of electronics in order to clean, install, repair, & maintain basic electronic & communication equipment under guidance of higher-level highway patrol electronic technicians.

CLASS TITLECLASS NUMBERPAY RANGEEFFECTIVEHighway Patrol Electronic Technician 2524721107/01/2004

CLASS CONCEPT:

The full performance level class works under general supervision & requires considerable knowledge of electronics in order to independently install, repair, test & perform preventative maintenance on complex electronic & communication equipment.

CLASS TITLECLASS NUMBERPAY RANGEEFFECTIVEHighway Patrol Electronic Technician 3524731207/01/2004

CLASS CONCEPT:

The advanced level class works under general direction & requires thorough knowledge of electronics in order to oversee & coordinate installation, repair, testing & maintenance of electronic & communication equipment or to do all of preceding & supervise lower-level highway patrol electronic technicians.

CLASS TITLECLASS NUMBERPAY RANGEEFFECTIVEHighway Patrol Electronic Technician Manager524751401/09/2005

CLASS CONCEPT:

The expert level class works under general direction & requires extensive knowledge of electronic equipment operation & maintenance in order to manage & direct the installation, repair, testing & preventative maintenance of all electronic & communication equipment on a state-wide basis & supervise assigned staff.

CLASS TITLE	CLASS NUMBER	<u>B. U.</u>	EFFECTIVE	PAY RANGE
Highway Patrol Electronic Technician 1	52471	01	07/01/2004	09

Diagnoses problems, cleans, installs, maintains & repairs basic electronic equipment (e.g., mobile radios, MARCS radio systems, breath testing devices, speed measuring devices, base station radios, emergency light bars, portable radios) under guidance of higher-level highway patrol electronic technician.

Installs electronic equipment (e.g., telephone systems; radio systems; intercom systems; paging systems; recording systems; video security systems) in highway patrol facilities & vehicles under guidance of higher-level highway patrol electronic technician; installs & repairs basic electronic equipment in other state agency vehicles under guidance of higher-level highway patrol electronic technician.

Recommends changes in policies & procedures; serves as communication dispatcher during emergencies; makes emergency repairs to base station radios during absence of higher-level highway patrol electronic technicians.

MAJOR WORKER CHARACTERISTICS:

Knowledge of department & Federal Communications Commission rules & regulations governing communications equipment installation &/or repair*; electronic & technical mathematics. Skill in installation, operation &/or repair of communication equipment; operation of test equipment & hand & power tools. Ability to understand communication systems; understand technical manuals & instructions associated with trade; cooperate with co-workers on group projects; check pairs of items that are similar or dissimilar; work alone on most tasks; demonstrate dexterity to use hands skillfully; lift up to 50 lbs.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Completion of associate core program in electronic engineering; for positions requiring travel, must possess & maintain valid driver's license per Section 4507.02 (A)(1) of Revised Code.

- Or completion of 2 yr. technical program in electronics or radio or broadcast engineering; for positions requiring travel, must possess & maintain valid driver's license per Section 4507.02 (A)(1) of Revised Code.
- Or 24 mos. exp. in installation & workings of communication equipment; for positions requiring travel, must possess & maintain valid driver's license per Section 4507.02 (A)(1) of Revised Code.
- Or equivalent of Minimum Class Qualifications for Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT: Not applicable.

UNUSUAL WORKING CONDITIONS:

Exposed to high voltages, inclement weather, dust, dirt, fumes, loud & constant noise; exposed to mosquitoes, rodents, wasps & poisonous snakes at remote tower sites; installations & repairs require working in confined spaces such as under vehicle dashboards & in vehicle trunks; on call 24 hrs; 7 days per week.

CLASS TITLE	CLASS NUMBER	B. U.	EFFECTIVE	PAY RANGE
Highway Patrol Electronic Technician 2	52472	01	07/01/2004	11

Independently installs, repairs, tests, & maintains complex electronic & communication equipment (e.g., low band, high band & UHF multi-frequency base stations, mobile radios & hand held radios, MARCS radio systems, citizens band base & mobile radios, mobile & base station repeater systems, microprocessor controlled communications consoles, breath alcohol testing equipment, surveillance equipment, security systems for buildings & vehicles, emergency light bars, emergency power generators, vision testing equipment, telephone systems, window tint density testers, mechanical & electronic speed measuring devices, infrared detectors, weigh in motion & stationary truck scales, emergency warning devices) in highway patrol facilities, vehicles, truck weigh stations & remote tower sites.

Installs computer, printer & telephone cable & wiring in division facilities; assists other state agencies (e.g., Bureau of Motor Vehicles; Rehabilitation & Corrections) in installation of highway patrol communications equipment; installs complex communications systems for special events (e.g., state fair; quarter horse congress; national governors conference; visiting foreign delegations) for executive protection; installs antenna systems & radio equipment at tower sites; provides support to law enforcement automated data system (i.e., LEADS) & installs computer & software systems; installs computer software in micro computers & minicomputers located throughout state; recommends changes in policies & procedures.

Updates electronic manuals & procedures; orders parts & supplies; develops & utilizes computerized inventory of parts usage & inventory control; researches & locates sources of interference to communication systems & reports findings to appropriate federal &/or state agencies; coordinates & provides training on electronic equipment &/or microcomputer for division staff (e.g., dispatchers); liaisons with federal, state, county & local government agencies; provides expert court testimony regarding operation & maintenance of electronic speed detection devices, breath alcohol testing devices & radio frequency interference surveys; inspects equipment at division locations & reports findings in need of attention; maintains commercial electrical service at each highway patrol facility.

MAJOR WORKER CHARACTERISTICS:

Knowledge of department, state & Federal Communications Commission rules & regulation governing communications equipment installation, repair, testing & maintenance; electronics & technical mathematics; inventory control*; safety practices (e.g., OSHA); employee training & development*. Skill in installation, operation & repair of communications equipment; installation, repair & maintenance of telephone equipment*; use of software to configure & test equipment*; computer operation; operation of test equipment & hand & power tools. Ability to understand practical field of study (i.e., electronics); use geometry & trigonometry or technical mathematics; understand technical instructions; check pairs of items that are similar or dissimilar; cooperate with co-workers on group projects; demonstrate dexterity to use hands skillfully; maintain accurate records; gather, collate & classify information about data, people or things; lift up to 50 lbs.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Completion of two-year technical program in electronics or radio or broadcast engineering & 2 yrs. exp. in electronics, radio or broadcast engineering position; hold General Radio Telephone Operator's License issued by Federal Communications Commission or be certified by one of the following: Society of Broadcast Engineers, National Association of Business & Educational Radio, Inc., International Society of Certified Electronic Technicians, National Association of Radio & Telecommunications Engineers, Inc., or Associated Public Safety Communications Officers, Inc., or any other private industry certificate recognized by Federal Communications Commission; for positions requiring travel, must possess & maintain valid driver's license per Section 4507.02 (A)(1) of Revised Code.

-Or equivalent of Minimum Class Qualification For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT: Not applicable.

UNUSUAL WORKING CONDITIONS:

Exposed to high voltages, inclement weather, dust, dirt, fumes, loud & constant noise; exposed to mosquitoes, rodents, wasps & poisonous snakes at remote tower sites; installations & repairs require working in confined spaces such as under vehicle dashboards & in vehicle trunks; on call 24 hrs., 7 days per week.

CLASS TITLE	CLASS NUMBER	B. U.	EFFECTIVE	PAY RANGE
Highway Patrol Electronic Technician 3	52473	01	07/01/2004	12

Oversees & directs installation, repair & maintenance of electronic equipment (e.g., low band, high band & uhf multi-frequency base stations, mobile radios & hand held radios, citizens band base & mobile radios, mobile & base station repeater systems, marcs radio systems, microprocessor controlled communications consoles, breath alcohol testing equipment, surveillance equipment, security systems for buildings & vehicles, emergency light bars, emergency power generators, vision testing equipment, telephone systems, window tint density testers, mechanical & electronic speed measuring devices, infrared detectors, weigh in motion & stationary truck scales, emergency warning devices) in highway patrol facilities, vehicles & truck weigh stations & remote tower sites; or to do all of preceding & supervise lower-level highway patrol electronic technicians.

Drafts & updates electronic equipment manuals & division procedures; orders parts & supplies from general headquarters; in general headquarters, orders replacement parts from vendors; maintains sufficient inventory; develops & utilizes computerized inventory of parts usage & inventory control; provides training for lower-level highway patrol electronic technicians (e.g., evaluates available training programs; develops in-house training programs; develops & coordinates training sessions.

Installs computer, printer & telephone cable & wiring in division facilities; assists other state agencies (e.g., Bureau of Motor Vehicles; Rehabilitation & Correction) in installation of highway patrol communications equipment; installs complex communications systems for special events (e.g., state fair; quarter horse congress; national governors conference; visiting foreign delegations) for executive protection; installs antenna systems & radio equipment at tower sites; provides support to law enforcement automated data system (i.e., LEADS) & installs computer & software systems; installs computer software in micro computers & minicomputers located throughout state; recommends changes in policies & procedures; evaluates & recommends solutions to complex communication network problems; provides training on electronic equipment &/or software systems to users.

Assists highway patrol electronic technician manager in engineering statewide communications systems; serves as liaison (e.g., recruits electronic technicians; provides expert court testimony regarding operation & maintenance of electronic speed detection devices, breath alcohol testing devices & radio frequency interference surveys); inspects equipment at patrol facilities & reports findings in need of attention; writes technical bid specifications for new &/or replacement equipment; monitors changes in Federal Communications Commission rules & regulations; completes & maintains records & reports; maintains commercial electrical service at each highway patrol facility.

MAJOR WORKER CHARACTERISTICS:

Knowledge of department, state & Federal Communications Commission rules & regulations governing equipment installation, operation, repair, inspection, maintenance & testing; electronics & technical mathematics; inventory control; safety practices (e.g., OSHA); employee training & development*; supervisory principles/techniques*. Skill in installation, operation & repair of communication equipment including related testing equipment (e.g., oscilloscopes, frequency meters); installation, repair & maintenance of telephone equipment*; use of software to configure & test equipment; computer operation; operation of test equipment & hand & power tools. Ability to maintain accurate records; interpret extensive variety of technical material in books, journals & manuals; use trigonometry or technical mathematics; understand manuals & verbal instructions, technical in nature; gather, collate & classify data about people, places or things; establish friendly atmosphere as district coordinator; demonstrate dexterity to use hands skillfully; lift up to 50 lbs.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Completion of two-year technical program in electronics or radio or broadcast engineering & 3 yrs. exp. in electronics, or radio or broadcast engineering position; hold General Radio Telephone Operator's License issued by Federal Communications Commission or be certified by one of the following: Society of Broadcast Engineers, National Association of Business & Educational Radio, Inc., National Association of Radio & Telecommunications Engineers, Inc., International Society of Certified Electronic Technicians or Associated Public Safety Communications Officers, Inc., or any other private industry certificate recognized by Federal Communications Commission; for positions requiring travel, must possess & maintain valid driver's license per Section 4507.02 (A)(1) of Revised Code.

-Or equivalent of Minimum Class Qualification For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT: Not applicable.

UNUSUAL WORKING CONDITIONS:

Exposed to high voltages, inclement weather, dust, dirt, fumes, loud & constant noise; exposed to mosquitoes, rodents, wasps & poisonous snakes at remote tower sites; installations & repairs require working in confined spaces such as under vehicle dashboards & in vehicle trunks; on call 24 hrs; 7 days per week.

CLASS TITLE	CLASS NUMBER	<u>B. U.</u>	EFFECTIVE	PAY RANGE
Highway Patrol Electronic Technician Manager	52475	EX	01/09/2005	14

Directly oversees & administers all activities to ensure uninterrupted operation of highway patrol statewide communication system for day-to-day business & emergency responses, engineers complex communications systems (i.e., fixed station antenna systems, develops tower specifications, location of transmitter receiver sites & determines latitude & longitude of tower sites) as required by Federal Communications Commission (i.e., FCC) & to ensure adherence to other applicable rules & regulations, develops & implements procedures for installation of electronic equipment in patrol cars (e.g., mobile radios, sirens, emergency bar lights, repeater systems, speed detection devices, security devices) & at patrol facilities (e.g., base station radios, consoles, breath testing devices, antenna systems, video surveillance systems, telephone systems) & supervises assigned staff.

Serves as technical liaison to implement electronic repairs, installations & other related activities (e.g., equipment allocations; work schedules; parts & inventory management); researches availability of radio equipment, develops electronic specifications & analyzes bid proposals to assure compliance with FCC & other applicable regulations & standards; locates & eliminates source of interfering signals; inspects equipment at patrol facilities & reports findings in need of attention; develops safety procedures (e.g., for highway patrol electronic technicians).

Oversees activities of radio shop & installation facility; conducts meetings with radio shop personnel (e.g., assesses operations; resolves problems; disseminates materials); evaluates training needs & arranges training sessions; recruits, tests & recommends applicants; tests & conducts oral interviews of lower-level technicians & recommends eligible technicians for promotions; updates technical manuals.

MAJOR WORKER CHARACTERISTICS:

Knowledge of department, state & Federal Communications Commission (i.e., F.C.C.) governing communications equipment installation, operation, repair, inspection, testing & maintenance; electronics & technical mathematics; management/supervision (e.g., techniques of management/supervision, production & operations management, human resources management, managerial applications, organizational behavior, human resource training & development, analysis & design of operating systems); inventory control; public relations; effective communications techniques; budgeting. Skill in electronic communication equipment operation & maintenance. Ability to understand practical field of study (i.e., electronics); interpret extensive variety of technical material in books, journals & manuals; use geometry, trigonometry or technical mathematics; understand manuals & verbal instructions, technical in nature; gather, collate & classify data about people, places or things; establish friendly atmosphere as manager; maintain accurate records; demonstrate dexterity to use hands skillfully; use proper research methods in gathering data.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Completion of two-year technical program in electronics or radio or broadcast engineering & 4 yrs. exp. in electronics, or radio or broadcast engineering position; hold General Radio Telephone Operator's License issued by Federal Communications Commission or be certified by one of following: Society of Broadcast Engineers, National Association of Business & Educational Radio, Inc., National Association of Radio & Telecommunications Engineers, Inc., International Society of Certified Electronic Technicians, or Associated Public Safety Communications Officers, Inc., or any other private industry certificate recognized by Federal Communications Commission; 3 courses or 9 mos. exp. in inventory control; 1 course or 3 mos. exp. in public relations; 1 course or 3 mos. exp. in finance or economics covering topics of budgeting.

-Or equivalent of Minimum Class Qualification For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT: Not applicable.

UNUSUAL WORKING CONDITIONS:

May be exposed to high voltages, inclement weather, dust, dirt & fumes; may be exposed to mosquitoes, rodents, wasps & poisonous snakes at remote tower sites; on call 24 hrs., 7 days per week.