

WESTERN MICHIGAN UNIVERSITY

TITLE: Electro-mechanical Locksmith

GRADE: ST2

FUNCTIONS:

This position provides journey level craft labor, working with tools to install, repair, replace and perform preventive maintenance for all types of electro-mechanical locking and security devices and door hardware. The incumbent installs repairs and maintains card readers, keypads, electric strikes, electrical and digital locking devices, cylindrical locks, mortise locks, keyless mechanical locks, exit control devices, exit alarms, closures, hold-open devices, butts, pivots and door-pulls. This position installs devices in pre-prepared doors and/or prepares doors to accept locking devices, drilling holes and pockets for cylinder and mortise locks. The incumbent installs electro-mechanical locking and security devices to manufacturer's specifications, ensures proper operation of electro-mechanical systems/components, and/or aligns bolts and cylinders, and attaches knobs. The incumbent places exit devices at proper heights, aligns strikes with exit device latch bolts, secures exit devices and strikes with screws or through-bolts. This position places closures on doors, using templates for properly placing screws and bolts. The incumbent installs hold-open devices, working either with a template or from measurements recommended by the manufacturer. The incumbent installs butts and pivots on wood doors and jambs, preparing doors and jambs by hand or using a jig with power tools.

The incumbent maintains electro-mechanical locking devices, exit hardware and door hardware on all doors. The incumbent repairs locking devices, dismantling malfunctioning and/or broken devices; removing electrical/electronic and mechanical parts; and installing new or reconditioning existing parts. This position reworks door pockets and, on occasion, may remove or replace an existing door. The incumbent troubleshoots electro-mechanical systems to diagnose problems. The incumbent removes old, loose or deteriorated screws from devices and sets new screws. The incumbent collaborates with Key and Core Maintenance in Public Safety to replace building key systems. The incumbent changes cylinders and drills out frozen cylinders when necessary.

This position utilizes drills and jigs with power tools to cut holes and pockets for locking devices and to prepare jambs to accept butts and pivots. The incumbent employs screwdrivers and small-specialized wrenches to install devices, and uses a 0.75" power drill to start screws and prepare holes for through-bolts. This position uses crimping tools, wire cutters, and other appropriate tools of the trade to install electro-mechanical components and devices. This position employs a digital multi-meter to diagnose electrical system problems. The incumbent may use hammers and chisels to loosen existing hardware and locking devices for repair or removal. This position works from ground/floor level to four feet (48") high without the use of ladders, and works at heights above four feet with the use of ladders.

The incumbent provides information required to update building, systems drawings to accurately reflect the current status. The incumbent may assist in the technical training of an apprentice. This position determines inventory requirements for supplies, construction materials and replacement parts, and notifies supervisory personnel when (re)ordering is necessary. This position operates a motor vehicle to transport tools, supplies and materials to work sites. The incumbent organizes assigned work to minimize materials and man-hours required for proper completion of work, and instructs others in the operation of and preventive maintenance for all related tools and equipment.

This position maintains the work area, all tools, all equipment, all supplies and any assigned vehicle(s) in a neat, clean and orderly condition and performs all work in accordance with established safety practices. The incumbent must wear MIOSHA approved safety shoes at all times and must wear a hard hat, and safety glasses when using power tools. Other protective gear is be worn as required by MIOSHA rules. The incumbent must wear no loose-fitting clothing, which might get entangled in equipment or machinery, posing a hazard to incumbent's safety. This position performs additional duties as requested by supervisory personnel.

QUALIFICATIONS:

The incumbent must be able to read and comprehend written instructions and safety regulations regarding the performance of job duties, and must have sufficient writing and mathematical skills to prepare estimates and supply requisitions. The incumbent must have, or be able to familiarize themselves with electronic communication devices for work orders and other communications. The incumbent must be able to interpret complex electrical blueprints, diagrams, symbol legends, detail drawings, written specifications and operating instructions. The incumbent must possess basic knowledge of low voltage electricity, including familiarity with series and parallel circuits, wire gauges and conductivity, and volt/ohm meters. The incumbent shall have completion of a registered locksmith apprenticeship program or an established, certified training program recognized by the University and/or written verification of a minimum of five (5) years' experience at the journeyman level in this trade is required. The incumbent must obtain manufacturers' certifications on electro-mechanical locking and security systems within six (6) months of the date of hire. The incumbent must be able to pin cores, have knowledge of building key systems. The incumbent must have experience pulling wire, routing cables and terminating ends. The incumbent must perform annual training on L.E.I.N. (Law Enforcement Information Network) and submit to periodic background checks as required by the FBI, will also go through Clery/CSA training as required by the Department of Education. The incumbent must possess a certified professional Locksmith level designation through the Associated Locksmiths of America Proficiency Registration Program. Possession of a valid Michigan driver's license is required for operation of any assigned vehicle used to transport tools, supplies, materials, and equipment between work sites. Working knowledge of computers, including a variety of operating systems and menu-driven software, is preferred for trouble shooting, diagnosis and maintenance of electronic locking and security systems.

In order to perform the essential functions of the job, the incumbent must be able to raise up to 100 lbs. with or without mechanical assistance in order to remove and/or replace existing doors. The incumbent must be able to ascend and descend four to eight foot stepladders carrying jigs and power tools and locking devices weighing up to 10 lbs. as often as 100 times per day. The incumbent must be able to apply five pounds (5 lbs.) of pressure to push locking devices into pre-cut holes, and must be able to apply 8-10 lbs. of pressure with a power drill in order to start screws. The incumbent must be able to apply 50 lbs. of pressure to a screwdriver or hammer and chisel to remove existing screws from locking devices and door hardware.

The incumbent must be able to transport, manipulate and maneuver tools, locking devices and door hardware, and hand and power tools. The incumbent must be able to simultaneously, hold a locking device, exit device or other door hardware weighing up to 10 lbs. while using a power drill or screwdriver to set and install screws. The incumbent must be able to use screwdrivers, hammers, chisels, wrenches, and other tools of the trade to install, remove, dismantle, adjust, reassemble and re-install door hardware and locking devices.

In order to obtain a valid Michigan driver's license, the incumbent must possess 20/40 vision with or without corrective lenses. The incumbent must possess 20/20 vision with or without corrective lenses and be able to properly place and align cylinder and mortise locks, exit devices and strikes, hold-open devices, closures, butts, pivots and other locking devices and door hardware. The incumbent must be able to accurately, distinguish colors in order to accurately identify, trace and match electrical wires on electro-mechanical devices and components.

The incumbent must be able to tolerate exposure to extreme temperatures ranging from -25⁰ F to 130⁰ F, depending on seasonal weather conditions and location of interior/exterior work assignments. The incumbent must be able to tolerate noise levels up to 70 decibels when operating power tools and must be able to tolerate exposure to dirt, dust, pollen and other airborne debris. The incumbent must be able to work in a proximity, with 440-volt power source up to eight hours per day, must be able to enter and maneuver in restricted spaces to maintain devices in steam tunnels and in enclosed areas. The incumbent must be able to tolerate exposure to metals.

A physical examination and drug test will be administered by the employer's designated physician is required to determine the incumbent's ability to perform the essential functions of the job and/or identify the need for a reasonable job accommodation.