

Professional Licensing Boards Division Georgia Construction Industry Licensing Board

Division of Low Voltage Contractors

Licensure Examinations

Candidate Information Handbook

November 2024

Examination Development and Testing Unit



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Reference List

The Professional Licensing Boards Division does not discriminate among candidates based on age, gender, race, religion, or national origin. The Professional Licensing Boards Division also does not discriminate among mentally or physically challenged candidates.

The Examination Development and Testing Unit gratefully acknowledge the assistance of other state licensing programs in the development of this Candidate Information Handbook. Portions of this Handbook were based on Candidate Information Handbooks of other states.

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Introduction

The Division of Low Voltage Contractors of the Georgia Construction Industry Licensing Board was created by the Georgia legislature to protect the public by taking steps to ensure that Low Voltage Contractors are competent in their profession. To achieve this goal, minimum standards and requirements were established by the Board for entry into the profession. Passing an examination is one of the requirements for obtaining a Low Voltage Contractor License.

Please review this Handbook thoroughly. It provides a good overview of the exam process.

Examination Administration

Examinations are Computer Based Tests that are given at PSI Test Centers located throughout the Southeast. The examinations are administered by appointment only Monday through Saturday. Available dates are provided when your schedule your examination. Appointment times may vary by location, and candidates are scheduled on a first-come, first-served basis.

Online Resources

Visit PSI's website for more detailed information:

Video: PSI Test Center Experience - https://psi.wistia.com/medias/3321yp1ic8

Exam Tutorial: http://candidate.psiexams.com/tutorial.jp

Registration deadlines: http://schedule.psiexams.com

FAQs: https://candidate.psiexams.com/faqs/faqs.jsp

Questions about examination appointment

scheduling should be directed to PSI Candidate Services at 855-898-0711.

Questions regarding professional licensing should be directed to the Board Office, 237 Coliseum Drive, Macon, GA 31217, 404-424-9966.

Veteran's Preference Points

Georgia law [General Provisions, O.C.G.A. § 43-1-9. (1)(2)(3)] provides that Veterans meeting certain conditions are eligible for five or ten points to be added to their examination scores.

You may be eligible for Veteran's Preference Points to be added to your examination scores if you have served on active duty in the Armed Forces, Reserves, or the National Guard during wartime or during any conflict when military personnel were committed by the President.

The law provides that you may also qualify for Veteran's Preference Points if you were discharged for injury or illness incurred in the line of duty and your disability is officially rated. Click this link for additional information: Veteran's Preference Points.

To apply for Veteran's Preference Points, submit a copy of your DD 214 form to Exam Development and Testing Unit, Professional Licensing Boards Division, 237 Coliseum Drive, Macon, GA 31217.

Accommodations for Candidates with Disabilities

PSI complies with the Americans with Disabilities Act and strives to ensure that disabled individuals have the opportunity to take the examination.

Disabled persons who require accommodations must complete the 'Request for Disability Guidelines form. This form can be downloaded from the Board's website - <u>REQUEST FORM</u> - or call 404-424-9966 to request the form.

If accommodations are requested, contact PSI at 855-898-0711, as they will assist you with scheduling your examination appointment.

Wheelchair access is available at all PSI Test Centers.



Scheduling an Examination Appointment

You must be approved by the Board to sit for an examination. If you have not received notice that you have been approved, you will be unable to schedule an examination appointment.

The Board will notify PSI of your approval to sit for the exam. In turn, PSI will send you a confirmation notice with information on how to register and schedule your examination.

PSI's instructions will direct you to visit https://test-takers.psiexams.com/gaco

or to call PSI at 855-898-0711 (toll free) to schedule your examination appointment. PSI's phones are answered from 7:00 a.m. to 9:00 p.m. (Central Time) Monday through Thursday, 7:00 a.m. to 7:00 p.m. on Friday, and 8:30 a.m. to 5:00 p.m. on Saturday.

If you contact PSI by 3:00 p.m. Central Time on	Depending on availability, your examination may be scheduled as early as		
Monday	Wednesday		
Tuesday	Thursday		
Wednesday	Friday/Saturday		
Thursday	Monday		
Friday	Tuesday		

Inclement Weather, Emergencies, Power Failures

In the event of inclement weather or emergencies on the day of your exam, PSI will determine if circumstances warrant the cancellation, and subsequent rescheduling, of an examination. If the Test Center personnel open the Test Center, the exam is usually not rescheduled.

Visit https://test-takers.psiexams.com/gaco

prior to the examination to see if any Test Centers have reported closing. Should a Test Center close, you will be notified regarding procedures to reschedule or re-register.

If a Test Center loses power during an examination, your examination will be restarted. Examination question responses entered up to the point of the power interruption will be saved, but for security reasons, the questions will be randomly resorted upon the restart.

Rescheduling or Canceling an Examination

Exam fees are non-refundable. However, you may reschedule an examination once at no charge online at https://test-takers.psiexams.com/gaco

or by calling PSI at 855-898-0711. You must reschedule **at least 2 business days prior to** a scheduled examination appointment. The following schedule applies:

If the examination is scheduled on	PSI must be contacted by 3:00 p.m. Central Time to reschedule the examination by the previous	
Monday	Wednesday	
Tuesday	Thursday	
Wednesday	Friday	
Thursday	Monday	
Friday	Tuesday	

The following situations will result in forfeiture of you appointment time and paid fees. You would need to reregister and pay the exam fee again to sit for the exam.:

- Arriving more than 15 minutes after your exam has begun.
- Not showing up for the exam appointment.
- Canceling your appointment after your registration has been submitted.

Failing to Report for an Examination

If you fail to report for an examination, you will forfeit the registration and all fees paid to take the examination. A new registration and fee are required to sit for the examination again.

Examination Content

Four Low Voltage Contractors licensure examinations are offered to correspond with the four classes of Low Voltage licenses – Alarm (A), General (G), Telecommunications (T), and Unrestricted (U).

All examinations consist of multiple-choice questions. Information about the number of questions and content categories for each examination are included in this handbook.



Exam Day

Dressing for the Exam

Dress comfortably. Because individuals have different temperature preferences, we recommend that you dress in layers so that you can be comfortable in various conditions.

Arrival, Check In

Report to the Test Center at least 20 minutes before your scheduled appointment time. Upon arrival, look for the signs directing you to PSI Test Center Check-in.

IF YOU ARRIVE MORE THAN 15 MINUTES AFTER YOUR SCHEDULED EXAM TIME, YOU WILL NOT BE ADMITTED.

Identification

You must present two forms of identification at Check-in. Temporary IDs are not accepted. You will also be required to sign a roster for verification of your identity.

- One form of ID must be a current government-issued ID which includes your name, signature, and photograph (i.e., driver's license; state identification card; passport; military identification card).
- The second form of ID must include your name and signature for signature verification (e.g., credit card with signature, social security card with signature, employment/student ID card with signature).
- If your name on your registration is different than it appears on your identification, you must bring proof of your name change (e.g., marriage license, divorce decree, or court order).

Personal Belongings

Personal items, valuables, or weapons should not be brought to the Test Center. Large coats and jackets must be left outside the testing room. You will be provided a soft locker in which to store the following items:

-	wallet	- keys
_	watches	- hats

You will not have access to these items until after the examination is completed.

Once you have placed your personal belongings into the soft locker, you will be asked to turn your pockets out to verify that they are empty.

If you bring personal items that will not fit in the soft locker, you will not be able to test. The site will not store or be responsible for your personal belongings.

If any personal items are observed or heard (cell phone, alarm) in the testing room, other than what is noted above, after the examination has started, the individual possessing these items will be dismissed and the examination and the fee will be forfeited.

General Information

- Pencils will be provided during check-in.
- One piece of scratch paper at a time is provided to use during the examination unless otherwise noted on the sign-in roster for a particular candidate. You must return the scratch paper to the supervisor after testing to receive your score report.
- Documents and notes are not to be removed from the Test Center.
- You are not permitted to ask questions about the content of the examination during the examination.
- Eating, drinking, or smoking is not permitted in the Test Center.
- You may take a break whenever you wish, but you will not be awarded additional time to make up for the time lost during breaks.



Security

PSI and the Division of Low Voltage Contractors Board maintain examination administration and security standards that are designed to ensure all candidates are provided the same opportunity to demonstrate their abilities. The Test Center is continuously monitored by audio and video surveillance for security purposes.

The following security procedures apply during the examination:

- Examination content is proprietary. Notes, cameras, tape recorders, pagers, cell phones, tablets, or laptops are not allowed in the testing room. These and similar electronic devices are prohibited and will result in dismissal from the examination if found in your possession during the examination.
- Silent, non-programmable calculators without alpha keys or printing capabilities are allowed in the testing room.
- Guests, visitors, and family members are not allowed in the testing room or reception areas
- You will be asked to store personal items (see Personal Belongings section), and you will be asked to turn your pockets out before entering the exam area to verify that they are empty.

Copyrighted Material

All examination questions are the copyrighted property of PSI Services and the Examination Development and Testing Unit (EDTU) of the Georgia Professional Licensing Boards Division. It is prohibited under federal copyright law to copy, reproduce, record, distribute, or display these examination questions by any means, in whole or in part. Doing so may subject you to civil and criminal penalties.

Misconduct

If you engage in any of the following conduct during the examination, you may be dismissed, your scores will not be reported, and examination fees will not be refunded. These are examples of misconduct:

- creating a disturbance, being abusive or otherwise uncooperative;
- displaying and/or using electronic communications equipment as noted in the Security section on the previous page;
- conversing with other examination candidates;
- giving or receiving help or are suspected of doing so;
- leaving the Test Center during the administration of the examination;
- attempting to record the examination questions or taking notes;
- attempting to take the examination for someone else;
- are observed with prohibited personal belongings;
- are observed with notes, books, or other aids without it being noted on the sign-in roster.

Beta (Pretest) Questions

Beta (pretest) questions are included in the total number of examination questions. These beta questions do not count towards your score but do provide useful information on the quality and relative difficulty of the questions. The beta questions also vet questions that may be used on future exams.

Time Limit

You have four (4) hours to complete the Low Voltage Contractors examination. This limit includes time for the 15 beta (pretest) questions.



Content Categories for Low Voltage Contractors

A - Alarm; G - General; T - Telecomm; U - Unrestricted

1. Regulations, Laws, and Administrative Functions (# of Questions: A: 18 / G: 10 / T:16 / U:23

- A. Comply with Laws (# of Questions: A: 4/G: 2/T: 4/U: 4)
 - 1. Workers' compensation
 - 2. Unemployment insurance
 - 3. Employer's tax guide (circular E)
 - 4. Georgia Construction Industry Licensing Board (complaint procedures, function of, renewal, etc.)
 - 5. State sales and use tax
 - 6. Business license
 - 7. American's with Disabilities Act (ADA)
- B. Comply with Regulations (# of Questions: A: 14 / G: 8 / T: 12 / U: 19)
 - 1. Obtain necessary low voltage permits and inspections
 - 2. Code of Federal Regulations, Title 29, Part 1926 (OSHA)
 - 3. National Fire Protection Association (NFPA)
 - 4. Underwriter's Laboratory (UL) or other appropriate certification
 - 5. National Electrical Code (NEC)
 - 6. Insurance: liability, property damage, auto, etc.
 - 7. Accident or incident reports

2. Installation and Servicing (# of Questions: A: 57 / G: 40 / T: 59 / U: 67)

- A. Read blueprints to determine installation requirements (# of Questions: A: 10/G: 3/T: 10/U: 10)
 - 1. Determine if equipment meets the NEC, NFPA, ADA, and local requirements
 - 2. Select equipment to be installed considering design specifications, customer preferences, and physical environment: power supplies, transformers, batteries, smoke/heat detectors, water flow valves, etc.
 - a. commercial
 - 1. health care (hospital, nursing home, personal care, etc.)
 - 2. places of assembly (stadium, church, auditorium, etc.)
 - b. industrial
 - 1. hazardous
 - 2. non-hazardous
 - c. residential
 - 3. Select type and gauge of wire to be installed
 - 4. Determine and/or verify locations of devices/equipment/wiring
 - 5. Determine the impact of designed floor space (modular furniture, fixed walls, etc.) on installation
 - 6. Identify symbols on blueprint legend
 - 7. Identify fire wall location
 - 8. Identify types of circuits (series, parallel, normally open/closed, EOL, etc.)
- B. Determine how distribution methods (wiring/cabling) affect building structural and installer safety (# of Questions: A: 10/G: 5/T: 16/U: 14)
 - 1. Commercial
 - 2. Industrial
 - a. hazardous
 - b. non-hazardous
 - 3. Residential



2. Installation and Servicing (continued)

- C. Cable/Wire Installation Interior (# of Questions: A: 20 / G: 16 / T: 19 / U: 20)
 - 1. Select cabling/wiring route (risers, plenums, etc.)
 - 2. Install conduit/tubing according to job specifications
 - 3. Pull cable/wire through conduit or through ceiling
 - 4. Size and drill holes through existing construction
 - 5. Fish cable/wire through existing construction
 - 6. Determine and place cable/wire supports at specified intervals
 - 7. Splice or terminate cable/wire at specified locations (equipment or device end)
 - 8. Label cable/wire during or after installation
 - 9. Repair fire-rated assemblies (walls, floors, ceilings, etc.)
 - 10. Install lightning and surge protection
 - 11. Install bonds and grounds at specified locations
 - 12. Observe safety considerations during installation (hard hat, safety glasses, foreign voltage, etc.)
 - 13. Install specified equipment: mounting devices, control panels, PBX/KSU, patch panels, etc.
 - 14. Test all installed devices for proper operation
 - 15. Evaluate installation for accepted standards of workmanship
- D. Cable/Wire Installation Exterior (# of Questions: A: 13 / G: 14 / T: 10 / U: 18)
 - 1. Select cabling/wiring route
 - 2. Install conduit/tubing according to job specifications
 - 3. Pull cable/wire through conduit, direct burial, or aerial
 - 4. Size and drill holes through existing construction
 - 5. Determine and place cable/wire supports at specified intervals
 - 6. Splice or terminate cable/wire at specified locations (equipment or device end)
 - 7. Label cable/wire during or after installation
 - 8. Repair fire-rated assemblies (walls, floors, ceilings, etc.)
 - 9. Install lightning and surge protection
 - 10. Install bonds and grounds at specified locations
 - 11. Observe safety considerations during installation (foreign voltage, hazardous gases, proper safety equipment, etc.)
 - 12. Test all installed devices for proper operation
 - 13. Evaluate installation for accepted standards of workmanship
- E. Documentation (# of Questions: A: 4 / G: 2 / T: 4 / U: 5)
 - 1. Provide documentation regarding customer installation: type of device, location, wiring, owner's manual, user guide, programming record (hard copy, diskettes, tape, etc.)
 - a. Commercial
 - b. Residential
 - c. Industrial

Total Number of Test Questions	75	50	75	90
Additional Pre-test Questions Per Examination	<u>15</u>	<u>10</u>	<u>10</u>	<u> 15</u>
Total Number of Test and Pre-test Questions	90	60	85	105

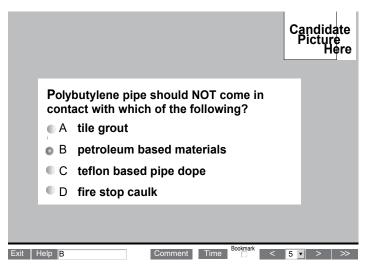


Taking the Examination

Your examination is a Computer Based Exam given at a PSI Test Center. Computer experience or typing skills are not necessary to take your examination.

After confirming your identity, you will be directed to an exam cubicle. Follow the on-screen instructions to enter your Social Security number and take a photo of yourself. Your photo will remain on-screen throughout your examination session and will be printed on your score report.

You will have an opportunity to take a computer based practice exam before starting the official examination. The time used for the practice examination is NOT counted as part of your official examination time or score. When you are comfortable with the testing process, exit the practice session and begin the timed examination.



The testing program tracks the time you spend on the examination. To view your remaining time, click on the "Time" box in the lower right-hand corner of the screen. A digital clock displays the time remaining for you to complete the examination. The Time feature may be turned off during the examination. The examination will terminate if you exceed the time allowed.

One question is presented at a time, and the question number appears in the lower right-hand corner of the screen. Answer choices are identified as A, B, C, or D. You must indicate your choice by either typing the letter in the response box in the lower left-hand of the computer screen or clicking the option using the mouse. To change your answer, enter a different letter by typing in the response box or clicking the option using the mouse. You may change your answer as many times as you wish during the examination time limit.

To advance to the next question, click the forward arrow (>) in the lower right portion of the screen. This action moves you through the examination question by question. To review a question that you've already answered, click the back arrow (<) or use the left arrow key to move back through the examination.

You may skip (not answer) a question and return to it later during the examination session. Questions may also be bookmarked for later review by clicking the blank square to the right of the Time button. Click the double arrows (>>) to advance to the next unanswered or bookmarked question. To identify all unanswered and bookmarked questions, repeatedly click the double arrows (>>).

If some questions have not been answered and there is time remaining, return to the examination and answer those questions. Be sure to provide an answer for each examination question before ending the examination as there is no penalty for guessing.

The number of exam questions answered is reported when you complete the exam.

Candidate Comments

During the examination, you may type comments on any question by clicking on the Comment button to the left of the Time button. This opens a dialogue box where comments may be entered. Comments will be reviewed, but individual responses will not be provided.



After the Examination

Statistical Review of Exam Performance

A statistical analysis of the examination and each question is conducted. Based on the statistics and the candidates' comments, questions that might be flawed will be reviewed by the Division.

Final Scaled Scores

The minimum passing final scaled score for each examination is 70.

The exam scores are scaled. This means that your raw score (the total number of questions answered correctly), taking into consideration question difficulty, is transformed into a scaled score. Because each candidate answers a unique set of questions on an adaptive exam, scaled scores are reported to provide a direct comparison of performance across candidates and exams. This allows candidates to be held to the same passing standard regardless of which questions they receive.

Score Reports

After completing the examination, you will be asked to complete a short survey about your examination experience.

Then, you are to report to the Test Center supervisor to receive your score report. The score report will include your photograph, your examination results indicating "pass" or "did not pass", and your final scaled score.

If you do not pass the exam, you will also receive the subscores for the major exam content areas.

Scores are provided in person via print format or by U.S. mail. Scores are not reported over the telephone, by email, or by fax.

Licenses

PSI will provide the Board with an Official Score report. This could take up to 6 weeks to be received by the Board. Once received, Board staff will communicate with you regarding your results.

Re-examination Procedure

Candidates failing the examination must retake and pass the examination to be considered for licensure.

If you fail the examination twice, you are required to complete a Board-approved Review Course before being allowed to test a third time (Board Rule 121-2-.06).

If after submitting proof of completion of the Review Course, you test and fail the examination again, you are not required to take any other courses. You are allowed to test again.

Duplicate Score Report

Requests for duplicate score reports must be made in writing within one year of the examination date.

Complete the request form included with this Handbook, submit a check or money order for \$25 per copy made payable to PSI Services Inc., and mail your request to PSI.

Duplicate score reports will be processed and mailed within seven (7) business days from receipt of the request. Please note that your receipt of a duplicate score report may be affected by US Postal Service mailing times.



Sample Questions

The following questions are intended to help you become familiar with the types of questions you may encounter on the examination. These sample questions do not represent the full range of content or difficulty levels contained in the actual examination.

- 1. Which of the following type of bonds will ensure that a respondent will complete the work to the specifications for a project?
 - A. fidelity
 - B. grounding
 - *C. performance
 - D. payment
- 2. Which of the following is a type of cable entrance that is used on the outside of a plant building?
 - *A. aerial
 - B. cosmetic
 - C. cored
 - D. regulated
- 3. Which of the following is necessary to ensure proper cable installation standards?
 - 1. pre-cut over inspection
 - 2. selection of equipment room
 - 3. communication with suppliers
 - 4. job in progress inspection
 - A. 1 and 2 only
 - *B. 1 and 4 only
 - C. 2 and 3 only
 - D. 3 and 4 only

*Correct Answer

Low Voltage Contractors Suggested Reference List

Only the reference materials listed on this document may be used during the examination. No other reference materials will be allowed. Some of the test questions will be based on field experience and knowledge of trade practices; therefore, questions will not be limited to the reference materials listed below. Candidates may bring as many or as few of the references listed as desired.

Low Voltage - Alarm: References 1-5 and 7, 8 Low Voltage - General: References 1-5, (reference 6 is optional) Low Voltage - Telecommunications: References 1-6 Low Voltage - Unrestricted: References 1-8

1. *The Americans with Disabilities Act: Your Responsibilities as an Employer-* Current, EEOC, available from bookstores selling construction references.

2. Contractors Guide to Business, Law, and Project Management - Georgia Construction Industry Licensing Board, 5th edition, National Association of State Contractors Licensing Agencies, 23309 North 17th Drive, Building 1, Unit 110, Phoenix, AZ 85027, (623) 587-9354. Order at www.NASCLA.Org.

3. *Employer's Tax Guide, Circular E*, 2024 or 2025, contact local IRS Office, or go to the following website: <u>www.irs.gov/pub/irs-pdf/p15.pdf</u>.

4. Code of Federal Regulations Title 29, Part 1926 (OSHA), Latest Available edition, U.S. Government Bookstore Online at: <u>http://bookstore.gpo.gov</u>.

 Georgia State Electrical Code (2020 National Electrical Code or National Electrical Code Handbook. (Revisions through 2021) Georgia amendments National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9146, Quincy, MA 02269-9146, (800) 344-3555.

Beginning June 20, 2025, the exam will be based on:

Georgia State Electrical Code, (2023 National Electrical Code or National Electrical Code Handbook).

BICSI Telecommunications Distribution Methods Manual, 2014, 13th ed. edition BICSI,
10500 University Center Drive, Suite 100, Tampa, FL 33612, (800) 889-8948.
https://www.bicsi.org/book_details.aspx?Book=TDMM-CM-13.0-v5&d=0

7. The following publications of the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9146, Quincy, MA 02269-9146, (800) 344-3555:

a) NFPA 72-2016 - National Fire Alarm Code.

b) NFPA 101-2015 - Life Safety Code.

8. The following publications of the Underwriters Laboratories, Inc., 12 Laboratory Drive, Research Triangle Park, NC 27709, (919) 549-1394:

a) UL 681-2018 - Installation and Classification of Burglar and Hold-up Alarm Systems, 2018, 15th edition.

b) UL 1076-2018 - Proprietary Burglar Alarm System Units, 2018, 6th edition.

NOTICE TO CANDIDATES: Please be aware that you are allowed to bring to the exam ONLY the references listed above. You are NOT to bring in other photocopied materials or handwritten notes, even if they are pasted in the reference book. References may be highlighted, underlined or tabbed with permanent tabs. Any additional materials will be removed from your reference and confiscated, and the candidate may be removed from the examination.

This reference list will be applicable to examinations administered through **December 31, 2025 unless amended.** If you plan to take the examination after **December 31, 2025** you may obtain an updated reference list from the Board's website at <u>www.sos.ga.gov/plb</u> or <u>www.psionline.com.</u>

Because references are not always available when requested, and obtaining them may take some time, IT IS TO YOUR ADVANTAGE TO ORDER THEM WELL AHEAD OF THE EXAMINATION.

Effective Date: 1-1-25 through 12-31-25