



CERTI-TECH Rules and Procedures

September, 2008

Overview

This document defines CERTI-TECH, the Thermo King Dealer Technician Certification Program. The Program is exclusively for Thermo King Sales and Service Dealers, Thermo King Service Dealers, and Thermo King Service Affiliates, hereafter referred to as Dealers.

CERTI-TECH is a computer based testing program administered by an independent testing agency. The program includes three certification levels for truck and trailer units (described below) and three specialist categories (Bus Climate Control, Marine Container, and Diesel Engines). Each of the timed, open-book tests is comprehensive, requiring knowledge relevant to the service and repair of Thermo King transport temperature control equipment. Successful completion of each test requires technical knowledge as well as the ability to quickly locate information in Thermo King technical reference materials.

Each CERTI-TECH certification test is an integral part of the Technician Development Plan (TDP). Successfully passing each test provides validation of technician knowledge. They are the gateway to more advanced training and skill development.

Each Dealer location will identify a CERTI-TECH proctor. The proctor will be the program contact person receiving CERTI-TECH updates and information. The proctor is also responsible for ordering technician tests, providing recommended study materials and maintaining appropriate testing location and equipment. Dealers will be responsible for tracking the CERTI-TECH certifications of their technicians and keeping them current.

Certification Levels

CERTI-TECH *Certified*

120 Questions, 150 Minutes

This is the basic certification level and is intended for entry-level technicians. Successful completion of this test requires knowledge of truck and trailer unit installation, soldering, preventive maintenance and safe work practices. It also requires an understanding of Thermo King unit identification, microprocessor control operation, electrical fundamentals, refrigeration fundamentals, and refrigeration service procedures.

Preparation for this test should include on-the-job training and independent study of recommended reference materials. Completion of this test is required prior to attending a formal Thermo King factory two-week Dealer Professional (DP) training course. After achieving an 80% minimum score on the test, CERTI-TECH *Certified* status is jointly awarded to the technician and his/her dealership. Shoulder patches and a certificate are sent to the CERTI-TECH proctor for presentation to the technician. A technician should not be re-certified at the CERTI-TECH *Certified* level. The CERTI-TECH *Professional* test should be passed within three (3) years of passing the *Certified* test.

CERTI-TECH *Professional*

120 Questions, 150 Minutes

This certification level is intended to provide a technician with solid system understanding and diagnostic skills. CERTI-TECH *Professional* technicians should be productive in a wide variety of common diagnostic and repair situations on common Thermo King systems. Successful completion of this test requires a thorough knowledge of Thermo King refrigeration systems, electrical systems, microprocessor control systems, refrigeration service procedures and system diagnostics. The test includes questions on refrigeration diagnostic procedures, electrical diagnostic procedures, electrical meter usage, compressors, microprocessor controllers, electrical components and circuits, multi-temperature systems, schematics and wiring diagrams.

To become a CERTI-TECH *Professional*, a technician must first be current CERTI-TECH *Certified* and hold a valid EPA certification under Section 608 of the Clean Air Act (or equivalent, per country). It is recommended that technicians complete the two-week Dealer Professional (DP) training course prior to taking the CERTI-TECH *Professional* test. The CERTI-TECH *Professional* test is closely aligned with the Dealer Professional course. After achieving an 80% minimum score on the test, CERTI-TECH *Professional* status is jointly awarded to the technician and his/her dealership. Shoulder patches and a certificate are sent to the CERTI-TECH proctor for presentation to the technician. Passing the CERTI-TECH *Professional* test satisfies the TDP requirement of attending a Dealer Professional (DP) course. The CERTI-TECH *Professional* certification must be renewed every three (3) years.

CERTI-TECH *Master*

120 questions, 150 Minutes

This certification level is intended for experienced technicians that deal with advanced diagnostics, newer technologies, and a wider variety of products. To become CERTI-TECH *Master* certified a technician must demonstrate an advanced diagnostic knowledge of Thermo King truck and trailer equipment. Technicians will be tested on their ability to analyze symptoms and identify repair solutions. The test includes questions on the diagnosis and repair of screw and scroll compressor units, multi-temperature systems, current microprocessor controllers and data loggers, WinTrac and communications, electrical systems, electric standby, AC electrical circuits, and truck unit (self-powered and vehicle-powered) installation, service and repair.

Prior to requesting the CERTI-TECH *Master* test a technician must pass the CERTI-TECH *Certified* test, have a current CERTI-TECH *Professional* certification, and hold a valid EPA Section 608 certification of the Clean Air Act (or equivalent, per country). The technician should have completed a two-week Dealer Professional (DP) course. It is recommended a one-week Dealer Master (DM) course should have been completed within the three years prior to taking the *Master* test. The CERTI-TECH *Master* test is closely aligned with the Dealer Master course. After achieving an 80% minimum score on the test, CERTI-TECH *Master* status is jointly awarded to the technician and his/her dealership. Shoulder patches and a certificate are sent to the CERTI-TECH proctor for presentation to the technician. The CERTI-TECH *Master* certification must be renewed every three (3) years.

CERTI-TECH *Specialist*

80 Questions, 100 Minutes

Technicians can earn a CERTI-TECH *Specialist* certification in any of three specialty areas: Bus Climate Control, Marine Container, and Diesel Engines. CERTI-TECH *Certified* certification is a prerequisite to taking *Specialist* tests. Technicians may be certified in one, two, or all three specialties. After achieving an 80% minimum score on the test, CERTI-TECH *Specialist* status is jointly awarded to the technician and his/her dealership. Shoulder patches and a certificate are sent to the CERTI-TECH proctor for presentation to the technician. The CERTI-TECH *Specialist* certification must be renewed every three (3) years.

General

Test ordering and other functions are done through the CERTI-TECH Website. A registered CERTI-TECH Proctor must order tests. When a test order is received, the request will be checked against the CERTI-TECH database to assure the technician has met the prerequisite for the test. Once issued, the test can be taken anytime within 60 days. If the test is not taken in that time it will expire. Web based tests will be removed from the server. A new test must be issued. Your dealership will be charged \$25.00 for each test ordered. There are no refunds for expired tests.

All CERTI-TECH forms and information sheets are available on the Thermo King Info Central Website under TK Learning Center then CERTI-TECH Program.

CERTI-TECH tests are no longer available in a disk-based format as in previous revisions.

Testing Process

Registered proctors will be given access to the Thermo King CERTI-TECH Testing Website. The proctor must have access to the Internet and a valid e-mail address to use Web Based test registration. Tests must be ordered by the proctor 24 hours before the test is to be taken. The computer used for taking the test must also have access to the Internet to make full use of the program. The CERTI-TECH 2008 Test Program must be installed on the testing computer. Software is available from the CERTI-TECH Website.

The person taking the test will start the CERTI-TECH 2008 Test Program. Note: the test program must already be installed on the testing computer. The computer will download any available test program software updates. He/she will be prompted for the identification number used when the test was ordered. If the testing computer has Internet access, the CERTI-TECH Internet server will be checked for an available test. The test authorization file will be downloaded to the testing computer. The test will then be started.

After the technician completes the test, the results will automatically be sent to the CERTI-TECH Internet server and processed by Russell Associates with-in 24 hours. The results will be posted on the CERTI-TECH Website. Test results are not official until processed by Russell Associates.

CERTI-TECH Website

All CERTI-TECH program functions are administered through a dedicated Website. It also provides access to program information and forms. This site may be accessed through a link in the Thermo King Education Center LMS. It may also be directly accessed at this Web address: www.custom-training.com/tk/certitech.

Functions available through the Website include:

- Proctor Registration
- Ordering tests
- Download CERTI-TECH 2008 Testing Software
- View Certification Results
- Add or Remove Users

Proctor Registration

Each dealer service location must have a registered CERTI-TECH Proctor. There can only be one per location. Proctors can register on-line through the Proctor Login page of the CERTI-TECH Testing Website. You will be asked to provide a User Name, Password, valid e-mail address and other dealer location information. A confirmation of registration will be sent to the recorded e-mail address.

Inactive proctors will be removed from the list if they have not ordered a test during a year.

Ordering Tests

Go to the CERTI-TECH Website through the link in the Thermo King Education Center LMS or directly through the Web address. Select “Proctor Login”. Enter your username and password. Select “Order CERTI-TECH Tests”.

On the Test Order Form enter the technician’s first and last name. It is important to be consistent with the name used for a technician. For example; Bob Jones and Robert Jones are not the same in the database. Enter the technician ID Number (currently Social Security). Select the type of test desired. Enter the number of shoulder patches desired. A technician is entitled to 12 patches at no charge when the test is passed. Additional or replacement patches not requested with the test can be ordered at the dealer’s expense.

The test will be available on the server within 24 hours and the proctor will be sent an e-mail notification when the test is available.

Download CERTI-TECH Testing Software

The CERTI-TECH 2008 Test Program software is available for download through the Proctor Page of the CERTI-TECH Testing Website at www.custom-training.com/tk/certitech. This software will no longer be distributed or available on a CD. Select “Download CERTI-TECH 2008”. Save the file to your computer.

This is an executable file that will install the CERTI-TECH Testing Program on your computer. The program may also be installed on other computers by saving the file to a CD. Insert the CD into the desired computer. Locate and run the file.

A Sample Test is also available for download. It can be used to familiarize technicians with computer based testing before taking the actual CERTI-TECH test.

View Certification Results

The proctor may view the CERTI-TECH certification status of technicians in their dealership. The report will list who has taken what test, when the test was taken and the result of the test. This is useful when determining who must recertify or who is eligible for a more advanced test.

If the title of the test is in red you are able to view the results page from that test, click on the test title. It will list results and the references for questions that were missed. This is helpful to assist with preparing an technician for retaking a failed test or identifying areas of weakness for those that passed.

Add or Remove Users

In a dealership it may be helpful to have people other than the registered proctor have access to test registration or CERTI-TECH records. The registered proctor may add other users. The proctor can also decide if these users have full access or can only view information. Additional users may also be removed by the registered proctor.

Conditions for Awarding Certifications

Technicians preparing for certification must begin with CERTI-TECH *Certified*, progress to CERTI-TECH *Professional*, and then to CERTI-TECH *Master*.

Testing for the CERTI-TECH *Specialist* certifications are independent of the progression through the Technician Development Plan (TDP). Only a *Certified* certification is a prerequisite to take any *Specialist* test.

A technician may test for CERTI-TECH *Certified* and *Professional* certifications at the same time. However, CERTI-TECH *Professional* certification will be issued only after achieving an 80% score on both the CERTI-TECH *Certified* and CERTI-TECH *Professional* tests.

To apply for the CERTI-TECH *Master* certification test, the technician must first be a current CERTI-TECH *Professional* on the date of application. A minimum score of 80% must be achieved to be awarded *Master* status, shoulder patches and certificate.

Certification Expiration

New and renewed CERTI-TECH certifications are valid for three (3) years from the date printed on the certificate. To retain a given status in the CERTI-TECH program (*Professional*, *Master*), the technician must successfully complete the appropriate certification test BEFORE the three-year expiration date. To retain an existing level of achievement, the technician need only pass the highest level in which he/she is certified. The *Specialist* Certifications are also valid for three (3) years and *Specialist* tests must be retaken to maintain certification.

If a CERTI-TECH certification is allowed to expire, the technician must retake the test for that CERTI-TECH level before taking a higher level test. Example: an expired *Professional* must re-take the *Professional* test before taking the *Master* test. If the technician does not pass the CERTI-TECH test, it is recommended that he/she attend the corresponding Education Center Course to update knowledge and skills. The CERTI-TECH *Professional* test is closely aligned with the Dealer Professional course. The CERTI-TECH *Master* test is closely aligned with the Dealer Master course.

Technician Employment Termination

CERTI-TECH certifications are awarded jointly to the technician and his/her sponsoring dealer. **The sponsoring dealer will retain control of these certifications. When a technician's employment is terminated for any reason, all of his/her certifications become null and void. CERTI-TECH certifications are not transferable unless the management of both dealerships involved agrees to the transfer.** In this case, the Thermo King Education Center must be notified in writing of the mutual agreement with signatures from both dealers.

Full certification status may be re-instated if the technician returns to the dealership within six months of the termination date. If the certification has expired during that time, the technician must test at the CERTI-TECH level below the one that expired before re-taking the expired level.

Dealer / Proctor Responsibilities

Each Dealer location will appoint a proctor to administer the Thermo King Dealer Technician CERTI-TECH Certification Program. A CERTI-TECH Proctor must register through the CERTI-TECH Testing Website. If the proctor vacates the position, a new proctor must be appointed and registered using the CERTI-TECH Proctor Registration form on the Website. Inactive proctors will be removed from the list if they have not ordered a CERTI-TECH test during a year.

The registered proctor will automatically receive CERTI-TECH program update information as it becomes available. No tests will be shipped without a current CERTI-TECH Proctor Registration on file at the testing agency.

It is the Dealer CERTI-TECH Proctor's responsibility to:

- Register with the independent testing agency using the CERTI-TECH Proctor Registration form available on the CERTI-TECH Testing Website.
- Maintain and monitor dealer technician training and certification records to ensure compliance with the Technician Development Plan, Dealer Agreement, and "Crown Performance" program.
- Maintain the CERTI-TECH Certification Reference Library to incorporate updates and ensure availability to technicians for independent study and testing.
- Order the appropriate number and types of CERTI-TECH tests from the independent testing agency.
- Install the test program on a PC (personal computer) and maintain it for technician testing.
- Plan and schedule testing to ensure completion of tests within sixty (60) days of the test issue date.
- Prepare the testing site for a quiet, uninterrupted testing experience of adequate duration. The CERTI-TECH library, with supplemental materials, must be available to the technician during testing.

- Monitor all testing to prevent dishonesty. The test must not be videotaped or photographed. Only the proctor and the technician registered for the test may be in the room during the test. While taking tests, the technician can receive no help beyond what is available in the CERTI-TECH Reference Library.
- Destroy CERTI-TECH certificates & patches of technicians terminating employment.
- Advise the Thermo King Education Center and the independent testing agency of changes in the employment status of certified technicians.

Independent Testing Agency Responsibilities

The Thermo King CERTI-TECH program is administered by an independent testing agency that will:

- Create a customized test file for each test requested by a CERTI-TECH proctor.
- Maintain the CERTI-TECH Testing Website.
- Make the customized test file available on the Internet test server for the requesting dealer within 24 hours of receiving the dealer's request. Send e-mail confirmation to the CERTI-TECH proctor when the test is available.
- Mail appropriate technician certificates and shoulder patches to CERTI-TECH proctors for distribution.
- Provide technician test results to the Authorized Thermo King Dealer, Thermo King District Service Manager and the Thermo King Education Center within 14 days after test data is received from the dealer.
- Maintain a database of technician testing records.
- Provide reports as requested by the Thermo King Education Center.

Thermo King District Service Manager Responsibilities

It is the District Service Manager's responsibility to:

- Monitor dealer technician training and certification records to ensure compliance with the Technician Development Plan, Dealer Agreement, and "Crown Performance" program.
- Advise the Learning Center of non-conformance to the CERTI-TECH Dealer Certification Rules & Procedures.

Thermo King Education Center Responsibilities

- Recommend and/or provide updates to the CERTI-TECH Reference Library.
- Maintain and provide CERTI-TECH Certification records.
- Add, delete, and modify test questions.
- Monitor non-conformance to rules and procedures.

Non-Conformance and Violations

Any evidence of dishonesty (photographing computer screens, multiple test-takers, etc.) may result in revocation of all technician certifications held by the violating dealer. If dishonesty is suspected, the Thermo King Education Center Manager reserves the right to require re-examination of any or all technicians at the dealer's expense.

Extended Time Tests

Extended Time Tests are no longer available. All test times have been increased to the previous extended time level.

Shoulder Patches

When ordering a CERTI-TECH test, up to twelve shoulder patches may be requested at no charge. If the technician passes the test, the requested patches will be supplied with the certificate. Additional or replacement patches may be ordered with the *Shoulder Patch Request* form at dealer expense.