

How to Become a Refrigeration Mechanic

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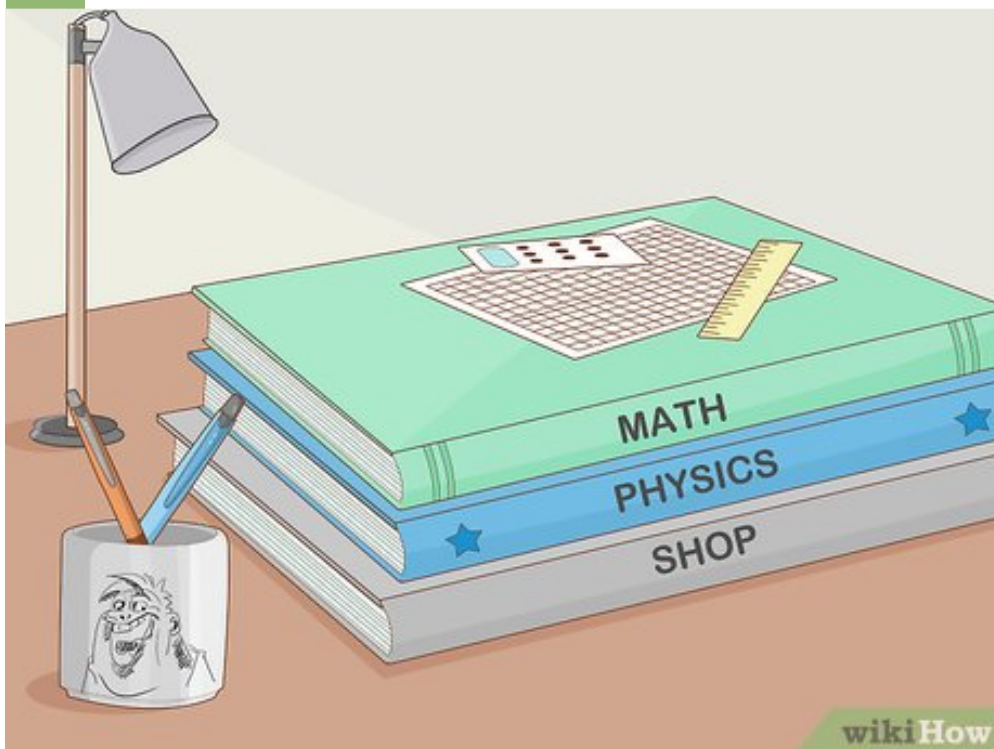
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Refrigeration mechanics, who are also called HVACR Technicians, are trained to install, maintain and repair HVACR (heating, ventilation, air conditioning, and refrigeration) systems. HVACR systems control the temperature and air quality inside all types of buildings including homes, schools, hospitals, office and apartment buildings, and factories. It is common for an HVACR Technician to require some form of post-secondary education, and in some states, a license.^[1]

Part 1

Part 1 of 3: Obtaining the Proper Postsecondary Education

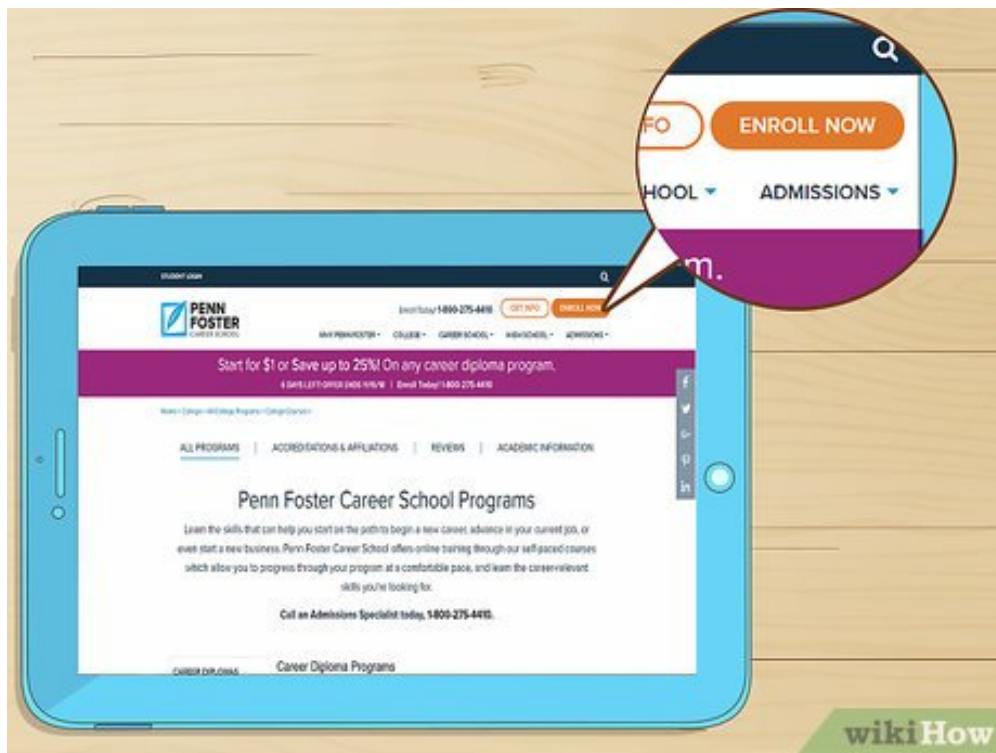


1 Prepare yourself in high school. If you have not yet finished high school, enroll in classes in subjects like shop, math and physics. And if possible, take classes that teach you about plumbing, electrical systems and electronics.^[2]



2 Determine what type of postsecondary education you want to pursue. There are a variety of programs available to train you to become an HVACR Technician. You can enroll at a trade or technical school, or college/university, for class-based programs.^[3] Or you can enroll at trade or technical schools for online programs. There are several pros and cons you'll need to review before determining which option to pursue.

- Online programs can allow you more flexibility in terms of your schedule and location, but you won't get any hands-on training. Online programs might be a good option if you're also going to be working in the industry at the same time.^[4]
- In-class programs require you to attend class on a specific schedule, and at a specific location. But you get hands-on experience during class with actual equipment. And your instructors will be able to work with you face-to-face. If you opt to attend an in-class program on a full-time basis, you may not be able to work at the same time.
- Trade and technical schools, because they are not granting degrees, are normally open to anyone who has the minimum requirements of a high school diploma or GED. Therefore you do not have to worry about your previous grades before applying to the program.
- College and university programs normally result in an associate degree, and as such, their admissions process is a little more stringent. For example, Ferris State University has an HVACR Technology program that awards an Associate Degree in Applied Science. They require applicants to have a minimum 2.5 GPA from high school, a minimum ACT score of 18, and a minimum ACT math subscore of 19.^[5]
- Degree programs, in general, also tend to include courses in more general subjects like public speaking, english, writing and math. These additional course requirements can make the degree more flexible if you wish to switch careers at some point in the future.



3 Enroll in the program of your choice. Once you've decided what type of program you wish to pursue, you will need to go through the application process. Start at the website for the program of your choice and look for either an enrollment or admissions link. Follow the instructions as outlined on the website. Some example application processes are outlined below:

- Penn Foster Career School, which offers an online HVAC & Refrigeration Career Diploma, requires you to complete an online application, plus to select a payment plan. Some payment plans require a credit card to be entered online. Once payment is received, you're automatically enrolled in the program.[6]
- Redstone College, which offers both a 10 month diploma or a 17 month associate degree, provides detailed instructions on their admissions webpage, which includes: an in-person personal career assessment interview; an online application; determination of financing; and orientation.[7]
- Ferris State University, which offers an associate degree, requires students to complete an online (free) application and submit supporting documentation such as high school transcripts and official ACT scores.[8]

Part 2 of 3: Completing an Apprenticeship



1 Determine what your apprenticeship options are. Each state has different apprenticeship options available. The best way to determine what the options are for your state is to conduct an internet search for “[your state] HVAC apprenticeship” and review the results.

- The results of your search should include one or more links to the state’s department of labour (or similar department name). This website will most likely provide a list of all potential apprenticeships available within the state, and information on how to register for such apprenticeships.[9]
- The search results should also list organizations within the state that offer apprenticeship opportunities. These organizations may include both unions and private companies.
- Apprenticeship programs are registered via the state, and in some cases you may need to apply via the state. The detailed information for each program will outline the full application procedure.

Washington State Department of Labor & Industries

Safety & Health | Claims & Insurance | Workplace Rights

Home » Trades & Licensing » Apprenticeship » Apprenticeship Programs in Washington

Apprenticeship Programs in Washington

Occupation ▲

Apprenticeship Programs & Standards	80	HVACR Mechanic
See a list of active state-registered Standards with links to the programs.	80	HVACR Mechanic
To get the files in a Section.	80	HVACR Mechanic
Get Oregon	80	HVACR Mechanic
	80	HVACR Mechanic
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2 Select one or more apprenticeship opportunities for which to submit an application. Apprenticeship applications are similar to job applications. This is because you're applying for a specific, available apprenticeship position when you submit an application, and you're being paid for that position. Because of this, you may need to ensure a position is available before you apply, and feel free to apply to more than one position.[10]

- Some states, like Washington State, will have an online system that will list all available apprenticeships that are currently accepting applications. Because these lists normally include all industries, you will have to narrow down your search to HVACR Technicians (or similar title) apprenticeship programs.



3 Review the specific requirements for the apprenticeships to which you want to apply. In addition to the standard qualifications that all applicants must have, some apprenticeships may have additional requirements. This information will be available on the sponsor's (the organization running the apprenticeship program) website. Most of these websites will contain an official document that includes all the 'standards' for that apprenticeship program.[11]

- For example, the Western Washington Sheet Metal JATC Standards of Apprenticeship document indicates that the minimum qualification for ALL applicants are:
 - Must be 18 years of age.
 - Must have a high school diploma or GED.
 - Must be physically able to perform the work without reasonable assistance.
 - Must take a Sheet Metal Math and Reading test and get a minimum math score of 16 and a minimum reading score of 27. (Note that in this case, if you do not reach the minimum scores, you cannot be retested for one year.)
 - Must have a valid driver's license, social security number, and auto insurance.



4 Know the specific application process for each apprenticeship to which you want to apply. Each apprenticeship program will have slightly different application procedures. Some will require you to submit all portions of the application first, then they'll contact you for further assessment. Others will require you to apply in-person at a specific location where you'll submit your application and complete all the required tests immediately. An example for Western Washington Sheet Metal (WWSM) JATC is included below:

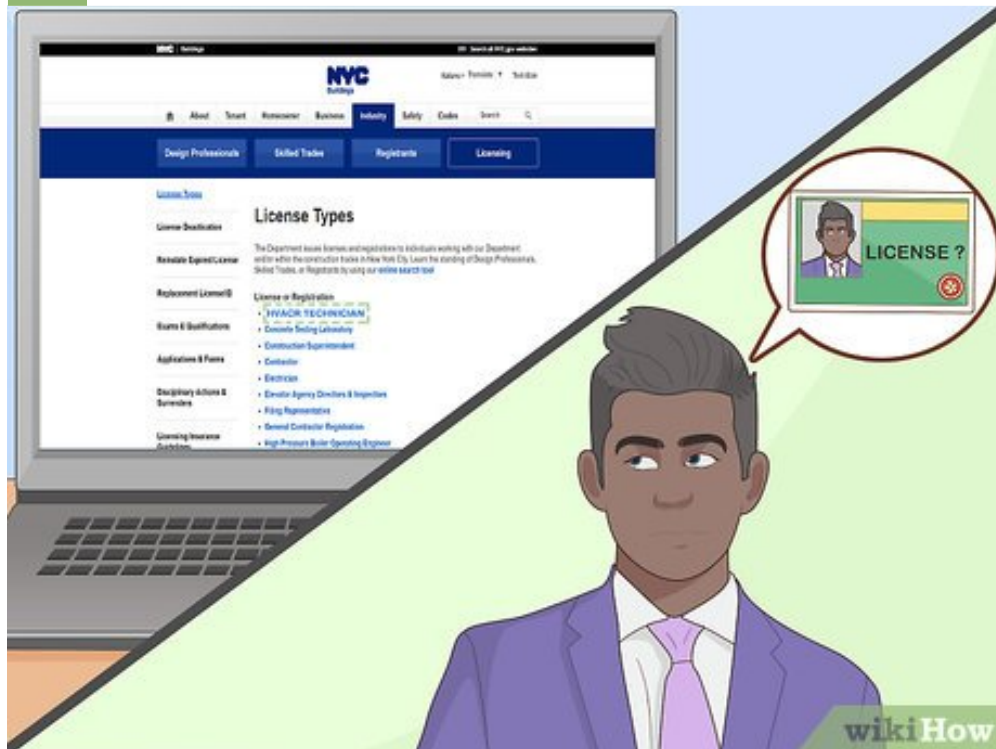
- WWSMJATC, which has apprenticeships for both HVAC Service Technicians and HVAC Test, Adjust & Balance Technicians, requires that you appear in-person on Tuesdays or Thursdays between 8:30 and 11am at their office. During this time you will submit your full application and take the required math and reading tests.
- If you pass everything, you're considered a qualified applicant and your name will be put on an 'active' list for 90 days. This list is ranked based on your reading and math scores.
- When your name comes up on the list of qualified applicants, you will be called to attend an interview with the apprenticeship subcommittee. This subcommittee will develop an evaluation score based on your full application and interview, and you'll be ranked on an eligible list of applicants based on this score.
- When an apprenticeship becomes available, and you're the next person on the eligible list of applicants, you will be called to begin your apprenticeship.
- Once you've been placed on the eligible list of applicants, you must begin the Sheet Metal Anti-Drug Program and you must pass a pre-employment drug test, or you'll be removed from the list.



5 Complete your apprenticeship. Apprenticeships for HVACR Technicians are required to have a *minimum* of 2,000 hours of on-the-job training and a *minimum* of 144 hours of in-class training.^[12] However, most apprenticeship programs include a lot more than the minimum requirements.

- For example, for the Western Washington Sheet Metal JATC apprenticeship program, they'll provide you with 9,000 hours of on-the-job (paid) training and between 160 and 200 hours (per year) of in-class (unpaid) training. The on-the-job experience is split between specific branches of the trade (e.g. service of heating and air conditioning systems, job site safety, industry computer programs, etc).^[13]

Part 3 of 3: Becoming Licensed



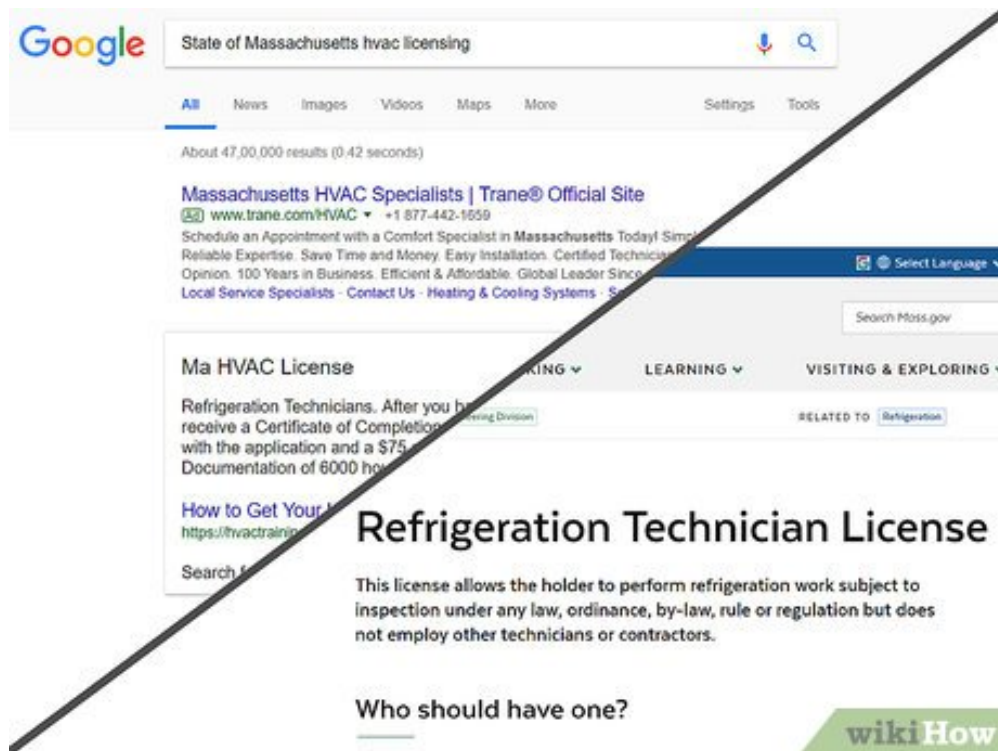
1 Determine if you need to be licensed. Not all states require a license in order to work as an HVACR Technician. However, even if the state in which you'd like to work doesn't require licensing, it is possible that some employers may require licensing or certification.^[14]

- Licensing provides an employer with an indication that you have certain qualifications and that you've been tested on those qualification. If the state in which you want to work doesn't require licensing, the only way to determine if an employer requires licensing is to review the career portion of their website, or an HVACR Technician job posting.
- States that do NOT require an HVACR Technician to be licensed are: Colorado, Illinois, Indiana, Kansas, Maine, Missouri, New Hampshire, New York, South Dakota, Vermont, and Wyoming. All other states require technicians to be licensed.^[15]
- Even though a state may not require licensing, some counties may have different rules. If you plan to work in one of these states, you will need to check the country where you plan to work to determine if they have different rules.



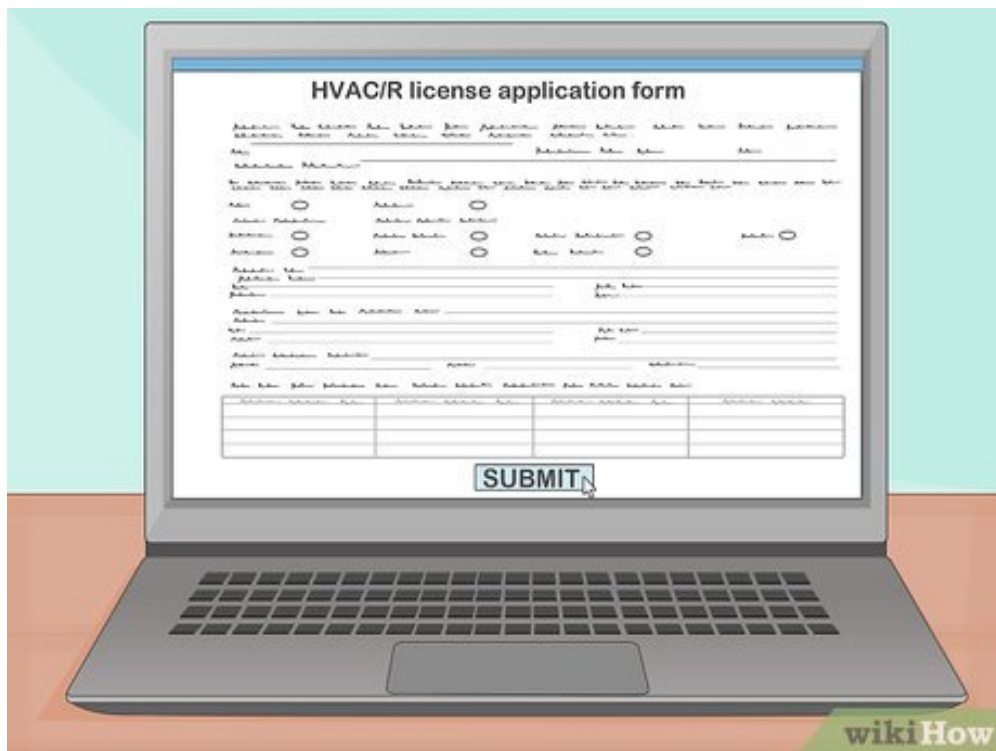
2 Obtain your certification in refrigerant handling. Regardless of specific state qualifications, the U.S. Environmental Protection Agency (EPA) requires that anyone who works with, or buys, refrigerants be certified in the handling of those refrigerants. In order to become certified, you must pass at least one of four exams.^[16]

- The four types of exams are: Type I - for servicing small appliances; Type II - for working with high-pressure refrigerants; Type III - for working with low-pressure refrigerants; and Type IV - for serving all types of equipment.^[17]
- Many trade and technical schools, unions and other associations provide training programs that can help you prepare for the EPA exams.
- View a list of all EPA approved certification programs at <http://www3.epa.gov/ozone/title6/608/technicians/608certs.html>.

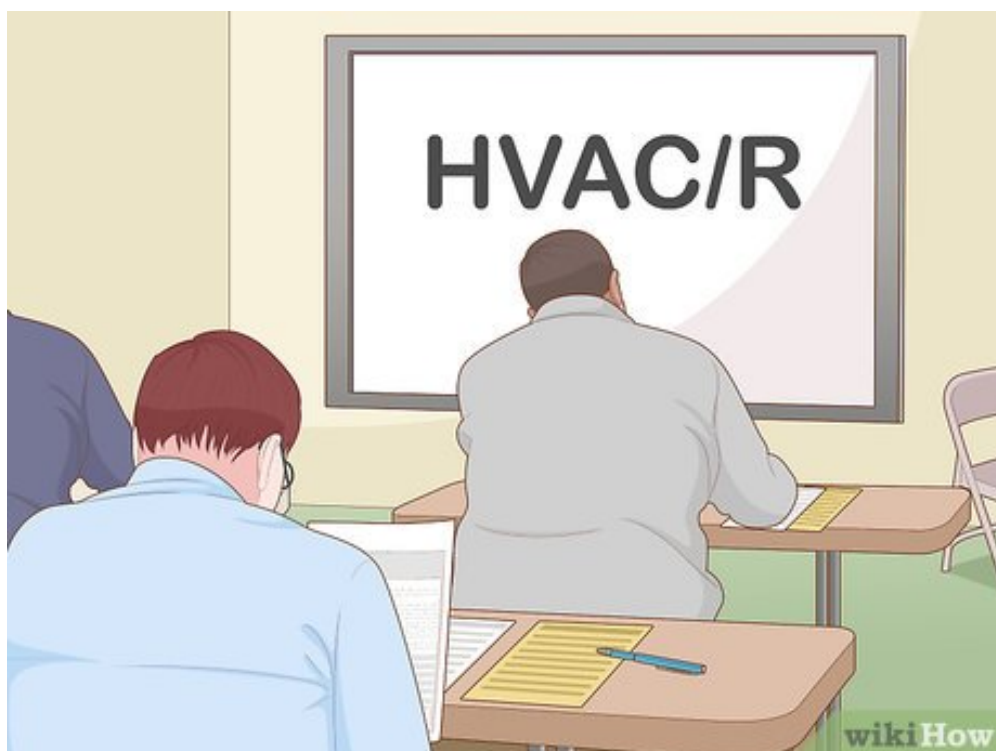


3 Determine state-specific requirements for licensing. Each state will have slightly different requirements for the licensing of HVACR Technicians. To determine what the requirements are for the state in which you need to be licensed, conduct an internet search for “[your state] hvac licensing” and go to the appropriate government site.

- As an example, the State of Massachusetts requires the following from anyone who wishes to be licensed as a Refrigeration Technician:^[18]
 - Completed application with social security number, copy of high school diploma or GED, photo, processing fee and copy of your EPA certification.
 - Documentation that you’ve worked at least 6,000 hours as a refrigeration trainee or apprentice in MA, and have completed 100 hours of refrigeration theory and 150 hours of MA electrical code training.
 - OR you can provide documentation that you’ve worked at least 4,000 hours as a refrigeration trainee or apprentice in MA, and completed 500 hours in a refrigeration course divided between 250 hours of shop-related work, 100 hours of refrigeration theory and 100 hours of MA electrical code training.
 - OR you can provide documentation that you’ve worked at least 2,000 hours as a refrigeration trainee or apprentice in MA, and completed 1,000 hours in a refrigeration course divided between 700 hours of shop-related work, 100 hours of refrigeration theory and 100 hours of MA electrical code training.



4 Submit your application and documentation to become licensed. Based on the information you found on the state government's website for licensing, collect all the proper documentation, fill out the application form, and submit it for review. It can take 1-2 months before you hear back from the state.^[19]



5 Take and pass the licensing exam. Once your licensing application has been reviewed and approved by the state government, you'll be required to write a licensing exam to ensure you have the proper knowledge of refrigeration systems.

- For example, in the State of Massachusetts the exam covers rules, regulations and national codes (including the safe handling and storage of CFC materials), and codes associated with energy efficiency of refrigeration systems.^[20]
- Most states will provide you with a list of books and literature you should review in advance of the exam.



Expert Q&A

Question

How do I get into refrigeration with no experience?



Aaron Beth
Appliance Technician
Expert Answer

I would really recommend going to a trade school to learn the fundamentals before you work in the field. Learning the fundamentals will give you the ability to troubleshoot appliances much better than you would without any education.

Helpful ☐ 0 Not Helpful ☐ 0



TIPS

- Attending a university or trade school will give you a more complete understanding of the fundamentals of refrigeration.^[21]

References

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2. ↑ <http://www.bls.gov/ooh/installation-maintenance-and-repair/heating-air-conditioning-and-refrigeration-mechanics-and-installers.htm#tab-4>
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About This Article



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This article was co-authored by [Aaron Beth](#). Aaron Beth is the founder of Aaron's Refrigeration Company in New York City and a factory certified installer (FCI) for Sub-Zero products. He specializes in the service and maintenance of built-in refrigerators, wine coolers and ice machines. With over 54 years of experience, Aaron is the recipient of numerous Super-Service awards from Angie's Lists and 2019 Best-of-the City. This article has been viewed 32,218 times.

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