

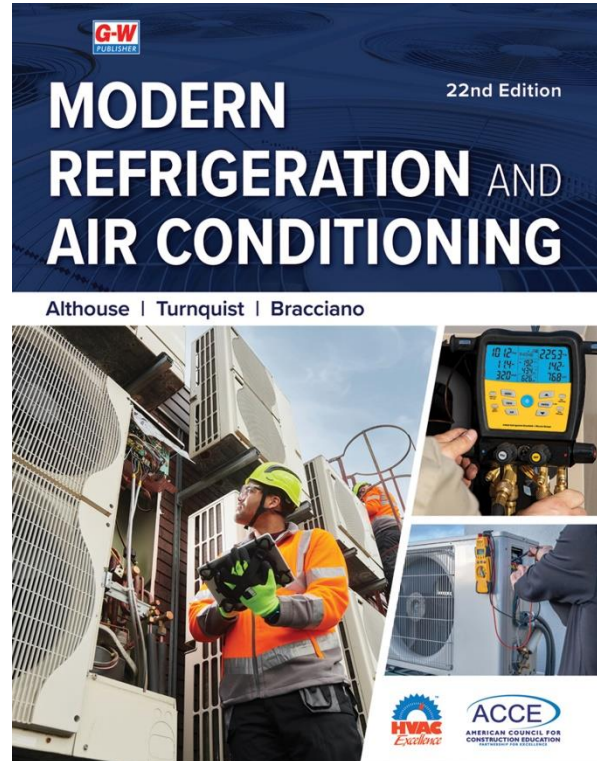


Correlation of
Modern Refrigeration and Air Conditioning, Althouse, Turnquist, Bracciano
(Goodheart-Willcox Publisher ©2025)
 to
AHRI Curriculum Guide XVI. System Installation and Start-Up

Goodheart-Willcox is pleased to partner with the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) and the American Council for Construction Education (ACCE) by correlating *Modern Refrigeration and Air Conditioning* to the AHRI Curriculum Guide. The following chart correlates *Modern Refrigeration and Air Conditioning* to a section of the Curriculum Guide developed by AHRI used for ACCE (formerly PAHRA) accreditation.

The chart lists the Curriculum Guide’s knowledge and task competency objectives in the left column and the corresponding chapter numbers from *Modern Refrigeration and Air Conditioning* in the right column.

For more information on the American Council for Construction Education (ACCE) and related accreditation, please visit: www.acce-hq.org



XVI.A. Heating Start-Up, Checkout, and Operation	
Knowledge	Textbook Chapter(s)
1. Understand the importance of manufacturers’ installation and operation requirements.	Chapters 14, 16, 17, 19, 22, 23, 25, 30, 31, 33, 34, 35, 36, 37, 38
Tasks	Textbook Chapter(s)
1. Demonstrate use of tools and instruments.	Chapters 4, 5, 22, 30, 31, 33, 34, 35, 36, 37
2. Determine equipment electrical, mechanical, and code requirements.	Chapters 2, 3, 4, 5, 13, 14, 16, 17, 19, 22, 23, 25, 33, 34, 35, 36, 37, 38
3. Verify equipment airflow and distribution requirements.	Chapters 28, 30, 31, 33

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XVI.A. Heating Start-Up, Checkout, and Operation (continued)	
Tasks	Textbook Chapter(s)
4. Check operation of all electrical control components.	Chapters 13, 14, 16, 17, 19, 31, 33
5. Check operation of gas train components and measurements.	Chapters 4, 5, 33, 38
6. Check oil burner components and measurements.	Chapters 4, 5, 34, 38
7. Check ignition systems.	Chapters 17, 19, 33, 34, 38
8. Evaluate fuel supply systems.	Chapters 33, 34, 38
9. Test for proper combustion.	Chapters 33, 34
10. Check electrical components for operation and wiring connections.	Chapters 13, 14, 16, 17, 19, 23, 24, 26, 33, 34, 35, 36, 37
11. Check for correct heating input and adjust to manufacturers' specifications.	Chapters 13, 14, 16, 17, 19, 23, 24, 33, 34, 35, 36, 37
XVI.B. Heat Pump Start-Up, Checkout, and Operation	
Knowledge	Textbook Chapter(s)
1. Understand the importance of manufacturers' installation and operation requirements.	Chapters 2, 3, 4, 5, 13, 14, 16, 17, 19, 22, 23, 33, 36, 37
2. Understand alternative fuel methods.	Chapters 33, 34, 36, 37
Tasks	Textbook Chapter(s)
1. Demonstrate use of tools and test equipment.	Chapters 3, 4, 5, 23, 25, 33, 36, 37
2. Determine equipment electrical requirements.	Chapters 3, 4, 5, 13, 14, 16, 17, 19, 33, 36, 37
3. Verify equipment airflow and distribution requirements.	Chapters 23, 28, 30, 31, 33, 36, 37
4. Check operation of all electrical and mechanical components.	Chapters 3, 4, 5, 16, 17, 19, 28, 30, 31, 33, 35, 36, 37
5. Check system operation in the heating, cooling, and defrost modes.	Chapters 17, 19, 28, 30, 31, 33, 36, 37
6. Check supplementary and emergency heat.	Chapters 17, 19, 28, 30, 31, 33, 36, 37
7. Instruct customer on operation and maintenance of system.	Chapters 3, 36, 37
XVI.C. Air-Conditioning Start-Up, Checkout, and Operation	
Knowledge	Textbook Chapter(s)
1. Understand the importance of manufacturers' installation and operation requirements.	Chapters 3, 22, 23, 25, 28, 30, 33

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XVI. System Installation and Start-Up—page 3**

XVI.C. Air-Conditioning Start-Up, Checkout, and Operation (continued)	
Tasks	Textbook Chapter(s)
1. Demonstrate use of tools and test equipment.	Chapters 4, 5, 11, 12, 22, 23, 25, 30, 31, 33
2. Determine equipment electrical requirements.	Chapters 13, 14, 16, 17, 19, 22, 23, 25, 33
3. Verify equipment airflow and distribution requirements.	Chapters 4, 28, 30, 31, 33
4. Check operation of all electrical and mechanical components.	Chapters 3, 4, 5, 11, 12, 16, 17, 19, 22, 23, 25, 28, 30, 31, 33
5. Check system operation while following all safety procedures.	Chapters 3, 11, 12, 13, 14, 16, 17, 19, 22, 23, 25, 28, 30, 31, 49
6. Pull and verify deep vacuum.	Chapters 11, 12, 50
7. Perform leak check and make repairs.	Chapters 11, 12, 50
8. Conform to all applicable governmental regulations.	Chapters 10, 11, 12, 22, 23, 25, 50, Appendix F