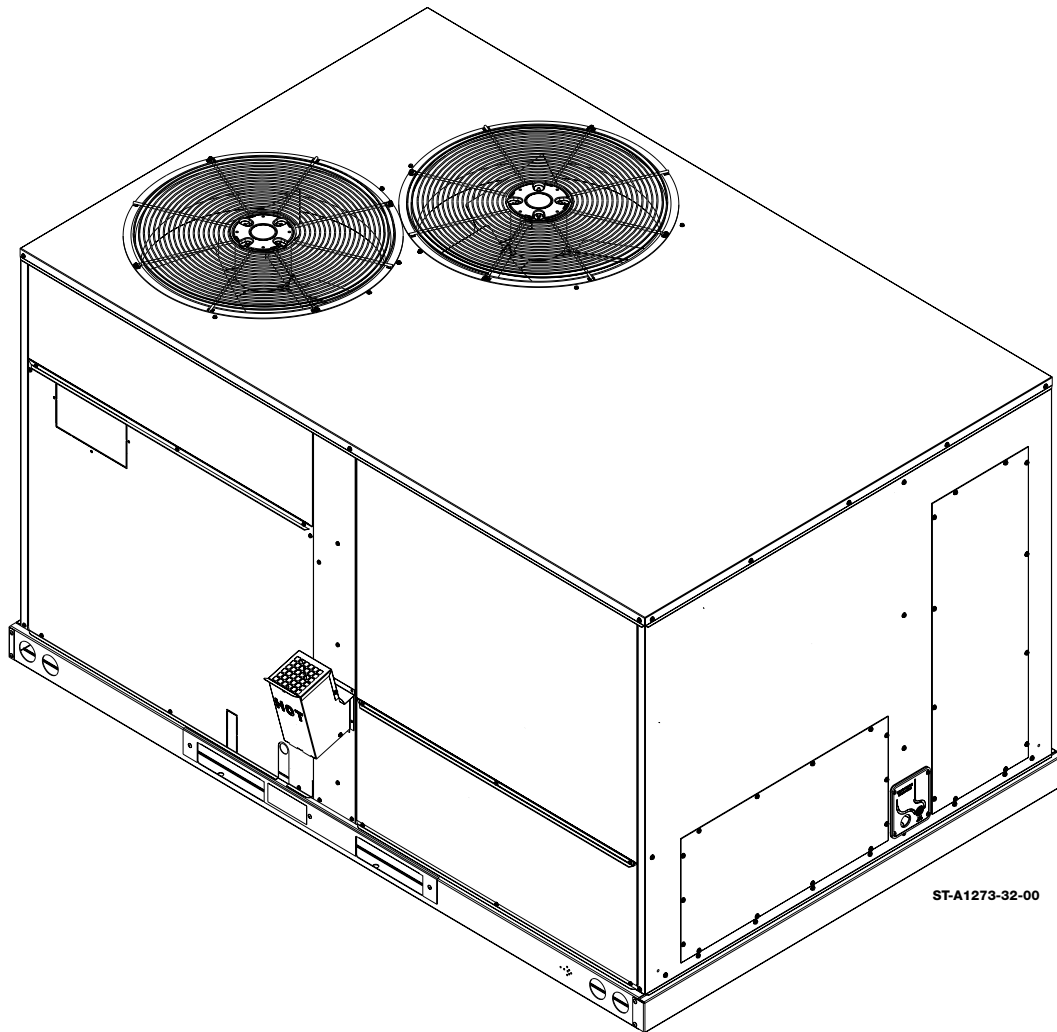


INSTALLATION INSTRUCTIONS

FOR PACKAGED GAS ELECTRIC UNITS

(-)GED SERIES 7.5, 8.5, 10.0 & 12.5 TON [26.4, 29.9, 35.2 & 44.0 KW]
60 HZ MODELS
WITH R-454B REFRIGERANT



ST-A1273-32-00

CONTENTS

A. Important Safety and General Information	4
B. General Specifications	6
C. Installation of the Unit	13
D. Duct and Venting	23
E. Electrical	30
F. Control/Thermostat Wiring	34
G. Gas	42
J. Startup and Operation	53
K. Test and Balance	63
M. Humidity Control	64
N. Diagnostics	67

P. Appendices	88
A - General Product Data	88
B - Electrical Data	90
C - Air Flow Performance Data	94
D - Gross Performance Data	102
E - Gas Heat Performance Data	110
F - A2L Refrigerant Installation Safety Data	111
G - Refrigerant Charging Charts	112
H - Wiring Diagrams & Schematics	121
J - Unit Tie-Down	167
Q. Decommissioning	175
R. Information for the Owner	176
S. Installation Check List and Job Site Sheet	178

DO NOT DESTROY THIS MANUAL. PLEASE READ CAREFULLY AND KEEP
IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICEMAN.



RECOGNIZE THIS SYMBOL AS AN INDICATION OF IMPORTANT SAFETY INFORMATION!

▲ WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT, CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

▲ WARNING

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THIS UNIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE, POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, CARBON MONOXIDE POISONING, EXPLOSION, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

▲ WARNING

PROPOSITION 65 WARNING: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

▲ WARNING

- Do not store or use gasoline or other flammable vapors and liquids, or other combustible materials in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
 - Do not return to your home until authorized by the gas supplier or fire department.
- DO NOT RELY ON SMELL ALONE TO DETECT LEAKS. DUE TO VARIOUS FACTORS, YOU MAY NOT BE ABLE TO SMELL FUEL GASES.
 - U.L. recognized fuel gas and CO detectors are recommended in all applications, and their installation should be in accordance with the manufacturer's recommendations and/or local laws, rules, regulations, or customs.
- Improper installation, adjustment, alteration, service or maintenance can cause injury, property damage or death. Refer to this manual. Installation and service must be performed by a qualified installer, service agency or the gas supplier. In the commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter for appropriate fuel.

DO NOT DESTROY THIS MANUAL. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICEMAN.

CONTENTS (DETAILED)

A. Important Safety and General Information	4	J. Startup and Operation	53
A.1. Important Safety and General Information	4	J.1. Final Inspection	53
A.2. Agency Performance Audit and Efficiency Testing Notice	4	J.2. Turning on Power for the First time	56
A.3. Importance of a Quality Installation	4	J.3. Checking and Adjusting Air Flow	56
A.4. Importance of Air Flow and Setup	5	J.4. Checking Cooling Operation	58
A.5. Checking Product and Inspection	5	J.5. Checking Heating Operation	60
B. General Specifications	6	J.6. Safety Checks	62
B.1. Safety Warnings	6	K. Test and Balance	63
B.2. Major Components	8	K.1 Air Flow Charts and Information	63
B.3. Product Data Information	8	K.2. Air Flow Adjustments	63
C. Installation of the Unit	13	M. Humidity Control	64
C.1. General	13	M.1. Dehumidification System Information	64
C.2. Tool and Refrigerant	13	M.2. Humidity Sensor Installation	65
C.3. Choosing a Location	15	M.3. Humidity Control Settings and Configuration	66
C.4. Setting the Unit	17	N. Diagnostics	67
C.5. Installing Condensate Drain	21	N.1. Diagnostics Chart	67
C.6. Final Installation Inspection	22	N.2. Alarm Codes - Full List	69
D. Duct and Venting	22	N.3. Common Mistakes	87
D.1. Air Flow and Static Pressure	22	P. Appendices	88
D.2. Duct Requirements and Best Practices	22	Appendix A - General Product Data	88
D.3. Filters	24	Appendix B - Electrical Data	90
D.4. Economizers and Fresh Air Dampers	26	Appendix C - Air Flow Performance Data	94
D.5. Smoke Detectors	29	Appendix D - Gross Performance Data	102
E. Electrical	30	Appendix E - Gas Heat Performance Data	110
E.1. Electrical Safety Information	30	Appendix F - A2L Refrigerant Installation Safety Data	111
E.2. Electrical Data	32	Appendix G - Refrigerant Charging Charts	112
E.3. Electrical Connections	32	Appendix H - Wiring Diagrams & Schematics	121
F. Control/Thermostat Wiring	34	Appendix J - Unit Tie-Down	167
F.1. T-Stat Field Connections	34	Q. Decommissioning	175
F.2. DDC Control Inputs	35	R. Information for the Owner	176
F.3. Routing Control Wiring	41	R.1. Information for the Owner: Maintenance and Service.....	176
F.4. Measuring Control Voltage Loads	41	R.2. Product Model and Serial Number	176
G. Gas	42	R.3. Refrigerant Recovery	177
G.1. Gas Piping Requirements	42	R.4. Warranty Information	177
G.2. Procedure: Connecting Gas Lines to Gas Valve	46	S. Installation Check List and Job Site Sheet	178
G.3. LP Conversion	47		
G.4. Operation and Testing	48		

A. IMPORTANT SAFETY AND GENERAL INFORMATION

A.1. Introduction

This booklet contains the installation and operating instructions for your 7.5 ton, 8.5 ton, 10 ton, or 12.5 ton combination gas heating/electric cooling unit. There are some precautions that should be taken to ensure proper operation. Improper installation can result in unsatisfactory operation or dangerous conditions.

Read this booklet and any instructions packaged with separate equipment required to make up the system prior to installation. Give this booklet to the owner and explain its provisions. The owner should retain this booklet for future reference.

The images contained within this document may not be an exact representation of every unit, accessory, installation, etc. We reserve the right to change the content of this document at any time.

⚠ WARNING: The manufacturer's warranty does not cover any damage or defect to the air conditioner caused by the attachment or use of any components, accessories or devices (other than those authorized by the manufacturer) into, onto or in conjunction with the air conditioner.

You should be aware that the use of unauthorized components, accessories or devices may adversely affect the operation of the air conditioner and may also endanger life and property. The manufacturer disclaims any responsibility for such loss or injury resulting from the use of such unauthorized components, accessories or devices.

A.2. Agency Performance Audit and Efficiency Testing Notice

NOTICE: BREAK-IN PERIOD

Prior to agency testing, run the compressor for 20 hours at 115°F outdoor ambient temperature and 80°F dry bulb / 75°F wet bulb indoor ambient temperature.

NOTICE: EFFICIENCY TESTING NOTICE

For the purposes of verifying or testing efficiency ratings, the test procedure in Title 10 Appendix A to Subpart F of Part 431 (Uniform Test Method for the Measurement of Energy Consumption of Air-Cooled Small ($\geq 65,000$ Btu/h), Large, and Very Large Commercial Package Air Conditioning and Heating Equipment) and the clarifying provisions provided in the standards listed on this page that were applicable at the date of manufacture should be used for test set up and performance.

SETUP

- ASHRAE 37 - 2009 (RA 2019)

PERFORMANCE:

- ANSI/ASHRAE 90.1 - 2022
- ANSI/ASHRAE 103 (2022)
- AHRI Operations for Unitary Large AC Equipment 340/360 (2023)
- CSA Z21.47 (2021)

SAFETY

- UL 20335-2-40 4th Edition
- CSA Z21.47 (2021)
- CSA C22.2 No 60335-2-40 4th Edition

QUALITY

- ISO 9001: 2015

A.3. Importance of a Quality Installation

Optimal system performance and longevity depend upon a quality and proper installation. Failure to properly setup and commission this unit could result in undesirable operation and subsequent faults and potential failures.

Carefully follow all guidelines listed in the manual and industry best practices. Conform to all local code requirements. Contact your local technical representative with any questions or concerns.

If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment must be on site. A dry powder CO2 fire extinguisher must be near the charging area at all times during installation, commissioning, service, and decommissioning.

A. IMPORTANT SAFETY AND GENERAL INFORMATION

A.3.1. Working Personnel Qualifications

Every installation, maintenance, service, and repair working procedure must be conducted by qualified personnel who have been trained in operating and servicing units that employ flammable refrigerants such as R-454B.

Examples of working procedures include but are not limited to:

- Breaking into the refrigeration circuit
- Opening sealed components
- Opening ventilated enclosures

This appliance is not intended for use by persons (including children) when reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

A.4. Importance of Air Flow and Setup

Optimal system performance is also dependent upon having the ideal airflow across the condensing and evaporating coils, and upon matching the charge weight to the manufacturer's spec for the unit. Improper or restricted air flow, and incorrect charge weight, will hinder the performance of the unit. Please refer to the manufacturer's recommended clearances for setting the unit and the included guide for setting air flow. Refer to the rating plate for the charge weight.

A.5. Checking Product and Inspection

Upon receiving the unit, inspect it for any damage from shipment. Claims for damage, either shipping or concealed, should be filed immediately with the shipping company.

IMPORTANT: Check the unit model number, heating size, electrical characteristics, and accessories to determine if they are correct.