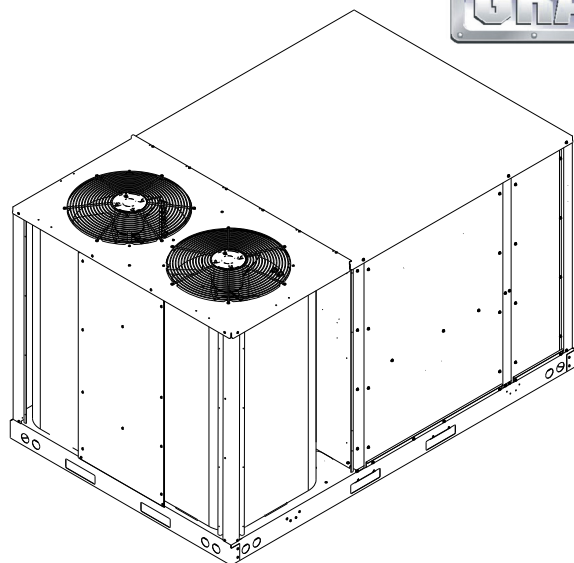




INSTALLATION INSTRUCTIONS

DSC/DSH SERIES LIGHT COMMERCIAL PACKAGED HEATING AND COOLING UNIT 7.5T TO 12.5T INSTALLATION INSTRUCTIONS



WARNING

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE, MAINTENANCE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT.

THIS EQUIPMENT IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.

CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE EQUIPMENT.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SUPERVISION, SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER SUPERVISION, INSTALLATION, ADJUSTMENT, SERVICING, MAINTENANCE OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER SUPERVISION OR TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

DO NOT BYPASS SAFETY DEVICES

Our continuing commitment to quality products may mean a change in specifications without notice.

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SAFETY INSTRUCTIONS



RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION.

These installation instructions cover the outdoor installation of single package heating and cooling units. See the Specification Sheet applicable to your model for information regarding accessories.

***NOTE: PLEASE CONTACT YOUR DISTRIBUTOR OR OUR WEBSITE FOR THE APPLICABLE SPECIFICATION SHEET REFERRED TO IN THIS MANUAL.**

REPLACEMENT PARTS

ORDERING PARTS

When reporting shortages or damages report this to <https://www.goodmanmfg.com/logistics-feedback>. When ordering repair parts give the complete unit model and serial numbers as stamped on the unit's nameplate.

Replacement parts for this appliance are available through your contractor or local distributor. Your nearest distributor can be located online at www.daikinac.com or by contacting:

EQUIPMENT SUPPORT
Daikin Comfort Technologies Manufacturing, L.P.
 19001 Kermier Road
 Waller, Texas 77484
 855-770-5678

TO THE INSTALLER

Before installing this unit, please read this manual to familiarize yourself on the specific items which must be adhered to, including maximum external static pressure to unit, air temperature rise, minimum or maximum CFM and motor speed connections.

Keep this literature in a safe place for future reference.



WARNING

TO PREVENT THE RISK OF PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH, DO NOT STORE COMBUSTIBLE MATERIALS OR USE GASOLINE OR OTHER FLAMMABLE LIQUIDS OR VAPORS IN THE VICINITY OF THIS APPLIANCE.



CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.



WARNING

DO NOT CONNECT TO OR USE ANY DEVICE THAT IS NOT CERTIFIED BY THE MANUFACTURER FOR USE WITH THIS UNIT. SERIOUS PROPERTY DAMAGE, PERSONAL INJURY, REDUCED UNIT PERFORMANCE AND/OR HAZARDOUS CONDITIONS MAY RESULT FROM THE USE OF SUCH NON-APPROVED DEVICES.



WARNING

THIS UNIT MUST NOT BE USED AS A "CONSTRUCTION HEATER" DURING THE FINISHING PHASES OF CONSTRUCTION ON A NEW STRUCTURE. THIS TYPE OF USE MAY RESULT IN PREMATURE FAILURE OF THE UNIT DUE TO EXTREMELY LOW RETURN AIR TEMPERATURE AND EXPOSURE TO CORROSIVE OR VERY DIRTY ATMOSPHERES.



WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.





WARNING

DO NOT USE MEANS TO ACCELERATE DEFROSTING PROCESS OR TO CLEAN, OTHER THAN THOSE RECOMMENDED BY THE MANUFACTURER.

THE APPLIANCE SHALL BE STORED IN A ROOM WITHOUT CONTINUOUSLY OPERATING IGNITION SOURCES (FOR EXAMPLE: OPEN FLAMES, AN OPERATING GAS APPLIANCE OR AN OPERATING ELECTRIC HEATER).

DO NOT PIERCE OR BURN.

BE AWARE THAT REFRIGERANTS MAY NOT CONTAIN AN ODOR.



WARNING

ONLY AUXILIARY DEVICES APPROVED BY THE APPLIANCE MANUFACTURER OR DECLARED SUITABLE WITH THE REFRIGERANT SHALL BE INSTALLED IN CONNECTING DUCTWORK.



WARNING

AUXILIARY DEVICES WHICH MAY BE A POTENTIAL IGNITION SOURCE SHALL NOT BE INSTALLED IN THE DUCT WORK. EXAMPLES OF SUCH POTENTIAL IGNITION SOURCES ARE HOT SURFACES WITH A TEMPERATURE EXCEEDING 700°C AND ELECTRIC SWITCHING DEVICES.



WARNING

LEAK DETECTION SYSTEM INSTALLED. UNIT MUST BE POWERED EXCEPT FOR SERVICE.



WARNING

THIS UNIT IS EQUIPPED WITH ELECTRICALLY POWERED SAFETY MEASURES. TO BE EFFECTIVE, THE UNIT MUST BE ELECTRICALLY POWERED AT ALL TIMES AFTER INSTALLATION, OTHER THAN WHEN SERVICING.



WARNING

DO NOT OPERATE THE COMPRESSOR(S) WITHOUT THE TERMINAL PLUG FULLY ENGAGED OR THE TERMINAL COVER PROPERLY INSTALLED.



WARNING

A TRIPPED CIRCUIT BREAKER OR BLOWN FUSE MAY INDICATE THAT AN ELECTRICAL PROBLEM EXISTS. DO NOT RESET A CIRCUIT BREAKER OR REPLACE FUSES WITHOUT FIRST PERFORMING THOROUGH ELECTRICAL TROUBLESHOOTING AND TESTING PROCEDURES.



WARNING

HIGH VOLTAGE!

PRIOR TO SERVICING THE UNIT OR REMOVING THE COMPRESSOR TERMINAL PLUG OR TERMINAL COVER, DISCONNECT ALL ELECTRICAL POWER FROM THE UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT.



WARNING

HERMETIC COMPRESSOR ELECTRICAL TERMINAL VENTING CAN BE DANGEROUS. IN CERTAIN CIRCUMSTANCES, THE TERMINAL MAY BE EXPELLED, VENTING THE REFRIGERANT VAPOR AND COMPRESSOR OIL CONTAINED WITHIN THE COMPRESSOR HOUSING AND SYSTEM. BE ALERT FOR SOUNDS OF ARCING (SIZZLING, SPUTTERING, OR POPPING) INSIDE THE COMPRESSOR. IMMEDIATELY GET AWAY IF YOU HEAR THESE SOUNDS AND DISCONNECT ELECTRICAL POWER FROM THE UNIT.

GENERAL INFORMATION



WARNING

TO PREVENT PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, DUE TO FIRE, EXPLOSIONS, SMOKE, SOOT, CONDENSATION, ELECTRIC SHOCK OR CARBON MONOXIDE, THIS UNIT MUST BE PROPERLY INSTALLED, REPAIRED, OPERATED, AND MAINTAINED.

This unit is approved for outdoor installation ONLY.

Not accessible to the public. Rated performance is achieved after 20 hours of operation. Rated performance is delivered at the specified airflow. See outdoor unit specification sheet for split system models or product specification sheet for packaged and light commercial models. Specification sheets can be found at www.daikinac.com for Daikin brand products. Within the website, please select the residential or commercial products menu and then select the submenu for the type of product to be installed, such as air conditioners or heat pumps, to access a list of product pages that each contain links to that model's specification sheet.

QUALIFICATION OF WORKERS

PERSONNEL MUST BE CERTIFIED TO SERVICE, WORK, AND/OR REPAIR UNITS WITH FLAMMABLE REFRIGERANTS. A CERTIFICATE SHOULD DOCUMENT THE COMPETENCE AND QUALIFICATIONS ACHIEVED THROUGH TRAINING THAT INCLUDED THE SUBSTANCE OF THE FOLLOWING:

- INFORMATION ABOUT THE EXPLOSION POTENTIAL OF FLAMMABLE REFRIGERANTS TO SHOW THAT FLAMMABLES MAY BE DANGEROUS WHEN HANDLED WITHOUT CARE.
- INFORMATION ABOUT POTENTIAL IGNITION SOURCES, ESPECIALLY THOSE THAT ARE NOT OBVIOUS, SUCH AS LIGHTERS, LIGHT SWITCHES, VACUUM CLEANERS, ELECTRIC HEATERS.
- INFORMATION ABOUT THE DIFFERENT SAFETY CONCEPTS, INCLUDING VENTILATED AND UNVENTILATED AREAS.
- INFORMATION ABOUT REFRIGERANT DETECTORS, INCLUDING FUNCTION, OPERATION, AND SERVICE MEASURES.
- INFORMATION ABOUT THE CONCEPT OF SEALED COMPONENTS AND SEALED ENCLOSURES ACCORDING TO IEC 60079-15:2010.
- INFORMATION ABOUT THE CORRECT WORKING PROCEDURES, INCLUDING COMMISSIONING, MAINTENANCE, REPAIR, DECOMMISSIONING, AND DISPOSAL PROCEDURES.

EPA REGULATIONS

IMPORTANT: THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) HAS ISSUED VARIOUS REGULATIONS REGARDING THE INTRODUCTION AND DISPOSAL OF REFRIGERANTS IN THIS UNIT. FAILURE TO FOLLOW THESE REGULATIONS MAY HARM THE ENVIRONMENT AND CAN LEAD TO THE IMPOSITION OF SUBSTANTIAL FINES. BECAUSE REGULATIONS MAY VARY DUE TO PASSAGE OF NEW LAWS, WE SUGGEST A CERTIFIED TECHNICIAN PERFORM ANY WORK DONE ON THIS UNIT. SHOULD YOU HAVE ANY QUESTIONS PLEASE CONTACT THE LOCAL OFFICE OF THE EPA.

NATIONAL CODES

This product is designed and manufactured to permit installation in accordance with National Codes. It is the installer's responsibility to install the product in accordance with National Codes and/or prevailing local codes and regulations.

The heating and cooling capacities of the unit should be greater than or equal to the design heating and cooling loads of the area to be conditioned. The loads should be calculated by an approved method or in accordance with ASHRAE Guide or Manual J - Load Calculations published by the Air Conditioning Contractors of America.

Obtain from:

American National Standards Institute
www.ansi.org

System design and installation should also, where applicable, follow information presented in accepted industry guides such as the ASHRAE Handbooks. The manufacturer assumes no responsibility for equipment

installed in violation of any code or regulation. The mechanical installation of the packaged roof top units consists of making final connections between the unit and building services; supply and return duct connections; and drain connections (if required). The internal systems of the unit are completely factory-installed and tested prior to shipment.

Units are generally installed on a steel roof mounting curb assembly which has been shipped to the job site for installation on the roof structure prior to the arrival of the unit. The model number shown on the unit's identification plate identifies the various components of the unit such as refrigeration tonnage, heating input and voltage.

Carefully inspect the unit for damage including damage to the cabinetry. Any bolts or screws which may have loosened in transit must be re-tightened.

In the event of damage, the receiver should:

1. Make notation on delivery receipt of any visible damage to shipment or container.
2. Notify the carrier promptly and request an inspection.
3. In case of concealed damage, the carrier should be notified as soon as possible-preferably within 5 days.
4. File the claim with the following supporting documents:
 - a. Original Bill of Lading, certified copy, or indemnity bond.
 - b. Original paid freight bill or indemnity in lieu thereof.
 - c. Original invoice or certified copy thereof, showing trade and other discounts or reductions.
 - d. Copy of the inspection report issued by the carrier representative at the time damage is reported to the carrier. The carrier is responsible for making prompt inspection of damage and for a thorough investigation of each claim. The distributor or manufacturer will not accept claims from dealers for transportation damage.

NOTE: WHEN INSPECTING THE UNIT FOR TRANSPORTATION DAMAGE, REMOVE ALL PACKAGING MATERIALS. RECYCLE OR DISPOSE OF THE PACKAGING MATERIAL ACCORDING TO LOCAL CODES.

TERMINAL VENTING

Never operate the compressor without the terminal cover secured and properly in place or without the electrical plug fully seated and engaged to the terminal posts. If a terminal is damaged, electrically overloaded, or short circuits to ground, there is a remote possibility that the terminal can be suddenly expelled from the terminal housing thereby venting the refrigerant and compressor oil mixture to atmosphere. This discharge can be ignited from electrical arcing, or other open sources of ignition, and can cause potentially severe or fatal injury. This event is known as Terminal Venting. To reduce the possibility of external ignition, all open flames or other heat sources must be extinguished, and all electrical power must be turned off and made to comply with "lockout-

tagout" procedure prior to opening the terminal cover or removing the electrical plug and servicing the system. Proper sealed system evacuation is required during equipment service to maintain adequate internal system cleanliness while eliminating contaminants. Be alert for sounds of arcing (sizzling, sputtering, or popping) inside the compressor. IMMEDIATELY GET AWAY from the unit if you hear these sounds and disconnect electrical power.

PRE-INSTALLATION CHECKS

Carefully read all instructions for the installation prior to installing unit. Ensure each step or procedure is understood and any special considerations are taken into account before starting installation. Assemble all tools, hardware and supplies needed to complete the installation. Some items may need to be purchased locally.

WIRING

CHECK THAT WIRING WILL NOT BE SUBJECT TO WEAR, CORROSION, EXCESSIVE PRESSURE, VIBRATION, SHARP EDGES OR ANY OTHER ADVERSE ENVIRONMENTAL EFFECTS. THE CHECK SHALL ALSO TAKE INTO ACCOUNT THE EFFECTS OF AGING OR CONTINUAL VIBRATION FROM SOURCES SUCH AS COMPRESSORS OR FANS.

DETECTION OF FLAMMABLE REFRIGERANTS

"UNDER NO CIRCUMSTANCES SHALL POTENTIAL SOURCES OF IGNITION BE USED IN THE SEARCHING FOR OR DETECTION OF REFRIGERANT LEAKS. A HALIDE TORCH (OR ANY OTHER DETECTOR USING A NAKED FLAME) SHALL NOT BE USED.

THE FOLLOWING LEAK DETECTION METHODS ARE DEEMED ACCEPTABLE FOR ALL REFRIGERANT SYSTEMS.

ELECTRONIC LEAK DETECTORS MAY BE USED TO DETECT REFRIGERANT LEAKS BUT, IN THE CASE OF FLAMMABLE REFRIGERANTS, THE SENSITIVITY MAY NOT BE ADEQUATE, OR MAY NEED RE-CALIBRATION. (DETECTION EQUIPMENT SHALL BE CALIBRATED IN A REFRIGERANT-FREE AREA.)

ENSURE THAT THE DETECTOR IS NOT A POTENTIAL SOURCE OF IGNITION AND IS SUITABLE FOR THE REFRIGERANT USED. LEAK DETECTION EQUIPMENT SHALL BE SET AT A PERCENTAGE OF THE LFL OF THE REFRIGERANT AND SHALL BE CALIBRATED TO THE REFRIGERANT EMPLOYED, AND THE APPROPRIATE PERCENTAGE OF GAS (25 % MAXIMUM) IS CONFIRMED.

LEAK DETECTION FLUIDS ARE ALSO SUITABLE FOR USE WITH MOST REFRIGERANTS BUT THE USE OF DETERGENTS CONTAINING CHLORINE SHALL BE AVOIDED AS THE CHLORINE MAY REACT WITH THE REFRIGERANT AND CORRODE THE COPPER PIPE-WORK.

IF A LEAK IS SUSPECTED, ALL NAKED FLAMES SHALL BE REMOVED/EXTINGUISHED.

IF A LEAKAGE OF REFRIGERANT IS FOUND WHICH REQUIRES BRAZING, ALL OF THE REFRIGERANT SHALL BE RECOVERED FROM THE SYSTEM:-



WARNING

TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.

IMPORTANT NOTE: REMOVE WOOD SHIPPING RAILS PRIOR TO INSTALLATION OF THE UNIT.

NOTE: UNITS MAY BE INSTALLED IN HEAVY SNOW CLIMATES. ENSURE NO SNOW OBSTRUCTS OR COVERS THE UNIT, AS IT MAY AFFECT PERFORMANCE. REGULARLY CHECK FOR SNOW BUILD UP.

ALL INSTALLATIONS:

IMPORTANT NOTE: UNIT SHOULD BE ENERGIZED 24 HOURS PRIOR TO COMPRESSOR START UP TO ENSURE CRANKCASE HEATER HAS SUFFICIENTLY WARMED THE COMPRESSORS. COMPRESSOR DAMAGE MAY OCCUR IF THIS STEP IS NOT FOLLOWED.

NOTE: VERIFY THAT THE VOLTAGE LISTED ON THE UNIT'S SERIAL PLATE MATCHES WHAT IS PROVIDED BY THE SITE.



WARNING

THE APPLIANCE SHALL BE INSTALLED. OPERATED AND STORED IN A ROOM WITH A FLOOR AREA NOT LESS THAN THE MINIMUM ROOM AREA.



**$\geq 15.3 \text{ m}^2$
 164.7 ft^2**

IMPORTANT: REFER TO THE ALTITUDE ADJUSTED ROOM AREA CALCULATION REFERENCED LATER IN THIS MANUAL.

Proper installation of the unit ensures trouble-free operation. Improper installation can result in problems ranging from noisy operation to property or equipment damages, dangerous conditions that could result in injury or personal property damage and that are not covered by the warranty. Give this booklet to the user and explain it's provisions. The user should retain these instructions for future reference.