RANGER
Heating & Air Conditioning
Products Inc.

R-SKYPAK

R-SKYPAK
Hybrid Replacement Package
Thru-The-Wall Cooling
With Multi-Position Gas Heating

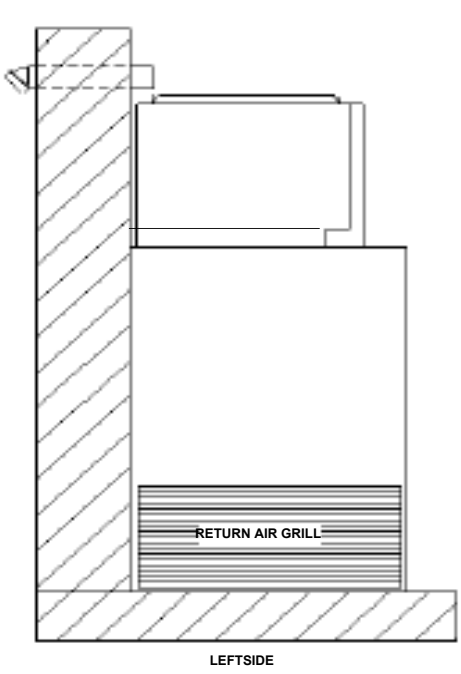
INSTALLATION AND OPERATION INSTRUCTIONS

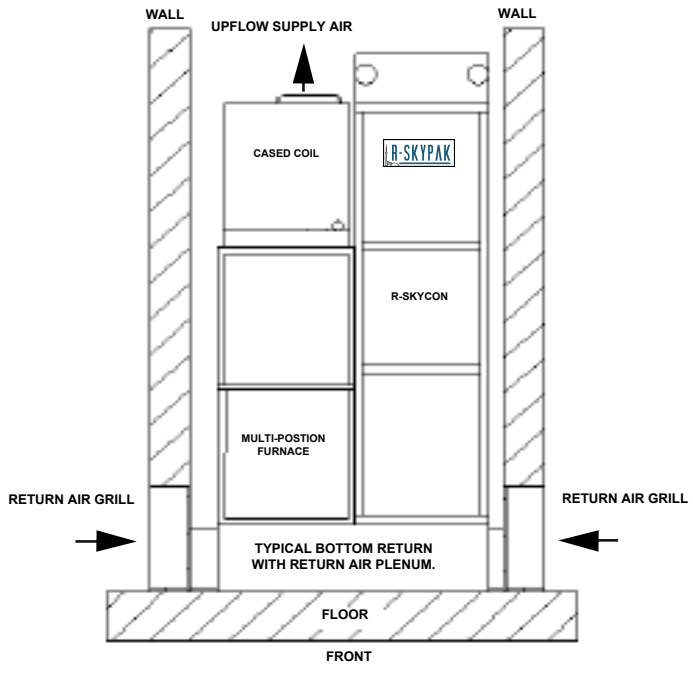
Gas Heating / Electric Cooling Units (R410A)

Cooling Capacities 12,000, 18,000, 24,000, 28,000 & 36,000 Btu/Hr.
(If furnace is provided by others follow supplying furnace manufactures instructions and warranty information)

Input Heating Btu/Hr @ 95+ AFUE 15,000, 30,000, 45,000 & 60,000.

*Not all heating capacities are available with all cooling capacities.





IMPORTANT!
READ BEFORE PROCEEDING!
GENERAL SAFETY GUIDELINES

During installation, operation, maintenance, or service, individuals may be exposed to certain components or conditions including, but not limited to: refrigerants, oils, materials under pressure, rotating components, and both high and low voltage. Each of these items has the potential, if misused or handled improperly, to cause bodily injury or death. It is the obligation and responsibility of operating/service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in serious damage to the equipment and the property in which it is installed, as well as severe personal injury or death to themselves and people at the site.

This document is intended for use by owner-authorized operating/service personnel. It is expected that this individual possesses independent training that will enable them to perform their assigned tasks properly and safely. It is essential that, prior to performing any task on this equipment, this individual shall have read and understood this document and any referenced materials. This individual shall also be familiar with and comply with all applicable government standards and regulations pertaining to the task in question.

SAFETY SYMBOLS

The following symbols are used in this document to alert the reader to areas of potential hazard:

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

CAUTION identifies a hazard which could lead to damage to the machine, damage to other equipment and/or environmental pollution. Typically an instruction will be given, together with a brief explanation.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

NOTE is used to highlight additional information which may be helpful to you.

All wiring must be in accordance with published specifications and must be performed ONLY by qualified service personnel. Ranger Heating & Air Conditioning Products Inc. will not be responsible for damages/problems resulting from improper connections to the controls or application of improper control signals. Failure to follow this will void the manufacturer's warranty and cause serious damage to property or injury to persons.

CHANGEABILITY OF THIS DOCUMENT

In complying with Ranger Heating and Air Conditioning Products Inc. policy for continuous product improvement, the information contained in this document is subject to change without notice. While Ranger makes no commitment to update or provide current information automatically to the manual owner, that information, if applicable, can be obtained by contacting Ranger Heating & Air Conditioning Products Inc. or you local manufacturers representative or distributor or downloaded from www.rangerhvac.com.

It is the responsibility of operating/service personnel as to the applicability of these documents to the equipment in question. If there is any question in the mind of operating/service personnel as to the applicability of these documents, then, prior to working on the equipment, they should verify with the owner whether the equipment has been modified and if current literature is available.

Work on this equipment should only be done by properly trained personnel who are qualified to work on this type of equipment. Failure to comply with this requirement could expose the worker, the equipment, and the building and its inhabitants to the risk of injury or property damage.

The instructions are written assuming the individual who will perform this work is a fully trained HVAC & R journeyman or equivalent, certified in refrigerant handling and recovery techniques, and knowledgeable with regard to electrical lockout / tagout procedures.

The individual performing this work should be aware of and comply with all national, state, provincial, and local safety and environmental regulations while carrying out this work. Before attempting to work on any equipment, the individual should be thoroughly familiar with the equipment by reading and understanding the associated service literature applicable to the equipment. If you do not have this literature, you may obtain it by contacting a Ranger Service Office or www.rangerhvac.com.

Should there be any question concerning any aspect of the tasks outlined in this instruction, please consult a Ranger Service Office prior to attempting the work. Please be aware that this information may be time sensitive and that Ranger reserves the right to revise this information at any time. Be certain you are working with the latest information.

WARNING! PLEASE REFER TO LOCAL ELECTRICAL AUTHORITY FOR WIRING REGULATIONS!

TABLE OF CONTENTS

1. PREPARING TO REMOVE EXISTING EQUIPMENT

CAUTION! The existing unit is heavy and may require the use of two persons to remove it safely.

A) Shut off main power at disconnect and lockout tagout. Remove main supply and low voltage wires from unit.
B) Shut off gas valve and remove all piping from the furnace section.
C) Disconnect supply and return air ducts. Remove all screws securing unit to wall sleeve. Remove condensate drain line.
Carefully remove unit from wall sleeve & equipment enclosure.

To assure both safe and proper operation, please carefully follow the instructions in this manual to correctly install this R-SKYPAK.

INSTALLER! After installing R-SKYPAK ensure that the user receives:

1) Users Information Manual / Maintenance & Service Manual
2) Operation & Installation Instructions
3) Warranty Information

USER! Your R-SKYPAK installer should give you the above important documents relating to your condensing unit and furnace. Keep these as long as you keep your R-SKYPAK. Pass these documents on to later purchasers or users. Throughout this Installer's Information Manual, we frequently use the word "you" when referring to the person responsible for application, installation and service of your R-SKYPAK. Please remember to have only qualified service technicians perform these services.

IMPORTANT SAFETY NOTE: After installing the R-SKYPAK show the user how to turn off the electricity to R-SKYPAK. Point out control and switch locations for turning off the electricity to the R-SKYPAK unit. Go over Section 3 and 5 of Users Information Manual and Maintenance in this manual with user. Make sure user understands the importance of following all safety precautions.

2. PREPARING TO INSTALL R-SKYPAK

Literature - Review the Manual, Users Manual Information & Parts List. In particular, see Users Information Manual & Parts List for location and identification of furnace components.

After installing furnace, give this Installer's Information Manual, Users Information Manual, Warranty & Parts List to user. You may have questions as you install the furnace. If you need help on any of the installation instructions or other matters relating to the furnace, contact the furnace manufacturer. You may also refer to the furnace rating plate for a contact name.

➢ IMPORTANT SAFETY RULES

Only use natural gas in furnaces designated for natural gas. Only use Propane (LP) gas in furnace designed for Propane (LP) gas. Make sure furnace will operate properly on gas type available to user. Do not use this furnace with butane. Using an incorrect gas supply could create a hazard, resulting in damage, injury, or death.

A. Use only the type of refrigerant approved for this R-SKYPAK; refer to rating plate.
B. Install furnace only in a location and position as specified in the furnace manufactures instructions.
C. Provide for adequate combustion and ventilation air to the furnace by installing only as detailed.
D. Combustion air must be discharged outdoors. Connect this furnace in the approved, factory supplied, vent termination only. Vent installation must follow specified instructions of the furnace manufacture in conjunction with local codes + regulations as well as these instructions.

E. Never test for gas leaks with an open flame. Use a commercial soap made specifically for the detection of leaks to check all connections as specified in these instructions.
F. Always install furnace to operate within the furnace's intended temperature rise range with a duct system that has an external static pressure within the allowable range, as specified in the furnace manufactures instructions. See rating plate.
G. When a furnace is installed so that supply ducts carry air circulated by the furnace to areas outside the space containing the furnace; the return air shall also be handled by duct(s) sealed to the furnace casing and terminating outside the space containing the furnace.
H. This R-SKYPAK is not to be used for temporary heating/cooling of buildings or structures under construction.

3. MEETING CODES

The furnace must comply with applicable National, Provincial, State, and Local Standards and Gas Codes for Gas-Fired Central Furnaces, and is certified for operation with either natural gas (NG) or propane (LP) gas for indoor installation in a building constructed on site. It meets the requirement for a 100% shutoff gas control system.

Before installing furnace, make sure you know all applicable codes. National, Provincial, State, and Local Codes may take precedence over any instructions in this manual. Be sure to consult:

- Authorities having jurisdiction over furnaces;
- Local code authorities for information on electrical wiring.

In the Commonwealth of Massachusetts, this product must be installed by a licensed plumber, or licensed gas fitter.

4. CORROSIVE VAPORS

Do NOT install furnace in a corrosive or contaminated atmosphere. Corrosive vapors in the atmosphere such as chlorinated hydrocarbons will affect the operation of this unit. Do NOT store open containers of chlorine, bleach or other household cleaners near the furnace.

5. UNPACKING

i) Check the unit for indications of damage in ship-ment. Notify Ranger Heating & Air Conditioning Products Inc. of any damage and note the damage on the shipping receipt.

Rough handling may dislocate internal components.

ii) Rotate blowers to ensure free movement.

iii) The compressor is mounted on neoprene isolators with metal spacing sleeves inside and secured with nuts that must be snug against the metal spacer sleeves.

iv) Check all refrigeration tubing to ensure that it does not rub against any other parts.

v) Notify Ranger of any damage and note the damage on the shipping receipt.

6. NORMAL INSTALLATION

DO NOT install this R-SKYPAK outdoors or in a mobile home, trailer, or recreational vehicle. It is not design-certified for these installations. This R-SKYPAK is suitable for a home built on site or a manufactured home completed at final site.

This unit is designed for indoor installation adjacent to an exterior wall having an opening for condenser airflow. Combustion air flow must:

a) Discharge directly to the outside.

b) Discharge away from any obstructions that could cause discharged air recirculation.

DO NOT install this unit at an exterior wall location that will position the bottom of the R-SKYPAK below or the wall grille below the exterior grade level. Below grade installation will allow the accumulation of rain or snow into the wall sleeve and unit base, and could result in water penetration into the building interior.

A. CABINET CLEARANCES

The unit is design certified for closet installation with the minimum clearances to combustible materials as stated in the furnace instructions. A minimum of 1-inch clearance is required from the front to any combustible materials. A combustible door may be placed 1 inch from the front of the unit. When the door is open there must be 30 inches clearance to any obstruction, to allow sufficient access for service and the replacement of parts.

See furnace manufacturer instructions regarding return air duct connections to the unit and provision for service access. The unit shall not be installed directly on carpeting, tile or other combustible material other than wood flooring.

When installed in a residential garage, the entire burner / heat exchanger section of the furnace must be at least 18 inches above the floor. The unit must be located or protected or avoid physical damage by vehicles.

B. VENTING REQUIREMENTS

The furnace is approved as a **DIRECT VENT APPLIANCE**. Combustion air, and the discharged flue gas products, are drawn and discharged directly to the outside of the building through the wall sleeve. **DO NOT CONNECT THIS FURNACE TO ANY FLUE PIPE OR CHIMNEY**.

The location of the unit side wall vent termination, with respect to other wall penetrations, must comply with the applicable requirements of the U.S. National Fuel Gas Code (ANSI Z223.1/NFPA 54) or the Canadian Natural Gas and Propane Installation Code (CSA-B149.1).

The minimum required clearances to the flue vent termination are summarized in the furnace manufactures installation instructions- DIRECT VENT TERMINAL CLEARANCES. Review this section thoroughly prior to determining the final location of the furnace.

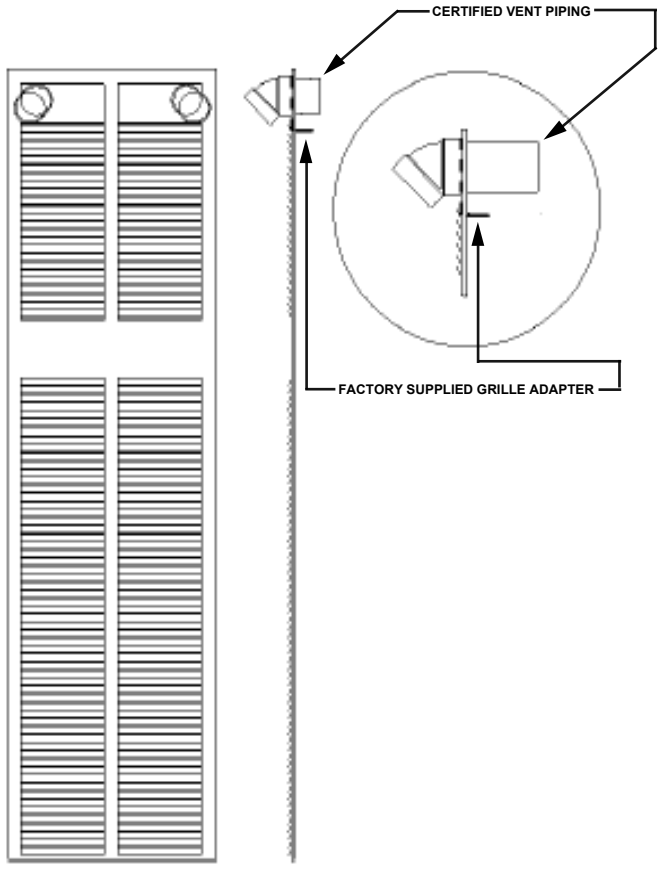


Fig. #1 - VENT TERMINAL

7. WALL OPENING

A finished opening through an outside wall is required for exhausting flue products and condenser airflow. The wall opening must be flush with the finished floor.
Consult local ordinances for framing requirements of the building wall opening.

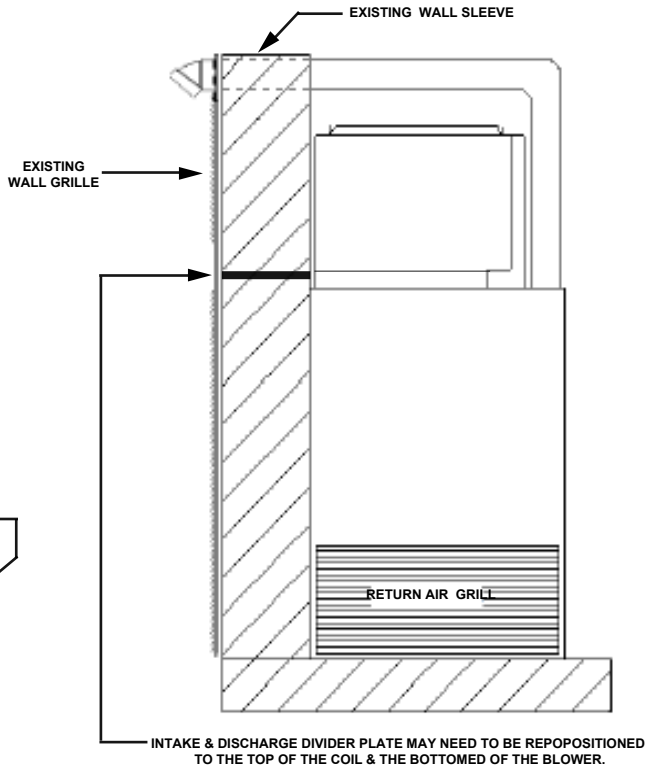


Fig. #2 - INSTALLATION W/ WALL SLEEVE AND EXTERIOR GRILL. ILLUSTRATED AS A STANDARD LEFTSIDE RETURN AIR.

8. WALL SLEEVE

A wall sleeve is required to finish the wall opening. A factory-made wall sleeve is available as an optional accessory for new construction. When replacing a FEDDER or SKYMARK SKYPAK unit with a retrofit model the unit will mate with the existing wall sleeve. Use a spirit level or plumb line to make sure that the wall sleeve vertical flanges, which must mate with the back of the unit, are perfectly vertical. If the flanges are not vertical, the unit will not seal properly against the wall sleeve. Please ensure that a divider plate has been installed or repositioned in a retrofit application between the top of the coil and the bottom of the blower filling the space between the grille and unit to prevent short cycling of condenser air.

Completely seal any gaps or openings around the wall sleeve and the wall opening (use exterior grade caulking or expanding foam sealant), to prevent air and weather penetration into the building envelope.

EXTERIOR GRILLE

Finish the sleeve exterior with the existing grille. If required: sleeve, grille and vent terminal can be factory supplied upon request.

9. UNIT TO SLEEVE ATTACHMENT & INSTALLATION OF VENT PIPE EXTENSION

Before the condensing unit is moved into final position and attached to the wall sleeve, the existing grille louvers must be removed as to accommodate the vent holes in the supplied backing plate. The vent pipe must be installed through the opening in the adapter with the use of a short piece of pipe attached to the 45° elbow through the adapter hole and a coupling.

The vent pipe extension must be cut to length depending on the depth of the wall sleeve used. It must be long enough to be connected to the coupling inside the units enclosed space and the 45° coupling at finish plate that covers the hole in the sleeve above the condensing unit. The pipe extension must be installed before the furnace is in final position and attached to the wall sleeve.

Secure the pipe extension to the sleeve cover plate.1 inch wide x 1/2 inch thick self-adhesive sponge rubber gasket is applied to the flanges of the condensing section of the R-SKYPAK unit, it is used for sealing between the wall sleeve and the unit. Before moving the unit into final position, confirm that the gasket mates to the flanges on the wall sleeve.

Ensure that the flange at the bottom of the condenser is above the flange at the bottom of the wall sleeve.

Move the unit forward until the unit contacts the wall sleeve and makes a seal with the gasket on the wall sleeve. Then use the front two leveling screws only to level the unit.

R-SKYPAK units are secured to the wall sleeve using a piece of angle 1 3/8 inch x 1 3/8 inch x 16 inches long. This angle should be placed on the top of the condensing unit at the back with one flange facing up flush with the back of the condensing unit. Then screw the angle to the top of the condensing unit using two #10 x ½ inch self-drilling sheet metal screws.

Condensing unit can be installed off center if space for furnace is limited.

The condensing unit is secured to the wall sleeve by installing two #10 x ½ inch self drilling sheet metal screws. Attach the angle to the flange of the sleeve. The required piece of angle is packed on top the condensing unit.

If installed off center, field made flanges will be required for one side.

10. INSTALLING DUCT WORK

Install all ductwork to meet current standard:

- ASHRAE/NFPA 90, Standard for Installation of Warm Air Heating and Air Systems.
- State, Provincial, and Local Codes

Failure to follow these standards could reduce airflow or increase air leakage, resulting in reduced system performance or furnace damage.

Properly size ductwork based on heat loss and heat gain calculations. Doing so ensures:

- Good heating and cooling installations.
- Potentially fewer callbacks.
- Delivery of required circulating air.

For all furnaces, design systems for minimum and maximum external static pressures detailed in the furnace manufactures installation instructions included with the furnace.

SUPPLY AIR DUCT WORK & TUBING CONNECTIONS

Connect supply air duct to 1-in. flange on the cased coil that must be connected to the supply air outlet of the furnace. Install furnace to coil spacer provided. Duct attaching hardware only must be used on the supply-air outlet flanges. **Refrigeration tubing is located through the top panel of the condensing unit. Do not drill or screw in this area.** Once the coil and supply air duct are connected line sets must be connected from the condensing unit and to the evaporator coil. The piston is located at the liquid line coil connection. The liquid line fitting of the evaporator coil must be removed prior to connecting the tubing.

Once all connections are made and pressure tested a vacuum of a **minimum of 200 microns** must be achieved and recorded on the installation checklist. Then the service valves can be be opened releasing the charge into the coil by using the provided wrench remove the valve cap, turn the valve stem anti-clockwise a 1/4 turn so that arrows are facing up and down then snug packing nut if there is leakage. Replace valve cap and snug to hand tight with provided wrench. Complete leak test with soap and water and repeat steps as needed until no leak is detected. Repeat the above steps for the second valve.

ACCESS PORTS have been pushed inside unit to prevent damage during shipping. Please push access ports through provided grommets.

DO NOT USE ACCESS PORTS FOR EVACUATION PURPOSES. USE PROVIDED PORTS ON THE SERVICE VALVES PRIOR TO OPENING.

Your R-SKYPAK is factory charged and access ports are only used at final start-up and balancing super-heat or sub-cooling.

DUCT DAMPERS

You may balance air flow with dampers installed in each branch run duct and adjust for even temperature throughout the heated space. For proper furnace operation, make sure:

Supply air duct (plenum) connection must be at least the same size as the furnace supply air opening. Seal supply air ductwork to furnace casing, walls, ceilings or floors it passes through. Terminate ductwork outside furnace space.

11. CONDITIONED SPACE AIR SUPPLY

PLEASE ENSURE:

- Supply air registers and return air grilles are open.
- Rugs, carpets, drapes or furniture are clear of registers and grilles;
- Size and shape of supply air plenum is correct;
- Number of supply air duct outlets is sufficient;

The unit is approved as a **DIRECT VENT APPLICATION**

Furnace draws combustion air from outdoors. There is no need to provide combustion or ventilation air openings, except as may be required by local codes. For mid-efficency applications follow all furnace manufactures guidelines and local codes.

- All service access panels must be in place for the furnace to properly draw in outside combustion air

When installing furnace in an alcove, basement, closet, garage, or utility room do not store items in front of furnace or in front of closet or utility door which would prevent ready access for service.

12. FILTER RACK INSTALLATION FOR SIDE RETURN

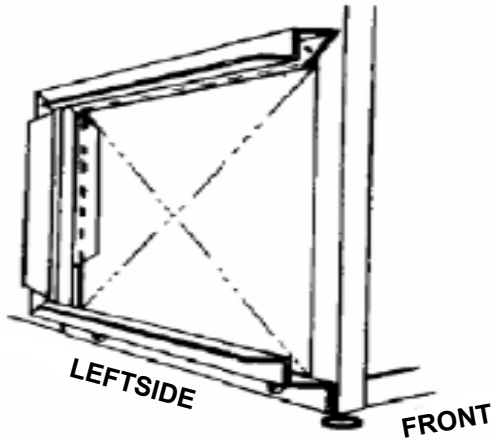
Air filters are required to keep the air conditioning coil and blower motor clean. Dirty equipment may cause damage to the heat exchanger or air conditioning unit. The filter frame has to be field installed, after snipping out the pre-punched opening in the side of the furnace. Follow the furnace manufactures instructions.

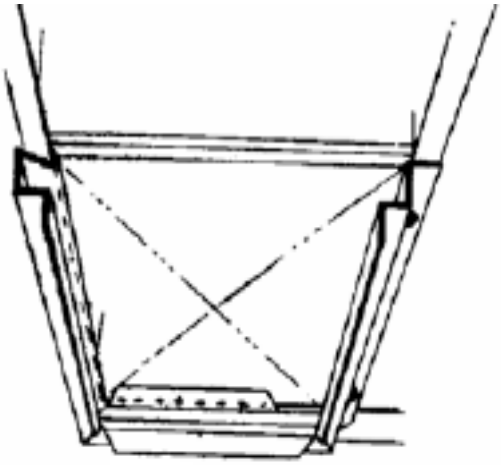
ALTERNATIVE FILTER ARRANGEMENTS

BOTTOM RETURN PLENUMS

When a bottom return plenum is used, snip out the prepunched opening in the bottom of the furnace cabinet.

There are no filters supplied with this unit. The installing contractor must provide and install the recommended size filters.





FRONT / BOTTOM

13. INSTALLING GAS PIPING

FIRE OR EXPLOSION HAZARD: Failure to follow the safety warnings exactly could result in serious injury, death, or property damage. Never test for gas leaks with an open flame. Use a commercially available soap solution made specifically for the detection of leaks to check all connections. A fire or explosion may result causing property damage, personal injury, or loss of life.

A. Preparation

Gas piping must meet requirements of current National Fuel Gas Code ANSE Z223.1/ or CAN/CGA B149 and lo-cal codes. Size of pipe running to furnace depends on:

- Length of pipe;
- Number of fittings;
- Specific gravity of gas;
- Input requirements (Btuh) of all gas-fired appliances attached to same main supply line.

Plan furnace gas supply piping so it will not interfere with removal of burner assembly, front door, or blower door for servicing. DO NOT OBSTRUCT any service access doors on the furnace or condensing unit.
Always use a pipe thread sealant that is resistant to propane (LP) gas solvent action. Sparingly apply sealant to all joints on male threads only, starting two threads back from end.

B. Furnace Gas Entry Piping

A hole and a rubber grommet are provided in the side of the cabinet for connecting ½ inch gas pipe to the gas control. Always follow the instructions supplied by the furnace manufacturer and Local and National codes.
If there is not enough room to run gas piping down the side of the unit, it is possible to have the gas pipe entry through the top of the cabinet. Knockouts are provided in the top panel for this purpose. Follow the furnace manufactures instructions.

C. Installation

1. Install A.G.A./C.G.A. listed manual shut-off valve in gas supply line immediately upstream of furnace.
2. After in-line manual shut-off valve, install a drip leg (sediment trap) at gas supply line inlet connection to furnace.

3. When using black iron gas pipe*, install an A.G.A./ C.G.A. listed ground joint union between drip leg (sediment trap) and furnace gas control. Locate ground joint union down-stream of manual shutoff valve to allow easy servicing of burner assembly and gas control valve.
4. If local codes allow the use of a flexible gas connector, always use a new UL listed connector. Do NOT use a connector that has previously been installed.
5. Install gas pipe to inlet side of furnace gas control.

Do NOT thread gas pipe too far into control valve body. Doing so may cause gas control to split or crack which could cause a gas leak or distortion or malfunction of gas control. These could cause a fire or explosion resulting in damage, injury or death.

6. Isolate gas control from gas supply line pressure during leak check. Gas supply line test pressure determines how you isolate gas control.

At gas supply line, test pressure equal to or less than 14 inches W.C. (1/2 PSI), isolate gas control from gas supply line by sliding furnace gas control switch to off position. Unexpected surges could damage gas control causing gas leak, resulting in fire or explosion.
When test pressure is above 14 inches W.C. (1/2 PSI), completely disconnect gas control from gas supply line. Failure to isolate gas control test pressure could damage it, causing gas leak, resulting in fire, or explosion.

7. Use a commercial soap solution made to detect leaks and check all gas piping.

14. CONDENSATE DRAIN PIPING

The condensate drain pan is fitted with a ¾" NPT female pipe fitting which protrudes through the cased coil. The ¾" drain piping should be run horizontally from this fitting until the piping is past the side of the unit casing, and not passing in front of any of the access doors. Once the piping is clear of the unit casing, a trap should be installed to prevent odors from backing up through the drain pipe. The trap should be at least 2 inches deep, with the outlet a minimum of ½ inch below the inlet. The drain piping on the outlet side of the trap should be pitched ¼" inch per foot down towards an open drain. Unions should be installed between the unit and the trap, and on the outlet side of the trap to allow for disconnecting the piping and the trap for easy servicing and cleaning. For furnace drain please follow manufacturer instructions.

15. ELECTRICAL CONNECTIONS

Check the voltage and phase listed on the condensing unit and furnace rating plates, before installation; to be sure the power supply is correct. If the compressor fails as the result of improper voltage, the compressor is not replaceable under warranty and the manufacturer will not be responsible for the cost of replacement. The minimum and maximum operating voltages, and fuse sizes, are listed on the rating plates. Ensure that the furnace shall be installed so that all wiring and electrical components are protected from water. There is a factory installed ground lug specifically provided for grounding the gas pipe inside the electrical box of the R-SKYPAK condensing unit.

Use an approved oxide inhibitor / joint compound if connecting to aluminum wire and any other connections involving aluminum. Before screwing on the connector, use a wire brush to remove any oxidation. This helps prevent corrosion and ensures better conductivity.

High Voltage Connections:

1. Remove electrical access & blower access door on condensing unit.
2. The conduit or armored cable connections must be brought to the entry knockouts provided on the condensing unit and, electrical box. After connecting power wires, tighten lock nuts to spec (ensure conduit or armored cable connectors are in the correct locations according to the wire gauge).
3. Ensure an field supplied fused disconnect switch is placed within sight of the unit.
4. Loosen the connection screws on the ground lugs and connect ground wires to gas pipe and supply ground wire from electrical panel.
5. Loosen screws on the line side of the compressor contactor 'K1' (marked 'L1' & 'L2') and insert wires (Be careful not to miswire or change polarity).
6. Ensure the wires to the compressor contactor 'K1' are secured in place so that no part of the non insulated wire is showing.
7. Firmly tighten the screws to prevent them from loosening in the future (torque to spec). After wires has been tightened pull the wires to ensure that they do not loosen from compressor contactor 'K1' or ground lugs. **Please note when servicing unit always check for tightness on all high voltage electrical connections.**
8. Replace electrical access & blower access door on condensing unit.

WARNING! Please refer to local electrical authority for wiring regulations

Adjusting Transformer Line Voltage:
****MEASURE LINE VOLTAGE & ADJUST AS REQUIRED****

1. Remove electrical access door on condensing unit.
2. Loosen the screws on the terminal blocks (marked 'HX' & '208V' & '230V').
3. Remove the jumper from 'HX' & '230V'.
4. Replace the jumper in to 'HX' & '208V'.
5. Firmly tighten the screws on the terminal blocks (marked 'HX' & '208V' & '230V'). To prevent them from loosening in the future (torque to spec).
6. After jumper has been tightened pull the jumper to ensure that it does not loosen.
7. Check transformer secondary voltage at 'X1' & 'X2' to ensure that the voltage is correct for furnace voltage specifications.
8. Replace electrical access door on condensing unit.

Furnace Power Connections:

1. Remove electrical access door on condensing unit.
2. The conduit or armored cable connections must be brought to the entry knockouts provided on the condensing unit and, electrical box. After connecting power wires, tighten lock nuts to spec (ensure conduit or armored cable connectors are in the correct locations according to the wire gauge).
3. Loosen the connection screw on the ground terminal block and connect ground wire.
4. Loosen screws on the load side of fuse block and terminal block (marked 'X1' & 'X2') and insert wires (Check for Polarity).
5. Ensure that wire to the fuse block and terminal block is secure so that no part of the non insulated wire is showing.
6. Firmly tighten the screws to prevent them from loosening in the future. After wire has been tightened pull the wires to ensure that they do not loosen from fuse block or terminal block or ground lug.
7. Follow the instructions of the furnace manufacturer to complete the installation of the power wiring on the furnace.
8. Check furnace supply voltage. If required adjust transformer output voltage using the directions above.
9. Replace electrical access door on condensing unit.

24 Volt Control Connections:

1. Remove electrical access door on condensing unit.
2. Please follow the instructions of the furnace manufacturer to complete the installation of the 24 volt control wiring on the furnace.
3. Loosen screws on the load side of fused terminal block (marked 'C' & 'Y') and insert wires. Check that connections match the thermostat connections.
4. Ensure that wire to the fuse block is secured in place so that no part of the non insulated wire is showing.
5. Firmly tighten the screws to prevent them from loosening in the future. After wire has been tightened pull the wires to ensure that they do not loosen from terminal block or ground lug.
6. Replace electrical access door on condensing unit.

The furnace is provided with its own separate electrical circuit. There is a 115v fused circuit provided within the electrical box of the condensing. Follow current National Electrical Code ANSI/NFPA 70, CSA C22.1 C.E.C. Part 1, Provincial, State and Local Codes. Failure to provide disconnect could cause electrical shock or fire, resulting in damage, injury or death. Furnace must have proper electrical ground. Failure to provide a proper electrical ground could cause electrical shock or fire, resulting in damage, injury or death.

All field-connected wiring shall be suitable for minimum 95ºF (35ºC) temperature rise. ALL ELECTRICAL CONNECTIONS MUST BE CHECKED FOR TIGHTNESS.

Field and internal wiring diagrams are attached to the back of the electrical compartment access door.

Select a location for room thermostat that is away from supply air registers, on draft-free interior wall, and not near lights, television, direct sunlight, or other heat sources. Install thermostat following field wiring diagram.

PLEASE REFER TO LOCAL ELECTRICAL AUTHORITY FOR WIRING REGULATIONS!

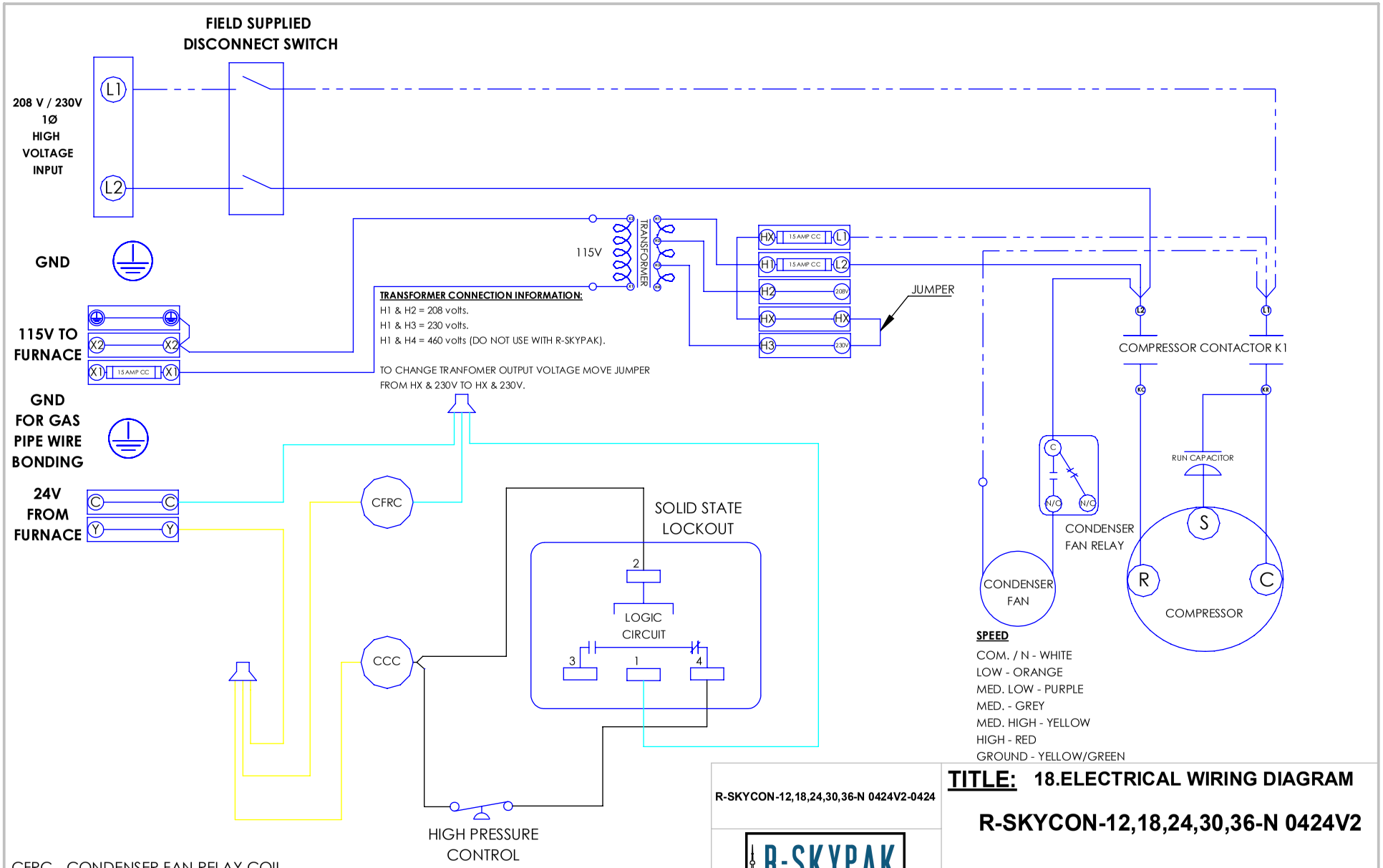
16. FURNACE SECTION START-UP

Please see furnace manufactures installation instructions and checklists provided with the furnace.

17. RELATED INFORMATION & PUBLICATIONS

These publications can help you install the furnace. You can usually find these at your local library, online, or buy them directly from the publisher. Be sure to consult current edition of each standard.

Gas-Fired Central Furnaces:
AGA/ANSI Z21.47, CAN/CGA-2.3
Heating & Cooling Equipment:
UL1995, CAN/CSA-C22.2 No.236
Natural Gas, and Propane Installation Codes:
CAN/CGA-B149.1, CAN/CGA-B149.2
U.S. National Fuel Gas Code:
ANSI Z223.1/NFPA 54
U.S. National Electrical:
ANSI/NFPA Code 70
Standard for the Installation of Warm Air Heating & Air Conditioning Systems:
ASHRAE/NFPA 90



CFRC - CONDENSER FAN RELAY COIL
CCC - COMPRESSOR CONTACTOR COIL

ATTENTION: ALL WIRING TO BE COMPLETED TO LOCAL ELECTRICAL AUTHORITIES REGULATIONS.

DANGER: DISCONNECT SUPPLY BEFORE SERVICING.

WARNING: SERVICE TO BE COMPLETED BY LICENSED TECHINICAN(S). FAILURE TO COMPLY MAY RESULT IN LOSS OF WARRANTY, INJURY OR DEATH.

R-SKYCON-12,18,24,30,36-N 0424V2-0424

R-SKYPAK

TITLE: 18.ELECTRICAL WIRING DIAGRAM

R-SKYCON-12,18,24,30,36-N 0424V2

RANGER Heating & Air Conditioning Products Inc.

ALL DIMENSIONS ARE IN INCHES

SHEET 1 OF 1

Ranger Heating & Air Conditioning Products Inc.
R-SKYPAK INSTALLATION CHECKLIST

Job Name: _____
Date of Install: _____
Job Address: _____

Company Name: _____
Company Address: _____

Physical Inspection

Is there shipping damage	☐Yes	☐No
If Yes, Where?		
Will this effect operation:	☐Yes	☐No
Is unit level?	☐Yes	☐No

Electrical

Measured incoming voltage		
Furnace supply voltage		
Measured control voltage		
Both circuits grounded?	☐Yes	☐No
Is there a disconnect switch	☐Yes	☐No
Circuit breaker size in Amps		
Is breaker correctly sized?	☐Yes	☐No
Are the wires sized correctly?	☐Yes	☐No
Are necessary grommets secured and in place?	☐Yes	☐No

Piping

Leak checks have been made?	☐Yes	☐No
Condensate tube routed correctly?	☐Yes	☐No
P-Trap Installed?		☐No

New Equipment (Furnace)

Brand: _____
Model: _____
Serial: _____
Date of Installation: _____
Type: ☐Gas ☐Elec
Evap Coil Orientation: ☐Vert ☐Horiz
Duct Size: _____
Motor CFM Setting: _____
(Motor CFM Setting Cooling 400 CFM / ton)
Air filter Size: _____
Air filter condition: New ☐ Good ☐ Replace ☐

Before Leaving Job & Sign Off

Warranty certificate filled out?	☐Yes	☐No
Owners Manual to Customer?	☐Yes	☐No
Customer informed of operation?	☐Yes	☐No
Thermostat working correctly?	☐Yes	☐No

Refrigeration

Refrigerant Type:		
Filter Drier Installed	☐Yes	☐No
Factory Charge		
Added or Subtracted Charge(oz)	+ or -	
Adjusted Total Charge (lbs / oz)		
Are Service Valves back seated?	☐Yes	☐No
Leak checks have been made?	☐Yes	☐No
Super Heat		
Sub cool		
Recommended Sub-Cool or Super Heat	9° to 12°	
Air entering outdoor temp F°Air		
entering indoor temp Discharge		
Line Temp F°		
Vapor line temp F°		
Discharge line pressure PSIG		
Suction line pressure PSIG		

A2L Refrigerant	☐Yes	☐No
Has Evaporator Coil & Line Set been evacuated?	☐Yes	☐No
Evacuated to minimum 200 microns?	☐Yes	☐No
Vacuum gauge leak test preformed?	☐Yes	☐No

Notes: _____

Technician / Installer Signature: _____

Customer Signature: _____

PLEASE SUBMIT *COMPLETED* WITH WARRANTY DOCUMENTS WITHIN (7) BUSINESS DAYS AFTER INSTALLATION HAS BEEN COMPLETED TO STARTUP@RANGERHVAC.COM FAILURE TO DO SO COULD VOID WARRANTY PLEASE ENSURE R-SKYPAK INSTALLATION CHECKLIST HAS BEEN *COMPLETED* BEFORE WARRANTY & SUPPORT CAN PROCEEED.

Ranger Heating Air Conditioning Products Inc.
START-UP PERFORMANCE CHECKLIST

JOB NAME:	**COMPANY NAME:**
DATE:	**COMPANY ADDRESS:**
JOB ADDRESS: _____ _____	**TECHNICIAN NAME:**
	TECH. CERTIFICATE #:
UNIT MODEL : _____ **NAME PLATE VOLTAGE:** _____ **OUTDOOR AMBIENT AIR TEMP. AT START-UP** _____ **ARRIVAL TIME:**_____ **DEPARTURE TIME:**_____	**UNIT SERIAL:** _____ **NAME PLATE AMPERAGE:** _____ **LENGTH OF RUN TIME OF UNIT** _____

ELECTRICAL

SUPPLY VOLTAGE UNIT OFF: 1 & 2 _____ 1 & 3 _____ 2 & 3 _____

ACTUAL CONTROL VOLTAGE: _____

DISCONNECT: YES ☐ NO ☐ SIZE: _____

DISCONNECT FUSE SIZE: _____ AMPS

CONNECTIONS CHECKED FOR TIGHTNESS: ☐

CIRCUIT CHECKED FOR SHORTS & GROUND FAULT ☐

Please Note: If Supply Voltage Is *Less Then 208 Volts Or More Than 230 Volts* Contact Your Supplier Immediately For Support As This May Cause Faults.

REFRIGERATION CIRCUIT

CHARGING INFORMATION: IF REQUIRED AJUST CHARGE IN UNIT AS FOLLOWS

9º - 12º SUPERHEAT (FOR *PISTION* SYSTEMS) ***OR*** 9º - 12º SUB COOLING (FOR *TX-VALVE SYSTEMS)*

DISCHARGE PRESSURE: _____ PSIG _____ PSIG

SUCTION PRESSURE: _____ PSIG _____ PSIG

REFRIGERANT CHARGE OK: ☐ YES ☐ ☐ Onsee bel (if N ow)

REF. CHARGE ADJUSTMENT : ☐ NO ☐ YES + / - _____oz.

AIR INTO COIL: _____ ºF AIR OFF COIL: _____ ºF

SUPERHEAT: #1: _____ #2: _____ *(PISTON)*

SUBCOOLING: #1: _____ #2: _____ *(TX VALVE)*

LEAK TEST: SYSTEM #1 ☐ SYSTEM #2 ☐

AMPS: COMPRESSOR 1 _____

REF. TYPE : _____ 2 _____

CONTROLS

THERMOSTAT SETTING CHECKED: YES ☐ NO ☐

THERMOSTAT WIRING CHECKED: YES ☐ NO ☐

SWITCHES OPERATE SYSTEM: ☐ COOLING ☐ HEATING

ANTICIPATOR SETTING: W1 ☐

ELECTRIC HEAT

OF KW: STAGE #1 _____KW #2 _____KW

#3 _____KW #4 _____KW

ACTUAL VOLTAGE: L1 _____ L2 _____

ACTUAL AMPS: L1 _____ L2 _____

TEMP RISE: _____ºF RETURN AIR: _____ºF SUPPLY AIR: _____ºF

GAS HEAT

SAFETY CONTROLS CHECKED ☐

INDUCED DRAFT BLOWER FREE ☐

FUEL TYPE: _____

GAS PIPE LENGTH: _____ GAS PIPE SIZE: _____

LINE PRESSURE: _____ IN WC

MANIFOLD PRESSURE: _____ IN WC

TEMP. RISE: AIR ON: _____ AIR OFF: _____ TD: _____

VENTING SIZE: _____ VENTING LENGTH: _____

FURNACE MAKE: _____

FURNACE MODEL _____

RETURN AIR

SIZE:

EVAP/COND FAN

COND. MOTOR SPEED: 1 _____ 2 _____

COND. MOTOR AMPS: 1 _____ 2 _____

FILTERS IN PLACE: ☐ CORRECT FAN ROTATION: ☐

EVAP. MOTOR SPEED: 1 _____ 2 _____

EVAP. MOTOR AMPS: 1 _____ 2 _____

BLOWER RPM: _____ CFM:_____ ESP:_____ IN WC:_____

TRAPPED CONDENSATE DRAIN ☐ SECURED ALL PANELS ☐ CHECKED VIBRATION ☐ CLEANED DEBRIS ☐

BEFORE LEAVING JOB		**SERVICE TECHNICIAN SIGNATURE:**
1. WARRANTY CERTIFICATE FILLED OUT & GIVEN TO OWNER?	YES ☐ NO ☐	
2. HAS SYSTEM BEEN AIR BALANCED?	YES ☐ NO ☐	**EQUIPUIPMENT OWNER SIGNATURE:**
3. OPERATING & MAINTENANCE INSTRUCTIONS GIVEN TO OWNER?	YES ☐ NO ☐	
4. OPERATOR INSTRUCTED ON SYSTEM OPERATION?	YES ☐ NO ☐	**DATE:**
EQUIPMENT OWNER NAME:		

PLEASE SUBMIT *COMPLETED* WITH WARRANTY DOCUMENTS.

IN ORDER TO VAILATE THE WARRANTY THE START-UP PACKAGE MUST BE COMPLETED & SUBMITTED TO startup@rangerhvac.com WITHIN 30 DAYS OF INSTALLATION.

Failure to submit completed start-up package may result in a default to Rangers Standard warranty (1 Year Compressor 1 Year covered components).

LIMITED WARRANTY – R-SKYPAK

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THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS OR LIABILITIES, EXPRESSED OR IMPLIED BY EMPLOYEES OR REPRESENTATIVES OF RANGER HEATING & AIR CONDITIONING PRODUCTS INC. ALL STATUTORY, EXPRESSED OR IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY NEGATED AND EXCLUDED. ANY CLAIMS FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES, OR ANY OTHER DAMAGES OR EXPENSES BEYOND THE TERMS OF THIS LIMITED WARRANTY ARE HEREBY EXPRESSLY NEGATED AND EXCLUDED.

1. Ranger Heating and Air Conditioning Products Inc (Ranger) warrants to the original end user of this HVAC equipment (the "Equipment") for the periods described below that the Equipment will be free of manufacturing defects. If the Equipment fails to operate under normal use due to a manufacturing defect within a period of two (2) years after the date of original installation of the Equipment, or in the case of a manufacturing defect in the compressor, within a period of five (5) years after such date, Ranger will at its option replace the defective part or compressor or part thereof without charge for the replacement or refurbished component. *This warranty does not cover any labor, nor shipping or handling costs incurred.* Any replacement or refurbished Equipment, compressor or part will be warranted against manufacturing defects for the remainder of the original warranty period. Parts used in connection with normal maintenance and parts subject to normal wear and tear, such as filters and belts, are not covered by this warranty.
2. To obtain warranty service, you must notify your dealer or contractor of any manufacturing defect in the Equipment within the applicable warranty period. This warranty does not cover any labor, nor shipping or handling costs incurred. You may be responsible for shipping or handling costs incurred in delivering defective Equipment or components or parts thereof for service or replacement unless your dealer or contractor has agreed to bear such costs.
3. Ranger sells this Equipment only to distributors who resell the Equipment to dealers or contractors. The dealers and contractors have sole and exclusive responsibility for the selection, application, suitability and installation of the Equipment with respect to all end users and their particular requirements. Dealers and contractors may also sell or furnish other products and equipment not supplied by or on behalf of Ranger for use in conjunction with the Equipment. Accordingly, Ranger makes no warranty or condition whatsoever and assumes no liability or obligation whatsoever with respect to: (a) any representation, warranty, promise or statement made by any dealer or contractor with respect to any Equipment or part thereof or the use or application thereof; b) any acts or omissions of any dealer or contractor in selecting, recommending, installing, servicing, repairing, dismantling, moving or removing any Equipment or part thereof; or (c) any products, equipment, components, accessories or materials furnished or sold to you by a dealer or contractor other than the Equipment. Your dealer or contractor may provide a separate warranty for the products and services it supplies to you in addition to the Equipment and you are advised to confirm the terms and conditions of such warranty with your dealer or installer.
4. Any replaced Equipment, compressor or part will become the property of Ranger when exchanged for its replacement. Ranger reserves the right of inspection or refurbishing of its equipment at its discretion.
5. Proof of the original date of installation of the Equipment must be presented in order to establish the effective date of this warranty. Otherwise, the effective date will be deemed to be the date which is 30 days after the date of manufacture of the Equipment. The return of the Owner Registration Card is not a condition of the warranty. However, please complete, detach and return the Card so that we can contact you should any question arise which may affect your Equipment.
6. This warranty applies only: (a) while the Equipment remains at the site of original installation (except for Equipment designed for portable use); (b) to Equipment installed in Canada; and (c) if the Equipment is installed, maintained and operated in accordance with the manufacturer's written instructions accompanying the Equipment and in compliance with all applicable laws, regulations, codes and bylaws. This warranty does not cover damage caused by: (a) accident, abuse, negligence or misuse; (b) operation of the Equipment in a corrosive atmosphere containing chlorine, fluorine or any other damaging chemicals; (c) improper matching or combination of other products, equipment, parts accessories or components with the Equipment; (d) modification or alteration of the Equipment; (e) repair or service by unqualified or unauthorized persons; (f) failure to install or operate the Equipment or to provide proper maintenance or service according to the manufacturer's instructions; or (g) improper application or use of the Equipment; lightning, fluctuations in electrical power ;or (f) Acts of God, acts of war both declared and undeclared, acts of terrorism or use of the equipment in any unlawful application.
7. THE FOREGOING CONSTITUTES YOUR SOLE AND EXCLUSIVE REMEDY AND THE SOLE AND EXCLUSIVE LIABILITY AND OBLIGATION OF RANGER IN CONNECTION WITH THE EQUIPMENT. THIS WARRANTY IS IN SUBSTITUTION FOR AND EXCLUDES ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR ANY INTENDED OR PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES WILL RANGER BE LIABLE TO THE PURCHASER OF THE EQUIPMENT OR ANY OTHER PERSON FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGE OR LOSS, WHETHER ARISING OUT OF BREACH OF CONTRACT, BREACH OF WARRANTY OR TORT, AND WHETHER OR NOT RANGER KNEW OR OUGHT TO HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGE OR LOSS.
8. This warranty applies only to Equipment sold in Canada by RANGER and installed and used in Canada. This warranty is not transferable.
9. This warranty gives you specific legal rights, and you may have other rights which may vary from Province to Province. In the event that portions of this warranty may be struck down in your jurisdiction, this does not render the remaining portions of this warranty to be void.

Subject to change without notice.

RANGER
Heating & Air Conditioning Products Inc.

R.G.A Claim number must be assigned by Ranger.

To activate a claim complete R.G.A. Warranty Request form and follow steps outlined below.

A copy of valid warranty claim documents **MUST** accompany warranty part/unit, if part/unit is returned to Ranger without proper documentation shipment will be refused.

The customer is responsible for all shipping expenses. Ranger will not accept any collect shipments.

PARTS WARRANTY PROCESS:

1)Ranger Heating & Air Conditioning Products Inc. is notified of warranty & completed RGA form is submitted.

Please Submit to:
- warranty@rangerhvac.com
- stephanie@rangerhavc.com

2)When completed RGA form is received an RGA number will be issued. A quote for warranty part(s) will be created and sent to you if required.

3)If required, parts must be paid for before the warranty process can proceed.

4)After parts are paid for, new parts are packed and prepared for shipping or pick up by the customer.

At this time all paperwork will be prepared for the warranty part to be received & tested. If we do not receive warranty parts within 30 days of issuing the RGA# warranty will be voided, unless an otherwise agreed to timeline is approved by Ranger.

A credit will be issued as per invoice to you if parts have been approved under warranty parameters. If part is not approved – the returned part will be available for pick up.

EQUIPMENT WARRANTY PROCESS:

1)Ranger Heating & Air Conditioning Products Inc. is notified of warranty & completed RGA form is submitted.

Please Submit to:
- warranty@rangerhvac.com
- stephanie@rangerhavc.com

2)When the completed RGA form is received an RGA number will be issued. Ranger Heating & Air Conditioning Products Inc. (ryan@rangerhvac.com) is informed the so repair/ assessment can be scheduled.

3)When unit arrives at Ranger, assessment will be completed, all findings will be recorded and provided to you, included will be a Quote for any non-warranty parts/labour. Ranger will await instruction before proceeding with any repairs.

4)After repairs are completed (and Invoice has been paid) arrangements for P/U must be made ASAP & instructions are to be provided to Ranger.

Please Note: Ranger will only process warranty claims on Ranger products only. If your warranty is related to your furnace please contact the furnace manufacturer for warranty requests, unless you have installed a Dettson furnace in that case contact Ranger Heating & Air Conditioning Products Inc. for all warranty claims at stephanie@rangerhvac.com.

Warranty Policy

General Warranty

Dettson Industries Inc., subject to the limitations described in this Equipment Warranty Policy Certificate, warrants that each and every appliance product by Dettson Industries Inc. is, under normal operating conditions, free of defect in material and workmanship for a specific period of time from the date of original installation (as described in the "Summary of Warranty Programs" section below).

This warranty covers the appliance only and does not include labour costs, freight costs or other indirect expenses related to routine maintenance or the replacement of parts. If a part fails during the applicable warranty period, Dettson Industries Inc. will provide, at its sole discretion, a new or remanufactured part to replace the defective part at no charge. Alternatively, and at its sole discretion, Dettson Industries Inc. will allow a credit in the amount of the then factory price for a new equivalent part toward the retail purchase price of a new Dettson Industries Inc. product.

Summary of Warranty Programs

PRODUCT	PARTS (RESIDENTIAL/COMMERCIAL)	HEAT EXCHANGERS, TANKS AND COILS (RESIDENTIAL/COMMERCIAL)
Oil fired furnaces *		
- AMP, AMT series - RHB, RLB series	5 years / 1 year	20 years / 10 years
- AMP 3, AMT 3, AMT 4	1 year / 1 year	10 years / 5 years
Electric boilers		
- HYDRA	5 years / 1 year	10 years / 5 years
Electric furnaces / Air Handlers		
- SUP series (Modulating)	10 years / 1 year	N/A
- SUP series (Advantage & Comfort) - Nortron series - AHB, AHF, AHV (Duotec)	5 years / 1 year	N/A
Gas furnaces *		
- Series C15 to C120 (Chinook) -Chinook Compact CC15	10 years / 5 year	Limited Lifetime warranty / 10 years
Oil water heater		
- CMO-32, CMO-50 series	5 years / 1 year	5 years / 1 year
Alizé and Atmos Central Heat Pump		
- COND-xx & MHD-xx	10 years / 1 year	N/A
Hydronic Air handler		
- DCAH-36 & DCAH-55	5 years / 1 year	2 years / 1 year
Venting systems		
- SMH, VTK, IFV series	1 year / 1 year	N/A
Burners	5 years / 1 year	N/A
Cooling Coil	5 years / 1 year	N/A
Thermostats	5 years / 1 year	N/A
Smart Duct System®	10 years / 1 year	N/A
Zoning	5 years / 1 year	N/A

* Limited Warranty on Heat Exchanger or Tank

Dettson Industries Inc. warrants heat exchangers against defects in materials or workmanship. Dettson Industries Inc. will grant a credit in the amount of the list price for the replacement of the heat exchanger based on the following table:

Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Limited lifetime warranty	100%					90%			80%			70%		60%		50%		40%		30%		20%			10%
20 years warranty	100%			90%			80%			70%			60%			50%			40%			30%			20%			10%
10 years warranty	100%	90%		80%		70%		60%		50%		40%		30%		20%		10%							
5 years warranty	100%		80%		60%		40%		20%																

Limitations

This warranty does not cover defects or damages on equipment without serial number or whose serial number has been erased or modified.

A) Consumable Items: This warranty does not apply to fan belts, filters, oil nozzles or other materials which must be replaced in the course of routine maintenance.

B) Corrosive Atmosphere: The operation of a heat exchanger in the presence of corrosive elements such as acids, chlorine, fluorine or other damaging chemicals voids this warranty. The warranty will not be applicable for boilers if the heat exchanger is subject to corrosion produced by the presence of air or oxygen in water coming from new incoming water, inadequate design of the system or the use of plastic piping without oxygen barrier.

C) External Factors: This warranty does not apply to damages to the product caused by misuse, failure to provide proper maintenance, accidents, Acts of God, improper fuel or inadequate electrical supply. All electrical appliances installed in regions where electrical distribution networks cause power surges, such as Atlantic Provinces, must be equipped with a power surge protector.

D) Unauthorized Alteration: Unauthorized alteration or repair of the appliance affecting product reliability or performance voids this warranty.

E) Installation by a qualified person: The product must be installed by a qualified fitter in accordance with Dettson Industries Inc.'s installation instructions, applicable local and national codes, the industry standards and those of professional organizations such as the Heating, Refrigeration and Air Conditioning Institute of Canada and the Air Conditioning Contractors of America. Failure to do so voids this warranty.

F) Unauthorized Installation of Accessory Equipment: Dettson Industries Inc. authorizes the application of accessory equipment which will operate in conjunction with its products provided that the following conditions are met:
i.) The function or performance of the Dettson Industries Inc. appliance is not altered.
ii.) The accessory is installed in accordance with its manufacturer's installation instructions.
iii.) The environment in which the appliance is supposed to operate is not modified.
iv.) Furnaces cannot be installed with a one hundred per cent (100%) outdoors return air.

G) Lost or Stolen Products: This warranty does not apply to products reported as lost or stolen.

H) Original Installation Site: This warranty does not apply to products no longer at the site of original installation.

I) Improper Application: This warranty does not include damages caused by improper matching or misuse of the product or its components.

J) Routine Maintenance: The warranty is valid only if the instructions specified in the Installation and Operating Instructions are strictly observed. Failure to do so may void any and all warranties, at Dettson Industries Inc.'s discretion.

Consequential Damages

Dettson Industries Inc. shall not be responsible for any consequential damages caused by any defect in the product.

Exclusive Warranty

The warranty provided by Dettson Industries Inc. is exclusive; all other representations, warranties or conditions, expressed, implied or statutory, required by law or otherwise, are hereby excluded.

Beginning of the Warranty Period

If the original sales invoice cannot be provided to establish the date of original installation, it is determined that the warranty comes into effect ninety (90) days after the product was shipped from the manufacturing plant.

Replacement Parts Warranties

All replacement parts obtained directly from Dettson Industries Inc. and used for routine maintenance of Dettson Industries Inc. products are warranted for a period of twelve (12) months from the date of repair. Dettson Industries Inc. reserves the right to require proof of repair before granting any credit. Replacement parts are shipped at the expense of the consumer. Should we request that the defective parts or components be shipped back for further investigation, a return authorization number will be issued and return freight arrangements will be specified by Dettson Industries Inc.

Warranty Execution

Dettson Industries Inc. shall not be liable for any default or delay in execution of this warranty caused by any contingency beyond our control, including wars, government restrictions or restraints, strikes, fires, floods or short or reduced supplies of raw material.

Version française au verso.

Dettson Industries Inc., 3400, Industrial Boul., Sherbrooke, (Quebec) J1L 1V8

2023-07-13 X42016 Rev.Y

RANGER
Heating & Air Conditioning Products Inc.

Date:	R.G.A Number:	Authorized By:

R.G.A. / WARRANTY REQUEST

R.G.A Number must be obtained from Ranger Heating & Air Conditioning Products Inc. prior to email. Complete from and email to stephanie@rangerhvac.com. Warranty parts **must** be received by Ranger within **30 days** from RGA# issue date, if "defective" part is not received by Ranger **warranty claim will be voided**. ***Customer is to assume all in & outbound shipping costs relating to warranty claims***.

Customer:		Unit Model #:	
Original P.O #:		Unit Serial #:	
Ranger Invoice Number:		Date of Failure:	
Date Purchased:		Part Model #:	
Date Installed:		Part Serial #:	
Site:		Technicians Name:	

REASON FOR RETURN

☐ Defective ☐ Damaged ☐ Other (Specify Below)

_____
_____
_____
_____

NATURE OF DEFECT

☐ Will Not Start	☐ Overheats	☐ Leaks	☐ Stays Open
☐ Starts & Stops	☐ Grounded	☐ Non-Adjustable	☐ Stays Closed
☐ Will Not Pump	☐ Blows Fuses	☐ Noisy	☐ Burnout

Provide Details of Defect: _____
_____
_____

Technicians Comments:_____
_____
_____

Claim Submitted By:_____ Phone Number:_____ Date:_____

RANGER HEATING & AIR CONDITIONING PRODUCTS INC.
401 DISSETTE STREET UNITS 4, 5 & 6 BRADFORD, ONTARIO L3Z 3G9
T: 905.778.8600 F: 1.855.399.4378