

Tranquility Aluminum Tube Cased Coil (TAC)



Cased Coil for
Tranquility Split Series

Installation, Operation &
Maintenance Instructions

97B0100N01

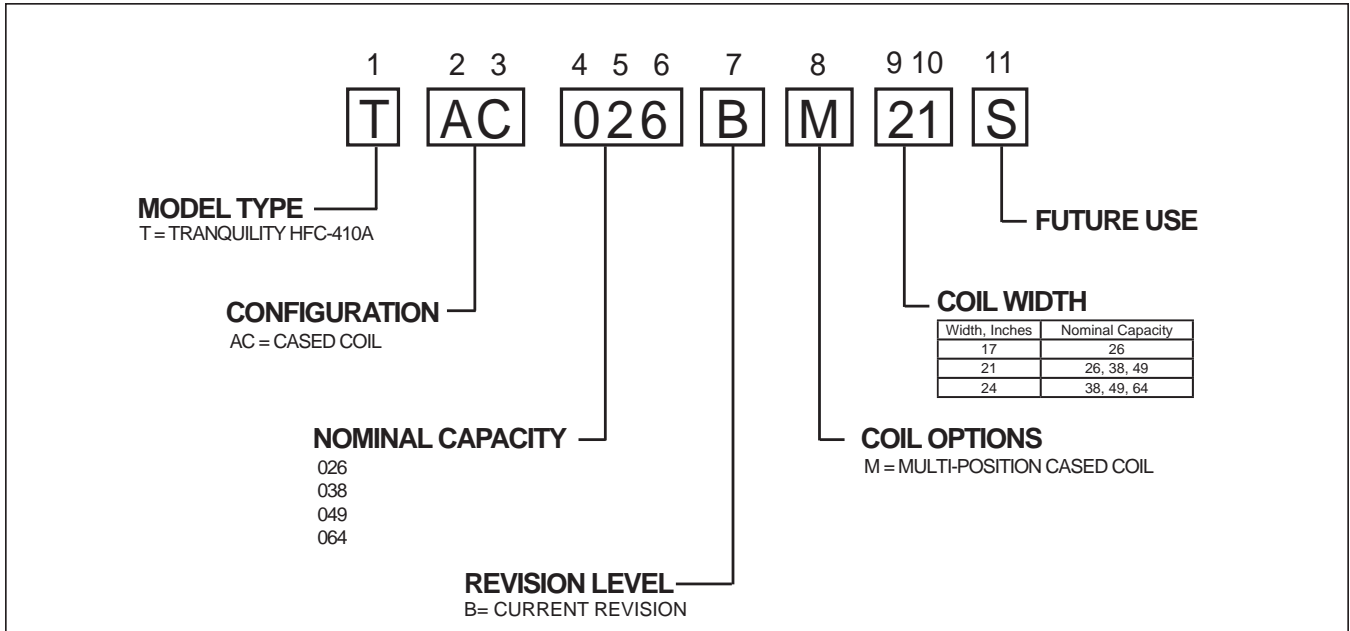
Rev.: August 21, 2108

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Model Nomenclature



General Information

CASED COIL DESCRIPTION

ClimateMaster Tranquility Cased Coils are designed for use with ClimateMaster indoor/outdoor split units and are available for vertical upflow or downflow, and horizontal left or horizontal right airflow.

- Constructed of aluminum fins bonded to internally grooved aluminum tubing.
- Coils are tested at the factory with an extensive refrigerant leak check.
- Coils have sweat refrigerant connections.
- Ideally suited for new installations or add on air conditioning.
- Feature two sets of 3/4" FPT condensate drain connections for ease of connection.
- Coils are AHRI certified for system application with ClimateMaster indoor and outdoor split units.
- Condensate drain pan is constructed of high grade, heat resistant, corrosion free thermal-set material.
- Bi-Directional airflow eliminates the need to switch any internal components from horizontal left to right.
- Unique drain pan design maximizes application flexibility and condensate removal.

Inspection

Upon receipt of the equipment, carefully check the shipment against the bill of lading. Make sure all units have been received. Inspect the packaging of each unit, and inspect each unit for damage. Insure that the carrier makes proper notation of any shortages or damage on all copies of the freight bill and completes a common carrier inspection report. Concealed damage not discovered during unloading must be reported to the carrier within 15 days of receipt of shipment. If not filed within 15 days, the freight company can deny the claim without recourse. Note: It is the responsibility of the purchaser to file all necessary claims with the carrier. Notify your equipment supplier of all damage within fifteen (15) days of shipment.

Storage

Equipment should be stored in its original packaging in a clean, dry area. Store units in an upright position at all times. Stack units a maximum of 3 units high.

Unit Protection

Cover units on the job site with either the original packaging or an equivalent protective covering. Cap the open ends of pipes stored on the job site. In areas where painting, plastering, and/or spraying has not been completed, all due precautions must be taken to avoid physical damage to the units and contamination by foreign material. Physical damage and contamination may prevent proper start-up and may result in costly equipment clean-up.

Examine all pipes, fittings, and valves before installing any of the system components. Remove any dirt or debris found in or on these components.

Pre-Installation

Installation, Operation, and Maintenance instructions are provided with each unit. Horizontal equipment is designed for installation above false ceiling or in a ceiling plenum. Other unit configurations are typically installed in a mechanical room. The installation site chosen should include adequate service clearance around the unit. Before unit start-up, read all manuals and become familiar with the unit and its operation. Thoroughly check the system before operation.

Prepare units for installation as follows:

1. Compare the data on the unit nameplate with ordering and shipping information to verify that the correct unit has been shipped.
2. Keep the cabinet covered with the original packaging until installation is complete and all plastering, painting, etc. is finished.
3. Verify refrigerant tubing is free of kinks or dents and that it does not touch other unit components.

⚠ WARNING! ⚠

WARNING! These instructions are intended as an aid to qualified licensed 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 property damage, personal injury or death.

⚠ CAUTION! ⚠

CAUTION! DO NOT store or install units in corrosive environments or in locations subject to temperature or humidity extremes (e.g., attics, garages, rooftops, etc.). Corrosive conditions and high temperature or humidity can significantly reduce performance, reliability, and service life.

⚠ CAUTION! ⚠

CAUTION! CUT HAZARD - Failure to follow this caution may result in personal injury. Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing, safety glasses and gloves when handling parts and servicing.

Safety

The installation of water source heat pump units and all associated components, parts and accessories which make up the installation shall be in accordance with the regulations of ALL authorities having jurisdiction and MUST conform to all applicable codes. It is the responsibility of the installing contractor to determine and comply with ALL applicable codes and regulations.

Replacement Parts

Any replacement part must be the same as or an approved alternate to the original part supplied. The manufacturer will not be responsible for replacement parts not designed to physically fit or operate within the design parameters the original parts were selected for. When ordering replacement parts, it is necessary to order by part number and include the complete model number and serial number from the coil rating plate. (Parts are available through the local distributor.)

Safety

Warnings, cautions and notices appear throughout this manual. Read these items carefully before attempting any installation, service, or troubleshooting of the equipment.

DANGER: Indicates an immediate hazardous situation, which if not avoided will result in death or serious injury. DANGER labels on unit access panels must be observed.

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

CAUTION: Indicates a potentially hazardous situation or an unsafe practice, which if not avoided could result in minor or moderate injury or product or property damage.

NOTICE: Notification of installation, operation or maintenance information, which is important, but which is not hazard-related.

⚠ WARNING! ⚠

WARNING! The EarthPure® Application and Service Manual should be read and understood before attempting to service refrigerant circuits with HFC-410A.

⚠ WARNING! ⚠

WARNING! To avoid the release of refrigerant into the atmosphere, the refrigerant circuit of this unit must be serviced only by technicians who meet local, state, and federal proficiency requirements.

⚠ CAUTION! ⚠

CAUTION! To avoid equipment damage, DO NOT use these units as a source of heating or cooling during the construction process. The mechanical components and filters will quickly become clogged with construction dirt and debris, which may cause system damage.

⚠ WARNING! ⚠

WARNING! PROPOSITION 65: This appliance contains fiberglass insulation. Respirable particles of fiberglass are known to the State of California to cause cancer. All manufacturer products meet current Federal OSHA Guidelines for safety. California Proposition 65 warnings are required for certain products, which are not covered by the OSHA standards. California's Proposition 65 requires warnings for products sold in California that contain or produce any of over 600 listed chemicals known to the State of California to cause cancer or birth defects such as fiberglass insulation, lead in brass, and combustion products from natural gas. All "new equipment" shipped for sale in California will have labels stating that the product contains and/or produces Proposition 65 chemicals. Although we have not changed our processes, having the same label on all our products facilitates manufacturing and shipping. We cannot always know "when, or if" products will be sold in the California market. You may receive inquiries from customers about chemicals found in, or produced by, some of our heating and air-conditioning equipment, or found in natural gas used with some of our products. Listed below are those chemicals and substances commonly associated with similar equipment in our industry and other manufacturers.

- GlassWool (Fiberglass) Insulation
- Carbon Monoxide (CO).
- Formaldehyde
- Benzene

More details are available at the websites for OSHA (Occupational Safety and Health Administration), at www.osha.gov and the State of California's OEHHA (Office of Environmental Health Hazard Assessment), at www.oehha.org. Consumer education is important since the chemicals and substances on the list are found in our daily lives. Most consumers are aware that products present safety and health risks, when improperly used, handled and maintained.

⚠ CAUTION! ⚠

CAUTION! It is recommended that an auxiliary secondary drain pan be installed under units containing evaporator coils that are located in any area of a structure where damage to the building or building contents may occur as a result of an overflow of the coil drain pan or a stoppage in the primary condensate drain piping.

The following warning complies with State of California law, Proposition 65.

⚠ WARNING! ⚠

WARNING! This product can expose you to chemicals including Carbon Black, which is known to the State of California to cause cancer and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Specifications

Table 1: Coil Specifications/Airflow Pressure Drop

| Wet Coil Static Pressure Drop (Inches W.C.) - Coil Only | | | | | | | | | | | | | | | | |
|---|---|-----------------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Coil Model | Face Area Ft ² (m ²) | Case Width (cm) | 600 CFM | 700 CFM | 800 CFM | 900 CFM | 1000 CFM | 1100 CFM | 1200 CFM | 1300 CFM | 1400 CFM | 1500 CFM | 1600 CFM | 1700 CFM | 1800 CFM | 1900 CFM |
| TAC026BM17S | 4.56 (0.42) | 17.5 (44.5) | 0.120 | 0.157 | 0.199 | 0.246 | | | | | | | | | | |
| TAC026BM21S | 5.70 (0.53) | 21 (53.3) | 0.113 | 0.145 | 0.181 | 0.222 | | | | | | | | | | |
| TAC038BM21S | 8.55 (0.79) | | 0.062 | 0.086 | 0.112 | 0.140 | 0.170 | 0.202 | 0.236 | | | | | | | |
| TAC038BM24S | 8.55 (0.79) | | 0.062 | 0.086 | 0.112 | 0.140 | 0.170 | 0.202 | 0.202 | 0.272 | 0.309 | | | | | |
| TAC049BM21S | 8.55 (0.79) | | 0.062 | 0.086 | 0.112 | 0.140 | 0.170 | 0.202 | 0.202 | 0.272 | 0.309 | 0.349 | 0.391 | 0.434 | 0.480 | 0.527 |
| TAC049BM24S | 8.55 (0.79) | 24.5 (62.2) | 0.062 | 0.086 | 0.112 | 0.140 | 0.170 | 0.202 | 0.202 | 0.272 | 0.309 | 0.349 | 0.391 | 0.434 | 0.480 | |
| TAC064BM24S | 9.98 (0.93) | | 0.036 | 0.050 | 0.065 | 0.081 | 0.098 | 0.117 | 0.137 | 0.158 | 0.180 | 0.203 | 0.228 | 0.254 | 0.281 | |

NOTE: Represents Coil-Only Airflow Ratings

Dimensions

Figure 1: Dimensions

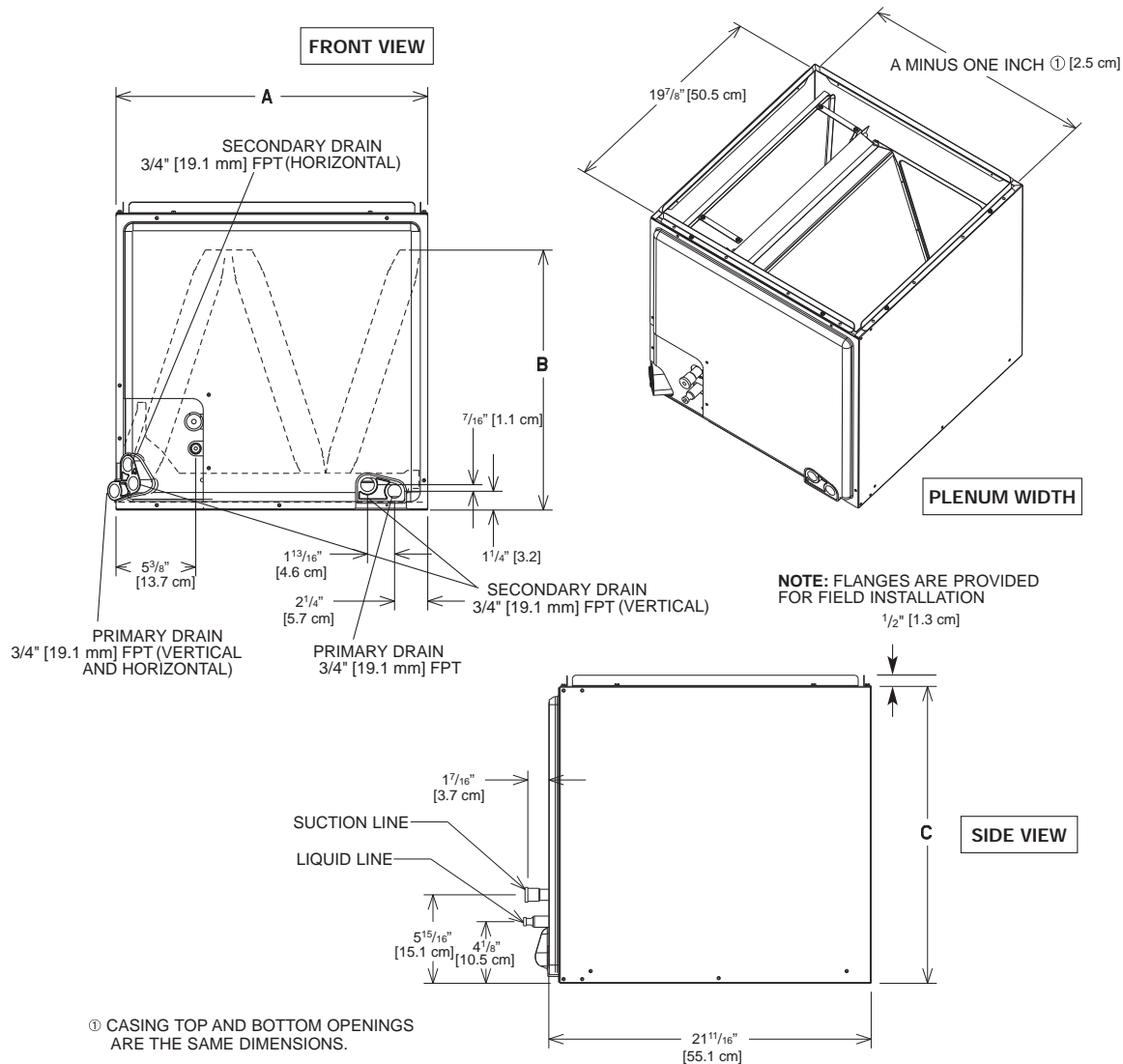


Table 2: Coil Dimensions and Weights

| Model | 026BM17 | 026BM21 | 038BM21 | 038BM24 | 049BM21 | 049BM24 | 064BM24 |
|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Connections - Sweat | | | | | | | |
| Liquid I.D. - in | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 |
| Suction I.D. - in | 3/4 | 3/4 | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 |
| Cased Coil Dimensions | | | | | | | |
| A - Width - in [cm] | 17 1/2 [44.5] | 21 [53.3] | 21[53.3] | 24 1/2 [62.2] | 21 [53.3] | 24 1/2 [62.2] | 24 1/2 [62.2] |
| B - Coil Height - in [cm] | 14 1/2 [36.8] | 17 1/2 [44.5] | 25 7/8 [65.7] | 25 3/8 [64.5] | 25 7/8 [65.7] | 25 3/8 [64.5] | 30 [76.2] |
| C - Height - in [cm] | 20 [50.8] | 20 [50.8] | 28 [71.1] | 32 [81.3] | 28 [71.1] | 32 [81.3] | 32 [81.3] |
| Weight | | | | | | | |
| Coil Weight lbs. [kg] | 43 [20] | 49 [22] | 71 [32] | 83 [38] | 71 [32] | 83 [38] | 100 [45] |
| Shipping Weight lbs. [kg] | 48 [22] | 54 [24] | 78 [35] | 93 [42] | 78 [35] | 93 [42] | 110 [50] |

Installation

The Tranquility Cased Coils are designed for upflow, horizontal, and downflow applications. The coils have a dry nitrogen holding charge and are equipped with brazing stub refrigerant connections for easy installation.

The installer should read the installation manual supplied with the compressor section for refrigerant line set sizing, connection procedure, and other important information pertaining to the system installation.

The installer should:

1. Make sure that the air delivery of the furnace is adequate enough to handle the recommended CFM and allow for pressure drop across the air coil, filter, and duct work.
2. Where precise forming of refrigerant lines is required, a copper tubing bender is recommended for small diameter tubing. One should avoid sharp bends and contact of the refrigerant lines with metal surfaces.
3. Refrigerant lines should be protected where they pass through the raw edges of holes.
4. Coil must be level or slightly pitched toward drain for proper condensate drainage.
5. Seal the openings into the cabinet to reduce risk of condensate blow off from the coil.

Cased Coil Installation

⚠ WARNING! ⚠

WARNING! Electric furnaces may be connected to more than one supply circuit.

The installer should:

1. Disconnect all electrical power to the furnace.
2. For the install of an cased coil, it might be necessary to fabricate a plate to adapt the coil's cabinet to the furnace or air handler air discharge opening.
3. Install the cabinet and level or slightly pitch it as needed to allow proper condensate drainage.
4. Seal the enclosure as required minimizing air leakage.
5. Connect the refrigerant lines as outlined in the Refrigerant Lines section.

Installation

Applications

Tranquility Cased coils can be applied in upflow, downflow, horizontal right and horizontal left applications without modifications. For horizontal applications, installation of an auxiliary/secondary drain pan is required. For coils that are two sizes larger than the furnace, for example, a 21" [53.3 cm] wide coil on a 14" [35.6 cm] furnace, a tapered adaptor with a minimum height of 6" [15.2 cm] is required to evenly distribute airflow. See Figure 3. For coils that are one size larger than the furnace; for example a 21" [53.3 cm] wide coil on a 17 1/2" [44.5 cm] furnace, seal the gap between the two units with sheet metal. See figure 4.

⚠ CAUTION! ⚠

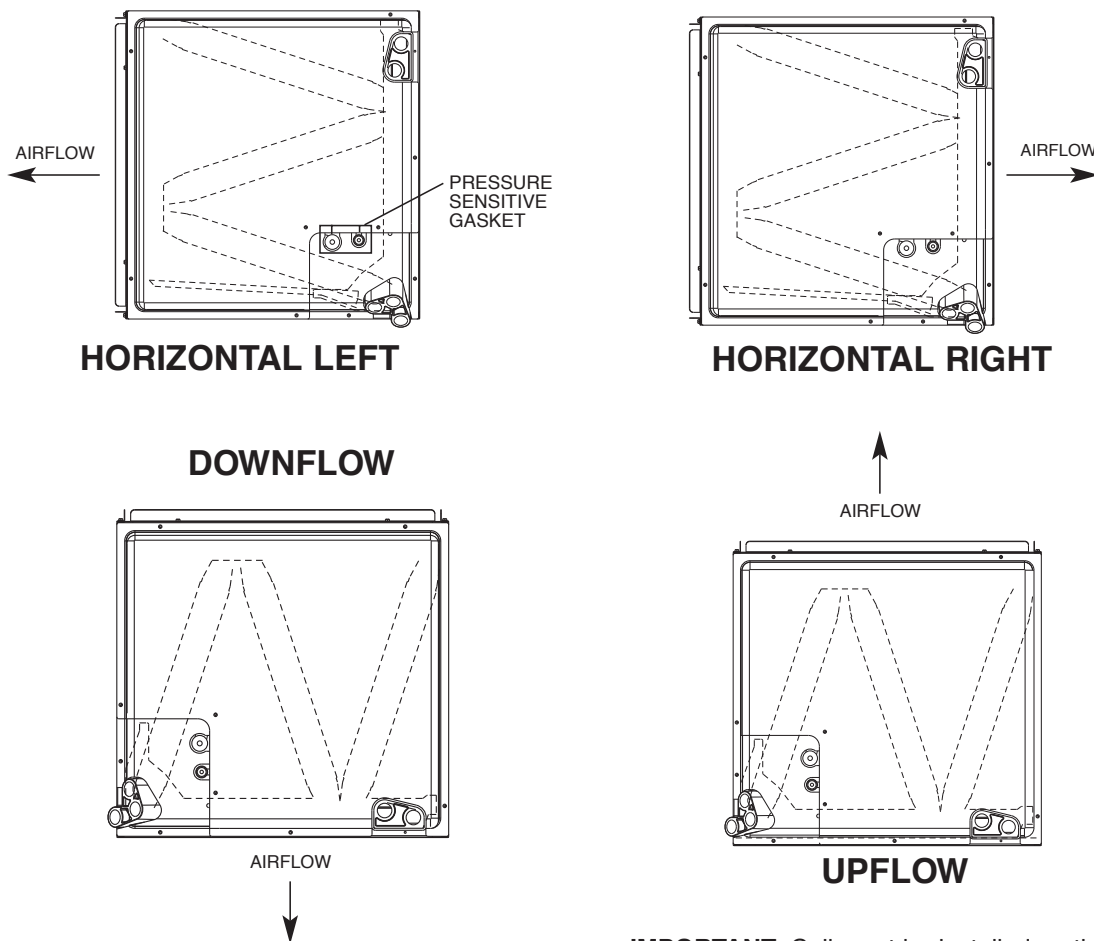
CAUTION! For horizontal applications, the horizontal drain pan must be located under the indoor coil. Failure to place the pan under the coil can result in property damage.

Table 3: Coil Application

| Coil Model | Furnace Width [cm] | |
|------------|--------------------|---------------|
| | Oil* | Gas |
| TAC-026 | 21 [53.3] | 17 1/2 [44.5] |
| | | 14 [35.6] |
| TAC-026 | 21 [53.3] | 21 [53.3] |
| | | 17 1/2 [44.5] |
| TAC-038 | 24 1/2 [62.2] | 24 1/2 [62.2] |
| TAC-049 | | |
| TAC-064 | | 21 [53.3] |

*Due to the proximity of the drain pan to the high temperature oil furnace drum, horizontal left application is NOT permitted on oil furnaces.

Figure 2: Coil Installation Options



IMPORTANT: Coil must be installed on the supply airflow side of a gas or oil furnace.

Installation

Figure 3: Installation of coil matched with a furnace two sizes smaller

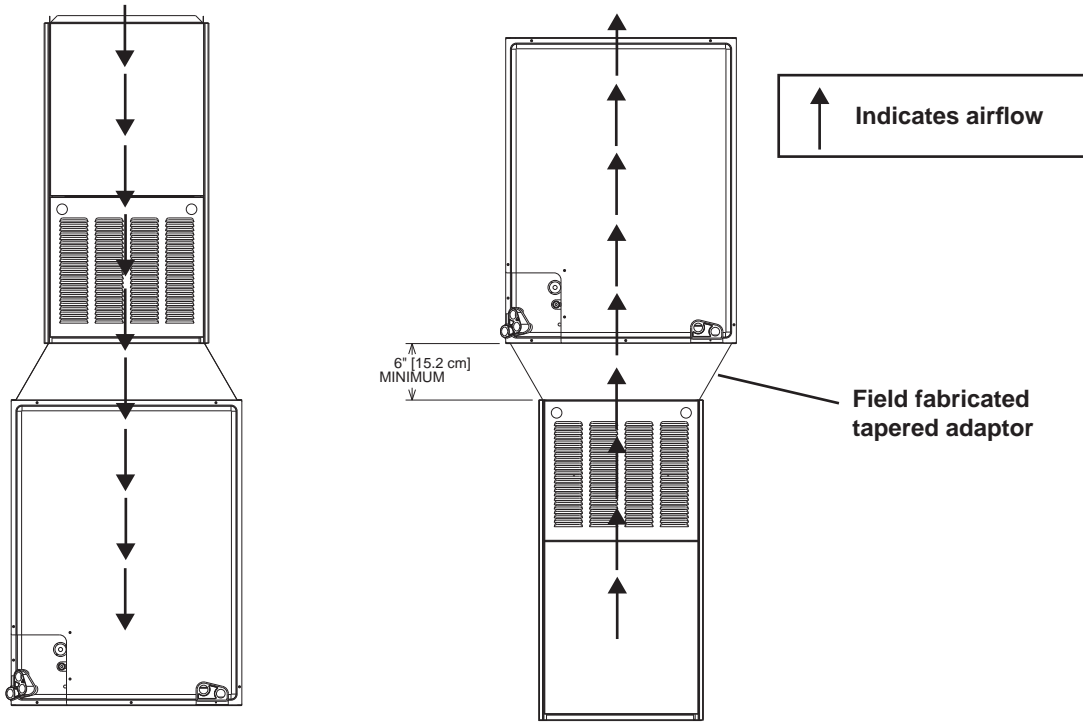
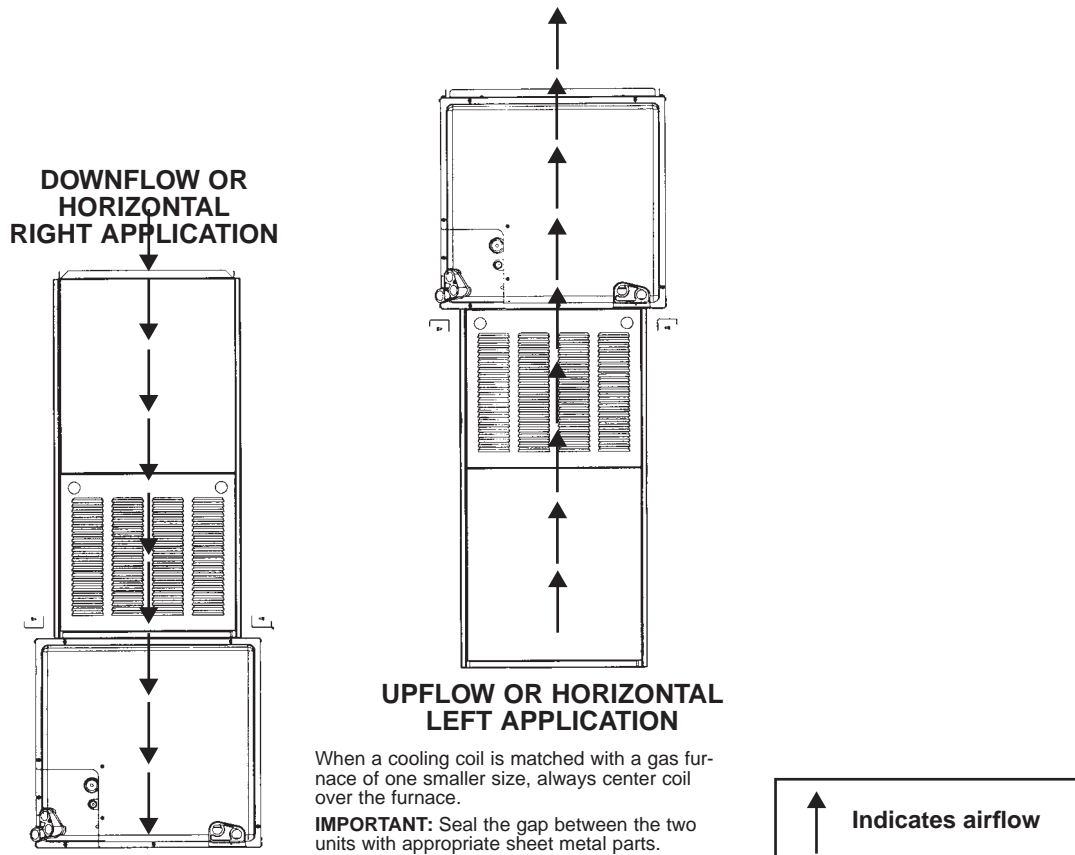


Figure 4: Installation of coil matched with a furnace of smaller size



Installation

⚠ CAUTION! ⚠

CAUTION! HFC-410A systems operate at higher pressures than R-22 systems. Be certain that service equipment (gauges, tools, etc.) is rated for HFC-410A. Some R-22 service equipment may not be acceptable.

⚠ CAUTION! ⚠

CAUTION! Installation of a factory supplied liquid line bi-directional filter drier is required. Never install a suction line filter in the liquid line.

Line Set Installation

Figure 9 illustrates a typical installation of an air handler or cased coil matched to an indoor compressor section. Lineset lengths should be kept to a minimum and should always be installed with care to avoid kinking. Line sets are limited to 60 feet [18 meters] in length (one way). Line sets over 60 feet [18 meters] void the equipment warranty. If the line set is kinked or distorted, and it cannot be formed back into its original shape, the damaged portion of the line should be replaced. A restricted line set will effect the performance of the system.

ClimateMaster Split units are shipped with a filter drier (loose) inside the cabinet that must be installed in the liquid line at the line set.

All brazing should be performed using nitrogen circulating at 2-3 psi [13.8-20.7 kPa] to prevent oxidation inside the tubing. All linesets should be insulated with a minimum of 1/2" [13mm] thick closed cell insulation. All insulation tubing should be sealed using a UV resistant paint or covering to prevent deterioration from sunlight.

See compressor section IOM for refrigerant charge information.

When passing refrigerant lines through a wall, seal opening with silicon-based caulk. Avoid direct contact with water pipes, duct work, floor joists, wall studs, floors or other structural components that could transmit compressor vibration. Do not suspend refrigerant tubing from joists with rigid straps. Do not attach line set to the wall. When necessary, use hanger straps with isolation sleeves to minimize transmission of line set vibration to the structure.

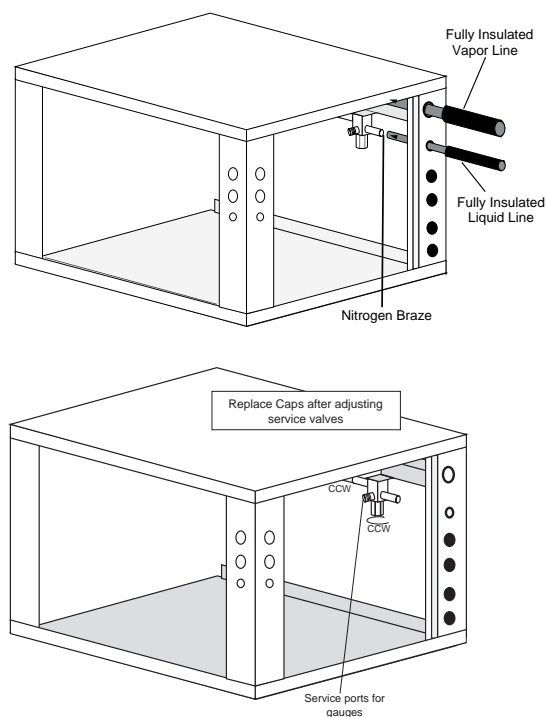
Installing the Lineset at the Compressor Section

Braze the line set to the service valve stubs as shown in Figure 5. Nitrogen should be circulated through the system at 2-3 psi [13.8-20.7 kPa] to prevent oxidation contamination. Use a low silver phos-copper braze alloy on all brazed connections. **Compressor section is shipped with a factory charge.** Therefore, service valves should not be opened until the line set has been leak tested, purged and evacuated.

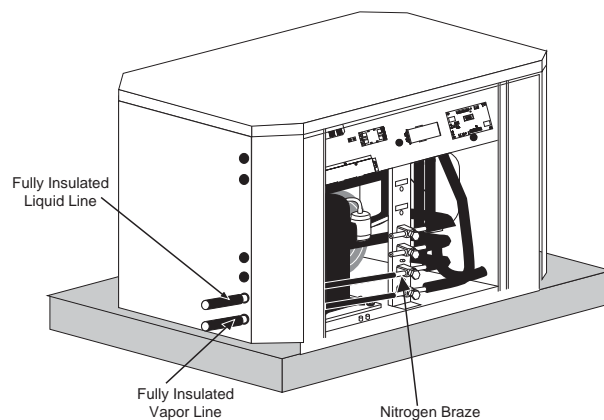
Installing the Indoor Coil and Lineset

Figure 6 shows the installation of the lineset and TXV to a typical indoor coil. An indoor coil or air handler (fan coil) with a TXV is required. Fasten the copper line set to the coil. Nitrogen should be circulated through the system at 2-3 psi [13.8-20.7 kPa] to prevent oxidation inside the refrigerant tubing. Use a low silver phos-copper braze alloy on all brazed connections.

Figure 5: Braze Instructions



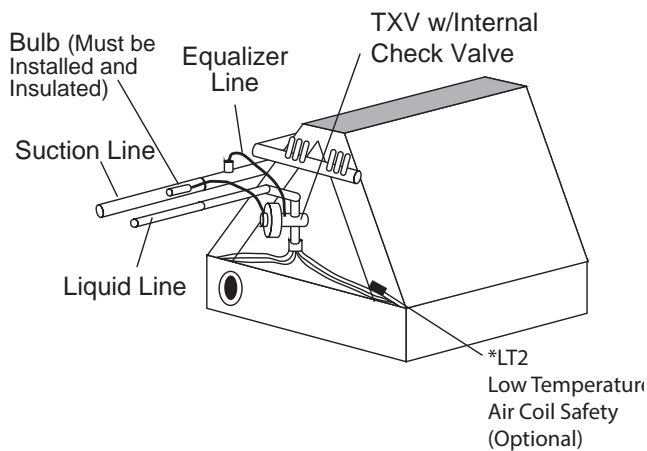
TES Compression Section



TEP Compression Section

Installation

Figure 6: Air Coil Connection



Sensing Bulb

IMPORTANT: DO NOT perform any brazing with the TXV bulb attached to any line. After brazing operations have been completed, clamp the TXV bulb securely on the suction line at the 10 to 2 o'clock position with the strap provided in the parts bag. Insulate the TXV sensing bulb and suction line with the provided pressure sensitive insulation and secure with provided wire ties.

IMPORTANT: TXV sensing bulb should be located on a horizontal section of copper suction line, just outside of coil box. The copper sensing bulb must never be placed on any aluminum tube as this will result in galvanic corrosion and eventual failure of the aluminum tube.

Add-On Heat Pump Applications

The indoor coil should be located on the supply side of the furnace to avoid condensation damage to the furnace heat exchanger for add-on heat pump applications. A high temperature limit switch should be installed as shown in Figure 9 just upstream of the coil to de-energize the compressor any time the furnace is energized to avoid blowing hot air directly into the coil, elevating refrigerant pressures during operation. The heat pump will trip out on high pressure lockout without some method of disengaging the compressor during furnace operation. Alternatively, some thermostats with "dual fuel" mode will automatically de-energize the compressor when second stage (backup) heat is required.

Air Coil

To obtain maximum performance of a newly manufactured air coil it should be cleaned before start-up. A 10% solution of dishwasher detergent and water is recommended for both sides of the coil. A thorough water rinse should follow.

*An LT2 (low temperature air coil protection) sensor is available for field installation. Order sensor kit number S17S0031N12.

Evacuation

LEAK TESTING - The refrigeration line set must be pressurized and checked for leaks before evacuating and charging the unit. To pressurize the line set, attach refrigerant gauges to the service ports and add an inert gas (nitrogen or dry carbon dioxide) until pressure reaches 60-90 psig [413-620 kPa]. Never use oxygen or acetylene to pressure test. Use a good quality bubble solution to detect leaks on all connections made in the field. Check the service valve ports and stem for leaks. If a leak is found, repair it and repeat the above steps. For safety reasons do not pressurize system above 150 psig [1034 kPa]. System is now ready for evacuation and charging.

Condensate Drain Tubing

Consult local codes or ordinances for specific requirements.

IMPORTANT: When making drain fitting connections to the drain pan, use a thin layer of Teflon paste, silicone or Teflon tape and install hand tight.

IMPORTANT: When making drain fitting connections to drain pan, do not overtighten. Overtightening fittings can split pipe connections on the drain pan.

- Install drain lines so they do not block service access to front of the unit. Minimum clearance of 24 inches [61 cm] is recommended for filter, coil or blower removal and service access.
- Make sure unit is level or pitched slightly toward primary drain connection so that water will drain completely from the pan. (See Figure 7.)
- Do not reduce drain line size less than connection size provided on condensate drain pan.
- All drain lines must be pitched downward away from the unit a minimum of 1/8" per foot [11 mm per m] of line to ensure proper drainage.
- Do not connect condensate drain line to a closed or open sewer pipe. Run condensate to an open drain or outdoors.
- The drain line should be insulated where necessary to prevent sweating and damage due to condensate forming on the outside surface of the line.

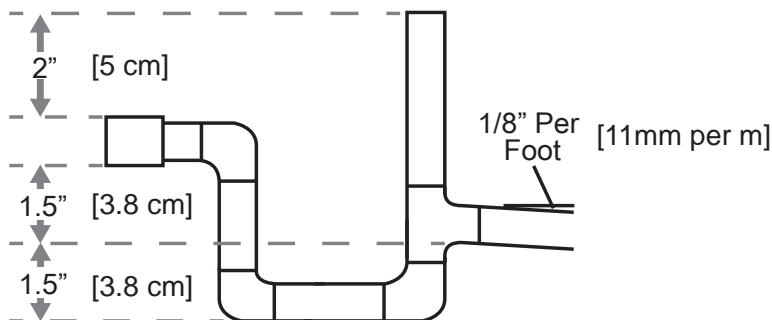
Installation

- Make provisions for disconnecting and cleaning of the primary drain line should it become necessary. Install condensate trap at each unit with the top of the trap positioned below the unit condensate drain connection as shown in Figure 7. Design the depth of the trap (water-seal) based upon the amount of ESP capability of the blower (where 2 inches [51mm] of ESP capability requires 2 inches [51mm] of trap depth). As a general rule, 1-1/2 inch [38mm] trap depth is the minimum.
- Always vent the condensate line when dirt or air can collect in the line or a long horizontal drain line is required. Also vent when large units are working against higher external static pressure than other units connected to the same condensate main since this may cause poor drainage for all units on the line. **WHEN A VENT IS INSTALLED IN THE DRAIN LINE, IT MUST BE LOCATED AFTER THE TRAP IN THE DIRECTION OF THE CONDENSATE FLOW.**
- Auxiliary drain line should be run to a place where it will be noticeable if it becomes operational. Occupant should be warned that a problem exists if water should begin running from the auxiliary drain line.
- Plug the unused drain connection with the plugs provided in the parts bag, using a thin layer of Teflon paste, silicone or Teflon tape to form a water tight seal.
- Test condensate drain pan and drain line after installation is complete. Pour water into drain pan, enough to fill drain trap and line. Check to make sure drain pan is draining completely, no leaks are found in drain line fittings, and water is draining from the termination of the primary drain line.

⚠ CAUTION! ⚠

CAUTION! It is recommended that an auxiliary/secondary drain pan be installed under units containing evaporator coils that are located in any area of a structure where damage to the building or building contents may occur as a result of an overflow of the coil drain pan or a stoppage in the primary condensate drain piping.

Figure 7: Condensate drain trap/vent

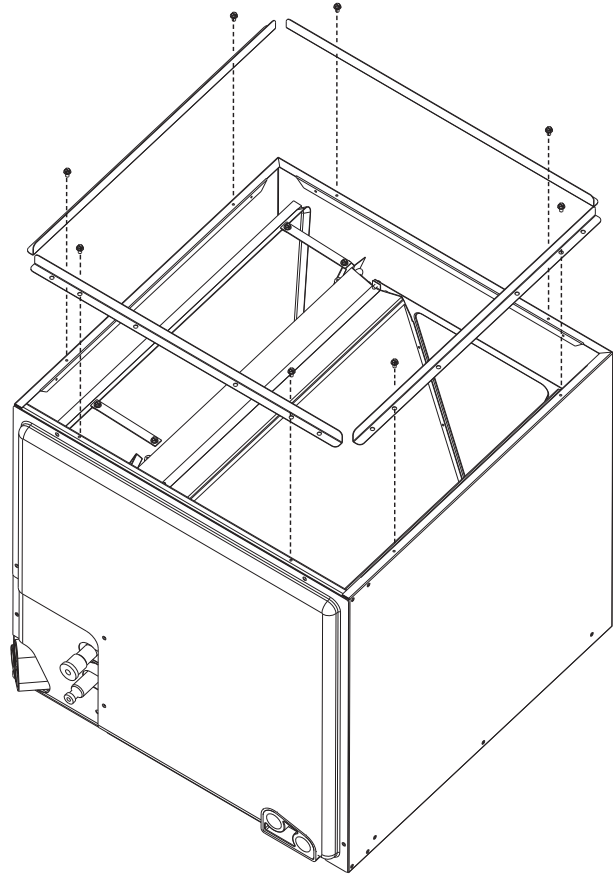


**UNIT MUST BE LEVEL OR SLIGHTLY
PITCHED TOWARD DRAIN CONNECTION**

Duct Flanges

Field-installed duct flanges (4 pieces) are shipped with units. Install duct flanges as needed on top or bottom of the coil casing. (See Figure 8.)

Figure 8: Field-installed duct flanges

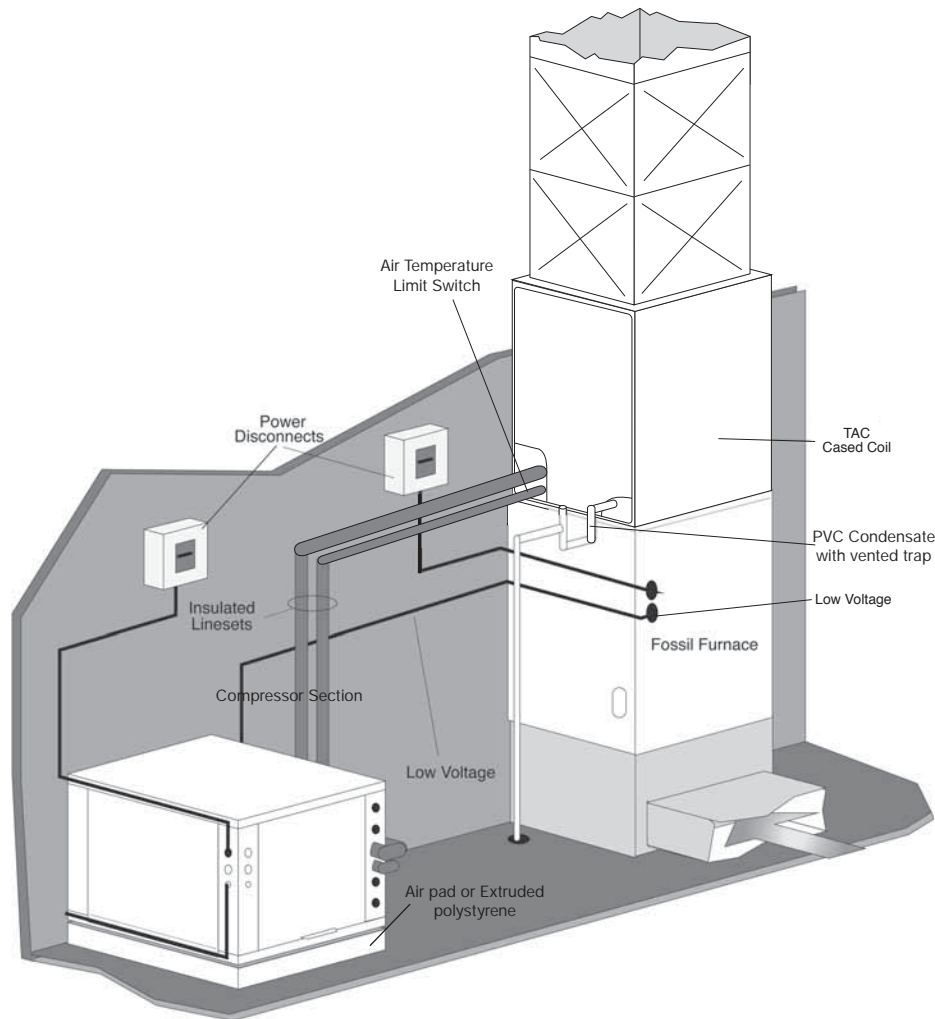


Charging the System

See Compressor Section IOM for charging information.

Installation

Figure 9: Typical Split/Add-on Coil Fossil Fuel Furnace Installation



MAINTENANCE

⚠ WARNING! ⚠

WARNING! These instructions are intended as an aid to qualified licensed 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 property damage, personal injury or death.

For continuing high performance and to minimize possible equipment failure, it is essential that annual maintenance be performed on this equipment. Consult your local dealer as to the availability of a maintenance contract.

Air Filter

Check the system filter every ninety days or as often as found to be necessary and if obstructed, clean or replace at once. **IMPORTANT:** Do not operate the system without a filter in place.

Indoor Coil - Drain Pipe - Drain Line

Inspect the indoor coil once each year for cleanliness and clean as necessary. In some cases, it may be necessary to remove the filter and check the return side of the coil with a mirror and flashlight.

IMPORTANT: Do not use caustic household drain cleaners or bleach in the condensate pan or near the indoor coil. Drain cleaners will quickly damage the indoor coil.

Warranty



CLIMATE MASTER, INC. LIMITED EXPRESS WARRANTY/LIMITATION OF REMEDIES AND LIABILITY FOR RESIDENTIAL CLASS PRODUCTS WITH LABOR ALLOWANCE

It is expressly understood that unless a statement is specifically identified as a warranty, statements made by Climate Master, Inc. a Delaware corporation, ("CM") or its representatives, relating to CM's products, whether oral, written or contained in any sales literature, catalog or agreement, are not express warranties and do not form a part of the basis of the bargain, but are merely CM's opinion or commendation of CM's products. **EXCEPT AS SPECIFICALLY SET FORTH HEREIN, THERE IS NO EXPRESS WARRANTY AS TO ANY OF CM'S PRODUCTS. CM MAKES NO WARRANTY AGAINST LATENT DEFECTS. CM MAKES NO WARRANTY OF MERCHANTABILITY OF THE GOODS OR OF THE FITNESS OF THE GOODS FOR ANY PARTICULAR PURPOSE.**

GRANT OF LIMITED EXPRESS WARRANTY

CM warrants its Residential Class products, purchased and retained in the United States of America and Canada, to be free from defects in material and workmanship under normal use and maintenance as follows: (1) Air conditioning, heating and/or heat pump units built or sold by CM ("CM Units"), for ten (10) years from the Warranty Inception Date (as defined below); (2) Thermostats, auxiliary electric heaters and geothermal pumping modules built or sold by CM, when installed with CM Units, for ten (10) years from the Warranty Inception Date (as defined below); and (3) Other accessories and parts built or sold by CM, when installed with CM Units, for one (1) year from the date of shipment from CM. The "Warranty Inception Date" shall be the date of original unit installation, or six (6) months from date of unit shipment from CM, whichever comes first.

To make a claim under this warranty, parts must be returned to CM in Oklahoma City, Oklahoma, freight prepaid, no later than ninety (90) days after the date of the failure of the part; if CM determines the part to be defective and within CM's Limited Express Warranty, CM shall, when such part has been either replaced or repaired, return such to a factory recognized distributor, dealer or service organization, F.O.B. CM, Oklahoma City, Oklahoma, freight prepaid. The warranty on any part repaired or replaced under warranty expires at the end of the original warranty period.

This Limited Express Warranty shall cover the labor incurred by CM authorized service personnel in connection with the installation of a new or repaired warranty part that is covered by this Limited Express Warranty only to the extent specifically set forth in the then existing labor allowance schedule provided by CM's Warranty Department and only as follows: (1) CM Units for five (5) years from the Warranty Inception Date; (2) Thermostats, auxiliary electric heaters and geothermal pumping modules built or sold by CM, when installed with CM Units, for five (5) years from the Warranty Inception Date; Actual Labor costs are not covered by this Limited Express Warranty to the extent they exceed the amount allowed under said allowance schedule, they are not specifically provided for in said allowance schedule, they are not the result of work performed by CM authorized service personnel, they are incurred in connection with a part not covered by this Limited Express Warranty, or they are incurred more than the time periods set forth in this paragraph after the Warranty Inception Date.

This warranty does not cover and does not apply to: (1) Air filters, fuses, refrigerant, fluids, oil; (2) Products relocated after initial installation; (3) Any portion or component of any system that is not supplied by CM, regardless of the cause of the failure of such portion or component; (4) Products on which the unit identification tags or labels have been removed or detached; (5) Products on which payment to CM, or to the owner's seller or installing contractor, is in default; (6) Products subjected to improper or inadequate installation, maintenance, repair, wiring or voltage conditions; (7) Products subjected to accident, misuse, negligence, abuse, fire, flood, lightning, unauthorized alteration, misapplication, contamination or corrosive air or liquid supply, operation at abnormal air or liquid temperatures or flow rates, or opening of the refrigerant circuit by unqualified personnel; (8) Mold, fungus or bacteria damage; (9) Corrosion or abrasion of the product; (10) Products supplied by others; (11) Products which have been operated in a manner contrary to CM's printed instructions; (12) Products which have insufficient performance as a result of improper system design or improper application, installation, or use of CM's products; or (13) Electricity or field costs, or any increases or unretained savings in same, for any reason whatsoever.

This Limited Express Warranty provides the limited labor allowance coverage as set forth above. Otherwise, CM is not responsible for: (1) The costs of any fluids, refrigerant or system components supplied by others, or associated labor to repair or replace the same, which is incurred as a result of a defective part covered by CM's Limited Express Warranty; (2) The costs of labor, refrigerant, materials or service incurred in diagnosis and removal of the defective part, or in obtaining and replacing the new or repaired part; (3) Transportation costs of the defective part from the installation site to CM, or of the return of that part if not covered by CM's Limited Express Warranty; or (4) The costs of normal maintenance.

This Limited Express Warranty applies to CM Residential Class products ordered from CM on or after May 1, 2010 (this would generally include CM Units with serial numbers beginning with "N118" and higher), and is not retroactive to any products ordered from CM prior to May 1, 2010 (this would generally include CM Units with serial numbers beginning with "N117" and lower). If you are unsure if this Limited Express Warranty applies to the product you have purchased, contact CM at the phone number or address reflected below.

Limitation: This Limited Express Warranty is given in lieu of all other warranties. If, notwithstanding the disclaimers contained herein, it is determined that other warranties exist, any such express warranty, including without limitation any express warranties or any implied warranties of fitness for particular purpose and merchantability, shall be limited to the duration of the Limited Express Warranty.

LIMITATION OF REMEDIES

In the event of a breach of the Limited Express Warranty, CM will only be obligated at CM's option to repair the failed part or unit, or to furnish a new or rebuilt part or unit in exchange for the part or unit which has failed. If after written notice to CM's factory, in Oklahoma City, Oklahoma of each defect, malfunction or other failure, and a reasonable number of attempts by CM to correct the defect, malfunction or other failure, and the remedy fails of its essential purpose, CM shall refund the purchase price paid to CM in exchange for the return of the sold good(s). Said refund shall be the maximum liability of CM. **THIS REMEDY IS THE SOLE AND EXCLUSIVE REMEDY OF THE BUYER OR PURCHASER AGAINST CM FOR BREACH OF CONTRACT, FOR THE BREACH OF ANY WARRANTY OR FOR CM'S NEGLIGENCE OR IN STRICT LIABILITY.**

LIMITATION OF LIABILITY

CM shall have no liability for any damages if CM's performance is delayed for any reason or is prevented to any extent by any event such as, but not limited to: any war, civil unrest, government restrictions or restraints, strikes, or work stoppages, fire, flood, accident, shortages of transportation, fuel, material, or labor, acts of God or any other reason beyond the sole control of CM. **CM EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGE IN CONTRACT, FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, OR IN TORT, WHETHER FOR CM'S NEGLIGENCE OR AS STRICT LIABILITY.**

OBTAINING WARRANTY PERFORMANCE
Normally, the dealer or service organization who installed the products will provide warranty performance for the owner. Should the installer be unavailable, contact any CM recognized distributor, dealer or service organization. If assistance is required in obtaining warranty performance, write or call:

Climate Master, Inc. • Customer Service • 7300 SW 44th Street • Oklahoma City, Oklahoma 73179 • (405) 745-6000 • e-service@climatemaster.com

NOTE: Some states or Canadian provinces do not allow limitations on how long an implied warranty lasts, or the limitation or exclusions of consequential or incidental damages, so the foregoing exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state and from Canadian province to Canadian province. Please refer to the CM Installation, Operation and Maintenance Manual for operating and maintenance instructions.

Rev.: 4/10
Part No.: RRS51

Revision History

| Date | Page # | Description |
|------------------|--------|--------------------------------|
| August 21, 2108 | 4 | Added warning |
| November 5, 2015 | All | Updated to Aluminum Tube |
| April 23, 2012 | 3, 7 | TAC 026-B Dimensions Corrected |
| July 6, 2011 | 3 | Decoder Updated |
| April 22, 2010 | All | First Published |



97B0100N01

CLIMATEMASTER
 Geothermal Heating & Cooling
 7300 S.W. 44th Street
 Oklahoma City, OK 73179
 Phone: 405-745-6000
 Fax: 405-745-6058
 climatemaster.com

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time for order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products.