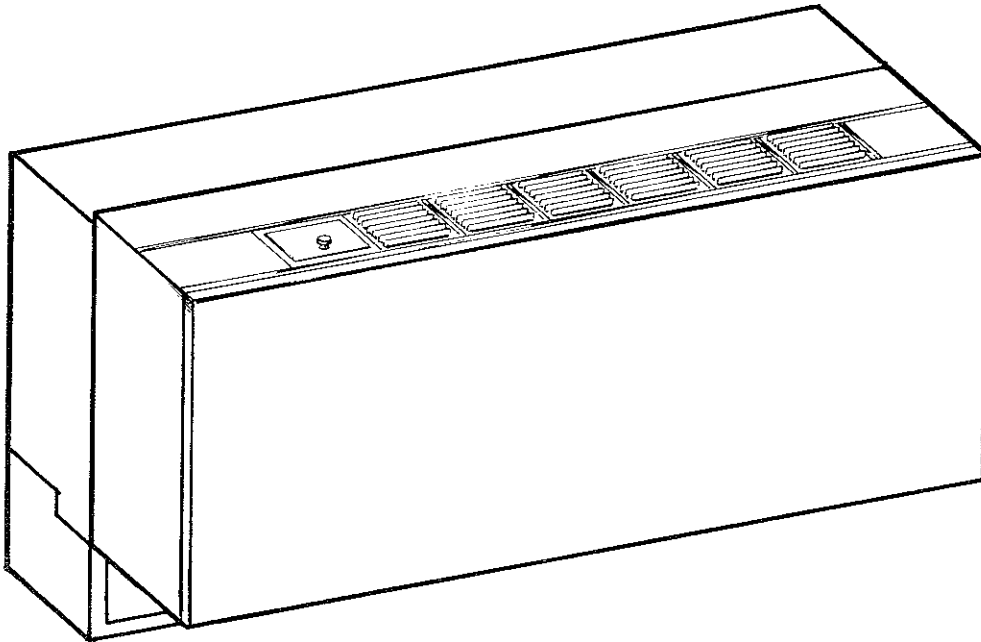


**ClimateMaster**

A COMBINATION OF CHP CORP. AND  
FRIEDRICH™ CLIMATE MASTER, INC.

# INSTALLATION

# INSTRUCTIONS



ME

# **Climate Master**

## **702/703/704 SERIES**

### **ME CABINET PACKAGED TERMINAL**

### **AIR CONDITIONERS AND HEAT PUMPS**

## DESCRIPTION

### 702

The Climate Master 702 Series Packaged Terminal Air Conditioners (PTAC) are through-the-wall cooling only or combination cooling/heating individual zone air conditioners. The 702 includes a factory installed and wired electric heating element.

### 703

The Climate Master 703 Series Package Terminal Heat Pumps (PTHP) are through-the-wall air to air heat pumps.

The 703 Series offers heat pump operation to 29° F. (outdoor coil temperature) before changing over to electric heat (if applicable).

The options available on the 703 Series are the same as the 702 Series.

### 704

The Climate Master 704 Series Packaged Terminal Heat Pumps (PTHP) are through-the-wall air to air heat pumps.

The 704 Series is basically the same as the 703 Series with the exception that it has an extended range of heat pump operation...to 10° F ambient temperature, defrost and a factory installed electric back up heater.

## GENERAL

The ME model consists of four sections: wall sleeve, chassis, room cabinet, and outdoor louver. (See Figure 1.). The outdoor louver may be factory installed (grille-type) or shipped loose (bladed aluminum type).

The standard control on the 702/703/704 models contain an OFF/HIGH COOL/LOW COOL/HEAT and FAN setting plus a self-contained adjustable thermostat. An automatic changeover control (off/auto/fan) is available as an option.

Positive removal of condensate is provided by evaporation on the condenser coil by means of a multi-blade fan/slinger ring connected directly to the outdoor fan motor. (702 and 703 Series only).

A fresh air damper is located between the indoor and outdoor sections to provide up to 15% outside ventilation. Motorized or 5 position manually operated dampers are available. All hydronic heat models must specify a motorized damper to prevent accidental freezing of the hydronic coil.

The room discharge grilles can be removed and turned to any one of four positions to change direction of airflow.

## PRE-INSTALLATION CHECKS

Inspect unit and report any damage or missing parts to the carrier's agent. Request an inspection and a report.

The required wall opening for the ME is shown in Figure 1. A minimum distance from floor to bottom of wall opening is 3½" to allow for adequate return air.

The ME cabinet can be supplied with an optional subbase. If a wall sleeve is included, installation of the wall sleeve may be different than on a job with no subbase, so special care must be taken.

Verify that the voltage rating on the unit rating plate matches the power supply.

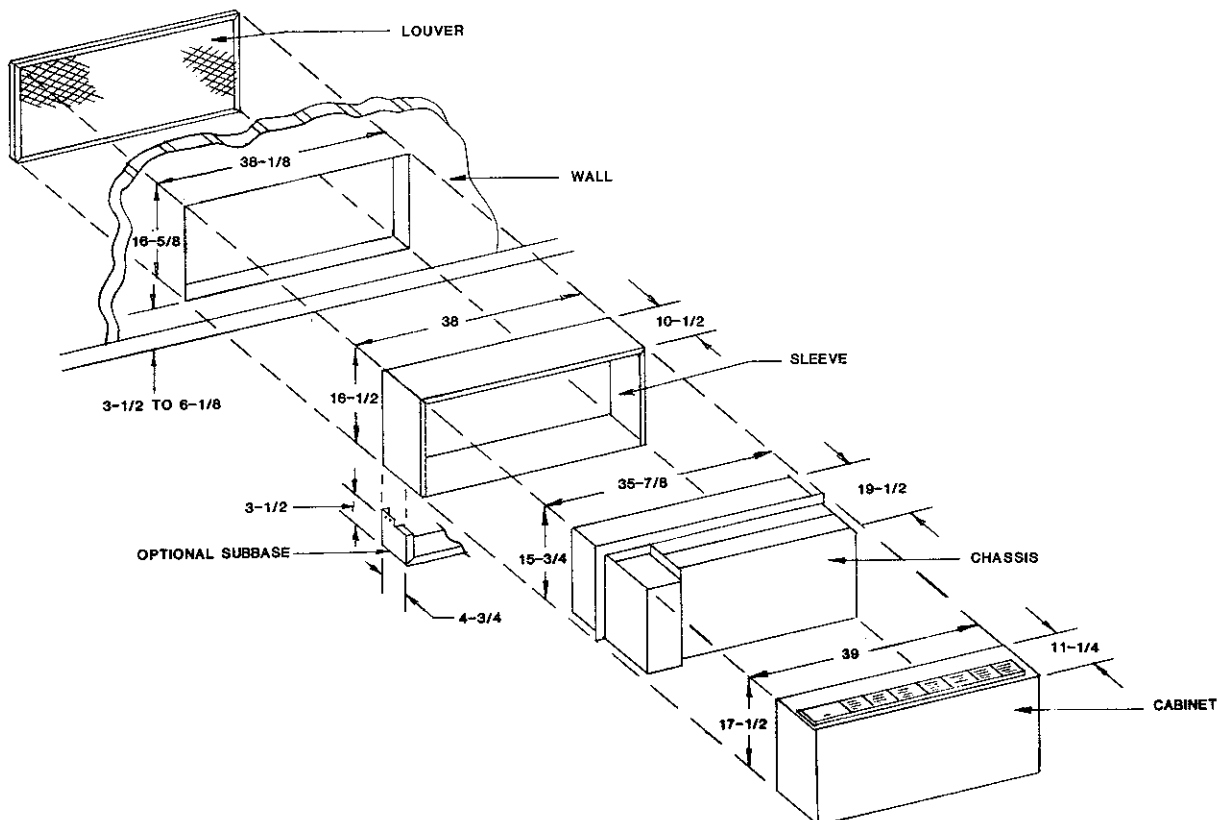


FIGURE 1 ME SERIES

## ME INSTALLATION

### WALL SLEEVE, ROOM CABINET AND CHASSIS

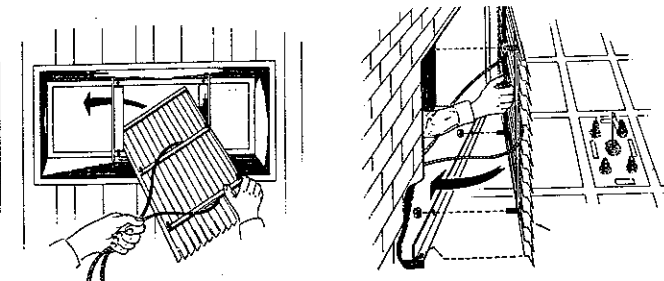
**NOTE:** If optional bladed aluminum louver is used, wall sleeve will include a weather panel. Do not remove this panel until the louver is installed. If the standard louver is used, it is shipped factory installed in the wall sleeve and no weather panel is included.

**NOTE:** If optional subbase is used, at least 2" of wall sleeve must extend into the room. If no subbase is used, 1/2" of the wall sleeve must extend into the room.

**NOTE:** Make certain that correct wall sleeve depth is used at each location as specified in plans.

1. Install the wall sleeve flush with the outside wall, subject to the constraints about the amount of wall sleeve that must extend into the room (2" if subbase is used, 1/2" otherwise). The wall sleeve must have a 1/4" pitch to the outside to allow proper draining of condensate. Do not remove the louver or weather panel when installing the wall sleeve.
2. Make sure the wall sleeve base has 1/4" pitch to the outside.
3. If a condensate drain kit has been included, install the drain pan and drain pan bracket according to the drain kit installation instructions.
4. Secure wall sleeve in position. Use masonry anchors for masonry wall installation and nails or screws for wood framing, but never through the bottom of wall sleeve.
5. Caulk between wall sleeve and outside wall for a weather tight seal. Caulking may be necessary between wall sleeve and finished inside wall.
6. If optional bladed louver is used, install this louver. If standard louver is used, it is factory installed. If louver by others is used, consult factory before installation, as other louvers may cause performance problems with the unit.

Installation of optional louver: Tie a safety line to the louver, then place the louver (fins facing outdoors and blades downward) through the outdoor opening of the wall sleeve. Pull inward until the louver is squarely seated against the wall sleeve. Mount louver using (4) nuts supplied. (See Figure 2.)

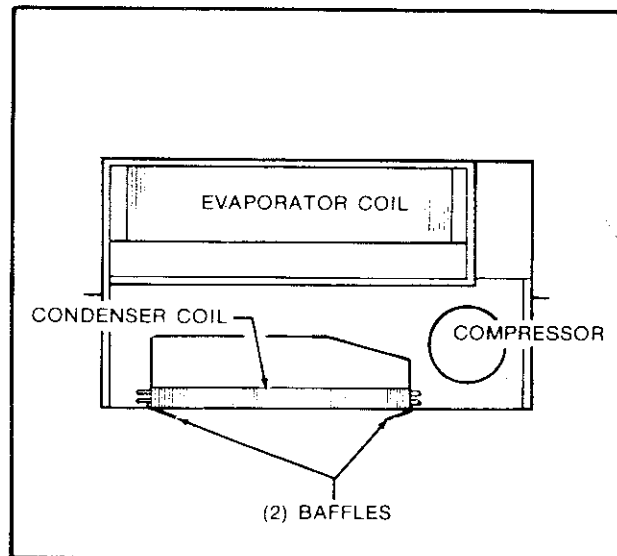


(FIGURE 2)

## INSTALL CHASSIS

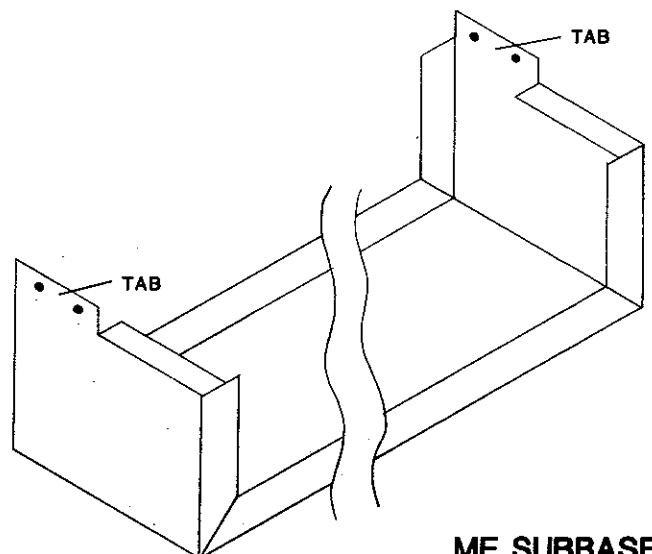
7. Remove baffles from condenser when the depth of the wall box being installed is greater than 10 inches. Wall sleeves larger than 10 inches have baffles factory installed.

**NOTE:** Do not remove baffles from the condenser when a 10 inch wall box is installed. These baffles prevent air-recirculation of the discharge air. (See Figure 3.)



(FIGURE 3)

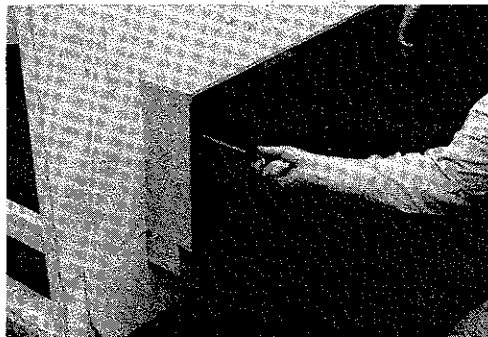
8. Before installing the chassis, make sure the closed-cell material is attached to the chassis (sides and bottom) for a weather tight seal to the wall box.
9. Install subbase if one is being used. The subbase mounts against the wall and two tabs fit outside the wall sleeve. These tabs are screwed to the wall sleeve (self tapping screws provided). (See Figure 4.)



ME SUBBASE

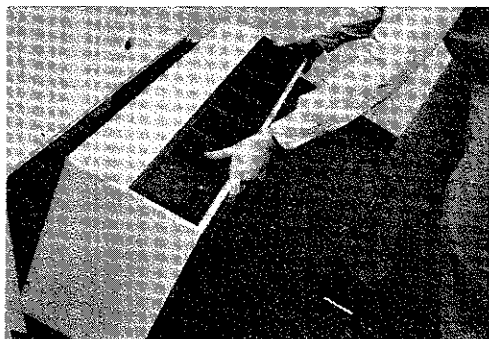
(FIGURE 4)

10. Slide chassis into wall sleeve. Screw the chassis to the sleeve with 4 screws (provided) - 2 on each side. Insure clips are on wall sleeve before screwing or screws will not hold. (See Figure 5.)



(FIGURE 5)

11. Attach room cabinet. The room cabinet fits into two cutouts in the front of the chassis and hinges back over the chassis. Insure that the room cabinet is properly seated in the flange on the wall sleeve. (See Figure 6.)



(FIGURE 6)

12. Optional, but strongly recommended: Screw the cabinet to the wall sleeve using the two screw holes provided.
13. The cabinet may be protected until ready for use by reinstalling the protective cardboard cover supplied as part of the shipping carton.

## ELECTRICAL

All wiring should be in accordance with the National Electric Code and local building codes.

The chassis can be either direct connected or supplied with an optional line cord and receptacle box. A field supplied receptacle box can be used for 208/230 volt electric heat units.

Each unit must have a separate branch circuit protected by a fuse or breaker. Refer to the unit rating plate data for proper wire and fuse (breaker) size. Use of extension cords is prohibited. Sample of a rating plate is shown in Figure 7.

## Friedrich Climate Master

Friedrich Air Conditioning & Refrigeration Co.  
2007 Beechgrove Place, Utica, New York 13501

SERIAL 8547 7554  
 MODEL 703-585A0A0000B BLWR AMPS 55 55  
 COOLING CAPACITY BTU/4500 BLWR HP 1 1/2 1 1/2  
 HEAT PUMP HEATING CAPACITY BTU/4500  
 VOLTS/208 FAN AMPS 75  
 CYCLE 40 FAN H F 1 1/2  
 PHASE 1 COMP RLA 8 2  
 COMP LRA 44 6 MTR AMPS 19 25  
 CHARGE R-22 40 002 TOTAL TOTAL CONN AMPS 9 50 15 80  
 DESIGN PRESSURE-HIGH SIDE 280 PSIG. LOW SIDE 150 PSIG  
 MINIMUM CIRCUIT AMPCACITY 25AMPS  
 MAXIMUM FUSE SIZING (TIME DELAY) ON WACR CIRCUIT BREAKER 25  
 MINIMUM VOLTAGE 197VOLTS

(FIGURE 7)

## OPERATION

**HEAT** - Adjust thermostat knob clockwise to coolest setting and press HEAT button. Roomside blower will start immediately on high speed. Turn thermostat knob counterclockwise to warmest setting. Heating unit will now operate and discharge air will be warm.

**LOW COOL** - Adjust thermostat knob counterclockwise to the warmest setting. Press LOW COOL button. Roomside blowers will run at Low speed. Turn thermostat knob clockwise to coolest setting. Compressor and condenser motor will now operate and discharge air will be cooler.

**HIGH COOL** - With compressor and condenser motor running, press HIGH COOL button. Roomside blower speed will increase.

**VENT (Motorized)** - Press FAN button. Compressor and condenser motor will stop. Roomside blower will run at low speed. The motorized damper will open and provide outside air for ventilation. NOTE: Motorized fresh air damper will operate only when the concealed damper override switch is set to the open position. Damper switch (for motorized damper only) is located behind control button panel.

**VENT (Manual)** - Same as above except damper position must be manually set.

**OFF** - Press OFF button. All systems operations will stop. NOTE: STBY may be used instead of OFF with certain control options. The unit may operate with the STBY button down, for example, when the room temperature is below 50 F.

**ON (Optional Automatic Changeover Only)** - Unit will operate on heating or cooling depending on the thermostat setting.

## SAFETY

Servicing of our conditioning systems should be performed by qualified personnel only, because of hazards due to electrical components and system pressures. Basic maintenance such as cleaning coils and the replacing of filters can be performed by unskilled personnel. When performing service or maintenance on the system, power to the unit should be off. Wear safety goggles and gloves when working with refrigerants. Do not attempt to braze on a system which is under pressure; remove refrigerant first. A quenching cloth, which is used as a heat-sink, is recommended when brazing. Keep a fire extinguisher on hand for all brazing operations.

When using nitrogen and refrigerant for leak testing, always charge the refrigerant in first.

Continuing engineering research results in steady improvements. Therefore, these specifications are subject to change without notice.

## ClimateMaster

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2007 Beechgrove Place  
Utica, NY 13501

315-724-7111