

## Wallmate® Packaged Terminal Air Conditioners

*Produced by Kaufman from 51PH*

### INSTALLATION IN MASONRY OR WOOD FRAME WALLS

**Provide an Opening** using good construction practices. See Fig. 1 for minimum dimensions. Use a lintel to support the wall above the opening.

**The Accessory Electrical Junction Box** must be used with all 277-volt units and with all permanently connected 230/208-volt units. When using the junction box, provide clearance as shown in Fig. 1. Complete installation instructions are shipped with this accessory.

**Plaster Angles** (mounting angles) if used, are field fabricated and installed. When securing angles within the wall by grouting or by other means, increase the width and height dimensions to provide clearance for the angles.

**Install Wall Sleeve** in wall, level from side to side and pitched 3/8-in. downward from inside to outside. *When the electrical junction box is used, fasten it to the bottom of the sleeve before installing the sleeve in the wall opening.* Since the sleeve must be installed square without bowing, leave the closure panels in place in the sleeve during installation.

**CAUTION:** When installing the sleeve, maintain a minimum space of 4-in. between the bottom of the sleeve and the floor covering to allow for proper air circulation and servicing of the filter.

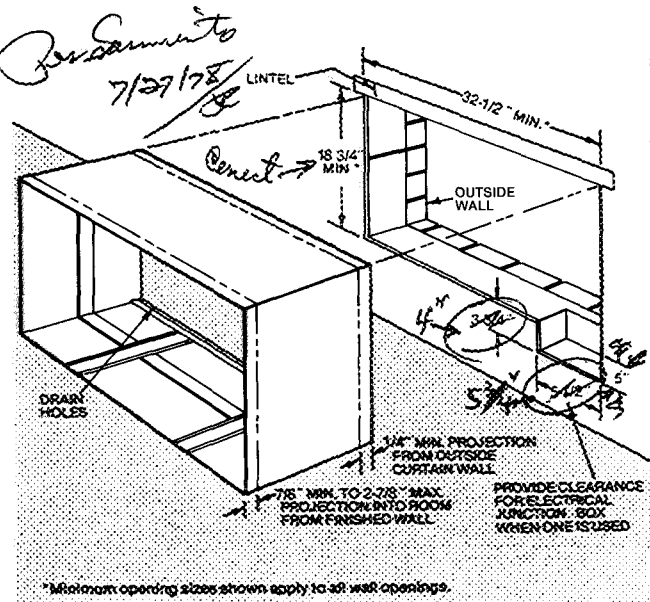


Fig. 1 - Wall Sleeve Installation

**NOTE:** If the exterior wall projects up to 6-in. beyond the wall sleeve, install a vertical baffle perpendicular to the unit to prevent recirculation of condenser air. *Do not install 51PH Wallmate units where exterior wall projects more than 6-in. beyond wall sleeve.*

**Weatherproofing** to make the installation weather-tight is accomplished by sealing any openings between the wall and the sleeve. *Do not plug the 2 drain holes in the bottom flange on the outside of the wall sleeve (Fig. 1)* If the exterior wall projects beyond the sleeve, install a drip edge.

### INSTALLATION IN CURTAIN WALLS

**The Accessory Subbase** shown in Fig. 2 must be used with all 277-volt units and *whenever walls are less than 4-in. thick.* Be sure to allow for a 4-in. minimum clearance between the bottom of the installed Wallmate unit and the floor covering to permit proper air circulation and servicing of the filter. Complete installation instructions are shipped with the accessory subbase.

For 277-volt installations, the electrical receptacle is provided inside the subbase. For 230/208-volt installations, provide a field-supplied receptacle inside the subbase, or locate a receptacle within a 22-in. radius of the lower right-hand corner of the wall sleeve.

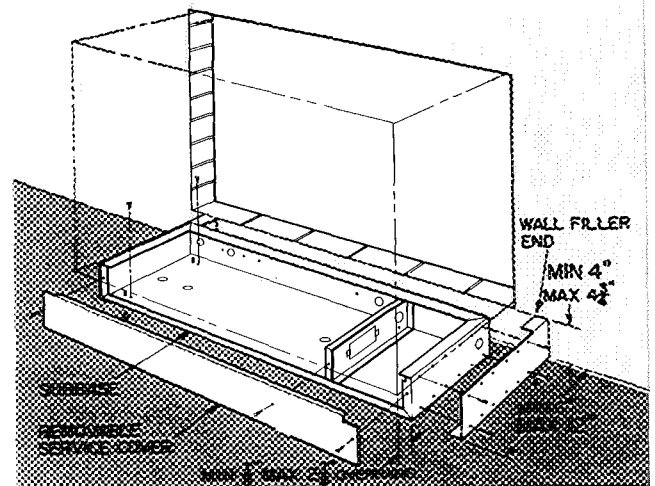


Fig. 2 - Subbase Installation

**Center the Subbase** in front of the wall opening, allowing the wall sleeve to extend past the front edge of the subbase by  $\frac{7}{8}$  in. to  $2\frac{7}{8}$  in. providing clearance for the wire raceway when used. See Fig. 2. Wall filler ends are adjustable to accommodate varying distances from inside wall to front of sleeve as shown in Fig. 2. Determine the correct distance and assemble the wall filler ends to the subbase with the No. 8 self-tapping screws provided. Level the subbase flush with the wall opening, using the leveling screws provided in the subbase and the wall filler ends. Secure the subbase to the floor with field-supplied screws.

**Run Power Supply Wire** into subbase, using convenient knockout.

**Install Wall Sleeve** in this manner: Set the sleeve on the subbase and slide it thru the wall opening so a minimum of 1/4-in. of the sleeve projects beyond the outside wall. Remove the inner closure panel. Drill four 9/64-in. diameter holes thru the bottom of the sleeve and the top flange of the subbase. Secure the wall sleeve to the subbase with the no. 8 self-tapping screws provided. Apply waterproof mastic under the screw heads before tightening them. Reinstall the closure panel. Attach the removable service cover to the subbase as shown in Fig. 2, using the no. 8 sheet metal screws provided.

**Waterproof** in the same manner discussed in Installation in Masonry or Wood Frame Walls.

### ELECTRICAL DATA

Unless units are mounted on a subbase kit, an accessory electrical junction box is necessary for 277-volt installations and for permanently connected 230/208-volt installations. Receptacle for 277-volt installation is supplied with junction box or subbase.

When using subbase, branch circuit must be within confines of the subbase. See component

nameplate on unit for correct model of electrical junction box and subbase.

**Voltage Supply** — For satisfactory results when unit is running, the voltage must always remain between 197 and 253 volts for 230/208-volt units and between 252 and 290 volts for 277-volt units. Check voltage supply at the outlet

**Voltage Selector Switch** — Units nameplated 230/208 volts have a voltage selector switch which must be set at the 230-volt position when unit is operating on a nominal 230-volt power supply and at the 208-volt position when unit is operating on a nominal 208-volt power supply.

The 51PH models have the switch mounted under the control box behind the decorative front panel. The switch is set at the 230-volt position at the factory.






**THE 208-VOLT POWER SOURCE** — When unit is operating on a 208-volt power source, fan motor provides only 2 speeds.

**CAUTION:** When unit is operating on a nominal 208-volt power source, do not have voltage selector switch set at the 230-volt position.

**Receptacle**, shown in Table 1, must match plug on unit service cord and be located within a 22-in. radius of bottom right-hand corner of wall opening. Use recommended wire size given in Table 2 and install a single-outlet branch circuit. All wiring must comply with all local and national codes.

**Grounding** — Unit must be used on a grounded power supply only. Unit is grounded thru service cord plug and matching receptacle when branch circuit is grounded. Be sure branch circuit is grounded.

Table 1 — Receptacles

RATED VOLTS AMPS	250			277*	
	15	20	30	15	20
					
<b>HUBBELL</b>	5651	5451	9330	—	—
<b>P &amp; S</b>	5651	5851	5930	—	—
<b>GE</b>	GE4069-1	GE4182-1	GE4139-3	—	—
<b>ARROW-HART</b>	5651	5851	5700	5718	7621
<b>TIME-DELAY FUSE</b>	Plug Type			Cartridge Type	

\*Receptacles for 277-volt power source are supplied with junction box or subbase

Table 2 — Suggested Branch Circuit Wire Sizes\*

NAMEPLATE AMPS	AWG WIRE SIZE†
7.0 to 12	14
12.1 to 16	12
16.1 to 24	10

\*Single circuit from main fuse box to receptacle at unit

†Based on copper wire at 60 C temperature rating

**Fuse** as indicated on the unit informative data plate. Use time-delay type or equivalent as recommended in Table 1 – Receptacles.

### CHASSIS INSTALLATION

**To Install Chassis** in sleeve: Remove 2 screws from the bottom of the inside closure panel. Remove and discard panel. Reach thru the sleeve to remove the rear closure panel. Discard panel. Retighten the screws holding the grille. Slide unit chassis into the wall sleeve. If unit is 277-volt, install wire raceway. See installation instructions shipped with raceway. Engage the hooks on the side of the metal panel in the slots in the side flanges of the wall sleeve. Refer to Fig. 4 and install the filter. Plug in the unit.

### OPERATING INSTRUCTIONS

Close all doors and windows.

**To Control Unit Operation – Cooling** (Fig. 3).

Turn HEAT-COOL knob clockwise to:

- “Hi” for cooling at high fan speed.
- “Med” for cooling at medium fan speed.
- “Lo” for cooling at low fan speed.

Turn counterclockwise to “Off” position.

**To Control Unit Operation – Heating** (Fig. 3).

Turn HEAT-COOL knob counterclockwise to:

- “Hi” for heating at high fan speed.
- “Med” for heating at medium fan speed.
- “Lo” for heating at low fan speed.

Turn clockwise to “Off” position.

**To Control Temperature** – Knob labeled TEMPERATURE adjusts the thermostat setting from the warmest (maximum counterclockwise) to the coolest (maximum clockwise).

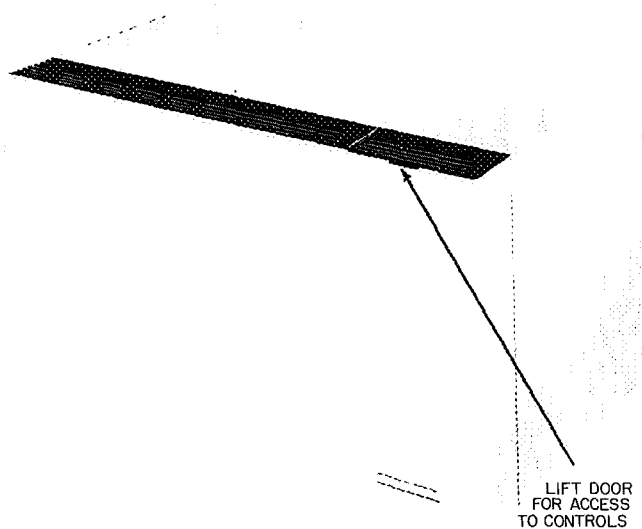
**COOLING** – Turn TEMPERATURE knob to maximum “Cooler” position and turn HEAT-COOL knob to “Hi” (COOL). When comfortable, turn TEMPERATURE knob slowly toward “Warmer” until compressor stops. Leave in this position for automatic operation. Turn HEAT-COOL knob to “Med” (COOL) or “Lo” (COOL) if a slower fan speed is desired.

**HEATING** – Turn TEMPERATURE knob to maximum “Warmer” position and turn HEAT-COOL knob to “Hi” (HEAT). When comfortable, turn TEMPERATURE knob slowly toward “Cooler” until heater goes off. Leave in this position for automatic operation. Turn HEAT-COOL knob to “Med” (HEAT) or “Lo” (HEAT) if a slower fan speed is desired.

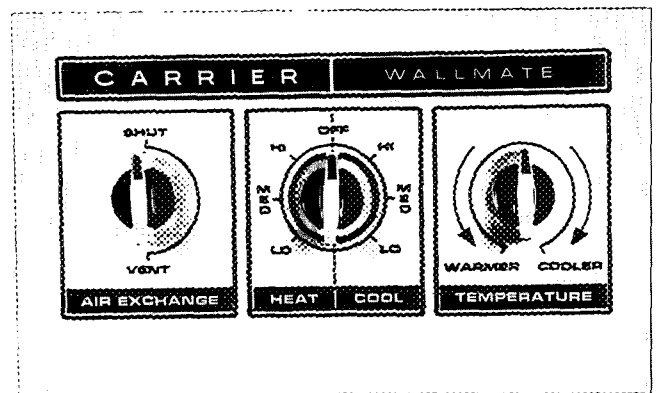
**For Air Circulation Only** – Turn HEAT-COOL knob to “Hi” (COOL) and rotate thermostat knob labeled TEMPERATURE to warmest setting. For more gentle air movement, turn HEAT-COOL knob to either “Med” (COOL) or “Lo” (COOL) position.

**For Ventilation** – Turn AIR EXCHANGE knob clockwise to “Vent” position to bring fresh air into room. See Fig. 3.

During both heating or cooling operation, leave knob at “Shut” position.



MODEL 51PH WALLMATE



51PH COOLING AND HEATING MODELS

Fig. 3 – Wallmate and Controls

## CARE AND MAINTENANCE

**WARNING:** Turn off power before servicing unit.

**Front Panel and Grille** on the 51PH models are metal parts and may be cleaned in the same manner as any painted surface.

**Filter** — Clean frequently. Reach under the front panel and pull filter from bottom of unit.

Vacuum or wash filter in warm water. Shake to remove water. To replace filter, fold and slide it up into the area between the panel front and the unit. See Fig. 4.

**Condensation On Grille** — High humidity can cause condensation on grille when unit is first started. Keep doors and windows closed and humidity will soon drop and moisture will soon evaporate.

**Preventive Maintenance** — Inspect and clean unit periodically.

For proper unit operation, do not block air discharge with curtains, drapes or furniture.

**Oiling the Fan Motor** — It is recommended that this be done annually. Stop unit operation and remove the panel front. Pull the unit forward until the round plug covering the oil tubes is accessible. Remove the plug. Refer to oiling instruction sticker. Replace the plug after oiling.

On permanently connected units, service cord must be removed from the receptacle to allow unit to be pulled forward sufficiently to allow access to round plug.

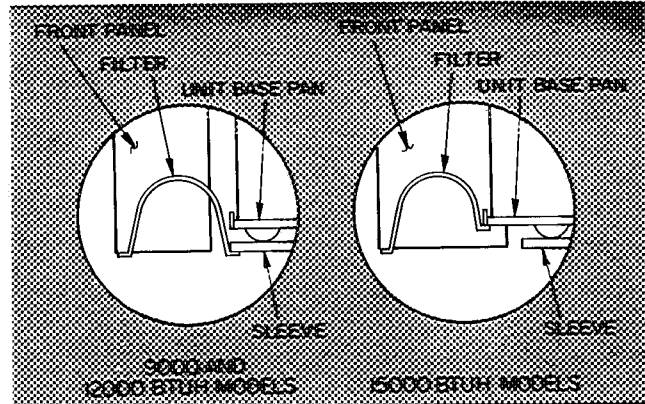


Fig. 4 — Filter Installation

For replacement items use Carrier Specified Parts.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.