

# Through-The-Wall Room Air Conditioners

# Installation Operation and Maintenance Manual

## RECORD YOUR MODEL AND SERIAL NUMBER HERE

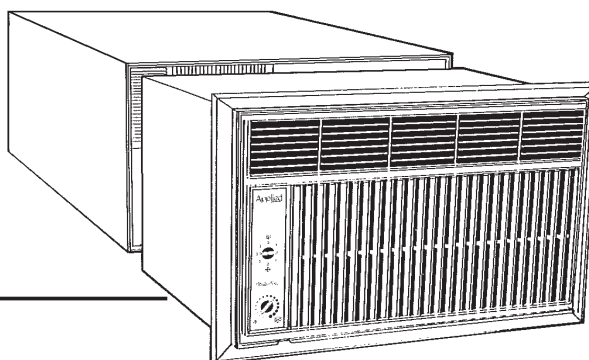
If you should require service or call with a question, please have the following information available:

1. COMPLETE MODEL AND SERIAL NUMBER. This information is found on a plate located in the air outlet area, which you can see when plastic front grille is removed (see figure 4, for removal).
2. PURCHASE DATE from sales slip.
3. Note that this information should also be recorded on your warranty registration card.

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Purchase Date \_\_\_\_\_



NOTE: Retain this manual for future reference.

## IMPORTANT...

*This manual tells how to install, use and care for your air conditioner, as well as how to get the most efficient cooling.*

**BEFORE YOU USE YOUR AIR CONDITIONER**

*It is your responsibility to make sure that your air conditioner*

- has been properly installed;
- is the right size for the area to be cooled;
- is properly connected to electricity;
- is properly electrically grounded;
- is properly maintained
- after installing your air conditioner be sure your unit is "off" before plugging it in. See page 4 for control instructions.
- is being used as designed. Do not operate in a corrosive or extremely dirty atmosphere or at below normal ambient temperature.
- does not have rear louvers or rear coil restricted since unit requires proper air circulation to operate.

## **I M P O R T A N T**

**READ AND SAVE THESE INSTRUCTIONS  
INSTALLATION AND WIRING MUST BE IN ACCORDANCE  
WITH CEC, NEC AND LOCAL ELECTRICAL CODES.**

## ELECTRICAL REQUIREMENTS

PLUG THE UNIT INTO A STANDARD 115 VOLT 60 HERTZ GROUNDED WALL RECEPTACLE. USE ONLY A 15 AMP. TIME DELAY FUSE OR TIME DELAY HVAC CIRCUIT BREAKER. RECEPTACLE WIRING; #14 GAUGE.

The Air Conditioner is equipped with a three wire cord and three prong plug. **ELECTRICAL GROUND IS REQUIRED ON THIS UNIT.** Do not alter unit power supply or plug. A separate circuit serving only this unit is to be provided. Do not use an extension cord. A damaged cord must not be repaired - it must be replaced.

The unit will not operate on direct current. Electrical specifications are shown on the Model and Serial plate located inside the plastic front grille (observe local codes).

## INSTALLATION INSTRUCTIONS - MODEL WMC

To help eliminate any installation problems and to help assure trouble free performance of your new air conditioner, read these instructions before installing this unit.

Because this air conditioner weights approximately 110 pounds (49.9 kg), it is recommended that you have someone help you install your new unit and that you both use proper lifting techniques to avoid personal injury.

Inspect the condition of your previously installed wall sleeve you'd like to install your new air conditioner in. Be sure it will support the weight of the unit, and that the sleeve has been fastened to wall opening.

### CAUTION:

Be sure air conditioner does not fall during installation.  
Handle the air conditioner with care. Watch out for the sharp metal fins on the front and rear coils.  
Do not use water condensate for drinking purposes. It may not be sanitary.

***THIS APPLIANCE MUST BE INSTALLED ACCORDING TO ALL APPLICABLE CODES AND ORDINANCES.***

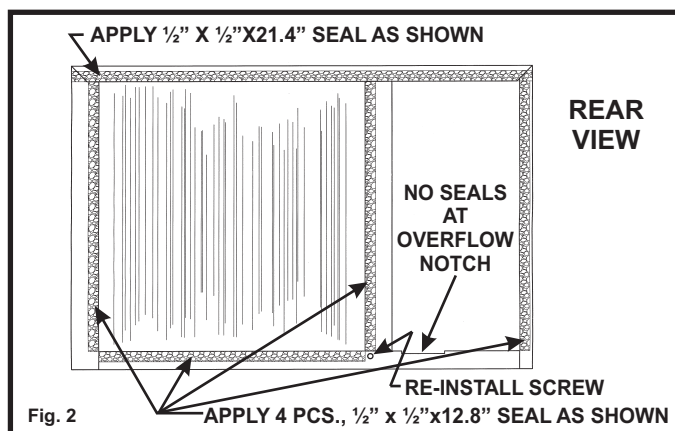
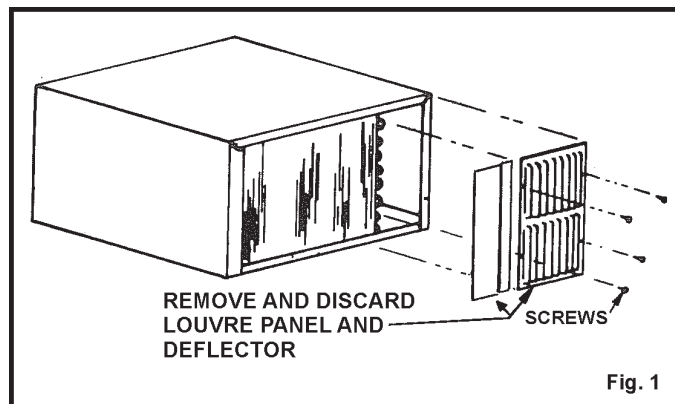
### NOTICE

**If this air conditioner is to be installed into a sleeve other than the Original Equipment Wall Sleeve with inside dimensions of 23" (58.4 cm) wide x 15 9/32" (38.8 cm) high specifically designed for this air conditioner, you will require Kit No. RAX99TKA1. It will allow you to install the unit in other wall sleeves, as indicated in adjacent table. Follow the instructions contained in the kit - you are responsible for ensuring the air conditioner chassis has a positive slope of 1/4" per foot toward the outside, regardless of the slope of the sleeve.**

Before installing the air conditioner in the Original Equipment Sleeve, make sure you have removed the Louvre Panel and Deflector held by four screws at rear of air conditioner (See figure 1). Re-install bottom screw (figure 2). In order to obtain the rated energy efficiency and performance for this unit, the additional seal strips provided with the unit must be applied to the rear of the chassis as shown (See figure 2), prior to installation in the wall sleeve. Do not allow any seal to block the overflow notch. Lift and slide air conditioner into existing sleeve, Push it back until it butts up against rear of sleeve.

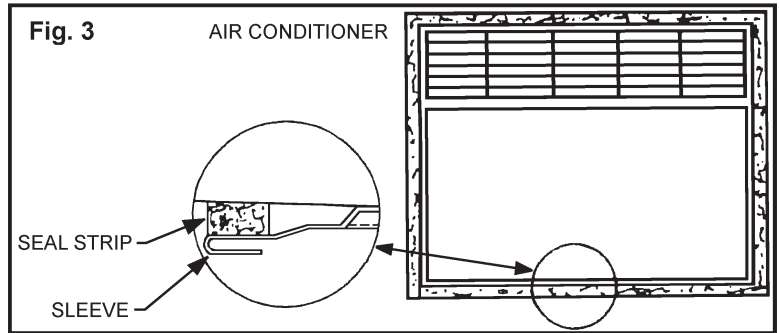
Make certain air conditioner is centered and is level from inside to outside, also ensure that it is level side to side. There is a positive slope in the base of the Original Equipment Wall Sleeve 23" (58.4 cm) wide x 15 9/32" (38.8 cm) high that will give the correct slope to the air conditioner chassis when the sleeve is installed level.

SLEEVE TYPE	WIDTH (INSIDE)	HEIGHT (INSIDE)
ORIGINAL DESIGN	23" (58.4 cm)	15 9/32" (38.8 cm)
W	24 1/2" (62.2 cm)	14 1/2" (36.8 cm)
C	24 5/16" (61.8 cm)	15 3/42" (40.0 cm)
F	26 5/8" (67.6 cm)	16 11/16" (42.4 cm)
G	25 1/4" (62.2 cm)	14 5/8" (37.1 cm)



## SEAL STRIP INSTALLATION

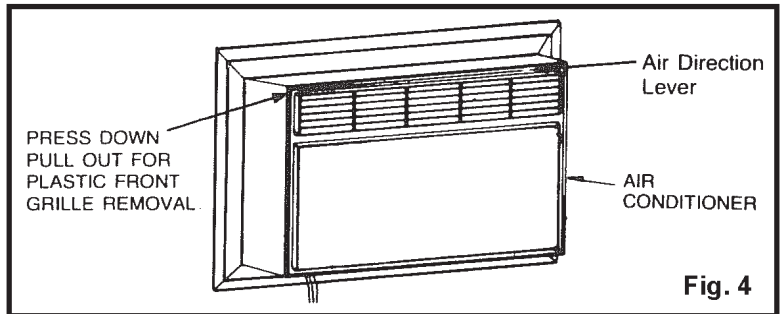
Install seal strip that is supplied with sleeve (5/8" x 5/8" x 76" long), between air conditioner and sleeve on all four sides. (See figure 3)



## DECORATOR TRIM FRAME

(NOT SUPPLIED)

Replacement situations will already have the decorative Trim Frame in use and installed as shown in figure 4. Replace Plastic Front Grille as indicated in figure 4. For new installations order the Decorative Trim Frame Kit Model Number RAX99TRA1.



## REGULAR MAINTENANCE

### CAUTION:

Before doing any maintenance, disconnect power cord. Make sure water does not get into motor or electrical connections. Use gloves to avoid cuts from the sharp coil fins. Do not use cleaning fluids, solvents, abrasive cleaners or strong detergents; they may damage the parts.

### EVERY MONTH DURING OPERATING PERIOD:

Remove plastic front panel by pressing downward and pulling towards you. See figure 4. Then remove filter and hand wash. Dry before placing back in unit.

### EVERY YEAR:

Remove the air conditioner from the wall sleeve. Remove the air conditioner outer cabinet casing and clean the coil fins. Clean cabinet and grille using soft cloth dampened in a mild detergent solution.

## BEFORE YOU CALL A SERVICEMAN, CHECK THE FOLLOWING:

- |                        |   |
|------------------------|---|
| NOT COOLING PROPERLY?  | <input type="checkbox"/> Is the filter clean?<br><input type="checkbox"/> Any blockage in front of unit? (Drapes)<br><input type="checkbox"/> Is thermostat set cold enough?<br><input type="checkbox"/> Is function switch on the "cool" ❄️ position (standard control units) or the wall thermostat set to "cool" (24V. Remote thermostat units). |
| ICED UP INSIDE?        | <input type="checkbox"/> Did unit operate overnight on "low" (1) fan speed with thermostat set "hi"?<br><input type="checkbox"/> Is your filter dirty?  |
| WILL NOT RUN OR NOISY? | <input type="checkbox"/> If noisy, check for loose mounting/windows.<br><input type="checkbox"/> If fuse is blown, you should be using Fusetron (time-delay) type.<br><input type="checkbox"/> Check wall receptacle with another appliance.  |

## IF SERVICE IS REQUIRED

Contact the dealer from whom your unit was purchased for the name of and address of the nearest authorized service depot. For further assistance contact customer service at **Applied Comfort Products, 1210 Balmoral Road, Cambridge, Ontario N1T 1A5. Telephone (519) 740-3600, Fax (519) 740-1666.**

# OPERATING INSTRUCTIONS

## VERSION "S", STANDARD UNIT - MOUNTED CONTROLS

Be sure your air conditioner is "off" before plugging it in. "0" or "off" -- position shuts off entire unit. See Figure 5.

### TO START YOUR AIR CONDITIONER

#### 1. FOR COOLING ❄️

Choose either High (setting "3"), Medium (setting "2") or Low (setting "1") fan speed. The Fan will run at all times when air conditioner is switched "On".

#### SELECT:

- Low fan speed "1" for quiet cooling with gentle air circulation.
- Medium fan speed "2" for moderate cooling and air movement.
- High fan speed "3" for maximum cooling and air movement.

#### 2. FOR AIR CIRCULATION 🌀 (without cooling)

#### SELECT:

- Low fan speed "1" for quiet, gentle air circulation.
- Medium fan speed "2" for moderate air circulation.
- High fan speed "3" for maximum air circulation.

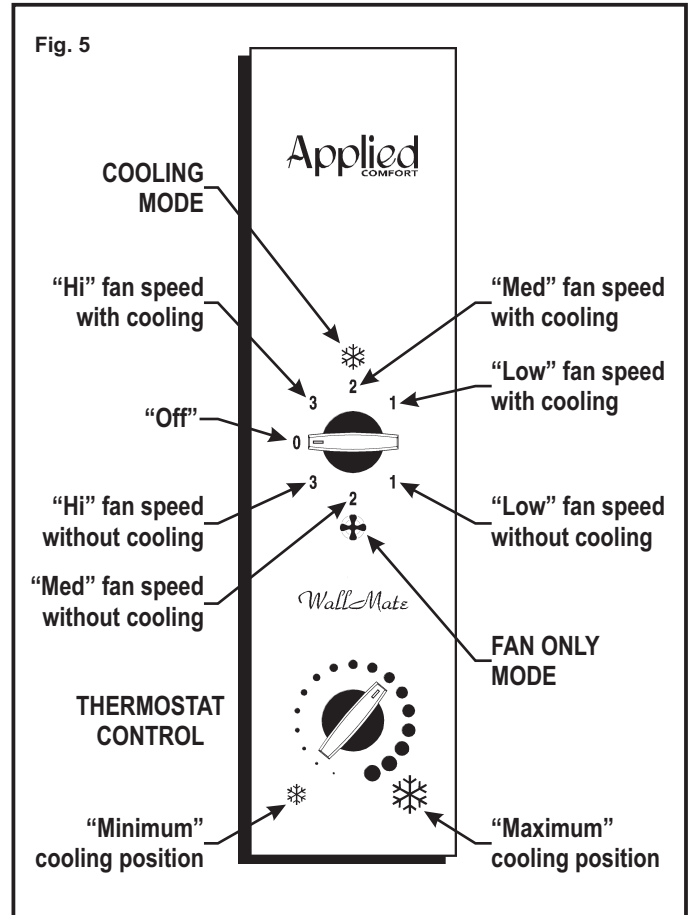
#### **CAUTION**

**If you turn your air conditioner "OFF", wait at least two minutes before turning it back "ON", or you may blow a fuse.**

**3. TURN THE THERMOSTAT CONTROL** to the "maximum" cooling position (full clockwise). This starts the compressor, as long as the room and outside air temperature are not below normal. When the room becomes comfortable, slowly turn the knob counter-clockwise (to a lower setting), until you hear the compressor stop (the fan will continue to circulate air).

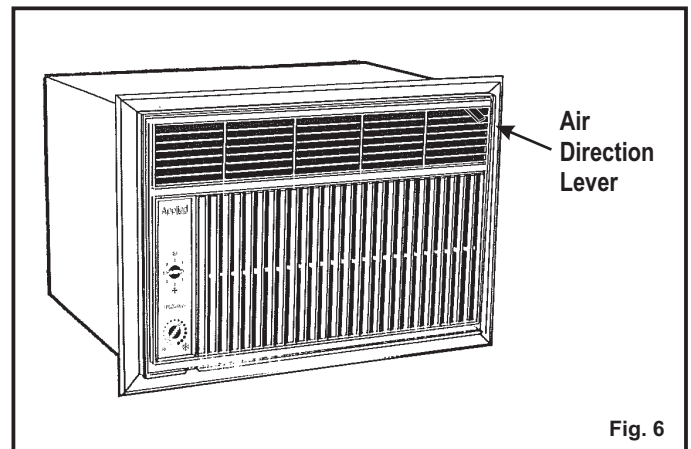
To automatically maintain the temperature selected, leave the thermostat control knob in this position. When the room temperature rises sufficiently, the compressor will automatically turn on and begin cooling again.

NOTE: Turning the knob clockwise produces greater cooling and turning the knob counter-clockwise produces less cooling.



#### 4. CHANGING AIR DIRECTION

The louvres in the grille area at the top of the air conditioner control the direction of the cooled air. The rear vertical louvres in the grille can be adjusted left or right or straight ahead. The front louvres are fixed and directed upward. **SIMPLY MOVE THE LEVER IN THE DIRECTION YOU WANT THE AIR TO GO. See Figure 6.**



# SUPPLEMENTAL INSTALLATION AND OPERATING INSTRUCTIONS

## **VERSION 'R', 24 VAC REMOTE WALL THERMOSTAT OPTION COOLING-ONLY, NO HEAT**

### **GENERAL:**

This supplement contains information specific to 24 Volt AC remote wall thermostat-ready WMC series models. Please also refer to the preceding sections of the general Installation Operation and Maintenance Instructions for the unit.

### **THERMOSTAT SELECTION:**

Superior control of room temperature is achieved by using a wall thermostat mounted at a distance from the unit. Any standard cooling-only or single-stage 24 volt heat/cool thermostat intended to control a gas or electric heating unit with cooling can be made to work with the unit; this includes auto changeover and electronic thermostats.

A room thermostat is basically a switch that directs 24 volt power from its "R" terminal to its W, Y, and G terminals, according to the function being demanded by the user. The WMC unit a cooling-only unit, so the terminal marked "W" will not be used. If a basic thermostat is a switch, it does not consume power, and normally requires only a 3 thermostat wire hookup. However, electronic thermostats need to be powered somehow; some use batteries or power scavenging, but some need 24 volt AC power to be provided from the unit's transformer via the "C" terminal, in addition to the R terminal, especially if its display is backlit. If your thermostat requires connection to the "C" terminal, it will require 4 thermostat wires to be run in the wall. Hook up your thermostat accordingly.

### **THERMOSTAT LOCATION:**

Proper functioning of the remote thermostat depends on accurate room temperature sensing. Be conscious of locating the thermostat where the temperature near the thermostat may not be representative of room temperature. Do not install the thermostat where it will be subjected to direct sunlight, other sources of heat, or cold drafts, including discharge air from the supply register. A common mistake is not sealing the hole in the wall where the thermostat cable passes into the thermostat body. Air from behind the wall can drastically affect the temperature sensed by the thermostat.

### **THERMOSTAT CONNECTION:**

Follow the steps in the basic Installation Instructions and then proceed as follows:

Remove the plastic front grille by pressing it downward and then pulling it toward you. Once removed, it will expose the 24 VAC terminal strip with the markings R,W,Y,G, and C at the corresponding wire binding screw locations where the thermostat wiring connections will be made. Route the thermostat wire bundle up through the 3/8" plastic clamp on the front of the control box to guide wiring away from any sharp edges. Make the connections from the thermostat to the terminal strip in the unit as follows:

R to R, Y to Y, G to G (W is not used).  
C to C, if C is required by the thermostat to operate.

### **IMPORTANT**

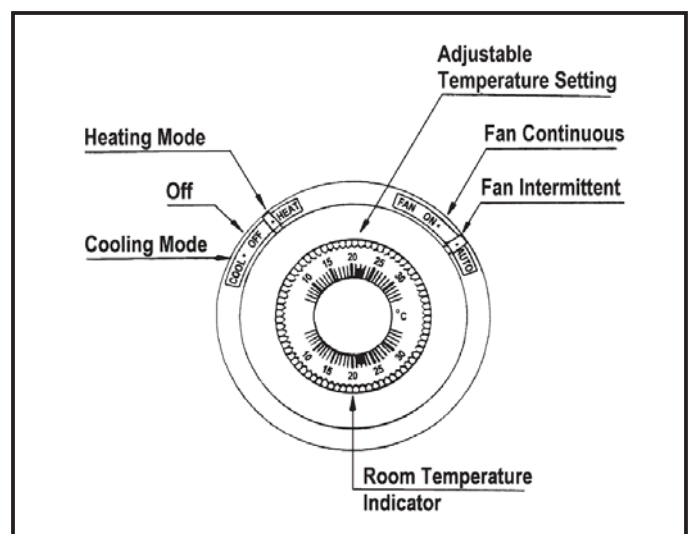
Do not connect any thermostat wire to Terminal C on the terminal strip unless it will connect to Terminal C at the wall thermostat. Failure to do so will result in a transformer burnout.

Re-install the plastic front grille. Set the fan speed control to '0' (OFF) and then plug in the unit.

### **OPERATING INSTRUCTIONS**

#### **THERMOSTAT OPERATION:**

The wall thermostat controls the cycling rate in cooling mode, and whether the fan is in intermittent or continuous operation. Once a comfortable setting is established, no other adjustments are necessary except for fan speed, which is adjusted by the rotary switch at the unit.



## WALL THERMOSTAT OPERATION

<b>Heat (Not Used)</b>	Sets the unit into heating mode. Will initiate heating when the room temperature falls below the set point. (Not applicable)
<b>Off</b>	Disables cooling mode, but still allows control of fan.
<b>Cool</b>	Sets the unit into cooling mode. Initiates cooling when the room temperature rises above the set point.
<b>Auto (Not Used)</b>	Found on automatic changeover thermostats only. Allows the thermostat to decide whether it should be in the heating or cooling mode. (Not applicable)
<b>Adjustable Temperature Setting</b>	Establishes the “set point”, or desired room temperature.
<b>Fan On</b>	Synonymous with “Fan Continuous”. Fan will continue to run after the cooling has cycled off. Fan will not run if mode switch is in Off position.
<b>Fan Auto</b>	Synonymous with “Fan Intermittent”. Fan will cycle on and off with the cooling cycle, and will not operate between cycles.

## ROTARY SWITCH

The rotary switch can be rotated to the left or to the right of the “Off” position - operation will be the same. Cooling output is affected by fan speed. The settings are addressed in the following table:

### ROTARY SWITCH OPERATION

<b>Off “0”</b>	Unit will not respond to any commands from the remote thermostat. 24 volts continues to be supplied to the thermostat to keep programs in electronic thermostats intact. To completely de-energize the thermostat, the power cord must be unplugged.
<b>Fan “3”</b>	High Speed. Selects highest fan speed for maximum cooling capacity, maximum airflow, and hence maximum air circulation.
<b>Fan “2”</b>	Medium Speed. Selects medium fan speed for a slightly reduced cooling capacity, at midrange airflow, and operation at a reduced sound level.
<b>Fan “1”</b>	Low Speed. Selects lowest fan speed for decent cooling capacity, maximum air dehumidification and operation at the lowest sound level.

## UNIT MOUNTED CONTROLS

### IMPORTANT

If the compressor is running in cooling mode, and then the unit is switched off, wait at least three minutes before switching the unit back on. This avoids cycling the compressor overload switch. Similarly, if the power has been interrupted, it is recommended that the unit be switched off and not switched on again until power has been restored for at least 3 minutes.

### NOTE:

The unit uses time delay relays for controlling commands from the wall thermostat. Therefore, please be patient when switching from one function to another, as the unit does not respond quickly to thermostat commands.

**Applied**  
COMFORT

