

USER'S MANUAL

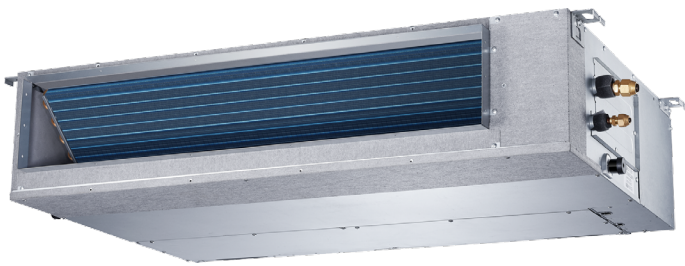
# 4DHP Mini-Split Systems

Indoor Units DMD, D22C/D33C, DWM

This manual must be left with the homeowner for future reference.



This is a safety alert symbol and should never be ignored. When you see this symbol on labels or in manuals, be alert to the potential for personal injury or death.



**DMD Medium Static Ducted**



**D22C Compact Cassette, D33C Cassette**



**DWM Wall-Mounted**



(P) 507619-01

Manufactured By  
**Allied Air Enterprises LLC**  
*A Lennox International, Inc. Company*  
215 Metropolitan Drive  
West Columbia, SC 29170

## Safety Requirements

### **WARNING**

#### **ELECTRICAL SHOCK, FIRE, OR EXPLOSION HAZARD.**

**DO NOT** spray water on the indoor unit for any reason.

Do not touch the unit or the controller if your hands are wet.

Do not insert your hands, tools or any other item into the air intake or air outlet at either the indoor or outdoor unit.

Do not remove the outdoor unit fan guard for any reason.

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer (or equivalent), or a service agency.

### **CAUTION**

If outdoor unit is installed on a raised stand, check condition of stand occasionally to ensure that it remains stable.

**Do NOT** install sprinklers or soaker hoses where they can expose the outdoor unit to treated water. Prolonged exposure to treated water will corrode the surface of the steel and aluminum parts and will diminish the performance of the unit.

### **IMPORTANT**

System operation is controlled by either a wired remote controller or a wireless remote controller. Refer to the manual provided with the control for system operation.

To ensure comfort, make sure that temperature selection has been properly set at the unit controller or remote control.

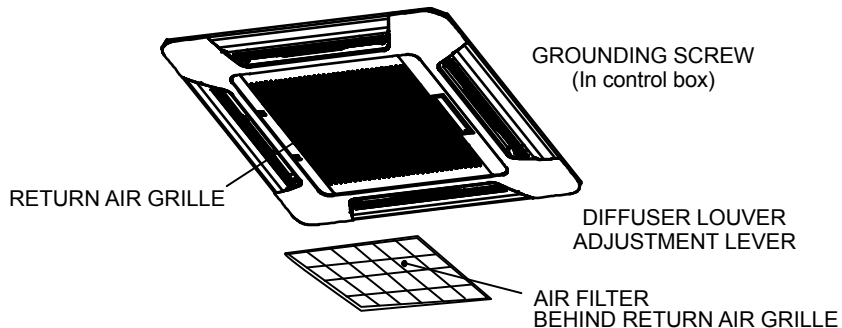
To ensure efficient operation, do not block air intake or outlet at either the indoor or outdoor unit.

Do not stand on outdoor unit or store items on top of unit.

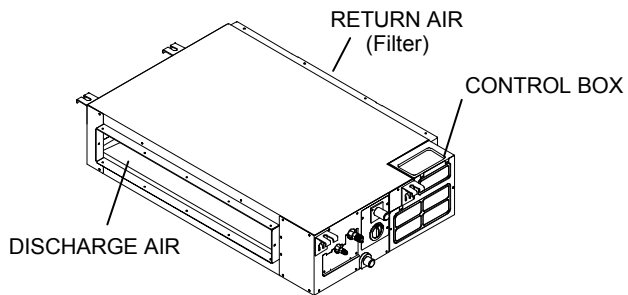
Make sure that indoor unit directional louvers are properly adjusted.

**D22C or D33C Cassette**

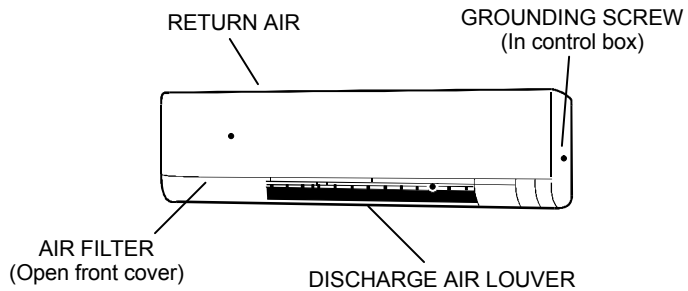
Cassette may be adjusted to provide discharge air from one, two, three or four sides.



**DMD  
Medium-Static Concealed Duct**



**DWM  
Wall-Mounted Non-Ducted Unit**



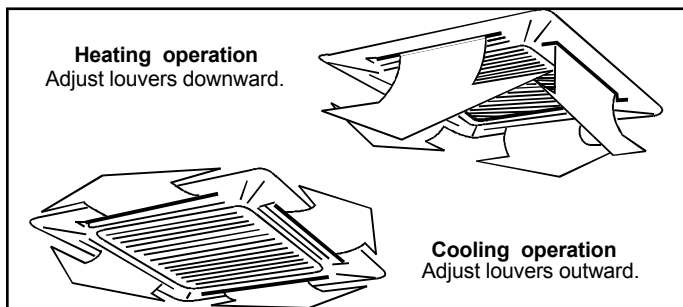
## Louver Adjustments

### **⚠ CAUTION**

**DO NOT** adjust the louvers by hand. Louvers are adjustable only by using the wired controller or remote control.

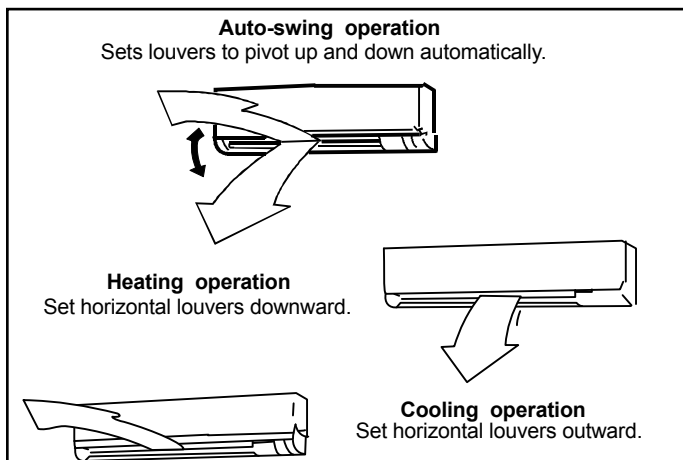
### **D22C or D33C Ceiling-Mounted Cassettes**

Use the wired or wireless remote control to set the position of the discharge air louvers. The louvers may be set to automatically swing. The horizontal louvers will swing outward to downward. You may also set the louvers so that they are stationary in a single position. It is always recommended to direct the horizontal discharge air louvers downward during heating and outward during cooling.



### **DWM Wall-Mounted Units**

Use the wired controller or the wireless remote control to set the position of the discharge air louvers. The louvers may be set to automatically swing between the outward and downward positions, OR you may set the louvers so that they are stationary in a single position. It is always recommended to direct the horizontal discharge air louvers downward during heating and outward during cooling.



## Maintenance

### **⚠ WARNING**

#### **ELECTRICAL SHOCK, FIRE, OR EXPLOSION HAZARD.**

Before performing any maintenance, power to unit must be off at the unit disconnect switch.

### **⚠ CAUTION**

Use a clean, dry cloth to wipe the remote control. Never use a damp or wet cloth to clean the remote control.

Use a clean, dry cloth to wipe the indoor unit. If necessary, dampened cloth may be used.

Do not use a chemically treated dust cloth on either the indoor unit or remote control.

Do not use benzene, paint thinner, polishing powder or similar products to clean the indoor unit or control. These substances may cause the plastic surface to crack or become damaged.

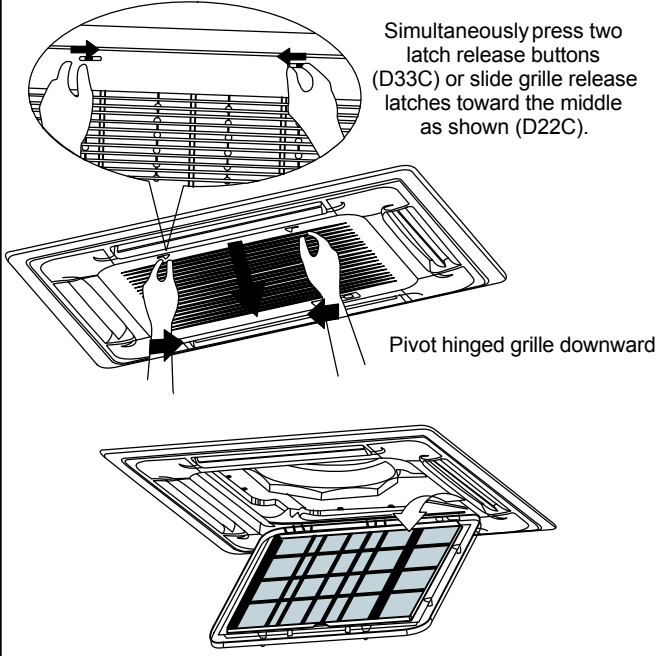
### **Return Air Filters**

Blocked or dirty return air filters affect system operation and efficiency. Air filters should be checked monthly in order to ensure proper air flow to the indoor unit. It may be necessary to check the filter more frequently if the unit is installed in an area with a large amount of dust.

The filter may be removed and cleaned, or it should be replaced with a filter of like kind and size if it is impossible to clean the filter. Refer to the parts arrangement illustrations on page 3 to locate the filter in your indoor unit.

D22C and D33C filters are accessed through the return air grille as shown in the illustration that follows.

### Typical Filter Removal D22C or D33C Ceiling-Mounted Cassettes



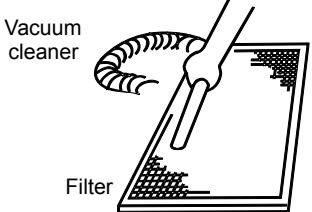
Simultaneously press two latch release buttons (D33C) or slide grille release latches toward the middle as shown (D22C).

Pivot hinged grille downward

Lift filter up and out to remove it from the unit.

### Filter Cleaning

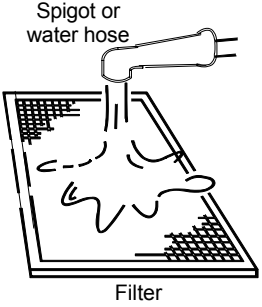
The filter may be cleaned using either a vacuum cleaner or with clean water.



Vacuum cleaner

Filter

Filter should be held with the air entering side face up when using a vacuum cleaner.



Spigot or water hose

Filter

The filter should be held with the air entering side face down when using clean water to wash the filter.

Filter should be set aside to air dry after cleaning. **Do not place filter in direct sunlight or use any type of heat to dry the filter.**

**NOTE** - If filter is extremely dirty, it may be necessary to use a soft brush and a mild detergent for cleaning. Filter must be thoroughly rinsed and dried.

### Preparing Unit for Prolonged Idle Periods

The unit must be prepared before lengthy periods of inactivity:

- Set the controller so that the indoor unit operates in the fan only mode for 8 to 12 hours.
- Thoroughly clean and replace return air filters.
- Use a clean, dry cloth to wipe cabinets.
- Turn the unit OFF at the wired controller or remote control; then, disconnect power to the unit.
- Remove batteries from the remote control.

### Returning the Unit to Operation after Prolonged Idle Periods

If the unit has been inactive for an extended period of time, it must be prepared for operation:

- Properly clean and replace return air filters.
- Use a clean, dry cloth to wipe unit front panels.
- Insert batteries into the remote control.
- If power was disconnected, reconnect power to the unit for at least 12 hours before returning the unit to operation.

### **WARNING**

If any of the following conditions exist, immediately turn the system (indoor and outdoor units) off at the unit disconnect switch and call a licensed professional HVAC technician (or equivalent) for repairs:

- The system does not receive a signal from the remote control or wired controller.
- The wireless remote control or wired controller indicate a system malfunction.
- Water is leaking into the room from the indoor unit.
- The circuit breaker trips or the fuse blows frequently.
- Water or some other liquid has been spilled on or splashed into the indoor unit.

### **Normal Operation**

If none of the above conditions exist, check the following items before calling for repairs. This can save you both time and money. The following are signs of normal system operation.

#### **System does not operate on command**

The indoor fan does not start immediately after the ON/OFF button on the remote control is pressed.

- On an initial call for cooling, the operation/run light is lit to signal normal operation. There will be a delay after a cooling demand is introduced before unit operation begins. This delay protects the unit compressor and is normal.
- When a heating demand is initiated, the operation light is lit to signal normal operation. The PRE-DEF indicator may be lit as well. The indoor unit fan will not operate until the indoor coil reaches a pre-set temperature. This prevents the delivery of cold air into the space and is normal.

#### **Indoor fan is on; compressor is off**

In certain normal operating modes, the indoor fan is on when the compressor is not operating.

- The system turns the compressor off and leaves the indoor fan on when the indoor coil falls to a preset temperature. This is normal operation and will prevent the indoor coil from freezing.
- When the indoor fan is set for continuous operation, the fan continues to run when the temperature setting is reached and the compressor is de-energized.

#### **White mist comes out of the indoor unit**

- During cooling operation, if the indoor relative humidity is very high and the indoor unit discharge air louvers are very dirty, the indoor coil may freeze and a white mist (frozen vapor) may appear to come from the indoor unit. In this case, though the unit is not in need of repair, it does need to be cleaned by a licensed professional HVAC technician (or equivalent).
- During heating operation when the operation mode switches from defrost to heating, moisture generated by the defrost process becomes steam and may be seen as it is blown out of the indoor unit.

#### **Sounds can be heard near the indoor unit**

During certain parts of the heating or cooling process, low swishing or groaning sounds may be heard near the unit as the system pressures equalize. This is a normal occurrence.

Table 1 lists possible causes and solutions to some of the most common problems. Please review this information before calling for service.

Symptom	Possible Cause	Possible Solution
Unit does not start.	<ul style="list-style-type: none"> <li>Power failure.</li> <li>Power to unit is OFF or disconnected.</li> <li>Circuit breaker may be tripped or fuse may be blown.</li> <li>Remote control batteries may have lost their charge or unit controller may have malfunctioned.</li> </ul>	<ul style="list-style-type: none"> <li>Wait for power to be restored.</li> <li>Turn on or reconnect power to the unit.</li> <li>Reset circuit breaker or replace fuse.</li> <li>Replace batteries in remote control. Check controller for proper function.</li> </ul>
Indoor fan is operating; however, air is not cool.	<ul style="list-style-type: none"> <li>Temperature not properly set at control.</li> <li>Compressor may be kept off by delay.</li> </ul>	<ul style="list-style-type: none"> <li>Check temperature setting at control.</li> <li>Wait for delay to expire.</li> </ul>
Unit cycles on and off frequently.	<ul style="list-style-type: none"> <li>Refrigerant charge is incorrect.</li> <li>Air in refrigerant circuit.</li> <li>Compressor malfunction.</li> <li>Improper voltage.</li> <li>System refrigerant circuit is blocked.</li> </ul>	<ul style="list-style-type: none"> <li>Check for refrigerant leaks and properly charge system.</li> <li>Evacuate and properly charge system.</li> <li>Check compressor and replace, if necessary.</li> <li>Check with utility company to provide proper voltage.</li> <li>Clear blockage.</li> </ul>
Unit not cooling properly.	<ul style="list-style-type: none"> <li>Indoor and/or outdoor coil are dirty.</li> <li>Air filter is dirty.</li> <li>Air flow around indoor and/or outdoor unit is obstructed.</li> <li>Doors and/or windows are open.</li> <li>Direct sunlight is affecting indoor temperature.</li> <li>Heat source inside is placing a large burden on the system.</li> <li>Suction pressure is low due to possible refrigerant leak.</li> </ul>	<ul style="list-style-type: none"> <li>Clean indoor and/or outdoor coil.</li> <li>Clean or replace air filter.</li> <li>Remove obstructions.</li> <li>Close doors and windows.</li> <li>Use curtains or blinds to block direct sunlight.</li> <li>Reduce burden of heat source.</li> <li>Check for refrigerant leaks and properly charge system.</li> </ul>
Unit not heating properly.	<ul style="list-style-type: none"> <li>Doors and/or windows are open.</li> <li>Suction pressure is low due to possible refrigerant leak.</li> </ul>	<ul style="list-style-type: none"> <li>Close doors and windows.</li> <li>Check for refrigerant leaks and properly charge system.</li> </ul>
Fan speed cannot be changed.	Check the mode listed on the unit display. Fan speed cannot be changed in the AUTO or DRY mode.	Fan speed cannot be changed in AUTO or DRY mode. Change mode to COOL, FAN ONLY or HEAT.
Wireless remote control signal is not being transmitted, even when ON/OFF button is pressed.	Batteries may have lost their charge.	Replace batteries.
The TEMP adjustment indicator is not available.	Check the mode listed on the unit display. Temperature cannot be adjusted in the FAN ONLY mode.	Change the mode to COOL, HEAT or DRY.
Operation indicator disappears from the display after a period of time.	Check to see if display reads TIMER OFF.	Timed operation is terminated at the end of the TIMER period.
TIMER ON disappears from the display after a period of time.	Check to see if display reads TIMER OFF.	Timed operation is terminated when time period has expired.
No tones being sounded by indoor unit, even when ON/OFF button is pressed.	<ul style="list-style-type: none"> <li>Infra-red receiver must be able to see signal from remote control.</li> <li>Batteries may have lost their charge.</li> </ul>	<ul style="list-style-type: none"> <li>Aim remote control infra-red transmitter directly at receiver.</li> <li>Replace batteries.</li> </ul>

**Table 1**

## Error Codes

Indoor units are equipped with either a small panel with four LEDs that flash to indicate system errors or a digital display that provides an error code. Refer to the appropriate table below to view the error codes. If the unit has a digital display, the error code will replace the temperature setting displayed on the front cover of the indoor unit. If more than one error has occurred, the codes will alternate so that all codes are shown. Make note of the code (E1, EE, etc.); then reset the display by pressing the ON/OFF button on the wireless remote controller. Press the ON/OFF button a second time to reapply power to system. If code is still displayed, disconnect and restore power at the unit disconnect switch or circuit breaker. If the problem was temporary, the code will not reappear. If the error code reappears after power has been broken and restored at the disconnect switch or circuit breaker, call a licensed professional HVAC service technician.

Display	Indoor Unit Error Code Definition
E0	Indoor unit EEPROM error
E1	Communication error between indoor unit and outdoor units
E3	Indoor fan speed error
E4	Indoor return air temperature sensor error
E5	Indoor coil temperature sensor error
EC	Low refrigerant
EE	High water level alarm
F0	Outdoor current overload sensed
F1	Outdoor ambient temperature sensor error
F2	Outdoor coil temperature sensor error
F3	Compressor discharge temperature sensor error
F4	Outdoor unit EEPROM error
F5	Outdoor unit fan speed error
P0	Inverter module IPM error
P1	High or Low voltage protection
P3	Outdoor unit low temperature lockout
P4	Compressor drive error
--	Mode conflict
P6	High pressure / low pressure switch open
P7	Outdoor IGBT temperature sensor error