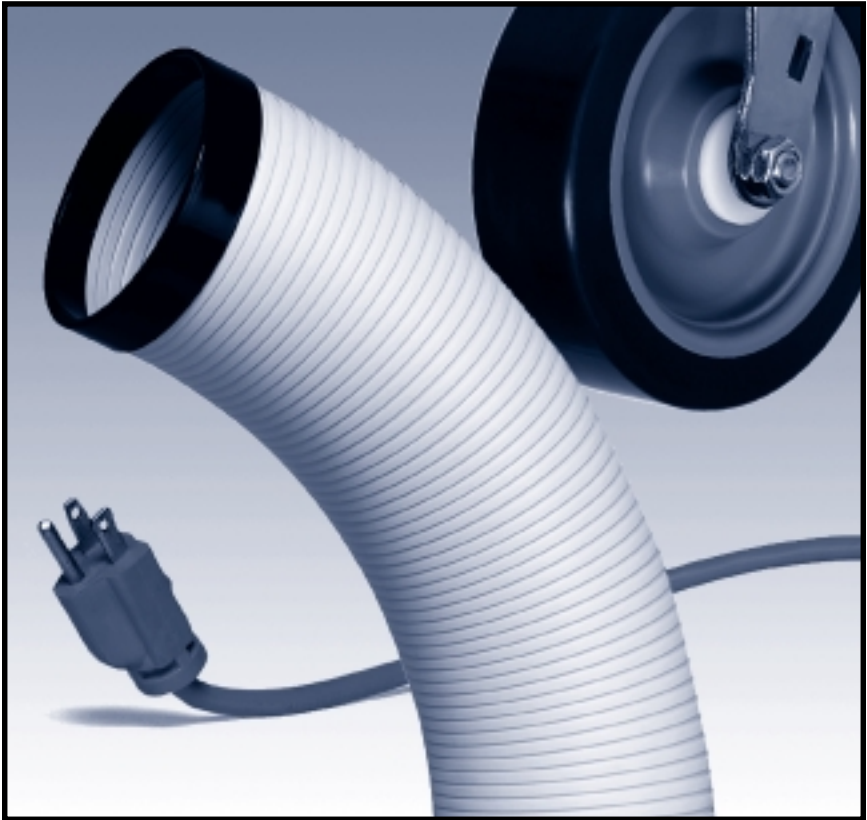


OPERATION **MANUAL**

24HFU and 24HFU-1



DENSO SALES CALIFORNIA, INC.
REGISTERED TO ISO 9002
FILE NO. A5537

MOVINCOOL®

Pioneering New Solutions With Portable Air-Conditioning
(800) 264-9573

www.movincool.com

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**READ THIS MANUAL CAREFULLY FOR INSTRUCTIONS ON CORRECT
INSTALLATION AND USAGE, AND READ ALL SAFEGUARDS.**

DSCA P/N: LA990009-0180-E

FOREWORD

Congratulations on purchasing the MovinCool portable air conditioner.

This manual explains how to assemble, install and operate the MovinCool 24HFU and 24HFU-1 portable air conditioning units. Please read this operation manual thoroughly to familiarize yourself with the features of the unit and to ensure years of reliable operation. You may also find it useful to keep this operation manual on hand for reference.

Components and/or procedures are subject to change without prior notice.

Definition of Terms

⚠WARNING: Describes precautions that should be observed in order to prevent injury to the user during installation or unit operation.

⚠CAUTION: Describes precautions that should be observed in order to prevent damage to the unit or its components, which may occur during installation or unit operation if sufficient care is not taken.

NOTE: Provides additional information that facilitates installation or unit operation.

GENERAL WARNINGS & CAUTIONS

- All electrical work, if necessary, should only be performed by qualified electrical personnel. Repair to electrical components by non-certified technicians may result in personal injury and/or damage to the unit. All electrical components replaced must be genuine MovinCool, purchased from an authorized reseller.
- The proper electrical outlet for MovinCool units must be equipped with a “UL” approved ground-fault breaker to prevent electrical shock from the unit.
- Both models (24HFU and 24HFU-1) are equipped with a six (6) foot power cord. If replacement, fixed location (hard wired) or power cord lengthening are required, contact your reseller for approved replacement methods and a qualified electrician.
- Never fold, or place heavy objects on the power cord. This could result in damage to the power cord causing electrical shock or fire.
- Do not place water or any other liquid on the unit. This can cause damage to the unit and increase the risk of electrical shock.
- Do not sit or stand on the unit.

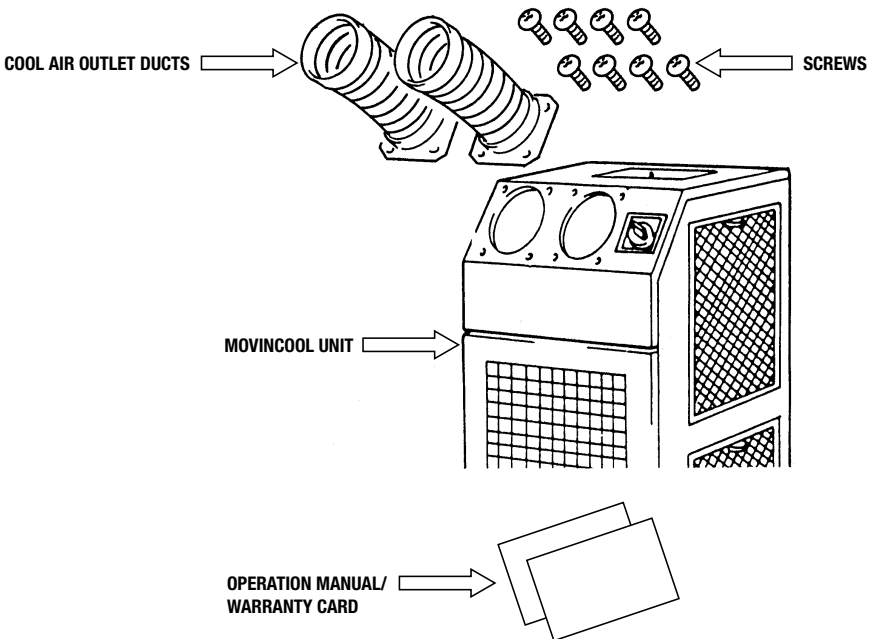
INVENTORY & ASSEMBLY

Inventory

After unpacking your MovinCool unit, please check to make sure you have the following items:

- MovinCool Unit (1)
- Cool Air Outlet Ducts (2)
- Screws (8)
- Operation Manual/Warranty Card (1)

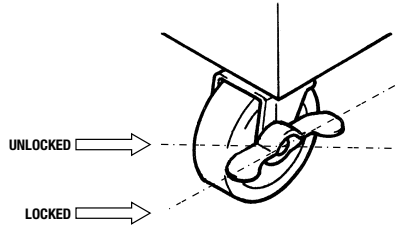
NOTE: If any of these items were not included in the box or appear damaged, please contact your MovinCool reseller for replacement.



INVENTORY & ASSEMBLY

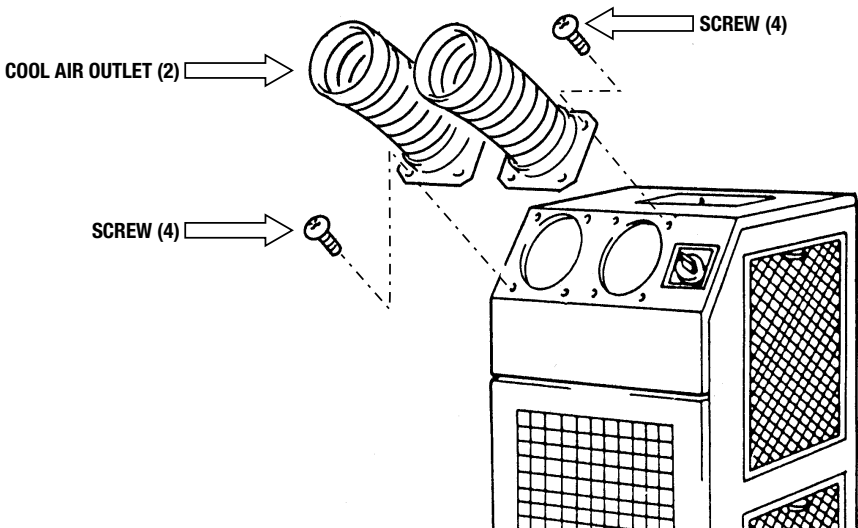
Assembly

⚠CAUTION: Before assembling make sure the unit is on a flat, level surface and the casters are in the “LOCKED” position. (Both the 24HFU and 24HFU-1 MovinCool units have locking swivel casters in the front only.)



Install each cool air outlet using 4 screws each as shown.

NOTE: Do not overtighten the screws when installing the cool air outlets. This could damage the base on the cool air outlet assembly.



INSTALLATION

Choosing an Installation Site

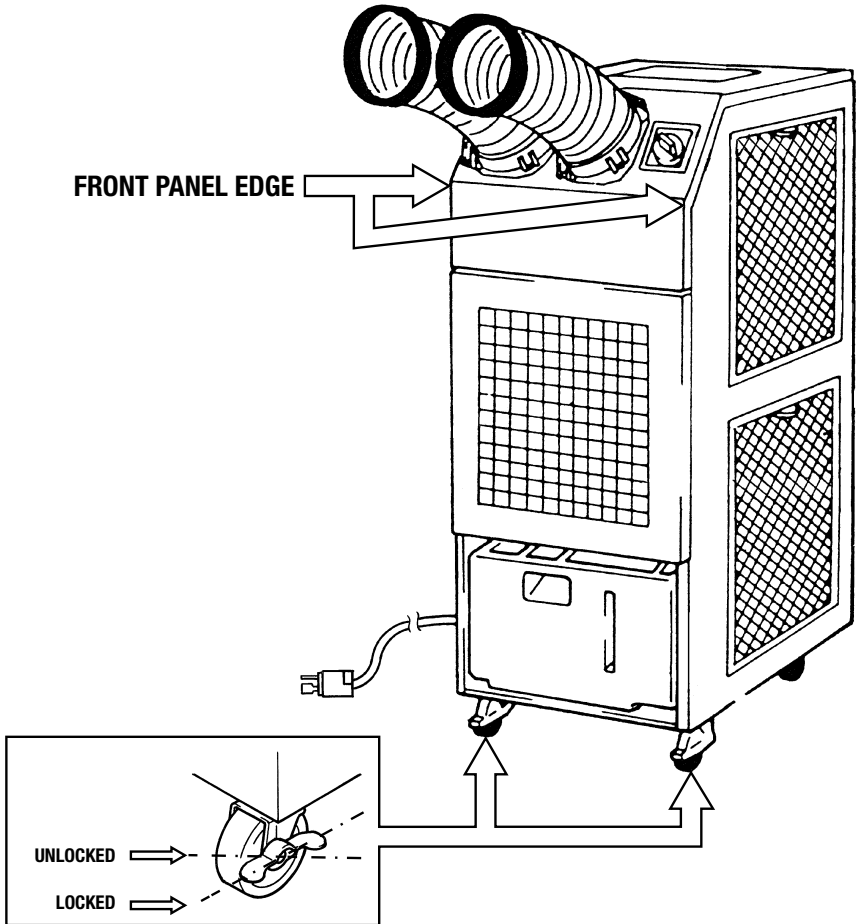
⚠CAUTION: Following are some precautions to consider before choosing your installation site. Please review carefully as improper installation may result in personal injury or damage to the unit.

- Do not use the unit in areas where leakage of flammable gas may occur.
- Do not use the unit in areas where it will be exposed to rain or water.
- Do not use the unit in an atmosphere of excessively corrosive gas or vapor.
- Do not use in areas where the temperature is outside the allowable operating range.
- Do not install the unit in sloping areas. The unit may move or topple over even if the caster levers are set to LOCKED.
- Install the unit in areas that can withstand the weight of the unit. The unit weighs approximately 280 lbs (when the drain tank is full of water).

INSTALLATION

Moving the Unit

Unlock the casters and push the MovinCool Unit from the front panel edge to a flat, level surface and set the casters back to the “LOCKED” position.

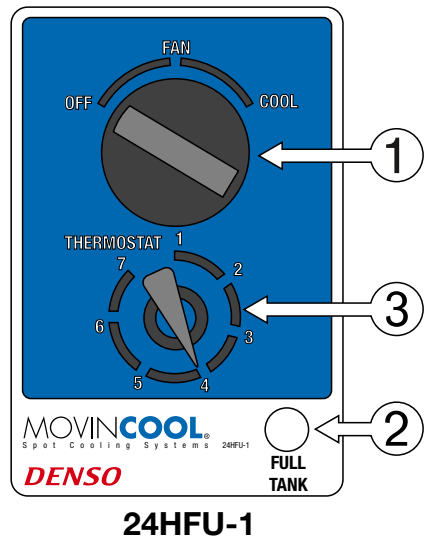
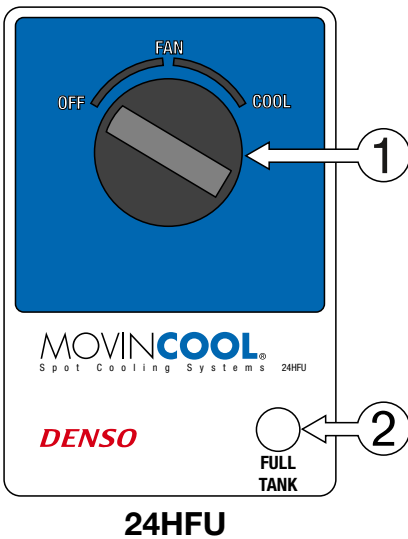


OPERATION

Before operating the unit, it is important to familiarize yourself with the basic controls located on the control panel.

Listed below are 2 types of control panels. Carefully review the figure pertaining to your model for proper configuration.

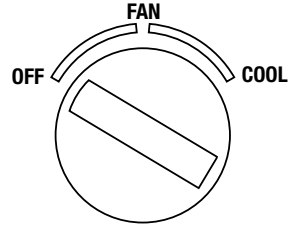
- ① Control Switch: Used to select desired operation mode (OFF/ FAN/COOL)
- ② “FULL TANK” Lamp: Turns on when drain tank is full
- ③ “THERMOSTAT”:
Used to control operation according to inlet air temperature (Model 24HFU-1 Only)



OPERATION

Plugging in the Unit

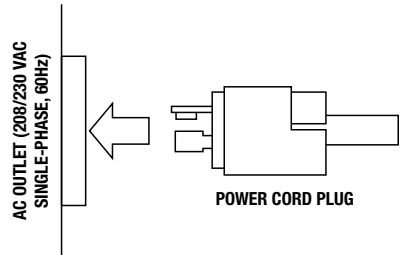
- ① Before plugging the power cord into the outlet, turn the Control Switch on the control panel to the “OFF” position.



NOTE:

- ① Make sure the AC outlet is free of dirt, dust, oil, water, or any other foreign matter.
- ② Both models (24HFU and 24HFU-1) are equipped with an approved NEMA plug configuration (L6-20). The appropriate outlet must be used for this plug type.
- ② Fully insert plug into the AC outlet and rotate clockwise until it locks in place.

⚠CAUTION: AC outlet rating needs to be 20A or higher. Do not share AC outlet with any other instrument or equipment.



⚠WARNING

- ① **If the power cord or plug is damaged, repair should only be performed by qualified electrical personnel.**
- ② **Do not connect or disconnect the power cord or operate any switches with wet hands. This could result in electrical shock.**

OPERATION

Operating Modes

Both the 24HFU and 24HFU-1 operate in 2 modes, “FAN” and “COOL”. When in “FAN” mode the unit circulates the air. When in “COOL” mode, the compressor is engaged and cool air is circulated.

Auto Restart Feature

- ***24HFU-1***

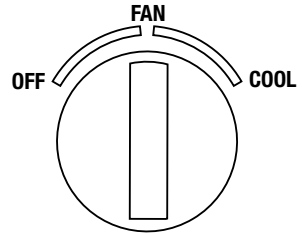
If there is interruption of electrical power to the unit, the auto restart feature will reset the unit, resuming normal operation.

- ***24HFU***

Must be manually restarted.

“FAN” Mode

Turn the Control Switch to “FAN” position.



OPERATION

“COOL” Mode

Turn the Control Switch to “COOL” position.

Model 24HFU-1 will operate in “FAN” mode for approximately 75 seconds before compressor engages. (*Time delay 75 ±15 seconds for 24HFU-1 only.*)

⚠CAUTION: If “COOL” mode has been stopped while operating the 24HFU, wait for 3 minutes before restarting in “COOL” mode.

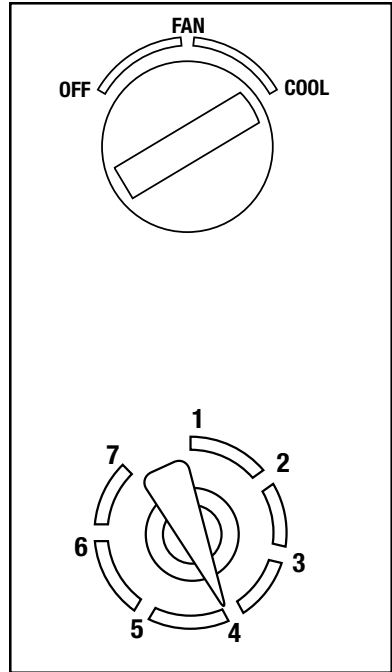
Thermostat (24HFU-1)

The thermostat allows the unit to automatically switch between “COOL” and “FAN” modes depending on inlet air temperatures. (*1 less cool - 7 coolest.*)

Fan Mode Control Switch (24HFU-1)

The Fan Mode Control Switch determines whether the operation mode switches from either “COOL” to “FAN” mode or “COOL” to “OFF” mode when inlet air temperature reaches a preset level. The unit has been preset from the factory to switch the operation mode “COOL” to “FAN”.

NOTE: If you wish to change the operation mode “COOL” to “OFF”, contact your MovinCool reseller.



OPERATION

Drain Tank

When in “COOL” mode, condensate will accumulate in the drain tank. When the drain tank becomes full, the “FULL TANK” lamp will illuminate and the unit will automatically shut off.

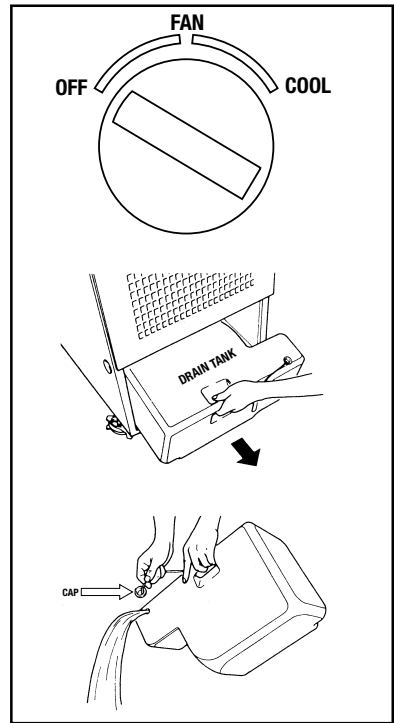
① To empty the drain tank, first turn the Control Switch to the “OFF” position.

② Pull the drain tank from the unit.

③ Remove the cap and empty the drain tank.

√ Replace the cap and return the drain tank to the unit.

⑤ Turn the Control Switch to the desired mode.

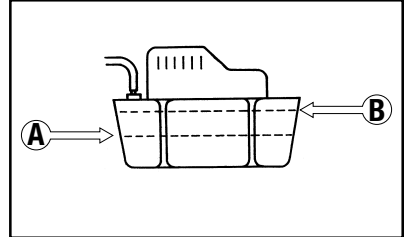


OPERATION

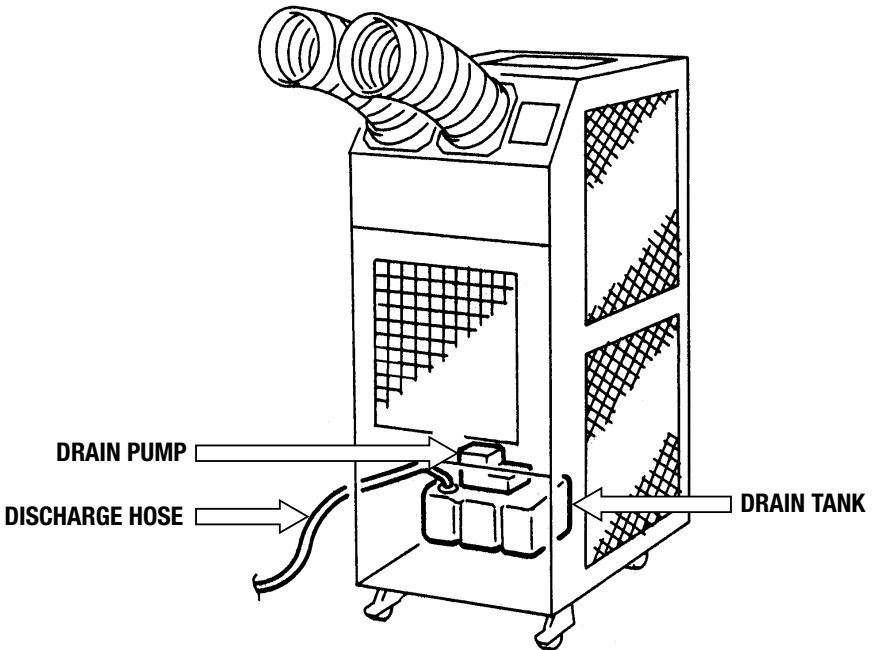
DRAIN PUMP KIT (Optional)

A drain pump kit is available to allow continuous operation and eliminate the need for a drain tank.

- When the water collects to level (A) in the pump reservoir, the drain pump begins to operate and discharge the water.
- When the water level drops below level (A), the drain pump stops.



NOTE: If the water level rises above level (B), COOL operation will automatically shut off. Contact your MovinCool reseller for repair.



DAILY INSPECTION & MAINTENANCE

Emptying Drain Tank

To empty the drain tank, refer to instructions, page 11.

Cleaning the Air Filters

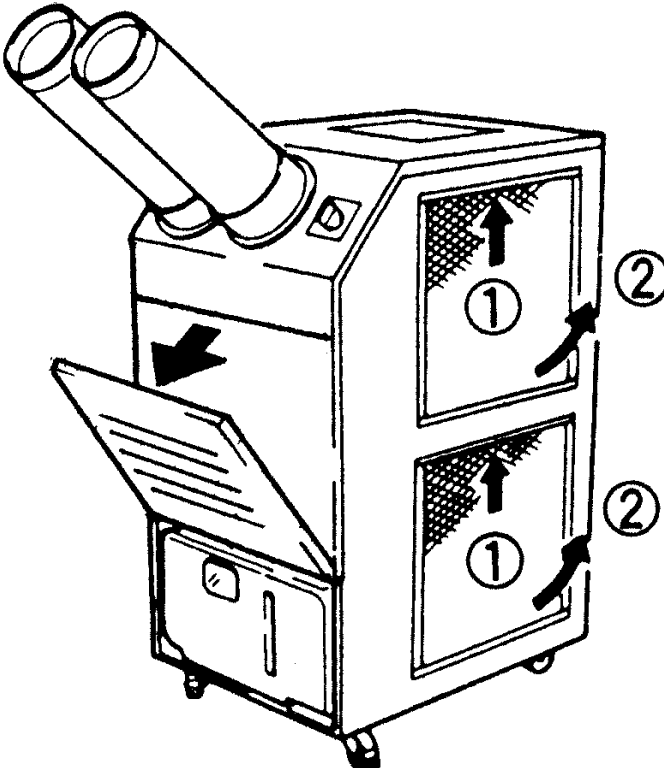
Clean the air filters once a week. If the unit is used in a dusty environment, more frequent cleaning may be required.

A dirty air filter reduces air output resulting in a decrease in cooling capacity.

Removing & Cleaning Method

- ① Set the Control Switch to the “OFF” position.
- ② Remove the 3 air filters.

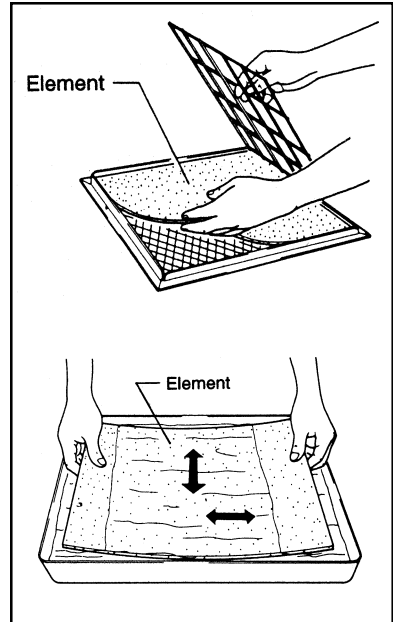
NOTE: To remove the side air filters, lift upward, then pull outward from the bottom. To remove the front panel air filter, pull out top corners, then lift upward.



DAILY INSPECTION & MAINTENANCE

Removing & Cleaning Method (Cont.)

- ③ Remove the element from each filter.



- √ Clean the air filter.

- ⑤ Remove dust from the element with a vacuum cleaner, or rinse in cold or lukewarm water. If the element is extremely dirty, wash with a neutral detergent.
- ≈ After the element has been cleaned, rinse with clean running water, allow to dry, then reinstall.

DAILY INSPECTION & MAINTENANCE

Inspecting the Power Cord/Plug (before operation)

- ① Check the prongs and surface of the power cord plug for dust/dirt. If dust and/or dirt are present, wipe off with a clean, dry cloth.
- ② Check the power cord plug and prongs for damage or excess play. If any damage or excess play is found, contact your MovinCool reseller for repair.
- ③ Check the power cord for damage. If the power cord is damaged, contact your MovinCool reseller for repair.

In-Season/Off-Season Inspection & Maintenance

In-Season

- ① Check the condition of the power cord and plug.
- ② Check the air filters and drain tank.

Off-Season

- ① Operate the unit in “FAN” mode for 8 hours.

NOTE: Operation is necessary to dry inside of unit.

- ② Disconnect the power cord from the AC outlet.
 - ③ Clean the air filter.
- √ Discharge water from the drain tank.

TROUBLESHOOTING

Check the following points before asking for repair.

SYMPTOM	POSSIBLE CAUSE	REMEDY
<i>Unit does not operate</i>	① Ground fault breaker blown ② Drain tank is full (FULL TANK lamp will be lit)	Reset breaker Drain tank
<i>Insufficient cooling</i>	① Dirty/blocked air filters ② Air inlet/outlet blocked ③ Improper thermostat setting	Clean air filters Clear air inlet/outlet Set to desired position

If symptoms still persist after above actions have been taken, set Control Switch to “OFF”, disconnect power cord plug and contact your MovinCool reseller.

TECHNICAL SPECIFICATIONS

ITEM/FEATURES	MODEL	
	24HFU	24HFU-1
Rating Condition dry bulb wet bulb humidity	35 °C (95 °F) 28.2 °C (83 °F) 95 °F (60%)	35 °C (95 °F) 28.2 °C (83 °F) 95 °F (60%)
Features power frequency line voltage power consumption current consumption power factor starting current power wiring	60Hz single phase 230 V 3.1 Kw 14.0 Amp 96% 62 Amp 12 (3-core) AWG	60Hz single phase 230 V 3.1 Kw 14.0 Amp 96% 62 Amp 12 (3-core) AWG
Current Unit cooling capability cooling system	6,000 Kcal/hr 24,000 BTU/hr direct expansion	6,000 Kcal/hr 24,000 BTU/hr direct expansion
Blower type of fan air volume motor output	centrifugal fan 1,200 M ³ /hr 706 ft ³ /min 0.55 Kw	centrifugal fan 1,200 M ³ /hr 706 ft ³ /min 0.55 Kw
Compressor type output refrigerant type refrigerant capacity	hermetic scroll 1.6 Kw R-22 0.85 kg 1.7 lbs	hermetic scroll 1.6 Kw R-22 0.85 kg 1.7 lbs
Safety Devices compressor overload relay fan motor protector anti-freezing thermostat drain warning switch high pressure switch restart relay - power interruption time delay relay	with with with with with without without	with with with with with with with
Dimensions & Weight W x D x H weight	490 x 730 x 1200mm 19.3" x 28.7" x 47.2" 107 kg (235 lbs)	490 x 730 x 1200mm 19.3" x 28.7" x 47.2" 107 kg (235 lbs)
Operating Condition inlet air (relative humidity)	113 °F (45 °C), < 50% 77 °F (25 °C), < 50%	113 °F (45 °C), < 50% 77 °F (25 °C), < 50%
Control Device temperature control	without	with