FORD & DOONAN
Air Conditioning Systems

Operating Instructions

for your Ford & Doonan Ducted System

Dear Owner,

Thank you for installing a Ford & Doonan fully ducted air conditioning system. We believe that you have purchased the best air conditioning system available.

Before operating the air conditioner please read this operating manual carefully. It will advise you on how to operate the unit correctly, understand the air conditioner's advanced features and help you in the unlikely event that a problem should occur.

Please keep this manual in a safe place for future reference.

Contents

Attachments
Unit Manufacturers Operating Manual
Clean air pack information (if installed)
Electronic Zone Control Manual (if installed)

Ford & Doonan – Head Office
5 Weatherburn Way
KARDINYA WA 6163
Postal Address
PO Box 8010
HILTON WA 6163
Ph. (08) 9331 8800 Fax. (08) 9337 4323

Ford & Doonan – Joondalup
2/80 Winton St
JOONDALUP WA 6027
PH. (08) 9301 4288 Fax. (08) 9301 4299

Email – info@fordanddoonan.com.au
Website – www.fordanddoonan.com.au

Important Safety Instructions

- Never remove any fixed covers on the indoor or outdoor unit. Removal of the covers may expose fast moving fan blades or electrical components operating at a hazardous voltage. Contact with the blades or high voltage components may result in injury or electric shock.

- Never insert any objects into the openings in the indoor or outdoor unit. This may damage the product or result in injury to the person inserting the object.

- Do not expose the indoor unit or remote controller to rain or moisture. Water or other fluids on the electrical components may result in fire or electric shock.

- Always replace any blown fuse with a fuse of the same specification. The use of the wrong type fuse may allow the electrical wiring to overheat and catch on fire. If the correct type of fuse continues to blow, or circuit breaker continues to trip contact Ford & Doonan Service Department on 9331 8800.

- Never operate the air conditioner without the return air filter(s) in place. Operating the unit without the filter(s) will allow dust to enter the indoor unit and build up on the heat exchanger coil and fan motor. This will cause a malfunction of the unit, which will not be covered by warranty.

- This electrical appliance is not intended for use by young children. Young children should be supervised to ensure that they do not play with the outdoor unit.

MAIN SWITCH

Ensure you are familiar with the location of the main switches for the air conditioning system. These switches are normally located adjacent to the outdoor unit and in the fuse box/switchboard.

The main switch must be turned on at least 6 hours before the air conditioner is operated to warm up the compressor. Failure to do so may result in damage to the compressor, which will not be covered by warranty.

If the air conditioner is not going to be used for an extended period of time or you are going away on holidays, the main switch should be turned off to prevent accidental operation of the air conditioner. Remember that the main switch must be turned back on at least 6 hours before operating the air conditioner.

Using your Zones Correctly

Applicable when your new system has zones fitted

ZONE OPERATION- Uni-point Electronic Control Type (When fitted)

Refer the attached sub manual

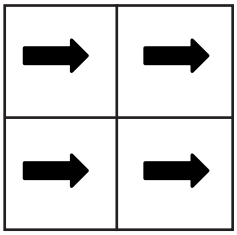
You may operate two or more zones at once, depending on the capacity of your unit, design and heat load. For example, under maximum heat load (a hot day) it is better to have fewer zones on than under a low heat load (at night) when an extra zone may be turned on.

The zones can take up to 2 minutes to open or close.

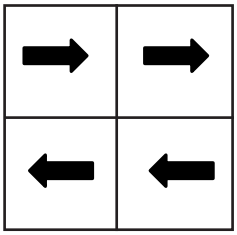
Airflow Adjustments

Multi-Directional outlets

Multi-Directional outlets (if applicable) are designed to give maximum adjustment to airflow. Each of the four cores is adjustable by lifting and turning to direct air from one direction to another.



ONE WAY



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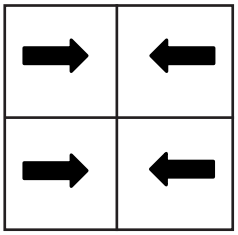

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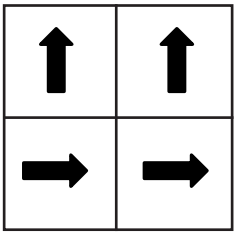

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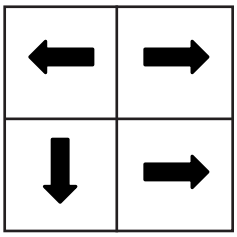

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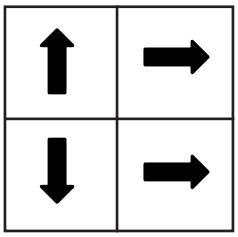

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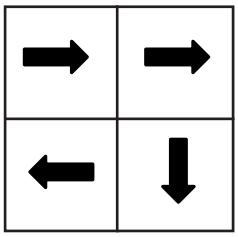

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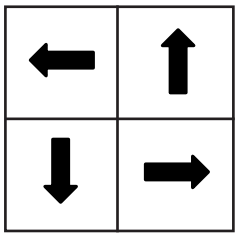


FOUR WAY

For the distribution of cool air, the louvre panels are set to deflect air horizontally across the ceiling.

For high ceilings and heating systems the louvre panels are adjusted to achieve 40% downward flow.

For spot cooling and heating, the louvre panels oppose each other for a vertical down airflow.

The outlets can be manually closed during winter if the system is not used for heating, although this is not a necessity.

SIDEWALL REGISTERS

Sidewall registers (if applicable) have vertical and horizontal blades that are adjustable. The blades are manufactured not to rattle so adjustments are required to be done with the assistance of long nose pliers with insulation tape wrapped around the ends so the paint of the register is not damaged. Gently move the blades to the desired position.

CHECK POINTS BEFORE REQUESTING REPAIR OR SERVICE

If the cooling effect cannot be achieved as desired, check the following points before requesting repair or service.

If the air conditioner does not function

- Is the power switched ON?
- Has the power fuse failed?
- Is power supplied?
- Has the circuit breaker tripped?
- Is the temperature indicator set in the correct operation position, or to a position, which is too high for the cooling operation?

Not cooling or heating as desired

- Is the thermostat set to the proper position?
- Is there an obstruction near the air intake or outlet port?
- Is the air filter free from clogging by dust, dirt etc?
- Are doors and windows completely closed?

If the “CHECK” indicator starts flashing:
Check the above again, turn off the operation switch or circuit breaker, wait about 3 minutes, then restart.

If the “CHECK” indicator starts flashing again.
1) Press the “CHECK” switch.
2) The temperature setting display changes
3) “F2” to “F18” appears

Contact Ford & Doonan with the serial number and explain the problem.
PH. 1800 247 266

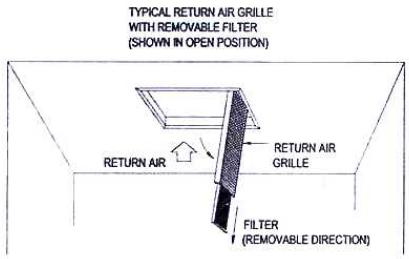
“FILTER CLEAN” DISPLAYS (small tap symbol)
This indicates it is time to clean or replace the filter. Press this switch to reset and clear the symbol.

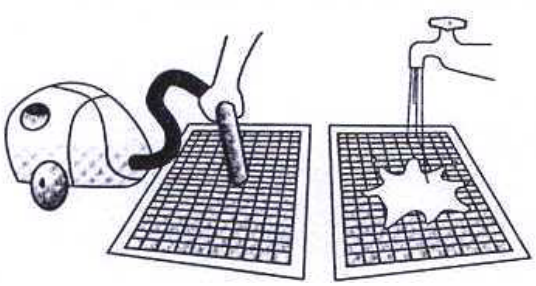
MAINTENANCE

1) Cleaning the air filter

(if your system has the clean air pack ignore this section and refer to the “clean Air pack” attachment

DOMESTIC: at least every 2-3 months.
COMMERCIAL: at least once per month.





2) Cleaning the outside panel

Cleaning the outside panel by using a soft cloth or a cloth dampened by a neutral detergent solution. Never use paint thinner, other chemical products, or polishing powder when cleaning the outside panel. A good quality car polish can be applied to the painted surfaces to increase the paint’s durability.

3) When the unit is not to be used for a long time

- Switch OFF the main power switch
- Rust preventative coating has been applied to the outside cover. If corroded, repair by painting.
- Clean the condenser to remove dust, waste etc (ie. leaves, waste, paper).

4) Maintenance service contract recommended

Preventative maintenance by qualified technicians has been proven to reduce the risk of failure of plant and equipment and maintain the efficiency of the overall installation.

Servicing by a qualified technician is recommended. For equipment subjected to heavy use, a bi-annual service frequency is desirable, whilst units subjected to lighter usage should be serviced annually.

Please find included, over, a return advice, which sets out maintenance options for your particular installation. Should you agree to the need for regular maintenance, kindly tick the option you prefer corresponding to your projected requirements and return it to our office for processing. Your service will be automatically scheduled according to your instructions.

Request for a regular Service Plan

Name: Ref No (If known):

Address:

Phone No:

Ford & Doonan Branch purchased from:

(Please tick as appropriate)

A Please schedule our Air Conditioner for one service per year.

B Please schedule our Air Conditioner for two services per year.
(Pre Summer and Pre Winter)

Date: _____ Signature: _____

Post To: Ford & Doonan Air Conditioning
Service Department
PO Box 8010
HILTON WA 6163

Notes for Efficient Operations

Thank you for purchasing your air conditioning system from Ford & Doonan. As you become accustomed to using the system, it may be helpful to reiterate a few points that will ensure that your system is operating to its full capacity. By developing some techniques you will be able to reduce your overall running costs and enjoy the advantages of living with an air conditioning system.

1) When operating an air conditioning system that utilises the zoning technique, remember the system has only a certain capacity, therefore the idea is to air condition the areas you are in at the time. With this in mind it then becomes prudent to habitually close the doors that lead to a non air conditioned area, thereby reducing the total area being subjected to air conditioning. This then will enhance the effectiveness of the machine.

2) You will notice that the larger Return Air Grille is normally located in a central position in the building. It is important to encourage the airflow towards this grille. This grille is drawing the total air capacity of the system through it and therefore requires unrestricted airflow. Depending upon the building you may need to open or close doors around this area to keep the air flowing to this grille.

3) The Return Air Grille in most cases also contains an air filter. This air filter, depending on the system usage and other air quality factors will need to be cleaned regularly. To do this simply open the grille and slide out the filter. In most cases it is best to hose the filter clean, although some people prefer to vacuum the filter. Remember, regular cleaning of the filter will improve the system efficiency.

4) The condensing or outdoor unit is located in a position to best suit the building and the occupants. It is important to maintain cleanliness around the unit, for example sweeping away any build up of leaves or general flotsam is generally all that is required. It is critical to not inhibit the airflow coming from the condenser, other equipment or general garden paraphernalia should never be stacked on or leant against the condenser. Similarly if a garden is developing around the condenser, this can be an advantage as some of the sound from the condensing unit will be absorbed, although a robust bush can block the air flow so consideration should be given to this, it is also imperative to keep the condensing unit accessible for servicing purposes.

Performance Expectations from your Air Conditioner

It is important to understand the expectations and limitations of new Ducted Air Conditioner.

Hot Weather

Heatload calculations and manufacturers capacity ratings are based on an outside temperature of 36°C. When the temperature exceeds this, the performance of your air conditioner will fall away the hotter it gets and room temperatures will increase accordingly.

Cold Weather

Heatload calculations and manufacturers capacity ratings are based on an outside temperature of 7°C. When the temperature is lower than this, the performance of your air conditioner will fall away the colder it gets and room temperatures will decrease accordingly.

The above conditions do occur in Perth and there will be nothing wrong with your air conditioning unit when it happens.

To Minimise Effects

The easiest is to start your air conditioner earlier in the day. On hot days start to air conditioner before your heatload increases so the air conditioner can get a head start. On cold days start the air conditioner whilst it is still warm outside (above 12-15°C). This will let the air conditioner deliver maximum capacity before performance falls away.

If your system has zones (residential only) reduce the number of zones turned on when the external conditions are extreme. The smaller the area being air conditioned, the better it can cope.

Return Air

Your system will be usually designed with one (1) only return air grille.

The area around the return air grille will always be drafty and in winter, always much cooler than the rooms. This is why we select hallways or other “non occupied rooms”.

You will have to leave any room’s entry door ajar to allow the conditioned air to come back to the grille. You cannot close the door as performance will be affected. We have options to overcome these situations, discuss this with your consultant.

Heating Performance

Hot air rises and the room temperatures at different levels will be different. It is normal that some parts of the room will be warmer than others. The same applies on cooling mode but to a lesser degree.

Sizing of Equipment

When we recommend a unit we have completed a heatload calculation on the area. We have assumed the following:

- Curtains will be drawn closed in both sunny summer days and at night in winter.
- Ceiling insulation has been installed directly above your ceiling (not just anticon or sisalation)
- Doors and windows will be left closed.

If any of the above changes, your air conditioner may not be large enough to maintain acceptable room temperatures.

Zones

If we have installed zones then they cannot all be turned on together without effecting performance. On low load days or nights your air conditioner can handle a larger area at one time. Your air conditioner can only handle the percentage of the home we mention in our letter at typical design temperatures. Turning on less zones will effectively increase the available capacity you have.

Service Log Book

Date	Description of Work Done	Job No.	Technician