FORD & DOONAN

Air Conditioning Systems

User Instructions

for your Ford & Doonan Ducted System

Congratulations on your new Ford & Doonan system!

Your Service Department is our Kardinya Head Office
Contact our Service Department should you require assistance.
5 Weatherburn Way, Kardinya WA 6163
Phone: 08 9331 8800
Email: service@fordanddoonan.com.au
Web: www.fordanddoonan.com.au

"Have a Ford & Doonan Day"

FORD & DOONAN
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Congratulations on your new Ford & Doonan Air Conditioning system.

You can rest assured you have received the highest quality system, backed by the very best after sales customer service.

Before operating the air conditioner, read these instructions carefully and contact us should you require further assistance.

This manual will help you understand and correctly operate your system. It also provides helpful QR codes allowing access to relevant manuals/videos and other information on your new air conditioning system.

In the unlikely event that a problem should occur, a troubleshooting section is included.

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

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Air Conditioner Log Book

In order to assist you comply with your manufacturer's warranty requirements, Ford & Doonan have below an easy to track "Log Book" for your servicing. We recommend servicing be carried out every 12 months from the date of installation to ensure you maintain your system to the manufacturers specifications.

Service Date	Works Completed	Ford & Doonan Technician Signature

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Important Information

Please read these points before using your system for the first time.

Safety Instructions

- Never remove any fixed covers on the indoor or outdoor units. Removal of the covers may expose fast moving parts and electrical components operating at a hazardous voltage. Contact with internal components may result in injury or electric shock.
- Never insert any objects into the openings of the indoor or outdoor units, as this may damage the product and result in injury.
- Do not expose the indoor unit or remote controller to moisture. Water or other fluids on the electrical components may result in fire or electric shock.
- If the air conditioner's circuit breaker trips (in your fuse box) contact our Service Department.

Warnings

- Never operate the air conditioner without the return air filter in place. Operating the unit without the filter will allow dust to enter the indoor unit, permanently blocking internal components and affecting airflow. This will cause a malfunction of the unit and will not be covered by warranty.
- Never run your air conditioner with all zones set to off. You will need to have some zones open and operational for best operating of your unit. Failure to use this practice may cause excessive air pressure within the duct work resulting in failure or potential damage.
- If a drain alarm sounds, turn off your air conditioner immediately. Ensure the batteries are not depleted before switching the system back on. If the alarm sounds again, turn off your system and call the Service Department.
- Never use solvents or other chemical products on any part of your air conditioning system.

General

Ensure you are familiar with the location of the external power (isolator) switch for the air conditioning system.

- This will generally be located adjacent to the outdoor unit.
- If the air conditioner is not going to be used for an extended period of time, the isolator switch can be turned off. This will save energy and prevent accidental operation of the air conditioner.
- Before re-starting the air conditioner, switch the isolator back on for six hours before using your system. This allows the internal oil heater to sufficiently warm the compressor's oil, avoiding damage on start up.

Throughout this book you will find helpful QR Codes – if you scan these using your smart phone it will direct you to helpful brochures, videos and more detailed information.

If at any point during or after reading this guide you have questions or need further information, please contact our Service Department for assistance.

In the next few pages you will find helpful operational tips, tricks and guidance on how to get the best out of your air conditioner during the different seasons.

Basic Operation

Using your air conditioner in summer

Ford & Doonan's Recommended Summer Operations:

- The air conditioning unit mode is best set to "Cool". The symbol may appear as a snowflake on your wall controller.
- The temperature of the air conditioner is best set between 22–27 degrees Celsius, depending on the outside temperature and preferred comfort level.
- The fan speed on the air conditioner can be varied depending on your personal preference and zone use. High fan speed is recommended.
- Run at least ¼ of your total home's outlets when using the zones

Start your system in the early morning, before the heat of the day and maintain a cooler home for optimum performance. Attempting to rapidly cool a hot home will only increase the running costs and reduce the system's efficiency.

Keeping blinds/curtains closed and doors of un-used rooms shut will also improve the systems performance.

Using your air conditioner in winter

Ford & Doonan's Recommended Winter Operations:

- The air conditioning unit mode is best set to "Heat". The symbol may appear as a sun on your wall controller.
- The temperature of the air conditioner is best set between 20–26 degrees Celsius depending on the outside temperature and preferred comfort level.
- The fan speed on the air conditioner can be varied depending on your personal preference. High or Auto fan speed is recommended to help with the air flow/maintaining temperatures during the winter period.
- Run at least ¼ of your total home's outlets when using the zones

Maintaining a warm home means your system will run optimally. Attempting to rapidly heat a cold house will increase the running costs and reduce the system's efficiency.

Remember to close off any un-used rooms to improve the system's performance.

Using your air conditioner in fan only mode

Ford & Doonan's Recommended Fan Only Operations:

- The air conditioning unit mode should be set to "Fan". The symbol may appear as a fan on your wall controller.
- No temperature needs to be set on your system; this mode will simply move the air around your home.
- Fan speed on the air conditioner can be varied depending on your personal preference. High fan speed is recommended.

Fan only mode is a great option during spring, autumn or those not-too-warm or not-too-cool days to create air movement and comfort at only 10% of your normal running costs.

Fan only mode may take the place of ceiling and pedestal fans.

Helpful tips and tricks for running your air conditioning system in any mode.

- Use your zoning by opening only the outlets you are using at that time. This will help system efficiency (See Zone Operations).
- Forcing the system to heat or cool a home during temperature extremes will place more stress on the unit and increase the running costs, decreasing the systems efficiency. For optimum performance, maintain an even temperature, rather than continually stopping and starting the system (see Performance Expectations).

- The filter needs to be clean and free from debris to ensure maximum airflow to the system, which maintains efficiency and reduces running costs (see Service & Maintenance).
- Annual servicing of your air conditioner is a minimum recommendation. Filter and battery replacements are needed at least every 12 months and servicing is a requirement of both your Ford & Doonan and Manufacturer's Warranties (see Service and Maintenance).

In the following pages you will find more in-depth information, QR Codes, system requirements and recommendations in regards to your air conditioner.

Do not hesitate to contact the Service Department for assistance or further information.

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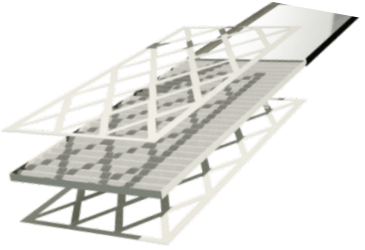
1. Air Flow and Outlets

Return air grille

You will notice a large egg-crate type return air grille within your home; this is normally located in a central position within the building, such as a hallway. It is important to encourage unrestricted airflow towards this grille.

This grille is drawing the total air volume of the system, and therefore requires unrestricted airflow. Do not fully close hallway doors adjacent to this grille.

The air from every outlet will require a free path back to this grille. Depending upon the building, you may need to open doors around these areas to keep the air flowing to this grille.

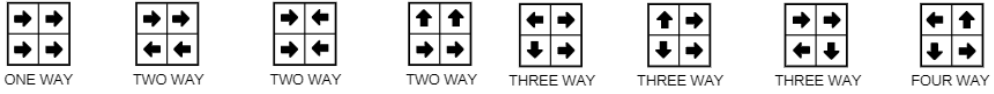


Using the Ford & Doonan door stops is a simple way to ensure unrestricted airflows.

We have various solutions to overcome situations where an unrestricted air path cannot be established. Please discuss this with your sales consultant.

Multi-directional outlets

- Multi-directional outlets (if applicable) are designed to give maximum directional adjustment to airflow. Your outlets may have louvered panels in each of the four corners. These are adjustable by lifting and turning to direct air from one direction to another.



- For the distribution of cool air, the louvre panels can be set to deflect air horizontally across the ceiling. Cool air will then fall to ground level.
- For high ceilings and heating systems the louvre panels can be adjusted to achieve 40-60% downward flow. As heat rises, by setting the airflow downwards you'll improve the heating performance.
- For spot cooling and heating, the louvres can be set vertical (90%) for downward airflow.

Adjustments to louvre positions are best completed by a Ford & Doonan Technician at the time of servicing and maintenance.

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2. Zone Operation*

*Applicable when your new air conditioner has a zoning system fitted

Day Time Operation - We recommend turning on the living room areas. Turn off any bedrooms and rooms that are not needed.

Night Operation - We recommend turning off the living areas and opening just the bedroom zones - this operation of the system is the most efficient and will reduce running costs.

Note: The zones can take up to one (1) minute to open or close.

A minimum of ¼ of your home zones must be turned on and fully open. Often the low fan speed setting is sufficient for the lowest level unit operation.

Consider how many zones you need to have open as a minimum to meet this requirement.

- If some zones do not appear to have enough air flow, check the zone is set to 100% open, visible on the wall zone controller. Next, consider how many zones are open and turn off those zones that are not needed.

- Areas that are working well and appear to have an excessive amount of air can have the air percentage reduced. This will cause an increase of air to other areas.

- Depending on the capacity of your system and the external/ambient heat load, you may be able to operate all zones at once. Under lower heat load conditions (e.g. at night) additional zones may be turned on. However, your air conditioner may not be large enough to cool the whole home at any one time.

QR Code – Zone Controller

iZone

ZoneTouch

Air Touch 2 & 4

3. Drain Alarm*

*Applicable when your new air conditioner has the drain alarm fitted

Our drain alarm is our latest innovation and is unique to Ford & Doonan. It is intended to further reduce the chance of water damage in the event of a drainage issue. The drain alarm is able to sense moisture within the safety tray located under the indoor unit located within your roof space.

Features:

- ✓ Audible alarm that warns you moisture has been detected
- ✓ Alerts you to a potentially blocked air conditioning drain
- ✓ Helps to eliminate possible water damage
- ✓ Negates the standard unsightly roof eave drain discharge point
- ✓ Battery operated and easily mutable

- Located in a pantry, linen cupboard or walk-in robe, the alarm unit will notify you of any potential trouble via an audible alarm (much like a smoke detector)
- The alarm unit is wired back to an electronic water sensor located in the safety tray of the indoor air conditioning unit.

- The alarm is battery operated, so is completely safe to run. Battery life is approximately 12 months and it is the owner's responsibility to supply and fit replacements. It's good practice to replace the battery at the same time you replace the batteries in your smoke detectors.
- If the drain alarm sounds an intermittent beep, it indicates a depleted battery. Replace the battery within the device (9V battery).
- If the drain alarm sounds a continuous high pitched beep it is indicating that moisture is present. Immediately turn off your Air Conditioner and contact our Service Department.

Scan the QR Code to see the video on Servicing your Drain Alarm Unit

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4. Service and Maintenance

Cleaning the return air filter

- Congratulations on selecting the clean air filter pack. Your air conditioner's return air will pass through an advanced pleated filter of commercial quality. This helps your home or office room air be as clean as possible.

If you have a clean air filter pack (disposable pleated filter). We recommend replacing the filter every 6 to 12 months; however, if you have allergies or pets, replace the filter every three months.

You may require more frequent filter replacements, depending on environmental factors, operational hours and your system requirements; this is not a fault of your system – it is an indication of how efficiently the filter is working. Contact the Ford & Doonan Service Department to purchase a replacement filter.

- If you have a washable filter (material), it can be cleaned by hosing it down and leaving it a couple of hours to dry. We recommend doing this every three months. Ensure the filter is completely dry before re-installation.

Do not wash your disposable clean air filter pack type filter.

- Its cardboard construction will destruct with water.
- Commercial applications with daily air conditioner usage will require regular filter replacements; telephone the Service Department to discuss your individual requirements.

Replacement filters are available from any of the 11 Ford & Doonan Stores.

Call 1800 AIRCON for your nearest store.

Scan the QR Code to watch the video on replacing your washable ducted filter.

Cleaning the outside unit

- Do not store anything on, around or obstruct the front of the unit's fans.
- Clean around the outdoor unit to remove dust and excess debris (leaves, paper, etc).
- Do not open or touch any internal components.
- Clean the outside unit's panels by using a soft cloth dampened with a neutral detergent solution.
- A good quality car polish can be applied to the finished surface to potentially increase the durability.
- Always encourage good air flow to the sides and rear of the outdoor unit.

Remember: Never place any obstruction in front of your air conditioner's outdoor unit. Doing so will reduce the efficiency of the system and may cause damage if the unit is operated with this obstruction.

When the unit is not being used for an extended period

Switch off the external power (isolator) switch, located adjacent to the outdoor unit.

After an extended off period (12 hours +) turn the Isolator on and wait six (6) hours before operating your air conditioner.

Maintenance and servicing recommendation

Ford & Doonan recommend regular servicing of your air conditioning unit to ensure that your system runs optimally throughout its life. If you use your air conditioner both for summer and winter this is best completed every 6 - 12 months.

Please Note: It is a requirement of both Ford & Doonan and air conditioning manufacturers that your unit be regularly maintained to fulfil the conditions of your warranty.

You can elect to receive regular maintenance reminders from Ford & Doonan to ensure that you never miss out on reminders and discounts.

5. Performance Expectations

Manufacturers' design conditions

Cooling capacity ratings are based on an outside temperature of 36°C with a room temperature of 24°C. This is referred to as the temperature difference.

Heating capacity ratings are based on an outside temperature of 7°C and a room temperature of 21°C.

These temperature capacity ratings are set by air conditioning unit manufacturers not by Ford & Doonan.

Hot weather

The cooling design temperature is 36°C.

- When the external/environmental temperature exceeds this, the performance of your air conditioner will decline. The hotter it gets the more your performance will decrease affecting the room temperature accordingly. This is not due to a poor design / installation; this is due to the system's capabilities.

Operating your system as efficiently as possible will help in increasing the system's output and maintain cost efficiency.

Cold weather

The heating design temperature is 7°C.

- When the temperature is lower than this, the performance of your air conditioner will decline.
- The colder it gets the more the performance will decrease affecting the room temperatures accordingly.

Operating your system as efficiently as possible will help increase the system's output and maintain cost efficiency.

Note: In order for any air conditioner to maintain the desired room temperature conditions when external temperatures are outside of the 36°C/7°C design range, the number of zones in use at any one time will need to be reduced.

Heating performance and convection

Due to hot air rising, the room temperature will vary at different levels within the room. This is known as air stratification.

- It is normal that some parts of the room will be warmer than others especially at different heights.
- As cold air falls the same applies on cooling mode but to a lesser degree.
- Refer to page 16 for outlet adjustments.

Return air

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

- The area around the return air grille will always have a strong draft. In winter this area will be much cooler than the rooms. This is why, where possible, we select hallways or other “non-occupied rooms” to install these grilles.
- Always ensure good air flow to the return air grille. Don’t close doors between the air conditioned rooms and the return air grille.

6. Efficiency Tips

Temperature setting on your air conditioning unit

We recommend that in summer you set cooling to 24°C and in winter set heating to 21°C degrees.

- In extreme conditions above 36°C or below 7°C the temperature can be increased on cooling or decreased on heating, reducing energy consumption and load on your unit.
- The closer the set temperature is to the temperature outside, the more efficient your system will be.

When to turn your air conditioning system on

The best use of your air conditioner is to maintain the temperature inside rather than allowing the room temperature to get very hot or very cold and then trying to cool or heat. This is a false economy.

The most practical method is to start your air conditioner earlier in the day before the day/night becomes very hot or very cold. This can be conveniently done by setting the timer on your air conditioner, or via the control app (if fitted).

If your system has zones, only operate the rooms / zones you are currently using. This will increase the efficiency of the unit by not heating or cooling unnecessary areas.

Close curtains and blinds on windows with direct sun during summer and in winter close blinds on large shade affected glass doors and windows to help keep the heat in.

Consider using the systems inbuilt timer to start the unit or stop the unit.

Close doors of rooms that are not being air conditioned

(Applicable to: Zoned Systems)

When operating an air conditioning system that has zones, remember that the idea is to air condition the areas you are occupying at the time.

When a room is not in use and the zone is off, closing the door will reduce the total area you are trying to heat or cool and enhance the effectiveness of the system in the areas you are using.

Capacity of equipment

A heat load calculation has been carried out on your premises before selecting the required capacity and matching air conditioner.

Within the calculations the following assumptions were made:

- The building is air tight or the building in well-sealed.
- Curtains will be drawn closed on both sunny summer days and at night during winter.
- Ceiling insulation has been installed directly onto your ceiling.

- External doors and windows will be left closed for normal operation.
- Zones are selected and operated as designed and recommended.
- The air conditioner and filters are inspected and serviced regularly.

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

7. Selecting the Air Conditioner's Operating Mode

Fan speed

We recommend operating the air conditioner on a high speed fan setting. This delivers the system's maximum capacity. Selecting lower fan settings during the night or turning less zones on can also be beneficial.

Use Cool or Heat – not Auto

We recommend not using "Auto Mode" on the air conditioner in residential applications as there is potential for your system to switch between heating and cooling during the same operating period.

We recommend that if you want the unit to heat you set the mode to the Heat; and if you want it to cool, set the mode to Cool.

Dry Mode

When selected, the dry mode specifically operates to dehumidify the air conditioned rooms.

Dry mode - will operate on cooling mode at predetermined times for set periods even when the room is at the set point temperature. This allows the air conditioner to remove moisture without over cooling the air.

Fan Mode

When selected, the outdoor unit will not operate at all. Only the indoor fan will operate. No cooling, heating or dehumidification will happen. This mode circulates room air only as it filters it.

- We recommend this mode during night periods when it's not too warm, but air movement is required.
- Running costs when operating on fan only mode is very low.

8. System Warranty

What does your warranty cover?

Installation warranty (Years 1 and 2)

- Integrity of the interconnecting pipework and contents.
- Entire air handling network (ductwork and components) within the roof space.
- All air diffusion components (grilles and outlets).
- Drainage issues: note – any water leaks caused by disruption by others is not covered under warranty.
- Zone system faults – Ford & Doonan normally attend within the 2 year installation warranty period to confirm a fault.
- Unit faults – Ford & Doonan normally attend within the first 2 year period to confirm the fault. If found to be a manufacturer's fault, we facilitate the manufacturer to attend under their warranty terms.

Manufacturer's warranty (Years 3–5)

- Zoning Issues (generally only parts are covered and labour is not).

- Air conditioning manufacturer faults - Ford & Doonan, if not warranty agents, can attend and confirm faults (chargeable at standard rates) then facilitate the manufacturer to attend under their warranty terms (unless you self-lodge your warranty claim with the manufacturers directly).

Not covered in Years 3-5

- Duct issues including leaks, damage by rodents or other animals, or people.
- Leaks of any type including water and gas.
- Electrical issues or faults not caused by the air conditioner.

Not included under warranty

- Blocked filters
- Blocked drains
- Flat batteries
- Faults due to lack of maintenance or service
- Power circuits turned off
- Call out fee from items that are not covered by warranty
- Power surges, or reduced power supply (brown out)
- User errors including incorrect controller settings
- Service or attempts to service by unauthorised people including home owners
- Water or storm damage, lightning strikes, bush or house fires, or other acts of God
- Faults caused by rodents, insects, or other creatures

9. Troubleshooting

Air Conditioner will not turn on?

- Does the air conditioner have power?
- Is the external power (isolator) switch on?
- Has the circuit breaker tripped?
- Does your entire house have power?
- Have you had a power outage or fluctuation?

How to perform a reset of your air conditioning system in the event of a fault occurring

Before calling Ford & Doonan, please perform a reset of your air conditioning system.

As with any electrical appliance, power dropouts or surges can interrupt the operation of the system. In many cases a reboot is all that is required.

The external power (isolator) switch is a large white, grey or cream switch next to the outdoor unit. Turn it to the off position and wait 10 – 15 minutes before turning it back on. If inaccessible, you can turn off at the circuit breaker in your electrical board (fuse box).

If the system does not reboot, or the fault still appears please call the Service Department for further assistance.

Not cooling or heating as desired?

- Is the wall controller set to the proper position to heat or cool and not auto or fan only?
- Is the air filter free from clogging of dust and dirt, or does the filter need cleaning or replacing?
- Are external doors and windows completely closed?
- Is there any obstruction preventing air from returning to the return air grille?
- Has the number of zones turned on, exceeded the capacity of the air conditioner?

If the system does not reboot, or the fault still appears please call the Service Department for further assistance.

Steam coming from outdoor unit?

In cold weather you may see what appears to be smoke coming from the outdoor unit.

This is just steam being released as the unit is thawing in de-ice mode, also called a defrost cycle. During this time the air conditioner is on cooling mode with the indoor fan cycled off.

You may also notice the unit icing up and appearing frozen before de-ice mode activation.

In colder weather it is normal for a refrigerated air conditioning unit, while running in the heating mode, to build up frost or ice on the outdoor heat exchanger or coil causing the need to defrost/de-ice. It is normal for the outdoor unit to drop litres of water, this is the defrost ice.

During the de-ice cycle the indoor unit will cease operation. Sometimes when the normal heating cycle resumes (immediately on start-up) the unit may push cool air out. The defrost cycle could last for up to 45 minutes in extreme conditions.

“Filter Clean” displaying on wall controller?

The notification "clean the filter" or display of a “filter symbol” is an automatic feature of some air conditioning units as a reminder that regular servicing / cleaning of the filter is due.

It is not an indication that your filters are dirty or that there is a fault with the system.

Manufacturers have set a timer into the system that shows up a “clean filter” message after a set amount of running hours. It is possible that even if maintenance was recently completed and the filters are clean, this message may still appear.

This message does not automatically disappear. After confirming your filter is clean, hold down the "Clear" button for 4 seconds. If this does not work we can clear this for you by completing a call out or during our next scheduled maintenance attendance. To organise this please contact the Service Department

Faults

If the **“CHECK”** indicator starts flashing or a fault code appears, this means there may be a fault at hand.

If the fault or message returns after a system reset (Section 11), contact our Service Department for further assistance and to arrange an attendance if required.

Take a photo of the fault code appearing on the system so this information can be given to the Technician and/or warranty agent. This increases the speed and diagnostic of repairs.

Outdoor unit noise

No air conditioner manufacturer can meet the local authority guidelines when located adjacent to a boundary fence.

Ford & Doonan will provide advice on the possible location for the outdoor unit to minimise any noise complaints from neighbouring properties. However, we do not provide a guarantee, nor accept any responsibility that the location of this outdoor unit will conform to your local authority noise guidelines.

If you have received a complaint, we can attend to site and offer advice, however any costs associated with the resolution would be your responsibility.

If you require any further assistance, please don't hesitate to contact a member of our Service team.

How to use QR Codes

1) Open the QR Code app reader on your smart phone.

   Hold your device over the QR Code so it is visible within your phone's screen.

2) Newer Android or iPhones feature a camera that auto detects QR Codes and redirects to the applicable link. Simply open your phone's camera, hover over the QR Code and when visible, click on the link that appears.

   Sometimes this can take a few seconds to scan - once it does you will be redirected to the detailed manual applicable to your new system.

   If you'd prefer to watch a video on operating or setting the controls applicable to your new system, select the QR Code that matches your system's controls, and you will be redirected to that video.

QR Code – Manufacturers Manuals

(Air Conditioning Unit)

Panasonic

Carrier

Samsung

Daikin

Hitachi

Rinnai

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QR Code – Zone Controller

(if Zoning System fitted)

iZone

Air Touch

Zone Touch

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QR Code – General

Helpful Tips & Tricks

Ford & Doonan's Drain Alarm

Ford & Doonan's Filter Clean & Replacement

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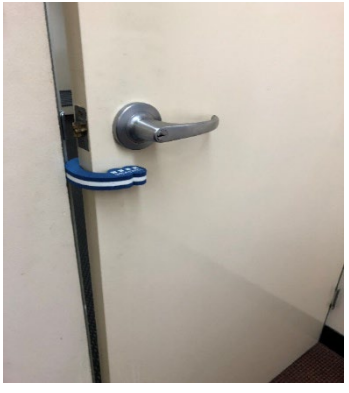
Not sure what these are in your handover box?



These are complimentary “Doorstoppers”

Fit these to your door to allow an “air gap” so the return air can pass from the room, to the return air grille.

Closing doors completely will greatly affect your air conditioner’s performance

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10. Warranty Card Information

After sales support is our speciality. Experience the Ford & Doonan difference by scanning the QR code below to confirm your address. This is for customers that had their air conditioning installed as part of their new home build, where the lot number and final street number can be different.

At Ford & Doonan, we value our clients, not only when they purchase, but for the entire life of their air conditioner.

We welcome you to the Ford & Doonan Family

Please do not hesitate to contact our Service Department for help or more detail on any information contained in this manual, or for guidance with your air conditioning system.

(08) 9331 8800

service@fdair.com.au

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