

Operating Instructions

for your Ford & Doonan Ducted System



Congratulations!

Congratulations on your new Ford & Doonan Air Conditioning System. You can rest assured you have received a system of the highest quality, backed by the very best customer service. 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.









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1. 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 of 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 fuse may allow the electrical wiring to overheat and catch on fire. If the correct type of fuse continues to blow, or the circuit breaker continues to trip, contact Ford & Doonan Service Department.

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.

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. When turning the system back on, 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.



2. Zone Operation

Applicable when your new system has zones fitted

- For operational instructions please refer to the attached sub manual (if applicable).
- It is possible to run all zones at the same time, however, the system will not be running very efficiently.
- 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.
- We recommend turning on the living areas during the day and closing any bedrooms and other zones that are not needed. At night it is best to turn off any living areas and keep the bedroom zones open. This will allow the best efficiency of the system.
- The zones can take up to 2 minutes to open or close.
- If some zones do not have enough air flow check how many zones are open. Close off any zones that are not needed and see if air flow increases.



3. Outlets

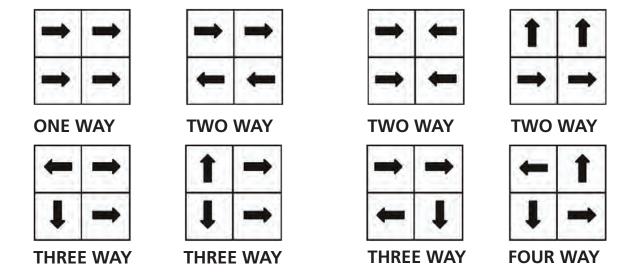
Multi-Directional outlets

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







4. Maintenance

1. Cleaning the air filter

If you have a clean air filter pack, please call your Ford & Doonan store to purchase a replacement filter. We recommend replacing the filter every 12 months, if you have allergies or pets, we recommend replacing the filter every 6 months.

To clean your filter, remove the filter, hose it down and leave it a couple of hours to dry. Once this is done do not forget to press the filter reset button on your air conditioning controller.

2. Cleaning the outside panel

Cleaning of the outside panel is easy, 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 being used for an extended period

• 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 and excess waste (leaves, paper, etc.).

4. Maintenance service contract recommended

To ensure your system delivers cool, fresh air throughout the year and that your warranty is valid, it's essential you maintain it regularly. 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 Ford & Doonan technician is recommended. For domestic operation of the air conditioning system we recommend an annual service. If equipment is subjected to heavy use a bi-annual service frequency is desirable.

Contact your Service Department (9331 8800) to set up automatic service reminders and ask about our three year service packages at a reduced cost.



We recommend replacing your disposable filter every 12 months



DISPOSABLE filter



WASHABLE filter

5. Common Queries

If the air conditioning is not running or the cooling effect cannot be achieved as desired, check the following points before requesting repair or service.

If the air conditioner does not function please check the following:

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 operating position, or to a position which is too high for the cooling operation?

How to perform a reboot of your air conditioning system

Before calling the Service Department please perform a reset of your air conditioning system. As any electrical appliance, power dropouts or surges can interrupt the operation of the system. In most cases a reboot is all that is required. In case the system has never been used before, make sure that the main switch has been turned on for at least 6 hours before using the air conditioning unit.

Locate the isolator switch at the outdoor unit. It is a big white switch at the outdoor unit. Turn it off and wait 3 minutes before turning it back on.

If the system does not reboot, or the fault still appears please call the Ford & Doonan Service Department.

Not cooling or heating as desired please check the following:

Is the thermostat set to the proper position to heating or cooling?

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?

Smoke coming from outdoor unit?

In cold weather you may see what appears to be smoke coming from the unit. This is just steam being released when the unit is in de-ice mode. Further you may notice the unit icing up and appearing frozen. This is normal as long as the system completes a de-ice cycle.

"Filter clean" displays

If a small tap or spanner symbol appears, this indicates it is time to clean or replace the filter. Press this switch to reset and clear the symbol once you have cleaned or replaced the filter. Please see Maintenance for more information on how to clean your filter. If the spanner symbol appears with a fault code, it is advising you of a problem and you will need to contact your Service Department.

Faults:

If the **"CHECK"** indicator starts flashing, this means there is a fault at hand.

In this case, or if fault codes appear, please call your Service Department with the fault code, explain the problem and they will be able to assist with the issue.



6. Performance Expectations

Hot weather

Heat load 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

Heat load 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.

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.

Return air

Your system will usually be designed with one 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, so please discuss this with your consultant.

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.



7. Performance Tips

1. Temperature setting on your air conditioning unit

We recommend that in summer you set the cooling cycle at 24 degrees and in Winter the heating at 21 degrees. On very hot days (above 36 degrees) or cold days (below 7 degrees) one can increase the temperature in Summer and decrease in Winter, to keep the efficiency of the air conditioning.

2. To keep the comfortable temperature without extra heat loading

The easiest solution to start your air conditioner earlier in the day by using your timer setting. On hot days start the air conditioner before your heat load 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.

3. Close doors of rooms that are not being air conditioned

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 occupying at the time. With this in mind, it 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 will enhance the effectiveness of the machine.

4. Allow air flow to return air grille

You will notice that the larger return air grill 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.

5. Regular cleaning of the filter is important

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.

6. Clean outdoor unit and surroundings

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. It is critical to not inhibit the airflow coming from the condenser, therefore general garden paraphernalia or other equipment should never be

stacked on or lent 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.

7. Sizing of equipment

When we recommend a unit we have completed a heat load 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 anti-con 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.



Rinnai

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Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires service, please call our National Help Line. Rinnai recommends that this appliance be serviced once a year.

Product Sales and Service - National Phone: 1300 555 545* Fax: 1300 555 655* Technical Helpline and Spare Parts National (Mon-Fri Bam - 5.30pm EST) Phone: 1300 555 545* Fax: 1300 300 141* "Cost of a local call higher from mobile or public phones.

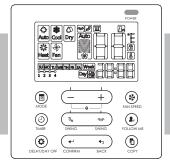
E-mail: enquiry@rinnai.com.au

For further information visit: www.rinnai.com.au

Part Number: B063821 December 2016 EQPL38586755 Issue A



Wired Programmable Control Operation Manual Reverse Cycle Air Conditioner



To Suit Models

Ducted	Cassette
DNLR Series	CIN Series

This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Current AS/NZS 3000
- Local Regulations and Municipal Building Codes including local OH&S requirements
 This appliance must be installed, maintained and removed by an Authorised Person.
 For continued safety of this appliance it must be installed and maintained
 accordance with the manufacturer's instructions.



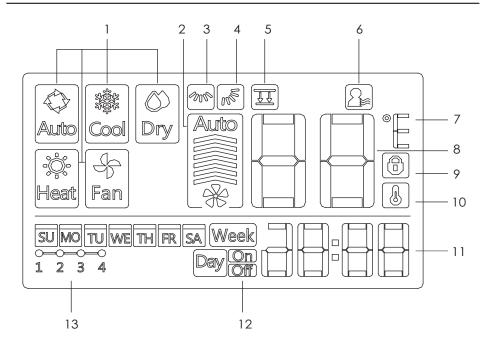
N1037

- This manual provides detailed descriptions of precautions that should be brought to your attention during operation.
- In order to ensure correct service of this wired control, please read this manual carefully before using.
- For convenience and for future reference, please keep this manual in a safe place after reading it.
- Due to our policy of continuous improvement, product details and specifications are subject to change without notice.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.

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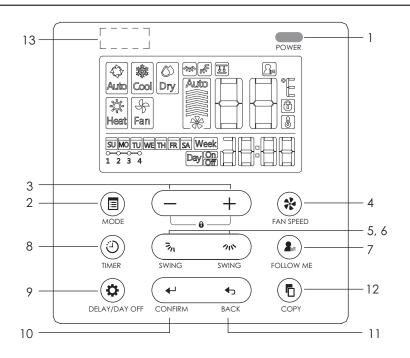
6. LCD DISPLAY LAYOUT



- 1 Operating mode indicator
- 2 Fan speed indicator
- 3 Left-right swing indicator
- 4 Vertical swing indicator
- 5 Cassette Fascia indicator
- 6 Follow me indicator
- 7 Temperature C°/F° indicator

- 8 Temperature display
- 9 Lock indicator
- 10 Room temperature indicator
- 11 Clock display
- 12 On/Off timer
- 13 Timer display

7. BUTTON DESCRIPTION



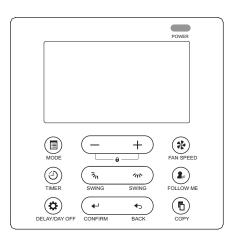
- I POWER BUTTON
- 2 MODE
- 3 Adjustment up and down
- 4 FAN SPEED
- 5 VERTICAL SWING (air direction)
- 6 HORIZONTAL SWING (air direction)
- 7 FOLLOW ME

- 8 TIMER
- 9 DELAY/DAY OFF
- 10 CONFIRM
- 11 BACK
- 12 COPY
- 13 IR REMOTE RECEIVER (where fitted)

10

9

8. FEATURES & FUNCTIONS



Features:

LCD display.

Error code display:

4-way wire layout design, no raised part at backside, more convenient to place the wires and install the device.

Room temperature display.

Weekly Timer.

Functions:

Mode: choose Auto-Cool-Dry-Heat] -Fan
Fan speed: Auto/Low/Med/High speed
UP-DOWN swing & LEFT-RIGHT swing (where
fitted)
Timer ON/OFF
Temp setting
Weekly timer
Follow Me
Child Lock
LCD display
Clock

9. PREPARATORY OPERATION

Set the current day and time

1 FIMER

Press the TIMER button for 3 seconds or more. The timer display will flash.

Press the "+" or "-" adjust buttons to set the date.

The selected date will flash.

SU-MO-TU-WE-TH-FR-SA

After setting the day and time, press the TIMER button to exit. The control will exit if no buttons are pressed within 10 seconds.

Press the "+" or "-" adjust buttons to set the current time.
Press repeatedly to adjust the time in 1 minute increments.
Press and hold to adjust the time rapidly.

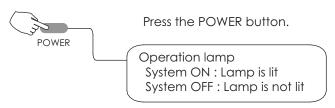


ex.Monday AM 11:20

The setting is complete after pressing TIMER button or if no buttons are pressed within 10 seconds.

10. OPERATION

To start/stop operation



To set the operation mode

Operation mode setting



Press the MODE button to set the operation mode.



Room temperature setting



Press the " + "or " - " adjust buttons to set the room temperature :

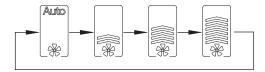
Indoor Setting Temperature Range: 17~30°C

10. OPERATION

Fan speed setting



Press the FAN SPEED button to set the fan speed. (This function is unavailable in AUTO or DRY modes)



Room temperature sensor selection



outton to select whe

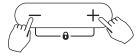
Indoor Unit

Press the FOLLOW ME button to select whether the room temperature is detected up at the indoor unit or at the wired control position.

When the Follow me function indication is lit, the room temperature is being detected at the wired control.

10. OPERATION

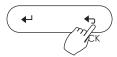
Child lock function



Press the "+" and "-" adjust buttons simultaneously for 3 seconds to activate the child lock function. This will lock all buttons on the wired control. Press the same buttons again for 3 seconds to deactivate the child lock.

When the child lock function is activated, the [indicator appears.

Keypad tone setting





Press the "BACK" and "COPY" button simultaneously for 3 seconds to turn off the keypad tone.

Press the same buttons again for 3 seconds to turn on the keypad tone.

°C & °F temperature scale selection



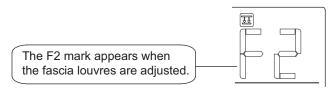
Press and hold $\sqrt[3]{n}$ and $\sqrt[3]{n}$ buttons together for 3 seconds will alternate the temperature display between the °C and °F

10. OPERATION

Cassette Fascia function (where fitted)



When the unit is off, Press and hold the MODE button to activate the cassette fascia function. The $\overline{\square}$ mark will flash.



Press the "+" or "-" buttons to control the lift and drop of the louvres. Press the "+" or "-" buttons again to stop.

Left-Right swing (applicable products)



Press the no button to start Left-Right swing function. Press the no button again to stop.

When the Left-Right swing function is activated, the indicator appears.

10. OPERATION

Up-Down airflow direction and swing (applicable products)

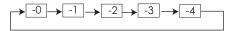


- 1. For every press of the SWING button, the louver changes in 6 degree increments.
- 2.Press and hold the button for 2 seconds to turn on the automatic SWING mode. Press the button again to stop the automatic SWING.

 When the automatic SWING function is activated, the indicator appears.
- Please refer to the following instructions for products where the louvers can be operated individually.
- 1.Press the $\[\overline{>}_{\!\!1} \]$ button to activate the Up-Down louver function. The $\[\overline{>} \]$ indicator will flash.



2.Pressing the "+" or "-" adjust buttons to select the adjustment of the four louvers. Each time you push the button, the wired control selects the louver in the following sequence. (The -0 icon denotes the four louvers move simultaneously.)



3. Use the \bar{z}_n button to adjust the Up-Down direction of the selected louver.

11. TIMER FUNCTIONS

Week

WEEKLY timer

Use this timer function to set operating times for each day of the week.

Day Or

On timer

Use this timer function to start the system. The timer operates and the system starts after the set time has expired.

Day Off

Off timer

Use this timer function to stop the system. The timer operates and the system stops after the set time has expired.

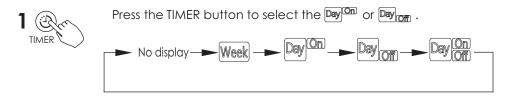
Day On Off

On and Off timer

Use this timer function to start and stop the system. The timer operates, and the system starts and stops after the set times have expired.

11. TIMER FUNCTIONS

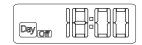
To set the On or Off TIMER





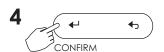
Press the CONFIRM button, the Clock display is flashing.





Example: Off timer set at PM 6:00

Press the " + " or " - " adjust buttons to set the time. After the required time is set and confirmed, the timer is enabled.



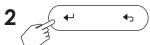
Press the CONFIRM button again to complete the setting.

11. TIMER FUNCTIONS

To set the On and Off TIMER

TIMER TIMER

Press the TIMER button to select the of



 $^{
m)}$ Press the CONFIRM button, the Clock display is flashing.





Press the " + " or " - " adjust buttons to set the timer On time. Press the CONFIRM button to complete the setting.

4



Press the " + " or " - " adjust buttons to set the timer Off time.





Press the CONFIRM button to complete the setting.

12. WEEKLY TIMER

1 Weekly timer setting





Press the TIMER button to select the $\boxed{\text{Week}}$, press the CONFIRM button to confirm.

2 Day of the week setting





Press the " + " or " - " adjust buttons to select the day of the week. Press the CONFIRM button to confirm the setting.



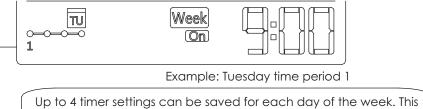
3 ON timer setting of timer setting 1





Press the " + " or " - " adjust buttons to set the timer On time. Press the CONFIRM button to confirm the setting.

12. WEEKLY TIMER

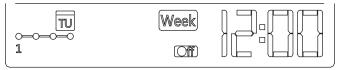


allows the user to configure the week timer to suit their lifestyle.

4 Off timer setting of timer period 1



Press the " + " or " - " adjust buttons to set the timer Off time. Press the Confirm button to confirm the setting.



Example: Tuesday time period 1

- Different timer settings can be set by repeating step 3 to 4.
- 6 Other days in the week can be set by repeating step 2 to 5.

NOTE: The weekly timer setting can be returned to the previous step by pressing the BACK button.

The time of timer setting can be deleted by pressing the DAY OFF button The current setting will be restored and the system will exit the weekly timer setting automatically if there is no operation for 30 seconds.

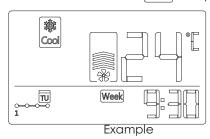
12. WEEKLY TIMER

WEEKLY timer operation

To activate the WEEKLY TIMER operation



Press the TIMER button while Week is displayed on the screen.



To deactivate the WEEKLY TIMER operation



Press the TIMER button, the Week indicator will disappear.

• To turn off the system during weekly timer operation



1. Press the POWER button once quickly, and the system will turn off temporarily. The system will turn on automatically at the next set timer On time.



For example, if the POWER button is pressed once quickly at 10:00, the system will turn on again at the next set time of 14:00.

2. Press the POWER button for 2 seconds to turn the system off completely, this overrides the weekly timer function.

12. WEEKLY TIMER

To set the DAY OFF (for a holiday)



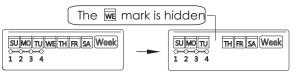
In weekly timer mode, press the CONFIRM



Press the " + " or " - " adjust buttons to select the day of the week.



Press the DAY OFF button to set the DAY OFF.



Example: The DAY OFF is set for Wednesday

The DAY OFF can be selected for other days by repeating steps 2 and 3.



Press the BACK button to go back to the weekly timer function.

To cancel: Follow the same procedures as those for setup Note: The DAY OFF setting is cancelled automatically after the set day is passed.

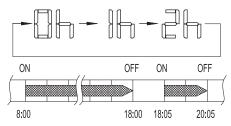
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12. WEEKLY TIMER

DELAY function



In the weekly timer function, press the DELAY button once, the display will read "h". Press this button twice, the display will read "h". Wait. 3 seconds to confirm. This means the unit will override the settings for 1 hour. Press the delay button 3 times, the display will read "h". Wait 3 seconds to confirm, the unit will now override for 2 hours.



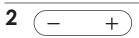
Example: Press the DELAY button to select " at 18:05, and the unit will delay turning off for 2 hours, until 20:05.

Copy the setting from one day into another other day.

Settings made once can be copied into another day of the week. All of the settings of the selected day of the week will be copied. The copy function simplifies the programming functions and saves setting time.



In the weekly timer function, press the CONFIRM button.



Press the " + " or " - " adjust buttons to select the preset day to copy from.

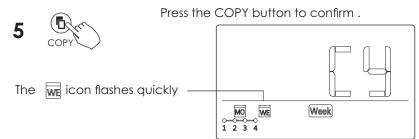
12. WEEKLY TIMER

3 COPY

Press the COPY button, the letter "CY" will be displayed on the screen.



Press the " + " or " - " adjust buttons to select the day to copy to.



Example: Copy the setting of Monday to Wednesday

6 Other days can be copied by repeating step 4 and 5.



Press the Confirm button to confirm the settings.



Press the Back button to go back to the weekly timer function.

13. FAULT CODES

If the system does not operate correctly, the following faults may be evident. Investigate the system fault in accordance to the following fault codes.

NO.	FAULT CODE DESCRIPTION	FAULT CODE DISPLAYED
1	Communication error between wired control and indoor unit	FO
2	Power supply phase error	EO
3	Communication error between indoor unit and outdoor unit	E1
4	Sensor T1 fault	E2
5	Sensor T2A fault	E3
6	Sensor T2B fault	E4
7	Sensors T3/T4 fault, or compressor discharge sensor fault	E5
8	System anti-freeze protection	E6
9	EEPROM (electronic control) malfunction	E7

13. FAULT CODES

NO.	FAULT CODE DESCRIPTION	FAULT CODE DISPLAYED
10	Fan speed error	E8
11	Communication error between the main and sub board (display)	E9
12	Compressor current protection (four times)	EA
13	IPM malfunction	ЕВ
14	Fresh Air malfunction	EC
15	Outdoor unit protection fault	ED
16	Water-level alarm and/or other malfunction	EE
17	Other malfunction	EF
18	Master control lockout	СР
19	Cassette Fascia malfunction	F1