



# HIGH WALL SYSTEM QUICK GUIDE

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A quick reference guide for Midea High  
Wall split systems installations

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## SYSTEM DATA

Pipe sizes/Gas charges  
And cable sizes

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# Pipe and Cable Sizes/Charging

Piping Information					
Model:		09	12	18	24
Liquid Line	Inch	1/4	1/4	1/4	3/8
Gas Line	Inch	3/8	3/8	1/2	5/8
Drain Line	Φ mm	16	16	16	16
Max Length	M	25	25	30	50
Max Height	M	10	10	20	25

Electrical Wiring Information					
Model:		09	12	18	24
Mains Outdoor		3x1.5mm <sup>2</sup>		3x2.5mm <sup>2</sup>	
Interconnecting/Indoor Power		5x1.5mm <sup>2</sup>		5x2.5mm <sup>2</sup>	

Power Supply Information					
Model:		09	12	18	24
Outdoor	Ph/A	1/16	1/16	1/16	1/20
Indoor	Powered from Outdoor Unit				

Refrigerant Charging Information					
Model:		09	12	18	24
Pre – Charge	Kg	0.5	0.5	1.0	1.6
Charged to	M	5	5	5	5
Additional	g/m	12	12	12	24
Refrigerant	Type	R32			

PLEASE NOTE – when using the 4 core wiring method the interconnecting cable for size 24 systems can be downsized to 1.5mm



# EASY WIRING GUIDES

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# High Wall Easy Wiring Guide



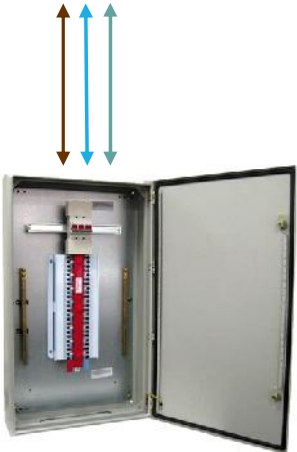
W,L,N,E,S



W,L,N,E,S



L,N,E



- Interconnecting power supply must be locally isolated with a 5amp switch fuse spur to protect the indoor PCB
- 'W' and 'S' must not be switched (crimp straight through)
- W is a switched live and powers the condenser using the energy efficiency relay



# High Wall Easy Wiring Guide – 4 core method



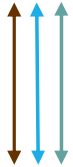
L,N,E,S



L,N,E,S



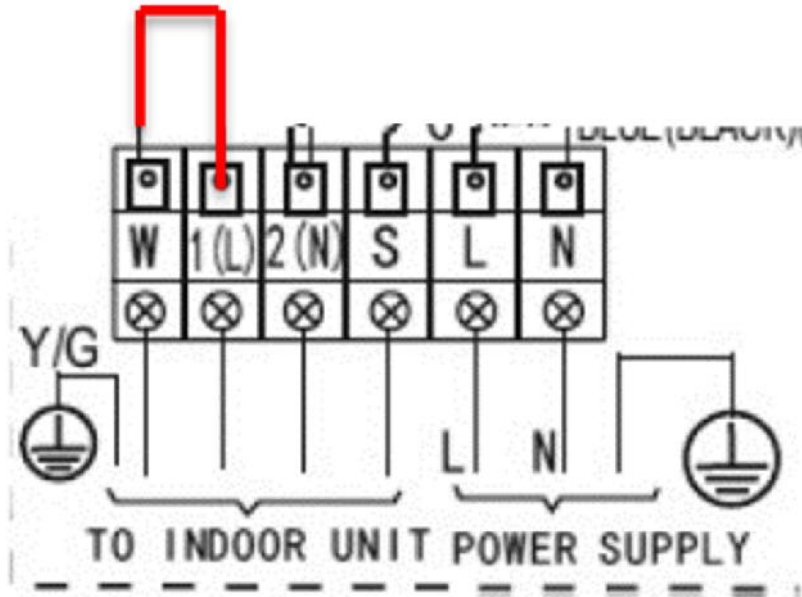
L,N,E



- Interconnecting power supply must be locally isolated with a 5amp switch fuse spur to protect the indoor PCB
- 'S' must not be switched (crimp straight through)
- Move the spade connection of W at the condensing unit to the spare way on 1(L) (see next page for explanation)



# Wiring Information – 4 Core Interconnecting



For instances where a 4 core interconnecting is to be used we can bypass the 1W standby relay and power the condenser directly from the mains supply

This reverts the system back to 5W standby power usage, the same as all other manufacturers

To achieve this, when the unit is powered down, we need to move the brown spade connection from the W terminal and replace it onto the spare connection on the 1(L) terminal

You then wire with a 4 core cable and miss W at both units





# WIFI AND KJR 29B CONTROLLER INSTALLATION



Installation Overview

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KJR29B single unit

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KJR29B multiple units

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# Wifi & Controller Installation



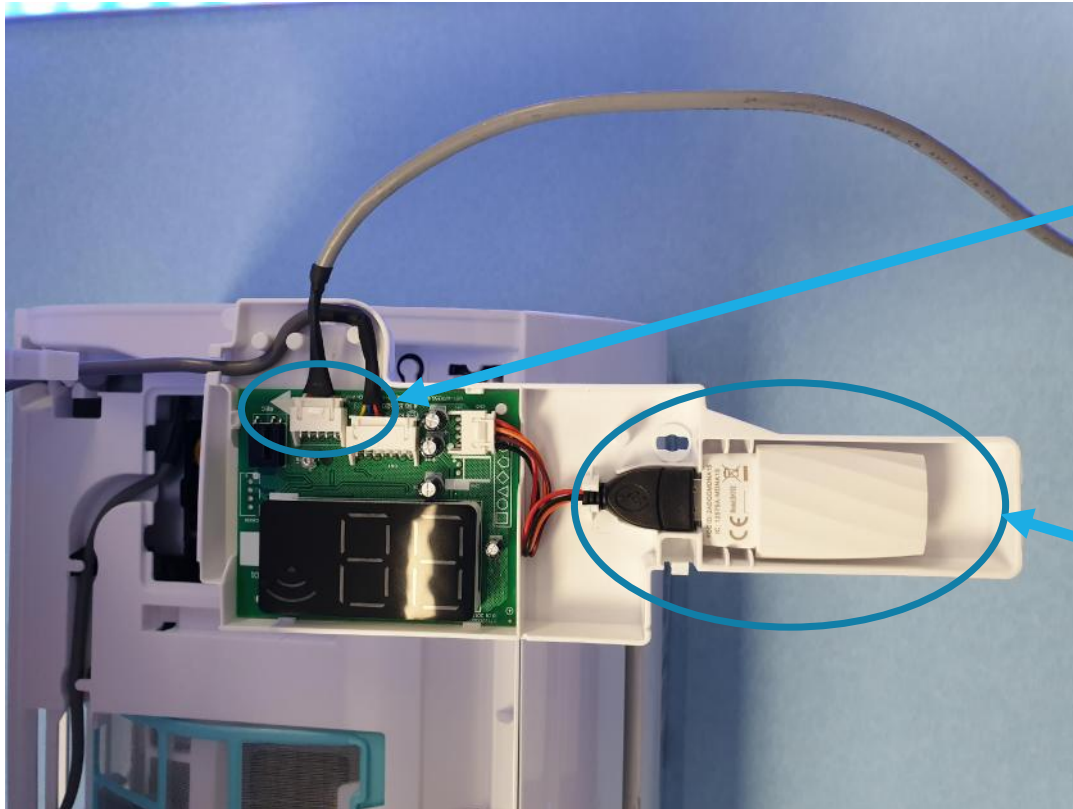
The connections for both the wifi adapter and a hard wired controller are on the display board

To access it, lift up the fascia and remove the screw that is holding it in place

Ease the display board from the fascia holdings and it will hang from the connection made to the indoor pcb



# Wifi & Controller Installation

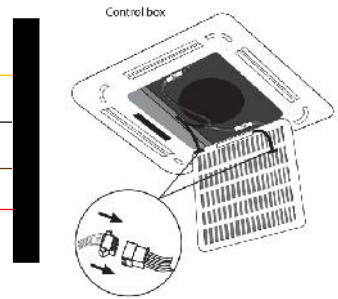
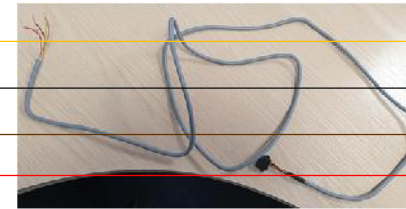


**CN2** – KJR29B controller uses an adapter cable to connect to the wall mounted units

**CN3** – The wifi dongle plugs into the housing connected to CN3



# Installation – Controllers – KJR29B (one to one)



- Comes with a 6m cable
- Jack plugged one side/made off the other
- Jack plugs into fascia/display board
- Other end is made off and wired into the terminals
- A&B – Comms
- C&D – 5v Power

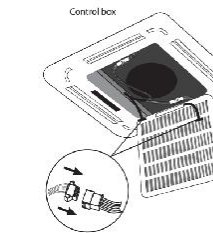
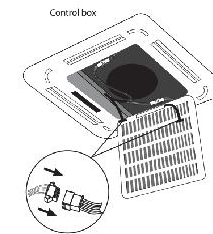
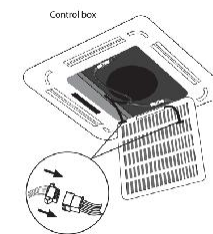
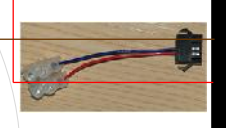
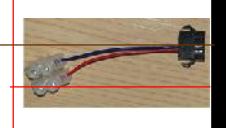
- A – Brown/Blue
- B – Red
- C- Yellow
- D - Black

# Installation – Controllers – KJR29B (one to many)



A – Brown/Blue  
 B – Red  
 C- Yellow  
 D - Black

- KJR29B master cable can be supplied free of charge (terminal strip added to A&B)
- Plugs into the unit closest to the controller
- Slave adapters can be ordered for additional units
- These consist of the same jack plug as the master cable but only has connections for A&B
- 2 core cable can be daisy chained between A&Bs and connected onto A&B terminals at the master





## WIFI SET UP

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Step by Step guide

Video link

<https://www.youtube.com/watch?v=scX-uOiLVPA>

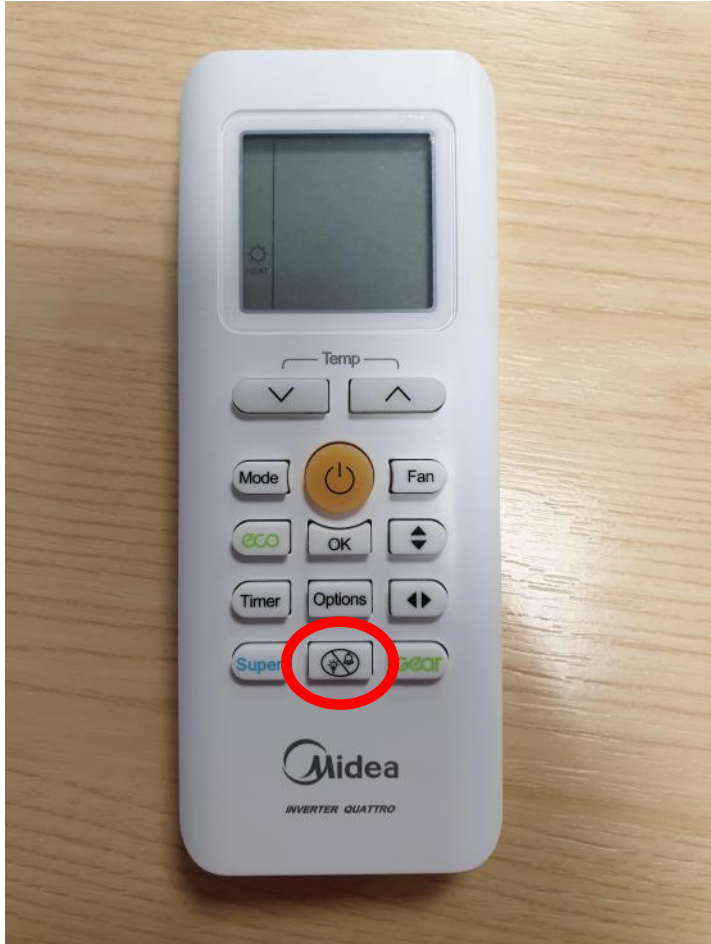
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# App Set Up



- Download the Midea Air app from Apple or Google Play store
- Set up account
- Click Add Unit
- Switch the power off to the unit and restart (the procedure must be completed within 8 mins of power on)
- Press the LED button (red circled) 7 times until the unit shows AP on the display
- Follow the instructions on the app





# AG SERIES MULTI FUNCTION BOARD

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# Versions and Functions of MFB

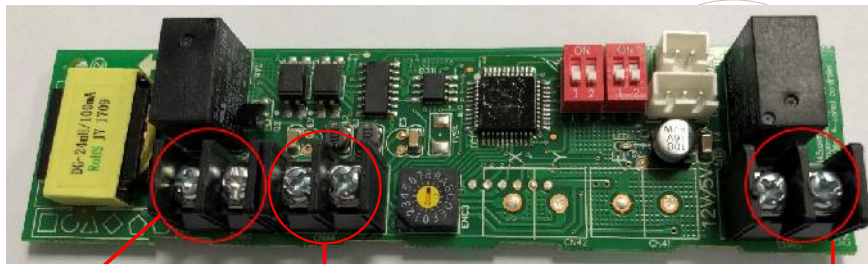


Remote On/Off

XYE ports for central controller

Fault Output

- Central controller connection
- Remote On/Off
- Fault Output



Remote On/Off

Port for 2-wired non-polarity controller

Fault Output

- 2 Core Local controller connection
- Remote On/Off
- Fault Output



# Installation Choices



- The multifunction box can be installed in the back of the panel, where there is no need for additional holder or bracket



- It can also be provided with extended 1m long cables for installation exterior to the fascia (ceiling void/truncking etc)

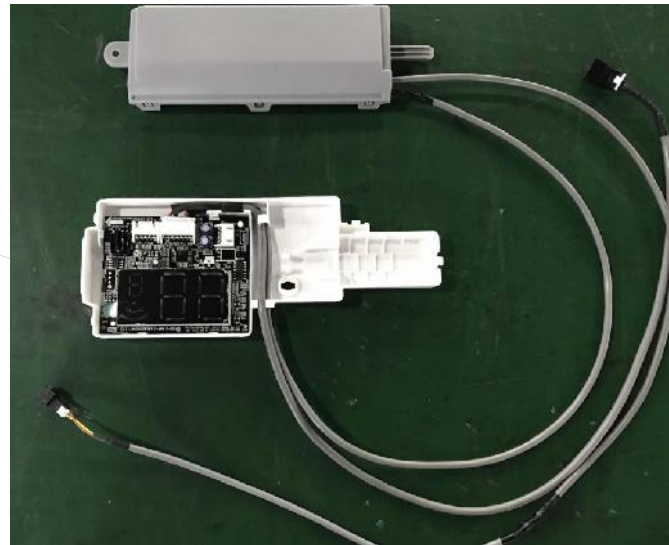




# Components

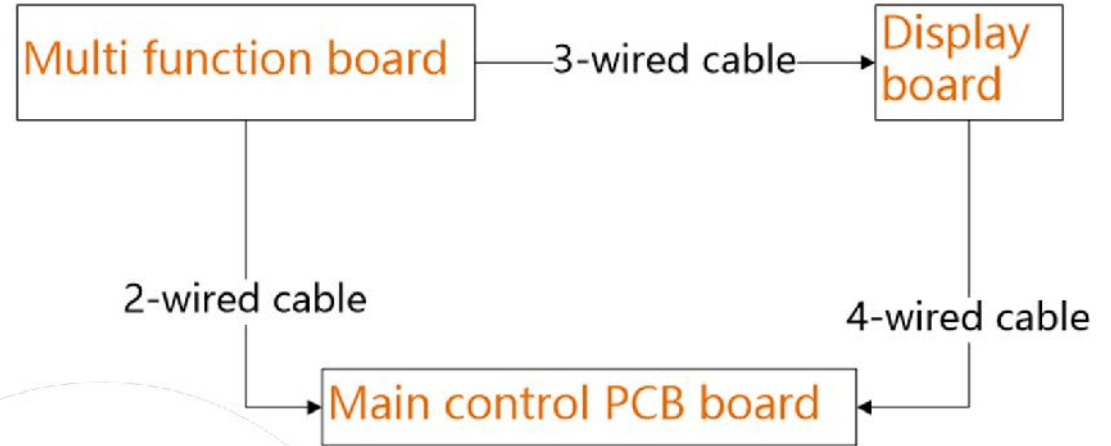
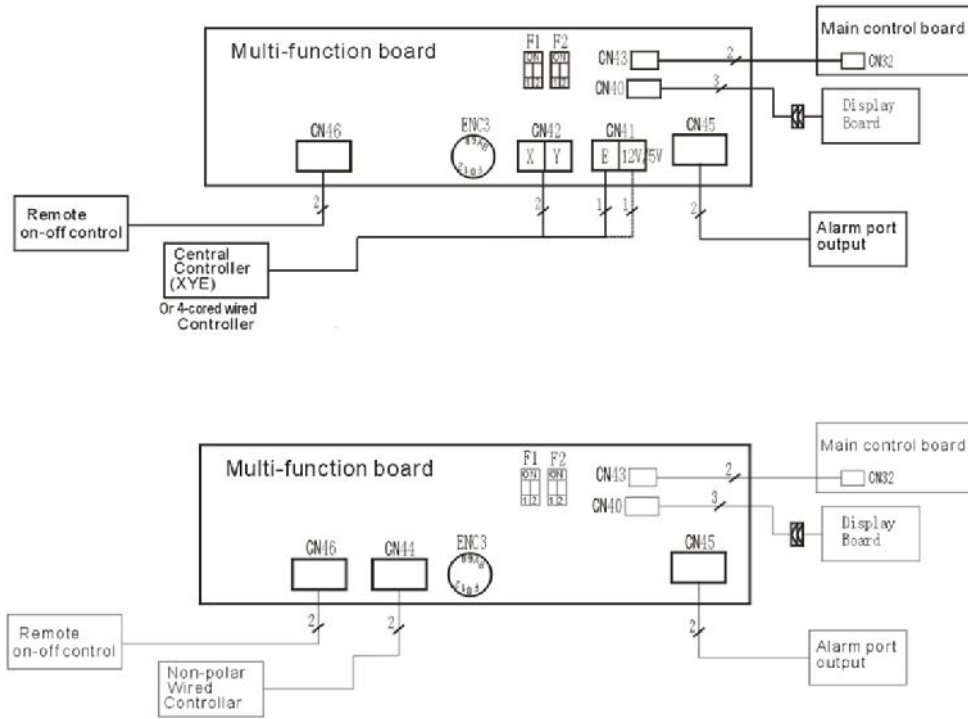
One adapter plate subassembly would include:

- Transfer PCB
- 7-wired cable, the 4-wired part should connect to the main control PCB board; the 3-wired part should connect to the multi function board
- 2-wired cable which could connect to main control PCB board









# MFB Easy Wiring Guide



# Dip Switch Settings

Picture	Dip-switch 1	Dip-switch 2	➤ ON-OFF port	Unit's Operation
	ON	ON	<ul style="list-style-type: none"> <li>◆ ON-OFF port works as an ON/OFF button.</li> <li>◆ By connecting the port, 'OFF' signal is sent to switch off the unit. You can switch on the unit with remote controller.</li> <li>◆ By disconnecting the port, 'ON' signal is sent to switch on the unit. You can switch off the unit with remote controller.</li> </ul>	Restart with auto mode, 24°C
	ON	OFF	<ul style="list-style-type: none"> <li>◆ ON-OFF port works as an ON/OFF button.</li> <li>◆ By disconnecting the port, 'OFF' signal is sent to switch off the unit. You can switch on the unit with remote controller.</li> <li>◆ By connecting the port, 'ON' signal is sent to switch on the unit.. You can switch off the unit with remote controller.</li> </ul>	Restart with auto mode, 24°C
	OFF	OFF	<ul style="list-style-type: none"> <li>◆ When ON-OFF port is connected, unit shows <b>CP</b> and can't work. And you can not control the unit with remote controller.</li> <li>◆ When ON-OFF port is disconnected, unit works normally. And you can control the unit with remote controller.</li> </ul>	Restart with previous setting
	OFF	ON	<ul style="list-style-type: none"> <li>◆ When ON-OFF port is connected, unit works normally. And you can control the unit with remote controller.</li> <li>◆ When ON-OFF port is disconnected, unit shows <b>CP</b> and can't work. And you can not control the unit with remote controller.</li> </ul>	Restart with previous setting



# COMMISSIONING

Forced Cooling mode

Information Enquiry Mode

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24-25





## Forced Cooling Mode



Lift up the fascia to reveal the Forced cooling button on the bottom right of the unit, below the wiring terminals

Press the button twice to enter Forced cooling mode

The display will change to FC

The compressor and outdoor fan run at fixed frequency and the indoor fan runs at high speed (80%)

After running for 30 minutes, the system will turn to auto mode with 24°C setting temperature.





# Information Enquiry – How to enter



LED BUTTON SWING

Switch the unit on, press the LED button 3 times in quick succession, now press the swing button 3 times (even when the display is off)

After 3 seconds the unit will enter Info Enquiry mode

We can access the system running parameters using this method





# Information Enquiry – Data available

Abbreviation	Element
T1	Indoor room temperature
T2	Coil temperature of evaporator
T3	Coil temperature of condenser
T4	Outdoor ambient temperature
TS	Set temperature
TP	Compressor discharge temperature
Tsc	Adjusted setting temperature

Using the LED and swing buttons you can cycle through the items in the table on the right to help with commissioning data and/or fault diagnosis

Displayed code	Explanation	Additional Notes
T1	T1	T1 temperature
T2	T2	T2 temperature
T3	T3	T3 temperature
T4	T4	T4 temperature
TP	TP	TP temperature
Targeted frequency	FT	Targeted Frequency
Actual frequency	TR	Actual Frequency
Compressor current	CL	N/A
Outdoor AC voltage	UC	N/A
Indoor capacity test	SN	N/A
Reserve	--	Running mode
Outdoor fan speed	PR	Outdoor fan speed
EXV opening angle	LR	EXV opening angle
Indoor fan speed	IR	Indoor fan speed
Indoor humidity	HU	N/A
Adjusted setting temperature	TT	N/A
Indoor dust concentrations	DT	N/A
WIFI signal strength	IF	N/A
GA algorithm frequency	GT	N/A



# COMMON INSTALLATION FAULTS

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# Common Installation Issues

- E1 fault – if using 4 core method make sure that the W terminal has been switched to 1(L) at the condenser
- Power to indoor is fine but no display – check and double check the connection between the display board and the main pcb
- Wifi dongle wont connect – the wifi signal requires 2.4ghz from the router. Make sure that this is not set to 5ghz. Make sure you are trying after powering down the unit and restarting it. You have 8 minutes to set it up
- P1 error – make sure the service valves are open
- P4 error – make sure the coil is clear of debris. Check the connection between the compressor and main pcb
- Louvre wont fully close – switch of the unit via the mains power and restart. This will reset the louvre position after it has been manually maneuvered out of sync
- Low heat exchange performance – in order to protect the environment and stop non trained persons fitting Midea equipment, all high wall split systems comes pre-charged for 5m liquid length. Does the system require additional refrigerant?
- The app wont let me have two users registered with the same system – only one account can have the system registered as a primary system. The main account must share the system to the secondary account who must add this as a shared system
- I have an extra cable hanging from the display board labelled up ABCDE – unless you are connencting a KJR29B hardwired controller this cable isn't required. Feel free to leave it in place or remove it from the display board



# Common Installation Issues

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- AG system has as CP fault – multi function board has gone open circuit. Replace the short or check with the 3<sup>rd</sup> party controls for open circuit
- Louvre motor isn't moving smoothly – Check that the motor is secure via the fixing screw. Check the jack plug connection onto main pcb. Look for anything that can be interfering with the mechanical sway of the louvre

