

Applicable indoor unit models

FJM Whisper (AJ0**JNADCH/AA), Whisper (AR**HSFSHWKN, AR**HSFSJWKN), Smart Whisper (AR**KSWSJWKN), Smart Whisper Max Heat (AR**KSWSPWKN), Pearl (AR**JSFDHWKN), Smart Pearl (AR**KSWDHWKN), Quantum (AR**KSPDWQN), Max (AQN36VFUAGM)

MIM-B14 Control features and requirements

- MIM-B14 can be connected to RAC and FJM high-wall indoor units to provide the following control options:
 1. External contact control (unit ON/OFF) based on 0 volt dry input
 2. Error status output signal (0 volt, closed = no error, open = error)
 3. Operation output signal (0 volt, operation ON/OFF or Thermal-ON/OFF signal)
- Wired controller sub-PCB DB93-11412A and wire harness DB93-11405A is required for AR*****N indoor units (excludes Novus AR**JS*LBWKN units)
- MIM-A00A is required for Max (AQN36VFUAGM) units (sub-PCB, wire harness, sub-PCB cover)
- The wired controller sub-PCB installs inside the indoor unit
- The product option setting code must be changed to enable external contact control and to modify operation output setting (instructions on page 2).

External contract control options (dry contact wired to terminals 5/6 on MIM-B14)

1. ON/OFF control – When contact is closed, the unit will turn on to the previous mode. When the contact is opened, the unit will turn off but controller use will still be enabled allowing the unit to be turned back on.
2. OFF only control – If the contact is open the unit will turn OFF and controller use will be restricted (cannot turn on). When contact is then closed, controller use is enabled and the unit remains in standby. The unit must be turned back on via wireless controller, wired controller, or schedule event. Ideal for float switch connection or energy management applications.
3. Window ON/OFF control – If the unit is ON and the contact opens, the unit will turn OFF and controller use will be restricted. When the contact is closed, the unit will turn back on to the previous power, mode, set temperature, fan speed, louver position before it turned off via MIM-B14 external contact input. If the unit was OFF when the contact opened, when the contact closes again controller use will be enabled and the unit will remain OFF in standby mode.

Operation output options

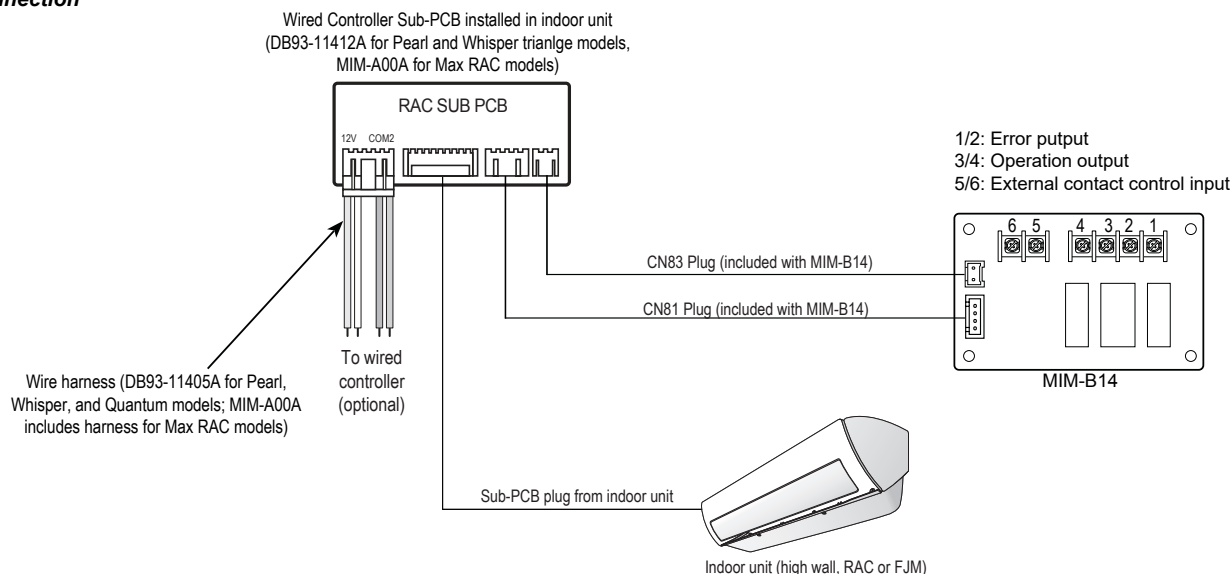
1. Indoor unit thermal-ON/OFF (default)
 - A. Cooling Thermal-ON: (Room temp. \geq Set temp. + 1.8°F), contact = closed
 - B. Cooling Thermal-OFF: (Room temp. \leq Set temp), contact = open
 - C. Heating Thermal-ON: (Room temp. \leq Set temp. - 1.8°F + $\Delta T^{\circ}C$), contact = closed
 - D. Heating Thermal-OFF: (Room temp. \geq Set temp. + $\Delta T^{\circ}C$), contact = open
 - E. While in Fan mode or when powered OFF (standby), contact = open

NOTE:

- $\Delta T^{\circ}C$ = Temperature compensation value. Standard temperature compensation value = 2°C (3.6°F). When sensing room temperature externally with a wired controller or external temperature sensor, temperature compensation = 0°.
- If using operation output from MIM-B14, you must enable external contact control also. If external contact control is not wanted, simply place a jumper between the two external contact input screw terminals 5 and 6 after enabling external contact control.

2. Operation ON/OFF
 - A. If indoor unit is ON, contact = closed
 - B. If indoor unit is OFF, contact = open

MIM-B14 Connection



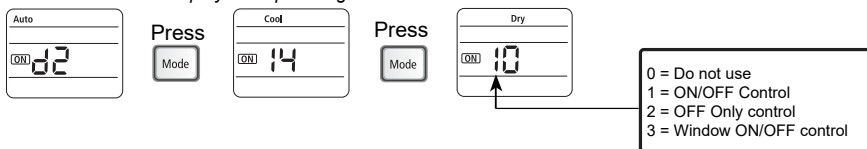
This document is for general reference only. Refer to installation manuals and technical data books for complete installation instructions and other important information regarding MIM-B14. Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice.

Enabling external contact control

Samsung RAC units are configured to ignore external contact signal as standard. The installer must enable external contact control. For Pearl, Whisper and Quantum systems, option settings can be modified via wired or wireless control. For Max AQN**VFUAGM systems, option settings are modified via wireless controller.

AR*****W* Pearl, Whisper and Quantum system programming with wireless controller (single option setting method)

Wireless controller display example - segment 14



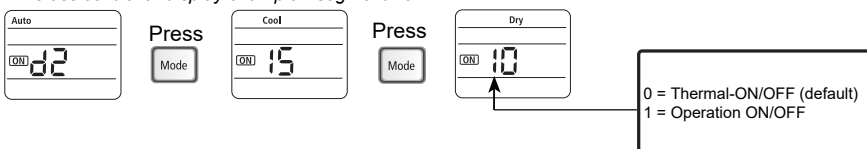
1. Remove the batteries and wait for the screen to go blank. While holding the temperature up and down buttons, replace the batteries.
2. Use the FAN DOWN button to adjust the segment on the left and the FAN UP button to adjust the segment on the right to enter code into the wireless controller as shown on the images above.
3. Press MODE to advance to the next page (noted by "Auto", "Cool", and "Dry").
4. Once the numbers shown above are entered into the controller, press the power button several times while pointing remote at the indoor unit.
5. All 6 segments must be entered to prevent undesired programming and operation.
6. Remove batteries. After the screen goes blank, replace batteries and cover to return to normal operation.
7. Cycle power to system.

Changing operation output

Samsung RAC units are configured to provide Thermal-ON/OFF status signal as standard. If Operation-ON/OFF is required, the installer must modify the option setting. For Pearl, Whisper and Quantum systems, option settings can be modified via wired or wireless control. For Max AQN**VFUAGM systems, option settings are modified via wireless controller.

AR*****W* Pearl, Whisper and Quantum system programming with wireless controller (single option setting method)

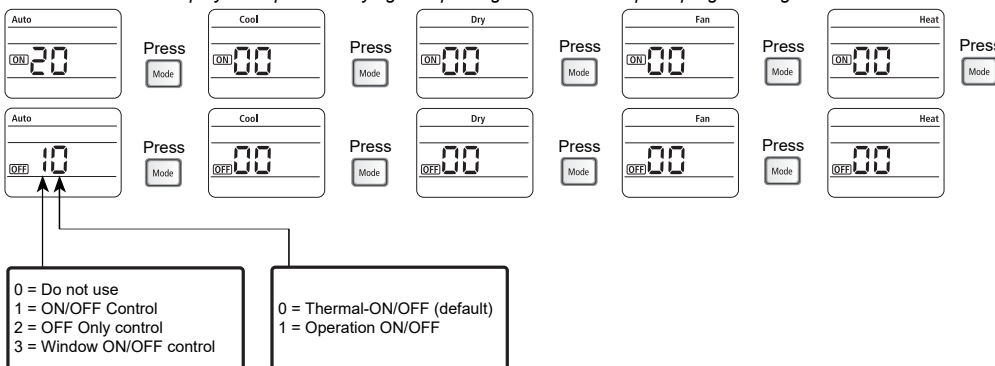
Wireless controller display example - segment 15



1. Remove the batteries and wait for the screen to go blank. While holding the temperature up and down buttons, replace the batteries.
2. Use the FAN DOWN button to adjust the segment on the left and the FAN UP button to adjust the segment on the right to enter code into the wireless controller as shown on the images above.
3. Press MODE to advance to the next page (noted by "Auto", "Cool", and "Dry").
4. Once the numbers shown above are entered into the controller, press the power button several times while pointing remote at the indoor unit.
5. All 6 segments must be entered to prevent undesired programming and operation.
6. Remove batteries. After the screen goes blank, replace batteries and cover to return to normal operation.
7. Cycle power to system.

AQN**VFUAGM Max and AR*****W* Pearl, Whisper and Quantum system programming with wireless controller (full option settings method)

Wireless controller display example - modifying multiple segments with full option programming method



1. To enter service mode, remove the batteries and wait for the screen to go blank. While holding the temperature up and down buttons, replace the batteries.
2. Use the FAN DOWN button to adjust the segment on the left and the FAN UP button to adjust the segment on the right to enter code into the wireless controller as shown on the images above.
3. Press MODE to advance to the next page (noted by "Auto", "Cool", "Dry", "Fan", "Heat", "ON", and "OFF").
4. Refer to installation and training manuals for full programming instructions when using a wireless controller.
5. Once the numbers shown above are entered into the controller, press the power button several times while pointing remote at the indoor unit.
6. All 20 segments must be entered as shown above to prevent undesired programming and operation.
7. Remove batteries. After the screen goes blank, replace batteries and cover to return to normal operation.
8. Cycle power to the system.

Using external contact control input without MIM-B14

- High-wall unit wired controller sub-PCB's provide the CN83 input that the MIM-B14 connects to.
- CN83 is the 2 pin plug that monitors open/closed contact. MIM-B14 is used to isolate the indoor unit PCB from potential voltage external sources and also allows multiple indoor units (with MIM-B14 interface modules) to be controlled by a single dry contact.
- If only one indoor unit is being controlled by a single, 0 volt dry contact, a CN83 pigtail can be used (purchased separately) to directly connect a dry input to a wired controller sub-PCB. The CN83 pigtail part number is DB39-01263A.
- This is ideal for applications where a wired controller is already installed and an external condensate pump with overflow detection has a dry output. In this case, a CN83 pigtail can be used to connect the pump to the indoor unit to shut the unit off if the float switch opens. The installer should program the unit to use OFF only control or Window ON/OFF control.
- Care must be taken to not accidentally apply electricity to the CN83 input as PCB damage will occur.

