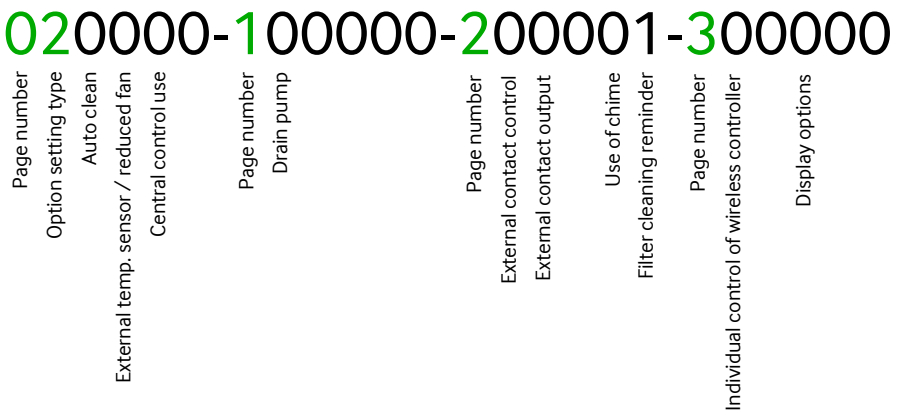
Date: 08/06/2020
Subject: RAC 2.0 Common Option Settings
Models: AR**TSF*BWKNCV (RNS***BT), AR**TSF*BWKXCV (RXS****T)

RAC 2.0 Common Option Settings

Various installation option settings are available for Samsung RAC 2.0 systems to modify system operation or to utilize features not enabled from the factory. Installation options can be modified via the included wireless remote controller, an optional wired controller, or with the SNET Pro 2 service software (requires the use of a MIM-C02N service tool, sold separately). Each segment or digit within the "02" installation option code represents a separate option. There are a total of 24 segments in the installation option code - including page numbers, but not every segment is used for every model. Below is a general description of each segment that is used for RAC 2.0 indoor units.

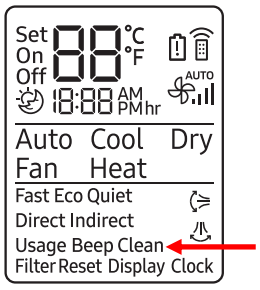


Programming instructions and examples can be found on page 7 of this document

Segment 3: Auto clean

The auto clean option is used to remove moisture from the evaporator coil after the indoor unit is turned off. This setting will operate the indoor fan for 10 to 30 minutes depending on conditions to dry the evaporator coil. This helps to prevent the buildup of mold on the evaporator coil, thus helping to eliminate odor. The end user can cancel the Auto Clean function while it is running by pressing and holding the "Options" button on the wireless remote for 3 or more seconds.

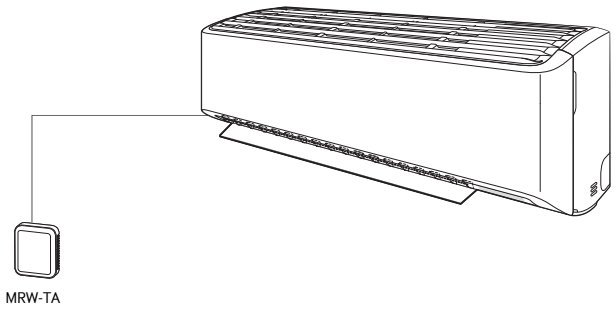
Auto clean	
Value	**Details**
0 (default)	Disabled
1	Enabled



Segment 4: External room temperature sensor / Fan thermal-OFF settings

The external room temperature sensor option should be enabled when installing an optional external temperature sensor MRW-TA. When this option is set, heating compensation is set to 0°F (default heating compensation is 3.6°F). Segment 4 also provides an option to stop the fan when the indoor unit is in a thermal-OFF state.

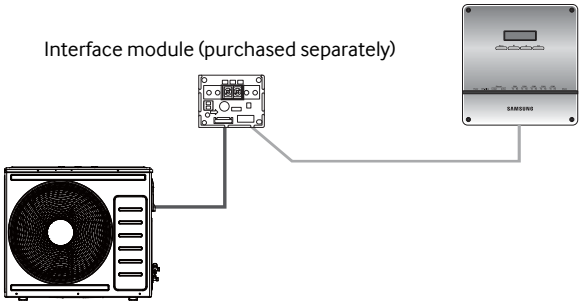
External room sensor / Fan thermal-OFF settings		
Value	**External sensor**	**Fan off in thermal-OFF**
0 (default)	Disabled	No
1	Enabled	No
6	Disabled	Yes
7	Enabled	Yes



Segment 5: Central controller use

The central controller option is used when the system needs to be tracked and controlled by a Samsung upper level controller (DMS 2.5, BACnet/LonWorks gateways, or the central touch controller). This is enabled by default.
**Channel address setting must be enabled and the channel address set to avoid communication conflicts with other systems.*

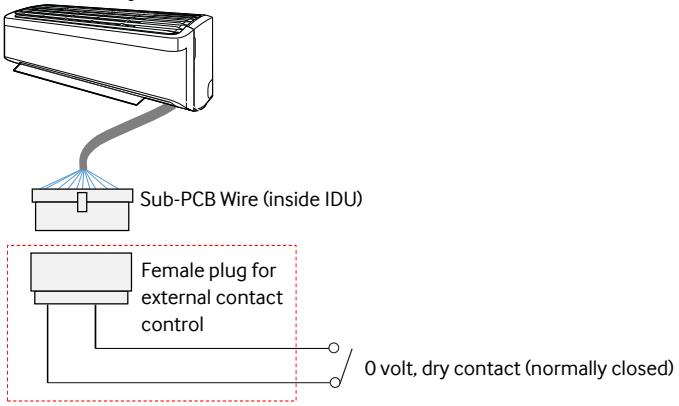
Central control	
Value	**Details**
0	Disabled
1 (default)	Enabled



Segment 8: Overflow switch

The overflow switch option is used when interlocking a normally closed, 3rd party condensate float switch to the indoor unit. If the switch opens, the system will shut off and display error code E665 or C665, depending on display option setting. The indoor unit includes a female plug adapter as standard.
**If segment 8 is enabled, segment 14 (external contact control) is automatically disabled.*

Overflow switch	
Value	**Details**
0 (default)	Disabled
8	Use external drain pump

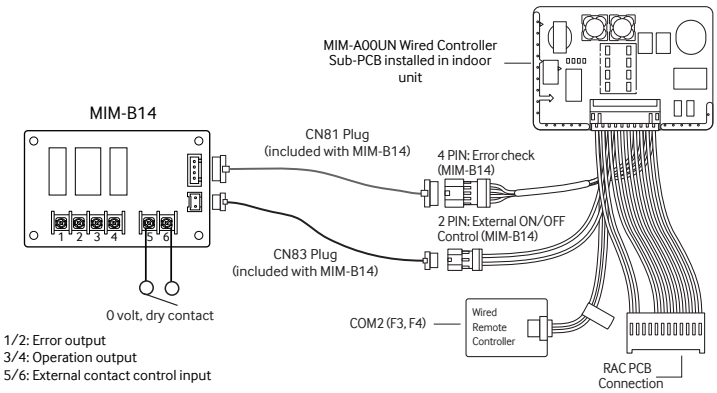


Segment 14: External contact control input

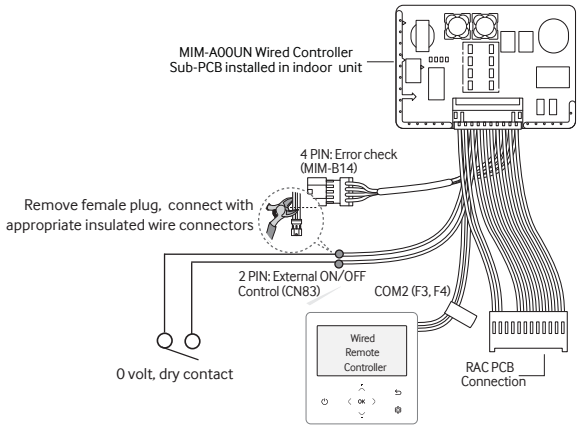
The external contact control option is used to control an indoor unit via an external dry contact. This option must also be set to use segment 15 (external contact output). Either MIM-B14 external contact control interface module, wired controller sub-PCB (purchased separately) integral CN83 pigtail, or included female plug referenced in the segment 8 section, must be used depending on the application.
**If segment 8 is enabled, segment 14 (external contact control) is automatically disabled.*

External contact control	
Value	**Details**
0 (default)	Disabled
1	On / Off control
2	Off only control
3	Window On / Off control
8	Disabled
9	On / Off reverse control
A	Off only reverse control
B	Window On / Off reverse control

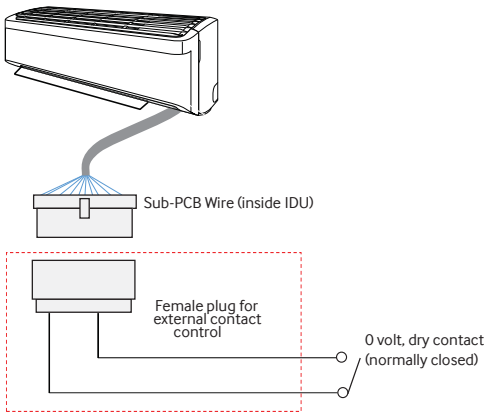
Connection example using MIM-B14 and a wired controller sub-PCB



Connection example using a wired controller sub-PCB



Connection example using the female plug adapter



Segment 15: External contact output

The external contact control output option provides a 0V dry contact signal to interlock external devices. The output can be configured to close/open based on Thermal ON/OFF (default setting) or close/open based on Operation ON/OFF.
**Option segment 14 (external contact control) must also be set to use segment 15 (external contact control output)*

External contact output	
Value	**Details**
0 (default)	Thermal On/Off output
1	Operation On/Off output

Details regarding external contact control can be found on the following page.

MIM-B14 Input

Feature	MIM-B14 Terminals	Option	If	Then
External Contact Control	5 / 6	ON/OFF Control	Contact Opens	- Unit turns OFF - Controller ENABLED (unit can be turned on via controller)
			Contact Closes	- Indoor unit turns ON in previous mode
		OFF-Only Control [1]	Contact Opens	- Unit turns OFF - Controller DISABLED (unit cannot be turned on via controller)
			Contact Closes (while unit is OFF)	- Unit remains OFF/STANDBY (does not turn on in previous mode) - Controller ENABLED (controller or schedule event can turn on the unit)
		Window ON/OFF Control	Contact Opens	- Unit turns OFF - Controller DISABLED (unit cannot be turned on via controller)
			Contact Closes	- Unit goes into previous state (STANDBY/operation, plus all settings) - Controller ENABLED (unit can be controlled via controller)
		ON/OFF Reverse Control	Contact Opens	- Indoor unit turns ON in previous mode
			Contact Closes	- Unit turns OFF - Controller ENABLED (unit can be turned on via controller)
		OFF-Only Reverse Control [1]	Contact Opens (while unit is OFF)	- Unit remains OFF/STANDBY (does not turn on in previous mode) - Controller ENABLED (controller or schedule event can turn on the unit)
			Contact Closes	- Unit turns OFF - Controller DISABLED (unit cannot be turned on via controller)
		Window ON/OFF Reverse Control	Contact Opens	- Unit goes into previous state (STANDBY/operation, plus all settings) - Controller ENABLED (unit can be controlled via controller)
			Contact Closes	- Unit turns OFF - Controller DISABLED (unit cannot be turned on via controller)

MIM-B14 output

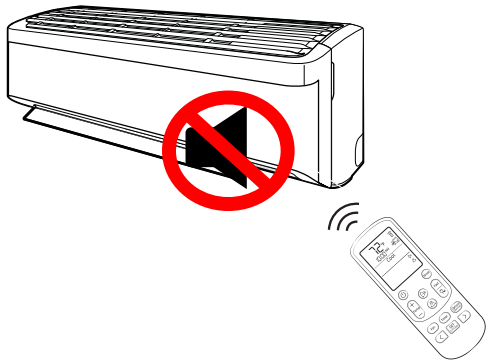
Feature	MIM-B14 Terminals	Option	If	Then
Indoor Unit Operation Output	3 / 4	Thermal-ON/OFF Output [2]	Cooling Thermal-ON	- Contact = CLOSED
			Cooling Thermal-OFF	- Contact = OPEN
			Heating Thermal-ON	- Contact = CLOSED
			Heating Thermal-OFF	- Contact = OPEN
			FAN mode or STANDBY	- Contact = OPEN
		Operation ON/ OFF Output	Unit ON	- Contact = CLOSED
			Unit OFF	- Contact = OPEN
Error Status Output	1 / 2	N/A	No error	- Contact = CLOSED
			Error	- Contact = OPEN

[1] Off-only control is ideal for float switch and energy saving device (example: motion sensor, manual timer, etc.) connection.
[2] External contact control must be enabled. If external contact control is not required, simply install a jumper between terminals 5 and 6.

Segment 17: Use of chime

The indoor unit chime can be disabled with this option. The wireless remote can also be used to enable/disable the chime. The indoor unit option setting has priority over the wireless remote setting.

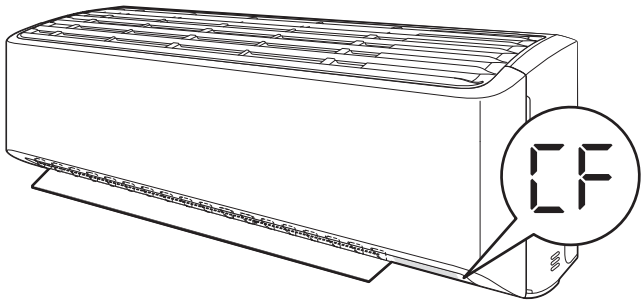
Use of chime	
Value	**Details**
0 (default)	Chime enabled
1	Chime disabled



Segment 18: Filter cleaning reminder

The indoor unit filter cleaning reminder can be enabled and adjusted from 180 hours of unit run time up to 2,000 hours of unit run time. The filter cleaning indictor is enabled from the factory. When unit run time reaches the predetermined setting, the indoor unit will display "CF" to alert the end user the filter needs to be cleaned.

Filter cleaning reminder	
Value	**Details**
0	Disabled
1 (default)	500 hours
2	750 hours
3	1,000 hours
4	1,250 hours
5	1,500 hours
6	1,750 hours
7	2,000 hours
8	300 hours
9	700 hours
A	180 hours



Segment 20: Individual control of wireless controller (channel setting)

The indoor unit can be set to a specific channel or zone (1 - 4) for wireless remote controller use. This option is used when multiple indoor units are in the same space and prevents an indoor unit from accepting the wireless signal if it is not programmed to the same channel as the wireless controller. The end user selects which channel or zone they want to control on the remote controller depending on which unit they want to adjust.

**The factory provided remote does not support this function. Wireless controller AR-EH03U or AR-EH04U is required.*

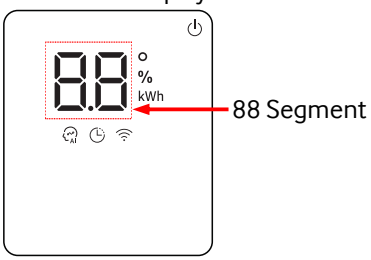
Individual control of wireless controller	
Value	**Details**
0 (default)	Channel 1
1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4

Segment 22: Display option

Various display options are available depending on end user preference. The end user can turn the display OFF/ ON with the wireless remote controller. The setting for segment 22 will dictate how much of the display is turned off and how error codes will be displayed ("Exxx" or "Cxxx").

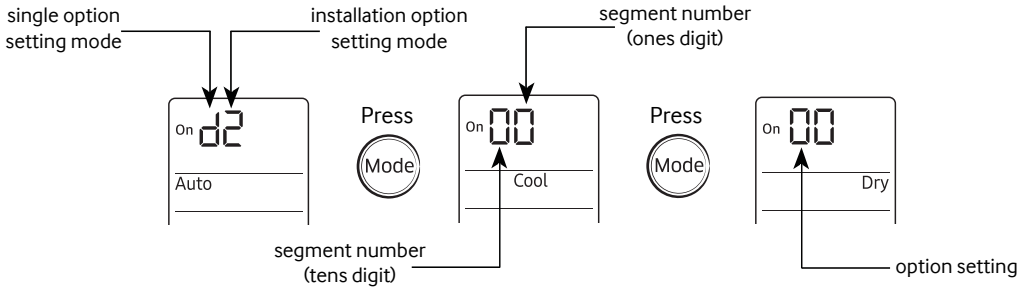
Display options		
Value	**Details**	
	Details	**Display On/Off**
0 (default)	Error code display with "E"	88 segment off when display is off
1	Error code display with "E"	Entire display off
2	Error code display with "C"	88 segment off when display is off
3	Error code display with "C"	Entire display off

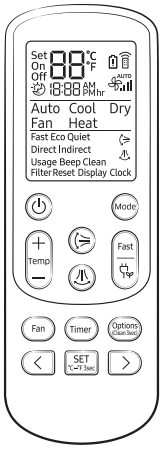
Indoor unit display



Indoor unit programming with wireless controller

(single option setting method)

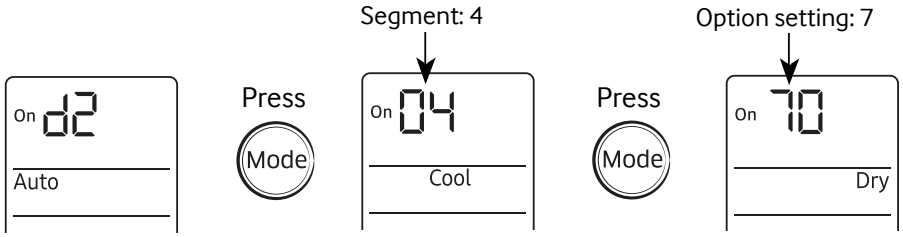




1. Remove the batteries and wait for the screen to go blank. While holding the temperature up and down buttons, replace the batteries.
2. Use the FAN DOWN button to adjust the segment on the left and the FAN UP button to adjust the segment on the right to enter code into the wireless controller as shown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

Single option programming examples

Changing segment 4 for external temperature sensing using MRW-TA and stop the fan when the indoor unit is in thermal-OFF



Changing segment 8 to enable overflow switch detection.