

Partner: Home Connect GmbH  
Appliance Type: Home Connect-enabled Dishwasher



## GENERAL INFORMATION

<b>SIMPLWINDOWS NAME:</b>	Home Connect v1.0 Dishwasher
<b>CATEGORY:</b>	Misc.
<b>VERSION:</b>	1.0
<b>SUMMARY:</b>	This module monitors and controls dishwasher appliances compatible with the <a href="#">Home Connect</a> cloud platform. Home Connect is featured on a wide range of connected home appliances from Bosch, Siemens, Neff, Gaggenau and Thermador.
<b>GENERAL NOTES:</b>	<p>This module interacts with one physical appliance. If multiple dishwasher appliances are required, one module for each appliance must be added to the solution. This module requires one instance of the Home Connect v1.0 Comm IP module for managing all communication to and from the appliance.</p> <p>Refer to the BSH Home Appliance v1.0 Comm IP Help file for important instructions regarding control processor and module configuration.</p>
<b>CRESTRON HARDWARE REQUIRED:</b>	Crestron 3-Series processor.
<b>SETUP OF CRESTRON HARDWARE:</b>	N/A
<b>VENDOR FIRMWARE:</b>	N/A
<b>VENDOR SETUP:</b>	N/A

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**PARAMETERS:**

<b>Device ID</b>	Setting indicates the unique ID (HAID) of the appliance this module will interact with.
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**CONTROL:**

<b>Power On</b>	D	Pulse to set the power state to on.
<b>Power_Off</b>	D	Pulse to set the power state to off.
<b>Start_Program</b>	D	Pulse to begin execution of the selected program.
<b>Resume_Program</b>	D	Pulse to resume the selected program from paused state.
<b>Pause_Program</b>	D	Pulse to temporarily halt execution of the selected program.
<b>Stop_Program</b>	D	Pulse to abort execution of the selected program.
<b>Program_[x]_Select</b>	D	Pulse to select the desired program. The program must be available in order to be selected. Selecting a program will refresh the options in the module (where "x" is the specific program name).
<b>StartInRelative_Hours_StepUp</b>	D	Pulse to incrementally increase the start-in-relative delayed start hours of the selected program.
<b>StartInRelative_Hours_StepDown</b>	D	Pulse to incrementally decrease the start-in-relative delayed start hours of the selected program.
<b>StartInRelative_Minutes_StepUp</b>	D	Pulse to incrementally increase the start-in-relative delayed start minutes of the selected program.
<b>StartInRelative_Minutes_StepDown</b>	D	Pulse to incrementally decrease the start-in-relative delayed start minutes of the selected program.
<b>StartInRelative_Set</b>	D	Pulse to set the start-in-relative delayed start of the program hours and minutes specified by the StartInRelative_Hours_TargetValue and StartInRelative_Minutes_TargetValue analog input signals.
<b>StartInRelative_Hours_TargetValue</b>	A	Integer value indicates the number of hours to set for the start-in-relative delayed start.
<b>StartInRelative_Minutes_TargetValue</b>	A	Integer value indicates the number of minutes to set for the start-in-relative delayed start.
<b>AmbientLight_Mode_Preset</b>	D	Pulse to set the ambient light mode to preset mode.
<b>AmbientLight_Mode_CustomColor</b>	D	Pulse to set the ambient light mode to custom color mode.
<b>AmbientLight_On</b>	D	Pulse to turn on the ambient light.
<b>AmbientLight_Off</b>	D	Pulse to turn off the ambient light.
<b>AmbientLight_Toggle</b>	D	Pulse to turn on the ambient light if it is off or turn off the ambient light if it is on.

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<b>AmbientLight_StepUp</b>	D	Pulse to increase the ambient light brightness by the incremental step size specified by the AmbientLight_Brightness_Step analog output.
<b>AmbientLight_StepDown</b>	D	Pulse to decrease the ambient light brightness by the incremental step size specified by the AmbientLight_Brightness_Step analog output.
<b>AmbientLight_Set_Level</b>	D	Pulse to set the ambient light brightness specified by the AmbientLight_Target_Level analog input.
<b>AmbientLight_Target_Level</b>	A	Integer value indicates the ambient light brightness expressed as a range from 0 to 100. The value must be in range between AmbientLight_Brightness_Min and AmbientLight_Brightness_Max analog output values.
<b>AmbientLight_Set_Percent</b>	D	Pulse to set the ambient light brightness specified by the AmbientLight_Target_Percent analog input.
<b>AmbientLight_Target_Percent</b>	A	Integer value indicates the ambient light brightness expressed as a percentage scaled from 0 to 65535.
<b>AmbientLight_Set_ColorPreset</b>	D	Pulse to set the ambient light color preset index specified by the AmbientLight_Target_ColorPreset analog input.
<b>AmbientLight_Target_ColorPreset</b>	A	Integer value indicates the color preset index, values range from 1 to 6.
<b>AmbientLight_Set_CustomColor</b>	D	Pulse to set the ambient light custom color specified by the AmbientLight_Target_CustomColorR (red), AmbientLight_Target_CustomColorG (green), and AmbientLight_Target_CustomColorB (blue) analog inputs.
<b>AmbientLight_Target_CustomColorR</b>	A	Integer value indicates the red color channel of the ambient light custom color. Value ranges from 0-255.
<b>AmbientLight_Target_CustomColorG</b>	A	Integer value indicates the green color channel of the ambient light custom color. Value ranges from 0-255.
<b>AmbientLight_Target_CustomColorB</b>	A	Integer value indicates the blue color channel of the ambient light custom color. Value ranges from 0-255.

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**FEEDBACK:**

<b>Device_Name</b>	S	Text value indicates the friendly name of the appliance device.
<b>Is_Initialized</b>	D	Signal latched high indicates that all state values of the device have been refreshed in the module and that the module is ready to control the device.
<b>Is_Connected</b>	D	Signal latched high indicates the physical device is connected to the Home Connect cloud platform. When low, the device cannot be controlled through the module.
<b>Power_Is_Enabled</b>	D	Signal latched high indicates that device power can be controlled through the module.
<b>Power_Is_On</b>	D	Signal latched high indicates the device power state is on.
<b>Power_Is_Off</b>	D	Signal latched high indicates the device power state is off.
<b>Remote_Control_Activation</b>	D	Signal latched high indicates that device activation can be triggered remotely.
<b>Remote_Start_Allowed</b>	D	Signal latched high indicates the device allows programs to be started through the module. When low, the module will not be able to start a selected program.
<b>Locally_Controlled</b>	D	Signal latched high indicates the device is being controlled by a person in front of the appliance.
<b>Run_Program_Allowed</b>	D	Signal latched high indicates the device is in a state where a program can be started. Several states prohibit running a program, such as the appliance door being open.
<b>Pause_Program_Allowed</b>	D	Signal latched high indicates the device supports pausing the currently running program. This signal should be used to hide or show a "pause program" option on the user interface.
<b>Resume_Program_Allowed</b>	D	Signal latched high indicates the device supports resuming the currently running program. This signal should be used to hide or show a "resume program" option on the user interface.
<b>Program_Running_Progress</b>	A	Integer value indicates the completion percentage of the running program. Percentage range is from 0 to 65535.
<b>Program_Elapsed_Time</b>	S	Text value indicates the amount of time the selected program has been running in hours, minutes, and seconds, formatted as HH:MM:SS.
<b>Program_Remaining_Time</b>	S	Text value indicates the amount of time the selected program still requires for completion in hours, minutes, and seconds, formatted as HH:MM:SS.
<b>Run_Program_Error</b>	S	Text value indicates an error state that prevents the module from running the selected program.
<b>Program_Active_Label</b>	S	Text value indicates the friendly name of the active program.

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<b>Operation_Is_Inactive</b>	D	Signal latched high indicates the device appliance is in inactive state. This state indicates the appliance power is in standby.
<b>Operation_Is_Ready</b>	D	Signal latched high indicates the device appliance is in ready state. The state indicates no program has been activated.
<b>Operation_Is_DelayedStart</b>	D	Signal latched high indicates the device appliance is in delayed start mode. The state indicates a program has been activated but has not been started yet.
<b>Operation_Is_Running</b>	D	Signal latched high indicates the device appliance is in running state. This state indicates a program is in progress.
<b>Operation_Is_ActionRequired</b>	D	Signal latched high indicates the device appliance is in action required state.
<b>Operation_Is_Finished</b>	D	Signal latched high indicates the device appliance is in finished state. This state indicates a running program has completed.
<b>Operation_Is_Error</b>	D	Signal latched high indicates the device appliance is in error state.
<b>Operation_Is_Aborting</b>	D	Signal latched high indicates the device appliance is in aborting state. This state indicates a program has been terminated before completing normally.
<b>Door_Is_Open</b>	D	Signal latched high indicates the device appliance door is open. A program cannot be run while the door is open.
<b>Door_Is_Closed</b>	D	Signal latched high indicates the device appliance door is closed. The door must be closed in order to run a program.
<b>Program_[x]_Is_Available</b>	D	Each signal latched high indicates the program is supported by the device and can be executed through the module (where "x" is the specific program name).
<b>Program_[x]_Is_Selected</b>	D	Any signal latched high indicates the program is the currently selected program on the appliance (where "x" is the specific program name)..
<b>Program_Selected_Label</b>	S	Text value indicates the friendly name of the currently selected program.
<b>Program_Selected_Index</b>	A	Integer value indicates the index value of the currently selected program. This value can be used to drive custom text for the selected program.
<b>StartInRelative_Is_Availible</b>	D	Signal latched high indicates the appliance supports setting the delayed start through the module.
<b>StartInRelative_Min</b>	A	Integer value indicates the minimum start-in-relative time delay limit for the selected program. Value is in units of seconds.
<b>StartInRelative_Max</b>	A	Integer value indicates the maximum start-in-relative time delay limit for the selected program. Value is in units of seconds.
<b>StartInRelative_Step</b>	A	Integer value indicates the incremental change when increasing or decreasing the start-in-relative delay time by one step size amount. Value is in units of seconds.

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<b>StartInRelative_Hours_CurrentValue</b>	A	Integer value indicates the delayed start hours of the selected program.
<b>StartInRelative_Minutes_CurrentValue</b>	A	Integer value indicates the delayed start minutes of the selected program.
<b>StartInRelative_CurrentValue_Label</b>	S	Text value indicates the current start-in-relative delayed start time of the selected program formatted in HH:MM.
<b>AmbientLight_Mode_Is_Preset</b>	D	Signal latched high indicates the appliance ambient light is in preset mode.
<b>AmbientLight_Mode_Is_CustomColor</b>	D	Signal latched high indicates the appliance ambient light is in custom color mode.
<b>AmbientLight_Is_Available</b>	D	Signal latched high indicates the appliance supports an ambient light feature that can be turned on or off.
<b>AmbientLight_Is_On</b>	D	Signal latched high indicates the ambient light is turned on.
<b>AmbientLight_Is_Off</b>	D	Signal latched high indicates the ambient light is turned off.
<b>AmbientLight_Brightness_Is_Available</b>	D	Signal latched high indicates the appliance supports adjusting the brightness of the ambient light.
<b>AmbientLight_Brightness_Min</b>	A	Integer value indicates the minimum brightness of the ambient light.
<b>AmbientLight_Brightness_Max</b>	A	Integer value indicates the maximum brightness of the ambient light.
<b>AmbientLight_Brightness_Step</b>	A	Integer value indicates the incremental amount the brightness level is changed when AmbientLight_StepUp or AmbientLight_StepDown digital input signals are pulsed. Value is in steps of 1%.
<b>AmbientLight_Current_Level</b>	A	Integer value indicates the current brightness level of the ambient light. Value range is a percentage from 0 to 100%.
<b>AmbientLight_Current_Percent</b>	A	Integer value indicates the current brightness level of the ambient light as a percentage scaled from 0 to 65535.
<b>AmbientLight_Brightness_Units</b>	S	Text value indicates the units of brightness. Brightness units expressed as a percentage of the maximum brightness. Default units are percent (%).
<b>AmbientLight_ColorSelect_Is_Available</b>	D	Signal latched high indicates the appliance supports ambient light presets of specified colors.
<b>AmbientLight_ColorPreset1_Is_Available</b>	D	Signal latched high indicates the appliance supports one ambient light preset.
<b>AmbientLight_ColorPreset2_Is_Available</b>	D	Signal latched high indicates the appliance supports two ambient light presets.
<b>AmbientLight_ColorPreset3_Is_Available</b>	D	Signal latched high indicates the appliance supports three ambient light presets.
<b>AmbientLight_ColorPreset4_Is_Available</b>	D	Signal latched high indicates the appliance supports four ambient light presets.
<b>AmbientLight_ColorPreset5_Is_Available</b>	D	Signal latched high indicates the appliance supports five ambient light presets.
<b>AmbientLight_ColorPreset6_Is_Available</b>	D	Signal latched high indicates the appliance supports six ambient light presets.



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<b>AmbientLight_Current_ColorPreset</b>	A	Integer value indicates the current ambient light preset. Value range is from 1 to 6.
<b>AmbientLight_CustomColor_Is_Available</b>	D	Signal latched high indicates the appliance supports setting a custom color for the ambient light.
<b>AmbientLight_Current_CustomColorR</b>	A	Integer value indicates the current red color value of the ambient light custom color. Value range is from 0 to 255.
<b>AmbientLight_Current_CustomColorG</b>	A	Integer value indicates the current green color value of the ambient light custom color. Value range is from 0 to 255.
<b>AmbientLight_Current_CustomColorB</b>	A	Integer value indicates the current blue color value of the ambient light custom color. Value range is from 0 to 255.



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**TESTING:**

<b>OPS USED FOR TESTING:</b>	CP3 1.603.4242.34642
<b>SIMPL WINDOWS USED FOR TESTING:</b>	4.14.20
<b>CRES DB USED FOR TESTING:</b>	201.00.004.00
<b>DEVICE DATABASE:</b>	200.05.001.00
<b>SYMBOL LIBRARY USED FOR TESTING:</b>	1114
<b>SAMPLE PROGRAM:</b>	Home Connect v1.0 Demo IP CP3.smw
<b>REVISION HISTORY:</b>	v1.0 – Initial Release