Genie Aladdin Connect – OHD Anywhere SIMPL Windows Module Application Guide

Description

This module provides control over garage doors using the Genie Aladdin Connect service. Genie and Overhead Door openers that support Aladdin Connect or OHD Anywhere may be controlled. Additionally, other manufacturers garage doors may be controlled when connected to a Genie Aladdin Connect Wi-Fi RetroFit Kit or a OHD Anywhere retrofit kit.

This module provides a wide variety of functionality to control garage doors, and provides unsolicited status feedback from the Genie online service. Features include:

- Open/Close control of a Genie or Overhead Door opener that natively supports Aladdin Connect or OHD Anywhere (single door control).
- Open/Close control of up to 3 doors when using the retrofit kits.
- Unsolicited and near real-time feedback of door status.
- Door sensor battery level feedback for Retrofit kits.
- Fault Status.

Supported Processors

Any 3 or 4 series appliance, or VC-4 instance, with Ethernet and internet access is required. This module is not supported on 2-series or earlier processors.

Compatibility			Processor Requirements	
4 SERIES CONTROL COMPATIBLE	3 COMPATIBLE	NOT COMPATIBLE SERIES	Ethernet REQUIRED	USB REMOVABLE MEDIA NOT REQUIRED

Contents

Module Licensing

Each device that will be controlled requires a License that can be obtained by following the steps below. Each Module in a program requires a separate license in order to function. Each Module can be paired to a Genie or OHD Connect device (Retrofit Kit and/or Opener). For example if you have two openers you wish to control, you will need to purchase 2 licenses.

License Changes

If a processor fails and is replaced the license will need to be updated, we offer one complimentary update of the license. Subsequent changes will be assessed a fee to change the license.

Steps for Purchasing a License

Licenses are tied to the Crestron Processor. The steps below outline how to purchase a license and pair your module. The process is the same for a Crestron processor appliance or VC-4 server.

1. At any time, if you know the processors MAC address, you may purchase licenses.

    a. Navigate to https://store.controlworks.com/products/Genie-License and enter the quantity of licenses you wish to purchase. Once the purchase is complete, the licenses are active, however you must still pair the modules to a Genie account.

Steps for Pairing A Processor

Once licenses have been purchased, the next step is to pair the Crestron processor to a Genie or OHD account.

1. Ensure the Retrofit Kit, or Opener is paired and functional following the directions provided by the manufacturer in the Genie Aladdin Connect or OHD Anywhere app. The door must be functional using the Genie Aladdin Connect or OHD Anywhere app.

2. Ensure your Crestron processor has internet access. Internet access is required for this module to function.

    a. Ensure the processor has DNS servers by using the command [LISTDNS].

```
AV3>listdns
TableStart: [DNS Servers]
Device ID   | IP              | Issued By |
------------+-----------------+-----------+
Device 0    | 10.2.0.5        | DHCP      |
Device 1    | 10.255.1.2      | DHCP      |
```
Figure 1 - LISTDNS Example

    b. If no DNS servers are present, add them by using [ADDDNS <DNS server>] or using the Ethernet Addressing dialog box.

```
AV3>adddns 8.8.8.8
Success:New DNS value set.

AV3>
```
Figure 2 - ADDDNS Example

    c. You can also test your DNS server by using the command [TESTDNS www.controlworks.com.

Figure 3 - TESTDNS Example

3. Add modules to your program. Ensure the [reboot_finished] signal on the module is being **latched high** (not pulsed i.e. not using a STEPPER, MV, and not driven from an out* from a SR or equivalent) after boot. See the demo program for an example.

4. Ensure the [pairing_url$] signal is defined on the module. This is not required for operation, but used later in the pairing process.

5. Load your program to the processor.

6. Get the pairing URL. This can be done two ways:

   a. Using SIMPL Debugger, connect to the processor and sync signals. Navigate to the url as defined by the signal [pairing_url$]. Typically, this will look something like http://pair.controlworks.com?id=ODGXxxxxxxA

   b. Using text console (for 3 or 4 series appliances) use the command UCMD "GETACTIVATIONINFO". The module will print the pairing information and license URL.

7. On the pairing site, follow the steps to pair your account.

8. Once pairing has been saved, pulse the [refresh_license] input and the modules will consume licenses for each paired device.

Module Application

Network Requirements
Communication to the Genie Aladdin Connect service requires an active internet connection. The module will be in communication with the Genie Aladdin Connect service and the ControlWorks status reflector.

Multiple Crestron Processors and multiple Genie Accounts
There are limitations on the number of openers that can be paired to processors.
- Each Genie/OHD device that is paired to a processor may not be paired to another processor.
- You may pair multiple processors to one Genie / OHD account, however care should be taken to only pair devices that have not been paired to another Crestron processor.
- Pairing multiple Genie / OHD accounts to a single processor is not supported.
- The modules may only exist in one program slot. Multiple slots are not supported. Ensure all modules exist in one program slot.
- Shared openers are not available for control. All devices must owned by the same Genie/OHD account.

Polling
The Driver receives unsolicited feedback from the Genie Aladdin Service updating the door status. Every 15 minutes, the module will poll for updated door information refreshing device, door status and door names.

Faults
The Driver provides fault status for Genie devices. If the door is in fault, the wall control or remote must be used to successfully move the door and clear the fault.

Opening and Closing states
Not all openers support these states, and Genie does not guarantee that it will send opening and closing states. We have provided these outputs for your convince, but should not be relied upon solely.

Signal and Parameter Descriptions

Bracketed signals such as "[signal_name]" are optional signals

DIGITAL INPUTS

reboot_finished .... Latch high after program start.

[refresh_license] .... Pulse to force the module to check in with the pairing server to validate number of licenses and update serial number pairings.

[doorx_open/close] .... Pulse to request that the door be moved to the desired position. If the door is in fault, the door will not move and must be moved manually from the wall control.

ANALOG INPUTS

This module does not utilize any Analog Inputs

SERIAL INPUTS

This module does not utilize any Serial Inputs

DIGITAL OUTPUTS

[module_paired] .... High when the module is paired with an opener device(either a physical opener or retrofit kit).

[module_licensed] .... High if the module has been licensed.

[device_offline] .... High when the Genie service indicates that the device is offline.

[device_online] .... High when the Genie service indicates that the device is online.

[connected_to_status_server_fb] .... High when the module(s) are connected to the ControlWorks Status server.

[doorx_status_unknown] .... High when the Genie service indicates the door status is unknown.

[doorx_status_open_fb] .... High when the Genie service indicates the door is in the open position.

[doorx_status_open_requested_fb] .... High when the [doox_open] input is pulsed. This input will be high for a maximum of 90 seconds after the input is pressed, or until the Genie service indicates a door state change. Note that other door feedback will remain high during this event.

[doorx_status_timeout_opening_fb] .... High when the Genie service indicates that the door has timed out when attempting to move.

[doorx_status_closed_fb] .... High when the Genie service indicates that the door is in the closed position.

[doorx_status_close_requested_fb] .... High when the [doox_close] input is pulsed. This input will be high for a maximum of 90 seconds after the input is pressed, or until the Genie service indicates a door state change. Note that other door feedback will remain high during this event.

[doorx_status_closing/opening_fb] .... High when the status server sends opening or closing states. Not all openers support this state, and **Genie does not guarantee these states will be sent.**

[doorx_status_timeout_closing_fb] .... High when the Genie service indicates the door has timed out when attempting to move.

[doox_fault_none_fb] .... High when the Genie service has indicated that the door is not in a fault state.

[doorx_fault_ul_lockout_fb] ....High when the Genie service indicates that the door is in UL Lockout mode. This mode is achieved when two consecutive attempts the door was remotely commanded to perform an action and failed to complete the action. When in this mode, the door will not respond to remote actions, and must be operated from the wall control or visor remote.

[doorx_fault_move_abort_fb] ....High when the Genie service indicates that the door fault status is move abort.

[doorx_fault_unknown_fb] ....High when the Genie service indicates an unknown fault has occurred.

[doorx_fault_status_unknown_fb] ....High when the program is unaware of current fault conditions.

[doorx_link_status_uknown_fb] ....High when the Genie service indicates that the paired devices link status with the Genie service is unknown.

[doorx_link_not_config_fb] ....High when the Genie service indicates that the paired device is not configured with the Genie service.

[doorx_link_status_paired_fb] ....High when the Genie service indicates the paired device is paired with the Genie service but not connected.

[doorx_link_status_connected_fb]..............................High when the Genie services indicates the paired device is connected with the Genie service.

ANALOG OUTPUTS

[doorx_door_position_sensor_battery_percent_fb].........The battery level of the door position sensor in percent 0d-100d. Applies only to retrofit devices; level will always be 0 when module is connected to an Genie Aladdin Connect or OHD Anywhere enabled door opener.

SERIAL OUTPUTS

[pairing_url$] ....The URL to pair this module to a Genie account and assign devices to modules. Typically, only used during setup.

[license_url$] ....The URL to purchase license(s) for this module. Typically, only used during setup.

[doorx_name_fb$] ....The name of the door as reported by the Genie service. This corresponds with the name of the door in the Genie Aladdin Connect and OHD Anywhere apps.

PARAMETERS

This module does not utilize any parameters.

Support

This module is supported by ControlWorks Consulting, LLC. Should you need support for this module please email support@controlworks.com or call us at 440-449-1100. ControlWorks normal office hours are 9 AM to 5 PM Eastern, Monday through Friday, excluding holidays.

Before calling for support, please ensure that you have loaded and tested operation using the included demonstration program and touchpanel(s) to ensure that you understand the correct operation of the module. It may be difficult for ControlWorks to provide support until the demonstration program is loaded.

Updates, when available, are automatically distributed via Email notification to the address entered when the module was purchased. In addition, updates may be obtained using your username and password at https://www.store.controlworks.com/Customers/Login.aspx

Distribution Package Contents

The distribution package for this module should include:

Genie_Aladdin_Connect-OHD_Anywhere_(ControlWorks)_Demo_V2.2.smw	Demonstration Program
Genie_Aladdin_Connect-OHD_Anywhere_(ControlWorks)_V2.2.umc	Main User Module
Genie_Aladdin_Connect-OHD_Anywhere_Engine_(ControlWorks)_V2.2.usp	SIMPL+ for use inside main module
Genie_Aladdin_Connect-OHD_Anywhere_Engine_(ControlWorks)_V2.2.ush	SIMPL+ header file, for use inside main module
GenieOHD.clz	SIMPL# module for use in SIMPL+ module
Genie_Aladdin_Connect-OHD_Anywhere_Engine_(ControlWorks)_TSW-1060_V2.2.vtp	Demonstration TSW-1060 file
Genie_Aladdin_Connect-OHDAnywhere_v2.2_(ControlWorks)_Help.pdf	This help file.

Revision History

V1.0 caleb@controlworks.com 2022.12.12
    -Initial Version
V2.0 caleb@controlworks.com 2023.10.18
    -Updates for Genie API changes.
V2.1 caleb@controlworks.com 2024.01.03
    -Status Server connectivity enhancements.
V2.2 caleb@controlworks.com 2024.02.16
    -Exposed door transient states.

Development Environment

This module version was developed on the following hardware and software. Different versions of hardware or software may or may not operate properly. If you have questions, please contact us.

Crestron Hardware	Firmware Version
CP3	v1.8001.4925.26115
PRO4	v2.8001.00098
VC-4	V4.0002.00039
TSW-1052	v1.003.0020
TSW-1060	v1.002.0031
Software	**Software Version**
SIMPL Windows	4.25
Device Database	200.295
Crestron Database	221.00

ControlWorks Consulting, LLC Type 5 Module/Driver License Agreement

Definitions:

"ControlWorks", "We", and "Us" refers to ControlWorks Consulting, LLC, with headquarters located at 8228 Mayfield Road Suite 6B Rear, Chesterland, Ohio 44026.

"You" refer to the entity installing, integrating, or otherwise deploying the Module.

"End User" refer to the person or entity for whom the Crestron hardware is being installed, utilize, and/or will utilize the installed system.

"Module", "Driver", and "Licensed Software" each include all components provided by ControlWorks pursuant to this license agreement required for or useful in implementing the functionality described herein. The Licensed Software includes but is not limited to files with extensions such as UMC, USP, CLZ, SMW, VTP, and PKG.

"Type 2 Module/Driver License" refers to a module license that is granted to a specific Crestron processor and a single controlled device; a separate license must be purchased for each combination of Crestron processor and controlled device.

"System" refers to all components described herein as well as other components, services, or utilities required to achieve the functionality described herein.

"Demo Program" refers to a group of files used to demonstrate the capabilities of the Module, for example a SIMPL Windows program and VisionTools Touchpanel file(s) illustrating the use of the Module but not including the Module.

"Software" refers to the Module and the Demo Program and any files provided by ControlWorks as part of the distribution package including the Module, Demo Program, and associated documentation.

Disclaimer of Warranties

ControlWorks Consulting, LLC software is licensed to You as is. You, the consumer, bear the entire risk relating to the quality and performance of the Licensed Software. In no event will We or any of our Licensors be liable for direct, indirect, incidental or consequential damages resulting from your use or attempt to use the Licensed Software, or for any defect in the Software, breach of security, or other failure or malfunction even if We had reason to know of the possibility of such damage. If the Licensed Software proves to have defects, You and not Us must assume the entire cost of any necessary service, repair, or other loss resulting from such defects.

Indemnification/Hold Harmless

ControlWorks, in its sole and absolute discretion may refuse to provide support for the application of the Module in such a manner that We feel has the potential for property damage, or physical injury to any person. Dealer shall fully and unconditionally indemnify and hold harmless ControlWorks Consulting LLC, its employees, agents, licensors, and owners from any and all liability, including direct, indirect, and consequential damages, including but not limited to personal injury, property damage, or lost profits which may result in any way from the operation (or failure to operate) of a program or System containing Licensed Software or any component thereof.

Provision of Support

We provide limited levels of technical support only for the most recent version of the Module as determined by Us. We do not provide support for previous versions of the Module, modifications to the module not made by Us, or to persons who have not purchased the Module from Us. In addition, we may decline to provide support if the demo Program has not been utilized. We may withdraw a module from sale and discontinue providing support at any time and for any reason, including, for example, if the equipment for which the Module is written is discontinued or substantially modified. The remainder of your rights and obligations pursuant to this license will not be affected should We discontinue support for a Module.

Modification of Software

You may not decrypt (if encrypted), reverse engineer, modify, translate, disassemble, or de-compile the Licensed Software in whole or part. Any modifications to the Licensed Software shall immediately terminate any licenses purchased with respect thereto. You may, however, modify the Demo Program.

License Grant

You may use the Licensed Software on the specific Crestron Processor identified when the license was purchased or otherwise granted by ControlWorks. You may integrate with only as many devices using the Licensed Software as you have been granted licenses for (for example, if you purchase 3 licenses associated with a processor, you may control up to 3 devices using the Licensed Software from that processor).

Licenses are generally non-transferrable, however in ControlWorks sole discretion, ControlWorks may grant a transfer of an existing license to a new Crestron Processor. If granted, transfer may be subject to an administrative fee as determined by ControlWorks from time to time, and the prior license may be disabled remotely.

You may permit End Users to utilize the functionality provided by the Licensed Software as part of a Crestron Home configuration or Crestron Program, as applicable.

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