

# SYN-CTL-HUB API SYN-CTL-HUB

# **Application Programming Interface**

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Supported Firmware	Refer to Supported Product Firmware/Software for details.

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### 1. Overview

The **SYN-CTL-HUB** is a versatile control interface designed to work seamlessly with the **SYN-TOUCHIO** touchpad or any third-party control system. It enables centralized control of connected peripherals—such as TVs, projectors, screens, and curtains—via **RS232**, **IR**, and **relay** outputs.

#### **Communication Details:**

- All commands are transmitted from the controller interface to the SYN-CTL-HUB via a TCP connection.
- The default IP address of the controller is 169.254.1.51, with a default TCP port of 60005.
- All API commands must be terminated with a carriage return and newline (\r\n).

#### **Basic TCP Commands:**

• Start Connection

Command: BQResponse: BP=0

• Keepalive (Heartbeat)

Command: LQResponse: LP=0



### **IMPORTANT NOTE!**

Due to differences between model versions within a series, some commands have different parameters based on the model and version. These differences are noted where applicable and should be followed as sending an incorrect parameter may cause the unit to lock up and become inoperative.

### 1.1 Supported Product Firmware/Software

The following products and firmware versions are supported by this version of the API. The firmware versions listed are the minimum supported at time of publication; firmware may be higher except where otherwise noted.

Product	Status Since Last Doc Rev	Supported Product Versions
SYN-CTL-HUB	added	vI or higher

### 1.2 Before You Begin

### 2 Connections

### 2.1 IP Settings

Default IP Address	169.254.1.51
Default IP Port	60005

### **Sending Commands**

- All commands are sent from the touchpad to controller via TCP Connections
- 2. All commands must end in \r\n

### **IP Address Notes**

 The installer password and general password are the same by default. WyreStorm recommends changing the password for installer login to avoid any unwanted changes being made to the configuration.

Please note, most 3<sup>rd</sup> party control software will either append these characters automatically or an option to specify them will be present.

# 3. IP Addressing

Set DHCP Mode
Command structure: dp
Response Syntax:
Example Command:
Example Response:
Setting a static IP
Command structure:
ip <ip_address> <subnet_mask> <gateway></gateway></subnet_mask></ip_address>
<pre>ip <ip_address> <subnet_mask> <gateway> Response Syntax: ip=0</gateway></subnet_mask></ip_address></pre>
Response Syntax:

# 4. Command for RS232 Parameters

RS232 Parameter Settings	
Command structure: ss1, <baud_rate>,<parity>,<data_bits>,<stop_bits></stop_bits></data_bits></parity></baud_rate>	
Response Syntax:	
SS	
ss1=0	
Example Command:	
ss1,115200,0,8,1	
Example Response:	
ss	

### 5. LAN to RS233

LAN to RS232	
Command structure: h1," <prm1>"</prm1>	<prm> = Serial Command</prm>
Response Syntax:	
Example Command: ch1,"50 57 52 20 4F 4E 0D 0A"	
Example Response:	

# 6. LAN to Relay

Close Relay I	
Command structure: oh1	
Response Syntax: oh	After power cycle, relays are closed.
Example Command: oh1	
Example Response:	
Open Relay I	
Command structure: ol1	
Response Syntax:	After power cycle, relays are closed.
Example Command:	
Example Response:	

Close Relay 2		
Command structure: oh2		
Response Syntax: oh	After power cycle, relays are closed.	
Example Command: oh2		
Example Response:		
Open Relay 2		
Command structure: ol2		
Response Syntax:	After power cycle, relays are closed.	
Example Command: ol2		
Example Response:		
Close Relay 3		
Command structure: oh3		
Response Syntax:	After power cycle, relays are closed.	
Example Command:		
Example Response:		
Open Relay 3		
Command structure: ol3		
Response Syntax:	After power cycle, relays are closed.	
Example Command:		
Example Response:		

Close Relay 4	
Command structure: oh4	
Response Syntax: oh	After power cycle, relays are closed.
Example Command: oh4	
Example Response:	
Open Relay 4	
Open Relay 4  Command structure: ol4	
Command structure:	After power cycle, relays are closed.
Command structure: ol4 Response Syntax:	After power cycle, relays are closed.
Command structure: ol4  Response Syntax: ol  Example Command:	After power cycle, relays are closed.

### 7. LAN to IR

### LAN to IR

#### Command structure:

ir1,<frequency>,<repeat>,<offset>,<on1>,<off1>,<on2>,
<off2>,...,<onN>,<offN>\n

<frequency>: Specifies the carrier frequency of the IR signal in hertz. Valid range is 15000 to 500000 Hz.

<repeat>: Indicates how many times the IR command should be transmitted. Valid values are 1 to 50.

<offset>: Optional parameter used when <repeat> is greater than 1. It defines the gap between repetitions. Valid values are odd numbers between 1 and 383.

<on1>, <on2>, ... <onN>: Define the number of carrier wave pulses. Each value must be between 1 and 65635.

<off1>, <off2>, ... <offN>: Define the duration of silence between pulses, also in the range of 1 to 65635.

\n: A carriage return character that must be appended to the end of every IR command.

### Example Command:

ir1,37993,1,1,342,170,22,21,22,21,21,21,21,22,21,22,2 1,21,21,22,21,22,63,22,64,21,64,22,63,22,64,21,64, 22,63,22,64,21

,21,22,21,22,63,22,21,22,21,21,64,22,21,21,64,22,2 1,21,64,22,21,21,64,22,63,22,21,22,63,22,21,22,63, 22,1512,342,8

5,22,3641,342,85,22,3799\r\

### 8.Contact

Query input (Contact)	
Command structure: in1	in1=0: The input signal is low level in1=1: The input signal is high level
Response Syntax: in1=0 or in1=1	
Example Command:	
Example Response: in1=1	

# 10. Contacting Technical Support

Should further clarification of the content in this document or assistance on troubleshooting be required, please contact WyreStorm technical support.

Phone: UK: +44 (0) 1793 230 343 | ROW: 844.280.WYRE (9973) Contact Request: http://wyrestorm.com/contact-tech-support

# 11. Document Revision History

VI.0 - June 2025 - Initial release

### **Publication Disclaimer**

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