

INOGENI



INOGENI TOGGLE

User guide

Version 1.1

5/20/21

VERSION HISTORY

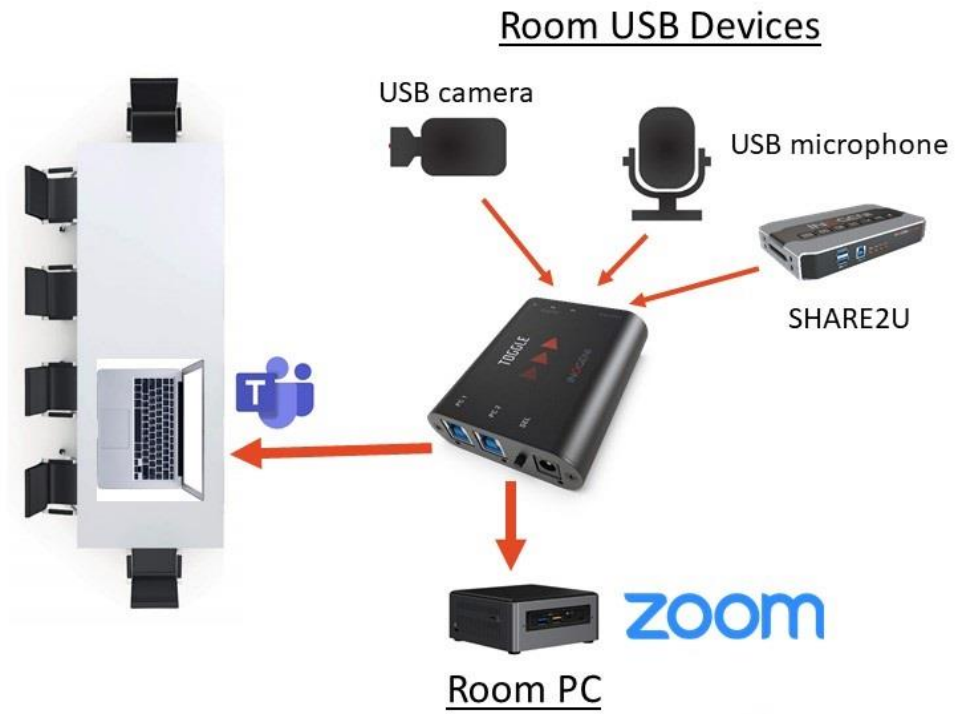
Version	Date	Description
1.0	April 9, 2021	First release
1.1	May 20, 2021	Update RS232 commands section. Change « HOSTx » for « PCx ».

CONTENTS

Version history	1
Typical application	2
Device interfaces	3
Leds behavior	4
Operating modes	4
Specifications	5
Serial communication protocol.....	6
Settings.....	7
INOGENI Control App.....	7
Support.....	8

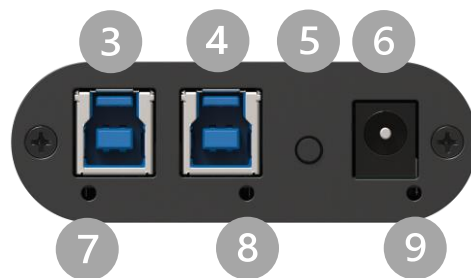
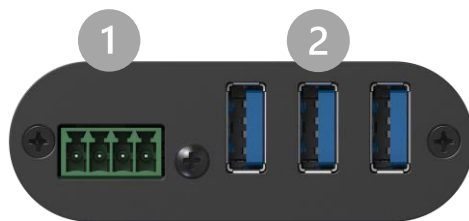
TYPICAL APPLICATION

Here is a typical connection diagram used for the TOGGLE device in a videoconferencing setup.



DEVICE INTERFACES

Here are the devices interfaces.



- ① RS232 and GPIN interfaces
- ② 3 x USB-A ports for devices
- ③ PC #1 USB-B port
- ④ PC #2 USB-B port
- ⑤ Push-button
- ⑥ +12V power input
- ⑦ PC #1 led indicator
- ⑧ PC #2 led indicator
- ⑨ Power indicator

LEDS BEHAVIOR

Here are the leds behavior:

PCx LEDs	
OFF	No PC connected.
SOLID	PC currently selected.
BLINK	PC detected but not currently selected.

Power LED	
OFF	No power present on board.
SOLID	Power detected.
BLINK	Over-current detected on USB devices.
LED intensity	FULL intensity if power is provided through external power supply. MEDIUM intensity if power is provided through USB connections (PC1 or PC2).



IMPORTANT: If all leds are blinking in sync, this means the unit is in the upgrade process. This happens only while you upgrade the unit.

OPERATING MODES

There are two modes supported by the device. They will be explained here.

Automatic

This is the default mode. This mode will switch automatically to the last PC¹ connected. If the current PC is disconnected, the device will switch back to the other PC if it is detected. Push-button action and remote control are also supported.

Manual

The manual mode will enable you to force a specific PC selection. Push-button action and remote control are also supported.

These modes can be set through our INOGENI Control App or through the RS232 interface. The mode will be saved onboard the device.

¹ PC: personal computer (Refers to a system running Windows, macOS or Linux).

SPECIFICATIONS

Here is the complete specification.

Physical details	
Dimensions (W x L x H)	70 x 83 x 23 mm
Power supply	12V
Power consumption	Up to 1.2A
Weight	113 g
Package content	2 x USB 3.0 Type-B to Type-A cables. 1 x terminal block connection. 1 x 12V power supply.
Operating temperature	0° to 45° C (32° to 113° F)
Storage temperature	-40° to 105° C (-40° to 221° F)
Origin	Canada
Warranty	2 years
General specifications	
USB host ports	2 x Type-B USB 3.0/2.0 compatible.
USB device ports	3 x Type-A USB 3.0/2.0 compatible.
Serial interface	Baud rate: 9600 For control purpose. See Serial communication protocol section for more details.
Push-button	Physical switch to select host.
GPIN	Contact-closure control. Controlled by open-drain IO (short to ground) or driven IO. Supported voltage range: 0V to +12V max.
Device current limit	1.8A shared current limit for all 3 x USB device ports. You can monitor current consumption through RS232 and our Control App.
Software	
Operating systems	Compatible with any operating system Windows 7 and above macOS 10.0 and above Linux
Upgrade	Field upgradable through our INOGENI Control App.
Control	Automatic, manual or remote control. Current configuration is saved onboard.

SERIAL COMMUNICATION PROTOCOL

Here is the complete list of commands provided through the serial connection:

Pinout is indicated on the enclosure.

Baud rate: 9600

Commands	Arguments	Return	Function description
FW	NA	"FW_VER:X.Y" where X = MAJOR and Y = MINOR version.	Get firmware version.
SLCK	0,1	NA	Set/unset button LOCK
GLCK	NA	0,1	Get button LOCK status.
SH	1,2	NA	Select PC.
GH	NA	1,2	Get PC selected.
GCAUSE	NA	"HOST_OFF" "HOST_CHG" "BTN" "CMD"	Get last PC switching cause: - HOST_OFF : No inputs selected. PC selection process is changing between PC1 and PC2. HOST_CHG : PC1 or PC2 appeared / disappeared in mode AUTO; - BTN : Button has been used to change PC selection. - CMD : RS232 command has been used to change PC selection.
GHV	1,2	"X.YZV" Where X = units value YZ = decimal value	Get PCx voltage.
GDI	1,2,3	"X.YZA" Where X = units value YZ = decimal value	Get device X current.
GHPW	1,2,3	0,1	Get HUB power status. If report '0', then the HUB had turned OFF the specified USB port (overcurrent).
SAVE	NA	NA	Save settings.
SEV	0,1	NA	Set/clear events (prints).
SM	0,1	NA	Set/unset manual mode.
GM	NA	0,1	Get manual mode status.
DEF	NA	NA	Force factory default settings changed with "SAVE" command.
RST	NA	NA	Reset MCU.
H	NA	List of all commands	Get user help.

All commands will append to the return values return 2 possible answers: **"ACK"** or **"NACK"** with **"/n/r"** chars.

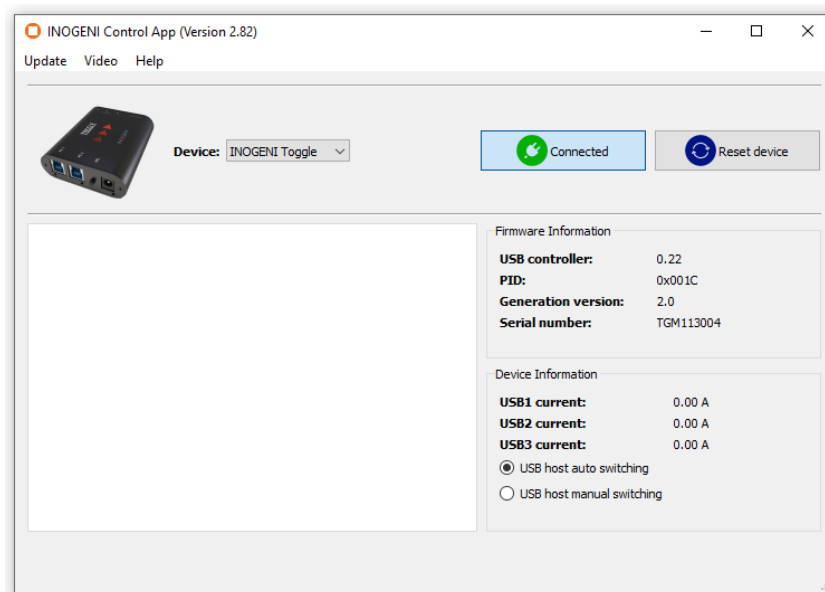
SETTINGS

Some settings can be saved with the “SAVE” command. These settings are:

- Presence or absence of events on serial ports. Events are used for diagnostic. An event returned by the unit always starts with the string “EVT:” The “SEV” serial command is used to enable/disable the events. *This command also automatically saves this setting inside the device.*
- Manual or automatic mode for PC selection. The “SM” command is used to switch between manual and automatic modes. *This command also automatically saves this setting inside the device.*
- If manual mode is selected: the specific PC selected is also saved. The “SH” command is used to select between PC1 and PC2. *This command also automatically saves this setting inside the device.*
- The “DEF” command restores the default settings of the device. It will take effect immediately. The factory default settings are:
 - 1) No events.
 - 2) Automatic mode for PCx selection.

INOGENI CONTROL APP

You can use our Control App to monitor firmware information, upgrade your unit using the latest firmware and configure your unit.



Engineered by video professionals, for video professionals, it is your most compatible USB 3.0 device. INOGENI expertise at your fingertips:

- **Expert Technical Support team** at support@inogeni.com for immediate help or if you have any technical question about our products.
- Extensive **Knowledge Base** to learn from other customers experiences.

© **Copyright 2021 by INOGENI INC. All Rights Reserved.**

INOGENI name and logo are trademarks or registered trademark of INOGENI. Use of this product is subject to the terms and conditions of the license and limited warranty in effect at the time of purchase. Product specifications can change without notice.

INOGENI, Inc.
979 de Bourgogne avenue, suite 530
Québec
G1W 2L4 (QC) Canada