



# NOVOTOUCH BK3 SERIES

Model:  
BK653i, BK753i, BK863i,

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# Chapter 1: Get to Know Your NovoTouch

## 1.1 What is NovoTouch BK series

NovoTouch BK3 series is an All-in-One 4K touch panel ideal for conference rooms, huddle space, and classrooms, which combines screen mirroring, wireless collaboration, whiteboard, and digital signage and communications in one panel.

The BK3 series is available in three screen size, 65", 75", and 86". All three models come with the following hardware configuration.

**Panel:** 4K UHD resolution and wide viewing angle (178°/178°).

**Touch:** high-precision 40-point touch

**Cover Glass :** 3mm Mohs 7H glass

**Internal storage:** 64GB in total

**Connectivity :** HDMI input 、HDMI output 、USB-C 、Line out 、Audio in 、RS232 、USB-B and USB-A

**Network :** WiFi 802.11 ax and LAN (10/100/1000Mbps)

**Speaker :** 18W × 2

**Expansion:** One standard Intel OPS slot

- ◆ Excessive use can damage eyesight.
- ◆ Please rest for 10 minutes after 30 minutes of use.
- ◆ Children under 2 years old should not watch screens. Children 2 years and older should watch screens for no more than 1 hour per day.



## 1.2 Product features:

The NovoTouch BK3 series is a **Google EDLA certified product** that is fully compatible with Google Workspace apps. It also comes packed with powerful Novo collaboration and productivity tools, making it easy for users to share screens and content, open and annotate documents, conduct video conferences, and more.

1. **NovoConnect software:** Windows 、 Mac 、 Chromebook and screen mirroring and collaboration.
2. **Whiteboard:** A whiteboard for sharing ideas
3. **NT Minutes** : Screen recording
4. **NT Live:** Screen mirroring to multiple NovoTouch and NovoConnect
5. **Remote Administrator:** Centrally managed from a remote computer
6. **Others:** Web browsers, MS Office documents and PDF viewers, etc.
7. **Firmware Update:** Update your NovoTouch when connected to the internet, or use Remote Manager to push update packages over your local network

*\*All of these features are available without any ongoing subscription.*

## 1.3 Companion Software

Two companion software tools are available.

### **(1) NovoConnect software:**

This is our flagship software that enables users to mirror screen, moderate meeting, share document and video, and collaborate with each other.

- For mobile devices, you can install it (NovoConnect App) from one of the followings
  - Apple's App Store for iPhone & iPad
  - Google's Play Store for Android phones & tablets
  - Chrome Web Store (for Chromebook)
- For Windows and Mac computers, you can download it from Vivitek website, or from <https://www.LaunchNovo.com>.  
Two versions, with the exact same functionalities, are available depending on your needs
- Portable version: Simply download and run it. No installation is needed.
- Installer: This is a regular installation package.

### **(2) Remote Manger**

This device management software enables system administrators to manage Novo devices from a central location, making it ideal for corporations, schools, and any other large and small institutions.

It is available for Windows computers and can be downloaded from Vivitek website.

The above-mentioned software tools are free of charge, and, regular updates are available for better user experience and enhanced features.

## Chapter 2 : Set Up Your NovoTouch

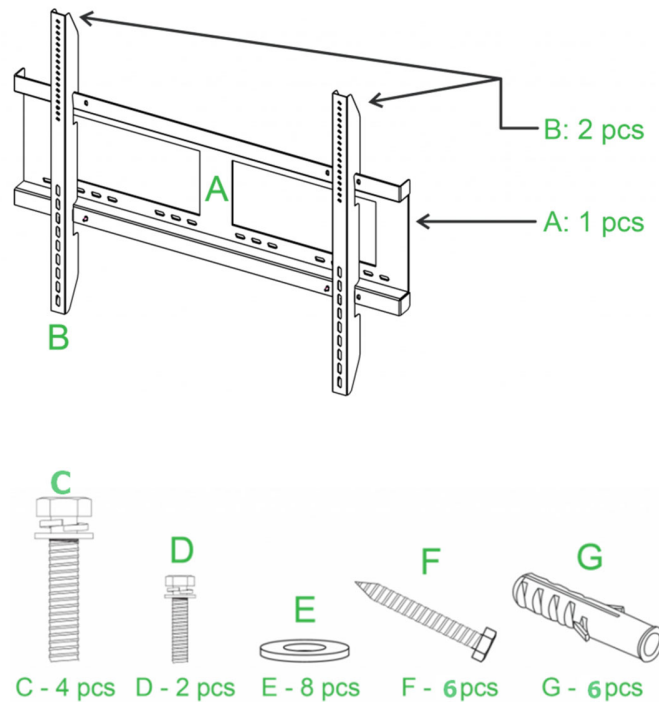
### 2.1 Install the wall mount

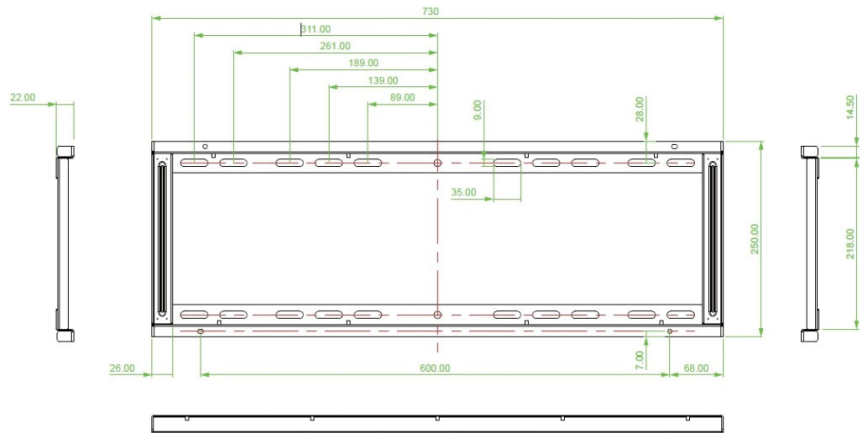
Before installing the wall bracket, make sure of the following:

- Installation should only be done by certified professionals.
- Maximum wall mount kit capacity: 150 kg (330 lbs).
- When lowering the monitor to mount the wall mount, place it face down on a flat, stable surface covered with a protective film or cloth and table mat as shown. Do not place the monitor on an uncovered surface.

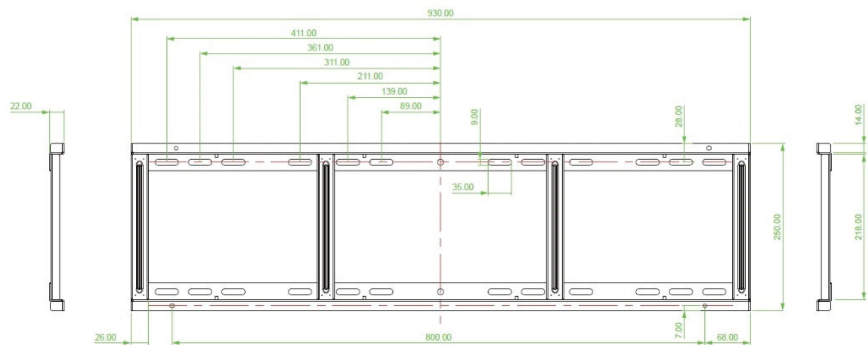


- Make sure that all of the following parts are included in the wall mount package:





65" wall mount bracket dimension / units of length are "mm"



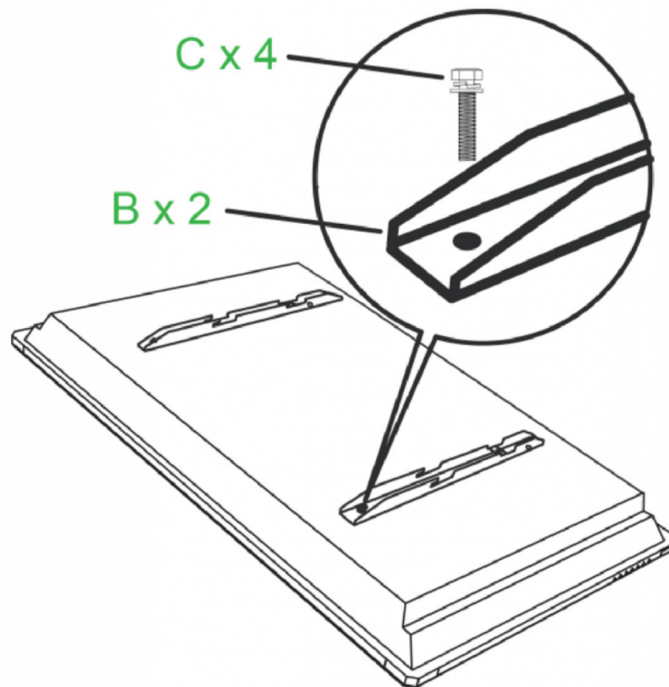
75" & 86" Wall Mount Frame dimension / units of length are "mm"

- A: Wall Mount Frame x1
- B: Wall Mount Brackets x2
- C: Bracket Screws x6 ( M8 x25mm , 4 pcs are recommended for installation )
- D: Frame Screws x2 (M5x60mm)
- E: Wall Screw Washers x8 (  $\Phi 16$  x 8.3×1 mm , 6 pcs are recommended for installation )
- F: Wall Screws x6 ( $\Phi 8$  x 55 mm , 8H , 6 pcs are recommended for installation)
- G: Anchor Screws x6 ( $\Phi 10$  x 50 mm , PP, 6 pcs are recommended for installation)

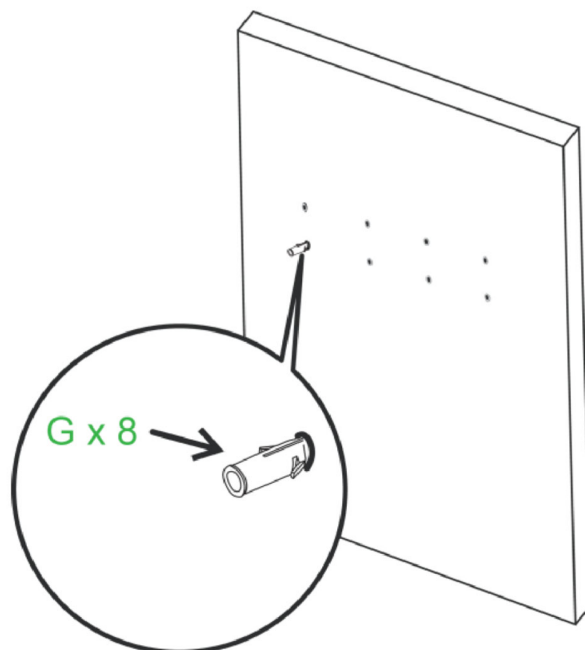
To mount NovoTouch onto a wall follow the instructions below:

**\*\*Note:** This monitor only supports landscape orientation. Do not mount in portrait orientation or face up or face down.

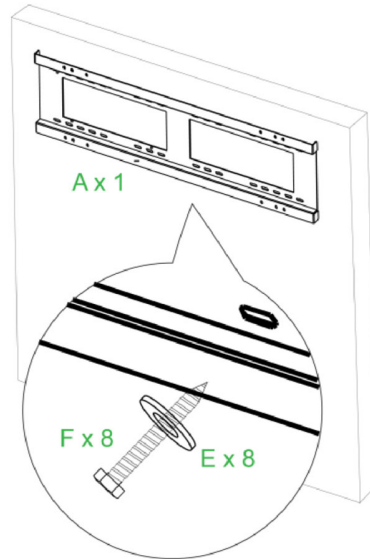
1. Install the two (B) the wall mount brackets onto the display using the four (C) bracket screws.



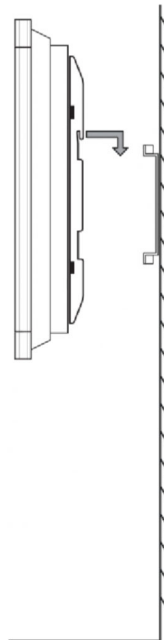
2. Install the eight (G) anchor screws to the wall where you want to install the NovoTouch.



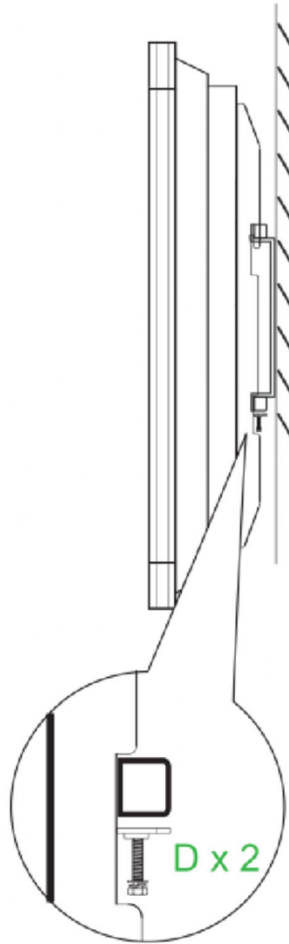
3. Attach 8 (F) wall mounting screws and (E) washers to the anchor and mount the (A) wall mounting frame to the wall ◦



4. A Mount the displays' wall mount brackets onto the wall mount frame.



5. Secure the wall mount brackets to the frame using the two (D) frame screws

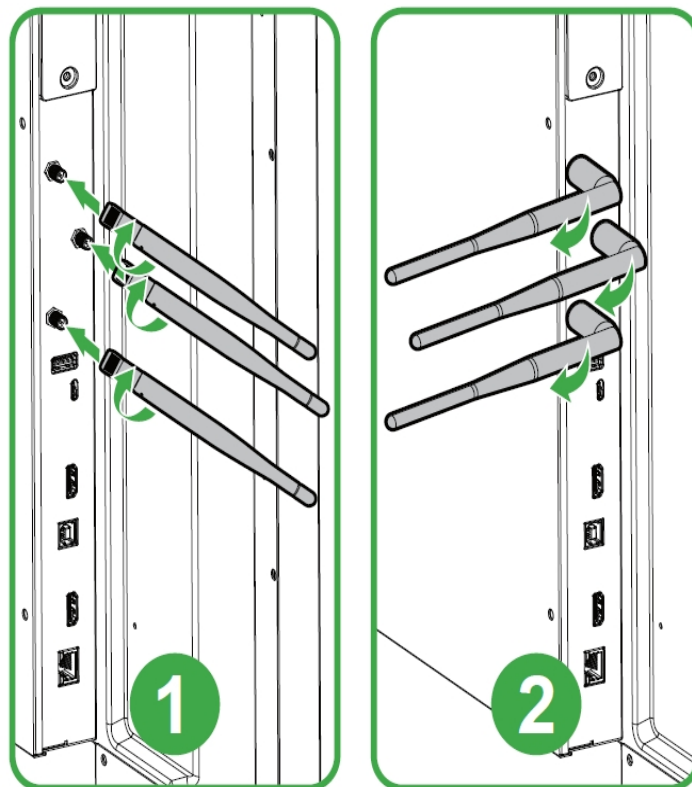


## 2.2 Get started

### 2.2.1 Installing a Wi-Fi Module (BK-3 series)

In order for the monitor to be able to connect to a wireless network, you must first install the Wi-Fi antenna that came with the product ◦

Installing Wi-Fi antenna :



Attach the antenna to the Wi-Fi connection hole:

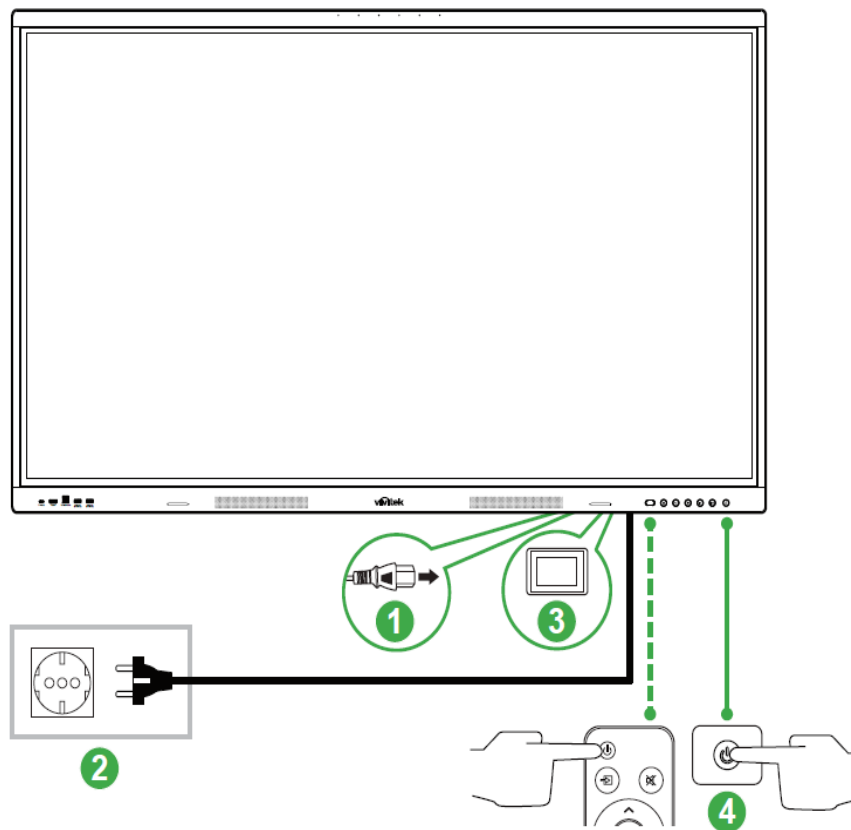


### 2.2.2 Powering the display

Once you have installed the NovoTouch in the desired location, you must follow the steps below to power the display :

1. Plug the included power cord into the monitor and power supply **1** .

**NOTE: Use only the power cord included in the monitor package .**



1. Turn on the power switch located under the display **3** .
2. Use the remote control or press the power button to power on **4** .

## 2.3 Connect your NovoTouch to network

### Setting up and Internet Connection:

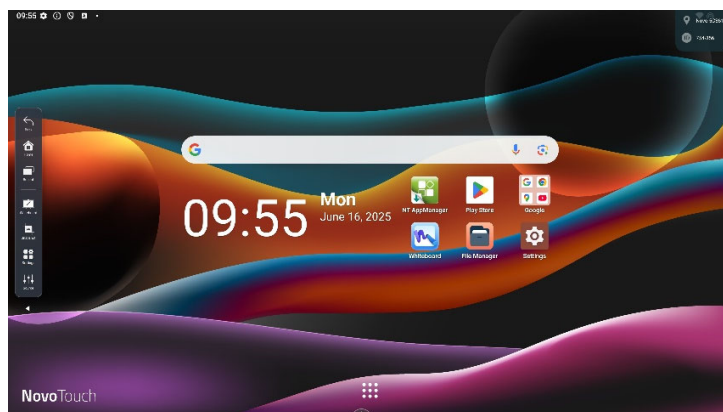
NovoTouch is able to connect to the internet using one of the following methods:

- A wired connection via the RJ-45 port, see the LAN (RJ-45) section for more information.
- A Wi-Fi connection.

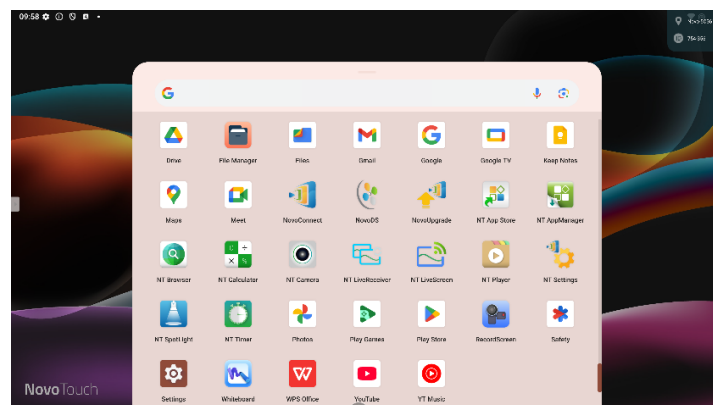
### Setting up a Wi-Fi connection

To set up a Wi-Fi connection:

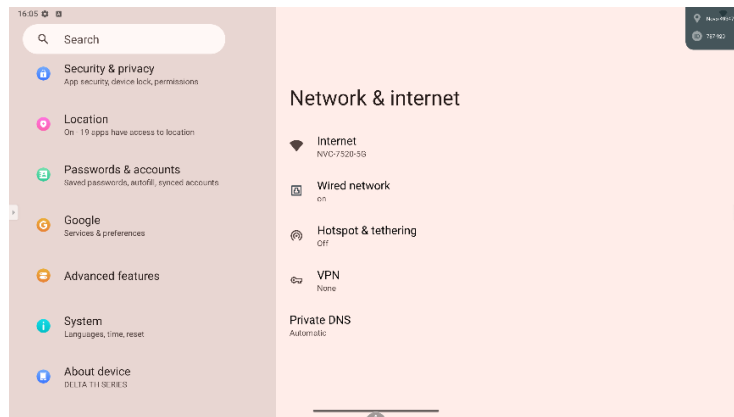
1. Click the **Settings** App on the home scree.



2. Or, select **Settings** in the All Apps menu.



3. Select **Network and Internet** in the **Settings** menu.





4. Select **Connect to Wi-Fi** in the **Wi-Fi** menu and then select **Configure**.

## 2.4 Set up a Wi-Fi Hotspot

When there's no any Wi-Fi access point, NovoTouch can be configured a Wi-Fi Hotspot, and create a local network that can be connected directly for each wireless device.

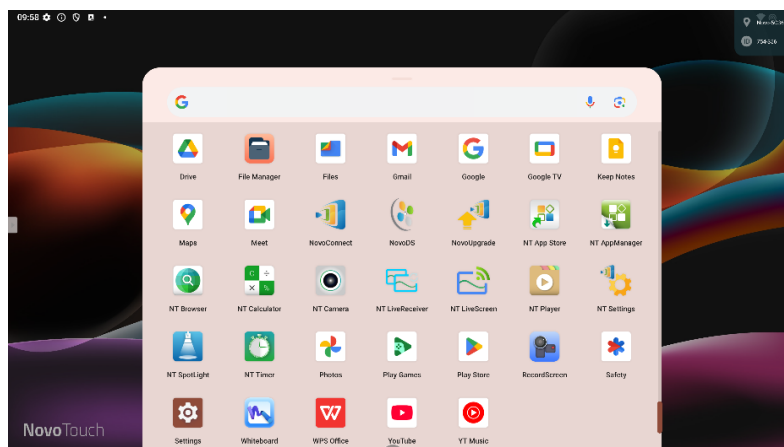
**NOTE:** When Wi-Fi is configured as a Hotspot, NovoTouch can only access to the Internet via the Lan network which was already connected to the Internet.

### Configure Wi-Fi as a Hotspot

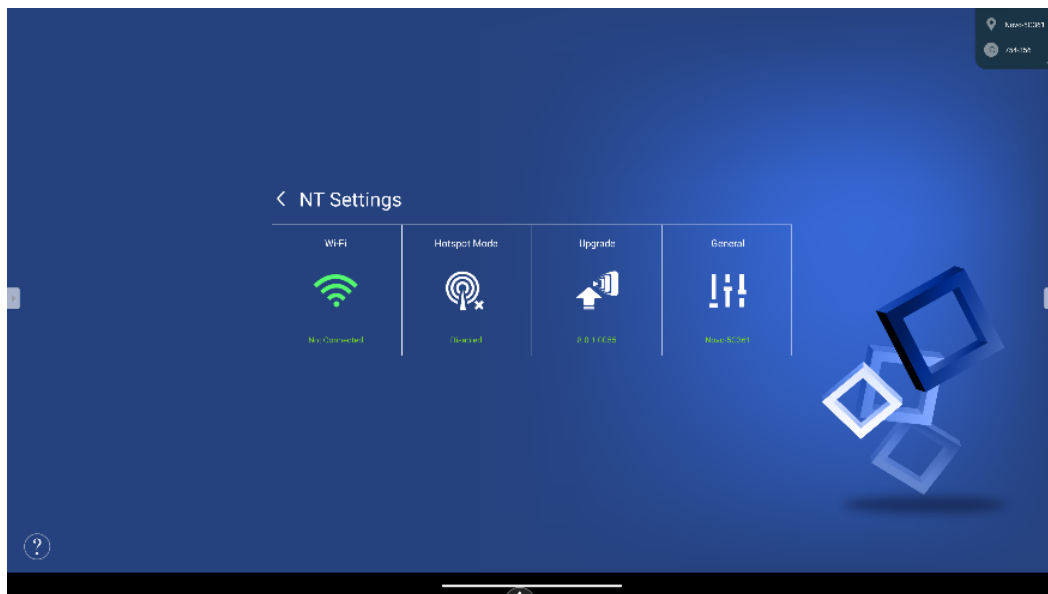
1. Tap More Apps  at the bottom-center of home screen;
2. More Apps can also be found by tap the triangle icon  at both sides of home screen to enter the Sidebar menu.



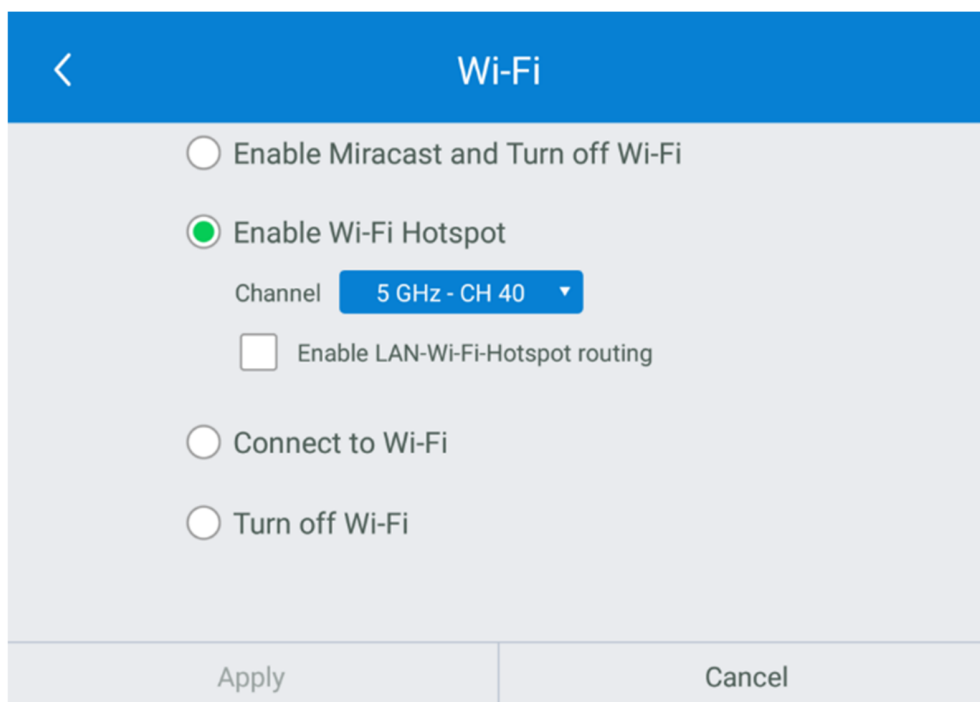
3. Tap NT Settings.



4. Tap **Hotspot Mode** to enter the configuration.



5. Select **Enable Wi-Fi Hotspot** and select the **Wi-Fi Channel** in the drop down menu if it is necessary.



6. Wi-Fi Channels are different in both 2.4GHz and 5GHz frequencies. In some countries or regions, the Wi-Fi Channels may be different. We also provide both 2.4GHz and 5GHz Wi-Fi Launcher, please make sure the Wi-Fi frequency settings is correct for working properly with them.

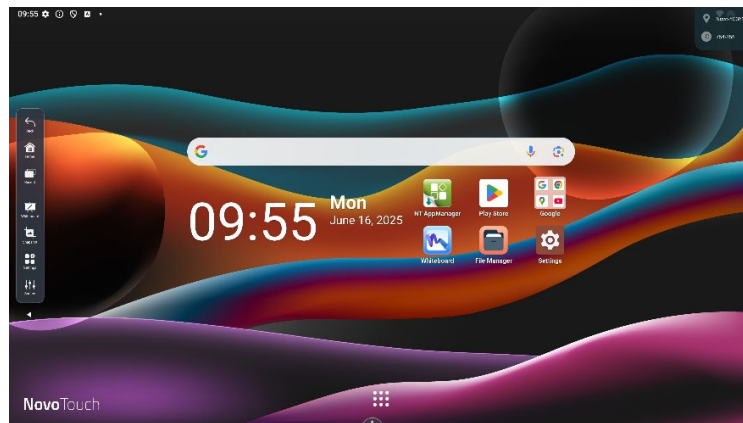
Select Channel	
2.4 Ghz	5 Ghz
CH 1	CH 36
CH 2	CH 40 <input checked="" type="checkbox"/>
CH 3	CH 44
CH 4	CH 48
CH 5	
CH 6	
CH 7	
CH 8	
CH 9	
CH 10	
CH 11	

7. After the Wi-Fi Channel is selected, tap **Apply** and exit.

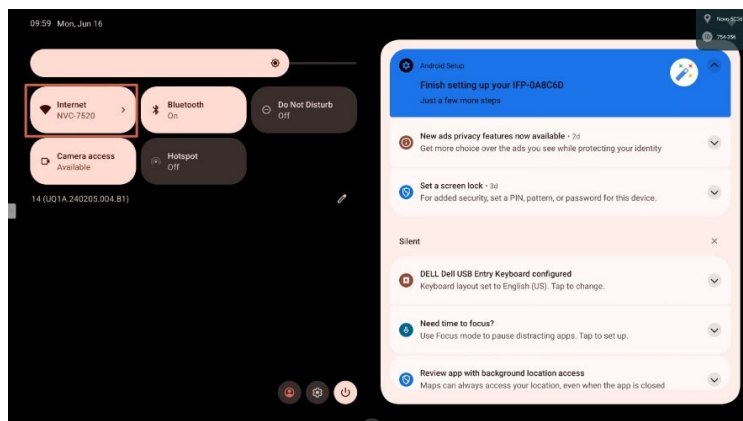
**NOTE:** Check the Enable LAN-WiFi-Hotspot routing box if NovoTouch is connected to a router with Internet access

## 2.5 Turn WiFi Off and On

Step 1. It's a simple way to turn on and off Wi-Fi. On the home screen, **swipe down from the top** to show the quick access menu.

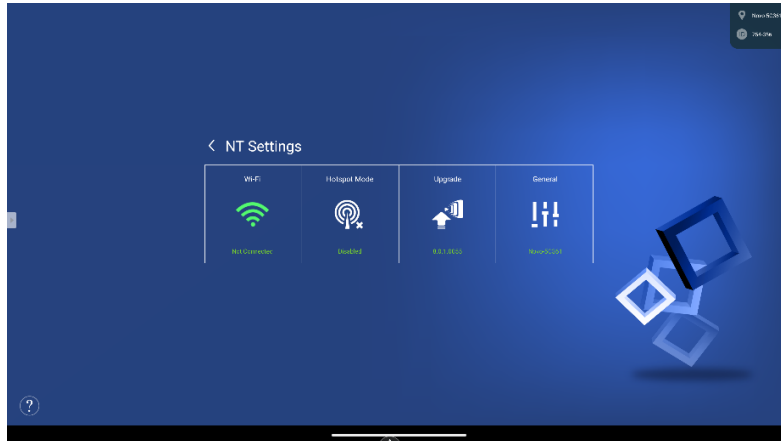


Step 2. Tap the Wi-Fi icon to turn it on or off.

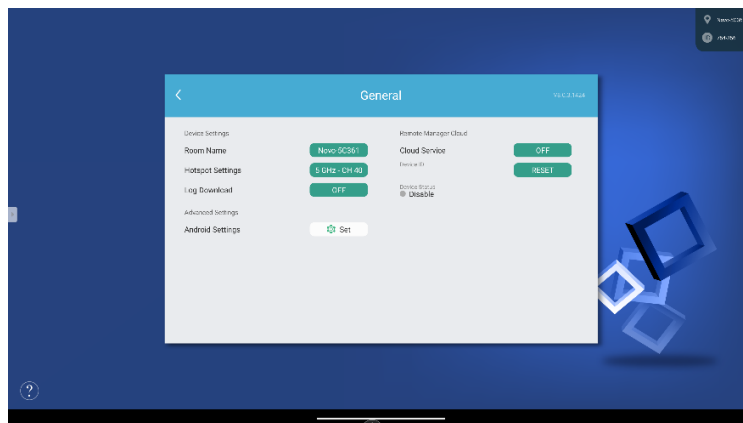


## 2.6 Change Device Name

1. In the All Apps menu, tap **NT Settings**.

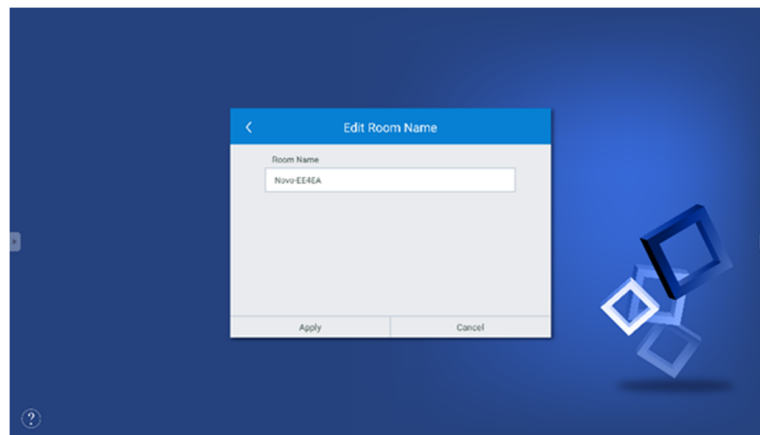


2. In the **NT Settings** menu, tap **General**.

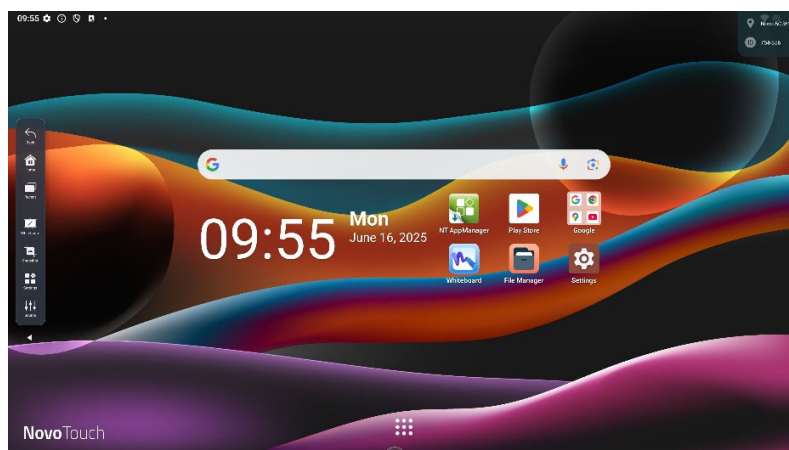




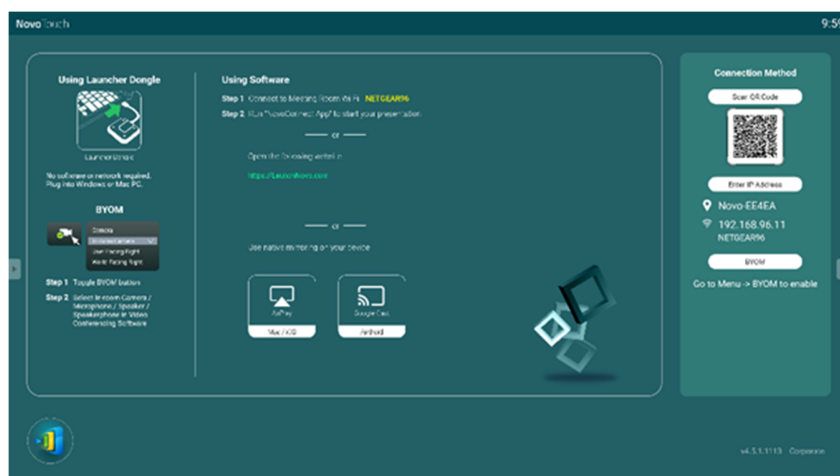
3. Tap **Room Name** to edit the name for the device/display.



4. Once you return to the NT Launcher home screen, you can check for the new device name in the top-right corner.



5. Return to the RVA home screen to see the new device name.



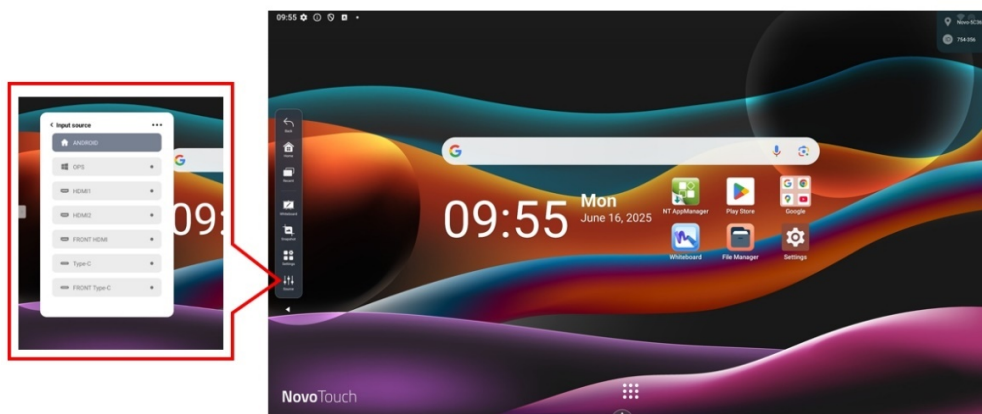
## 2.7 Switch input source

After making a video input connection, open the input source menu to select which input source to show on the display. To open the input source menu, choose one of the following methods:

- Press the **Input** button on the remote control.



- Tap the tool bar on the either side of the home screen, and then tap the input source button in the tool bar.

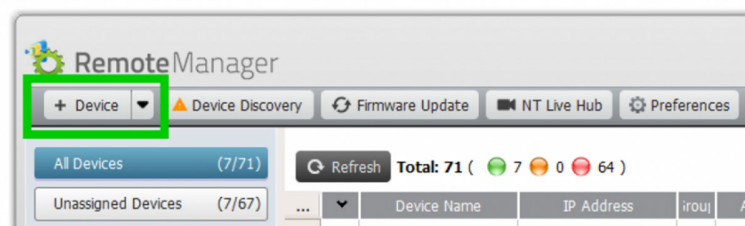



Once the input source menu is open select the video input you want to show on the display.

## 2.8 Use Remote Manager for installation

Launch **Remote Manager** software under the same local network with Novo device.

Go to the left top corner, click **+Device** > Input the Novo device's IP address to add the device into Remote Manager table.

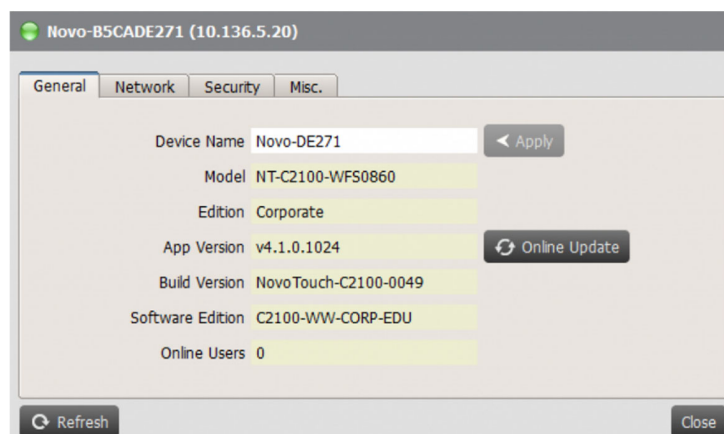


One the device list, click the device you want to configure, then click  to go to setup.



	Device Name	IP Address	rou	Activity	Device Type	Firmware Version	WI-FI Mac Address
1	Novo-DE271	10.136.5.20		Idle	NovoTouch EK-II Ser...	v4.1.0.1024	50:28:73:DD:13:0A
2	Novo-D831G	10.136.5.126		Idle	NovoPro	v2.7.4.422	04:E6:76:C3:33:78
3	Novo-16016	10.136.5.17		Idle	NovoTouch LK Series	v3.1.1.284	10:D0:7A:71:8B:47

IT can control the devices remotely, such as setup device name, remote upgrade, change system language and time zone, download log file remote for troubleshooting and so on for individual Novo device.



General settings

Novo-B5CADE271 (10.136.5.20)

General Network Security Misc.

Wi-Fi Mode HotSpot [Configure Wi-Fi](#)

SSID NVC\_DE271

Wi-Fi IP 192.168.43.1 [Network Routing](#)

LAN IP 10.136.5.20

Wi-Fi Mac Address 50:2B:73:DD:13:0A

LAN Mac Address C0:8A:CD:DE:E5:30

[Refresh](#) [Close](#)

Network settings

Novo-B5CADE271 (10.136.5.20)

General Network Security Misc.

Screen-Cast Configuration

☒ Enable Google Cast [Apply](#)

☒ Enable AirPlay [Apply](#)

☐ Enable AirPlay Code [Apply](#)

☐ PIN Required [Apply](#)

[Refresh](#) [Close](#)

Security settings

Novo-B5CADE271 (10.136.5.20)

General Network Security Misc.

Display

Language English [Apply](#)

Time Zone Pacific Time (GMT-7:00) [Apply](#)

NTP Settings

System Time 2020/06/30 02:02:56 PDT

NTP Server 2.android.pool.ntp.org [Apply](#) [Reset](#)

Log Download

☐ Enable Log Download [Apply](#)

Restart Device

[Reboot Now](#)

Configure Device

[Upload Configuration File](#)

[Refresh](#) [Close](#)

Settings for System Language, Time Zone, NTP Server, Log File Download, Remote Reboot, Upload Config File.

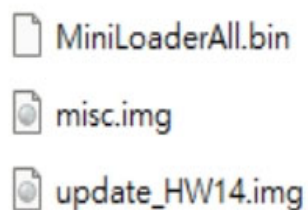
## 2.9 Firmware Update with USB Drive

Please note that the information provided in this guide is applicable exclusively to NovoTouch models EK5 and BK3, specifically the EKxx5 and BKxx3 series.

Follow these steps to re-flash your NovoTouch with a clean installation.

### Step-by-step instructions:

- When you receive the firmware upgrade package, typically you need to unzip it first and then copy the three files “MiniLoaderAll.bin”, “misc.img” and “update\_HW14.img” to the root of a USB disk. You should see the following files on the USB disk.

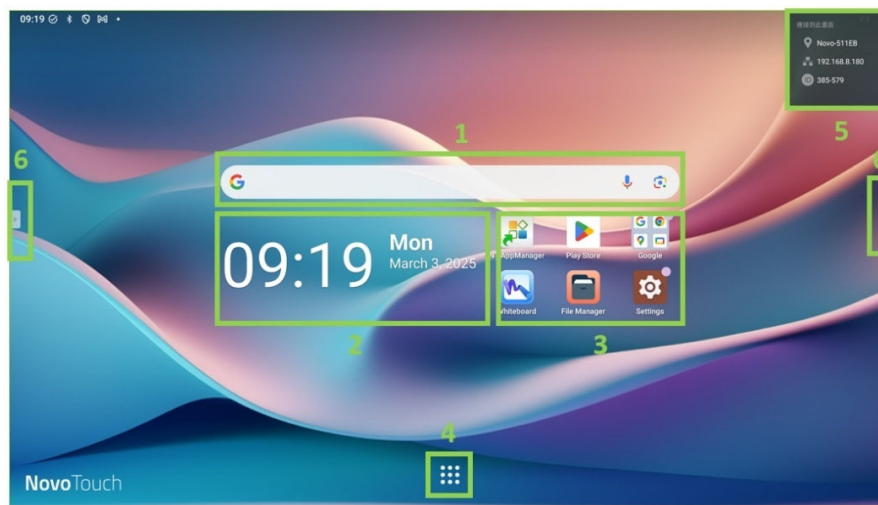


- Power down NovoTouch.
- Insert the USB disk into the USB port at the side panel of NovoTouch.
- Press **POWER button** on the frone panel until the upgrade process is started. Please do NOT remove the USB disk during this process.
- Upon initiating the firmware upgrade, a progress bar displays the completion percentage. The device automatically reboots once 100% is reached.
- The firmware upgrade is considered complete once the reboot sequence is successfully finished.

## Chapter 3 : NovoTouch Basic

### 3.1 Home Screen

The following screen is the default home screen when NovoTouch is powered on, which is the main user interface from where you can launch various Apps installed on NovoTouch, as well as a set of touch-based tools.



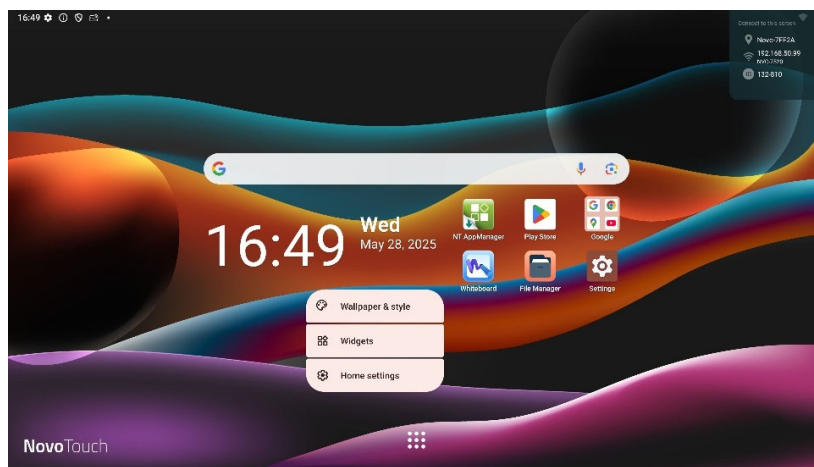
No	Item	Description
1	Google search bar	The input field where you type your queries to search on Google
2	Time	Display current Date/Time
3	App shortcut	Allow to add/delete/move app shortcut
4	Apps menu	Expand all apps on the menu
5	Session info	Display network information for quick connection
6	Sidebar tool	Quick access to the most used apps/features

## 3.1.1 Changing the Background Image

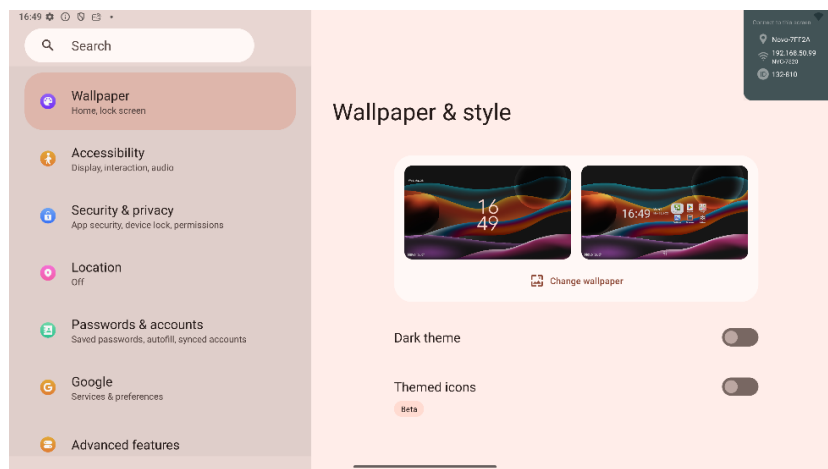
### Changing the Background Image

Step1. In the main screen, touch and hold the background image for 2 seconds.

Step2. A menu will appear; you can select Wallpaper & style to enter the setup screen.

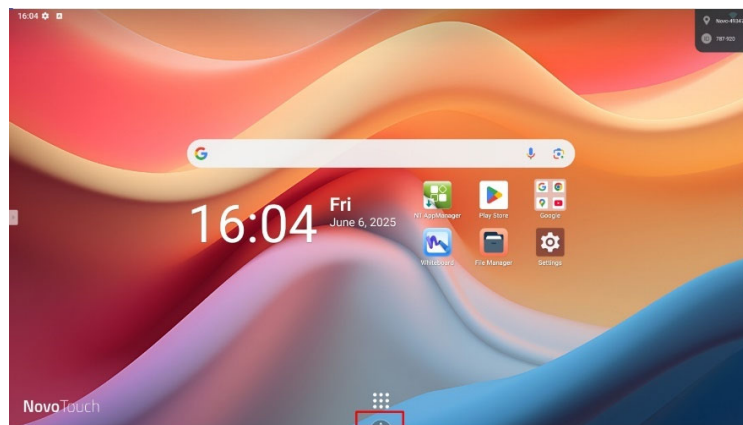


Step3. Click the icon 'change wallpaper' to select preferred image as background image.

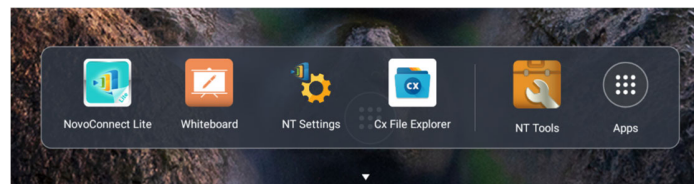


## 3.2 Launch Pad

Launch Pad is a toolbar accessible at the bottom-center of the screen, as highlighted in the following picture. Like the two Sidebar icons at the left and right of the screen, Launch Pad icon is always accessible regardless of what Android App is running.



Once you click on the Launch Pad icon, a toolbar with a number of Apps is shown. Its operation is intuitive.



- You can press-and-holding an App icon to relocate the App or remove the App from the toolbar
- Drag any app from the main menu directly onto the toolbar.
- Tap the "NT Tools" icon to view and access floating apps.
- Tap the "Apps" icon to open the full list of installed applications.









### 3.3 Side Bar Tools

The NovoTouch user interface features a set of interactive tools that are accessible from any screen/app in the interface by touching the arrow button on the left and right side of the touchscreen, as seen in the image below.

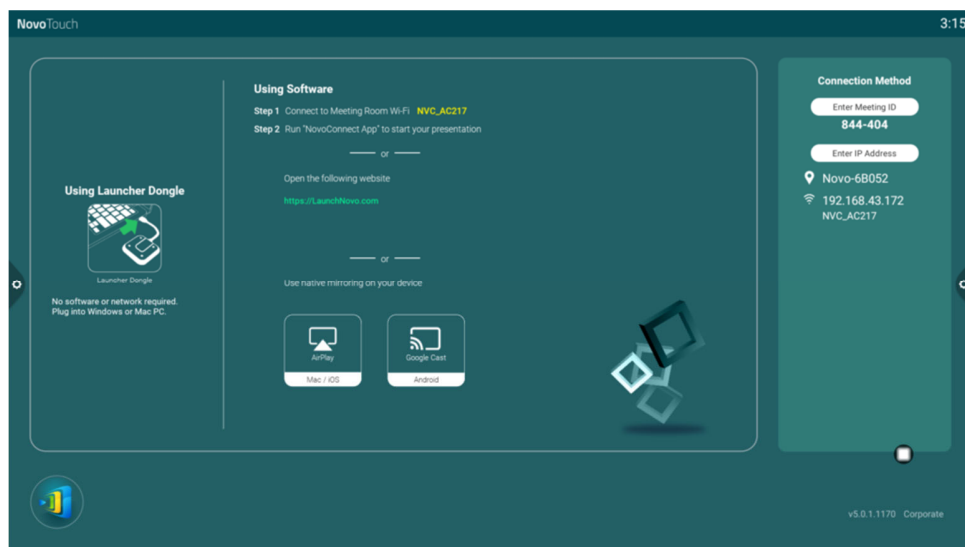


The tools include the following items

Item	Description
	"Go back" button
	"Home" button
	"Recent Apps" button
	Launch the whiteboard App
	Screenshot (with annotation and crop capabilities)
	"Audio & Video Configuration" menu

### 3.4 NovoConnect

NovoConnect is the app that allows users to wirelessly connect their PCs, Macs, iPads/iPhones, or Android tablets/smartphones to NovoTouch and project their device's screen onto NovoTouch's touchscreen in a collaborative presentation session.



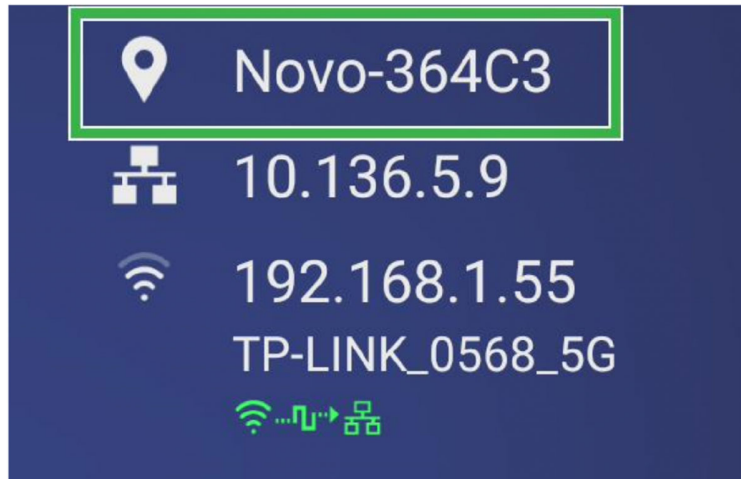
To wirelessly connect your device to NovoConnect and start a presentation session, follow the steps below:

1. Download and install the presentation software needed on your device based on the following table:

Type of Device	Software Needed	Download Location
Windows / MacOS	NovoConnect App	www.launchnovo.com
iPad / iPhone	NovoConnect App	iOS App Store
Android Tablet / Smartphone	NovoConnect App	Google Play Store

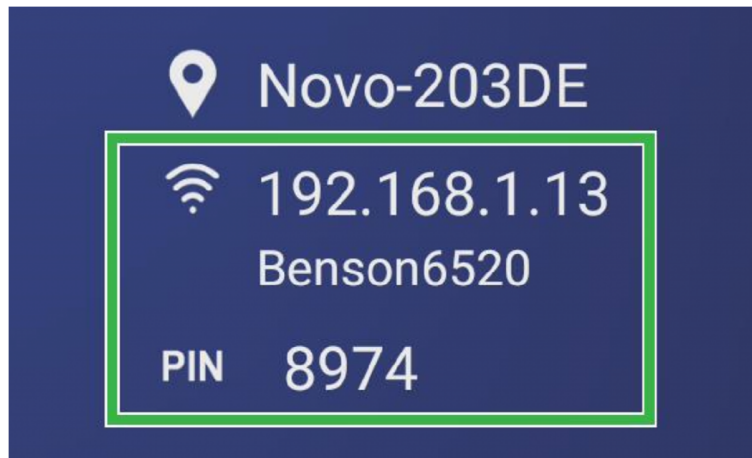
2. If NovoTouch is connected to Wi-Fi: In your device's Wi-Fi menu connect to the same Wi-Fi network that NovoTouch is connected to.

**If NovoTouch is not connected to Wi-Fi:** In your device's Wi-Fi menu connect to the SSID displayed in the top right corner of the NovoConnect home page.



3. Launch NovoConnect App on your device.

4. Enter the IP address and PIN (optional) displayed in the top right corner of the NovoConnect home page into the login menu of the app.



### 3.4.1 Using Native Mirroring

#### MacOS or iOS – AirPlay

##### iOS 12+

**Step 1.** Connect your iPhone/iPad to the same Wi-Fi network as your Novo device.

**Step 2.** Swipe **DOWN** from the top-right corner of your screen to access Control Center > Tap **Screen Mirroring** and then select the Novo device.

##### iOS 11 and Older Version

**Step 1.** Connect your iPhone/iPad to the same Wi-Fi network as your Novo device.

**Step 2.** Swipe **UP** from the bottom of your screen to access Control Center > Tap **AirPlay** > select the Novo device.

For more details, please go to [LaunchNovo.com](http://LaunchNovo.com) > iOS.

#### Android – Google Cast

The way to enable Google Cast varies among Android devices. Some of them have it in “Settings/Display” menu while others offer it via its swipe-down menu. Here is an example for Google Pixel phones.

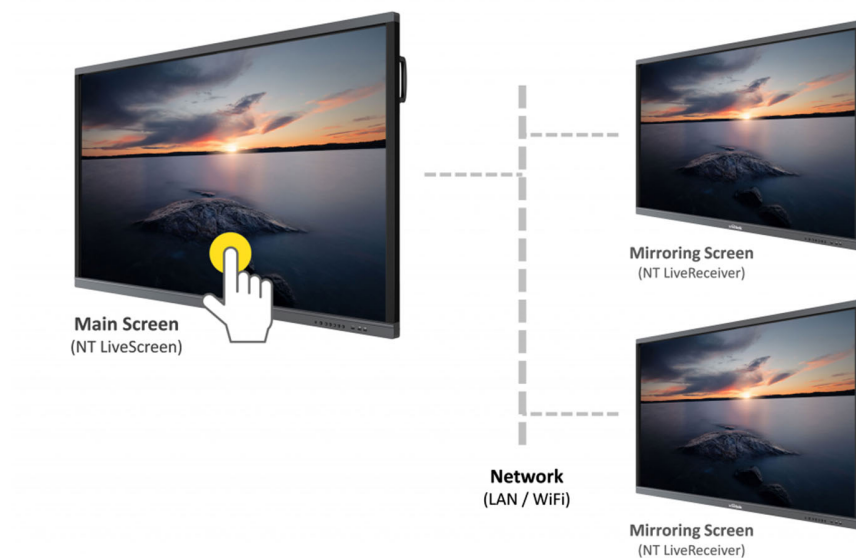
**Step 1.** Connect your Android phone/tablet to the same Wi-Fi network as your Novo device.

**Step 2.** Swipe DOWN from the top of your screen. Tap **Screen Cast** and then select the Novo device.

***Important:*** Make sure “Power Saving” mode has been disabled.

### 3.5 NT LiveReceiver

**NT LiveScreen** and **NT LiveReceiver** are two applications that will facilitate the collaborative environment in both educational and corporate settings. The user will be able to mirror the screen shown on one NovoTouch to other NovoTouches using these two applications, as illustrated in the following figure.

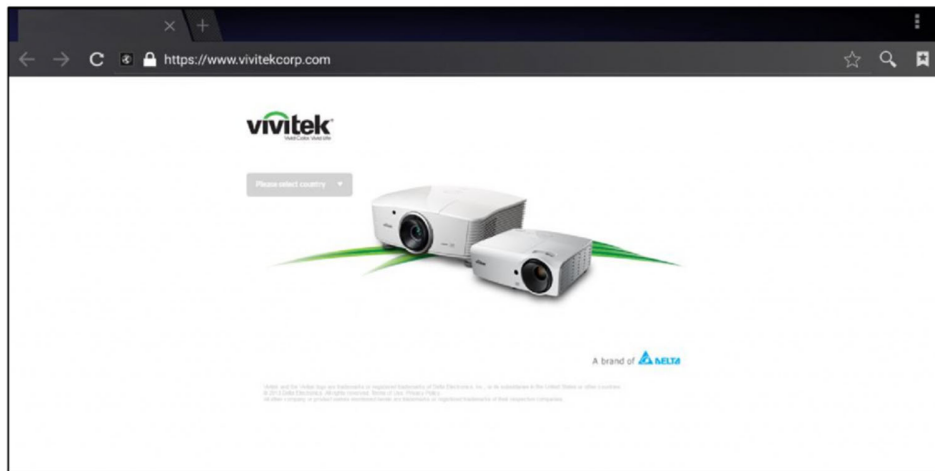


The following table summarizes the NT Live capabilities of Novo products. In particular, BK only supports NT LiveReceiver.

Model	NT LiveScreen	NT LiveReceiver
NovoConnect NC-X700	Yes	–
NovoConnect NC-X900	Yes	Yes
NovoTouch LK-1 series	Yes	Yes
NovoTouch EK-1/2/3 series	Yes	Yes
NovoTouch BK series	–	Yes

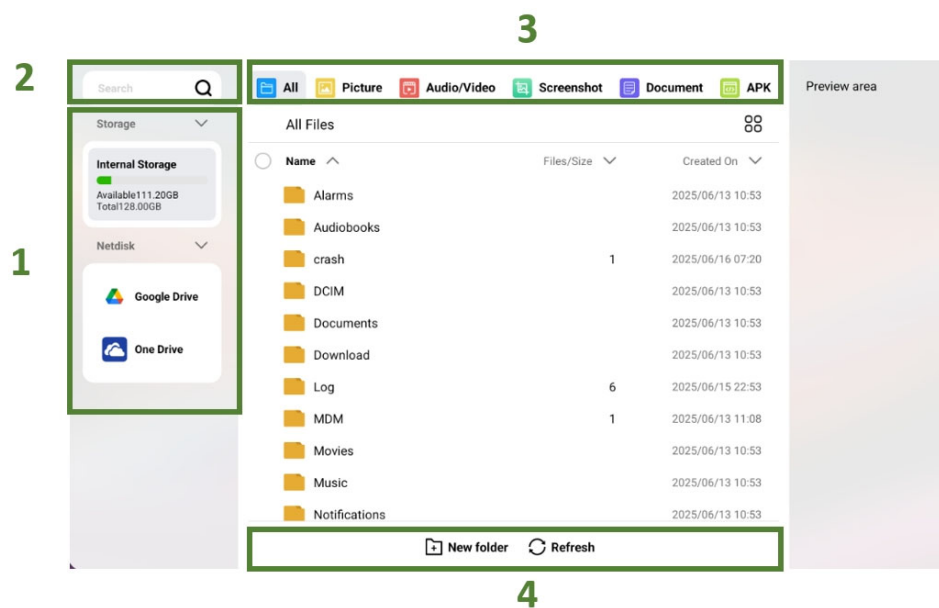
## 3.6 Browser

The Browser app allows you to browse the internet on the NovoTouch after connecting the display to an internet connection via either an Ethernet connection or a wireless connection. See the LAN (RJ-45) section or the Setting up a Wi-Fi Connection section for more information on connecting the display to the internet.



## 3.7 File Manager

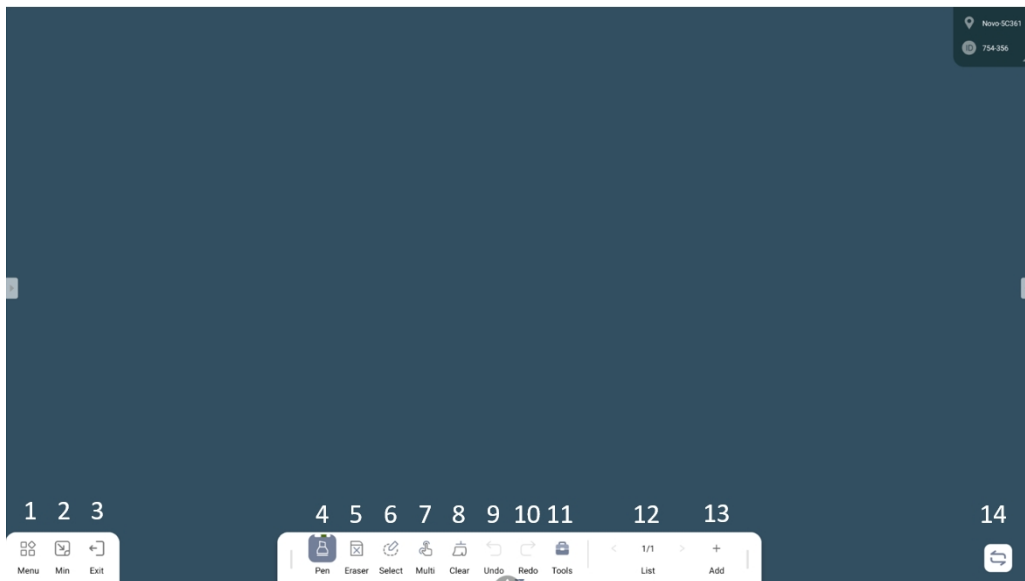
The File Manager app allows you to navigate the files and folders saved locally on NovoTouch as well as any storage devices connected to ports. The Finder app also supports Google Drive and OneDrive as cloud alternative



No.	Item	Description
1	Storage Devices List	Displays the various storage devices available to navigate in the app, select a storage device to navigate.
2	Search	Allows you to search for specific files.
3	File Type	Allows you to view files based on file type.
4	Tools	Allows you to add new folder, copy, paste, cut ,delete etc. the file selected.

## 3.8 Whiteboard

The NovoTouch BK653i/BK753i/BK863i Note app allows you to use the touchscreen as a sketchpad to freehand draw on the display using touch gestures.



No.	Item	Description
1	Menu	Menu button is providing save/open/start new drawings, import/export images, and perform other file related actions.
2	Min	Allow you to minimum the app
3	Exit	Exit app
4	Pen	Allow you to draw as well as configure the size and color of the drawing tool you want to use.
5	Eraser	Allow you to erase items drawn on the touchscreen.

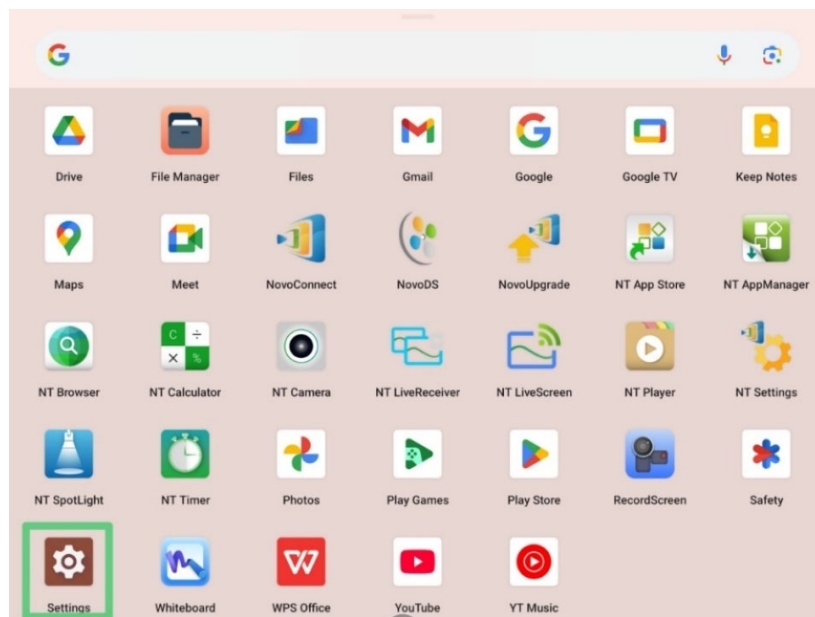


6	Select	Allow you to select the single/multiple objects.
7	Multi	Allow you to switch the touch mode in single/multi finger.
8	Clear	Allow you to erase all items drawn on the touchscreen at once.
9	Undo	Cancel the previous action.
10	Redo	Restore the previous action.
11	Tools	Advanced tools
12	List	The page list of whiteboard
13	Add	Add a new page to the drawing.
14	Switch	Switch the menu area to right side.

## 3.9 Screen Lock

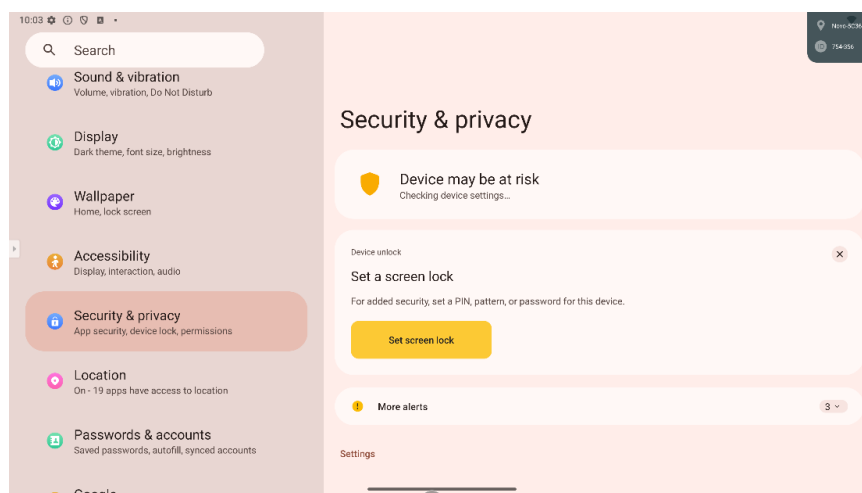
The NovoTouch **Screen Lock** app allows you to activate a 4-digit screen lock password.

Step 1. Go to **More App** -> tap **Settings**

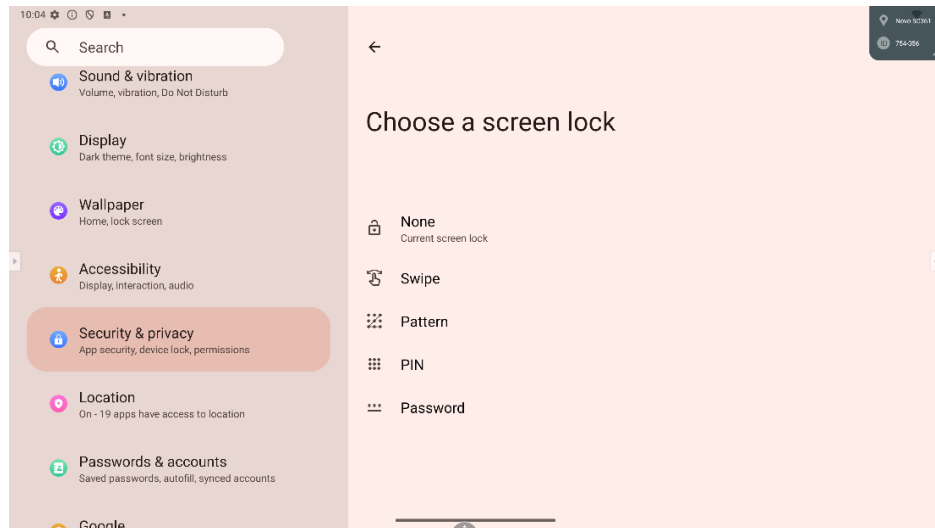


Step 2. Tap **Security & privacy** to enter configuration

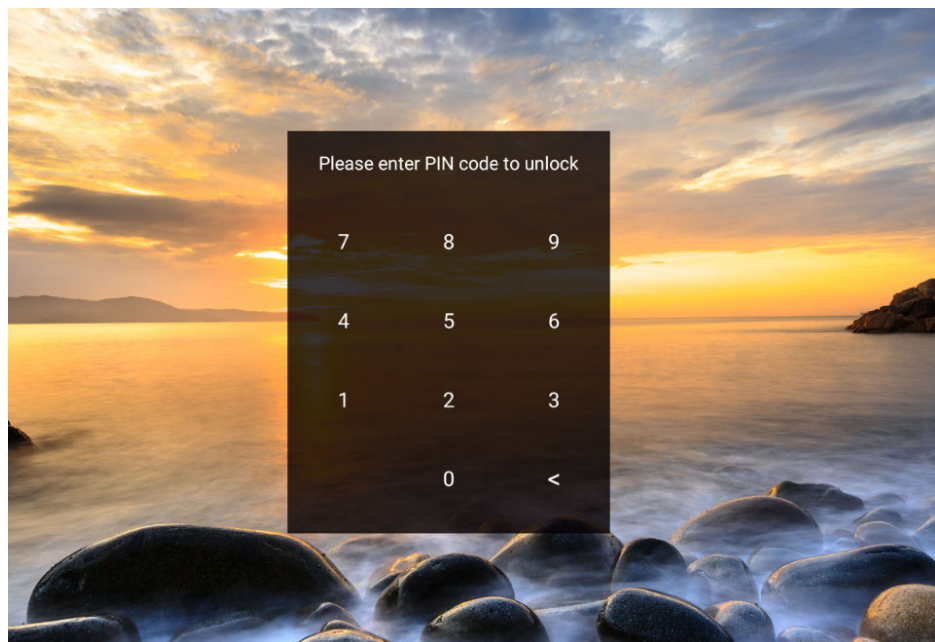
Step 3. Tap **Set screen lock** to set up screen lock



Step 4. Select **one of the methods to set up screen lock** , e.g., select **PIN** to set up screen lock.

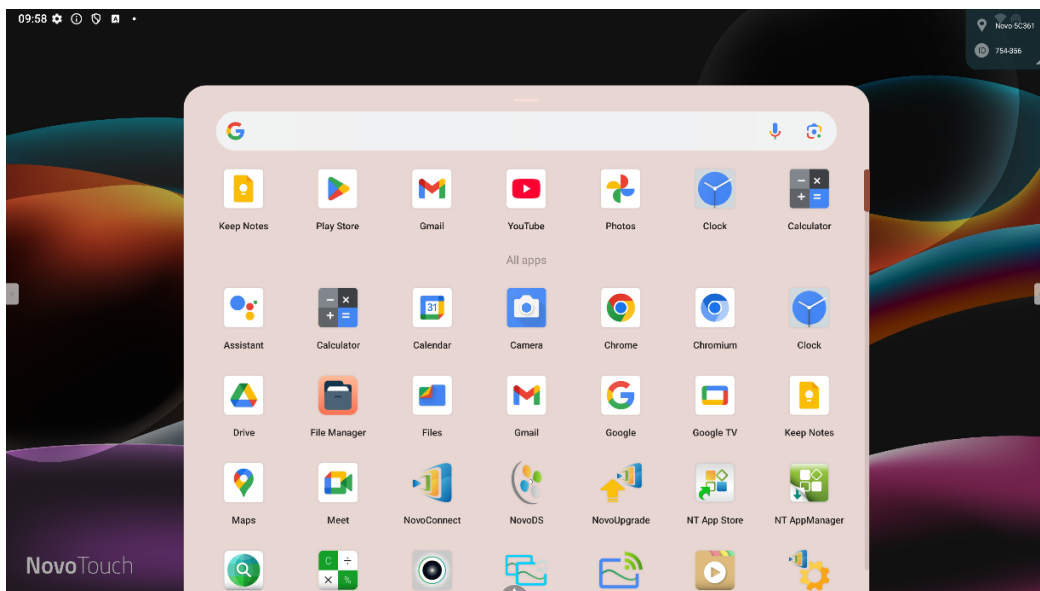
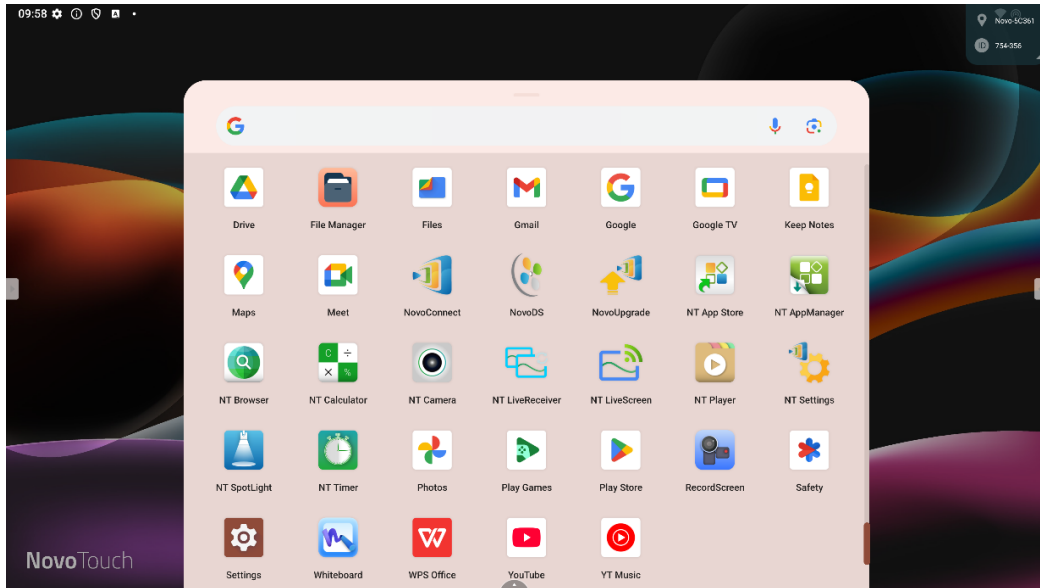


Step 5. **PIN Code** is required to enter every time when power on the device.



## 3.10 Apps

Built-in Novo apps and included essential apps like Gmail, Google Maps, YouTube, Chrome, Google Play, Google Drive, and Google Photos, and also allows users to download other apps needed.



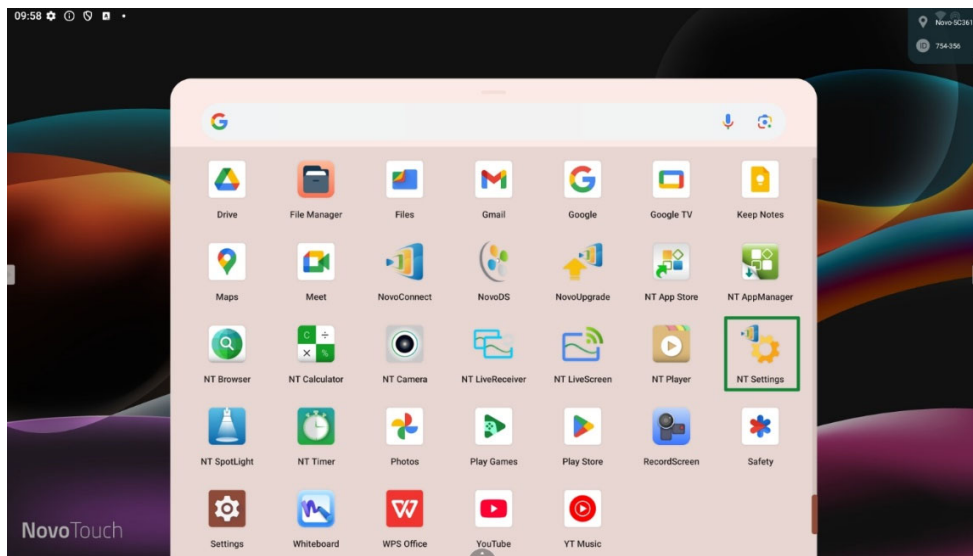
# Chapter 4: Advanced Features

## 4.1 NT Settings

NT Settings contains **Network**, **Software Upgrade** and **Device Settings**. The pictures below explaining the main functions of NT Settings and guiding you how is it working.

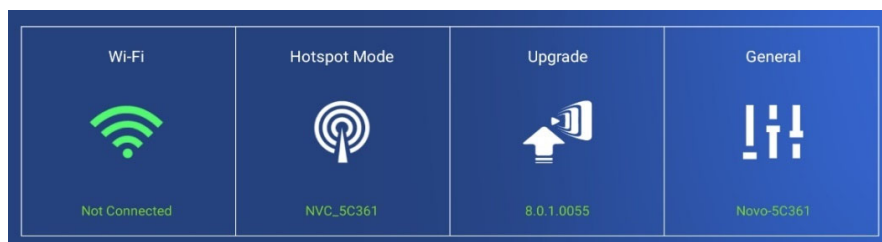
### How to enter the NT Settings

- Tap the **More Apps** at the bottom-center of the screen to open the Apps list
- Tap the **NT Settings** to enter.



Home screen

### NT Settings Menu



### Wi-Fi Settings

**Wi-Fi Hotspot** mode is factory default setting, you can switch it to **Connect to Wi-Fi** (AP-Client mode), or **Turn Wi-Fi off** (Radio off).

Wi-Fi

☒ Enable Wi-Fi Hotspot

Channel: 5 GHz - CH 40

☐ Enable LAN-Wi-Fi-Hotspot routing

☐ Connect to Wi-Fi

☐ Turn off Wi-Fi

Apply Cancel

Wi-Fi Hotspot

**Wi-Fi Hotspot** mode also provide “**LAN-Wi-Fi-Hotspot routing**”, It means, when this option is enabled, both the two network will be the same routing, if NovoTouch connects both **Wireless** and **Wired** network.

### Wi-Fi Frequency and Channel

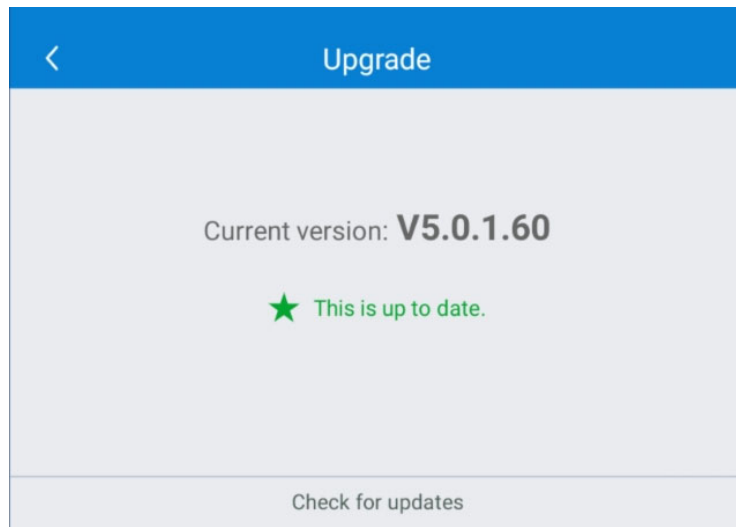
Select Channel

2.4 Ghz	5 Ghz
CH 1	CH 36
CH 2	CH 40 <input checked="" type="checkbox"/>
CH 3	CH 44
CH 4	CH 48
CH 5	
CH 6	
CH 7	
CH 8	
CH 9	
CH 10	
CH 11	

2.4/ 5 GHz Channel selection

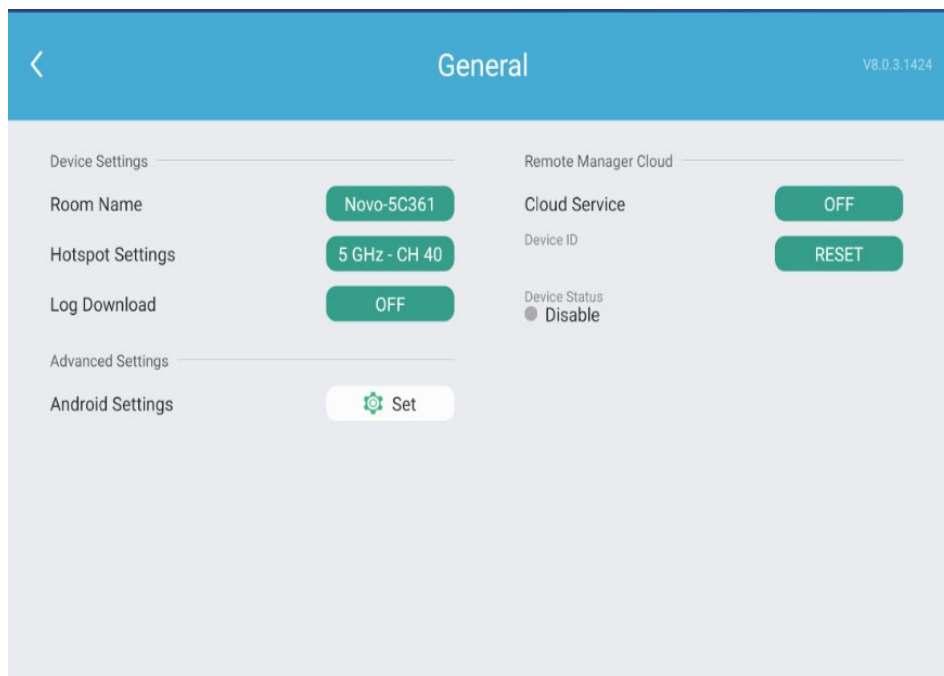
**Wi-Fi HotSpot** mode provide **2.4GHz** and **5GHz**, they have **11 channels** and **4 channels** respectively. **5GHz** and **Channel 40** is factory default setting, you can change the frequency and channel anytime.

## Upgrade



User can check the current software version here. And also if the updates available, user can perform online upgrade by tapping **Check for updates**. (Internet connection is needed for the process)

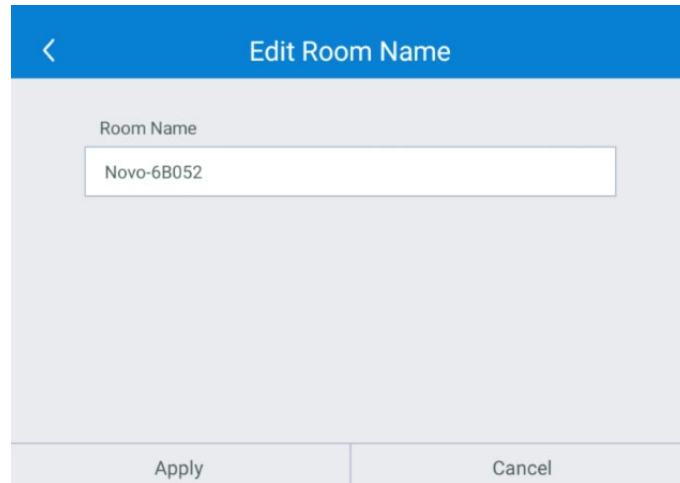
## General Settings



Here user can also perform the following settings:

- **Change the device name**

User can change the device name for easily identifying the device or the location where the device is. This changing will also be displayed on the Home Screen of NovoTouch.

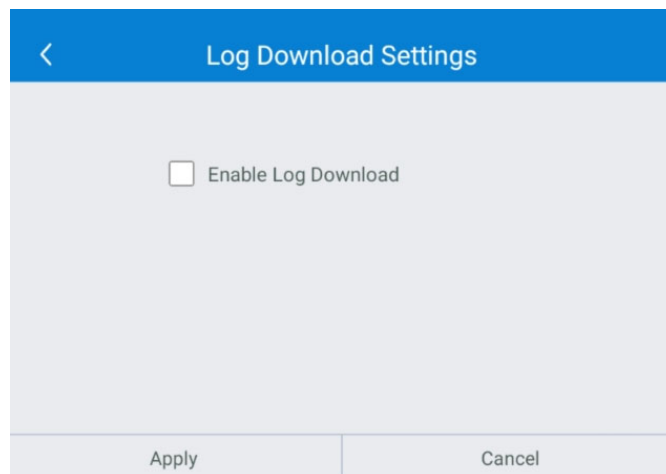
The screenshot shows a dialog box titled "Edit Room Name" with a blue header bar containing a back arrow and the title. The main area is light gray and contains a text input field labeled "Room Name" with the text "Novo-6B052" inside. At the bottom, there are two buttons: "Apply" and "Cancel".

Edit Room Name

- **Log Download.**

Allow the log file to be downloaded for debugging.

Enable or disable log download

The screenshot shows a dialog box titled "Log Download Settings" with a blue header bar containing a back arrow and the title. The main area is light gray and contains a checkbox labeled "Enable Log Download". At the bottom, there are two buttons: "Apply" and "Cancel".

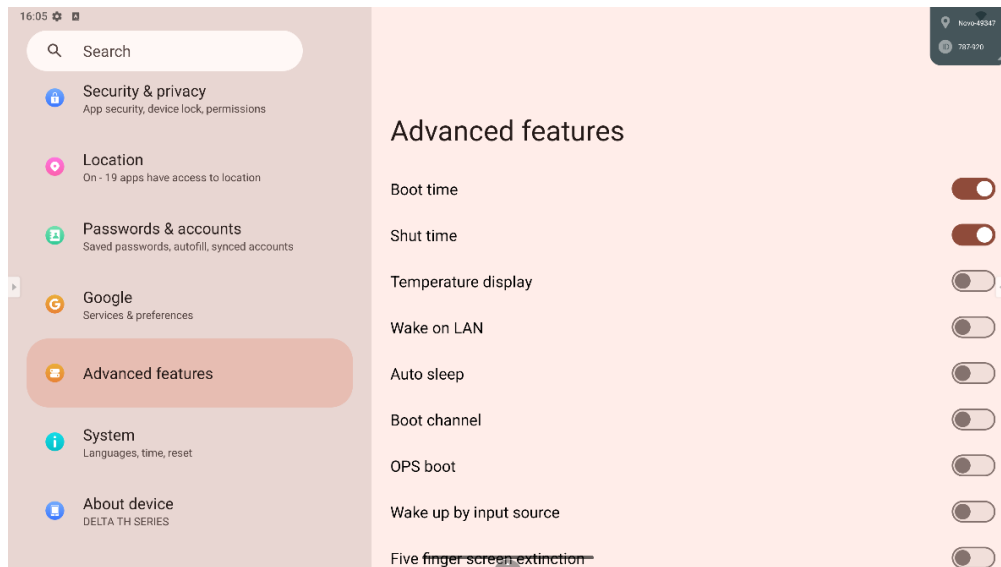
**Android settings.**

- Click the icon **Set** to enter Android setting.



## 4.2 Advanced Features

NovoTouch provides more **Advanced feature** that allow users to configure the device as needed.

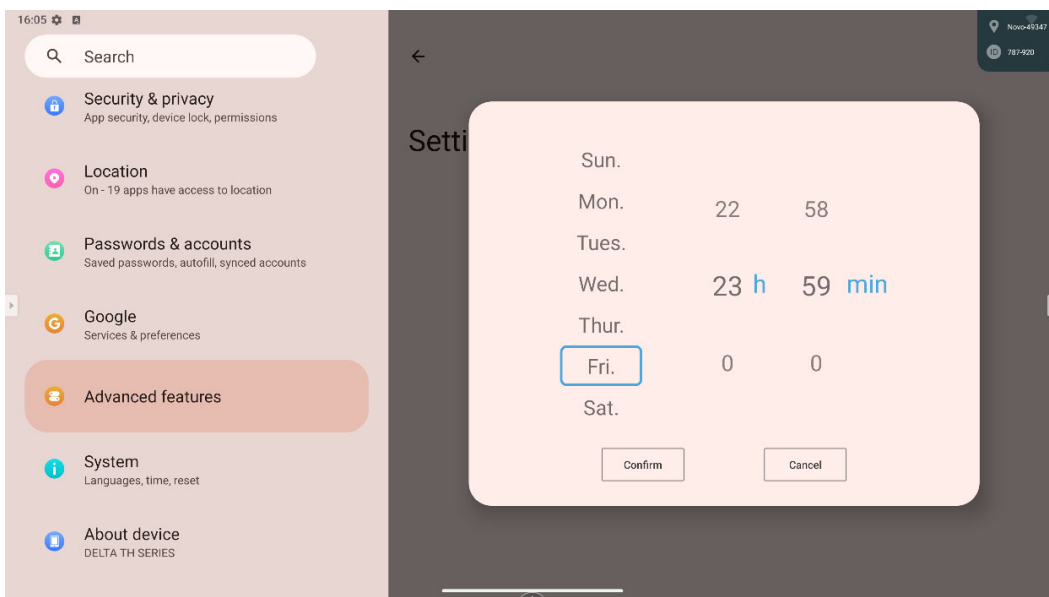
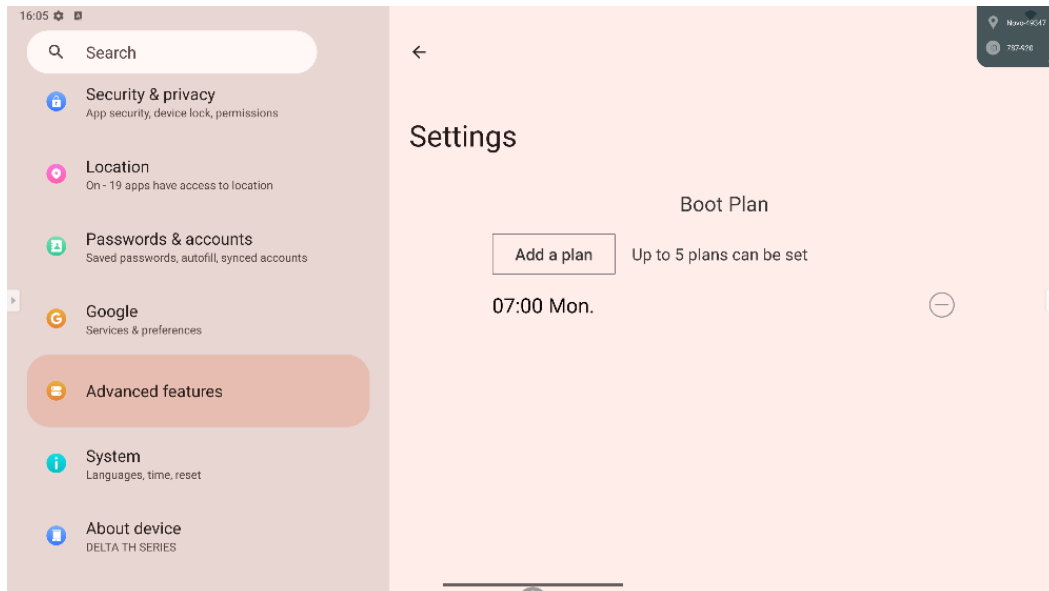


Feature name	Description
Boot time	Allow you to setup daily or one-time boot-up schedule.
Shut time	Allow you to setup daily or one-time shutdown schedule.
Wake on LAN	The <b>Wake-on-LAN (WoL)</b> feature allows you to remotely power on your device from a network connection.
Auto Sleep	Allows you to <b>set</b> a defined duration after which the system will enter sleep mode.
Boot channel	Select preferred boot-up channel

Feature name	Description
OPS boot	Select boot-up channel from OPS.
Wake up by input source	Enable/Disable wake-up from selected input source.

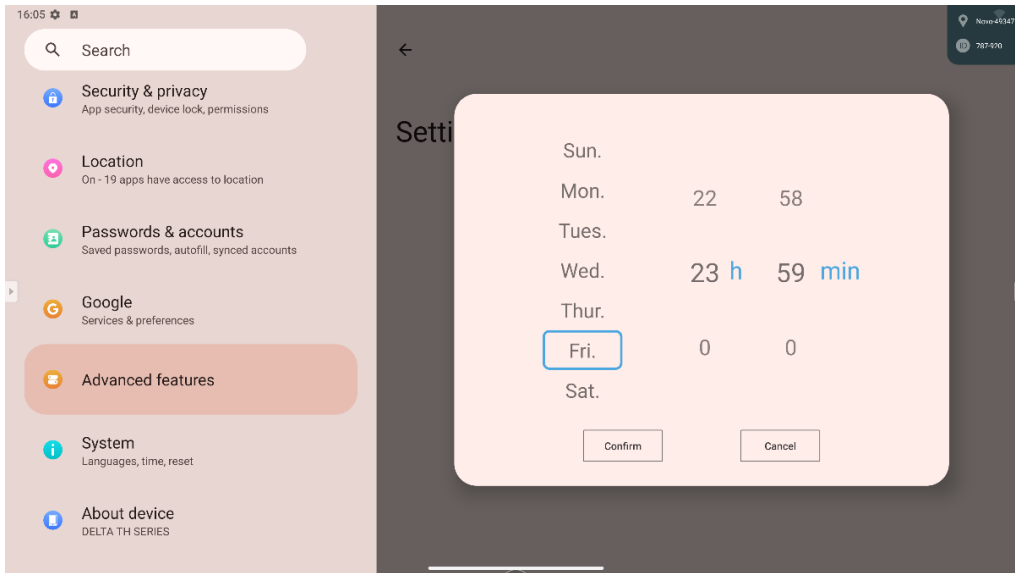
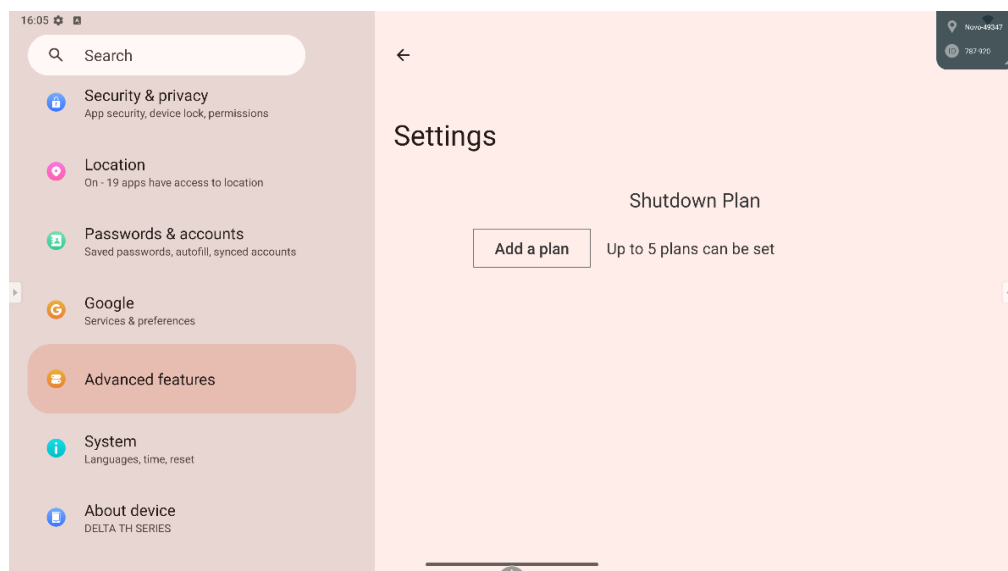
## 4.2.1 Boot Up

NovoTouch allow you to setup daily or one-time boot-up schedule.



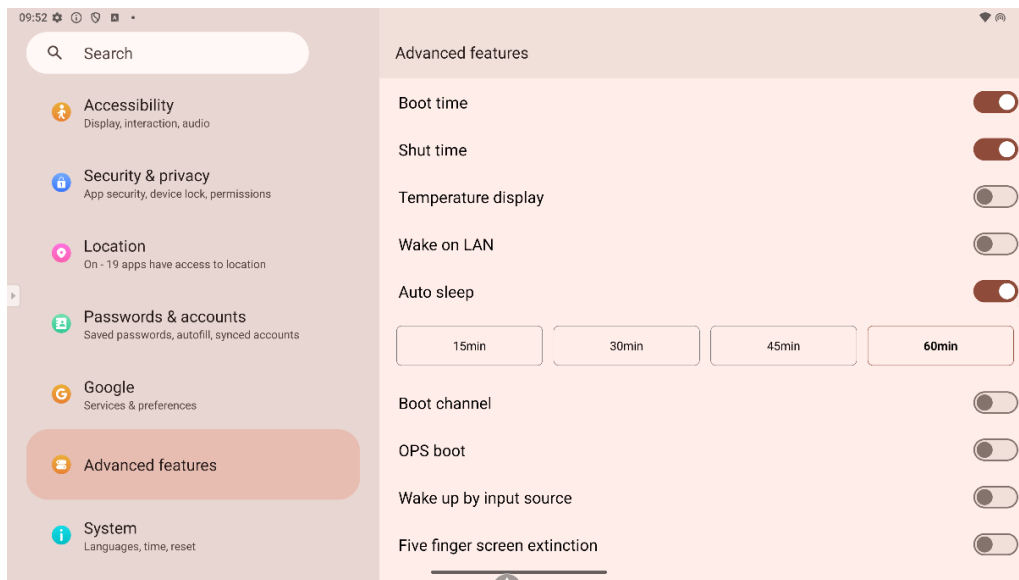
## 4.2.2 Shutdown time

NovoTouch allow you to setup daily or one-time shutdown schedule.



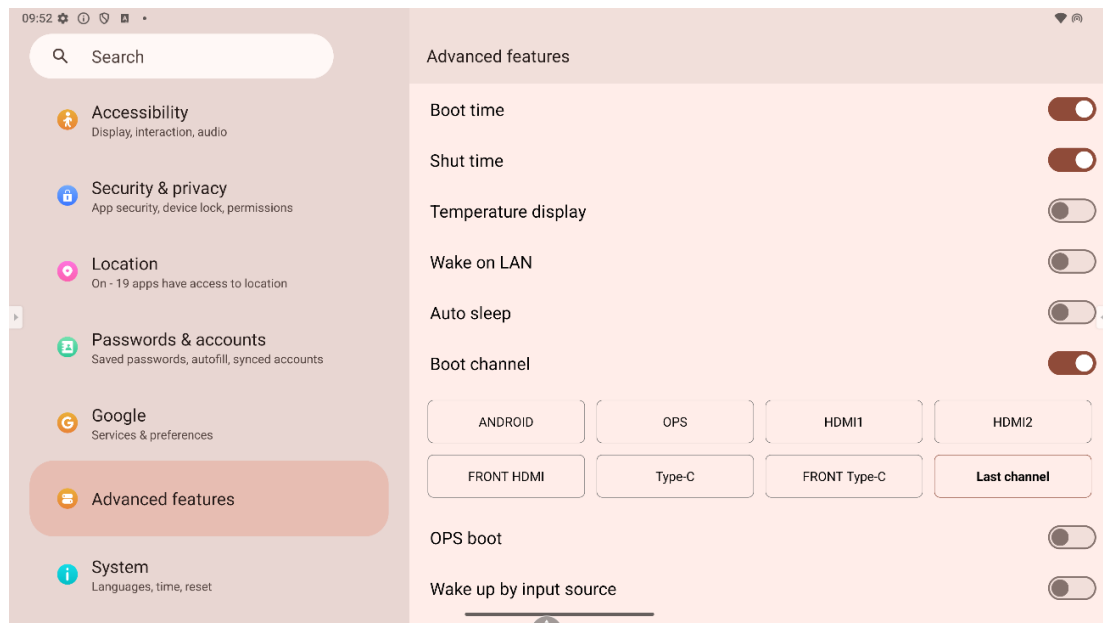
### 4.2.3 Auto Sleep

NovoTouch allows you to set a defined duration 15, 30 ,45, 60(mins) after which the system will enter sleep mode.



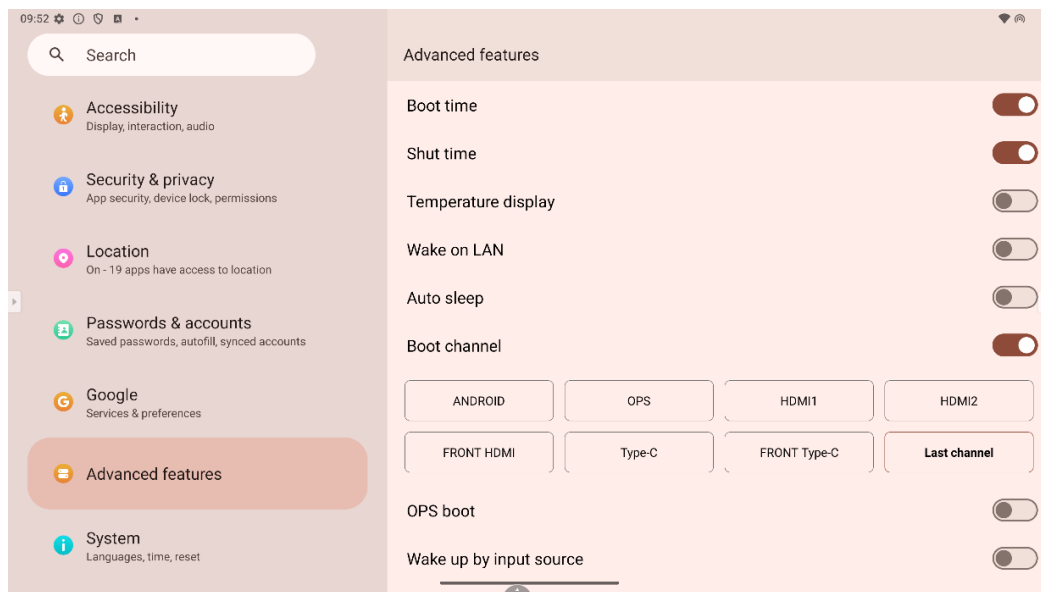
## 4.2.4 Boot-up channel

NovoTouch allows you to select preferred boot-up channel, e.g. OPS, HDMI1, HDMI2 etc.



## 4.2.5 Wake Up By Input Source

Enable/Disable wake-up from selected input source.



## 4.3 SysControl (Network-based Control)

SysControl allows users to control Novo devices over Ethernet and/or Wi-Fi. Namely, it is based on TCP/IP communication.

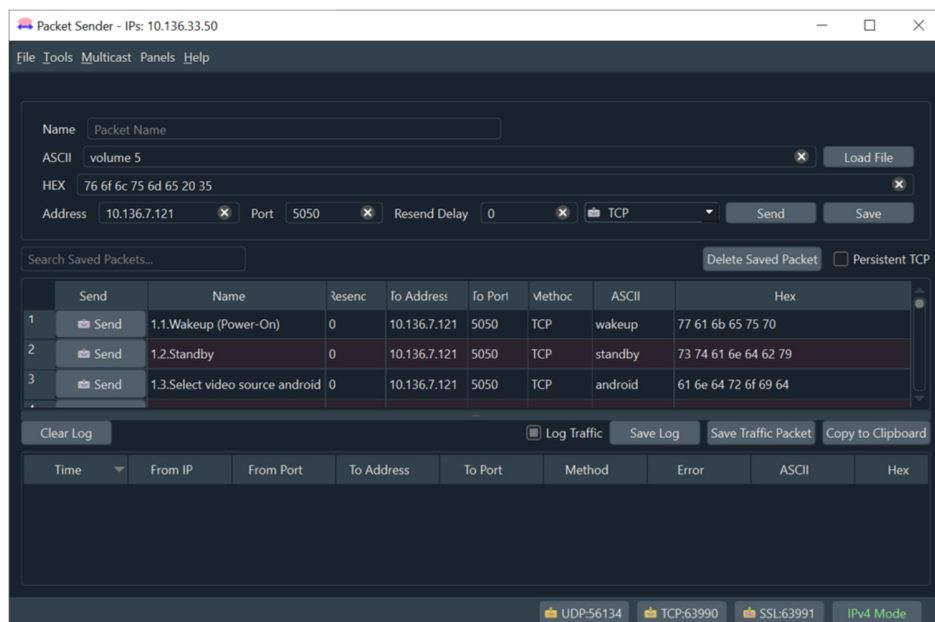
### (1) Compatible Novo Devices

Most Novo devices can be controlled via Ethernet or Wi-Fi through TCP connection.

- NovoTouch: EK3, EK5, BK2, BK3 series
- NovoDisplay: DK3 series
- NovoDS: Gen-2 series (DS110, DS 210, and DS310)
- NovoConnect: NC-X500, NC-X710, NC-X910

### (2) Network Connection

- Connection type: TCP
- Port number: 5050
- Test tool: Packet Sender
- Available at <https://packetsender.com/download>
- The following is a screenshot of the test tool.





### (3) Commands

There are two types of commands

- SET Commands: allow users to set parameters on devices
- GET Commands: allow users to retrieve status from devices

#### (3.1)SET Commands

Function	Description	Command (ASCII string)	Remark
Power On	Turn on / Wake up the device	wakeup	
Standby	Set the device entering to idle mode	standby	
Select Video Source	Select a specific video input source, e.g. HDMI-1, VGA, DP, etc.	source hdmi1 source hdmi2 source VGA source android	Not applicable to NovoDS & NovoConnect devices
Set Audio Volume	Set the audio volume value from 0 to 100	volume <value>  <i>Example: volume 50</i>	
Mute	Set the audio output mute	mute	
Unmute	Set the audio output unmute	unmute	
Set Backlight	set the backligh level	backlight <value>	Not applicable to NovoDS &

Level	from 0 to 100	<i>Example: backlight 60</i>	NovoConnect devices
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### (3.2) GET Commands

Function	Description	Command (ASCII string)	Return Value (ASCII string)	Remark
<b>Power Status</b>	Retrieve the power status – power-on or standby	powerstate	standby wakeup	
<b>Video Source Status</b>	Retrieve the current video source	sourcestate	hdmi1 hdmi2 VGA android	Not applicable to NovoDS devices, NovoConnect devices
<b>Audio Volume Status</b>	Retrieve the current value of audio volume	volstate	0~100	
<b>Mute status</b>	Retrieve the mute/unmute status	mutestate	mute/unmute	
<b>Backlight status</b>	Retrieve the current backlight level	blstate	0~100	Not applicable to NovoDS devices, NovoConnect devices
<b>Query model</b>	Retrieve the device model	query	device model name	

name	name		<i>Example: EK3 75"</i> <i>Model name is NT-C3000- WFS0750</i>
------	------	--	---

### (3.3) Digital Signage commands

Commands in this section are ONLY applicable to following models

- NovoDS Gen-2 devices (DS110, DS210, and DS310)

#### Note:

- *To simplify the user interactions, each playlist (on the device) is designated with a number, such as "1", "2", "3", etc. We call this "Playlist Number".*

Function	Description	Command (ASCII string)	Return Value (ASCII string)
Play	Play a playlist if you already know its playlist number.	play <playlist number>	If the "playlist number" is invalid, message "Can't get playlist, please check again." will return.
Interactive Play	If you don't know the playlist number ahead of time, use this command to find out and then start the playback.	<i>Step 1: Enter "play". A list of playlist numbers and the corresponding playlist names will return.</i> <i>Step 2: Enter the desired playlist number. This will start the playback.</i>	If the "playlist number" is invalid, message "Can't get playlist, please check again." will return.
Stop	Stop the	stop	

	playback		
GetList	Retrieve the list of playlists on the device	getlist	A list of playlist numbers and the corresponding playlist names

## 4.4 RS-232 Specification

### Important:

*This document is applicable to the following products and models.*

***NovoTouch BK series BK653i, BK753i, and BK863i.***

### Serial Port Settings:

Item	Value
Baud Rate	38400bps (Fixed)
Data Bits	8 (Fixed)
Stop Bits	1 (Fixed)
Parity	None (Fixed)

### Command Format:

No.	Content	Description	Remark
1	0x55	Head	Fixed Value
4			Main
5			Subcommand
6	0x00	Length	Valid data
8	0xDD	End	Fixed Value

9	0xEE		Fixed Value
10	0xFF		Fixed Value

## Code List

*NovoTouch BK series BK653i, BK753i, and BK863i.*

## Set Command

- The 5th byte is checksum

No	Description	Code	Remark
1	POWER ON	55 00 8E 00 E3	
2	POWER OFF	55 00 8E 0F F2	
3	SOURCE	55 00 80 00 D5	
4	Up	55 00 00 01 56	
5	Down	55 00 00 02 57	
6	Left	55 00 00 03 58	
7	Right	55 00 00 04 59	
8	OK	55 00 00 00	

		55	
9	Menu	55 00 14 00 69	
10	Exit	55 00 16 00 6B	
11	Info	55 00 18 00 6D	
12	Mute	55 00 1A 00 6F	
13	Sound Mode	55 00 22 00 77	Standard
		55 00 22 02 79	User defined
		55 00 22 03 7A	Movie
14	Picture mode	55 00 28 00 7D	Standard
		55 00 28 01 7E	Soft
		55 00 28 02 7F	Bright
		55 00 28 03 80	User defined
15	Volume plus +	55 00 0C 00	

		61	
	Volume plus –	55 00 0E 00 63	
16	Set Volume(0~100)	55 00 0F 00 64	0
		55 00 0F 64 C8	100
17	Return	55 00 0A 00 5F	
18	Switch to HDMI 1	55 00 80 08 DD	
19	Switch to HDMI 2	55 00 80 09 DE	
20	Switch to HDMI 3	55 00 80 11 E6	
21	Switch to OPS	55 00 80 0B E0	
22	Switch to front HDMI	55 00 80 0A DF	
23	Switch to TYPE-C 1	55 00 80 16 EB	
24	Set Contrast(0~ 100)	55 00 2A 00 7F	0
		55 00 2A 64	100



		E3	
25	Set Brightness	55 00 2C 00 81	0
		55 00 2C 64 E5	100
26	Set Saturation(0~100)	55 00 2E 00 83	0
		55 00 2E 64 E7	100
27	Set HUE(0~100)	55 00 30 00 85	0
		55 00 30 64 E9	100
28	Set Sharpness	55 00 32 00 87	0
		55 00 32 64 EB	100
29	Set BASS	55 00 3A 00 8F	
30	Set Treble	55 00 3C 00 91	
31	Set Balance	55 00 3E 00 93	
32	Factory Reset	55 00 84 00	

		D9	
33	Set Backlight(0~100)	55 00 89 00 DE	Under backlight mode is standard
		55 00 89 64 42	
34	Screen shot	55 00 8A 00 DF	
35	Home	55 00 91 00 E6	

### Get Command

- The 5th byte is checksum

No	Description	Code	Remark
1	Source	55 00 81 00 D6	
2	Contrast	55 00 2B 00 80	
3	Sturation	55 00 2F 00 84	
4	HUE	55 00 31 00 86	
5	Sharpness	55 00 33 00 88	
6	BASS	55 00 3B 00 90	
7	Treble	55 00 3D 00 92	

8	Balance	55 00 3F 00 94	
9	Picture mode	55 00 61 00 B6	Standard
		55 00 61 01 B7	Soft
		55 00 61 02 B8	Bright
		55 00 61 03 B9	User defined
10	Volume	55 00 65 00 BA	
11	TV status query	55 00 45 00 9A	01: Power on, 02: Standby
12	Backlight	55 00 8B 00 E0	

## Chapter 5: More of NovoConnect Software

### 5.1 How to extend your screen?

#### Screen extension for Windows computers

Screen extension for Windows computers is a little bit complicated.

- For Windows 10 computers, a Screen Extension driver is required.
- For Windows 7 and 8 computers, no addition driver is needed.

#### Install Screen Extension Driver for Windows 10

1. Download the Screen Extension driver for Windows 10

Executable version	V1.0.2	3.53 MB	<a href="#">Download</a>
MSI version – please install as admin	V1.0.2	0.74 MB	<a href="#">Download</a>

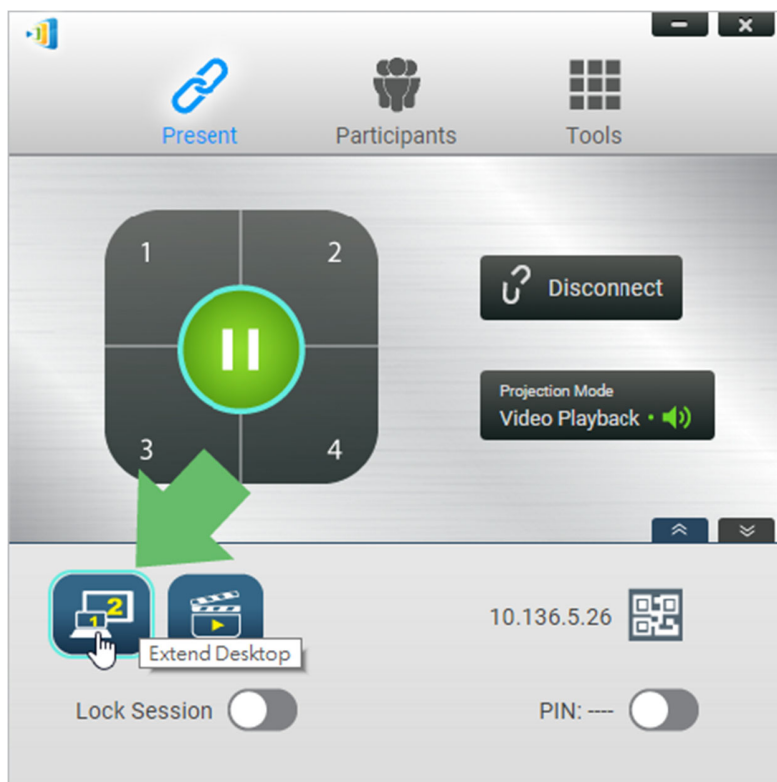
2. Please note that you will need Admin Privilege to install a driver. Launch the Screen Extension installer and follow the on-screen instructions to complete the process.

#### Turn On/Off Screen Extension in NovoConnect Software

1. Run NovoConnect Software or LauncherPlus/LauncherOne software and connect to the desired Novo device.  
When you start projecting your screen, click the “Screen Extension” icon to toggle between “Duplicate” and “Extend” display modes.

#### Turn On/Off Screen Extension in NovoConnect Software

1.
  1. Run NovoConnect Software and connect to the desired Novo device.
  2. When you start projecting your screen, click the “Screen Extension” icon to toggle between “Duplicate” and “Extend” display modes.



NovoConnect Software

## 5.2 Audio On/Off and Mirroring Modes

After joining a meeting, user can enable/ disable audio output on **Projection Mode** to choose **Video Playback** (enable output audio) or **Presentation** (muted, default setting).



Tablet, iPad, Android smartphone or iPhone user: No enable audio option on screen sharing via NovoConnect App because Android or iOS cannot allow any third party App to mirroring audio. However, there is two ways for output audio:

1. Use AirPlay or Google Cast. See [Presentation: Using AirPlay, Google Cast](#).
2. Use Video Streaming feature from NovoConnect App.
- 3.

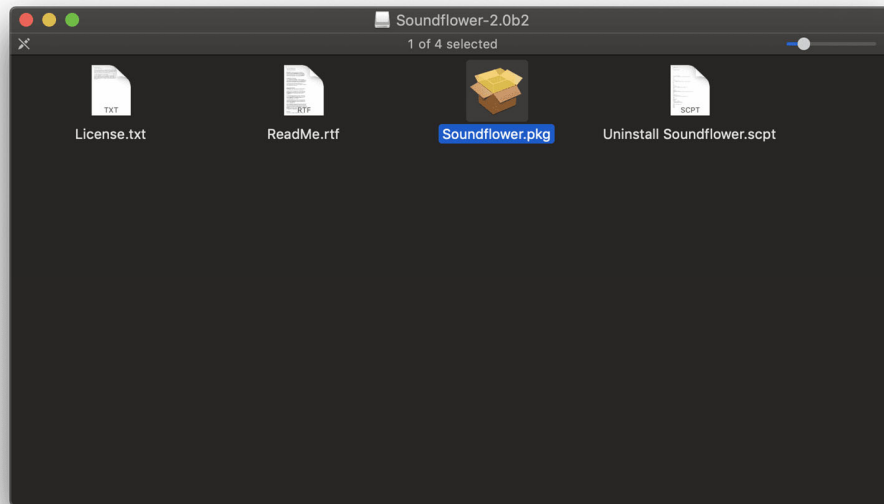
### macOS – How to output audio

#### Install Soundflower on Mac computers

Soundflower is a kernel extension for MacOS, designed to create a virtual audio output device which NovoConnect Software for MacOS relies on to output audio properly. This article describes how to install Soundflower on Mac computers.

### NovoConnect Software

1. Download the installer: [soundflower\\_2.0b2.zip](#).
2. Unzip and double-click Soundflower.pkg to start. Follow the on-screen instructions to complete the installation.

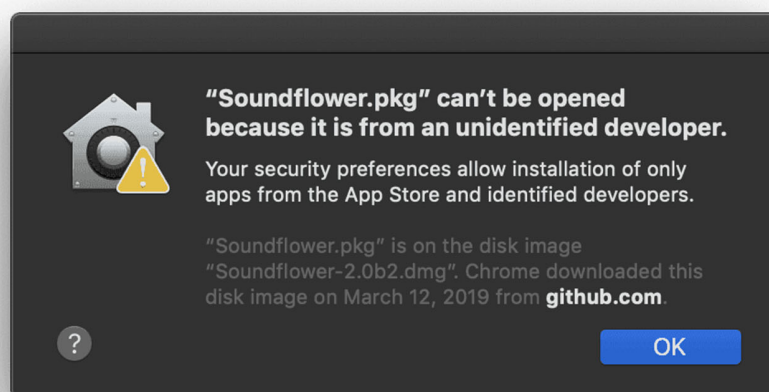


### Additional Steps for MacOS 10.13 +

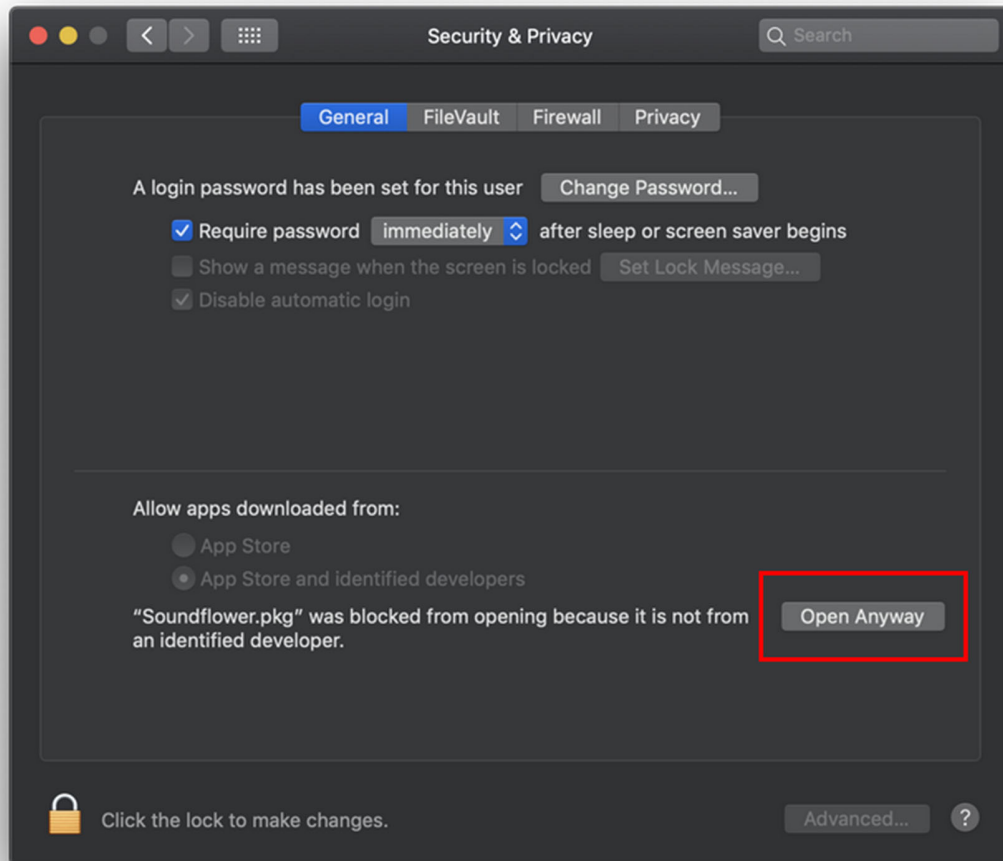
- Due to security and privacy changes introduced starting with MacOS 10.13, some additional steps are needed during and after the installation process.

### Security and Unidentified Developer

- You may run into the following "unidentified developer" issue during Soundflower installation.

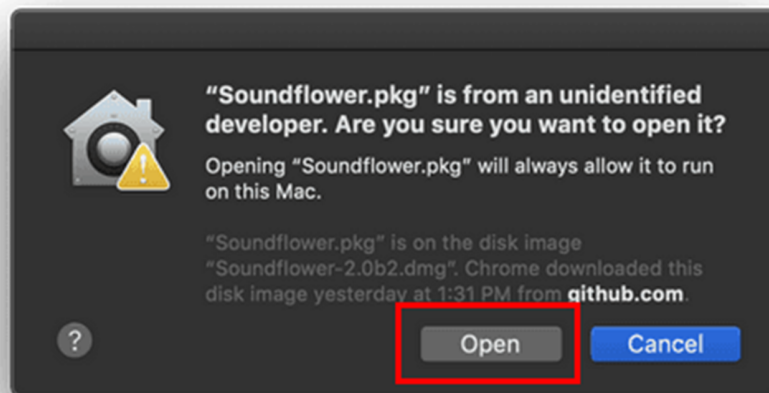


- In this case, follow these steps to enable a successful installation:
1. Open the "System Preferences" and go to "Security & Privacy". You should find "Soundflower.pkg" under tab "General". Click on "Open Anyway".

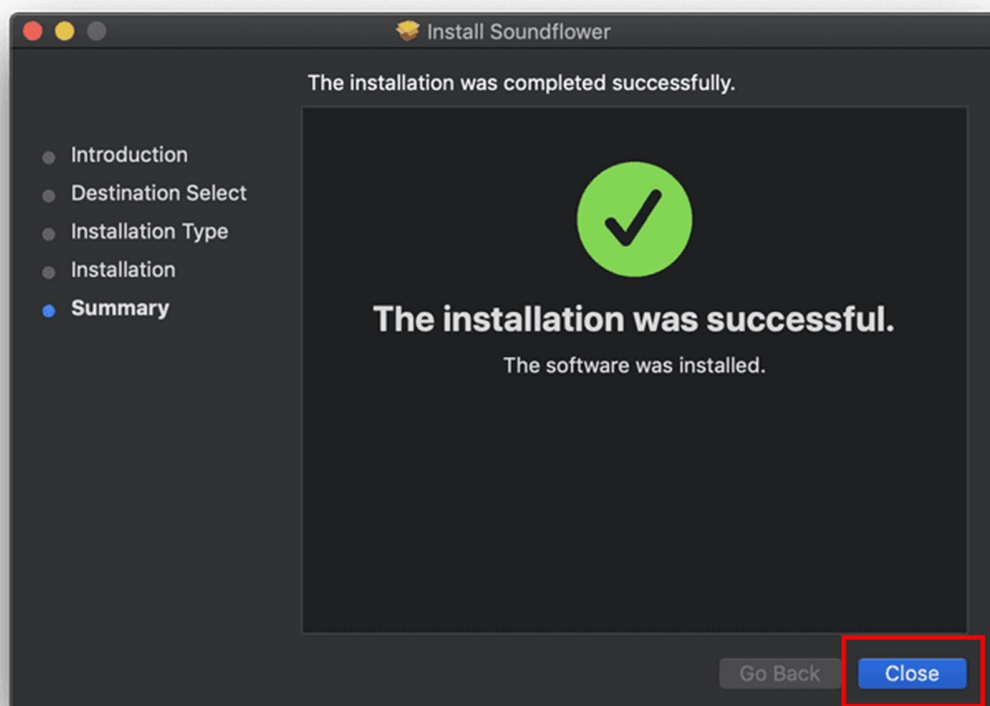




2. When the following dialog shows up, click on "Open" to continue.



3. Then, you can re-start the Soundflower installer and it should complete successfully.



4. Lastly, even though not required, it is a good practice to restart your Mac after a successful installation.

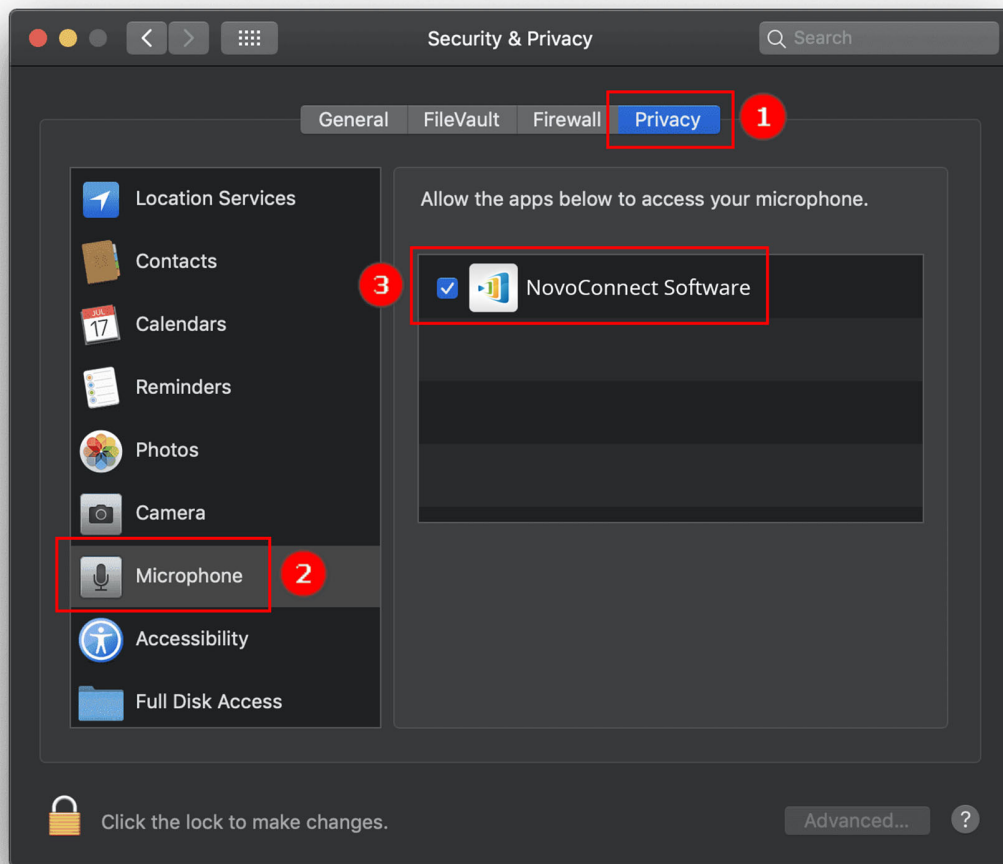
## Privacy and Sound

For MacOS 10.14 +, one additional configuration is needed regarding the audio output.

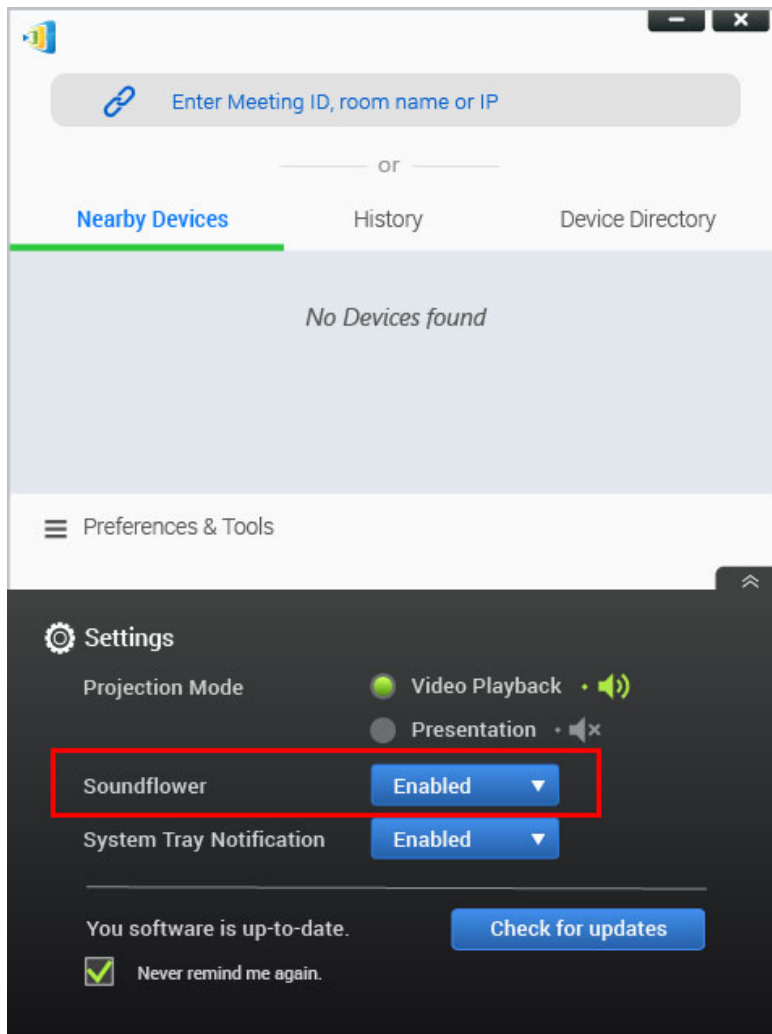
1. Open the “System Preferences” and go to “Security & Privacy”.



2. Click on “Privacy > Microphone” and then check “NovoConnect Software”



3. Now, your NovoConnect Software & LauncherPlus/LauncherOne software should be able to output audio.



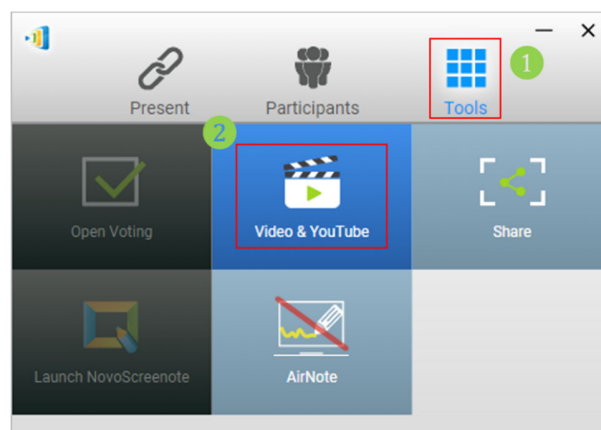
## 5.3 Video Streaming

By connecting to NovoConnect, video content can be easily output to Projector or LCD Display. This article will instruct you how to stream the video via NovoConnect solutions.

*\*Video streaming may need Internet connection (How to connect to the Internet?) , e.g. **YouTube**.*

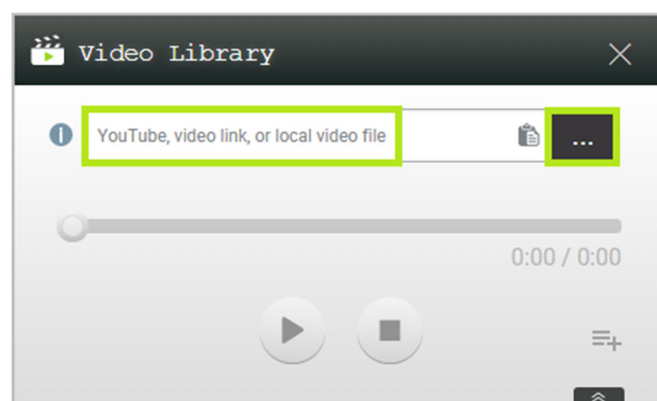
### 5.3.1 Video & YouTube

Click **Tools** at the Top-right of NovoConnect software user interface, then click **Video & YouTube**. And you can start to stream local video or Youtube, what you need to do just specify a Video/Audio file path or paste a YouTube URL.

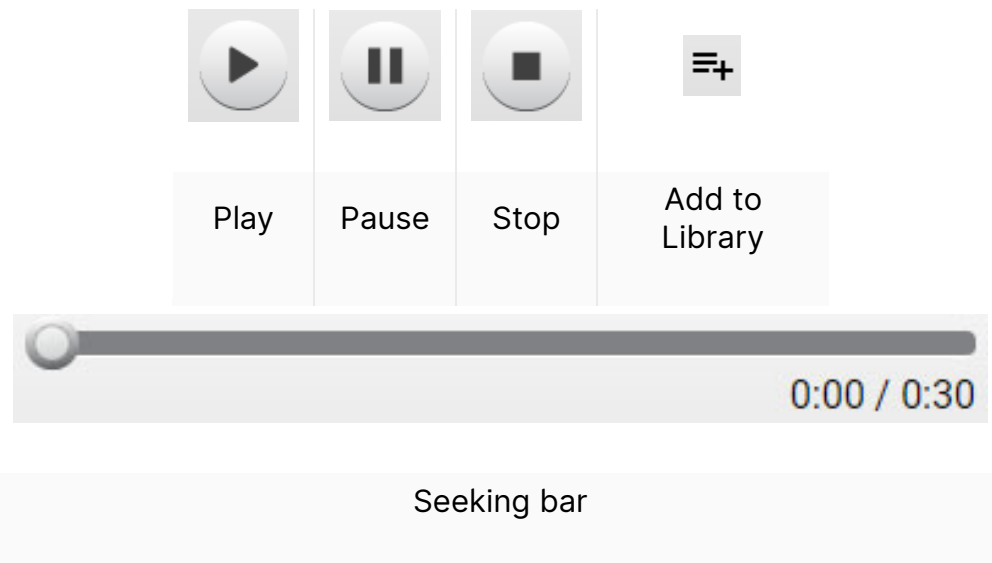


### Local Video/ YouTube

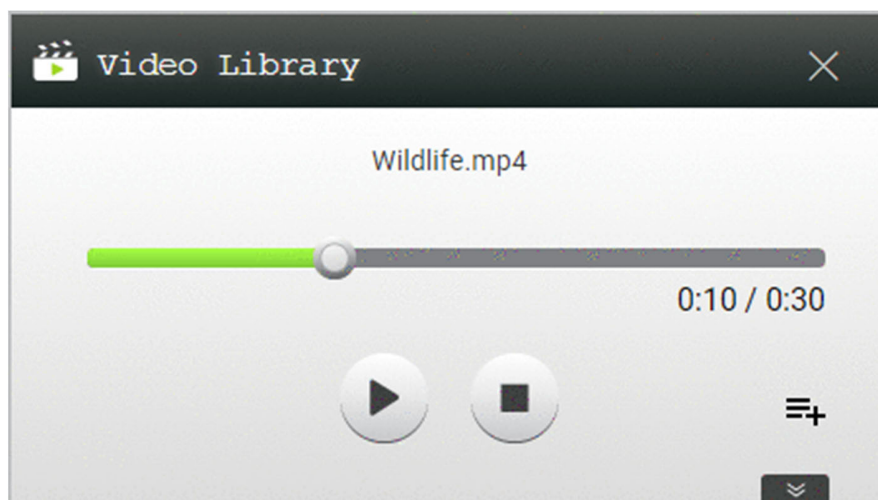
- Open file location or Paste YouTube URL



- Playback control



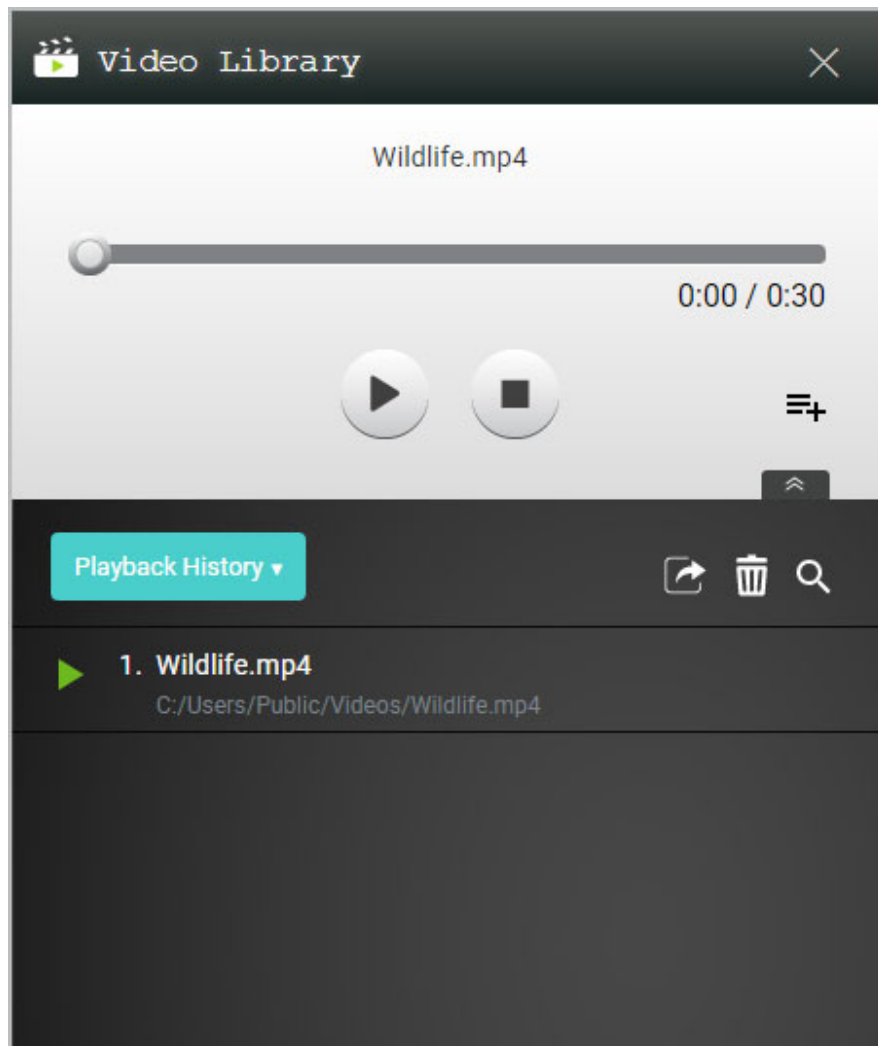
By hold down the left mouse button and slide the seeking bar, you can fast forward or rewind the video.








After the video ends, it will stop and return to the previous screen in a few seconds, or you can manual stop it by clicking **Stop** button.

## Playback History

Once the video has been added and played, it will be recorded (As a shortcut) in the **Playback History**.



## Control Panel

				
Export	Clear (All)	Search	Expand	Collapse

- **Export**

User can Export the **Playback History** (List) as a JSON script, and it can be imported as a **Library** (List) by others.

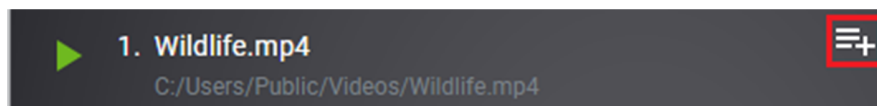
- **Deletion**

The **Playback History** (List) can be deleted by clicking “Clear”.

- **Searching**

User can search the played items in the **Playback History** by keyword.

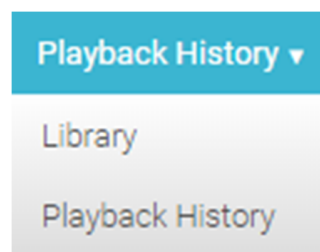
The played items can be added to Library by clicking “Add to Library” at the right side.



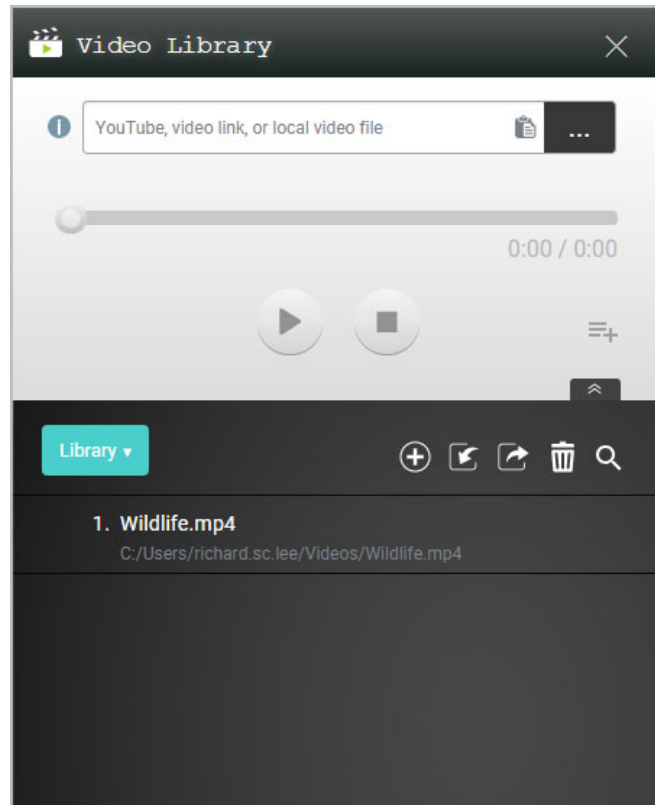
*\* Video/ Audio items in the Playback History cannot be deleted individually.*

## **Library**

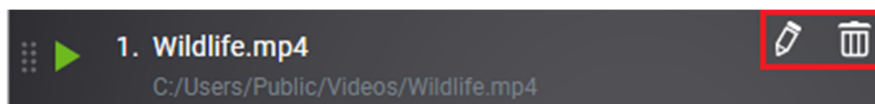
By clicking the drop-down menu, user can switch between Library and Playback History list.



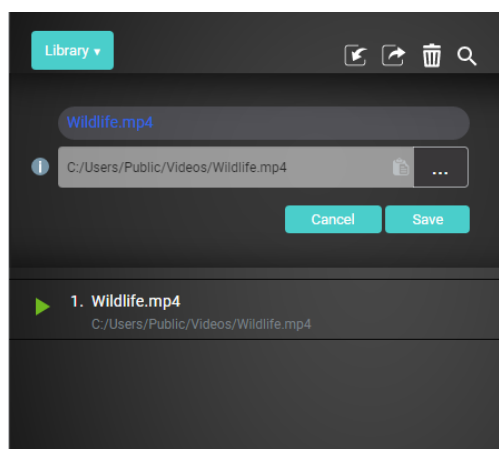




The items in Library are editable, and also can be delete individually.



By clicking “Edit”, user can change the display name of the items, or swap the item by selecting another one. Also, the item can be deleted individually.



## Control panel



- **Video/ Audio Addition**

**NovoConnect** (Decoder)supports several main stream media formats.

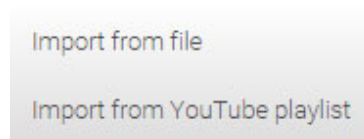
Video: **MPEG-1/ -2, MPEG-4, MS-**

**MPEG4, WMV7, Matroska, H.264, H.263, VC-1, etc.**

Audio: **Wave Form Audio, Windows Media Audio, MPEG-3 Audio, Advance Audio Coding, etc.**

- **Import & Export**

User can import the **Library** (List) via JSON script which exported from others, or the YouTube playlist URL. Also, the **Library** (List) can be exported as a JSON script for others.



- **Deletion**

The **Library** (List)can be deleted by clicking “Clear”.

*\*Video/ Audio items in the Library can be deleted individually by its control panel.*

- **Searching**

User can search the video in the **Library** by keyword.

## 5.4 AirNote

The AirNote annotation tool allows participants to annotate on the presentation display directly from their device during a full screen presentation.

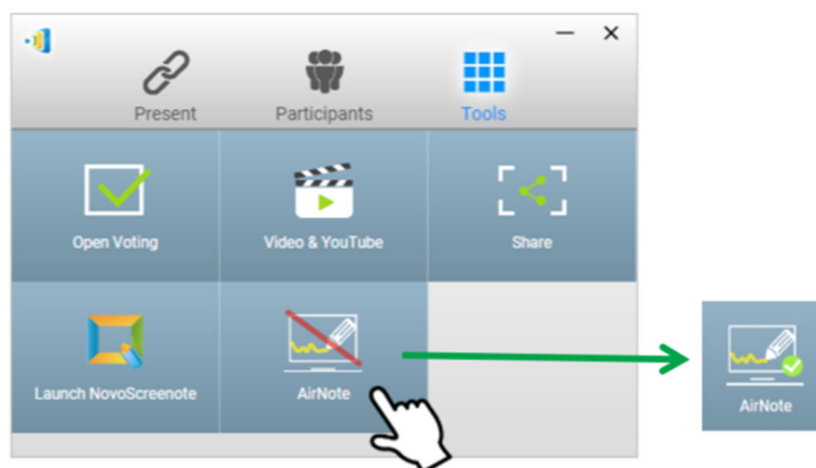
This feature is under NovoConnect App. User have to launch NovoConnect App on Windows OS, macOS, ChromeOS, Android or iOS.

How to download NovoConnect App: Go to [LaunchNovo.com](https://LaunchNovo.com) to download. We provide portable and installation version for user chose.

### Enable AirNote to allow others to annotate

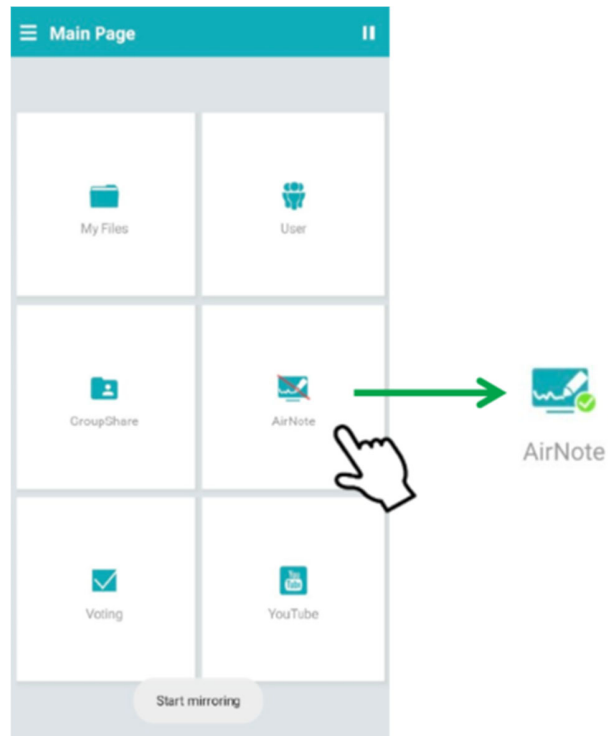
**When a participant's screen is projected as a full screen presentation on a device** they may enable other participants to directly annotate on the screen from their device via the AirNote button in the collaboration tools menu.

Windows/ macOS/ ChromeOS/ Ubuntu user: After join a meeting via NovoConnect App, go to **Tools** > tap **AirNote** to enable for allowing the other participant to annotate remotely.



Windows, macOS, ChromeOS or Ubuntu

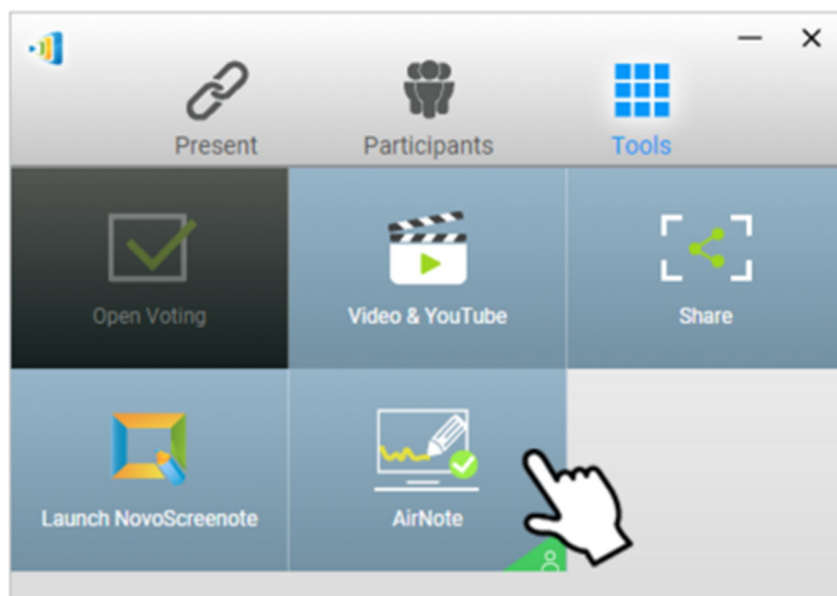
Tablet, iPad or smartphone user: After join a meeting via NovoConnect App, go to **Main Page** > tap **AirNote** to enable for allowing the other participant to annotate remotely.



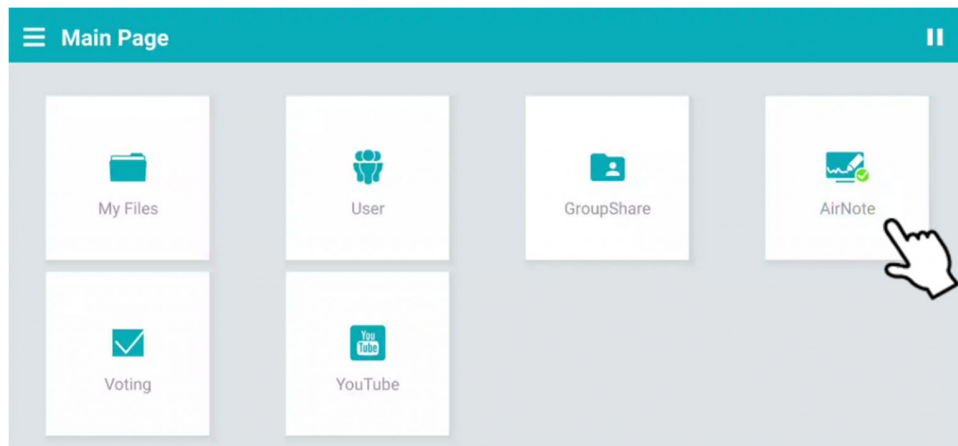
Tablet, iPad, Android smartphone or iPhone User

## Using AirNote to annotate remotely

Once the presenter has enabled AirNote, the other participants in the meeting can click the AirNote button to begin directly annotating from their device.

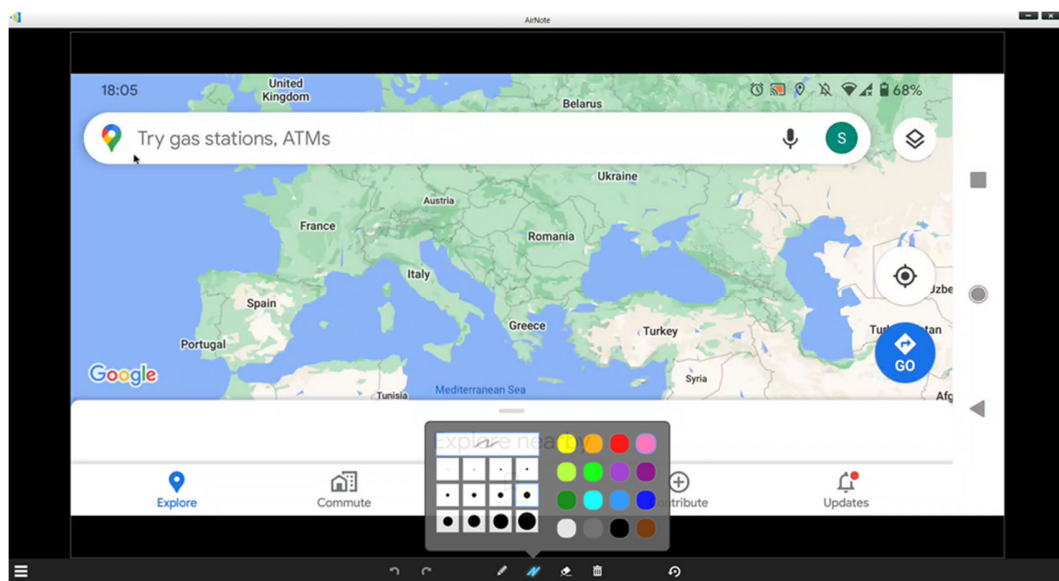


Windows, macOS, ChromeOS or Ubuntu

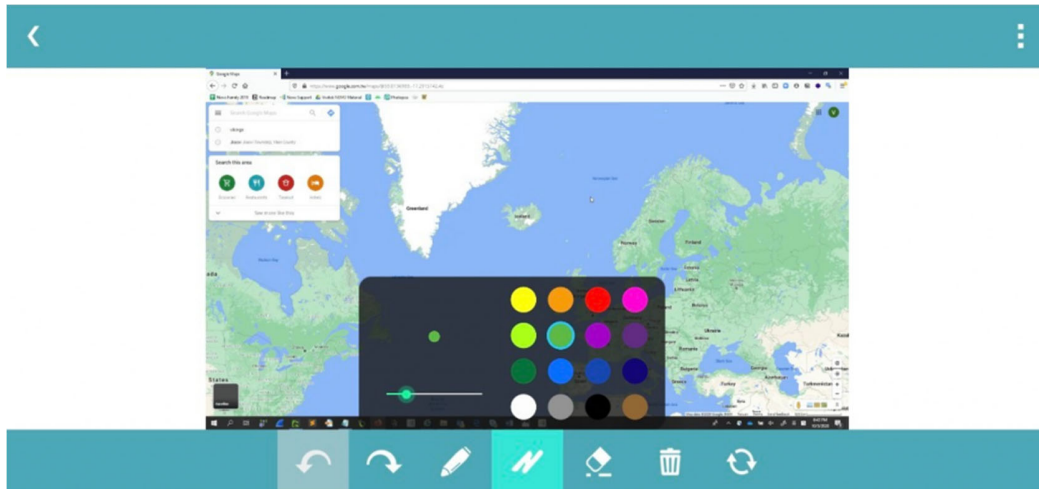


Tablet, iPad, Android smartphone or iPhone

A shot of the presentation display will be copied onto the participant's device where they can begin drawing annotations either by mouse or by touch, with the annotations made from their device showing up on the presentation display.



Windows, macOS, ChromeOS or Ubuntu



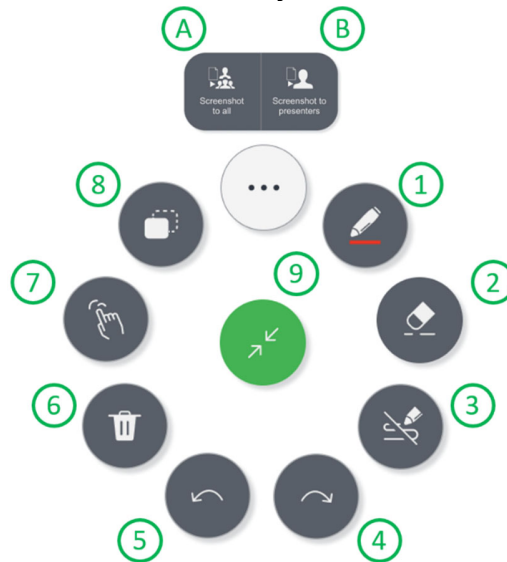
Tablet, iPad, Android smartphone or iPhone

## 5.5 NT LiveNote – On-Screen Annotation & Screen-Share

### Control

NT LiveNote is a tool palette consisting of on-screen annotation and screen-sharing control, as shown in the following picture. You can launch this toolset in two ways.

1. When someone starts screen mirroring, **NT LiveNote** is launched automatically.
2. Alternatively, you can launch it manually via **Launch Pad -> NT Tools**.



No.	Item	Description
1	Pen & Highlighter	1) Click to enable this tool 2) Long-press to select pen/highlighter, color, & size
2	Eraser	Click to enable Eraser

3	Show/hide annotation	Show or hide existing on-screen annotation
4	Redo	Re-do
5	Undo	Un-do
6	Remove	Remove all on-screen annotation
7	Touch back	Click to enable Touchback feature. 1) When a Windows/MacOS computer is mirrored onto the screen, Touchback allows users to control the computer via the NovoTouch. 2) This feature is applicable to Windows and MacOS computers only.
8	Session Control	Projection control: Add, Remove, Withdraw Session control: Lock session, Terminate session, Show connection information.
9	Collapse	Click to collapse the menu palette
A	Snapshot to all participants	Send screen snapshot to all meeting participants (connected users)
B	Snapshot to presenters	Send screen snapshot to presenters



## 5.6 Sharing File and Webpage (URL)

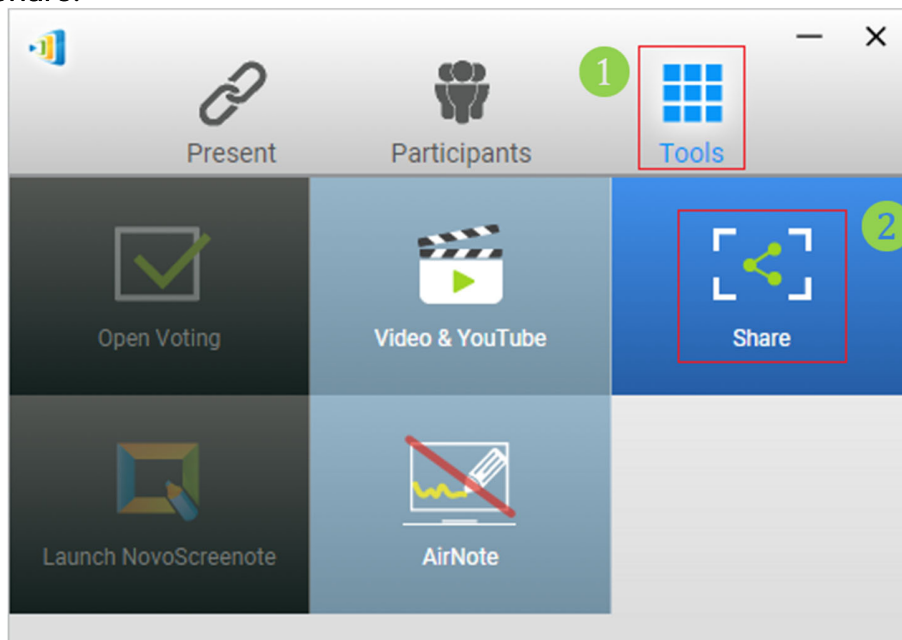
User can share files\* and webpages\*\* (URL) between different platforms when they're connecting to NovoConnect. This article will instruct you how to share via NovoConnect solutions.

\*Any files less than 10 MB (1MB = 1024 KB).

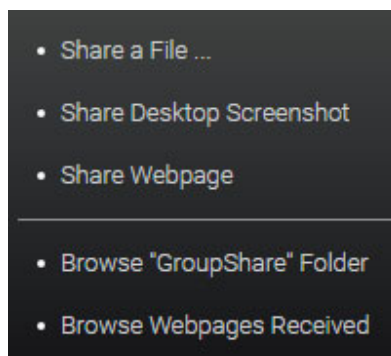
\*\*Open an online webpage (URL) will need Internet connection.

### Sharing

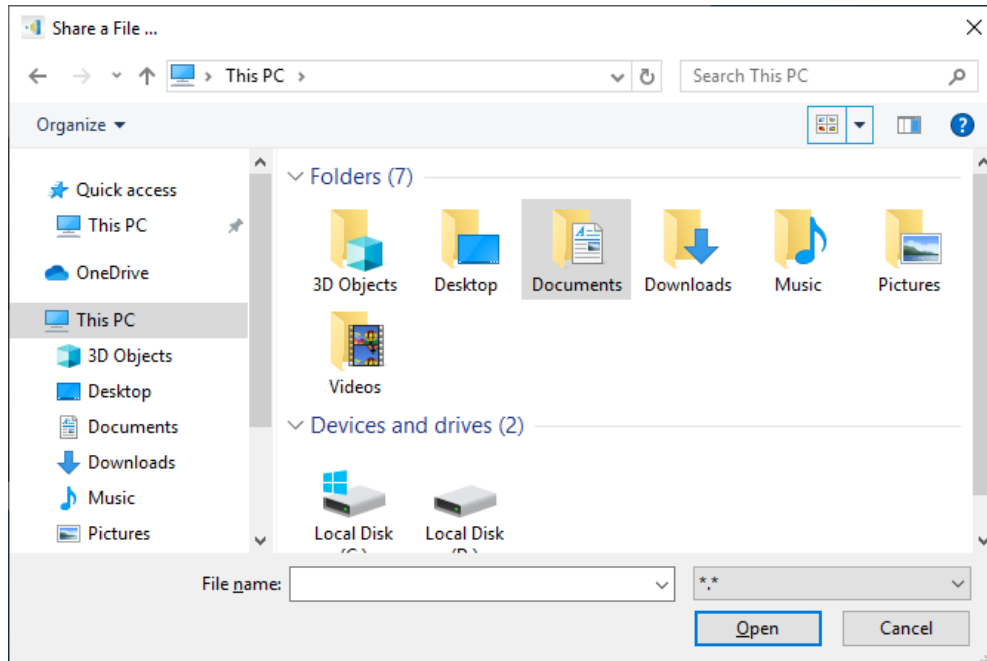
Click **Tools** on Top-right of the NovoConnect software interface, then click **Share**.



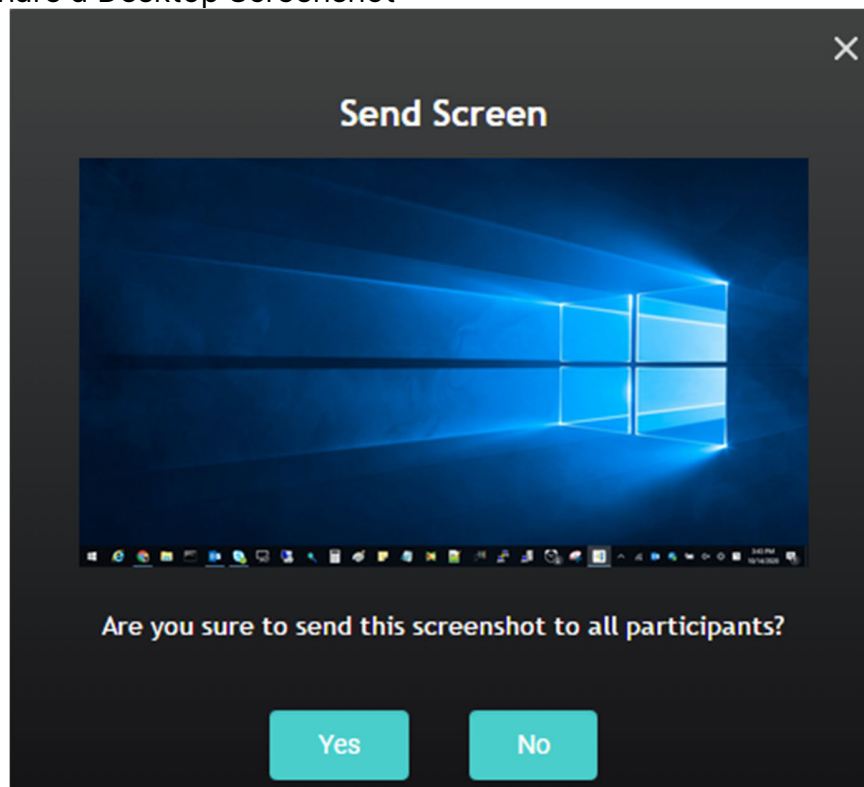
Then you can choose files, take a screenshot of current desktop or paste webpages to others who connected to the same NovoConnect device.



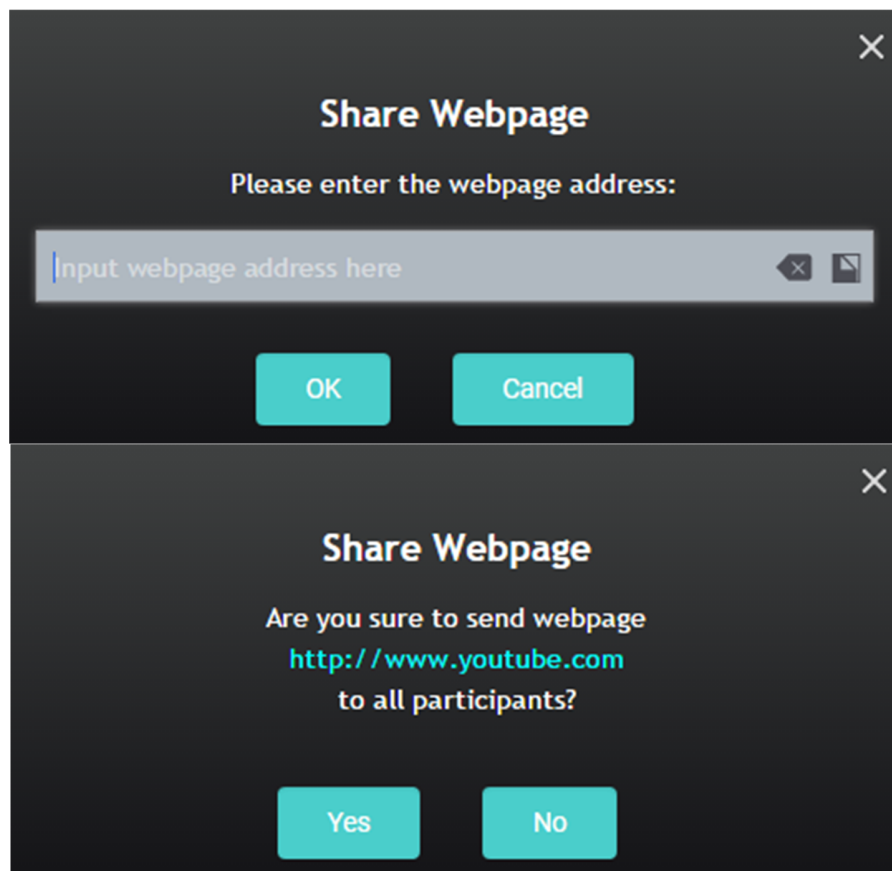
- Share a File



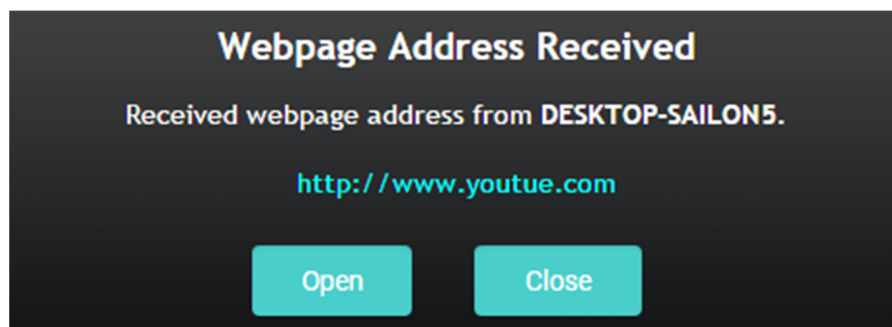
- Share a Desktop Screenshot



- Send a Webpage



When the file or webpage have been received, there will be a message shown on you desktop screen. User can also check the content by clicking **Open**, or dismiss the dialog by clicking **Close**.



## 5.7 Voting / Polling

As one of the collaboration tools, Voting/Polling allows the *moderator* to create sets of questions or quizzes to post/administer to all *participants*. Usually there are three stages in this process.

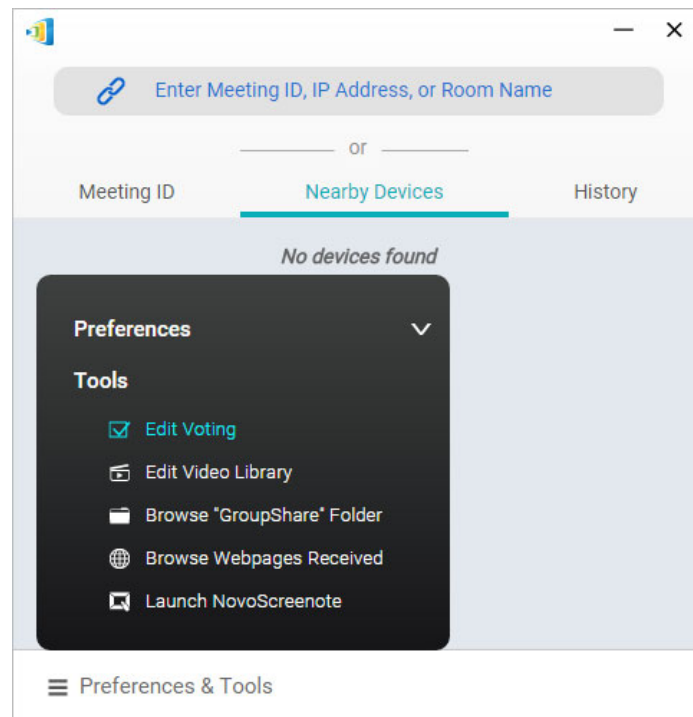
1. Create the question set. Typically, this is done prior to your voting/polling session.
2. Start the voting/polling when in session, where *participants* will respond to the question set and the *moderator* can monitor the progress.
3. Stop the voting/polling, where *participants* get feedback on their submission and the *moderator* has a report of the entire voting/polling session.

Voting/Polling works for both personal computers and mobile devices (phones & tablets) with similar user interface (GUI). To simplify the description of this feature, we mainly use NovoConnect software, the GUI for personal computers, for illustration in the rest of this section.

## 5.7.1 Edit Question Set

As a *moderator*, you can create and edit question set when you are not connected to any Novo devices. As a matter of fact, it is recommended you prepare this prior to your voting/polling session.

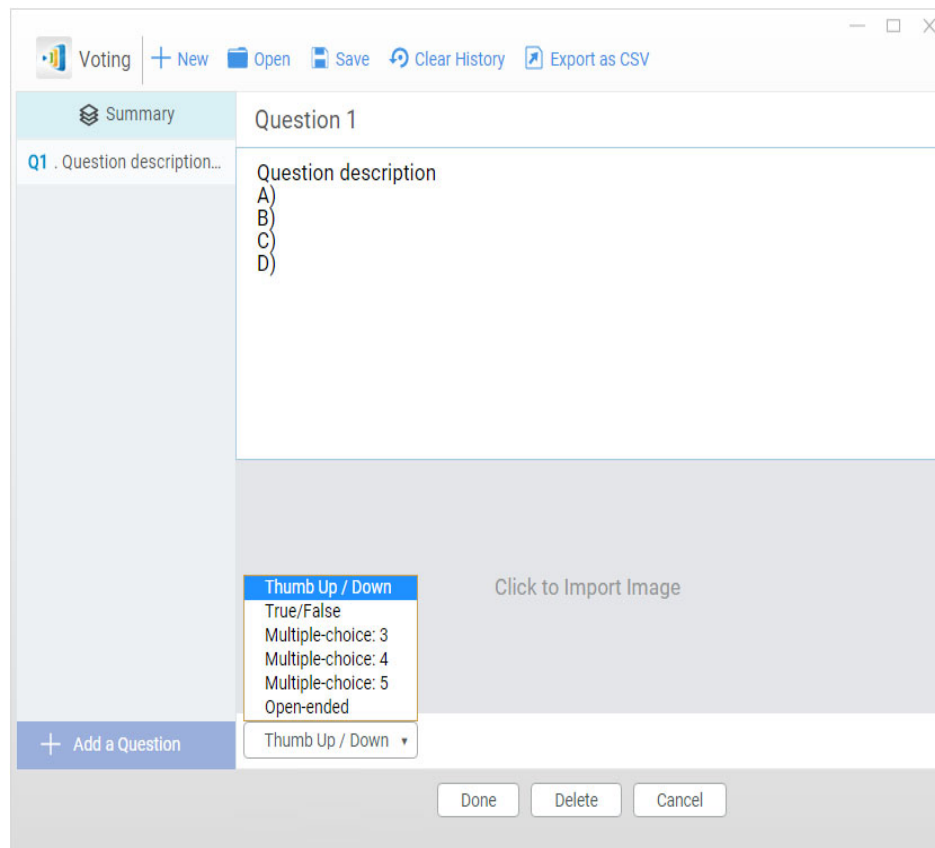
1) You can create and edit a question set with NovoConnect software by accessing its “Edit Voting” tool, as shown below.



Accessing tool “Edit Voting”

2) Now you have the editor opened for you, where you can

- Enter the question description (text)
- Import a picture associated with this question (jpg, png, bmp, etc.)
- Specify the question type (True-False, multiple-choice, etc.)
- If “multiple-choice” is chosen, you can also pre-set the “correct” answer
- Of course, you can add more questions as you go



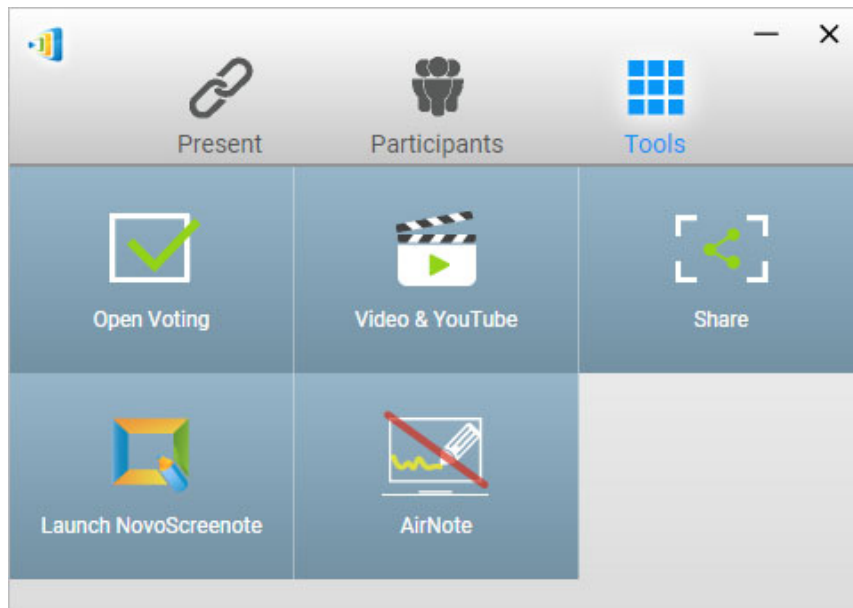
“Question Set” Editor

3) Lastly, once you finish editing the question set, you can save it on your computer. This will create a database (.db) file that can be re-opened, edited or administered to participants when in session.

## 5.7.2 Start and Stop Voting/Polling

### (1) *Moderator View*

1) To start Voting/Polling, click on the “Tools” tab and then “Open Voting.” This will bring up the Voting window.



Tools → Open Voting

2) Open an existing question set. Select a question and click “Start” to send it to all *participants*. The question will appear on *participants*’ screens.

- Button “View Status”: This will bring up the status window, where the *moderator* can view participants’ reaction in real time.
- Button “View Question”: This will take the *moderator* back to the view of the question itself.

Voting
 + New
 Open
 Save
 Clear History
 Export as CSV

Summary

Q1 . Which is the correct ...  
 Q2 . Referring to the follo...  
 Q3 . Open-ended

+ Add a Question

Question 2 (Multiple-choice: 4)

Referring to the following triangle, which one is the correct answer?  
 A)  $AB = 3$   
 B)  $AB = 4$   
 C)  $CD = 5$   
 D)  $AC = 5$

Edit

Start

View Status

Start Voting/Polling (Question View)

Voting
 + New
 Open
 Save
 Clear History
 Export as CSV

Summary

Q1 . Which is the correct ...  
 Q2 . Referring to the follo...  
 Q3 . Open-ended

Question 2 (Multiple-choice: 4)

Referring to the following triangle, which one is the correct answer? A)  $AB = 3$  B)  $AB = 4$  C)  $CD = 5$  D)  $AC = 5$

Answer ☐

Submitted 1/1

(A) 0% 0  
 (B) 100% 1  
 (C) 0% 0  
 (D) 0% 0

Name	Status	A	B	C	D
Total: 1	0	0	1	0	0
Brad					

View Question

Hide Details

Stop

Start Voting/Polling (Status View)



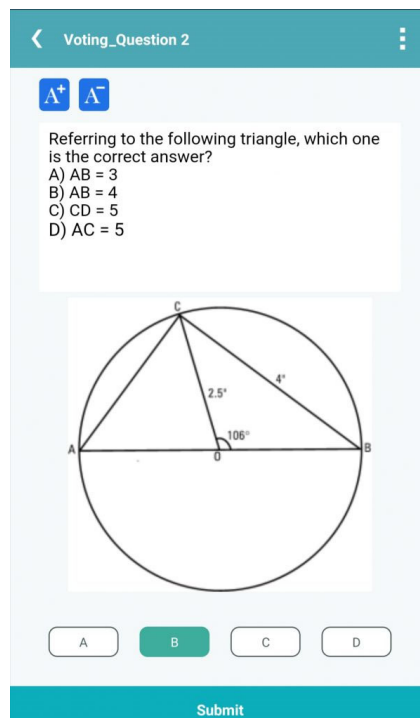
3) To stop the voting/polling, click on button “Stop”.

- Please note that the *moderator* needs to stop the current voting before starting another voting question.
- The moderator can export the voting/polling result as a CSV file by clicking “Export as CSV”.

## (2) *Participant View*

Once a *participant* receives a voting/polling question, the question will pop up automatically on the *participant's* screen.

- For multiple-choice questions, the *participant* can select the answer and then submit, as illustrated in the figure below (which is a screen-shot from NovoConnect App running on a smart phone.)
- For open-ended questions, the *participant* can select an image file from your device for submission



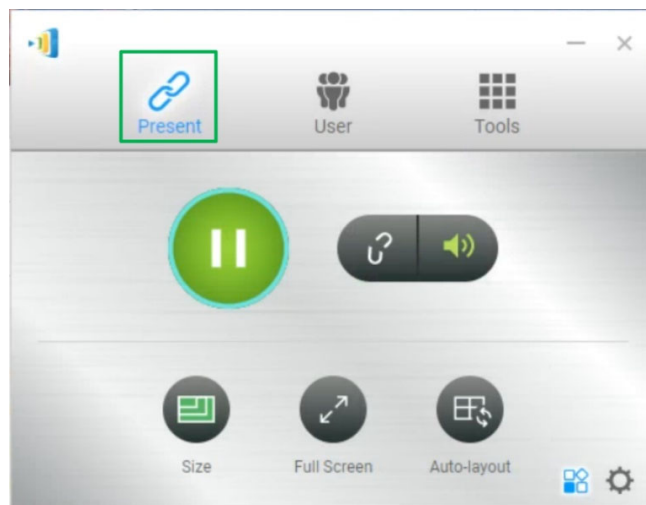
Participant View (on Smart Phones)

## 5.8 Touchback From Projected Screen

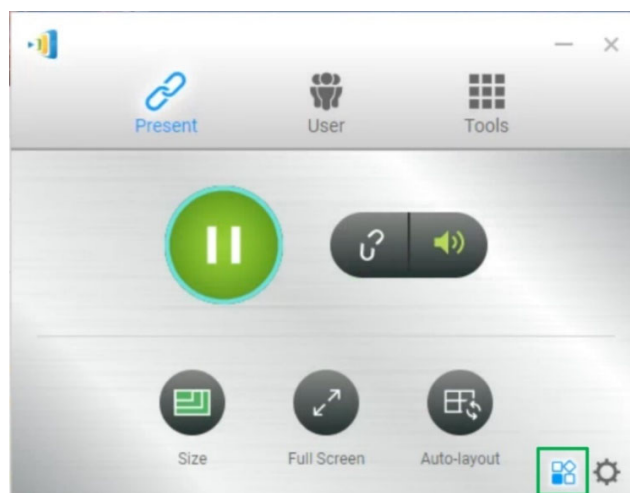
When a participant's screen is projected, they can enable or disable the touchback feature through the NovoConnect PC application.

Here is instruction to make it easy for the user to understand.

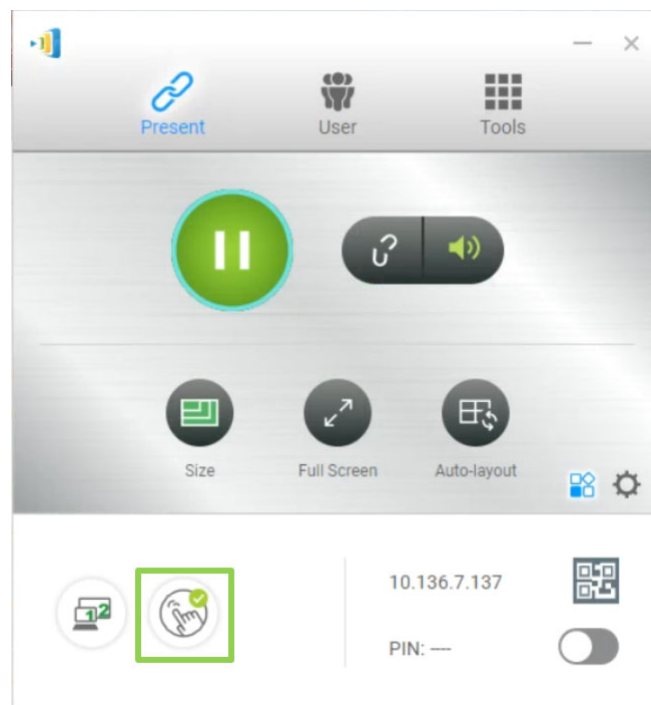
Step 1. After joining a meeting via the NovoConnect application, click **Present**



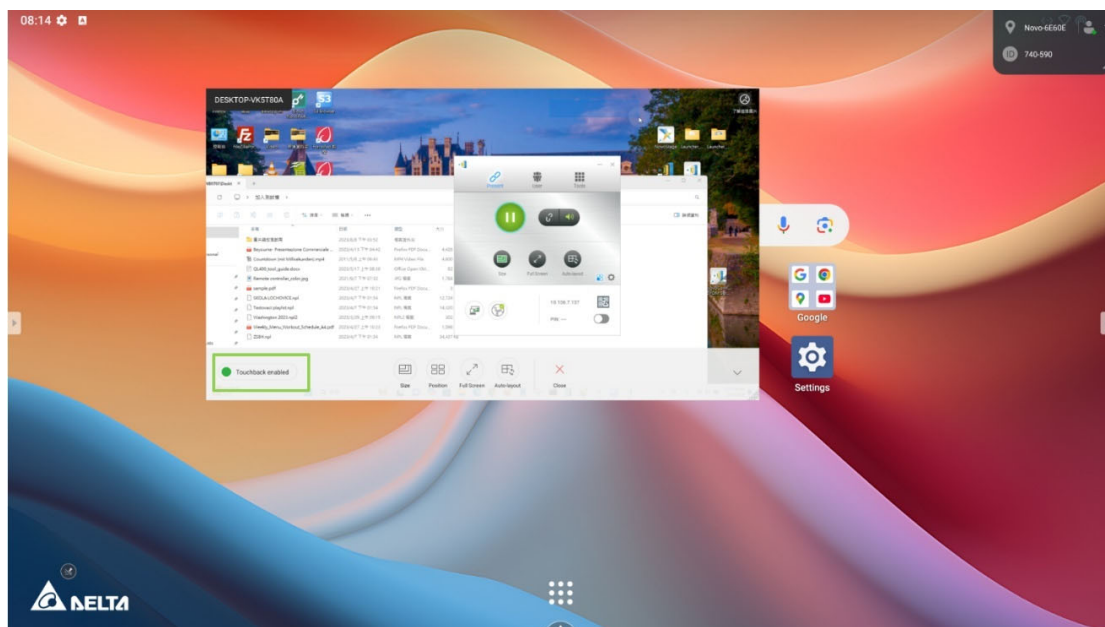
Step 2. Tap icon **Tools** in the bottom right corner of the screen.



Step 3. Click the icon **Touchback** to enable or disable the feature.



Once the feature is enabled, the 'Touchback' icon on the projected screen will turn green, confirming that it is active.



## Chapter 6: FAQs and Troubleshooting

### 6.1 Disable/Enable touch feature

For some use cases, you may want to temporarily **disable** or **enable** the touch feature. The following instructions show how to disable or enable it.

#### Disable Touch Feature

To disable touch, use a key combination on the remote control. Press these buttons sequentially: Input Source, Input Source, then Vol down.



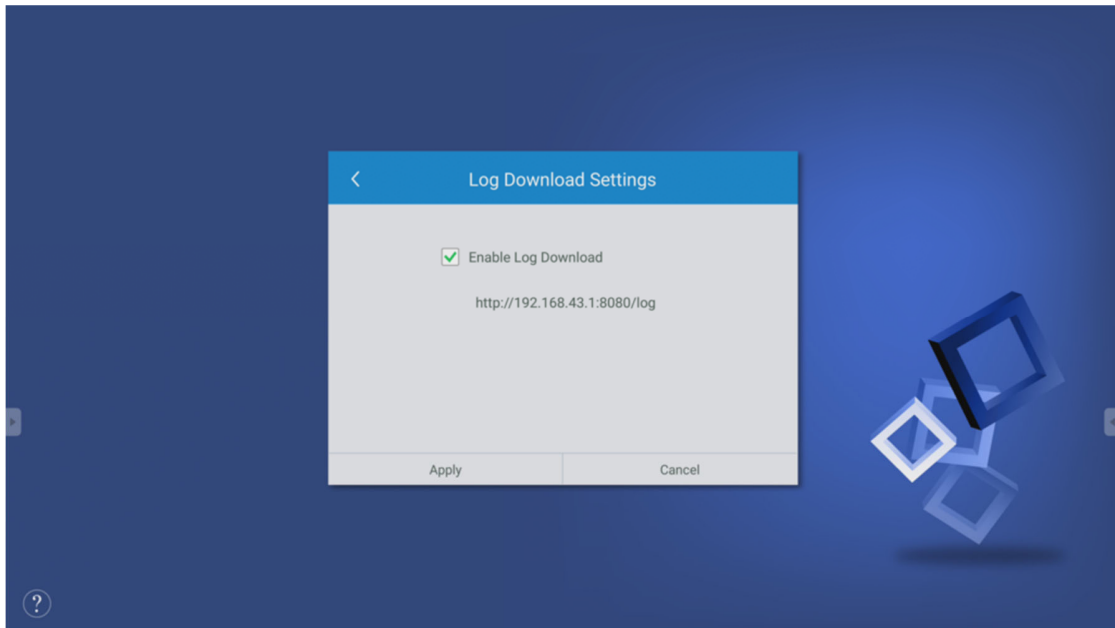
#### Enable Touch Feature

To enable touch, use a key combination on the remote control. Press these buttons sequentially: Input Source, Input Source, then Vol up.



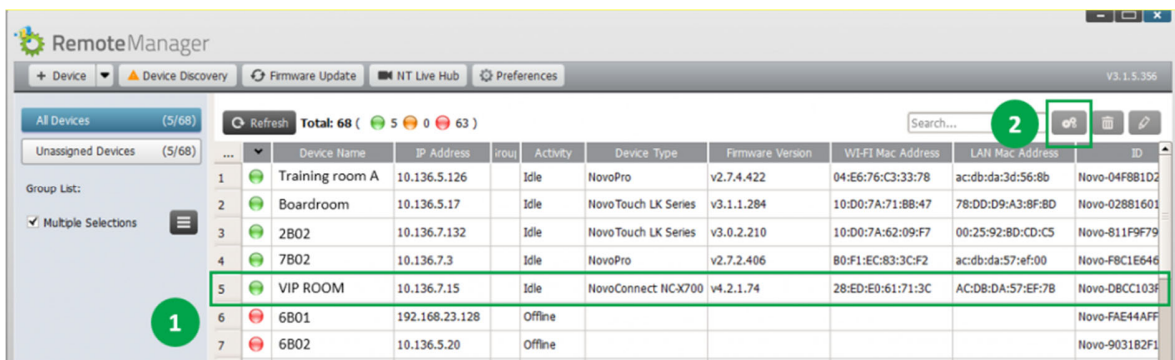
## 6.2 How to Capture Log

Go to **Settings** > **Log Download** > toggle **Enable Log Download**, then follow the instruction.

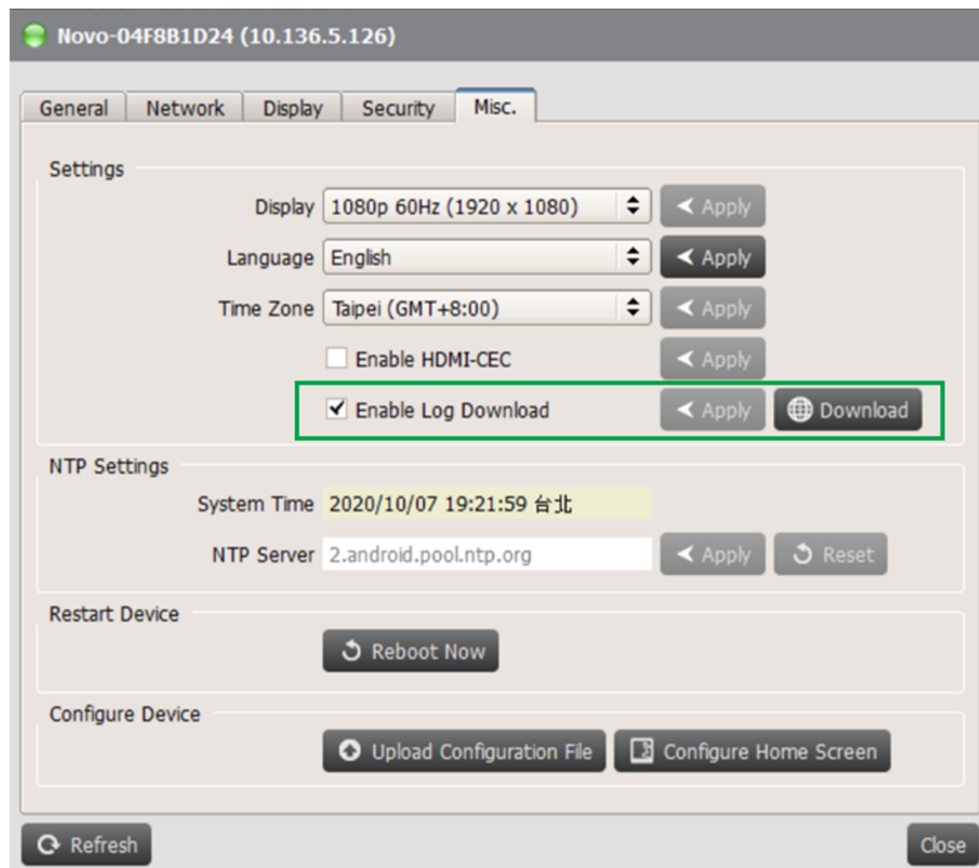


### Download via Remote Manager

Step 1. Select the device which you intent to download the log file, click Settings.



Step 2. Go to **Misc.** > toggle **Enable Log Download** > click **Download**.



# Chapter 7: Remote Manager

## 7.1 Introduction

### INTRODUCTION

Remote Manager software is the device management software for all NovoConnect devices, including NovoTouch and NovoDisplay. System administrators have access to the following functionalities to manage their NovoConnect devices over LAN or WiFi connection from a central location, making it ideal for corporations, schools or other large institutions.

1. Monitor device status
2. Update firmware
3. Configure device settings
4. etc.

Remote Manager V3.0 can be configured in two operation modes

1. **Standalone Mode.**  
Remote Manager is deployed on one single computer.
2. **Server Mode.**  
Remote Manager is deployed in server environment.

This document describes how the **Standalone Mode** works. For the sake of simplicity, we use device, NovoPro, as the example in the following sections. Please keep in mind that this manual applies to all NovoConnect devices, including NovoTouch and NovoDisplay.

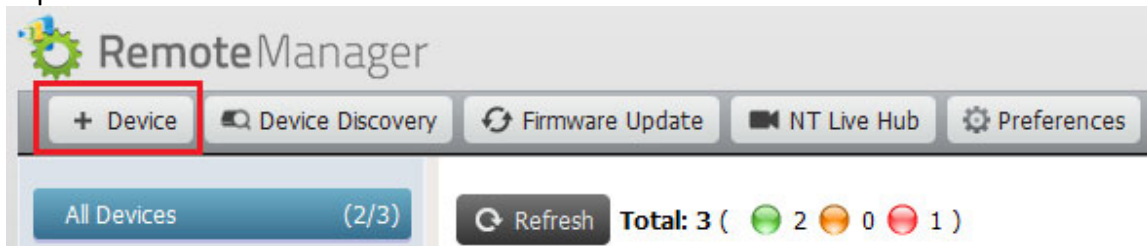
### INSTALL SOFTWARE

Remote Manager is a Windows application. To install, Download its installation package from [Vivitek website](#) Click on the installation package and follow the on-screen instructions.

## 7.2 ADD/REMOVE/GROUP DEVICES

### Add a device

1. To add a new device to the device list, click on the “+ Device” button at the top of the screen.



2. This will open the “Create New Device” window. Enter the device’s description (such as location), and IP address. You can also select a group (optional) from the group list pull-down menu. Click “OK” to complete adding the new device.

The screenshot shows the 'Create New Device' window. It has a title bar 'Create New Device'. Inside, there are three input fields: 'Description', 'IP Address', and 'Group'. The 'IP Address' field has three dots as a placeholder. At the bottom right, there are two buttons: 'Apply' and 'Cancel'.

3. When the new device is successfully added it will appear in the device list.
4. If the device is currently connected, the connection indicator will become green. Otherwise, it is in red.

The screenshot shows the device list table. At the top, there is a 'Refresh' button and a 'Total: 3' indicator with three colored circles (green, orange, red) and numbers 2, 0, and 1. To the right is a search bar labeled 'Search...'. The table has five columns: '...', 'Device Name', 'IP Address', 'Activity', and 'Description'. The first column contains three rows of data, each with a green circle in the first row and a red circle in the second and third rows. The red box highlights the first column.

...	Device Name	IP Address	Activity	Description
1	Design Lab	192.168.50.187	Idle	Lab
2	Room 405	192.168.50.55	Idle	Conference Room
3	Novo-38100	172.18.69.57	Offline	NovoCast

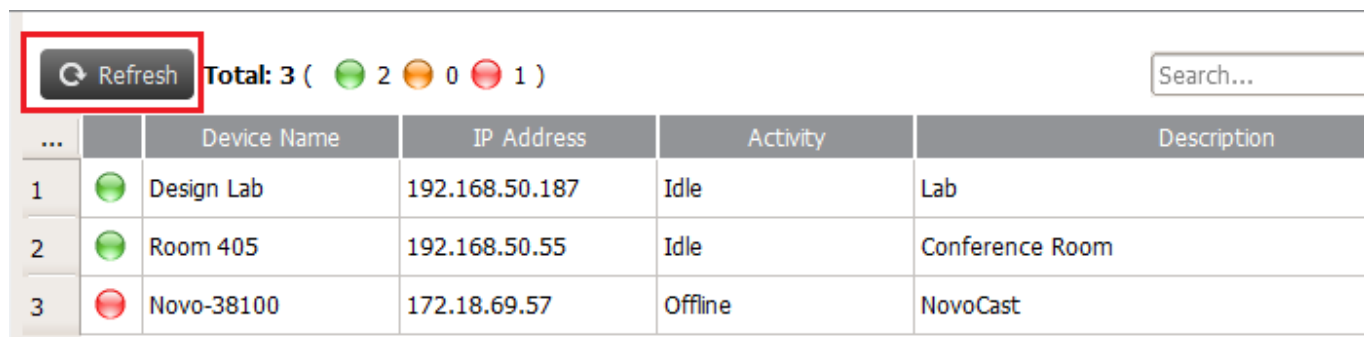


## Remove a device

1. To remove a device from the device list, click on the device you wish to remove from the list then click the  icon.
2. A confirmation dialog will pop up. Click “Yes” to confirm or “No” to cancel.

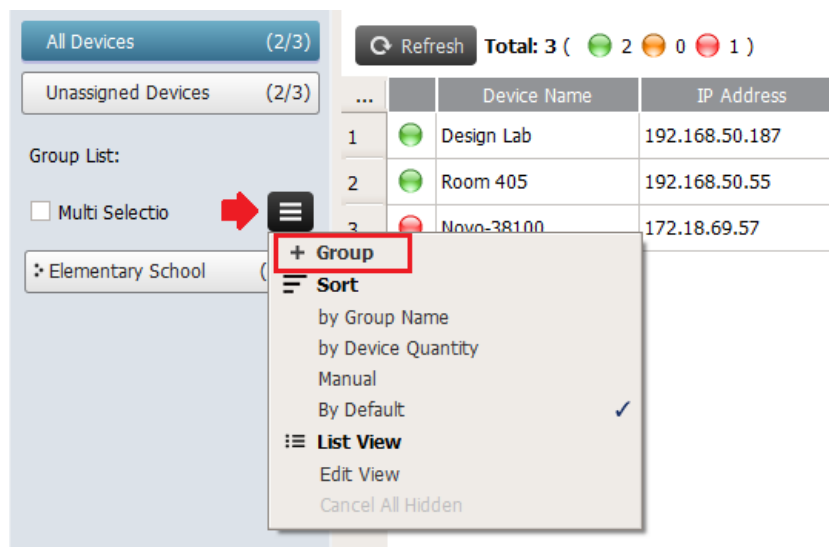
## Refresh device list



To refresh the list of devices in Remote Manager, click the “Refresh” in the upper left of the program screen.



## Group devices

Click the “+ Group” button to add a new group, and then give a group name, description and add devices into the group.





Once the group is defined, you can click the group name to view group device list and apply the settings to the group. In addition, you can click the button  and  to change and delete group respectively.

All Devices (2/3)




Unassigned Devices (0/1)







Group List:

Building A



Refresh

Total: 2 (  2  0  0 )

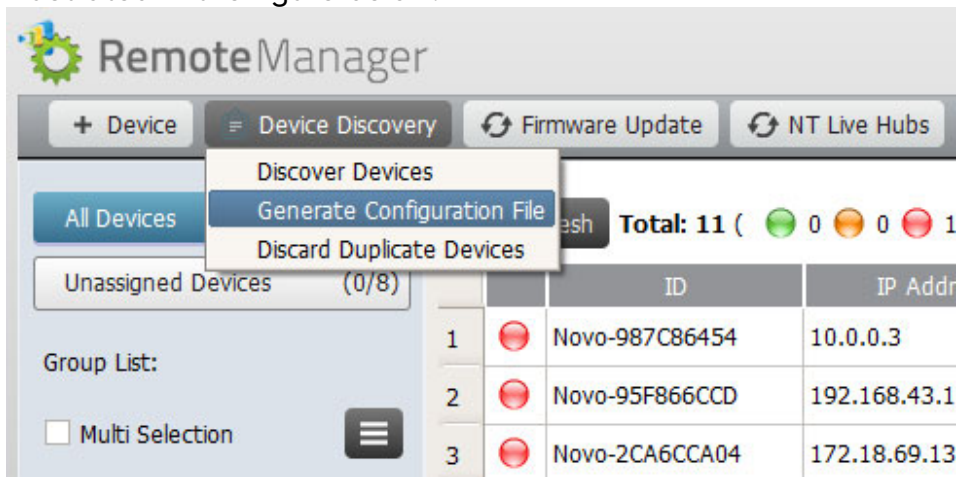
		Action	Device Name	IP Address
1		 	Design Lab	192.168.50.187
2		 	Room 405	192.168.50.55

## 7.3 ADD DEVICES VIA AUTO DISCOVERY

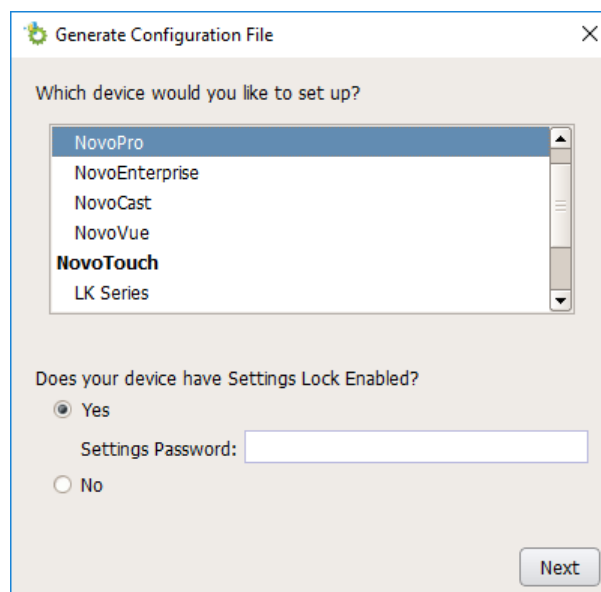
For organizations that deploys a large number of NovoConnect devices, adding a device via auto discovery can save a lot of effort. This function allows IT staff to create and install a custom configuration file to automatically configure NovoConnect's settings via a microSD card.

### Generate “NovoAutoConfig.xml” configuration file

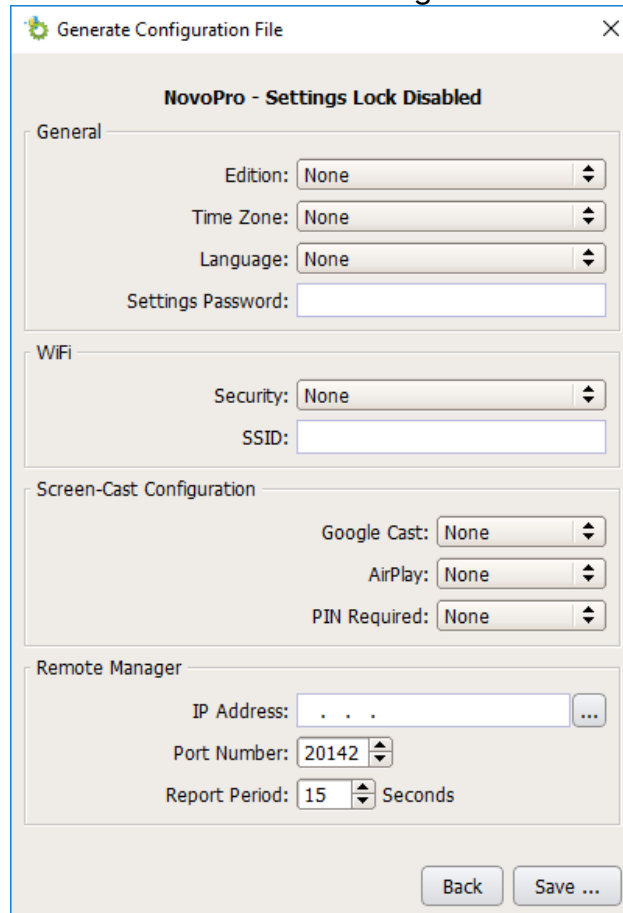
1. Choose “Device Discovery” and then click “Generate AutoConfig File ...”, as illustrated in the figure below.



2. Follow the on-screen instructions to complete the configuration parameters.



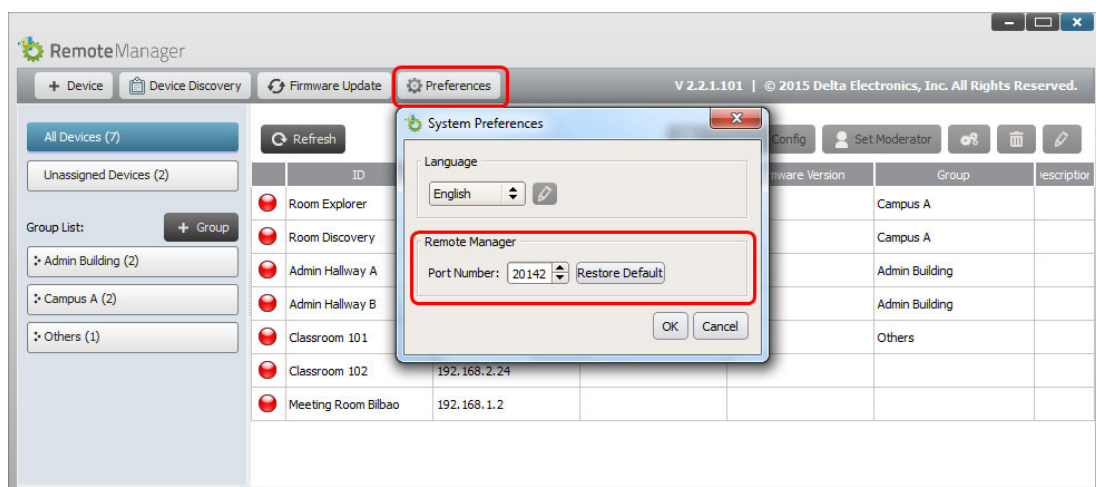
3. The following window will appear and you need to work with your organization's IT staff to obtain the appropriate values for each item, and click on "Save..." to save file "NovoAutoConfig.xml" to a microSD card.



The "Generate Configuration File" dialog box is titled "NovoPro - Settings Lock Disabled". It contains four sections: General, WiFi, Screen-Cast Configuration, and Remote Manager. The General section has dropdowns for Edition, Time Zone, and Language, all set to "None", and a text field for Settings Password. The WiFi section has a dropdown for Security set to "None" and a text field for SSID. The Screen-Cast Configuration section has dropdowns for Google Cast, AirPlay, and PIN Required, all set to "None". The Remote Manager section has a text field for IP Address (showing ". . ."), a spinner for Port Number (set to 20142), and a spinner for Report Period (set to 15) followed by "Seconds". At the bottom right are "Back" and "Save ..." buttons.

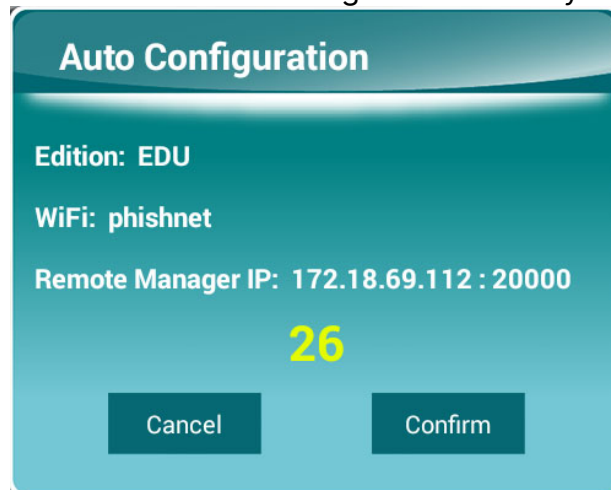
Section	Field	Value
General	Edition	None
	Time Zone	None
	Language	None
	Settings Password	
WiFi	Security	None
	SSID	
Screen-Cast Configuration	Google Cast	None
	AirPlay	None
	PIN Required	None
Remote Manager	IP Address	. . .
	Port Number	20142
	Report Period	15 Seconds

*Note: Regarding "Port Number" in the figure above, you can change it via menu "Preference", as illustrated below.*

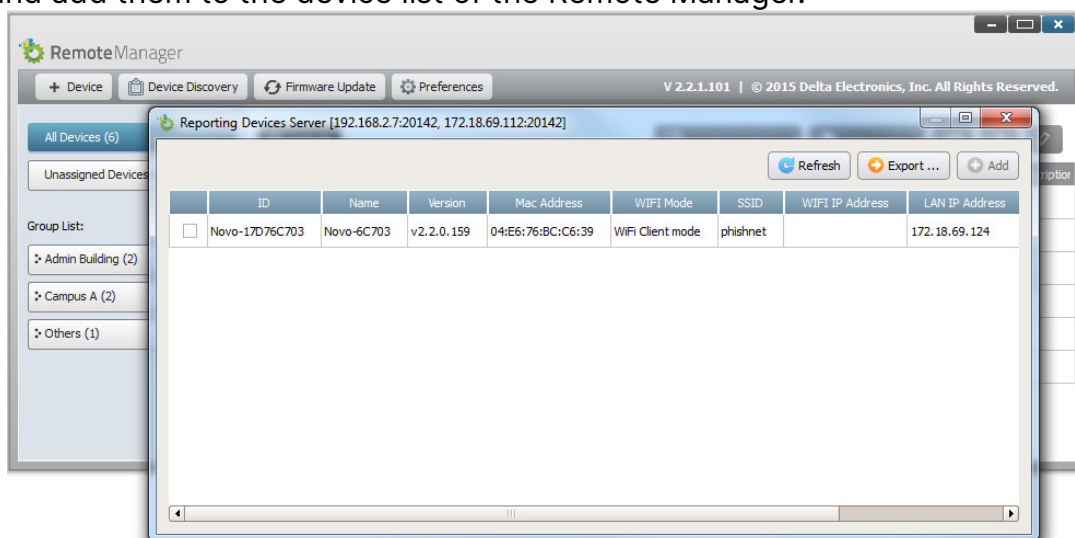


## Apply the configuration to a NovoConnect device:

1. Insert the microSD card with NovoAutoConfig.xml file to a NovoConnect device, and then the following pop-up will appear on the home screen of the NovoConnect device. There is a 30-second timeout window that you can verify the parameters are set with the proper values. Then the device will be configured with those new settings automatically.



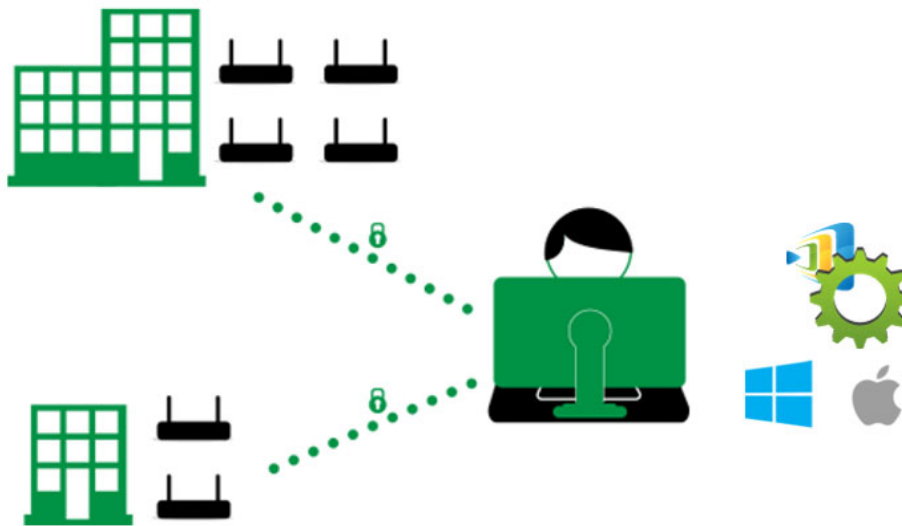
2. After the new settings take effect, the NovoConnect device will automatically report its existence to the Remote Manager. You can click on "Device Discovery" and then "Discover Devices" to bring up a discovery dialog window, where you will be able to view live NovoConnect devices and add them to the device list of the Remote Manager.



## 7.4 Using Remote Manager for Large Deployment

We provide **Novo Remote Manager**, a tool to remote control all NovoConnect, NovoDisplay and NovoTouch products. Responsible on Windows (Windows 7 and above) and Mac OS (10.7 and above). IT can use this tool to monitor, upgrade, modify configuration remotely.

How to get Novo Remote Manager: Please contact with our local distributors.



First of all, please make sure the Novo device is connected to the Internet as it is going to contact our upgrade server for upgrade information.

### Update Remote Manager software

Launch Remote Manager software, make sure upgrade to the latest version.

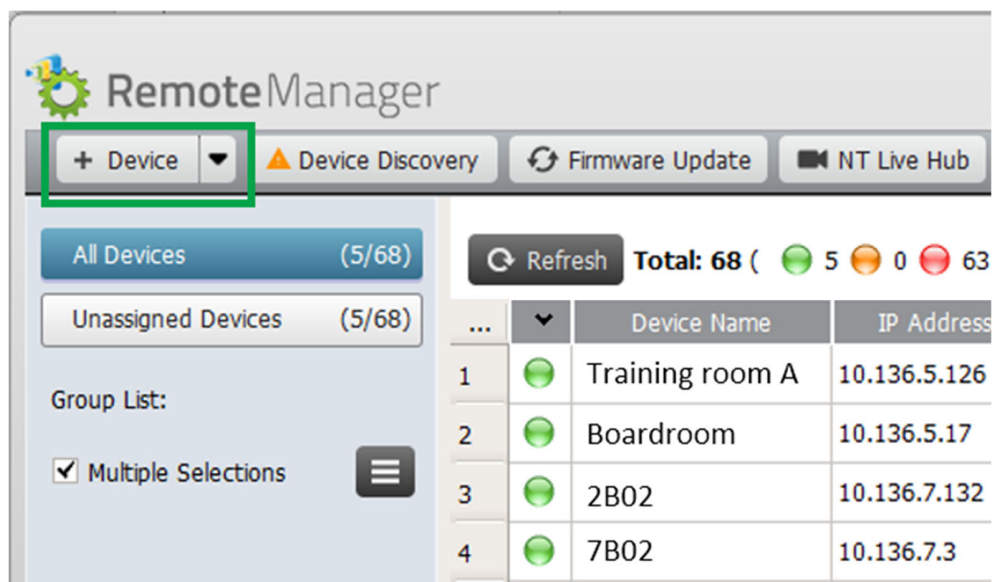
Make sure your laptop or Macbook have connect with Internet. If the software is old version it will show **New version** button on the top right corner. Click **New version** to update the latest version.



Update Remote Manager to the latest version

## Add a new device on your list

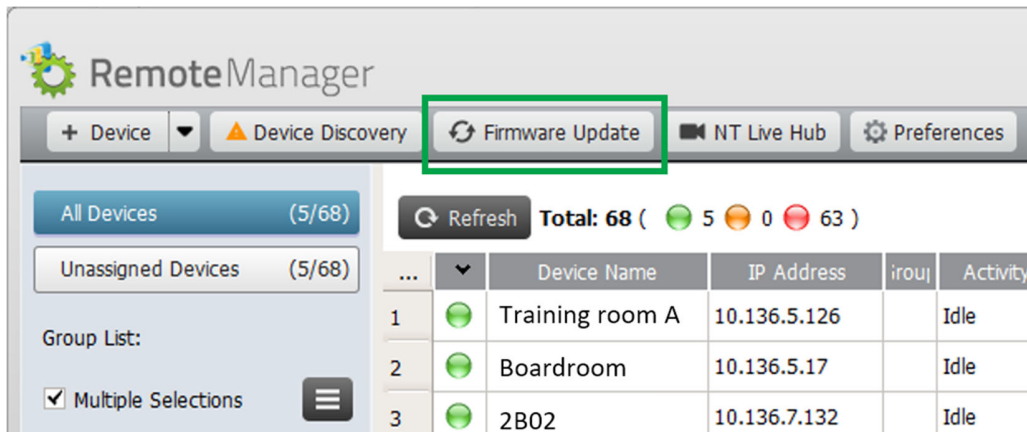
There is a device list on its main window. If the device is not within the list, it should be added into the list firstly. Click **+ Device** on the top left corner > Enter device **IP address** and **Description** to add a new device.



Add a new device

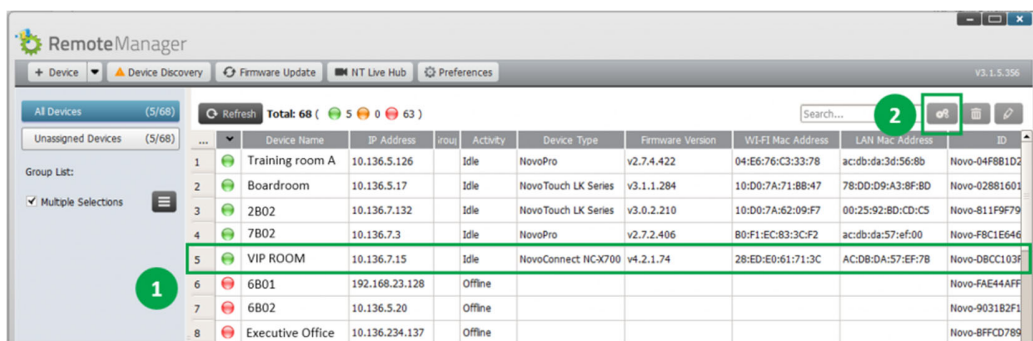
## Upgrade all devices

Click **Firmware Update** to upgrade all online Novo device to the latest version. (Make sure all Novo device have to access to Internet.). Go to [this article](#) has the details.

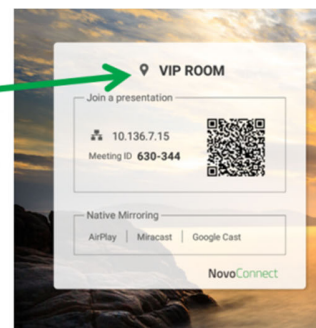
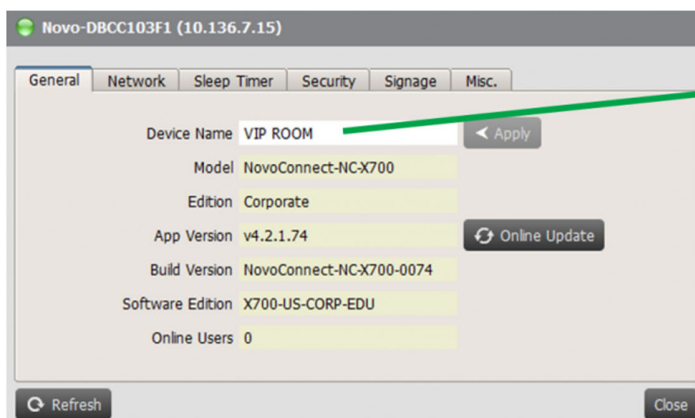


## Modify device configuration

Choose the device you'd like to do modify the settings, and its status icon should be green which indicates it is online. Then click the **Setting** button on the top right corner.

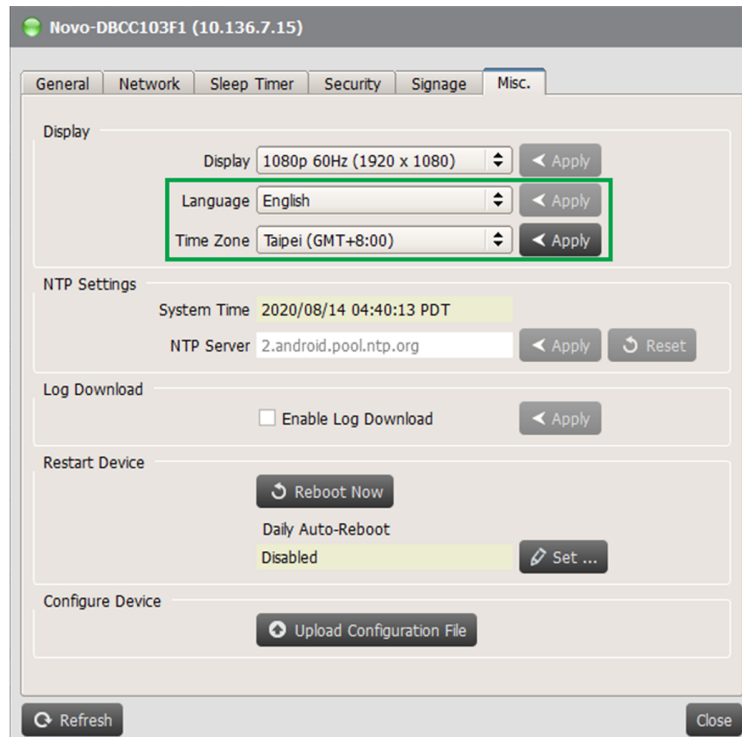


**Device Name:** Go to **Setting > General > Enter Device Name**. The device name will display on the home screen of device and show on NovoConnect App.

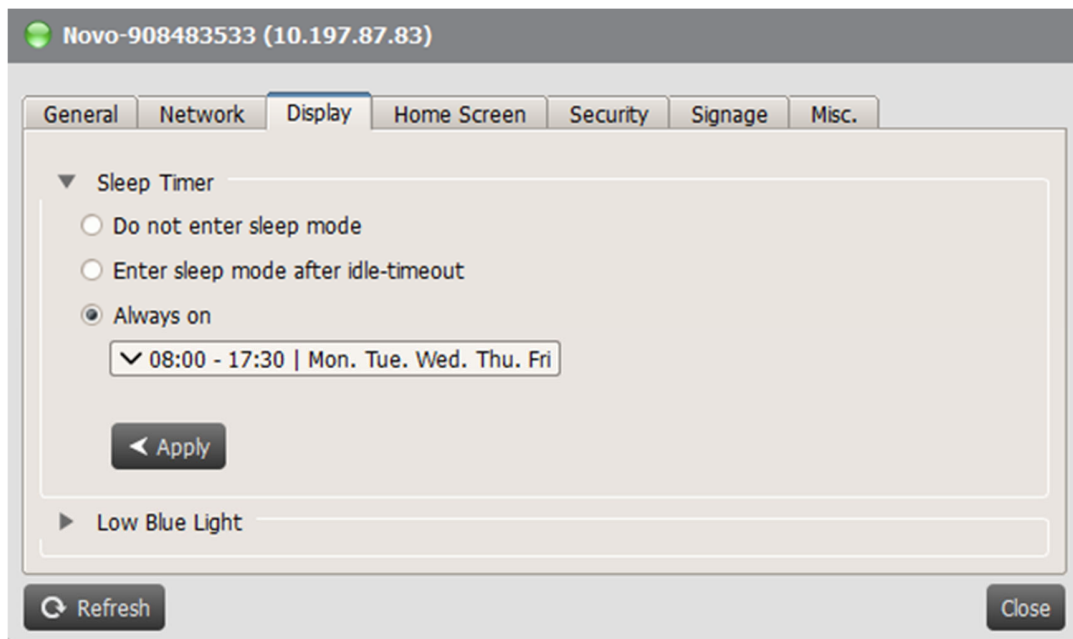




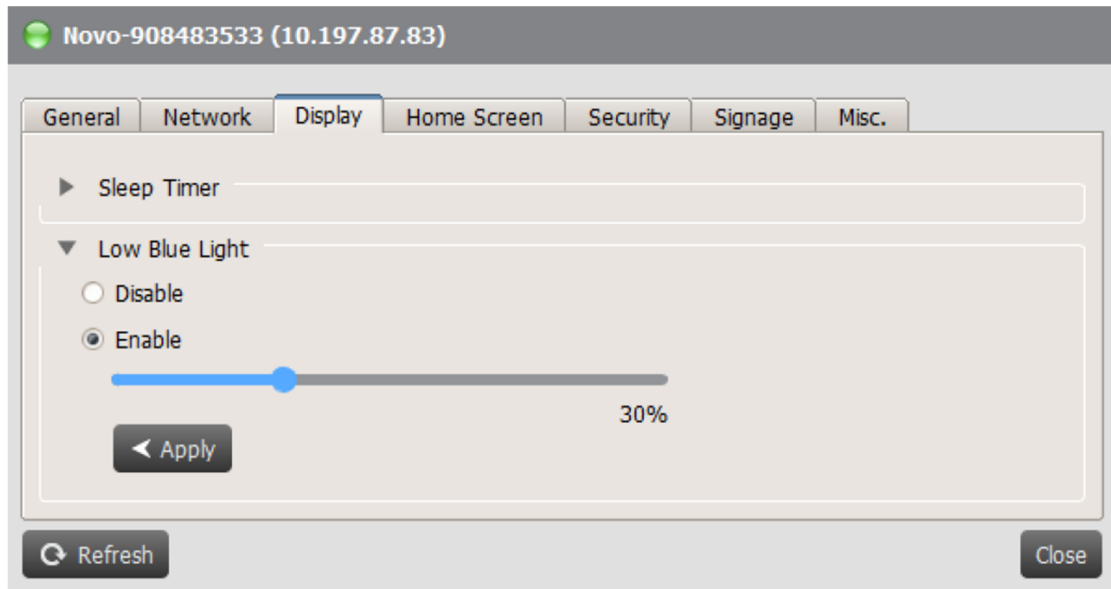
**Time Zone and Language:** Go to **Setting > Misc. > Display** > to setup local **Language** and **Time Zone**.



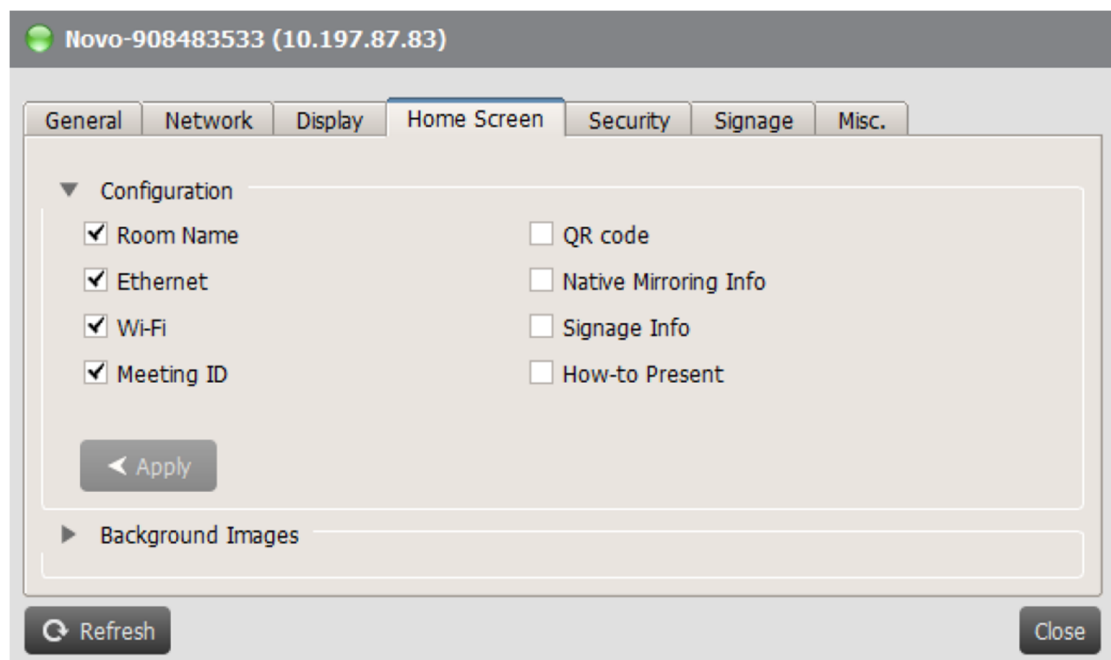
**Sleep Timer:** Go to **Setting > Display > Sleep Timer** to schedule device HDMI output signal or display to turn ON/ OFF.



**Low Blue Light:** Go to **Setting > Display > Low Blue Light** to setup blue light level.



**Home Screen Info:** NovoConnect and NovoDisplay support Home Screen Info setup, user can turn on or hide Meeting ID, Signage information and so on on Home Screen.



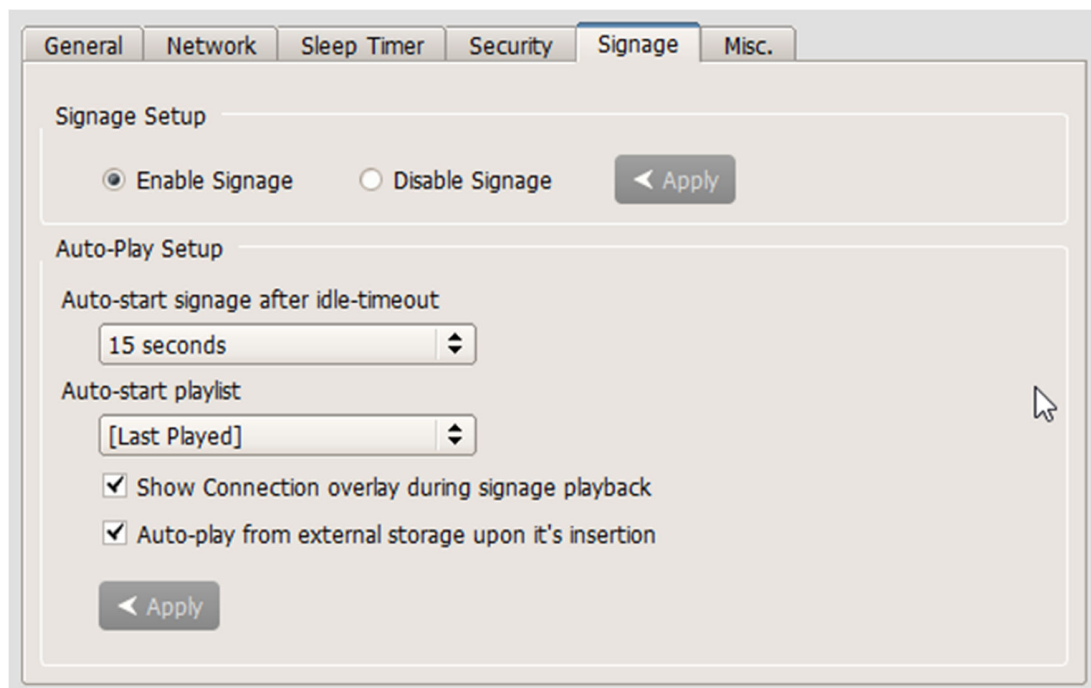
**Modify Home Screen Picture:** NovoConnect and NovoDisplay can customize background picture, user can upload picture to change home screen background.

Picture format: PNG, JPG

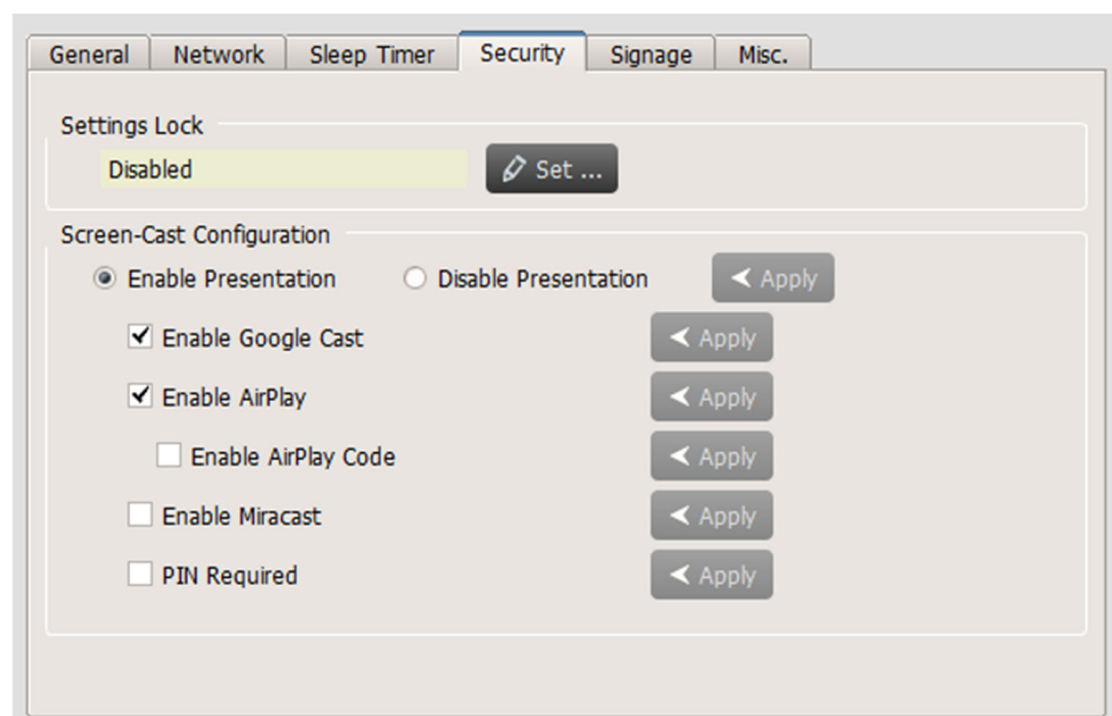
Recommend Resolution: 3840 x 2160

**Signage Settings:** NovoConnect and NovoDisplay support NovoDS digital signage feature, a easy-to-use network-based digital signage solution that is ideal for creating dynamic displays.

We provide **DS Studio** software for user to design, schedule and publish your playlist to your device. Go to <http://novods.com> > **RESOURCES** > **Software** to download **DS Studio** software. User can have an account with [NovoDS.com](http://NovoDS.com) to enjoy our cloud service for FREE trial for 3 months.



**Security:** IT can control to enable or disable AirPlay, AirPlay code, Google Cast, Miracast and software PIN code required. IT also can enable settings lock, a password protection.

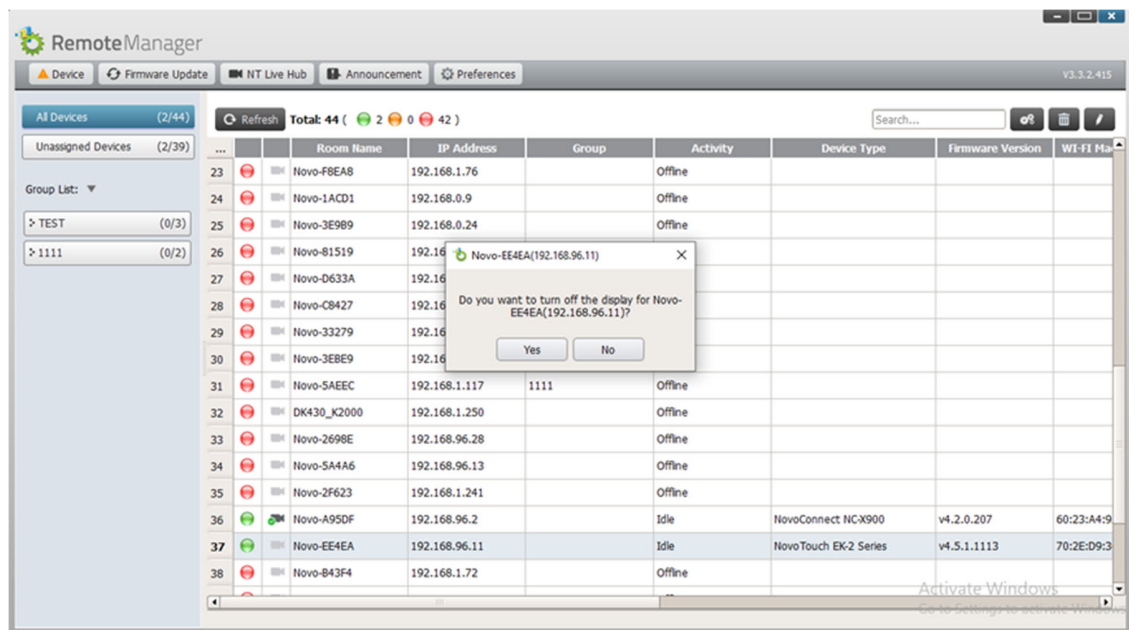


Go to [Remote Manager user manual](#) for more information.

## 7.5 Remote Power On/Off (RDM)

### Remote Power On/Off

1. Launch RDM.
2. Use a mouse to navigate to the display you want to control, and then double click the green status indicator.



3. A confirmation window will pop up.

4. After selecting **Yes**, the status indicator for the display you want to power off will turn orange.

37	Novo-EE4EA	192.168.96.11	Idle	NovoTouch EK-2 Series	v4.5.1.1113	70:2E:D9:3
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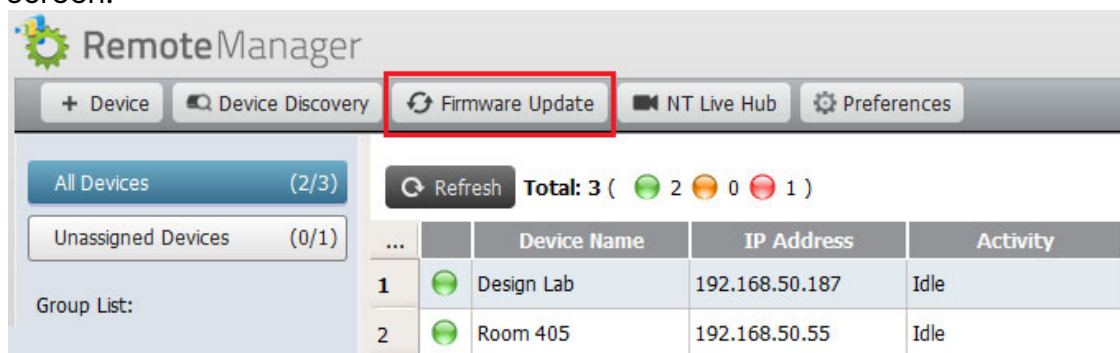
5. If you want to wake a display, double click the orange status indicator.

37	Novo-EE4EA	192.168.96.11	Idle	NovoTouch EK-2 Series	v4.5.1.1113	70:2E:D9:3
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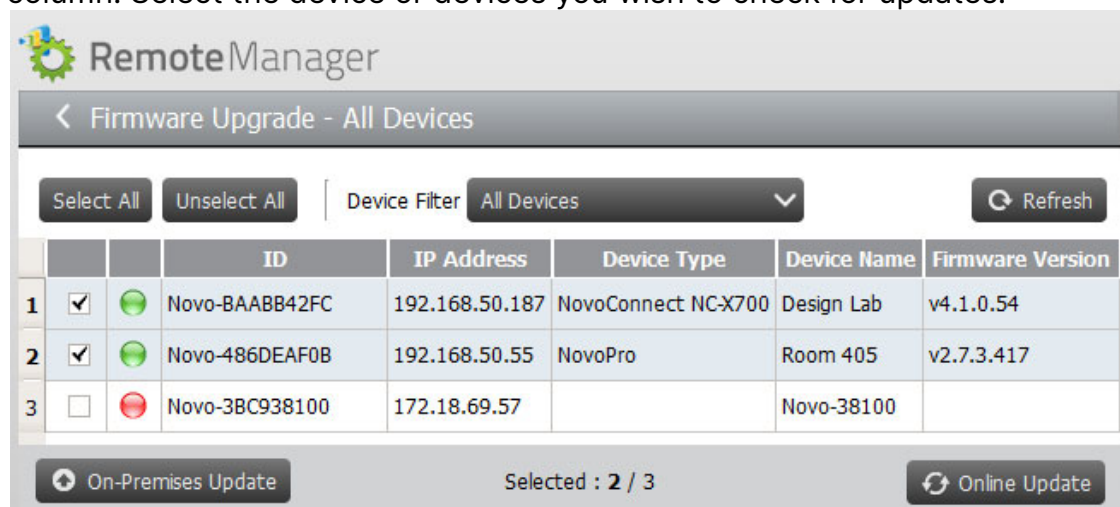
## 7.6 UPDATE FIRMWARE

Remote Manager allows you to initiate firmware upgrade for multiple Novo devices by clicking on one button.

1. Click “Firmware Update” on the home screen to go the Firmware Update screen.



2. A list of connect devices will be displayed with check boxes in the left column. Select the device or devices you wish to check for updates.



3. Once you have selected the devices to update, you have the option of initiating “Online Update” or “On-Premises Update”.
- Online Update: This triggers Novo devices to connect to our Update Server to download the latest firmware.
  - On-Premises Update: This allows system administrators to apply a specific firmware package. Contact Vivitek to obtain such a firmware package.

## Chapter 8 NovoTouch Accessory

### 8.1 NovoTouch Mobile Stand VKST41

High-quality wheeled mount designed for NovoTouch and NovoDisplay

1. The sturdy steel design guarantees durability and integrity
2. Lock the foot wheel for easy movement and placement
3. Large component racks for Blu-ray players, AV equipment, etc
4. VESA standard hole type
5. Maximum load capacity up to 100 kg (220 lbs)
6. Compatible with NovoTouch iFPDs from 65" to 86".

Image



Specification

Model	VKST41	
Part Number	3923626600	
Compatible to	NovoTouch LK series NovoTouch EK-1 、 EK-2 、 EK-3 series NovoTouch BK2 、 BK3 NovoDisplay DK series	
Type	Wheeled display stands	
Maximum load capacity	100 Kg ( 220lbs )	
Maximum iFPD size load	105 size (max)	
Environmental conditions	0°C - 40°C (32°F - 104°F).	

Operating humidity	10%~90%	
Storage temperature	-20°C - 60°C ( -4°F - 140°F )	
Store humidity	10%~90%	
Kits	Screw accessory kits, documentation kits	
Color	Gray	
Size ( Standard )	1,150*650*1,600 ( mm )	
Size ( Include )	1,625*785*160 ( mm )	
Weight ( Net )	18 Kg	
Weight ( Gross )	23.5 Kg	



## Appendix1. NovoTouch BK-3 Specification

Model			BK653i, BK753i, BK863i		
Display	Type		Backlit D-LED		
	Technology		ADS		
	Size		65"	75"	86"
	Brightness ( typ. )		400cd/m2		
	Contrast Ratio ( typ. )		1,200:1		
	Resolution		4K ( 3840 x 2160 )		
	Viewing Angle ( H/V )		178°/178°		
	Aspect Ratio		16:9		
	Response time ( MS )		8ms ( typ. )		
	Refresh Rate ( Hz )		60Hz		
	Estimated Life time		30,000Hours		
	Display Color (bit)		10.7 billion ( 10-bit )		
	Orientation		Landscape		
	Operating Hour(H/D)		16/7		
Touch	Touch		IR		
	Touch Point	Writing	10 pts		
		Touch	40 pts		
	Accuracy	Hand	±1mm(over 90%)		
		Pen	±1mm(over 90%)		
	Response Time		<10mm		
	Touch Resolution		32,768 x 32,768		
	Surface Protection		3mm Anti-Glare Thick Toughened Glass		
			Level 7H on Mohs Scale of Mineral Hardness		
	Touch Tool		Finger, Stylus, Glove, Opaque Objects		
Operating System	System Version		Android™ v14.0		
	CPU		RK3576 ARM®CPU		
	GPU		Mali™G52 MC3		
	RAM		8GB DDR4		
	Internal Storage		64GB		
Connectivity	Input	Display	HDMI v2.0 ( x2 )		
			USB-C ( x1 )		

	Output	Display	HDMI-Out v2.0 (x1) (max 4K@60Hz)		
		Audio	Line-Out (3.5mm) (x1), SPDIF-out (x1)		
	LAN		RJ45 LAN (10/100/1000Mbps) (x1)		
	Control		RS232 input (x1)		
	Wireless	WiFi	IEEE802.11ax (2.4GHz/5GHz)		
		BT	BT 5.2		
		I/R	IR (x1) ( $\pm 25^\circ$ , >8m)		
	USB-A	Front	USB 3.0 (x2)		
		Side	USB 2.0 (x1)		
	USB-B	Front	USB Type B (x1)		
		Side	USB Type B (x1)		
	USB-C	Front	USB-C (x1) (USB3.1 @10Gbps) (15Wcharging, input 3840*2160@60Hz)		
		Side	USB-C (x1)		
Expansion	Windows OPS (optional)		Standard Intel 80pin OPS (optional)		
Audio	Speaker		18W (x2) (Stereo)		
Power	Power (internal)		AC 100 - 240V 50/60Hz (4.2A)	AC 100 - 240V 50/60Hz (4.8A)	AC 100 - 240V 50/60Hz (5.5A)
	Power Consumption		$\leq 360W$	$\leq 420W$	$\leq 480W$
	Standby		$\leq 0.5W$ (Standby)		
結構/尺寸	VESA 規格 (FPMPMI)		600 x 400mm 4 - M8 x 25mm	800 x 400mm 4 - M8 x 25mm	800 x 400mm 4 - M8 x 25mm
	迷你電腦 VESA 支架		100 x 100mm		
	尺寸 (長 x 高 x 深)		1,484.5 x 90 x 908 mm	1,705.7x90.2x 1032.3 mm	1,953 x 90.2 x 1,172.3 mm
			(58.4" x 3.54" x 35.7")inch	(67.1" x 3.54" x 40.6")inch	(76.9" x 3.54" x 46.2")inch
	Weight		38 Kg	51 Kg	63 Kg
	Color		Silver		
Accessories	Standard		AC Power Cord, Stylus (x2), Remote Control (W/Batteries), Wall Mount Kit, HDMI Cable(3M), Touch Cable(3M) Documentation Kit		
	Optional		Windows OPS –Intel 80 PIN OPS		

## Appendix2. Low blue light instruction

- The wavelength of blue light is between 300nm and 500nm. This product has the function of reducing blue light emission (factory preset to low blue light mode)
- Eye protection tips: It is recommended to place this product at a distance of 2.2 meters to 4.2 meters from the eyes, after watching continuously for 2 hours, rest for 20 minutes, and look into the distance to avoid eye fatigue. At the same time, develop a good habit of eye care to protect eyesight and prevent myopia.
- How to turn on Blu-ray mode: Settings Menu – Display – Night Mode

## Appendix3.WiFi power supply frequency and output

power

IEEE 802.11 a/b/g/n/ac/ax	
Frequency ( MHz )	Output power ( max ) ( dBm )
2400 ~ 2483.5	18.7
5150 ~ 5725	16.9
5725 ~ 5850	12.9
BT	
Frequency ( MHz )	Output power ( max ) ( dBm )
2402 ~ 2483.5	8.4
The wavelength of blue light is between 300nm and 500nm. This product has the function of reducing blue light emission (factory preset to low blue light mode)	

Eye Care Tips: It is recommended to place this product at a distance of 2.2 meters to 4.2 meters from the eyes, and after 2 hours of continuous viewing, rest for 20 minutes and look into the distance to avoid eye fatigue. At the same time, develop a good habit of doing eye care to achieve