BOXLIGHT®

ProColor Series 2 User Guide

ProColor 652U, 702U, 752U, & 862U

BOXLIGHT.COM

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Safety Warning

Placement

Do not place the unit on an unstable cart, stand, tripod, bracket, table, or shelf.
Do not expose the unit to direct sunlight and other sources of heat.
Do not put the unit near appliances that generate magnetic fields.
Do not put any liquid near or on the unit, make sure do not spill any liquid inside the unit.
Do not put heavy objects on top of the unit.

Power Supply

Check that the unit's operating voltage is identical with your local power supply.
Please unplug power supply and antenna plug when the weather is thunder-storm or lightning.
Please unplug power supply, when there is nobody home or the unit will be in idle for a long time.
Please keep power cable from physical or mechanical damage.
Please use the original power cable from the accessory bag, don't modify or lengthen it.
Please check and ensure AC source is connected with the ground.
This power cable comes with the device exclusively for this device only.

LED Screen

Never use any other hard or sharp object to replace the touch pen.
Unplug the power cable before cleaning.
Clean the screen with a soft, dustless and dry cloth.
Never use water or the spray type detergent to clean the unit.
For deep clean, please contact an authorized service center.
To extend the panel life and display performance, do not keep the panel at high brightness for long periods of time.

Temperature

Do not place the unit near or over a radiator or a heater.
If your unit is suddenly moved from a cold to a warm place, please unplug the power cable and do not turn it on at least 2 hours, making sure the moisture inside the unit is all evaporated.
Normal operating temperature is 0 ~ 40℃.

Humidity

Do not expose the unit in rain, or place in high humidity area.
Please make sure indoor environment is dry and cool.Normal operating humidity is 10%~90%RH.

Ventilation

Please put the unit in a well ventilated place, so the heating can be released easily.
Ensure that the unit has enough space for ventilation. Space requirement: left, right and back >10cm, top> 20cm.

Earphone

Extended time periods listening to loud sounds can be damaging to your ears.
Before using earphone, please turn down the volume in advance.

Standby

It will enter standby mode but not turn off the unit after press the standby key.

Battery

Please make sure the battery get proper disposal or recycle after using.
Please keep the battery away from kids and don't throw the battery into fire.

Notes for Cleaning

There are vents on back cover, please do not use any liquid or spray directly during cleaning.

Power Switch Status Signs

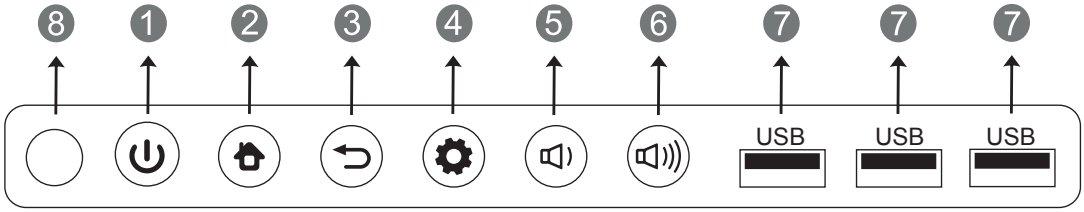
"I" means power on, "O" means power off.

Notes for Maintenance

This machine can only be maintained by certified engineer.

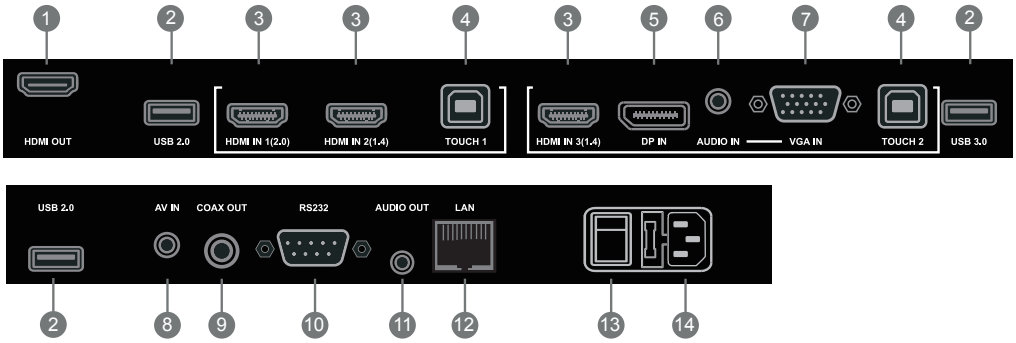
Prepare to Install

1. Control Panel



Items	Function description
❶ ⏻	Tap to enter EnergySaving function Press at least 2 seconds to enter standby mode
❷ ⌂	HOME button: displays home page
❸ ↩	Return button: return to previous level menu
❹ ⚙	Menu button: brings up function menu
❺ 🔉	Volume down button: lowers volume
❻ 🔊	Volume up button: raises volume
❼ USB	USB interface to Android & PC system
❽ Remote control signal receiver	InfraRed receive port for remote control. Do not block or obstruct.

2. Connector Panel

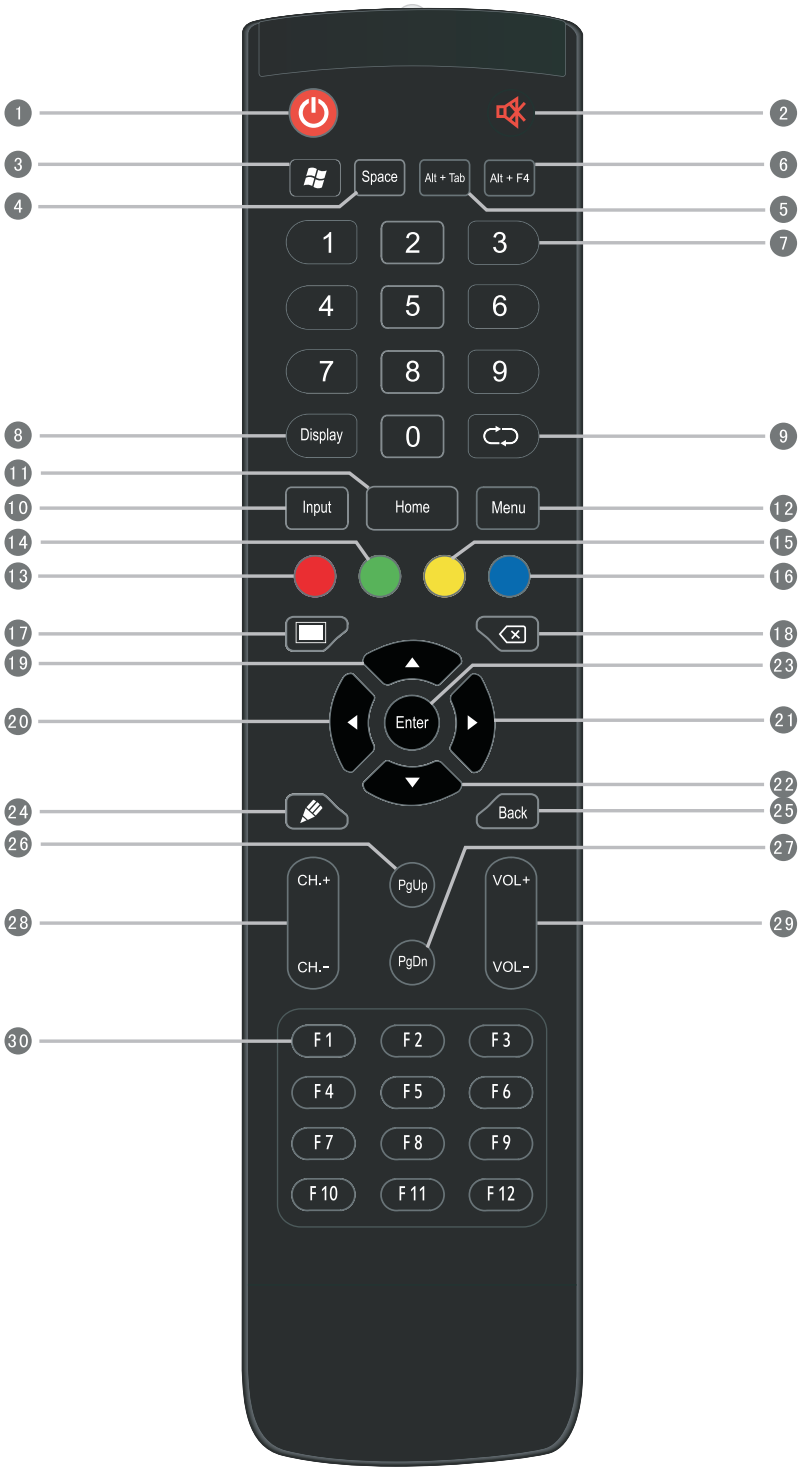


Items		Function description
1	HDMI OUT	Displays whatever is on the screen, including Android annotation.
2	USB	Connect USB devices such as mobile hard disk, U disk, USB keyboard and mouse, USB drives, etc.
3	HDMI IN	HDMI input
4	TOUCH	Touch signal output for connection to external computer
5	DP	DisplayPort input
6	AUDIO IN	Line level audio input
7	VGA IN	VGA input
8	AV IN	Composite video + audio input - 3.5mm 4-conductor
9	COAX OUT	Digital audio output - “RCA” connector
10	RS-232	Control interface
11	AUDIO OUT	Output to an external amplifier and speaker
12	LAN	RJ-45 connector
13	AC SWITCH	Master power switch
14	AC IN	AC power input

HDMI = High-definition multimedia interface

3. Remote Control

1) Remote control button instruction



Detailed Function Description

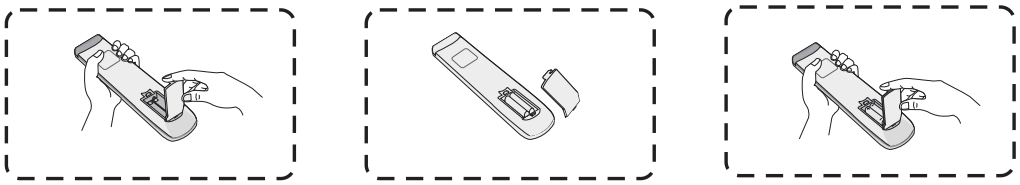
1	⏻	Power on/off
2	🔇	Mute audio
3	⊞	(Built-in computer Windows key
4	Space	Built-in computer Space key
5	Alt+Tab	Built-in computer spacebar Alt + Tab
6	Alt+F4	Built-in computer program window close button
7	Numeric keys	Numeric input keys
8	Display	Shows the name of the currently selected input and its resolution
9	⟲	No function at this time
10	Input	Input signal source select
11	Home	Android system Home
12	Menu	Settings menu
13	Red	Disables touch and control panel functions
14	Green	Disables control panel functions
15	Yellow	Disables touch function
16	Blue	Activates zoom function, use buttons to adjust
17	■	Blanks the screen
18	⌫	Backspace key
19	▲	Up key
20	◀	Left key
21	▶	Right key
22	▼	Down key
23	Enter	Confirmation key
24	✎	Starts annotation app
25	Back	Return key
26	PgUp	Built-in computer page (previous page)
27	PgDn	Built-in computer page (next page)
28	CH.+ \ CH-.	No function at this time
29	VOL+ \ VOL-	Volume raise/lower
30	F1-F12	Built-in computer F1 - F12 function keys

NOTE: If there is no built-in computer all related function keys will have no operating function.

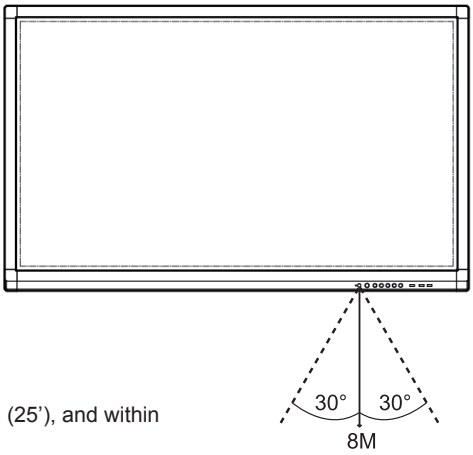
2) Remote Control Instruction

Install Batteries

(1) Open battery compartment cover on the back of the remote control
(2) Install AAA type battery with correct polarity. Do not mix using old and new batteries
(3) After batteries are installed, replace the cover

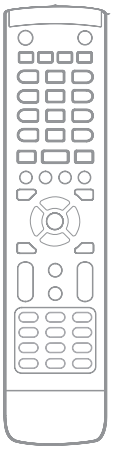


Range of remote control



The remote control will operate normally within the range of 8 m (25'), and within 30 degrees left and right from the remote control receiver.

Always dispose of batteries in an environmentally friendly manner.



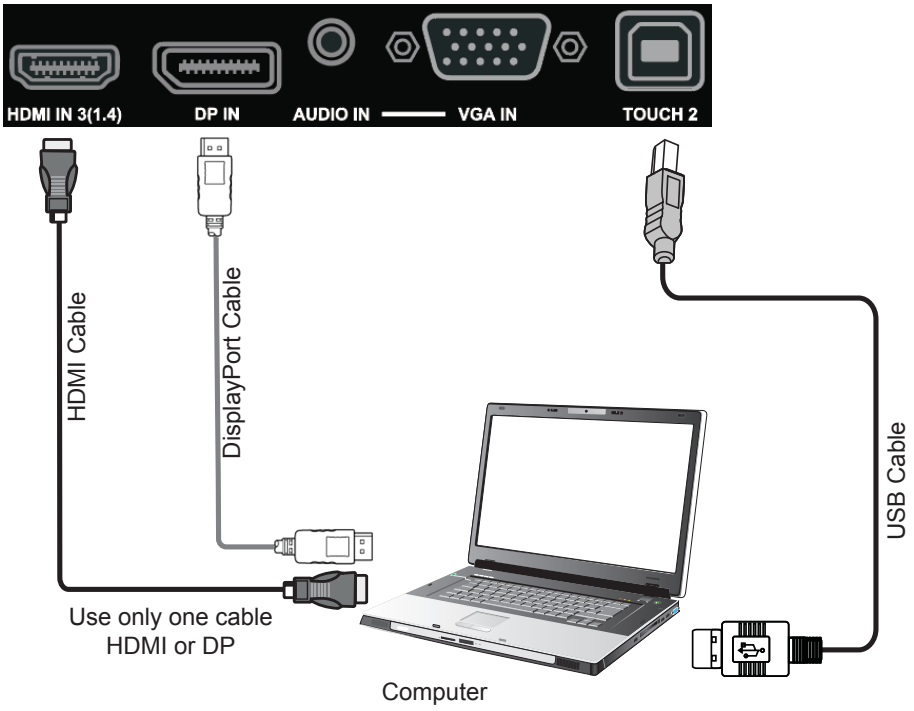
Only use the specified battery type. Using another type can damage the remote control and may cause the battery to burst.

Setup

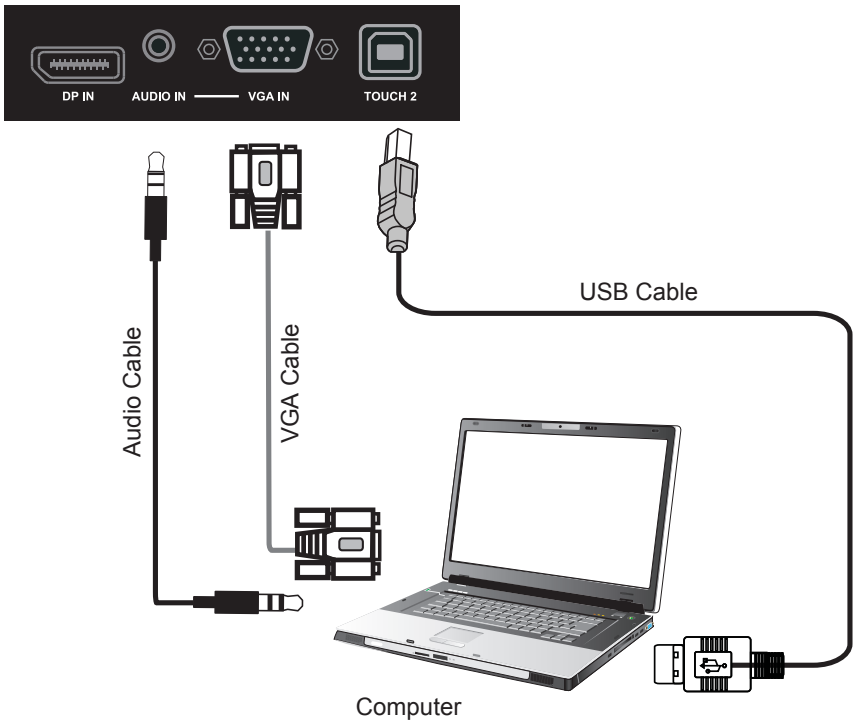
⚠ For safety reasons do not connect power until all connections are complete.

1.A. External Computer Digital Audio/Video plus Touch Connection

The best image and sound quality will be through digital connection using HDMI or DisplayPort

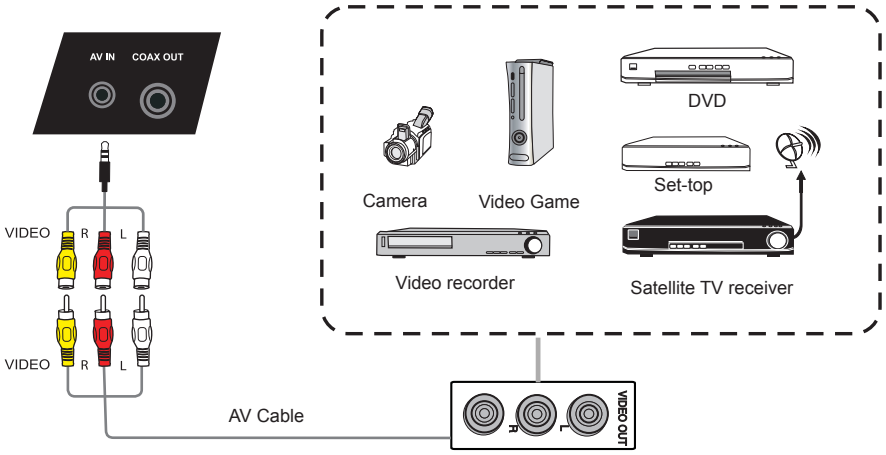


1.B. External Computer Analog Audio/Video plus Touch Connection

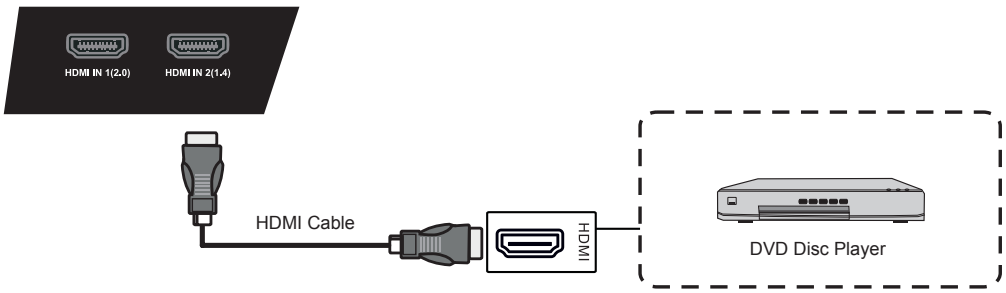


2. Audio and Video Equipment

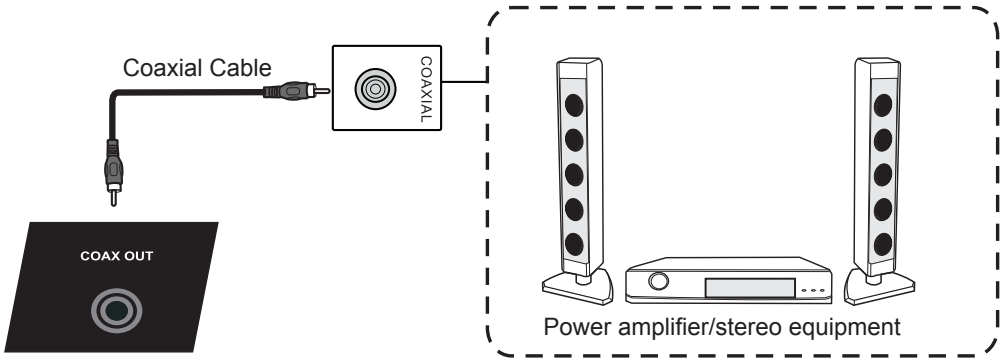
1) Analog Accessory Connection



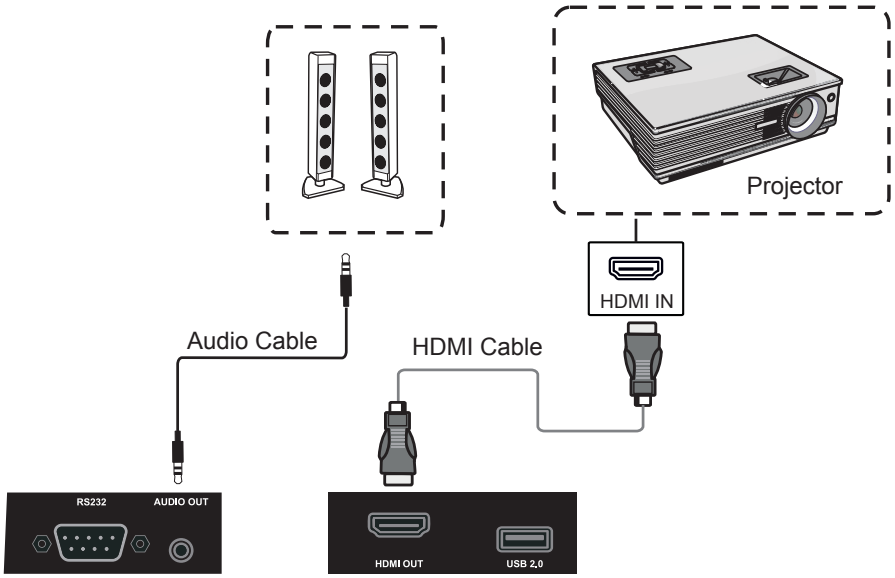
2) HDMI Accessory Connection



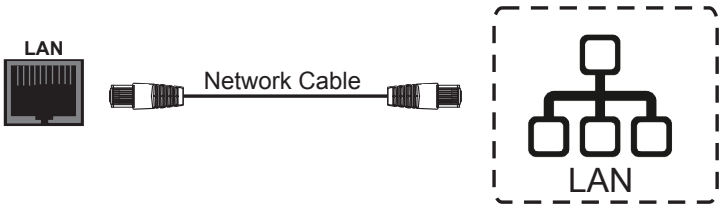
3. Digital Audio Connection



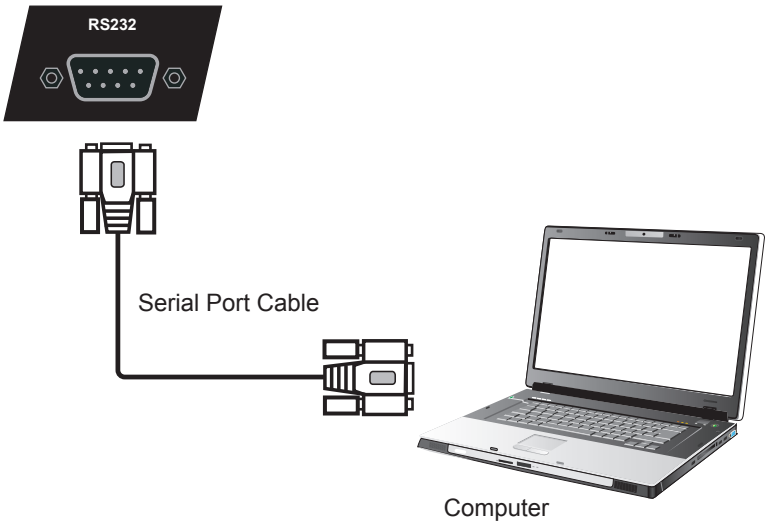
4. Video Output Connection



5. LAN Connection



6. RS232 Connection



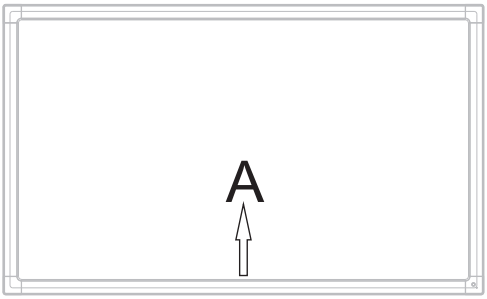
Control of the display via RS-232 requires third-party software on the computer.

Menu Operation

Touch Menu Operation

Activating the Menu - the “Touch-A” method

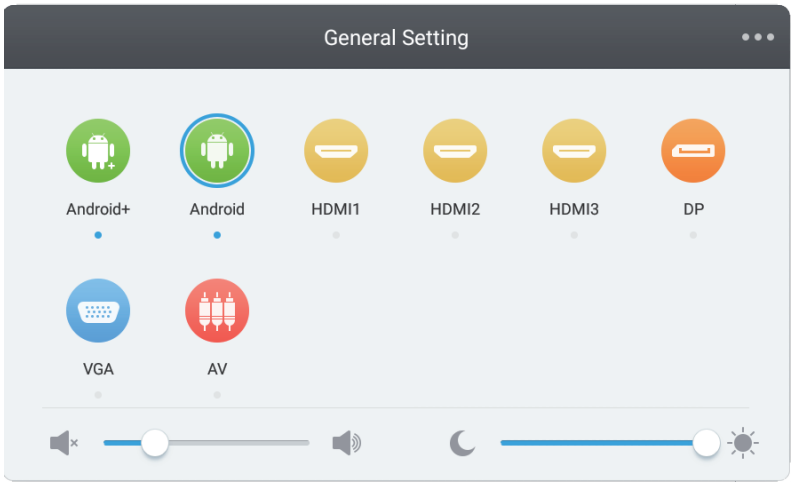
Quickly drag at least two fingers up from the bottom center of the screen as shown below.



Note: The “Touch-A” method mentioned in this manual is as shown above.

Settings Menu

General Setting



- Use the INPUT button on the remote control or the Touch-A method to activate.
- Using the remote control - use▼/▲/◀/▶ to select the desired input then press “Enter.”
- Using touch - touch the relevant icon to select the desired input.
- Press the return key on remote control, or touch outside the menu to exit the menu.
- Touch and drag to adjust volume or brightness or use the remote control

Note: The icon for the internal PC will only appear the internal PC is installed.

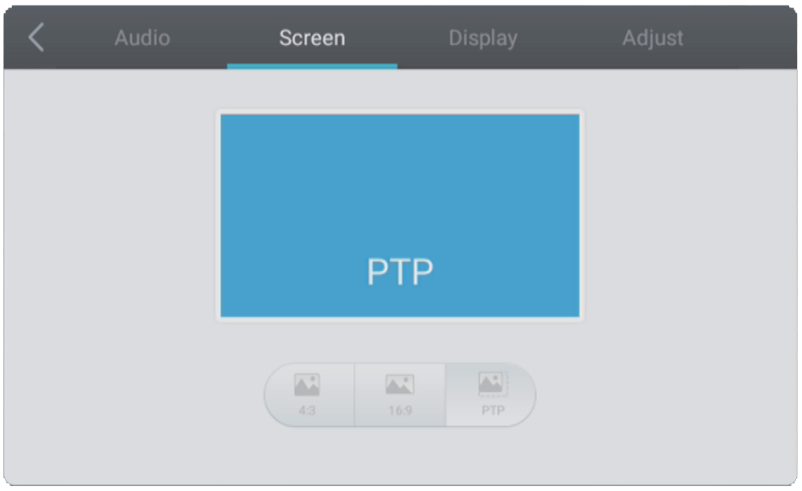
Detail Setting Menu

- Press Menu on remote control or touch the icon ••• on the General Setting menu to call up the details settings menu that Includes Audio, Screen, Display and Adjust.

Audio

- Touch the desired setting or press the ▶ button on the remote control to select Audio setting menu.
- Press ▼/▲/◀/▶ on the remote control or directly touch to select the option.
- Press Enter on remote control to enter adjustment mode, and press ◀/▶ button or directly touch to adjust
- Press Back on remote control, or touch outside the menu to exit menu.

Screen

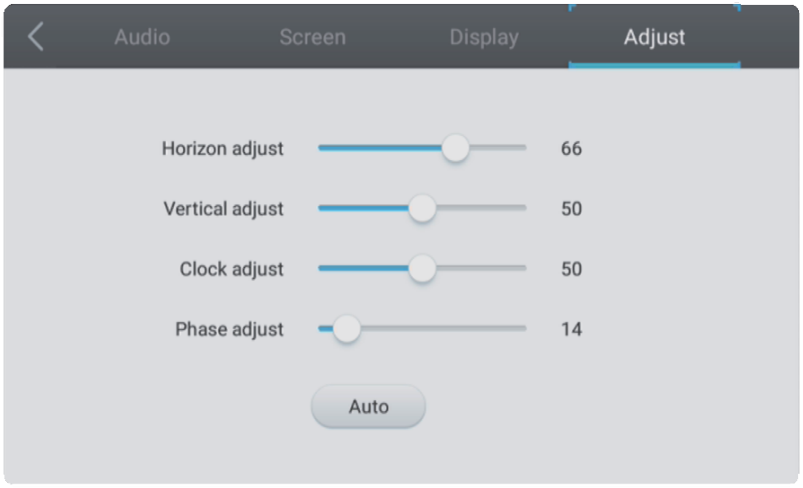


- Press ▶ button on remote control or touch “Screen” to select Screen setting menu.
- Press ▼/▲/◀/▶ on remote control or touch to select the option.
- Press Enter on remote control or touch to enter the selected mode.
- Press Back on remote control, or the screen outside the menu to exit menu.

Display

- Press the ▶ button on the remote control or touch Display.
- Press the ▼/▲/◀/▶ buttons on the remote control or touch to select the desired option.
- Press Enter on the remote control to enter adjustment mode, and use ◀/▶ or touch to adjust. Press Enter/Back to exit adjustment.
- Press Back on the remote control, or touch the screen outside the menu area to exit.

Adjust Video Settings



- Press the ▶ button on the remote control or touch Adjust.
- Use ▼/▲/◀/▶ on the remote control or directly touch to select the option.
- Press Enter on the remote control to enter adjustment mode, use ◀/▶ or directly touch pen to adjust each option. Press Enter/Back to exit adjustment. Or, the “Auto” icon to adjust automatically.
- Press Back on remote control, or touch the screen outside the menu area to exit.

Simple Troubleshooting

Remote control not working	1. Remove any objects between remote control and the display's IR port that could be blocking the signal. 2. Check whether the battery electrode in the remote control is correct. 3. Check whether remote control needs to replace battery.
Machine automatically shut down	1. Determine if auto-sleep has been activated. 2. Confirm the display has power.

PC mode

Signal out of range	1. Verify that the computer's resolution is set properly.
Background has vertical lines or streaks	1. Select automatic correction in menu. 2. Adjust clock and phase position in menu.
Image lack of color, color is incorrect	1. Confirm the video input cable is properly connected. 2. Adjust chromaticity and brightness or contrast in menu.
Display format that is not supported	1. Select automatic correction in menu. 2. Adjust clock and phase position in menu.

Touch Function

Touch function invaild	1. Check whether touch driver is installed and started. 2. Confirm the computer recognizes the touch USB connection.
Touch positioning not correct	1. Check whether driver is properly installed and make correction. 2. Calibrate.

Video function can't work normally

No picture or no sound	1. Verify the display is powered up. 2. Confirm the video input cable is properly connected and this input is selected. 3. If in internal computer mode, check whether internal computer is started.
With horizontal or vertical stripes or image dithering	1. Confirm the video input cable is properly connected. 2. Check whether other electronic equipment or power tools are placed around the machine.
No color, color is weak or image is weak	1. Adjust chromaticity and brightness or contrast in menu. 2. Check whether signal wire is well connected.

Audio function can't work normally

Video is displayed but no audio	1. Check whether mute is active. 2. Adjust volume. 3. Verify the input cable is connected correctly.
Only one speaker has sound	1. Adjust sound balance in menu. 2. Verify the computer is producing audio on both channels. 3. Verify the input cable is connected correctly
HDMI output without sound	1. Verify the input cable is connected correctly and the computer is producing audio.

Maintenance

Please unplug power plug before cleaning and maintenance, to prevent electric shock.

Clean screen

Use a commercial cleaner certified for use on flat panel display screens.
Do not use commercial window clearers.
Do not use any abrasive cleaner.

Clean face frame

Use a dry, soft, lint-free cloth to wipe front frame. If this is not sufficient use a mild cleaner.

Vacation Setup

If the display will not be used for an extended period of time it is recommended it be powered down and unplugged.

Android

The Android feature in Boxlight's ProColor Interactive Flat Panel Displays adds significant functionality. When delivered it includes a browser, annotation tools, a file viewer/finder, and the ability to save to cloud storage services.

Please note: the Android system and its apps are rapidly evolving. Between the date of this writing and the end of 2017 new apps may be added or existing ones removed.

Figure 1-1 Launcher interface

Click at bottom right to open the apps directory, as shown below

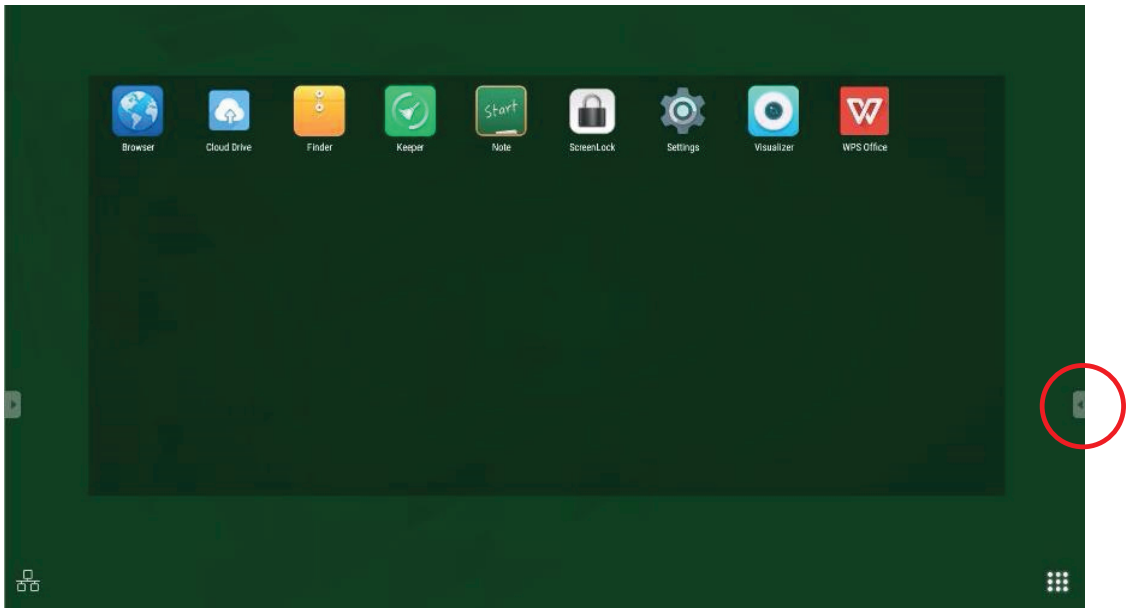


Figure 1-2 Apps Directory

Sidebar

Click the button on the left or right side of the screen (highlighted by the red circles above) to open the sidebar.

The figure below shows the sidebar on the right side. The functions of the sidebar include: Back, Home, Recent, Quick Whiteboard, Annotation tools, Crop, Freeze, and Small Tools.

Back key
Click to return to return to the last operating interface.

Home key
Click to return to return to the desktop.

Recent tasks
Click to display recently tasks.

Quick Note
Click to open Note which enables write, erase, select objects, etc. See section 3 “Note” for more details.

Annotation tools
Click to pop out the annotation tools which allow writing and drawing on the screen.

The Annotation Tools

Screen Freeze

Click the button to pop out the screen freezing tools - freeze + zoom is supported.

The Screen Freeze/Zoom Tools

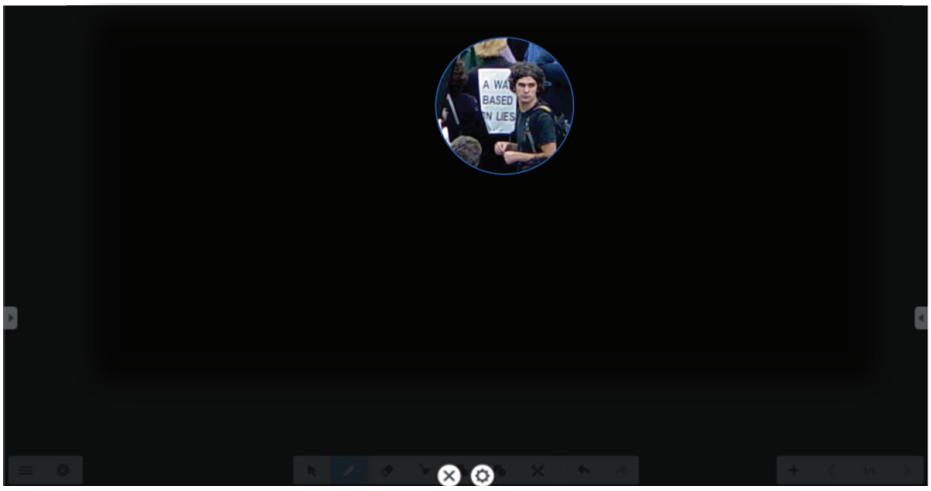
- Zoom in. Click the button to zoom in the current screen.
- Zoom out. Click the button to zoom out the current screen.
- Return. Click the button to return to the original size of the screen.
- Exit. Click the button to exit the screen freezing.

Small tools

Click to pop out the tool choice box, including spotlight, count down and stop watch, and air class.

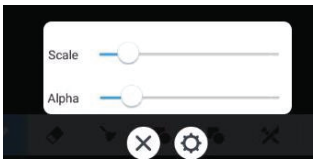
Spotlight

Click the icon to open the spotlight, as shown in Fig. 2-7-1-1. The spotlight can be used to focus attention on a specific area of the image.



Spotlight Interface

- Drag in the black area to move the spotlight.
- Click to open the scale and alpha adjustment window shown below.



Scale adjusts the size of the spotlight.
Alpha adjusts the transparency of the masked area.

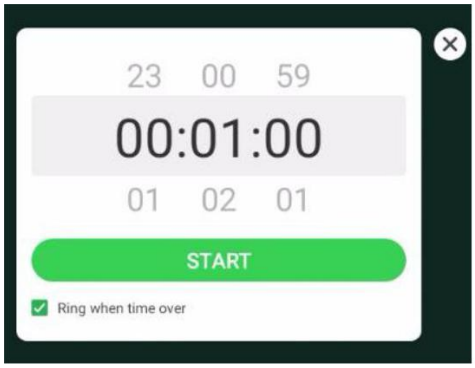
Countdown Small Tool

Click the to open the Countdown Small Tool.

Click the “START” button to start the count down.

Click “PAUSE” to temporarily pause the count down.

Click “RESET” to return to 0:00:00.



Countdown Small Tools

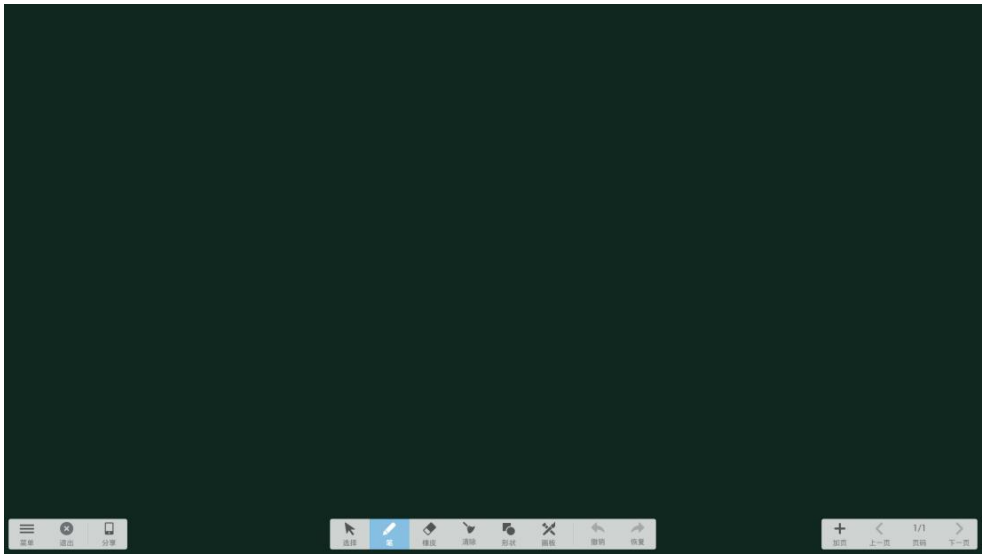
Stopwatch Small Tool

Click open the Stopwatch Small Tool. Functions include start, pause, continue the stop watch, and reset.

Figure 2-7-3-1 Stop watch

Note

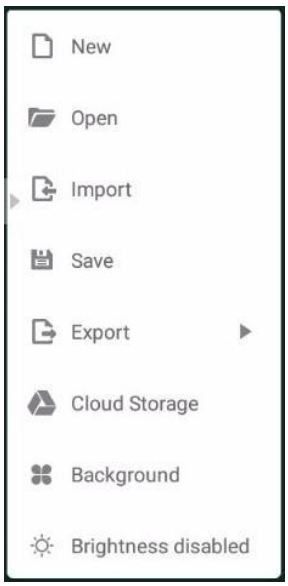
Click to open Note.



The Note App

Note Menu

Click to open the Note menu which provides the ability to choose the background, create/open/import/save/export files, and save to cloud storage services.



Start menu

Note Operation

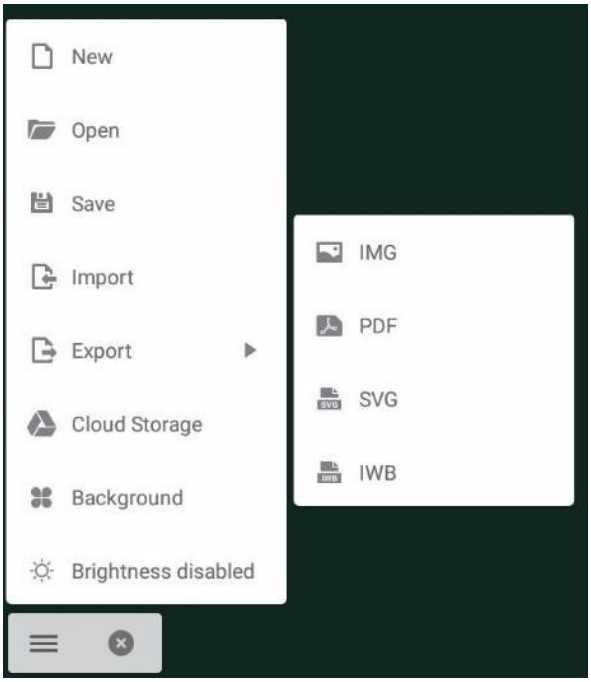
New - Click to create a new Note file.

Open - Click to open the file window which allows opening the native .enb format file.

Import - Click to import a JPG file to Note.

Save - Click to save the current document in .enb format.

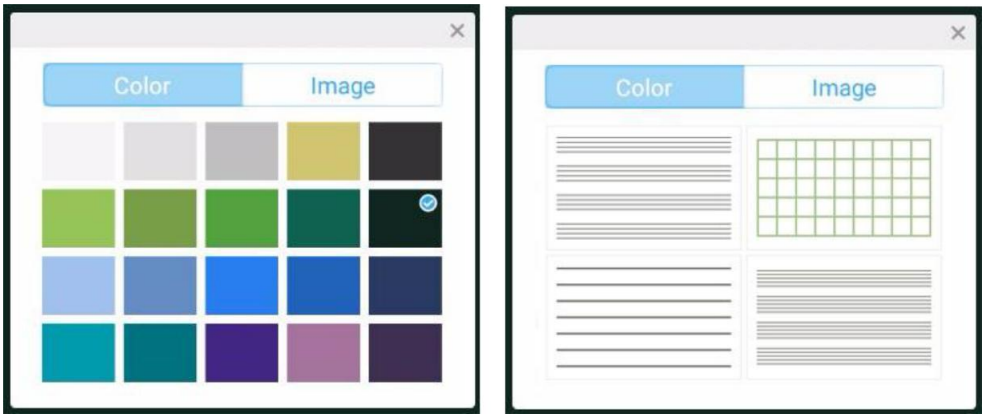
Export - Click to export the current Note to IMG, PDF, SVG, or IWB format.



Export

Cloud Storage - Click to export and upload the current Note file to Google Drive or Microsoft OneDrive.

Background - Click to switch the current page background color. Click any color to switch the page background.



Color Background Image Background

(7) **Brightness disabled**. Click to activate the automatic brightness adjustment, which is disabled by default.

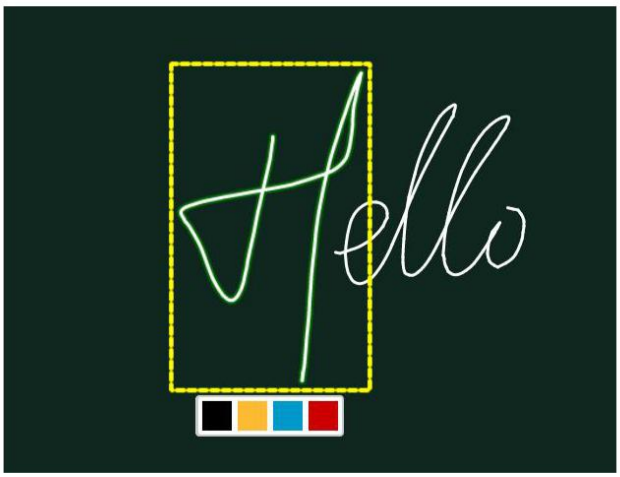
Exit

Click to return to the main interface.
If the current document is not saved, the Save window will appear.
Enter a file name to save the current document or just close the Save window.

Selection

Click to select objects.

Selected objects can be moved, deleted, etc.



Pen

Click to open the pen setting window.

Pen setting menu

Pen – Included choices for pencil (default) and several brushes.
Size - Slide the size bar to set size.
Color – Choose a color on the right-hand side palette.

Eraser

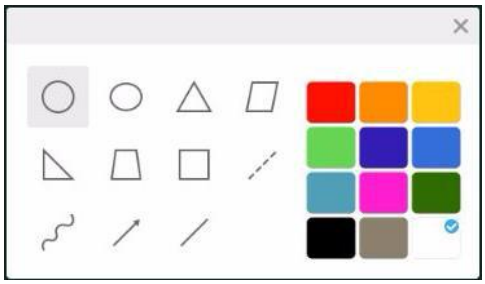
Click to select the eraser.
Circle the object you need to erase.

Wipe screen

Click to wipe the entire screen.

Shape

Click open the shape window.



Shape window

Drawing board

Click to open the drawing board.
Pen - Pencil is the default, also offers brushes and an eraser.
Palette - Select the desired color.
Color picker - Click to open the color picker. Drag the round color picker to the desired.
Color disk - Users can change the color of the color circle by changing the color of the color disk.

Undo

Click to undo the previous operation.

Redo

Click to redo the previous undo (this icon only appears after an Undo has been performed)

Add page

Click to add a page.

Go to previous page

Click to go to the previous page

View all

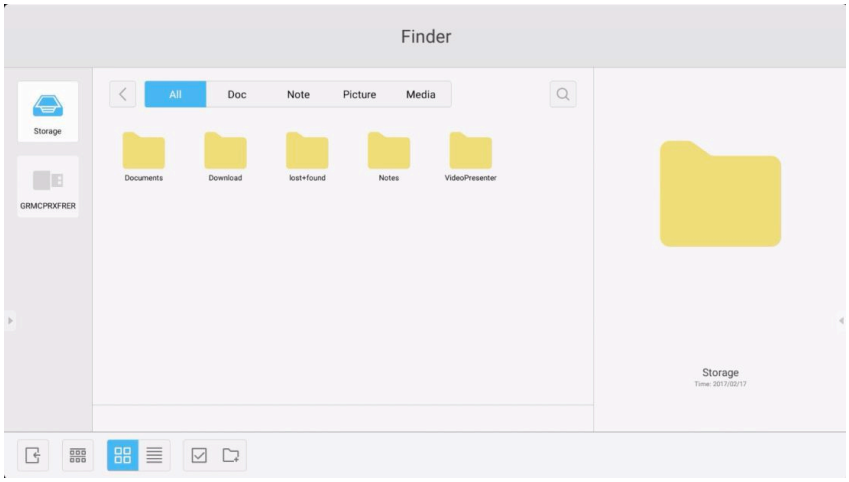
Click load a thumbnail of all pages.

Go to next page

Click to go to the next page.

File Finder

Click to open the file browser. It can browse files saved in the system such as documents, Notes, video, picture, and audio. It automatically detects and mounts external USB devices.



File browsing

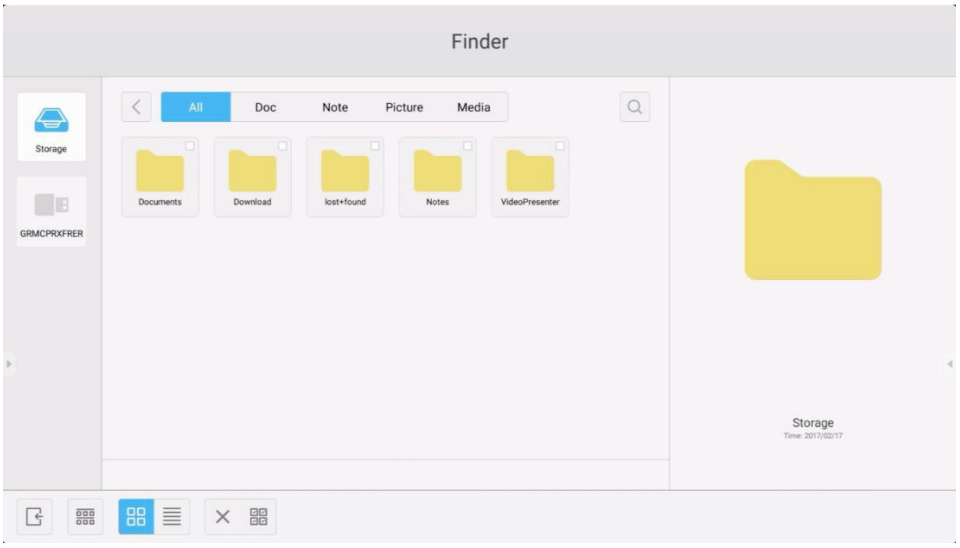
Browsing by category

Users can browse resources stored in the system according to category, including document, whiteboard writing (pages saved by the whiteboard and quick screenshot), video, picture, and audio.

Resource operation

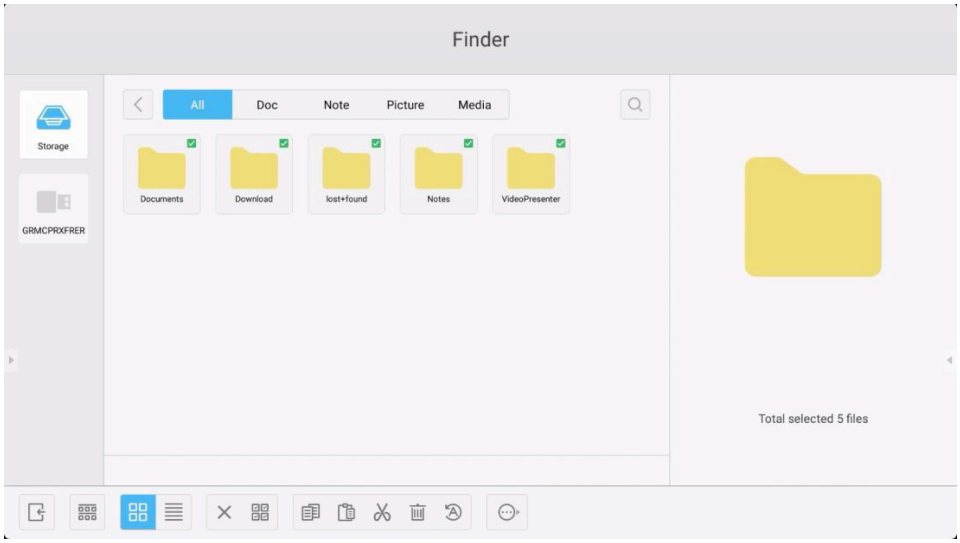
Users can edit the resources stored in the system, including creating, selecting, selecting all, cancelling selecting, copying, pasting, cutting, deleting, renaming, and more.

Selecting resources to modify - Click ☑ to add a selection box appears on each resource – click as many as desired.



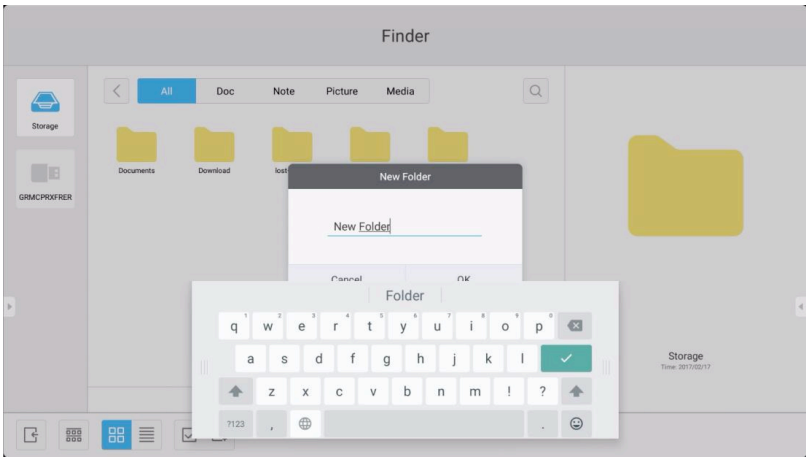
Selection Interface

Select all. Click ☑☑ to select all resources in the current directory.



Select All interface

Cancel selection Click to cancel all selections.



New folder

Copying. When a resource has been selected, the copy button will appear – click it to copy the currently selected resource.

Cut - When one or more resources have been selected, the Cut button will appear - click to Cut the selected resource.

Delete - Click to delete the selected resource.

Paste - When one or more resources have been copied or cut the icon appears. Users can paste the copied/cut resource(s) to the specified location as required. The paste operation executes only when the default folder is displaying “all” resource locations.

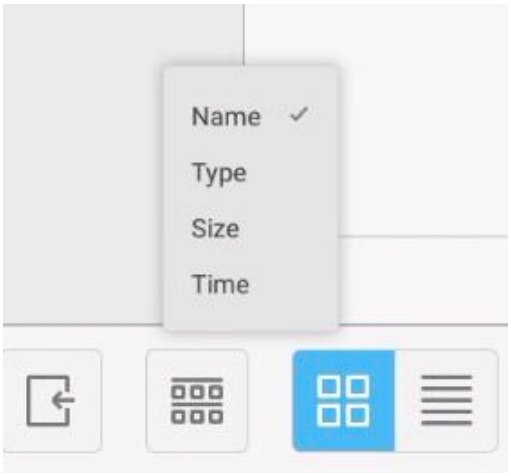
Renaming. Click to rename the selected resource.

Send - Click to pop out the “send to” button. You can send the selected file to the target folder.

QuickTouch – Click and hold on a resource causes the resource operation menu to appear. The resource operation menu allows deleting, copying, cutting, pasting, and renaming on the current resource.

Sort menu

Click the to open the Sort menu which allows sorting according to the name, type, size, and date/time. The default sort is by name.



Sort Menu

Tile - Click to display the resources as icons

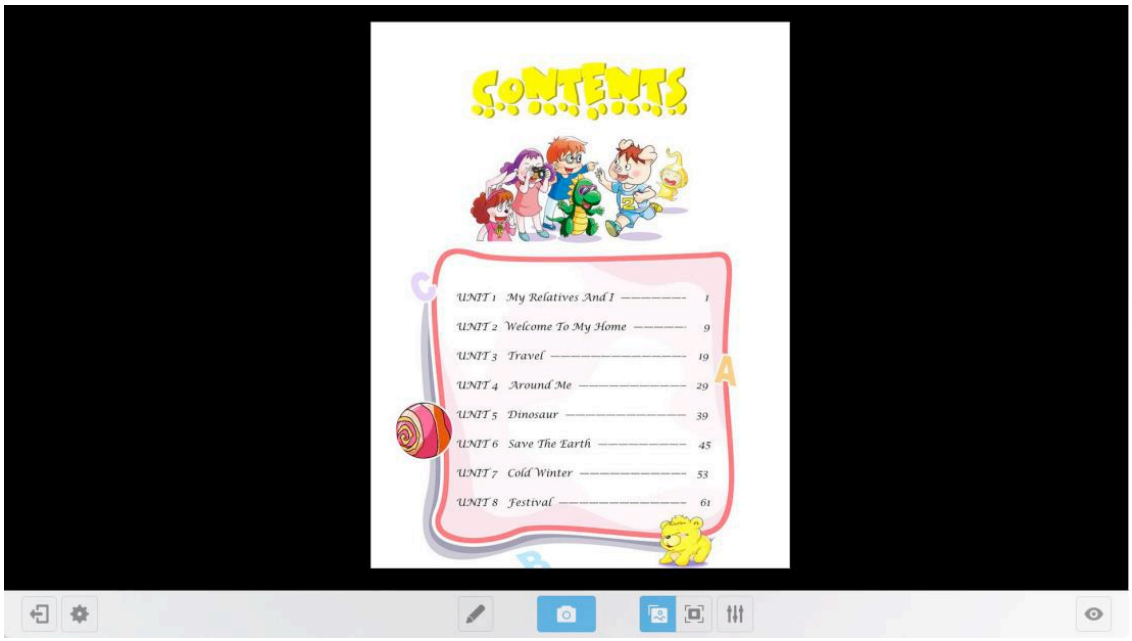
List - Click to display the resources in the form of detailed list.

Exit

Click to exit file browsing, and return to the homepage.

Camera/Visualizer

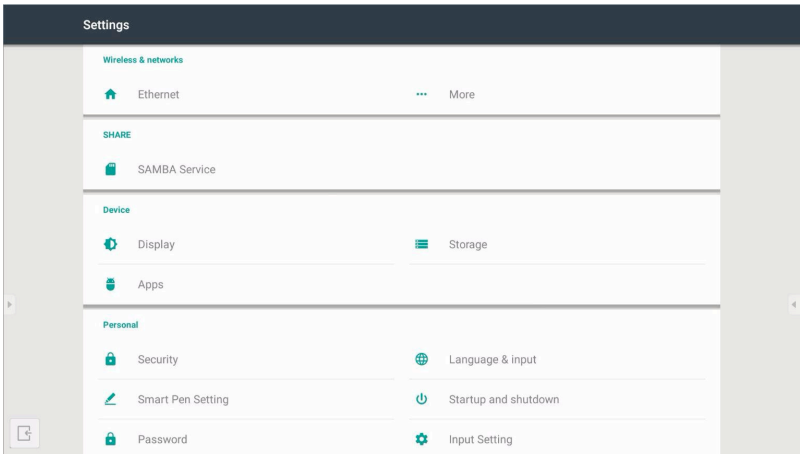
Once a camera has been connected to the USB port click the button to start the Visualizer App. The Visualizer App functions include: display full screen, take photo, annotation, and settings.



Visualizer

Android System Settings

Click to open the Android System Settings menu.



Setting menu

Wireless & Networks

Enable/disable the network, and view network parameters including MAC address, IP address, mask, and gateway.

Share

For configuring the SAMBA sharing service that enables Android file sharing and access to Cloud storage services.

Device

For selecting background wallpaper and Anti-burn-in time (how long before the screen blanks to prevent burn-in).

Personal

Language & Input: Setting language and input method.

Smart Pen Setting: Smart pen pairing.

Startup and shutdown: Set Startup channel

Password - Set the password of ScreenLock

Input Setting: Path renaming.

Other Settings: Setting the Slide Toolbar and FloatBar; setting the single finger and multi-finger of Note writing.

System

Setting Date & time, and About Device.

Browser

When the network is connected and active click and a URL.

Input

Click to open the General Settings menu.

General Settings

PC: Selects the PC input.

Android: Selects the Android input.

HDMI: Selects the HDMI input.

VGA: Selects the VGA input.

AV: Selects the AV input.

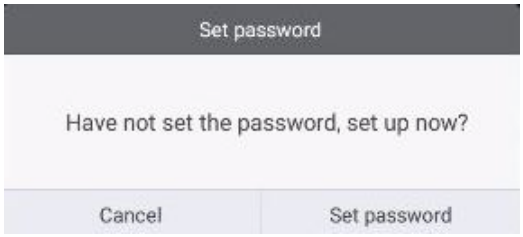
DVI: Selects the DVI input.

Cloud Dive

Click to connect to the Cloud Dive.

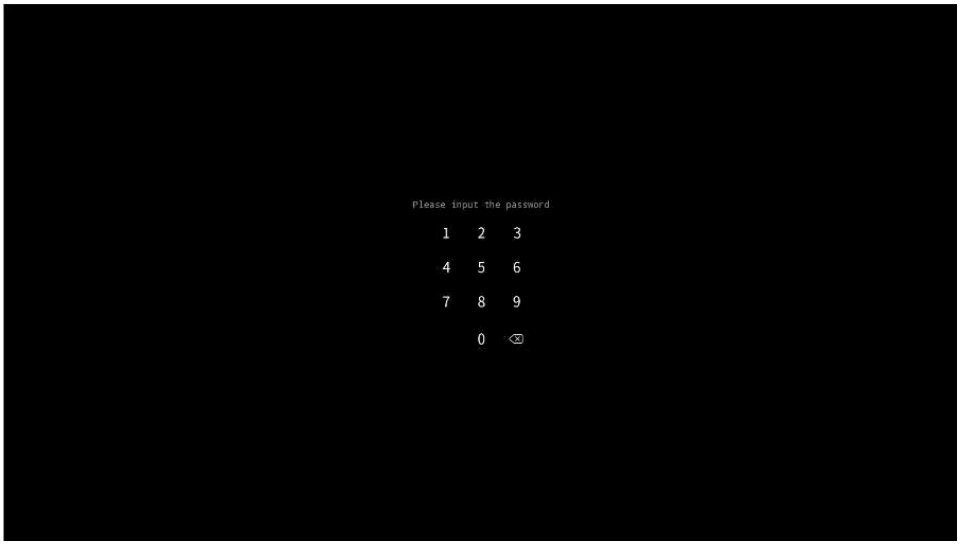
ScreenLock

Click to lock the screen, the Set Password page will appear if you have not yet set the password.



Set password

If you have set the password, then the screen will be locked. You need to enter the password to unlock.



Entering the Password

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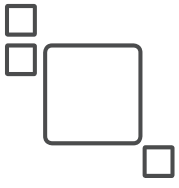

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