Prowise

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2. Important safety instructions

> ⚠️ **WARNING!** *Before using the EntryLine UHD touchscreen, please read this user manual and the safety instructions (separate document) carefully. Follow the warnings stated on the device, the user manual and the safety instructions . Always keep the safety instructions and the user manual within reach.*

2.1. Safety

- Never open the housing of the touchscreen! You can get an electric shock or cause a short circuit.
- Unplug the touchscreen during thunder storms to avoid damage due to a lightning strike.
- Make sure your touchscreen does not get wet! This could lead to short circuiting and an electrocution hazard. Do not install the device close to water and do not place objects containing liquid on or next to it.
- Excessive sound volume causes permanent hearing damage. If the device is used at high sound volume for an extended period of time, it can also cause hearing damage to the listener.
- Only use components and accessories supplied by Prowise.
- Always turn off the touchscreen and unplug it from the electrical outlet when changing a module.

2.2. Placement

- We recommend you don't install the touchscreen by yourself or by a third party. Let Prowise or a certified Prowise partner install or mount the touchscreen to avoid possible damage. Prowise can not be held responsible for any damage or injury caused by incorrect installation by third parties. Damage due to incorrect installation by third parties will not be covered by the warranty.
- Do not install or place the touchscreen onto an unstable surface.
- Do not use the touchscreen in an industrial environment where it will frequently get exposed to vibrations and dust.
- Do not place the touchscreen close to equipment that generates heat.
- Make sure that all ventilation openings, located at the back of the touchscreen, stay uncovered, so hot air can escape.
- Only connect the screen to an earthed electrical socket.

Pr⊙wise

2.3. Repair

Never repair the touchscreen yourself!

⚠	**WARNING!** *Warning for electrified parts! Never try to repair or open the housing of the touchscreen! You can get an electric shock, cause a short circuit or even a fire. This can cause injuries or damage to yourself and/or the touchscreen.*

Always contact Prowise or a certified partner in case of a defect, to avoid damage.

2.4. Environment

- Unplug the power cable if the screen will not be used for an extended period.
- The power consumption in standby mode is <0.5 watts.
- When the touchscreen is no longer usable, it can be disposed of at a designated collection point.

❗	**PLEASE NOTE!** *When WOL and WOS are activated, the power consumption in standby mode will increase! (Wake ON LAN is temporarily not supported)*

2.5. Recycling and disposal

If you have questions about the correct disposal of your touchscreen, please contact Prowise or a certified partner.

Packaging

The device is packaged to prevent transport damage. Packaging consists of resources that can be reused or recycled.

Device

Do not dispose of the device with household waste at the end of its lifespan. Ask about the possibilities for an environmental friendly and responsible method of disposal.

Batteries

Depleted or defective batteries do not belong in the household waste. Dispose of them at a collection point for empty batteries. The remote control uses 1.5V AAA batteries.

3. Installation

A Prowise certified mechanic will install the Entry Line UHD Multi-touchscreen on delivery and will ensure the touchscreen is ready for use. We do not recommend it, however if you want to install the screen yourself or by someone else, then please follow the following steps:

- Do not install the touchscreen alone.
- Use a certified Prowise wall bracket when assembling a wall lift or mobile lift.
- Please ensure the wall is strong enough to carry the weight of the touchscreen if you mount the screen to the wall.
- Connect the cables (which cables you require depend on the external devices you use or other external sources like a lift system).
- Install the Wi-Fi module as described in the chapter 'Install the Wi-Fi module'.
- If you are using a PC module, ensure the module is inserted and tightened correctly. Install the PC module as described in the chapter 'Install PC module'.
- Make sure to only connect the power cable when the above elements have been connected.

⊘	**CAUTION!** *Prowise can not be held responsible for any damage or injury caused by the incorrect installation of the touchscreen done by third parties. Damage to the touchscreen, caused by incorrect installation by third parties, will not be covered by the warranty. Always contact Prowise or a certified partner if you have any questions about the installation.*

3.1. Place of installation

Please follow the instructions below, these will help guarantee reliable functioning and a long lifespan of your touchscreen.

Keep the touchscreen and all connected devices away from moisture and avoid dust and heat. Do not place the touchscreen near devices which produce heat or in the vicinity of water. Non-compliance with these instructions can lead to faults or damage to the touchscreen.

The EntryLine UHD multi-touchscreen can be used at an ambient temperature from 0 °C to +38 °C (32 °F to 100,4 °F) and relative humidity from 10% to 90% (without condensation).

When switched off, the touchscreen can be stored at a temperature from -20 °C to 60 °C (-4 °F to 140 °F) and relative humidity from 10% to 90% (without condensation).

Install the touchscreen on a stable, leveled and vibration-free surface/wall to avoid damage to the touchscreen. Make sure that all of the ventilation openings, which are located at the back of the touchscreen stay uncovered, so that hot air can escape.

WARNING! *Disconnect the power cable during a thunderstorm. For extra safety, we recommend using an overvoltage protection device, to prevent the touchscreen from sustaining damage as a result of power surges or lightning strikes.*

3.2. Cabling

Only use the power cable supplied by Prowise to connect the EntryLine UHD touchscreen to the mains power supply. The touchscreen must be placed close to the electrical outlet and the electrical outlet should be easy to reach. Cables should not be laid in the walkway to avoid anyone stepping on them or tripping over them. Do not place any objects on the cables to avoid damaging them. Prevent electrical overloads when using a distributing plug as this can lead to a short circuit.

For extra safety, we recommend using an overvoltage protection device to prevent the touchscreen from sustaining damage as a result of power surges or lightning strikes.

CAUTION! *Only plug the power cable into grounded electrical outlets with AC 100-240V ~50/60Hz. If you are not sure about the power supply at the installation location, consult your energy company.*

4. At first glance

We recommend you not to install the touchscreen by yourself or by a third party. Have Prowise or a certified partner install or mount your touchscreen, to avoid possible damage to the device or to yourself.

Always adjust the screen to the correct height before use. Avoid standing in a stooped or bent posture and ensure that the upper and lower ends of the screen are located within arm's reach.

In the optimal position of the screen, you can touch both the top and bottom of the screen without needing to stoop or reach far up. By positioning the screen properly, you can avoid physical problems that could result from an incorrect work posture. Avoid physical complaints caused by a poor posture.

⊘	**DANGER!** *Risk of injury. Do not stand on a chair, stool or other object to operate the touchscreen. This especially applies to children! This involves a risk of falling that could result in serious injury. Ensure that the screen is installed at the correct height or that the lift is set to the correct height when the screen is used.*

4.1. Product Specifications

Panel type	Ultra HD LED (4K)
Resolution	3840 x 2160 @ 60Hz
Screen size	55" 65" 75" 86"
Glass thickness	4 mm/0.16 inches anti-glare pro
Aspect ratio	16:9
Viewing angle	178°
Glass hardness	Mohs 7
Touch module	IR pro
OS (touch module)	Windows 7, 8, 8.1 & 10/Linux /Mac OS/Android/Chrome OS
Multi-touch	20-points touch
Multi-writing	10 points

Auto-calibration	Yes
Resistant to sunlight	Yes, 4000 Lux
RAM capacity	2 GB
ROM flash capacity	16 GB
Android version	Android 5.1
Prowise Central	Yes, no app support
Over-the-air updates (OTA)	Yes
Speakers	2
Power (sound)	2 x 16 watt / 8 Ω
VGA input	1x (15 pin D-sub female)
HDMI input	1x (HDMI 2.0, type A) 1x (HDMI 1.4b, type A, met CEC en ARC) 1x (HDMI 1.4b, type A)
DP input	DP 1.2
Audio input	Audio jack 3.5mm (female)
HDMI output	HDMI 1.3
Audio output/earphone port	1x (3.5mm headphone Jack female）
AV in	Mini jack 3.5mm
Digital output	1x Coaxial
USB 2.0	2
USB 3.0	1
RS232 Control	1
LAN (RJ45)	1
USB touch	2 (HIGH speed device, type B)
WiFi module	Yes: RTL8821AU-VS
Connectivity	802.11 a/b/g/n/ac
Bluetooth	BT 2.1/3.0/4.0
Frequency	2.4G & 5G(5150MHz-5250MHz&5725MHz-5825MHz)
Certifications	CE/FCC-IC and RCM
Warranty	5 year

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4.2. Package contents
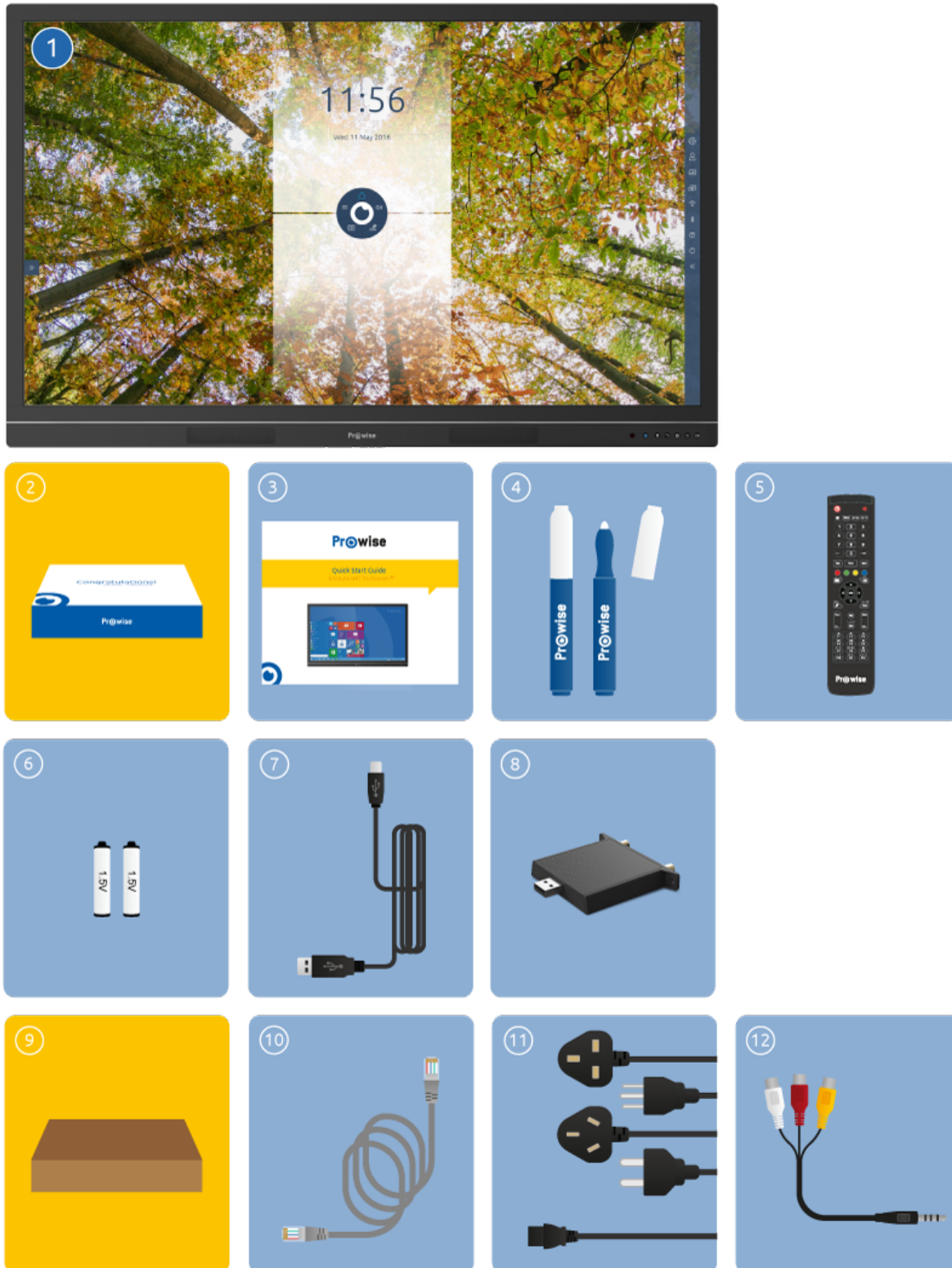
1. **EntryLine UHD Multi-touchscreen**

2. **Welcome box:**

3. Quick Start Guide

4. Pen (2x)

5. Remote control

6. 1.5V AAA batteries (2x)

7. USB Touch cable

8. WiFi module

9. **Cardboard box:**

10. Network cable

11. Power cable ~EU, UK, US and/or AUS

12. AV cable

|	
	WARNING! *Keep the packaging material, such as plastic foil, out of reach from children. Improper use of packaging materials can result in a suffocation hazard.*

|	
	PLEASE NOTE! *Check that what has been supplied is complete and contact our service desk within 5 days of delivery if it is incomplete. Please provide the serial number and a copy of the invoice.*

Pr◉wise

4.3.Product overview
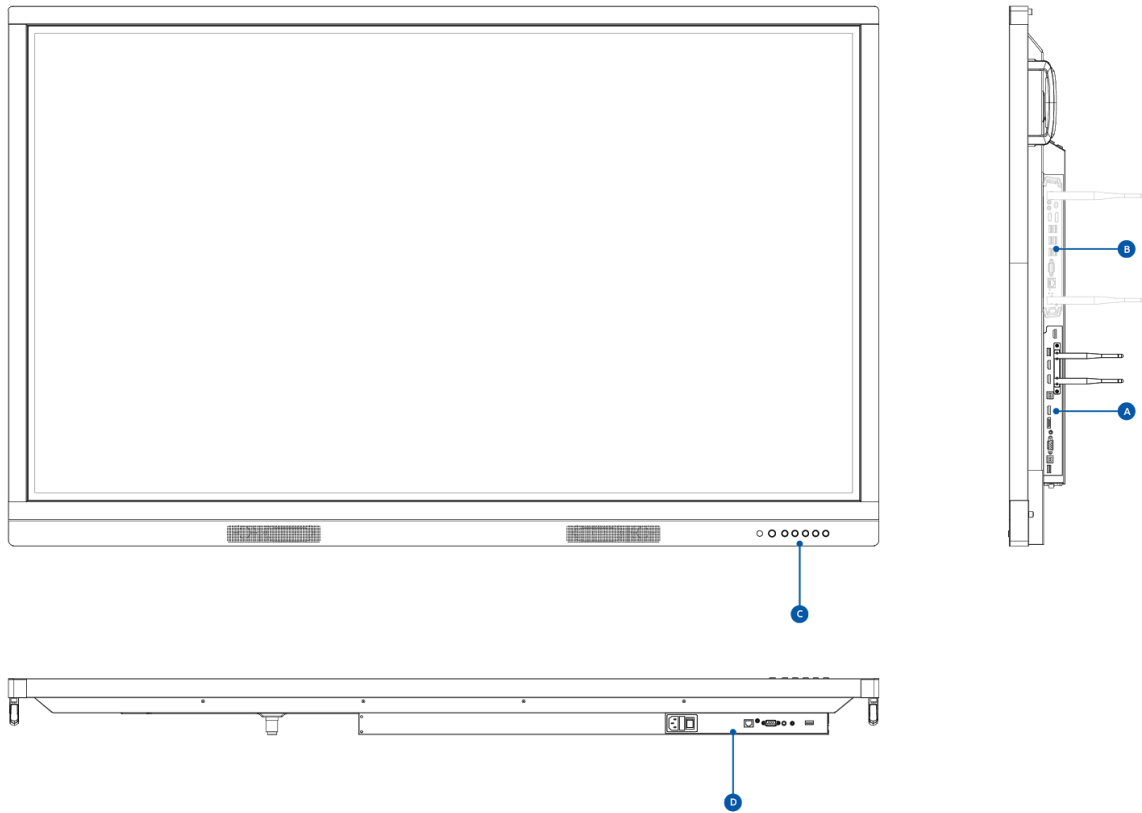
A. Integrated connections I

B. Control buttons

C. Integrated connections II

D.PC module slot
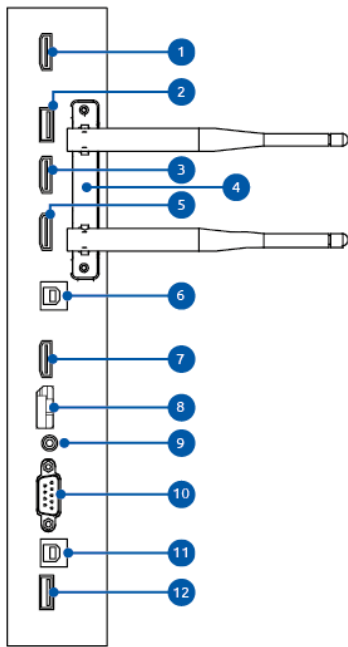
1. HDMI OUT 1.3
2. USB 2.0 update port
3. HDMI IN 2.0 ((4K@60Hz)
4. WiFi module
5. HDMI IN 1.4 (4K@30Hz) with CEC and ARC support
6. USB touch for external PC/Mac
7. HDMI IN 1.4 (4K@30Hz)
8. Display Port IN (4K@30Hz)
9. Audio IN for VGA
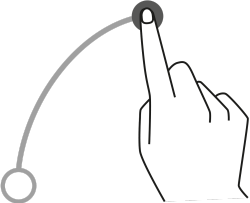10. VGA IN
11. USB touch for external PC/Mac
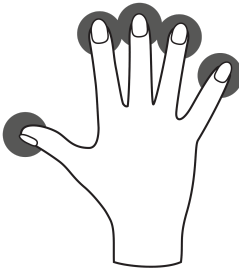12. USB 3.0
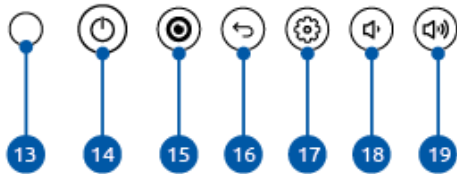
13. IR sensor
14. Power switch
15. Central menu button
16. Back button
17. Settings button
18. Volume button (-)
19. Volume button (+)
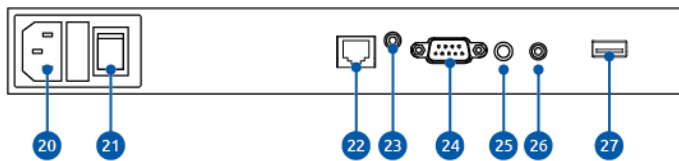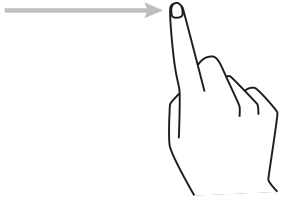
20. AC input
21. Power switch
22. LAN port Prowise Central
23. Analogue output/ headphone (audio)
24. RS232
25. Digital output (audio)
26. AV IN
27. USB 2.0 (lift control)

4.4. Touchscreen control

The EntryLine UHD Multi-touchscreen is fitted with 20-points multi-touch. The screen recognizes up to 20 simultaneous touchpoints. This allows you to use the touchscreen with multiple people at once.

	Click	To click on a part of the screen, gently tap with one finger on the touchscreen.
	Drag	Tap with one finger on the item that you want to move and drag it to the new location without releasing your finger from the screen.
	Open Prowise Central menu	Place five fingers of one hand on the screen for at least 2 seconds. The menu will appear.
	Right-click (context-menu) (PC module)	Tap and hold one finger on the screen for a few seconds for the right click function.

	Scroll	Slide one finger across the screen in the desired direction.

The touchscreen can also be controlled by using a computer mouse or with the supplied remote control. Furthermore, you can use the buttons of the control panel, located on the right-hand side of the touchscreen, to turn off the touchscreen or to navigate back to the Central home environment.

4.5. Control Panel Buttons

The buttons below are found on the control panel on the right-hand side of the touchscreen.

On/Off button

- To turn the touchscreen on, press the on/off button.
- Turn the backlight of the touchscreen off by quickly pressing the on/off button. The on/off button will light up red and blue.
- To activate the backlight again, quickly press the on/off button or tab on the touchscreen.
- To shut the screen down, hold the on/off button for a few seconds, until you receive the notification 'The system will shut down in 15 seconds'. Select 'Shutdown' to turn the screen off immediately.

Prowise Central button

- Use this button to navigate back to Prowise Central home from any other input source.

Back button

- This button has been reserved for future updates.

Settings button

● Use the settings button to open the Central menu in your current input source. To close down this menu, tab the middle of the Central menu circle.

Volume buttons

● Use the volume buttons to increase or decrease the volume. A volume bar will be displayed on the screen.

4.6. Install the WiFi module
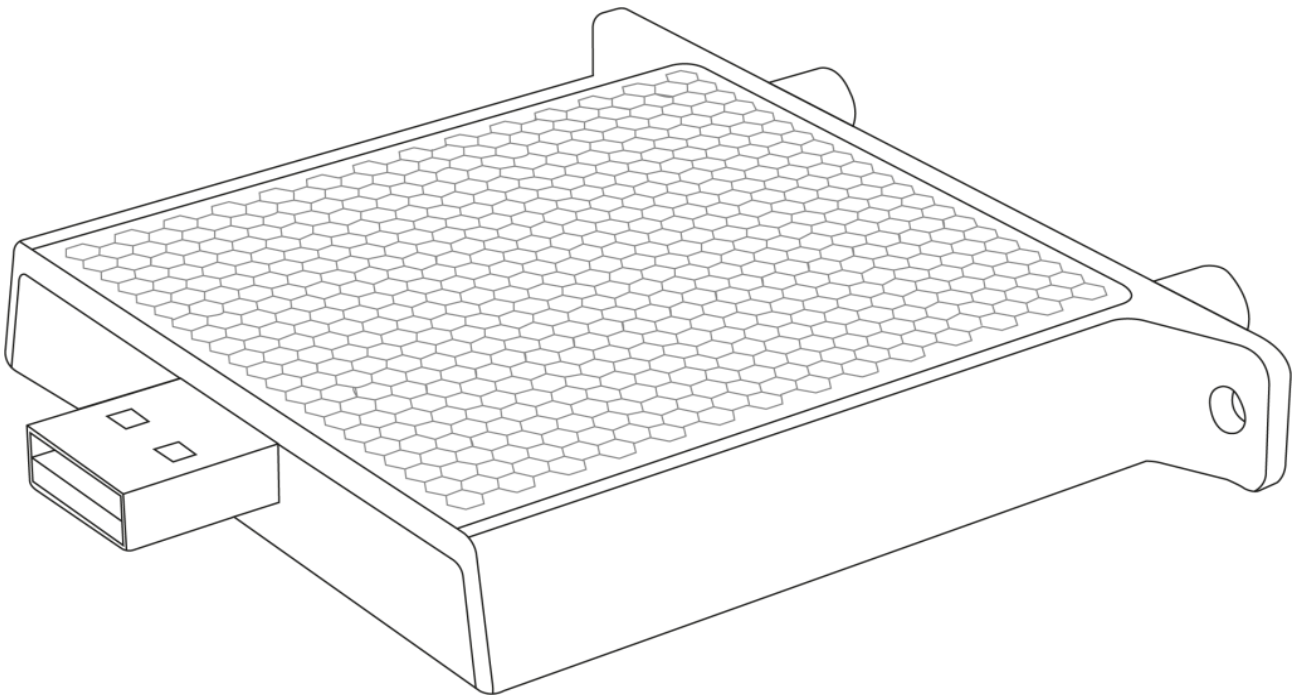
Specifications

Connectivity	802.11 a/b/g/n/ac
Bluetooth	BT 2.1/3.0/4.0
Frequency	2.4 G & 5 G (5150MHz-5250MHz&5725MHz-5825MHz)

Follow the steps below to install the WiFi module :

!	**CAUTION!** *Please ensure the power cable is not connected to the main power supply when installing the WiFi module.*
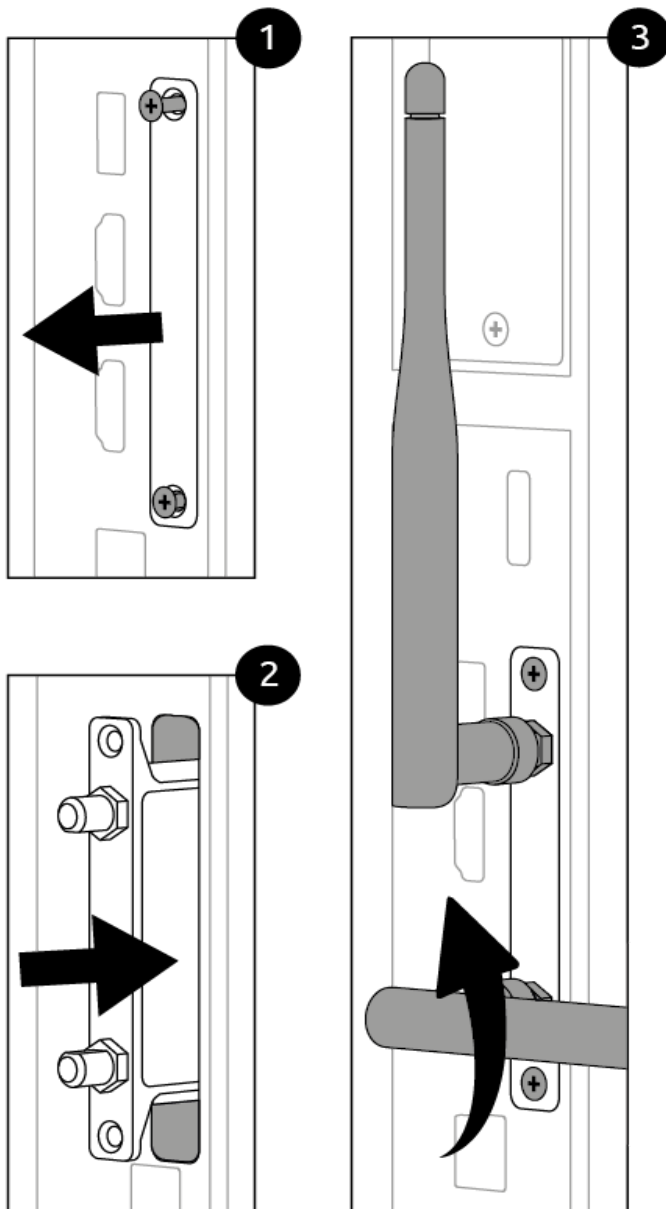
1. Unscrew the screws and remove the cover plate
2. Insert the WiFi module into the slot
3. Tighten the screws and secure the antennas

4.7. Install the PC module

Follow the steps below to install the PC module

⊘	**CAUTION!** *Please ensure the power cable is not connected to the main power supply when installing the PC module.*
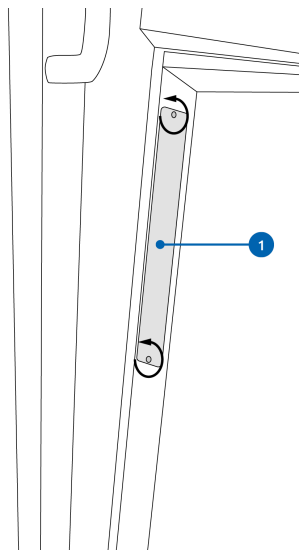
1. Unscrew the screws
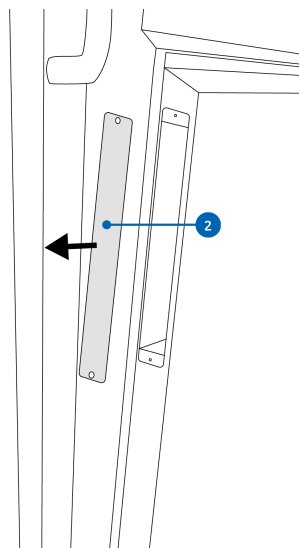
2. Remove the cover plate

Pr⊙wise
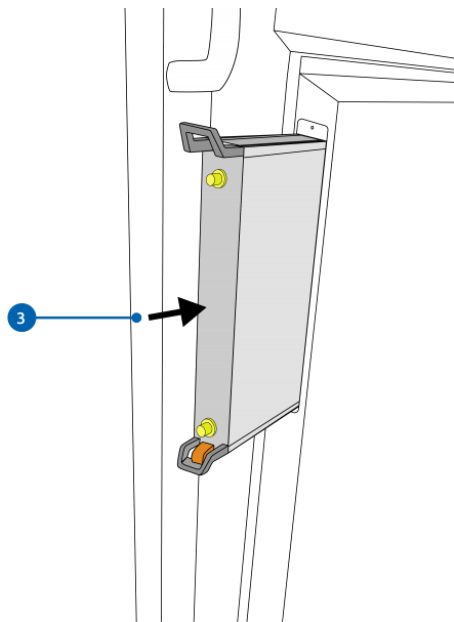
3. Insert the PC module into the slot
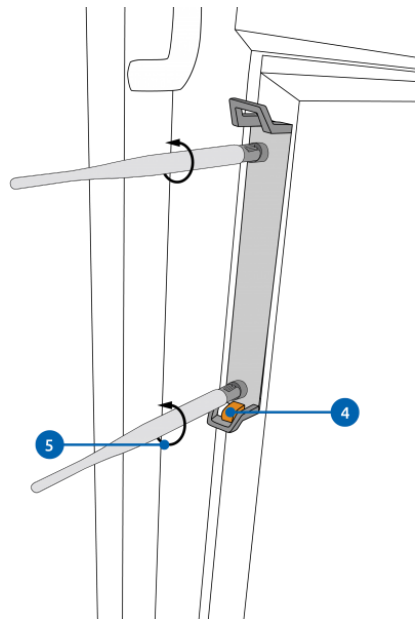
4. Tighten the lock screw of the PC module
5. Secure the WiFI antennas on the PC module

4.8. Cleaning

Clean the screen with a dry, lint-free, microfibre cloth. Ensure this cloth is free of impurities.

If you wish to use a cleanser, always use a cleanser recommended by Prowise. Do not use any aggressive cleansers as these can cause damage to the screen.

Never spray a cleanser directly onto the screen, apply it to a cloth first. The cloth may be slightly damp, but not wet, as this can cause damage to the screen.
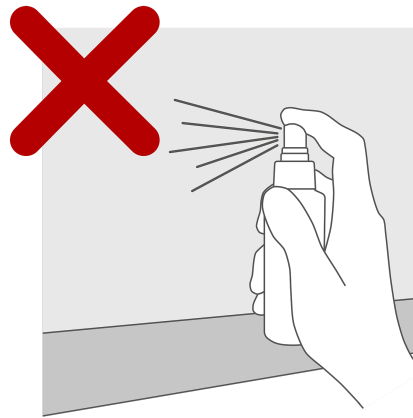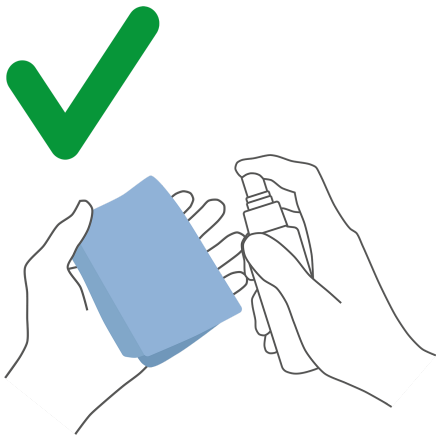
Gently wipe down the screen with the cloth. Clean the screen with gentle, circular movements without pressure to gain the best result. Never use an abrasive cleanser.
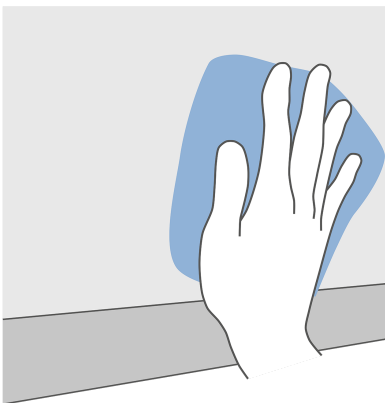
	WARNING! *In the unlikely event that the touchscreen gets wet, do not turn the power on and do not insert the power cable into the electrical outlet. This can result in an electric shock. Should the touchscreen get wet when it's turned on, immediately turn off the power supply and disconnect the power cable from the electrical outlet to avoid a short circuit.*

	CAUTION! *Unplug the power supply before cleaning the screen.*

5. Getting started

5.1. Turn the touchscreen on/off

Turn on

1. Ensure the touchscreen is connected to the mains power supply.
2. Turn on the main power switch on the right-hand side of the touchscreen.

There are a few different option to activate the touchscreen once turned on:

- Press the on/off button located on the right-hand side of the touchscreen
- Press the on/off button on the supplied remote control

Turn off

Using the on/off button of the control panel
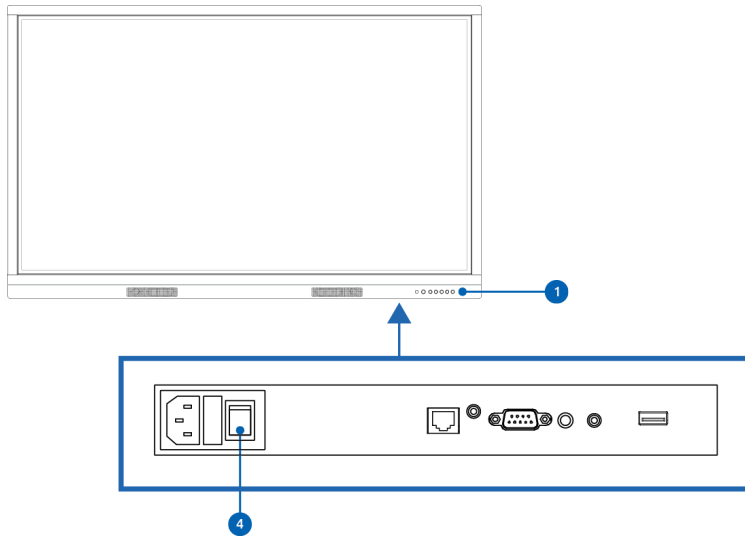
1. Press the on/off button of the control panel.
2. The notification 'The system will shut down in 15 seconds' will appear.
3. Select 'Shut down' if you wish to turn off the touchscreen or wait 15 seconds, to abort your touchscreen from closing down select the 'Cancel' button.
4. Turn off the main power supply by using the power switch.

Using Prowise Central

1. Launch the Prowise Central Menu by placing five fingers of one hand on the screen.
2. Open the sidebar.
3. Select the 'power' icon.
4. The notification 'The system will shut down in 15 seconds' will appear.
5. Select 'Shutdown' to shut the touchscreen down immediately, or wait 15 seconds for the touchscreen to shut down automatically. To abort the shutdown of your touchscreen select the 'Cancel' button.
6. Turn off the main power supply by using the power switch on the right hand side of the touchscreen.

	CAUTION! *Wait to turn off the power switch (step 6) until the LED indicator light of the on/off button has turned red. Turning off the power switch when the system is still active can cause damage to the PC module.*

Shut down automatically

When no active input source has been detected, a notification will appear after 30 seconds to shut down the touchscreen. This notification will be automatically accepted after 15 seconds by the system and the touchscreen will be shut down.

Prowise

!	**PLEASE NOTE!** *Turn the touchscreen off completely when moving the screen by turning off the power switch and removing the power cable from the screen.*

5.2. Starting your device for the first time

The first time you start your touchscreen, a setup guide opens to help you configure the most important settings. Follow the steps below to complete the setup:

1. Ensure the touchscreen is connected to the mains power supply.
2. Turn on the main power switch.
3. Press the power button (control panel or remote control)
4. The touchscreen will turn on and the setup guide will appear.
5. Follow the steps of the setup guide to complete the setup.
6. Once you are connected to the internet the touchscreen will automatically check for updates.
7. The welcome screen will appear and the Prowise Central environment will open right after that.
8. Open the Prowise Central menu to get started with your touchscreen. Open the menu by placing 5 fingers of one hand on the screen for at least 2 seconds.

Prowise
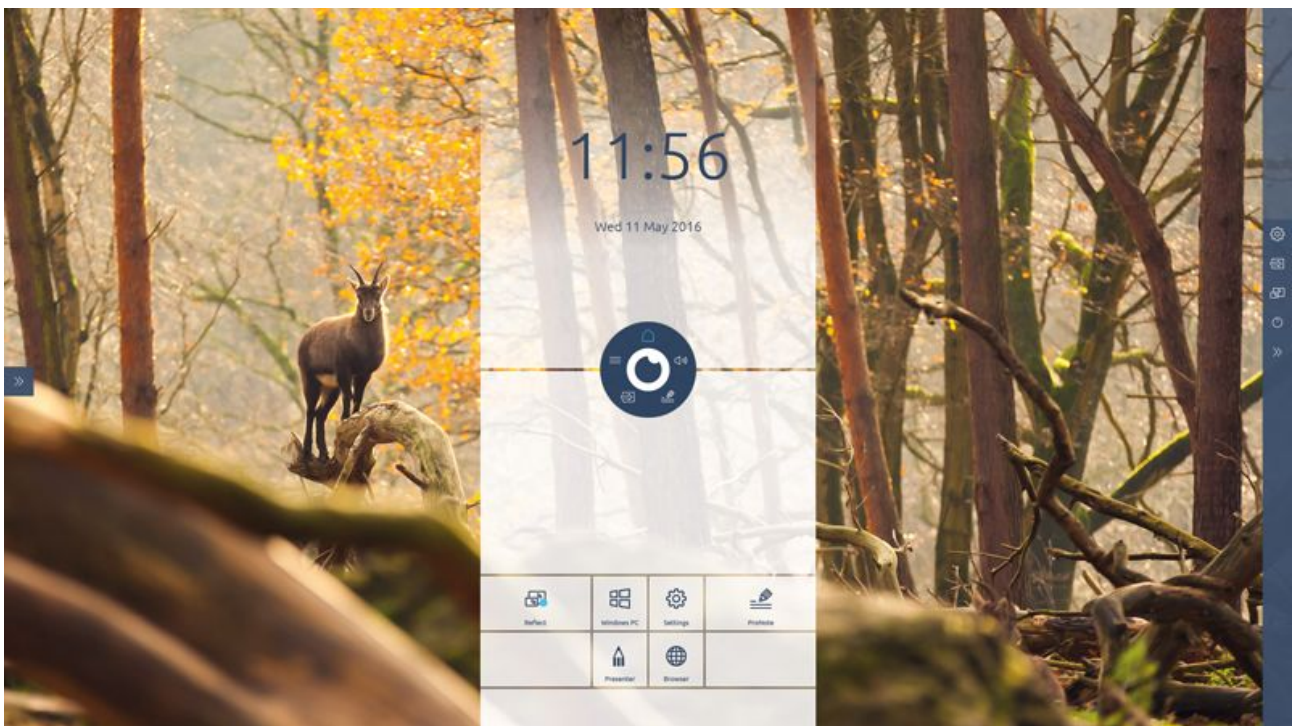
5.3. Connect to a network

Connect your touchscreen to a wireless WiFi network or via a network cable.

Ethernet

Connect the network cable to the LAN port (22) of your touchscreen. The touchscreen will automatically detect the network and connect to it as soon as 'Ethernet' has been activated in the settings menu.
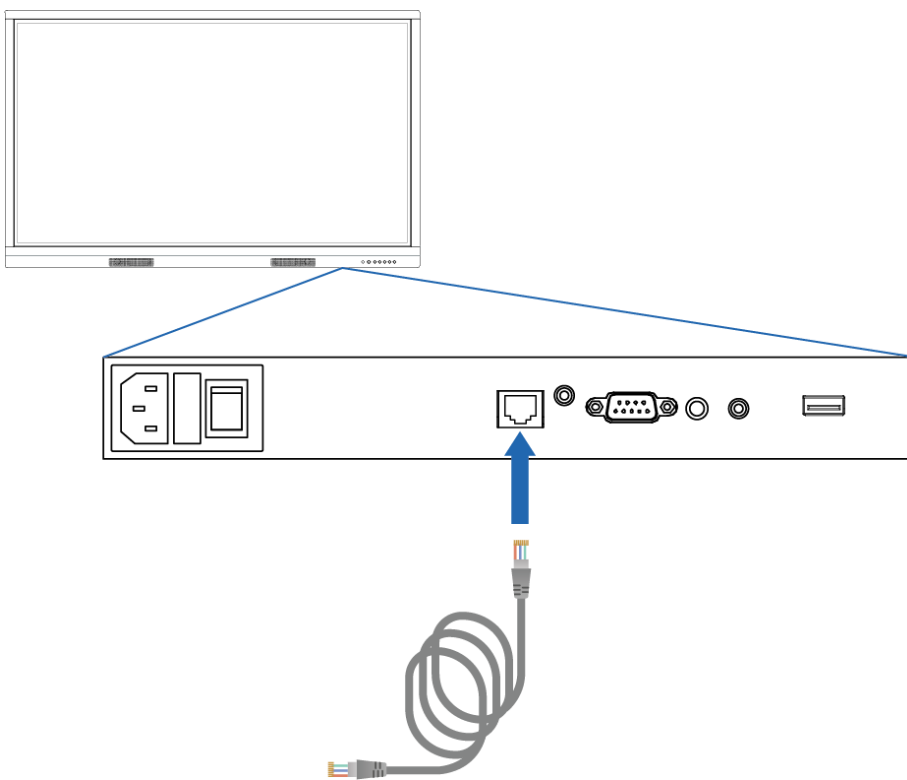
Follow the steps below to view the specifications of the network:

1. Place five fingers on the screen for at least 2 seconds to launch the Prowise Central menu.
2. Open the sidebar to access the settings menu.
3. Select the submenu 'Connectivity'.
4. Select 'Ethernet'.
5. The network specifications will be displayed.

WiFi connection

Follow the steps below to set up a connection to a WiFi network:

1. Place five fingers on the screen for at least 2 seconds to launch the Prowise Central menu.
2. Open the sidebar to access the settings menu.
3. Select the submenu 'Connectivity'.
4. Select 'WiFi'. The touchscreen will scan for available networks.
5. Select the preferred network.
6. Enter the password of the network. Select the eye icon if you wish to display the characters of the password.
7. Press the 'Connect' button to connect to the wireless network.

5.4. Adjust volume

The volume of the touchscreen can be adjusted in different ways:
- With the remote control:
  - Use the volume buttons to adjust the volume.
- With the control panel:
  - Use the volume buttons (+ and -) in the control panel to adjust the volume.
- With the Central Menu:
  1. Place five fingers of one hand on the screen for at least 2 seconds to launch the Prowise Central menu.
  2. Select the 'audio' icon.
  3. Adjust the volume by selecting the the '+' or '-' button or move by moving the slider to increase or reduce the volume.

6. Prowise Central

ⓘ (exclamation icon)	**PLEASE NOTE!** *In the future, extra functionalities will be added to Central. The updates for Central will be installed on the touchscreen via OTA. More information about OTA can be found in "OTA (Over The Air) updates".*

6.1. Prowise Central home

Prowise Central is the new, clever and intuitive operating system of Prowise integrated in the EntryLine UHD Multi-touchscreen. Central brings everything together in one place. Navigate quickly and easily to all main features and applications of your touchscreen.
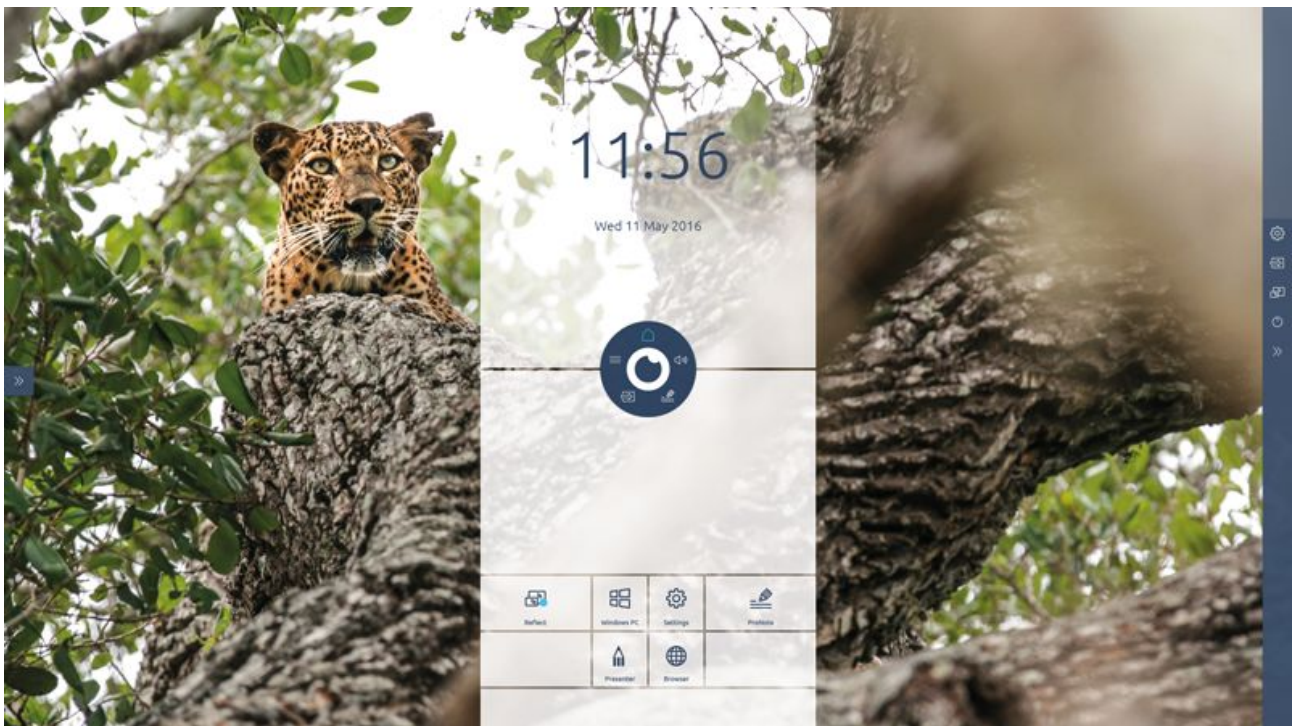
6.2. The Prowise Central menu

Easily adjust the settings of the touchscreen and open ProNote and other applications in the Prowise Central menu.

Change the position of the Prowise Central menu by dragging the circle over the screen and dropping it at your preferred position. The position of the sidebar can also be changed by selecting the arrows at the side of the screen. The sidebar will be displayed when opening the Prowise Central menu.

Launch Prowise Central menu

You can launch the Prowise Central menu in different ways:

- Place five fingers of one hand on the screen for at least 2 seconds.
- Press the "Menu" button on the remote control.
- Press the "Settings" button (21) of the control panel
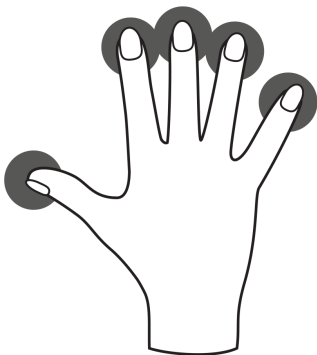
Close down the Prowise Central menu

Click on the middle of the eye (inside circle of the Central menu) to close down the Prowise Central menu or press the "back" button on the remote control. The sidebar will close down as well.

7. Adjust settings

The settings menu of Central is located in the sidebar. Here you can adjust multiple settings of your EntryLine UHD Multi-touchscreen, such as: display and audio settings, connectivity and general settings.
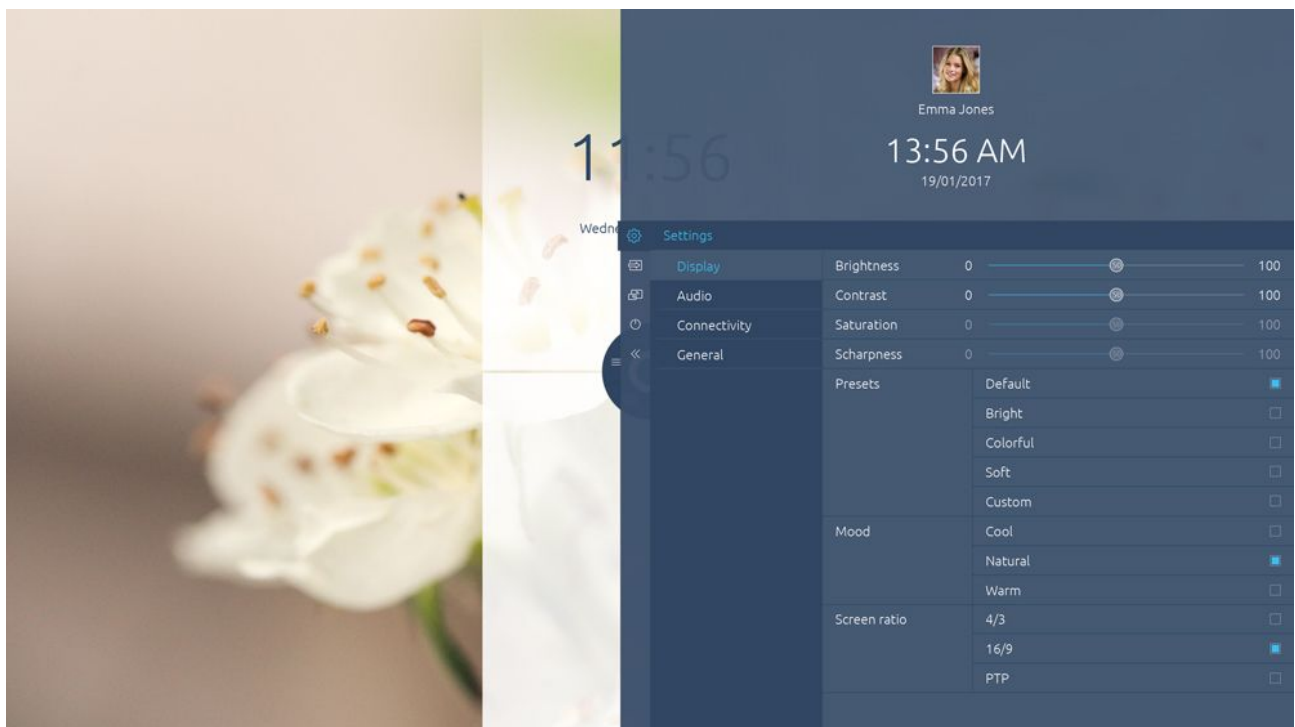
7.1.Display

Adjust a number of aspects in the tab 'display', such as:

- Brightness
- Contrast

Choose from pre-installed colour settings or adjust the colour temperature. Depending on the chosen input source (PC, laptop, etc.), it is also possible to adjust the aspect ratio.

7.2. Audio

To adjust the volume settings, select the "Audio" tab in the "Settings" menu. In this tab, use the sliders to adjust the advanced sound settings.

In the "Line out" submenu, select the software setting based on the audio output connected to the analogue audio output.

- Headphones: select this setting when connecting headphones to the analogue audio output (27). Use the touchscreen's volume control to adjust the headphones volume.
- Line output: select this setting when connecting an amplifier to the analogue audio output (27). Use the amplifier's volume control to adjust the external amplifier's volume. The touchscreen's volume control cannot be used to do this.

Selecting the output:

Select "External" if an external amplifier is connected. Select "Internal" to use the touchscreen's loudspeakers. Select "Both" to use both the external amplifier and the internal loudspeakers.

There are a number of pre-installed sound settings to choose from, it is also possible to mute the sound in this menu.

7.3.Connectivity

Wifi

When WiFi is selected, the touchscreen searches for available WiFi networks. Connect to a WiFi network as follows:

1. Click 'WiFi' in the "Settings" menu.
2. Activate the WiFi toggle
3. Select the desired network.
4. Enter the password for the network (click the eye to display the entered password).
5. Click "Connect".
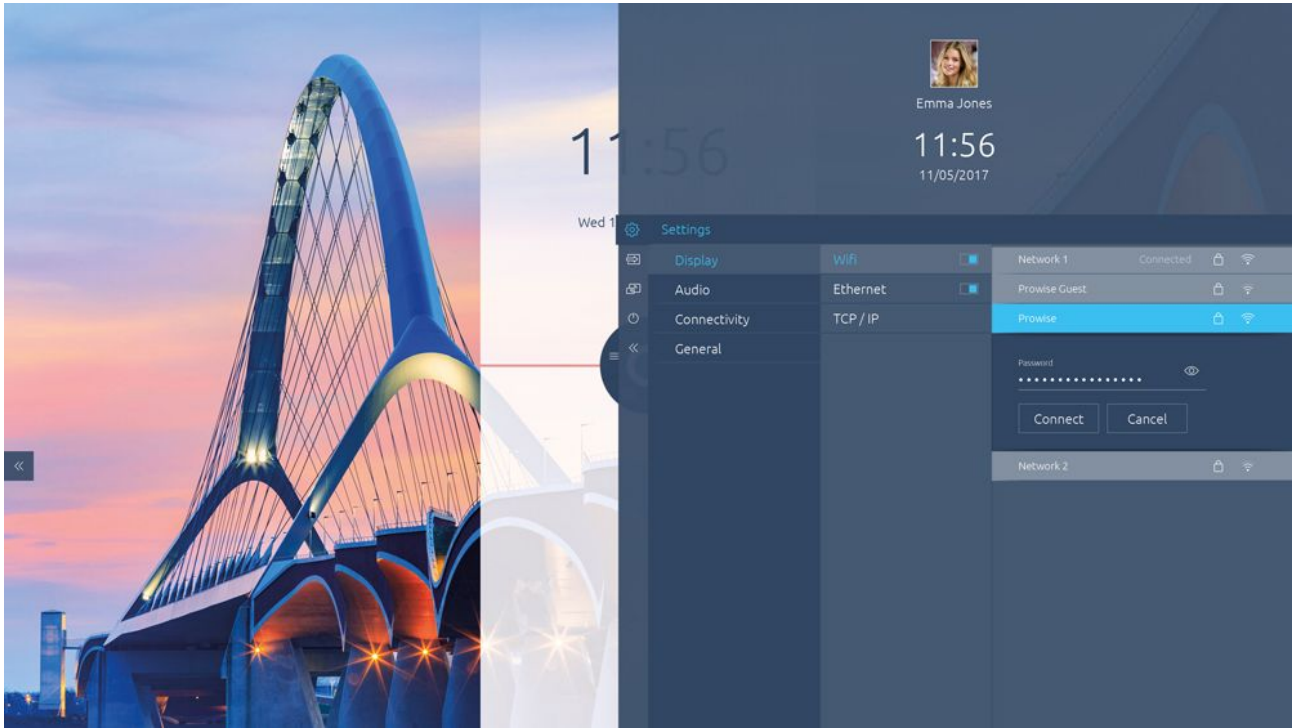
Ethernet

It is also possible to connect to the Internet using a network cable. To do so, connect the network cable to the touchscreen's LAN port (26). The "Ethernet" submenu contains more information about the network specifications.

TCP/IP

This submenu contains the network specifications of the network the touchscreen is connected to.

> **PLEASE NOTE!** *When Ethernet is activated, the WiFi connection is disconnected.*

7.4. General settings

It is possible to activate and edit certain advanced functions in the general settings.

Updates

Automatic updates – OTA updates – are activated by default. The touchscreen will automatically search and install the newest updates. If a new update is available, it is installed when the touchscreen gets turned off.

Check for updates – It is possible to manually update the touchscreen. If automatic updates are deactivated, it is important to regularly search manually for available updates in order to ensure that the touchscreen functions optimally.

PLEASE NOTE! *A WiFi/Internet connection with Prowise Central is required for automatic updates.*

PLEASE NOTE! *Make sure the date and time in Prowise Central are set correctly to make sure OTA will function properly.*

About this touchscreen

This submenu contains more information about your EntryLine UHD Multi-touchscreen. The touchscreen's name can also be changed here. This function can be useful when trying to find the touchscreen on a different device, such as when using Reflect.

Language

You can change the language settings of the menu into the following languages: English, Danish, Dutch, French, German, Italian, Swedish, Norwegian and Spanish. The language change only applies to the Prowise Central menu.

Date and time

The date and time can be edited in this submenu. For example, it is possible to choose between a 12-hour and a 24-hour time display. When you choose to automatically adjust the date and time, the touchscreen displays the correct time for your region based on the network it is connected to. Furthermore, the way the date is displayed can be changed between mm/dd/yyyy and dd/mm/yyyy.

RS232

Serial communications, RS232, can be turned off for security reasons if you wish to do so. The codes can be found in the appendix of the User manual.

Menu gesture

There are various ways of displaying the menu. The standard method for displaying the menu is to touch the touchscreen with five fingers of one hand for two seconds. In the submenu menu gesture, it is possible to deactivate the function to open the menu by touching the touchscreen. If the menu gesture function is deactivated, it is not possible to display the menu by touching the touchscreen with five fingers. The menu can then only be displayed using the remote control.

Key lock

The buttons of the control panel can be locked. Activating this function renders the control panel's buttons inactive.

IR lock

The remote control's infrared signal can be locked. The IR signal is locked using a lock on the remote control. It is not possible to lock the buttons and the IR signal at the same time.

7.5. Input

It is possible to change the touchscreen's input source. This is particularly useful when using the PC module (OPS) or an external input source, such as an external PC or laptop.

The touchscreen offers the choice between the following inputs:
- Prowise Central home
- PC (the PC module)
- HDMI 1
- HDMI 2
- HDMI 3
- DP
- VGA
- AV

The touchscreen displays a message if there is no active signal from the chosen input. In that case, select a different input or connect the device to the chosen input so that the touchscreen receives a signal.
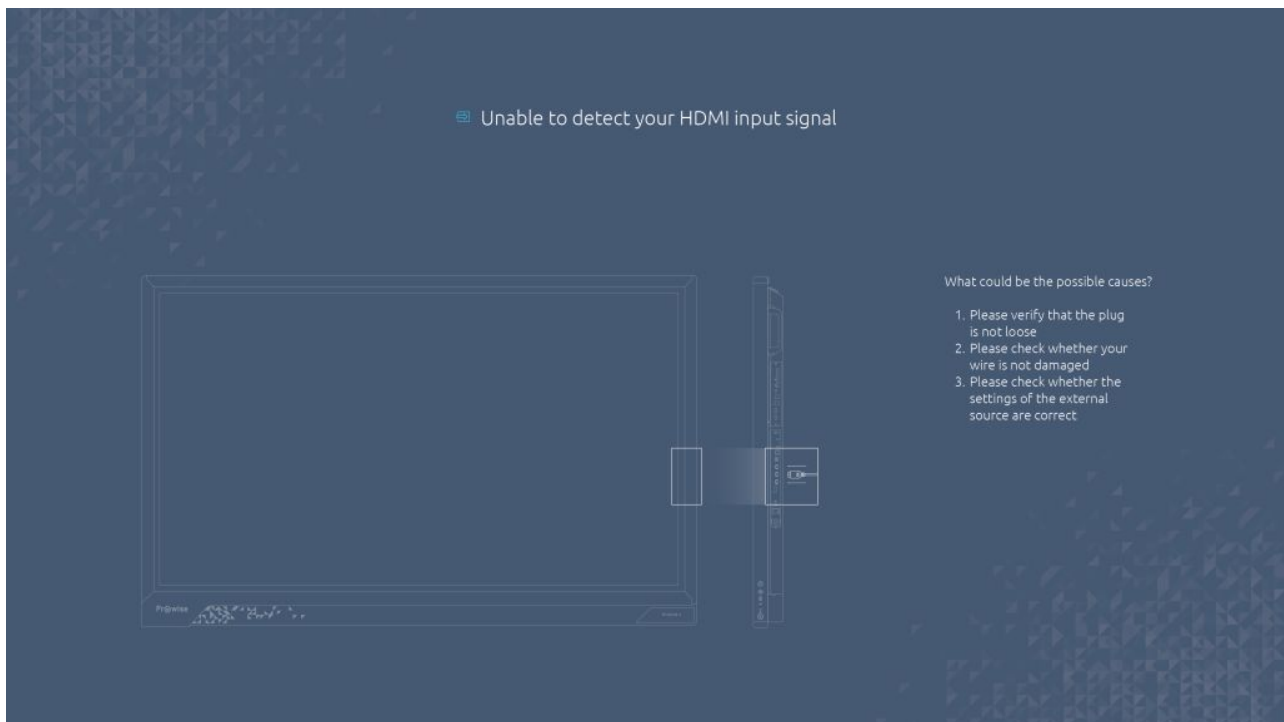
7.6. On/Off

The On/Off button in the menu can be used to turn off the touchscreen. All activated programs will be closed when the touchscreen gets turned off. It is, therefore, important to save all your files before turning off the touchscreen.

> **(!)** **PLEASE NOTE!** *Save your files before turning off the touchscreen and regularly make backups of your files. Data may be lost if this is not done.*

8. OTA (Over The Air) updates

OTA updates – over-the-air updates – ensure that you always have the latest software version installed on the touchscreen. The only thing required for OTA updates is a connection to the Internet with Prowise Central, which can be either a Wi-Fi connection or an ethernet connection.

Automatic (OTA) updates are activated by default. The updates are installed the when the touchscreen gets turned off. This function can be turned off in the "General Settings" menu. However, Prowise recommends always having OTA updates activated.

> **(!)** **PLEASE NOTE!** *OTA updates require a WiFi or an ethernet (wired network) connection to Prowise Central.*

9. Remote control

9.1. Schematic view and explanation of the buttons

1	Power	Press this button to turn the touchscreen on or off. To turn the touchscreen off, press this button and then press Enter to confirm.
2	Mute	Enable or disable the internal speakers of the touchscreen.
3	Windows	This button has been reserved for future updates.
4	Space	Space button (PC module).
5	Alt-Tab	Navigate between programs (PC module).
6	Alt-F4	Closes the current program.
7	Numeric keys (0-9)	These buttons have been reserved for future updates.
8	Freeze	Pauses or resumes the current frame on the screen.
9	Display	This button has been reserved for future updates.
10	Input	Opens the Prowise Central input settings.
11	Home	If an input other than Prowise Central home is active, this button can be used to return to Prowise Central home.
12	Menu	Opens the Prowise Central menu.
13	Coloured buttons (red, green, yellow and blue)	**Red:** Enables or disables touch. **Green:** Enable or disable the buttons of the control panel. **Yellow:** Touch reset, press this button for 5 seconds to reset touch. **Blue:** This button is reserved for future updates.
14	▣	Temporarily disables the screen. This is depicted in the form of a black screen.
15	⌫	Backspace (PC module).
16	↑	Navigation button – up (PC module).
17	←	Navigation button – left (PC module).
18	→	Navigation button – right (PC module).
19	↓	Navigation button – down (PC module).
20	Enter	Confirm selection.

21	✎	Opens ProNote.
22	Back	This button has been reserved for future updates.
23	PgUp	Go to the top of the page (PC module).
24	PgDn	Go to the end of the page (PC module).
25	⌃ ⌄	This button has been reserved for future updates.
26	VOL+ ; VOL-	Adjust the volume
27	F1 - F12	Function keys (PC module).

9.2. Angle at which remote control is used

To use the remote control, point it to the IR receiver of the touchscreen. The remote control has a range of around 8 metres.
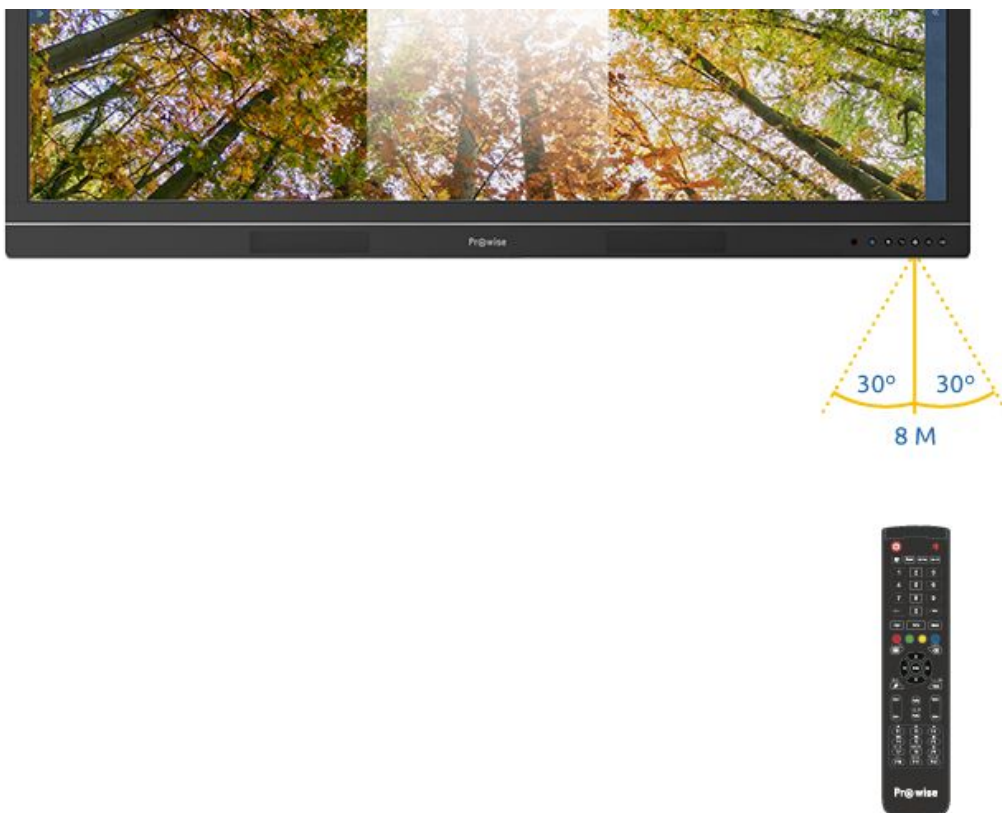
	CAUTION! *If any obstacles are situated between the remote control and the receiver of the touchscreen, the remote control may not work properly.*

9.3. Inserting the batteries

Before using the remote control for the first time, you must insert the two (1.5V AAA) batteries, supplied with the remote control. Once the batteries are running out and the remote control is no longer working properly, you must change the batteries. You can do this as follows:

1. Carefully remove the cover plate on the reverse side of the remote control.
2. Insert the two batteries (1.5V, AAA) into the remote control.
3. Place them with the positive and negative poles as indicated by the (+) and (-) signs in the battery compartment.
4. Close the battery compartment again by carefully replacing the cover plate.

	WARNING! *Remove any leaking batteries as quickly as possible from the remote control. Thoroughly wash your hands afterwards. The leaking chemicals are toxic and must never come into contact with the mouth, skin or eyes.*

⚠	**PLEASE NOTE!** *Only use 1.5 V AAA batteries. Insert them as shown by the instructions on the remote control.*

10. Connect peripherals

10.1. Connect the EntryLine UHD Multi-touchscreen to an external PC

10.1.1. Connect using a HDMI cable
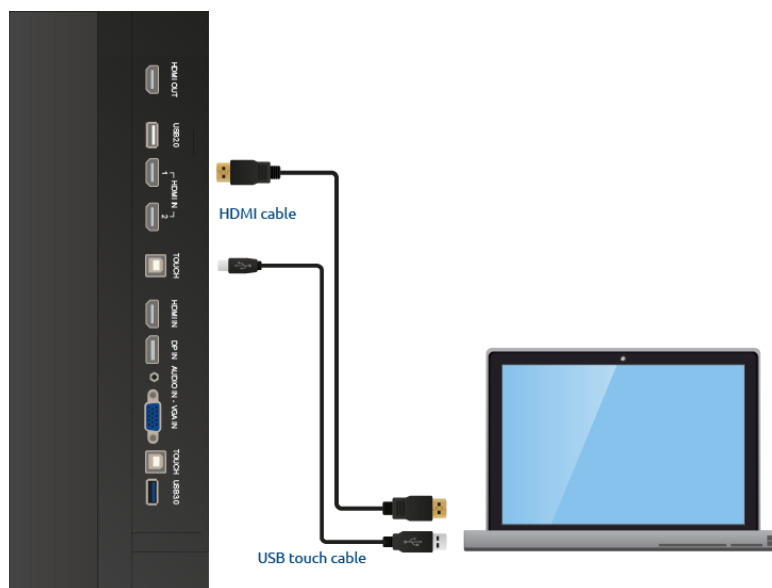
In addition to an HDMI connection, a USB touch connection is also available on the right-hand side of the touchscreen. This can be used to connect an external PC with touch functionality.

1. Connect an HDMI cable to the HDMI port of the external PC and to the HDMI input port of the touchscreen.
2. Connect the USB touch cable to the touch USB port of the touchscreen and to a USB port on the external PC.
3. Once all cables have been connected, switch on the touchscreen and the external PC.
4. Once the touchscreen and the external PC have booted up, navigate in the Central menu to 'Input' and select the correct HDMI source.

	PLEASE NOTE! *We recommend using a cable that is as short as possible and is no longer than 3 metres.*

10.1.2.Connect using a DP cable

In addition to a DP connection, a USB touch connection is also available on the right-hand side of the screen. This can be used to connect an external PC with touch functionality.

1. Connect a DP cable to the DP port of the external PC and to the DP input (8) of the touchscreen.
2. Connect the USB touch cable to the USB touch port and to a free USB port of the external PC.
3. Once all cables have been connected, you can switch on the touchscreen and the external PC.
4. Once the touchscreen and the external PC have booted up, navigate in the Central menu to 'Input' and select the DP input source.
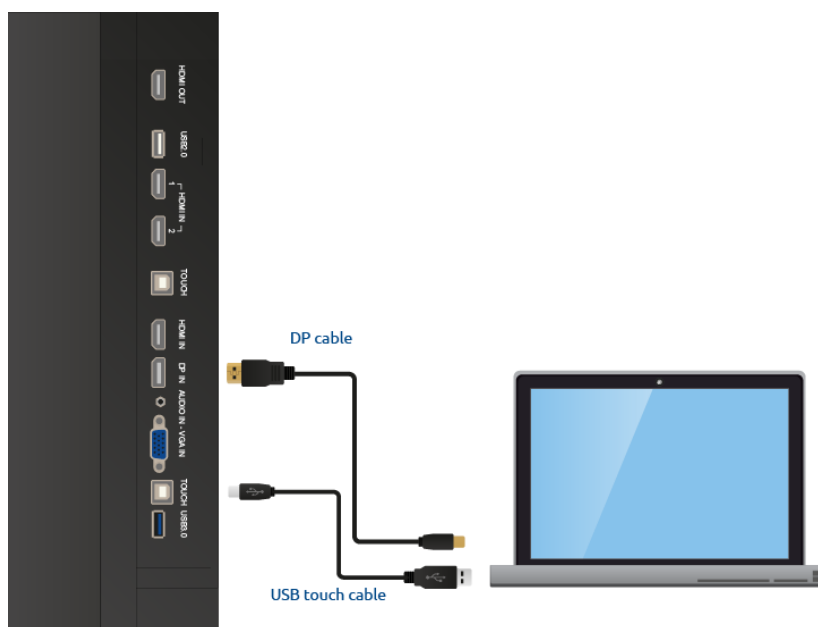
10.1.3.Connect to an external PC using an audio and VGA port

You can connect an external PC using an audio, USB touch and VGA cable on the side of the touchscreen.
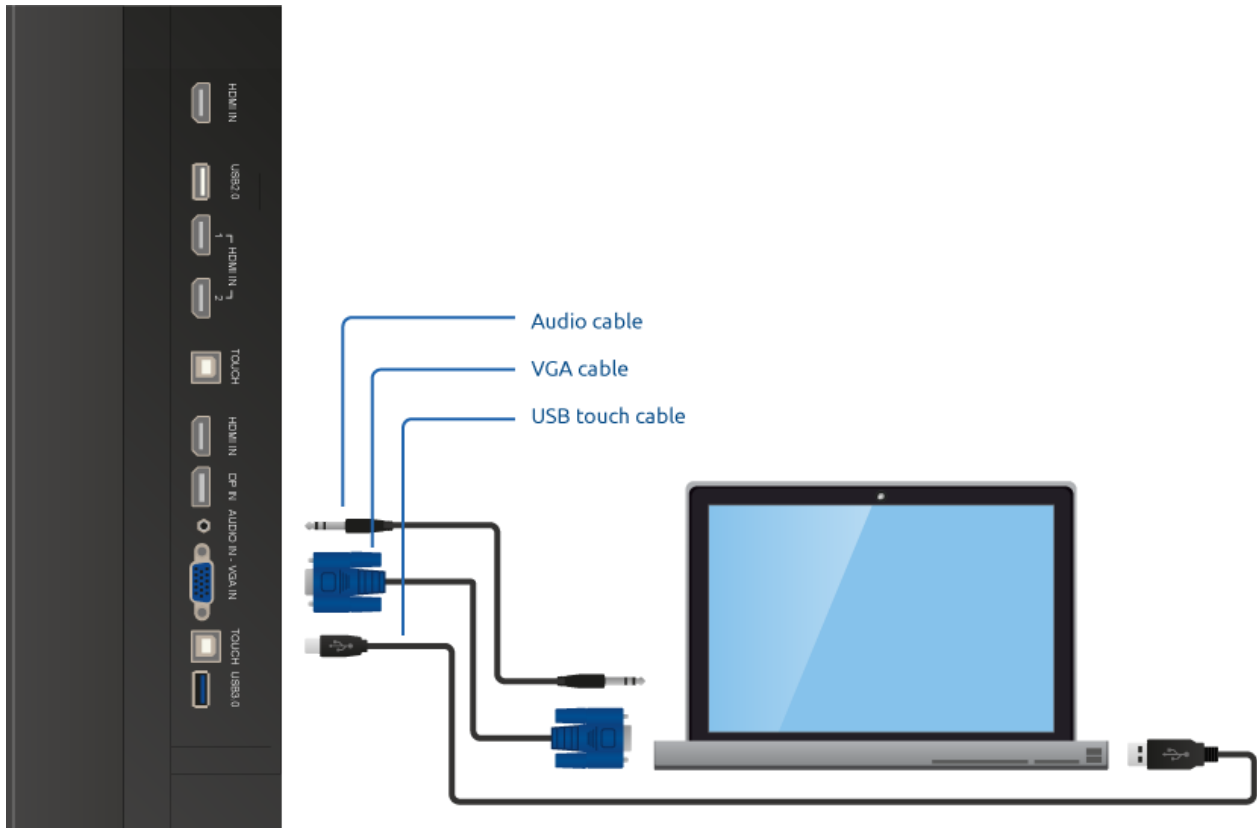
1. Connect the VGA cable to the VGA port of the external PC and to the VGA input of the touchscreen.
2. Connect the audio cable to the audio output of the external PC and to the audio output of the touchscreen.
3. Connect the USB touch cable to the touch USB port of the touchscreen and to a free USB port on the external PC.
4. Once all cables have been connected, you can switch on the touchscreen and the external PC.
5. Once the touchscreen and the external PC have booted up, navigate in the Central menu to 'Input' and select the correct VGA source

> **PLEASE NOTE!** *For optimum picture and sound quality, we recommend to use high-quality cables.*

PLEASE NOTE! *We recommend using a cable that is as short as possible and is no longer than 3 metres.*

10.2.Connecting the EntryLine UHD Multi-touchscreen to audio equipment:

Select the correct output:

In the "Sound" submenu in the "Settings" menu, click "External" in the "Output" menu to connect an external A/V amplifier or an active loudspeaker. Click "Internal" to use the touchscreen's loudspeakers. Select "Both" to use both the external A/V amplifier and the internal loudspeakers.

Select "Headphones" in the "Line out" submenu to configure the output source's volume via the touchscreen. Select "Line out" to connect an output source with a predetermined audio level, such as an external A/V amplifier.

10.2.1. Connecting headphones:

Connect headphones by plugging them into the analogue audio output (27). Use the touchscreen's volume control to adjust the headphones volume. Make sure "Headphones" is selected in the "Output" submenu of the "Settings" menu. Do this as follows:

1. Press the five fingers of one hand on the screen for at least two seconds to open the Prowise Central menu.
2. Open the "Settings" menu by sliding out the side bar.
3. Click "Settings".
4. Open the "Sound" submenu.
5. Select "Headphones" for Line output.
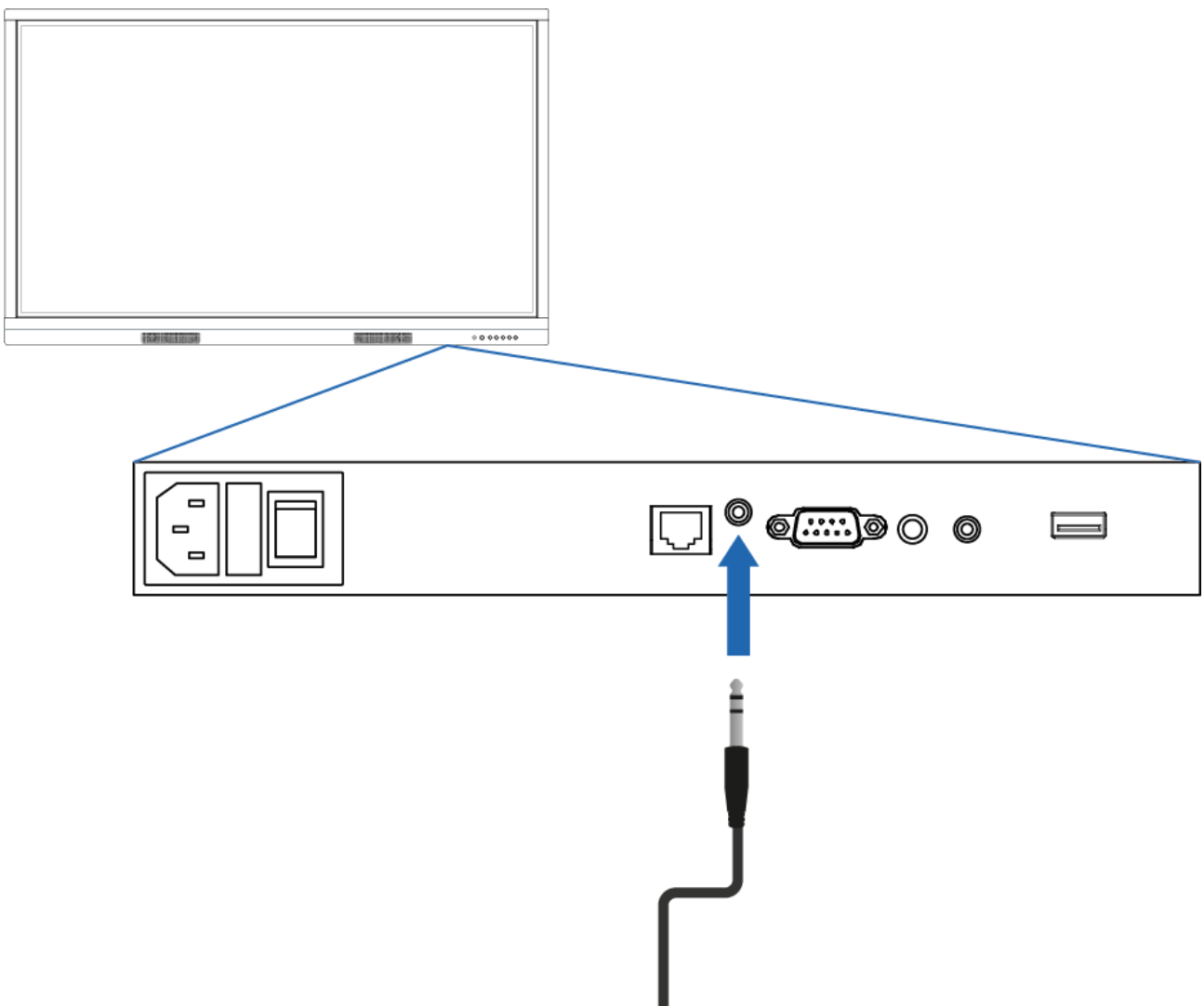
10.2.2.Connecting an amplifier

It is possible to connect an external audio device using an ARC (Audio Return Channel). This allows the external audio device to be controlled via the touchscreen. To connect an audio device via ARC, insert one end of an HDMI cable in the touchscreen's HDMI port supporting ARC (5) and the other end in the external audio device's HDMI port.
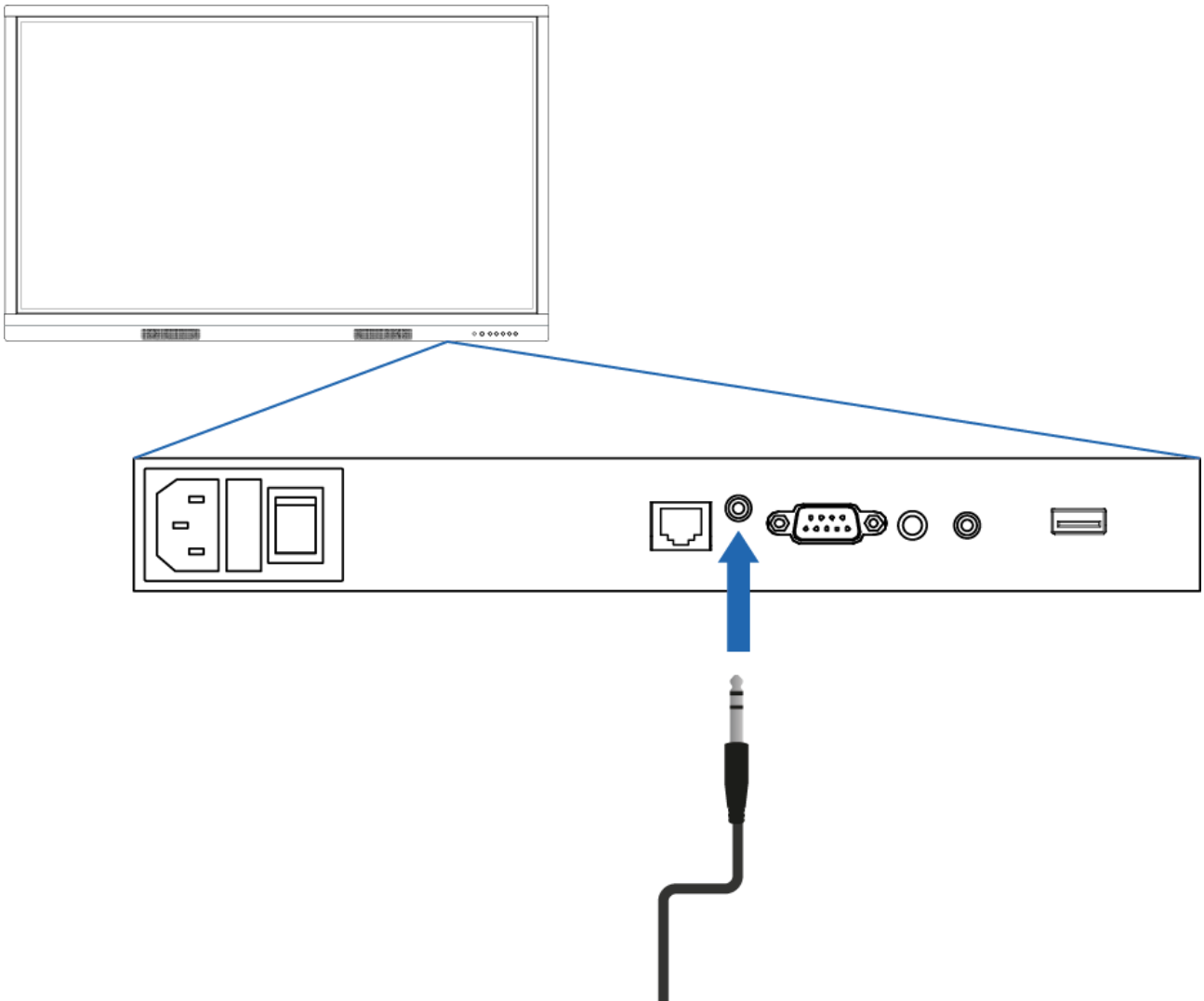
10.2.3.Connecting using the HDMI port (ARC):

It is possible to connect an external audio device using an ARC (Audio Return Channel) connection. This allows the external audio device to be controlled via the touchscreen. To connect an audio device via ARC, insert one end of an HDMI cable into the touchscreen's HDMI port with ARC support (5) and the other end in the external audio device's HDMI port.
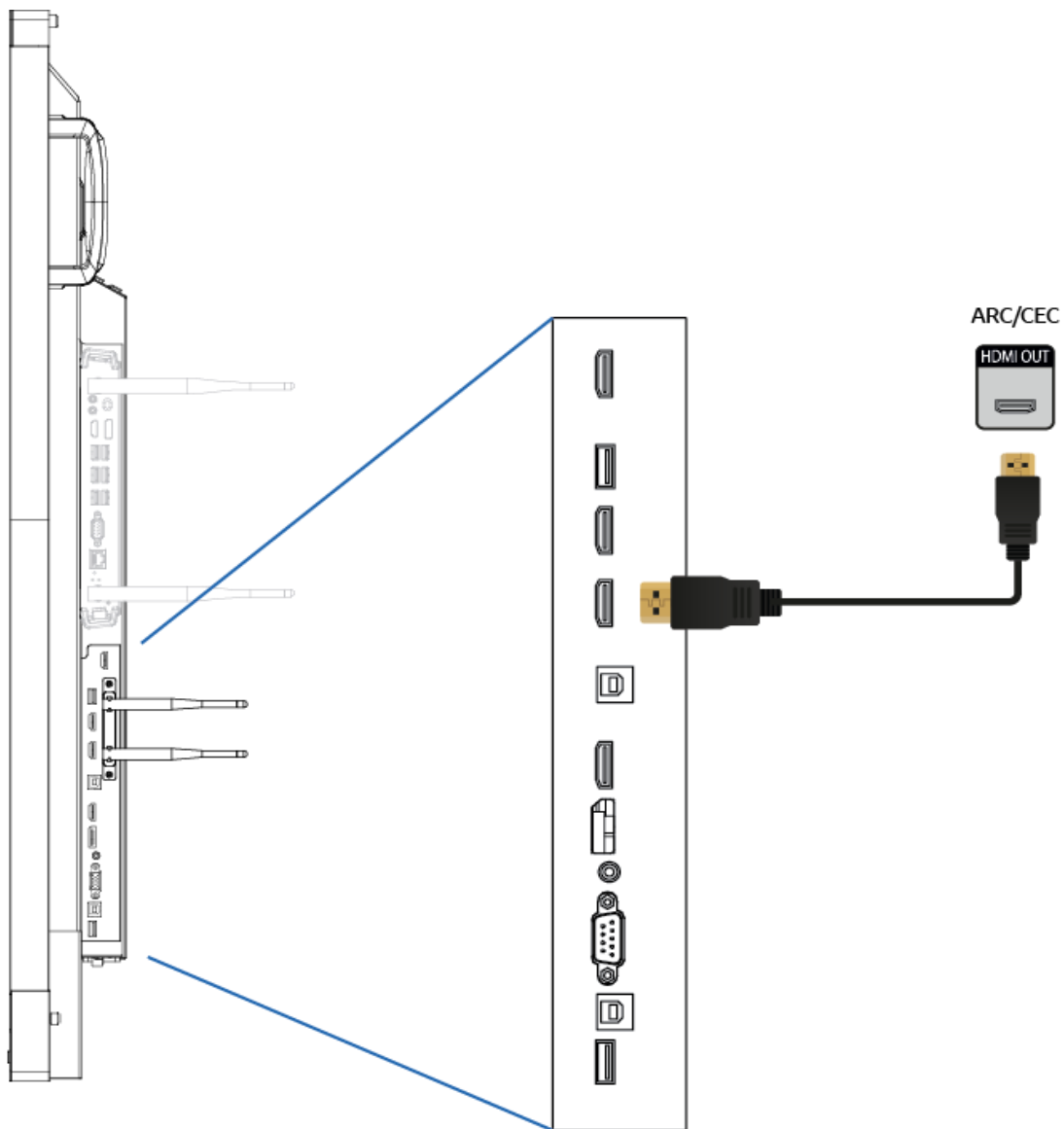
10.2.4.Connecting using the HDMI port (CEC)

CEC (Consumer Electronics Control) is a functionality that works via HDMI. The devices that are connected to each other in this way communicate via CEC. This allows these devices to be controlled via the touchscreen's remote control.

Connect a device via CEC by inserting an HDMI cable in the touchscreen's HDMI port (5).
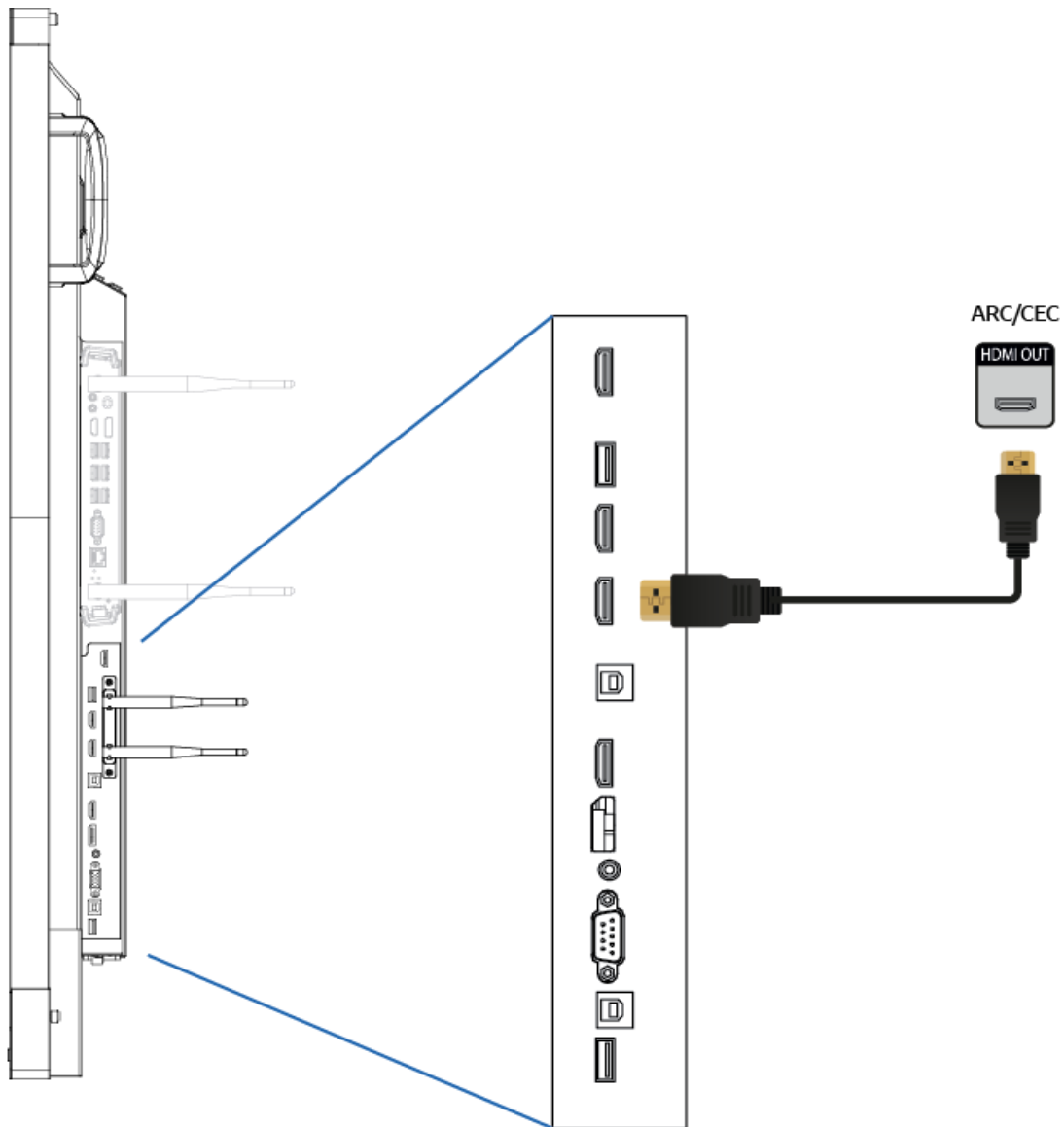
11. Touch Service Tool
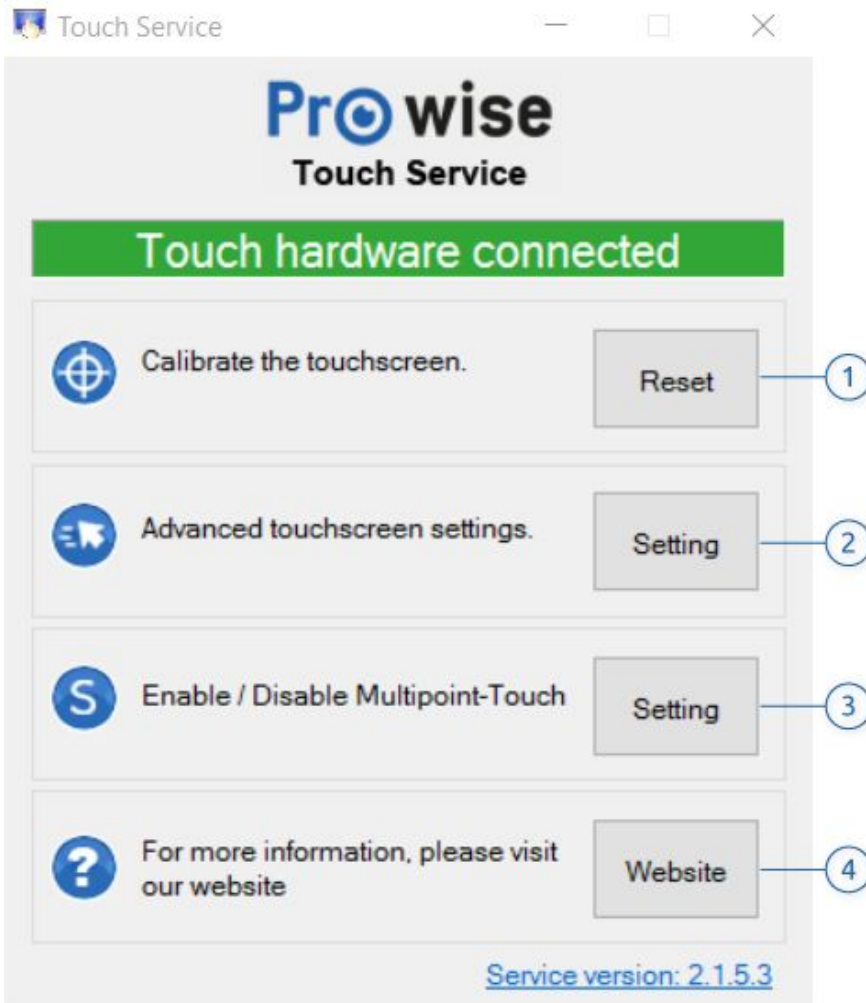
Section	Description
1. Calibrate the touchscreen	Automatically calibrates the touch module
2. Advanced touchscreen settings	This is used to configure the touch module
3. Enable / Disable Multi-Touch	Activates or deactivates multi-touch
4. For more information, please visit our website	Opens the Prowise service page

Appendix

RS232 Protocol and Code list

This appendix describes the hardware interface specification and software protocols of RS232 interface communication between the touchscreen and the connected PC or other control unit with RS232 protocol.

Pin #	Signal	Remark
1	NC	
2	TXD	Output to TV
3	RXD	Input from TV
4	NC	
5	GND	
6	NC	
7	NC	
8	NC	
9	NC	
frame	GND	

Pin2 is TXD Pin3 is RXD. Pin to Pin connection as below.
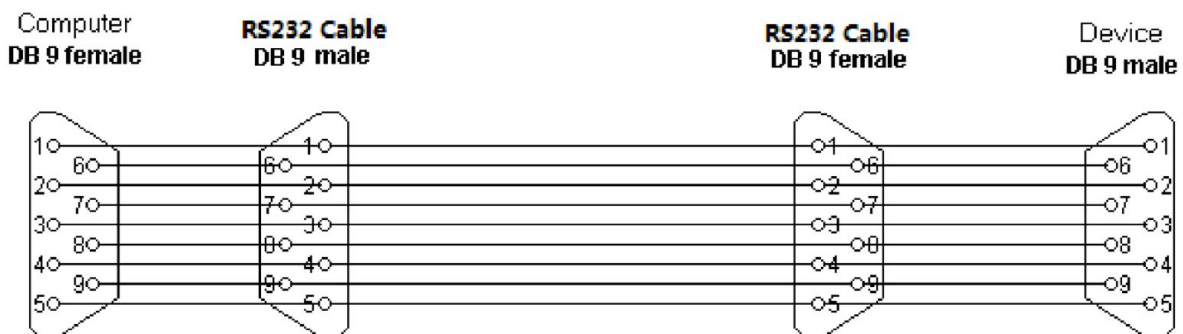
Serial Port Settings

Items	Value
Baud Rate	9600bps (fixed)
Data Bits	8 (fixed)
Stop Bits	1 (fixed)
Parity	None (fixed)
Stream Control	None (fixed)

Protocol description

Command format

No.	Content	Description	Remark
1	0xAA	Head	Fixed value
2	0xBB		Fixed value
3	0xCC		Fixed value
4		Main Command	
5		Subcommand	
6	0x00	Length	Valid data
7	checksum	Checksum	Sum from No.4 to No.6
8	0xDD	End	Fixed value
9	0xEE		Fixed value
10	0xFF		Fixed value

RS232 Code list

Screen Setting

Function	Mode	Code	Remark
Power	ON	AA BB CC 01 00 00 01 DD EE FF	
	OFF	AA BB CC 01 01 00 02 DD EE FF	
Source	VGA1	AA BB CC 02 03 00 05 DD EE FF	
	HDMI1	AA BB CC 02 06 00 08 DD EE FF	
	HDMI2	AA BB CC 02 07 00 09 DD EE FF	
	HDMI3	AA BB CC 02 05 00 07 DD EE FF	
	AV	AA BB CC 02 02 00 04 DD EE FF	
	DP	AA BB CC 02 11 00 13 DD EE FF	
	PC	AA BB CC 02 08 00 0A DD EE FF	
	Android	AA BB CC 02 0A 00 0C DD EE FF	
Volume	Volume	AA BB CC 03 00 xx ** DD EE FF	
	MUTE	AA BB CC 03 01 00 04 DD EE FF	
	UNMUTE	AA BB CC 03 01 01 05 DD EE FF	
	Bass	AA BB CC 03 07 xx ** DD EE FF	
	Treble	AA BB CC 03 08 xx ** DD EE FF	
	Balance	AA BB CC 03 04 yy ## DD EE FF	
	Audio internal	AA BB CC 03 05 00 08 DD EE FF	
	Audio external	AA BB CC 03 05 01 09 DD EE FF	
	Audio Internal & External	AA BB CC 03 05 02 0A DD EE FF	
	Audio preset: Standard	AA BB CC 03 06 00 09 DD EE FF	
	Audio preset: Movie	AA BB CC 03 06 01 0A DD EE FF	
	Audio preset: Meeting	AA BB CC 03 06 02 0B DD EE FF	
	Audio preset: Class	AA BB CC 03 06 03 0C DD EE FF	
	Audio preset: Custom	AA BB CC 03 06 04 0D DD EE FF	
Screen/Display	Aspect Ratio: 4:3	AA BB CC 08 01 00 09 DD EE FF	
	Aspect Ratio: 16:9	AA BB CC 08 00 00 08 DD EE FF	
	Aspect Ratio: PTP	AA BB CC 08 07 00 0F DD EE FF	
	Brightness	AA BB CC 08 09 xx ** DD EE FF	
	Contrast	AA BB CC 08 0A xx ** DD EE FF	
	Hue	AA BB CC 08 0B xx ** DD EE FF	
	Sharpness	AA BB CC 08 0C xx ** DD EE FF	
	Display preset: Standard	AA BB CC 08 0D 00 15 DD EE FF	

	Display preset: Bright	AA BB CC 08 0D 01 16 DD EE FF	
	Display preset: Colorful	AA BB CC 08 0D 02 17 DD EE FF	
	Display preset: Soft	AA BB CC 08 0D 03 18 DD EE FF	
	Display preset: Custom	AA BB CC 08 0D 04 19 DD EE FF	
Settings	Languages : English	AA BB CC 38 02 00 3A DD EE FF	
	Languages : Dutch	AA BB CC 38 02 01 3B DD EE FF	
	Languages : German	AA BB CC 38 02 02 3C DD EE FF	
	Languages : French	AA BB CC 38 02 03 3D DD EE FF	
	Languages : Italian	AA BB CC 38 02 04 3E DD EE FF	
	Languages : Spanish	AA BB CC 38 02 05 3F DD EE FF	
	Languages : Swedish	AA BB CC 38 02 06 40 DD EE FF	
	Languages : Norwegian	AA BB CC 38 02 07 41 DD EE FF	
	Languages : Danish	AA BB CC 38 02 08 42 DD EE FF	
	Key lock : Off	AA BB CC 38 04 00 3C DD EE FF	
	Key lock : On	AA BB CC 38 04 01 3D DD EE FF	
	IR lock : Off	AA BB CC 38 05 00 3D DD EE FF	
	IR lock : On	AA BB CC 38 05 01 3E DD EE FF	
	Touch : Off	AA BB CC 38 07 00 3F DD EE FF	
	Touch : On	AA BB CC 38 07 01 40 DD EE FF	
	RS232 : Off	AA BB CC 38 08 00 40 DD EE FF	
PC Power	ON	AA BB CC 09 01 00 0A DD EE FF	
	OFF	AA BB CC 09 00 00 09 DD EE FF	

Remote Control Setting

Function	Mode	Code	Remark
Remote Control	WIN	AA BB CC 07 0B 00 12 DD EE FF	
	Space	AA BB CC 07 46 00 4D DD EE FF	
	Alt + Tab	AA BB CC 07 1D 00 24 DD EE FF	
	Alt+F4	AA BB CC 07 1F 00 26 DD EE FF	
	NUM_1	AA BB CC 07 00 00 07 DD EE FF	
	NUM_2	AA BB CC 07 10 00 17 DD EE FF	
	NUM_3	AA BB CC 07 11 00 18 DD EE FF	
	NUM_4	AA BB CC 07 13 00 1A DD EE FF	
	NUM_5	AA BB CC 07 14 00 1B DD EE FF	
	NUM_6	AA BB CC 07 15 00 1C DD EE FF	
	NUM_7	AA BB CC 07 17 00 1E DD EE FF	
	NUM_8	AA BB CC 07 18 00 1F DD EE FF	
	NUM_9	AA BB CC 07 19 00 20 DD EE FF	
	NUM_0	AA BB CC 07 1B 00 22 DD EE FF	
	Display	AA BB CC 07 1C 00 23 DD EE FF	
	Input	AA BB CC 07 07 00 0E DD EE FF	
	Home	AA BB CC 07 48 00 4F DD EE FF	
	Menu	AA BB CC 07 0D 00 14 DD EE FF	
	Backspace	AA BB CC 07 40 00 47 DD EE FF	
	Blank screen	AA BB CC 07 4E 00 55 DD EE FF	
	UP	AA BB CC 07 47 00 4E DD EE FF	
	DOWN	AA BB CC 07 4D 00 54 DD EE FF	
	LEFT	AA BB CC 07 49 00 50 DD EE FF	
	RIGHT	AA BB CC 07 4B 00 52 DD EE FF	
	ENTER	AA BB CC 07 4A 00 51 DD EE FF	
	Back / Escape	AA BB CC 07 0A 00 11 DD EE FF	
	VOL+	AA BB CC 07 03 00 0A DD EE FF	
	VOL-	AA BB CC 07 41 00 48 DD EE FF	
	PageUp	AA BB CC 07 42 00 49 DD EE FF	
	PageDown	AA BB CC 07 0F 00 16 DD EE FF	
	F1	AA BB CC 07 45 00 4C DD EE FF	
	F2	AA BB CC 07 12 00 19 DD EE FF	

	F3	AA BB CC 07 51 00 58 DD EE FF	
	F4	AA BB CC 07 5B 00 62 DD EE FF	
	F5	AA BB CC 07 44 00 4B DD EE FF	
	F6	AA BB CC 07 50 00 57 DD EE FF	
	F7	AA BB CC 07 43 00 4A DD EE FF	
	F8	AA BB CC 07 1A 00 21 DD EE FF	
	F9	AA BB CC 07 04 00 0B DD EE FF	
	F10	AA BB CC 07 59 00 60 DD EE FF	
	F11	AA BB CC 07 57 00 5E DD EE FF	
	F12	AA BB CC 07 08 00 0F DD EE FF	
	Shift + F10	AA BB CC 07 16 00 1D DD EE FF	
	Red	AA BB CC 07 5C 00 63 DD EE FF	
	Green	AA BB CC 07 5D 00 64 DD EE FF	

Polling Code List

Function	Mode	Code	Response Code (polling)	State (polling)
Polling:	Obtain power state	AA BB CC 01 02 00 03 DD EE FF	AA BB CC 80 00 00 80 DD EE FF	On
			AA BB CC 80 01 00 81 DD EE FF	Stand-by
	Obtain volume state	AA BB CC 03 02 00 05 DD EE FF	AA BB CC 82 00 xx ** DD EE FF	Volume Level
	Obtain mute state	AA BB CC 03 03 00 06 DD EE FF	AA BB CC 82 01 00 83 DD EE FF	Muted
			AA BB CC 82 01 01 84 DD EE FF	Unmuted
	Obtain input state	AA BB CC 02 00 00 02 DD EE FF	AA BB CC 81 03 00 84 DD EE FF	VGA
			AA BB CC 81 06 00 87 DD EE FF	HDMI1
			AA BB CC 81 07 00 88 DD EE FF	HDMI2
			AA BB CC 81 05 00 86 DD EE FF	HDMI3
			AA BB CC 81 11 00 92 DD EE FF	DP
			AA BB CC 81 02 00 83 DD EE FF	AV
			AA BB CC 81 08 00 89 DD EE FF	PC
			AA BB CC 81 0A 00 8B DD EE FF	Android
	Obtain PC state	AA BB CC 09 02 00 0B DD EE FF	AA BB CC 83 01 00 84 DD EE FF	PC Off
			AA BB CC 83 00 00 83 DD EE FF	PC On
			AA BB CC 83 02 00 85 DD EE FF	PC Sleep
			AA BB CC 83 03 00 86 DD EE FF	PC Hibernate
	Obtain Blank screen state	AA BB CC 35 02 00 37 DD EE FF	AA BB CC 35 03 01 39 DD EE FF	Blank screen active
			AA BB CC 35 03 00 38 DD EE FF	Blank screen not active

Pro⊙wise

	Obtain Keylock state	AA BB CC 39 00 00 39 DD EE FF	AA BB CC 40 00 01 41 DD EE FF	Key-lock active
			AA BB CC 40 00 00 40 DD EE FF	Key-lock not active
	Obtain IR lock state	AA BB CC 39 01 00 3A DD EE FF	AA BB CC 40 01 01 42 DD EE FF	IR-lock active
			AA BB CC 40 01 00 41 DD EE FF	IR-lock not active
	Obtain brightness state	AA BB CC 39 02 00 3B DD EE FF	AA BB CC 40 02 xx ** DD EE FF	Brightness Level
	Obtain contrast state	AA BB CC 39 03 00 3C DD EE FF	AA BB CC 40 03 xx ** DD EE FF	Contrast Level
	Obtain hue state	AA BB CC 39 04 00 3D DD EE FF	AA BB CC 40 04 xx ** DD EE FF	Hue Level
	Obtain sharpness state	AA BB CC 39 05 00 3E DD EE FF	AA BB CC 40 05 xx ** DD EE FF	Sharpness Level
	Obtain display preset	AA BB CC 39 06 00 3F DD EE FF	AA BB CC 40 06 00 46 DD EE FF	Standard
			AA BB CC 40 06 01 47 DD EE FF	Bright
			AA BB CC 40 06 02 48 DD EE FF	Colorful
			AA BB CC 40 06 03 49 DD EE FF	Soft
			AA BB CC 40 06 04 4A DD EE FF	Custom
	Obtain Aspect Ratio state	AA BB CC 39 07 00 40 DD EE FF	AA BB CC 40 07 01 48 DD EE FF	4:3
			AA BB CC 40 07 02 49 DD EE FF	16:9
			AA BB CC 40 07 03 4A DD EE FF	PTP
	Obtain bass state	AA BB CC 39 08 00 41 DD EE FF	AA BB CC 40 08 xx ** DD EE FF	Bass Level
	Obtain treble state	AA BB CC 39 09 00 42 DD EE FF	AA BB CC 40 09 xx ** DD EE FF	Treble Level
	Obtain balance state	AA BB CC 39 0A 00 43 DD EE FF	AA BB CC 40 0A yy ## DD EE FF	Balance Level
	Obtain sound preset	AA BB CC 39 0B 00 44 DD EE FF	AA BB CC 40 0B 00 4B DD EE FF	Standard
			AA BB CC 40 0B 01 4C DD EE FF	Movie
			AA BB CC 40 0B 02 4D DD EE FF	Meeting
			AA BB CC 40 0B 03 4E DD EE FF	Class
			AA BB CC 40 0B 04 4F DD EE FF	Custom
	Obtain audio output state	AA BB CC 39 0C 00 45 DD EE FF	AA BB CC 40 0C 00 4C DD EE FF	Internal
			AA BB CC 40 0C 01 4D DD EE FF	External
			AA BB CC 40 0C 02 4E DD EE FF	Both
	Obtain language state	AA BB CC 39 0F 00 48 DD EE FF	AA BB CC 40 0F 00 4F DD EE FF	English
			AA BB CC 40 0F 01 50 DD EE FF	Dutch

			AA BB CC 40 0F 02 51 DD EE FF	German
			AA BB CC 40 0F 03 52 DD EE FF	French
			AA BB CC 40 0F 04 53 DD EE FF	Italian
			AA BB CC 40 0F 05 54 DD EE FF	Spanish
			AA BB CC 40 0F 06 55 DD EE FF	Swedish
			AA BB CC 40 0F 07 56 DD EE FF	Norwegian
			AA BB CC 40 0F 08 57 DD EE FF	Danish
	Obtain Touch state	AA BB CC 39 12 00 4B DD EE FF	AA BB CC 40 12 01 53 DD EE FF	Touch active
			AA BB CC 40 12 00 52 DD EE FF	Touch not active
	Obtain RS232 state	AA BB CC 39 13 00 4B DD EE FF	AA BB CC 40 13 00 53 DD EE FF	RS232 active

xx =   from 0 to 100, for Volume, Bass, Treble, Brightness, Contrast, Hue and Sharpness

Ex. Volume =   30(Decimal) = 1E(Hex), xx=1E and ** = 1E(Hex) + 82(Hex) = A0(Hex)

yy =   from -50 to 50, for Balance

Ex. Balance =   -20(Decimal) = EC(Hex), yy=EC and ## = EC(Hex) + -4A(Hex) = 36(Hex)

Ex. Balance =   0(Decimal) = 00(Hex), yy= 00 and ## = 00(Hex) + 4A(Hex) = 4A(Hex)

Ex. Balance =   20(Decimal) = 14(Hex), yy=14 and ## = 14(Hex) + 4A(Hex) = 5E(Hex)