Kindermann TD-10552-S Touch Display TD User Manual

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User Manual

Touch Displays
TD-10552 -S / TD-1065 2 -S / TD-1075 2-S / TD-1086 2-S
Art.-№ / Ref.No. 305000001x
User manual

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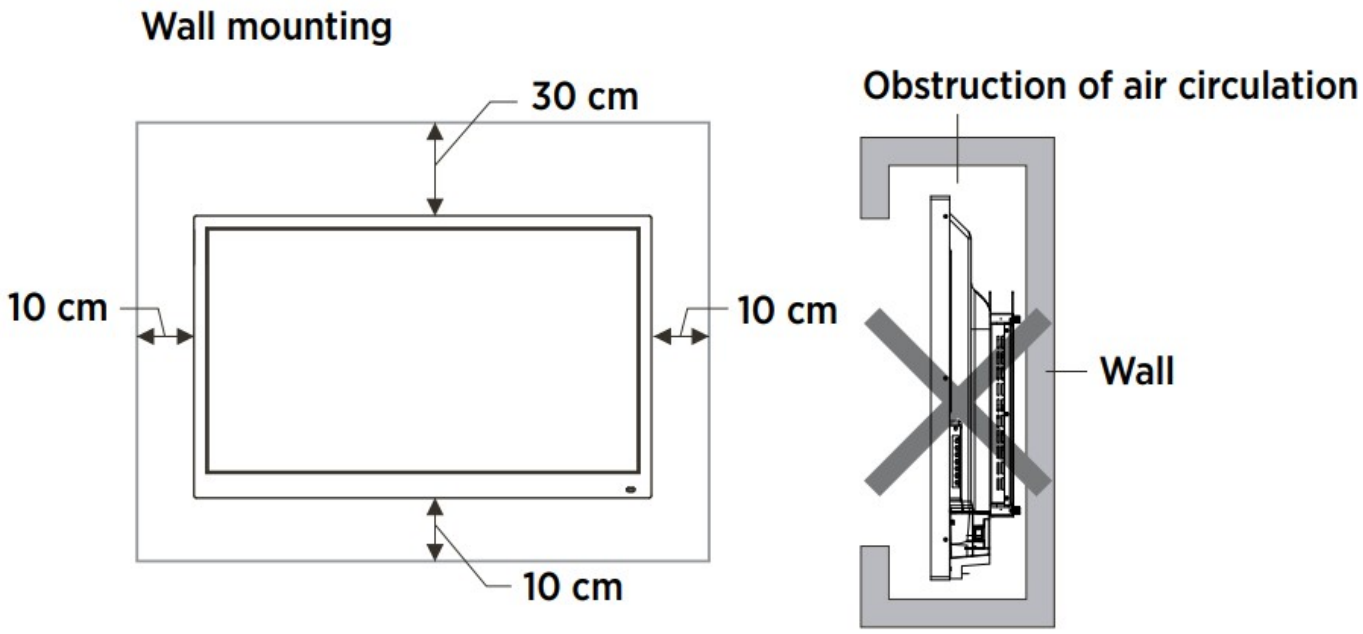
Precautionary measures and safety instructions

- Please read this manual carefully before using the product and keep it in a safe place.
- Transport the display with at least two persons.
- Only place the display on a stable, level surface.
- If the unit is moved from a cold to a warm environment, condensation may form inside.
  In such a case, the product should not be moved for at least 24 hours before restarting so that the condensate can dry in the air.
- Do not allow liquids or metallic objects to enter the product. If this is the case, disconnect the power plug immediately and contact Service.
- Do not wipe with solvents such as benzine, acids, alkalis, aggressive or abrasive detergents, volatile oils and thinners as these solvents may damage the product.
- Do not apply force when wiping the display as this may scratch the display.
- Do not operate the display in direct sunlight.
- The ventilation openings must not be covered.
- A 3-pole power cable is included. Before installation, make sure that the ground connection of the socket is properly earthed. Do not lay the power cord in passageways to prevent persons from stepping on it; also keep it away from areas where it may be crushed.
- If the display will not be used for an extended period of time, turn it off and unplug it.
- If there are unusual noises or smells, turn it off immediately and unplug it. If necessary, discontinue use and contact service personnel as soon as possible.
- Do not attempt to open or disassemble this product as this may expose you to dangerous voltage or other risks.
- Avoid leaving static content, text or icons on the screen for too long, as this may result in a „ghost image“ on the screen.

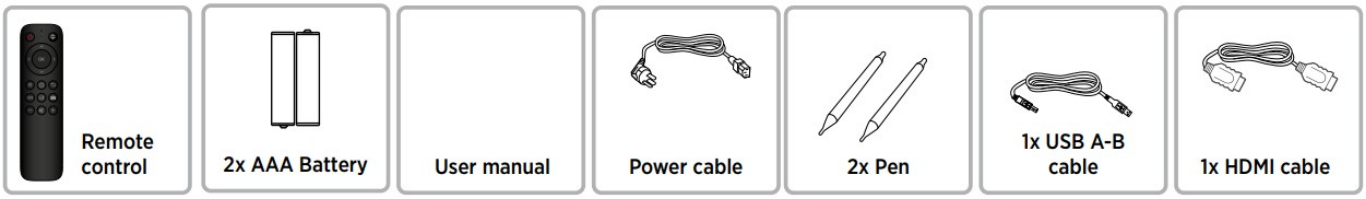
1.1 Installation Precautions

- At least two qualified fitters are required to install the wall bracket.
- For wall mounting, use a suitable bracket and approved mounting material.
- Before mounting, make sure that the wall has sufficient load-bearing capacity.
- Do not install the display diagonally or horizontally.
- Mount the display in a horizontal position only.



⚠ Please follow the instructions in the bracket manual for installation.

Accessories included



Ports

3.1 Connections at the front

1. OPS USB Port** (USB 3.0 interface, accessible via OPS PCs)
2. PUBLIC-USB (pass-through to the active source)
3. TOUCH-USB (Assigned to HDMI input 4)
4. HDMI input

** optimal function with brands USB 3.0 stick

3.2 Connections on the side

5. 2x HDMI input
6. DP (DisplayPort) input
7. 2x Android-USB
8. Touch-USB (Assigned to the HDMI 5 and DP 6 inputs)
9. SPDIF (Digial Audio) output
10. HDMI output

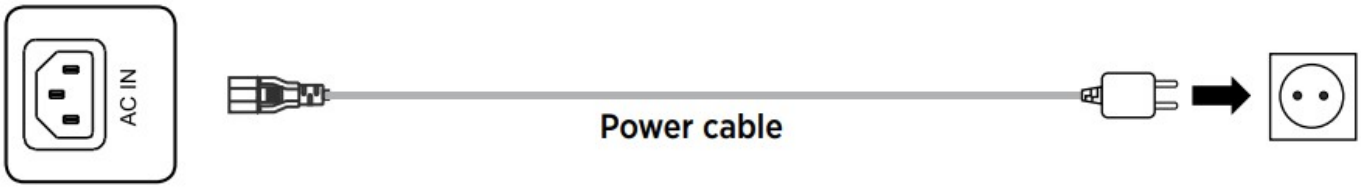
3.3 Connections on the underside

11 . Network hub: The network connection is provided internally with the Android SoC and the OPS PC. A port can also be used to power external network devices.

11. 2x network (LAN 1/2, both 100 Mbits)
12. RS232 input (control)
13. YPbPr input*
14. AV input*
15. AV input*
16. Audio output (3.5 mm jack)
17. Audio input to VGA (3.5 mm jack)
18. VGA input

*optional adapter required

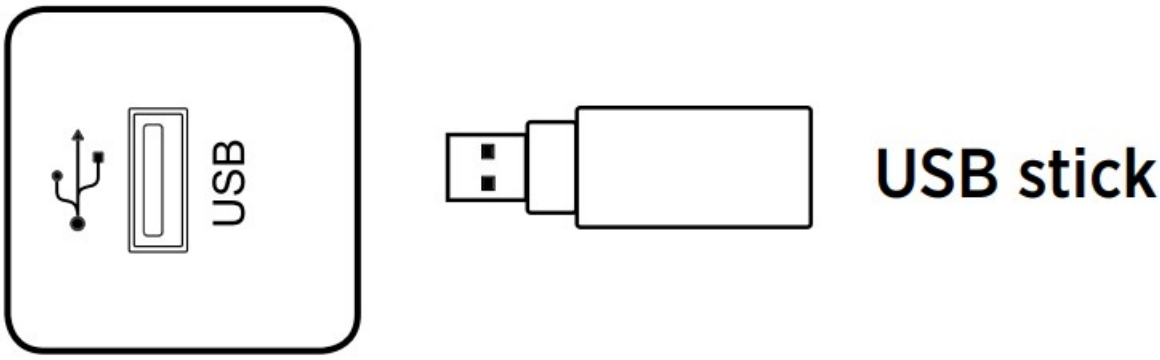
3.4 Electrical connection



To the socket AC 100-240V, 50/60 Hz

3.5 Signal inputs

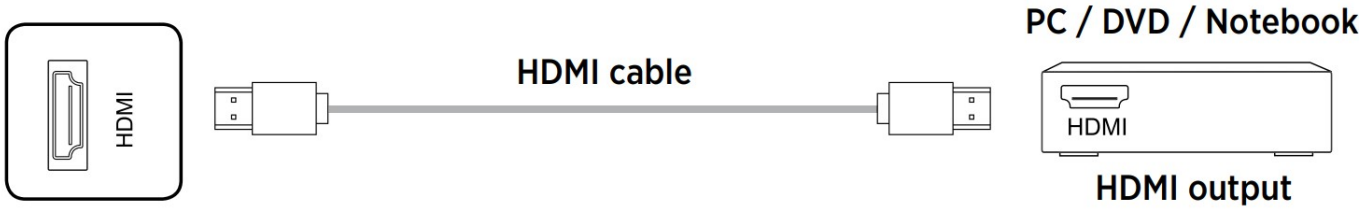
3.5.1 USB



Please note:

1. The output current of the USB 2.0 port is 500 mA. To ensure reliable operation, do not use all USB ports at the same time to charge external devices.
2. The side USB ports 7 are used to connect external devices to the Android system.
   The front USB ports are available to the active source. The assignment is automatic with the source switching.
3. To upgrade the software, please use a USB 2.0 USB stick formatted with the FAT32 file system.
4. Optimal function with brands USB 3.0 stick.

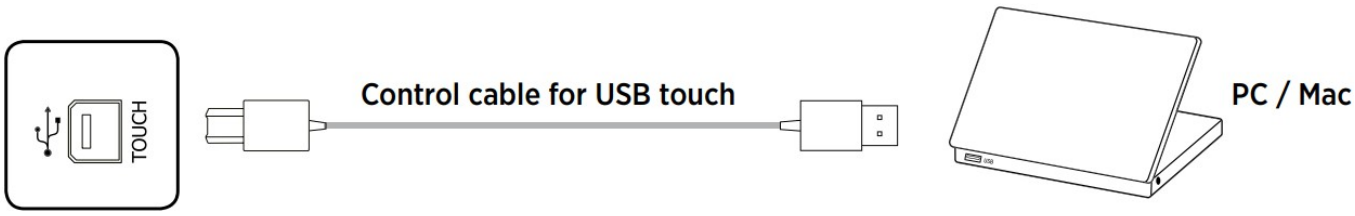
3.5.2 HDMI-IN



Please note:

The maximum supported resolution is 4K@60Hz. Detailed information on the supported signal formats and resolutions can be found in the „Technical Data“ section 9.3, page 42.
The maximum transmission rate depends on the quality and length of the HDMI cable.
We recommend the use of high quality cables.

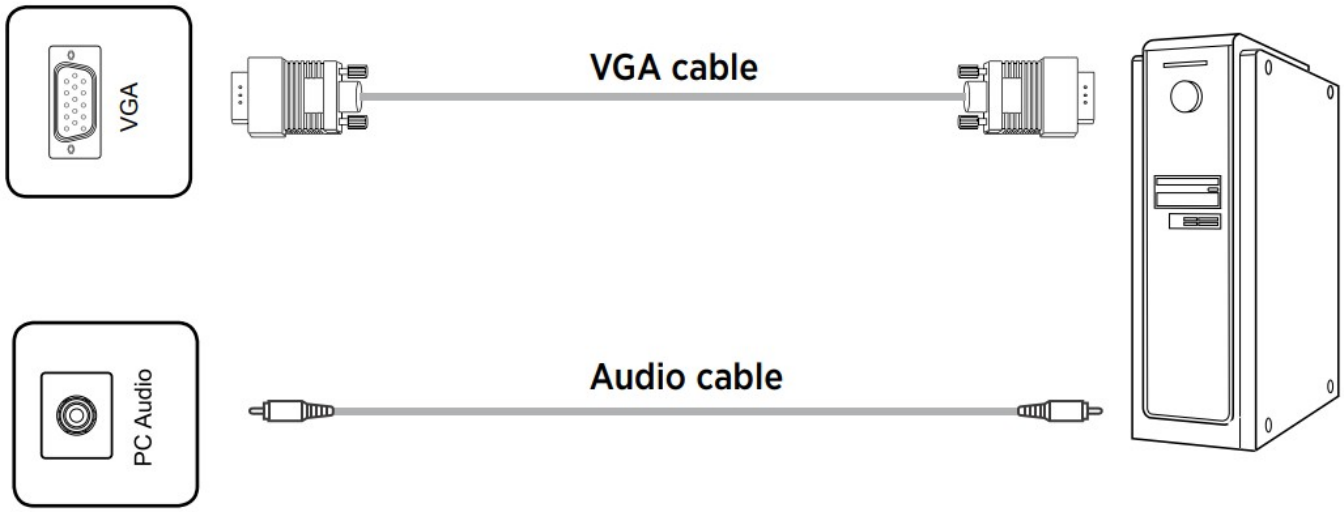
3.5.3 TOUCH connection



Please note:

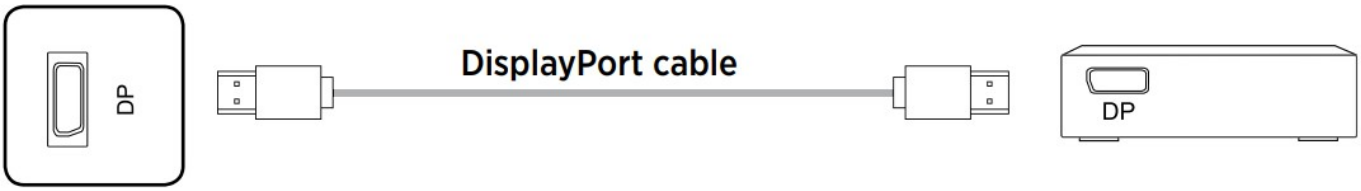
The maximum cable length supported by USB is 5 m. If you want to extend to a longer distance, you must use high quality active cables with integrated signal repeaters.

3.5.4 VGA & analog Audio



Please note:
VGA and audio input work synchronously. Detailed information on the supported signal formats and resolutions can be found in the „Technical Data“ section 9.2, page 42.

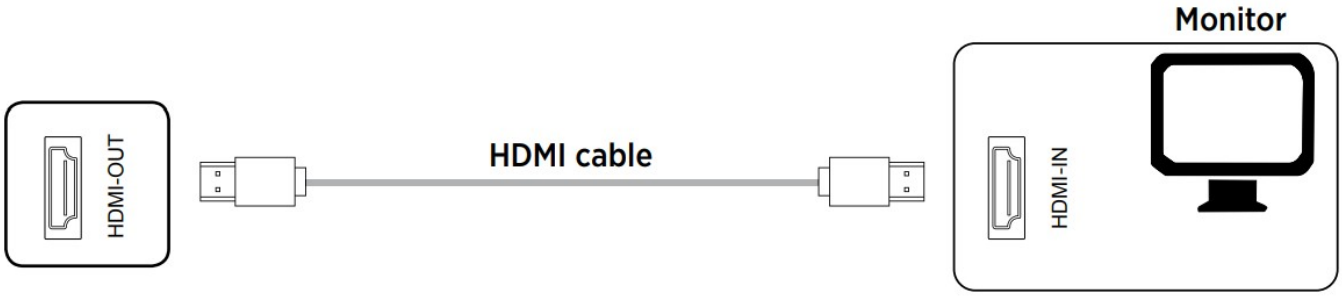
3.5.5 Display Port



Please note:
The maximum supported resolution is 4K@60Hz. The maximum transmission rate depends on the quality and length of the cable.
We recommend the use of high quality cables.

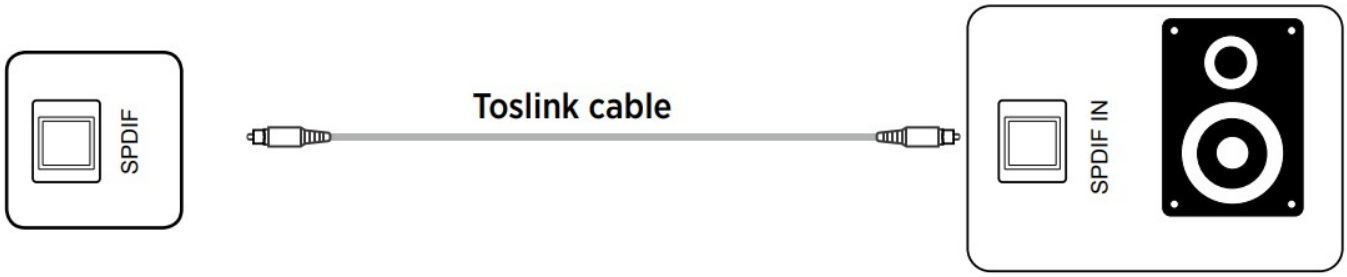
3.6 Signal outputs

3.6.1 HDMI-OUT

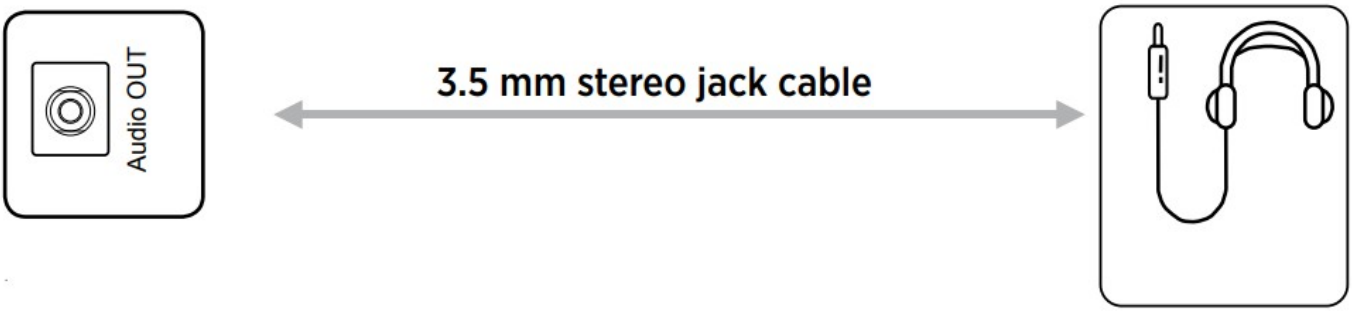


Please note:
At HDMI Out, video and audio signals are available parallel to the currently displayed content in order to display it on a large screen, for example via a projector.

3.6.2 SPDIF – digital audio



3.6.3 Analog audio



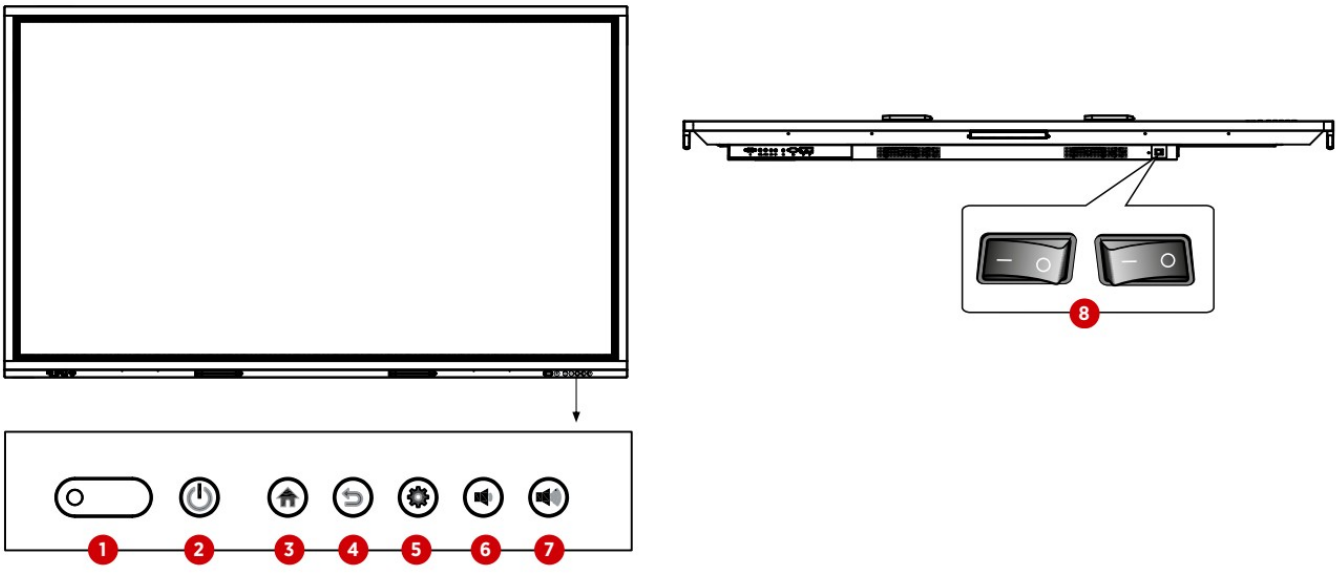
Please note:
The audio outputs provide an audio signal synchronous to the currently displayed video image.

3.7 Control ports

3.7.1 RS232 port

Please note:
The RS232 commands can be found from page 43 onwards in this operating manual.

Function of the panel keys



1. Status LED, receiver for IR remote control and light sensor
2. Power control.
3. Home (Android)
4. Back (Android)
5. Setting (Android)

6. Volume level –
7. Volume level +
8. Mains switch

Remote control unit

5.1 Buttons on the remote control

Button	Function
POWER 	ON / Standby
SOURCE 	Open source selection and settings
NAVIGATION BUTTONS 	Select or customize menu options
OK	Confirm operation
MENU 	Show main menu
HOME 	Show Android settings
BACK 	Android – Back to previous step
OPS	Select OPS PC as source
WHITEBOARD 	Launches the whiteboard app
SNAPSHOT 	Creates a screenshot
VOL –	Decrease volume
MUTE 	Activate/deactivate sound
VOL 	Increase volume

5.2 How to use the remote control

- Point the remote control at the receiver. Objects located between the remote control and the radio receiver may interfere with its operation.
- If the radio receiver is exposed to direct sunlight or strong light, the remote control may malfunction. In this case, change the angle of the lighting or product or use the remote control closer to the radio receiver.
- Replace the batteries when they are weak as this will reduce the range of the remote control.
  If the remote control is not used for an extended period of time or the batteries are empty, remove the batteries as leaking liquid from the batteries may damage the remote control.
- Do not use different types of batteries and do not use new batteries with existing ones. Always replace batteries in pairs.
- Do not throw batteries into a fire, charge them, or disassemble them. Used batteries must not be charged,

short-circuited, disassembled/assembled, heated or burnt.

- Please dispose of empty batteries in accordance with the relevant environmental regulations.

Switch on/switch off

 Power the display. The power switch is located on the bottom of the display.

The power button on the remote control and on the front panel can be used to switch the display on or off.

Please note:
A short push on the front panel switches the display dark.
To switch it to standby mode, press and hold the key for at least 2 seconds.

- **Save before switching off**

  Before switching off, the display saves the picture and sound settings.

  These settings are used during a restart.

- **OPS PC ON/OFF**

  If the display is equipped with an OPS PC and this is selected as the signal source, the OPS module starts automatically.

  Please shut down the OPS computer properly before switching the display into standby mode or off. This can cause damage to the OPS computer or the installed software.

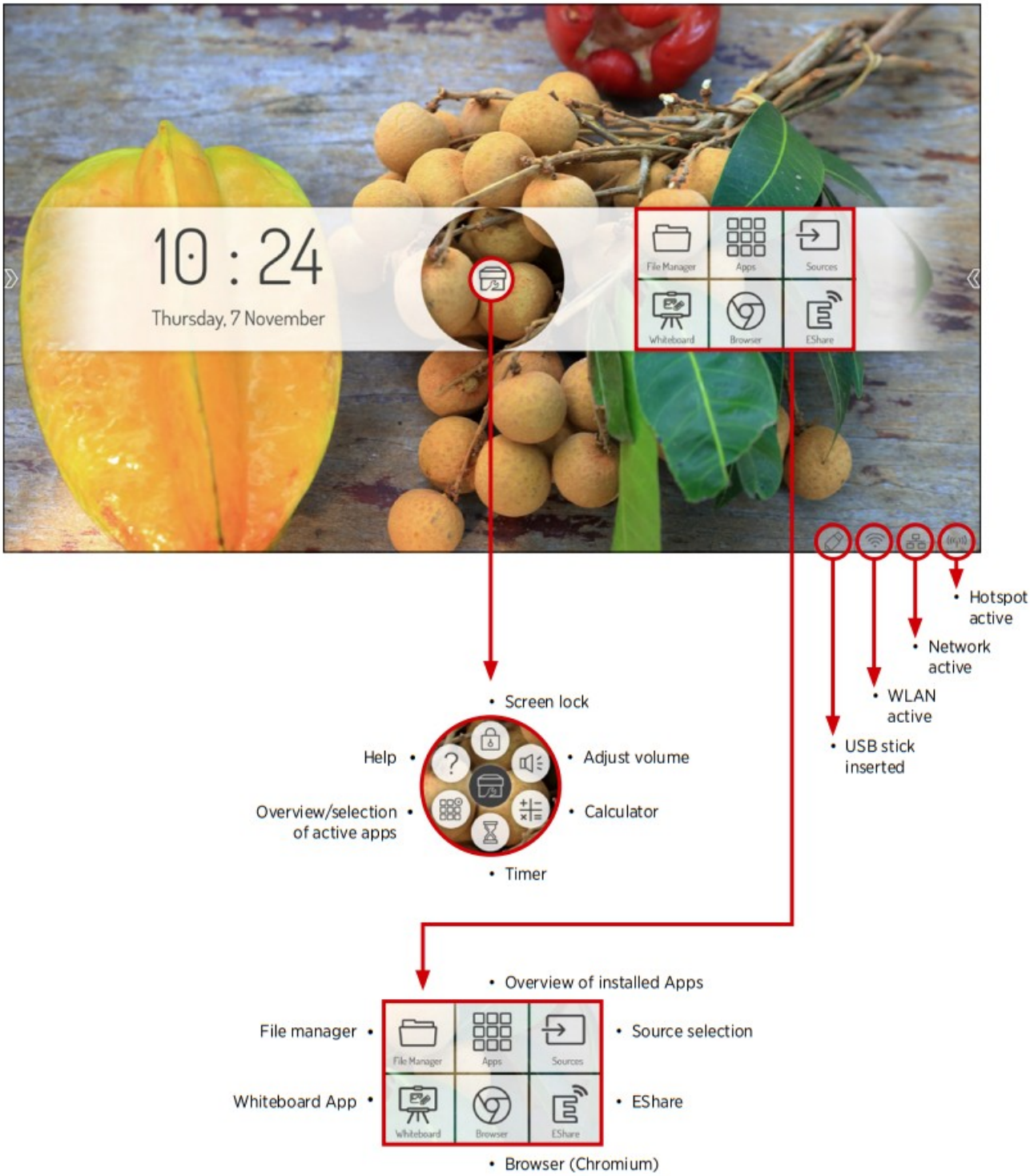
  To switch off the product, the standby button on the panel or remote control can only be used after the OPS module has been completely shut down.

Please note:
The OPS PC can be purchased optionally.

Operation and configuration

7.1 Android home screen

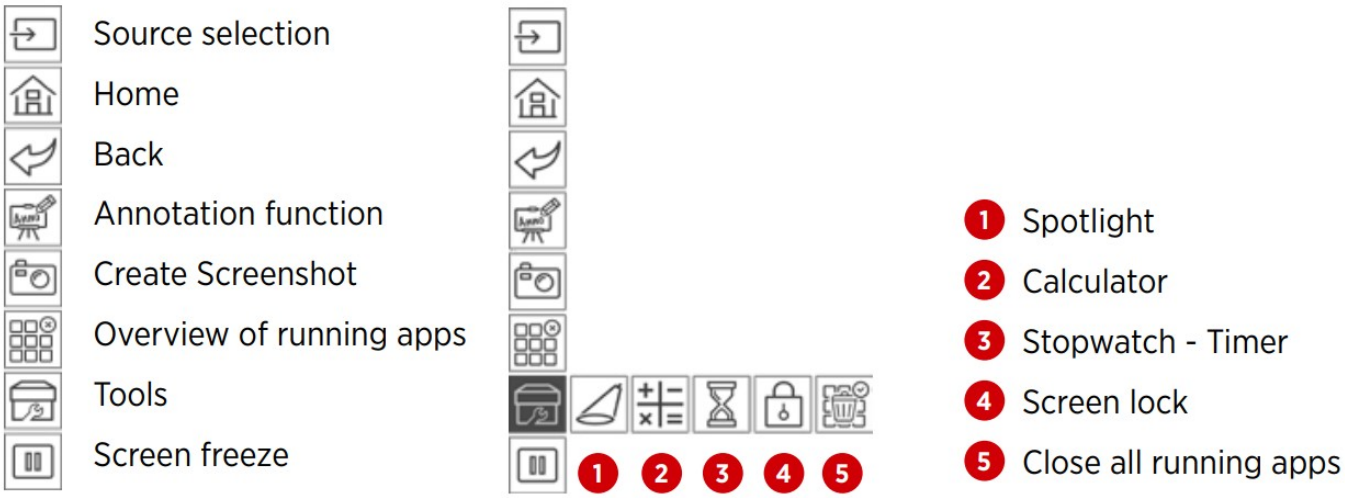
In the standard configuration, the home screen of the integrated Android system is automatically displayed when the display is switched on. From there you have access to all functions, apps and settings.



7.1.1 Sidebar

Tap one of the two semi-transparent arrows on the left and right edges of the screen, or swipe inwards from the edge of the screen to open sidebar.

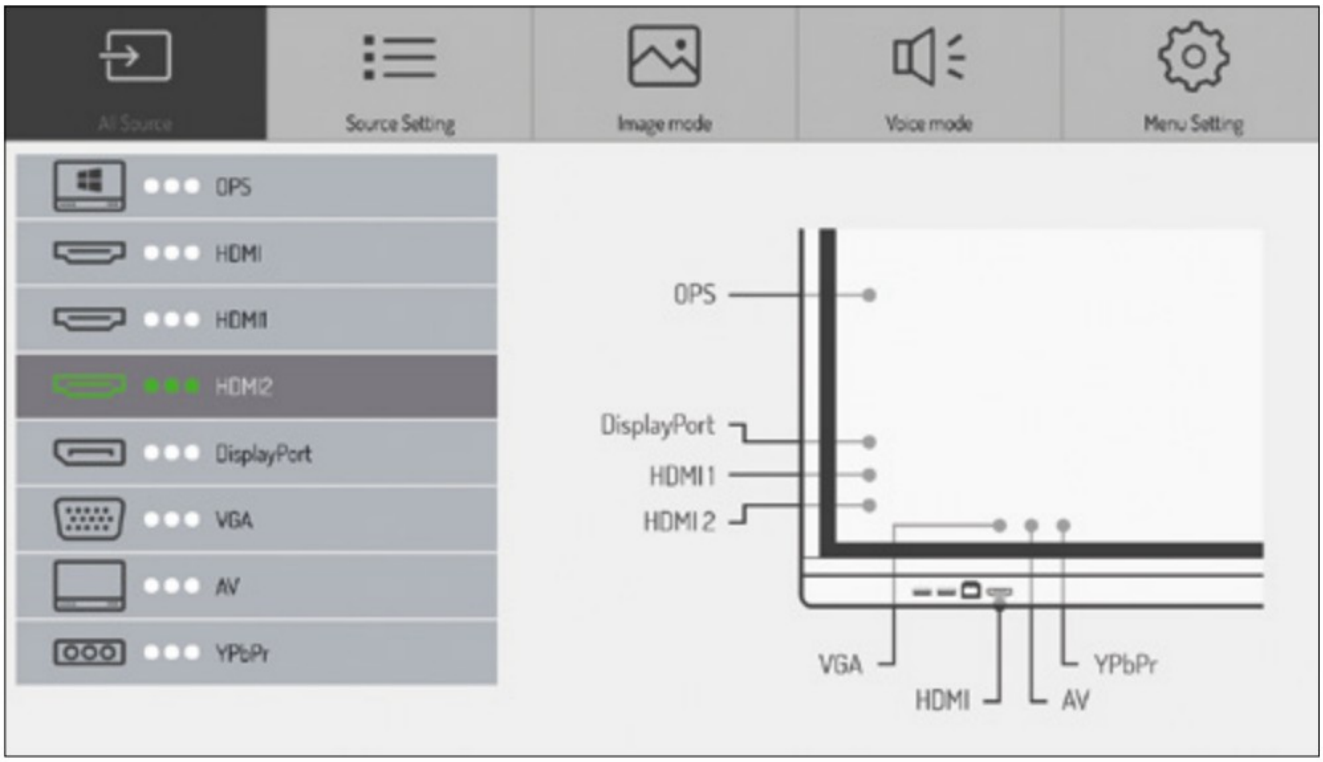
This gives you quick access to the most important functions.



7.2 Source menu

7.2.1 Source > All sources

You can select the input source of the display either by remote control or by touch screen:



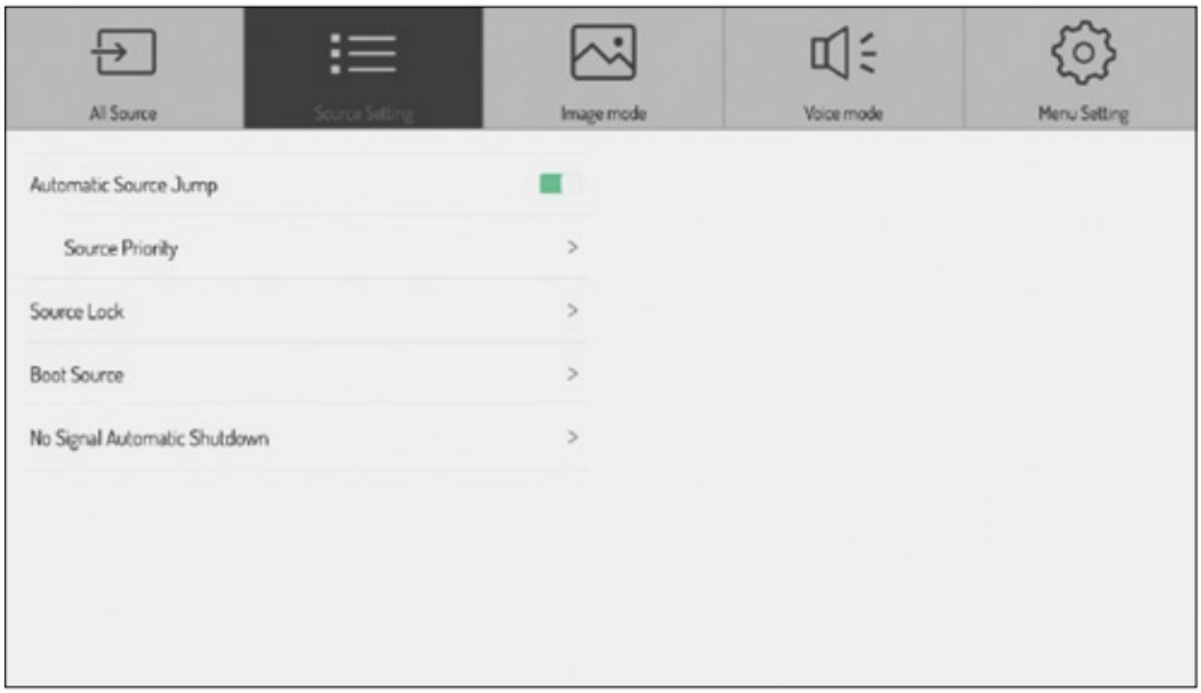
1. Press the Source button on the remote control and use the direction buttons to select the desired source. Confirm your selection with the „OK“ button.
2. Call up the sidebar and tap on the icon  . Select the source by touching the desired interface.
3. From the main menu on the home screen, tap the icon  . Select the source by touching the desired interface.

⚠ **Please note:**

You can recognize an active signal by the 3 green dots. The darker bar indicates the source currently displayed. In order to rename the description of the source, please press and hold on the source‘s name.

7.2.2 Source settings

Select Source selection > Source settings



Here you have the following options:

1. Autoselect source – on/off
   If you activate this option, the display switches automatically to the newly connected source. The „Source priority“ submenu is available only when the autoselect source has been activated. In this menu you define the priority of the input sources. Which means that the imput will only change automatically if the new source has a higher or equal priority than the current one (1 is the highest, 5 is the lowest priority).
2. Source lock
   This setting allows you to restrict the selection of video inputs, for example to prevent operating errors.
3. Boot source
   Defines which signal input is displayed by default after the display has been switched on.
4. Auto shutdown – no signal
   If this function is activated, the display is switched off after a defined time without an input signal. You can select between Off or 5, 15 and 30 minutes.

7.2.3 Image settings
Select the item Source > Image Mode
Here you can adjust the color settings, saturation, etc.

Please note:

These settings affect the image of connected video sources (HDMI, DisplayPort, VGA) only.

7.2.4 Audio settings

Select Source > Voice Mode

Here you can change the audio settings, i. e. adjust the volume control and make basic sound settings.
You can also specify whether the audio output should be in parallel on the integrated speakers and the audio output or only on the output.

7.2.5 Settings

Select the item Source > Settings

Here you can define whether the brightness of the backlight should be changed manually or adjusted dynamically according to the ambient brightness (automatic backlighting). The ambient light sensor is located at the front next to the status LED.
If you activate the HDMI CEC option, the display can be controlled by other CEC compatible devices.
HDMI EDID specifies the maximum resolution and image refresh rate of the source devices.

A lower refresh rate can
help to minimize signal problems.
EDID 1.4 = 3920×2160 @ 30 Hz (10,2 Gbits)
EDID 2.0 = 3920×2160 @ 60 Hz (18 Gbits)
HDR: Change the HDR settings of input signal, if available
HDMI Out: set the output resolution provided by the HDMI output.
At HDMI output you can set the resolution of the HDMI output.

⚠ Please note:
The HDMI out mirrors the current image of the display.

7.3 Android system settings

Select „Settings“ icon in the sidebar or on the front panel to configure the basic settings of the Android system.

7.3.1 Network settings

7.3.1.1 Settings – Network – WiFi

1. Select the menu item > Network > WiFi
2. Activate WiFi.

   Select the network you want to connect from the list. Enter the appropriate password and click connect.

7.3.1.2 Settings – Network – Ethernet

1. Plug the network cable into the connector on the display see page 28 – hardware interfaces point 10).
2. Select the menu item > Network > Ethernet
3. Activate the network function.
4. Use „DHCP“ to option all network settings automatically and connect to the network. If you select „Static“ you must manually enter the IP address, gateway and DNS server.

⚠ Please note:
The display has an integrated network switch. As soon as the display is connected to a network via one of the two connectors, the network is internally shared to the Android system and the OPS PC (optional) as well as the Wifi Hotspot. Another external device can be connected by using the second network port on the display.

7.3.1.3 Settings – Network – Hotspot

1. Select the menu item > Network > Hotspot
2. Switch on the Hotspot.
3. The default name of the WiFi network (SSID) is „Android AP-xxxx“. This can be changed at any time. To do this, overwrite the existing name.
4. Now select the encryption type. If the network is open, no password is required, which allows everybody to connect! We recommend using WPA PSK/WPA2 PSK encryption. In this case, a password with more than 8 digits must be entered.

⚠ Please note:
Since the display has only one WiFi antenna, WiFi and Hotspot function can‘t be used at the same time.
As soon as one of the two functions is activated, the other is deactivated.
If your Wifi connection isn‘t stable, please perform a scan, e. g. by using an app like „Wifi Analyser“ to check whether other network are transmitting on the same channel. Switch the band or as other network owner to move to another channel.

7.3.2 Settings – Date/Time

Select the menu item > Date/Time settings

Android can automatically synchronize time and date settings via time servers on the Internet. Alternatively, you can also make the settings manually.

7.3.3 Settings – Language

Select the menu item > Language

Select the system language and the keyboard layout.

7.3.4 Settings – System

Select the menu item > System – the following options are available:

- **Wallpaper**
  Here you can upload one or more individual background pictures which will then be displayed on the home screen.
- **Background screen locked**
  Upload a picture, to be displayed when the Android system is locked.
- **No signal background**
  Upload a picture, to be displayed if no signal is present at the active input.
- **Days left tag**

  This function can be used to display a message with a countdown.
  This is shown semi-transparently on top of each source in the upper left corner.
  For example, an important event or a test alarm can be announced.
- **Change screen lock password**
  Enter and change the PIN for unlocking the home screen.
  The factory setting is 888888.
- **Boot lock screen**
  If this option is enabled, the Android home screen is locked after system startup.
  To unlock, enter the 6digit PIN (password).
- **Restore factory setting**
  Resets all settings and configurations to factory defaults.
- **Auto check update**
  If this feature is enabled, the system periodically checks for available updates (Requires an Internet connection).

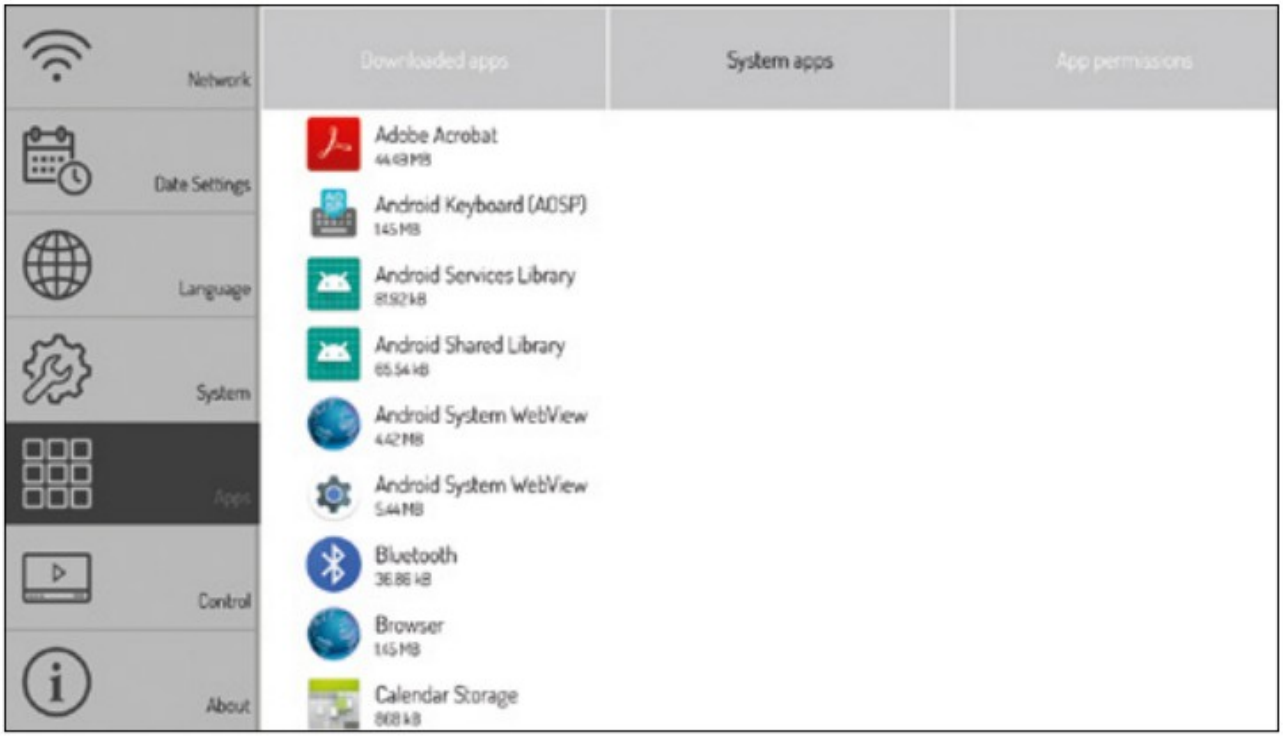
- **Check update**

  Here you can trigger the search for updates automatically (requires an Internet connection).

⚠ **Please note:**
The background images must be saved in PNG or JPEG format. The recommended resolution is 1920 x 1080 and 3840 x 2160 pixels, the file size should not exceed 1 MB in order not to impair the performance.

7.3.5 Settings – Apps

Select the menu item > Settings > Apps
Here you will find an overview of all apps installed on the Android system and their permissions.



⚠ **Please note:**
Changes to the system apps or rights ead to function restrictions or errors. Changes should only be made after prior consultation and approval by Kindermann Support.

7.3.6 Control settings

7.3.6.1 Settings – Lock Control

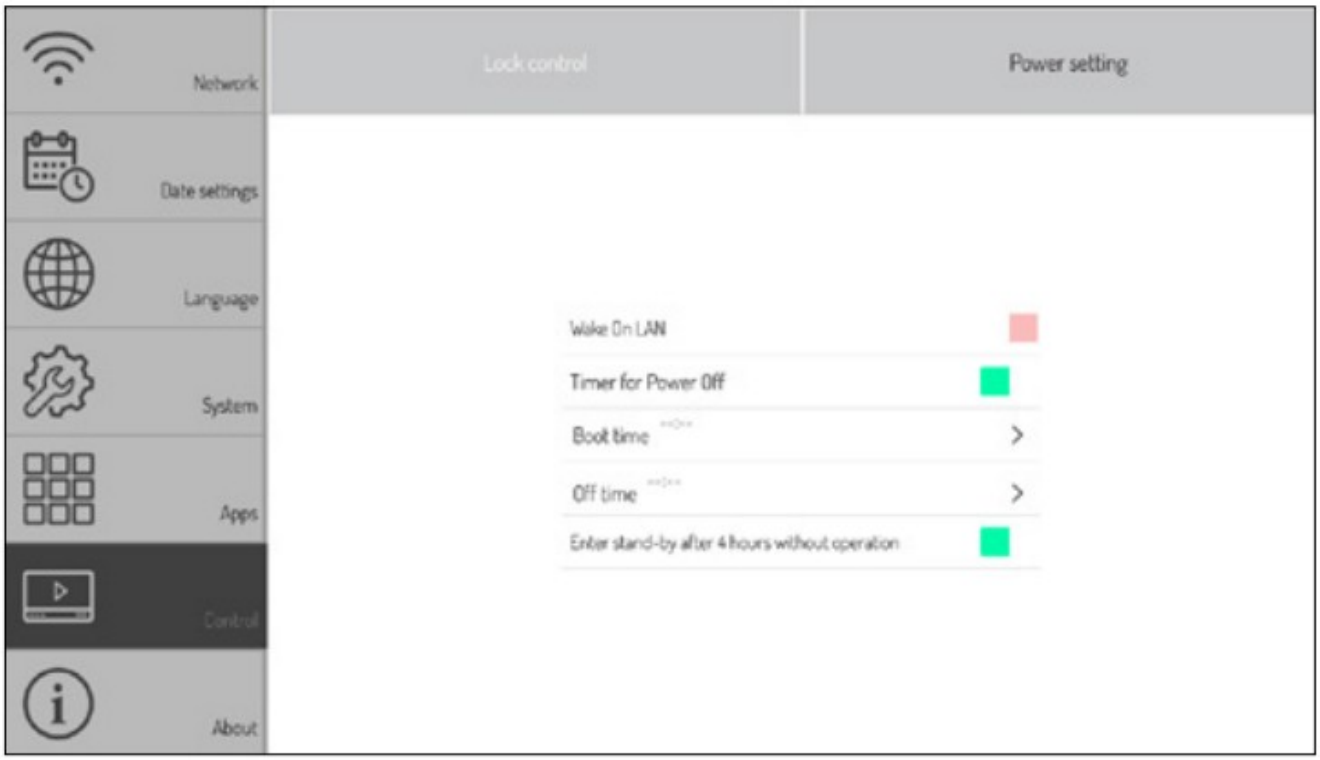
Select the menu item > Apps > Control > Lock control –
The following options are available here:

- **Lock IR remote**
  If this option is activated, no commands from the IR remote control are accepted.
- **Lock touch**
  If this option is activated, the touch function is deactivated. which will be indicated by a small lock icon displayed. This icon can be used to deactivate the touch blocker.
- **Lock front panel keys**
  If this option is activated, the front buttons are switched off.
- **Intelligent screen protection**
  This function protects the panel from „burn-in effects“ that can occur when a static image is displayed over a long period of time.
- **Gestures switch**
  Activate this funciton to hide the small arrows calling up the sidebar.

7.3.6.2 Settings – Control – Power settings

Select the menu item > Apps > Control > Power settings –
The following options are available here:

- Wake On LAN
  If this option is activated, the display can be started via Wake-on-LAN command over the network.
- Timer for power off



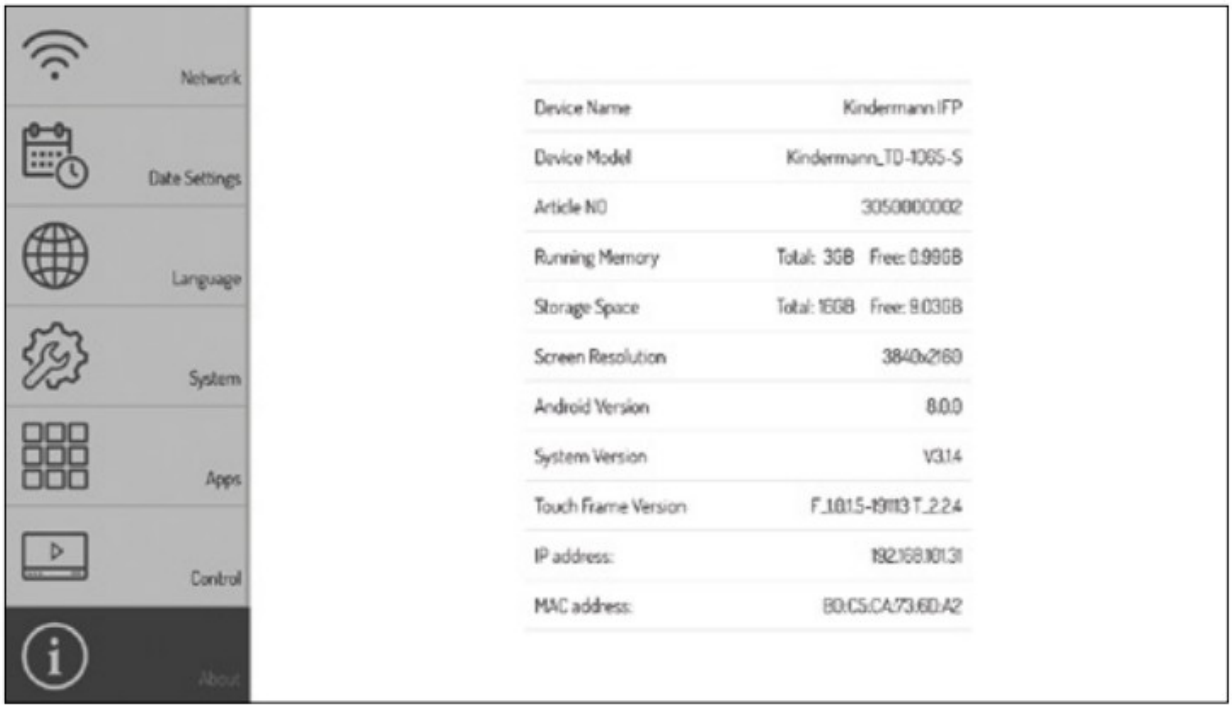
If this option is activated, you can set a schedule to switch the display on and off automatically.

- Enter stand-by after 4 hours of operation

  If this option is activated the display will go to stand-by after 4 hours without any interaction.

7.3.7 Settings – About

Select the menu item > Settings > About – here you will find all relevant system information, e. g. on software versions etc.



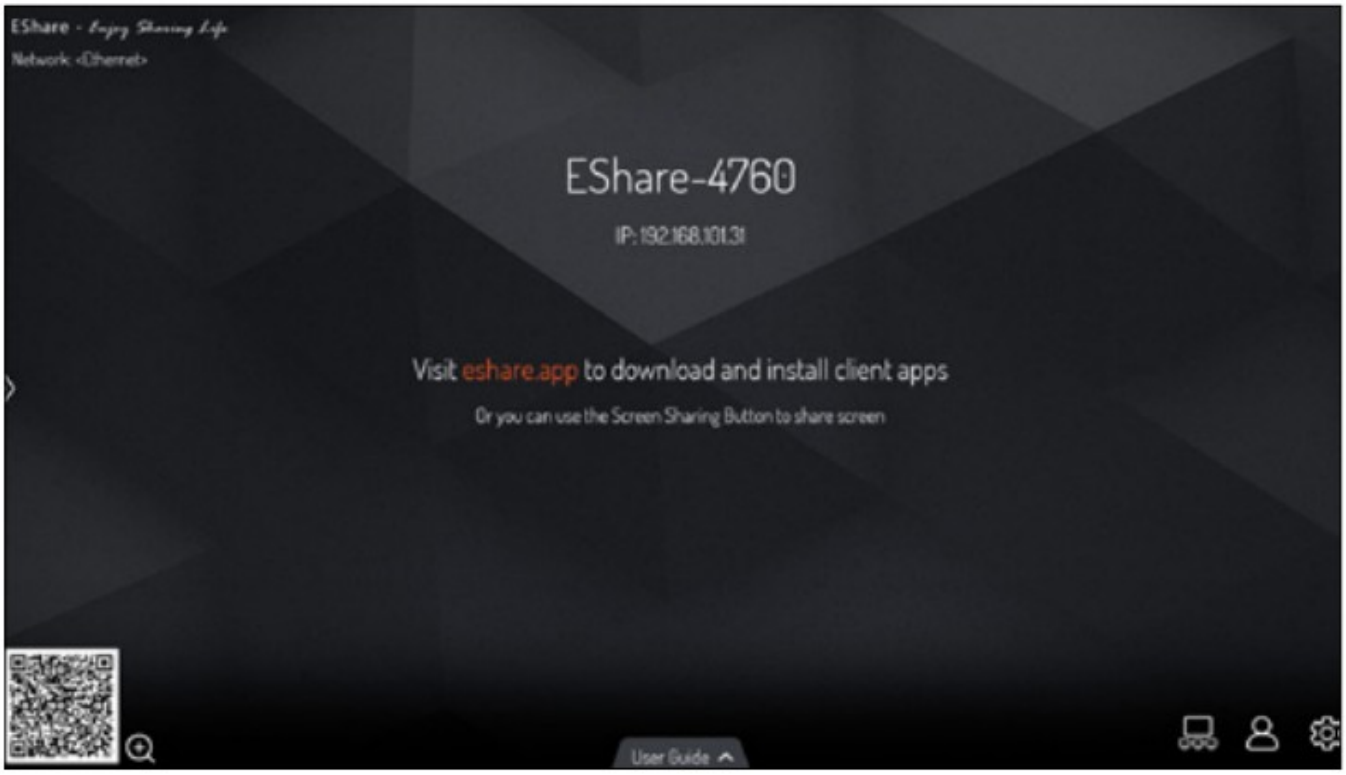
Android System Apps

We have pre-installed the following apps for you:

EShare – BYOD/Wireless Streaming

With this app, you can wirelessly share the screen of your Windows or Mac computer, Android or iOS smartphone and tablet to the display. Please follow the instructions displayed after starting Eshare to download the necessary

apps from the website or appstores.

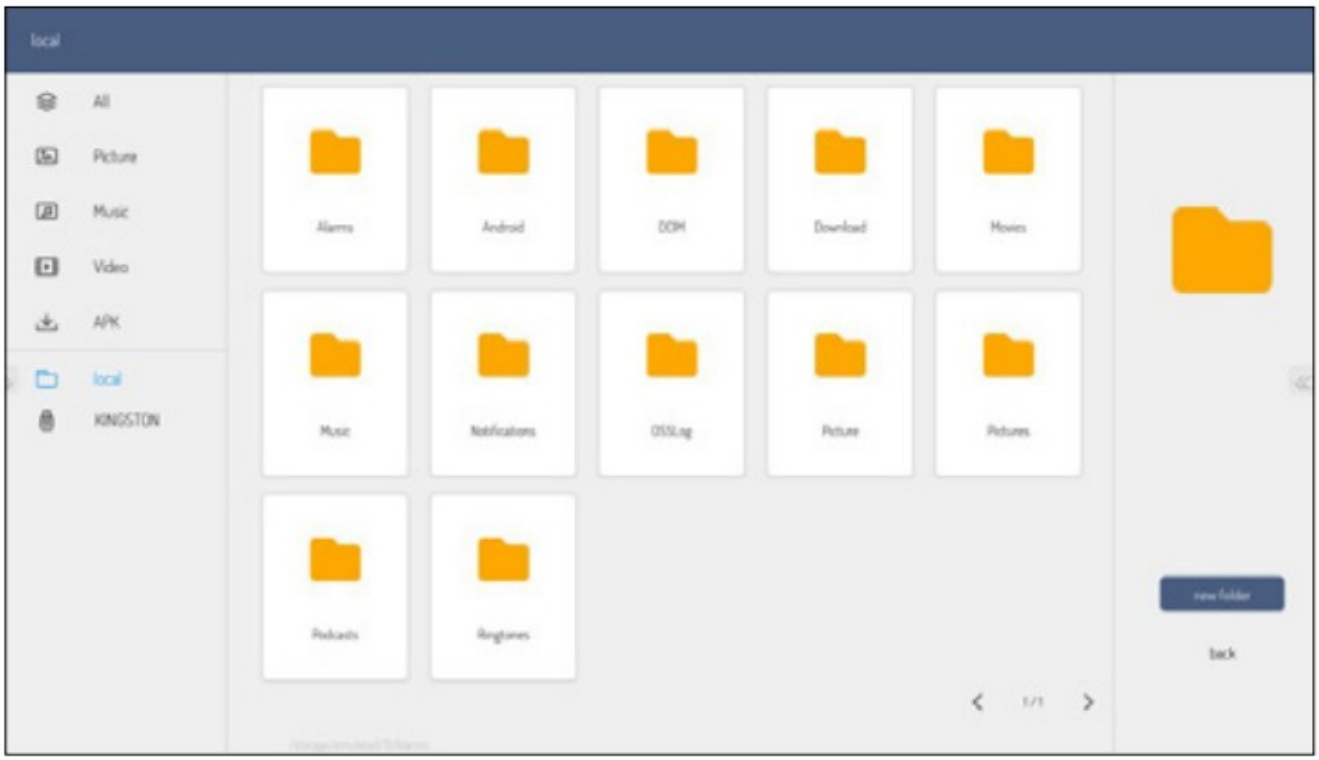


⚠ **Please note:**
To use the wireless BYOD function, either the integrated hotspot can be used or the display must be accessibly form the same (WiFi) network, that the source devices are using.

- **File manager**

  The file manager gives you access to the folders and files of the Android system as well as to the USB data storage device. Furthermore the app supports the playback of pictures, videos and audio data etc.

  By press and hold objects can be selected, moved, copied and deleted.



- **WPSOffice**

  With WPSOffice you can open and edit Word, Excel and PowerPoint as well as PDF files.

- **Webbrowser – Chromium**

Use the browser to access the Internet.

- **Adobe Reader**

  Is the official Adobe app for viewing PDF files.

- **Photo Gallery**

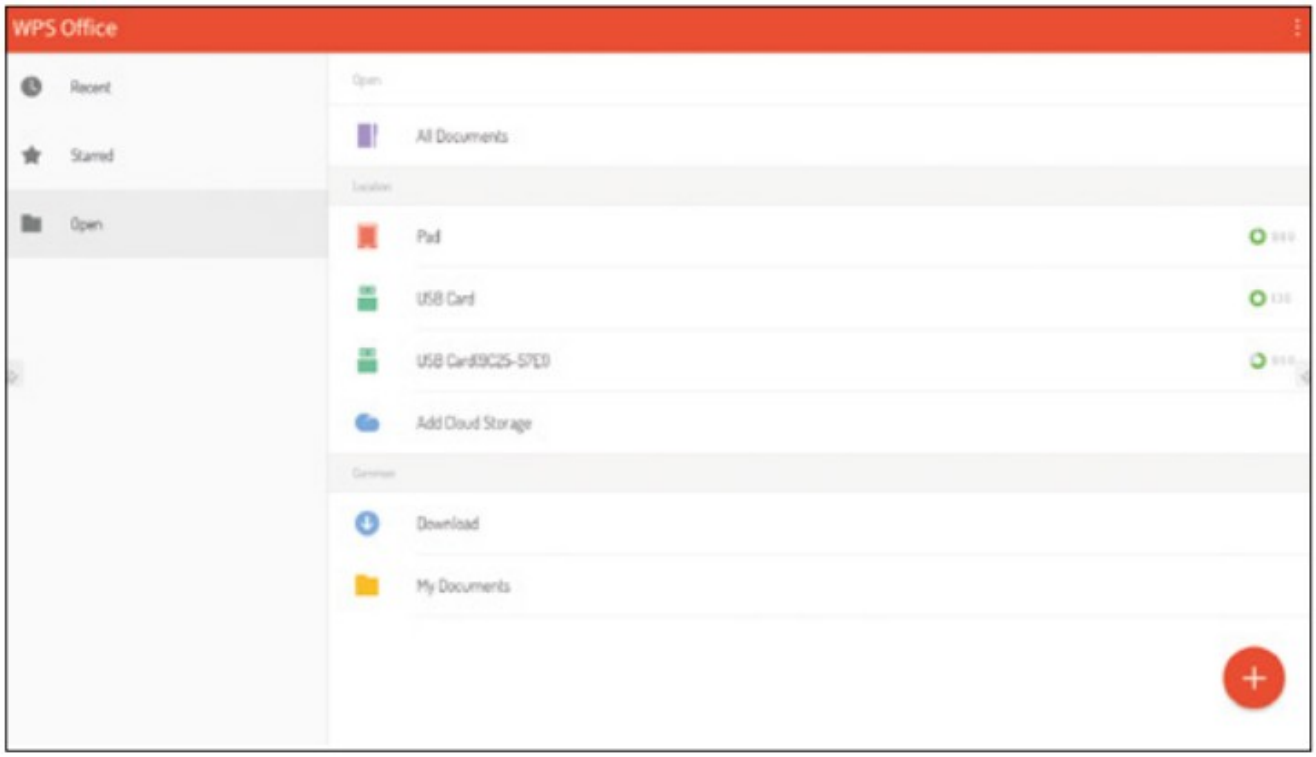


  Photo Gallery is an app for displaying images

- **NewPipe**

  Is an open source app to playback video from Youtube free of ads.

- **VLC**

  Is an open source app to play video and audio file as well as accessing network strreams.

- **Open Camera**

  The Open Camera app displays the live image of a visualizer or a webcam. For example, documents or 3D

objects can be easily digitized and annotated with the Annotation app.

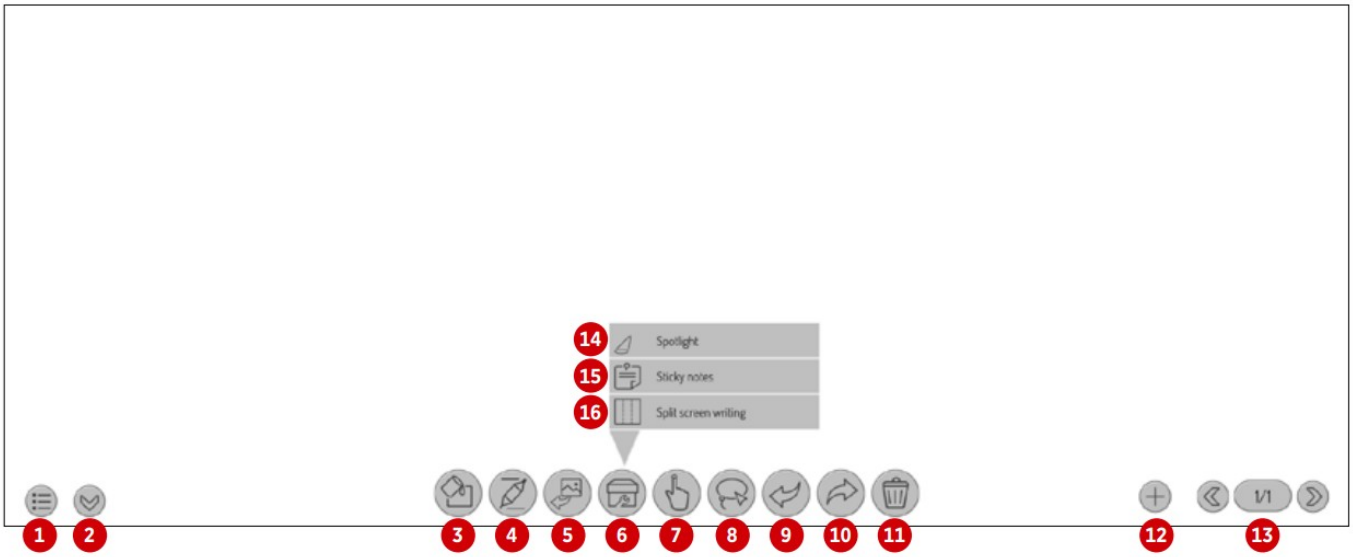
- **Open Street Map**

  Enables access to worldwide map material from the online service of the same name.

- **Kindermann Whiteboard App**

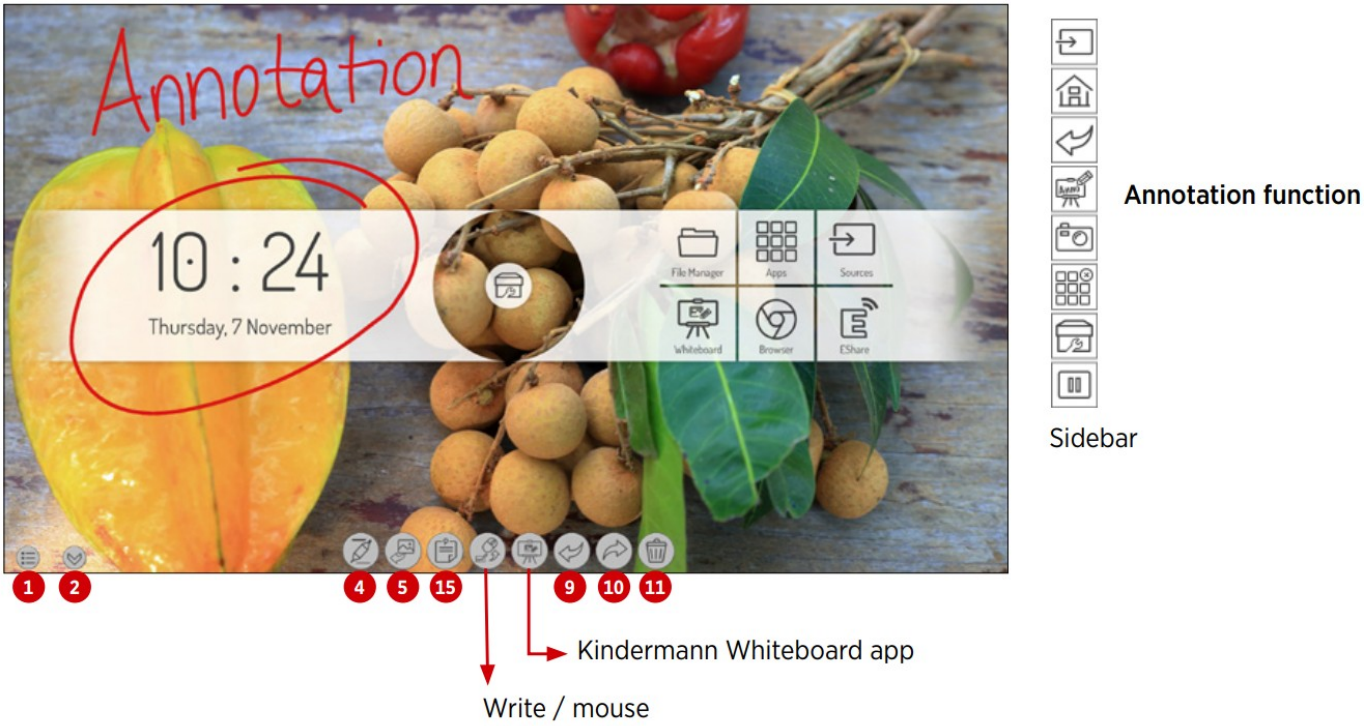
  The app works like a digital flipchart or a digital board and offers the possibility to make annotations, sketches etc. with digital ink on the display.

  There are various background images and lines to choose from. If required, individually background images can be uploaded (as PNG/JPG in resolution 1920 x 1080 or 3840 x 2160 pixels).



1 Options	9 Back
2 Show/hide menu	10 Forward
3 Change background	11 Erase all
4 Pen settings	12 Add new page
5 Import pictures	13 Navigation thr
6 Open additional tools	14 Cover
7 Single/Multi touch annotation	15 Sticky Note
8 Selection tool	16 Split screen /

• **Annotation function of Kindermann Whiteboard**
The annotation function can be activated via sidebar.
This allows you to annotate on any image displayed on screen.
Please note:
You annotate on a second layer above the screen content which remains unchanged.
If you close the function, all notes disappear.
Of course it is possible to save these notes including the background.



Technical data

9.1 Kindermann Touch Display – Generation 2019

Kindermann TD-10552–S 3050000011			**Kindermann TD-10652-S** 3050000012	**Kindermann TD-10752-S** 3050000013	**Kindermann TD-10862-S** 3050000014
Panel	Diagonal / visible area in mm	55“ – 1210 x 680	65“ – 1428 x 804	75“ – 1647 x 927	86“ – 1895 x 1066
	Backlight	Direct LED			
	Resolution / side ratio / colour depth	3840 x 2160 (pixels) – 16:9 – 10bit (1.07 billion colours)			
	Orientation of use / maximum service life (daily)	Landscape format / 18 hours			
	Brightness	350cd/m² (typ.)	450cd/m² (typ.)	450cd/m² (typ.)	400cd/m² (typ.)
	Contrast ratio	1300:1 (typ.)	1200:1 (typ.)	1200:1 (typ.)	1200:1 (typ.)
	Response time	6ms (typ.)	6ms (typ.)	8ms (typ.)	8ms (typ.)
	Frame rate	60Hz			
	Viewing angle	178°(H) / 178°(V)			
	Image mode	Standard/Soft/Users/Bright			
	Minimum lifetime	50.000 hrs			
	Touch technology	Infrarot – surface light wave			
	Number touchpoints	20			

Touch	Front glass	Tempered glass, 4 mm – MoHS7 – anti-glare, transparent and **antibacterial**
	Transmission	>88%
	Minimum object size, Precision	1.6 mm, ±1 mm
	Response time	<10 ms
	Driver	Plug and Play (multitouch driver for MacOS available; Linux supports single touch)
	Operation	Finger, control pen with soft peak or any comparable object
	Connection	USB2.0 Full speed – male – TypB
	Compatible	Windows 7/8/10, Linux, MAC OS, Android
Speaker	Audio Out Power	2 x 15W @ 8W
SoC	CPU/GPU	Quad Core, ARM Cortex A53, 1.5Ghz, MaliG51
	RAM/ROM	3GB / 32GB
	WiFi	802.11 a/b/g/n – Dual Band 2.4G and 5GHz
	OS	Android 8.0
Included Software (Android)	Basic functions	Kindermann Whiteboard app with annotation function, screenshots, erase gesture, calculator, spotlight, timer, calendar
	File Manager	Yes, photo-, video-, audioplayer included
	Office/PDF Viewer	WPS Office, Adobe Reader
	Browser	Chromium
	BYOD Wireless streaming	Yes, Eshare
	Additional apps	OpenCamera, OpenStreetmaps
Menu languages	Available	20 languages
Front connections	Public-USB (Android&Windows)	2 x (2.0, type-A, female)
	HDMI 2.0 input	1
	OPS USB Port	1 x (3.0, type-A, female)
	Touch-USB	1
Lateral c	OPS Slot	1 (power supply 19V(DC)/5A)
	HDMI output	1
	SPDIF output (digital output)	1
	Touch-USB	1
	Android-USB	2 x (2.0, type-A, female)
	DP input	1

onnectio ns	HDMI 2.0 input	2
	LAN (100 Mbits)	2
	RS232	1
	YPbPr / AV in / AV out	1 / 1 / 1 (adapter required)
	Audio output (3.5 mm jack)	1
	VGA / Audio (3.5 mm jack) inp ut	1 / 1

Power su pply	Input voltage, connection	100 V ~ 240 V/AC, 50/60 Hz – cold appliance socket			
	consumption (typically)	approx. 143W	approx. 171W	approx. 264W	approx. 375W
	Standby consumption	<0.5W			
Environm ental con ditions	Temperature – operation	0 – 40°C			
	Temperature – storage	-10 – 60°C			
	Air humidity – operation	20 – 80% non-condensing			
	Air humidity – storage	10 – 60% non-condensing			
Dimensio ns / Mate rial	Dimensions display (mm) (Wx DxH)	1299 x 94 x 78 9	1506 x 96 x 90 1	1736 x 104 x 1 035	1992 x 113 x 1 183
	Dimensions packing (mm) (W xDxH)	1420 x 245 x 9 10	1660 x 245 x 1 045	1880 x 280 x 1 160	2140 x 280 x 1 340
	Net weight (approx. kg)	28,5	42	58	77
	Gross weight (approx. kg)	38	57	75	100
	Case	Aluminum/metal			
	Frame width (T/B/L/R)	27\47\27\27 m m	27\47\27\27 m m	27\47\27\27 m m	28\48\28\28 m m
	VESA	4 x M6 400 x 400 mm	4 x M8 600 x 400 mm	4 x M8 600 x 400 mm	4 x M8 700 x 400 mm
Accessor ies	Included in delivery	IR remote control, power cable (3 m), USB cable (3 m), HDMI cab le (3 m), 2x control pen, user manual			

9.2 Mode Display VGA

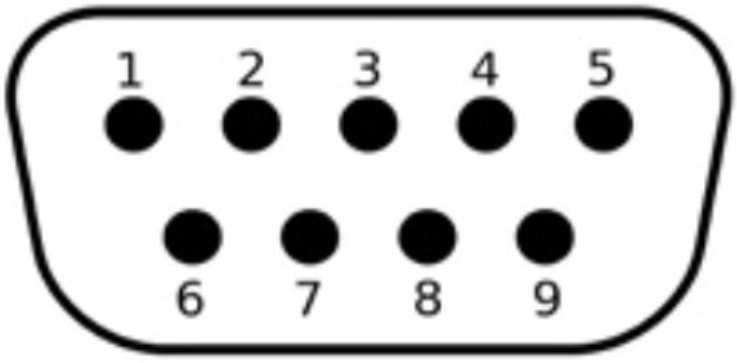
№	Mode	Resolution	Update rate
1	VGA	640 x 480	60Hz
2	SVGA	800 x 600	60Hz
3	XGA	1024 x 768	60Hz
4	WXGA	1366 x 768	60Hz
5	Full HD	1920 x 1080	60Hz

9.3 Mode Display HDMI

№	Mode	Resolution	Update rate
1	SD	720 x 480	70Hz
2		720 x 576	50Hz
3	HD	1280 x 720	50Hz
4		1280 x 720	60Hz
5	Full HD	1920 x 1080	50Hz
6		1920 x 1080	60Hz
7	UHD	3840 x 2160	30Hz
8		3840 x 2160	60Hz

RS232/IP control commands

10.1 Introductory remarks
This section describes the hardware specification and command protocol of the RS232 and LAN interface. In the following, all devices that can send or receive commands via RS232 & LAN protocol are referred to as „media control“.
10.2 Description
10.2.1 Hardware specification
The RS232 communication port is located on the back of the display. 12
Connector type and pin assignment:
D-Sub 9-pole, male (connection on display)



Pin	Signal	
1	NC	
2	TXD	to send a command
3	RXD	to receive a command
4	NC	
5	GND	
6	NC	
7	NC	
8	NC	
9	NC	
shell	GND	

A crossover cable (null modem) must be used as connecting cable between PC and display (pins 2 and 3 are crossed).

10.2.2 Settings of the serial interface:

Positions	Value	
Baud rate	38400 bps	(solid)
Data bits	8	(solid)
Stop bits	1	(solid)
Parity	non	(solid)
Data stream control	non	(solid)

The display uses port 4660 for commands via LAN.

10.2.3 Network settings

We recommend to use wired (LAN) connection with static IP settings, please check 7.3.1.2, page 36 for details.

10.3 Protocol

10.3.1 General information

The RS232 and LAN commands are identical.

10.3.2 Protocol description

10.3.2.1 Command format

Head	Every command always begins with „k“ for Kindermann
Display ID	The default value is „01“ The ID „99“ means that the command is sent to all connected displays In this case, only th e display with ID „01“ answer
Command type	There are two types of commands for sending a command: • Set command: „s • Get command: „g“ The display always returns one of the following answers to a command: • Valid set command: „y • Valid get command: „r“ • Invalid set or get command: „n“
Command	The function command
Value	Three bytes define the value
End	Each command is terminated with „CR“

Structure of a send command (type „s“ or „g“) and the reply command (type „r“)

Head	**Display ID**	Command type	Command	Value 1
1 Byte	2 Bytes	1 Byte	1 Byte	1 Byte

Structure of a response command (type „y“ and „n“)

Head	Display ID	Command type	End
1 Byte	2 Bytes	1 Byte	1 Byte

Example 1
Send a set command with an invalid parameter: Set the display brightness to 137.

	Head	Display ID	Command type	Command	Value 1	Value 2	Value 3	End
Send (ASCII)	k	1	s	D	1	3	7	<CR>
Send (Hex)	0x6B	0x30 0x31	0x73	0x44	0x31	0x33	0x37	0x0D

	Head	ID
Response (ASCII)	k	

Example 2
Send a get command with valid response: Query the contrast value from the display, the command is valid and the set value is 53.

	Head	ID	Type	Command	Value 1	Value 2	Value 3	End
Send (ASCII)	k	1	g	a	0	0	0	<CR>
Send (Hex)	0x6B	0x30 0x31	0x67	0x61	0x30	0x30	0x30	0x0D
Response (ASCII)	k	1	r	a	0	5	3	<CR>

10.3.3 Set function commands

Category	Function	ASCII command	Remark
Power	Off	k01sA000<CR>	
	On	k01sA001<CR>	ot available via LAN (Please use the Wake-on-LAN function)
Source	Android	k01sB00A<CR>	
	HDMI	k01sB004<CR>	
	HDMI 1	k01sB014<CR>	
	HDMI 2	k01sB024<CR>	
	OPS	k01sB007<CR>	
	DP	k01sB009<CR>	
	VGA	k01sB006<CR>	
	AV	k01sB001<CR>	
	YPbPr	k01sB003<CR>	
Image	Screen freeze: Off	k01s[000<CR>	
	Screen freeze: On	k01s[001<CR>	
	Backlight: Off	k01s\000<CR>	
	Backlight: On	k01s\001<CR>	
	Contrast	k01sCxxx<CR>	Values for xxx: 000 ~ 100 Requirements: • Picture mode is „User“ • Active source is not Android
	Brightness	k01sDxxx<CR>	
	Sharpness	k01sExxx<CR>	
	Saturation	k01sFxxx<CR>	
	Zoom mode: 16:9	k01sM000<CR>	
	Zoom mode: 4:3	k01sM001<CR>	
	Colour temperature: standard	k01sH000<CR>	Requirements: • Picture mode is „User“ • Active source is not Android
	Colour temperature: warm	k01sH001<CR>	
	Colour temperature: cold	k01sH002<CR>	

	Surround sound: off	k01sI000<CR>	
	Surround sound: on	k01sI001<CR>	
	Bass	k01sJxxx<CR>	

Sound	Heights	k01sKxxx<CR>	Values for xxx: 000 ~ 100
	Volume level	k01sPxxx<CR>	
	Volume level: down	k01sP200<CR>	
	Volume level: high	k01sP201<CR>	
	Mute function: off	k01sQ000<CR>	
	Mute function: on	k01sQ001<CR>	
Settings	Language: englisch	k01sN000<CR>	
	Key lock: off	k01sR000<CR>	
	Key lock: on	k01sR001<CR>	
	Touch input: off	k01sS000<CR>	
	Touch input: on	k01sS001<CR>	
	IR lock: off	k01sV000<CR>	
	IR lock: on	k01sV001<CR>	
Input	Number	k01sT00x<CR>	Values for x: 0 ~ 9
	Navigation: high	k01sU000<CR>	
	Navigation: down	k01sU001<CR>	
	Navigation: left	k01sU002<CR>	
	Navigation: right	k01sU003<CR>	
	Enter	k01sU004<CR>	
	Open source menu	k01sU005<CR>	
	Open settings	k01sU006<CR>	

	Exit	k01sU007<CR>	
	Date: year	k01sXYxx<CR>	Values for xx: 00 ~ 99
	Date: month	k01sXMxx<CR>	Values for xx: 01 ~ 12
	Date: day	k01sXDxx<CR>	Values for xx: 01 ~ 31
	Time: hour	k01sYHxx<CR>	Values for xx: 00 ~ 24
	Time: minute	k01sYMxx<CR>	Values for xx: 00 ~ 59
	Time: second	k01sYSxx<CR>	Values for xx: 00 ~ 59
	Reset to factory settings	k01sZ000<CR>	

10.3.4 Get function commands

Category	Function	ASCII command	Response (Rx)	Status	
Power	Power status	k01gi000<CR>	Now ON<LF>	On	
			Now Standby <CR>	Off	only via RS232
Source	Source query	k01gh000<CR>	k01rh00A<CR>	Home	Please note: • if no signal is present at the source, the first digit is a 0 • if a signal is present, the first digit is 1 Example: 004: HDMI, but no signal 104: HDMI, with active signal
			k01rh004<CR>	HDMI	
			k01rh014<CR>	HDMI 1	
			k01rh024<CR>	HDMI 2	
			k01rh007<CR>	OPS	
			k01rh009<CR>	DP	
			k01rh006<CR>	VGA	
			k01rh001<CR>	AV	
			k01rh003<CR>	YPbPr	
Image	Contrast	k01ga000<CR>	k01raxxx<CR>	Values for xxx: 000 ~ 100	
	Brightness	k01gb000<CR>	k01rbxxx<CR>		
	Sharpness	k01gc000<CR>	k01rcxxx<CR>		
	Saturation	k01gd000<CR>	k01rdxxx<CR>		
	Colour	k01ge000<CR>	k01rexxx<CR>		

Sound	Volume level	k01gf000<CR>	k01rfxxx<CR>	Values for xxx: 000 ~ 100
	Mute function	k01gg000<CR>	k01rg000<CR>	Off
			k01rg001<CR>	On
Settings	IR lock	k01gj000<CR>	k01rj000<CR>	Off
			k01rj001<CR>	On
	Key lock	k01gl000<CR>	k01rl000<CR>	Off
			k01rl001<CR>	On
	Touch input	k01gm000<CR>	k01rm000<CR>	Off
			k01rm001<CR>	On
Date	Month	k01gpM00<CR>	k01rpM11<CR>	14 november
	Day	k01gpD00<CR>	k01rpD14<CR>	
	Hour	k01gqH00<CR>	k01rqH13<CR>	Time: 13:55:21
	Minute	k01gqM00<CR>	k01rqM55<CR>	
	Second	k01gqS00<CR>	k01rqS21<CR>	
System	Device name	k01gr000<CR>	k01r1WB8<CR> k01r248<CR>	WB848
	MAC address	k01gs000<CR>	k01rs1B0<CR> k01rs2C5<CR> k01rs3CA<CR> k01rs412<CR> k01rs534<CR> k01rs656<CR>	B0:C5:CA:12:34:56

Declaration of conformity CE

CE EG – Declaration of conformity : Kindermann GmbH Mainparkring 3 D-97246 Eibelstadt
Manufacturer/Authorized representative: Kindermann Touchdisplay TD-1055²/1065²/1075²/1086²
Hereby declares that the product: 3050 000 011/-012/-013/-014/-016
in its design and type of construction in the version marketed by us complies with the basic safety and health requirements of the relevant directives, among others
In the event of a modification of the product not agreed with us, this declaration loses its validity.
The product is in compliance with the following directives/regulations:
RED-Directive 2014/53/EU, EcoDesign-Directive 2005/32/EC, EMC-Directive 2004/108/EC and RoHs 2011/65/EU and additional standards
Applied (mainly harmonized) standards and additional standards are in particular:
Safety
ETSI EN 301 489-1 V2.2.3, ETSI EN 301 489-3 V2.1.1, Draft ETSI EN 301 489-17 V3.2.2
EN 301 489-1&17, EN 300 328 V2.1.1,EN 300 440 V2.1.1, EN 62311

EMC: EN 55032:2015/A11:2020, EN 55035:2017/A11:2020, EN 62368-1:2014+A11:2017
Ecodesign:
EN 50564:2011
EN 62087:2015
RoHS 2.0: EN 50581:2012
Eibelstadt, 01.12.2021

CE Beauftragter Arnel Ugljesa

Declaration of conformity UKCA

UKCA- Declaration of conformity

Manufacturer/Authorized representative:	Kindermann GmbH Mainparkring 3 D-97246 Eibelstadt
Hereby declares that the product:	Kindermann Touchdisplay TD-1055² 65² 75² 86²-S
with the model number(s):	3050 000 011-12-13-14

in its design and type of construction in the version marketed by us complies with the basic safety and health requirements of the relevant directives, among others

In the event of a modification of the product not agreed with us, this declaration loses its validity.

The product is in compliance with the following directives/regulations:

RF-Directive 2014/53/EU, EMV-Directive 2004/108/EC, Ecodesing-Directive 2005/32/EC and RoHs-Directive 2011/65/EU

Applied (mainly harmonized) standards are in particular:

Safety/ RF:	ETSI EN 301 489-1 V2.2.3
	ETSI EN 301 489-3 V2.1.1
	Draft ETSI EN 301 489-17 V3.2.2
	ETSI EN 301 489-1&17
	ETSI EN 300 328 V2.1.1
	ETSI EN 300 440 V2.1.1
	BS EN 62311
EMC:	BS EN 55032:2015/A11:2020
	BS EN 55035:2017/A11:2020
	BS EN 62368-1:2014+A11:2017
Ecodesign:	BS EN 50564:2011
	BS EN 62087:2015
RoHS 2.0:	2011/65/EU

Eibelstadt, 21.06.2022

UKCE Representative Ariel Ugljesa

The currently valid EG and UKCA declaration can be viewed and downloaded at the following URL:
https://shop.kindermann.de/erp/webshop/navigationPath/3050000011.html

Typical sources of error

Please check the table below to help you determine the cause of the malfunction before making a service request.
If you still cannot completely correct the error according to the instructions in this manual, please contact the service center at support@kindermann.de to perform product maintenance.

Symptom	Possible cause	Solution
The display does not start; no image is displayed	• Mains plug loose • Power supply failure	Check that the power cord is properly co nnected.
The displayed image shows stripes (with active VGA so urce)	Signal interference caused by other electrical equipment.	• Disconnect the circuits of the devices. • Replace VGA cable.
The images shown on the p roduct are disturbed by dot ted lines or stripes (with HD MI or DP signal).	Poor transmission quality.	Shorten the cable length, reduce the num ber of plug connections or reduce the res olution or refresh rate. Alternatively, a signal repeater can help.
Remote control only works from close range or not at a ll	• The receiver of the display is blo cked by another object. • The remote control battery is low . • The use of the remote control ha s been deactivated.	• Remove the object in front of the recei ver. • Replace the batteries. • Check 7.3.6.1, page 38.
Touch operation is slow, do es not work (Android)	Too many programs are running.	Close the programs you don‘t need and fr ee up memory.
OPS cannot be activated, n o display, no touch operati on	OPS was not used properly.	Reinsert the OPS. For that, disconnect th e power to the display.
The touch function does no t work with externally conn ected computers	• The USB cable is connected to a USB port that is not assigned to the video source. • The touch USB cable is too long or of poor quality.	• Check and change the corresponding i nterface of the Touch USB cable (see pa ge 29). • Use a shorter or active USB cable.

Cleaning and maintenance of displays

Preparations

Note: Unplug the power cord first.

Screen cleaning

Please prepare a cleaning fluid using warm water and dishwashing detergent. Then moisten a soft cloth with it, wring it out and wipe the product carefully.

Note: Adding disinfectant or alcohol (like ethyl alcohol) is allowed.

Do not use microfiber cloth as they it could damage the special coating of the front glas.

Frame cleaning

Please use a dry, soft and flint-free cloth to clean the frame and the housing.

Product support

Please contact your dealer first for technical assistance.
Alternatively information are available on **https://touchdisplays.eu/support/**

Warranty terms

General provisions for our durability warranty

- These warranty provisions apply in the countries of the European Union and other countries belonging to the Schengen area, except Germany. German law shall apply exclusively; the provisions of UN sales law shall not apply.
- These warranty provisions shall be applicable only to touch screens of Kindermann TD-10xx2 -S series.
- The invoice of the reseller/dealer with the purchasing date and serial number shall be the proof authorising warranty claims.
- Your local reseller/dealer is free to extend these warranty conditions with additional services. This does not result in any obligations or claims against Kindermann. The responsibility for those extra services is lies exclusively with the reseller/dealer.

Warranty periods
Kindermann offers a warranty limited to 3 years on the Kindermann TD-10xx2 -S display series with Bring-In service.
An optional extension to 5 years can only be purchased together with the display and has to be shown on the same invoice.
Exclusion of warranty
We are making all efforts to ensure that your new product will work without any problems. Of course, some aspects are beyond of the control of Kindermann and therefore not covered by this warranty:

- The serial number on the product has been altered, modified or made unreadable.
- Damage as a consequence of transport, fall down or impact during transport or due to shipping after the initial purchase.
- Defects or damage as a consequence of wrong use, abuse or use by non-authorised persons or due to non-observation of these operating instructions.
- Damage or defects resulting from wrong installation/assembly not caused by Kindermann GmbH.
- Damage or defects resulting from electrical connections not having been made according to the operating instructions.
- Damage or defects as a consequence of vandalism, fire, earthquake, flooding, lighting strike or other natural disasters, overvoltage, wars, armed conflicts or other force majeure.
- Damage or defects resulting from use of non-original parts or repairs performed by third parties.
- Defects due to product modifications or subsequent changes made by the warranty holder, his employees or third parties tasked by him.
- Wear parts, such as batteries etc.

Warranty provisions

- If your product does not work properly (any longer) in spite of the fact that you have used it according to the provisions of these operating instructions, you may contact the product supplier or Kindermann GmbH directly. Within the applicable warranty period, we will repair the product or replace it by an identical, equivalent or reasonably similar product, whereby the decision is made at the discretion of Kindermann GmbH.
- The customer is responsible for:
- Provide complete and correct information to Kindermann‘s support for troubleshooting. In the case the customer does not follow the instructions of Kindermann and thereby an unnecessary effort incures, Kindermann reserves the right to charge the the associated costs to the customer.

- Backup and delete private data from the defective product. Kindermann is not responsible or can‘t be hold responsible.
- Performing firmware updates as directed by the support.
- Reset the device to factory default as directed by the support.
- Performing remote assistance while being guided by phone or allowing remote access to the device, e. g. via TeamViewer.
- Upon request from Kindermann, the product will be sent to Kindermann for repair or inspection. The costs for transport and suitable packaging of the product shall be subject to the warranty provisions, but to your responsibility as warranty holder. Damage caused due to transports for repair or inspection shall not be subject to warranty; the transport and shipment risk shall be with the warranty holder.
- If it is unclear or disputed whether the product was used contrary to provisions or if there is a case of warranty exclusion, the burden of presentation and evidence shall be with the warranty holder.
- Costs connected to disassembly and reassembly in order to perform the device service including working time, installation or connection work, scaffoldings, or lifting gear etc. and shall be excluded from warranty coverage.
- Kindermann shall also not assume any liability for any indirect damage, consequential damage or other disadvantages users or purchasers suffer due to any defects of the product or delays due to repair or replacement of the product.
- Of course, the statutory liability provisions continue to be effective. Exclusions and limitations of liability in these warranty provisions shall therefore not apply in case of wilful violations of obligations, culpable violation of health, body or life, mandatory statutory liability under the Product Liability Act or violation of any essential contractual obligations (cardinal obligations, e. g. such contractual obligations the performance of which is required for proper execution of the contract, compliance with which the warranty holder may regularly trust in and the violation of which endangers achievement of the purpose of the contract).

3050 000 00x D/GB 2021-12 Änderungen vorbehalten
Subject to alterations Printed in China
Kindermann GmbH
Mainparkring 3
D-97246 Eibelstadt
E-Mail: info@kindermann.de
www.kindermann.com

Documents / Resources

	Kindermann TD-10552-S Touch Display TD [pdf] User Manual TD-10552-S Touch Display TD, TD-10552-S, Touch Display TD, Display TD

References

- IIS7
- Home - Kindermann GmbH
- Kindermann Touchdisplay TD-1055²-S - Kindermann Webshop
- Support | Kindermann Touch displays