

Scape[®] Lab

Operating Manual

Scape® Lab

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Notes

This is a class A device according to EN55022.

For more information, please refer to Chapter 1.1 – Radio interference.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1 this device may not cause harmful interference, and (2 this device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus complies with Canadian ICES-003.



This manual is applicable for the following devices:

- Scape® Lab 43" (sl43-004 with st43-004 R1.1 and s_pcsi-002)
- Scape® Lab 55" (sl55-004 with st55-004 R1.1 and s_pcsi-002)
- Scape® Lab 65" (sl65-004 with st65-004 R1.1 and s_pcsi-002)

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1. General

This manual describes the safe installation, configuration and correct operation of the **Scape® Lab**.

If your device does not have an integrated PC, you can skip the chapters and notes about the integrated PC. All other notes and instructions continue to apply without restriction.

If necessary, pay attention to the supplementary documents, such as the installation instructions.

1.1. Safety instructions

Before using and operating your **Scape® Lab**, observe the following safety instructions to prevent you, your environment or the **Scape® Lab** from being damaged.

Fire and electric shock

Overloaded sockets, extension cords and power strips can cause fire and electric shock.

- Avoid using power strips and extension cords if possible.
- Do not chain multiple extension cords or power strips together.

Overheating

Heat build-up can overheat the screen and the integrated PC. This can damage the device.

- Ensure there is sufficient air circulation around the **Scape® Lab**.
- Make sure all the ventilation holes on around the screen and integrated PC are uncovered.

Excess voltage from lightning strikes

In the event of a thunderstorm there is a risk of excess voltage damage from lightning strikes electrical appliances that are plugged in.

- Do not install the Scape® Lab during a thunderstorm.
- Disconnect the devices from the mains during thunderstorms.

Moisture, liquid and steam

Moisture, liquid and steam inside the **Scape® Lab** can cause electric shocks or short circuits.

- Only use the **Scape® Lab** indoors.
- Do not allow liquids to get inside the **Scape® Lab**.
- Protect your **Scape® Lab** from steam and moisture.

Improper cleaning

Improper cleaning with harsh detergents and solvents or soaking wet cloths can damage the **Scape® Lab**.

- Observe the information on cleaning your **Scape® Lab** (see **Chapter 1.3 - Cleaning instructions**).

Improper opening and repair

Improper opening and improper repairs may be dangerous to users of the device.

- Do not open the housing of the device.
- In case of repair contact the manufacturer or a specialist dealer.

Radio interference

Radio interference can be generated by any device that emits electromagnetic signals. Due to the large number of devices that transmit and receive radio waves, interference from overlapping radio waves can occur.

- Do not use the **Scape® Lab** in locations where the use of radio equipment is prohibited.
- Always follow the instructions and instructions of authorized persons to switch off radio equipment, especially in hospitals, outpatient health centers, medical practices and other medical facilities, to avoid interference with sensitive medical equipment.
- Check with your doctor or the manufacturer of your medical device (pacemaker, hearing aid, implant with electronic control, etc.) to see if it can work your **Scape® Lab** without interference.
- If necessary, maintain the minimum distance of 15 cm recommended by medical device manufacturers to avoid interference with your medical device.

Hazardous environments

Under unfavorable conditions, radio waves near explosive atmospheres may lead to fire or explosions.

- Do not install and operate the **Scape® Lab** near explosive gases, flammable gases, areas where the air contains chemicals or particles such as grain, dust or metal powders, and near detonation zones.
- In places with potentially explosive gases and near detonation zones, follow the instructions for switching off the electronic devices to avoid disruption of the blasting and ignition systems.

Load and damage to the surface

Rough, hard or sharp-edged materials and heavy objects can damage the screen surface of the **Scape® Lab**.

- Do not place heavy objects on the screen.
- Use only objects with smooth or soft bottom surfaces on the screen.
- Clean the undersides of the objects before and after each use.

1.2. Scope of delivery

The following accessories are included with your **Scape® Lab**:

- Multi socket adapter with Schuko plug for mains power
- Network cable for connection to LAN network
- Wireless keyboard with trackpad
- Screen cleaning kit
- Remote control
- Operating manual (possibly by email)

1.3. Cleaning instructions

The touch sensor of the **Scape® Lab** does not usually need to be serviced. Nevertheless, it is recommended to clean the glass surface of the screen regularly.

- Disconnect the device from the mains before cleaning.
- Typically, a solution of isopropyl alcohol and water (50:50 blend ratio) or the included screen cleaning kit are best for cleaning the touch sensor.
- Apply the solution to a soft, lint-free cloth. Avoid using rough cloths.
- Use the cloth to clean the glass surface. Apply the liquid only to the cloth and never directly to the device. This will prevent liquid from entering the inside of the device or causing marks on the frame.

1.4. Transportation instructions

The safest way to transport your device is in a **Scape® Lab** flight case (sold separately).

- The device is very heavy. Make sure that at least two people lift and carry the device.
- Do not transport the device upside-down
- Apply the brakes on the castors of the frame during transportation.
- Secure the device or flightcase against slipping and tipping.

2. Specifications and set up

2.1. Specifications

Integrated PC

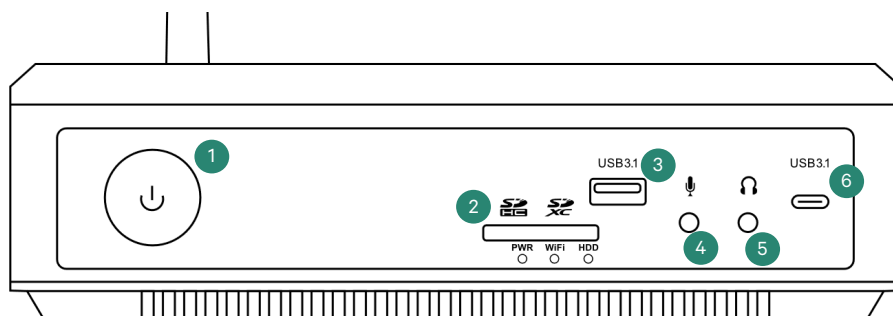
Zotac Silent PC	2.7 GHz Intel Core i5 7500T
	NVIDIA GeForce GTX 1070 8GB
	16 GB RAM
	256 GB SSD
	2x Gigabit-Lan, USB 2.0, 3.0 & 3.1
Operating system	Windows 10 Professional

Touch screen

Display	3840 x 2160 (UHD) 60 Hz
	16.7 million colors
	8 ms response time
Connections	2x HDMI (1x HDMI 2.0, 1x HDMI 1.2)
	1x DisplayPort
Touch sensor	3M – PCAP (80 touches)
	(optional) integrated Capore ® Touch & Object Recognition

2.2. Connections and controls

2.2.1. Integrated PC



1 Switch PC on / off

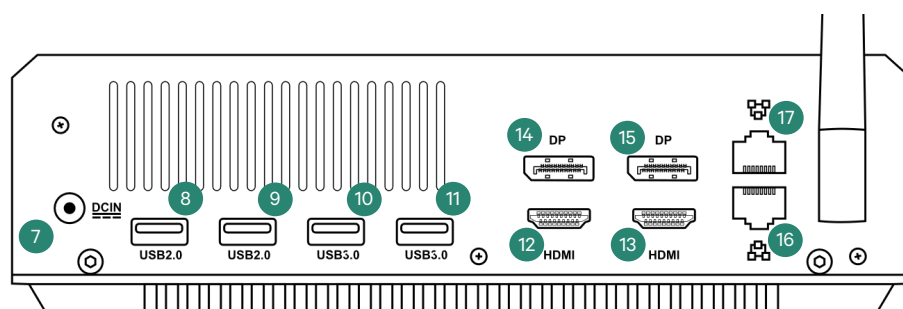
2 SD(HC) slot

3 USB 3.1 (type A)

4 Microphone input (3.5mm jack)

5 Audio output (3.5mm jack)

6 USB 3.1 (type C)



7 Power supply

8 USB 2.0 (type A)

9 USB 2.0 (type A)

10 USB 3.0 (type A)

11 USB 3.0 (type A)

12 HDMI out

13 HDMI out

14 DisplayPort out

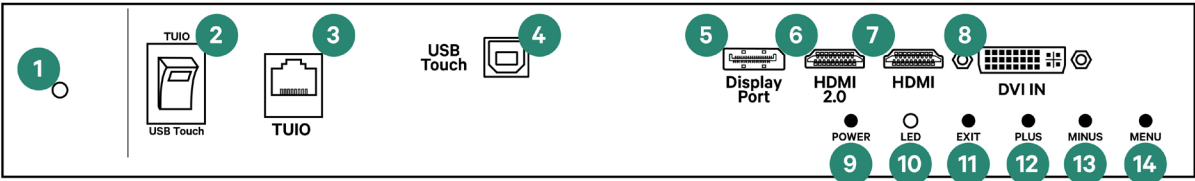
15 DisplayPort out

16 Gigabit Ethernet (external)

17 Gigabit Ethernet (internal – Capore®)

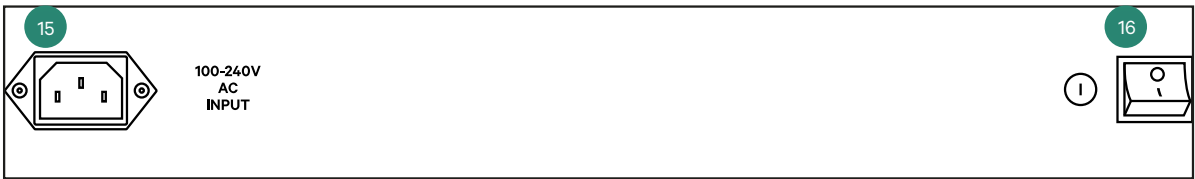
2.2.2. Touch screen

The screen of the **Scape® Lab** comes preinstalled and connected to the integrated PC ready for operation.



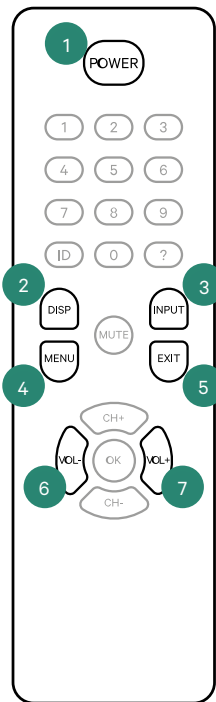
1	IR sensor for remote control
2	Switch between Touch TUIO / USB Touch
3	RJ-45 Lan interface – to use the Capore® Touch & Object Assistant
4	USB connection type B – for direct connection of touch and PC
5	DisplayPort input
6	HDMI 2.0 input (UHD 60 Hz)
7	HDMI input
8	DVI input
9	Stand-by *17
10	Status LED
11	Close OSD / back / show input selection *18
12	Plus / right *19
13	Minus / left *20
14	Open OSD / confirm selection *21

* analogous to button on remote control



15	IEC socket for connection to 230V 50Hz
16	Main power switch

2.2.3. Remote Control



1	Stand-by *¶9
2	Display mode selection
3	Show input selection
4	Show OSD / confirm selection *¶14
5	Close OSD *¶11
6	Left / minus *¶13
7	Right / plus *¶12

* analogous to button on the screen

All keys on the remote control which are not explained above are not required for operation of **Scape® Lab** and do not have any function.

3. Installation

The **Scape® Lab** is delivered ready for operation. All units are fully assembled and wired. Place the device in a suitable location and connect it to the power supply.

3.1. Notes

Observe the following points when setting up the device:

- Give the **Scape® Lab** sufficient time to adapt to the ambient temperature. Otherwise the device may be damaged or destroyed by condensation inside the device.
- Only operate the **Scape® Lab** indoors.
- Do not expose the **Scape® Lab** to direct sunlight.

3.2. Connection to the power supply

Connect the **Scape® Lab** to the mains supply using a suitable socket on the power distributor's power cord. Then set the main switch on the centre bar to "I".

When disconnecting the appliance from the mains, always pull the plug and do not pull the cable. Do not touch the plug with wet hands.

3.3. Connection to the network

The **Scape® Lab** works completely without an internet or other network connection. However, both WLAN and the Gigabit Ethernet port on the integrated PC (see **Chapter 2.2.1 – Integrated PC – item 16**) can be connected to the internet or another network.

To use **Capore®** object recognition or touch via TUIO, set the switch for the touch signal on the back of the display to "TUIO" (see **Chapter 2.2.2 – Touch screen – item 2**). For further information on setting up **Capore®** Touch & Object recognition, refer to the operating manual for the "**Capore® Touch & Object Assistant**".

The default IP address of the integrated **Capore® API Box** is 10.0.0.20, subnet 255.255.255.0. You can access the web interface of the Capore® API Box via that IP address. The Ethernet port of the **Scape® Lab** (see **Chapter 2.2.1 – Integrated PC – item 16**) is set to obtain its IP address from a DHCP server..

4. Switching on

Switch on the display using the main switch (see Chapter **2.2.2 – Remote control – item 16**). Then start the PC (see **Chapter 2.2.1 – Integrated PC – item 1**).



Make sure that there are no objects on the display when the device is switched on.

Do not touch the touch screen during device startup, otherwise there will be errors in the touch and object detection.

The device will take about 1.5 hours to power up before it reaches its final operating temperature. During this time, the touch sensor of the device constantly adapts to its environment. This has a direct effect on long-term object recognition.



If your application requires the Capore® objects to remain on the screen for a long time, do not use object detection until the device has reached its operating temperature.

5. Display settings – OSD

5.1. OSD usage

The **Scape® Lab** OSD offers a variety of on-screen settings, such as signal input, display mode, and color and brightness settings. The factory settings are suitable for most applications.

Press the **Menu (4)** button to display the OSD (see **Chapter 2.2.3 – An14_OSD_Anzeigen1Remote control**).

Use the **Plus (7)** and **Minus (6)** buttons to navigate through the individual menu items.

The **Menu (4)** button takes you to the next level of the selected menu item or setting.

Use the **Plus (7)** and **Minus (6)** buttons to adjust the values for each setting or to select the appropriate option.

The **Menu (3)** button activates the selected option and returns to the last selection level.

The **Exit (5)** button resets the setting to its original value and returns to the next higher menu level or closes the OSD when you are at the top menu level.

The OSD automatically shuts off after a few seconds of inactivity.

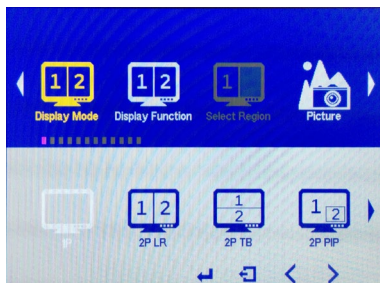
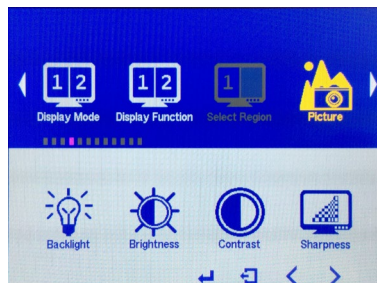
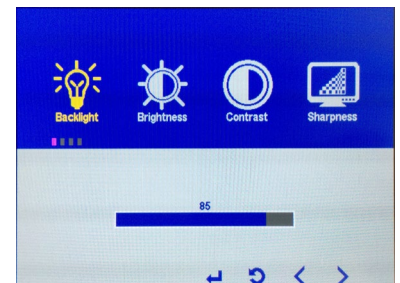


Abb. 1: Menu opened – select menu item



Menu item selected – confirm



Menu item opened – set value

5.2. Select input source

If no active device is connected to the selected input of the screen, you can use the OSD only to a limited extent. Press **Input (3)** or **Exit (5)** on the IR remote control to open the input selection. Use the **Plus (7)** and **Minus (6)** buttons to select the appropriate input and confirm the selection with the **Menu (4)** button.



Abb. 2: Input selection

The signal source is set to "Auto" by default and automatically detects the input.

6. Integrated PC

Unless you have specified otherwise, the integrated PC with Windows 10 Professional is pre-installed, fully configured and ready to use.



**Be sure to create a backup before changing the configuration of the operating system and its components.
To do this, use the Windows backup tools (backup settings).**

Your **Scape® Lab** with integrated PC comes with a wireless keyboard with integrated trackpad. Follow the enclosed instructions to use the keyboard.

To switch on the integrated PC, press the power button on the front of the PC (see **Chapter 2.2.1 – item 1**).

A system user with administrator rights and the following access data has already been set up.

User name: ias

Password: ias

For the security of your system, it is strongly recommended that you change the password of this account.

7. Troubleshooting tips

Do not open the housing of the **Scape® Lab** by yourself.

If your **Scape® Lab** does not work as intended, see Chapter **7.2 – Problems and Solutions** to find out if there is a solution to your problem.

If you cannot find a solution, contact **Interactive Scape Hardware Support**. You can reach them on weekdays at **+49 30 698 094 150**.

7.1. Manufacturer – Support

Interactive Scape GmbH
Wilhelmine-Gemberg-Weg 6
10179 Berlin

+49 (0)30 698 094 150

7.2. Problems and solutions

Error	Possible cause	Possible solution
No picture is shown even though the PC is turned on.	The DisplayPort or HDMI cable has come loose.	Check the connection of the cable with the PC. Plug the cable into another connector on the PC.
	The screen is switched to the wrong input.	Set the input correctly (see Chapter 5.2 – Select input source).
The PC or the screen turns off unexpectedly.	Loose contact in the power supply.	Check whether the device is connected to the power supply and whether the IEC plug is correctly inserted.

8. Appendix

8.1. Technical data

8.1.1. Scape® Lab

Dimensionen (LxWxH)	43	995 x 590 x 920 mm
	55	1280 x 750 x 920 mm
	65	1528 x 903 x 920 mm
Weight (incl. screen)	43	59 kg
	55	90 kg
	65	109 kg
Maximum power consumption		650 W
Power supply		230 V AC 50 Hz

8.1.2. Touch screen

Screen diagonal	43	1079.5 mm (42.5")
	55	1397.0 mm (55")
	65	1639.1 mm (64.53")
Resolution		3840 x 2160 (UHD)
Brightness (panel)		700 cd/m²
Contrast (panel)		3000:1
Latency		8 ms
Backlight		LED
Viewing angle		178° / 178°
Color gamut		16,7 Millionen
Backlight - lifetime		60,000 h
Pixel class		ISO 9241-307 (Pixel Error Class II)
Touch controller	3M – PCAP	
	80 touches	
	Palm recognition	
	Object recognition possible (Capore®)	
Operating period		24 hours / 7 days
Max. ambient humidity	Operation	10 ~ 90 % (not condensing)
	Storage	10 ~ 90 % (not condensing)
Max. ambient humidity	Operation	0 ~ 35 °C / 32 ~ 95 °F
	Storage	-20 ~ 60 °C / -4 ~ 140 °F
Operating voltage		100 – 240 VAC

Power draw	43	154 W
	55	180 W
	65	245 W
Dimension (WxHxD)	43	990 x 587.5 x 81 mm
	55	1274 x 744 x 113 mm
	65	1521.5 x 896.4 x 94 mm
Weight	43	32 kg
	55	57 kg
	65	72 kg
Mounting	VESA 400x400 mm, 600x400 mm, 800x400 mm	
Max. tipping angle	0° - 180°	
Air flow cooling	0.5 m³ / min	

8.1.3. Silent PC

Specifications	Processor	Intel Core i5 Quad Core
	RAM	16 GB
	Hard drive	250 GB SSD Samsung M.2
	Graphics card	NVIDIA Geforce GTX 1070 8GB
Ports	Display	2x HDMI 2.0
		2x DisplayPort 1.3
	Network	WLAN 802.11ac/b/g/n
		Bluetooth 4.2
		2x Gigabit Ethernet
	USB	2x USB 3.0
		2x USB 2.0
		1x USB 3.1
		1x USB 3.1 type C
Other	Dimensions (LxWxH)	210x203x62 mm
	Power supply	External power supply unit
	Operating system	Windows 10 Professional

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