INSTALLATION MANUAL

SCANTECH ID

Scantech ID Scan Kiosk SK-40 SK-50

Installation Manual

Scantech-ID ScanKiosk SK-40 / SK-50

Limited Warranty
Under all circumstances this manual should be read attentively, before installing and/or using the product. In no event shall ScantechHD BV be liable for any direct, indirect, special, consequential or incidental damages arising out of the use or inability to use this documentation or product, even if advised of the possibility of such damages. In particular, ScantechHD BV shall not be liable for any hardware, software, or data that is stored or used with the product, including the cost of repairing, replacing or recovering the above. ScantechHD BV reserves the right to change parts of the device at any time without preceding or direct announcement to the client.
ScantechHD BV reserves the right to revise this manual, and to make changes in the contents without obligation to notify any person or entity of the revision or changes. A serial number appears on the product. Make sure that this official registration number has not been removed. It should be used whenever servicing by ScantechHD BV or an authorized Scantech dealer is necessary.

Important
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to EN55022, and with the limits for a class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the user's manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Any unauthorised changes or modifications to this equipment could void the user's authority to operate this equipment.

This device is in conformity with the CE standards. Please note that a Scantech CE-marked power supply unit should be used to conform to these standards.

Radio and television interference
Operation of this equipment in a residential area can cause interference with radio or television reception. This can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:
- Reorientate the receiving antenna
- Relocate the device with respect to the receiver
- Move the device away from the receiver
- Plug the device into a different outlet in order to have the device and receiver on different branch circuits

If necessary, the user should consult the manufacturer, an authorized Scantech dealer or experienced radio/television technician for additional suggestions. The booklet "How to Identify and Resolve Radio-TV Interference Problems", prepared by the Federal Communications Commission, can be of help. It can be obtained from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Due to Scantech's continuing product improvement programs, product features, the information and specifications in this manual are subject to change without prior notice.

P/N: 01-[illegible] V1.6 Date 2024[illegible]

Table of contents

About this Manual

This manual provides information for installing and operating the ScanTech ID ScanKiosk SK-4C/SK-5C. Read this manual before operating the device and keep it in a safe place for future reference.

The complete set of SK-4C SK-5C User Documentation consists of:
- This Installation Manual
- The Configuration Manual
- The Integration Manual

At a later stage these three documents will be merged into one Reference Bookmark.

CHAPTER DESCRIPTIONS

- Chapter 1: Product Overview introduces the SK-4C / SK-5C, and describes its features and unpacking procedures.
- Chapter 2: Installation describes mounting procedures and connecting devices to the SK-4C / SK-5C.
- Appendix A: Technical Specifications provides technical information about the SK-4C / SK-5C.

USED CONVENTIONS

This manual contains the following conventions:

NOTE

Gives a hint or instruction or a point of attention.

IMPORTANT

Warns for possible damage to the device or other objects when the instruction is not followed.

DANGER!

Warns for possible harm to persons when the instruction is not followed.

LASER SAFETY

IMPORTANT

During installing, always follow the instructions.

DANGER!

Avoid long term viewing of direct laser light. This product is in conformity with IEC 825 Class 1 and 21 CFR 1040 Class 1a.

German:
Der [illegible] entspricht den Sicherheitsvorschriften nach IEC 825-1 (1993) für ein Laserprodukt der Klasse 1. Er entspricht auch U.S. 21 CFR1040, anwendbar für ein Laserprodukt der Klasse Ia. Vermeiden Sie langzeitiges Hineinblicken in direktes Laserlicht.

Dutch:
De [illegible] voldoet aan de veiligheidsnormen IEC 825-1 (1993) voor een Klasse 1 laserprodukt. Tevens voldoet de [illegible] aan U.S. 21 CFR1040, van toepassing op een Klasse Ia laserprodukt. Vermijd langdurig kijken in direkt laserlicht.

French:
Le [illegible] est conforme aux normes de sécurité IEC 825-1 (1993) s'appliquant à un produit laser de la classe 1. Il est également conforme à la U.S. 21 CFR1040 telle qu'elle s'applique à un produit laser de la classe Ia. Eviter de rester exposé longtemps à la lumière directe du laser.

Danish:
[illegible] er i overensstemmelse med sikkerhedsstandarden IEC 825-1 (1993) for laserprodukter i Klasse 1. Den er også i overensstemmelse med U.S. 21 CFR1040, der gælder for laserprodukter i Klasse Ia. Undgå at se direkte på laserlys i længere perioder.

Finnish:
[illegible] täyttää luokan 1 laserlaitteelle IEC 825-1 (1993) asetetut turvavaatimukset. Se täyttää myös U.S. 21 CFR1040 :ssä asetetut turvavaatimukset, jotka koskevat luokan Ia lasertuotteita. Vältä pitkäaikaista suoraan lasersäteeseen katsomista.

Swedish:
Anordningen [illegible] uppfyller säkerhetsnormen IEC 825-1 (1993) för laserprodukter av klass 1. Den uppfyller dessutom U.S. 21 CFR1040 som gäller för laserprodukter av klass Ia. Undvik att titta i direkt laserljus under längre perioder.

Norwegian:
[illegible] er i samsvar med sikkerhetsstandarden IEC 825-1 (1993) for laserprodukter i klasse 1. Den er også i samsvar med U.S. 21 CFR1040 for laserprodukter i klasse Ia. Unngå å se langvarig på direkte laserlys.

Italian:
Il [illegible] è conforme alle norme di sicurezza IEC 825-1 (1993) relative ad un prodotto laser di Classe 1 e inoltre conforme alla norma U.S. 21 CFR1040 relative ad un prodotto laser di Classe Ia. Evitare l'esposizione prolungata alle emissione diretta di luce laser.

Portuguese:
O [illegible] está conforme as normas de segurança IEC 825-1 (1993) para a Classe 1 dos produtos laser. Também está conforme a norma U.S. 21 CFR1040 aplicada aos produtos laser da Classe Ia. Evite exposição directa e prolongada aos raios laser.

Spanish:
El [illegible] reúne las normas de seguridad IEC 825-1 (1993) para un producto láser de Clase 1. Y también reúne las normas U.S. 21CFR1040 que se aplican a un producto láser de Clase IIa. Se debe evitar mirar muy prolongadamente la luz láser directa.

English:
The [illegible] complies with safety standard IEC 825-1 (1993) for a Class I laser product. It also complies with U.S. 21CFR1040 as applicable to a Class IIa laser product. Avoid long term viewing of direct laser light.

Optical:
The use of optical instruments with this product will increase eye hazard. Optical instruments include binoculars, microscopes and magnifying glasses, but do not include eyeglasses worn by the user.

Radiant Energy:
The [illegible] uses a low power laser diode operating at [illegible] nm in an opto-mechanical scanner resulting in less than 0.6 mW peak output power. Laser light observed at 13 cm (5.1 in) above the window through a 7 mm (0.275 in) aperture and averaged over 1000 seconds is less than
3.9 µW per CDRH Class IIa specification. Do not attempt to remove the protective housing of the
scanner, as unscanned laser light with a peak output up to 0.6 mW would be accessible inside.

Laser Light Viewer:
The scanner window is the only aperture through which laser light may be observed on this product. A failure of the scanner motor, while the laser diode continues to emit a laser beam, may cause emission levels to exceed those for safe operation. The scanner has safeguards to prevent this occurrence. If, however, a stationary laser beam is emitted, the failing scanner should be disconnected from its power source immediately.

Adjustments:
Do not attempt any adjustments to or alteration of this product. Do not remove the scanner's protective housing. There are no user-serviceable parts inside.

CAUTION

> Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

CAUTION

> Risk of Explosion if Battery is replaced by an incorrect Type. Dispose of Used Batteries According to the regular Instructions

DECLARATION OF CONFORMITY

The SK-4C and SK-5C comply with the following product specifications:

Laser safety:	FDA 21 CFR 1040 Class 1 and CDRH 21 CFR 1040
Electrical safety:	UL 60950-1, EN 60950-1:2006+A11:2009+A1:2010+A12:2011
EMC:	As set out in the Council Directive of the Laws of the Member States relating to Electromagnetic Compatibility (2004/108/EC) and (2006/95/EC) for the evaluation regarding electromagnetic compatibility. Applicable Standards:
EN 55022 CLASS B:2006	EN 55024:2001
EN 61000-3-2:2006+A1:2009+A2:2009	IEC 61000-4-2:2008
EN 61000-3-3:2008	IEC 61000-4-3:2006+A1:2007+A2:2010
	IEC 61000-4-4:2004+A1:2010
	IEC 61000-4-5:2005
	IEC 61000-4-6:2008
	IEC 61000-4-8:2009
	IEC 61000-4-11:2004
RoHS2	We hereby certify the above listed products, parts,materials and packaging are in compliance with the European Economic Union (EEU) "Reduction of Hazardous Substances" (RoHS2) Directive 2011/65/EU, except for the exemptions listed under RoHS2.

QA Director
January 23 2013

SERVICE INFORMATION

If you might encounter any problem with the product, contact ScanTech ID customer-support in your region, specifying the following information:

- Model and Part number
- Serial number
- The firmware level as shown on the display after power-up.

Chapter 1 Product Overview

1.1 INTRODUCTION

The SK-4C / SK-5C is a powerful Scan Kiosk that combines the convenience of a Price Checker with the functionality of a 2D imager or omni-directional laser scanner, topped with multimedia capabilities supporting audio and video streaming.

The SK-4C / SK-5C features the latest technology. Interfacing is done either through wired Ethernet or Wireless RF. The big 15 inch or display can be used to play slideshows or product promotion videos.

Because of its size and the compact design, the SK-4C / SK-5C can be mounted anywhere in a store. This flexibility of installation is enhanced by the optional WiFi connection or Power-over-Ethernet.

General Information

The Scan Kiosk SK-4C and SK-5C are the latest products developed by Scantech-ID, the company which has more than 15 years of experience in the field of Customer Information Terminals.

Quality and Durability

The SK-4C / SK-5C comes with the same top quality as all other Scantech-ID products. With SK-4C / SK-5C, you get the same quality and performance of more expensive products but at a very competitive price. Due to the high MTBF times of every component a long and service free operation time is ensured.

Flexibility

With its dual mounting options, the SK-4C / SK-5C can be easily installed using the 2 screws or VESA 75mm bracket mounting featured by 4 inserts. The touch screen display (SK-5C) and high quality stereo audio make it easy to read prices and product information or playback promotional music and videos.

Integration

The SK-4C / SK-5C comes with a Web-based Configuration and Management tool for easy setting and single/multi SK-4C/5C management. Scantech supplies software sample source code (HTML and more) to get the SK-4C/5C easily connected to the (Store's) Database. The protocol specification for easy integration is available at Scantech-ID.

1.2 GENERAL PRODUCT FEATURES

Self-service SCAN KIOSK with touch screen and media display function (SK50)

Counter-screen Price Verifier (SK40)

Multimedia support with High Quality speakers and headphone jack support

Compact dimension for easy to deploy virtually anywhere in the store

Easy to deploy and map out digital promotion image/video media

The rotatable scanner can be tilted forward and downward within a 30° range for the best user convenience.

Omni Directional Laser Scanner and 2D Imager available

Networking options: IEEE 802.11 B/G/N 2.4GHz and
Power over Ethernet support

Compliant with VESA 75mm standard mounting or wall mount with 2 screws

Built-in Web Server for user friendly access to remotely configure, diagnose, monitor and troubleshoot devices

Developer SDK Software Suite support with example Source Code

Entry/Exit Gate control function support (optional)

Expandable — can easily build on by adding 3rd-party USB/RS232 peripherals, including printers, magnetic stripe readers, keyboards and more.

1.3 UNPACKING

1. Remove the device from the box and inspect it for damage.

2. Remove other items from the box and check if all accessories are complete. The following items should be present:

- Power adapter
- Installation Manual
- Configuration Manual

3. Keep the packaging material in a safe place. The packaging may be needed when the device needs to be transported at a later stage.

NOTE

If anything is missing or appears damaged, please contact your dealer immediately.

1.4 DEVICE PARTS

1.4.1 Front View

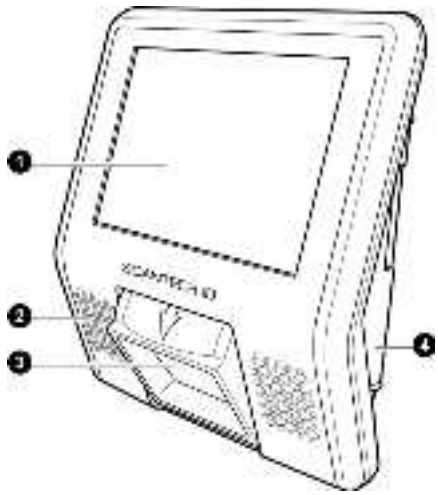


Figure 1: S450

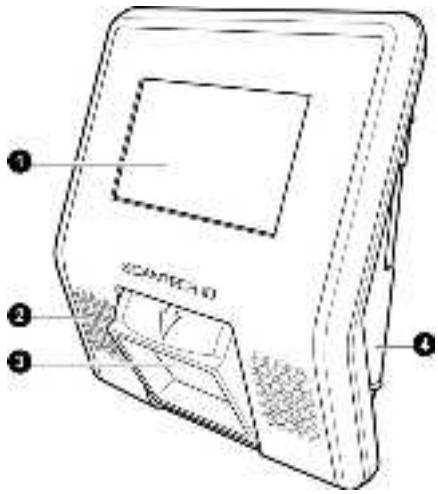
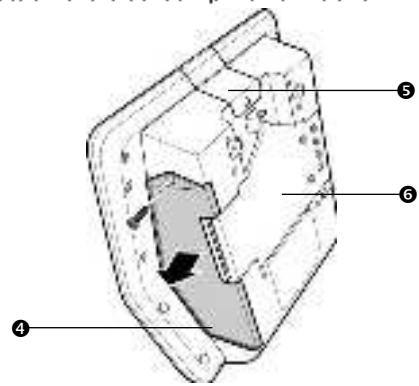


Figure 2: S460

Item		Description
1	Touch screen (SK-5C)	Displays product information on the 5.7" TFT color screen ideal for multimedia applications
	Display screen (SK-4C)	Displays product and price information on the 4.3" TFT color screen
2	Speakers	High Quality speakers for superior audio experience
3	Bar Code Scanner	To identify articles by scanning barcodes with the Omni Directional Laser Scanner or 2D Imager
4	Side compartment	Depending on model and specifications, contains either of the following optional components: ▪ Two USB ports: Use for WiFi stick or flash USB drives ▪ Power-over-Ethernet module: Use to power the device through powered Ethernet connection (IEEE 802.3af)
5	SD card compartment	Contains the optional SD card
6	Data I/O compartment	See table on the next page.

To access the side compartment, you need to remove the side compartment cover. Remove the screw to detach the side compartment cover.



1.4.2 Back View

All Base I/O connectors are protected by the back compartment cover. Before making any connections, remove the back compartment cover. Press the tab then pull back to detach the back compartment cover.

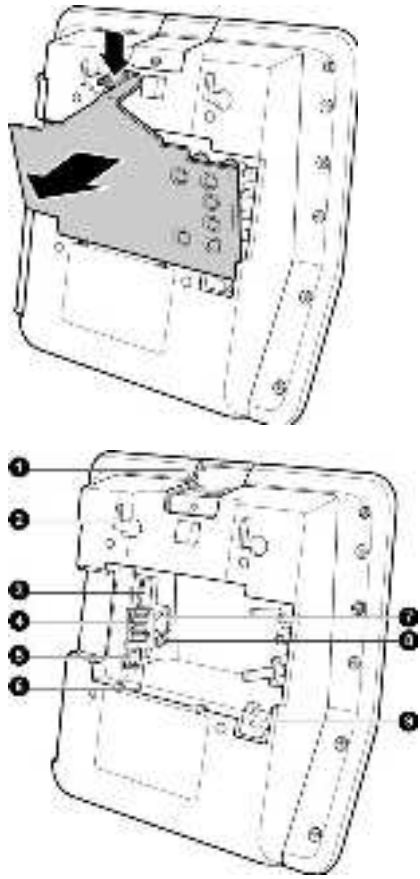


Figure 3: Back View

NOTE

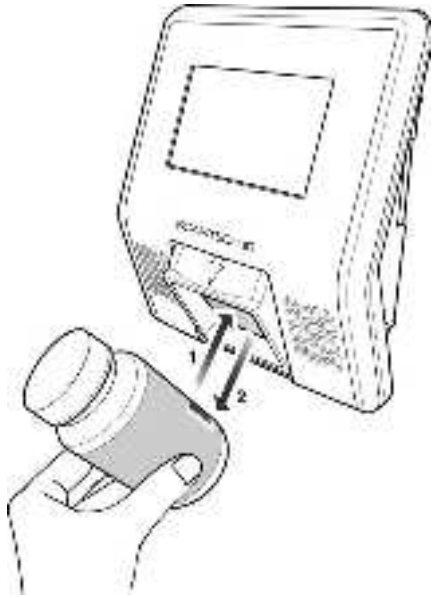
The connectors may vary depending on the device model. Some connectors shown above may not be on your device.

1.4.3 DATA I/O Compartment

Item		Description
1	SD card compartment	Contains the SD card slot
2	Wall mount slots	Used to mount the device on the wall with up two screws
3	LAN port	Connects the device to the network using an Ethernet RJ-45 cable
4	USB port	Connects USB devices such as a handheld scanner or a flash USB drive The SK-5C has one USB port only in the location
5	Power jack	Connects the power adapter
6	General Purpose Input/Output (GPIO) connector	Entry/Exit Gate control support NOTE: Available in SK-5C.
7	RS-232 connector	Connects an RS-232 manual scanner or other accessories using an RJ11 or RJ12 cable. NOTE: Available in SK-5C.
8	Audio phone jack	Connects to a headphone NOTE: Available in SK-5C
9	Scanner window lock	Press and hold to adjust the scanner angle

1.5 SCANNING WITH SK-40 / SK-50

To scan barcodes, move the barcode towards the scanner window.
The device beeps to indicate a successful scan.

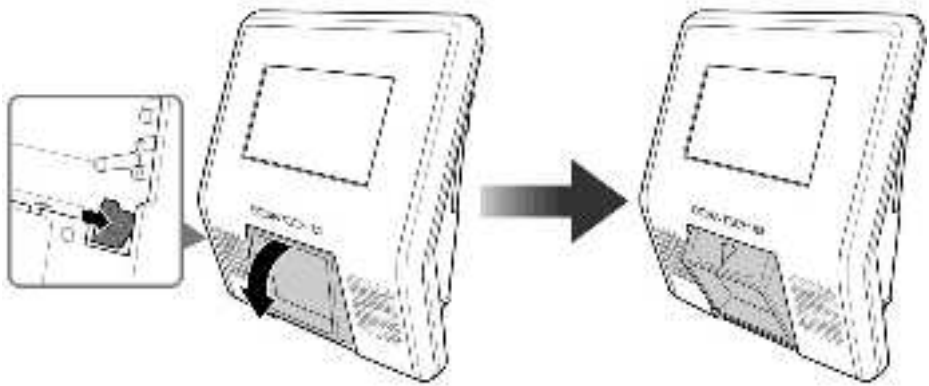


1.6 ADJUSTING THE SCANNER ANGLE

For the best user convenience, the scanner can be adjusted over a 30° angle and locked with steps of 5°.

To adjust the tilt:

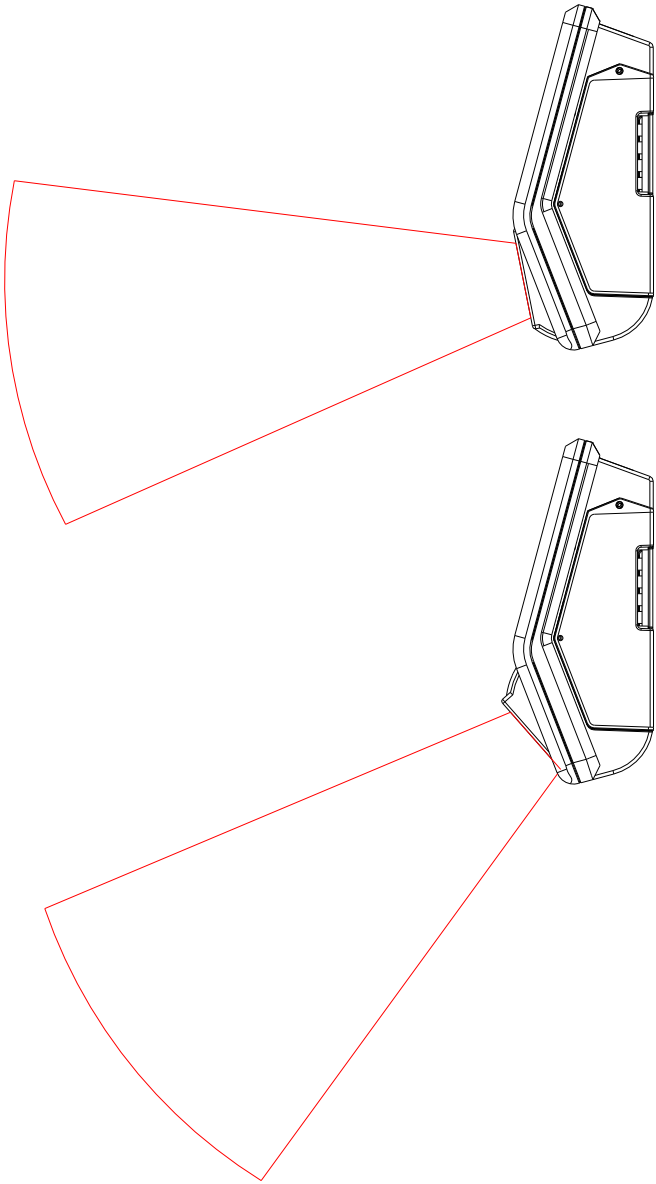
1. Open the back compartment cover.
2. Press and hold the scanner window lock and adjust the scanner to desired tilt.



3. Release the lock to secure the scanner in place.
4. Close the back compartment cover.

Scanner Angle and Envelope

Product profile showing the scan area at the two extreme scanner positions.



CHAPTER 2 INSTALLATION

2.1 MOUNTING THE DEVICE

Before mounting the device, consider the following to ensure proper mounting and the safety of installation:

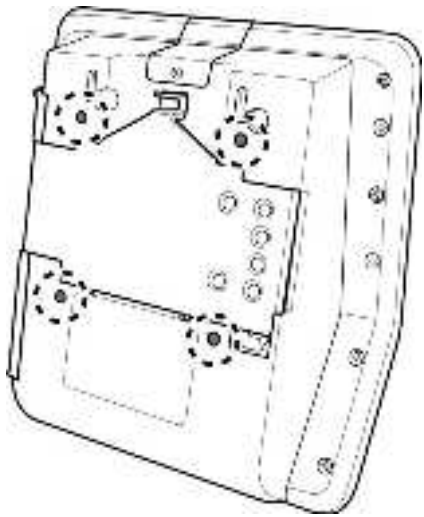
- Wall is thick enough to sustain the mounted device
- The mounted height should be convenient enough for everybody to easily scan the article and to comfortably read the display. The recommended height is 130-150 cm.

The SK-4C / SK-5C provides two mounting options:

- VESA mounting
- Wall mount with 2 screws, compatible with the Scantech ID SC-15

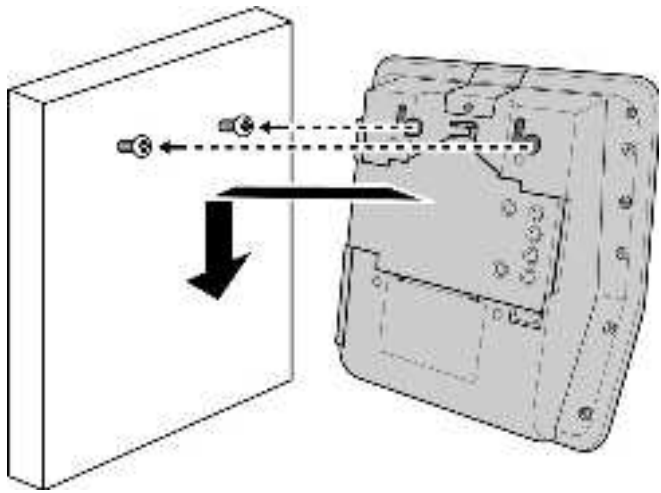
2.1.1 VESA Mounting

Use a VESA 75mm bracket with the 4 x M4 inserts provided at the back, the maximum depth is 8mm.

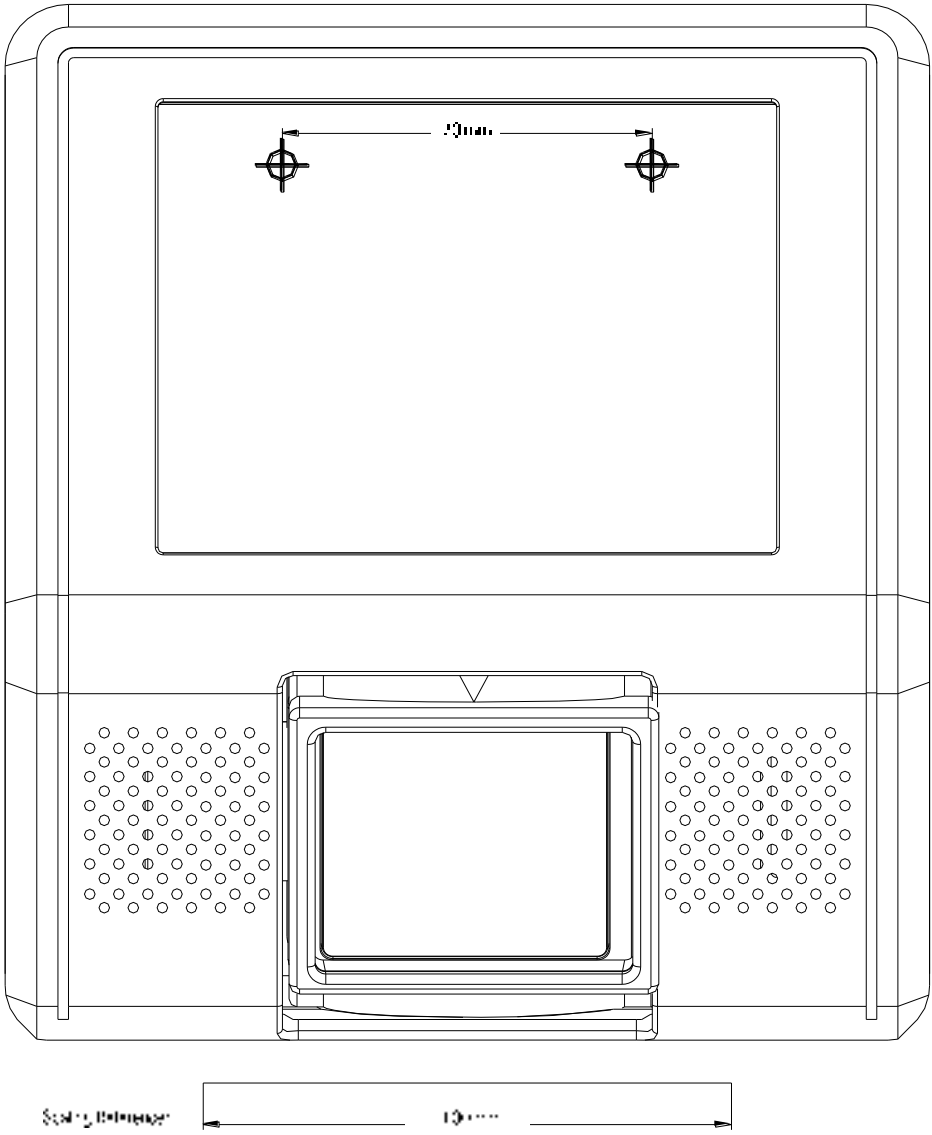


2.1.2 Wall Mount with 2 screws

1. Select a suitable location to mount the device.
2. See the next page for a Drilling Template, mark the location for the mounting screws and drill two holes in the wall.
3. Plug the wall plugs into the holes.
4. Screw the mounting screws in to the wall.
5. Connect the power adapter, cables and other accessories to the device. See the following pages for connection instructions.
6. Position the device so the screws fit into the mounting holes and then push the device left, to the right and then down to secure it in the right place.



SK-40 SK-50 Wall Mount Drilling Template:



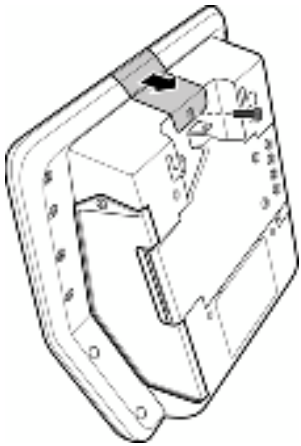
Enlarge this page to the real product sizes.
Make sure the scaling reference of 100 mm is respected.

2.2 EXPANDING THE MEMORY

The SK-4C and SK-5C have standard built-in flash memory of 256 MB. The flash memory is nonvolatile and contains the system firmware, user applications, data, production and media files. If necessary the flash memory can be expanded in two ways: use an SD card or a USB flash drive.

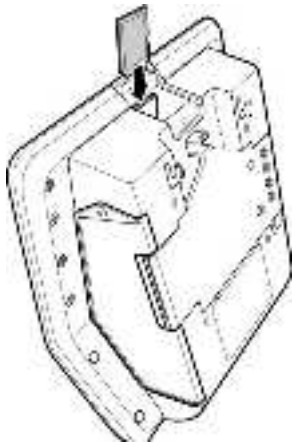
2.2.1 Installing an SD Card

1. Remove the screw securing the SD card compartment cover.



2. Insert the SD card.

3. Attach the screw back to close the SD card compartment cover.



2.2.2 Insert a Flash USB Drive into any of the available USB ports in the Data I/O compartment or in the side compartment

2.3 CONNECTING THE SK-40 SK-50

Remove the back cover from the I/O compartment. Ref Chapter 1.4.2

2.3.1 CONNECT TO THE LOCAL NETWORK

Wired Ethernet

Connect the Ethernet cable into the LAN port in the Data I/O compartment, to obtain network access. Apply the ISO cable strain relief pins.

NOTE

The LAN port contains two network LED indicators.

Wireless connection

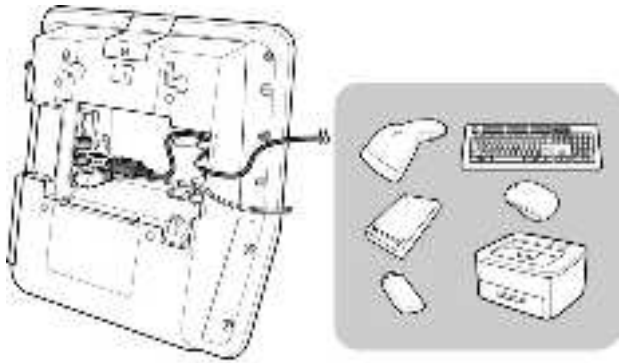
A WiFi stick must be present in one of the USB ports in the side compartment or in the Data I/O compartment for wireless connection. The SK-40/50 WiFi version is supplied from the factory with the WiFi USB stick built-in. If placed afterwards this must a Scantech validated type to guarantee correct wireless communication.

2.3.2 Connect peripherals through USB [if applicable]

Connect peripheral devices such as a barcode scanner or Wi-Fi stick to the USB port on the back of the device or in the side compartment.

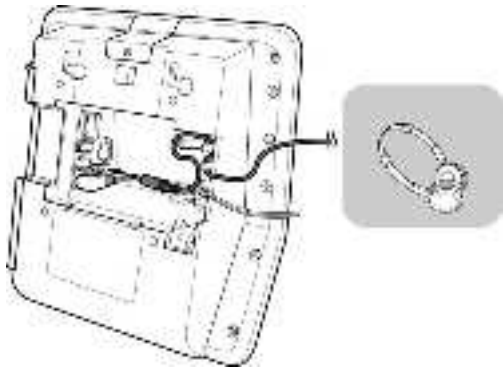
NOTE

The number of USB ports may vary depending on model.



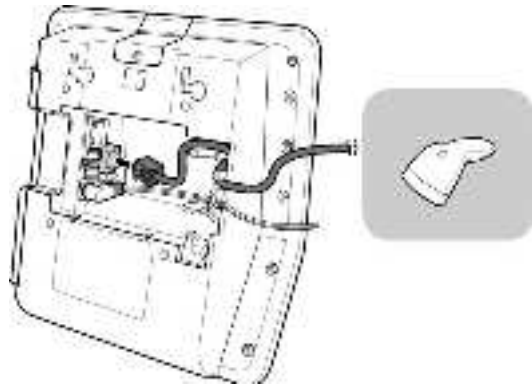
2.3.3 Connect headphone [if applicable] [SK-50]

Connect the headphone to the audio port on the back of the device. Apply the ISO cable strain relief pins.



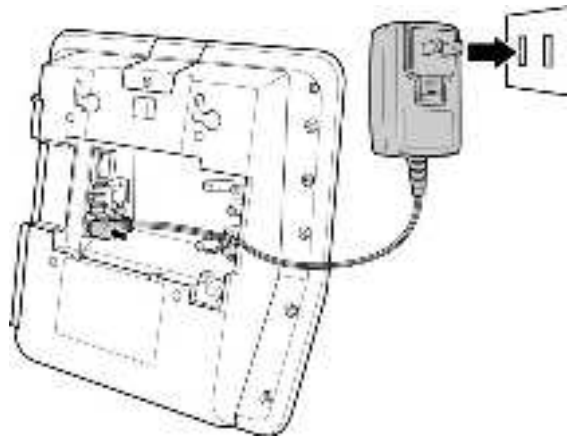
2.3.4 Connect peripherals through RS-232 (if applicable) (SK-50)

To connect other accessories, such as a manual scanner, connect the RJ11/14 6pin connector to the RS-232 port on the back of the device. Apply the ferrite cable strain relief pins.



2.3.5 Connect the Power

Connect the power adapter to the power jack on the back of the device. Apply the ferrite cable strain relief pins.



2.4 POWER OVER ETHERNET

The exceptional low power consumption of SK series enables us to offer the ScanKiosks Powered-over-Ethernet (POE). This is the alternative for powering the SK-4C/50 through an external PSU adapter. In this way the device gets its DC power directly from the powered (IEEE 802.3af compliant) Ethernet. There is no need to install a (230V/110VAC) mains socket in the middle of the store. This SK-4C/50 feature reduces the total installation costs.

This SK-4C/50-POE version complies with the official standard: IEEE 802.3af.

The standard CAT5 network cable (8 pin, fully wired) can be used, with the regular maximum length of 100 meter.

Towards the host-side this means that a hub/router is required, supporting the Power-Over-Ethernet (PoE) feature, complying with the official standard for this: IEEE 802.3af. To avoid any miscommunication in this area: ScanTech does not supply network components like power injectors, network cabling or powered hubs.

NOTE

POE is an optional feature

Chapter 3 Maintaining the SK-40 SK-50

CLEANING

The SK-4C SK-5C requires little maintenance. Only occasional cleaning of the display window is necessary to remove dirt and fingerprints. Cleaning can be performed during operation with a non-abrasive glass spray cleaner and a soft, lint-free cloth.

Clean the cover and window of the SK-4C SK-5C every now and then.
Take care of the following:

- Use a mild glass spray cleaner;
- Spray the cleaner on a soft, lint-free cloth;
- Wipe the SK-4C SK-5C clean.

IMPORTANT

The exterior of the SK-4C SK-5C should NOT be cleaned with cleaners containing:

- Aromatic hydrocarbons
- Chloride
- Acids, oxidizing agents
- Abrasives
- Other aggressive cleaners

Appendix A. Technical Specifications SK-40 SK-50

	SK-50	SK-40
System Architecture		
Processor	Super RISC Processor 400MHz	
Operating Platform	Standard Linux 2.6 Kernel or WinCE 6.0	
Memory Flash	256 MB, expandable with USB flash drive and SD card	
Memory RAM	128 MB	
Output Media		
Display Size	5.7" diagonal	4.3" diagonal
Brightness	400 nits	350 nits
Resolution	640 x 480 pixels (65,535 colours)	480 x 272 pixels (65,535 colours)
Touch Screen	Resistive type	n.a.
Graphics Supported	PNG, JPEG, GIF, BMP	
Audio Supported	WAV, WMA, MP3	
Video Supported	MPEG4, H.264	
Audio Ports	High Definition Stereo (16bit PCM 44.1 KHz)	
Loudspeakers	High Quality Loudspeakers for superior audio performance	
Headphone	3.5 mm standard jack	n.a.
Data Ports		
SD Card Slot	x 1	x 1
USB 2.0	x 2 (back compartment) x 2 (side compartment)	x 1 (back compartment) x 2 (side compartment)
RJ45 port 10/100 MB	x 1	x 1
Audio port	x 1 (Option)	n.a.
RS-232 port	x 1 (+5V DC Power)	n.a.
Power Over Ethernet Module	Optional	Optional
Entry/Exit Gate Control Function GPIO	Optional (2-channel)	n.a.

Network Interface	
Wired LAN	• Ethernet: 100MB Base-TX/10MB Base-T (802.3) standard on board • Power over Ethernet (IEEE 802.af) optional • Two network LED indicators in the LAN connector
Wireless LAN	Ex-factory through WiFi module WiFi IEEE 802.11 ac a/b/g/n Supporting dual band 2.4 and 5 GHz frequency
Encryption Protocols	WPA, PSK and WPA Enterprise security
Data Input	
Scanner Possibilities	• Omni Directional Laser Scanner: High Speed, high sensitive and omnidirectional scanning. Reading of fragmented bar codes. Visible laser diode 635 nm. Scan pattern: 6 direction scan field, 24 lines. Scan rate: 2000 scans/sec Up to 300 mm @ UPC/EAN 100%, PCS 90% [illegible] • 2D imager: Visible light 550nm Scan rate: 200scans/sec auto adaptive in linear mode, 56 images/sec auto adaptive 2D mode. Resolution: 752 Hor. X 480 Vert. pixels, 256 gray levels.
Symbologies Supported	• Omni Directional Laser Scanner: EAN/UPC/JAN + Addon, ISBN, Code 128, EAN 128, Code 93, Code 39, Code 32, Codabar, Interleaved 2 of 5, MS-Plessey and GS1 DataBar. • 2D imager: 1D Symbologies: EAN/UPC, Australian Post, Aztec, BPO, Canada Post, Dutch Post, EAN.UCC Composite, Interleaved 2 of 5, Japan Post, MSI Code, Planet, Plessey Code, Postnet, GS1 Databar, Standard 2 of 5, Telepen, TLC 39 2D Symbologies: Data matrix, Matrix 2 of 5, Maxi 2 of 5, MicroPDF417, PDF417, Maxicode, QR code
Scan Pattern Orientation	The Scanner can be adjusted over an angle of 30° and locked with steps of 5° for the best user convenience.

Power Requirements	
Power Supply Voltage	12 VDC + 10% / 1.5A
Power Consumption	Nominal: less than 1000mA @ 12VDC (standard configuration)
Physical	
Dimensions (H x W x D)	195 x 176 x 85 mm (7.6" x 6.9" x 3.3")
Weight	0.9 kg (2 lb)
Dual Mounting Options	Wall mount with 2 screws (Scanned SG-15 compatible) and VESA 75mm bracket mounting
Environmental	
Operating Temperature	0° ~ 40°C (32° ~ 104°F)
Storage Temperature	-20° ~ 60°C (-4° ~ 140°F)
Humidity	5% ~ 95% RH (non-condensing)
Regulatory	
	Electrical Safety: CE EN 60950-1 Laser Safety: CDRH 21 CFR part 1040 FC825 Class I FC808825 Class 1 EMC/EMI/RFI: 2004/108/EC and 2006/95/EC

SCANTECH ID
CHAMPTEK Group

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